

Figure 1—Suspension of T221

Description

The Electro-Voice HST series of hanging systems provide a certified and flexible method of suspending many popular Electro-Voice T-Series™ loudspeaker systems.

Equipment Required for Installation

- 3/4-in. socket wrench
- 1-3/4-in. hole saw
- adjustable wrench
- power-screwdriver (#2 Phillips head)

Introduction

In common with any suspension system, the HST system is only as strong as its weakest link. The installer must ensure the top mounting points have sufficient load bearing capability to safely suspend the cabinet. The initial support cables or chains should be as close to vertical as possible and never more than 30° from vertical. None of the chains or cables should touch or rub against the cabinets. Local codes and regulations, if they exceed Electro-Voice's recommendations, should be followed at all times. Electro-Voice recommends a safety factor

of at least 6:1 should be adopted. When properly used, the Electro-Voice HST1 kit provides a safety margin of more than 10:1 when used to suspend a T221 loudspeaker system.

It is the installer's responsibility to ensure the HST system has been installed correctly. Electro-Voice strongly recommends that all suspended items be inspected at least once a year and any damaged parts be replaced immediately.

All HST kits follow the same principles. Put minimum stress on the cabinet and make each cabinet hang independently of any other device.

Suspending The Electro-Voice T221 Stage System

The following is the recommended method for suspending the T221 (see Fig 1).

Two tubes pass vertically through the cabinet and are secured to it via two oversize cast brackets. Two cold forged eyebolts are screwed into the "top" two brackets. (For mounting flexibility, either end of the system may be considered the top.) The two pull-up straps are attached to the "bottom"

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- Hangs T221 systems securely and safely
- Simple installation using common tools

brackets with the supplied 3/8-in. bolts and lock washers. The pull-up straps are fastened to each other with an eyebolt and locking hex nut. This makes a single rear pull-up point for aiming the system. Suitably rated chain or aircraft cables can then be used to suspend and aim the cabinet. The center of gravity is arranged so the enclosure is directed towards the ceiling. In order to provide a downward or horizontal projection angle, the pull-up point must be used.

If multiple cabinets are to be suspended, each system requires the appropriate HST kit and systems should not be suspended from each other. The tubes run top to bottom through the enclosure. The eyebolts must be connected to the chain or aircraft cable using suitably rated connectors such as shackles or threaded chain connectors.

Electro-Voice recommends that T-Series™ speaker systems not be suspended from one another when using HST Series systems even though the designated weight limit may not be exceeded.

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Installation Instructions

1. See Figure 2 for correct locations for four holes to be drilled into the T221 enclosure. Mark the hole positions on the top and bottom of the cabinet.
2. Use a 1-3/4-in. Hole Saw to cut holes in the cabinet at the designated positions (two on the top panel and two on the bottom panel).
3. Screw one threaded tube firmly into one round hanging bracket.
4. Pass the tube through the cabinet being careful to steer clear of the woofer and other internal components.
5. Screw the remaining hanging bracket onto the exposed thread of the tube. Screw down firmly using nut head (on hanging bracket) and socket wrench.
6. When tight, use a power screwdriver to screw the wood screws into each bracket (three in each bracket). With carpet-covered enclosures, pilot holes are not

generally necessary. With a reasonable amount of care, the screws will “self-center”.

7. Repeat steps 3 through 6 for remaining tube, brackets and screws.
8. Test to be sure the cabinet does not leak from around the hanging bracket by applying a 50 Hz sine-wave signal to cabinet.
9. Screw the eyebolts firmly into the “top” mounting brackets.
10. Connect the two pull-up straps together loosely using the third eyebolt and the 3/8-in. locking nut. Do not tighten yet.
11. Connect the pull-up straps to the “bottom” two mounting brackets using the 3/8-in. bolts and lock washers. Note that the eyebolt should be “pointing up”.
12. Now tighten the third eyebolt and locking nut on the pull-up straps (referred to in step 10).

Double check all mechanical connections. The T221 is now ready to be suspended.

Figure 3—Exploded view of T221 and HST1 parts

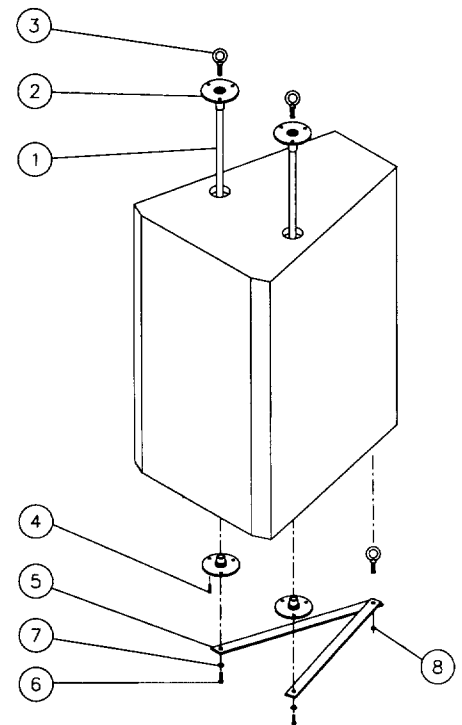
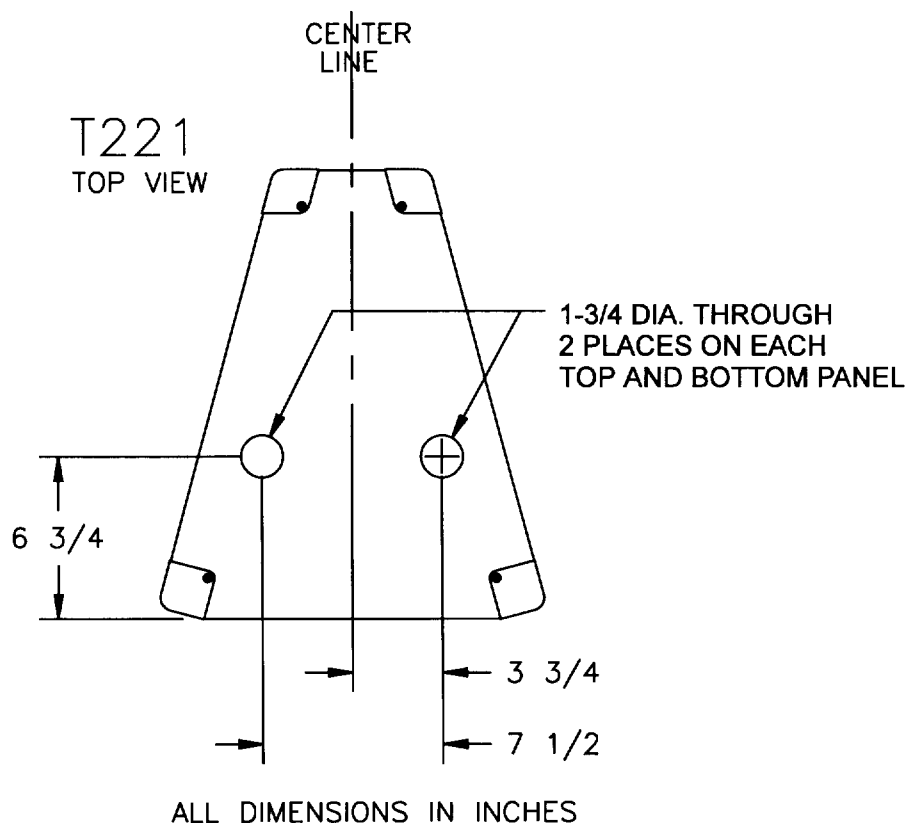


Figure 2—Drilling guide for T221



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Parts List

Reference No.	E-V Part No.	Quantity	Description
1.	73547	2	Threaded Tube
2.	A-71112-FF	4	Hanging Bracket
3.	20499	3	3/8-16 Forged Eyebolt
4.	62978-CP	12	Screws #10 x 1-in.
5.	73553	2	Pull-up Strap
6.	63329-CP	2	3/8-in. x 1-1/2-in. Hex Head Bolt
7.	38834-CP	2	3/8-in. Lock Washer
8.	20645	1	3/8-in. Locking Nut

CAUTION

For safe suspension of cabinets, it is very important that these instructions are strictly followed and all fasteners are correctly attached.

Warranty (Limited) -

Electro-Voice products are guaranteed against malfunction due to defects in materials or workmanship for a specified period, as noted in the individual product-line statement(s) below, or in the individual product data sheet or owner's manual, beginning with the date of original purchase. If such malfunction occurs during the specified period, the product will be repaired or replaced (at our option) without charge. The product will be returned to the customer prepaid. Exclusions and Limitations: The Limited Warranty does not apply to: (a) exterior finish or appearance; (b) certain specific items described in the individual product-line statement(s) below, or in the individual prod-

uct data sheet or owner's manual; (c) malfunction resulting from use or operation of the product other than as specified in the product data sheet or owner's manual; (d) malfunction resulting from misuse or abuse of the product; or (e) malfunction occurring at any time after repairs have been made to the product by anyone other than Electro-Voice or any of its authorized service representatives. Obtaining Warranty Service: To obtain warranty service, a customer must deliver the product, prepaid, to Electro-Voice or any of its authorized service representatives together with proof of purchase of the product in the form of a bill of sale or receipted invoice. A list of authorized service representatives is available from Electro-Voice at 600 Cecil Street, Buchanan, MI 49107 (616/695-6831). Incidental and Consequential Damages Excluded: Product repair or replacement and return to the customer are only remedies provided to the customer. Electro-Voice shall not be liable for

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