FLR3-100 Installation Quick Guide

This quick guide provides steps for installing the receiver and setting up a FLR3-100 key fob with a Fuelight™ Gen 3 display.

Installing the Receiver

- 1. Using a flat-head screwdriver, open the digit face to access inside the digit cabinet.
- 2. Remove both antenna hole plugs from the digit face. Refer to **Figure 1**.
- 3. Place the receiver on to the mounting studs on the back of the digit face. Refer to **Figure 2**.
- 4. Use a $\frac{5}{16}$ nut driver to secure the receiver to the mounting studs using the two provided nuts.
- 5. Place the threaded end of the antenna cable through the antenna hole.
- 6. Place the flat washer over the threaded end of the antenna cable. Refer to **Figure 2**.
- 7. Thread the provided nut on to the threaded end of the antenna cable and tighten using an 11/32 wrench.
- 8. Thread the female end of the antenna on to the threaded end of the antenna cable and turn the antenna clockwise until snug. Refer to **Figure 2**.
- 9. Connect the receiver cable from receiver to the driver. Refer to Figure 3.
- 10. Neatly secure any excess cable with cable ties.
- 11. Close and secure the digit face.





Setting the Security DIP Switches

The FLR3-100 key fob has a series of dip switches on the back to give it a unique address setting. Set these switches to a unique setting to prevent others from being able to control your display.

- 1. Remove the small cover on the back of the FLR3-100 key fob radio. Refer to Figure 4.
- 2. Using a paper clip or a micro screwdriver, set the switches to a unique setting.

Note: Do not change switches nine and zero.

3. Replace the back cover.



Figure 1: Digit Door Receiver Mounting Overview



Figure 2: Mounting Profile



Mating the Key Fob With the Display

Follow these steps to mate the display with the FLR3-100 key fob. If these steps are not completed, the display will not recognize or respond to the key fob.

- 1. Turn power on to the display.
- 2. While display is booting up, or within 5 minutes, press and hold -1 and +1 buttons until the decimal flashes 3 times. Refer to Figure 4.
- 3. Once the decimal point flashes 3 times, release the Figure 4: FLR3 Key Fob buttons.



Note: If key fobs and displays are mated prior to installation, verify that they are still properly synced to one another at the time of installation.

Setting the Display Line Numbers

Follow these steps to map the line number for each display. It is important that each display is set for the correct line number for it to show the correct price.

- 1. Make sure the display is turned on.
- 2. Press and hold the -2 and +2 buttons on the key fob until the host display face begins to dim and brighten or the decimal begins to flash. This takes about five seconds.

Note: The host display is the display with the radio antenna connected to it.

- 3. While the display slowly flashes, press the +2 button until the appropriate line number is shown on the display (L01, L02, etc).
- 4. Once the line number is set, press and hold the -2 and +2 buttons until the next display face begins to slowly flash.
- 5. Repeat these steps until all display faces have been correctly mapped.

Note: If a display gets set incorrectly, complete the process with the remaining displays then repeat to correct.

6. Exit configuration mode by pressing and holding the -2 and +2 buttons until the displays show prices and they no longer flash; about five seconds.

Note: All displays are programmed with a default price matching their line number. Use this to easily identify that all displays are addressed correctly.



Number Configuration

This section steps you through configuring the numbers six and nine and the fraction display preferences.

- 1. Make sure display is turned on.
- Press and hold the -3 and +3 buttons on the key fob until all displays show the numbers 6 and 9. The number scheme will be either 3.69 9/10 or 4.69 9/10. Refer to Figure 5.
- 3. Press the Plus (+) or Minus (-) keys to scroll through the different configuration options.

Note: For Domestic displays with a 9/10s digit, the number 3 needs to show in the first column for the desired format. For International displays, make sure the number 4 shows in the first column for the desired format.
 Note: International displays offer two configuration options - tails and 9 and no tails and 9, as

4. When the desired configuration is shown on the displays, press and hold the -3 and +3 buttons to exit configuration mode.

Entering Test Mode

shown in Figure 6.

Entering test mode causes the displays to cycle through various pieces of information that can be useful when working with Daktronics Technical Support.

- 1. Press and hold the -4 and +4 buttons of the key fob until the displays begin cycling through test mode.
- 2. Exit test mode by pressing and holding the -4 and +4 buttons until the displays return to showing prices; approximately five seconds.

Controlling Five or More Fuel Grades or Multiple Pylons

Use the following steps when controlling more than four fuel grades in the same pylon or when more than one pylon exists on the same site.

Note: The same instructions apply to installation in a sign shop or on site.
Note: Two or more FLR3-100 key fobs are required.
Note: Each keyfob is limited to controlling a maximum of four grades and only displays a single pylon.

Important Terms

- Host Display Display that has the receiver card connected to it.
- Fuelight System Host display and all other displays that are connected to the host with a line to line cable.



Figure 5: Digit Configurations



Figure 6: International Digit Configuration



Option 1: Dedicated (Branch) Circuits

- 1. Ensure a dedicated branch circuit is installed for each Fuelight system. This allows a power cycle for each Fuelight system so the keyfob can be synced only to that system.
- 2. Shut off all power.
- 3. Power up the first Fuelight system and sync the keyfob per **Section Mating the Key Fob With the Display (p. 2)**.
- 4. After the first Fuelight system and key fob are synced, shut off power to this circuit **after 5 minutes**.
- 5. Power up the second Fuelight system and sync that key fob.
- 6. Shut down power after 5 minutes.
- 7. Repeat this step for additional Fuelight systems.
- 8. Once all key fobs are synced and marked to designate which Fuelight system they control, power up all branch circuits.
- 9. Key fob synchronization is complete.
- 10. Map the lines of all of the displays in each of the Fuelight systems per **Section Setting the Display Line Numbers (p. 2)**.

Note: If there are multiple pylons, repeat the steps above for each pylon. **Note:** Make sure only one pylon is powered on at a time.

Option 2: Single Branch Circuit for All Fuelight Systems

Use this option when a single branch circuit is wired to all pylons and Fuelight systems.

All Fuelight systems turn off and on simultaneously requiring access to the inside of the host display of each Fuelight system to sync to its dedicated key fob.

- 1. In the host display of each Fuelight system, unplug the driver power supply.
- 2. Power up the first Fuelight system by reconnecting the power supply to the driver.
- 3. Sync the keyfob per Section Mating the Key Fob With the Display (p. 2).
- 4. After the first Fuelight system and key fob are synced, disconnect the power supply from the driver **after 5 minutes**.
- 5. Power up the second Fuelight system by reconnecting the power supply to the driver and sync that key fob.
- 6. Unplug the power supply from the driver after 5 minutes.
- 7. Repeat this step for additional Fuelight systems.
- 8. Once all key fobs are synced and marked to designate which Fuelight system they control, reconnect all power supplies to their drivers in all host displays.
- 9. Key fob synchronization is complete.
- 10. Map the lines of all of the displays in each of the Fuelight systems per **Section Setting the Display Line Numbers (p. 2)**.

Note: If there are multiple pylons, repeat the steps above for each pylon. **Note:** Make sure only one pylon is powered on at a time.

