

## INSTALLATION for C-8S

The C-8S Professional Audio Compensator with Stereo Control is a complete C-8 Compensator with the addition of a "STEREO MODE SELECTOR SWITCH," "STEREO BALANCE" and ganged dual "VOLUME CONTROLS".

Shipped with the C8s are two 6 foot shielded leads and one 3 foot shielded lead. These will be used in interconnecting the system.

To interconnect the C-8 and C-8S for monaural-stereo reproduction, complete the following procedure. Use the C-8 for the left channel and the C-8S for the right channel.

(A.) The C-8 is first modified as follows:

- 1.) The heavy inter-unit cable connecting the C-8 to the power amplifier is disconnected at the amplifier end.
- 2.) With a pair of cutting pliers, remove pin #2 from the octal plug of the inter-unit cable. In a monaural system pin #2 carries the signal from the preamplifier to the power amplifier. In a stereo system the signal must be obtained from the main output jack on the back of C-8.
- 3.) After removing pin #2 the inter-unit cable is reconnected to the power amplifier.
- 4.) On C-8's with serial #10600 and above the input marked "MIC" can be simply converted to preamplification and equalization for tape heads by cutting one wire on the input selector switch, (see figure B.)

On serial numbers below 10600 the conversion must be done at the factory. The cost of factory conversion is \$5.00. Tape heads can, of course, be used in "PHONO #1" on all C-8 compensators without any conversion.

For proper tape head connection see the top paragraph on page 4 of the C-8 Instruction manual.

(B.) Now connect the program sources in the following fashion:

- 1.) Plug one end of the 3 foot shielded lead into the jack marked "MAIN OUTPUT" located on the back panel of the C-8.
- 2.) The C-8 "VOLUME" control on the front panel is turned fully clockwise. The changes in volume will be controlled by the C-8S ganged "VOLUME" control.
- 3.) Insert the left channel phono cartridge lead in "PHONO #2" on the C-8.
- 4.) If a tape deck is used for stereo playback, insert left channel lead into "MIC" input of the C-8, serial #10600 and above, after conversion as in section A, step #4 above. This input is terminated at 100,000 ohms. N.A.R.B. tape playback equalization is achieved by depressing the Bass Compensation switch labeled "950", adjusting the "BASS" tone control to - 1, and adjusting the "TREBLE" tone control to - 2.5.

If a stereo tape playback with preamplifiers is used, insert the left output in the channel marked "TAPE".

(C.) Next interconnect the C-8S:

- 1.) Plug the heavy inter-unit cable from the C-8S in the octal socket marked "Pre-Amp" on the right power amplifier.
- 2.) The loose end of the 3' shielded lead (section B, step #1) from the C-8 "MAIN OUTPUT" is plugged into the "LEFT STEREO IN" on the C-8S.
- 3.) Interconnect by means of one of the 6' shielded cables between the jack marked "LEFT STEREO OUT" on the C-8S and the "0.5 VOLT" input of the left power amplifier.
- 4.) Interconnect by means of the other of the 6' shielded cables between the "MAIN OUTPUT" on the C-8S and the "0.5 VOLT" input on the right power amplifier.
- 5.) Plug the A.C. cord from the C-8 into one of the auxiliary A.C. receptacles on the C-8S.
- 6.) The A.C. cords from both power amplifiers can now be plugged into the auxiliary A.C. plugs on their respective preamplifiers. The on-off switch on the volume control of the C-8S now controls turning on the entire system.

(D.) Connect the program source equipment to the C-8S as follows :

- 1.) Plug the right channel phono cartridge lead into the C-8S input marked "PHONO #2".
- 2.) Connect the output of the right channel tape head to the input marked "TAPE HEAD". For N.A.R.B. equalization from a tape head, depress the bass compensation switch labeled "950", adjust "BASS" tone control to - 1, and "TREBLE" tone control to - 2.5.
- 3.) If a tape recorded with preamplifiers is used, plug the output of the right channel into the input marked "TAPE".
- 4.) If a monaural cartridge is used, plug it into "PHONO #1".
- 5.) Connect a tuner output to input marked "TUNER",

(E.) The balance of the stereo system will be maintained in all modes of operation by following these system balancing instructions:

- 1.) Turn input selector switches on both preamplifiers to "PHONO #2".
- 2.) Turn the stereo "MODE" selector switch to "MON RIGHT".
- 3.) Adjust the "BALANCE," "BASS," and "TREBLE" controls to 12 o'clock.
- 4.) Adjust the RECORD COMPENSATOR" to RIAA settings.
- 5.) Adjust the "INPUT LEVEL CONTROL" on both compensator "PHONO #2" channels totally clockwise. A monaural record is used for correctly balancing the system. Turn up the volume control on the C-8S. With the mode selector switch in "MON RIGHT" the same signal will be heard from both loudspeakers.
- 6.) If the sound from each loudspeaker is not of equal loudness adjust the control marked "GAIN" on one power amplifier until the sounds from the loudspeakers are of equal intensity. Do not use the Balance Control for this adjustment.

7.) With the monaural record playing, stand on a line approximately 10 feet in front of and midway between the loudspeakers. The main source of sound should appear to be directly in front of you. If the music sounds are divided the loudspeakers are out of phase. Correct this by reversing the loudspeaker leads on one loudspeaker only. The power amplifiers now are in phase and balanced. Do not change the "GAIN" control on the power amplifiers in any of the following steps.

8.) Next balance for equal tone quality on each side by moving the "MODE" switch between "STEREO LEFT" and "RIGHT". Compare the high frequency response on each loudspeaker first. Adjust the "TREBLE" tone control on one side only until the surface noise from the record on each side is of equal intensity.

9.) Next make a careful comparison of low frequency response. While switching between "STEREO LEFT" and "RIGHT"<sup>11</sup> adjust the "BASS" tone control on one compensator until the bass output is equal from both speakers.

10.) Remove the monaural record. Next play a stereo record. Turn the C-8S volume control up to room volume and adjust the "BALANCE" control for balanced stereo results. The balance control is designed to adjust for unequal program sources, and maintain balance of the system when switching between "STEREO NORM" and "REV".

Installation Precautions:

Caution must be exercised in the installation to keep the ground lead from each channel of the stereo cartridge or stereo tape heads separate to prevent ground loops and hum.

