FAP62D-USA

Installation Instructions

System Wiring

The FAP62D-USA is a Dante™ enabled network speaker that leverages IEEE 802.af PoE to deliver low-latency, lossless audio over category cable.

All devices powered via PoE are subject to the limitations presented by the network infrastructure on which they reside. Standards for 802.3af specify minimum voltage and current available per port but not all manufacturers adhere to these standards so it is important to select network equipment that is "standards-compliant". Using passive PoE injectors, which do not negotiate power delivery with the end device, may result in poor performance.

Dante™ network audio is functional on a wide range of Ethernet infrastructure; please note that Gigabit standard switches are strongly recommended, in particular when total channel usage across all devices is greater than thirty-two or when the network hardware is sharing data with services other than Dante™. QoS features designed for VoIP are recommended for all network switch hardware passing Dante™ audio, and the use of 100Mbps switches without QoS features is not supported.

The FAP62D-USA features one RJ45 type Ethernet port for combined power and signal delivery and three Phoenix-type compression terminals. Each channel provides 4-watts total power. The zone 1 output terminal is parallel to the speaker inside the FAP62D-USA; two other output terminals (Zone 2) are wired in parallel internally and may be assigned to the same channel as the primary zone or they may be assigned to a second zone, receiving and conveying an independent channel of audio. Matching passive speakers are available, model FAP62-USA but any 8Ω speaker can be used in conjunction with the output terminals on the FAP62D-USA.

After physical installation, software configuration will be necessary to enable the transmission of audio to this device. Configuration is stored in non-volatile memory and will not need to be reconfigured in case of unexpected service interruption.

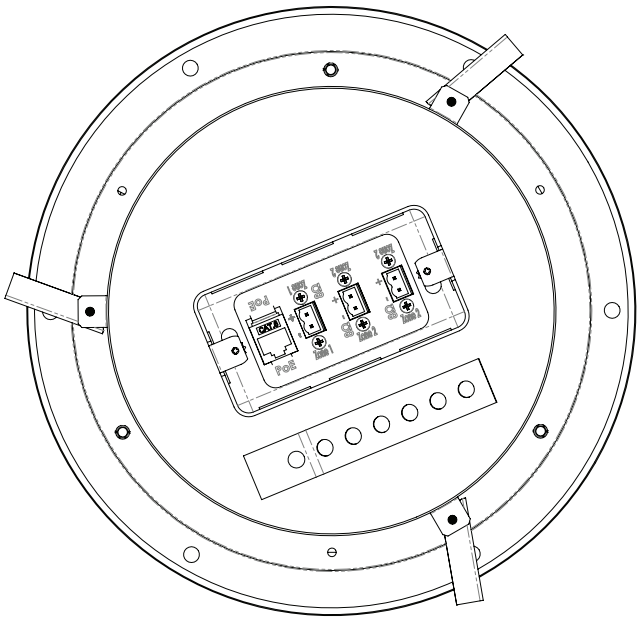

Fig. 1

For solo operation of the FAP62D-USA, simply connect a PoE network cable to the RJ45 network jack located at the rear of the enclosure. Ensure that the network link is successful by viewing connection and activity lights on the switch port where this cable is connected.

If connecting passive speakers, ensure that the speaker is rated for 8Ω operation and connect only one speaker to each Phoenix connector, observing that the polarity of the speaker connection matches the polarity of the connection on the FAP62D-USA.

After physically connecting the FAP62D-USA to the network it will announce itself to Dante™ configuration applications including AtlasIED BlueBridge® Designer II and Audinate's Dante™ Controller application. In BlueBridge® Designer II, navigate to "Dante™ View" and ensure the FAP62D-USA appears in the left column; from here right-click to display Dante™ Device Setup.

Within Dante™ Device Setup it is possible to rename each device, specify IP network configuration (if not using DHCP), configure & troubleshoot the Dante™ connection which resides on the IP network. Observe that network latency settings for Dante™ receivers must match latency settings established for transmitters with which they will be associated.

Under "Dante™ View" audio channel connections will be graphically represented by a grid matrix, grid squares illuminated green will identify that the transmitter listed at the top of the screen is in communication with the receiver channel at the point of intersection. One receiver may only subscribe to a single transmitter, but one transmitter may have multiple subscribers. For more information on larger Dante™ configurations, please visit https://audinate.com/resources/technical-documentation.

Mounting the Speaker

The enclosure with the FAP62D-USA includes rotating dog legs to position and securely fasten the enclosure and speaker to the ceiling (see Figure A). Cut a hole in the ceiling using either the tile bridge or the supplied template to determine the hole diameter. Place the enclosure through the hole and tighten the three dog leg screws. The dog legs will automatically rotate out from the wall of the enclosure and clamp down on the ceiling material.

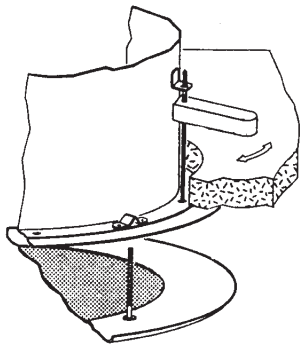

Fig. A

In suspended tile ceilings (see Figure C) we suggest that you use the included tile bridge to support the weight of the speaker system. Lift up an adjoining tile and place the tile bridge in position. Cut the hole in the tile using the tile bridge hole as a template. Place the enclosure through the hole (from the room side) and tighten the dog leg screws to fasten the enclosure in place. This will clamp both the ceiling tile and the tile bridge between the enclosure flange and the dog legs.

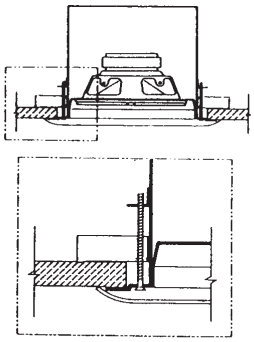

Fig. B

If there is a need to install the enclosures before the ceiling tile is installed, the arrangement shown in (see Figure D) may be used. This arrangement should be used only if installation via Figure C is not possible. Place the enclosure through the tile bridge and tighten the dog leg screws to clamp the tile bridge securely. Lay the tile bridge on the "T" bar supports. When the ceiling tile is installed, use the supplied template to mark and cut a hole in the ceiling tile. In this configuration, the enclosure flange will be on the back side of the ceiling tile and the speaker will be recessed further than in the other methods which will affect the speakers directivity. In existing construction plaster or sheetrock ceilings, the dog legs will clamp down directly on the back side of the ceiling as shown in (see Figure B).

For new construction plaster or sheetrock ceilings use the optional FA-TR trim ring to mark the enclosure location for ceiling installers to cut around. After the ceiling material installation is completed, install the enclosure from below in the same manor as shown in Figure C.

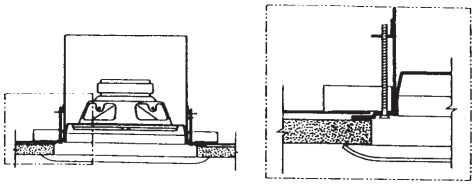

Fig. C

Note: Do not under any circumstances install the enclosure in the trim ring before the plaster or drywall ceiling material is installed.

Installing the enclosure in the trim ring before the ceiling material is installed will prevent the stud mount grille assembly from correctly engaging the retainer clips on the enclosure and/or cause the ceiling material installers to incorrectly cut an oversized hole around the outside ring of the enclosure that the series grille will not conceal.

Note: Maximum ceiling material thickness the dog leg assemblies will accommodate is 2".

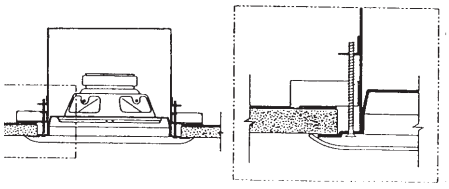

Fig. D

Installing the Grille

Align the three serrated studs with the retaining clips on the enclosure flange. Push the grille into the clips until the outer edge of the grille seats against the ceiling.

Note: If removal of the grille is required, use a flat-head screwdriver or small pry tool to separate the grille from the ceiling.

This speaker system is to be connected only to Ethernet PoE network without routing to outside plant