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Park Ridge, New Jersey 07656

CONFIDENTIAL

Service Bulletin
Computer Monitors

CSI-111

Model: **CPD-100ES, CPD-200ES** **No.** **223R1**

Subject: **Shutdown; Intermittent Bar Across Screen** **Date:** April 26, 1999

Symptom:

(111X) Unit exhibits black bar across screen followed by shutdown condition. Symptom occurs after warm up or with low AC input. Q602 Switching Regulator Output in the power supply circuit may fail due to excessive stress. The stress may be caused by faulty protection components D603 or R609 or C620/R609 Wire Jumper.

Solution:

If the customer complains of this symptom, then please perform the following procedures to check Q602 and the protective components D603, R609, and the C620/R609 Wire Jumper.

NOTE: The following components (or equivalent) may be required to complete the procedures listed below.

REF	DESCRIPTION	PART NUMBER
Q602	TRANS IRFIBC40	8-729-926-79
D603	Diode RD18ESB2	8-719-110-49
R609	MO 0.22Ω 5% 3W	1-216-381-11
C610	CER 560 pF 10% 50V	1-102-115-00
NA	2.5 Inch No. 22 AWG Jumper Wire Type FR-1 or VW-1 or F And CSA Certified.	1-900-801-67

DEAD UNIT TROUBLESHOOTING PROCEDURE

1. Remove AC power and access the D Board.
2. Discharge the AC Rectifier Cap. C620.
3. Measure the resistance of R609. It should be 0.22Ω ±5%.
4. Check Q602 for shorts or excessive leakage.
5. Check D603 for open condition or excessive leakage.
6. Check C610 to verify the value is correct.
7. Replace any failed or incorrect components.
8. Assemble the unit and verify basic operation.

The Dead unit Troubleshooting Procedure is completed.
Continue to the Over Current Condition Detection procedure.

CONT.

OVER CURRENT CONDITION DETECTION PROCEDURE

1. Connect the computer monitor AC input to an Isolated Variable AC power supply. Set the AC supply to 120 VAC.

2. Apply a flat field video input signal in Mode 7. Check the picture dimensions.

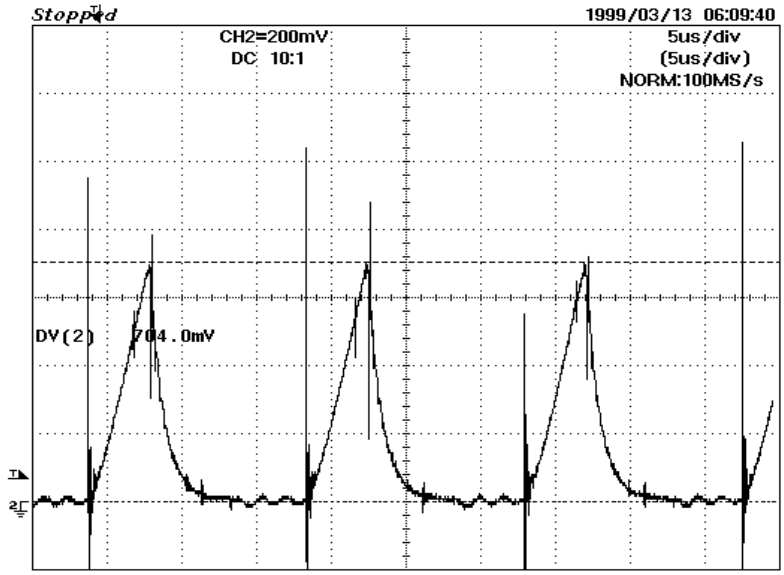
3. Vary the AC input power supply voltage from 120 VAC to 95 VAC. Check if the picture horizontal size gets smaller when the AC input level is decreased.

CAUTION

The following Steps require measuring signals in the active AC input circuits. These circuits include hazardous voltage levels. Use an oscilloscope with a Floating Ground. Use the Floating Ground method only with suitable equipment and careful procedures. Avoid body contact with conductive parts.

4. If the horizontal size is reduced in Step 3, then use a Floating Ground oscilloscope to measure the waveform at pin 7 of IC601. The peak voltage should be less than 0.8 volts. Refer to the following illustrations.

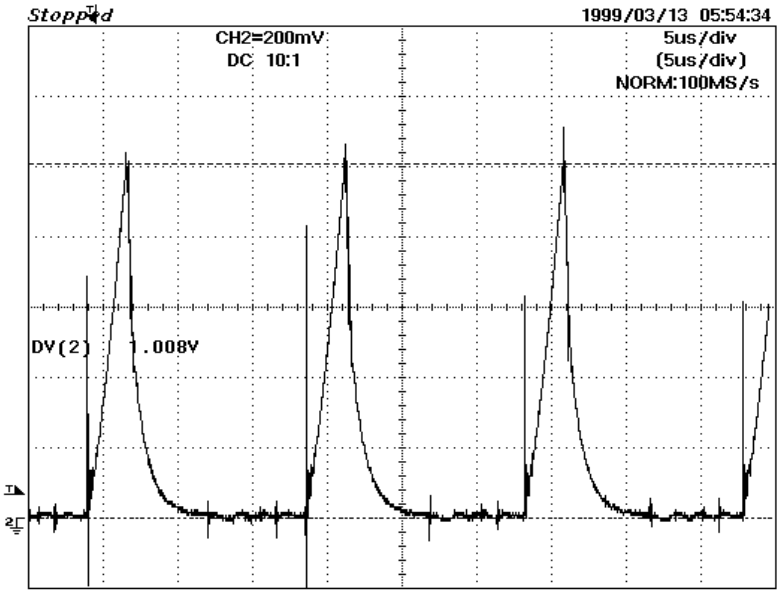
Correct Waveform on Pin 7 of IC601



5. If the waveform exhibits a peak voltage greater than 1.0 volts, then over current protection will occur. Refer to the following illustration.

CONT.

Incorrect Waveform on Pin 7 of IC601



The Over Current Condition Detection Procedure is completed. Continue to the Over Current Condition Correction Procedure if required.

OVER CURRENT CONDITION CORRECTION PROCEDURE

1. Remove the AC power and access the D Board.

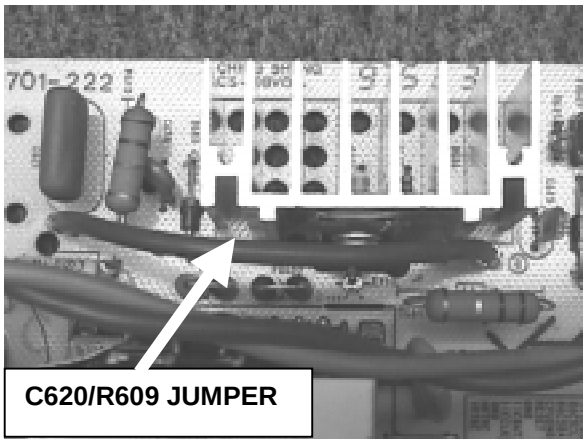
2. Discharge the AC Rectifier Cap. C620.

3. To correct the over current condition, remove the brown jumper wire found between T601 and Q602. Refer to the following illustration

4. Either replace the jumper wire with a good one, or dress the wire and pin connector with solder. Insure that the solder flows into the wire and remains inside the pins. Re-solder the Jumper Wire to the D-board. Check that there are no cold solder connections.

5. Assemble the unit. Verify correct operation in all modes and AC voltage conditions.

LOCATION OF C620/R609 JUMPER



The correction procedure is completed.