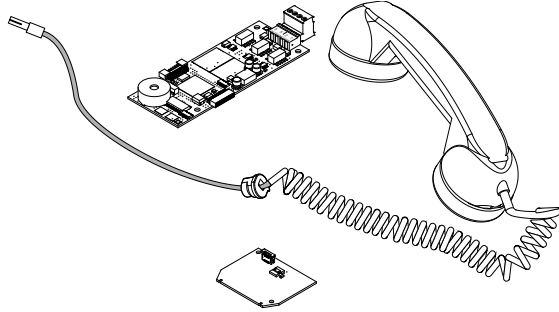


VM-MFK Master Firefighter Telephone Kit Installation Sheet



Description

The VM-MFK Master Firefighter Telephone Kit adds two-way firefighter telephone capability to a VM-PMI Paging Microphone Interface. The VM-MFK and the VM-PMI comprise the fire command center.

The VM-MFK consists of a firefighter telephone, hook-switch card, and telephone controller card.

Installation

WARNING: Electrocutation 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.

To install the telephone:

1. Remove the enclosure trim plate by inserting a slotted screwdriver between the trim plate and the paging microphone enclosure at the removal points shown in Figure 2, item 1.
2. Snap the strain relief provided onto the bottom of the telephone cord. Point the narrow end of the strain relief toward the end of the cord as shown in Figure 2.
3. Thread the end of the telephone cord through the cord hole on the enclosure and snap the strain relief into place.
4. Connect the telephone cord to J4 on the audio interface card in the back of the enclosure. The connector can fit onto any two pins on the connector. Refer to Figure 4.
5. Remove the left handset stop on the back of the enclosure and install the hook-switch card. See Figure 3.
6. Pull up on the top of connector J1 on the hook-switch card and insert the zero insertion force (ZIF) cable, with the metal contacts facing down. Push the top back down and then reinstall the handset stop. See Figure 4.
7. Pull up on the top of connector J5 on the audio interface card and insert the other end of the ZIF cable, with the metal contacts facing up. Push the top back down to secure the cable.

8. Insert J3 on the telephone controller into J5 on the EAEC card that is mounted on the audio mounting bracket. Secure the controller using the screws provided. See Figure 5.

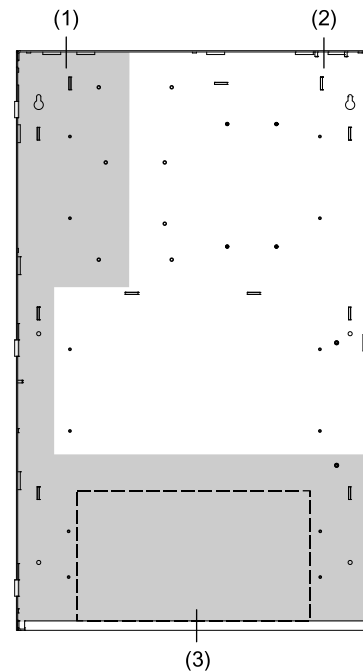
Wiring

Connect the VM-MFK field wiring as shown in Figure 6. See Figure 7 for locations and descriptions of the telephone riser, connectors, and LEDs on the controller card.

Notes

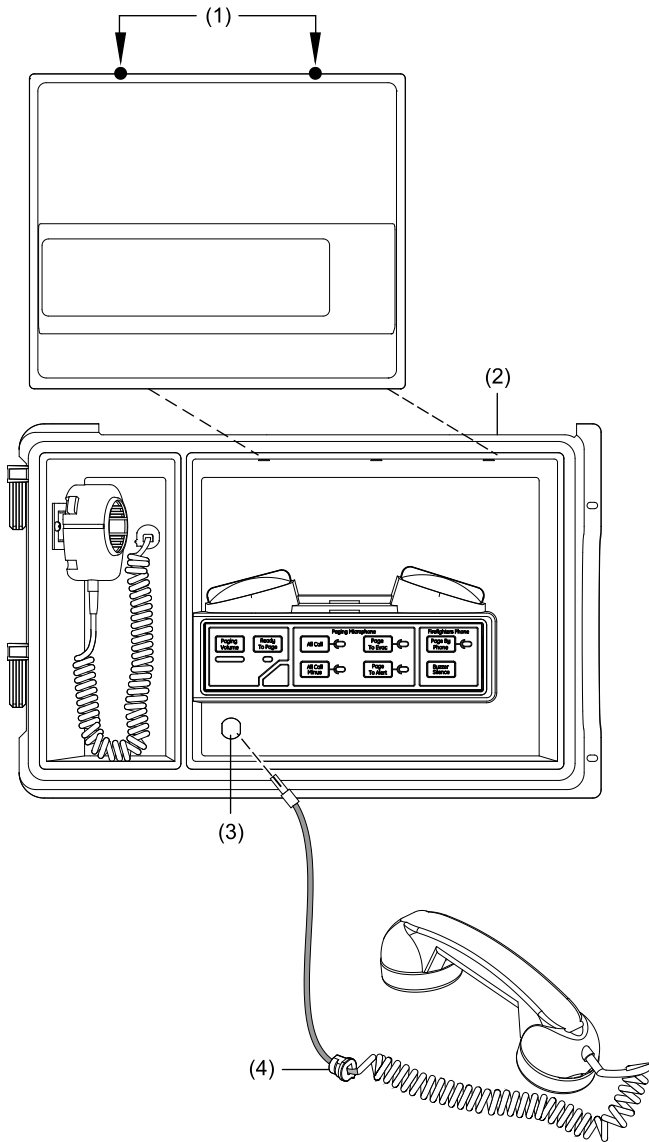
- All wiring is supervised and power-limited.
- Maintain 0.25 in. (6 mm) separation between power-limited and nonpower-limited wiring at all times. Keep nonpower-limited wiring in the shaded area shown in Figure 1. Secure the wiring to the cabinet using nylon cable ties.
- Use shielded twisted-pair cabling on the telephone circuit, if the circuit extends more than 5 ft. from the riser selector.
- Shielding must be continuous and tied to ground only at the signal source card.
- Terminate a Class B telephone riser with a 4.7 kΩ EOLR. Do not install an end-of-line resistor if the riser is wired Class A.
- Wiring may be different when installing a three-state and four-state telephone on the same circuit.

Figure 1: Power-limited and nonpower-limited wiring



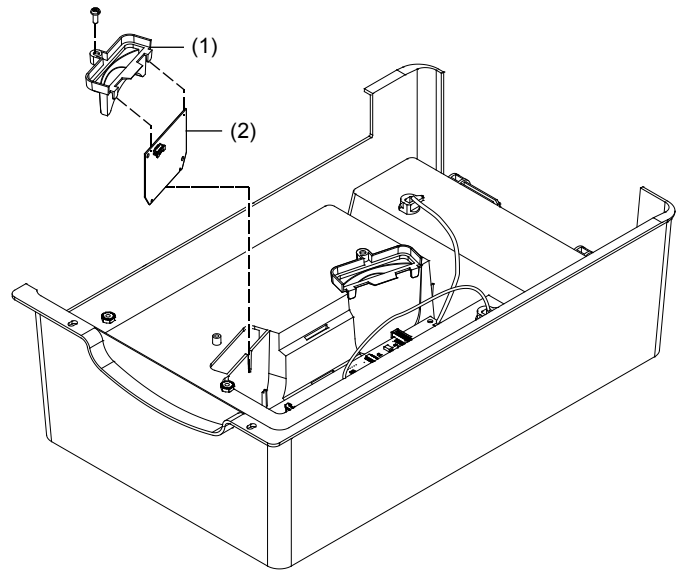
- (1) Nonpower-limited wiring area
- (2) Power-limited wiring area
- (3) Battery area

Figure 2: Installing the telephone



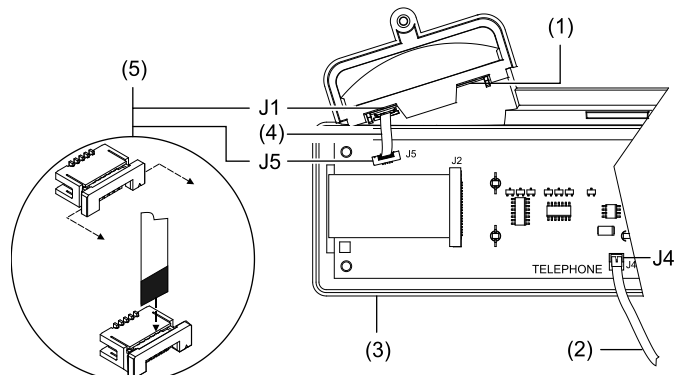
- (1) Trim plate removal points
- (2) Paging microphone enclosure
- (3) Telephone cord hole
- (4) Strain relief

Figure 3: Installing the hook-switch card



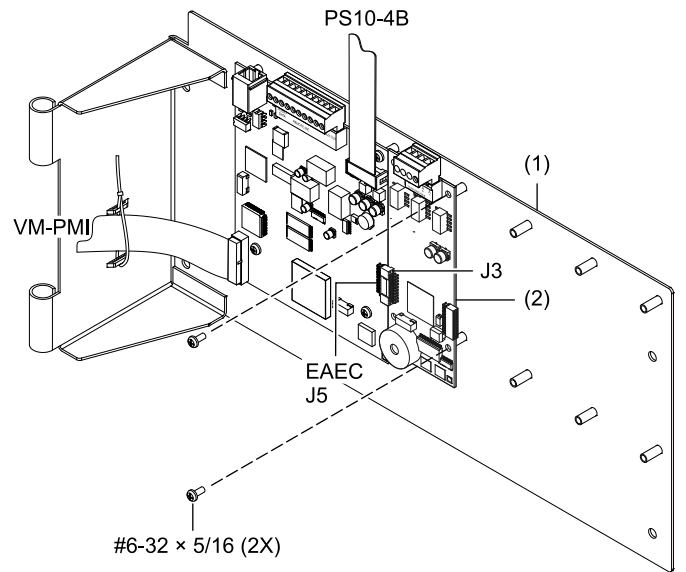
- (1) Handset
- (2) Hook-switch card

Figure 4: Connecting the telephone cord and ZIF cable



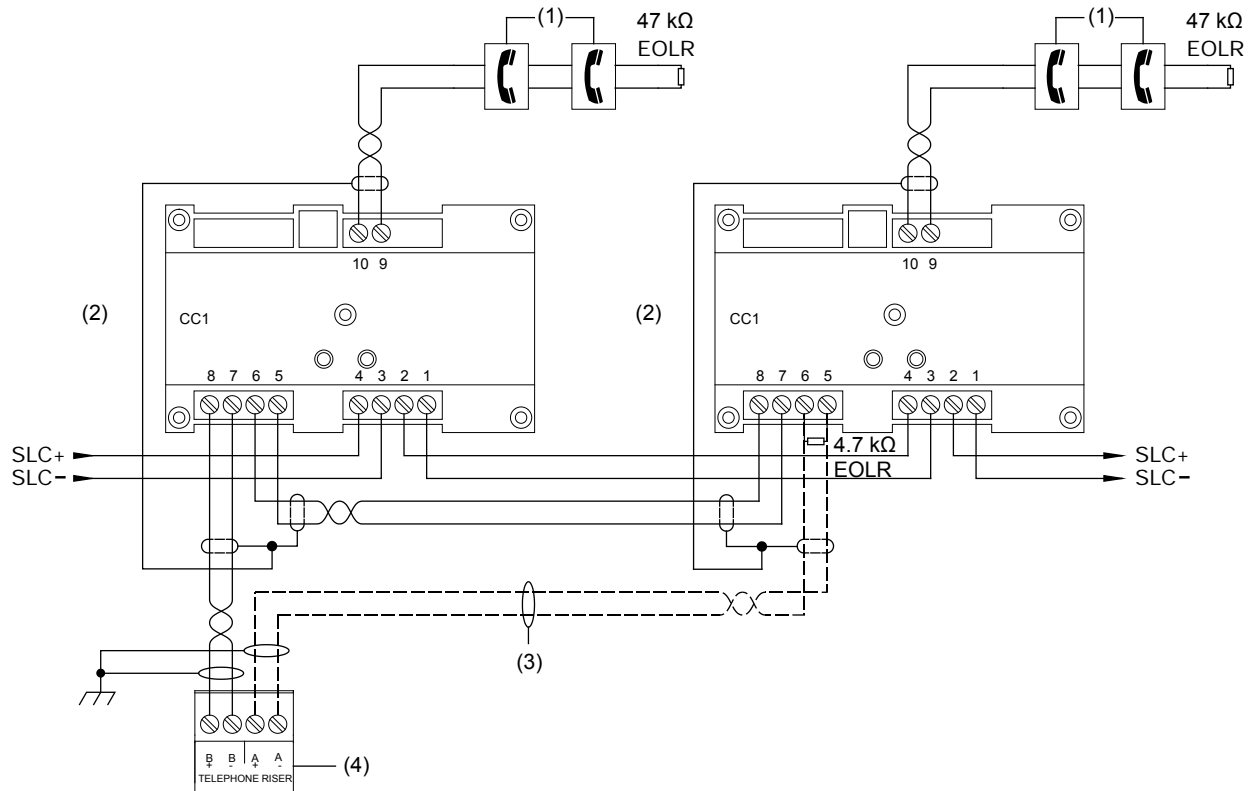
- (1) Hook-switch card
- (2) Telephone cord
- (3) Audio interface card
- (4) ZIF cable (P/N 7140228)
- (5) ZIF connectors

Figure 5: Installing the telephone controller



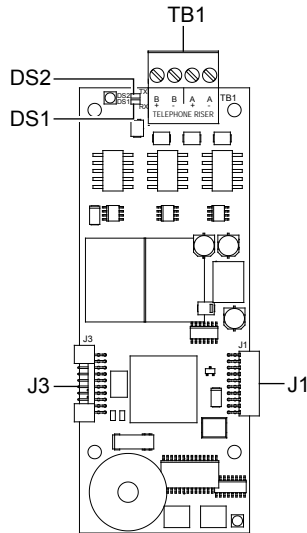
- (1) Audio mounting bracket
- (2) Telephone controller

Figure 6: Wiring the telephone controller



- (1) Four-state telephone
- (2) Personality code 26
- (3) Class A only
- (4) Telephone controller

Figure 7: Controller connector and LED descriptions



- TB1 Telephone riser terminal
- DS1 RX LED - indicates receive activity
- DS2 TX LED - indicates transmit activity
- J1 Telephone controller to ACHS connector
- J3 EAEC connector

Specifications

Voltage	24 VDC
Current	
Standby	37 mA
Alarm	39 mA
Telephone riser	
Circuit designation	Class A or Class B
Line impedance	52 Ω, 0.2 μF max.
EOL resistor	4.7 kΩ
Active telephones	5 max.
Ground fault impedance	1 kΩ
Wire size	12 to 18 AWG (2.5 to 1.0 mm ²) Shielded twisted-pair
Isolation	Isolated and supervised
Common controls and indicators	
Paging Volume	Indicates the relative signal strength during an active page
Ready To Page	Flashes during preannouncement tone, steady when ready to page
Firefighter telephone controls and indicators	
Page By Phone	Activates and deactivates the remote firefighter telephone to paging channel
Buzzer Silence	Silences the 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.

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