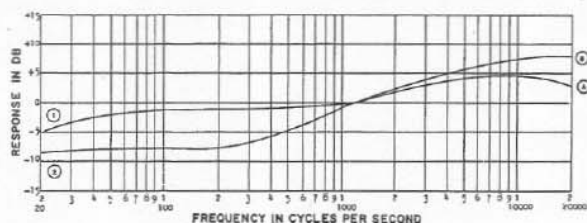


Electro-Voice®

ELECTRO-VOICE, INC.
BUCHANAN, MICHIGAN



Fig. 1 — Model PC2



KEY: 1A RIAA
2B European 300 cycle crossover

Fig. 2 — Phono-Equalizer Positions

Specifications and Instructions Model PC2 Music Control Center

GENERAL DESCRIPTION — The Electro-Voice Model PC2 is a self-powered pre-amplifier and music control center for use with ultra-linear ceramic phonograph cartridges, crystal phonograph cartridges, low and high-level magnetic phonograph cartridges, tuner, television, and tape reproducers.

The PC2 is designed for use with Electro-Voice and other quality amplifiers and tuners. The PC2 is a basic modular height and thus may be stacked in equal height with Electro-Voice Models A15CL and A20CL low-boy amplifiers and Models 3305 and 3306 low-boy tuners or double stacked to match Models 3303 and 3304 stereophonic tuners.

FEATURES — The Model PC2 music control center allows complete equalization for any recording playback curve presently in use in the industry. By providing both the American standard RIAA curve and the European 300-cycle turnover curve, equalization is assured to be correct within the limits of aural acuity (± 2 db).

Both treble and bass tone controls have a variation range of 35 db, more than sufficient to allow complete compensation for the acoustic characteristics of the listening area.

Outputs are provided for both completely equalized and tone-controlled program material to be fed to the amplifier, and a channel free from tone control compensation to feed a tape recorder. The tape recorder output cable should have a lead length of less than 5 feet to insure flat frequency response to 20 kc.

SPECIFICATIONS

Frequency Response:	± 1 db 20 to 20,000 cycles through tone-controlled OUTPUT jack		
Harmonic Distortion:	Less than 0.3% at rated output		
Intermodulation Distortion:	Less than 0.5% at rated output		
Output:	1.25 V RMS rated, 5 V RMS max. from OUTPUT jack 0.5 V RMS rated, 3 V RMS max. from RECORD OUT jack		
Output Impedances:	12K ohms through OUTPUT jack 50K ohms through RECORD OUT jack		
Hum Level:	70 db below rated output at maximum volume setting 60 db below rated output through magnetic stage		

Inputs:	Sensitivity	Impedance	Maximum Input
High-impedance Phono	0.5 V	6.5 MEG	4 V
Magnetic Phono	12 MV at 1 kc	47 K	150 MV at 1 kc
Tuner	1.0 V	270 K	4 V
Tape	1.0 V	270 K	4 V
TV	1.0 V	270 K	4 V

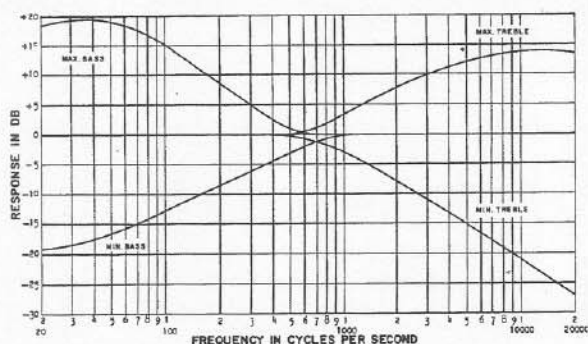


Fig. 3 — Tone Control Curves

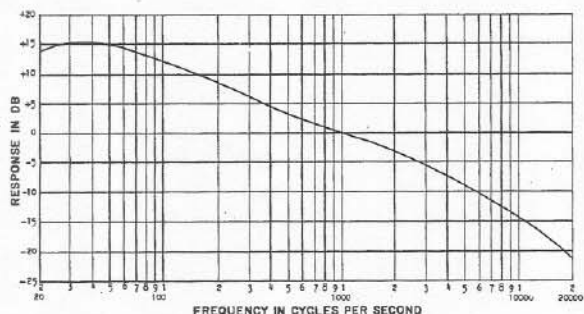


Fig. 4 — Magnetic Input Equalization with Record Compensation Switch in RIAA Position

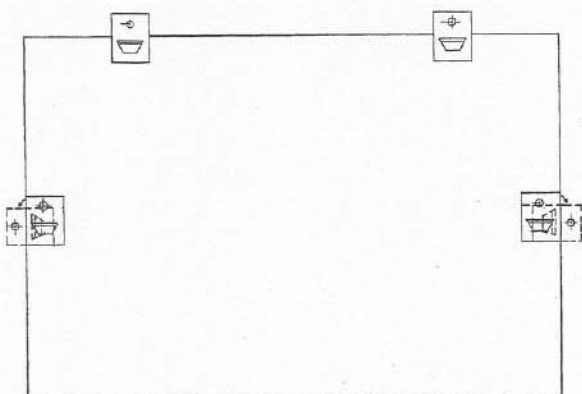


Fig. 5 — Affixing Mounting Clips

Controls:

Rear Chassis:

Magnetic-Ceramic Phono Switch
2 Hum adjustments

Front Panel:

a. Selector-Record Compensator (5 position)
Phono-Equalizer Positions
RIAA
European 300 cycle crossover
See Fig. 2 "Phono-Equalizer Positions"

b. Volume

c. Treble

d. Bass — Power Off

See Fig. 3 "Tone Control Curves"

Tone Control Range:

Treble: +15 db to -20 db at 10 kc
Bass: +20 db to -15 db at 50 cycles

Tubes:

Total of 3 as follows:

2 — 12AX7

1 — 6X4

Power Consumption:

117V 60 cycles AC at 0.12 amps

Size:

15 in. wide x 6 1/4 in. deep x 4 1/8 in. high

Weight:

6 1/2 lb net, 8 lb shipping

INSTRUCTIONS FOR SET-UP AND OPERATION

Immediately upon unpacking the PC2 music control center, carefully inspect it for physical damage. If damage is evidenced, notify the dealer from whom the unit was purchased, or the transportation company if the unit was shipped to you. Responsibility for shipping damage lies with the carrier and claim should be made for recovery.

MOUNTING—The PC2 is designed to operate in either horizontal or vertical position and is supplied with felt feet to prevent marring the surface on which it is placed. Because the PC2 is designed for convenient front installation, no knob extensions are required for panel mounting. The panel cutout should be approximately 14 5/8" by 3 13/16". Small variations of these dimensions are permissible for they will be covered by the 3/8" overhang of the PC2 front panel. Remove the felt feet from the PC2 bottom plate before installation. The mounting clips provided are engaged in the slots on the PC2 bottom plate. Then, after placing the PC2 in position, use a screwdriver to rotate the clips 90° and fasten to the mounting board with the screws provided.

PREPARATION FOR USE—The PC2 may be connected to any power amplifier by means of the shielded jumper cable provided. For use in remote applications, up to 20 feet of cable may be used without degradation of frequency response. The PC2 has also available a RECORD OUT jack, affected by phono-equalizer, but unaffected by tone and volume controls, for connection to tape recorders. The impedance of this output is 50K ohms, and should work into a minimum load of 250K ohms for flat response down to 20 cycles. Maximum shielded cable length for this connection is 5 ft.; longer cables will result in slight attenuation of high frequencies.

INPUT CONNECTIONS—Connect input devices to the appropriate jacks on the rear of the preamplifier. The input impedance of the tuner, tape and TV jacks is 270K ohms.

To use this unit with a magnetic tape mechanism without employing the tape machine electronic components, connect the tape head directly to the magnetic input. Place the compensator in the RIAA position and turn the bass control to the "3 o'clock" position. This will provide a playback curve flat $\pm 1 1/2$ db for tape speeds of 7 1/2 and 15 inches per second. If the tape machine incorporates a preamplifier, connection should be made to the tape input jack.

ADJUSTMENTS—The hum balance controls on the PC2 should be adjusted with the power amplifier connected, the input selector on phono and the phono pickup connected to the proper input. Adjust the ceramic hum control for minimum hum with the volume control advanced to the extreme clockwise position and the MAGNETIC-CERAMIC phono switch in the CERAMIC position. Then place the switch in the MAGNETIC position and adjust the magnetic hum control to minimum hum. Because the ceramic hum adjustment affects all channels, it should be made regardless of the type of cartridge to be used. The magnetic adjustment need be made only if a magnetic cartridge is used.

OPERATION—The PC2 has a power receptacle on the rear of the chassis which is energized by the control center power switch. This outlet is not fused.

Complete equalization for any phonograph cartridge is included in the PC2 preamplifier. Therefore, *no external load resistance should be placed across the magnetic cartridge terminals.* The magnetic preamplifier has been designed to accommodate either low or high-voltage output magnetic pickups.

MICROPHONE INPUT—To use the PC2 with any Hi-Z dynamic microphone, connect the microphone to the phono input with the magnetic-ceramic switch set in the magnetic position. Turn the playing selector to EUR, the bass control to the "11 o'clock" position, and the treble control to maximum clockwise rotation. This will result in reproduction flat ± 3 db with a sensitivity of 7 millivolts.

SERVICE—The $\frac{1}{2}$ -ampere fuse located on the preamplifier is of the "slo-blo" 3AG type and in the event of a component failure, should be replaced with an identical $\frac{1}{2}$ -ampere type. The fuse will not blow in normal operation. In the event of repeated failure: (a) make certain preamplifier is mounted and connected in accordance with these instructions, (b) check tubes for possible shorts and replace if necessary, or (c) refer to the dealer from whom purchased for instructions. To gain access to tubes, pilot light and fuse, remove the three screws on back edge of top screen cover and slide cover back and off. *Disconnect power cord before removing cover.* Do not attempt to operate the unit without all tubes in place. In the event that the PC2 is returned to the factory for service, please include a note stating the nature of the defect.

CAUTION NOTES

1. Do not attempt to operate the preamplifier from a power source other than 105-125V 60 cycle AC.
2. Do not apply power to unit unless *all* tubes are in sockets.

RECORD EQUALIZATION

Most microgroove records produced since 1954, as well as many prior to that time, have been recorded using the standard RIAA compensation characteristic and should be played with the selector set accordingly. The following records should be played with EUR compensation:

American Recording Society
 Arizona (pre 1955 only)
 Blue Note Jazz (pre 1955 only)
 Canyon (up to No. C6160 only)
 Capitol (pre 1955 only)
 Capitol Certs (pre 1955 only)
 Contemporary (No. 2001, -2; 2501, -2, -5, -7; 3501 only)
 Electra (No. 17, 22 only)
 Esoteric (No. ES500, 517; EST5, -6 only)
 Good Time Jazz (No. 3, 9-19 only)
 Mercury (pre Oct. 1954 only)
 Nocturne (No. LP 1-3, 5; XP1-10 only)
 Pacific Jazz (No. 1-13 only)
 Philharmonia
 Riverside (pre 1955)
 Urania (No. 224, 603, 7059, -63, -65, -66, -69 only)

For most 78 RPM records, set selector to RIAA. The following recordings require EUR position:

Columbia (pre 1954 only)
 Capitol (pre 1954 only)
 All English and most European 78 RPM records prior to 1954.

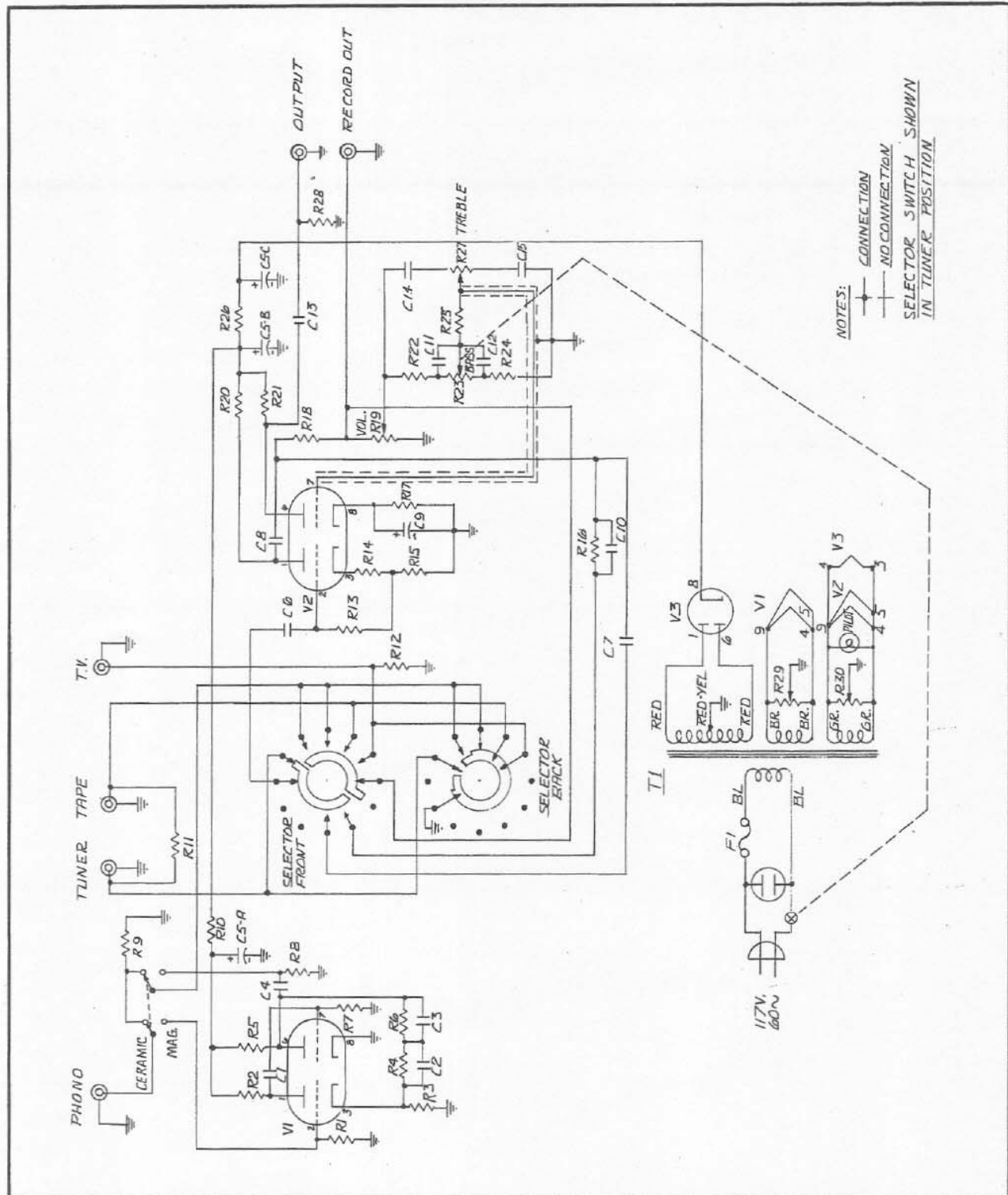
PARTS LIST

Key	Description	Part No.
C1	Capacitor, 0.1 MFD, 500 V, Ceramic	4252
C2	Capacitor, .005 MFD, 500 V, Ceramic	42002
C3	Capacitor, .002 MFD, 500 V, Ceramic	4259
C4	Capacitor, .01 MFD, 500 V, Ceramic	4252
C5A C5B C5C	Capacitor, 20-20-20 MFD, 350 V	42045
C6	Capacitor, .01 MFD, 500 V, Ceramic	4252
C7	Capacitor, 500 MMF, 500 V, Ceramic	42003
C8	Capacitor, .1 MFD, 400 V, Plastic Tubular	4245
C9	Capacitor, 20 MFD, 25 V, Electrolytic	42046
C10	Capacitor, 500 MMF, 500 V, Ceramic	42003
C11	Capacitor, .001 MFD, 500 V, Ceramic	4258
C12	Capacitor, .01 MFD, 500 V, Ceramic	4257
C13	Capacitor, .1 MFD, 400 V, Plastic Tubular	4245
C14	Capacitor, 200 MMF, 500 V, Ceramic	4256
C15	Capacitor, .002 MFD, 500 V, Ceramic	4259
R1	Resistor, 47K, $\frac{1}{2}$ W, Carbon	4668
R2	Resistor, 120K, $\frac{1}{2}$ W, Carbon	4670
R3	Resistor, 2.2K, $\frac{1}{2}$ W, Carbon	4676
R4	Resistor, 1.2 MEG, $\frac{1}{2}$ W, Carbon	4656
R5	Resistor, 120K, $\frac{1}{2}$ W, Carbon	4670
R6	Resistor, 120K, $\frac{1}{2}$ W, Carbon	4670
R7	Resistor, 12 MEG, $\frac{1}{2}$ W, Carbon	4672
R8	Resistor, 1.2 MEG, $\frac{1}{2}$ W, Carbon	4656
R9	Resistor, 22 MEG, $\frac{1}{2}$ W, Carbon	4606
R10	Resistor, 47K, $\frac{1}{2}$ W, Carbon	4668
R11	Resistor, 270K, $\frac{1}{2}$ W, Carbon	4669
R12	Resistor, 270K, $\frac{1}{2}$ W, Carbon	4669
R13	Resistor, 1.8 MEG, $\frac{1}{2}$ W, Carbon	4673
R14	Resistor, 1.2K, $\frac{1}{2}$ W, Carbon	4658
R15	Resistor, 4.7K, $\frac{1}{2}$ W, Carbon	4675
R16	Resistor, 330K, $\frac{1}{2}$ W, Carbon	4685
R17	Resistor, 680 OHM, $\frac{1}{2}$ W, Carbon	46045
R18	Resistor, 390K, $\frac{1}{2}$ W, Carbon	46028
*R19	Potentiometer, 50K	A46086
R20	Resistor, 56K, $\frac{1}{2}$ W, Carbon	4652
R21	Resistor, 18K, $\frac{1}{2}$ W, Carbon	46029
R22	Resistor, 120K, $\frac{1}{2}$ W, Carbon	4670
*R23	Potentiometer, 1 MEG, w/Switch	Z4686
R24	Resistor, 12K, $\frac{1}{2}$ W, Carbon	4649
R25	Resistor, 120K, $\frac{1}{2}$ W, Carbon	4670
R26	Resistor, 27K, $\frac{1}{2}$ W, Carbon	4651
*R27	Potentiometer, 1 MEG	Q4686
R28	Resistor, 1.2 MEG, $\frac{1}{2}$ W, Carbon	4656
*R29	Potentiometer, 500 OHM, Linear	R4686
*R30	Potentiometer, 500 OHM, Linear	R4686
F1	Fuse, $\frac{1}{2}$ A, 3AG Slo-Blo	Z20066
V1	Tube, 12AX7	4311
V2	Tube, 12AX7	4311
V3	Tube, 6X4	4336
*T1	Transformer, Power	15021

Note: 1K = 1,000 OHMS 1 MEG = 1,000,000 OHMS
 Tolerances: Capacitors $\pm 20\%$, Resistors $\pm 10\%$, unless otherwise indicated.

These parts are available from electronic parts dealers, except those marked with an asterisk (*) which may be ordered from Electro-Voice.

Schematic Diagram Model PC2 Music Control Center



WARRANTY

The Electro-Voice Model PC2 music control center is guaranteed against defects in workmanship and material.

ELECTRO-VOICE, INC. / BUCHANAN, MICHIGAN