

FILM-TECH

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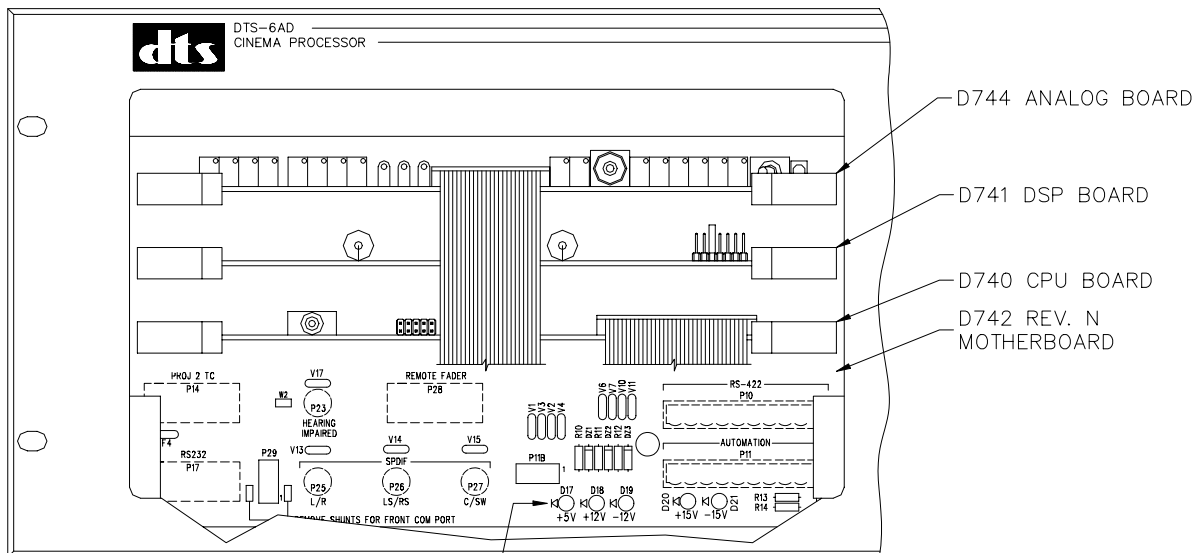
This notice explains how to test the DTS-6AD/-ECP power supply. In 2002, the (back panel) mother board, D742 was updated to Rev. N. The update included the addition of power status LEDs that are viewed from inside the unit. Older vision mother boards do not have the indicators.

Power Supply Status LEDs on D742 (back panel board), Rev. N


On the D742 motherboard, there are five status LEDs for the power supply busses.

ID	COLOR	SUPPLY	FUNCTION
D17	Red	+5 VDC	Digital supply and timecode reader power
D18	Amber	+12 VDC	Digital supply
D19	Green	-12 VDC	Digital supply
D20	Amber	+15 VDC	Analog supply
D21	Green	-15 VDC	Analog supply

To see these LEDs, remove the DTS-6AD/-ECP front control panel and look under the D740 CPU board and to the back. You should be able to see the LEDs glowing. If one or more LEDs are dark, then use a voltmeter to test the output of that power supply.



POWER SUPPLY LED'S.
VIEWED FROM FRONT PANEL, LOOKING
UNDER D740 BOARD AND TO THE BACK.

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	How To Check the DTS-6AD/-ECP Power Supply		TN-E672		
DATE PREPARED 1/21/03	CREATED BY: K. Hultgren	EFFECTIVE DATE 1/23/03	APPROVED BY: R. Barrett/J. Thatcher		

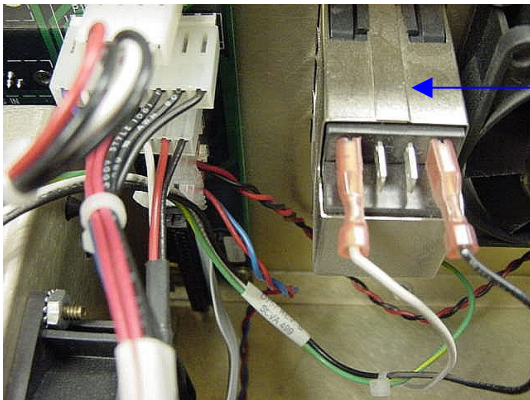
DTS, 5171 Clareton Dr., Agoura Hills, CA 91301 Contact Document Control for the latest revision.

Even if you do not have the indicators, you can still test the power supply modules. Remove power. Remove the top protector grate and inspect the inside of the unit. Be sure that all crimped connections are secure. Grasp each wire and tug to be sure the wire is secure in the connector.

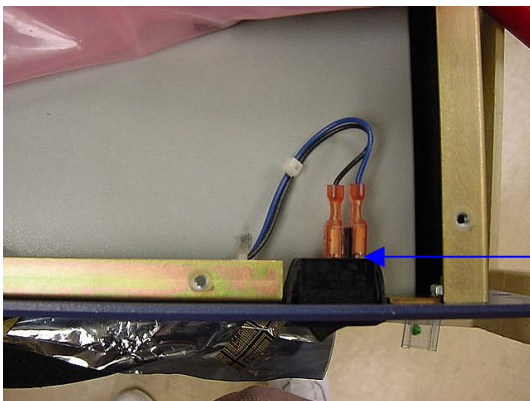
Inside the
DTS-6AD &
DTS-ECP



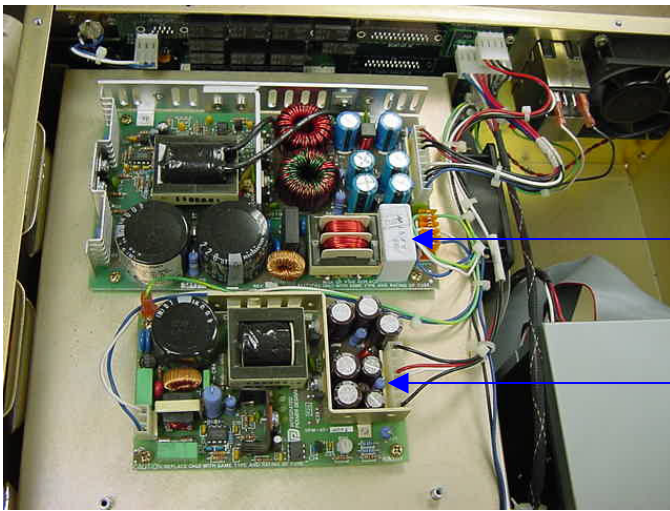
AC power comes in from the back and goes to the power module. Then, it goes to the power switch on the front panel. Finally, it goes to the +/-15 VDC and +/-12 VDC power modules inside the unit.



Power module
Green = earth ground connected to chassis under module.



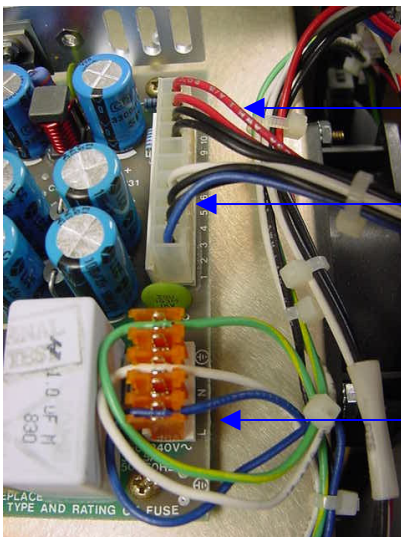
Front panel power switch



Power on the unit and carefully use a volt meter to test the output of each board.

+/-12 VDC supply board

+/-15 VDC supply board



Reds = +5 VDC
Blacks = common


White = +12 VDC
Black = common
Blue = -12 VDC

Green = earth ground
White = 120 VAC
Blue = 120 VAC

Green = earth ground
White = 120 VAC
Blue = 120 VAC



Black = common
Red = +12 VDC
White = -12 VDC
Black = common

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If you cannot read an output from the power supply board(s):

- Test that the front panel power switch is working properly.
- Check that all connections are secure. Verify the wires are making good contact in their connectors.
- Test that the fuses in each board are not open. Replace open fuses.
- If the fuse reopens, try disconnecting all rear panel connectors.
If the fuse does not open, check all cables for shorts. One of them is shorting out the supply.
- If the fuse still reopens, it means something is shorted inside the unit. In that case:
 - ① Power off the unit and remove all three boards (D740, D741, D744) and the front display.
 - ② Replace the fuse(s).
 - ③ Power on the unit and verify the fuse does not open, if it does, replace the bad power supply board.
 - ④ If the fuse does not reopen, power off the unit and reconnect one board. Power on and see if the fuse opens. If it does, replace that board.
 - ⑤ If the fuse does not reopen, power off and slide in the next board. Power on and check the fuse.
 - ⑥ Repeat for the last board and front display. Connect one at a time.
 - ⑦ Replace the bad board or display = which ever turns out to be the problem.
- If one of the power supply boards turns out to be bad, use the DTS auxiliary power supply and cable to power the unit until the new board arrives. Be aware that this will not help if one of the boards has a short. It will only help if one of the power supply boards has no output (but is not shorted).

Use adapter cable, DTS Part # 9022E62100 to connect the Model SRP-30A-2004 auxiliary power supply, DTS Part # 9003E66900, to the DTS-6AD or DTS-ECP.

The supply is used as emergency backup if the internal supply fails. When used, the supply powers the audio circuits but will not light the front panel lights or display – altering the operator that an internal power failure has occurred. The auxiliary supply is rated for 85 to 285 VAC at 47 to 63 Hz

Direct questions to DTS cinema technical support

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