

# ***Stereo 120/Stereo 80 Switch Replacement ASSEMBLY MANUAL***



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## **Section 1: About This Manual**

This manual gives the information you need to install a replacement power switch into the Stereo 120 (or Stereo 80) power amp. This new switch fits perfectly, but it is not illuminated. If you'd like a power-on indication, you can install the BLUE2 kit into your upgraded Stereo 120 power amp.

### ***Who Should Attempt these Projects?***

You can build this kit if you can:

1. solder (using normal rosin core solder and a soldering iron),
2. use simple hand tools like screwdrivers, wire cutters, and pliers, and
3. Read and follow directions.

It helps if you:

1. know a bit about electronics, or
2. have a friend who knows a bit about electronics
3. can get to YouTube to watch a few helpful videos about the assembly process (not available as of this version of the manual)

### ***Tools and Supplies You'll Need***

You'll need the following tools:

1. flat blade screwdrivers for #4 and #6 screws, #2 Philips head screwdriver
2. needle nose pliers (helpful, but not strictly necessary)
3. plier to hold the RCA jacks, a nut driver to tighten the RCA jack mounting nuts
4. pencil type soldering iron of 25 to 50 Watts (no huge honking soldering guns or blowtorches)
5. wire cutters and strippers
6. Magnifying glass, if you're over 42!

### ***Recommended Solder***

The kit must be assembled with 60/40 Rosin Core solder. The recommended diameter is 0.032 inches. Among many such sources of solder, I have used

- Kester 24-6337-8800 50 Activated Rosin Cored Wire Solder Roll, 245 No-Clean, 63/37 Alloy, 0.031" Diameter. This is a 1 pound roll of solder. No-clean means that it leaves the minimum possible residue on the PCB.
- MG Chemicals 60/40 Rosin Core Leaded Solder, 0.032" Diameter, 0.6 oz Pocket Pack
- Radio Shack solder, although it's hard to find given Radio Shack's bankruptcy. Still if you have some, and it's about 0.32" in diameter, it's fine to use.

### ***Project Overview***

Broadly, the project consists of the following steps:

1. Unplug the power amp and remove the cover.
2. Remove the 2 screws that hold the power switch in place.
3. Build the new switch and wire it in place

4. Re-assemble your Stereo 120 (80).

### ***Important Safety Notes***

By purchasing, using, or assembling this kit, you have agreed to hold AkitikA, LLC harmless for any injuries you may receive in its assembly and/or use. To prevent injuries:

- Wear safety glasses when soldering to prevent eye injuries.
- Always unplug the power before working on the equipment.
- Large capacitors hold lots of energy for a long time. Before you put your hands into the equipment:
  - Pull the AC plug!
  - Wait 1 full minute for the capacitors to discharge!
- Remove jewelry and rings from your hands and wrists, or anything that might dangle into the amplifier.
- If working in the amplifier, keep one hand in your pocket, especially if you're near the power supply or power supply wires. This can prevent serious shocks.
- Build with a buddy nearby. If you've ignored all the previous advice, they can dial 911 or get you to the hospital.

## Section 2: Preparing the New Switch

### Preparation

- Set up a clear space in which to work.
- Get a soup bowl and a towel. The soup bowl holds the parts as you disassemble the tuner. The towel will be used to protect the chassis of your amp from scratches.
- **Remove the power plug from the AC wall socket!**

### Adding Heat-shrink tubing to the switch

1. Cut a 3/8" length of the supplied 1/8" diameter black heat-shrink tubing.
2. Slip the heat-shrink tubing over the terminal closest to the white dot on the rocket.
3. Use the tip or barrel of your soldering iron to shrink the tubing. The purpose of the heat-shrink is to decrease the probability that you will come in contact with line voltage when the cover is off. We still urge caution whenever the lid is removed.

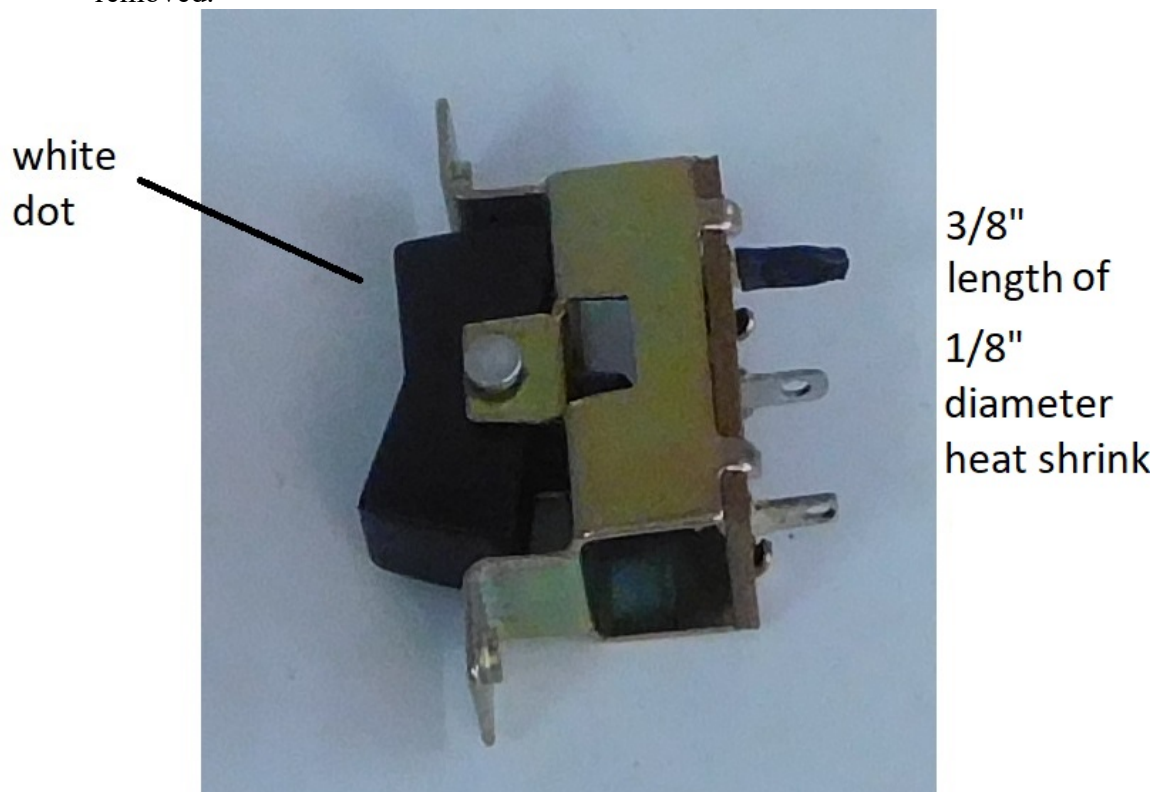


Figure 1-Add heat-shrink as shown above

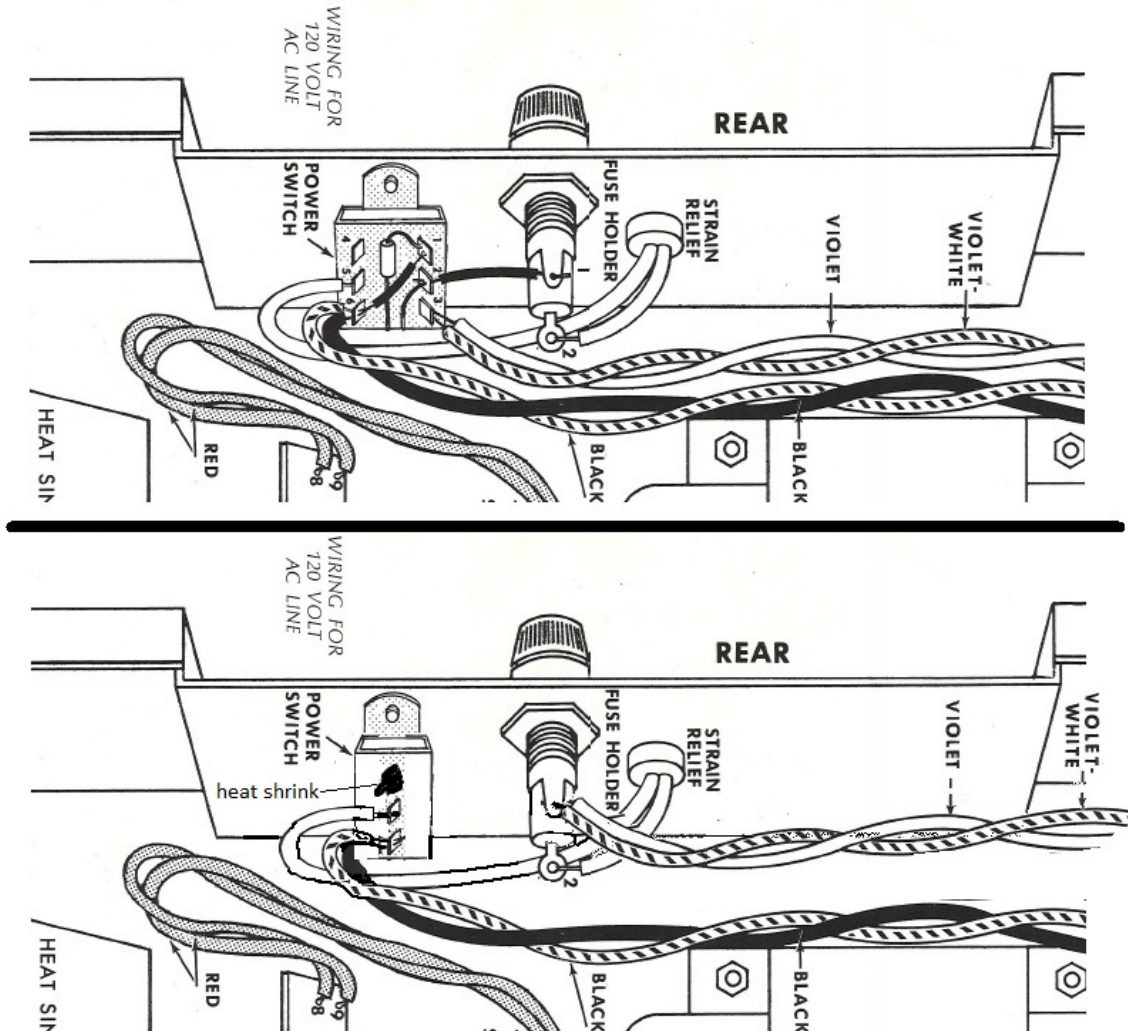
### Removing the Cover

1. Make sure that the power cord is unplugged.
2. Turn the amplifier upside down onto a towel. Remove the 4 screws that hold the cover to the chrome-plated base.
3. Hold both the cover and the base as you flip the amplifier right-side up.

4. Remove the cover of the amplifier and set it in a safe place.
5. Turn the switch side of the amplifier so it faces you.
6. Remove the two screws that hold the old power switch in place.
7. Lift the old power switch out and de-solder the wires.

### Remove the old power switch and install the new (120 Volt Wiring)

If you're wiring your amp for 240 volts, please skip ahead to the next section. The top of Figure 2 shows the original 120 Volt wiring. The bottom part of Figure 2 shows the new 120 Volt wiring with the new switch.

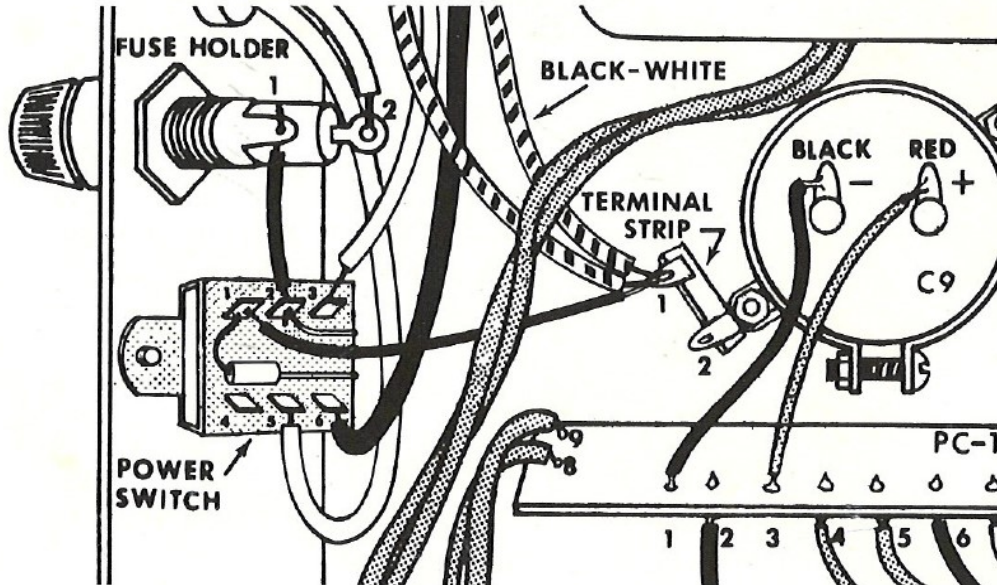


**Figure 2-Wiring change from old switch to new (120 Volt)**

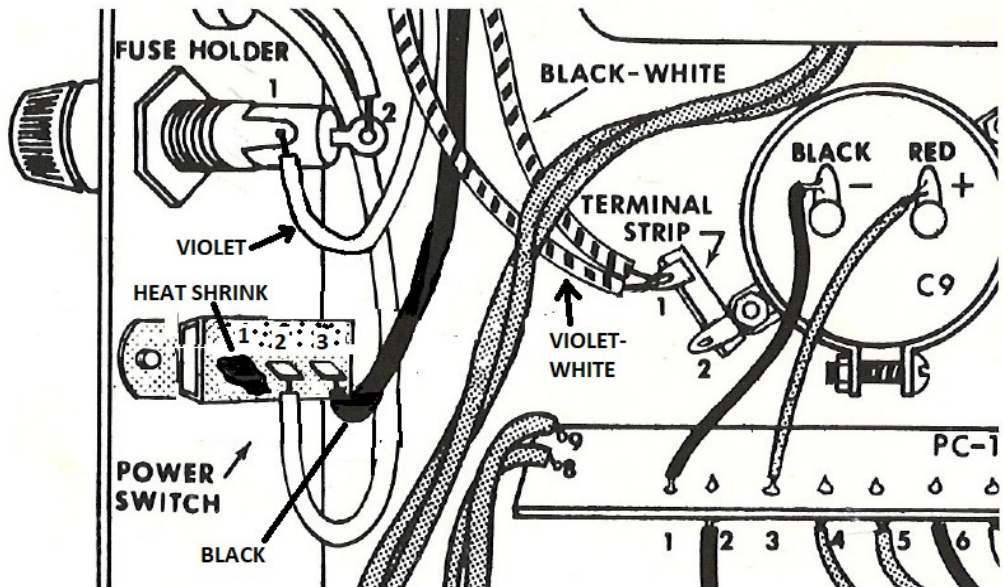
The switch terminals and wires will require a bit more heat than usual. It may help to tin the leads of the switch before you solder the new wires in place.

### Remove the old power switch and install the new (240 Volt Wiring)

The top of Figure 3 shows the original 240 Volt wiring. The bottom part of Figure 3 shows the new wiring with the new switch.



WIRING FOR 240 VOLT AC LINE (ORIGINAL)

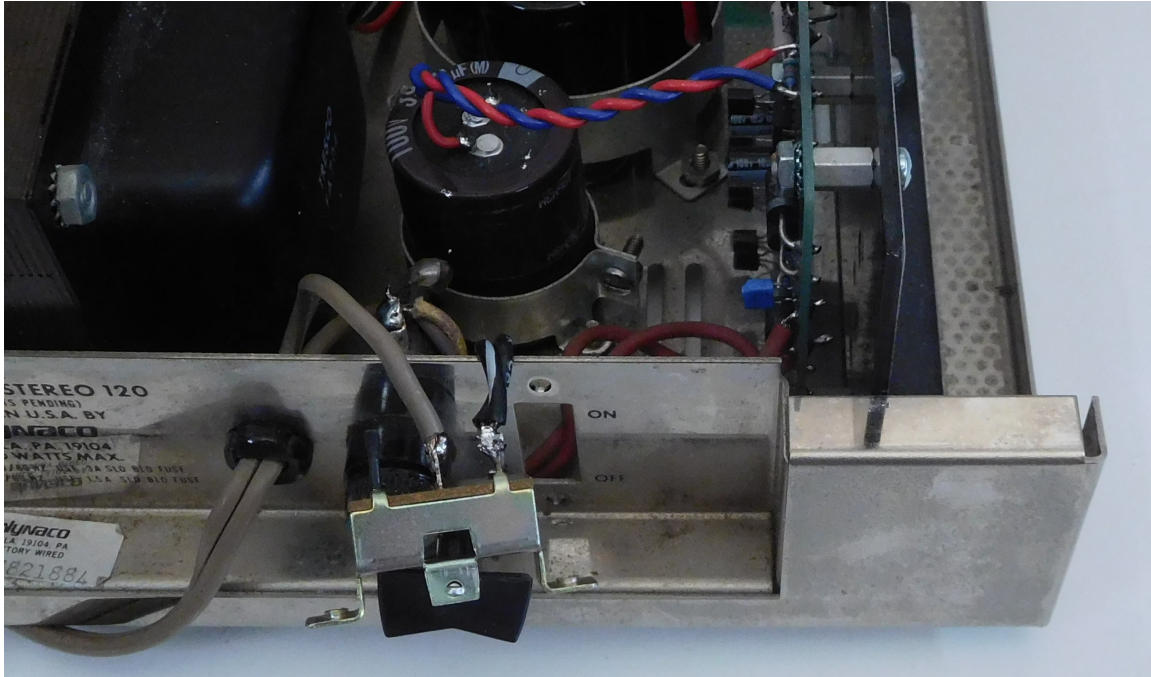


WIRING FOR 240 VOLT AC LINE (NEW SWITCH)

Figure 3-240 Volt Wiring

The switch terminals and wires will require a bit more heat than usual. It may help to tin the leads of the switch before you solder the new wires in place. Please note the following:

1. The slender wire from TERMINAL STRIP 1 to switch terminal 2 is removed.
2. The wire from FUSE HOLDER 1 to switch terminal 2 is removed.
3. The VIOLET transformer wire moves from old switch terminal 3 to fuse holder terminal 1.
4. The BLACK transformer wire moves from old switch terminal 4 to new switch terminal 3.



**Figure 4-New switch wired and ready for installation (120 Volt Wiring)**

Use the newly supplied screws to hold the new switch in place. They are metric screws with 3 mm diameter.

### Re-install the cover

Reinstall the cover of the amplifier. Holding both the cover and the bottom, invert the combination onto a towel. Reinstall the 4 screws that hold the cover in place.



**Figure 5-Completed Switch Installation**