



**UNDERGROUND STORAGE TANK (UST)
MONITORING SYSTEM AND SENSOR FIELD GUIDE
(Updated May 2023)**

CUPA CONFERENCE MARCH 2023

This is a Field Guide presented with UST Components 101
CUPA Conference March 2023, Anaheim California

This document is NOT a complete list (Nor is intended to be) of all systems/components
All information also has website and document links for reference.

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LG 113 should always be checked for confirmation of current approvals.	LG 113
SWRCB UST Construction, Monitoring and Testing Table	PDF GUIDE

Updated May 2023

**This is not a list of EVERY sensor out there. This is a list of common sensors that have been seen in multiple counties. All components are listed in LG-113 and NWGLDE. Check panel/sensor compatibility.*

VEEDER ROOT

VEEDER ROOT SENSOR APPLICATION GUIDE









This Guide has been used as reference for sensor specifics

Veeder Root (VR) Certification and ICC Service Tech Required Certifications

www.veeder.com/us



Veeder Root Monitoring Panels

Model Number	Description	Photo (Field)
<p>TLS 450</p>  <p><i>Image Source: Veeder Root Website</i></p>	<ul style="list-style-type: none"> - New Veeder TLS 450 PLUS. - Not yet approved for CARB ISD (March 2023). - Approved for UST Monitoring. - Shows full alarm history. 	
<p>TLS 350 Plus/R</p>  <p><i>Image Source: Veeder Root Website</i></p>	<ul style="list-style-type: none"> - Common Current Panel. - Can support Electronic Leak Detectors. - No longer will be supported/Difficult to get updated parts/boards (2023). - Only Prints last three (3) alarms per sensor. - Subject to Cold Starts. 	
<p>TLS 300C 1 Module, 8 Sensors Only</p>	<ul style="list-style-type: none"> - Refer to Sensor application guide for compatibility. - 300C does not support some sensors or Electronic Leak Detectors. - Will not support Optical Sensors. 	
<p>TLS 250</p>  <p>- One of the first. No longer made. <i>Source: Google Images</i></p>	<p>Gilabro EMC/Simplicity are TLS 350/300s.</p>   <ul style="list-style-type: none"> - Old covers from old company/model. - Operationally/Functionally, these are TLS 350s or 300Cs. 	

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Sump and Under Dispenser Containment (UDC) Sensors

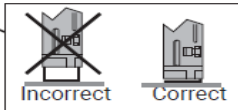
Discriminating: Detects the presence of, and differentiates between, hydrocarbons and other liquids.

Optical: Looking at phase changes in the light beams by causing them to interact or interfere with one another.










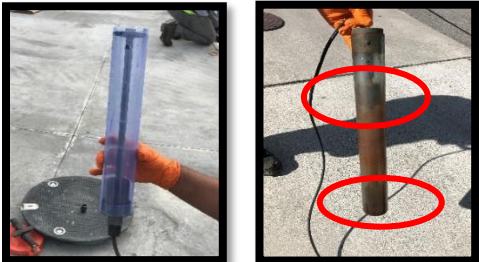
Position Sensitive: Housing must compress position indicator witch (Tamper Foot) against the bottom of the sump.

Stand Alone: When liquid is detected in the dispenser pan, the sensor shuts down AC power to the dispenser only.

Model Number	Description	Photo (Field/Website)
001	Stand Alone Sensor	See "Stand Alone Sensor" Section
205: ~16" L	<ul style="list-style-type: none"> - Pre-208 Sensor (PVC Housing). - No Longer Made. - If fails, replace accordingly. - Sensor is not on LG113. 	
208: 12' Cable, 12" L 209: 30' Cable, 12" L	<ul style="list-style-type: none"> - Most Common Sensor. - 209 has a longer cable for deeper sumps (30'). 	
320: 12' Cable, 11.6" L - Dispenser Pan Sensor <i>- E85 Compatible</i>	<ul style="list-style-type: none"> - Discriminating Sensor. - Optical Solid-State Sensor. - Data Label Shown as Black on the Guide. 	 <div style="display: flex; justify-content: space-around; margin-top: 10px;"> VR 320 VR 350 </div>
350: 12' Cable, 22.1" L - Fill/STP Sump Sensor <i>- E85 Compatible</i>		
321: 12' Cable, 11.6" L - Dispenser Pan Sensor <i>- B100 Compatible</i>	<ul style="list-style-type: none"> - Non-Discriminating Sensor. - Optical Solid-State Sensor. - Data label is Shown as Red on the Guide. 	 <div style="display: flex; justify-content: space-around; margin-top: 10px;"> VR 321 VR 351 </div>
351: 12' Cable, 22.1" L - Fill/STP Sump Sensor <i>- B100 Compatible</i>		
322: 12' Cable, 11.6" L - Dispenser Pan Sensor <i>- E85 Compatible</i>	<ul style="list-style-type: none"> - Discriminating Sensor. - Product Permeable/Float Sensor. - Data Label Shown as Blue on the Guide. 	 <div style="display: flex; justify-content: space-around; margin-top: 10px;"> VR 322 VR 352 </div>
352: 12' Cable, 22.1" L - Fill/STP Sump Sensor <i>- E85 Compatible</i>		
323: 12' Cable, 12" L <i>- E85, B100 Compatible.</i>	<ul style="list-style-type: none"> - Non-Discriminating Sensor. - Position Sensitive Sensor. - When tamper foot drops, will go into Sensor Out alarm. 	



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Vacuum, Pressure, Hydrostatic (VPH) Sump, UDC and Piping Sensors		
Model Number	Description	Photo (Field/Website)
304: 8' Cable 	<ul style="list-style-type: none"> - Hydrostatic Sensor for Sumps and UDCs. - Float is UP in positions and detects low brine when float is DOWN. - Look the same as a VR 420. 	
Vacuum Sensors (463, 464) 	<ul style="list-style-type: none"> - 464 is the Float/Liquid sensor. - 463 is the Vac Box Sensor. - Sumps may be monitored by Vacuum also. - Modern Welding Steel USTs are Vacuum Monitored and require a Vacuum sensor and an appropriate Interstitial Sensor (420, 430, 460, 344). 	
Unit Boxes 	<ul style="list-style-type: none"> - Part Number Varies by piping or UST type. - Refer to Veeder Root Website for Details. VACUUM SENSORS - Right Photo is at some Corporate Chevron Sites. 	
Interstitial (Annular) Sensors <i>(Some pre-2004 USTs do have Brine Filled Annular)</i>		
Interstitial Hydrostatic Sensors for Brine Filled/Monitored USTs		
301: 12' Cable, 6" L <i>- E85 Compatible</i> 	<ul style="list-style-type: none"> - Hydrostatic sensors for DW Fiberglass UST. - Single Float Sensor. - Low Brine Alarms only. 	
302: No Longer Made 303: 12' Cable, 17.3" L <i>- E85 Compatible</i> 	<ul style="list-style-type: none"> - Hydrostatic Sensor for DW Fiberglass UST. 302 - Two Floats for High Liquid and Low Liquid Alarms. - No Longer Made but still used. 303 - One Float for High Liquid and Low Liquid Alarms. 	 <p style="text-align: center;">VR 303 VR 302</p>

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Interstitial Sensors for Double Walled FIBERGLASS USTs		
Model Number	Description	Photo (Field/Website)
341	<ul style="list-style-type: none"> - Optical Solid-State Sensor. - Predecessor to the 343, 345. 	
343: 25' Cable - <i>B100 Compatible</i> 345: 25' Cable - <i>E85, B100 Compatible</i> 	<ul style="list-style-type: none"> - Fits 4' to 10' USTs (Diameter) - They look the same. - 343: Discriminating Sensor - 345: Non-Discriminating Sensor 	 <div style="display: flex; justify-content: space-around;"> VR 343 VR 345 </div>
407, 409 (Old)	<ul style="list-style-type: none"> - Old 407, 409 wrapped in white and black sleeves. - Current 409 models are not. - 407 has smaller cable for smaller USTs. 	
409 (Current Model) 25' Cable 	<ul style="list-style-type: none"> - Non-Discriminating Sensor. - Fits 4' to 10' USTs (Diameter) 	
Interstitial Sensors for Double Walled STEEL USTs		
340: Old Model 344: 25' Cable 	<ul style="list-style-type: none"> - Micro Optical Sensor for Steel USTs. - Smaller for Narrow Annular Spaces. - <i>E85, E100, B100 Compatible</i> 	 <div style="display: flex; justify-content: space-around;"> 340 344 </div>
420: 16' Cable 460: 30' Cable 	<ul style="list-style-type: none"> - Annular sensors for DW Steel USTs. - Older 420's sensors have black housing that would split, therefore causing them to get stuck in the interstitial space. - LG Letter 08/13/2010 	
430: 15' Cable 	<ul style="list-style-type: none"> - Interstitial Sensor for High Alcohol Product. - <i>E85, E100, B100 Compatible</i> 	

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FRANKLIN FUELING | INCON | EBW

www.franklinfueling.com | www.ffspro.exceeds.com/student/catalog



ICC Service Tech | Level 1: FMS Installation | Level 2: FMS Programming

Check Website for Panel Compatibility and for Fuel Compatibilities and Tech Support

SENSOR SELECTION



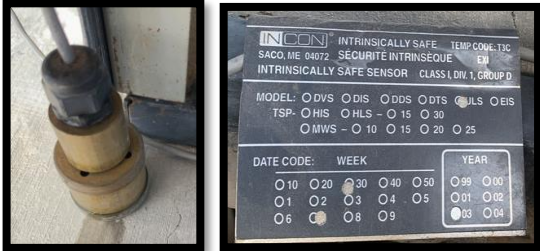




FFS PRO UNIVERSITY CERTIFICATIONS LIST

FF Website used for image references



Monitoring Panels

Model Number	Description	Photo (Field/Web)
<p>EBW Autostik Jr. / II</p> <p>LS-3A Piping, Dispenser Sump, Steel Tank Interstitial Sensor</p> <p>LS-7A Fiberglass Tank Intestinal (Wrap Around)</p> <p>LS-5A Discriminating Sump/Dispenser Sensor</p>	<ul style="list-style-type: none"> - Bought by Franklin In 2000. - No longer supported but can be certified by Franklin tester. - Use Franklin certifications. - Will have older EBW LS-3A (Most Common), LS-5A (Haven't Seen), LS-7A. - LS-35A is a dual float hydrostatic tank interstitial sensor (Haven't Seen). - LG113 does not show console can support current (ULS) sensors. 	
<p>TS 1001/2001 Sentinel</p>	<ul style="list-style-type: none"> - Systems show full alarms history. - Systems do NOT Cold start like VR. 	
<p>TS-5000</p>	<ul style="list-style-type: none"> - No longer on the Franklin Website. - Gave way to the EVO Series. 	
<p>EVO Series</p>	<ul style="list-style-type: none"> - Current Models on the website. - Models are EVO 200, EVO 400, 550, EVO 5000, EVO 600 and EVO 6000. 	

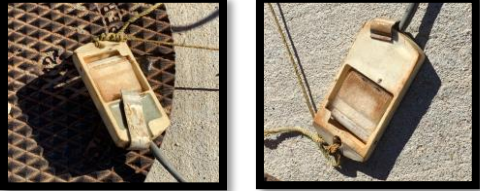







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Sump and Under Dispenser Container and Intertitial Sensors		
Model Number	Description	Photo (Field/Web)
LS-3A EBW Auto-Stik	- "Old" version of Universal Leak Sensor (ULS). - Looks the like an old ULS, but a narrower diameter on the bottom section. - May be used for sump, UDC AND Annular space for DW Steel UST.	
LS-5A EBW Autostik	- Discriminating Sump and UDC Sensor.	
Universal Leak Sensor (ULS) Older Model <i>Sensor installed in 2003</i>	- For sumps, UDCs and Steel DW USTs Annular. - Look for tag on the sensor. - Newer versions will look more like a bell sensor. - Bottom portion is a bit wider than LS-3A sensor above.	
Universal Leak Sensor (ULS) 25' Cable <i>E85 and B100 Compatible</i> 	- Current Model. - Can also be used in sumps and UDCs per Franklin Selection Guide.	
Universal Hydrostatic Sensor (UHS) Older Model	- New versions look like new ULS. - Older versions look like old ULS. - Most will have a label indicating ULS, LHS, EIS etc. - Used for VPH Systems for the Brine monitored Sumps and UDCs.	
Universal Hydrostatic Sensor (UHS) 25' Cable <i>E85 and B100 Compatible</i>	- Current Model. - Containment Sump/UDC Only. - Used for sump, UDC, UST Interstice hydrostatic monitoring.	
















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<p>Discriminating Dispenser Sump Sensor (DDS) <i>E85 and B100 Compatible</i></p>	<ul style="list-style-type: none"> - Dispenser Sump (UDC) sensor. - Web Photo only from FF Sensor Guide. - Length of sensor not specified. 	
<p>Discriminating Turbine Sump Sensor (DTS) <i>E85 and B100 Compatible</i></p>	<ul style="list-style-type: none"> - Contianment Sump Sensor (Turbine and Fill). - Web Photo only from FF Sensor Guide. - Length of sensor not specified. 	

Tank Interstitial Sensors

Model Number	Description	Photo (Field/Web)
<p>LS-7A EBW Autostik</p> <p>LS-30A Dual Float for Hydrostatic Interstitial.</p>	<ul style="list-style-type: none"> - Dry Interstitial sensor for DW Fiberglass USTs. - No longer made. Frankling Fueling Certifications Required. <p>LS-30A: No Photo Available.</p>	
<p>Electro-Optic Interstitial Sensor (EIS) 25' Cable <i>E85 and B100 Compatible</i></p> 	<ul style="list-style-type: none"> - For Double Wall Steel AND Fiberglass USTs. - Dry Interstitial Sensor. - Optical Sensor. <p><i>"For FG tanks, the EIS is pulled into the interstitial space using a "fish" string or wire..."</i> (FF Field Sensor PDF)</p>	
<p>Discriminating Interstitial Sensor (DIS) 25' Cable <i>E85 and B100 Compatible</i></p>	<ul style="list-style-type: none"> - For Double Wall Steel AND Fiberglass USTs. - Dry Interstitial Sensor. <p><i>"For FG tanks, the EIS is pulled into the interstitial space using a "fish" string or wire..."</i> (FF Field Sensor PDF).</p> <ul style="list-style-type: none"> - Looks the same as the EIS. 	 <p>Web Photo FF Sensor Guide</p>
<p>Hydrostatic Interstitial Sensor (HIS) <i>E85 and B100 Compatible</i></p> 	<ul style="list-style-type: none"> - For DW Fiberglass USTs that are liquid (Brine) Filled. - Non-Discriminating. - Compatible with all Brines. 	
<p>Horizontal Float Switch Sensor (HFS) 25" Cable <i>E85 and B100 Compatible</i></p> 	<ul style="list-style-type: none"> - Wrap around sensor for dry interstitial DW Fiberglass USTs. - Looks very similar to Ronan and Pneumeracator wrap around sensors. 	

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Vacuum Secondary Sensor for Interstitial (VPH System)		
Model Number	Description	Photo (Field/Web)
<p>TS-SCCM</p> 	<ul style="list-style-type: none"> - Monitors secondary of piping, sump or DW UST with vacuum. - Only vacuum sensor on website. - Does not have a high float part like the VR. - Sensor located inside the Blue Box. - Older TS consoles may not support software. 	 
STAND ALONE SENSORS		
Model Number	Description	Photo (Field/Web)
<p>Veeder Root 001 5' Cable, 11.6" L</p> 	<ul style="list-style-type: none"> - Non-Discriminating Sensor. - Shuts Off Power to Dispensers through Intrinsically Safe Controller. - VR Guide indicates can be used in Dispenser Pan and Fill/STP Sumps. 	 
<p>Beaudreau (BEI) 404/406 406: Optical 404: Float Sensor Now Franklin Fueling FF DC400 Certification required.</p> 	<ul style="list-style-type: none"> - Stand Alone Sensors. - No longer made or supported. - Franklin S404 Dispensers Cutoff is the typical sensor replacement. - Will have a Model 404 Controller Box (Left Photo). - Franklin Fueling Requires DC400 Certification for Install and Maintenance (Per LG-113). 	  <p style="text-align: center;">BEI 406 BEI 404</p>
<p>Franklin S404 DC400 (Dispenser Cut Off)</p> 	<ul style="list-style-type: none"> - Stand Alone Float Sensor. - S404 is the Sensor. - Compatible with 404-4 Controller Box. - Replacement for BEI 406 Stand Alone. - Franklin DC400 Certification Required. 	 
<p>Beaudreau Electric Marketing (BEM) DCS140NL</p> 	<ul style="list-style-type: none"> - Stand Alone. - In LG113. - Can be used in Turbine and Dispenser Sumps. - Certification: ? <p>WEB LINK</p>	 



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BRAVO Float and Chain Mechanism

Mechanical Leak Detection in Shallow Bravo UDCs
 ICC Service Tech and BRAVO Certification required for testing.



UDC Mechanical Float Trip

Model Number	Description	Photo (Field)
Float and Chain Mechanism 	<ul style="list-style-type: none"> - Each product piping in the UDC has a float and chain with dividers separating the areas (Could see three or maybe even four). - Float will rise when a leak occurs, rises and trips the impact/shear valve that it is attached to, shutting down the dispenser. 	Shear Valve Engaged Shear Valve Tripped 



Simmons Corp/Clearview

(originally listed as Caldwell and Simmons Systems Corp. on LG 113)


Simmons/Caldwell Tank Manager Monitoring Systems

ICC Service Tech and Simmons Certification. They still certify.

Monitoring Panel

Model Number	Description	Photos (Field/Web)
TMW 650 Tank Managing 	<ul style="list-style-type: none"> - Only two systems seen in CERS (Other in Hayward). - Located under Caldwell in LG 113. - Software computer based. No panel or console. - TMW 650 is the Software. - Alarm history is digital. - No Fail/Safe shut down method. Must shut off at main electric panel. 	

Sump, UDC and Annular Sensors

TM-LIQ	<ul style="list-style-type: none"> - Sump, UDC and Annular sensor for DW Steel USTs. - Cannot be replaced if fails. - No longer manufactured. - Float sensor. - TMLIQ is the only sensor listed in LG113 and NWGLDE. 	
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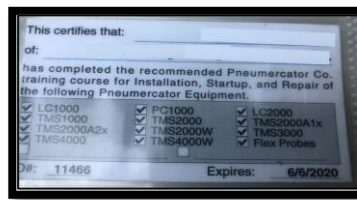
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PNEUMERCATOR

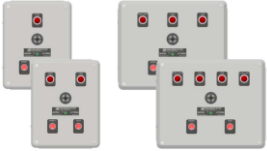







ICC Service Tech and Pneumeractor Certifications required for EACH system

www.pneumeractor.com | [SENSOR PRODUCT PAGE](#)






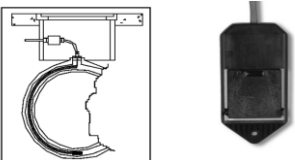





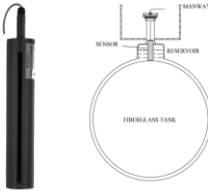

Spec sheets on website and LG 113 list all comptaible sensors for each console. Systems do NOT Cold Start like VR.



Monitoring Panels

Model Number	Description	Photo (Web/Field)
<p>LC 1000, LC 1001 LC = Leak Level Console</p> 	<ul style="list-style-type: none"> - Panel does not have a printer. - Common with Waste Oil or New Oil or Generator (Gravity/Suction) USTs that do not have turbines. - This is allowable as there is no requirement for a printer per HSC and CCR Title 23. - Alarms still must be documented the same. 	
<p>LC 2000</p> 	<ul style="list-style-type: none"> - When panels have a printer, it must be utilized how it was approved, meaning if the printer isn't functioning, it may be written as a violation and required to be fixed. - Full alarm history can be printed. 	
<p>TMS 2000</p> 	<ul style="list-style-type: none"> - TMS is Tank Management System - This Console is for up to 2 USTs only. 	
<p>TMS 3000</p> 	<ul style="list-style-type: none"> - Up to twelve (12) USTs. 	
<p>TMS 4000</p>	<ul style="list-style-type: none"> - Touch Screen, Digital, Fancy 	<p>No Photo. Have Not Seen on a System.</p>

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Sump, UDC and Annular Sensors		
Model Number	Description	Photo (Web/Field)
<p>LS600 LDBN Older Model Narrow Straight</p>	<ul style="list-style-type: none"> - Used for Sump, UDC and Annular/Interstitial. - Float sensors. - Not chemical compatible float. - Annular for a DW Steel UST. 	
<p>LS600 LDBN 25' Cable Current Model</p> 	<ul style="list-style-type: none"> - Used for Sump, UDC, Annular and can be used for high level alarm for overflow. 	
<p>LS600 LDSS 25" Cable</p> 	<ul style="list-style-type: none"> - Used for Sump, UDC or Annular. - Stainless steel float and Teflon housing for chemical monitoring. - Compatible with MOST chemicals including Caustics. 	
<p>LS610</p> 	<ul style="list-style-type: none"> - Wrap around for fiberglass dry interstitial. 	
<p>ES825-100F/CF Older Model C = Chemical Photo is older CF Model</p>	<ul style="list-style-type: none"> - Standard solid state optical sensors for dry interstitials for vaults or DW Steel USTs. - Micro sensor and can fit into more narrow interstitials. - Chemical resistant sensor body for acids, alkalines and solvents. 	
<p>ES825-100F/CF Current Model</p> 	<ul style="list-style-type: none"> - Used for dry annular space in DW Steel USTs or other Vault like USTs. - Photos are website spec sheets. - Chemically Compatible. 	
<p>RSU800</p> 	<ul style="list-style-type: none"> - Brine sensor dual float for brine filled fiberglass USTs. - Will have a high alarms and low alarm like the VR 303. 	

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RONAN SYSTEMS



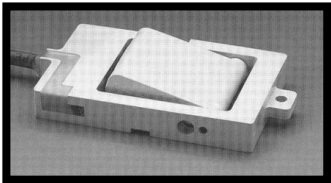

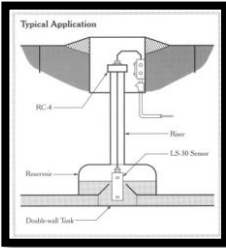

www.ronansystems.com

ICC Service Tech and Ronan Certifications Required

Monitoring Panel

Model Number	Description	Photo (Field/Web)
<p>X76S</p> 	<ul style="list-style-type: none"> - Approved for gasoline, diesel, waste oil and other hydrocarbons. - Have not seen it at a traditional gas station (Pressurized). 	

Sump, UDC and Annular Sensors

<p>LS-3</p> 	<ul style="list-style-type: none"> - Float sensor for UDC, Sumps and Annular for DW Steel USTs. - LS-1 is the same type except small diameter to fit into narrower spaces. <p>Photo: Product Brochure.</p>	
<p>LS-7</p> 	<ul style="list-style-type: none"> - Wrap around switch annular sensor for DW Fiberglass USTs. <p>Photo: Product Brochure.</p>	
<p>LS-30</p> 	<ul style="list-style-type: none"> - Dual Float hydrostatic reservoir sensor for Brine Filled Annular. <p>Photo: Product Brochure.</p>	

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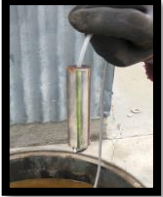


OMNTEC

www.omntec.com

ICC Service Tech and Omntec Certifications Required







Monitoring Panel

Model Number	Description	Photos (Field/Web)
LU Series 	<ul style="list-style-type: none"> - LU2 Console - LU (#) indicates how many sensors the console can have. - Photo is a LU2 console for leak and one high alarms. 	
Sumps, UDC and Annular Sensors		
LS-ASC ASC .895 12' Cable 	<ul style="list-style-type: none"> - Used for Sumps, UDCs and Annular for DW Steel USTs. - Noted by its Red Color. - Optical Sensors. - Can also be used for high level. - Solid state optical sensors. 	 
Other	- Multiple sensors listed on LG113	No Photos of other sensors.

Universal Sensors and Devices, Inc Leak Alert System

This system is no longer manufactured and no longer certifies.

Monitoring Panel

Model Number	Description	Photo (Field/Web)
Leak Alert LA-X4	<ul style="list-style-type: none"> - Other possible consoles listed in LG 113: LA01, LA-02, LA-04, LA-08. - No longer certifications for this system. 	 
Sump, UDC and Annular Sensors		
DLS-01	<ul style="list-style-type: none"> - Stand Alone Sensor - Looks like a Box with a solid rod going to the bottom of the UDC. - Other sensors in LG 113: LS-20, LS-36, LS-70. 	 
LALS-1	<ul style="list-style-type: none"> - Annual Sensor for Steel DW USTs. - Other sensors listed in LG 113: 	 

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LINE LEAK DETECTORS (LLD)

LLDs will be located on the Turbine
 Mechanical (MLLD) and Electronic Pressurized (PLLD)
 Mechanical will place the system into slow flow (Trickle Mode) when detecting a leak.
 Electronic is connected to the console and can shut down the turbine.

VEEDER ROOT

Veeder Root RED JACKET FXV and RED JACKET CPT (Old Electronic)

Red Jacket purchased by Veeder Root in 2001

FX1V = Gasoline | FX1DV = Diesel

Older LLDs will show Red Jacket. Older version is bulkier (Right Photo)





ICC Service Tech and Veeder Root Certifications required.

Mechanical LLD FX1X (Gas), FXDV (Diesel) *Not E85 or B100 Compatible*

FX2V (Gas) and FX2DV (Diesel) Discontinued July 1, 2021



Electronic Pressurized LLD (PLLD)

Model Number	Description	Photo (Field/Web)
<p>001 Series</p> 	<ul style="list-style-type: none"> - Can be programmed to shut down during leak alarm. - <u>Must be installed on SW Piping and programmed for 0.2 Monthly Test or 0.1 Line Tightness Test 12 Months.</u> - Can run a 0.1 Annual Test for systems that do not have fail/safe that require it. - <i>E85 and B100 Compatible.</i> 	
<p>Red Jacket CPT (Old Electronic)</p> 	<ul style="list-style-type: none"> - Listed under Marley Pump Co. in LG 113 but is also now Veeder Root. - Earlier Version of Electronic. - Has it's own separate alarm box and will not be connected to the Veeder Root or other Console. - Each LLD requires it's own box (3 LLDs, 3 Boxes). 	

**This is not a list of EVERY sensor out there. This is a list of common sensors that have been seen in multiple counties. All components are listed in LG-113 and NWGLDE. Check panel/sensor compatibility.*

VAPORLESS MANUFACTURING (VMI)

www.vaporless.com

Website also has list of Certified Testers and Installers

[Vaporless Manufacturing Mechanical VMI LD 2000/2200 \(High Flow\)](#)

Contains an in-line adjustable pressure relief valve

E85 or B100 Compatible (Current Model)

Per VMI, must be tested by the VMI Leak Detector Test Equipment (LDT-890)

ICC Service Technician (Testing) and VMI Mechanical Leak Detector for install/replacement.

Older Model LD 2000



Current Model LD 2000



FE PETRO FRANKLIN FUELING

www.franklinfueling.com

ICC Service Tech and FMS Level 1 and Level 2 for Electronic LLD.

Usually Tested with the VMI Field Testing Box LDT-890 (Will need VMI Certification)

Mechanical LDs are connected by Solid Copper Vent Tubing.

Standard MLD+G/D = Gas/Diesel not Compatible with E85 or B100.

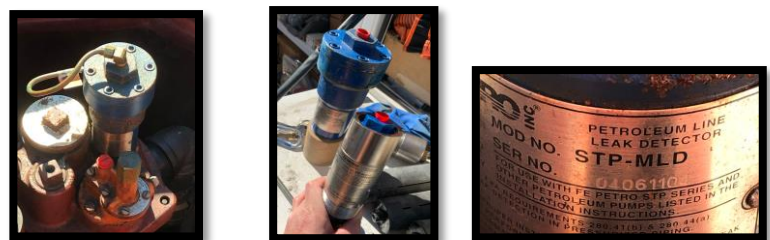
[MLD+AG = E85 Compatible](#) | [MLD+BD = B100 Compatible \(Current Models\)](#)

Mechanical LLD FE PETRO

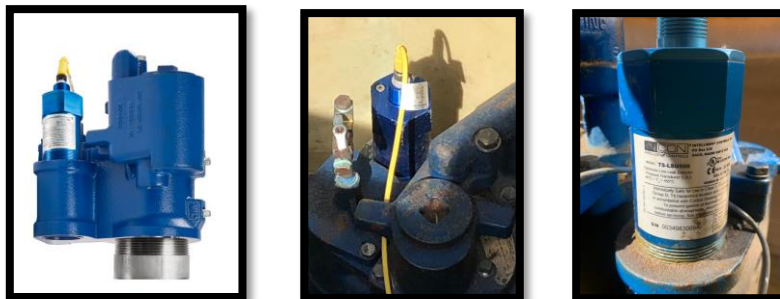
MLD Current Model



MLD Old Model



Electronic LLD TS-LSU 500



[WEBLINK](#)

**This is not a list of EVERY sensor out there. This is a list of common sensors that have been seen in multiple counties. All components are listed in LG-113 and NWGLDE. Check panel/sensor compatibility.*

Field Testing Apparatus (Boxes)

HSC and CCR Title 23 DO NOT specify HOW to certify LLDs.

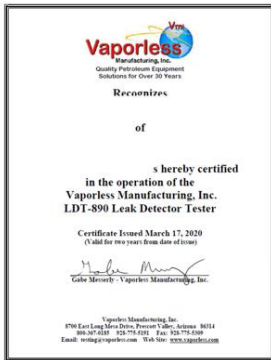
VMI States that the VMI LDT-890 must be used for the VMI LD 2000 LLD.

Tanknology has their own FTA which VMI has allowed use for LD 2000 Certification.

Some Examples

The VMI LDT-890 Test Equipment can be used to test all Leak Detectors.

Vaporless VMI LDT-890



Tanknology LTD-5000



Tanknology has their own FTA which VMI has allowed use for LD 2000 Certification.

Only Tanknology technicians are certified to use this LDT Tester.

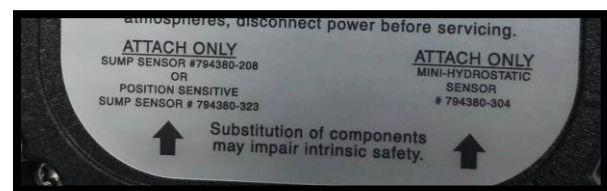
*There are a couple other test boxes out there. VMI does not allow their LLD to be tested with these other boxes.

VEEDER ROOT 2-1 BOX

The Veeder-Root 2 to 1 Sensor Input Box is designed for use in brine filled, double wall dispenser sumps and connects to a sump or position sensitive sump sensor installed on the base of the sump and to a mini-hydrostatic sensor monitoring the interstice brine.

The Sensor Input Box permits the TLS console to increase from 8 to 16, the number of sump/hydrostatic sensor pairs that can be monitored by one module.

Source: Veeder Root



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