

Installation of Option RB5, Remote Mounted Display

Applies to: **Z Series Model ZQYRA , Preeva & MAPS Models**

Description and Application

The factory-installed display in the electrical control compartment allows complete access to unit test features, schedules, discharge air set points, fan control, alarms, and other unit operational set points. Option RB5 is a second, remote-mounted display that can be field-installed up to 656 ft. (200M) from the unit allowing the same unit access. **NOTE:** If the remote display needs to be mounted more than 656 ft. (200M) from the unit, contact the factory about adding a field-supplied power supply required to extend the range up to 1500 ft. (457M).

Option Components

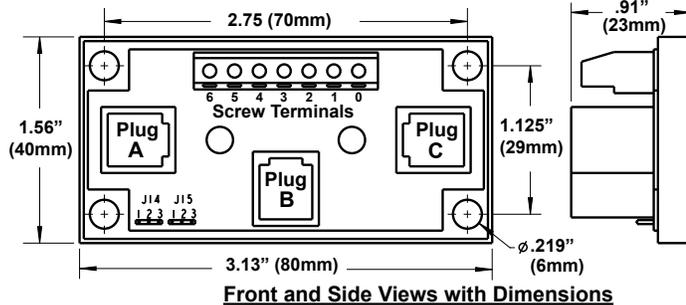
Component List

P/N	Qty	Description
260178	1	Unit Display
260175	2	6-pin Connection Cable
260735	2	Cable Splitter and Signal Booster Module



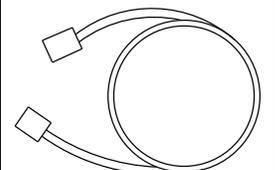
Unit Display, P/N 260178

(2) Cable Splitter and Signal Booster Modules, P/N 260735



Front and Side Views with Dimensions

(2) 6-pin Connection Cables, P/N 260175



Field-Supplied Requirements

Field-supplied 22 AWG to 18 AWG twisted pair wire (EIA 485) and an electrical junction box are required.

Installation Instructions

1. Turn power off to the unit (lock the disconnect switch open).
2. Install one Cable Splitter and Signal Booster Module (P/N 260735) inside the Units Control Cabinet:
 - a) Attach the module using the screws provided.
 - b) In the units electrical compartment, find the unit display and the main controller below it (reference illustration shown above). At the main controller, locate and unplug the 6-pin connection cable (the cable that connects from the unit display to the controller). Move the disconnected end of the cable to the module installed in **Step 2a** and connect it to **Plug "A"** (as shown in the "Wiring Connections on Cable Splitter and Signal Booster Module, P/N 260735" illustration on page 2).
 - c) Install one of the new 6-pin connection cables (P/N 260175), connecting one end to the main controller and the other to **Plug "C"** (as shown in the "Wiring Connections on Cable Splitter and Signal Booster Module, P/N 260735" illustration on page 2) on the module that was installed in **Step 2a**.

Installation Instructions (cont'd)

3. Install the second Cable Splitter/Signal Booster Module at the Remote Location:

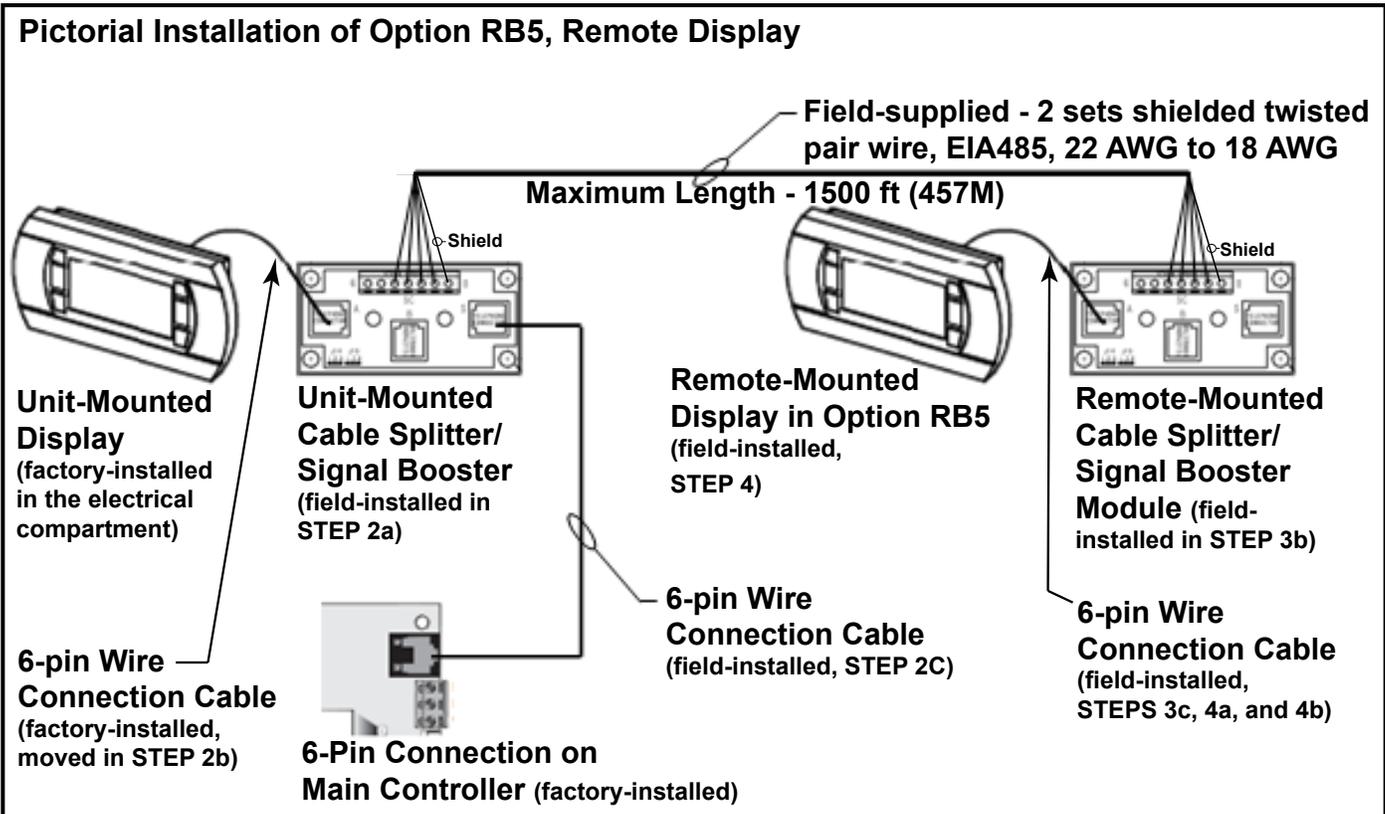
- a) Determine the desired location for the remote display unit. It can be located up to 656 feet (200M) from the unit.

Using field-supplied **22 AWG to 18 AWG shielded twisted pair wire (EIA 485)**, run dedicated wires from that location to the unit. Two sets of twisted pair wire are required -- one for the power and one for communication. The communication wire should be shielded to prevent noise.

On the cable splitter/signal booster module installed in **Step 2a**, connect the shield to **Screw Terminal 0**. Connect the power wires to **Screw Terminals 1 & 2**. Connect the communication wires to **Screw Terminals 3 & 4**.

Wiring Connections on Cable Splitter and Signal Booster Module, P/N 260735

Terminal Screw Connection	Pin Telephone Connection	Meaning
0	=	Earth
1	1	+VRL=30 Vdc
2	2	GND
3	3	Rx-/Tx-
4	4	Rx+/Tx+
5 (not used)	5 (not used)	GND
6 (not used)	6 (not used)	+VRL=30 Vdc



- b) Install the second cable splitter/signal booster module (P/N 260735) in a field-supplied junction box to be recessed behind the remote display. Connect the shield to **Screw Terminal 0**. Connect the power wires to **Screw Terminals 1 & 2** and communication wires to **Screw Terminals 3 & 4**, making sure that power and communication polarity is maintained.

WARNING: Improper wiring can damage the remote unit interface display as well as the main system controller.

- c) Attach the second 6-pin connection cable (P/N 260175) in the kit to **Plug "A"** on the remote cable splitter/signal booster module.

4. Install the Remote Display:

- a) Remove the back cover of the remote unit interface display (P/N 260178). Position the back cover over the cable splitter/signal booster module installed in **Step 3b** and feed the 6-pin connection cable out through the hole in the cover plate. Mount the back cover plate to the wall covering the cable splitter/signal booster module.
- b) Unsnap the face cover from the remote unit interface display. Locate the 6-pin wire connection and connect the cable from the cable splitter/signal booster module. Using the screws removed, re-attach the display to the back cover plate. Snap the display face cover in place.

5. Verify power and communication polarity before re-powering the unit.

6. Turn power on to the unit. Set the Address of the Remote Display:

- a) All displays have a factory-set address of 32; therefore, the address of the remote display must be changed. To access configuration mode on the remote display, press the **UP** , **DOWN** , and **ENTER**  buttons and hold all three for at least 5 seconds. The display on the remote unit will be similar to the one shown below, with the cursor flashing in the top left corner.



- b) To change the address of the remote display ("Display address setting"), follow these steps:
- 1) Press the **ENTER**  button once; the cursor will move to the "Display address setting" field.
 - 2) Using the **DOWN**  button, change the display address to 31. Press **ENTER**  again to confirm the setting. The following screen will be displayed and the new address will be saved to the permanent memory.



- c) The list of terminals associated with main control module is set at the factory and should not need to be adjusted. If access is needed, the following procedure can be used.

Access configuration mode on the remote display (press **UP** , **DOWN** , and **ENTER**  buttons and hold all three for at least 5 seconds). **NOTE:** The "I/O Board Address" field should remain at the default setting of "01". Press the **ENTER**  button four times to bypass the display address screen and move to the terminal configuration screen as shown below. This screen tells the controller what each of the terminal addresses are. The first terminal should be at 32 and the second terminal will be at 31.

Installation Instructions (cont'd)



To exit the configuration procedure and save the data, select the "OK?" field, set "Yes", and confirm by pressing the **ENTER**  button.

7. Check the remote display for proper operation.

Specifications & illustrations subject to change without notice and without incurring obligations.

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