INSTRUCTIONS FOR THE HAFLER DH-502 AMPLIFIER BRIDGING KIT FOR THE DH-500

The DH-502 Amplifier Bridging Kit for the DH-500 consists of a PC-7A circuit board comprising a 6 transistor phase inverting amplifier, a mounting bracket, necessary hardware and connecting wire. Installation may take about an hour. All changes to the amplifier wiring are performed on the right channel - the side nearest the power switch. Only the left channel input will be utilized after conversion so an additional pair of input wires will be connected to that jack to enable it to feed the complete amplifier.

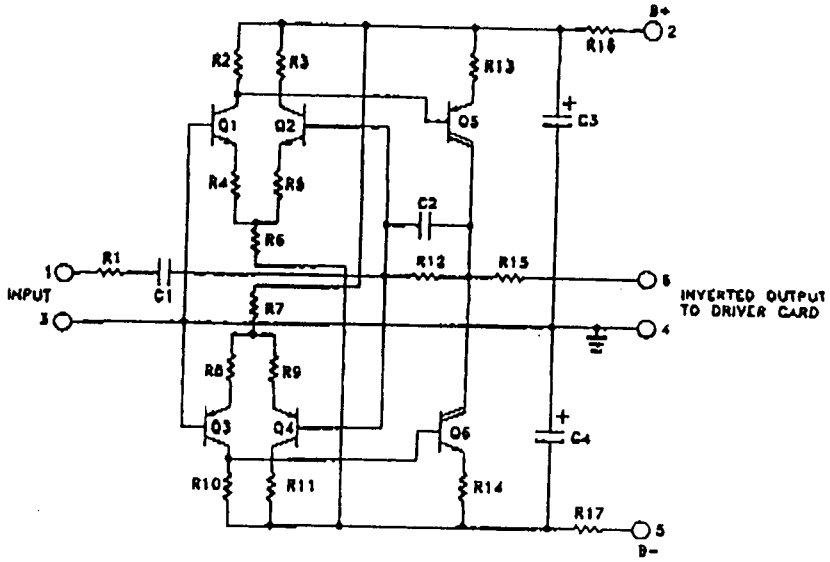
When converted to monophonic operation, the loudspeaker load is to be connected to the two center red (+) outputs only. The right (+) will act as the common and should be attached to the speaker (-). This is what is known as a floating output, for no connection is made to either black ground terminal. It is suggested that once the amplifier has been converted, some clear indication be made as to the appropriate connections, and that be attached to the back panel. Because of this floating output, neither side of the output signal may be grounded; such as thru a speaker switching box or head phone adapter that has a common ground between the left and right channels.

For equivalent load impedances, the speaker fuses provide the same power output protection as in stereo operation, but because of individual fuse variations, only one fuse may blow at these levels. It is best to replace both fuses if one blows, as the other may have been weakened.

These installation instructions designate connections in accordance with the DH-500 owner's manual and pictorial diagram, and use the same terminology (i.e. "S" indicates a soldered connection).

KIT PARTS LIST

	PC-7 Board	WP-PC7
	Mounting bracket	SM-BRT502
2	Screw, Machine, 4-40 x 5/16"	HWH-145
2	Nut, 4-40 KEP	HWH-105
1	Wire, Red #20 GA	3.0'
1	Wire, Green #20 GA	3.0'
1	Warranty Card	LIT-WAR



LIMITED WARRANTY

The parts in the DH-502 are warranteed for a full year from the purchase date including parts and labor. If a defective component is found on a circuit board or in the kit, simply return the individual part, or if the problem is unknown, return the defective board to the factory, prepaid, together with the serial number and a copy of the dated bill of sale, and it wil be repaired or replaced at no charge. This warranty is limited to repair or replacement of the DH-502 bridging module only. Hafler is not responsible for consequential damages. This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

This warranty is void if acid core solder or paste flux has been used.

Hafler

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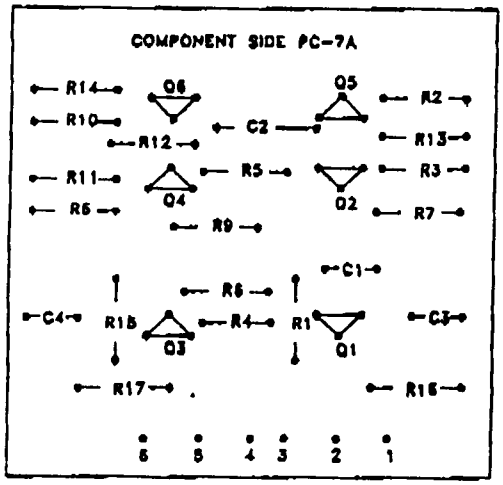
DH-502 INSTALLATION INSTRUCTIONS

1. ☐ Disconnect AC power from the DH-500 and remove all connecting cables.
2. ☐ Remove the 17 screws which secure the cover along the top front, sides and rear. Set cover aside. DO NOT GRAB THE AMPLIFIER PANEL OR HANDLES WHEN THE COVER IS REMOVED. You might bend the chassis.
3. ☐ Turn the amplifier over, or stand it on the transformer end. Loosen, but do not remove the two front screws which secure the amplifier module near the front (center) of the chassis. Remove the two screws at the rear which secure the module. Return the amplifier to its upright position.
4. ☐ Prepare one each red and green wires each 16" long. Twist them together throughout their length.
5. ☐ Select the PC-7A circuit board. Note that the eyelets are numbered on the circuit side of the board, with eyelet #1 to the left when the row of eyelets is nearest you, and the board is upside down to make soldering easier. Connect the wires from the components side of the board, and be sure each is securely soldered to the circuitry.
6. ☐ Connect the red wire of the twisted pair to eyelet #1 of PC-7A. (S) Connect the green wire to eyelet #3. (S)
7. ☐ Prepare a 3-1/2" green wire and a 4" red wire. With one pair of ends even, twist these together. At the uneven ends, connect the green wire to eyelet #4 of PC-7A. (S). Place the pair off toward eyelet #1, and connect the red wire to eyelet #6. (S)
8. ☐ Prepare a 5" red wire and a 6" green wire. Twist these together with one pair of ends even. At the even ends connect the red wire to eyelet #2. (S) Connect the green wire to eyelet #5. (S)
9. ☐ Unsolder the twisted pair of leads from eyelets 1 and 2 of the right amplifier module at the center rear of the amplifier. This pair of leads, which connects to the right input socket, will no longer be used while the amplifer is funtioning monophonically. These leads must be taped securely so that there is no possibility for the bare wire to contact any portion of the circuit. Masking tape is sufficient, but electrical tape is preferred. These leads may be removed if desired.



10. ☐ Remove the rear top screw securing the right channel amplifier circuit board to the heat sink just above where the twisted pair was disconnected. Do not lose the fiber spacing washer which is between the circuit board and the heat sink. This washer is not used on later production DH-500s. Select one of the screws from the bridging kit, and the mounting bracket. The bracket is anchored at this location, flat surface up, with the screw inserted first through the single tab from inside the bracket, then through the circuit board, the fiber spacing washer, (optional) and into the heat sink.
11. ☐ Select the two screws and nuts, and the circuit board PC-7A. With the components facing out, secure the board to the outer surface of the bracket tabs.
12. ☐ Select the short twisted pair of wires connected to eyelets 4 and 6. Connect the red wire to the upper eyelet #1 of the right circuit board at the center rear. (S) Connect the green wire to the lower eyelet #2. (S)
13. ☐ Place the long pair of wires from eyelets 1 and 3 down between the amplifier module mounting bracket and the back of the chassis. The module can be tilted forward to facilitate this. Connect the red wire to the lower eyelet #1 on the left circuit board. (S) The easiest way is to wrap it in a tight loop around the bare stub of the wire presently connected to this eyelet. Be sure both wires are soldered securely to the board. Connect the green wire to the upper eyelet #2 in the same fashion. (S)
14. ☐ Making sure that no wires are trapped by the mounting bracket, reinstall the two screws securing the rear of the module to the chassis. Tighten all 4 screws.
15. ☐ Connect the red wire of the remaining twisted pair from PC-7A to eyelet #6 of the PC-9 circuit board behind the power transformer, (S) This wire may be connected to the stub of the existing wire as before. Connect the green wire to eyelet #4 of PC-9. (S) Eyelet #1 of PC-9 is nearest the edge of the chassis.
16. ☐ Reinstall the amplifier cover.

PC-7A PARTS LIST

R1	22.1K, 1%, metal film	RMP/4-2212
R2	2.2K, 1/4w, 5% carbon film	RC/4-222
R3	2.2K, 1/4w, 5% carbon film	RC/4-222
R4	47 ohms, 1/4w, 5% carbon film	RC/4-470
R5	47 ohms, 1/4w, 5% carbon film	RC/4-470
R6	8.2K, 1/4w, 5%, carbon film	RC/4-822
R7	8.2K, 1/4w, 5%, carbon film	RC/4-822
R8	47 ohms, 1/4w, 5% carbon film	RC/4-470
R9	47 ohms, 1/4w, 5% carbon film	RC/4-470
R10	2.2K, 1/4w, 5% carbon film	RC/4-222
R11	2.2K, 1/4w, 5% carbon film	RC/4-222
R12	22.1K, 1%, metal film	RMP/4-2212
R13	100 ohms, 1/4w, 5% carbon film	RC/4-101
R14	100 ohms, 1/4w, 5% carbon film	RC/4-101
R15	47 ohms, 1/4w, 5% carbon film	RC/4-470
R16	3.3K, 1w, 5%, metal film	RM1-332
R17	3.3K, 1w, 5%, metal film	RM1-332
C1	10mF, 16V, non-polarized	CERNP-106
C2	6.8pF, 100V, dipped mica	CM-068
C3	22mF, 25V, electrolytic	CER-226AA
C4	22mF, 25V, electrolytic	CER-226AA
Q1	BC550C NPN transistor	SSH-650
Q2	BC550C NPN transistor	SSH-650
Q3	BC560C PNP transistor	SSH-651
Q4	BC560C PNP transistor	SSH-651
Q5	MPSA63 PNP transistor	SSH-695
Q6	MPSA13 NPN transistor	SSH-645