

INSTRUCTIONS FOR INSTALLATION OF THE DYNACO TC-3X MODIFICATION KIT
in PAS-2 and PAS-3 Preamplifiers

This kit will provide your Dyna preamplifier with the latest tone control system which incorporates the precision usually associated only with step-type switch controls, and the flexibility of continuous potentiometers. The special design of these controls provides the full boost and cut previously obtained within a somewhat shorter arc. When the knobs of the new controls are positioned for symmetrical rotation, the center position will remove the control elements from the circuit for electrically "flat" operation. Additional benefits include the ability to deliver higher output voltages at low distortion (up to 10 volts at less than 0.15%), and the acceptance of a wider range of power amplifier input impedances without preamp changes. The 510K resistors on the output sockets (see page 13 of your preamp manual) may now be left in place for all amplifiers with an input impedance of 100K ohms or greater, and amplifier input impedances as low as 10K ohms can be accommodated.

The other alteration provided in this kit is a change in the blending action so that the smallest rectangle will give the requisite 6 db separation for proper use with the Dyna 3 speaker stereo arrangement described in the enclosed sheet. The middle rectangle will now provide 12 db of separation, instead of the previous separation in excess of 25 db, to fill the "hole in the middle".

The following items are included in this kit:

- 2 HR-4037X Treble Controls - 400K Ohms
- 2 HR-4038X Bass Controls - 750K Ohms
- 1 33,000 Ohm Resistor (orange-orange-orange)
- 1 68,000 Ohm Resistor (blue-gray-orange)
- 2 1 mfd Tubular Electrolytic Capacitors

Refer to the diagram on the reverse side of this sheet for making the changes in the wiring, and retain this diagram with your preamplifier manual.

Disconnect the preamp from the AC line, and remove the cover and bottom plate. Remove the knobs and the 3/8" nuts on each control, and remove the front dress plate. Unsolder the wires at eyelets #5 and #12 of PC-5, as these will be discarded. Carefully unsolder (do not cut!) each of the capacitor and wire leads to the four tone controls, and remove the controls. You may wish to replace one control at a time to simplify wiring. With the same lockwashers and nuts, install the new controls. Make sure you install the 400K ohm controls in the top positions, and the 750K ohm controls below them. Resolder the capacitors and wires to the new controls, leaving lug #3 on each bass control unconnected.

Trim the (+) leads of both 1 mfd capacitors to 3/4". Now connect the (+) side of one capacitor to LB lug #3 (S). Trim the other lead of this capacitor to a convenient length, and connect it to the top of eyelet #5 on PC-5 (S). Connect the (+) lead of the other 1 mfd capacitor to RB lug #3 (S). Trim the other lead as needed, and connect it to the top of eyelet #12 on PC-5 (S). When soldering to the eyelets, heat the eyelet until the solder flows, insert the lead, and withdraw the iron, allowing the connection to cool undisturbed. Make sure that the capacitor leads do not touch adjacent circuitry, components, or the chassis.

The change of resistors on the blend switch is optional. Remove the existing resistors between lugs #2 and #3, and lugs #3 and #4 of the switch. Replace them with the 33,000 ohm (orange-orange-orange) resistor between lugs 3 and 4, and the 68,000 ohm (blue-gray-orange) resistor between lugs 2 and 3. Solder all points.

Reassemble the preamplifier, and install the knobs so that they will rotate symmetrically about the center.

