After installing displays, complete the following steps to setup the FLD3-2000 Communication Kit.

Indoor/Outdoor J-box Installation

1. Choose a convenient location for the J-box near a 120 V outlet in the building. Remove the faceplate assembly by taking out the screws.

2. Securely mount the J-box to the wall. The back of the box contains holes that may be used to attach it to the wall (appropriate mounting screws to be provided by installer).

3. Connect 4-conductor 22 AWG cable according to the following chart to the terminal plug behind the face plate, as shown in **Figure 1**. A label inside the J-box, illustrated in **Figure 3**, shows connection information.
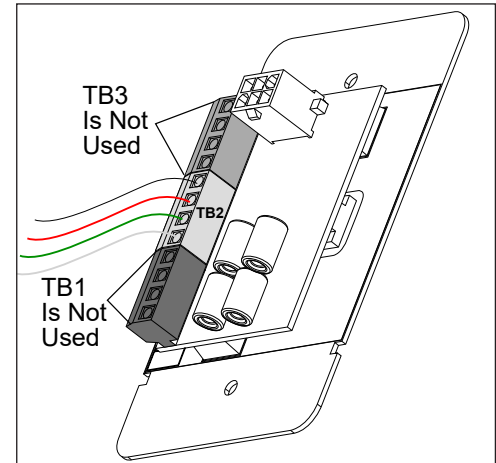
Indoor J-box Terminal	Wire Color	Surge Card TB2 Terminal Number
TB2-4	Black	TX-
TB2-3	Red	TX+
TB2-2	Green	RX-
TB2-1	White	RX+

4. Run the cable from Step 3 above through conduit from the indoor J-box to the outdoor J-box. Connect the cable in the outdoor J-box to TB1 on input card.

Outdoor J-box Terminal	Wire Color	Surge Card TB1 Terminal Number
TB1-4	Green	TX-
TB1-3	White	TX+
TB1-2	Black	RX-
TB1-1	Red	RX+

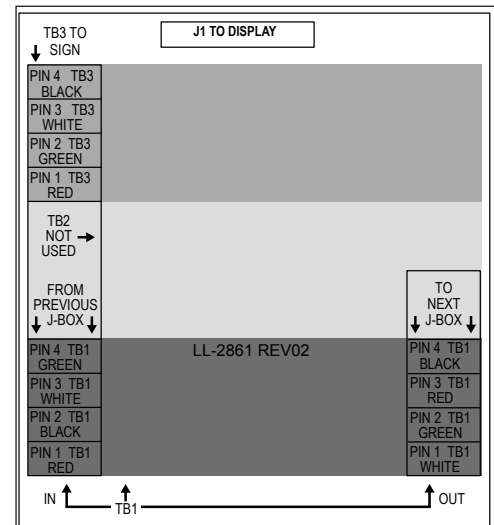
Figure 1: Indoor J-box Wiring

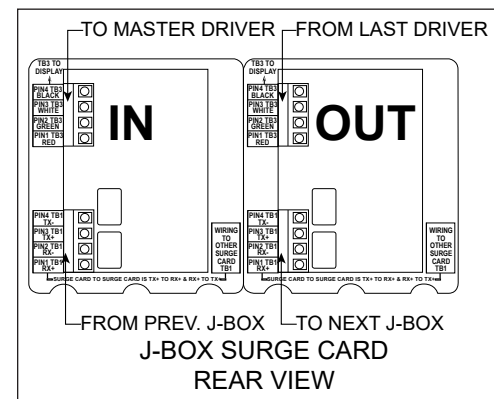*Figure 2: Outdoor J-box Label*

Figure 3: Outdoor J-box Diagram

Outdoor J-box Installation

1. Choose a location on the support pole so the J-box is easily accessible for plugging in the handheld controller.

2. Orient the box so the quick-connect cable runs out the bottom of the box.

3. **Permanently fasten the J-box vertically** once it has been proven effective in the location.

4. Connect unterminated end of the quick-connect cable to TB3 on Input card of J-box. If multiple driver cards are used on the pylon, connect the master driver to the quick-connect cable on the input card, and the last driver to the quick-connect cable connected to TB3 of the output driver.

5. Mount the bulkhead connector to the display structure within 8 feet of any display driver.

6. Plug the terminated end of the quick-connect cable into jack J16 on a driver.

Figure 4: Outdoor J-box

Outdoor J-box Terminal	Wire Color
TB3-4	Black
TB3-3	White
TB3-2	Green
TB3-1	Red

Limitation of Liability

The J-box is watertight and should not need additional protection from the elements, but the warranty will be nullified if:

• The J-box is modified

• The J-box is improperly installed

• The J-box is damaged

Line-to-Line Cable Installation Between Displays

Signal travels from the host driver jack J9 to additional display drivers through the Line-to-Line cable. Line-to-line connections are made using jacks J9 and J10 on the driver.

The preferred cable routing has signal leaving each driver from jack J9 and entering the next driver on jack J10
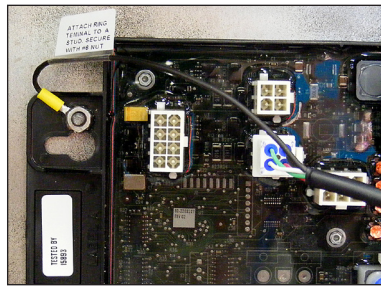
Each time you connect the line-to-line cable to J9, you must also connect the drain wire to the upper-left stud that holds the driver in place.

1. Connect the provided line-to-line cable, shown in **Figure 5**, to host driver jack J9. The host driver can be identified by having the communication option attached to jack J16.
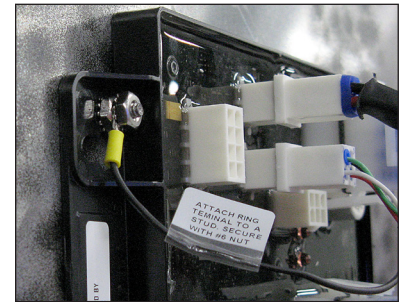

Figure 5: Line-to-Line Cable

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2. Place the drain wire of the line-to-line cable on the upper-left stud that holds the driver in place, as shown in **Figure 6**.

3. Place the 6-32 nut on the stud and tighten it with a $^5/_{16}$" nut driver, as shown in **Figure 7**.

4. Route the provided line-to-line cable from the host driver jack J9 to the next client display driver, connecting to jack J10, as shown in **Figure 8**.

5. Run cable through the knockouts located on the display's backsheet and be sure to use the provided cable bushings that snap into place.

6. Repeat until all displays are connected.

Figure 6: Line-to-Line Cable Installed in Host Display

Figure 7: Installed Drain Wire

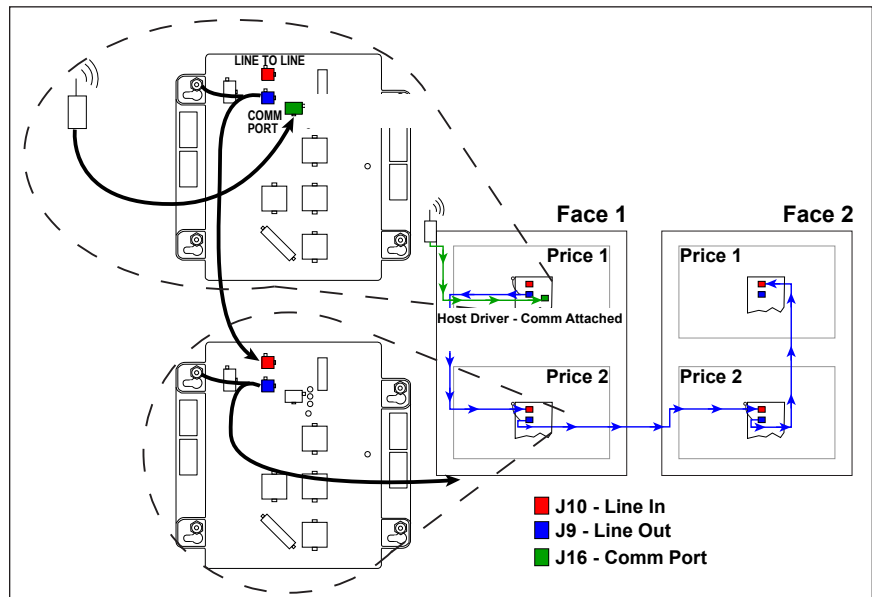> **Note:** Do not connect the last display driver back to the host.

Important Notes:

- Route cables at least 6 inches away from interfering sources like ballasts, florescent light bulbs, power sources, any type of motor, etc.

- Pull excess cable into the display cabinet, coil cable, zip tie it together and carefully place coil inside the display cabinet.

DM-100 Handheld Controller Set Up

See Section 8 in the [Fuelight FL-3000 & FL-4500 Petroleum Price Display & Cash/Credit Display Manual](#) (DD2238839) for instruction how to set up the handheld controller.

Figure 8: Line-to-Line Cable Installation

Or see Section 6 in the [Fuelight FL-3000 & FL-4500 Series 36" and 48" Petroleum Price Display & Cash/Credit Display Manual](#) (DD2716696) for instruction how to set up the handheld controller.

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