



TECHNICAL SERVICE BULLETIN

Date: 2/9/96

merit industries, inc.

- Problem:** Darts being counted as “thrown,” without a dart being thrown.
- Games affected:** All dart games with switching power supplies. Serial numbers 425766 and up (uprights) and 460482 and up (wall mounts)
- Symptoms:** Darts are taken away; a player gets fewer than 3 darts per turn.
- Cause:** Improper voltage.
- Solution:** Ensure proper voltage by following the steps below.

Instructions

Step 1 - Check R9 Resistor on the RDP28 Target/Microphone Interface Board

1. The resistor located at R9 on the RDP28 board should have a resistance value of 470K Ω (color code YELLOW/VIOLET/YELLOW/GOLD). If the R9 resistor does not have a resistance value of 470K Ω , the resistor should be changed. Games with serial number 428672 or higher were manufactured with the resistor modification. If you do not have the resistor, contact Merit Customer Service (1-800-445-9353) and order part number RS1800.

Step 2 - Securing the Power Connector

1. Inspect for cold solder joints on the power supply's main power connector. Resolder each of the connector's pins if this problem is suspected. (See Figures 1 and 2 for header locations.)

Step 3 - Set the Proper Voltage Level to CPU board & Add Additional +5 Volt Wires

Required parts: (To order these parts pre-assembled, contact Merit Customer Service and order kit # KSD-100-001)

Upright games:	(2) 26 1/2" lengths of 18 AWG wire
Wall games:	(2) 14" lengths of 18 AWG wire
All games:	(2) 0.156 header pins
	(1) 0.093 female pin

1. Strip 1/4" of insulation off of each end of the wires.
2. Crimp a 0.156 header pin to one end of EACH wire.
3. Crimp the remaining ends together into the 0.093 female pin.
4. Insert the 0.093 female pin into Pin 2 of the J1 connector on the CPU board. (Pin 2 is the only unused pin in the connector.) See Figure 3.
5. Insert the other ends into Pins 2 and 3 of the power supply main header (see Figures 1 and 2 for header location).
6. Tie wrap the wires to the existing power supply harness.

Step 4 - Check the Power Supply for Proper Voltage & Test Missed Dart Sensitivity

1. Lower the voltage from the power supply to +5V. (To check the voltage, attach a voltage meter to the middle pins on the J1 connector on the main CPU board: see Figure 3 for location of positive and negative voltage.) (See Figures 1 and 2 for adjusting the power supply output of your power supply. If your game uses an Autec Power Systems power supply, see Figure 1; if your game uses an International Power Sources power supply, see Figure 2.)
1. Next, enter the Missed Dart Detector/Automatic Player Change Test (found in your owner's manual). The Player 1 lamp should light when the target section is tapped gently. If the light stays on without a tap, there is a bad chip on the RDP28 microphone board; call Merit Customer Service to order a new RDP28 board. If this test is passed, raise the voltage back to between +5.15V +5.17V.

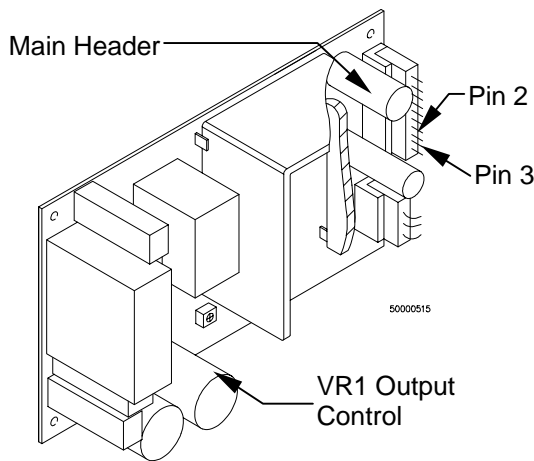


Figure 1 - Autec Power Systems Power Supply

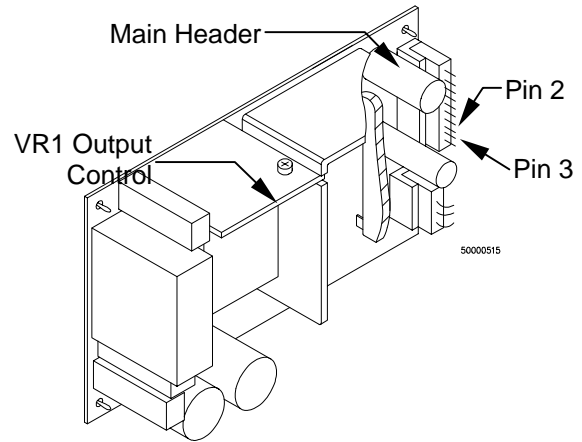


Figure 2 - International Power Sources Power Supply

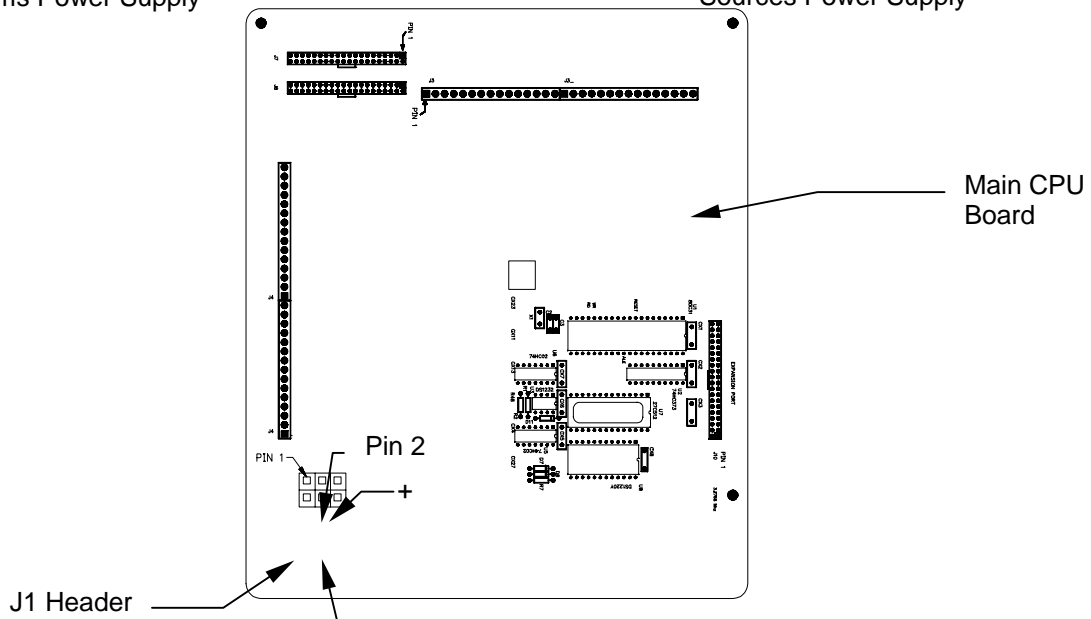


Figure 3 - Location of J1 Header on CPU Board