

ASK-4 KIT #401

AUDIO MONITORING SYSTEM

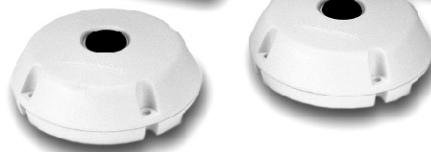
INSTALLATION AND OPERATING INSTRUCTIONS

ASK-4 KIT #401 AUDIO MONITORING SYSTEM

APR-1
AUDIO BASE STATION



RN-2 MICROPHONE
MIXER



VERIFACT A
MICROPHONES

The ASK-4 Kit #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 OF ASK-4 KIT #401

- 2 Verifact "A" Microphones
- 1 Model RN-2 Microphone Mixer
- 1 APR-1 Audio Base Station
- 1 Model AD-1 Power Supply (not shown)
- 1 Dual RCA Connector Cable (not shown)

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

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 @ 600).

WIRING REQUIREMENTS

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

NOTE: Unshielded cable is not satisfactory for audio systems

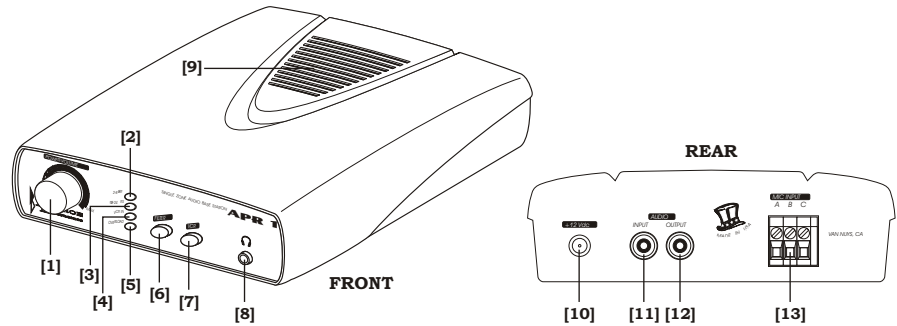
West Penn 452 or equivalent



INSTALLATION AND OPERATING INSTRUCTIONS

DESCRIPTION OF MODEL APR-1 AUDIO BASE STATION

The APR-1 is shown to the right. All controls are located at the front panel. All



Description

- | | |
|---|--|
| [1] Power-Volume | Turns "ON" power to the unit and controls the audio volume at the Speaker[9]. |
| [2] Filter-OUT Indicator | Lights (green) when the audio filter is not in use and the Filter Switch[6] is in the "OUT" Position. |
| [3] Filter-IN Indicator | Lights (orange) when audio filtering is used. Filter Switch[6] is in the "IN" position. |
| [4] VCR-IN Indicator (includes DVR's) | Lights (yellow) when VCR Switch[7] is pushed in to "ON" position. The VCR switch is also used when recording with a DVR. |
| [5] Overload Indicator | Flashes (red) when there is a short at the power supply. |
| [6] FILTER Switch (not used with DVR's) | Normally used for audio playback from a 12 or 24 hour time-lapse recorder. When pressed, audio coming from the Audio-IN Jack[11] is passed through an audio filter before going out to the speaker. This enhances the intelligibility of audio playback from 12/24 hour time lapse recorders. IT IS NOT NECESSARY TO USE FILTER SWITCH WHEN RECORDING WITH A DVR. |
| [7] VCR Switch (includes DVR's) | Used for DVR/VCR audio playback. Press switch for listening to audio 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 8Ω to 600Ω impedance can be used. |
| [9] Speaker(3") | Speaker output. |
| [10] Power Jack | Accepts 12Vdc power from Model AD-1 Power Supply |
| [11] AUDIO-IN Jack (RCA) | Accepts audio playback from DVR/VCR, etc. Audio is produced through the speaker. The VCR Switch [7] must be "IN" during audio playback. This feature may not be necessary if recording device is a DVR. |
| [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

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)

RECOMMENDED WIRING

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

West Penn 452 or equivalent

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

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 Kit #401 is a power supply, 120V step down to 12Vdc. First connect the small end 2.1mm female plug to the 12Vdc 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

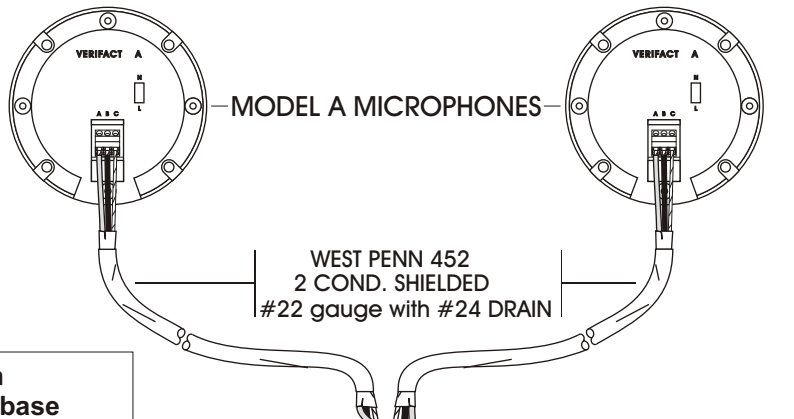
Located on the output side of the RN-2 Mixer is an adjustment potentiometer for microphone balance. If more volume is desired from microphone connected to the B-1 input side, turn potentiometer counterclockwise toward the B-1 arrow. If more volume is desired from microphone connected to the B-2 input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

INSTALLATION TIPS

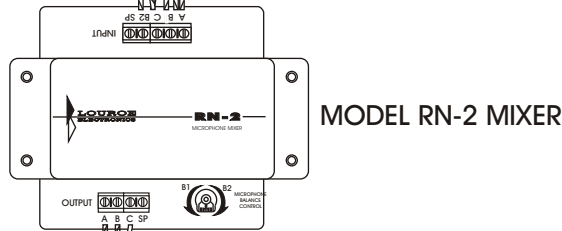
1. The Model A Microphone is designed for installation to a ceiling or wall. Each microphone will pick up normal sounds approximately 15' away in all directions or within a 30' diameter circle.
Again, the ASK-4 Kit #401 is NOT a two zone audio monitoring system. The two microphones are combined for expanded 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

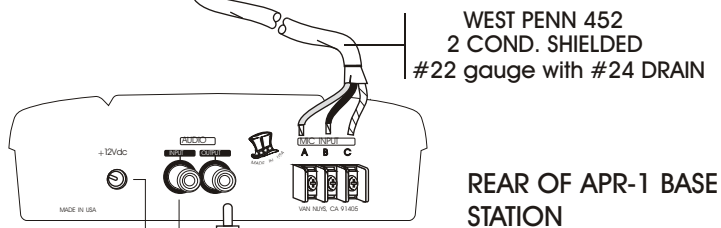
QUICK REFERENCE INSTALLATION LOUROE ASK-4 KIT #401 AUDIO MONITORING SYSTEM



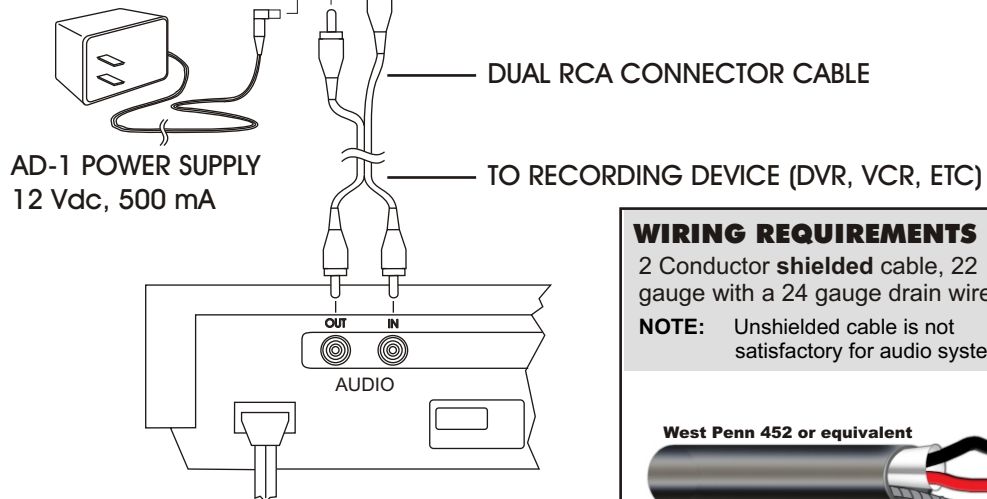
NOTE: Distance between microphone and base station should not exceed 1,000'. The RN-2 Mixer gain is designed to satisfactorily drive and audio line up to 1,000'.



MODEL RN-2 MIXER



REAR OF APR-1 BASE STATION



AD-1 POWER SUPPLY
12 Vdc, 500 mA

DUAL RCA CONNECTOR CABLE

TO RECORDING DEVICE (DVR, VCR, ETC)

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

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". GREEN LED [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 from the speaker in APR-1 Base Station [8]. 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 VCR switch [6] to ON position and the YELLOW LED lights [4]. If recording in the standard mode (2 to 8 hours) the BLUE FILTER switch [5] need not be engaged. If recording in the 24 hour mode, press in FILTER switch [6] so that RED LED [3] is illuminated. This will improve audio playback from a 12/24 hour VCR. **IF AUDIO PLAYBACK IS FROM A DVR, FILTER SWITCH [6] NEED NOT BE ENGAGED.**
6. For private audio monitoring, connect a stereo headphone with 3.5 mm plug into phone jack [7] located on front panel of APR-1. Headphones with 8 to 600 Ω 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 A Microphone marked N and L (normal and low). With a small screwdriver, move slide switch to L position.

NOTE REGARDING INTERFACING ASK-4 KIT #401 WITH A DVR

The APR-1 Audio Base Station of ASK-4 Kit #401 is compatible with all commercial DVR's. If DVR contains a 3.5mm "Audio In" Jack, a 3.5mm Adapter **must** be connected to that end of the RCA cable provided with Kit #101. Check with the DVR's manufacturer to determine if the audio input requires a **stereo** or **mono** 3.5mm plug.

SPECIFICATIONS (Verifact A Microphone)

■ Output impedance (mic only)	600 Ω unbalanced
■ Frequency response	40 Hz to 15 kHz \pm 1 dB
■ Current drain	4 mA
■ Output	Line Level (0 dB @ 1000 Ω)
■ Supply voltage	12Vdc
■ Pick-up pattern	Omni-Directional
■ Dimensions	4" Dia x 1 1/2" H

SPECIFICATIONS (APR-1 Base Station)

■ Input sensitivity (from remote mic)	0.78Vrms
■ Monitor power output	1W @ 8 Ω
■ Insertion gain	2 dB @ 1kHz
■ Audio line output impedance	600 Ω or higher
■ Audio input impedance	10k Ω
■ Audio frequency response	100 Hz to 10kHz
■ Audio frequency response (enhanced)	-20 dB @ 200 Hz to +5dB @ 2 kHz -10dB @ 6 kHz
■ Headphone impedance	8 to 600 Ω
■ Power supply	12 Vdc, 500 mA
■ Dimensions	8 1/4"L x 5 3/4"W x 1 3/8"H
■ Weight, shipping	4.5 lbs (2.04 Kg)

INSTALLATION AND OPERATING INSTRUCTIONS

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

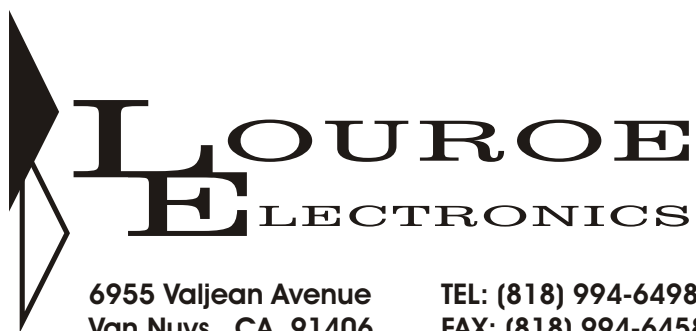
LOUROE ELECTRONICS warrants that at the time of shipment products manufactured by LOUROE ELECTRONICS to be free of defects in material and workmanship. Should a defect appear within one year (12 months) from date of shipment, LOUROE ELECTRONICS will, at its sole discretion, repair or replace the defective 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 subject 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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