



LOUROE
ELECTRONICS®

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AOP-SP-CF/AOP-SP-CS

SPEAKERPHONE

INSTALLATION AND OPERATING INSTRUCTIONS



AOP-SP-CF
Ceiling Mount (Flush)



AOP-SP-CS
Ceiling Mount (Surface)

DESCRIPTION

Louroe Model AOP-SP-CF/CS is a ceiling mount speakerphone designed to provide 2-way audio (listen/talkback) with various modes of audio/video transmission systems such as:

- DVR's
- IP Network Cameras
- PC Soundcards
- Video Servers

The AOP-SP-CF/CS provides line level audio input and output. It has amplifier that drives the built-in 4" speaker. Also includes a 12 Vdc, 500mA power supply.

OPERATIONS

The gain of the microphone and speaker are factory adjusted. If it is necessary to change the gain of either or both the audio output of the microphone and speaker of the unit, it has to be done in small increments. For adjusting the gain of the microphone, rotate clockwise to increase or counterclockwise to decrease, the potentiometer marked "MIC" slowly until the desired level is attained. Somebody at the head-end has to listen to it while the adjustments are made. If the microphone's gain is too high, it will attenuate the audio output of the speaker. The output of the speaker will then be cutting off as you talk. If this happens, rotate the potentiometer marked "MIC" slowly counterclockwise to decrease the gain of the microphone until the talkback sound at the speaker no longer cuts off.

To adjust the audio output of the speaker, rotate the "SPKR" potentiometer clockwise (increase) or counterclockwise (decrease) slowly until the desired loudness is attained. If the audio from the microphone becomes attenuated, rotate the "SPKR" potentiometer counterclockwise a small increment at a time until the microphone audio becomes louder again.

This unit has a built-in muting system that if the microphone's adjustment (MIC) is too high it is going to mute the speaker. Also if the speaker's adjustment (SPKR) is too high, it's going to mute the microphone.

WIRING CONNECTION TO SPEAKER AND MICROPHONE OF AOP-SP CF/CS

WIRING REQUIREMENTS

3 Conductor consisting of:

- 2 Conductor **shielded**, 20 gauge with 22 gauge drain
- 1 Conductor **unshielded**, 20 gauge
All in the same jacket

West Penn 358 or equivalent



WIRING CONNECTION TO AOP-SP (CF OR CS Models)

See connections on the next page

Located on the bottom right side of PC board is a 4-pin terminal block marked A, B, C, SP

- A = 12Vdc power
- B = Audio output
- C = Ground (bare wire)
- SP = Speaker Connection

Bring one end of recommended cable and connect as follows:

- 1) Connect RED wire to terminal marked "B"
- 2) Connect BLACK wire to terminal marked "C" (together with bare wire)
- 3) Connect BARE wire to terminal marked "C"
- 4) Connect WHITE wire to terminal marked "SP"
- 5) No connection on terminal "A"

WIRING CONNECTION TO IP CAMERA OR DVR

Bring the other end of the cable to connector that matches the audio input and outputs of the receiving devices

- 1) RED (positive audio) and BARE (ground) are soldered to the audio connector (RCA, 3.5mm Mono or Stereo plugs). This connector goes to the Audio input of the receiving device (IP Camera, DVR, etc)
- 2) WHITE (positive audio) and BLACK (ground) are soldered to the another audio connector (RCA, 3.5mm Mono or Stereo plugs). This connector goes to the Audio output of the receiving device (IP Camera, DVR, etc).

POWER CONNECTION

The unit has a 2-pin terminal block for power connections marked 12Vdc

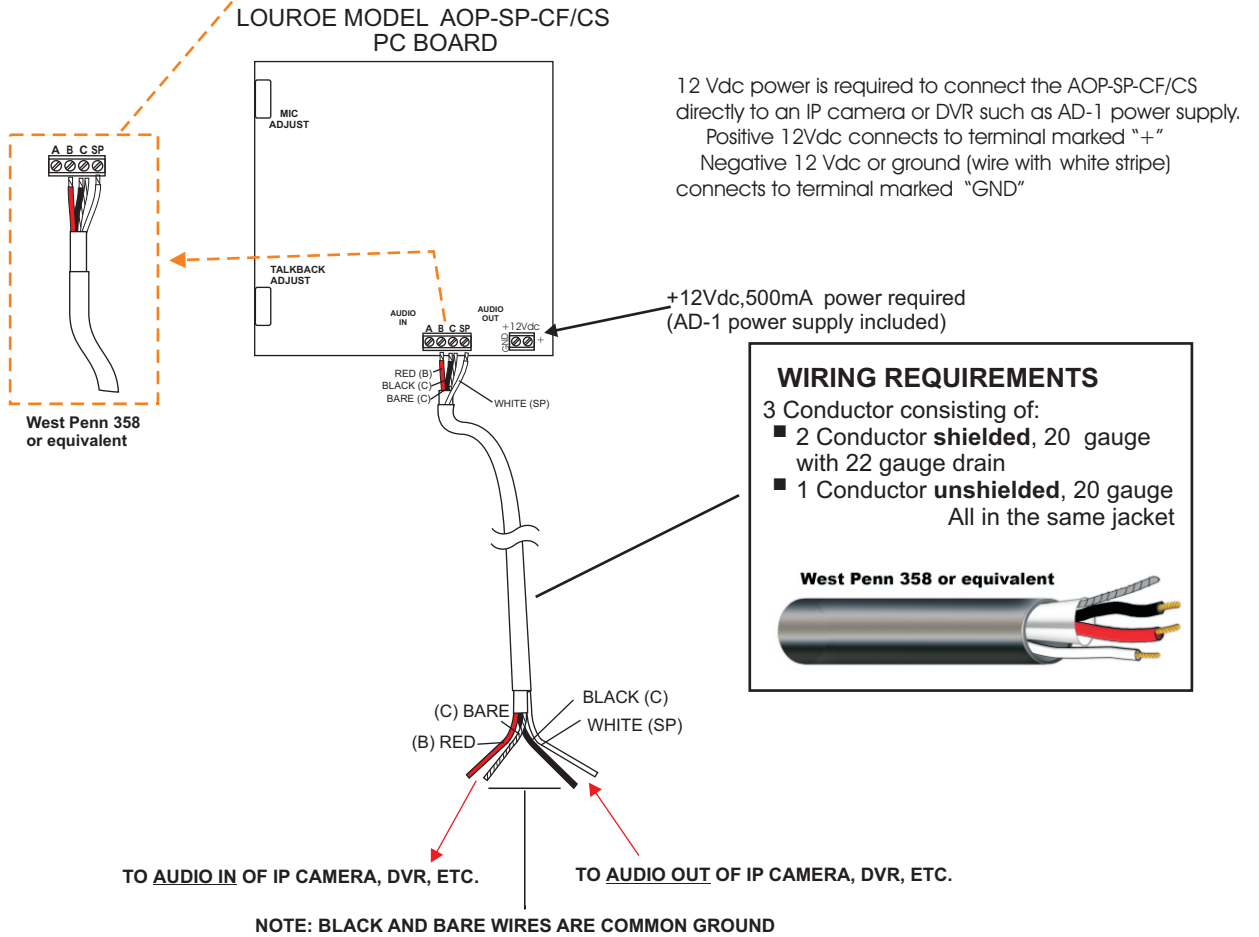
- 1) Connect the positive 12Vdc of the power supply (AD-1) to the terminal marked +
- 2) Connect the negative or ground of the power supply to terminal marked GRD

INSTALLATION AND OPERATING INSTRUCTIONS

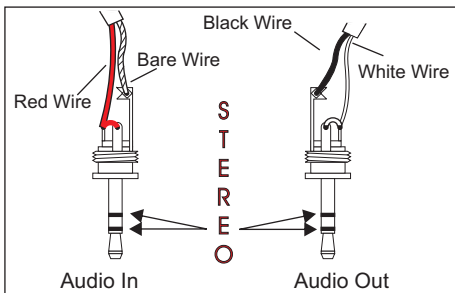
INTERCONNECTION DIAGRAM CONNECTING LOUROE MODEL AOP-SP-CF/CS DIRECTLY TO AN IP CAMERA, DVR, VIDEO SERVER, ETC. USING 3-COND. SHIELDED CABLE

4-PIN TERMINAL BLOCK IDENTIFIER OF AOP-SP-CF/CS (A,B,C,SP)

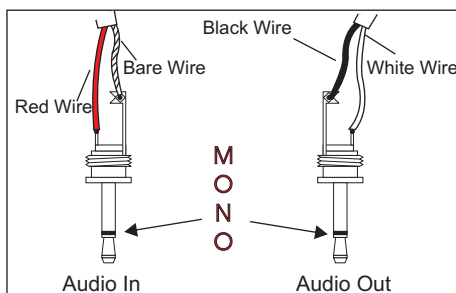
- A = not used with this application
- (red) B = Audio Output
- () C = Ground (audio) and Ground (speaker) (black wire)
- () SP = Speaker output



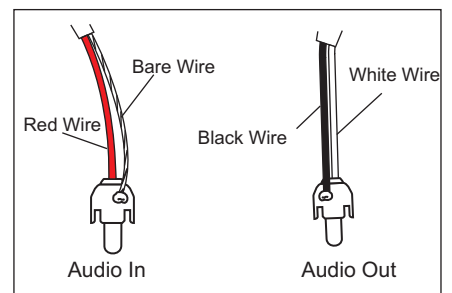
3.5mm STEREO CONNECTION



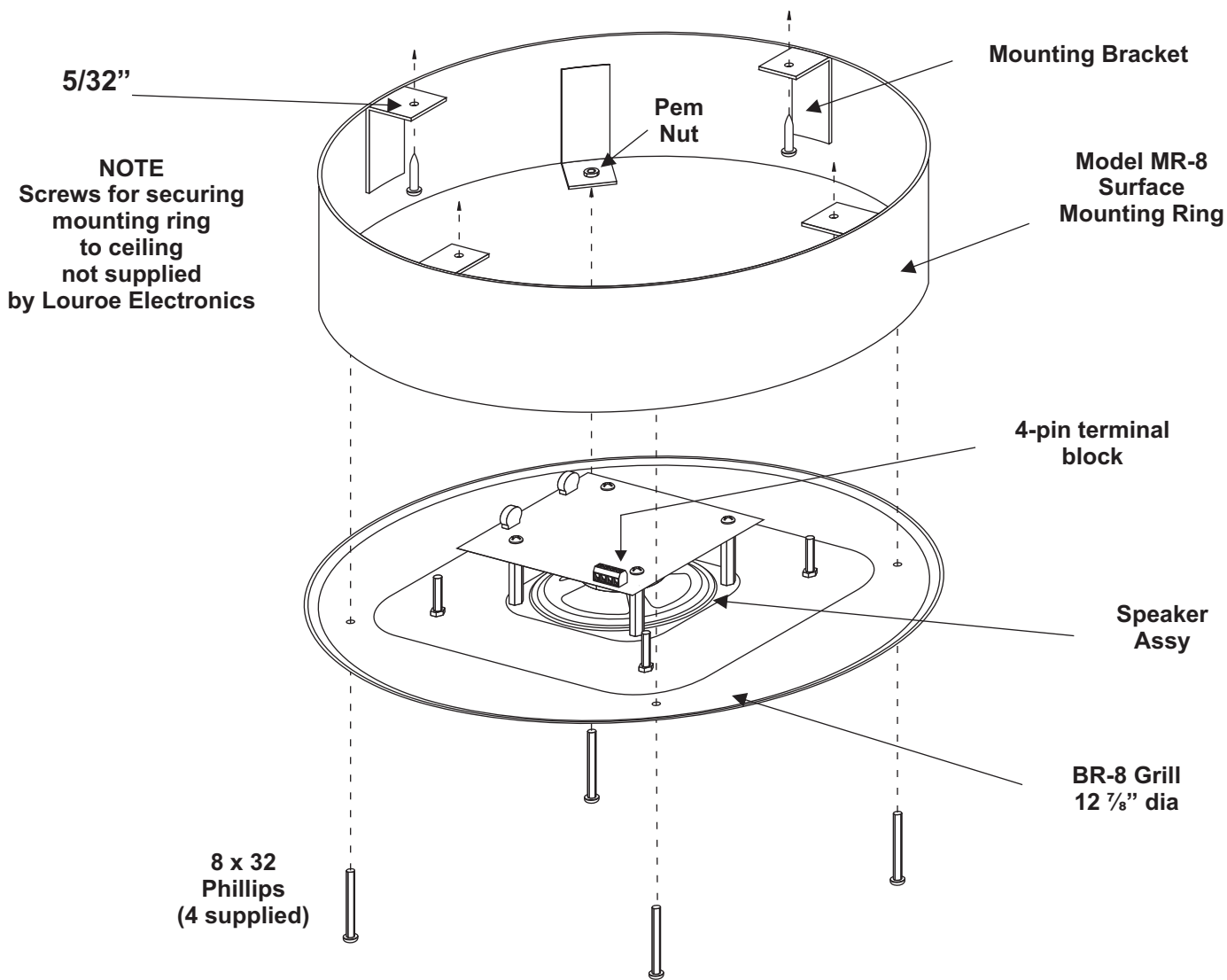
3.5mm MONO CONNECTION



RCA CONNECTION



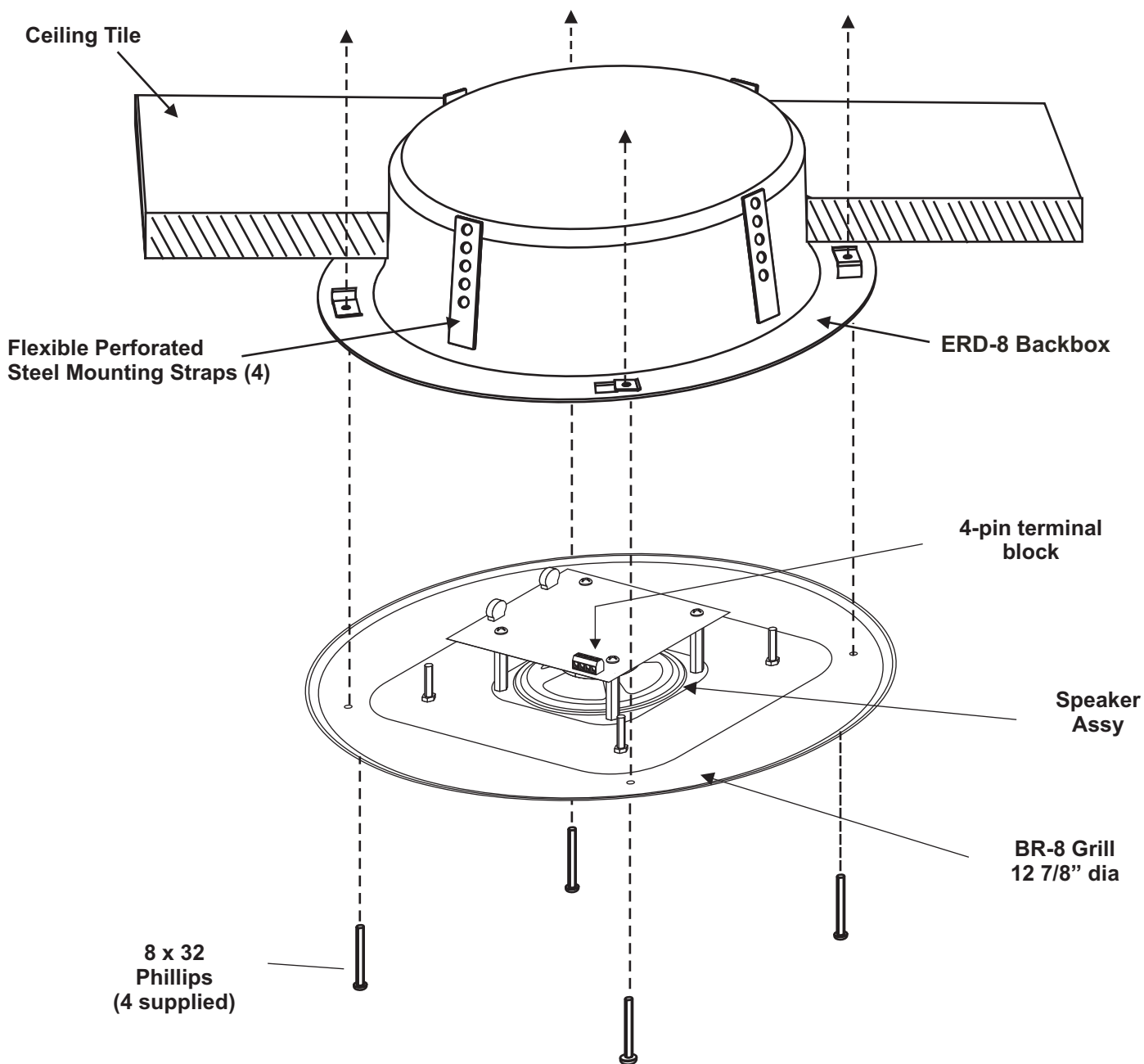
**MOUNTING ASSEMBLY
FOR
LOUROE MODEL AOP-SP-CS SPEAKERPHONE
CEILING MOUNT - SURFACE**



Installation Steps

- ❶ First make electrical connections to speakerphone 4-pin terminal block
- ❷ Install mounting ring to ceiling
- ❸ Mount grill to mounting ring

**MOUNTING ASSEMBLY
FOR
LOUROE MODEL AOP-SP-CF SPEAKERPHONE
CEILING MOUNT - FLUSH**



INSTALLATION AND OPERATING INSTRUCTIONS

SPECIFICATIONS (Microphone)

■ Type	Electret Condenser
■ Audio output	Line level (0 dB @ 600Ω) unbalanced
■ Microphone element sensitivity	-45 dB
■ Frequency response	40 Hz - 15 kHz
■ Audio Input Impedance	600Ω

SPECIFICATIONS (Speaker)

■ Speaker power output	1W
■ Speaker impedance	8Ω
■ Speaker magnet	1.73 oz ceramic
■ Speaker size	4" (102mm)
■ Current Drain	200mA
■ Supply Voltage	12Vdc

SPECIFICATIONS (Mechanical)

■ AOP-SP - CF/CS (grill)	12 7/8"
■ ERD-8 (Backbox for AOP-SP-CF)	12 1/4" Dia x 4" D
■ MR-8 (Mounting ring for AOP-SP-CS)	12 3/8" Dia x 3" D
■ Weight (AOP-SP-CS)	2 Lbs 12 oz
■ Weight (AOP-SP-CF)	2 Lbs 12 oz
■ Weight, (AOP-SP-CS) with MR-8	5 Lbs (2.3 Kg)
■ AOP-SP-CF Shipping Weight	7 lbs
■ AOP-SP-CS Shipping Weight	7 lbs

INSTALLATION AND OPERATING INSTRUCTIONS

NOTES

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 microphone shipped.



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

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 one year (12 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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