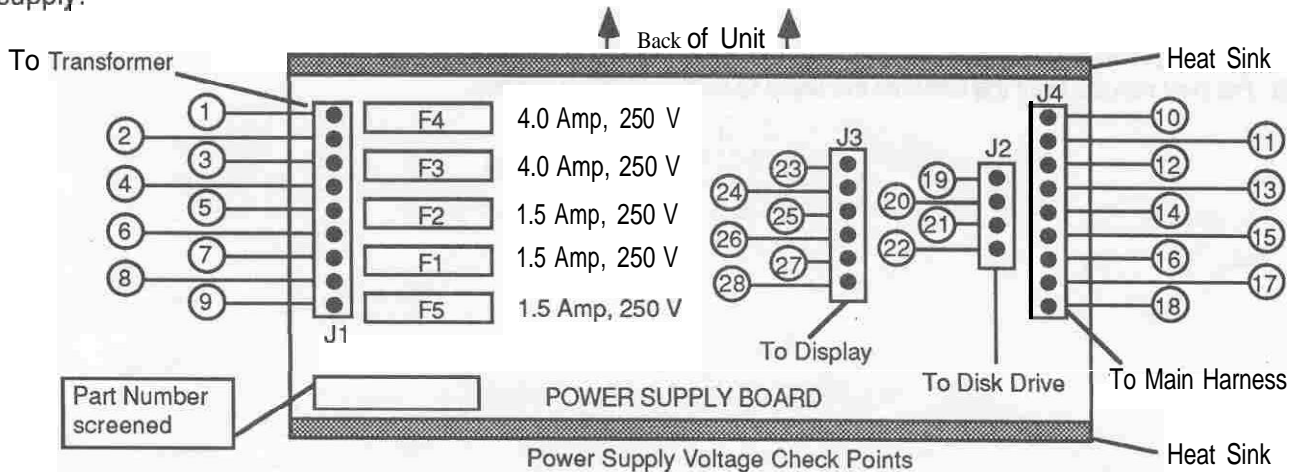


THIS BULLETIN COVERS:

- . EPS DIAGNOSTICS
- . EPS - THE 7501 MAIN BOARD AND THE 10002 MAIN BOARD

EPS DIAGNOSTICS

A number of EPS's have been incorrectly diagnosed as having a faulty main board when the real problem was a faulty power supply. The following are the most common problems which could be caused by a faulty power supply:



- PROBLEM:** Hum or buzz in audio output; EPS crashes randomly; or problems develop after inserting a memory expander.

SOLUTION: Check the voltages on the power supply at J4 with the power supply loaded (main board and display board connected). Using pin 11 as ground, the voltages on pins 14, 16, and 16 (of J4) should be +4.75 to +5.25 VDC. The AC ripple on these pins should be less than 50mV. If the voltages are not within this range or the AC ripple is greater than 50mV, replace the power supply.
- PROBLEM:** EPS is dead on power up.

SOLUTION: Perform solution 1 above. If no problem is found, check the voltages on the power supply at J3. Using pin 23 as ground, the voltages on pins 27 and 28 (of J3) should be -22.7 to -31.5VDC. If the voltages are not within this range, replace the power supply. If no problem is found, check the voltage at pin 25 (of J3). It should be -29 to -37.2 VDC. If the voltage is not in this range, replace the power supply.
- PROBLEM:** EPS has disk drive loading problems.

SOLUTION: Perform solution 1 above. If no problem is found, check the voltages on the power supply at J2. Using pin 11 of J4 as ground, the voltage on pin 22 (of J2) should be +11.4 to +12.6 VDC. The AC ripple on this pin should be less than 50mV. If the voltage is not within this range or the AC ripple is greater than 50mV, replace the power supply.

THE 7501 MAIN BOARD AND THE 10002 MAIN BOARD

Units with serial numbers 16582 or higher (240V - 502603) contain a new version of the EPS Main Board. The 10002 board is a new layout of the 7501 Main Board with: the tower board included: a new square gate array chip that replaces several individual chips; and a different size RAM chip. When replacing a main board, you should replace it with the same version that is in the unit. **Replacing a 7501 Main Board with a 10002 board should be done only when 7501 main boards are not available to you.** The 10002 board has all of the connectors (except the disk drive connector, J2) in a different place from the 7501 board. If you must replace a 7501 Main Board with a 10002 Main Board, three cables must be replaced. **Do not attempt to switch boards without acquiring these cables from ENSONIQ Customer Service:** Keyboard Cable, Main Board Power Cable (attached to main harness), and SCSI Cable (if applicable),

1. Remove the 7501 Main board as described in the EPS Service Manual.
2. Clip the four wire ties that hold the main board power cable (9-pin) to the main harness. Discard this cable.
3. Insert the new 10002 Main Board as described in the EPS Service Manual.
4. Attach the new main board power cable to the power supply at J4 and to the main board at J10.
5. Reconnect the cables from the display board (J8), wheels (J9), and disk drive (J2).
6. Use two wire ties to bundle the new main board power cable out of the way. NOTE: Leave the wheels cable out of the wire ties.
7. If applicable, install the new longer SCSI cable (the 34-pin ribbon cable from the SCSI board to the auxiliary expansion, connector J6 on the main board).
8. Replace the existing keyboard cable on the keyboard with the new longer keyboard cable.
9. Re-install the keyboard as described in the EPS Service Manual.
10. For best results, boot the unit with the latest OS. disk (2.35 or higher).