



**ASK-4 KIT #101 AUDIO MONITORING SYSTEM
INSTALLATION AND OPERATING INSTRUCTIONS**

The ASK-4 Kit #101 is a single zone audio monitoring system designed to interface with a DVR, VCR or other recording devices that accept line level input. The APR-1 Audio Base Station contains a built-in 3" speaker and volume control for both live audio and audio playback. It also has a filter switch that enhances the quality of playback from 24 hour time-lapse recorders.

CONTENTS OF ASK-4 KIT #101

- 1 Verifact "A" Microphone
- 1 APR-1 Audio Base Station
- 1 Model AD-1 Power Supply
- 1 Set of dual RCA Connector Cables



Fig. 1 Complete ASK-4 Kit #101

Contents	Description
APR-1	UL listed Audio Base Station. Used for listening to live audio from microphone, as well as audio playback from DVR's, VCR's or other external audio 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.
AD-1	UL listed AC ADAPTER. Supplies 12 Vdc to APR-1 and Microphone.
Dual RCA Cable	RCA cable for connection to a DVR/VCR or other Audio sources that accept line level input (0dB @ 600Ω).

WIRING REQUIREMENTS

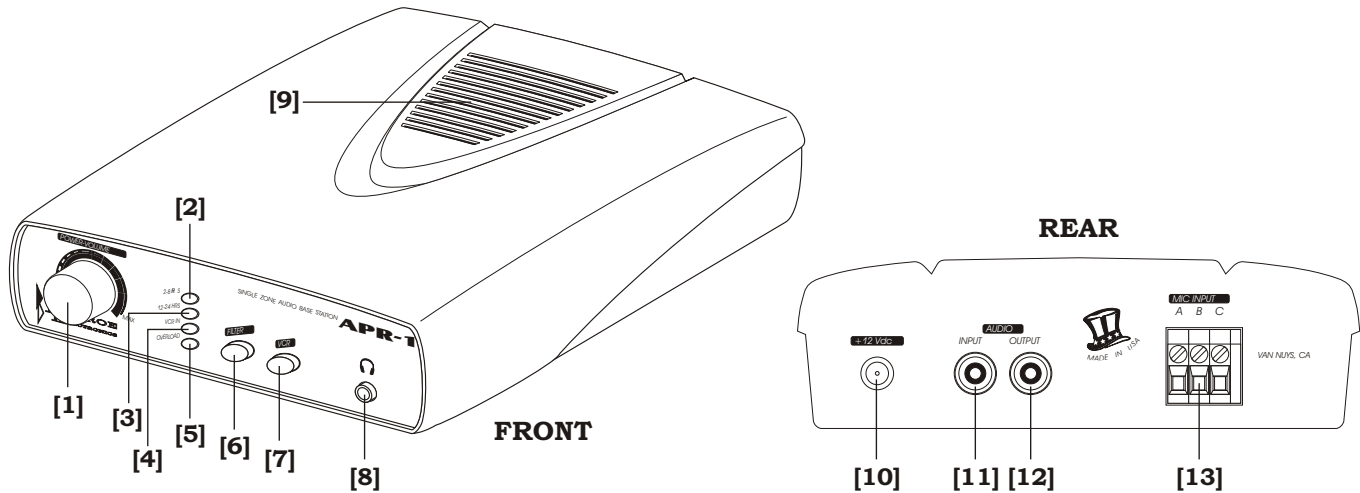
2 Conductor shielded cable, 22 gauge with a 24 gauge drain wire.
West Penn 452 or equivalent

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DESCRIPTION

The APR-1 is shown below. All controls are located at the front panel. All connections are made at the rear panel.

Fig. 2 APR-1 front and rear panel layout



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. Also indicates power to the unit. |
| [3] Filter IN Indicator | Lights (orange) when audio filter 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. |
| [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. |
| [7] VCR Switch (includes DVR's) | 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 8Ω to 600Ω impedance can be used. |
| [9] Speaker (3") | Provides live audio. Muted when a headphone is connected to Headphone Jack [8]. |
| [10] Power Jack | Accepts 12Vdc power from Model AD-1 Power Supply (included with ASK-4 Kit #101) AD-1 has a 90° 2.1mm female plug. |

- [11] AUDIO IN Jack (RCA) Accepts audio from an external source such as DVR/VCR playback, etc. Audio is produced through the speaker. The **VCR Switch [7]** must be "IN" during audio playback and OUT when not used for playback
- [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 is 12Vdc Power
B is Audio
C is Ground

SENSITIVITY SWITCH OF VERIFACT A MICROPHONE

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

N represents normal sensitivity (0dB output into 1k Ω)

L represents low sensitivity (-6dB output into 1k Ω)

Louroe VERIFACT microphones are always shipped with the sensitivity switch in normal (N) position. Do not change unless necessary. To change the sensitivity setting, use a small screwdriver and move slide switch from N to L position.

LOCATION OF SENSITIVITY SWITCH

VERIFACT MODEL A - An opening is located on back cover of microphone. Insert a small screwdriver and move slide switch from N to L position.

NOTE REGARDING INTERFACING ASK-4 KIT #101 WITH A DVR OR PC SOUND CARD

The APR-1 Audio Base Station of ASK-4 Kit #101 is compatible with all commercial DVR's and PC Soundcards. An RCA cable is included with the kit for connecting **Audio Out** to **Audio In** of DVR. If DVR's audio input is a 3.5mm jack, an RCA to 3.5mm adapter (not supplied) must be attached to the plug that connects to DVR's **Audio Input**. Check with DVR's specifications to determine if the audio input requires a **stereo** or **mono** 3.5mm plug.

All PC soundcards contain a standard 3.5mm stereo **Audio Input** or **Line Input**. Do not use **Mic Input** of soundcard.

WIRING CONNECTIONS AND TEST

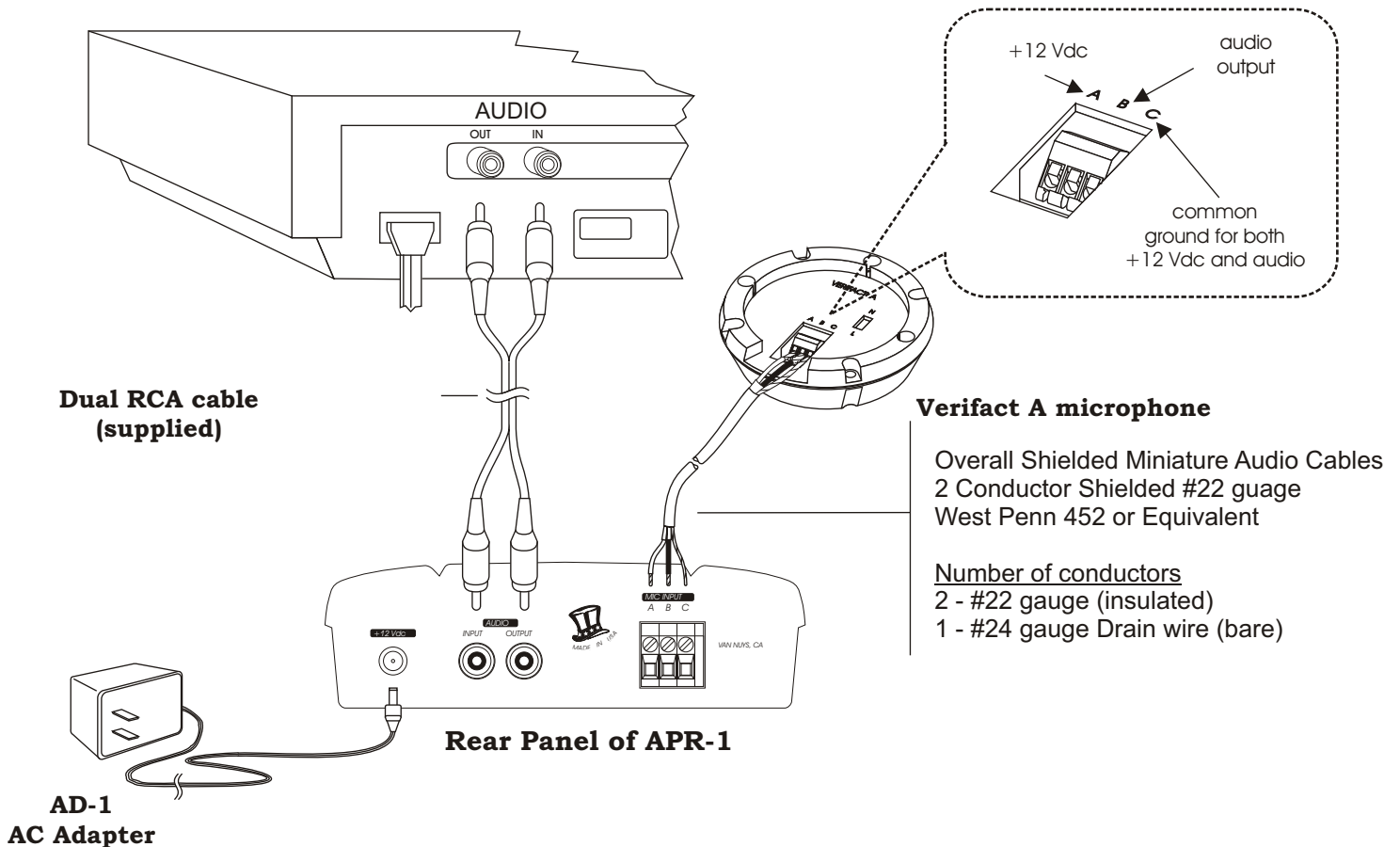
Both the Verifact A Microphone and APR-1 Audio Base Station contain a 3-pin terminal block marked A, B, C.

- A = 12Vdc Power
- B = Audio
- C = Ground

1. Connect microphone to APR-1 as shown in Fig.3. Connect wire from terminal “A” of microphone to terminal “A” of APR-1; wire from terminal “B” of microphone to terminal “B” of APR-1; wire from terminal “C” of microphone to “C” of APR-1. Use 2-conductor shielded cable (West Penn 452 or equivalent).
2. Plug AD-1 power supply (AC Adapter) into the **Power Jack[10]** located on back panel of APR-1. Connect 2-prong block into standard 110/120 AC wall receptacle or power strip.
3. Turn “ON” power to APR-1 by rotating the **Power-Volume Knob[1]** clockwise. The green LED will be illuminated. Adjust volume of audio by rotating the knob either clockwise to increase or counterclockwise to decrease. Locate microphone so as not to create feedback with the APR-1. The further the microphone is from the APR-1 the less feedback it generates. System works best if there is an acoustical barrier between the microphone and the APR-1, such as a wall or room divider. If there is no wall or barrier, microphone should be mounted at least 25 ft. from the APR-1 Base Station.

Fig. 3 Interconnection diagram

Connection to DVR/VCR (VCR shown below)



INSTALLATION INSTRUCTIONS

4. Plug headphone into the **Headphone Jack[8]**. **Speaker[9]** output is muted and sound is transmitted through the headphone.
5. Using the dual RCA cable (supplied), connect DVR/VCR's AUDIO OUT jack to APR-1 **AUDIO IN Jack[11]**.
6. Connect DVR/VCR's AUDIO IN jack to APR-1 **AUDIO OUT Jack[12]**.
7. Press "REC" on the recording device and record live audio for a couple of minutes.
8. Press **VCR Switch[7]** to "ON" position. **VCR IN Indicator[4]** will illuminate.
9. Press "PLAY" on the DVR/VCR to playback recorded audio from the APR-1. If using a time-lapse recorder in the 12 or 24 hour mode, it may be necessary to press the **Filter Switch[6]** during playback if the recorded audio is not intelligible. The **Filter Switch[6]** enhances audio playback in the 12-24 hour mode. **If audio playback is from a DVR, Filter Switch is not used and should be in the OUT position.** If no recording device is used, then **Filter Switch[6]** must be in the OUT position. The green **LED [2]** will illuminate when Filter Switch is in the OUT position.

INSTALLATION TIPS

1. Use overall shielded audio cable only. West Penn 452, Belden 8451 or equivalent. UNSHIELDED CABLE IS NOT SATISFACTORY FOR SOUND SYSTEMS.
2. When used in cashier's booth, microphone should be installed closer to the customer rather than the cash register, as the drawer sound may dominate the recording. It should be installed closest to the area that needs to be monitored and documented.
3. Avoid installing microphone near air vents, air conditioner, fans and other equipment that generate high sound and air pressure.
4. Some recorders may have both intermittent and constant speed playback. See recorder's manual on how to select constant speed.
5. The APR-1 and microphone should have a barrier or solid wall between them in order to avoid audio feedback, especially when they are in close proximity to each other (up to 25').

SPECIFICATIONS (Microphone - Model A)

■ Output impedance (mic only)	600Ω unbalanced
■ Frequency response	40 Hz to 15 kHz ± 1 dB
■ Current drain	4 mA
■ Output	Line Level 0 dB @ 1KΩ
■ Supply voltage	12Vdc
■ Dimensions	4"Dia x 1 ½"H

SPECIFICATIONS (Base Station - APR-1)

■ Input sensitivity (mic)	0.78V
■ Monitor output power	1W@8Ω
■ Audio line output impedance	600Ω or higher
■ Audio input impedance	10KΩ
■ Freq. response (flat)	100 Hz to 10 kHz
■ Freq. response (enhanced)	-20dB @ 200 Hz; +5dB @ 2 kHz; -10dB @ 6 kHz
■ Headphone impedance	8 to 600Ω
■ Power supply	12 Vdc, 500 mA
■ Dimensions	8 ¼"L x 5 ¾"W x 1 3/8" H
■ Weight (shipping)	4 lbs. (1.8)Kg

NOTES

NOTICE

Legality of Audio Monitoring and Recording as pertains to the U.S.A.

To protect the installing dealer and end user, when this equipment is used as part of an audio monitoring system, a decal stating AUDIO MONITORING ON THESE PREMISES *must* be installed in a visible location at the entrance of both private and public buildings.

This is to comply with United States Code, Title 18, Section 2510(2) regarding rights of privacy. It states:

“Oral communication means any “oral communication” uttered by a person exhibiting an expectation that such communication is not subject to interception under circumstances justifying such expectation.”

By definition of the code section, a person cannot have an expectation of privacy, nor can he or she expect that communication will not be intercepted, *if there are public signs posted, indicating that the communication is being monitored.*

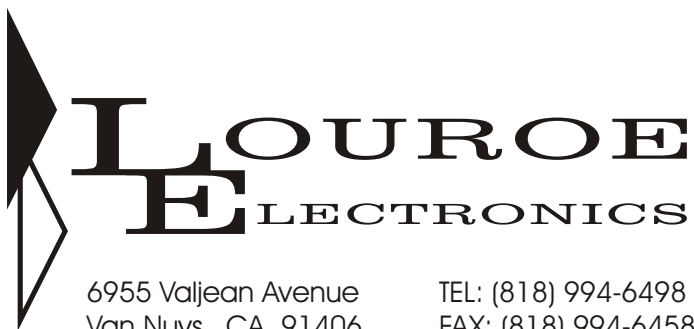
These laws vary from state to state. If you are not informed on these matters, consult a qualified attorney or contact the appropriate state agency.

A decal is included with each microphone shipped from Louroe Electronics. Extra decals are provided free of charge by calling or writing the Van Nuys plant.

WARRANTY

LOUROE provides a one year limited warranty (from date of purchase) on all equipment in our product line. There will be no charge for parts and labor for any repair or replacement of equipment *within the first 90 days.* *For the remainder of the year, the warranty covers parts only.* Please refer to our website www.louroe.com for full details.

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