

ASK-4® #104

AUDIO MONITORING SYSTEM

INSTALLATION AND OPERATING INSTRUCTIONS

The ASK-4® 104 is a four zone audio monitoring system designed to interface with a DVR, VCR or other recording device that accept line level audio. The AP-4 Audio Base Station has 4 microphone inputs, contains a built-in 3' speaker and volume control for producing live audio and playback. It has loop out RCA output per microphone so each microphone can be recorded individually. It also has a selectable audio output that produces audio to a recorder for that zone or microphone selected. The Verifact™ A microphones are omnidirectional pre-amplified microphone that produces line level audio output.



Model AP-4
4 Zone Audio Base Station



Verifact® A Microphones



Contents	Description
1 AP-4	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 audio devices.
4 Verifact® A Microphone	UL listed Line Level, Electret condenser microphone with preamp. Picks up normal sounds within 30' circle. May be located Up to 1000' from AP-4 Base Station.
1 AD-1	UL listed AC ADAPTER. Supplies 12 Vdc to AP-4 and Microphone.
1 Dual RCA Cable	RCA cable for connection to a DVR/VCR or other Audio devices that accept line level 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



Fig.1 Front view of AP-4

AP-2 and AP-8 have the same features except for the number of Zones

Fig. 1 Front of AP-4

DESCRIPTION AND FUNCTION OF PARTS

- | | |
|-------------------------------------|---|
| [1] - Play/Mute Switch | Used when playing back audio from a recorder or mute the audio from the microphone. No audio is heard on the Speaker[7] when this switch is ON. |
| [2] - Zone Selector Switches | Select zone for monitoring. Press switch of desired zone to listen to live audio. Pressing more than one zone is possible when it is necessary to monitor more than one zone at a time, but audio may be difficult to understand if there is audio activity at several zones. Zone switches light blue when press indicating active zone. |
| [3] - Headset Jack | Used for private listening. Any stereo headset with 8 to 600Ω impedance maybe used. Mutes speaker output when use. |
| [4] - Power Indicator | Lights (green) when power is turned ON. |
| [5] - Power-Volume Knob | Rotating knob clockwise turns ON power to the unit as indicated by the Power Indicator[4] light. Rotating further clockwise increases the volume of the monitored audio as heard through the Monitor Speaker[7]. |

INSTALLATION AND OPERATING INSTRUCTIONS

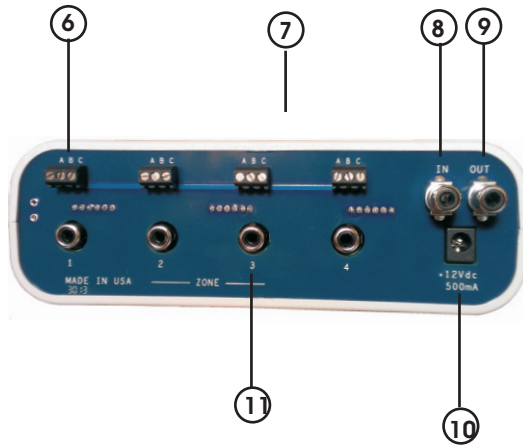


Fig.2 Rear view of AP-4

AP-2 and AP-8 have the same features except for the number of terminal blocks and mic output jacks for each zone

DESCRIPTION AND FUNCTION OF PARTS

- [6] - Mic Input 3-Pin Terminal Block Connects to remote Louroe microphones.
- [7] - Monitor Speaker Provides live audio through the 3" built-in speaker. Muted when a headset is connected to Headset Jack[3].
- [8] - Audio In Jack (RCA) Receives audio playback from DVR/VCR, etc. and is broadcast through the built-in speaker. [7].
- [9] - Audio Out Jack (RCA) Provides audio to DVR/VCR for recording or to other audio devices accepting line level input when any of the Zone Selector Switches[2] are activated or push in. The audio output to this jack will be the audio selected by the Zone Selector Switches[2].
- [10]- Power Jack Accepts 12Vdc from external power supply (included)
- [11] - Mic Output Jack Used for connection to a DVR with multiple audio inputs or to a soundcard module for audio recording. May also be used for paralleling to a second Louroe audio base station.

INSTALLATION AND OPERATING INSTRUCTIONS

MICROPHONE CONNECTIONS TO AP-4

All Louroe Verifact® Microphones contain a 3-pin terminal block marked A, B, C. All Louroe base stations contain similar 3-pin terminal blocks marked A, B, C. Refer to interconnection diagram p 5.

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

- 1) Take one end of recommended cable to first microphone location and connect:
Red wire to terminal A (12Vdc)
Black wire to terminal B (Audio Output)
Bare wire to terminal C (Ground)
- 2) Run other end of cable to the AP-4 Base Station location and connect to the 3-pin terminal block of the audio zone in which the remote microphone is assigned (example zone 1). Again connect Red wire to Pin A, Black wire to Pin B and Bare wire to Pin C.
- 3) Repeat the same procedure for the remaining microphones using the additional terminal blocks marked zone 2, zone 3, etc.

CONNECTING AP-4 TO A RECORDING DEVICE (DVR, ETC.)

- A) If connecting to a VCR or to a DVR with one audio input:
 - 1) Connect an RCA cable to the Audio Out jack [9] of AP-4 and connect other end to Audio In (or line in) of VCR/DVR
 - 2) To record, press the Zone Selector Switch [1] located on front panel of base station for the audio zone to be recorded
 - 3) For audio playback, connect another RCA cable from Audio Out (or line out) of VCR/DVR to Audio In [8] of AP-4
 - 4) Press in the Play/Mute Switch [1] of front panel
 - 5) Press the play or playback button on VCR/DVR to start audio playback. Playback will be broadcast through the base station's built-in speaker. As an alternate playback may be channeled through a CCTV monitor with amplifier or through DVR's speaker system
- 2) If connecting to a DVR with multiple audio inputs or to a soundcard module:
AP-4 has 4 line level RCA Mic Output Jacks [11]
 - 1) Connect RCA cables between the Mic Output Jacks [11] and Audio Inputs of DVR
 - 2) For audio playback from base station (AP-4), press in the Play/Mute Switch [1] located on base station's front panel. Playback may also be channeled through other audio sources
 - 3) To select a specific audio zone for playback, refer to DVR's instruction manual

APPLYING POWER TO THE AP-4

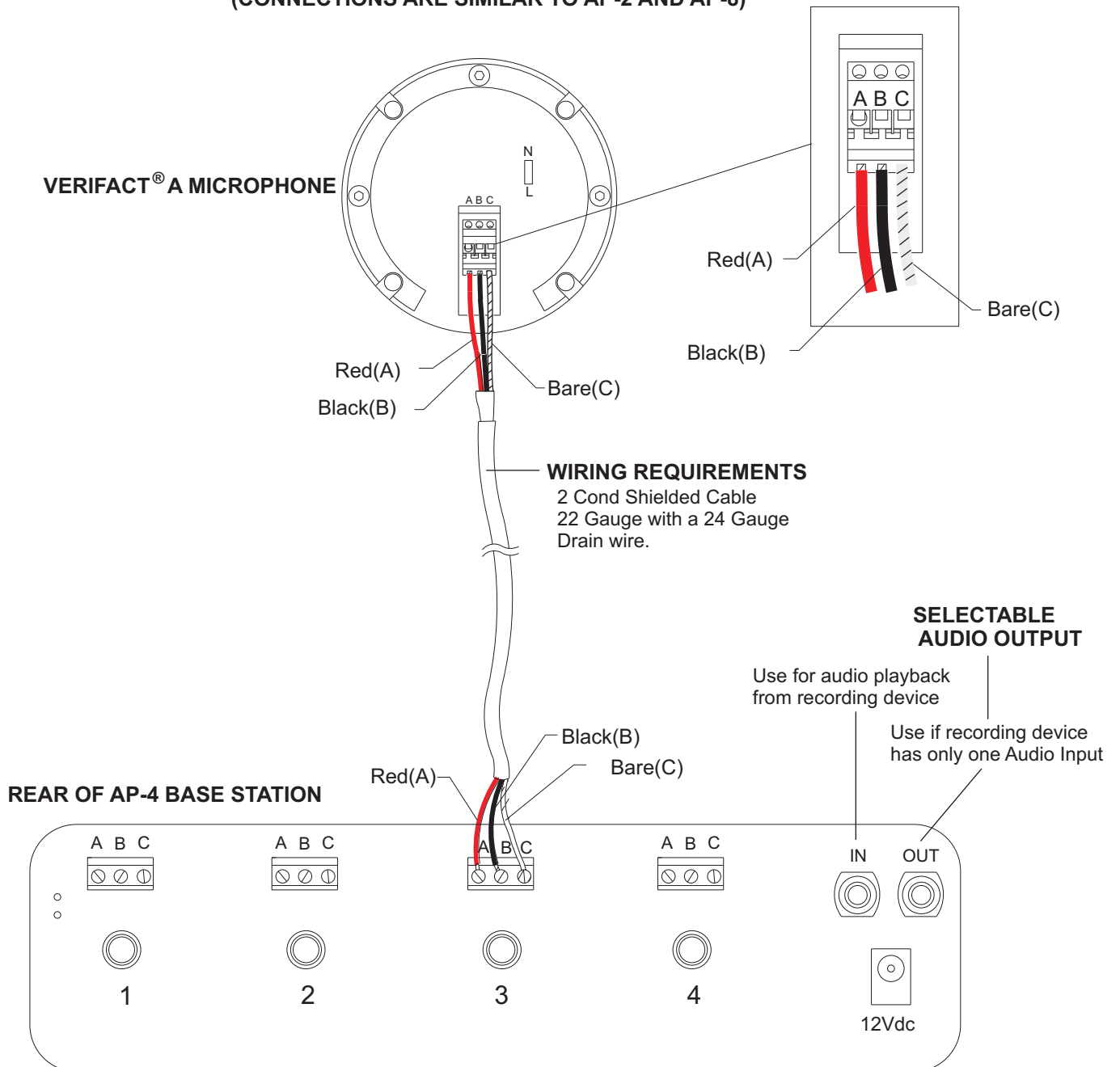
A 12Vdc power supply is included with the above units. First connect the small end with the 90° plug to the above units DC Jack [11] and connect large end to a standard 120Vac outlet or power strip.

Maximum distance between AP-4, etc. and Louroe microphones is 1,000 ft. (305m)

INSTALLATION AND OPERATING INSTRUCTIONS

INTERCONNECTION DIAGRAM FOR VERIFACT® A MICROPHONE AND AP-4 BASE STATION

(CONNECTIONS ARE SIMILAR TO AP-2 AND AP-8)



INSTALLATION AND OPERATING INSTRUCTIONS

OPERATION AND TEST

After microphones and power supply are connected, proceed as follows:

- 1) Turn on power to the unit by rotating the Power-Volume Knob[5] clockwise to “ON” position. The Power Indicator LED [4] will illuminate, indicating power to the unit. Rotate Power-Volume Knob[5] further clockwise to increase the volume of monitored audio.
- 2) Press Zone Selector Switch[2] marked zone 1. Audio from zone 1 should be present at the Monitor Speaker[7]. The Zone Selector Switch[2] is lighted indicating audio for that zone is present. If there is no audio, remove wires connected to Mic Input 3-Pin Terminal Block[6] for zone 1 at the rear of the unit. With a DC voltmeter, check that 12 Vdc is present at terminals “A” and “C”. If voltage is not present, unit has a problem with its power supply. If voltage is present, check to assure that wires are connected properly to the right terminals. Otherwise microphone is defective. Call factory for assistance.
- 3) Repeat step 2 for the remainder of the zones.
- 4) When a recorder is connected to the unit, press Play/Mute Switch[1]. Switch lights up indicating unit is in playback or mute mode. Start recording live audio. The Play/Mute Switch[1] must be depressed or in the “OUT” position when a recorder is not connected to the unit.
- 5) Playback recorded audio through the AP-4, etc. built-in amplifier and speaker.
- 6) The Play/Mute Switch[1] can be used to mute the audio heard on the speaker. The orange light is On when this switch is engaged. This function doesn’t mute the audio going to the DVR.

SUMMARY

Please check that wiring and power connections conform to the above instructions. In the event of a malfunction, refer to the troubleshooting guide, next page. Should the problem persist, factory assistance is available from 8:00 AM to 4:00 PM (Pacific Time) by calling (818) 994-6498.

INSTALLATION AND OPERATING INSTRUCTIONS

TROUBLESHOOTING

II. No audio present.

- a. Using a DC Voltmeter, check the voltage across terminal "A" and "C" ("A" positive; "C" ground) of the Mic 3-Pin Terminal Block[12]. It should read 12V. The microphone requires 12Vdc to work.
 - 1) Check connections to the microphone.
- b. Remove the wire connected to the "B" terminal of the Mic 3-Pin Terminal Block. Using an AC meter (set to lowest voltage range), check the presence of audio from the microphone. Place the meter leads between wire removed (positive) and terminal "C" (ground). Generate some loud noise close to the remote microphone while observing the meter reading. If audio is present, the meter reading will start to fluctuate. If there is no movement, the remote microphone is defective. Call factory for assistance.

Factory assistance is available between 8:30 AM to 4:00 PM Pacific time. Call (818) 994-6498.

SPECIFICATIONS (AP-4)

■ Monitor power output	1W @ 8Ω
■ Audio output impedance	1KΩ
■ Audio input impedance	10kΩ
■ Freq. response	100 Hz to 10kHz
■ Headphone impedance	8 to 600Ω
■ Current Drain	200mA
■ Power input	12 Vdc, 500mA
■ Dimensions	6 5/8"W x 8 5/8"L x 2 1/8"H
■ Weight	1lb 7oz

SPECIFICATIONS - Verifact[®] A

■ Type	Electret Condenser
■ Frequency response	40 Hz to 15 kHz ± 1 dB
■ Output	Line Level (0dBV, 600Ω @ 1kHz)
■ Current drain	10 mA
■ Supply voltage	12 Vdc
■ Microphone housing	High impact anti-static ABS
■ Dimensions	4" dia x 1 1/2"H
■ Weight	3.5 oz
■ Weight (Shipping) of kit	4 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.