

## TLS 2 & TLS 2 P

Comprehensive inventory control with easy to use touch-screen operation

### Automated wet stock control

The TLS 2 Series provides site operators with everything needed to manage fuel inventory, in a compact and affordable package. Continuous inventory monitoring, automatic tank level alarms and intuitive operation take the effort and uncertainty out of controlling fuel stocks.

Simple, touch-screen menu navigation means that key facts and figures are literally at your fingertips.

### Management information

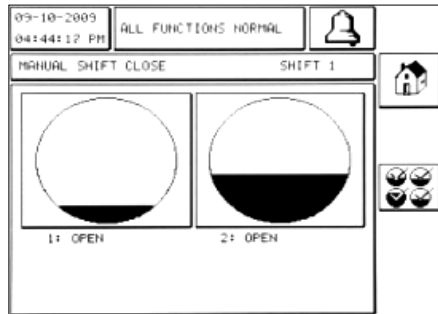
Detailed fuel inventory information is displayed graphically for all tanks. Additional user menus for delivery, alarm, set up and environmental data are

easily accessible from the main screen. Fuel deliveries are recorded in rolling ten-event memory for easy delivery verification.

## Optimised integration into site operations

Flexible Shift Closing includes both Timed Shift Closing and Manual Shift Closing. The newly added Manual Shift Closing allows site operators to manually close a shift by individual tank without interrupting the other tanks' operation. The TLS 2P now offers great flexibility and accuracy in station shift management.

User-defined Inventory Snapshot enables site operators to store up to 72 inventory records on the console to prevent sudden data loss. This helps the central office optimise fuel delivery management of any site within a network.



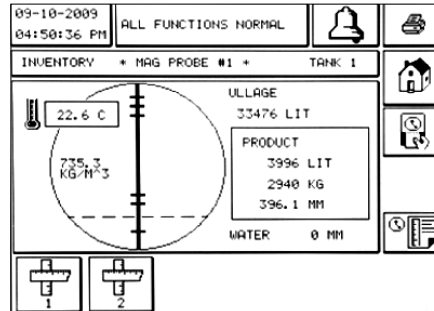
## Power-off delivery detection

Power-off Delivery automatically detects, reports and stores deliveries that occur during a power outage. Once the power is restored to the console, the console can capture the inventory increase.

## Fuel quality identification

Density/Mass Measurement is a feature of the MAG-D Density Probe.

Combined with the TLS 2 series, the Probe can continuously monitor in-tank fuel density (density range: 700-900kg/m<sup>3</sup>) at an accuracy of +/-1.0kg/m<sup>3</sup>.



## Local interfaces

A high level of connectivity is possible through built-in communications ports. These allow local interface with the POS or BOS systems, remote driver display and serial printer. Optional GSM and landline modems add the ability to remotely monitor TLS 2 systems.

## Remote monitoring

Using Inform™ remote polling software, multiple sites can be managed from a central location.

TLS 2 alarms can be programmed to dial out as they occur, generating automatic notification of situations requiring urgent attention such as low fuel levels or water ingress. Remote diagnostics also enables quicker, lower cost maintenance.

## Web interface and enhanced communication capabilities

TLS 2P web interface and email notification features allow site owners to stay on top of their business remotely. Site owners can receive operational messages in real time and take prompt actions.

An internal Ethernet port enables the TLS 2P to seamlessly integrate into any LAN or WAN. The TLS 2P console also supports dynamic TCP/IP. This is ideal for customers who only have a limited number of fixed IP addresses assigned to their sites.

Three serial ports and a USB are available simultaneously available. Site operators can use a standard USB cable to transfer inventory data from the console to their PC for data management and printing. The three serial ports provide site owners flexibility to connect the console to external devices.

## Leak detection

When used in conjunction with Mag 1 or Mag 2 probes, precision tank tests can be performed to US EPA certified standards. Testing can be instigated on-demand or programmed to run at pre-set intervals.

## Wide application

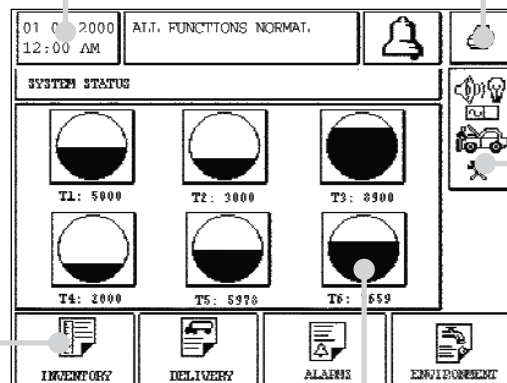
TLS 2 consoles are suitable for a wide range of fuel storage facilities, not just petrol stations. In fact, anywhere that hydrocarbon fuels, LPG or AdBlue are stored could potentially benefit from a TLS 2 system.

## TLS homescreen allows easy navigation to gauging areas

Header is fixed on all screens. Header shows time, date, system status and alarm acknowledgement button.

Main operations menu. Options are:

- > Inventory
- > Delivery
- > Environmental
- > Alarm



Print button. Available on most screens.

Main set-up and diagnostics menu.

Tapping on one of the tanks will take you to tank details screen.

# TLS 2 and TLS 2 P

TLS 2 System Capabilities and Options		
Console Type	TLS 2	TLS 2P
Part Number	856060-060 (ATEX)	856060-064 (ATEX)
Maximum Probes	6	
Relay Output	1	
Compatible with Inform™ & FMS	YES	
Leak Detection	Static tank testing to 0.38 or 0.76 lph*	
Communication Ports	Comm port 1: RS232 (POS, PC, External modem or Serial printer)	
	Comm port 2: Configurable serial (RS232, RS422 or RS485)	
	Comm port 3: Parallel printer	Comm port 3: RS232 Serial
	-	Comm port 4: Ethernet TCP/IP
	-	Comm port 5: USB for PC connection
Ethernet Connectivity	NO	YES (Static or Dynamic IP Address)
Web Interface	NO	YES (via Ethernet)
Automatic Dial out of Alarms & Data	YES (via Inform™ or FMS)	
Email Notification of Alarms & Reports	NO	YES (via Ethernet)
User Operation	¼ VGA graphics touch screen display	
TLS-RF Wireless Probe Compatibility	YES (excludes Density probes)	
Available Reports	Inventory, Deliveries, Delivery History (max.10), In-tank Static Tank Test Results, Active Alarms, Alarm History and Diagnostics	
	Inventory & Delivery reports with Density & Mass data (optional, requires Mag Plus Density probes and floats)	
	-	User defined 72 record Inventory Snapshot
	-	Timed or manual shift closing by individual tank
	-	Power-off Delivery Detection (records increases occurring during power outage)
Displayed Alarms	Max Product, Overfill, Delivery Needed, Low Product, Invalid Height, High Water, Low Temperature, Probe Out, AutoDial Failure.	
	Hi and Low "Density Out of Range" alarms (with Density probes only)	
Displayed Data	Product Volume (actual & temperature compensated), Ullage, Height, Temperature, Water Height and Fuel Grade	
	Density and Mass (Density probes only)	
Status Indicator	Bi-colour LED: Green = Normal, Red (Flashing) = Alarm	
Language Options	English, French, Spanish, Polish, Russian, Swedish, Finnish, Portuguese & Chinese (language choice selectable on set-up)	
Communication Protocols	Veeder-Root Serial Commands, H-Protocol and European Protocol (B^A)	
Printer Compatibility	External serial or parallel printer, EPSON or EPSON emulation (locally supplied by customer)	
Voltage	115 or 230 Volts AC, selectable	
Approvals	ATEX (cUL versions also available)	
Operating Temperature	0 to 40 degrees C	
Compatible with Mag-XL Tall Tank Probes	YES	
Maximum Tall Tank Liquid Level	9.9m	
Maximum Tall Tank Capacity	984,100 litres	

Probe Compatibility			
Probe Model	Mag Plus Mag 1	Mag Plus Mag 2	Mag Plus Inventory Only
Part Number Series 8463 (Standard)	846361-1xx	846361-2xx	846361-3xx / -6xx
Part Number Series 8463 (Density)	846361-7xx	846361-8xx	846361-9xx
Available Float Sizes (Standard)	4", 3" or 2" Fuel / Water Float		4", 3", 2" or 1" Fuel / Water Float
Available Float Sizes (Density)	2" Fuel / Density-Water Float		
Construction	Stainless steel shaft, aluminium canister housing electronics		
Operation	Magnetostrictive measurement technology		
Probe Lengths	Measuring lengths available in one-inch increments between 24 and 144 inches		
Compatible Fuel Types	Petroleum Spirit, Diesel, Light Oil, Heavy Oil, Alcohol & Alcohol blends, LPG** and AdBlue**		

\* Note: static tank testing requires either Mag 1 (0.38 litres per hour) or Mag 2 (0.76 litres per hour) probes

\*\* Note: special Installation Kits required

## Sample Printers (locally supplied)

Manufacturer	Printer Model	Interface Type
Epson	LX-300	Serial / Parallel
Epson	LX-300+	Serial / Parallel
Seiko	DPU-414-30B	Serial / Parallel

## Gilbarco Veeder-Root Products – behind every successful forecourt

Gilbarco Veeder-Root is the largest supplier in the world representing the leading brands of solutions and technologies that provides convenience, control and environmental integrity to retail fuelling and adjacent markets. Gilbarco Veeder-Root is the only manufacturer that can provide all your fuel forecourt solutions.



### Pumps and Dispensers

Designed to be at the core of retail forecourt solutions centering on quality and innovation, Gilbarco Veeder-Root's broad portfolio of pumps and dispensers are proven to deliver profitability for our customers today and tomorrow.



### Automatic Tank Gauging

Innovative tank monitoring and loss detection to automate wet stock management, environmental control and risk management across the network and allow centralised data management to optimise operational profitability.



### FlexPay™

Secure and flexible payment solutions to create new business at the pump.



### Retail Solutions

The leading provider of solutions and tools to support fuel retailers in improving profits and preparing business for tomorrow's challenges.



### Submersible Pumps

The most efficient way to pump fuel on a forecourt; consistent flow rates, no vapour lock and minimal maintenance.



### Forecourt Solutions

Combine POS and forecourt equipment of any make or brand for efficient control and management of your petrol station forecourt.

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