

Troubleshooting Section

Dead Set Troubleshooting

Symptom: Nothing happens when power is pushed, set is dead.

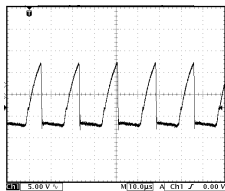
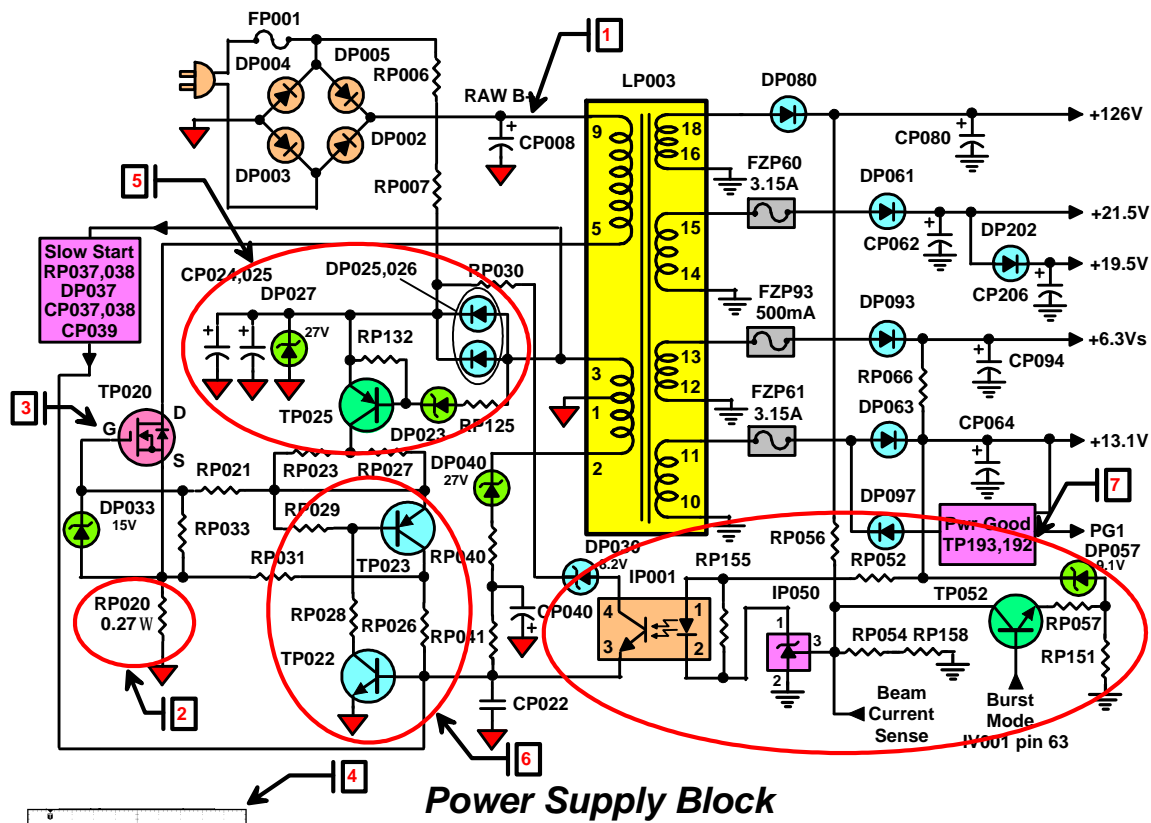
NOTE 1: DP027 will short during over voltage, shutting down the power supply. IF DP027 is shorted, check FZP61. If FZP61 is open, check the +13V for excessive load. A loss of feedback will cause over voltage condition.

NOTE 2: Disconnect Alert Guard CBA. A problem with alert guard can cause the set to appear dead!

1. Check RAW B+, if not OK check the full wave bridge rectifier DP002/003/004/005 and it's associated components.
2. If RAW B+ OK, check the current sensing resistor RP020. If open, this indicates there has been a severe over current condition in the power supply and all active components on the primary side of LL003 should be checked and replaced (**See note 3 in step 6**).
3. Check DC voltage and waveform on the gate of TP020. This will indicate if the oscillator is running and the power supply is working.
4. If there is no waveform on the gate of TP020, unsolder the drain of TP020 and check for 7.9Vdc on the gate. 7.9Vdc on the gate of TP020 indicates start-up circuit is working go to step 6. If waveform present on the gate of TP020, the power supply is working, troubleshoot system control.
5. If DC on gate of TP020 is not 7.9Vdc, check TP025, DP027, DP023, RP006, and RP007 (start up circuit) and replace if suspect.
6. If no waveform on gate of TP20 (DC OK), check TP22, TP23 and their associated components. Replace all transistors if one has failed or is suspect.

NOTE 3: If TP020 has failed more than likely the other transistors have been stressed and the circuit will self-destruct again when plugged into 120 AC unless all active components are replaced.

7. If TP020 checks OK (with primary circuit pulsing), check IP01 (Ref Reg) and IP50 (Opto Coupler) and their associated components.



15.6V p-p
10uS/Div 57.14Khz

Power Supply Block

Device (Open)	Reg B+	High Voltage	Video	Audio	Comments
FP01 (AC Fuse) Main CBA	0Vdc	NO	NO	NO	DEAD
FZP60 (+21.5V) Main CBA	132Vdc	YES	YES	NO	Set comes on with No Audio
FZP61 (+13.1V) Main CBA	0Vdc	NO	NO	NO	DP27 Shorts (Over Voltage protect)
FZP66 (+7.9V) Main CBA	132Vdc	NO	NO	NO	Cycles when Power is pushed
FZP93 (+6.3V) Main CBA	125Vdc	NO	NO	NO	Dead, Power supply working
FZK001 (+13.1V) Alert Guard	132Vdc	NO	NO	NO	Dead, Disconnect Alert Guard module and set powers on with video and audio.
FZX001 (+12V) MAV	128Vdc	YES	NO	Yes	OSD present on channel change

Circuit Protection Chart