

Service Bulletin #016

To: Service Manager  
Date: 5-26-89  
Subject: Suggested Power Supply Modification  
Game: Time Machine

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Symptom: On a few of the power supply boards in our Time Machine test games (which have been on location for 4-6 months) we have seen discoloration of the board in the area around the General Illumination (G. I) Relay. Over time this can result in burn out of the traces which carry the G. I. current.

Problem: The traces around the G. I. Relay are not heavy enough to carry the current that this game generates. This is due to the number of G. I. lamps and the frequency with which they flash.

Solution: To prevent the board from becoming discolored or, in the worst case, opening traces, you should perform the a enclosed modification. You may want to make this modification even if your power supply does not show any discoloration. Please read and carefully follow the enclosed modification instruction procedure. If you have any questions please give Arnie or I a call at 1-800-542-5377 (1-800-KICKERS).

Note: We have "beefed up" these traces on all the power supplies going into the Playboy games.

Pete Gustafson  
Field Service Manager  
Data East Pinball, Inc.

## Modification Instructions

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Time Required-20 minutes

Tools Required-A medium wattage soldering iron.  
-A phillips screw driver to remove and install the power supply board.  
-A wire cutter/wire strippers to make the jumpers.

Materials Required-Rosin core solder.  
-Three 16 gauge jumper wires 2" in length.

- 1) Remove the power supply board from the back of the game and place it on a well lit, flat working surface.
- 2) Flip the board over and orient it so that the large heat sink is on the lower left and the G. I. Relay (RY 1) is on the lower right. (ALL JUMPERS ARE TO BE INSTALLED ON THE BACK OF THE POWER SUPPLY BOARD!)
- 3) Solder one jumper wire from pins 1 and 3 of CN 9 to the normally closed position of the G. I. relay. (refer to diagram)
- 4) Solder one jumper wire from pins 2 and 4 of CN 9 to pins 6, 7, 8, and 9 of CN 8. (refer to diagram)
- 5) Solder one jumper wire from the common position of the G. I. relay to pins 1, 2, 3, and 4 of CN 8. (refer to diagram)
- 6) CHECK YOUR WORK!!!! If the jumpers are installed improperly the game WILL AT BEST melt the wires going to the transformer and AT WORST melt down the transformer!
- 7) Install the power supply and check for proper operation.

POWER SUPPLY - SOLDER SIDE

