



sound systems

ESSENTIALS™, PRIVACY™, and APPLAUSE™ Series Speaker Models E-5, P-25, and A-50

Installation Instructions

1. GENERAL

1.1 Product Description

Each i-ceilings™ speaker is a nominal 24" x 24" ceiling panel speaker. It is intended to be installed on conventional grid suspension systems only. Panels can be removed, relocated, and reinstalled. The i-ceilings speakers are available in visual patterns that coordinate with a selection of Armstrong's most popular ceiling patterns.

1.2 Storage and Handling

The i-ceilings speakers must be stored in a dry interior location and must remain in cartons prior to installation to avoid damage. The cartons must be stored in a vertical position. Proper care should be taken when handling to avoid damage or soiling.

1.3 Site Conditions

Building areas to receive i-ceilings speakers must be free of construction dust and debris. The i-ceilings speaker cannot be used in exterior applications.

2. SUSPENSION SYSTEM

Suspension system installation shall conform to local building codes. The i-ceilings speaker is equipped with supplemental support tabs should supplemental support be required by local building codes. The i-ceilings speakers install in a nominal 24" x 24" grid opening.

3 INSTALLATION

3.1 Remove Panel From Shipping Carton

Open the carton on end, and remove Styrofoam protection. Handle panels by using the tabs (see Figure 1). Avoid excessive handling of the face of the panel.

3.2 Remove Access Cover

Use a Phillips head screwdriver to remove the screw that fastens the removable access cover. An additional 2 screws are provided for optional extra support. Then slide and lift the cover away from the bridge.

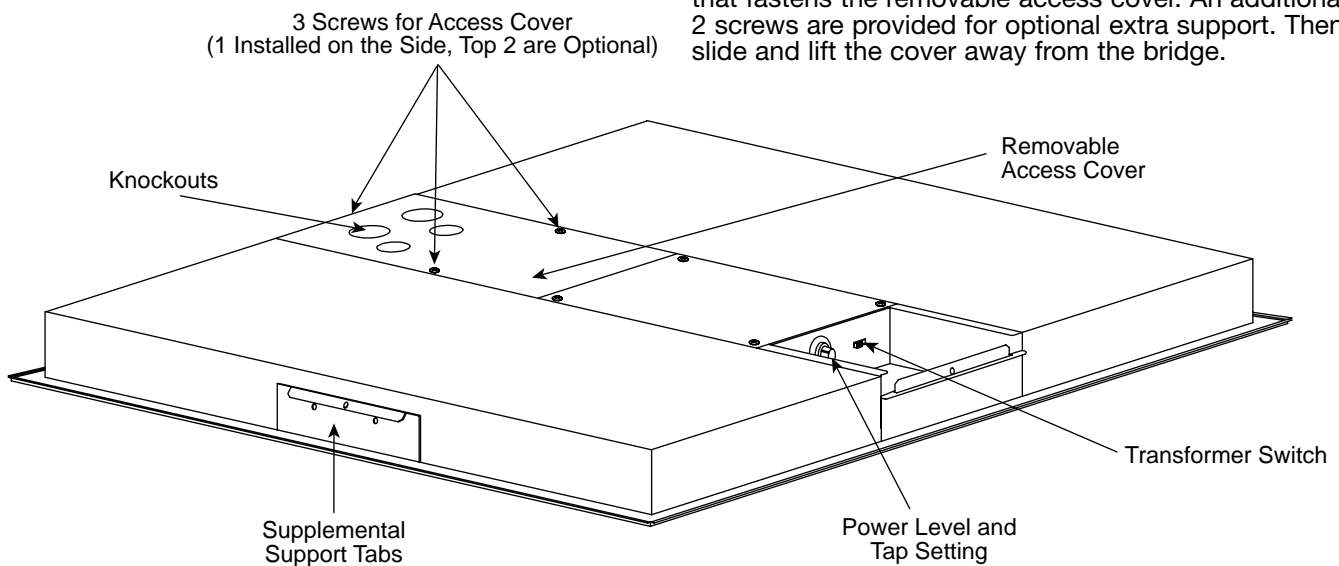


Fig. 1: Back View of Key i-ceilings Speaker Components*

*Note: This is a graphic depiction to show the key speaker components referenced during installation. There are product differences between the ESSENTIALS, PRIVACY and APPLAUSE Series, but these do not affect the placement or operation of the key components shown here for installation.



3.3 Connecting Cable to Bridge

Remove one of the knockouts (see Figure 1) and install a strain relief connector. Allow 8" of cable inside the bridge. Ensure that any slack in cabling rests on the metal bridge, and not on the back surface of the speaker panel. Cables resting on the back of the panel can create buzzing or distortion.

Wire Connection:

Remove 2" of jacket from installer-supplied cable. Job requirements will dictate the appropriate wire gauges for your installation. Strip 3/8" of insulation from the ends of the cable:

For ESSENTIALS Series Speakers: Attach the cable to the two pre-stripped wires that are connected to the speaker. Protect the connection using the wire nuts that have been provided. (See wiring diagram in Figure 2.)

For PRIVACY & APPLAUSE Series Speakers: Attach the cable to the supplied two pin plug and secure the wires into place by tightening the connector screws. Push the two pin plug into the receptacle on the bridge until it snaps into place. (See wiring diagram in Figure 3.)

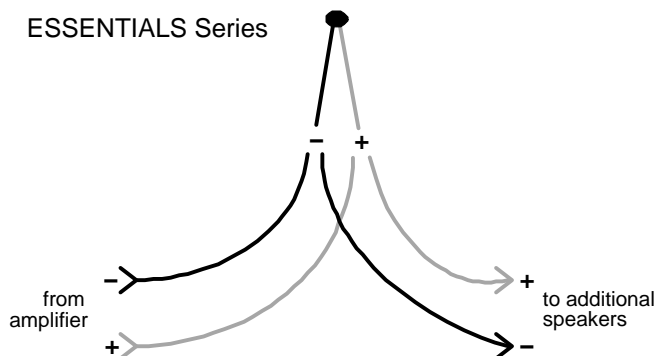


Fig. 2: Wiring Diagram for ESSENTIALS Speakers

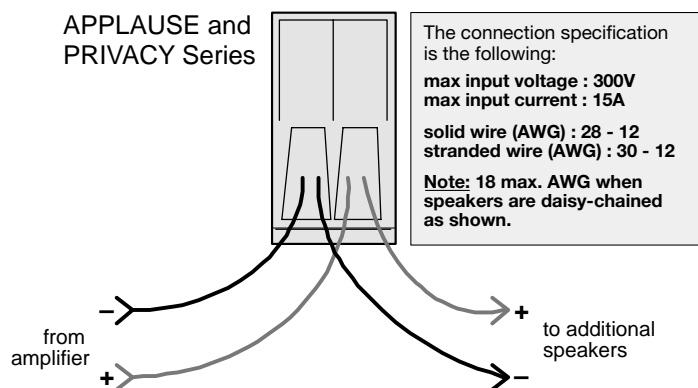


Fig. 3: Wiring Diagram for PRIVACY and APPLAUSE Speakers

3.4 IF CONDUIT IS REQUIRED IN YOUR MUNICIPALITY

Make sure that conduit does not rest on the back of the panel. Conduit resting on the back of the panel can create buzzing or distortion. Allow 8" of wire to extend past the end of the steel conduit. Use appropriate size knockout for conduit attachment. If daisy-chaining speakers, then remove the two appropriate size knockout centers. Join end of conduit to the bridge, making sure the conduit is fully seated and inserted into the connector. Tighten connector.

NOTE: The conduit, plenum cable or speaker wires should NEVER come in contact with the back of the i-ceilings speaker panel as this can cause buzzing or distortion.

3.5 Replace Access Cover

Slide the access cover back over the bridge and fasten with three screws. (Failure to fasten screws tightly may create buzzing). Ensure that the tab on the cover is inserted into the mating hole on the bridge.

3.6 Voltage Selection

Use the transformer switch to match the input voltage specified by the system designer. To do so, you may need to slide the switch from 70v (factory default setting) to 25v or, in some cases, to bypass directly. This switch is located next to the power level selector switch. Both 70 volt and 25 volt settings are available, as well as a bypass to the 8 ohm driver.

NOTE: Do not feed 70v or 25v signal in to the speaker when the 8 ohm bypass mode has been selected. This could permanently damage the speaker.

3.7 Power Level

Adjust the transformer "tap" setting according to the level specified by the system designer. The ESSENTIALS and PRIVACY speakers are set at a factory default 2w tap setting prior to shipping. The APPLAUSE speakers are set at a factory default 7.5w tap setting prior to shipping.

NOTE: When the bypass mode has been selected, do not exceed the maximum power rating of the speaker. The maximum power rating for each speaker is as follows: ESSENTIALS - 8w, PRIVACY - 4w, and APPLAUSE - 30w.

3.8 Input Voltage

The maximum input voltage at the 25v setting is 25Vrms. The maximum input voltage at the 70v setting is 70.7Vrms.

3.9 Frequency Response

The following frequency response data is for the i-ceilings speakers:

Speaker Model	Frequency Response
ESSENTIALS Series, E-5	250 Hz – 6.3 KHz +/- 6 dB
PRIVACY Series, P-25	100 Hz – 8 KHz +/- 6 dB
APPLAUSE Series, A-50	50 Hz – 16 KHz +/- 6 dB