

Pathfinder 32/24 Power Supply Service Procedure

Warning: Hazardous voltages are present inside the Pathfinder Matrix chassis. Only qualified service personnel shall perform this procedure.

Note: The Pathfinder matrix is designed to allow hot-swapping of the redundant power supplies so that no interruption in operation is required. Although hot-swapping is permissible, the service technician is encouraged to disconnect power before service if operation may be interrupted. Upon power-up, the Pathfinder will automatically restore all signal routes and levels established before it was shut down.

Required equipment:

- Calibrated DC voltmeter with 0-20 volt range
- Small flat blade screwdriver 1/8" x 4" (Xcelite R184 or equivalent)
- Drive handle with flat blade screwdriver bits
- Tamper resistant drive bit supplied with in replacement power supply kit

To Replace Defective supply:

- 1) Determine which power supply requires replacement. This front panel display or your service request will indicate which power supply is defective. The front panel will display "Power Supply 1 Fail" if the primary supply fails, "Power Supply 2 Fail" if the secondary supply fails, or "Both Power Supply Fail" in the event that both supplies out of regulation.
- 2) If it is permissible to interrupt matrix operation, disconnect the input line cord from the AC mains.
- 3) Remove the two tamper resistant screws on the front panel (indicated in figure 1), using the bit included in the replacement power supply kit. The bit should be installed in an appropriate driver handle.
- 4) Slowly tilt out the power supply access panel taking care not to let it slam against the stops as it swings open. Notches provided at the top corners of the access panel may be gently pried to gain a finger hold.
- 5) Loosen fully the two screws retaining the defective power supply as shown in figure 2. Note the top supply is Power Supply 1 (Primary). The bottom supply is Power Supply 2 (Secondary).
- 6) Slide the power supply out by gently pulling on the power supply mounting frame flange.
- 7) Install the replacement power supply in the matrix chassis by carefully starting the mounting frame on the plastic slides and pushing into place.
- 8) Re-install and tighten the power supply retaining screws.
- 9) Calibrate new power supply by following steps below

To Calibrate new supply:

- 10) If bottom power supply (Power Supply 2) was the defective supply replaced, first remove Power Supply 1 to gain access to Power Supply 2's voltage monitor connection by following steps 5 and 6 above.
- 11) Connect a suitable DC voltmeter to the new power supply's voltage monitor port by inserting the probes through the grommetted holes in the power supply frame as shown in figure 2.
- 12) Insert a suitable flat blade screwdriver through the voltage adjustment access hole to engage the voltage adjustment potentiometer on the new power supply. See figure 3 and figure 4.
- 13) Adjust the power supply voltage as shown below.
 - a. Power Supply 1 (Primary): 12.50 +/- 0.1 volts DC
 - b. Power Supply 2 (Secondary): 12.00 +/- 0.1 volts DC
- 14) Reinstall Power Supply 1 if it was removed in step 10. Secure with retaining screws.
- 15) Carefully close power supply access panel and reinstall tamper resistant screws.

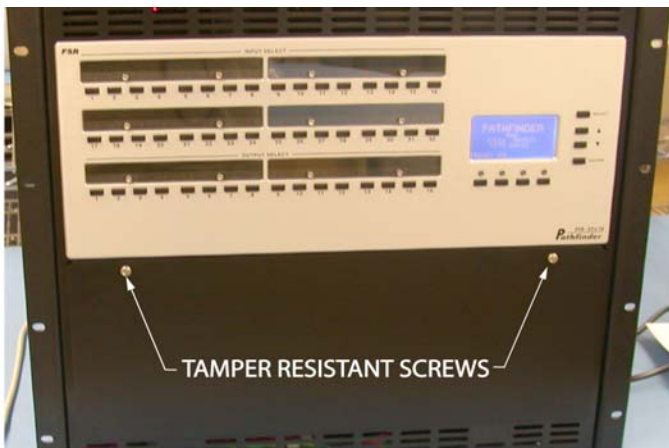


FIGURE 1

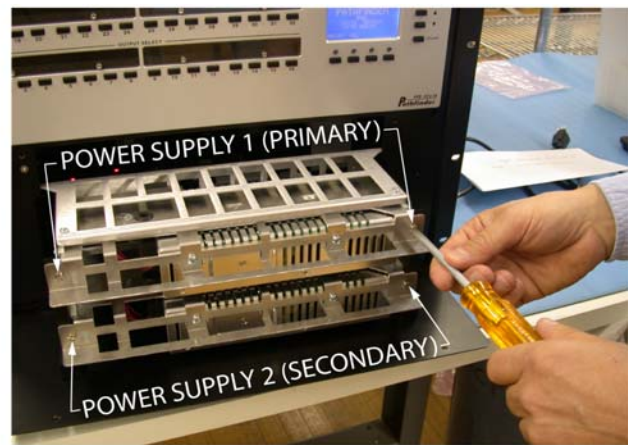


FIGURE 2

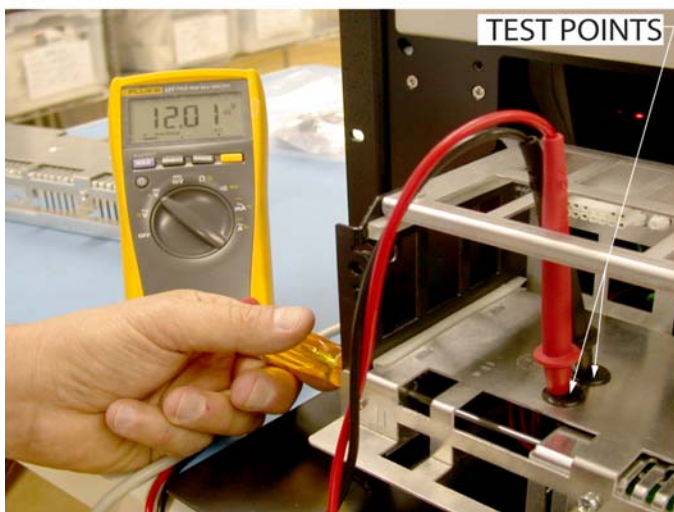


FIGURE 3

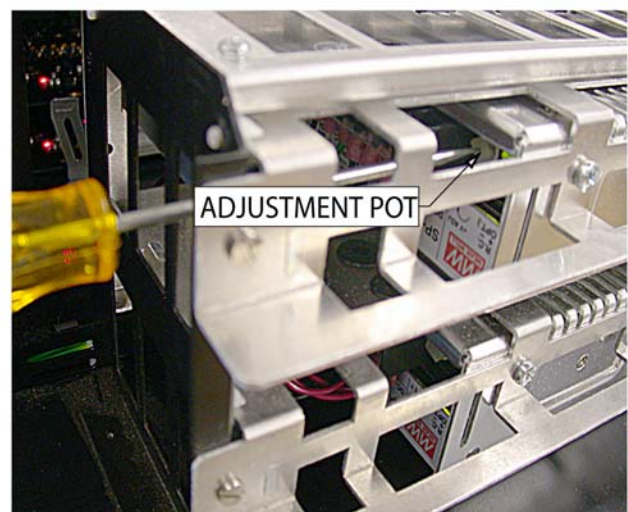


FIGURE 4