

Models:

PFM500A2W-series, PFM500A3W-series, PFM510A1W-series, PFM510A2W-series, and PFM42B1-series.

Subject:

Plasma panel failure.

Symptom:

Display may not power on or may attempt to power on however shutdowns. Some units like the PFM500 series may flash the error codes 12, 22 etc before shutting down. For the PFM42B1 the unit may flash 6 times indicating a panel or panel board problem. The plasma panel may or may not prime and a picture can be displayed so these conditions can only be used as a guide. Occasional a unit may run for several minutes before shutting. If this condition occurs please note whether a horizontal bar is present across the screen as this may indicate a scan drive failure (i.e. panel failure).

Tools Required:

- Phillips screwdrivers (various sizes). Note: It is advantages to have a power screwdriver as there are many screws to remove and replace.
- Multi-meter

Step 1: Place the Display in a serviceable position. **Caution**, when laying display down be careful not to damage the filter glass or the plasma panel. Make sure surface is clean, flat, and cushioned. Remove the rear cover of the set. Inspecting the Scan drive IC's for damage or monitoring the VS (Scan Voltage) line are good indicators of the problem. If the scan drive IC's (located under tin shields along the left side of the panel when viewed from the rear) appear fine proceed with the following procedure beginning with step 2 below. If one or more of the scan drive IC's appear damaged please call 877-350-3477 for instructions.

Step 2: Monitor the scan voltage VS as the unit is powered on. Check to see if the VS voltage attempts to go to max and then drops to approximately zero and then attempts to go to max once again. This condition will indicate that the unit has at least an X or Y-SUS failure in which case you may skip step 3 and proceed to step 4. If the VS line does not go max to min to max etc. the unit may only need a Switching Regulator. Troubleshoot this board first then proceed to step 3. Note: The VS line may only try to reach max 3 times before the TV goes to shutdown so careful observation of the VS line is needed as the set is powered on.

The objective is to be able to access the Y-SUS and X-SUS circuit boards. See figure 1 below.

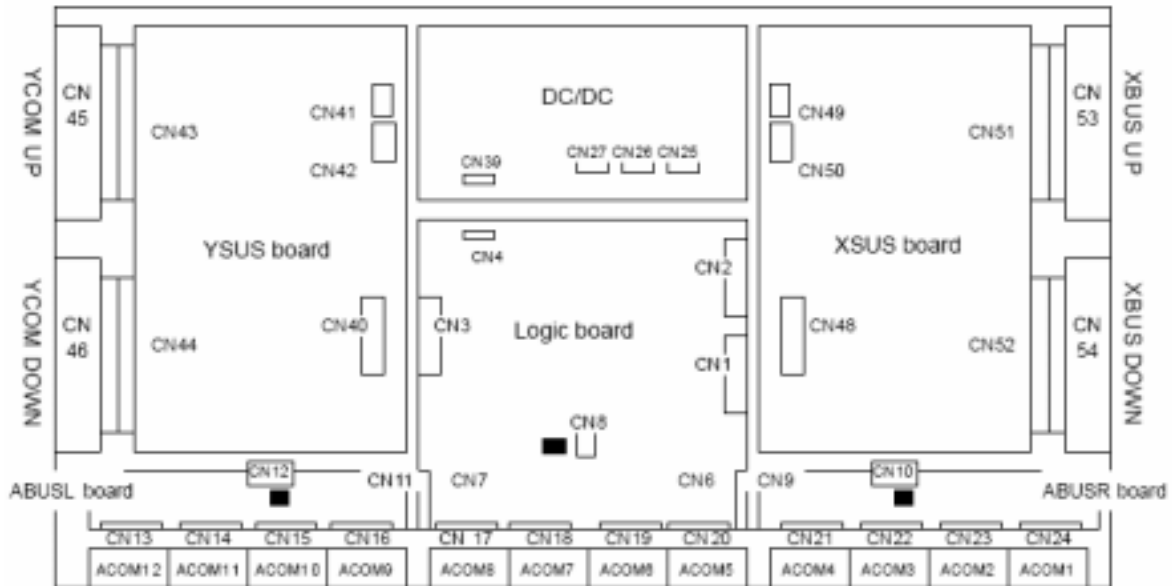


Figure 1

Step 3: After removing necessary shields etc. to make X and Y-SUS boards accessible we can now begin to test the check points.

On the X-SUS board disconnect CN48~50 and test the following points for a short:

Test Lead 1 (i.e. Red lead)	Test Lead 2 (i.e. Black lead)
VS	L1
GND	L2
VS	L3
GND	L4

Note: You can use CN49 on the X-SUS board as pins 9 and 10 are VS and pin 8 is ground. For locations of the connectors see figure 1 above.

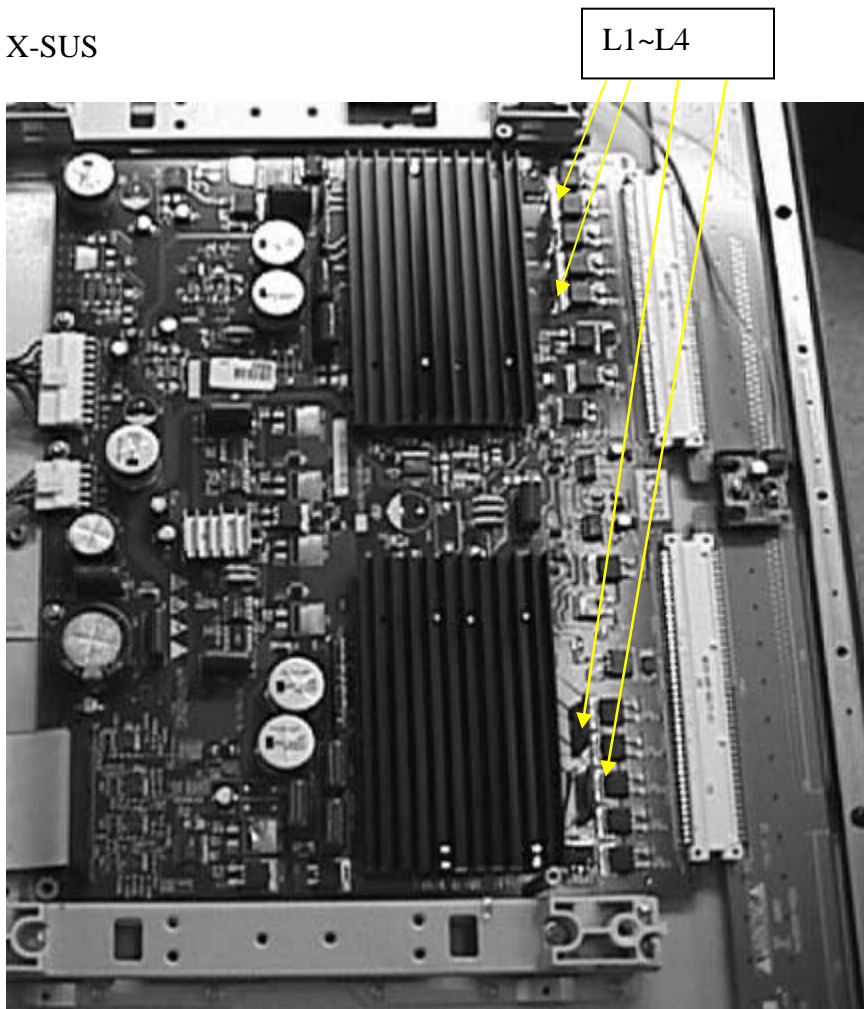
On the Y-SUS board disconnect CN40~42 and test the following points for a short:

Test Lead 1 (i.e. Red lead)	Test Lead 2 (i.e. Black lead)
VS	L1
GND	L2
VS	L3
GND	L4

Note: You can use CN41 on the Y-SUS board as pins 9 and 10 are VS and pin 8 is ground. For locations of the connectors see figure 1 above.

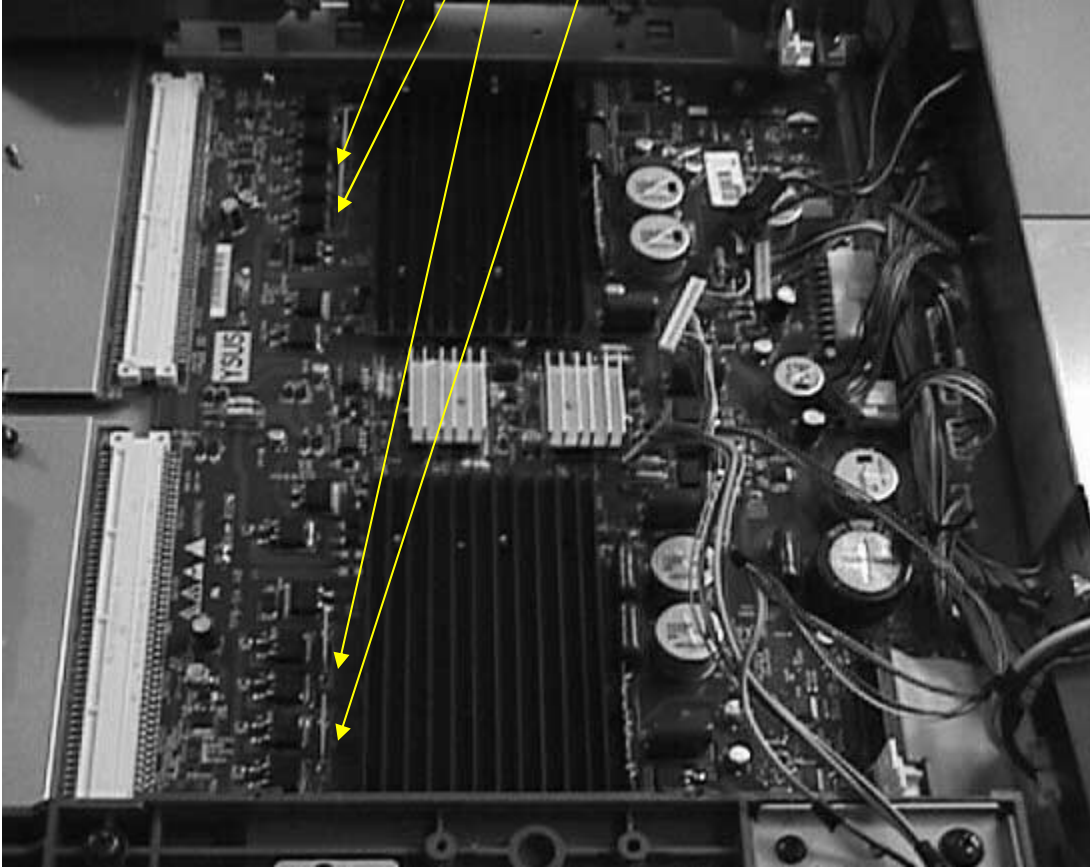
Location of L1~L4 on the X-SUS and Y-SUS boards.

X-SUS



Y-SUS

L1~L4



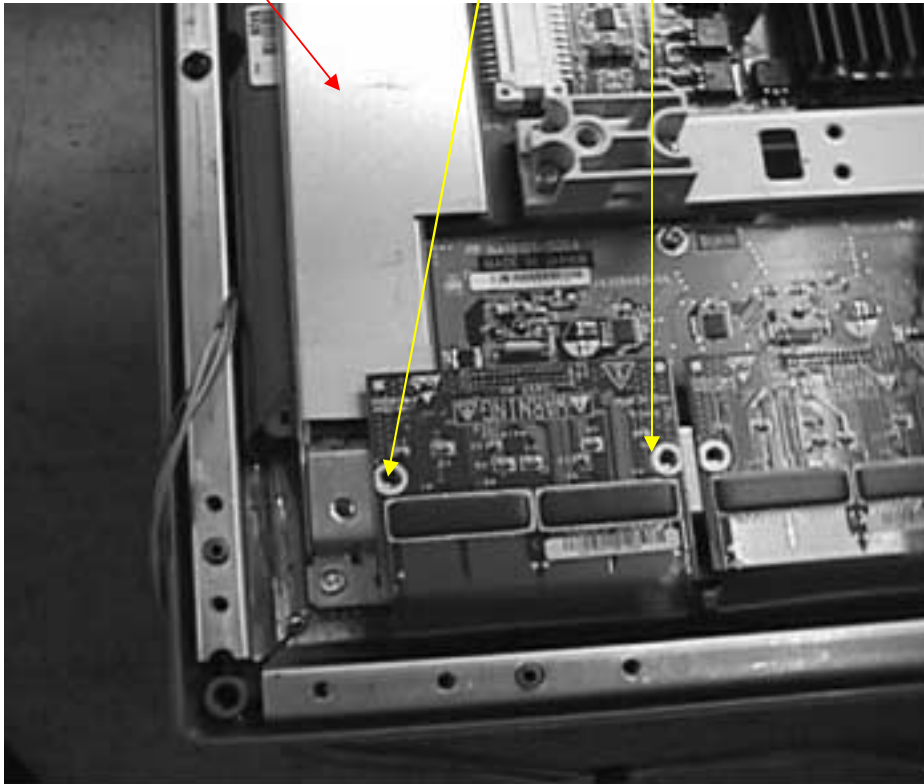
Step 4: Testing the Scan Drive Modules (SDM's)

Remove the shields over the YCOM-up and YCOM-down boards. CAUTION: You will need to remove the left most ADM connector in order to remove the lowest screw on the YCOM-down board. See picture below.

CAUTION: Once screws are removed pull up carefully as there is a board to board connector located underneath. Also, be careful not to rip or damage the flex cables.

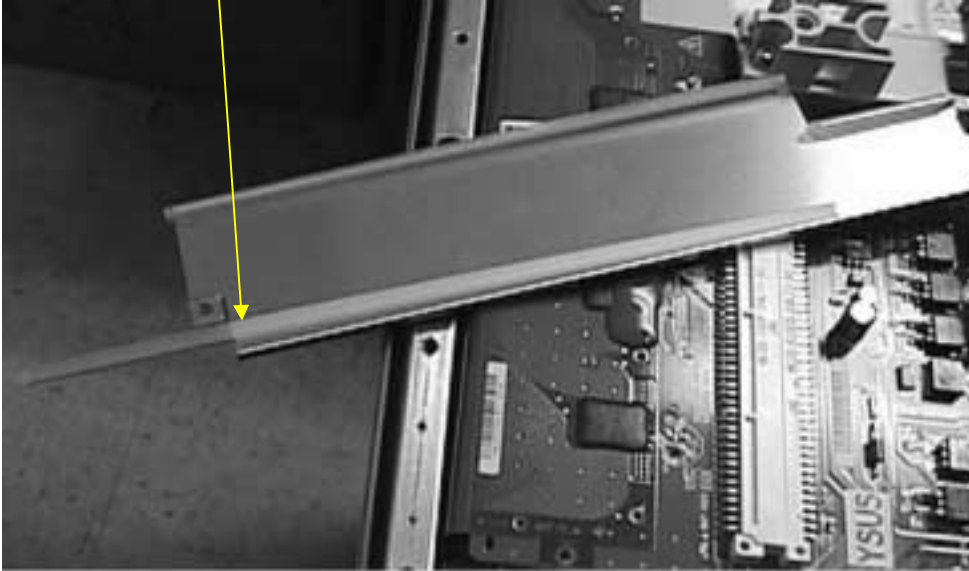
Lower Scan drive IC's located under the shields.

Remove 2 screws



Note: There are plastic edge guards along the bottom edges of the shields. Please make sure they are replaced when unit is re-assembled.

Plastic edge guard



With the SDM's visible inspect them closely for pits, burns or any other signs of damage. If any are damaged please contact the phone number provided under **Resolution** below. If the SDM's appear fine please proceed with the following procedure.

On the YCOM-up board CN 45 check the following points for a short:

Test Lead 1 (i.e. Red lead)	Test Lead 2 (i.e. Black lead)
One of the following B5~B14	To one of the following B16~B24
One of the following B27~35	To one of the following B37~46

NOTE: It is only necessary to check one point in each case, i.e. B5 to B14 and B27 to B37 as we are only checking to see if the banks of data are shorted together.

On the YCOM-down board CN46 check the following points for a short:

Test Lead 1 (i.e. Red lead)	Test Lead 2 (i.e. Black lead)
One of the following B5~B14	To one of the following B16~B24
One of the following B27~35	To one of the following B37~46

NOTE: It is only necessary to check one point in each case, i.e. B5 to B14 and B27 to B37 as we are only checking to see if the banks of data are shorted together.

Conclusions: Depending on the results above there are various solutions available.

If one or more of the scan drive module's (SDM's) are damaged please call the phone number provided below under **Resolutions**.

If the SDM's are okay meaning that they passed the check points outlined in step 4 however the X or Y_SUS board failed any of the checks in step 3 order and replace the **X AND Y-SUS boards**. After board is replaced please verify that the VA and VS are set correctly.

If the unit passes all tests it does not have this problem.

Resolution: Test the unit according to above. If the display indicates the symptoms above and fails the SDM check in step 4 call 877-350-3477 for instructions.