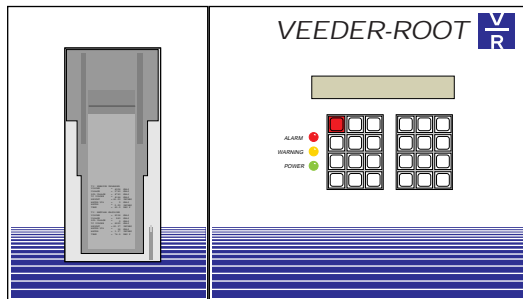


Operator's Quick Help

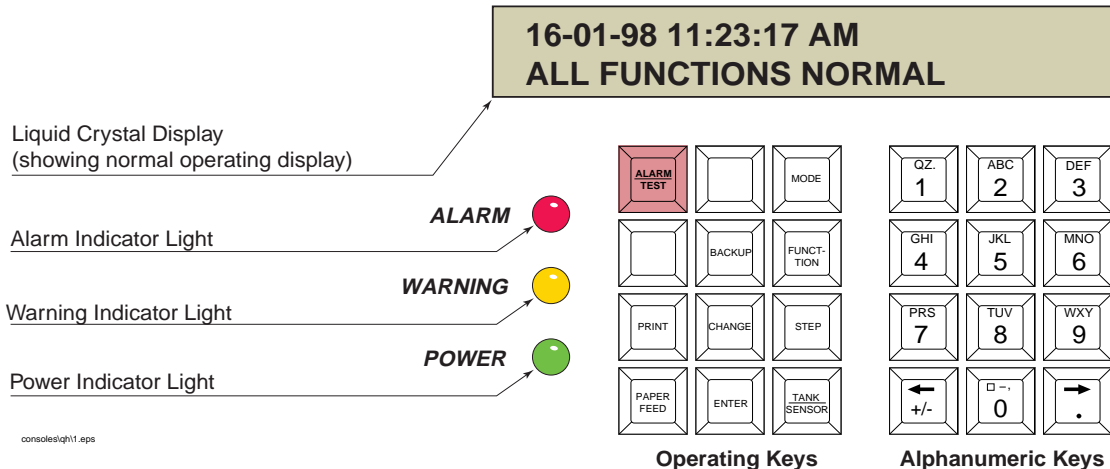


TLS-300

TLS-350

TLS-350R

CONSOLE OPERATING FEATURES



KEY FUNCTIONS



Press to silence the alarm.
This will not reset the display or disable any alarm functions.



Press to select the system mode: Operating Mode, Setup Mode, Diagnostic Mode.



Press to select the various Functions within each Mode.



Press to move to the next procedure within each function.



Press to change to the next tank or sensor



Press to change to a different option than currently displayed.



Press to select an option. Also to start leak tests.



Used to move back through Steps, Functions and Modes.



Press to generate the various reports.



Press to advance the paper through the printer.



Select a character by successive presses of the key. Press once for "A". Press again for "B", again for "C" and a fourth time to enter a "2".



The full stop is on key "1". The decimal point (•) is on the Right Arrow key (→).



The nought key has a space (□), a hyphen (-) and the comma (,).



The Arrow keys are used to move the cursor left and right without changing the displayed character.

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AUTOMATIC REPORTS

INVENTORY INCREASE REPORT

```
T 1:4* FOUR STAR  
INVENTORY INCREASE
```

```
INCREASE START  
11-09-97 19:36
```

```
VOLUME = 21203 LITERS  
WATER = 0.0 MM  
TEMP = 19.5 DEG C
```

```
INCREASE END  
11-09-97 20:05
```

```
VOLUME = 34076 LITERS  
WATER = 0.0 MM  
TEMP = 18.6 DEG C
```

```
GROSS INCREASE = 12872  
TC NET INCREASE = 12823
```

comcones/ig12.eps

This report is generated after each delivery. It shows the volume of the tank contents before and after delivery and the difference between the two volumes; which is the amount delivered less any sales during the delivery period.

Depending on the system configuration, the report may also show the amount delivered taking into account changes in volume caused by temperature changes. **(TC NET INCREASE).**

There will be a delay of at least four minutes between the end of the delivery and the printing of the report while the TLS-350R waits for the fuel level in the tank to stabilise.

ADJUSTED DELIVERY REPORT

```
T 1:4* FOUR STAR  
ADJUSTED DELIVERY REPORT
```

```
INCREASE START  
11-09-97 19:37
```

```
VOLUME INCREASE = 12872  
TC VOL INCREASE = 12823
```

```
DELIVERY ADJUST = -301
```

```
DELIVERY VOLUME = 12572  
TC DLVY VOLUME = 12522
```

comcones/ig13.eps

During the delivery the TLS-350R is continuously monitoring any sales from the tank being delivered to.

Up to 60 minutes after printing the Inventory Increase Report, the TLS-350R generates a second report.

The TLS-350R adjusts the gross increase fuel volume by adding the fuel dispensed from that tank during the delivery.

If Temperature Compensation has been enabled the temperature compensated volume is also adjusted and will appear on the report.

HOURLY RECONCILIATION MONITORING

The TLS-350R continuously monitors the difference between the volume of fuel dispensed through the pumps and the volume of fuel drawn from the tank. This process is known as **Hourly Reconciliation Monitoring (HRM)**.

At the end of each 24-hour period the results are presented as a **Reconciliation Report**. It shows the greatest positive and negative differences and the average difference for the previous 24 hours.

if the average difference is more than a pre-set amount per hour

```
THE SERVICE STATION
POST LANE
ANYTOWN

31-09-97 2:00

RECONCILIATION REPORT
- - - - -
T 1:4* FOUR STAR
T 2:UL UNLEADED
T 3:SU SUPER UNLEADED
T 4:DV DIESEL

TNK POS NEG AVE STAT
1 1.5 -0.4 1.0 PASS
2 1.7 -0.1 -0.1 PASS
3 0.5 -9.2 -5.2 FAIL
4 1.2 -0.3 -0.6 PASS
```

corrected qtr14.aps

(known as **Reconciliation Threshold**) the tank and its associated fuel delivery pipework and dispenser has failed the Reconciliation Leak Detection Test and its status is shown as **FAIL** on the report.

Two Reconciliation Thresholds are set. An average difference greater than the lower threshold will cause a **Reconciliation Warning**. An average difference greater than the upper threshold will cause a **Reconciliation Alarm**.

See **Warnings & Alarms**.

MONTHLY TANK TEST REPORT

A **Monthly Tank Test Report** is produced automatically. This shows the results of the Quiet Period Leak Detection tests carried out by the TLS-350R.

See **In-Tank Leak Testing**.

BUSINESS INVENTORY RECONCILIATION (BIR)

The TLS-350R, in addition to accurately measuring the contents of each tank, also monitors the amount of fuel dispensed at the pumps.

The volume of fuel dispensed is then compared with the fall in fuel level in the appropriate tank; by this means the TLS-350R can recognise the very small differences which could indicate a leak. This process is called **reconciliation**.

Differences, known as variance, greater than a preset threshold value will generate either a **Reconciliation Warning** or a **Reconciliation Alarm**.

The results of the reconciliation process are available as **Reconciliation Reports**. These reports are available for each worked shift, for each day, or for any other specified period.

The Daily Reconciliation Report is illustrated opposite. (See also Automatic Reports.)

To Print A Reconciliation Report

Press **M** until the display shows:

RECONCILIATION MODE
PRESS <FUNCTION> TO CONT

Press **F** twice and **S** once, and the display will show:

DISPLAY AND PRINT
REPORT TYPE: SHIFT

Press **E P** for a Shift Report.

Press **C E P** for a Daily Report.

Press **C C E P** for a Periodic Report.

Press **M** three times to return to normal operating mode.

THE SERVICE STATION	
POST LANE	
ANYTOWN	
29-09-97	8:02
DAILY RECONCILIATION	
- - - - -	
T 1:4* FOUR STAR	
OPENING DATE & TIME	
31-08-97	2:00
CLOSING DATE & TIME	
01-09-97	2:00
OPENING VOLUME:	
46126	LITERS
DELIVERIES:	
0	LITERS
METERED SALES:	
6005	LITERS
MANUAL ADJUSTMENTS:	
0	LITERS
CALCULATED INVENTORY:	
40120	LITERS
PHYSICAL INVENTORY:	
40116	LITERS
WATER HEIGHT:	
0.00	MM
VARIANCE:	
-4	LITERS

connectedip17 app

VARIANCE REPORTS

If enabled in Setup Mode, you can generate daily, weekly, and/or periodic Delivery Variance Reports, Book Variance Reports, and Variance Analysis Reports. Also, you can display and print enabled Variance Reports for all products, or for a specific product. (Refer to the Variance Reports paragraph in the Reconciliation section of the TLS-350R Operator's Manual for complete report printing options, such as printing weekly or periodic reports.)

To Print Delivery Variance Reports

Press **M** until the display shows:

RECONCILIATION MODE
PRESS <FUNCTION> TO CONT

Press **F** until the display shows:

DISPLAY AND PRINT DLVY
PRESS <STEP> TO CONTINUE

Press **P** to printout the daily Delivery Variance reports for all products. See example at right.

PROD 3: UL UNLEADED

DELIVERY VARIANCE
DAILY

DD MM YY HH:MM:XM
VOLUMES ARE STANDARD

OPENING DATE & TIME:
DD MM YY HH:MM:XM

CLOSING DATE & TIME:
DD MM YY HH:MM:XM

TICKET VOL: 20800 LIT
GAUGED VOL: 20758 LIT
DLVY VAR : 42 LIT

* * * * * END * * * * *

To Print Book Variance Reports

Press **M** until the display shows:

RECONCILIATION MODE
PRESS <FUNCTION> TO CONT

Press **F** until the display shows:

BOOK VARIANCE
PRESS <STEP> TO CONTINUE

Press **P** to printout the daily Book Variance reports for all products. See example at right.

PROD 3: UL UNLEADED

BOOK VARIANCE
DAILY

DD MM YY HH:MM:XM
VOLUMES ARE STANDARD

OPENING DATE & TIME:
DD MM YY HH:MM:XM

CLOSING DATE & TIME:
DD MM YY HH:MM:XM

OPN GAUG VOL: 15857 LIT
METER SALES : 6220 LIT
TICKET DLVY : 20800 LIT
MANUAL ADJ : 0 LIT
BOOK INV : 30437 LIT
GAUGED -31 LIT = 0.5%

* * * * * END * * * * *

To Print Variance Analysis Reports

Press **M** until the display shows:

RECONCILIATION MODE
PRESS <FUNCTION> TO CONT

Press **F** until the display shows:

VARIANCE ANALYSIS
PRESS <STEP> TO CONTINUE

Press **P** to printout the daily Variance Analysis reports for all products. See example at right.

PROD 3: UL UNLEADED

VARIANCE ANALYSIS
DAILY

DD MM YY HH:MM:XM
VOLUMES ARE STANDARD

OPENING DATE & TIME:
DD MM YY HH:MM:XM

CLOSING DATE & TIME:
DD MM YY HH:MM:XM

BOOK VAR : -31 LIT
BOOK VAR % : 0.50%
DLVY VAR : 42 LIT
SALE VAR : 11 LIT
TEMP VAR : -1 LIT
WATER CHG : 0 MM
UNEX VAR : 12 LIT

* * * * * END * * * * *

CORRECTIVE ACTIONS

NONE REQUIRED

LEAK TEST RESULTS

T 3: UL UNLEADED
PROBE SERIAL NUM 900007

GROSSTEST PASS
DD MM YY HH:MM:XM

0.76 LIT/HR TEST PASS
DD MM YY HH:MM:XM

0.38 LIT/HR TEST INVL
DD MM YY HH:MM:XM

MONTHLY TANK TEST REPORT
T 3: UL UNLEADED
PROBE SERIAL NUM 900007

TEST TYPE: CSLD
PERCENT VOLUME = 51.8
DD MM YY HH:MM:XM

CSLD TEST RESULTS

T 3: UL UNLEADED
PROBE SERIAL NUM 900007

0.8 LIT/HR TEST
PER: DD MM YY PASS

* * * * * END * * * * *

RECONCILIATION WARNING & ALARM

14-09-97 19:25:47
T1 : RECON WARNING



---- IN-TANK ALARM ----
T 1:4* FOUR STAR
RECON WARNING

14-09-97 19:25

console/igh10.eps

CAUSE:

The difference between the volume of fuel dispensed and the volume of fuel drawn from the tank has exceeded the Reconciliation Warning Threshold.

ACTION:

Silence the alarm by pressing the red Alarm/Test key. Investigate the cause of the alarm and follow the site procedure for wetstock variances.

14-09-97 19:25:47
T1 : RECON ALARM



---- IN-TANK ALARM ----
T 1:4* FOUR STAR
RECON ALARM

14-09-97 19:25

console/igh10.eps

CAUSE:

The difference between the volume of fuel dispensed and the volume of fuel drawn from the tank has exceeded the Reconciliation Alarm Threshold.

ACTION:

Silence the alarm by pressing the red Alarm/Test key. Investigate the cause of the alarm and follow the site procedure for wetstock variances.

NOTE

Pump testing or repairs involving dispensing fuel that is subsequently returned to a tank will cause a Reconciliation Warning or Alarm. Check for this or a similar cause before carrying out wetstock variance procedures. Reconciliation Warnings or Alarms caused in this manner will clear.

See also **Hourly Reconciliation Monitoring** and **Reconciliation**.

KEY SYMBOLS

BACKUP	B
CHANGE	C
ENTER	E
FUNCTION	F
MODE	M
PRINT	P
STEP	S
TANK/SENSOR	T

console/igh10.eps

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WARNINGS AND ALARMS

The TLS-350R is constantly monitoring its probes and sensors for warning and alarm conditions, such as fuel leaks, excessively high or low fuel levels and equipment problems.

If there is no warning or alarm condition active the system displays the “ALL FUNCTIONS NORMAL” message.

If a warning or alarm condition occurs the system displays condition type and its location, either tank, input or sensor number.

The system prints an alarm report showing the warning or alarm type, its location and the date and time the warning or alarm condition occurred.

If more than one condition exists the TLS-350R will flash the messages alternately.

WARNINGS

These indicate that an in-tank alarm is imminent or that a system fault has occurred.

ALARMS

Alarms indicate a potentially dangerous situation may have occurred.

Do not ignore alarms

Be sure you are familiar with the alarm response procedures for the site.

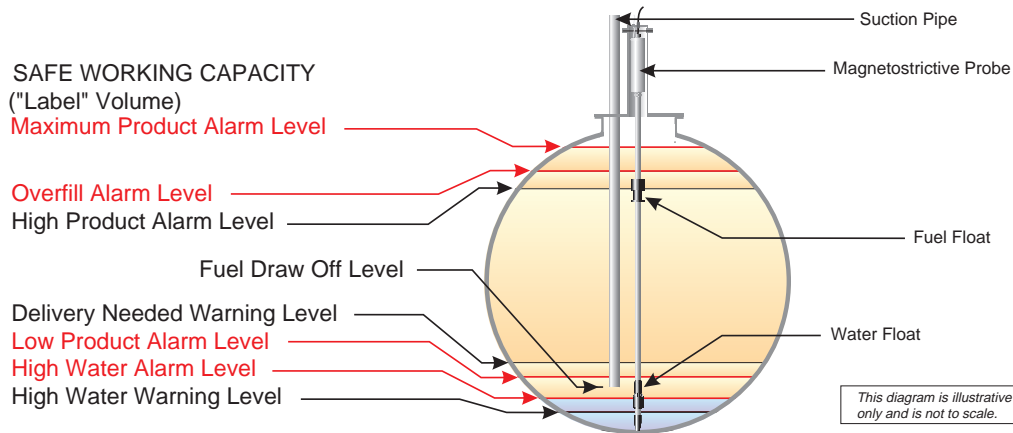
To Switch Off Warnings and Alarms

Press the red ALARM/TEST key to silence the alarm.

The front panel warning and alarm lights cannot be turned off until the cause of the condition has been rectified.

Similarly the warning and alarm displays remain until the cause of the condition has been rectified.

IN-TANK WARNING AND ALARM LEVELS



consoles\qh\11.eps

IN-TANK WARNINGS

14-09-97 14:25:10
T1 : HIGH WATER WARNING



---- IN-TANK ALARM ----
T 1:4* FOUR STAR
HIGH WATER WARNING

14-09-97 14:25

console\right\12.apx

CAUSE:

Water collecting in the tank shown has exceeded the Water Warning level.

ACTION:

Close all pumps attached to this tank. Contact your VR Service Contractor for advice.
Silence the alarm by pressing the red ALARM/TEST key.

14-09-97 14:25:10
T1 : DELIVERY NEEDED



---- IN-TANK ALARM ----
T 1:4* FOUR STAR
DELIVERY NEEDED

14-09-97 14:25

console\right\14.apx

CAUSE:

Fuel level in the tank shown is below the Delivery Needed level.

ACTION:

Arrange a delivery.
Silence the alarm by pressing the red Alarm/Test key.

14-09-97 14:25:10
T1 : INVALID FUEL LEVEL



---- IN-TANK ALARM ----
T 1:4* FOUR STAR
INVALID FUEL LEVEL

14-09-97 14:25

console\right\13.apx

CAUSE:

Fuel and water level floats on the probe are too close together due to a lack of fuel in the tank shown.

ACTION:

Arrange a delivery.
Silence the alarm by pressing the red ALARM/TEST key.

14-09-97 14:25:10
T1 : TANK TEST ACTIVE



---- IN-TANK ALARM ----
T 1:4* FOUR STAR
TANK TEST ACTIVE

14-09-97 14:25

console\right\15.apx

CAUSE:

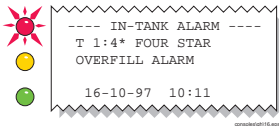
If enabled, the system will display this message when a requested tank test is in progress.

ACTION:

Do not deliver to or dispense from the tank being tested.

IN-TANK ALARMS

16-10-97 10:11:46
T1 : OVERFILL ALARM



CAUSE:

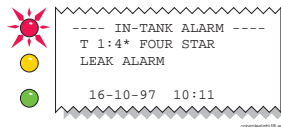
Fuel level in the tank shown has exceeded the Overfill Level during a delivery.

ACTION:

Stop the delivery immediately.

Silence the alarm by pressing the red ALARM/TEST key.

16-10-97 10:11:46
T1 : LEAK ALARM



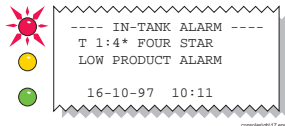
CAUSE:

Fuel loss has exceeded the pre-programmed limit during a leak test in the tank shown. This indicates a possible leak.

ACTION:

Silence the alarm by pressing the red ALARM/TEST key. Contact your VR Service Contractor for advice.

16-10-97 10:11:46
T1 : LOW PRODUCT ALARM



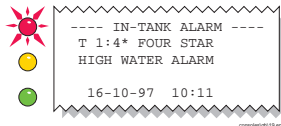
CAUSE:

Fuel level in the tank shown has dropped below the Low Product Alarm level.

ACTION:

Silence the alarm by pressing the red ALARM/TEST key.
Arrange a delivery.

16-10-97 10:11:46
T1 : HIGH WATER ALARM



CAUSE:

Water at the bottom of the tank shown has exceeded the High Water Alarm level.

ACTION:

Close all pumps attached to this tank.

Silence the alarm by pressing the red ALARM/TEST key. Contact your VR Service Contractor for advice.

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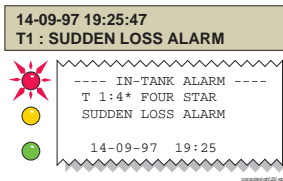
IN-TANK
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IN-TANK ALARMS



CAUSE:

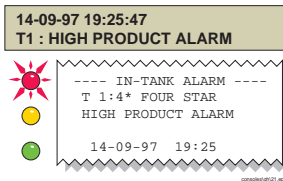
Fuel loss in the tank shown has exceeded a pre-set limit during a Leak Test. This indicates a possible leak, fuel being dispensed or other unauthorised loss.

ACTION:

Silence the alarm by pressing the red ALARM/TEST key.

Check that fuel has not been dispensed from the tank during the test period.

Contact your VR Service Contractor for advice.



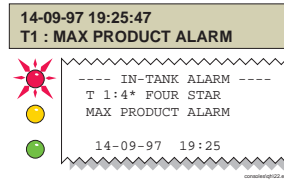
CAUSE:

Fuel level in the tank shown has exceeded the High Product Alarm limit.

ACTION:

Stop the delivery immediately.

Silence the alarm by pressing the red ALARM/TEST key.



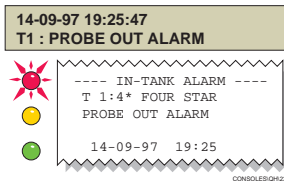
CAUSE:

Fuel level in the tank shown has exceeded the Safe Working Capacity.

ACTION:

Stop the delivery immediately.

Silence the alarm by pressing the red ALARM/TEST key.



CAUSE:

There is a fault with the sensing probe in the tank shown.

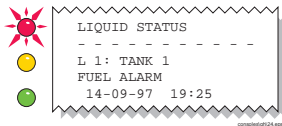
ACTION:

Silence the alarm by pressing the red ALARM/TEST key.

Contact your VR Service Contractor for advice.

LIQUID SENSOR ALARMS

14-09-97 19:25:47
L1 : FUEL ALARM



CAUSE:

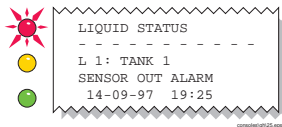
The sensor shown has detected liquid in the sump being monitored.

ACTION:

Silence the alarm by pressing the red ALARM/TEST key.

Investigate the cause of the alarm and take appropriate action.

14-09-97 19:25:47
L1 : SENSOR OUT ALARM



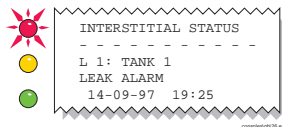
CAUSE:

The sump sensor shown has been disconnected or is faulty.

ACTION:

Silence the alarm by pressing the red ALARM/TEST key. Contact your VR Service Contractor for advice.

14-09-97 19:25:47
T1 : INTERSTITIAL ALARM



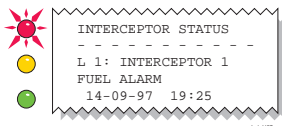
CAUSE:

The Interstitial Monitor for the tank shown has detected a change in the interstitial fluid level; a fuel leak may have occurred.

ACTION:

Silence the alarm by pressing the red ALARM/TEST key.
Call a Service Contractor to check for fluid loss.

14-09-97 19:25:47
I1 : INTERCEPTOR ALARM



CAUSE:

A sensor installed in a drainage interceptor trap has detected fuel.

ACTION:

Silence the alarm by pressing the red ALARM/TEST key. Contact your VR Service Contractor for advice.

Note that interceptor sensors will also warn of high and low liquid levels in the interceptor.

DUAL FLOAT DISCRIMINATING SENSOR ALARMS

14-09-97 19:25:47
L1 : FUEL ALARM



----SENSOR ALARM----

L 1: ISLAND 1
FUEL ALARM

14-09-97 19:25

conadest/q1/28.eps

CAUSE:

The sensor at the location shown has detected fuel vapour or liquid.

ACTION:

Silence the alarm by pressing the red ALARM/TEST key. Investigate the cause of the alarm and take appropriate action.

14-09-97 19:25:47
L1 : LIQUID ALARM



---- SENSOR ALARM ----

L 1: ISLAND 1
LIQUID ALARM

14-09-97 19:25

conadest/q1/30.eps

CAUSE:

The sensor at the location shown has detected at least 25 mm of non-hydrocarbon liquid.

ACTION:

Silence the alarm by pressing the red ALARM/TEST key. Contact your VR Service Contractor for advice.

14-09-97 19:25:47
L1 : HIGH LIQUID ALARM



---- SENSOR ALARM ----

L 1: ISLAND 1
HIGH LIQUID ALARM

14-09-97 19:25

conadest/q1/29.eps

CAUSE:

The sensor at the location shown has detected at least 200 mm of non-hydrocarbon liquid.

ACTION:

Silence the alarm by pressing the red ALARM/TEST key.
Contact your VR Service Contractor for advice.

14-09-97 19:25:47
L1 : SENSOR OUT ALARM



---- SENSOR ALARM ----

L 1: ISLAND 1
SENSOR OUT ALARM

14-09-97 19:25

conadest/q1/31.eps

CAUSE:

The sensor at the location shown has been disconnected or is faulty.

ACTION:

Silence the alarm by pressing the red ALARM/TEST key. Contact your VR Service Contractor for advice.

VAPOUR SENSOR ALARMS

14-09-97 19:25:47
V1 : FUEL ALARM



----VAPOR ALARM----

V 1: EXIT RAMP WELL
FUEL ALARM

14-09-97 19:25

console/q132.apx

CAUSE:

The vapour sensor at the location shown has detected fuel vapour in the monitoring well.

ACTION:

Silence the alarm by pressing the red ALARM/TEST key. Investigate the cause of the alarm and take appropriate action.

14-09-97 19:25:47
V1 : WATER ALARM



---- VAPOR ALARM ----

V 1:EXIT RAMP WELL
WATER ALARM

14-09-97 19:25

console/q134.apx

CAUSE:

The vapour sensor at the location shown is immersed in water and will not work.

ACTION:

Silence the alarm by pressing the red ALARM/TEST key. Contact your VR Service Contractor for advice.

14-09-97 19:25:47
V1 : SENSOR OUT ALARM



---- VAPOR ALARM ----

V 1:EXIT RAMP WELL
SENSOR OUT ALARM

14-09-97 19:25

console/q133.apx

CAUSE:

The vapour sensor at the location shown has been disconnected or is faulty.

ACTION:

Silence the alarm by pressing the red ALARM/TEST key. Contact your VR Service Contractor for advice.

14-09-97 19:25:47
V1 : SHORT ALARM



---- VAPOR ALARM ----

V 1:EXIT RAMP WELL
SHORT ALARM

14-09-97 19:25

console/q135.apx

CAUSE:

The vapour sensor at the location shown is faulty.

ACTION:

Silence the alarm by pressing the red ALARM/TEST key. Contact your VR Service Contractor for advice.

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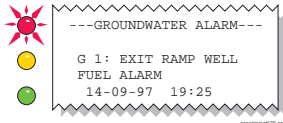
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GROUNDWATER SENSOR ALARMS

14-09-97 19:25:47
G1 : FUEL ALARM



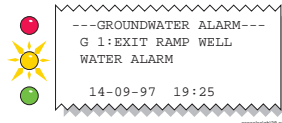
CAUSE:

The Groundwater sensor at the location shown has detected fuel.

ACTION:

Silence the alarm by pressing the red ALARM/TEST key. Investigate the cause of the alarm and take appropriate action.

14-09-97 19:25:47
G1 : WATER ALARM



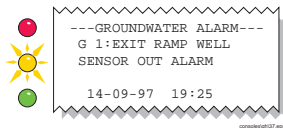
CAUSE:

The water level in the monitoring well shown is below the Groundwater sensor (this may occur during periods of severe drought).

ACTION:

Silence the alarm by pressing the red ALARM/TEST key. If the condition persists contact your VR Service Contractor for advice.

14-09-97 19:25:47
G1 : SENSOR OUT ALARM



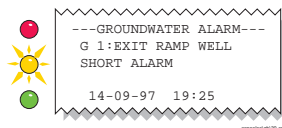
CAUSE:

The Groundwater sensor at the location shown is faulty.

ACTION:

Silence the alarm by pressing the red ALARM/TEST key. Contact your VR Service Contractor for advice.

14-09-97 19:25:47
G1 : SHORT ALARM



CAUSE:

The Groundwater sensor at the location shown is faulty.

ACTION:

Silence the alarm by pressing the red ALARM/TEST key. Contact your VR Service Contractor for advice.

SYSTEM STATUS MESSAGES

30-09-97 16:45:54
PAPER OUT

console/qpl40.eps



CAUSE:

The paper roll is empty.

ACTION:

Silence the alarm by pressing the red ALARM/TEST key. Replace paper (see **Changing the Printer Paper**).

30-09-97 16:45:54
BATTERY OFF

console/qpl42.eps



CAUSE:

The system backup battery has failed.

ACTION:

Do not switch off power to the system.

Silence the alarm by pressing the red ALARM/TEST key. Contact your VR Service Contractor for advice.

30-09-97 16:45:54
PRINTER ERROR

console/qpl41.eps



CAUSE:

Either the printer release lever is in the down position, or the printer is faulty.

ACTION:

Silence the alarm by pressing the red ALARM/TEST key. Check that the paper release lever is in the up position and, if necessary, contact your VR Service Contractor for advice.

30-09-97 16:45:54
SETUP DATA WARNING

console/qpl43.eps



CAUSE:

A system error has occurred.

ACTION:

Silence the alarm by pressing the red ALARM/TEST key. Contact your VR Service Contractor for advice.

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TO START AN IN-TANK LEAK TEST

Press **F** until the display shows:

START IN-TANK LEAK TEST
PRESS <STEP> TO CONTINUE

consolidated404.aps

To test individual tanks press **S C E S**. To test all tanks press **S S** the display will show

TEST CONTROL: ALL TANKS
TIMED DURATION

consolidated404.aps

To end the test manually press **C E S** or to set a duration for the test press **S**

Select the test accuracy, either 0.76 litres/hr or 0.38 litres/hr. To change the setting press **C E**. Press **S** to continue.

Enter the Test Duration in hours, press **E S**. The display will show

START LEAK TEST TANKS
PRESS <ENTER>

consolidated404.aps

Press **E** to start the test. For individual tanks press **T** to go to the next tank.

Return to normal operating mode: press **F** until the date and time display appears.

- Do not start an in-tank leak test if there has been a delivery to the tank to be tested within the previous 8 hours. This will result in an invalid test.
- A delivery to a tank being tested results in an invalid test.
- Dispensing from a tank being tested will cause a Sudden Loss Alarm.

TO STOP IN-TANK LEAK TESTING

Press **F** until the display shows:

STOP IN-TANK LEAK TEST
PRESS <STEP> TO CONTINUE

console/qr148.apx

To stop single tank testing:

Press **S C E S**. The display will show

STOP LEAK TEST : TANK X
PRESS <ENTER>

console/qr148.apx

For individual tanks, press **T** to select the desired tank. Press **E** to halt the test.

To stop testing all tanks:

Press **S S**. The display will show

STOP LEAK TEST : ALL TANKS
PRESS <ENTER>

console/qr150.apx

Press **E** to halt the test.

The system confirms the ending of the test by displaying:

LEAK TEST NOT ACTIVE
PRESS <FUNCTION> TO CONT.

console/qr151.apx

Return to normal operating mode: press **F** until the date and time display appears.

KEY SYMBOLS

BACKUP	B
CHANGE	C
ENTER	E
FUNCTION	F
MODE	M
PRINT	P
STEP	S
TANK/SENSOR	T

console/qr110.apx

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IN-TANK LEAK TEST REPORTS

Press **F** until the display shows:

IN-TANK TEST RESULTS
PRESS <STEP> TO CONTINUE

Press **P** to generate a report for all tanks.

Press **S** to generate a report for an individual tank,

press **T** to select the desired tank and **P** to generate the report.

Press **F** until the normal operating mode display appears.

THE SERVICE STATION
POST LANE
ANYTOWN

30-06-97 8:30

LEAK TEST REPORT

T 1:4* FOUR STAR
PROBE SERIAL NUM 012345

TEST STARTING TIME:
29-09-95 18:32

TEST LENGTH = 13.6 HRS
SRTR VOLUME = 3119.6 LIT

LEAK TEST RESULTS
0.76 LIT/HR TEST PASS

T 2:UL UNLEADED
PROBE

TEST LENGTH = 13.6 HRS

This report is also produced automatically at a set time on the morning following a completed **Quiet Period Leak Detection (QPLD)** test.

See In-Tank Leak Testing

KEY SYMBOLS

BACKUP	B
CHANGE	C
ENTER	E
FUNCTION	F
MODE	M
PRINT	P
STEP	S
TANK/SENSOR	T

QUIET PERIOD LEAK DETECTION TEST

A Quiet Period Leak Detection (QPLD) test is a unique system feature where the TLS-350R automatically performs a Static Leak Detection test whenever it senses that fuel is not being drawn from or delivered to a tank.

The TLS-350R enters the QPLD mode after sensing that a tank has been inactive for one hour. A further quiet period of four hours is required for the TLS-350R to complete the test. On completion the results are stored in the system's memory. If fuel is dispensed from or delivered to the tank during the four hour period the test is stopped and no test results are stored.

A Quiet Period Leak Detection test requires a quiet period of at least 5 hours.

At a set time on the morning following a QPLD test a Leak Test report is printed.

See **In-Tank Leak Test Reports** for an example report.

MONTHLY LEAK TEST REPORT

On the first day of each month a Quiet Period Leak Detection test report is produced automatically.

If more than one QPLD test has been carried out during the month, only the results from the test carried out on the largest volume in the tank are printed.

If it has not been possible for the TLS-350R to carry out a QPLD test a "No Data Available" message is printed.

See also **Reconciliation**.

```
THE SERVICE STATION
POST LANE
ANYTOWN

01-09-97    7:22

T 1:4* FOUR STAR

TEST DATE/TIME:
14-08-97 11:09
TEST VOLUME
86 PERCENT
TEST TYPE
STANDARD

0.375 LIT TEST - PASSED

T 2: UL UNLEADED

TEST DATE/TIME:
14-08-97 11:09
TEST VOLUME
86 PERCENT
TEST TYPE
STANDARD

0.375 LIT TEST - PASSED
```

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INVENTORY REPORT

17-01-97 11:23:17 AM
ALL FUNCTIONS NORMAL

console/q156.eps

Press **P** for a complete inventory report for all tanks.

To display the inventory information from each tank:

Press **F** until the display shows:

IN-TANK INVENTORY
PRESS <STEP> TO CONTINUE

console/q157.eps

The system will display the fuel volume for the first tank.

Press **S** to view other in-tank information.

Press **T** to select a different tank.

Press **P** to print the report.

THE SERVICE STATION
POST LANE
ANYTOWN

17-01-97 11:24

SYSTEM STATUS REPORT

ALL FUNCTIONS NORMAL

INVENTORY REPORT

T 1:4* FOUR STAR
CAPACITY = 44400 LITERS
VOLUME = 36896 LITERS
ULLAGE = 7503 LITERS
TC VOLUME = 36688 LITERS
HEIGHT = 2011.0 MM
WATER VOL = 0 LITERS
WATER = 0.0 MM
TEMP = 20.6 DEG C

console/q155.eps

LAST SHIFT INVENTORY REPORT

Press **F** until the display shows:

LAST SHIFT INVENTORY
PRESS <STEP> TO CONTINUE

console/q158.eps

Press **S** to select the shift and to display inventory data.

Press **T** to select a different tank.

Press **P** to print the report.

SHIFT STARTING INV #2
30-09-97 20:00

T 1:4* FOUR STAR
CAPACITY = 44400 LITERS
VOLUME = 36896 LITERS
ULLAGE = 7503 LITERS
TC VOLUME = 36688 LITERS
HEIGHT = 2011.0 MM
WATER VOL = 0 LITERS
WATER = 0.0 MM
TEMP = 20.6 DEG C

SHIFT ENDING INV #2

01-10-97 04:00
T 1:4* FOUR STAR
CAPACITY = 44400 LITERS
VOLUME = 36195 LITERS
ULLAGE = 8204 LITERS
TC VOLUME = 35965 LITERS
HEIGHT = 1876.0 MM
WATER VOL = 0 LITERS
WATER = 0.0 MM
TEMP = 20.6 DEG C

console/q155.eps

INVENTORY INCREASE REPORT

30-09-97 17:23:17 AM
ALL FUNCTIONS NORMAL

console/qh163.eps

Press **F** once and **S** 8 times.

The display will show:

T 1:4* FOUR STAR
DELIVERY = 13611 LITERS

console/qh161.eps

Press **T** to select a different tank.

Press **P** to print the delivery report for the tank shown.

Return to the Date and Time display by pressing **M** until it appears.

T 1:4* FOUR STAR
INVENTORY INCREASE

INCREASE START
30-09-97 10:20

VOLUME = 10806 LITERS
WATER = 0.0 MM
TEMP = 22.1 DEG C

INCREASE END
30-09-97 10:42

VOLUME = 24417 LITERS
WATER = 0.0 MM
TEMP = 19.8 DEG C

GROSS INCREASE = 13611
TC NET INCREASE = 13497

console/qh162.eps

KEY SYMBOLS

BACKUP	B
CHANGE	C
ENTER	E
FUNCTION	F
MODE	M
PRINT	P
STEP	S
TANK/SENSOR	T

console/qh110.eps

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ENTERING A TICKETED DELIVERY VOLUME (TLS-350R Only)

The Delivery Maintenance function, if enabled in Setup Mode, lets you edit, view, and print information about ticketed deliveries (refer to the Delivery Maintenance section of the TLS-350R Operator's Manual for complete instructions and printing options.)

In the Operating Mode, press **F** until the display shows:

DELIVERY MAINTENANCE
PRESS <STEP> TO CONTINUE

consoles/qh173.eps

Press **S** two times and the display shows:

SELECT: EDIT/VIEW
T 1: [product]

consoles/qh178.eps

Press **T** until the desired product is visible in the display. If necessary, press **S** until the date/time of the delivery appears. Press **P** to print out a copy of that ticketed delivery (Notice that the ticket volume equals 0 on the printout). Press **C**, then enter the delivered volume from the ticket using the number keys. Press **E** to confirm your choice. Press **B**, **S**, and **P** to print out a copy of the revised report (see example at right).

T 3: UL UNLEADED
TICKETED DELIVERY REPORT

DD MM YY HH:MM:XM
TICKET VOL: 20800 LIT
GAUGED VOL: 20758 LIT
DLVY VAR : 42 LIT
EST DLVY TEMP : 22.4 C
PRE DLVY TEMP : 22.3 C
POST DLVY TEMP: 22.6 C

* * * * * END * * * * *

consoles/qh174.eps

TO SET THE SYSTEM DATE

Press **M** until the display shows:

SETUP MODE
PRESS <FUNCTION> TO CONT

connected@19163.apc

Press **F**. If the system has a security passcode you will be asked to enter a six digit code:

SETUP MODE
ENTER PASSCODE>_____
<

connected@19164.apc

Enter the code using the alphanumeric keys and press **E**. The display will show

SYSTEM SETUP
PRESS <STEP> TO CONTINUE

connected@19165.apc

Press **S S S S**, to display the date:

SET MONTH DAY YEAR
DATE: 01/16/1998

connected@19166.apc

If the date is correct press **S** if not, press **C** and enter the correct date. (Note that the month **must** be entered first.)

Press **E**, the new date will be displayed:

DATE: 01/16/1998
PRESS <STEP> TO CONTINUE

connected@19167.apc

TO SET THE SYSTEM TIME

If the date is correct press **S** .

The display will show:

SET TIME
TIME: 12:34 PM

consolidator10.apa

If the time is correct press **M** **M** to return to the normal operating mode.

To change the time press **C** and enter the correct time. Select either AM or PM by using the arrow keys.

Press **E** to confirm the time.

The display will show:

TIME: 12:45 PM
PRESS <STEP> TO CONTINUE

consolidator10.apa

If the time is correct press **M** to return to the normal operating mode.

KEY SYMBOLS

BACKUP	B
CHANGE	C
ENTER	E
FUNCTION	F
MODE	M
PRINT	P
STEP	S
TANK/SENSOR	T

consolidator10.apa

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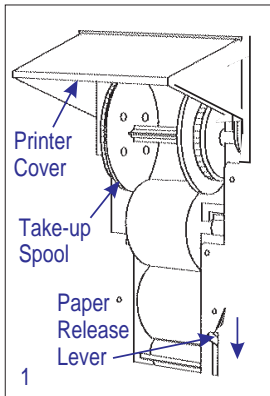
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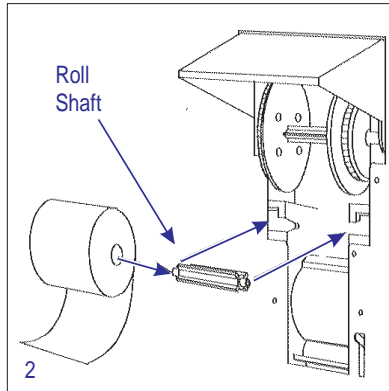
consoles/igh/p26a.eps

The paper roll should be changed when a red stripe appears on the printouts.

A 3-roll pack of printer paper (Part Number 514100-328) is available from your Service Contractor.

Swing up the printer cover (1) and push the paper feed release lever down.

If the take-up spool has been used, pull out the spool with the printed reports and tear off the paper close to the printer feed roller.

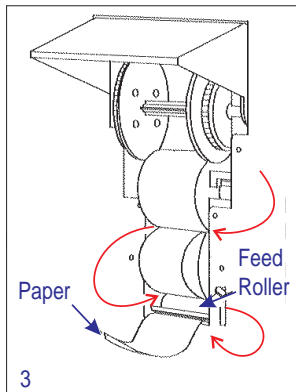


consoles/igh/p26b.eps

Separate the two halves of the take-up spool by pulling them apart (4) and remove the printed reports.

Do not discard any reports as they may be required later.

Pull out the old paper roll and any remaining paper. Remove the roll shaft and press it into the new roll (2).

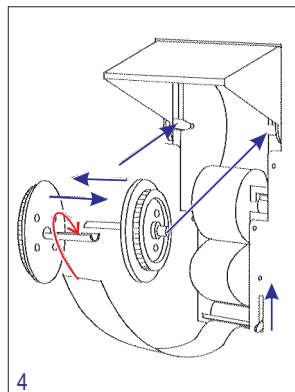


consoles/qh/p27a.eps

Push the roll into the lower slots in the printer with the paper tail down and from the back.

Feed the paper tail through behind the paper feed roller (3).

If using the Take-up Spool place the paper tail between the two halves and press them firmly together until you hear a click (4).



consoles/qh/p27b.eps

Push the Take-up Spool into the upper slots. Rotate the spool to take up any slack in the paper.

If the Take-up Spool is not to be used push the paper tail through the slot in the printer cover.

Push the paper release lever up and close the cover.

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Your Veeder-Root Representative is:

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Part No. 577013-617 rev B