

# **HiFi Hospital    Kit # 79-001**

## **Dyna Stereo 70 Original Replacement PCB**

**INTRODUCTION** Congratulations on your purchase of HiFi Hospitals' Dyna Stereo 70 original replacement PCB. This kit has been designed with the "beginner" kit builder in mind, if at any point, this kit appears to be getting "too involved", PLEASE, do not hesitate to call us. This kit has been designed to restore a Stereo 70 to its original, "factory new" (better than new) performance. HiFi Hospital has taken special care in providing a complete step-by-step comprehensive instruction manual to ensure proper assembly (#79-001-KIT) and installation of this PCB.

**DESCRIPTION** HiFi Hospitals' 79-001 original replacement PCB is a direct replacement for the original PC-3 PCB. This replacement PCB is superior to the original in all regards including fiberglass FR-4 construction; double sided plated through copper with solder mask and silkscreen. Other components include ceramic tube sockets, Sprague '715' series "Orange Drop" and silver mica capacitors, in addition, all one-watt resistors have been upgraded to 5% two-watt metal oxide resistors.

**INSPECTION** Upon receiving your new kit, it is important that you identify and verify all parts have arrived, and are in good condition and have not been damaged during shipping. Included in this kit are one (1) #79-001 PCB with all components, one (1) instruction manual, and rosin core solder. Two (2) 7199 tubes and tool kit are optional and NOT supplied with the standard "#79-001" kit.

### **REQUIRERD TOOLS/ GENERAL WIRING PRACTICES**

If you did not purchase the tool kit, you will need a few basic tools:

#2 and #1 flat blade screwdrivers  
#2 and #1 Philips screwdrivers  
Wire strippers  
Sharp-nosed pliers  
25-watt soldering iron with standard tip. (DO NOT USE a SOLDER "GUN"!!)

Wiring and soldering practices:

If you feel uncomfortable or are unfamiliar with electronic soldering we highly recommend having a professional or qualified person install this kit. HiFi Hospitals' staff is also available to perform this service at an additional \$50.00 charge + shipping.

### **DISASSEMBLY**

*In the following steps "( )" check off parenthesis are provided for the step-by-step disassembly.*

( ) Remove the four (4) screws on both sides of chassis holding top and bottom covers to chassis.

( ) Remove all tubes. Place tubes in a safe location until final assembly.

*The following steps require the use of a soldering iron. In the following steps, disconnect the wires at the PCB end only, after unsoldering, bend wires away from PCB to avoid burning the wire insulation with soldering iron. Avoid sharp bends to prevent breaking wire. (If wires appear to be brittle, it is highly recommended that they be replaced with pre-tinned #20-#22AWG stranded wire).*

- ( ) Using a soldering iron, disconnect wire connected to eyelet #11 on PCB.
- ( ) Using a soldering iron, disconnect wire connected to eyelet #12 on PCB.
- ( ) Using a soldering iron, disconnect wire connected to eyelet #13 on PCB.
- ( ) Using a soldering iron, disconnect wire connected to eyelet #14 on PCB.
- ( ) Using a soldering iron, disconnect wire connected to eyelet #6 on PCB.
- ( ) Using a soldering iron, disconnect wire connected to eyelet #7 on PCB.
- ( ) Using a soldering iron, disconnect wire connected to eyelet #1 on PCB.
- ( ) Using a soldering iron, disconnect wire connected to eyelet #2 on PCB.
- ( ) Using a soldering iron, disconnect wire connected to eyelet #5 on PCB.
- ( ) Using a soldering iron, disconnect wire connected to eyelet #4 on PCB.
- ( ) Using a soldering iron, disconnect 10 ohm (brown, black, black) resistor connected to eyelet #8 on PCB.
- ( ) Using a soldering iron, disconnect wire connected to eyelet #3 on PCB.
- ( ) Using a soldering iron, disconnect wire connected to eyelet #19 on PCB.
- ( ) Using a soldering iron, disconnect wire connected to eyelet #20 on PCB.
- ( ) Using a soldering iron, disconnect wire connected to eyelet #21 on PCB.
- ( ) Using a soldering iron, disconnect wire connected to eyelet #15 on PCB.
- ( ) Using a soldering iron, disconnect wire connected to eyelet #16 on PCB.
- ( ) Using a soldering iron, disconnect wire connected to eyelet #9 on PCB.
- ( ) Using a soldering iron, disconnect 10 ohm (brown, black, black) resistor connected to eyelet #10 on PCB.
- ( ) Using a soldering iron, disconnect wire connected to eyelet #17 on PCB.
- ( ) Using a soldering iron, disconnect wire connected to eyelet #22 on PCB.
- ( ) Using a soldering iron, disconnect wire connected to eyelet #23 on PCB.
- ( ) Using a soldering iron, disconnect wire connected to eyelet #18 on PCB.
- ( ) Using a pair of wire cutters/ strippers, disconnect two (2) remaining wires connected to PCB, cut wires as close to the PCB as possible (these wires will be reconnected to the new PCB).

( ) Using a small screwdriver, remove the four (4) screws securing the “PC-3” circuit board to chassis, carefully remove old circuit board.

## REASSEMBLY

( ) Using a small screwdriver, install new circuit board (79-001A) from BOTTOM SIDE of chassis, orient circuit board so C2 and C8 face front of amplifier and C1, C9 face output transformers. **NOTE:** *amplifier will not work properly and may be damaged if circuit board is installed from the top*

( ) Using a soldering iron, connect wire from pin #5 of left power supply socket (LPSS) to eyelet #3 on new circuit board (PCB).

( ) Using a soldering iron, connect bare wire from left RCA connector (ground terminal) to eyelet #24 on PCB.

( ) Using a soldering iron, connect 10 ohm (brown, black, black) resistor from pin #3 of LPSS to eyelet #8 of PCB.

( ) Using a soldering iron, connect bare wire from right RCA connector (ground terminal) to eyelet #25 on PCB.

( ) Using a soldering iron, connect wire from right RCA connector (signal terminal) to eyelet #17 on PCB.

( ) Using a soldering iron, connect 10 ohm (brown, black, black) resistor from pin #3 of right power supply socket (RPSS) to eyelet #10 of PCB

( ) Using a soldering iron, connect wire from pin #5 of RPSS to eyelet #18 on new circuit board (PCB).

( ) Using a soldering iron, connect wire from V1, pin #6 to eyelet #2 on PCB.

( ) Using a soldering iron, connect two wires from LPSS, pins #1 and #2 to eyelets #4 and #5 on PCB.

( ) Using a soldering iron, connect wire from chassis ground lug to eyelet #9 on PCB.

( ) Using a soldering iron, connect two wires from RPSS, pins #1 and #2 to eyelets #15 and #16 on PCB.

( ) Using a soldering iron, connect wire from V3, pin #6 to eyelet #23 on PCB.

( ) Using a soldering iron, connect wire from V2, pin #6 to eyelet #1 on PCB.

( ) Using a soldering iron, connect wire from left RCA connector (signal terminal) to eyelet #7 on PCB.

( ) Using a soldering iron, connect wire from left bias potentiometer to eyelet #6 on PCB.

( ) Using a soldering iron, connect wire from V1, pin #4 to eyelet #11 on PCB.

( ) Using a soldering iron, connect wire from left speaker output terminal strip to eyelet #12 on PCB.

( ) Using a soldering iron, connect wire from right speaker output terminal strip to eyelet #13 on PCB.

( ) Using a soldering iron, connect wire from V3, pin #4 to eyelet #14 on PCB.

( ) Using a soldering iron, connect wire from V4, pin #6 to eyelet #22 on PCB.

( ) Using a soldering iron, connect wire from chassis mounted power supply filter capacitor “square” symbol terminal to eyelet #19 on PCB.

( ) Using a soldering iron, connect wire from chassis mounted power supply filter capacitor “triangle” symbol terminal to eyelet #20 on PCB.

( ) Using a soldering iron, connect wire from right bias potentiometer to eyelet #21 on PCB.  
This completes the wiring portion of this kit. We recommend double checking your work and wire connections prior to final assembly.

## FINAL ASSEMBLY and ADJUSTMENT

( ) Prior to attaching top and bottom covers, turn amplifier over (“right side up”) and install all seven (7) tubes.

( ) Using a flat blade screwdriver, adjust both bias pots fully counter clockwise (CCW).

**WARNING: The following seven (7) steps are required to set correct bias voltage on left and right channels. LETHAL VOLTAGES will be present !! If you are unfamiliar with working in the presence of high voltage OR with high voltage, have a professional or someone with experience in high voltage perform the following seven (7) steps. Note: Bias adjustment is not absolutely necessary, although recommended for highest audio quality, the amplifier can be safely operated with both bias potentiometers turned fully counter clockwise (CCW).**

( ) Clear area around and under amplifier of any and all metallic objects (solder, tools, scrap wire, etc.).

( ) Using a DC volt meter (VOM), (available from Radio Shack, P/N 22-810 or equiv.) set voltage range to measure up to 5 volts dc (VDC).

( ) Connect positive (red) meter lead to “BIASET” pin of left socket on front of amplifier.

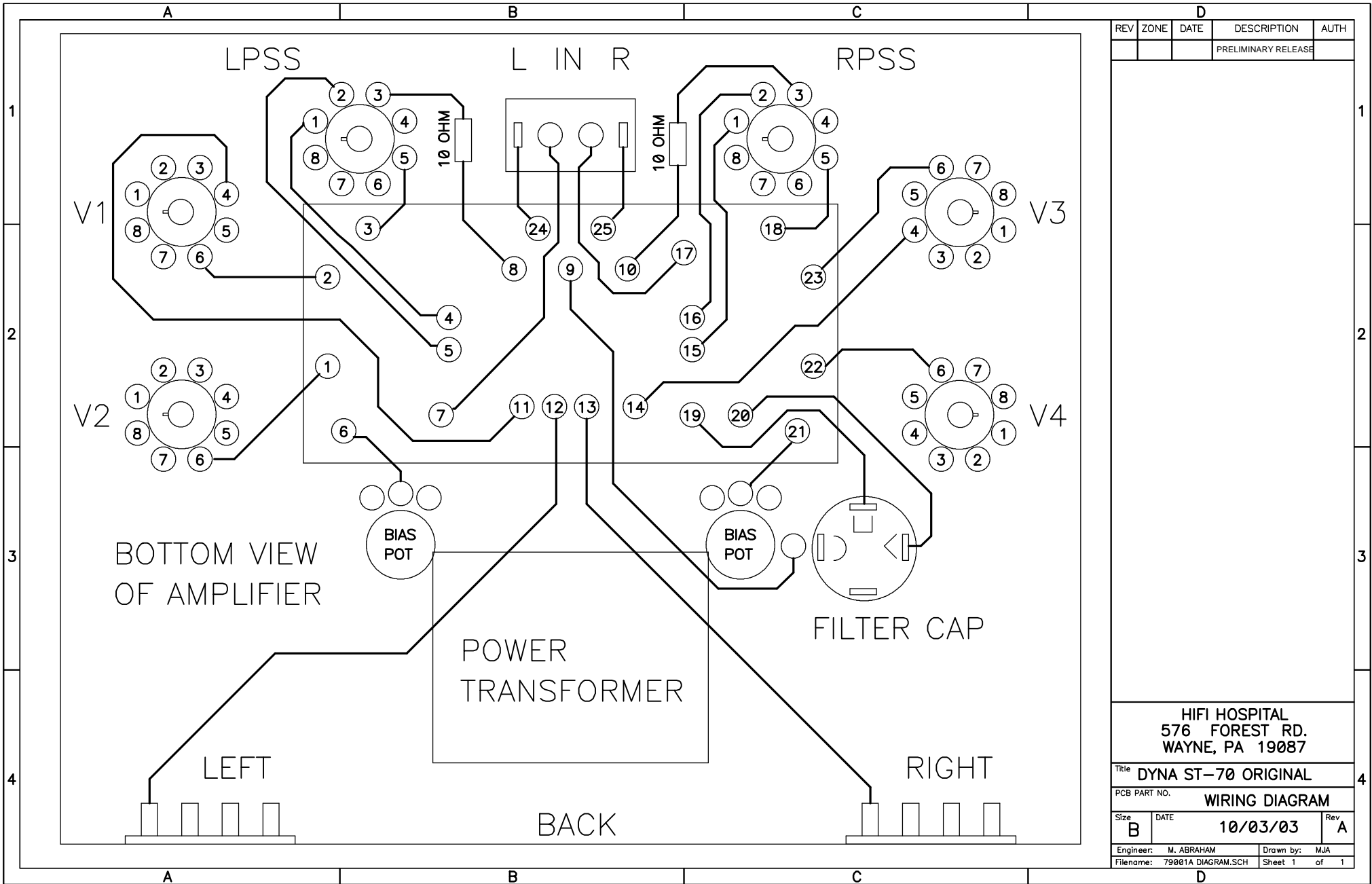
( ) Connect negative (black) meter lead to chassis.

( ) Plug amplifier into AC outlet and turn on amplifier (allow two (2) minutes for warm up time).

( ) Adjust left bias potentiometer for approx. 1.56 VDC.

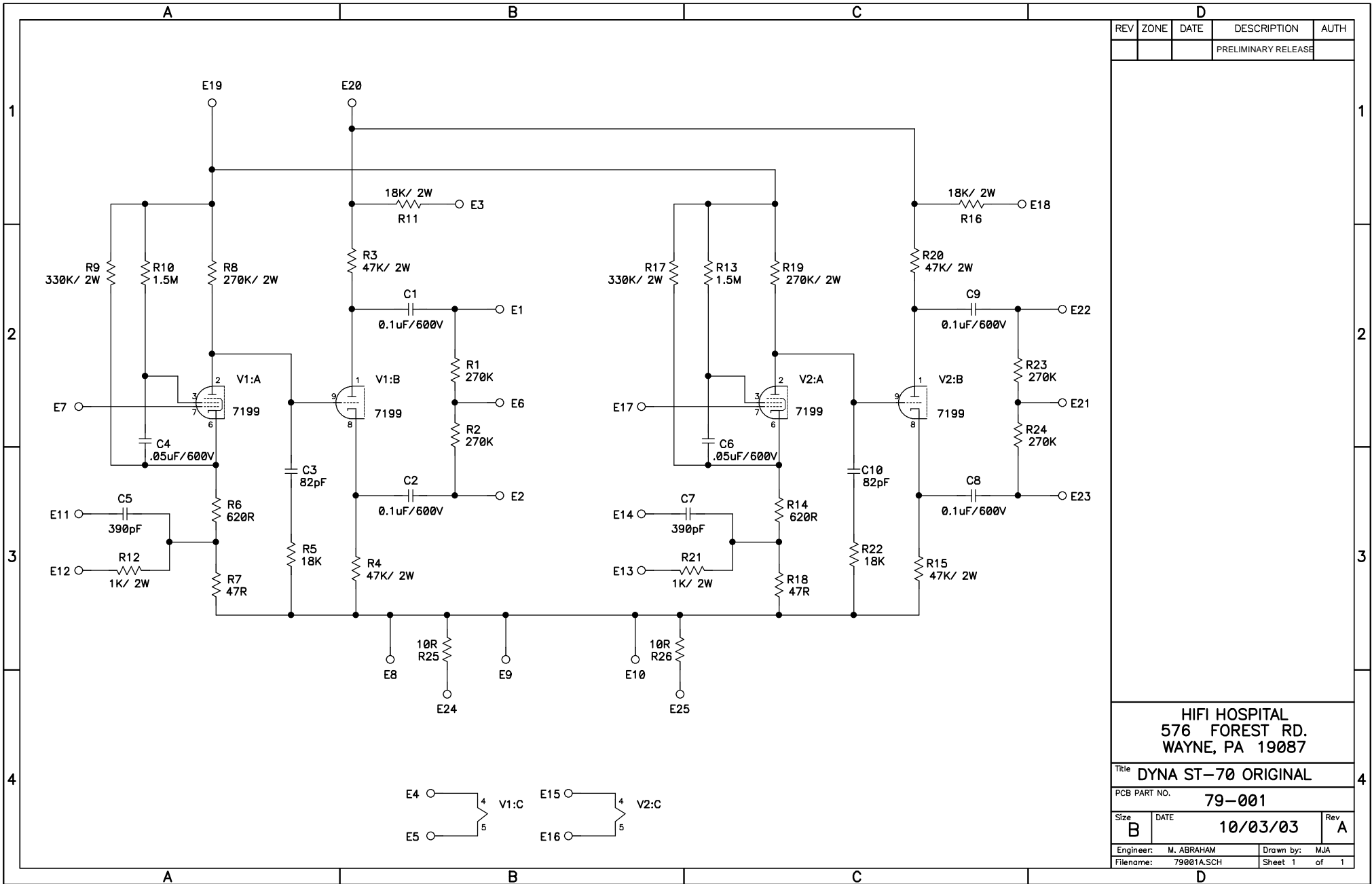
( ) Repeat last four (4) steps for the right channel.

( ) After successful bias adjustments, re-attach top and bottom covers with four (4) screws.



REV	ZONE	DATE	DESCRIPTION	AUTH
			PRELIMINARY RELEASE	

HIFI HOSPITAL 576 FOREST RD. WAYNE, PA 19087				
Title DYNAST-70 ORIGINAL				
PCB PART NO. WIRING DIAGRAM				
Size B	DATE	10/03/03	Rev	A
Engineer: M. ABRAHAM		Drawn by: MJA		
Filename: 79001A DIAGRAM.SCH		Sheet 1 of 1		



REV	ZONE	DATE	DESCRIPTION	AUTH
			PRELIMINARY RELEASE	

HIFI HOSPITAL  
576 FOREST RD.  
WAYNE, PA 19087

Title **DYNA ST-70 ORIGINAL**

PCB PART NO. **79-001**

Size <b>B</b>	DATE <b>10/03/03</b>	Rev <b>A</b>
---------------	----------------------	--------------

Engineer: M. ABRAHAM	Drawn by: MJA
Filename: 79001A.SCH	Sheet 1 of 1