



FAP82T

Strategy Series® II 8" In-Ceiling Speaker System



FAP82T

Specifications

Power Rating	70 Watts RMS (8Ω)
Transformer Taps	1.9, 3.8, 7.5, 15, 30, & 60 Watts & 8Ω Bypass
Frequency Response	55Hz – 20kHz (±5dB)
Sensitivity (1W / 1M)	90dB Average
Woofer	8" (203mm)
Woofer Impedance	8Ω Direct Coupled (Nominal)
Woofer Magnet Weight	21oz (580g)
Diameter	15 ³ / ₄ " (400mm)
Overall Height	12 ³ / ₄ " (324mm)
Cut-Out Diameter	14" (356mm)

Features

- High efficiency 8" Driver
- Extended Low Frequency Response from the Optimally Tuned and Ported Deep Drawn Galvanized Steel Enclosure (937 in³)
- 60 Watts Enhanced Quality 70.7V / 100V Internal Transformer Minimizes Insertion Loss and Maintains Low Frequency
- Front Mounted Tap Selector Switch for Easy System Tuning Adjustments (1.9 – 60 watts @ 70.7V Plus 8Ω Bypass)
- Unique "Trap Door" Input Section Allows for Through Conduit Runs with Rigid or Flex Conduit
- 4 Pole Detachable Phoenix / Euro Style Connector Allows Easy Pre-wiring
- "Press-Fit" Grille to Better Blend into Contemporary Architecture
- Ships Complete with Speaker / Transformer Factory Assembled into Back Can, Grille, and Unique C-Ring / V-Rail Mounting Hardware
- May be Pendulum Mounted via Top Mounted Eyebolt (Included)
- Enclosure is Finished in White for Optimum Aesthetics when Hung in Open Ceiling Applications
- UL 1480 Listed

Applications

The FAP82T is a premium performance 70.7V / 100V tuned & ported 8" coaxial ceiling speaker system perfectly suited for many business music and public address applications – especially applications where high ceilings require loudspeakers with increased efficiency and tighter pattern control. The 8" coaxial speaker system features extended low frequency response rivaling that of many subwoofers.

The FAP82T will satisfy the needs of owners, architects, contractors, and consultants by delivering true, high fidelity sound reproduction in an attractive and easy-to-install system. The FAP82T is ideal for high intelligibility voice, music, and signal reproduction in commercial, industrial, and institutional applications.

General Description

Loudspeakers exhibiting wider dispersion than 100° will exceed 6dB of drop off at the edge of the coverage pattern causing excessive SPL variances. Using more of the same wide coverage speaker in a high ceiling application to compensate only worsens the situation, as comb filtering from multi-path arrivals will result. For more information please review our white paper "The Limitations of Wide Dispersion" on our website, www.AtlasIED.com.

The loudspeaker component is based on the legendary Atlas Sound FA Series drivers. High quality construction 8" coaxial cone type driver includes a 38mm voice coil and polypropylene cone with a butyl rubber surround. The 19mm coaxially mounted tweeter is constructed of PEI. A high sensitivity of 90dB average means less power may be required to achieve the desired SPL. This loudspeaker is factory assembled in an optimally tuned and ported deep drawn enclosure and includes a specially designed 60 watt low saturation 70.7V / 100V transformer. A convenient front mounted selector switch allows tap selection without the need to remove the speaker from the ceiling. This tap selector switch also includes a transformer bypass setting for instances where the 8Ω FAP82T driver is to be direct coupled with a low impedance amplifier.

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Mounting Accessories

Mounting is simplified with Strategy Series® style “dog leg” tabs that allow easy installation into drop tile or drywall ceilings with provided tile bridge assembly. The tile bridge consists of two “V” shaped mounting rails and a C-Ring assembly. The C-Ring can be attached to the rails with the screws provided to extend support to the T-Bar grid in suspended ceiling applications. Multiple hole locations are provided to allow the C-Ring to be positioned to the outer edge of the tile if necessary.

For existing drywall applications, the tile bridge, C-Ring, and support rails can be inserted into the hole cut for the FAP82T. For easy positioning the “V” shaped support rails match the shape of the C-Ring tabs for easy maneuvering and location when working “blindly” above the deck. A uniquely designed “easy access” input panel on the side of the enclosure allows conduit runs using flexible or rigid conduit. Below this cover resides a detachable Phoenix style locking four-pole Euro connector. The package includes an attractive press-fit grille, which nicely matches contemporary architecture.

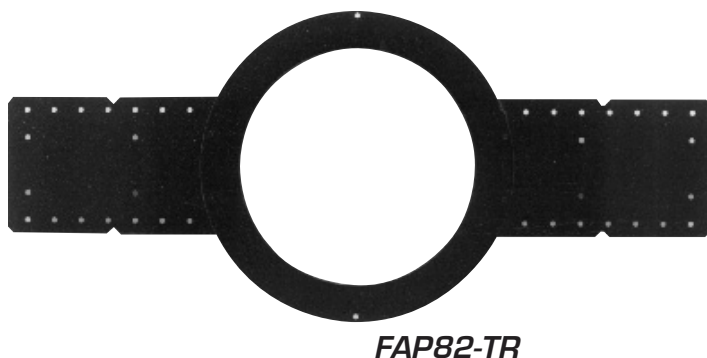
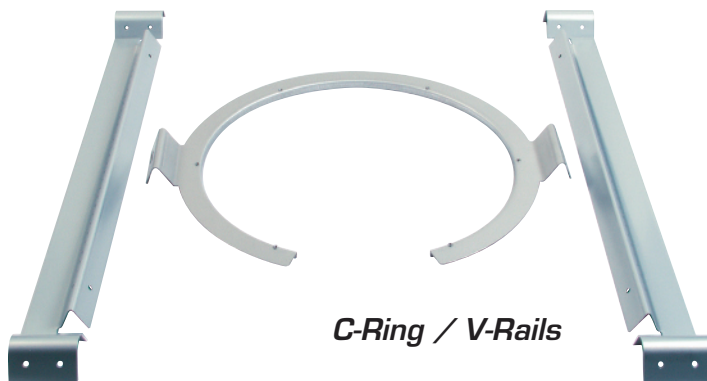
For new construction drywall ceiling applications, the optional FAP82-TR trim ring is available. This unit provides a marked location for drywall installers to cut around essentially reserving the desired location in the ceiling until final installation of FAP82T. Mounting holes are provided to accommodate 16" or 24" OC stud / joist mounting.

With the FAP82T, Atlas Sound has addressed pendulum mounting for open ceiling applications. An eyebolt assembly is included with the package allowing suspension of the FAP82T with load rated cable or “all thread”. The enclosure is finished white to match the bezel ring for better blend in open ceiling applications. Please note that the enclosure / bezel ring may also be painted to accommodate custom finishes when required.

Speaker systems suspended overhead pose a risk of serious injury or death if they fall. Overhead suspension of any object (rigging) is inherently dangerous. It poses a substantial risk of injury or death to both those persons performing the installation and those persons who may later occupy the space under the suspended objects. You may be held liable for any injury or damages which may be alleged to result from improper installation.

If you are not experienced in rigging or suspension of speaker systems, or if you have any doubt that you are qualified to install suspended speaker systems, do not proceed. Instead, obtain the services of properly qualified personnel to complete the installation.

Never suspend the speaker system by any attachment except the provided suspension point. The eyebolt can also be used with an auxiliary support cable in drop tile installations. It is recommended that this secondary support be utilized in drop ceilings for safety and seismic considerations.



Architect & Engineers Specifications

System shall include a high performance 8" coaxial loudspeaker, ported bass reflex enclosure and press-fit grille for conventional ceiling installation. Frequency response for the system shall be 55Hz – 20kHz (± 5 dB). Sensitivity shall be 90dB average.

Loudspeaker shall be comprised of an 8" coaxial cone type driver. Cone shall be constructed of polypropylene with a butyl rubber surround. The 19mm tweeter shall be constructed of PEI. Woofer magnet shall be a minimum of 21oz (595g) and the voice coil diameter shall be 1½" (38mm).

Transformer shall be a 70.7V / 100V type with primary taps at 1.9, 3.8, 7.5, 15, 30, and 60 watts (@ 70.7V) with a front mounted tap selector switch. This tap selector switch shall also include a transformer bypass setting for instances where the 8Ω FAP82T driver is to be direct coupled with a low impedance amplifier.

Enclosure shall be a deep drawn steel enclosure design. Internal volume shall be 937 in³. To facilitate connection in conduit systems, enclosure shall be equipped with an access panel covering a recessed terminal cup. This cover shall provide a combination in ¾" (19mm inside diameter) / 1" (25mm inside diameter) knock-out on the side access and a top access compression fitting / strain relief to facilitate flexible conduit up to 22mm outside diameter or 1" (25mm inside diameter) conduit when the compression fitting is removed.

External wiring shall be accomplished via a removable lockable wiring connector with screw-down terminals to provide both secure wire termination and pre-wiring capability before loudspeaker installation. The 4 pole locking connector shall be located in the recessed area behind the conduit access panel.

A ¼"-20 drop forged eyebolt factory installed into an insert on top of enclosure for additional suspension point when used in drop tile ceilings or for pendant mounting.

Construction of enclosure shall be a minimum of 18-gauge deep drawn metal finished in white epoxy.

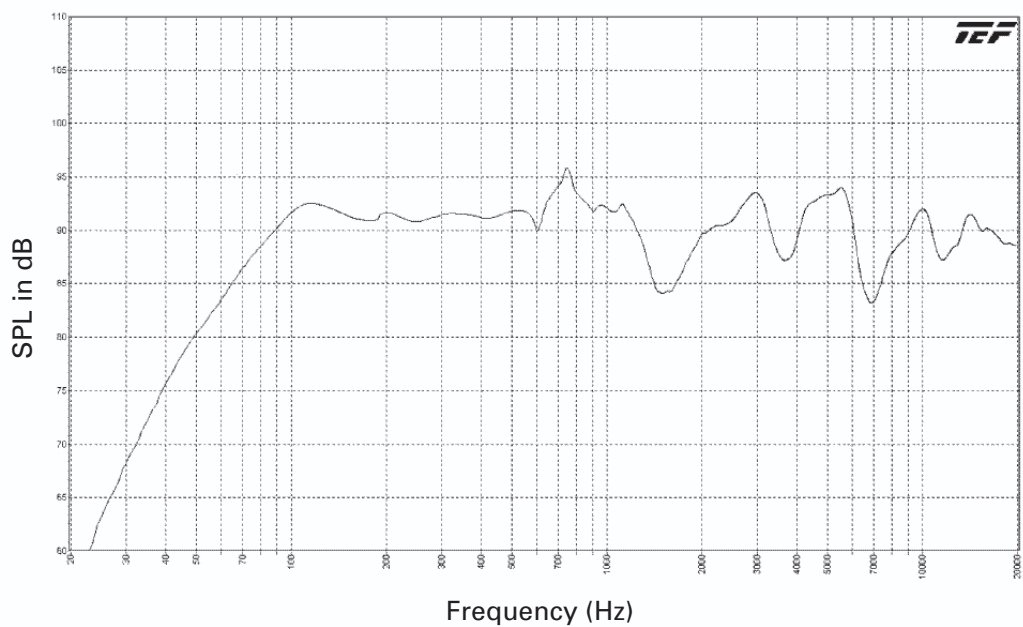
The system shall include a support backing plate to reinforce the ceiling material and tile support rails for use on either 2' x 4' (609mm x 1219mm) or 2' x 2' (609mm x 609mm) suspended ceiling tiles. This assembly can all be installed from beneath the ceiling tile.

Overall front face diameter shall not exceed 15¾" (400mm); overall height shall not exceed 11½" (292 mm), 12¾" (324mm) including factory-installed eyebolt.

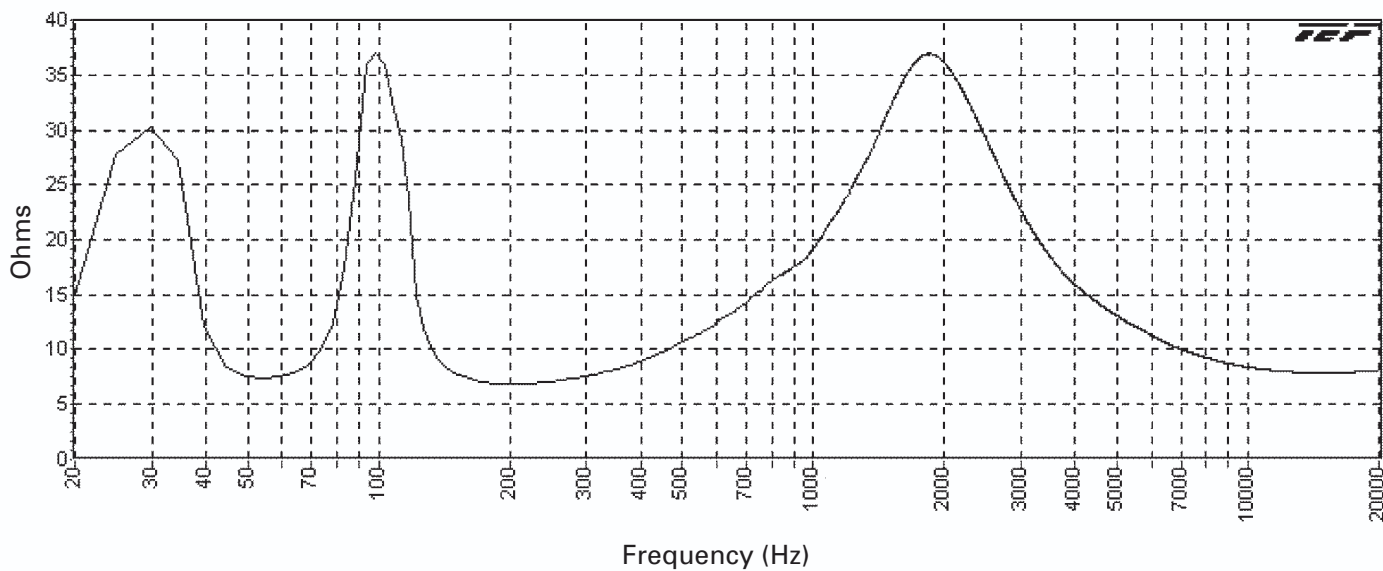
Grilles shall be press-fit, manufactured from 24-gauge perforated steel mesh and finished in white epoxy. Round grille shall be 13.67" (347mm) diameter.

The loudspeaker shall be the Atlas Sound FAP82T.

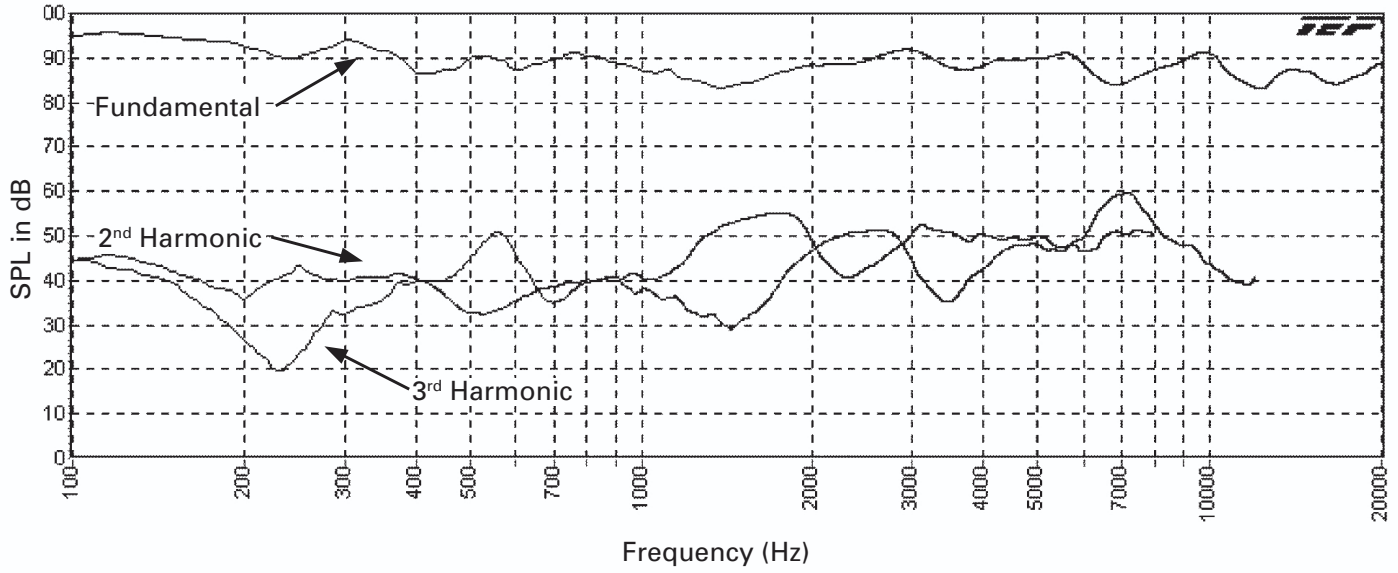
FAP82T Frequency Response



FAP82T Impedance (Ohms) vs Frequency



FAP82T Harmonic Distortion



FAP82T Polars (Normalized to Zero on Axis) (-6dB)

