

# ASK-4® #431

## AUDIO MONITORING SYSTEM

### INSTALLATION AND OPERATING INSTRUCTIONS



MODEL IF-1 INTERFACE ADAPTER

MODEL RN-2 2 ZONE AUDIO MIXER

VERIFACT® A MICROPHONE

ASK-4® #431 is a single zone audio monitoring system designed for direct connection to DVR or VCR, IP Network Camera, Video Server, or other audio receiving devices that accept line level audio. It comes with two Verifact® A Microphones and an audio mixer for extended zone coverage.

#### CONTENTS OF ASK-4® #431

- |                             |  |
|-----------------------------|--|
| 2 Verifact® A Microphones   | Omni-directional Microphone  |
| 1 Model IF-1                | Audio Interface Adapter  |
| 1 RN-2                      | Audio Mixer  |
| 1 Model AD-1                | 12 Vdc power supply  |
| 1 Single RCA Cable          | For connection to DVR, VCR, etc.   |
| 1 3.5mm Stereo cable        | For connection to a Sound Card, IP Network Camera or Video Server with <u>stereo</u> audio input |
| 1 RCA to 3.5mm Mono Adaptor | For connection to a IP Camera with a 3.5mm <u>mono</u> audio input                               |

#### WIRING REQUIREMENTS

2 Conductor **shielded** cable, 22 gauge with a 24 gauge drain wire

**NOTE:** Unshielded cable is not satisfactory for audio systems

West Penn 452 or equivalent



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2 conductor shielded, 22 gauge, with a 24 gauge drain wire.  
West Penn 452 or equivalent

## MICROPHONE INSTALLATION - MECHANICAL - MICROPHONE

Model A Microphone is designed for surface mounting to a ceiling or wall. Microphone will pick up sounds 15' away from all directions. For best results, install microphone as close to desired area of coverage as possible. Avoid mounting microphone to ceiling heights in excess of 10', or near air vents, refrigeration units, or other audio interferences.

NOTE: Make wiring connection on back side of microphone before installing microphone to ceiling or flat surface.

## MICROPHONE INSTALLATION - ELECTRICAL

Located on back side of microphone is a terminal block marked A, B and C.

A is 12 Vdc

B is Audio

C is Ground (common)

Using recommended wiring, connect as follows:

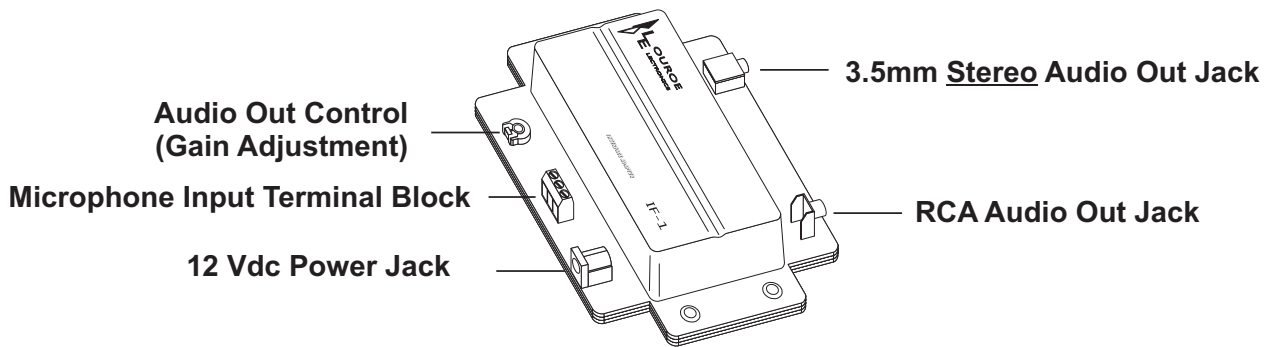
RED wire to terminal A (12Vdc)

BLACK wire to terminal B (Audio)

BARE wire to terminal C (Ground)

NOTE: If using wiring from other manufacturers, color code may vary.

## MODEL IF-1 AUDIO INTERFACE ADAPTER



## MECHANICAL - RN-2 AND IF-1

RN-2 and IF-1 can be installed to a wall or flat surface with mounting screws or by using a strong double backed adhesive tape. They are usually located between the microphones and the receiving device such as a DVR or IP Camera.

## WIRING CONNECTION FROM MICROPHONES TO RN-2

1) Bring in wiring from **first** Louroe microphone (or speaker/microphone) to **INPUT** side of RN-2 and connect as follows:

1. Wire from terminal A of microphone goes to A of RN-2
2. Wire from terminal B of microphone goes to B1 of RN-2
3. Wire from terminal C of microphone goes to C of RN-2

2) Bring in wiring from **second** microphone (or speaker/microphone) to **INPUT** side of RN-2 and connect as follows::

1. Wire from terminal A of second microphone goes to A of RN-2
2. Wire from terminal B of second microphone goes to B2 of RN-2
3. Wire from terminal C of second microphone goes to C of RN-2

# INSTALLATION AND OPERATING INSTRUCTIONS

## CONNECTING RN-2 TO LOUROE IF-1 AUDIO INTERFACE ADAPTER

From **OUTPUT** side of RN-2, make connection to the Louroe IF-1 Audio Interface Adapter as follows:

1. Terminal A of output goes to terminal A of IF-1
2. Terminal B of output goes to terminal B of IF-1
3. Terminal C of output goes to terminal C of IF-1

Located on the output side of the RN-2 Mixer is an adjustment potentiometer for microphone balance. If more volume is desired from microphone connected to the **B-1** input side, turn potentiometer counterclockwise toward the B-1 arrow. If more volume is desired from microphone connected to the **B-2** input side, turn potentiometer clockwise toward the B-2 arrow. For equal volume from the two microphones, position potentiometer to the center.

To apply power to the system, Model AD-1 12Vdc power supply is included. First connect small end (female 90° plug) into 12Vdc jack on IF-1, then connect 2-prong power block to a standard 110Vac outlet or power strip.

NOTE: Model IF-1 contains two types of audio outputs. A connection cable is provided for each type.

- 1) RCA
- 2) 3.5mm stereo
- 3) RCA to 3.5mm mono with adaptor

These two audio outputs are in parallel ... **only one can be used**

## CONNECTION BETWEEN IF-1 INTERFACE ADAPTER AND DVR/VCR WITH RCA TYPE AUDIO CONNECTIONS

To make connection to DVR/VCR, plug the RCA cable (supplied) into the RCA type audio output jack located on the output side of Model IF-1. Connect other end of RCA cable to the DVR/VCR's "AUDIO IN" jack (**see drawing on page 4**).

## CONNECTION BETWEEN IF-1 AND AN IP NETWORK CAMERA, DVR, VIDEO SERVER WITH 3.5mm MONO TYPE AUDIO CONNECTIONS

To make connection to IP Network Camera, plug the RCA to 3.5mm mono cable with adaptor (supplied) into the RCA audio out jack located on the output side of IF-1, connect other end of cable (3.5mm) to the camera's audio in jack (**see drawing on page 5**).

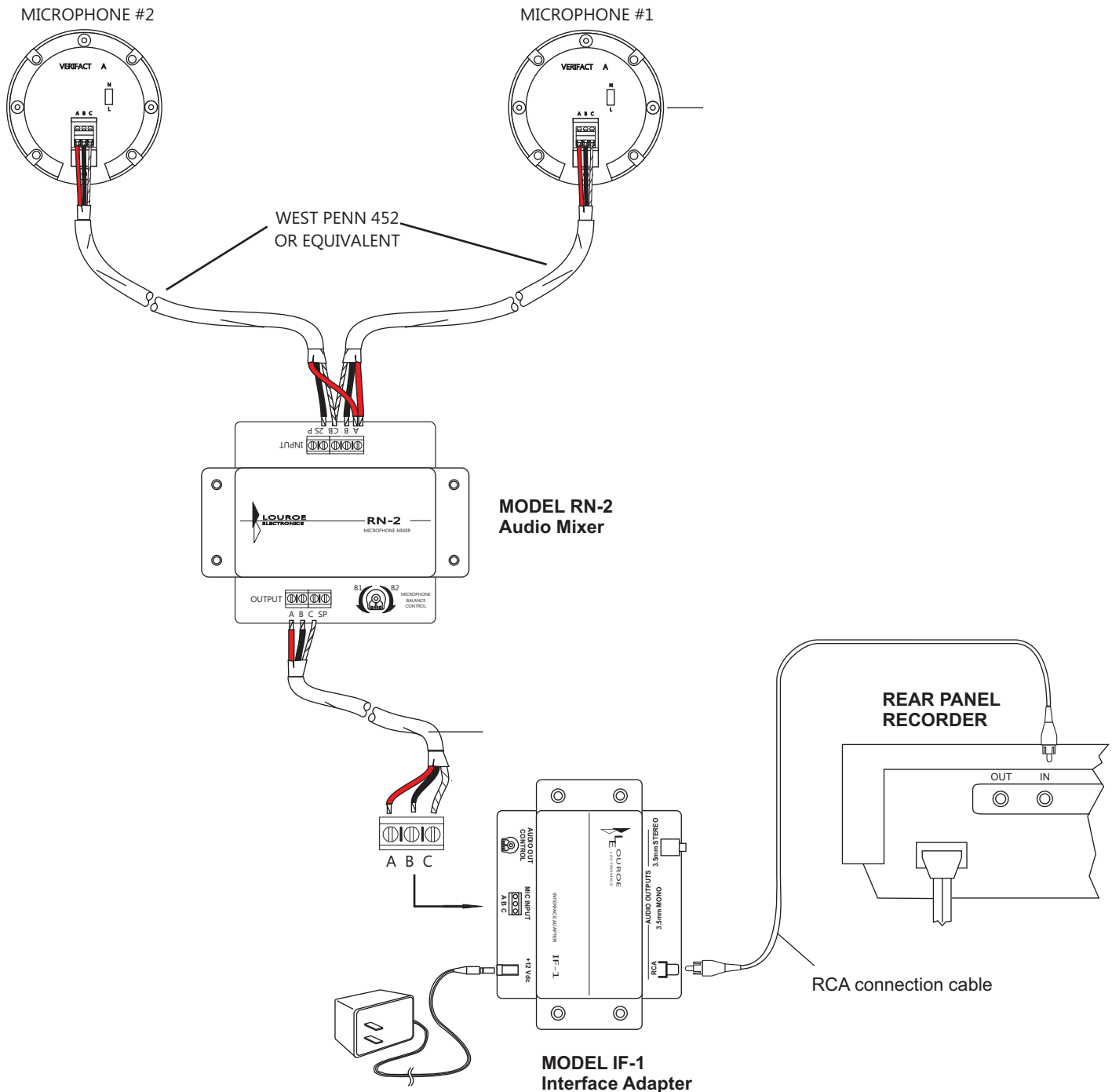
## CONNECTION BETWEEN IF-1 AND A DVR, IP NETWORK CAMERA OR PC SOUND CARD WITH 3.5mm STEREO TYPE CONNECTION.

To make connection, plug the 3.5mm stereo cable (supplied) into the "audio out" jack located on the output side of IF-1. Plug the other end of the cable to "AUDIO IN" of DVR, IP Network Camera or "LINE IN" of PC soundcard (**see drawing on page 6**).

**NOTE: DISTANCE BETWEEN MICROPHONE AND IF-1 SHOULD NOT EXCEED 1,000'. THE RN-2 MIXER GAIN IS LIMITED THAT IT MAY NOT SATISFACTORILY DRIVE AN AUDIO LINE OF MORE THAN 1000'.**

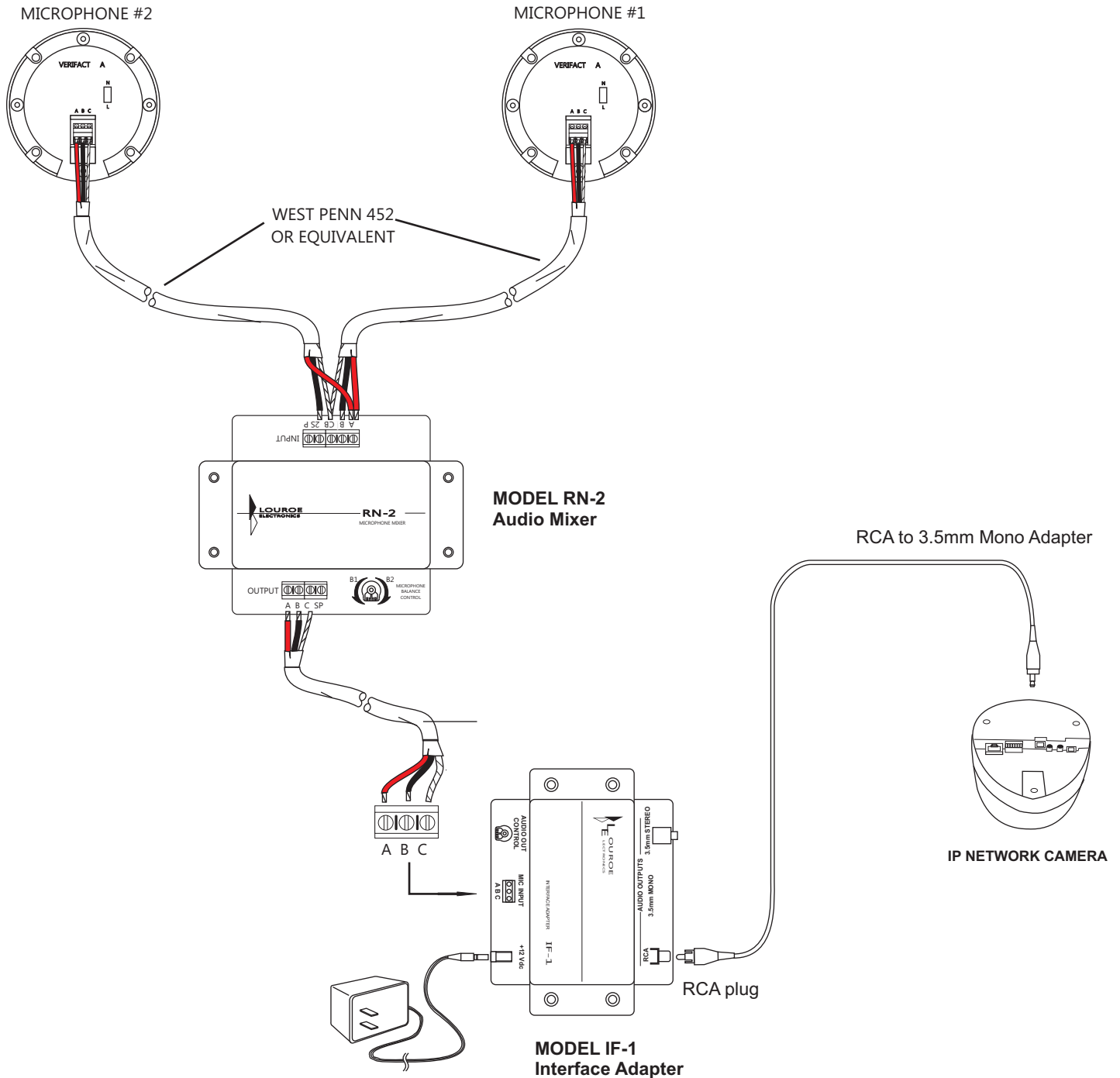
# INSTALLATION AND OPERATING INSTRUCTIONS

## INTERCONNECTION DIAGRAM FOR LOUROE ASK-4® #431 AUDIO MONITORING SYSTEM AND DVR/VCR, VIDEO SERVER, ETC. WITH RCA AUDIO INPUT

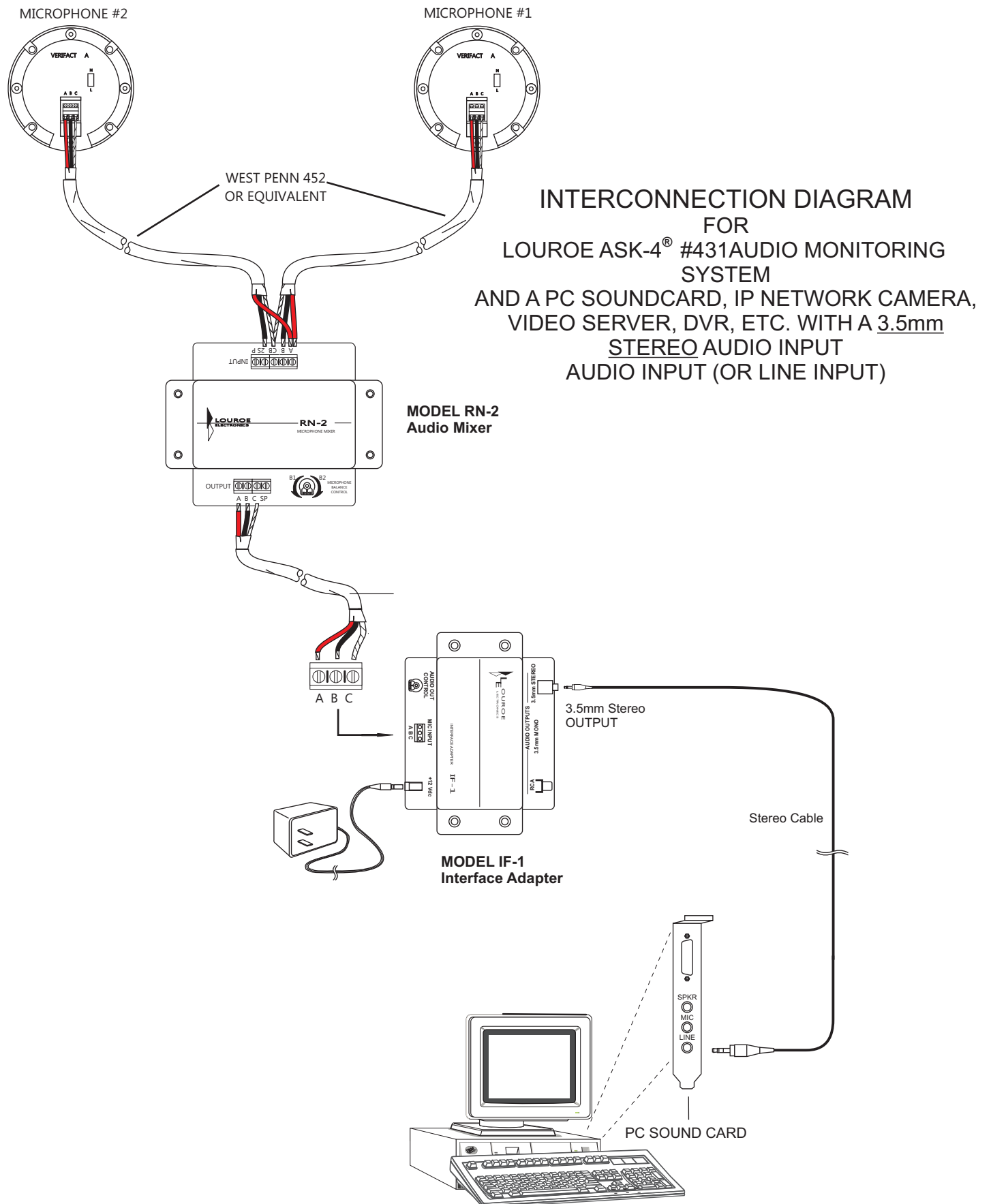


# INSTALLATION AND OPERATING INSTRUCTIONS

## INTERCONNECTION DIAGRAM FOR LOUROE ASK-4® #431 AUDIO MONITORING SYSTEM AND AN IP NETWORK CAMERA, DVR, VIDEO SERVER WITH 3.5mm MONO AUDIO INPUT



# INSTALLATION AND OPERATING INSTRUCTIONS



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## SENSITIVITY SWITCH OF MICROPHONE

For special installations that require less microphone sensitivity, a sensitivity switch has been added to the microphone pre-amp (PC board) and has two positions - N and L:

N represents normal sensitivity (0dB output into 1K $\square$ )

L represents low sensitivity (-6dB output into 1 K $\square$ )

**NOTE:** Louroe Verifact™ microphones are always shipped with the sensitivity switch in normal (N) position. Do not change unless required.

To make an adjustment, use a small screwdriver and move slide switch from N to L. Sensitivity switch is located on the backside of Verifact™ A Microphone.

## SPECIFICATIONS (Microphone - Model A)

■ Type	Electret Condenser
■ Output	Line Level (0 dB 600 $\Omega$ @ 1 kHz)
■ Frequency response	50 Hz to 15 kHz
■ Current drain	10 mA
■ Supply voltage	12Vdc
■ Dimensions	4"Dia x 1 1/2"H
■ Weight	3.5 oz

## SPECIFICATIONS (IF-1 Interface Adapter)

■ Input impedance	20k $\Omega$
■ Output signal	600 $\Omega$ @ 1 kHz
■ Power supply	12Vdc, 500 mA
■ Dimensions	6 1/8"L x 4 5/8"W x 1 1/4"H
■ Weight	5.5 oz

## SPECIFICATIONS (RN-2)

■ Input Impedance	20k $\Omega$
■ Output Impedance	1k $\Omega$ @1kHz
■ Output Gain	+5dB
■ Dimensions	6 1/8"L x 4 5/8 "W x 1 1/4"H
■ Weight	5.5 oz
■ Shipping Weight of kit	3 lbs

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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.