JENSENS STEREO SHOP POWER SUPPLY MOD KIT FOR HAFLER DH-200 POWER AMPLIFIER

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"WHERE STATE OF THE ART IS AFFORDABLE"

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The purpose of this modification is to provide a much larger raw power supply for the DH-200 which will reduce all AC ripple, audio signal, and noise on the supply feeds to the amplifier, thus reducing a source of distortion, and improving the sonic quality of the amplifier. In addition, the new power supply has much shorter charge current paths than in the original, thus current spikes on the supply are reduced, further improving the perceived transient performance of the amplifier. Unlike "amateur" "add-on" modifications, this professionally designed power supply fits exactly in the Hafler chassis, occupies less space than the original, and cleans up the layout. You will wonder why Hafler didn't do it this way in the first place.

This modification is not a cure for a defective Hafler DH-200 amplifier. Your amp must be in good working order. If it is now defective in any way, have an authorized Hafler service agency repair it before starting this modification. The installation of this power supply will most likely void your original warranty and Hafler may choose to refuse to service it after the new supply is installed, even though it has no adverse effect on the operation of the audio circuits. Note that we warrant only the new power supply parts. We do not guarantee that you will be able to install them correctly, and we do not warrant the Hafler audio circuits at all. Note that improper installation of this power supply can damage the audio circuits of your amplifier. If you doubt your ability to follow our instructions exactly, do not attempt this modification.

PARTS SUPPLIED IN THIS POWER SUPPLY KIT.

1 Transcendence PC-10 Power Supply Circuit Board

8 4700 mfd at 80 volt shielded (three lead) minature power supply capacitors

2 0.1 mfd 100 volt polyester capacitor 2 10K ohm resistor (brown-black-orange)

4 1" #6 screws. 4 nylon spacers. 4 #6 nuts. 4 #6 lockwashers

Red, Blue, and Solid bare hookup wire. 1 Set instructions

NOTE: These instructions assume: 1. That you are starting with a stock Hafler DH-200 amplifier not modified in any way by others. 2. That you have the original Hafler Pictorial Diagram for the amplifier. Our instrucions will refer to the original parts as labeled in Hafler's Pictorial Diagram. If you do not have one, contact the David Hafler Company for the diagram before starting this new power supply installation.

BEFORE STARTING THIS MODIFICATION, UNPLUG YOUR DH-200 FROM AC POWER LINE AND LET IT SET, OFF, FOR 24 HOURS, TO INSURE THAT THE POWER SUPPLY CAPS ARE DISCHARGED.

TOOLS REQUIRED. Long nose pliers, wire cutter and stripper, solder pencil (larger solder gun is better for work on our PC card), screwdriver, #6 nutdriver, #4 nutdriver, rosin core solder (Ersin Multicore recommended), 5/32" drill.

REMOVAL OF ORIGINAL HAFLER POWER SUPPLY PARTS.

Remove the cover to the DH-200 amplifier (4 screws each side). Remove the four B+ and B- fuses from FR and FL and save them for later reuse. Unsolder the red-yellow transformer wire from the wire between CL2 and CR1, along with the other two wires attached there. Unscrew the screws holding the solder lugs at CR 1 and 2, and CL 1 and 2. Remove CR and CL complete with their brackets. Unsolder the wires from RB 1 and RB 4. Leave the red transformer leads and capacitor attached to RB 2 and RB 3. Remove the screw attaching RB to the chassis so that it hangs by the red transformer leads at this time. Remove the wires to FR 1 and 3, and from FL 1 and 3. You have now made "room" for the new power supply.

LOCATING NEW TRANSCENDENCE PC-10 IN CHASSIS.

Our PC-10 power supply board will now fit in the Hafler chassis. For maximum space, loosen the power transformer screws and move it as far towards the front (power switch side) of the chassis as possible and retighten screws. Note the numbered holes on the PC-10 card. Hole #1 will be towards the rear of the chassis (closest to R2 and R3 on the Hafler back panel), Hole #8 will be closest to the power transformer. Lay the PC-10 card flat in the chassis in this orientation, foil side down. The large hole in the middle of the PC card will line up exactly over the original hole previously used for mounting the Hafler RB (diode bridge). Align the PC-10 exactly over this hole, and parallel to the rear panel. Use the PC-10 card itself as a "template" to mark, on the DH-200 chassis bottom, the four new #6 holes required for mounting the PC card (two at each end of the card). Remove the PC-10 card and drill four 5/32" holes in the chassis for the new mounting screws. Deburr them and make sure "shrapnel" has not been left in the chassis to cause future short circuits. Test fit the PC-10 card again to insure the holes line up.

INSTALLATION OF PARTS ON PC-10 CARD.

Install the two 10,000 ohm resistors (brown-black-orange) in the locations marked -10K- on the PC card, flush with the card. Solder the leads on the foil side.

Install the two 0.1 mfd 100 volt polyester capacitors (.1 K) in the locations marked -.1- on the PC card. Solder the leads on the foil side.

Install all eight 4700 mfd at 80 volt power supply capacitors on the PC-10 card. Because of the triangulated lead configuration, each capacitor will only fit one way. They install in two groups of four capacitors, leaving the middle of the PC card clear for future installation of the diode bridge and connection wires. The new capacitors should seat all the way down on the PC card. Turn the entire assembly upside down, making sure all eight capacitors are seated and solder all 24 connections to the PC foil. A larger solder gun is helpful here, as the foil is thick to handle high currents and a small solder pencil may make cold solder joints. Next cut off all leads close to the foil so they cannot touch the chassis bottom, or each other when the PC-10 card is installed in the Hafler chassis.

It is now necessary to connect seven wires to the PC-10. Each will be installed so it stands straight up on the components side of the card, and soldered to the foil side. The other end of each wire will be connected later.

Cut a 2.5" length of solid bare wire. Insert one end about ½" through hole #1 and bend this end flush against the foil and solder. About 2" of this wire will now stick straight up on the component side.

Prepare three red wires, 2", 6", and 7" length and strip ¼" of insulation from each end. Install the 2" red wire in hole #2, the 7" red wire in hole #3, and the 6" red wire in hole #4. Bend the leads flush against the foil and solder.