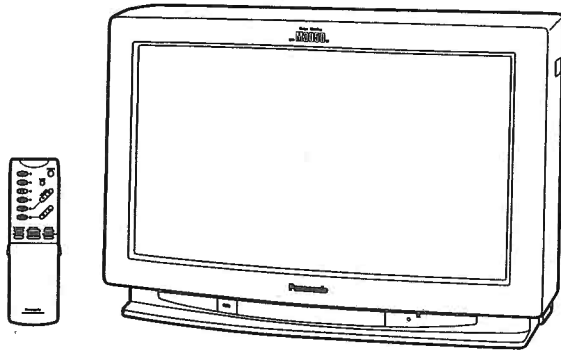


# Service Manual

Color Video/Data Monitor  
**DT-M3050W**  
H05F-2 Chassis



654p

The service technician is required to read and follow the "Safety Precautions" and "Important Safety Notice" in this service manual.

## Specifications

### Power Source

AC 120V, 50/60Hz

### Maximum Ampere

3.7A

### CRT

30" diagonal, 16:9 aspect

106-degree deflection

0.68mm mask pitch

### Speaker Output

Stereo 4W + 4W

Impedance 8Ω

### Resolution

Video input: 550 TV lines (NTSC)

RGB input: 800 x 600 dots

### Horizontal Frequency

15.5 ~ 60kHz

### Vertical Frequency

50 ~ 120Hz

### Video System

PAL/SECAM/NTSC 3.58/NTSC4.43

### Dimensions

Width: 31 1/2 inches (800mm)

Height: 21 5/8 inches (549mm)

Depth: 21 11/32 inches (543mm)

### Weight

127.9lbs (58.0kg)

### Operating Temperature

32 ~ 104°F (0 ~ 40°C)

### Operating Humidity

20 ~ 80% (non-condensing)

### Accessories

AC power cord

Remote control unit

Batteries for remote control unit

Design and specifications are subject to change without notice. Weight and dimensions shown are approximate.

### Connectors

RGB A IN	Y, Pb, Pr/R, G, B, HD, VD: BNC connector
	Y: 1Vp-p (75Ω termination)
	Pb, Pr: ±0.35V (75Ω termination)
	R, G, B: 0.7Vp-p (75Ω termination)
	HD/SYNC, VD: ±0.6 ~ 5.0Vp-p
	Posi./Nega. (Hi-impedance)
AUDIO(L, R):	RCA connector
RGB B IN/OUT	Y, Pb, Pr/R, G, B, HD, VD: BNC connector
	Y: 1Vp-p (75Ω termination Auto)
	Pb, Pr: ±0.35V (75Ω termination Auto)
	R, G, B: 0.7Vp-p (75Ω termination Auto)
	HD/SYNC, VD: ±0.6 ~ 5.0Vp-p
	Posi./Nega. (Hi-impedance)
AUDIO(L, R):	RCA connector
	0.5Vrms (more than 22 kΩ)
LINE IN/OUT	VIDEO: BNC connector
	1Vp-p
	(75Ω or High-impedance Auto)
S-VIDEO	
Y:	1Vp-p
	(75Ω or High-impedance Auto)
C:	0.286Vp-p
	(75Ω or High-impedance Auto)
AUDIO(L, R):	RCA connector
	0.5Vrms (more than 22 kΩ)
MULTI IN	MULTI: D-sub 15P connector
	Y: 1Vp-p (75Ω termination)
	Pb, Pr: ±0.35V (75Ω termination)
	R, G, B: 0.7Vp-p (75Ω termination)
	HD/SYNC, VD: ±0.6 ~ 5.0Vp-p
	Posi./Nega. (Hi-impedance)
R1, R2:	Short or open to GND
AUDIO:	M3 connector
	0.5Vrms (more than 22 kΩ)
System Control IN/OUT:	M3 connector

# Panasonic®

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**⚠ WARNING**

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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**PRODUCT COMPLIES WITH DHHS RULES 21 CFR SUBCHAPTER J IN EFFECT AS OF DATE OF MANUFACTURE.**

### IMPORTANT SAFETY NOTICE

There are special components used in Panasonic Monitor sets which are important for safety. These parts are shaded on the schematic diagram. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent X-Radiation, shock, fire, or other hazards. Do not modify the original design without permission of PANASONIC BROADCAST & TELEVISION SYSTEMS COMPANY.

**WARNING:** This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

**CAUTION:** Any unauthorized changes or modifications to this equipment would void the users authority to operate.

## SAFETY PRECAUTIONS

### General Guidelines

1. It is advisable to insert an isolation transformer in the AC power line before servicing a hot chassis.
2. When servicing, observe the original lead dress, especially the lead dress in the high voltage circuits. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
3. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers, shields, and isolation R-C combinations, are properly installed.
4. Before switching the power on, measure the resistance between B+ line and cold side chassis ground. Connect the "-" side of an ohmmeter to the B+ line, and the "+" side to chassis ground. Each line must have more resistance value than the specified one as follows:

B+ Line	Minimum Resistance
210V (TPP1)	10 k $\Omega$
210V (TPP2)	10 k $\Omega$
41V (TPP3)	3 k $\Omega$
15V (A6 pin 1)	5 k $\Omega$
12V (IC503 pin 3)	50 $\Omega$

5. When the set is not used for a long period of time, unplug the AC power cord plug from the AC line outlet.
6. High voltage points, as high as 31.5 $\pm$ 0.3kV, are present when the set is in operation. Operating the set without the rear cover involves in a dangerous electrical shock from the set power supply. Servicing must not be attempted by anyone who is not thoroughly familiar with the necessary precautions when working on high voltage equipment. Always discharge the anode of the picture tube to chassis ground before handling the picture tube.
7. After servicing, make the following leakage current checks to prevent the customer from getting a dangerous electrical shock.

### Leakage Current Cold Check

1. Unplug the AC power cord and short between the two prongs of the AC plug with a jumper wire.
2. Set the power switch of this set to ON position.
3. Measure the resistance value with an ohmmeter between the shorted AC plug and each exposed metallic part of the set cabinet such as screwheads, connectors, and control shafts. When the exposed metallic part has a return path to the chassis, the reading should be more than 1M $\Omega$ . When the exposed metal part does not have a return path to the chassis, the reading must be infinity.

### Leakage Current Hot Check (See Fig. 2-1)

1. Plug the AC power cord directly into the AC line outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5k $\Omega$  10 watt resistor in parallel with a 0.15 $\mu$ F capacitor between each exposed metallic part of the set and an earth ground such as a water pipe.
3. Use a high impedance AC voltage meter to measure the voltage across the resistor.
4. Measure the voltage at each exposed metallic part.
5. Reverse the AC plug inserting direction at the AC line outlet and repeat each of the above measurements.
6. The voltage at any point must be less than 0.75Vrms.
7. A leakage current tester (Simpson Model 229 or the equivalent) may be used to make the hot checks. In this case, the current must be less than 500 $\mu$ A.
8. If the reading is more than the above value, the set must be repaired and rechecked before it is returned to the customer because of a possibility of an electrical shock.

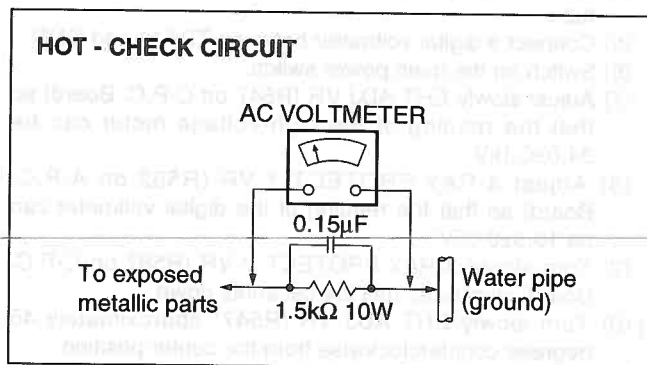


Fig. 2-1

### X-Radiation

#### WARNING:

1. The potential sources of X-Radiation in the monitor set are the high voltage section and picture tube.
2. When using a picture tube test jig for service, make sure that the jig is capable of handling 35.0kV without causing X-Radiation.
3. For continued X-Radiation protection, in case that at least one of the components listed below is replaced, follow the adjustment procedure of the high voltage circuit. Precise adjustment is necessary for R547, R562, and R587 to protect X-Radiation. Refer to "High Voltage and X-Radiation Protective Circuit Adjustment section".

T552 IC503 IC504 IC505 D531 R531 R547 R548  
 R562 R565 R575 R577 R578 R579 R580 R581  
 R582 R585 R586 R587 R593 R595 R770 Q513  
 Q514 Q515 Q521

## High Voltage and X-Radiation Protective Circuit Adjustment

### 1. Equipment to be used

- High-voltage meter (Measurable 50kV)
- Programmable video generator
- Digital voltmeter
- Jumper wire

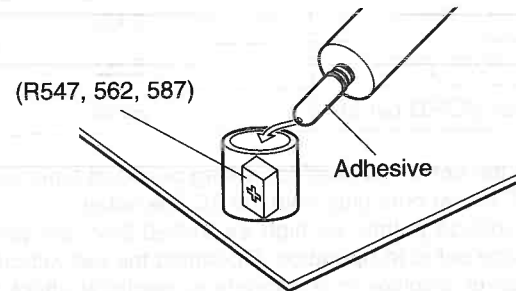
### 2. Initial Condition

PICTURE NORMAL button	.....	Picture full
SCAN SIZE button	.....	Over
EHT ADJ VR (R547)	.....	Center
X-RAY PROTECT 1 VR (R562)	...	Center
X-RAY PROTECT 2 VR (R587)	...	Minimum (Counterclockwise fully)

### 3. Adjustment Procedure

- (1) Set the input switches to LINE A.
- (2) Input a cross hatch pattern signal (fh=33.75kHz) to LINE A and short between the both ends of R874 with a jumper wire.
- (3) Switch off the main power switch.
- (4) Connect a high-voltage meter to the anode for picture tube.
- (5) Connect a digital voltmeter between TPA14 and GND.
- (6) Switch on the main power switch.
- (7) Adjust slowly EHT ADJ VR (R547 on C-P.C. Board) so that the reading of the high-voltage meter can be  $34.0 \pm 0.1$  kV.
- (8) Adjust X-RAY PROTECT 1 VR (R562 on A-P.C. Board) so that the reading of the digital voltmeter can be  $10.5 \pm 0.05$  V.
- (9) Turn slowly X-RAY PROTECT 2 VR (R587 on C-P.C. Board) clockwise until the set shuts down.
- (10) Turn slowly EHT ADJ VR (R547) approximately 45 degrees counterclockwise from the center position.
- (11) Switch off the power switch of the set, and switch it on again.
- (12) Adjust EHT ADJ VR (R547) so that the reading of the high-voltage meter can be  $33.5 \pm 0.1$  - 0 kV. During this, make sure that the set does not shut down.
- (13) Adjust EHT ADJ VR (R547) so that the reading of the high-voltage meter can be  $34.0 \pm 0.1$  - 0.3 kV. At this time, make sure that the set shuts down. If the set does not function properly during process 12 and 13, repeat process 7 through 13.
- (14) Turn EHT ADJ VR (R547) approximately 45 degrees counterclockwise from the center position.

- (15) Switch off the power switch of the set and switch it on again. After that, input a dot pattern signal (fh=33.75kHz).
- (16) Adjust EHT ADJ VR (R547) so that the reading of the high-voltage meter can be  $31.5 \pm 0.2$  kV. After that, remove the jumper wire shorting R874.
- (17) Connect the digital voltmeter between TPA11 and GND and make sure that the reading is  $93 \pm 5$  V.
- (18) Change the LINE A input signal from the dot pattern signal (fh=33.75kHz) to a reverse cross hatch pattern signal (fh=33.75kHz).
- (19) Adjust the CONTRAST control all the way up.
- (20) Make sure that the reading of the high-voltage meter is  $31.5 \pm 0.3$  kV. After that, change the input signal from the reverse cross hatch pattern signal to the cross hatch pattern signal.
- (21) Short between TPA14 and GND with the jumper wire.
- (22) Make sure that the set shuts down.
- (23) Remove the jumper wire.
- (24) Cover the three VRs: EHT ADJ VR (R547) and X-RAY PROTECT 1 and 2 VRs (R562, R587) with the sleeves and secure them in place with adhesive as shown below.



#### NOTE:

It is important to use an accurate, periodically calibrated high-voltage meter.

1. Input the dot pattern signal (fh=33.75kHz)
2. Measure the high voltage. The meter (electrostatic type) reading must be  $31.5 \pm 0.2$  kV. If the reading is out of tolerance, immediate service and correction is required to prevent the premature component failure.
3. To prevent an X-radiation, it is essential to use the specified picture tube.

## X-RADIATION PROTECTIVE CIRCUIT TESTS

These tests must be made as a final check before the set is returned to the customer.

### 1. Equipment to be used

- High-voltage meter (Measurable 35kV)
- Programmable video generator
- Ampere meter
- DC power source
- Oscilloscope
- Digital voltmeter
- $750 \Omega$  resistor (over 10W)
- Jumper wires

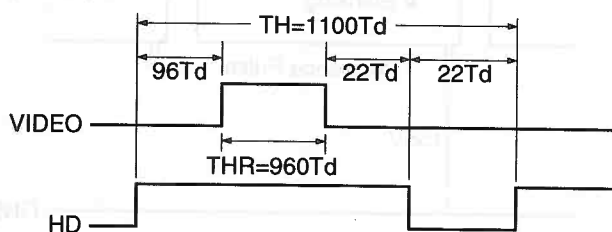
### 2. Preparation

- (1) AC power supply voltage must be 120V AC.
- (2) Input the 33.75kHz reverse cross hatch pattern signal to LINE A.

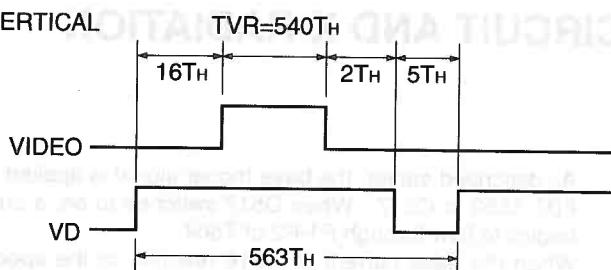
#### 33.75kHz timing chart

fd=37.125MHz fh=33.75kHz  
fv=59.947Hz (Interlaced scanning)

## HORIZONTAL



## VERTICAL

**3. High Voltage Shut Down Circuit Test**

- (1) Switch off the main power switch.
- (2) Apply 12V DC of a DC power source to the base of Q521 (A-P.C. Board).
- (3) Switch on the main power switch.
- (4) Make sure that the set shuts down.
- (5) Switch off the main power switch.
- (6) Stop applying 12V DC of the DC power source to the base of Q521.
- (7) Switch on the main power switch.
- (8) Make sure that the set operates properly.

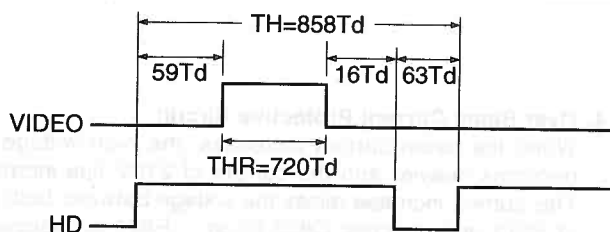
**4. Over Beam Current Protective Circuit Test and EHT Decrease Circuit Test**

- (1) Input the 15.734kHz reverse cross hatch pattern signal to LINE A.

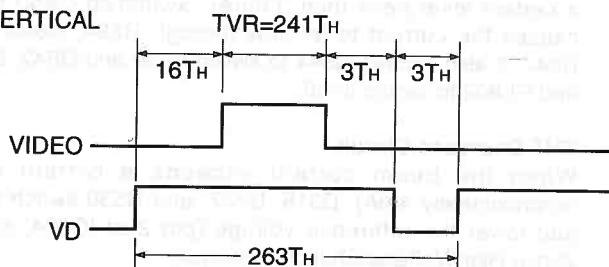
**15.734kHz timing chart**

$f_d=13.500\text{MHz}$   $f_h=15.734\text{kHz}$   
 $f_v=59.825\text{Hz}$  (Interlaced scanning)

## HORIZONTAL



## VERTICAL

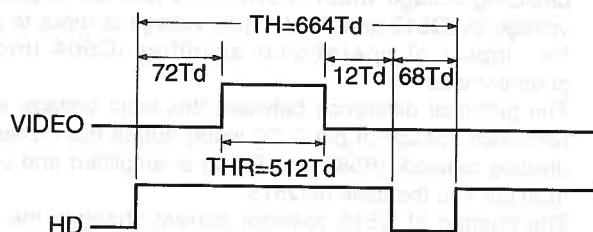


- (2) Switch on the main power switch and set the CONTRAST and BRIGHTNESS controls to MAX.
- (3) Turn the screen VR (on FBT) counterclockwise fully and switch off the main power switch.
- (4) Short between TPP8 and TPP9 with a jumper wire and connect a digital voltmeter between TPD1 "+" and TPD2 "-".
- (5) Switch on the main power switch.
- (6) Turn the screen VR clockwise slowly until the set shuts down and make sure that the reading of the digital voltmeter is less than 36V at that time.
- (7) Switch off the main power switch.
- (8) Input the 60.00kHz reverse cross hatch pattern signal to LINE A.

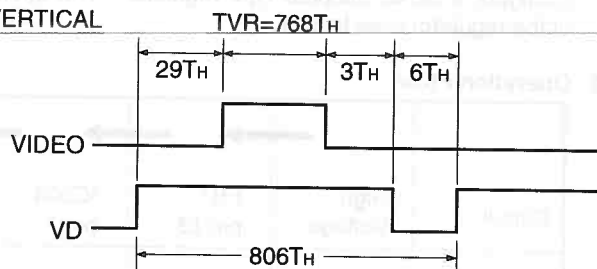
**60.00kHz timing chart**

$f_d=39.84\text{MHz}$   $f_h=60.00\text{kHz}$   
 $f_v=74.442\text{Hz}$  (Non-interlaced scanning)

## HORIZONTAL

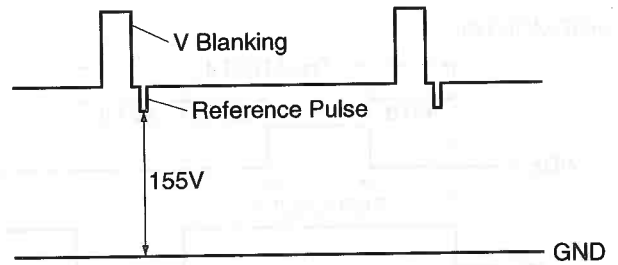


## VERTICAL



- (9) Connect a high-voltage meter to the anode of the picture tube.
- (10) Short between the both ends of R871 (C-P.C. Board) with a jumper wire and turn the screen VR (on FBT) counter-clockwise fully.
- (11) Switch on the main power switch.
- (12) Short between TPB12 and GND with a jumper wire.
- (13) Turn the screen VR (on FBT) clockwise until the reading of the digital voltmeter is 60V.
- (14) Make sure that the reading of the high-voltage meter is less than 30kV.
- (15) Turn the screen VR (on FBT) counterclockwise fully and remove the jumper wire between TPB12 and GND.
- (16) Switch off the main power switch.
- (17) Remove the other jumper wires and the digital voltmeter.

- (18) Connect an oscilloscope between TPKG and TPY6 (GND).
- (19) Input the 33.75kHz black pattern signal to LINE A and switch on the main power switch.
- (20) Adjust the screen VR (on FBT) so that the reference pulse can be 155V as shown in figure.
- (21) Disconnect the oscilloscope.



## EXPLANATION OF HIGH VOLTAGE CIRCUIT AND X-RADIATION PROTECTIVE CIRCUIT

### 1. Automatic High Voltage Regulator

High voltage divided by FBT (T552) internal bleeder resistor is output from pin 13 as the high potential detecting voltage which is converted to a low impedance voltage by Q513 and Q514. The voltage is input to pin 3 ("+" input) of operational amplifier IC504 through potentiometer R547. The potential difference between this input voltage and a reference voltage of pin 2 ("- input) output from a resistor dividing network (R580 and R582) is amplified and output from pin 1 to the base of Q515. The change of Q515 collector current changes the base current of Q516 and Q517. T504 and these transistors configure a series chopper type regulator. The operation of the regulator is as follows.

As described earlier, the base trigger signal is applied from FBT T552 to Q517. When Q517 switches to on, a current begins to flow through P1-P2 of T504. When the base current of Q516 reaches to the specified value, Q517 switches to off. Controlling the time delay of the Q517 off operation controls the output current of Q517 emitter. This also controls the TPA11 voltage and the amplitude of Q552 collector pulse which determines the high voltage of the secondary circuit of FBT.

### 2. Operation Flow

	→	→	→	→	→	→	→	→
Circuit	High Voltage	FBT pin 13	IC504 pin 1	Q516 base	Q517	Q517 emitter	Q552 collector	High Voltage
Item	Voltage	Voltage	Voltage	Current	ON duration	Voltage	Voltage	Voltage
Direction of Change	↗	↗	↗	↗	↘	↘	↘	↘

This loop can maintain the stabilized high voltage set by R547. R547 is set for 31.5±0.3kV.

### 3. High Voltage Shut Down Circuit

High voltage is regulated by the operation of section "1. Automatic High Voltage Regulator". This circuit has a feed-back loop. Even if one of the components in this loop fails, the high voltage may be out of control. When the high voltage exceeds approximately 34kV, the voltage output from pin 11 of FBT (T552) increases. That voltage is divided by R565, R593, R531, and R562, and input to the base of Q521. The emitter voltage of Q521 is input to pin 3 ("+" input) of operational amplifier IC505 through R595, R587, and R578. If the voltage exceeds the specified level, the voltage of pin 1 of IC505 goes high level. That high level cause Q844 to switch to on and Q841 and Q842 to switch to off. RL802 becomes off and the set shuts down.

### 4. Over Beam Current Protective Circuit

When the beam current increases, the high voltage load becomes heavier and the current of 210V line increases. This current increase raises the voltage between both ends of R871 and switches Q853 to on. R871 is designed so that Q853 can switch to on when the beam current exceeds a certain level (less than 3.6mA). Switching Q853 to on causes the current to let flow through R894, D863, and R847. It also causes Q844 to switch to on and Q842, Q841 and RL802 to switch to off.

### 5. EHT Decrease Circuit

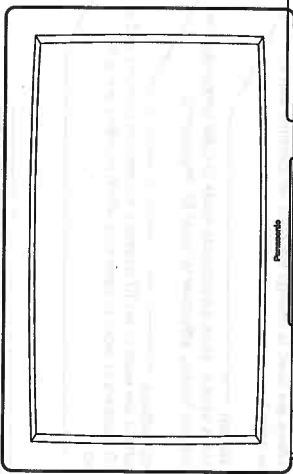
When the beam current exceeds a certain level (approximately 4mA), D518, D527, and D530 switch to on and lower the reference voltage (pin 2 of IC504) of the above High Voltage Shut Down Circuit. Because of this, when the beam current exceeds a certain level, the voltage lowers and the X-radiation decreases.

# Location and function of each part

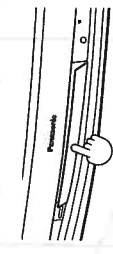
## Monitor

The number in brackets (such as ⑩) after the name of the part indicates the page number where the description of that part can be found.

<Front>



### Opening the control panel cover



Push the place marked "PUSH-OPEN" and then release it. The cover will then open.

### ⑩ POWER switch

This switch is used to turn the monitor power on and off.

### ⑪ Power indicator

This indicator becomes green when the POWER switch on the monitor is turned to ON. It changes to red when the POWER button on the remote control unit is turned to OFF.

### ⑫ Remote control unit signal receptor

When using the remote control unit, point it toward this window to operate.

## Monitor control panel

This control panel can be used to make adjustments and input selections when the remote control unit is not available.

### ⑬ VIDEO/S-VIDEO button

This button is used to switch between the video signals and S-Video signals which are being input to the LINE terminals.

### ⑭ ASPECT button

This button is used to select the screen aspect ratio (width and height ratio).

### ⑮ TV SYSTEM button

This button is used to switch between the four system formats (NTSC, PAL, SECAM, NTSC 4.43).

### ⑯ Input select buttons

These buttons are used to select the signal to be received by the monitor from the signal sources connected to the rear terminals.

### ⑰ PICTURE button

This button is used to switch between picture adjustment modes such as color density, tint, brightness, contrast and sharpness.

### ⑱ Picture adjustment buttons

These buttons are used to adjust the color, tint, brightness, contrast and sharpness.

### ⑲ EXT CTRL button

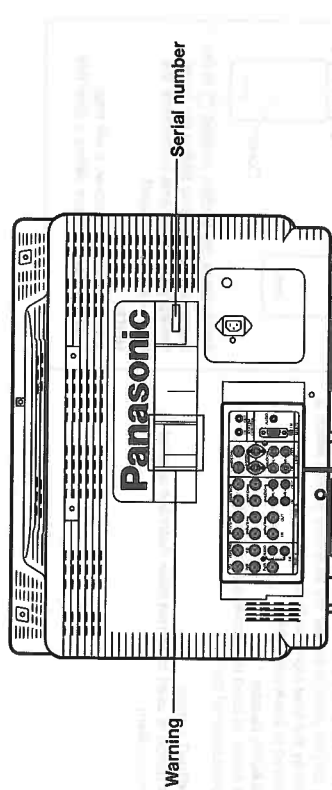
This button is used to turn the external control function on and off when selecting the input source connected to the MULTI IN connector. Selection is possible when the ON SCREEN button on the remote control is set to ON.

### ⑳ VOLUME buttons

These buttons are used to adjust the volume of the sound output by the monitor's built-in speakers.

The >PS< and >PVC< marks indicate the manufacturing material used.

<Rear>



### ⑳ LINE S-VIDEO IN/OUT connectors

These connectors are for input and output of S-Video signals. The signals input to these connectors include an S1/S2 picture function which automatically selects the screen size based on the full picture detection signal and the zoom picture detection signal output by the picture signal source.

### ㉑ LINE VIDEO IN/OUT connectors

These connectors are used for input and output of video signals.

### ㉒ RGB B IN/OUT connectors

These connectors are used for input and output of RGB signals and YPaPb signals.

### ㉓ RGB A IN connectors

These connectors are used for input of RGB signals and YPaPb signals.

### ㉔ RGB A AUDIO IN connectors

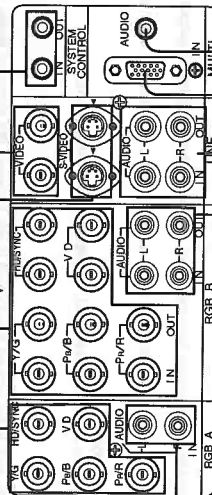
These connectors are used for input of the RGB A audio signals.

### ㉕ SYSTEM CONTROL connectors

These connectors are used to connect a video or computer interface.

### ㉖ MULTI AUDIO IN connector

This connector is used as input of audio signals for the video signals, RGB signals or YPaPb signals which are input to the high-density D-sub 15-pin MULTI IN connector.



### ㉗ RGB B AUDIO IN/OUT connectors

These connectors are used for input and output of the RGB B audio signals.

### ㉘ LINE AUDIO IN/OUT connectors

These connectors are used for input and output of the audio signals for video and S-Video signals.

### ㉙ MULTI IN connector

This is a high-density D-sub 15-pin connector which allows selection of RGB signals and YPaPb signals, and also input selection using external control.

**Remote control unit**

The number in brackets (such as ①) after the name of the part indicates the page number where the description of that part can be found.

**Transmitter** — The control signals are emitted from this end of the remote control unit from this section. Aim this end at the front of the monitor.

① **Input selection buttons** — These buttons are used to select the signal to be viewed on the monitor from the signal sources connected to the connectors at the rear of the monitor.

② **AUDIO button** — This button is used to select audio adjustment modes, which include volume, bass, treble and balance.

③ **PICTURE button** — This button is used to select picture adjustment modes, which include color, tint, brightness, contrast and sharpness.

④ **TV SYSTEM button** — This button is used to select one of the four system formats (NTSC, PAL, SECAM, NTSC 4.43). Selection is possible when video and S-Video signals are being input.

⑤ **DISP FREQ button** — This button is used to display the horizontal and vertical scanning frequencies of the signal being input on the monitor screen.

⑬ **ON SCREEN button** — This button is used to turn on-screen displays on and off, and also to regulate the functions of the buttons inside the cover.

⑥ **Raster adjustment buttons** — These buttons are used to adjust the raster size and to return the size to the standard setting, and also to change the scanning size.

⑦ **Color temperature adjustment buttons** — These buttons are used to change the color temperature and to adjust the color temperature in user mode.

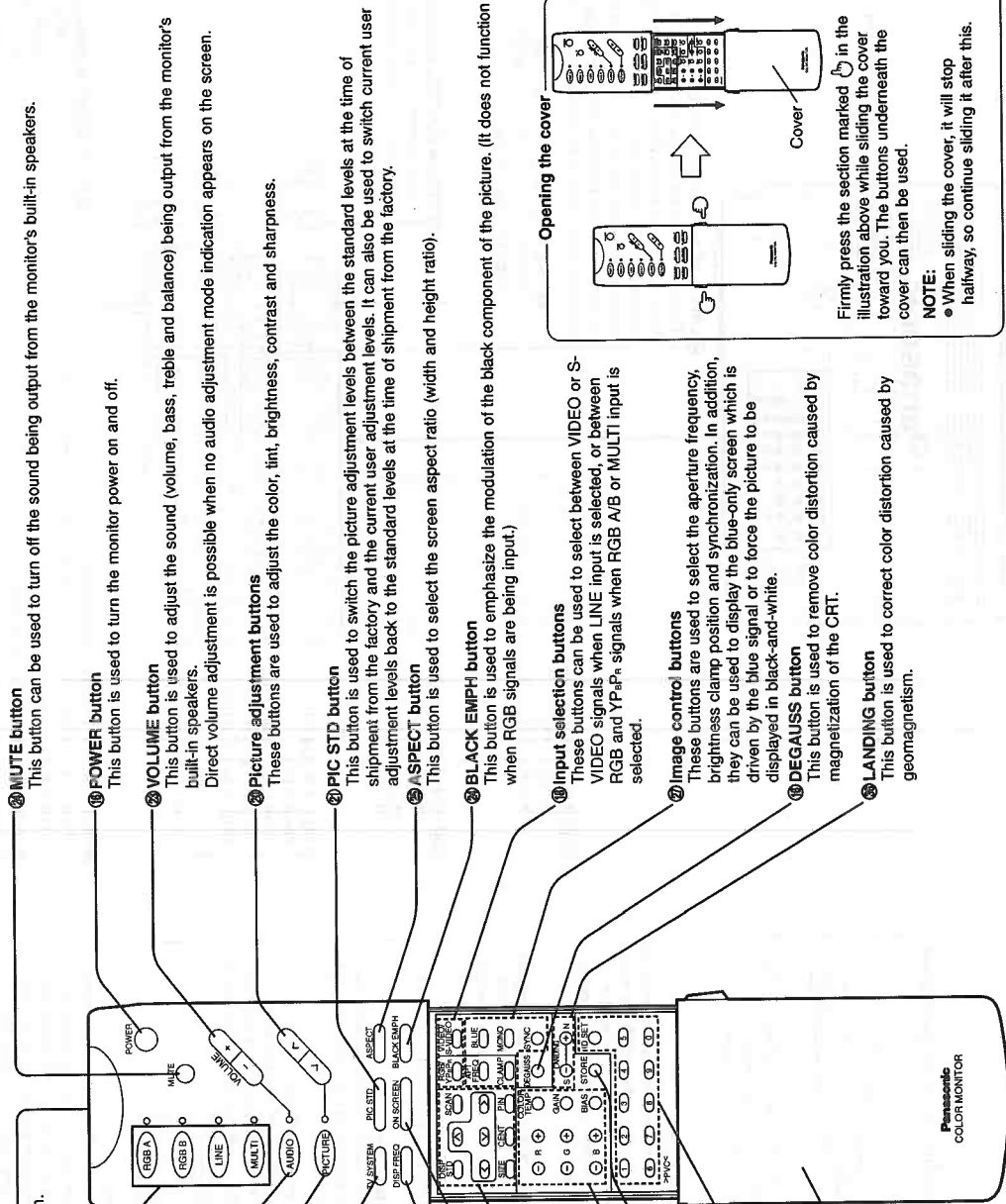
⑧ **STORE button** — This button is used to store adjustments made to color temperature in user mode and landing adjustments made for degaussing.

⑨ **ID setting buttons** — These buttons are used to set ID numbers for different monitors and to specify ID numbers in order to determine which monitors are to be controlled.

**Cover** —

**Operation buttons under the remote control unit cover**

If the ON SCREEN button is set to OFF, none of these operation buttons work except the VIDEO/S-VIDEO and DEGAUSS buttons.



⑩ **MUTE button** — This button can be used to turn off the sound being output from the monitor's built-in speakers.

⑪ **POWER button** — This button is used to turn the monitor power on and off.

⑫ **VOLUME button** — This button is used to adjust the sound (volume, bass, treble and balance) being output from the monitor's built-in speakers. Direct volume adjustment is possible when no audio adjustment mode indication appears on the screen.

⑭ **Picture adjustment buttons** — These buttons are used to adjust the color, tint, brightness, contrast and sharpness.

⑮ **PIC STD button** — This button is used to switch the picture adjustment levels between the standard levels at the time of shipment from the factory and the current user adjustment levels. It can also be used to switch current user adjustment levels back to the standard levels at the time of shipment from the factory.

⑯ **ASPECT button** — This button is used to select the screen aspect ratio (width and height ratio).

⑰ **BLACK EMPH button** — This button is used to emphasize the modulation of the black component of the picture. (It does not function when RGB signals are being input.)

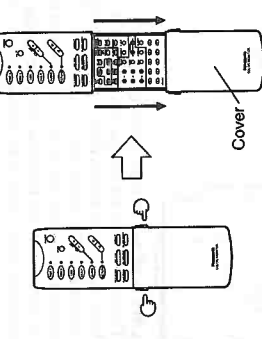
⑱ **Input selection buttons** — These buttons can be used to select between VIDEO or S-VIDEO signals when LINE input is selected, or between RGB and Y/P/P<sub>A</sub> signals when RGB A/B or MULTI input is selected.

⑲ **Image control buttons** — These buttons are used to select the aperture frequency, brightness clamp position and synchronization. In addition, they can be used to display the blue-only screen which is driven by the blue signal or to force the picture to be displayed in black-and-white.

⑲ **DEGAUSS button** — This button is used to remove color distortion caused by magnetization of the CRT.

⑲ **LANDING button** — This button is used to correct color distortion caused by geomagnetism.

**Opening the cover**



Firmly press the section marked ① in the illustration above while sliding the cover toward you. The buttons underneath the cover can then be used.

**NOTE:**

- When sliding the cover, it will stop halfway, so continue sliding it after this.



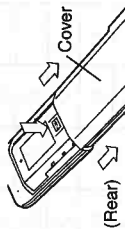
## Before using the remote control unit

### Inserting the batteries

Use the accessory AAA-size batteries, making sure that they are inserted with the correct polarities.

#### 1 Remove the cover.

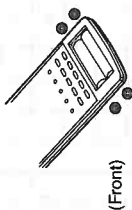
After sliding open the cover, press down firmly on the section marked PUSH on the rear of the remote control unit and slide the cover further to remove it.



(Rear)

#### 2 Insert the batteries.

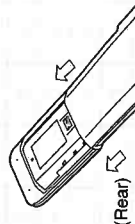
Insert the batteries into the battery receptacle at the front of the remote control unit, while making sure that the battery polarities are correct.



(Front)

#### 3 Replace the cover.

Turn the remote control unit over, and slide the remote control cover onto the remote control unit starting from the edge of the remote control unit.



(Rear)

#### NOTE:

- Do not drop the remote control unit.
- Do not bring the remote control unit into contact with any liquids.
- Do not use rechargeable (Ni-Cd) batteries.

### Notes on using the batteries

The following should be observed in order to prevent damage to or leaking of the batteries.

#### Old Batteries



#### New Batteries



Replace both batteries at the same time. Furthermore, do not burn spent batteries or put them in with combustible garbage.

Do not mix old and new batteries or batteries of different types (such as alkali and manganese batteries).

NG



Do not recharge

NG



Do not short-circuit

NG



Do not open

NG



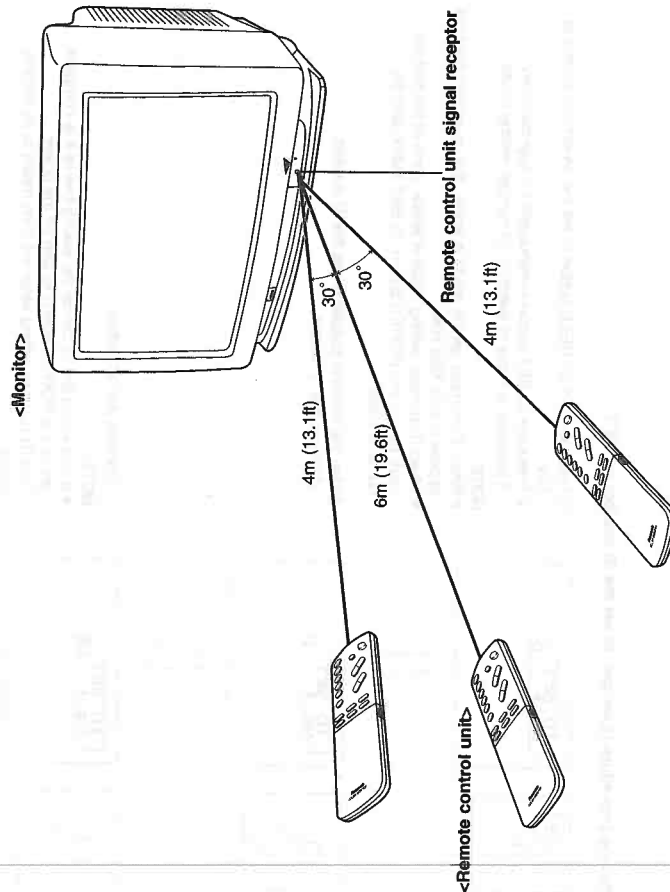
Do not heat or burn

### Using the remote control unit

The remote control unit can be used by pointing it toward the remote control unit signal receptor and pressing the buttons.

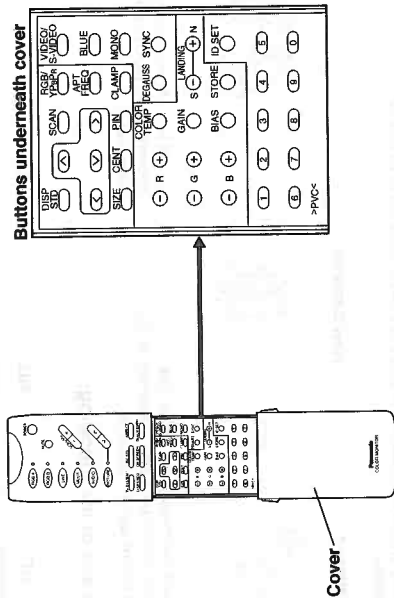
#### NOTE:

- The operating range for the remote control unit is within 6 meters from directly in front of the remote control unit signal receptor, and within 4 meters from an angle of  $\pm 30^\circ$  from the left and right of the receptor.
- The remote control unit will not operate if an error is made with the remote control unit ID settings. Refer to page 14 for details on setting and specifying IDs.



## Using the operation buttons under the remote control unit cover

The buttons which are visible after the remote control unit cover has been removed include some buttons which do not operate at all, or only operate when certain types of signals are being input, when the ON SCREEN button is set to OFF. Refer to the table shown below for details on when the various buttons can be operated.



Input signal	Video signal		S-VIDEO signal		RGB signal		YPbPr signal	
	ON	OFF	ON	OFF	ON	OFF	ON	OFF
ON SCREEN button setting	O	O	O	O	X	X	X	X
VIDEO/S-VIDEO button	O	X	X	X	O	X	O	X
RGB/YPbPr button	O	X	O	X	X	X	O	X
BLUE button	O	X	O	X	X	X	O	X
MONO button	O	X	O	X	X	X	O	X
SYNC button	X	X	X	X	O	X	O	X
APT FREQ button	X	X	X	X	X	X	O	X
CLAMP button	X	X	X	X	O	X	O	X
COLOR TEMP button	O	X	O	X	O	X	O	X
GAIN/BIAS/RGB buttons	O	X	O	X	O	X	O	X
PIN button	O	X	O	X	O	X	O	X
CENT button	O	X	O	X	O	X	O	X
SIZE button	O	X	O	X	O	X	O	X
DISP STD button	O	X	O	X	O	X	O	X
DEGAUSS button	O	O	O	O	O	O	O	O
LANDING button	O	X	O	X	O	X	O	X
STORE button	O	X	O	X	O	X	O	X
ID SET button/Numeric buttons	O	X	O	X	O	X	O	X

O...can be operated  
X...cannot be operated

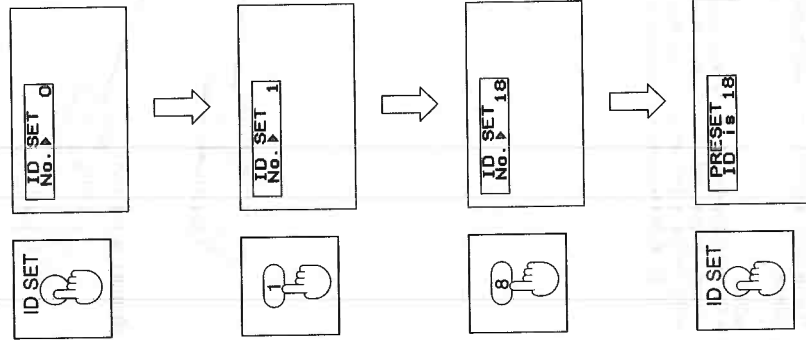
## Monitor ID function

When using multiple monitors together, individual monitors can be operated separately using the accessory remote control unit by assigning an ID number to each monitor. Monitors are assigned an ID number, and then this number is specified when you wish to operate the monitor.

### Setting ID numbers

- Setting of ID numbers is carried out using the accessory remote control unit.
- ID numbers can be set from ID0 to ID99.
- If the ID number is set to "0", the monitor can be operated regardless of the ID number specified.
- The ID number is set to "0" at the time of shipment from the factory.

### Setting procedure (Example: To set the ID number to "18")



- ① Press the ON SCREEN button to set the on-screen display to ON.
- ② Press the ID SET button continuously for approximately 3 seconds or more to switch to ID number setting mode.

#### NOTE:

- When ID number setting mode is active, the on-screen displays appear in pale blue color.
- When ID number setting mode is active, none of the buttons work except the POWER button, ID SET button and the numeric buttons.

- ③ Use the numeric buttons to set the ID number.

(1) Press the "1" button.

(2) Press the "8" button.

#### NOTE:

- If you would like to cancel the setting before it is complete, press the POWER button to turn off the power. The ID number setting value will then return to its original value.

- ④ Once the ID number has been set to "18", press the ID SET button. The ID number will then be stored in memory and the on-screen display will appear in green.

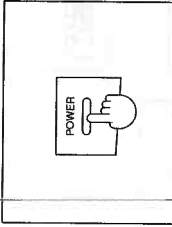
#### NOTE:

- After an ID number has been set, the ID number specified will be automatically switched to "0". Refer to the following page for details on how to specify an ID number.

# Handling each part

## Turning the power supply on and off

At the monitor



Press the POWER switch on the monitor.

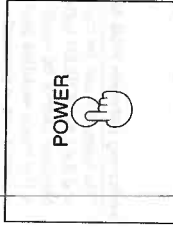
The power supply for the monitor will turn on, and the power indicator will become green.

- The POWER button on the remote control unit can now be used.
- When the power indicator is green, the picture and audio signals being input to the monitor will appear.
- When the power indicator is red, it means that the power supply has been turned off using the remote control unit.

Press the button once more.

The power supply for the monitor will turn off and the power indicator will switch off.

At the remote control unit (can be used when the monitor power is turned on)

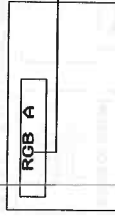


The power supply for the monitor will turn on and off each time the POWER button on the remote control unit is pressed.

- When the power is on, the power indicator will become green and the picture and audio signals being input to the monitor will appear.
- When the power is off, the power indicator will become red and the monitor will switch to the standby condition.

**NOTE:** • If the ON SCREEN button is set to OFF when the power supply is turned on, the name of the signal currently being input will appear on the screen for approximately 6 seconds.

• If the ON SCREEN button is set to ON at this time, the signal name will remain displayed.



RGB A, RGB B, MULTI, VIDEO or S-VIDEO appears depending on the type of signal being input.

- Degaussing is carried out automatically for approximately 7 seconds after the power is turned on. The remote control unit cannot be used to turn the power off and landing adjustment (correction of color distortion due to geomagnetism) cannot be carried out during this time. Refer to page 36 for details on landing adjustment.
- The setting of the POWER button on the remote control unit is retained in memory even if the power cable of the monitor is removed from the wall outlet.

## Eliminating color distortion due to magnetization



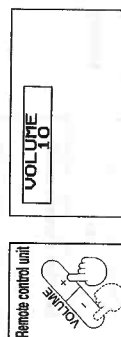
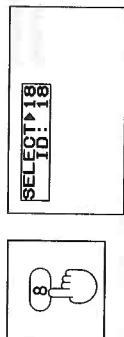
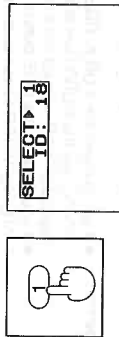
Color distortion caused by magnetization of the CRT due to geomagnetism can be eliminated by pressing the DEGAUSS button on the remote control unit. The remote control unit cannot be used to turn the power off and landing adjustment (correction of color distortion due to geomagnetism) cannot be carried out during the demagnetization process (which takes approximately 7 seconds).

**NOTE:** • This button does not function when pressed continually. After pressing it once, wait approximately five minutes or more before pressing it again.

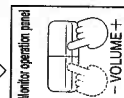
## Specifying ID numbers

- ID numbers can be specified by using the accessory remote control unit.
- If "0" is specified as the ID number, all monitors can be operated together.
- When the power supply for a monitor is turned on, that monitor is automatically assigned an ID number of "0". If only using one monitor, it is thus not necessary to specify an ID number for that monitor.

**Specifying procedure**  
(Example: When using multiple monitors connected in a group and you wish to adjust the volume for only the monitor with ID number "18")



or



- ① Press the ON SCREEN button to turn on the on-screen display function.
- ② Use the numeric buttons to specify the ID number.  
(1) Press the "1" button.

(2) Press the "8" button.

**NOTE:**

- Once the ID number is specified, the on-screen display for the corresponding monitor will appear in green.
- The on-screen displays for all other monitors will appear in red.
- The ID numbers specified can be up to two digits long. If you enter three or more digits, the first digits entered will be disregarded and only the last two digits will be used.

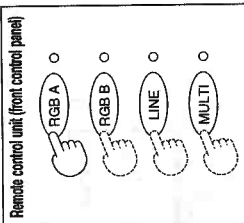
- ③ Use the VOLUME button to adjust the volume. The volume can then be adjusted for only the monitor which has its on-screen display appearing in green.

**NOTE:**

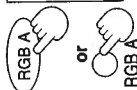
- If you would then like to operate a monitor with a different ID number, repeat the operation from step ② above.
- When the power supply for a monitor is turned on or off, the ID number for that monitor will be automatically set to "0".

**Selecting the input source**

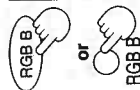
The input selection buttons on either the remote control unit or the monitor control panel can be used to specify the signal to be received by the monitor.



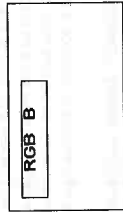
Remote control unit



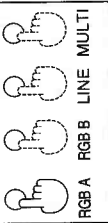
Monitor



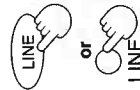
Remote control unit



Monitor



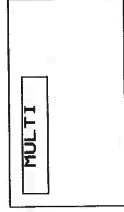
Monitor control panel



Remote control unit



Monitor



Remote control unit



Monitor

The RGB signals or YPbPr signals from the signal source which is connected to the RGB A IN connectors appear on the monitor screen, and the RGB A audio signals from the source which is connected to the AUDIO IN connectors are output from the monitor's built-in speakers.

The RGB signals or YPbPr signals from the signal source which is connected to the RGB B IN connectors appear on the monitor screen, and the RGB B audio signals from the source which is connected to the AUDIO IN connectors are output from the monitor's built-in speakers.

The signals from the signal source which is connected to the LINE VIDEO IN or S-VIDEO IN connectors appear on the monitor screen, and the LINE audio signals from the source which is connected to the LINE AUDIO IN connectors are output from the monitor's built-in speakers.

The RGB signals or YPbPr signals from the signal source which is connected to the 15-pin MULTI IN connector appear on the monitor screen, and the audio signals from the source which is connected to the MULTI AUDIO IN connectors are output from the monitor's built-in speakers.

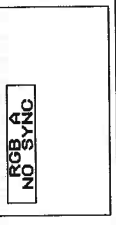
**NOTE:**

- If you pressed the RGB A, RGB B or MULTI buttons to select the type of signal to be received (RGB or YPbPr), use the RGB/YPbPr button underneath the remote control unit cover to select whether RGB signals or YPbPr signals are to be received. Refer to page 20 for further details.
- If you pressed the LINE button to select the type of signal to be received (VIDEO or S-VIDEO), use the VIDEO/S-VIDEO button underneath the remote control unit cover to select whether video signals or S-VIDEO signals are to be received. Refer to page 20 for further details.

**NOTE:**

- If the ON SCREEN button has been set to OFF, the on-screen display will disappear if no buttons are pressed within approximately 3 seconds. Refer to page 28 for details on how to set the ON SCREEN button.
- When a video signal source is connected to the 15-pin MULTI IN connector, input selection for the video signals can be carried out by means of external control. Refer to page 41 for further details.

If no signals are being input

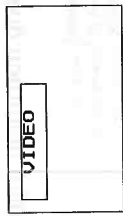


The message "NO SYNC" will appear below the signal name as shown at right, and the monitor screen will not light up.

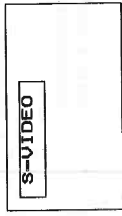
**Switching between video signals and S-Video signals**

This operation can be carried out if LINE has been selected using the input selection buttons and video signals or S-Video signals are being received.

- The mode switches alternately between VIDEO and S-VIDEO each time the VIDEO/S-VIDEO button on the remote control unit or monitor control panel is pressed.



The video signals from the source connected to the VIDEO IN connectors are received.



The video signals from the source connected to the S-VIDEO IN connectors are received.

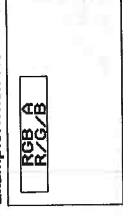
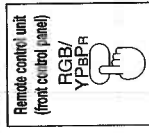
- NOTE:**
- The current setting is displayed the first time the VIDEO/S-VIDEO button is pressed, and the mode switches when the button is pressed after that.
  - If the ON SCREEN button has been set to OFF, the on-screen display will disappear if no buttons are pressed within approximately 3 seconds.
  - The currently-selected setting is retained in memory even when the power supply is turned off.

**Switching between RGB signals and YPbPr signals**

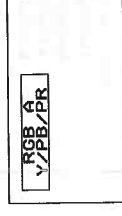
This operation can be carried out if RGB A, RGB B or MULTI has been selected using the input selection buttons and the ON SCREEN button has been set to ON. However, if RGB or YPbPr signals are not being input, this selection cannot be made, and if the selection setting is incorrect, the picture color will not appear as normal.

- The mode switches alternately between RGB and YPbPr each time the RGB/YPbPr button on the remote control unit is pressed.

**Example: When RGB A is selected**



The RGB signals from the source connected to the RGB A IN connectors are received.

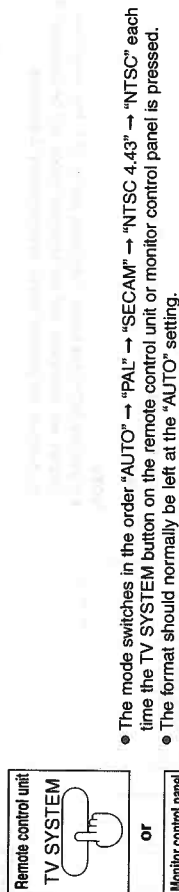


The YPbPr signals from the source connected to the RGB A IN connectors are received.

- NOTE:**
- The current setting is displayed the first time the RGB/YPbPr button is pressed, and the mode switches when the button is pressed after that.
  - The currently-selected setting is retained in memory even when the power supply is turned off.
  - The RGB or YPbPr setting can be stored for up to 16 different signals with different scanning frequencies.

### Selecting the system format

This operation can be carried out if LINE has been selected using the input selection buttons and video signals (including S-Video signals) are being received, or if external control mode is set and video signals are being input to the high-density D-sub 15-pin MULTI IN connector.  
The TV SYSTEM button on the remote control unit or monitor control panel can then be used to switch the video signal circuits to match the format of the video signals being input to the VIDEO IN or S-VIDEO IN connectors or the MULTI IN connector.



### NOTE:

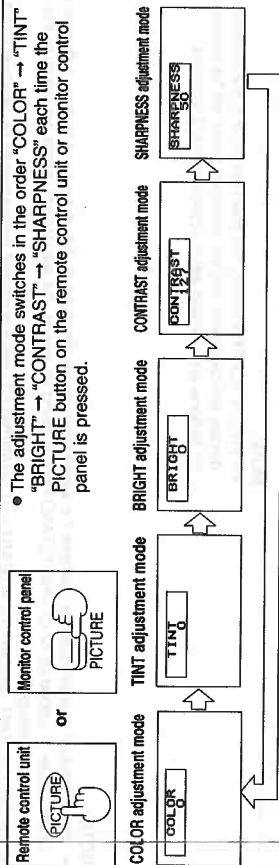
- When the system format is set to "AUTO", the monitor automatically detects whether the signal being input is a PAL, SECAM, NTSC 4.43 or NTSC signal, and it then displays the name of the signal format on the screen. Furthermore, if a black-and-white signal is being input, "MONO" is displayed on the screen.
- The current setting is displayed the first time the TV SYSTEM button is pressed, and the mode switches when the button is pressed after that.
- If the ON SCREEN button has been set to OFF, the on-screen display will disappear if no buttons are pressed within approximately 3 seconds.
- If there is a lot of noise in the input signal, or if the signal level is low, the picture may not stabilize when "AUTO" is selected. In such cases, select the input signal format manually.

### What are the different system formats?

NTSC ..... This format is used mainly in Japan and North and South America. It comprises 525 scanning lines, and the screen is refreshed 30 times a second. The horizontal scanning frequency is 15.75 kHz and the color sub-carrier is frequency 3.58 MHz.  
 NTSC 4.43 ..... This resembles the NTSC format, but uses a color sub-carrier frequency of 4.43 MHz.  
 PAL, SECAM ..... These formats are used most widely in Europe, Africa and the Middle East. They comprise 625 scanning lines, and the screen is refreshed 25 times a second. The horizontal scanning frequency is 15.625 MHz, and the color sub-carrier frequency is 4.43 MHz (PAL) and 4.25 MHz or 4.41 MHz (SECAM).

### Adjusting the picture

#### Setting the adjustment mode



### NOTE:

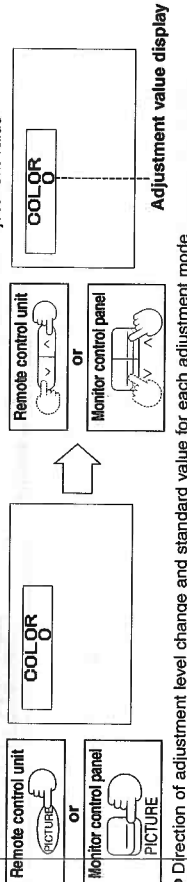
- When RGB signals are being input, only BRIGHT adjustment mode and CONTRAST adjustment mode are displayed.
- When video signals in PAL or SECAM format are being input, TINT adjustment mode is not displayed.
- If the ON SCREEN button has been set to OFF, the on-screen display will disappear and the adjustment mode will be canceled if no buttons are pressed within approximately 3 seconds.
- The last adjustment mode used is displayed the first time the PICTURE button is pressed, and the mode switches when the button is pressed after that.

### Making adjustments

Once a picture adjustment mode is being displayed, the "▲" and "▼" picture adjustment buttons can be used to adjust the picture.

1. Press the PICTURE button until the desired adjustment mode is displayed.
2. Press the "▲" and "▼" picture adjustment buttons to adjust the picture.  
 ▲.....Increases the adjustment value  
 ▼.....Decreases the adjustment value

### Example: Adjusting COLOR



Adjustment mode	Direction of change and standard value	Adjustment mode	Direction of change and standard value
COLOR	▲.....The color becomes intense ▼.....The color becomes pastel	CONTRAST	▲.....The picture becomes stronger ▼.....The picture becomes fainter
TINT	▲.....Flesh tones become greenish ▼.....Flesh tones become reddish	SHARPNESS	▲.....The picture becomes sharper ▼.....The picture becomes softer
BRIGHT	▲.....The screen becomes brighter ▼.....The screen becomes darker		

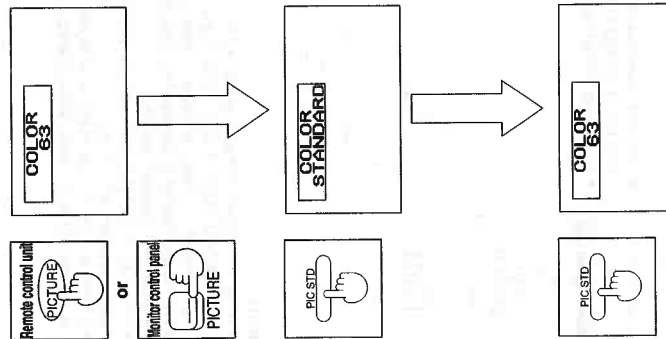
### NOTE:

- If the ON SCREEN button has been set to OFF, the on-screen display will disappear and the adjustment mode will be canceled if no buttons are pressed within approximately 3 seconds.
- The adjustment level ranges are 0 - 127 for SHARPNESS and CONTRAST adjustment modes, and -64 - +63 for all other adjustment modes.
- Adjustments cannot be carried out if the PIC STD button has been pressed so that STANDARD is being displayed.

**Returning picture adjustment values to standard settings (factory default settings)**

**Returning only a single image adjustment value to the standard setting (factory default setting)**  
 If you would like to return one of the COLOR, TINT, BRIGHT, CONTRAST and SHARPNESS adjustments to the factory default setting, switch to the desired picture adjustment mode (so that the adjustment mode is displayed on the screen), and then press the PIC STD button on the remote control. The setting will switch back and forth between the current user setting and the factory default setting each time the PIC STD button is pressed.

**Example: To return the COLOR adjustment setting to the standard setting (factory default setting)**



① Press the PICTURE button to display the COLOR adjustment mode setting on the screen.

② Press the PIC STD button.

"STANDARD" will be displayed on the screen, and the COLOR adjustment value will be returned to the factory default setting.

③ Press the PIC STD button once more.

The COLOR adjustment value will return to the current user setting.

**NOTE:**

- If the ON SCREEN button has been set to OFF, the on-screen display will disappear and the selection mode will be canceled if no buttons are pressed within approximately 3 seconds.

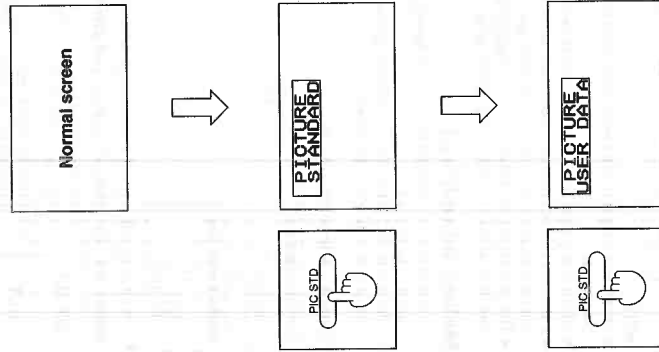
**NOTE:**

- To return the TINT, BRIGHT, CONTRAST and SHARPNESS adjustment values to the standard settings, follow the same procedure for the COLOR adjustment value given above.
- This procedure only temporarily changes the adjustment values. Because of this, if the input source is changed or the power is turned off or on while "STANDARD" is being displayed, the adjustment value will return to the current user setting.
- If the PICTURE button is pressed while "STANDARD" is displayed on the screen, the picture adjustment mode will be displayed but adjustment will not be possible. You must cancel the "STANDARD" mode before picture adjustments can be carried out.
- An adjustment value can be returned to the factory default setting by pressing the PIC STD button continuously for 3 seconds or more while the adjustment value is being displayed.

**Returning all image adjustment values to the standard setting (factory default setting)**

If the PIC STD button on the remote control unit is pressed while no picture adjustment mode (COLOR, TINT, BRIGHT, CONTRAST, SHARPNESS) is currently being displayed, all picture adjustment values are switched between the factory default settings and the current user settings each time this button is pressed.

- To change all picture adjustment settings to the standard settings (factory default settings)



① Switch the monitor to show a screen other than a picture adjustment mode screen.

② Press the PIC STD button.

"PICTURE STANDARD" will be displayed on the screen and all picture adjustment data will be switched to the factory default settings.

**NOTE:**

- If the ON SCREEN button has been set to OFF, the on-screen display will disappear and the selection mode will be canceled if no buttons are pressed within approximately 3 seconds.

③ Press the PIC STD button once more.

"PICTURE USER DATA" will be displayed on the screen and all picture adjustment data will be switched to the current user settings.

**NOTE:**

- If the ON SCREEN button has been set to OFF, the on-screen display will disappear and the selection mode will be canceled if no buttons are pressed within approximately 3 seconds.

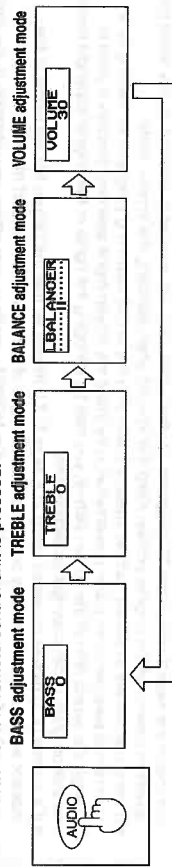
**NOTE:**

- This procedure only temporarily changes the adjustment values. Because of this, if the input source is changed or the power is turned off or on while "STANDARD" is being displayed, the adjustment values will return to the current user settings.
- The COLOR, TINT, BRIGHT, CONTRAST and SHARPNESS user adjustment values can all be returned to the factory default settings by pressing the PIC STD button continuously for 3 seconds or more after "USER DATA" is displayed on the screen.
- If the PICTURE button is pressed while "STANDARD" is displayed on the screen, the picture adjustment mode will be displayed but adjustment will not be possible. You must cancel the "STANDARD" mode before picture adjustments can be carried out.

### Adjusting the audio level

#### Setting the adjustment mode

The adjustment mode switches in the order "BASS" → "TREBLE" → "BALANCE" → "VOLUME" each time the AUDIO button on the remote control unit is pressed.



#### NOTE:

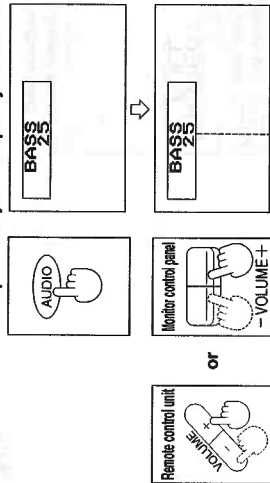
- The last adjustment mode used is displayed the first time the AUDIO button is pressed, and the mode switches when the button is pressed after that.
- If the ON SCREEN button has been set to OFF, the on-screen display will disappear and the adjustment mode will be canceled if no buttons are pressed within approximately 3 seconds.

#### Making adjustments

Once an audio adjustment mode is being displayed, the "+" and "-" volume adjustment buttons can be used to make the adjustment.

#### Example: To adjust the quality of the bass sound

- 1 Press the AUDIO button on the remote control unit until the desired adjustment mode is displayed.
- 2 Press the "+" and "-" volume adjustment buttons to make the adjustment.
  - "+".....Increases the adjustment value
  - "-".....Decreases the adjustment value



Current adjustment value display

#### Details of adjustment level change for each adjustment mode

Adjustment mode	Details of level change
BASS	"+".....The bass response becomes stronger (Maximum value: 31) "-".....The bass response becomes weaker (Minimum value: -32)
TREBLE	"+".....The treble response becomes stronger (Maximum value: 31) "-".....The treble response becomes weaker (Minimum value: -32)
BALANCE	"+".....The sound volume from the left speaker becomes quieter and the sound volume from the right speaker becomes louder (Maximum value: indicated by white arrow) "-".....The sound volume from the left speaker becomes louder and the sound volume from the right speaker becomes quieter (Maximum value: indicated by white arrow)
VOLUME	"+".....The overall volume becomes louder (Maximum value: 63) "-".....The overall volume becomes quieter (Minimum value: 0)

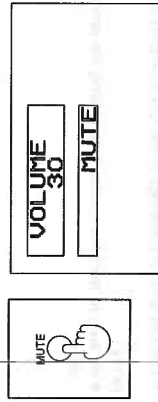
#### NOTE:

- If the ON SCREEN button has been set to OFF, the on-screen display will disappear and the adjustment mode will be canceled if no buttons are pressed within approximately 3 seconds.
- The sound volume can be adjusted by pressing the VOLUME buttons while no audio adjustment mode is being displayed.
- If the MUTE button is pressed to set the sound level to "MUTE", the volume adjustment mode setting will be displayed in red, and adjustment of the BASS, TREBLE and BALANCE settings will not be possible.

### Canceling the sound output

You can stop the sound from being output from the monitor's built-in speakers by pressing the MUTE button on the remote control unit.

If the MUTE button is pressed once more, the sound will be heard again.



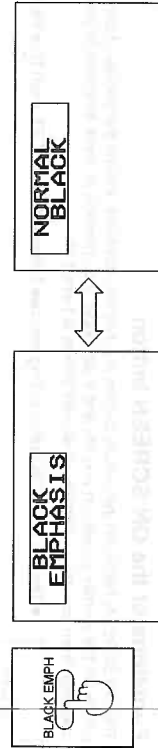
The volume adjustment level and the word "MUTE" will be displayed on the screen in red, and the sound will stop coming out from the speakers.

#### NOTE:

- If you press the VOLUME buttons on the remote control unit or monitor control panel or turn the power off and on while the MUTE setting is active, the MUTE setting will be canceled and the sound will start coming out from the speakers again.
- If the ON SCREEN button has been set to OFF, the audio adjustment mode will be canceled if no buttons are pressed within approximately 3 seconds, but the "MUTE" display will move to the top-left of the screen and remain displayed.

### Changing the black emphasis

"BLACK EMPHASIS" or "NORMAL BLACK" is displayed on the screen and the black emphasis of the picture changes each time the BLACK EMPH button on the remote control unit is pressed.



- Set to "BLACK EMPHASIS" if the overall picture is very bright and adjusting the CONTRAST setting has little effect, or if you would like to strengthen the modulation of the darker areas of the picture.
- Set to "NORMAL BLACK" when carrying out operations such as checking the signal.

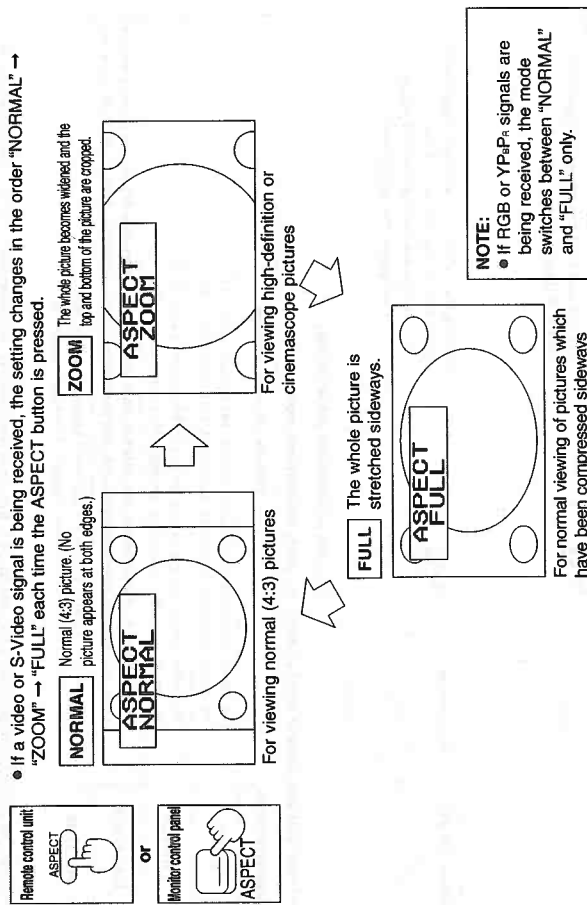
#### NOTE:

- This function does not operate when RGB signals are being received.
- The current setting is displayed the first time the BLACK EMPH button is pressed, and the mode switches when the button is pressed after that.
- If the ON SCREEN button has been set to OFF, the on-screen display will disappear if no buttons are pressed within approximately 3 seconds.

### Selecting the aspect

Press the ASPECT button to select the desired screen size.

- If a video or S-Video signal is being received, the setting changes in the order "NORMAL" → "ZOOM" → "FULL" each time the ASPECT button is pressed.



**NOTE:**

- If RGB or Y/P/P<sub>s</sub> signals are being received, the mode switches between "NORMAL" and "FULL" only.

**NOTE:**

- If the ON SCREEN button has been set to OFF, the on-screen display will disappear if no buttons are pressed within approximately 3 seconds.
- The current setting is displayed the first time the ASPECT button is pressed, and the mode switches when the button is pressed after that.
- A maximum of 16 ASPECT button settings for signals with different scanning frequencies can be stored in memory.
- The aspect (the ratio between the width and length of the picture screen) can vary depending on the broadcasting and video playback equipment.

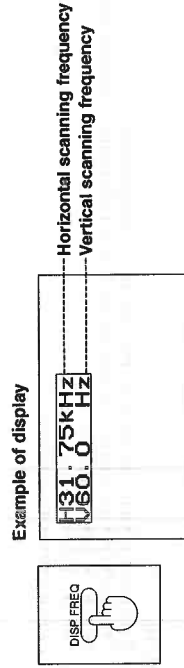
• This monitor is equipped with a variety of different screen mode selection functions. If a mode which does not match the aspect ratio of the TV programs or other video sources received is selected, it may affect the quality of viewing of the original picture. Keep this in mind when selecting the screen mode.

• If using this monitor in places such as cafes or hotels with the aim of displaying programs for viewing for a commercial purpose or for public presentation, note that if the screen mode switching function is used to change the aspect ratio of the screen picture, you may be infringing the rights of the original copyright owner for that program under copyright protection laws.

• If a normal (4:3) picture is viewed using ZOOM or FULL modes so that the picture fills the whole of the monitor screen, obscuration may occur around the edges of the picture so that part of the picture is no longer visible. Such programs should be viewed in NORMAL mode to give proper consideration to the aims and intentions of the original program's creator.

### Selecting the input signal frequency display

If you press the DISP FREQ button on the remote control unit, the horizontal and vertical scanning frequencies of the signals which are currently being input to the monitor will be displayed on the monitor screen.



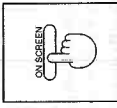
**NOTE:**

- The values displayed are reference values which are reported by the monitor's frequency counter.
- If the ON SCREEN button has been set to OFF, the on-screen display will disappear after approximately 3 seconds.

### Functions of the ON SCREEN button

The ON SCREEN button on the remote control unit has two functions: it turns the display of button operation details on the monitor screen on and off, and it also locks the operation of some functions to prevent mistakes in operation from occurring when the on-screen display is turned off.

- The ON SCREEN button setting switches between ON and OFF each time the button is pressed.



**NOTE:**

- If the button setting is switched to OFF, the details of operation for each button pressed are displayed on the screen for approximately 3 seconds only. However, the "MUTE" indication is the only indication which does not disappear.
- If the button setting is switched to OFF, none of the operation buttons underneath the remote control unit work except the VIDEO/S-VIDEO and DEGAUSS buttons. This is to stop the other buttons being operated by mistake. In addition, the EXT CTRL button on the monitor control panel (the button used for external control) also will not operate at this time.
- If the button setting is switched to ON, the input selection setting will be displayed, and from that point on the operation resulting from the last button pressed will remain displayed on the monitor screen.
- The ON and OFF settings of the ON SCREEN button are not themselves displayed on the screen.

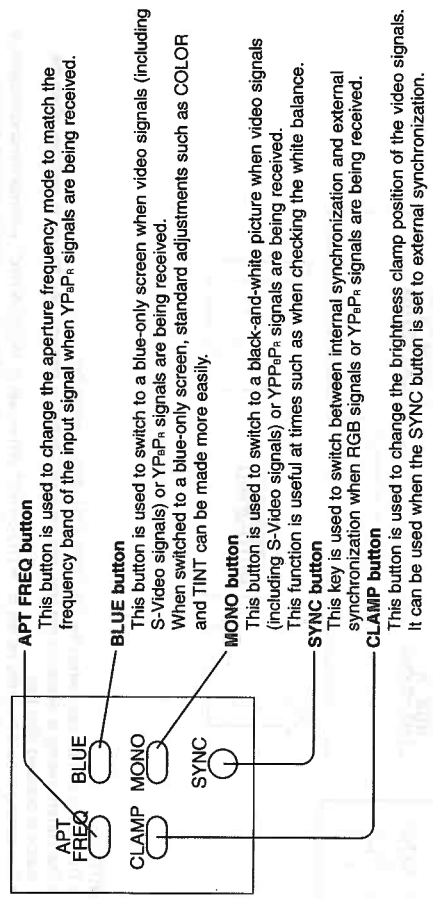
**NOTE:**

- Be sure to read the section titled "Using the operation buttons under the remote control unit cover" on page 15 also.



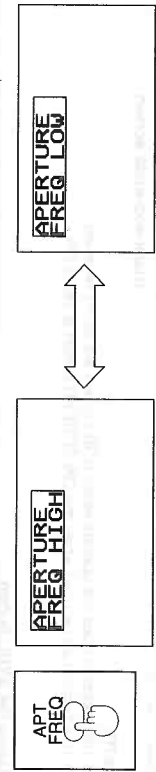
**Using the picture control buttons**

The buttons shown in the illustration below which are under the remote control unit cover can be used to switch the aperture frequency mode, change the brightness clamp position, switch to a blue-only picture, switch to a black-and-white picture, or switch the synchronizing signal. Following is a description of each of the picture control buttons.



**Using the APT FREQ button**

This button can be used when the input selection setting is RGB A, RGB B or MULTI and YP<sub>a</sub>P<sub>a</sub> signals are being received. The setting switches between HIGH and LOW each time the APT FREQ button is pressed.



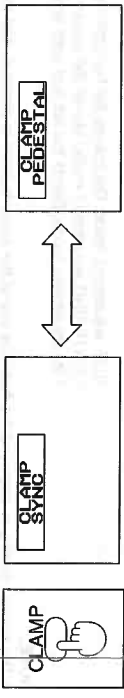
- HIGH .....Standard picture sharpness for signals within the high-definition base band
- LOW .....Standard picture sharpness for double-density signals (with a horizontal scanning frequency of 31.5 kHz)

**NOTE:**

- This button can be used when the ON SCREEN button is set to ON.
- Switching is not possible when video signals (including S-Video signals) and RGB signals are being received.
- The current setting is displayed the first time the APT FREQ button is pressed, and the mode switches when the button is pressed after that.
- A maximum of 16 APT FREQ button settings for signals with different scanning frequencies can be stored in memory.

**Using the CLAMP button**

This button can be used when the input selection setting is RGB A, RGB B or MULTI, the SYNC button setting is external synchronization (EXT-SYNC) or automatic synchronization (AUTO-SYNC), and provided that RGB signals or YP<sub>a</sub>P<sub>a</sub> signals with an external synchronization signal are being received. The brightness clamp position switches between "SYNC" and "PEDESTAL" each time the CLAMP button is pressed.



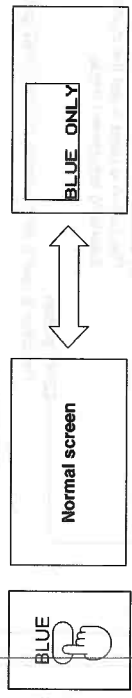
Normally, the clamp position should be set to "PEDESTAL", and should be changed to "SYNC" if the black level (brightness) of the video signal changes.

**NOTE:**

- This button can be used when the ON SCREEN button is set to ON.
- Switching is not possible when no synchronization signal is being input to the HD/SYNC or VD connectors at the rear of the monitor, or when the SYNC button setting is "INT-SYNC".
- The current setting is displayed the first time the CLAMP button is pressed, and the mode switches when the button is pressed after that.
- A maximum of 16 CLAMP button settings for signals with different scanning frequencies can be stored in memory.

**Using the BLUE button**

The screen switches between a normal screen and a blue-only screen each time the BLUE button is pressed.



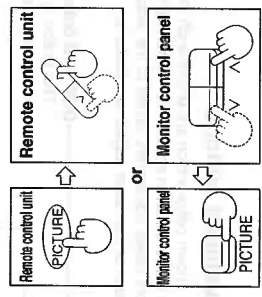
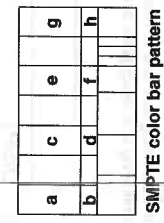
**Blue-only screen**

**NOTE:**

- This function does not operate when RGB signals are being received.
- This button can be used when the ON SCREEN button is set to ON.
- The blue-only screen mode is canceled when an input selection is made and when the monitor power is turned off and back on again.

**Adjusting the color**

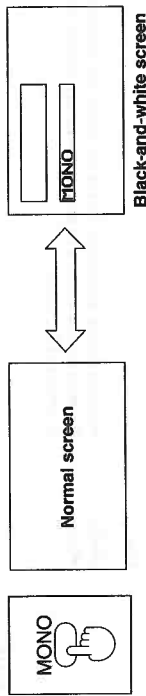
When an SMPTE color bar signal is being received and the screen has been switched to a blue-only screen by the procedure given above, adjust the COLOR and TINT settings so that the blue colors a to h in the color bar pattern below are all of the same hue.



- ① Set to TINT adjustment mode, and then use the "v" and "x" picture adjustment buttons to adjust so that the blues from a to h are all of the same brightness.
- ② Set to COLOR adjustment mode, and then use the "v" and "x" picture adjustment buttons to adjust so that the blues from a to h are all of the same brightness.
- ③ After adjustment is complete, press the BLUE button to cancel the blue-only screen mode. (The screen will return to a standard screen with standard colors.)

**Using the MONO button**

This button can be used to make it easier to check the resolution, white balance and convergence of video signals. The screen switches between a normal picture and a black-and-white picture (which consists of only the luminance signal with the color signal components removed).



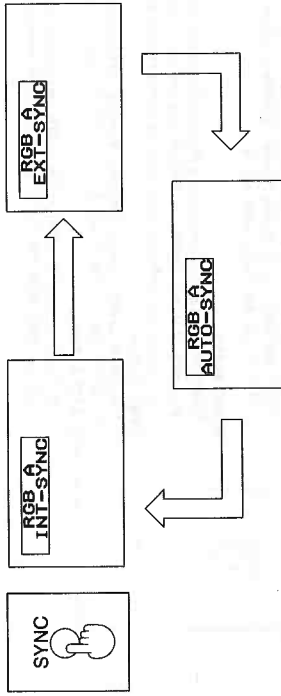
**NOTE:**

- This function does not operate when RGB signals are being received.
- This button can be used when the ON SCREEN button is set to ON.

**Using the SYNC button**

This button is used to switch the synchronization signal being input to the monitor. When using sync signals which are included in the Y (luminance) or G (green) signal components, set to "INT-SYNC"; when a synchronization signal is being input to the HD/SYNC or VD connector, set to "EXT-SYNC".

The synchronization mode switches in the order "INT-SYNC" (internal synchronization) "EXT-SYNC" (external synchronization) "AUTO-SYNC" (automatic selection: external synchronization has priority) each time the SYNC button is pressed.

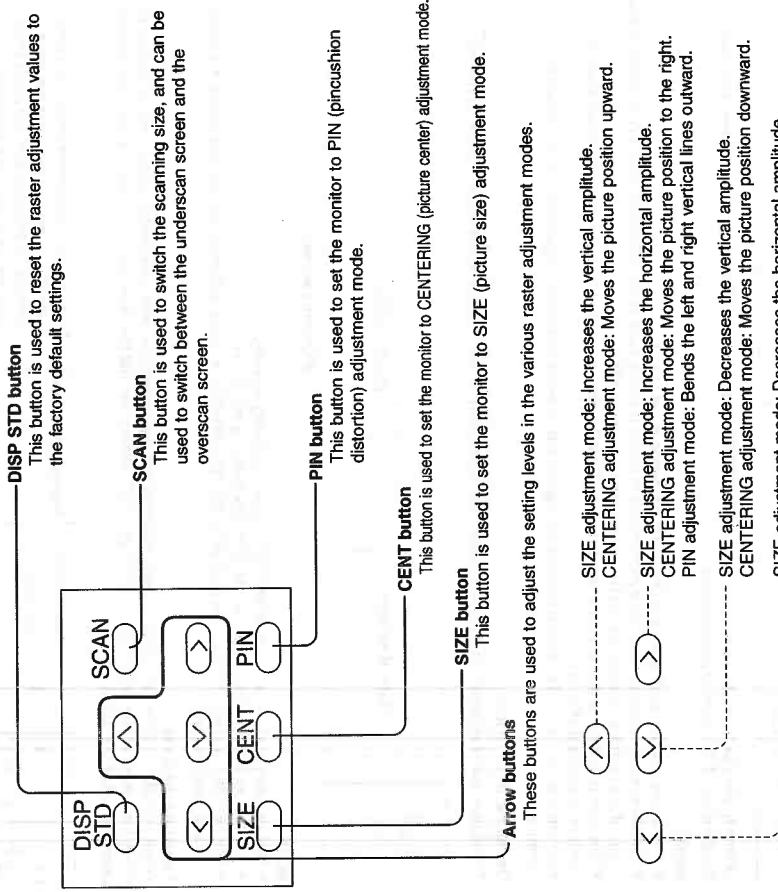


**NOTE:**

- This button can be used when the ON SCREEN button is set to ON.
- The current setting is displayed the first time the SYNC button is pressed, and the mode switches when the button is pressed after that.
- This setting should normally be left at "AUTO-SYNC". (When set to "AUTO-SYNC", external synchronization is selected automatically if an external sync signal is present. If no external sync signal is present, internal synchronization is then selected.) If "AUTO SYNC" is selected but the synchronization is unstable, try selecting either "EXT-SYNC" or "INT-SYNC" manually.
- When set to "INT-SYNC", the CLAMP button setting is automatically switched to "PEDESTAL". However, if the setting is changed back to "EXT-SYNC", the original CLAMP button setting is restored.

**Using the raster adjustment buttons**

The raster adjustment buttons shown below which are underneath the remote control unit cover can be used to adjust the screen size, picture center position and horizontal pincushion distortion. They can also be used to switch the scanning size and to restore raster adjustment values to the factory default settings. Following is a description of each of the raster adjustment buttons.

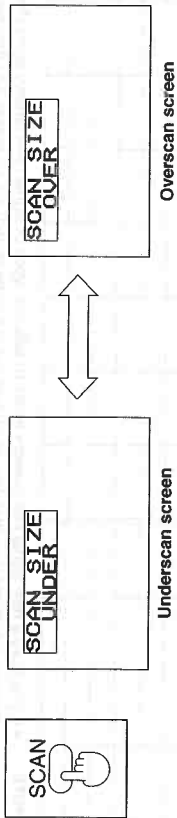


**NOTE:**

- The current setting is displayed the first time one of the arrow buttons is pressed, and the mode switches when an arrow button is pressed after that.
- The raster adjustment buttons can be used when the ON SCREEN button is set to ON.
- A maximum of 16 different picture size, picture center position and horizontal pincushion distortion adjustments and scan size settings for signals with different scanning frequencies can be stored in memory.
- The adjustment range for the arrow buttons is 0 - 127.
- Refer to page 34 for details on raster adjustment methods.

**Using the SCAN button**

The screen size changes each time the SCAN button is pressed.

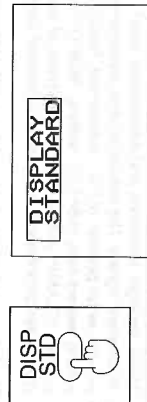


**NOTE:**

- The underscan screen is a reduced-size screen which is approximately 90% smaller in the horizontal and vertical directions than the overscan screen.
- The current setting is displayed the first time the SCAN button is pressed, and the mode switches when the button is pressed after that.
- A maximum of 16 SCAN button settings for signals with different scanning frequencies can be stored in memory.
- When the SCAN SIZE is UNDER, The picture is compressed therefore the picture quality may become different from the original scanning size. (OVER)

**Using the DISP STD button**

When the DISP STD button is pressed, the raster adjustment data values (SIZE, CENT, PIN and SCAN) and the aspect value are all returned to the factory default (DISPLAY STANDARD) settings.



**NOTE:**

- When the DISP STD button is pressed, the aspect setting and the raster adjustment details are canceled and all settings return to the factory default settings.
- Because a variety of different type of signal can be input, not all types of signals have factory default settings available. It may not be possible to return the adjustment settings for some signals to the factory default settings when this button is pressed.

**Making raster adjustments**

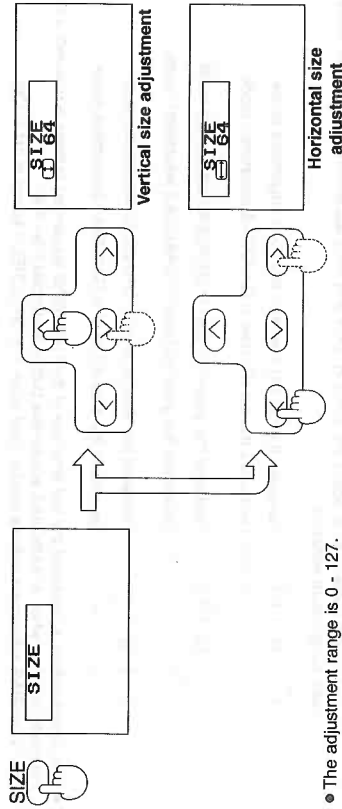
Carry out these adjustments if a normal picture image cannot be obtained after using the ASPECT button and the SCAN button to adjust the screen size.

**Preparation**

- ① Set the ON SCREEN button to ON.
- ② Press the ASPECT button to select the correct aspect for the signal being input.
- ③ Press the SCAN button to select the raster size (underscan/overscan) to be adjusted.

• **Adjusting the screen size**

- ① Set to SIZE adjustment mode.



**NOTE:**

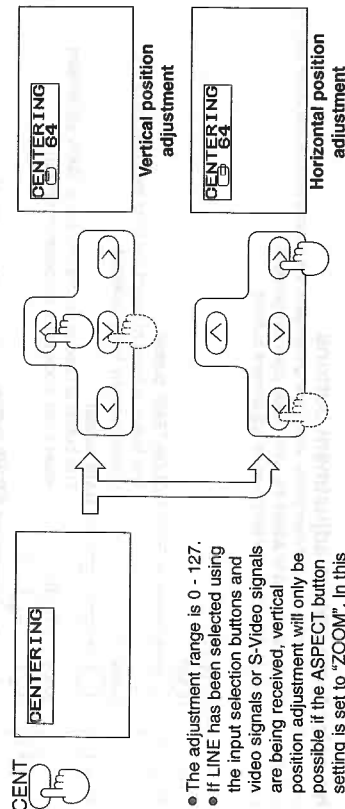
- The adjustment range is 0 - 127.

**TIP:**

- Adjustment can be carried out more easily if a circular still picture is being received.

• **Adjusting the picture position**

- ① Set to CENTERING adjustment mode.



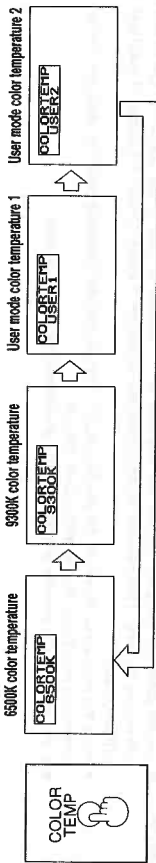
**NOTE:**

- The adjustment range is 0 - 127.
- If LINE has been selected using the input selection buttons and video signals or S-Video signals are being received, vertical position adjustment will only be possible if the ASPECT button setting is set to "ZOOM". In this case, the setting range is 0 - 63.



**Changing the color temperature**

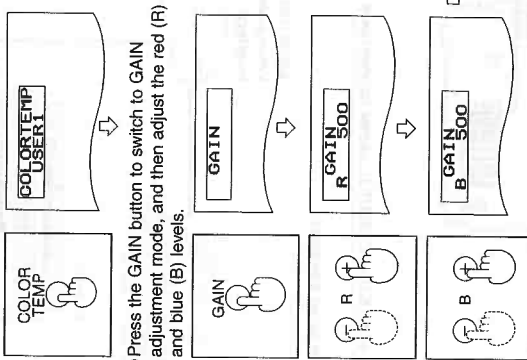
The standard color temperature setting changes in the order "6500K" "9300K" "USER1" "USER2" each time the COLOR TEMP button is pressed.



**NOTE:** ● At the time of shipment from the factory, the "USER1" setting is 6500K and the "USER2" setting is 9300K. These settings can be changed by the user as desired.

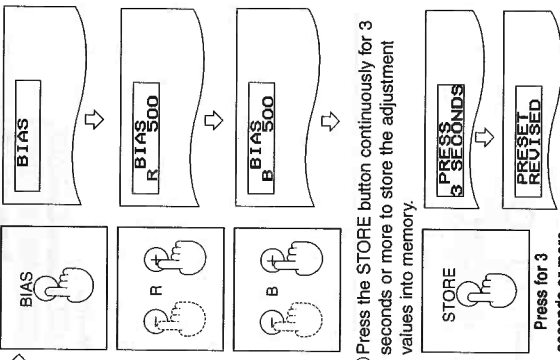
**Adjusting the user mode color temperature**

① Press the COLOR TEMP button to select the user mode color temperature to be adjusted.  
Example: To adjust the USER1 setting

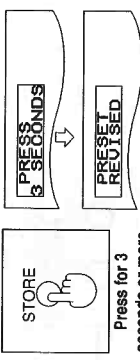


② Press the GAIN button to switch to GAIN adjustment mode, and then adjust the red (R) and blue (B) levels.

③ Press the BIAS button to switch to BIAS adjustment mode, and then adjust the red (R) and blue (B) levels.



④ Press the STORE button continuously for 3 seconds or more to store the adjustment values into memory.



**NOTE:** ● Be sure to press the STORE button continuously for 3 seconds or more after adjustment is complete. If the STORE button is not pressed, the adjustments will not take effect.  
● The green (G) setting should be left at 500. If the green (G) setting is changed to a value other than 500, normal adjustments may no longer be possible.  
● The adjustment range is 0 - 999.

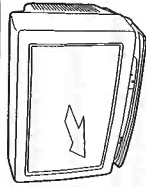
**TIP:** ● If you select 6500K or 9300K in step ① and then proceed to steps ② and ③, the values for the respective item will be displayed, but adjustment will not be possible. Use these values as references when adjusting the USER1 and USER2 settings.

**Eliminating color distortion and skew**

Some large CRTs can be affected by color distortion or picture skew that results from the effects of geomagnetism. These effects are influenced by the direction that the CRT is facing. Lending adjustment is necessary in order to eliminate this color distortion and picture skew.

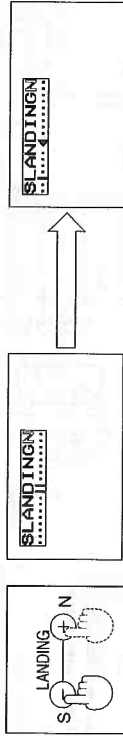
**Making lending adjustments**

- Preparation**
- ① Turn off the monitor power and determine the setting-up location for the monitor. Check in which direction the screen will face at this time. (Direction of arrow)
  - ② Turn on the power.



**Adjustment**

- ① Press the ⊖ and ⊕ LANDING buttons on the control panel underneath the remote control unit cover to set the direction that the CRT is facing in order to adjust the amount of geomagnetism correction.

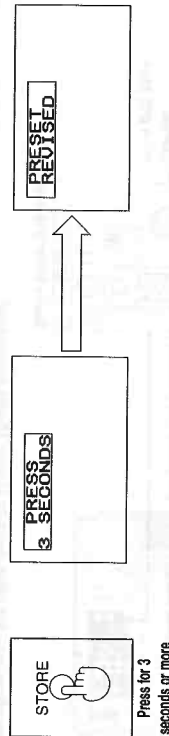


**NOTE:** ● When the ⊖ and ⊕ LANDING buttons are pressed, an arrow is appears to indicate the direction of adjustment, and the bar indicator moves in the direction of the arrow. When the bar indicator reaches the maximum or minimum value, the arrow turns white.

**TIP:**

- Refer to the table below in order to adjust so that no color distortion is noticeable.
- | Screen direction | South (S)          | East/West   | North (N)           |
|------------------|--------------------|-------------|---------------------|
| Adjustment guide | Close to left edge | Near center | Close to right edge |
- This adjustment will also slightly correct the picture skew at the same time. If the degree of skew is of concern because of the playback equipment, adjust within the range where color distortion is not noticeable.

- ② Press the STORE button on the control panel underneath the remote control unit cover for 3 seconds or more to store the adjustment value into memory.



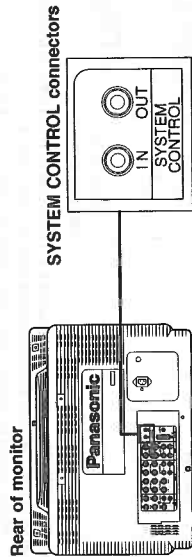
**NOTE:** ● Be sure to press the STORE button continuously for 3 seconds or more in step ② after LANDING adjustment is complete to store the adjustment value into memory. If step ② is not carried out, the LANDING adjustments will not be stored into memory.

**TIP:**

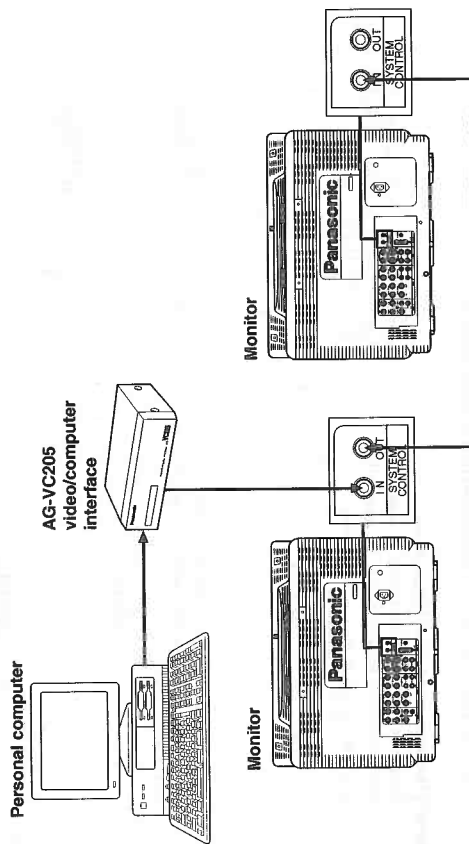
- The current setting is displayed the first time one of the LANDING adjustment buttons is pressed, and the mode switches when a LANDING adjustment button is pressed after that.
- If the setting-up location or direction are changed, you will need to re-adjust the LANDING setting.
- If the monitor is set up inside a building which creates a magnetic disturbance, such as a building with reinforced concrete, and the resulting color distortion cannot be eliminated, turn off the monitor power and wait about 20 minutes. Then move the monitor to a different location and repeat the adjustment procedure.

### Using the SYSTEM CONTROL connectors

The SYSTEM CONTROL connectors can be used to connect a AG-VC205 video/computer interface so that the monitor can be controlled using a personal computer.



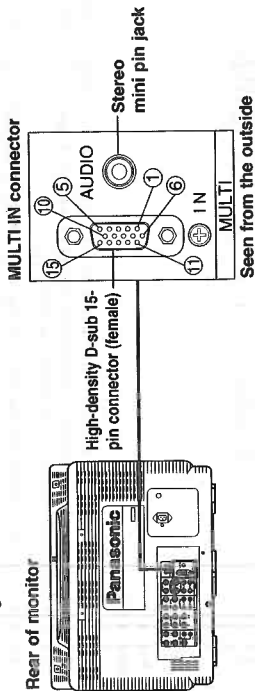
Example of SYSTEM CONTROL signal connections



- NOTE:**
- Special software designed for use with this monitor is required in order to use the SYSTEM CONTROL connectors to control the monitor using a personal computer. Please contact the place of purchase for further details.
  - Read the instruction manuals for the AG-VC205 video/computer interface and the computer being connected in addition to this instruction manual.
  - In this system, the monitor is controlled by uni-directional communication.

### Using the MULTI IN connector

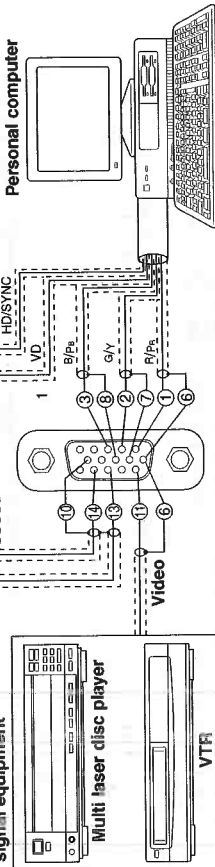
The MULTI IN connector on this monitor incorporates a stereo mini pin jack for audio signals and a high-density D-sub 15-pin connector. The high-density D-sub 15-pin connector can be connected to a RGB signal/YPbPr signal source or a video signal source, and allows the input selection to be switched externally.



Signal specifications for high-density D-sub 15-pin connector

Pin No.	Signal Name	Pin No.	Signal Name
①	R/P <sub>r</sub>	⑥	GND (ground)
②	G/Y	⑦	GND (ground)
③	B/P <sub>b</sub>	⑧	GND (ground)
④	F2	⑨	NC (not connected)
⑤	GND (ground)	⑩	GND (ground)
		⑪	Video
		⑫	R1
		⑬	HD/SYNC
		⑭	VD
		⑮	NC (not connected)

- Signal connections
- Example of video signal equipment

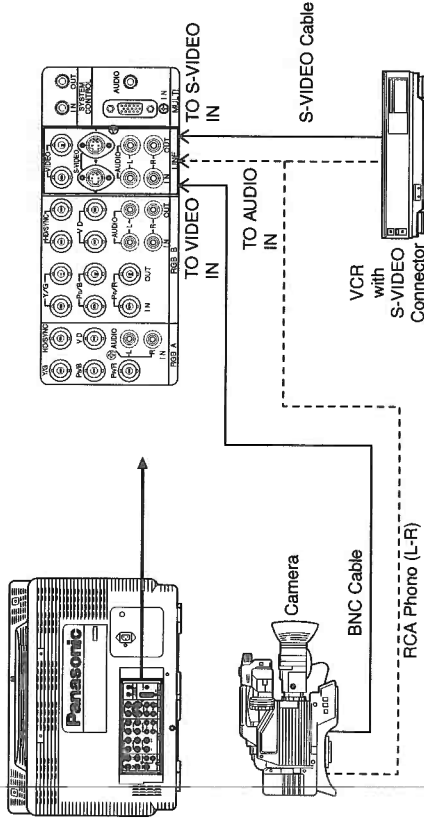


- NOTE:**
- If the synchronizing signal used for RGB signal or YP<sub>b</sub>P<sub>r</sub> signal input is a composite sync signal, connect pin No. 13; if it is a separate sync signal, connect the horizontal sync signal to pin No. 13 and connect pin No. 13; if it is a separate sync signal, connect the vertical sync signal to pin No. 14.
  - Read the instruction manuals for the AG-VC205 video/computer interface and the computer being connected in addition to this instruction manual.
  - Switching between the video signal source and RGBYP<sub>b</sub>P<sub>r</sub> signal source connected to the high-density D-sub 15-pin connector can be controlled externally via pin No. 4 (R2) and pin No. 12 (R1). Refer to the following page for details.
  - Only a single audio signal system can be input via the stereo mini pin jack to the right of the high-density D-sub 15-pin connector.
  - If a RGB signal or YP<sub>b</sub>P<sub>r</sub> signal source is connected, you will need to set the RGB/YP<sub>b</sub>P<sub>r</sub> button underneath the remote control unit cover in accordance with which type of signal is being input.
  - If or MULTI has been selected using the input selection buttons on the remote control unit of the monitor control panel on the front of the monitor, the RGB signals or YP<sub>b</sub>P<sub>r</sub> signals from the signal source connected to the high-density D-sub 15-pin MULTI IN connector will be received and displayed.

# Examples of system connections

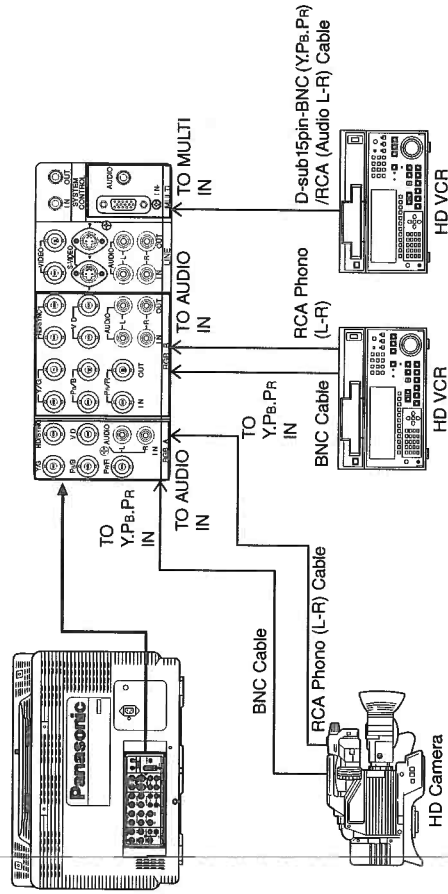
## 1. LINE (VIDEO/S-VIDEO) mode connection

Example



## 2. RGB A/B. MULTI mode connection

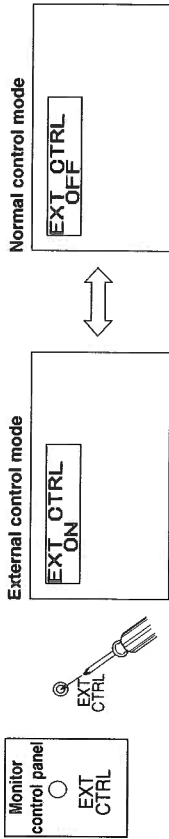
Example 1



### Using the external control function

The function for selecting the input source by means of external control can be switched on and off by pressing the EXT CTRL button on the monitor control panel under the front cover of the monitor with a small insulated screwdriver.

Input selection by means of external control can be carried out using the high-density D-sub 15-pin MULTI IN connector at the rear of the monitor.



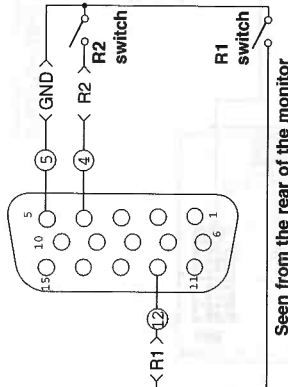
### NOTE:

- This button can be used when the ON SCREEN button is set to ON.
- If the ON SCREEN button setting is set to OFF after external control mode (EXT CTRL ON) has been set, the on-screen displays can be turned off but external control mode will still remain active.
- While external control mode (EXT CTRL ON) is active, "EXT CTRL ON" will remain displayed on the screen and input selection using the input selection buttons on the remote control unit or monitor control panel will not be possible.

### Selecting the input source

You can switch the signal source being connected to the input terminals on the rear of the monitor by changing the ON and OFF settings for pin No. 4 (R2) and pin No. 12 (R1) of the high-density D-sub 15-pin MULTI IN connector on the rear of the monitor as shown in the illustration below.

High-density D-sub 15-pin MULTI IN connector



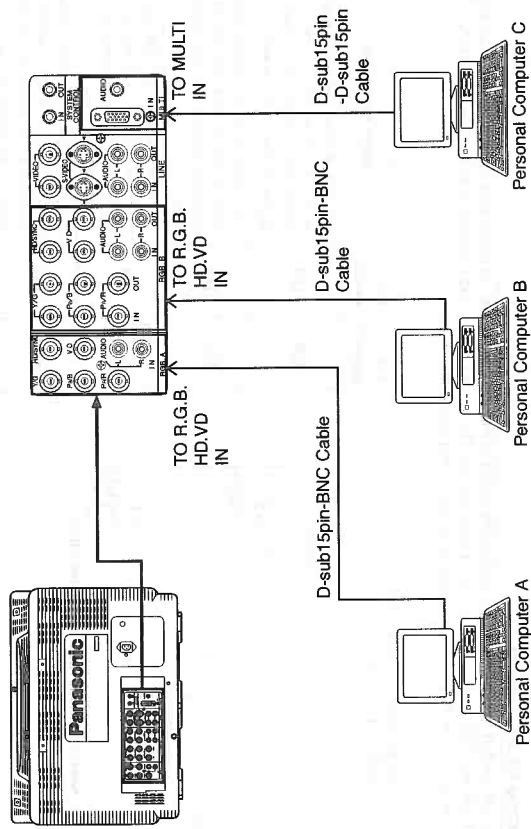
Seen from the rear of the monitor

R2 switch	R1 switch	Input selection
ON	ON	The signals from the signal source which is connected to the LINE VIDEO IN or S-VIDEO IN connectors appear on the monitor screen.
ON	OFF	The signals from the signal source which is connected to the MULTI IN connector appear on the monitor screen.
OFF	ON	The video signals from the signal source which is connected to the RGB B IN connectors appear on the monitor screen.
OFF	OFF	The RGB signals or Y.Pb.Pr signals from the signal source which is connected to the MULTI IN connector appear on the monitor screen.

### NOTE:

- Use a lock-type switch (one which stays in the ON or OFF position).
- This function cannot be used unless the external control mode (EXT CTRL ON) is active.
- It is not possible to switch to the signal source which is connected to the RGB A IN terminals.
- Input selection can also be carried out by applying a 5 V or 0 V (GND) power supply externally to pin No. 4 (R2) and pin No. 12 (R1). In this case, ON corresponds to 0 V and OFF corresponds to 5 V.

Example 2

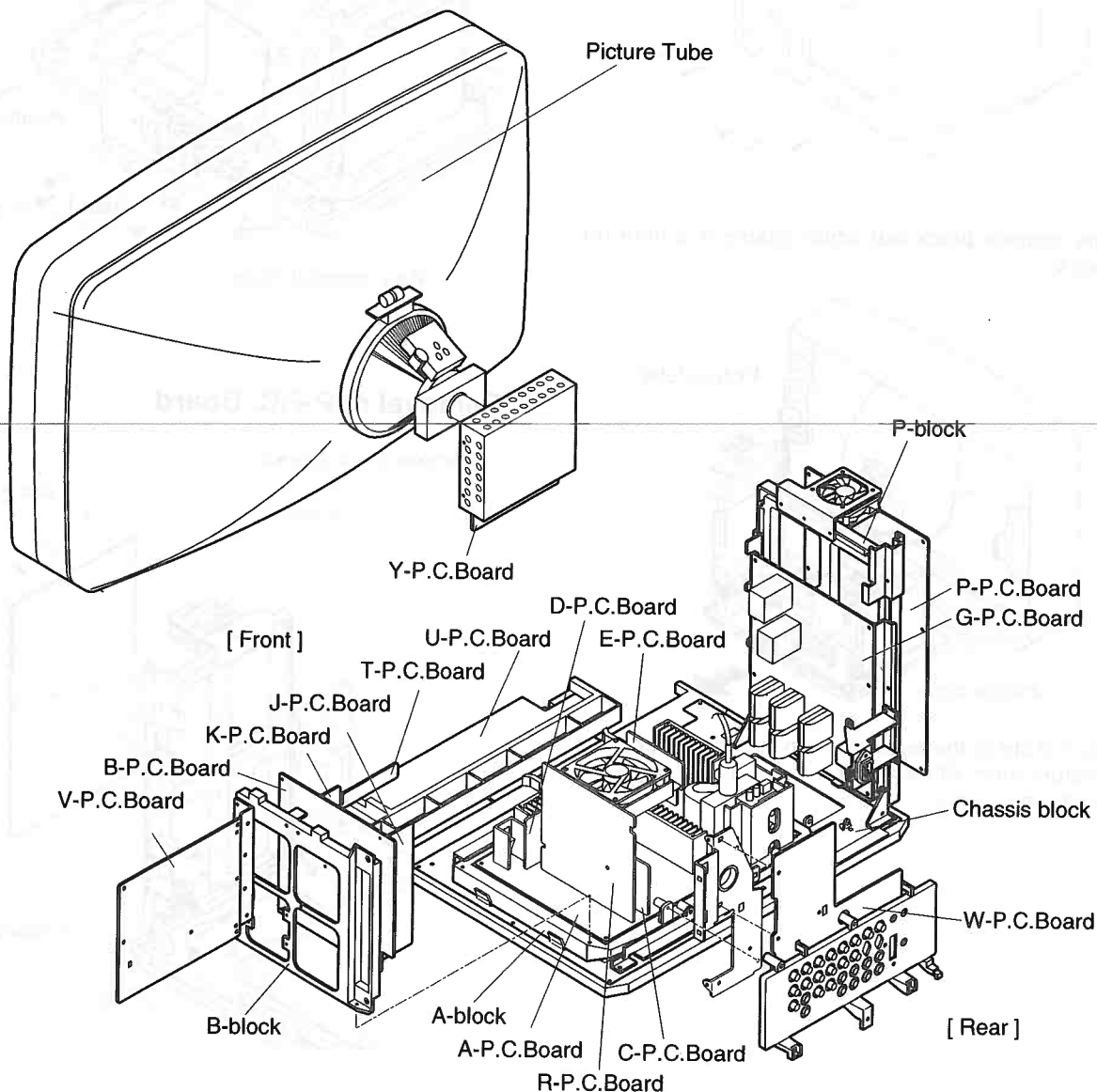




## DISASSEMBLY INSTRUCTIONS

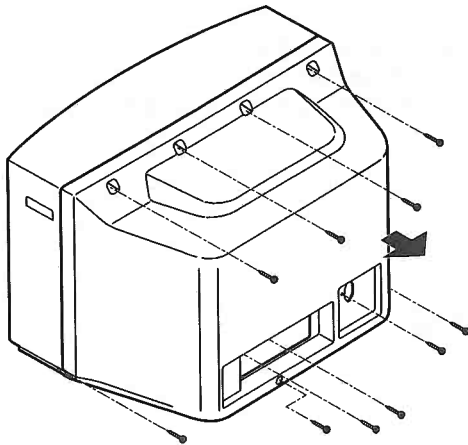
- WARNING:**
1. Before disassembling, unplug the AC plug from the wall outlet.
  2. When turning over a printed circuit board, be sure to put an insulating material under it to prevent from shorting.
  3. Printed circuit boards and wires should not be pulled forcibly, but be handled carefully.
  4. Connectors also should be handled carefully.
  5. After repairing, be sure to put back the wires and connectors to the original conditions.
  6. When removing the rear cover, take care not to damage the neck of the picture tube.
  7. When handling the P-, A-, E-, and Y-P.C. Board under the power on, there is a risk of an electric shock if touching the COLD side of the chassis while working on its HOT side.

### Printed Circuit Board Layout

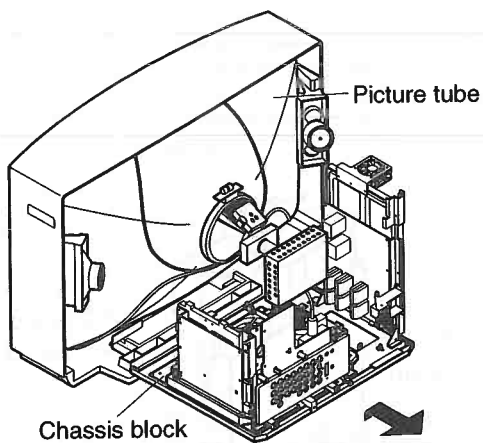


## Disassembly Preparation

1. Removal of Rear Cover  
Remove the 10 screws.



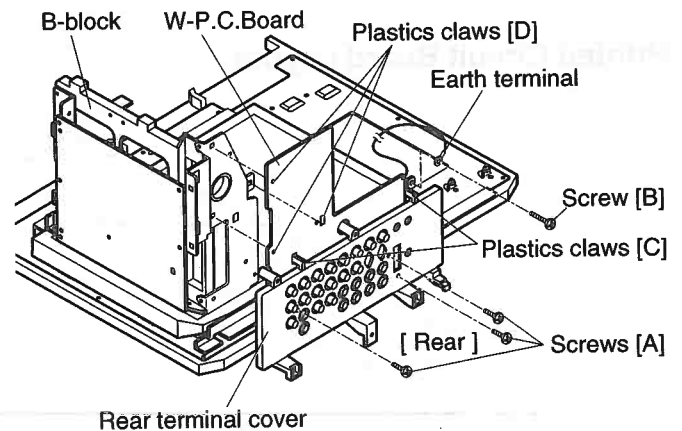
2. Pull the chassis block out while raising it a little for easy work.



**NOTE:** Do not stress the wires between the chassis and the picture tube. (If necessary, remove wire clampers and connectors.)

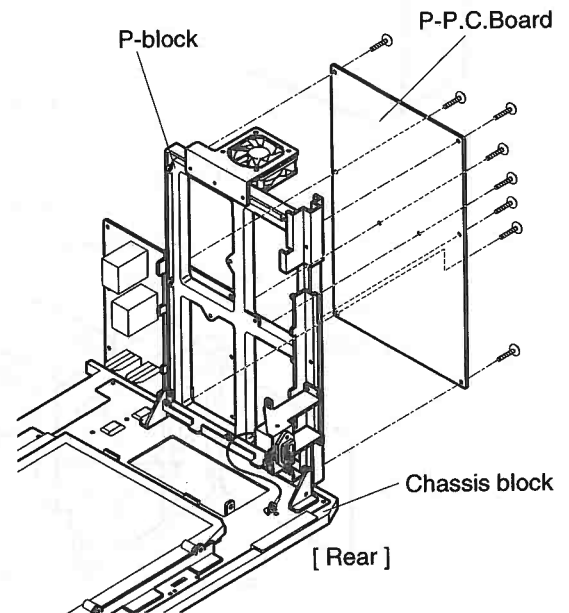
## Removal of W-P.C. Board

1. Removal of Rear Terminal Cover  
(1) Remove 3 screws [A].  
(2) Remove plastics claws [C] of the rear terminal cover.
2. Remove screw [B] fixing the earth terminal.
3. Remove plastics claws [D] fixing the W-P.C. Board.



## Removal of P-P.C. Board

Remove the 8 screws.

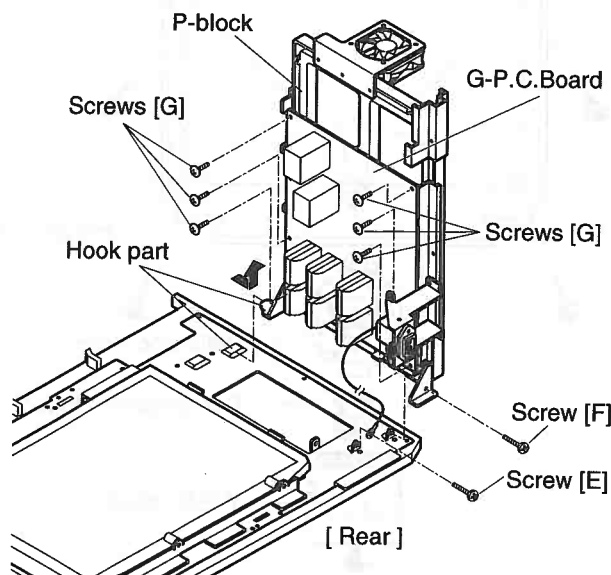


## Removal of G-P.C. Board

### 1. Removal of P-block

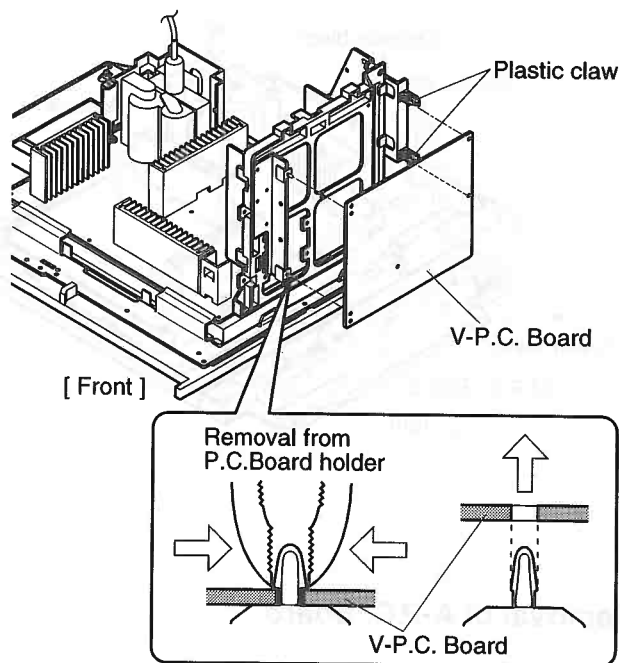
- (1) Remove screw [E] fixing the earth-terminal .
- (2) Remove screw [F] fixing the P-block.
- (3) Slide the P-block backward a little and remove its hook part.

### 2. Remove 6 screws [G] fixing G-P.C. Board.



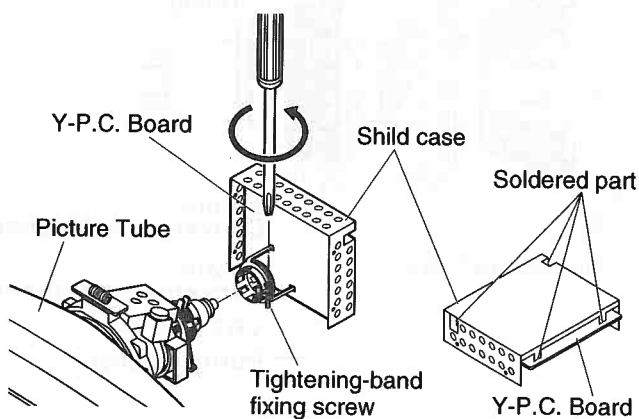
## Removal of V-P.C. Board

- (1) Remove the plastics claws. (2 places)
- (2) Remove the V-P.C. Board while pinching the P.C. Board holder with pliers.



## Removal of Y-P.C. Board

- (1) Loosen the tightening-band fixing screw and remove the Y-block from the picture tube.
- (2) Unsolder the shield case. (4 places)

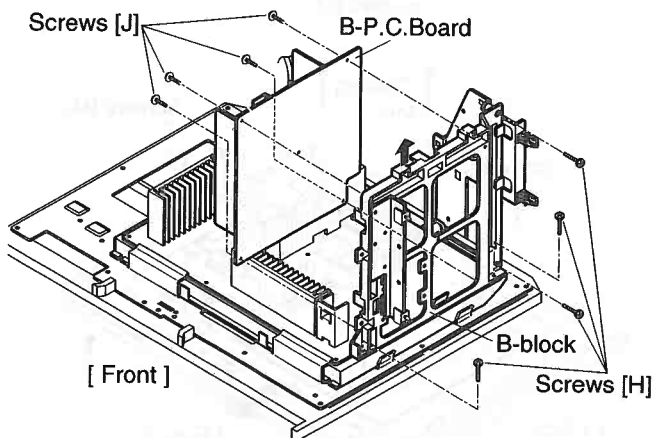


## Removal of B-P.C. Board

### 1. Removal of B-block

- (1) Remove 4 screws [H] fixing the B-block.
- (2) Raise the B-block and remove it.  
(Remove the connectors.)

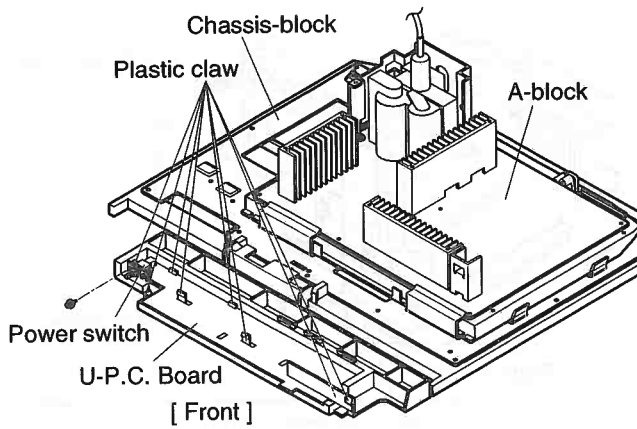
### 2. Remove 4 screws [J] fixing the B-P.C. Board.



### Removal of U-P.C. Board

Pull the whole chassis out.

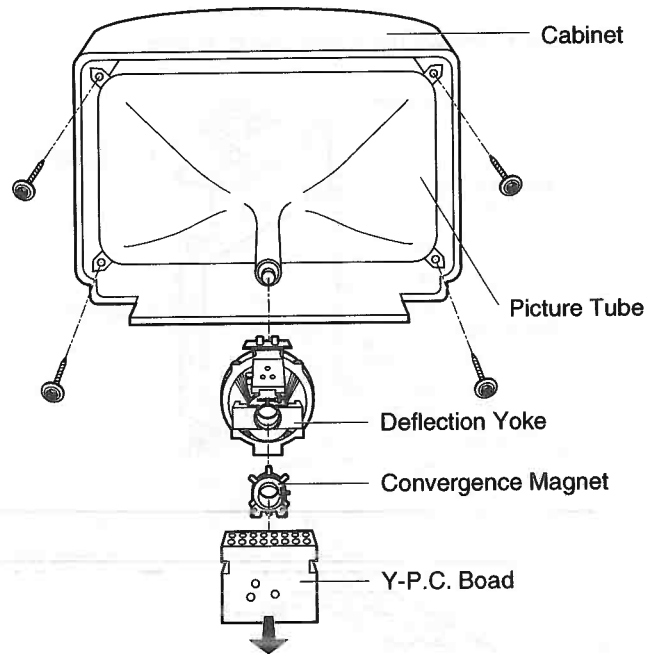
- (1) Remove the screw fixing the power switch.
- (2) Remove the plastics claws. (7 places)



### Removal of Picture Tube

Pull the whole chassis out.

- (1) Remove the Y-P.C. Board.  
(Refer to section "Removal of Y-P.C. Board.")
- (2) Remove the 4 screws.



### Removal of A-P.C. Board

#### 1. Removal of A-block

- (1) Remove 2 screws [K] fixing the chassis.
- (2) Slide the A-block backward (arrow-mark direction).

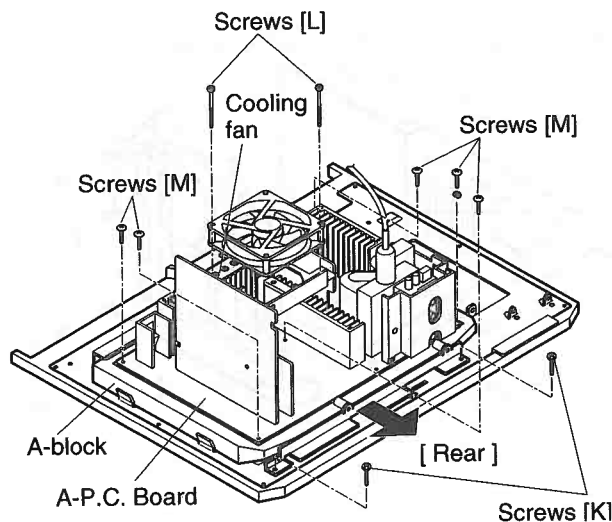
#### 2. Removal of B-block

(Refer to section "Removal of B-P.C. Board")

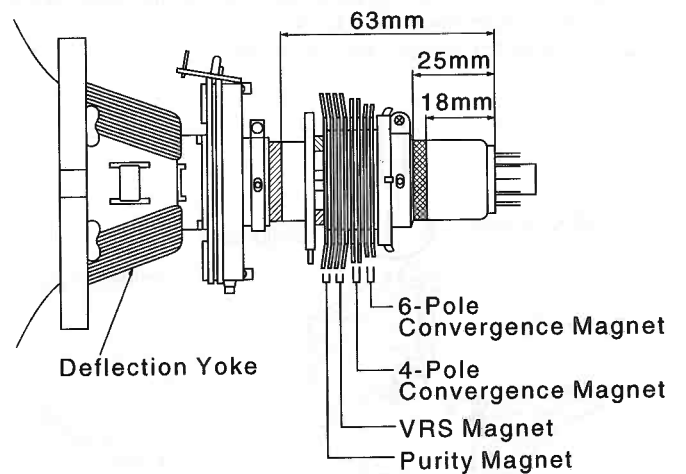
#### 3. Removal of the cooling fan

Remove 2 screws [L] fixing the cooling fan.

#### 4. Remove 5 screws [M] fixing the A-P.C. Board.

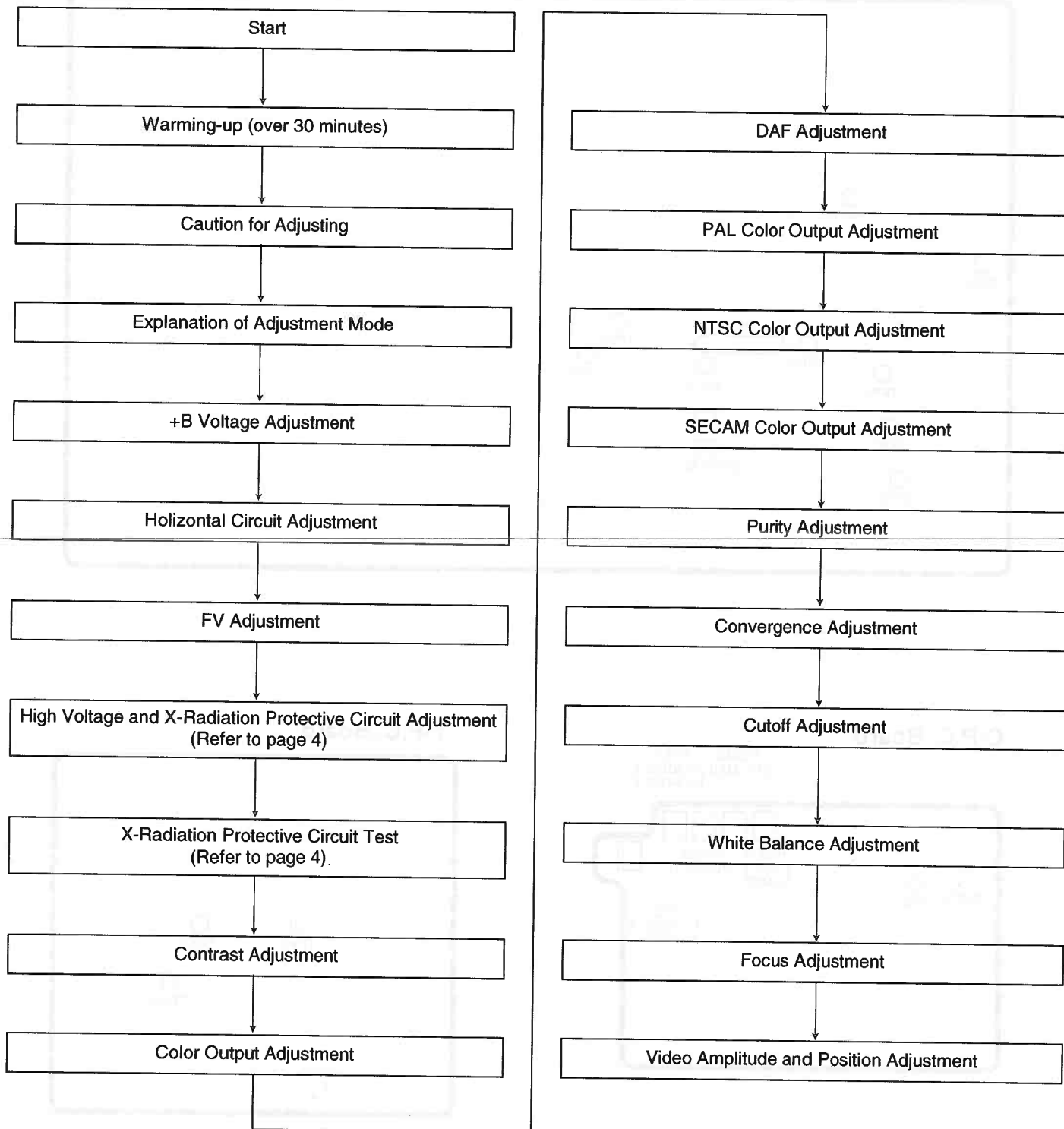


### Each Magnet Fixing Position



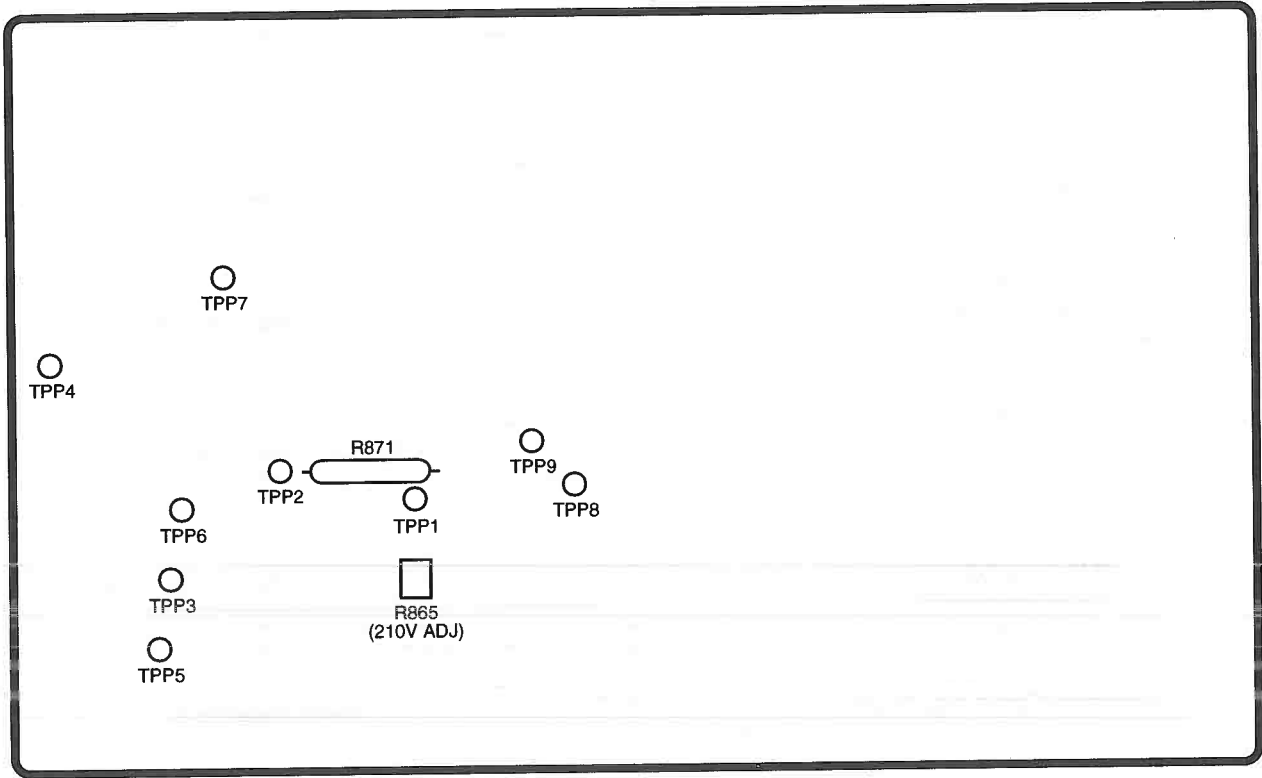
# MEASUREMENT AND ADJUSTMENT

## Adjustment Procedure Flowchart

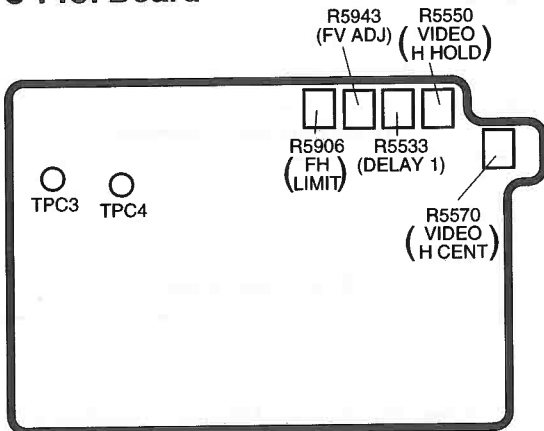


# Location of Test Points and Controls

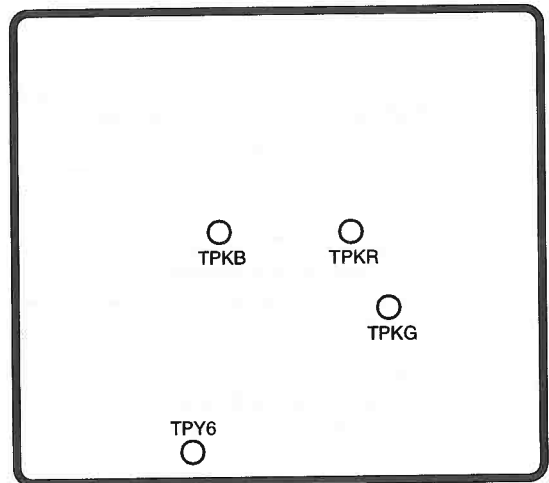
## P-P.C. Board



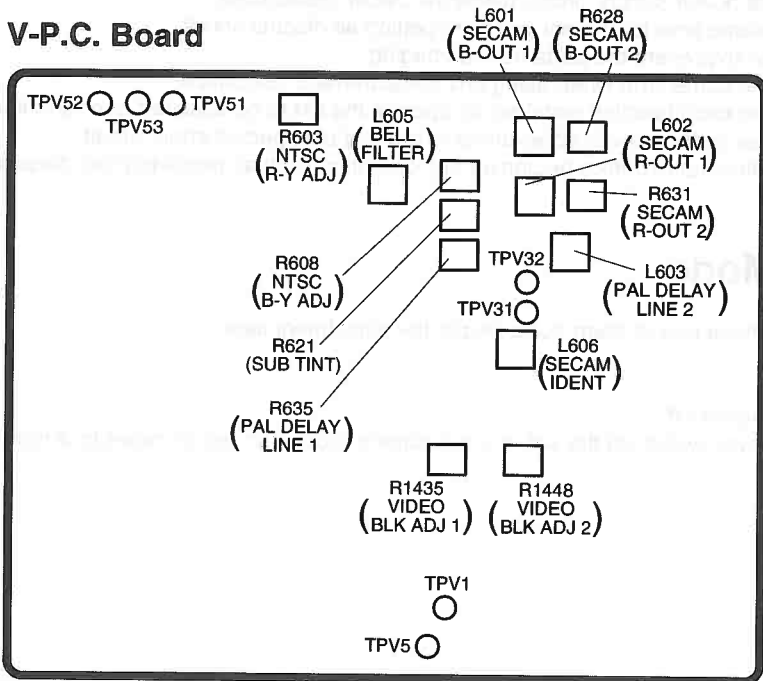
## C-P.C. Board



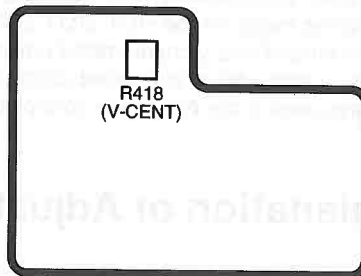
## Y-P.C. Board



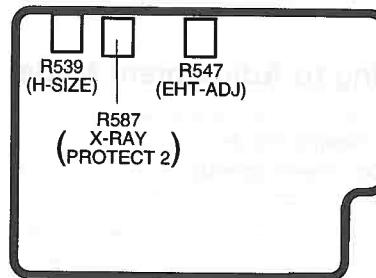
V-P.C. Board



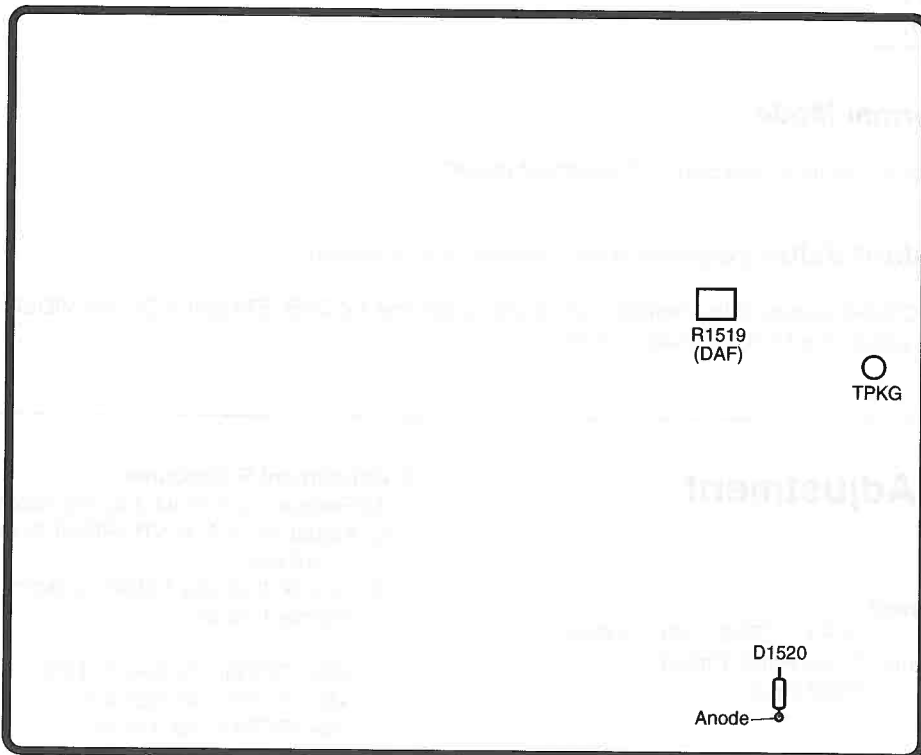
D-P.C. Board



E-P.C. Board



G-P.C. Board



## Caution for Adjusting

- Because this set has HOT and COLD sections in the power supply circuit, follow the below precautions.
  - (1) Never touch the HOT and COLD section at the same time to prevent you from getting an electric shock.
  - (2) Never short between the HOT and COLD section to prevent the parts from damaging.
  - (3) Never measure the HOT and COLD section at the same time when using any measurement instrument.
- Color Video/Data Monitors need warming-up to make each function stabilize, so operate the set to be adjusted over 30 minutes.
- When a screwdriver is needed during adjustment, use a nonmetallic screwdriver to prevent unexpected short circuit.
- Always unplug the AC power cord plug from an AC line outlet before beginning any operation such as removing the chassis.

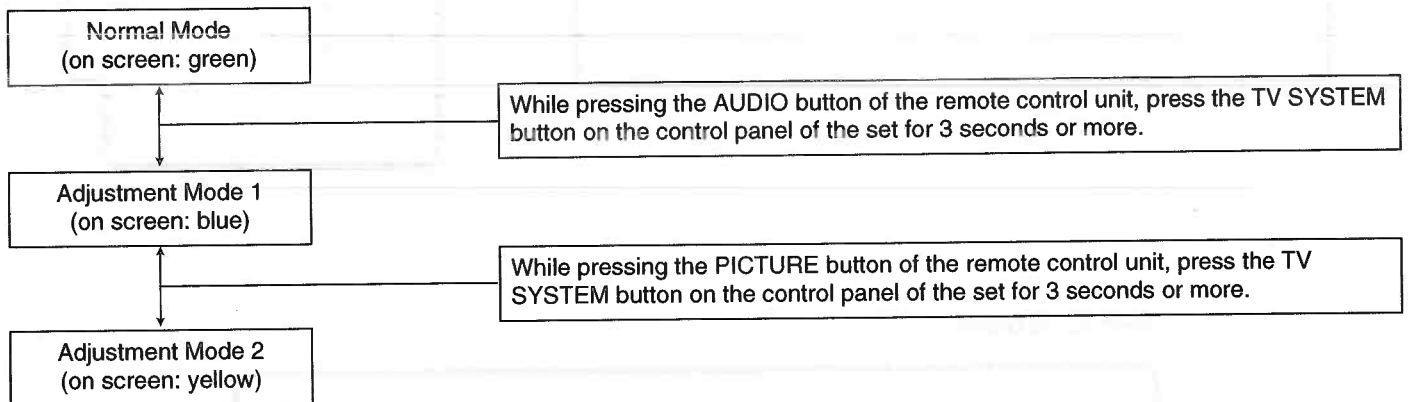
## Explanation of Adjustment Mode

Because this set has two kinds of adjustment mode, chose one of them according to the adjustment item.

**NOTE:** During adjustment mode 1 or 2,

- (1) the remote control unit can not switch the power off.
- (2) even if switching the power off with the power switch on the set, the adjustment mode can not be reset to a normal mode.

### Setting to Adjustment Mode



### Resetting to Normal Mode

Do the reverse of section "Setting Procedure to Adjustment mode".

### Setting to Standard Value (conditions at the shipment from a factory)

While pressing the PICTURE button of the remote control unit, press the TV SYSTEM and VIDEO/S VIDEO buttons on the control panel of the set at the same time for 3 seconds or more.

## +B Voltage Adjustment

### P-P.C. Board

#### 1. Equipment to be used

Digital Voltmeter: TPP1 ~ TPP6 - TPP7 (GND)  
 RGB Signal Generator: Cross Hatch Pattern  
 RGB input

#### 2. Initial conditions

+B1 Voltage Adjustment VR (R865): Center  
 Adjustment Mode: Normal Mode

#### 3. Adjustment Procedures

- (1) Receive a 33.750kHz Cross Hatch Pattern signal.
- (2) Adjust 210V ADJ VR (R865) to set the voltage of TPP1 to  $210.0 \pm 0.5V$ .
- (3) Check that the following each voltage is within the standard value.

+B2 (TPP2):  $210.0 + 0.5 / - 1.0V$   
 +B3 (TPP3):  $41.0 \pm 2.0V$   
 +B4 (TPP4):  $18.3 \pm 1.5V$   
 +B5 (TPP5):  $17.5 \pm 1.5V$   
 +B6 (TPP6):  $8.3 \pm 0.2V$



## Horizontal Circuit Adjustment

### RGB Horizontal Sync (C-P.C. Board)

#### 1. Equipment to be used

RGB Signal Generator: Color Bar Pattern  
RGB input

Short Jumper Wire

#### 2. Initial conditions

FH LIMIT VR (R5906): counterclockwise fully  
Adjustment Mode: Normal Mode

#### 3. Adjustment Procedures

- (1) Receive a 15.734kHz Color Bar Pattern signal.
- (2) Short between TPC4 and Horizontal Circuit Heat Sink with a short jumper wire.
- (3) Turn DELAY 1 VR (R5533) until the picture starts to flow horizontally and keep it at that position.

### Video Horizontal Sync (C-P.C. Board)

#### 1. Equipment to be used

Video Signal Generator: Color Bar Pattern  
VIDEO input

Short Jumper Wire

#### 2. Initial conditions

FH LIMIT VR (R5906): counterclockwise fully  
Adjustment Mode: Normal Mode

#### 3. Adjustment Procedures

- (1) Receive an NTSC Color Bar Pattern signal.
- (2) Short between TPC4 and Horizontal Circuit Heat Sink with a short jumper wire.
- (3) Turn VIDEO H HOLD VR (R5550) until the picture starts to flow horizontally and keep it at that position.
- (4) Remove the short jumper wire

### Horizontal Frequency Lower Limit (C-P.C. Board)

#### 1. Equipment to be used

Video Signal Generator: Color Bar Pattern  
VIDEO input

Short Jumper Wire

#### 2. Initial conditions

Adjustment Mode: Normal Mode

#### 3. Adjustment Procedures

- (1) Receive a 14.500kHz Color Bar Pattern signal.
- (2) Turn FH LIMIT VR (R5906) clockwise until the picture starts to flow horizontally and keep it at that position.

## FV Adjustment

### C-P.C. Board

#### 1. Equipment to be used

Digital voltmeter: TPC3 - Horizontal Circuit Heat Sink (GND)  
RGB Signal Generator: Color Bar Pattern  
RGB input

#### 2. Initial conditions

SCAN SIZE: OVER  
Adjustment Mode: Adjustment Mode 1

#### 3. Adjustment Procedures

- (1) Receive a 33.750kHz Color Bar Pattern signal.
- (2) Adjust FV ADJ VR (R5943) to set the voltage of TPC3 to  $5.8 \pm 0.05V$ .

## Contrast Adjustment

### Y-P.C. Board

#### 1. Equipment to be used

RGB Signal Generator: Cross Hatch Pattern  
RGB input

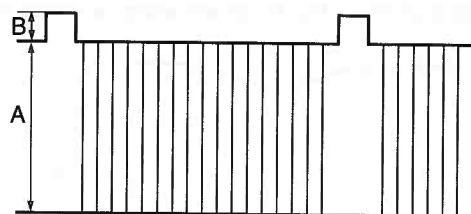
Oscilloscope: TPKG - TPY6 (GND)

#### 2. Initial conditions

Adjustment Mode: Adjustment Mode 2

#### 3. Adjustment Procedures

- (1) Receive a 15.734kHz Cross Hatch Pattern signal.
- (2) Adjust the CONTRAST control of the remote control unit to set "A" of the TPKG waveform to  $80.0 \pm 2.0V$ .



TPKG Waveform

## Color Output Adjustment

### Y-P.C. Board

#### 1. Equipment to be used

HDTV Signal Generator: Color Bar Pattern  
RGB input

Oscilloscope: TPKB - TPY6 (GND)

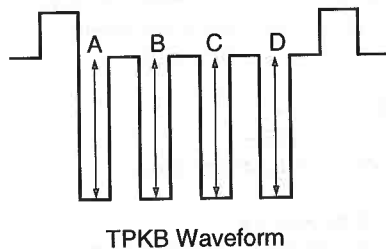
#### 2. Initial conditions

Adjustment Mode: Adjustment Mode 2

#### 3. Adjustment Procedures

- (1) Receive an HDTV Color Bar Pattern signal.
- (2) Adjust the COLOR control of the remote control unit to equalize amplitude "A" of the TPKB waveform and amplitude "D" of it.

- (3) Adjust the TINT control of the remote control unit to equalize amplitude "B" of the TPKB waveform and amplitude "C" of it.
- (4) Check amplitude "A" and "D" and amplitude "B" and "C". If necessary, repeat step (2) and (3).



## DAF Adjustment

### G-P.C. Board

#### 1. Equipment to be used

RGB Signal Generator: Cross Hatch Pattern  
RGB input

Oscilloscope: TPG1 - Anode of D1520 (GND)

#### 2. Initial conditions

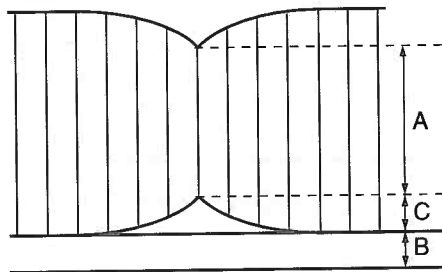
ASPECT: FULL

SCAN: OVER

Adjustment Mode: Adjustment Mode 1

#### 3. Adjustment Procedures

- (1) Receive a 33.750kHz Cross Hatch Pattern signal.
- (2) Adjust DAF ADJ VR (R1519) to set "B" of the TPG1 waveform to  $100 \pm 25V$ .
- (3) Check that "A" of the TPG1 waveform is  $1000 \pm 200V$ .
- (4) Check that "C" of the TPG1 waveform is  $200 \pm 50V$ .



## PAL Color Output Adjustment

### PAL Delay Line Adjustment (V-P.C. Board)

#### 1. Equipment to be used

PAL Signal Generator: PAL Color Bar Pattern  
VIDEO input

Oscilloscope: TPV52 - TPV1 (GND)

#### 2. Initial conditions

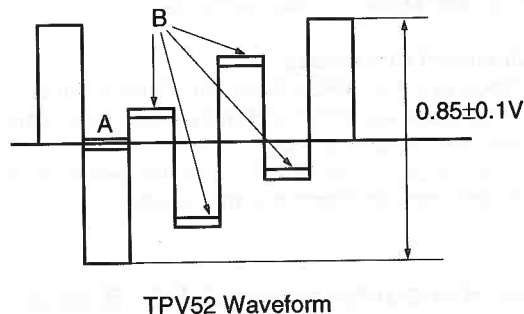
TV SYSTEM: AUTO or PAL

PAL DELAY LINE 1 VR (R635): CENTER

Adjustment Mode: Adjustment Mode 1

#### 3. Adjustment Procedures

- (1) Receive a PAL Color Bar Pattern signal.
- (2) Adjust PAL DELAY LINE 1 VR (R635) to set the waveform amplitude of TPV52 to  $0.85 \pm 0.1Vp-p$ .
- (3) Adjust PAL DELAY LINE 2 (L603) to match waveform "B" of the first H and that of the second H and to balance the four places.
- (4) Adjust PAL DELAY LINE 1 VR (R635) to match waveform "A" of the first H and that of the second H.
- (5) Check the "B" part and the waveform amplitude. If necessary, repeat step (2) through (4).



## PAL Color Output Adjustment (Y-P.C. Board)

#### 1. Equipment to be used

PAL Signal Generator: PAL Color Bar Pattern  
VIDEO input

Oscilloscope: TPKB - TPY6 (GND)

#### 2. Initial conditions

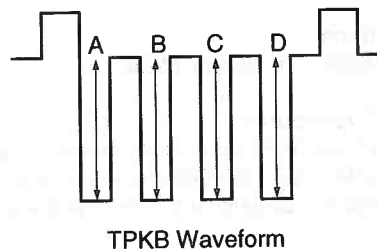
TV SYSTEM: AUTO or PAL

CONTRAST: MAX

Adjustment Mode: Adjustment Mode 2

#### 3. Adjustment Procedures

- (1) Receive a PAL Color Bar Pattern signal.
- (2) Adjust the COLOR control of the remote control unit to equalize amplitude "A" of the TPKB waveform and amplitude "D" of it.
- (3) Adjust the TINT control of the remote control unit to equalize amplitude "B" of the TPKB waveform and amplitude "C" of it.
- (4) Check amplitude "A" and "D" and amplitude "B" and "C". If necessary, repeat step (2) and (3).



#### 3. Video Contrast Adjustment

- (1) Check that CONTRAST is 127. If necessary, set it to 127.

#### 4. Video Sharpness Adjustment

- (1) Check that SHARPNESS is 50. If necessary, set it to 50.

## NTSC Color Output Adjustment

### Y, V-P.C. Board

#### 1. Equipment to be used

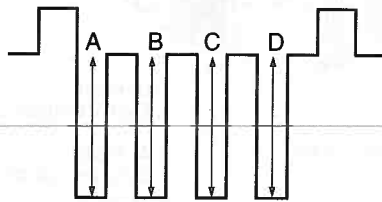
NTSC Signal Generator: NTSC Color Bar Pattern  
VIDEO input  
Oscilloscope: TPKB, TPKG - TPY6 (GND)

#### 2. Initial conditions

TV SYSTEM: AUTO or NTSC  
PICTURE: STANDARD  
Adjustment Mode: Adjustment Mode 1

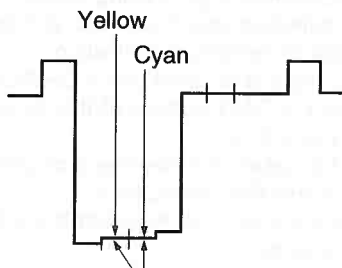
#### 3. Adjustment Procedures

- (1) Receive a NTSC Color Bar Pattern signal.
- (2) Connect an oscilloscope between TPKB - TPY6 (Y-P.C. Board).
- (3) Adjust NTSC B-Y ADJ VR (R608 on V-P.C. Board) to equalize amplitude "A" of the TPKB waveform and amplitude "D" of it.
- (4) Adjust SUB TINT VR (R621 on V-P.C. Board) to equalize amplitude "B" of the TPKB waveform and amplitude "C" of it.
- (5) Check amplitude "A" and "D" and amplitude "B" and "C". If necessary, repeat step (3) and (4).



TPKB Waveform

- (6) Change the connection of the oscilloscope "+" side to TPKG
- (7) Adjust NTSC R-Y ADJ VR (R603 on V-P.C. Board) to equalize the yellow level of the TPKG waveform and the cyan level of it.



TPKG Waveform

## SECAM Color Output Adjustment

### Bell Filter Adjustment (V-P.C. Board)

#### 1. Equipment to be used

SECAM Signal Generator: SECAM Color Bar Pattern  
VIDEO input  
Oscilloscope: TPV31 (through 10kΩ) - TPV1 (GND)

**NOTE:** Use a 10:1 Probe.

#### 2. Initial conditions

TV SYSTEM: AUTO or SECAM  
Adjustment Mode: Adjustment Mode 1

#### 3. Adjustment Procedures

- (1) Receive a SECAM Color Bar Pattern signal.
- (2) Connect an oscilloscope between TPV31 - TPV1 through 10kΩ.
- (3) Adjust BELL FILTER (L605) to flat the SECAM chroma signal of TPV31 as best as it can.

### SECAM IDENT, B-Y, and R-Y Adjustment (V-P.C. Board)

#### 1. Equipment to be used

SECAM Signal Generator: SECAM Color Bar Pattern  
VIDEO input  
Digital Voltmeter: TPV32 - TPV1 (GND)  
Oscilloscope: TPV52, TPV53 - TPV1 (GND)

#### 2. Initial conditions

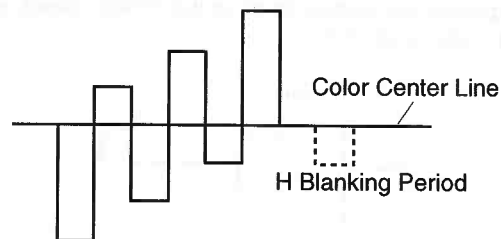
TV SYSTEM: AUTO or SECAM  
Adjustment Mode: Adjustment Mode 1

#### 3. SECAM IDENT Adjustment

- (1) Receive a SECAM Color Bar Pattern signal.
- (2) Adjust SECAM IDENT (L606) for the maximum on the digital voltmeter and check that its reading is 7V or more.

#### 3. SECAM B-Y Adjustment

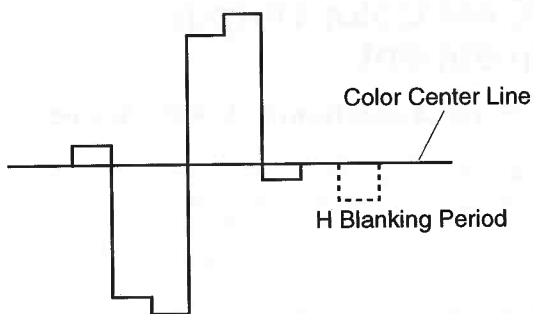
- (1) Connect an oscilloscope between TVP52 and TPV1 (GND).
- (2) Adjust SECAM B OUT 1 (L601) to equalize the level during the H blanking period of the TVP52 waveform and the color-center-line level of it.



TPV52 Waveform

#### 4. SECAM R-Y Adjustment

- (1) Change the connection of the oscilloscope "+" side to TVP53.
- (2) Adjust SECAM R OUT 1 (L602) to equalize the level during the H blanking period of the TVP53 waveform and the color-center-line level of it.



TPV53 Waveform

### SECAM Color Output Adjustment (Y, V-P.C. Board)

#### 1. Equipment to be used

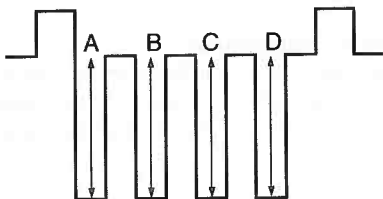
NTSC Signal Generator: SECAM Color Bar Pattern  
VIDEO input  
Oscilloscope: TPKB, TPKG - TPY6 (GND)

#### 2. Initial conditions

TV SYSTEM: AUTO or SECAM  
PICTURE: STANDARD  
Adjustment Mode: Adjustment Mode 1

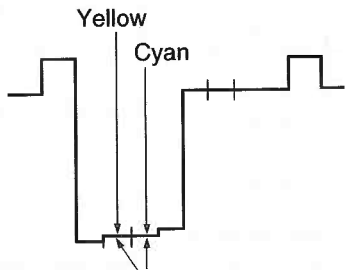
#### 3. Adjustment Procedures

- (1) Receive a SECAM Color Bar Pattern signal.
- (2) Connect an oscilloscope between TPKB - TPY6 (Y-P.C. Board).
- (3) Adjust SECAM B OUT 2 VR (R628 on V-P.C. Board) to equalize amplitude "A" of the TPKB waveform and amplitude "D" of it.



TPKB Waveform

- (4) Change the connection of the oscilloscope "+" side to TPKG.
- (5) Adjust SECAM R OUT 2 VR (R631 on V-P.C. Board) to equalize the yellow level of the TPKG waveform and the cyan level of it.



Equalize these levels.

TPKG Waveform

### Purity Adjustment

#### 1. Equipment to be used

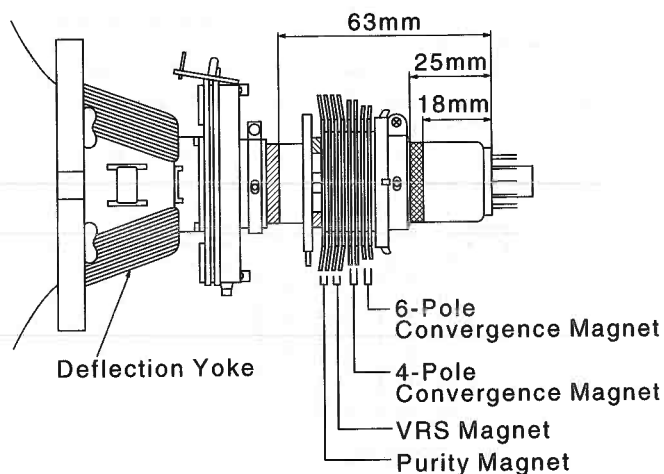
RGB Signal Generator: Cross Hatch Pattern  
Black and White Pattern  
RGB input

#### 2. Initial conditions

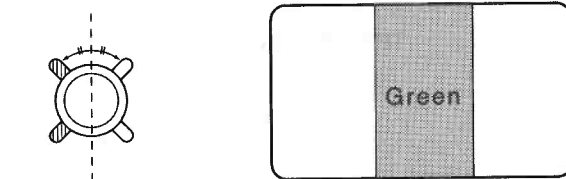
LANDING: CENTER  
PICTURE: STANDARD  
Adjustment Mode: Adjustment Mode 1

#### 3. Adjustment Procedures

- (1) Operate the set over 60 minutes.
- (2) Fully degauss the picture tube with an external degaussing coil.
- (3) Set the purity and convergence magnets in position as shown in the following figure.



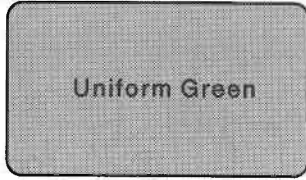
- (4) Receive a 33.750kHz Cross Hatch Pattern signal.
- (5) Adjust the convergence magnets and deflection yoke for good convergence.
- (6) Receive a 33.75kHz Black and White Pattern signal.
- (7) Loosen the deflection-yoke fixing screw.
- (8) Slide the deflection yoke backward and temporarily fix it while adjusting the picture inclination.
- (9) Check the value of R-GAIN and B-GAIN by pressing the R-GAIN and B-GAIN buttons of the remote control unit and write down them.
- (10) Minimize the value of R-GAIN and B-GAIN by adjusting the R-GAIN and B-GAIN buttons.
- (11) Adjust the purity magnet to center the green field left to right on the screen.



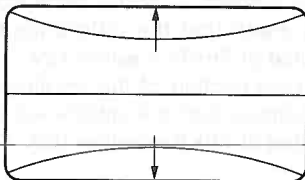
Purity Magnet

Green field is moved horizontally by changing the opening degree of the purity magnet.

- (12) Loosen the deflection-yoke fixing screw
- (13) Slowly move the deflection yoke forward until the screen becomes a uniform green field and temporarily fix it at that position.
- (14) If the screen is not uniform in green, readjust the deflection yoke forward and backward a little.
- (15) After step (14), if still it is not uniform, repeat step (10) through (14).



- (16) Receive the 33.750kHz Cross Hatch Pattern signal.
- (17) Adjust the VRS (Vertical Raster Shift) magnet to equalize the pin cushion distortion of the top and that of the bottom on the screen.
- (18) Fix the deflection yoke after adjusting.
- (19) Reset the value of R-GAIN and B-GAIN to the original value written down before with the R-GAIN and B-GAIN buttons.



## Convergence Adjustment

### D-P.C. Board

#### 1. Equipment to be used

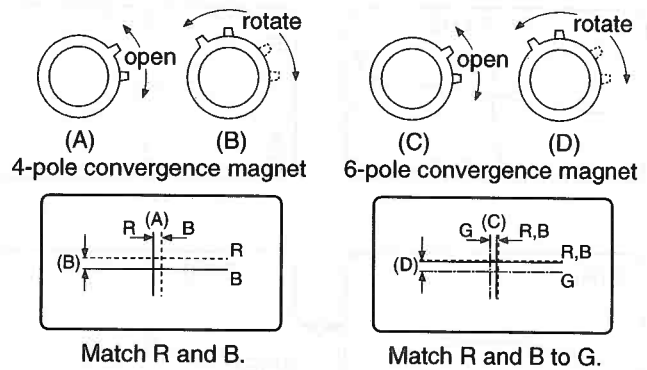
RGB Signal Generator: Cross Hatch Pattern  
RGB input

#### 2. Initial conditions

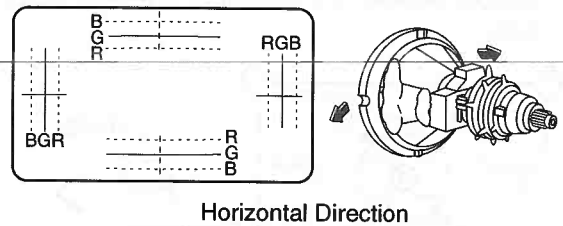
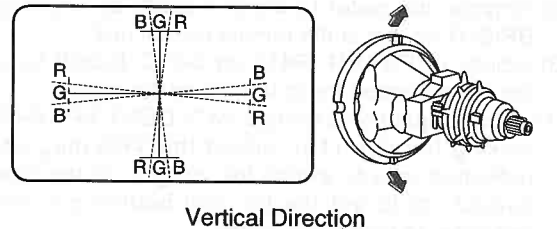
LANDING: CENTER  
PICTURE: STANDARD  
Adjustment Mode: Normal Mode

#### 3. Adjustment Procedures

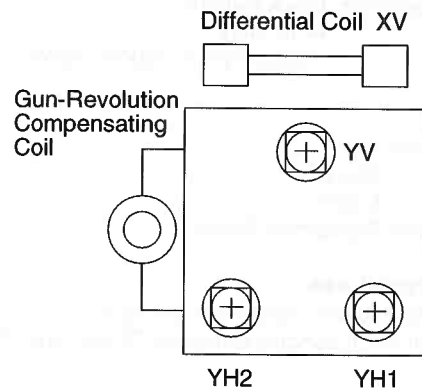
- (1) Receive a 33.750kHz Cross Hatch Pattern signal.
- (2) Slowly open the knobs of 4-pole convergence magnet and match the R and B vertical line at the screen center.
- (3) Turn the whole 4-pole convergence magnet and match the R and B horizontal line.
- (4) Slowly open the knobs of 6-pole convergence magnet and match the R, B, and G vertical line at the screen center. (At this time, the R and B line move at the same time.)
- (5) Turn the whole 6-pole convergence magnet and match the R, B, and G horizontal line.
- (6) If the picture is not uniform in color, adjust the purity.

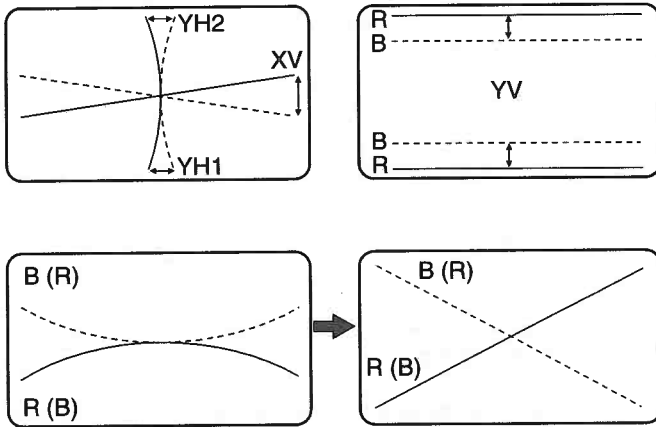


- (7) Loosen the deflection yoke fixing screw a little and adjust the deflection yoke vertically and horizontally for good overall convergence.



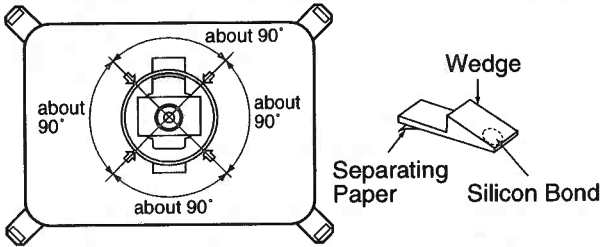
- (8) Adjust differential coil XV, the gun-revolution compensating coil, YH1 VR, and YH2 VR for good overall convergence.
- (9) If the adjustment margin of YH1 VR and YH2 VR is lacking for step (8), adjust the deflection yoke vertically to extend the margin. At this time, be careful not to get the pin cushion distortion worse at the screen top and bottom.
- (10) If the screen center part has a bad convergence, repeat step (2) through (9).
- (11) Press the SCAN button of the remote control unit, and the underscan screen will appear.





Gun Revolution Compensating Coil

- (12) Brighten the raster to watch it easily by adjusting the BRIGHT control of the remote control unit.
- (13) Adjust V CENT VR (R418 on D-P.C. Board) to center the raster position top to bottom on the screen.
- (14) If the adjustment margin of V CENT VR (R418) is lacking for step (13), adjust the VRS magnet and deflection yoke to extend the margin. At this time, be careful not to get the top and bottom pin cushion distortion and the purity worse.
- (15) After adjusting, fix the deflection yoke by inserting the wedges between the deflection yoke and the picture tube.



Wedge Position

**NOTE:** The deflection yoke must be tightly fixed in position.

## Cutoff Adjustment

### Y-P.C. Board

#### 1. Equipment to be used

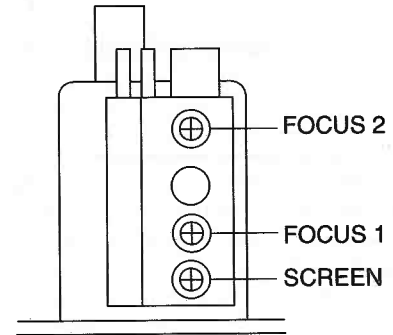
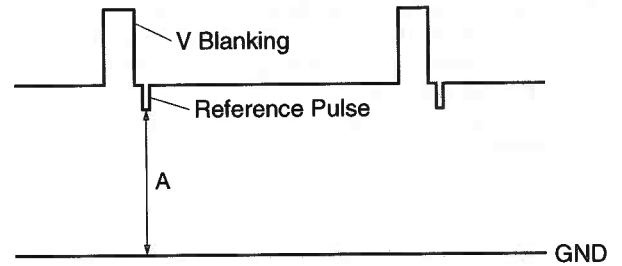
RGB Signal Generator: Black Pattern  
 RGB input  
 Oscilloscope: TPKG, TPKR, TPKB - TPY6  
 (GND)

#### 2. Initial conditions

ASPECT: FULL  
 SCAN: OVER  
 Adjustment Mode: Adjustment Mode 2

#### 3. Adjustment Procedures

- (1) Receive a 33.750kHz Black Pattern signal.
- (2) Connect an oscilloscope between TPKG and TPY6 (GND).
- (3) Adjust SCREEN VR to set voltage "A" of the reference pulse part to  $155 \pm 4V$ .



VRs on FBT

- (4) Change the connection of the oscilloscope "+" side to TPKR and check that the difference between "A" of TPKG and that of TPKR is within 15V.
- (5) Change the connection of the oscilloscope "+" side to TPKB and check that the difference between "A" of TPKG and that of TPKB is within 15V.

## White Balance Adjustment

### 1. Equipment to be used

Video Signal Generator: Monochrome Pattern  
 VIDEO input

### 2. Initial conditions

ASPECT: FULL  
 SCAN: OVER  
 Adjustment Mode: Adjustment Mode 2

### 3. Adjustment Procedures

- (1) Receive an NTSC Color Bar Pattern signal and convert it into a monochrome pattern with the remote control unit.
- (2) Set COLOR TEMP to 9300K with the remote control unit.
- (3) Adjust the white balance of the dark part (black part) with the R-BIAS and B-BIAS controls of the remote control unit.
- (4) Adjust the white balance of the light part (white part) with the R-GAIN and B-GAIN controls of the remote control unit.
- (5) Since the white balance of the dark part changes when adjusting the light part of step (4), repeat step (3) and (4). At this time, step (3) must be the last.
- (6) Check the value of R-BIAS, B-BIAS, R-GAIN, and B-GAIN and write down them.
- (7) Set COLOR TEMP to 6500K with the remote control unit.

- (8) Change the value of R-BIAS, B-BIAS, R-GAIN, and B-GAIN from those of step (6) according to the following list.

	R	B
BIAS	+100	+100
GAIN	-100	-100

**NOTE:** If the dark part quality is not good for the above adjustment, set to Adjustment Mode 1.

## Focus Adjustment

### 1. Equipment to be used

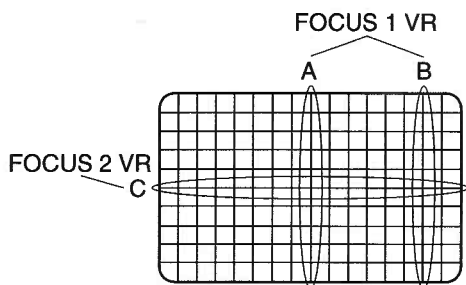
RGB Signal Generator: Cross Hatch Pattern  
RGB input  
HDTV Signal Generator: Monoscope Pattern  
RGB input  
NTSC Signal Generator: Monoscope Pattern  
VIDEO input

### 2. Initial conditions

Adjustment Mode: Normal Mode

### 3. Adjustment Procedures

- (1) Receive a 33.750kHz RGB Cross Hatch Pattern signal.
- (2) Adjust FOCUS 1 VR on FBT (Refer to the previous page) to focus line A and B and to equalize the focus quality of each line.
- (3) Adjust FOCUS 2 VR on FBT (Refer to the previous page) to focus line C.
- (4) Repeat step (2) and (3) until the focus becomes best.
- (5) Change the input signal to the others (HDTV signal and NTSC signal) and check the focus each.



## Video Amplitude and Position Adjustment

### C, V, E-P.C. Board

#### 1. Equipment to be used

Video Signal Generator: Cross Hatch Pattern (15 vertical lines and 13 horizontal lines)  
VIDEO input

#### 2. Initial conditions

SCAN: OVER  
Adjustment Mode: Adjustment Mode 2

#### 3. Adjustment Procedures

- (1) Receive the NTSC Cross Hatch Pattern signal (15 vertical lines and 13 horizontal lines).
- (2) Set ASPECT to FULL with the remote control unit.
- (3) Adjust the Cross Hatch Pattern to 5.5 horizontal lines each in its upper and lower part with the SIZE control of the remote control unit.
- (4) Adjust VIDEO H CENT VR (R5570 on C-P.C. Board) to equalize the distance between the upper horizontal line and the screen top and that between the lower horizontal line and the screen bottom.
- (5) Set ASPECT to NORMAL.
- (6) Straighten both vertical outlines of the picture with the PIN control of the remote control unit.
- (7) Adjust VIDEO BLK ADJ 1 VR (R1435 on V-P.C. Board) until the right-side amplitude of the picture becomes maximum and its movement stops. After that, adjust that VR to back the picture 5mm from the stopped position.
- (8) Adjust VIDEO BLK ADJ 2 VR (R1448 on V-P.C. Board) until the left-side amplitude of the picture becomes maximum and its movement stops. After that, adjust that VR to back the picture 5mm from the stopped position.
- (9) Set ASPECT to FULL.
- (10) Adjust the Cross Hatch Pattern to 7.5 vertical lines each in its right and left part by adjusting H SIZE VR (R539 on E-P.C. Board) and VIDEO H CENT VR (R5570 on C-P.C. Board).
- (11) Set ASPECT to each mode and check that the number of the vertical and horizontal lines of the Cross Hatch Pattern is as shown in the following list.

	Vertical Lines	Horizontal Lines
FULL	7.5	5.5
ZOOM	7.2	4

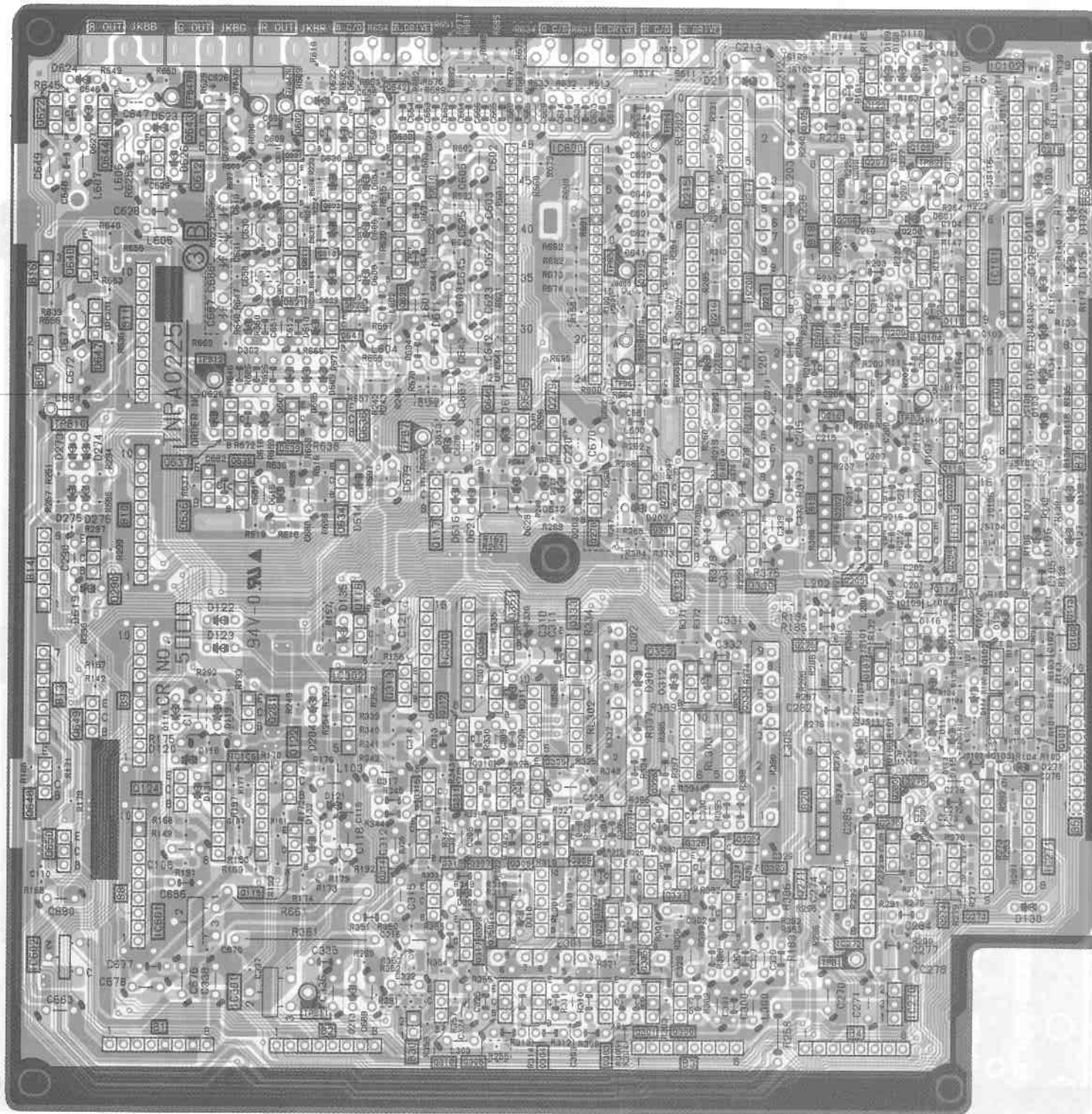
**NOTE:** If necessary, repeat from step (2) through (10).

MEMO:



# Circuit Boards

## B-P.C. Board TNPA0225AC (Foil Side)



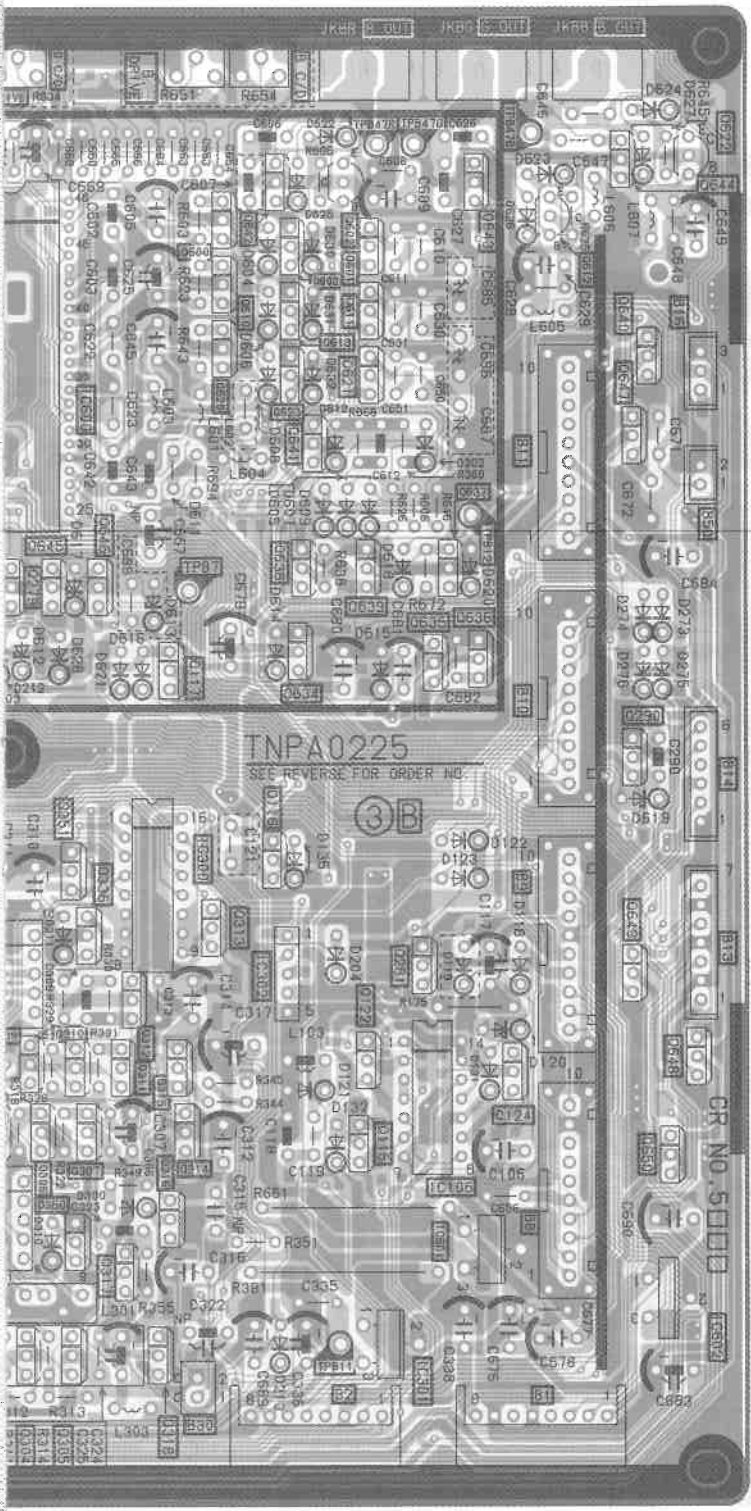
## B-P.C. Board TPNA0225AC (Component Side)



B-P.C. Board (Foil Side)			
<b>IC</b>		Q5307	B-5
IC5100	D-7	Q5308	B-5
IC5101	D-7	Q5309	B-5
IC5102	E-7	Q5310	B-5
IC5103	C-7	Q5311	B-5
IC5106	B-4	Q5312	B-4
IC5200	D-6	Q5313	C-4
IC5270	A-7	Q5314	B-4
IC5271	B-7	Q5315	B-4
IC5272	A-6	Q5316	B-4
IC5300	C-4	Q5317	A-5
IC5301	A-4	Q5318	A-4
IC5302	C-4	Q5323	B-6
IC5600	E-5	Q5324	B-6
IC5601	A-3	Q2325	B-6
IC5602	A-3	Q5326	B-6
		Q5327	B-5
		Q5328	B-5
<b>TRANSISTOR</b>		Q5329	C-5
Q5100	C-7	Q5330	C-6
Q5101	B-7	Q5331	C-5
Q5102	C-7	Q5332	B-5
Q5103	B-7	Q5333	C-5
Q5104	D-7	Q5334	C-5
Q5105	E-6	Q5335	A-5
Q5106	E-7	Q5336	C-5
Q5107	C-6	Q5337	B-6
Q5108	B-6	Q5350	A-5
Q5109	C-7	Q5351	C-5
Q5110	D-7	Q5352	C-5
Q5112	D-7	Q5600	E-4
Q5113	C-7	Q5601	E-4
Q5114	C-7	Q5602	E-4
Q5115	B-4	Q5603	E-4
Q5116	C-4	Q5610	E-4
Q5117	C-4	Q5611	D-4
Q5122	B-4	Q5612	E-3
Q5123	E-6	Q5613	D-4
Q5124	B-3	Q5620	D-4
Q5201	D-6	Q5621	D-4
Q5202	C-6	Q5622	E-3
Q5203	C-7	Q5623	D-4
Q5204	C-7	Q5630	D-5
Q5205	C-6	Q5634	C-4
Q5206	E-6	Q5635	D-4
Q5207	E-6	Q5636	C-3
Q5208	E-7	Q5637	D-3
Q5209	D-6	Q5638	D-4
Q5210	D-6	Q5639	D-4
Q5211	D-6	Q5640	D-3
Q5212	D-5	Q5641	D-4
Q5213	D-5	Q5642	E-4
Q5214	D-5	Q5643	E-3
Q5215	E-6	Q5644	E-3
Q5216	D-6	Q5645	D-5
Q5217	E-6	Q5646	D-5
Q5218	D-6	Q5647	D-3
Q5219	E-7	Q5648	B-3
Q5270	B-6	Q5649	B-3
Q5271	B-6	Q5650	B-3
Q5273	B-7		
Q5274	B-7		
Q5275	B-7		
Q5276	C-6		
Q5277	C-5		
Q5278	C-5		
Q5279	D-5		
Q5280	B-6		
Q5281	B-4		
Q5290	C-3		
Q5300	A-6		
Q5301	A-5		
Q5302	A-5		
Q5303	A-5		
Q5304	A-5		
Q5305	A-5		
Q5306	B-5		
<b>TP</b>			
		TPB1	A-6
		TPB2	E-7
		TPB3	D-6
		TPB4	E-5
		TPB5	D-5
		TPB6	D-5
		TPB7	D-4
		TPB10	D-3
		TPB11	A-4
		TPB12	D-3
		TPB47B	E-3
		TPB47G	E-4
		TPB47R	E-4

ADDRESS INFORMATION





B-P.C. Board (Component Side)

IC		Q5305	A-10
IC5100	D-8	Q5306	B-10
IC5101	D-8	Q5307	B-10
IC5102	E-8	Q5308	B-10
IC5103	C-8	Q5309	B-10
IC5106	B-12	Q5310	B-10
IC5200	D-9	Q5311	B-11
IC5270	A-8	Q5312	B-11
IC5271	B-8	Q5313	C-11
IC5272	A-9	Q5314	B-11
IC5300	C-11	Q5315	B-11
IC5301	A-11	Q5316	B-11
IC5302	B-11	Q5317	A-10
IC5600	D-10	Q5318	A-11
IC5601	A-11	Q5323	A-9
IC5602	A-12	Q5324	B-9
		Q5325	B-9
		Q5326	B-9
		Q5327	B-10
		Q5328	B-10
		Q5329	C-10
		Q5330	C-9
		Q5331	C-10
		Q5332	B-10
		Q5333	C-10
		Q5334	C-9
		Q5335	A-10
		Q5336	C-10
		Q5337	B-10
		Q5350	B-10
		Q5351	C-10
		Q5352	C-10
		Q5600	E-11
		Q5601	E-11
		Q5602	E-11
		Q5603	E-11
		Q5610	E-11
		Q5611	E-11
		Q5612	E-12
		Q5613	D-11
		Q5620	D-11
		Q5621	D-11
		Q5622	E-12
		Q5623	D-11
		Q5630	D-10
		Q5634	C-11
		Q5635	D-11
		Q5636	D-11
		Q5637	D-12
		Q5638	D-11
		Q5639	D-11
		Q5640	D-12
		Q5641	D-11
		Q5642	E-11
		Q5643	E-12
		Q5644	E-12
		Q5645	D-10
		Q5646	D-10
		Q5647	D-12
		Q5648	B-12
		Q5649	B-12
		Q5650	B-12
		TP	
		TPB1	A-9
		TPB3	D-8
		TPB5	D-10
		TPB6	D-6
		TPB7	D-11
		TPB11	A-11
		TPB12	D-12
		TPB47B	E-12
		TPB47G	E-11
		TPB47R	E-11

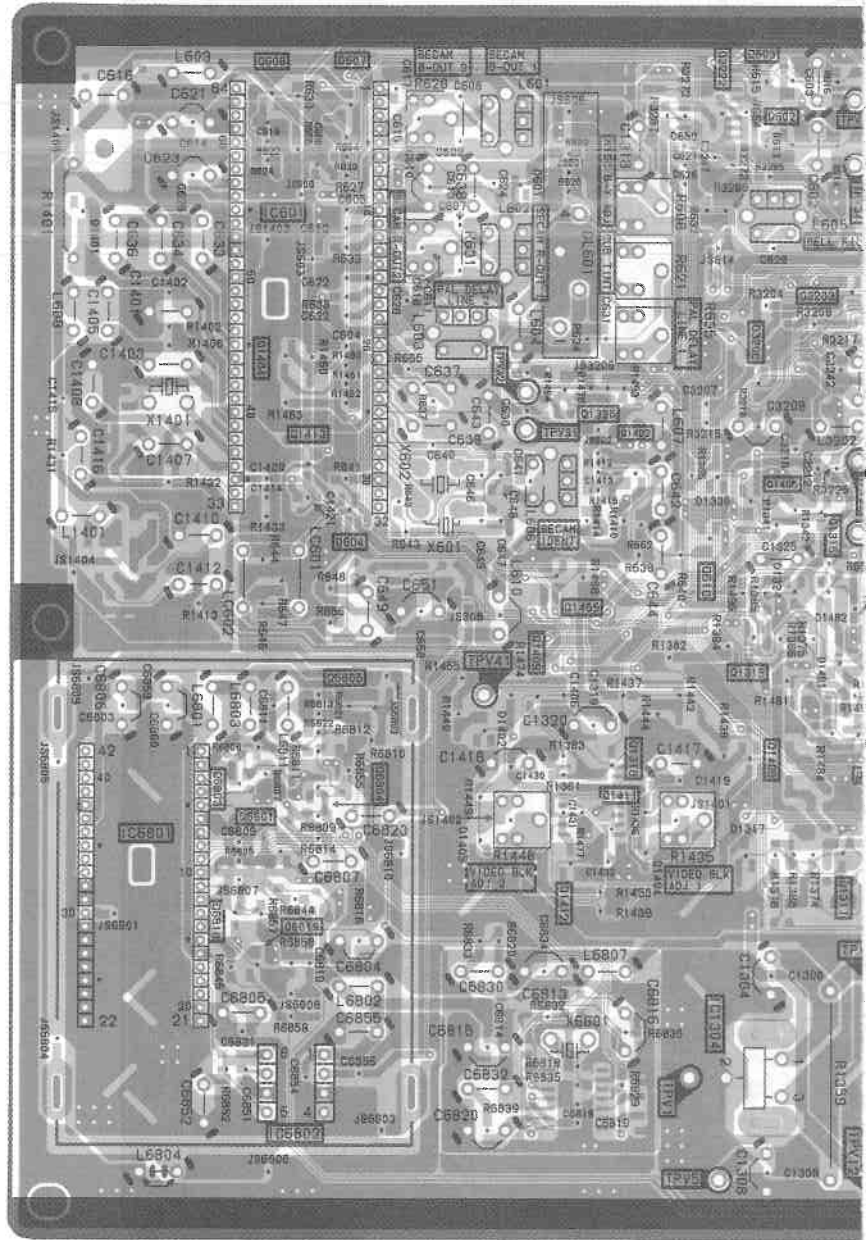
ADDRESS INFORMATION

F  
E  
D  
C  
B  
A

V-P.C. Board (Foil Side)	
<b>IC</b>	
IC601	D-3
IC1303	A-5
IC1304	A-4
IC1309	A-5
IC6801	B-2
IC6802	A-3
<b>TRANSISTOR</b>	
Q601	D-6
Q602	D-5
Q603	E-4
Q604	C-3
Q607	D-3
Q608	D-3
Q610	C-4
Q1301	D-5
Q1302	D-6
Q1303	D-5
Q1306	D-6
Q1308	D-6
Q1315	C-5
Q1317	B-5
Q1318	B-4
Q1319	B-4
Q1324	D-6
Q1326	C-4
Q1329	B-6
Q1330	C-6
Q1331	D-5
Q1332	D-5
Q1336	D-6
Q1337	D-6
Q1402	C-4
Q1405	C-5
Q1408	B-4
Q1409	C-4
Q1410	D-6
Q1411	B-4
Q1412	B-4
Q1413	C-3
Q1481	B-5
Q1482	B-5
Q1483	C-5
Q1484	D-3
Q1485	C-4
Q3203	D-5
Q3204	D-5
Q3206	D-4
Q3208	D-5
Q3209	C-6
Q3212	C-6
Q3214	C-6
Q3215	C-6
Q3220	C-6
Q3222	D-4
Q6801	B-3
Q6803	B-3
Q6804	B-3
Q6805	B-3
Q6818	B-3
Q6819	B-3
Q6874	C-6
<b>TP</b>	
TPV1	A-4
TPV5	A-4
TPV12	A-5
TPV15	A-5
TPV21	C-5
TPV22	C-5
TPV23	C-5
TPV31	C-4
TPV32	C-4
TPV33	D-5
TPV34	D-5
TPV41	B-4
TPV51	D-6
TPV52	D-6
TPV53	D-6
TPV55	A-6

ADDRESS INFORMATION

V-P.C. Board TNPA0236AB  
(Foil Side)

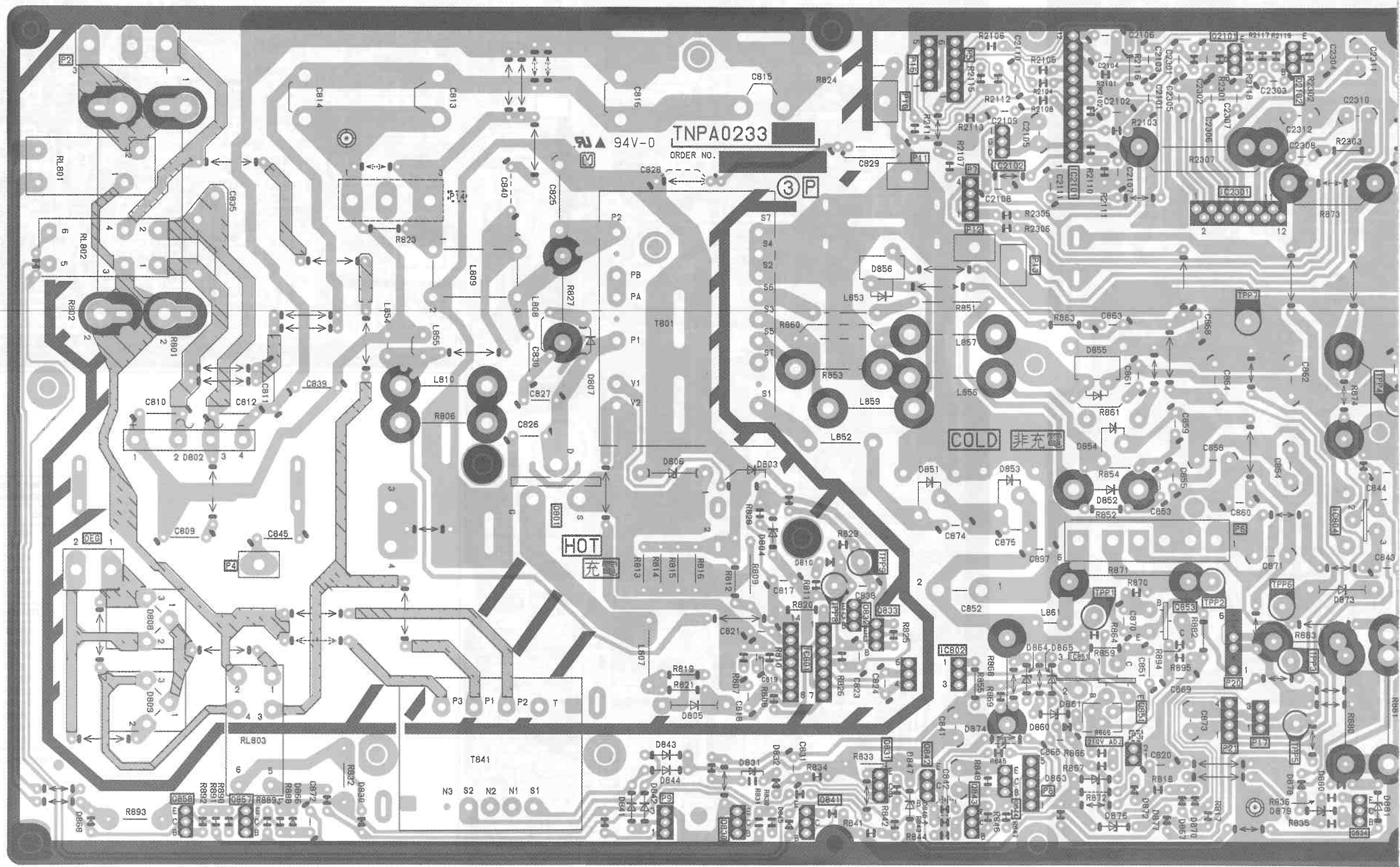


### P-P.C. Board TNPA0233AB (Foil Side)

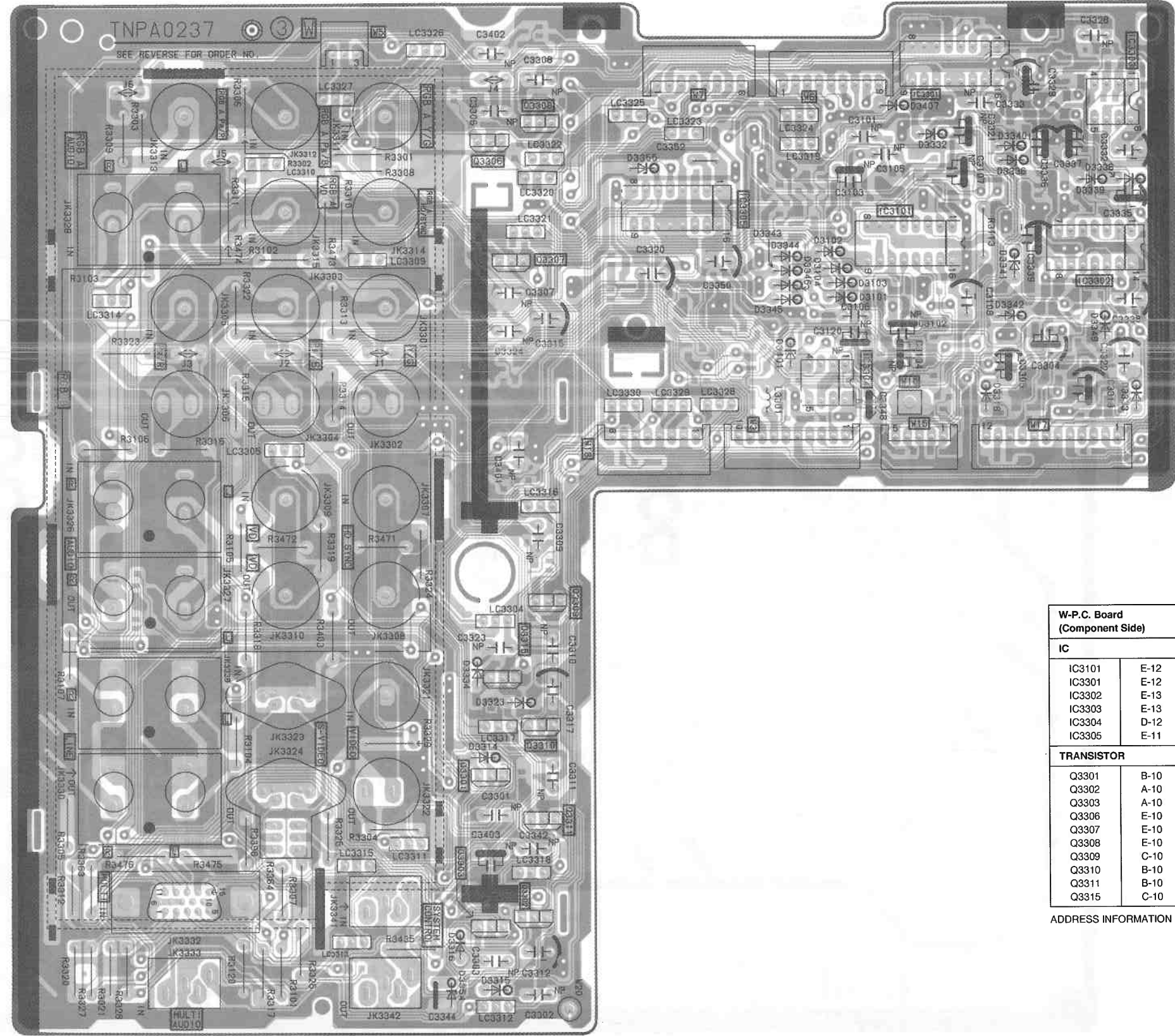
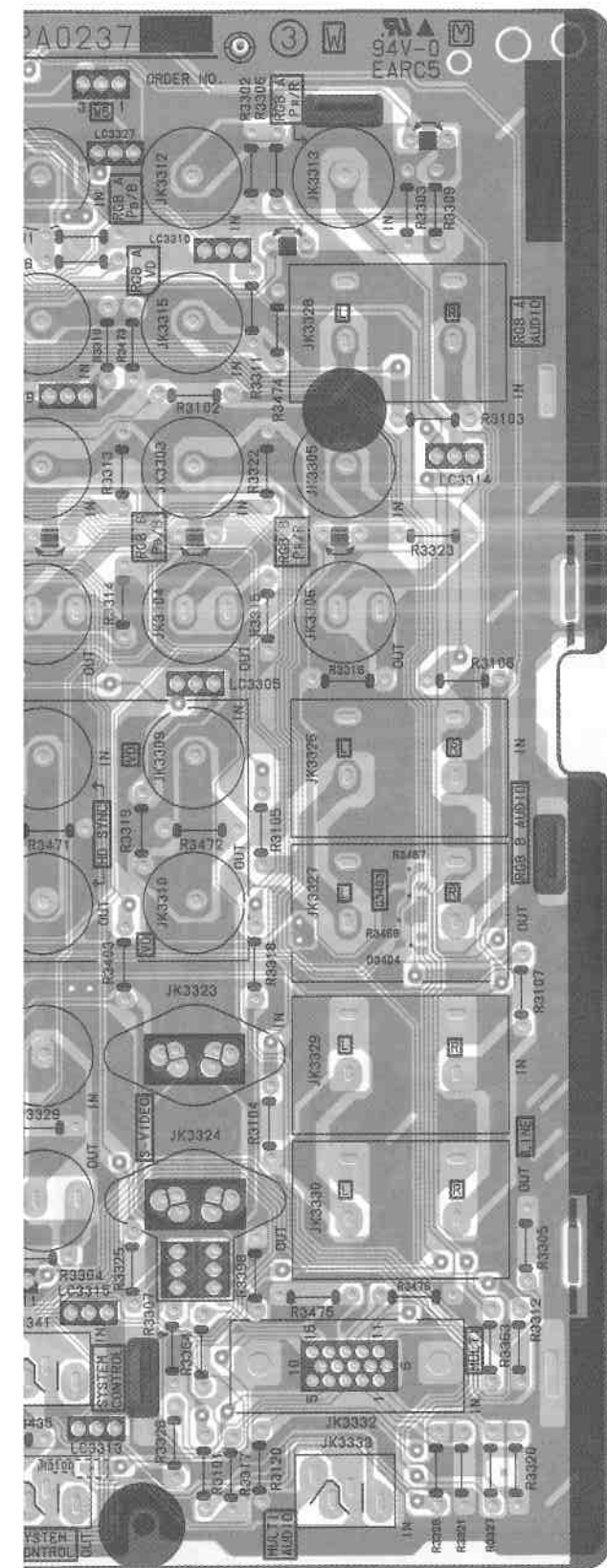
#### P-P.C. Board (Foil Side)

IC	
IC801	B-6
IC802	B-7
IC804	C-9
IC851	B-8
IC2101	E-8
IC2102	E-7
IC2301	E-9
TRANSISTOR	
Q801	C-5
Q830	A-6
Q831	A-7
Q832	B-6
Q833	B-7
Q834	A-9
Q841	A-6
Q842	A-7
Q843	A-7
Q844	A-7
Q851	A-8
Q853	B-8
Q857	A-3
Q858	A-3
Q2101	E-9
Q2102	E-9
TP	
TPP1	B-8
TPP2	B-8
TPP3	B-9
TPP4	C-9
TPP5	A-9
TPP6	B-9
TPP7	D-9
TPP8	B-6
TPP9	B-6

#### ADDRESS INFORMATION



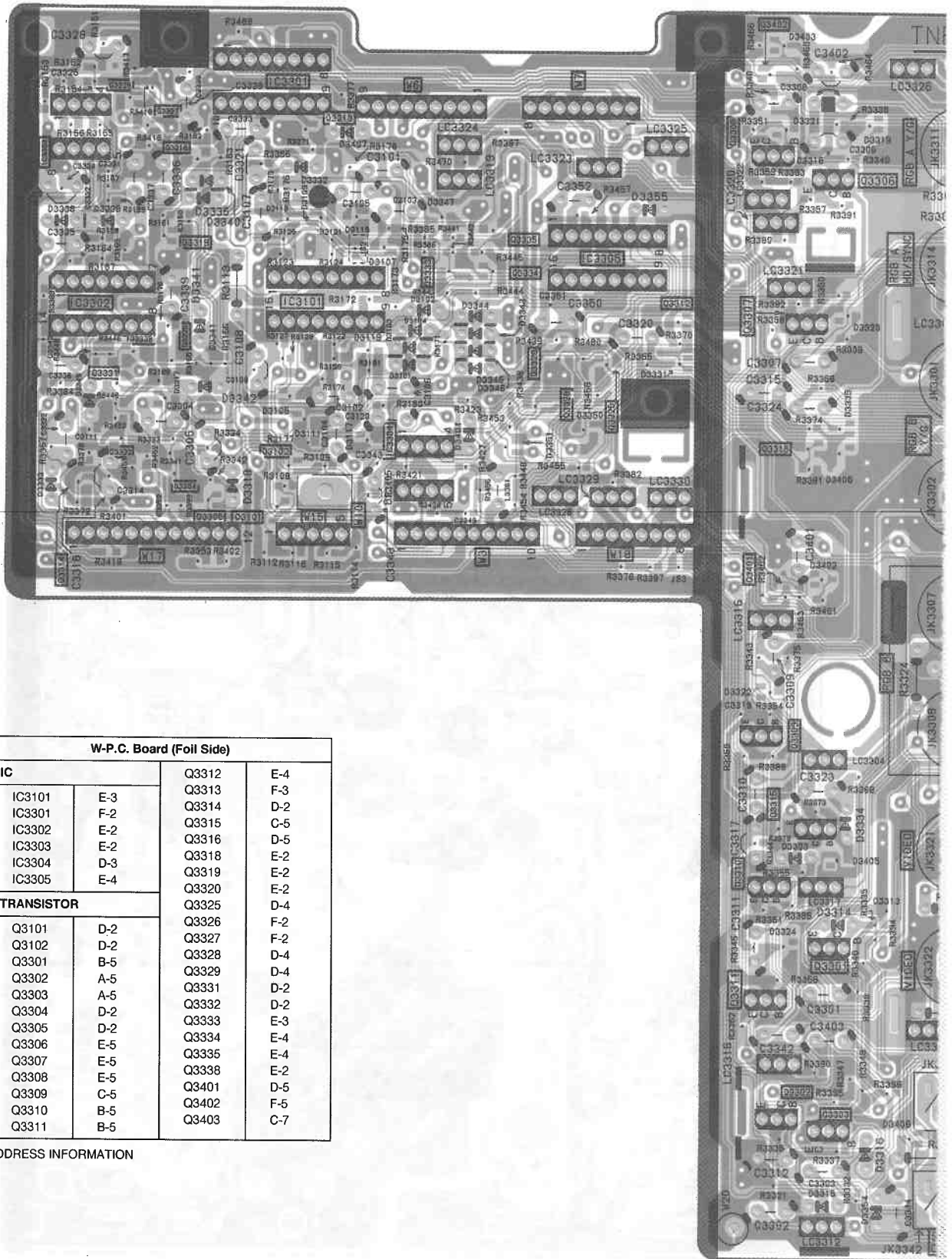
**W-P.C. Board TNPA0237AB**  
(Component Side)



W-P.C. Board (Component Side)	
IC	
IC3101	E-12
IC3301	E-12
IC3302	E-13
IC3303	E-13
IC3304	D-12
IC3305	E-11
TRANSISTOR	
Q3301	B-10
Q3302	A-10
Q3303	A-10
Q3306	E-10
Q3307	E-10
Q3308	E-10
Q3309	C-10
Q3310	B-10
Q3311	B-10
Q3315	C-10

ADDRESS INFORMATION

# W-P.C. Board TNPA0237AB (Foil Side)



W-P.C. Board (Foil Side)

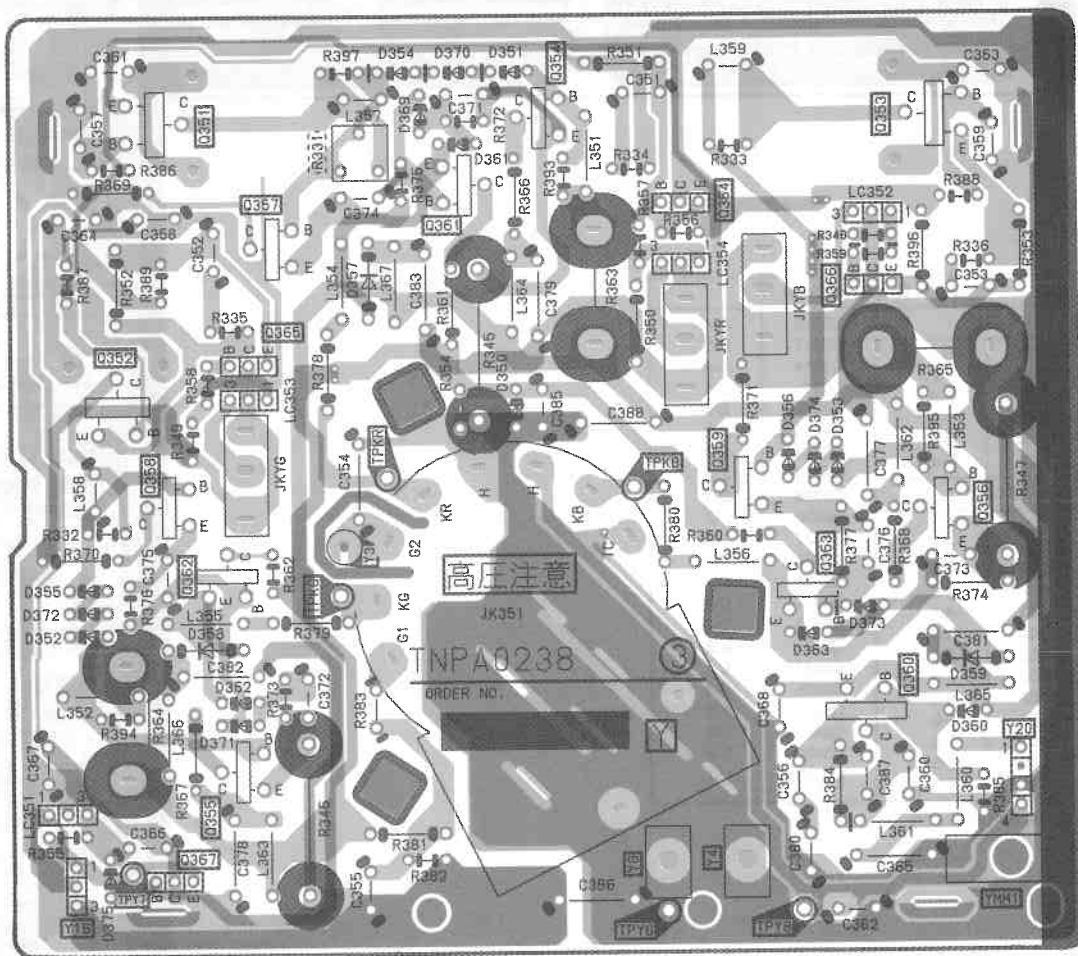
IC			
IC3101	E-3	Q3312	E-4
IC3301	F-2	Q3313	F-3
IC3302	E-2	Q3314	D-2
IC3303	E-2	Q3315	C-5
IC3304	D-3	Q3316	D-5
IC3305	E-4	Q3318	E-2
		Q3319	E-2
		Q3320	E-2
TRANSISTOR		Q3325	D-4
Q3101	D-2	Q3326	F-2
Q3102	D-2	Q3327	F-2
Q3301	B-5	Q3328	D-4
Q3302	A-5	Q3329	D-4
Q3303	A-5	Q3331	D-2
Q3304	D-2	Q3332	D-2
Q3305	D-2	Q3333	E-3
Q3306	E-5	Q3334	E-4
Q3307	E-5	Q3335	E-4
Q3308	E-5	Q3338	E-2
Q3309	C-5	Q3401	D-5
Q3310	B-5	Q3402	F-5
Q3311	B-5	Q3403	C-7

ADDRESS INFORMATION

### Y-P.C. Board TNPA0238AC (Foil Side)

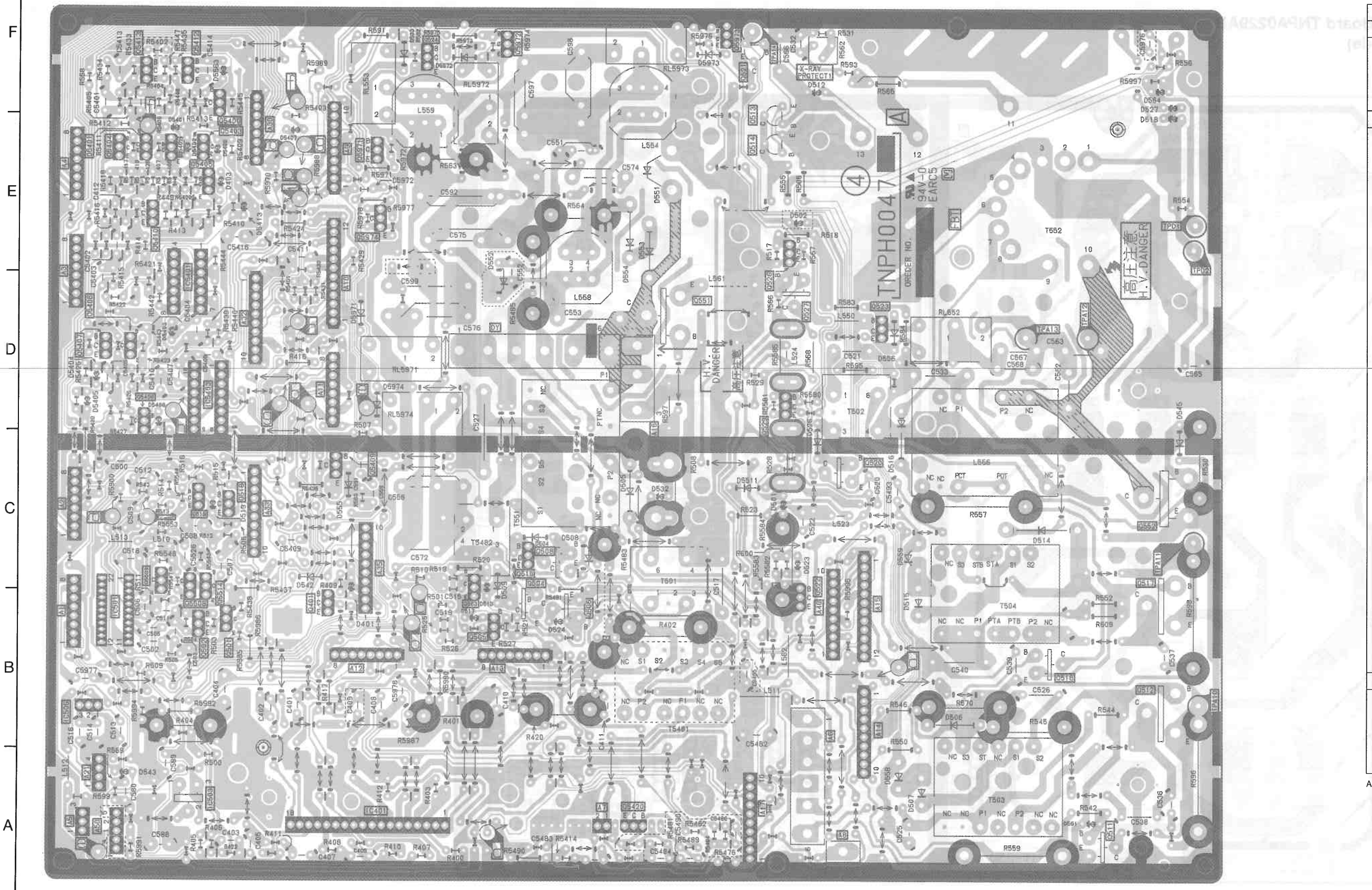
Y-P.C. Board (Foil Side)					
TRANSISTOR		Q359	B-12	TP	
Q351	C-11	Q360	A-13	TPKB	B-12
Q352	C-11	Q361	C-12	TPKG	B-11
Q353	C-13	Q362	B-11	TPKR	B-11
Q354	D-12	Q363	B-13	TPY6	A-12
Q355	A-11	Q364	C-12	TPY7	A-11
Q356	B-13	Q365	C-11	TPY8	A-13
Q357	C-11	Q366	C-13		
Q358	B-11	Q367	A-11		

ADDRESS INFORMATION





A-P.C. Board TNPH0047AB (Foil Side)



A-P.C. Board (Foil Side)

IC	
IC401	A-3
IC501	B-1
IC503	A-2
IC506	B-1
IC5401	D-2
IC5403	D-2

TRANSISTOR

Q401	B-2
Q501	B-2
Q502	B-2
Q503	B-3
Q504	B-4
Q505	B-3
Q506	B-4
Q508	C-4
Q510	C-4
Q511	A-7
Q512	B-8
Q513	E-5
Q514	E-5
Q516	B-7
Q517	B-8
Q518	C-2
Q519	C-2
Q520	C-3
Q521	F-5
Q522	B-6
Q523	D-6

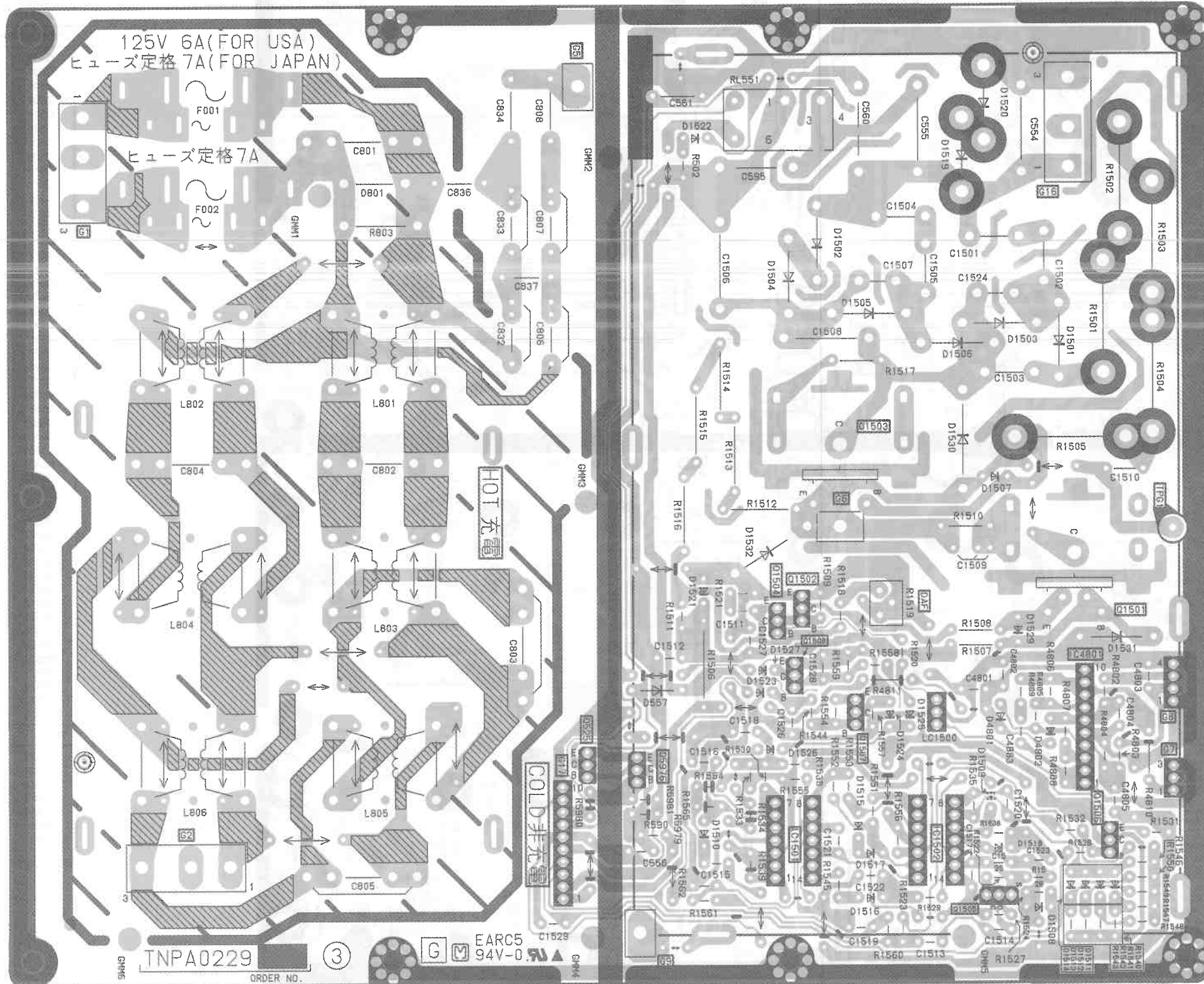
Q524	F-3
Q526	D-5
Q527	D-5
Q529	C-5
Q551	D-5
Q552	C-8
Q5400	E-2
Q5401	E-1
Q5402	A-4
Q5403	E-2
Q5404	E-1
Q5405	E-2
Q5406	D-1
Q5407	D-1
Q5408	D-1
Q5409	C-3
Q5410	E-1
Q5412	F-2
Q5413	F-1
Q5420	A-4
Q5508	B-2
Q5509	B-1
Q5514	B-2
Q5971	E-3
Q5972	F-4
Q5973	F-5
Q5974	E-3

TP

TPA10	B-8
TPA11	C-8
TPA12	D-7
TPA13	D-7
TPA14	F-5
TPD1	E-8
TPD2	E-8

ADDRESS INFORMATION

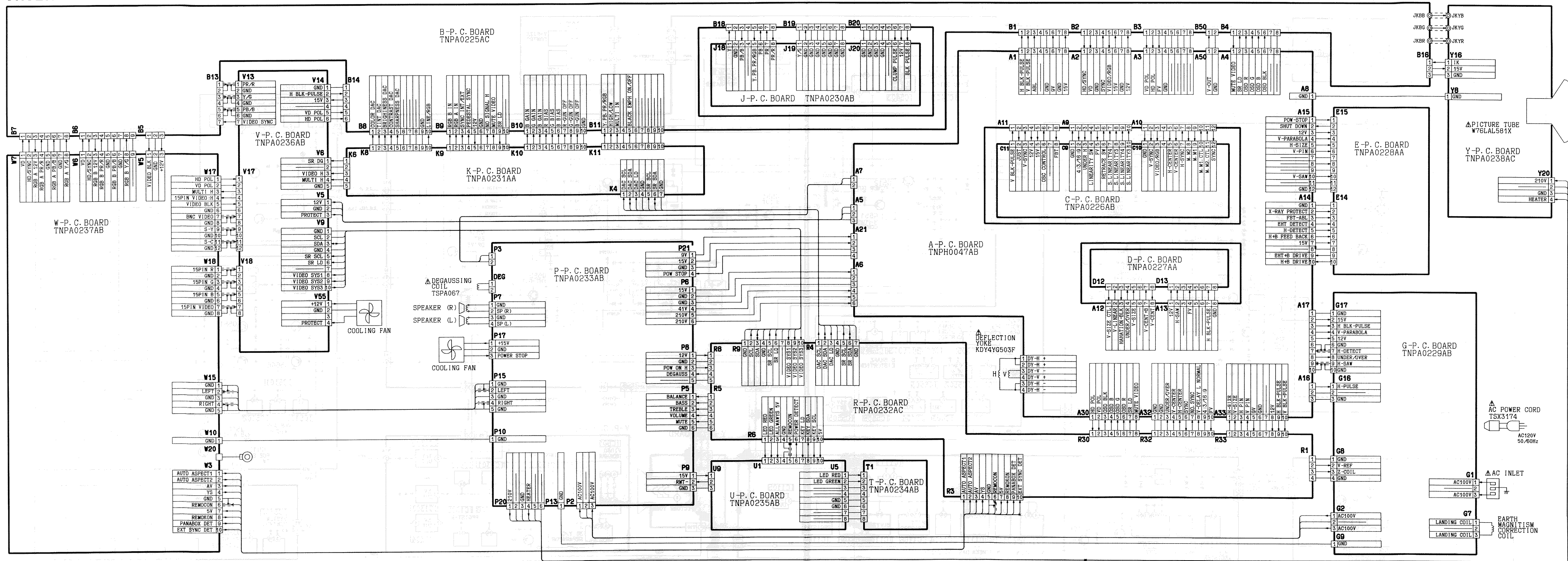
G-P.C. Board TNPA0229AB  
(Foil Side)



G-P.C. Board (Foil Side)	
<b>IC</b>	
IC1501	A-5
IC1502	A-5
IC4801	B-6
<b>TRANSISTOR</b>	
Q525	B-4
Q1501	B-6
Q1502	C-5
Q1503	C-5
Q1504	C-5
Q1505	A-6
Q1506	A-6
Q1507	B-5
Q1508	B-5
Q5976	B-4
<b>TP</b>	
TPG1	C-7

ADDRESS INFORMATION

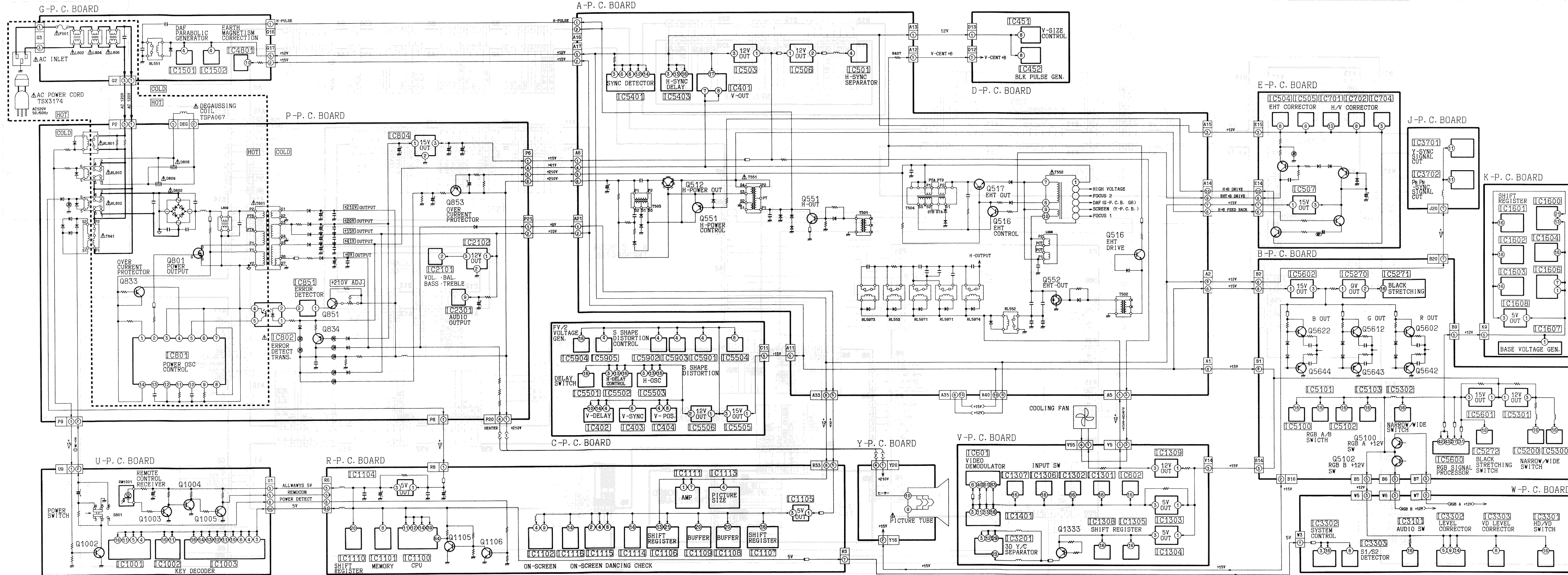
# INTERCONNECTION BLOCK DIAGRAM



POWER SUPPLY BLOCK DIAGRAM

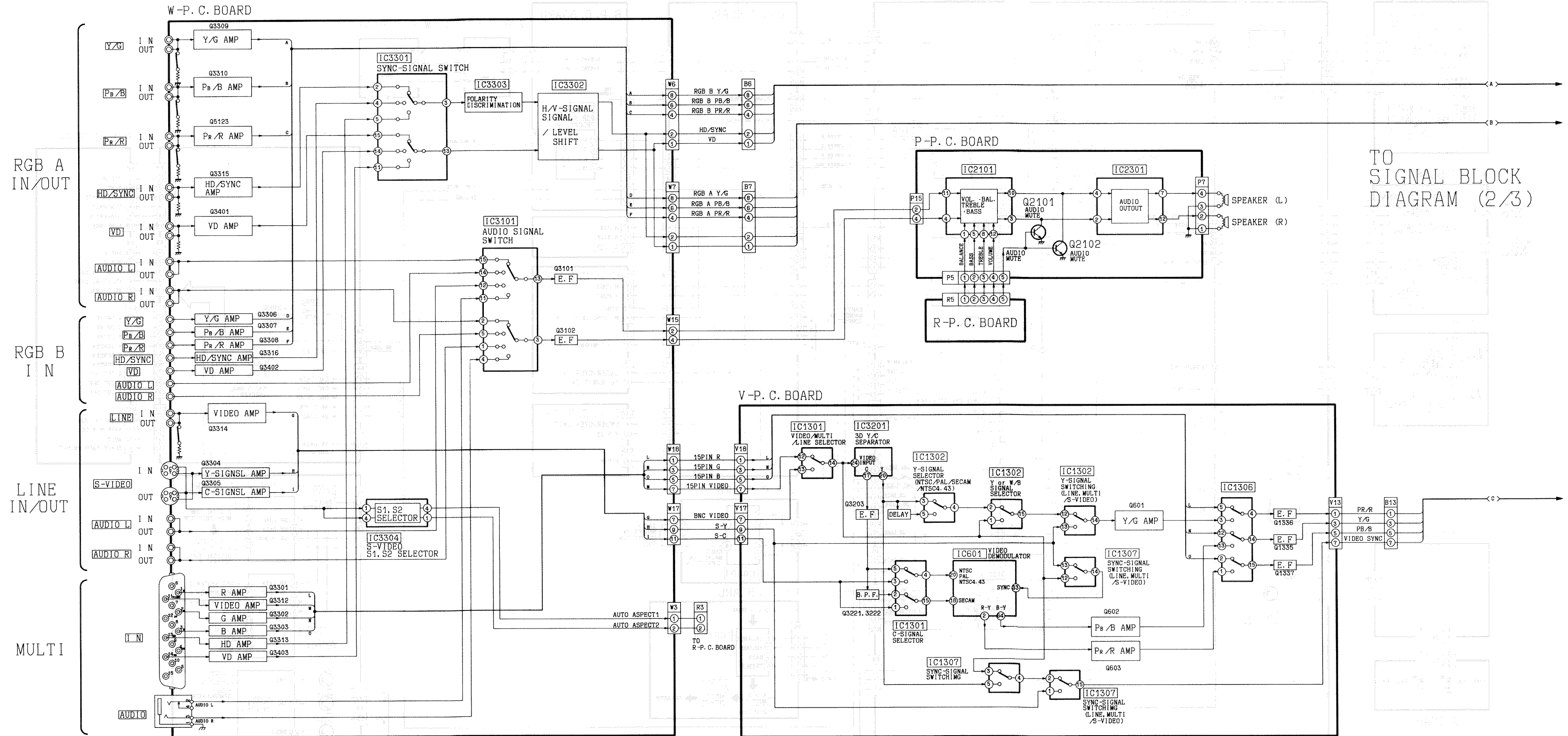
DT-M3050W DT-M3050W

DT-M3050W DT-M3050W





VIDEO/H-SYNC/V-SYNC SIGNAL BLOCK DIAGRAM (1/3)



TO SIGNAL BLOCK DIAGRAM (2/3)

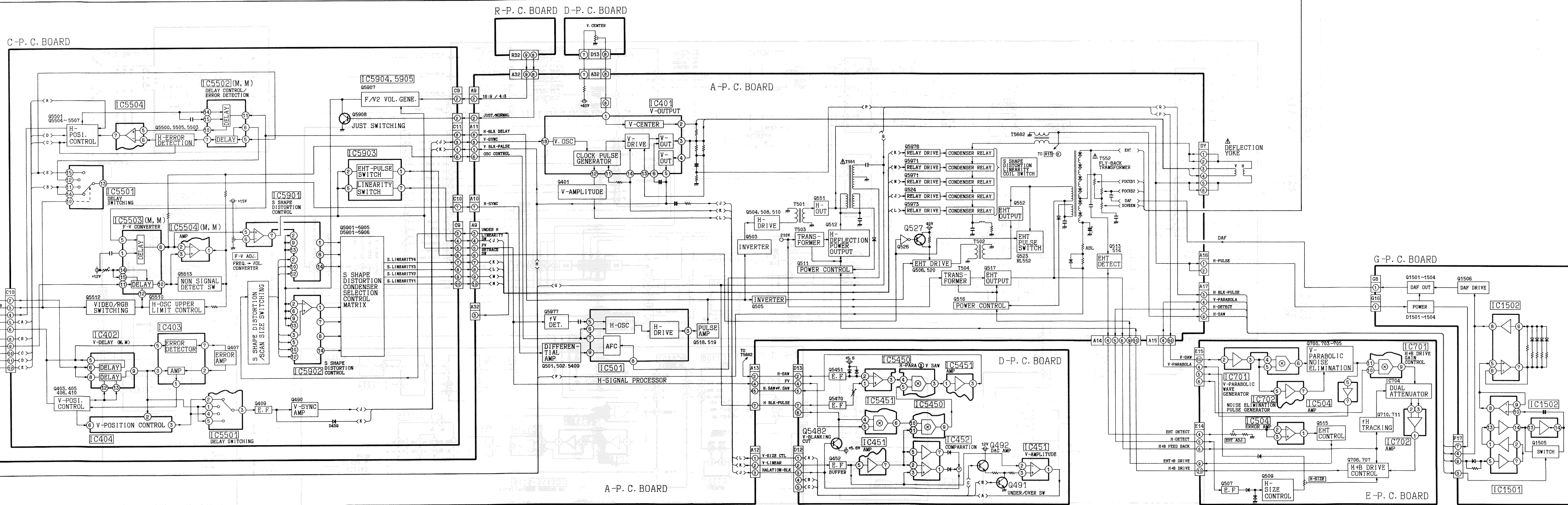


VIDEO/H-SYNC/V-SYNC SIGNAL BLOCK DIAGRAM (3/3)

EHT, FOCUS1, FOCUS2, SCREEN

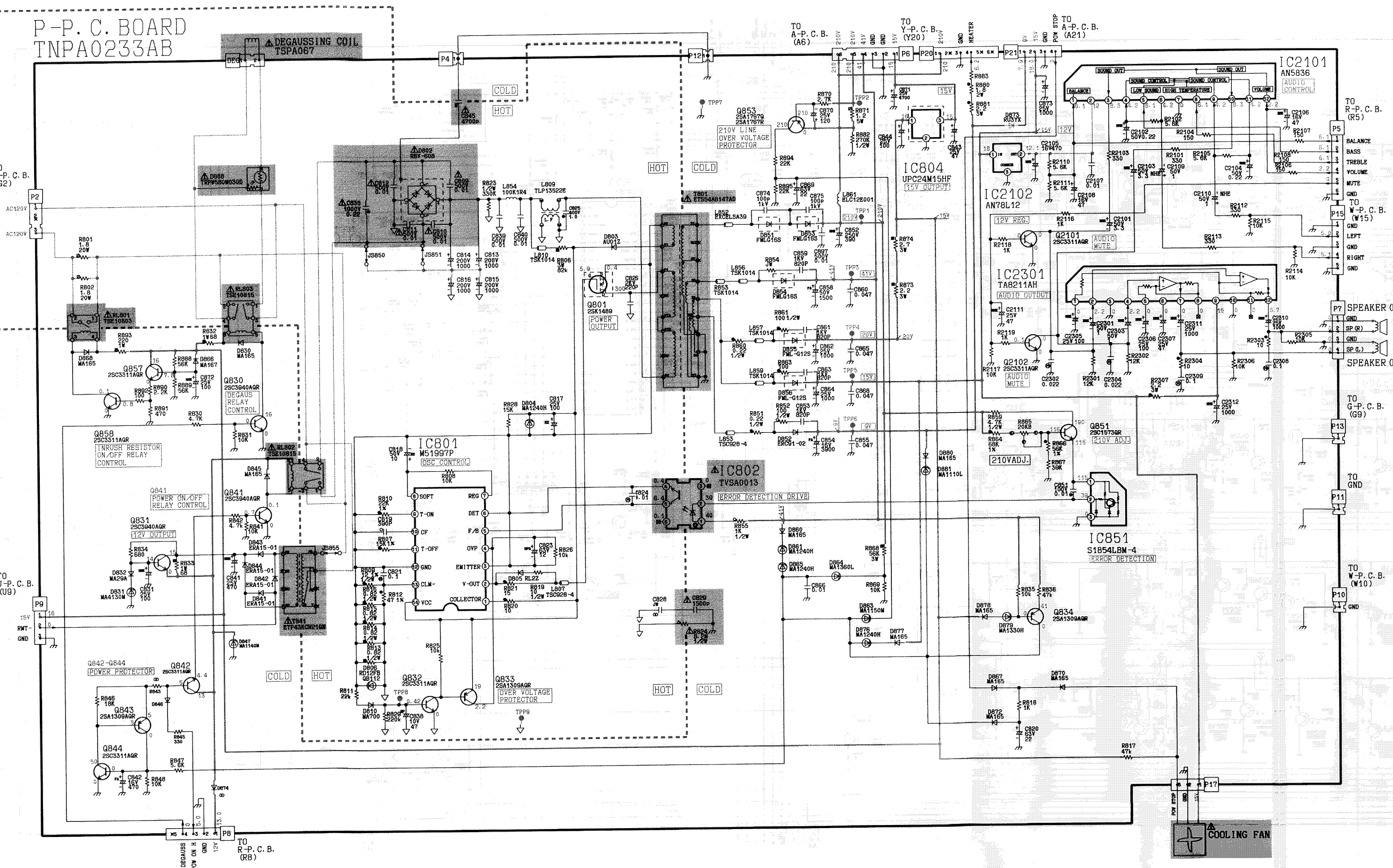
EHT, FOCUS1, FOCUS2, SCREEN

TO SIGNAL BLOCK DIAGRAM (2/3)

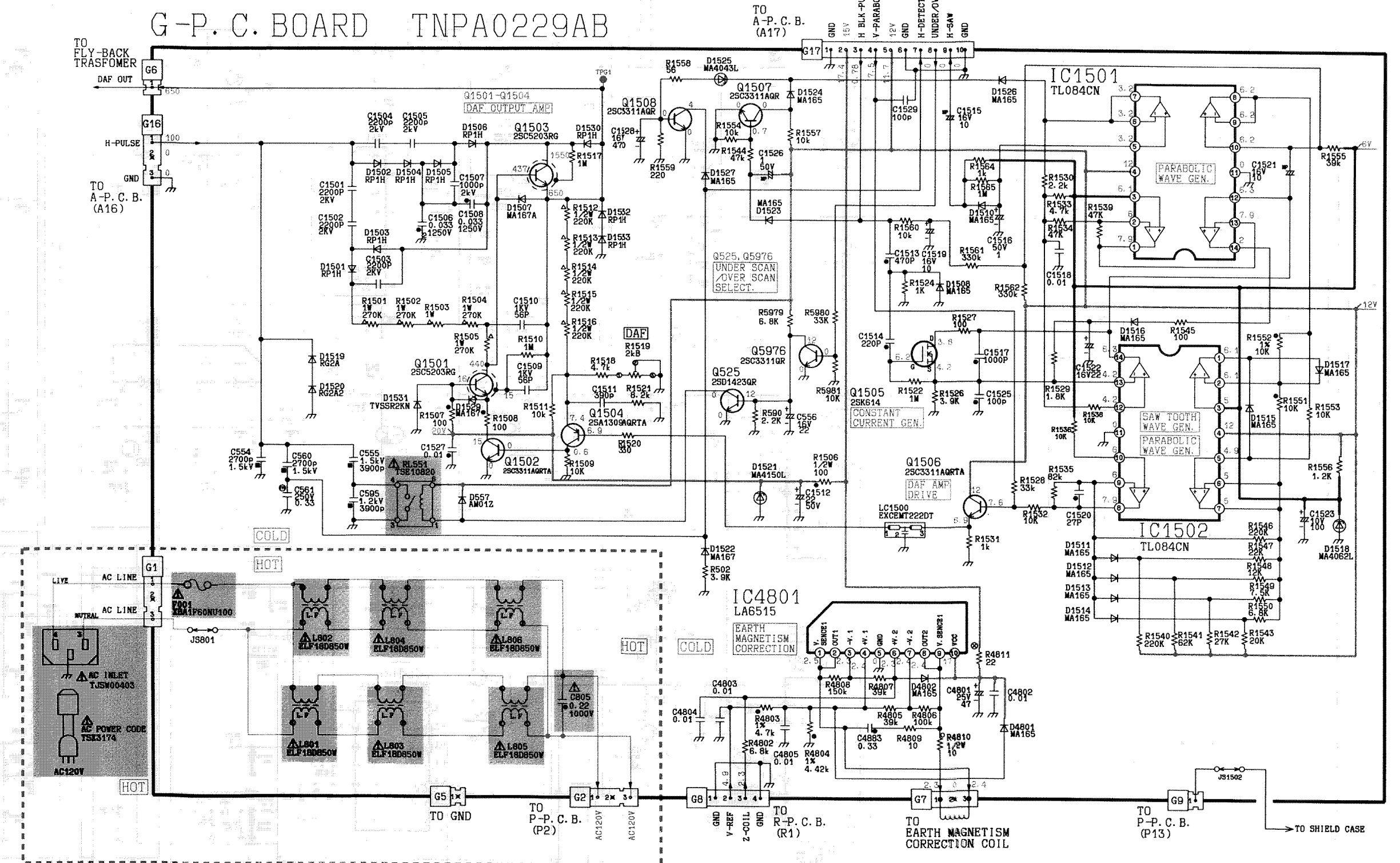


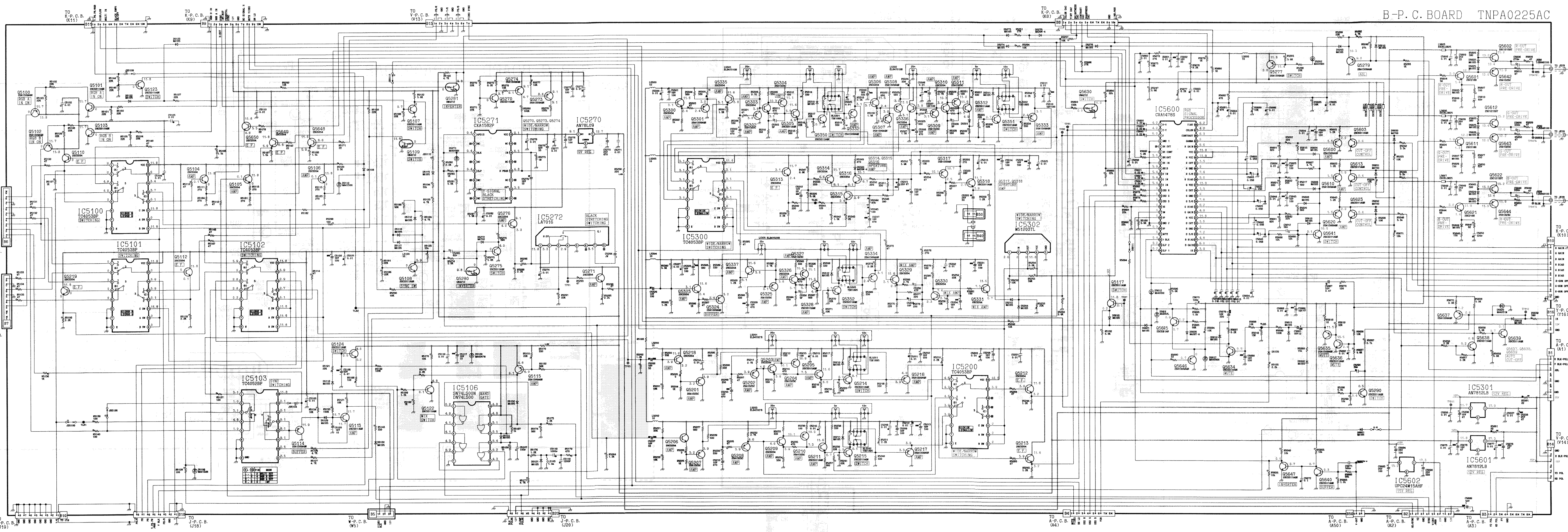


P-P. C. BOARD  
TNPA0233AB

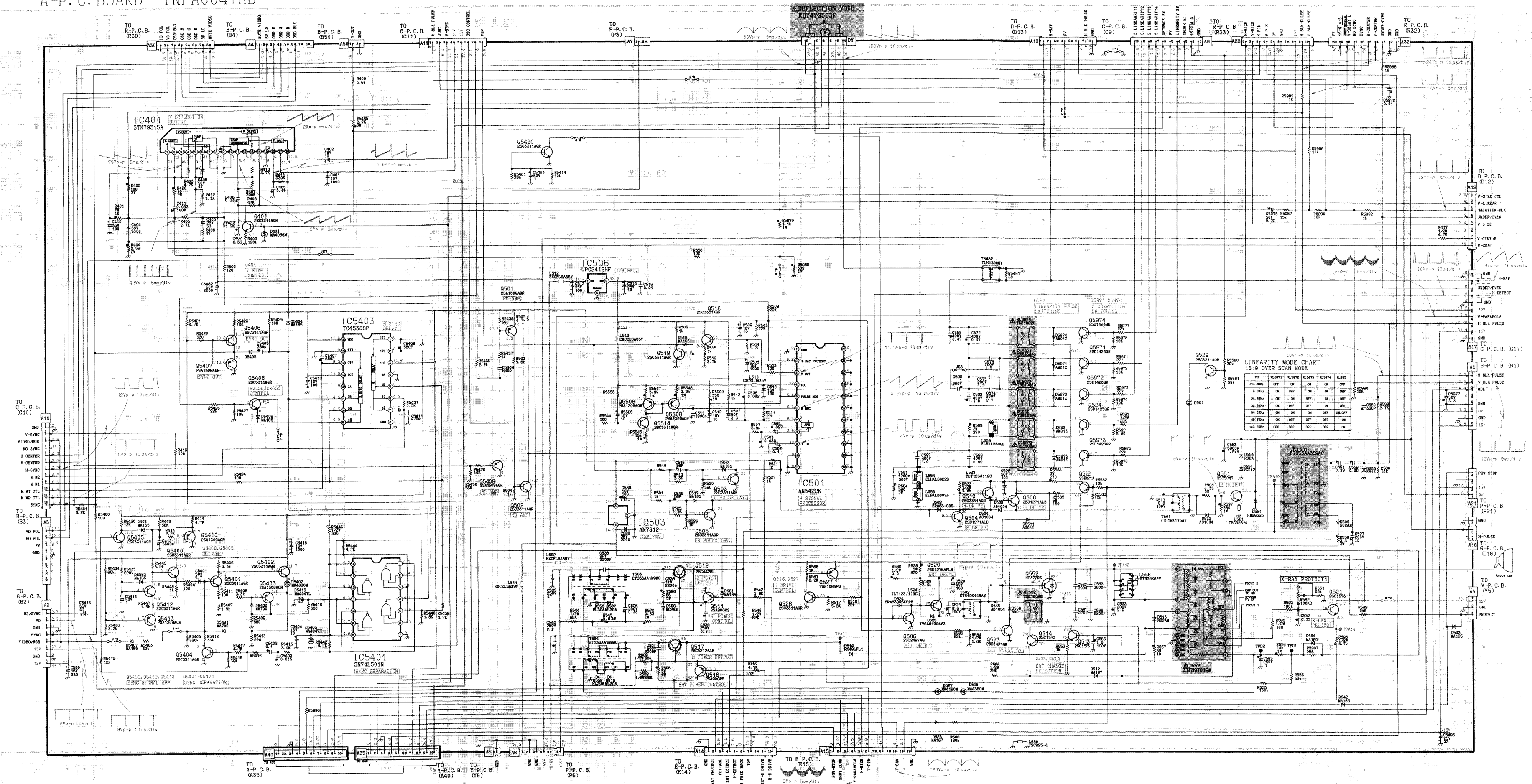


G-P. C. BOARD  
TNPA0229AB





A-P.C. BOARD TNPA0047AB



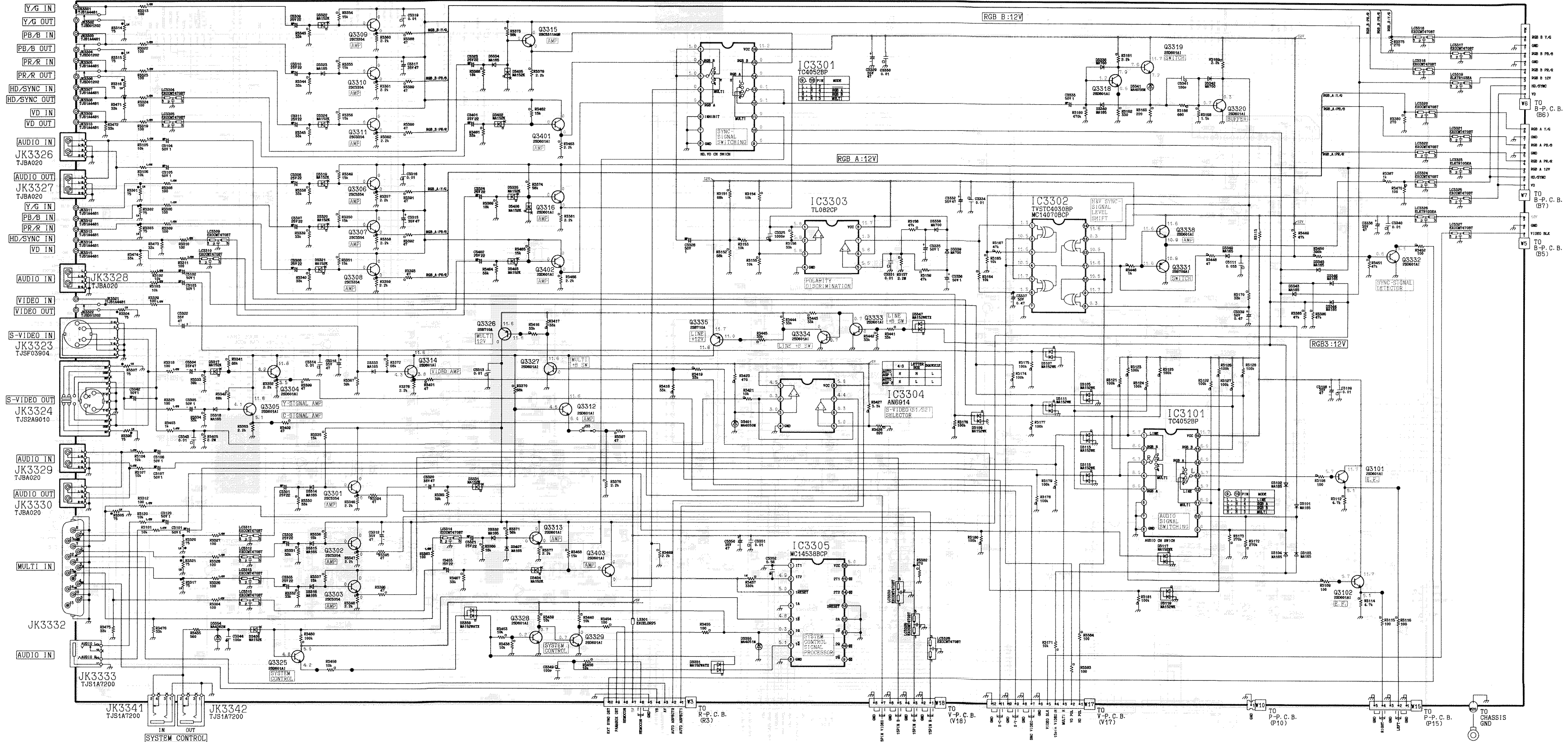
W-P. C. BOARD TNPA0237AB

RGB B

RGB A

LINE

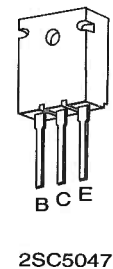
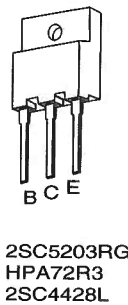
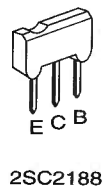
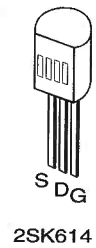
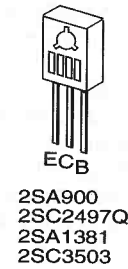
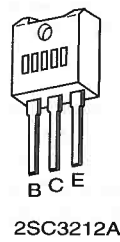
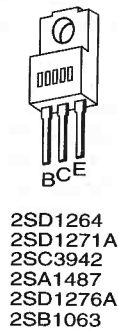
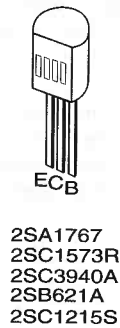
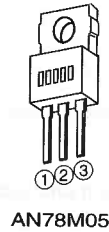
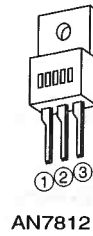
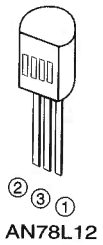
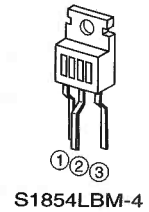
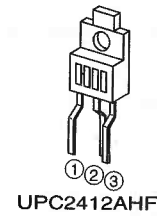
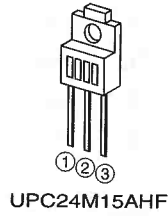
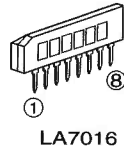
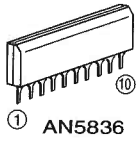
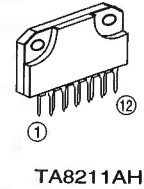
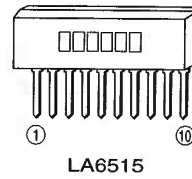
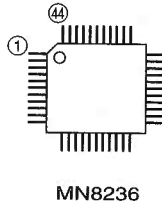
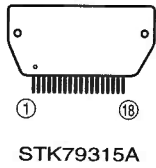
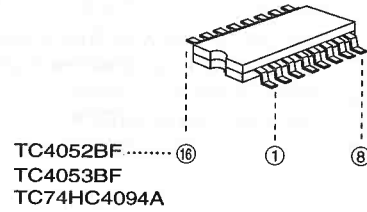
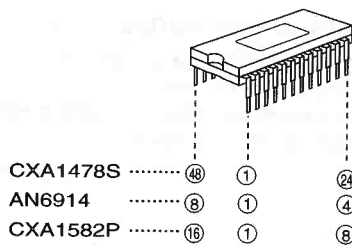
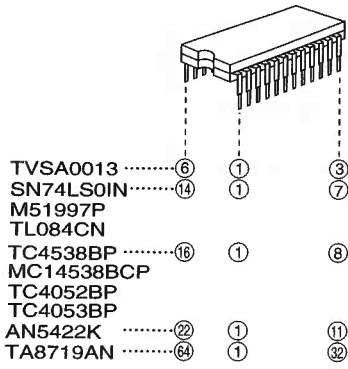
MULTI







# Terminal Guide of ICs and Transistors



# Schematic Diagram for Model DT-M3050W

## IMPORTANT SAFETY NOTICE

THE SHADED AREA ON THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM FIRE AND ELECTRICAL SHOCK HAZARDS. WHEN SERVICING, IT IS ESSENTIAL THAT ONLY MANUFACTURER'S SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SHADED AREAS OF THE SCHEMATIC.

### Notes:

#### 1. Resistor

All resistors are carbon 1/4W resistor, unless marked as follows:  
Unit of resistance is OHM [ $\Omega$ ] (K=1,000 M=1,000,000).

- |                  |                 |
|------------------|-----------------|
| ○ : Nonflammable | ⊠ : Metal Oxide |
| △ : Solid        | ◎ : Metal Film  |
| ⊞ : Wire Wound   | ⊗ : Fuse        |

#### 2. Capacitor

All capacitors are ceramic 50V capacitor, unless marked as follows:  
Unit of capacitance is  $\mu$ F, unless otherwise noted.

- |                              |                               |
|------------------------------|-------------------------------|
| ⊗ : Temperature Compensation | ⊞ <sup>-</sup> : Electrolytic |
| Ⓜ : Polyester                | <sup>NP</sup> ⊞ : Bipolar     |
| Ⓜ : Metalized Polyester      | Ⓜ : Dipped Tantalum           |
| ⊞ : Polypropylene            | ⊗ : Z-Type                    |

#### 3. Coil

Unit of inductance is  $\mu$ H, unless otherwise noted.

#### 4. Test Point

- : Test Point position

#### 5. Voltage Measurement

Voltage is measured by an electronic voltmeter receiving rainbow color bar signal when all customer's controls are set to the maximum position.

#### 6. This schematic diagram is the latest at the time of printing and subject to change without notice.

### Note:

The power Circuit board contains a circuit area which uses separate power supply to isolate the ground connection. The circuit is defined by HOT and COLD indications in the schematic diagram. Take the following precautions.

### PRECAUTIONS

- Do not touch the hot part or the hot and cold parts at the same time, or you may receive a electric shock.
- Do not short-circuit the hot and cold circuits, or a fuse may blow and parts may break.
- Do not connect an instrument, such as an oscilloscope, to the hot and cold circuits simultaneously, or a fuse may below. Connect the ground of instruments to the ground of the circuit being measured.
- Make sure to disconnect the power plug before removing the chassis.



## Replacement Parts List

### Important Safety Notice

Components identified by the International symbol  $\Delta$  have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

#### Abbreviation of Part Name and Description

##### 1. Resistor

Example:

ERD25TJ104 C 100KOHM, J, 1/4W

TYPE                      ALLOWANCE

TYPE	ALLOWANCE
C : Carbon	F : $\pm 1\%$
F : Fuse	G : $\pm 2\%$
M : Metal Oxide Metal Film	J : $\pm 5\%$
S : Solid	K : $\pm 10\%$
W : Wire Wound	M : $\pm 20\%$

##### 2. Capacitor

Example:

ECKF1H103ZF C 0.01PF, Z, 50V

TYPE                      ALLOWANCE

TYPE	ALLOWANCE
C : Ceramic	C : $\pm 0.25pF$
E : Electrolytic	D : $\pm 0.5pF$
P : Polyester	F : $\pm 1pF$
PP : Polypropylene	J : $\pm 5\%$
S : Polystyrol	K : $\pm 10\%$
T : Tantalum	L : $\pm 15\%$
	M : $\pm 20\%$
	P : +100%, -0%
	Z : +80%, -20%

**Note:** For G  $\bigcirc$   $\bigcirc$  of Ref. No., not indicate illustration of it part on "Exploded Views".

Printed circuit board assembly with mark (RTL) is no longer available after production discontinuation of the complete set.

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
<b>MECHANICAL PARTS</b>					
	K1	EAS12D131L		G17	TMM16473
	K2	ETC39C65NA		G18	TMM16480-1
	K3	FBA06A24LS		G19	TMM16497-1
	K4	FBA09A12L0		K18	TMM16978
	G1	KBQ568K		K19	TMM27446
$\Delta$	K5	KDY4YG503F		G20	TMM27523X
	G2	MBGC021SA		K20	TMM5433-1
	G3	TBL63413		G21	TMM6411
	G4	TBMD215		G22	TMM6428-1
	K6	TBM153018-1		K21	TMM6985-1
	K7	TBX2685201		G23	TMM7464-1
	K8	TBX2686005		G24	TMM7473-1
	K9	TEJ15225		G25	TMM76403-1
	G5	TEK6343-1		G26	TMM76430-1
	G6	TEK6940		G27	TMM81416
	G7	TES1605-1		G28	TMM81488
	G8	TES2249		G29	TMM85517-1
	G9	TES2298		G30	TMM85517-2
	G10	TES6162		G31	TMM85517-3
	K10	THT1062		K22	TMW6167
$\Delta$	K11	TJSW00403		K23	TMX13101-2
	K12	TKKL5007		K24	TMX13102
	K13	TKPA04701A		K25	TMX13441
	K14	TKP15A3325-2		K26	TMX15117
	K15	TKP15A3409		K27	TMX6434-1
	K16	TMK14518-1		G32	TNQE014
	G11	TMME014		G33	TPCA17403
	G12	TMME018		G34	TPDF0048
	G13	TMME055		G35	TPD191632-1
	G14	TMMX004		G36	TPD192616-1
	K17	TMM15404-1		G37	TPD199340
	G15	TMM15442		G38	TPEH006-2
	G16	TMM16452		G39	TPE114125
			$\Delta$	G40	TQD1712010
				G41	TQZB592
				K28	TSPA067



Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
Q841	2SC3940A	TRANSISTOR	Q3203	2SD601AR	TRANSISTOR
Q842	2SC3311A	TRANSISTOR	Q3205	2SD601AR	TRANSISTOR
Q843	2SA1309A	TRANSISTOR	Q3207	2SD601AR	TRANSISTOR
Q844	2SC3311A	TRANSISTOR	Q3209	2SD601AR	TRANSISTOR
Q851	2SC1573-Q	TRANSISTOR	Q3210	2SD601AR	TRANSISTOR
Q853	2SA1767Q	TRANSISTOR	Q3211	2SB709A	TRANSISTOR
Q857	2SC3311A	TRANSISTOR	Q3212	2SD601AR	TRANSISTOR
Q858	2SC3311A	TRANSISTOR	Q3213	2SD601AR	TRANSISTOR
Q1301	2SD601AR	TRANSISTOR	Q3214	2SD601AR	TRANSISTOR
Q1302	2SD601AR	TRANSISTOR	Q3215	2SD601AR	TRANSISTOR
Q1303	2SD601AR	TRANSISTOR	Q3217	2SD601AR	TRANSISTOR
Q1304	2SD601AR	TRANSISTOR	Q3219	2SD601AR	TRANSISTOR
Q1305	2SD601AR	TRANSISTOR	Q3220	2SD601AR	TRANSISTOR
Q1306	2SD601AR	TRANSISTOR	Q3221	2SD601AR	TRANSISTOR
Q1308	2SD601AR	TRANSISTOR	Q3222	2SD601AR	TRANSISTOR
Q1309	2SD601AR	TRANSISTOR	Q3223	2SD601AR	TRANSISTOR
Q1312	2SD601AR	TRANSISTOR	Q3225	2SD601AR	TRANSISTOR
Q1314	2SD601AR	TRANSISTOR	Q3226	2SD601AR	TRANSISTOR
Q1315	2SD601AR	TRANSISTOR	Q3301	2SC3354	TRANSISTOR
Q1316	2SD601AR	TRANSISTOR	Q3302	2SC3354	TRANSISTOR
Q1317	2SD601AR	TRANSISTOR	Q3303	2SC3354	TRANSISTOR
Q1318	2SD601AR	TRANSISTOR	Q3304	2SD601AR	TRANSISTOR
Q1319	2SD601AR	TRANSISTOR	Q3305	2SD601AR	TRANSISTOR
Q1321	2SD601AR	TRANSISTOR	Q3306	2SC3354	TRANSISTOR
Q1324	2SD601AR	TRANSISTOR	Q3307	2SC3354	TRANSISTOR
Q1325	2SD601AR	TRANSISTOR	Q3308	2SC3354	TRANSISTOR
Q1326	2SD601AR	TRANSISTOR	Q3309	2SC3354	TRANSISTOR
Q1327	2SD601AR	TRANSISTOR	Q3310	2SC3354	TRANSISTOR
Q1328	2SD601AR	TRANSISTOR	Q3311	2SC3354	TRANSISTOR
Q1329	2SD601AR	TRANSISTOR	Q3312	2SD601AR	TRANSISTOR
Q1330	2SD601AR	TRANSISTOR	Q3313	2SD601AR	TRANSISTOR
Q1331	UN2213	TRANSISTOR	Q3314	2SD601AR	TRANSISTOR
Q1332	2SD601AR	TRANSISTOR	Q3315	2SC3311A	TRANSISTOR
Q1333	2SB710A	TRANSISTOR	Q3316	2SD601AR	TRANSISTOR
Q1334	2SD601AR	TRANSISTOR	Q3318	2SD601AR	TRANSISTOR
Q1335	2SC3354	TRANSISTOR	Q3319	2SD601AR	TRANSISTOR
Q1336	2SC3354	TRANSISTOR	Q3320	2SD601AR	TRANSISTOR
Q1337	2SC3354	TRANSISTOR	Q3325	2SD601AR	TRANSISTOR
Q1401	2SB709A	TRANSISTOR	Q3326	2SB710A	TRANSISTOR
Q1402	2SB709A	TRANSISTOR	Q3327	2SD601AR	TRANSISTOR
Q1403	2SD601AR	TRANSISTOR	Q3328	2SD601AR	TRANSISTOR
Q1404	2SD601AR	TRANSISTOR	Q3329	2SD601AR	TRANSISTOR
Q1405	2SD601AR	TRANSISTOR	Q3331	2SB709AR	TRANSISTOR
Q1406	2SD601AR	TRANSISTOR	Q3332	2SD601AR	TRANSISTOR
Q1407	2SD601AR	TRANSISTOR	Q3333	2SD601AR	TRANSISTOR
Q1408	2SD601AR	TRANSISTOR	Q3334	2SD601AR	TRANSISTOR
Q1409	2SD601AR	TRANSISTOR	Q3335	2SB710A	TRANSISTOR
Q1410	2SD601AR	TRANSISTOR	Q3338	2SD601AR	TRANSISTOR
Q1411	2SD601AR	TRANSISTOR	Q3401	2SD601AR	TRANSISTOR
Q1412	2SD601AR	TRANSISTOR	Q3402	2SD601AR	TRANSISTOR
Q1413	UN2213	TRANSISTOR	Q3403	2SD601AR	TRANSISTOR
Q1481	2SD601AR	TRANSISTOR	Q5100	2SA1309A	TRANSISTOR
Q1482	2SD601AR	TRANSISTOR	Q5101	2SC3311A	TRANSISTOR
Q1483	2SD601AR	TRANSISTOR	Q5102	2SA1309A	TRANSISTOR
Q1484	2SD601AR	TRANSISTOR	Q5103	2SC3311A	TRANSISTOR
Q1485	2SD601AR	TRANSISTOR	Q5104	2SC3354	TRANSISTOR
Q1501	2SC5203RG	TRANSISTOR	Q5105	2SC3354	TRANSISTOR
Q1502	2SC3311A	TRANSISTOR	Q5106	2SC3354	TRANSISTOR
Q1503	2SC5203RG	TRANSISTOR	Q5107	2SC3311A	TRANSISTOR
Q1504	2SA1309A	TRANSISTOR	Q5108	2SC3311A	TRANSISTOR
Q1505	2SK614	FET	Q5109	UN4212	TRANSISTOR
Q1506	2SC3311A	TRANSISTOR	Q5110	2SC3354	TRANSISTOR
Q1507	2SC3311A	TRANSISTOR	Q5112	2SC3354	TRANSISTOR
Q1508	2SC3311A	TRANSISTOR	Q5113	2SC3311A	TRANSISTOR
Q2101	2SC3311A	TRANSISTOR	Q5114	2SA1309A	TRANSISTOR
Q2102	2SC3311A	TRANSISTOR	Q5115	2SA1309A	TRANSISTOR
Q3101	2SD601AR	TRANSISTOR	Q5117	2SC3311A	TRANSISTOR
Q3102	2SD601AR	TRANSISTOR	Q5122	2SC3311A	TRANSISTOR
Q3201	2SD601AR	TRANSISTOR	Q5123	2SC3311A	TRANSISTOR
Q3202	2SD601AR	TRANSISTOR	Q5124	2SC3311A	TRANSISTOR



Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
D362	MA165	DIODE	D864	MA1360L	ZENER DIODE
D363	MA165	DIODE	D865	MA1240H	ZENER DIODE
D369	MA165	DIODE	D866	MA167	DIODE
D370	MA167	DIODE	D867	MA165	DIODE
D371	MA165	DIODE	D868	MA165	DIODE
D372	MA167	DIODE	D870	MA165	DIODE
D373	MA165	DIODE	D872	MA165	DIODE
D374	MA167	DIODE	D873	RU3YX-M	DIODE
D375	MA165	DIODE	D876	MA1240H	ZENER DIODE
D401	MA4056M	ZENER DIODE	D877	MA165	DIODE
D403	MA165	DIODE	D878	MA165	DIODE
D504	TVSA81004	DIODE	D879	MA1330H	ZENER DIODE
D505	RU2AM	DIODE	D880	MA165	DIODE
D506	RU2AM	DIODE	D881	MA1110L	ZENER DIODE
D507	RL30A	DIODE	D1303	MA152K	DIODE
D508	TVSA81004	DIODE	D1304	MA152K	DIODE
D509	ERA83-006	DIODE	D1305	MA152K	DIODE
D512	MA167	DIODE	D1307	MA152K	DIODE
D513	MA165	DIODE	D1308	MA152K	DIODE
D514	RK49	DIODE	D1309	MA152WK	DIODE
D515	RL30A	DIODE	D1310	MA152K	DIODE
D516	RU2AM	DIODE	D1311	MA152K	DIODE
D517	MA165	DIODE	D1312	MA152K	DIODE
D518	MA4360M	ZENER DIODE	D1313	MA152WK	DIODE
D519	MA165	DIODE	D1314	MA152WK	DIODE
D523	MA167	DIODE	D1315	MA152K	DIODE
D524	ERA83006KFRB	DIODE	D1316	MA152K	DIODE
D526	TVSA81004	DIODE	D1317	MA152K	DIODE
D527	MA4120M	ZENER DIODE	D1324	MA152WA	DIODE
D532	TVSA81004	DIODE	D1325	MA152WA	DIODE
D533	AM01Z	DIODE	D1401	MA3091M	DIODE
D542	MA165	DIODE	D1402	MA152K	DIODE
D543	MA165	DIODE	D1403	MA152K	DIODE
D545	TVSA81004	DIODE	D1481	MA152WK	DIODE
D551	FMQG5GS	DIODE	D1482	MA152K	DIODE
D553	TVSRG2	DIODE	D1501	RP1H	DIODE
D554	RG2A2LFA5	DIODE	D1502	RP1H	DIODE
D555	TVSES1Z	DIODE	D1503	RP1H	DIODE
D556	AM01Z	DIODE	D1504	RP1H	DIODE
D557	AM01Z	DIODE	D1505	RP1H	DIODE
D558	RL30A	DIODE	D1506	RP1H	DIODE
D559	RL30A	DIODE	D1507	MA167A	DIODE
D561	MA165	DIODE	D1508	MA165	DIODE
D564	MA165	DIODE	D1510	MA165	DIODE
D601	MA3180M	DIODE	D1511	MA165	DIODE
D802	RBV-608	DIODE	D1512	MA165	DIODE
D803	AU01Z	DIODE	D1513	MA165	DIODE
D804	MA1240H	ZENER DIODE	D1514	MA165	DIODE
D805	RL2Z	DIODE	D1515	MA165	DIODE
D806	TVSRD12FB2	DIODE	D1516	MA165	DIODE
D808	TRPW5B0M030D	POSISTOR	D1517	MA165	DIODE
D810	MA700	DIODE	D1518	MA4062L	ZENER DIODE
D830	MA165	DIODE	D1519	TVSRG2	DIODE
D831	MA4130M	ZENER DIODE	D1520	TVSRG2	DIODE
D832	MA29A	DIODE	D1521	MA4150L	ZENER DIODE
D841	ERA15-01	DIODE	D1522	MA167	DIODE
D842	ERA15-01	DIODE	D1523	MA165	DIODE
D843	ERA15-01	DIODE	D1524	MA165	DIODE
D844	ERA15-01	DIODE	D1525	MA4043L	ZENER DIODE
D845	MA165	DIODE	D1526	MA165	DIODE
D847	MA1140M	ZENER DIODE	D1527	MA165	DIODE
D851	FMLG16S	DIODE	D1529	MA167	DIODE
D852	RL3Z	DIODE	D1530	RP1H	DIODE
D853	FMLG16S	DIODE	D1531	TVSSR2KN	DIODE
D854	FMLG16S	DIODE	D1532	RP1H	DIODE
D855	FML-G12S	DIODE	D1533	RP1H	DIODE
D856	FML-G12S	DIODE	D3101	MA165	DIODE
D860	MA165	DIODE	D3102	MA165	DIODE
D861	MA1240H	ZENER DIODE	D3103	MA165	DIODE
D863	MA1150M	ZENER DIODE	D3104	MA165	DIODE





Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
RESISTORS					
R332	ERDS2TJ821	C 820OHM, J, 1/4W	R413	ERDS2TJ222	C 2.2KOHM, J, 1/4W
R333	ERDS2TJ102	C 1KOHM, J, 1/4W	R414	ERDS2TJ472	C 4.7KOHM, J, 1/4W
R334	ERDS2TJ101	C 100 OHM, J, 1/4W	R416	ERDS2TJ101	C 100 OHM, J, 1/4W
R335	ERDS2TJ680	C 68 OHM, J, 1/4W	R417	ERDS1TJ472	C 4.7KOHM, J, 1/2W
R336	ERDS2TJ101	C 100 OHM, J, 1/4W	R420	ERG2SJ100H	M 10 OHM, J, 2W
R345	ERG3SJ223H	M 22KOHM, J, 3W	R422	ERDS2TJ122	C 1.2KOHM, J, 1/4W
R346	ERG3SJ223H	M 22KOHM, J, 3W	R449	ERDS2TJ563	C 56KOHM, J, 1/4W
R347	ERG3SJ223H	M 22KOHM, J, 3W	R500	ERDS2TJ121	C 120 OHM, J, 1/4W
R348	ERDS2TJ122	C 1.2KOHM, J, 1/4W	R501	ERDS2TJ102	C 1KOHM, J, 1/4W
R349	ERDS2TJ122	C 1.2KOHM, J, 1/4W	R502	ERDS2TJ392	C 3.9KOHM, J, 1/4W
R350	ERDS1TJ122	C 1.2KOHM, J, 1/2W	R503	ERDS2TJ562	C 5.6KOHM, J, 1/4W
R351	ERDS1TJ101	C 100 OHM, J, 1/2W	R504	ERDS2TJ102	C 1KOHM, J, 1/4W
R352	ERDS1TJ101	C 100 OHM, J, 1/2W	R505	ERDS2TJ472	C 4.7KOHM, J, 1/4W
R353	ERDS1TJ101	C 100 OHM, J, 1/2W	R506	ERDS2TJ102	C 1KOHM, J, 1/4W
R354	ERDS2TJ333	C 33KOHM, J, 1/4W	R507	ERDS2TJ392	C 3.9KOHM, J, 1/4W
R355	ERDS2TJ333	C 33KOHM, J, 1/4W	R508	ERF5ZKR33	W 0.33OHM, K, 5W
R356	ERDS2TJ332	C 3.3KOHM, J, 1/4W	R509	ERDS2TJ223	C 22KOHM, J, 1/4W
R357	ERDS2TJ470	C 47 OHM, J, 1/4W	R511	ERDS2TJ273	C 27KOHM, J, 1/4W
R358	ERDS2TJ470	C 47 OHM, J, 1/4W	R512	ERDS2TJ102	C 1KOHM, J, 1/4W
R359	ERDS2TJ470	C 47 OHM, J, 1/4W	R513	ERDS2TJ101	C 100 OHM, J, 1/4W
R360	ERDS2TJ333	C 33KOHM, J, 1/4W	R514	ERDS2TJ122	C 1.2KOHM, J, 1/4W
R361	ERDS2TJ333	C 33KOHM, J, 1/4W	R515	ERDS2TJ102	C 1KOHM, J, 1/4W
R362	ERDS2TJ333	C 33KOHM, J, 1/4W	R516	ERDS2TJ272	C 2.7KOHM, J, 1/4W
R363	ERG5ZXJ272	M 2.7KOHM, 5W	R517	ERDS2TJ562	C 5.6KOHM, J, 1/4W
R364	ERG5ZXJ272	M 2.7KOHM, 5W	R518	ERDS2TJ223	C 22KOHM, J, 1/4W
R365	ERG5ZXJ272	M 2.7KOHM, 5W	R519	ERDS2TJ332	C 3.3KOHM, J, 1/4W
R366	ERQ14AJ330P	M 33 OHM, J, 1/4W	R520	ERDS2TJ391	C 390 OHM, J, 1/4W
R367	ERQ14AJ330P	M 33 OHM, J, 1/4W	R521	ERDS2TJ102	C 1KOHM, J, 1/4W
R368	ERQ14AJ330P	M 33 OHM, J, 1/4W	R523	ERDS1FJ182	C 1.8KOHM, J, 1/2W
R369	ERQ14AJ330P	M 33 OHM, J, 1/4W	R525	ERDS2TJ332	C 3.3KOHM, J, 1/4W
R370	ERQ14AJ330P	M 33 OHM, J, 1/4W	R526	ERDS2TJ102	C 1KOHM, J, 1/4W
R371	ERQ14AJ330P	M 33 OHM, J, 1/4W	R527	ERDS2TJ102	C 1KOHM, J, 1/4W
R372	ERDS2TJ680	C 68 OHM, J, 1/4W	R528	ERF5ZJ821	W 820 OHM, J, 5W
R373	ERDS2TJ680	C 68 OHM, J, 1/4W	R529	ERDS2TJ392	C 3.9KOHM, J, 1/4W
R374	ERDS2TJ680	C 68 OHM, J, 1/4W	R530	ERX3SJR22H	M 0.22OHM, J, 3W
R375	ERDS2TJ680	C 68 OHM, J, 1/4W	R531	ERDS2TJ683	C 68KOHM, J, 1/4W
R376	ERDS2TJ680	C 68 OHM, J, 1/4W	R542	ERD25FJ392	C 3.9KOHM, J, 1/4W
R377	ERDS2TJ680	C 68 OHM, J, 1/4W	R543	ERDS2TJ223	C 22KOHM, J, 1/4W
R378	ERDS1FJ151	C 150 OHM, J, 1/2W	R544	ERDS1TJ683	C 68KOHM, J, 1/2W
R379	ERDS1FJ151	C 150 OHM, J, 1/2W	R545	ERX3SJ5R6H	M 5.6 OHM, J, 3W
R380	ERDS1FJ151	C 150 OHM, J, 1/2W	R546	ERDS1TJ823	C 82KOHM, J, 1/2W
R381	ERDS1TJ154	C 150KOHM, J, 1/2W	R550	ERDS1TJ472	C 4.7KOHM, J, 1/2W
R382	ERDS2TJ822	C 8.2KOHM, J, 1/4W	R552	ERDS1TJ683	C 68KOHM, J, 1/2W
R383	ERD25TJ101	C 100 OHM, J, 1/4W	R553	ERDS2TJ105	C 1MOHM, J, 1/4W
R384	ERDS1FJ472	C 4.7KOHM, J, 1/2W	R554	ERDS2CKF1002	M 10KOHM, F, 1/4W
R385	ERDS2TJ334	C 330KOHM, J, 1/4W	R555	ERDS2TJ154	C 150KOHM, J, 1/4W
R386	ERDS2TJ151	C 150 OHM, J, 1/4W	R556	ERDS2TJ333	C 33KOHM, J, 1/4W
R387	ERDS2TJ151	C 150 OHM, J, 1/4W	R557	ERF3AJ100	W 10 OHM, J, 3W
R388	ERDS2TJ151	C 150 OHM, J, 1/4W	R558	ERDS2TJ101	C 100 OHM, J, 1/4W
R389	ERDS2TJ332	C 3.3KOHM, J, 1/4W	R559	ERF3AK3R3	W 3.3 OHM, 3W
R393	ERDS2TJ821	C 820 OHM, J, 1/4W	R560	ERDS2TJ103	C 10KOHM, J, 1/4W
R394	ERDS2TJ272	C 2.7KOHM, J, 1/4W	R562	EVM38GA00B15	CONTROL 100KOHM,B
R395	ERDS2TJ272	C 2.7KOHM, J, 1/4W	R563	ERG2SJ271H	M 270 OHM, J, 2W
R396	ERDS2TJ332	C 3.3KOHM, J, 1/4W	R564	ERG2SJ391H	M 390 OHM, J, 2W
R397	ERDS2TJ821	C 820 OHM, J, 1/4W	R565	ERC12GK101	S 100 OHM, K, 1/2W
R400	ERDS2TJ562	C 5.6KOHM, J, 1/4W	R566	ERDS2TJ102	C 1KOHM, J, 1/4W
R401	ERG2SJ102H	M 1KOHM, J, 2W	R567	ERDS2TJ822	C 8.2KOHM, J, 1/4W
R402	ERG3SJ181H	M 180 OHM, J, 3W	R568	ERQ12AJ3R3P	F 3.3 OHM, 1/2W
R403	ERDS2TJ472	C 4.7KOHM, J, 1/4W	R569	ERDS2TJ272	C 2.7KOHM, J, 1/4W
R404	ERX2SJR56H	M 0.56OHM, J, 2W	R570	ERQ1CKPR33S	F 0.33 OHM, K, 1W
R405	ERDS2TJ272	C 2.7KOHM, J, 1/4W	R583	ERDS2TJ223	C 22KOHM, J, 1/4W
R406	ERDS2TJ470	C 47 OHM, J, 1/4W	R584	ERDS1TJ562	C 5.6KOHM, J, 1/2W
R407	ERDS2TJ394	C 390KOHM, J, 1/4W	R586	ERDS1TJ393	C 39KOHM, J, 1/2W
R408	ERDS2TJ473	C 47KOHM, J, 1/4W	R590	ERDS2TJ222	C 2.2KOHM, J, 1/4W
R409	ERDS2TJ124	C 120KOHM, J, 1/4W	R591	ERDS1TJ223	C 22KOHM, J, 1/2W
R410	ERDS2TJ472	C 4.7KOHM, J, 1/4W	R592	ERDS2TJ562	C 5.6KOHM, J, 1/4W
R411	ERDS2TJ334	C 330KOHM, J, 1/4W	R593	ERDS2TJ184	C 180KOHM, J, 1/4W
R412	ERDS2TJ332	C 3.3KOHM, J, 1/4W	R595	ERDS1FJ472	C 4.7KOHM, J, 1/2W
			R596	ERQ3CJ680	F 68 OHM, J, 3W
			R597	ERG1SJ331P	M 330 OHM, J, 1W



Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
R598	ERQ3CJ680	F 68 OHM, J, 3W	R808	ERDS2TJ103	C 10KOHM, J, 1/4W
R599	ERDS2TJ153	C 15KOHM, J, 1/4W	R809	ER050CKF12R0	M 12 OHM, F, 1/2W
R600	ERDS2TJ184	C 180KOHM, J, 1/4W	R810	ER0S2CKF2202	M 22KOHM, F, 1/4W
R601	ERJ6ENF4701	M 4.7KOHM, 1/10W	R811	ERDS2TJ223	C 22KOHM, J, 1/4W
R603	EVND4AA00B14	CONTROL 10KOHM,B	R812	ER025CKF47R0	M 47 OHM, F, 1/4W
R604	ERJ6ENF2701	M 2.7KOHM, 1/10W	R813	ERX12SJR82P	M 0.82 OHM, J, 1/2W
R606	ERJ6ENF1002	M 10KOHM, 1/10W	R814	ERX12SJR82P	M 0.82 OHM, J, 1/2W
R607	ERJ6ENF1002	M 10KOHM, 1/10W	R815	ERX12SJR82P	M 0.82 OHM, J, 1/2W
R608	EVND4AA00B14	CONTROL 10KOHM,B	R816	ERX12SJR82P	M 0.82 OHM, J, 1/2W
R609	ERDS1TJ683	C 68KOHM, J, 1/2W	R817	ERDS2TJ473	C 47KOHM, J, 1/4W
R611	ERJ6GEYJ153	M 15KOHM, J, 1/10W	R818	ERDS2TJ102	C 1KOHM, J, 1/4W
R612	ERJ6GEYJ223	M 22KOHM, J, 1/10W	R819	ERDS1TJ100	C 10 OHM, J, 1/2W
R613	ERJ6GEYJ153	M 15KOHM, J, 1/10W	R820	ERQ14AJ100	F 10 OHM, J, 1/4W
R614	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R821	ERQ14AJ150P	F 15 OHM, J, 1/4W
R615	ERJ6GEYJ153	M 15KOHM, J, 1/10W	R823	ERDS1TJ334	C 330KOHM, J, 1/2W
R616	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R824	ERC12ZGK825	S 8.2MOHM, K, 1/2W
R617	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R825	ERDS2TJ103	C 10KOHM, J, 1/4W
R618	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R826	ERDS2TJ103	C 10KOHM, J, 1/4W
R619	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R828	ERDS2TJ153	C 15KOHM, J, 1/4W
R620	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R829	ERDS2TJ224	C 220KOHM, J, 1/4W
R621	EVND4AA00B14	CONTROL 10KOHM,B	R830	ERDS2TJ472	C 4.7KOHM, J, 1/4W
R622	ERJ6GEYJ822	M 8.2KOHM, J, 1/10W	R831	ERDS2TJ103	C 10KOHM, J, 1/4W
R623	ERJ6GEYJ471	M 470 OHM, J, 1/10W	R832	ERG1SJ680P	M 68 OHM, J, 1W
R624	ERJ6GEYJ471	M 470 OHM, J, 1/10W	R833	ERG1SJ680P	M 68 OHM, J, 1W
R625	ERJ6GEYJ273	M 27KOHM, J, 1/10W	R834	ERDS2TJ681	C 680 OHM, J, 1/4W
R627	ERJ6GEYJ822	M 8.2KOHM, J, 1/10W	R835	ERDS2TJ103	C 10KOHM, J, 1/4W
R628	EVND4AA00B24	CONTROL 20KOHM,B	R836	ERDS2TJ473	C 47KOHM, J, 1/4W
R629	ERJ6ENF2201	M 2.2KOHM, 1/10W	R841	ERDS2TJ103	C 10KOHM, J, 1/4W
R630	ERJ6ENF2201	M 2.2KOHM, 1/10W	R842	ERDS2TJ472	C 4.7KOHM, J, 1/4W
R631	EVND4AA00B34	CONTROL 30KOHM,B	R845	ERDS2TJ331	C 330 OHM, J, 1/4W
R632	ERJ6GEYJ221	M 220 OHM, J, 1/10W	R846	ERDS2TJ183	C 18KOHM, J, 1/4W
R633	ERJ6GEYJ391	M 390 OHM, J, 1/10W	R847	ERDS2TJ562	C 5.6KOHM, J, 1/4W
R634	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R848	ERDS2TJ103	C 10KOHM, J, 1/4W
R635	EVND4AA00B13	CONTROL 1KOHM,B	R851	ERQ12HKR22	F 0.22 OHM, K, 1/2W
R636	ERJ6GEYJ105	M 1MOHM, J, 1/10W	R852	ERDS1FJ101	C 100 OHM, J, 1/2W
R637	ERJ6GEYJ225	M 2.2MOHM, J, 1/10W	R854	ERDS2TC0	C 0 OHM, 1/4W
R638	ERJ6GEYJ683	M 68KOHM, J, 1/10W	R855	ERDS1FJ102	C 1KOHM, J, 1/2W
R639	ERJ6GEYJ182	M 1.8KOHM, J, 1/10W	R859	ERDS1TJ472	C 4.7KOHM, J, 1/2W
R640	ERJ6GEYJ122	M 1.2KOHM, J, 1/10W	R860	ERQ12HKR22	F 0.22 OHM, K, 1/2W
R641	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R861	ERQ12AJ101	F 100 OHM, J, 1/2W
R642	ERJ6GEYJ102	M 1KOHM, J, 1/10W	R863	ERQ14AJ101P	F 100 OHM, J, 1/4W
R643	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R864	ER0S2CKF6802	M 68KOHM, F, 1/4W
R644	ERJ6GEYJ102	M 1KOHM, J, 1/10W	R865	EVM31GA00B24	CONTROL 20KOHM,B
R645	ERJ6GEYJ335	M 3.3KOHM, 1/10W	R866	ER0S2CKF5602	M 56KOHM, F, 1/4W
R646	ERJ6GEYJ151	M 150 OHM, J, 1/10W	R867	ERDS2TJ393	C 39KOHM, J, 1/4W
R647	ERJ6GEYJ181	M 180 OHM, J, 1/10W	R868	ERG3SJ563	M 56K OHM, J, 3W
R648	ERJ6GEYJ153	M 15KOHM, J, 1/10W	R869	ERDS2TJ103	C 10KOHM, J, 1/4W
R649	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R870	ERDS2TJ272	C 2.7KOHM, J, 1/4W
R650	ERJ6GEYJ332	M 3.3KOHM, J, 1/10W	R871	ERF5AK1R2	W 1.2 OHM, 5W
R651	ERJ6GEYJ331	M 330 OHM, J, 1/10W	R873	ERX3SJ2R2	M 2.2 OHM, J, 3W
R652	ERJ6GEYJ151	M 150 OHM, J, 1/10W	R874	ERX3SJ2R7H	M 2.7 OHM, J, 3W
R653	ERJ6GEYJ561	M 560 OHM, J, 1/10W	R875	ERDS2TJ103	C 10KOHM, J, 1/4W
R654	ERJ6GEYJ102	M 1KOHM, J, 1/10W	R880	ERQ2CJP1R8S	F 1.8 OHM, J, 2W
R655	ERJ6GEYJ102	M 1KOHM, J, 1/10W	R881	ERQ3CJ2R2	F 2.2 OHM, J, 3W
R656	ERJ6GEYJ331	M 330 OHM, J, 1/10W	R882	ERDS1TJ274	C 270KOHM, J, 1/2W
R657	ERJ6GEYJ561	M 560 OHM, J, 1/10W	R888	ERDS2TJ563	C 56KOHM, J, 1/4W
R658	ERJ6GEYJ224	M 220KOHM, J, 1/10W	R889	ERDS2TJ563	C 56KOHM, J, 1/4W
R659	ERJ6GEYJ683	M 68KOHM, J, 1/10W	R890	ERDS2TJ222	C 2.2KOHM, J, 1/4W
R660	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R891	ERDS2TJ471	C 470 OHM, J, 1/4W
R661	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R892	ERDS2TJ101	C 100 OHM, J, 1/4W
R662	ERJ6GEYJ224	M 220KOHM, J, 1/10W	R893	ERG1SJ221P	M 220 OHM, J, 1W
R663	ERJ6GEYJ122	M 1.2KOHM, J, 1/10W	R894	ERDS2TJ223	C 22KOHM, J, 1/4W
R664	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R895	ERDS2TJ223	C 22KOHM, J, 1/4W
R665	ERJ6GEYJ225	M 2.2MOHM, J, 1/10W	R1300	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R666	ERJ6GEYJ335	M 3.3KOHM, 1/10W	R1302	ERJ6GEYJ333	M 33KOHM, J, 1/10W
R667	ERJ6GEYJ105	M 1MOHM, J, 1/10W	R1303	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R801	ERF20ZK1R8	W 1.8 OHM, 20W	R1304	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R802	ERF20ZK1R8	W 1.8 OHM, 20W	R1305	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R806	ERG3SJ823	M 82KOHM, J, 3W	R1306	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R807	ER0S2CKF1502	M 15KOHM, F, 1/4W	R1307	ERJ6GEYJ122	M 1.2KOHM, J, 1/10W

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
R1308	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R1395	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R1309	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R1396	ERJ6GEYJ473	M 47KOHM, J, 1/10W
R1310	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R1397	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R1311	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R1398	ERJ6GEYJ333	M 33KOHM, J, 1/10W
R1312	ERJ6GEYJ122	M 1.2KOHM, J, 1/10W	R1399	ERJ6GEYJ333	M 33KOHM, J, 1/10W
R1313	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1400	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R1314	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R1401	ERG1SJ151P	M 150 OHM, J, 1W
R1315	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1402	ERJ6GEYJ272	M 2.7KOHM, J, 1/10W
R1316	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1403	ERJ6GEYJ333	M 33KOHM, J, 1/10W
R1319	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1404	ERJ6ENF2702	M 27KOHM, J, 1/10W
R1320	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1405	ERJ6GEYJ124	M 120KOHM, J, 1/10W
R1321	ERJ6GEYJ473	M 47KOHM, J, 1/10W	R1406	ERJ6GEYJ822	M 8.2KOHM, J, 1/10W
R1322	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1407	ERJ6GEYJ471	M 470 OHM, J, 1/10W
R1323	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1408	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R1324	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1409	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R1325	ERJ6GEYJ473	M 47KOHM, J, 1/10W	R1410	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R1327	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1411	ERJ6GEYJ332	M 3.3KOHM, J, 1/10W
R1328	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1412	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R1329	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1413	ERJ6GEYJ102	M 1KOHM, J, 1/10W
R1330	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1414	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R1333	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R1415	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R1335	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R1416	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R1339	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1417	ERJ6GEYJ104	M 100KOHM, J, 1/10W
R1341	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R1418	ERJ6GEYJ823	M 82KOHM, J, 1/10W
R1342	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R1419	ERG5SJ100H	W 10 OHM, J, 5W
R1343	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1420	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R1344	ERJ6GEYJ472	M 4.7KOHM, J, 1/10W	R1421	ERG1SJ220P	M 22 OHM, J, 1W
R1345	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R1422	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W
R1346	ERJ6GEYJ102	M 1KOHM, J, 1/10W	R1423	ERJ6GEYJ102	M 1KOHM, J, 1/10W
R1347	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1424	ERJ6GEYJ102	M 1KOHM, J, 1/10W
R1348	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R1425	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R1349	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R1426	ERJ6GEYJ105	M 1MOHM, J, 1/10W
R1350	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R1428	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R1351	ERJ6GEYJ472	M 4.7KOHM, J, 1/10W	R1429	ERJ6GEYJ102	M 1KOHM, J, 1/10W
R1352	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R1430	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R1353	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R1431	ERJ6GEYJ121	M 120 OHM, J, 1/10W
R1354	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R1432	ERJ6GEYJ561	M 560 OHM, J, 1/10W
R1355	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1433	ERJ6GEYJ244	M 24KOHM, J, 1/10W
R1356	ERQ2CJP330S	F 33 OHM, J, 2W	R1434	ERJ6GEYJ394	M 390KOHM, J, 1/10W
R1358	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1435	EVND4AA00B14	CONTROL 10KOHM,B
R1360	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R1436	ERJ6GEYJ473	M 47KOHM, J, 1/10W
R1361	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1437	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R1362	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1438	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R1363	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1439	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R1364	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R1440	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R1367	ERJ6GEYJ473	M 47KOHM, J, 1/10W	R1441	ERJ6GEYJ333	M 33KOHM, J, 1/10W
R1368	ERJ6GEYJ473	M 47KOHM, J, 1/10W	R1442	ERJ6GEYJ473	M 47KOHM, J, 1/10W
R1369	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R1444	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R1370	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R1445	ERJ6GEYJ333	M 33KOHM, J, 1/10W
R1371	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R1448	EVND4AA00B14	CONTROL 10KOHM,B
R1372	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1449	ERJ6GEYJ123	M 12KOHM, J, 1/10W
R1373	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R1450	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R1374	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R1451	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R1375	ERJ6GEYJ223	M 22KOHM, J, 1/10W	R1454	ERJ6GEYJ122	M 1.2KOHM, J, 1/10W
R1376	ERJ6GEYJ102	M 1KOHM, J, 1/10W	R1455	ERJ6GEYJ682	M 6.8KOHM, J, 1/10W
R1377	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R1456	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R1378	ERJ6GEYJ102	M 1KOHM, J, 1/10W	R1457	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R1379	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R1458	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R1380	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R1459	ERJ6GEYJ561	M 560 OHM, J, 1/10W
R1381	ERJ6GEYJ473	M 47KOHM, J, 1/10W	R1460	ERJ6GEYJ333	M 33KOHM, J, 1/10W
R1382	ERJ6GEYJ473	M 47KOHM, J, 1/10W	R1461	ERJ6GEYJ562	M 5.6KOHM, J, 1/10W
R1383	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1462	ERJ6GEYJ562	M 5.6KOHM, J, 1/10W
R1384	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1463	ERJ6GEYJ333	M 33KOHM, J, 1/10W
R1385	ERJ6GEYJ472	M 4.7KOHM, J, 1/10W	R1464	ERJ6GEYJ393	M 390KOHM, J, 1/10W
R1386	ERJ6GEYJ472	M 4.7KOHM, J, 1/10W	R1465	ERJ6GEYJ220	M 22 OHM, J, 1/10W
R1387	ERJ6GEYJ560	M 56 OHM, J, 1/10W	R1466	ERJ6GEYJ152	M 1.5KOHM, J, 1/10W
R1390	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1467	ERJ6GEYJ152	M 1.5KOHM, J, 1/10W
R1392	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1468	ERJ6GEYJ220	M 22 OHM, J, 1/10W
R1393	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R1469	ERJ6GEYJ152	M 1.5KOHM, J, 1/10W
R1394	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R1470	ERJ6GEYJ101	M 100 OHM, J, 1/10W

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
R1473	ERJ6GEYJ220	M 22 OHM, J, 1/10W	R1552	ER0S2CKF1002	M 10KOHM, F, 1/4W
R1474	ERJ6GEYJ392	M 3.9KOHM, J, 1/10W	R1553	ERDS2TJ103	C 10KOHM, J, 1/4W
R1477	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R1554	ERDS2TJ103	C 10KOHM, J, 1/4W
R1478	ERJ6GEYJ152	M 1.5KOHM, J, 1/10W	R1555	ERDS2TJ393	C 39KOHM, J, 1/4W
R1481	ERJ6GEYJ393	M 39KOHM, J, 1/10W	R1556	ERDS2TJ122	C 1.2KOHM, J, 1/4W
R1482	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1557	ERDS2TJ103	C 10KOHM, J, 1/4W
R1483	ERJ6GEYJ472	M 4.7KOHM, J, 1/10W	R1558	ERDS2TJ560	C 56 OHM, J, 1/4W
R1484	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1559	ERDS2TJ221	C 220 OHM, J, 1/4W
R1485	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1560	ERDS2TJ103	C 10KOHM, J, 1/4W
R1486	ERJ6GEYJ472	M 4.7KOHM, J, 1/10W	R1561	ERDS2TJ334	C 330KOHM, J, 1/4W
R1487	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1562	ERDS2TJ334	C 330KOHM, J, 1/4W
R1488	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R1564	ERDS2TJ102	C 1KOHM, J, 1/4W
R1489	ERJ6GEYJ472	M 4.7KOHM, J, 1/10W	R1565	ERDS2TJ105	C 1MOHM, J, 1/4W
R1490	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R2101	ERDS2TJ331	C 330 OHM, J, 1/4W
R1491	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R2102	ERDS2TJ562	C 5.6KOHM, J, 1/4W
R1492	ERJ6GEYJ102	M 1KOHM, J, 1/10W	R2103	ERDS2TJ331	C 330 OHM, J, 1/4W
R1493	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R2104	ERDS2TJ151	C 150 OHM, J, 1/4W
R1494	ERJ6GEYJ102	M 1KOHM, J, 1/10W	R2105	ERDS2TJ562	C 5.6KOHM, J, 1/4W
R1496	ERJ6GEYJ393	M 39KOHM, J, 1/10W	R2106	ERDS2TJ151	C 150 OHM, J, 1/4W
R1497	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R2107	ERDS2TJ151	C 150 OHM, J, 1/4W
R1498	ERJ6GEYJ472	M 4.7KOHM, J, 1/10W	R2108	ERDS2TJ151	C 150 OHM, J, 1/4W
R1499	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R2110	ERDS2TJ562	C 5.6KOHM, J, 1/4W
R1501	ERC1GK274	S 270KOHM, 1W	R2111	ERDS2TJ562	C 5.6KOHM, J, 1/4W
R1502	ERC1GK274	S 270KOHM, 1W	R2112	ERDS2TJ331	C 330 OHM, J, 1/4W
R1503	ERC1GK274	S 270KOHM, 1W	R2113	ERDS2TJ331	C 330 OHM, J, 1/4W
R1504	ERC1GK274	S 270KOHM, 1W	R2114	ERDS2TJ103	C 10KOHM, J, 1/4W
R1505	ERC1GK274	S 270KOHM, 1W	R2115	ERDS2TJ103	C 10KOHM, J, 1/4W
R1506	ERQ12HJ101	F 100 OHM, J, 1/2W	R2116	ERDS2TJ102	C 1KOHM, J, 1/4W
R1507	ERQ14AJ101P	F 100 OHM, J, 1/4W	R2117	ERDS2TJ103	C 10KOHM, J, 1/4W
R1508	ERQ14AJ101P	F 100 OHM, J, 1/4W	R2118	ERDS2TJ102	C 1KOHM, J, 1/4W
R1509	ERDS2TJ103	C 10KOHM, J, 1/4W	R2119	ERDS2TJ102	C 1KOHM, J, 1/4W
R1510	ERDS2TJ105	C 1MOHM, J, 1/4W	R2301	ERDS2TJ123	C 12KOHM, J, 1/4W
R1511	ERDS2TJ103	C 10KOHM, J, 1/4W	R2302	ERDS2TJ123	C 12KOHM, J, 1/4W
R1512	ERC12GK224	S 220KOHM, K, 1/2W	R2303	ERQ14AJ100	F 10 OHM, J, 1/4W
R1513	ERC12GK224	S 220KOHM, K, 1/2W	R2304	ERQ14AJ100	F 10 OHM, J, 1/4W
R1514	ERC12GK224	S 220KOHM, K, 1/2W	R2305	ERDS2TJ103	C 10KOHM, J, 1/4W
R1515	ERC12GK224	S 220KOHM, K, 1/2W	R2306	ERDS2TJ103	C 10KOHM, J, 1/4W
R1516	ERC12GK224	S 220KOHM, K, 1/2W	R2307	ERQ3CJ2R2	F 2.2 OHM, J, 3W
R1517	ERDS2TJ105	C 1MOHM, J, 1/4W	R3101	ERDS1TJ103	C 10KOHM, J, 1/2W
R1518	ERDS2TJ472	C 4.7KOHM, J, 1/4W	R3102	ERDS1TJ103	C 10KOHM, J, 1/2W
R1519	EVND2AA03B23	CONTROL 1KOHM,B	R3103	ERDS1TJ103	C 10KOHM, J, 1/2W
R1520	ERDS2TJ331	C 330 OHM, J, 1/4W	R3104	ERDS1TJ103	C 10KOHM, J, 1/2W
R1521	ERDS2TJ822	C 8.2KOHM, J, 1/4W	R3105	ERDS1TJ103	C 10KOHM, J, 1/2W
R1522	ERDS2TJ105	C 1MOHM, J, 1/4W	R3106	ERDS1TJ103	C 10KOHM, J, 1/2W
R1524	ERDS2TJ102	C 1KOHM, J, 1/4W	R3107	ERDS1TJ103	C 10KOHM, J, 1/2W
R1526	ERDS2TJ392	C 3.9KOHM, J, 1/4W	R3108	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R1527	ERDS2TJ101	C 100 OHM, J, 1/4W	R3109	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R1528	ERDS2TJ333	C 33KOHM, J, 1/4W	R3112	ERJ6GEYJ472	M 4.7KOHM, J, 1/10W
R1529	ERDS2TJ182	C 1.8KOHM, J, 1/4W	R3113	ERDS2TC0	C 0 OHM, 1/4W
R1530	ERDS2TJ222	C 2.2KOHM, J, 1/4W	R3114	ERJ6GEYJ472	M 4.7KOHM, J, 1/10W
R1531	ERDS2TJ102	C 1KOHM, J, 1/4W	R3115	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R1532	ERDS2TJ103	C 10KOHM, J, 1/4W	R3116	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R1533	ERDS2TJ472	C 4.7KOHM, J, 1/4W	R3120	ERDS1TJ103	C 10KOHM, J, 1/2W
R1534	ERDS2TJ473	C 4.7KOHM, J, 1/4W	R3121	ERJ6GEYJ104	M 100KOHM, J, 1/10W
R1535	ERDS2TJ823	C 82KOHM, J, 1/4W	R3122	ERJ6GEYJ104	M 100KOHM, J, 1/10W
R1536	ERDS2TJ103	C 10KOHM, J, 1/4W	R3123	ERJ6GEYJ104	M 100KOHM, J, 1/10W
R1538	ERDS2TJ103	C 10KOHM, J, 1/4W	R3124	ERJ6GEYJ104	M 100KOHM, J, 1/10W
R1539	ERDS2TJ473	C 47KOHM, J, 1/4W	R3125	ERJ6GEYJ104	M 100KOHM, J, 1/10W
R1540	ERDS2TJ224	C 220KOHM, J, 1/4W	R3126	ERJ6GEYJ104	M 100KOHM, J, 1/10W
R1541	ERDS2TJ623	C 62KOHM, J, 1/4W	R3127	ERJ6GEYJ104	M 100KOHM, J, 1/10W
R1542	ERDS2TJ273	C 27KOHM, J, 1/4W	R3128	ERJ6GEYJ104	M 100KOHM, J, 1/10W
R1543	ERDS2TJ203	C 20KOHM, J, 1/4W	R3151	ERJ6GEYJ683	M 68KOHM, J, 1/10W
R1544	ERDS2TJ473	C 47KOHM, J, 1/4W	R3152	ERJ6GEYJ683	M 68KOHM, J, 1/10W
R1545	ERDS2TJ101	C 100 OHM, J, 1/4W	R3153	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R1546	ERDS2TJ224	C 220KOHM, J, 1/4W	R3154	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R1547	ERDS2TJ223	C 22KOHM, J, 1/4W	R3155	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R1548	ERDS2TJ123	C 12KOHM, J, 1/4W	R3156	ERJ6GEYJ333	M 33KOHM, J, 1/10W
R1549	ERDS2TJ752	C 7.5KOHM, J, 1/4W	R3157	ERJ6GEYJ225	M 2.2MOHM, J, 1/10W
R1550	ERDS2TJ682	C 6.8KOHM, J, 1/4W	R3158	ERJ6GEYJ473	M 47KOHM, J, 1/10W
R1551	ER0S2CKF1002	M 10KOHM, F, 1/4W	R3159	ERJ6GEYJ473	M 47KOHM, J, 1/10W

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
R3160	ERJ6GEYJ474	M 470KOHM, J, 1/10W	R3256	ERJ6GEYJ102	M 1KOHM, J, 1/10W
R3161	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R3257	ERJ6GEYJ102	M 1KOHM, J, 1/10W
R3162	ERJ6GEYJ331	M 330 OHM, J, 1/10W	R3258	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R3163	ERJ6GEYJ221	M 220 OHM, J, 1/10W	R3259	ERJ6GEYJ182	M 1.8KOHM, J, 1/10W
R3164	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R3260	ERJ6GEYJ102	M 1KOHM, J, 1/10W
R3165	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R3261	ERJ6GEYJ471	M 470 OHM, J, 1/10W
R3166	ERJ6GEYJ681	M 680 OHM, J, 1/10W	R3262	ERJ6GEYJ104	M 100KOHM, J, 1/10W
R3167	ERJ6GEYJ473	M 47KOHM, J, 1/10W	R3263	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R3168	ERJ6GEYJ152	M 1.5KOHM, J, 1/10W	R3264	ERJ6GEYJ182	M 1.8KOHM, J, 1/10W
R3169	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R3265	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R3170	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R3266	ERJ6GEYJ102	M 1KOHM, J, 1/10W
R3171	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R3268	ERJ6GEYJ332	M 3.3KOHM, J, 1/10W
R3172	ERJ6GEYJ274	M 270KOHM, J, 1/10W	R3271	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R3173	ERJ6GEYJ274	M 270KOHM, J, 1/10W	R3272	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R3174	ERJ6GEYJ104	M 100KOHM, J, 1/10W	R3273	ERJ6GEYJ561	M 560 OHM, J, 1/10W
R3175	ERJ6GEYJ104	M 100KOHM, J, 1/10W	R3274	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R3176	ERJ6GEYJ104	M 100KOHM, J, 1/10W	R3275	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R3177	ERJ6GEYJ104	M 100KOHM, J, 1/10W	R3276	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R3178	ERJ6GEYJ104	M 100KOHM, J, 1/10W	R3277	ERJ6GEYJ333	M 33KOHM, J, 1/10W
R3179	ERJ6GEYJ104	M 100KOHM, J, 1/10W	R3278	ERJ6GEYJ333	M 33KOHM, J, 1/10W
R3180	ERJ6GEYJ104	M 100KOHM, J, 1/10W	R3279	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R3181	ERJ6GEYJ104	M 100KOHM, J, 1/10W	R3280	ERJ6GEYJ273	M 27KOHM, J, 1/10W
R3200	ERJ6GEYJ561	M 560 OHM, J, 1/10W	R3281	ERJ6GEYJ102	M 1KOHM, J, 1/10W
R3201	ERJ6GEYJ123	M 12KOHM, J, 1/10W	R3282	ERJ6GEYJ102	M 1KOHM, J, 1/10W
R3202	ERJ6GEYJ822	M 8.2KOHM, J, 1/10W	R3283	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R3203	ERJ6GEYJ102	M 1KOHM, J, 1/10W	R3284	ERJ6GEYJ470	M 47 OHM, J, 1/10W
R3204	ERJ6GEYJ102	M 1KOHM, J, 1/10W	R3285	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R3205	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R3286	ERJ6GEYJ333	M 33KOHM, J, 1/10W
R3206	ERJ6GEYJ681	M 680 OHM, J, 1/10W	R3287	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R3208	ERJ6GEYJ151	M 150 OHM, J, 1/10W	R3288	ERJ6GEYJ102	M 1KOHM, J, 1/10W
R3209	ERJ6GEYJ473	M 47KOHM, J, 1/10W	R3289	ERJ6GEYJ561	M 560 OHM, J, 1/10W
R3210	ERJ6GEYJ563	M 56KOHM, J, 1/10W	R3290	ERJ6GEYJ152	M 1.5KOHM, J, 1/10W
R3212	ERJ6GEYJ102	M 1KOHM, J, 1/10W	R3291	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R3213	ERJ6GEYJ152	M 1.5KOHM, J, 1/10W	R3292	ERJ6GEYJ102	M 1KOHM, J, 1/10W
R3216	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R3293	ERJ6GEYJ102	M 1KOHM, J, 1/10W
R3219	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R3295	ERJ6GEYJ122	M 1.2KOHM, J, 1/10W
R3220	ERJ6GEYOR00	M 0 OHM, J, 1/10W	R3297	ERJ6GEYJ104	M 100KOHM, J, 1/10W
R3221	ERJ6GEYJ102	M 1KOHM, J, 1/10W	R3299	ERJ6GEYJ563	M 56KOHM, J, 1/10W
R3222	ERJ6GEYJ821	M 820 OHM, J, 1/10W	R3301	ER0S2CKF75R0	M 75 OHM, F, 1/4W
R3223	ERJ6GEYJ121	M 120 OHM, J, 1/10W	R3302	ER0S2CKF75R0	M 75 OHM, F, 1/4W
R3224	ERJ6GEYJ562	M 5.6KOHM, J, 1/10W	R3303	ER0S2CKF75R0	M 75 OHM, F, 1/4W
R3225	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R3304	ER0S2CKF75R0	M 75 OHM, F, 1/4W
R3226	ERJ6GEYJ152	M 1.5KOHM, J, 1/10W	R3305	ER0S2CKF75R0	M 75 OHM, F, 1/4W
R3227	ERJ6GEYJ181	M 180 OHM, J, 1/10W	R3306	ERDS1TJ101	C 100 OHM, J, 1/2W
R3228	ERJ6GEYJ102	M 1KOHM, J, 1/10W	R3307	ER0S2CKF75R0	M 75 OHM, F, 1/4W
R3229	ERJ6GEYJ682	M 6.8KOHM, J, 1/10W	R3308	ERDS1TJ101	C 100 OHM, J, 1/2W
R3230	ERJ6GEYJ391	M 390 OHM, J, 1/10W	R3309	ERDS1TJ101	C 100 OHM, J, 1/2W
R3231	ERJ6GEYJ473	M 47KOHM, J, 1/10W	R3310	ERDS1TJ101	C 100 OHM, J, 1/2W
R3232	ERJ6GEYJ152	M 1.5KOHM, J, 1/10W	R3311	ERDS1TJ101	C 100 OHM, J, 1/2W
R3233	ERJ6GEYJ273	M 27KOHM, J, 1/10W	R3312	ERDS1TJ101	C 100 OHM, J, 1/2W
R3234	ERJ6GEYJ561	M 560 OHM, J, 1/10W	R3313	ERDS1TJ101	C 100 OHM, J, 1/2W
R3236	ERJ6GEYJ272	M 2.7KOHM, J, 1/10W	R3314	ER0S2CKF75R0	M 75 OHM, F, 1/4W
R3237	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R3315	ER0S2CKF75R0	M 75 OHM, F, 1/4W
R3238	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R3316	ER0S2CKF75R0	M 75 OHM, F, 1/4W
R3239	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R3317	ER0S2CKF75R0	M 75 OHM, F, 1/4W
R3240	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R3318	ERDS1TJ101	C 100 OHM, J, 1/2W
R3241	ERJ6GEYJ121	M 120 OHM, J, 1/10W	R3319	ERDS1TJ101	C 100 OHM, J, 1/2W
R3243	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R3320	ER0S2CKF75R0	M 75 OHM, F, 1/4W
R3244	ERJ6GEYJ152	M 1.5KOHM, J, 1/10W	R3321	ER0S2CKF75R0	M 75 OHM, F, 1/4W
R3245	ERJ6GEYJ152	M 1.5KOHM, J, 1/10W	R3322	ERDS1TJ101	C 100 OHM, J, 1/2W
R3246	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R3323	ERDS1TJ101	C 100 OHM, J, 1/2W
R3247	ERJ6GEYJ221	M 220 OHM, J, 1/10W	R3324	ERDS1TJ101	C 100 OHM, J, 1/2W
R3248	ERJ6GEYJ121	M 120 OHM, J, 1/10W	R3325	ERDS1TJ101	C 100 OHM, J, 1/2W
R3249	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R3326	ERDS1TJ101	C 100 OHM, J, 1/2W
R3250	ERJ6GEYJ102	M 1KOHM, J, 1/10W	R3327	ERDS1TJ101	C 100 OHM, J, 1/2W
R3251	ERJ6GEYJ102	M 1KOHM, J, 1/10W	R3328	ERDS1TJ101	C 100 OHM, J, 1/2W
R3252	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R3329	ERDS1TJ101	C 100 OHM, J, 1/2W
R3253	ERJ6GEYJ561	M 560 OHM, J, 1/10W	R3330	ERJ6GEYJ333	M 33KOHM, J, 1/10W
R3254	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R3331	ERJ6GEYJ333	M 33KOHM, J, 1/10W
R3255	ERJ6GEYJ102	M 1KOHM, J, 1/10W	R3332	ERJ6GEYJ333	M 33KOHM, J, 1/10W

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
R3333	ERJ6GEYJ393	M 39KOHM, J, 1/10W	R3405	ERJ6GEYJ225	M 2.2MOHM, J, 1/10W
R3334	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R3416	ERJ6GEYJ333	M 33KOHM, J, 1/10W
R3335	ERJ6GEYJ153	M 15KOHM, J, 1/10W	R3417	ERJ6GEYJ333	M 33KOHM, J, 1/10W
R3336	ERJ6GEYJ153	M 15KOHM, J, 1/10W	R3418	ERJ6GEYJ333	M 33KOHM, J, 1/10W
R3337	ERJ6GEYJ153	M 15KOHM, J, 1/10W	R3419	ERJ6GEYJ333	M 33KOHM, J, 1/10W
R3338	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R3421	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R3339	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R3423	ERJ6GEYJ471	M 470 OHM, J, 1/10W
R3340	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R3427	ERJ6GEYJ332	M 3.3KOHM, J, 1/10W
R3341	ERJ6GEYJ683	M 68KOHM, J, 1/10W	R3428	ERJ6GEYJ821	M 820 OHM, J, 1/10W
R3342	ERJ6GEYJ683	M 68KOHM, J, 1/10W	R3435	ERDS2TJ561	C 560 OHM, J, 1/4W
R3343	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R3438	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R3344	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R3439	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R3345	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R3440	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R3346	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R3441	ERJ6GEYJ333	M 33KOHM, J, 1/10W
R3347	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R3442	ERJ6GEYJ333	M 33KOHM, J, 1/10W
R3348	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R3443	ERJ6GEYJ333	M 33KOHM, J, 1/10W
R3349	ERJ6GEYJ153	M 15KOHM, J, 1/10W	R3444	ERJ6GEYJ333	M 33KOHM, J, 1/10W
R3350	ERJ6GEYJ153	M 15KOHM, J, 1/10W	R3445	ERJ6GEYJ333	M 33KOHM, J, 1/10W
R3351	ERJ6GEYJ153	M 15KOHM, J, 1/10W	R3446	ERJ6GEYJ102	M 1KOHM, J, 1/10W
R3352	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R3448	ERJ6GEYJ470	M 47 OHM, J, 1/10W
R3353	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R3449	ERJ6GEYJ473	M 47KOHM, J, 1/10W
R3354	ERJ6GEYJ153	M 15KOHM, J, 1/10W	R3450	ERJ6GEYJ394	M 390KOHM, J, 1/10W
R3355	ERJ6GEYJ153	M 15KOHM, J, 1/10W	R3451	ERJ6GEYJ473	M 47KOHM, J, 1/10W
R3356	ERJ6GEYJ153	M 15KOHM, J, 1/10W	R3452	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R3357	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R3453	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R3358	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R3454	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R3359	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R3455	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R3360	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R3456	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R3361	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R3457	ERJ6ENF3303	M 330KOHM, 1/10W
R3362	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R3458	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R3363	ERDS1TJ101	C 100 OHM, J, 1/2W	R3461	ERJ6GEYJ333	M 33KOHM, J, 1/10W
R3364	ERDS1TJ101	C 100 OHM, J, 1/2W	R3462	ERJ6GEYJ153	M 15KOHM, J, 1/10W
R3365	ERJ6GEYJ393	M 39KOHM, J, 1/10W	R3463	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W
R3366	ERJ6GEYJ183	M 18KOHM, J, 1/10W	R3464	ERJ6GEYJ333	M 33KOHM, J, 1/10W
R3367	ERJ6GEYJ393	M 39KOHM, J, 1/10W	R3465	ERJ6GEYJ153	M 15KOHM, J, 1/10W
R3368	ERJ6GEYJ183	M 18KOHM, J, 1/10W	R3466	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W
R3369	ERJ6GEYJ183	M 18KOHM, J, 1/10W	R3467	ERJ6GEYJ333	M 33KOHM, J, 1/10W
R3370	ERJ6GEYJ683	M 68KOHM, J, 1/10W	R3468	ERJ6GEYJ153	M 15KOHM, J, 1/10W
R3371	ERJ6GEYJ563	M 56KOHM, J, 1/10W	R3469	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W
R3372	ERJ6GEYJ683	M 68KOHM, J, 1/10W	R3470	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R3373	ERJ6GEYJ563	M 56KOHM, J, 1/10W	R3471	ERDS2TJ333	C 33KOHM, J, 1/4W
R3374	ERJ6GEYJ563	M 56KOHM, J, 1/10W	R3472	ERDS2TJ333	C 33KOHM, J, 1/4W
R3375	ERJ6GEYJ271	M 270 OHM, J, 1/10W	R3473	ERDS2TJ333	C 33KOHM, J, 1/4W
R3376	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R3474	ERDS2TJ333	C 33KOHM, J, 1/4W
R3377	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R3475	ERDS2TJ333	C 33KOHM, J, 1/4W
R3378	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R3476	ERDS2TJ333	C 33KOHM, J, 1/4W
R3379	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R3480	ERJ6GEYJ104	M 100KOHM, J, 1/10W
R3380	ERJ6GEYJ271	M 270 OHM, J, 1/10W	R4802	ERDS2TJ682	C 6.8KOHM, J, 1/4W
R3381	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R4803	ER0S2CKF4701	M 4.7KOHM, F, 1/4W
R3382	ERJ6GEYJ271	M 270 OHM, J, 1/10W	R4804	ER0S2CKF4421	M 4.4KOHM, F, 1/4W
R3383	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R4805	ERDS2TJ393	C 39KOHM, J, 1/4W
R3384	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R4806	ERDS2TJ104	C 100KOHM, J, 1/4W
R3385	ERJ6GEYJ473	M 47KOHM, J, 1/10W	R4807	ERDS2TJ393	C 39KOHM, J, 1/4W
R3386	ERJ6GEYJ473	M 47KOHM, J, 1/10W	R4808	ERDS2TJ154	C 150KOHM, J, 1/4W
R3387	ERJ6GEYJ102	M 1KOHM, J, 1/10W	R4809	ERDS2TJ100	C 10 OHM, J, 1/4W
R3388	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R4810	ERDS1FJ100	C 10 OHM, J, 1/2W
R3389	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R4811	ERQ14AJ220P	F 22 OHM, J, 1/4W
R3390	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5100	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R3391	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5101	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R3392	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5102	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R3393	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5103	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R3394	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5104	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R3395	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5105	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R3396	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5106	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R3397	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5107	ERJ6GEYJ102	M 1KOHM, J, 1/10W
R3398	ER0S2CKF75R0	M 75 OHM, F, 1/4W	R5109	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W
R3399	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5110	ERJ6GEYJ470	M 47 OHM, J, 1/10W
R3401	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5111	ERDS2TJ271	C 270 OHM, J, 1/4W
R3402	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5112	ERDS2TJ470	C 47 OHM, J, 1/4W
R3403	ERDS1TJ102	C 1KOHM, J, 1/2W	R5113	ERDS2TJ271	C 270 OHM, J, 1/4W

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
R5114	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5200	ERDS2TJ333	C 33KOHM, J, 1/4W
R5115	ERDS2TJ271	C 270 OHM, J, 1/4W	R5201	ERJ6GEYJ183	M 18KOHM, J, 1/10W
R5119	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R5202	ERJ6GEYJ122	M 1.2KOHM, J, 1/10W
R5120	ERJ6GEYJ332	M 3.3KOHM, J, 1/10W	R5203	ERJ6GEYJ470	M 47 OHM, J, 1/10W
R5121	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R5204	ERDS2TJ102	C 1KOHM, J, 1/4W
R5122	ERJ6GEYJ562	M 5.6KOHM, J, 1/10W	R5205	ERJ6GEY0R00	M 0 OHM, J, 1/10W
R5123	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R5206	ERDS2TJ561	C 560 OHM, J, 1/4W
R5124	ERJ6GEYJ472	M 4.7KOHM, J, 1/10W	R5207	ERJ6GEYJ470	M 47 OHM, J, 1/10W
R5125	ERJ6GEYJ472	M 4.7KOHM, J, 1/10W	R5208	ERDS2TJ331	C 330 OHM, J, 1/4W
R5126	ERJ6GEYJ472	M 4.7KOHM, J, 1/10W	R5209	ERJ6GEYJ331	M 330 OHM, J, 1/10W
R5127	ERJ6GEYJ472	M 4.7KOHM, J, 1/10W	R5210	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W
R5128	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R5211	ERDS2TJ272	C 2.7KOHM, J, 1/4W
R5129	ERJ6GEYJ223	M 22KOHM, J, 1/10W	R5212	ERDS2TJ331	C 330 OHM, J, 1/4W
R5130	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5213	ERDS2TJ331	C 330 OHM, J, 1/4W
R5131	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5214	ERDS2TJ471	C 470 OHM, J, 1/4W
R5132	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5215	ERDS2TJ101	C 100 OHM, J, 1/4W
R5133	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5216	ERJ6GEYJ561	M 560 OHM, J, 1/10W
R5134	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5217	ERDS2TJ331	C 330 OHM, J, 1/4W
R5135	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5218	ERDS2TJ331	C 330 OHM, J, 1/4W
R5136	ERJ6GEYJ102	M 1KOHM, J, 1/10W	R5219	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R5137	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R5220	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R5139	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R5221	ERDS2TJ333	C 33KOHM, J, 1/4W
R5140	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R5222	ERJ6GEYJ183	M 18KOHM, J, 1/10W
R5142	ERJ6GEYJ220	M 22 OHM, J, 1/10W	R5223	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R5143	ERJ6GEYJ331	M 330 OHM, J, 1/10W	R5224	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R5144	ERJ6GEYJ223	M 22KOHM, J, 1/10W	R5225	ERDS2TJ102	C 1KOHM, J, 1/4W
R5145	ERJ6GEYJ223	M 22KOHM, J, 1/10W	R5226	ERJ6GEY0R00	M 0 OHM, J, 1/10W
R5146	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5227	ERDS2TJ561	C 560 OHM, J, 1/4W
R5147	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5228	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R5148	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5229	ERDS2TJ331	C 330 OHM, J, 1/4W
R5149	ERJ6GEYJ104	M 100KOHM, J, 1/10W	R5230	ERJ6GEYJ331	M 330 OHM, J, 1/10W
R5150	ERJ6GEYJ102	M 1KOHM, J, 1/10W	R5231	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W
R5151	ERJ6GEYJ223	M 22KOHM, J, 1/10W	R5232	ERDS2TJ272	C 2.7KOHM, J, 1/4W
R5152	ERJ6GEYJ563	M 56KOHM, J, 1/10W	R5233	ERDS2TJ331	C 330 OHM, J, 1/4W
R5153	ERJ6GEYJ104	M 100KOHM, J, 1/10W	R5234	ERDS2TJ331	C 330 OHM, J, 1/4W
R5154	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R5235	ERDS2TJ471	C 470 OHM, J, 1/4W
R5155	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R5236	ERDS2TJ101	C 100 OHM, J, 1/4W
R5160	ERJ6GEYJ562	M 5.6KOHM, J, 1/10W	R5237	ERDS2TJ561	C 560 OHM, J, 1/4W
R5161	ERDS2TJ271	C 270 OHM, J, 1/4W	R5238	ERDS2TJ331	C 330 OHM, J, 1/4W
R5162	ERJ6GEYJ562	M 5.6KOHM, J, 1/10W	R5239	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R5163	ERDS2TJ271	C 270 OHM, J, 1/4W	R5240	ERDS2TJ331	C 330 OHM, J, 1/4W
R5164	ERDS2TJ271	C 270 OHM, J, 1/4W	R5241	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R5165	ERJ6GEYJ152	M 1.5KOHM, J, 1/10W	R5242	ERJ6GEYJ332	M 3.3KOHM, J, 1/10W
R5166	ERJ6GEYJ152	M 1.5KOHM, J, 1/10W	R5243	ERJ6GEYJ332	M 3.3KOHM, J, 1/10W
R5167	ERJ6GEYJ152	M 1.5KOHM, J, 1/10W	R5244	ERDS2TJ122	C 1.2KOHM, J, 1/4W
R5168	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R5245	ERDS2TJ122	C 1.2KOHM, J, 1/4W
R5169	ERJ6GEYJ122	M 1.2KOHM, J, 1/10W	R5246	ERJ6GEYJ332	M 3.3KOHM, J, 1/10W
R5170	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R5247	ERJ6GEYJ562	M 5.6KOHM, J, 1/10W
R5171	ERJ6GEYJ220	M 22 OHM, J, 1/10W	R5248	ERJ6GEYJ273	M 27KOHM, J, 1/10W
R5172	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R5249	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R5173	ERJ6GEYJ122	M 1.2KOHM, J, 1/10W	R5250	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R5174	ERJ6GEYJ561	M 560 OHM, J, 1/10W	R5251	ERJ6GEYJ273	M 27KOHM, J, 1/10W
R5175	ERDS1TJ331	C 330 OHM, J, 1/2W	R5252	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R5176	ERJ6GEYJ122	M 1.2KOHM, J, 1/10W	R5253	ERJ6GEYJ393	M 39KOHM, J, 1/10W
R5177	ERJ6GEYJ472	M 4.7KOHM, J, 1/10W	R5254	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W
R5178	ERJ6GEYJ220	M 22 OHM, J, 1/10W	R5256	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R5179	ERJ6GEYJ151	M 150 OHM, J, 1/10W	R5257	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R5180	ERJ6GEYJ223	M 22KOHM, J, 1/10W	R5258	ERDS1TJ221	C 220 OHM, J, 1/2W
R5181	ERJ6GEYJ223	M 22KOHM, J, 1/10W	R5259	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R5182	ERDS2TC0	C 0 OHM, 1/4W	R5260	ERJ6GEYJ392	M 3.9KOHM, J, 1/10W
R5183	ERDS2TC0	C 0 OHM, 1/4W	R5261	ERDS2TJ151	C 150 OHM, J, 1/4W
R5186	ERJ6GEYJ223	M 22KOHM, J, 1/10W	R5262	ERJ6GEYJ472	M 4.7KOHM, J, 1/10W
R5187	ERJ6GEYJ223	M 22KOHM, J, 1/10W	R5263	ERJ6GEYJ102	M 1KOHM, J, 1/10W
R5188	ERJ6GEYJ223	M 22KOHM, J, 1/10W	R5264	ERJ6GEYJ122	M 1.2KOHM, J, 1/10W
R5190	ERJ6GEYJ563	M 56KOHM, J, 1/10W	R5265	ERJ6GEYJ562	M 5.6KOHM, J, 1/10W
R5191	ERJ6GEYJ223	M 22KOHM, J, 1/10W	R5266	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R5192	ERJ6GEYJ102	M 1KOHM, J, 1/10W	R5269	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R5193	ERJ6GEYJ472	M 4.7KOHM, J, 1/10W	R5270	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R5194	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R5271	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R5197	ERJ6GEYJ102	M 1KOHM, J, 1/10W	R5272	ERJ6GEYJ822	M 8.2KOHM, J, 1/10W

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
R5273	ERJ6GEYJ105	M 1MOHM, J, 1/10W	R5344	ER0S2CKF4700	M 470 OHM, F, 1/4W
R5274	ERJ6GEYJ562	M 5.6KOHM, J, 1/10W	R5345	ER0S2CKF1000	M 100 OHM, F, 1/4W
R5275	ERJ6GEYJ562	M 5.6KOHM, J, 1/10W	R5346	ERJ6ENF3900	M 390 OHM, 1/10W
R5276	ERJ6GEYJ391	M 390 OHM, J, 1/10W	R5347	ERJ6GEYJ682	M 6.8KOHM, J, 1/10W
R5277	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R5348	ERJ6GEYJ470	M 47 OHM, J, 1/10W
R5278	ERJ6GEYJ104	M 100KOHM, J, 1/10W	R5349	ERDS2TJ471	C 470 OHM, J, 1/4W
R5279	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R5350	ERJ6GEYJ221	M 220 OHM, J, 1/10W
R5280	ERJ6GEYJ104	M 100KOHM, J, 1/10W	R5351	ERDS2TJ331	C 330 OHM, J, 1/4W
R5281	ERJ6GEYJ562	M 5.6KOHM, J, 1/10W	R5352	ERJ6GEYJ392	M 3.9KOHM, J, 1/10W
R5282	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R5353	ERJ6GEYJ153	M 15KOHM, J, 1/10W
R5283	ERJ6GEYJ102	M 1KOHM, J, 1/10W	R5354	ERJ6GEYJ470	M 47 OHM, J, 1/10W
R5284	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5355	ERDS2TJ271	C 270 OHM, J, 1/4W
R5285	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5356	ERJ6GEYJ681	M 680 OHM, J, 1/10W
R5286	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5357	ERJ6GEYJ470	M 47 OHM, J, 1/10W
R5287	ERJ6GEYJ152	M 1.5KOHM, J, 1/10W	R5358	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W
R5288	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R5359	ERJ6GEYJ122	M 1.2KOHM, J, 1/10W
R5289	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R5360	ERDS2TJ153	C 15KOHM, J, 1/4W
R5290	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R5371	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R5291	ERJ6GEYJ223	M 22KOHM, J, 1/10W	R5372	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R5292	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R5373	ERJ6GEYJ470	M 47 OHM, J, 1/10W
R5293	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5374	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W
R5294	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R5375	ERDS2TJ221	C 220 OHM, J, 1/4W
R5295	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R5376	ERJ6GEYJ271	M 270 OHM, J, 1/10W
R5296	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5377	ERDS2TJ221	C 220 OHM, J, 1/4W
R5297	ERJ6GEYJ272	M 2.7KOHM, J, 1/10W	R5378	ERDS2TJ221	C 220 OHM, J, 1/4W
R5298	ERJ6GEYJ562	M 5.6KOHM, J, 1/10W	R5379	ERDS2TJ331	C 330 OHM, J, 1/4W
R5299	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R5380	ERJ6GEYJ680	M 68 OHM, J, 1/10W
R5301	ERJ6GEYJ152	M 1.5KOHM, J, 1/10W	R5381	ERQ2CJP220S	F 22 OHM, J, 2W
R5302	ERDS2TJ102	C 1KOHM, J, 1/4W	R5382	ERJ6GEYJ332	M 3.3KOHM, J, 1/10W
R5303	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5383	ERJ6GEYJ122	M 1.2KOHM, J, 1/10W
R5304	ERDS2TJ561	C 560 OHM, J, 1/4W	R5385	ERJ6GEYJ470	M 47 OHM, J, 1/10W
R5305	ER0S2CKF3300	M 330 OHM, F, 1/4W	R5386	ERDS2TJ102	C 1KOHM, J, 1/4W
R5306	ERJ6ENF3300	M 330 OHM, 1/10W	R5387	ERJ6GEYJ470	M 47 OHM, J, 1/10W
R5307	ERJ6GEYJ152	M 1.5KOHM, J, 1/10W	R5388	ERDS2TJ561	C 560 OHM, J, 1/4W
R5308	ERDS2TJ272	C 2.7KOHM, J, 1/4W	R5389	ERDS2TJ331	C 330 OHM, J, 1/4W
R5309	ERDS2TJ331	C 330 OHM, J, 1/4W	R5390	ERJ6GEYJ331	M 330 OHM, J, 1/10W
R5310	ERDS2TJ331	C 330 OHM, J, 1/4W	R5392	ERDS2TJ272	C 2.7KOHM, J, 1/4W
R5311	ERDS2TJ471	C 470 OHM, J, 1/4W	R5393	ERDS2TJ331	C 330 OHM, J, 1/4W
R5312	ERDS2TJ101	C 100 OHM, J, 1/4W	R5394	ERDS2TJ331	C 330 OHM, J, 1/4W
R5313	ERDS2TJ561	C 560 OHM, J, 1/4W	R5395	ERDS2TJ471	C 470 OHM, J, 1/4W
R5314	ER0S2CKF3300	M 330 OHM, F, 1/4W	R5396	ERDS2TJ101	C 100 OHM, J, 1/4W
R5315	ER0S2CKF3300	M 330 OHM, F, 1/4W	R5397	ERDS2TJ561	C 560 OHM, J, 1/4W
R5316	ERJ6GEYJ223	M 22KOHM, J, 1/10W	R5398	ERJ6GEYJ272	M 2.7KOHM, J, 1/10W
R5317	ERJ6GEYJ223	M 22KOHM, J, 1/10W	R5399	ERDS2TJ331	C 330 OHM, J, 1/4W
R5318	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R5400	ERDS2TJ101	C 100 OHM, J, 1/4W
R5319	ERDS2TJ152	C 1.5KOHM, J, 1/4W	R5401	ERDS2TJ822	C 8.2KOHM, J, 1/4W
R5320	ERDS2TJ122	C 1.2KOHM, J, 1/4W	R5403	ERDS2TJ333	C 33KOHM, J, 1/4W
R5321	ERJ6ENF47R0	M 47 OHM, 1/10W	R5404	ERDS2TJ101	C 100 OHM, J, 1/4W
R5322	ERDS2TJ681	C 680 OHM, J, 1/4W	R5405	ERDS2TJ824	C 820KOHM, J, 1/4W
R5323	ERDS2TJ561	C 560 OHM, J, 1/4W	R5406	ERDS2TJ332	C 3.3KOHM, J, 1/4W
R5324	ER0S2CKF3300	M 330 OHM, F, 1/4W	R5407	ERDS2TJ152	C 1.5KOHM, J, 1/4W
R5325	ERJ6ENF3300	M 330 OHM, 1/10W	R5408	ERDS2TJ332	C 3.3KOHM, J, 1/4W
R5326	ERJ6GEYJ562	M 5.6KOHM, J, 1/10W	R5409	ERDS2TJ561	C 560 OHM, J, 1/4W
R5327	ERJ6GEYJ272	M 2.7KOHM, J, 1/10W	R5410	ERDS2TJ331	C 330 OHM, J, 1/4W
R5328	ERDS2TJ331	C 330 OHM, J, 1/4W	R5411	ERDS2TJ101	C 100 OHM, J, 1/4W
R5329	ERDS2TJ331	C 330 OHM, J, 1/4W	R5412	ERDS2TJ333	C 33KOHM, J, 1/4W
R5330	ERDS2TJ471	C 470 OHM, J, 1/4W	R5413	ERDS2TJ221	C 220 OHM, J, 1/4W
R5331	ERDS2TJ101	C 100 OHM, J, 1/4W	R5414	ERDS2TJ103	C 10KOHM, J, 1/4W
R5332	ERJ6GEYJ561	M 560 OHM, J, 1/10W	R5415	ERDS2TJ392	C 3.9KOHM, J, 1/4W
R5333	ERJ6GEYJ221	M 220 OHM, J, 1/10W	R5417	ERDS2TJ472	C 4.7KOHM, J, 1/4W
R5334	ER0S2CKF3300	M 330 OHM, F, 1/4W	R5418	ERDS2TJ393	C 39KOHM, J, 1/4W
R5335	ERJ6GEYJ223	M 22KOHM, J, 1/10W	R5419	ERDS2TJ123	C 12KOHM, J, 1/4W
R5336	ERJ6GEYJ223	M 22KOHM, J, 1/10W	R5420	ERDS2TJ123	C 12KOHM, J, 1/4W
R5337	ER0S2CKF3300	M 330 OHM, F, 1/4W	R5421	ERDS2TJ472	C 4.7KOHM, J, 1/4W
R5338	ERDS2TJ331	C 330 OHM, J, 1/4W	R5422	ERDS2TJ331	C 330 OHM, J, 1/4W
R5339	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	R5423	ERDS2TJ101	C 100 OHM, J, 1/4W
R5340	ERJ6ENF2200	M 220 OHM, 1/10W	R5424	ERDS2TJ101	C 100 OHM, J, 1/4W
R5341	ERJ6ENF1200	M 120 OHM, 1/10W	R5425	ERDS2TJ103	C 10KOHM, J, 1/4W
R5342	ERJ6GEYJ152	M 1.5KOHM, J, 1/10W	R5426	ERDS2TJ223	C 22KOHM, J, 1/4W
R5343	ERJ6GEYJ202	M 2KOHM, J, 1/10W	R5427	ERDS2TJ103	C 10KOHM, J, 1/4W

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
R5429	ERDS2TJ103	C 10KOHM, J, 1/4W	R5655	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R5430	ERDS2TJ563	C 56KOHM, J, 1/4W	R5656	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W
R5431	ERDS2TJ222	C 2.2KOHM, J, 1/4W	R5657	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W
R5433	ERDS2TJ822	C 8.2KOHM, J, 1/4W	R5658	ERJ6GEYJ562	M 5.6KOHM, J, 1/10W
R5434	ERDS2TJ683	C 68KOHM, J, 1/4W	R5659	ERJ6GEYJ562	M 5.6KOHM, J, 1/10W
R5435	ERDS2TJ224	C 220KOHM, J, 1/4W	R5660	ERJ6GEYJ102	M 1KOHM, J, 1/10W
R5436	ERDS2TJ222	C 2.2KOHM, J, 1/4W	R5661	ERQ2CJP220S	F 22 OHM, J, 2W
R5437	ERDS2TJ102	C 1KOHM, J, 1/4W	R5662	ERJ6GEYJ102	M 1KOHM, J, 1/10W
R5438	ERDS2TJ391	C 390 OHM, J, 1/4W	R5663	ERJ6GEYJ102	M 1KOHM, J, 1/10W
R5439	ERDS2TJ472	C 4.7KOHM, J, 1/4W	R5664	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R5440	ERDS2TJ182	C 1.8KOHM, J, 1/4W	R5665	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R5442	ERDS2TJ472	C 4.7KOHM, J, 1/4W	R5666	ERJ6GEYJ683	M 68KOHM, J, 1/10W
R5443	ERDS1FJ331	C 330 OHM, J, 1/2W	R5667	ERJ6GEYJ472	M 4.7KOHM, J, 1/10W
R5444	ERDS2TJ472	C 4.7KOHM, J, 1/4W	R5668	ERDS2TJ123	C 12KOHM, J, 1/4W
R5445	ERDS2TJ392	C 3.9KOHM, J, 1/4W	R5669	ERJ6GEYJ123	M 12KOHM, J, 1/10W
R5447	ERDS2TJ152	C 1.5KOHM, J, 1/4W	R5670	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R5448	ERDS2TJ102	C 1KOHM, J, 1/4W	R5671	ERJ6GEYJ183	M 18KOHM, J, 1/10W
R5481	ERDS2TJ223	C 22KOHM, J, 1/4W	R5672	ERDS2TJ332	C 3.3KOHM, J, 1/4W
R5485	ERG3SJ272H	M 2.7 OHM, J, 3W	R5673	ERJ6GEYJ102	M 1KOHM, J, 1/10W
R5491	ERDS2TJ680	C 68 OHM, J, 1/4W	R5674	ERJ6GEYJ102	M 1KOHM, J, 1/10W
R5543	EROS2CKF1502	M 15KOHM, F 1/4W	R5675	ERJ6GEYJ183	M 18KOHM, J, 1/10W
R5544	ERDS2TJ101	C 100 OHM, J, 1/4W	R5676	ERJ6GEYJ822	M 8.2KOHM, J, 1/10W
R5547	EROS2CKF3901	M 3.9KOHM, F, 1/4W	R5677	ERJ6GEYJ822	M 8.2KOHM, J, 1/10W
R5548	EROS2CKF3901	M 3.9KOHM, F, 1/4W	R5678	ERJ6GEYJ273	M 27KOHM, J, 1/10W
R5580	ERDS2TJ393	C 39KOHM, J, 1/4W	R5679	ERJ6GEYJ102	M 1KOHM, J, 1/10W
R5581	ERDS2TJ393	C 39KOHM, J, 1/4W	R5680	ERJ6GEYJ330	M 33 OHM, J, 1/10W
R5582	ERDS2TJ123	C 12KOHM, J, 1/4W	R5681	ERJ6GEYJ473	M 47KOHM, J, 1/10W
R5583	ERDS2TJ103	C 10KOHM, J, 1/4W	R5682	ERJ6GEYJ473	M 47KOHM, J, 1/10W
R5584	ERG3SJ271H	W 270 OHM, J, 3W	R5683	ERJ6GEYJ563	M 56KOHM, J, 1/10W
R5585	ERF5ZJ151	W 150 OHM, 5W	R5684	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R5600	ERJ6GEYJ154	M 150KOHM, J, 1/10W	R5685	ERJ6GEYJ393	M 39KOHM, J, 1/10W
R5601	ERJ6GEYJ821	M 820 OHM, J, 1/10W	R5686	ERJ6GEYJ273	M 27KOHM, J, 1/10W
R5602	ERJ6GEYJ221	M 220 OHM, J, 1/10W	R5688	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R5603	ERDS2TJ122	C 1.2KOHM, J, 1/4W	R5690	ERJ6GEYJ122	M 1.2KOHM, J, 1/10W
R5604	ERJ6GEYJ560	M 56 OHM, J, 1/10W	R5691	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R5605	ERDS2TJ391	C 390 OHM, J, 1/4W	R5692	ERJ6GEYJ223	M 22KOHM, J, 1/10W
R5606	ERDS2TJ151	C 150 OHM, J, 1/4W	R5694	ERDS2TC0	C 0 OHM, 1/4W
R5607	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R5695	ERJ6GEYJ102	M 1KOHM, J, 1/10W
R5609	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5696	ERJ6GEYJ562	M 5.6KOHM, J, 1/10W
R5610	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5697	ERJ6GEYJ822	M 8.2KOHM, J, 1/10W
R5615	ERJ6GEYJ561	M 560 OHM, J, 1/10W	R5698	ERJ6GEYJ103	M 10KOHM, J, 1/10W
R5616	ERJ6GEYJ153	M 15KOHM, J, 1/10W	R5699	ERJ6GEYJ104	M 100KOHM, J, 1/10W
R5617	ERJ6GEYJ561	M 560 OHM, J, 1/10W	R5900	EROS2CKF3300	M 330 OHM, F, 1/4W
R5618	ERJ6GEYJ102	M 1KOHM, J, 1/10W	R5970	EROS2CKF1101	M 1.1KOHM, F, 1/4W
R5619	ERJ6GEYJ333	M 33KOHM, J, 1/10W	R5971	ERDS2TJ223	C 22KOHM, J, 1/4W
R5620	ERJ6GEYJ561	M 560 OHM, J, 1/10W	R5972	ERDS2TJ103	C 10KOHM, J, 1/4W
R5621	ERJ6GEYJ681	M 680 OHM, J, 1/10W	R5973	ERDS2TJ223	C 22KOHM, J, 1/4W
R5622	ERJ6GEYJ221	M 220 OHM, J, 1/10W	R5974	ERDS2TJ103	C 10KOHM, J, 1/4W
R5623	ERDS2TJ122	C 1.2KOHM, J, 1/4W	R5975	ERDS2TJ223	C 22KOHM, J, 1/4W
R5624	ERJ6GEYJ560	M 56 OHM, J, 1/10W	R5976	ERDS2TJ103	C 10KOHM, J, 1/4W
R5625	ERDS2TJ391	C 390 OHM, J, 1/4W	R5977	ERDS2TJ223	C 22KOHM, J, 1/4W
R5626	ERDS2TJ151	C 150 OHM, J, 1/4W	R5978	ERDS2TJ103	C 10KOHM, J, 1/4W
R5627	ERJ6GEYJ101	M 100 OHM, J, 1/10W	R5979	ERDS2TJ682	C 6.8KOHM, J, 1/4W
R5629	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5980	ERDS2TJ333	C 33KOHM, J, 1/4W
R5630	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R5981	ERDS2TJ103	C 10KOHM, J, 1/4W
R5635	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R5985	ERDS2TJ102	C 1KOHM, J, 1/4W
R5636	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R5986	ERDS2TJ103	C 10KOHM, J, 1/4W
R5637	ERJ6GEYJ562	M 5.6KOHM, J, 1/10W	R5987	ERDS2TJ153	C 15KOHM, J, 1/4W
R5638	ERDS2TJ332	C 3.3KOHM, J, 1/4W	R5988	ERDS2TJ102	C 1KOHM, J, 1/4W
R5639	ERJ6GEYJ391	M 390 OHM, J, 1/10W	R5989	EROS2CKF3090	M 309 OHM, F, 1/4W
R5640	ERJ6GEYJ103	M 10KOHM, J, 1/10W	R5990	ERDS2TJ103	C 10KOHM, J, 1/4W
R5641	ERJ6GEYJ821	M 820 OHM, J, 1/10W	R5991	ERDS2TJ331	C 330 OHM, J, 1/4W
R5642	ERJ6GEYJ221	M 220 OHM, J, 1/10W	R5992	ERDS2TJ102	C 1KOHM, J, 1/4W
R5643	ERDS2TJ122	C 1.2KOHM, J, 1/4W	R5994	ERDS2TJ103	C 10KOHM, J, 1/4W
R5644	ERJ6GEYJ560	M 56 OHM, J, 1/10W	R5997	ERDS2TJ563	C 56KOHM, J, 1/4W
R5645	ERDS2TJ391	C 390 OHM, J, 1/4W	R6860	ERJ6GEYJ473	M 47KOHM, J, 1/10W
R5646	ERDS2TJ151	C 150 OHM, J, 1/4W	R6861	ERJ6GEYJ473	M 47KOHM, J, 1/10W
R5647	ERJ6GEYJ820	M 82 OHM, J, 1/10W	R6862	ERJ6GEYJ101	M 100 OHM, J, 1/10W
R5649	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R6863	ERJ6GEYJ152	M 1.5KOHM, J, 1/10W
R5650	ERJ6GEYJ470	M 47 OHM, J, 1/10W	R6864	ERJ6GEYJ102	M 1KOHM, J, 1/10W



Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
R6865	ERJ6GEYJ271	M 270 OHM, J, 1/10W	C508	ECA1CM102	E 1000UF, 16V
R6866	ERJ6GEYJ391	M 390 OHM, J, 1/10W	C509	ECEA1CU220	E 22UF, 16V
R6867	ERJ6GEYJ222	M 2.2KOHM, J, 1/10W	C511	ECQB1H182JF	P 1800PF, J, 50V
R6868	ERJ6GEYJ331	M 330 OHM, J, 1/10W	C512	ECEA1CU100	E 10UF, 16V
R6869	ERJ6GEYJ101	M 100 OHM, J, 1/10W	C513	ECA1VM101	E 100UF, 35V
R6870	ERJ6GEYJ273	M 27KOHM, J, 1/10W	C514	ECEA1EU100	E 10UF, 25V
R6871	ERJ6GEYJ104	M 100KOHM, J, 1/10W	C515	ECBA1H560J	C 56PF, J, 50V
R6872	ERJ6GEYJ104	M 100KOHM, J, 1/10W	C516	ECKF1H103ZF	C 0.01UF, Z, 50V
R6873	ERJ6GEYJ472	M 4.7KOHM, J, 1/10W	C517	ECQE1685JF	P 6.8UF, J, 100V
R6874	ERJ6GEYJ101	M 100 OHM, J, 1/10W	C518	ECA1CM101	E 100UF, 16V
R6875	ERJ6GEYJ221	M 220 OHM, J, 1/10W	C519	ECBA1H560J	C 56PF, J, 50V
R6876	ERJ6GEYJ273	M 27KOHM, J, 1/10W	C520	ECEA1HU101	E 100UF, 50V
R6877	ERJ6GEYJ472	M 4.7KOHM, J, 1/10W	C521	ECQE1335JF	P 3.3UF, J, 100V
R6878	ERJ6GEYJ393	M 39KOHM, J, 1/10W	C522	ECA1HM101G	E 100UF, 50V
R6879	ERJ6GEYJ223	M 22KOHM, J, 1/10W	C525	ECA2EM470	E 47UF, 250V
R6880	ERJ6GEYJ102	M 1KOHM, J, 1/10W	C526	ECQE2334KF	P 0.33UF, K, 250V
CAPACITORS			C527	ECQE2106KF	P 10UF, K, 250V
C351	ECCF1H560JC	C 56PF, J, 50V	C532	ECQV1H334JZ	P 0.33UF, J, 50V
C352	ECCF1H101JC	C 100PF, J, 50V	C533	ECQE2225KF	P 2.2UF, K, 250V
C353	ECCF1H121JC	C 120PF, J, 50V	C536	ECKD3A222KBP	C 2200PF, K, 1KV
C354	ECKD3D102KBN	C 1000PF, K, 2KV	C537	ECKD2H222KB2	C 2200PF, K, 500V
C355	ECEA1HGE010	E 1UF, 50V	C538	ECKD3D222KBP	C 2200PF, K, 2KV
C356	ECEA2EGE010	E 1UF, 250V	C539	ECQE2104JF	P 0.1UF, J, 250V
C357	ECQB1H104KF	P 0.1UF, K, 50V	C540	ECQE2225KF	P 2.2UF, K, 250V
C358	ECQB1H104KF	P 0.1UF, K, 50V	C551	ECKD2H122KB2	C 1200PF, K, 500V
C359	ECQB1H104KF	P 0.1UF, K, 50V	C553	ECWH15H392JN	P 3900PF, 1.5KV
C360	ECEA2EGE010	E 1UF, 250V	C554	ECWH15H272JN	P 2700PF, J, 1.5KV
C361	ECCF1H470JC	C 47PF, J, 50V	C555	ECWH15H392JN	P 3900PF, 1.5KV
C362	ECKF1H223ZF	C 0.022UF, Z, 50V	C556	ECEA1CU220	E 22UF, 16V
C363	ECCF1H470JC	C 47PF, J, 50V	C558	TAC1052G474A	P 0.47 UF, 400V
C364	ECCF1H470JC	C 47PF, J, 50V	C559	ECQV1H394JZ	P 0.39UF, J, 50V
C365	ECQE2184KF	P 0.18UF, K, 250V	C560	ECWH15H272JN	P 2700PF, J, 1.5KV
C366	ECKF1H103ZF	C 0.01UF, Z, 50V	C561	ECQE2334JF	P 0.33UF, J, 250V
C367	ECA1VM470G	E 47UF, 35V	C562	TAC63392A2KV	C 3900PF, 2KV
C368	ECEA2EGE010	E 1UF, 250V	C563	TAC63392A2KV	C 3900PF, 2KV
C374	ECKF1H102ZF	C 1000PF, Z, 50V	C565	ECEA2EN010	E 1UF, 250V
C375	ECKF1H102ZF	C 1000PF, Z, 50V	C566	ECQE1185JF	P 1.8UF, J, 100V
C376	ECKF1H102ZF	C 1000PF, Z, 50V	C567	TAC63272A2KV	C 2700PF, 2KV
C377	ECKD2H103ZF7	C 0.01UF, Z, 500V	C568	TAC63222A2KV	C 2200PF, 2KV
C378	ECKD2H103ZF7	C 0.01UF, Z, 500V	C572	TAC1052G474A	P 0.47 UF, 400V
C379	ECKD2H103ZF7	C 0.01UF, Z, 500V	C574	ECWF2H275JNB	P 2.7UF, J, 200V
C380	ECEA2EGE010	E 1UF, 250V	C575	ECWF2H125JN	P 12UF, J, 200V
C381	ECKD2H103ZF7	C 0.01UF, Z, 500V	C576	ECWF2H155JNB	P 1.5UF, J, 200V
C382	ECKD2H103ZF7	C 0.01UF, Z, 500V	C580	ECCF1H331JC	C 330PF, J, 50V
C383	ECKD2H103ZF7	C 0.01UF, Z, 500V	C588	ECA1EM222	E 2200UF, 25V
C385	ECCF1H220J	C 22PF, J, 50V	C589	ECEA1CGE101	E 100UF, 16V
C386	ECKD2H103ZF7	C 0.01UF, Z, 500V	C591	ECQV1H394JZ	P 0.39UF, J, 50V
C387	ECQB1H272JF	P 2700PF, J, 50V	C592	TAC1052G105A	P 1 UF, 400V
C388	ECKD2H103PU	C 0.01UF, P, 500V	C595	ECWH12H392JS	P 3900PF, J, 1.2KV
C401	ECA1CM102	E 1000UF, 16V	C597	TAC1052G105A	P 1 UF, 400V
C402	ECEA1CU100	E 10UF, 16V	C598	TAC1052G824A	P 0.28 UF, 400V
C403	ECEA1EU330	E 33UF, 25V	C599	ECWF2H105JNB	P 1UF, J, 200V
C404	ECEA1VU332	E 3300UF, 35V	C601	ECA1HM470G	E 47UF, 50V
C405	ECQV1H154JZ	P 0.15UF, J, 50V	C602	ECA1HM470G	E 47UF, 50V
C406	ECQV1H334JZ	P 0.33UF, J, 50V	C603	ECA1HM470G	E 47UF, 50V
C407	ECQV1H334JZ	P 0.33UF, J, 50V	C604	ECUX1H103ZFX	C 0.01UF, Z, 50V
C408	ECA1HFZ470	E 47UF, 50V	C605	ECUX1H103ZFX	C 0.01UF, Z, 50V
C410	ECEA1VU101	E 100UF, 35V	C606	ECUX1H151JCX	C 150PF, J, 50V
C411	ECQE1333JF	P 0.033UF, J, 50V	C607	ECUX1H680JCX	C 68PF, J, 50V
C412	ECQB1H562JF	P 5600PF, J, 50V	C608	ECUX1H330JCX	C 33PF, J, 50V
C500	ECEA1CU331	E 330UF, 16V	C609	ECUX1H680JCX	C 68PF, J, 50V
C502	ECQB1H104JF	P 0.1UF, J, 50V	C610	ECA1HM100G	E 10UF, 50V
C503	ECQB1H393JF	P 0.039UF, J, 50V	C611	ECUX1H680JCX	C 68PF, J, 50V
C505	ECQB1H273JF	P 0.027UF, J, 50V	C612	ECUX1H103ZFX	C 0.01UF, Z, 50V
C506	ECQB1H823JF	P 0.082UF, J, 50V	C613	ECUX1H103ZFX	C 0.01UF, Z, 50V
C507	ECEA1HU3R3	E 3.3UF, 50V	C614	ECUX1H103ZFX	C 0.01UF, Z, 50V
			C615	ECUX1H180JUX	C 18PF, J, 50V
			C616	ECA1CM471	E 470UF, 16V
			C617	ECUX1H181JCX	C 180PF, J, 50V
			C618	ECUX1H150JUX	C 15PF, J, 50V

	Ref. No.	Part No.	Description		Ref. No.	Part No.	Description
	C619	ECUX1H151JCX	C 150PF, J, 50V		C860	ECKF1H473ZF	C 0.047UF, Z, 50V
	C620	ECUX1H121JCX	C 120PF, J, 50V		C861	ECKD3A821KBP	C 820PF, K, 1KV
	C621	ECA1HM470G	E 47UF, 50V		C862	ECA1EFZ102L	E 1000UF, 25V
	C622	ECUX1H103ZFX	C 0.01UF, Z, 50V		C863	ECKD3A821KBP	C 820PF, K, 1KV
	C623	ECA1HM010G	E 1UF, 50V		C864	ECA1EFZ102L	E 1000UF, 25V
	C624	ECUX1H103ZFX	C 0.01UF, Z, 50V		C865	ECKF1H473ZF	C 0.047UF, Z, 50V
	C625	ECUX1H102KBX	C 1000PF, K, 50V		C866	ECKF1H103ZF	C 0.01UF, Z, 50V
	C626	ECUX1H030DCX	C 3PF, D, 50V		C868	ECKF1H473ZF	C 0.047UF, Z, 50V
	C627	ECUX1H270JCX	C 27PF, J, 50V		C869	ECA1JFZ220	E 22 UF, 63V
	C628	ECUX1H103KBX	C 0.01UF, K, 50V		C870	ECA1EFZ121L	E 120UF, 25V
	C629	ECUX1H221JCX	C 220PF, J, 50V		C871	ECA1EM472	E 4700UF, 25V
	C630	ECUX1H103ZFX	C 0.01UF, Z, 50V		C872	ECEA1EGE101	E 100UF, 25V
	C631	ECUX1H103ZFX	C 0.01UF, Z, 50V		C873	ECA1EM102	E 1000UF, 25V
	C632	ECUX1H103KBX	C 0.01UF, K, 50V		C874	ECKD3A101KBP	C 100PF, K, 1KV
	C633	ECQB1H104JF	P 0.1UF, J, 50V		C875	ECKD3A101KBP	C 100PF, K, 1KV
	C634	ECQB1H104JF	P 0.1UF, J, 50V		C897	ECKD2H103ZU	C 0.01UF, Z, 500V
	C635	ECUX1H103KBX	C 0.01UF, K, 50V		C1301	ECUX1H103ZFX	C 0.01UF, Z, 50V
	C636	ECQB1H104JF	P 0.1UF, J, 50V		C1302	ECA1HM470G	E 47UF, 50V
	C637	ECQB1H823JF	P 0.082UF, J, 50V		C1303	ECA1HM470G	E 47UF, 50V
	C638	ECA1HM2R2G	E 2.2UF, 50V		C1304	ECA1HM470G	E 47UF, 50V
	C639	ECQB1H563JF	P 0.056UF, J, 50V		C1305	ECUX1H103ZFX	C 0.01UF, Z, 50V
	C640	ECUX1H103ZFX	C 0.01UF, Z, 50V		C1306	ECUX1H103ZFX	C 0.01UF, Z, 50V
	C641	ECUX1H680JCX	C 68PF, J, 50V		C1307	ECA1HM470G	E 47UF, 50V
	C642	ECQB1H103JF	P 0.01UF, 50V		C1308	ECA1HM470G	E 47UF, 50V
	C643	ECQB1H154JF	P 0.15UF, J, 50V		C1309	ECUX1H103ZFX	C 0.01UF, Z, 50V
	C644	ECEA1HN2R2U	E 2.2UF, 50V		C1310	ECUX1H103ZFX	C 0.01UF, Z, 50V
	C645	ECUX1H220JCX	C 22PF, J, 50V		C1311	ECA1HM470G	E 47UF, 50V
	C646	ECUX1H270JCX	C 27PF, J, 50V		C1312	ECUX1H103ZFX	C 0.01UF, Z, 50V
	C647	ECUX1H330JCX	C 33PF, J, 50V		C1313	ECUX1H103ZFX	C 0.01UF, Z, 50V
	C648	ECUX1H120JCX	C 12PF, J, 50V		C1314	ECA1HM470G	E 47UF, 50V
	C649	ECA1HM100G	E 10UF, 50V		C1315	ECUX1H103ZFX	C 0.01UF, Z, 50V
	C650	ECUX1H103ZFX	C 0.01UF, Z, 50V		C1316	ECA1HM470G	E 47UF, 50V
	C651	ECA1HM470G	E 47UF, 50V		C1317	ECUX1H103ZFX	C 0.01UF, Z, 50V
	C652	ECUX1H103ZFX	C 0.01UF, Z, 50V		C1318	ECA1HM470G	E 47UF, 50V
△	C805	ECQU2A224MN	P 0.22UF, M, 250V		C1319	ECUX1H103ZFX	C 0.01UF, Z, 50V
△	C809	ECKD2H103PU7	C 0.01UF, 500V		C1320	ECA1HM470G	E 47UF, 50V
△	C810	ECKD2H103PU7	C 0.01UF, 500V		C1321	ECA1EM102	E 1000UF, 25V
△	C811	ECKD2H103PU7	C 0.01UF, 500V		C1322	ECUX1H103ZFX	C 0.01UF, Z, 50V
△	C812	ECKD2H103PU7	C 0.01UF, 500V		C1323	ECA1HM470G	E 47UF, 50V
	C813	EC0S2DA102DB	E 2000UF, 200V		C1324	ECUX1H103ZFX	C 0.01UF, Z, 50V
	C814	EC0S2DA102DB	E 2000UF, 200V		C1325	ECA1VM470	E 47UF, 35V
	C815	EC0S2DA102DB	E 2000UF, 200V		C1401	ECA1HM101G	E 100UF, 50V
	C816	EC0S2DA102DB	E 2000UF, 200V		C1402	ECUX1H103ZFX	C 0.01UF, Z, 50V
	C817	ECEA1ENX101	E 100UF, 25V		C1403	ECQB1H104JF	P 0.1UF, J, 50V
	C818	ECEA1HNX100	E 10UF, 50V		C1404	ECUX1H103ZFX	C 0.01UF, Z, 50V
	C819	ECCF1H391J	C 390PF, J, 50V		C1405	ECQB1H102JF	P 1000PF, J, 50V
	C820	ECA1JFZ220	E 22 UF, 63V		C1407	ECA1HM3R3G	E 3.3UF, 50V
	C821	ECQB1H104JF	P 0.1UF, J, 50V		C1408	ECQB1H333JF	P 0.033UF, J, 50V
	C823	ECA1JFQ120	E 12UF, 63V		C1409	ECUX1H181JCX	C 180PF, J, 50V
	C824	ECQB1H103JF	P 0.01UF, 50V		C1410	ECA1HM100G	E 10UF, 50V
	C825	ECQE4105KF	P 1UF, K, 400V		C1411	ECUX1H221JCX	C 220PF, J, 50V
	C826	ECKD3D221KBP	C 220PF, K, 2KV		C1412	ECEA1EN470U	E 47UF, 25V
△	C829	ECKDNB152ME	C 1500PF, M, 25V		C1413	ECUX1H103ZFX	C 0.01UF, Z, 50V
	C831	ECEA1EGE101	E 100UF, 25V		C1415	ECUX1H272JCX	C 2700PF, J, 50
△	C835	ECQU2A224MN	P 0.22UF, M, 250V		C1416	ECQV1H684JZ	P 0.68UF, J, 50V
	C838	ECEA1AN470S	E 47UF, 10V		C1419	ECUX1H102JCX	C 1000PF, J, 50V
	C839	ECKD2H103ZF7	C 0.01UF, Z, 500V		C1421	ECUX1H122KBX	C 1200PF, K, 50V
	C840	ECKD2H103ZF7	C 0.01UF, Z, 500V		C1422	ECUX1H273KBX	C 0.027UF, K, 50V
	C841	ECEA1EGE471	E 470UF, 25V		C1430	ECUX1H561JCX	C 560PF, J, 50V
	C842	EEUFA1C471	E 470UF, 16V		C1431	ECUX1H120JCX	C 12PF, J, 50V
	C843	ECA1VM470	E 47UF, 35V		C1432	ECUX1H221JCX	C 220PF, J, 50V
	C844	ECA1VM101	E 100UF, 35V		C1501	TAC63222A2KV	C 2200PF, 2KV
△	C845	ECKDNB472ME	C 4700PF, M, 25V		C1502	TAC63222A2KV	C 2200PF, 2KV
	C851	ECQE2103JF	P 0.01UF, 250V		C1503	TAC63222A2KV	C 2200PF, 2KV
	C852	EC0S2EX391CB	E 390UF, 250V		C1504	TAC63222A2KV	C 2200PF, 2KV
	C853	ECKD3A821KBP	C 820PF, K, 1KV		C1505	TAC63222A2KV	C 2200PF, 2KV
	C854	EEUFA1C392	E 3900UF, 16V		C1506	ECQE12333KZ	P 0.033UF, K, 1.2KV
	C855	ECKF1H473ZF	C 0.047UF, Z, 50V		C1507	TAC63102A2KV	C 1000PF, 2KV
	C858	EEUFA1H152L	E 1500UF, 50V		C1508	ECQE12333KZ	P 0.033UF, K, 1.2KV
	C859	ECKD3A821KBP	C 820PF, K, 1KV		C1509	ECCD3A560KGE	C 56PF, K, 1KV

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
C1510	ECCD3A560KGE	C 56PF, K, 1KV	C3222	ECUX1H103ZFX	C 0.01UF, Z, 50V
C1511	ECKF1H391KB	C 390PF, K, 50V	C3223	ECUX1H103ZFX	C 0.01UF, Z, 50V
C1512	ECEA1HU220	E 22UF, 50V	C3224	ECA1CM471	E 470UF, 16V
C1513	ECQB1H471JF	P 470PF, J, 50V	C3225	ECUX1H101JCX	C 100PF, J, 50V
C1514	ECQB1H221KF	P 220PF, K, 50V	C3226	ECQV1H474JZ	P 0.47UF, J, 50V
C1515	ECEA1CN100S	E 10UF, 16V	C3227	ECUX1H103ZFX	C 0.01UF, Z, 50V
C1516	ECA1HM010G	E 1UF, 50V	C3228	ECA1CM471	E 470UF, 16V
C1517	ECQB1H102JF	P 1000PF, J, 50V	C3229	ECUX1H103ZFX	C 0.01UF, Z, 50V
C1518	ECKF1H103ZF	C 0.01UF, Z, 50V	C3230	ECA1CM101	E 100UF, 16V
C1519	ECA1CM100G	E 10UF, 16V	C3231	ECA1CM101	E 100UF, 16V
C1520	ECCF1H270J	C 27PF, J, 50V	C3232	ECA1CM101	E 100UF, 16V
C1521	ECEA1CN100S	E 10UF, 16V	C3233	ECUX1H103ZFX	C 0.01UF, Z, 50V
C1522	ECEA1CU220	E 22UF, 16V	C3234	ECA1HM470G	E 47UF, 50V
C1523	ECEA1AU101	E 100UF, 10V	C3235	ECA1HM100G	E 10UF, 50V
C1525	ECCF1H101JC	C 100PF, J, 50V	C3236	ECA1HM470G	E 47UF, 50V
C1526	ECEA1HN010U	E 1UF, 50V	C3237	ECEA1EN470U	E 47UF, 25V
C1527	ECBA1E103ZF	C 0.01UF, 25V	C3239	ECA1HM100G	E 10UF, 50V
C1528	ECA1CM471	E 470UF, 16V	C3240	ECUX1H392KBX	C 3900PF, K, 50V
C1529	ECKF1H101KB	C 100PF, K, 50V	C3241	ECA1HM470G	E 47UF, 50V
C2101	ECEA1HGE3R3	E 3.3UF, 50V	C3242	ECUX1H102JCX	C 1000PF, J, 50V
C2102	ECEA1HGER22	E 0.22UF, 50V	C3245	ECUX1H270JCX	C 27PF, J, 50V
C2103	ECEA1HGE3R3	E 3.3UF, 50V	C3246	ECUX1H101JCX	C 100PF, J, 50V
C2104	ECEA1HGER22	E 0.22UF, 50V	C3247	ECUX1H820JCX	C 82PF, J, 50V
C2105	ECEA1CGE471	E 470UF, 16V	C3250	ECUX1H680JCX	C 68PF, J, 50V
C2106	ECEA1CGE470	E 47UF, 16V	C3301	ECEA1EKN220	E 22UF, 25V
C2107	ECKF1H103ZF	C 0.01UF, Z, 50V	C3302	ECEA1EKN220	E 22UF, 25V
C2108	ECEA1CU470	E 47UF, 16V	C3303	ECEA1EKN220	E 22UF, 25V
C2109	ECEA1HGE010	E 1UF, 50V	C3304	ECEA1VKA470	E 47UF, 35V
C2110	ECEA1HGE010	E 1UF, 50V	C3305	ECEA1HKA010	E 1UF, 50V
C2111	ECEA1EGE470	E 47UF, 25V	C3306	ECEA1EKN220	E 22UF, 25V
C2301	ECEA1HGE010	E 1UF, 50V	C3307	ECEA1EKN220	E 22UF, 25V
C2302	ECQB1H223KF	P 0.022UF, K, 50V	C3308	ECEA1EKN220	E 22UF, 25V
C2303	ECEA1HGE010	E 1UF, 50V	C3309	ECEA1EKN220	E 22UF, 25V
C2304	ECQB1H223KF	P 0.022UF, K, 50V	C3310	ECEA1EKN220	E 22UF, 25V
C2305	ECEA1EGE101	E 100UF, 25V	C3311	ECEA1EKN220	E 22UF, 25V
C2306	ECEA1EGE101	E 100UF, 25V	C3312	ECEA1VKA470	E 47UF, 35V
C2307	ECEA1EGE470	E 47UF, 25V	C3313	ECUX1H103ZFX	C 0.01UF, Z, 50V
C2308	ECQB1H104KF	P 0.1UF, K, 50V	C3314	ECUX1H103ZFX	C 0.01UF, Z, 50V
C2309	ECQB1H104KF	P 0.1UF, K, 50V	C3315	ECEA1VKA470	E 47UF, 35V
C2310	ECEA1EGE102	E 1000UF, 25V	C3316	ECUX1H103ZFX	C 0.01UF, Z, 50V
C2311	ECEA1EGE102	E 1000UF, 25V	C3317	ECEA1VKA470	E 47UF, 35V
C2312	ECEA1EGE102	E 1000UF, 25V	C3318	ECEA1VKA470	E 47UF, 35V
C3101	ECEA1HKN010	E 1UF, 50V	C3319	ECUX1H103ZFX	C 0.01UF, Z, 50V
C3102	ECEA1HKN010	E 1UF, 50V	C3320	ECEA1VKA470	E 47UF, 35V
C3103	ECEA1HKN010	E 1UF, 50V	C3321	ECEA1EKN220	E 22UF, 25V
C3104	ECEA1HKN010	E 1UF, 50V	C3322	ECEA1VKA470	E 47UF, 35V
C3105	ECEA1HKN010	E 1UF, 50V	C3323	ECEA1EKN220	E 22UF, 25V
C3106	ECEA1HKN010	E 1UF, 50V	C3324	ECEA1EKN220	E 22UF, 25V
C3107	ECEA1HKN010	E 1UF, 50V	C3325	ECUX1H102KBX	C 1000PF, K, 50V
C3108	ECEA1VKA470	E 47UF, 35V	C3328	ECEA1HKN010	E 1UF, 50V
C3109	ECUX1H103ZFX	C 0.01UF, Z, 50V	C3329	ECEA1VKA470	E 47UF, 35V
C3111	ECUX1H333ZFX	C 0.033UF, Z, 50V	C3330	ECUX1H103ZFX	C 0.01UF, Z, 50V
C3120	ECEA1HKN010	E 1UF, 50V	C3331	ECUX1H103ZFX	C 0.01UF, Z, 50V
C3201	ECEA1EN470U	E 47UF, 25V	C3332	ECEA1VKA470	E 47UF, 35V
C3202	ECUX1H220JCX	C 22PF, J, 50V	C3333	ECEA1HKN010	E 1UF, 50V
C3203	ECUX1H103ZFX	C 0.01UF, Z, 50V	C3334	ECUX1H103ZFX	C 0.01UF, Z, 50V
C3205	ECUX1H180JCX	C 18PF, J, 50V	C3335	ECEA1HKA010	E 1UF, 50V
C3206	ECA1HM470G	E 47UF, 50V	C3336	ECEA1HKA010	E 1UF, 50V
C3208	ECUX1H180JCX	C 18PF, J, 50V	C3337	ECEA1HKAR47	E 0.47UF, 50V
C3210	ECUX1H560JCX	C 56PF, J, 50V	C3338	ECEA1VKA470	E 47UF, 35V
C3211	ECUX1H150JCX	C 15PF, J, 50V	C3339	ECEA1HKAR47	E 0.47UF, 50V
C3212	ECUX1H121JCX	C 120PF, J, 50V	C3340	ECUX1H103ZFX	C 0.01UF, Z, 50V
C3213	ECUX1H330JCX	C 33PF, J, 50V	C3341	ECUX1H101KCX	C 100PF, K, 50V
C3214	ECUX1H103ZFX	C 0.01UF, Z, 50V	C3342	ECEA1HKN010	E 1UF, 50V
C3215	ECA1VM470	E 47UF, 35V	C3343	ECUX1H103ZFX	C 0.01UF, Z, 50V
C3216	ECUX1H103ZFX	C 0.01UF, Z, 50V	C3344	ECQB1H101KF	P 100PF, K, 50V
C3217	ECA1HM101G	E 100UF, 50V	C3349	ECUX1H101KCX	C 100PF, K, 50V
C3218	ECA1HM101G	E 100UF, 50V	C3350	ECEA1VKA470	E 47UF, 35V
C3220	ECUX1H104ZFX	C 0.1UF, Z, 50V	C3351	ECUX1H103ZFX	C 0.01UF, Z, 50V
C3221	ECUX1H103ZFX	C 0.01UF, Z, 50V	C3352	ECQV1H564JZ	P 0.56UF, J, 50V

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
C3401	ECEA1EKN220	E 22UF, 25V	C5317	ECEA1AGE471	E 470UF, 10V
C3402	ECEA1EKN220	E 22UF, 25V	C5322	ECEA1EN330U	E 33UF, 25V
C3403	ECEA1EKN220	E 22UF, 25V	ECCF1H680J	C 68PF, J, 50V	
C4801	ECA1VM470	E 47UF, 35V	C5324	ECEA1CGE101	E 100UF, 16V
C4802	ECKF1H103ZF	C 0.01UF, Z, 50V	C5325	ECBA1E103ZF	C 0.01UF, 25V
C4803	ECKF1H103ZF	C 0.01UF, Z, 50V	C5326	ECEA1AN101U	E 100UF, 10V
C4804	ECKF1H103ZF	C 0.01UF, Z, 50V	C5327	ECBA1E103ZF	C 0.01UF, 25V
C4805	ECKF1H103ZF	C 0.01UF, Z, 50V	C5328	ECEA1CGE101	E 100UF, 16V
C4883	ECQV1H334JZ	P 0.33UF, J, 50V	C5329	ECEA1AGE471	E 470UF, 10V
C5100	ECEA1CGE101	E 100UF, 16V	C5330	ECCF1H050C	C 5PF, C, 50V
C5101	ECBA1E103ZF	C 0.01UF, 25V	C5331	ECEA1CGE101	E 100UF, 16V
C5102	ECUX1H103ZFX	C 0.01UF, Z, 50V	C5332	ECBA1E103ZF	C 0.01UF, 25V
C5103	ECBA1E103ZF	C 0.01UF, 25V	C5333	ECBA1H100JC	C 10PF, J, 50V
C5104	ECBA1E103ZF	C 0.01UF, 25V	C5334	ECEA1CGE100	E 10UF, 16V
C5105	ECBA1E103ZF	C 0.01UF, 25V	C5335	ECBA1E103ZF	C 0.01UF, 25V
C5106	ECEA1HGER47	E 0.47UF, 50V	C5336	ECEA1CU470	E 47UF, 16V
C5107	ECUX1H101JXC	C 100PF, J, 50V	C5337	ECUX1H103ZFX	C 0.01UF, Z, 50V
C5110	ECUX1H103ZFX	C 0.01UF, Z, 50V	C5338	ECEA1EGE470	E 47UF, 25V
C5116	ECUX1H103ZFX	C 0.01UF, Z, 50V	C5339	ECCF1H470J	C 47PF, J, 50V
C5117	ECEA1CGE100	E 10UF, 16V	C5401	ECEA1HU4R7	E 4.7UF, 50V
C5118	ECQB1H102JF	P 1000PF, J, 50V	C5402	ECQV1H104JZ	P 0.1UF, J, 50V
C5119	ECQB1H102JF	P 1000PF, J, 50V	C5403	ECQB1H153JF	P 0.015UF, J, 50V
C5120	ECEA1CU100	E 10UF, 16V	C5404	ECEA1CU100	E 10UF, 16V
C5200	ECA1CEN330	E 33UF, 16V	C5405	ECCF1H331J	C 330PF, J, 50V
C5201	ECBA1E103ZF	C 0.01UF, 25V	C5407	ECQP1H681JZ	P 680PF, J, 50V
C5202	ECEA1CU101	E 100UF, 16V	C5408	ECQP1H561JZ	P 560PF, J, 50V
C5203	ECEA1AGE471	E 470UF, 10V	C5409	ECKF1H681KB	C 680PF, K, 50V
C5205	ECBA1E103ZF	C 0.01UF, 25V	C5410	ECEA1CU101	E 100UF, 16V
C5206	ECEA1CU101	E 100UF, 16V	C5411	ECKF1H471KB	C 470PF, K, 50V
C5207	ECA1CEN330	E 33UF, 16V	C5413	ECA1VM470	E 47UF, 35V
C5208	ECBA1E103ZF	C 0.01UF, 25V	C5414	ECA1HM010G	E 1UF, 50V
C5209	ECEA1CU101	E 100UF, 16V	C5416	ECEA1CU102	E 1000UF, 16V
C5210	ECEA1AU471	E 470UF, 10V	C5482	ECEA1HU222	E 2200UF, 50V
C5212	ECBA1E103ZF	C 0.01UF, 25V	C5483	ECA1HM010G	E 1UF, 50V
C5213	ECEA1CGE101	E 100UF, 16V	C5493	ECEA1EU330	E 33UF, 25V
C5214	ECUX1H103ZFX	C 0.01UF, Z, 50V	C5526	ECA1HM100	E 10UF, 50V
C5215	ECBA1E103ZF	C 0.01UF, 25V	C5600	ECQV1H224JZ	P 0.22UF, J, 50V
C5216	ECBA1E103ZF	C 0.01UF, 25V	C5601	ECQV1H224JZ	P 0.22UF, J, 50V
C5221	ECUX1H103ZFX	C 0.01UF, Z, 50V	C5602	ECQB1H563JF	P 0.056UF, J, 50V
C5270	ECEA1EU471	E 470UF, 25V	C5603	ECQB1H563JF	P 0.056UF, J, 50V
C5271	ECKF1H103ZF	C 0.01UF, Z, 50V	C5604	ECUX1H103ZFX	C 0.01UF, Z, 50V
C5272	ECBA1E103ZF	C 0.01UF, 25V	C5605	ECEA1CGE101	E 100UF, 16V
C5273	ECEA1CU101	E 100UF, 16V	C5606	ECCF1H271J	C 270PF, J, 50V
C5274	ECBA1E103ZF	C 0.01UF, 25V	C5608	ECBA1E103ZF	C 0.01UF, 25V
C5275	ECA1HM330	E 33UF, 50V	C5609	ECEA1EU330	E 33UF, 25V
C5276	ECBA1E103ZF	C 0.01UF, 25V	C5610	ECCF1H820J	C 82PF, J, 50V
C5277	ECBA1E103ZF	C 0.01UF, 25V	C5612	ECCF1H560J	C 56PF, J, 50V
C5278	ECEA1CU101	E 100UF, 16V	C5613	ECBA1E103ZF	C 0.01UF, 25V
C5279	ECEA1CGN100	E 10UF, 16V	C5614	ECBA1E103ZF	C 0.01UF, 25V
C5282	ECBA1E103ZF	C 0.01UF, 25V	C5620	ECQV1H224JZ	P 0.22UF, J, 50V
C5284	ERDS2TC0	C 0 OHM 1/4W	C5621	ECQV1H224JZ	P 0.22UF, J, 50V
C5285	ECCF1H820J	C 82PF, J, 50V	C5622	ECQB1H563JF	P 0.056UF, J, 50V
C5290	ECCF1H390J	C 39PF, J, 50V	C5623	ECQB1H563JF	P 0.056UF, J, 50V
C5300	ECBA1E103ZF	C 0.01UF, 25V	C5624	ECUX1H103ZFX	C 0.01UF, Z, 50V
C5301	ECEA1CU101	E 100UF, 16V	C5625	ECEA1CGE101	E 100UF, 16V
C5302	ECEA1AU471	E 470UF, 10V	C5626	ECCF1H331J	C 330PF, J, 50V
C5303	ECCF1H050C	C 5PF, C, 50V	C5628	ECBA1E103ZF	C 0.01UF, 25V
C5304	ECEA1CGE101	E 100UF, 16V	C5629	ECEA1EU330	E 33UF, 25V
C5305	ECBA1E103ZF	C 0.01UF, 25V	C5630	ECCF1H820J	C 82PF, J, 50V
C5306	ECBA1E103ZF	C 0.01UF, 25V	C5633	ECBA1E103ZF	C 0.01UF, 25V
C5307	ECEA1CGE101	E 100UF, 16V	C5634	ECBA1E103ZF	C 0.01UF, 25V
C5308	ECEA1AGE471	E 470UF, 10V	C5640	ECQV1H224JZ	P 0.22UF, J, 50V
C5309	ECCF1H050C	C 5PF, C, 50V	C5641	ECQV1H224JZ	P 0.22UF, J, 50V
C5310	ECEA1CGE101	E 100UF, 16V	C5642	ECQB1H563JF	P 0.056UF, J, 50V
C5311	ECBA1E103ZF	C 0.01UF, 25V	C5643	ECQB1H563JF	P 0.056UF, J, 50V
C5312	ECEA1AGE220	E 22UF, 10V	C5644	ECUX1H103ZFX	C 0.01UF, Z, 50V
C5313	ECBA1E103ZF	C 0.01UF, 25V	C5645	ECEA1CGE101	E 100UF, 16V
C5314	ECEA1CGE101	E 100UF, 16V	C5646	ECCF1H331J	C 330PF, J, 50V
C5315	ECA1EEN470	E 47UF, 25V	C5648	ECBA1E103ZF	C 0.01UF, 25V
C5316	ECEA1CGE101	E 100UF, 16V	C5649	ECEA1EU330	E 33UF, 25V

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
C5650	ECCF1H121JC	C 120PF, J, 50V	B13	TJS3A9680	7P CONNECTOR
C5653	ECBA1E103ZF	C 0.01UF, 25V	B14	TJS3A9670	6P CONNECTOR
C5654	ECBA1E103ZF	C 0.01UF, 25V	B16	TJS3A9640	3P CONNECTOR
C5656	ECBA1E103ZF	C 0.01UF, 25V	B18	TJS5A9420	8P CONNECTOR
C5660	ECBA1E103ZF	C 0.01UF, 25V	B19	TJS5A9420	8P CONNECTOR
C5661	ECBA1E103ZF	C 0.01UF, 25V	B20	TJS5A9420	8P CONNECTOR
C5662	ECEA1CGE330	E 330UF, 16V	B50	TJS118590	2P CONNECTOR
C5663	ECBA1E103ZF	C 0.01UF, 25V	△ F001	XBA1F60NU100	FUSE 125V 6A
C5664	ECBA1E103ZF	C 0.01UF, 25V	F001-1	TJC6319	FUSE HOLDER, LARGE
C5665	ECBA1E103ZF	C 0.01UF, 25V	F001-2	TJC6319	FUSE HOLDER, LARGE
C5666	ECBA1E103ZF	C 0.01UF, 25V	G7	TJS3A9640	3P CONNECTOR
C5667	ECEA1HNR47U	E 0.47UF, 50V	G8	TJS3A9650	4P CONNECTOR
C5668	ECBA1E103ZF	C 0.01UF, 25V	G17	TJS3A9900	10P CONNECTOR
C5669	ECEA1CGE470	E 47UF, 16V	△ JK351	TJS1A5330	CRT SOCKET
C5670	ECCF1H101JC	C 100PF, J, 50V	JKBB	TJS848100	PHONO PIN
C5671	ECKF1H561KB	C 560PF, K, 50V	JKBG	TJS848100	PHONO PIN
C5672	ECQB1H104JF	P 0.1UF, J, 50V	JKBR	TJS848100	PHONO PIN
C5675	ECUX1H103ZFX	C 0.01UF, Z, 50V	JKYB	TJS848100	PHONO PIN
C5676	ECEA1CGE470	E 47UF, 16V	JKYG	TJS848100	PHONO PIN
C5677	ECBA1E103ZF	C 0.01UF, 25V	JKYR	TJS848100	PHONO PIN
C5678	ECEA1EGE470	E 47UF, 25V	JK3301	TJS1A4480	BNC TERMINAL
C5679	ECEA1CGE221	E 220UF, 16V	JK3302	TJSD01202	BNC TERMINAL
C5680	ECEA1CGE101	E 100UF, 16V	JK3303	TJS1A4480	BNC TERMINAL
C5681	ECEA1CGE100	E 10UF, 16V	JK3304	TJSD01202	BNC TERMINAL
C5682	ECBA1E103ZF	C 0.01UF, 25V	JK3305	TJS1A4480	BNC TERMINAL
C5683	ECEA1EU101	E 100UF, 25V	JK3306	TJSD01202	BNC TERMINAL
C5684	ECEA1EU101	E 100UF, 25V	JK3307	TJS1A4480	BNC TERMINAL
C5689	ECEA1HGE010	E 1UF, 50V	JK3308	TJS1A4480	BNC TERMINAL
C5690	ECA1EM331	E 330UF, 25V	JK3309	TJS1A4480	BNC TERMINAL
C5972	ECBA1E103ZF	C 0.01UF, 25V	JK3310	TJS1A4480	BNC TERMINAL
C5977	ECEA1HN3R3U	E 3.3UF, U, 50V	JK3311	TJS1A4480	BNC TERMINAL
C5978	ECEA1HNR22U	E 0.22UF, 50V	JK3312	TJS1A4480	BNC TERMINAL
C6870	ECA1VM470	E 47UF, 35V	JK3313	TJS1A4480	BNC TERMINAL
C6871	ECEA1HN2R2U	E 2.2UF, 50V	JK3314	TJS1A4480	BNC TERMINAL
C6872	ECA1HM010G	E 1UF, 50V	JK3315	TJS1A4480	BNC TERMINAL
C6873	ECUX1H180JCX	C 18PF, J, 50V	JK3321	TJS1A4480	BNC TERMINAL
C6874	ECUX1H561JCX	C 560PF, J, 50V	JK3322	TJSD01202	BNC TERMINAL
C6875	ECQB1H333JF	P 0.033UF, J, 50V	JK3323	TJSF03904	S TERMINAL
			JK3324	TJS2A9010	TEARMINAL
			JK3326	TJBA020	JACK
			JK3327	TJBA020	JACK
			JK3328	TJBA020	JACK
			JK3329	TJBA020	JACK
			JK3330	TJBA020	JACK
			JK3332	TJSF25015	15P CONNECTOR
			JK3333	TJS1A7200	HEADPHONE JACK
			JK3341	TJS1A7200	HEADPHONE JACK
			JK3342	TJS1A7200	HEADPHONE JACK
			JS3	ERJ6GEY0R00	M 0 OHM, J, 1/10W
			JS601	ERJ6GEY0R00	M 0 OHM, J, 1/10W
			JS602	ERJ6GEY0R00	M 0 OHM, J, 1/10W
			JS603	ERJ6GEY0R00	M 0 OHM, J, 1/10W
			JS608	ERJ6GEY0R00	M 0 OHM, J, 1/10W
			JS609	ERJ6GEY0R00	M 0 OHM, J, 1/10W
			JS610	ERJ6GEY0R00	M 0 OHM, J, 1/10W
			JS611	ERJ6GEY0R00	M 0 OHM, J, 1/10W
			JS612	ERJ6GEY0R00	M 0 OHM, J, 1/10W
			JS613	ERJ6GEY0R00	M 0 OHM, J, 1/10W
			JS614	ERJ6GEY0R00	M 0 OHM, J, 1/10W
			JS1403	ERJ6GEY0R00	M 0 OHM, J, 1/10W
			JS1404	ERJ6GEY0R00	M 0 OHM, J, 1/10W
			JS1405	ERJ6GEY0R00	M 0 OHM, J, 1/10W
			JS3208	ERJ6GEY0R00	M 0 OHM, J, 1/10W
			JS3210	ERJ6GEY0R00	M 0 OHM, J, 1/10W
			JS3211	ERJ6GEY0R00	M 0 OHM, J, 1/10W
			JS3212	ERJ6GEY0R00	M 0 OHM, J, 1/10W
			JS3216	ERJ6GEY0R00	M 0 OHM, J, 1/10W
			JS3217	ERJ6GEY0R00	M 0 OHM, J, 1/10W
			JS5104	ERJ6GEY0R00	M 0 OHM, J, 1/10W
			JS5106	ERJ6GEY0R00	M 0 OHM, J, 1/10W
OTHERS					
A1	TJS1A9810	8P CONNECTOR			
A2	TJS1A9810	8P CONNECTOR			
A3	TJS1A9810	8P CONNECTOR			
A4	TJS1A9810	8P CONNECTOR			
A5	TJS3A9640	3P CONNECTOR			
A7	TJS118590	2P CONNECTOR			
A9	TJS6A8160	10P CONNECTOR			
A10	TJS6A8590	12P CONNECTOR			
A11	TJS5A9420	8P CONNECTOR			
A12	TJS5A9420	8P CONNECTOR			
A13	TJS5A9420	8P CONNECTOR			
A14	TJS6A8160	10P CONNECTOR			
A15	TJS6A8590	12P CONNECTOR			
A17	TJS3A9900	10P CONNECTOR			
A21	TJS3A9650	4P CONNECTOR			
A30	TJS5A9420	8P CONNECTOR			
A32	TJS6A8160	10P CONNECTOR			
A33	TJS6A8160	10P CONNECTOR			
A50	TJS118590	2P CONNECTOR			
B1	TJS2A8370	8P CONNECTOR			
B2	TJS2A8370	8P CONNECTOR			
B3	TJS2A8370	8P CONNECTOR			
B4	TJS2A8370	8P CONNECTOR			
B8	TJS6A8160	10P CONNECTOR			
B9	TJS6A8160	10P CONNECTOR			
B10	TJS6A8160	10P CONNECTOR			
B11	TJS6A8160	10P CONNECTOR			

	Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
	JS5108	ERJ6GEY0R00	M 0 OHM, J, 1/10W			
	JS5109	ERJ6GEY0R00	M 0 OHM, J, 1/10W			
	JS5111	ERJ6GEY0R00	M 0 OHM, J, 1/10W			
	JS5112	ERJ6GEY0R00	M 0 OHM, J, 1/10W			
	P3	TJS118590	2P CONNECTOR			
	P5	TJS3A9670	6P CONNECTOR			
	P7	TJS3A9650	4P CONNECTOR			
	P8	TJS3A9660	5P CONNECTOR			
	P9	TJS3A9640	3P CONNECTOR			
	P15	TJS3A9660	5P CONNECTOR			
	P17	TJS3A9640	3P CONNECTOR			
	P20	TJS3A9670	6P CONNECTOR			
	P21	TJS3A9650	4P CONNECTOR			
△	RL551	TSE10820	RELAY			
△	RL552	TSE10820	RELAY			
△	RL553	TSE10820	RELAY			
△	RL801	TSE10803	RELAY			
△	RL802	TSE10815	RELAY			
△	RL803	TSE10815	RELAY			
	RL5201	TSE1895	RELAY			
	RL5202	TSE1895	RELAY			
	RL5301	TSE1895	RELAY			
	RL5302	TSE1895	RELAY			
	RL5303	TSE1895	RELAY			
△	RL5971	TSE10820	RELAY			
△	RL5972	TSE10820	RELAY			
△	RL5973	TSE10820	RELAY			
△	RL5974	TSE10820	RELAY			
△	RTL	TNPA0225AC	CIRCUIT BOARD B			
△	RTL	TNPA0226AB	CIRCUIT BOARD C			
△	RTL	TNPA0227AA	CIRCUIT BOARD D			
△	RTL	TNPA0228AA	CIRCUIT BOARD E			
△	RTL	TNPA0229AB	CIRCUIT BOARD G			
△	RTL	TNPA0230AB	CIRCUIT BOARD J			
△	RTL	TNPA0231AA	CIRCUIT BOARD K			
△	RTL	TNPA0232AC	CIRCUIT BOARD R			
△	RTL	TNPA0233AB	CIRCUIT BOARD P			
△	RTL	TNPA0234AB	CIRCUIT BOARD T			
△	RTL	TNPA0235AB	CIRCUIT BOARD U			
△	RTL	TNPA0236AB	CIRCUIT BOARD V			
△	RTL	TNPA0237AB	CIRCUIT BOARD W			
△	RTL	TNPA0238AC	CIRCUIT BOARD Y			
△	RTL	TNPH0047AB	CIRCUIT BOARD A			
	V5	TJS3A9640	3P CONNECTOR			
	V6	TJS3A9660	5P CONNECTOR			
	V9	TJS3A9900	10P CONNECTOR			
	V13	TJS3A9680	7P CONNECTOR			
	V14	TJS3A9670	6P CONNECTOR			
	V17	TJS3A9920	12P CONNECTOR			
	V18	TJS3A9880	8P CONNECTOR			
	V55	TJS3A9650	4P CONNECTOR			
	W3	TJS1A8160	PHONO PIN (10P)			
	W5	TJS1A8090	PHONO PIN (3P)			
	W6	TJS1A8150	9P CONNECTOR			
	W7	TJS1A8140	PHONO PIN (8P)			
	W15	TJS1A8110	TELEPHONE JACK (5P)			
	W17	TJS1A8180	12P CONNECTOR			
	W18	TJS1A8140	PHONO PIN (8P)			
	X601	TSS116M1	CRYSTAL OSCILATOR			
	X602	TSS816N2	CRYSTAL			
	X1401	TAFCB503F35	CERAMIC RESONATOR			
	Y16	TJS3A9640	3P CONNECTOR			
	Y20	TJS3A9650	4P CONNECTOR			