



Display

## Video Products Technical Bulletin 30-2004-004

DATE: **January 12, 2004**SUBJECT: **RETRACE LINE ON SCREEN WITH NO HD-SDI INPUT**

MODEL: **PVM-14L5/1**  
**PVM-14L5/2**  
**PVM-20L5**  
**PVM-20L5/1**  
**PVM-20L5/2**  
***PVM-D14L5A***  
***PVM-D14L5A/1***  
***PVM-D20L5A***

SERIAL NO:

PVM-14L5/1 2,000,001–2,000,996  
PVM-14L5/2 2,100,001–2,101,004  
PVM-20L5 2,000,001–2,000,810  
PVM-20L5/1 2,100,001–2,100,109  
PVM-20L5/2 2,100,110–2,100,886  
*PVM-D14L5A 2,000,001–2,000,054*  
*PVM-D14L5A/1 2,000,055–2,000,336*  
*PVM-D20L5A 2,000,001–2,000,222*

*Italicized information in green applies to customers outside the United States.*

### DESCRIPTION

A retrace line may be visible on the screen and the screen may brighten under the following conditions:

- Unit has a BKM-142HD option board.
- HD-SDI is selected as the input signal.
- HD-SDI input is removed or the input signal from a generator is disabled.

To correct the symptom, perform the following modification.

### Symptom Details

When the HD-SDI input signal is removed (no sync signal is input), the HD-SDI module on the BKM-142HD board may malfunction, incorrectly generating a V-sync output signal of approximately 500 Hz, rather than a normal signal of 50/60 Hz.

When the 500 Hz V-sync output signal is input to the unit, the monaural-multi IC that produces the V-sync signal within the unit supplies an output signal of 0 Vdc, because the IC receives a pulse signal at a frequency higher than the discharge time of the IC. The output pulse signal of the monaural-multi IC is used for generating the reference pulse of the current feedback circuit for AWB. However, because the output signal decreases to 0 Vdc, the reference pulse of the feedback circuit also decreases to 0 Vdc, raising the signal output level of the current feedback circuit. As a result, a retrace line is visible and the screen brightens.

The modification procedure adds an OR circuit between the signal line and V pulse signal of the deflection circuit. This circuit prevents monaural-multi IC output from decreasing to 0V, even if an abnormal V pulse signal is input from the BKM-142HD board.

### PARTS REQUIRED

Part No.	Description	Qty.
8-719-911-19	Diode, 1SS19	1
8-719-073-01	Diode, Chip, MA111	1
1-247-843-11	Res, Carbon, 3.3 kΩ	1
1-102-112-00	Cap, Ceramic, 330 pF	1
1-500-435-11	Ferrite Core, SFC-6	1

Also Required: RTV

DPMO03-022

## ORDERING INFORMATION

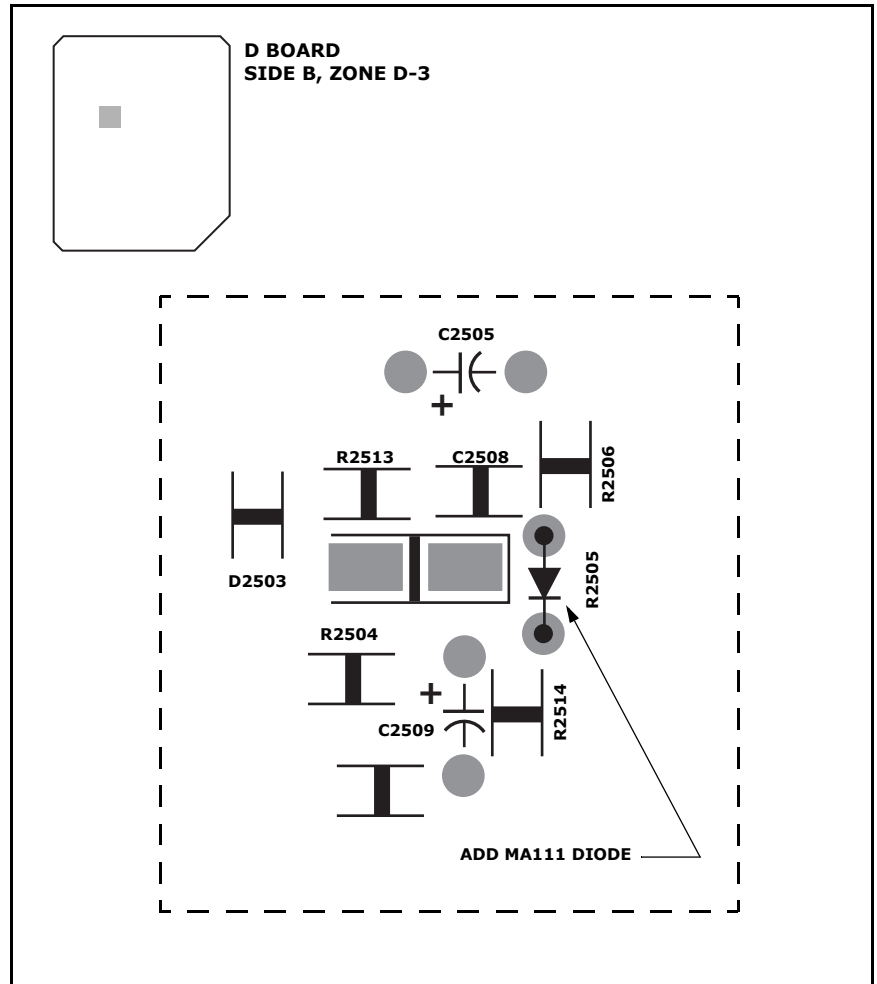
To order upgrades or for regional service center and parts ordering information, refer to the following document, which lists all contact telephone numbers:

Technical Bulletin 001999000

## MODIFICATION PROCEDURE

### D Board (Side B)

1. Solder an MA111 diode to the pads reserved for R2505. (See Figure 1.)

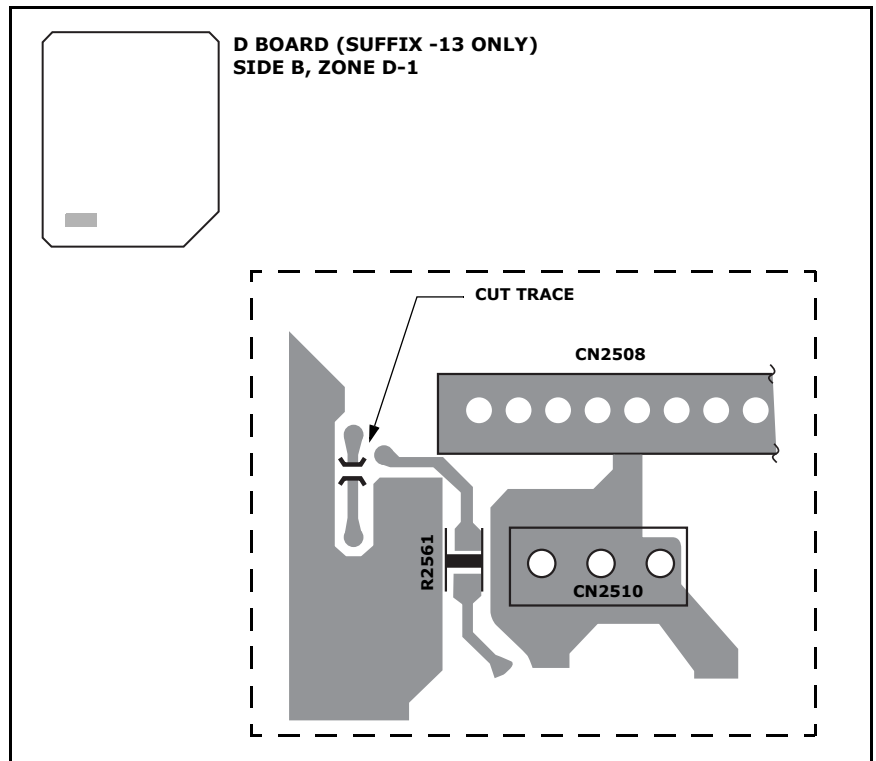


**Figure 1**

2. Add a 1SS119 diode to the board as follows:

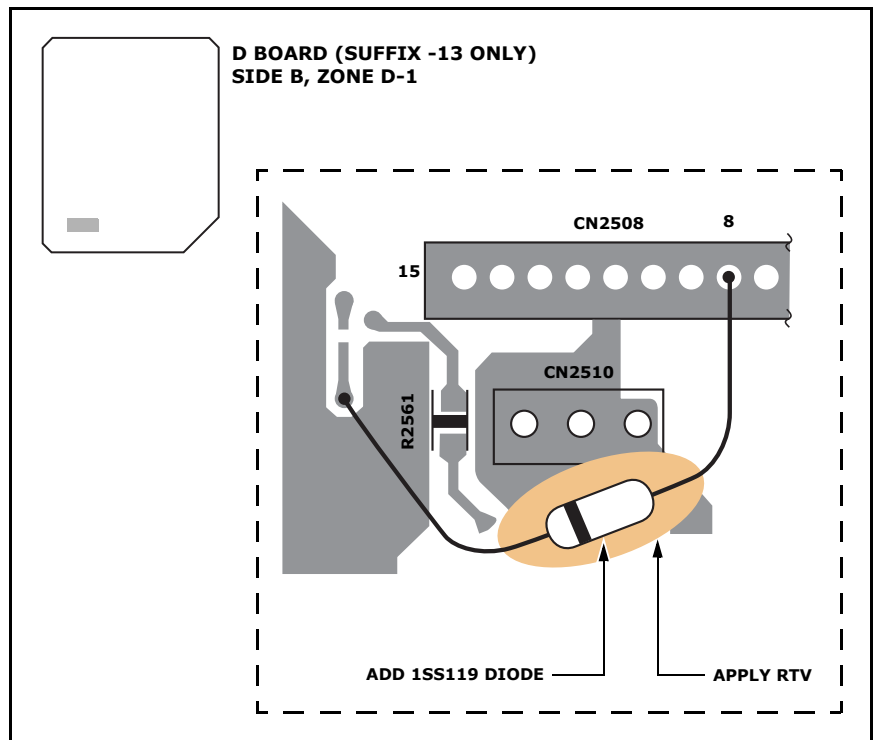
**Suffix -13 Only**

a. Cut the trace as shown in Figure 2.



**Figure 2**

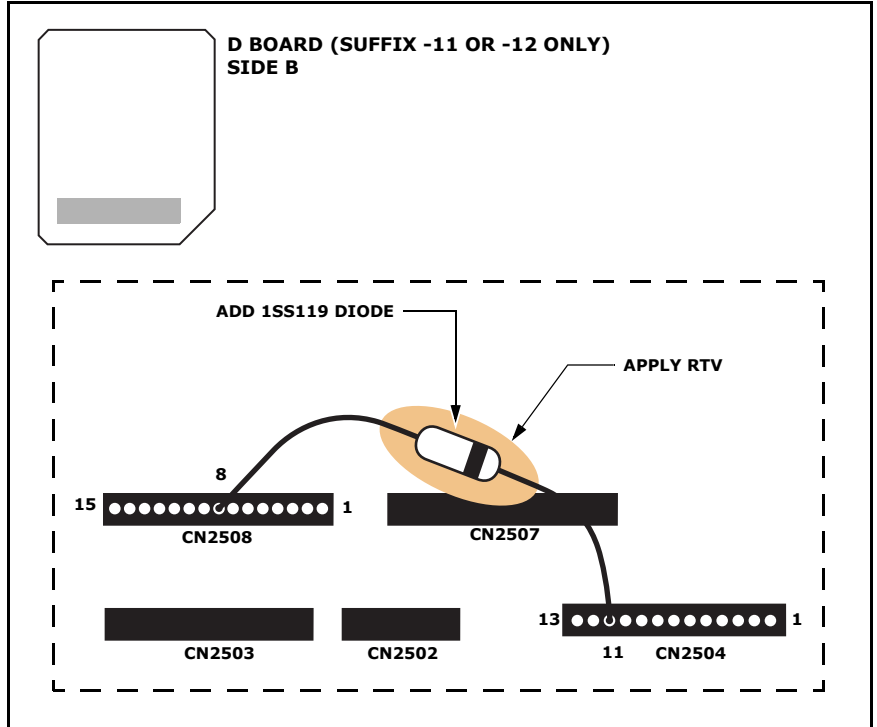
b. Solder a 1SS119 diode between CN2508 pin 8 and the thru-hole, with the cathode of the diode connected to the thru-hole. (See Figure 3.)



**Figure 3**

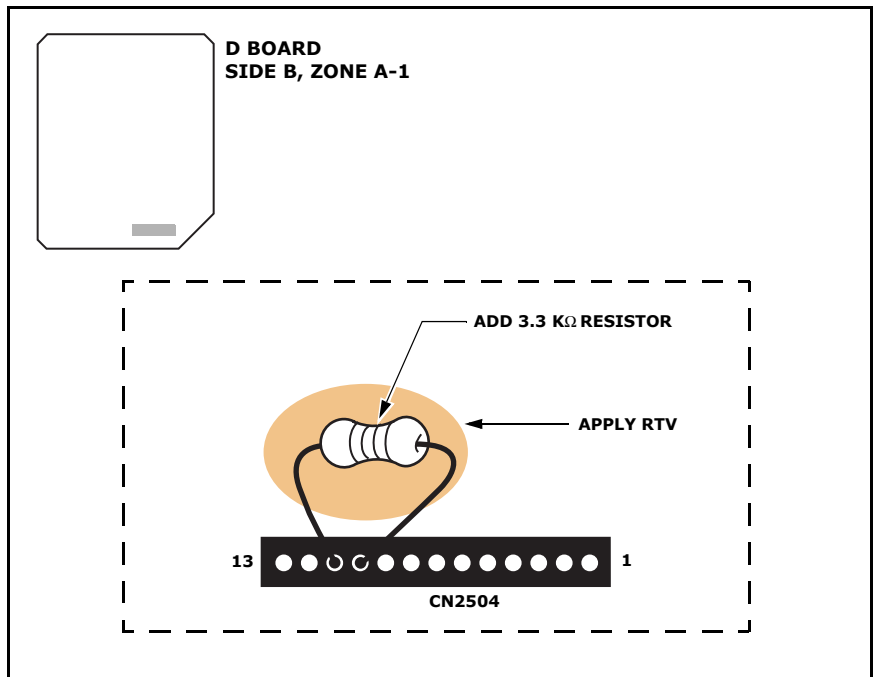
### Suffix -11 or -12 Only

Solder a 1SS119 diode between CN2508 pin 8 and CN2504 pin 11, with the cathode of the diode connected to CN2504. (See Figure 4.)



**Figure 4**

3. Affix the diode to the board with RTV.
4. Solder a 3.3 k $\Omega$  resistor between CN2504 pins 10 and 11. (See Figure 5.)

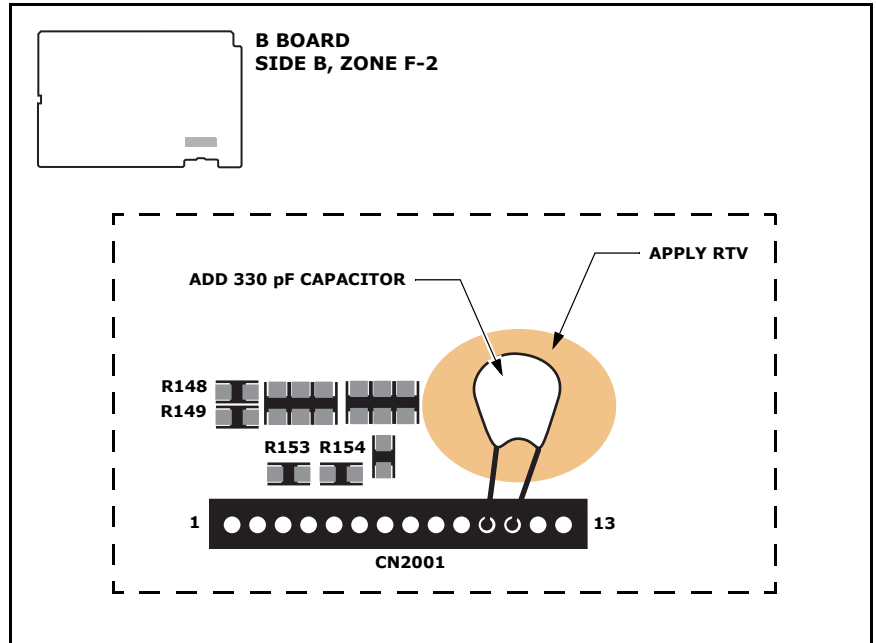


**Figure 5**

5. Affix the resistor to the board with RTV.

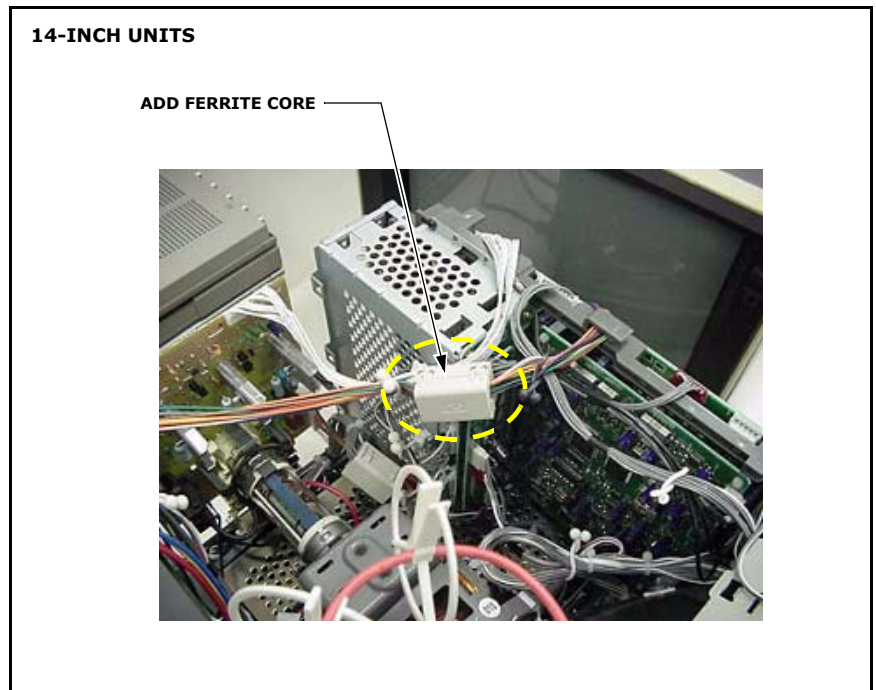
## B Board (Side B)

- Solder a 330 pF capacitor between CN2001 pins 10 and 11. (See Figure 6.)



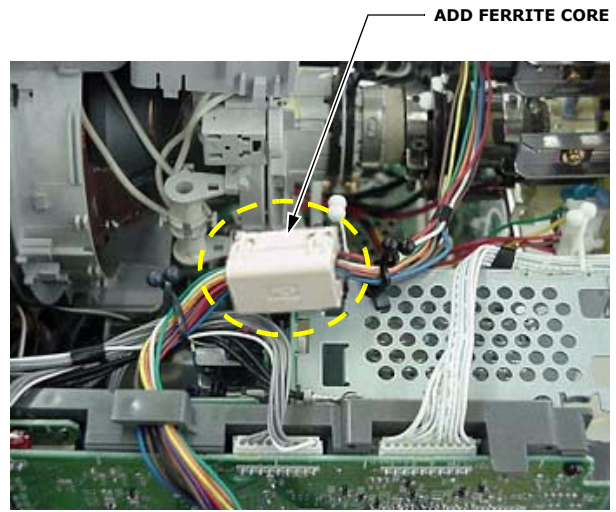
**Figure 6**

- Affix the capacitor to the board with RTV.
  - Add an SFC-6 ferrite core to the harness connected between CN2001 on the B board and CN2504 on the D board.
- NOTE:** Add the core between the supplied path locks (black and signal block path locks). (See Figures 7 and 8.)



**Figure 7**

**20-INCH UNITS**



**Figure 8**