



DESCRIPTION

The Fike Remote Display Units consist of the RDU-2 (P/N 10-2630), RDU-10 (P/N 10-2631) and the RDU-14 (P/N 10-2646). They are compact, cost-effective, 80 character, backlit LCD remote annunciators for use with Fike's CyberCat™ 254, CyberCat™ 1016, CyberCat™ 50, Cheetah Xi™ and Cheetah Xi™ 50 control panels. The remote displays mimic the system status information displayed on the host control panel.

Communication between the control panel and the RDU(s) is accomplished over a two-wire serial interface employing the RS485 communication standard. Up to 31 remote displays may be connected to the RS485 circuit. The annunciators are powered from the host control panel or by battery backed, regulated, power-limited power supply listed for Fire Protective Signaling Use

SPECIFICATIONS

- Operating Voltage: 24 VDC regulated (15-30 VDC)
- Current Draw (all models):
 - 36 mA (normal standby)
 - 139 mA (backlight, piezo & all LEDs on)
- Operating Temp: 0 - 49° C (32 - 120°F)
- Operating Humidity: 93% relative humidity
- Terminals (P1 & P2): Accept 14 – 26 AWG
- RS485 Peripheral Bus:
 - Maximum 31 RDU's on circuit
 - Maximum 4,000 feet (1,219 m), panel to last device
 - Belden 9841, twisted-shielded cable or equivalent
 - 96 ohms maximum line resistance
 - 100 ohm termination resistor on last device only
- Compatible Firmware: Version 3.X
- All connections are power-limited and supervised
- Dimensions (with faceplate):
 - RDU2, 6.625"L x 4.575"H
 - RDU10, 8.875"L x 4.575"H
 - RDU14, 10.687"L x 4.575"H



Exhibit 1: Ten Button Remote Display

MOUNTING LOCATION

The mounting location for the remote display is very important. The following guidelines should be adhered to when selecting the mounting location for the remote display:

1. Mount at a height that allows easy viewing of the LCD display and access to the operational switches.
2. Mount in an area that is vibration free, clean and dry.
3. Mount in an area that is free from sources of electromagnetic interference and radio frequency interference; as these are types of problems that could adversely affect the successful operation and useful life of the remote display.
4. Mount in an area with a nominal room temperature of 15 – 27°C (60 - 80°F), with a relative humidity of 85%.
5. The remote display boxes and enclosures are NOT fire rated. Do not mount the remote display in or on a fire rated wall unless proper steps are taken to maintain specified fire rating.

INSTALLATION

If installing the RDU in an existing system, remove power and disconnect RS485 cabling from the host control panel prior to installing the RDU.

CAUTION

The RDU and associated control panel contains static sensitive components. Always ground yourself with a proper wrist strap before handling any components so that static charges are removed from the body. Use anti-static packaging to protect electronic assemblies removed from the unit.

The remote display can be surface or flush mounted using the electrical boxes indicated below:

- Two-Button Remote Display (P/N 10-2630):
 - 3-gang masonry box (P/N 02-11881), RACO 692 or equivalent with a minimum depth of 2 inches
 - 3-gang surface box (P/N 02-11892), Space Age ESB, red finish
- Ten-Button Remote Display (P/N 10-2631):
 - 4-gang masonry box (P/N 02-2123), RACO 693 or equivalent with a minimum depth of 2 inches
 - 4-gang surface box (P/N 02-11893), Space Age ESB, red finish
 - Remote Microphone Enclosure (P/N 10-2801)
- Fourteen-Button Remote Display (P/N 10-2646):
 - 5-gang masonry box (P/N 02-4811), RACO 694 or equivalent with a minimum depth of 2 inches
 - 5-gang surface box (P/N 02-11894), Space Age ESB, red finish
 - Remote Display Enclosure (P/N 10-2802).

ELECTRICAL BOX INSTALLATION

1. Select and remove the appropriate knockout(s) and pull the necessary wires through the knockouts leaving adequate length of wire to allow connection to the RDU. Mount the box in or on the wall depending on the type of installation desired (surface or flush). *Be certain that power is not applied to the wiring during the installation procedure.*
2. Remove the plug-in terminal blocks from the back of the RDU circuit board. Connect the RS485 and power wiring to the terminal blocks as illustrated in Exhibit 4. Plug the blocks back into the connectors on the back of the RDU.
3. Mount the RDU and trim-ring to the electrical box using the mounting hardware provided as illustrated in Exhibit 2. Do not over-tighten.
4. Reapply power and reconnect the RS485 wiring to the host control panel; then configure the RDU and the control panel for proper operation. Refer to Fike document 06-610, "Fike Remote Display Unit" product manual.

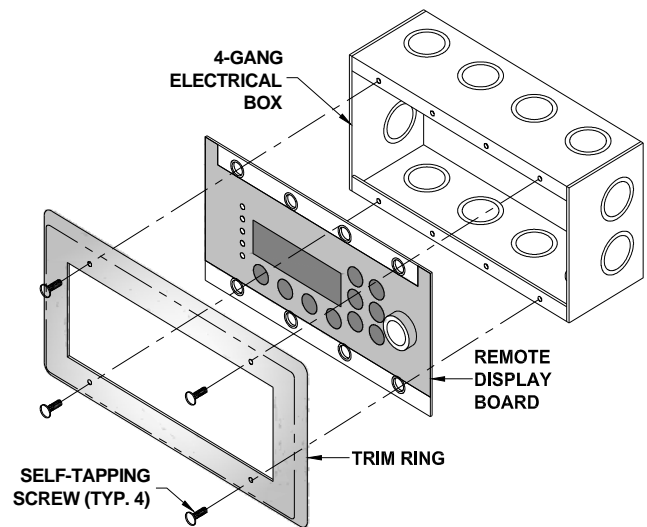


Exhibit 2: Typical Electrical Box Installation
(Ten-Button RDU Shown)

REMOTE ENCLOSURE INSTALLATION

1. Select and remove the appropriate knockout(s) and mount the box in or on the wall depending on the type of installation desired (surface or flush). Refer to the installation instructions supplied with the enclosure for mounting instructions.
2. Pull the necessary wires through the knockouts leaving adequate length of wire to allow connection to the RDU. Be certain that power is not applied to the wiring during the installation procedure.
3. Remove the plug-in terminal blocks from the back of the RDU circuit board. Connect the RS485 and power wiring to the terminal blocks as illustrated in Exhibit 4. Plug the blocks back into the connectors on the back of the RDU.
4. Mount the RDU to the back of the enclosure's dead-front door using the mounting hardware provided as illustrated in Exhibit 3. Do not over-tighten.
5. Reapply power and reconnect the RS485 wiring to the host control panel; then configure the RDU and the control panel for proper operation. Refer to Fike document 06-610, "Fike Remote Display Unit" product manual.

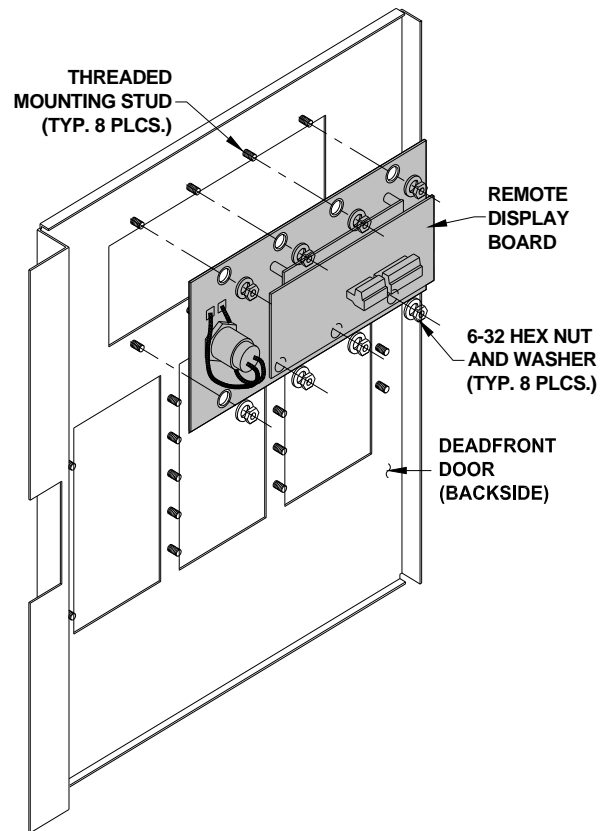


Exhibit 3: Typical Remote Enclosure Installation
(Ten-Button RDU Shown)

ELECTRICAL CONNECTIONS

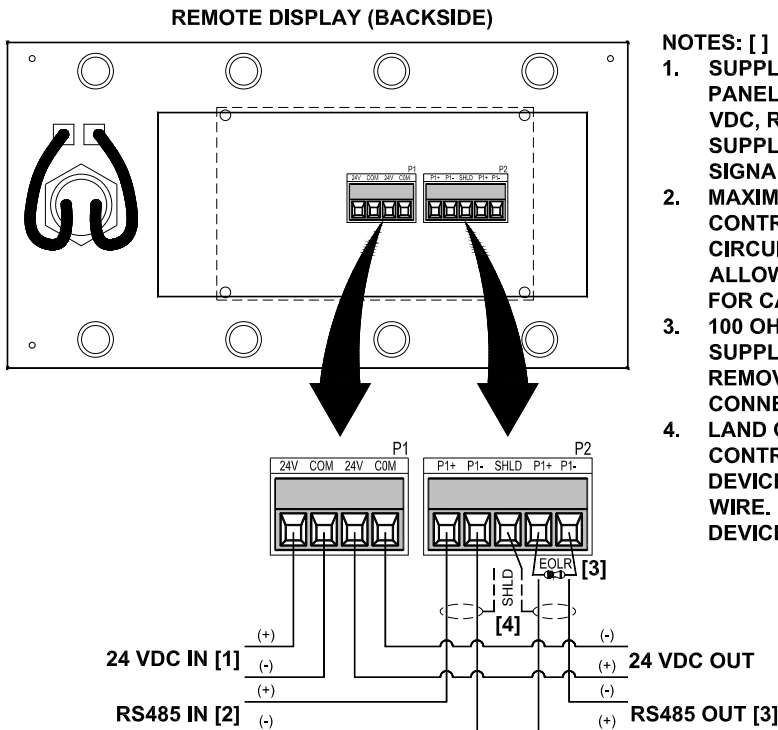
1. Utilize published standards and references such as: NFPA 70 National Electrical Code; NFPA 72 National Fire Alarm Code; and other standards which may be relevant to the Local Authority Having Jurisdiction (AHJ) for field wiring installation requirements.
2. Check wiring for stray voltages, shorts and ground faults prior to landing the field wiring to the RDU board. Correct any problems encountered.
3. Remove the termination resistor from the last device on the RS485 circuit and measure the total resistance of the wiring. Verify that the maximum circuit resistance value stated in the host control panel manual for this circuit has not been exceeded. If the measured resistance reading exceeds the specified maximum, the RS485 circuit is too long and must be modified. Re-install the termination resistor upon completion of testing.

STOP WARNING

Disconnect power to the releasing circuit(s) and disarm releasing mechanisms, disable critical operation shutdowns prior to system testing to prevent accidental activation of the system.

STOP WARNING

Some installation procedures call for using a megohmmeter (megger) to test all wiring. If using a megger, ALL field devices must be removed or not connected to the circuit when the megger test is performed. Electronic devices are not rated for the type of voltage the megger will generate. Damage to these components could result.



NOTES: []

1. SUPPLIED FROM THE HOST CONTROL PANEL OR FROM A BATTERY BACKED, 24 VDC, REGULATED, POWER-LIMITED POWER SUPPLY LISTED FOR FIRE PROTECTIVE SIGNALING USE.
2. MAXIMUM 4,000 FT. (1,219 M) FROM HOST CONTROL PANEL TO LAST DEVICE ON CIRCUIT. NO T-TAPPING (BRANCHING) ALLOWED. REFER TO SPECIFICATIONS FOR CABLE REQUIREMENTS.
3. 100 OHM TERMINATION RESISTOR SUPPLIED ON EACH RDU SHALL BE REMOVED, EXCEPT ON THE LAST DEVICE CONNECTED TO THE CLASS-B RS485 BUS.
4. LAND OUTGOING SHIELD WIRING AT CONTROL PANEL AND EACH PERIPHERAL DEVICE. DO NOT LAND INCOMING SHIELD WIRE. INSULATE SHIELDS AT EACH DEVICE.

Exhibit 4: RDU Electrical Connections

(Terminal blocks are located on the back of the RDU)