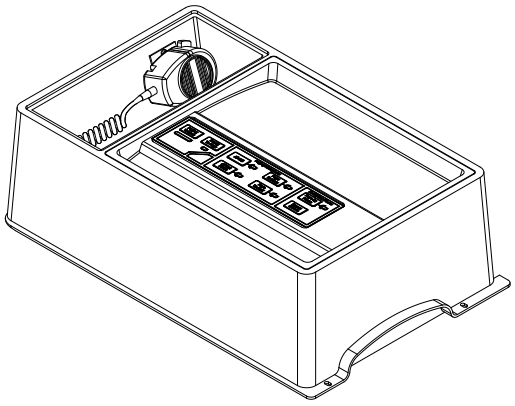
VM-PMI Paging Microphone Interface Installation Sheet



Description

The VM-PMI Paging Microphone Interface provides controls for emergency voice/alarm communication and two-way firefighter telephone communication. The VM-PMI consists of an audio mounting bracket, EAEC Emergency Audio Evacuation Controller card, enclosure, and paging microphone.

A separately ordered user interface language kit is available that lets you change the control and indicator labels. See the *VM-PMI-LK Language Kit Installation Sheet* (P/N 3101996-EN) for a list of available kits and installation instructions.

Installation

WARNING: Electrocution hazard. To avoid personal injury or death from electrocution, remove all sources of power and allow stored energy to discharge before installing or removing equipment.

Caution: Circuit boards are sensitive to electrostatic discharge (ESD). To avoid damage, follow ESD handling procedures.

Note: Two-way firefighter telephone communication requires a VM-MFK Master Firefighter Telephone Kit.

To install the VM-PMI:

1. Attach the audio mounting bracket to the cabinet backbox using the K-nuts provided. See Figure 2.
2. Install the EAEC card on the audio mounting bracket using the screws provided.
3. Mount the audio enclosure on the audio mounting bracket hinges. See Figure 4.
4. Connect the ribbon cable (P/N 250194-01), with the red edge down, to J1 on the audio user interface card.
5. Insert the cable under one clip on the cable clamp that is affixed to the enclosure, and then connect the other cable end to J1 on the EAEC card. See Figure 4.
6. Loosely secure the cable to the mounting bracket using the nylon cable tie provided.
7. Connect the ribbon cable (P/N 250188-01) to J3 on the EAEC card and J5 on the PS10-4B power supply card that is mounted on the backbox behind the electronics chassis.
8. Swing the audio enclosure toward the backbox to close it, sliding the screw holes on the right flange onto the two screws on the backbox. Secure the enclosure using the two #8-32 K-nuts provided.
9. Peel off the black film on the inside of the bottom viewing window of the cabinet door.

Wiring

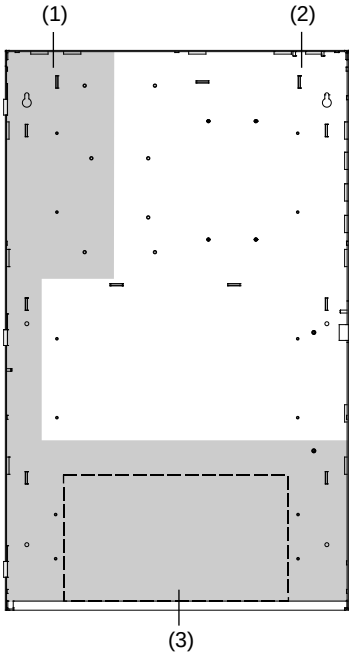
Connect the VM-PMI field wiring as shown in Figure 5. See Table 1 for descriptions of the connectors on the audio user interface card.

Notes

- All wiring is supervised and power-limited.
- Maintain 0.25 in. (6 mm) separation between power-limited and nonpower-limited wiring at all times. Keep nonpower-limited wiring in the shaded area shown in Figure 1. Secure the wiring to the cabinet using nylon cable ties.
- If a VM-NOC card is not installed on the VM-CPU, connect AUDIO DATA on the EAEC card to AUDIO A OUT on the VM-CPU network data and audio terminal. See Figure 5.

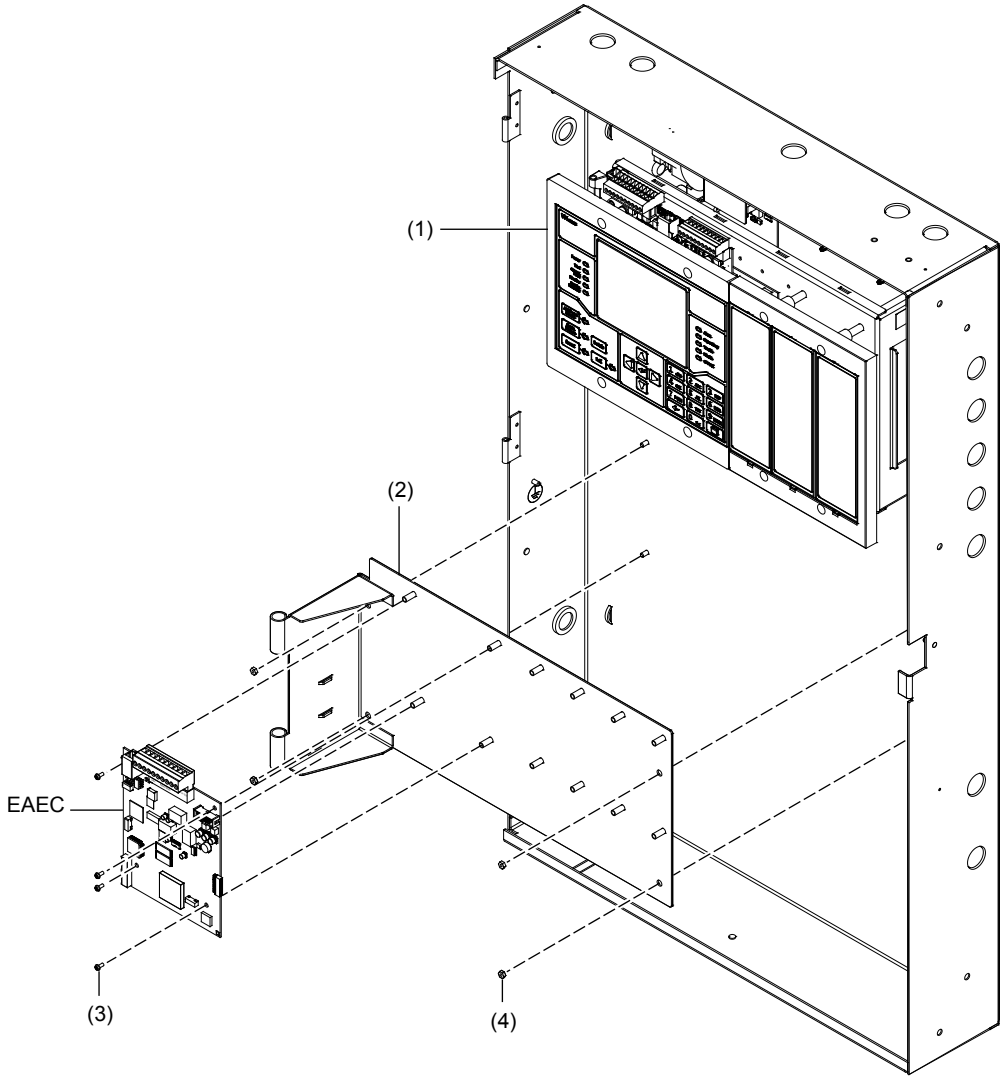
  If a VM-NOC card is installed, connect AUDIO DATA on the EAEC card to AUDIO A IN on the VM-CPU network data and audio terminal.
- Wiring from a remote microphone must be shielded and enclosed in conduit. Refer to the *VM-REMICA Remote Paging Microphone Installation Sheet* (P/N 3101795-EN) for field wiring instructions.

Figure 1: Power-limited and nonpower-limited wiring



(1) Nonpower-limited wiring area
(2) Power-limited wiring area
(3) Battery area

Figure 2: Installing the audio mounting bracket and EAEC card



(1) Electronics chassis
(2) Audio mounting bracket
(3) #6-32 × 5/16 screw (4X)
(4) #8-32 K-nut (4X)

Figure 3: Audio user interface connectors

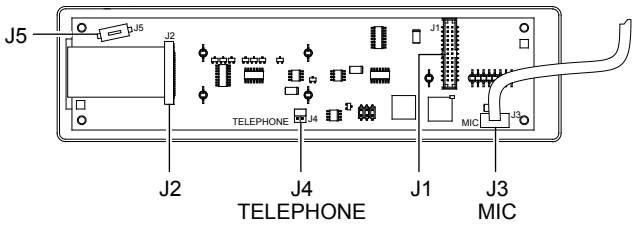
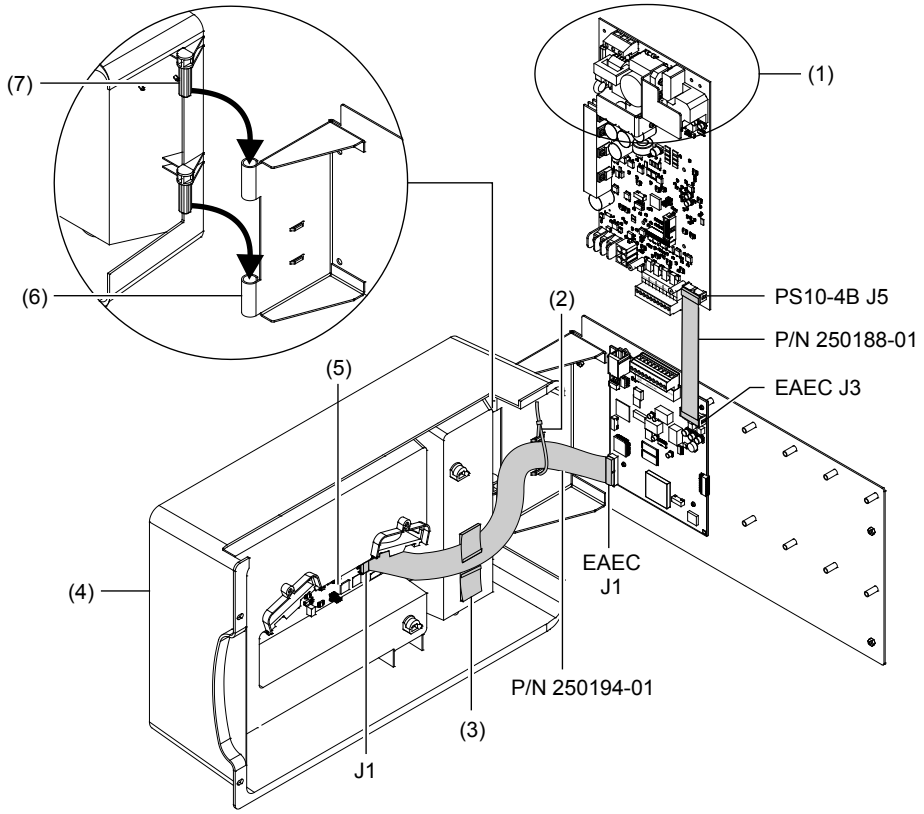


Table 1: Audio user interface connectors

Label	Description
J1	EAEC ribbon cable connector
J2	Audio user interface to audio control board connector
J3	Microphone cable connector

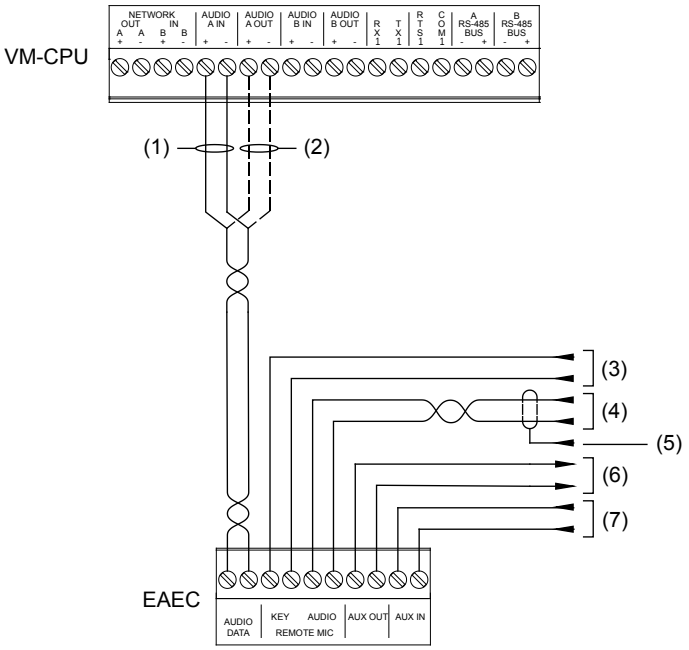
Label	Description
J4	Telephone cable connector
J5	Hook switch card connector

Figure 4: Installing the enclosure



(1) PS10-4B power supply protective case is installed here for ULC applications
(2) Nylon cable tie
(3) Cable clamp (P/N 362186)
(4) VM-PMI audio enclosure
(5) Audio user interface card
(6) Hinges on the audio mounting bracket
(7) Hinge pins on the audio enclosure

Figure 5: Wiring the EAEC card



(1) Network option card installed
(2) Network option card not installed
(3) Remote microphone, key out
(4) Remote microphone, audio out
(5) Remote microphone, shield
(6) No connection
(7) UL 864 Listed equipment with compatible ratings

Specifications

Voltage	24 VDC
Current	
Standby	23 mA
Alarm	29 mA
Remote microphone input	Isolated and supervised
AUX input	
Impedance	1 kΩ
Level	0.2 VRMS to 1.0 VRMS
Frequency response	100 Hz to 4 kHz
Ground fault impedance	10 kΩ
Wire size	18 to 12 AWG (2.5 to 1.0 mm²)
Audio channels	4 simultaneous
Audio inputs	
Local microphone	Isolated and supervised
Remote microphone	Isolated and supervised
Firefighter telephone	Isolated and supervised
Remote audio	Isolated and supervised
Messages	
Storage	2 min
Length	39 s max.
Controls and indicators	
Common	
Paging Volume	Indicates relative signal strength during active page
Ready To Page	Flashes during preannouncement tone, steady when ready to page
Paging Microphone	
All Call	Activates/deactivates page to all areas
All Call Minus	Activates/deactivates page to areas not receiving EVAC or Alert message
Page To Evac	Activates/deactivates page to areas currently receiving EVAC message
Page To Alert	Activates/deactivates page to areas currently receiving Alert message
Firefighter Phone	
Page By Phone	Activates/deactivates remote firefighter telephone to paging channel
Buzzer Silence	Silences call-in request buzzer
Operating environment	
Temperature	32 to 120°F (0 to 49°C)
Relative humidity	0 to 93% noncondensing

Regulatory information

FCC compliance	This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
Environmental class	UL: Indoor dry

Contact information

For contact information, see www.kiddelifesafety.com.