

HISTORY INFORMATION FOR THE FOLLOWING MANUAL:

SERVICE MANUAL

DA-4 CHASSIS

<u>MODEL NAME</u>	<u>REMOTE COMMANDER</u>	<u>DESTINATION</u>	<u>CHASSIS NO.</u>
KD-30XS955	RM-Y199	US	SCC-S66U-A
KD-30XS955	RM-Y199	HAWAII	SCC-S69K-A
KD-34XBR960	RM-Y201	US	SCC-S66V-A
KD-34XBR960	RM-Y201	HAWAII	SCC-S69L-A
KD-34XS955	RM-Y199	US	SCC-S66W-A
KD-34XS955	RM-Y199	CANADA	SCC-S70V-A
KD-34XS955	RM-Y199	HAWAII	SCC-S69M-A
KD-36XS955	RM-Y199	US	SCC-S66X-A
KD-36XS955	RM-Y199	HAWAII	SCC-S69N-A

ORIGINAL MANUAL ISSUE DATE: 6/2004

<u>REVISION DATE</u>	<u>REVISION TYPE</u>	<u>SUBJECT</u>
6/2004		No revisions or updates are applicable at this time.
7/2004		Reissue entire manual

TRINITRON® COLOR TELEVISION
SONY®

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KD-34XS955	RM-Y199	CANADA	SCC-S70V-A
KD-34XS955	RM-Y199	HAWAII	SCC-S69M-A
KD-36XS955	RM-Y199	US	SCC-S66X-A
KD-36XS955	RM-Y199	HAWAII	SCC-S69N-A



KD-34XBR960



RM-201

TRINITRON® COLOR TELEVISION

SONY®

TABLE OF CONTENTS

SECTION TITLE	PAGE	SECTION TITLE	PAGE
Specifications	4	4-1.4. Adjusting the Picture	48
Warnings and Cautions	6	4-1.5. Resetting the Data	48
Safety Check-Out	7	4-1.6. Resetting the MID NVM Data	48
Self-Diagnostic Function	8	4-1.7. Resetting the System NVM Data	48
SECTION 1: DISASSEMBLY	11	4-1.8. Copy Function	48
1-1. Rear Cover Removal	11	4-2. Memory Write Confirmation Method	49
1-2. Chassis Assembly Removal	11	4-3. Remote Adjustment Buttons and Indicators	49
1-3. Service Position	11	4-4. Service Data	50
1-4. Picture Tube Removal	12	KD-34XBR960 Service Data Only	50
Anode Cap Removal Procedure	12	KD-30XS955/34XS955/36XS955 Service Data Only	71
Cable Wire Dressing	13	4-5. ID Map Table	92
SECTION 2: SET-UP ADJUSTMENTS	34	SECTION 5: DIAGRAMS	93
2-1. Beam Landing	34	5-1. Circuit Boards Location	93
2-2. V-PIN and V-CEN Adjustment	35	5-2. Printed Wiring Boards and Schematic Diagrams Information	93
2-3. Convergence	35	5-3. Block Diagrams	94
2-3.1. Vertical and Horizontal Static Convergence	35	5-4. Schematics and Supporting information	97
2-3.3. TLH Plate Adjustment	35	DL Board Schematic Diagram	97
2-3.4. Screen-Corner Convergence	36	P Board Schematic Diagram	99
2-3.5. Dynamic Convergence Adjustments	36	AZ Board Schematic Diagram (1 of 3)	101
2-4. Focus Adjustment	37	AZ Board Schematic Diagram (2 of 3)	102
2-4.1. Dynamic Focus/Dynamic Quadra-Pole Data	37	AZ Board Schematic Diagram (3 of 3)	103
2-5. Screen (G2)	38	BY Board Schematic Diagram (1 of 5)	106
2-6. Picture Quality Adjustments	38	BY Board Schematic Diagram (2 of 5)	107
2-6.1. Video Input - Sub Contrast Adjustment	38	BY Board Schematic Diagram (3 of 5)	108
2-7. White Balance (CRT) and Sub Bright Adjustment	40	BY Board Schematic Diagram (4 of 5)	109
2-8. H Raster Center Adjustment	41	BY Board Schematic Diagram (5 of 5)	110
2-9. Picture Distortion Adjustments	42	MZ Board Schematic Diagram (1 of 4)	113
2-9.1. NTSC (DRC) Full Mode Adjustment	42	MZ Board Schematic Diagram (2 of 4)	114
2-9.3. Vertical Compressed Mode Check and Confirmation (For 4x3 CRT Only)	43	MZ Board Schematic Diagram (3 of 4)	115
2-9.4. Normal, Zoom and Wide Zoom modes	43	MZ Board Schematic Diagram (4 of 4)	116
SECTION 3: SAFETY RELATED ADJUSTMENTS	44	UZ Board Schematic Diagram	119
3-1. Preparation Before Confirmation	44	DZ Board Schematic Diagram (1 of 2)	122
3-1.1. Hold-Down Operation Confirmation	44	DZ Board Schematic Diagram (2 of 2)	123
3-2. B+ Max Confirmation	44	HCX Board Schematic Diagram	127
3-3. B+ Voltage Check	44	CX Board Schematic Diagram	129
3-4. High Voltage (HV) Check	44	HAX Board Schematic Diagram	132
3-5. Preparation for HV and IK Protector Check	44	HBZ Board Schematic Diagram	134
3-6. HV Protector Check	44	WY Board Schematic Diagram	136
3-6-1. Cut Off Condition	44	5-5. Semiconductors (1 of 2)	139
3-7. IK Protector Check	45	Semiconductors (2 of 2)	140
3-8. Hold Down Check	45	SECTION 6: EXPLODED VIEWS	141
3-9. Restoration	45	6-1. Chassis (KD-34XBR960 Only)	141
3-10. HS Service Flowchart	46	6-2. Picture Tube (KD-34XBR960 Only)	142
SECTION 4: CIRCUIT ADJUSTMENTS	48	6-3. Chassis (KD-30XS955/34XS955 Only)	143
4-1. Setting Service Adjustment Mode	48	6-4. Picture Tube (KD-30XS955/34XS955 Only)	144
4-1.1. Service Adjustment Mode In	48	6-5. Chassis (KD-36XS955 Only)	145
4-1.2. Service Adjustment Mode Memory	48	6-6. Picture Tube (KD-36XS955 Only)	146
4-1.3. Reading the Memory	48	SECTION 7: ELECTRICAL PARTS LIST	147

SPECIFICATIONS

Power Requirements 120V AC, 60Hz

Inputs/Outputs

HDMI IN

Video
1080i, 720p, 480p, 480i
Audio Two channel linear PCM 32, 44.1 and 48 kHz,
16, 20, and 24 bit

Video (IN)

4 total (1 on front panel)
1Vp-p, 75ohms unbalanced, sync negative

S Video (IN)

3 total (1 on front panel)
Y: 1Vp-p, 75ohms unbalanced, sync negative
C: 0.286Vp-p (Burst signal), 75ohms

Audio (IN)

7 total (1 on front panel)
500 mVrms (100% modulation)
Impedance:47 kilo ohms

Control S (IN/OUT)

1 total

Component Video Input

2 (Y, PB, PR)
Y: 1.0 Vp-p, 75 ohms unbalanced, sync negative
P_B: 0.7 Vp-p, 75 ohms;
P_R: 0.7 Vp-p, 75 ohms

Audio OUT (VAR/FIX)

1 total
At the maximum volume setting
More than 408 mVrms (Variable)
More than 408 mVrms (Fixed)
Impedance (Output):2 kilo ohm

i.LINK (KD-34XBR960 Only)

3 total (1 on front panel)
4-pin S400 i.LINK terminal

**Digital Audio Optical Output
PCM/Dolby Digital**

1 total
Optical Rectangular

CableCARD Slot

PCMCIA Type I/II

	KD-30XS955	KD-34XBR960	KD-34XS955	KD-36XS955
Speaker Output (W)	7.5 W x 2 15W Subwoofer			
Power Consumption (W)				
In Use (Max)	220 W	270 W	250 W	270 W
In Standby	3 W	3 W	3 W	3 W
In CableCARD Standby	20 W	23 W	20 W	20 W
Dimensions (W x H x D)				
mm	898 x 604 x 564.5 mm	994 x 652 x 605 mm	994 x 654 x 604 mm	994 x 776.5 x 634 mm
in	35 ^{3/8} x 23 ^{3/4} x 22 ^{1/4} in	39 ^{1/8} x 25 ^{5/8} x 23 ^{7/8} in	39 ^{1/8} x 25 ^{3/4} x 23 ^{3/4} in	39 ^{1/8} x 30 ^{5/8} x 25 in
Mass				
kg	67 kg	89 kg	93 kg	108.2 kg
lbs	148 lbs	196 lbs	205 lbs	238.5 lbs

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● SRS (SOUND RETRIEVAL SYSTEM)

The ● SRS (SOUND RETRIEVAL SYSTEM) is manufactured by Sony Corporation under license from SRS Labs, Inc. It is covered by U.S. Patent No. 4,748,669. Other U.S. and foreign patents pending.

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Design and specifications are subject to change without notice.

Television system

American TV standard, NTSC
 ATSC compliant (8 VSB terrestrial)
 ATSC compliant 8 VSB terrestrial
 QAM on cable ANSI/SCTE 07 2000

Channel coverage

Analog
 VHF: 2-13/ UHF: 14-69/ CATV: 1-125
 Digital
 VHF: 2-13/ UHF: 14-69/ CATV: 1-135

Picture tube

FD Trinitron[®] tube

Visible screen size

30-inch picture measured diagonally (KD-30XS955 Only)
 34-inch picture measured diagonally (KD-34XBR960/34XS955 Only)
 36-inch picture measured diagonally (KD-36XS955 Only)

Actual screen size

32-inch measured diagonally (KD-30XS955 Only)
 36-inch measured diagonally (KD-34XBR960/34XS955 Only)
 38-inch measured diagonally (KD-36XS955 Only)

Antenna

75 ohm external terminal for VHF/UHF

Supplied Accessories

Remote Commander
 RM-Y199 (KD-30XS955/34XS955/36XS955 Only)
 RM-Y201 (KD-34XBR960 Only)
 Two Size AA (R6) Batteries

Optional Accessories

AV Cable: VMC-810/820/830 HG
 Audio Cable: RKC-515HG
 Component Video Cable: VMC-10/30 HG
 ILINK cables: (KD-34XBR960 Only)
 VMC-IL4415 (4-pin to 4-pin, 1.5 meters)
 VMC-IL4435 (4-pin to 4-pin, 3.5 meters)
 TV Stand:
 SU-30HX1 (KD-30XS955 Only)
 SU-34XBR3 (KD-34XBR960 Only)
 SU-34HX1 (KD-34XS955 Only)
 SU-36HX1 (KD-36XS955 Only)

WARNINGS AND CAUTIONS


CAUTION

Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield, or carbon painted on the CRT, after removing the anode.

WARNING!!

An isolation transformer should be used during any service to avoid possible shock hazard, because of live chassis. The chassis of this receiver is directly connected to the ac power line.

SAFETY-RELATED COMPONENT WARNING!!


Components identified by shading and  mark on the schematic diagrams, exploded views, and in the parts list are critical for safe operation. Replace these components with Sony parts whose part numbers appear as shown in this manual or in supplements published by Sony. Circuit adjustments that are critical for safe operation are identified in this manual. Follow these procedures whenever critical components are replaced or improper operation is suspected.

ATTENTION!!

Après avoir déconnecté le cap de l'anode, court-circuiter l'anode du tube cathodique et celui de l'anode du cap au châssis métallique de l'appareil, ou la couche de carbone peinte sur le tube cathodique ou au blindage du tube cathodique.

Afin d'éviter tout risque d'électrocution provenant d'un châssis sous tension, un transformateur d'isolement doit être utilisé lors de tout dépannage. Le châssis de ce récepteur est directement raccordé à l'alimentation du secteur.

ATTENTION AUX COMPOSANTS RELATIFS A LA SECURITE!!

Les composants identifiés par une trame et par une marque  sur les schémas de principe, les vues explosées et les listes de pièces sont d'une importance critique pour la sécurité du fonctionnement. Ne les remplacer que par des composants Sony dont le numéro de pièce est indiqué dans le présent manuel ou dans des suppléments publiés par Sony. Les réglages de circuit dont l'importance est critique pour la sécurité du fonctionnement sont identifiés dans le présent manuel. Suivre ces procédures lors de chaque remplacement de composants critiques, ou lorsqu'un mauvais fonctionnement suspecte.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or touching high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the B+ and HV to see if they are specified values. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
8. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

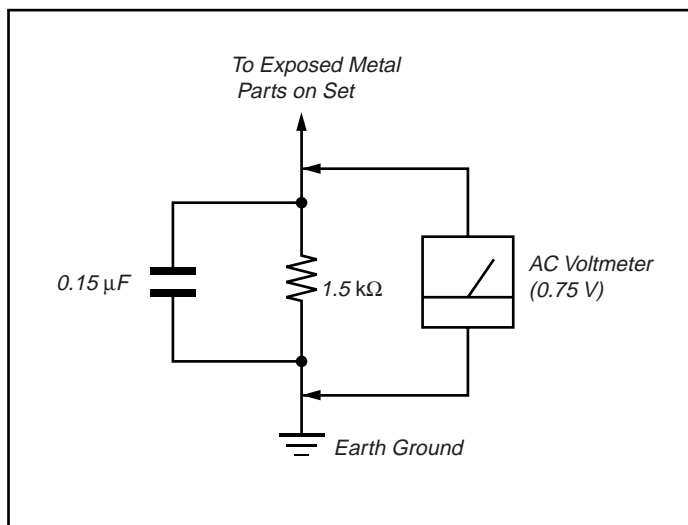


Figure A. Using an AC voltmeter to check AC leakage.

Leakage Test

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instructions.
2. A battery-operated AC milliampmeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low voltage scale. The Simpson's 250 and Sanwa SH-63TRD are examples of passive VOMs that are suitable. Nearly all battery-operated digital multimeters that have a 2 VAC range are suitable (see Figure A).

How to Find a Good Earth Ground

A cold-water pipe is a guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms.

If a cold-water pipe is not accessible, connect a 60- to 100-watt trouble-light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side on the line; the lamp should light at normal brilliance if the screw is at ground potential (see Figure B).

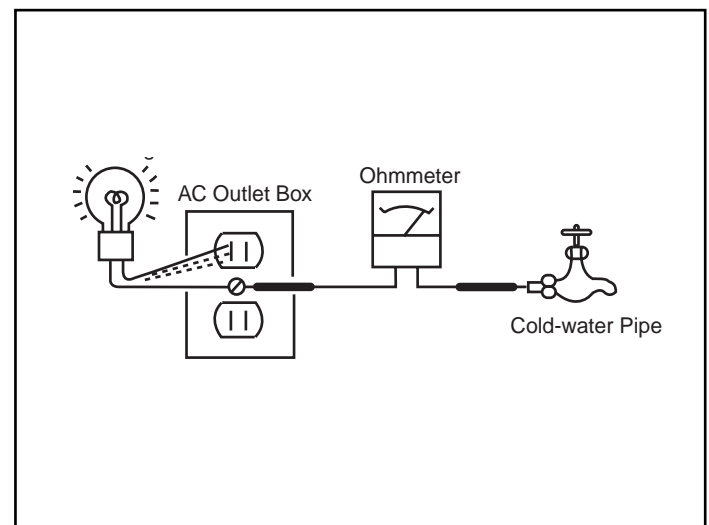


Figure B. Checking for earth ground.

SELF-DIAGNOSTIC FUNCTION



The units in this manual contain a self-diagnostic function. If an error occurs, the STANDBY/TIMER LED will automatically begin to flash. The number of times the LED flashes translates to a probable source of the problem. A definition of the STANDBY/TIMER LED flash indicators is listed in the instruction manual for the user's knowledge and reference. If an error symptom cannot be reproduced, the Remote Commander can be used to review the failure occurrence data stored in memory to reveal past problems and how often these problems occur.

Diagnostic Test Indicators

When an error occurs, the STANDBY/TIMER LED will flash a set number of times to indicate the possible cause of the problem. If there is more than one error, the LED will identify the first of the problem areas.

Results for all of the following diagnostic items are displayed on screen. If the screen displays a "0", an error has occurred.

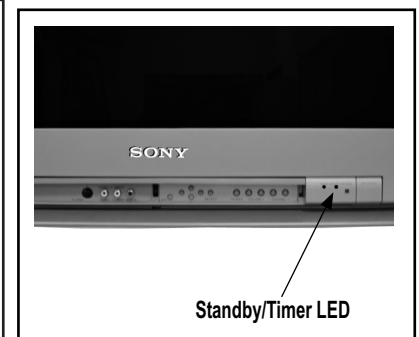
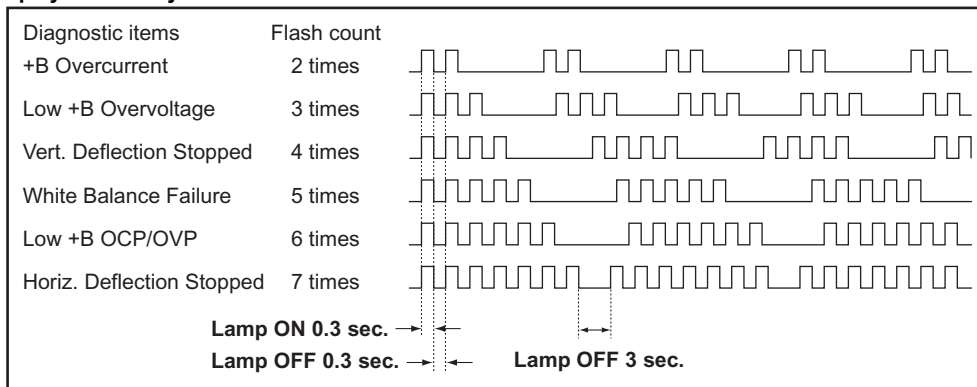
Diagnostic Item	No. of times STANDBY / TIMER lamp flashes	Display Result	Probable Cause Location	Detected Symptoms
Power does not turn on	Does not light	-----	<ul style="list-style-type: none"> Power cord is not plugged in. Fuse is burned out (F501). (AZ Board) 	<ul style="list-style-type: none"> Power does not come on. No power is supplied to the TV. AC Power supply is faulty.
+B Overcurrent (OCP)*	2 times	2:0 or 2:1	<ul style="list-style-type: none"> H.OUT (Q5030) is shorted. (DZ Board) +B PWM (Q5003) is shorted. (DZ Board) 	<ul style="list-style-type: none"> Power does not come on. Load on power line shorted.
Low +B Overvoltage (OVP)	3 times	3:0 or 3:1	<ul style="list-style-type: none"> IC6505 is faulty. (DZ Board) 	<ul style="list-style-type: none"> Has entered standby mode.
Vertical Deflection Stopped	4 times	4:0 or 4:1	<ul style="list-style-type: none"> 15V is not supplied. (DZ Board) IC5004 is faulty. (DZ Board) 	<ul style="list-style-type: none"> Has entered standby mode after Horizontal raster. Vertical deflection pulse is stopped. Power line is shorted or power supply is stopped.
White Balance Failure (not balanced)	5 times	5:0 or 5:1	<ul style="list-style-type: none"> Video OUT (IC9001-IC9003) is faulty. (CX Board) CRT drive (IC2801) is faulty. (BY Board.) G2 is improperly adjusted.** 	<ul style="list-style-type: none"> No raster is generated. CRT cathode current detection reference pulse output is small.
LOW +B OCP/OVP (overcurrent/overvoltage)***	6 times	6:0 or 6:1	<ul style="list-style-type: none"> +5 line is overloaded. (AZ, BY, MZ Boards) +5 line is shorted. (AZ, BY, MZ Boards.) IC504 is faulty. (AZ Board) 	<ul style="list-style-type: none"> No picture
Horizontal Deflection Stopped	7 times	7:0 or 7:1		<ul style="list-style-type: none"> No picture

* If a +B overcurrent is detected, stoppage of the vertical deflection is detected simultaneously. The symptom that is diagnosed first by the microcontroller is displayed on the screen.

** Refer to Screen (G2) in Section 2-5 of this manual.

*** If STANDBY/STEREO LED flashes six (6) times, unplug the unit and wait 10 seconds before performing the adjustment.

Display of Standby/Timer LED Flash Count



* One flash count is not used for self-diagnostic.

Stopping the Standby/Timer LED Flash

Turn off the power switch on the TV main unit or unplug the power cord from the outlet to stop the STANDBY/TIMER LAMP from flashing.

Self-Diagnostic Screen Display

For errors with symptoms such as "power sometimes shuts off" or "screen sometimes goes out" that cannot be confirmed, it is possible to bring up past occurrences of failure on the screen for confirmation.

To Bring Up Screen Test

In standby mode, press buttons on the Remote Commander sequentially, in rapid succession, as shown below:

DISPLAY → Channel **5** → Sound volume **[-]** → Power ON.

SELF DIAGNOSIS	
2: +B OCP	0
3: +B OVP	0
4: VSTOP	0
5: AKB	1
6: LOWB	0
7: H-STOP	0
101: WDT	24

Numeral "0" means that no fault was detected.
Numerical "1" means a fault was detected one time only.

Handling of Self-Diagnostic Screen Display

Since the diagnostic results displayed on the screen are not automatically cleared, always check the self-diagnostic screen during repairs. When you have completed the repairs, clear the result display to "0".

Unless the result display is cleared to "0", the self-diagnostic function will not be able to detect subsequent faults after completion of the repairs.

Clearing the Result Display

To clear the result display to "0", press buttons on the Remote Commander sequentially when the diagnostic screen is displayed, as shown below:

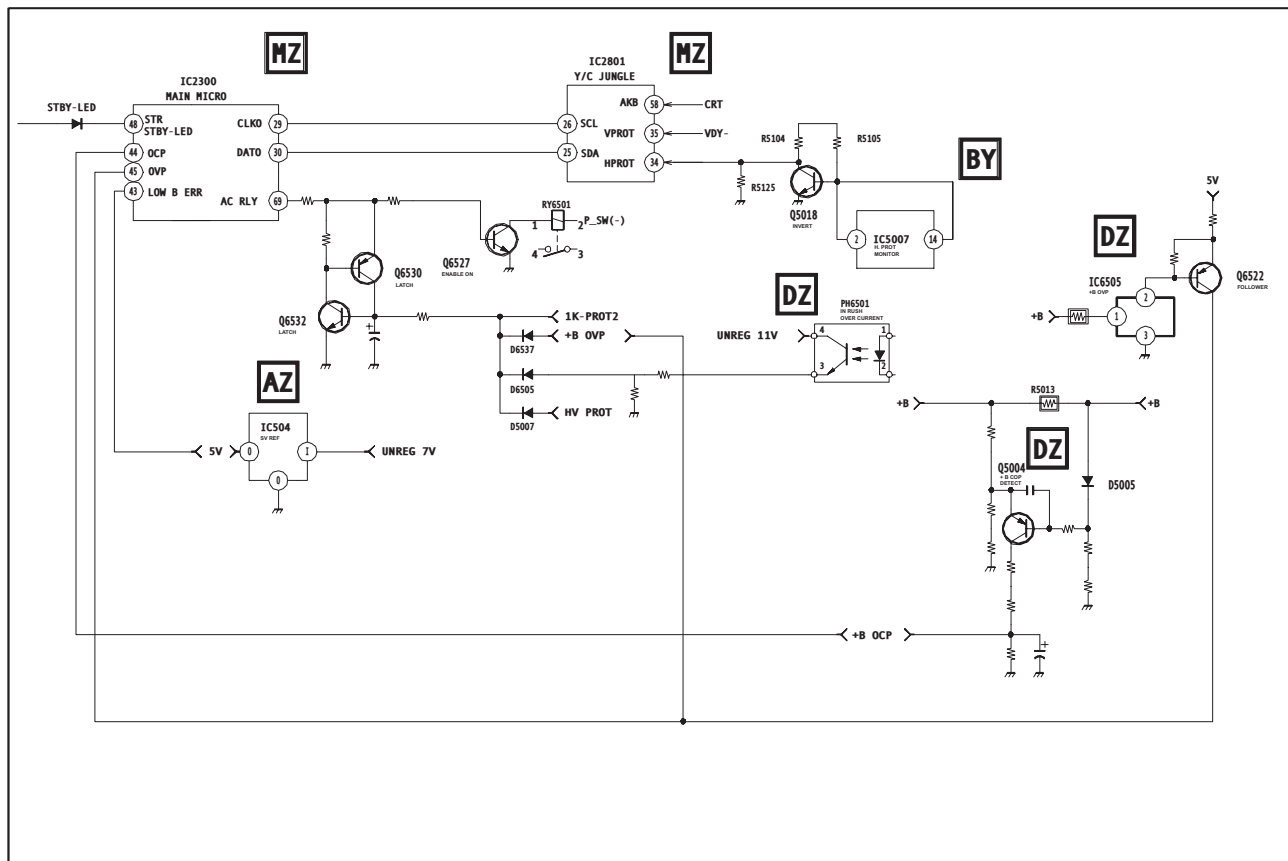
NOTE: This will also reset all user functions (including auto programming and picture settings)

Channel **8** → **ENTER**

Quitting the Self-Diagnostic Screen

To quit the entire self-diagnostic screen, turn off the power switch on the Remote Commander or the main unit.

Self-Diagnostic Circuit



+B overcurrent (OCP)

Occurs when excessive current flows through R5013. The increase in voltage across R5013 causes the output of Q5004 to go high, and this high signal goes to the micro.

+B overvoltage (OVP)

IC6505 detects +B OVP condition and turns on Q6522. This sends a high signal to the micro and also shuts down the AC relay.

V-STOP

Occurs when an absence of the vertical deflection pulse is detected by pin 24 of IC2801 (BY Board). Power supply will shut down when waveform interval exceeds 2 seconds.

White Balance Failure

If the RGB levels* do not balance within 2 seconds after the power is turned on, this error will be detected by IC2801. TV will stay on, but there will be no picture.

*(Refers to the RGB levels of the AKB detection Ref pulse that detects 1K).

Low B OCP/OVP

Occurs when set 5V is out.

Horizontal Deflection Stopped

Occurs when either:

- 1) a +B overcurrent is detected (IC5007), or
- 2) overheating is detected (Thermistor TH5002).

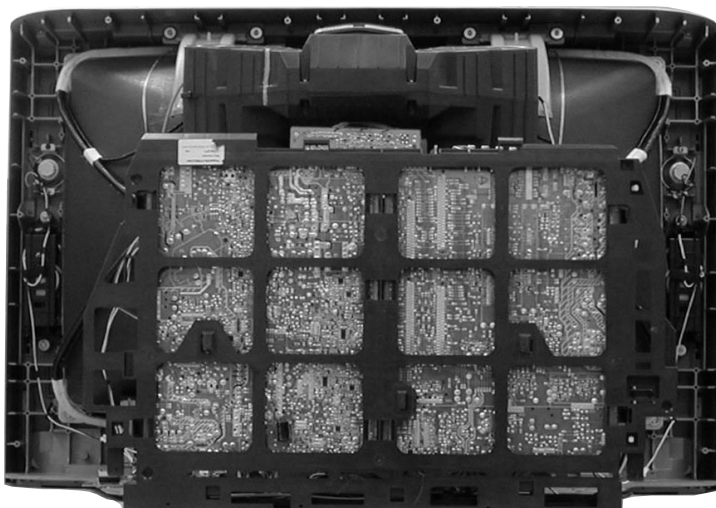
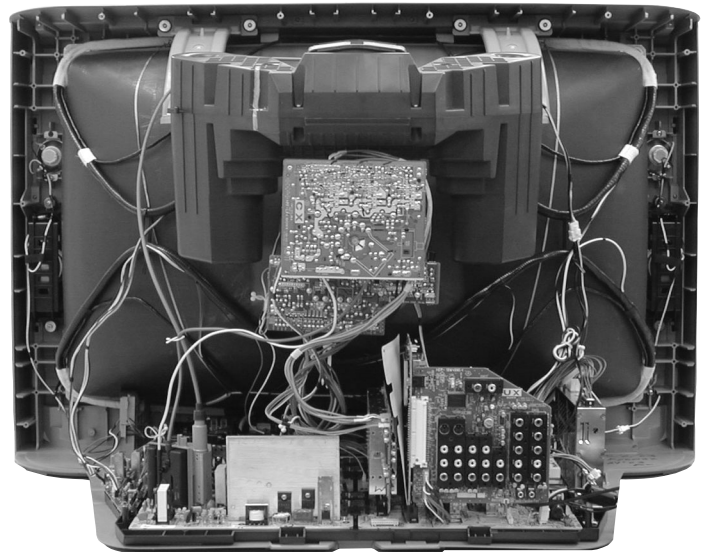
SECTION 1: DISASSEMBLY

1-1. REAR COVER REMOVAL



1-2. CHASSIS ASSEMBLY REMOVAL

- 1 Lift lever up on the right and left sides of the chassis bracket and gently pull the chassis assembly away from the bezel.



1-3. SERVICE POSITION

CAUTION! - Heat sink on IC5004 is -15V. Do not allow heat sink to touch GND or any other components.

Heat sink on Q8018 VpK=250V, is -15V. Do not touch or short to GND or any other components.

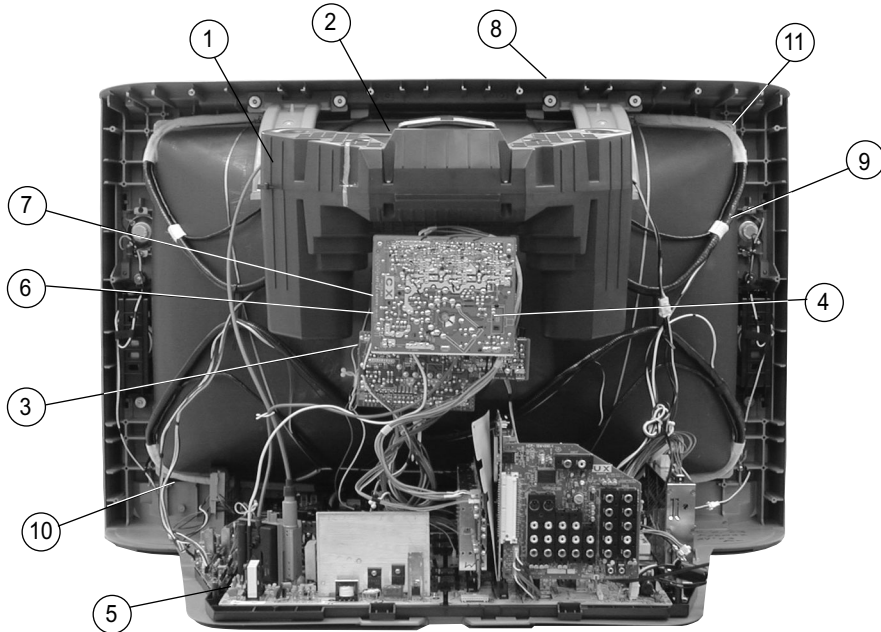
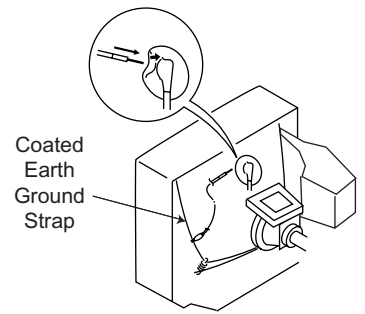
CAUTION! - Pay attention to Neck Assembly WY Board wire harness to BY Board. The WY Board can easily break if there is sudden or excessive tension on the harness.

- 1 Lift lever up on the right and left sides of the chassis bracket and gently pull the chassis assembly away from the bezel.
- 2 Pull up and rotate both the AZ and DZ Boards in order to service the unit.

1-4. PICTURE TUBE REMOVAL

WARNING: BEFORE REMOVING THE ANODE CAP

High voltage remains in the CRT even after the power is disconnected. To avoid electric shock, discharge CRT before attempting to remove the anode cap. Short between anode and CRT coated earth ground strap.



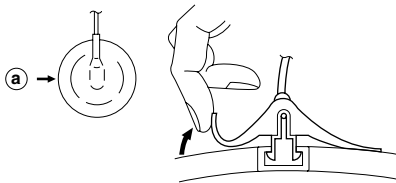
1. Remove the Sub-Woofer Assemblies.
2. Discharge the anode of the CRT and remove the anode cap.
3. Unplug all interconnecting leads from the deflection yoke, neck assembly, degaussing coils and CRT grounding strap.
4. Remove the CX Board from the CRT.
5. Remove the chassis assembly.
6. Loosen the neck assembly fixing screw and remove.
7. Loosen the deflection yoke fixing screw and remove.
8. Place the set with the CRT face down on a cushion and remove the degaussing coil holders.
9. Remove the degaussing coils.
10. Remove the CRT grounding strap and spring tension devices.
11. Unscrew the four CRT fixing screws [located on each CRT corner] and remove the CRT [Take care not to handle the CRT by the neck].

ANODE CAP REMOVAL PROCEDURE

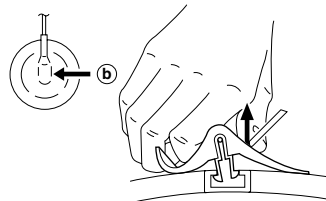
WARNING: High voltage remains in the CRT even after the power is disconnected. To avoid electric shock, discharge CRT before attempting to remove the anode cap. After removing the anode cap, short circuit to either the metal chassis, CRT shield, or carbon painted on the CRT.

NOTE: After removing the anode cap, short circuit the anode of the picture tube and the anode cap to either the metal chassis, CRT shield or carbon painted on the CRT.

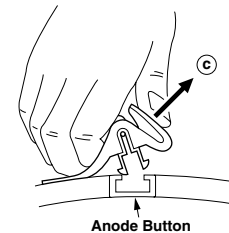
REMOVAL PROCEDURES



Turn up one side of the rubber cap in the direction indicated by arrow a .



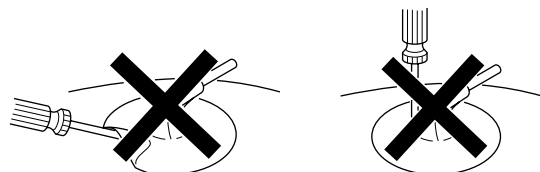
Use your thumb to pull the rubber cap firmly in the direction indicated by arrow b .



When one side of the rubber cap separates from the anode button, the anode cap can be removed by turning the rubber cap and pulling it in the direction of arrow c .

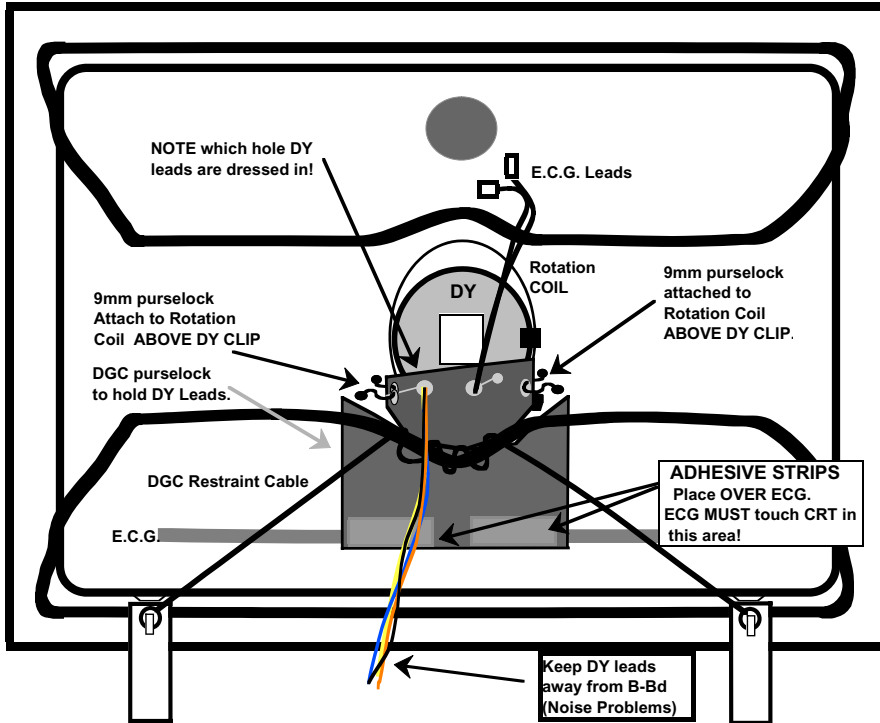
HOW TO HANDLE AN ANODE CAP

1. Do not use sharp objects which may cause damage to the surface of the anode cap.
2. To avoid damaging the anode cap, do not squeeze the rubber covering too hard. A material fitting called a shatter-hook terminal is built into the rubber.
3. Do not force turn the foot of the rubber cover. This may cause the shatter-hook terminal to protrude and damage the rubber.



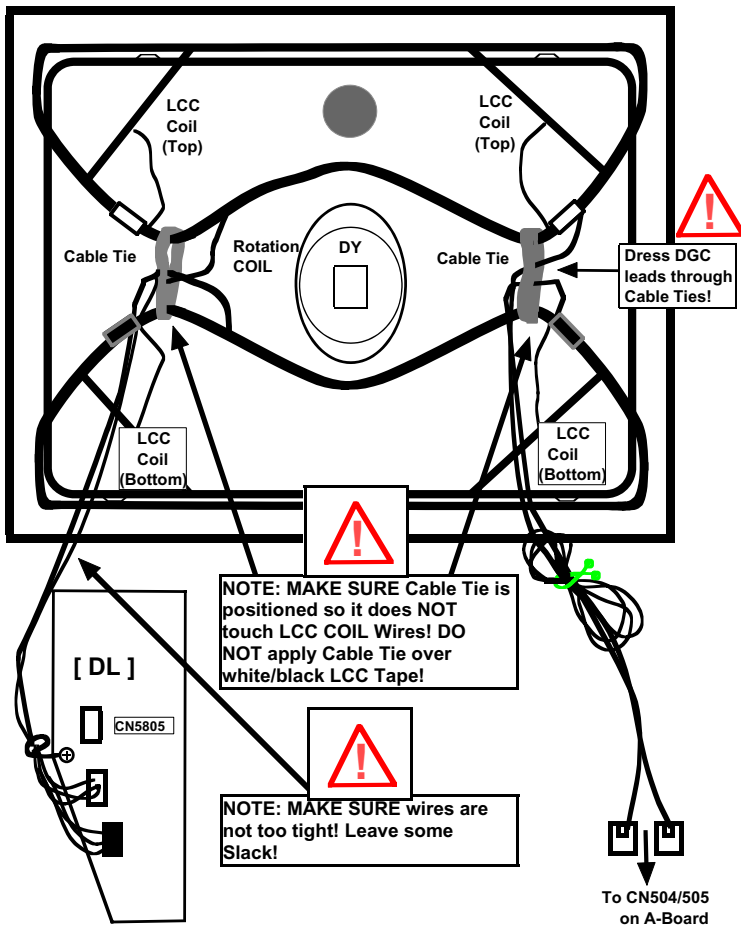
CABLE WIRE DRESSING

DY-SHIELD (ALL MODELS)



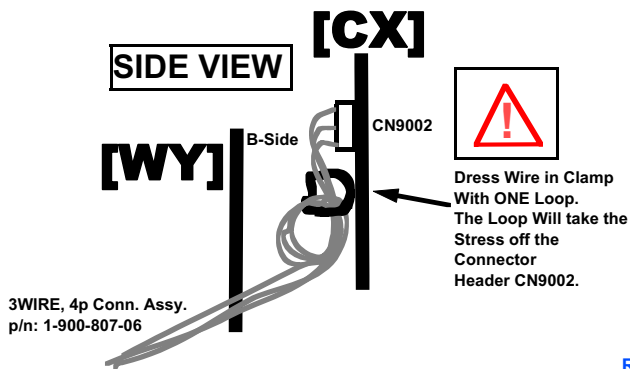
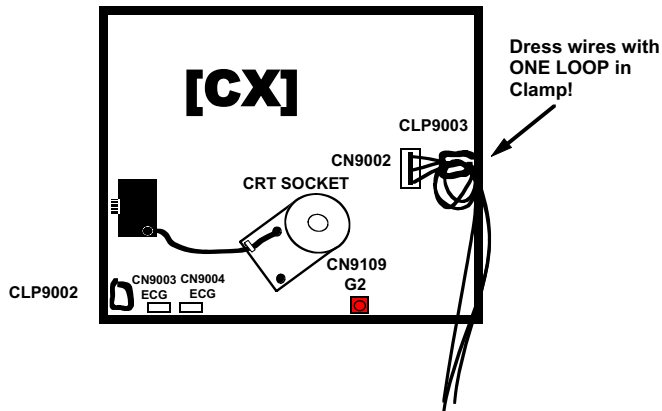
Rev. 1
6/21/04

DCG/LCC CAUTION POINTS (ALL MODELS)



Rev. 1
6/28/04

200V LEAD WIRE DRESSING CAUTION POINT (ALL MODELS)



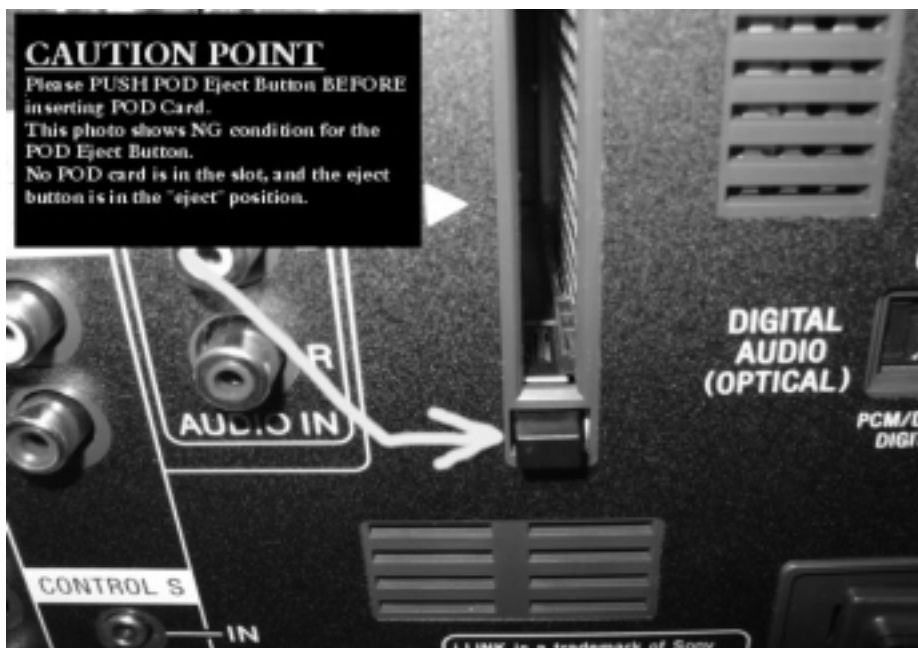
REV-1
6/28/04

POD EJECT BUTTON CAUTIONS - ALIGNMENT CHECK (ALL MODELS)



This was a defect from Pre-Pro set. Important to check alignment of POD Eject Button. VERY important if QBOX is replaced in the field.

POD EJECT BUTTON CAUTIONS - NG BUTTON POSITION (ALL MODELS)



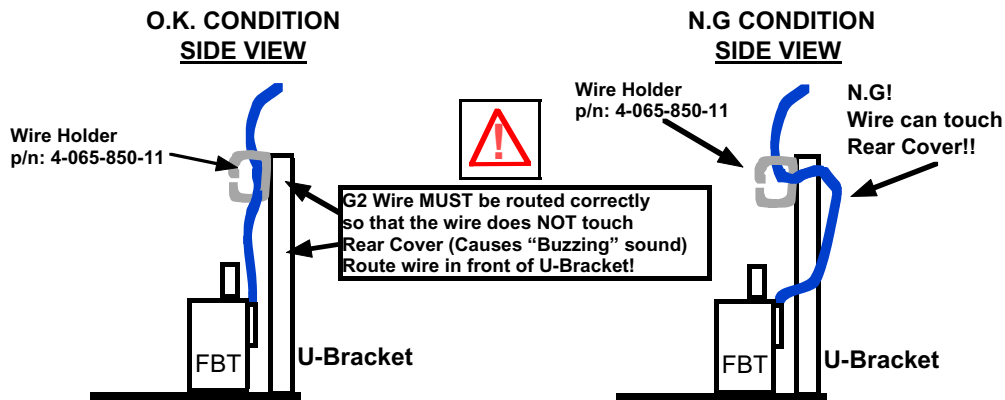
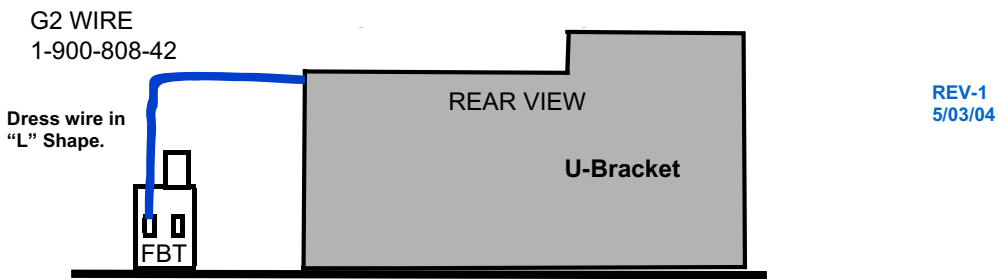
POD EJECT BUTTON CAUTIONS - STEP 1 BEFORE INSERT CARD (ALL MODELS)



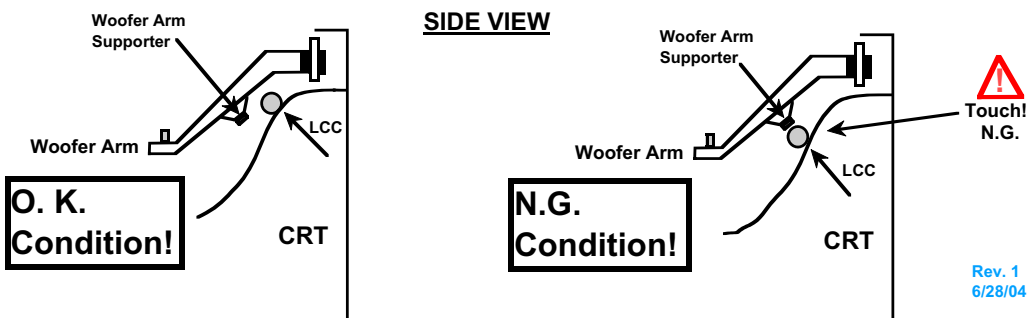
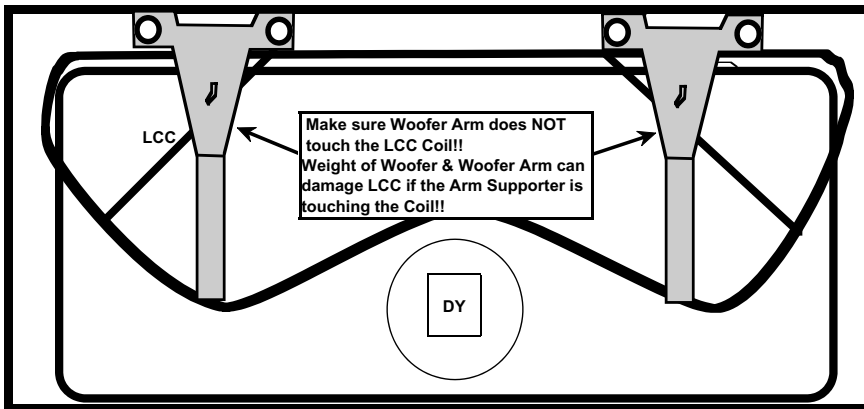
POD EJECT BUTTON CAUTIONS - STEP 2 INSERT CARD (ALL MODELS)



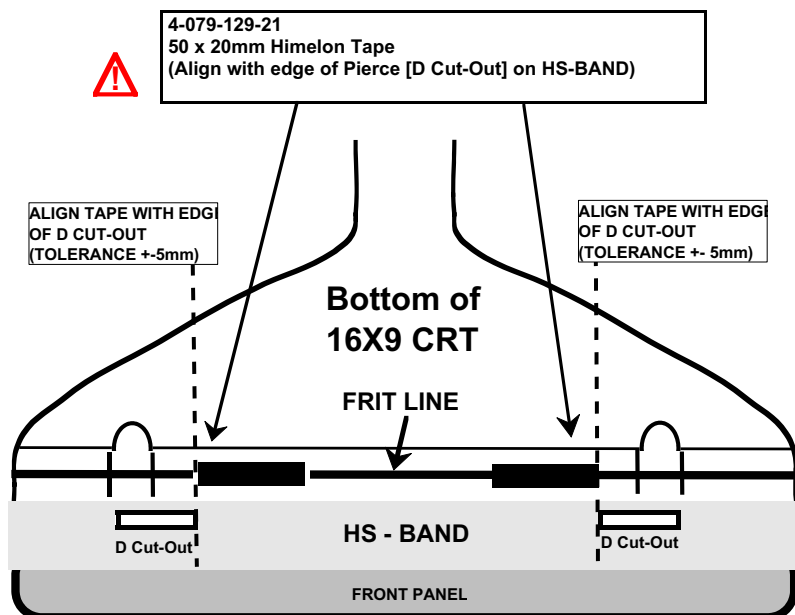
G2 WIRE ROUTING (ALL MODELS)



WOOFER ARM WIRE DRESSING CAUTION (KD-34XBR960 ONLY)

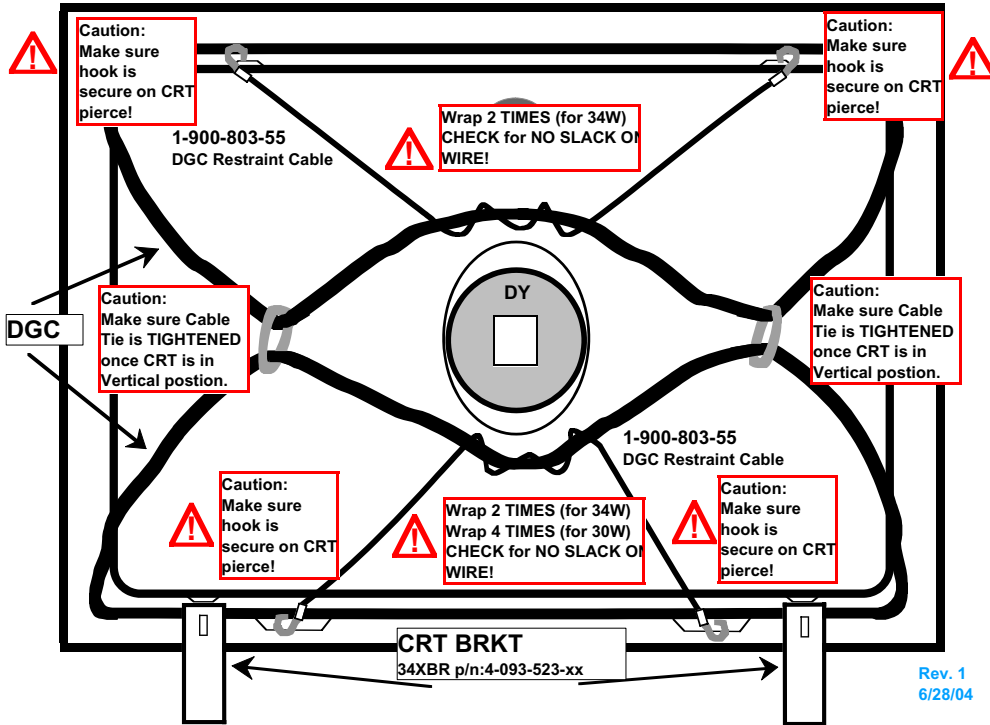


CRT PREP CAUTION POINT (KD-34XBR960 ONLY)

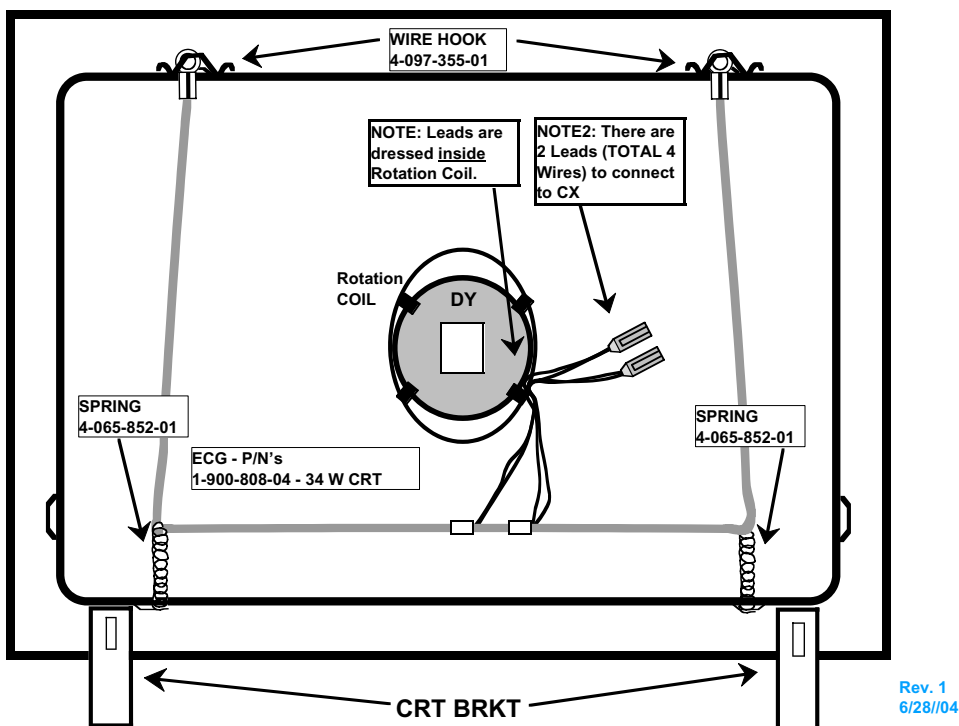


Rev. 1
6/28/04

DGC ASSEMBLY CAUTION POINT (KD-34XBR960 ONLY)

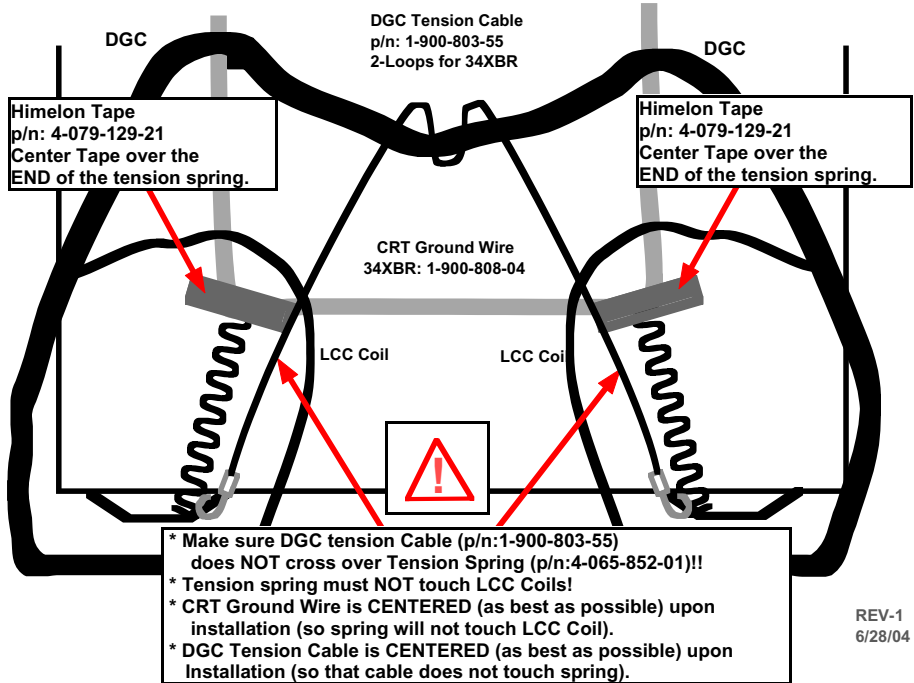


EGC WIRE DRESSING (KD-34XBR960 ONLY)

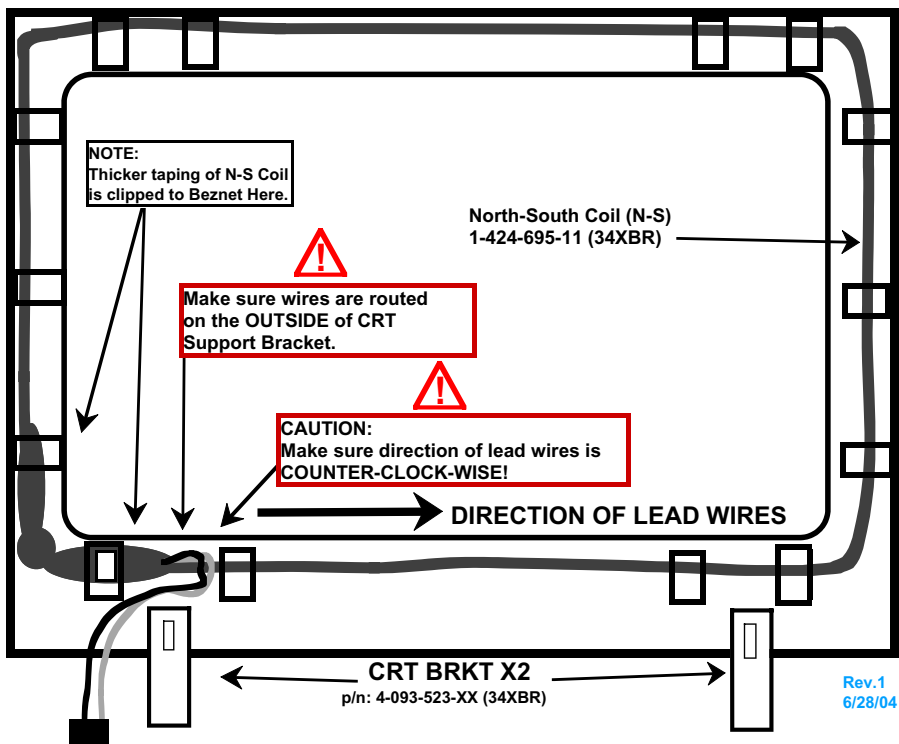


CRT GROUND WIRE CAUTION POINT (KD-34XBR960 ONLY)

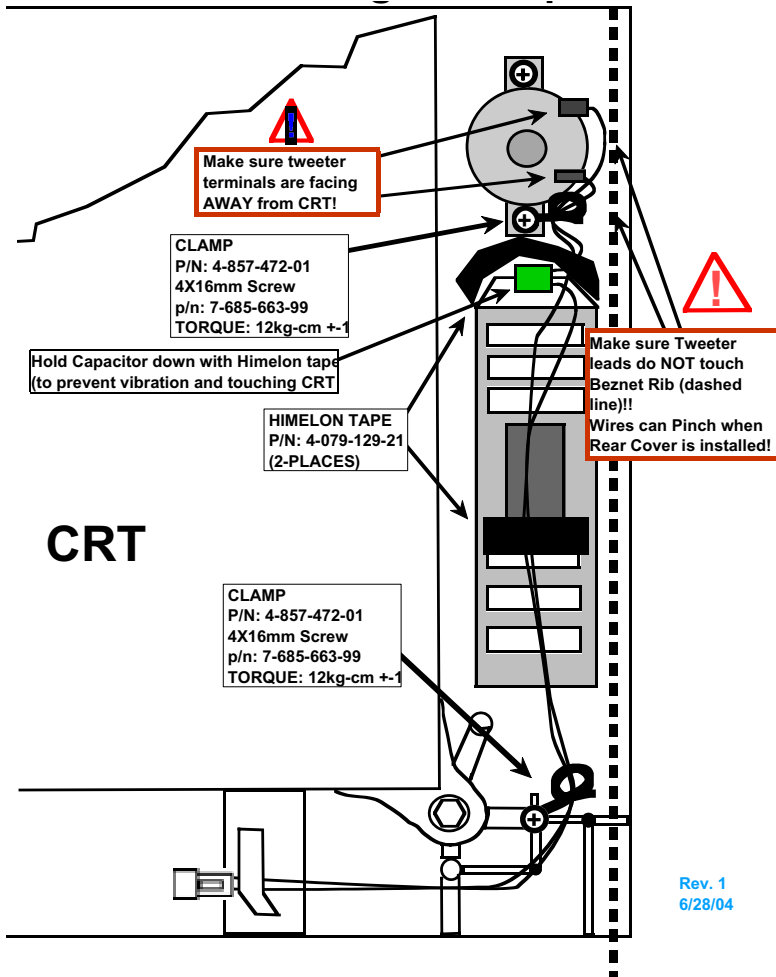
OK INSTALLATION w/ Countermeasure



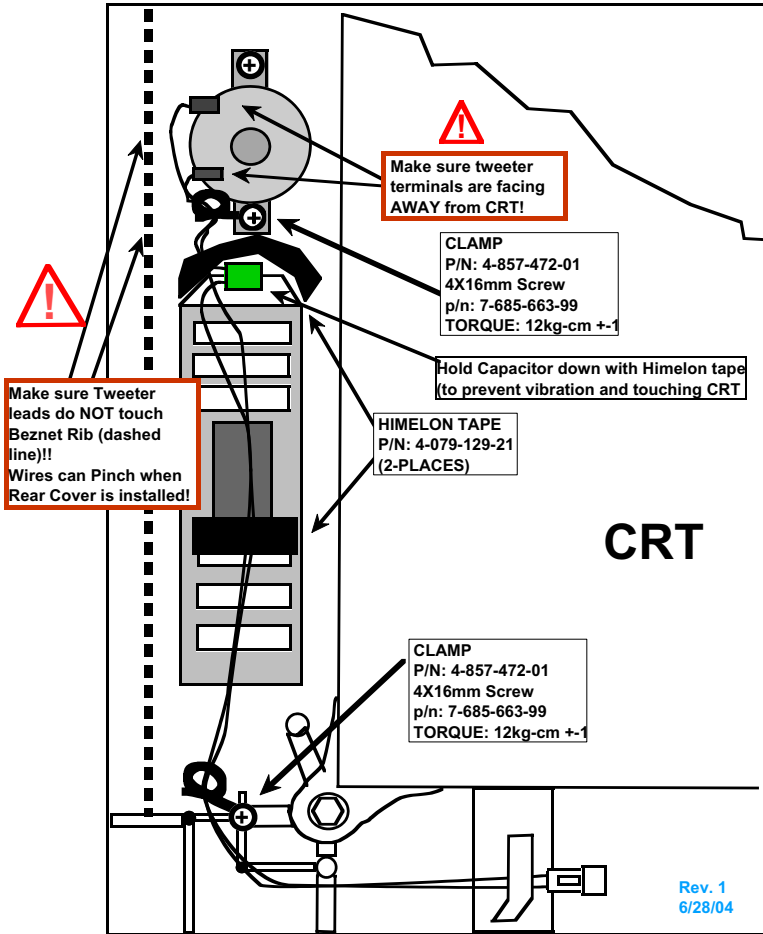
N-S COIL WIRE DRESSING CAUTION POINT (KD-34XBR960 ONLY)



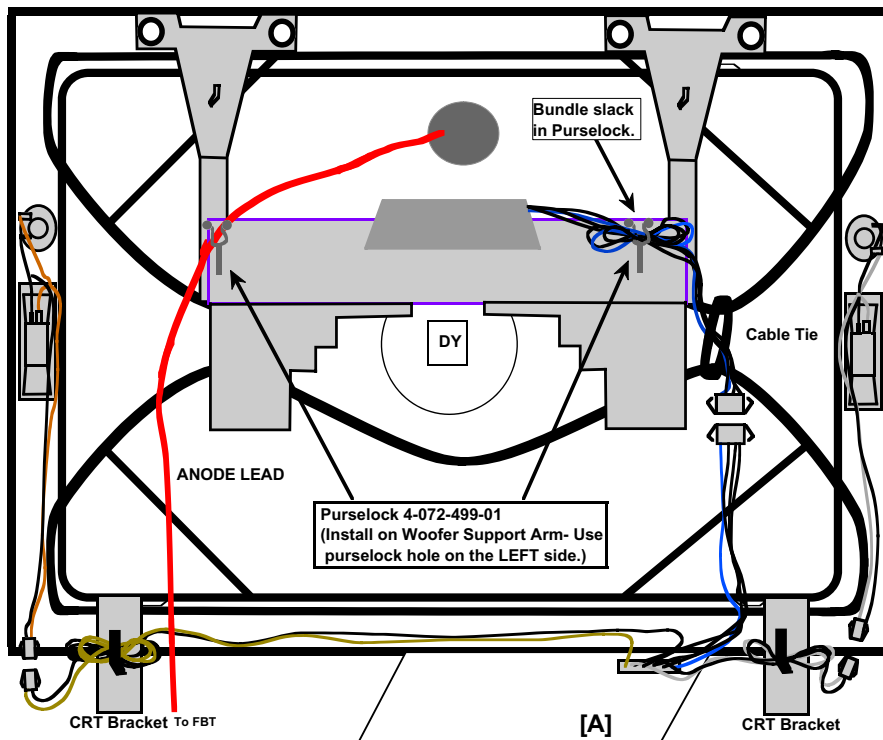
SPEAKER ASSY. WIRE DRESSING - LEFT SPEAKERS (KD-34XBR960 ONLY)



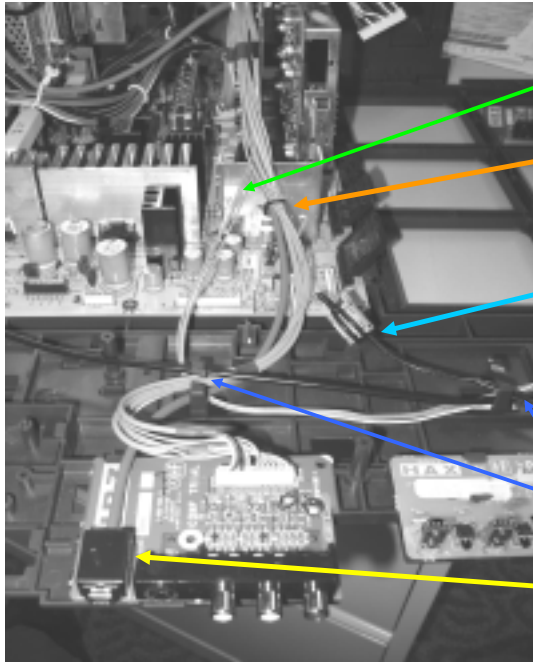
SPEAKER ASSY. WIRE DRESSING - RIGHT SPEAKERS (KD-34XBR960 ONLY)



WOOFER ASSY. WIRE DRESSING (KD-34XBR960 ONLY)

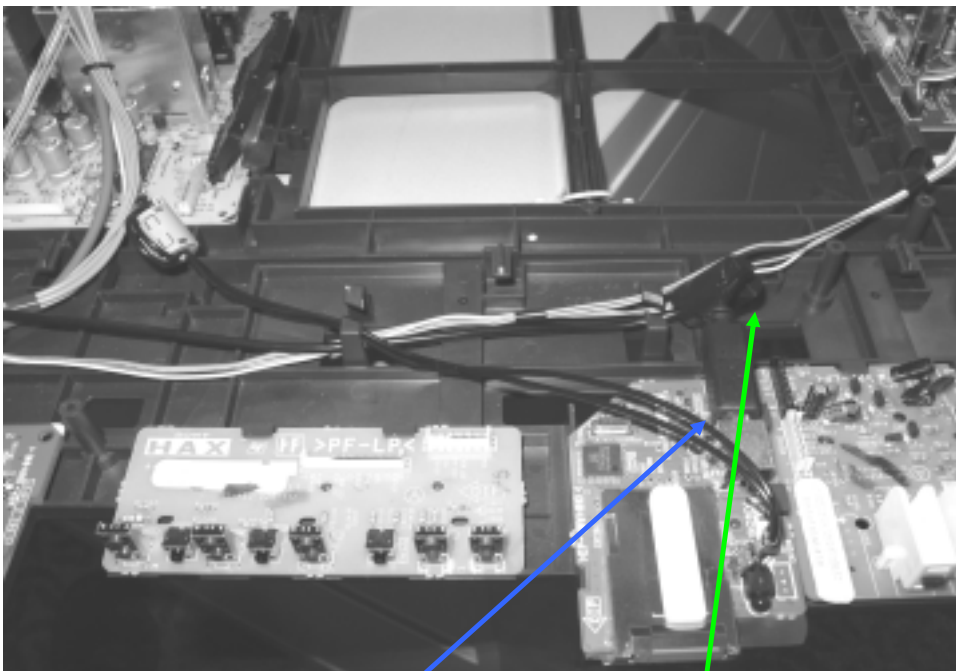


CHASSIS DRESSING - HBZ BOARD AND USB (KD-34XBR960 ONLY)



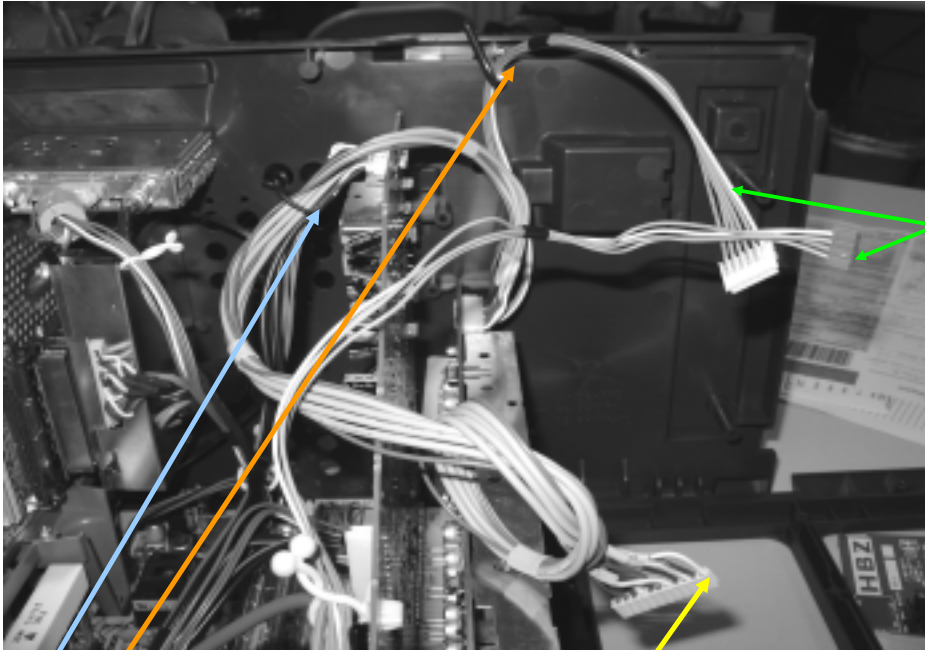
- 1-900-808-02: 4P Conn Assy. w/RED housings
Dressed OUTSIDE 9mm black purselock
- iLINK Cable (1-823-515-31) & 1-900-806-83: 11P Conn. Assy.
w/RED Taping. Dressed INSIDE 9mm black purselock.
- 1-900-805-24 Double Ground Wire w/ferrite core
(p/n: 1-500-082-11)
NOTE: Tab on AZ-Bd (CN 519) is bent over in 45degree angle.
- USB Cable (p/n:1-829-191-11) black cable routed in H-Bracket
clips.
- iLINK Cable (1-823-515-31) w/ I Holder plastic clip on HBZ-Bd
(p/n: 4-082-405-01)

CHASSIS DRESSING - QH BOARD (KD-34XBR960 ONLY)



- 1-900-805-24 dressed in H-bracket clips.
NOTE: Mounted tab on QH board is bent 45degrees.
Also note ferrite core position (important for EMI).
- USB CABLE dressed in H-Bracket clips.
NOTE Over-Molded Ferrite Position (important for EMI).

CHASSIS DRESSING - WY AND CX CONNECTORS (KD-34XBR960 ONLY)



BOTH Connectors Assys. Connect to WY-BD

p/n: 1-900-808-02 w/ RED housing (WY-Bd to DL-BD)

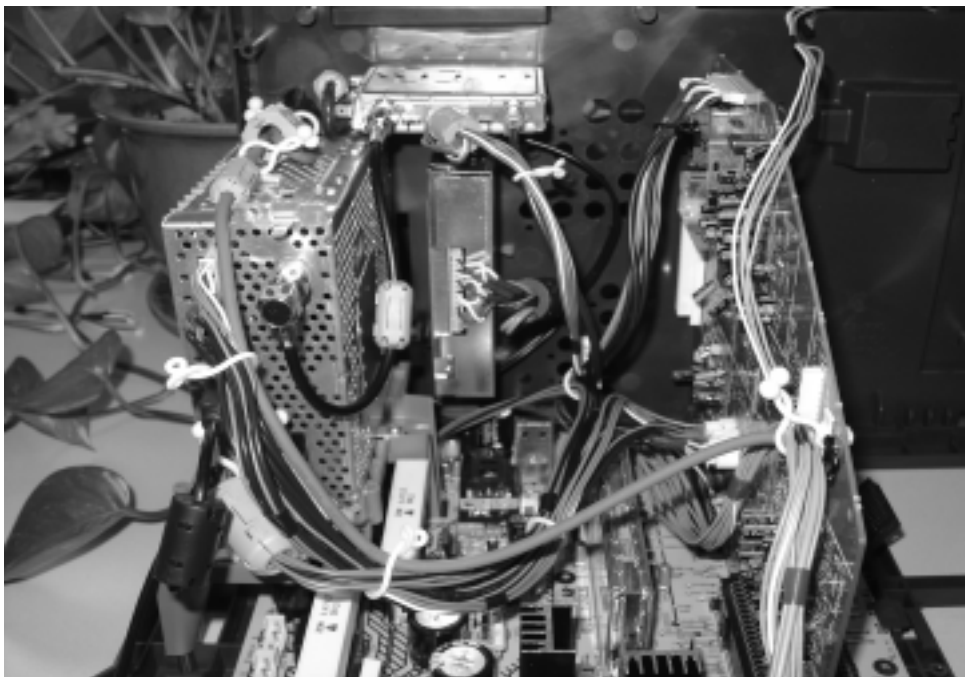
p/n: 1-900-808-32 6P Conn. Assy. (BY-Bd to WY-BD)

11P Conn. Assy. w/Yellow Taping (p/n: 1-900-806-86) routed to CX-Bd.
NOTE: This Conn. Assy. Is routed INSIDE the 9mm black purselock.

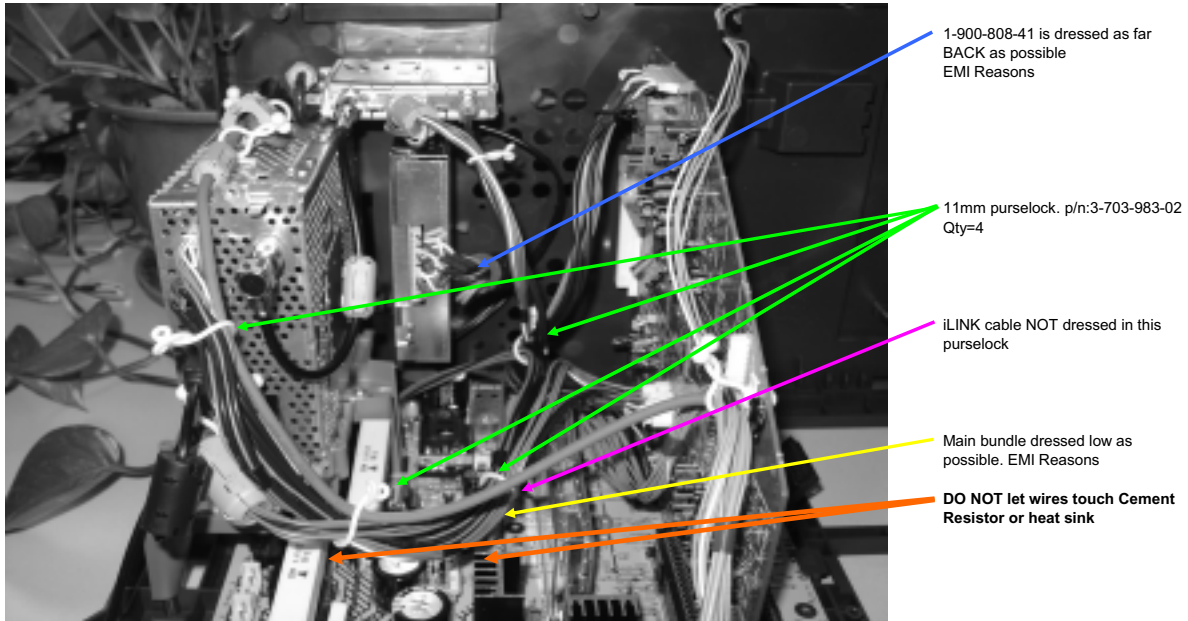
This end of 1-900-806-86 connects to CX-Bd
NOTE: KNOT is only for picture. DO NOT knot wires during actual dressing.

NOTE: 1-900-808-32, 6P Conn. Assy. Is routed INSIDE clamp (p/n: 4-857-472-01)

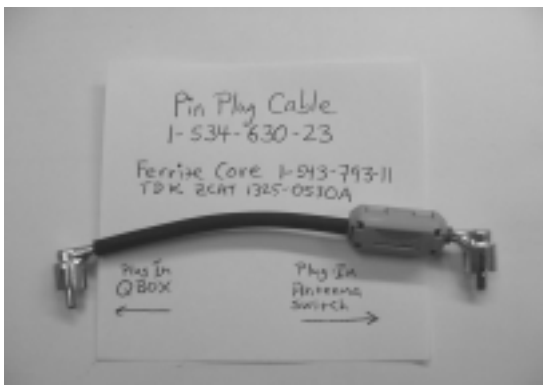
WIRE DRESSING - QBOX DRESSING (KD-34XBR960 ONLY)



WIRE DRESSING - QBOX DRESSING WITH CAUTIONS (KD-34XBR960 ONLY)

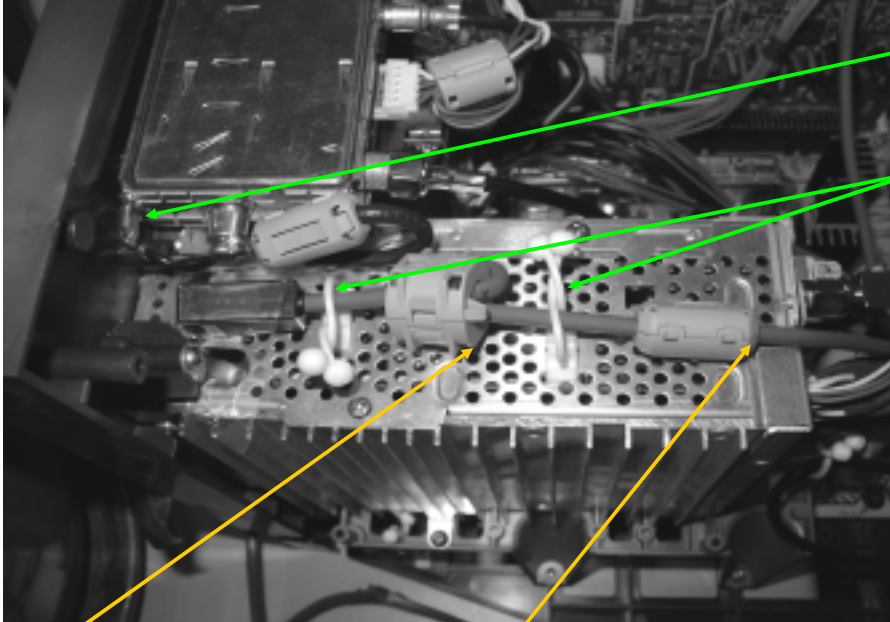


WIRE DRESSING - FERRITE ADDITIONS (KD-34XBR960 ONLY)



LOCATIONS OF FERRITE CORES
EFFECT EMI PERFORMANCE.
Please use caution when positioning ferrite cores!

WIRE DRESSING - TOP OF QBOX (KD-34XBR960 ONLY)



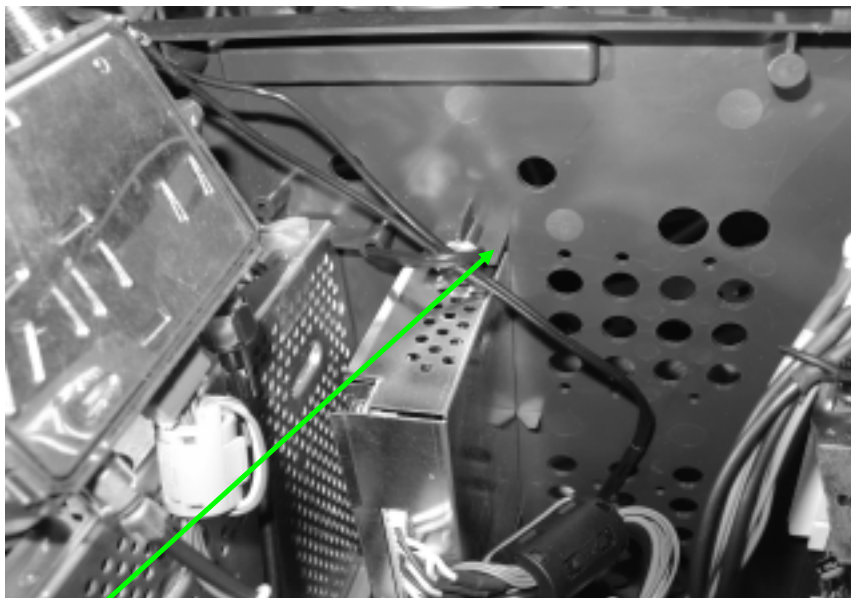
1-900-805-24 ground wire attached here on Antenna Switch

Note direction of purselocks and position of ferrite cores

Ferrite Core: NOTE LOCATION- IMPORTANT for EMI
p/n: 1-500-484-21
TDK ZCAT-2017-0930-M

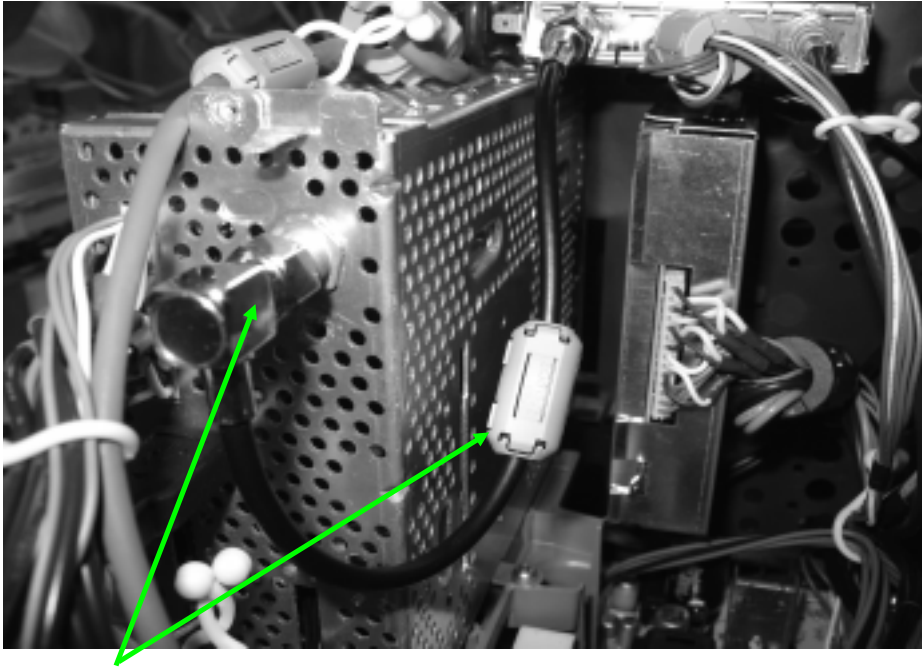
Ferrite Core: NOTE LOCATION- IMPORTANT for EMI
p/n: 1-543-793-11
TDK ZCAT-1325-0530A

WIRE DRESSING - ANT SW GROUND WIRE (KD-34XBR960 ONLY)



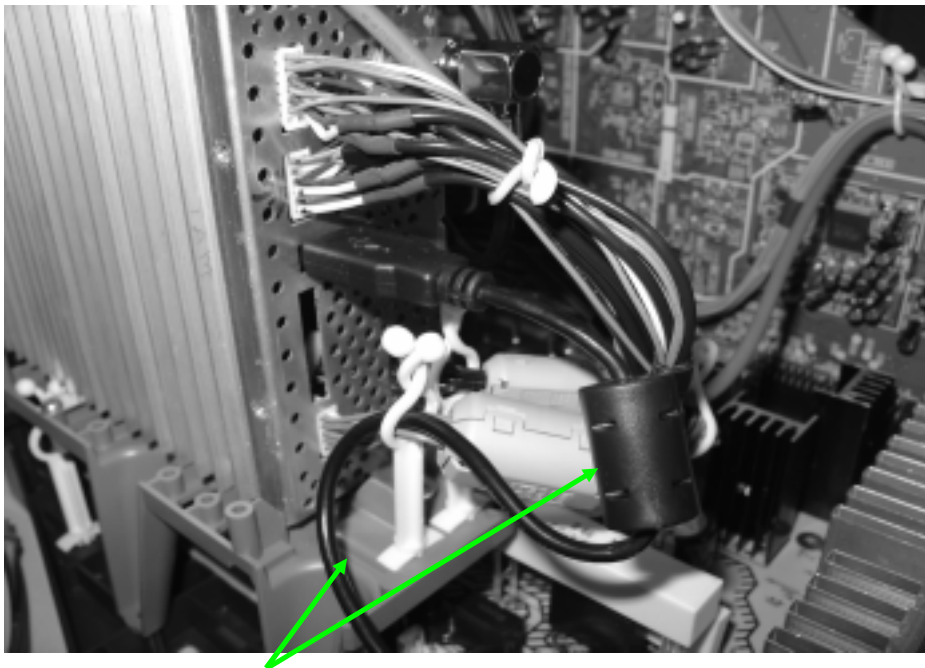
1-900-805-24 ground wire is dressed in wire clamp. p/n: 4-857-472-01
Wire is dressed BEFORE securing position of Antenna Switch.

WIRE DRESSING - F-PIN DRESSING (KD-34XBR960 ONLY)



Note position (rotation of right-angle connector) of the cable/ferrite.
Do NOT dress the ferrite core so it can touch the Heat sink on the POD connector (not installed in this photo)

WIRE DRESSING -FRONT OF Q BOX (KD-34XBR960 ONLY)



NOTE " Z " Routing of USB Cable routing (important for EMI).
Position of Ferrite Core is Important for EMI.

WIRE DRESSING - 11MM P BOARD CONNECTION (KD-34XBR960 ONLY)



DCG LEAD WIRE DRESSING (ALL EXCEPT KD-34XBR960)

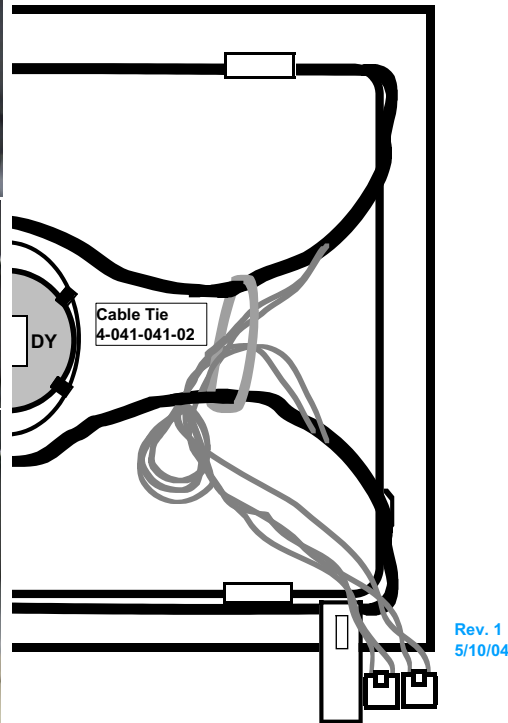
STEP 1:
Make a loop in leads
and route loop **BEHIND**
The DGC Coil.



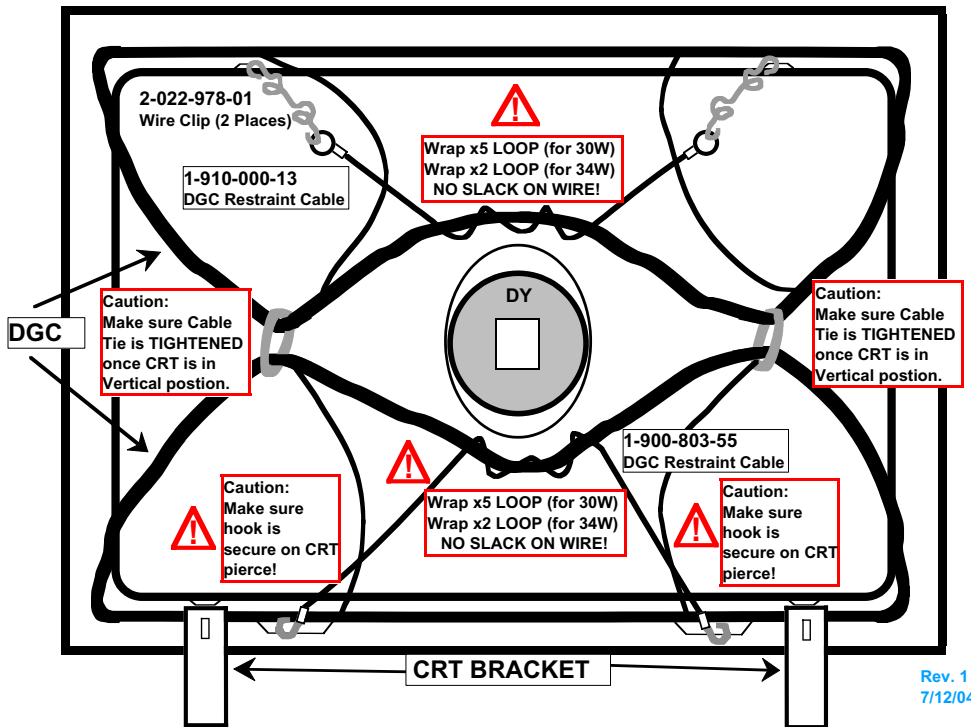
STEP 2:
Thread both connector
 housings through the
loop in lead wires.



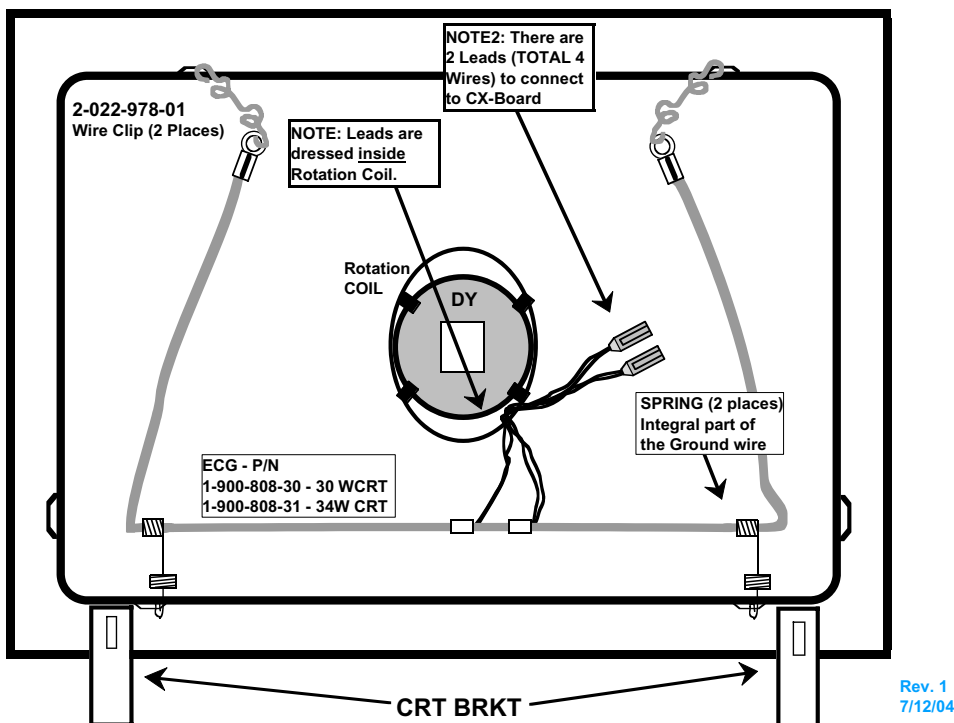
STEP 3:
Plug in connector
 housings into the
 [AZ] Board using the
loop to take up slack.



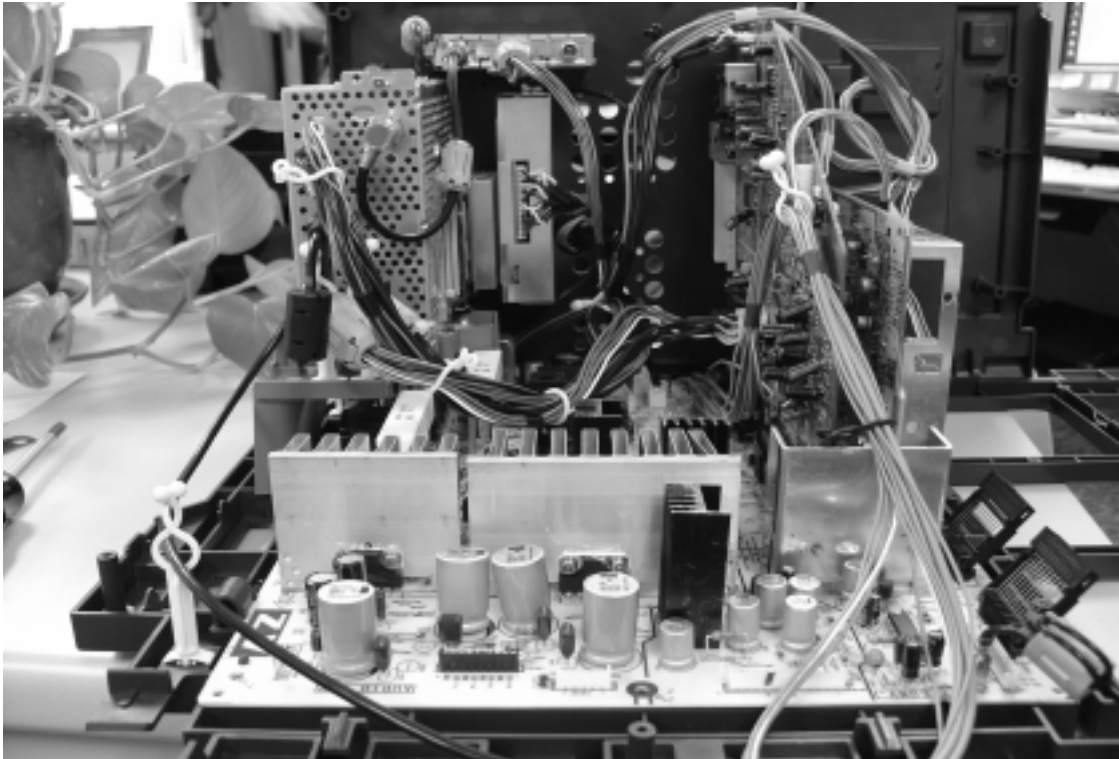
DGC ASSEMBLY CAUTION POINT (KD-30XS955/34SX955 ONLY)



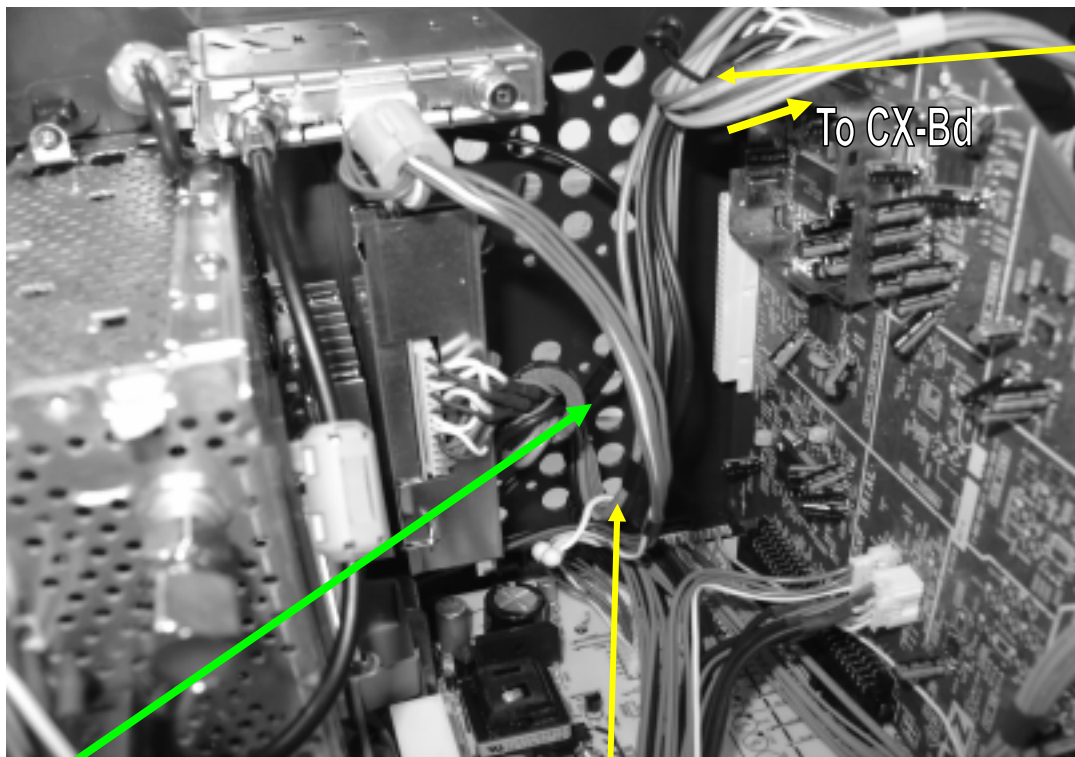
EGC WIRE DRESSING (KD-30XS955/34SX955 ONLY)



QBOX WIRE DRESSING (ALL EXCEPT KV-34XBR960)



CHASSIS WIRE DRESSING DETAIL (ALL EXCEPT KV-34XBR960)



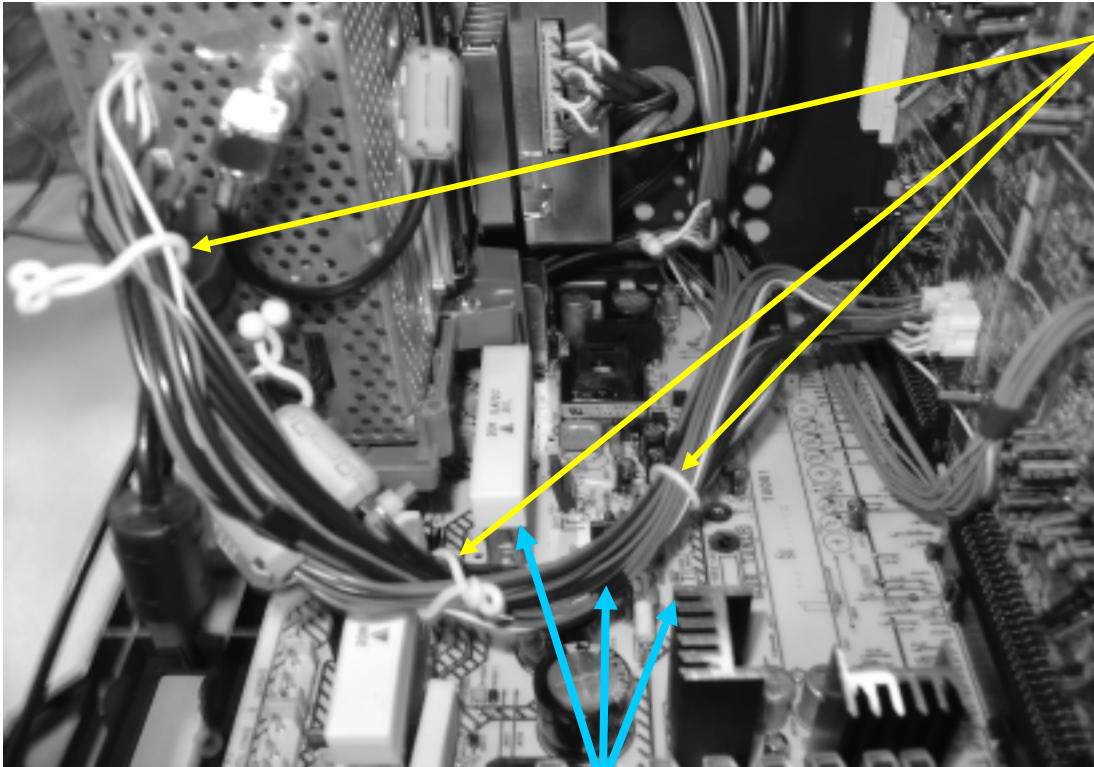
11P Conn. Assy.
(p/n: 1-900-806-86)
is dressed with 14P
Conn. Assy.
(p/n: 1-900-808-41)
with 9mm purselock
(p/n: 3-703-982-02)
NOTE direction of
wires in purselock.

CRITICAL POINT:

14P Conn. Assy. (P-shield to MZ-Bd, p/n: 1-900-808-41)
MUST be dressed as far back in the chassis as possible.
NOTE position of the ferrite core (adjacent to P-shield).

Note Direction of wires dressed in
11mm purselock (p/n: 3-703-983-02)

CHASSIS WIRE DRESSING DETAIL (ALL EXCEPT KV-34XBR960)

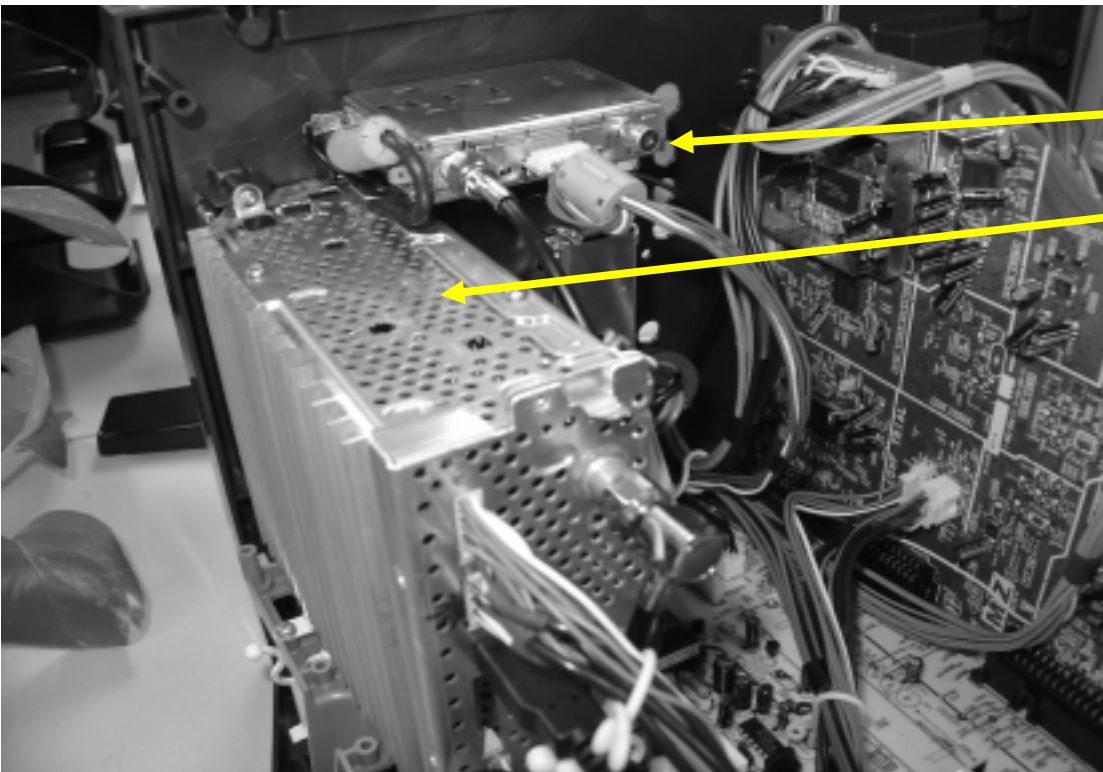


x3 11mm purselock

(NOTE positions of purselocks on main cable bundle.)

CRITICAL POINT:
Main cable bundle MUST be dressed as LOW as possible between cement resistor and heat sink. Wires cannot touch heat sink (sharp edges) or the cement resistor (very hot).

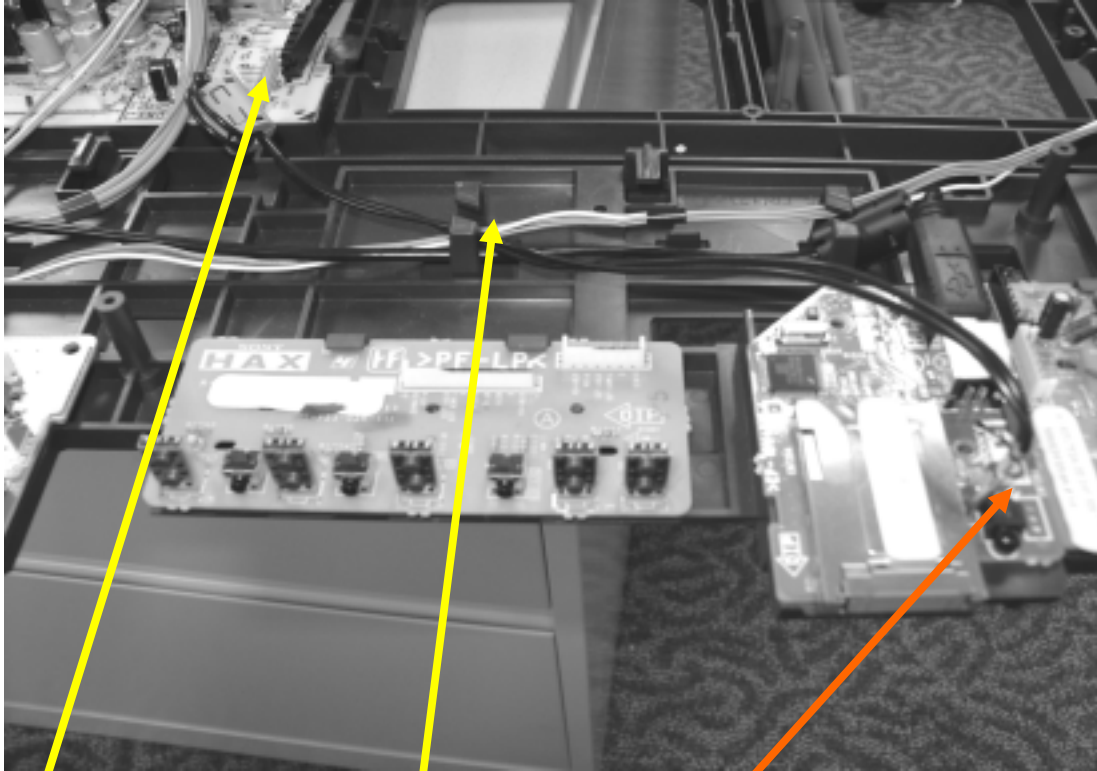
CHASSIS WIRE DRESSING DETAIL (ALL EXCEPT KV-34XBR960)



XS Models do NOT have Sub-Tuner Pin-Plug Cable

XS Models do NOT have iLINK (IEEE) Cable.

CHASSIS WIRE DRESSING DETAIL (ALL EXCEPT KV-34XBR960)



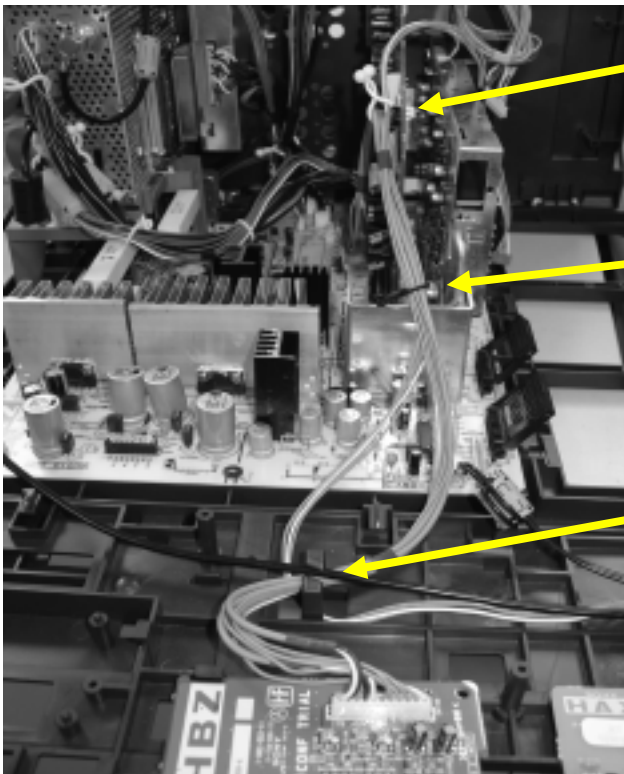
TAB on AZ-Bd is slightly bent at 45° angle (towards front of set)

Double ground wire is dressed in H-Bracket clip.

TAB on QH-Bd is bent 45° away from memory stick connector.

Reason: If TAB is not bent over, wires may get snagged on DGC and break tab off PWB when inserting chassis into set.

CHASSIS WIRE DRESSING DETAIL (ALL EXCEPT KV-34XBR960)



UZ-Bd to HBZ-Bd Conn. Assy. (with Red taping, p/n: 1-900-806-83)
Dressed in purselock on MZ-Bd (p/n: 4-355-912-xx)
4P WY-Bd to DL-Bd Conn. Assy. (with Red Housing, p/n 1-900-808-02)

Both 1-900-806-83 and 1-900-808-02 dressed in 9mm purselock (p/n: 3-703-982-02)

Both 1-900-806-83 and 1-900-808-02 dressed in H-Bracket Clip
NOTE: Directions of cables INSIDE clip.
(Black cable dressed in H-Bracket clip is USB cable (QBOX to QH-Bd, p/n: 1-829-191-11))

SECTION 2: SET-UP ADJUSTMENTS

The following adjustments should be made when a complete realignment is required or a new picture tube is installed.

These adjustments should be performed with rated power supply voltage unless otherwise noted.

The controls and switch should be set as follows unless otherwise noted:

VIDEO MODE: STANDARD (RESET)

- Perform the adjustments in order as follows:**
1. Beam Landing
 2. Convergence
 3. Focus
 4. Screen (G2)
 5. White Balance
- Test Equipment Required:**
1. Color Bar Pattern Generator
 2. Degausser
 3. DC Power Supply
 4. Digital Multimeter

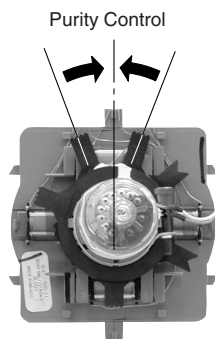
2-1. BEAM LANDING

Preparation:

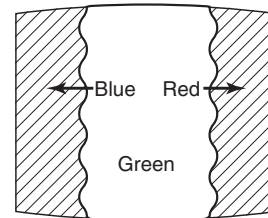
- Use cross hatch signal to rough adjust focus, G2 and then input a white pattern signal.
- Face the picture tube in an East or West direction to reduce the influence of geomagnetism.
- CXA2170-D4 Confirm Focus data - See 2.4.1 Dynamic Focus/ Dynamic Quadrapole Data Table 1.
- CXA8070 (Should be set to default) - or unplug CN1 from DY.
CXA8070 default (initial) data: YBWU =31, YBWL =31, RSAP =31, RUBW =31, RUMB =31, RLBW =31, RLMB =31, LSAP =31, LUBW =31, LUMB =31, LLBW = 31, LLMB = 31, CADJ = 29, HVCA =31
- CXA2170-D1, -D2 table default (initial) data: VCEN =24, VPIN =24, HTPZ =7, HCNT =31, PPHA =20, VANG =31, VBOW =31, LBOW =31, LANG =31

NOTE: Do not use the hand degausser; it magnetizes the CRT .

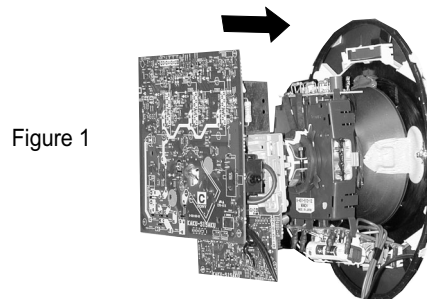
1. Input white pattern from pattern generator. Set the PICTURE control to maximum, and the BRIGHTNESS control to standard.
2. Loosen the deflection yoke mounting screw, and set the purity control to the center as shown below:



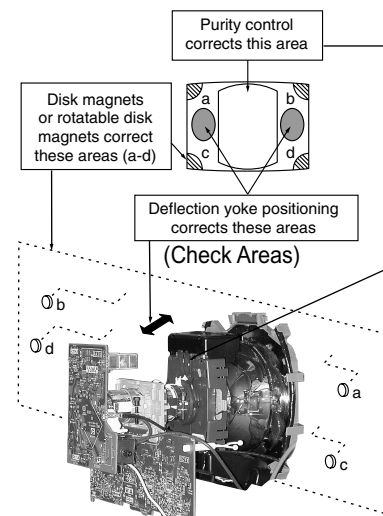
3. Input a green pattern from the pattern generator.
4. Move the deflection yoke backwards, (See Figure 1) and adjust with the purity control so that green is in the center and red and blue are even on both sides.



5. Move the deflection yoke forward, and adjust so that the entire screen becomes green.



6. Switch over the raster signal to red and blue and confirm the condition.
7. When the position of the deflection yoke is determined, tighten it with the deflection yoke mounting screw.
8. If landing at the corner is not right, adjust it by using the disk magnets.



2-2. V-PIN AND V-CEN ADJUSTMENT

Preparation:

- Input a cross hatch pattern signal.
 - Set Video Mode to: Standard (Reset)
 - For all 4X3 CRT, VPIN data has separate register for full and V-compress. Adjust both modes if needed.
 - For all 16X9 CRT, adjust VPIN data in normal mode for straightness of horizontal line.
1. Adjust service mode CXA2170D-1 05 V-CEN so that the top pin and bottom pin are symmetrical from top to bottom.
 2. Adjust service mode CXA2170D-1 06 V-PIN so that the top pin and bottom pin are symmetrical from top to bottom.
 3. Horizontal lines should be straight from left to right. Check landing for side effect.

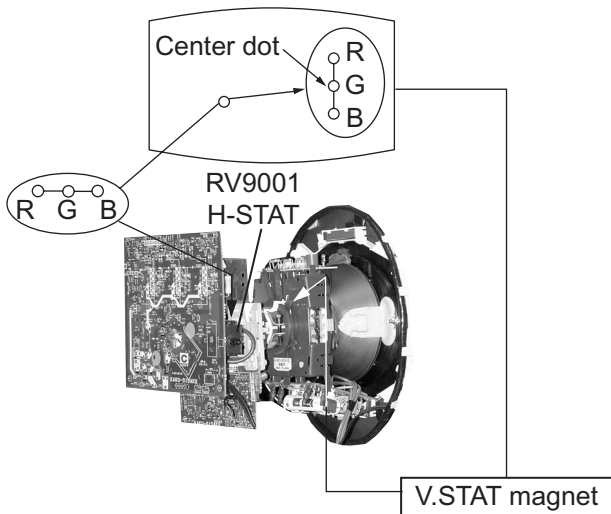
2-3. CONVERGENCE

Preparation:

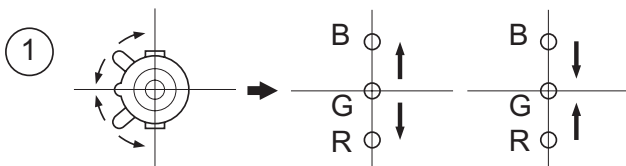
- Set the CONTRAST and BRIGHTNESS control to standard (reset).
- Input a cross hatch pattern signal.

2-3.1. VERTICAL AND HORIZONTAL STATIC CONVERGENCE

1. Set dynamic convergence to default values (as in 2-1. Beam Landing) or disconnect the dynamic convergence before adjusting static convergence (CN903), except for minor touch-up.
2. Adjust H.STAT convergence, RV9001, on CX Board to converge red, green, and blue dots in the center of the screen.
3. Adjust V. STAT magnet to converge red, green and blue dots in the center of the screen.



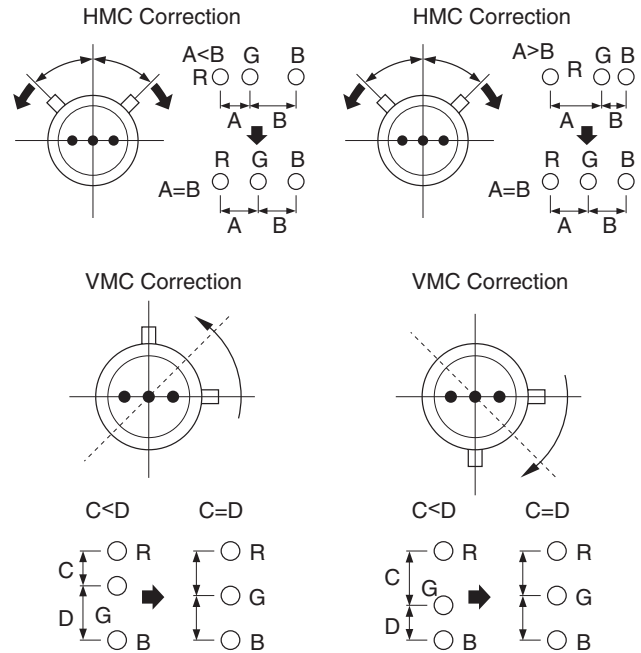
4. Tilt the V. STAT magnet and adjust static convergence to open or close the V. STAT magnet.



2-3.2. OPERATION OF BMC (HEXAPOLE) MAGNET

The respective dot positions result from moving each magnet interact. Perform the following adjustments while tracking.

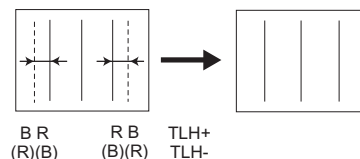
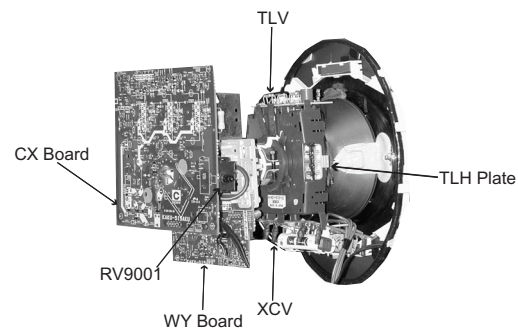
1. Use the BMC tabs to adjust the red, green and blue dots so that they line up at the center of the screen (move the dots in a horizontal direction).



2-3.3. TLH PLATE ADJUSTMENT

Preparation:

- Input a cross hatch pattern signal.
- Adjust unbalanced horizontal convergence of red and blue dots by adjusting the TLH Plate on the deflection yoke.



1. Adjust XCV core to balance X axis.
2. Adjust the vertical red and blue convergence with V.TILT (TLV VR).

Note: Perform adjustments while tracking Item 1.

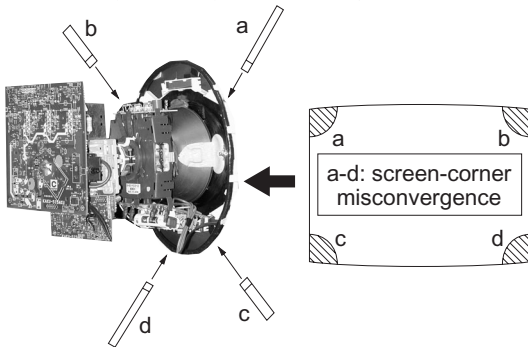
Note: When static convergence adjustments are complete, restore dynamic convergence.

2-3.4. SCREEN-CORNER CONVERGENCE

Preparation:

- Input a cross hatch pattern signal.

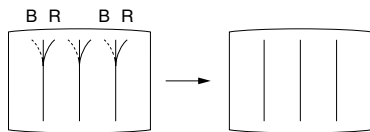
1. Affix a permalloy assembly corresponding to the misconverged areas.



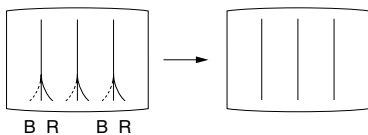
2-3.5. DYNAMIC CONVERGENCE ADJUSTMENTS

- Set dynamic convergence using the following service registers. Note areas of change.
- Only H-component can be corrected, for vertical component use permalloy to compensate.

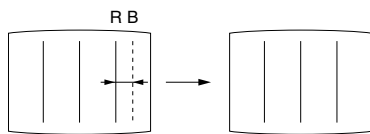
0. YBWU (Upper Y-BOW)



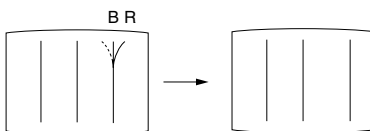
1. YBWL (Lower Y BOW)



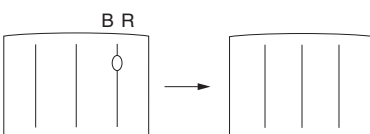
2. RSAP (Right H AMP)



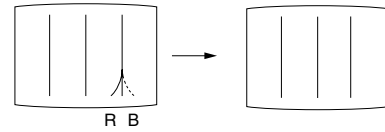
3. RUBW (Right Upper BOW)



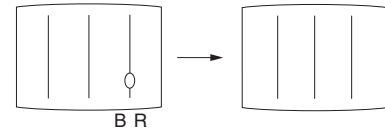
4. RUMB (Right Upper Middle BOW)



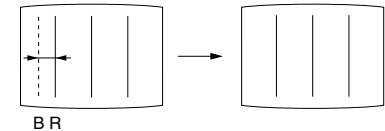
5. RLBW (Right Lower BOW)



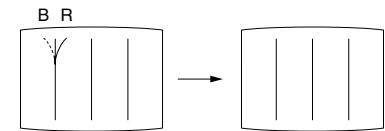
6. RLMB (Right Lower Middle BOW)



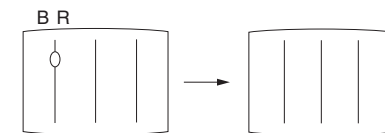
7. LSAP (Left H AMP)



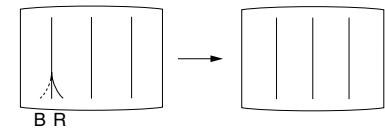
8. LUBW (Left Upper BOW)



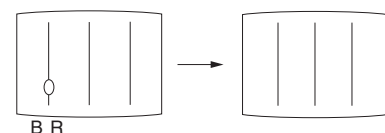
9. LUMB (Left Upper Middle BOW)



10. LLBW (Left Lower BOW)



11. LLMB (Left Lower Middle BOW)



12. CADJ Fix 29

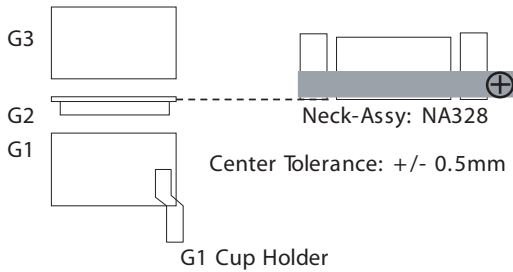
2-4. FOCUS ADJUSTMENT

Confirm neck assembly Z axis position. (See Figure 1)

1. Input a dot signal.
2. Set Video Mode to STANDARD.
3. Adjust focus VR counter clockwise (Over Focus) to confirm the dot's shape. Center should be very slightly oval with left and right sides balanced.
4. Input a HD monoscope signal.
5. Confirm center focus with focus VR.

KD-34XBR960/34XS955/36XS955

CRT: 36RDE/38RFN (Super-fine pitch and square fannel)
 Neck Assy:NA328 (VA-type, square pin assignment, VPIN harness)



KD-30XS955

CRT: 32RDE (Super-Fine Pitch and square fannel)
 Neck Assy:NA2920 (VA-Type, Square pin assignment, VPIN harness)

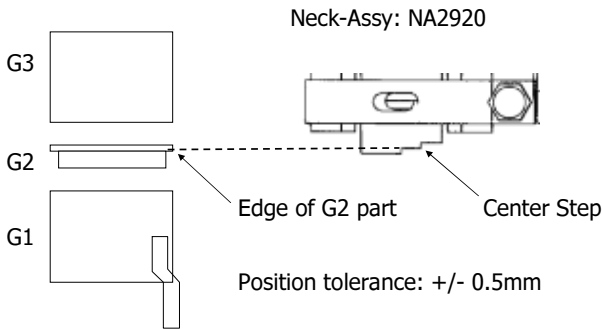
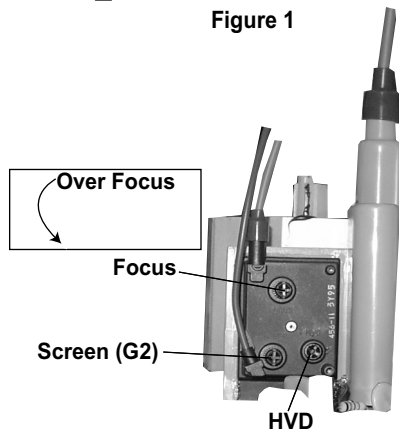
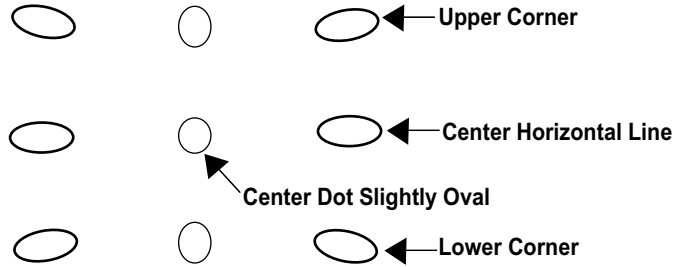


Figure 1



DQP Dot Pattern



NOTE: Changing neck assembly position will affect corner convergence.

2-4.1. DYNAMIC FOCUS/DYNAMIC QUADRA-POLE DATA

Normally, no adjustments are necessary for these systems. If for some reason the data is lost, use the data from Table 1 below:

1. Write the data from any non-vertically compressed mode, then use the CPY1 function (CXA2170D-4 Item 6) to copy the data to the vertical compressed modes.

Note: V-compressed data is identical to non-v-compressed data. Service personnel with a trained eye can adjust the DF or DQP registers to adjust DF phase (Item 7) or DQP phase (Item 8), respectively, to balance left and right focus. Refrain from adjusting more than 5 steps from table data below. Further adjustment indicates a circuit problem -- troubleshoot to cause.

CAUTION: Be sure that Neck Assembly is in the proper location. Mark position before moving or replacing neck assembly.

(See Section 2-4 Figure 1 - before changing DF/DQP data or troubleshooting circuit when DF/DQP is suspect.)

Procedure to adjust or check:

1. Short Q8018 B-Gnd to disable DF.
 B Mark is on the circuit board. Circuit connection changes should always be done with the power off.
CAUTION: Q8018 heatsink is live and peak voltage is 250V.
2. Input a cross hatch signal.
3. Change CXA2170-P2 item 2 RGBS to 2 to make green only.
 1. Overfocus to adjust DQP phase. Adjust the data (CXA2170-D4 item 8) to balance left and right vertical line width.
 2. Once DQP is balanced, remove the short from DF circuit and refocus the set.
 3. Adjust DF (CXA2170-D4 item 7) to balance left and right vertical line width.
4. Reconfirm focus performance.

	30	34	36
QPAM	33	45	22
QPAV	46	47	40
QPAP	6	6	6
QPDC	29	42	17
QPDV	59	63	52
QPDP	6	6	6
DF	40	36	36
DQP	38	37	37

Table 1

2-5. SCREEN (G2)

1. Input composite white field into Video 1.
2. Set to service mode and adjust as follows:

(Fig. 1)	Operation Procedure	Standards	Notes
CXA2170P-2 PICO 1-> 0	1) In Full mode, apply changes in Fig. 1 2) Mount G2 adjustment jig. Adjust Cathode voltage if the standard is not met. Standard varies by CRT size. 3) Adjust G2 by Flyback transformer (T8001). 4) Return data changes in 1) to original condition.	170 +/- 5 (V _{DC})	32RDE, 36RDE, 38RFN

2-6. PICTURE QUALITY ADJUSTMENTS

Preparation:

- Set PRO MODE (Reset).

1. Input signal (480i Composite):
 - Color Bar Video 75 IRE (White) 75% modulation 7.5% Set-up.
 - Color Bar RF 75 IRE (White) 75% modulation 7.5% Set-up.

2-6.1. VIDEO INPUT - SUB CONTRAST ADJUSTMENT

Preparation:

- Input a Color Bar signal to VIDEO 1 (75 IRE 75%).
- Set picture mode: Single (Full) (PRO MODE Reset).
- Picture: Max
- Color: Min

1. Set to Service Mode and adjust as follows:

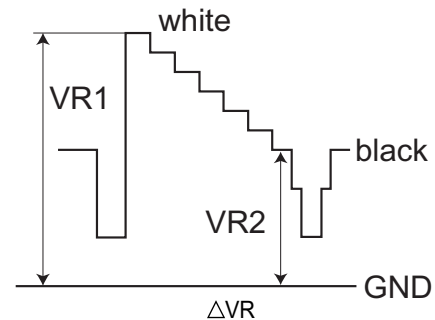
2170P-2

NO.	Name	Control Function	Avg. Data
01	RGBS	R ON	4

2. Connect oscilloscope to Pin 1 of CN9001 (R.DRV) on the CX Board.
3. Adjust contrast according to the service mode item: SPIO.

2103-1

NO.	Name	Control Function
02	SCON	SUB-CONT



$$(32XS/34XBR/34XS/36XS) = 1.60 \pm 0.05 \text{ Vpp}$$

4. Write data from Step 3 above, into memory.

2-6.2. VIDEO INPUT - SUB HUE/SUB COLOR ADJUSTMENT

Preparation:

- Input a Color Bar signal to VIDEO 1 (75 IRE 75%).
 - Set picture mode: Single (Full) (PRO MODE Reset).
 - Picture: Max
1. Set to Service Mode and adjust as follows:

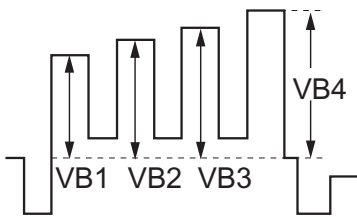
2170P-2

NO.	Name	Control Function	Avg. Data
01	RGBS	R ON	7

2. Connect an oscilloscope to Pin 5 of CN9001 (B. DRV) on the CX Board.
3. Adjust color according to Service Mode for SCLO.
4. Adjust color according to Service Mode for SHUO.

2103-1

NO.	Name	Control Function
03	SCOL	SUB-COL
04	SHUE	SUB-HUE



COLOR: $VB1 \leq VB4$ ($=20\text{mV} \pm 200 \text{ mV}$)
 HUE: $VB2 \leq VB3$ ($=20\text{mV} \pm 200 \text{ mV}$)

5. Write data into memory.

2-6.3. RF INPUT - SUB CONTRAST ADJUSTMENT

Preparation:

- Input a Color Bar signal to RF (75 IRE 75%).
 - Set picture mode: Single (Full) (PRO MODE).
 - Picture: Max
 - Color: Min
1. Set to Service Mode and adjust as follows:

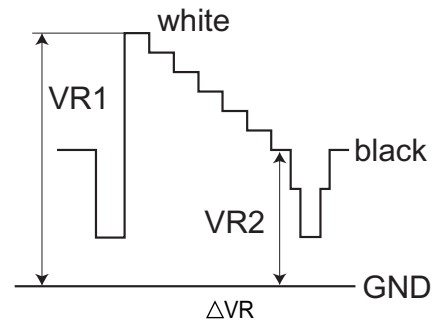
2170P-2

NO.	Name	Control Function	Avg. Data
01	RGBS	R ON	4

2. Connect an oscilloscope to Pin 1 of CN9001 (R. DRV) on the CX Board.
3. Adjust contrast according to service mode for SCON.

2103-1

NO.	Name	Control Function
02	SCON	SUB-CONT



$(32\text{XS}/34\text{XBR}/34\text{XS}/36\text{XS}) = 1.60 \pm 0.05 \text{ Vpp}$

4. Write data from Step 3 above, into memory.

2-6.4. RF INPUT - SUB HUE/SUB COLOR ADJUSTMENT

Preparation:

- Input a Color Bar signal to RF (75 IRE 75%).
- Set picture mode: single (FULL) (PRO MODE Reset).
- Picture: Max

1. Set to Service Mode and adjust as follows:

2170P-4

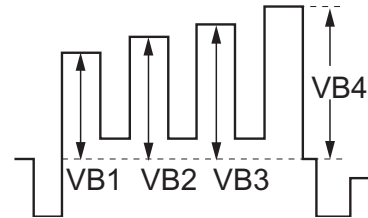
NO.	Name	Control Function	Avg. Data
01	RGBS	R ON	7

2. Connect an oscilloscope to pin 5 of CN9001 (B. DRV) on the CX Board.
3. Adjust color according to Service Mode for SCOL.

4. Adjust color according to Service Mode for SHUE.

2103-1

NO.	Name	Control Function
03	SCOL	SUB COLOR
04	SHUE	SUB HUE



COLOR: $VB1 \leq VB4 (=20mV \pm 200 mV)$

HUE: $VB2 \leq VB3 (=20mV \pm 200 mV)$

5. Write data into memory.

2-7. WHITE BALANCE (CRT) AND SUB BRIGHT ADJUSTMENT

Preparation

- Input an all white 480i (15.734 KHz) signal into the VIDEO 1 input terminal to perform the White Balance (highlight, cut-off) adjustments. The parameters to adjust are in the CXA2170P1 in Service Mode.
- Set Picture Mode: Single (FULL) (POR MODE Reset)
- Picture: Max
- Color: Min

WHITE BALANCE ADJUSTMENT PROCEDURE (Composite White Field signal into Video 1)																																																																																
Highlight and Cutoff Specification	Old Calibration		New Calibration		WB701 Preset	R/G	B/G																																																																									
	9300K + 8MPCD		10900K + 2MPCD			32RDEN	0.775	0.915																																																																								
	R/G = 1.000		R/G = 1.007		36RDE	0.770	0.930																																																																									
	B/G = 1.000		B/G = 1.139		38RFN	0.713	0.903																																																																									
	x = 0.284		x = 0.276																																																																													
	y = 0.298		y = 0.284																																																																													
Condition	Picture Mode: Single (Full)		Picture Setting: Pro		Adjustment Registers (Service Mode)	RDRV (fixed)	2170P-1-06																																																																									
	Color Temp: Neutral					GDRV	2170P-1-07																																																																									
	Picture: 63	write to 86h:01h:FFh			BDRV	2170P-1-08																																																																										
	Color: 0	write to 86h:03h:00h			RCUT (fixed)	2170P-1-09																																																																										
					GCUT	2170P-1-10																																																																										
					BCUT	2170P-1-11																																																																										
<table border="1"> <thead> <tr> <th>PART NO.</th> <th>DESCRIPTION</th> <th>Qty</th> <th>Tools/Instruments</th> <th>Qty</th> <th>4x</th> <th>3x</th> <th>2x</th> <th>1x</th> <th>Drawing No. registration</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td></td> <td></td> <td></td> <td></td> <td>NO.</td> <td>DATE</td> <td>REVISIONS</td> <td>SIGN</td> <td>SST</td> </tr> <tr> <td>5</td> <td colspan="8">TITLE: White Balance Adjustment (2)</td> <td colspan="2">TS-6999-988M-01</td> </tr> <tr> <td>6</td> <td colspan="9"></td> </tr> </tbody> </table>										PART NO.	DESCRIPTION	Qty	Tools/Instruments	Qty	4x	3x	2x	1x	Drawing No. registration	1										2										3										4					NO.	DATE	REVISIONS	SIGN	SST	5	TITLE: White Balance Adjustment (2)								TS-6999-988M-01		6									
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2-7.1. COLOR OFFSET ADJUSTMENT PROCEDURE

Preparation:

- Input an all white (30 IRE) signal to the specified input.
- Adjust the white balance using the specified registers.
- Set picture mode: Single (FULL) (PRO MODE Reset)
- Color: Max

VIDEO 1

CXA2170P1

NO.	Name	Control Function
3	CBOF	CB OFFSET
4	CROF	CR OFFSET

VIDEO 5

CXA2170P1

NO.	Name	Control Function
3	CBOF	CB OFFSET
4	CROF	CR OFFSET

VIDEO 7 -

CXA2170P1

NO.	Name	Control Function
3	CBOF	CB0F (FROM VIDEO 5) + 3
4	CROF	CR0F (FROM VIDEO 5) - 4

2-8. H RASTER CENTER ADJUSTMENT

Preparation:

- Input a monoscope signal.
- Set to NTSC (DRC) mode.

1. Set to Service Mode and adjust as follows:

CXA2170P-2

NO.	Name	Control Function	Data
05	AGNG	AGING 1, AGING 2	2

CXA2170D-2

NO.	Name	Control Function	Avg. Data
01	HPOS	Horiz Position	31
02	HSIZ	Horiz Size	31

CXA2170D-3

NO.	Name	Control Function	Avg. Data
00	HBLK	Blanking Enable	0

2. Reduce HSIZ to see sides of raster. (See Figure A)
3. Adjust H-Center with CXA2170D-2.
4. Adjust to the best screen position with H-CENT and write data.
5. Restore aging, HSIZ and HBLK to original condition.

Raster Edge Equal:

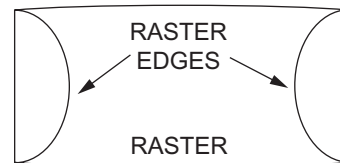


Figure A

2-9. PICTURE DISTORTION ADJUSTMENTS

2-9.1. NTSC (DRC) FULL MODE ADJUSTMENT

1. Face the picture tube in an east-west direction. (For best condition.)
2. Input a monoscope and crosshatch signal.
3. Adjust the picture distortion with the two signals to balance the best condition between the two.

Use the CXA2170-D1 and -D2 adjustable data items shown.

4. Complete V-PIN and V-CEN adjustments first and adjust HPTZ to straighten and parallel top and bottom lines.
5. Adjust VSCO, VLIN as necessary.
6. Adjust VSIZ and VPOS and write the data.
7. Adjust for Vertical line distortion.
8. Adjust VANG, VBOW, LANG, LBOW.
Note: Keep LANG and LBOW data between 5 and 58.
9. Finish with UCP, LCP, PPHA, PIN adjustments.
10. Check SLIN, MPIN. Adjust for correct HSIZ and HPOS and write the data before changing modes.

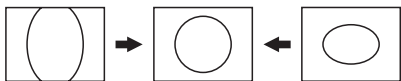
NOTE: Make sure that the picture size is within specs. Vertical size is 11.8 ± 0.1 sq. and horizontal size is 15.8 ± 0.1 sq.

CXA2170D-1

Item 0. VPOS (V-POSITION)



Item 1. VSIZ (V-SIZE)



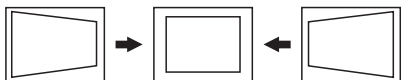
Item 3. VLIN (V-LINEARITY)



Item 4. VSCO (V S-CORRECTION)

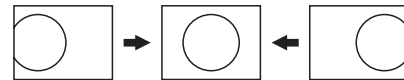


Item 9. HTPZ (H-TRAPEZOID)

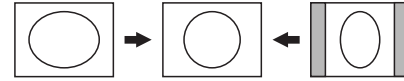


CXA2170D-2

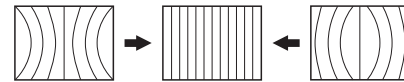
Item 1. HPOS (H-POSITION)



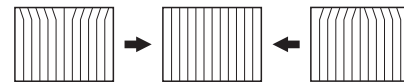
Item 2. HSIZ (H-SIZE)



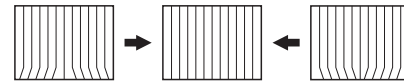
Item 5. PIN (PIN AMP)



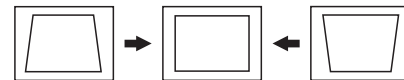
Item 7. UCP (UP COR PIN COR)



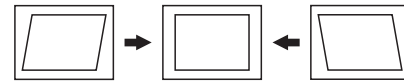
Item 8. LCP (LOW CO PIN COR)



Item 14. PPHA (PIN PHASE)



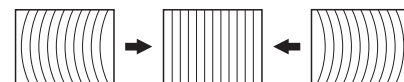
Item 15. VANG (AFC-ANGLE)



Item 16. LANG (L-ANGLE)



Item 17. VBOW (AFC-BOW)



Item 18. LBOW (L-BOW)



2-9.2. 1080i HD MODE ADJUSTMENT

1. Input a 1080i cross-hatch signal and an HD monoscope full signal that contains overscan markers. (From service mode, verify 1080i mode).
2. If this procedure was not performed for full mode, adjust the raster position per Section 2-8. H Raster Center Adjustment.
3. Adjust the geometry similar to Full DRC mode.
Vertical size is 11.7 ± 0.1 sq. and horizontal size is 15.6 ± 0.1 sq., if monoscope signal is available. Otherwise, set the Vertical size to $91.0 \pm 0.6\%$ scan and Horizontal size as $91.0 \pm 0.6\%$ scan.
4. Adjust HPOS as necessary.
Note: If necessary, touch up the geometry using the data registers listed above for full mode. Check NTSC full mode for adjustment side effects because some data registers are shared between modes, in which case a balance must be achieved.
5. Write the data into memory before changing modes.

2-9.3. VERTICAL COMPRESSED MODE CHECK AND CONFIRMATION (FOR 4X3 CRT ONLY)

1. Input a monoscope and crosshatch signal.
2. Set CXA2170-P4 item 26 IDSW to 4 (VC 960i).
3. Check for vertical compressed mode distortion.
4. Adjust VPIN as necessary to correct upper lower horizontal line straightness. Adjust other registers in Full mode above as necessary, being careful to balance any shared data effect between modes.
5. Repeat steps 3 and 4 for IDSW set to 3 (VC 1080i).
6. Write the data before changing modes.

2-9.4. NORMAL, ZOOM AND WIDE ZOOM MODES

1. Check Normal and Zoom modes for size and position.
2. Optimize VPIN adjustment in Normal mode for the straightest upper and lower horizontal lines. For other registers, remember to check for shared data side effect.
3. Write the data before changing modes.
4. Check Wide Zoom mode for size and position.
Wide Zoom is a specially adjusted mode to fit a 4:3 picture into a 16:9 format, and is only available on wide screen models.
5. Set the following key registers to the data indicated:
VSCO = 10, UVLN = 4, LVLN = 4, SLIN = 10, MPIN = 9,
then adjust the other data registers shown here for Full mode to straighten horizontal and vertical lines. The picture on the top and bottom edge is deliberately compressed vertically, and similarly the picture on the left and right side is expanded horizontally.
Note: Do not adjust horizontal and vertical linearity to make another Full mode. Most data registers for this mode are dedicated to Wide Zoom mode only so there should be no adjustment side effects to other modes but please confirm this.
6. Write the data before changing modes.

SECTION 3: SAFETY RELATED ADJUSTMENTS

3-1. PREPARATION BEFORE CONFIRMATION

Standard:.....
 135.3 ± 1 VAC

Check Condition:
 AC input voltage: 120 (± 2) VAC

Note: If using a stabilized power supply, make sure that the distortion factor is 3% or less.

Setting Mode:
 Full mode

Signal Input:
 Cross-hatch of NTSC

Initial Setting:
 Standard Reset condition

Confirm Point:
 Across CN5509 PIN 9 for B+ of DZ Board

3-1.1 HOLD-DOWN OPERATION CONFIRMATION

- Using an external DC power supply, apply 5.3 ± 0.5 Vdc between Pin 2 of CN507 (jig connector) and ground (Pin 8); confirm set goes to hold-down (main power relay click).
- Remove the external DC power supply.

3-2. B+ MAX CONFIRMATION

Standard 135.3 ± 1 VAC

Check Condition:
 AC input voltage: 120 (± 2) VAC

Note: If using a stabilized power supply, make sure that the distortion factor is 3% or less.

Setting Mode:
 Full mode

Signal Input:
 Cross-hatch of NTSC

Initial Setting:
 Standard Reset condition

Confirm Point:
 Across CN5509 PIN 9 for B+ of DZ Board

3-3. B+ VOLTAGE CHECK

Standard:.....
 135.3 ± 1 VDC

Measurement point:
 CN5509 pin (9) for B+ of [DZ] board

Input Video Signal:.....All Black Signal

Picture level:.....Picture/Brightness
 Minimum

HV Probe: Service can use Fluke 80K-40 or equivalent.

3-4. HIGH VOLTAGE (HV) CHECK

Standard:.....
 32.5 ± 0.5 kV

Measurement point:.....Anode of CRT

Input Video Signal:.....All Black Signal

Picture level:.....Picture/Brightness Minimum

3-5. PREPARATION FOR HV AND IK PROTECTOR CHECK

- Remove DZ board screws and carefully lift board as necessary to gain access to the bottom of the board.
- Unsolder CN5001 pin 1 to open ABL connection to AZ board.
 (Alternately, open AZ - DZ connector (CN509-CN5001) and carefully push pin 1 metal tab (ABL) up from the bottom and pull up from the top using long nose pliers and release it from the connector, then close the connector with pin 1 connection now open.)
- Install jumper wire from MZ board connection CN2304 pin 1 to CN509 pin 1 to inject 5V to ABL line. (Alternately, use STBY 5V, IC501 Pin O on AZ board)
- Unsolder CN5009 pin 8 (H-prot).
- Open ABL pin 1 of T8001 (RHT) on DZ board and connect analog current meter.

3-6. HV PROTECTOR CHECK

3-6-1. CUT OFF CONDITION

Input Video Signal:.....All Black Signal

Picture level:.....Picture/Brightness Minimum

- Confirm ABL current which should be approximately 0.160mA.
- Short across C8002, C8021, and C8052.
- Turn off the set and install precision VR1 jig (a multi turn pot initially set to 100K) to IC8005 pin 1 (It's the unmarked IC8005 pin on PWB A side, neither K nor A.) and GND (C8076 -).
- Restore power and adjust HV to obtain 36.4 ± 0.15 kV by precision VR1 jig.
Note: If the picture turns bright red or other color and the set shuts down, place a 10 M resistor on the CX board between G2 and E2 pins on the socket. Confirm G2 adjustment before returning set to production.
- Remove short from C8002 and confirm that hold down activates.
- Short C8002 again and confirm that HV recovers.
- Re-adjust HV to obtain 33.5 ± 0.2 kV by precision VR1 jig.
- Remove short from C8002 and C8021 and C8052.
- Confirm that hold down does not activate.

Note: Remove the 10 M resistor , if installed in step D above

3-6-2. HIGH LIGHT CONDITION

Input Video Signal:.....All White Signal
Picture level:.....Picture/Brightness Adjustment

1. Short across C8002, C8021, C8052, C8012, and C8015.
2. Set ABL current to **2.76mA** by adjusting picture and brightness towards max condition.
3. Adjust HV to obtain **35.7 ± 0.15kV** by precision RV1 jig.
4. Remove short from C8002 and confirm that hold down activates.
5. Short C8002 again and confirm that HV recovers.
6. Re-adjust HV to obtain **32.2 ± 0.2 kV** by precision VR1 jig.
7. Remove shorts from C8002, C8021, and C8052.
8. Confirm that hold down does **not** activate.
9. Remove short from C8012 and C8015.
10. Remove VR1 jig from DZ board

3-7. IK PROTECTOR CHECK

Input Video Signal:.....All White Signal
Picture level:.....Picture/Brightness Adjustment

1. Short across C8015.
2. Set ABL current to 2.76mA by adjusting picture and brightness towards max condition.
3. Confirm that AC Relay shuts off.
4. Remove short from C8015 and Short across C8012.
5. Turn the set off and on to reset AC relay latch.
6. Confirm the voltage at CN5009 pin 8 (H_prot) = $3.6 \pm 0.5V$.
7. Remove short from C8012.

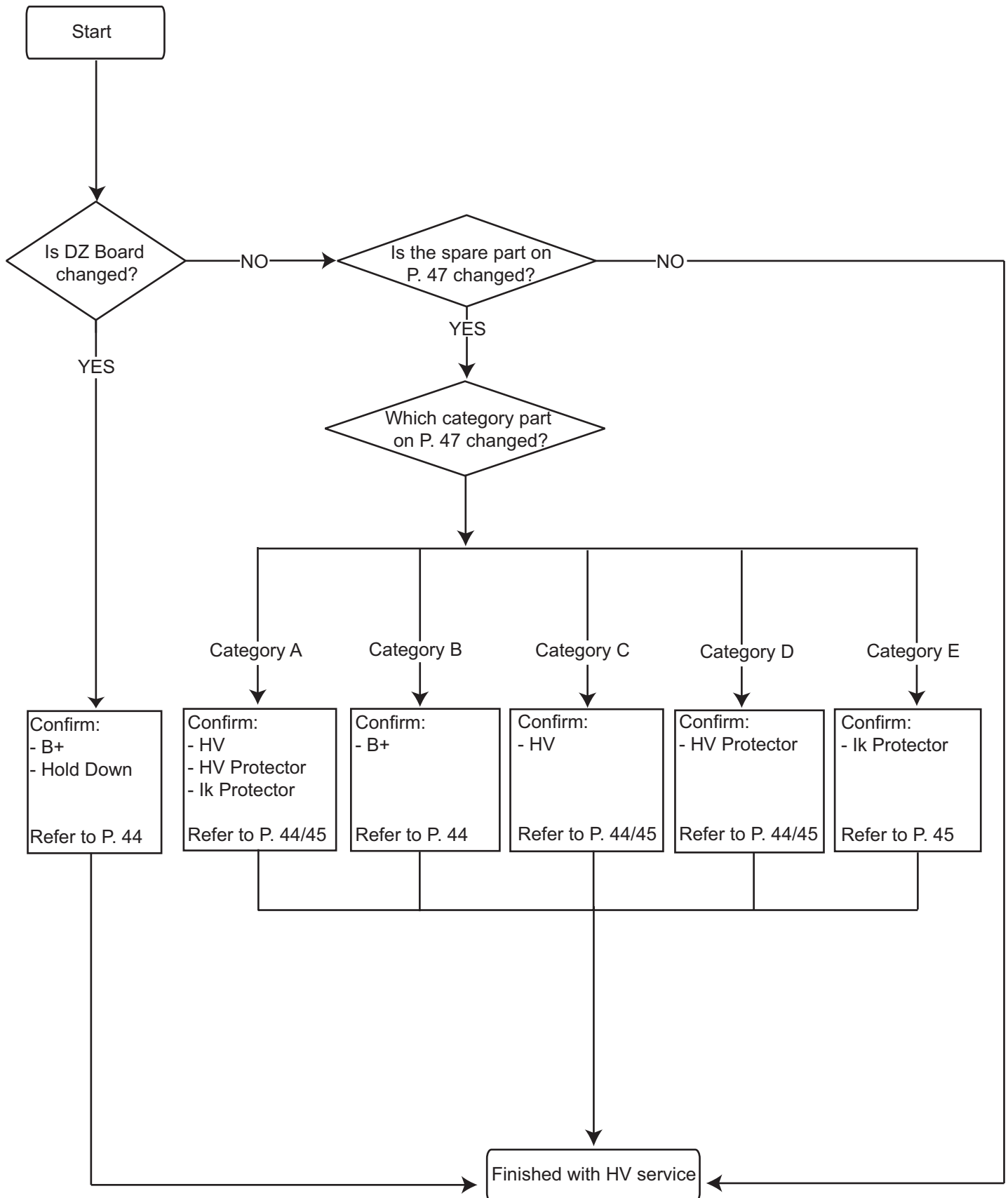
3-8. HOLD DOWN CHECK

1. Using an external DC power supply, apply $5.3 + 0.5 V_{dc}$ between Pin 2 of CN507 (jig connector) and ground (Pin 8) on AZ board.
2. Confirm that hold down activates.
3. Remove the external DC power supply.

3-9. RESTORATION

1. Re-solder CN5001 pin 1 and CN5009 pin 8 to restore AZ -DZ connections.
(Or as applicable, restore AZ -DZ connector by carefully pressing the tab back into the slot and snapping the connector shut. Be sure the tab is flush and level with the other tabs on the connector.)
2. Remove jumper wire from MZ board connection CN2304 pin 1 to CN509 pin 1.
3. Remove current meter from ABL pin and restore ABL pin connection.
4. Replace all DZ board screws and restore user menu settings to reset condition.

3-10.HS SERVICE FLOWCHART



HS SERVICE FLOWCHART TABLE

Ref. #	Category
T8001	A
R8015	C
R8017	C
R8019	D
R8035	E
R8036	E
R8037	E
R8038	E
R8039	E
R8040	E
R8043	E
R8078	D
R8165	D
IC8005	C
IC8104	D
R8012	C
R8014	C
R8016	D
R8021	C
R8027	E
R8029	E
R8030	E
R8031	E
R8046	D
R8052	D
R8059	C
R8060	C
R8066	C
R8072	D
R8079	D
R8082	E
R6590	B
D8022	D
PH8003	C
Q8007	E
Q8008	E
IC8001	D
IC8002	C
IC8004	C
IC6503	B

SECTION 4: CIRCUIT ADJUSTMENTS

ELECTRICAL ADJUSTMENTS BY REMOTE COMMANDER

Use the Remote Commander (RM-Y199, RM-Y201) to perform the circuit adjustments in this section.

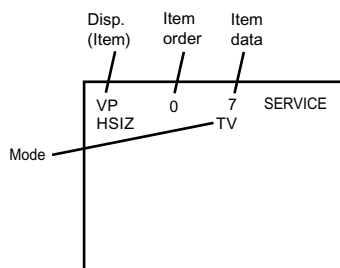
Test Equipment Required: 1. Pattern generator 2. Frequency counter 3. Digital multimeter 4. Audio oscillator

4-1. SETTING SERVICE ADJUSTMENT MODE

- Standby mode (Power off).
- Press the following buttons on the remote commander within a second of each other:

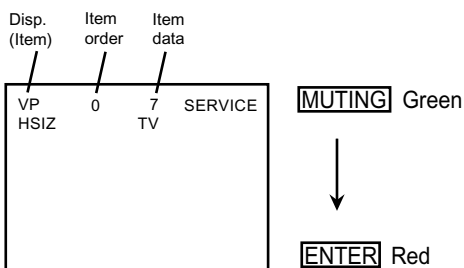
DISPLAY → Channel **5** → Sound Volume **+** → Power

4-1.1. SERVICE ADJUSTMENT MODE IN

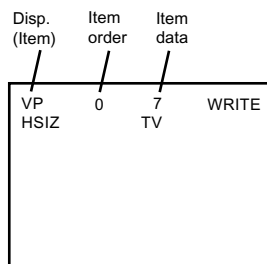


- The CRT displays the item being adjusted.
- Press **1** or **2** on the Remote Commander to select the item.
- Press **3** or **6** on the Remote Commander to change the data.
- Press **MUTING** then **ENTER** to write into memory.

4-1.2. SERVICE ADJUSTMENT MODE MEMORY



- Press **8** then **ENTER** on the Remote Commander to initialize.



- DO NOT turn off set until SERVICE appears.

4-1.3. READING THE MEMORY

- Enter into Service Mode.
- Press **0** on the Remote Commander.
- Press **ENTER** to read memory.

4-1.4. ADJUSTING THE PICTURE

- Enter into Service Mode
- Press **2** or **5** on the remote to select the device item.
- Press **1** or **4** on the remote to select an item.
- Press **3** or **6** on the remote to change the data.
- Press **MUTING** then **ENTER** to write into memory.

4-1.5. RESETTING THE DATA

CAUTION: Be careful when using the remote! It will clear and re-initialize ALL NVM data including deflection adjustment data if not reset properly as follows:

4-1.6. RESETTING THE MID NVM DATA

- Enter into Service Mode.
- Press **7** then **JUMP**, and then press **ENTER** on the remote.

4-1.7. RESETTING THE SYSTEM NVM DATA

- Enter into Service Mode.
(This resets DEFL adjust and video white balance.)
- Press **7** then **9**, and then press **ENTER** on the remote.

4-1.8. COPY FUNCTION

How to use copy function for DA4 Chassis:

- After writing your adjusted data into NVM, press **MUTING** then **ENTER** to write into memory.
To copy change copy data from **0** to **1** then press **MUTING** then **ENTER** again.

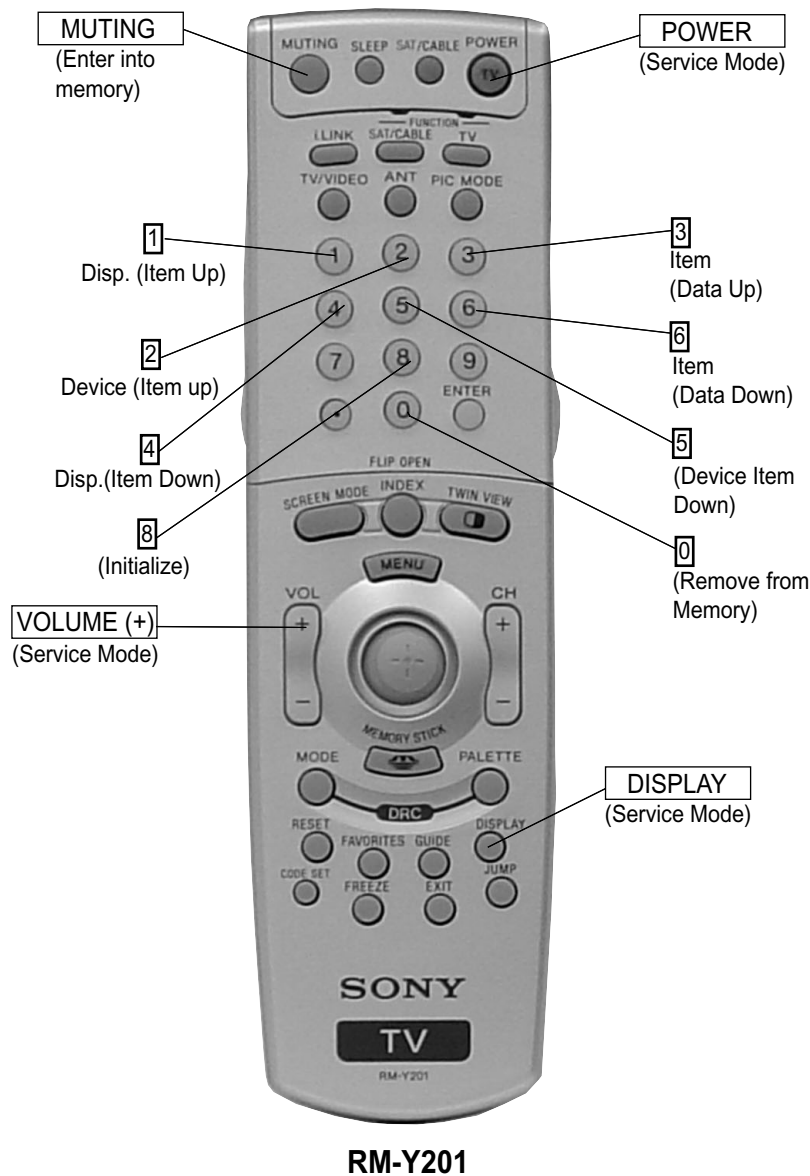
WARNING: DO NOT copy data before writing your corrected data in NVM. If data is copied before writing corrected data, old data will be copied.

- CPY1: DF/DQP DATA (CXA2170D-4 Item 6)

4-2. MEMORY WRITE CONFIRMATION METHOD

1. After adjustment, pull out the plug from the AC outlet, then replace the plug in the AC outlet again.
2. Turn the power switch ON and set to Service Mode.
3. Call the adjusted items again to confirm they were adjusted.

4-3. REMOTE ADJUSTMENT BUTTONS AND INDICATORS



4-4. SERVICE DATA

KD-34XBR960 SERVICE DATA ONLY VIDEO & AUDIO

Category	No	Item	Range	NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A	
VERSION	0	VER*	0,1	0 *				
	1	DMY1*	0-255	0 *				
3D-COMB	0	NRMD*	0-3	0 *				
	1	CLRS	0-3	1				
	2	NSDS*	0-3	0 *				
	3	MSS*	0-3	0 *				
	4	KILS*	0-3	1 *				
	5	FRZE*	0,1	0 *				
	6	EXCS	0-3	1				
	7	CDL	0-7	3				
					NRMD = 0	NRMD = 1	NRMD = 2	NRMD = 3
	8	DYCO	0-15	2	2	2	2	
	9	DYGA	0-15	10	10	10	10	
	10	DCCO	0-15	5	5	5	5	
	11	DCGA	0-15	5	5	5	5	
	12	WSC	0-2	1				
	13	WSS	0,1	0				
					Vivid	Standard	Movie	Pro
14	VAPG	0-7	4	2	2	0		
15	VAPI	0-31	4	4	4	0		
16	TEST*	0,1	0 *					
17	YPFT	0-3	3	3	3	3	3	
18	YPFG	0-15	9	6	7	5	5	
19	SEDC	0,1	0					
20	SEDY	0,1	1					
21	YHCO	0-3	1					
22	YHCG	0,1	0					
23	SYSP	0-3	0					
24	TES1*	0-7	0 *					

KD-34XBR960 SERVICE DATA ONLY VIDEO & AUDIO

Category	No	Item	Range	NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A	
2103-1				V5/V6/ATSC	Others	HDMI		
	0	YLEV	0-62	20	20	16		
	1	CLEV	0-63	25	17	17		
				RF	CV/YC			
	2	SCON	0-15	8	7			
	3	SCOL	0-15	4	5			
	4	SHUE	0-15	7	8			
	5	YDLY	0-3	0	0			
				RF	CV/YC	V5/V6	HDMI	ATSC
	6	SHAP	0-15	9	8	4	4	8
	7	SHPD	0-3	0	0	3	3	0
	8	PRE0	0-3	3	3	3	3	3
	9	BPFD	0-3	3				
	10	BPFO	0-3	2				
				RF	CV/YC			
	11	BPSW	0,1	1	0			
	12	TRAP	0,1	0				
	13	LPF	0,1	1				
				RF	CV/YC	Others		
	14	AFCG	0,1	1	0	0		
	15	CDMD	0-3	3	3	3		
	16	SSMD	0-3	0	0	0		
				RF	CV/YC	V5/V6	HDMI	ATSC
	17	HMSK	0,1	0	1	1	1	0
	18	HALI	0,1	0				
			RF	CV/YC	V5/V6	HDMI	ATSC	
19	PPHA	0-15	7	7	7	7	7	
			V5/V6	ATSC	Others			
20	CBO1	0-63	31	31	31			
21	CBO2	0-63	31	31	31			
			HDMI/ATSC					
22	CBO2	0-63	31					
23	CBO2	0-63	31					
			Single	BLK = 0	BLK = 1	BLK = 2	BLK = 3	
24	ATPD	0-3	0	1	1	2	0	
25	DCTR	0-3	0	2	1	3	0	
			Notes:					
			Settings applied to CXA2103 (M&S)					
			Settings also based on 2170P-4/BLK data					

KD-34XBR960 SERVICE DATA ONLY VIDEO & AUDIO

Category	No	Item	Range	NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A
2103-2				DRC		VDO	
	0	YLEV	0-63	24		41	
	1	CLEV	0-63	10		31	
					RF	CV/YC	
	2	SCON	0-15	8		6	
	3	SCOL	0-15	7		7	
	4	SHUE	0-15	7		9	
	5	YDLY	0-3	0		0	
	6	SHAP	0-15	6		8	
	7	SHFQ	0-3	0		0	
	8	PREO	0-3	3		3	
	9	BPF0	0-3	3			
	10	BPFQ	0-3	0			
					RF	CV/YC	
	11	BPSW	0,1	1		0	
	12	TRAP	0,1	0			
					DRC	VDO	
	13	LPF	0,1	1		0	
					RF	CV/YC	
	14	AFCG	0,1	1		0	
	15	CDMD	0-3	3		3	
16	SSMD	0-3	0		0		
17	HMSK	0,1	0		1		
18	HALI	0,1	0				
				RF	CV/YC		
19	PPHA	0-15	7		7		
20	CBQ1	0-63	37				
21	CRO1	0-63	33				

KD-34XBR960 SERVICE DATA ONLY VIDEO & AUDIO

Category	No	Item	Range	NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A									
2170P-1				DRC	HDMI	ATSC	V5/V6	PT								
	0	YOSW	0,1	1	0	0	0	1								
	1	TCOP*	0,1	0 *												
				DRC	VS&6			HDMI			MS / ATSC					
				RF/CV/YC	480i	480p	720p	1080i	480i	480p	720p	1080i	480i	480p	720p	1080i
	2	YOF	0-15	0	15	13	13	12	13	15	13	15	15	15	10	10
	3	CBOF	0-63	31	31	44	47	45	31	42	45	45	31	43	45	44
	4	CROF	0-63	31	31	42	46	45	31	41	46	47	31	42	47	47
					1080i PT											
	5	CBOP	0-63	36												
	6	CROP	0-63	37												
					Color Temp											
					Neutral											
	7	SBRT	0-63	24												
	8	RDRV	0-63	32												
	9	GDRV	0-63	22												
	10	BDRV	0-63	20												
	11	RCUT	0-63	32												
	12	GCUT	0-63	16												
	13	BCUT	0-63	22												
					Color Temp											
					Cool	Warm										
14	WBSW	0,1	0	0	0											
15	SBOF	0-15	7	7	7											
16	RDOF	0-63	31	31	31											
17	GDOF	0-63	31	26	26											
18	BDOF	0-63	34	16	16											
19	RCOF	0-63	31	31	31											
20	GCOF	0-63	31	27	27											
21	BCOF	0-63	34	19	19											
22	DCOL	0-3	1	0	0											
2170P-2	0	PICQ*	0,1	1 *	1 *	0 *										
	1	RGB5*	0-7	0 *	7 *	0 *										
	2	BLKB	0-3	3												
	3	RGBL	0-3	2												
	4	YLMT	0-3	3												
	5	AGNG*	0-3	2 *	0 *											
6	AKBO*	0,1	0 *													

Offset from V5/V6 480i's data

Note:
The WBSW setting in Warm
can be memorized in NVM.

KD-34XBR960 SERVICE DATA ONLY VIDEO & AUDIO

Category	No	Item	Range	NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A															
2170P-2				Other MS	ATSC i.Link	HDMI	ATSC PT	HDMI PT	Note; PT=Bypass MID (HDP1=0)													
	7	CLPP	0-3	3	3	3	3	3														
	8	CLPG	0-1	0	0	0	0	0														
	9	CLPS	0-1	0	0	0	0	0														
	10	PPAD	0-7	3	3	3	3	3														
	11	SYNP	0-1	0	0	0	0	0														
	12	HVBT	0-1	0																		
	2170P-3					RF	CV/YC	V5/V6				HDMI				MS	Twin	ATSC				
		0	SYSM	0-3		1	1	480i	480p	1080i	720p	480i	480p	VGA	1080i	720p	3	2	480i	480p	1080i	720p
		1	VMLV	0-15		7		1	2	3	3	1	2	3	3	3	3	3	1	2	3	3
		2	VMCR	0-3		1	2	2	0	0	0	2	0	0	0	0	0	3	2	0	0	0
		3	VMLM	0-3		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4		VMF0	0-3		1	1	1	1	0	0	1	1	1	0	0	0	1	1	1	0	0	
5		VMDL	0-15		7	5	7	7	15	15	7	7	7	15	15	15	7	7	7	15	15	
6		SHDF	0-3		2	2	2	2	2	1	2	2	2	2	1	2	2	2	2	2	1	
7		SHFO	0-1		1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
8		PROV	0-3		0	0	0	0	3	3	0	0	0	3	3	3	3	0	0	0	3	
9		F1LV	0-3		0	0	2	2	1	2	2	2	2	1	2	1	0	2	1	1	2	
10		LTLV	0-3		3	3	3	1	3	3	3	1	1	3	3	3	3	3	1	3	3	
11		LTMD	0-1		1	1	1	0	1	0	1	0	0	1	0	1	1	1	0	1	0	
12		CTLV	0-3		0	0	0	0	3	3	0	0	0	3	3	3	0	0	0	3	3	
13		UBOF	0-7		0	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	
14		UCOF	0-7		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
15		UHOF	0-3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16		MIDE	0-63		7	11	15	19	23	27	15	19	19	23	27	23	56	15	19	23	27	
						RF	CV/YC	V5/V6				HDMI				MS	Twin	ATSC				
0		SYSM	0-3		1	1	1	2	3	3	1	2	2	3	3	3	3	1	2	3	3	
1		VMLV	0-15		7		1	2	3	3	1	2	3	3	3	3	3	1	2	3	3	
2		VMCR	0-3		1	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	
3		VMLM	0-3		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
4		VMF0	0-3		1	1	1	1	0	0	1	1	1	0	0	0	1	1	1	0	0	
5		VMDL	0-15		7	5	7	7	15	15	7	7	7	15	15	15	7	7	7	15	15	
6		SHDF	0-3		2	3	2	0	0	1	2	0	0	0	1	0	2	2	0	0	1	
7		SHFO	0-1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
8		PROV	0-3		0	0	0	0	3	3	0	0	0	3	3	3	0	0	0	3	3	
9		F1LV	0-3		0	0	2	2	1	2	2	2	2	1	2	1	0	2	2	1	0	
10		LTLV	0-3		2	2	2	3	3	1	2	3	3	3	1	3	3	2	3	3	1	
11		LTMD	0-1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
12		CTLV	0-3		0	0	0	0	3	3	0	0	0	3	3	3	0	0	0	3	3	
13		UBOF	0-7		2	2	2	2	1	1	2	2	2	1	1	1	1	2	2	1	1	
14	UCOF	0-7		1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1		
15	UHOF	0-3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
16	MIDE	0-63		5	10	14	18	22	26	14	18	18	22	26	22	55	14	18	22	26		

KD-34XBR960 SERVICE DATA ONLY VIDEO & AUDIO

Category	No	Item	Range	MS	Other	Fix data	Adjustment data at CBA	Adjustment data at F/A														
2170P-4	0	YCON	0,1	1	1																	
				DRC	VDO (V5/V6)	VDO (HDMI)	MS / ATSC	PT	Note: PT = Pass Through (By pass MID)													
	1	SPIC	0-15	7	7	7	7	7														
	2	SCOL	0-63	32	32	32	32	32														
	3	SHUE	0-63	30	30	30	30	30														
	4	SPTO	0-15	4																		
	5	SCLO	0-15	9																		
	6	SHUD	0-15	7																		
					Vivid	Standard	Movie	Pro														
	7	UPIC	0-63	63	48	39	31															
	8	UBRT	0-63	31	31	31	31															
	9	UCOL	0-63	35	31	31	31															
	10	UHUE	0-63	31	31	31	31															
	11	USHP	0-63	24	29	31	31															
	12	UTMP	0-3	2	1	0	1															
					Normal	Special Axis																
	13	RZR	0-15	8	15																	
	14	RYB	0-15	9	15																	
	15	GYR	0-15	9	9																	
	16	GYB	0-15	6	3																	
					RF	CV/YC	V5/V6				HDMI				MS	Twin	ATSC					
							480i	480p	1080i	720p	480i	480p	VGA	1080i	720p			480i	480p	1080i	720p	
	17	GAMM	0-3		Vivid	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3
					Standard	1	1	1	2	1	1	2	1	1	1	1	2	1	1	1	1	1
					Movie	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
					Pro	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				GAMM = 0	GAMM = 1	GAMM = 2	GAMM = 3	Note: Settings based on GAMM data														
18	GAMS	0-15	0	8	8	8	8															
19	GAMR	0-15	0	4	6	12																
20	GAMG	0-15	0	4	6	12																
21	GAMB	0-15	0	4	6	12																
				RF	CV/YC	V5/V6				HDMI				MS	Twin	ATSC						
						480i	480p	1080i	720p	480i	480p	VGA	1080i	720p			480i	480p	1080i	720p		
22	BLK	0-3		Vivid	3	3	3	3	3	3	3	3	3	3	3	0	3	3	3	3		
				Standard	2	2	2	2	2	2	2	2	2	2	2	0	2	2	2	2		
				Movie	0	0	1	0	1	0	0	1	0	1	0	1	0	1	0	3		
				Pro	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
				BLK = 0	BLK = 1	BLK = 2	BLK = 3	Note: Settings based on BLK data														
23	DCTR	0-15	0	1	7	12																
24	APED	0-3	0	0	1	2																
25	DSBO	0-15	7	7	7	7																
26	IDSW*	0-7	0*																			
				BLK = 0	BLK = 1	BLK = 2	BLK = 3	Note: Settings based on BLK data														
27	ABLW	0-3	0	1	0	1																

KD-34XBR960 SERVICE DATA ONLY VIDEO & AUDIO

Category	No	Item	Range	NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A		
2170P-4				Single					
				Others	MS 1080Vcom VGA	Others			
	28	ABLT	0-15	0	7	7			
	29	SPOF	0-31	0					
	30	DPSQ	0,1	1	0	1	1	Note: Settings based on BLK data	
	31	LRGB	0-15	3					
CXA2171				V5/V6/ATSC 1080i/720p	HDMI uTiny/s60_00 Byte1/Bit6=1	HDMI uTiny/s60_00 Byte1/Bit6=0	Others		
	0	MTRX*	0-3	1 *	1 *	0 *	0 *		
				PT	Others	HDMI			
	1	GAIN	0-3	0	0	0			
				V5 480p/ 720p/1080i/ No Sync	V6 480p/ 720p/1080i/ No Sync	HDMI 480p/ 720p/1080i/ No Sync	ATSC 720p/1080i	ATSC 480p/MS	Others
	2	FIXS	0-3	3	3	3	2	3	1
				PT	Others	HDMI			
	3	CBGN	0-15	8	5	3			
	4	CRGN	0-15	8	4	3			
	5	YGN	0-15	8	4	3			
				V5/V6-1080i/MS	HDMI 1080i	Other			
	6	VTC	0-3	0	0	0			
			Tristate=1	Tristate=0					
7	HTC*	0,1	0 *	1 *					
			V5/V6-1080i/MS	HDMI 1080i	Other				
8	HWID	0-3	1	1	1				
9	MSEP	0,1	1	1	1				
			V5&6/DVI/MS 1080i	Others					
10	HMSK*	0,1	0 *	1 *					
			V5 480p/ 720p/1080i/ No Sync	V6 480p/ 720p/1080i/ No Sync	HDMI 480p/ 720p/1080i/ No Sync	ATSC 720p/1080i	ATSC 480p/MS	Others	
11	FRGB	0,1	0	0	0	0	0	0	
			ATSC 720p/1080i	Others					
12	HYSW	0,1	1	0					

KD-34XBR960 SERVICE DATA ONLY VIDEO & AUDIO

Category	No	Item	Range		NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A
CCD	0	HPRM	0-255	60				
	1	HPRS	0-255	60				
	2	YSVM	0,1	0				
	3	CCDI	0-7	3				
	4	CRIP	0-7	4				
	5	PHLD	0,1	0				
	6	CHMK	0-63	54				
	7	LANG*	0-15	0 *				
	8	DATA	0,1	0				
	9	VCHP	0,1	0				
	10	CLMP	0,1	0				
	11	SYSV	0-7	4				
	12	ID1	0,1	1				
	13	ID1M*	0-7	1 *				
	14	FPOL	0,1	0				
	15	BWHT	0,1	0				
	16	MESH	0,1	0				
	17	BNBB	0-3	1				
	18	BNBG	0-3	1				
	19	BNBR	0-3	0				
	20	CMP1	0-7	2				
	21	CMP2	0-7	5				
	22	CMP3	0-7	3				
	23	CWHT	0-7	3				
	24	VSDW	0,1	1				
	25	BFR0	0,1	0				
	26	BPOS	0,1	0				
	27	BFRM	0,1	1				
28	BTIM	0,1	0					
3DNR	0	WHCT	0-63	44				
	1	NIQM	0,1	1				
	2	CLPW	0-63	30				
	3	CLPP	0-255	80				
	4	YHBW	0-255	138				
	5	YBKL	0-15	0				
	6	YBKO	0,1	0				
	7	MUTE	0,1	0				
	8	YHBS	0-127	40				
	9	CHBW	0-255	138				
	10	CBKO	0-127	40				
	11	CHBO	0,1	0				
	12	VHBL	0-15	0				
	13	UHBL	0-15	0				
	14	UVDL	0-7	0				
	15	YDL	0-7	0				
	16	PVDI	0,1	0				
	17	PHDI	0,1	0				
	18	HDW	0-63	16				
	19	PVDO	0,1	0				
	20	PHDO	0,1	0				
	21	HST	0-255	54				
	22	VDL	0-15	0				
	23	VDW	0-15	3				
	24	NDET	0-15	0				
	25	NVP	0-15	2				
	26	NDTS	0-3	3				
	27	HROF	0,1	0				
	28	NDGW	0-15	9				
29	UOFS	0-7	1					

KD-34XBR960 SERVICE DATA ONLY VIDEO & AUDIO

Category	No	Item	Range	NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A			
DRCV	0	MFVR	0,1	0						
	1	ISEL	0,1	1						
	2	ORES	0-255		RF	CV/YC	V5/V6-480i	HDMI	ATSC	
				Vivid	128	128	128	128	128	
				Standard	128	128	128	128	128	
				Movie	128	128	133	133	133	
				Pro	128	128	133	133	133	
	3	ONCT	0-255		RF	CV/YC	V5/V6-480i	HDMI	ATSC	
				Vivid	128	128	128	128	128	
				Standard	128	128	128	128	128	
				Movie	128	128	128	128	128	
				Pro	128	128	128	128	128	
	4	SINI	0-127	0	49	79	No service list, only NVM data in user			
	5	SINI	0-127	24	54	89				
	6	FMAT	0,1	0						
	7	FMTH	0-3		RF	Others				
				1	1					
	8	FSEL	0,1	1						
	9	CDLY	0-3	2						
	10	LMIT	0,1	0						
11	LMLV	0-3		Vivid	Standard	Movie	Pro			
			2	2	2	2				
12	LMSL	0,1	1							
13	VDLY	0-3	1							
14	VDRP	0-3	3							
15	WPLL	0-3	2							
16	CRCT	0,1	0							
17	NRA	0-255		SNNR = 1	SNNR = 2	SNNR = 3	SNNR = 4	SNNR = 5	SNNR = 6	SNNR = 7
			0	0	0	0	0	0		
18	NRB	0-255	128	128	128	128	128	128	128	

Category	No	Item	Range	NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A			
OP	0	DLY1	0-31	4						
	1	DLY2	0-31	12						
	2	DLY3	0-15	7						
	3	OSDH	0-255	17						
	4	HDPT	0,1		Vivid	Standard	Movie	Pro	Expansion Zoom or Zoom-H	Note: HDPT=0 Bypass MID
				1	1	1	1	1		
	5	AACK*	0-3	3 *						
6	DINI*	0,1	0 *							
7	RAMW*	0-3	0 *							

KD-34XBR960 SERVICE DATA ONLY DEFLECTION

Category	No	Item	Range	*	NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A			
2170D-1	0	VPOS	V Position	0-63	26						
	1	VSIZ	V Size	0-63	39						
					1080Full	Others	Note: Used for PJ only				
	2	VSZO	V Size Offset	0-63	0						
					WideZoom	Others					
	3	VLIN		0-15	7	7					
	4	VSCO		0-15	10	7					
	5	VCEN		0-63	19						
					1080Vcomp	Others	Expansion Zoom or Zoom-V				
	6	VPIN		0-31	15	15					
	7	MVPN		0-3	0						
	8	NSCO		0-63	31						
	9	HTPZ		0-31	15						
	10	MHTZ		0-3	0						
					WideZoom	Zoom	Others	Expansion Zoom or Zoom-V			
	11	ZOOM		0,1	1	1	0	1			
				WideZoom	Zoom	480Full	1080Full	1080Vcomp	480Vcomp	HD (1080i/720p) Expansion Zoom or Zoom-V	SD (16:9 Aspect signal) Expansion Zoom or Zoom-V
12	APSW		0,1	1	1	0	0	1	1	None	
13	ASPT		0-63	22	43	3	0	47	3	43	None
14	SCRL		0-63	31	31	31	31	31	31	31	None
				WideZoom	Others						
15	UVLN		0-15	4	0						
16	LVLN		0-15	4	0						
Note: Data variation for 16x9/4x3 models											
2170D-2	0	HCNT		0-63	31						
					1080Full	Others					
	1	HPOS		0-63	29	31					
					WideZoom	Others	Note: Different settings used for KV-34/30XBR910 models				
	2	HSIZ		0-63	56	50					
	3	SLIN		0-15	10	4					
	4	MPIN		0-15	11	10					
					WideZoom	Others	1080i				
5	PIN		0-63	18	12	12					
				WideZoom	Zoom	480Full	1080Full	1080Vcomp	480Vcomp		
6	PINO		0-15	7	7	7	9	7			
				WideZoom	Others	1080i					
7	UCP		0-63	38	35	35					
8	LCP		0-63	38	35	35					

KD-34XBR960 SERVICE DATA ONLY DEFLECTION

Category	No	Item	Range	*	NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A			
2170D-2				Others	1080i						
	9	UXCG	0-3	0	0						
	10	LXCG	0-3	0	0						
	11	UXCP	0-3	2	2						
	12	LXCP	0-3	2	2						
	13	XCPP	0-1	0	0						
				WideZoom	Others						
	14	PPHA	0-63	21	21						
	15	VANG	0-63	31							
	16	LANG	0-63	31							
17	VBOW	0-63	31								
18	LBOW	0-63	31								
2170D-3	0	HBLK	0,1	1							
				1080Full	Others						
	1	LBLK	0-63	50	51						
	2	RBLK	0-63	31	27						
				WideZoom	Zoom	480Full	480Vcomp	Expansion Zoom or Zoom-V	Note: Data variation for 16x9/4x3 models		
	3	VBLK	0,1	0	0	1	1	0			
				WideZoom	Zoom	480Full	1080Full	1080Vcomp	480Vcomp	HD (1080i/720p) Expansion Zoom or Zoom-V	
	4	TBLK	0-15	12	7	2	4	10	2	7	None
	5	BBLK	0-15	15	7	8	6	13	8	7	None
				1080Full	Others					Note: Data variation for 16x9/4x3 models	
6	AFCM	0-3	2	3							
			1080Vcomp	Others	Expansion Zoom or Zoom-V	Note: Data variation for 16x9/4x3 models					
7	JUMP	0,1	0	0							
			WideZoom	Zoom	480Vcomp	1080Full	1080Vcomp	HD (1080i/720p) Expansion Zoom or Zoom-V	SD (16:9 Aspect signal) Expansion Zoom or Zoom-V		
8	VDJP	0,1	1	1	0	1	1	1	1	None	
			1080Vcomp	Others							
9	VDST	0,1	0	0							
			WideZoom	Zoom	480Vcomp	1080Full	1080Vcomp	HD (1080i/720p) Expansion Zoom or Zoom-V	SD (16:9 Aspect signal) Expansion Zoom or Zoom-V		
10	AKBT	0-31	15	15	20	16	16	15	15	None	

KD-34XBR960 SERVICE DATA ONLY DEFLECTION

Category	No	Item	Range	•	NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A
2170D-4	0	OPAM	0-63	1080Vcomp 480Vcomp	Others			
	1	OPAV	0-63	41	22			
	2	OPAP	0-15	6	6			
	3	OPDC	0-63	43	43			
	4	OPDV	0-63	55	55			
	5	QPDP	0-15	6	6			
	6	CPY1	0-1	0.7				
	7	DF	0-63	34				
8	DQP	0-63	30					
2170D-5	0	VFRQ	0-3	1				
	1	VOM	0-1	1.5				
	2	EWDC	0-1	0				
	3	MS15	0-1	0				
	4	HFRD	0-255	80				
	5	HFRX	0-63	25				
	6	VMPS	0-1	0				
	7	INTR	0-1	0				
	8	VLNL	0-3	0				
	9	VLNH	0-255	0				
10	AGCS	0-1	0					
D-CONV (CX8070)	0	YBWU	0-63	31				
	1	YBWL	0-63	31				
	2	RSAP	0-63	31				
	3	RUMB	0-63	31				
	4	RUBW	0-63	31				
	5	RLMB	0-63	31				
	6	RLBW	0-63	31				
	7	LSAP	0-63	31				
	8	LUMB	0-63	31				
	9	LUBW	0-63	31				
	10	LLMB	0-63	31				
	11	LLBW	0-63	31				
	12	CADJ	0-63	23				
13	HUCA	0-63	63					
14	SRSP	0-63	63					
15	SRUM	0-63	31					
16	SRUB	0-63	63					
17	SRLM	0-63	31					
18	SRLB	0-63	63					
19	SLSP	0-63	57					
20	SLUM	0-63	31					
21	SLUB	0-63	63					
22	SLLM	0-63	31					
23	SLLB	0-63	63					

KD-34XBR960 SERVICE DATA ONLY MID

Category	No	Item	Range	NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A	
MID1	0	DHPH	d_h_phase	0-255	108			
	1	DVPH	d_v_phase	0-63	20			
	2	DHAR	d_h_area	0-255	240			
	3	DVAR	d_v_area	0-255	135			
	4	DHPW	d_h_pwidth	0-63	55			
	5	DVPW	d_v_pwidth	0-7	5			
					Single	Twin	Freeze	Favorites
					480i	Others		Index
	6	DYCD	d_yc_delay	0-63	1	0	2	2
					Table-0	Table-1	Table-2	Table-3
	7	DYSD	d_ys_delay	0-7	7	4	2	1
					VGA	Single	Others	Favorites
					Normal	Others	Normal	Others
	8	MDHP	m_dsp_hpos	0-255	174	72	156	0
								40
								41
					Single			Favorites
					480i/480p	VGA	Others	VGA
	9	MDVP	m_dsp_vpos	0-255	30	66	0	34
								34
					VGA	Single	Others	Favorites
					Normal	Others	Normal	Others
	10	MDHS	m_dsp_hsiz	0-255	153	204	162	240
								155
								119
				Single			Favorites	
				480i/480p	VGA	Others	VGA	
11	MDVS	m_dsp_vsiz	0-255	120	102	135	103	
							103	
				Twin/Freeze	Favorites	Index		
12	MLHP		0-255	36	31	31		
13	MLVP		0-255	8	30	30		
				Favorites				
14	SDHP	s_dsp_hpos	0-255	167				
15	SDVP	s_dsp_vpos	0-255	9				
16	SDHS	s_dsp_hsiz	0-255	115				
17	SDVS	s_dsp_vsiz	0-255	79				
18	PDHP		0-255	0				
19	PDVP		0-255	0				
20	PDHS		0-255	0				
21	PDVS		0-255	0				
				1080i Single	Others			
22	DPSW	dsp_pll_sw	0,1	0	0			
23	MDLO		0-63	12				
				Single	Others	MemoryStick	Others	
24	BCOL	d_back_y	0-15	0	0	0	0	
25	DYSS	d_ys_skt	0-3	1				
				Index				
26	OSDH		0-63	32				
27	OSDV		0-63	16				

KD-34XBR960 SERVICE DATA ONLY MID

Category	No	Item	Range		NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A				
MID2				Single	480i V5/V6		YC		480i HDMI/ATSC		480i Expand	
					Normal	Others	Normal	Others	Normal	Others	Normal	Others
	0	DRHP	drc_hactv_pos 0-255		153	120	154	117	145	108	153	224
	1	DRHS	drc_hactv_sz 0-255		162	180	162	180	162	180	162	125
	2	DRVP	drc_vactv_pos 0-63	37	37	37	37	37	37	37	37	
	3	DRVS	drc_vactv_sz 0-255	120	120	120	120	120	120	120	120	
					480i V5/V6		YC	480i HDMI/ATSC		Expansion		
	0	DRHP	drc_hactv_pos 0-255	146	148	140	146					
	1	DRHS	drc_hactv_sz 0-255	164	164	164	164					
	2	DRVP	drc_vactv_pos 0-63	57	57	57	57					
	3	DRVS	drc_vactv_sz 0-255	110								
					YC							
	0	DRHP	drc_hactv_pos 0-255	153								
	1	DRHS	drc_hactv_sz 0-255	164								
	2	DRVP	drc_vactv_pos 0-63	57								
	3	DRVS	drc_vactv_sz 0-255	110								
					480i V5/V6		YC	480i HDMI/ATSC		Expansion		
	0	DRHP	drc_hactv_pos 0-255	153	153	144	153					
	1	DRHS	drc_hactv_sz 0-255	162	162	162	162					
	2	DRVP	drc_vactv_pos 0-63	57	57	57	57					
	3	DRVS	drc_vactv_sz 0-255	110	110	110	110					
					480i V5/V6		YC		480i HDMI/ATSC		Expansion	
					Full	Vcomp	Full	Vcomp	Full	Vcomp	Full	Vcomp
	0	DRHP	drc_hactv_pos 0-255	140	140	140	140	132	132	140	140	
	1	DRHS	drc_hactv_sz 0-255	165	165	165	165	165	165	165	165	
	2	DRVP	drc_vactv_pos 0-63	37	57	37	57	37	57	37	57	
	3	DRVS	drc_vactv_sz 0-255	120	110	120	110	120	110	120	110	
					YC							
	0	DRHP	drc_hactv_pos 0-255	153								
	1	DRHS	drc_hactv_sz 0-255	164								
	2	DRVP	drc_vactv_pos 0-63	57								
	3	DRVS	drc_vactv_sz 0-255	110								
					480i V5/V6		YC		480i HDMI/ATSC		Expansion	
					Full	Vcomp	Full	Vcomp	Full	Vcomp	Full	Vcomp
	0	DRHP	drc_hactv_pos 0-255	140	140	140	140	134	134	140	140	
	1	DRHS	drc_hactv_sz 0-255	165	165	165	165	165	165	165	165	
	2	DRVP	drc_vactv_pos 0-63	37	57	37	57	37	57	37	57	
	3	DRVS	drc_vactv_sz 0-255	120	110	120	110	120	110	120	110	
					YC							
	0	DRHP	drc_hactv_pos 0-255	158								
	1	DRHS	drc_hactv_sz 0-255	162								
	2	DRVP	drc_vactv_pos 0-63	57								
	3	DRVS	drc_vactv_sz 0-255	110								

Note: AV-Multi (RGB)=HDMI/ATSC (w/o MS)
AV-Multi (YPbPr)=Expansion

KD-34XBR960 SERVICE DATA ONLY MID

Category	No	Item	Range	NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A	8	9	10	11	12	13	14	15	
MIDS	0	POP	0-63	0	1	2	3	4	5	6	7	8	9	10	11	
	1	MHLY m_hlpl_ycoef	0-3	1	1	1	1	1	1	1	1	1	1	1	1	
	2	MHLC m_hlpl_ccoef	0-3	3	3	3	3	3	3	3	3	3	3	3	3	
	3	MVLY m_vlpl_ycoef	0-3	0	0	0	0	0	0	0	0	0	0	0	0	
	4	MVLC m_vlpl_ccoef	0-3	0	0	0	0	0	0	0	0	0	0	0	0	
	5	MHYR m_henh_ycore	0-3	0	1	1	1	2	2	3	2	0	0	2	2	0
	6	MHYL m_henh_yclip	0-3	0	1	1	1	1	2	2	2	0	1	2	1	1
	7	MHYE m_henh_yesh	0-7	0	2	5	5	6	7	7	7	5	2	4	7	2
	8	MHYO m_henh_ycof	0-1	0	1	1	1	1	1	1	1	0	1	1	1	1
	9	MHCR m_henh_ccore	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0
	10	MHCL m_henh_cclip	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0
	11	MHCE m_henh_cenh	0-7	0	0	0	0	0	0	0	0	0	0	0	0	0
	12	MHCO m_henh_ccof	0-1	0	0	0	0	0	0	0	0	0	0	0	0	0
	13	MVYR m_venh_ycore	0-3	0	0	0	0	1	2	2	2	0	0	0	0	0
	14	MVYL m_venh_yclip	0-3	0	0	0	0	1	1	1	1	0	1	1	1	2
	15	MVYE m_venh_yesh	0-7	0	0	0	0	0	0	0	0	0	0	0	0	0
	16	MVCR m_venh_ccore	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0
	17	MVCL m_venh_cclip	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0
18	MVCE m_venh_cenh	0-7	0	0	0	0	0	0	0	0	0	0	0	0	0	

POP	Format
0	RF P
1	snnr
2	RF M
3	snnr
4	snnr
5	RF S
6	snnr
7	RF V
8	CVYC P
9	CVYC M
10	CVYC S
11	CVYC V
12	VS/V6 480i All 480i P
13	VS/V6 480i All 480i M
14	VS/V6 480i All 480i S
15	VS/V6 480i All 480i V
16	VS/V6 480p All 480p P
17	VS/V6 480p All 480p M
18	VS/V6 480p All 480p S
19	VS/V6 480p All 480p V
20	VS/V6 1080i All 1080i P
21	VS/V6 1080i All 1080i M
22	VS/V6 1080i All 1080i S
23	VS/V6 1080i All 1080i V
24	VS/V6 720p All 720p P
25	VS/V6 720p All 720p M
26	VS/V6 720p All 720p S
27	VS/V6 720p All 720p V
28	HDMI 480i not assigned
29	HDMI 480i not assigned
30	HDMI 480i not assigned
31	HDMI 480i not assigned
32	HDMI 480p not assigned
33	HDMI 480p not assigned
34	HDMI 480p not assigned
35	HDMI 480p not assigned
36	HDMI 1080i not assigned
37	HDMI 1080i not assigned
38	HDMI 1080i not assigned
39	HDMI 1080i not assigned
40	HDMI 720p not assigned
41	HDMI 720p not assigned
42	HDMI 720p not assigned
43	HDMI 720p not assigned
44	Memory Stic not assigned
45	Memory Stic not assigned
46	Memory Stic not assigned
47	Memory Stic not assigned
48	HDMI 480i not assigned
49	HDMI 480i not assigned
50	HDMI 480i not assigned
51	HDMI 480i not assigned
52	HDMI 480p not assigned
53	HDMI 480p not assigned
54	HDMI 480p not assigned
55	HDMI 480p not assigned
56	HDMI 1080i not assigned
57	HDMI 1080i not assigned
58	HDMI 1080i not assigned
59	HDMI 1080i not assigned

KD-34XBR960 SERVICE DATA ONLY MID

Category	No	Item	Range		NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A													
MIDS	0	POP	0-63	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63		
	1	MHLI	m_hlpl_ycoef	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	MHLC	m_hlpl_ccoef	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3	MVLY	m_vlpl_ycoef	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4	MVLC	m_vlpl_ccoef	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5	MHYR	m_henh_ycore	0-3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	MHYL	m_henh_yclip	0-3	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	7	MHYE	m_henh_yenh	0-7	7	0	4	2	5	0	0	0	0	0	0	0	0	0	0	0	0
	8	MHYO	m_henh_ycof	0-1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9	MHCR	m_henh_ccore	0-3	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	10	MHCL	m_henh_cclip	0-3	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	11	MHCE	m_henh_cenh	0-7	4	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0
	12	MHCO	m_henh_ccof	0-1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	13	MVYR	m_venh_ycore	0-3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	14	MVYL	m_venh_yclip	0-3	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	15	MVYE	m_venh_yenh	0-7	6	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0
	16	MVCO	m_venh_ccore	0-3	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	17	MVCL	m_venh_cclip	0-3	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
18	MVCE	m_venh_cenh	0-7	4	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	
					Memory stick																
	19	SHLY	s_hlpl_ycoef	0-7	0																
	20	SHLC	s_hlpl_ccoef	0-7	0																
	21	SVLY	s_vlpl_ycoef	0-7	0																
	22	SVLC	s_vlpl_ccoef	0-7	0																
	23	SHYR	s_henh_ycore	0-3	0																
	24	SHYL	s_henh_yclip	0-3	0																
	25	SHYE	s_henh_yenh	0-7	0																
	26	SHYO	s_henh_ycof	0-1	0																
	27	SHCR	s_henh_ccore	0-3	0																
	28	SHCL	s_henh_cclip	0-3	0																
	29	SHCE	s_henh_cenh	0-7	0																
	30	SHCO	s_henh_ccof	0-1	0																
	31	SVYR	s_venh_ycore	0-3	0																
	32	SVYL	s_venh_yclip	0-3	0																
	33	SVYE	s_venh_yenh	0-7	0																
	34	SVCO	s_venh_ccore	0-3	0																
	35	SVCL	s_venh_cclip	0-3	0																
	36	SVCE	s_venh_cenh	0-7	0																
CXA3506R	0	MCON		0.1	64	64															
	1	SCOR		0-255	128	128															
	2	SCOG		0-255	128	128															
	4	SCOB		0-255	128	128															
	4	ROB		0-255	0	0															

60 HDMI 720p not assigned
 61 HDMI 720p not assigned
 62 HDMI 720p not assigned
 63 HDMI 720p not assigned

KD-30XS955/34XS955/36XS955 SERVICE DATA ONLY VIDEO & AUDIO

Category	No	Item	Range	V5/V6/ATSC	Others	HDMI	Fix data	Adjustment data at CBA	Adjustment data at F/A
2103-1	0	YLEV	0-62	20	20	16			
	1	CLEV	0-63	25	17	17			
	2	SCON	0-15	8	7				
	3	SCOL	0-15	4	5				
	4	SHUE	0-15	7	8				
	5	YDLY	0-3	0	0				
	6	SHAP	0-15	9	8	4	4	8	
	7	SHFO	0-3	0	0	3	3	0	
	8	PREO	0-3	3	3	3	3	3	
	9	BPFO	0-3	3					
	10	BPFO	0-3	2					
	11	BPSW	0,1	1	0				
	12	TRAP	0,1	0					
	13	LPF	0,1	1					
	14	AFCG	0,1	1	0	0			
	15	CDMD	0-3	3	3	3			
	16	SSMD	0-3	0	0	0			
	17	HMSK	0,1	0	1	1	1	0	
	18	HALI	0,1	0					
	19	PPHA	0-15	7	7	7	7	7	
	20	CBO1	0-63	31	31	31			
	21	CBO1	0-63	31	31	31			
	22	CBO2	0-63	31					
	23	CBO2	0-63	31					
	24	ATPD	0-3	0	1	1	2	0	
25	DCTR	0-3	0	2	1	3	0		

Notes:
 Settings applied to CXA2103 (M&S)
 Settings also based on 2170P-4/BLK data

KD-30XS955/34XS955/36XS955 SERVICE DATA ONLY VIDEO & AUDIO

Category	No	Item	Range	NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A
2103-2				DRC		VDO	
	0	YLEV	0-63	0	0		
	1	CLEV	0-63	0	0		
				RF		CV/YC	
	2	SCON	0-15	0	6		
	3	SCOL	0-15	0	8		
	4	SHUE	0-15	0	8		
	5	YDLY	0-3	0	0		
	6	SHAP	0-15	0	8		
	7	SHFO	0-3	0	0		
	8	PREO	0-3	0	3		
	9	BPF0	0-3	3			
	10	BPFQ	0-3	0			
				RF		CV/YC	
	11	BPSW	0,1	0	0		
	12	TRAP	0,1	0			
				DRC		VDO	
	13	LPF	0,1	0	0		
				RF		CV/YC	
	14	AFCG	0,1	0	0		
	15	CDMD	0-3	0	3		
16	SSMD	0-3	0	0			
17	HMSK	0,1	0	1			
18	HALI	0,1	0				
			RF		CV/YC		
19	PPHA	0-15	0	7			
20	CBO1	0-63	37				
21	CRO1	0-63	33				

KD-30XS955/34XS955/36XS955 SERVICE DATA ONLY VIDEO & AUDIO

Category	No	Item	Range	NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A									
2170P-1				DRC	HDMI	ATSC	V5/V6	PT								
				CV/YC	480i											
	0	YOSW	0,1	1	0	0	0	1								
	1	TCOF*	0,1	0 *												
				DRC	V5&6			HDMI	MS / ATSC							
				RF/CV/YC	480i	480p	720p	1080i	480i	480p	720p	1080i	480i	480p	720p	1080i
	2	YOF	0-15	0	15	13	13	12	13	15	15	15	15	10	10	
	3	CBOF	0-63	31	31	44	47	45	31	42	45	45	31	43	45	44
	4	CROF	0-63	31	31	42	46	45	31	41	46	47	31	42	47	47
				1080i PT												
	5	CBOP	0-63	36												
	6	CROP	0-63	37												
				Color Temp												
				Neutral												
	7	SBRT	0-63	24												
	8	RDRV	0-63	32												
	9	GDRV	0-63	22												
	10	BDRV	0-63	20												
	11	RCUT	0-63	32												
	12	GCUT	0-63	16												
	13	BCUT	0-63	22												
				Color Temp												
			Cool	Warm												
14	WBSW	0,1	0	0												
15	SBOF	0-15	7	7												
16	RDOF	0-63	31	31												
17	GDOF	0-63	31	26												
18	BDOF	0-63	34	16												
19	RCOF	0-63	31	31												
20	GCOF	0-63	31	27												
21	BCOF	0-63	34	19												
22	DCOL	0-3	1	0												
2170P-2				Blanking On	Blanking Off	Power Off										
	0	PICO*	0,1	1 *	1 *	0 *										
	1	ROES*	0-7	0 *	7 *	0 *										
	2	BLKB	0-3	3												
	3	RGBL	0-3	2												
	4	YLMT	0-3	3												
				Aging On	Aging Off											
	5	AGNG*	0-3	2 *	0 *											
	6	AKBO*	0,1	0 *												
				Other	ATSC	HDMI	ATSC	HDMI	Note; PT=Bypass MID (HDPT=0)							
				MS	i.Link		PT	PT								
	7	CLPP	0-3	3	3	3	3	3								
8	CLPG	0,1	0	0	0	0	0									
9	CLPS	0,1	0	0	0	0	0									
10	PPAD	0-7	3	3	3	3	3									
11	SYNP	0,1	0	0	0	0	0									
12	HVBT	0,1	0													

KD-30XS955/34XS955/36XS955 SERVICE DATA ONLY VIDEO & AUDIO

Category	No	Item	Range	NOT be memorized	Fix data	Adjustment data at CBA				Adjustment data at F/A				MS	Twin	ATSC					
						RF	CV/YC	V5/V6				HDMI				480i	480p	1080i	720p		
								480i	480p	1080i	720p	480i	480p							VGA	1080i
2170P-3	0	SYSM	0-3																		
	1	VMLV*	0-15																		
	2	VMCR	0-3																		
	3	VMLM	0-3																		
	4	VMFD	0-3																		
	5	VMDL	0-15																		
	6	SHOF	0-3																		
	7	SHFD	0-1																		
	8	PROV	0-3																		
	9	FILV	0-3																		
	10	LTLV	0-3																		
	11	LTMD	0-1																		
	12	CTLV	0-3																		
	13	UBOF	0-7																		
	14	UCOF	0-7																		
	15	UHOF	0-3																		
	16	MIDE	0-63																		
	0	SYSM	0-3																		
	1	VMLV*	0-15																		
	2	VMCR	0-3																		
	3	VMLM	0-3																		
	4	VMFD	0-3																		
	5	VMDL	0-15																		
	6	SHOF	0-3																		
	7	SHFD	0-1																		
	8	PROV	0-3																		
	9	FILV	0-3																		
	10	LTLV	0-3																		
	11	LTMD	0-1																		
	12	CTLV	0-3																		
	13	UBOF	0-7																		
	14	UCOF	0-7																		
	15	UHOF	0-3																		
	16	MIDE	0-63																		
	0	SYSM	0-3																		
	1	VMLV*	0-15																		
	2	VMCR	0-3																		
	3	VMLM	0-3																		
	4	VMFD	0-3																		
	5	VMDL	0-15																		
	6	SHOF	0-3																		
	7	SHFD	0-1																		
	8	PROV	0-3																		
	9	FILV	0-3																		
	10	LTLV	0-3																		
	11	LTMD	0-1																		
	12	CTLV	0-3																		
	13	UBOF	0-7																		
	14	UCOF	0-7																		
	15	UHOF	0-3																		
	16	MIDE	0-63																		

KD-30XS955/34XS955/36XS955 SERVICE DATA ONLY VIDEO & AUDIO

Category	No	Item	Range	NOT be memorized	Fix data	Adjustment data at CBA				Adjustment data at F/A				MS				Twin				ATSC			
						RF	CV/YC	V5/V6		HDMI		VGA		1080i		720p		480i		480p		1080i		720p	
						480i	480p	1080i	720p	480i	480p	VGA	1080i	720p	MS	Twin	480i	480p	1080i	720p					
2170P-3	0	SYSM	0-3	Pro	1	1	2	2	3	3	2	2	2	3	3	2	2	2	3	3					
	1	VMCR	0-3		1	1	2	2	3	3	2	2	2	3	3	2	2	2	3	3					
	2	VMCR	0-3		1	1	2	2	3	3	2	2	2	3	3	2	2	2	3	3					
	3	VMLM	0-3		1	1	2	2	3	3	2	2	2	3	3	2	2	2	3	3					
	4	VMFD	0-3		1	1	2	2	3	3	2	2	2	3	3	2	2	2	3	3					
	5	VMDL	0-15		5	5	7	7	15	15	7	7	7	15	15	15	7	7	7	15	15				
	6	SHOF	0-3		1	1	2	2	3	3	2	2	2	3	3	2	2	2	3	3					
	7	SHFD	0-1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
	8	PROV	0-3		0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3					
	9	FILV	0-3		0	0	1	1	1	1	0	1	1	1	0	0	0	1	1	1					
	10	LTUV	0-3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	11	LTMD	0-1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
	12	CTUV	0-3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	13	UBOF	0-7		2	0	2	1	2	1	2	1	2	1	1	2	2	1	1	1					
	14	UCOF	0-7		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	15	UHOF	0-3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	16	MIDE	0-63	0	8	12	16	20	24	12	16	16	20	24	20	53	12	16	20	24					
				Vivid	Standard	Movie	Pro																		
	17	VM	0-3	3	3	1	0																		
	18	VMH	0-15	15	15	12	12																		
	19	VMM	0-15	8	8	8	8																		
	20	VML	0-15	4	4	4	4																		
	21	VGAP	0-15	5																					
	22	VGAS	0-15	5																					
	23	VGAB	0-15	5																					
	24	VGAC	0-15	5																					
	25	VGAV	0-15	5																					

KD-30XS955/34XS955/36XS955 SERVICE DATA ONLY VIDEO & AUDIO

Category	No	Item	Range	MS	Other	NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A													
2170P-4	0	YCON	0-1	1	1																	
				DRC	VDO (V5/V6)	VDO (HDMI)	MS / ATSC	PT	Note: PT = Pass Through (By pass MID)													
	1	SPIC	0-15	7	7	7	7	7														
	2	SCOL	0-63	32	32	32	32	31														
	3	SHUE	0-63	30	30	30	30	31														
	4	SPIO	0-15	4																		
	5	SCLO	0-15	9																		
	6	SHUO	0-15	7																		
				Vivid	Standard	Movie	Pro															
	7	UPIC	0-63	63	48	39	31															
	8	UBRT	0-63	31	31	31	31															
	9	UCOL	0-63	35	31	31	31															
	10	UHUE	0-63	31	31	31	31															
	11	USHP	0-63	24	29	31	31															
	12	UTMP	0-3	2	1	0	1															
				Normal	Special Axis																	
	13	RZR	0-15	8	15																	
	14	RYB	0-15	9	15																	
	15	GYR	0-15	9	9																	
	16	GYB	0-15	6	3																	
				RF	CV/YC	V5/V6				HDMI				ATSC								
						480i	480p	1080i	720p	480i	480p	VGA	1080i	720p	MS	Twin	480i	480p	1080i	720p		
	17	GAMM	0-3	Vivid	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	
	Standard			1	1	1	2	1	2	1	1	2	1	1	1	2	1	1	1	1	1	
	Movie			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
	Pro			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			GAMM = 0	GAMM = 1	GAMM = 2	GAMM = 3		Note: Settings based on GAMM data														
18	GAMS	0-15	0	8	8	8																
19	GAMR	0-15	0	4	8	12																
20	GAMG	0-15	0	4	8	12																
21	GAMB	0-15	0	4	8	12																
			RF	CV/YC	V5/V6				HDMI				ATSC									
					480i	480p	1080i	720p	480i	480p	VGA	1080i	720p	MS	Twin	480i	480p	1080i	720p			
22	BLK	0-3	Vivid	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
Standard			2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
Movie			0	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	3	
Pro			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			BLK = 0	BLK = 1	BLK = 2	BLK = 3		Note: Settings based on BLK data														
23	DCTR	0-15	0	1	7	12																
24	APED	0-3	0	0	1	2																
25	DSBO	0-15	7	7	7	7																
26	IDSW*	0-7	0*																			

Those data of 34XBR also should be "8".

KD-30XS955/34XS955/36XS955 SERVICE DATA ONLY VIDEO & AUDIO

Category	No	Item	Range	BLK = 0	BLK = 1	BLK = 2	BLK = 3	Fix data	Adjustment data at CBA	Adjustment data at F/A
2170P-4	27	ABLM	0-3	0	1	0	1	Note: Settings based on BLK data		
				Single						
				Others	MS 1080Vcom VGA	Others				
	28	ABLT	0-15	0	7	7				
	29	SPOF	0-31	0						
	30	DPSQ	0,1	1	0	1	1	Note: Settings based on BLK data		
CXA2171	31	LRGB	0-15	3						
				V5/V6/ATSC 1080i/720p	HDMI uTiny/66D_00 Bytct./Btct=1	HDMI uTiny/66D_00 Bytct./Btct=0	Others			
	0	MTRX*	0-3	1 *	1 *	0 *	0 *			
				PT	Others	HDMI		Note: PT = Pass Through		
	1	GAIN	0-3	0	0	0				
				V5 480p/ 720p/1080i/ No Svnc	V6 480p/ 720p/1080i/ No Svnc	HDMI 480p/ 720p/1080i/ No Svnc	ATSC 720p/1080i	ATSC 480p/MS	Others	
	2	FIXS	0-3	3	3	3	2	3	1	
				PT	Others	HDMI				
	3	CBGN	0-15	0	0	3				
	4	CRGN	0-15	0	4	3				
	5	YGN	0-15	0	4	3				
				V5/V6-1080i/MS	HDMI 1080i	Other				
	6	VTC	0-3	0	0	0				
				Tristate=1	Tristate=0					
	7	HTC*	0,1	0 *	1 *					
			V5/V6-1080i/MS	HDMI 1080i	Other					
8	HWID	0-3	1	1	1					
9	HSEP	0,1	1	1	1					
			V5&6/DVI/MS 1080i	Others						
10	HMSK*	0,1	0 *	1 *						
			V5 480p/ 720p/1080i/ No Svnc	V6 480p/ 720p/1080i/ No Svnc	HDMI 480p/ 720p/1080i/ No Svnc	ATSC 720p/1080i	ATSC 480p/MS	Others		
11	FRGB	0,1	0	0	0	0	0	0		
			ATSC 720p/1080i	Others						
12	HYSW	0,1	1	0						

KD-30XS955/34XS955/36XS955 SERVICE DATA ONLY VIDEO & AUDIO

Category	No	Item	Range		NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A					
AUDIO	0	ASYS	0-1	1	34XBR/34XS/30XS/36XS								
	1	TRCV	0-3	2									
	2	BACV	0-3	0									
	3	NCV	0-3	0									
	4	SVHI	0-7	4									
	5	SVLO	0-7	4									
	6	MIDL	0-15	8									
	7	LOFQ	0-7	0									
	8	SBAS	0-15	5									
	9	MIDI	0-15	none									
	10	STRE	0-15										
	11	TRFQ	0-15	none									
	12	PSEF	0-15	5									
	13	AGCL	0-15	9									
			TruSurround	Simulated					SteadySound	Off			
	14	BBE	0-1	1					1	1	1		
	15	BBEP	0-7	5					5	6	5		
	16	BBEL	0-7	4					4	4	4		
	17	BB2P	0-7	5					5	6	5		
	18	BB2L	0-7	4					4	4	4		
19	TRS1	0-7	4										
20	TRS2	0-7	2										
SNNR	0	MODE	0-3	0									
	1	SNNR	0-7	0									
	2	WSLT	0-255		WSLT- A 15	WSLT- B 31	WSLT- C 45	WSLT- D 63	WSLT- E 85	WSLT- F 110	WSLT- G 127		
					SNNR = 0	SNNR = 1	SNNR = 2	SNNR = 3	SNNR = 4	SNNR = 5	SNNR = 6	SNNR = 7	
	3	CPFG	0-15	0	0	1	1	2	2	2	3		
	4	CPFT	0-3	0	0	0	0	0	0	0	0		
	5	CCOR	0-3	0	0	1	1	1	1	1	1		
	6	CHCG	0-1	0	1	1	1	1	1	1	1		
	7	CAPG	0-7	0	0	0	0	0	0	0	0		
	8	3SHP	0-15	0	0	1	1	2	2	2	3		
	9	NYNR	0-15	0	1	2	2	3	3	4	4		
	10	NCNR	0-15	0	1	2	2	3	3	4	4		
	11	NYMG	0-3	0	0	0	0	0	0	0	0		
	12	NCMG	0-3	0	0	0	0	0	0	0	0		
	13	NYLT	0-15	0	1	1	2	3	4	6	8		
	14	NYNC	0-15	0	0	2	2	3	3	4	4		
	15	NYCO	0-1	0	0	1	1	1	1	1	1		
	16	7SHP	0-63	0	0	1	1	2	3	3	4		
	17	7YFI	0-3	0	0	1	1	2	2	2	3		
	18	7LTI	0-3	0	0	0	0	0	0	0	0		
	19	7CTI	0-3	0	0	0	0	0	0	0	0		
	20	7VML	0-15	0	0	0	0	0	0	0	0		
21	7VMC	0-3	0	0	1	1	2	2	2	3			
22	MIDD	0-63	0	0	1	1	2	2	2	3			

KD-30XS955/34XS955/36XS955 SERVICE DATA ONLY VIDEO & AUDIO

Category	No	Item	Range		NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A
CCD	0	HPRM	0-255	60				
	1	HPRS	0-255	60				
	2	YSYM	0,1	0				
	3	CCDI	0-7	3				
	4	CRIP	0-7	4				
	5	PHLD	0,1	0				
	6	CHMK	0-63	54				
	7	LANG*	0-15	0*				
	8	DATA	0,1	0				
	9	VCHP	0,1	0				
	10	CLMP	0,1	0				
	11	SYSV	0-7	4				
	12	ID1	0,1	1				
	13	ID1M*	0-7	1*				
	14	FPOL	0,1	0				
	15	BWHT	0,1	0				
	16	MESH	0,1	0				
	17	BNBB	0-3	1				
	18	BNBG	0-3	1				
	19	BNBR	0-3	0				
	20	CMP1	0-7	2				
	21	CMP2	0-7	5				
	22	CMP3	0-7	3				
	23	CWHT	0-7	3				
	24	VSDW	0,1	1				
	25	BFRQ	0,1	0				
	26	BPOS	0,1	0				
	27	BFRM	0,1	1				
28	BTIM	0,1	0					

KD-30XS955/34XS955/36XS955 SERVICE DATA ONLY VIDEO & AUDIO

Category	No	Item	Range		NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A
3DNR	0	WHCT	0-63	44				
	1	NIQM	0.1	1				
	2	CLPW	0-63	30				
	3	CLDP	0-255	80				
	4	YHBW	0-255	138				
	5	YBKL	0-15	0				
	6	YBKO	0.1	0				
	7	MUTE	0.1	0				
	8	YHBS	0-127	40				
	9	CHBW	0-255	138				
	10	CBKO	0-127	40				
	11	CHBO	0.1	0				
	12	VHBL	0-15	0				
	13	UHBL	0-15	0				
	14	UVDL	0-7	0				
	15	YDL	0-7	0				
	16	PVDI	0.1	0				
	17	PHDI	0.1	0				
	18	HDW	0-63	16				
	19	PVDO	0.1	0				
	20	PHDO	0.1	0				
	21	HST	0-255	54				
	22	VDL	0-15	0				
	23	VDW	0-15	3				
	24	NDET	0-15	0				
	25	NVP	0-15	2				
	26	NDTS	0-3	3				
	27	HROF	0.1	0				
	28	NDGW	0-15	9				
	29	UOFS	0-7	1				
	30	POT	0-3	0				
	31	UVF	0.1	0				
	32	APC	0.1	1				
33	DAP	0.1	0					

	480i	Vivid		Standard		Movie		Pro	
		Others	480i	Others	480i	Others	480i	Others	
34	YLV	0-15	15	15	10	10	10	8	8
35	YST	0.1	0						
36	YNT	0.1	1						
37	YPL	0.1	1						
38	YMV	0.1	0						

	480i	Vivid		Standard		Movie		Pro	
		Others	480i	Others	480i	Others	480i	Others	
39	YCR	0-31	3	3	3	3	3	3	3
40	VOS	0-7	1						

	480i	Vivid		Standard		Movie		Pro	
		Others	480i	Others	480i	Others	480i	Others	
41	YMG	0-3	3	3	3	3	3	3	3
42	YEG	0.1	0						

KD-30XS955/34XS955/36XS955 SERVICE DATA ONLY VIDEO & AUDIO

Category	No	Item	Range	NOT be memorized		Fix data		Adjustment data at CBA		Adjustment data at F/A	
				480i	Others	480i	Others	480i	Others	480i	Others
3DNR				Vivid		Standard		Movie		Pro	
				480i	Others	480i	Others	480i	Others	480i	Others
	43	VEL	0-15	6	4	6	6	6	6	6	6
	44	YLM	0-127	6	6	6	6	6	6	6	6
	45	CLV	0-15	15	15	10	10	10	10	8	8
	46	CNT	0,1	1							
	47	CPL	0,1	1							
				Vivid		Standard		Movie		Pro	
				480i	Others	480i	Others	480i	Others	480i	Others
	48	CMG	0-3	3	3	3	3	3	3	3	3
	49	CCR	0-31	3	3	3	3	3	3	3	3
	50	CLM	0-127	6	6	6	6	6	6	6	6
	51	NVSL	0-255	20							
	52	NVSH	0,1	1							
	53	NHS	0-127	16							
	54	NVEL	0-255	244							
	55	NVEH	0,1	0							
	56	NHE	0-127	120							
				Vivid		Standard		Movie		Pro	
				480i	Others	480i	Others	480i	Others	480i	Others
	57	YNG	0-3	3	3	3	3	3	3	3	3
	58	COR	0,1	0	0	0	0	0	0	0	0
	59	LPP	0,1	0	0	0	0	0	0	0	0
	60	YLT	0-15	6	6	6	6	6	6	6	6
	61	YNC	0-15	8	8	8	8	8	8	8	8
	62	YCO	0,1	0	1	0	0	0	0	0	0
63	ADTH	0,1	0								

KD-30XS955/34XS955/36XS955 SERVICE DATA ONLY VIDEO & AUDIO

Category	No	Item	Range	NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A			
DRCV	0	MFVR	0,1	0						
	1	ISEL	0,1	1						
	2	ORES	0-255		RF	CV/YC	V5/V6-480i	HDMI	ATSC	
				Vivid	128	128	128	128	128	
				Standard	128	128	128	128	128	
				Movie	128	128	133	133	133	
				Pro	128	128	133	133	133	
	3	ONCT	0-255		RF	CV/YC	V5/V6-480i	HDMI	ATSC	
				Vivid	128	128	128	128	128	
				Standard	128	128	128	128	128	
				Movie	128	128	128	128	128	
				Pro	128	128	128	128	128	
	4	ATHT	0-127	0	49	79	No service list, only NVM data in user			
	5	BTHI	0-127	24	54	89				
	6	FMAT	0,1	0						
	7	FMTH	0-3		RF	Others				
				1	1					
	8	FSEL	0,1	1						
9	CDLY	0-3	2							
10	LMIT	0,1	0							
11	LMLV	0-3		Vivid	Standard	Movie	Pro			
			2	2	2	2				
12	LMSL	0,1	1							
13	VDLY	0-3	1							
14	VOPR	0-3	3							
15	WPLL	0-3	2							
16	CRCT	0,1	0							
17	NRA	0-255	SNNR = 1	SNNR = 2	SNNR = 3	SNNR = 4	SNNR = 5	SNNR = 6	SNNR = 7	
			0	0	0	0	0	0	0	
18	NRB	0-255	128	128	128	128	128	128	128	
OP	0	DLY1	0-31	4						
	1	DLY2	0-31	12						
	2	DLY3	0-15	7						
	3	OSDH	0-255	17						
	4	HDPT	0,1		Vivid	Standard	Movie	Pro	Expansion Zoom or Zoom-H	Note:
				1	1	1	1	1	HDPT=0 Bypass MID	
	5	AACK*	0-3	2 *						
6	DINT*	0,1	0 *							
7	RAMW*	0-3	0 *							

KD-30XS955/34XS955/36XS955 SERVICE DATA ONLY DEFLECTION

Category	No	Item	Range	*	NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A		
2170D-1	0	VPOS	V Position 0-63	26						
	1	VSIZ	V Size 0-63	39						
				1080Full	Others	Note:				
	2	VSZO	V Size Offset 0-63	0				Used for PJ only		
				WideZoom	Others					
	3	VLIN	0-15	7	7					
	4	VSCO	0-15	10	7					
	5	VCEN	0-63	19						
				1080Vcomp	Others					
	6	VPIN	0-31	15	15			Expansion Zoom or Zoom-V		
	7	MVPN	0-3	0						
	8	NSCO	0-63	31						
	9	HTPZ	0-31	15						
	10	MHTZ	0-3	0						
				WideZoom	Zoom	Others	Expansion Zoom or Zoom-V			
	11	ZOOM	0,1	1	1	0	1			
			WideZoom	Zoom	480Full	1080Full	1080Vcomp	480Vcomp		
12	APSW	0,1	1	1	1	0	0	1	HD (1080i/720p) Expansion Zoom or Zoom-V	SD (16:9 Aspect signal) Expansion Zoom or Zoom-V
13	ASPT	0-63	22	43	3	0	47	3	1	None
14	SCRL	0-63	31	31	31	31	31	31	31	None
			WideZoom	Others						
15	UVLN	0-15	4	0						
16	LVLN	0-15	4	0						
										Note: Data variation for 16x9/4x3 models
2170D-2	0	HCNT	0-63	31						
				1080Full	Others					
	1	HPOS	0-63	29	31					
				WideZoom	Others	Note:				
	2	HSIZ	0-63	56	50	Different settings used for KV-34/30XBR910 models				
	3	SLIN	0-15	10	4					
	4	MPIN	0-15	11	10					
				WideZoom	Others	1080i				
5	PIN	0-63	18	12	12					
			WideZoom	Zoom	480Full	1080Full	1080Vcomp	480Vcomp		
6	PINO	0-15	7	7	7	9	7			
			WideZoom	Others	1080i					
7	UCP	0-63	38	35	35					
8	LCP	0-63	38	35	35					

KD-30XS955/34XS955/36XS955 SERVICE DATA ONLY DEFLECTION

Category	No	Item	Range	*	NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A			
2170D-2				Others	1080i						
	9	UXCG	0-3	0	0						
	10	LXCG	0-3	0	0						
	11	UXCP	0-3	2	2						
	12	LXCP	0-3	2	2						
	13	XCPP	0-1	0	0						
				WideZoom	Others						
	14	PPHA	0-63	21	21						
	15	VANG	0-63	31							
	16	LANG	0-63	31							
17	VBOW	0-63	31								
18	LBOW	0-63	31								
2170D-3	0	HBLK	0,1	1							
				1080Full	Others						
	1	LBLK	0-63	50	51						
	2	RBLK	0-63	31	27						
				WideZoom	Zoom	480Full 1080Full	480Vcomp 1080Vcomp	Expansion Zoom or Zoom-V	Note: Data variation for 16x9/4x3 models		
	3	VBLK	0,1	0	0	1	1	0			
				WideZoom	Zoom	480Full	1080Full	1080Vcomp	480Vcomp	HD (1080i/720p) Expansion Zoom or Zoom-V	SD (16:9 Aspect signal) Expansion Zoom or Zoom-V
	4	TBLK	0-15	12	7	2	4	10	2	7	None
	5	BBLK	0-15	15	7	8	6	13	8	7	None
				1080Full	Others					Note: Data variation for 16x9/4x3 models	
6	AFCM	0-3	2	3							
			1080Vcomp	Others	Expansion Zoom or Zoom-V	Note: Data variation for 16x9/4x3 models					
7	JUMP	0,1	0	0							
			WideZoom	Zoom	480Vcomp 480Full	1080Full	1080Vcomp	HD (1080i/720p) Expansion Zoom or Zoom-V	SD (16:9 Aspect signal) Expansion Zoom or Zoom-V		
8	VDJP	0,1	1	1	0	1	1	1	1	None	
			1080Vcomp	Others							
9	VDST	0,1	0	0							
			WideZoom	Zoom	480Vcomp 480Full	1080Full	1080Vcomp	HD (1080i/720p) Expansion Zoom or Zoom-V	SD (16:9 Aspect signal) Expansion Zoom or Zoom-V		
10	AKBT	0-31	15	15	20	16	16	15	15	None	

KD-30XS955/34XS955/36XS955 SERVICE DATA ONLY DEFLECTION

Category	No	Item	Range	•	NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A
2170D-4	0	OPAM	0-63	1080Vcomp 480Vcomp	Others	Note: Different settings used for KV-34/30XBR910 models		
	1	OPAV	0-63	41	41			
	2	OPAP	0-15	6	6			
	3	OPDC	0-63	43	43			
	4	OPDV	0-63	55	55			
	5	QDP	0-15	6	6			
	6	CPY1	0-1	0.7				
	7	DF	0-63	34				
8	DQP	0-63	30		Different settings (maybe) for KV-34/30XBR910 models			
2170D-5	0	VFRQ	0-3	1				
	1	VOM	0-1	1.5				
	2	EWDC	0-1	0				
	3	MS15	0-1	0				
	4	HFRD	0-255	80				
	5	HFRX	0-63	25				
	6	VMPS	0-1	0				
	7	INTR	0-1	0				
	8	VLNL	0-3	0				
	9	VLNH	0-255	0				
10	AGCS	0-1	0					
D-CONV (CX8070)	0	YBWU	0-63	31				
	1	YBWL	0-63	31				
	2	RSAP	0-63	31				
	3	RUMB	0-63	31				
	4	RUBW	0-63	31				
	5	RLMB	0-63	31				
	6	RLBW	0-63	31				
	7	LSAP	0-63	31				
	8	LUMB	0-63	31				
	9	LUBW	0-63	31				
	10	LLMB	0-63	31				
	11	LLBW	0-63	31				
	12	CADJ	0-63	23				
	13	HUCA	0-63	63				
14	SRSP	0-63	63					
15	SRUM	0-63	31					
16	SRUB	0-63	63					
17	SRLM	0-63	31					
18	SRLB	0-63	63					
19	SLSP	0-63	57					
20	SLUM	0-63	31					
21	SLUB	0-63	63					
22	SLLM	0-63	31					
23	SLLB	0-63	63					

KD-30XS955/34XS955/36XS955 SERVICE DATA ONLY DEFLECTION

Category	No	Item	Range	*	NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at E/A					
LANDING	0	LT	0-255	127	NOTE: Different settings used for KV-34/30XBR910 models								
	1	LB	0-255	127									
	2	RT	0-255	127									
	3	RB	0-255	127									
	4	EWSP	0-15	5									
	5	ENSW	0,1	0									
	6	TESW	0,1	0									
	7	DHMT*	0,1	0 *									
	8	LDVM	0-3	0									
	9	LVSW	0,1	0									
	10	LVPH	0-255	127									
					LDVM = 0	LDVM = 1	LDVM = 2	LDVM = 3	Note: Different settings used for KV-34/30XBR910 models				
					Wide Zoom	Others	Wide Zoom	Others		Wide Zoom	Others	Wide Zoom	Others
11	HSZO	0-15	0	0	0	0	2	0		2			
12	SLJNO	0-15	0	0	0	0	1	0		1			
13	HPNO	0-15	0	0	2	0	5	0		9			
14	PIHO	0-15	0	0	0	2	0	6	0	9			

KD-30XS955/34XS955/36XS955 SERVICE DATA ONLY MID

Category	No	Item	Range	NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A	
MID1	0	DHPH	d_h_phase	0-255	108			
	1	DVPH	d_v_phase	0-63	20			
	2	DHAR	d_h_area	0-255	240			
	3	DVAR	d_v_area	0-255	135			
	4	DHPW	d_h_pwidth	0-63	55			
	5	DVPW	d_v_pwidth	0-7	5			
					Single	Twin	Freeze	Favorites
					480i	Others		Index
	6	DYCD	d_yc_delay	0-63	1	0	2	2
					Table-0	Table-1	Table-2	Table-3
	7	DYSD	d_ys_delay	0-7	7	4	2	1
					VGA	Single	Others	Favorites
					Normal	Others	Normal	Others
	8	MDHP	m_dsp_hpos	0-255	174	72	156	0
								40
								41
					Single			Index
	9	MDVP	m_dsp_vpos	0-255	30	66	0	34
					480i/480p	VGA	Others	VGA
								34
					VGA	Single	Others	Favorites
					Normal	Others	Normal	Others
	10	MDHS	m_dsp_hsiz	0-255	153	204	162	240
								155
							119	
				Single			Index	
11	MDVS	m_dsp_vsiz	0-255	120	102	135	103	
				480i/480p	VGA	Others	VGA	
							103	
				Twin/Freeze	Favorites	Index		
12	MLHP		0-255	36	31	31		
13	MLVP		0-255	8	30	30		
				Favorites				
14	SDHP	s_dsp_hpos	0-255	167				
15	SDVP	s_dsp_vpos	0-255	9				
16	SDHS	s_dsp_hsiz	0-255	115				
17	SDVS	s_dsp_vsiz	0-255	79				
18	PDHP		0-255	0				
19	PDVP		0-255	0				
20	PDHS		0-255	0				
21	PDVS		0-255	0				
				1080i Single	Others			
22	DPSW	dsp_pll_sw	0,1	0	0			
23	MDLO		0-63	12				
				Single	Others	MemoryStick	Others	
24	BCOL	d_back_y	0-15	0	0	0	0	
25	DYSS	d_ys_skt	0-3	1				
				Index				
26	OSDH		0-63	32				
27	OSDV		0-63	16				

KD-30XS955/34XS955/36XS955 SERVICE DATA ONLY MID

Category	No	Item	Range		NOT be memorized	Fix data		Adjustment data at CBA	Adjustment data at F/A			
MID2				Single	480i V5/V6		YC		480i HDMI/ATSC		480i Expand	
					Normal	Others	Normal	Others	Normal	Others	Normal	Others
	0	DRHP	drc_hactv_pos 0-255		153	120	154	117	145	108	153	224
	1	DRHS	drc_hactv_sz 0-255		162	180	162	180	162	180	162	125
	2	DRVP	drc_vactv_pos 0-63	37	37	37	37	37	37	37	37	
	3	DRVS	drc_vactv_sz 0-255	120	120	120	120	120	120	120	120	
					480i V5/V6		YC	480i HDMI/ATSC		Expansion		
	0	DRHP	drc_hactv_pos 0-255	146	148	140	146					
	1	DRHS	drc_hactv_sz 0-255	164	164	164	164					
	2	DRVP	drc_vactv_pos 0-63	57	57	57	57					
	3	DRVS	drc_vactv_sz 0-255	110			110					
					YC							
	0	DRHP	drc_hactv_pos 0-255	153								
	1	DRHS	drc_hactv_sz 0-255	164								
	2	DRVP	drc_vactv_pos 0-63	57								
	3	DRVS	drc_vactv_sz 0-255	110								
					480i V5/V6		YC	480i HDMI/ATSC		Expansion		
	0	DRHP	drc_hactv_pos 0-255	153	153	144	153					
	1	DRHS	drc_hactv_sz 0-255	162	162	162	162					
	2	DRVP	drc_vactv_pos 0-63	57	57	57	57					
	3	DRVS	drc_vactv_sz 0-255	110	110	110	110					
					480i V5/V6		YC		480i HDMI/ATSC		Expansion	
					Full	Vcomp	Full	Vcomp	Full	Vcomp	Full	Vcomp
	0	DRHP	drc_hactv_pos 0-255	140	140	140	140	132	132	140	140	
	1	DRHS	drc_hactv_sz 0-255	165	165	165	165	165	165	165	165	
	2	DRVP	drc_vactv_pos 0-63	37	57	37	57	37	57	37	57	
	3	DRVS	drc_vactv_sz 0-255	120	110	120	110	120	110	120	110	
					YC							
	0	DRHP	drc_hactv_pos 0-255	153								
	1	DRHS	drc_hactv_sz 0-255	164								
	2	DRVP	drc_vactv_pos 0-63	57								
	3	DRVS	drc_vactv_sz 0-255	110								
					480i V5/V6		YC		480i HDMI/ATSC		Expansion	
					Full	Vcomp	Full	Vcomp	Full	Vcomp	Full	Vcomp
	0	DRHP	drc_hactv_pos 0-255	140	140	140	140	134	134	140	140	
	1	DRHS	drc_hactv_sz 0-255	165	165	165	165	165	165	165	165	
	2	DRVP	drc_vactv_pos 0-63	37	57	37	57	37	57	37	57	
	3	DRVS	drc_vactv_sz 0-255	120	110	120	110	120	110	120	110	
					YC							
	0	DRHP	drc_hactv_pos 0-255	158								
	1	DRHS	drc_hactv_sz 0-255	162								
	2	DRVP	drc_vactv_pos 0-63	57								
	3	DRVS	drc_vactv_sz 0-255	110								

Note: AV-Multi (RGB)=HDMI/ATSC (w/o MS)
AV-Multi (YPbPr)=Expansion

KD-30XS955/34XS955/36XS955 SERVICE DATA ONLY MID

Category	No	Item	Range	NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A	8	9	10	11	12	13	14	15	
MIDS	0	POP	0-63	0	1	2	3	4	5	6	7	8	9	10	11	
	1	MHLY m_hlpl_ycoef	0-3	1	1	1	1	1	1	1	1	1	1	1	1	
	2	MHLC m_hlpl_ccoef	0-3	3	3	3	3	3	3	3	3	3	3	3	3	
	3	MVLY m_vlpl_ycoef	0-3	0	0	0	0	0	0	0	0	0	0	0	0	
	4	MVLC m_vlpl_ccoef	0-3	0	0	0	0	0	0	0	0	0	0	0	0	
	5	MHYR m_henh_ycore	0-3	0	1	1	1	2	2	3	2	0	0	2	2	0
	6	MHYL m_henh_yclip	0-3	0	1	1	1	1	2	2	2	0	1	2	1	1
	7	MHYE m_henh_yesh	0-7	0	2	5	5	6	7	7	7	5	2	4	7	2
	8	MHYO m_henh_ycof	0-1	0	1	1	1	1	1	1	1	0	1	1	1	1
	9	MHCR m_henh_ccore	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0
	10	MHCL m_henh_cclip	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0
	11	MHCE m_henh_cesh	0-7	0	0	0	0	0	0	0	0	0	0	0	0	0
	12	MHCO m_henh_ccof	0-1	0	0	0	0	0	0	0	0	0	0	0	0	0
	13	MVYR m_venh_ycore	0-3	0	0	0	0	1	2	2	0	0	0	0	0	0
	14	MVYL m_venh_yclip	0-3	0	0	0	0	1	1	1	1	0	1	1	1	2
	15	MVYE m_venh_yesh	0-7	0	0	0	0	0	0	0	0	0	0	0	0	0
	16	MVCR m_venh_ccore	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0
	17	MVCL m_venh_cclip	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0
18	MVCE m_venh_cesh	0-7	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	POP	0-63	16	17	18	19	20	21	22	23	24	25	26	27	28	
1	MHLY m_hlpl_ycoef	0-3	1	1	0	0	0	0	0	0	0	0	0	0	0	
2	MHLC m_hlpl_ccoef	0-3	3	3	0	0	0	0	0	0	0	0	0	3	3	
3	MVLY m_vlpl_ycoef	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0	
4	MVLC m_vlpl_ccoef	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	MHYR m_henh_ycore	0-3	0	1	1	2	0	0	0	2	0	0	0	2	0	
6	MHYL m_henh_yclip	0-3	1	1	1	1	0	1	1	0	0	0	0	0	1	
7	MHYE m_henh_yesh	0-7	4	5	7	7	0	4	6	7	2	4	5	7	2	
8	MHYO m_henh_ycof	0-1	1	1	1	1	0	0	0	1	0	1	1	1	0	
9	MHCR m_henh_ccore	0-3	0	0	0	2	0	0	1	2	0	0	1	2	0	
10	MHCL m_henh_cclip	0-3	0	0	0	0	0	0	1	1	0	0	1	1	0	
11	MHCE m_henh_cesh	0-7	0	0	0	0	0	0	4	0	0	0	0	0	0	
12	MHCO m_henh_ccof	0-1	0	0	0	0	0	0	1	1	0	0	1	1	0	
13	MVYR m_venh_ycore	0-3	0	1	1	2	0	0	0	2	0	0	0	2	0	
14	MVYL m_venh_yclip	0-3	1	1	1	1	1	1	1	1	0	0	1	1	0	
15	MVYE m_venh_yesh	0-7	2	3	7	7	0	2	4	0	0	4	4	0	4	
16	MVCR m_venh_ccore	0-3	0	0	0	2	0	0	1	0	0	0	0	0	0	
17	MVCL m_venh_cclip	0-3	0	0	0	0	0	0	1	1	0	0	1	1	0	
18	MVCE m_venh_cesh	0-7	0	0	0	0	0	0	4	4	0	0	4	4	0	
0	POP	0-63	32	33	34	35	36	37	38	39	40	41	42	43	44	
1	MHLY m_hlpl_ycoef	0-3	1	1	0	0	0	0	0	0	0	0	0	0	0	
2	MHLC m_hlpl_ccoef	0-3	3	3	0	0	0	0	0	0	0	0	0	0	0	
3	MVLY m_vlpl_ycoef	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0	
4	MVLC m_vlpl_ccoef	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	MHYR m_henh_ycore	0-3	0	1	1	2	0	0	0	2	0	0	0	2	0	
6	MHYL m_henh_yclip	0-3	1	1	1	1	0	1	1	1	1	1	2	1	0	
7	MHYE m_henh_yesh	0-7	4	5	7	7	0	4	7	7	2	4	5	7	2	
8	MHYO m_henh_ycof	0-1	1	1	1	1	0	0	0	1	0	0	1	1	0	
9	MHCR m_henh_ccore	0-3	0	0	0	2	0	0	1	0	0	0	1	1	0	
10	MHCL m_henh_cclip	0-3	0	0	0	0	0	0	1	1	0	0	1	1	0	
11	MHCE m_henh_cesh	0-7	0	0	0	0	0	0	4	4	0	0	4	4	0	
12	MHCO m_henh_ccof	0-1	0	0	0	0	0	0	1	1	0	0	1	1	0	
13	MVYR m_venh_ycore	0-3	0	1	1	2	0	0	0	2	0	0	0	2	0	
14	MVYL m_venh_yclip	0-3	1	1	1	1	1	1	1	1	0	0	1	1	0	
15	MVYE m_venh_yesh	0-7	2	3	7	7	1	2	4	6	0	0	4	4	7	
16	MVCR m_venh_ccore	0-3	0	0	0	2	0	0	0	0	0	0	0	0	0	
17	MVCL m_venh_cclip	0-3	0	0	0	0	0	0	1	1	0	0	1	1	0	
18	MVCE m_venh_cesh	0-7	0	0	0	0	0	0	4	4	0	0	4	4	0	

POP	Format
0	RF P
1	snnr
2	RF M
3	snnr
4	snnr
5	RF S
6	snnr
7	RF V
8	CVYC P
9	CVYC M
10	CVYC S
11	CVYC V
12	VS/V6 480i All 480i P
13	VS/V6 480i All 480i M
14	VS/V6 480i All 480i S
15	VS/V6 480i All 480i V
16	VS/V6 480p All 480p P
17	VS/V6 480p All 480p M
18	VS/V6 480p All 480p S
19	VS/V6 480p All 480p V
20	VS/V6 1080i All 1080i P
21	VS/V6 1080i All 1080i M
22	VS/V6 1080i All 1080i S
23	VS/V6 1080i All 1080i V
24	VS/V6 720p All 720p P
25	VS/V6 720p All 720p M
26	VS/V6 720p All 720p S
27	VS/V6 720p All 720p V
28	HDMI 480i not assigned
29	HDMI 480i not assigned
30	HDMI 480i not assigned
31	HDMI 480i not assigned
32	HDMI 480p not assigned
33	HDMI 480p not assigned
34	HDMI 480p not assigned
35	HDMI 480p not assigned
36	HDMI 1080i not assigned
37	HDMI 1080i not assigned
38	HDMI 1080i not assigned
39	HDMI 1080i not assigned
40	HDMI 720p not assigned
41	HDMI 720p not assigned
42	HDMI 720p not assigned
43	HDMI 720p not assigned
44	Memory Stic not assigned
45	Memory Stic not assigned
46	Memory Stic not assigned
47	Memory Stic not assigned
48	HDMI 480i not assigned
49	HDMI 480i not assigned
50	HDMI 480i not assigned
51	HDMI 480i not assigned
52	HDMI 480p not assigned
53	HDMI 480p not assigned
54	HDMI 480p not assigned
55	HDMI 480p not assigned
56	HDMI 1080i not assigned
57	HDMI 1080i not assigned
58	HDMI 1080i not assigned
59	HDMI 1080i not assigned

KD-30XS955/34XS955/36XS955 SERVICE DATA ONLY MID

Category	No	Item	Range	NOT be memorized	Fix data	Adjustment data at CBA	Adjustment data at F/A	56	57	58	59	60	61	62	63				
MIDS	0	POP	0-63	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
	1	MHLI	m_hlpl_ycoef 0-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	MHLC	m_hlpl_ccoef 0-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3	MVLY	m_vlpl_ycoef 0-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	MVLC	m_vlpl_ccoef 0-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5	MHYR	m_henh_ycore 0-3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	MHYL	m_henh_yclip 0-3	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0
	7	MHYE	m_henh_yerh 0-7	7	0	4	2	5	0	0	0	0	0	0	0	0	0	0	0
	8	MHYO	m_henh_ycof 0-1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9	MHCR	m_henh_ccore 0-3	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
	10	MHCL	m_henh_cclip 0-3	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
	11	MHCE	m_henh_cerh 0-7	4	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0
	12	MHCO	m_henh_ccof 0-1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
	13	MVYR	m_venh_ycore 0-3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	14	MVYL	m_venh_yclip 0-3	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
	15	MVYE	m_venh_yerh 0-7	6	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0
	16	MVCR	m_venh_ccore 0-3	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
	17	MVCL	m_venh_cclip 0-3	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
	18	MVCE	m_venh_cerh 0-7	4	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0
					Memory stick														
		19	SHLY	s_hlpl_ycoef 0-7	0														
		20	SHLC	s_hlpl_ccoef 0-7	0														
		21	SVLY	s_vlpl_ycoef 0-7	0														
		22	SVLC	s_vlpl_ccoef 0-7	0														
		23	SHYR	s_henh_ycore 0-3	0														
		24	SHYL	s_henh_yclip 0-3	0														
		25	SHYE	s_henh_yerh 0-7	0														
		26	SHYO	s_henh_ycof 0-1	0														
		27	SHCR	s_henh_ccore 0-3	0														
		28	SHCL	s_henh_cclip 0-3	0														
		29	SHCE	s_henh_cerh 0-7	0														
		30	SHCO	s_henh_ccof 0-1	0														
		31	SVYR	s_venh_ycore 0-3	0														
		32	SVYL	s_venh_yclip 0-3	0														
		33	SVYE	s_venh_yerh 0-7	0														
		34	SVCR	s_venh_ccore 0-3	0														
	35	SVCL	s_venh_cclip 0-3	0															
	36	SVCE	s_venh_cerh 0-7	0															
CXA3506R	0	MCON		0.1	64	64													
	1	SCOR		0-255	128	128													
	2	SCOG		0-255	128	128													
	3	SCOB		0-255	128	128													
	4	RGB		0-255	0	0													

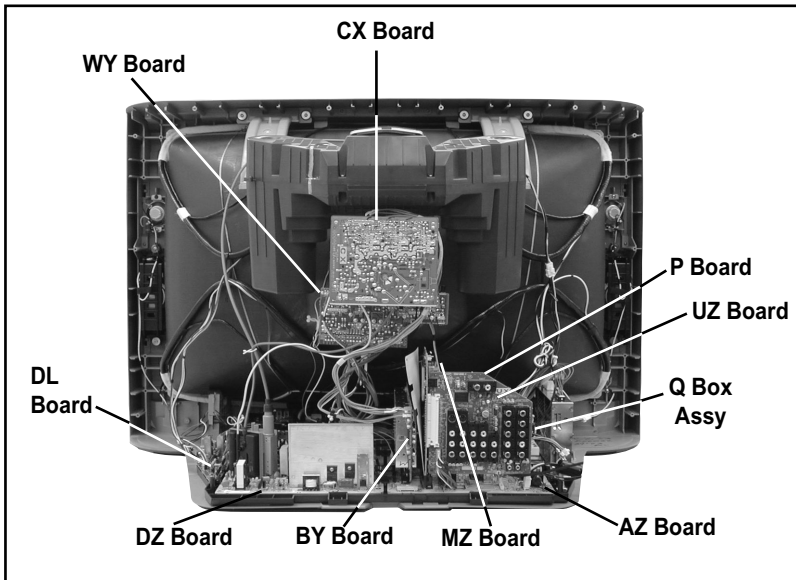
60 HDMI 720p not assigned
 61 HDMI 720p not assigned
 62 HDMI 720p not assigned
 63 HDMI 720p not assigned

4-5. ID MAP TABLE


Category	No	Item	Range	KD-34XBR960		KD-30XS955		KD-34XS955		KD-36XS955		Note
				US	HAWAII	US	HAWAII	US	CND	HAWAII	US	
ID	0	ID0	0-255	89	89	89	89	89	89	89	89	
	1	ID1	0-255	255	255	255	255	255	255	255	255	
	2	ID2	0-255	255	255	255	255	255	255	255	255	
	3	ID3	0-255	111	111	110	110	110	94	110	110	Vchip-US&CND/DRC Volume
	4	ID4	0-255	203	203	203	203	203	203	203	203	
	5	ID5	0-255	207	207	207	207	207	207	207	207	
	6	ID6	0-255	62	62	62	62	62	62	62	62	
7	ID7	0-255	25	25	17	17	17	17	17	16	16	XBR(2 tuner)/16:9

SECTION 5: DIAGRAMS


5-1. CIRCUIT BOARDS LOCATION






The components identified by shading and \triangle symbol are critical for safety. Replace only with part number specified.

The symbol  indicates a fast operating fuse and is displayed on the component side of the board. Replace only with fuse of the same rating as marked.



Les composants identifiés par un trame et une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Le symbole  indique une fusible à action rapide. Doit être remplacé par une fusible de même valeur, comme marqué.

The components identified by  in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be necessary, replace only with the value originally used.

When replacing components identified by , make the necessary adjustments as indicated. If the results do not meet the specified value, change the component identified by  and repeat the adjustment until the specified value is achieved.

When replacing the parts listed in the table below, it is important to perform the related adjustments.

Part Replaced ()	Adjustment ()
DZ BOARD: IC6503, IC8001, IC8002, IC8004, IC8005, IC8104, D8022, PH8003, Q8007, Q8008, R6590, R8012, R8014, R8015, R8016, R8017, R8019, R8021, R8027, R8029, R8030, R8031, R8035, R8036, R8037, R8038, R8039, R8040, R8043, R8046, R8052, R8059, R8060, R8066, R8072, R8078, R8079, R8082, R8165, T8001	HV ADJUST No HV Adjustment Required

5-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS INFORMATION

All capacitors are in μF unless otherwise noted. pF : μF 50WV or less are not indicated except for electrolytics and tantalums.

All electrolytics are in 50V unless otherwise specified.

All resistors are in ohms. $\text{k}\Omega=1000\Omega$, $\text{M}\Omega=1000\text{k}\Omega$


Indication of resistance, which does not have one for rating electrical power, is as follows: Pitch : 5mm
 Rating electrical power : $\frac{1}{4}\text{W}$

$\frac{1}{4}\text{W}$ in resistance, $\frac{1}{10}\text{W}$ and $\frac{1}{16}\text{W}$ in chip resistance.

 : nonflammable resistor

 : fusible resistor

\triangle : internal component

 : panel designation and adjustment for repair

\perp : earth ground

 : earth-chassis

All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

Readings are taken with a color-bar signal input.

Readings are taken with a 10M Ω digital multimeter.

Voltages are DC with respect to ground unless otherwise noted.

Voltage variations may be noted due to normal production tolerances.

All voltages are in V.

S : Measurement impossibility.

 : B+line.

 : B-line. (Actual measured value may be different).

 : signal path. (RF)

Circled numbers are waveform references.

REFERENCE INFORMATION

RESISTOR

: RN METAL FILM
 : RC SOLID
 : FPRD NONFLAMMABLE CARBON
 : FUSE NONFLAMMABLE FUSIBLE
 : RW NONFLAMMABLE WIREWOUND
 : RS NONFLAMMABLE METAL OXIDE
 : RB NONFLAMMABLE CEMENT
 : \otimes ADJUSTMENT RESISTOR

CAPACITOR

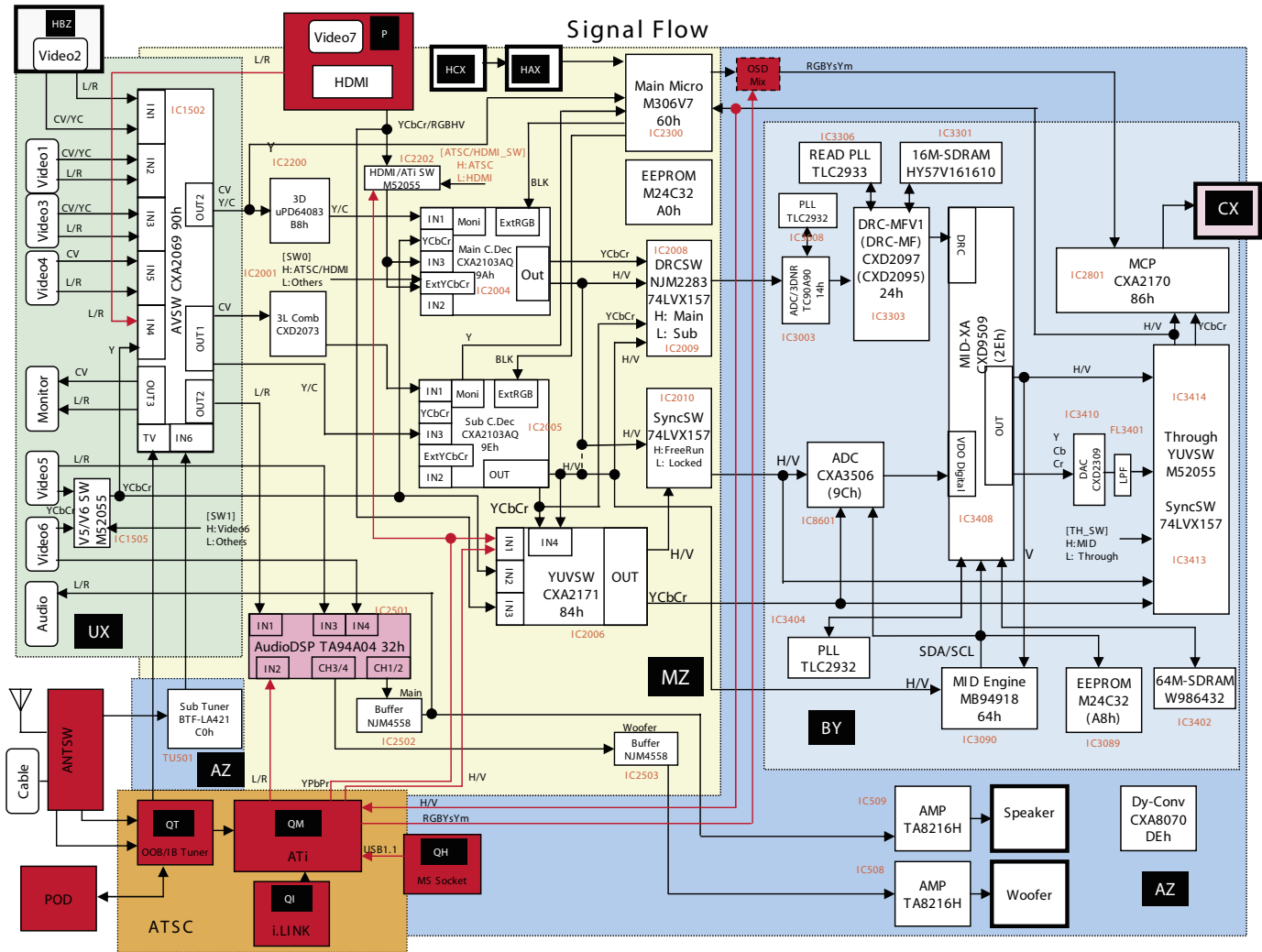
: TA TANTALUM
 : PS STYROL
 : PP POLYPROPYLENE
 : PT MYLAR
 : MPS METALIZED POLYESTER
 : MPP METALIZED POLYPROPYLENE
 : ALB BIPOLAR
 : ALT HIGH TEMPERATURE
 : ALR HIGH RIPPLE

COIL

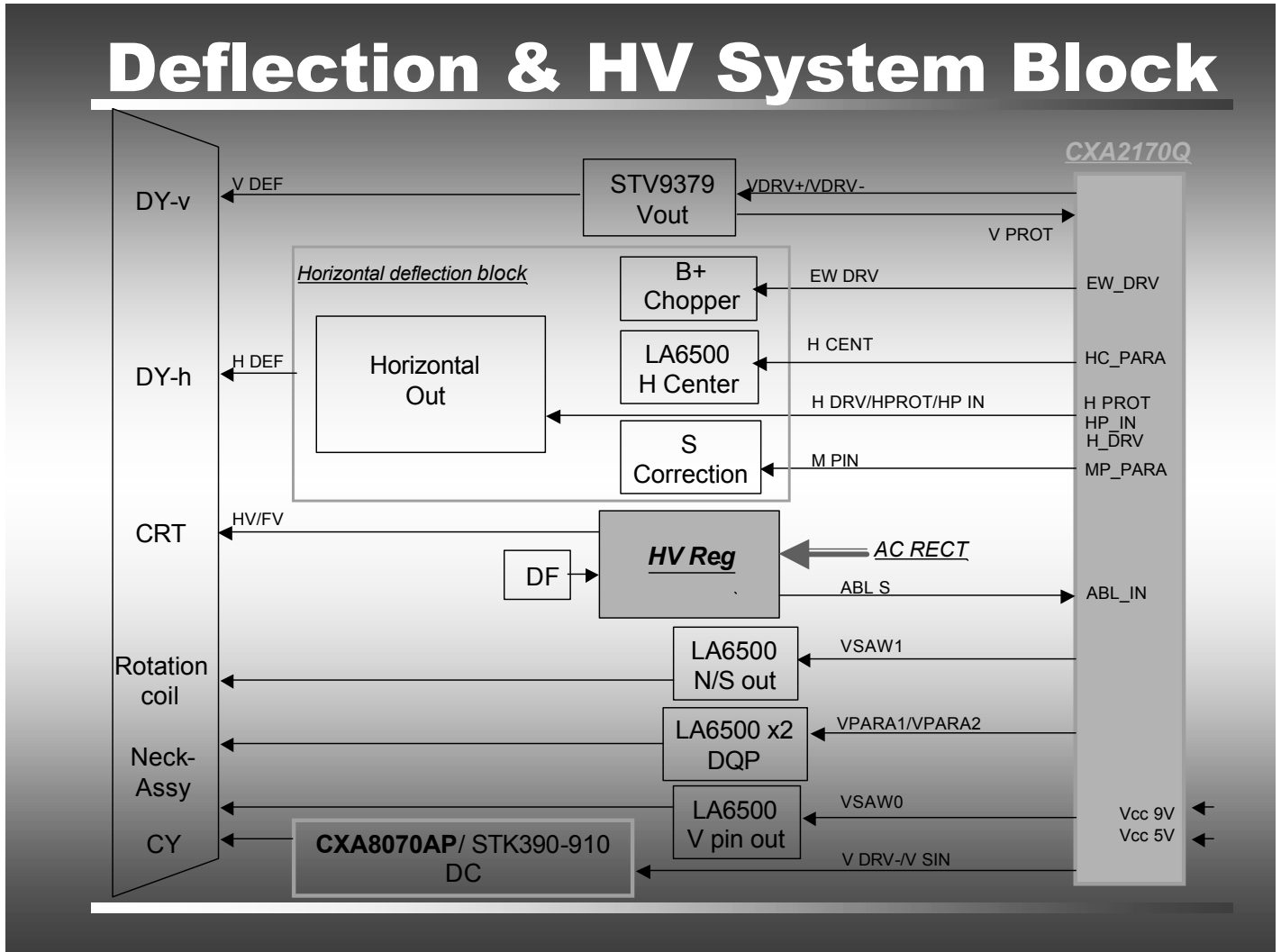
: LF-8L MICRO INDUCTOR

5-3. BLOCK DIAGRAMS

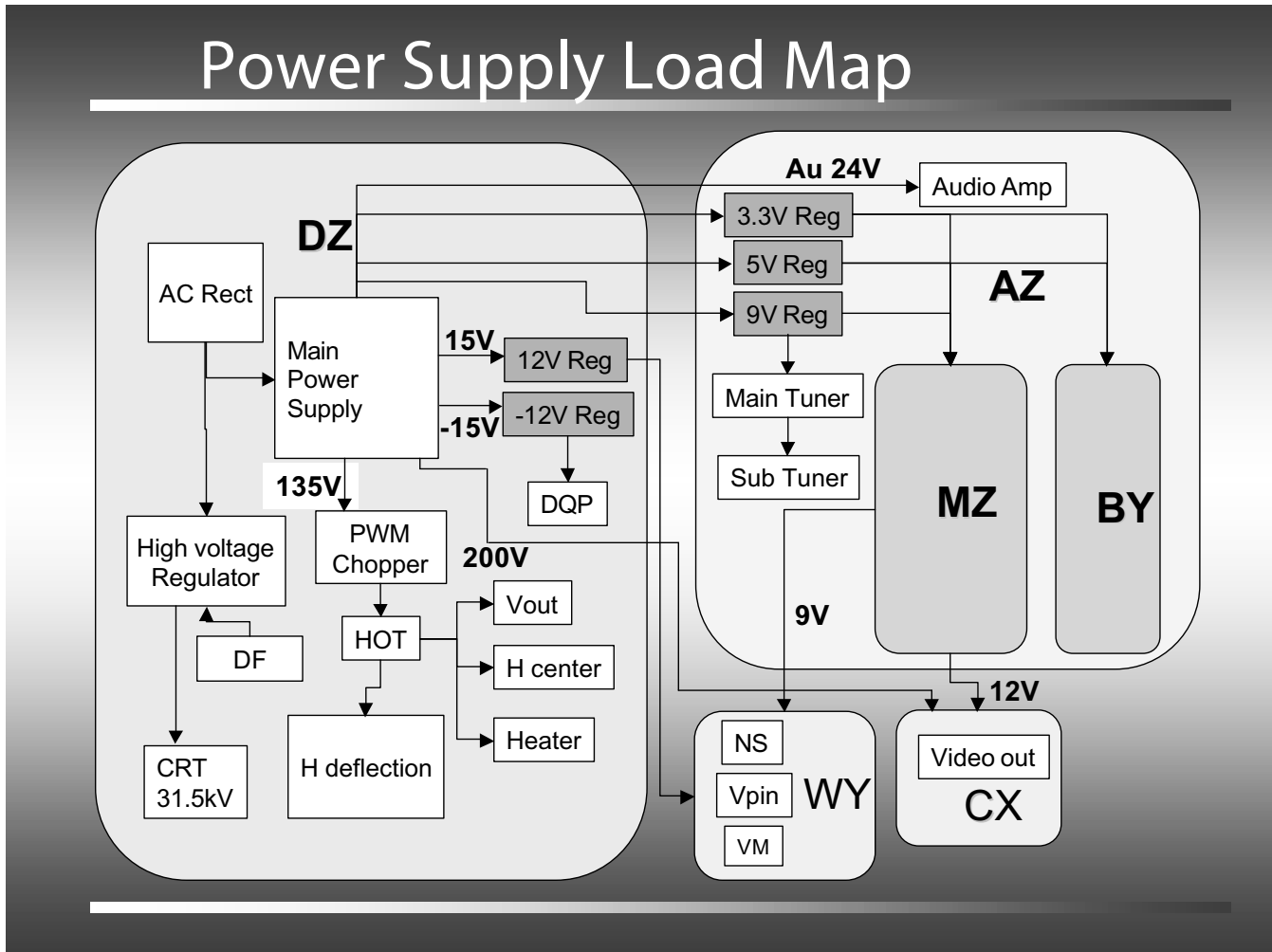
BLOCK DIAGRAMS (1 OF 3)



BLOCK DIAGRAMS (2 OF 3)



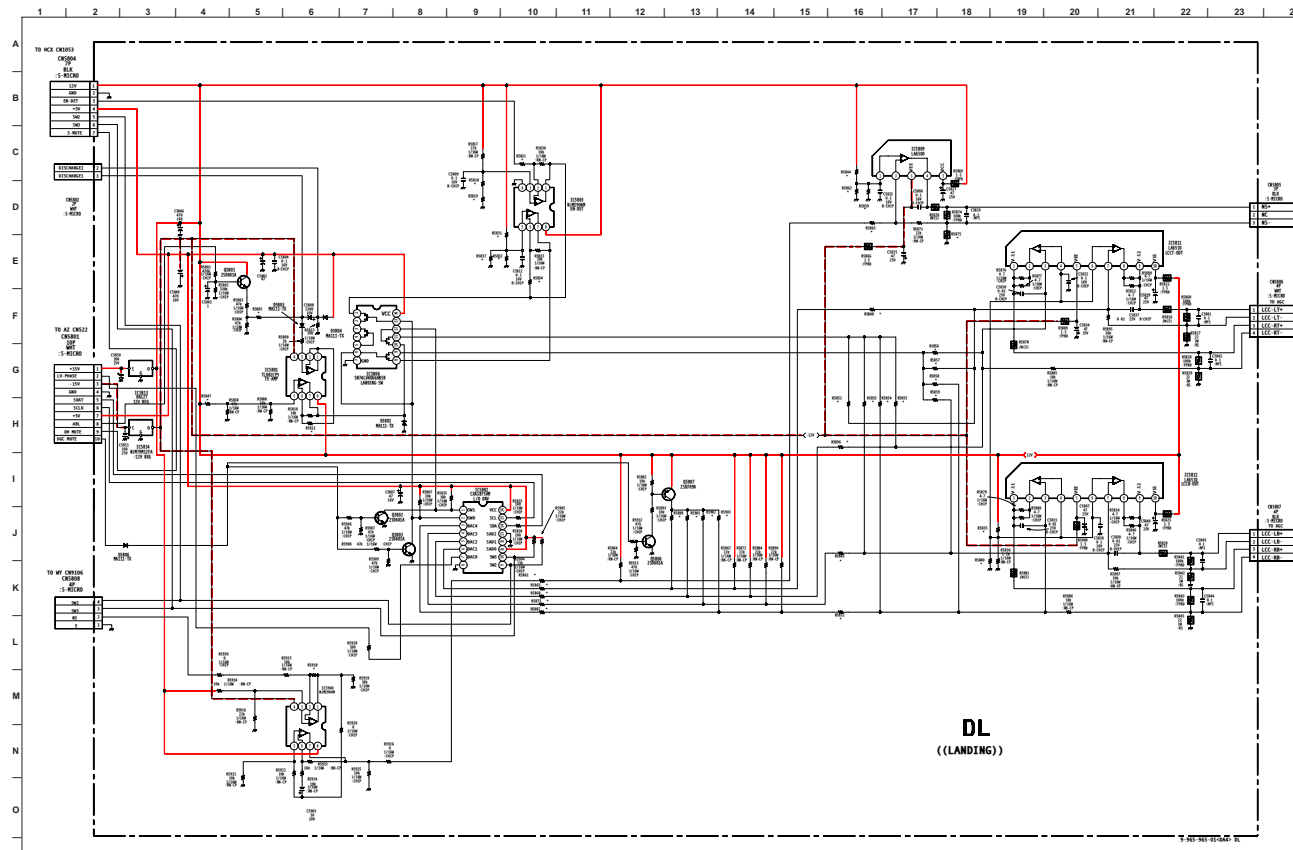
BLOCK DIAGRAMS (3 OF 3)



5.4. SCHEMATICS AND SUPPORTING INFORMATION

DL BOARD SCHEMATIC DIAGRAM

KD-303395343BR8634313553033955



DL BOARD IC VOLTAGE LIST

IC8801		IC8803		IC8809		IC8813	
PN	VOLT	PN	VOLT	PN	VOLT	PN	VOLT
1	4.2	1	0.0	1	2.1	1	15.0
2	4.2	2	2.4	2	0.0	2	15.0
3	4.2	3	2.4	3	12.0	3	15.0
4	12.0	4	GND	4	0.0	4	GND
5	1.5	5	0.0	5	12.0	5	15.0
6	1.5	6	0.0	6	12.0	6	15.0
7	0.7	7	0.0	7	12.0	7	15.0
8	12.0	8	12.0	8	0.0	8	GND
IC8802 <th colspan="2">IC8806</th> <th colspan="2">IC8808</th> <th colspan="2">IC8810</th>		IC8806		IC8808		IC8810	
PN	VOLT	PN	VOLT	PN	VOLT	PN	VOLT
1	4.9	1	2.1	4	1.3	1	5.2
2	4.9	2	NC	5	12.0	2	4.3
3	2.5	3	NC	6	1.3	3	4.3
4	2.5	4	NC	7	1.3	4	12.0
5	2.5	5	NC	8	1.0	5	2.6
6	2.5	6	4.9	9	1.0	6	2.6
7	2.5	7	0.0	10	12.0	7	2.6
8	GND	8	GND	IC8812	8	12.0	
9	4.2	9	1.3	PN <th>VOLT</th> <td>10</td> <td>12.0</td>	VOLT	10	12.0
10	4.9	10	0.0	1	0.9		
11	5.0	11	0.0	2	1.0		
12	GND	12	0.0	3	1.0		
13	GND	13	0.0	4	1.3		
14	4.9	14	5.0	5	15.0		
15	4.5			6	1.3		
16	5.0			7	1.3		
				8	0.0		
				9	0.0		
				10	12.0		

DL BOARD TRANSISTOR VOLTAGE LIST

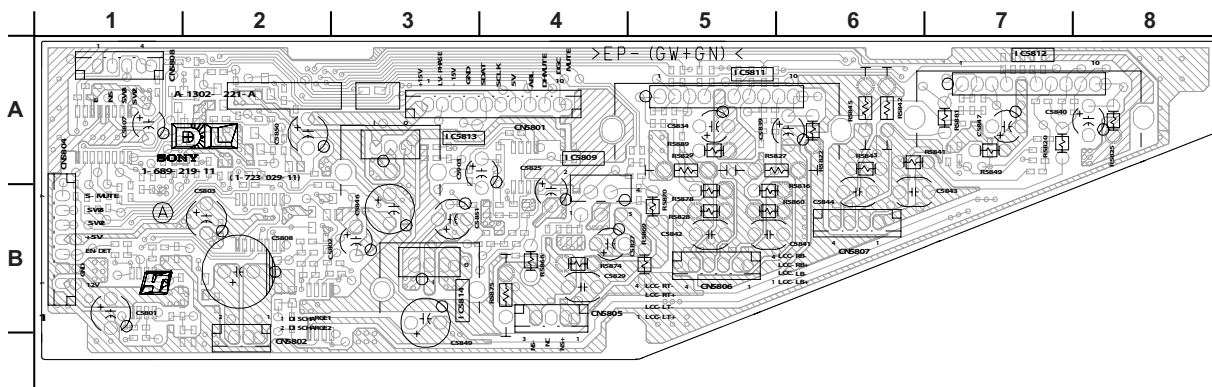
Q8801	B	C	E
Q8801	0.0	0.0	GND
Q8802	0.0	0.0	GND
Q8803	0.0	0.0	GND
Q8804	0.0	0.0	GND
Q8805	12.0	0.0	12.0

DL
(LANDING)

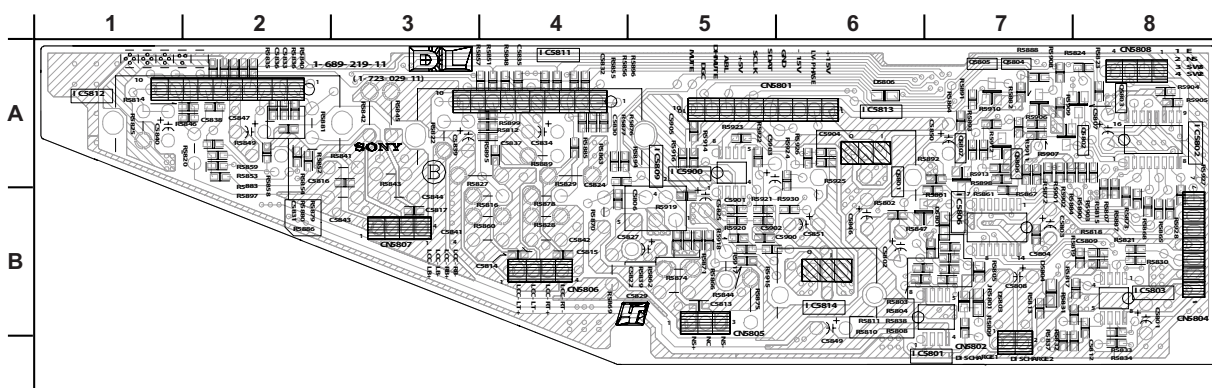
KD-303395343BR8634313553033955

97

DL [LANDING]
COMPONENT SIDE

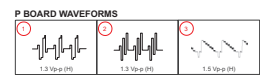
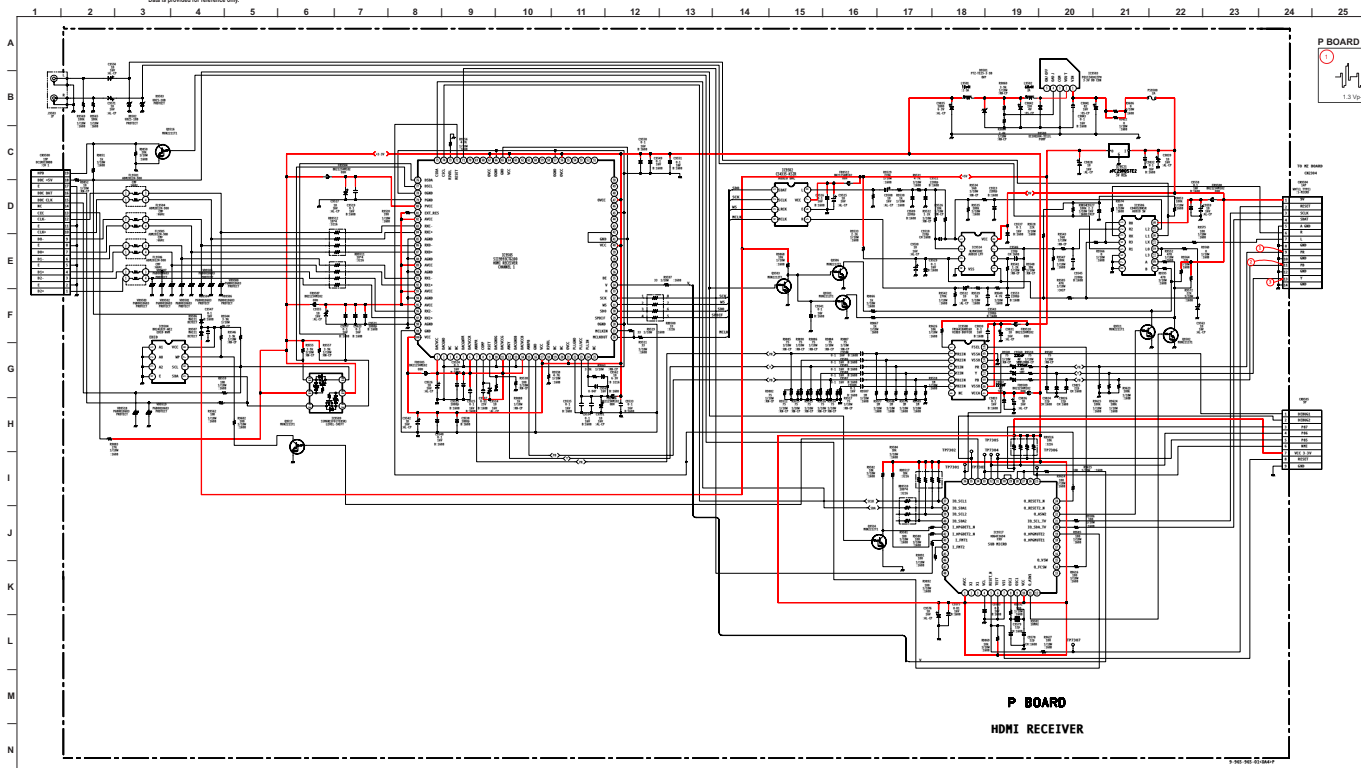


DL [LANDING]
CONDUCTOR SIDE

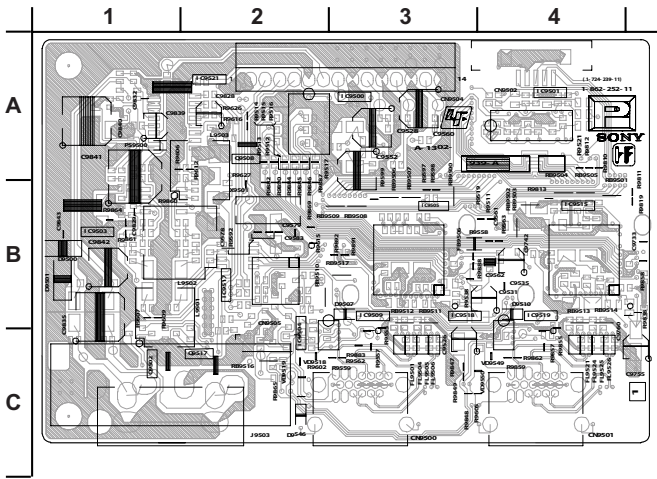


P BOARD SCHEMATIC DIAGRAM

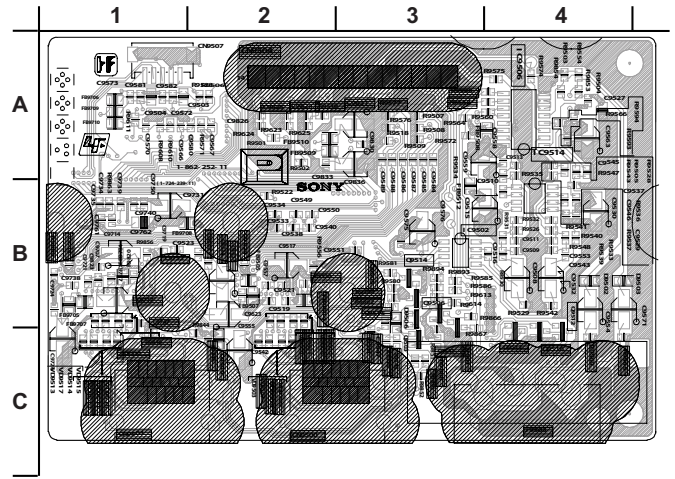
Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method. Data is provided for reference only.

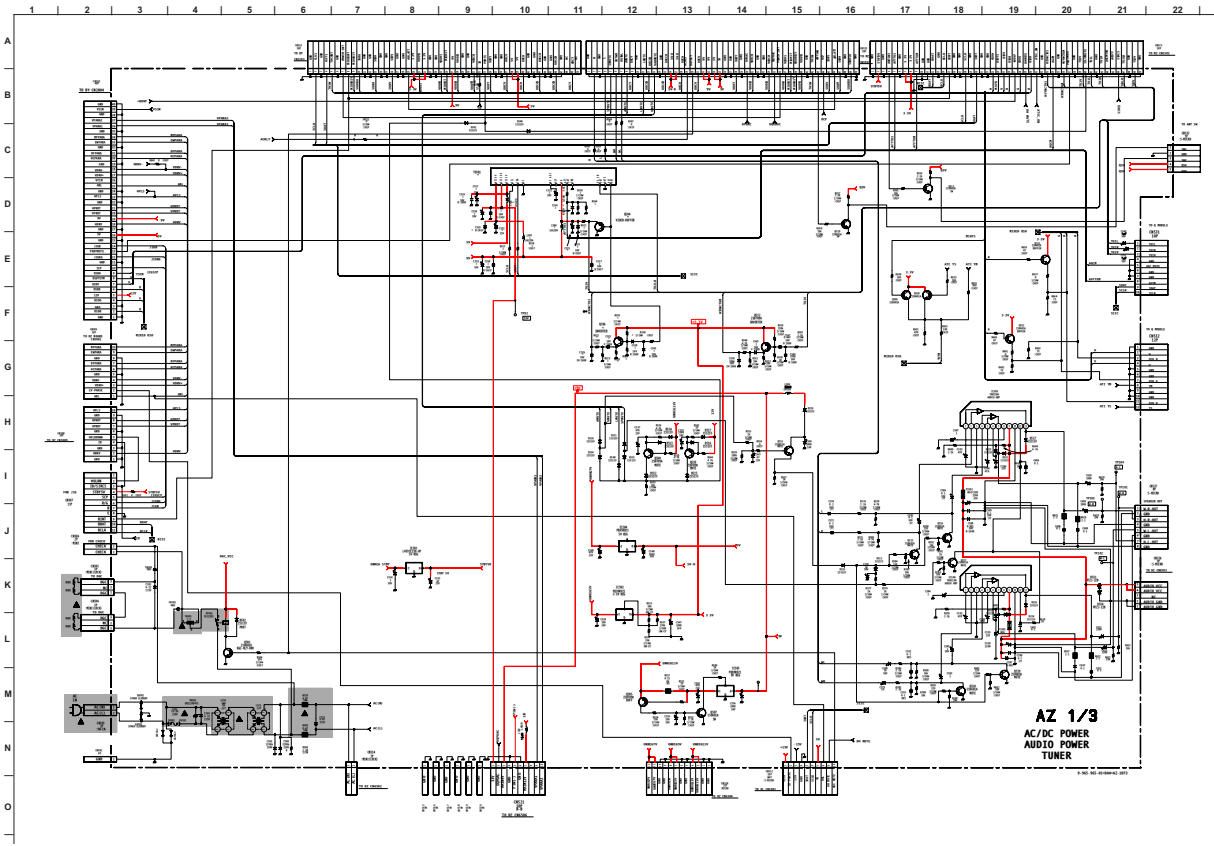


P [HDMI RECEIVER]
COMPONENT SIDE



P [HDMI RECEIVER]
CONDUCTOR SIDE





AZ BOARD IC VOLTAGE LIST

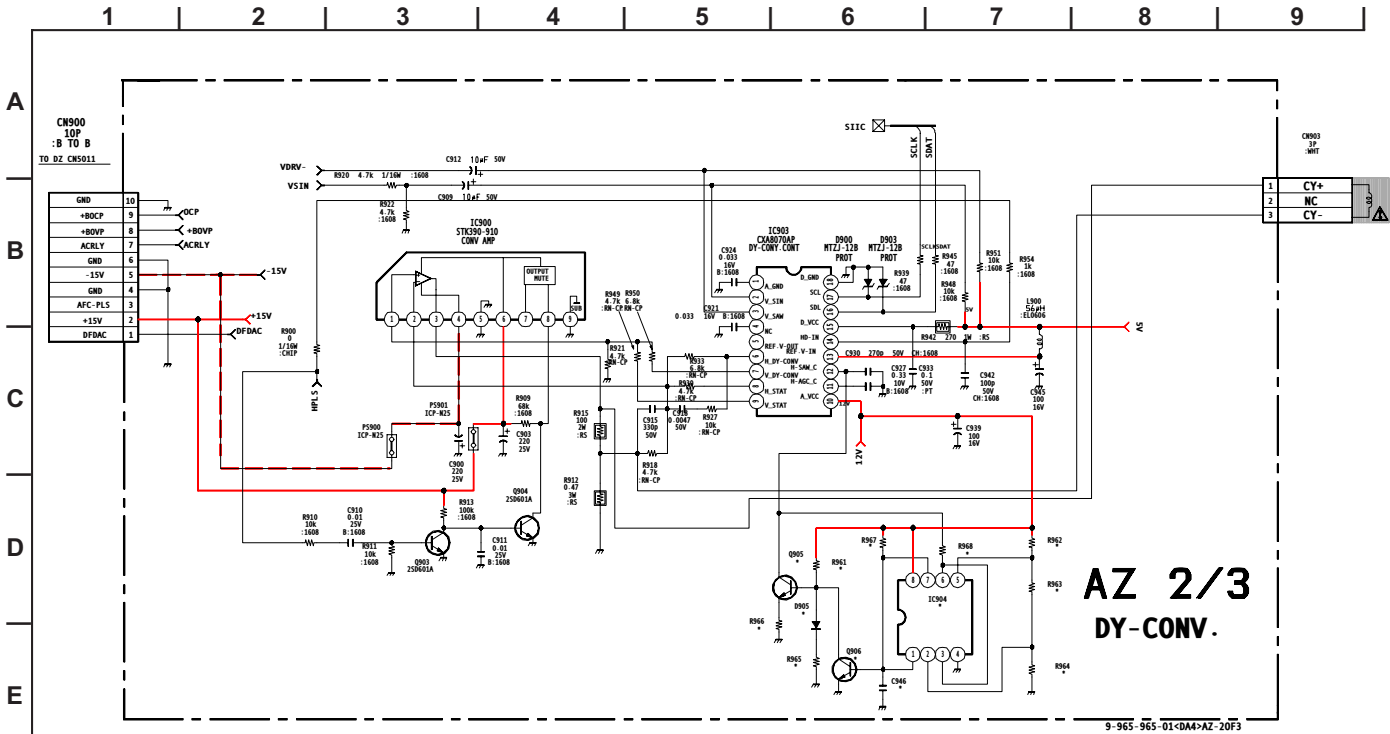
IC#01	IC#02	IC#03	IC#04	IC#05	IC#06	IC#07	IC#08	IC#09	IC#10
PN	VOLT	PN	VOLT	PN	VOLT	PN	VOLT	PN	VOLT
0	24.0	7	0.0	8	5.0	9	2.5	10	2.5
D	5.0	2	0.1	11	4.5	6	0.0	2	1.8
GND	GND	2	GND	10	10.0	3	2.2	3	6.0
IC#02	IC#02	IC#02	IC#02	IC#02	IC#02	IC#02	IC#02	IC#02	IC#02
PN	VOLT	PN	VOLT	PN	VOLT	PN	VOLT	PN	VOLT
5	1.8	12	0.0	5	GND	PN	VOLT	PN	VOLT
5	7.5	3	3.5	15	5.0	5	0.0	1	6.5
D	3.3	7	11.0	2	3.3	14	1.2	7	4.8
GND	GND	6	5.1	3	0.5	16	0.0	6	11.5
A	3.4	9	24.0	4	15.7	18	4.8	9	0.0
IC#04	IC#04	IC#04	IC#04	IC#04	IC#04	IC#04	IC#04	IC#04	IC#04
PN	VOLT	PN	VOLT	PN	VOLT	PN	VOLT	PN	VOLT
11	4.4	4	GND	17	4.8	15	0.0	11	GND
J	7.0	12	10.8	7	NC	IC#04	IC#04	IC#04	IC#04
D	5.0	IC#09	IC#09	IC#09	IC#09	IC#09	IC#09	IC#09	IC#09
GND	GND	PN	VOLT	PN	VOLT	PN	VOLT	PN	VOLT
1	0.4	14	151.8	12	4.8	12	4.8	12	4.8
E	NC	1.8	IC#03	IC#03	IC#03	IC#03	IC#03	IC#03	IC#03
PN	VOLT	PN	VOLT	PN	VOLT	PN	VOLT	PN	VOLT
3	GND	1	4.8	4	GND	17	NC	12	4.8
D	5.0	5	1.8	3	4.8	8	4.9	18	206.1
GND	GND	6	8.0	4	4.8	7	0.4	4	2.3
A	2.3	7	11.0	5	NC	8	12.0		

AZ BOARD TRANSISTOR VOLTAGE LIST

Q#01	B	C	E	Q#02	D	G	S
Q#01	0.1	19.4	GND	Q#02	10.9	129.8	135.0
Q#04	0.8	GND	4.5	Q#05	0.0	3.8	10.0
Q#05	13.0	0.1	11.0				
Q#06	3.5	0.5	3.3	Q#07	0.0	0.0	
Q#07	0.1	2.3	GND	Q#08	0.0	0.0	
Q#08	10.5	0.3	0.0	Q#09	0.0	0.0	
Q#09	0.0	0.0	12.0	Q#10	0.0	0.0	
Q#10	12.0	0.0	12.0	Q#11	0.5	3.3	0.0
Q#11	0.5	3.3	0.0	Q#12	3.3	0.0	3.3
Q#12	3.3	0.0	3.3	Q#13	0.0	0.0	0.0
Q#13	0.0	0.0	0.0	Q#14	0.0	0.0	0.0
Q#14	0.0	0.0	0.0	Q#15	0.0	0.0	0.0
Q#15	0.0	0.0	0.0	Q#16	0.0	0.0	0.0
Q#16	0.0	0.0	0.0	Q#17	0.0	4.4	GND
Q#17	0.0	4.4	GND	Q#18	0.0	0.0	GND
Q#18	0.0	0.0	GND	Q#19	0.0	0.0	GND
Q#19	0.0	0.0	GND	Q#20	0.0	4.3	GND
Q#20	0.0	4.3	GND	Q#21	0.0	4.3	GND
Q#21	0.0	4.3	GND	Q#22	0.0	3.3	0.0
Q#22	0.0	3.3	0.0	Q#23	0.8	3.3	0.7
Q#23	0.8	3.3	0.7	Q#24	0.0	4.8	0.8
Q#24	0.0	4.8	0.8	Q#25	0.0	0.0	GND
Q#25	0.0	0.0	GND	Q#26	0.0	0.0	GND
Q#26	0.0	0.0	GND	Q#27	13.1	18.3	18.4
Q#27	13.1	18.3	18.4	Q#28	0.8	0.0	GND
Q#28	0.8	0.0	GND				

AZ 1/3 AC/DC POWER AUDIO POWER TUNER

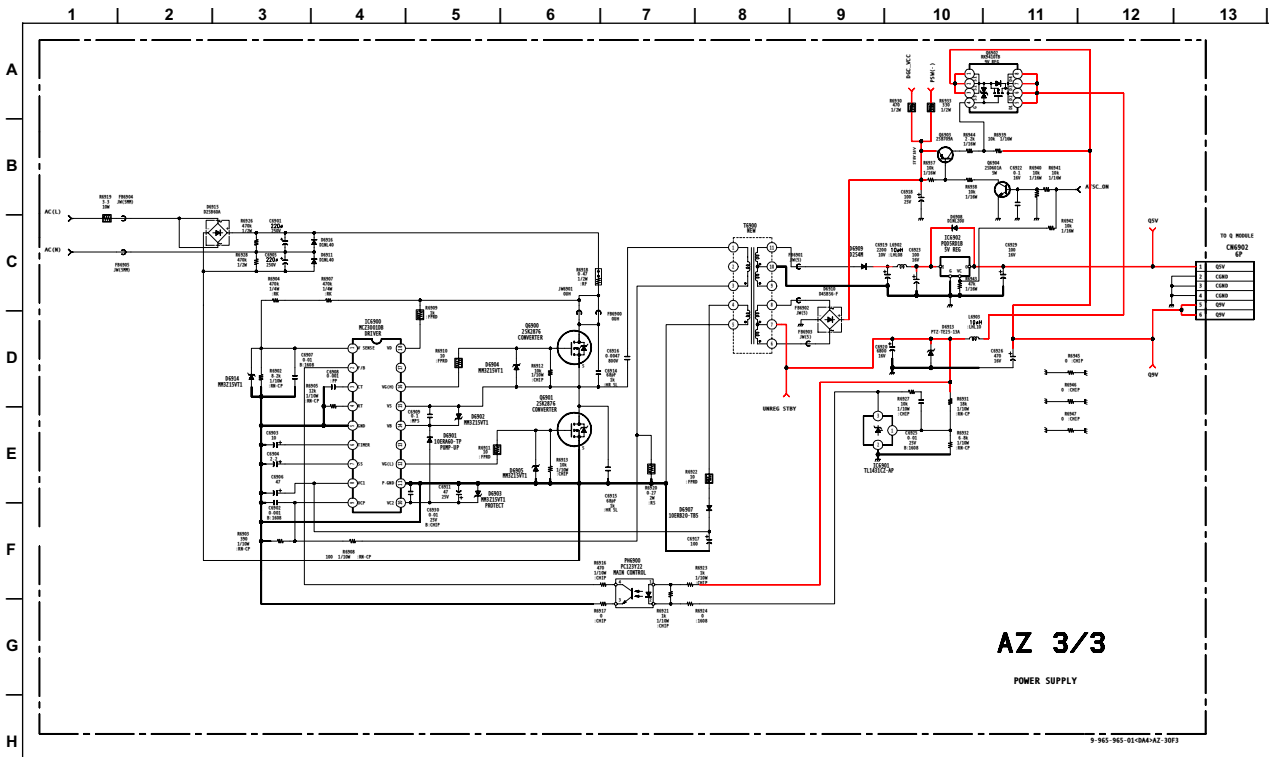
AZ BOARD SCHEMATIC DIAGRAM (2 OF 3)



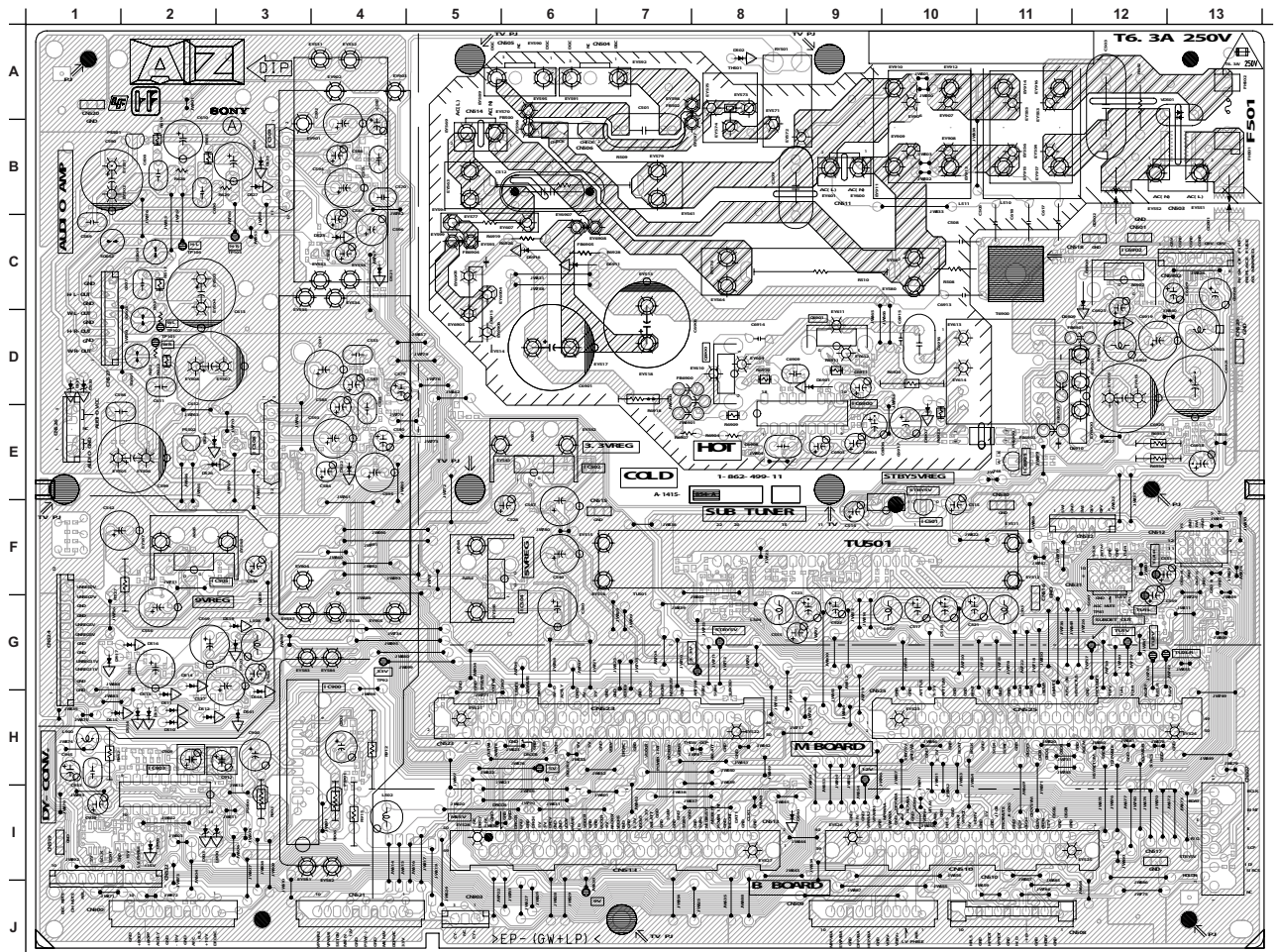
AZ 2/3
DY-CONV.

9-965-965-01-DM-AZ-20F3

AZ BOARD SCHEMATIC DIAGRAM (3 OF 3)



AZ [AC/DC POWER, AUDIO POWER, TUNER, DY-CONV, POWER SUPPLY]
COMPONENT SIDE



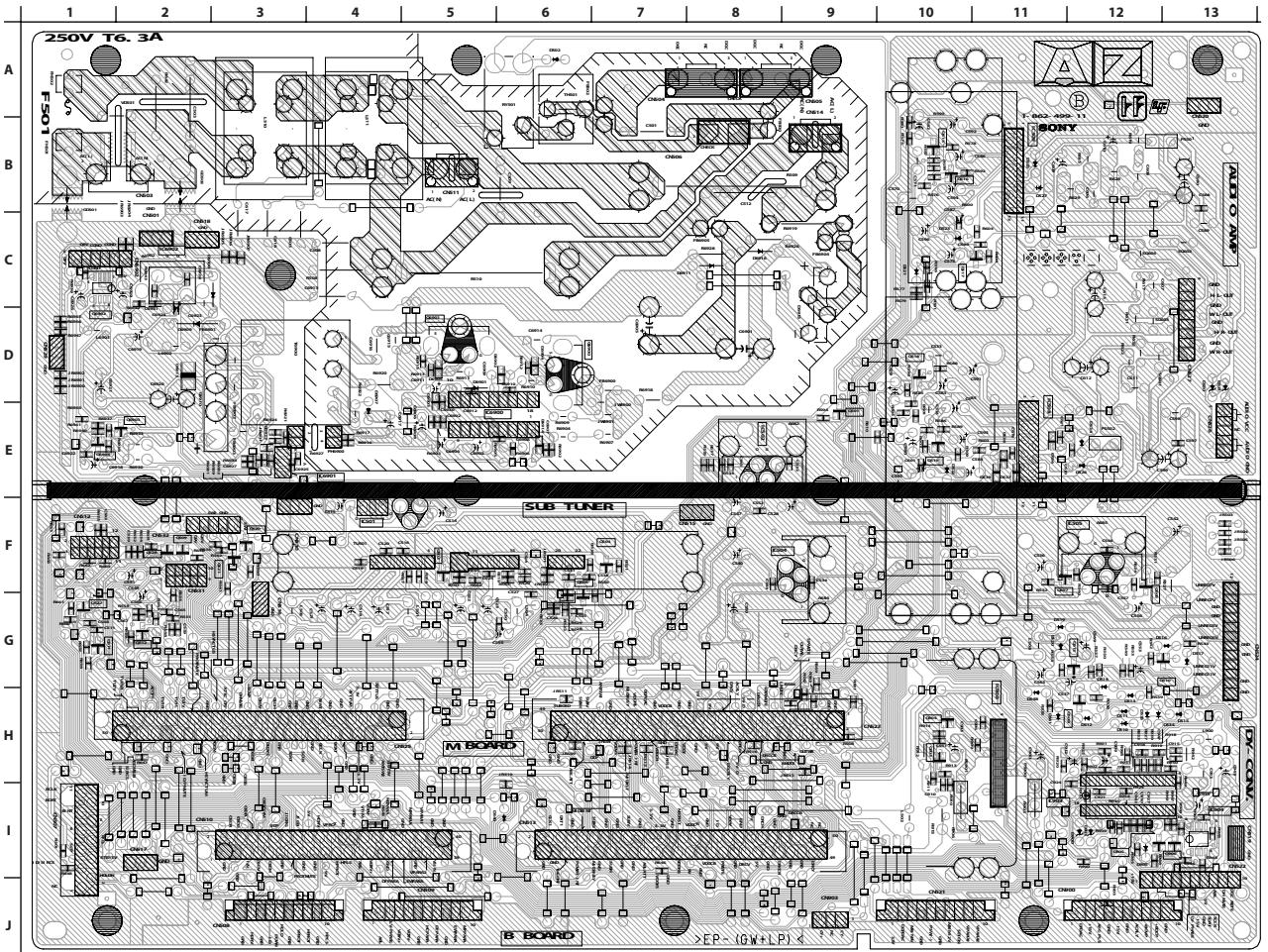


[AC/DC POWER, AUDIO POWER, TUNER, DY-CONV, POWER SUPPLY]

CONDUCTOR SIDE

AZ BOARD LOCATOR LIST (CONDUCTOR SIDE)

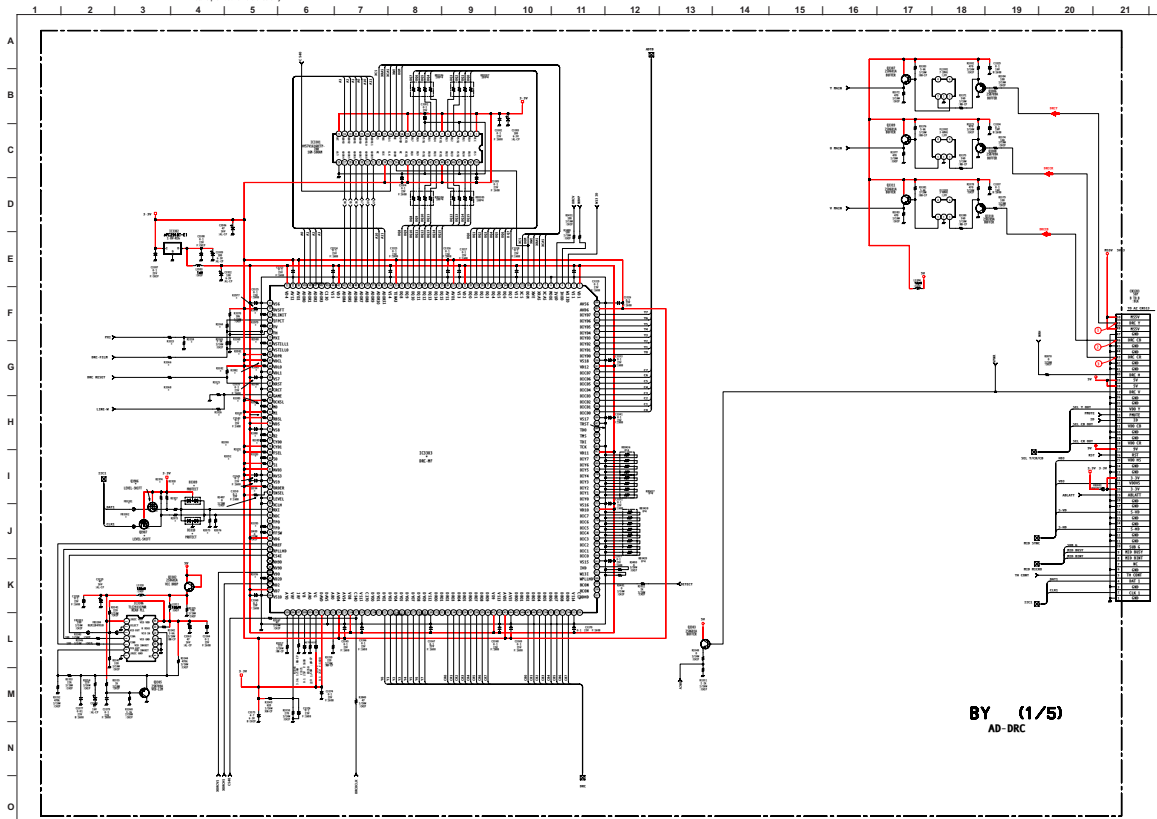
DIODE	IC	IC	IC
D502	A-6	IC501	C-8
D510	H-12	IC502	C-8
D511	H-12	IC504	D-9
D512	H-12	IC505	F-9
D513	H-12	IC508	E-11
D514	G-12	IC509	B-11
D515	G-12	IC900	G-11
D516	H-13	IC903	I-11
D517	G-13	IC904	I-13
D519	G-13	IC6900	E-6
D520	G-12	IC6901	E-4
D521	G-12	IC6902	C-2
D521	C-10	TRANSISTOR	
D522	E-10	Q901	E-9
D523	C-10	Q904	F-7
D524	E-12	Q905	G-12
D525	B-11	Q906	F-6
D526	E-12	Q907	F-11
D527	C-11	Q508	H-12
D530	D-13	Q509	F-3
D531	D-13	Q510	G-13
D534	H-12	Q511	G-2
D535	H-11	Q512	G-2
D540	I-6	Q513	G-12
D541	H-11	Q515	B-10
D548	H-11	Q516	B-10
D900	I-11	Q517	C-10
D903	I-12	Q518	D-10
D905	I-12	Q519	E-10
D901	D-5	Q520	F-3
D902	D-6	Q521	F-3
D903	E-5	Q522	G-2
D904	D-6	Q528	F-2
D905	D-5	Q903	H-10
D907	E-4	Q904	H-10
D908	C-3	Q905	I-12
D909	D-3	Q906	I-13
D910	D-2	Q6900	D-6
D911	C-8	Q6901	D-5
D913	D-2	Q6902	D-2
D914	E-6	Q6903	E-2
D915	D-9	Q6904	E-2
D916	C-8		



BY BOARD SCHEMATIC DIAGRAM (1 OF 5)

Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method. Data is provided for reference only.

KD-303395340R8663403395303395



BY BOARD WAVEFORMS



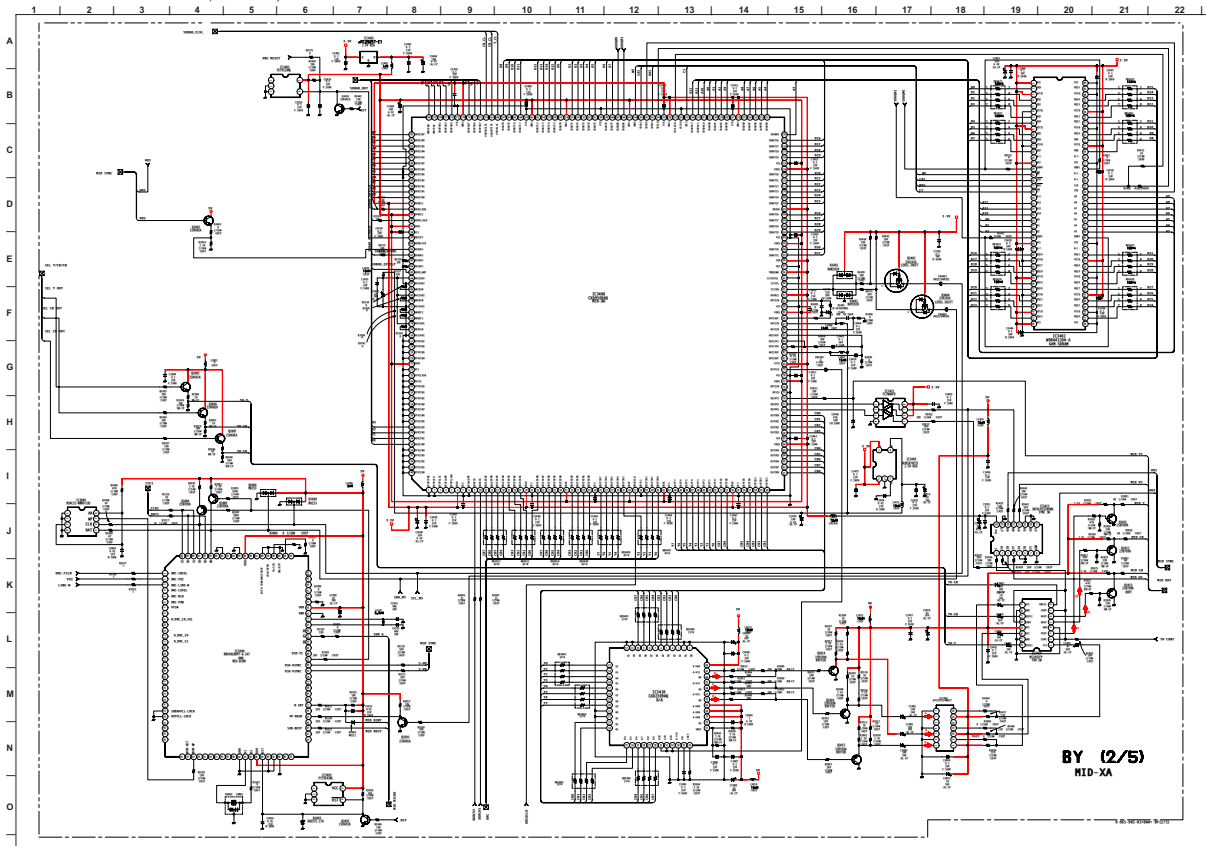
KD-303395340R8663403395303395

106

BY BOARD SCHEMATIC DIAGRAM (2 OF 5)

Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method.
Data is provided for reference only.

KD-303395348R86034233553033955



BY (2/5)
MID-XA

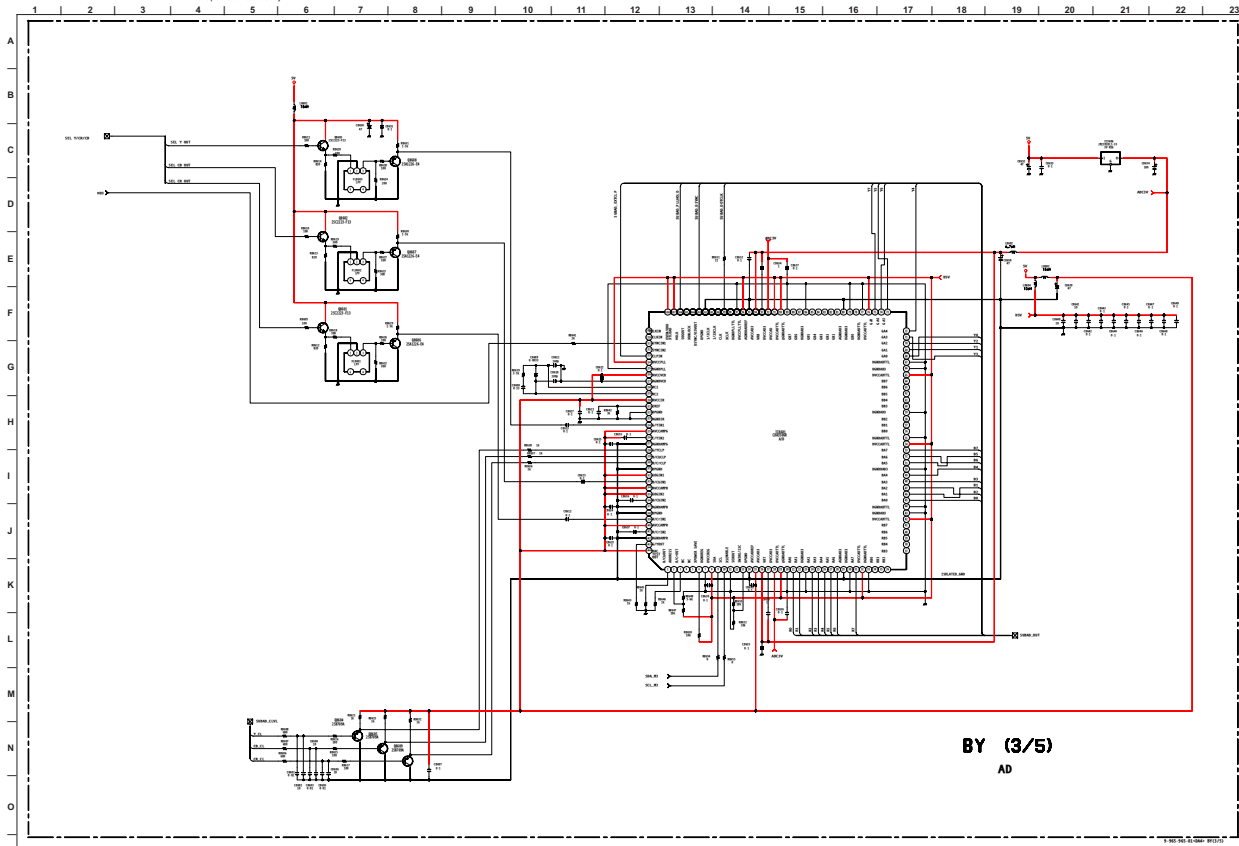
KD-303395348R86034233553033955

107

BY BOARD SCHEMATIC DIAGRAM (3 OF 5)

Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method.
Data is provided for reference only.

KD-305395348R8652423955363955



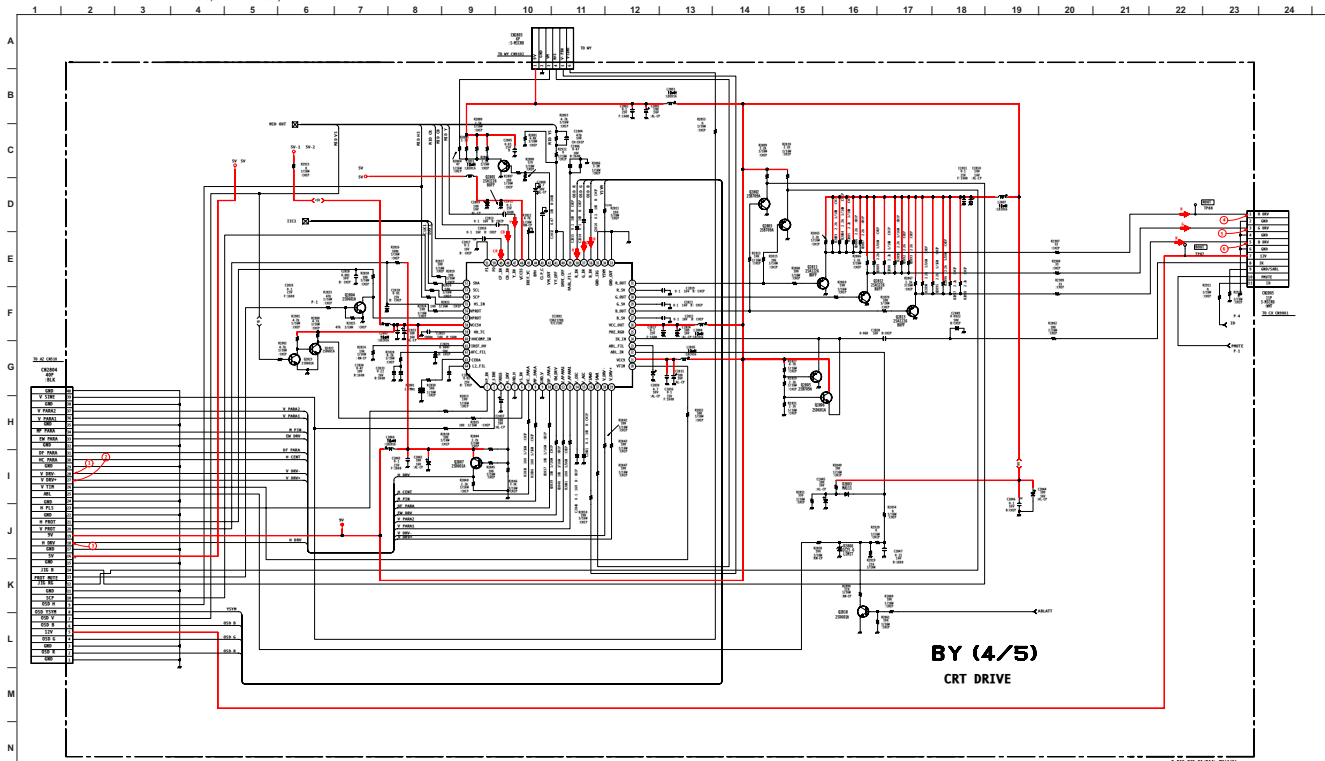
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108

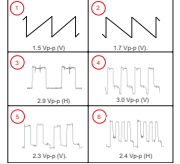
BY BOARD SCHEMATIC DIAGRAM (4 OF 5)

Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method. Data is provided for reference only.

KD-305395348R863423955303955



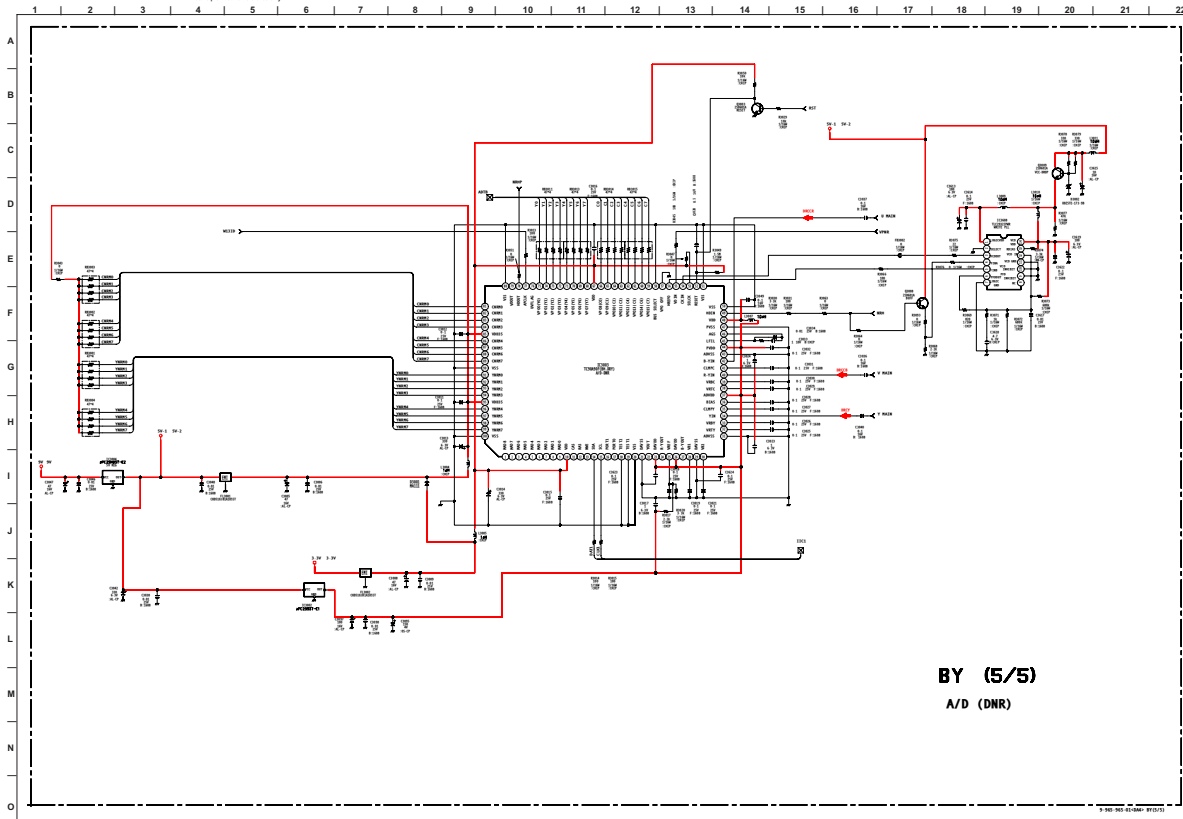
BY BOARD WAVEFORMS



KD-305395348R863423955303955

109

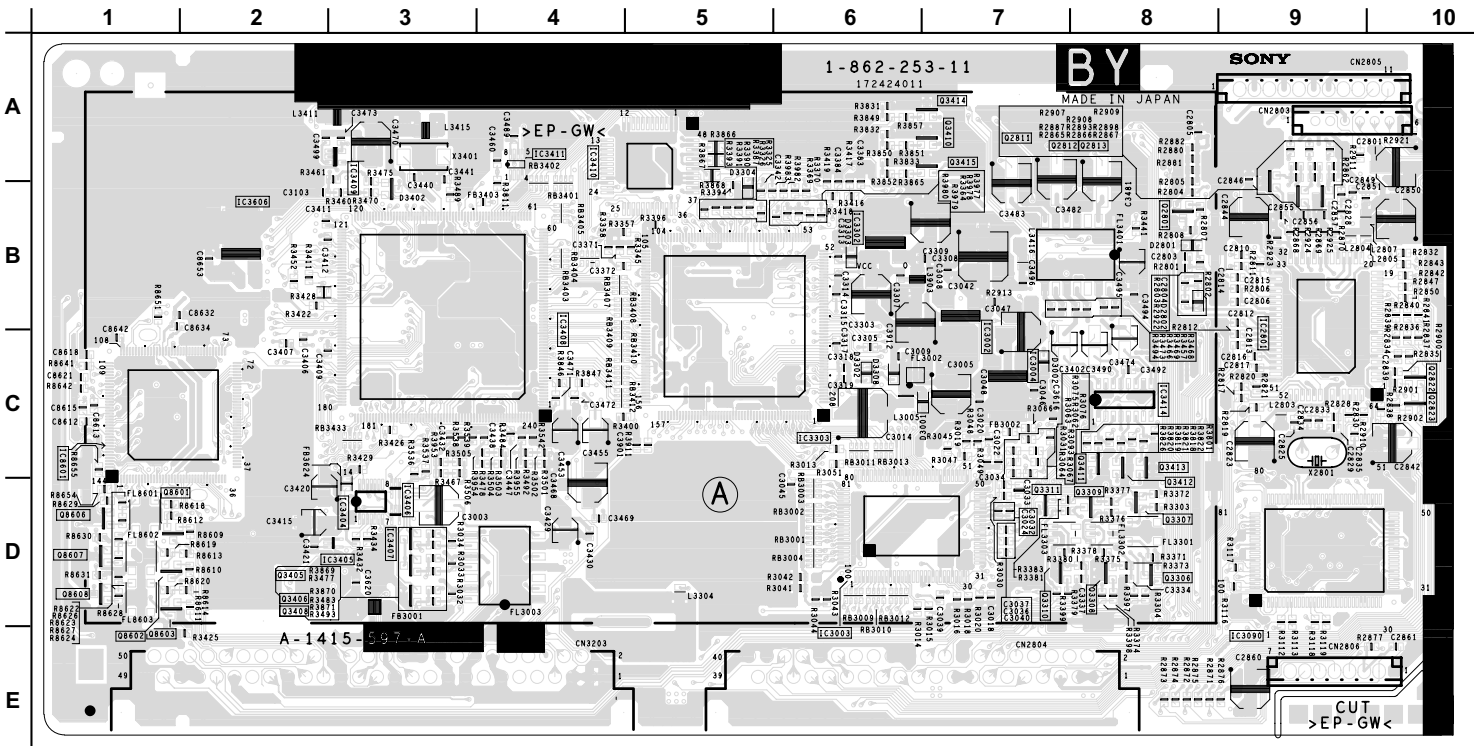
Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method.
Data is provided for reference only.





[AD-DRC, MID-XA, AD, CRT DRIVE, A/D (DNR)]

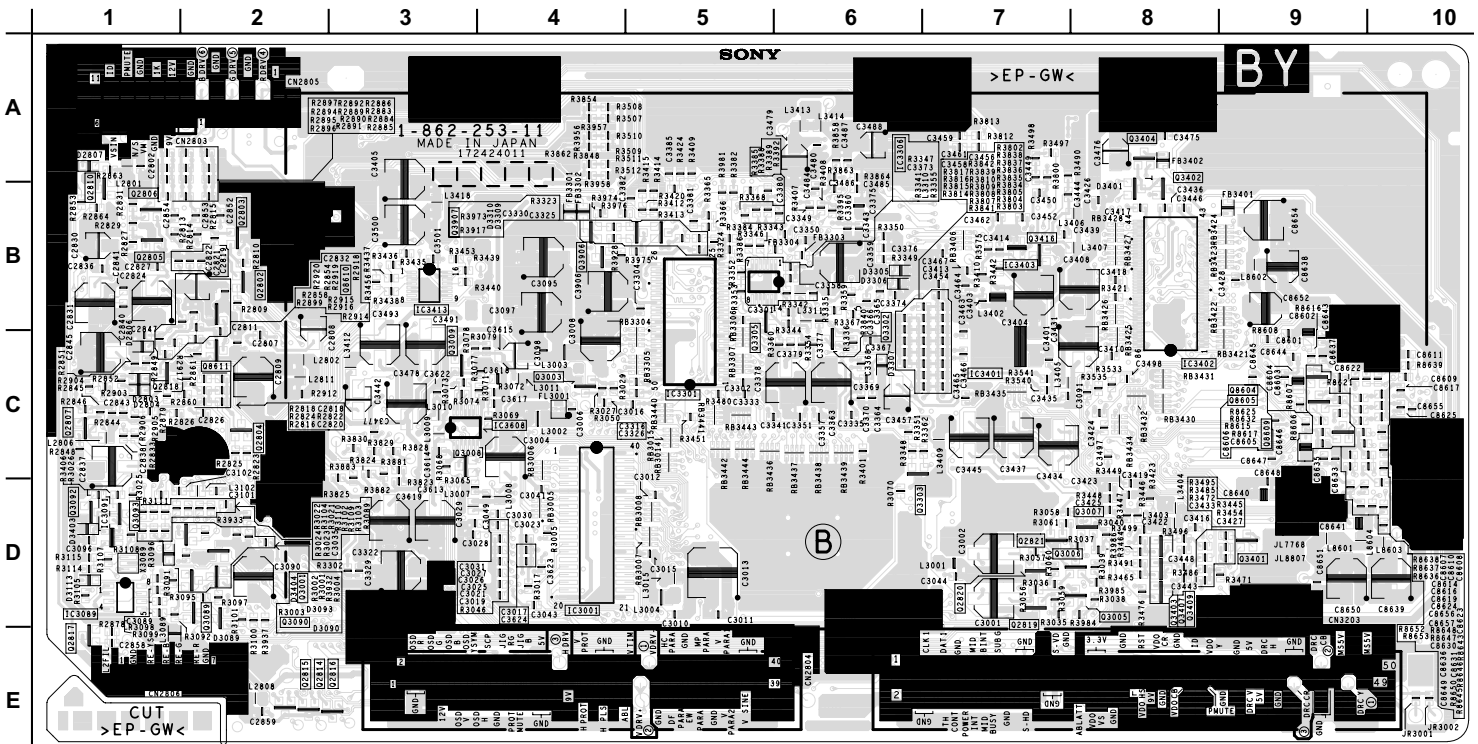
COMPONENT SIDE





[AD-DRC, MID-XA, AD, CRT DRIVE, A/D (DNR)]

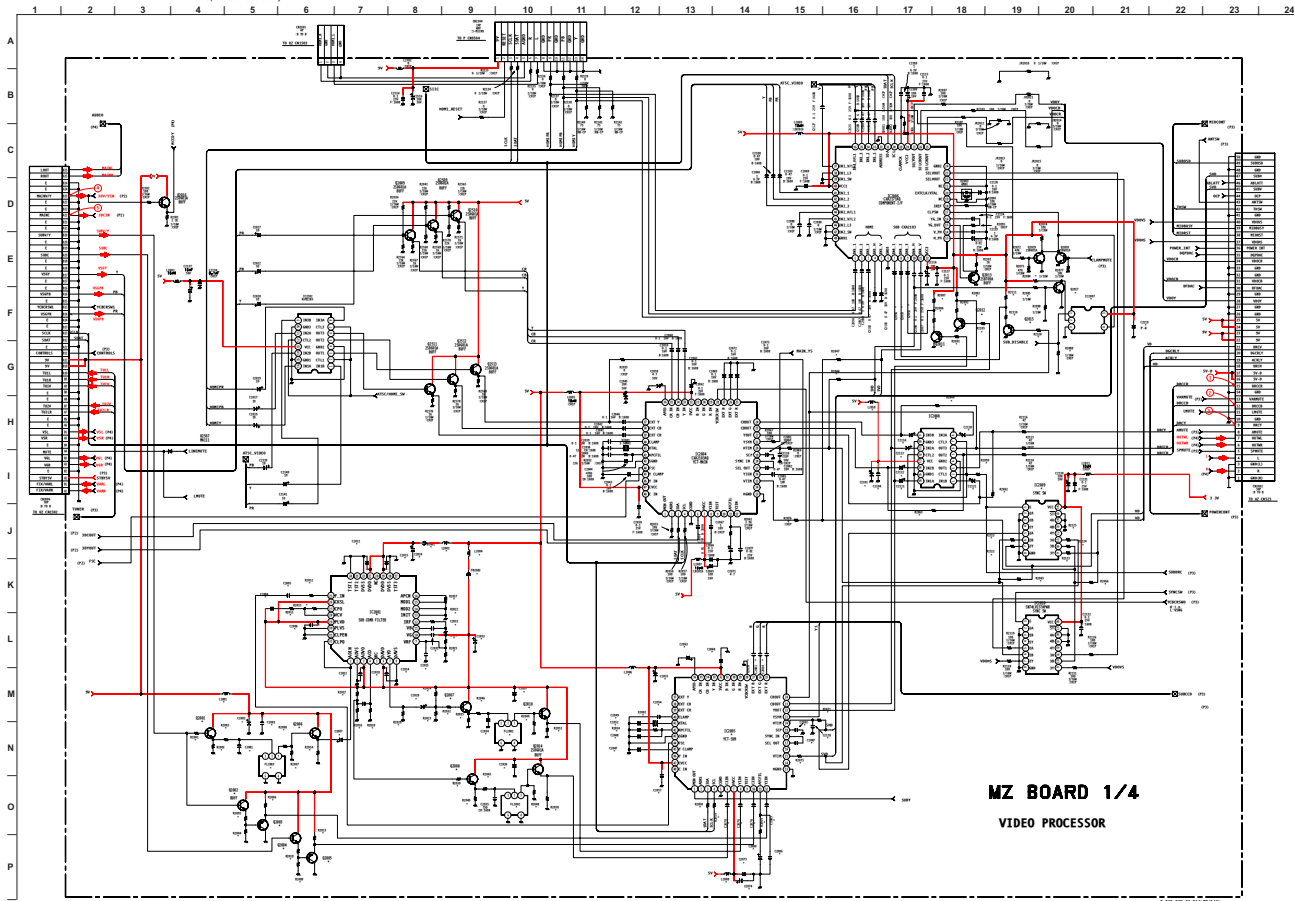
CONDUCTOR SIDE



MZ BOARD SCHEMATIC DIAGRAM (1 OF 4)

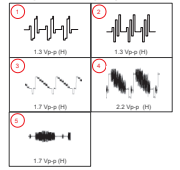
Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method.
Data is provided for reference only.

KD-305395348R866342395303955



MZ BOARD 1/4
VIDEO PROCESSOR

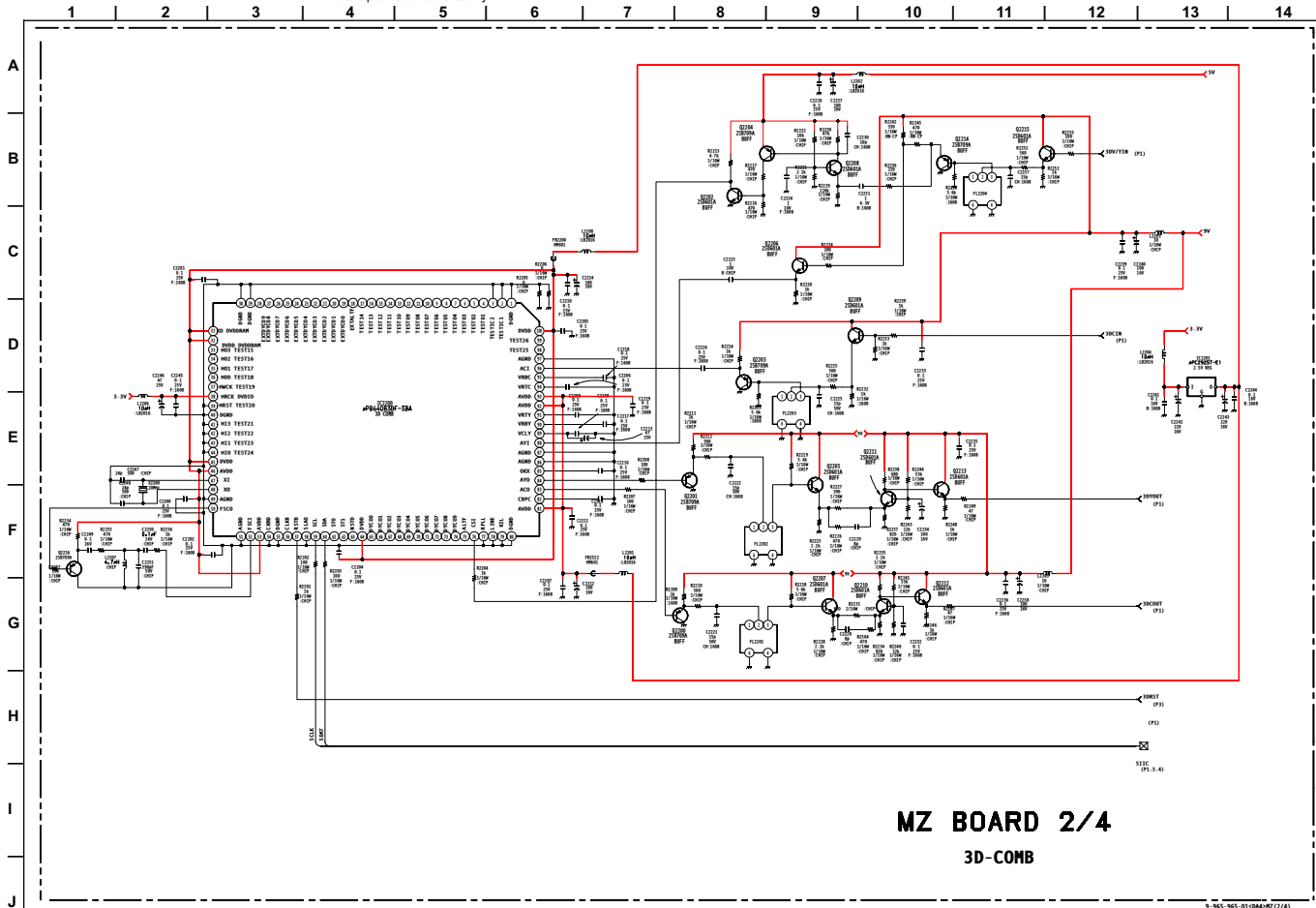
MZ BOARD WAVEFORMS



KD-305395348R866342395303955

113

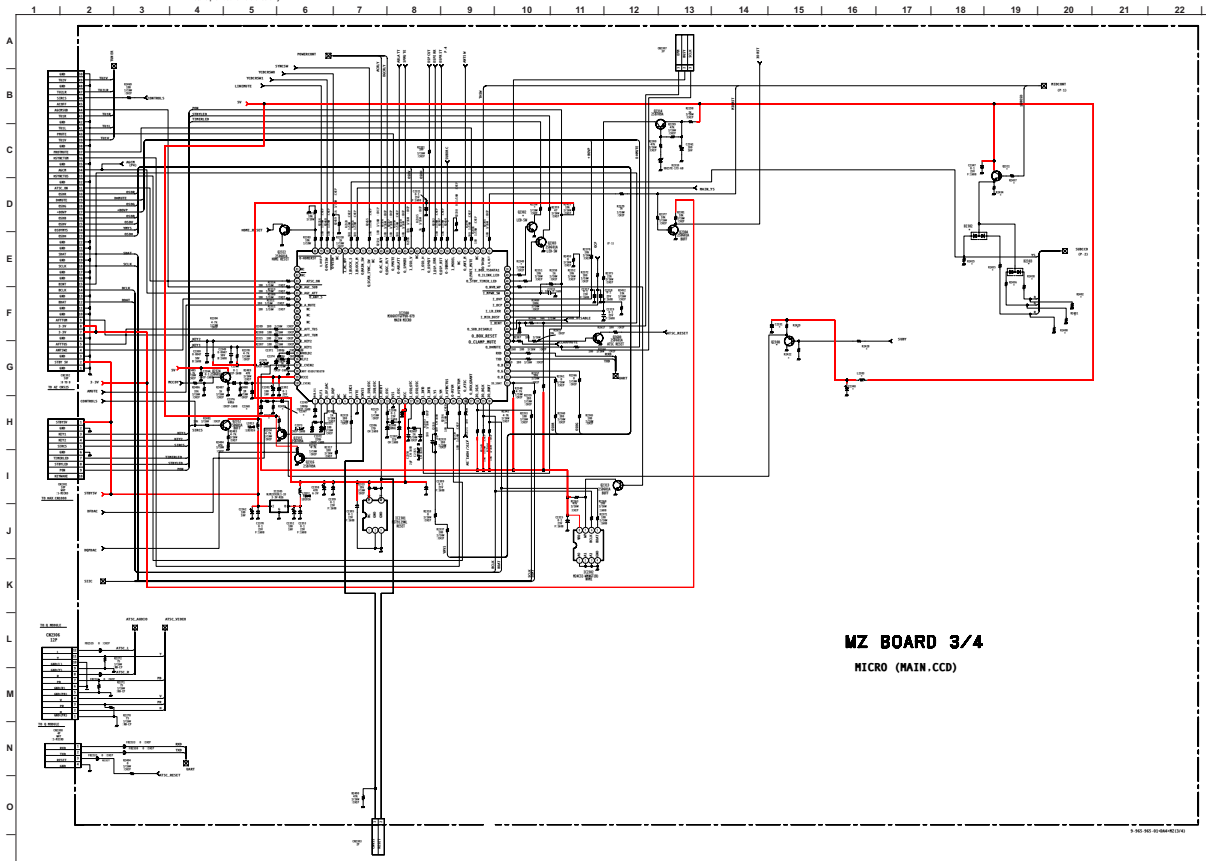
MZ BOARD SCHEMATIC DIAGRAM (2 OF 4) Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method. Data is provided for reference only.



MZ BOARD SCHEMATIC DIAGRAM (3 OF 4)

Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method. Data is provided for reference only.

KD-303395348R860342395303955



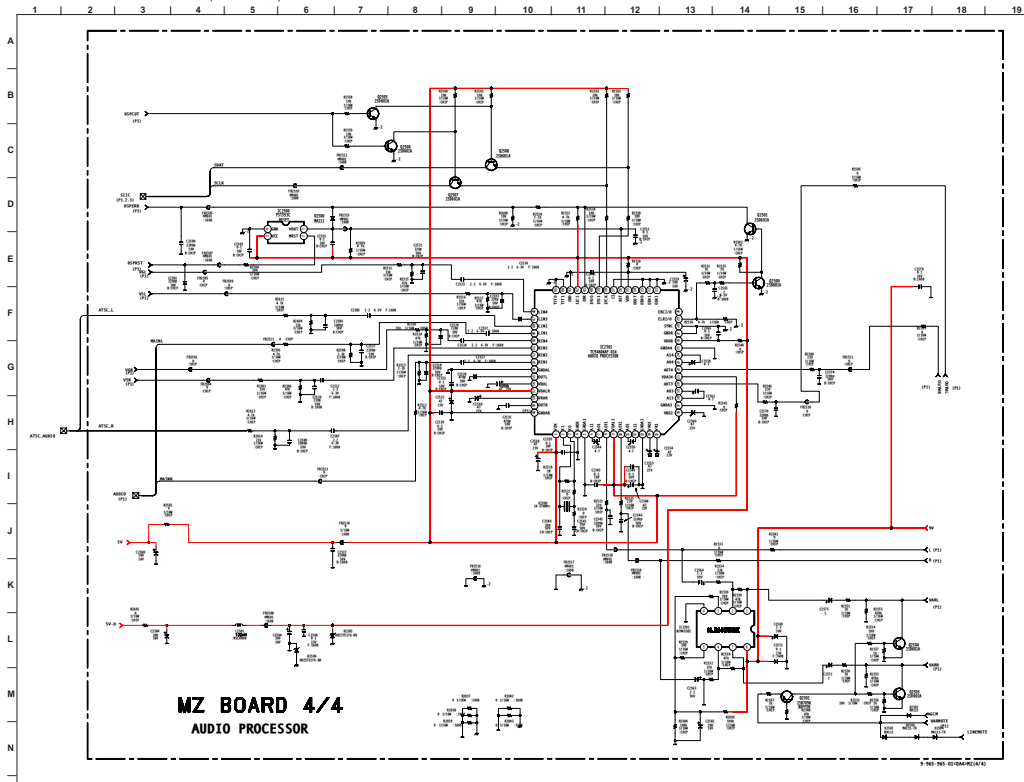
KD-303395348R860342395303955

115

MZ BOARD SCHEMATIC DIAGRAM (4 OF 4)

Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method. Data is provided for reference only.

KD-3033953408R8634033953033955



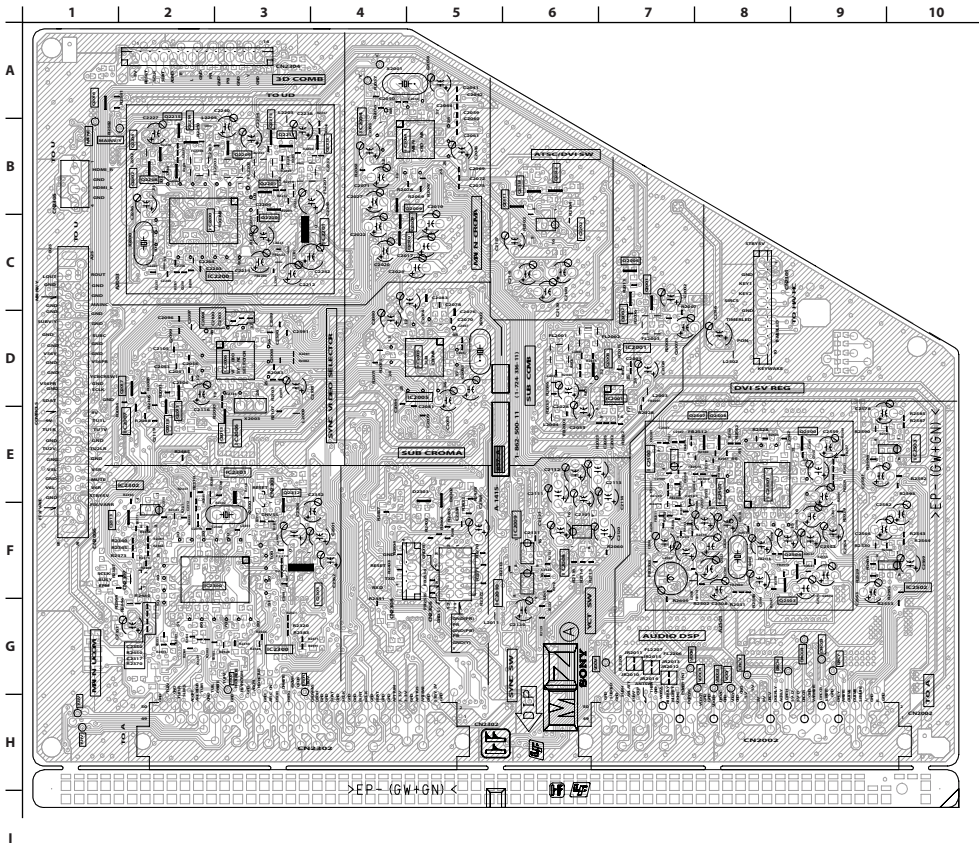
KD-3033953408R8634033953033955

116



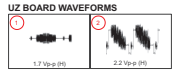
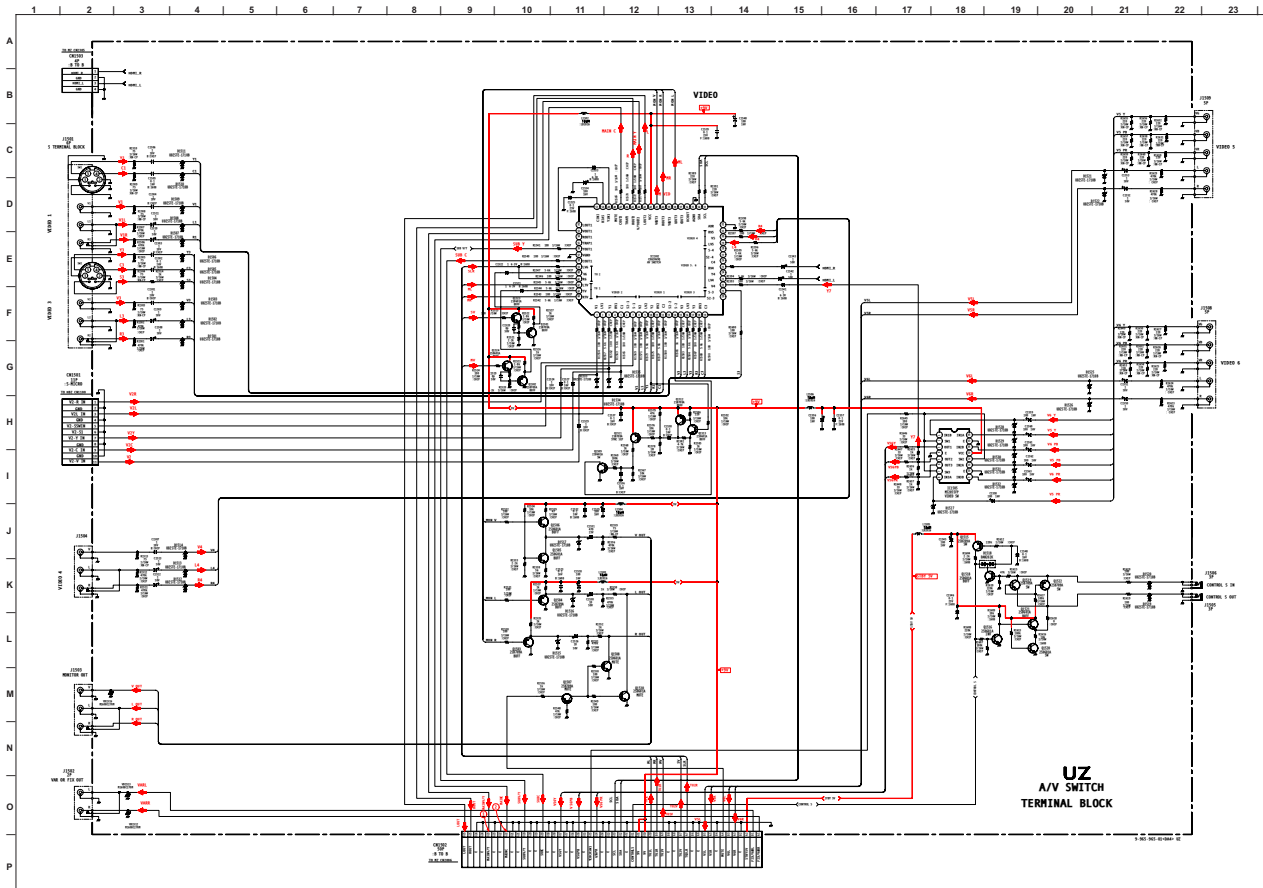
[VIDEO PROCESSOR, 3D-COMB, MICRO (MAIN, CCD), AUDIO PROCESSOR]

COMPONENT SIDE



UZ BOARD SCHEMATIC DIAGRAM

KD-3033955348R8603423553033955



UZ BOARD IC VOLTAGE LIST

IC1502	21	4.9	43	4.5	IC1505		
PN	VOLT	22	3.9	44	2.3	PN	VOLT
1	3.9	23	6.5	45	4.5	1	4.7
2	4.5	24	NC	46	NC	2	0.0
3	3.9	25	NC	47	4.4	3	3.9
4	4.5	26	NC	48	NC	4	0.0
5	4.5	27	NC	49	4.9	5	3.2
6	NC	28	NC	50	4.5	6	3.5
7	4.5	29	4.5	51	4.5	7	0.0
8	4.5	30	3.9	52	NC	8	4.5
9	4.5	31	4.5	53	4.4	9	4.6
10	3.9	32	GND	54	NC	10	GND
11	4.5	33	4.5	55	NC	11	4.7
12	4.5	34	4.5	56	4.1	12	0.0
13	NC	35	GND	57	GND	13	0.0
14	4.5	36	NC	58	4.4	14	4.7
15	2.5	37	NC	59	4.4	15	GND
16	4.5	38	4.5	60	5.0	16	GND
17	3.9	39	NC	61	4.5	17	4.7
18	4.5	40	4.5	62	4.5	18	4.7
19	4.5	41	4.4	63	4.9	19	4.5
20	NC	42	6.5	64	4.5	20	4.5

UZ BOARD TRANSISTOR VOLTAGE LIST

Q1501	B	C	E
Q1501	2.0	GND	2.7
Q1502	3.1	GND	4.0
Q1503	4.3	GND	5.2
Q1504	4.3	GND	5.2
Q1505	1.8	3.7	0.9
Q1506	4.4	8.3	0.8
Q1507	0.0	0.0	GND
Q1508	0.0	0.0	GND
Q1509	0.0	4.9	GND
Q1510	0.0	0.0	GND
Q1511	5.0	0.0	0.0
Q1512	8.4	5.3	0.0
Q1513	3.8	8.4	3.2
Q1514	4.0	4.2	5.0
Q1516	0.6	0.1	GND
Q1518	0.0	4.5	GND
Q1519	5.0	0.0	0.0
Q1520	0.0	0.0	GND
Q1521	0.1	0.0	0.0
Q1522	5.0	0.0	0.0
Q1523	4.9	0.0	3.9
Q1524	6.9	0.0	3.9

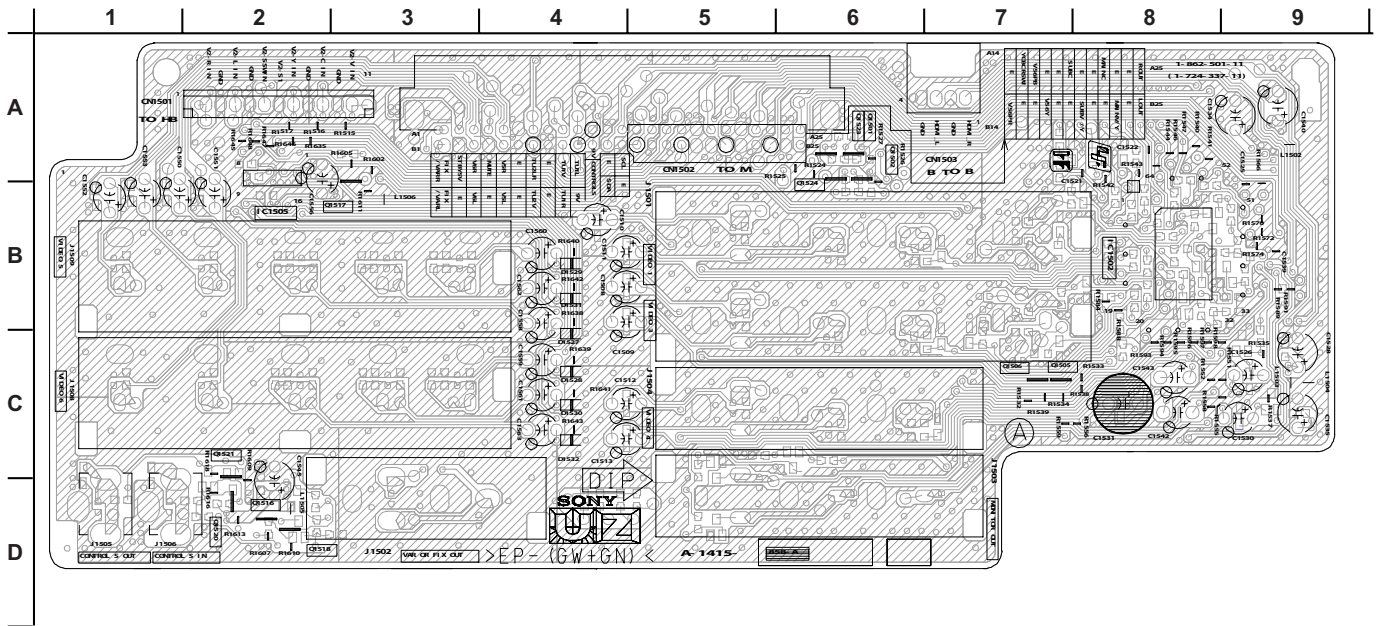
KD-3033955348R8603423553033955

119



[A/V SWITCH, TERMINAL BLOCK]

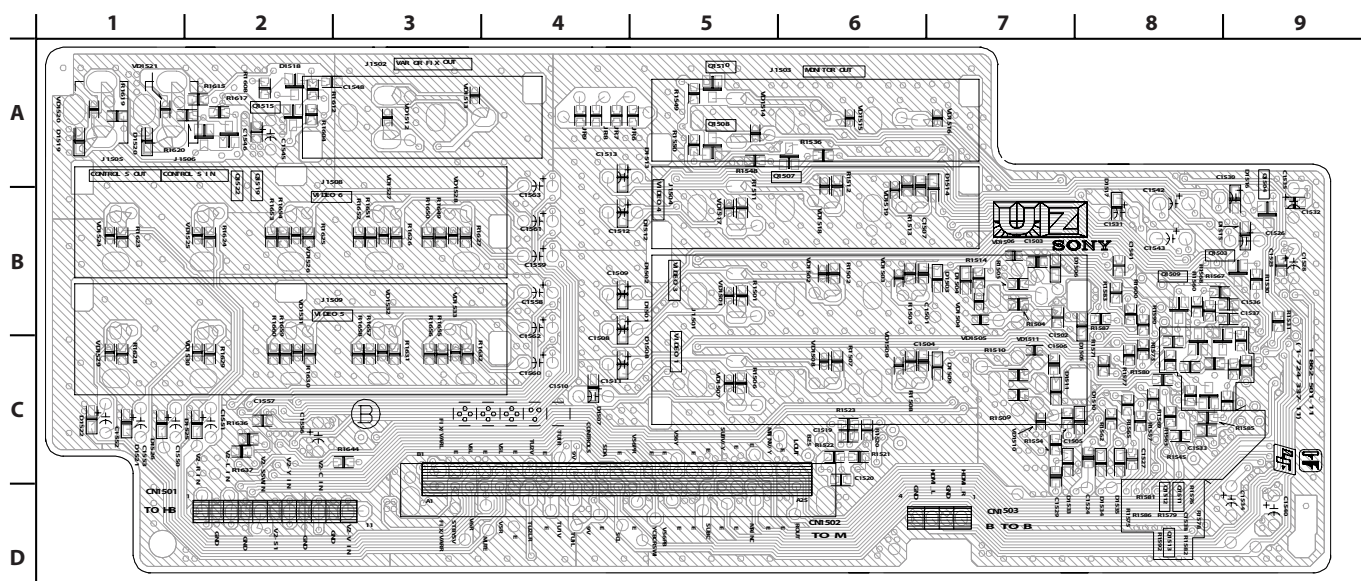
COMPONENT SIDE



UZ BOARD LOCATOR LIST (COMPONENT SIDE)

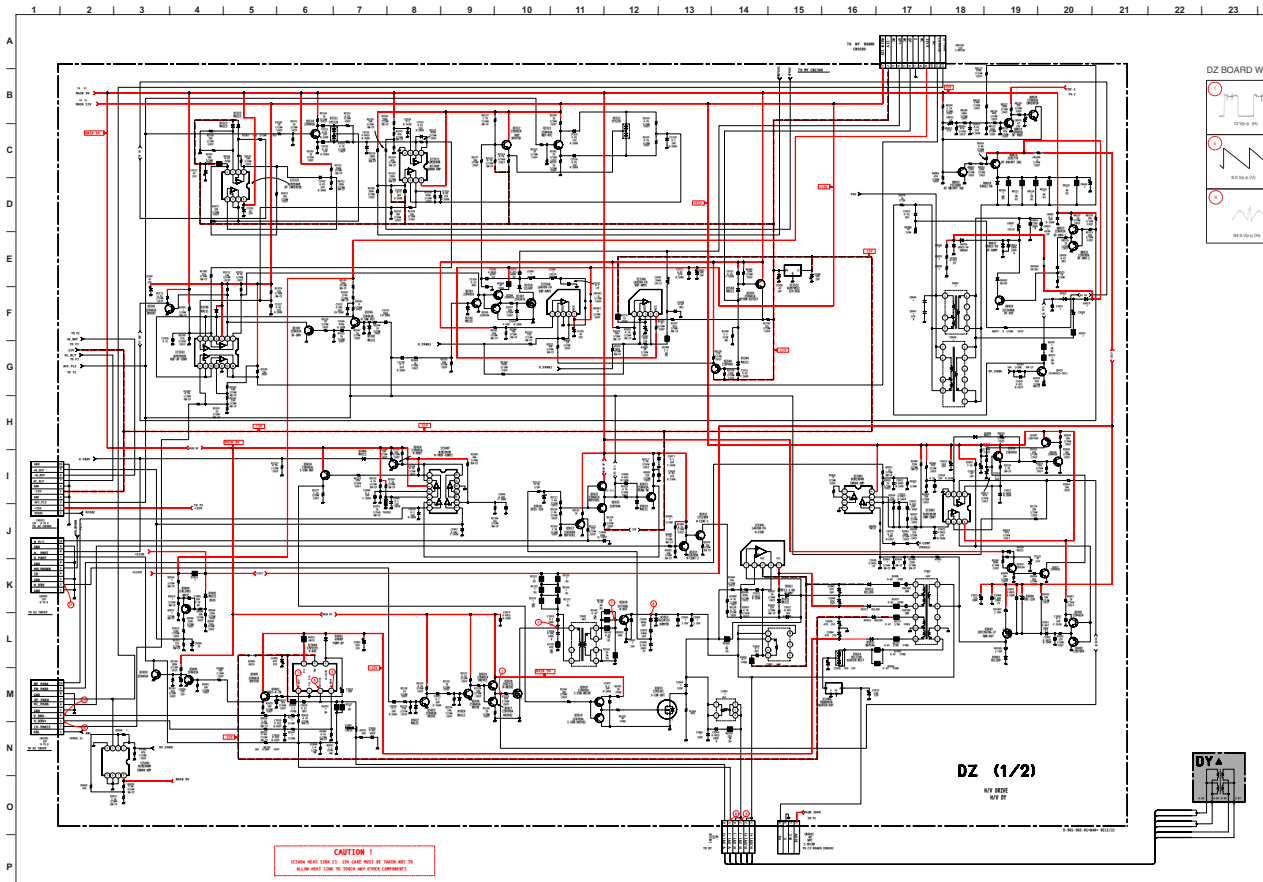
DIODE		TRANSISTOR	
D1527	C-4	Q1501	A-6
D1528	C-4	Q1502	A-6
D1529	B-4	Q1505	C-7
D1530	C-4	Q1506	C-7
D1531	B-4	Q1516	D-2
D1532	C-4	Q1518	D-3
IC		Q1520	D-2
IC1502	B-8	Q1521	C-2
IC1505	B-2	Q1523	A-6
		Q1524	B-6

UZ [A/V SWITCH, TERMINAL BLOCK]
CONDUCTOR SIDE

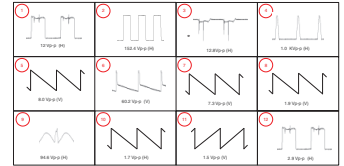


UZ BOARD LOCATOR LIST (CONDUCTOR SIDE)

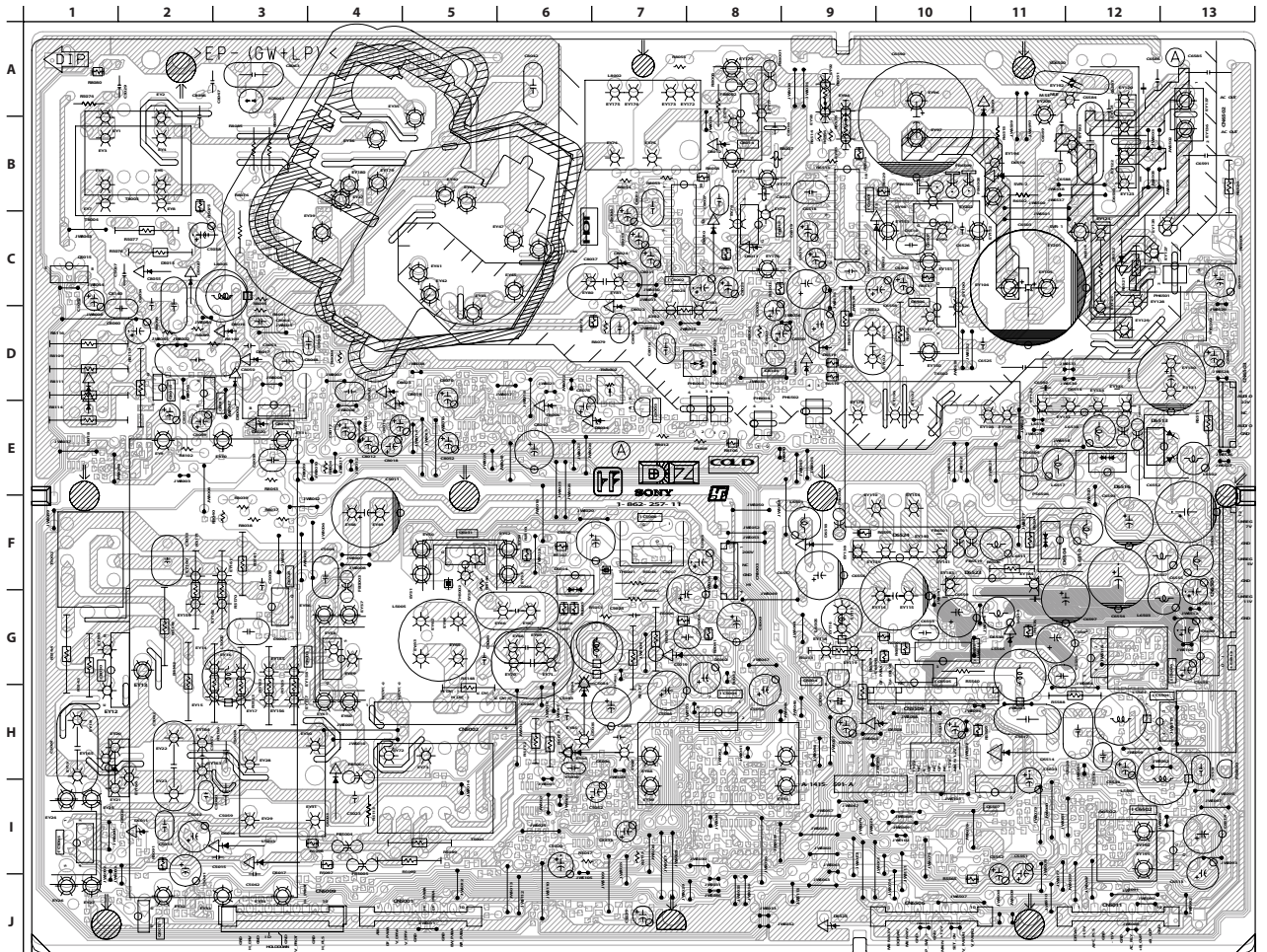
DIODE		DIODE		DIODE		TRANSISTOR	
D1501	C-5	D1510	C-8	D1520	A-1	Q1503	B-8
D1502	B-5	D1511	C-8	D1521	C-1	Q1504	B-9
D1503	B-7	D1512	B-5	D1522	C-1	Q1507	B-5
D1504	B-7	D1513	A-5	D1523	C-2	Q1508	A-5
D1505	C-8	D1514	B-7	D1524	C-1	Q1509	B-8
D1506	B-8	D1515	B-8	D1525	C-2	Q1510	A-5
D1507	C-4	D1516	B-9	D1526	C-1	Q1511	D-8
D1508	C-5	D1517	B-8	D1533	D-7	Q1512	D-8
D1509	C-7	D1518	A-2	D1534	D-8	Q1513	D-8
		D1519	A-1	D1535	D-8	Q1515	A-2
						Q1519	B-2
						Q1522	B-2



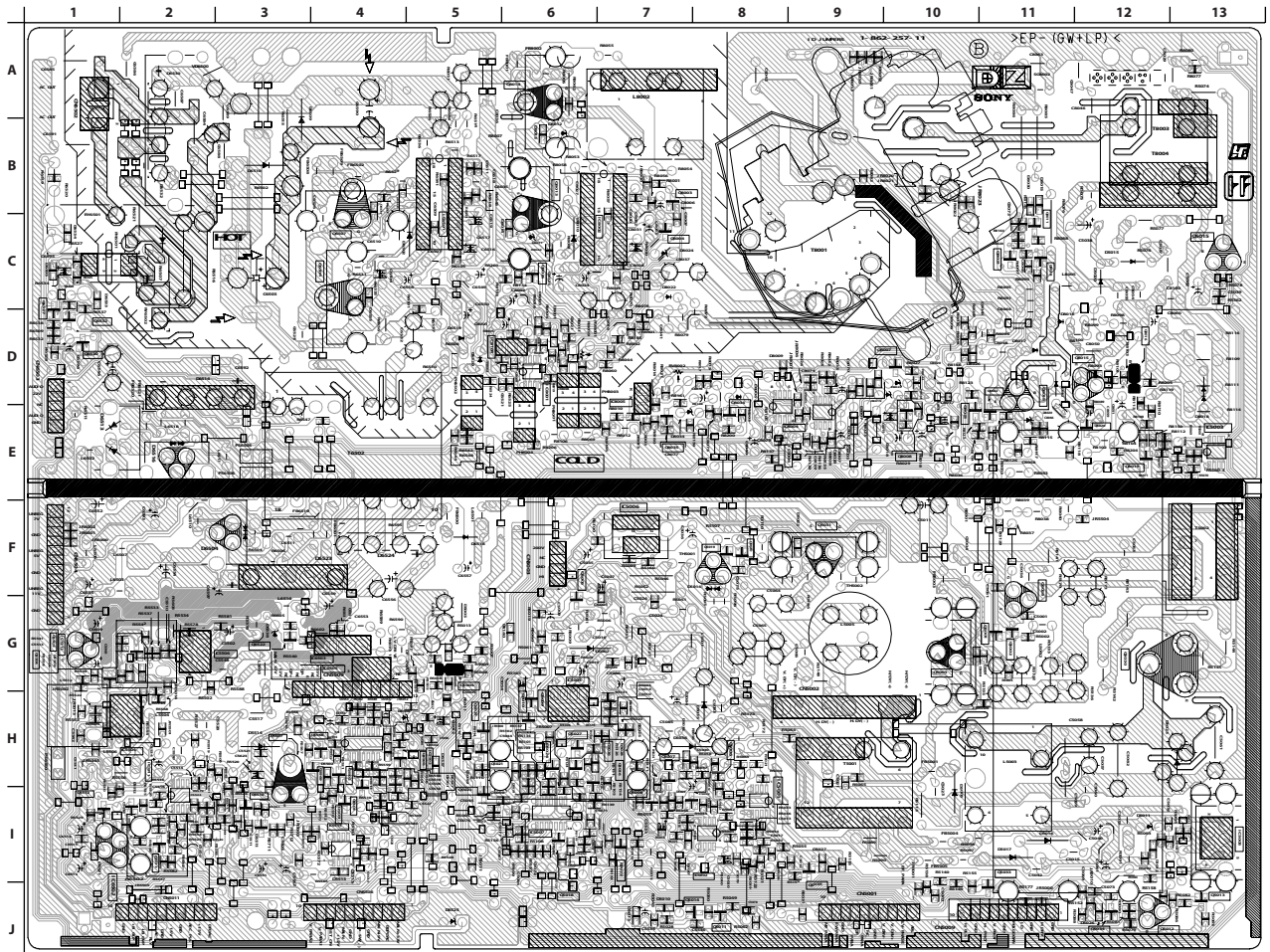
DZ BOARD WAVEFORMS



DZ
[HV DRIVE, HV DY, POWER
SUPPLY, AC RECT, DEFLECTION]
COMPONENT SIDE



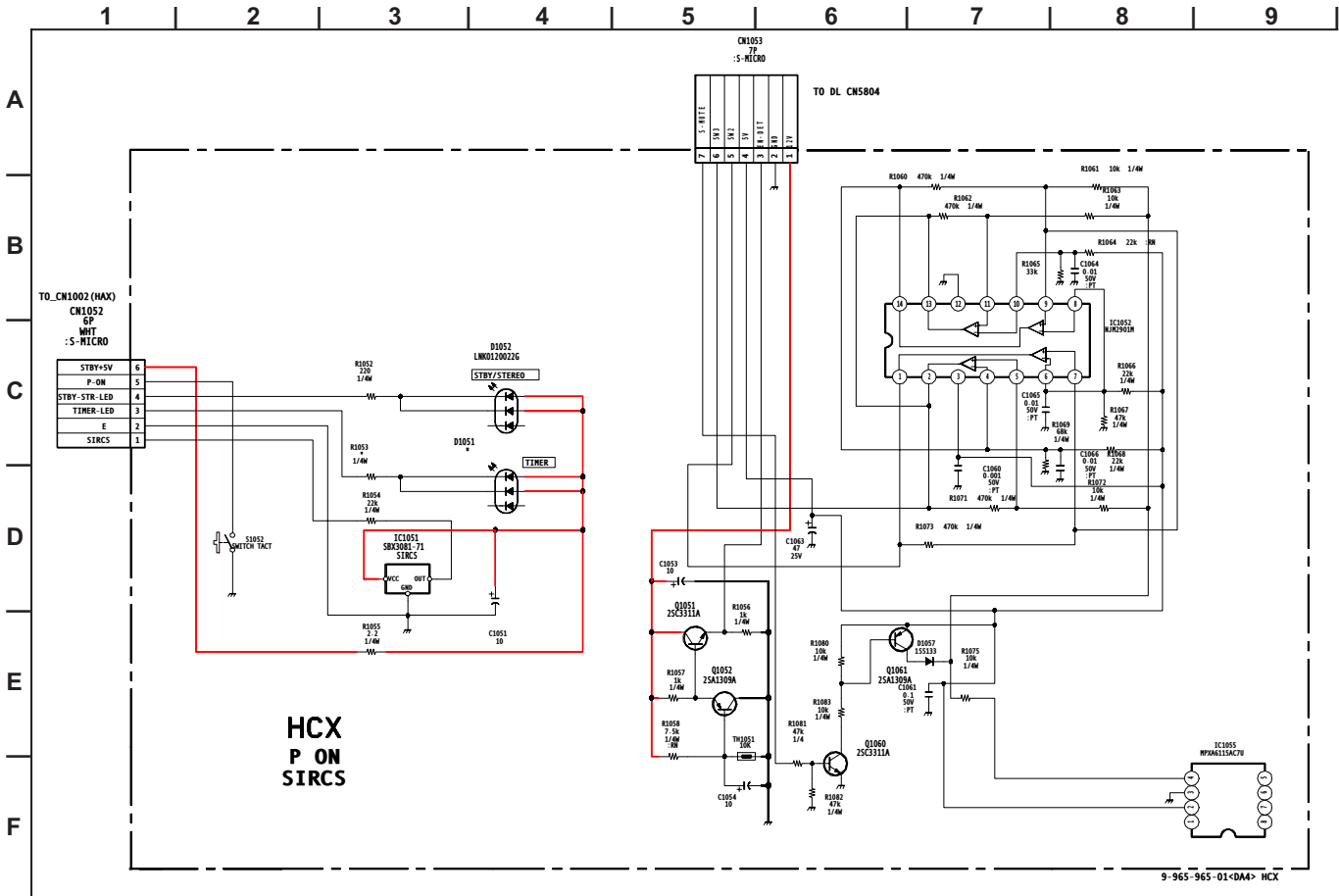
DZ
[HV DRIVE, HV DY. POWER
SUPPLY, AC RECT, DEFLECTION]
CONDUCTOR SIDE



DZ BOARD LOCATOR LIST (CONDUCTOR SIDE)

DIODE		DIODE		IC		TRANSISTOR	
D5001	F-7	D6533	C-1	IC8004	E-9	Q6507	C-4
D5002	G-7	D6534	C-1	IC8005	D-7	Q6522	G-3
D5003	H-10	D6537	H-5	IC8006	E-9	Q6527	C-1
D5004	G-11	D6538	G-3	IC8104	D-6	Q6530	D-1
D5005	G-5	D8001	D-6	TRANSISTOR		Q6532	D-1
D5006	I-6	D8002	D-11	Q5001	F-11	Q8003	B-7
D5007	E-9	D8003	C-6	Q5002	F-11	Q8004	C-7
D5008	I-8	D8005	E-9	Q5003	G-10	Q8007	D-9
D5010	J-7	D8006	D-8	Q5004	G-5	Q8008	E-10
D5011	I-12	D8007	E-9	Q5005	F-6	Q8011	B-11
D5014	F-8	D8009	D-8	Q5006	H-8	Q8013	B-6
D5015	C-12	D8010	C-6	Q5007	H-7	Q8014	A-6
D5016	I-11	D8011	C-6	Q5008	I-7	Q8015	D-12
D5017	I-11	D8012	B-6	Q5009	G-6	Q8016	D-12
D5018	H-7	D8013	B-6	Q5010	G-6	Q8018	D-11
D5019	H-6	D8014	B-5	Q5011	J-8	Q8019	E-12
D5023	H-13	D8015	B-11	Q5012	J-12	Q8020	E-12
D5027	I-9	D8016	D-10	Q5013	J-13	Q8021	C-11
D5028	H-7	D8017	D-11	Q5014	J-8	Q8022	D-11
D5032	I-12	D8018	E-13	Q5015	C-13	Q8023	D-10
D5035	H-8	D8019	D-10	Q5018	J-6	Q8028	C-11
D5036	H-8	D8022	C-7	Q5019	F-8	Q8034	D-8
D5501	H-5	D8023	D-10	Q5020	F-8	Q8035	E-7
D5502	H-4	D8024	C-7	Q5021	H-6		
D5504	G-1	D8026	D-10	Q5022	I-7		
D5506	H-5	D8028	E-9	Q5023	H-5		
D5508	G-1	D8030	B-11	Q5024	H-6		
D5511	I-3	D8034	E-7	Q5025	H-5		
D5512	I-2	D8140	G-6	Q5026	H-7		
D5513	I-4	IC		Q5027	H-6		
D5514	H-3	IC5001	I-9	Q5028	F-11		
D5515	I-4	IC5002	I-8	Q5030	G-12		
D6502	C-4	IC5003	E-13	Q5031	F-9		
D6504	F-3	IC5004	G-6	Q5035	H-9		
D6505	C-1	IC5005	I-13	Q5036	H-7		
D6508	H-5	IC5006	F-7	Q5501	I-4		
D6509	A-3	IC5007	I-6	Q5502	H-4		
D6510	B-3	IC5502	H-5	Q5503	H-4		
D6513	D-2	IC5504	H-2	Q5504	G-1		
D6514	D-3	IC5506	G-3	Q5505	G-1		
D6516	E-2	IC5511	H-2	Q5506	H-5		
D6518	F-5	IC5512	G-1	Q5507	H-3		
D6519	D-5	IC5515	I-4	Q5510	H-3		
D6520	D-5	IC6501	C-5	Q5512	I-1		
D6521	I-1	IC6502	J-1	Q5513	I-2		
D6523	F-4	IC6503	F-4	Q5568	H-4		
D6524	F-4	IC6505	G-4	Q5569	H-4		
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D6530	A-2	IC8002	C-6				
D6532	B-2						

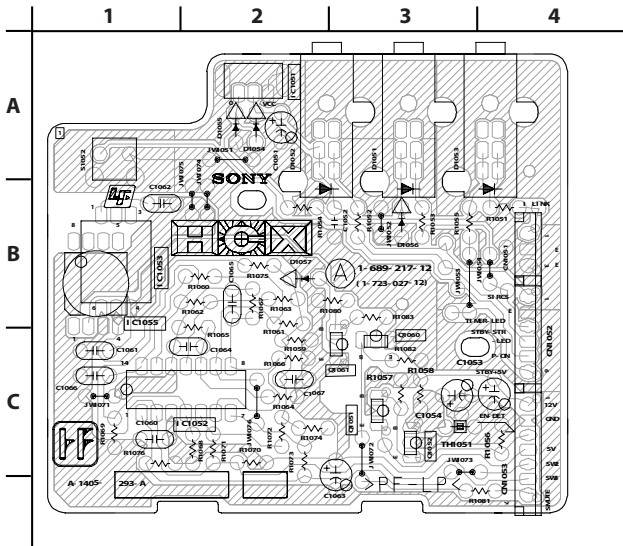
HCX BOARD SCHEMATIC DIAGRAM



HGX

[P ON SIRCS]

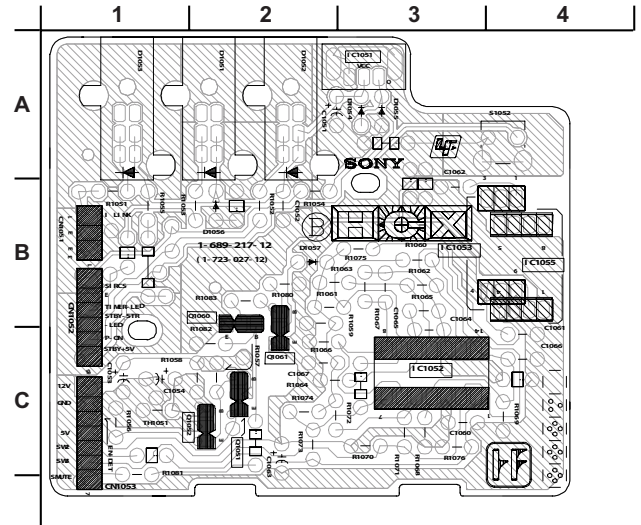
COMPONENT SIDE



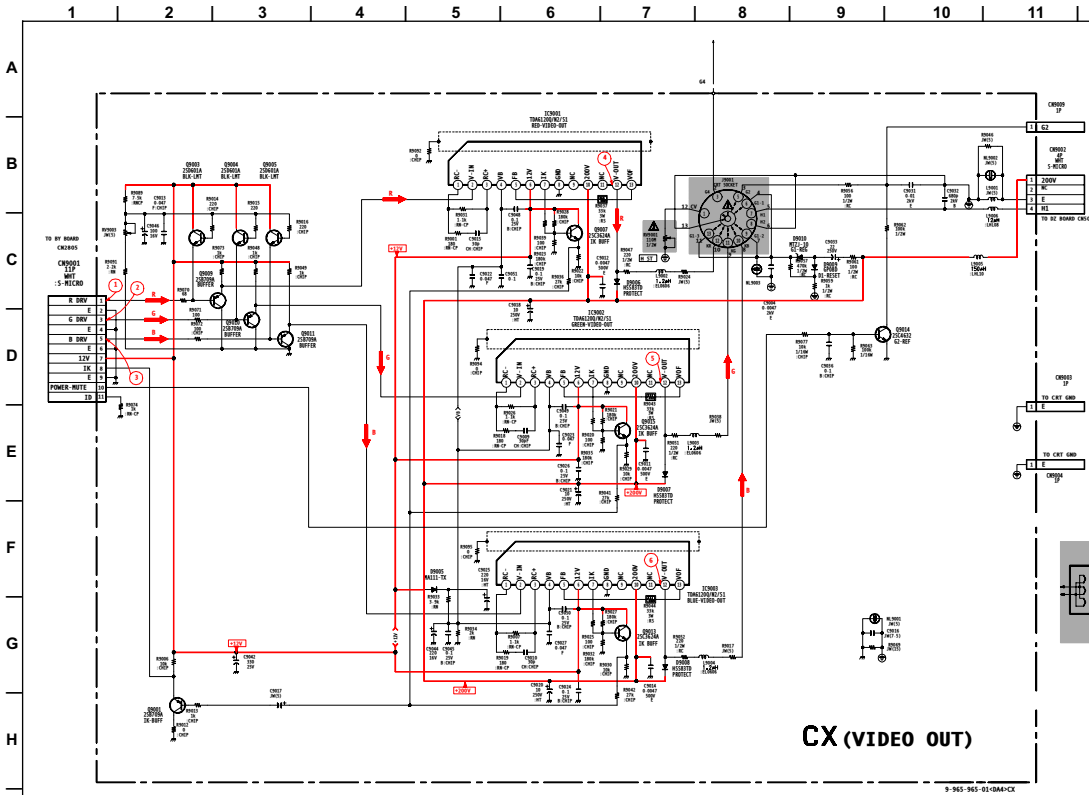
HGX

[P ON SIRCS]

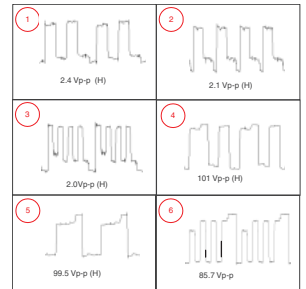
CONDUCTOR SIDE



CX BOARD SCHEMATIC DIAGRAM



CX BOARD WAVEFORMS



CX BOARD IC VOLTAGE LIST

IC9001		IC9002		IC9003	
PIN	VOLT	PIN	VOLT	PIN	VOLT
1	0.0	1	0.0	1	0.0
2	3.5	2	3.5	2	3.5
3	5.0	3	5.0	3	5.0
4	3.5	4	3.5	4	3.5
5	0.0	5	0.0	5	0.0
6	12.0	6	12.0	6	12.0
7	9.4	7	9.4	7	9.4
8	GND	8	GND	8	GND
9	N/C	9	N/C	9	N/C
10	200.0	10	200.0	10	200.0
11	N/C	11	N/C	11	N/C
12	144.4	12	154.0	12	145.0
13	2.2	13	124.0	13	24.5

All voltages are in V.

CX BOARD TRANSISTOR VOLTAGE LIST

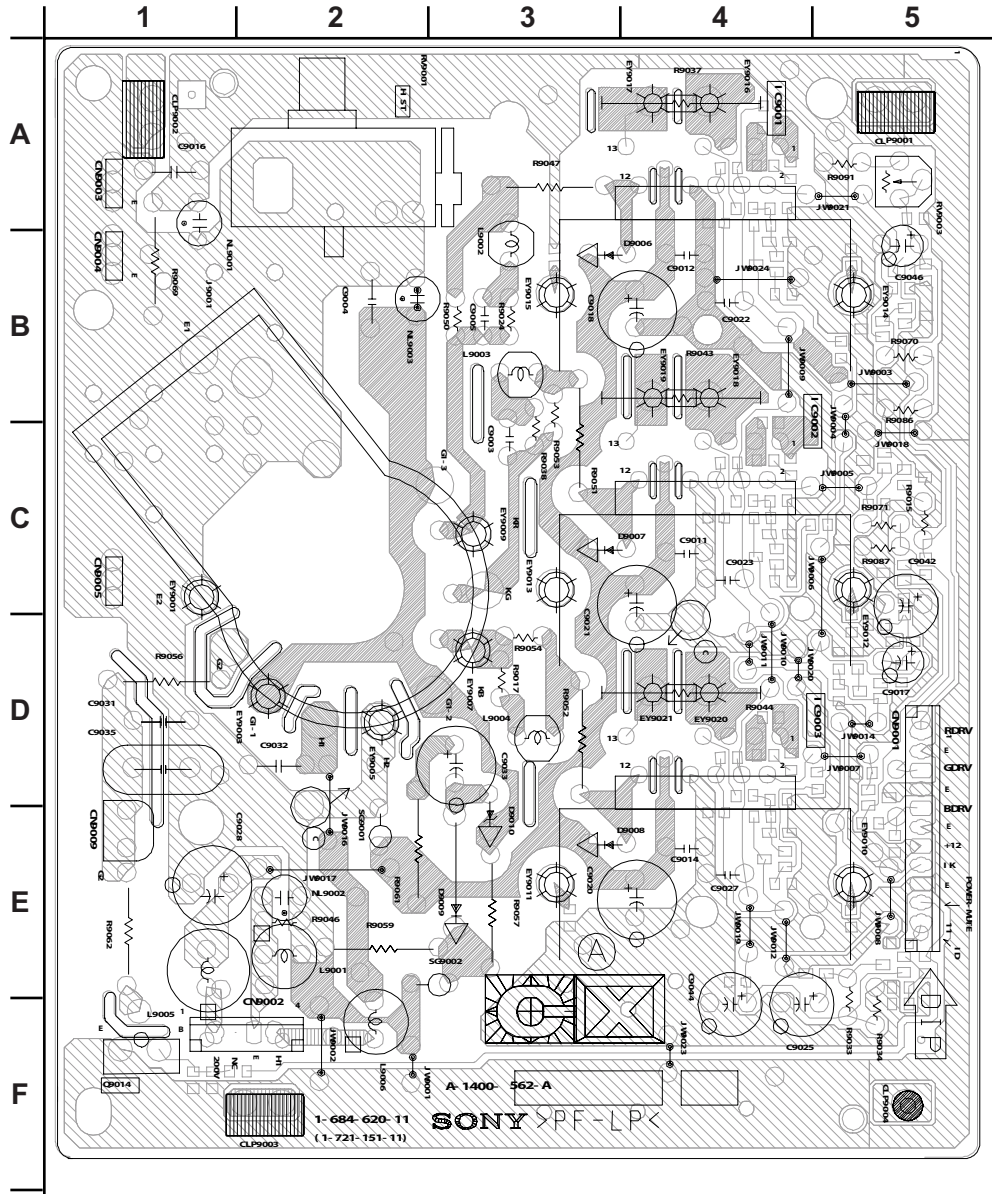
	B	C	E
Q9001	8.6	GND	3.6
Q9003	2.2	12.0	3.6
Q9004	2.2	12.0	3.7
Q9005	2.2	12.0	3.5
Q9007	9.1	12.0	8.4
Q9009	3.7	GND	4.3
Q9010	3.7	GND	4.4
Q9011	3.5	GND	4.2
Q9013	9.0	12.0	8.5
Q9014	0.0	264.7	GND
Q9015	9.0	12.0	8.5

All voltages are in V.



[VIDEO OUT]

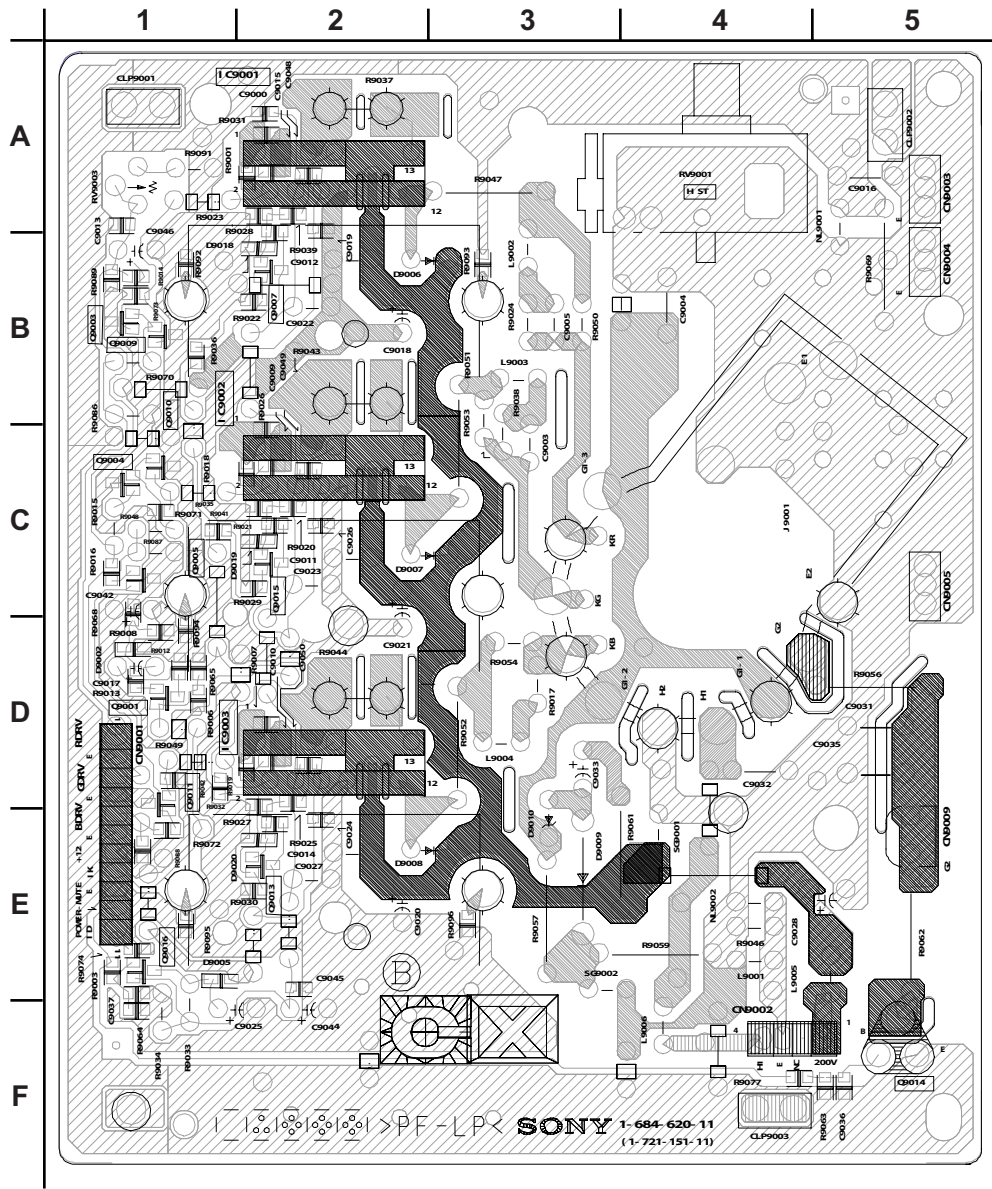
COMPONENT SIDE



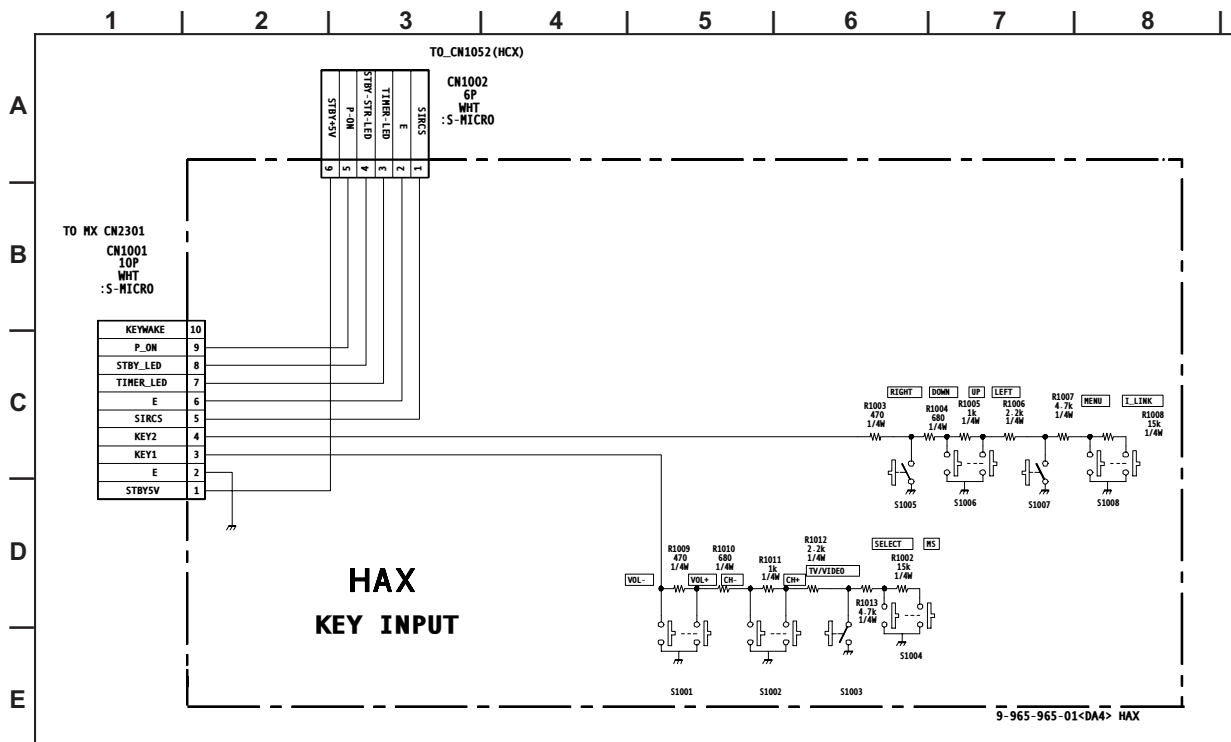


[VIDEO OUT]

CONDUCTOR SIDE



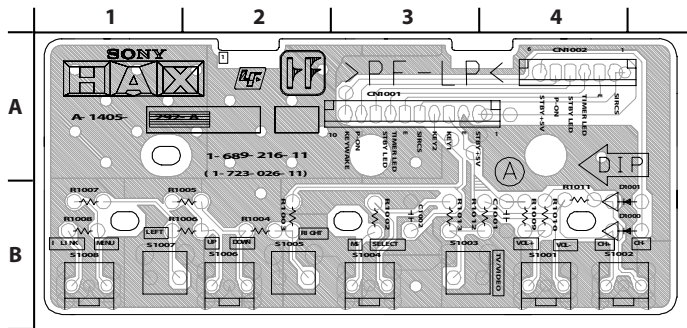
HAX BOARD SCHEMATIC DIAGRAM



HAX

[KEY INPUT]

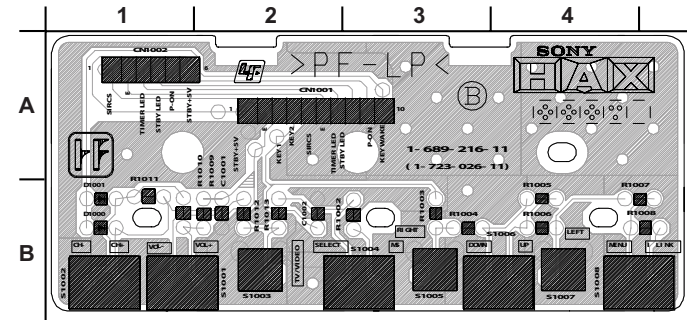
COMPONENT SIDE



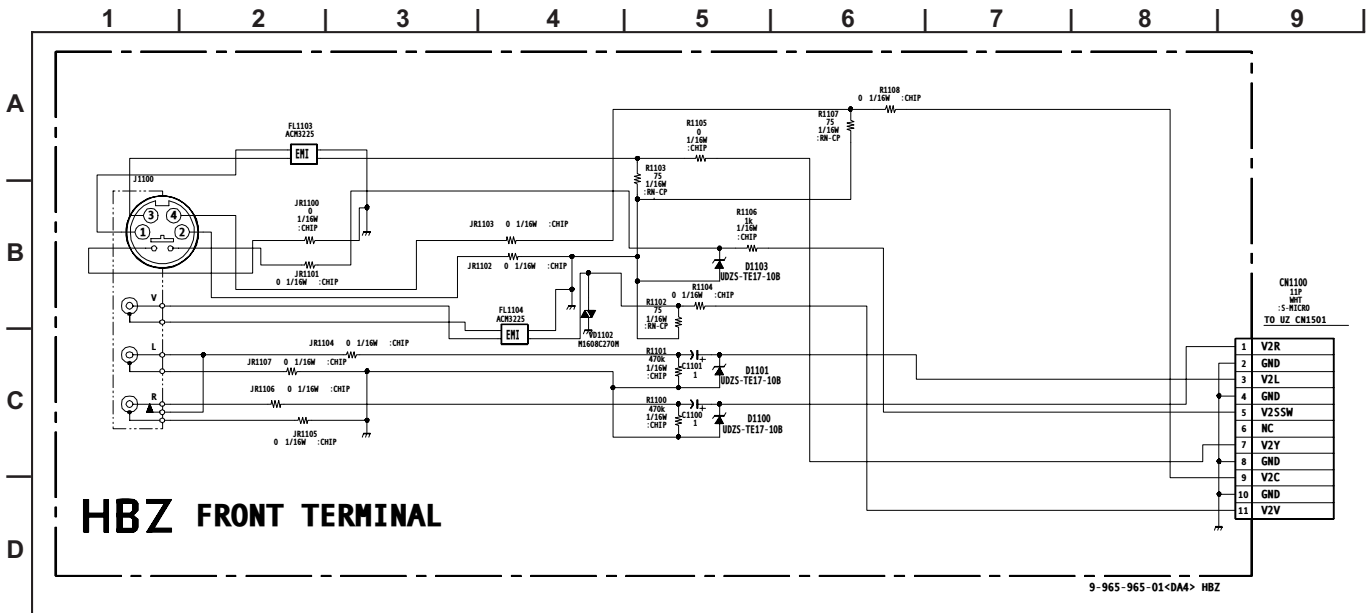
HAX

[KEY INPUT]

CONDUCTOR SIDE



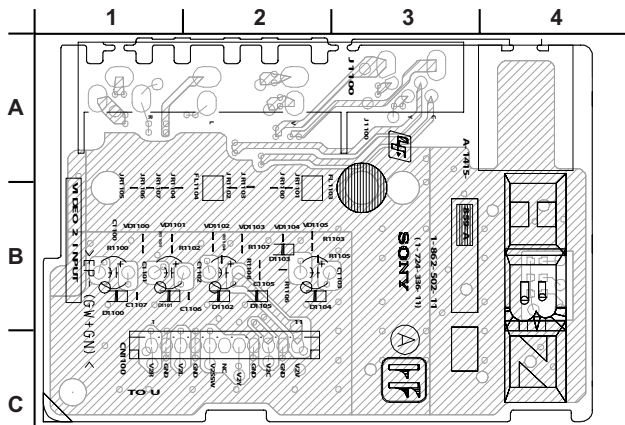
HBZ BOARD SCHEMATIC DIAGRAM



HBZ

[FRONT TERMINAL]

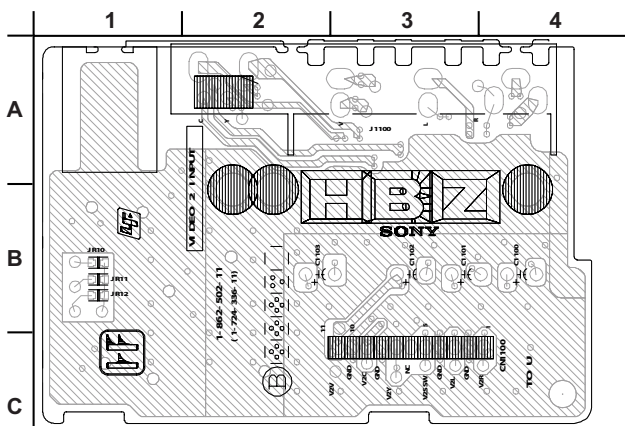
COMPONENT SIDE



HBZ

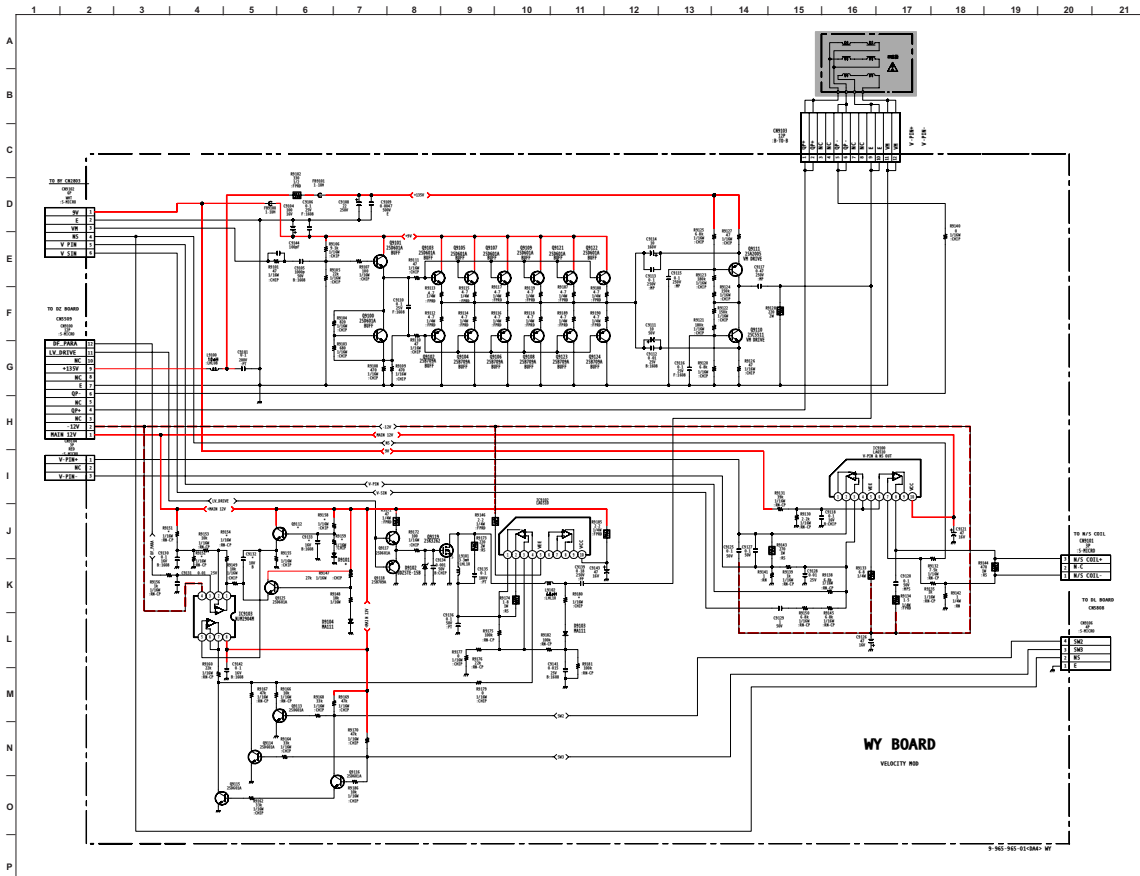
[FRONT TERMINAL]

CONDUCTOR SIDE



WY BOARD SCHEMATIC DIAGRAM

KD-303395348R860348395303955



WY BOARD IC VOLTAGE LIST

IC9100		IC9102		IC9103	
PIN	VOLT	PIN	VOLT	PIN	VOLT
1	NC	1	0.0	1	0.0
2	0.0	2	0.0	2	3.5
3	0.0	3	0.0	3	3.5
4	0.0	4	0.0	4	-12.0
5	-12.0	5	-12.0	5	1.2
6	0.5	6	NC	6	1.2
7	0.0	7	NC	7	1.2
8	0.0	8	NC	8	12.0
9	NC	9	NC		
10	12.0	10	12.0		

WY BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q8100	4.3	5.2	3.8
Q8101	0.0	9.5	5.2
Q8102	3.8	GND	4.3
Q8103	5.1	9.5	4.5
Q8104	3.8	GND	4.3
Q8105	3.8	4.5	4.5
Q8106	3.8	GND	4.3
Q8107	5.1	9.5	4.5
Q8108	3.8	GND	4.3
Q8109	5.1	9.5	4.5
Q8110	0.0	6.0	0.0
Q8111	133.8	88.7	134.3
Q8112	0.0	12.0	1.2
Q8113	0.0	0.0	GND
Q8114	0.0	0.0	GND
Q8115	0.0	0.0	GND
Q8116	4.7	4.2	GND
Q8117	6.0	12.0	6.7
Q8118	6.0	GND	6.7
Q8121	5.1	9.5	4.5
Q8122	5.1	9.5	4.5
Q8123	3.8	GND	4.3
Q8124	3.8	GND	4.3
Q8125	5.7	12.0	6.3

	D	G	S
Q8115	0.0	6.7	GND

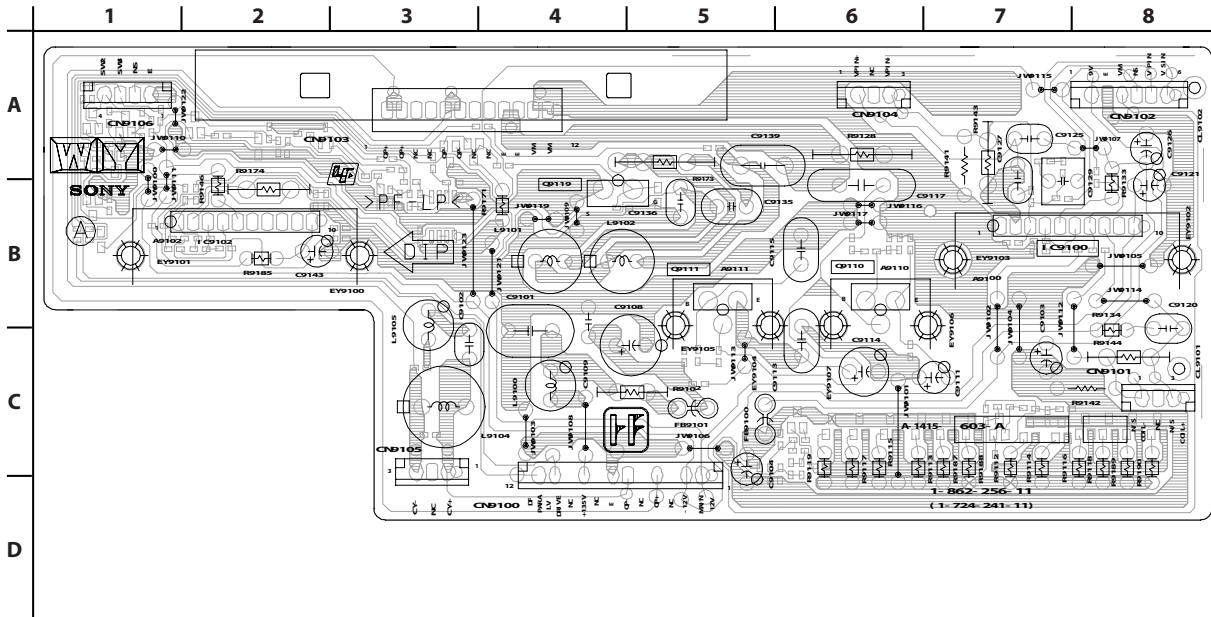
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136



[VELOCITY MOD]

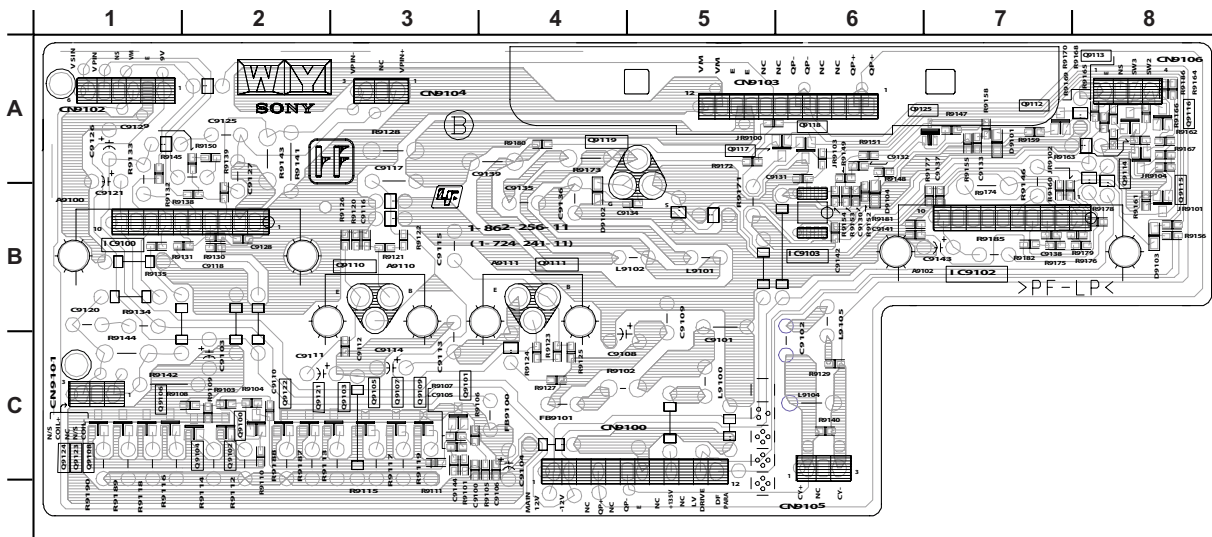
COMPONENT SIDE



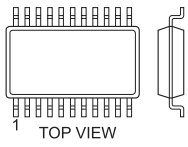


[VELOCITY MOD]

CONDUCTOR SIDE

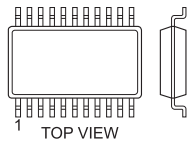


5-5.SEMICONDUCTORS (1 OF 2)



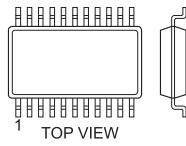
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TLC2933IPWR-12



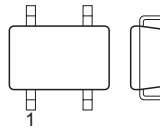
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32pin

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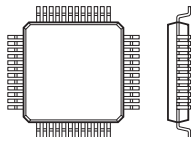
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PST9145NL
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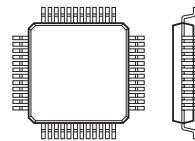
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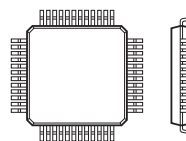
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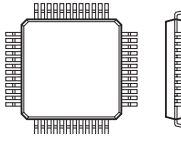
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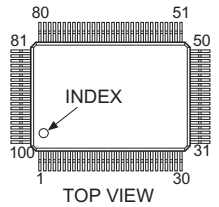
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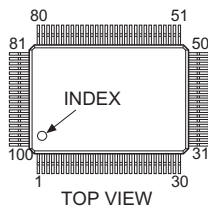


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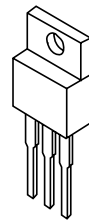
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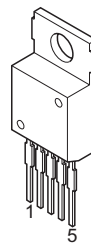
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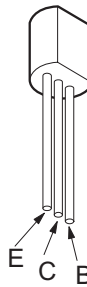
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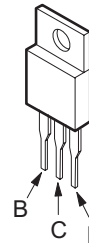
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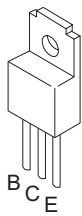
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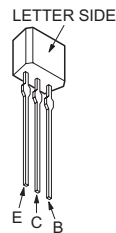
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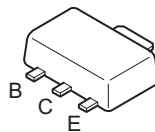
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IRF19630GS



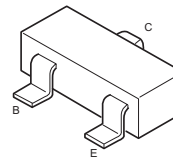
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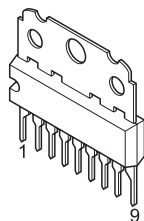
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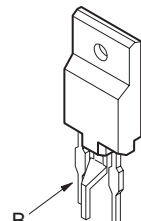
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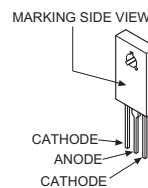
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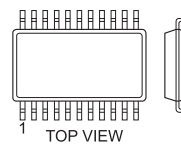
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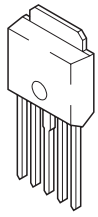
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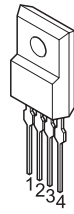
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NJM2903M-TE2
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TC7WU04FU(TE12R)

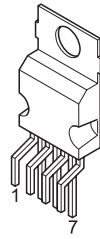
SEMICONDUCTORS (2 OF 2)



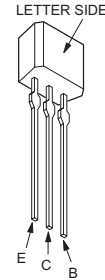
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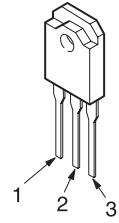
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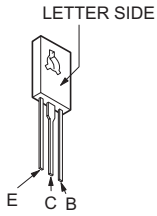
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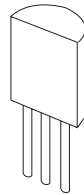
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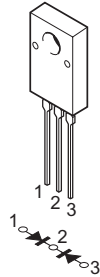
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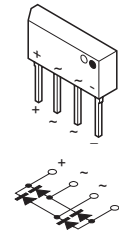
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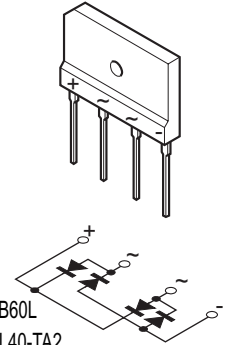
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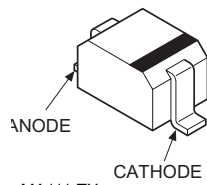
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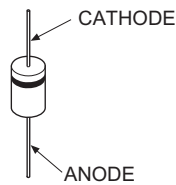
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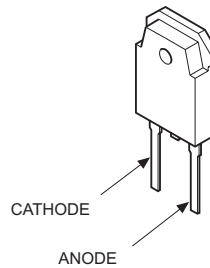
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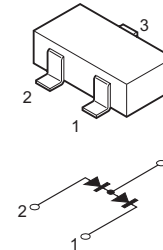
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MA113-TX
UDZSTE-1710B
UDZSTE-176.8B
UDZSTE-17-12



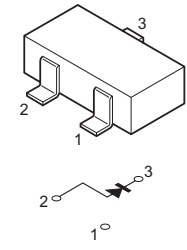
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D1NL20U-TR
ERC91-02E



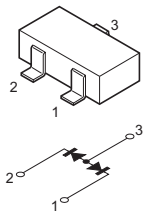
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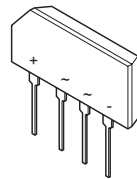
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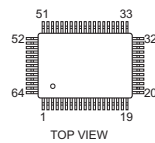
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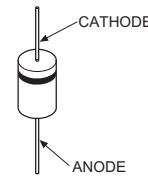
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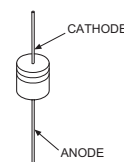
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CXA2069Q
CXP85840A-039Q



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RGP02-20EL-6394
MTZJ-77-22B



D1NS4-TA2
MTZJ-T-77-3.9B
MTZJ-T-77-15
MTZJ-T-77-33C
MTZJ-T-77-15B
MTZJ-T-77-4.7B
MTZJ-T-77-33B
MTZJ-T-77-5.1B
MTZJ-T-77-10
MTZJ-T-77-7.5B
MTZJ-T-77-12
RD5.6ES-T1B2
MTZJ-T-77-13C
MTZJ-T-77-2.0A
MTZJ-T-77-22
MTZJ-T-77-3.0B

SECTION 6: EXPLODED VIEWS

Components not identified by a part number or description are not stocked because they are seldom required for routine service.

The component parts of an assembly are indicated by the reference numbers in the far right column of the parts list and within the dotted lines of the diagram.

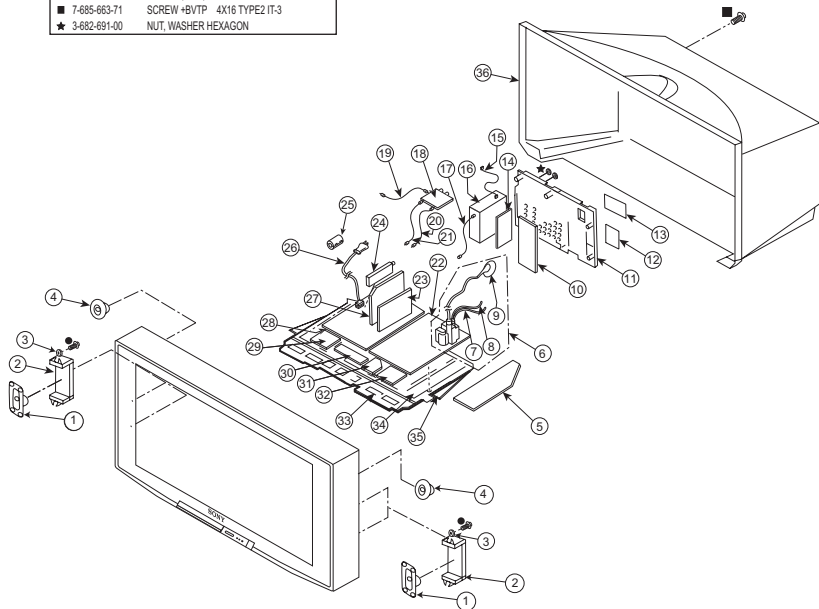
* Items marked with an asterisk are not stocked since they are seldom required for routine service. Expect some delay when ordering these components.

NOTE: The components identified by shading and Δ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

6-1. CHASSIS (KD-34XBR960 ONLY)

- 4-384-096-01 SCREW (4X16), TAPPING, +P
- 7-685-663-71 SCREW +BVTP 4X16 TYPE2 IT-3
- ★ 3-682-691-00 NUT, WASHER HEXAGON



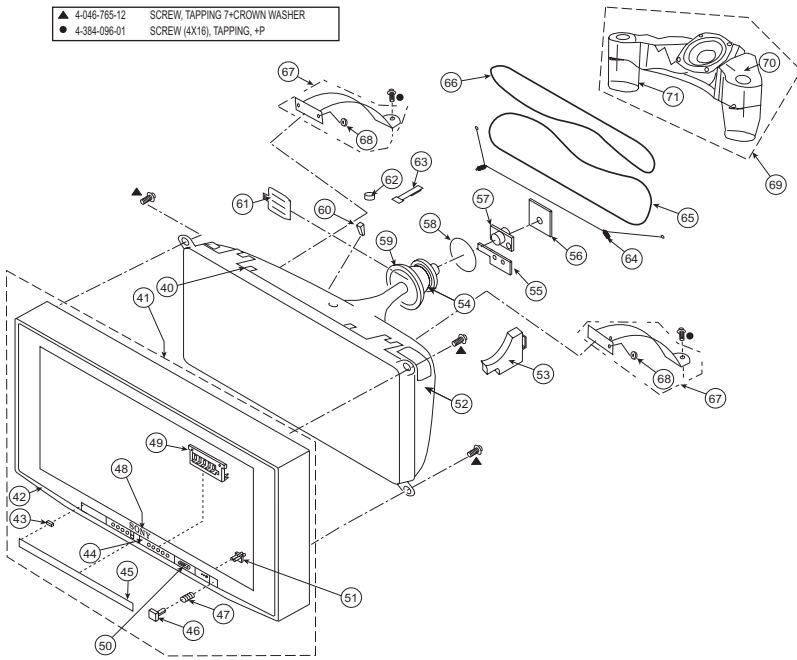
REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]	REF. NO.	PART NO.	DESCRIPTION
1	1-825-512-11	LOUDSPEAKER (6X13CM)		* 21	1-555-110-00	P-P CABLE
* 2	4-086-708-01	BRACKET, SPEAKER		* 22	A-1303-038-A	DZ BOARD, COMPLETE The high-voltage leads associated with the FBT on this DZ Board are not included and must be ordered separately (SEE 7-9).
3	4-374-745-31	CUSHION (A)		* 23	A-1303-035-A	BY BOARD, COMPLETE
4	1-825-511-11	LOUDSPEAKER (5.2CM)		24	8-588-894-30	TUNER, FSS BTF-FA21
* 5	A-1302-221-A	DL BOARD, COMPLETE		25	1-500-886-11	FILTER, CLAMP (FERRITE CORE)
Δ 6	1-453-464-11	FBT ASSY NX-6200/IX4,4	[7-9]	* 26	1-769-837-11	CORD, POWER(WITH NOISE FILTER)
Δ 7	1-900-808-42	WIRE ASSY, G2		* 27	A-1303-036-A	MZ BOARD, COMPLETE
Δ 8	1-900-805-19	WIRE ASSY, FOCUS HV		* 28	A-1303-034-A	AZ BOARD, COMPLETE
Δ 9	1-251-715-22	CAP ASSY, HIGH-VOLTAGE		* 29	A-1415-859-A	HBZ BOARD, MOUNTED
* 10	A-1303-037-A	UZ BOARD, COMPLETE		* 30	A-1405-292-A	HAX BOARD, MOUNTED
* 11	4-102-770-01	BRACKET, U		* 31	A-1303-030-A	QH BOARD, COMPLETE
* 12	1-417-507-11	POD-HOST CERT-D-CABLE READY		* 32	A-1303-039-A	HCX BOARD, COMPLETE
13	4-102-769-01	LABEL, TERMINAL		* 33	4-093-830-02	BRACKET, H
* 14	A-1302-939-A	P BOARD, COMPLETE		* 34	4-095-271-12	BRACKET, MAIN
15	1-823-515-31	CORD WITH CONNECTOR (I-LINK)		* 35	4-093-522-01	BOARD, BOTTOM
* 16	A-1606-918-A	Q BOX ASSEMBLY The Q Box Assembly contains the QI Board, QM Board, QT Board, and the QU Board. These boards cannot be ordered separately.		36	4-095-438-01	COVER, REAR
* 17	1-829-191-11	CABLE, USB				
Δ 18	8-597-906-00	ANTENNA SWITCH RFD-SA801				
19	1-829-702-11	COAXIAL CABLE WITH F-PLUG				
* 20	1-557-056-31	CABLE, P-P				

NOTE: The components identified by shading and \blacktriangle mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une marque \blacktriangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

6-2. PICTURE TUBE (KD-34XBR960 ONLY)

- \blacktriangle 4-046-765-12 SCREW, TAPPING 7+CROWN WASHER
- \bullet 4-384-096-01 SCREW (4X16), TAPPING, +P



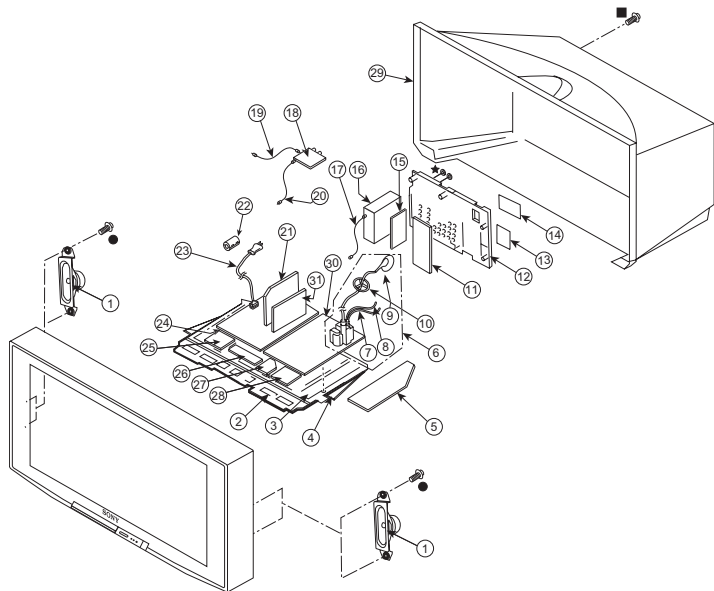
REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]	REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
40	4-097-335-01	HOOK, GROUND WIRE		60	4-086-199-02	SPACER, DY	
41	X-2021-253-1	BEZNET ASSY	[42-49]	61	2-163-920-01	PLATE, TLH CORRECTION	
42	4-093-627-02	CABINET		62	1-452-032-00	MAGNET, DISC	
43	4-093-909-01	DAMPER, DOOR		63	4-051-734-21	PIECE B(120), CONV. CORRECT	
44	4-093-955-11	LABEL, BUTTON		64	4-065-852-01	SPRING, EXTENSION	
45	4-093-609-01	DOOR, CONTROL		\blacktriangle 65	1-456-472-21	DEGAUSSING COIL (WITH LCC)	
46	4-093-612-01	BUTTON, POWER		\blacktriangle 66	1-456-472-11	DEGAUSSING COIL (WITH LCC)	
47	4-042-593-11	SPRING, COMPRESSION		67	X-4042-198-1	ASSY, SPEAKER ARM	[68]
48	3-704-179-31	EMBLEM (NO.9), SONY		68	4-374-745-31	CUSHION (A)	
49	4-093-611-22	BUTTON, MULTI		69	1-544-952-12	SPEAKER BOX (WOOFER)	[70-71]
50	4-099-422-01	PANEL, MS DUO		*	70	4-083-309-01	BOX, SPEAKER (TOP)
51	4-093-610-01	GUIDE, LED		*	71	4-083-310-01	BOX, SPEAKER (BOTTOM)
\blacktriangle 52	9-735-218-05	CRT 36RDE(DDP) W86LXX015X					
53	4-093-523-01	SUPPORTER, CRT					
\blacktriangle 54	8-453-023-21	NECK ASSEMBLY NA328-M2					
*	55	A-1415-862-A	WY (VAR) BOARD, MOUNTED				
*	56	A-1400-562-A	CX BOARD, MOUNTED				
\blacktriangle 57	1-456-850-11	COIL, LANDING CORRECTION					
\blacktriangle 58	1-451-498-31	COIL, NA ROTATION					
\blacktriangle 59	8-451-530-41	DY Y36DEC-M2C					

NOTE: The components identified by shading and \blacktriangle mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une marque \blacktriangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

6-3. CHASSIS (KD-30XS955/34XS955 ONLY)

- 4-384-096-01 SCREW (4X16), TAPPING, +P
- 7-685-663-71 SCREW +BVTP 4X16 TYPE2 IT-3
- ★ 3-682-691-00 NUT, WASHER HEXAGON



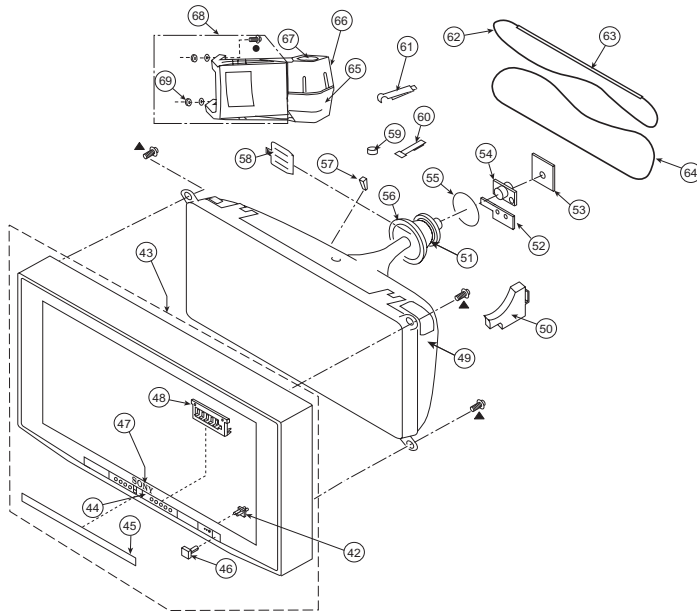
REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]	REF. NO.	PART NO.	DESCRIPTION
1	1-825-841-11	LOUDSPEAKER		* 21	A-1303-043-A	MZ BOARD, COMPLETE
* 2	4-102-134-03	BRACKET, H		22	1-500-586-11	FILTER, CLAMP (FERRITE CORE)
* 3	4-095-271-02	BRACKET, MAIN		\blacktriangle 23	1-769-837-11	CORD, POWER(WITH NOISE FILTER)
* 4	4-102-133-03	BOARD, BOTTOM		* 24	A-1303-044-A	AZ BOARD, COMPLETE (KV-30XS955 ONLY)
* 5	A-1302-223-B	DL BOARD, COMPLETE (KV-30XS955 ONLY)		* 24	A-1303-040-A	AZ BOARD, COMPLETE (KV-34XS955 ONLY)
* 5	A-1302-221-A	DL BOARD, COMPLETE (KV-34XS955 ONLY)		* 25	A-1415-859-A	HBZ BOARD, MOUNTED
\blacktriangle 6	1-453-464-11	FBT ASSY NX-6200/IX4J4	[7-9]	* 26	A-1405-292-A	HAX BOARD, MOUNTED
\blacktriangle 7	1-900-808-42	WIRE ASSY, G2		* 27	A-1303-030-A	QH BOARD, COMPLETE
\blacktriangle 8	1-900-805-19	WIRE ASSY, FOCUS HV		* 28	A-1303-042-A	HXC BOARD, COMPLETE
\blacktriangle 9	1-251-715-22	CAP ASSY, HIGH-VOLTAGE		29	4-102-138-01	COVER, REAR (KV-30XS955 ONLY)
10	4-084-918-01	HOLDER, HV CABLE		29	4-102-123-02	COVER, REAR (KV-34XS955 ONLY)
* 11	A-1303-037-A	UZ BOARD, COMPLETE		* 30	A-1303-045-A	DZ BOARD, COMPLETE (KV-30XS955 ONLY) The high-voltage leads associated with the FBT on this DZ Board are not included and must be ordered separately (SEE 7-9).
* 12	4-102-770-01	BRACKET, U		* 30	A-1303-038-A	DZ BOARD, COMPLETE (KV-34XS955 ONLY) The high-voltage leads associated with the FBT on this DZ Board are not included and must be ordered separately (SEE 7-9).
* 13	1-417-507-11	POD-HOST CERT-D-CABLE READY				
14	4-102-767-01	LABEL, TERMINAL				
* 15	A-1302-939-A	P BOARD, COMPLETE				
* 16	A-1606-921-A	Q BOX ASSEMBLY The Q Box Assembly contains the QM Board, QT Board, and the QU Board. These boards cannot be ordered separately.				
* 17	1-829-191-11	CABLE, USB				
\blacktriangle 18	8-597-906-00	ANTENNA SWITCH RFD-SA801				
19	1-829-702-11	COAXIAL CABLE WITH F-PLUG		* 31	A-1303-041-A	BY BOARD, COMPLETE
* 20	1-555-110-00	P-P CABLE				

NOTE: The components identified by shading and Δ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

6-4. PICTURE TUBE (KD-30XS955/34XS955 ONLY)

- Δ 4-046-765-12 SCREW, TAPPING 7+CROWN WASHER
- 4-384-096-01 SCREW (4X16), TAPPING, +P



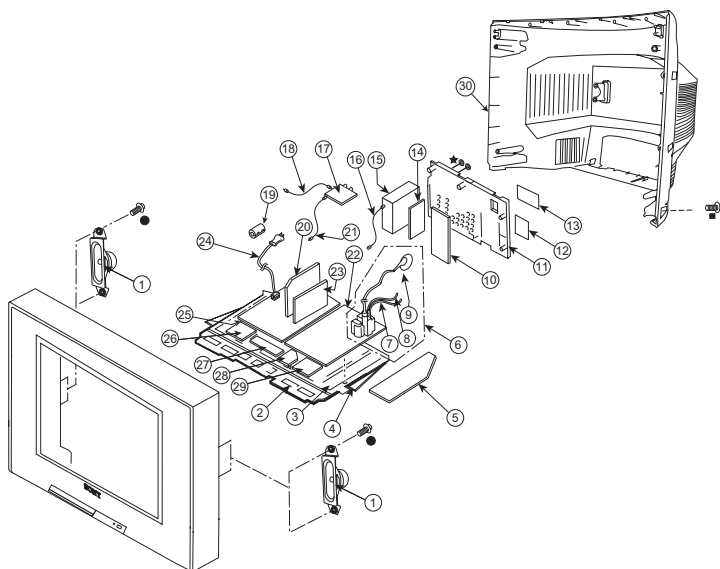
REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]	REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
42	4-102-128-11	GUIDE, LED		Δ 56	1-451-551-21	DEFLECTION YOKE (Y32VEC-T) (KV-30XS955 ONLY)	
43	X-2021-378-1	BEZNET ASSY (KV-30XS955 ONLY)	[44-48]	Δ 56	8-451-530-41	DY Y36DEC-M2C (KV-34XS955 ONLY)	
43	X-2021-379-1	BEZNET ASSY (KV-34XS955 ONLY)	[44-48]	57	4-086-199-02	SPACER, DY	
44	4-102-768-01	LABEL, FRONT CONTROL		58	2-163-920-01	PLATE, TLH CORRECTION	
45	4-102-127-21	DOOR, CONTROL (KV-30XS955/34XS955 HAWAII ONLY)		59	1-452-032-00	MAGNET/DISC	
45	4-102-127-31	DOOR, CONTROL (KV-30XS955/34XS955 US & KV-34XS955 CND ONLY)		60	4-051-734-21	PIECE B(120), CONV. CORRECT	
46	4-102-129-01	BUTTON, POWER (KV-30XS955/34XS955 HAWAII ONLY)		61	4-102-284-01	CLIP, DGC	
46	4-102-129-21	BUTTON, POWER (KV-30XS955/34XS955 US & KV-34XS955 CND ONLY)		Δ 62	1-456-473-11	DEGAUSSING COIL (WITH LCC) (KV-30XS955 ONLY)	
47	3-704-179-01	EMBLEM (NO.9), SONY		Δ 62	1-456-472-11	DEGAUSSING COIL (WITH LCC) (KV-34XS955 ONLY)	
48	4-093-611-02	BUTTON, MULTI		63	4-103-011-01	TUBE, DGC (C) (KV-30XS955 ONLY)	
Δ 49	8-735-228-05	CRT 32RDEN(DDP)(FILMLESS) W76LKY000X (KV-30XS955 ONLY)		Δ 64	1-456-473-21	DEGAUSSING COIL (WITH LCC) (KV-30XS955 ONLY)	
Δ 49	8-735-218-05	CRT 36RDE(DDP) W86LXX015X (KV-34XS955 ONLY)		Δ 64	1-456-472-21	DEGAUSSING COIL (WITH LCC) (KV-34XS955 ONLY)	
50	4-102-136-01	SUPPORTER, CRT		*	4-086-700-23	BOX, WOOFER (BOTTOM)	
Δ 51	8-453-022-21	NECK ASSEMBLY NA2920-M2 (KV-30XS955 ONLY)		*	4-086-699-21	BOX, WOOFER (TOP)	
Δ 51	8-453-023-21	NECK ASSEMBLY NA328-M2 (KV-34XS955 ONLY)		67	1-825-105-11	LOUDSPEAKER (10 CM)	
*	52	A-1415-869-A	WY (VAR) BOARD, MOUNTED (KV-30XS955 ONLY)	*	X-4040-296-2	ARM ASSY, WOOFER BOX (KV-30XS955 ONLY)	
*	52	A-1415-862-A	WY (VAR) BOARD, MOUNTED (KV-34XS955 ONLY)	68	X-2021-380-1	ASSY, SPEAKER ARM (KV-34XS955 ONLY)	[69]
*	53	A-1400-562-A	CX BOARD, MOUNTED	69	4-374-745-31	CUSHION (A)	
Δ 54	1-419-792-11	LANDING CORRECTION COIL (LCC) (KV-30XS955 ONLY)					
Δ 54	1-456-850-11	LANDING CORRECTION COIL (LCC) (KV-34XS955 ONLY)					
Δ 55	1-451-498-31	COIL, NA ROTATION					

NOTE: The components identified by shading and Δ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

6-5. CHASSIS (KD-36XS955 ONLY)

- 4-384-096-01 SCREW (4X16), TAPPING, +P
- 7-685-663-71 SCREW +BVTP 4X16 TYPE2 IT-3
- ★ 3-682-691-00 NUT, WASHER HEXAGON



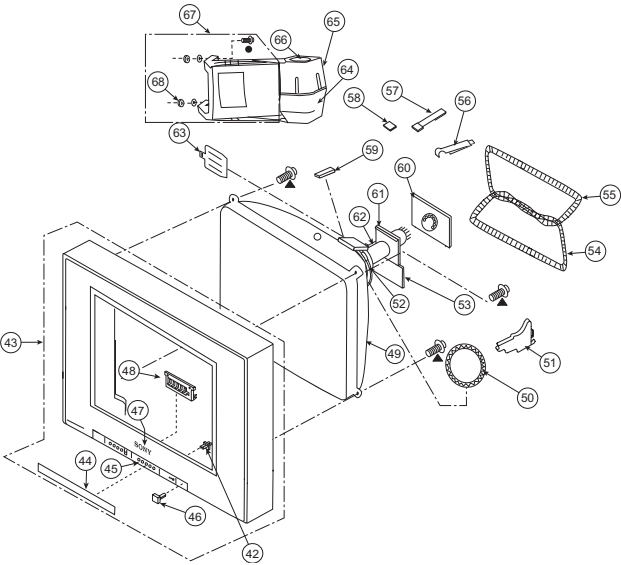
REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]	REF. NO.	PART NO.	DESCRIPTION
1	1-825-841-11	LOUDSPEAKER		* 21	1-555-110-00	P-P CABLE
* 2	4-102-134-03	BRACKET, H		* 22	A-1062-014-A	DZ BOARD, COMPLETE
* 3	4-095-271-02	BRACKET, MAIN				The high-voltage leads associated with the FBT on this DZ Board are not included and must be ordered separately (SEE 7-9).
* 4	4-102-133-03	BOARD, BOTTOM		* 23	A-1303-041-A	BY BOARD, COMPLETE
* 5	A-1062-016-A	DL BOARD, COMPLETE		Δ 24	1-769-837-11	CORD, POWER(WITH NOISE FILTER)
Δ 6	1-453-464-11	FBT ASSY NX-6200/IX4J4	[7-9]	* 25	A-1062-012-A	AZ BOARD, COMPLETE
Δ 7	1-900-808-42	WIRE ASSY, G2		* 26	A-1415-859-A	HBZ BOARD, MOUNTED
Δ 8	1-900-805-19	WIRE ASSY, FOCUS HV		* 27	A-1405-292-A	HAX BOARD, MOUNTED
Δ 9	1-251-715-22	CAP ASSY, HIGH-VOLTAGE		* 28	A-1303-030-A	OH BOARD, COMPLETE
* 10	A-1303-037-A	UZ BOARD, COMPLETE		* 29	A-1303-042-A	HCX BOARD, COMPLETE
* 11	4-102-770-01	BRACKET, U		30	4-102-125-01	COVER, REAR
* 12	1-417-507-11	POD-HOST CERT-D-CABLE READY				
13	4-102-767-01	LABEL, TERMINAL				
* 14	A-1302-939-A	P BOARD, COMPLETE				
* 15	A-1606-921-A	Q BOX ASSEMBLY	The Q Box Assembly contains the QM Board, QT Board, and the QU Board. These boards cannot be ordered separately.			
* 16	1-829-191-11	CABLE, USB				
Δ 17	8-597-906-00	ANTENNA SWITCH RFD-SA801				
* 18	1-829-702-11	COAXIAL CABLE WITH F-PLUG				
19	1-500-586-11	FILTER, CLAMP (FERRITE CORE)				
* 20	A-1303-043-A	MZ BOARD, COMPLETE				

NOTE: The components identified by shading and Δ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

6-6. PICTURE TUBE (KD-36XS955 ONLY)

- \blacktriangle 4-046-765-12 SCREW, TAPPING 7+CROWN WASHER
- \bullet 4-384-096-01 SCREW (4X16), TAPPING, +P



REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]	REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
42	4-102-128-11	GUIDE, LED		56	4-065-895-12	HOLDER, DGC	
43	X-2022-158-1	BEZNET ASSY	[44-48]	57	4-051-734-21	PIECE B(120), CONV. CORRECT	
44	4-102-127-31	DOOR, CONTROL		58	1-452-032-00	MAGNET, DISC	
		(KV-36XS955 HAWAII ONLY)		59	2-108-702-01	CUSHION, DY (10X25)	
44	4-102-127-01	DOOR, CONTROL		*	A-1400-562-A	CX BOARD, MOUNTED	
		(KV-36XS955 US ONLY)					
45	4-102-768-01	LABEL, FRONT CONTROL		Δ 61	1-456-830-11	LANDING CORRECTION COIL (LCC)	
46	4-102-129-01	BUTTON, POWER		Δ 62	8-453-023-21	NECK ASSEMBLY NA328-M2	
		(KV-36XS955 HAWAII ONLY)		63	2-163-920-01	PLATE, TLH CORRECTION	
46	4-102-129-21	BUTTON, POWER		*	4-086-700-23	BOX, WOOFER (BOTTOM)	
		(KV-36XS955 US ONLY)		*	4-086-699-21	BOX, WOOFER (TOP)	
47	3-704-179-01	EMBLEM (NO.9), SONY		66	1-825-105-11	LOUDSPEAKER (10 CM)	
48	4-093-611-02	BUTTON, MULTI		*	X-4040-296-2	ARM ASSY, WOOFER BOX	[68]
Δ 49	8-735-130-05	CRT 38RPN(FOR ME) A90LYF00X		68	4-374-745-31	CUSHION (A)	
Δ 50	1-451-498-31	COIL, NA ROTATION					
51	4-102-136-01	SUPPORTER, CRT					
Δ 52	8-451-533-11	DY Y38FC-M					
*	A-1062-018-A	WY (VAR) BOARD, MOUNTED					
Δ 54	1-456-793-21	DEGAUSSING COIL (BOTTOM)					
Δ 55	1-456-793-11	DEGAUSSING COIL (TOP)					

SECTION 7: ELECTRICAL PARTS LIST

NOTE: The components identified by shading and Δ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components in this manual identified by the following symbol: \boxtimes indicate parts that have been carefully factory-selected to satisfy regulations regarding X-ray radiation for each set.

Should replacement be required for one of these components, replace only with the value originally used.

* Items marked with an asterisk are not stocked since they are seldom required for routine service. Expect some delay when ordering these components.

RESISTORS

- All resistors are in ohms
- F : nonflammable
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.



When ordering parts by reference number, please include the board name.

REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES		
<div style="border: 1px solid black; padding: 5px; display: inline-block;">DL</div>				C5846	1-126-935-11	ELECT	470 μ F 20% 16V		
				C5847	1-126-947-11	ELECT	47 μ F 20% 35V		
				C5849	1-126-935-11	ELECT	470 μ F 20% 16V		
				C5850	1-104-665-11	ELECT	100 μ F 20% 25V		
*	A-1062-016-A	DL BOARD, COMPLETE (KD-36XS955 ONLY)		C5851	1-104-665-11	ELECT	100 μ F 20% 25V		
*	A-1302-221-A	DL BOARD, COMPLETE (KD-34XBR960/34XS955 ONLY)		C5903	1-126-964-11	ELECT	10 μ F 20% 50V		
*	A-1302-223-A	DL BOARD, COMPLETE (KD-30XS955 ONLY)		CONNECTOR					
	4-382-854-01	SCREW (M3X8), P, SW (+)		*	CN5801	PIN, CONNECTOR(PCB)(V TYPE)	10P		
CAPACITOR						CN5802	PLUG, CONNECTOR	2P	
	C5802	1-126-960-11	ELECT	1 μ F 20% 50V	*	CN5804	1-564-510-11	PLUG, CONNECTOR	7P
	C5803	1-126-967-11	ELECT	47 μ F 20% 50V	*	CN5805	1-564-506-11	PLUG, CONNECTOR	3P
	C5804	1-107-826-11	CERAMIC CHIP	0.1 μ F 10% 16V	*	CN5806	1-564-507-11	PLUG, CONNECTOR	4P
	C5806	1-107-826-11	CERAMIC CHIP	0.1 μ F 10% 16V	*	CN5807	1-564-507-11	PLUG, CONNECTOR	4P
	C5807	1-126-947-11	ELECT	47 μ F 20% 35V	*	CN5808	1-564-507-11	PLUG, CONNECTOR	4P
	C5808	1-117-722-11	ELECT	2200 μ F 20% 10V	DIODE				
	C5809	1-107-826-11	CERAMIC CHIP	0.1 μ F 10% 16V	D5801	8-719-404-50	DIODE	MA111-TX	
	C5812	1-107-826-11	CERAMIC CHIP	0.1 μ F 10% 16V	D5803	8-719-404-50	DIODE	MA111-TX	
	C5822	1-107-826-11	CERAMIC CHIP	0.1 μ F 10% 16V	D5804	8-719-404-50	DIODE	MA111-TX	
	C5825	1-126-947-11	ELECT	47 μ F 20% 35V	D5806	8-719-404-50	DIODE	MA111-TX	
	C5827	1-126-947-11	ELECT	47 μ F 20% 35V	IC				
	C5829	1-130-495-00	MYLAR	0.1 μ F 5% 50V	IC5801	8-759-700-78	IC	NJM082M	
	C5830	1-162-970-11	CERAMIC CHIP	0.01 μ F 10% 25V	IC5802	8-752-072-94	IC	CXA1875AM-T4	
	C5831	1-162-970-11	CERAMIC CHIP	0.01 μ F 10% 25V	IC5803	8-759-701-01	IC	NJM2904M	
	C5832	1-107-826-11	CERAMIC CHIP	0.1 μ F 10% 16V	IC5806	8-759-596-22	IC	SN74LV4066ANSR	
	C5834	1-126-947-11	ELECT	47 μ F 20% 35V	IC5809	8-759-803-42	IC	LA6500-FA	
	C5836	1-107-826-11	CERAMIC CHIP	0.1 μ F 10% 16V	IC5811	8-759-822-38	IC	LA6510	
	C5837	1-162-970-11	CERAMIC CHIP	0.01 μ F 10% 25V	IC5812	8-759-822-38	IC	LA6510	
	C5838	1-162-970-11	CERAMIC CHIP	0.01 μ F 10% 25V	IC5813	8-759-394-35	IC	BA12T	
	C5839	1-126-947-11	ELECT	47 μ F 20% 35V	IC5814	8-759-929-65	IC	LM7912CT	
	C5840	1-126-947-11	ELECT	47 μ F 20% 35V	IC5900	8-759-701-01	IC	NJM2904M	
	C5841	1-130-495-00	MYLAR	0.1 μ F 5% 50V					
	C5842	1-130-495-00	MYLAR	0.1 μ F 5% 50V					
	C5843	1-130-495-00	MYLAR	0.1 μ F 5% 50V					
	C5844	1-130-495-00	MYLAR	0.1 μ F 5% 50V					



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
TRANSISTOR											
Q5801	8-729-422-27	TRANSISTOR	2SD601A-Q			R5824	1-216-809-11	METAL CHIP	100	5%	1/10W
Q5802	8-729-422-27	TRANSISTOR	2SD601A-Q			R5825	1-249-383-11	CARBON	1.5	5%	1/4W
Q5803	8-729-422-27	TRANSISTOR	2SD601A-Q			R5827	1-215-859-00	METAL OXIDE	22	5%	1W
Q5806	8-729-422-27	TRANSISTOR	2SD601A-Q			R5828	1-249-441-11	CARBON	100K	5%	1/4W
Q5807	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R5829	1-215-859-00	METAL OXIDE	22	5%	1W
RESISTOR											
R5801	1-216-853-11	METAL CHIP	470K	5%	1/10W	R5830	1-218-716-11	METAL CHIP	10K	0.50%	1/10W
R5802	1-216-851-11	METAL CHIP	330K	5%	1/10W	R5831	1-218-726-11	METAL CHIP (KD-30XS955/36XS955 ONLY)	27K	0.50%	1/10W
R5803	1-216-841-11	METAL CHIP	47K	5%	1/10W	R5831	1-218-730-11	METAL CHIP (KD-34XBR960/34XS955 ONLY)	39K	0.50%	1/10W
R5804	1-216-841-11	METAL CHIP	47K	5%	1/10W	R5832	1-218-712-11	METAL CHIP (ALL EXCEPT KD-30XS955)	6.8K	0.50%	1/10W
R5805	1-218-772-11 (KD-30XS955 ONLY)	METAL CHIP	680K	0.50%	1/10W	R5832	1-218-713-11	METAL CHIP (KD-30XS955 ONLY)	7.5K	0.50%	1/10W
R5805	1-218-776-11 (ALL EXCEPT KD-30XS955)	METAL CHIP	1M	0.50%	1/10W	R5833	1-218-716-11	METAL CHIP	10K	0.50%	1/10W
R5807	1-216-833-11	METAL CHIP	10K	5%	1/10W	R5834	1-218-715-11 (KD-30XS955/36XS955 ONLY)	METAL CHIP	9.1K	0.50%	1/10W
R5808	1-218-716-11	METAL CHIP	10K	0.50%	1/10W	R5834	1-218-720-11 (KD-34XBR960/34XS955 ONLY)	METAL CHIP	15K	0.50%	1/10W
R5809	1-216-821-11	METAL CHIP	1K	5%	1/10W	R5835	1-218-712-11 (KD-30XS955 ONLY)	METAL CHIP	6.8K	0.50%	1/10W
R5810	1-218-716-11	METAL CHIP	10K	0.50%	1/10W	R5835	1-218-714-11 (ALL EXCEPT KD-30XS955)	METAL CHIP	8.2K	0.50%	1/10W
R5811	1-218-726-11 (KD-30XS955 ONLY)	METAL CHIP	27K	0.50%	1/10W	R5836	1-218-694-11	METAL CHIP	1.2K	0.50%	1/10W
R5811	1-218-727-11 (ALL EXCEPT KD-30XS955)	METAL CHIP	30K	0.50%	1/10W	R5837	1-218-716-11 (KD-30XS955/36XS955 ONLY)	METAL CHIP	10K	0.50%	1/10W
R5812	1-216-793-11	METAL CHIP	4.7	5%	1/10W	R5837	1-218-734-11 (KD-34XBR960/34XS955 ONLY)	METAL CHIP	56K	0.50%	1/10W
R5813	1-216-833-11	METAL CHIP	10K	5%	1/10W	R5838	1-218-732-11	METAL CHIP	47K	0.50%	1/10W
R5814	1-216-793-11	METAL CHIP	4.7	5%	1/10W	R5839	1-218-732-11 (ALL EXCEPT KD-30XS955)	METAL CHIP	47K	0.50%	1/10W
R5815	1-216-833-11	METAL CHIP	10K	5%	1/10W	R5840	1-218-709-11 (ALL EXCEPT KD-30XS955)	METAL CHIP	5.1K	0.50%	1/10W
R5817	1-218-726-11	METAL CHIP	27K	0.50%	1/10W	R5840	1-218-712-11 (KD-30XS955 ONLY)	METAL CHIP	6.8K	0.50%	1/10W
R5818	1-218-714-11 (KD-30XS955/36XS955 ONLY)	METAL CHIP	8.2K	0.50%	1/10W	R5841	1-249-441-11	CARBON	100K	5%	1/4W
R5818	1-218-716-11 (KD-34XBR960/34XS955 ONLY)	METAL CHIP	10K	0.50%	1/10W	R5842	1-215-859-00	METAL OXIDE	22	5%	1W
R5819	1-218-684-11 (KD-30XS955/36XS955 ONLY)	METAL CHIP	470	0.50%	1/10W	R5843	1-249-441-11	CARBON	100K	5%	1/4W
R5819	1-218-686-11 (KD-34XBR960/34XS955 ONLY)	METAL CHIP	560	0.50%	1/10W	R5844	1-218-728-11 (ALL EXCEPT KD-30XS955)	METAL CHIP	33K	0.50%	1/10W
R5821	1-218-726-11 (KD-34XBR960/34XS955 ONLY)	METAL CHIP	27K	0.50%	1/10W	R5844	1-218-730-11 (KD-30XS955 ONLY)	METAL CHIP	39K	0.50%	1/10W
R5821	1-218-728-11 (KD-30XS955/36XS955 ONLY)	METAL CHIP	33K	0.50%	1/10W	R5845	1-215-859-00	METAL OXIDE	22	5%	1W
R5822	1-249-383-11	CARBON	1.5	5%	1/4W	R5846	1-216-793-11	METAL CHIP	4.7	5%	1/10W
R5823	1-216-809-11	METAL CHIP	100	5%	1/10W						



REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
R5847	1-218-732-11	METAL CHIP (KD-30XS955 ONLY)	47K 0.50% 1/10W	R5858	1-218-722-11	METAL CHIP (KD-34XBR960/34XS955 ONLY)	18K 0.50% 1/10W
R5847	1-218-734-11	METAL CHIP (ALL EXCEPT KD-30XS955)	56K 0.50% 1/10W	R5858	1-218-728-11	METAL CHIP (KD-36XS955 ONLY)	33K 0.50% 1/10W
R5848	1-218-719-11	METAL CHIP (KD-30XS955 ONLY)	13K 0.50% 1/10W	R5858	1-218-730-11	METAL CHIP (KD-30XS955 ONLY)	39K 0.50% 1/10W
R5848	1-218-722-11	METAL CHIP (ALL EXCEPT KD-30XS955)	18K 0.50% 1/10W	R5859	1-218-722-11	METAL CHIP (KD-34XBR960/34XS955 ONLY)	18K 0.50% 1/10W
R5849	1-249-383-11	CARBON	1.5 5% 1/4W	R5859	1-218-728-11	METAL CHIP (KD-36XS955 ONLY)	33K 0.50% 1/10W
R5851	1-218-726-11	METAL CHIP (ALL EXCEPT KD-36XS955)	27K 0.50% 1/10W	R5859	1-218-730-11	METAL CHIP (KD-30XS955 ONLY)	39K 0.50% 1/10W
R5851	1-218-732-11	METAL CHIP (KD-36XS955 ONLY)	47K 0.50% 1/10W	R5860	1-249-441-11	CARBON	100K 5% 1/4W
R5852	1-218-719-11	METAL CHIP (KD-30XS955 ONLY)	13K 0.50% 1/10W	R5861	1-218-704-11	METAL CHIP (KD-30XS955 ONLY)	3.3K 0.50% 1/10W
R5852	1-218-722-11	METAL CHIP (ALL EXCEPT KD-30XS955)	18K 0.50% 1/10W	R5861	1-218-708-11	METAL CHIP (ALL EXCEPT KD-30XS955)	4.7K 0.50% 1/10W
R5853	1-218-726-11	METAL CHIP (KD-30XS955 ONLY)	27K 0.50% 1/10W	R5862	1-218-712-11	METAL CHIP (KD-30XS955 ONLY)	6.8K 0.50% 1/10W
R5853	1-218-728-11	METAL CHIP (KD-34XBR960/34XS955 ONLY)	33K 0.50% 1/10W	R5862	1-218-714-11	METAL CHIP (ALL EXCEPT KD-30XS955)	8.2K 0.50% 1/10W
R5853	1-218-736-11	METAL CHIP (KD-36XS955 ONLY)	68K 0.50% 1/10W	R5863	1-218-722-11	METAL CHIP (ALL EXCEPT KD-30XS955)	18K 0.50% 1/10W
R5854	1-218-726-11	METAL CHIP (ALL EXCEPT KD-36XS955)	27K 0.50% 1/10W	R5863	1-218-724-11	METAL CHIP (KD-30XS955 ONLY)	22K 0.50% 1/10W
R5854	1-218-734-11	METAL CHIP (KD-36XS955 ONLY)	56K 0.50% 1/10W	R5864	1-218-724-11	METAL CHIP	22K 0.50% 1/10W
R5855	1-218-730-11	METAL CHIP (KD-30XS955 ONLY)	39K 0.50% 1/10W	R5865	1-218-706-11	METAL CHIP (ALL EXCEPT KD-30XS955)	3.9K 0.50% 1/10W
R5855	1-218-734-11	METAL CHIP (KD-34XBR960/34XS955 ONLY)	56K 0.50% 1/10W	R5865	1-218-708-11	METAL CHIP (KD-30XS955 ONLY)	4.7K 0.50% 1/10W
R5855	1-218-736-11	METAL CHIP (KD-36XS955 ONLY)	68K 0.50% 1/10W	R5866	1-249-383-11	CARBON	1.5 5% 1/4W
R5856	1-218-722-11	METAL CHIP (KD-34XBR960/34XS955 ONLY)	18K 0.50% 1/10W	R5867	1-218-724-11	METAL CHIP	22K 0.50% 1/10W
R5856	1-218-728-11	METAL CHIP (KD-36XS955 ONLY)	33K 0.50% 1/10W	R5868	1-218-706-11	METAL CHIP (ALL EXCEPT KD-30XS955)	3.9K 0.50% 1/10W
R5856	1-218-730-11	METAL CHIP (KD-30XS955 ONLY)	39K 0.50% 1/10W	R5868	1-218-708-11	METAL CHIP (KD-30XS955 ONLY)	4.7K 0.50% 1/10W
R5857	1-218-722-11	METAL CHIP (KD-34XBR960/34XS955 ONLY)	18K 0.50% 1/10W	R5869	1-249-383-11	CARBON	1.5 5% 1/4W
R5857	1-218-728-11	METAL CHIP (KD-36XS955 ONLY)	33K 0.50% 1/10W	R5871	1-218-724-11	METAL CHIP	22K 0.50% 1/10W
R5857	1-218-730-11	METAL CHIP (KD-30XS955 ONLY)	39K 0.50% 1/10W	R5872	1-218-724-11	METAL CHIP	22K 0.50% 1/10W
				R5873	1-218-706-11	METAL CHIP (ALL EXCEPT KD-30XS955)	3.9K 0.50% 1/10W
				R5873	1-218-708-11	METAL CHIP (KD-30XS955 ONLY)	4.7K 0.50% 1/10W
				R5874	1-249-441-11	CARBON	100K 5% 1/4W



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R5875	1-215-858-00	METAL OXIDE (KD-36XS955 ONLY)	15	5%	1W	R5903	1-218-720-11	METAL CHIP (ALL EXCEPT KD-30XS955)	15K	0.50%	1/10W
R5875	1-215-859-00	METAL OXIDE (KD-34XBR960/34XS955 ONLY)	22	5%	1W	R5903	1-218-722-11	METAL CHIP (KD-30XS955 ONLY)	18K	0.50%	1/10W
R5875	1-215-861-00	METAL OXIDE (KD-30XS955 ONLY)	47	5%	1W	R5904	1-216-837-11	METAL CHIP	22K	5%	1/10W
R5876	1-216-793-11	METAL CHIP	4.7	5%	1/10W	R5905	1-216-837-11	METAL CHIP	22K	5%	1/10W
R5877	1-216-793-11	METAL CHIP	4.7	5%	1/10W	R5906	1-216-841-11	METAL CHIP	47K	5%	1/10W
R5879	1-216-793-11	METAL CHIP	4.7	5%	1/10W	R5907	1-216-841-11	METAL CHIP	47K	5%	1/10W
R5880	1-216-793-11	METAL CHIP	4.7	5%	1/10W	R5908	1-216-841-11	METAL CHIP	47K	5%	1/10W
R5883	1-218-719-11	METAL CHIP (KD-30XS955 ONLY)	13K	0.50%	1/10W	R5909	1-216-841-11	METAL CHIP	47K	5%	1/10W
R5883	1-218-722-11	METAL CHIP (ALL EXCEPT KD-30XS955)	18K	0.50%	1/10W	R5912	1-216-841-11	METAL CHIP	47K	5%	1/10W
R5884	1-218-724-11	METAL CHIP	22K	0.50%	1/10W	R5913	1-216-841-11	METAL CHIP	47K	5%	1/10W
R5885	1-218-716-11	METAL CHIP	10K	0.50%	1/10W	R5914	1-218-730-11	METAL CHIP	39K	0.50%	1/10W
R5886	1-218-716-11	METAL CHIP	10K	0.50%	1/10W	R5915	1-218-716-11	METAL CHIP	10K	0.50%	1/10W
R5887	1-218-706-11	METAL CHIP (ALL EXCEPT KD-30XS955)	3.9K	0.50%	1/10W	R5916	1-218-724-11	METAL CHIP	22K	0.50%	1/10W
R5887	1-218-708-11	METAL CHIP (KD-30XS955 ONLY)	4.7K	0.50%	1/10W	R5918	1-218-722-11	METAL CHIP (KD-30XS955 ONLY)	18K	0.50%	1/10W
R5889	1-249-383-11	CARBON	1.5	5%	1/4W	R5918	1-218-726-11	METAL CHIP (ALL EXCEPT KD-30XS955)	27K	0.50%	1/10W
R5890	1-218-724-11	METAL CHIP	22K	0.50%	1/10W	R5919	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5892	1-216-833-11	METAL CHIP	10K	5%	1/10W	R5920	1-216-864-11	SHORT CHIP			
R5893	1-216-833-11	METAL CHIP	10K	5%	1/10W	R5921	1-218-716-11	METAL CHIP	10K	0.50%	1/10W
R5895	1-218-716-11	METAL CHIP	10K	0.50%	1/10W	R5922	1-218-716-11	METAL CHIP	10K	0.50%	1/10W
R5896	1-218-719-11	METAL CHIP (KD-30XS955 ONLY)	13K	0.50%	1/10W	R5923	1-218-716-11	METAL CHIP	10K	0.50%	1/10W
R5896	1-218-722-11	METAL CHIP (ALL EXCEPT KD-30XS955)	18K	0.50%	1/10W	R5924	1-218-716-11	METAL CHIP	10K	0.50%	1/10W
R5897	1-218-716-11	METAL CHIP	10K	0.50%	1/10W	R5925	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5898	1-218-720-11	METAL CHIP (ALL EXCEPT KD-30XS955)	15K	0.50%	1/10W	R5926	1-216-864-11	SHORT CHIP			
R5898	1-218-722-11	METAL CHIP (KD-30XS955 ONLY)	18K	0.50%	1/10W	R5928	1-216-809-11	METAL CHIP	100	5%	1/10W
R5899	1-216-793-11	METAL CHIP	4.7	5%	1/10W	R5930	1-216-864-11	SHORT CHIP			
R5901	1-218-720-11	METAL CHIP (ALL EXCEPT KD-30XS955)	15K	0.50%	1/10W						
R5901	1-218-722-11	METAL CHIP (KD-30XS955 ONLY)	18K	0.50%	1/10W						
R5902	1-218-720-11	METAL CHIP (ALL EXCEPT KD-30XS955)	15K	0.50%	1/10W						
R5902	1-218-722-11	METAL CHIP (KD-30XS955 ONLY)	18K	0.50%	1/10W						



* **A-1302-939-A P BOARD, COMPLETE**

Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method. Data is provided for reference only.

CAPACITOR

C9507	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C9508	1-126-394-11	ELECT CHIP	10µF	20%	16V
C9509	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C9510	1-164-230-11	CERAMIC CHIP	220pF	5%	50V
C9511	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V

NOTE: The components identified by shading and \triangle mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifique.



REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
<div style="border: 1px solid black; padding: 5px; display: inline-block;">QH</div> <p>A-1303-030-A QH BOARD, COMPLETE</p> <p>Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method. Data is provided for reference only.</p>				<div style="border: 1px solid black; padding: 5px; display: inline-block;">AZ</div> <p>* A-1062-012-A AZ BOARD, COMPLETE (KD-36XS955 ONLY)</p> <p>* A-1303-034-A AZ BOARD, COMPLETE (KD-34XBR960 ONLY)</p> <p>* A-1303-040-A AZ BOARD, COMPLETE (KD-34XS955 ONLY)</p> <p>* A-1303-044-A AZ BOARD, COMPLETE (KD-30XS955 ONLY)</p> <p>CAPACITOR</p>			
C501	1-165-529-11	MYLAR	0.22 μ F 10 275V	C524	1-162-970-11	CERAMIC CHIP (KD-34XBR960 ONLY)	0.01 μ F 10% 25V
\triangle C503	1-165-529-11	MYLAR	0.22 μ F 10 275V	C525	1-162-966-11	CERAMIC CHIP (KD-34XBR960 ONLY)	0.0022 μ F 10% 50V
C505	1-127-794-51	CERAMIC	2200pF 20% 250V	C526	1-162-927-11	CERAMIC CHIP (KD-34XBR960 ONLY)	100pF 5% 50V
C508	1-127-794-51	CERAMIC	2200pF 20% 250V	C527	1-162-966-11	CERAMIC CHIP (KD-34XBR960 ONLY)	0.0022 μ F 10% 50V
\triangle C512	1-165-530-21	MYLAR	0.47 μ F 10 0V	C528	1-126-933-11	ELECT	100 μ F 20% 16V
C514	1-126-960-11	ELECT	1 μ F 20% 50V	C530	1-126-941-11	ELECT	470 μ F 20% 25V
C515	1-126-947-11	ELECT	47 μ F 20% 35V	C531	1-130-495-00	MYLAR	0.1 μ F 5% 50V
C516	1-162-966-11	CERAMIC CHIP (KD-34XBR960 ONLY)	0.0022 μ F 10% 50V	C533	1-130-495-00	MYLAR	0.1 μ F 5% 50V
C517	1-104-665-11	ELECT (KD-34XBR960 ONLY)	100 μ F 20% 25V	C535	1-115-156-11	CERAMIC CHIP (KD-34XBR960 ONLY)	1 μ F 10V
C518	1-126-967-11	ELECT (KD-34XBR960 ONLY)	47 μ F 20% 50V	C536	1-126-933-11	ELECT	100 μ F 20% 16V
C519	1-162-966-11	CERAMIC CHIP (KD-34XBR960 ONLY)	0.0022 μ F 10% 50V	C537	1-126-941-11	ELECT	470 μ F 20% 25V
C520	1-162-966-11	CERAMIC CHIP (KD-34XBR960 ONLY)	0.0022 μ F 10% 50V	C538	1-165-176-11	CERAMIC CHIP (KD-34XBR960 ONLY)	0.047 μ F 10% 16V
C521	1-104-665-11	ELECT (KD-34XBR960 ONLY)	100 μ F 20% 25V	C540	1-126-767-11	ELECT	1000 μ F 20% 16V
C522	1-126-964-11	ELECT (KD-34XBR960 ONLY)	10 μ F 20% 50V	C541	1-162-961-11	CERAMIC CHIP (KD-34XBR960 ONLY)	330pF 10% 50V
C523	1-104-665-11	ELECT (KD-34XBR960 ONLY)	100 μ F 20% 25V	C542	1-126-941-11	ELECT	470 μ F 20% 25V
				C547	1-126-767-11	ELECT	1000 μ F 20% 16V
				C549	1-126-960-11	ELECT	1 μ F 20% 50V
				C550	1-162-966-11	CERAMIC CHIP (KD-34XBR960 ONLY)	0.0022 μ F 10% 50V
				C551	1-126-960-11	ELECT	1 μ F 20% 50V
				C553	1-126-767-11	ELECT	1000 μ F 20% 16V
				C555	1-126-933-11	ELECT (KD-34XBR960 ONLY)	100 μ F 20% 16V
				C556	1-126-767-11	ELECT	1000 μ F 20% 16V
				C559	1-162-927-11	CERAMIC CHIP	100pF 5% 50V
				C563	1-126-947-11	ELECT	47 μ F 20% 35V
				C565	1-115-156-11	CERAMIC CHIP	1 μ F 10V
				C566	1-162-961-11	CERAMIC CHIP	330pF 10% 50V
				C567	1-165-176-11	CERAMIC CHIP	0.047 μ F 10% 16V
				C569	1-126-767-11	ELECT	1000 μ F 20% 16V
				C570	1-130-495-00	MYLAR	0.1 μ F 5% 50V
				C571	1-130-495-00	MYLAR	0.1 μ F 5% 50V
				C578	1-126-964-11	ELECT	10 μ F 20% 50V
				C579	1-126-964-11	ELECT	10 μ F 20% 50V
				C580	1-126-964-11	ELECT	10 μ F 20% 50V
				C582	1-130-495-00	MYLAR	0.1 μ F 5% 50V
				C583	1-126-960-11	ELECT	1 μ F 20% 50V



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
C584	1-126-960-11	ELECT	1μF	20%	50V	C6901	1-100-803-11	ELECT	220μF	20%	250V
C585	1-126-960-11	ELECT	1μF	20%	50V	C6902	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V
C586	1-130-495-00	MYLAR	0.1μF	5%	50V	C6903	1-126-964-11	ELECT	10μF	20%	50V
C587	1-126-960-11	ELECT	1μF	20%	50V	C6904	1-126-961-11	ELECT	2.2μF	20%	50V
C588	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V	C6905	1-100-803-11	ELECT	220μF	20%	250V
C589	1-130-495-00	MYLAR	0.1μF	5%	50V	C6906	1-126-967-11	ELECT	47μF	20%	50V
C590	1-126-953-11	ELECT	2200μF	20%	35V	C6907	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C591	1-126-935-11	ELECT	470μF	20%	16V	C6908	1-136-479-11	FILM	0.001μF	5%	100V
C592	1-126-935-11	ELECT	470μF	20%	16V	C6909	1-136-497-81	FILM	0.1μF	5%	50V
C593	1-126-935-11	ELECT	470μF	20%	16V	C6911	1-126-947-11	ELECT	47μF	20%	35V
C594	1-126-935-11	ELECT	470μF	20%	16V	C6914	1-117-219-11	CERAMIC	68pF	5%	1KV
C595	1-104-666-11	ELECT	220μF	20%	25V	C6915	1-117-219-11	CERAMIC	68pF	5%	1KV
C596	1-104-666-11	ELECT	220μF	20%	25V	C6916	1-100-624-11	FILM	4700pF	3%	800V
C597	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V	C6917	1-126-968-11	ELECT	100μF	20%	50V
C598	1-130-495-00	MYLAR	0.1μF	5%	50V	C6918	1-104-665-11	ELECT	100μF	20%	25V
C599	1-126-953-11	ELECT	2200μF	20%	35V	C6919	1-126-927-11	ELECT	2200μF	20%	10V
C601	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C6920	1-128-547-11	ELECT	6800μF	20%	16V
C604	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C6922	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C606	1-130-495-00	MYLAR	0.1μF	5%	50V	C6923	1-126-933-11	ELECT	100μF	20%	16V
C607	1-130-495-00	MYLAR	0.1μF	5%	50V	C6925	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C608	1-130-495-00	MYLAR	0.1μF	5%	50V	C6926	1-126-935-11	ELECT	470μF	20%	16V
C609	1-126-942-61	ELECT	1000μF	20%	25V	C6929	1-126-933-11	ELECT	100μF	20%	16V
C610	1-126-942-61	ELECT	1000μF	20%	25V	C6930	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C611	1-130-495-00	MYLAR	0.1μF	5%	50V						
C612	1-126-953-11	ELECT	2200μF	20%	35V						
C613	1-126-953-11	ELECT	2200μF	20%	35V						
C900	1-104-666-11	ELECT	220μF	20%	25V						
C903	1-104-666-11	ELECT	220μF	20%	25V						
C909	1-126-964-11	ELECT	10μF	20%	50V						
C910	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V						
C911	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V						
C912	1-126-964-11	ELECT	10μF	20%	50V						
C915	1-162-959-11	CERAMIC CHIP	330pF	5%	50V						
C918	1-162-968-11	CERAMIC CHIP	0.0047μF	10%	50V						
C921	1-164-677-11	CERAMIC CHIP	0.033μF	10%	16V						
C924	1-164-677-11	CERAMIC CHIP	0.033μF	10%	16V						
C927	1-128-934-91	CERAMIC CHIP	0.33μF	20%	10V						
C930	1-164-388-91	CERAMIC CHIP	270pF	5%	50V						
C933	1-130-495-00	MYLAR	0.1μF	5%	50V						
C939	1-126-933-11	ELECT	100μF	20%	16V						
C942	1-162-927-11	CERAMIC CHIP	100pF	5%	50V						
C945	1-126-933-11	ELECT	100μF	20%	16V						
C946	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V						
(ALL EXCEPT KD-30XS955)											
						CONNECTOR					
						CN501	1-695-915-11	TAB (CONTACT)			
						*	CN503	1-580-843-11	PIN, CONNECTOR (POWER)		
						*	CN504	1-766-241-11	PIN, CONNECTOR (PC BOARD)	3P	
						*	CN505	1-766-241-11	PIN, CONNECTOR (PC BOARD)	3P	
						*	CN506	1-508-786-00	PIN, CONNECTOR (5MM PITCH)	2P	
						*	CN507	1-764-812-12	CONNECTOR, BOARD TO BOARD	11P	
						*	CN508	1-779-892-11	CONNECTOR, BOARD TO BOARD	10P	
						*	CN509	1-779-892-11	CONNECTOR, BOARD TO BOARD	10P	
							CN510	1-793-494-11	CONNECTOR, BOARD TO BOARD	40P	
						*	CN512	1-818-482-11	PIN, CONNECTOR	10P	
						*	CN514	1-766-240-11	PIN, CONNECTOR (PC BOARD)	2P	
							CN515	1-695-915-11	TAB (CONTACT)		
							CN516	1-695-915-11	TAB (CONTACT)		
							CN517	1-695-915-11	TAB (CONTACT)		
							CN518	1-695-915-11	TAB (CONTACT)		
							CN519	1-695-915-11	TAB (CONTACT)		
							CN520	1-695-915-11	TAB (CONTACT)		
						*	CN521	1-779-892-11	CONNECTOR, BOARD TO BOARD	10P	



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REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
* CN522	1-764-333-11	PIN, CONNECTOR(PCB)(V TYPE)	10P	D6904	8-719-082-03	DIODE	MM3Z15VT1
* CN524	1-564-515-11	PLUG, CONNECTOR	12P	D6905	8-719-082-03	DIODE	MM3Z15VT1
* CN526	1-564-508-11	PLUG, CONNECTOR	5P	D6907	6-500-567-21	DIODE	10ERB20-TB5
* CN527	1-564-511-61	PLUG, CONNECTOR	8P	D6908	8-719-063-70	DIODE	D1NL20U
* CN531	1-818-480-11	PIN, CONNECTOR	12P	D6909	8-719-022-97	DIODE	D2S4µF
* CN532	1-564-508-11	PLUG, CONNECTOR	5P	D6910	8-719-060-89	DIODE	D4SBS6-F
* CN900	1-779-892-11	CONNECTOR, BOARD TO BOARD	10P	D6911	8-719-052-90	DIODE	D1NL40-TA2
* CN903	1-564-506-11	PLUG, CONNECTOR	3P	D6913	8-719-068-71	DIODE	PTZ-TE25-13A
* CN6902	1-564-509-11	PLUG, CONNECTOR	6P	D6914	8-719-082-03	DIODE	MM3Z15VT1
				D6915	8-719-077-76	DIODE	D2SB60A-F04
				D6916	8-719-052-90	DIODE	D1NL40-TA2
DIODE				FUSE			
D502	8-719-991-33	DIODE	1SS133T-77	F501	1-532-506-51	FUSE	6.3A 250V
D510	8-719-991-33	DIODE	1SS133T-77				
D511	8-719-991-33	DIODE	1SS133T-77				
D512	8-719-991-33	DIODE	1SS133T-77				
D513	8-719-991-33	DIODE	1SS133T-77				
D514	8-719-991-33	DIODE	1SS133T-77				
D515	8-719-991-33	DIODE	1SS133T-77				
D516	8-719-991-33	DIODE	1SS133T-77				
D517	8-719-991-33	DIODE	1SS133T-77				
D519	8-719-991-33	DIODE	1SS133T-77				
D520	8-719-991-33	DIODE	1SS133T-77				
D521	8-719-991-33	DIODE	1SS133T-77				
D522	8-719-991-33	DIODE	1SS133T-77				
D523	8-719-991-33	DIODE	1SS133T-77				
D524	8-719-991-33	DIODE	1SS133T-77				
D525	8-719-991-33	DIODE	1SS133T-77				
D526	8-719-991-33	DIODE	1SS133T-77				
D527	8-719-991-33	DIODE	1SS133T-77				
D530	8-719-924-13	DIODE	MTZJ-T-77-22B				
D531	8-719-924-13	DIODE	MTZJ-T-77-22B				
D534	8-719-991-33	DIODE	1SS133T-77				
D535	8-719-991-33	DIODE	1SS133T-77				
D540	8-719-991-33	DIODE	1SS133T-77				
D541	8-719-991-33	DIODE	1SS133T-77				
D548	8-719-991-33	DIODE	1SS133T-77				
D900	8-719-110-31	DIODE	RD12ESB2				
D903	8-719-110-31	DIODE	RD12ESB2				
D905	8-719-991-33	DIODE	1SS133T-77				
	(ALL EXCEPT KD-30XS955)						
D6901	8-719-083-78	DIODE	10ERA60-TP				
D6902	8-719-082-03	DIODE	MM3Z15VT1				
D6903	8-719-082-03	DIODE	MM3Z15VT1				
				FERRITE BEAD			
				FB500	1-412-911-11	FERRITE	0µH
				FB502	1-412-911-11	FERRITE	0µH
				FB6900	1-412-911-11	FERRITE	0µH
				FUSE HOLDER			
				FH501	1-533-223-11	FUSE HOLDER	0A 0V
				FH502	1-533-223-11	FUSE HOLDER	0A 0V
				SPARK ELEMENT			
				GD501	1-576-487-11	ELEMENT, SPARK	
				GD502	1-576-487-11	ELEMENT, SPARK	
				IC			
				IC501	6-704-053-01	IC	L4931CZ50-AP
				IC502	8-759-520-49	IC	PQ30RV21
				IC504	6-700-898-01	IC	PQ05RD21
				IC505	8-759-653-07	IC	PQ09RD21
				IC508	8-759-246-70	IC	TA8216H
				IC509	8-759-246-70	IC	TA8216H
				IC900	8-749-016-08	IC	STK390-910
				IC903	8-759-595-52	IC	CXA8070AP
				IC904	8-759-700-07	IC	NJM2903M
				(ALL EXCEPT KD-30XS955)			




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REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
IC6900	6-705-810-01	IC	MCZ3001DB				
IC6901	8-759-586-17	IC	TL1431CZ-AP				
IC6902	8-759-470-65	IC	PQ05RD1B				
CHIP CONDUCTOR				IC LINK			
JR501	1-216-864-11	SHORT CHIP (KD-34XBR960 ONLY)		PS501	1-532-984-11	IC LINK	2A 50V
JR502	1-216-864-11	SHORT CHIP (KD-34XBR960 ONLY)		PS502	1-532-984-11	IC LINK	2A 50V
JR509	1-216-864-11	SHORT CHIP		PS900	1-532-637-00	IC LINK	1A 50V
JR510	1-216-864-11	SHORT CHIP		PS901	1-532-637-00	IC LINK	1A 50V
JR511	1-216-864-11	SHORT CHIP		TRANSISTOR			
JR512	1-216-864-11	SHORT CHIP		Q501	8-729-422-27	TRANSISTOR	2SD601A-Q
JR513	1-216-864-11	SHORT CHIP		Q504	8-729-424-02	TRANSISTOR (KD-34XBR960 ONLY)	2SB709A-QRS-TX
JR514	1-216-864-11	SHORT CHIP		Q505	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
JR515	1-216-864-11	SHORT CHIP		Q506	8-729-424-02	TRANSISTOR (KD-34XBR960 ONLY)	2SB709A-QRS-TX
JR516	1-216-864-11	SHORT CHIP		Q507	8-729-422-27	TRANSISTOR	2SD601A-Q
JR601	1-216-864-11	SHORT CHIP		Q508	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
JUMPER WIRE				Q509	8-729-422-27	TRANSISTOR	2SD601A-Q
JW748	1-260-310-51	CARBON	33 5% 1/2W	Q510	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
JW6901	1-412-911-11	FERRITE	0μH	Q511	8-729-422-27	TRANSISTOR	2SD601A-Q
COIL				Q512	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
L501	1-469-320-21	INDUCTOR (KD-34XBR960 ONLY)	100μH	Q513	8-729-422-27	TRANSISTOR	2SD601A-Q
L502	1-412-525-31	INDUCTOR	10μH	Q515	8-729-422-27	TRANSISTOR	2SD601A-Q
L503	1-469-320-21	INDUCTOR (KD-34XBR960 ONLY)	100μH	Q516	8-729-422-27	TRANSISTOR	2SD601A-Q
L504	1-469-317-21	INDUCTOR (KD-34XBR960 ONLY)	10μH	Q517	8-729-422-27	TRANSISTOR	2SD601A-Q
L508	1-412-529-11	INDUCTOR	22μH	Q518	8-729-422-27	TRANSISTOR	2SD601A-Q
L510	1-433-404-21	TRANSFORMER, LINE FILTER		Q519	8-729-422-27	TRANSISTOR	2SD601A-Q
L511	1-433-404-21	TRANSFORMER, LINE FILTER		Q520	8-729-422-27	TRANSISTOR	2SD601A-Q
L900	1-408-612-31	INDUCTOR	56μH	Q521	8-729-422-27	TRANSISTOR	2SD601A-Q
L6902	1-412-525-31	INDUCTOR	10μH	Q522	8-729-422-27	TRANSISTOR	2SD601A-Q
L6903	1-406-659-11	INDUCTOR	10μH	Q528	8-729-422-27	TRANSISTOR	2SD601A-Q
PHOTO COUPLER				Q903	8-729-422-27	TRANSISTOR	2SD601A-Q
PH6900	8-749-016-81	PHOTO COUPLER	PC123Y22	Q904	8-729-422-27	TRANSISTOR	2SD601A-Q
				Q905	8-729-422-27	TRANSISTOR (ALL EXCEPT KD-30XS955)	2SD601A-Q
				Q906	8-729-422-27	TRANSISTOR (ALL EXCEPT KD-30XS955)	2SD601A-Q
				Q6900	8-729-052-29	TRANSISTOR	2SK2876-01MR-F122
				Q6901	8-729-052-29	TRANSISTOR	2SK2876-01MR-F122
				Q6902	6-550-087-01	TRANSISTOR	RK9410TB
				Q6903	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
				Q6904	8-729-422-27	TRANSISTOR	2SD601A-Q

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REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
RESISTOR						R552	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R501	1-216-864-11	SHORT CHIP				R553	1-216-821-11	METAL CHIP	1K	5%	1/10W
R504	1-216-833-11	METAL CHIP	10K	5%	1/10W	R554	1-216-864-11	SHORT CHIP			
R508	1-219-512-11	METAL	2.2M	5%	1/2W	R555	1-216-833-11	METAL CHIP	10K	5%	1/10W
 R509	1-244-270-11	CEMENTED	0.47	5%	20W	R556	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
 R510	1-244-270-11	CEMENTED	0.47	5%	20W	R557	1-216-821-11	METAL CHIP	1K	5%	1/10W
R517	1-216-805-11	METAL CHIP (KD-34XBR960 ONLY)	47	5%	1/10W	R558	1-216-857-11	METAL CHIP	1M	5%	1/10W
R518	1-216-805-11	METAL CHIP (KD-34XBR960 ONLY)	47	5%	1/10W	R559	1-216-847-11	METAL CHIP	150K	5%	1/10W
R519	1-216-839-11	METAL CHIP (KD-34XBR960 ONLY)	33K	5%	1/10W	R560	1-216-833-11	METAL CHIP	10K	5%	1/10W
R520	1-216-837-11	METAL CHIP (KD-34XBR960 ONLY)	22K	5%	1/10W	R561	1-216-833-11	METAL CHIP	10K	5%	1/10W
R521	1-216-825-11	METAL CHIP (KD-34XBR960 ONLY)	2.2K	5%	1/10W	R563	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R522	1-216-829-11	METAL CHIP (KD-34XBR960 ONLY)	4.7K	5%	1/10W	R564	1-216-847-11	METAL CHIP (KD-34XBR960 ONLY)	150K	5%	1/10W
R524	1-216-833-11	METAL CHIP	10K	5%	1/10W	R566	1-216-864-11	SHORT CHIP			
R525	1-216-833-11	METAL CHIP (KD-34XBR960 ONLY)	10K	5%	1/10W	R567	1-216-864-11	SHORT CHIP			
R527	1-216-341-11	METAL OXIDE	0.22	5%	1W	R568	1-216-864-11	SHORT CHIP			
R528	1-216-833-11	METAL CHIP (KD-34XBR960 ONLY)	10K	5%	1/10W	R569	1-216-864-11	SHORT CHIP			
R529	1-216-857-11	METAL CHIP (KD-34XBR960 ONLY)	1M	5%	1/10W	R575	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R530	1-216-847-11	METAL CHIP (KD-34XBR960 ONLY)	150K	5%	1/10W	R576	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R531	1-216-821-11	METAL CHIP	1K	5%	1/10W	R577	1-216-821-11	METAL CHIP	1K	5%	1/10W
R532	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R578	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R533	1-216-833-11	METAL CHIP	10K	5%	1/10W	R579	1-216-821-11	METAL CHIP	1K	5%	1/10W
R534	1-218-716-11	METAL CHIP	10K	0.50%	1/10W	R580	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R535	1-218-722-11	METAL CHIP	18K	0.50%	1/10W	R584	1-216-813-11	METAL CHIP	220	5%	1/10W
R536	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R585	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R537	1-218-750-11	METAL CHIP	270K	0.50%	1/10W	R586	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R538	1-216-847-11	METAL CHIP (KD-34XBR960 ONLY)	150K	5%	1/10W	R587	1-216-833-11	METAL CHIP	10K	5%	1/10W
R539	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R588	1-216-833-11	METAL CHIP	10K	5%	1/10W
R540	1-216-821-11	METAL CHIP	1K	5%	1/10W	R589	1-216-833-11	METAL CHIP	10K	5%	1/10W
R542	1-216-821-11	METAL CHIP	1K	5%	1/10W	R590	1-216-813-11	METAL CHIP	220	5%	1/10W
R544	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R591	1-216-821-11	METAL CHIP	1K	5%	1/10W
R548	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R592	1-216-833-11	METAL CHIP	10K	5%	1/10W
R550	1-216-845-11	METAL CHIP	100K	5%	1/10W	R595	1-216-813-11	METAL CHIP	220	5%	1/10W
R551	1-216-833-11	METAL CHIP	10K	5%	1/10W	R596	1-216-833-11	METAL CHIP	10K	5%	1/10W
						R598	1-216-833-11	METAL CHIP	10K	5%	1/10W
						R599	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
						R600	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
						R601	1-216-813-11	METAL CHIP	220	5%	1/10W
						R602	1-216-833-11	METAL CHIP	10K	5%	1/10W
						R603	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
						R604	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
						R608	1-216-821-11	METAL CHIP	1K	5%	1/10W
						R610	1-216-821-11	METAL CHIP	1K	5%	1/10W
						R615	1-249-385-11	CARBON	2.2	5%	1/4W



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R617	1-249-385-11	CARBON	2.2	5%	1/4W	R961	1-218-716-11	METAL CHIP	10K	0.50%	1/10W
R619	1-249-385-11	CARBON	2.2	5%	1/4W			(ALL EXCEPT KD-30XS955)			
R622	1-249-385-11	CARBON	2.2	5%	1/4W	R962	1-218-716-11	METAL CHIP	10K	0.50%	1/10W
R628	1-249-429-11	CARBON	10K	5%	1/4W			(ALL EXCEPT KD-30XS955)			
R629	1-249-429-11	CARBON	10K	5%	1/4W	R963	1-218-708-11	METAL CHIP	4.7K	0.50%	1/10W
								(ALL EXCEPT KD-30XS955)			
R631	1-249-429-11	CARBON	10K	5%	1/4W	R963	1-216-864-11	SHORT CHIP			
R632	1-249-429-11	CARBON	10K	5%	1/4W			(KD-30XS955 ONLY)			
R643	1-216-864-11	SHORT CHIP				R964	1-218-710-11	METAL CHIP	5.6K	0.50%	1/10W
R646	1-216-864-11	SHORT CHIP						(ALL EXCEPT KD-30XS955)			
R650	1-216-809-11	METAL CHIP	100	5%	1/10W	R965	1-218-692-11	METAL CHIP	1K	0.50%	1/10W
								(ALL EXCEPT KD-30XS955)			
R651	1-216-817-11	METAL CHIP	470	5%	1/10W	R966	1-218-724-11	METAL CHIP	22K	0.50%	1/10W
R652	1-216-809-11	METAL CHIP	100	5%	1/10W			(ALL EXCEPT KD-30XS955)			
R653	1-216-809-11	METAL CHIP	100	5%	1/10W	R967	1-216-833-11	METAL CHIP	10K	5%	1/10W
R655	1-216-820-11	METAL CHIP	820	5%	1/10W			(ALL EXCEPT KD-30XS955)			
R656	1-216-805-11	METAL CHIP	47	5%	1/10W	R968	1-216-833-11	METAL CHIP	10K	5%	1/10W
								(ALL EXCEPT KD-30XS955)			
R657	1-216-864-11	SHORT CHIP				R6902	1-218-869-11	METAL CHIP	8.2K	0.50%	1/10W
R660	1-216-805-11	METAL CHIP	47	5%	1/10W	R6903	1-218-837-11	METAL CHIP	390	0.50%	1/10W
R661	1-216-864-11	SHORT CHIP				R6904	1-245-478-21	METAL	470K	1%	1/4W
R662	1-218-285-11	METAL CHIP	75	5%	1/10W	R6905	1-218-873-11	METAL CHIP	12K	0.50%	1/10W
R663	1-218-285-11	METAL CHIP	75	5%	1/10W	R6907	1-245-478-21	METAL	470K	1%	1/4W
R664	1-218-285-11	METAL CHIP	75	5%	1/10W	R6908	1-218-823-11	METAL CHIP	100	0.50%	1/10W
R900	1-216-864-11	SHORT CHIP				R6909	1-249-417-11	CARBON	1K	5%	1/4W
R909	1-216-843-11	METAL CHIP	68K	5%	1/10W	R6910	1-249-393-11	CARBON	10	5%	1/4W
R910	1-216-833-11	METAL CHIP	10K	5%	1/10W	R6911	1-249-393-11	CARBON	10	5%	1/4W
R911	1-216-833-11	METAL CHIP	10K	5%	1/10W	R6912	1-216-833-11	METAL CHIP	10K	5%	1/10W
R912	1-216-385-11	METAL OXIDE	0.47	5%	3W	R6913	1-216-833-11	METAL CHIP	10K	5%	1/10W
R913	1-216-845-11	METAL CHIP	100K	5%	1/10W	R6916	1-216-817-11	METAL CHIP	470	5%	1/10W
R915	1-215-886-11	METAL OXIDE	100	5%	2W	R6917	1-216-864-11	SHORT CHIP			
R918	1-218-708-11	METAL CHIP	4.7K	0.50%	1/10W	R6918	1-220-926-81	FUSIBLE	0.47	10%	1/2W
R920	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R6919	1-244-207-11	WIREWOUND	3.3	5%	10W
R921	1-218-708-11	METAL CHIP	4.7K	0.50%	1/10W	R6920	1-216-362-21	METAL OXIDE	0.27	5%	2W
R922	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R6921	1-216-821-11	METAL CHIP	1K	5%	1/10W
R927	1-218-716-11	METAL CHIP	10K	0.50%	1/10W	R6922	1-249-393-11	CARBON	10	5%	1/4W
R930	1-218-708-11	METAL CHIP	4.7K	0.50%	1/10W	R6923	1-216-821-11	METAL CHIP	1K	5%	1/10W
R933	1-218-712-11	METAL CHIP	6.8K	0.50%	1/10W	R6924	1-216-864-11	SHORT CHIP			
R939	1-216-805-11	METAL CHIP	47	5%	1/10W	R6926	1-260-131-11	CARBON	470K	5%	1/2W
R942	1-216-429-00	METAL OXIDE	270	5%	1W	R6927	1-216-833-11	METAL CHIP	10K	5%	1/10W
R945	1-216-805-11	METAL CHIP	47	5%	1/10W	R6928	1-260-131-11	CARBON	470K	5%	1/2W
R948	1-216-833-11	METAL CHIP	10K	5%	1/10W	R6930	1-260-324-11	CARBON	470	5%	1/2W
R949	1-218-708-11	METAL CHIP	4.7K	0.50%	1/10W	R6931	1-218-877-11	METAL CHIP	18K	0.50%	1/10W
R950	1-218-712-11	METAL CHIP	6.8K	0.50%	1/10W						
R951	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R954	1-216-821-11	METAL CHIP	1K	5%	1/10W						

NOTE: The components identified by shading and  mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifique.



* **A-1303-035-A BY BOARD, COMPLETE**
(KD-34XBR960 ONLY)
* **A-1303-041-A BY BOARD, COMPLETE**
(ALL EXCEPT KD-34XBR960)

Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method.
Data is provided for reference only.

CAPACITOR

REF. NO.	PART NO.	DESCRIPTION	VALUES
C2801	1-117-681-11	ELECT CHIP	100µF 20% 16V
C2802	1-164-156-11	CERAMIC CHIP	0.1µF 25V
C2804	1-162-923-11	CERAMIC CHIP	47pF 5% 50V
C2805	1-162-970-11	CERAMIC CHIP	0.01µF 10% 25V
C2806	1-125-891-11	CERAMIC CHIP	0.47µF 10% 10V
C2808	1-128-996-11	ELECT CHIP	4.7µF 20% 50V
C2809	1-117-681-11	ELECT CHIP	100µF 20% 16V
C2810	1-107-826-11	CERAMIC CHIP	0.1µF 10% 16V
C2811	1-164-156-11	CERAMIC CHIP	0.1µF 25V
C2812	1-125-891-11	CERAMIC CHIP	0.47µF 10% 10V
C2813	1-107-826-11	CERAMIC CHIP	0.1µF 10% 16V
C2814	1-107-826-11	CERAMIC CHIP	0.1µF 10% 16V
C2815	1-107-826-11	CERAMIC CHIP	0.1µF 10% 16V
C2816	1-107-826-11	CERAMIC CHIP	0.1µF 10% 16V
C2817	1-107-826-11	CERAMIC CHIP	0.1µF 10% 16V
C2818	1-162-964-11	CERAMIC CHIP	0.001µF 10% 50V
C2819	1-107-826-11	CERAMIC CHIP	0.1µF 10% 16V
C2820	1-162-970-11	CERAMIC CHIP	0.01µF 10% 25V
C2821	1-107-826-11	CERAMIC CHIP	0.1µF 10% 16V
C2822	1-107-826-11	CERAMIC CHIP	0.1µF 10% 16V
C2823	1-117-681-11	ELECT CHIP	100µF 20% 16V
C2824	1-117-681-11	ELECT CHIP	100µF 20% 16V
C2825	1-162-964-11	CERAMIC CHIP	0.001µF 10% 50V
C2826	1-164-156-11	CERAMIC CHIP	0.1µF 25V
C2827	1-164-156-11	CERAMIC CHIP	0.1µF 25V
C2828	1-110-563-11	CERAMIC CHIP	0.068µF 10% 16V
C2829	1-162-968-11	CERAMIC CHIP	0.0047µF 10% 50V
C2830	1-128-996-11	ELECT CHIP	4.7µF 20% 50V
C2831	1-117-681-11	ELECT CHIP	100µF 20% 16V
C2833	1-127-715-91	CERAMIC CHIP	0.22µF 10% 16V

REF. NO.	PART NO.	DESCRIPTION	VALUES
R6932	1-218-867-11	METAL CHIP	6.8K 0.50% 1/10W
R6933	1-260-322-11	CARBON	330 5% 1/2W
R6937	1-216-833-11	METAL CHIP	10K 5% 1/10W
R6938	1-216-833-11	METAL CHIP	10K 5% 1/10W
R6939	1-216-833-11	METAL CHIP	10K 5% 1/10W
R6940	1-216-833-11	METAL CHIP	10K 5% 1/10W
R6941	1-216-833-11	METAL CHIP	10K 5% 1/10W
R6942	1-216-833-11	METAL CHIP	10K 5% 1/10W
R6943	1-216-841-11	METAL CHIP	47K 5% 1/10W
R6944	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
R6945	1-216-864-11	SHORT CHIP	
R6946	1-216-864-11	SHORT CHIP	
R6947	1-216-864-11	SHORT CHIP	

RELAY

	RY501	1-755-389-11	RELAY (AC POWER)
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TRANSFORMER

T6900	1-439-879-11	TRANSFORMER, CONVERTER (PIT)
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TRANSFORMER

	TH501	1-803-970-11	THERMISTOR, POSITIVE
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TUNER

TU501	8-598-594-30	TUNER, FSS BTF-FA421 (KD-34XBR960 ONLY)
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VARISTOR

	VD501	1-804-992-21	VARISTOR
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REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
C2834	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V	C3037	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2835	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C3038	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C2836	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3040	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2837	1-117-681-11	ELECT CHIP	100μF	20%	16V	C3042	1-128-391-11	ELECT CHIP	330μF	20%	6.3V
C2840	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3044	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2841	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3046	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C2842	1-117-681-11	ELECT CHIP	100μF	20%	16V	C3047	1-126-204-11	ELECT CHIP	47μF	20%	16V
C2843	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3048	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C2844	1-117-681-11	ELECT CHIP	100μF	20%	16V	C3049	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2845	1-117-681-11	ELECT CHIP	100μF	20%	16V	C3089	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C2846	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3090	1-126-204-11	ELECT CHIP	47μF	20%	16V
C2847	1-127-715-91	CERAMIC CHIP	0.22μF	10%	16V	C3095	1-137-897-21	ELECT CHIP	150μF	20%	4V
C2849	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	C3096	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C2850	1-117-681-11	ELECT CHIP	100μF	20%	16V	C3097	1-117-681-11	ELECT CHIP	100μF	20%	16V
C2851	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3098	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C3005	1-126-204-11	ELECT CHIP	47μF	20%	16V	C3101	1-162-925-11	CERAMIC CHIP	68pF	5%	50V
C3006	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C3102	1-162-925-11	CERAMIC CHIP	68pF	5%	50V
C3008	1-126-204-11	ELECT CHIP	47μF	20%	16V	C3103	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C3009	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C3301	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3011	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3302	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3012	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3303	1-126-206-11	ELECT CHIP	100μF	20%	6.3V
C3013	1-128-391-11	ELECT CHIP	330μF	20%	6.3V	C3304	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3014	1-128-391-11	ELECT CHIP	330μF	20%	6.3V	C3305	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3015	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3307	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3016	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3308	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3017	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V	C3309	1-126-206-11	ELECT CHIP	100μF	20%	6.3V
C3018	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3313	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3019	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3314	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3020	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3315	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3021	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3316	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3023	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V	C3317	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3024	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V	C3318	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3025	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3319	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3026	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3325	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3027	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3326	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3028	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3329	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C3029	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3333	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3030	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3334	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C3031	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3335	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3032	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3337	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C3033	1-109-982-11	CERAMIC CHIP	1μF	10%	10V	C3341	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3034	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C3343	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3035	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C3349	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3036	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3350	1-164-156-11	CERAMIC CHIP	0.1μF		25V



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
C3351	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3440	1-162-916-11	CERAMIC CHIP	12pF	5%	50V
C3357	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3441	1-162-916-11	CERAMIC CHIP	12pF	5%	50V
C3358	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3442	1-124-779-00	ELECT CHIP	10μF	20%	16V
C3359	1-126-204-11	ELECT CHIP	47μF	20%	16V	C3444	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3360	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3446	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C3363	1-126-204-11	ELECT CHIP	47μF	20%	16V	C3449	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C3364	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3450	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3365	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3452	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3366	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3460	1-162-923-11	CERAMIC CHIP	47pF	5%	50V
C3367	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3462	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3368	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3463	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3369	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3464	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3370	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3465	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3371	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3466	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3372	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3467	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3374	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3468	1-126-206-11	ELECT CHIP	100μF	20%	6.3V
C3375	1-127-760-11	CERAMIC CHIP	4.7μF	10%	6.3V	C3469	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3376	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3470	1-126-206-11	ELECT CHIP	100μF	20%	6.3V
C3377	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C3473	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3378	1-126-204-11	ELECT CHIP	47μF	20%	16V	C3474	1-124-779-00	ELECT CHIP	10μF	20%	16V
C3379	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3475	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3401	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3476	1-124-779-00	ELECT CHIP	10μF	20%	16V
C3402	1-124-779-00	ELECT CHIP	10μF	20%	16V	C3477	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3403	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3478	1-126-204-11	ELECT CHIP	47μF	20%	16V
C3404	1-126-206-11	ELECT CHIP	100μF	20%	6.3V	C3479	1-124-779-00	ELECT CHIP	10μF	20%	16V
C3405	1-126-206-11	ELECT CHIP	100μF	20%	6.3V	C3480	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3406	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3481	1-117-681-11	ELECT CHIP	100μF	20%	16V
C3407	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3482	1-117-681-11	ELECT CHIP	100μF	20%	16V
C3408	1-126-206-11	ELECT CHIP	100μF	20%	6.3V	C3483	1-117-681-11	ELECT CHIP	100μF	20%	16V
C3409	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3484	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V
C3410	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3485	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3411	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3486	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3412	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3487	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3413	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3488	1-124-779-00	ELECT CHIP	10μF	20%	16V
C3414	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3489	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3417	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3490	1-124-779-00	ELECT CHIP	10μF	20%	16V
C3418	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3491	1-126-204-11	ELECT CHIP	47μF	20%	16V
C3424	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3492	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3426	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3493	1-126-204-11	ELECT CHIP	47μF	20%	16V
C3428	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3494	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3431	1-126-204-11	ELECT CHIP	47μF	20%	16V	C3495	1-124-779-00	ELECT CHIP	10μF	20%	16V
C3435	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3496	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3436	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3499	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C3439	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C3500	1-126-206-11	ELECT CHIP	100μF	20%	6.3V



REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
TRANSISTOR				Q3906	8-729-028-28	TRANSISTOR (KD-34XBR960 ONLY)	2SK2036(TE85L)
Q2801	8-729-122-63	TRANSISTOR	2SA1226-E4	Q3907	8-729-028-28	TRANSISTOR (KD-34XBR960 ONLY)	2SK2036(TE85L)
Q2802	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	Q8601	8-729-102-07	TRANSISTOR	2SC2223-F13
Q2803	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	Q8602	8-729-102-07	TRANSISTOR	2SC2223-F13
Q2804	8-729-422-27	TRANSISTOR	2SD601A-Q	Q8603	8-729-102-07	TRANSISTOR	2SC2223-F13
Q2805	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	Q8604	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
Q2806	8-729-422-27	TRANSISTOR	2SD601A-Q	Q8605	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
Q2807	8-729-422-27	TRANSISTOR	2SD601A-Q	Q8606	8-729-122-63	TRANSISTOR	2SA1226-E4
Q2811	8-729-122-63	TRANSISTOR	2SA1226-E4	Q8607	8-729-122-63	TRANSISTOR	2SA1226-E4
Q2812	8-729-122-63	TRANSISTOR	2SA1226-E4	Q8608	8-729-122-63	TRANSISTOR	2SA1226-E4
Q2813	8-729-122-63	TRANSISTOR	2SA1226-E4	Q8609	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
Q2818	8-729-422-27	TRANSISTOR	2SD601A-Q	RESISTOR			
Q2822	8-729-422-27	TRANSISTOR	2SD601A-Q	R2801	1-218-867-11	METAL CHIP	6.8K 0.50% 1/10W
Q2823	8-729-422-27	TRANSISTOR	2SD601A-Q	R2803	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
Q3003	8-729-422-27	TRANSISTOR	2SD601A-Q	R2804	1-216-805-11	METAL CHIP	47 5% 1/10W
Q3005	8-729-422-27	TRANSISTOR	2SD601A-Q	R2805	1-216-823-11	METAL CHIP	1.5K 5% 1/10W
Q3006	8-729-422-27	TRANSISTOR	2SD601A-Q	R2806	1-216-863-11	METAL CHIP	3.3M 5% 1/10W
Q3007	8-729-422-27	TRANSISTOR	2SD601A-Q	R2807	1-216-809-11	METAL CHIP	100 5% 1/10W
Q3008	8-729-422-27	TRANSISTOR	2SD601A-Q	R2808	1-216-834-11	METAL CHIP	12K 5% 1/10W
Q3009	8-729-422-27	TRANSISTOR	2SD601A-Q	R2809	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
Q3089	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R2810	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
Q3090	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R2811	1-216-809-11	METAL CHIP	100 5% 1/10W
Q3092	8-729-422-27	TRANSISTOR	2SD601A-Q	R2812	1-218-708-11	METAL CHIP	4.7K 0.50% 1/10W
Q3093	8-729-422-27	TRANSISTOR	2SD601A-Q	R2813	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q3302	8-729-422-27	TRANSISTOR	2SD601A-Q	R2815	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q3303	8-729-422-27	TRANSISTOR	2SD601A-Q	R2816	1-216-845-11	METAL CHIP	100K 5% 1/10W
Q3305	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R2817	1-216-809-11	METAL CHIP	100 5% 1/10W
Q3306	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R2818	1-216-809-11	METAL CHIP	100 5% 1/10W
Q3307	8-729-422-27	TRANSISTOR	2SD601A-Q	R2819	1-216-809-11	METAL CHIP	100 5% 1/10W
Q3308	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R2820	1-216-809-11	METAL CHIP	100 5% 1/10W
Q3309	8-729-422-27	TRANSISTOR	2SD601A-Q	R2821	1-216-809-11	METAL CHIP	100 5% 1/10W
Q3310	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R2823	1-216-841-11	METAL CHIP	47K 5% 1/10W
Q3311	8-729-422-27	TRANSISTOR	2SD601A-Q	R2824	1-216-809-11	METAL CHIP	100 5% 1/10W
Q3401	8-729-422-27	TRANSISTOR	2SD601A-Q	R2825	1-216-841-11	METAL CHIP	47K 5% 1/10W
Q3402	8-729-028-28	TRANSISTOR	2SK2036(TE85L)	R2826	1-218-716-11	METAL CHIP	10K 0.50% 1/10W
Q3404	8-729-028-28	TRANSISTOR	2SK2036(TE85L)	R2827	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
Q3410	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R2828	1-216-832-11	METAL CHIP	8.2K 5% 1/10W
Q3411	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R2829	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
Q3412	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R2830	1-216-818-11	METAL CHIP	560 5% 1/10W
Q3413	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R2831	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
Q3414	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX				
Q3415	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX				
Q3416	8-729-422-27	TRANSISTOR	2SD601A-Q				



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R2832	1-216-809-11	METAL CHIP	100	5%	1/10W	R2894	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2833	1-216-809-11	METAL CHIP	100	5%	1/10W	R2895	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2834	1-216-809-11	METAL CHIP	100	5%	1/10W	R2896	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2835	1-216-809-11	METAL CHIP	100	5%	1/10W	R2897	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2836	1-216-809-11	METAL CHIP	100	5%	1/10W	R2898	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2837	1-216-809-11	METAL CHIP	100	5%	1/10W	R2899	1-218-724-11	METAL CHIP	22K	0.50%	1/10W
R2838	1-216-809-11	METAL CHIP	100	5%	1/10W	R2900	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2839	1-216-809-11	METAL CHIP	100	5%	1/10W	R2901	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2840	1-216-809-11	METAL CHIP	100	5%	1/10W	R2902	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2841	1-216-809-11	METAL CHIP	100	5%	1/10W	R2907	1-218-656-11	METAL CHIP	33	0.50%	1/10W
R2842	1-216-809-11	METAL CHIP	100	5%	1/10W	R2908	1-218-656-11	METAL CHIP	33	0.50%	1/10W
R2843	1-216-809-11	METAL CHIP	100	5%	1/10W	R2909	1-218-656-11	METAL CHIP	33	0.50%	1/10W
R2844	1-216-826-11	METAL CHIP	2.7K	5%	1/10W	R2911	1-216-864-11	SHORT CHIP			
R2845	1-216-809-11	METAL CHIP	100	5%	1/10W	R2913	1-216-864-11	SHORT CHIP			
R2846	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	R2919	1-218-724-11	METAL CHIP	22K	0.50%	1/10W
R2847	1-216-809-11	METAL CHIP	100	5%	1/10W	R2920	1-216-864-11	SHORT CHIP			
R2848	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R2921	1-216-864-11	SHORT CHIP			
R2849	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2922	1-216-864-11	SHORT CHIP			
R2850	1-216-809-11	METAL CHIP	100	5%	1/10W	R3002	1-216-864-11	SHORT CHIP			
R2851	1-216-815-11	METAL CHIP	330	5%	1/10W	R3004	1-216-864-11	SHORT CHIP			
R2853	1-216-864-11	SHORT CHIP				R3013	1-216-809-11	METAL CHIP	100	5%	1/10W
R2854	1-216-864-11	SHORT CHIP				R3014	1-216-809-11	METAL CHIP	100	5%	1/10W
R2858	1-218-716-11	METAL CHIP	10K	0.50%	1/10W	R3015	1-216-809-11	METAL CHIP	100	5%	1/10W
R2860	1-216-833-11	METAL CHIP	10K	5%	1/10W	R3017	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2861	1-216-833-11	METAL CHIP	10K	5%	1/10W	R3020	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R2862	1-216-809-11	METAL CHIP	100	5%	1/10W	R3021	1-216-809-11	METAL CHIP	100	5%	1/10W
R2865	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R3022	1-216-809-11	METAL CHIP	100	5%	1/10W
R2866	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R3023	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2867	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R3025	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2868	1-216-809-11	METAL CHIP	100	5%	1/10W	R3026	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2869	1-216-809-11	METAL CHIP	100	5%	1/10W	R3029	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2870	1-216-809-11	METAL CHIP	100	5%	1/10W	R3030	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R2880	1-216-823-11	METAL CHIP	1.5K	5%	1/10W	R3031	1-216-809-11	METAL CHIP	100	5%	1/10W
R2881	1-216-823-11	METAL CHIP	1.5K	5%	1/10W	R3035	1-216-809-11	METAL CHIP	100	5%	1/10W
R2883	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R3036	1-216-809-11	METAL CHIP	100	5%	1/10W
R2884	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R3037	1-216-809-11	METAL CHIP	100	5%	1/10W
R2885	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R3038	1-218-686-11	METAL CHIP	560	0.50%	1/10W
R2886	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R3039	1-218-686-11	METAL CHIP	560	0.50%	1/10W
R2887	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R3040	1-218-686-11	METAL CHIP	560	0.50%	1/10W
R2889	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R3043	1-216-864-11	SHORT CHIP			
R2890	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R3045	1-216-809-11	METAL CHIP	100	5%	1/10W
R2891	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R3047	1-216-864-11	SHORT CHIP			
R2892	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R3049	1-216-859-11	METAL CHIP	1.5M	5%	1/10W
R2893	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R3050	1-216-833-11	METAL CHIP	10K	5%	1/10W



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R3051	1-216-864-11	SHORT CHIP				R3324	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R3063	1-216-864-11	SHORT CHIP						(ALL EXCEPT KD-34XBR960)			
R3064	1-216-864-11	SHORT CHIP				R3325	1-216-864-11	SHORT CHIP			
R3066	1-216-809-11	METAL CHIP	100	5%	1/10W			(KD-34XBR960 ONLY)			
R3068	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R3325	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
								(ALL EXCEPT KD-34XBR960)			
R3069	1-216-820-11	METAL CHIP	820	5%	1/10W	R3326	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3070	1-216-864-11	SHORT CHIP						(ALL EXCEPT KD-34XBR960)			
R3071	1-216-821-11	METAL CHIP	1K	5%	1/10W	R3335	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3072	1-216-855-11	METAL CHIP	680K	5%	1/10W	R3341	1-216-813-11	METAL CHIP	220	5%	1/10W
R3073	1-216-855-11	METAL CHIP	680K	5%	1/10W	R3342	1-218-705-11	METAL CHIP	3.6K	0.50%	1/10W
R3074	1-218-704-11	METAL CHIP	3.3K	0.50%	1/10W	R3343	1-216-809-11	METAL CHIP	100	5%	1/10W
R3075	1-216-801-11	METAL CHIP	22	5%	1/10W	R3344	1-216-853-11	METAL CHIP	470K	5%	1/10W
R3076	1-216-864-11	SHORT CHIP				R3345	1-218-704-11	METAL CHIP	3.3K	0.50%	1/10W
R3077	1-216-841-11	METAL CHIP	47K	5%	1/10W	R3346	1-216-809-11	METAL CHIP	100	5%	1/10W
R3078	1-216-815-11	METAL CHIP	330	5%	1/10W	R3347	1-216-815-11	METAL CHIP	330	5%	1/10W
R3079	1-216-815-11	METAL CHIP	330	5%	1/10W	R3348	1-216-864-11	SHORT CHIP			
R3089	1-216-864-11	SHORT CHIP				R3349	1-218-687-11	METAL CHIP	620	0.50%	1/10W
R3091	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R3350	1-216-814-11	METAL CHIP	270	5%	1/10W
R3092	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R3351	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3093	1-216-864-11	SHORT CHIP				R3352	1-216-853-11	METAL CHIP	470K	5%	1/10W
R3095	1-216-845-11	METAL CHIP	100K	5%	1/10W	R3353	1-216-837-11	METAL CHIP	22K	5%	1/10W
R3096	1-216-817-11	METAL CHIP	470	5%	1/10W	R3354	1-216-813-11	METAL CHIP	220	5%	1/10W
R3097	1-216-845-11	METAL CHIP	100K	5%	1/10W	R3355	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3098	1-216-805-11	METAL CHIP	47	5%	1/10W	R3357	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R3099	1-216-805-11	METAL CHIP	47	5%	1/10W	R3358	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R3100	1-216-809-11	METAL CHIP	100	5%	1/10W	R3359	1-218-676-11	METAL CHIP	220	0.50%	1/10W
		(ALL EXCEPT KD-34XBR960)				R3360	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R3101	1-216-809-11	METAL CHIP	100	5%	1/10W	R3364	1-216-864-11	SHORT CHIP			
		(ALL EXCEPT KD-34XBR960)						(ALL EXCEPT KD-34XBR960)			
R3102	1-216-809-11	METAL CHIP	100	5%	1/10W	R3366	1-216-864-11	SHORT CHIP			
								(ALL EXCEPT KD-34XBR960)			
R3103	1-216-809-11	METAL CHIP	100	5%	1/10W	R3365	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R3104	1-216-809-11	METAL CHIP	100	5%	1/10W	R3367	1-216-805-11	METAL CHIP	47	5%	1/10W
R3105	1-216-809-11	METAL CHIP	100	5%	1/10W	R3368	1-216-864-11	SHORT CHIP			
R3107	1-216-864-11	SHORT CHIP						(KD-34XBR960 ONLY)			
R3108	1-216-833-11	METAL CHIP	10K	5%	1/10W	R3369	1-216-864-11	SHORT CHIP			
								(ALL EXCEPT KD-34XBR960)			
R3110	1-216-809-11	METAL CHIP	100	5%	1/10W	R3370	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3111	1-216-809-11	METAL CHIP	100	5%	1/10W	R3371	1-218-686-11	METAL CHIP	560	0.50%	1/10W
R3116	1-216-797-11	METAL CHIP	10	5%	1/10W	R3372	1-216-817-11	METAL CHIP	470	5%	1/10W
R3117	1-216-797-11	METAL CHIP	10	5%	1/10W	R3373	1-216-817-11	METAL CHIP	470	5%	1/10W
R3302	1-216-817-11	METAL CHIP	470	5%	1/10W	R3374	1-216-809-11	METAL CHIP	100	5%	1/10W
R3303	1-218-710-11	METAL CHIP	5.6K	0.50%	1/10W						
R3304	1-216-809-11	METAL CHIP	100	5%	1/10W						
R3323	1-216-825-11	METAL CHIP	2.2K	5%	1/10W						
		(ALL EXCEPT KD-34XBR960)									




REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R3375	1-218-686-11	METAL CHIP	560	0.50%	1/10W	R3422	1-216-864-11	SHORT CHIP			
R3376	1-218-710-11	METAL CHIP	5.6K	0.50%	1/10W	R3428	1-469-094-21	FERRITE	0μH		
R3377	1-216-817-11	METAL CHIP	470	5%	1/10W	R3435	1-216-809-11	METAL CHIP	100	5%	1/10W
R3378	1-216-817-11	METAL CHIP	470	5%	1/10W	R3436	1-216-809-11	METAL CHIP	100	5%	1/10W
R3379	1-216-809-11	METAL CHIP	100	5%	1/10W	R3437	1-216-809-11	METAL CHIP	100	5%	1/10W
R3380	1-218-686-11	METAL CHIP	560	0.50%	1/10W	R3438	1-216-809-11	METAL CHIP	100	5%	1/10W
R3381	1-218-710-11	METAL CHIP	5.6K	0.50%	1/10W	R3439	1-216-809-11	METAL CHIP	100	5%	1/10W
R3382	1-216-864-11	SHORT CHIP (ALL EXCEPT KD-34XBR960)				R3440	1-216-809-11	METAL CHIP	100	5%	1/10W
R3383	1-216-817-11	METAL CHIP	470	5%	1/10W	R3441	1-216-809-11	METAL CHIP	100	5%	1/10W
R3384	1-216-864-11	SHORT CHIP (ALL EXCEPT KD-34XBR960)				R3442	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3385	1-216-864-11	SHORT CHIP (ALL EXCEPT KD-34XBR960)				R3445	1-216-864-11	SHORT CHIP			
R3386	1-216-864-11	SHORT CHIP (ALL EXCEPT KD-34XBR960)				R3451	1-216-809-11	METAL CHIP	100	5%	1/10W
R3387	1-216-864-11	SHORT CHIP (ALL EXCEPT KD-34XBR960)				R3452	1-216-864-11	SHORT CHIP			
R3388	1-216-864-11	SHORT CHIP (ALL EXCEPT KD-34XBR960)				R3454	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3389	1-216-864-11	SHORT CHIP (ALL EXCEPT KD-34XBR960)				R3457	1-216-813-11	METAL CHIP	220	5%	1/10W
R3390	1-216-864-11	SHORT CHIP (ALL EXCEPT KD-34XBR960)				R3460	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3391	1-216-864-11	SHORT CHIP (ALL EXCEPT KD-34XBR960)				R3461	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3392	1-216-864-11	SHORT CHIP (ALL EXCEPT KD-34XBR960)				R3466	1-216-813-11	METAL CHIP	220	5%	1/10W
R3393	1-216-864-11	SHORT CHIP (ALL EXCEPT KD-34XBR960)				R3468	1-216-864-11	SHORT CHIP			
R3394	1-216-864-11	SHORT CHIP (ALL EXCEPT KD-34XBR960)				R3469	1-216-864-11	SHORT CHIP			
R3395	1-216-864-11	SHORT CHIP (KD-34XBR960 ONLY)				R3470	1-216-809-11	METAL CHIP	100	5%	1/10W
R3396	1-216-864-11	SHORT CHIP (KD-34XBR960 ONLY)				R3473	1-216-864-11	SHORT CHIP			
R3400	1-216-864-11	SHORT CHIP				R3475	1-216-809-11	METAL CHIP	100	5%	1/10W
R3401	1-216-864-11	SHORT CHIP				R3480	1-216-809-11	METAL CHIP	100	5%	1/10W
R3406	1-216-833-11	METAL CHIP	10K	5%	1/10W	R3489	1-216-864-11	SHORT CHIP			
R3407	1-216-864-11	SHORT CHIP				R3490	1-216-864-11	SHORT CHIP			
R3409	1-216-864-11	SHORT CHIP				R3494	1-216-813-11	METAL CHIP	220	5%	1/10W
R3410	1-216-833-11	METAL CHIP	10K	5%	1/10W	R3497	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3411	1-216-797-11	METAL CHIP	10	5%	1/10W	R3498	1-216-818-11	METAL CHIP	560	5%	1/10W
R3421	1-216-864-11	SHORT CHIP				R3507	1-216-821-11	METAL CHIP	1K	5%	1/10W
						R3508	1-216-821-11	METAL CHIP	1K	5%	1/10W
						R3509	1-216-821-11	METAL CHIP	1K	5%	1/10W
						R3510	1-216-821-11	METAL CHIP	1K	5%	1/10W
						R3511	1-216-821-11	METAL CHIP	1K	5%	1/10W
						R3512	1-216-821-11	METAL CHIP	1K	5%	1/10W
						R3533	1-216-809-11	METAL CHIP	100	5%	1/10W
						R3534	1-216-809-11	METAL CHIP	100	5%	1/10W
						R3535	1-216-809-11	METAL CHIP	100	5%	1/10W
						R3536	1-216-833-11	METAL CHIP	10K	5%	1/10W
						R3537	1-216-833-11	METAL CHIP	10K	5%	1/10W
						R3538	1-216-864-11	SHORT CHIP			
						R3539	1-216-864-11	SHORT CHIP			
						R3540	1-216-864-11	SHORT CHIP			
						R3541	1-216-864-11	SHORT CHIP			



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R3542	1-216-864-11	SHORT CHIP				R3928	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3575	1-216-864-11	SHORT CHIP						(KD-34XBR960 ONLY)			
R3800	1-216-864-11	SHORT CHIP				R3933	1-216-864-11	SHORT CHIP			
R3811	1-216-809-11	METAL CHIP	100	5%	1/10W	R3937	1-216-809-11	METAL CHIP	100	5%	1/10W
R3812	1-216-809-11	METAL CHIP	100	5%	1/10W			(ALL EXCEPT KD-34XBR960)			
R3813	1-216-809-11	METAL CHIP	100	5%	1/10W	R3956	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3820	1-218-684-11	METAL CHIP	470	0.50%	1/10W	R3957	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3821	1-218-684-11	METAL CHIP	470	0.50%	1/10W	R3958	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3822	1-218-684-11	METAL CHIP	470	0.50%	1/10W	R3973	1-216-809-11	METAL CHIP	100	5%	1/10W
R3823	1-216-826-11	METAL CHIP	2.7K	5%	1/10W			(KD-34XBR960 ONLY)			
R3824	1-216-826-11	METAL CHIP	2.7K	5%	1/10W	R3974	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3825	1-216-826-11	METAL CHIP	2.7K	5%	1/10W			(KD-34XBR960 ONLY)			
R3826	1-216-809-11	METAL CHIP	100	5%	1/10W	R3975	1-216-864-11	SHORT CHIP			
R3828	1-218-682-11	METAL CHIP	390	0.50%	1/10W			(ALL EXCEPT KD-34XBR960)			
R3829	1-218-682-11	METAL CHIP	390	0.50%	1/10W	R3976	1-216-864-11	SHORT CHIP			
R3830	1-218-682-11	METAL CHIP	390	0.50%	1/10W			(ALL EXCEPT KD-34XBR960)			
R3831	1-216-864-11	SHORT CHIP				R3977	1-216-864-11	SHORT CHIP			
R3832	1-216-864-11	SHORT CHIP						(ALL EXCEPT KD-34XBR960)			
R3833	1-216-864-11	SHORT CHIP				R3978	1-216-864-11	SHORT CHIP			
R3840	1-216-805-11	METAL CHIP	47	5%	1/10W			(ALL EXCEPT KD-34XBR960)			
R3846	1-216-801-11	METAL CHIP	22	5%	1/10W	R3979	1-216-864-11	SHORT CHIP			
R3847	1-216-801-11	METAL CHIP	22	5%	1/10W			(ALL EXCEPT KD-34XBR960)			
R3848	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R3980	1-216-864-11	SHORT CHIP			
R3849	1-218-675-11	METAL CHIP	200	0.50%	1/10W			(ALL EXCEPT KD-34XBR960)			
R3850	1-218-675-11	METAL CHIP	200	0.50%	1/10W	R3981	1-216-864-11	SHORT CHIP			
R3851	1-216-809-11	METAL CHIP	100	5%	1/10W			(ALL EXCEPT KD-34XBR960)			
R3852	1-218-675-11	METAL CHIP	200	0.50%	1/10W	R3982	1-216-864-11	SHORT CHIP			
R3854	1-216-825-11	METAL CHIP	2.2K	5%	1/10W			(ALL EXCEPT KD-34XBR960)			
R3857	1-216-809-11	METAL CHIP	100	5%	1/10W	R3983	1-216-864-11	SHORT CHIP			
R3858	1-218-704-11	METAL CHIP	3.3K	0.50%	1/10W			(ALL EXCEPT KD-34XBR960)			
R3862	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R3984	1-218-644-11	METAL CHIP	10	0.50%	1/10W
R3863	1-218-700-11	METAL CHIP	2.2K	0.50%	1/10W	R3985	1-218-644-11	METAL CHIP	10	0.50%	1/10W
R3864	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	R3986	1-218-644-11	METAL CHIP	10	0.50%	1/10W
R3865	1-216-809-11	METAL CHIP	100	5%	1/10W	R8606	1-216-819-11	METAL CHIP	680	5%	1/10W
R3866	1-414-234-22	FERRITE	0μH			R8607	1-216-819-11	METAL CHIP	680	5%	1/10W
R3867	1-414-234-22	FERRITE	0μH			R8608	1-216-819-11	METAL CHIP	680	5%	1/10W
R3868	1-414-234-22	FERRITE	0μH			R8609	1-216-809-11	METAL CHIP	100	5%	1/10W
R3881	1-216-807-11	METAL CHIP	68	5%	1/10W	R8610	1-216-809-11	METAL CHIP	100	5%	1/10W
R3882	1-216-807-11	METAL CHIP	68	5%	1/10W	R8611	1-216-809-11	METAL CHIP	100	5%	1/10W
R3883	1-216-807-11	METAL CHIP	68	5%	1/10W	R8612	1-216-820-11	METAL CHIP	820	5%	1/10W
R3911	1-216-821-11	METAL CHIP	1K	5%	1/10W	R8613	1-216-820-11	METAL CHIP	820	5%	1/10W
R3917	1-216-809-11	METAL CHIP	100	5%	1/10W	R8614	1-216-820-11	METAL CHIP	820	5%	1/10W
		(KD-34XBR960 ONLY)				R8615	1-216-809-11	METAL CHIP	100	5%	1/10W



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
						C2027	1-126-964-11	ELECT	10µF	20%	50V
						C2028	1-126-933-11	ELECT (KD-34XBR960 ONLY)	100µF	20%	16V
<p>* A-1303-036-A MZ BOARD, COMPLETE (KD-34XBR960 ONLY)</p>						C2029	1-126-964-11	ELECT	10µF	20%	50V
<p>* A-1303-043-A MZ BOARD, COMPLETE (ALL EXCEPT KD-34XBR960)</p>						C2031	1-107-826-11	CERAMIC CHIP (KD-34XBR960 ONLY)	0.1µF	10%	16V
<p>Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method. Data is provided for reference only.</p>						C2032	1-107-826-11	CERAMIC CHIP (KD-34XBR960 ONLY)	0.1µF	10%	16V
<p>CAPACITOR</p>						C2033	1-126-933-11	ELECT (KD-34XBR960 ONLY)	100µF	20%	16V
C2001	1-162-917-11	CERAMIC CHIP (KD-34XBR960 ONLY)	15pF	5%	50V	C2034	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C2002	1-126-933-11	ELECT (KD-34XBR960 ONLY)	100µF	20%	16V	C2035	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C2003	1-164-156-11	CERAMIC CHIP (KD-34XBR960 ONLY)	0.1µF		25V	C2036	1-164-156-11	CERAMIC CHIP (KD-34XBR960 ONLY)	0.1µF		25V
C2004	1-164-227-11	CERAMIC CHIP (KD-34XBR960 ONLY)	0.022µF	10%	25V	C2037	1-164-156-11	CERAMIC CHIP (KD-34XBR960 ONLY)	0.1µF		25V
C2005	1-162-964-11	CERAMIC CHIP (KD-34XBR960 ONLY)	0.001µF	10%	50V	C2038	1-162-916-11	CERAMIC CHIP	12pF	5%	50V
C2006	1-164-156-11	CERAMIC CHIP (KD-34XBR960 ONLY)	0.1µF		25V	C2039	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C2007	1-126-964-11	ELECT (KD-34XBR960 ONLY)	10µF	20%	50V	C2040	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C2010	1-164-156-11	CERAMIC CHIP (KD-34XBR960 ONLY)	0.1µF		25V	C2041	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C2011	1-164-156-11	CERAMIC CHIP (KD-34XBR960 ONLY)	0.1µF		25V	C2042	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C2012	1-107-826-11	CERAMIC CHIP (KD-34XBR960 ONLY)	0.1µF	10%	16V	C2043	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C2014	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C2044	1-164-315-11	CERAMIC CHIP	470pF	5%	50V
C2015	1-164-156-11	CERAMIC CHIP (KD-34XBR960 ONLY)	0.1µF		25V	C2045	1-126-933-11	ELECT	100µF	20%	16V
C2017	1-126-964-11	ELECT	10µF	20%	50V	C2046	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C2019	1-126-964-11	ELECT	10µF	20%	50V	C2047	1-107-826-11	CERAMIC CHIP (KD-34XBR960 ONLY)	0.1µF	10%	16V
C2020	1-126-964-11	ELECT	10µF	20%	50V	C2048	1-164-315-11	CERAMIC CHIP (KD-34XBR960 ONLY)	470pF	5%	50V
C2022	1-126-964-11	ELECT	10µF	20%	50V	C2049	1-162-916-11	CERAMIC CHIP (KD-34XBR960 ONLY)	12pF	5%	50V
C2024	1-126-933-11	ELECT (KD-34XBR960 ONLY)	100µF	20%	16V	C2050	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2025	1-164-156-11	CERAMIC CHIP (KD-34XBR960 ONLY)	0.1µF		25V	C2051	1-125-837-91	CERAMIC CHIP (KD-34XBR960 ONLY)	1µF	10%	6.3V
						C2052	1-125-891-11	CERAMIC CHIP (KD-34XBR960 ONLY)	0.47µF	10%	10V
						C2053	1-125-891-11	CERAMIC CHIP (KD-34XBR960 ONLY)	0.47µF	10%	10V
						C2054	1-107-826-11	CERAMIC CHIP (KD-34XBR960 ONLY)	0.1µF	10%	16V
						C2055	1-126-933-11	ELECT (KD-34XBR960 ONLY)	100µF	20%	16V
						C2056	1-125-891-11	CERAMIC CHIP (KD-34XBR960 ONLY)	0.47µF	10%	10V



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
C2057	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C2089	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2058	1-126-963-11	ELECT	4.7μF	20%	50V	C2090	1-216-864-11	SHORT CHIP			
C2059	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2091	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C2060	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2092	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C2061	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V			(KD-34XBR960 ONLY)			
C2062	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C2096	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V
C2063	1-126-963-11	ELECT	4.7μF	20%	50V	C2097	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V
		(KD-34XBR960 ONLY)				C2098	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V
C2064	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C2099	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V
C2065	1-126-933-11	ELECT	100μF	20%	16V	C2100	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V
C2066	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C2101	1-126-933-11	ELECT	100μF	20%	16V
C2067	1-109-982-11	CERAMIC CHIP	1μF	10%	10V			(KD-34XBR960 ONLY)			
C2068	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C2102	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V
C2069	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2103	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V
C2070	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C2104	1-164-156-11	CERAMIC CHIP	0.1μF		25V
		(KD-34XBR960 ONLY)						(KD-34XBR960 ONLY)			
C2071	1-126-963-11	ELECT	4.7μF	20%	50V	C2105	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V
C2072	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2106	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2073	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C2107	1-164-156-11	CERAMIC CHIP	0.1μF		25V
		(KD-34XBR960 ONLY)				C2108	1-126-933-11	ELECT	100μF	20%	16V
C2074	1-126-933-11	ELECT	100μF	20%	16V	C2109	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V
		(KD-34XBR960 ONLY)				C2110	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C2075	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2111	1-126-964-11	ELECT	10μF	20%	50V
C2076	1-109-982-11	CERAMIC CHIP	1μF	10%	10V			(KD-34XBR960 ONLY)			
		(KD-34XBR960 ONLY)				C2112	1-126-964-11	ELECT	10μF	20%	50V
C2077	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V			(KD-34XBR960 ONLY)			
C2078	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C2113	1-126-964-11	ELECT	10μF	20%	50V
		(KD-34XBR960 ONLY)						(KD-34XBR960 ONLY)			
C2079	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2114	1-126-964-11	ELECT	10μF	20%	50V
		(KD-34XBR960 ONLY)						(KD-34XBR960 ONLY)			
C2080	1-126-963-11	ELECT	4.7μF	20%	50V	C2115	1-164-156-11	CERAMIC CHIP	0.1μF		25V
		(KD-34XBR960 ONLY)				C2116	1-126-933-11	ELECT	100μF	20%	16V
C2081	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2117	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2082	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V	C2118	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C2083	1-109-982-11	CERAMIC CHIP	1μF	10%	10V			(KD-34XBR960 ONLY)			
C2084	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2119	1-164-156-11	CERAMIC CHIP	0.1μF		25V
		(KD-34XBR960 ONLY)						(KD-34XBR960 ONLY)			
C2085	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V	C2120	1-126-964-11	ELECT	10μF	20%	50V
		(KD-34XBR960 ONLY)						(KD-34XBR960 ONLY)			
C2086	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C2121	1-126-964-11	ELECT	10μF	20%	50V
		(KD-34XBR960 ONLY)						(KD-34XBR960 ONLY)			
C2087	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V	C2122	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
		(KD-34XBR960 ONLY)				C2123	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V
C2088	1-216-864-11	SHORT CHIP				C2124	1-164-156-11	CERAMIC CHIP	0.1μF		25V



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
C2125	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C2234	1-126-933-11	ELECT	100µF	20%	16V
C2126	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V	C2235	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2127	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C2236	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2130	1-126-933-11	ELECT	100µF	20%	16V	C2237	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C2131	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C2238	1-126-933-11	ELECT	100µF	20%	16V
C2132	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C2239	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2137	1-126-964-11	ELECT	10µF	20%	50V	C2240	1-126-933-11	ELECT	100µF	20%	16V
C2138	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C2241	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C2139	1-126-964-11	ELECT	10µF	20%	50V	C2242	1-126-934-11	ELECT	220µF	20%	16V
C2140	1-126-964-11	ELECT	10µF	20%	50V	C2243	1-126-934-11	ELECT	220µF	20%	16V
C2141	1-126-964-11	ELECT	10µF	20%	50V	C2244	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C2200	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C2245	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2201	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C2246	1-126-947-11	ELECT	47µF	20%	35V
C2202	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C2247	1-162-975-11	CERAMIC CHIP	24pF	5%	50V
C2204	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C2248	1-162-975-11	CERAMIC CHIP	24pF	5%	50V
C2205	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C2249	1-164-360-11	CERAMIC CHIP	0.1µF		16V
C2206	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C2250	1-164-360-11	CERAMIC CHIP	0.1µF		16V
C2207	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C2251	1-164-392-11	CERAMIC CHIP	390pF	5%	50V
C2208	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C2300	1-162-968-11	CERAMIC CHIP	0.0047µF	10%	50V
C2209	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C2301	1-126-933-11	ELECT	100µF	20%	16V
C2210	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C2302	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2211	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C2305	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2212	1-126-933-11	ELECT	100µF	20%	16V	C2306	1-162-920-11	CERAMIC CHIP	27pF	5%	50V
C2213	1-126-947-11	ELECT	47µF	20%	35V	C2307	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C2214	1-126-933-11	ELECT	100µF	20%	16V	C2308	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2215	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C2309	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2216	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C2310	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C2217	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C2311	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2218	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C2313	1-115-156-11	CERAMIC CHIP	1µF		10V
C2219	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C2315	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2220	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C2317	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2221	1-162-917-11	CERAMIC CHIP	15pF	5%	50V	C2318	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2222	1-162-917-11	CERAMIC CHIP	15pF	5%	50V	C2319	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2223	1-165-908-11	CERAMIC CHIP	1µF	10%	10V	C2331	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2224	1-115-156-11	CERAMIC CHIP	1µF		10V			(KD-34XBR960 ONLY)			
C2225	1-162-917-11	CERAMIC CHIP	15pF	5%	50V	C2347	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2226	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C2348	1-126-933-11	ELECT	100µF	20%	16V
C2227	1-126-933-11	ELECT	100µF	20%	16V			(KD-34XBR960 ONLY)			
C2228	1-162-913-11	CERAMIC CHIP	8pF	0.50pF	50V	C2349	1-162-968-11	CERAMIC CHIP	0.0047µF	10%	50V
C2229	1-162-913-11	CERAMIC CHIP	8pF	0.50pF	50V	C2352	1-126-933-11	ELECT	100µF	20%	16V
C2230	1-162-915-11	CERAMIC CHIP	10pF	0.50pF	50V	C2353	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2231	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V	C2354	1-162-907-11	CERAMIC CHIP	2pF	0.25pF	50V
C2232	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C2355	1-164-245-11	CERAMIC CHIP	0.015µF	10%	25V
C2233	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C2358	1-104-655-91	ELECT	470µF	20%	6.3V



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
C2359	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C2535	1-162-962-11	CERAMIC CHIP	470pF	10%	50V
C2361	1-126-933-11	ELECT	100μF	20%	16V	C2536	1-135-834-91	CERAMIC CHIP	2.2μF		6.3V
C2362	1-126-933-11	ELECT	100μF	20%	16V	C2538	1-126-947-11	ELECT	47μF	20%	35V
C2364	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C2539	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2366	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C2540	1-162-915-11	CERAMIC CHIP	10pF	0.50pF	50V
C2367	1-164-156-11	CERAMIC CHIP (KD-34XBR960 ONLY)	0.1μF		25V	C2541	1-162-915-11	CERAMIC CHIP	10pF	0.50pF	50V
C2368	1-162-963-11	CERAMIC CHIP (KD-34XBR960 ONLY)	680pF	10%	50V	C2542	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2369	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V	C2543	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2370	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C2544	1-126-963-11	ELECT	4.7μF	20%	50V
C2371	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V	C2545	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V
C2372	1-162-960-11	CERAMIC CHIP	220pF	10%	50V	C2546	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V
C2373	1-135-834-91	CERAMIC CHIP	2.2μF		6.3V	C2548	1-126-947-11	ELECT	47μF	20%	35V
C2374	1-162-960-11	CERAMIC CHIP	220pF	10%	50V	C2549	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2375	1-135-834-91	CERAMIC CHIP	2.2μF		6.3V	C2550	1-126-963-11	ELECT	4.7μF	20%	50V
C2376	1-162-963-11	CERAMIC CHIP	680pF	10%	50V	C2551	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2500	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	C2553	1-126-947-11	ELECT	47μF	20%	35V
C2501	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	C2554	1-126-947-11	ELECT	47μF	20%	35V
C2503	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2558	1-126-963-11	ELECT	4.7μF	20%	50V
C2504	1-126-933-11	ELECT	100μF	20%	16V	C2559	1-126-933-11	ELECT	100μF	20%	16V
C2506	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C2560	1-126-947-11	ELECT	47μF	20%	35V
C2508	1-126-933-11	ELECT	100μF	20%	16V	C2561	1-126-963-11	ELECT	4.7μF	20%	50V
C2510	1-162-960-11	CERAMIC CHIP	220pF	10%	50V	C2563	1-126-961-11	ELECT	2.2μF	20%	50V
C2512	1-135-834-91	CERAMIC CHIP	2.2μF		6.3V	C2564	1-126-961-11	ELECT	2.2μF	20%	50V
C2513	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	C2565	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V
C2514	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C2566	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2515	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2569	1-126-961-11	ELECT	2.2μF	20%	50V
C2516	1-126-933-11	ELECT	100μF	20%	16V	C2570	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V
C2517	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	C2571	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2518	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	C2572	1-126-960-11	ELECT	1μF	20%	50V
C2519	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2574	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V
C2520	1-162-960-11	CERAMIC CHIP	220pF	10%	50V	C2575	1-126-960-11	ELECT	1μF	20%	50V
C2521	1-162-960-11	CERAMIC CHIP	220pF	10%	50V	C2579	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2522	1-126-947-11	ELECT	47μF	20%	35V	C2582	1-126-933-11	ELECT	100μF	20%	16V
C2523	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2584	1-126-933-11	ELECT	100μF	20%	16V
C2524	1-135-834-91	CERAMIC CHIP	2.2μF		6.3V	C2585	1-135-834-91	CERAMIC CHIP	2.2μF		6.3V
C2525	1-135-834-91	CERAMIC CHIP	2.2μF		6.3V	C2586	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V
C2527	1-135-834-91	CERAMIC CHIP	2.2μF		6.3V	C2587	1-135-834-91	CERAMIC CHIP	2.2μF		6.3V
C2528	1-162-962-11	CERAMIC CHIP	470pF	10%	50V	C2588	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V
C2530	1-126-947-11	ELECT	47μF	20%	35V	C2589	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V
C2532	1-135-834-91	CERAMIC CHIP	2.2μF		6.3V	C2590	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V
C2533	1-162-960-11	CERAMIC CHIP	220pF	10%	50V	C2591	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V
C2534	1-126-947-11	ELECT	47μF	20%	35V						



REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
CONNECTOR				FB2514	1-216-864-11	SHORT CHIP	
	CN2006	1-793-174-11	SOCKET,PC CONNECTOR (PC BOARD)	FB2515	1-414-229-11	FERRITE	0μH
*	CN2301	1-764-333-11	PIN, CONNECTOR(PCB)(V TYPE) 10P	FB2516	1-414-229-11	FERRITE	0μH
	CN2303	1-784-650-21	CONNECTOR	FB2517	1-414-229-11	FERRITE	0μH
*	CN2304	1-564-595-11	PLUG, CONNECTOR	FB2518	1-414-229-11	FERRITE	0μH
	CN2305	1-770-721-11	CONNECTOR, BOARD TO BOARD				
				FB2519	1-414-229-11	FERRITE	0μH
*	CN2306	1-818-480-11	PIN, CONNECTOR	FB2520	1-216-864-11	SHORT CHIP	
	CN2307	1-785-946-21	CONNECTOR	FB2521	1-216-864-11	SHORT CHIP	
*	CN2308	1-564-507-11	PLUG, CONNECTOR	FB2522	1-414-229-11	FERRITE	0μH
				FB2531	1-216-864-11	SHORT CHIP	
DIODE				FB2533	1-216-864-11	SHORT CHIP	
D2302	8-719-914-44	DIODE (KD-34XBR960 ONLY)	DAP202K	FB2534	1-216-864-11	SHORT CHIP	
D2303	8-719-914-44	DIODE (KD-34XBR960 ONLY)	DAP202K	FB2535	1-216-864-11	SHORT CHIP	
D2310	8-719-083-57	DIODE	UDZSTE-173.6B	FB2538	1-216-864-11	SHORT CHIP	
D2500	8-719-404-50	DIODE	MA111-TX	FILTER			
D2501	8-719-404-50	DIODE	MA111-TX	FL2001	1-239-848-21	FILTER, LOW PASS (KD-34XBR960 ONLY)	
D2502	8-719-404-50	DIODE	MA111-TX	FL2002	1-239-848-21	FILTER, LOW PASS (KD-34XBR960 ONLY)	
D2503	8-719-404-50	DIODE	MA111-TX	FL2003	1-239-848-21	FILTER, LOW PASS (KD-34XBR960 ONLY)	
D2504	8-719-404-50	DIODE	MA111-TX				
D2505	8-719-978-33	DIODE	DTZ-TT11-6.8B	FL2201	1-239-848-21	FILTER, LOW PASS	
D2506	8-719-978-33	DIODE	DTZ-TT11-6.8B	FL2202	1-239-848-21	FILTER, LOW PASS	
D2507	8-719-404-50	DIODE	MA111-TX	FL2203	1-239-848-21	FILTER, LOW PASS	
				FL2204	1-239-848-21	FILTER, LOW PASS	
FERRITE BEAD				IC			
FB2001	1-414-229-11	FERRITE (KD-34XBR960 ONLY)	0μH	IC2001	8-752-394-69	IC (KD-34XBR960 ONLY)	CXD2073Q-T4
FB2002	1-414-229-11	FERRITE	0μH	IC2004	8-752-102-21	IC	CXA2103AQ
FB2200	1-414-229-11	FERRITE	0μH	IC2005	8-752-102-21	IC (KD-34XBR960 ONLY)	CXA2103AQ
FB2501	1-216-864-11	SHORT CHIP					
FB2503	1-216-864-11	SHORT CHIP		IC2006	8-752-108-35	IC	CXA2171AQ
FB2504	1-216-864-11	SHORT CHIP		IC2007	8-759-592-49	IC (KD-34XBR960 ONLY)	TC7SZ125FU(TE85R)
FB2505	1-414-229-11	FERRITE	0μH	IC2008	8-759-448-68	IC (KD-34XBR960 ONLY)	NJM2283V-TE1
FB2507	1-414-229-11	FERRITE	0μH				
FB2508	1-414-229-11	FERRITE	0μH	IC2009	8-759-549-07	IC (KD-34XBR960 ONLY)	SN74LV157APWR
FB2509	1-216-864-11	SHORT CHIP		IC2010	8-759-549-07	IC	SN74LV157APWR
FB2510	1-414-229-11	FERRITE	0μH	IC2200	6-700-960-01	IC	UPD64083GF-3BA
FB2511	1-216-864-11	SHORT CHIP		IC2201	6-700-399-01	IC	UPC2925T-E1
FB2512	1-414-229-11	FERRITE	0μH				
FB2513	1-216-864-11	SHORT CHIP					



REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
IC2202	8-759-448-68	IC	NJM2283V-TE1	L2206	1-469-555-21	INDUCTOR	10µH
IC2300	6-804-651-01	IC	M306V7FGFPU0-079	L2207	1-469-553-21	INDUCTOR	4.7µH
IC2301	6-801-375-01	IC	PST9129NL	L2303	1-469-555-21	INDUCTOR	10µH
IC2302	6-704-573-01	IC	M24C32-WMN6T(B)	L2501	1-412-537-31	INDUCTOR	100µH
IC2305	8-759-641-26	IC	NJM2391DL1-33(TE1)	L2502	1-216-295-91	SHORT CHIP	
IC2500	8-759-394-57	IC	PST593C-MMP-4P				
IC2501	6-801-750-01	IC	TC94A04F-014	<u>TRANSISTOR</u>			
IC2502	8-759-331-71	IC	NJM4558E(TE2)	Q2001	8-729-422-27	TRANSISTOR	2SD601A-Q
				Q2002	8-729-422-27	TRANSISTOR (KD-34XBR960 ONLY)	2SD601A-Q
				Q2003	8-729-424-02	TRANSISTOR (KD-34XBR960 ONLY)	2SB709A-QRS-TX
<u>CHIP CONDUCTOR</u>				Q2004	8-729-422-27	TRANSISTOR (KD-34XBR960 ONLY)	2SD601A-Q
JR2010	1-216-864-11	SHORT CHIP		Q2005	8-729-424-02	TRANSISTOR (KD-34XBR960 ONLY)	2SB709A-QRS-TX
JR2011	1-216-864-11	SHORT CHIP		Q2006	8-729-422-27	TRANSISTOR (KD-34XBR960 ONLY)	2SD601A-Q
JR2012	1-216-864-11	SHORT CHIP		Q2007	8-729-422-27	TRANSISTOR (KD-34XBR960 ONLY)	2SD601A-Q
JR2013	1-216-864-11	SHORT CHIP		Q2008	8-729-422-27	TRANSISTOR (KD-34XBR960 ONLY)	2SD601A-Q
JR2014	1-216-864-11	SHORT CHIP		Q2009	8-729-422-27	TRANSISTOR	2SD601A-Q
JR2015	1-216-864-11	SHORT CHIP		Q2010	8-729-422-27	TRANSISTOR (KD-34XBR960 ONLY)	2SD601A-Q
				Q2011	8-729-424-02	TRANSISTOR (KD-34XBR960 ONLY)	2SB709A-QRS-TX
				Q2012	8-729-424-02	TRANSISTOR (KD-34XBR960 ONLY)	2SB709A-QRS-TX
				Q2013	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
				Q2014	8-729-422-27	TRANSISTOR	2SD601A-Q
				Q2015	8-729-424-02	TRANSISTOR (KD-34XBR960 ONLY)	2SB709A-QRS-TX
				Q2016	8-729-422-27	TRANSISTOR	2SD601A-Q
				Q2017	8-729-422-27	TRANSISTOR (KD-34XBR960 ONLY)	2SD601A-Q
				Q2018	8-729-422-27	TRANSISTOR	2SD601A-Q
				Q2019	8-729-422-27	TRANSISTOR	2SD601A-Q
				Q2200	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
				Q2201	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
				Q2202	8-729-422-27	TRANSISTOR	2SD601A-Q
				Q2203	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
				Q2204	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
				Q2205	8-729-422-27	TRANSISTOR	2SD601A-Q
L2001	1-469-555-21	INDUCTOR (KD-34XBR960 ONLY)	10µH				
L2002	1-469-555-21	INDUCTOR	10µH				
L2003	1-469-555-21	INDUCTOR (KD-34XBR960 ONLY)	10µH				
L2004	1-469-555-21	INDUCTOR (KD-34XBR960 ONLY)	10µH				
L2005	1-469-555-21	INDUCTOR	10µH				
L2006	1-469-555-21	INDUCTOR (KD-34XBR960 ONLY)	10µH				
L2007	1-469-555-21	INDUCTOR	10µH				
L2008	1-469-555-21	INDUCTOR (KD-34XBR960 ONLY)	10µH				
L2009	1-469-555-21	INDUCTOR	10µH				
L2010	1-469-555-21	INDUCTOR (KD-34XBR960 ONLY)	10µH				
L2011	1-469-555-21	INDUCTOR	10µH				
L2012	1-469-555-21	INDUCTOR	10µH				
L2013	1-469-555-21	INDUCTOR	10µH				
L2200	1-469-555-21	INDUCTOR	10µH				
L2201	1-469-555-21	INDUCTOR	10µH				
L2202	1-469-555-21	INDUCTOR	10µH				
L2203	1-216-001-00	RES-CHIP	10 5% 1/10W				
L2204	1-469-555-21	INDUCTOR	10µH				
L2205	1-216-001-00	RES-CHIP	10 5% 1/10W				



REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
Q2206	8-729-422-27	TRANSISTOR	2SD601A-Q	RESISTOR			
Q2207	8-729-422-27	TRANSISTOR	2SD601A-Q	R2001	1-216-809-11	METAL CHIP (KD-34XBR960 ONLY)	100 5% 1/10W
Q2208	8-729-422-27	TRANSISTOR	2SD601A-Q	R2002	1-216-821-11	METAL CHIP (KD-34XBR960 ONLY)	1K 5% 1/10W
Q2209	8-729-422-27	TRANSISTOR	2SD601A-Q	R2003	1-218-686-11	METAL CHIP (KD-34XBR960 ONLY)	560 0.50% 1/10W
Q2210	8-729-422-27	TRANSISTOR	2SD601A-Q	R2004	1-216-821-11	METAL CHIP (KD-34XBR960 ONLY)	1K 5% 1/10W
Q2211	8-729-422-27	TRANSISTOR	2SD601A-Q	R2005	1-216-821-11	METAL CHIP (KD-34XBR960 ONLY)	1K 5% 1/10W
Q2212	8-729-422-27	TRANSISTOR	2SD601A-Q	R2006	1-216-825-11	METAL CHIP (KD-34XBR960 ONLY)	2.2K 5% 1/10W
Q2213	8-729-422-27	TRANSISTOR	2SD601A-Q	R2007	1-218-708-11	METAL CHIP (KD-34XBR960 ONLY)	4.7K 0.50% 1/10W
Q2214	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R2008	1-218-692-11	METAL CHIP (KD-34XBR960 ONLY)	1K 0.50% 1/10W
Q2215	8-729-422-27	TRANSISTOR	2SD601A-Q	R2009	1-216-821-11	METAL CHIP (KD-34XBR960 ONLY)	1K 5% 1/10W
Q2216	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R2010	1-216-821-11	METAL CHIP (KD-34XBR960 ONLY)	1K 5% 1/10W
Q2302	8-729-422-27 (KD-34XBR960 ONLY)	TRANSISTOR	2SD601A-Q	R2011	1-218-686-11	METAL CHIP (KD-34XBR960 ONLY)	560 0.50% 1/10W
Q2303	8-729-422-27	TRANSISTOR	2SD601A-Q	R2012	1-216-821-11	METAL CHIP (KD-34XBR960 ONLY)	1K 5% 1/10W
Q2304	8-729-422-27	TRANSISTOR	2SD601A-Q	R2013	1-216-825-11	METAL CHIP (KD-34XBR960 ONLY)	2.2K 5% 1/10W
Q2308	8-729-424-02 (KD-34XBR960 ONLY)	TRANSISTOR	2SB709A-QRS-TX	R2014	1-216-821-11	METAL CHIP (KD-34XBR960 ONLY)	1K 5% 1/10W
Q2311	8-729-422-27 (KD-34XBR960 ONLY)	TRANSISTOR	2SD601A-Q	R2015	1-218-734-11	METAL CHIP (KD-34XBR960 ONLY)	56K 0.50% 1/10W
Q2312	8-729-422-27	TRANSISTOR	2SD601A-Q	R2016	1-216-839-11	METAL CHIP (KD-34XBR960 ONLY)	33K 5% 1/10W
Q2313	8-729-422-27	TRANSISTOR	2SD601A-Q	R2017	1-216-837-11	METAL CHIP (KD-34XBR960 ONLY)	22K 5% 1/10W
Q2314	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R2018	1-216-812-11	METAL CHIP (KD-34XBR960 ONLY)	180 5% 1/10W
Q2315	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R2020	1-216-811-11	METAL CHIP (KD-34XBR960 ONLY)	150 5% 1/10W
Q2316	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R2022	1-218-704-11	METAL CHIP (KD-34XBR960 ONLY)	3.3K 0.50% 1/10W
Q2322	8-729-422-27	TRANSISTOR	2SD601A-Q	R2023	1-216-839-11	METAL CHIP (KD-34XBR960 ONLY)	33K 5% 1/10W
Q2324	8-729-422-27	TRANSISTOR	2SD601A-Q				
Q2500	8-729-422-27	TRANSISTOR	2SD601A-Q				
Q2501	8-729-422-27	TRANSISTOR	2SD601A-Q				
Q2502	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX				
Q2503	8-729-422-27	TRANSISTOR	2SD601A-Q				
Q2504	8-729-422-27	TRANSISTOR	2SD601A-Q				
Q2505	8-729-422-27	TRANSISTOR	2SD601A-Q				
Q2506	8-729-422-27	TRANSISTOR	2SD601A-Q				
Q2507	8-729-422-27	TRANSISTOR	2SD601A-Q				
Q2508	8-729-422-27	TRANSISTOR	2SD601A-Q				
Q2509	8-729-422-27	TRANSISTOR	2SD601A-Q				
Q2510	8-729-422-27	TRANSISTOR	2SD601A-Q				
Q2511	8-729-422-27	TRANSISTOR	2SD601A-Q				
Q2512	8-729-422-27	TRANSISTOR	2SD601A-Q				
Q2513	8-729-422-27	TRANSISTOR	2SD601A-Q				
Q2600	8-729-422-27	TRANSISTOR	2SD601A-Q				



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R2024	1-216-837-11	METAL CHIP (KD-34XBR960 ONLY)	22K	5%	1/10W	R2056	1-216-809-11	METAL CHIP	100	5%	1/10W
R2025	1-218-700-11	METAL CHIP (KD-34XBR960 ONLY)	2.2K	0.50%	1/10W	R2057	1-216-809-11	METAL CHIP	100	5%	1/10W
R2026	1-218-704-11	METAL CHIP (KD-34XBR960 ONLY)	3.3K	0.50%	1/10W	R2058	1-216-809-11	METAL CHIP (KD-34XBR960 ONLY)	100	5%	1/10W
R2027	1-216-864-11	SHORT CHIP (KD-34XBR960 ONLY)				R2059	1-216-809-11	METAL CHIP (KD-34XBR960 ONLY)	100	5%	1/10W
R2030	1-216-817-11	METAL CHIP (KD-34XBR960 ONLY)	470	5%	1/10W	R2060	1-216-864-11	SHORT CHIP (ALL EXCEPT KD-34XBR960)			
R2032	1-216-817-11	METAL CHIP (KD-34XBR960 ONLY)	470	5%	1/10W	R2061	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R2035	1-216-817-11	METAL CHIP (KD-34XBR960 ONLY)	470	5%	1/10W	R2062	1-216-864-11	SHORT CHIP (ALL EXCEPT KD-34XBR960)			
R2036	1-216-837-11	METAL CHIP	22K	5%	1/10W	R2063	1-216-864-11	SHORT CHIP (ALL EXCEPT KD-34XBR960)			
R2037	1-216-864-11	SHORT CHIP				R2064	1-216-828-11	METAL CHIP (KD-34XBR960 ONLY)	3.9K	5%	1/10W
R2038	1-216-864-11	SHORT CHIP				R2065	1-216-864-11	SHORT CHIP (ALL EXCEPT KD-34XBR960)			
R2039	1-216-864-11	SHORT CHIP				R2066	1-216-864-11	SHORT CHIP (ALL EXCEPT KD-34XBR960)			
R2040	1-216-817-11	METAL CHIP (KD-34XBR960 ONLY)	470	5%	1/10W	R2067	1-216-809-11	METAL CHIP	100	5%	1/10W
R2041	1-216-837-11	METAL CHIP	22K	5%	1/10W	R2069	1-216-864-11	SHORT CHIP			
R2042	1-216-864-11	SHORT CHIP				R2071	1-216-864-11	SHORT CHIP (KD-34XBR960 ONLY)			
R2043	1-216-864-11	SHORT CHIP				R2072	1-216-841-11	METAL CHIP	47K	5%	1/10W
R2044	1-216-864-11	SHORT CHIP (ALL EXCEPT KD-34XBR960)				R2073	1-216-841-11	METAL CHIP	47K	5%	1/10W
R2045	1-218-686-11	METAL CHIP (KD-34XBR960 ONLY)	560	0.50%	1/10W	R2074	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2046	1-218-686-11	METAL CHIP (KD-34XBR960 ONLY)	560	0.50%	1/10W	R2075	1-216-864-11	SHORT CHIP (KD-34XBR960 ONLY)			
R2047	1-216-864-11	SHORT CHIP (ALL EXCEPT KD-34XBR960)				R2076	1-216-864-11	SHORT CHIP			
R2048	1-218-710-11	METAL CHIP (KD-34XBR960 ONLY)	5.6K	0.50%	1/10W	R2077	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2049	1-218-710-11	METAL CHIP (KD-34XBR960 ONLY)	5.6K	0.50%	1/10W	R2081	1-216-809-11	METAL CHIP	100	5%	1/10W
R2050	1-216-817-11	METAL CHIP (KD-34XBR960 ONLY)	470	5%	1/10W	R2082	1-216-809-11	METAL CHIP	100	5%	1/10W
R2051	1-216-817-11	METAL CHIP (KD-34XBR960 ONLY)	470	5%	1/10W	R2083	1-216-851-11	METAL CHIP	330K	5%	1/10W
R2052	1-216-835-11	METAL CHIP	15K	5%	1/10W	R2084	1-216-833-11	METAL CHIP (KD-34XBR960 ONLY)	10K	5%	1/10W
R2053	1-216-864-11	SHORT CHIP				R2085	1-216-841-11	METAL CHIP (KD-34XBR960 ONLY)	47K	5%	1/10W
R2054	1-216-835-11	METAL CHIP (KD-34XBR960 ONLY)	15K	5%	1/10W	R2086	1-216-818-11	METAL CHIP (KD-34XBR960 ONLY)	560	5%	1/10W
R2055	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2087	1-216-818-11	METAL CHIP (KD-34XBR960 ONLY)	560	5%	1/10W
						R2088	1-216-845-11	METAL CHIP (KD-34XBR960 ONLY)	100K	5%	1/10W
						R2090	1-216-841-11	METAL CHIP (KD-34XBR960 ONLY)	47K	5%	1/10W



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R2091	1-216-809-11	METAL CHIP (KD-34XBR960 ONLY)	100	5%	1/10W	R2135	1-216-864-11	SHORT CHIP			
R2092	1-216-818-11	METAL CHIP (KD-34XBR960 ONLY)	560	5%	1/10W	R2136	1-216-864-11	SHORT CHIP			
R2093	1-216-818-11	METAL CHIP (KD-34XBR960 ONLY)	560	5%	1/10W	R2137	1-216-864-11	SHORT CHIP			
R2094	1-218-716-11	METAL CHIP	10K	0.50%	1/10W	R2138	1-216-864-11	SHORT CHIP			
R2095	1-216-864-11	SHORT CHIP				R2139	1-216-864-11	SHORT CHIP			
R2097	1-216-809-11	METAL CHIP	100	5%	1/10W	R2140	1-218-665-11	METAL CHIP	75	0.50%	1/10W
R2099	1-216-809-11	METAL CHIP (KD-34XBR960 ONLY)	100	5%	1/10W	R2141	1-218-665-11	METAL CHIP	75	0.50%	1/10W
R2101	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2142	1-218-665-11	METAL CHIP	75	0.50%	1/10W
R2103	1-216-809-11	METAL CHIP	100	5%	1/10W	R2201	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2105	1-216-809-11	METAL CHIP (KD-34XBR960 ONLY)	100	5%	1/10W	R2202	1-216-809-11	METAL CHIP	100	5%	1/10W
R2107	1-216-809-11	METAL CHIP	100	5%	1/10W	R2203	1-216-809-11	METAL CHIP	100	5%	1/10W
R2110	1-216-818-11	METAL CHIP (KD-34XBR960 ONLY)	560	5%	1/10W	R2204	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2111	1-216-818-11	METAL CHIP (KD-34XBR960 ONLY)	560	5%	1/10W	R2205	1-216-864-11	SHORT CHIP			
R2112	1-216-809-11	METAL CHIP (KD-34XBR960 ONLY)	100	5%	1/10W	R2206	1-216-864-11	SHORT CHIP			
R2113	1-216-809-11	METAL CHIP (KD-34XBR960 ONLY)	100	5%	1/10W	R2207	1-216-809-11	METAL CHIP	100	5%	1/10W
R2114	1-216-805-11	METAL CHIP	47	5%	1/10W	R2208	1-216-809-11	METAL CHIP	100	5%	1/10W
R2115	1-216-805-11	METAL CHIP	47	5%	1/10W	R2209	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2116	1-216-805-11	METAL CHIP	47	5%	1/10W	R2210	1-216-818-11	METAL CHIP	560	5%	1/10W
R2118	1-216-809-11	METAL CHIP	100	5%	1/10W	R2211	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2119	1-216-809-11	METAL CHIP	100	5%	1/10W	R2212	1-216-818-11	METAL CHIP	560	5%	1/10W
R2120	1-216-809-11	METAL CHIP (KD-34XBR960 ONLY)	100	5%	1/10W	R2213	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2121	1-216-809-11	METAL CHIP	100	5%	1/10W	R2214	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2123	1-216-809-11	METAL CHIP (KD-34XBR960 ONLY)	100	5%	1/10W	R2215	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R2124	1-216-809-11	METAL CHIP (KD-34XBR960 ONLY)	100	5%	1/10W	R2216	1-216-817-11	METAL CHIP	470	5%	1/10W
R2125	1-216-809-11	METAL CHIP (KD-34XBR960 ONLY)	100	5%	1/10W	R2217	1-216-817-11	METAL CHIP	470	5%	1/10W
R2126	1-216-809-11	METAL CHIP	100	5%	1/10W	R2218	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R2127	1-216-864-11	SHORT CHIP				R2219	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R2131	1-216-809-11	METAL CHIP	100	5%	1/10W	R2220	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2133	1-216-864-11	SHORT CHIP				R2221	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2134	1-216-864-11	SHORT CHIP				R2222	1-216-833-11	METAL CHIP	10K	5%	1/10W
						R2223	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
						R2224	1-216-809-11	METAL CHIP	100	5%	1/10W
						R2225	1-216-818-11	METAL CHIP	560	5%	1/10W
						R2226	1-216-817-11	METAL CHIP	470	5%	1/10W
						R2227	1-216-816-11	METAL CHIP	390	5%	1/10W
						R2228	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
						R2229	1-216-849-11	METAL CHIP	220K	5%	1/10W
						R2230	1-216-841-11	METAL CHIP	47K	5%	1/10W
						R2231	1-216-819-11	METAL CHIP	680	5%	1/10W
						R2232	1-216-821-11	METAL CHIP	1K	5%	1/10W
						R2233	1-216-821-11	METAL CHIP	1K	5%	1/10W
						R2234	1-216-820-11	METAL CHIP	820	5%	1/10W
						R2235	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
						R2236	1-216-813-11	METAL CHIP	220	5%	1/10W



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R2237	1-216-820-11	METAL CHIP	820	5%	1/10W	R2316	1-216-809-11	METAL CHIP	100	5%	1/10W
R2238	1-216-819-11	METAL CHIP	680	5%	1/10W	R2317	1-216-809-11	METAL CHIP	100	5%	1/10W
R2239	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2318	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2240	1-216-834-11	METAL CHIP	12K	5%	1/10W	R2319	1-216-809-11	METAL CHIP	100	5%	1/10W
R2241	1-216-839-11	METAL CHIP	33K	5%	1/10W	R2320	1-216-809-11	METAL CHIP	100	5%	1/10W
R2242	1-218-680-11	METAL CHIP	330	0.50%	1/10W	R2321	1-216-809-11	METAL CHIP	100	5%	1/10W
R2243	1-216-834-11	METAL CHIP	12K	5%	1/10W	R2322	1-216-809-11	METAL CHIP	100	5%	1/10W
R2244	1-216-839-11	METAL CHIP	33K	5%	1/10W	R2323	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2245	1-218-684-11	METAL CHIP	470	0.50%	1/10W	R2324	1-216-809-11	METAL CHIP	100	5%	1/10W
R2246	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2325	1-216-864-11	SHORT CHIP			
R2247	1-216-805-11	METAL CHIP	47	5%	1/10W	R2326	1-216-809-11	METAL CHIP	100	5%	1/10W
R2248	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2327	1-216-809-11	METAL CHIP	100	5%	1/10W
R2249	1-216-805-11	METAL CHIP	47	5%	1/10W	R2328	1-216-809-11	METAL CHIP	100	5%	1/10W
R2250	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	R2333	1-216-809-11	METAL CHIP	100	5%	1/10W
R2251	1-216-818-11	METAL CHIP	560	5%	1/10W	R2336	1-216-809-11	METAL CHIP	100	5%	1/10W
R2252	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2337	1-216-809-11	METAL CHIP	100	5%	1/10W
R2253	1-216-809-11	METAL CHIP	100	5%	1/10W	R2338	1-216-864-11	SHORT CHIP			
R2254	1-216-817-11	METAL CHIP	470	5%	1/10W	R2339	1-216-809-11	METAL CHIP	100	5%	1/10W
R2255	1-216-817-11	METAL CHIP	470	5%	1/10W	R2340	1-216-809-11	METAL CHIP	100	5%	1/10W
R2256	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2341	1-216-809-11	METAL CHIP	100	5%	1/10W
R2257	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2342	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2268	1-216-809-11	METAL CHIP	100	5%	1/10W	R2343	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2269	1-216-809-11	METAL CHIP	100	5%	1/10W	R2344	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2270	1-218-665-11	METAL CHIP	75	0.50%	1/10W	R2345	1-216-809-11	METAL CHIP	100	5%	1/10W
R2271	1-218-665-11	METAL CHIP	75	0.50%	1/10W	R2346	1-218-734-11	METAL CHIP	56K	0.50%	1/10W
R2272	1-218-665-11	METAL CHIP	75	0.50%	1/10W	R2347	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2298	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2348	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2299	1-216-841-11	METAL CHIP	47K	5%	1/10W	R2349	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2300	1-216-841-11	METAL CHIP	47K	5%	1/10W			(KD-34XBR960 ONLY)			
R2301	1-216-809-11	METAL CHIP	100	5%	1/10W	R2350	1-216-809-11	METAL CHIP	100	5%	1/10W
R2302	1-216-809-11	METAL CHIP	100	5%	1/10W	R2351	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2303	1-216-809-11	METAL CHIP	100	5%	1/10W	R2352	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2304	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R2353	1-216-809-11	METAL CHIP	100	5%	1/10W
R2305	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2354	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2306	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2355	1-216-809-11	METAL CHIP	100	5%	1/10W
R2307	1-216-809-11	METAL CHIP	100	5%	1/10W	R2356	1-216-805-11	METAL CHIP	47	5%	1/10W
R2308	1-216-809-11	METAL CHIP	100	5%	1/10W			(KD-34XBR960 ONLY)			
R2309	1-216-809-11	METAL CHIP	100	5%	1/10W	R2357	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2310	1-216-864-11	SHORT CHIP				R2358	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2311	1-216-809-11	METAL CHIP	100	5%	1/10W	R2359	1-216-805-11	METAL CHIP	47	5%	1/10W
R2312	1-216-809-11	METAL CHIP	100	5%	1/10W	R2360	1-216-809-11	METAL CHIP	100	5%	1/10W
R2313	1-216-809-11	METAL CHIP	100	5%	1/10W	R2361	1-216-864-11	SHORT CHIP			
R2314	1-216-809-11	METAL CHIP	100	5%	1/10W	R2363	1-216-841-11	METAL CHIP	47K	5%	1/10W
R2315	1-216-809-11	METAL CHIP	100	5%	1/10W	R2364	1-216-809-11	METAL CHIP	100	5%	1/10W



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R2365	1-216-809-11	METAL CHIP	100	5%	1/10W	R2455	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2366	1-216-864-11	SHORT CHIP				R2459	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2367	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R2460	1-216-809-11	METAL CHIP	100	5%	1/10W
R2368	1-216-809-11	METAL CHIP	100	5%	1/10W	R2469	1-216-809-11	METAL CHIP	100	5%	1/10W
R2370	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2471	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2371	1-216-809-11	METAL CHIP	100	5%	1/10W	R2480	1-216-845-11	METAL CHIP	100K	5%	1/10W
R2372	1-216-809-11	METAL CHIP	100	5%	1/10W	R2481	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2375	1-216-837-11	METAL CHIP	22K	5%	1/10W	R2483	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2377	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2484	1-216-841-11	METAL CHIP	47K	5%	1/10W
R2378	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R2485	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2379	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2486	1-216-839-11	METAL CHIP	33K	5%	1/10W
R2380	1-216-809-11	METAL CHIP	100	5%	1/10W	R2487	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2381	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2488	1-216-857-11	METAL CHIP	1M	5%	1/10W
R2383	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2489	1-216-817-11	METAL CHIP	470	5%	1/10W
R2387	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2490	1-216-841-11	METAL CHIP	47K	5%	1/10W
R2400	1-216-811-11 (KD-34XBR960 ONLY)	METAL CHIP	150	5%	1/10W	R2491	1-216-817-11 (KD-34XBR960 ONLY)	METAL CHIP	470	5%	1/10W
R2401	1-216-811-11 (KD-34XBR960 ONLY)	METAL CHIP	150	5%	1/10W	R2492	1-216-857-11 (KD-34XBR960 ONLY)	METAL CHIP	1M	5%	1/10W
R2402	1-216-811-11 (KD-34XBR960 ONLY)	METAL CHIP	150	5%	1/10W	R2493	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2404	1-216-864-11	SHORT CHIP				R2494	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2419	1-216-825-11 (KD-34XBR960 ONLY)	METAL CHIP	2.2K	5%	1/10W	R2500	1-216-809-11	METAL CHIP	100	5%	1/10W
R2422	1-216-839-11	METAL CHIP	33K	5%	1/10W	R2501	1-216-839-11	METAL CHIP	33K	5%	1/10W
R2425	1-216-825-11 (KD-34XBR960 ONLY)	METAL CHIP	2.2K	5%	1/10W	R2502	1-216-864-11	SHORT CHIP			
R2428	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R2503	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2434	1-216-821-11 (KD-34XBR960 ONLY)	METAL CHIP	1K	5%	1/10W	R2506	1-216-841-11	METAL CHIP	47K	5%	1/10W
R2435	1-216-820-11 (KD-34XBR960 ONLY)	METAL CHIP	820	5%	1/10W	R2508	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2436	1-216-820-11 (KD-34XBR960 ONLY)	METAL CHIP	820	5%	1/10W	R2509	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2437	1-216-809-11 (KD-34XBR960 ONLY)	METAL CHIP	100	5%	1/10W	R2510	1-216-839-11	METAL CHIP	33K	5%	1/10W
R2438	1-216-820-11 (KD-34XBR960 ONLY)	METAL CHIP	820	5%	1/10W	R2511	1-216-839-11	METAL CHIP	33K	5%	1/10W
R2450	1-216-864-11	SHORT CHIP				R2512	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2452	1-216-839-11	METAL CHIP	33K	5%	1/10W	R2513	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2453	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2514	1-216-841-11	METAL CHIP	47K	5%	1/10W
R2454	1-216-809-11 (KD-34XBR960 ONLY)	METAL CHIP	100	5%	1/10W	R2515	1-216-841-11	METAL CHIP	47K	5%	1/10W
						R2516	1-216-839-11	METAL CHIP	33K	5%	1/10W
						R2517	1-216-841-11	METAL CHIP	47K	5%	1/10W
						R2518	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
						R2519	1-216-857-11	METAL CHIP	1M	5%	1/10W
						R2520	1-216-864-11	SHORT CHIP			
						R2521	1-216-864-11	SHORT CHIP			
						R2522	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
						R2523	1-216-813-11	METAL CHIP	220	5%	1/10W
						R2524	1-216-809-11	METAL CHIP	100	5%	1/10W
						R2525	1-216-813-11	METAL CHIP	220	5%	1/10W



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R2526	1-216-864-11	SHORT CHIP				R2580	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2528	1-216-809-11	METAL CHIP	100	5%	1/10W	R2581	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2529	1-216-809-11	METAL CHIP	100	5%	1/10W	R2582	1-216-809-11	METAL CHIP	100	5%	1/10W
R2530	1-216-809-11	METAL CHIP	100	5%	1/10W	R2585	1-216-864-11	SHORT CHIP			
R2531	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2593	1-216-864-11	SHORT CHIP			
R2532	1-216-837-11	METAL CHIP	22K	5%	1/10W	R2603	1-216-845-11	METAL CHIP	100K	5%	1/10W
R2533	1-216-864-11	SHORT CHIP				R2604	1-216-845-11	METAL CHIP	100K	5%	1/10W
R2534	1-216-837-11	METAL CHIP	22K	5%	1/10W	R2605	1-216-864-11	SHORT CHIP			
R2535	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2607	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2536	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R2608	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2538	1-216-841-11	METAL CHIP	47K	5%	1/10W	R2609	1-216-837-11	METAL CHIP	22K	5%	1/10W
R2539	1-216-841-11	METAL CHIP	47K	5%	1/10W	R2610	1-216-837-11	METAL CHIP	22K	5%	1/10W
R2540	1-216-864-11	SHORT CHIP				R2611	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2541	1-216-864-11	SHORT CHIP				R2612	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2542	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R2613	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2543	1-216-864-11	SHORT CHIP				R2617	1-216-809-11	METAL CHIP	100	5%	1/10W
R2546	1-216-813-11	METAL CHIP	220	5%	1/10W						
R2547	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R2548	1-216-841-11	METAL CHIP	47K	5%	1/10W						
R2549	1-216-813-11	METAL CHIP	220	5%	1/10W						
R2550	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R2551	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R2552	1-216-809-11	METAL CHIP	100	5%	1/10W						
R2553	1-216-853-11	METAL CHIP	470K	5%	1/10W						
R2554	1-216-809-11	METAL CHIP	100	5%	1/10W						
R2555	1-216-853-11	METAL CHIP	470K	5%	1/10W						
R2556	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R2557	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R2558	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R2559	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R2560	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R2561	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R2562	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R2563	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R2564	1-216-817-11	METAL CHIP	470	5%	1/10W						
R2565	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2566	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2567	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R2568	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2569	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R2570	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2571	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R2576	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R2578	1-216-821-11	METAL CHIP	1K	5%	1/10W						
						CRYSTAL					
						X2001	1-567-505-11	OSCILLATOR, CRYSTAL			
						X2002	1-567-505-11	OSCILLATOR, CRYSTAL			
						(KD-34XBR960 ONLY)					
						X2003	1-781-282-11	VIBRATOR, CERAMIC			
						X2200	1-767-606-11	VIBRATOR, CRYSTAL			
						X2300	1-795-572-11	VIBRATOR, CRYSTAL			
						X2500	1-767-639-21	VIBRATOR, CRYSTAL			
						UZ					
						*	A-1303-037-A	UZ BOARD, COMPLETE			
						CAPACITOR					
						C1501	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
						C1502	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
						C1503	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
						C1504	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
						C1505	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
						C1506	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
						C1507	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
						C1508	1-126-960-11	ELECT	1µF	20%	50V
						C1509	1-126-960-11	ELECT	1µF	20%	50V
						C1510	1-126-960-11	ELECT	1µF	20%	50V
						C1511	1-126-960-11	ELECT	1µF	20%	50V
						C1512	1-126-960-11	ELECT	1µF	20%	50V



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES
C1513	1-126-960-11	ELECT	1µF	20%	50V				
C1519	1-162-913-11	CERAMIC CHIP	8pF	0.50pF	50V				
C1520	1-162-913-11	CERAMIC CHIP	8pF	0.50pF	50V				
C1521	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V				
C1522	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V				
C1523	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V				
C1524	1-109-982-11	CERAMIC CHIP	1µF	10%	10V				
C1525	1-164-156-11	CERAMIC CHIP	0.1µF		25V				
C1526	1-126-964-11	ELECT	10µF	20%	50V				
C1527	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V				
C1528	1-126-933-11	ELECT	100µF	20%	16V				
C1529	1-109-982-11	CERAMIC CHIP	1µF	10%	10V				
C1530	1-126-964-11	ELECT	10µF	20%	50V				
C1531	1-126-941-11	ELECT	470µF	20%	25V				
C1532	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V				
C1533	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V				
C1534	1-126-933-11	ELECT	100µF	20%	16V				
C1535	1-126-933-11	ELECT	100µF	20%	16V				
C1536	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V				
C1537	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V				
C1538	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V				
C1539	1-164-156-11	CERAMIC CHIP	0.1µF		25V				
C1540	1-126-933-11	ELECT	100µF	20%	16V				
C1541	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V				
C1542	1-126-960-11	ELECT	1µF	20%	50V				
C1543	1-126-960-11	ELECT	1µF	20%	50V				
C1545	1-126-933-11	ELECT	100µF	20%	16V				
C1546	1-164-156-11	CERAMIC CHIP	0.1µF		25V				
C1548	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V				
C1550	1-126-960-11	ELECT	1µF	20%	50V				
C1551	1-126-960-11	ELECT	1µF	20%	50V				
C1552	1-126-960-11	ELECT	1µF	20%	50V				
C1553	1-126-960-11	ELECT	1µF	20%	50V				
C1556	1-126-933-11	ELECT	100µF	20%	16V				
C1557	1-164-156-11	CERAMIC CHIP	0.1µF		25V				
C1558	1-126-933-11	ELECT	100µF	20%	16V				
C1559	1-126-933-11	ELECT	100µF	20%	16V				
C1560	1-126-933-11	ELECT	100µF	20%	16V				
C1561	1-126-933-11	ELECT	100µF	20%	16V				
C1562	1-126-933-11	ELECT	100µF	20%	16V				
C1563	1-126-933-11	ELECT	100µF	20%	16V				
							CONNECTOR		
						*	CN1501	1-764-334-11	PIN, CONNECTOR(PCB)(V TYPE) 11P
							CN1502	1-793-173-11	PIN, PC CONNECTOR(PC BOARD) 50P
							CN1503	1-793-419-11	CONNECTOR, BOARD TO BOARD 4P
								DIODE	
							D1501	8-719-977-28	DIODE DTZ10B
							D1502	8-719-977-28	DIODE DTZ10B
							D1503	8-719-977-28	DIODE DTZ10B
							D1504	8-719-977-28	DIODE DTZ10B
							D1505	8-719-977-28	DIODE DTZ10B
							D1506	8-719-977-28	DIODE DTZ10B
							D1507	8-719-977-28	DIODE DTZ10B
							D1508	8-719-977-28	DIODE DTZ10B
							D1509	8-719-977-28	DIODE DTZ10B
							D1510	8-719-977-28	DIODE DTZ10B
							D1511	8-719-977-28	DIODE DTZ10B
							D1512	8-719-977-28	DIODE DTZ10B
							D1513	8-719-977-28	DIODE DTZ10B
							D1514	8-719-977-28	DIODE DTZ10B
							D1515	8-719-977-28	DIODE DTZ10B
							D1516	8-719-977-28	DIODE DTZ10B
							D1517	8-719-977-28	DIODE DTZ10B
							D1518	8-719-914-43	DIODE DAN202K
							D1519	8-719-977-28	DIODE DTZ10B
							D1520	8-719-977-28	DIODE DTZ10B
							D1521	8-719-977-28	DIODE DTZ10B
							D1522	8-719-977-28	DIODE DTZ10B
							D1525	8-719-977-28	DIODE DTZ10B
							D1526	8-719-977-28	DIODE DTZ10B
							D1527	8-719-977-28	DIODE DTZ10B
							D1528	8-719-977-28	DIODE DTZ10B
							D1529	8-719-977-28	DIODE DTZ10B
							D1530	8-719-977-28	DIODE DTZ10B
							D1531	8-719-977-28	DIODE DTZ10B
							D1532	8-719-977-28	DIODE DTZ10B
							D1533	8-719-977-28	DIODE DTZ10B
							D1534	8-719-977-28	DIODE DTZ10B
							D1535	8-719-977-28	DIODE DTZ10B



REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
IC				Q1523	8-729-422-27	TRANSISTOR	2SD601A-Q
IC1502	8-752-080-04	IC	CXA2069Q	Q1524	8-729-422-27	TRANSISTOR	2SD601A-Q
IC1505	8-759-548-56	IC	M52055FP	RESISTOR			
JACK				R1501	1-216-853-11	METAL CHIP	470K 5% 1/10W
J1501	1-573-967-12	BLOCK, (S) TERMINAL		R1502	1-216-853-11	METAL CHIP	470K 5% 1/10W
J1502	1-750-516-21	JACK BLOCK, PIN 2P		R1503	1-218-665-11	METAL CHIP	75 0.50% 1/10W
J1503	1-750-517-21	JACK BLOCK, PIN 3P		R1504	1-218-665-11	METAL CHIP	75 0.50% 1/10W
J1504	1-750-517-21	JACK BLOCK, PIN 3P		R1505	1-218-665-11	METAL CHIP	75 0.50% 1/10W
J1505	1-764-143-11	JACK		R1506	1-216-853-11	METAL CHIP	470K 5% 1/10W
J1506	1-764-143-11	JACK		R1507	1-216-853-11	METAL CHIP	470K 5% 1/10W
J1508	1-815-015-11	JACK BLOCK, PIN		R1508	1-218-665-11	METAL CHIP	75 0.50% 1/10W
J1509	1-815-015-11	JACK BLOCK, PIN		R1509	1-218-665-11	METAL CHIP	75 0.50% 1/10W
J1510	1-815-015-11	JACK BLOCK, PIN		R1510	1-218-665-11	METAL CHIP	75 0.50% 1/10W
COIL				R1511	1-216-853-11	METAL CHIP	470K 5% 1/10W
L1502	1-469-555-21	INDUCTOR	10µH	R1512	1-216-853-11	METAL CHIP	470K 5% 1/10W
L1503	1-469-555-21	INDUCTOR	10µH	R1513	1-218-665-11	METAL CHIP	75 0.50% 1/10W
L1504	1-469-555-21	INDUCTOR	10µH	R1514	1-216-821-11	METAL CHIP	1K 5% 1/10W
L1505	1-469-555-21	INDUCTOR	10µH	R1520	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
L1506	1-469-555-21	INDUCTOR	10µH	R1521	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
TRANSISTOR				R1522	1-216-824-11	METAL CHIP	1.8K 5% 1/10W
Q1501	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R1523	1-216-824-11	METAL CHIP	1.8K 5% 1/10W
Q1502	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R1524	1-216-809-11	METAL CHIP	100 5% 1/10W
Q1503	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R1525	1-216-809-11	METAL CHIP	100 5% 1/10W
Q1504	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R1526	1-216-821-11	METAL CHIP	1K 5% 1/10W
Q1505	8-729-422-27	TRANSISTOR	2SD601A-Q	R1527	1-216-821-11	METAL CHIP	1K 5% 1/10W
Q1506	8-729-422-27	TRANSISTOR	2SD601A-Q	R1530	1-216-809-11	METAL CHIP	100 5% 1/10W
Q1507	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R1531	1-216-809-11	METAL CHIP	100 5% 1/10W
Q1508	8-729-422-27	TRANSISTOR	2SD601A-Q	R1532	1-216-809-11	METAL CHIP	100 5% 1/10W
Q1509	8-729-422-27	TRANSISTOR	2SD601A-Q	R1533	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
Q1510	8-729-422-27	TRANSISTOR	2SD601A-Q	R1534	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q1511	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R1535	1-216-821-11	METAL CHIP	1K 5% 1/10W
Q1512	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R1536	1-216-821-11	METAL CHIP	1K 5% 1/10W
Q1513	8-729-422-27	TRANSISTOR	2SD601A-Q	R1537	1-216-821-11	METAL CHIP	1K 5% 1/10W
Q1515	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R1538	1-216-806-11	METAL CHIP	56 5% 1/10W
Q1516	8-729-422-27	TRANSISTOR	2SD601A-Q	R1539	1-216-805-11	METAL CHIP	47 5% 1/10W
Q1518	8-729-422-27	TRANSISTOR	2SD601A-Q	R1540	1-216-809-11	METAL CHIP	100 5% 1/10W
Q1519	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R1541	1-216-809-11	METAL CHIP	100 5% 1/10W
Q1520	8-729-422-27	TRANSISTOR	2SD601A-Q	R1542	1-216-830-11	METAL CHIP	5.6K 5% 1/10W
Q1521	8-729-422-27	TRANSISTOR	2SD601A-Q	R1543	1-216-809-11	METAL CHIP	100 5% 1/10W
Q1522	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R1544	1-216-830-11	METAL CHIP	5.6K 5% 1/10W
				R1545	1-216-830-11	METAL CHIP	5.6K 5% 1/10W
				R1546	1-216-809-11	METAL CHIP	100 5% 1/10W



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R1547	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	R1594	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R1548	1-216-841-11	METAL CHIP	47K	5%	1/10W	R1595	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R1549	1-216-809-11	METAL CHIP	100	5%	1/10W	R1596	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R1550	1-216-809-11	METAL CHIP	100	5%	1/10W	R1597	1-216-809-11	METAL CHIP	100	5%	1/10W
R1551	1-216-853-11	METAL CHIP	470K	5%	1/10W	R1598	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R1552	1-216-821-11	METAL CHIP	1K	5%	1/10W	R1600	1-216-809-11	METAL CHIP	100	5%	1/10W
R1554	1-216-809-11	METAL CHIP	100	5%	1/10W	R1604	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R1555	1-216-853-11	METAL CHIP	470K	5%	1/10W	R1607	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1556	1-216-853-11	METAL CHIP	470K	5%	1/10W	R1608	1-216-849-11	METAL CHIP	220K	5%	1/10W
R1557	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	R1609	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1558	1-216-821-11	METAL CHIP	1K	5%	1/10W	R1610	1-216-849-11	METAL CHIP	220K	5%	1/10W
R1559	1-218-665-11	METAL CHIP	75	0.50%	1/10W	R1612	1-216-849-11	METAL CHIP	220K	5%	1/10W
R1560	1-216-845-11	METAL CHIP	100K	5%	1/10W	R1613	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1562	1-216-809-11	METAL CHIP	100	5%	1/10W	R1615	1-216-841-11	METAL CHIP	47K	5%	1/10W
R1563	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	R1616	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1565	1-216-809-11	METAL CHIP	100	5%	1/10W	R1617	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1566	1-216-809-11	METAL CHIP	100	5%	1/10W	R1618	1-216-864-11	SHORT CHIP			
R1567	1-216-833-11	METAL CHIP	10K	5%	1/10W	R1619	1-216-809-11	METAL CHIP	100	5%	1/10W
R1568	1-216-821-11	METAL CHIP	1K	5%	1/10W	R1620	1-216-809-11	METAL CHIP	100	5%	1/10W
R1569	1-216-809-11	METAL CHIP	100	5%	1/10W	R1623	1-216-853-11	METAL CHIP	470K	5%	1/10W
R1570	1-216-809-11	METAL CHIP	100	5%	1/10W	R1624	1-216-853-11	METAL CHIP	470K	5%	1/10W
R1571	1-216-809-11	METAL CHIP	100	5%	1/10W	R1625	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1572	1-216-809-11	METAL CHIP	100	5%	1/10W	R1626	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1573	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	R1627	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1574	1-216-809-11	METAL CHIP	100	5%	1/10W	R1628	1-216-853-11	METAL CHIP	470K	5%	1/10W
R1575	1-216-809-11	METAL CHIP	100	5%	1/10W	R1629	1-216-853-11	METAL CHIP	470K	5%	1/10W
R1576	1-216-833-11	METAL CHIP	10K	5%	1/10W	R1630	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1577	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	R1631	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1578	1-216-857-11	METAL CHIP	1M	5%	1/10W	R1632	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1579	1-216-841-11	METAL CHIP	47K	5%	1/10W	R1635	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1580	1-216-809-11	METAL CHIP	100	5%	1/10W	R1636	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1581	1-216-821-11	METAL CHIP	1K	5%	1/10W	R1637	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1582	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R1645	1-216-809-11	METAL CHIP	100	5%	1/10W
R1583	1-216-809-11	METAL CHIP	100	5%	1/10W	R1646	1-216-803-11	METAL CHIP	33	5%	1/10W
R1584	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	R1647	1-216-803-11	METAL CHIP	33	5%	1/10W
R1585	1-216-821-11	METAL CHIP	1K	5%	1/10W	R1648	1-216-803-11	METAL CHIP	33	5%	1/10W
R1586	1-216-813-11	METAL CHIP	220	5%	1/10W	R1649	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1587	1-216-809-11	METAL CHIP	100	5%	1/10W	R1650	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1588	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	R1651	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1589	1-216-813-11	METAL CHIP	220	5%	1/10W	R1652	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1590	1-216-809-11	METAL CHIP	100	5%	1/10W	R1653	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1591	1-216-813-11	METAL CHIP	220	5%	1/10W	R1654	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1592	1-216-833-11	METAL CHIP	10K	5%	1/10W	R1655	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1593	1-216-809-11	METAL CHIP	100	5%	1/10W	R1656	1-218-676-11	METAL CHIP	220	0.50%	1/10W

NOTE: The components identified by shading and \triangle mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un triangle et une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifique.



REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
R1657	1-218-676-11	METAL CHIP	220 0.50% 1/10W	C5018	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V
R1658	1-218-676-11	METAL CHIP	220 0.50% 1/10W	C5019	1-126-968-11	ELECT	100μF 20% 50V
R1659	1-218-676-11	METAL CHIP	220 0.50% 1/10W	C5020	1-104-665-11	ELECT	100μF 20% 25V
R1660	1-218-676-11	METAL CHIP	220 0.50% 1/10W	C5022	1-162-968-11	CERAMIC CHIP	0.0047μF 10% 50V
				C5024	1-102-038-00	CERAMIC	0.001μF 500V
				C5028	1-127-715-91	CERAMIC CHIP	0.22μF 10% 16V
				C5029	1-115-349-51	CERAMIC	0.01μF 2KV
				C5030	1-137-365-11	MYLAR	0.0015μF 5% 50V
				C5031	1-162-965-11	CERAMIC CHIP	0.0015μF 10% 50V
				C5032	1-165-176-11	CERAMIC CHIP	0.047μF 10% 16V
				C5033	1-130-495-00	MYLAR	0.1μF 5% 50V
				C5035	1-104-665-11	ELECT	100μF 20% 25V
				C5036	1-126-941-11	ELECT	470μF 20% 25V
				C5037	1-115-349-51	CERAMIC	0.01μF 2KV
						(KD-36XS955 ONLY)	
				C5038	1-115-349-51	CERAMIC	0.01μF 2KV
						(KD-36XS955 ONLY)	
				C5039	1-164-227-11	CERAMIC CHIP	0.022μF 10% 25V
				C5040	1-126-935-11	ELECT	470μF 20% 16V
				C5041	1-126-935-11	ELECT	470μF 20% 16V
				C5044	1-164-360-11	CERAMIC CHIP	0.1μF 16V
				C5045	1-164-360-11	CERAMIC CHIP	0.1μF 16V
				C5046	1-162-971-11	CERAMIC CHIP	0.001μF 10% 50V
				C5047	1-162-971-11	CERAMIC CHIP	0.001μF 10% 50V
				C5048	1-162-953-11	CERAMIC CHIP	100pF 5% 50V
				C5049	1-162-964-11	CERAMIC CHIP	0.001μF 10% 50V
				C5050	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V
				C5051	1-164-360-11	CERAMIC CHIP	0.1μF 16V
				C5052	1-126-947-11	ELECT	47μF 20% 35V
				C5053	1-106-220-00	MYLAR	0.1μF 10% 100V
				C5054	1-104-666-11	ELECT	220μF 20% 25V
				C5056	1-162-318-11	CERAMIC	0.001μF 10% 500V
				C5057	1-104-332-11	CERAMIC	470pF 10% 2KV
						(KD-36XS955 ONLY)	
				C5058	1-162-116-00	CERAMIC	680pF 10% 2KV
				C5059	1-162-116-00	CERAMIC	680pF 10% 2KV
				C5060	1-137-417-11	MYLAR	0.015μF 10% 100V
				C5061	1-117-833-21	FILM	5100pF 3% 1.5KV
						(ALL EXCEPT KD-36XS955)	
				C5061	1-117-839-11	FILM	9100pF 3% 1.5KV
						(KD-36XS955 ONLY)	
				C5064	1-117-665-11	FILM	0.33μF 5% 250V
						(ALL EXCEPT KD-36XS955)	

VARISTOR

VD1512	1-803-974-21	VARISTOR, CHIP	(1608)
VD1513	1-803-974-21	VARISTOR, CHIP	(1608)
VD1516	1-803-974-21	VARISTOR, CHIP	(1608)



- * **A-1062-014-A DZ BOARD, COMPLETE**
(KD-36XS955 ONLY)
- * **A-1303-038-A DZ BOARD, COMPLETE**
(KD-34XBR960/34XS955 ONLY)
- * **A-1303-045-A DZ BOARD, COMPLETE**
(KD-30XS955 ONLY)
- 4-382-854-01 SCREW (M3X8), P, SW (+)
- 4-382-854-21 SCREW (M3X14), P, SW (+)

The high-voltage leads associated with the FBT on the DZ board are not included and must be ordered separately. Order the following leads when requesting this DZ Board:

\triangle	1-251-715-22	CAP ASSY, HIGH-VOLTAGE
\triangle	1-900-805-19	WIRE ASSY, FOCUS HV
\triangle	1-900-808-42	WIRE ASSY, G2

CAPACITOR

C5001	1-162-966-11	CERAMIC CHIP	0.0022μF 10% 50V
C5002	1-106-383-00	MYLAR	0.047μF 10% 200V
C5003	1-162-967-11	CERAMIC CHIP	0.0033μF 10% 50V
C5004	1-106-383-00	MYLAR	0.047μF 10% 200V
C5005	1-126-235-11	ELECT	100μF 20% 16V
C5006	1-126-964-11	ELECT	10μF 20% 50V
C5007	1-126-941-11	ELECT	470μF 20% 25V
C5009	1-126-941-11	ELECT	470μF 20% 25V
C5010	1-164-227-11	CERAMIC CHIP	0.022μF 10% 25V
C5011	1-107-641-11	ELECT	220μF 20% 160V
C5012	1-162-968-11	CERAMIC CHIP	0.0047μF 10% 50V
C5013	1-162-966-11	CERAMIC CHIP	0.0022μF 10% 50V
C5014	1-164-227-11	CERAMIC CHIP	0.022μF 10% 25V
C5016	1-130-783-71	MYLAR	0.33μF 10% 100V
C5017	1-164-677-11	CERAMIC CHIP	0.033μF 10% 16V



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
C5064	1-117-668-31	FILM (KD-36XS955 ONLY)	0.56μF	5%	250V	C5527	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C5065	1-107-506-11	FILM (KD-36XS955 ONLY)	0.68μF	3%	400V	C5528	1-129-709-91	FILM	0.0039μF	5%	630V
C5065	1-117-664-11	FILM (KD-30XS955 ONLY)	0.27μF	5%	250V	C5529	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C5065	1-117-665-11	FILM (KD-34XBR960/34XS955 ONLY)	0.33μF	5%	250V	C5530	1-136-167-00	FILM	0.15μF	5%	50V
C5066	1-109-921-11	CERAMIC	0.0015μF	10%	500V	C5531	1-130-495-00	MYLAR	0.1μF	5%	50V
C5070	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C5533	1-126-961-11	ELECT	2.2μF	20%	50V
C5071	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C5534	1-126-947-11	ELECT	47μF	20%	35V
C5074	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	C5535	1-126-947-11	ELECT	47μF	20%	35V
C5075	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C5540	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V
C5076	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C5548	1-137-194-81	FILM	0.47μF	5%	50V
C5077	1-164-360-11	CERAMIC CHIP	0.1μF		16V	C5550	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C5078	1-127-715-91	CERAMIC CHIP	0.22μF	10%	16V	C5551	1-126-947-11	ELECT	47μF	20%	35V
C5079	1-162-965-11	CERAMIC CHIP	0.0015μF	10%	50V	C5552	1-126-947-11	ELECT	47μF	20%	35V
C5082	1-117-832-21	FILM (KD-30XS955 ONLY)	4700pF	3%	1.5KV	C5598	1-126-947-11	ELECT	47μF	20%	35V
C5082	1-117-834-21	FILM (KD-34XBR960/34XS955 ONLY)	5600pF	3%	1.5KV	C5609	1-104-665-11	ELECT	100μF	20%	25V
C5082	1-117-839-11	FILM (KD-36XS955 ONLY)	9100pF	3%	1.5KV	C5623	1-104-665-11	ELECT	100μF	20%	25V
C5084	1-126-941-11	ELECT	470μF	20%	25V	C6502	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V
C5086	1-126-941-11	ELECT	470μF	20%	25V	C6503	1-131-940-11	ELECT	1200μF	20%	250V
C5502	1-126-941-11	ELECT	470μF	20%	25V	C6507	1-130-495-00	MYLAR	0.1μF	5%	50V
C5504	1-126-947-11	ELECT	47μF	20%	35V	C6508	1-126-947-11	ELECT	47μF	20%	35V
C5505	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C6510	1-130-495-00	MYLAR	0.1μF	5%	50V
C5506	1-162-962-11	CERAMIC CHIP	470pF	10%	50V	C6511	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C5511	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C6513	1-126-940-11	ELECT	330μF	20%	25V
C5512	1-162-974-11	CERAMIC CHIP	0.01μF		50V	C6514	1-126-767-11	ELECT	1000μF	20%	16V
C5513	1-162-974-11	CERAMIC CHIP	0.01μF		50V	C6515	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C5514	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C6516	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V
C5515	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C6517	1-126-963-11	ELECT	4.7μF	20%	50V
C5516	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C6518	1-136-479-11	FILM	0.001μF	5%	100V
C5517	1-129-716-00	FILM	0.015μF	5%	400V	C6519	1-126-964-11	ELECT	10μF	20%	50V
C5518	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C6525	1-125-969-91	CERAMIC	680pF	10%	1KV
C5519	1-162-927-11	CERAMIC CHIP	100pF	5%	50V	C6526	1-125-969-91	CERAMIC	680pF	10%	1KV
C5520	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C6532	1-137-741-22	FILM	39000pF	3%	800V
C5521	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C6546	1-126-974-11	ELECT	3300μF	20%	50V
C5522	1-115-416-11	CERAMIC CHIP	0.001μF	5%	25V	C6549	1-126-969-11	ELECT	220μF	20%	50V
C5523	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C6550	1-126-968-11	ELECT	100μF	20%	50V
C5524	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C6551	1-164-227-11	CERAMIC CHIP	0.022μF	10%	25V
C5526	1-162-967-11	CERAMIC CHIP	0.0033μF	10%	50V	C6552	1-126-937-11	ELECT	4700μF	20%	16V
						C6554	1-126-768-11	ELECT (KD-36XS955 ONLY)	2200μF	20%	16V
						C6554	1-126-937-11	ELECT (ALL EXCEPT KD-36XS955)	4700μF	20%	16V
						C6555	1-104-665-11	ELECT	100μF	20%	25V
						C6556	1-131-867-51	ELECT	100μF		160V
						C6557	1-107-654-11	ELECT	33μF	20%	250V



REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
C6558	1-126-967-11	ELECT	47µF 20% 50V	C8052	1-104-665-11	ELECT	100µF 20% 25V
C6559	1-126-942-61	ELECT	1000µF 20% 25V	C8053	1-162-117-00	CERAMIC	100pF 10% 500V
C6584	1-165-528-31	MYLAR	0.1µF 10 0V	C8054	1-102-244-00	CERAMIC	220pF 10% 500V
C6590	1-131-940-11	ELECT	1200µF 20% 250V	C8055	1-100-144-31	FILM	0.0068µF 5% 630V
C6592	1-119-898-51	CERAMIC	470pF 10% 250V			(ALL EXCEPT KD-36XS955)	
C6593	1-126-768-11	ELECT	2200µF 20% 16V	C8055	1-136-535-91	FILM	0.0018µF 5% 630V
C6595	1-104-666-11	ELECT	220µF 20% 25V			(KD-36XS955 ONLY)	
C6596	1-126-960-11	ELECT	1µF 20% 50V	C8056	1-162-970-11	CERAMIC CHIP	0.01µF 10% 25V
C6597	1-126-943-11	ELECT	2200µF 20% 25V	C8058	1-137-194-81	FILM	0.47µF 5% 50V
C8001	1-126-964-11	ELECT	10µF 20% 50V	C8059	1-126-947-11	ELECT	47µF 20% 35V
C8002	1-126-964-11	ELECT	10µF 20% 50V	C8060	1-106-371-00	MYLAR	0.015µF 20% 200V
C8003	1-162-970-11	CERAMIC CHIP	0.01µF 10% 25V			(ALL EXCEPT KD-36XS955)	
C8005	1-107-826-11	CERAMIC CHIP	0.1µF 10% 16V	C8060	1-107-635-11	MYLAR	4.7µF 20% 160V
C8006	1-126-960-11	ELECT	1µF 20% 50V			(KD-36XS955 ONLY)	
C8007	1-162-971-11	CERAMIC CHIP	0.001µF 10% 50V	C8063	1-165-607-91	FILM	10000pF 3% 800V
C8012	1-126-947-11	ELECT	47µF 20% 35V	C8065	1-127-715-91	CERAMIC CHIP	0.22µF 10% 16V
C8015	1-126-947-11	ELECT	47µF 20% 35V	C8073	1-162-962-11	CERAMIC CHIP	470pF 10% 50V
C8016	1-130-495-00	MYLAR	0.1µF 5% 50V	C8074	1-162-970-11	CERAMIC CHIP	0.01µF 10% 25V
C8017	1-126-964-11	ELECT	10µF 20% 50V	C8075	1-162-970-11	CERAMIC CHIP	0.01µF 10% 25V
C8018	1-126-964-11	ELECT	10µF 20% 50V	C8076	1-126-963-11	ELECT	4.7µF 20% 50V
C8020	1-130-495-00	MYLAR	0.1µF 5% 50V	C8077	1-162-970-11	CERAMIC CHIP	0.01µF 10% 25V
C8021	1-162-974-11	CERAMIC CHIP	0.01µF 50V	C8079	1-127-715-91	CERAMIC CHIP	0.22µF 10% 16V
C8024	1-126-967-11	ELECT	47µF 20% 50V	C8139	1-165-176-11	CERAMIC CHIP	0.047µF 10% 16V
C8025	1-126-947-11	ELECT	47µF 20% 35V				
C8027	1-130-495-00	MYLAR	0.1µF 5% 50V			CONNECTOR	
C8028	1-162-966-11	CERAMIC CHIP	0.0022µF 10% 50V	*	CN5001	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P
C8030	1-164-227-11	CERAMIC CHIP	0.022µF 10% 25V	*	CN5002	1-580-798-11	CONNECTOR PIN (DY) 6P
C8031	1-104-663-11	ELECT	33µF 20% 25V	*	CN5003	1-564-507-11	PLUG, CONNECTOR 4P
C8032	1-136-813-11	FILM	680pF 5% 100V	*	CN5009	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P
C8033	1-126-964-11	ELECT	10µF 20% 50V	*	CN5011	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P
C8035	1-100-614-81	CERAMIC	330pF 5% 1KV	*	CN5509	1-564-515-11	PLUG, CONNECTOR 12P
C8036	1-100-614-81	CERAMIC	330pF 5% 1KV	*	CN6502	1-766-240-11	PIN, CONNECTOR (PC BOARD) 2P
C8037	1-165-953-11	FILM	47000pF 3% 800V	*	CN6503	1-564-508-11	PLUG, CONNECTOR 5P
C8040	1-126-969-11	ELECT	220µF 20% 50V	*	CN6504	1-564-515-11	PLUG, CONNECTOR 12P
C8041	1-130-777-00	MYLAR	0.1µF 5% 100V	*	CN6506	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P
C8042	1-136-189-00	MYLAR	0.1µF 10% 250V			DIODE	
C8045	1-130-475-00	MYLAR	0.0022µF 5% 50V		D5001	8-719-083-60	DIODE UDZSTE-174.7B
C8046	1-107-444-11	CERAMIC CHIP	100pF 5% 2KV		D5002	8-719-908-03	DIODE GP08D
	(KD-36XS955 ONLY)				D5003	8-719-028-45	DIODE D2L20U
C8047	1-162-130-11	CERAMIC CHIP	180pF 10% 2KV		D5004	8-719-083-82	DIODE UDZS-TE17-12B
	(KD-36XS955 ONLY)				D5005	8-719-404-50	DIODE MA111-TX
C8048	1-137-378-11	MYLAR	0.22µF 5% 50V				
C8050	1-100-122-31	FILM	0.022µF 5% 400V				
C8051	1-126-964-11	ELECT	10µF 20% 50V				

NOTE: The components identified by shading and \triangle mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifique.



REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
D5006	8-719-404-50	DIODE	MA111-TX	D6520	8-719-063-74	DIODE	D1NL20U-TR2
D5007	8-719-404-50	DIODE	MA111-TX	D6521	8-719-404-50	DIODE	MA111-TX
D5008	8-719-404-50	DIODE	MA111-TX	D6523	8-719-060-89	DIODE	D4SBS6-F
D5010	8-719-404-50	DIODE	MA111-TX	D6524	8-719-062-40	DIODE	D4SBL20 μ F3
D5011	8-719-109-63	DIODE	RD3.0ESB2	D6525	8-719-982-27	DIODE	MTZJ-33C
D5014	8-719-075-66	DIODE	D5LC20U-4012	D6530	8-719-510-53	DIODE	D4SB60L
D5015	8-719-948-45 (KD-36XS955 ONLY)	DIODE	ERA22-08	D6532	8-719-948-45	DIODE	ERA22-08
D5016	8-719-028-45	DIODE	D2L20U	D6533	8-719-404-50	DIODE	MA111-TX
D5017	8-719-028-45	DIODE	D2L20U	D6534	8-719-404-50	DIODE	MA111-TX
D5018	8-719-083-83	DIODE	UDZS-TE17-15B	D6537	8-719-404-50	DIODE	MA111-TX
D5019	8-719-404-50	DIODE	MA111-TX	D6538	8-719-109-85	DIODE	RD5.1ESB2
D5020	8-719-948-45 (KD-36XS955 ONLY)	DIODE	ERA22-08	D8001	8-719-404-50	DIODE	MA111-TX
D5023	8-719-061-21	DIODE	FMQ-G5FMS	D8003	8-719-404-50	DIODE	MA111-TX
D5027	8-719-404-50	DIODE	MA111-TX	D8005	8-719-404-50	DIODE	MA111-TX
D5028	8-719-404-50	DIODE	MA111-TX	D8006	8-719-063-74	DIODE	D1NL20U-TR2
D5032	8-719-404-50	DIODE	MA111-TX	D8007	8-719-404-50	DIODE	MA111-TX
D5035	8-719-302-43	DIODE	EL1Z	D8009	8-719-083-83	DIODE	UDZS-TE17-15B
D5036	8-719-302-43	DIODE	EL1Z	D8010	8-719-979-64	DIODE	μ F4005PKG23
D5501	8-719-404-50	DIODE	MA111-TX	D8011	8-719-110-41	DIODE	RD15ESB2
D5502	8-719-404-50	DIODE	MA111-TX	D8012	8-719-110-41	DIODE	RD15ESB2
D5504	8-719-404-50	DIODE	MA111-TX	D8013	8-719-083-83	DIODE	UDZS-TE17-15B
D5506	8-719-404-50	DIODE	MA111-TX	D8014	8-719-083-83	DIODE	UDZS-TE17-15B
D5508	8-719-404-50	DIODE	MA111-TX	D8015	8-719-404-50	DIODE	MA111-TX
D5511	8-719-062-51	DIODE	1PS226-115	D8016	8-719-948-45	DIODE	ERA22-08
D5512	8-719-062-51	DIODE	1PS226-115	D8017	8-719-948-45	DIODE	ERA22-08
D5513	8-719-404-50	DIODE	MA111-TX	\triangle D8018	8-719-948-45	DIODE	ERA22-08
D5514	8-719-060-90	DIODE	S2L60F	D8022	8-719-063-74	DIODE	D1NL20U-TR2
D5515	8-719-404-50	DIODE	MA111-TX	D8023	8-719-109-85	DIODE	RD5.1ESB2
D6502	8-719-979-64	DIODE	UF4005PKG23	D8024	8-719-109-85	DIODE	RD5.1ESB2
D6504	8-719-075-66 (KD-36XS955 ONLY)	DIODE	D5LC20U-4012	D8026	8-719-404-50	DIODE	MA111-TX
D6504	8-719-510-12 (ALL EXCEPT KD-36XS955)	DIODE	D10SC4M	D8028	8-719-069-54	DIODE	UDZSTE-175.1B
D6505	8-719-404-50	DIODE	MA111-TX	D8030	8-719-083-66	DIODE	UDZSTE-1718B
D6508	8-719-982-27	DIODE	MTZJ-33C	D8034	8-719-921-63	DIODE	MTZJ-7.5B
D6509	8-719-068-00	DIODE	ERC04-06SE	D8140	8-719-404-50	DIODE	MA111-TX
D6510	8-719-068-00	DIODE	ERC04-06SE	FERRITE BEAD			
D6513	8-719-510-12	DIODE	D10SC4M	FB5001	1-410-397-21	FERRITE	1.1 μ H
D6514	8-719-060-89	DIODE	D4SBS6-F	FB5002	1-543-298-11	FERRITE	0 μ H
D6516	8-719-075-66	DIODE	D5LC20U-4012	FB5003	1-410-397-21	FERRITE	1.1 μ H
D6518	8-719-052-90	DIODE	D1NL40-TA2	FB6501	1-410-397-21	FERRITE	1.1 μ H
D6519	8-719-063-74	DIODE	D1NL20U-TR2	FB6508	1-410-396-41	FERRITE	0.45 μ H
				FB6509	1-410-396-41	FERRITE	0.45 μ H
				FB6519	1-410-397-21	FERRITE	1.1 μ H



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
Q8020	8-729-422-27	TRANSISTOR	2SD601A-Q			R5020	1-218-710-11	METAL CHIP	5.6K	0.50%	1/10W
Q8021	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R5023	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q8022	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R5024	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q8023	8-729-422-27	TRANSISTOR	2SD601A-Q			R5025	1-218-710-11	METAL CHIP	5.6K	0.50%	1/10W
Q8028	8-729-422-27	TRANSISTOR	2SD601A-Q			R5026	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q8034	8-729-422-27	TRANSISTOR	2SD601A-Q			R5027	1-216-841-11	METAL CHIP	47K	5%	1/10W
Q8035	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R5028	1-216-841-11	METAL CHIP	47K	5%	1/10W
						R5029	1-218-708-11	METAL CHIP	4.7K	0.50%	1/10W
						R5030	1-216-864-11	SHORT CHIP			
						R5031	1-218-692-11	METAL CHIP	1K	0.50%	1/10W
						R5033	1-216-821-11	METAL CHIP	1K	5%	1/10W
						R5035	1-218-716-11	METAL CHIP	10K	0.50%	1/10W
								(KD-34XBR960/34XS955 ONLY)			
						R5035	1-218-720-11	METAL CHIP	15K	0.50%	1/10W
								(KD-30XS955 ONLY)			
						R5036	1-216-839-11	METAL CHIP	33K	5%	1/10W
						R5037	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
						R5038	1-216-834-11	METAL CHIP	12K	5%	1/10W
						R5040	1-218-748-11	METAL CHIP	220K	0.50%	1/10W
						R5041	1-249-383-11	CARBON	1.5	5%	1/4W
						R5042	1-216-841-11	METAL CHIP	47K	5%	1/10W
						R5043	1-218-708-11	METAL CHIP	4.7K	0.50%	1/10W
						R5044	1-216-833-11	METAL CHIP	10K	5%	1/10W
						R5045	1-216-845-11	METAL CHIP	100K	5%	1/10W
						R5046	1-214-798-21	METAL	1.8	1%	1/2W
						R5047	1-249-421-11	CARBON	2.2K	5%	1/4W
						R5048	1-216-841-11	METAL CHIP	47K	5%	1/10W
						R5049	1-216-833-11	METAL CHIP	10K	5%	1/10W
						R5050	1-216-833-11	METAL CHIP	10K	5%	1/10W
						R5051	1-249-414-11	CARBON	560	5%	1/4W
						R5052	1-214-796-00	METAL	1.5	1%	1/2W
						R5053	1-215-890-11	METAL OXIDE	470	5%	2W
								(KD-36XS955 ONLY)			
						R5053	1-215-892-11	METAL OXIDE	1K	5%	2W
								(ALL EXCEPT KD-36XS955)			
						R5054	1-216-833-11	METAL CHIP	10K	5%	1/10W
						R5060	1-216-833-11	METAL CHIP	10K	5%	1/10W
						R5061	1-216-833-11	METAL CHIP	10K	5%	1/10W
						R5062	1-216-845-11	METAL CHIP	100K	5%	1/10W
						R5063	1-218-722-11	METAL CHIP	18K	0.50%	1/10W
								(ALL EXCEPT KD-36XS955)			
						R5063	1-218-724-11	METAL CHIP	22K	0.50%	1/10W
								(KD-36XS955 ONLY)			
						R5064	1-218-748-11	METAL CHIP	220K	0.50%	1/10W



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R5065	1-218-749-11	METAL CHIP (ALL EXCEPT KD-36XS955)	240K	0.50%	1/10W	R5087	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5065	1-218-750-11	METAL CHIP (KD-36XS955 ONLY)	270K	0.5%	1/10W	R5090	1-216-369-00	METAL OXIDE	1	5%	2W
R5066	1-218-740-11	METAL CHIP (KD-34XBR960/34XS955 ONLY)	100K	0.50%	1/10W	R5091	1-249-389-11	CARBON	4.7	5%	1/4W
R5066	1-218-746-11	METAL CHIP (KD-36XS955 ONLY)	180K	0.5%	1/10W	R5092	1-216-821-11	METAL CHIP	1K	5%	1/10W
R5066	1-218-748-11	METAL CHIP (KD-30XS955 ONLY)	220K	0.5%	1/10W	R5093	1-218-717-11	METAL CHIP	11K	0.50%	1/10W
R5068	1-218-742-11	METAL CHIP (KD-36XS955 ONLY)	120K	0.5%	1/10W	R5095	1-249-377-11	CARBON	0.47	5%	1/4W
R5068	1-218-750-11	METAL CHIP (ALL EXCEPT KD-36XS955)	270K	0.50%	1/10W	R5096	1-249-377-11	CARBON	0.47	5%	1/4W
R5069	1-216-841-11	METAL CHIP	47K	5%	1/10W	R5097	1-249-380-11	CARBON	0.82	5%	1/4W
R5070	1-218-710-11	METAL CHIP	5.6K	0.50%	1/10W	R5098	1-249-379-11	CARBON	0.68	5%	1/4W
R5071	1-218-704-11	METAL CHIP	3.3K	0.50%	1/10W	R5101	1-218-708-11	METAL CHIP	4.7K	0.50%	1/10W
R5072	1-216-833-11	METAL CHIP	10K	5%	1/10W	R5102	1-218-692-11	METAL CHIP	1K	0.50%	1/10W
R5073	1-216-833-11	METAL CHIP	10K	5%	1/10W	R5103	1-218-700-11	METAL CHIP	2.2K	0.50%	1/10W
R5074	1-260-328-11	CARBON	1K	5%	1/2W	R5104	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5075	1-249-377-11	METAL OXIDE (KD-36XS955 ONLY)	0.47	5%	1/4W	R5105	1-216-841-11	METAL CHIP	47K	5%	1/10W
R5076	1-215-900-11	METAL OXIDE (ALL EXCEPT KD-36XS955)	22K	5%	2W	R5106	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5076	1-215-903-11	METAL OXIDE (KD-36XS955 ONLY)	68K	5%	2W	R5107	1-249-393-11	CARBON	10	5%	1/4W
R5077	1-215-900-11	METAL OXIDE (ALL EXCEPT KD-36XS955)	22K	5%	2W	R5108	1-218-736-11	METAL CHIP	68K	0.50%	1/10W
R5077	1-215-903-11	METAL OXIDE (KD-36XS955 ONLY)	68K	5%	2W	R5109	1-218-728-11	METAL CHIP	33K	0.50%	1/10W
R5078	1-218-684-11	METAL CHIP (ALL EXCEPT KD-36XS955)	470	0.50%	1/10W	R5110	1-249-401-11	CARBON	47	5%	1/4W
R5078	1-218-692-11	METAL CHIP (KD-36XS955 ONLY)	1K	0.5%	1/10W	R5111	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R5079	1-218-720-11	METAL CHIP	15K	0.50%	1/10W	R5112	1-216-813-11	METAL CHIP	220	5%	1/10W
R5080	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R5113	1-260-107-11	CARBON	4.7K	5%	1/2W
R5081	1-218-728-11	METAL CHIP (ALL EXCEPT KD-36XS955)	33K	0.50%	1/10W	R5115	1-249-417-11	CARBON	1K	5%	1/4W
R5081	1-218-740-11	METAL CHIP (KD-36XS955 ONLY)	100K	0.5%	1/10W	R5116	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5082	1-218-716-11	METAL CHIP	10K	0.50%	1/10W	R5117	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R5083	1-218-700-11	METAL CHIP	2.2K	0.50%	1/10W	R5118	1-216-797-11	METAL CHIP	10	5%	1/10W
R5084	1-216-833-11	METAL CHIP	10K	5%	1/10W	R5120	1-218-702-11	METAL CHIP	2.7K	0.50%	1/10W
R5085	1-216-853-11	METAL CHIP	470K	5%	1/10W	R5124	1-216-809-11	METAL CHIP	100	5%	1/10W
R5086	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R5125	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
						R5126	1-216-809-11	METAL CHIP	100	5%	1/10W
						R5127	1-215-890-11	METAL OXIDE (KD-36XS955 ONLY)	470	5%	2W
						R5127	1-215-892-11	METAL OXIDE (ALL EXCEPT KD-36XS955)	1K	5%	2W
						R5128	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
						R5129	1-216-809-11	METAL CHIP	100	5%	1/10W
						R5130	1-216-797-11	METAL CHIP	10	5%	1/10W
						R5131	1-218-702-11	METAL CHIP (KD-34XBR960/34XS955 ONLY)	2.7K	0.50%	1/10W
						R5131	1-218-704-11	METAL CHIP (KD-36XS955 ONLY)	3.3K	0.50%	1/10W
						R5131	1-218-710-11	METAL CHIP (KD-30XS955 ONLY)	5.6K	0.50%	1/10W




REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R5132	1-215-895-11	METAL OXIDE (ALL EXCEPT KD-36XS955)	3.3K	5%	2W	R5170	1-215-917-11	METAL OXIDE (KD-36XS955 ONLY)	1K	5%	3W
R5132	1-215-917-11	METAL OXIDE (KD-36XS955 ONLY)	1K	5%	3W	R5171	1-215-896-00	METAL OXIDE (ALL EXCEPT KD-36XS955)	4.7K	5%	2W
R5133	1-215-895-11	METAL OXIDE (ALL EXCEPT KD-36XS955)	3.3K	5%	2W	R5171	1-215-917-11	METAL OXIDE (KD-36XS955 ONLY)	1K	5%	3W
R5133	1-215-917-11	METAL OXIDE (KD-36XS955 ONLY)	1K	5%	3W	R5172	1-260-288-11	CARBON	0.47	5%	1/2W
R5135	1-215-895-11	METAL OXIDE (ALL EXCEPT KD-36XS955)	3.3K	5%	2W	R5173	1-260-288-11	CARBON	0.47	5%	1/2W
R5135	1-215-917-11	METAL OXIDE (KD-36XS955 ONLY)	1K	5%	3W	R5176	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5136	1-215-895-11	METAL OXIDE (ALL EXCEPT KD-36XS955)	3.3K	5%	2W	R5501	1-218-716-11	METAL CHIP (ALL EXCEPT KD-36XS955)	10K	0.50%	1/10W
R5136	1-215-917-11	METAL OXIDE (KD-36XS955 ONLY)	1K	5%	3W	R5501	1-218-728-11	METAL CHIP (KD-36XS955 ONLY)	33K	0.50%	1/10W
R5137	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R5502	1-216-864-11	SHORT CHIP			
R5138	1-216-821-11	METAL CHIP	1K	5%	1/10W	R5503	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5139	1-216-821-11	METAL CHIP	1K	5%	1/10W	R5505	1-218-750-11	METAL CHIP	270K	0.50%	1/10W
R5141	1-215-890-11	METAL OXIDE	470	5%	2W	R5506	1-216-845-11	METAL CHIP	100K	5%	1/10W
R5142	1-216-365-00	METAL OXIDE	0.47	5%	2W	R5507	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5143	1-216-365-00	METAL OXIDE	0.47	5%	2W	R5508	1-216-837-11	METAL CHIP	22K	5%	1/10W
R5144	1-216-365-00	METAL OXIDE	0.47	5%	2W	R5510	1-216-821-11	METAL CHIP	1K	5%	1/10W
R5145	1-215-880-00	METAL OXIDE	10	5%	2W	R5512	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5146	1-249-437-11	CARBON	47K	5%	1/4W	R5513	1-216-821-11	METAL CHIP	1K	5%	1/10W
R5147	1-218-702-11 (KD-34XBR960/34XS955 ONLY)	METAL CHIP	2.7K	0.50%	1/10W	R5518	1-218-728-11	METAL CHIP	33K	0.50%	1/10W
R5147	1-218-704-11 (KD-36XS955 ONLY)	METAL CHIP	3.3K	0.50%	1/10W	R5519	1-218-740-11	METAL CHIP	100K	0.50%	1/10W
R5147	1-218-710-11 (KD-30XS955 ONLY)	METAL CHIP	5.6K	0.50%	1/10W	R5520	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5148	1-215-865-11	METAL OXIDE	220	5%	1W	R5521	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5150	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R5522	1-218-716-11	METAL CHIP	10K	0.50%	1/10W
R5151	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R5523	1-218-744-11	METAL CHIP	150K	0.50%	1/10W
R5153	1-216-833-11	METAL CHIP	10K	5%	1/10W	R5524	1-216-839-11	METAL CHIP	33K	5%	1/10W
R5154	1-216-833-11	METAL CHIP	10K	5%	1/10W	R5525	1-216-853-11	METAL CHIP	470K	5%	1/10W
R5158	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R5526	1-216-853-11	METAL CHIP	470K	5%	1/10W
R5160	1-216-809-11	METAL CHIP	100	5%	1/10W	R5527	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5163	1-216-828-11	METAL CHIP	3.9K	5%	1/10W	R5528	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5164	1-216-845-11	METAL CHIP	100K	5%	1/10W	R5529	1-218-702-11	METAL CHIP	2.7K	0.50%	1/10W
R5165	1-216-841-11	METAL CHIP	47K	5%	1/10W	R5530	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5170	1-215-896-00 (ALL EXCEPT KD-36XS955)	METAL OXIDE	4.7K	5%	2W	R5532	1-216-821-11	METAL CHIP	1K	5%	1/10W
						R5533	1-218-740-11	METAL CHIP	100K	0.50%	1/10W
						R5535	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
						R5536	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
						R5537	1-218-732-11	METAL CHIP	47K	0.50%	1/10W
						R5538	1-216-837-11	METAL CHIP	22K	5%	1/10W
						R5539	1-216-849-11	METAL CHIP	220K	5%	1/10W
						R5540	1-214-800-11	METAL	2.2	1%	1/2W
						R5541	1-216-849-11	METAL CHIP	220K	5%	1/10W
						R5542	1-216-837-11	METAL CHIP	22K	5%	1/10W


NOTE: The components identified by shading and \triangle mark are critical for safety. Replace only with part number specified.

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REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R5543	1-216-821-11	METAL CHIP	1K	5%	1/10W	R5712	1-218-740-11	METAL CHIP	100K	0.50%	1/10W
R5544	1-218-716-11	METAL CHIP	10K	0.50%	1/10W	R6501	1-218-662-11	METAL CHIP	56	0.50%	1/10W
R5545	1-218-732-11	METAL CHIP	47K	0.50%	1/10W	R6502	1-260-131-11	CARBON	470K	5%	1/2W
R5546	1-216-864-11	SHORT CHIP				R6503	1-216-835-11	METAL CHIP	15K	5%	1/10W
R5547	1-216-821-11	METAL CHIP	1K	5%	1/10W	R6504	1-260-354-71	CARBON	150K	5%	1/2W
R5548	1-216-821-11	METAL CHIP	1K	5%	1/10W	R6505	1-218-668-11	METAL CHIP	100	0.50%	1/10W
R5549	1-218-692-11	METAL CHIP	1K	0.50%	1/10W	R6506	1-260-354-71	CARBON	150K	5%	1/2W
R5551	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R6507	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5552	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R6508	1-249-393-11	CARBON	10	5%	1/4W
R5553	1-218-724-11	METAL CHIP	22K	0.50%	1/10W	R6509	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5554	1-218-732-11	METAL CHIP	47K	0.50%	1/10W	R6510	1-249-393-11	CARBON	10	5%	1/4W
R5555	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R6511	1-260-298-51	CARBON	3.3	5%	1/2W
R5556	1-218-708-11	METAL CHIP	4.7K	0.50%	1/10W	R6513	1-245-478-31	METAL	470K	1%	1/4W
R5557	1-218-692-11	METAL CHIP	1K	0.50%	1/10W	R6514	1-245-477-31	METAL	430K	1%	1/4W
R5558	1-218-692-11	METAL CHIP	1K	0.50%	1/10W	R6515	1-260-131-11	CARBON	470K	5%	1/2W
R5559	1-218-720-11	METAL CHIP	15K	0.50%	1/10W	\triangle R6516	1-244-207-11	WIREWOUND	3.3	5%	10W
R5560	1-216-841-11	METAL CHIP	47K	5%	1/10W	R6517	1-218-714-11	METAL CHIP	8.2K	0.50%	1/10W
R5561	1-218-740-11	METAL CHIP	100K	0.50%	1/10W	R6518	1-218-719-11	METAL CHIP	13K	0.50%	1/10W
R5562	1-218-734-11	METAL CHIP	56K	0.50%	1/10W	R6519	1-216-864-11	SHORT CHIP			
R5565	1-249-377-11	CARBON	0.47	5%	1/4W	R6521	1-260-328-11	CARBON	1K	5%	1/2W
R5566	1-249-401-11	CARBON	47	5%	1/4W	R6524	1-216-813-11	METAL CHIP	220	5%	1/10W
R5567	1-216-809-11	METAL CHIP	100	5%	1/10W	R6525	1-216-813-11	METAL CHIP	220	5%	1/10W
R5568	1-216-853-11	METAL CHIP	470K	5%	1/10W	R6526	1-202-933-61	FUSIBLE	0.1	10%	1/2W
R5569	1-216-821-11	METAL CHIP	1K	5%	1/10W	R6527	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5570	1-216-833-11	METAL CHIP	10K	5%	1/10W	R6528	1-216-809-11	METAL CHIP	100	5%	1/10W
R5571	1-216-821-11	METAL CHIP	1K	5%	1/10W	R6529	1-249-393-11	CARBON	10	5%	1/4W
R5572	1-216-833-11	METAL CHIP	10K	5%	1/10W	R6530	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5576	1-249-395-11	CARBON	15	5%	1/4W	R6531	1-249-393-11	CARBON	10	5%	1/4W
R5578	1-218-730-11	METAL CHIP	39K	0.50%	1/10W	R6532	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5579	1-218-732-11	METAL CHIP	47K	0.50%	1/10W	R6533	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5580	1-216-837-11	METAL CHIP	22K	5%	1/10W	R6535	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5581	1-218-708-11	METAL CHIP	4.7K	0.50%	1/10W	R6536	1-249-417-11	CARBON	1K	5%	1/4W
R5582	1-216-821-11	METAL CHIP	1K	5%	1/10W	R6537	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5588	1-216-353-00	METAL OXIDE	2.2	5%	1W	R6538	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5589	1-218-708-11	METAL CHIP	4.7K	0.50%	1/10W	R6539	1-215-900-11	METAL OXIDE	22K	5%	2W
R5590	1-218-722-11	METAL CHIP	18K	0.50%	1/10W	R6542	1-216-821-11	METAL CHIP	1K	5%	1/10W
R5591	1-218-716-11	METAL CHIP	10K	0.50%	1/10W	R6544	1-216-864-11	SHORT CHIP			
R5592	1-218-692-11	METAL CHIP	1K	0.50%	1/10W	R6545	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5593	1-218-692-11	METAL CHIP	1K	0.50%	1/10W	R6547	1-216-864-11	SHORT CHIP			
R5594	1-216-833-11	METAL CHIP	10K	5%	1/10W	R6548	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R5597	1-218-750-11	METAL CHIP	270K	0.50%	1/10W	R6556	1-243-979-71	METAL OXIDE	0.1	5%	2W
R5603	1-216-857-11	METAL CHIP	1M	5%	1/10W	R6557	1-243-979-71	METAL OXIDE	0.1	5%	2W
R5604	1-216-857-11	METAL CHIP	1M	5%	1/10W	\triangle R6590	1-249-415-11	CARBON	680	5%	1/4W
R5711	1-218-740-11	METAL CHIP	100K	0.50%	1/10W	R6593	1-249-405-11	CARBON	100	5%	1/4W

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REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R6595	1-249-377-11	CARBON	0.47	5%	1/4W	 R8038	1-215-445-00	METAL	10K	1%	1/4W
R6602	1-216-821-11	METAL CHIP	1K	5%	1/10W		(ALL EXCEPT KD-30XS955)				
R6605	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	 R8038	1-215-447-00	METAL	12K	1%	1/4W
R8001	1-216-809-11	METAL CHIP	100	5%	1/10W		(KD-30XS955 ONLY)				
R8003	1-216-837-11	METAL CHIP	22K	5%	1/10W	 R8039	1-215-445-00	METAL	10K	1%	1/4W
							(ALL EXCEPT KD-30XS955)				
R8004	1-218-708-11	METAL CHIP	4.7K	0.50%	1/10W						
R8005	1-216-837-11	METAL CHIP	22K	5%	1/10W	 R8039	1-215-447-00	METAL	12K	1%	1/4W
R8006	1-245-494-31	METAL	2.2M	2%	1/4W		(KD-30XS955 ONLY)				
R8007	1-245-494-31	METAL	2.2M	2%	1/4W	 R8040	1-215-445-00	METAL	10K	1%	1/4W
R8010	1-216-864-11	SHORT CHIP					(ALL EXCEPT KD-30XS955)				
R8011	1-216-849-11	METAL CHIP	220K	5%	1/10W	 R8040	1-215-443-00	METAL	8.2K	1%	1/4W
 R8012	1-249-419-11	CARBON	1.5K	5%	1/4W		(KD-30XS955 ONLY)				
R8013	1-216-833-11	METAL CHIP	10K	5%	1/10W						
 R8014	1-218-692-11	METAL CHIP	1K	0.50%	1/10W	R8041	1-216-864-11	SHORT CHIP			
 R8015	1-218-700-11	METAL CHIP	2.2K	0.50%	1/10W	 R8043	1-215-447-00	METAL	12K	1%	1/4W
						 R8046	1-218-696-11	METAL CHIP	1.5K	0.50%	1/10W
 R8016	1-247-843-11	CARBON	3.3K	5%	1/4W	R8049	1-218-668-11	METAL CHIP	100	0.50%	1/10W
 R8017	1-218-705-11	METAL CHIP	3.6K	0.50%	1/10W	R8050	1-218-656-11	METAL CHIP	33	0.50%	1/10W
 R8019	1-218-719-11	METAL CHIP	13K	0.50%	1/10W						
R8020	1-216-833-11	METAL CHIP	10K	5%	1/10W	R8051	1-202-933-61	FUSIBLE	0.1	10%	1/2W
 R8021	1-218-681-11	METAL CHIP	360	0.50%	1/10W	 R8052	1-218-738-11	METAL CHIP	82K	0.50%	1/10W
	(ALL EXCEPT KD-30XS955)						(ALL EXCEPT KD-30XS955)				
 R8021	1-216-864-11	SHORT CHIP				 R8052	1-218-745-11	METAL CHIP	160K	0.50%	1/10W
	(KD-30XS955 ONLY)						(KD-30XS955 ONLY)				
R8022	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R8024	1-216-833-11	METAL CHIP	10K	5%	1/10W	R8053	1-245-478-31	METAL	470K	1%	1/4W
R8025	1-216-821-11	METAL CHIP	1K	5%	1/10W	R8054	1-245-478-31	METAL	470K	1%	1/4W
						R8056	1-218-714-11	METAL CHIP	8.2K	0.50%	1/10W
R8026	1-218-698-11	METAL CHIP	1.8K	0.50%	1/10W	R8057	1-218-719-11	METAL CHIP	13K	0.50%	1/10W
 R8027	1-218-736-11	METAL CHIP	68K	0.50%	1/10W	R8058	1-249-393-11	CARBON	10	5%	1/4W
R8028	1-218-710-11	METAL CHIP	5.6K	0.50%	1/10W						
 R8029	1-218-736-11	METAL CHIP	68K	0.50%	1/10W	 R8059	1-216-813-11	METAL CHIP	220	5%	1/10W
						 R8060	1-216-813-11	METAL CHIP	220	5%	1/10W
 R8030	1-218-740-11	METAL CHIP	100K	0.50%	1/10W	R8061	1-249-393-11	CARBON	10	5%	1/4W
 R8031	1-218-740-11	METAL CHIP	100K	0.50%	1/10W	R8062	1-216-833-11	METAL CHIP	10K	5%	1/10W
						R8063	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8032	1-216-844-11	METAL CHIP	82K	5%	1/10W						
R8033	1-216-821-11	METAL CHIP	1K	5%	1/10W	 R8066	1-216-821-11	METAL CHIP	1K	5%	1/10W
 R8035	1-218-706-11	METAL CHIP	3.9K	0.50%	1/10W	R8069	1-249-421-11	CARBON	2.2K	5%	1/4W
						R8070	1-243-979-71	METAL OXIDE	0.1	5%	2W
 R8036	1-215-415-00	METAL	560	1%	1/4W	 R8072	1-249-377-11	CARBON	0.47	5%	1/4W
	(ALL EXCEPT KD-30XS955)					R8076	1-249-409-11	CARBON	220	5%	1/4W
 R8036	1-215-419-00	METAL	820	1%	1/4W						
	(KD-30XS955 ONLY)					R8077	1-216-864-11	SHORT CHIP			
 R8037	1-215-445-00	METAL	10K	1%	1/4W	 R8078	1-218-740-11	METAL CHIP	100K	0.50%	1/10W
	(ALL EXCEPT KD-30XS955)					 R8079	1-249-431-11	CARBON	15K	5%	1/4W
 R8037	1-215-447-00	METAL	12K	1%	1/4W	R8080	1-249-401-11	CARBON	47	5%	1/4W
	(KD-30XS955 ONLY)					 R8082	1-216-863-11	METAL CHIP	3.3M	5%	1/10W
						R8085	1-219-748-11	METAL	4.7K	5%	1/2W
						R8086	1-219-749-91	METAL	10K	5%	1/2W

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REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
TRANSFORMER				IC			
T5001	1-437-523-61	HORIZONTAL OUTPUT TRANSFORMER (ALL EXCEPT KD-36XS955)		IC1051	8-742-212-20	HYB IC	SBX3081-71
T5001	1-437-669-21	HORIZONTAL OUTPUT TRANSFORMER (KD-36XS955 ONLY)		IC1052	8-759-729-01	IC	NJM2901N
T5002	1-435-636-21	TRANSFORMER, HORIZONTAL DRIVE		IC1055	6-600-275-01	IC	MPXA6115AC7U
T6502	1-437-696-31	TRANSFORMER, CONVERTER		TRANSISTOR			
Δ T8001	1-453-464-11	FBT ASSY, NX-6200//X4J4		Q1051	8-729-423-33	TRANSISTOR	2SC3311A-QRSTA
T8003	1-437-664-11	DYNAMIC FOCUS TRANSFORMER (KD-36XS955 ONLY)		Q1052	8-729-119-76	TRANSISTOR	2SA1175-HFE
T8004	1-439-991-11	DYNAMIC FOCUS TRANSFORMER(DFT) (ALL EXCEPT KD-36XS955)		Q1060	8-729-423-33	TRANSISTOR	2SC3311A-QRSTA
				Q1061	8-729-119-76	TRANSISTOR	2SA1175-HFE
THERMISTOR				RESISTOR			
TH5002	1-807-796-11	THERMISTOR		R1052	1-249-409-11	CARBON	220 5% 1/4W
HCX				R1053	1-249-409-11	CARBON	220 5% 1/4W
				(KD-34XBR960 ONLY)			
*	A-1303-039-A	HCX BOARD, COMPLETE (KD-34XBR960 ONLY)		R1054	1-249-433-11	CARBON	22K 5% 1/4W
*	A-1303-042-A	HCX BOARD, COMPLETE (ALL EXCEPT KD-34XBR960)		R1055	1-249-385-11	CARBON	2.2 5% 1/4W
CAPACITOR				R1056	1-249-417-11	CARBON	1K 5% 1/4W
C1051	1-126-964-11	ELECT	10 μ F 20% 50V	R1057	1-249-417-11	CARBON	1K 5% 1/4W
C1053	1-126-964-11	ELECT	10 μ F 20% 50V	R1058	1-215-442-00	METAL	7.5K 1% 1/4W
C1054	1-126-964-11	ELECT	10 μ F 20% 50V	R1060	1-247-895-91	CARBON	470K 5% 1/4W
C1060	1-130-471-00	MYLAR	0.001 μ F 5% 50V	R1061	1-249-429-11	CARBON	10K 5% 1/4W
C1061	1-130-495-00	MYLAR	0.1 μ F 5% 50V	R1062	1-247-895-91	CARBON	470K 5% 1/4W
C1063	1-126-947-11	ELECT	47 μ F 20% 35V	R1063	1-249-429-11	CARBON	10K 5% 1/4W
C1064	1-137-150-11	FILM	0.01 μ F 5% 100V	R1064	1-215-453-00	METAL	22K 1% 1/4W
C1065	1-137-150-11	FILM	0.01 μ F 5% 100V	R1065	1-215-457-00	METAL	33K 1% 1/4W
C1066	1-137-150-11	FILM	0.01 μ F 5% 100V	R1066	1-215-453-00	METAL	22K 1% 1/4W
CONNECTOR				R1067	1-215-461-00	METAL	47K 1% 1/4W
*	CN1052	1-564-509-11	PLUG, CONNECTOR 6P	R1068	1-215-453-00	METAL	22K 1% 1/4W
*	CN1053	1-564-510-11	PLUG, CONNECTOR 7P	R1069	1-215-465-00	METAL	68K 1% 1/4W
DIODE				R1071	1-247-895-91	CARBON	470K 5% 1/4W
D1051	8-719-070-80	DIODE (KD-34XBR960 ONLY)	LNK0120022G	R1072	1-249-429-11	CARBON	10K 5% 1/4W
D1052	8-719-070-80	DIODE	LNK0120022G	R1073	1-247-895-91	CARBON	470K 5% 1/4W
D1057	8-719-991-33	DIODE	1SS133T-77	R1075	1-249-429-11	CARBON	10K 5% 1/4W
				R1080	1-249-429-11	CARBON	10K 5% 1/4W
				R1081	1-249-437-11	CARBON	47K 5% 1/4W
				R1082	1-249-437-11	CARBON	47K 5% 1/4W
				R1083	1-249-429-11	CARBON	10K 5% 1/4W
				SWITCH			
				S1052	1-692-431-21	SWITCH, TACTILE	

NOTE: The components identified by shading and \triangle mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifique.



REF. NO.	PART NO.	DESCRIPTION	VALUES		REF. NO.	PART NO.	DESCRIPTION	VALUES	
<u>THERMISTOR</u>					<u>CONNECTOR</u>				
TH1051	1-807-796-11	THERMISTOR			* CN9001	1-764-334-11	PIN, CONNECTOR(PCB)(V TYPE)11P		
					* CN9002	1-564-507-11	PLUG, CONNECTOR 4P		
					CN9003	1-695-915-11	TAB (CONTACT)		
					CN9004	1-695-915-11	TAB (CONTACT)		
					CN9009	1-785-879-11	CONNECTOR, ONE TOUCH		
					<u>DIODE</u>				
					D9005	8-719-404-50	DIODE	MA111-TX	
					D9006	8-719-051-85	DIODE	HSS83TD	
					D9007	8-719-051-85	DIODE	HSS83TD	
					D9008	8-719-051-85	DIODE	HSS83TD	
					D9009	8-719-908-03	DIODE	GP08D	
					D9010	8-719-110-17	DIODE	RD10ESB2	
					<u>IC</u>				
					IC9001	8-759-680-01	IC	TDA6120Q/N2/S1	
					IC9002	8-759-680-01	IC	TDA6120Q/N2/S1	
					IC9003	8-759-680-01	IC	TDA6120Q/N2/S1	
					<u>JACK</u>				
					\triangle J9001	1-451-544-11	SOCKET, CRT		
					<u>COIL</u>				
					L9002	1-408-592-11	INDUCTOR	1.2 μ H	
					L9003	1-408-592-11	INDUCTOR	1.2 μ H	
					L9004	1-408-592-11	INDUCTOR	1.2 μ H	
					L9005	1-406-666-21	INDUCTOR	150 μ H	
					L9006	1-412-526-11	INDUCTOR	12 μ H	
					<u>NEON LAMP</u>				
					NL9003	1-519-421-11	GAP, DISCHARGE		
					<u>TRANSISTOR</u>				
					Q9001	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	
					Q9003	8-729-422-27	TRANSISTOR	2SD601A-Q	
					Q9004	8-729-422-27	TRANSISTOR	2SD601A-Q	
					Q9005	8-729-422-27	TRANSISTOR	2SD601A-Q	
					Q9007	8-729-141-73	TRANSISTOR	2SC3624A-T1L15L16	
					<u>CAPACITOR</u>				
C9004	1-115-350-51	CERAMIC	0.0047 μ F	2KV					
C9009	1-163-104-00	CERAMIC CHIP	30pF	5% 50V					
C9010	1-163-104-00	CERAMIC CHIP	30pF	5% 50V					
C9011	1-161-830-00	CERAMIC	0.0047 μ F	500V					
C9012	1-161-830-00	CERAMIC	0.0047 μ F	500V					
C9013	1-163-035-00	CERAMIC CHIP	0.047 μ F	50V					
C9014	1-161-830-00	CERAMIC	0.0047 μ F	500V					
C9015	1-163-104-00	CERAMIC CHIP	30pF	5% 50V					
C9018	1-107-961-91	ELECT	10 μ F	20% 250V					
C9019	1-164-004-11	CERAMIC CHIP	0.1 μ F	10% 25V					
C9020	1-107-961-91	ELECT	10 μ F	20% 250V					
C9021	1-107-961-91	ELECT	10 μ F	20% 250V					
C9022	1-101-006-00	CERAMIC	0.047 μ F	50V					
C9023	1-101-006-00	CERAMIC	0.047 μ F	50V					
C9024	1-164-004-11	CERAMIC CHIP	0.1 μ F	10% 25V					
C9025	1-104-653-11	ELECT	220 μ F	20% 16V					
C9026	1-164-004-11	CERAMIC CHIP	0.1 μ F	10% 25V					
C9027	1-101-006-00	CERAMIC	0.047 μ F	50V					
C9031	1-115-349-51	CERAMIC	0.01 μ F	2KV					
C9032	1-162-116-00	CERAMIC	680pF	10% 2KV					
C9033	1-107-662-11	ELECT	22 μ F	20% 350V					
C9036	1-115-339-11	CERAMIC CHIP	0.1 μ F	10% 50V					
C9042	1-128-527-11	ELECT	330 μ F	20% 25V					
C9044	1-126-934-11	ELECT	220 μ F	20% 16V					
C9045	1-164-004-11	CERAMIC CHIP	0.1 μ F	10% 25V					
C9046	1-126-933-11	ELECT	100 μ F	20% 16V					
C9048	1-164-004-11	CERAMIC CHIP	0.1 μ F	10% 25V					
C9049	1-164-004-11	CERAMIC CHIP	0.1 μ F	10% 25V					
C9050	1-164-004-11	CERAMIC CHIP	0.1 μ F	10% 25V					
C9051	1-165-319-11	CERAMIC CHIP	0.1 μ F	50V					



REF. NO.	PART NO.	DESCRIPTION	VALUES		
R1011	1-249-417-11	CARBON	1K	5%	1/4W
R1012	1-249-421-11	CARBON	2.2K	5%	1/4W
R1013	1-249-425-11	CARBON	4.7K	5%	1/4W
SWITCH					
S1001	1-762-837-11	SWITCH, TACTILE			
S1002	1-762-837-11	SWITCH, TACTILE			
S1003	1-692-431-21	SWITCH, TACTILE			
S1004	1-762-837-11	SWITCH, TACTILE			
S1005	1-692-431-21	SWITCH, TACTILE			
S1006	1-762-837-11	SWITCH, TACTILE			
S1007	1-692-431-21	SWITCH, TACTILE			
S1008	1-762-837-11	SWITCH, TACTILE			



*	A-1415-859-A	HBZ MOUNTED PC BOARD			
CAPACITOR					
C1100	1-126-960-11	ELECT	1μF	20%	50V
C1101	1-126-960-11	ELECT	1μF	20%	50V
CONNECTOR					
*	CN1100	1-764-334-11	PIN, CONNECTOR(PCB)(V TYPE)11P		
DIODE					
D1100	8-719-977-28	DIODE	DTZ10B		
D1101	8-719-977-28	DIODE	DTZ10B		
D1103	8-719-977-28	DIODE	DTZ10B		
FILTER					
FL1103	1-409-755-11	FERRITE	0μH		
FL1104	1-409-755-11	FERRITE	0μH		
JACK					
J1100	1-770-053-12	TERMINAL BLOCK, S(LIGHT ANGLE)			

REF. NO.	PART NO.	DESCRIPTION	VALUES		
CHIP CONDUCTOR					
JR1100	1-216-864-11	SHORT CHIP			
JR1101	1-216-864-11	SHORT CHIP			
JR1102	1-216-864-11	SHORT CHIP			
JR1103	1-216-864-11	SHORT CHIP			
JR1104	1-216-864-11	SHORT CHIP			
JR1105	1-216-864-11	SHORT CHIP			
JR1106	1-216-864-11	SHORT CHIP			
JR1107	1-216-864-11	SHORT CHIP			
RESISTOR					
R1100	1-216-853-11	METAL CHIP	470K	5%	1/10W
R1101	1-216-853-11	METAL CHIP	470K	5%	1/10W
R1102	1-218-665-11	METAL CHIP	75	0.50%	1/10W
R1103	1-218-665-11	METAL CHIP	75	0.50%	1/10W
R1104	1-216-864-11	SHORT CHIP			
R1105	1-216-864-11	SHORT CHIP			
R1106	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1107	1-218-665-11	METAL CHIP	75	0.50%	1/10W
R1108	1-216-864-11	SHORT CHIP			
VARISTOR					
VD1102	1-803-974-21	VARISTOR, CHIP	(1608)		



*	A-1062-018-A	WY (VAR) BOARD, MOUNTED			
		(KD-36XS955 ONLY)			
*	A-1415-862-A	WY (VAR) BOARD, MOUNTED			
		(KD-34XBR960/34XS955 ONLY)			
*	A-1415-869-A	WY (VAR) BOARD, MOUNTED			
		(KD-30XS955 ONLY)			
	4-382-854-01	SCREW (M3X8), P, SW (+)			
CAPACITOR					
C9101	1-104-999-11	MYLAR	0.1μF	5%	200V
C9104	1-126-933-11	ELECT	100μF	20%	16V
C9105	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V
C9106	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C9108	1-107-662-11	ELECT	22μF	20%	350V
C9109	1-161-830-00	CERAMIC	0.0047μF		500V
C9110	1-164-156-11	CERAMIC CHIP	0.1μF		25V



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
Q9114	8-729-422-27	TRANSISTOR	2SD601A-Q			R9132	1-218-713-11	METAL CHIP	7.5K	0.50%	1/10W
Q9115	8-729-422-27	TRANSISTOR	2SD601A-Q			R9133	1-249-391-11	CARBON	6.8	5%	1/4W
Q9116	8-729-422-27	TRANSISTOR	2SD601A-Q			R9134	1-249-383-11	CARBON	1.5	5%	1/4W
Q9117	8-729-422-27	TRANSISTOR	2SD601A-Q			R9135	1-218-692-11	METAL CHIP	1K	0.50%	1/10W
Q9118	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R9138	1-218-712-11	METAL CHIP	6.8K	0.50%	1/10W
Q9119	8-729-048-49	TRANSISTOR	2SK3262-01MR-F119			R9139	1-218-692-11	METAL CHIP	1K	0.50%	1/10W
Q9121	8-729-422-27	TRANSISTOR	2SD601A-Q			R9140	1-216-864-11	SHORT CHIP			
Q9122	8-729-422-27	TRANSISTOR	2SD601A-Q			R9141	1-214-657-11	METAL	1	1%	1/4W
Q9123	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R9142	1-214-657-11	METAL	1	1%	1/4W
Q9124	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R9143	1-216-429-00	METAL OXIDE	270	5%	1W
Q9125	8-729-422-27	TRANSISTOR	2SD601A-Q			R9144	1-215-867-00	METAL OXIDE	470	5%	1W
		RESISTOR				R9145	1-218-712-11	METAL CHIP	6.8K	0.50%	1/10W
R9101	1-216-805-11	METAL CHIP	47	5%	1/10W	R9146	1-249-385-11	CARBON	2.2	5%	1/4W
R9102	1-260-322-11	CARBON	330	5%	1/2W	R9147	1-218-726-11	METAL CHIP	27K	0.50%	1/10W
R9103	1-216-819-11	METAL CHIP	680	5%	1/10W	R9148	1-218-722-11	METAL CHIP	18K	0.50%	1/10W
R9104	1-216-820-11	METAL CHIP	820	5%	1/10W	R9149	1-216-833-11	METAL CHIP	10K	5%	1/10W
R9105	1-216-837-11	METAL CHIP	22K	5%	1/10W	R9150	1-218-712-11	METAL CHIP	6.8K	0.50%	1/10W
R9106	1-218-715-11	METAL CHIP	9.1K	0.50%	1/10W	R9151	1-218-716-11	METAL CHIP	10K	0.50%	1/10W
R9107	1-216-809-11	METAL CHIP	100	5%	1/10W			(ALL EXCEPT KD-36XS955)			
R9108	1-216-817-11	METAL CHIP	470	5%	1/10W	R9151	1-218-714-11	METAL CHIP	8.2K	0.50%	1/10W
R9109	1-216-817-11	METAL CHIP	470	5%	1/10W			(KD-36XS955 ONLY)			
R9110	1-216-805-11	METAL CHIP	47	5%	1/10W	R9152	1-218-704-11	METAL CHIP	3.3K	0.50%	1/10W
R9111	1-216-805-11	METAL CHIP	47	5%	1/10W			(ALL EXCEPT KD-36XS955)			
R9112	1-249-389-11	CARBON	4.7	5%	1/4W	R9152	1-218-708-11	METAL CHIP	4.7K	0.50%	1/10W
R9113	1-249-389-11	CARBON	4.7	5%	1/4W			(KD-36XS955 ONLY)			
R9114	1-249-389-11	CARBON	4.7	5%	1/4W	R9153	1-218-716-11	METAL CHIP	10K	0.50%	1/10W
R9115	1-249-389-11	CARBON	4.7	5%	1/4W	R9154	1-218-732-11	METAL CHIP	47K	0.50%	1/10W
R9116	1-249-389-11	CARBON	4.7	5%	1/4W			(ALL EXCEPT KD-36XS955)			
R9117	1-249-389-11	CARBON	4.7	5%	1/4W	R9154	1-218-726-11	METAL CHIP	27K	0.50%	1/10W
R9118	1-249-389-11	CARBON	4.7	5%	1/4W			(KD-36XS955 ONLY)			
R9119	1-249-389-11	CARBON	4.7	5%	1/4W	R9155	1-216-857-11	METAL CHIP	1M	5%	1/10W
R9120	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W			(ALL EXCEPT KD-36XS955)			
R9121	1-216-848-11	METAL CHIP	180K	5%	1/10W	R9156	1-218-692-11	METAL CHIP	1K	0.50%	1/10W
R9122	1-216-847-11	METAL CHIP	150K	5%	1/10W	R9158	1-216-837-11	METAL CHIP	22K	5%	1/10W
R9123	1-216-848-11	METAL CHIP	180K	5%	1/10W			(ALL EXCEPT KD-36XS955)			
R9124	1-216-847-11	METAL CHIP	150K	5%	1/10W	R9159	1-216-864-11	SHORT CHIP			
R9125	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W			(ALL EXCEPT KD-36XS955)			
R9126	1-216-805-11	METAL CHIP	47	5%	1/10W	R9160	1-218-724-11	METAL CHIP	22K	0.50%	1/10W
R9127	1-216-805-11	METAL CHIP	47	5%	1/10W	R9162	1-216-839-11	METAL CHIP	33K	5%	1/10W
R9128	1-215-888-00	METAL OXIDE	220	5%	2W	R9164	1-216-839-11	METAL CHIP	33K	5%	1/10W
R9130	1-218-700-11	METAL CHIP	2.2K	0.50%	1/10W	R9166	1-218-716-11	METAL CHIP	10K	0.50%	1/10W
R9131	1-218-730-11	METAL CHIP	39K	0.50%	1/10W	R9167	1-218-732-11	METAL CHIP	47K	0.50%	1/10W
						R9168	1-216-839-11	METAL CHIP	33K	5%	1/10W
						R9169	1-216-841-11	METAL CHIP	47K	5%	1/10W



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES
R9170	1-216-841-11	METAL CHIP	47K	5%	1/10W				
R9171	1-249-401-11	CARBON	47	5%	1/4W				
R9172	1-216-809-11	METAL CHIP	100	5%	1/10W				
R9173	1-215-888-00	METAL OXIDE	220	5%	2W				
R9174	1-216-352-11	METAL OXIDE	1.8	5%	1W				
R9175	1-218-740-11	METAL CHIP	100K	0.50%	1/10W				
R9176	1-218-724-11	METAL CHIP	22K	0.50%	1/10W				
R9177	1-216-864-11	SHORT CHIP							
R9179	1-216-864-11	SHORT CHIP							
R9180	1-218-716-11	METAL CHIP (KD-30XS955 ONLY)	10K	0.50%	1/10W				
R9180	1-218-724-11	METAL CHIP (ALL EXCEPT KD-30XS955)	22K	0.50%	1/10W				
R9181	1-218-740-11	METAL CHIP	100K	0.50%	1/10W				
R9182	1-218-740-11	METAL CHIP	100K	0.50%	1/10W				
R9185	1-249-385-11	CARBON	2.2	5%	1/4W				
R9186	1-216-833-11	METAL CHIP	10K	5%	1/10W				
R9187	1-249-389-11	CARBON	4.7	5%	1/4W				
R9188	1-249-389-11	CARBON	4.7	5%	1/4W				
R9189	1-249-389-11	CARBON	4.7	5%	1/4W				
R9190	1-249-389-11	CARBON	4.7	5%	1/4W				
		MISCELLANEOUS							
	1-500-082-11	CLAMP, SLEEVE FERRITE USE ON 1-900-805-24 (QH TO AZ)							
	1-500-484-21	CLAMP, SLEEVE FERRITE USE ON ILINK CABLE (KD-34XBR960 ONLY)							
	1-543-793-11	FILTER, CLAMP (FERRITE CORE) USE ON ILINK CABLE, F-PIN CABLE, AND/OR OB PP CABLE							
*	7-322-065-48	RUBBER, SILICONE RTV (KE-3490)							
	4-382-854-01	SCREW (M3X8), P, SW (+)							
	7-685-648-79	SCREW +BVTP 3X12 TYPE2 TT(B)							
	7-682-546-04	SCREW +B 3X5							
	7-685-663-79	SCREW +BVTP 4X16 TYPE2 TT(B)							
	7-685-872-09	SCREW +BVTT 3X8 (S) (KV-30XS955/36XS955 ONLY)							
		PACKING AND ACCESSORIES							
*	2-067-077-01	BAG, PROTECTION (KD-30XS955 ONLY)							
*	4-066-845-11	BAG, PROTECTION (KD-34XBR960/34XS955 ONLY)							
*	4-066-646-02	BAG, PROTECTION (KD-36XS955 ONLY)							
*	4-103-040-01	CARTON, HSC (KD-34XBR960 FOR STE ONLY)							
*	2-108-169-01	CARTON, HSC (KD-34XBR960 FOR PTG ONLY)							
*	4-102-864-01	CARTON, INDIVIDUAL (KD-30XS955 ONLY)							
*	4-102-865-01	CARTON, INDIVIDUAL (KD-34XS955 FOR STE ONLY)							
*	2-318-712-01	CARTON, INDIVIDUAL (KD-34XS955 FOR PTG ONLY)							
*	4-102-866-01	CARTON, INDIVIDUAL (KD-36XS955 ONLY)							
*	4-098-404-02	CUSHION, FRONT (UPPER) (KD-34XBR960 ONLY)							
*	4-102-097-01	CUSHION, (FRONT) UPPPER (KD-34XS955 FOR STE ONLY)							
*	2-178-332-01	CUSHION, (FRONT) UPPPER (KD-34XS955 FOR PTG ONLY)							
*	4-102-205-01	CUSHION, (FRONT) UPPER (KD-36XS955 ONLY)							
*	4-098-405-02	CUSHION, REAR (UPPPER) (KD-34XBR960 ONLY)							
*	4-102-098-01	CUSHION, (REAR) UPPER (KD-34XS955 FOR STE ONLY)							
*	2-178-333-01	CUSHION, (REAR) UPPPER (KD-34XS955 FOR PTG ONLY)							
*	4-102-206-01	CUSHION, (REAR) UPPER (KD-36XS955 ONLY)							
*	4-102-095-01	CUSHION, LOWER (KD-30XS955 ONLY)							
*	4-098-406-01	CUSHION, LOWER (KD-34XBR960 ONLY)							
*	4-102-099-01	CUSHION, LOWER (KD-34XS955 FOR STE ONLY)							
*	2-178-3343-01	CUSHION, LOWER (KD-34XS955 FOR PTG ONLY)							
*	4-102-207-01	CUSHION, LOWER (KD-36XS955 ONLY)							
*	4-102-094-02	CUSHION, UPPER (KD-30XS955 ONLY)							

REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
	4-102-728-21	MANUAL, INSTRUCTION (ALL EXCEPT KD-34XBR960)					
	4-102-730-21	MANUAL, INSTRUCTION (KD-34XBR960 ONLY)					
	4-102-728-31	MANUAL, INSTRUCTION (KD-34XS955 CND)					
	2-148-611-21	QUICK START POSTER (ENGLISH) (ALL EXCEPT KD-34XBR960)					
*	4-041-423-11	SHEET, PROTECTION (KD-34XBR960/34XS955 ONLY)					
*	2-108-170-01	TRAY (KD-34XBR960 ONLY)					
<u>REMOTE COMMANDER</u>							
	1-478-821-11	REMOTE COMMANDER (RM-Y201) (KD-34XBR960 ONLY)					
	4-081-888-01	COVER, BATTERY (KD-34XBR960 ONLY)					
	1-478-711-11	REMOTE COMMANDER RM-Y199 (ALL EXCEPT KD-34XBR960)					
	4-978-977-01	LID, BATTERY CASE (ALL EXCEPT KD-34XBR960)					

In an effort to reduce the size of this pdf file the tiled schematics are not attached to this Service Manual. To receive a complete set of the tiled schematics for this manual please submit a request to Nita Wardlaw at nita.wardlaw@am.sony.com.

TV.MANUAL 04_revised

Sony Design Center 04.01.04

Pantone 279C

Black

SONY®

4-102-730-21(1)

FD Trinitron **WEGA**

KD-34XBR960

Operating Instructions

Sony Corporation <http://www.sony.net>

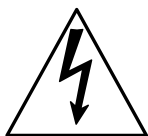
Printed in U.S.A.

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MEMORY STICK®
XBR

WARNING

To reduce the risk of fire or shock hazard, do not expose the TV to rain or moisture.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION

TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

CAUTION

When using TV games, computers, and similar products with your TV, keep the brightness and contrast functions at low settings. If a fixed (non-moving) pattern is left on the screen for long periods of time at a high brightness or contrast setting, the image can be permanently imprinted onto the screen. Continuously watching the same program can cause the imprint of station logos onto the TV screen. These types of imprints are not covered by your warranty because they are the result of misuse.

Warning

The CRT in this product employs a protective film on the face. This film must not be removed as it serves a safety function and removal will increase the risk of serious injury.

Note on Caption Vision

This television receiver provides display of television closed captioning in accordance with §15.119 of the FCC rules.

Note on Cleaning the TV

Clean the TV with a soft, dry cloth. Never use strong solvents such as thinner or benzene, which might damage the finish of the cabinet.

Note to CATV System Installer

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the National Electrical Code (NEC) that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Use of this television receiver for other than private viewing of programs broadcast on UHF or VHF or transmitted by cable companies for the use of the general public may require authorization from the broadcaster/cable company and/or program owner.

NOTIFICATION

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference with radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antennas.
 - Increase the separation between the equipment and receiver.
 - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
 - Consult the dealer or an experienced radio/TV technician for help.
- You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Installing

- To prevent internal heat buildup, do not block the ventilation openings.
- Do not install the TV in a hot or humid place, or in a place subject to excessive dust or mechanical vibration.
- The AC power cord is attached to the rear of the TV with hooks. Do not attempt to remove the cord from these hooks. Doing so could cause damage to the TV.

Owner's Record

The model and serial numbers are provided on the front of this instruction manual and at the rear of the TV. Refer to them whenever you call upon your Sony dealer regarding this product.

Note

This digital television is capable of receiving analog basic, digital basic and digital premium cable television programming by direct connection to a cable system providing such programming. A security card provided by your cable operator is required to view encrypted digital programming. Certain advanced and interactive digital cable services such as video-on-demand, a cable operator's enhanced program guide and data-enhanced television services may require the use of a set-top box. For more information call your local cable operator.

This television also includes a QAM demodulator which should allow you to receive unscrambled digital cable television programming via subscription service to a cable service provider. Availability of digital cable television programming in your area depends on the type of programming and signal provided by your cable service provider.

IMPORTANT SAFEGUARDS

For your protection, please read these instructions completely, and keep this manual for future reference.

Carefully observe and comply with all warnings, cautions and instructions placed on the set, or described in the operating instructions or service manual.

WARNING

To guard against injury, the following basic safety precautions should be observed in the installation, use, and servicing of the set.

Use

Power Sources

This set should be operated only from the type of power source indicated on the serial/model plate. If you are not sure of the type of electrical power supplied to your home, consult your dealer or local power company. For those sets designed to operate from battery power, refer to the operating instructions.

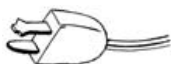


Grounding or Polarization

This set is equipped with a polarized AC power cord plug (a plug having one blade wider than the other), or with a three-wire grounding type plug (a plug having a third pin for grounding). Follow the instructions below:

For the set with a polarized AC power cord plug

This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to have a suitable outlet installed. Do not defeat the safety purpose of the polarized plug by forcing it in.



Alternate Warning

For the set with a three-wire grounding type AC plug

This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to have a suitable outlet installed. Do not defeat the safety purpose of the grounding plug.



Overloading

Do not overload wall outlets, extension cords or convenience receptacles beyond their capacity, since this can result in fire or electric shock.



Always turn the set off when it is not to be used. When the set is left unattended and unused for long periods of time, unplug it from the wall outlet as a precaution against the possibility of an internal malfunction that could create a fire hazard.



Do not disconnect the antenna or the power cord during a heavy storm. Lightning may strike while you are holding the cable or cord, causing serious injury. Turn off your TV and wait for the weather to improve.

Memory Stick

To protect small children from injury from Memory Stick Media, remove all Memory Stick media from the TV's Memory Stick slot and store it in a safe location when it is not in use.

Object and Liquid Entry

Never push objects of any kind into the set through the cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the set.



Attachments

Do not use attachments not recommended by the manufacturer, as they may cause hazards.

Do not place any objects, especially heavy objects, on top of the set. The object may fall from the set, causing injury.



Cleaning

Unplug the set from the wall outlet before cleaning or polishing it. Do not use liquid cleaners or aerosol cleaners. Use a cloth lightly dampened with water for cleaning the exterior of the set.



If a snapping or popping sound from a TV set is continuous or frequent while the TV is operating, unplug the TV and consult your dealer or service technician. It is normal for some TV sets to make occasional snapping or popping sounds, particularly when being turned on or off.



Installation

Always use two or more people to lift or move the set. The set is heavy and the bottom surface is flat. Serious injury can result from trying to move the set by yourself alone, or from unsteady handling. Install the set on a stable, level surface.

Water and Moisture

Do not use power-line operated sets near water — for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.



Accessories

Do not place the set on an unstable cart, stand, tripod, bracket, table or shelf. The set may fall, causing serious injury to a child or an adult, and serious damage to the set. Use only a cart or stand recommended by the manufacturer for the specific model of TV. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.



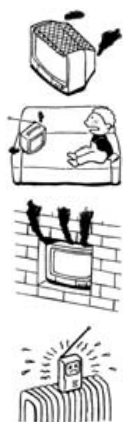
Disconnect all cables and cords from the set before attempting to move the set.

Do not allow children or pets to climb up onto, or push against, the set. The set may fall, causing serious injury.

Ventilation

The slots and openings in the cabinet and in the back or bottom are provided for necessary ventilation. To ensure reliable operation of the set, and to protect it from overheating, these slots and openings must never be blocked or covered.

- ❑ Never cover the slots and openings with a cloth or other materials.
- ❑ Never block the slots and openings by placing the set on a bed, sofa, rug or other similar surface.
- ❑ Never place the set in a confined space, such as a bookcase, or built-in cabinet, unless proper ventilation is provided.
- ❑ Do not place the set near or over a radiator or heat register, or where it is exposed to direct sunlight.



Power Cord Protection

Do not allow anything to rest on or roll over the power cord, and do not place the set where the power cord is subject to wear or abuse.



Antennas

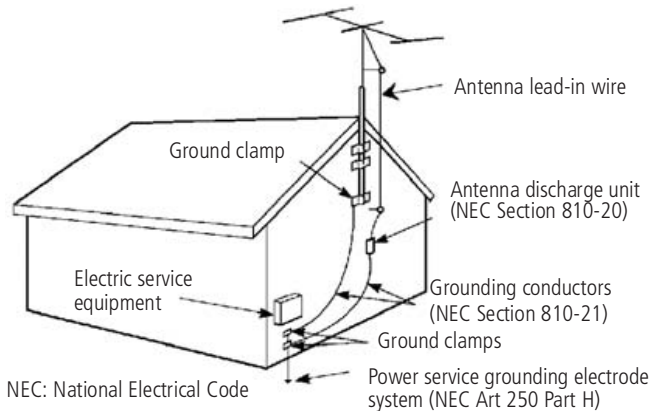
Outdoor Antenna Grounding

If an outdoor antenna is installed, follow the precautions below. An outdoor antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can come in contact with such power lines or circuits.

WHEN INSTALLING AN OUTDOOR ANTENNA SYSTEM, EXTREME CARE SHOULD BE TAKEN TO KEEP FROM CONTACTING SUCH POWER LINES OR CIRCUITS AS CONTACT WITH THEM IS ALMOST INVARIABLY FATAL.

Be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code (NEC) in USA and Section 54 of the Canadian Electrical Code in Canada provide information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

Antenna Grounding According to the National Electrical Code, ANSI/NFPA 70



NEC: National Electrical Code

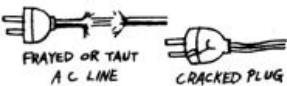




Lightning

For added protection for this television receiver during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage to the receiver due to lightning and power line surges.

Service

Damage Requiring Service

Unplug the set from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- ❑ When the power cord or plug is damaged or frayed. 
- ❑ If liquid has been spilled into the set or objects have fallen into the product. 
- ❑ If the set has been exposed to rain or water. 
- ❑ If the set has been subject to excessive shock by being dropped, or the cabinet has been damaged. 
- ❑ If the set does not operate normally when following the operating instructions. Adjust only those controls that are specified in the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the set to normal operation. 
- ❑ When the set exhibits a distinct change in performance, it indicates a need for service.

Servicing

Do not attempt to service the set yourself since opening the cabinet may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.



Replacement Parts

When replacement parts are required, be sure the service technician certifies in writing that he has used replacement parts specified by the manufacturer that have the same characteristics as the original parts.




Unauthorized substitutions may result in fire, electric shock or other hazards.

Safety Check

Upon completion of any service or repairs to the set, ask the service technician to perform routine safety checks (as specified by the manufacturer) to determine that the set is in safe operating condition, and to so certify. When the set reaches the end of its useful life, improper disposal could result in a picture tube implosion. Ask a qualified service technician to dispose of the set.



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This TV incorporates High-Definition Multimedia Interface (HDMI™)

technology. HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.

CableCARD™ is a trademark of Cable Television Laboratories, Inc.

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Contents

Introducing the FD Trinitron Wega

Overview	9
Presenting the FD Trinitron Wega	9
Package Contents	9
Features	9

Setting Up the TV

Overview	13
About the AC Power Cord	13
TV Controls and Connectors	14
Front Panel	14
Rear Panel	15
Basic Connections: Connecting a Cable or Antenna	17
About Using CableCARD	17
Cable or Antenna Only	18
Cable and Antenna Only	19
Cable Box and Cable Only	20
Cable Box Only	21
Connecting Optional Equipment	22
Making Video Connections	23
About Using S VIDEO	23
VCR and Cable	24
VCR and Cable Box	26
Two VCRs for Tape Editing	28
Satellite Receiver	30
Satellite Receiver and VCR	32
DVD Player with Component Video Connectors	34
DVD Player with S VIDEO and Audio Connectors	36
Camcorder	37
Audio Receiver	38
DVI-Equipped Device	39
HDMI-Equipped Device	40
Connecting a Device with an Optical IN Connector	41
Using the CONTROL S Feature	42
Using CableCARD	43
About Using CableCARD	43
Activating CableCARD Service	43
Removing the CableCARD	44
Setting Up the Channel List	45
Using Initial Setup	45

Using the Remote Control

Overview	47
Inserting Batteries	47
Button Descriptions	48
Outside Panel	48
Inside Panel	50
Programming the Remote Control	51

Using the Features

Overview	53
Watching TV	54
Using the Program Guide	55
Using Additional Program Guide Options.....	56
Using the Scrolling Index	57
Factors Affecting Scrolling Index	57
Using Screen Mode	58
Using Screen Mode with Standard Definition (480i/480p) Sources ...	58
Using Screen Mode with High-Definition (720p/1080i) Sources.....	59
Using Twin View	60
Displaying Twin Pictures	60
Factors Affecting Twin View	60
Activating the Picture	61
Changing the Picture Size.....	62
Using Favorite Channels	63
Using the Channel Menu.....	63
Using the Favorite Channels Guide	64
Using the Freeze Function	65
Using Other Equipment with Your TV Remote Control	66
All Equipment.....	66
Operating a VCR	66
Operating a Satellite Receiver	66
Operating a Cable Box.....	67
Operating a DVD Player	67
Operating a DVD/VCR Combination Unit	68

Using the Memory Stick Viewer

About Memory Stick	69
Features	69
Memory Stick Compatibility.....	70
Memory Stick Functionality	70
File Compatibility.....	71
Trademark Information	71
Inserting and Removing a Memory Stick	72
Inserting a Memory Stick	72
Removing a Memory Stick	73
Using the Memory Stick Index	74
Using the Memory Stick Index	75
Viewing Photos	76
Photo Controls	76
Photo Menu Bar Options	77
Using Zoom and Pan	78
Using Rotate.....	78

Playing Movies	79
Movie Controls	79
Movie Menu	
Bar Options	80
Memory Stick Index Menu Bar Options	81
Slide Show Menu Options	81
Contents Menu Options	82
Memory Stick Menu	82
Notes on Using Memory Stick Media	83
About DCF File Names	83
Memory Stick Precautions	84

Using i.LINK

About i.LINK	85
Using i.LINK Cables	85
Connecting i.LINK Devices	86
Selecting an i.LINK Device	88
Using the i.LINK Control Panel	89
Notes About Controlling i.LINK Devices	90
i.LINK Setup	91
Notes on i.LINK	91

Using the Menus

Overview	93
Navigating Through Menus	93
Using the Video Menu	94
Using the Audio Menu	97
Using the Screen Menu	99
Using the Channel Menu	100
Using the Parent Menu	102
Using the Setup Menu	105
Using the Applications Menu	108

Other Information

Overview	111
Glossary	112
Contacting Sony	113
Troubleshooting	113
Twin View	113
Remote Control	114
CableCARD	114
Channels	115
Memory Stick	116
Audio	117
Video	118
General	118
Specifications	120
Optional Accessories	121
Index	123

Introducing the *FD Trinitron Wega*

Overview

This chapter describes the contents of the package in which the TV is shipped and provides an overview of the features of your Wega TV.

Presenting the *FD Trinitron Wega*

The FD Trinitron Wega (pronounced VAY-GAH) is characterized by outstanding contrast, uncompromising accuracy, and corner-to-corner detail.

You will recognize the superiority of Wega technology almost immediately. The first thing you will probably notice is minimal glare from the flat picture tube. This flat-screen technology improves picture detail without distortion, unlike conventional curved screens. The FD Trinitron delivers outstanding image detail not only at the screen center, but also at the corners — so you can enjoy a bright, clear picture from any location in a room.

Package Contents

Along with your new Trinitron TV, the packing box contains a remote control and two AA (R6) batteries. These items are all you need to set up and use the TV.

Features

Some of the features that you will enjoy with your new TV include:

- **Built-in Digital Television Receiver:** You can watch digital television programs and enjoy the improved audio/video quality offered by these programs. With high-definition signal reception, you can watch TV signals broadcast in HDTV for the clearest possible broadcast picture.

- ❑ **CableCARD slot:** Provides cable subscribers with access to digitally encrypted cable channels — without the need for a set-top box — that will enable you to receive not only standard definition but also high definition television. The CableCARD, which is provided by your cable TV company, is inserted into the TV's rear panel CableCARD slot. After the service is activated with your cable TV company, the card replaces the need for a separate set-top box. (Check with your cable TV company about CableCARD service details, limitations, pricing, and availability. For more information about CableCARD in this manual, see pages 17 and 43.)
- ❑ **Wide Screen Mode:** Watch conventional 4:3 aspect ratio broadcasts in wide screen (16:9) mode.
- ❑ **Super Fine Pitch CRT:** Created especially for displaying high resolution pictures, the new Super Fine Pitch CRT — along with a new electron gun and high intensity luminescent phosphor — improves image resolution, providing the highest picture quality reproduction from corner to corner.
- ❑ **DRC[®] (Digital Reality Creation) Multifunction V1:** Unlike conventional line doublers, the DRC Multifunction feature replaces the signal's NTSC waveform with the near-HD equivalent, while doubling the number of vertical and horizontal lines. This results in four times the density for quality sources, such as DVD, satellite, and digital camcorders. The Video Menu allows you to select interlaced, progressive, or CineMotion™ output. The DRC Palette option lets you customize the level of detail (Reality) and smoothness (Clarity) to create up to three custom palettes.
- ❑ **Scrolling Index:** Lets you select programs from a series of preview windows that scroll along the right side of the screen.
- ❑ **Twin View™:** Using the Multi-Image Driver (MIDX), Twin View allows you to watch two programs side by side, with the ability to zoom in one picture. You can watch pictures from two different sources (1080i, 720p, 480p, and 480i) simultaneously. (Only the left Twin View window can display 1080i, 720p, and 480p sources.)
- ❑ **Favorite Channels:** Allows you to preview and select from 16 of your favorite channels.
- ❑ **ClearEdge VM™ Velocity Modulation:** Sharpens picture definition by enhancing vertical lines.
- ❑ **Steady Sound[®]:** Equalizes volume levels so there is consistent output between programs and commercials.
- ❑ **Memory Stick[®] Viewer:** Lets you watch digital photo (JPEG) and movie (MPEG1) files that are stored on Memory Stick media.

- ❑ **Component Video Inputs:** Offers the best video quality for DVD (480p, 480i), and digital set-top box (HD1080i, 720p) connections.
- ❑ **HD Detailer™:** Wideband video amplifier has a high bandwidth frequency rating, which allows it to send more video information to the screen, resulting in finer picture quality, especially for HD sources.
- ❑ **CineMotion™:** Reverse 3-2 pulldown processing provides optimal picture quality for film-based sources (media originally shot in 24 frames-per-second format).
- ❑ **Parental Control:** V-Chip technology allows parents to block unsuitable programming from younger viewers.
- ❑ **HDMI (High-Definition Multimedia Interface):** Provides an uncompressed, all-digital audio/video interface between this TV and any HDMI-equipped audio/video component, such as a set-top box, DVD player, and A/V receiver. HDMI supports enhanced, or high-definition video, plus two-channel digital audio.
- ❑ **i.LINK:** Provides a secure digital interface to other digital home entertainment devices. i.LINK allows for the secure transfer of copyright-protected high-definition content between these devices and your digital television.

Setting Up the TV


Overview

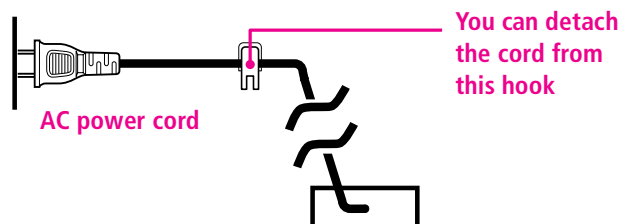
This chapter includes illustrated instructions for setting up your TV.

Topic	Page(s)
TV Controls and Connectors	14-16
Basic Connections: Connecting a Cable or Antenna	17-21
Connecting Optional Equipment	
VCR and Cable	24
VCR and Cable Box	26
Two VCRs for Tape Editing	28
Satellite Receiver	30
Satellite Receiver and VCR	32
DVD Player with Component Video Connectors	34
DVD Player with S VIDEO and Audio Connectors	36
Camcorder	37
Audio Receiver	38
DVI-Equipped Device	39
HDMI-Equipped Device	40
Connecting a Device with an Optical IN Connector	41
Using the CONTROL S Feature	42
Using CableCARD	43
Setting Up the Channel List	45

About the AC Power Cord

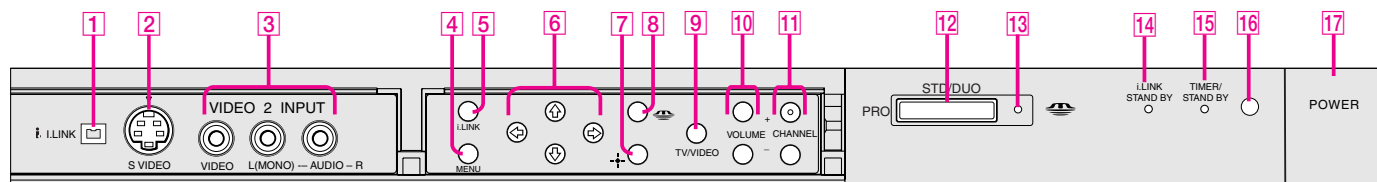
The AC power cord is attached to the rear of the TV with a hook. Use caution when removing the AC plug from its holder. Gently slide the plug upward to remove it from the hook. Once removed, the AC power plug should automatically disengage from its stored location.

 **Do not plug in the AC power cord until you have made all other connections.**



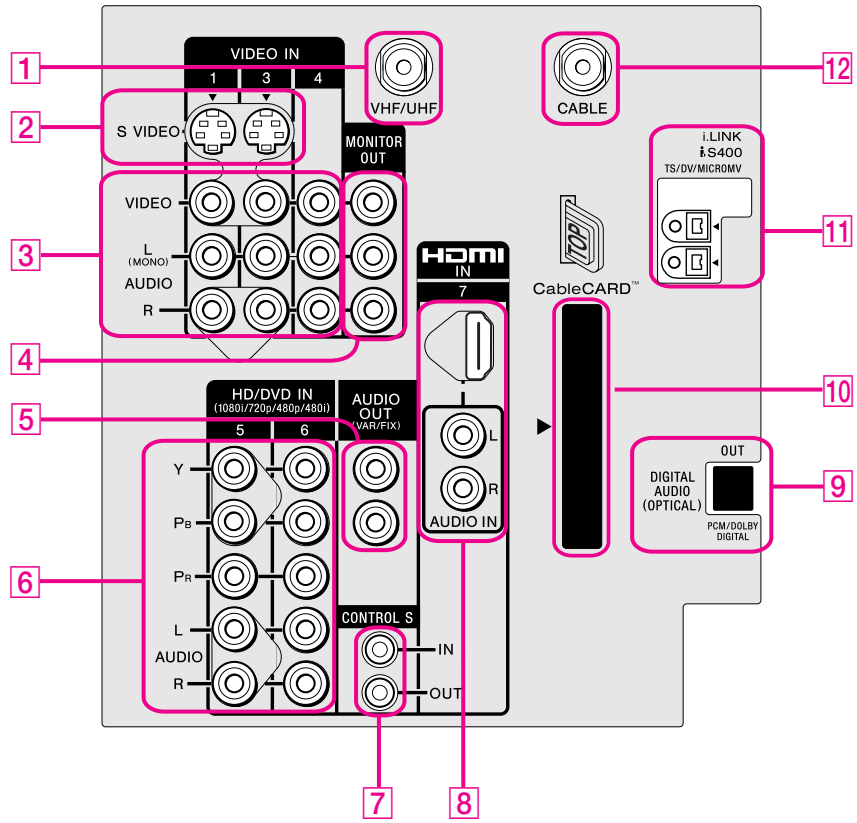
TV Controls and Connectors

Front Panel



Item	Description
1 i.LINK	Connects to the i.LINK jack on your i.LINK-compatible portable device. Provides a secure digital connection between your TV and your i.LINK-compatible portable device, such as a digital video camcorder.
2 S VIDEO VIDEO 2 INPUT	Connects to the S VIDEO OUT jack on your camcorder or other video equipment that has S VIDEO. Provides better picture quality than composite video (3).
3 VIDEO/L(MONO)-AUDIO-R VIDEO 2 INPUT	Connects to the composite A/V output jacks on your camcorder or other video equipment.
4 MENU	Press to display the Menu. Press again to exit from the Menu. For details, see “Using the Menus” on page 93.
5 i.LINK	Press to display the i.LINK Control Panel. For details, see page 89.
6 ↑↓←→	Press ↑↓←→ to move the TV’s on-screen cursor.
7 +	Press to select an item in the TV’s Menu.
8	Press to display the Memory Stick Menu. For details, see “Using the Memory Stick Viewer” on page 69.
9 TV/VIDEO	Press repeatedly to cycle through the video equipment connected to the TV’s video inputs.
10 -VOLUME +	Press to adjust the volume.
11 -CHANNEL+	Press to scan through channels. To scan quickly through channels, press and hold down either CHANNEL button.
12 PRO STD/DUO	Memory Stick insertion slot. For details, see “Inserting and Removing a Memory Stick” on page 72.
13 Memory Stick LED	When lit, indicates that the Memory Stick is being read. (Do not remove the Memory Stick when the indicator is lit.)
14 i.LINK STAND BY LED	When lit in orange, indicates that i.LINK Standby is on. For details, see page 106.
15 TIMER/STAND BY LED	Blinks when the TV is turned on, then shuts off when the picture is displayed. If the LED blinks continuously, this may indicate the TV needs service (see “Contacting Sony” on page 113). When lit, indicates one of the timers is set. When the timer is set, this LED will remain lit even if the TV is turned off. For details, see page 108.
16 Infrared Receiver (IR)	Receives IR signals from the TV’s remote control.
17 POWER	Press to turn on and off the TV.

Rear Panel



Jack	Description
1 VHF/UHF	RF input that connects to your VHF/UHF antenna or cable box.
2 S VIDEO IN 1/3	Connects to the S VIDEO OUT jack of your VCR or other video equipment that has S VIDEO. S VIDEO provides better picture quality than either composite video (3) or VHF/UHF (1) connections.
3 VIDEO IN 1/3/4 VIDEO/L(MONO) -AUDIO-R	Connect to the composite A/V output jacks on your VCR or other video component. A fourth component A/V input jack (VIDEO 2) is located on the front panel of the TV. This video connection provides better picture quality than the VHF/UHF (1) connection.
4 MONITOR OUT	Lets you record the program you are watching to a VCR. When two VCRs are connected, you can use the TV as a monitor for tape-to-tape editing (not available with digital channels or with 480i, 480p, 720p, or 1080i when the input is set to VIDEO 5, 6, or 7).
5 AUDIO OUT (VAR/FIX)	Connects to the left and right audio input jacks of your audio or video equipment. You can use these outputs to listen to your TV's audio through your stereo system.
6 HD/DVD IN 5/6 (1080i/720p/480p/480i)	Connect to your DVD player's or digital set-top box's component video (Y, PB, PR) and audio (L/R) jacks. Component video provides better picture quality than 1 , 2 , or 3).
7 CONTROL S IN/OUT	Allows the TV to receive (IN) and send (OUT) remote control signals to other Sony infrared-controlled audio or video equipment that has the CONTROL S function.
8 HDMI (VIDEO 7 IN)	HDMI (High-Definition Multimedia Interface) provides an uncompressed, all-digital audio/video interface between this TV and any HDMI-equipped audio/video component, such as a set-top box, DVD player, and A/V receiver. HDMI supports enhanced, or high-definition video, plus two-channel digital audio.
9 DIGITAL AUDIO OPTICAL OUTPUT (DOLBY DIGITAL PCM)	Connect to the optical audio input of an audio component that is Dolby* Digital and PCM compatible.
10 CableCARD Slot	Provides cable subscribers with access to digitally encrypted cable channels — without the need for a set-top box — that will enable you to receive not only standard definition but also high definition television. The CableCARD, which is provided by your cable TV company, is inserted into this slot. After the service is activated with your cable TV company, the card replaces the need for a separate set-top box. Check with your cable TV company about CableCARD service details, limitations, pricing, and availability. For more information, see page 43.
11 i.LINK (2 inputs)	Connects to the i.LINK jack on your i.LINK-compatible device. Provides a secure digital connection between your TV and your i.LINK-compatible device.
12 Cable	RF input that connects to your cable signal.

* Dolby and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

Basic Connections: Connecting a Cable or Antenna

The way in which you will connect your TV varies, depending on how your home receives a signal (cable, cable box, antenna) and whether or not you plan to connect a VCR.

<i>If You Are Connecting</i>	<i>See Page</i>
Cable or Antenna Only	18
<input type="checkbox"/> No cable box or VCR	
Cable and Antenna Only	19
<input type="checkbox"/> No cable box or VCR	
Cable Box and Cable Only	20
<input type="checkbox"/> Cable box unscrambles only some channels (usually premium channels)	
<input type="checkbox"/> No VCR	
Cable Box Only	21
<input type="checkbox"/> Cable box unscrambles all channels	
<input type="checkbox"/> No VCR	

If you are connecting a VCR

- See the connections described on pages 24 and 26.

About Using CableCARD

If you are planning to use a separate cable box for digital cable TV services, you may be able to receive programming using this TV with the CableCARD instead — except in the following circumstances:

- Your cable TV company does not provide CableCARD service in your viewing area.
- You want to access your cable TV company's interactive or advanced features (such as video-on-demand or, in some cases, pay-per-view). At this time, these services require a bidirectional link, which are only available through the use of a separate set-top box. CableCARD is currently a unidirectional device only, and cannot provide these advanced services.

Check with your cable TV company for CableCARD service details, limitations, pricing, and availability, all of which are determined by your cable TV company — not Sony. For information on installing and activating CableCARD, see "Using CableCARD" on page 43.

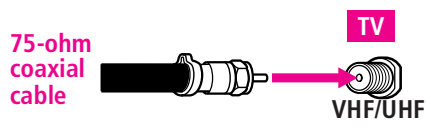
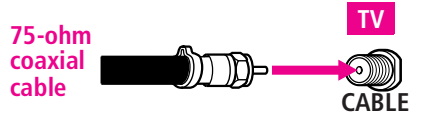
Cable or Antenna Only

For best results, use one of the following connections if you are connecting a cable or an antenna and you:

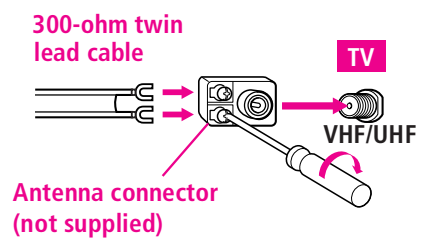
- ❑ Do not need a cable box to unscramble channels. (If you have a cable box, see pages 20-21.)
- ❑ Do not intend to connect a VCR. (If you have a VCR, see pages 24 and 26.)

The connection you choose depends on the cable type you have in your home, as described below.

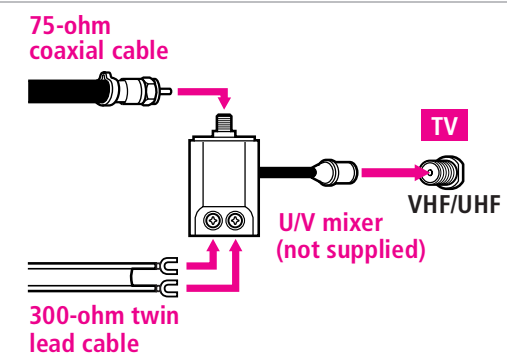
75-ohm coaxial cable (usually found in newer homes)

Cable Type	Connect As Shown
VHF Only or combined VHF/UHF	 <p>75-ohm coaxial cable</p> <p>TV</p> <p>VHF/UHF</p>
Cable	 <p>75-ohm coaxial cable</p> <p>TV</p> <p>CABLE</p>

300-ohm twin lead cable (usually found in older homes)

Cable Type	Connect As Shown
VHF Only or UHF Only or combined VHF/UHF	 <p>300-ohm twin lead cable</p> <p>TV</p> <p>VHF/UHF</p> <p>Antenna connector (not supplied)</p>

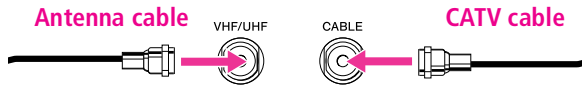
75-ohm coaxial and 300-ohm twin lead cable (found in some homes)

Cable Type	Connect As Shown
VHF and UHF	 <p>75-ohm coaxial cable</p> <p>TV</p> <p>VHF/UHF</p> <p>U/V mixer (not supplied)</p> <p>300-ohm twin lead cable</p>

Cable and Antenna Only

For best results, use this connection if you:

- Have a cable and an antenna.
(This is convenient if you are using a separate rooftop antenna to receive additional channels that are not provided by your cable TV company.)
- Do not have a cable box or VCR. (If you have a cable box, see pages 20 to 21. If you have a VCR, see pages 24 and 26.)

Cable Type	Connect As Shown
Cable TV (CATV) and Antenna	

Notes on Using This Connection

To Do This ...	Do This ...
Switch the TV's input between the cable and antenna	Press ANT to switch back and forth between the TV's VHF/UHF and CABLE inputs.

Cable Box and Cable Only

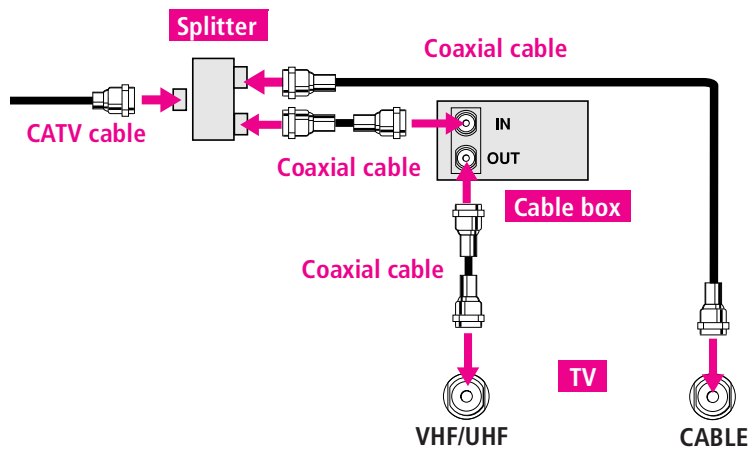
Before connecting a cable box, see "About Using CableCARD" on page 17.

For best results, use this connection if:

- ❑ Your cable TV company scrambles some channels, such as premium channels (which requires you to use a cable box), but does not scramble all channels.
- ❑ You do not have a VCR. (If you have a VCR, see pages 24 and 26.)

With this connection you can:

- ❑ Use the TV remote control to change channels coming through the cable box to the TV's VHF/UHF input jack. (You must first program the remote control for your specific cable box; see "Programming the Remote Control" on page 51.)
- ❑ Use the TV remote control to change channels coming directly into the TV's CABLE input. (The TV's tuner provides a better signal than the cable box.)



About Using This Connection with Dual Picture (Twin View, etc.) Features

With this connection, you can use all the dual picture features for unscrambled channels coming directly into the TV's CABLE input jack.

Notes on Using This Connection

To Do This ...	Do This ...
Use the cable box	Tune the TV to the channel the cable box is set to (usually channel 3 or 4) and then use the cable box to switch channels.
Set up the TV remote control to operate the cable box	Program the remote control. See "Programming the Remote Control" on pages 51-52.
Activate the remote control to operate the cable box	Press SAT/CABLE FUNCTION .
Switch the TV's input between the cable box and cable	Press ANT to switch back and forth between the TV's VHF/UHF (scrambled channels) and CABLE (unscrambled) inputs.

Cable Box Only

Before connecting a cable box, see "About Using CableCARD" on page 17.

For best results, use this connection if:

- ❑ Your cable TV company scrambles all channels, which requires you to use a cable box.
- ❑ You do not have a VCR. (If you have a VCR, see pages 24 and 26.)

With this connection you can:

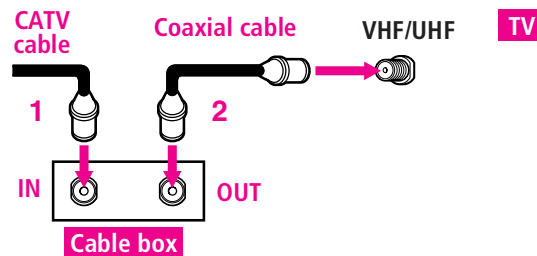
- ❑ Use the TV remote control to change channels coming through the cable box to the TV's VHF/UHF jack. (You must first program the remote control for your specific cable box.)

About Using This Connection with Dual Picture (Twin View, etc.) Features

With this connection, all channels come into the TV through your cable box and only one unscrambled signal is sent to the TV, so you cannot use the dual picture features.. If some of your channels are scrambled, but others are not, consider using the "Cable Box and Cable" connection on page 20 instead.

To connect the cable box

- 1 Connect the CATV cable to the cable box's input jack.
- 2 Use a coaxial cable to connect the cable box's output jack to the TV's VHF/UHF jack.



- 3 Run Auto Program, as described in "Setting Up the Channel List" on page 45.

Notes on Using This Connection

To Do This ...	Do This ...
Use the cable box	Tune the TV to the channel the cable box is set to (usually channel 3 or 4) and then use the cable box to switch channels.
Set up the TV remote control to operate the cable box	Program the remote control. See "Programming the Remote Control" on pages 51.
Activate the remote control to operate the cable box	Press SAT/CABLE FUNCTION .

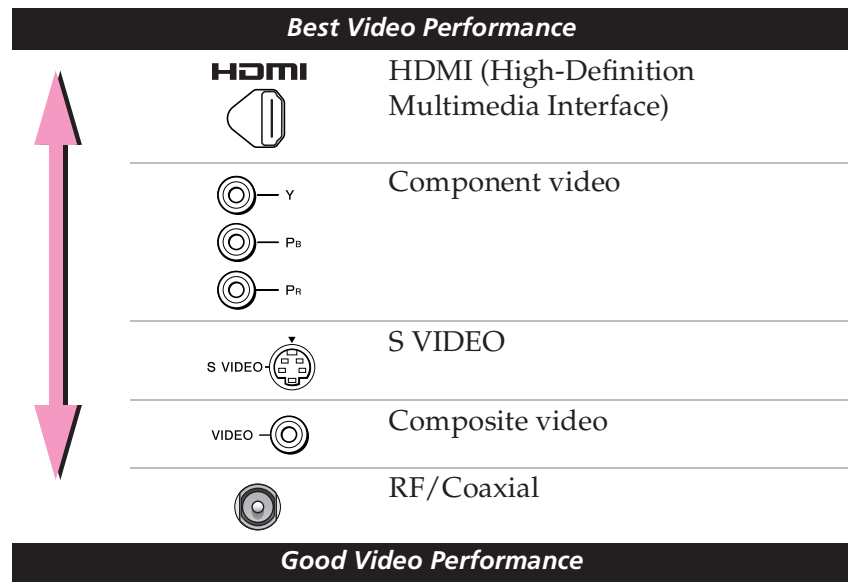
Connecting Optional Equipment

Use the directions in this section to connect the following optional equipment:

<i>If You Are Connecting</i>	<i>See Page</i>
VCR and Cable	24
VCR and Cable Box	26
Two VCRs for Tape Editing	28
Satellite Receiver	30
Satellite Receiver and VCR	32
DVD Player with Component Video Connectors	34
DVD Player with S VIDEO and Audio Connectors	36
Camcorder	37
Audio Receiver	38
DVI-Equipped Device	39
HDMI-Equipped Device	40

Making Video Connections

Your TV includes several types of video inputs. When connecting your TV, use the inputs that are available on your components that provide the best video performance, as described below.

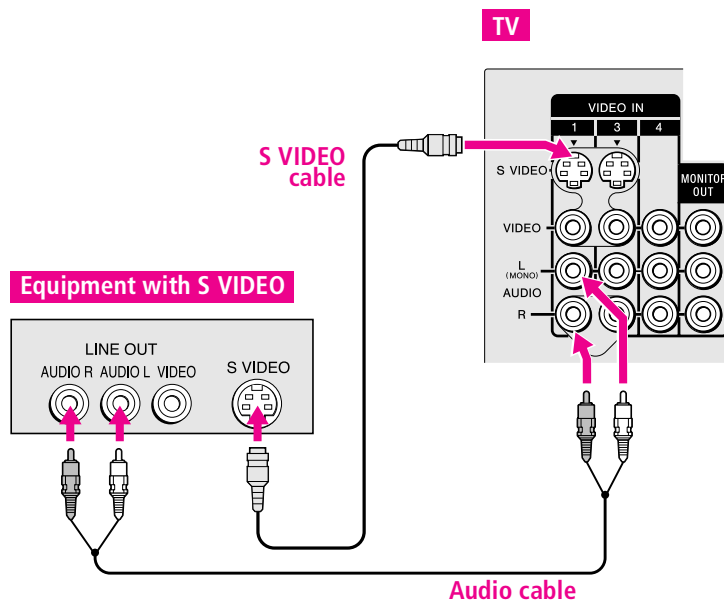


About Using S VIDEO



If the optional equipment you are connecting has an S VIDEO jack (shown at left), you can use an S VIDEO cable for improved picture quality (compared to an A/V cable). Because S VIDEO carries only the video signal, you also need to connect audio cables for sound, as shown below.

Example of an S VIDEO Connection



Cables are often color-coded to connectors. Connect red to red, white to white, etc.

VCR and Cable

For best results, use this connection if:

- Your cable TV company does not require you to use a cable box.

About Using This Connection with Dual Picture (Twin View, etc.) Features

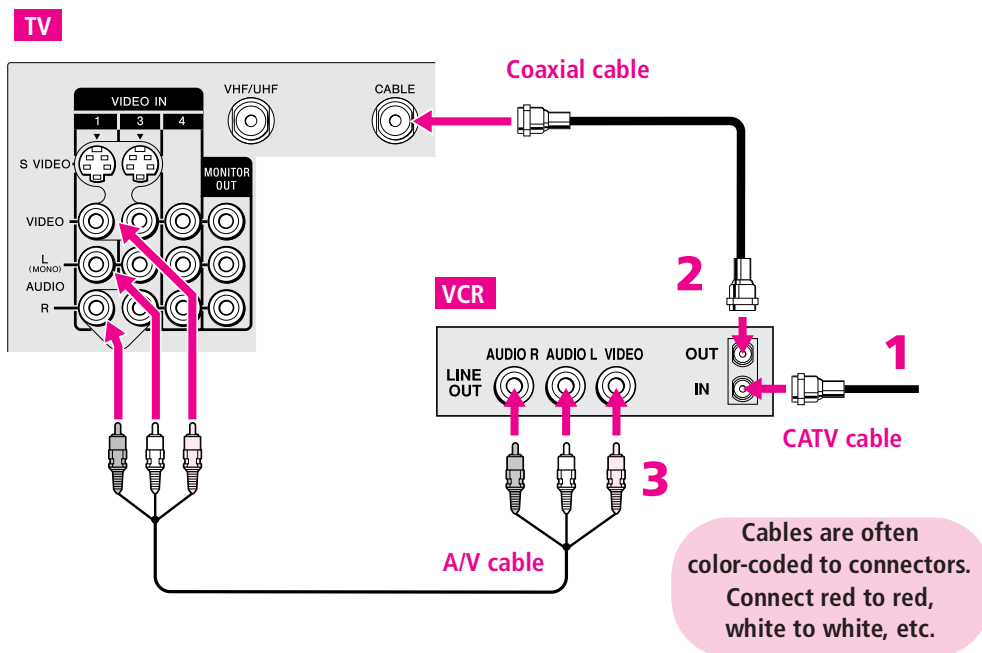
With this connection, you can use all the dual picture features.



Using S VIDEO jacks? See page 23.

To connect the VCR and cable

- 1 Connect the CATV cable to the VCR's VHF/UHF input jack.
- 2 Use a coaxial cable to connect the VCR's VHF/UHF output jack to the TV's CABLE jack.
- 3 Use an A/V cable to connect the VCR's A/V output jacks to the TV's A/V input jacks.
- 4 Run Auto Program, as described in "Setting Up the Channel List" on page 45.



Notes on Using This Connection

<i>To Do This ...</i>	<i>Do This ...</i>
Watch the VCR	Press TV/VIDEO repeatedly to select the VCR input (VIDEO 1 in the illustration).
Watch cable channels	Press TV/VIDEO repeatedly to select the cable input (CABLE in the illustration).
Set up the TV remote control to operate the VCR	If you have a non-Sony VCR, you must program the remote control. See "Programming the Remote Control" on pages 51-52.
Activate the TV remote control to operate the VCR	Open the outside cover, as shown on page 50. Then set the A/V slide switch to the position you programmed for the VCR.
Control VCR functions with the TV remote control	See "Operating a VCR" on page 66.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 105.

VCR and Cable Box

Before connecting a cable box, see "About Using CableCARD" on page 17.

For best results, use this connection if:

- ❑ Your cable TV company scrambles some channels, such as premium channels (which requires you to use a cable box), but does not scramble all channels.

About Using This Connection with Dual Picture (Twin View, etc.) Features

With this connection, you can use all the dual picture features.

With this connection you can:

- ❑ Use the TV remote control to change channels coming through the cable box. (You must first program the remote control for your specific cable box; see "Programming the Remote Control" on page 51.)
- ❑ Use the TV remote control to change channels coming directly into the TV's CABLE jack. (The TV's tuner provides a better signal than the cable box.)
- ❑ Record channels coming through the cable box and channels coming directly into the TV.

To connect a VCR and cable box, you need:

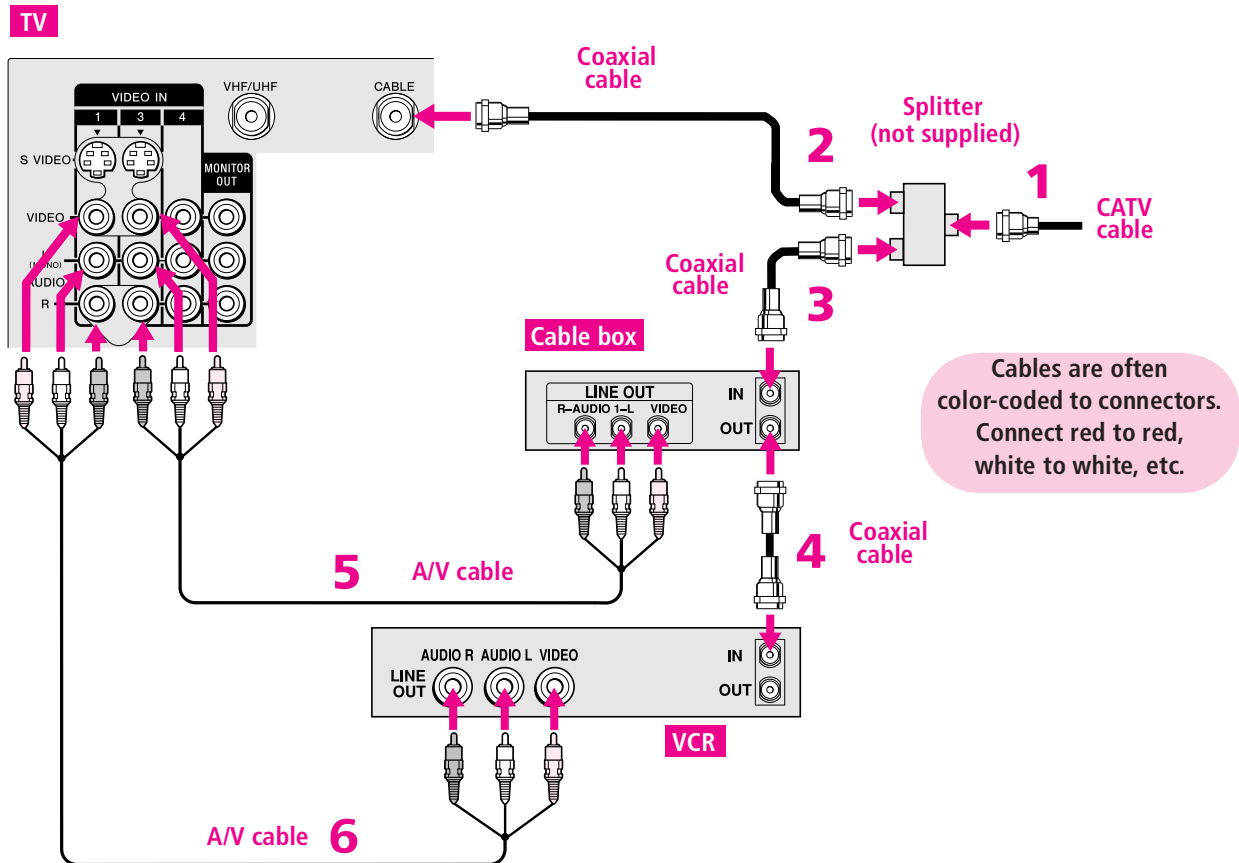
- ❑ A splitter, which is a small, inexpensive device that you can purchase at your local electronics store.
- ❑ Four coaxial cables.
- ❑ Two A/V cables or two S VIDEO cable with audio cables.

To connect the VCR and cable box

- 1 Connect the CATV cable to the single (input) jack of the splitter.
- 2 Use a coaxial cable to connect one of the splitter's two output jacks to the TV's CABLE jack.
- 3 Use a coaxial cable to connect the splitter's other output jack to the cable box's input jack.
- 4 Use a coaxial cable to connect the cable box's output jack to the VCR's RF input jack.
- 5 Use an A/V cable to connect the cable box's A/V output jacks to the TV's A/V input jacks.
- 6 Use an A/V cable to connect the VCR's A/V output jacks to the TV's A/V input jacks.
- 7 Run Auto Program, as described in "Setting Up the Channel List" on page 45.



Using
S VIDEO jacks?
See page 23.



Notes on Using This Connection

To Do This ...	Do This ...
Watch cable (unscrambled) channels	Press TV/VIDEO repeatedly to select the cable input (CABLE in the illustration).
Watch cable box (scrambled) channels	Press TV/VIDEO repeatedly to select the cable box input (VIDEO 3 in the illustration). Use the cable box to change channels.
Watch the VCR	Press TV/VIDEO repeatedly to select the VCR input (VIDEO 1 in the illustration).
Set up the TV remote control to operate the cable box or VCR	If you have a non-Sony VCR, you must program the remote control. See "Programming the Remote Control" on pages 51-52.
Activate the remote control to operate the cable box or VCR	For the cable box, press SAT/CABLE FUNCTION . For the VCR, open the outside cover, as shown on page 50. Then set the A/V slide switch to the position you programmed for the VCR.
Control specific cable box and VCR functions with the TV remote control	See "Operating a Cable Box" on page 67 and "Operating a VCR" on page 66.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 101.

Two VCRs for Tape Editing

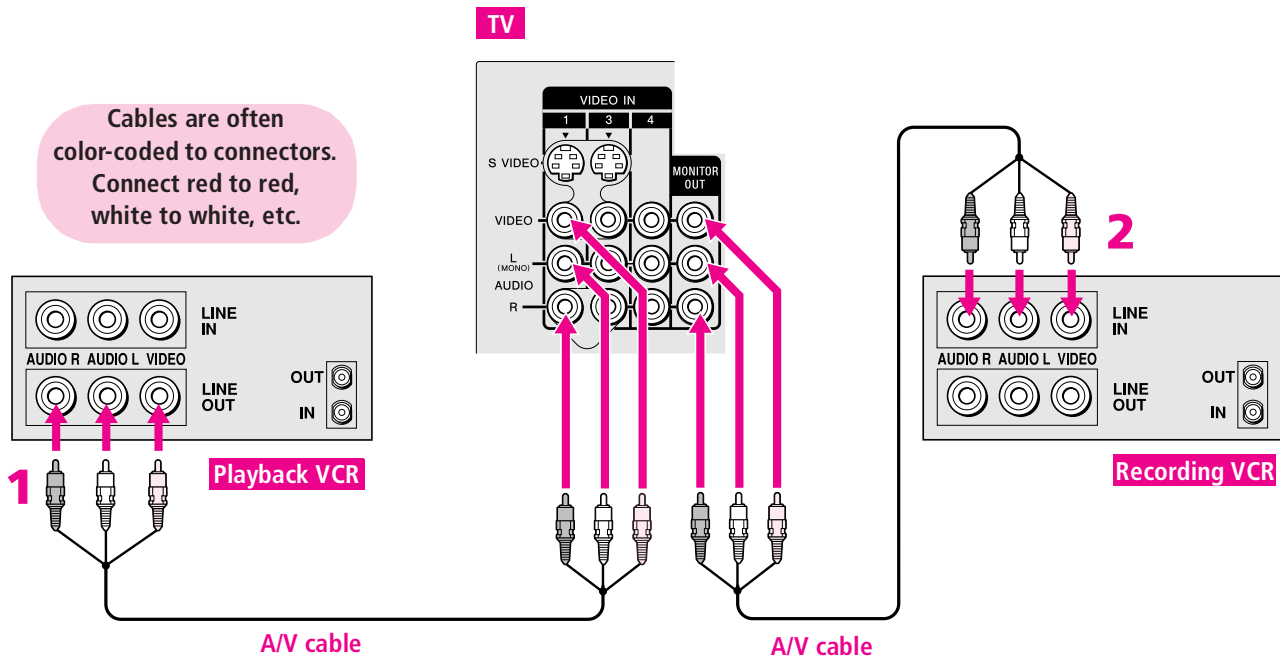


Using S VIDEO jacks? See page 23.

Connecting two VCRs lets you record from one VCR to the other. By connecting them as shown below, you can view (monitor) what is being recorded.

To connect two VCRs for tape editing

- 1 Use an A/V cable to connect the playback VCR's A/V output jacks to the TV's A/V input jacks.
- 2 Use an A/V cable to connect the recording VCR's A/V input jacks to the TV's MONITOR OUT jacks.



Notes on Using This Connection

<i>To Do This ...</i>	<i>Do This ...</i>
View (monitor) what is being recorded	Press TV/VIDEO repeatedly to select the VCR input (VIDEO 1 in the illustration above).
Set up the TV remote control to operate the VCR(s)	If you have a non-Sony VCR, you must program the remote control. See "Programming the Remote Control" on pages 51-52.
Activate the TV remote control to operate the VCR(s)	Open the outside cover, as shown on page 50. Then set the A/V slide switch to the position you programmed for the VCR.
Control VCR functions with the TV remote control	See "Operating a VCR" on page 66.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 105.

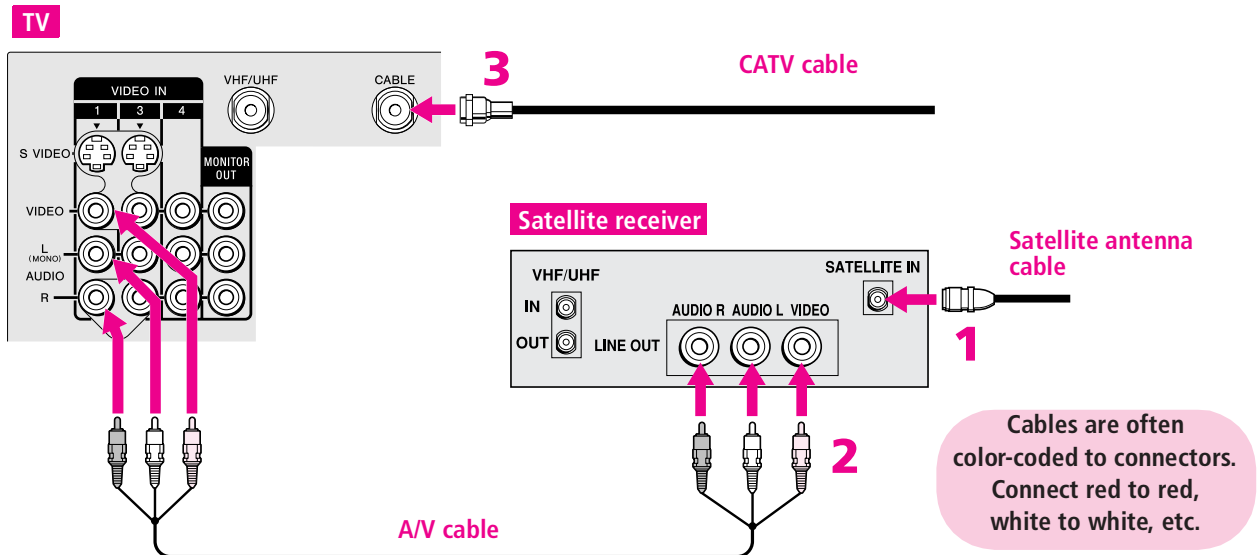
Satellite Receiver



Using
S VIDEO jacks?
See page 23.

To connect a satellite receiver

- 1 Connect the satellite antenna cable to the satellite receiver's satellite input jack.
- 2 Use an A/V cable to connect the satellite receiver's A/V output jacks to the TV's A/V input jacks.
- 3 Connect a CATV cable from your cable or antenna to the TV's CABLE jack.
- 4 Run Auto Program, as described in "Setting Up the Channel List" on page 45.



Notes on Using This Connection

To Do This ...	Do This ...
Watch the satellite receiver	Press TV/VIDEO repeatedly to select the satellite receiver input (VIDEO 1 in the illustration).
Set up the TV remote control to operate the satellite receiver	If you have a non-Sony satellite receiver, you must program the remote control. See "Programming the Remote Control" on pages 51-52.
Activate the TV remote control to operate the satellite receiver	Press SAT/CABLE FUNCTION .
Control satellite receiver functions with the TV remote control	See "Operating a Satellite Receiver" on page 66.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 105.

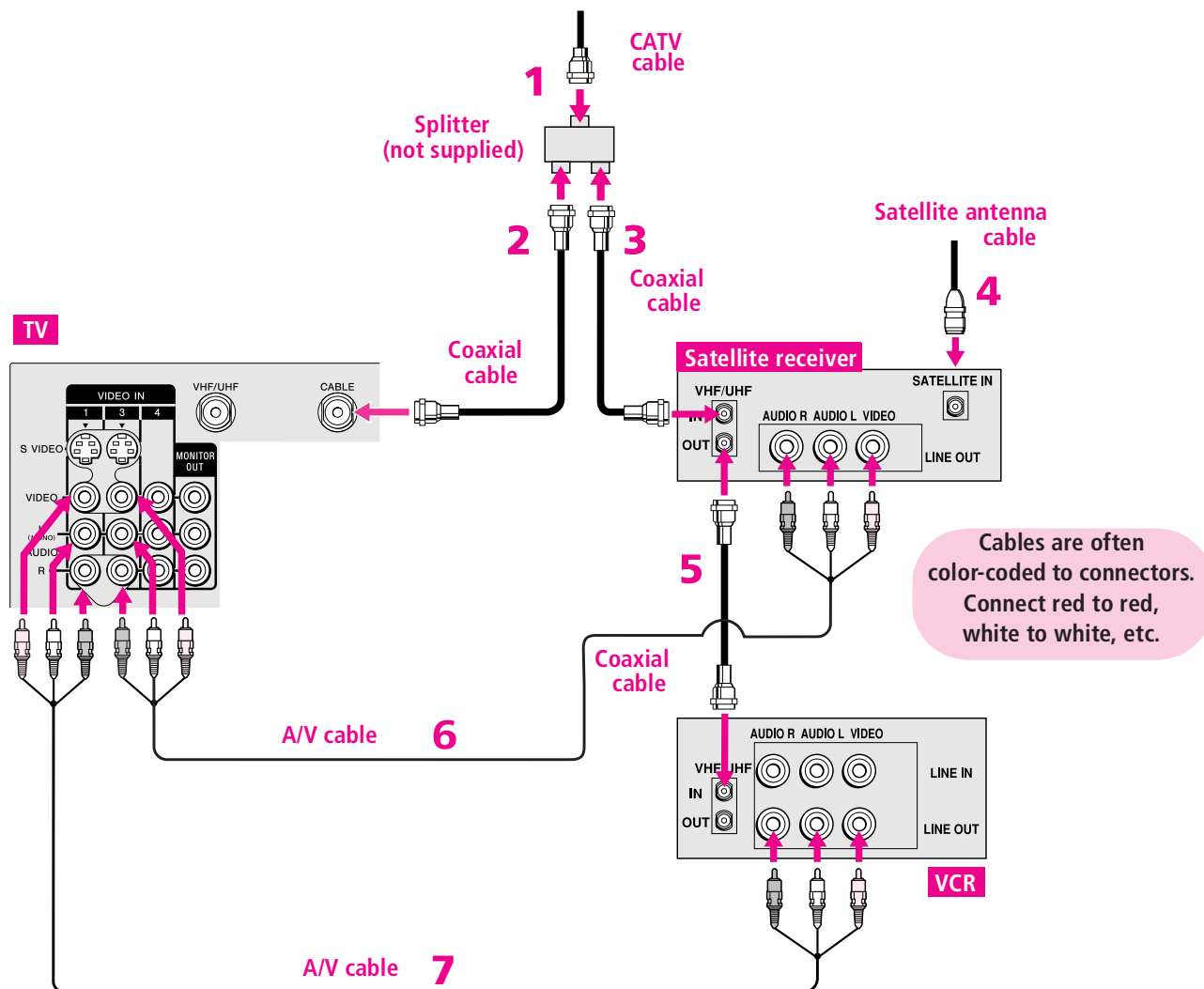
Satellite Receiver and VCR



Using S VIDEO jacks?
See page 23.

To connect a satellite receiver and VCR

- 1 Connect the CATV cable to the single (input) jack of the splitter.
- 2 Use a coaxial cable to connect one of the splitter's two output jacks to the TV's CABLE jack.
- 3 Use a coaxial cable to connect the splitter's other output jack to the satellite receiver's VHF/UHF input jack.
- 4 Connect the satellite antenna cable to the satellite receiver's satellite input jack.
- 5 Use a coaxial cable to connect the satellite receiver's VHF/UHF output jack to the VCR's VHF/UHF input jack.
- 6 Use an A/V cable to connect the satellite receiver's A/V output jacks to the TV's A/V input jacks.
- 7 Use an A/V cable to connect the VCR's A/V output jacks to the TV's A/V input jacks.
- 8 Run Auto Program, as described in "Setting Up the Channel List" on page 45.



Notes on Using This Connection


To Do This ...	Do This ...
Watch the satellite receiver	Press TV/VIDEO repeatedly to select the VCR input (VIDEO 3 in the illustration).
Watch the VCR	Press TV/VIDEO repeatedly to select the input to which the VCR is connected (VIDEO 1 in the illustration).
Set up the TV remote control to operate the satellite receiver or VCR	If you have a non-Sony VCR or satellite receiver, you must program the remote control. See "Programming the Remote Control" on pages 51-52.
Activate the TV remote control to operate the satellite receiver or VCR	For the satellite receiver, press SAT/CABLE FUNCTION . For the VCR, open the outside cover, as shown on page 50. Then set the A/V slide switch to the position you programmed for the VCR.
Control satellite receiver and VCR functions with the TV remote control	See "Operating a Satellite Receiver" on page 66 and "Operating a VCR" on page 66.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 105.

DVD Player with Component Video Connectors

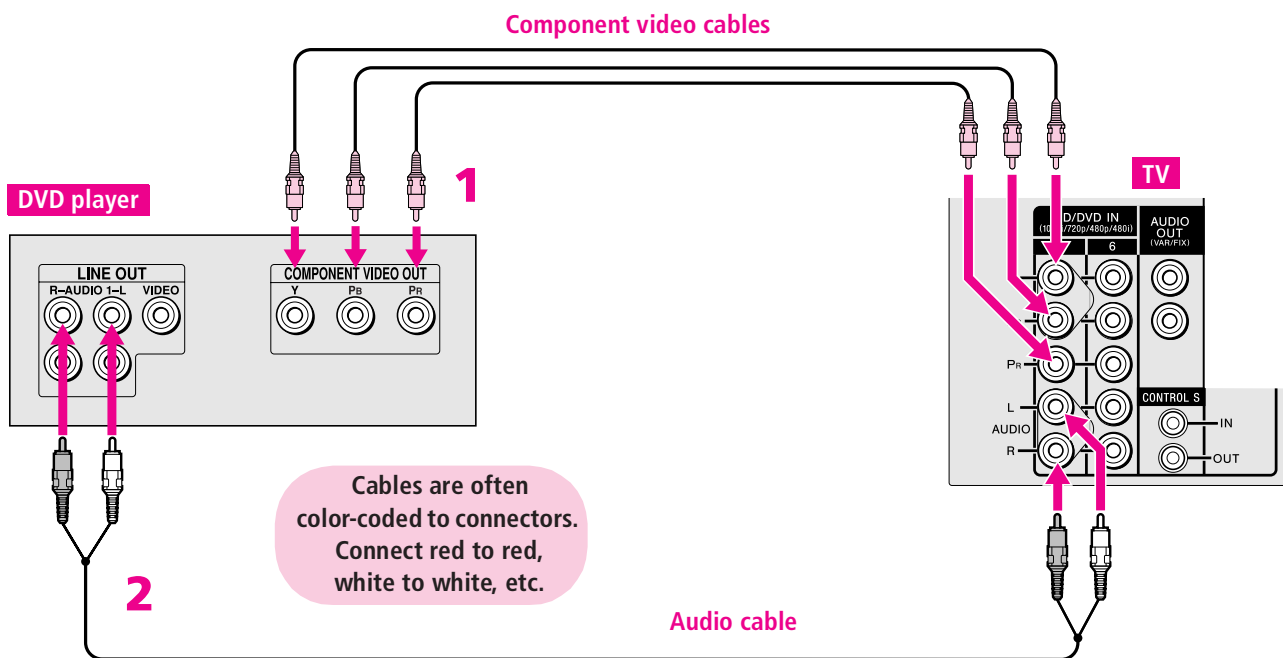
For best results, use this connection if your DVD player has component video (Y, P_B, P_R) jacks.

To connect a DVD player with component video connectors

- 1 Use three separate component video cables to connect the DVD player's Y, P_B and P_R jacks to the Y, P_B and P_R jacks (VIDEO 5) on the TV.


 The Y, P_B and P_R jacks on your DVD player are sometimes labeled Y, C_B and C_R, or Y, B-Y and R-Y. If so, connect the cables to like colors.

- 2 Use an audio cable to connect the DVD player's audio output jacks to the TV's VIDEO 5 audio input jacks.



Notes on Using This Connection

To Do This ...	Do This ...
Watch the DVD player	Press TV/VIDEO repeatedly to select the DVD input (VIDEO 5 in the illustration).
Set up the TV remote control to operate the DVD player	If you have a non-Sony DVD player, you must program the remote control. See "Programming the Remote Control" on pages 51-52.
Activate the TV remote control to operate the DVD player	Open the outside cover, as shown on page 50. Then set the A/V slide switch to the position you programmed for the DVD player.
Control DVD functions with the TV remote control	See "Operating a DVD Player" on page 67.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 105.

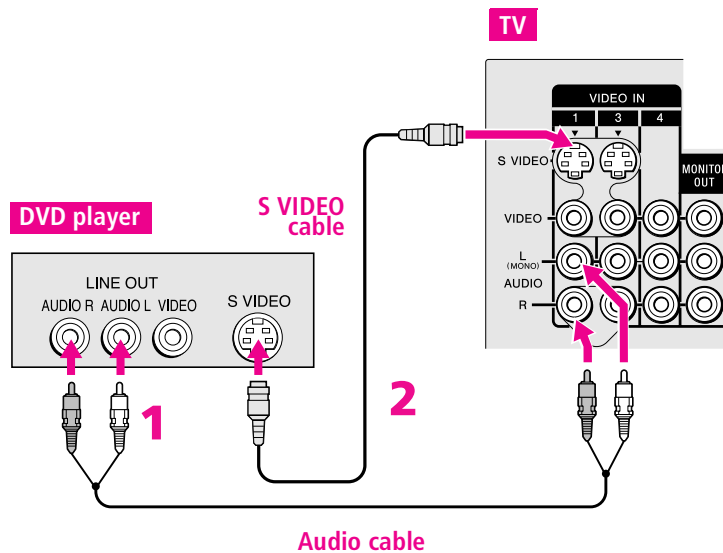
 **You cannot record the signal from any equipment connected into the Y, PB, PR jacks.**

DVD Player with S VIDEO and Audio Connectors

Use this connection if your DVD player does not have component video (Y, PB, PR) jacks.

To connect a DVD player with A/V connectors

- 1 Use an audio cable to connect the DVD player's audio output jacks to the TV's audio input jacks.
- 2 Use an S VIDEO cable to connect the DVD player's S VIDEO jack to the TV's S VIDEO jack.



Notes on Using This Connection

To Do This ...	Do This ...
Watch the DVD player	Press TV/VIDEO repeatedly to select the DVD input (VIDEO 1 in the illustration).
Set up the TV remote control to operate the DVD player	If you have a non-Sony DVD player, you must program the remote control. See "Programming the Remote Control" on pages 51-52.
Activate the TV remote control to operate the DVD player	Open the outside cover, as shown on page 50. Then set the A/V slide switch to the position you programmed for the DVD player.
Control DVD functions with the TV remote control	See "Operating a DVD Player" on page 67.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 105.

Camcorder

For easy connection of a camcorder, the TV has front A/V input jacks. If you prefer, however, you can connect the camcorder to the TV's rear A/V input jacks.

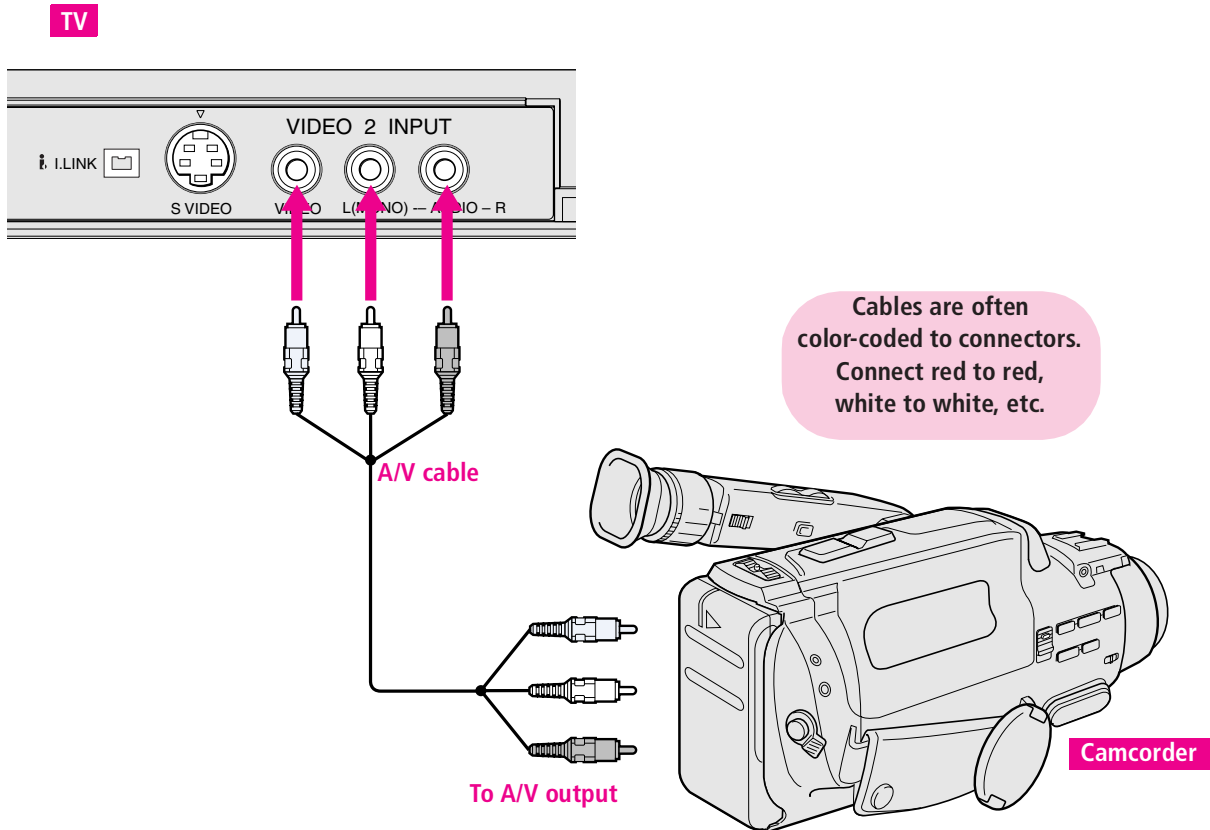


Using
S VIDEO jacks?
See page 23.

If your camcorder is equipped with an i.LINK jack, you can connect it using i.LINK instead of the A/V inputs. See "Using i.LINK" on page 85.

To connect a camcorder

- 1 Use A/V cables to connect the camcorder's A/V output jacks to the TV's A/V input jacks.



If you have a mono camcorder, connect its audio output jack to the TV's L MONO audio jack.

Notes on Using This Connection

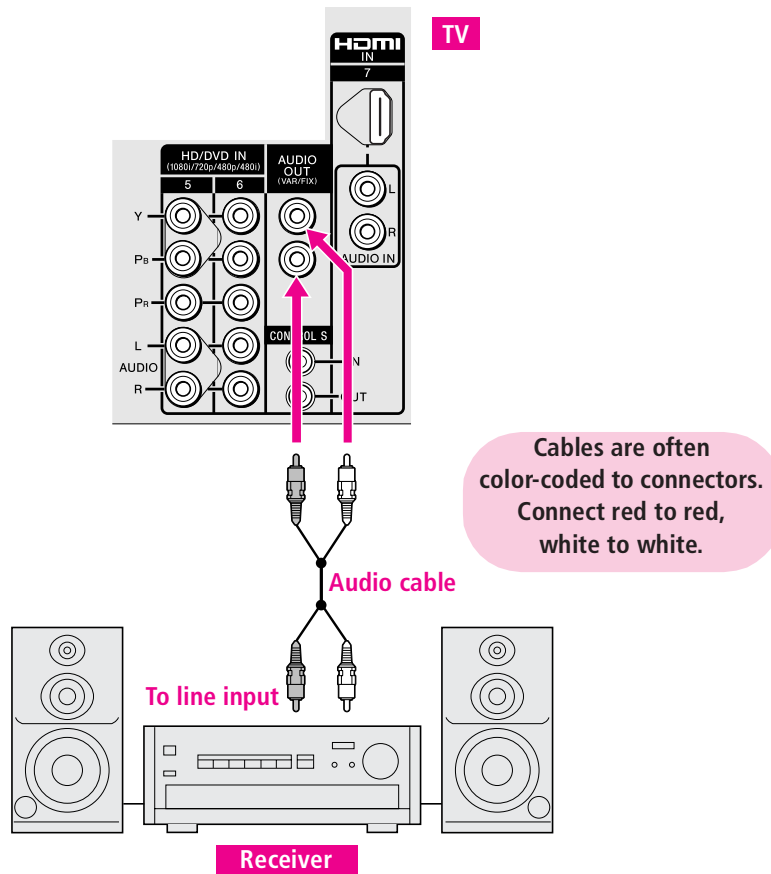
To Do This ...	Do This ...
Watch the camcorder	Press TV/VIDEO repeatedly to select the camcorder input (VIDEO 2 in the illustration).
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 105.

Audio Receiver

For improved sound quality, you may want to play the TV's audio through your stereo system.

To connect an audio system

- 1 Use an audio cable to connect the TV's audio output jacks to the audio receiver's line input jacks.




- 2 Using the TV's Audio Menu, set the **Speaker** option to **Off**. Then set the **Audio Out** option to **Fixed** or **Variable**, depending on how you want to control the volume. For details, see "Using the Audio Menu" on page 97.
- 3 Turn on the audio receiver, and then set the receiver's line input to the jack into which you connected the TV.

DVI-Equipped Device

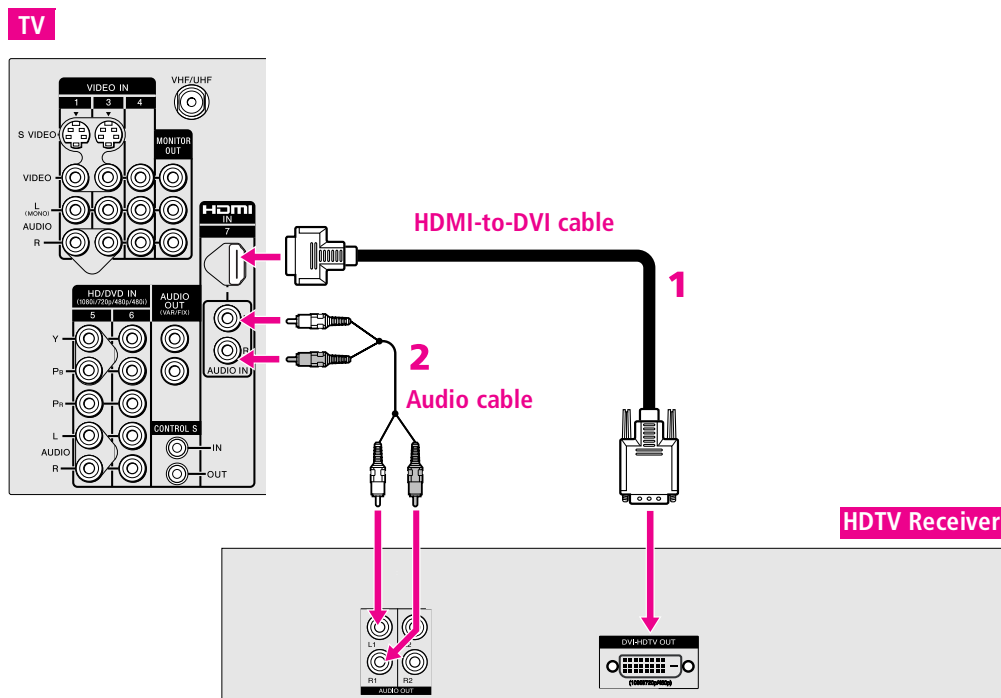
If you have a device, such as an HDTV receiver, that has DVI (Digital Video Interface) output, use the following connection.

To connect a device that has DVI OUT:

- 1 Use an HDMI-to-DVI cable to connect the device's DVI OUT jack to the TV's HDMI IN jack.

 You can purchase HDMI cables (or cable adapters) at your local electronics store.

- 2 Use an audio cable to connect the device's audio output jacks to the TV's HDMI analog audio input jacks.



Note on Using This Connection


To Do This ...	Do This ...
Watch the DVI device	Press TV/VIDEO repeatedly to select the VIDEO 7 input.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 105.

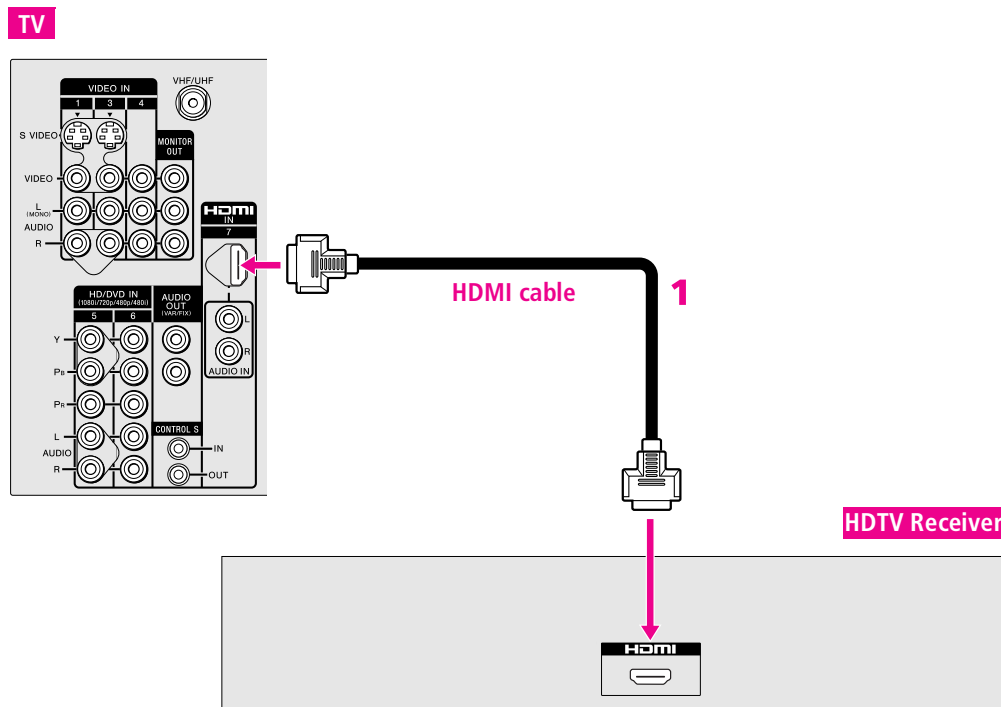
HDMI-Equipped Device

If you have a device, such as an HDTV receiver, that has a High-Definition Multimedia Interface (HDMI), use the following connection.

To connect a device that has HDMI OUT:

- 1 Use the HDMI cable that came with your device to connect the device's HDMI OUT jack to the TV's HDMI IN jack.

 HDMI cables transmit both audio and video signals. (Separate audio cables are not necessary.) You can purchase HDMI cables at your local electronics store.



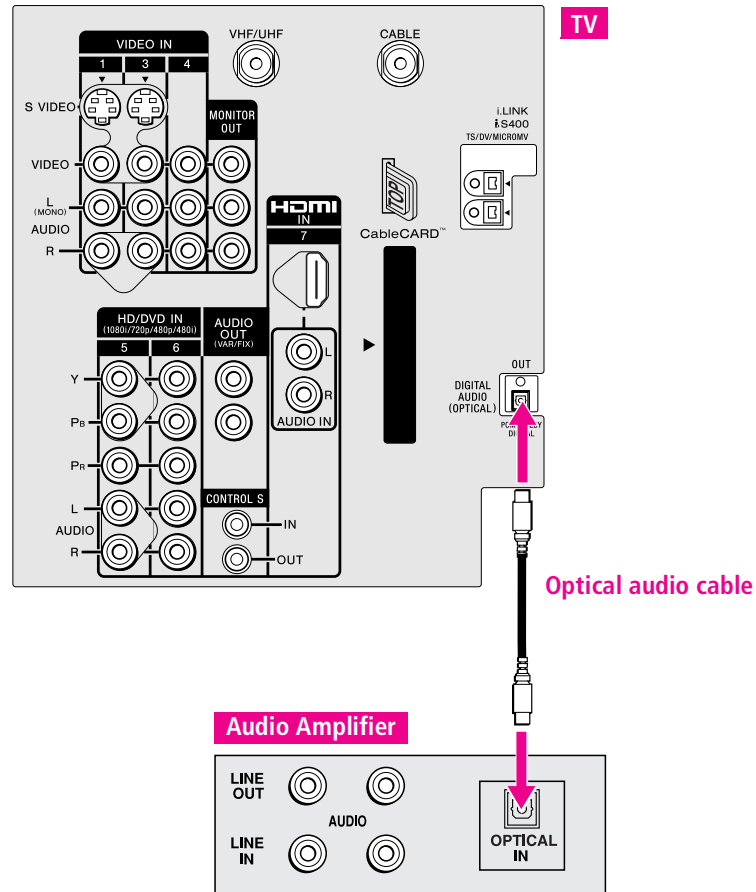
Note on Using This Connection


To Do This ...	Do This ...
Watch the HDMI device	Press TV/VIDEO repeatedly to select the VIDEO 7 input.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 105.

Connecting a Device with an Optical IN Connector

You can use the TV's DIGITAL AUDIO OPTICAL output jack to connect an audio device that is Dolby Digital and PCM compatible, such as an audio amplifier.

- Using an optical cable, connect the TV's DIGITAL AUDIO OPTICAL output jack to the device's audio optical input jack.



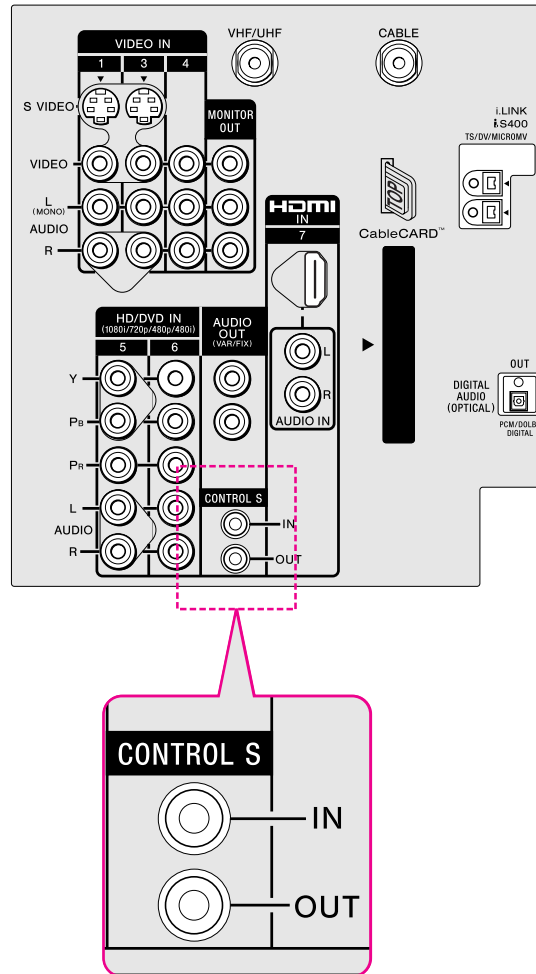
 Because all equipment does not output digital audio, you should also connect the TV's analog audio output jacks to the amplifier's analog audio input jacks, as described on page 38.

Using the CONTROL S Feature

CONTROL S allows you to control your system and other Sony equipment with one remote control. In addition to allowing you to control multiple devices with one remote control, the CONTROL S feature allows you to always point your remote control at your TV, instead of having to point it at the other equipment, which might be hidden or out of direct line of sight.

Use CONTROL S IN to send signals to the TV.

Use CONTROL S OUT to send signals to connected equipment.



Using CableCARD

CableCARD provides cable subscribers with access to digitally encrypted cable channels — without the need for a set-top box — that will enable you to receive not only standard definition but also high definition television. The CableCARD, which is provided by your cable TV company, is inserted into the TV's rear panel CableCARD slot. After the service is activated with your cable TV company, the card replaces the need for a separate set-top box.

About Using CableCARD

If you are planning to use a separate cable box for digital cable TV services, you may be able to receive programming using this TV with the CableCARD instead — except in the following circumstances:

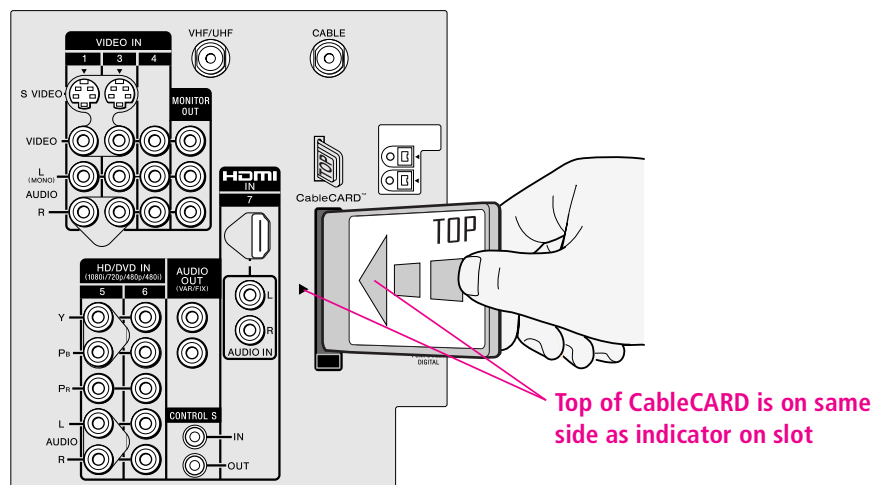
- ❑ Your cable TV company does not provide CableCARD service in your viewing area.
- ❑ You want to access your cable TV company's interactive or advanced features (such as video-on-demand or, in some cases, pay-per-view). At this time, these services require a bidirectional link, which are only available through the use of a separate set-top box. CableCARD is currently a unidirectional device only, and cannot provide these advanced services.

Check with your cable TV company for CableCARD service details, limitations, pricing, and availability, all of which are determined by your cable TV company — not Sony.


Activating CableCARD Service

Before you can use CableCARD service, you need to insert the CableCARD (supplied by your cable TV company) and activate the service, as described below:

- 1 Turn off the TV.
- 2 Insert the CableCARD into the TV's CableCARD slot.



! CAUTION: Inserting the CableCARD incorrectly may result in permanent damage to the card and the TV.


 You can also access information about your CableCARD in the Applications Menu (see page 109).

- 3 Gently push the card into the slot until it locks into place.
- 4 Turn on the TV. After 1-2 minutes, the CableCARD setup screen is displayed. This screen includes information your cable TV company will request before they can activate your service.
- 5 Follow the displayed instructions: Phone your cable TV company. A representative will guide you through the activation process.
- 6 After your CableCARD is activated, your cable TV company will download the service information, including the channel list, to the CableCARD.

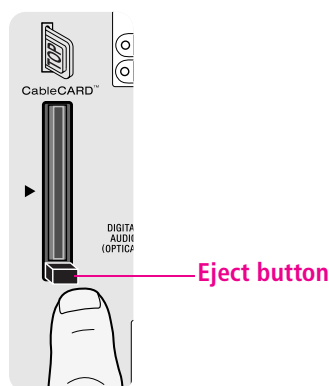
After the CableCARD has acquired channels from your cable TV company, the TV tunes to the lowest available channel.

Removing the CableCARD

In the event you want to cancel your service, contact your cable TV company.

 **Once the CableCARD is removed, your TV will no longer decrypt digital cable TV programming services that require CableCARD.**

- 1 Turn off the TV.
- 2 Push the eject button on the TV's CableCARD slot to release the card.





- 3 Pull the CableCARD straight out of the slot to remove it. To install a different CableCARD, follow the instructions in "Activating CableCARD Service" on page 43.


Setting Up the Channel List

After you finish connecting the TV, you need to run the Initial Setup feature, which automatically creates a list of available analog and digital channels and lets you correct tilt and vertical correction settings. The Initial Setup screens appear when you turn on your TV for the first time after hooking it up.

Using Initial Setup

 For more details on using Tilt Correction and Vertical Correction, see pages 105-106.

 To exit the Tilt Correction and Vertical Correction screens, press the **MENU** button.

 If you are using a CableCARD, Auto Program is disabled for the CABLE input.

To run Initial Setup

- 1 Press **POWER** to turn on the TV.
The Initial Setup screen appears.
- 2 Using the joystick on the remote control, move the highlight to the desired language, then press **⊕** to select that language.
The Tilt Correction screen appears.
- 3 Move the joystick **← →** to correct any tilt of the picture. You can choose a correction between +7 and -7.
When finished, press **⊕**. The Vertical Correction screen appears.
- 4 Move the joystick **↑ ↓** to make a vertical correction to the picture. You can choose a correction between +5 and -5. When finished, press **⊕**.
- 5 The next screen instructs you to connect your cable/antenna. Check that you've connected your signal source correctly.
To start Auto Program, move the joystick to highlight **Yes** and then press **⊕**.

Auto Program automatically creates a list of receivable analog and digital channels. Auto Program may take 50 minutes or more to complete. A progress bar is displayed while the channel list is being created.

When the channel list is completed, the lowest numbered channel is displayed.

To run Auto Program at a later time

- Use the Auto Program feature as described on page 100.

To add individual digital channels

Use the Digital Channel feature as described on page 100.

To reset the TV to factory settings

- 1 Press **POWER** to turn on the TV.
- 2 Hold down **RESET** on the remote control.
- 3 Press **TV POWER** on the TV. (The TV will turn itself off, then back on.)
- 4 Release **RESET**.

Using the Remote Control

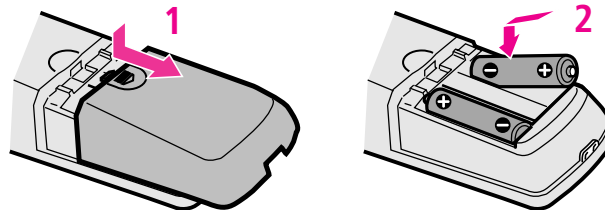
Overview


This chapter describes how to set up, program, and use the TV's remote control.

Topic	Page
Inserting Batteries	47
Button Descriptions	
Outside Panel	48
Inside Panel	50
Programming the Remote Control	51

Inserting Batteries

- 1 Remove the battery cover from the remote control.
- 2 Insert two size AA (R6) batteries (supplied) by matching the \oplus and \ominus terminals on the batteries to the diagram inside the battery compartment.
- 3 Replace the battery cover.



 Remove the batteries to avoid damage from possible battery leakage whenever you anticipate that the remote control will not be used for an extended period.

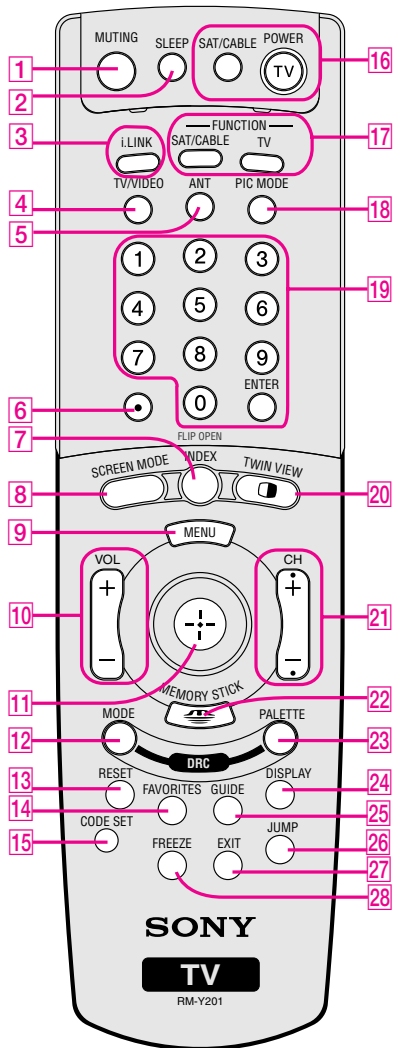
Handle the remote control with care.



Avoid dropping it, getting it wet, placing it in direct sunlight, near a heater, or where the humidity is high.



Button Descriptions

Outside Panel

Remote Control




Button	Description
1 MUTING	Press to mute the sound. Press again or press VOL+ to restore the sound.
2 SLEEP	Press repeatedly until the TV displays the time in minutes (15, 30, 45, 60, or 90) that you want the TV to remain on before shutting off automatically. To cancel press until Sleep Off appears. While the Sleep feature is set, press once to display the remaining time. Also available in the Applications Menu (page 108).
3 i.LINK	Press to display the i.LINK Control Panel. For information on using the i.LINK Control Panel, see page 89. Also available in the Applications Menu (page 108).
4 TV/VIDEO	Press repeatedly to cycle through the video equipment connected to the TV's video inputs.
5 ANT	Press to switch between the sources connected to the TV's VHF/UHF and CABLE inputs.
6 	Use with 0-9 and ENTER buttons to select digital channels (for example, 2.1). For details on selecting digital channels, see page 54.
7 INDEX	Press to display the Scrolling Index. For details, see page 57.
8 SCREEN MODE	Press repeatedly to step through the Screen Mode settings. Also available in the Screen Menu. For details, see pages 58 and 99.
9 MENU	Press to display the Menu. Press again to exit from the Menu. For details, see page 93.
10 VOL +/-	Press to adjust the volume.
11 	Move the joystick ▲ ▼ ◀ ▶ to move the on-screen cursor. To select an item, press the center of the joystick (⊕).
12 DRC MODE	Press repeatedly to cycle through the available high-resolution picture modes: Interlaced , Progressive , CineMotion . Also available in the Video Menu. For details, see "Selecting Video Options" on pages 94-95.
13 RESET	Press to reset the settings to the factory defaults. See pages 96 and 98. Also used to clear Favorite Channels (see page 63).
14 FAVORITES	Press to display the Favorite Channels list. For details, see page 63.

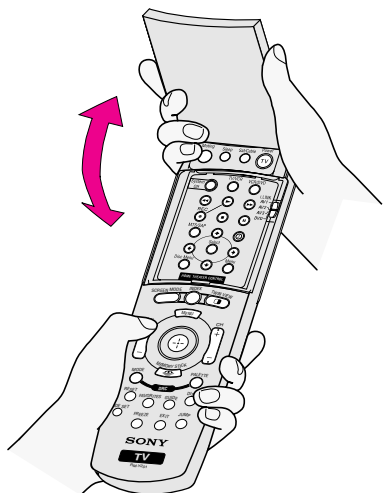
<i>Button</i>	<i>Description</i>
15 CODE SET	Press to program the remote control to operate non-Sony video equipment. For details, see "Programming the Remote Control" on page 51.
16 POWER Buttons	SAT/CABLE: Press to turn on and off the satellite receiver or cable box. TV: Press to turn on and off the TV.
17 FUNCTION Buttons	The indicator lights up momentarily when pressed to show which equipment the remote control is operating: SAT/CABLE: Press to have the remote control operate the satellite receiver or cable box. TV: Press to have the remote control operate the TV.
18 PIC MODE	Press repeatedly to cycle through the available video picture modes: Vivid, Standard, Movie, Pro . Also available in the Video Menu. For details, see "Selecting Video Options" on page 94.
19 0 - 9 ENTER	Press 0 - 9 to select a channel; the channel changes after 3 seconds. Press ENTER to change channels immediately.
20 TWIN VIEW 	Press to turn on and off Twin View. For details, see pages 60-62.
21 CH +/-	Press to scan through channels. To scan quickly through channels, press and hold down either CH button.
22 MEMORY STICK 	Press to display the Memory Stick Menu. For details, see "Using the Memory Stick Viewer" on page 69. Also available in the Applications Menu (page 108).
23 DRC PALETTE	Press repeatedly to cycle through the three Custom DRC Palette options. Also available in the Video Menu. For details, see "Selecting Video Options" on pages 94-96.
24 DISPLAY	Press once to display the current channel number, current time, and program information banner. Press again to turn Display off.
25 GUIDE	Press to display the program guide. For details, see page 55.
26 JUMP	Press to jump back and forth between two channels. The TV alternates between the current channel and the last channel that was selected.
27 EXIT	Press to exit the on-screen Menu or display and return to normal viewing.
28 FREEZE	Press to freeze the window picture. Press again to restore the picture. For details see page 65.
















Inside Panel

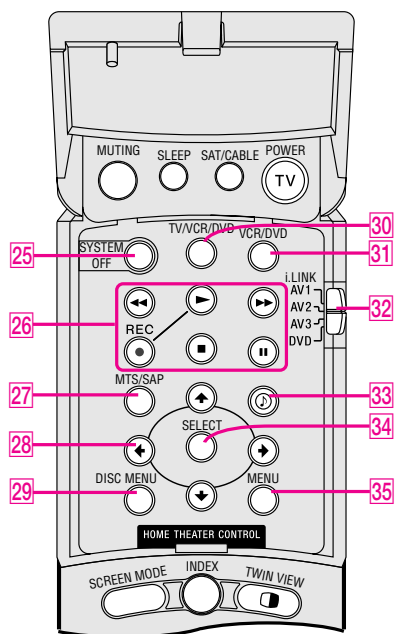
To access the inside panel, open the outside cover as shown.

 Opening the outside cover automatically switches the remote control to operate your VCR or DVD player, depending on the position of the A/V slide switch. For details, see page 51.

VCR and DVD buttons require that you first program the remote (page 51), if the VCR and DVD player are not Sony brand.



Button	Description
25 SYSTEM OFF	Press to turn off all Sony brand audio/video equipment at once. (May not function with older Sony equipment.)
26 Transport Buttons	<ul style="list-style-type: none">  Rewind  Play  Record (press together with )  To record with i.LINK devices, press only .  Stop  Fast forward  Pause
27 MTS/SAP	Press repeatedly to cycle through the Multi-channel TV Sound (MTS) options: Stereo , Auto SAP (Second Audio Program), and Mono . Also available in the Audio Menu. For details, see "Using the Audio Menu" on page 97.
28 	Press     to move the VCR or DVD player's on-screen cursor.
29 DISC MENU	Press to display the DVD Menu.
30 TV/VCR/DVD	Press to change to the VHF/UHF output of the VCR (or DVD/VCR combination unit).
31 VCR/DVD	Press to turn on and off the VCR or DVD player.
32 i.LINK AV1/2/3/DVD Slide Switch	Use the A/V slide switch to control connected video or i.LINK equipment. You can program one video source for each switch position. i.LINK-connected devices are by default set to AV1 . For details, see "Programming the Remote Control" on page 51.
33 	Press repeatedly to step through the Audio Effect options. Also available in the Audio Menu. For details, see page 97.
34 SELECT	Press to select an item in the VCR or DVD player's Menu.
35 MENU	Press to display the DVD player setup Menu.




Programming the Remote Control


The remote control is preset to operate Sony brand video equipment.

Sony Equipment	Switch Position on Remote Control	Programmable Code Number
i.LINK	i.LINK/AV1	901
8 mm VCR	AV2	302
VHS VCR	AV3	301
DVD player	DVD	751


If you have video equipment other than Sony brand that you want to control with the TV's remote control, use the following procedure to program the remote control.

 **The equipment must have infrared (IR) remote capability in order to be used with the remote control.**

- 1 Turn to the list of "Manufacturer's Codes" on page 52, and find the three-digit code number for the manufacturer of your equipment. (If more than one code number is listed, use the number listed first.)
- 2 Open the remote control and set the A/V slide switch to **i.LINK/AV1**, **AV2**, **AV3**, or **DVD**. Then close the remote control.

 **If the device that you wish to program is connected through i.LINK, you must set the slide switch to AV1.**

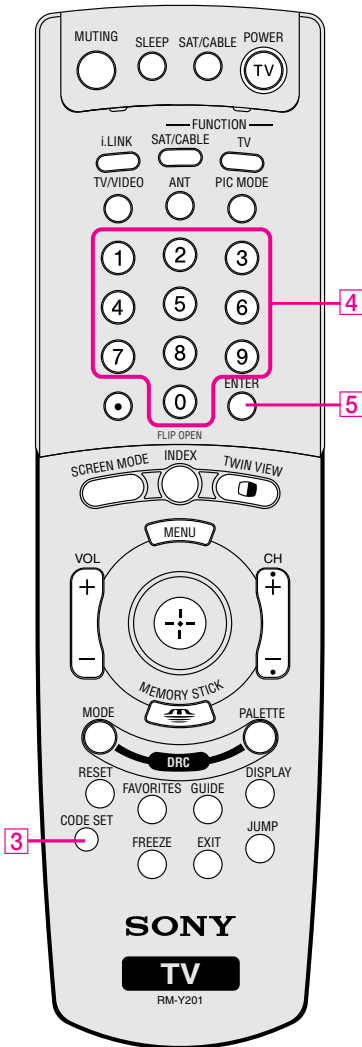
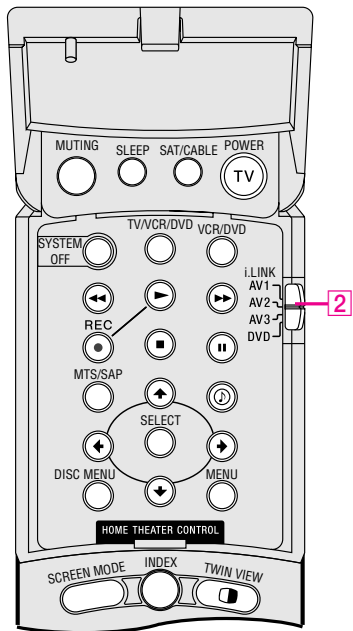
- 3 Press **CODE SET**.
- 4 Enter the three-digit manufacturer's code number.
- 5 Press **ENTER**.

 **You must do step 5 within 10 seconds of step 4, or you must redo steps 3 through 5.**

- 6 To check if the code number works, aim the TV's remote control at the equipment and press the **POWER** button that corresponds with that equipment. If it responds, you are done. If not, try using another code listed for that manufacturer.

Notes

- If more than one code number is listed, try entering them one by one until you come to the correct code for your equipment.
- If you enter a new code number, the code number you previously entered at that setting is erased.
- In some cases, you may not be able to operate your equipment with the supplied remote control. In such cases, use the equipment's own remote control unit.
- Whenever you remove the batteries to replace them, the code numbers may revert to the factory setting and must be reset.



Manufacturer's Codes

VCRs

Manufacturer	Code
Sony	301, 302, 303
Admiral (M. Ward)	327
Aiwa	338, 344
Audio Dynamic	314, 337
Broksonic	319, 317
Canon	309, 308
Citizen	332
Craig	302, 332
Criterion	315
Curtis Mathes	304, 338, 309
Daewoo	341, 312, 309
DBX	314, 336, 337
Dimensia	304
Emerson	319, 320, 316, 317, 318, 341
Fisher	330, 335
Funai	338
General Electric	329, 304, 309
Go Video	322, 339, 340
Goldstar	332
Hitachi	306, 304, 305, 338
Instant Replay	309, 308
JC Penney	309, 305, 304, 330, 314, 336, 337
JVC	314, 336, 337, 345, 346, 347
Kenwood	314, 336, 332, 337
LXI (Sears)	332, 305, 330, 335, 338
Magnavox	308, 309, 310
Marantz	314, 336, 337
Marta	332
Memorex	309, 335
Minolta	305, 304
Mitsubishi/ MGA	323, 324, 325, 326
Multitech	325, 338, 321
NEC	314, 336, 337
Olympic	309, 308
Optimus	327
Orion	317
Panasonic	308, 309, 306, 307
Pentax	305, 304
Philco	308, 309
Philips	308, 309, 310
Pioneer	308
Quasar	308, 309, 306
RCA/ PROSCAN	304, 305, 308, 309, 311, 312, 313, 310, 329

Manufacturer	Code
Realistic	309, 330, 328, 335, 324, 338
Sansui	314
Samsung	322, 313, 321
Sanyo	330, 335
Scott	312, 313, 321, 335, 323, 324, 325, 326
Sharp	327, 328
Signature 2000 (M. Ward)	338, 327
SV2000	338
Sylvania	308, 309, 338, 310
Symphonic	338
Tashiro	332
Tatung	314, 336, 337
Teac	314, 336, 338, 337
Technics	309, 308
Toshiba	312, 311
Wards	327, 328, 335, 331, 332
Yamaha	314, 330, 336, 337
Zenith	331

Laserdisc Players

Manufacturer	Code
Sony	701
Panasonic	704, 710
Pioneer	702

DVD/VCR Combination Units

Manufacturer	Code
Sony	601
Broksonic	605
JVC	604
Panasonic	609
Samsung	603
Toshiba	602

i.LINK Controls

Function	Code
Rewind, Play, Fast-forward, Record, Stop, Pause	901

DVD Players

Manufacturer	Code
Sony	751
Apex	762
General Electric	755
Hitachi	758
JVC	756
Magnavox	757
Mitsubishi	761
Oritron	759
Panasonic	753
Philips	757
Pioneer	752
RCA/Proscan	755
Samsung	758
Toshiba	754
Zenith	760

Cable Boxes

Manufacturer	Code
Sony	230
Hamlin/Regal	222, 223, 224, 225, 226
Jerrold/G. I./ Motorola	201, 202, 203, 204, 205, 206, 207, 208, 218
Oak	227, 228, 229
Panasonic	219, 220, 221
Pioneer	214, 215
Scientific Atlanta	209, 210, 211
Tocom	216, 217
Zenith	212, 213

Satellite Receivers

Manufacturer	Code
Sony	801
Dish Network	810
Echostar	810
General Electric	802
Hitachi	805
Hughes	804
Mitsubishi	809
Panasonic	803
RCA/ PROSCAN	802, 808
Toshiba	806, 807


Using the Features




Overview

This chapter describes how to use the features of your TV.


<i>Topic</i>	<i>Page</i>
Watching TV	54
Using the Program Guide	55
Using the Scrolling Index	57
Using Screen Mode	58
Using Twin View	60
Using Favorite Channels	63
Using the Freeze Function	65
Using Other Equipment with Your TV Remote Control	66

Watching TV


 For a complete list of all the functions of the remote control, see pages 47-52.

To Do This ...	Do This ...
Activate the remote control to operate the TV	Press TV FUNCTION
Turn on/off the TV	Press TV POWER
Tune directly to a channel	To tune to analog channels, press 0-9 and then ENTER . For digital subchannels, press 0-9 ,  , press 0-9 again, and then ENTER . For example, to select subchannel 21.13, press 2+1++1+3 , and then press ENTER .  You can also select channels using the program guide. See pages 55 for details.
Adjust the volume	Press VOL +/-
Mute the sound	Press MUTING (press again to unmute)
Alternate back and forth between two channels	Press JUMP The TV alternates between the current channel and the last channel tuned.
Display the current channel number (and other information)	Press DISPLAY once to display the channel number, current time, and channel label (if set). Press DISPLAY again to turn Display off.
Switch the TV's input to the VCR, DVD player, or other connected equipment	Press TV/VIDEO repeatedly to cycle through the video equipment connected to the TV's video inputs.
Change video and audio options, customize the TV's setup, set parental controls, and more	Press MENU to display the Menu. For details, see "Using the Menus" on page 93.
Switch the TV's input between sources connected to the TV's VHF/UHF and CABLE inputs	Press ANT to alternate between sources connected to the TV's VHF/UHF and CABLE inputs.

Using the Program Guide

 The program guide is not available while using multipicture functions (Twin View, Freeze, Scrolling Index, i.LINK, Memory Stick, or Favorite Channels).

The program guide lets you review program information and select both analog and digital channels.

 **The Program Guide cannot be displayed when the TV is tuned to one of the video inputs or if the Channel Fix option is set to anything other than Off (see page 100).**

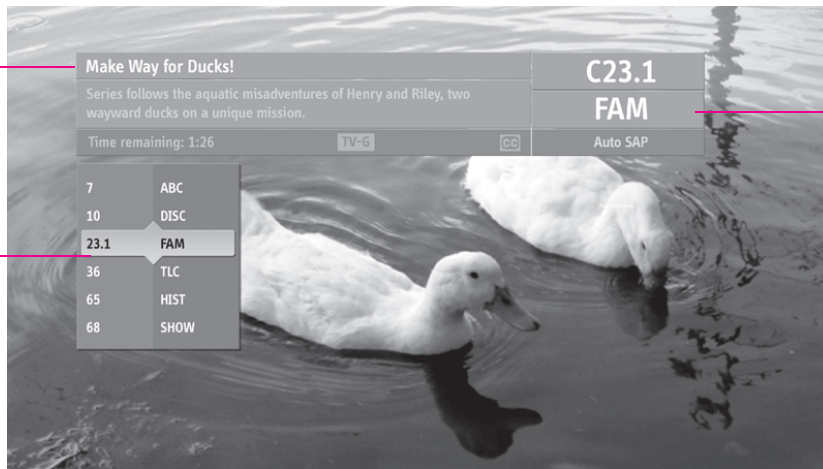


To display the program guide:


Press **GUIDE** on the TV's remote control. The program guide appears, with the currently selected program showing in the background.





Program title and description, program duration, time remaining, rating information, closed-caption availability, etc.

Selectable channel list



Channel number, call letters, etc.

 **Program information in the guide is provided by the broadcasters. As a result, it may sometimes include only the channel number, without a program title or description.**

To Do This ...	Do This ...
Scroll through the channel list	Move the joystick  
Select the currently displayed channel and exit the guide	Press  .
Display additional options	Move the joystick  . See "Using Additional Program Guide Options" on page 56.
Exit the Guide (without changing channels)	Press GUIDE

Using Additional Program Guide Options

Move the joystick → while in the program guide's channel list to display the following options, which allow you to customize the settings of the program on the currently tuned channel.



Option	Description
Alternate Video (when available)	Each program has a main video stream (the video that you see when the channel is first tuned), and may have alternate video streams. This option allows you to switch among these alternate video streams.
Alternate Audio (when available)	Each program has a main audio stream (the audio that you hear when the channel is first tuned) and may have alternate audio streams. This option allows you to switch among these alternate audio streams (e.g., for different languages).

Using the Scrolling Index

The Scrolling Index lets you select programs from a series of preview windows that scroll along the right side of the screen.

1 Press INDEX.

The Scrolling Index appears, with the currently selected program in the main (left) window, and four scrolling video pictures in the right.



As each picture on the right scrolls to the live preview window, it changes briefly from a frozen video picture to a live video. The right side continues to scroll through the entire channel list.

- 2 To change the direction of the scrolling, move the joystick **▲** or **▼**.
- 3 To change the speed of the scrolling, move and hold the joystick **▲** or **▼**.
- 4 To change a frozen video picture to a live video, move the joystick **▲** or **▼** to highlight the picture, then press **⊕**.
- 5 To move the live video (from step 4) from the right to the main (left) window of the Scrolling Index, press **⊕** again.


To exit the Scrolling Index

- ❑ Press INDEX.

Factors Affecting Scrolling Index

- ❑ Scrolling Index does not function if you use a cable box to view all channels.
- ❑ Scrolling Index does not function if you are using CableCARD (see page 43).
- ❑ Scrolling Index does not function if parental controls are set (see page 102).
- ❑ Digital sources, as well as any sources connected to the VIDEO 5, VIDEO 6, VIDEO 7 inputs, display in the left window, but not in the right windows.









Using Screen Mode

 You can also access the Screen Mode settings in the Screen Menu. For details, see page 99.

The Screen Mode feature lets you change the picture size for both standard-definition (480i/480p) and high-definition (720p/1080i) sources.



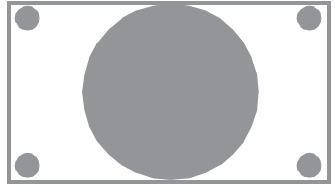

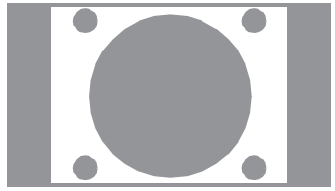





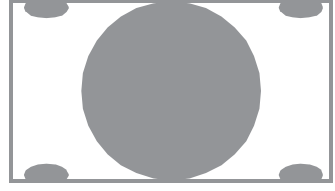



- Press **SCREEN MODE** repeatedly to toggle through the following Screen Mode settings.

Using Screen Mode with Standard Definition (480i/480p) Sources

Example	Description
  Wide Zoom	Wide Zoom enlarges the center portion of the picture proportionately. The left and right edges of the picture are stretched to fill the 16:9 screen.
  Normal	Normal displays the 4:3 picture in its original size. Bars are shown to fill the 16:9 screen.
  Full	Full stretches the 4:3 picture horizontally, to fill the 16:9 screen.
  Zoom	Zoom enlarges the 4:3 picture proportionately to fill the 16:9 screen. Some clipping may occur. Zoom is useful for watching Letterbox movies.

When you change channels or inputs, the Screen Mode settings revert to the **4:3 Default** setting in the Screen Menu. To retain the current Screen Mode setting as channels and inputs are changed, set **4:3 Default** to **Off**. For details, see page 99.


Using Screen Mode with High-Definition (720p/1080i) Sources

Example	Description
  <p>Full (native 16:9)</p>	<p>Full displays the picture at its original size.</p> <p>If the source is a 16:9 high-definition (720p/1080i) signal, the picture fills the screen.</p> 
 <p>Full (upconverted 4:3)</p>	<p>If the source is a 4:3 standard-definition signal that has been upconverted, bars are shown to fill the 16:9 screen.</p> 
<p>↓</p>   <p>Zoom</p>	<p>Zoom enlarges the picture proportionately, both vertically and horizontally. Some clipping may occur.</p> 
<p>↓</p>   <p>Horizontal Expand</p>	<p>Horizontal Expand stretches the picture horizontally. Some clipping may occur.</p> 
<p>↓</p>   <p>Vertical Expand</p>	<p>Vertical Expand stretches the picture vertically. Some clipping may occur.</p> 

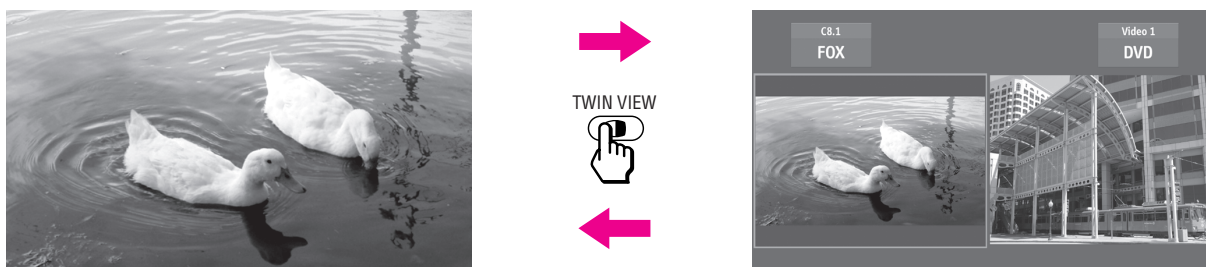
Using Twin View

Twin View lets you see two pictures from two sources — from an antenna, VCR, DVD, etc. — on the screen at the same time. You hear the sound from only one of the sources at a time, but you can choose which source's sound is selected. You can also change the relative size of each of the pictures.

Displaying Twin Pictures

- 1 Tune the TV to a working channel.
- 2 Press .

A second picture appears. The active picture is highlighted.



To cancel Twin View and watch the active picture

- Press  or .

Factors Affecting Twin View

- If you use a cable box to view all channels, the same channel appears in both windows of Twin View because the cable box unscrambles only one channel at a time.
- If you use a cable box, you can view the cable box output in one Twin View window and view a different source (such as a VCR or DVD player) in the second window by using the **TV/VIDEO** button. For details, see “Connecting Optional Equipment” on page 22.
- Digital sources, as well as any sources connected to the VIDEO 5, VIDEO 6, VIDEO 7 inputs, display in the left window, but not in the right window.
- If you are viewing a 4:3 source and a 16:9 enhanced source (such as a DVD) side by side in Twin View, the 4:3 source appears larger.
- Twin View does not display channels that are blocked by parental settings (see page 102).

Activating the Picture

You can use the ◀ and ▶ buttons to activate the left and right pictures while using Twin View.

To Do This ...

To activate the picture in the right window

Do This ...



Move the joystick ▶.



To activate the picture in the left window



Move the joystick ◀.



Functions Available in the Active (Highlighted) Window

To Do This ...	Do This ...
Tune to a channel	To tune to analog channels, press 0-9 and then ENTER . For digital subchannels, press 0-9 , ⊙ , press 0-9 again, and then ENTER . For example, to select subchannel 21.13, press 2+1+⊙+1+3 , and then press ENTER .
Adjust the volume	Press VOL +/-
Mute the sound	Press MUTING (press again to unmute)
Switch the TV's input between sources connected to the TV's VHF/UHF and CABLE inputs	Press ANT
Switch the TV's input between sources connected to the TV's A/V inputs	Press TV/VIDEO
Change the picture size	Move the joystick ▲ or ▼ . (For details, see "Changing the Picture Size" on page 62.)

Changing the Picture Size

The zoom feature lets you vary the relative size of the left and right pictures.

To Do This ...

Do This ...

Enlarge the active picture



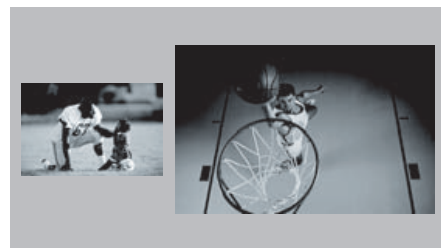
Move the joystick ▲.

Make the active picture smaller



Move the joystick ▼.

When you adjust the picture sizes, the TV memorizes the change. The next time you use the Twin View function, the memorized sizes appear.






Using Favorite Channels

The Favorite Channels feature lets you select programs from a list of up to 16 favorite channels that you specify. You can create a list using the Favorite Channel option in the Channel Menu, or by using the Add to Favorites feature in the Favorite Channels guide.

Using the Channel Menu






 For details on using the Channel Menu, see page 100.

- 1 Press **MENU** to display the Menu.
- 2 Move the joystick **▲** or **▼** to highlight the Channel icon and press .
- 3 Press  to select **Favorite Channels**.
- 4 Use the **0-9** and **ENTER** buttons to enter the channel number that you want to assign to the Favorite Channel number. A preview of the highlighted channel appears in the upper right of the screen.

 **Digital channels do not display in the preview window.**

Press  to select that channel as a Favorite Channel.

 **To enter digital channel numbers in step 4, use the 0-9, , and ENTER buttons.**

- 5 To add more channels to your favorites list, repeat step 4.
To clear a Favorite Channel, move the joystick **▲** or **▼** to highlight the channel you want to clear. Press  and then press **RESET**.
- 6 Press **MENU** to exit the Menu.

Using the Favorite Channels Guide



- 1 Press **FAVORITES**. The Favorite Channels list appears.



Preview of highlighted Favorite Channel

Favorite Channels

- 2 Move the joystick **▲** or **▼** to highlight the channel you want to watch.

A preview of the highlighted Favorite Channel appears.

 **Digital channels do not display in the preview window.**


To add the current channel to the list of Favorite Channels, highlight **Add to Favorites** and press **⊕**.

To change your Favorite Channels list, highlight **Edit Favorites** and press **⊕**.

- 3 Press **⊕** to select the channel you want to watch.

Using the Freeze Function

The **FREEZE** button allows you to temporarily capture a program's picture. You can use this feature to write down information such as phone numbers, recipes, etc.

 **The Freeze feature is not available while using Twin View.**

- 1 When the program information you want to capture is displayed, press **FREEZE**.
- 2 The TV switches to Twin View mode and displays the "frozen" picture on the right, while the current program continues on the left.



- 3 To cancel and return to normal viewing, press **FREEZE** (or just tune to another channel).

Using Other Equipment with Your TV Remote Control

All Equipment

To Do This ...	Do This ...
Switch the TV's input to the VCR, DVD player, or other connected equipment	Press TV/VIDEO repeatedly to cycle through the video equipment connected to the TV's video inputs.
Set up the TV remote control to operate non-Sony equipment	You must program the remote control the first time you use it. See "Programming the Remote Control" on pages 51 to 52.

Operating a VCR

To Do This ...	Press
Activate the remote control to operate the VCR	Open the outside cover, as shown on page 50. Then set the A/V slide switch to the position you programmed for the VCR.
Change channels	CH +/-
Record	▶ and ● simultaneously
Play	▶
Stop	■
Fast forward	▶▶
Rewind the tape	◀◀
Pause	
Search the picture forward or backward	▶▶ or ◀◀ during playback (release to resume normal playback)
Change input mode	TV/VCR

Operating a Satellite Receiver

To Do This ...	Press
Activate the remote control to operate the satellite receiver	SAT/CABLE FUNCTION
Turn on/off	SAT/CABLE POWER
Select a channel	0-9, ENTER
Change channels	CH +/-
Back to previous channel	JUMP
Display channel number	DISPLAY
Display SAT Guide	GUIDE
Display SAT Menu	MENU
Move highlight (cursor)	Move the joystick ↑ ↓ ← →
Select item	⊕

Operating a Cable Box

To Do This ...	Press
Activate the remote control to operate the cable box	SAT/CABLE FUNCTION
Turn on/off	SAT/CABLE POWER
Select a channel	0-9, ENTER
Change channels	CH +/-
Back to previous channel	JUMP

Operating a DVD Player

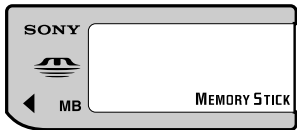
To Do This ...	Press
Activate the remote control to operate the DVD	Open the outside cover, as shown on page 50. Then set the A/V slide switch to the position you programmed for the DVD player.
Play	▶
Stop	■
Pause	⏸
Step through different tracks of the disc	▶▶ to step forward or ◀◀ to step backward
Step through different chapters of a video disc	CH+ to step forward or CH- to step backward
Display the DVD player Menu (Setup)	MENU (inside panel)
Display the DVD Menu	DISC MENU
Move highlight (cursor)	↑ ↓ ← →
Select item	SELECT

Operating a DVD/VCR Combination Unit

To Do This ...	Press
Activate the remote control to operate the DVD/VCR	Open the outside cover, as shown on page 50. Then set the A/V slide switch to the position you programmed for the DVD or VCR.
Turn on/off	VCR/DVD (power)
Switch between the DVD player and VCR	TV/VCR/DVD
Display the DVD menu	MENU
Play	▶
Stop	■
Pause	
Search the picture forward or backward	▶▶ or ◀◀ during playback
Move highlight (cursor) and select (DVD)	↑ ↓ ◀ ▶ SELECT
Record (VCR)	▶ and ● simultaneously
Change channels (VCR)	CH +/- or 0-9, ENTER (using tuner)
Adjust tracking (VCR)	CH +/- (during tape playback)

Using the Memory Stick Viewer

About Memory Stick



Memory Stick (sold separately) is a compact, portable, and versatile Integrated Circuit recording medium with a data capacity that makes it perfect for portable applications, such as digital photography. Memory Stick is specially designed for sharing digital data among Memory Stick compatible products such as digital cameras and digital video cameras. Because it is removable, Memory Stick can also be used for external data storage.

The Memory Stick Viewer on your TV allows you to view files that are stored on Memory Stick media. You can view:

- ❑ Digital photos (JPEG files)
- ❑ Movies (MPEG1 files)

You can also play slide show background music using MP3 files (or m3u playlists) stored on your Memory Stick.

For more information about handling Memory Stick media, see “Notes on Using Memory Stick Media” on page 83.

Features


With the Memory Stick Viewer, you can:

- ❑ View photo (JPEG) and movie (MPEG1) files in a thumbnail index or Slide Show
- ❑ Set customized Slide Show options, including transitions and background audio
- ❑ Pan, zoom, and rotate photos
- ❑ Mark photos and set quantities of prints to be output when the Memory Stick is inserted into your photo printer (not supplied)
- ❑ Lock (protect) or delete files on the Memory Stick

Memory Stick Compatibility

This television is compatible with the following Sony brand Memory Stick media types:

- ❑ Memory Stick Media
- ❑ Memory Stick Duo and PRO Duo Media

 The Memory Stick slot on your TV has been designed to accommodate standard and compact versions of Memory Stick. It is not necessary to use an adapter for Memory Stick Duo and Memory Stick PRO Duo. If you use an adapter it may damage the adapter and Memory Stick slot.

- ❑ Memory Stick Media with Memory Select Function
- ❑ Memory Stick PRO Media

About Memory Stick PRO Media

Memory Stick PRO media features vary by and are dependent upon the design of host hardware devices. Memory Stick PRO in this television has been tested to support up to 1 GB media capacity and does not support high-speed transfer, MagicGate copyright protection technology, or access control security features.

Memory Stick Functionality

Sony cannot guarantee or assure the Memory Stick functionality on this television in the following cases:

- ❑ You are using non-Sony brand Memory Stick media.
- ❑ You are using video or audio clips that have been processed on a computer.
- ❑ You are using files that were obtained from the Internet or from a printed film processing center.
- ❑ The Memory Stick has been formatted on a personal computer.

Sony recommends that you back up all data stored on Memory Stick media to avoid potential data loss. In the above two cases, in order to avoid potential data corruption that may occur, be sure to back up data prior to use with the TV's Memory Stick Viewer. Sony cannot accept responsibility in the event that data recorded to Memory Stick media is lost or damaged. For certain non-Sony brand Memory Stick media, you can view images, but you cannot rotate, delete or protect/unprotect images on the television. An error message will occur if you attempt any of these operations. This is a result of the unique file directory structure on these particular flash memory media and is not a malfunction of the television.

File Compatibility

The Memory Stick Viewer is compatible with JPEG images taken with Sony digital still cameras and MPEG1* movies taken with Sony digital cameras and camcorders. In order to be viewable in the Memory Stick Viewer, the files must have the following file name extensions:

<i>File Type</i>	<i>Supported File Name Extensions</i>
JPEG	.jpg .jpeg
MPEG1	.mpg .mpeg


Trademark Information

Memory Stick, Memory Stick Duo, Memory Stick PRO, Memory Stick PRO Duo, and MagicGate are trademarks of Sony Corporation.

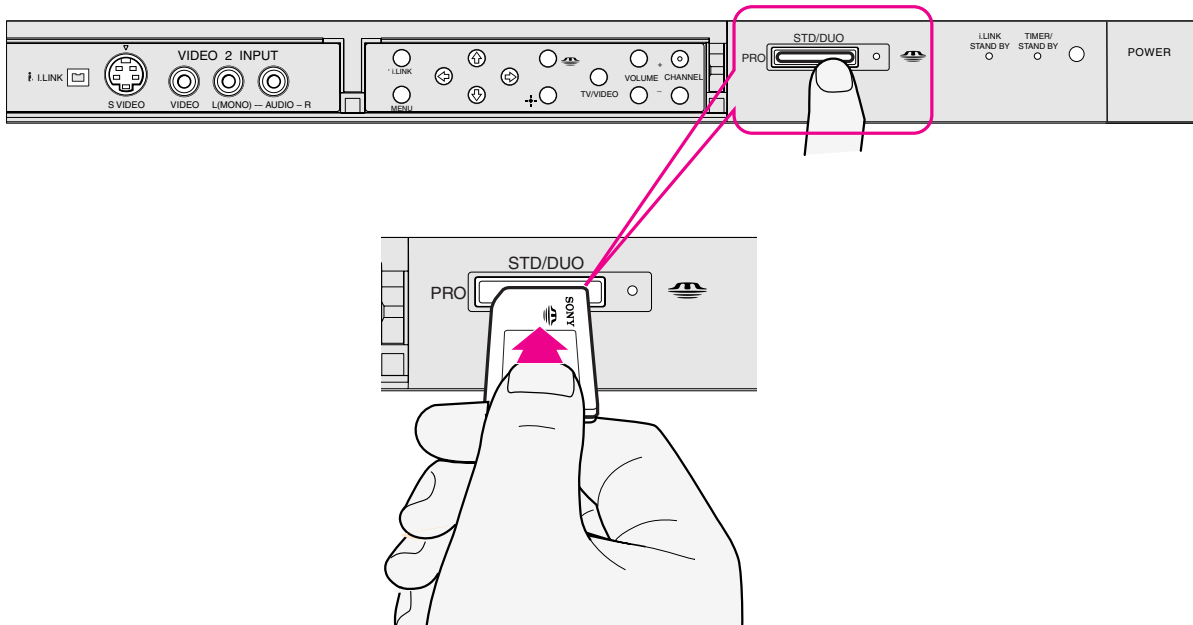
*Some variations of MPEG1 movies may not play back correctly.


Inserting and Removing a Memory Stick

Inserting a Memory Stick

 The Memory Stick slot on your TV has been designed to accommodate standard and compact versions of Memory Stick. It is not necessary to use an adapter for Memory Stick Duo and Memory Stick PRO Duo. If you use an adapter it may damage the adapter and Memory Stick slot.

- 1 Locate the Memory Stick slot (see page 14) and insert the Memory Stick into the Memory Stick slot as illustrated below. When inserted properly, it should slide in with little resistance and click into place.



 Be sure to insert the Memory Stick in the correct direction. If the Memory Stick is forced in the wrong way, it may become damaged.


Insert only Memory Stick media into the Memory Stick slot. Attempting to insert other objects into the slot may damage the TV.

To remove the Memory Stick, see "Removing a Memory Stick" on page 73.


Removing a Memory Stick

To remove a Memory Stick


- 1 Check that the Memory Stick indicator is off. (When the light is on, this indicates that the TV is reading data from the Memory Stick.)

 Removing the Memory Stick while a file is being accessed (when the Memory Stick LED on the TV's front panel is lit) may damage the Memory Stick or its contents.

- 2 Push the Memory Stick gently into the slot, and then release it. The Memory Stick media is ejected.

 Do not pull out the Memory Stick without first pushing it in; otherwise, the TV's locking mechanism may become damaged.


- 3 Pull the Memory Stick completely out of the slot.

 To protect small children from injury from Memory Stick Media, remove all Memory Stick media from the TV's Memory Stick slot and store it in a safe location when it is not in use.

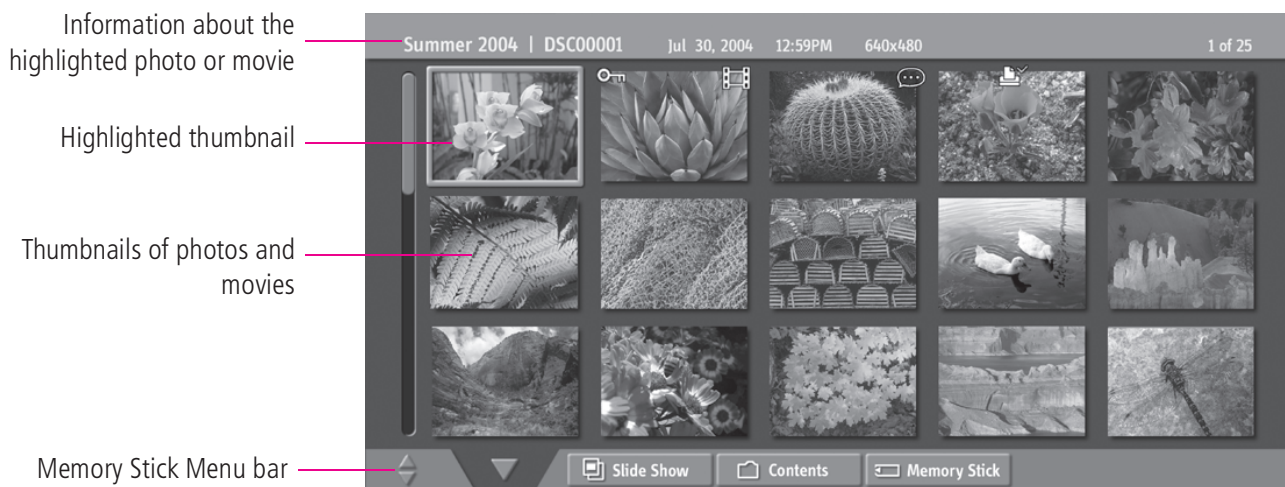
Using the Memory Stick Index

Turn on the TV and insert a Memory Stick that contains the photo or movie files you want to view. For details, see page 72.







 If the Memory Stick Index does not appear, press the MEMORY STICK button on the remote control.

The Memory Stick Index appears, which displays thumbnail images of the files stored on the Memory Stick.



About the Icons on the Thumbnail Images

-  Indicates the thumbnail is a movie (MPEG1) file instead of a photo (JPEG) file.
-  Indicates the thumbnail is locked. Locked files cannot be changed or deleted. For details, see "Protect" on page 77.
-  Indicates that the photo is marked to be printed.
-  Indicates that the photo has an associated voice memo.

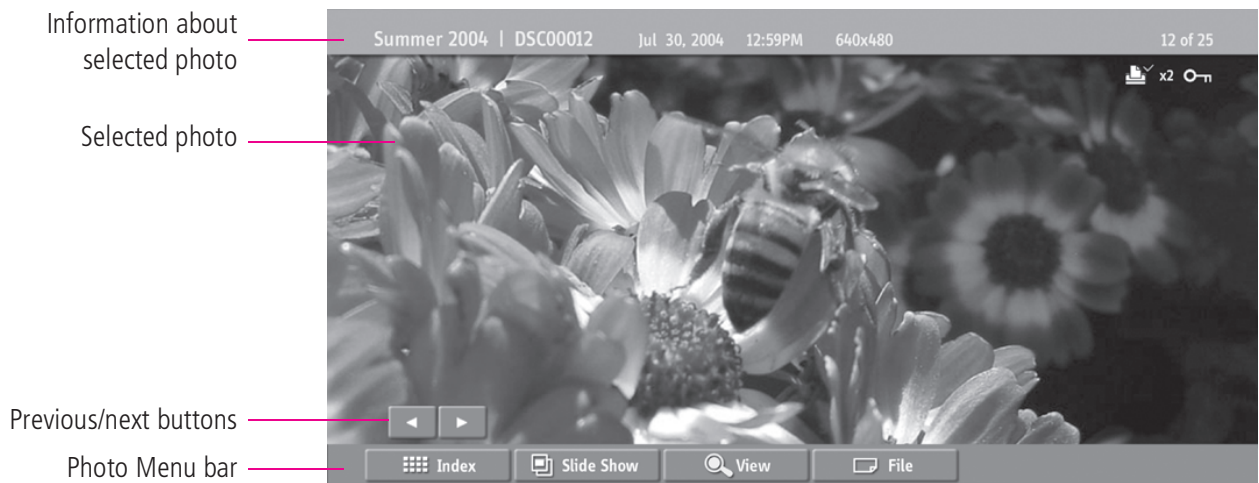
Using the Memory Stick Index

The following describes how to use the Memory Stick Index.

To Do This ...	Do This ...
Move the highlight to a photo, voice memo (🗣️), or movie (🎬) thumbnail	Move the joystick ↑ ↓ ← → .
Display the highlighted photo, voice memo, or movie file full screen	Press ⊕ . For details, see “Viewing Photos” on page 76 and “Playing Movies” on page 79.
Display the next page of thumbnails	<ol style="list-style-type: none"> 1 Move the joystick ↓ to select ▼. 2 Move the joystick ↓ to display the next page of thumbnails.
Display the previous or next page of thumbnails	<ol style="list-style-type: none"> 1 Move the joystick ↓ to select ▼. 2 Move the joystick ← to select ◀. 3 To go to the previous page, move the joystick ↑. To go to the next page, move the joystick ↓.
Use the Memory Stick Menu bar to access additional options	<ol style="list-style-type: none"> 1 Move the joystick ↓ to select ▼. 2 Move the joystick ← or → to select Slide Show, Contents, or Memory Stick. 3 Move the joystick ↑ or ↓ to select the option you want to change. <p>For details on these options, see “Memory Stick Index Menu Bar Options” on page 81.</p>
Move the highlight from the Memory Stick Menu bar back to the thumbnails	<ol style="list-style-type: none"> 1 Move the joystick ← or → to select ▼. 2 Move the joystick ↑ to return to the currently displayed thumbnails, or ↓ to display the next page of thumbnails.
Exit Memory Stick Viewer	Press the MEMORY STICK button on the remote control.

Viewing Photos

When you select a photo from the Memory Stick Index (described on page 74), it displays as shown below, with the following controls.



JPEGs captured using a digital video camera may appear to display motion in full screen. This is a result of the way digital video cameras record still images, and is not a result of a malfunction with the TV.

Photo Controls

When the Menu is hidden, move the joystick or to go to the previous or next photo.

To Do This ...	Do This ...
Display the next or previous file on the Memory Stick	Highlight the (Previous/Next) button. Then move the joystick to go to the previous file, or to go to the next file.
Hide the Photo Menu bar, displaying only the photo	With the highlight in the Photo Menu bar, move the joystick .
Display the hidden Photo Menu bar	Move the joystick .
Play the JPEG voice memo (files only)	Highlight (Play) and then press . To pause the voice memo, highlight (Pause) and then press .
Display the Memory Stick Index again	Highlight Index in the Photo Menu bar and press . For details on the Memory Stick Index, see page 75.
Access additional options in the Photo Menu bar	See "Photo Menu Bar Options" on page 77.
Exit Memory Stick Viewer	Press the MEMORY STICK button on the remote control.



Photo Menu Bar Options


The Photo Menu bar lets you access additional photo viewing options.

To access the Photo Menu bar

- 1 Move the joystick ◀ or ▶ to select **Slide Show**, **View**, or **File**.
- 2 Press to select the desired option.

Option	Description
Index	Displays the Memory Stick Index, with the highlight on the thumbnail of the currently displayed photo. For details, see “Using the Memory Stick Index” on page 74.
Slide Show	Displays the Slide Show Menu. For details, see “Slide Show Menu Options” on page 81.
View	Rotate Allows you to rotate the photo in 90 degree increments clockwise or counterclockwise. For details, see “Using Rotate” on page 78.
	Zoom/Pan Allows you to magnify and pan across the photo. For details, see “Using Zoom and Pan” on page 78.
File	Protect Allows you to protect the JPEG file from any changes. When a JPEG file is protected, it cannot be rotated or deleted. Select On or Off .
	Print Quantity Allows you to indicate the number of prints to make of the specific photo when the Memory Stick is inserted into a compatible photo printer (not supplied).
	Delete Deletes the JPEG file from the Memory Stick. You cannot delete a JPEG file that has been protected (or if the Memory Stick is locked).

 JPEG files that are protected are indicated by the Lock  icon.

 The **Print Quantity** feature is also known as DPOF (Digital Print Order Format).

Using Zoom and Pan

To Zoom and Pan a photo

- 1 In the Photo Menu bar, highlight **View**.
- 2 Highlight **Zoom/Pan** and press \odot .
- 3 Specify the zoom center point by moving the joystick; then press \odot to set the center.

The Zoom and Pan controls are displayed.



To Do This ...	Do This ...
Zoom in (increase magnification) or out (decrease magnification)	Highlight Zoom and press \uparrow to zoom in or \downarrow to zoom out. For help on using Zoom, press \odot .
Pan (move the photo left, right, up, down)	(You can use Pan only when the photo is magnified using Zoom.) Highlight Pan and press \odot . Then move the joystick $\leftarrow \rightarrow \uparrow \downarrow$ to pan around the photo. To stop using Pan, press \odot .
Exit the Zoom/Pan controls	Highlight Exit and press \odot .
Exit Memory Stick Viewer	Press the MEMORY STICK button on the remote control.

Using Rotate

To Rotate a photo

- 1 In the Photo Menu bar, highlight **View**.
- 2 Highlight **Rotate**.
- 3 To rotate clockwise, highlight **Clockwise** and press \odot . To rotate counterclockwise, highlight **Counterclockwise** and press \odot .


The photo is rotated 90 degrees each time you press \odot .












Playing Movies

When you select a movie from the Memory Stick Index (described on page 74), it displays as shown below, with the following controls.





Movie Controls

 The quality of the movie when enlarged depends on the resolution of the MPEG1 file. See your camera's instruction manual for details.

To Do This ...	Do This ...
Enlarge the movie window	Highlight Enlarge , and then press  . To display the movie controls again, press  . When the movie ends, the movie controls are displayed again.
Play the movie with the movie controls displayed	Highlight  (Play) and then press  .
Pause the movie	Highlight  (Pause) and then press  .
Display the previous or next file on the Memory Stick	Highlight the  (Previous/Next) button. Then move the joystick  to go to the previous file, or  to go to the next file.
Hide the Movie Menu bar, displaying only the movie	With the highlight in the Movie Menu bar, move the joystick  .
Display the hidden Movie Menu bar	Move the joystick  .
Access additional options in the Movie Menu bar	See "Movie Menu Bar Options" on page 80.
Exit Memory Stick Viewer	Press the MEMORY STICK button on the remote control.

Movie Menu Bar Options

 MPEG1 files that are protected are indicated by the Lock  icon.


To access the Movie Menu bar


- 1 Highlight **Index** in the Movie Menu bar.
- 2 Move the joystick **←** or **→** to select **Index**, **Slide Show**, or **File**.
- 3 Select the desired option.


Option	Description
Index	Displays the Memory Stick Index, with the highlight on the thumbnail of the currently displayed movie.
Slide Show	Displays the Slide Show Menu. For details, see “Slide Show Menu Options” on page 81.
File	Protect Allows you to the protect the MPEG1 file from any changes. When an MPEG1 file is protected, it cannot be deleted. Select On or Off .
	Delete Deletes the MPEG1 file from the Memory Stick. You cannot delete an MPEG1 file that has been protected (or if the Memory Stick is locked).


Memory Stick Index Menu Bar Options

Slide Show Menu Options

 The Slide Show Menu is the same whether you select it from the Memory Stick Index (page 74), Photo (page 76), or Movie (page 79) Menus.

 When you select **Complete List**, it may take a moment to display the list of all MP3 files.


 Some JPEG files may take longer to display than others, which may make it seem longer than the interval you selected for **Slide Advance**.

 You can also display file information using the **DISPLAY** button on the remote control.

The Slide Show Menu includes the following options:

Option	Description
Start	Starts the Slide Show.
Music	Allows you to select background audio to play during the Slide Show. Off No additional background audio is played during the Slide Show. Audio that is associated with the JPEG or MPEG1 files will play. Play Memory Stick Plays all MP3 files on the Memory Stick. The Piano MP3 file and any MP3 file playlists are not played. Piano (built-in) Plays the MP3 file stored in the TV's internal memory. (List of MP3 Files and Playlists) Displays a list of all MP3 files and MP3 file playlists found at the top level (root) of the Memory Stick. To show additional MP3 files stored in other folders on the Memory Stick, select Complete List . Complete List Displays a list of all available MP3 files.
Transition Effect	Allows you to select an effect to be used when advancing to the next file in the Slide Show.
Slide Advance	Allows you to specify when to advance to the next slide. Fast Slide advances after about 3 seconds. Medium Slide advances after about 6 seconds. Slow Slide advances after about 12 seconds. Manual Slide advances only after you move the joystick ◀ or ▶ .
File Information	Determines whether file information is shown when the file is displayed full screen. Select On or Off .
Repeat	On Slide Show continuously loops. Off Slide Show plays once through all files and ends.

Contents Menu Options

 The Rotate function does not change the file's modification date.

The Contents Menu includes the following options:

Option	Description
Select Folder	Allows you to select different folders to view in the Memory Stick Viewer.
Digital Camera Folders	Selects all folders within the directories defined by the DCF rules used by Sony digital cameras (see page 83). JPEG and MPEG1 files in those directories are recognized even if they do not conform to the DCF file naming rules.
Select a Folder	Allows you to access individual folders on the Memory Stick.
File Order	Allows you to change the order in which the Memory Stick files are displayed.
Date Order	Displays files in chronological order by modification date.
Date Order Reverse	Displays files in reverse chronological order by modification date.
Alphabetical	Displays files in alphabetical order by filename.
Filter	Allows you to selectively display specific file types within the selected folder.
Show Photos and Movies	Displays all readable files.
Show Photos Only	Displays only photo (JPEG) files.
Show Movies Only	Displays only movie (MPEG1) files.
Show All Print Marks	Displays all files that are marked for printing. For details, see "Print Quantity" on page 77.

Memory Stick Menu

The Memory Stick Menu displays the current status of the Memory Stick, including total capacity, used capacity, and free capacity.

Notes on Using Memory Stick Media

About DCF File Names

Most Sony brand digital still and video cameras automatically record still photo and movie files using DCF compliant directory and file names.

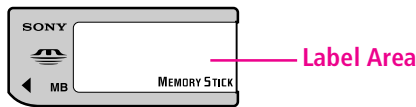
If you selected the **Digital Camera Folders** option, as described on page 82, you might want to have your digital camera's instruction manual handy in order to check how files and directories are organized for your specific model of digital camera.

DCF stands for "Design Rules for Camera File Systems," which are specifications established by the Japan Electronic Industry Development Association (JEIDA).

Memory Stick Precautions

When using Memory Stick media, follow these precautions:

- ❑ To avoid permanent damage to still image data, do not turn off the TV or remove Memory Stick media from the insertion slot while data is being read (as indicated by the Memory Stick indicator light being on).
- ❑ Avoid touching the terminal of Memory Stick media or bringing it into contact with a metal object.
- ❑ Do not drop, bend, or submit Memory Stick media to external shock.
- ❑ Do not disassemble or modify Memory Stick media.
- ❑ Avoid getting liquid on Memory Stick media.
- ❑ Apply labels only within the designated label area.



- ❑ To avoid permanent damage to still image data, do not use or store Memory Stick media in a location subject to:
 - ❑ High temperature (such as near a heater or inside a hot car)
 - ❑ High humidity
 - ❑ Direct sunlight
 - ❑ Corrosive substances
 - ❑ Magnetic fields
 - ❑ Excessive dust
 - ❑ Static electricity or electric noise
 - ❑ Electric surges
- ❑ Store and carry Memory Stick media in its original case to ensure protection of stored data.
- ❑ Save a backup of stored data.

Using i.LINK

About i.LINK

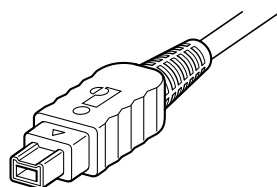
This TV is equipped with i.LINK, which provides a secure digital interface to other digital home entertainment devices, such as digital VCRs, digital camcorders, set-top boxes, and other devices that also are equipped with i.LINK. i.LINK allows for the secure transfer of copyright-protected digital content between these devices and your digital television.

i.LINK is a trademark of Sony Corporation and used only to designate that a product contains an IEEE 1394 connector.

All products with an i.LINK connector may not communicate with each other.

Using i.LINK Cables

This TV has three S400 i.LINK terminals (one in the front panel, and two in the back panel). You can use the following i.LINK cables with this TV:



4-pin i.LINK cable

Sony Model	Length
VMC-IL4415	1.5 meters
VMC-IL4435	3.5 meters



Do not use cables other than the ones listed above.

Connecting i.LINK Devices


 Before connecting this unit to i.LINK-compatible equipment, read the instruction manual of the i.LINK device to be connected.

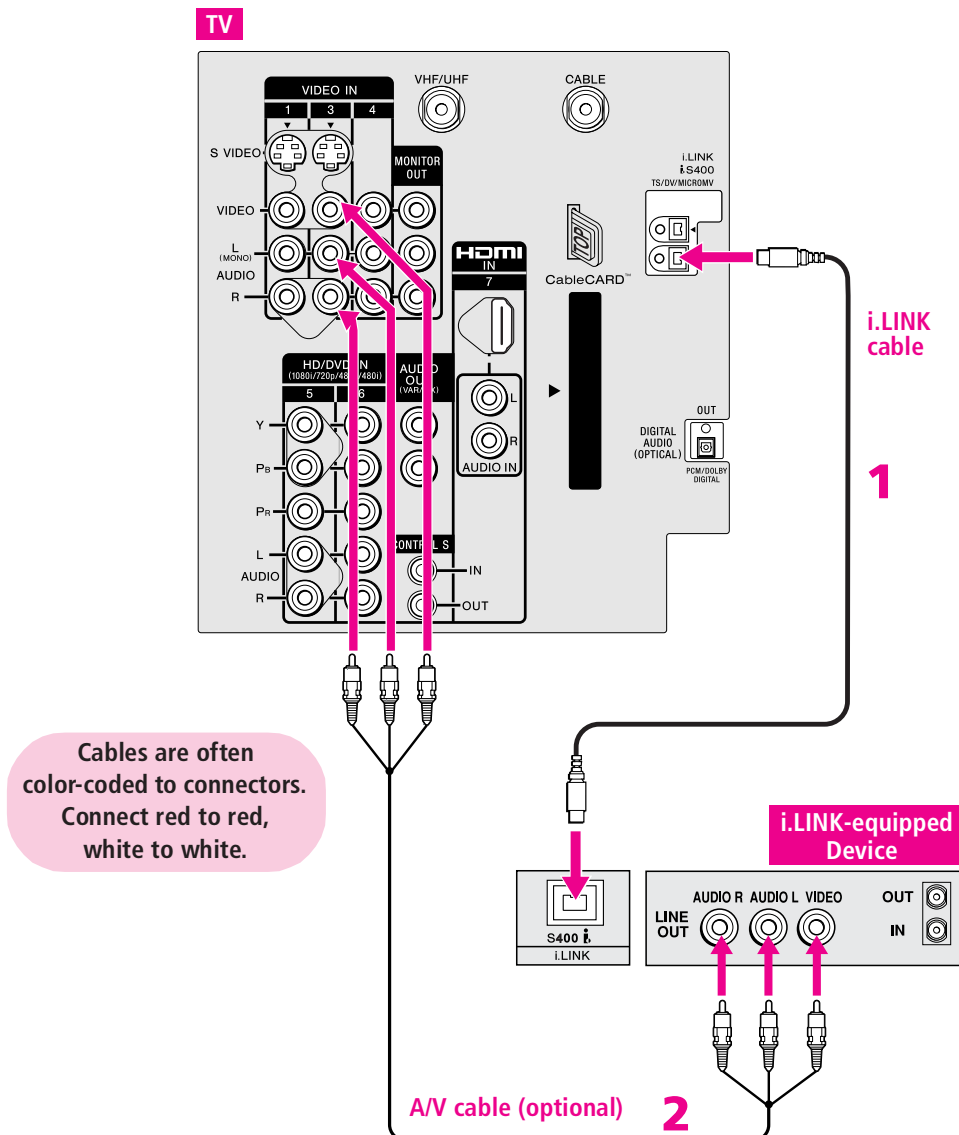
To connect a digital i.LINK device (using only a digital signal)

- 1 Using an i.LINK cable (see page 85), connect the device's i.LINK jack to either of the TV's i.LINK jacks.

To connect an i.LINK device that supports an EIA-775A connection

- 1 Using an i.LINK cable (see page 85), connect the device's i.LINK jack to either of the TV's i.LINK jacks.
- 2 Using an A/V cable, connect the i.LINK device's A/V output jacks to the TV's VIDEO 3 A/V input jacks.

 Only one i.LINK cable should connect the TV and any given i.LINK device.

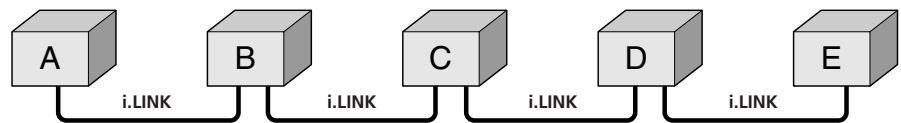


Notes on Using This Connection

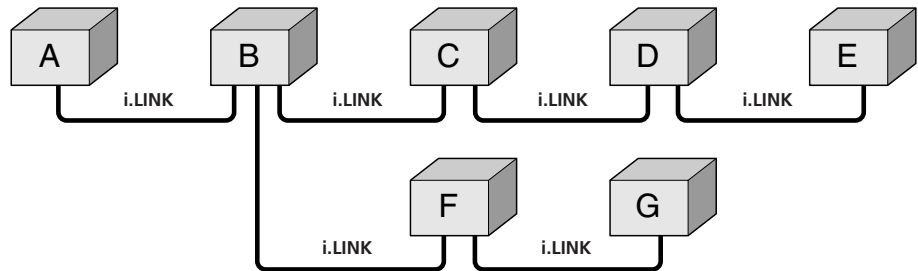
To Do This ...	Do This ...
Set up a digital i.LINK device	For digital i.LINK devices (devices that require only the i.LINK connection), no setup is necessary. The TV automatically recognizes the device as soon as the connection is made.
Set up an i.LINK device that supports an EIA-775A analog connection	<ol style="list-style-type: none">1 Connect analog A/V cables to the VIDEO 3 input (see page 86).2 Use the i.LINK Control Panel to activate the analog connection to your i.LINK device (see page 91).

Notes on Connecting i.LINK Devices

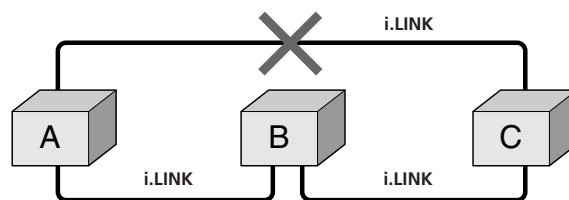
To connect two or more i.LINK devices, use i.LINK cables to connect them as shown below.



You can connect up to 63 i.LINK devices. However, the maximum number of cables in any serial route is 16.



Do not connect i.LINK devices in a way that creates a loop.



Connecting non-compatible devices, such as PCs or PC peripherals, may result in malfunctions.

Selecting an i.LINK Device

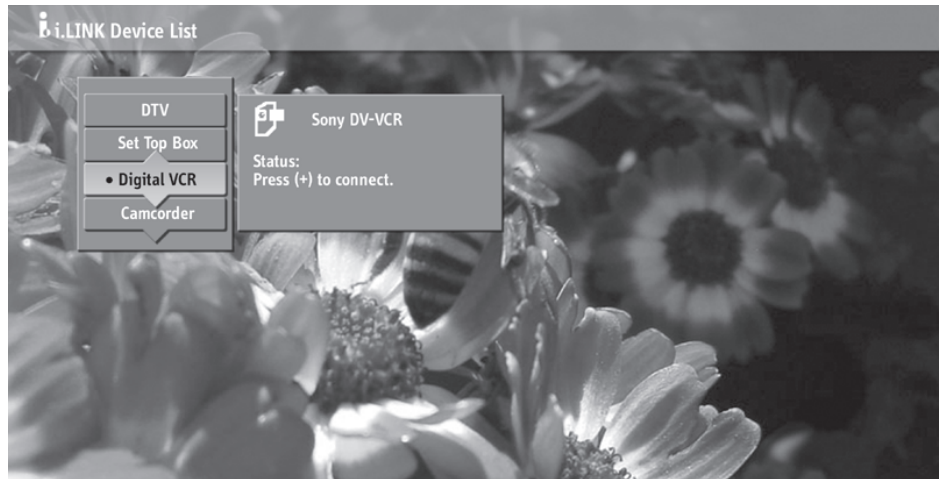
Before an i.LINK device can be viewed, it must first be selected via the i.LINK Device List.



- 1 Connect the i.LINK device that you wish to operate.

For instructions on connecting i.LINK devices, see page 86.

- 2 Press **i.LINK** on the remote control.



The TV (DTV), along with all devices connected by i.LINK to the TV, appear on the Device List.

Devices that are not supported by the TV appear on the Device List as “Other Device,” but cannot be controlled using the TV's remote control or on-screen i.LINK Control Panel. For these devices, use the remote control supplied with the device.

- 3 Move the joystick or to navigate among the i.LINK-connected devices.



i.LINK devices can be connected to one another and to the TV while the TV is powered on. The Device List will automatically update to include the newly-connected device. See page 86 for more information on connecting i.LINK devices.






- 4 Press to select the desired device and display the device's i.LINK Control Panel. Use the i.LINK Control Panel to operate the selected device. For details, see page 89.

Using the i.LINK Control Panel

After you select an i.LINK device using the Device List, the TV displays the i.LINK Control Panel, which allows you to use the TV's remote to control the selected i.LINK device.

- 1 If the i.LINK Control Panel is not already displayed, press **i.LINK** on the remote control.

 If **i.LINK** is pressed while the TV is displaying an analog or digital channel (not the i.LINK device), then the Device List will appear. Select the desired device from the list and press  to display the Control Panel.















- 2 Move the remote control's joystick     to navigate through the options available in the i.LINK Control Panel.
- 3 Press  to select a desired option.
- 4 Press **i.LINK** to exit the Control Panel and view the i.LINK device full-screen.

 To exit i.LINK mode, select DTV from the Device List or press CH+/-.



The DTV window appears only if the i.LINK Menus were entered while watching a digital TV channel

The i.LINK Control Panel displays the signal from the TV to the left (if available), and the signal from the currently selected device to the right.

To Do This ...	Do This ...
Go to the Device List	Move the joystick to highlight Back to Device List and press  .
Change the audio being played from the TV to the current selected device, and vice versa	Move the joystick to highlight Swap Audio and press  . An icon appears next to the window that currently has sound.
Play a recording from the selected i.LINK camcorder or digital VCR	Move the joystick to highlight  and press  .
Fast-forward or rewind a recording from the selected i.LINK camcorder or digital VCR	Move the joystick to highlight  or  and press  .
Record from TV to the selected i.LINK digital VCR	If the  (record) button is available, move the joystick to highlight  and press  .
Stop a recording from the selected i.LINK digital VCR	Move the joystick to highlight  and press  .
Turn the selected device power on and off	Move the joystick to highlight Power and press  .
Setup the selected device	Move the joystick to highlight Setup and press  . For more details on Setup, see page 91.

Notes About Controlling i.LINK Devices

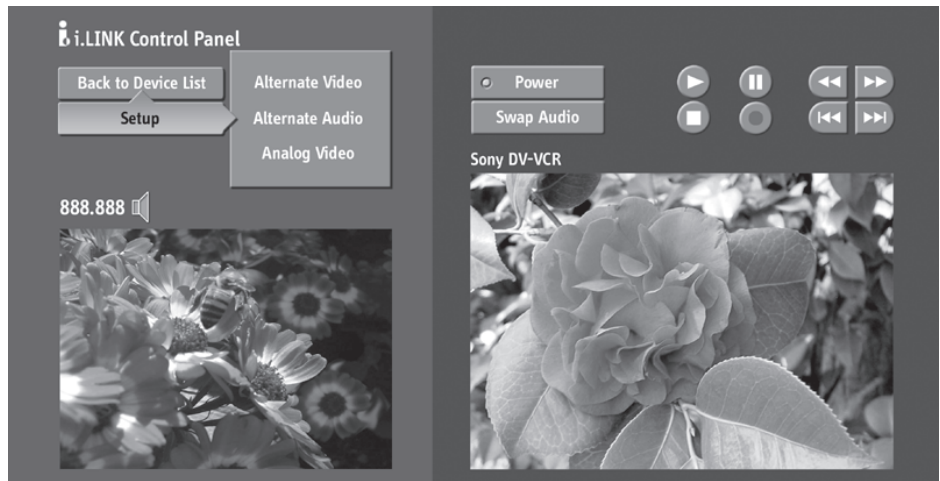
- ❑ You can control the functions of the selected i.LINK device by using the equivalent buttons on the TV's remote control. To program the remote control to operate i.LINK devices, see "Programming the Remote Control" on page 51.
- ❑ Some options on the i.LINK Control Panel may not be available, depending on the device being controlled.
- ❑ Only i.LINK-equipped digital camcorders and digital VCRs can be controlled directly through the i.LINK Control Panel.
- ❑ Not all functions are supported for all i.LINK devices.
- ❑ If you are using a digital VCR, turn off any Auto LINC functionality of the VCR. For details, see the digital VCR's user manual.

i.LINK Setup



You can use the i.LINK Control Panel to access digital setup options.

To set up the selected device:

- ❑ Move the joystick to highlight **Setup** and press .



The following options are displayed:

Option	Description
Alternate Video (when available)	Each program has a main video stream (the video that you see when the channel is first tuned), and may have alternate video streams. This option allows you to switch among these alternate video streams.
Alternate Audio (when available)	Each program has a main audio stream (the audio that you hear when the channel is first tuned). This option allows you to switch among these alternate audio streams (e.g., for different languages).
Analog Video	The TV is able to accept an analog signal from a selected set-top box. The set-top box must be EIA-775A compliant and must be connected to the TV's VIDEO 3 input. To associate the device with the TV's analog VIDEO 3 input, move the joystick to Analog Video and press  . All EIA-775A-compliant devices will be shown in the list. Select the desired device from the list and press  .








Notes on i.LINK


- ❑ The TV can act as an i.LINK repeater, so that i.LINK signals can be relayed to another device even when the TV is powered off. To enable this feature, set the **i.LINK Standby** option to **On** using the Setup Menu as described on page 106.
- ❑ Parental Control settings apply to the signal from a selected device. For more details, see page 102.

Using the Menus

Overview

The Menu gives you access to the following features:

Menu Icon	Description	Page
	The Video Menu allows you to make adjustments to your picture settings. It also allows you to customize the Picture Mode based on the type of program you are viewing, select Advanced Video options, and more.	94
	The Audio Menu Offers enhanced audio options such as listening to second audio programming (SAP) or customizing the Effect of the sound on your TV.	97
	The Screen Menu allows you to make Screen Mode adjustments and make changes to the screen's vertical center and size.	99
	The Channel Menu allows you to set up a Favorite Channels list, run the Auto Program function, label channels, and more.	100
	The Parental Lock Menu lets you control the viewing of programs based on their ratings.	102
	The Setup Menu provides options for setting up your system, including selecting closed caption modes, labeling video inputs, selecting the language and color of the on-screen Menus, and more.	105
	The Applications Menu lets you display the Memory Stick Viewer, the i.LINK Control Panel, set on/off Timers, access CableCARD and diagnostics information, and more.	108

 Press **MENU** to enter and exit Menus.


Navigating Through Menus

To Do This ...	Do this...
Display the Menu	Press MENU
Move through the Menus	Move the joystick ↑ ↓ ← →
Select an option to change	Press ⊕
Select (confirm) changed setting	Press ⊕ or move the joystick ←
Exit the Menu	Press MENU



Using the Video Menu



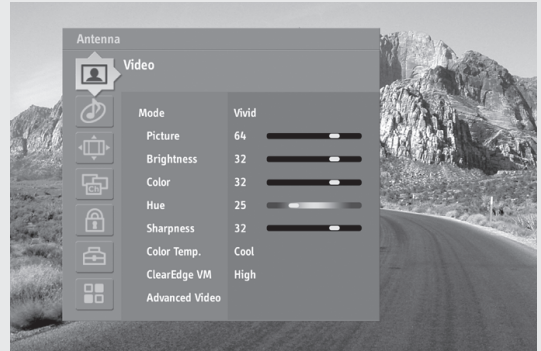
To access the Video Menu, follow these steps:

1. Display Menu
2. Highlight 
3. Press to select





To change settings, move the joystick . Press  to confirm the selection.

To exit the Menu, press **MENU**.




Selecting Video Options


 You can also change the Mode setting using the **PIC MODE** button on the remote control.






 You can alter the Video Menu settings (**Picture**, **Brightness**, **Color**, etc.) for each Mode.



The Video Menu includes the following options:

Option	Description
Mode	Vivid Select for enhanced picture contrast and sharpness.
<i>Customized picture viewing</i>	Standard Select for standard picture settings.
	Movie Select to display a softer picture.
	Pro Select to display a picture with minimum enhancements.
To control how the Mode settings (Vivid , Standard , Movie , Pro) are applied to each video input, see Mode Memory on page 96.	
Picture	Adjust to increase picture contrast and deepen the color, or decrease picture contrast and soften the color.
Brightness	Adjust to brighten or darken the picture.
Color	Adjust to increase or decrease color intensity.
Hue	Adjust to increase or decrease the green tones.
Sharpness	Adjust to sharpen or soften the picture.
Color Temp. <i>White intensity adjustment</i>	Cool Select to give the white colors a blue tint.
	Neutral Select to give the white colors a neutral tint.
	Warm Select to give the white colors a red tint (NTSC-Standard).

 You can also change the DRC Mode using the **DRC MODE** button on the remote control.

 You can also change the DRC Palette using the **DRC PALETTE** button on the remote control.

 For best results, adjust the Reality by moving the joystick   until you are satisfied with the level of detail. Then adjust the Clarity by moving the joystick   until you have a smooth, detailed image.

Option	Description
ClearEdge VM Velocity Modulation	Sharpens picture definition to give every object a sharp, clean edge. Select from High, Medium, Low, Off .
Advanced Video	Select Program to choose among the Advanced Video options.
DRC Mode	Creates a high-resolution picture with 4x density, for high quality sources (i.e., DVD player, satellite receiver).
Interlaced	Recommended for moving pictures.
Progressive	Recommended for still images and text.
CineMotion	Provides an optimized display by automatically detecting film content and applying a reverse 3/2 pulldown process. Moving pictures will appear clearer and more natural-looking.
DRC Palette	Allows you to customize the level of detail (Reality) and smoothness (Clarity). You can create up to three Custom DRC Palettes. <ol style="list-style-type: none"> 1 Move the joystick to highlight Custom 1, Custom 2, or Custom 3 and then press . The DRC palette appears. <div> </div> 2 Move the joystick to adjust the position of the marker (●). As you move the ● higher along the Reality axis, the picture becomes more detailed. As you move the ● to the right along the Clarity axis, the details become more smoothly integrated with one another. 3 To save the setting, press . <p>To return the Custom options to the default factory settings, press the RESET button.</p>

Option	Description
Advanced Video (continued)	Color Axis Allows you to control the emphasis of red tones.
	Default Emphasizes red tones.
	Monitor De-emphasizes red tones.
	Mode Memory Allows you to control how the Mode settings (Vivid , Standard , Movie , Pro) are applied to TV viewing, Memory Stick viewing, i.LINK and each video input. For details about Mode settings, see page 94.
	Off Set to Off to apply the same Mode settings to all video inputs. Changing inputs does not change the Mode setting.
	On Set to On to customize Mode settings for each video input. Changing inputs might change the Mode setting.

To restore the factory default settings for Video settings:

- Press **RESET** on the remote control when in the Video Menu.

Using the Audio Menu



To access the Audio Menu, follow these steps:

1. Display Menu



2. Highlight



3. Press to select



To change settings, move the joystick . Press to confirm the selection.

To exit the Menu, press **MENU**.



Selecting Audio Options

You can also change the Effect using the button on the inside panel of the remote control.

The Audio Menu includes the following options:

Option	Description
Treble	Adjust to decrease or increase higher-pitched sounds.
Bass	Adjust to decrease or increase lower-pitched sounds.
Balance	Adjust to emphasize left or right speaker balance.
Steady Sound	Auto Select to stabilize the volume.
	Off Select to turn off Steady Sound.
 The Steady Sound option is not available (it is grayed out) if the Effect option is set to TruSurround or Simulated. To use Steady Sound, set Effect to Off.	
Effect	TruSurround Select for surround sound (for stereo programs only).
	Simulated Adds a surround-like effect to mono programs.
	Off Normal stereo or mono reception.
MTS <i>Enjoy stereo, bilingual and mono programs</i>	Stereo Select for stereo reception when viewing a program broadcast in stereo.
	Auto SAP Select to automatically switch the TV to second audio programs when a signal is received. (If no SAP signal is present, the TV remains in Stereo mode.)
	Mono Select for mono reception. (Use to reduce noise during weak stereo broadcasts.)
 MTS is available only with analog programs.	

Option	Description
Speaker	On Select to turn on the TV speakers.
	Off Select to turn off the TV speakers and listen to the TV's sound only through your external audio system speakers.
Audio Out <i>Easy control of volume adjustments</i>	This option can be set only when the Speaker option is set to Off .
	Variable The TV's speakers are turned off, but the volume output from your audio system can still be controlled by the TV's remote control.
	Fixed The TV's speakers are turned off and the volume output of the TV is fixed. Use your audio receiver's remote control to adjust the volume through your audio system.

To restore the factory default settings for Treble, Bass, and Balance

- Press **RESET** on the remote control when in the Audio Menu.

Using the Screen Menu



To access the Screen Menu, follow these steps:

1. Display Menu



2. Highlight

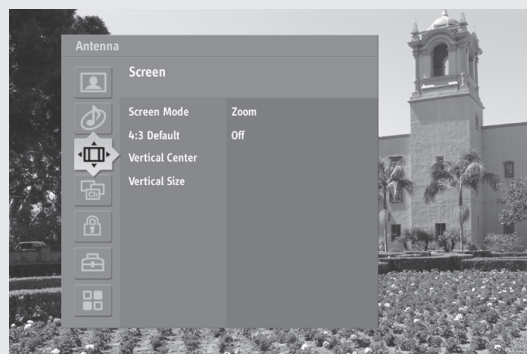


3. Press to select



To change settings, move the joystick . Press to confirm the selection.

To exit the Menu, press **MENU**.



Selecting Screen Mode Options



You can also change the Screen Mode using the **SCREEN MODE** button on the remote control.

The Screen Menu includes the following options:

Option	Description
Screen Mode	Enables you to change the picture size for both standard-definition (480i/480p) and high-definition (720p/1080i) sources. For 480i/480p sources Select from: Wide Zoom, Normal, Full, Zoom . For details, see page 58. For 720p/1080i sources Select from: Full, Zoom, Horizontal Expand, Vertical Expand . For details, see page 59. Screen Mode is unavailable while in Twin View. In some cases, wide-screen programs will be shown in aspect ratios that require the display of bars at the top and bottom of your 16:9 screen. For more details, see page 118.
4:3 Default	Select the default Screen Mode to use for 4:3 sources. To select a Screen Mode to use when channels or inputs are changed, select from: Wide Zoom, Normal, Full, Zoom . For details, see page 58. To continue using the current Screen Mode setting when the channel or input is changed, select Off .
Vertical Center	Allows you to move the position of the picture up and down in the window. (Available only in Wide Zoom and Zoom modes.) Move the joystick or and press to choose a correction between +15 and -15 (Zoom mode), and +5 and -5 (Wide Zoom mode).
Vertical Size	Allows you to adjust the vertical size of the picture. (Available only in Wide Zoom and Zoom modes.) Move the joystick or and press to choose a correction between +7 and -7.

Using the Channel Menu



To access the Channel Menu, follow these steps:

1. Display Menu



2. Highlight

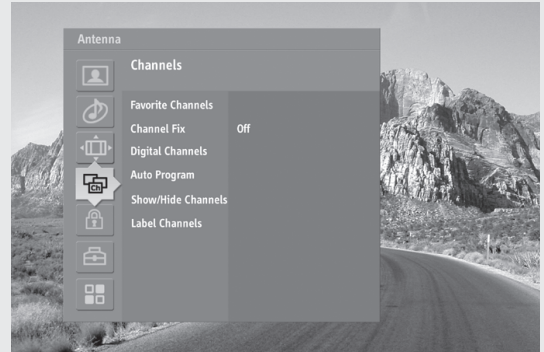


3. Press to select



To change settings, move the joystick . Press to confirm the selection.

To exit the Menu, press **MENU**.




Selecting Channel Options

The Channel Menu includes the following options:

Option	Description
Favorite Channels	Lets you set up a list of your favorite channels. For details, see "Using Favorite Channels" on page 63.
Channel Fix	<p>Off Turns off Channel Fix.</p> <p>2-6 "Fix" your TV's channel setting to 2-6 (VHF/UHF input) and use the cable box or satellite receiver to change channels.</p> <p>C2-C6 "Fix" your TV's channel setting to C2-C6 (CABLE input) and use the cable box or satellite receiver to change channels.</p> <p>Video 1 Use this setting if you have connected the equipment to the A/V input jacks.</p>
Digital Channels	Add Select to add digital channels.
Auto Program	Automatically sets up the channel list on the TV for all receivable channels for the current input (VHF/UHF or CABLE). <p> Auto Program may take up to 30 minutes to complete. A progress bar will display the approximate progress of the Auto Program and Digital Channels/Add sequences.</p>

If you are using a CableCARD, Auto Program is disabled for the CABLE input. However, you can run Auto Program for the VHF/UHF input.

 Channels that you set to **Hidden** can be accessed only with the **0-9** buttons.

Option	Description
Show/Hide Channels	<p>Allows you to show or hide channels that appear in the Program Guide (page 55) and when you use the CH+/- buttons to channel surf. Channels that are set to Hidden do not appear in the Program Guide or when you use the CH+/- buttons.</p> <ol style="list-style-type: none"> 1 Move the joystick ▲ or ▼ to highlight the channel that you want to show or hide. To move between the Major and Digital subchannel lists, move the joystick ◀ or ▶. 2 To change a channel's setting to Shown or Hidden, press ⊕. 3 To show or hide more channels, repeat steps 1 and 2.
Label Channels	<p>Allows you to assign labels (such as station call letters) to channel numbers.</p> <ol style="list-style-type: none"> 1 Move the joystick to highlight Channel and press ⊕. 2 Move the joystick ▲ ▼ to scroll through the channel numbers. Then press ⊕ to select the channel number that you want to assign a label. 3 Move the joystick to highlight Label and press ⊕. 4 Move the joystick ▲ ▼ to scroll through the label characters (A-Z, 0-9, etc.). Then press ⊕ to select the highlighted character. Repeat to add characters to the label. 5 To assign labels to more channels, repeat steps 1-4. 6 Move the joystick ◀ to return to the Channel Menu, or press MENU to exit the Menus.

Using the Parent Menu



The Parent Menu allows you to set up the TV to block programs according to their content and rating levels.

To access the Parent Menu, follow these steps:

1. Display Menu
2. Highlight
3. Press to select



Use the 0-9 buttons on the remote control to enter a four-digit password.

If this is the first time you are creating this password, confirm the password by entering it again. (The Parent Menu options appear.)

To change settings, move the joystick . Press to confirm the selection.

To exit the Menu, press **MENU**.



You need your password for any future access into the Parent Menu. If you lose your password, see "Lost password" on page 118.

Selecting Parent Menu Options


If you are not familiar with the Parental Guideline rating system, you should select **Child**, **Youth**, or **Young Adult** to help simplify the rating selection. To set more specific ratings, select **Custom**.


For descriptions of **Child**, **Youth**, and **Young Adult** ratings, see page 103.


The Parent Menu includes the following options:

Option	Description
Parental Lock	Off Parental lock is off. No programs are blocked from viewing.
<i>Turn ratings on/off and select a rating system</i>	Child Maximum ratings permitted are: <input type="checkbox"/> US: TV-Y, TV-G, G <input type="checkbox"/> Canada: C, G, TV-Y
	Youth Maximum ratings permitted are: <input type="checkbox"/> US: TV-PG, PG <input type="checkbox"/> Canada: C8+, PG, 8 ans+, TV-PG
	Y. Adult Maximum ratings permitted are: <input type="checkbox"/> US: TV-14, PG-13 <input type="checkbox"/> Canada: 14+, 13 ans+, TV-14
	Custom Select to set ratings manually. <input type="checkbox"/> US: See page 103 for details. <input type="checkbox"/> Canada: See page 104 for details.
Change Password	For changing your password.
Select Country	U.S.A. Select to use USA ratings (see page 103).
	Canada Select to use Canadian ratings (see page 104).

US Models: Selecting Custom Rating Options

 The Content-Based Ratings are linked to the level of the Age-Based Rating. For example, a program with an Age-Based Rating of TV-PG V (Violence) rating may contain moderate violence, while a TV-14 V (Violence) rating may contain more intense violence.

 To ensure maximum blocking capability, set the Age-Based Ratings.

 If you block unrated TV programs, be aware that the following types of programs may be blocked: emergency broadcasts, political programs, sports, news, public service announcements, religious programs and weather.

For US models, the Custom Rating Menu includes the following options. (For Canadian models, see page 104.)

Option	Description
Movie Rating	G All children and General Audience.
	PG Parental Guidance suggested.
	PG-13 Parental Guidance for children under 13.
	R Restricted viewing, parental guidance is suggested for children under 17.
	NC-17 and X No one 17 or under allowed.
TV Rating <i>Block programs by their rating, content or both</i>	Age-Based Ratings
	TV-Y All children.
	TV-Y7 Directed to children age 7 and older.
	TV-G General Audience.
	TV-PG Parental Guidance suggested.
	TV-14 Parents Strongly cautioned.
	TV-MA Mature Audience only.
	Content-Based Ratings
	FV Fantasy Violence.
	D Suggestive Dialogue.
	L Strong Language.
	S Sexual situations.
	V Violence.
Unrated <i>Block programs or movies that are broadcast without a rating</i>	Block Blocks all programs and movies that are broadcast without a rating.
	Allow Allows programs and movies that are broadcast without a rating.

Viewing Blocked Programs

You can view blocked programs by entering the password. Press the **ENTER** button when tuned to a blocked program, then enter the password. This temporarily switches off the Parental Lock. To reactivate the Parental Lock settings, turn off the TV. When the TV is turned on again, your Parental Lock settings are reactivated.

Canadian Models: Selecting Custom Rating Options

For Canadian models, the Custom Rating Menu includes the following options. (For US models, see page 103.)

Option	Description	
English Rating	C	All children.
	C8+	Children 8 years and older.
	G	General programming.
	PG	Parental Guidance.
	14+	Viewers 14 and older.
	18+	Adult programming.
French Rating	G	General programming.
	8 ans+	Not recommended for young children.
	13 ans+	Not recommended for ages under 13.
	16 ans+	Not recommended for ages under 16.
	18 ans+	Programming restricted to adults.
U.S.A. Rating	See "US Models" on page 103 for details.	

Viewing Blocked Programs

You can view blocked programs by entering the password. Press the **ENTER** button when tuned to a blocked program, then enter the password. This temporarily switches off the Parental Lock. To reactivate the Parental Lock settings, turn off the TV. When the TV is turned on again, your Parental Lock settings are reactivated.

Using the Setup Menu



To access the Setup Menu, follow these steps:

1. Display Menu



2. Highlight

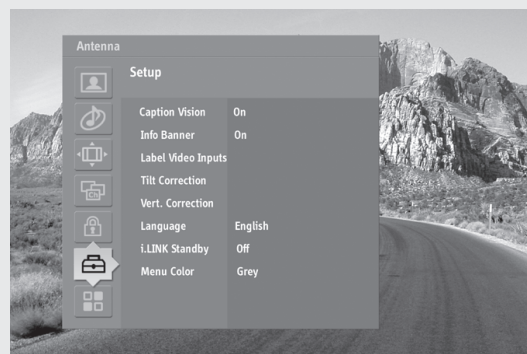


3. Press to select



To change settings, move the joystick **▲ ▼ ◀ ▶**. Press **⊕** to confirm the selection.

To exit the Menu, press **MENU**.




Selecting Setup Options


The Setup Menu includes the following options:



Option	Description
Caption Vision	Allows you to select from several closed caption modes (for programs that are broadcast with closed caption). On Caption Vision is turned on. Off Caption Vision is turned off.
Program	Allows you to set basic and advanced Caption Vision options. See "Programming Caption Vision" on page 106.
Info Banner	Set to On or Off . When on, displays the program name, time remaining and other information (if the broadcaster offers this service). Displays when the channel is changed or the DISPLAY button is pressed.
Label Video Inputs	Allows you to identify A/V equipment you connected to the TV, such as a VCR, DVD, etc. For example, if you have a DVD player connected to the VIDEO 5 jack, you can select the label DVD for the VIDEO 5 input. Then when you press the TV/VIDEO button to change inputs, the Video Label you assigned to that input appears on screen. 1 Move the joystick ▲ or ▼ to highlight the video input (VIDEO 1-7) to which you want to assign a label. Then press ⊕ to select the input. 2 Move the joystick ▲ or ▼ to highlight one of the displayed labels. Then press ⊕ to select the label. You can select from the following labels for each input: Video 1-7 VHS, DVD, Receiver, Satellite, Cable Box, 8mm, DTV, Game, LD, Web, Beta, HD, PVR, Skip

The **Skip** label is useful for inputs that do not have equipment connected to them.

If you select Skip, your TV skips this input when you press the TV/VIDEO button.

 Normally, **Tilt Correction** and **Vertical Correction** only need to be adjusted the first time you turn on the unit and after the unit is moved to a new location.

 If a CableCARD is inserted, the **i.LINK Standby Off** setting uses the same amount of power as the **i.LINK Standby On** setting.

Option	Description
Tilt Correction	Allows you to correct any tilt of the picture. Move the joystick ← or → to choose a correction between +7 and -7 and press  .
Vertical Correction	Allows you to make a vertical correction to the picture. Move the joystick ↑ or ↓ to choose a correction between +5 and -5 and press  .
Language	Select to display all on-screen Menus in your language of choice.
i.LINK Standby	On Allows the i.LINK signal to pass through to connected i.LINK devices even when the TV is turned off. The front panel i.LINK Standby LED shows orange. The TV uses more standby power than when this option is set to Off .
	Off Does not allow the i.LINK signal to pass through to connected i.LINK devices when the TV is turned off. The front panel i.LINK Standby LED shows red. The TV uses less standby power than when this option is set to On .
Menu Color	Enables you to select a specific color for the on-screen menus.

Programming Caption Vision

If you selected the **Program** option under **Caption Vision** (see page 105), you can change the following settings:

Basic	Allows you to select basic analog (EIA-608) closed caption options.
	CC1, CC2, CC3, CC4 Displays a printed version of the dialog or sound effects of a program. (Should be set to CC1 for most programs.)
	Text1, Text2, Text3, Text4 Displays network/station information presented using either half or the whole screen (if available). For closed captioning, set to CC1 .
Advanced	Allows you to select advanced digital (EIA-708) closed caption options. Select from the available options.
Override	Allows you to “force” the close captioning to analog (EIA-608). This setting is in effect only until you change channels, inputs, or turn off the TV. Set to On or Off .

<p>Advanced Settings</p>	<p>Allows you to make additional settings for digital (EIA-708) closed caption options.</p>	
	<p>As Broadcast</p>	
	<p>Large Text</p>	
	<p>Small Text</p>	
	<p>Custom ...</p>	
	<p>Allows you to customize the following settings:</p>	
	<p>Character Size</p>	<p>Small, Standard, Large</p>
	<p>Character Style</p>	<p>Style 1-7</p>
	<p>Character Color</p>	<p>None, Color 1-8</p>
	<p>Edge Color</p>	<p>Color 1-8</p>
	<p>Edge Type</p>	<p>None, Raised, Depressed, Outline, Left shadow, Right shadow</p>
	<p>Background Color</p>	<p>None, Color 1-8</p>
	<p>Window Color</p>	<p>None, Color 1-8</p>

Using the Applications Menu



To access the Applications Menu, follow these steps:

1. Display Menu



2. Highlight

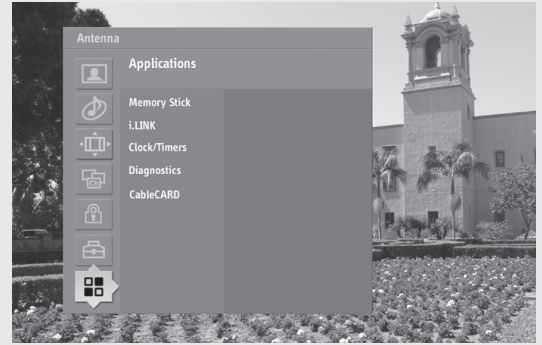


3. Press to select





To change settings, move the joystick **↑ ↓ ← →**. Press **⊕** to confirm the selection.


To exit the Menu, press **MENU**.




Selecting Applications Options

 You can also use the **MEMORY STICK** and **i.LINK** buttons on the remote control or front panel.

 You can also change the **Sleep** options using the **SLEEP** button on the remote control.

 To go directly to programming Timer 1 or 2, press **⊕** instead of moving the joystick **➡**.

 To return to the Timer Menu after programming one of the Timers, press **⊕** when the highlight is in the channel number field.

The Applications Menu includes the following options:



Option	Description
Memory Stick	Displays the Memory Stick Viewer. For details, see page 69.
i.LINK	Displays the i.LINK Device List. For details, see page 88.
Clock/Timers	Select to set the clock, set the Sleep timer, and to program your TV to turn on and off at two scheduled viewing times.
Sleep	Set the time in minutes (15min, 30min, 45min, 60min, 90min, or Off) that you want the TV to remain on before shutting off automatically.
Timer 1 Timer 2	You can use the Timers to program the TV to turn on and off and tune to a specific channel at two scheduled viewing times.







Timer 1 and **Timer 2** are not available to be set until you set the **Current Time**.

- 1 Press **↑** or **↓** to highlight **Timer 1** or **Timer 2**. To set the timer, move the joystick **➡**.
- 2 Press **↑** or **↓** to highlight one of the following options, then press **⊕**.

- Program** Select to set the Timer by day, time, duration, and channel.
- Off** Select to turn off the Timer. (Your previous settings are saved.)

- 3 If you selected **Program** in step 2, Press **↑** and **↓** to set the day(s), hour, minute, duration, and channel number. Press **⊕** or **➡** to confirm each setting and move to the next setting. Press **←** to go back to the previous setting.
- 4 Press **MENU** to exit the Menu. An LED on the front panel will light, indicating the timer has been set.

 To return to the Timer Menu after setting the **Current Time**, press  when the highlight is in the minute field.

Option	Description
	<p>Current Time</p> <ol style="list-style-type: none"> <li>1 Press  to select Current Time. <li>2 Press  and  to set the current time (day, hour, and minute). Press  or  to confirm each setting and move to the next setting. Press  to go back to the previous setting. <li>3 Press MENU to exit the Menu.
Diagnostics	Displays the strength of the terrestrial digital broadcast signal, to help you adjust your antenna to optimize signal reception.
CableCARD	This list of selectable CableCARD options will vary, depending on your cable service provider.

Other Information

Overview

This chapter includes the following topics:

<i>Topic</i>	<i>Page</i>
Glossary	112
Contacting Sony	113
Troubleshooting	113
Specifications	120
Optional Accessories	121
Index	123

Glossary

analog signal

A signaling method that uses continuous changes in the amplitude or frequency of an electronic transmission to convey information.

aspect ratio

Refers to the ratio between the width and height of the screen. This TV has a 16:9 (widescreen) aspect ratio, as opposed to a 4:3 aspect ratio.

4:3 aspect ratio



16:9 aspect ratio



component video



Component video is sent through three cables: two color shade (chrominance) signals and one brightness (luminance) signal. Component video achieves greater color accuracy than composite video or S VIDEO by splitting chrominance into two separate portions.

composite video



Composite video is sent through a single cable. Composite video combines the color shade (chrominance) and brightness (luminance) information into one video signal.

degauss

A process that demagnetizes the metal components in the TV monitor, which eliminates image distortion that can result from magnetic charges acquired by the TV's components. Your TV degausses automatically when it is turned on.

digital television (DTV)

A new technology for transmitting and receiving broadcast television signals. DTV provides clearer resolution and improved sound quality over analog television.

HDMI (High-Definition Multimedia Interface)

Provides an uncompressed, all-digital audio/video interface between this TV and any HDMI-equipped audio/video component, such as a set-top box, DVD player, and A/V receiver. HDMI supports enhanced, or high-definition video, plus two-channel digital audio.

National Television System Committee (NTSC)

A unit of the Federal Communications Commission, Washington, DC, that establishes television standards in the United States, such as NTSC Color, the standard used in this TV.

RF

Radio Frequency. That part of the frequency spectrum that is used to transmit TV and radio signals.

S VIDEO



S VIDEO requires a single cable, which carries the brightness (luminance) and color (chrominance) signals of the picture separately. S VIDEO provides better resolution than composite video, which carries the signals together.

VHF/UHF

VHF (Very High Frequency) is the part of the frequency spectrum from 30 to 300 megahertz. UHF (Ultra High Frequency) is the part of the frequency spectrum from 300 to 3,000 megahertz.

480i (SD)

Provides 480 lines of resolution. Displays images using interlaced scanning, which first transmits all the odd lines on the TV screen and then the even lines.

480p (SD)

Provides 480 lines of resolution. Displays images using progressive scanning, which transmits each line from top to bottom.

720p (HD)

Provides 720 lines of resolution. Displays images using progressive scanning, which transmits each line from top to bottom.

1080i (HD)

Provides 1080 lines of resolution. Displays images using interlaced scanning, which first transmits all the odd lines on the TV screen and then the even lines. 1080i is one of the formats used by HDTV (High Definition TV).

Contacting Sony

If, after reading these operating instructions, you have additional questions related to the use of your Sony television, please call our Customer Information Services Center at 1-800-222-SONY (7669) (US residents only) or (416) 499-SONY (7669) (Canadian residents only).

Before calling Sony customer support, please write down the model and serial numbers of your TV. You'll find this information on the front cover of this manual.

Troubleshooting

Twin View

<i>Problem</i>	<i>Possible Remedies</i>
I cannot get Twin View to work	<ul style="list-style-type: none"> ❑ If you are using a cable box to unscramble all channels (as shown on page 21), you cannot use the Twin View feature. This is because the cable box can unscramble only one channel at a time. But if you need the cable box to unscramble only some (usually premium) channels, you can use Twin View for unscrambled channels if you connect both a cable and cable box, as shown on page 20. ❑ You can use Twin View to view a signal from a different source that is connected to the TV's A/V jacks (such as a VCR or DVD player) in the second window by pressing the TV/VIDEO button while in Twin View. ❑ Digital sources, as well as any sources connected to the VIDEO 5, VIDEO 6, VIDEO 7 inputs, display in the left window, but not in the right windows.
There is no Twin View window, or it is just static	<ul style="list-style-type: none"> ❑ Be sure the Twin View window is set to a video input or channel that has a signal airing. ❑ You might be tuned to a video input with nothing connected to it. Try cycling through the video inputs by pressing the TV/VIDEO button.
Twin View cannot display anything but TV channels	<ul style="list-style-type: none"> ❑ Try cycling through the video inputs by pressing the TV/VIDEO button. Check that the Video Label option is not set to Skip. (See the Setup Menu on page 105.)
Twin View displays the same program in both windows	<ul style="list-style-type: none"> ❑ Both Twin View windows might be set to the same channel. Try changing channels in either window.

Remote Control

Problem	Possible Remedies
Remote control does not operate	<ul style="list-style-type: none">❑ The batteries could be weak. Replace the batteries.❑ Check the orientation of the batteries.❑ Press the TV FUNCTION button. You may have inadvertently pressed the SAT/CABLE FUNCTION button, which changes the remote control to SAT or CABLE mode.❑ Make sure the TV's power cord is connected securely to the wall outlet.❑ Locate the TV at least 3-4 feet away from fluorescent lights.
Cannot change channels with the remote control	<ul style="list-style-type: none">❑ If you are using the TV to change channels, first press the TV FUNCTION button.❑ If you are using another device to change channels, be sure you have not inadvertently switched your TV from the channel 3 or 4 setting. Use the Channel Fix option to "fix" the channel based on the hookup you used (see page 100).❑ If you are using another device to change channels, be sure to press the FUNCTION button for that device. For example, if you are using your cable box to change channels, be sure to press the SAT/CABLE FUNCTION button.
Remote control does not operate non-Sony video equipment	<ul style="list-style-type: none">❑ If you replaced the batteries to the remote recently, the code numbers for the video equipment may need to be reset.❑ There may be more than one code for the equipment that you are attempting to operate.❑ There is a possibility that some non-Sony equipment cannot be operated by your Sony TV remote. You may need to use the equipment's original remote control.

CableCARD





Problem	Possible Remedies
Problems using CableCARD or CableCARD services	<ul style="list-style-type: none">❑ Check that the CableCARD is inserted properly (see pages 43-44).❑ The CableCARD must be activated by your local cable TV provider before you can receive digital cable TV services. See the activation instructions on pages 43-44.❑ Check the Diagnostics and CableCARD menu options (see page 109). (This can be useful in providing information to an authorized technician or repair person.)❑ Contact your cable TV provider.

Channels

<i>Problem</i>	<i>Possible Remedies</i>
Cannot receive upper channels (UHF) when using an antenna	<ul style="list-style-type: none">❑ Use Auto Program in the Channel Menu to add receivable channels that are not presently in the TV's memory (see page 100).
TV is fixed to one channel	<ul style="list-style-type: none">❑ Use Auto Program in the Channel Menu to add receivable channels that are not presently in the TV's memory (see page 100).❑ Check your Channel Fix settings (see page 100).
Cannot receive any channels when using cable TV	<ul style="list-style-type: none">❑ Use Auto Program in the Channel Menu to add receivable channels that are not presently in the TV's memory (see page 100).
Cannot receive or select channels	<ul style="list-style-type: none">❑ Use Auto Program in the Channel Menu to add receivable TV channels that are not presently in TV memory (see page 100).
Some digital cable channels are not being displayed	<ul style="list-style-type: none">❑ Certain cable TV companies have limitations on the broadcast of digital cable channels. Check with your cable TV company for more information.❑ Check with your cable TV company if the channels are scrambled or encrypted. You will need a CableCARD or a separate set-top box to view those channels.❑ Some optional digital cable broadcast formats may not be supported. If your cable TV company is broadcasting digital signals in unsupported broadcast formats, you will need a separate set-top box provided by your cable TV company to view those channels.❑ The digital cable channel may be set to Hide in the Channel Menu (see page 101).❑ Use the Digital Channels feature to search for new digital channels (see page 100).

Memory Stick

Problem	Possible Remedies
Image does not display/ Cannot see all files	<ul style="list-style-type: none"> ❑ Make sure the image file is a JPEG (.jpg, .jpeg) file or an MPEG1 (.mpg, .mpeg) file. ❑ Make sure the Memory Stick is inserted properly (see page 72). ❑ Check the Filter option setting (see page 82). ❑ Check the Select Contents setting (see page 82) and ensure that files are either in DCF directories if Digital Camera Folders is selected (see page 82), or in the currently selected folder if Select a Folder is selected (see page 82). ❑ The maximum number of files the Memory Stick Viewer can display is 2,000 files total, including all JPEG, MPEG1, and MP3 files. ❑ If you are using a Memory Stick with the Memory Select function, try changing the position of the A/B select switch.
JPEG image displays undesirable motion or flicker in full screen	<ul style="list-style-type: none"> ❑ JPEGs captured using a digital video camera may appear to display motion in full screen. This is a result of the way digital video cameras record still images, and is not a result of a malfunction with the TV.
Rotation not saved after Memory Stick is ejected or Memory Stick Viewer is closed	<ul style="list-style-type: none"> ❑ The Memory Stick might be locked. Unlock the Memory Stick and try rotating the image again. ❑ The file might not have information (EXIF data) that is usually generated when a digital camera records a photo. In this case, it is not possible to save the rotation. ❑ There might be insufficient space on the Memory Stick to save the rotated file. Try deleting one or more files and rotating the image again.
Cannot Rotate, Zoom, Pan or Print Mark MPEG files	<ul style="list-style-type: none"> ❑ These functions are available only for JPEG files.
Cannot show (or hide) file information in full screen or Slide Show	<ul style="list-style-type: none"> ❑ Set the File/Information option to On or Off (see page 81).
Cannot set print quantity	<ul style="list-style-type: none"> ❑ The Memory Stick might be locked. Unlock the Memory Stick and try setting the print quantity again.
Cannot see Menu	<ul style="list-style-type: none"> ❑ Move the joystick ▲ to display the Menu again.
Cannot hear audio while using Memory Stick	<ul style="list-style-type: none"> ❑ Check the TV's volume or Speaker (page 98) settings. ❑ To hear JPEG voice memo in full screen view, select the Digital Camera Folders option and set the Filter option to Show All. ❑ Check that the Music option is not set to Off (see page 81).
Not all MP3 files on Memory Stick are included when the Music /Complete List option is selected (page 81)	<ul style="list-style-type: none"> ❑ The Memory Stick Viewer can display a maximum of 2,000 files total, including all JPEG, MPEG1, and MP3 files. ❑ Make sure that the file is named with the file extension (.mp3).
Cannot see MP3 list to play music	<ul style="list-style-type: none"> ❑ MP3 files on your Memory Stick only can be played as background music during a Slide Show (see page 81).
MP3 file does not play back correctly	<ul style="list-style-type: none"> ❑ The Memory Stick Viewer supports only MP3 files with a fixed data rate of 128 kbps (kilobits per second).
MP3 files on the Memory Stick are not listed	<ul style="list-style-type: none"> ❑ Only MP3 files that are named with the file extension (.mp3) are displayed in the list.
Music files are playing in wrong order	<ul style="list-style-type: none"> ❑ MP3 files are played in alphabetical order, according to the folder in which they are stored. If you want to change the playing order, rename your files alphabetically in the order in which you want them to play or create an MP3 playlist (.m3u file) on a PC.

Problem	Possible Remedies	
MPEG1 movie does not play back correctly	<input type="checkbox"/>	Some variations of MPEG1 movies may not be compatible with the Memory Stick Viewer.
MPEG1 quality is poor when enlarged (page 79)	<input type="checkbox"/>	The quality of the movie when enlarged depends on the resolution of the MPEG1 file. See your camera's instruction manual for details.
Error message is displayed	<input type="checkbox"/>	No Memory Stick There is no Memory Stick in the slot.
	<input type="checkbox"/>	Memory Stick Locked The lock mechanism on the Memory Stick is engaged.
	<input type="checkbox"/>	Memory Stick Error The Memory Stick in the slot might be damaged; try a different Memory Stick.
	<input type="checkbox"/>	Format Error The Memory Stick may have been formatted using a PC or other device that is not compatible with cameras.
Error icon is displayed		The file is not a valid MPEG1 or JPEG format.
		The thumbnail is not DCF-compatible.
		The file is a JPEG or an MPEG1, but the thumbnail is unreadable.
		The file is unreadable.

Audio

Problem	Possible Remedies	
Good picture, no sound	<input type="checkbox"/>	Press MUTING so that the word Muting disappears from the screen (see page 48).
	<input type="checkbox"/>	Make sure the Speaker option is set to On in the Audio Menu (see page 98).
	<input type="checkbox"/>	Make sure the MTS option is set to Stereo or Mono (see page 97).
Cannot gain enough volume when using a cable box	<input type="checkbox"/>	Increase the volume of the cable box using the cable box's remote control. Then press TV FUNCTION and adjust the TV's volume.
Sound seems weak or insufficient	<input type="checkbox"/>	The TV's audio might be set to Auto SAP or Mono , when it might be better set to Stereo . In the Audio Menu (see page 97), set the MTS setting to Stereo . If already set to Stereo , switch to Mono (which may reduce background noise during weak stereo broadcasts).
Cannot raise the volume on external audio speakers	<input type="checkbox"/>	If the Speaker option is set to Off and the Audio Out option is set to Fixed (in order to output the sound to your audio system) use your audio receiver to adjust the sound (see page 97). Or, to use the TV remote control, set the Audio Out option to Variable .
	<input type="checkbox"/>	To turn on the TV speakers, set the Speaker option to On (see page 97).

Video

Problem	Possible Remedies
No picture (screen not lit), no sound	<ul style="list-style-type: none">❑ If your TV does not turn on, and a red light keeps flashing, your TV may need service. Call your local Sony Service Center.❑ Make sure the power cord is plugged in.❑ Press the POWER button on the front of the TV.❑ Press the TV/VIDEO button to cycle through the connected video sources.❑ Try another channel; it could be station trouble.
Dark, poor or no picture (screen lit), good sound	<ul style="list-style-type: none">❑ Adjust the Picture option in the Video Menu (see page 94).❑ Adjust the Brightness option in the Video Menu (see page 94).❑ Check the antenna/cable connections.
No color	<ul style="list-style-type: none">❑ Adjust the Color option in the Video Menu (see page 94).
Only snow and noise appear on the screen	<ul style="list-style-type: none">❑ Check the antenna/cable connections.❑ Try another channel; it could be station trouble.❑ Press ANT to change the input mode (see page 48).
Dotted lines or stripes	<ul style="list-style-type: none">❑ Adjust the antenna.❑ Move the TV away from noise sources such as cars, neon signs, or hair-dryers.
Double images or ghosts	<ul style="list-style-type: none">❑ Using a highly directional outdoor antenna or a cable may solve the problem.
“Black box” on screen	<ul style="list-style-type: none">❑ You have selected a text option in the Setup Menu and no text is available. (See page 105 to reset Setup selections.) To turn off this feature, set the Caption Vision option to Off. If you were trying to select closed captioning, select CC1 instead of TEXT 1-4.
Bars appear at the top and bottom of the screen	<ul style="list-style-type: none">❑ Some wide-screen programs are filmed in aspect ratios that are greater than 16:9, such as 2.35:1. (This is especially common with theatrical releases). Your TV will show these programs with bars at the top and bottom of the screen. For more details, check the documentation that came with your DVD (or contact your program provider).

General

Problem	Possible Remedies
How to reset TV to factory settings	<ul style="list-style-type: none">❑ Turn on the TV. While holding down the RESET button on the remote control, press the POWER button on the TV. (The TV will turn itself off, then back on again.) Release the RESET button.
How to restore Video settings to factory settings	<ul style="list-style-type: none">❑ Press the RESET button on the remote control while in the Video Menu (see page 94).
How to restore Audio settings to factory settings	<ul style="list-style-type: none">❑ Press the RESET button on the remote control while in the Audio Menu (see page 97).
Cannot cycle through the other video equipment connected to the TV	<ul style="list-style-type: none">❑ Be sure the Video Label option is not set to Skip (see page 105).
Cannot operate Menu	<ul style="list-style-type: none">❑ If a Menu option appears in gray, this indicates that the TV is in a state in which the Menu option is not available.
Lost password	<ul style="list-style-type: none">❑ In the password screen (see page 102), enter the following master password: 4357. The master password clears your previous password; it cannot be used to temporarily unblock channels.

<i>Problem</i>	<i>Possible Remedies</i>
TV makes "popping" sound when turned on	<ul style="list-style-type: none"> ❑ This is a normal sound that results from the TV automatically degaussing each time it is turned on.
TIMER/STAND BY LED on front panel is lit	<ul style="list-style-type: none"> ❑ The LED (see page 14) blinks when the TV is turned on, then shuts off when the picture is displayed. If the LED blinks for more than a minute, this may indicate the TV needs service. When lit, indicates that the timer is set (page 108). When the timer is set, this LED will remain lit even when the TV is turned off.
Digital cable box does not work	<ul style="list-style-type: none"> ❑ If you are connecting a VCR and digital cable box using a splitter, as described on page 26, you must use a special bi-directional splitter that is designed to work with your digital cable box. Contact your cable TV company for details.
Cannot record digital channels to VCR	<ul style="list-style-type: none"> ❑ Only analog channels can be recorded to your VCR.
The signal from a selected i.LINK device is not being displayed	<ul style="list-style-type: none"> ❑ If you have several i.LINK devices connected and operating at once, the TV may not be able to display the signal from the selected device. Turn the other i.LINK devices off, and reselect the desired i.LINK device. ❑ If you are using a digital VCR, turn off any Auto LINC functionality of the VCR. For details, see the digital VCR's user manual.

Specifications

Picture Tube	FD Trinitron® tube	
Antenna	75 ohm external terminal for VHF/UHF	
Television System	NTSC	American TV Standard
	ATSC (8VSB terrestrial)	ATSC compliant 8VSB
	QAM on cable	ANSI/SCTE 07 2000
Channel Coverage	Terrestrial (analog)	2-69
	Cable TV (analog)	1-125
	Terrestrial (digital)	2-69
	Cable TV (digital)	1-135
Power Requirements	120V, 60 Hz	
Inputs/Outputs		
HDMI IN	Video	1080i, 720p, 480p, 480i
	Audio	Two channel linear PCM 32, 44.1 and 48 kHz, 16, 20 and 24 bit
Video (IN)	4 total (1 on front panel)	1 Vp-p, 75 ohms unbalanced, sync negative
S Video (IN)	3 total (1 on front panel)	Y: 1 Vp-p, 75 ohms unbalanced, sync negative
		C: 0.286 Vp-p (Burst signal), 75 ohms
Audio (IN)	7 total (1 on front panel)	500 mVrms (100% modulation) Impedance: 47 kilohm
Component Video Input	2 (Y, P _B , P _R)	Y: 1.0 Vp-p, 75 ohms unbalanced, sync negative; P _B : 0.7 Vp-p, 75 ohms P _R : 0.7 Vp-p, 75 ohms
CONTROL S (IN/OUT)	1	
Variable/Fixed Audio (OUT)	1	More than 408 mVrms at the maximum volume setting (Variable)
		More than 408 mVrms (Fixed)
		Impedance (output): 2 kilohms
i.LINK	3 total (1 on front panel)	4-pin S400 i.LINK terminal
Digital Audio Optical Output PCM/Dolby Digital	1	Optical Rectangular
CableCARD Slot	PCMCIA Type I/II	
Supplied Accessories	Remote Control	RM-Y201
	AA (R6) Batteries	2 supplied for remote control
Visible Screen Size	34 in (863.6mm) picture measured diagonally	
Actual CRT Size	36 in (914.4 mm) picture measured diagonally	
Speaker Output	7.5 W x 2 + 15 W subwoofer	
Dimensions (W x H x D)	994 x 652 x 605 mm (39 1/8 x 25 5/8 x 23 7/8 in)	
Mass	89 kg (196 lbs)	
Power Consumption	In Use	270 W
	In Standby	3 W
	In i.LINK/CableCARD	23 W
	Standby	

Design and specifications are subject to change without notice.

Optional Accessories

- ❑ A/V Cable (VMC-810/820/830 HG)
- ❑ Audio Cable (RKC-515HG)
- ❑ Component Video Cable (VMC-10/30 HG)
- ❑ TV Stand: SU-34XBR3
- ❑ i.LINK cables: VMC-IL4415 (4-pin to 4-pin, 1.5 meters); VMC-IL4435 (4-pin to 4-pin, 3.5 meters)

Index

0-9 buttons 49, 54, 61
4:3 Default settings 99

A

Advanced Video 95
Alternate Audio 56, 91
Alternate Video 56, 91
ANT button 48, 54
antenna, connecting 18
Audio Menu 93
Audio Out 98
AUDIO OUT jack 16
audio receiver, connecting 38
Auto Program (channel setup)
100
Auto SAP, MTS setting 97

B

balance, adjusting 97
bass, adjusting 97
batteries, inserting in remote 47
bilingual audio 97
blocking programs. *See ratings.*
brightness, adjusting 94
Built 9

C

cable
connecting 18
with VCR, connecting 24
cable box
connecting with VCR 26
Twin View issues 60
using with TV remote
control 67
CABLE jack, described 16
CableCARD 10, 16, 17, 43
CableCARD slot 16, 43, 44
CableCARD, activating 43
CableCARD, inserting card 43
CableCARD, removing card 44
Caption Vision 105
CATV. *See cable*
CH buttons 14, 49
changing picture size, in Twin

View 62
Channel Fix 100
channel list, setting up 45
Channel Menu 93
Channel Skip/Add 101
CineMotion 11, 48, 95
ClearEdge VM 95
ClearEdge VM Velocity
Modulation 10
clearing, Favorite Channels 63
closed caption modes 93, 105
CODE SET button 49
color, adjusting 94
Component Video Inputs 11
CONTROL S 42
CONTROL S IN/OUT jacks,
described 16
Cool, Color Temperature 94

D

degauss 119
DIGITAL AUDIO OPTICAL jack
16
digital channels, adding 100
Digital Reality Creation 10
DISC MENU button 50, 67
DISPLAY button 49, 54
DRC Mode 95
DRC MODE button 48
DRC Palette 95
DRC PALETTE button 49
DRC. *See Digital Reality Creation.*
DVD player
using with TV remote
control 67
with A/V connectors,
connecting 36

E

Effect button 50
ENTER button 49, 54, 61
error messages, Memory Stick
117
EXIT button 49

F

Fast-forward button 50
Favorite Channels 10
clearing 63
in Channel Menu 100
using 63
FAVORITES button 48
features 9
Fixed audio setting 98
FREEZE button 49, 65
Freeze, using 65
Full 59
Full (Screen Mode) 58, 59

G

GUIDE button 49, 55

H

HD Detailer 11
HD/DVD IN
(1080i/720p/480p/480i)
jacks, described 16
High-Definition Multimedia
Interface (HDMI) 11, 39, 40,
112
Horizontal Expand (Screen
Mode) 59
hue, adjusting 94

I

i.LINK 11, 14, 16, 85–91
i.LINK button 48
I.LINK jack, described 16
i.LINK Standby 14, 106
i.LINK/AV1-3/DVD slide
switch 50
INDEX button 48, 57
Info Banner 105
Initial Setup 45
interlaced 10, 48, 95, 112

J

joystick 48
JUMP button 49, 54

L

Language, setting 106

M

Memory Stick

button 49

features 69

Index 74

indicator (LED) 14

inserting 72

insertion slot 14

panning photos 78

photo options 77

playing movies 79

precautions 84

removing 73

rotating photos 78

slide show options 81

troubleshooting 116

viewing photos 76

zooming photos 78

Memory Stick button 14

Memory Stick Viewer 10

MENU button 14, 48, 50, 54, 63, 93

Menus

Audio 93

Channel 93

Parent 93, 102

Setup 105

Video 93

MONITOR OUT 16

Mono, MTS setting 97

Movie mode 94

movies

viewing thumbnails 74

MTS 97

MTS/SAP button 50

MUTING button 48, 54

N

Neutral, Color Temperature 94

Normal (Screen Mode) 58

O

off, turning off the TV 14

on, turning on the TV 14

P

Parent Menu 93, 102

parental control, described 11

password, changing 102

Pause button 50

photos

viewing thumbnails 74

PIC MODE button 49

picture contrast, adjusting 94

Picture in Picture. *See Twin View.*

Play button 50

POWER button 14

power cord, removing from holder 13

powering on/off, the TV 14

presetting channels 100

Pro (Video) mode 94

problems, troubleshooting 113–119

Program Guide 55

program guide 55

progressive 10, 48, 95, 112

R

ratings, setting 102–104

ratings, viewing blocked

programs 103, 104

Record buttons 50

remote control

inserting batteries 47

programming 51–52

removing, Favorite Channels 63

RESET button 48, 63

resetting

Audio options 98

Video options 96

Rewind button 50

S

S VIDEO jack, described 14, 16

SAT/CABLE

FUNCTION button 49

POWER button 49

satellite receiver, using with TV

remote control 66

Screen Mode 58, 99

SCREEN MODE button 48, 58

Scrolling Index 10

Scrolling Index, using 57

SELECT button 50

Setup Menu 105

sharpness, adjusting 94

Simulated, Effect 97

sizing, picture in Twin View 62

SLEEP button 48

speakers

turning on/off 98

using external speakers 98

specifications 120

Standard mode 94

Steady Sound, described 10

Steady Sound, setting 97

Stereo, MTS setting 97

Stop button 50

Super Fine Pitch 10

surround sound 97

SYSTEM OFF button 50

T

Tilt Correction 45, 106

tilt, correcting 45, 106

TIMER indicator 119

transport buttons 50

treble, adjusting 97

troubleshooting 113–119

TruSurround 97

TruSurround, Effect 97

turning on/off the TV 14

TV FUNCTION button 49, 54

TV POWER button 49, 54

TV/VCR button 50

TV/VIDEO button 48, 54

Twin View

button 49

described 10

using 60–62

V

Variable audio setting 98

VCR

using with TV remote

control 66

with cable box, connecting 26

with cable, connecting 24

with satellite receiver, connecting 32

VCR/DVD button 50

Vertical Center 99

Vertical Correction 45, 106

Vertical Expand (Screen Mode) 59

Vertical Size, adjusting 99

VHF/UHF jack, described 16

VIDEO (L/R)/AUDIO jacks, described 16

Video Menu 93

Video modes, selecting 94

Vivid mode 94

VOL buttons 14, 48, 54

W

Warm, Color Temperature 94

Wega, described 9

Wide Zoom 58

widescreen 11

Z

Zoom (Screen Mode) 58, 59

zoom feature, with Twin View 62

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Pantone 279C

Black

SONY®

4-102-728-21 (1)

FD Trinitron **WEGA**

KD-30XS955 | KD-34XS955 | KD-36XS955

Operating Instructions



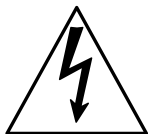
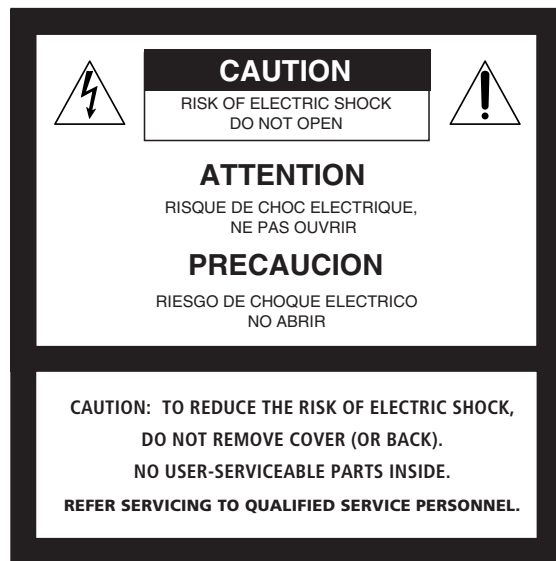
Sony Corporation <http://www.sony.net>

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WARNING

To reduce the risk of fire or shock hazard, do not expose the TV to rain or moisture.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION

TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

CAUTION

When using TV games, computers, and similar products with your TV, keep the brightness and contrast functions at low settings. If a fixed (non-moving) pattern is left on the screen for long periods of time at a high brightness or contrast setting, the image can be permanently imprinted onto the screen. Continuously watching the same program can cause the imprint of station logos onto the TV screen. These types of imprints are not covered by your warranty because they are the result of misuse.

Warning (KD-34XS955 only)

The CRT in this product employs a protective film on the face. This film must not be removed as it serves a safety function and removal will increase the risk of serious injury.

Note on Caption Vision

This television receiver provides display of television closed captioning in accordance with §15.119 of the FCC rules.

Note on Cleaning the TV

Clean the TV with a soft, dry cloth. Never use strong solvents such as thinner or benzene, which might damage the finish of the cabinet.

Note to CATV System Installer

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the National Electrical Code (NEC) that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Use of this television receiver for other than private viewing of programs broadcast on UHF or VHF or transmitted by cable companies for the use of the general public may require authorization from the broadcaster/cable company and/or program owner.

NOTIFICATION

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference with radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antennas.
 - Increase the separation between the equipment and receiver.
 - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
 - Consult the dealer or an experienced radio/TV technician for help.
- You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Installing

- To prevent internal heat buildup, do not block the ventilation openings.
- Do not install the TV in a hot or humid place, or in a place subject to excessive dust or mechanical vibration.
- The AC power cord is attached to the rear of the TV with hooks. Do not attempt to remove the cord from these hooks. Doing so could cause damage to the TV.

Owner's Record

The model and serial numbers are provided on the front of this instruction manual and at the rear of the TV. Refer to them whenever you call upon your Sony dealer regarding this product.

Note

This digital television is capable of receiving analog basic, digital basic and digital premium cable television programming by direct connection to a cable system providing such programming. A security card provided by your cable operator is required to view encrypted digital programming. Certain advanced and interactive digital cable services such as video-on-demand, a cable operator's enhanced program guide and data-enhanced television services may require the use of a set-top box. For more information call your local cable operator.

This television also includes a QAM demodulator which should allow you to receive unscrambled digital cable television programming via subscription service to a cable service provider. Availability of digital cable television programming in your area depends on the type of programming and signal provided by your cable service provider.

IMPORTANT SAFEGUARDS

For your protection, please read these instructions completely, and keep this manual for future reference.

Carefully observe and comply with all warnings, cautions and instructions placed on the set, or described in the operating instructions or service manual.

WARNING

To guard against injury, the following basic safety precautions should be observed in the installation, use, and servicing of the set.

Use

Power Sources

This set should be operated only from the type of power source indicated on the serial/model plate. If you are not sure of the type of electrical power supplied to your home, consult your dealer or local power company. For those sets designed to operate from battery power, refer to the operating instructions.

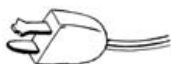


Grounding or Polarization

This set is equipped with a polarized AC power cord plug (a plug having one blade wider than the other), or with a three-wire grounding type plug (a plug having a third pin for grounding). Follow the instructions below:

For the set with a polarized AC power cord plug

This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to have a suitable outlet installed. Do not defeat the safety purpose of the polarized plug by forcing it in.



Alternate Warning

For the set with a three-wire grounding type AC plug

This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to have a suitable outlet installed. Do not defeat the safety purpose of the grounding plug.



Overloading

Do not overload wall outlets, extension cords or convenience receptacles beyond their capacity, since this can result in fire or electric shock.



Always turn the set off when it is not to be used. When the set is left unattended and unused for long periods of time, unplug it from the wall outlet as a precaution against the possibility of an internal malfunction that could create a fire hazard.



Do not disconnect the antenna or the power cord during a heavy storm. Lightning may strike while you are holding the cable or cord, causing serious injury. Turn off your TV and wait for the weather to improve.

Memory Stick

To protect small children from injury from Memory Stick Media, remove all Memory Stick media from the TV's Memory Stick slot and store it in a safe location when it is not in use.

Object and Liquid Entry

Never push objects of any kind into the set through the cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the set.



Attachments

Do not use attachments not recommended by the manufacturer, as they may cause hazards.

Do not place any objects, especially heavy objects, on top of the set. The object may fall from the set, causing injury.



Cleaning

Unplug the set from the wall outlet before cleaning or polishing it. Do not use liquid cleaners or aerosol cleaners. Use a cloth lightly dampened with water for cleaning the exterior of the set.



If a snapping or popping sound from a TV set is continuous or frequent while the TV is operating, unplug the TV and consult your dealer or service technician. It is normal for some TV sets to make occasional snapping or popping sounds, particularly when being turned on or off.



Installation

Always use two or more people to lift or move the set. The set is heavy and the bottom surface is flat. Serious injury can result from trying to move the set by yourself alone, or from unsteady handling. Install the set on a stable, level surface.

Water and Moisture

Do not use power-line operated sets near water — for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.



Accessories

Do not place the set on an unstable cart, stand, tripod, bracket, table or shelf. The set may fall, causing serious injury to a child or an adult, and serious damage to the set. Use only a cart or stand recommended by the manufacturer for the specific model of TV. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.



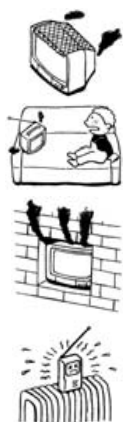
Disconnect all cables and cords from the set before attempting to move the set.

Do not allow children or pets to climb up onto, or push against, the set. The set may fall, causing serious injury.

Ventilation

The slots and openings in the cabinet and in the back or bottom are provided for necessary ventilation. To ensure reliable operation of the set, and to protect it from overheating, these slots and openings must never be blocked or covered.

- ❑ Never cover the slots and openings with a cloth or other materials.
- ❑ Never block the slots and openings by placing the set on a bed, sofa, rug or other similar surface.
- ❑ Never place the set in a confined space, such as a bookcase, or built-in cabinet, unless proper ventilation is provided.
- ❑ Do not place the set near or over a radiator or heat register, or where it is exposed to direct sunlight.



Power Cord Protection

Do not allow anything to rest on or roll over the power cord, and do not place the set where the power cord is subject to wear or abuse.



Antennas

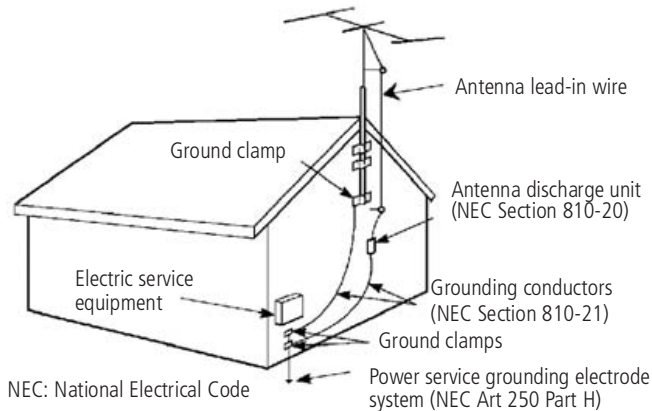
Outdoor Antenna Grounding

If an outdoor antenna is installed, follow the precautions below. An outdoor antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can come in contact with such power lines or circuits.

WHEN INSTALLING AN OUTDOOR ANTENNA SYSTEM, EXTREME CARE SHOULD BE TAKEN TO KEEP FROM CONTACTING SUCH POWER LINES OR CIRCUITS AS CONTACT WITH THEM IS ALMOST INVARIABLY FATAL.

Be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code (NEC) in USA and Section 54 of the Canadian Electrical Code in Canada provide information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

Antenna Grounding According to the National Electrical Code, ANSI/NFPA 70



NEC: National Electrical Code

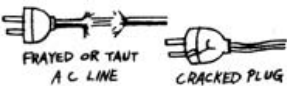




Lightning

For added protection for this television receiver during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage to the receiver due to lightning and power line surges.

Service

Damage Requiring Service

Unplug the set from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- ❑ When the power cord or plug is damaged or frayed. 
- ❑ If liquid has been spilled into the set or objects have fallen into the product. 
- ❑ If the set has been exposed to rain or water. 
- ❑ If the set has been subject to excessive shock by being dropped, or the cabinet has been damaged. 
- ❑ If the set does not operate normally when following the operating instructions. Adjust only those controls that are specified in the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the set to normal operation. 
- ❑ When the set exhibits a distinct change in performance, it indicates a need for service.

Servicing

Do not attempt to service the set yourself since opening the cabinet may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.



Replacement Parts

When replacement parts are required, be sure the service technician certifies in writing that he has used replacement parts specified by the manufacturer that have the same characteristics as the original parts.




Unauthorized substitutions may result in fire, electric shock or other hazards.

Safety Check

Upon completion of any service or repairs to the set, ask the service technician to perform routine safety checks (as specified by the manufacturer) to determine that the set is in safe operating condition, and to so certify. When the set reaches the end of its useful life, improper disposal could result in a picture tube implosion. Ask a qualified service technician to dispose of the set.



Trademark Information

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This TV incorporates High-Definition Multimedia Interface (HDMI™)

technology. HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.

CableCARD™ is a trademark of Cable Television Laboratories, Inc.

Wega, FD Trinitron, Steady Sound, Digital Reality Creation, CineMotion, Memory Stick, Memory Stick Duo, Memory Stick PRO, Memory Stick PRO Duo, MagicGate, Super Fine Pitch, MID, Clear Edge, ClearEdge VM and HD Detailer are trademarks of Sony Corporation.

Contents

Introducing the FD Trinitron Wega

Overview	9
Presenting the FD Trinitron Wega	9
Package Contents	9
Features	9

Setting Up the TV

Overview	11
About the AC Power Cord	11
TV Controls and Connectors	12
Front Panel	12
Rear Panel	13
Basic Connections: Connecting a Cable or Antenna	15
About Using CableCARD	15
Cable or Antenna Only	16
Cable and Antenna Only	17
Cable Box and Cable Only	18
Cable Box Only	19
Connecting Optional Equipment	20
Making Video Connections	21
About Using S VIDEO	21
VCR and Cable	22
VCR and Cable Box	24
Two VCRs for Tape Editing	26
Satellite Receiver	28
Satellite Receiver and VCR	30
DVD Player with Component Video Connectors	32
DVD Player with S VIDEO and Audio Connectors	34
Camcorder	35
Audio Receiver	36
DVI-Equipped Device	37
HDMI-Equipped Device	38
Connecting a Device with an Optical IN Connector	39
Using the CONTROL S Feature	40
Using CableCARD	41
About Using CableCARD	41
Activating CableCARD Service	41
Removing the CableCARD	42
Setting Up the Channel List	43
Using Initial Setup	43

Using the Remote Control

Overview	45
Inserting Batteries	45
Button Descriptions	46
Programming the Remote Control	49

Using the Features

Overview	51
Watching TV	52
Using the Program Guide	53
Using Additional Program Guide Options.....	54
Using Screen Mode (models KD-30/34XS955 Only)	55
Using Screen Mode (models KD-36XS955 Only)	57
Using Favorite Channels	58
Using the Channel Menu.....	58
Using the Favorite Channels Guide	58
Using Other Equipment with Your TV Remote Control	59
All Equipment.....	59
Operating a VCR	59
Operating a Satellite Receiver	59
Operating a Cable Box.....	60
Operating a DVD Player	60
Operating a DVD/VCR Combination Unit	60

Using the Memory Stick Viewer

About Memory Stick	61
Features	61
Memory Stick Compatibility	62
Memory Stick Functionality	62
File Compatibility	63
Trademark Information	63
Inserting and Removing a Memory Stick	64
Inserting a Memory Stick	64
Removing a Memory Stick	65
Using the Memory Stick Index	66
Using the Memory Stick Index	67
Viewing Photos	68
Photo Controls	68
Photo Menu Bar Options	69
Using Zoom and Pan	70
Using Rotate.....	70
Playing Movies	71
Movie Controls.....	71
Movie Menu Bar Options.....	72
Memory Stick Index Menu Bar Options	73
Slide Show Menu Options	73
Contents Menu Options	74
Memory Stick Menu	74
Notes on Using Memory Stick Media	75
About DCF File Names.....	75
Memory Stick Precautions.....	76

Using the Menus

Overview	77
Navigating Through Menus	77
Using the Video Menu	78
Using the Audio Menu	80
Using the Screen Menu (models KD-30/34XS955 Only)	82
Using the Screen Menu (model KD-36XS955 Only)	83
Using the Channel Menu	84
Using the Parent Menu	86
Using the Setup Menu	89
Using the Applications Menu	92

Other Information

Overview	95
Glossary	96
Contacting Sony	97
Troubleshooting	97
Remote Control	97
Channels	98
CableCARD	98
Memory Stick	99
Audio	100
Video	101
General	101
Specifications	103
Optional Accessories	104
Index	105

Introducing the FD Trinitron Wega

Overview

This chapter describes the contents of the package in which the TV is shipped and provides an overview of the features of your Wega TV.

Presenting the FD Trinitron Wega

The FD Trinitron Wega (pronounced VAY-GAH) is characterized by outstanding contrast, uncompromising accuracy, and corner-to-corner detail.

You will recognize the superiority of Wega technology almost immediately. The first thing you will probably notice is minimal glare from the flat picture tube. This flat-screen technology improves picture detail without distortion, unlike conventional curved screens. The FD Trinitron delivers outstanding image detail not only at the screen center, but also at the corners — so you can enjoy a bright, clear picture from any location in a room.

Package Contents

Along with your new Trinitron TV, the packing box contains a remote control and two AA (R6) batteries. These items are all you need to set up and use the TV.

Features

Some of the features that you will enjoy with your new TV include:

- ❑ **Built-in Digital Television Receiver:** You can watch digital television programs and enjoy the improved audio/video quality offered by these programs. With high-definition signal reception, you can watch TV signals broadcast in HDTV for the clearest possible broadcast picture.
- ❑ **CableCARD slot:** Provides cable subscribers with access to digitally encrypted cable channels — without the need for a set-top box — that will enable you to receive not only standard definition but also high definition television. The CableCARD, which is provided by your cable TV company, is inserted into the TV's rear panel CableCARD slot. After the service is activated with your cable TV company, the card replaces the need for a separate set-top box. (Check with your cable TV company about CableCARD service details, limitations, pricing, and availability. For more information about CableCARD in this manual, see pages 15 and 41.)

- ❑ **Screen Mode:** Enables you to resize the picture.
- ❑ **Super Fine Pitch CRT:** Created especially for displaying high resolution pictures, the new Super Fine Pitch CRT — along with a new electron gun and high intensity luminescent phosphor — improves image resolution, providing the highest picture quality reproduction from corner to corner.
- ❑ **DRC[®] (Digital Reality Creation) Multifunction:** Unlike conventional line doublers, the DRC Multifunction feature replaces the signal's NTSC waveform with the near-HD equivalent, while doubling the number of vertical and horizontal lines. This results in four times the density for quality sources, such as DVD, satellite, and digital camcorders. The Video Menu allows you to select interlaced, progressive, or CineMotion™ output.
- ❑ **Favorite Channels:** Allows you to select from 16 of your favorite channels.
- ❑ **ClearEdge VM™ Velocity Modulation:** Sharpens picture definition by enhancing vertical lines.
- ❑ **Steady Sound[®]:** Equalizes volume levels so there is consistent output between programs and commercials.
- ❑ **Memory Stick[®] Viewer:** Lets you watch digital photo (JPEG) and movie (MPEG1) files that are stored on Memory Stick media.
- ❑ **Component Video Inputs:** Offers the best video quality for DVD (480p, 480i), and digital set-top box (HD1080i, 720p) connections.
- ❑ **HD Detailer™:** Wideband video amplifier has a high bandwidth frequency rating, which allows it to send more video information to the screen, resulting in finer picture quality, especially for HD sources.
- ❑ **CineMotion™:** Reverse 3-2 pulldown processing provides optimal picture quality for film-based sources (media originally shot in 24 frames-per-second format).
- ❑ **Parental Control:** V-Chip technology allows parents to block unsuitable programming from younger viewers.
- ❑ **HDMI (High-Definition Multimedia Interface):** Provides an uncompressed, all-digital audio/video interface between this TV and any HDMI-equipped audio/video component, such as a set-top box, DVD player, and A/V receiver. HDMI supports enhanced, or high-definition video, plus two-channel digital audio.

Setting Up the TV


Overview

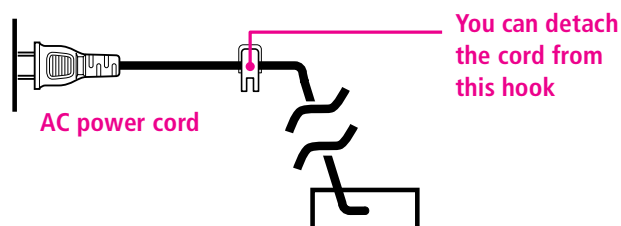
This chapter includes illustrated instructions for setting up your TV.

Topic	Page(s)
TV Controls and Connectors	12-14
Basic Connections: Connecting a Cable or Antenna	15-19
Connecting Optional Equipment	
VCR and Cable	22
VCR and Cable Box	24
Two VCRs for Tape Editing	26
Satellite Receiver	28
Satellite Receiver and VCR	30
DVD Player with Component Video Connectors	32
DVD Player with S VIDEO and Audio Connectors	34
Camcorder	35
Audio Receiver	36
DVI-Equipped Device	37
HDMI-Equipped Device	38
Connecting a Device with an Optical IN Connector	39
Using the CONTROL S Feature	40
Using CableCARD	41
Setting Up the Channel List	43

About the AC Power Cord

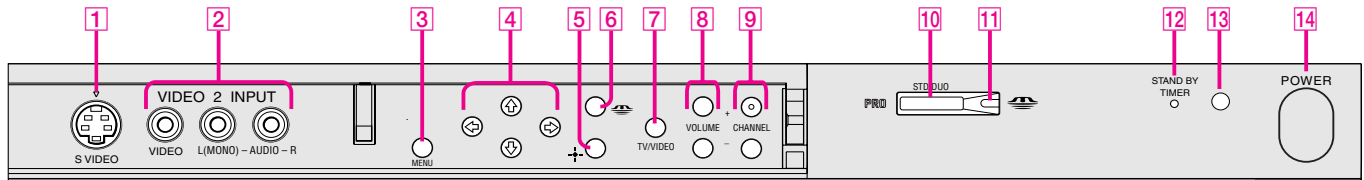
The AC power cord is attached to the rear of the TV with a hook. Use caution when removing the AC plug from its holder. Gently slide the plug upward to remove it from the hook. Once removed, the AC power plug should automatically disengage from its stored location.

 Do not plug in the AC power cord until you have made all other connections.



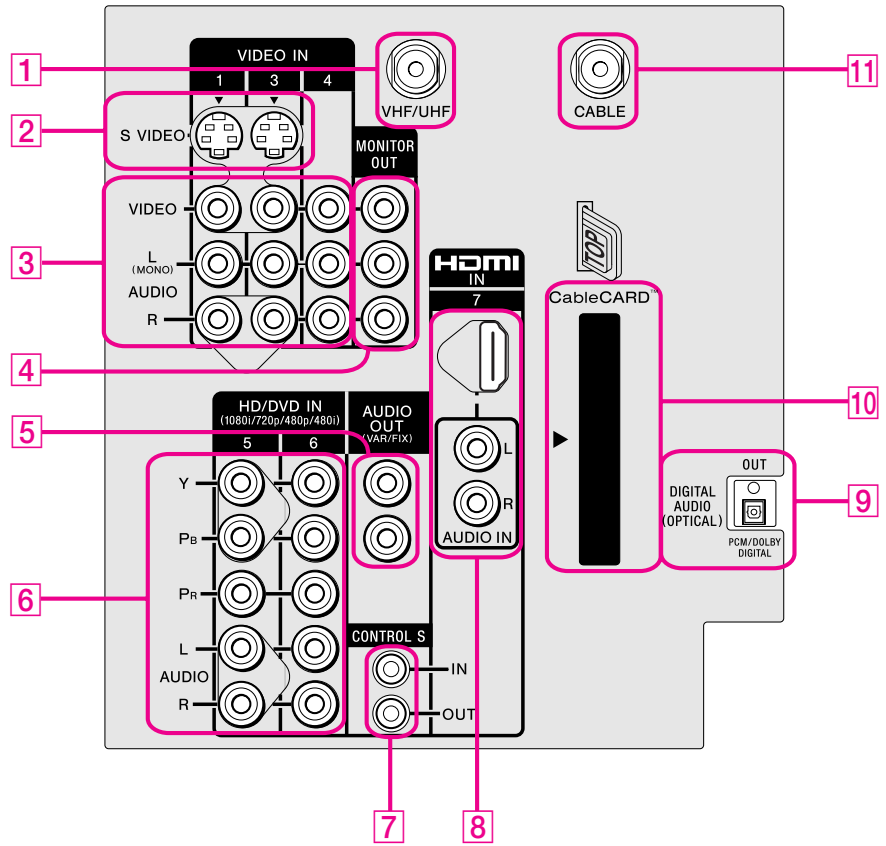
TV Controls and Connectors

Front Panel



Item	Description
1 S VIDEO VIDEO 2 INPUT	Connects to the S VIDEO OUT jack on your camcorder or other video equipment that has S VIDEO. Provides better picture quality than composite video (2).
2 VIDEO/L(MONO)-AUDIO-R VIDEO 2 INPUT	Connects to the composite A/V output jacks on your camcorder or other video equipment.
3 MENU	Press to display the Menu. Press again to exit from the Menu. For details, see "Using the Menus" on page 77.
4 ↑↓←→	Press ↑↓←→ to move the TV's on-screen cursor.
5 +	Press to select an item in the TV's Menu.
6	Press to display the Memory Stick Menu. For details, see "Using the Memory Stick Viewer" on page 61.
7 TV/VIDEO	Press repeatedly to cycle through the video equipment connected to the TV's video inputs.
8 -VOLUME +	Press to adjust the volume.
9 -CHANNEL+	Press to scan through channels. To scan quickly through channels, press and hold down either CHANNEL button.
10 PRO STD/DUO	Memory Stick insertion slot. For details, see "Inserting and Removing a Memory Stick" on page 64.
11 Memory Stick LED	When lit, indicates that the Memory Stick is being read. (Do not remove the Memory Stick when the indicator is lit.)
12 TIMER/STAND BY LED	Blinks when the TV is turned on, then shuts off when the picture is displayed. If the LED blinks continuously, this may indicate the TV needs service (see "Contacting Sony" on page 97). When lit, indicates one of the timers is set. When the timer is set, this LED will remain lit even if the TV is turned off. For details, see page 92.
14 Infrared Receiver (IR)	Receives IR signals from the TV's remote control.
15 POWER	Press to turn on and off the TV.

Rear Panel



Jack	Description
1 VHF/UHF	RF input that connects to your VHF/UHF antenna or cable box.
2 S VIDEO IN 1/3	Connects to the S VIDEO OUT jack of your VCR or other video equipment that has S VIDEO. S VIDEO provides better picture quality than either composite video (3) or VHF/UHF (1) connections.
3 VIDEO IN 1/3/4 VIDEO/L(MONO) -AUDIO-R	Connect to the composite A/V output jacks on your VCR or other video component. A fourth component A/V input jack (VIDEO 2) is located on the front panel of the TV. This video connection provides better picture quality than the VHF/UHF (1) connection.
4 MONITOR OUT	Lets you record the program you are watching to a VCR. When two VCRs are connected, you can use the TV as a monitor for tape-to-tape editing (not available with digital channels or with 480i, 480p, 720p, or 1080i when the input is set to VIDEO 5, 6, or 7).
5 AUDIO OUT (VAR/FIX)	Connects to the left and right audio input jacks of your audio or video equipment. You can use these outputs to listen to your TV's audio through your stereo system.
6 HD/DVD IN 5/6 (1080i/720p/480p/480i)	Connect to your DVD player's or digital set-top box's component video (Y, PB, PR) and audio (L/R) jacks. Component video provides better picture quality than 1 , 2 , or 3).
7 CONTROL S IN/OUT	Allows the TV to receive (IN) and send (OUT) remote control signals to other Sony infrared-controlled audio or video equipment that has the CONTROL S function.
8 HDMI (VIDEO 7 IN)	HDMI (High-Definition Multimedia Interface) provides an uncompressed, all-digital audio/video interface between this TV and any HDMI-equipped audio/video component, such as a set-top box, DVD player, and A/V receiver. HDMI supports enhanced, or high-definition video, plus two-channel digital audio.
9 DIGITAL AUDIO OPTICAL OUTPUT (DOLBY DIGITAL PCM)	Connect to the optical audio input of an audio component that is Dolby* Digital and PCM compatible.
10 CableCARD Slot	Provides cable subscribers with access to digitally encrypted cable channels — without the need for a set-top box — that will enable you to receive not only standard definition but also high definition television. The CableCARD, which is provided by your cable TV company, is inserted into this slot. After the service is activated with your cable TV company, the card replaces the need for a separate set-top box. Check with your cable TV company about CableCARD service details, limitations, pricing, and availability. For more information, see page 41.
11 Cable	RF input that connects to your cable signal.

* Dolby and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

Basic Connections: Connecting a Cable or Antenna

The way in which you will connect your TV varies, depending on how your home receives a signal (cable, cable box, antenna) and whether or not you plan to connect a VCR.

<i>If You Are Connecting</i>	<i>See Page</i>
Cable or Antenna Only	16
<input type="checkbox"/> No cable box or VCR	
Cable and Antenna Only	17
<input type="checkbox"/> No cable box or VCR	
Cable Box and Cable Only	18
<input type="checkbox"/> Cable box unscrambles only some channels (usually premium channels)	
<input type="checkbox"/> No VCR	
Cable Box Only	19
<input type="checkbox"/> Cable box unscrambles all channels	
<input type="checkbox"/> No VCR	

If you are connecting a VCR

- See the connections described on pages 22 and 24.

About Using CableCARD

If you are planning to use a separate cable box for digital cable TV services, you may be able to receive programming using this TV with the CableCARD instead — except in the following circumstances:

- Your cable TV company does not provide CableCARD service in your viewing area.
- You want to access your cable company's interactive or advanced features (such as video-on-demand or, in some cases, pay-per-view). At this time, these services require a bidirectional link, which are only available through the use of a separate set-top box. CableCARD is currently a unidirectional device only, and cannot provide these advanced services.

Check with your cable TV company for CableCARD service details, limitations, pricing, and availability, all of which are determined by your cable TV company — not Sony. For information on installing and activating CableCARD, see "Using CableCARD" on page 41.

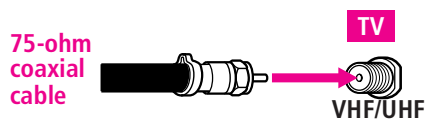
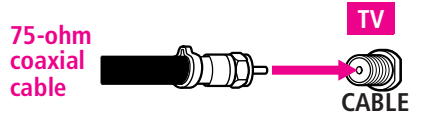
Cable or Antenna Only

For best results, use one of the following connections if you are connecting a cable or an antenna and you:

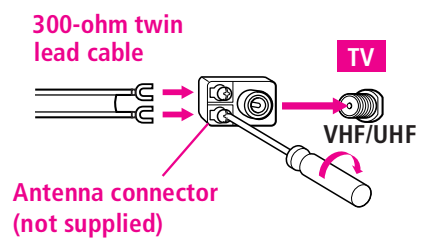
- ❑ Do not need a cable box to unscramble channels. (If you have a cable box, see pages 18-19.)
- ❑ Do not intend to connect a VCR. (If you have a VCR, see pages 22 and 24.)

The connection you choose depends on the cable type you have in your home, as described below.

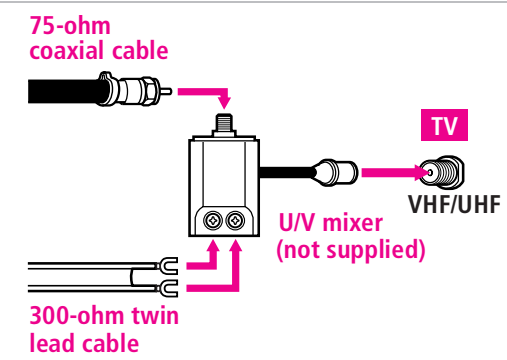
75-ohm coaxial cable (usually found in newer homes)

Cable Type	Connect As Shown
VHF Only or combined VHF/UHF	 <p>75-ohm coaxial cable</p> <p>TV VHF/UHF</p>
Cable	 <p>75-ohm coaxial cable</p> <p>TV CABLE</p>

300-ohm twin lead cable (usually found in older homes)

Cable Type	Connect As Shown
VHF Only or UHF Only or combined VHF/UHF	 <p>300-ohm twin lead cable</p> <p>TV VHF/UHF</p> <p>Antenna connector (not supplied)</p>

75-ohm coaxial and 300-ohm twin lead cable (found in some homes)

Cable Type	Connect As Shown
VHF and UHF	 <p>75-ohm coaxial cable</p> <p>TV VHF/UHF</p> <p>U/V mixer (not supplied)</p> <p>300-ohm twin lead cable</p>

Cable and Antenna Only

For best results, use this connection if you:

- Have a cable and an antenna.
(This is convenient if you are using a separate rooftop antenna to receive additional channels that are not provided by your cable company.)
- Do not have a cable box or VCR. (If you have a cable box, see pages 18 to 19. If you have a VCR, see pages 22 and 24.)

Cable Type	Connect As Shown
------------	------------------

Cable TV (CATV) and Antenna



Notes on Using This Connection

To Do This ...	Do This ...
Switch the TV's input between the cable and antenna	Press ANT to switch back and forth between the TV's VHF/UHF and CABLE inputs.

Cable Box and Cable Only

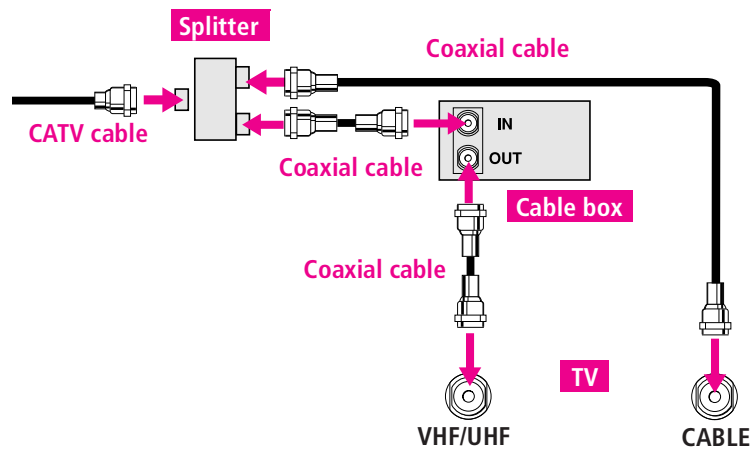
Before connecting a cable box, see "About Using CableCARD" on page 15.

For best results, use this connection if:

- ❑ Your cable company scrambles some channels, such as premium channels (which requires you to use a cable box), but does not scramble all channels.
- ❑ You do not have a VCR. (If you have a VCR, see pages 22 and 24.)

With this connection you can:

- ❑ Use the TV remote control to change channels coming through the cable box to the TV's VHF/UHF input jack. (You must first program the remote control for your specific cable box; see "Programming the Remote Control" on page 49.)
- ❑ Use the TV remote control to change channels coming directly into the TV's CABLE input. (The TV's tuner provides a better signal than the cable box.)



Notes on Using This Connection

To Do This ...	Do This ...
Use the cable box	Tune the TV to the channel the cable box is set to (usually channel 3 or 4) and then use the cable box to switch channels.
Set up the TV remote control to operate the cable box	Program the remote control. See "Programming the Remote Control" on pages 49-50.
Activate the remote control to operate the cable box	Press SAT/CABLE FUNCTION .
Switch the TV's input between the cable box and cable	Press ANT to switch back and forth between the TV's VHF/UHF (scrambled channels) and CABLE (unscrambled) inputs.

Cable Box Only

Before connecting a cable box, see "About Using CableCARD" on page 15.

For best results, use this connection if:

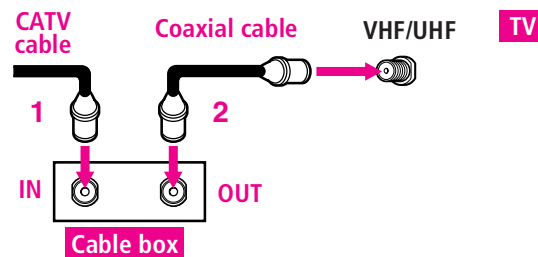
- ❑ Your cable company scrambles all channels, which requires you to use a cable box.
- ❑ You do not have a VCR. (If you have a VCR, see pages 22 and 24.)

With this connection you can:

- ❑ Use the TV remote control to change channels coming through the cable box to the TV's VHF/UHF jack. (You must first program the remote control for your specific cable box.)

To connect the cable box

- 1 Connect the CATV cable to the cable box's input jack.
- 2 Use a coaxial cable to connect the cable box's output jack to the TV's VHF/UHF jack.



- 3 Run Auto Program, as described in "Setting Up the Channel List" on page 43.

Notes on Using This Connection

To Do This ...	Do This ...
Use the cable box	Tune the TV to the channel the cable box is set to (usually channel 3 or 4) and then use the cable box to switch channels.
Set up the TV remote control to operate the cable box	Program the remote control. See "Programming the Remote Control" on pages 49.
Activate the remote control to operate the cable box	Press SAT/CABLE FUNCTION .

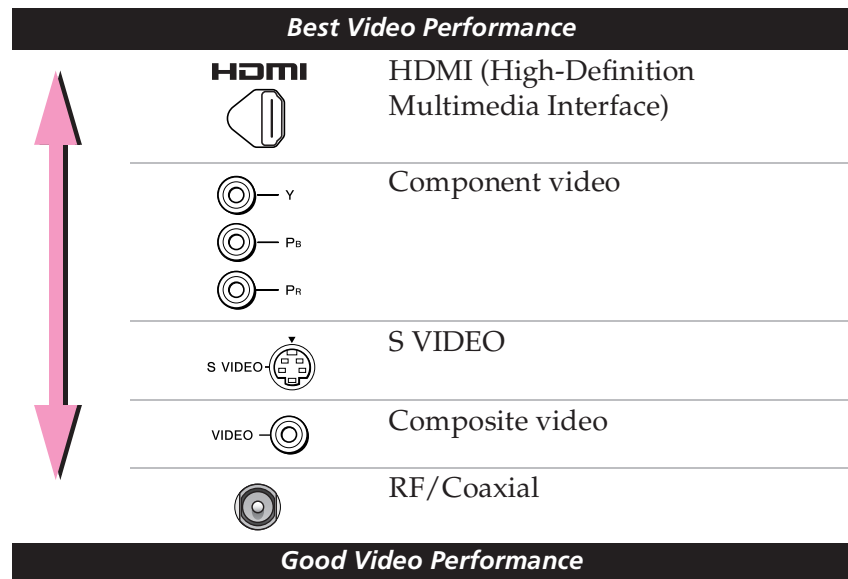
Connecting Optional Equipment

Use the directions in this section to connect the following optional equipment:

<i>If You Are Connecting</i>	<i>See Page</i>
VCR and Cable	22
VCR and Cable Box	24
Two VCRs for Tape Editing	26
Satellite Receiver	28
Satellite Receiver and VCR	30
DVD Player with Component Video Connectors	32
DVD Player with S VIDEO and Audio Connectors	34
Camcorder	35
Audio Receiver	36
DVI-Equipped Device	37
HDMI-Equipped Device	38

Making Video Connections

Your TV includes several types of video inputs. When connecting your TV, use the inputs that are available on your components that provide the best video performance, as described below.

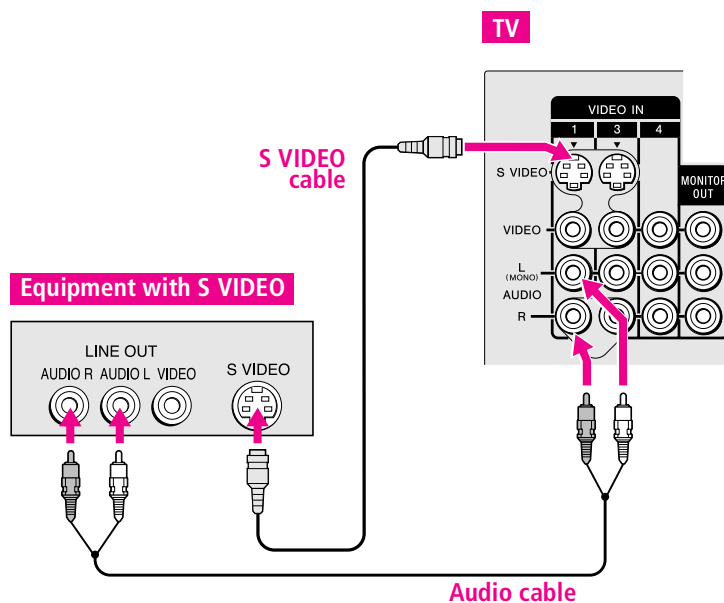


About Using S VIDEO



If the optional equipment you are connecting has an S VIDEO jack (shown at left), you can use an S VIDEO cable for improved picture quality (compared to an A/V cable). Because S VIDEO carries only the video signal, you also need to connect audio cables for sound, as shown below.

Example of an S VIDEO Connection



Cables are often color-coded to connectors. Connect red to red, white to white, etc.

VCR and Cable



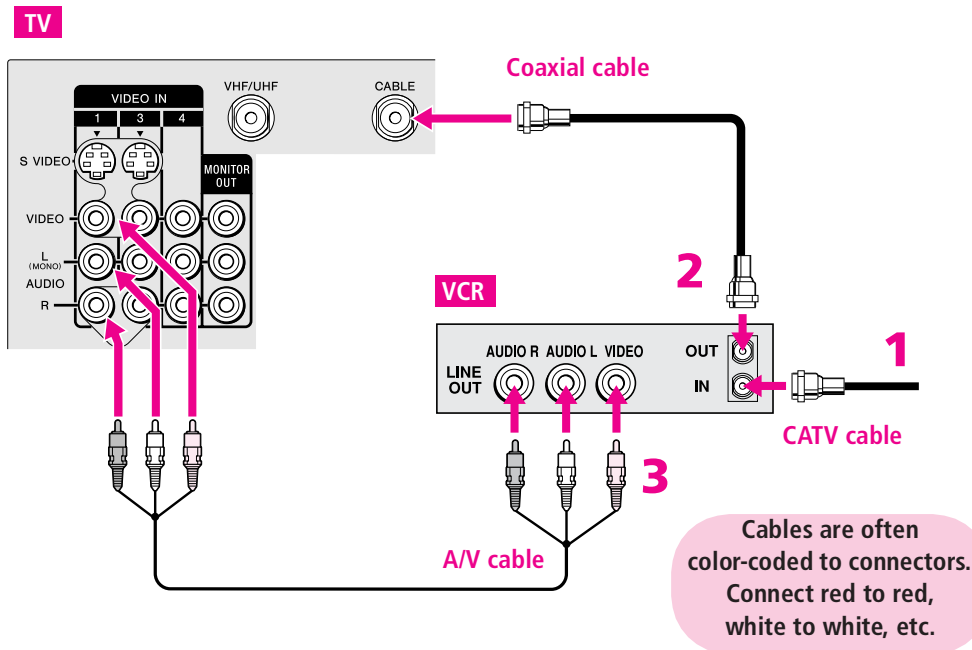
Using
S VIDEO jacks?
See page 21.

For best results, use this connection if:

- Your cable company does not require you to use a cable box.

To connect the VCR and cable

- 1 Connect the CATV cable to the VCR's VHF/UHF input jack.
- 2 Use a coaxial cable to connect the VCR's VHF/UHF output jack to the TV's CABLE jack.
- 3 Use an A/V cable to connect the VCR's A/V output jacks to the TV's A/V input jacks.
- 4 Run Auto Program, as described in "Setting Up the Channel List" on page 43.



Notes on Using This Connection

To Do This ...	Do This ...
Watch the VCR	Press TV/VIDEO repeatedly to select the VCR input (VIDEO 1 in the illustration).
Watch cable channels	Press TV/VIDEO repeatedly to select the cable input (CABLE in the illustration).
Set up the TV remote control to operate the VCR	If you have a non-Sony VCR, you must program the remote control. See "Programming the Remote Control" on pages 49-50.
Activate the TV remote control to operate the VCR	Press VCR/DVD FUNCTION .
Control VCR functions with the TV remote control	See "Operating a VCR" on page 59.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 90.

VCR and Cable Box

Before connecting a cable box, see "About Using CableCARD" on page 15.

For best results, use this connection if:

- ❑ Your cable company scrambles some channels, such as premium channels (which requires you to use a cable box), but does not scramble all channels.

With this connection you can:

- ❑ Use the TV remote control to change channels coming through the cable box. (You must first program the remote control for your specific cable box; see "Programming the Remote Control" on page 49.)
- ❑ Use the TV remote control to change channels coming directly into the TV's CABLE jack. (The TV's tuner provides a better signal than the cable box.)
- ❑ Record channels coming through the cable box and channels coming directly into the TV.

To connect a VCR and cable box, you need:

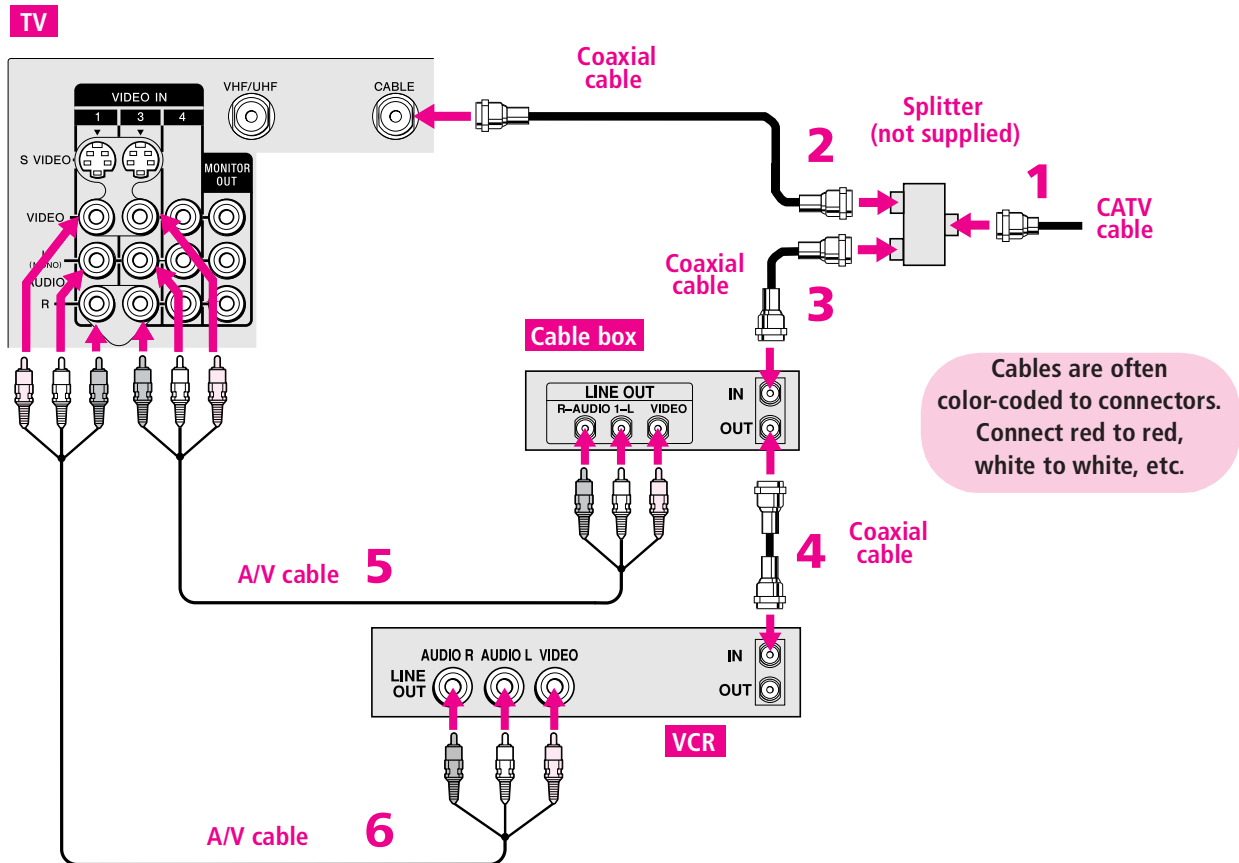
- ❑ A splitter, which is a small, inexpensive device that you can purchase at your local electronics store.
- ❑ Four coaxial cables.
- ❑ Two A/V cables or two S VIDEO cable with audio cables.

To connect the VCR and cable box

- 1 Connect the CATV cable to the single (input) jack of the splitter.
- 2 Use a coaxial cable to connect one of the splitter's two output jacks to the TV's CABLE jack.
- 3 Use a coaxial cable to connect the splitter's other output jack to the cable box's input jack.
- 4 Use a coaxial cable to connect the cable box's output jack to the VCR's RF input jack.
- 5 Use an A/V cable to connect the cable box's A/V output jacks to the TV's A/V input jacks.
- 6 Use an A/V cable to connect the VCR's A/V output jacks to the TV's A/V input jacks.
- 7 Run Auto Program, as described in "Setting Up the Channel List" on page 43.



Using
S VIDEO jacks?
See page 21.



Notes on Using This Connection

To Do This ...	Do This ...
Watch cable (unscrambled) channels	Press TV/VIDEO repeatedly to select the cable input (CABLE in the illustration).
Watch cable box (scrambled) channels	Press TV/VIDEO repeatedly to select the cable box input (VIDEO 3 in the illustration). Use the cable box to change channels.
Watch the VCR	Press TV/VIDEO repeatedly to select the VCR input (VIDEO 1 in the illustration).
Set up the TV remote control to operate the cable box or VCR	If you have a non-Sony VCR, you must program the remote control. See "Programming the Remote Control" on pages 49-50.
Activate the remote control to operate the cable box or VCR	For the cable box, press SAT/CABLE FUNCTION . For the VCR, press VCR/DVD FUNCTION .
Control specific cable box and VCR functions with the TV remote control	See "Operating a Cable Box" on page 60 and "Operating a VCR" on page 59.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 85.

Two VCRs for Tape Editing



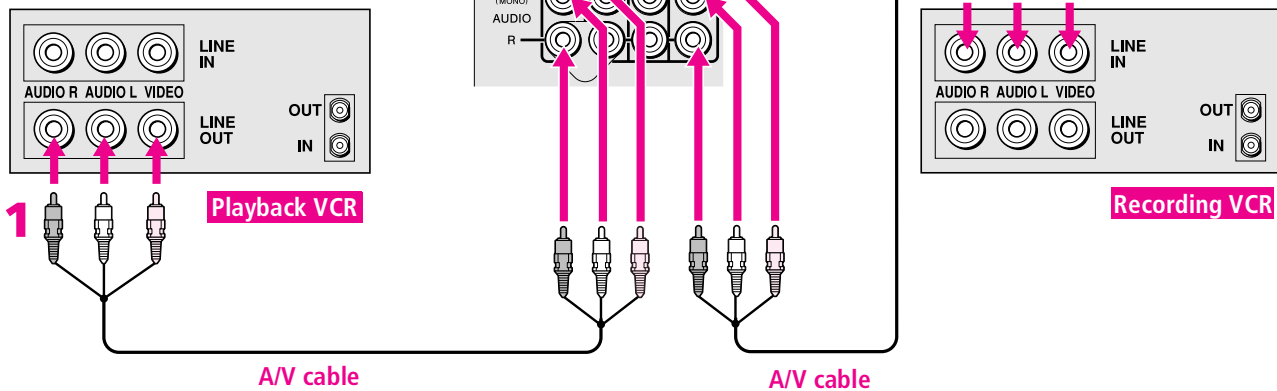
Using S VIDEO jacks? See page 21.

Connecting two VCRs lets you record from one VCR to the other. By connecting them as shown below, you can view (monitor) what is being recorded.

To connect two VCRs for tape editing

- 1 Use an A/V cable to connect the playback VCR's A/V output jacks to the TV's A/V input jacks.
- 2 Use an A/V cable to connect the recording VCR's A/V input jacks to the TV's MONITOR OUT jacks.

Cables are often color-coded to connectors. Connect red to red, white to white, etc.



Notes on Using This Connection

To Do This ...	Do This ...
View (monitor) what is being recorded	Press TV/VIDEO repeatedly to select the VCR input (VIDEO 1 in the illustration above).
Set up the TV remote control to operate the VCR(s)	If you have a non-Sony VCR, you must program the remote control. See "Programming the Remote Control" on pages 49-50.
Activate the TV remote control to operate the VCR(s)	Press VCR/DVD FUNCTION .
Control VCR functions with the TV remote control	See "Operating a VCR" on page 59.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 90.

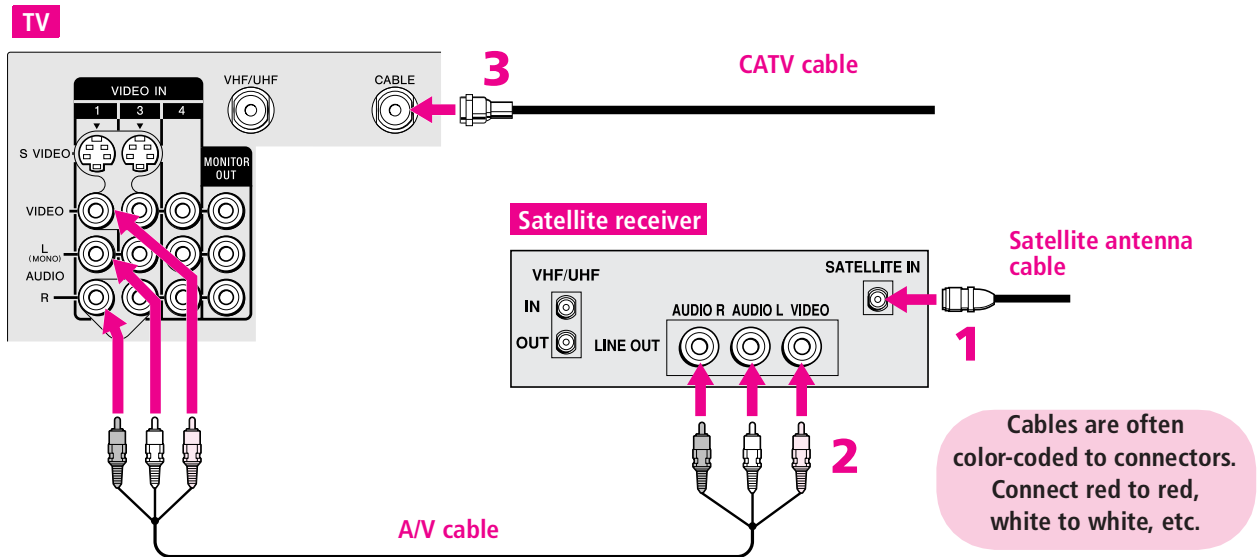
Satellite Receiver



Using
S VIDEO jacks?
See page 21.

To connect a satellite receiver

- 1 Connect the satellite antenna cable to the satellite receiver's satellite input jack.
- 2 Use an A/V cable to connect the satellite receiver's A/V output jacks to the TV's A/V input jacks.
- 3 Connect a CATV cable from your cable or antenna to the TV's CABLE jack.
- 4 Run Auto Program, as described in "Setting Up the Channel List" on page 43.



Notes on Using This Connection

To Do This ...	Do This ...
Watch the satellite receiver	Press TV/VIDEO repeatedly to select the satellite receiver input (VIDEO 1 in the illustration).
Set up the TV remote control to operate the satellite receiver	If you have a non-Sony satellite receiver, you must program the remote control. See "Programming the Remote Control" on pages 49-50.
Activate the TV remote control to operate the satellite receiver	Press SAT/CABLE FUNCTION .
Control satellite receiver functions with the TV remote control	See "Operating a Satellite Receiver" on page 59.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 90.

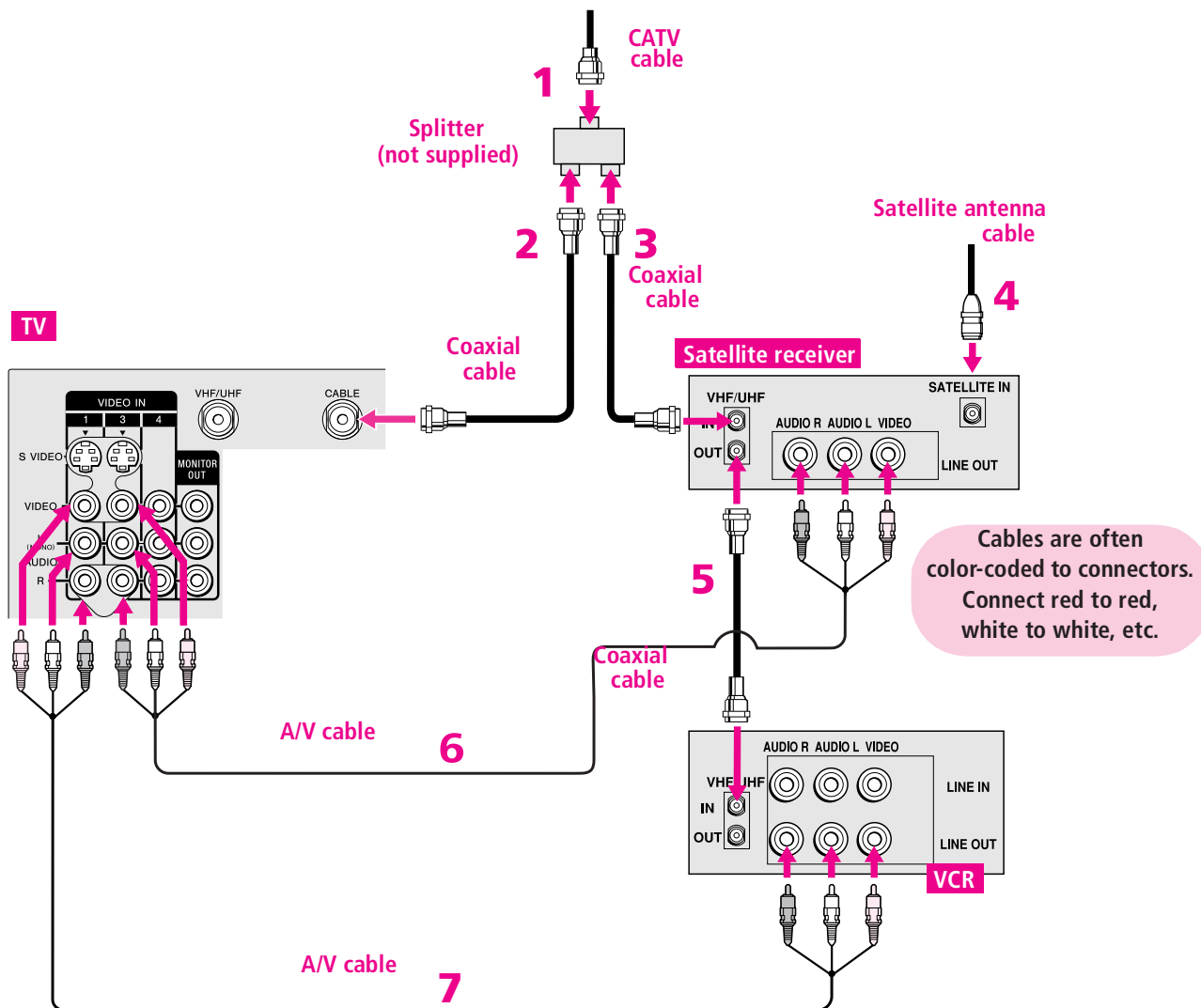
Satellite Receiver and VCR



Using S VIDEO jacks?
See page 21.

To connect a satellite receiver and VCR

- 1 Connect the CATV cable to the single (input) jack of the splitter.
- 2 Use a coaxial cable to connect one of the splitter's two output jacks to the TV's CABLE jack.
- 3 Use a coaxial cable to connect the splitter's other output jack to the satellite receiver's VHF/UHF input jack.
- 4 Connect the satellite antenna cable to the satellite receiver's satellite input jack.
- 5 Use a coaxial cable to connect the satellite receiver's VHF/UHF output jack to the VCR's VHF/UHF input jack.
- 6 Use an A/V cable to connect the satellite receiver's A/V output jacks to the TV's A/V input jacks.
- 7 Use an A/V cable to connect the VCR's A/V output jacks to the TV's A/V input jacks.
- 8 Run Auto Program, as described in "Setting Up the Channel List" on page 43.



Notes on Using This Connection


To Do This ...	Do This ...
Watch the satellite receiver	Press TV/VIDEO repeatedly to select the VCR input (VIDEO 3 in the illustration).
Watch the VCR	Press TV/VIDEO repeatedly to select the input to which the VCR is connected (VIDEO 1 in the illustration).
Set up the TV remote control to operate the satellite receiver or VCR	If you have a non-Sony VCR or satellite receiver, you must program the remote control. See "Programming the Remote Control" on pages 49-50.
Activate the TV remote control to operate the satellite receiver or VCR	For the satellite receiver, press SAT/CABLE FUNCTION . For the VCR, press VCR/DVD FUNCTION .
Control satellite receiver and VCR functions with the TV remote control	See "Operating a Satellite Receiver" on page 59 and "Operating a VCR" on page 59.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 90.

DVD Player with Component Video Connectors

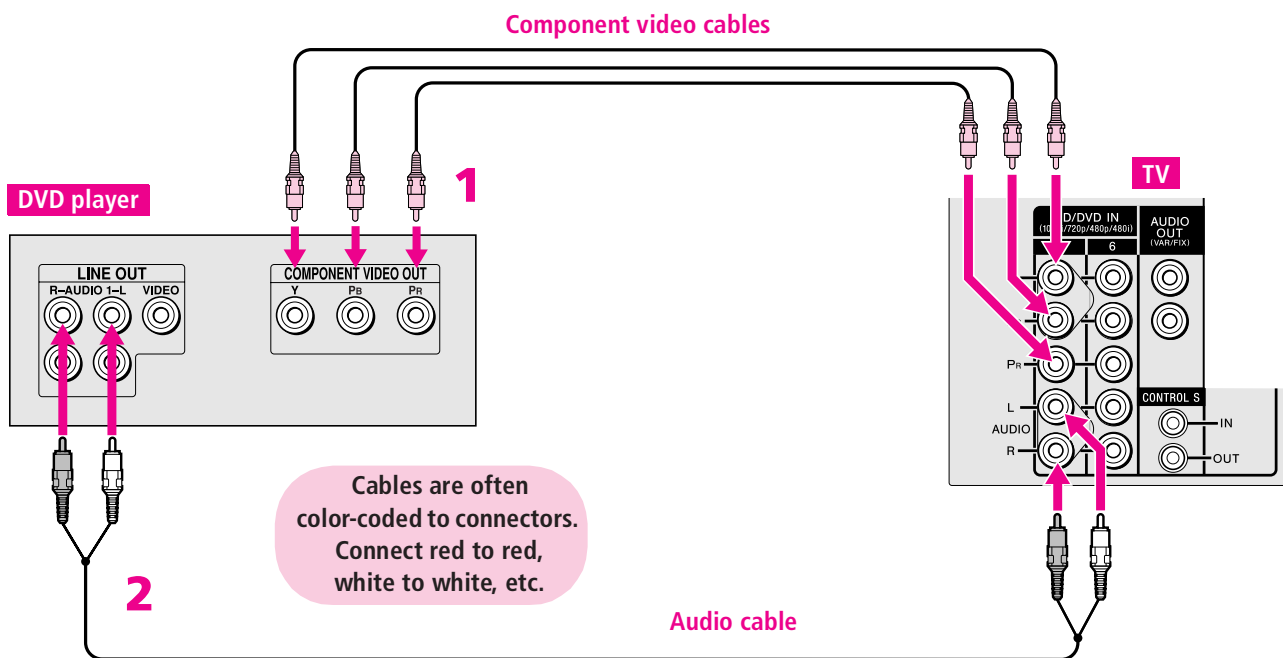
For best results, use this connection if your DVD player has component video (Y, P_B, P_R) jacks.

To connect a DVD player with component video connectors

- 1 Use three separate component video cables to connect the DVD player's Y, P_B and P_R jacks to the Y, P_B and P_R jacks (VIDEO 5) on the TV.


 The Y, P_B and P_R jacks on your DVD player are sometimes labeled Y, C_B and C_R, or Y, B-Y and R-Y. If so, connect the cables to like colors.

- 2 Use an audio cable to connect the DVD player's audio output jacks to the TV's VIDEO 5 audio input jacks.



Notes on Using This Connection

To Do This ...	Do This ...
Watch the DVD player	Press TV/VIDEO repeatedly to select the DVD input (VIDEO 5 in the illustration).
Set up the TV remote control to operate the DVD player	If you have a non-Sony DVD player, you must program the remote control. See "Programming the Remote Control" on pages 49-50.
Activate the TV remote control to operate the DVD player	Press VCR/DVD FUNCTION .
Control DVD functions with the TV remote control	See "Operating a DVD Player" on page 60.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 90.

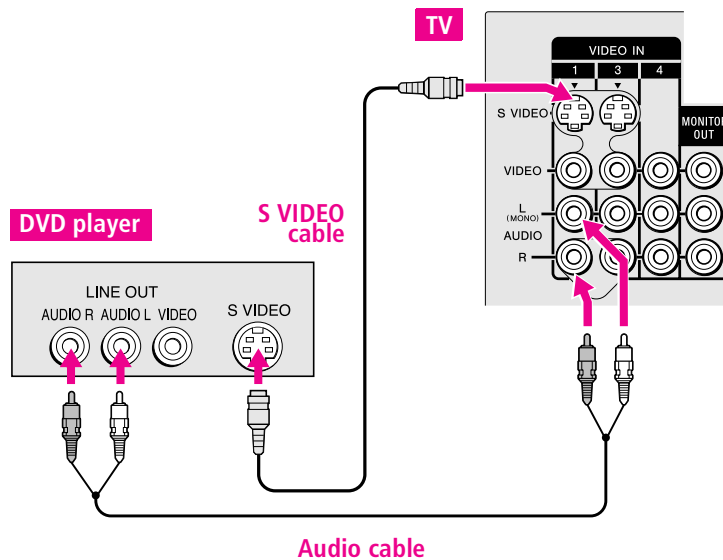
 **You cannot record the signal from any equipment connected into the Y, PB, PR jacks.**

DVD Player with S VIDEO and Audio Connectors

Use this connection if your DVD player does not have component video (Y, PB, PR) jacks.

To connect a DVD player with A/V connectors

- 1 Use an audio cable to connect the DVD player's audio output jacks to the TV's audio input jacks.
- 2 Use an S VIDEO cable to connect the DVD player's S VIDEO jack to the TV's S VIDEO jack.



Cables are often color-coded to connectors. Connect red to red, white to white, etc.

Notes on Using This Connection

To Do This ...	Do This ...
Watch the DVD player	Press TV/VIDEO repeatedly to select the DVD input (VIDEO 1 in the illustration).
Set up the TV remote control to operate the DVD player	If you have a non-Sony DVD player, you must program the remote control. See "Programming the Remote Control" on pages 49-50.
Activate the TV remote control to operate the DVD player	Press VCR/DVD FUNCTION .
Control DVD functions with the TV remote control	See "Operating a DVD Player" on page 60.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 90.

Camcorder



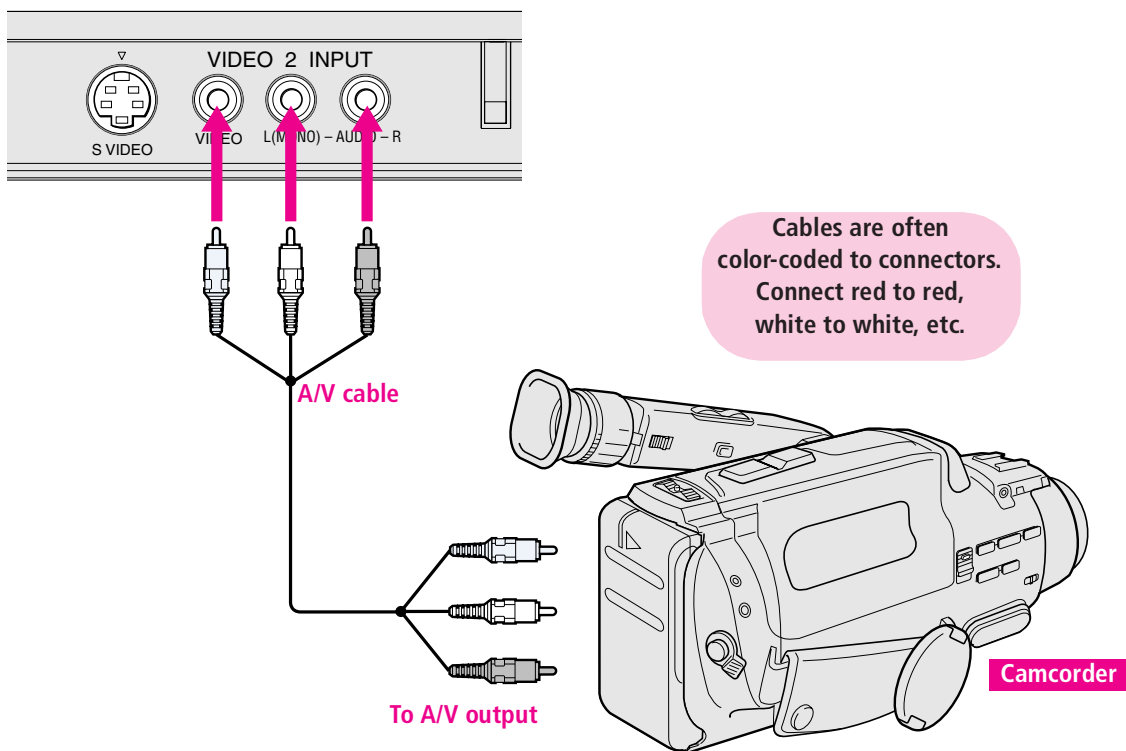
Using
S VIDEO jacks?
See page 21.

For easy connection of a camcorder, the TV has front A/V input jacks. If you prefer, however, you can connect the camcorder to the TV's rear A/V input jacks.

To connect a camcorder

- 1 Use A/V cables to connect the camcorder's A/V output jacks to the TV's A/V input jacks.

TV



If you have a mono camcorder, connect its audio output jack to the TV's L MONO audio jack.

Notes on Using This Connection

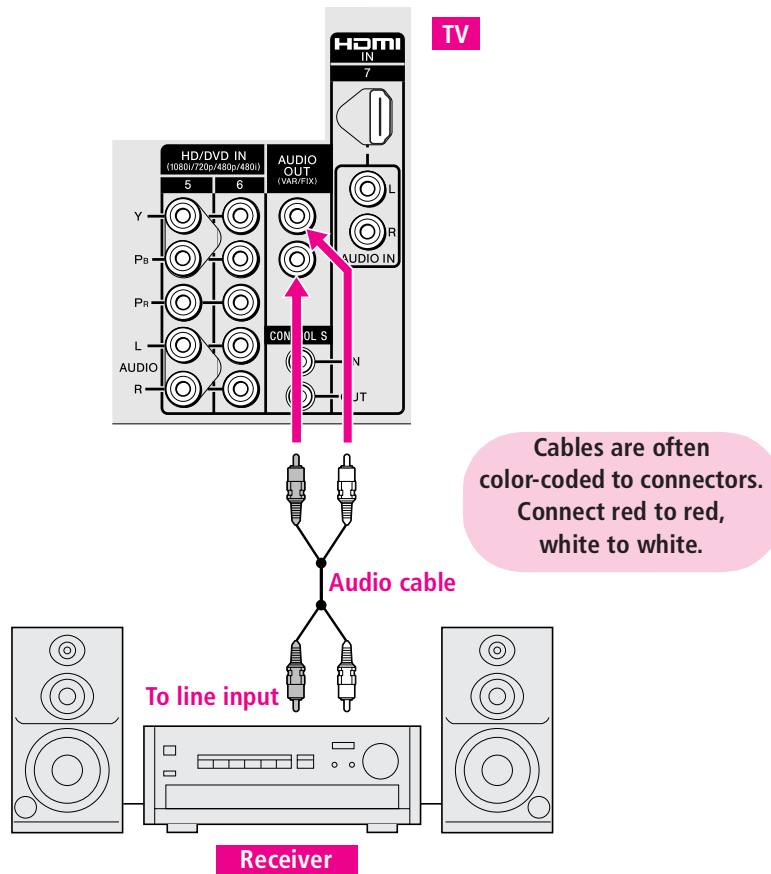
To Do This ...	Do This ...
Watch the camcorder	Press TV/VIDEO repeatedly to select the camcorder input (VIDEO 2 in the illustration).
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 90.

Audio Receiver

For improved sound quality, you may want to play the TV's audio through your stereo system.

To connect an audio system

- 1 Use an audio cable to connect the TV's audio output jacks to the audio receiver's line input jacks.




- 2 Using the TV's Audio Menu, set the **Speaker** option to **Off**. Then set the **Audio Out** option to **Fixed** or **Variable**, depending on how you want to control the volume. For details, see "Using the Audio Menu" on page 80.
- 3 Turn on the audio receiver, and then set the receiver's line input to the jack into which you connected the TV.

DVI-Equipped Device

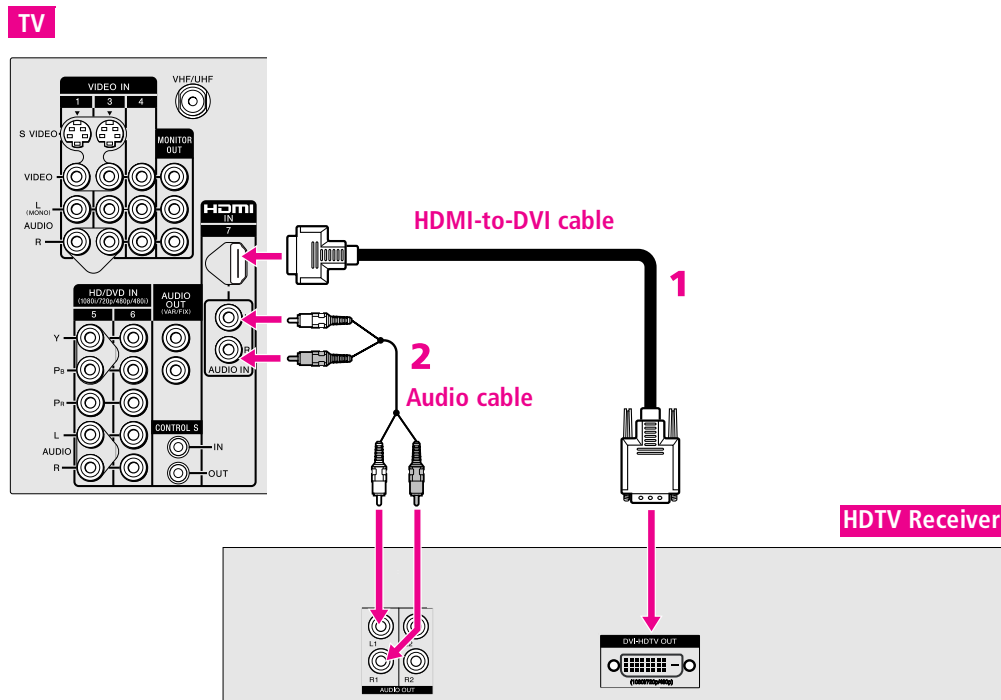
If you have a device, such as an HDTV receiver, that has DVI (Digital Video Interface) output, use the following connection.

To connect a device that has DVI OUT:

- 1 Use an HDMI-to-DVI cable to connect the device's DVI OUT jack to the TV's HDMI IN jack.

 You can purchase HDMI cables (or cable adapters) at your local electronics store.

- 2 Use an audio cable to connect the device's audio output jacks to the TV's HDMI analog audio input jacks.



Note on Using This Connection


To Do This ...	Do This ...
Watch the DVI device	Press TV/VIDEO repeatedly to select the VIDEO 7 input.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 90.

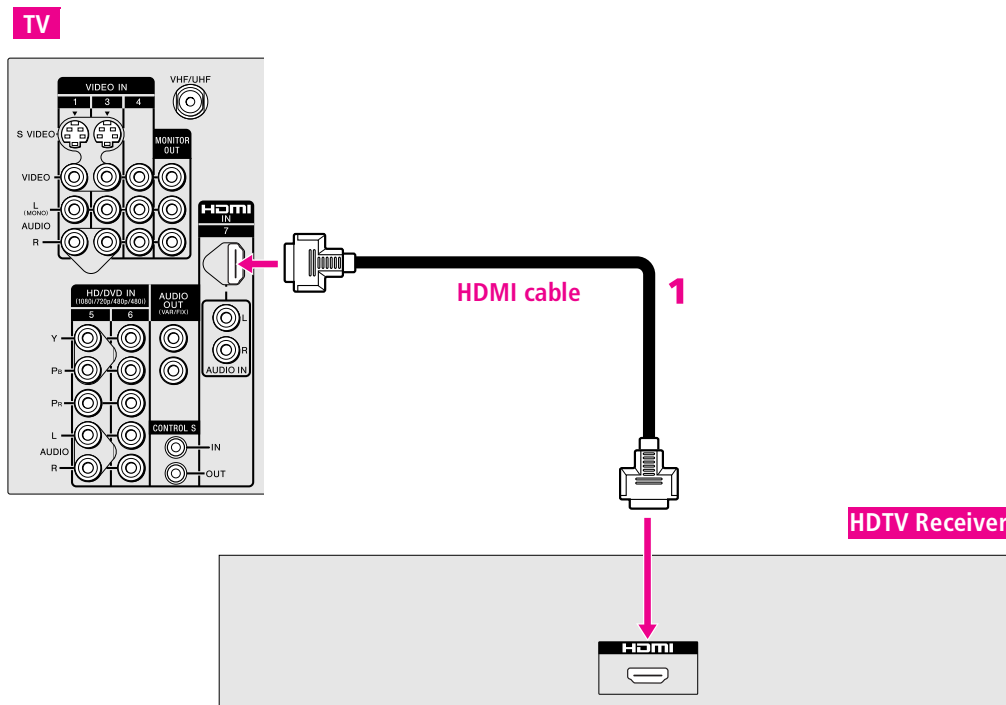
HDMI-Equipped Device

If you have a device, such as an HDTV receiver, that has a High-Definition Multimedia Interface (HDMI), use the following connection.

To connect a device that has HDMI OUT:

- 1 Use the HDMI cable that came with your device to connect the device's HDMI OUT jack to the TV's HDMI IN jack.

 HDMI cables transmit both audio and video signals. (Separate audio cables are not necessary.) You can purchase HDMI cables at your local electronics store.



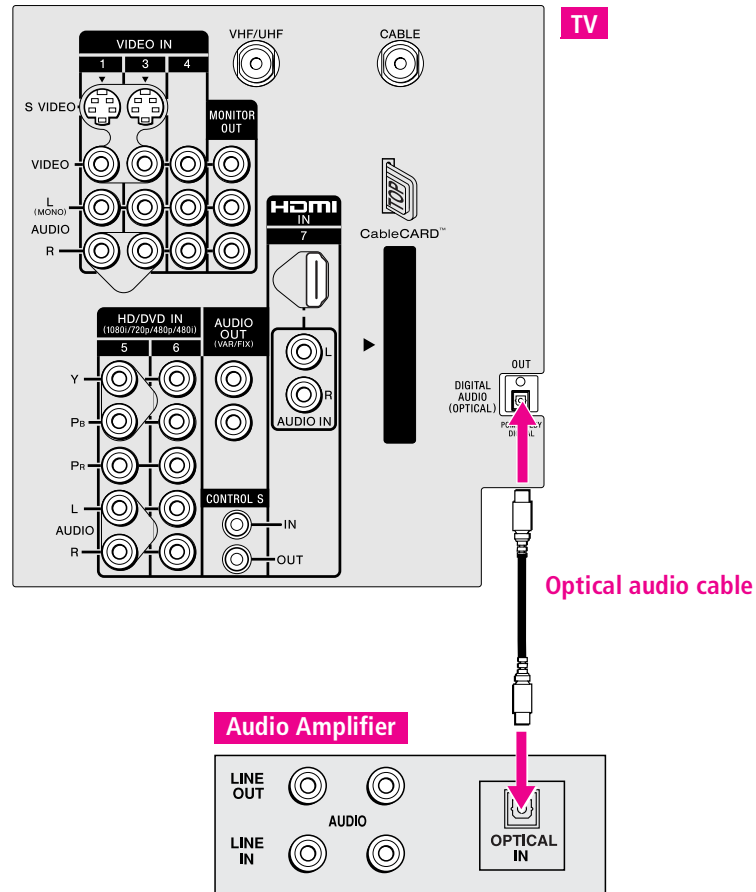
Note on Using This Connection


To Do This ...	Do This ...
Watch the HDMI device	Press TV/VIDEO repeatedly to select the VIDEO 7 input.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 90.

Connecting a Device with an Optical IN Connector

You can use the TV's DIGITAL AUDIO OPTICAL output jack to connect an audio device that is Dolby Digital and PCM compatible, such as an audio amplifier.

- Using an optical cable, connect the TV's DIGITAL AUDIO OPTICAL output jack to the device's audio optical input jack.



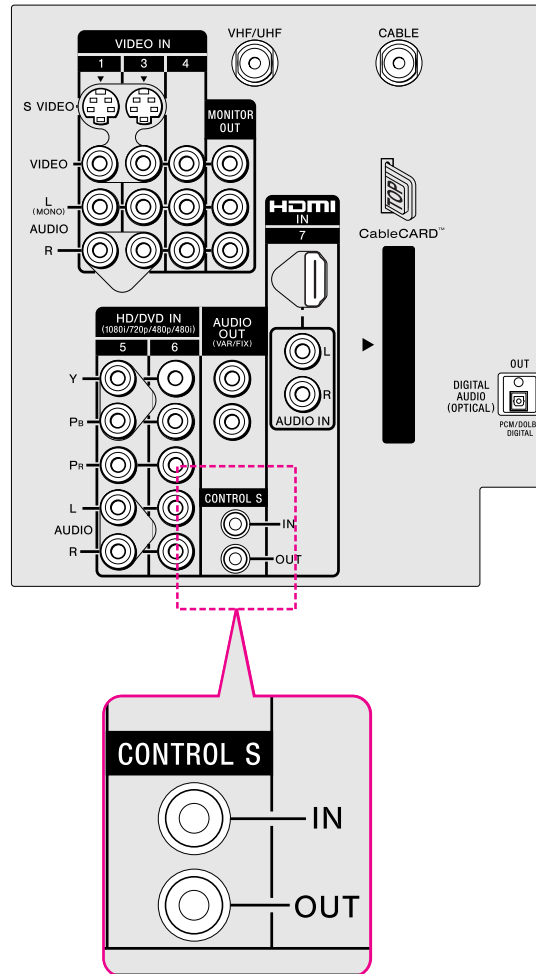
 Because all equipment does not output digital audio, you should also connect the TV's analog audio output jacks to the amplifier's analog audio input jacks, as described on page 36.

Using the CONTROL S Feature

CONTROL S allows you to control your system and other Sony equipment with one remote control. In addition to allowing you to control multiple devices with one remote control, the CONTROL S feature allows you to always point your remote control at your TV, instead of having to point it at the other equipment, which might be hidden or out of direct line of sight.

Use CONTROL S IN to send signals to the TV.

Use CONTROL S OUT to send signals to connected equipment.



Using CableCARD

CableCARD provides cable subscribers with access to digitally encrypted cable channels — without the need for a set-top box — that will enable you to receive not only standard definition but also high definition television. The CableCARD, which is provided by your cable TV company, is inserted into the TV's rear panel CableCARD slot. After the service is activated with your cable TV company, the card replaces the need for a separate set-top box.

About Using CableCARD

If you are planning to use a separate cable box for digital cable TV services, you may be able to receive programming using this TV with the CableCARD instead — except in the following circumstances:

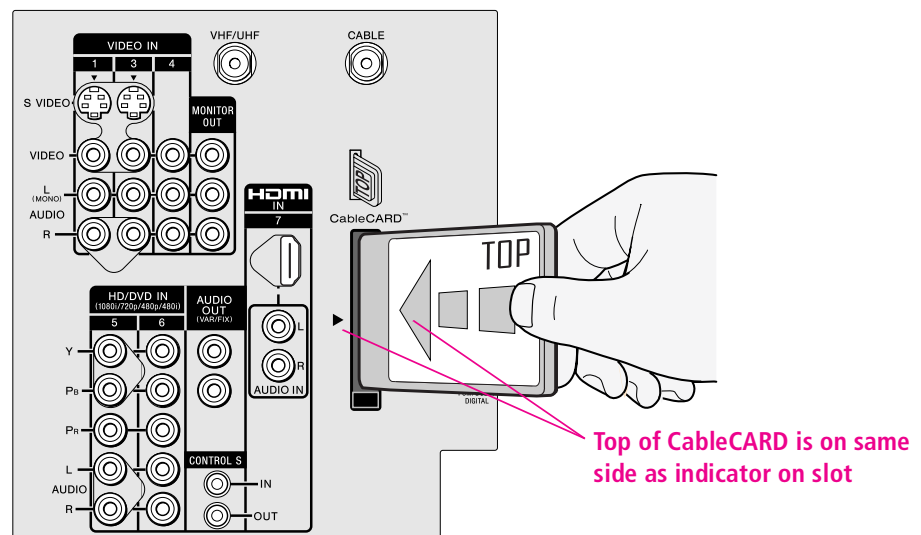
- ❑ Your cable TV company does not provide CableCARD service in your viewing area.
- ❑ You want to access your cable company's interactive or advanced features (such as video-on-demand or, in some cases, pay-per-view). At this time, these services require a bidirectional link, which are only available through the use of a separate set-top box. CableCARD is currently a unidirectional device only, and cannot provide these advanced services.

Check with your cable TV company for CableCARD service details, limitations, pricing, and availability, all of which are determined by your cable TV company — not Sony.


Activating CableCARD Service

Before you can use CableCARD service, you need to insert the CableCARD (supplied by your cable TV company) and activate the service, as described below:

- 1 Turn off the TV.
- 2 Insert the CableCARD into the TV's CableCARD slot.



! CAUTION: Inserting the CableCARD incorrectly may result in permanent damage to the card and the TV.


 You can also access information about your CableCARD in the Applications Menu (see page 93).

- 3 Gently push the card into the slot until it locks into place.
- 4 Turn on the TV. After 1-2 minutes, the CableCARD setup screen is displayed. This screen includes information your cable TV company will request before they can activate your service.
- 5 Follow the displayed instructions: Phone your cable company. A representative will guide you through the activation process.
- 6 After your CableCARD is activated, your cable TV company will download the service information, including the channel list, to the CableCARD.

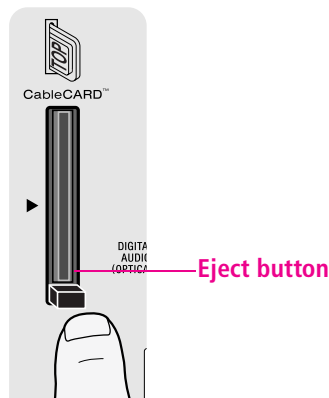
After the CableCARD has acquired channels from your cable TV company, the TV tunes to the lowest available channel.

Removing the CableCARD

In the event you want to cancel your service, contact your cable TV company.

 Once the CableCARD is removed, your TV will no longer decrypt digital cable TV programming services that require CableCARD.

- 1 Turn off the TV.
- 2 Push the eject button on the TV's CableCARD slot to release the card.





- 3 Pull the CableCARD straight out of the slot to remove it. To install a different CableCARD, follow the instructions in "Activating CableCARD Service" on page 41.


Setting Up the Channel List

After you finish connecting the TV, you need to run the Initial Setup feature, which automatically creates a list of available analog and digital channels and lets you correct tilt and vertical correction settings. The Initial Setup screens appear when you turn on your TV for the first time after hooking it up.





Using Initial Setup

 For more details on using Tilt Correction and Vertical Correction, see pages 89-90.

 To exit the Tilt Correction and Vertical Correction screens, press the **MENU** button.

 If you are using a CableCARD, Auto Program is disabled for the CABLE input.

To run Initial Setup

- 1 Press **POWER** to turn on the TV.
The Initial Setup screen appears.
Using the remote control, move the highlight to the desired language, then press  to select that language. The Tilt Correction screen appears.
 - 2 Press **← →** to correct any tilt of the picture. You can choose a correction between +7 and -7. When finished, press .
 - 3 **KD-30/34XS955 Only** The Vertical Correction screen appears. Press **↑ ↓** to make a vertical correction to the picture. You can choose a correction between +5 and -5. When finished, press .
 - 4 The next screen instructs you to connect your cable/antenna. Check that you've connected your signal source correctly.
To start Auto Program, highlight **Yes** and then press .
- Auto Program automatically creates a list of receivable analog and digital channels. Auto Program may take 50 minutes or more to complete. A progress bar is displayed while the channel list is being created.
- When Auto Program is finished, the lowest numbered channel is displayed.

To run Auto Program again at a later time

- Use the Auto Program feature as described on page 84.

To add individual digital channels

Use the Digital Channel feature as described on page 84.

To reset the TV to factory settings

- 1 Press **POWER** to turn on the TV.
- 2 Hold down **RESET** on the remote control.
- 3 Press **TV POWER** on the TV. (The TV will turn itself off, then back on.)
- 4 Release **RESET**.

Using the Remote Control

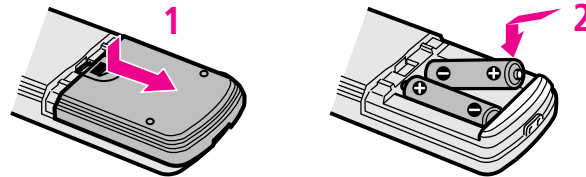
Overview


This chapter describes how to set up, program, and use the TV's remote control.

Topic	Page
Inserting Batteries	45
Button Descriptions	46
Programming the Remote Control	49

Inserting Batteries

- 1 Remove the battery cover from the remote control.
- 2 Insert two size AA (R6) batteries (supplied) by matching the \oplus and \ominus terminals on the batteries to the diagram inside the battery compartment.
- 3 Replace the battery cover.



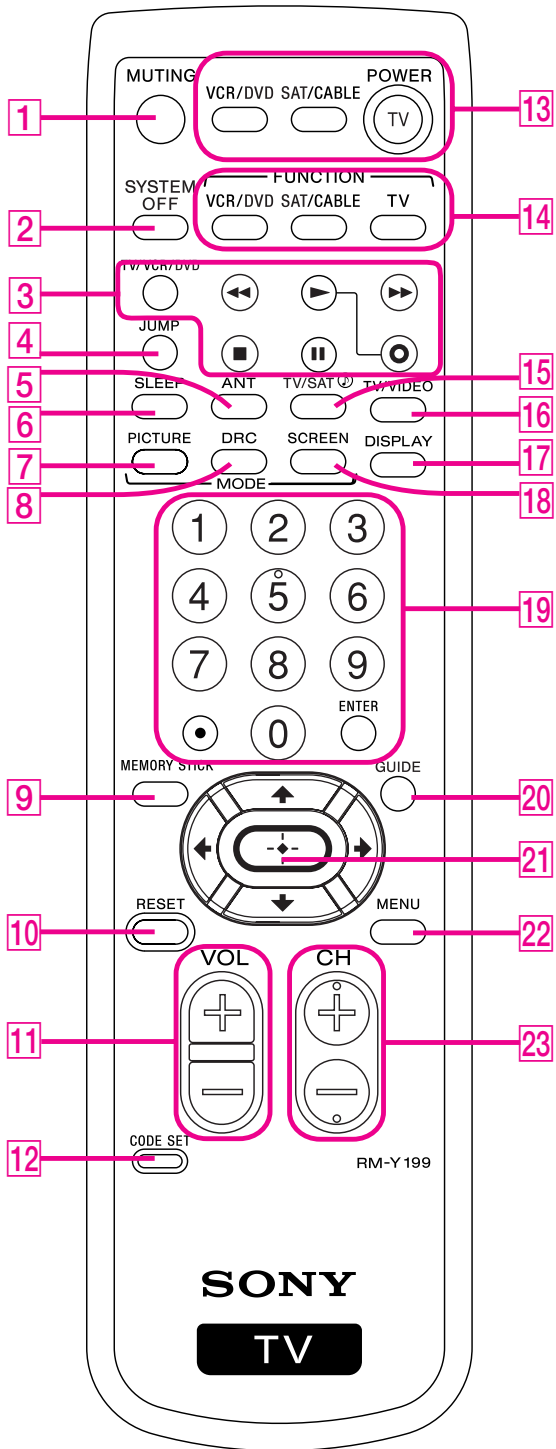
 Remove the batteries to avoid damage from possible battery leakage whenever you anticipate that the remote control will not be used for an extended period.

Handle the remote control with care.



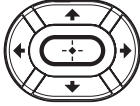






Avoid dropping it, getting it wet, placing it in direct sunlight, near a heater, or where the humidity is high.

Button Descriptions

Remote Control




Button	Description
1 MUTING	Press to mute the sound. Press again or press VOL+ to restore the sound.
2 SYSTEM OFF	Press to turn off all Sony brand audio/video equipment at once. (May not function with older Sony equipment. Does not function with DVD/VCR combination unit.)
3 TV/VCR/DVD	Press to change the VHF/UHF output of the VCR (or DVD/VCR combination unit).
Transport Buttons	<p>◀◀ Rewind</p> <p>▶ Play</p> <p>● Record (press together with ▶)</p> <p>■ Stop</p> <p>▶▶ Fast forward</p> <p> Pause</p>
4 JUMP	Press to jump back and forth between two channels. The TV alternates between the current channel and the last channel that was selected.
5 ANT	Press to switch between the sources connected to the TV's VHF/UHF and CABLE inputs.
6 SLEEP	Press repeatedly until the TV displays the time in minutes (15, 30, 45, 60, or 90) that you want the TV to remain on before shutting off automatically. To cancel press until Sleep Off appears. While the Sleep feature is set, press once to display the remaining time.
7 PICTURE MODE	Press repeatedly to cycle through the available video picture modes: Vivid , Standard , Movie , Pro . Also available in the Video Menu. For details, see "Selecting Video Options" on page 78.
8 DRC MODE	Press repeatedly to cycle through the available Digital Reality Creation modes: Interlaced , Progressive , CineMotion . Also available in the Video Menu. For details, see "Selecting Video Options" on pages 78-79.
9 MEMORY STICK	Press to display the Memory Stick Menu. For details, see "Using the Memory Stick Viewer" on page 61. Also available in the Applications Menu (page 92).
10 RESET	Press to reset the settings to the factory defaults. See pages 43, 79, and 81. Also used to clear Favorite Channels (see page 58).
11 VOL +/-	Press to adjust the volume.
12 CODE SET	Press to program the remote control to operate non-Sony video equipment. For details, see "Programming the Remote Control" on page 49.
13 POWER Buttons	<p>VCR/DVD: Press to turn on and off the VCR or DVD player.</p> <p>SAT/CABLE: Press to turn on and off the satellite receiver or cable box.</p> <p>TV: Press to turn on and off the TV.</p>
14 FUNCTION Buttons	<p>The indicator lights up momentarily when pressed to show which equipment the remote control is operating:</p> <p>VCR/DVD: Press to have the remote control operate the VCR or DVD player.</p> <p>SAT/CABLE: Press to have the remote control operate the satellite receiver or cable box.</p> <p>TV: Press to have the remote control operate the TV.</p>
15 TV/SAT	When the remote control is set to operate the satellite receiver, press to switch between the satellite receiver's TV and SAT (satellite) inputs.
Ⓜ	When the remote control is set to operate the TV, press repeatedly to step through the Audio Effect options. Also available in the Audio Menu. For details, see page 80.


Button	Description
16 TV/VIDEO	Press repeatedly to cycle through the TV's video inputs.
17 DISPLAY	Press once to display the current channel number, current time, and channel label (if set) and other information. Press again to turn Display off.
18 SCREEN MODE	Press to toggle between the Screen Mode options. For details on using Screen Mode, see pages 55-57. Also available in the Screen Menu (pages 82-83).
19 0 - 9 ENTER 	Press 0 - 9 to select a channel; the channel changes after 3 seconds. Press ENTER to change channels immediately. Use the  button with 0-9 and ENTER buttons to select digital channels (for example, 2.1). For details on selecting digital channels, see page 52.
20 GUIDE	Press to display the program guide of your satellite program provider.
21 	Press     to move the on-screen cursor. To select an item, press  . When no menus are displayed, pressing  displays the Favorite Channels screen. (For more information about Favorite Channels, see page 58.)
22 MENU	Press to display the Menu. Press again to exit from the Menu. For details, see "Using the Menus" on page 77.
23 CH +/-	Press to scan through channels. To scan quickly through channels, press and hold down either CH button.

Programming the Remote Control

If you have video equipment other than Sony brand (or if you have a Sony DVD/VCR combination unit) that you want to control with the TV's remote control, use the following procedure to program the remote control.

 **The equipment must have infrared (IR) remote capability in order to be used with the remote control.**

- 1 Turn to the list of "Manufacturer's Codes" on page 50, and find the three-digit code number for the manufacturer of your equipment. (If more than one code number is listed, use the number listed first.)
- 2 Press **CODE SET**.
- 3 Press the **VCR/DVD FUNCTION** or **SAT/CABLE FUNCTION** button.
- 4 Using the **0-9** buttons, enter the three-digit manufacturer's code number.
- 5 Press the **ENTER** button.

 **You must do step 5 within 10 seconds of step 4, or you must redo steps 2 through 5.**

- 6 To check if the code number works, aim the TV's remote control at the equipment and press the **POWER** button that corresponds with that equipment. If it responds, you are done. If not, try using another code listed for that manufacturer.

Notes

- ❑ If more than one code number is listed, try entering them one by one until you come to the correct code for your equipment.
- ❑ If you enter a new code number, the code number you previously entered at that setting is erased.
- ❑ In some cases, you may not be able to operate your equipment with the supplied remote control. In such cases, use the equipment's own remote control.
- ❑ Whenever you remove the batteries to replace them, the code numbers may revert to the factory setting and must be reprogrammed.

Manufacturer's Codes

VCRs

Manufacturer	Code
Sony	301, 302, 303
Admiral (M. Ward)	327
Aiwa	338, 344
Audio Dynamic	314, 337
Broksonic	319, 317
Canon	309, 308
Citizen	332
Craig	302, 332
Criterion	315
Curtis Mathes	304, 338, 309
Daewoo	341, 312, 309
DBX	314, 336, 337
Dimensia	304
Emerson	319, 320, 316, 317, 318, 341
Fisher	330, 335
Funai	338
General Electric	329, 304, 309
Go Video	322, 339, 340
Goldstar	332
Hitachi	306, 304, 305, 338
Instant Replay	309, 308
JC Penney	309, 305, 304, 330, 314, 336, 337
JVC	314, 336, 337, 345, 346, 347
Kenwood	314, 336, 332, 337
LXI (Sears)	332, 305, 330, 335, 338
Magnavox	308, 309, 310
Marantz	314, 336, 337
Marta	332
Memorex	309, 335
Minolta	305, 304
Mitsubishi/ MGA	323, 324, 325, 326
Multitech	325, 338, 321
NEC	314, 336, 337
Olympic	309, 308
Optimus	327
Orion	317
Panasonic	308, 309, 306, 307
Pentax	305, 304
Philco	308, 309
Philips	308, 309, 310
Pioneer	308
Quasar	308, 309, 306
RCA/ PROSCAN	304, 305, 308, 309, 311, 312, 313, 310, 329

Manufacturer	Code
Realistic	309, 330, 328, 335, 324, 338
Sansui	314
Samsung	322, 313, 321
Sanyo	330, 335
Scott	312, 313, 321, 335, 323, 324, 325, 326
Sharp	327, 328
Signature 2000 (M. Ward)	338, 327
SV2000	338
Sylvania	308, 309, 338, 310
Symphonic	338
Tashiro	332
Tatung	314, 336, 337
Teac	314, 336, 338, 337
Technics	309, 308
Toshiba	312, 311
Wards	327, 328, 335, 331, 332
Yamaha	314, 330, 336, 337
Zenith	331

Laserdisc Players

Manufacturer	Code
Sony	701
Panasonic	704, 710
Pioneer	702

DVD/VCR Combination Units

Manufacturer	Code
Sony	601
Broksonic	605
JVC	604
Panasonic	609
Samsung	603
Toshiba	602

DVD Players

Manufacturer	Code
Sony	751
Apex	762
General Electric	755
Hitachi	758
JVC	756
Magnavox	757
Mitsubishi	761
Oritron	759
Panasonic	753
Philips	757
Pioneer	752
RCA/Proscan	755
Samsung	758
Toshiba	754
Zenith	760

Cable Boxes

Manufacturer	Code
Sony	230
Hamlin/Regal	222, 223, 224, 225, 226
Jerrold/G. I./ Motorola	201, 202, 203, 204, 205, 206, 207, 208, 218
Oak	227, 228, 229
Panasonic	219, 220, 221
Pioneer	214, 215
Scientific Atlanta	209, 210, 211
Tocom	216, 217
Zenith	212, 213

Satellite Receivers

Manufacturer	Code
Sony	801
Dish Network	810
Echostar	810
General Electric	802
Hitachi	805
Hughes	804
Mitsubishi	809
Panasonic	803
RCA/ PROSCAN	802, 808
Toshiba	806, 807


Using the Features


Overview

This chapter describes how to use the features of your TV.

<i>Topic</i>	<i>Page</i>
Watching TV	52
Using the Program Guide	53
Using Screen Mode (models KD-30/34XS955 Only)	55
Using Screen Mode (models KD-36XS955 Only)	57
Using Favorite Channels	58
Using Other Equipment with Your TV Remote Control	59


Watching TV

 For a complete list of all the functions of the remote control, see pages 45-50.

To Do This ...	Do This ...
Activate the remote control to operate the TV	Press TV FUNCTION
Turn on/off the TV	Press TV POWER
Tune directly to a channel	To tune to analog channels, press 0-9 and then ENTER . For digital subchannels, press 0-9 , ⊙ , press 0-9 again, and then ENTER . For example, to select subchannel 21.13, press 2+1+⊙+1+3 , and then press ENTER .  You can also select channels using the program guide. See pages 53 for details.
Adjust the volume	Press VOL +/-
Mute the sound	Press MUTING (press again to unmute)
Alternate back and forth between two channels	Press JUMP The TV alternates between the current channel and the last channel tuned.
Display the current channel number (and other information)	Press DISPLAY once to display the channel number, current time, and channel label (if set). Press DISPLAY again to turn Display off.
Switch the TV's input to the VCR, DVD player, or other connected equipment	Press TV/VIDEO repeatedly to cycle through the video equipment connected to the TV's video inputs.
Change video and audio options, customize the TV's setup, set parental controls, and more	Press MENU to display the Menu. For details, see "Using the Menus" on page 77.
Switch the TV's input between sources connected to the TV's VHF/UHF and CABLE inputs	Press ANT to alternate between sources connected to the TV's VHF/UHF and CABLE inputs.

Using the Program Guide

The program guide lets you review program information and select both analog and digital channels.

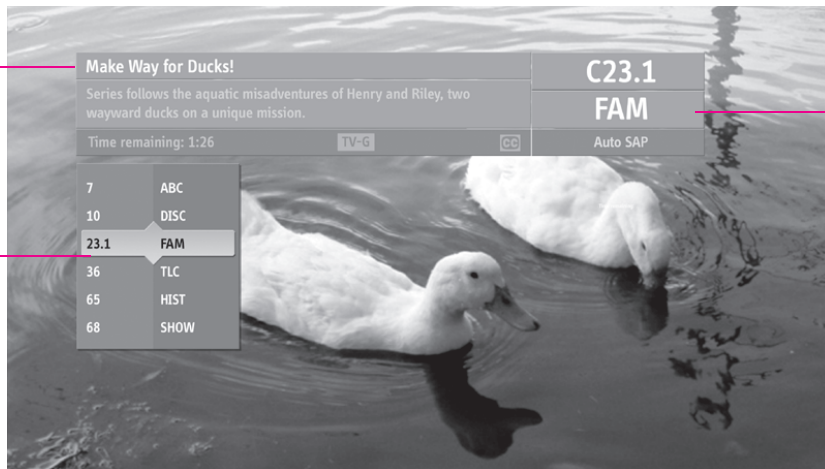
 **The Program Guide cannot be displayed when the TV is tuned to one of the video inputs or if the Channel Fix option is set to anything other than Off (see page 84).**



To display the program guide:


Press **GUIDE** on the TV's remote control. The program guide appears, with the currently selected program showing in the background.

Program title and description, program duration, time remaining, rating information, closed-caption availability, etc.



Channel number, call letters, etc.

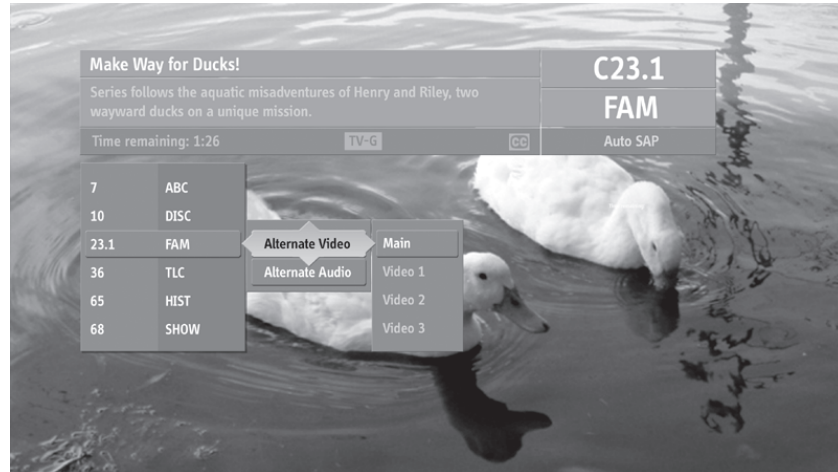
Selectable channel list

 **Program information in the guide is provided by the broadcasters. As a result, it may sometimes include only the channel number, without a program title or description.**

To Do This ...	Do This ...
Scroll through the channel list	Press ▲ ▼
Select the currently displayed channel and exit the guide	Press (◀▶) .
Display additional options	Press ▶ . See "Using Additional Program Guide Options" on page 54.
Exit the Guide (without changing channels)	Press GUIDE


Using Additional Program Guide Options

Press **➔** while in the program guide's channel list to display the following options, which allow you to customize the settings of the program on the currently tuned channel.



Option	Description
Alternate Video (when available)	Each program has a main video stream (the video that you see when the channel is first tuned), and may have alternate video streams. This option allows you to switch among these alternate video streams.
Alternate Audio (when available)	Each program has a main audio stream (the audio that you hear when the channel is first tuned). This option allows you to switch among these alternate audio streams (e.g., for different languages).



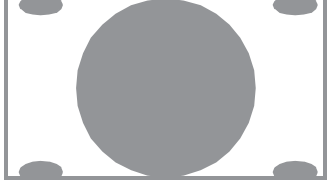


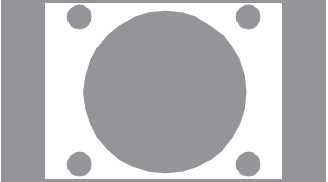


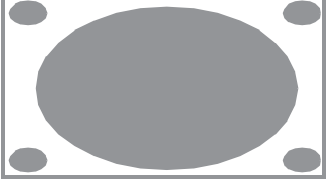



Using Screen Mode (models KD-30/34XS955 Only)

 You can also access the Screen Mode settings in the Screen Menu. For details, see page 82.

The Screen Mode feature lets you change the picture size for both standard-definition (480i/480p) and high-definition (720p/1080i) sources.

- Press **SCREEN MODE** repeatedly to toggle through the following Screen Mode settings.

Using Screen Mode with Standard Definition (480i/480p) Sources

Example	Description	
  Wide Zoom ↓	Wide Zoom enlarges the center portion of the picture proportionately. The left and right edges of the picture are stretched to fill the 16:9 screen.	
  Normal ↓	Normal displays the 4:3 picture in its original size. Bars are shown to fill the 16:9 screen.	
  Full ↓	Full stretches the 4:3 picture horizontally, to fill the 16:9 screen.	
  Zoom	Zoom enlarges the 4:3 picture proportionately to fill the 16:9 screen. Some clipping may occur. Zoom is useful for watching Letterbox movies.	

When you change channels or inputs, the Screen Mode settings revert to the **4:3 Default** setting in the Screen Menu. To retain the current Screen Mode setting as channels and inputs are changed, set **4:3 Default** to **Off**. For details, see page 82.

Using Screen Mode with High-Definition (720p/1080i) Sources

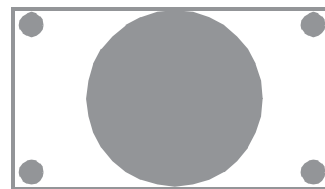
Example

Description



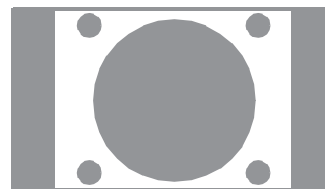
Full (native 16:9)

Full displays the picture at its original size. If the source is a 16:9 high-definition (720p/1080i) signal, the picture fills the screen.



Full (upconverted 4:3)

If the source is a 4:3 standard-definition signal that has been upconverted, bars are shown to fill the 16:9 screen.



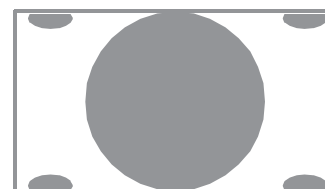
Zoom

Zoom enlarges the picture proportionately, both vertically and horizontally. Some clipping may occur.



Horizontal Expand

Horizontal Expand stretches the picture horizontally. Some clipping may occur.



Vertical Expand



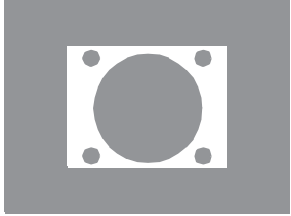


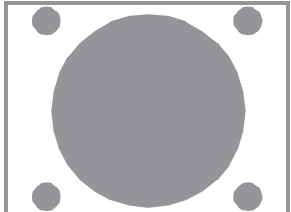


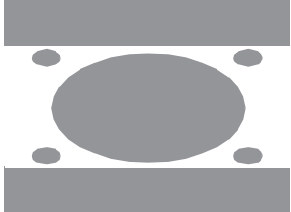



Vertical Expand stretches the picture vertically. Some clipping may occur.



Using Screen Mode (models KD-36XS955 Only)

The Screen Mode feature is useful when a 480i signal has been upconverted to a 720p or 1080i signal, which results in undesirable “black bars” appearing on all four sides of the picture. Using the Screen Mode feature, you can enlarge these pictures, minimizing the size of the black bars.

Using Screen Mode with High Definition (720p/1080i) Sources


Example	Description	
  Full ↓	Full displays a 480i signal that has been upconverted to 720p or 1080i with black bars visible at left, right, top, and bottom sides.	
  Zoom ↓	Zoom enlarges the picture, minimizing the size of the black bars.	
  Horizontal Expand ↓	Horizontal Expand stretches the picture horizontally. Some clipping may occur.	
  Vertical Expand	Vertical Expand stretches the picture vertically. Some clipping may occur.	




Using Favorite Channels



The Favorite Channels feature lets you select programs from a list of up to 16 favorite channels that you specify. You can create a list using the Favorite Channel option in the Channel Menu, or by using the Add to Favorites feature in the Favorite Channels guide.


Using the Channel Menu







 For details on using the Channel Menu, see page 84.

- 1 Press **MENU** to display the Menu.
- 2 Press **▲** or **▼** to highlight the Channel icon and press .
- 3 Press  to select **Favorite Channels**.
- 4 Use the **0-9** and **ENTER** buttons to enter the channel number that you want to assign to the Favorite Channel number. Press  to select that channel as a Favorite Channel.

 To enter digital channel numbers in step 4, use the 0-9, , and **ENTER** buttons.

- 5 To add more channels to your favorites list, repeat step 4. To clear a Favorite Channel, press **▲** or **▼** to highlight the channel you want to clear. Press  and then press **RESET**.
- 6 Press **MENU** to exit the Menu.

Using the Favorite Channels Guide

- 1 During normal viewing (with no menus on screen), press . The Favorite Channels list appears.
- 2 Press **▲** or **▼** to highlight the channel you want to watch. To add the current channel to the list of Favorite Channels, highlight **Add to Favorites** and press . To change your Favorite Channels list, highlight **Edit Favorites** and press .
- 3 Press  to select the channel you want to watch.

Using Other Equipment with Your TV Remote Control

All Equipment

To Do This ...	Do This ...
Switch the TV's input to the VCR, DVD player, or other connected equipment	Press TV/VIDEO repeatedly to cycle through the video equipment connected to the TV's video inputs.
Set up the TV remote control to operate non-Sony equipment (and Sony DVD/VCR combination unit)	You must program the remote control the first time you use it. See "Programming the Remote Control" on page 49.

Operating a VCR

To Do This ...	Press
Activate the remote control to operate the VCR	VCR/DVD FUNCTION
Turn on/off	VCR/DVD POWER
Change channels	CH +/- (using tuner)
Adjust tracking	CH +/- (during tape playback)
Record	▶ and ● simultaneously
Play	▶
Stop	■
Fast forward	▶▶
Rewind the tape	◀◀
Pause	
Search the picture forward or backward	▶▶ or ◀◀ during playback (release to resume normal playback)

Operating a Satellite Receiver

To Do This ...	Press
Activate the remote control to operate the satellite receiver	SAT/CABLE FUNCTION
Turn on/off	SAT/CABLE POWER
Select a channel	0-9, ENTER
Change channels	CH +/-
Back to previous channel	JUMP
Display channel number	DISPLAY
Display SAT Guide	GUIDE
Display SAT Menu	MENU
Move highlight (cursor)	↑ ↓ ← →
Select item	◁ ⊕ ▷


Operating a Cable Box


To Do This ...	Press
Activate the remote control to operate the cable box	SAT/CABLE FUNCTION
Turn on/off	SAT/CABLE POWER
Select a channel	0-9, ENTER
Change channels	CH +/-
Back to previous channel	JUMP

Operating a DVD Player

To Do This ...	Press
Activate the remote control to operate the DVD	VCR/DVD FUNCTION
Turn on/off	VCR/DVD POWER
Play	▶
Stop	■
Pause	⏸
Step through different tracks of the disc	▶▶ to step forward or ◀◀ to step backward
Step through different chapters of a video disc	CH+ to step forward or CH- to step backward
Select tracks directly	0-9, ◀ ▶ (to move cursor), ENTER
Display the DVD menu	MENU
Move highlight (cursor)	↑ ↓ ◀ ▶
Select item	SELECT

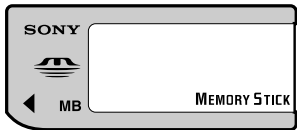
Operating a DVD/VCR Combination Unit

 When the VCR is not playing, TV/VCR/DVD switches between the DVD player and the VCR's tuner.

To Do This ...	Press
Activate the remote control to operate the DVD/VCR	VCR/DVD FUNCTION
Turn on/off	VCR/DVD POWER
Switch between the DVD player and VCR	TV/VCR/DVD
Display the DVD menu	MENU
Play	▶
Stop	■
Pause	⏸
Search the picture forward or backward	▶▶ or ◀◀ during playback
Move highlight (cursor) and select (DVD)	↑ ↓ ◀ ▶ 
Record (VCR)	▶ and ● simultaneously
Change channels (VCR)	CH +/- or 0-9, ENTER (using tuner)
Adjust tracking (VCR)	CH +/- (during tape playback)

Using the Memory Stick Viewer

About Memory Stick



Memory Stick (sold separately) is a compact, portable, and versatile Integrated Circuit recording medium with a data capacity that makes it perfect for portable applications, such as digital photography. Memory Stick is specially designed for sharing digital data among Memory Stick compatible products such as digital cameras and digital video cameras. Because it is removable, Memory Stick can also be used for external data storage.

The Memory Stick Viewer on your TV allows you to view files that are stored on Memory Stick media. You can view:

- ❑ Digital photos (JPEG files)
- ❑ Movies (MPEG1 files)

You can also play slide show background music using MP3 files (or m3u playlists) stored on your Memory Stick.

For more information about handling Memory Stick media, see “Notes on Using Memory Stick Media” on page 75.

Features


With the Memory Stick Viewer, you can:

- ❑ View photo (JPEG) and movie (MPEG1) files in a thumbnail index or Slide Show
- ❑ Set customized Slide Show options, including transitions and background audio
- ❑ Pan, zoom, and rotate photos
- ❑ Mark photos and set quantities of prints to be output when the Memory Stick is inserted into your photo printer (not supplied)
- ❑ Lock (protect) or delete files on the Memory Stick

Memory Stick Compatibility

This television is compatible with the following Sony brand Memory Stick media types:

- ❑ Memory Stick Media
- ❑ Memory Stick Duo and PRO Duo Media (without the Memory Stick adaptor)

 The Memory Stick slot on your TV has been designed to accommodate standard and compact versions of Memory Stick. It is not necessary to use an adaptor for Memory Stick Duo and Memory Stick PRO Duo. If you use an adaptor it may damage the adaptor and Memory Stick slot.

- ❑ Memory Stick Media with Memory Select Function
- ❑ Memory Stick PRO Media

About Memory Stick PRO Media

Memory Stick PRO media features vary by and are dependent upon the design of host hardware devices. Memory Stick PRO in this television has been tested to support up to 1 GB media capacity and does not support high-speed transfer, MagicGate copyright protection technology, or access control security features.

Memory Stick Functionality

Sony cannot guarantee or assure the Memory Stick functionality on this television in the following cases:

- ❑ You are using non-Sony brand Memory Stick media.
- ❑ You are using video or audio clips that have been processed on a computer.
- ❑ You are using files that were obtained from the Internet or from a printed film processing center.
- ❑ The Memory Stick has been formatted on a personal computer.

Sony recommends that you back up all data stored on Memory Stick media to avoid potential data loss. In the above two cases, in order to avoid potential data corruption that may occur, be sure to back up data prior to use with the TV's Memory Stick Viewer. Sony cannot accept responsibility in the event that data recorded to Memory Stick media is lost or damaged. For certain non-Sony brand Memory Stick media, you can view images, but you cannot rotate, delete or protect/unprotect images on the television. An error message will occur if you attempt any of these operations. This is a result of the unique file directory structure on these particular flash memory media and is not a malfunction of the television.

File Compatibility

The Memory Stick Viewer is compatible with JPEG images taken with Sony digital still cameras and MPEG1* movies taken with Sony digital cameras and camcorders. In order to be viewable in the Memory Stick Viewer, the files must have the following file name extensions:

<i>File Type</i>	<i>Supported File Name Extensions</i>
JPEG	.jpg .jpeg
MPEG1	.mpg .mpeg


Trademark Information

Memory Stick, Memory Stick Duo, Memory Stick PRO, Memory Stick PRO Duo, and MagicGate are trademarks of Sony Corporation.

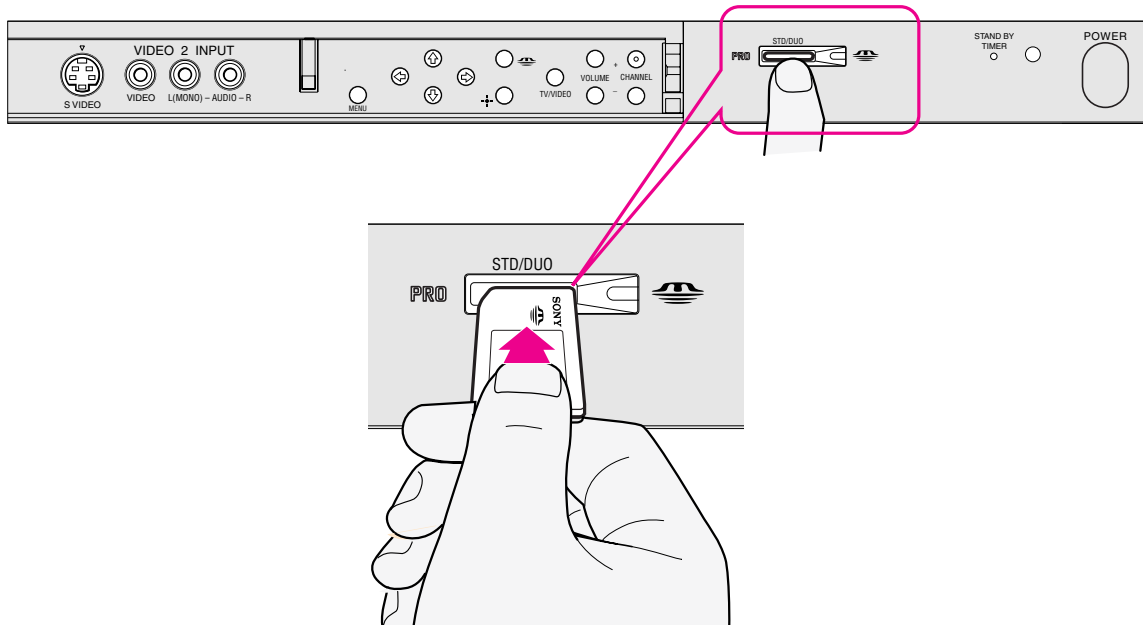
*Some variations of MPEG1 movies may not play back correctly.


Inserting and Removing a Memory Stick

Inserting a Memory Stick

 The Memory Stick slot on your TV has been designed to accommodate standard and compact versions of Memory Stick. It is not necessary to use an adapter for Memory Stick Duo and Memory Stick PRO Duo. If you use an adapter it may damage the adapter and Memory Stick slot.

- 1 Locate the Memory Stick slot (see page 12) and insert the Memory Stick into the Memory Stick slot as illustrated below. When inserted properly, it should slide in with little resistance and click into place.



 Be sure to insert the Memory Stick in the correct direction. If the Memory Stick is forced in the wrong way, it may become damaged.


Insert only Memory Stick media into the Memory Stick slot. Attempting to insert other objects into the slot may damage the TV.

To remove the Memory Stick, see “Removing a Memory Stick” on page 65.


Removing a Memory Stick

To remove a Memory Stick


- 1 Check that the Memory Stick indicator is off. (When the light is on, this indicates that the TV is reading data from the Memory Stick.)

 Removing the Memory Stick while a file is being accessed (when the Memory Stick LED on the TV's front panel is lit) may damage the Memory Stick or its contents.

- 2 Push the Memory Stick gently into the slot, and then release it. The Memory Stick media is ejected.

 Do not pull out the Memory Stick without first pushing it in; otherwise, the TV's locking mechanism may become damaged.

- 3 Pull the Memory Stick completely out of the slot.

 To protect small children from injury from Memory Stick Media, remove all Memory Stick media from the TV's Memory Stick slot and store it in a safe location when it is not in use.

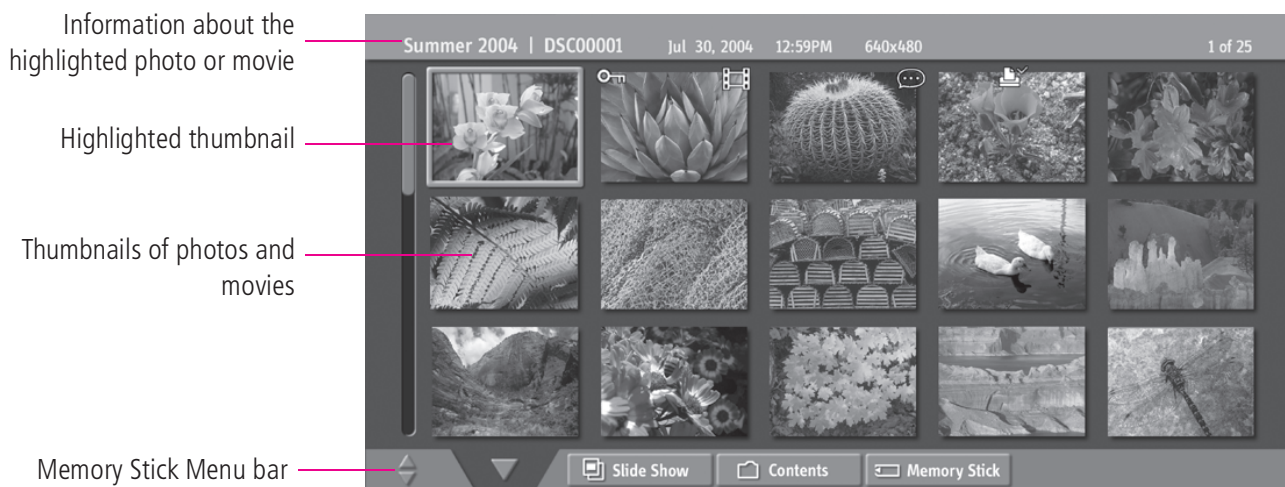
Using the Memory Stick Index

Turn on the TV and insert a Memory Stick that contains the photo or movie files you want to view. For details, see page 64.







If the Memory Stick Index does not appear, press the MEMORY STICK button on the remote control.

The Memory Stick Index appears, which displays thumbnail images of the files stored on the Memory Stick.



About the Icons on the Thumbnail Images

-  Indicates the thumbnail is a movie (MPEG1) file instead of a photo (JPEG) file.
-  Indicates the thumbnail is locked. Locked files cannot be changed or deleted. For details, see "Protect" on page 69.
-  Indicates that the photo is marked to be printed.
-  Indicates that the photo has an associated voice memo.

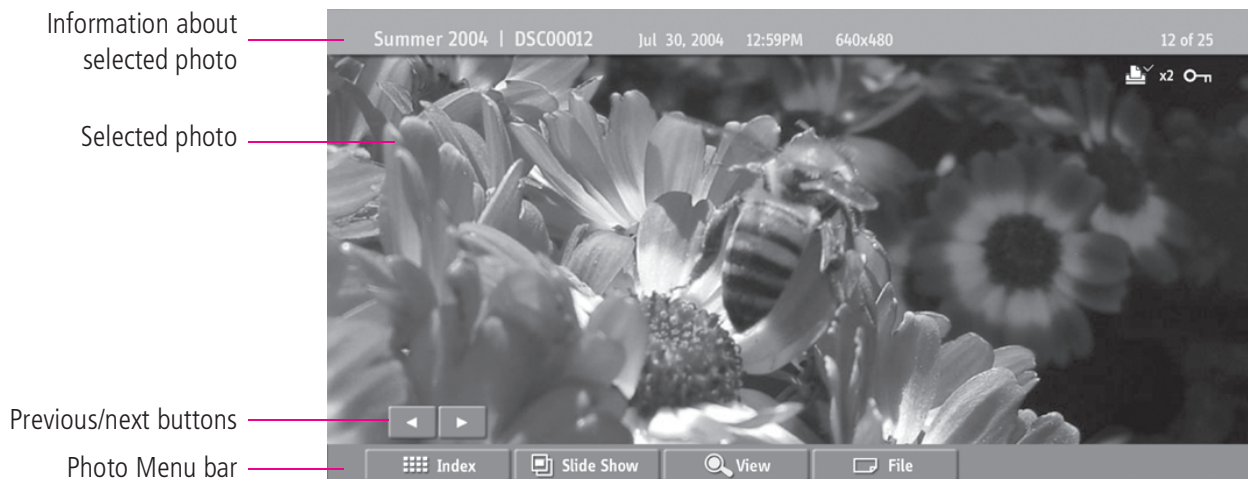
Using the Memory Stick Index

The following describes how to use the Memory Stick Index.

To Do This ...	Do This ...
Move the highlight to a photo, voice memo (🗣️), or movie (🎬) thumbnail	Press ↑ ↓ ← → .
Display the highlighted photo, voice memo, or movie file full screen	Press (◀▶) . For details, see "Viewing Photos" on page 68 and "Playing Movies" on page 71.
Display the next page of thumbnails	<ol style="list-style-type: none"> 1 Press ↓ to select ▼. 2 Press ↓ to display the next page of thumbnails.
Display the previous or next page of thumbnails	<ol style="list-style-type: none"> 1 Press ↓ to select ▼. 2 Press ← to select ◀. 3 To go to the previous page, press ↑. To go to the next page, press ↓.
Use the Memory Stick Menu bar to access additional options	<ol style="list-style-type: none"> 1 Press ↓ to select ▼. 2 Press ← or → to select Slide Show, Contents, or Memory Stick. 3 Press ↑ or ↓ to select the option you want to change. <p>For details on these options, see "Memory Stick Index Menu Bar Options" on page 73.</p>
Move the highlight from the Memory Stick Menu bar back to the thumbnails	<ol style="list-style-type: none"> 1 Press ← or → to select ▼. 2 Press ↑ to return to the currently displayed thumbnails, or ↓ to display the next page of thumbnails.
Exit Memory Stick Viewer	Press the MEMORY STICK button on the remote control.

Viewing Photos

When you select a photo from the Memory Stick Index (described on page 66), it displays as shown below, with the following controls.





 **JPEGs captured using a digital video camera may appear to display motion in full screen. This is a result of the way digital video cameras record still images, and is not a result of a malfunction with the TV.**

Photo Controls

 When the Menu is hidden, press ◀ or ▶ to go to the previous or next photo.

To Do This ...	Do This ...
Display the next or previous file on the Memory Stick	Highlight the ◀ ▶ (Previous/Next) button. Then press ◀ to go to the previous file, or ▶ to go to the next file.
Hide the Photo Menu bar, displaying only the photo	With the highlight in the Photo Menu bar, press ↓.
Display the hidden Photo Menu bar	Press ↑.
Play the JPEG voice memo (🗣️ files only)	Highlight ▶ (Play) and then press (⏮). To pause the voice memo, highlight (Pause) and then press (⏮).
Display the Memory Stick Index again	Highlight Index in the Photo Menu bar and press (⏮). For details on the Memory Stick Index, see page 67.
Access additional options in the Photo Menu bar	See "Photo Menu Bar Options" on page 69.
Exit Memory Stick Viewer	Press the MEMORY STICK button on the remote control.



Photo Menu Bar Options


The Photo Menu bar lets you access additional photo viewing options.

To access the Photo Menu bar

- 1 Press ◀ or ▶ to select **Slide Show**, **View**, or **File**.
- 2 Press to select the desired option.

Option	Description
Index	Displays the Memory Stick Index, with the highlight on the thumbnail of the currently displayed photo. For details, see “Using the Memory Stick Index” on page 66.
Slide Show	Displays the Slide Show Menu. For details, see “Slide Show Menu Options” on page 73.
View	Rotate Allows you to rotate the photo in 90 degree increments clockwise or counterclockwise. For details, see “Using Rotate” on page 70.
	Zoom/Pan Allows you to magnify and pan across the photo. For details, see “Using Zoom and Pan” on page 70.
File	Protect Allows you to protect the JPEG file from any changes. When a JPEG file is protected, it cannot be rotated or deleted. Select On or Off .
	Print Quantity Allows you to indicate the number of prints to make of the specific photo when the Memory Stick is inserted into a compatible photo printer (not supplied).
	Delete Deletes the JPEG file from the Memory Stick. You cannot delete a JPEG file that has been protected (or if the Memory Stick is locked).

 JPEG files that are protected are indicated by the Lock  icon.

 The **Print Quantity** feature is also known as DPOF (Digital Print Order Format).

Using Zoom and Pan

To Zoom and Pan a photo

- 1 In the Photo Menu bar, highlight **View**.
- 2 Highlight **Zoom/Pan** and press **(+/-)**.
- 3 Specify the zoom center point by pressing **← → ↑ ↓**; then press **(+/-)** to set the center.

The Zoom and Pan controls are displayed.



To Do This ...

Zoom in (increase magnification) or out (decrease magnification)

Pan (move the photo left, right, up, down)

Exit the Zoom/Pan controls

Exit Memory Stick Viewer

Do This ...

Highlight **Zoom** and press **↑** to zoom in or **↓** to zoom out.

For help on using Zoom, press **(+/-)**.

(You can use Pan only when the photo is magnified using Zoom.)

Highlight **Pan** and press **(+/-)**. Then press **← → ↑ ↓** to pan around the photo.

To stop using Pan, press **(+/-)**.

Highlight **Exit** and press **(+/-)**.

Press the **MEMORY STICK** button on the remote control.

Using Rotate

To Rotate a photo

- 1 In the Photo Menu bar, highlight **View**.
- 2 Highlight **Rotate**.
- 3 To rotate clockwise, highlight **Clockwise** and press **(+/-)**.
To rotate counterclockwise, highlight **Counterclockwise** and press **(+/-)**.


The photo is rotated 90 degrees each time you press **(+/-)**.












Playing Movies

When you select a movie from the Memory Stick Index (described on page 66), it displays as shown below, with the following controls.





Movie Controls

 The quality of the movie when enlarged depends on the resolution of the MPEG1 file. See your camera's instruction manual for details.

To Do This ...	Do This ...
Enlarge the movie window	Highlight Enlarge , and then press  . To display the movie controls again, press  . When the movie ends, the movie controls are displayed again.
Play the movie with the movie controls displayed	Highlight  (Play) and then press  .
Pause the movie	Highlight  (Pause) and then press  .
Display the previous or next file on the Memory Stick	Highlight the  (Previous/Next) button. Then press  to go to the previous file, or  to go to the next file.
Hide the Movie Menu bar, displaying only the movie	With the highlight in the Movie Menu bar, press  .
Display the hidden Movie Menu bar	Press  .
Access additional options in the Movie Menu bar	See "Movie Menu Bar Options" on page 72.
Exit Memory Stick Viewer	Press the MEMORY STICK button on the remote control.

Movie Menu Bar Options

 MPEG1 files that are protected are indicated by the Lock  icon.


To access the Movie Menu bar


- 1 Highlight **Index** in the Movie Menu bar.
- 2 Press **←** or **→** to select **Index**, **Slide Show**, or **File**.
- 3 Select the desired option.


Option	Description
Index	Displays the Memory Stick Index, with the highlight on the thumbnail of the currently displayed movie.
Slide Show	Displays the Slide Show Menu. For details, see “Slide Show Menu Options” on page 73.
File	Protect Allows you to the protect the MPEG1 file from any changes. When an MPEG1 file is protected, it cannot be deleted. Select On or Off .
	Delete Deletes the MPEG1 file from the Memory Stick. You cannot delete an MPEG1 file that has been protected (or if the Memory Stick is locked).


Memory Stick Index Menu Bar Options

Slide Show Menu Options

 The Slide Show Menu is the same whether you select it from the Memory Stick Index (page 66), Photo (page 68), or Movie (page 71) Menus.

 When you select **Complete List**, it may take a moment to display the list of all MP3 files.


 Some JPEG files may take longer to display than others, which may make it seem longer than the interval you selected for **Slide Advance**.

 You can also display file information using the **DISPLAY** button on the remote control.

The Slide Show Menu includes the following options:

Option	Description
Start	Starts the Slide Show.
Music	Allows you to select background audio to play during the Slide Show.
Off	No additional background audio is played during the Slide Show. Audio that is associated with the JPEG or MPEG1 files will play.
Play Memory Stick	Plays all MP3 files on the Memory Stick. The Piano MP3 file and any MP3 file playlists are not played.
Piano (built-in)	Plays the MP3 file stored in the TV's internal memory.
(List of MP3 Files and Playlists)	Displays a list of all MP3 files and MP3 file playlists found at the top level (root) of the Memory Stick. To show additional MP3 files stored in other folders on the Memory Stick, select Complete List .
Complete List	Displays a list of all available MP3 files.
Transition Effect	Allows you to select an effect to be used when advancing to the next file in the Slide Show.
Slide Advance	Allows you to specify when to advance to the next slide.
Fast	Slide advances after about 3 seconds.
Medium	Slide advances after about 6 seconds.
Slow	Slide advances after about 12 seconds.
Manual	Slide advances only after you press ◀ or ▶ .
File Information	Determines whether file information is shown when the file is displayed full screen. Select On or Off .
Repeat	On Slide Show continuously loops. Off Slide Show plays once through all files and ends.

Contents Menu Options

 The Rotate function does not change the file's modification date.

The Contents Menu includes the following options:

Option	Description
Select Folder	Allows you to select different folders to view in the Memory Stick Viewer.
Digital Camera Folders	Selects all folders within the directories defined by the DCF rules used by Sony digital cameras (see page 75). JPEG and MPEG1 files in those directories are recognized even if they do not conform to the DCF file naming rules.
Select a Folder	Allows you to access individual folders on the Memory Stick.
File Order	Allows you to change the order in which the Memory Stick files are displayed.
Date Order	Displays files in chronological order by modification date.
Date Order Reverse	Displays files in reverse chronological order by modification date.
Alphabetical	Displays files in alphabetical order by filename.
Filter	Allows you to selectively display specific file types within the selected folder.
Show Photos and Movies	Displays all readable files.
Show Photos Only	Displays only photo (JPEG) files.
Show Movies Only	Displays only movie (MPEG1) files.
Show All Print Marks	Displays all files that are marked for printing. For details, see "Print Quantity" on page 69.

Memory Stick Menu

The Memory Stick Menu displays the current status of the Memory Stick, including total capacity, used capacity, and free capacity.

Notes on Using Memory Stick Media

About DCF File Names

Most Sony brand digital still and video cameras automatically record still photo and movie files using DCF compliant directory and file names.

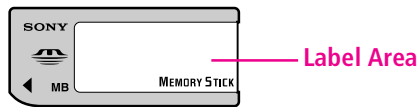
If you selected the **Digital Camera Folders** option, as described on page 74, you might want to have your digital camera's instruction manual handy in order to check how files and directories are organized for your specific model of digital camera.

DCF stands for "Design Rules for Camera File Systems," which are specifications established by the Japan Electronic Industry Development Association (JEIDA).

Memory Stick Precautions

When using Memory Stick media, follow these precautions:

- ❑ To avoid permanent damage to still image data, do not turn off the TV or remove Memory Stick media from the insertion slot while data is being read (as indicated by the Memory Stick indicator light being on).
- ❑ Avoid touching the terminal of Memory Stick media or bringing it into contact with a metal object.
- ❑ Do not drop, bend, or submit Memory Stick media to external shock.
- ❑ Do not disassemble or modify Memory Stick media.
- ❑ Avoid getting liquid on Memory Stick media.
- ❑ Apply labels only within the designated label area.











- ❑ To avoid permanent damage to still image data, do not use or store Memory Stick media in a location subject to:
 - ❑ High temperature (such as near a heater or inside a hot car)
 - ❑ High humidity
 - ❑ Direct sunlight
 - ❑ Corrosive substances
 - ❑ Magnetic fields
 - ❑ Excessive dust
 - ❑ Static electricity or electric noise
 - ❑ Electric surges
- ❑ Store and carry Memory Stick media in its original case to ensure protection of stored data.
- ❑ Save a backup of stored data.

Using the Menus

Overview

The Menu gives you access to the following features:

Menu	Description	Page
	The Video Menu allows you to make adjustments to your picture settings. It also allows you to customize the Picture Mode based on the type of program you are viewing, select Advanced Video options, and more.	78
	The Audio Menu Offers enhanced audio options such as listening to second audio programming (SAP) or customizing the Effect of the sound on your TV.	80
	KD-30/34XS955 Only The Screen Menu allows you to make Screen Mode adjustments and make changes to the screen's vertical center and size.	82
	KD-36XS955 Only The Screen Menu allows you to make Screen Mode adjustments and select options from the Analog 16:9 and Digital 16:9 features.	83
	The Channel Menu allows you to set up a Favorite Channel list, run the Auto Program function, label channels, and more.	84
	The Parental Lock Menu lets you control the viewing of programs based on their ratings.	86
	The Setup Menu provides options for setting up your system, including selecting closed caption modes, labeling video inputs, selecting the language and color of the on-screen Menus, and more.	89
	The Applications Menu lets you display the Memory Stick Viewer, set on/off Timers, access CableCARD and diagnostics information, and more.	92

 Press **MENU** to enter and exit Menus.

Navigating Through Menus

To Do This ...	Press
Display the Menu	MENU
Move through the Menu	↑ ↓ ← →
Select an option to change	⊕
Select (confirm) changed setting	⊕ or ←
Exit the Menu	MENU

Using the Video Menu



To access the Video Menu, follow these steps:

1. Display Menu

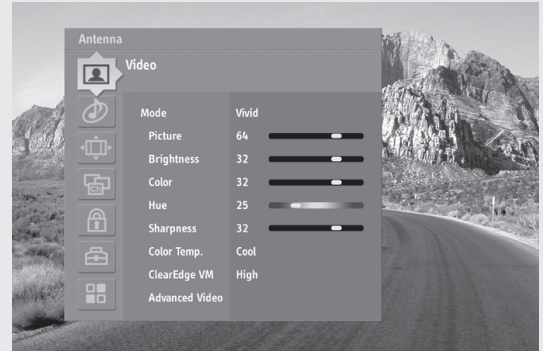
2. Highlight 

3. Press to select





To change settings, press **↑ ↓ ← →**.
Press  to confirm the selection.

To exit the Menu, press **MENU**.



Selecting Video Options

 You can also change the Mode setting using the **PICTURE MODE** button on the remote control.

 You can alter the Video Menu settings (**Picture**, **Brightness**, **Color**, etc.) for each Mode.

The Video Menu includes the following options:

Option	Description
Mode <i>Customized picture viewing</i>	Vivid Select for enhanced picture contrast and sharpness.
	Standard Select for standard picture settings.
	Movie Select to display a softer picture.
	Pro Select to display a picture with minimum enhancements.
To control how the Mode settings (Vivid , Standard , Movie , Pro) are applied to each video input, see Mode Memory on page 79.	
Picture	Adjust to increase picture contrast and deepen the color, or decrease picture contrast and soften the color.
Brightness	Adjust to brighten or darken the picture.
Color	Adjust to increase or decrease color intensity.
Hue	Adjust to increase or decrease the green tones.
Sharpness	Adjust to sharpen or soften the picture.
Color Temp. <i>White intensity adjustment</i>	Cool Select to give the white colors a blue tint.
	Neutral Select to give the white colors a neutral tint.
	Warm Select to give the white colors a red tint (NTSC-Standard).



You can also change the DRC Mode using the **DRC MODE** button on the remote control.

Option	Description
ClearEdge VM Velocity Modulation	Sharpens picture definition to give every object a sharp, clean edge. Select from High, Medium, Low, Off .
Advanced Video	Select Program to choose among the Advanced Video options.
DRC Mode	Creates a high-resolution picture with 4x density, for high quality sources (i.e., DVD player, satellite receiver).
Interlaced	Recommended for moving pictures.
Progressive	Recommended for still images and text.
CineMotion	Provides an optimized display by automatically detecting film content and applying a reverse 3/2 pulldown process. Moving pictures will appear clearer and more natural-looking.
Color Axis	Allows you to control the emphasis of red tones.
Default	Emphasizes red tones.
Monitor	De-emphasizes red tones.
Mode Memory	Allows you to control how the Mode settings (Vivid, Standard, Movie, Pro) are applied to TV viewing, Memory Stick viewing, and each video input. For details about Mode settings, see page 78.
Off	Set to Off to apply the same Mode settings to all video inputs. Changing inputs does not change the Mode setting.
On	Set to On to customize Mode settings for each video input. Changing inputs might change the Mode setting.

To restore the factory default settings for Video settings:

- Press **RESET** on the remote control when in the Video Menu.

Using the Audio Menu

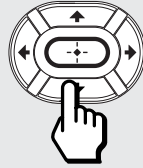


To access the Audio Menu, follow these steps:

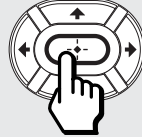
1. Display Menu



2. Highlight



3. Press to select



To change settings, press **↑ ↓ ← →**.
Press **⏏** to confirm the selection.

To exit the Menu, press **MENU**.



Selecting Audio Options

You can also change the Effect using the **⏏** button on the remote control.

The Audio Menu includes the following options:

Option	Description
Treble	Adjust to decrease or increase higher-pitched sounds.
Bass	Adjust to decrease or increase lower-pitched sounds.
Balance	Adjust to emphasize left or right speaker balance.
Steady Sound	Auto Select to stabilize the volume.
	Off Select to turn off Steady Sound.
 The Steady Sound option is not available (it is grayed out) if the Effect option is set to TruSurround or Simulated. To use Steady Sound, set Effect to Off.	
Effect	TruSurround Select for surround sound (for stereo programs only).
	Simulated Adds a surround-like effect to mono programs.
	Off Normal stereo or mono reception.
MTS <i>Enjoy stereo, bilingual and mono programs</i>	Stereo Select for stereo reception when viewing a program broadcast in stereo.
	Auto SAP Select to automatically switch the TV to second audio programs when a signal is received. (If no SAP signal is present, the TV remains in Stereo mode.)
	Mono Select for mono reception. (Use to reduce noise during weak stereo broadcasts.)
 MTS is available only with analog programs.	

<i>Option</i>	<i>Description</i>	
Speaker	On	Select to turn on the TV speakers.
	Off	Select to turn off the TV speakers and listen to the TV's sound only through your external audio system speakers.
Audio Out <i>Easy control of volume adjustments</i>	This option can be set only when the Speaker option is set to Off .	
	Variable	The TV's speakers are turned off, but the volume output from your audio system can still be controlled by the TV's remote control.
	Fixed	The TV's speakers are turned off and the volume output of the TV is fixed. Use your audio receiver's remote control to adjust the volume through your audio system.

To restore the factory default settings for Treble, Bass, and Balance

- Press **RESET** on the remote control when in the Audio Menu.

Using the Screen Menu (models KD-30/34XS955 Only)

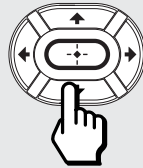


To access the Screen Menu, follow these steps:

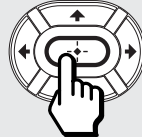
1. Display Menu



2. Highlight



3. Press to select



To change settings, press **▲ ▼ ◀ ▶**.
Press **○** to confirm the selection.

To exit the Menu, press **MENU**.



Selecting Screen Mode Options



You can also change the Screen Mode using the **SCREEN MODE** button on the remote control.

The Screen Menu includes the following options:

Option	Description
Screen Mode	Enables you to change the picture size for both standard-definition (480i/480p) and high-definition (720p/1080i) sources. For 480i/480p sources Select from: Wide Zoom, Normal, Full, Zoom . For details, see page 55. For 720p/1080i sources Select from: Full, Zoom, Horizontal Expand, Vertical Expand . For details, see page 56. In some cases, wide-screen programs will be shown in aspect ratios that require the display of bars at the top and bottom of your 16:9 screen. For more details, see page 101.
4:3 Default	Select the default Screen Mode to use for 4:3 sources. To select a Screen Mode to use when channels or inputs are changed, select from: Wide Zoom, Normal, Full, Zoom . For details, see page 55. To continue using the current Screen Mode setting when the channel or input is changed, select Off .
Vertical Center	Allows you to move the position of the picture up and down in the window. (Available only in Wide Zoom and Zoom modes.) Press ▲ or ▼ and press ○ to choose a correction between +15 and -15 (Zoom mode), and +5 and -5 (Wide Zoom mode).
Vertical Size	Allows you to adjust the vertical size of the picture. (Available only in Wide Zoom and Zoom modes.) Press ▲ or ▼ and press ○ to choose a correction between +7 and -7.

Using the Screen Menu (model KD-36XS955 Only)

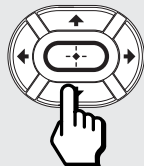


To access the Screen Menu, follow these steps:

1. Display Menu



2. Highlight

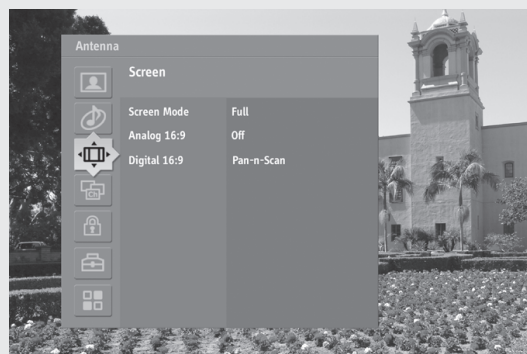


3. Press to select



To change settings, press **↑ ↓ ← →**.
Press **ENTER** to confirm the selection.

To exit the Menu, press **MENU**.



Selecting Screen Mode Options



You can also change the Screen Mode using the **SCREEN MODE** button on the remote control.



To use **Analog 16:9** with widescreen DVDs, set your DVD player to 16:9 aspect ratio. (Aspect ratio is the ratio of width to height of the screen. 16:9 is also referred to as widescreen format.)

The Screen Menu includes the following options:

Option	Description
Screen Mode	<p>Enables you to change the picture size for both standard-definition (480i/480p) and high-definition (720p/1080i) sources.</p> <p>Select from: Full, Normal, Horizontal Expand, Vertical Expand. For details, see page 57.</p> <p>✎ In some cases, wide-screen programs will be shown in aspect ratios that require the display of bars at the top and bottom of your 16:9 screen. For more details, see page 101.</p>
Analog 16:9	<p>Provides enhanced picture resolution for widescreen (anamorphic) sources, such as selected DVD titles. This option is available only when the TV is set to VIDEO 1-7.</p> <p>On To activate manually. Returns to Auto when you switch to another video input or change channels.</p> <p>Auto To activate automatically when a 16:9 signal is received.</p> <p>✎ If the Auto setting does not automatically detect the 16:9 signal from your DVD player, select On to manually turn on the 16:9 Enhanced feature.</p>
Digital 16:9	<p>Allows you to determine the formatting for digital 16:9 pictures.</p> <p>Pan-n-Scan The left and right sides of the picture are clipped to fit the 4:3 screen.</p> <p>Letterbox The picture is made smaller so that the left and right edges fit the 4:3 screen. No clipping results, but bars appear at the top and bottom of the picture.</p>

Using the Channel Menu

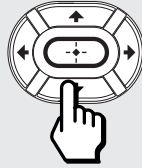


To access the Channel Menu, follow these steps:

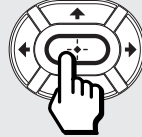
1. Display Menu



2. Highlight 

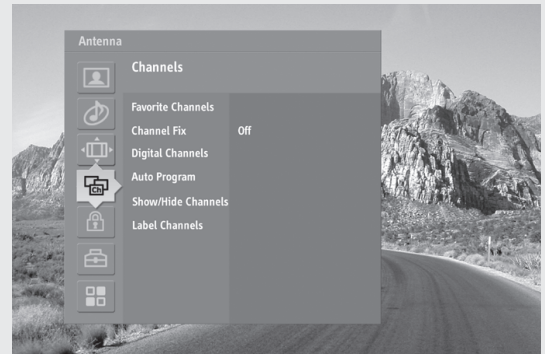


3. Press to select



To change settings, press **↑ ↓ ← →**.
Press  to confirm the selection.


To exit the Menu, press **MENU**.





Selecting Channel Options

The Channel Menu includes the following options:

Option	Description
Favorite Channels	Lets you set up a list of your favorite channels. For details, see "Using Favorite Channels" on page 58.
Channel Fix	<p>Off Turns off Channel Fix.</p> <p>2-6 "Fix" your TV's channel setting to 2–6 (VHF/UHF input) and use the cable box or satellite receiver to change channels.</p> <p>C2-C6 "Fix" your TV's channel setting to C2–C6 (CABLE input) and use the cable box or satellite receiver to change channels.</p> <p>Video 1 Use this setting if you have connected the equipment to the A/V input jacks.</p>
Digital Channels	Add Select to add digital channels.
Auto Program	Automatically sets up the channel list on the TV for all receivable channels.

 **Auto Program may take up to 30 minutes to complete. A progress bar will display the approximate progress of the Auto Program and Digital Channels/Add sequences.**

 If you are using a CableCARD, Auto Program is disabled for the CABLE input. However, you can run Auto Program for the VHF/UHF input.

 Channels that you set to **Hidden** can be accessed only with the **0-9** buttons.

<i>Option</i>	<i>Description</i>
Show/Hide Channels	<p>Allows you to show or hide channels that appear in the Program Guide (page 53) and when you use the CH+/- buttons to channel surf. Channels that are set to Hidden do not appear in the Program Guide or when you use the CH+/- buttons.</p> <ol style="list-style-type: none">1 Press ▲ or ▼ to highlight the channel that you want to show or hide. To move between the Major and Digital subchannel lists, press ◀ or ▶.2 To change a channel's setting to Shown or Hidden, press ⏺.3 To show or hide more channels, repeat steps 1 and 2.
Label Channels	<p>Allows you to assign labels (such as station call letters) to channel numbers.</p> <ol style="list-style-type: none">1 Press to highlight Channel and press ⏺.2 Press ▲ ▼ to scroll through the channel numbers. Then press ⏺ to select the channel number that you want to assign a label.3 Press to highlight Label and press ⏺.4 Press ▲ ▼ to scroll through the label characters (A-Z, 0-9, etc.). Then press ⏺ to select the highlighted character. Repeat to add characters to the label.5 To assign labels to more channels, repeat steps 1-4.6 Press ◀ to return to the Channel Menu, or press MENU to exit the Menus.

Using the Parent Menu



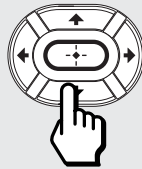
The Parent Menu allows you to set up the TV to block programs according to their content and rating levels.

To access the Parent Menu, follow these steps:

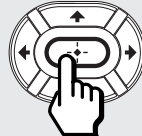
1. Display Menu



2. Highlight 



3. Press to select




Use the 0-9 buttons on the remote control to enter a four-digit password.


If this is the first time you are creating this password, confirm the password by entering it again. (The Parent Menu options appear.)


To change settings, press **▲ ▼ ◀ ▶**. Press **⏏** to confirm the selection.

To exit the Menu, press **MENU**.

 You need your password for any future access into the Parent Menu. If you lose your password, see "Lost password" on page 101.

Selecting Parent Menu Options


 If you are not familiar with the Parental Guideline rating system, you should select **Child**, **Youth**, or **Young Adult** to help simplify the rating selection. To set more specific ratings, select **Custom**.


 For descriptions of **Child**, **Youth**, and **Young Adult** ratings, see page 87.


The Parent Menu includes the following options:

Option	Description
Parental Lock	Off Parental lock is off. No programs are blocked from viewing.
<i>Turn ratings on/off and select a rating system</i>	<p>Child Maximum ratings permitted are:</p> <ul style="list-style-type: none"> <input type="checkbox"/> US: TV-Y, TV-G, G <input type="checkbox"/> Canada: C, G, TV-Y <p>Youth Maximum ratings permitted are:</p> <ul style="list-style-type: none"> <input type="checkbox"/> US: TV-PG, PG <input type="checkbox"/> Canada: C8+, PG, 8 ans+, TV-PG <p>Y. Adult Maximum ratings permitted are:</p> <ul style="list-style-type: none"> <input type="checkbox"/> US: TV-14, PG-13 <input type="checkbox"/> Canada: 14+, 13 ans+, TV-14 <p>Custom Select to set ratings manually.</p> <ul style="list-style-type: none"> <input type="checkbox"/> US: See page 87 for details. <input type="checkbox"/> Canada: See page 88 for details.
Change Password	For changing your password.
Select Country	<p>U.S.A. Select to use USA ratings (see page 87).</p> <p>Canada Select to use Canadian ratings (see page 88).</p>

US Models: Selecting Custom Rating Options

 The Content-Based Ratings are linked to the level of the Age-Based Rating. For example, a program with an Age-Based Rating of TV-PG V (Violence) rating may contain moderate violence, while a TV-14 V (Violence) rating may contain more intense violence.

 To ensure maximum blocking capability, set the Age-Based Ratings.

 If you block unrated TV programs, be aware that the following types of programs may be blocked: emergency broadcasts, political programs, sports, news, public service announcements, religious programs and weather.

For US models, the Custom Rating Menu includes the following options. (For Canadian models, see page 88.)

Option	Description
Movie Rating	G All children and General Audience.
	PG Parental Guidance suggested.
	PG-13 Parental Guidance for children under 13.
	R Restricted viewing, parental guidance is suggested for children under 17.
	NC-17 and X No one 17 or under allowed.
TV Rating <i>Block programs by their rating, content or both</i>	Age-Based Ratings
	TV-Y All children.
	TV-Y7 Directed to children age 7 and older.
	TV-G General Audience.
	TV-PG Parental Guidance suggested.
	TV-14 Parents Strongly cautioned.
	TV-MA Mature Audience only.
	Content-Based Ratings
	FV Fantasy Violence.
	D Suggestive Dialogue.
L Strong Language.	
S Sexual situations.	
V Violence.	
Unrated <i>Block programs or movies that are broadcast without a rating</i>	Block Blocks all programs and movies that are broadcast without a rating.
	Allow Allows programs and movies that are broadcast without a rating.

Viewing Blocked Programs

You can view blocked programs by entering the password. Press the **ENTER** button when tuned to a blocked program, then enter the password. This temporarily switches off the Parental Lock. To reactivate the Parental Lock settings, turn off the TV. When the TV is turned on again, your Parental Lock settings are reactivated.

Canadian Models: Selecting Custom Rating Options

For Canadian models, the Custom Rating Menu includes the following options. (For US models, see page 87.)

Option	Description	
English Rating	C	All children.
	C8+	Children 8 years and older.
	G	General programming.
	PG	Parental Guidance.
	14+	Viewers 14 and older.
	18+	Adult programming.
French Rating	G	General programming.
	8 ans+	Not recommended for young children.
	13 ans+	Not recommended for ages under 13.
	16 ans+	Not recommended for ages under 16.
	18 ans+	Programming restricted to adults.
U.S.A. Rating	See "US Models" on page 87 for details.	

Viewing Blocked Programs

You can view blocked programs by entering the password. Press the **ENTER** button when tuned to a blocked program, then enter the password. This temporarily switches off the Parental Lock. To reactivate the Parental Lock settings, turn off the TV. When the TV is turned on again, your Parental Lock settings are reactivated.


Using the Setup Menu

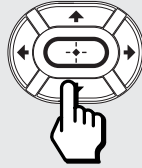


To access the Setup Menu, follow these steps:

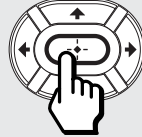
1. Display Menu



2. Highlight 

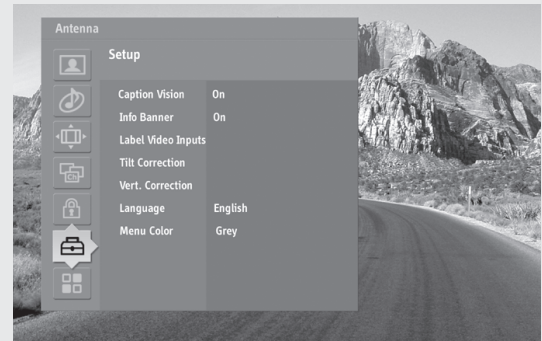


3. Press to select

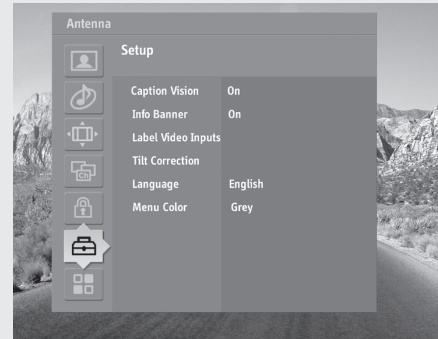


To change settings, press **▲ ▼ ◀ ▶**.
Press  to confirm the selection.

To exit the Menu, press **MENU**.



Setup Menu for KD-30/34XS955





Setup Menu for KD-36XS955


Selecting Setup Options

The Setup Menu includes the following options:

Option	Description
Caption Vision	Allows you to select from several closed caption modes (for programs that are broadcast with closed caption).
	On Caption Vision is turned on.
	Off Caption Vision is turned off.
Program	Allows you to set basic and advanced Caption Vision options. See “Programming Caption Vision” on page 91.
Info Banner	Set to On or Off . When on, displays the program name, time remaining and other information (if the broadcaster offers this service). Displays when the channel is changed or the DISPLAY button is pressed.

Option	Description
Label Video Inputs	<p>Allows you to identify A/V equipment you connected to the TV, such as a VCR, DVD, etc. For example, if you have a DVD player connected to the VIDEO 5 jack, you can select the label DVD for the VIDEO 5 input. Then when you press the TV/VIDEO button to change inputs, the Video Label you assigned to that input appears on screen.</p> <ol style="list-style-type: none"> 1 Press ▲ or ▼ to highlight the video input (VIDEO 1-7) to which you want to assign a label. Then press (↔) to select the input. 2 Press ▲ or ▼ to highlight one of the displayed labels. Then press (↔) to select the label. <p>You can select from the following labels for each input:</p> <p>Video 1-7 VHS, DVD, Receiver, Satellite, Cable Box, 8mm, DTV, Game, LD, Web, Beta, HD, PVR, Skip</p> <p> If you select Skip, your TV skips this input when you press the TV/VIDEO button.</p>
Tilt Correction	<p>Allows you to correct any tilt of the picture.</p> <p>Press ◀ or ▶ to choose a correction between +7 and -7 and press (↔).</p>
Vertical Correction	<p>Allows you to make a vertical correction to the picture.</p> <p>Press ▲ or ▼ to choose a correction between +5 and -5 and press (↔).</p>
Language	<p>Select to display all on-screen Menus in your language of choice.</p>
Menu Color	<p>Enables you to select a specific color for the on-screen menus.</p>

 The **Skip** label is useful for inputs that do not have equipment connected to them.

 Normally, **Tilt Correction** and **Vertical Correction** only need to be adjusted the first time you turn on the unit and after the unit is moved to a new location.

KD-30/34XS955 Only

Programming Caption Vision

If you selected the **Program** option under **Caption Vision** (see page 89), you can change the following settings:

Basic	Allows you to select basic analog (EIA-608) closed caption options.	
	CC1, CC2, CC3, CC4	Displays a printed version of the dialog or sound effects of a program. (Should be set to CC1 for most programs.)
	Text1, Text2, Text3, Text4	Displays network/station information presented using either half or the whole screen (if available). For closed captioning, set to CC1 .
Advanced	Allows you to select advanced digital (EIA-708) closed caption options. Select from the available options.	
Override	Allows you to “force” the close captioning to analog (EIA-608). This setting is in effect only until you change channels, inputs, or turn off the TV. Set to On or Off .	
Advanced Settings	Allows you to make additional settings for digital (EIA-708) closed caption options.	
	As Broadcast	
	Large Text	
	Small Text	
	Custom ...	Allows you to customize the following settings:
	Character Size	Small, Standard, Large
	Character Style	Style 1-7
	Character Color	None, Color 1-8
Edge Color	Color 1-8	
Edge Type	None, Raised, Depressed, Outline, Left shadow, Right shadow	
Background Color	None, Color 1-8	
Window Color	None, Color 1-8	


Using the Applications Menu

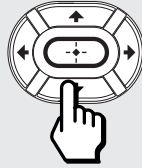


To access the Applications Menu, follow these steps:

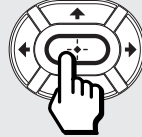
1. Display Menu



2. Highlight 

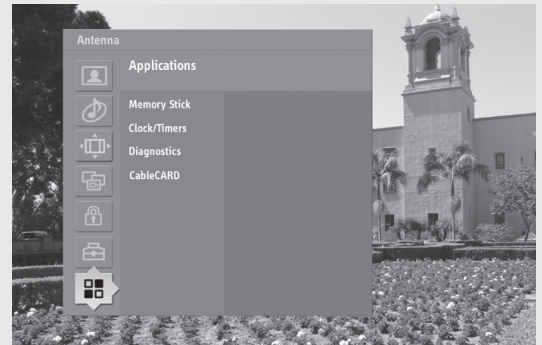


3. Press to select




To change settings, press **↑ ↓ ← →**.
Press  to confirm the selection.

To exit the Menu, press **MENU**.






Selecting Applications Options



 You can also use the **MEMORY STICK** buttons on the remote control or front panel.



 You can also change the **Sleep** options using the **SLEEP** button on the remote control.


















The Applications Menu includes the following options:

Option	Description
Memory Stick	Displays the Memory Stick Viewer. For details, see page 61.
Clock/Timers	Select to set the clock, set the Sleep timer, and to program your TV to turn on and off at two scheduled viewing times.
Sleep	Set the time in minutes (15min, 30min, 45min, 60min, 90min, or Off) that you want the TV to remain on before shutting off automatically.
Timer 1 Timer 2	You can use the Timers to program the TV to turn on and off and tune to a specific channel at two scheduled viewing times.

 To go directly to programming Timer 1 or 2, press  instead of pressing .

 To return to the Timer Menu after programming one of the Timers, press  when the highlight is in the channel number field.

 To return to the Timer Menu after setting the **Current Time**, press  when the highlight is in the minute field.

Option	Description
	<p>Timer 1 and Timer 2 are not available to be set until you set the Current Time.</p> <ol style="list-style-type: none"> Press  or  to highlight Timer 1 or Timer 2. To set the timer, press . Press  or  to highlight one of the following options, then press . <ul style="list-style-type: none"> Program Select to set the Timer by day, time, duration, and channel. Off Select to turn off the Timer. (Your previous settings are saved.) If you selected Program in step 2, Press  and  to set the day(s), hour, minute, duration, and channel number. Press  or  to confirm each setting and move to the next setting. Press  to go back to the previous setting. Press MENU to exit the Menu. An LED on the front panel will light, indicating the timer has been set.
	<p>Current Time</p> <ol style="list-style-type: none"> Press  to select Current Time. Press  and  to set the current time (day, hour, and minute). Press  or  to confirm each setting and move to the next setting. Press  to go back to the previous setting. Press MENU to exit the Menu.
Diagnostics	Displays the strength of the terrestrial digital broadcast signal, to help you adjust your antenna to optimize signal reception.
CableCARD	This list of selectable CableCARD options will vary, depending on your cable service provider.

Other Information

Overview

This chapter includes the following topics:

<i>Topic</i>	<i>Page</i>
Glossary	96
Contacting Sony	97
Troubleshooting	97
Specifications	103
Optional Accessories	104
Index	105

Glossary

analog signal

A signaling method that uses continuous changes in the amplitude or frequency of an electronic transmission to convey information.

aspect ratio

Refers to the ratio between the width and height of the screen. KD-36XS955 models have a 4:3 aspect ratio; KD-30/34XS955 models have a 16:9 (widescreen) aspect ratio.

4:3 aspect ratio



16:9 aspect ratio



component video



Component video is sent through three cables: two color shade (chrominance) signals and one brightness (luminance) signal. Component video achieves greater color accuracy than composite video or S VIDEO by splitting chrominance into two separate portions.

composite video



Composite video is sent through a single cable. Composite video combines the color shade (chrominance) and brightness (luminance) information into one video signal.

degauss

A process that demagnetizes the metal components in the TV monitor, which eliminates image distortion that can result from magnetic charges acquired by the TV's components. Your TV degausses automatically when it is turned on.

digital television (DTV)

A new technology for transmitting and receiving broadcast television signals. DTV provides clearer resolution and improved sound quality over analog television.

HDMI (High-Definition Multimedia Interface)

Provides an uncompressed, all-digital audio/video interface between this TV and any HDMI-equipped audio/video component, such as a set-top box, DVD player, and A/V receiver. HDMI supports enhanced, or high-definition video, plus two-channel digital audio.

National Television System Committee (NTSC)

A unit of the Federal Communications Commission, Washington, DC, that establishes television standards in the United States, such as NTSC Color, the standard used in this TV.

RF

Radio Frequency. That part of the frequency spectrum that is used to transmit TV and radio signals.

S VIDEO



S VIDEO requires a single cable, which carries the brightness (luminance) and color (chrominance) signals of the picture separately. S VIDEO provides better resolution than composite video, which carries the signals together.

VHF/UHF

VHF (Very High Frequency) is the part of the frequency spectrum from 30 to 300 megahertz. UHF (Ultra High Frequency) is the part of the frequency spectrum from 300 to 3,000 megahertz.

480i (SD)

Provides 480 lines of resolution. Displays images using interlaced scanning, which first transmits all the odd lines on the TV screen and then the even lines.

480p (SD)

Provides 480 lines of resolution. Displays images using progressive scanning, which transmits each line from top to bottom.

720p (HD)

Provides 720 lines of resolution. Displays images using progressive scanning, which transmits each line from top to bottom.

1080i (HD)

Provides 1080 lines of resolution. Displays images using interlaced scanning, which first transmits all the odd lines on the TV screen and then the even lines. 1080i is one of the formats used by HDTV (High Definition TV).

Contacting Sony

If, after reading these operating instructions, you have additional questions related to the use of your Sony television, please call our Customer Information Services Center at 1-800-222-SONY (7669) (US residents only) or (416) 499-SONY (7669) (Canadian residents only).

Before calling Sony customer support, please write down the model and serial numbers of your TV. You'll find this information on the front cover of this manual.

Troubleshooting

Remote Control

<i>Problem</i>	<i>Possible Remedies</i>
Remote control does not operate	<ul style="list-style-type: none"> <input type="checkbox"/> The batteries could be weak. Replace the batteries. <input type="checkbox"/> Check the orientation of the batteries. <input type="checkbox"/> Press the TV FUNCTION button. You may have inadvertently pressed the SAT/CABLE FUNCTION button, which changes the remote control to SAT or CABLE mode. <input type="checkbox"/> Make sure the TV's power cord is connected securely to the wall outlet. <input type="checkbox"/> Locate the TV at least 3-4 feet away from fluorescent lights.
Cannot change channels with the remote control	<ul style="list-style-type: none"> <input type="checkbox"/> If you are using the TV to change channels, first press the TV FUNCTION button. <input type="checkbox"/> If you are using another device to change channels, be sure you have not inadvertently switched your TV from the channel 3 or 4 setting. Use the Channel Fix option to "fix" the channel based on the hookup you used (see page 84). <input type="checkbox"/> If you are using another device to change channels, be sure to press the FUNCTION button for that device. For example, if you are using your cable box to change channels, be sure to press the SAT/CABLE FUNCTION button.
Remote control does not operate non-Sony video equipment	<ul style="list-style-type: none"> <input type="checkbox"/> If you replaced the batteries to the remote recently, the code numbers for the video equipment may need to be reset. <input type="checkbox"/> There may be more than one code for the equipment that you are attempting to operate. <input type="checkbox"/> There is a possibility that some non-Sony equipment cannot be operated by your Sony TV remote. You may need to use the equipment's original remote control.

Channels





<i>Problem</i>	<i>Possible Remedies</i>
Cannot receive upper channels (UHF) when using an antenna	<ul style="list-style-type: none"> ❑ Use Auto Program in the Channel Menu to add receivable channels that are not presently in the TV's memory (see page 84).
TV is fixed to one channel	<ul style="list-style-type: none"> ❑ Use Auto Program in the Channel Menu to add receivable channels that are not presently in the TV's memory (see page 84). ❑ Check your Channel Fix settings (see page 84).
Cannot receive any channels when using cable TV	<ul style="list-style-type: none"> ❑ Use Auto Program in the Channel Menu to add receivable channels that are not presently in the TV's memory (see page 84).
Cannot receive or select channels	<ul style="list-style-type: none"> ❑ Use Auto Program in the Channel Menu to add receivable TV channels that are not presently in TV memory (see page 84).
Some digital cable channels are not being displayed	<ul style="list-style-type: none"> ❑ Certain cable TV companies have limitations on the broadcast of digital cable channels. Check with your cable TV company for more information. ❑ Check with your cable TV company if the channels are scrambled or encrypted. You will need a CableCARD or a separate set-top box to view those channels. ❑ Some optional digital cable broadcast formats may not be supported. If your cable TV company is broadcasting digital signals in unsupported broadcast formats, you will need a separate set-top box provided by your cable TV company to view those channels. ❑ The digital cable channel may be set to Hide in the Channel Menu (see page 85). ❑ Use the Digital Channels feature to search for new digital channels (see page 84).

CableCARD

<i>Problem</i>	<i>Possible Remedies</i>
Problems using CableCARD or CableCARD services	<ul style="list-style-type: none"> ❑ Check that the CableCARD is inserted properly (see pages 41-42). ❑ The CableCARD must be activated by your local cable TV provider before you can receive digital cable TV services. See the activation instructions on pages 41-42. ❑ Check the Diagnostics and CableCARD menu options (see page 93). (This can be useful in providing information to an authorized technician or repair person.) ❑ Contact your cable TV company.

Memory Stick

Problem	Possible Remedies
Image does not display/ Cannot see all files	<ul style="list-style-type: none"> ❑ Make sure the image file is a JPEG (.jpg, .jpeg) file or an MPEG1 (.mpg, .mpeg) file. ❑ Make sure the Memory Stick is inserted properly (see page 64). ❑ Check the Filter option setting (see page 74). ❑ Check the Select Contents setting (see page 74) and ensure that files are either in DCF directories if Digital Camera Folders is selected (see page 74), or in the currently selected folder if Select a Folder is selected (see page 74). ❑ The maximum number of files the Memory Stick Viewer can display is 2,000 files total, including all JPEG, MPEG1, and MP3 files. ❑ If you are using a Memory Stick with the Memory Select function, try changing the position of the A/B select switch.
JPEG image displays undesirable motion or flicker in full screen	<ul style="list-style-type: none"> ❑ JPEGs captured using a digital video camera may appear to display motion in full screen. This is a result of the way digital video cameras record still images, and is not a result of a malfunction with the TV.
Rotation not saved after Memory Stick is ejected or Memory Stick Viewer is closed	<ul style="list-style-type: none"> ❑ The Memory Stick might be locked. Unlock the Memory Stick and try rotating the image again. ❑ The file might not have information (EXIF data) that is usually generated when a digital camera records a photo. In this case, it is not possible to save the rotation. ❑ There might be insufficient space on the Memory Stick to save the rotated file. Try deleting one or more files and rotating the image again.
Cannot Rotate, Zoom, Pan or Print Mark MPEG files	<ul style="list-style-type: none"> ❑ These functions are available only for JPEG files.
Cannot show (or hide) file information in full screen or Slide Show	<ul style="list-style-type: none"> ❑ Set the File/Information option to On or Off (see page 73).
Cannot set print quantity	<ul style="list-style-type: none"> ❑ The Memory Stick might be locked. Unlock the Memory Stick and try setting the print quantity again.
Cannot see Menu	<ul style="list-style-type: none"> ❑ Press ▲ to display the Menu again.
Cannot hear audio while using Memory Stick	<ul style="list-style-type: none"> ❑ Check the TV's volume or Speaker (page 81) settings. ❑ To hear JPEG voice memo in full screen view, select the Digital Camera Folders option and set the Filter option to Show All. ❑ Check that the Music option is not set to Off (see page 73).
Not all MP3 files on Memory Stick are included when the Music /Complete List option is selected (page 73)	<ul style="list-style-type: none"> ❑ The Memory Stick Viewer can display a maximum of 2,000 files total, including all JPEG, MPEG1, and MP3 files. ❑ Make sure that the file is named with the file extension (.mp3).
Cannot see MP3 list to play music	<ul style="list-style-type: none"> ❑ MP3 files on your Memory Stick only can be played as background music during a Slide Show (see page 73).
MP3 file does not play back correctly	<ul style="list-style-type: none"> ❑ The Memory Stick Viewer supports only MP3 files with a fixed data rate of 128 kbps (kilobits per second).
MP3 files on the Memory Stick are not listed	<ul style="list-style-type: none"> ❑ Only MP3 files that are named with the file extension (.mp3) are displayed in the list.
Music files are playing in wrong order	<ul style="list-style-type: none"> ❑ MP3 files are played in alphabetical order, according to the folder in which they are stored. If you want to change the playing order, rename your files alphabetically in the order in which you want them to play or create an MP3 playlist (.m3u file) on a PC.

Problem	Possible Remedies	
MPEG1 movie does not play back correctly	<ul style="list-style-type: none"> ❑ Some variations of MPEG1 movies may not be compatible with the Memory Stick Viewer. 	
MPEG1 quality is poor when enlarged (page 71)	<ul style="list-style-type: none"> ❑ The quality of the movie when enlarged depends on the resolution of the MPEG1 file. See your camera's instruction manual for details. 	
Error message is displayed	<ul style="list-style-type: none"> ❑ No Memory Stick There is no Memory Stick in the slot. ❑ Memory Stick Locked The lock mechanism on the Memory Stick is engaged. ❑ Memory Stick Error The Memory Stick in the slot might be damaged; try a different Memory Stick. ❑ Format Error The Memory Stick may have been formatted using a PC or other device that is not compatible with cameras. 	
	Error icon is displayed 	The file is not a valid MPEG1 or JPEG format.
		The thumbnail is not DCF-compatible.
		The file is a JPEG or an MPEG1, but the thumbnail is unreadable.
		The file is unreadable.

Audio

Problem	Possible Remedies
Good picture, no sound	<ul style="list-style-type: none"> ❑ Press MUTING so that the word Muting disappears from the screen (see page 47). ❑ Make sure the Speaker option is set to On in the Audio Menu (see page 81). ❑ Make sure the MTS option is set to Stereo or Mono (see page 80).
Cannot gain enough volume when using a cable box	<ul style="list-style-type: none"> ❑ Increase the volume of the cable box using the cable box's remote control. Then press TV FUNCTION and adjust the TV's volume.
Sound seems weak or insufficient	<ul style="list-style-type: none"> ❑ The TV's audio might be set to Auto SAP or Mono, when it might be better set to Stereo. In the Audio Menu (see page 80), set the MTS setting to Stereo. If already set to Stereo, switch to Mono (which may reduce background noise during weak stereo broadcasts).
Cannot raise the volume on external audio speakers	<ul style="list-style-type: none"> ❑ If the Speaker option is set to Off and the Audio Out option is set to Fixed (in order to output the sound to your audio system) use your audio receiver to adjust the sound (see page 80). Or, to use the TV remote control, set the Audio Out option to Variable. ❑ To turn on the TV speakers, set the Speaker option to On (see page 80).

Video

Problem	Possible Remedies
No picture (screen not lit), no sound	<ul style="list-style-type: none"> ❑ If your TV does not turn on, and a red light keeps flashing, your TV may need service. Call your local Sony Service Center. ❑ Make sure the power cord is plugged in. ❑ Press the POWER button on the front of the TV. ❑ Press the TV/VIDEO button to cycle through the connected video sources. ❑ Try another channel; it could be station trouble.
Dark, poor or no picture (screen lit), good sound	<ul style="list-style-type: none"> ❑ Adjust the Picture option in the Video Menu (see page 78). ❑ Adjust the Brightness option in the Video Menu (see page 78). ❑ Check the antenna/cable connections.
No color	<ul style="list-style-type: none"> ❑ Adjust the Color option in the Video Menu (see page 78).
Only snow and noise appear on the screen	<ul style="list-style-type: none"> ❑ Check the antenna/cable connections. ❑ Try another channel; it could be station trouble. ❑ Press ANT to change the input mode (see page 47).
Dotted lines or stripes	<ul style="list-style-type: none"> ❑ Adjust the antenna. ❑ Move the TV away from noise sources such as cars, neon signs, or hair-dryers.
Double images or ghosts	<ul style="list-style-type: none"> ❑ Using a highly directional outdoor antenna or a cable may solve the problem.
"Black box" on screen	<ul style="list-style-type: none"> ❑ You have selected a text option in the Setup Menu and no text is available. (See page 89 to reset Setup selections.) To turn off this feature, set the Caption Vision option to Off. If you were trying to select closed captioning, select CC1 instead of TEXT 1-4.
Bars appear at the top and bottom of the screen	<ul style="list-style-type: none"> ❑ Some wide-screen programs are filmed in aspect ratios that are greater than 16:9, such as 2.35:1. (This is especially common with theatrical releases). Your TV will show these programs with bars at the top and bottom of the screen. For more details, check the documentation that came with your DVD (or contact your program provider).

General

Problem	Possible Remedies
How to reset TV to factory settings	<ul style="list-style-type: none"> ❑ Turn on the TV. While holding down the RESET button on the remote control, press the POWER button on the TV. (The TV will turn itself off, then back on again.) Release the RESET button.
How to restore Video settings to factory settings	<ul style="list-style-type: none"> ❑ Press the RESET button on the remote control while in the Video Menu (see page 78).
How to restore Audio settings to factory settings	<ul style="list-style-type: none"> ❑ Press the RESET button on the remote control while in the Audio Menu (see page 80).
Cannot cycle through the other video equipment connected to the TV	<ul style="list-style-type: none"> ❑ Be sure the Video Label option is not set to Skip (see page 90).
Cannot operate Menu	<ul style="list-style-type: none"> ❑ If a Menu option appears in gray, this indicates that the TV is in a state in which the Menu option is not available.
Lost password	<ul style="list-style-type: none"> ❑ In the password screen (see page 86), enter the following master password: 4357. The master password clears your previous password; it cannot be used to temporarily unblock channels.

<i>Problem</i>	<i>Possible Remedies</i>
TV makes "popping" sound when turned on	❑ This is a normal sound that results from the TV automatically degaussing each time it is turned on.
TIMER/STAND BY LED on front panel is lit	❑ The LED (see page 12) blinks when the TV is turned on, then shuts off when the picture is displayed. If the LED blinks for more than a minute, this may indicate the TV needs service. When lit, indicates that the timer is set (page 92). When the timer is set, this LED will remain lit even when the TV is turned off.
Digital cable box does not work	❑ If you are connecting a VCR and digital cable box using a splitter, as described on page 24, you must use a special bi-directional splitter that is designed to work with your digital cable box. Contact your cable TV company for details.
Cannot record digital channels to VCR	❑ Only analog channels can be recorded to your VCR.

Specifications

Picture Tube	FD Trinitron [®] tube	
Antenna	75 ohm external terminal for VHF/UHF	
Television System	NTSC	American TV Standard
	ATSC (8VSB terrestrial)	ATSC compliant 8VSB
	QAM on cable	ANSI/SCTE 07 2000
Channel Coverage	Terrestrial (analog)	2-69
	Cable TV (analog)	1-125
	Terrestrial (digital)	2-69
	Cable TV (digital)	1-135
Power Requirements	120V, 60 Hz	
Inputs/Outputs		
HDMI IN	Video	1080i, 720p, 480p, 480i
	Audio	Two channel linear PCM 32, 44.1 and 48 kHz, 16, 20 and 24 bit
Video (IN)	4 total (1 on front panel)	1 Vp-p, 75 ohms unbalanced, sync negative
S Video (IN)	3 total (1 on front panel)	Y: 1 Vp-p, 75 ohms unbalanced, sync negative C: 0.286 Vp-p (Burst signal), 75 ohms
Audio (IN)	7 total (1 on front panel)	500 mVrms (100% modulation) Impedance: 47 kilohm
Component Video Input	2 (Y, P _B , P _R)	Y: 1.0 Vp-p, 75 ohms unbalanced, sync negative; P _B : 0.7 Vp-p, 75 ohms P _R : 0.7 Vp-p, 75 ohms
CONTROL S (IN/OUT)	1	
Variable/Fixed Audio (OUT)	1	More than 408 mVrms at the maximum volume setting (Variable) More than 408 mVrms (Fixed) Impedance (output): 2 kilohms
Digital Audio Optical Output PCM/Dolby Digital	1	Optical Rectangular
CableCARD Slot	PCMCIA Type I/II	
Supplied Accessories	Remote Control	RM-Y199
	AA (R6) Batteries	2 supplied for remote control
Visible Screen Size (picture measured diagonally)	KD-30XS955	30 in (762 mm)
	KD-34XS955	34 in (863.6 mm)
	KD-36XS955	36 in (914.4 mm)
Actual CRT Size (picture measured diagonally)	KD-30XS955	32 in (812.8 mm)
	KD-34XS955	36 in (914.4 mm)
	KD-36XS955	38 in (965.2 mm)
Speaker Output	7.5 W x 2 + 15 W subwoofer	
Dimensions (W x H x D)	KD-30XS955	898 x 604 x 564.5 mm (35 3/8 x 23 3/4 x 22 1/4 in)
	KD-34XS955	994 x 654 x 604 mm (39 1/8 x 25 3/4 x 23 3/4 in)
	KD-36XS955	994 x 776.5 x 634 mm (39 1/8 x 30 5/8 x 25 in)
Mass	KD-30XS955	67 Kg (148 lbs)
	KD-34XS955	93 Kg (205 lbs)
	KD-36XS955	108.2 Kg (238.5 lbs)

Power Consumption	KD-30XS955	In Use: 220 W In Standby: 3 W In CableCARD Standby: 20 W
	KD-34XS955	In Use: 250 W In Standby: 3 W In CableCARD Standby: 20 W
	KD-36XS955	In Use: 270 W In Standby: 3 W In CableCARD Standby: 20 W

Design and specifications are subject to change without notice.

Optional Accessories

<i>Accessory</i>	<i>Description</i>	<i>Model Number</i>
Cables	Audio/Video	VMC-810/820/830 HG
	Audio	RKC-515HG
	Component Video	VMC-10/30 HG
TV Stands	KD-30XS955	SU-30HX1
	KD-34XS955	SU-34HX1
	KD-36XS955	SU-36HX1

Index

0-9 buttons 48, 52
4:3 Default settings 82, 83

A

Advanced Video 79
Alternate Audio 54
Alternate Video 54
ANT button 52
antenna, connecting 16
aspect ratio 83
Audio Menu 77
Audio Out 81
AUDIO OUT jack 14
audio receiver, connecting 36
Auto Program (channel setup)
43, 84
Auto SAP, MTS setting 80

B

balance, adjusting 80
bass, adjusting 80
batteries, inserting in remote 45
bilingual audio 80
blocking programs. *See ratings.*
brightness, adjusting 78
Built 9

C

cable
connecting 16
with VCR, connecting 22
cable box
connecting with VCR 24
using with TV remote
control 60
CABLE jack, described 14
CableCARD 9, 14, 15, 41
CableCARD slot 14, 41, 42
CableCARD, activating 41
CableCARD, inserting card 41
CableCARD, removing card 42
Caption Vision 89
CATV. *See cable*
CH buttons 12, 48
Channel Fix 84

channel list, setting up 43
Channel Menu 77
Channel Skip/Add 85
CineMotion 10, 47, 79
ClearEdge VM 79
ClearEdge VM Velocity
Modulation 10
clearing, Favorite Channels 58
closed caption modes 77, 89
CODE SET button 47
color, adjusting 78
Component Video Inputs 10
CONTROL S 40
CONTROL S IN/OUT jacks,
described 14
Cool, Color Temperature 78

D

degauss 102
DIGITAL AUDIO OPTICAL jack
14
digital channels, adding 84
Digital Reality Creation 10
DISPLAY button 52
DRC Mode 79
DRC MODE button 47
DRC. *See Digital Reality Creation.*
DVD player
using with TV remote
control 60
with A/V connectors,
connecting 34

E

Effect button 47
ENTER button 48, 52
error messages, Memory Stick
100

F

Fast-forward button 47
Favorite Channels 10
clearing 58
in Channel Menu 84
using 58

features 9
Fixed audio setting 81
Full 56
Full (Screen Mode) 55, 56

G

GUIDE button 48, 53

H

HD Detailer 10
HD/DVD IN
(1080i/720p/480p/480i)
jacks, described 14
High-Definition Multimedia
Interface (HDMI) 10, 37, 38,
96
Horizontal Expand (Screen
Mode) 56, 57
hue, adjusting 78

I

Info Banner 89
Initial Setup 43
interlaced 10, 47, 79, 96

J

JUMP button 47, 52

L

Language, setting 90

M

Memory Stick
button 47
features 61
Index 66
indicator (LED) 12
inserting 64
insertion slot 12
panning photos 70
photo options 69
playing movies 71
precautions 76
removing 65

- rotating photos 70
- slide show options 73
- troubleshooting 99
- viewing photos 68
- zooming photos 70
- Memory Stick button 12
- Memory Stick Viewer 10
- MENU button 12, 48, 52, 58, 77
- Menus
 - Audio 77
 - Channel 77
 - Parent 77, 86
 - Setup 89
 - Video 77
- MONITOR OUT 14
- Mono, MTS setting 80
- Movie mode 78
- movies
 - viewing thumbnails 66
- MTS 80
- MUTING button 47, 52

N

- Neutral, Color Temperature 78
- Normal (Screen Mode) 55

O

- off, turning off the TV 12
- on, turning on the TV 12

P

- Parent Menu 77, 86
- parental control, described 10
- password, changing 86
- Pause button 47
- photos
 - viewing thumbnails 66
- PIC MODE button 47
- picture contrast, adjusting 78
- Play button 47
- POWER button 12
- power cord, removing from
 - holder 11
- powering on/off, the TV 12
- presetting channels 84
- Pro (Video) mode 78
- problems, troubleshooting 97–102
- Program Guide 53
- program guide 53
- progressive 10, 47, 79, 96

R

- ratings, setting 86–88
- ratings, viewing blocked
 - programs 87, 88
- Record buttons 47
- remote control
 - inserting batteries 45
 - programming 49–50
- removing, Favorite Channels 58
- RESET button 47, 58
- resetting
 - Audio options 81
 - Video options 79
- Rewind button 47

S

- S VIDEO jack, described 12, 14
- SAT/CABLEFUNCTION button 47
- SAT/CABLE POWER button 47
- satellite receiver, using with TV
 - remote control 59
- Screen Mode 55, 57, 82, 83
- SCREEN MODE button 55
- Setup Menu 89
- sharpness, adjusting 78
- Simulated, Effect 80
- SLEEP button 47
- speakers
 - turning on/off 81
 - using external speakers 81
- specifications 104
- Standard mode 78
- Steady Sound, described 10
- Steady Sound, setting 80
- Stereo, MTS setting 80
- Stop button 47
- Super Fine Pitch 10
- surround sound 80
- SYSTEM OFF button 47

T

- Tilt Correction 43, 90
- tilt, correcting 43, 90
- TIMER indicator 102
- transport buttons 47
- treble, adjusting 80
- troubleshooting 97–102
- TruSurround 80
- TruSurround, Effect 80
- turning on/off the TV 12
- TV FUNCTION button 47, 52

- TV POWER button 47, 52
- TV/VIDEO button 48, 52

V

- Variable audio setting 81
- VCR
 - using with TV remote control 59
 - with cable box, connecting 24
 - with cable, connecting 22
 - with satellite receiver, connecting 30
- Vertical Center 82
- Vertical Correction 43, 90
- Vertical Expand (Screen Mode) 56, 57
- Vertical Size, adjusting 82
- VHF/UHF jack, described 14
- VIDEO (L/R)/AUDIO jacks, described 14
- Video Menu 77
- Video modes, selecting 78
- Vivid mode 78
- VOL buttons 12, 47, 52

W

- Warm, Color Temperature 78
- Wega, described 9
- Wide Zoom 55
- widescreen 10, 83

Z

- Zoom (Screen Mode) 55, 56