

# ASK-4® #401

## AUDIO MONITORING SYSTEM

### INSTALLATION AND OPERATING INSTRUCTIONS

The ASK-4® #401 is a single zone audio monitoring system with two Verifact® A Microphones that work together for extended zone coverage. Model APR-1 Base Station contains a 3" speaker for both live audio and audio playback. The system is designed to interface with a DVR, VCR or other audio devices that accepts line level input.

**NOTE:** The two microphones are designed to expand the area of coverage and are **NOT SEPARATE ZONES**. Both microphones serve as one audio zone with approximate coverage of 30' x 60' in a normal acoustical environment.

Contents	Description
APR-1	Audio Base Station. Used for listening to live audio produced from the microphone, as well as audio playback from DVR, VCR or other external sources.
Verifact® A Microphone	Electret condenser microphone with preamp. Picks up normal sounds within 30' circle. May be located up to 1000' from APR-1 Base Station.
RN-2 Microphone Mixer	Microphone mixer for combining two microphones in a zone. Contains a control for microphone balance.
AD-1	UL® approved AC ADAPTER. Supplies 12 Vdc to APR-1, RN2 and Microphone.
Dual RCA Cable	RCA cable for connections to a DVR/VCR or other audio sources that accept line level audio input (0dB @ 600Ω).



**WIRING REQUIREMENTS**

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

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

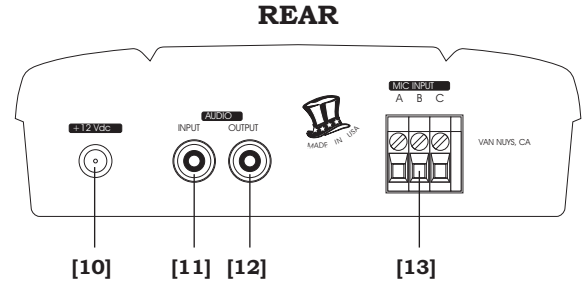
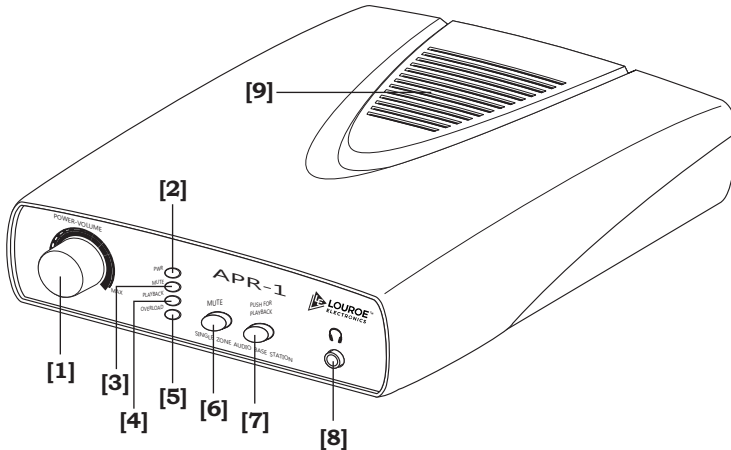
**West Penn 452 or equivalent**

# INSTALLATION AND OPERATING INSTRUCTIONS

## DESCRIPTION

THE APR-1 IS SHOWN BELOW. ALL CONTROLS ARE LOCATED AT THE FRONT PANEL. ALL CONNECTIONS ARE MADE AT THE REAR PANEL.

## FRONT PANEL LAYOUT OF APR-1



- |      |                      |   |
|------|----------------------|---|
| [1]  | Power-Volume         | Turns "ON" power to the unit and controls the audio volume through the <b>Speaker</b> [9].  |
| [2]  | Power Indicator      | Lights (green) when the power is present to the unit.   |
| [3]  | Mute Indicator       | Lights (orange) when <b>Mute Switch</b> [6] is pushed in. Audio is muted.   |
| [4]  | Playback Indicator   | Lights (yellow) when <b>Push for Playback</b> [7] is pushed in to "ON" position.  |
| [5]  | Overload Indicator   | Flashes (red) when there is a short in the power supply.  |
| [6]  | Mute Switch          | Used to mute the audio on both live and playback mode.  |
| [7]  | Push for playback    | Used for DVR/VCR playback. May also be used to listen to audio from an external source. Press switch to listen to playback. Switch must be "OUT" or "OFF" when monitoring and recording, otherwise live audio is muted. |
| [8]  | Headphone Jack       | Used for private listening. Any 3.5mm stereo headphone with 8 $\Omega$ to 600 $\Omega$ impedance can be used.   |
| [9]  | Speaker (3")         | Provides live audio. Muted when a headphone is connected to <b>Headphone Jack</b> [8].  |
| [10] | Power Jack           | Connects to 12Vdc power supply  |
| [11] | AUDIO-IN Jack (RCA)  | Accepts audio playback from DVR/VCR, etc. Audio is produced through the speaker. The Push for Playback Switch [7] must be IN during audiolayoutback.  |
| [12] | AUDIO-OUT Jack (RCA) | Provides audio output and connection to a DVR, VCR, etc.  |
| [13] | Audio Terminal Block | A 3-pin terminal block marked A, B and C. Accepts wiring from remote Verifact™ A Microphone.  |

A = +12Vdc Power (red wire)  
B = Audio (black wire)  
C = Ground (bare wire)

# INSTALLATION AND OPERATING INSTRUCTIONS

## MICROPHONE CONNECTIONS

The color code for recommended wire is red, black and a bare wire. On the backside of Verifact® A Microphone is a 3-pin terminal block marked A, B, C. Connect as follows:

- Red wire goes to terminal A (12 Vdc Power)
- Black wire goes to terminal B (Audio Out)
- Bare wire goes to terminal C (ground)

Use the same procedure for the second Verifact™ A Microphone.

## CONNECTION TO RN-2 MICROPHONE MIXER

The RN-2 Mixer has an input side and output side.

Bring wire from microphone #1 to the input side and connect as follows:

- Wire from terminal A of microphone #1 goes to terminal A
- Wire from terminal B of microphone #1 goes to terminal B1
- Wire from terminal C of microphone #1 goes to terminal C

**NOTE:** Terminal "SP" of RN-2 is not used with this application.

Bring in wire from microphone #2 and connect as follows:

- Wire from terminal A of microphone #2 goes to terminal A (with Mic #1)
- Wire from terminal B of microphone #2 goes to terminal B2
- Wire from terminal C of microphone #2 goes to terminal C (with Mic #1)

## CONNECTION TO APR-1 AUDIO BASE STATION

The OUTPUT side of Model RN-2 has a terminal block marked A, B, C, SP. Using same 2 conductor shielded cable, 22 gauge with a 24 gauge drain wire, connect as follows:

1. Red wire goes to terminal A of RN-2 output side
2. Black wire goes to terminal B of RN-2 output side
3. Bare wire (drain) goes to terminal C of RN-2 output side  
SP terminal is not used for this application
4. Bring wire from output side of RN-2 to Model APR-1 Audio Base Station. Rear panel of APR-1 contains a terminal block marked A, B, C. Match the wiring from RN-2 output and connect as follows:
5. Red wire from RN-2 output goes to terminal A of Model APR-1
6. Black wire from RN-2 output goes to terminal B of Model APR-1
7. Bare (drain) wire from RN-2 output goes to terminal C of Model APR-1

NOTE: "SP" terminal of RN-2 is not used with this application.

## APPLYING POWER TO APR-1 AUDIO BASE STATION

Included with ASK-4® 401 is a power supply, 120V step down to 12Vdc. First connect the small end 2.1mm female plug to the Power Jack [10], located on rear panel of APR-1. Then connect power block to a standard 120V electrical outlet. This will power up the system.

## MICROPHONE BALANCE CONTROL

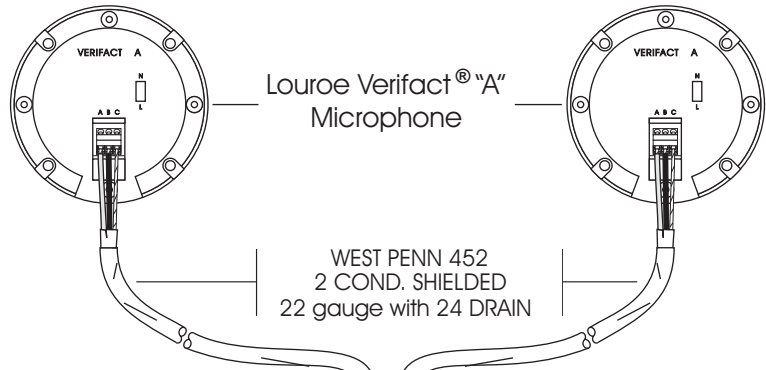
Located on the output side of the RN-2 Mixer is an adjustment potentiometer for microphone balance. If more volume is desired from microphone connected to the B-1 input side, turn potentiometer counterclockwise toward the B-1 arrow. If more volume is desired from microphone connected to the B-2 input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

## INSTALLATION TIPS

1. The Model A Microphone is designed for installation to a ceiling or wall. Each microphone will pick up normal sounds approximately 15' away in all directions or within a 30' diameter circle.  
**Again, the ASK-4® 401 is NOT a two zone audio monitoring system. The two microphones are combined for expanded zone coverage and function as a single zone system.**
2. Avoid installing microphones near air vents, fans or other equipment that generate excessive noises.
3. To avoid audio feedback, there should be a barrier such as a wall between the microphone and the APR-1 Audio Base Station. If there is no barrier, microphone should be at least 25' from the APR-1.
4. For special installations that require less microphone sensitivity, a slide switch is located on the back side of Verifact® A Microphone marked N and L (normal and low) with a small screwdriver, move slide switch to L position.

# INSTALLATION AND OPERATING INSTRUCTIONS

## WIRING CONNECTION

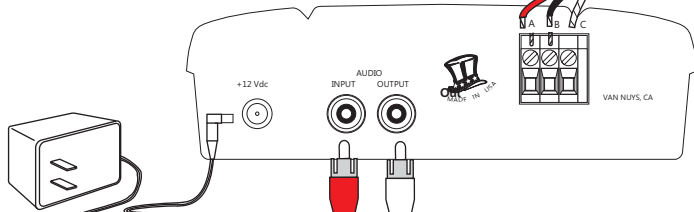


**Terminal Block Identifier for Microphone and APR-1**  
 (A) Red - 12Vdc power  
 (B) Black - Audio Output  
 (C) Bare - Ground

LOUOE  
 MODEL RN-2  
 MICROPHONE MIXER

WEST PENN 452  
 2 COND. SHIELDED  
 22 gauge with 24 DRAIN

**Terminal Block Identifier for RN-2 Mic Mixer**  
 (A) - 12Vdc power  
 (B1) - Microphone #1  
 (B2) - Microphone #2  
 (C) - Ground  
 (SP) - Not used with this application



REAR OF LOUOE  
 APR-1 BASE STATION

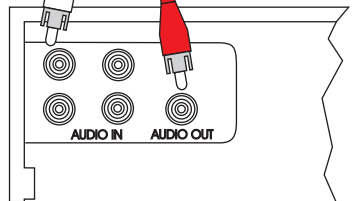
AD-1 POWER SUPPLY  
 120V/12 Vdc, 500 mA

“Audio Out” of APR-1 connects to “Audio In” of DVR or other receiving device

“Audio In” of APR-1 connects to “Audio Out” of DVR or other receiving device

**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



REAR PANEL OF DVR WITH  
 RCA TYPE AUDIO INPUT

# INSTALLATION AND OPERATING INSTRUCTIONS

---

## OPERATION TEST

After all wiring connections are complete and APR-1 is connected to a recording device:

1. Turn Power-Volume Knob [1] to "ON". Power Indicator[2] will illuminate.
2. Adjust volume by rotating knob **Clockwise** to increase. **Counterclockwise** to decrease volume.
3. Create sound for the microphone to pick up. Audio should be transmitted to the Speaker[9] in APR-1 Base Station. Live audio can be monitored while recording as well.
4. For recording audio, follow instructions given for the recording device. Audio is passed into the recorder and through the APR-1 speaker.
5. For audio PLAYBACK from the recorder back into the APR-1, press the Push for Playback switch [7] to ON position and the YELLOW LED lights [4].
6. For private audio monitoring, connect a stereo headphone with 3.5 mm plug into Headphone Jack [8] located on front panel of APR-1. Headphones with 8 to 600 $\Omega$  impedance can be used. While monitoring with headphones, live audio from the APR-1 speaker will be muted but can still be recorded.
7. For special installations that require less microphone sensitivity, a slide switch is located on the back side of Verifact<sup>®</sup> A Microphone marked N and L (normal and low). With a small screwdriver, move slide switch to L position.

## **SPECIFICATIONS (Microphone - Model A)**

■ Type	Electret Condenser
■ Output	Line Level (0 dB 600Ω @ 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 (RN-2)**

■ Input Impedance	20kΩ
■ Output Impedance	1kΩ @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

## **SPECIFICATIONS (Base Station - APR-1)**

■ Monitor output power	1W@8Ω
■ Audio output impedance	600Ω @ 1kHz
■ Audio input impedance	10KΩ
■ Freq. response	100 Hz to 10 kHz
■ Headphone impedance	8 to 600Ω
■ Power supply	12 Vdc, 500 mA
■ Dimensions	8 1/4"L x 5 3/4"W x 1 3/8" H
■ Weight	1 lb 6 oz
■ Shipping Weight of kit	4 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.

# MANUFACTURED IN THE

