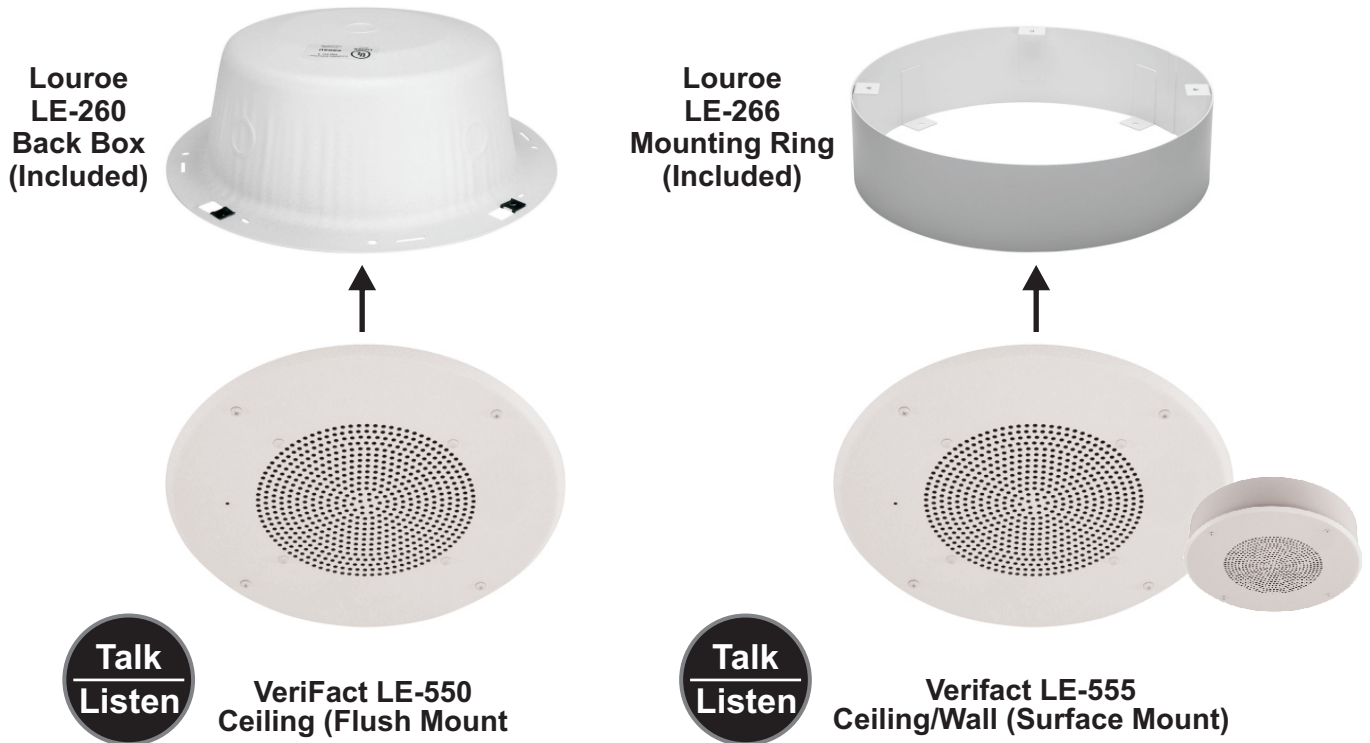


VeriFact LE-550/LE-555

Two-Way (Talk/Listen) Speaker/Microphone with DSP Echo Cancellation

INSTALLATION AND OPERATING INSTRUCTIONS



DESCRIPTION

Louroe Models VeriFact **LE-550/LE-555** are ceiling/wall mount, speaker/mic hardware systems designed to provide 2-way audio (Talkback/Listen) communication that interfaces with various audio/video systems such as.

- NVR's/DVR's
- IP Network Cameras
- PC-MAC Computers
- 2-Way Communication Hardware
- Telecommunication/Intercom Systems

The VeriFact LE-550/LE-555 provides line level audio input and output. It has a class 'D' amplifier that drives the built-in 4" speaker and a omni-directional microphone.

The gain of the microphone is factory fixed. The gain of the audio output to the speaker can be adjusted using the potentiometer on the PCB on the rear of the unit. The adjustment should be done in small increments. To adjust the audio output of the speaker, rotate the potentiometer slowly clockwise to (Increase the Volume) and counterclockwise to (Decrease the Volume) until the desired sound level is attained.

It is recommended to use the device in half duplex mode, however the unit has a built-in echo-cancellation system for when the device is configured for use in full duplex mode, that if the device recognizes that the audio output is beyond a set internal level, the incorporated microphone will be muted till the audio level falls.

PLEASE NOTE! The use of headphones or earphones is strongly recommended on the audio monitoring/receiving system to avoid acoustic feedback, this is essential on monitoring systems that do not have echo-cancellation functionality. Contact Louroe Electronics for further assistance if needed.

LOUORE ELECTRONICS® 6955 VALJEAN AVENUE, VAN NUYS, CA 91406 TEL (818) 994-6498 FAX (818)994-6458
Website: www.louore.com E-Mail: sales@louore.com

INSTALLATION AND OPERATING INSTRUCTIONS

INTERCONNECTION DIAGRAM

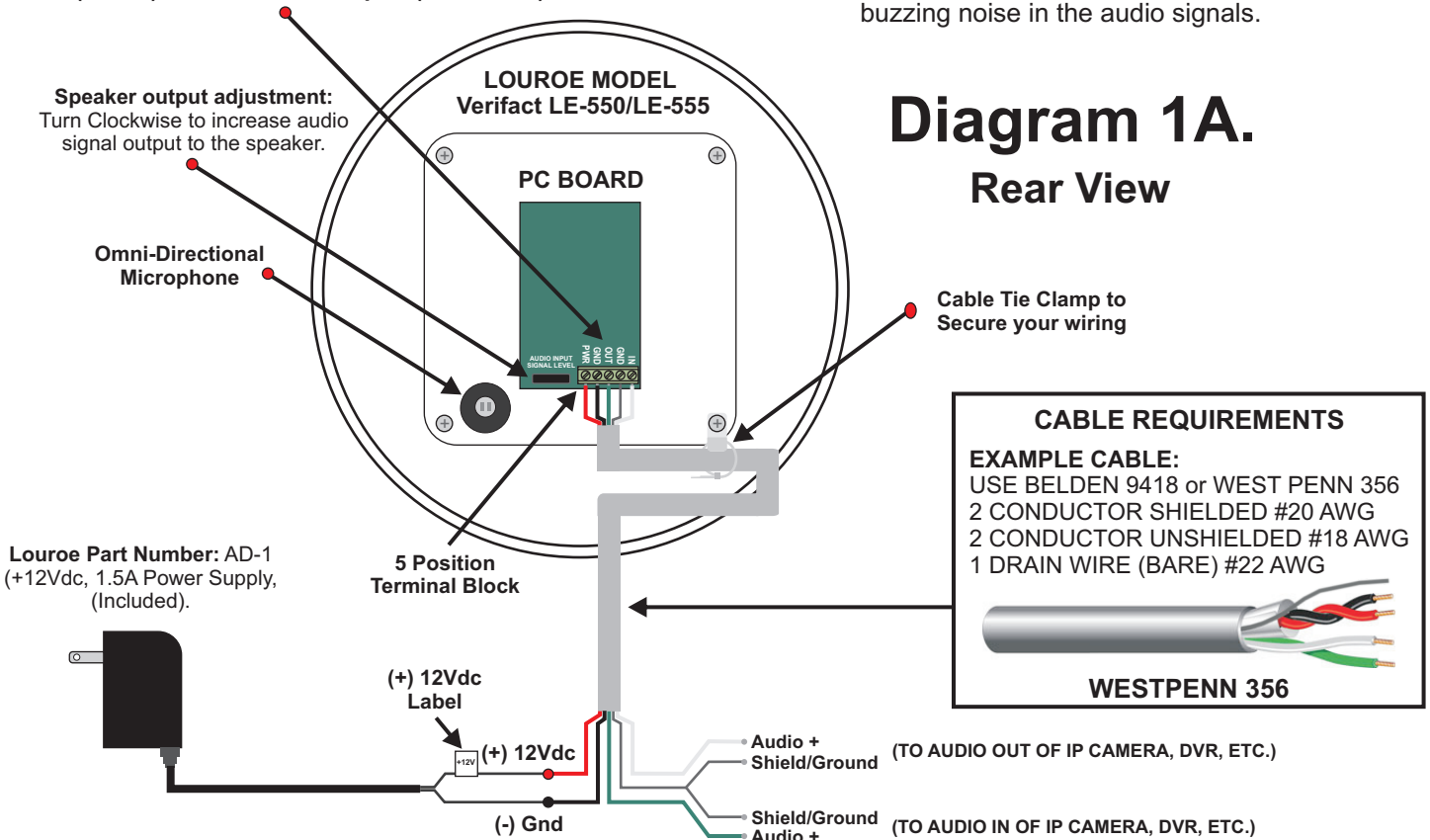
CONNECTING LOUROE™ MODEL VERIFACT LE-550/ LE-555
DIRECTLY TO AN IP CAMERA, NVR/DVR, COMPUTER
VIDEO SERVER, ETC. USING A 5-COND. SHIELDED CABLE

- (Red): PWR = +12Vdc
- (Black): GND= Power Ground
- (Shield): GND = Audio Ground
- (White): IN = Audio Input, (Line Level)
- (Green): OUT = Audio Output, (Line Level)

About Shielded Audio Cable:

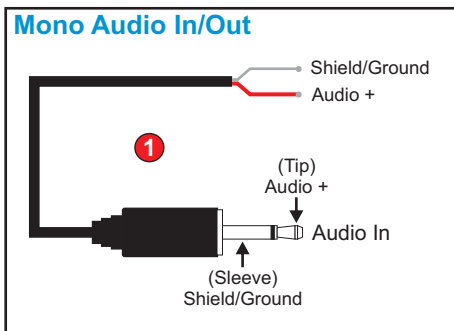
Very Important! Always use shielded audio cable with this product, if you don't you will get AC, RF interference, like a hum or buzzing noise in the audio signals.

Diagram 1A. Rear View

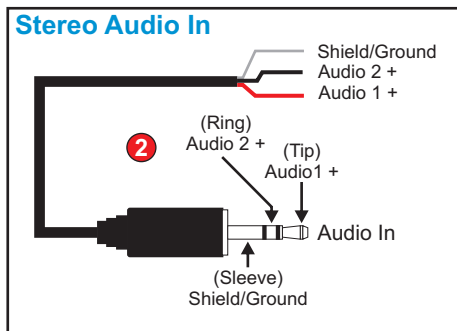


PLEASE NOTE!: BLACK AND BARE SHIELDED DRAIN GROUND WIRES ARE COMMON GROUND

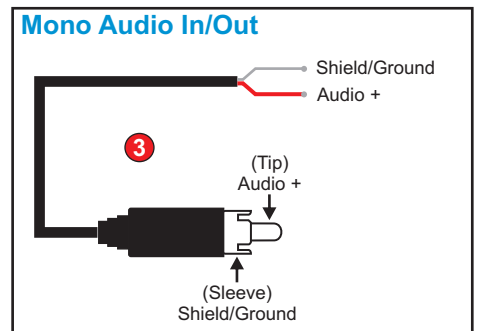
3.5mm SHIELDED MONO AUDIO CABLE CONNECTION



3.5mm SHIELDED STEREO AUDIO CABLE CONNECTION



RCA SHIELDED MONO AUDIO CABLE CONNECTION



INSTALLATION AND OPERATING INSTRUCTIONS

Use the Cable Distance Chart below to calculate voltage drop over cable distances. The LE-550 & LE-555 will operate between 9-12Vdc based on a current draw of 200ma.

Cable Distance Chart

Voltage Drop Per 100 ft., (2 Cond. Cable)

These figures are based on midrange stranded cable -copper quality

Wire Gauge (AWG)	.2 Amp - (Load Current)	1 Amp - (Load Current)	2 Amp - (Load Current)	4 Amp - (Load Current)
18	0.32 VDC Voltage Drop	1.28 VDC Voltage Drop	2.56 VDC Voltage Drop	5.12 VDC Voltage Drop
20	0.51 VDC Voltage Drop	2.04 VDC Voltage Drop	4.08 VDC Voltage Drop	8.16 VDC Voltage Drop
22	0.81 VDC Voltage Drop	3.24 VDC Voltage Drop	6.48 VDC Voltage Drop	12.98 VDC Voltage Drop

(LE-550) Drop Ceiling Installation Steps 1-5

The standard drop ceiling tile size is 23 and 3/4" X 47 and 3/4", the thickness of the ceiling tiles can vary from 3/4" to 1".



Step 1 of 5

A.) Use the ceiling tile that you want to install the LE-555 into. **B.)** From the exposed side of the tile (Front), lay the **Louroe** round 10 inch template (**Included**) on the ceiling tile and determine where you want to cut the hole for the **Louroe ERD-8** baffle backbox. **C.)** Use a black marker to outline the template. **D.)** Cut the hole using a 10 inch hole saw (Available on the web) or use a small jab hand saw available at most hardware stores, see the saw references above (**No. 1, No. 2**). **E.)** Flip the tile over to the back side and align the **Louroe ERD-8** back box baffle, see **Diagram 3A** on **Page 5**, reference holes (**E-F**). **F.)** Push a small screwdriver through both of the holes to the other side, use a black marker to outline the holes. **G.)** Flip the **Louroe ERD-8** baffle backbox around so the outer lip is against the back side of the ceiling tile. **H.)** Align the **Louroe ERD-8** baffle backbox holes (**E, F**) with the 2 small holes you made with the screwdriver. **Goto Step 2.**

Step 2 of 5

A.) Using the 2 x toggle screws-bolts with washers (Included) push the 2 x screws through the front of the ceiling tile and the **Louroe ERD-8** backbox as shown, see **Diagram 3A** on **Page 5**, reference holes (**E, F**), **B.)** Next install and tighten the toggle bolts using a screw driver. Make sure the sound baffle material stays inside. **Goto Step 3.**

Step 3 of 5

A.) Use one of the five (1/2") cable knockouts holes located around the **Louroe ERD-8** baffle backbox and punch out one of the inserts to allow your cabling to pass through, so it can provide wire connectivity to the **Louroe LE-550**, see **Diagram 3A** on **Page 5**. **B.)** Install the ceiling tile back into its location. **C.)** Now pass the power-audio cabling through the 1/2" knock out and the sound baffle material. **Goto Step 4.**

Step 3 of 5

A.) Use 2 pieces Solid or Stranded guide wire and attach it to the Flexible Perforated Steel Mounting Safety Hangers Straps on the **Louroe ERD-8** backbox (**G, H**), see **Diagram 3A** on **Page 5**. **B.)** Attach the other ends of the guide wires to the ceiling above the drop ceiling with screw eyes or other types of fittings making sure the cable is tight between the two ends and the cable ends are secure. **Goto Step 5.**

INSTALLATION AND OPERATING INSTRUCTIONS

Step 4 of 4

A.) Connect the wire to the **Louroe LE-550** following the connectivity **Diagram 1A** on **Page 2**. **B.)** We recommend you test the **Louroe LE-550** before you secure the unit to the Louroe **ERD-8** baffle backbox and afterwards for proper operation. **C.)** Install the **Louroe LE-550** into the **ERD-8** backbox, see **Diagram 3A** on **Page 5**, use four 2", 8 x 32 4 x phillips head screws (**A-D**) Included. The installation is complete.

Johns Manville R-13 Insulation/Sound Baffle Back Box ERD- 8 Material Handling & Product Details

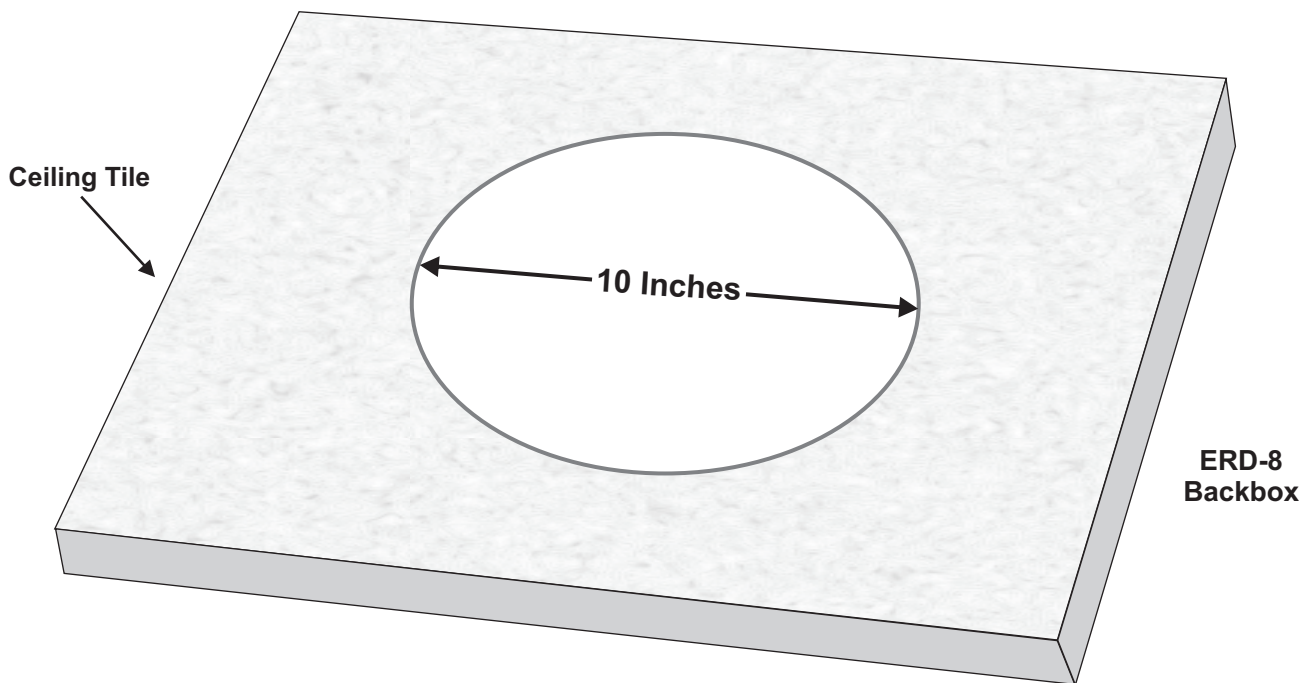
Safety Precautions, Important! Your product may have cotton material or may have R-13 material. It is recommended that if you need to touch or come in contact with the **R-13** insulation/sound baffle material used in the back box hardware that Louroe supplies, that you wear protective gloves. If you have extended periods of interaction with the R-13 insulation/sound baffle material you should also wear a Dust mask, respirator and protective eye goggles.

Manufacturer: Johns-Manville-R-13

About The Product

Johns-Manville Formaldehyde-free™ fiberglass insulation, is ideal for noise control. The insulation is made from bonded glass fibers.

- Formaldehyde-free™ insulation
- Safe product – no health risk
- Reduces unwanted noise and provides sound control

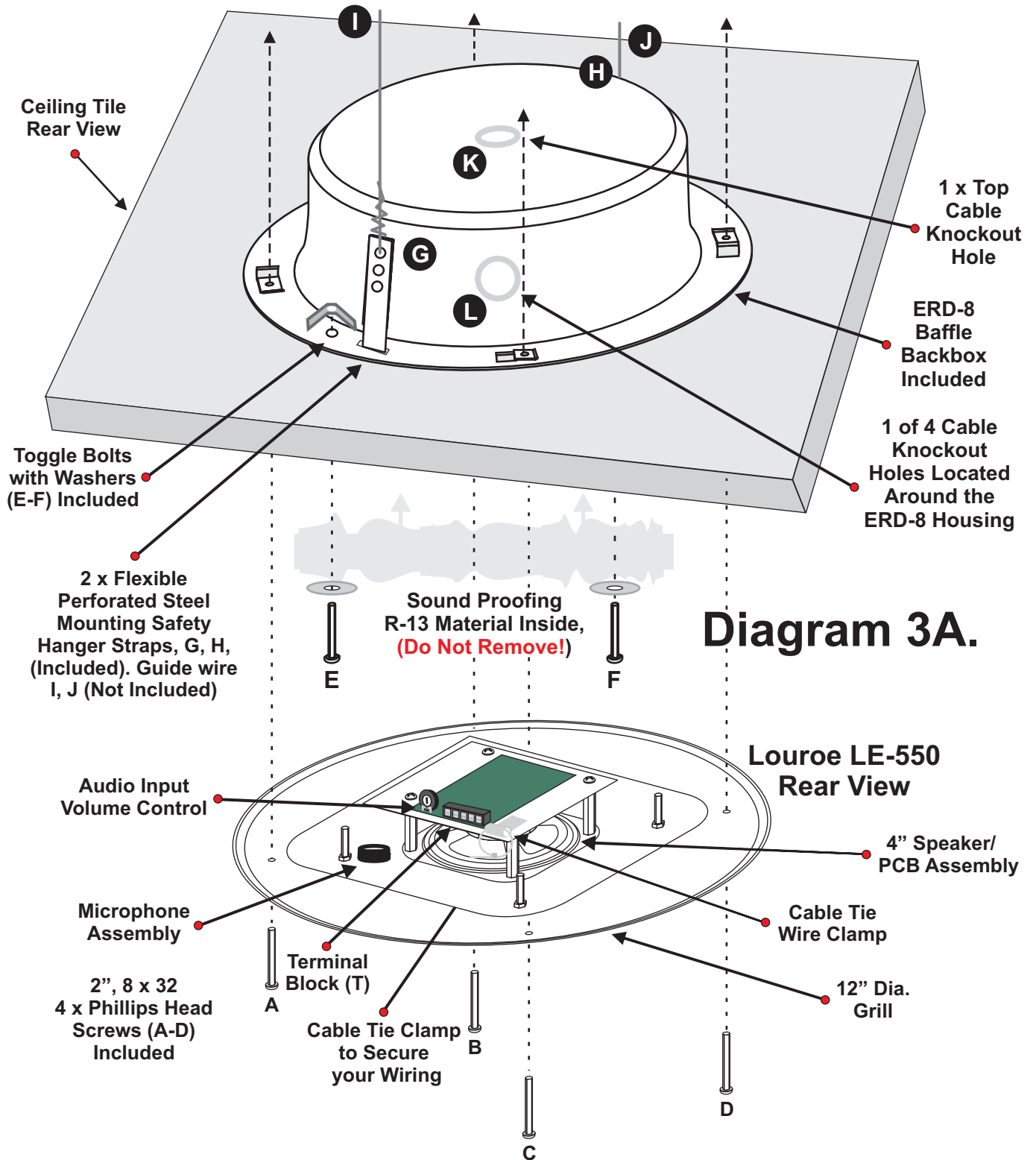


**Front Side
Drop Ceiling Tile Hole Cutout**

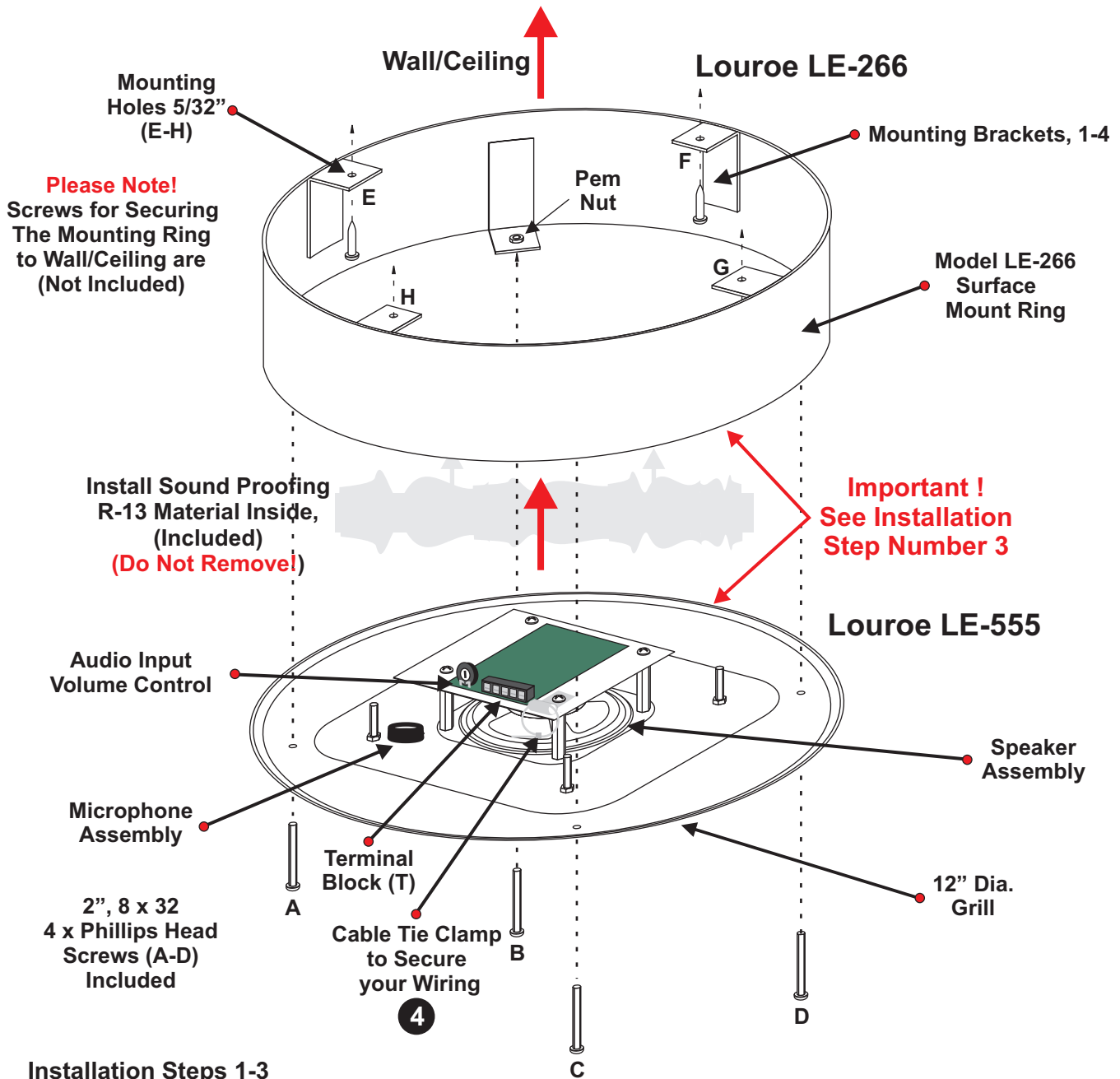
Diagram 2A.

INSTALLATION AND OPERATING INSTRUCTIONS

COMPLETE INSTALLATION ASSEMBLY FOR THE LOUROE CEILING FLUSH-MOUNT MODEL LE-550 SPEAKER/MICROPHONE & ERD-8 BAFFLE BACKBOX HOUSING

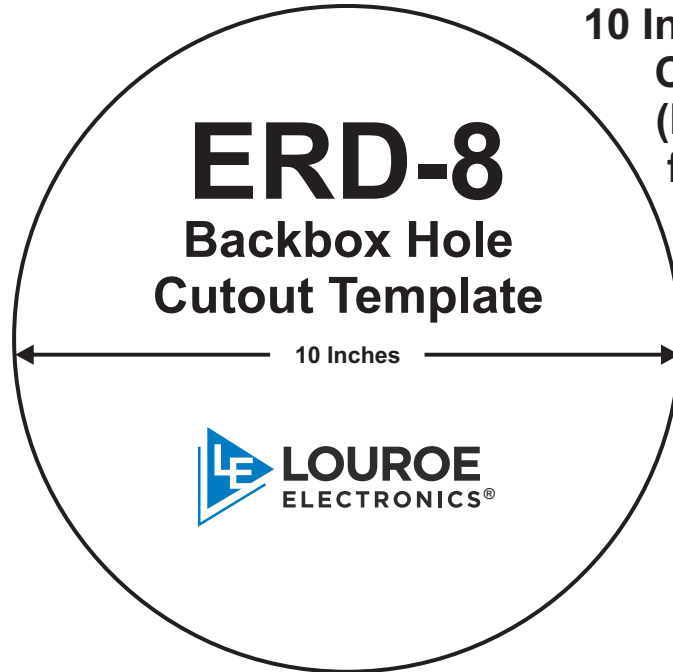


**LOUROE MODEL LE-555 SPEAKER/MICROPHONE
WALL/CEILING SURFACEMOUNT ASSEMBLY**

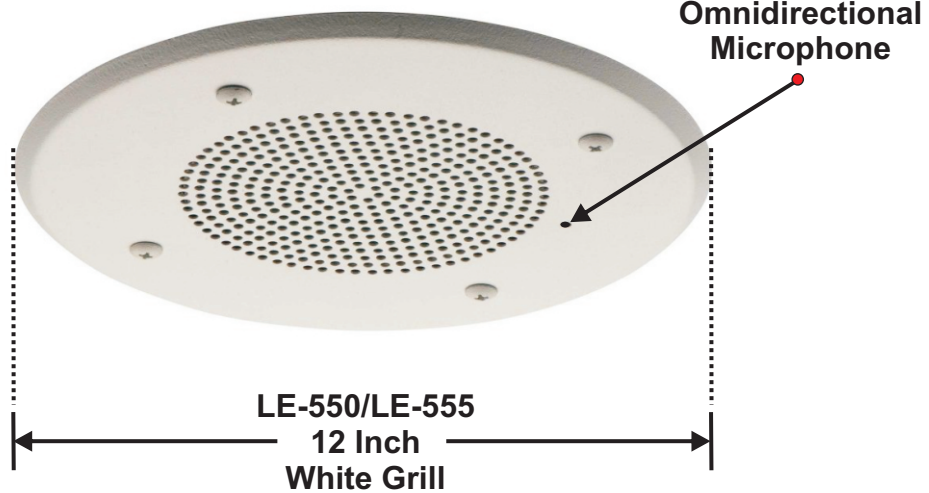


Installation Steps 1-3

- Install the LE-266 Mounting Ring to the wall or ceiling, using the screws (E-H). Make sure the cabling is accessible to connect to the LE-555 terminal block (T).
- Connect the Power + Audio wiring to the LE-555 (5) position terminal block, securing it using the Cable Tie Clamp Reference (4).
- Mount the LE-555 to the the LE-266 Mounting Ring with screws A-D. Install one screw at a time, thread it in only 3-4 turns only until all screws are attached first. Now slowly tighten each screw clockwise until all screws are tight and the LE-555 is secured to the LE-266 Mounting Ring.



10 Inch ERD-8 Backbox
Cutout Template
(Included), Used
for LE-550 only



Included 2 x 20 ft. Shielded Audio
Cables. One Side Striped & Tinned.
One Side with 3.5mm Stereo Male
Plugs. Provides Simple Connectivity
to CCTV Camera's and
Base Stations, (Audio In/Out).



INSTALLATION AND OPERATING INSTRUCTIONS

SPECIFICATIONS (Microphone)

■ Microphone Element:	Electret Condenser
■ Microphone Element Sensitivity:	-45 dB
■ Frequency Response:	40 Hz - 15 kHz
■ Audio Output Line Level	(0 dBV, 600W @ 1kHz)

SPECIFICATIONS (Speaker/Amplifier)

■ Speaker Power Output:	1W
■ Speaker Impedance:	8 Ohms
■ Speaker Magnet:	Neodymium
■ Speaker size:	2"
■ Amplifier:	Class 'D'
■ Audio Input:	Line Level, 10K
■ Current Draw:	200mA
■ Supply Voltage:	12Vdc
■ Dimensions:	6.5" H x 4.8" W x 1.9" D
■ Weight:	1lb 7 oz
■ Shipping Weight:	3 lbs
■ Speaker Grill Color:	White

CEILING MOUNT BACKBOX

■ Over all Width Size:	12.25" Round with lip
■ Cutout Hole Width Size:	10.0" Round
■ Cutout Hole Depth Size:	4.0"

IN THE BOX

1 x VeriFact® LE-550, 1 x ADI-1 12Vdc Power Supply, 1 x ERD-8 Stainless Steel Ceiling Mount Backbox with 2 x Toggle Bolts, LE-550 4 x Mounting Screws, 1 x 10" back box cutout template, 2 x 20 ft. Audio Cables, 1 x Audio Monitoring Notice Sticker. LE-555, 1 x LE-266 surface mount ring, 2 x 20 ft. Audio Cables, 1 x bag of R13 Insulation or equivalent material.

IMPORTANT NOTICE

When this equipment is used as part of an audio monitoring system, the law requires that the public be given notice of AUDIO MONITORING ON THE PREMISES. A decal notice is included with each LE-550/LE-555 shipped.



Federal Law References:
Federal Regulations, US Code, Title 18. Crime and Criminal Procedure, Sec 2510.



Made in USA

WARRANTY

LOUROE ELECTRONICS warrants that at the time of shipment products manufactured by LOUROE ELECTRONICS to be free of defects in material and workmanship. Should a defect appear within five years (60 months) from date of shipment, LOUROE ELECTRONICS will, at its sole discretion, repair or replace the defective equipment. This equipment shall not be accepted for repair or return without prior notification by LOUROE ELECTRONICS.

This warranty does not extend to any Louroe product that has been subjected to improper or incorrect installation, misuse, accident, or in violation of installation instructions provided by LOUROE ELECTRONICS.

Returned shipments to LOUROE ELECTRONICS shall be at customer's expense. LOUROE ELECTRONICS will return the equipment prepaid via best way.

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