

SPECIFICATIONS

Power Rating:	50 watts of continuous pink noise, band-limited from 20 Hz to 20 kHz
Frequency Response:	Uniform from 40 Hz to 20 kHz
Pressure Sensitivity:	102.5 dB SPL at 1m when measured on axis in the far (free) field with 1 watt input of band-limited pink noise from 500 Hz to 3 kHz and calculated to 4' equivalent (Ref.: 0 dB = 0.0002 dyne/cm ²)
Distribution Pattern:	60° vertical x 90° horizontal at -6 dB, measured at 4' with band-limited pink noise from 800 Hz to 8 kHz
Impedance:	8 ohms
Dividing Network:	Dual full section with switchable 500/800/1200 Hz cross-over frequency, 12 dB/octave slope and continuously variable high frequency control having 0 to -20 dB range
Dimensions:	42" (106.7 cm) H x 30" (76.2 cm) W x 24" (61 cm) D 52 1/4" (132.7 cm) H with horn top mounted
Weight:	175 lbs. (79.5 kg)
Finish:	Gray texture paint

KIT COMPONENTS

QTY	DESCRIPTION
1	828G Horn Cabinet
1	• Front Grille
1	• Rear Access Panel
20	•• #8 x 1 1/4" FH wood screws
1	• 34061 Horn Mounting Bracket
2	•• 1/4"-20 x 3/4" mach screws
2	•• #10 x 3/4" wood screws
1	• Terminal Connector
1	•• #8 x 1/2" wood screw
1	511B Horn
1	• 30411 Horn Bracket
1	•• #10 x 3/4" wood screw
3	•• 1/4"-20 x 1 1/4" mach screws
3	•• 1/4"-20 hex nuts
3	•• 1/4" lock washers
1	515-8G LF Loudspeaker
4	•• 1/4"-20 x 1 1/4" mach screws
4	•• 1/4" lock washers
1	902-8B HF Driver
1	• Mounting Gasket
2	•• 1/4"-20 hex nuts
2	•• 1/4" lock washers
1	N1285-8B Crossover Network
4	•• #8-32 x 1" wood screws

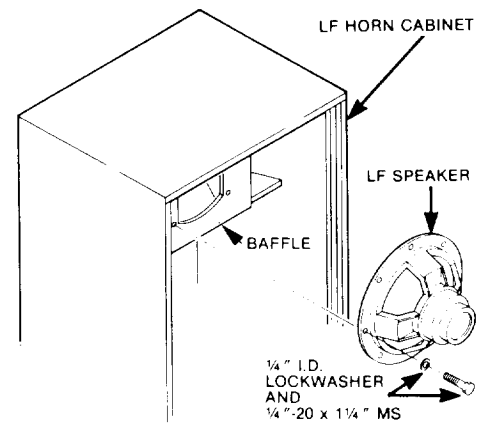


Figure 1. LF Speaker Installation

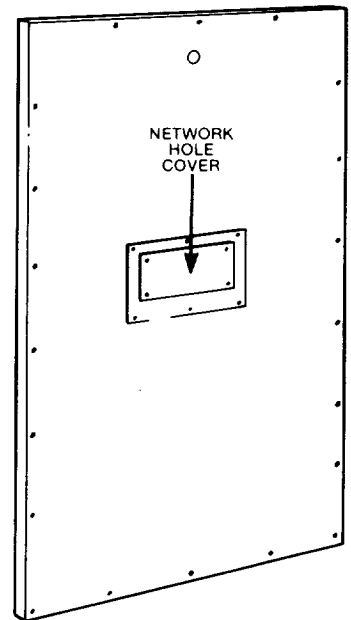


Figure 2. Rear Panel with Cover Plates Installed

1. Place 828G Horn Cabinet face down. Remove wood screws securing rear access panel to cabinet. Remove panel.
2. Install 515-8G Low Frequency Loudspeaker using four 1/4"-20 x 1 1/4" machine screws and lockwashers. Screws thread into T-nut mountings of baffle; see Figure 1.
3. Remove network hole cover from rear access panel. See Figure 2.
4. Install network in rear panel (set cross-over frequency to 500 Hz) with four screws. See Figure 3. Also install terminal connector immediately beneath network, using #8 x 1/2" wood screw.

5. If 511B HF Horn is to be mounted internally within 828G Horn Cabinet, proceed to Step 14. The following steps describe mounting the 511B externally, on top of the cabinet.

Specifications and components subject to change without notice. Overall performance will be maintained or improved.

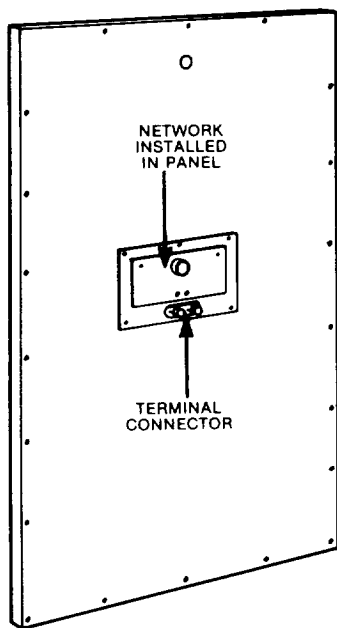


Figure 3. Rear Panel with Network Installed

- Place 828G Horn Cabinet upright. Remove horn mounting bracket from bottom (inside of cabinet; re-install two 1/4"-20 x 3/4" bolts in T-nuts for possible later use. Center horn mounting bracket on front edge of cabinet and secure with two No. 10 x 3/4" sheet metal screws. See Figure 4.

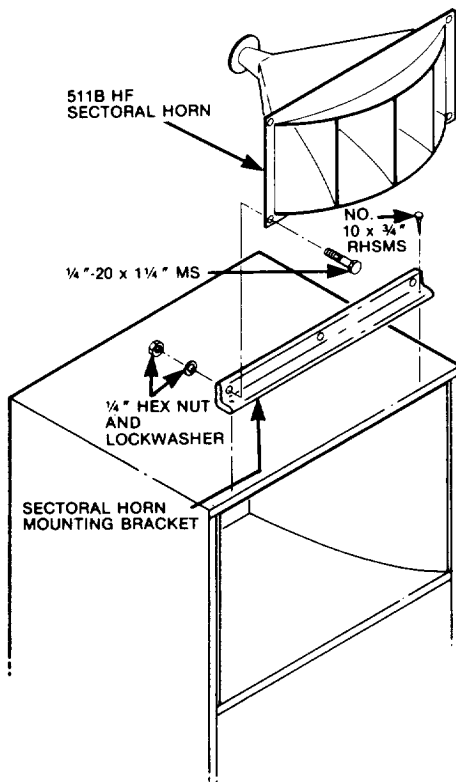


Figure 4. External Mounting of HF Horn

- Assemble 511B HF Horn, 902-8B HF Driver and 30411 Horn Mounting Bracket as shown in Figure 5. Be sure gasket is properly positioned between horn and driver before installing two 1/4"-20 hex nuts and lockwashers. Assemble two parts of 30411 Horn Mounting Bracket, using

the 1/4"-20 x 3/4" machine screw, lockwasher and nut indicated in Figure 5; do not tighten nut.

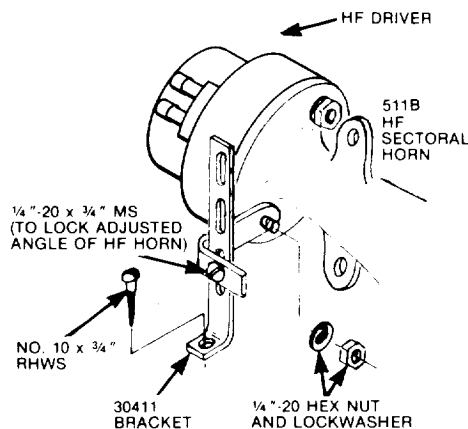


Figure 5. HF Driver and Horn Assembly

- Attach assembled HF horn to mounting bracket with three 1/4"-20 x 1 1/4" machine screws, lockwashers and 1/4"-20 hex nuts. Defer tightening screws and nuts until horn position is set. Figure 6 shows horn installed.

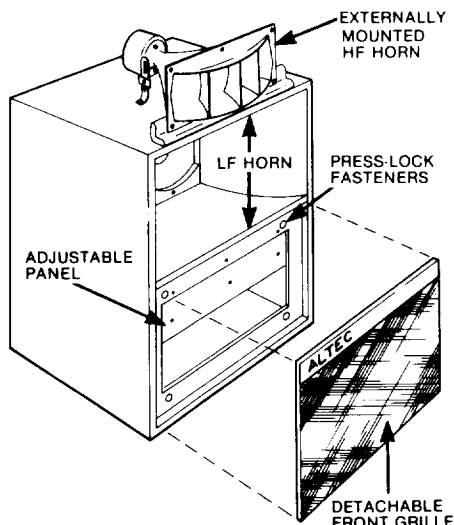


Figure 6. Externally Mounted Horn System

- Secure 30411 bracket to 828G Horn Cabinet with No. 10 x 3/4" wood screw. See Figures 5 and 6.
- Set desired angle of HF horn by adjusting 30411 bracket. Lock adjusted angle of horn by tightening bracket screw. Then tighten three mounting screws at front of horn.
- Using wire leads supplied with network, interconnect components as shown in Figure 7. Route leads to HF driver through 1/2" hole in rear panel. See Figure 8.

NOTE

Prepared wire leads are equipped with push-on spade clips for connecting to lugs on network. Opposite ends of wire leads are tinned for insertion in binding post terminals of LF speaker and HF driver.

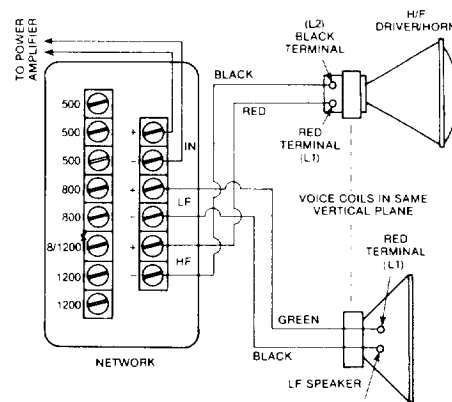


Figure 7. System Interconnect System

- Set the crossover frequency selection switch to the desired crossover frequency. For theatrical applications most users prefer 500 Hz; for musical applications most users prefer 1200 Hz.
- Install rear panel and secure to cabinet with twenty No. 8 x 1 1/4" wood screws. Figure 8 shows panel (with network) installed. If desired, affix 'Voice of the Theatre' decals to sides of cabinet.
- Connect output of amplifier to appropriate terminals of network.

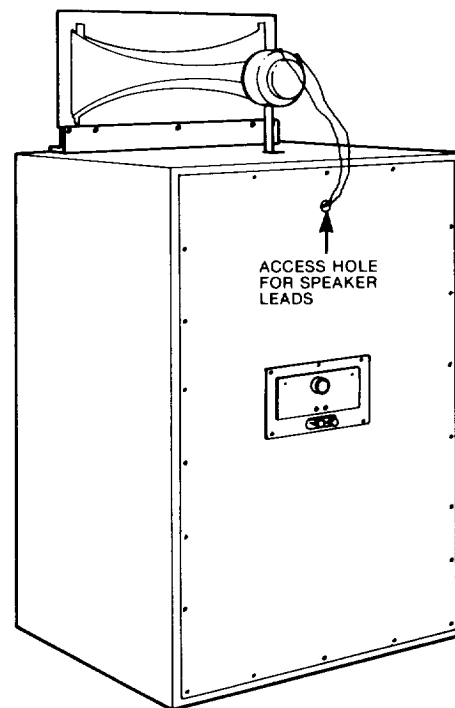


Figure 8. Externally Mounted HF Horn System, Rear View

- If 511B HF Horn is to be mounted internally, place 828G Horn Cabinet on one end, with front grille area in lower position. Carefully detach one corner of grille from press-on fast-

ener; pull grille free. Figure 6 illustrates grille removed.

16. Remove five 1/4"-20 x 1/4" machine screws from adjustable panel; see Figure 6. Remove panel and store for later potential use.
17. Complete Steps 8 through 10 as described, except reverse horn location to internal position as shown in Figure 9. Remove only enough fiberglass insulation from cabinet wall to permit securing 30411 bracket with wood screw.

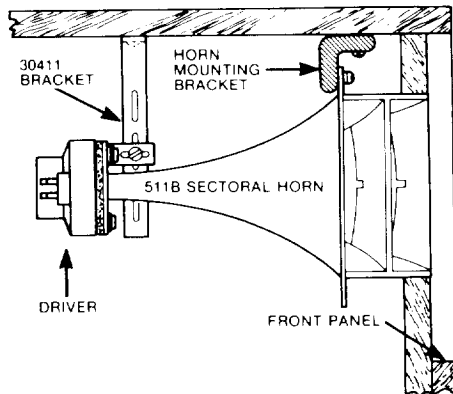


Figure 9. Internal Mounting of HF Horn

18. Complete Steps 11 through 14 as described.

19. If desired, install front grille by aligning press-on fasteners. Press each corner of grille firmly, until fasteners lock into position. This completes internal installation of HF Horn. Figure 10 illustrates complete installation.

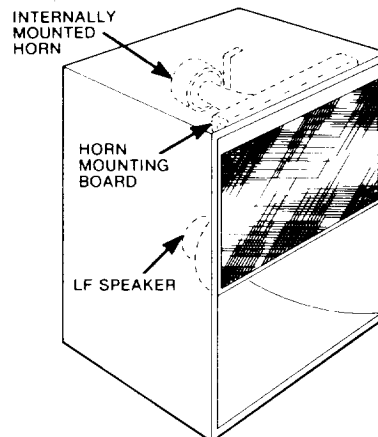


Figure 10. Internally Mounted HF Horn System

VOICE OF THE THEATRE DECALS

Two Voice of The Theater decals are included with the loudspeaker system installation kit. The decals may be affixed to the sides of the cabinet at the option of the user.

To apply the decals, first measure down the sides 10 inches from the top of the cabinet;

this locates a horizontal line where the top edge of the decal will begin. Find the center of this line (12 inches from the front or back of the cabinet); this locates where the center of the top edge of the decal will be positioned. The center reference of the decal is near the center of the 'E' of ALTEC. By matching the center of the line with the center of the top edge of the decal, you may readily apply the decal centrally on the cabinet.

Carefully peel off the paper backing from the decal. Do not allow any part of the exposed adhesive to touch the cabinet until you hold the decal perfectly straight and level with the reference points. Then apply the decal and press down the entire surface to assure that all areas of the decal are adhered.

REPLACEMENT PARTS

The replacement HF diaphragm is 34647. The re-cone kit for the low-frequency loudspeaker is R-515-8G. Construction plans for the low-frequency cabinet are published in Altec Applications Note 11.