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ASK-4® #350

AUDIO MONITORING SYSTEM

INSTALLATION AND OPERATING INSTRUCTIONS

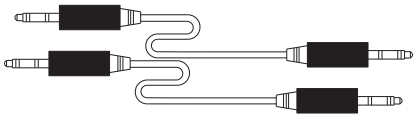
Ask-4® #350 is a single zone audio monitoring system for direct connection to an PoE complaint IP camera or Video Server. This kit comes with a UL listed IF-PX which is a POE inline interface and a Verifact A Microphone. The IF-PX extracts power from an Ethernet line to supply power to remote microphones, Speaker/Microphones or other 12V devices. It has a terminal block to connect to the microphones (one-way audio) and speaker/microphones (two-way audio). The 3.5mm stereo audio output and input jacks are for direct connection to the audio inputs and outputs of an IP Camera. This unit also offers volume control for the audio output.
Supports both Mode A and Mode B power options of IEEE802.3af

The Verifact™ A is an omni-directional, low impedance, electret condenser microphone with built-in preamp for producing line level audio. It is housed in a high impact ABS dome designed for ceiling or wall mounting. Normal pick-up pattern is approximately 15' from the microphone location, all direction or within 30' diameter circle

FIG. 1

IF-PX

VERIFACT A MICROPHONE



3.5mm STEREO PATCH CABLE

Contents	Description
IF-PX	UL PoE in-line Interface Used to extract power from an Ethernet connection to power Louroe microphones, speaker/ microphones and external devices that require a 12Vdc supply.
Verifact™ A Microphone	Line Level, Electret condenser microphone with preamp. Picks up normal sounds within 30' circle. May be located Up to 1000' from IF-PX.
Patch Cable	Single Cable with 3.5mm Stereo Plugs on each end Used for connecting the IF-PX to the Audio Input of an IP camera or encoder

WIRING REQUIREMENTS

Between IF-PX & Louroe Verifact Microphone:
2 Conductor shielded cable, 22 gauge with a 24 gauge drain wire.

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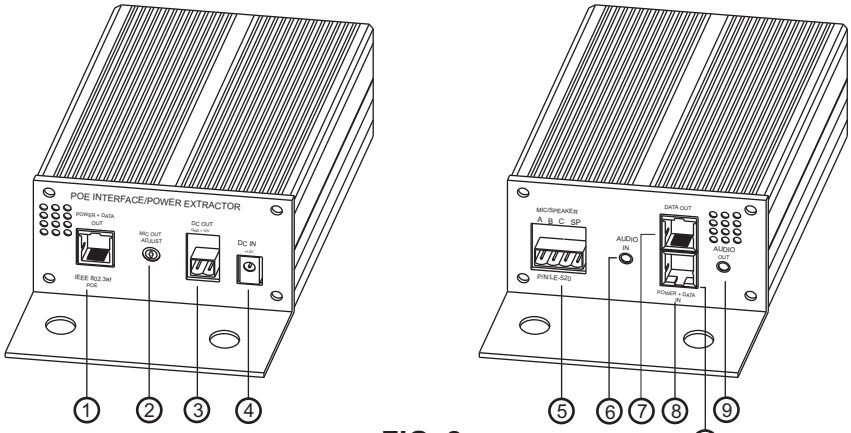
FIG. 2



REAR PANEL

FIG. 2

FRONT PANEL

ILLUSTRATED PARTS

①	Power+Data Output Jack	Connects to PoE IP Cameras and/or Encoder
②	MIC Out Adjust	Adjust the audio output gain of the microphone
③	DC Out Terminal Block	Provides +12Vdc voltage to power external equipment such as Non-PoE cameras, encoders, relays, etc.
④	DC IN Power Jack	Receives 12Vdc power from external power supply (not supplied)
⑤	Mic/Speaker Audio Terminal Block	Receives wiring from Louroe Verifact Microphone and/or AOP-SP series
⑥	Audio Input Jack	Receives audio from IP Camera, Encoder, etc. and connects to audio output for talkback operation
⑦	Data Out Only Jack	Connects to data input of Non-PoE IP Cameras, and Encoders.
⑧	Power+Data Input Jack	Connects to PoE (802.3af) Switch or PoE (802.3af) Midspan
⑨	Audio Output Jack	Connects to audio input of IP cameras, Encoder, etc. Provides audio to IP Cameras, Encoder, etc.
⑩	Power Indicator	Lights Green indicating power is present to the unit

CAUTION

1. **Do not connect non-PoE complaint devices to Power+Data Output Jack① . Failure to do so may damage the powered equipment.**
2. **Do not connect wiring from external microphone to the Mic/Speaker Audio Terminal Block⑤ until all the ethernet cables (RJ45) are connected and power is present to the camera. Failure to do so in sequence, the camera may not receive power.**

NOTES

Plan ahead where to install before making any connections.The IF-PX is designed to operate within 6' of the camera so the audio cables supplied can be connected between the IF-PX and camera. The maximum distance between the IP camera and PSE is 100m or 328'.

CONNECTIONS AND OPERATIONS

CONNECTING PoE SWITCH TO PoE IP CAMERA OR ENCODER (See Fig. 3)

1. Connect Ethernet cable from PSE (Power Source Equipment) to the Power+Data Input Jack⑧ of the IF-PX.

2. Connect Ethernet cable from camera to Power+Data Output Jack① of the IF-PX. Camera should now have power and data running through it. Power Indicator⑩ lights up.

3. **Microphone Connection (one-way listen):**
   a) Connect a 2 cond. shielded cable to the terminal block of Louroe's Verifact microphone. Connect the other end to the pluggable header (Mic/Speaker Audio Terminal Block⑤) of the IF-PX. Connect terminal A of microphone to terminal A of IF-PX; terminal B of microphone to terminal B of IF-PX; terminal C of microphone to terminal C of IF-PX. Terminal SP of IF-PX is not used when connecting microphone only (one-way listen).
   b) Using the patch cable (stereo plug to stereo plug), connect the Audio Output Jack⑨ of the IF-PX to the audio input of the camera.
   c) Adjust the Mic Out Adjust② potentiometer (as needed) by rotating it clockwise to increase the microphone output to the camera, or counterclockwise to decrease. This potentiometer is factory set for a gain of 0dB output. See interconnection diagram(Fig 3) on page 5.

4. **Setup camera for video and audio monitoring.** Use an amplified speaker on the computer to test the audio coming from the microphone. See camera user manual for setting up the camera to the network.

The IF-PX can power most IP cameras and Encoders, check that the power requirements of the equipment does not go beyond the IF-PX power output. See IF-PX power output below.
Power output of IF-PX:
12Vdc, 850mA with a Louroe microphone connected

CONNECTING PoE SWITCH TO NON-PoE IP CAMERA OR ENCODER (See Fig 4)

1. Connect Ethernet cable from PSE (Power Source Equipment) to the Power+Data Input Jack⑧ of the IF-PX.

2. Connect Ethernet cable from Non-PoE Encoder or camera to Data Out Only Jack⑦ of the IF-PX.

3. Connect 2 wires to the DC Out Terminal Block③. At least 20 AWG wires should be used between the IF-PX and the encoder or camera. Positive 12Vdc connects to terminal marked "+12Vdc" of IF-PX. Negative 12Vdc or ground connects to terminal marked "GND" of IF-PX. Connect the other end of the 2 wires to the power jack or terminal block of the encoder or camera. If the encoder or camera has a 2.1mm power jack, an adapter (2-pin terminal block to 2.1mm male plug) can be used. Connect the wires to the 2-pin terminal block (**observe polarity**) of the adapter. Plug the adapter to the 2.1mm power jack of the encoder or camera.

4. Repeat same procedure when connecting Louroe Verifact microphone to camera or encoder (steps 3 and 4 of - **Microphone Connections**).

CONNECTING NON-PoE SWITCH TO NON-PoE CAMERA OR ENCODER (See Fig. 5)

1. Connect Ethernet cable from Non-PoE Switch to the Power+Data Input Jack⑧ of the IF-PX.

2. Connect Ethernet cable from a Non-PoE Encoder or Camera to Data Out Only Jack⑦ of the IF-PX.

3. Connect DC Out Terminal Block③ to the power input jack of the encoder or camera. This Terminal block supplies 12Vdc power to the camera or encoder. It can also provide power to other external equipment such relays, etc. that require a 12Vdc power. Connect 2 wires to the DC Out Terminal Block ③. At least 20 AWG wires can be use between the IF-PX and the encoder or camera. Positive 12Vdc connects to terminal marked "+12Vdc" of IF-PX. Negative 12Vdc or ground connects to terminal marked "GND"of IF-PX. Connect the other end of the 2 wires to the power jack or terminal block of the encoder or camera. If the encoder or camera has a 2.1mm power jack, an adapter (2-pin terminal block to 2.1mm male plug) can be used. Connect the wires to the 2-pin terminal block (**observe polarity**) of the adapter. Plug the adapter to the 2.1mm power jack of the encoder or camera.

4. Connect an external power supply (not included) to the DC In Jack④ to power the IF-PX and the encoder or camera. We recommend using a 12Vdc, 2A power supply.

5. Repeat same procedure when connecting Louroe Verifact microphone (steps 3 and 4 of **Microphone Connections**).

SPECIFICATIONS: IF-PX (UL Listed)

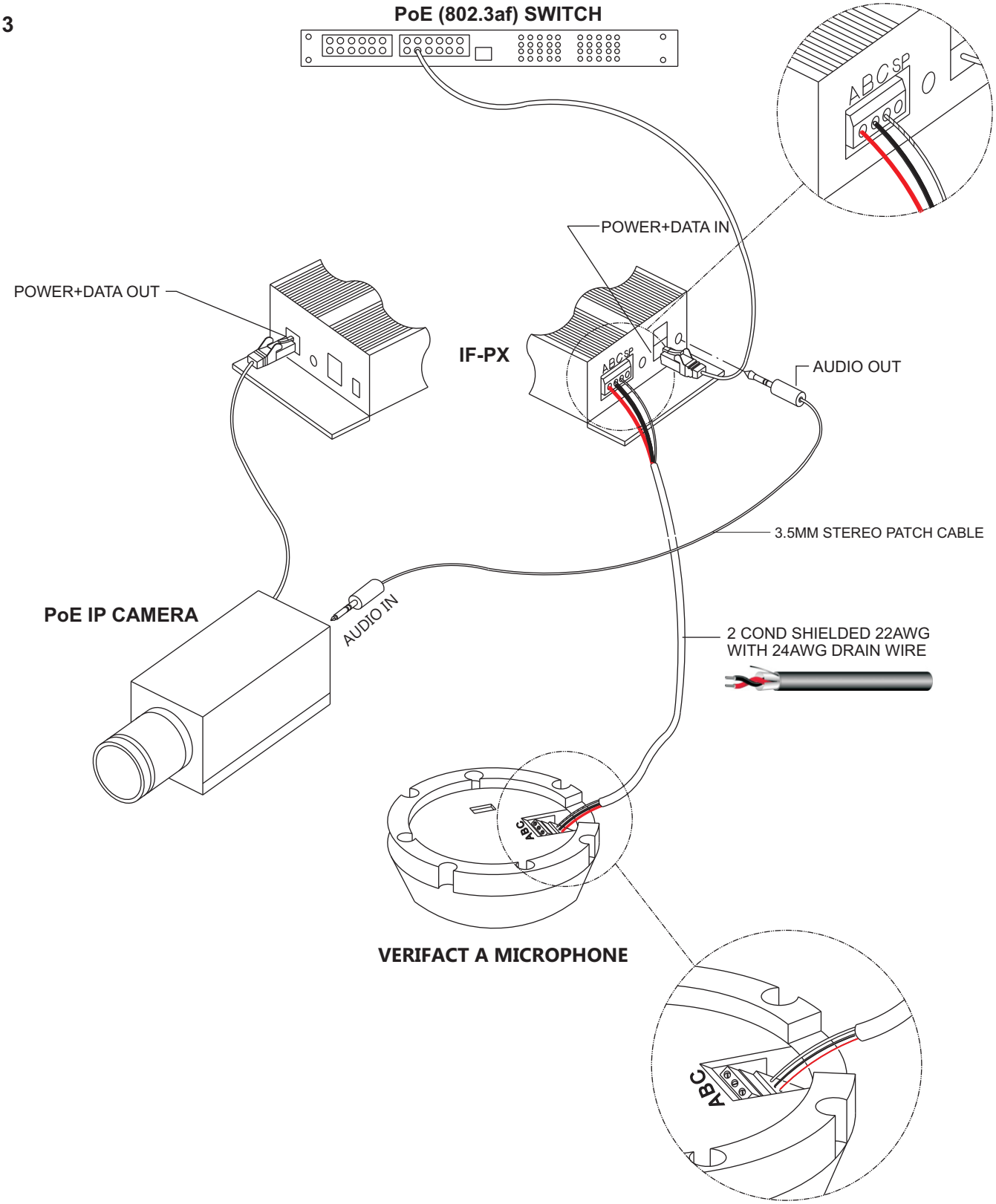
▪ Ethernet Connectors	RJ45 CAT 5 Input and Output Jacks
▪ Voltage Input	36V - 57V
▪ DC Output	12Vdc, 800mA
▪ Optional Power Supply	12Vdc, 2A, Ext. Power Supply (Not Supplied)
▪ Operating Temperature	-20°C to +65°C
▪ Connectors	RJ-45, DC Jack, Terminal Block for Microphone/Speaker 3.5mm Stereo Jacks for Audio IN/OUT
▪ Audio Output/Input	Line level
▪ Audio Output Gain	up to +15dB
▪ Material	Black Anodized Al 14 Ga
▪ Dimensions	6"L x 3 1/2"W x 2 1/8"H
▪ Weight	13oz.

SPECIFICATIONS: VERIFACT™ A MICROPHONE

▪ Sensitivity (microphone & preamp)		80 dB SPL input provides 0.254V rms
▪ Frequency response		40 Hz to 15 kHz ± 1 dB
▪ Output		Line Level (0 dB @ 1000⌖)
▪ Current drain		4 mA
▪ Supply voltage		12 Vdc
▪ Microphone housing		High impact ABS
▪ Dimensions	US	4" dia x 1 ½" H
	metric	(10cm dia x 3.8cm H)
▪ Weight		0.5 Lb (0.2 Kg)

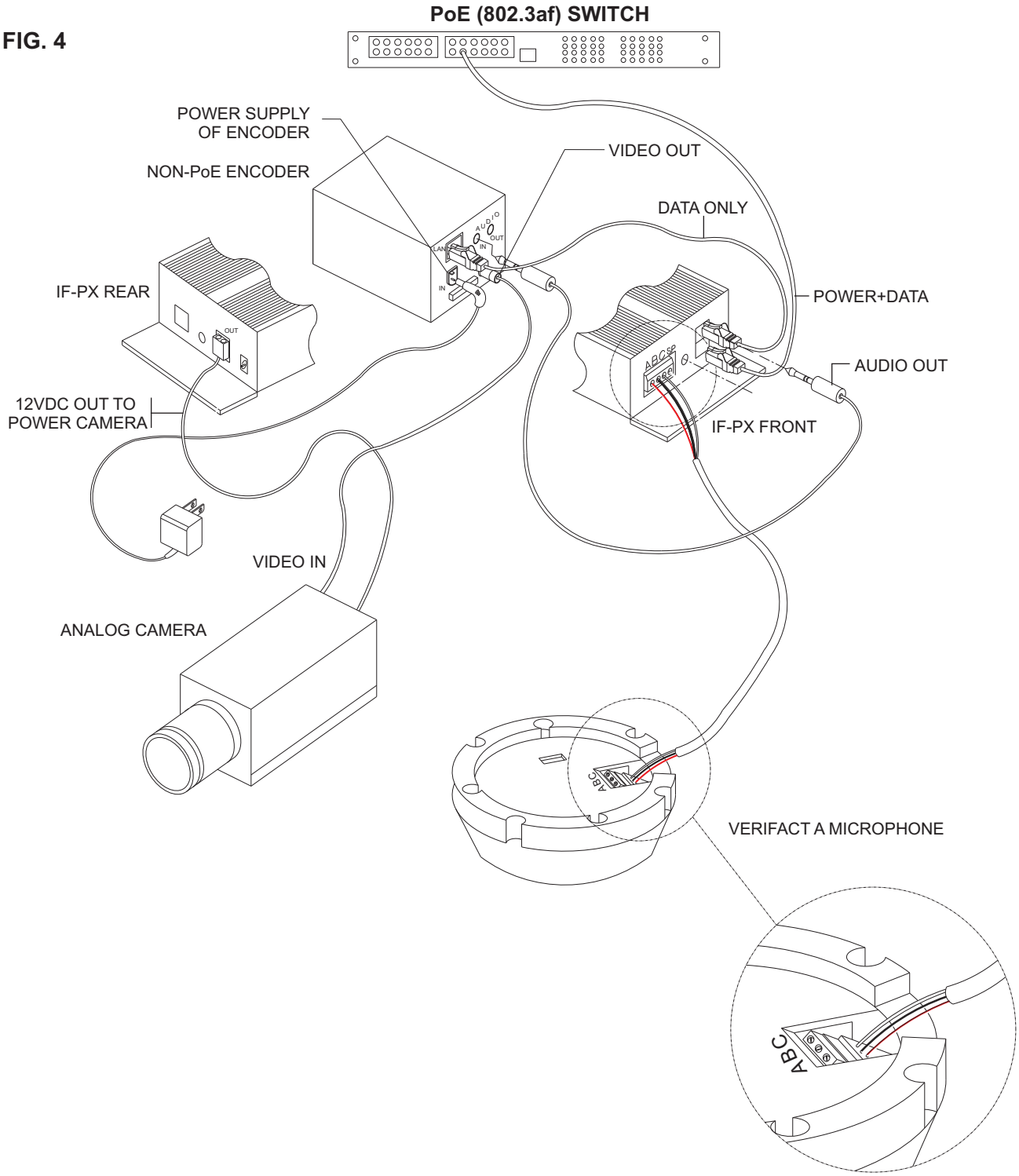
INTERCONNECTION DIAGRAM BETWEEN A PoE SWITCH, IF-PX, IP CAMERA AND VERIFACT A MICROPHONE FOR ADDING ONE-WAY AUDIO

FIG. 3



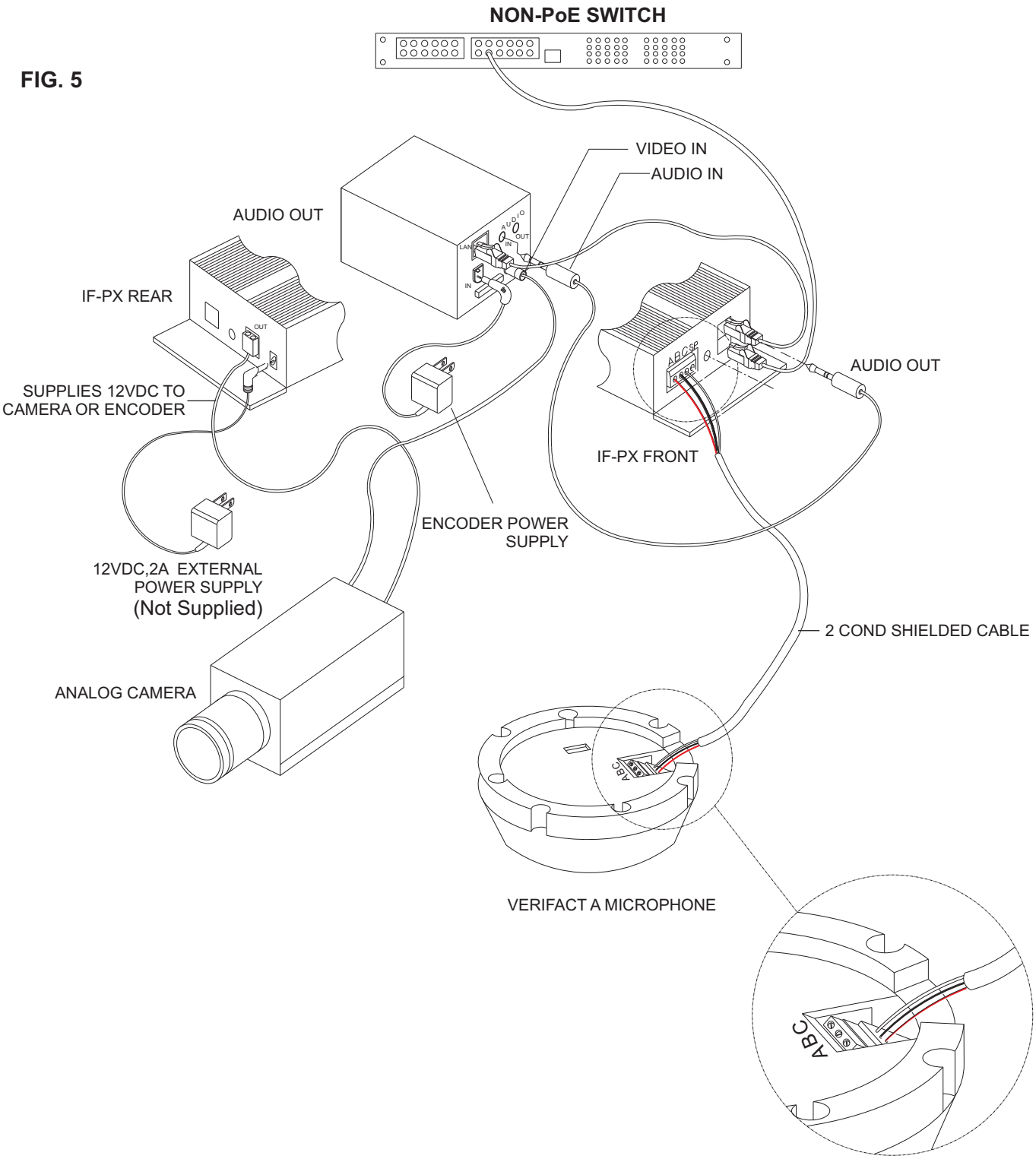
INTERCONNECTION DIAGRAM BETWEEN A PoE SWITCH, IF-PX, NON-PoE ENCODER AND VERIFACT A MICROPHONE UNIT FOR ADDING ONE-WAY AUDIO

FIG. 4



INTERCONNECTION DIAGRAM BETWEEN A NON PoE SWITCH, IF-PX, NON-PoE ENCODER AND VERIFACT A MICROPHONE FOR ONE-WAY LISTEN

FIG. 5



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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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