This document explains how to install Digital Inventory & Leak Detection probes and floats. For more information, see Digital Inventory & Leak Detection Probes Installation Guide (part number 409723001). Additional information is available online at: www.franklinfueling.com > More > Resources > Download Library > Fuel Management Systems.

⚠️ WARNING: Always lock out and tag electrical circuit breakers while installing or servicing this equipment.

⚠️ WARNING: Follow all federal, state and local laws governing the installation of this product.

⚠️ WARNING: Always secure the work area from moving vehicles.

### Probe Length
The probe model number indicates its length. The model number format is: FMP-LL3-xxx, where xxx is the length of the probe shaft (not including probe head) in inches. (Make sure you consider the riser height and overhead clearance when you select a probe length.) For example, the FMP-LL3-101 probe is for 8 ft (96 inch) tanks.

### Float Kits
Float kits that accommodate 2, 3, and 4 inch risers are available for both diesel fuel and gasoline. Kits include a product and water float. Order one float set for each digital inventory and leak detection probe. Density and phase separation float kits are also available. Product floats are white or clear, gasoline water floats are red, and diesel water floats are blue.

### Mounting Probes
Install Digital Inventory & Leak Detection probes so they rest on the bottom of the fuel tank. Probes come with a spacer for the probe head and a ¼ inch foot for the end of the shaft. When you use a 2 inch riser, remove the top spacer and replace the bottom spacer with the 2 inch spacer included with the 2 inch floats. When you use a 3 inch riser, break off the tabs on the top spacer and replace the bottom spacer. No modifications are needed with 4 inch risers. Do not suspend leak detection probes.

### Operation Modes
There are two probe operation modes:
- Universal Device Protocol (UDP) communicates digitally and provides enhanced functionality. You can use this mode only with evo™ systems that have software version greater than 2.6.0.
- LL2 Emulation allows you to communicate using the LL2 protocol. You can use the LL2 Emulation mode with the T5 Series™, Colibri®, TS-1001/2001™, TS-504/508™, TS-750™, and evo™.

### Probe Splice Kit Installation Instructions
The Liquid Level Probe Splice Kit includes three electrical connectors that you install inside the manhole junction box. For more information, please see Direct Burial Cable Installation Instructions (part number 000-1041), and Direct Burial Splice Kit Installation Guide (part number 000-1133).

**IMPORTANT:** Your warranty will be void if you do not use the splice kit.
1. Insert 2 red, unstripped wires into two separate openings in the first connector.
2. Insert 2 black, unstripped wires into two separate openings in the second connector.
3. Insert the white wire from the probe cable into one of the openings in the third connector. Important: Make sure you isolate the white wire even if it is not used. Do not cut it, and make sure it is inserted into a separate, sealed connector.
4. Use 8 inch slip-joint pliers to squeeze each connector together.
5. Connect the shield from the probe cable to Ground.

LL2 EMULATION SPLICE WIRING:
1. Insert two red, unstripped wires into two separate openings in the first connector.
2. Insert two black, unstripped wires into two separate openings in the second connector.
3. Insert the white wire from the probe cable into the remaining opening in the second connector.
4. Use 8 inch slip-joint pliers to crimp each connector.
5. Connect the shield from the probe cable to Ground.

DENSITY FLOAT
The product float and density float are matched and must be purchased as a set. For information about installing and programming density floats, see Density Measurement Option Installation Guide (part number 000-0527).

TANK GAUGE SET UP
- For information about setting up a probe and tank gauge with TS-5™ series consoles, please see Fuel Management System Programming Guide (part number 000-2142), and Fuel Management System Installation Guide (part number 000-2150).
- For information about the evo™ fuel management system, see TS-550/5000 evo™ Fuel Management System Installation Guide (part number 000-2170), Fuel Management System Operator's Guide (part number 000-2171), and Fuel Management System Programming Guide (part number 000-2173).
- For Colibri® Tank Gauge Consoles, see Colibri® Automatic tank Gauge Installation Guide (part number 000-2153) and Colibri® Set-Up and Operation Guide (part number 000-2155). For additional online resources, go to: www.franklinfueling.com > Products > Fuel Management Systems > Tank Gauge Consoles > Colibri®.

NOTE: To help avoid unreliable probe performance, make sure you use float kits that have been approved by Franklin Fueling Systems.

NOTE: The Belden™ cable 89182 (for runs longer than 400 feet) has a yellow positive wire that must be connected to the RED (positive) probe terminal inside the console.