Updatemydynaco

Dynaco Stereo 70 Mono Switch Replacement (ST70MS)

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Section 1: About This Manual

This manual gives the information needed to build and install a new mono switch into Dynaco's Stereo 70 vacuum tube amplifier.

Who Should Attempt this Project?

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.
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 (none are posted as of this version of the manual).

Tools you'll need

You'll need the following tools:

1. Phillips screwdriver (#1 and #2), regular screw-drivers.
2. Pliers or nut drivers suitable for #4 and #6 hardware
3. needle nose pliers (helpful, but not strictly necessary)
4. pencil type soldering iron of 25 to 50 Watts (no huge honking soldering guns or blowtorches)
5. wire cutters and strippers
6. DC volt-meter to measure bias-settings.

Helpful Tools

These tools aren't strictly necessary but make building the kit easier.

1. magnifying glass, if you're over 42!

Project Overview

The project consists of the following steps:

1. Opening up the Stereo 70 and removing the original power switch.
2. Installing and adjusting the new power switch.
3. Reassembling the Stereo 70 and returning it to service.

Important Safety Notes

Why is the text below in red? Because the ST70 has hundreds of volts accessible when the cover is off. Following these instructions may save your life! Please be careful.

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 or clipping wires to prevent eye injuries.
- Always unplug the power before working on the amplifier.
- Large capacitors hold lots of energy for a long time. Before you put your hands into the amplifier:
  - Pull the AC plug!
  - Wait 2 full minutes for the capacitors to discharge!
- Remove jewelry and rings from your hands and wrists, or anything that might dangle into the amplifier.
- If working on the equipment with the power on, 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.
- Read and understand the safety manuals of all the tools you use.

About Components

We reserve the right to make design/or component changes at any time without prior notification.

Recommended Solder

The kit must be assembled with 63/47 Rosin Core solder. The recommended diameter is 0.031 inches. Among many such sources of solder, I have used Radio Shack part number 64-009. It contains 8 oz. of solder, which is *much more* than you'll need to assemble this kit.

Warranty

With the exception of fuses, Akitika LLC will replace for free any parts of a correctly assembled product that fails within one year of the date of purchase when the equipment has been used in home stereo applications. It is the responsibility of the kit builder to install the replacement part(s). This warranty applies to the original purchaser only. It does not apply to units that have been physically or electrically abused, modified without prior factory authorization, or assembled with other than 63/37 Rosin Core solder. Akitika LLC's liability shall in no event exceed the cost paid to Akitika LLC for the kit.

Section 2: Installing the Switch

Yes, I know you want to ignore this section and jump right into building the kit. However, please ***take a minute and read the advice.*** I've condensed it into bullets so that even you guys who are in a hurry can benefit.

- Stop any time you're feeling confused, tired, or anxious. Taking breaks at those strategic times will keep the build enjoyable and greatly enhance your chances of first-time success.
- A soup bowl is your friend. Before you build, carefully empty the parts for just that board into a broad, flat, light colored soup bowl. That makes it easy to find the parts and keeps them from getting lost.
- Is something in this manual confusing? Does something look wrong? Send your questions by email to dan@akitika.com or dan@updatemydynaco.com. You'll help yourself and everyone who builds the kit.

Remove the Bottom Plate

Please be careful as you rotate the amp to remove the covers. The unbalanced nature of its rather significant weight can lead to you dropping the amp if you aren't careful!

The bottom plate must be removed to install the new switch. Carefully flip over your Stereo 70 and locate the four screws on the sides holding the chassis together. Remove these four screws and lift off the bottom plate from the rest of the unit.

Remove the old switch

Remove the two screws that hold the old switch in place. Make a note of which wire goes to which switch terminal. Desolder or clip the wires as close to the switch as possible, leaving the maximum possible length.

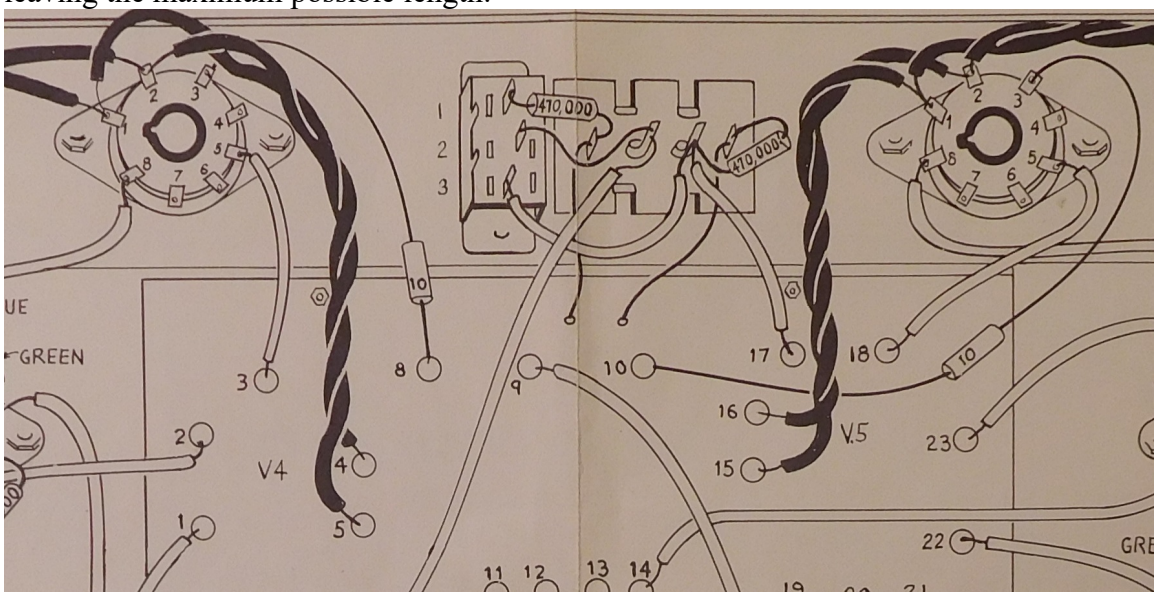

Figure 1-Diagram of original wiring of the Mono/Stereo switch

Note that the new switch is a double-pole double throw switch. As such when you wire in the new switch you will only use the row of three terminals closest to the RCA jacks.

Install the new switch

Install the new switch using the supplied 4-40x1/4” sems screws and 4-40 keps nuts. Make sure that the switch is oriented as shown in Figure 2.

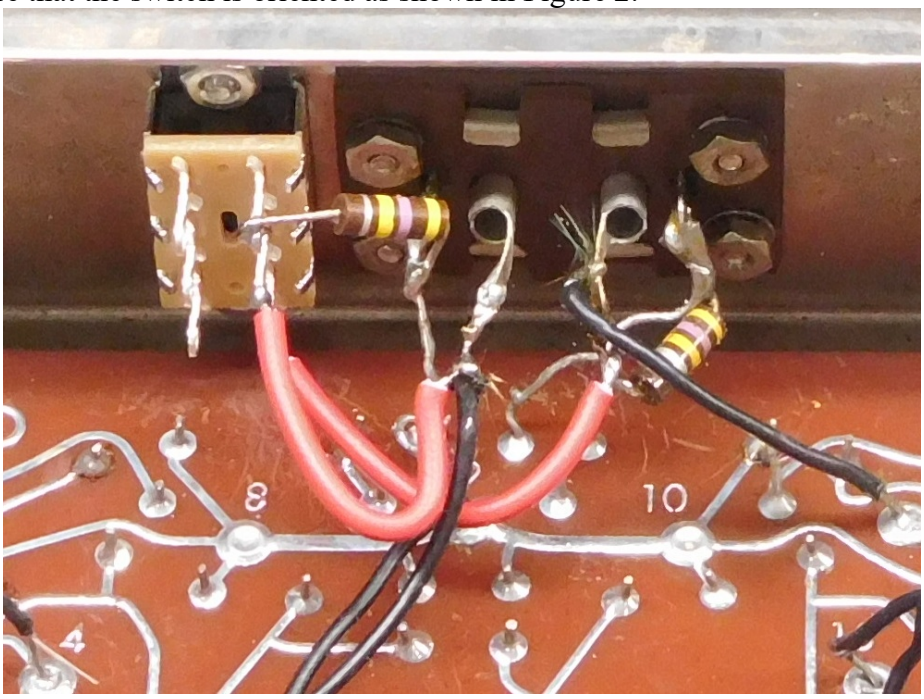

Figure 2-Mono switch installation

Solder the wires that you marked earlier to their respective terminals. We recommend that you refer to Figure 1, as the perspective from Figure 2 may be confusing. Assuming you installed the switch in the correct orientation, its operation will match the silk screen marked on the chassis.

You may find that the original wires are just too short to re-use. If this is the case, use some of the supplied 22 AWG solid red wire to complete the replacement.

Figure 3-Installed new stereo/mono switch

Reassemble the amp

Replace the bottom cover. Re-install the 4 screws that hold it in place. Carefully lift your amp and return it to your system.