

Obsalide

SPECIFICATIONS AND INSTRUCTIONS

Tentative

Part No. 55509

BUILDING BLOCK KITS MODELS - BB5, BB6, BB7, and BB8

Designed to provide convenient package additions to full-range or separate 2-way systems, Electro-Voice Building Block Kits contain matched set of components complete with crossover, level control, wiring harness and instruction sheets. New, improved driver units with uniform response characteristics work through diffraction horns designed along the optical slit principle to give wider polar dispersion. Without obsoleting existing components the proper Building Block Kit will add exciting new listening pleasure to your present ensemble.

SPECIFICATIONS

BB5: For use with existing 2-way systems (low-frequency driver with treble driver) and coaxial speakers having three-pound magnets or greater.

T350: Ultra-Sonax UHF Driver

X36: Crossover Network

AT37: Level Control with Wiring Harness

BB6: For use with systems having extended bass ranges (RETMA sensitivity ratings of 50 db and higher.)

T3500: Ionovac Driver and Electronic Assembly

X36: Crossover Network

AT37: Level Control with Wiring Harness

BB7: For use with Phase Loaded and indirect radiator folded corner horn systems, using 1 to 2 lbs. magnet in drivers.

MT30B: Driver-horn Assembly

X425: Crossover Network

AT37: Level Control with Wiring Harness

BB8: For use with Phase Loaded and indirect radiator folded corner horn systems using deluxe drivers having 3 lbs. of magnet or more.

MT30: Driver Horn Assembly

X325: Crossover Network

AT37: Level Control with Wiring Harness

The Electro-Voice Building Block Plan provides a step-by-step method for building from a single loudspeaker to a full multi-way system. The Building Block Kits are complete with driver, crossover, level control, wiring harness and instructions. Through Electro-Voice Building Blocks, the development of your system is kept in stride with your budget, while assuring you of properly matched components. More important, you protect your first investment by building on it; any RADAX full-range loudspeaker will become the low-frequency driver in the fully developed system. No matter how simply you begin, you build directly toward perfection...and without obsoleting existing components!

Electro-Voice manufactures a standard and deluxe loudspeaker for every application. The primary difference between the two types is the magnet weight; the deluxe series offers highest efficiency, best damping and lowest distortion. The standard units offer comparable performance at lower cost. If you choose a deluxe speaker to start, then add deluxe Building Blocks; if you choose the standard loudspeaker, the additional Building Blocks should be of similar quality. The attached compatibility chart lists the correct Building Block for each basic speaker and system in the Electro-Voice line.

In all instances, the Building Block Kit containing the VHF driver should be the first addition to a coaxial speaker. This addition will result in greater efficiency from 3500 cps to beyond the limits of audibility, plus greater dispersion of the higher frequencies in the listening area. The subjective effect of extending the high frequency response past the tenth octave is to enhance greatly the feeling of reality by a closer approximation of the original sound. In addition, the increased efficiency past 10 kc compensates for the progressive loss of high frequency hearing acuity present in all adults as their age advances. Reproduction in the upper octaves becomes silky smooth, free from distortion.

The final addition depends upon the type of enclosure in which the speaker system is installed. When using a direct radiator enclosure, such as the ARISTOCRAT or REGENCY, the Building Block listed under DIRECT RADIATOR SYSTEM should be used. For Phase-Loaded enclosures, such as the DUCHESS and SUZERAIN, the Building Block listed under PHASE LOADED SYSTEM should be used. This allows the RADAX speaker to operate solely as a low frequency driver, restricting its response to low frequencies.

Thus the audio range is divided for more efficient reproduction of each section by more specialized components.

Both harmonic and intermodulation distortion are substantially lowered. In addition, the horn sections increase dispersion throughout the listening area, assuring natural sound no matter where the listener sits.

COMPATIBILITY CHART

12-inch Loudspeakers

Step 1	Step 2	Step 3	
BASIC SPEAKERS AND SYSTEMS	VHF DRIVER	DIRECT RADIATOR SYSTEM	PHASE-LOADED SYSTEM
SP12B	BB1	BB3	BB7
SP12	BB2	BB4	BB8
12TRXB		BB3	
12TRX		BB4	
108 System (12BW, T10A 8HD, X825, AT37)	BB1		
111 System (12BW, T25A, 8HD X8, AT37)	BB2		

COMPATIBILITY CHART

15-inch Loudspeakers

STEP 1	STEP 2	STEP 3	
BASIC SPEAKERS AND SYSTEMS	VHF DRIVER	DIRECT RADIATOR SYSTEM	PHASE-LOAD SYSTEM
SP15B	BB1	BB3	BB7
SP15	BB5	BB4	BB8
15TRXB		BB3	
15TRX		BB4	
 116 System (15BW, T10A, 8HD, X825, AT37)	 BB1		
 114A System (15W, T25A, 8HD X8, AT37)	 BB5		

INSTALLATION, WIRING AND OPERATION

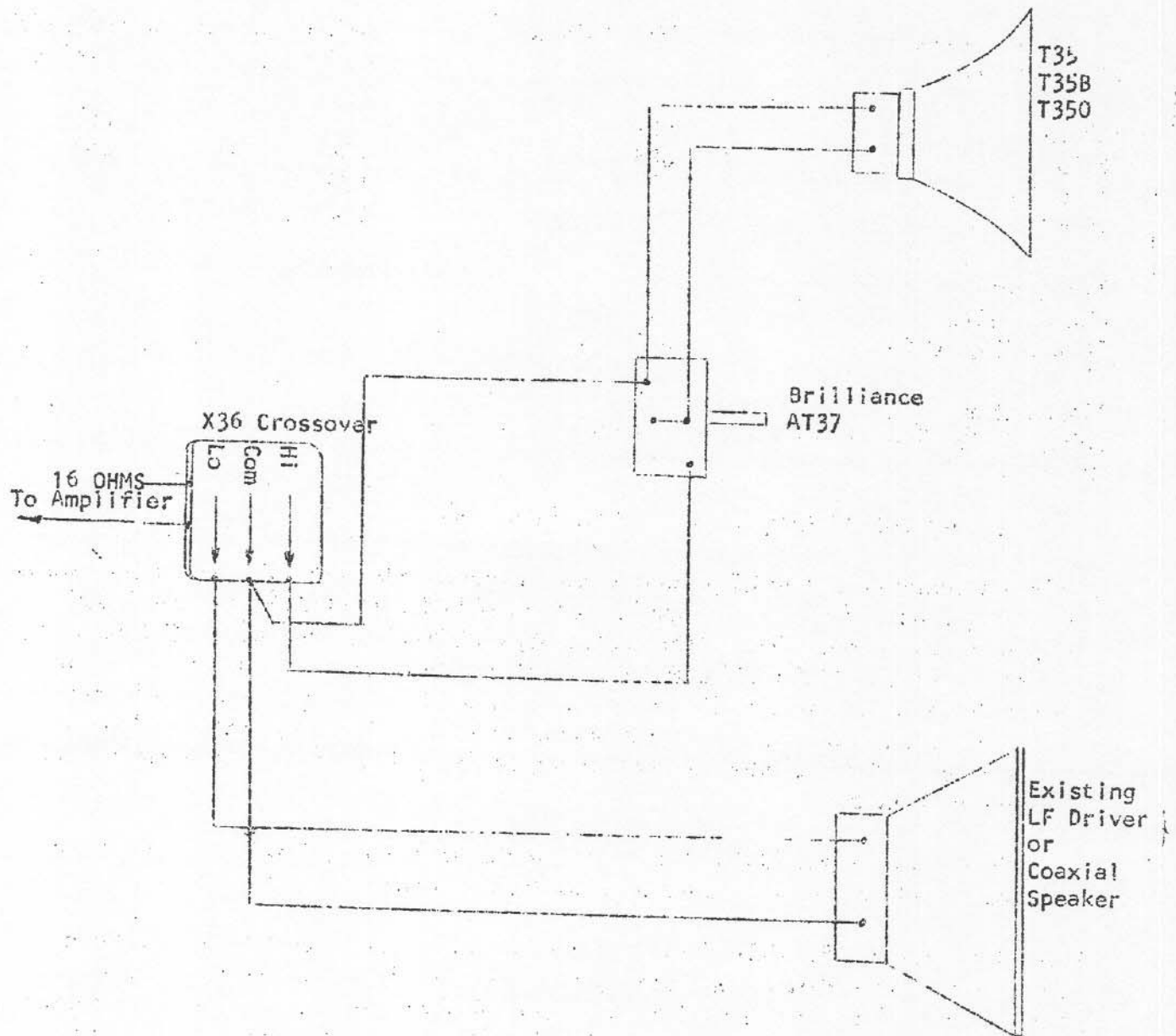
Complete installation and wiring instructions are included with each unit. For general wiring information, refer to Figures 1, 2, and 3. The Model MT30 or MT30B will mount directly into space provided in the SUZERAIN, DUCHESS, GEORGIAN, CARDINAL, CENTURION, and Phase-Loading EMPIRE (1958 production). When used in other enclosures, it will be necessary to construct a simple 200-cycle horn. The inside dimensions for two such horns are given in Figures 4 and 5. Figure 4 shows the recommended design, affording slightly more efficiency. With a shallow cabinet, it may be desirable to use the more compact horn illustrated in Figure 5.

When using the MT30 or MT30B in the horn illustrated in Figure 5, it will be necessary to use the 60° adapter. (See instruction sheet for MT30 or MT30B.)

OPERATION OF LEVEL CONTROLS _ Level controls are provided for adjusting the amount of energy fed to the mid-range and/or very high frequency drivers in two-and three-way systems. The level control marked PRESENCE controls that frequency range lying in the region between 800 cycles and 3500 cycles, and the BRILLIANCE control governs the amount of energy radiated above 3500 cycles.

The two level controls allow complete balancing of the system to any acoustical environment. The controls are continuously variable, insuring optimum adjustment to all tastes. While playing a comprehensive orchestral selection, set BRILLIANCE between 7 and 8. This will be a pleasing setting for a large living room with hard surface walls and few drapes or rugs. If the room is average in size (about 14 by 20), set the PRESENCE control to 8 and re-adjust the BRILLIANCE setting to achieve good musical balance. Effect this adjustment by advancing the control slightly while listening to various passages in the music. If the source material is clean and wide range, the point of balance will be definite, the higher tones will suddenly fall into place and there will be little doubt that the proper setting has been achieved. In heavily draped rooms, the setting may be as high as 9 or 0, but only in extreme cases. Once set, the controls need never be touched except for an unusual record with poor musical balance.

or a badly worn record which requires lowering of the BRILLIANCE control setting to subdue scratch.



Connection —+—
No Connection +
Red = Pos. +
Black = Neg. -

FIGURE 1 - Addition of VHF Driver (BB-5)

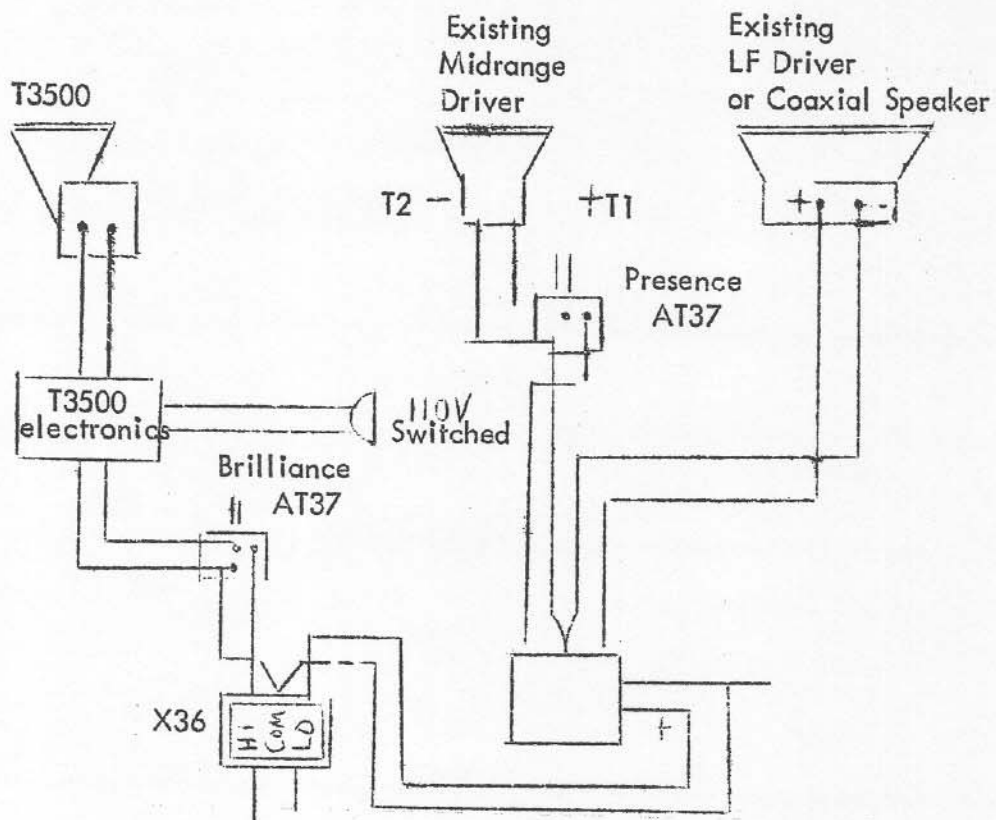


Figure 2 - Addition of Ionovac Driver (BB6)

WIRING 105E System

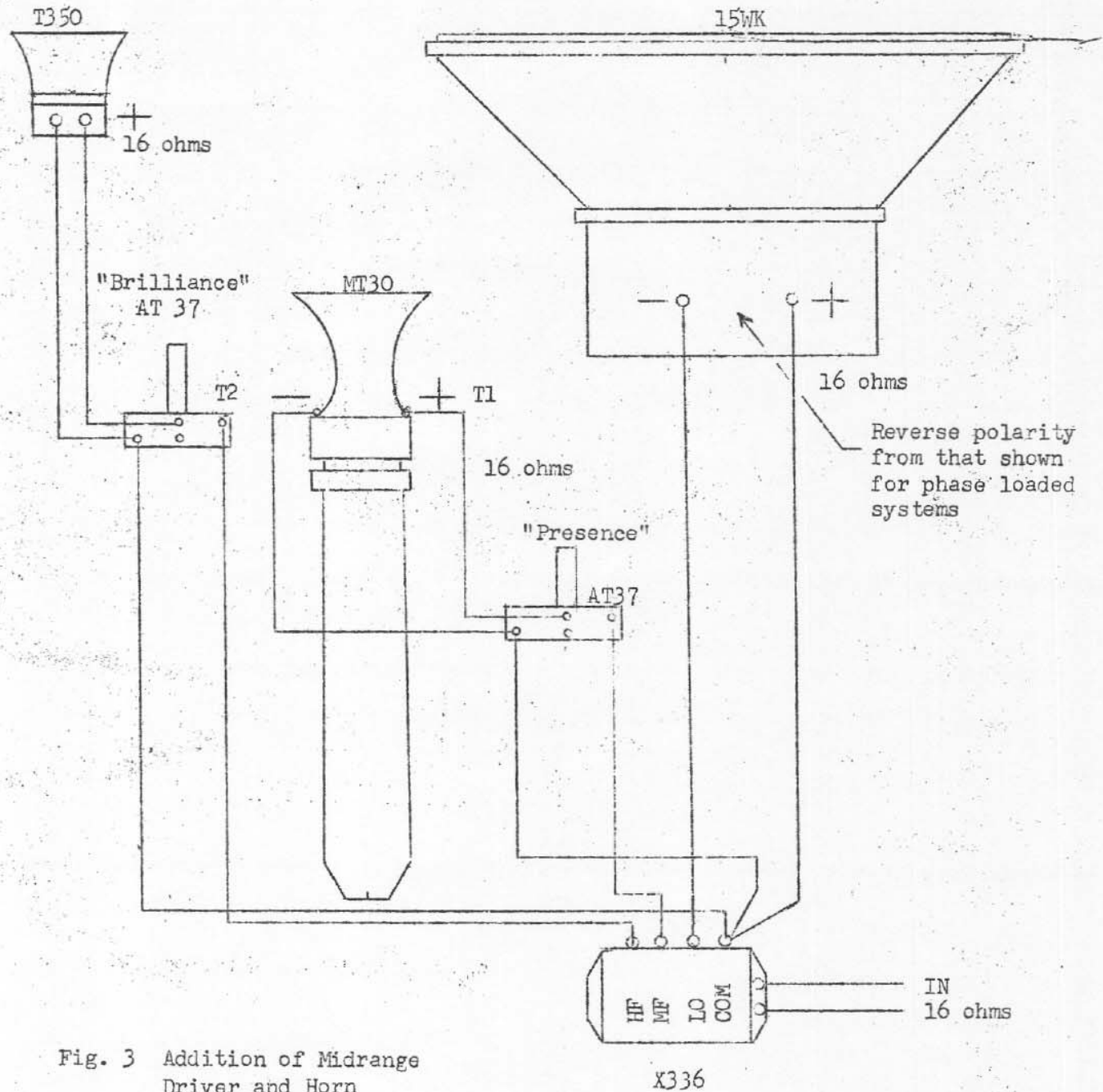


Fig. 3 Addition of Midrange
Driver and Horn
(BB-7, BB-8)

117B System
Same as above

Connection o
No Connection ↓
Red POS +
Black NEG -

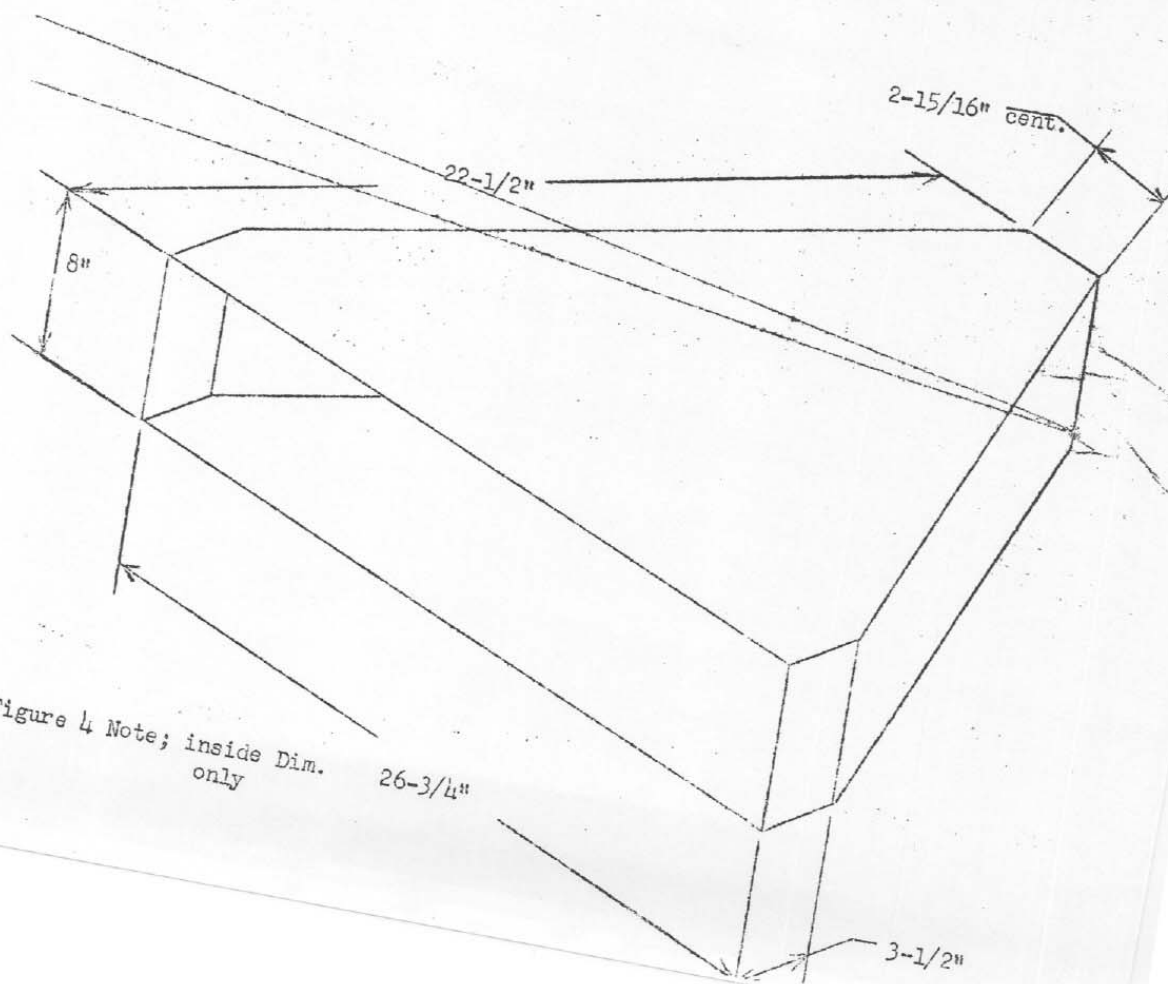
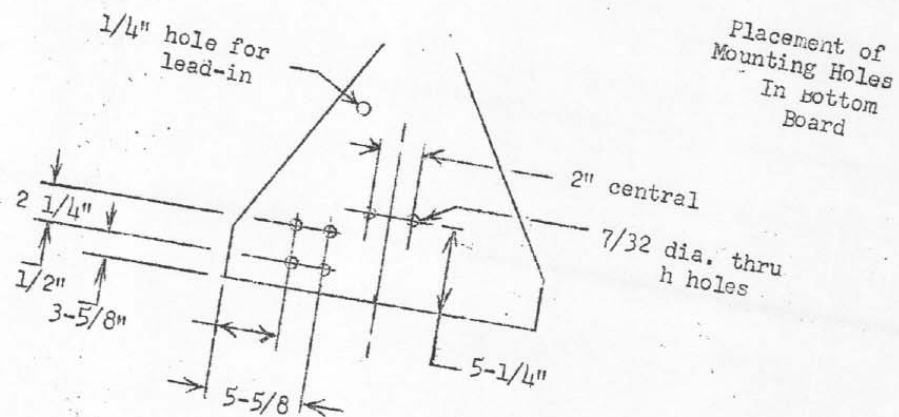
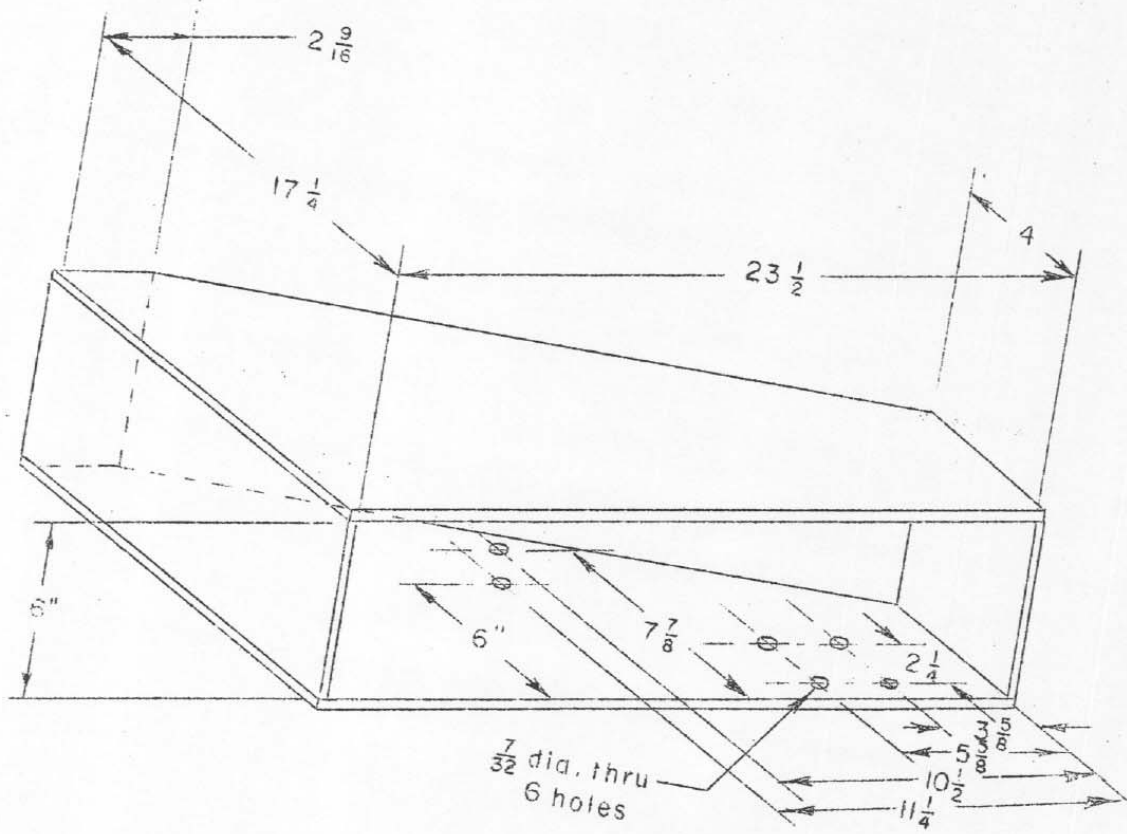
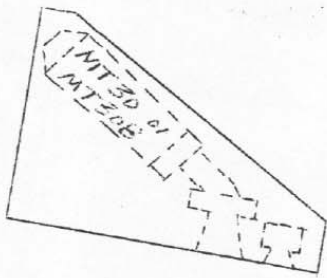


Figure 4 Note; inside Dim. only



Buchanan, Michigan

ELECTRO-VOICE, INC.

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