



Field Verification / Functional Testing of the INCON TS-LLD

The Line Leak Detector functional operation, 0.2 gph and 3 gph line leak detection capabilities can be verified after installation, and periodically thereafter, by following this procedure. All dispensers for the product being tested and any blended products must be shut down during testing.

< 3 gph Leak Detection >



1. Turn off the electrical power to the TS-LLD / submersible pump where it's installed.
2. Remove a dispenser cover panel to gain access to a shear valve for the line being tested.
3. Install a Leak Simulator and place its hose into an appropriate container (see below for details).
4. Turn the LLD / pump power back on and press the Reset / Test button on the Control Unit to interrupt the test that automatically starts at power up. Lift a dispenser handle to activate the pump and adjust the leak simulator for a leak rate greater than 3.0 gph.
5. Hang up the dispenser handle, a 3 gph line test will begin automatically (there will be a 30 sec delay before the pump comes back on). The simulated leak must already be set before the pump comes on! Within 3 minutes the LLD system will detect the leak and shut down the pump. The Control Unit display will show a flashing "3" and the line leak detected light will be flashing.
6. Push the reset button on the TS-LLD Control Unit to restore normal system operation after a simulated leak is detected. During the next 24 hrs the system should pass a 3 gph test and shut off the line leak detected light, or you may initiate another test after the leak simulator has been removed. (see next step)
7. After the leak detection function of the system has been verified: Turn-off power to the pump and Control Unit. Remove the leak simulator from the shear valve and re-install the original plug. Re-install the dispenser panel and restore power. This completes the test.

Note: A Leak Simulator typically consists of a section of hose with a connector that can be screwed into the test port on one end, and a ball valve on the other. The valve should be opened just enough to create the desired leak rate.

< 0.2 gph leak detection test - page 2 >

< 0.2 gph Leak Detection >

(This will take at least 1 hour)

1. Turn off the electrical power to the TS-LLD / submersible pump where it's installed.
2. Remove dispenser cover panel to gain access to the shear valve for the line being tested.
3. Remove the test port plug in the shear valve at the base of the dispenser.
4. Install a Leak Simulator and place its hose into an appropriate container (see page 1 for details).
5. Turn the LLD / pump power back on and press the Reset / Test button on the Control Unit to interrupt the test that automatically starts at power up. Lift a dispenser handle to activate the pump and adjust the leak simulator for a leak rate greater than 0.2 gph but less than 3.0 gph, this is typically a fast drip. Be sure the leak simulator hose is secured in place in the appropriate container. Hang up the dispenser handle.
6. Turn the LLD / pump power off and then back on again, a 0.2 gph line test will begin automatically (there will be a 30 sec delay before the pump comes on). The simulated leak must already be set before the pump comes on! After approximately 3 minutes the LLD system will have completed the 3 gph leak test and moved on into the first cycle of the 0.2 gph test. If a 3 gph leak is detected than you should press the Reset / Test button and start over, this time adjusting the leak simulator to a much slower leak rate. The 0.2 gph test will take *at least* three 13 min. cycles to complete. The pump will shut off for two minutes between cycles but the test will continue to run. The leak rate must be maintained throughout the test. After the completion of the last cycle the TS-LLD will detect the leak and shut down the pump. The Control Unit display will show a flashing "2" and the line leak detected light will be flashing.
7. Push the reset button on the TS-LLD Control Unit to restore normal system operation after a simulated leak is detected. During the next 24 hrs the system should pass a 0.2 gph test and shut off the line leak detected light, or you may initiate another test after the leak simulator has been removed. (see next step) INCON recommends clearing all line leak alarms before leaving the site
8. After the leak detection function of the system has been verified: Turn-off power to the TS-LLD / pump. Remove the leak simulator from the shear valve and re-install the original plug. Re-install the dispenser panel and restore power. This completes the test.

