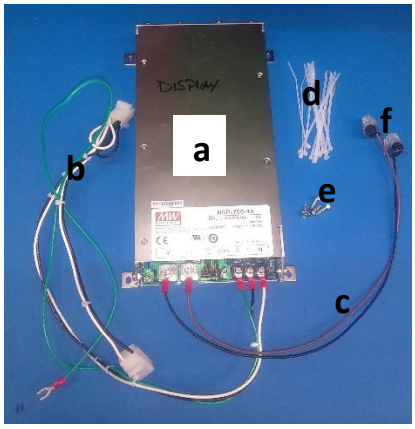
Service Installation: 48 V Power Supply
September 27, 2018
SI-92718
Written by BTA

48 Volt Power Supply Installation Guide

PROCEDURE:
Parts Needed: 48V Power Supply Kit
Tools Needed: Standard screwdriver, ¼" Nut Driver, Wire Stripper

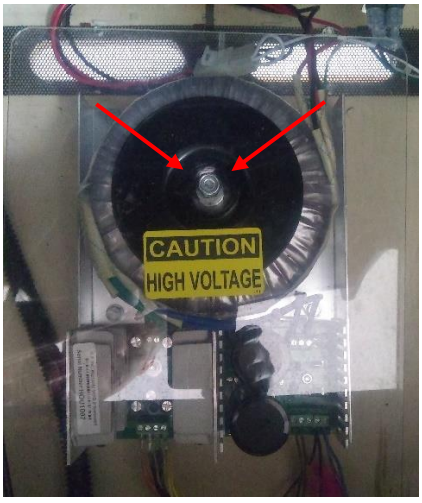
INSTRUCTIONS:
Review your kit to make sure everything is included



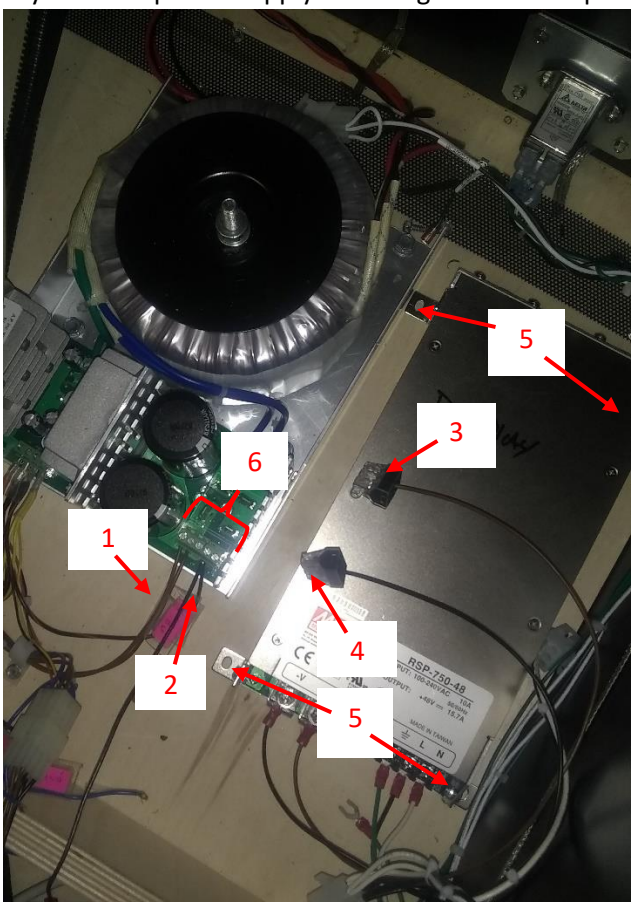
Kit Includes
a. 48 Volt Power Supply
b. A.C. Connector
c. 48 Volt and Ground Wires
d. 2 Wire Ties
e. 4 Wood Screws
f. 2 Wall Nuts

Make sure the game is powered off and unplugged. Rest the Playfield on the Yellow Service Stands.

Remove the clear protective cover off the old power supply by removing the retaining nut.



Lay the new power supply to the right of the old power supply.



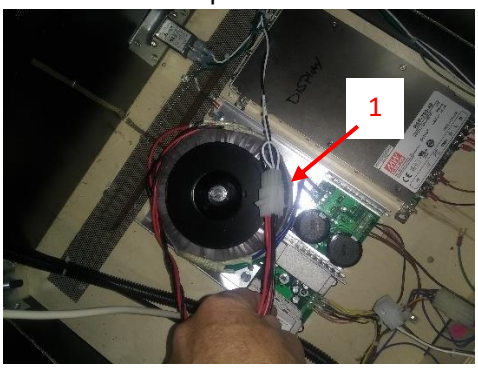
Remove the 2 Brown wires from the old P.S. #1, ensure there is a half inch of insulation removed from the wire and insert into an empty slot on the brown Wall Nut #3. *(your game may have more than 2 Brown Wires, attach all of them to the Brown Wall Nut #3)*

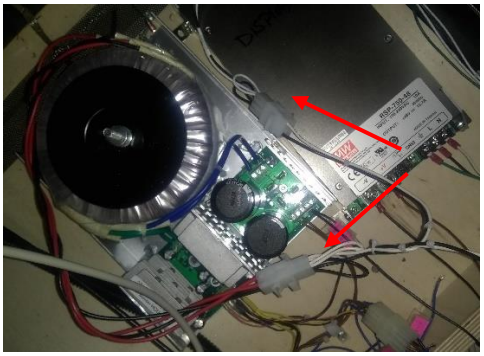
Remove the 2 Black wires from the old P.S. #2, ensure there is a half inch of insulation removed from the wire and insert into an empty slot on the Black Wall Nut #4. *(your game may have more than 2 Black Wires, attach all of them to the Black Wall Nut #4)*

Using the 4 Wood Screws, place a screw through each attachment point into the floor of the game. #5 *(upper right attachment point is not shown in the picture)*

There should be no wires still attached to connector #6

Connect the A.C. power to the new P.S.





Disconnect the old A.C. connector #1

Connect the new AC connector attached to the new Power Supply to both ends of the old connector

(pins in the new connectors may need to be adjusted/straighten if they do not mate properly with the old connector)

Route the Green Ground along the right side of the cabinet towards the front and attach the Green Ground wire to the ¼" nut as shown

Verify that:

☐ **ALL** Black Wires are together on the same Wall Nut
☐ **ALL** Brown wires are together on the same Wall Nut
☐ **ALL** A.C. lines are going to the correct colors.

On the Power Supply Verify that:

☐ The Brown wire is going to the **+V** terminal
☐ The Black wire is going to the **-V** terminal

A.C. Input

☐ The Green wire is going to **Ground**
☐ Black is going to **L**
☐ White is going to **N**

Once you are sure everything is connected correctly, plug in your machine and turn on the game.

Next you will need to calibrate the coils

If you are unable to obtain the desired coil response or your coil setting for any coil is at or over "30" you will need to increase the power supply output voltage. The voltage is set at 48 volts D.C. from the factory. Using a multimeter adjust the trim pot on the power supply until the meter reads 51 volts D.C. Recalibrate the coils. If coil response is still not acceptable or you are unsure how to adjust the power supply call the help line.

833-API-HELP

CAUTION…. WHEN PERFORMING THESE CALIBRATIONS, THE PLAYFIELD WILL BE ACTIVE! TAKE CAUTION WHERE YOU PLACE YOUR HANDS.

1. Open the coin door and remove the playfield glass
2. Pull out the interlock switch inside the coin door on the left side.
3. Put the game in test mode (page 3-6) and select Utilities>Clear Houdini's balls and follow the onscreen directions.
4. Catch the balls as they are cleared.
5. Press the green BACK/EXIT button once to return to main menu
6. Select Settings >Coil Adjustment Settings.

LOWER CATAPULT

Place a ball in the lower catapult located on the left side of the playfield, watch where the ball lands (when adjusted correctly the ball should pass through the opened trunk centered up and down between the base and lid of the trunk).

If the ball lands before the trunk or hits the lower part of the trunk - increase the number of the LOWER CATAPULT by one and repeat the process.

If the ball lands beyond the trunk or hits the trunk lid - decrease the number of the LOWER CATAPULT by one and repeat the process.

UPPER CATAPULT

Place a ball in the upper catapult located right below the Trunk, watch how hard the ball hits the wire ramp (when adjusted correctly the ball should just barely make it into the ramp).

If the ball does not make it to the ramp - Increase the number of the UPPER CATAPULT by one and repeat the process.

If the ball hits the ramp to hard - Decrease the number of the UPPER CATAPULT by one and repeat the process.

UPPER VUK

Place a ball in the VUK located to the left of the mini playfield monitor, watch how fast the ball travels down the ramp (when adjusted correctly the ball should just make it over the apex of the ramp).

If the ball does not make it over the apex of the ramp - Increase the number of the UPPER VUK by one and repeat the process.

If the ball travels down the ramp too fast – Decrease the number of the UPPER VUK by one and repeat the process.

SCOOP

Place a ball in the SCOOP located on the right side of the playfield just above the shooter lane, watch how fast the ball exits the SCOOP (when adjusted correctly the ball should barley make it out of the SCOOP and travel down to the right flipper).

If the ball does not make it out of the SCOOP - Increase the number of the SCOOP by one and repeat the process.

If the ball comes out of the SCOOP too fast - Decrease the number of the SCOOP by one and repeat the process

OTHER COILS

After you play the first game you might notice other coils needing adjustment. Adjust as needed.

Play a test game, everything should operate normally at this point, if not call the service help line

833-API-HELP