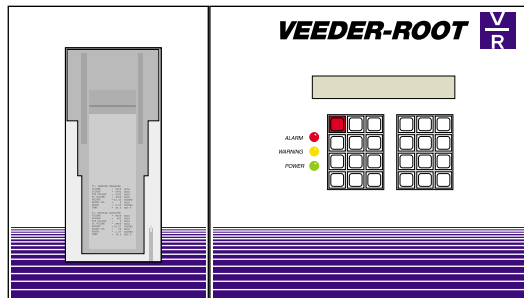


Operator's Quick Help



Manual 576013-939, Rev D

TLS-300

TLS-350

TLS-350R

Notice

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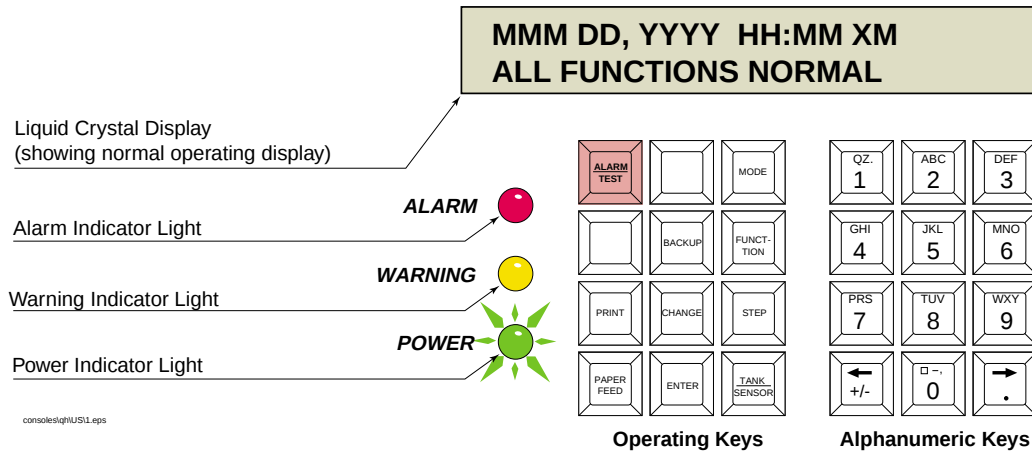
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For complete warranty, technical support, and additional product information, refer to your console's Operator Manual.

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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 period (.) is on key "1".
The decimal point (•) is on
the Right Arrow key (➡).



The zero 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.

Automatic Reports

INVENTORY INCREASE REPORT

```
T 1:REGULAR UNLEADED
INVENTORY INCREASE

INCREASE START
MMM DD, YYYY HH:MM XM
VOLUME = 5146 GALS
HEIGHT = 44 INCHES
WATER = 0.00 INCHES
TEMP = 46.8 DEG F

INCREASE END
MMM DD, YYYY HH:MM XM
VOLUME = 8104 GALS
HEIGHT = 84 INCHES
WATER = 0.00 INCHES
TEMP = 47.2 DEG F

GROSS INCREASE = 2958
TC NET INCREASE = 2983
```

console\q111022.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 console waits for the fuel level in the tank to stabilize.

ADJUSTED DELIVERY REPORT (BIR Option)

```
T 1:PRODUCT 1
ADJUSTED DELIVERY REPORT

MMM DD, YYYY HH:MM XM

DELIVERY VOLUME = 1200
TC DLVY VOLUME = 1189
```

console\q111022.eps

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

Within 60 minutes after printing the Inventory Increase Report, the TLS-350R generates an Adjusted Delivery Report.

The TLS-350R adjusts the gross increase fuel volume by adding any 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.

Business Inventory Reconciliation (BIR Option)

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 recognize the very small differences which could indicate a leak. This process is called **reconciliation**.

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 Shift 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

consolelight15.jpg

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

DISPLAY AND PRINT
REPORT TYPE: SHIFT

consolelight16.jpg

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 the Operating mode.

MMM DD, YYYY HH:MM XM

SHIFT RECONCILIATION

T 1:REGULAR UNLEADED

OPENING DATE & TIME:
MMM DD, YYYY HH:MM XM

CLOSING DATE & TIME:
MMM DD, YYYY HH:MM XM

OPENING VOLUME:
5511 GALS

DELIVERIES:
0 GALS

METERED SALES:
300 GALS

MANUAL ADJUSTMENTS:
0 GALS

CALCULATED INVNTY:
5211 GALS

GAUGED INVNTY:
5211 GALS

WATER HEIGHT:
2.11 INCH

VARIANCE:
0 GALS

consolelight1517.jpg

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 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 1: UNLEADED GASOLIN

DELIVERY VARIANCE
DAILY

MMM DD, YYYY HH:MM XM
VOLUMES ARE STANDARD

OPENING DATE & TIME:
MMM DD, YYYY HH:MM XM

CLOSING DATE & TIME:
MMM DD, YYYY HH:MM XM

TICKET VOL: 5491 GALS
GAUGED VOL: 5480 GALS
DLVY VAR : 11 GALS

PROD 2: SUPER GASOLINE

consoles\qih\US175.eps

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 1: UNLEADED GASOLIN

BOOK VARIANCE
DAILY

MMM DD, YYYY HH:MM XM
VOLUMES ARE STANDARD

OPENING DATE & TIME:
MMM DD, YYYY HH:MM XM

CLOSING DATE & TIME:
MMM DD, YYYY HH:MM XM

OPN GAUG VOL:      800 GAL
METER SALES :      285 GAL
TICKET DLVY :      800 GAL
MANUAL ADJ  :        0 GAL
BOOK INV   :      9704 GAL
GAUGED INV  :      8904 GAL
WATER HT   :        0.00 IN
VAR:        800 GAL  280.7%

PROD 2: SUPER GASOLINE
  
```

consolelight\US176.eps

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 1: UNLEADED GASOLIN

VARIANCE ANALYSIS
DAILY

MMM DD, YYYY HH:MM XM
VOLUMES ARE STANDARD

OPENING DATE & TIME:
MMM DD, YYYY HH:MM XM

CLOSING DATE & TIME:
MMM DD, YYYY HH:MM XM

BOOK VAR : 800 GAL
BOOK VAR % : 280 GAL
DLVY VAR : -99 GAL
SALE VAR : 899 GAL
TEMP VAR : 3 GAL
WATER CHG : 0.00 IN
UNEX VAR : 895 GAL

CORRECTIVE ACTIONS

INSPECT METERS
T1

LEAK TEST RESULTS
T 1: UNLEADED GASOLINE
PROBE SERIAL NUM 900007

0.20 GAL/HR TEST PASS
MMM DD, YYYY HH:MM XM

0.10 GAL/HR TEST INVL
MMM DD, YYYY HH:MM XM

MONTHLY TANK TEST REPORT
T 1: UNLEADED GASOLINE
PROBE SERIAL NUM 900007

TEST TYPE: STANDARD
PERCENT VOLUME = 24.8
MMM DD, YYYY HH:MM XM

* * * * * END * * * * *

Warnings And Alarms

The TLS Console 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 console 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 All 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.

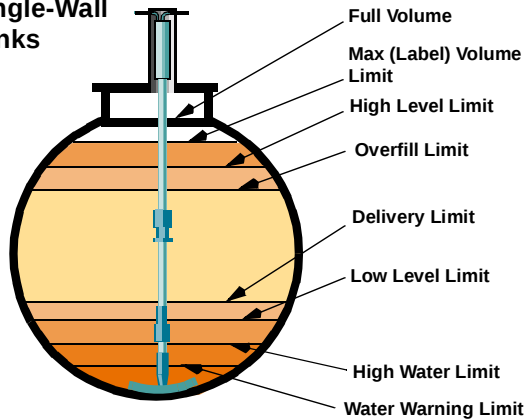
PLLD/WPLLD Alarm Information

For PLLD/WPLLD line leak detection alarms, refer to following manuals:

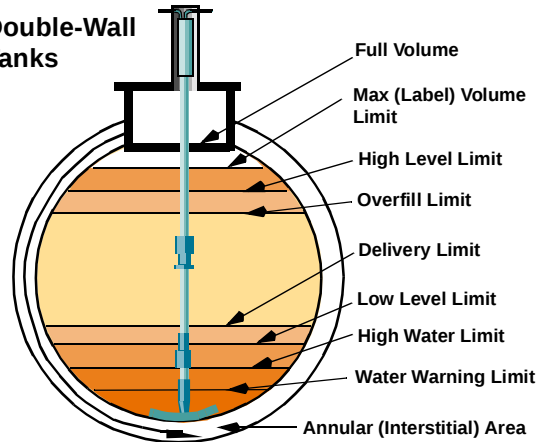
- PLLD/WPLLD Alarm Quick Help manual (P/N 577013-727)
- TLS-350/TLS-350R Operator's Manual (P/N 576013-610)

In-Tank Warning And Alarm Levels

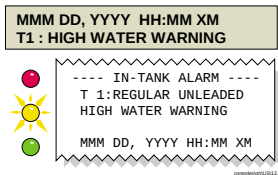
Single-Wall Tanks



Double-Wall Tanks



In-Tank Warnings

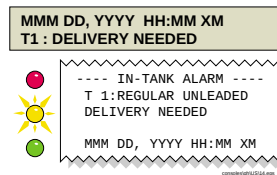


CAUSE:

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.

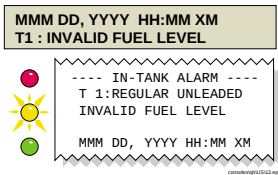


CAUSE:

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.

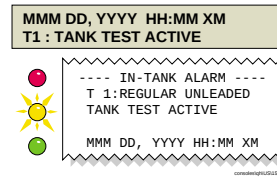


CAUSE:

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.



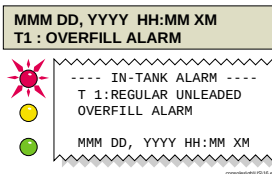
CAUSE:

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



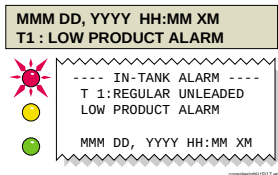
CAUSE:

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.



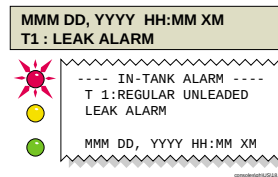
CAUSE:

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.

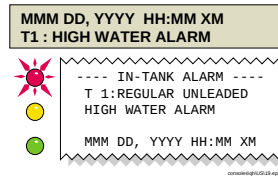


CAUSE:

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.



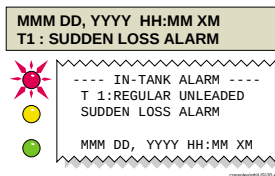
CAUSE:

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.

**CAUSE:**

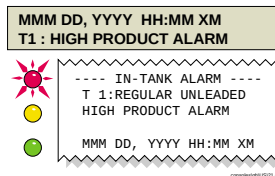
Fuel loss in the tank shown has exceeded a pre-set limit during a Leak Test. This indicates a possible leak, fuel being dispensed or other unauthorized loss.

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.

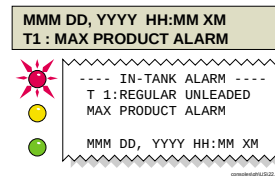
**CAUSE:**

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.

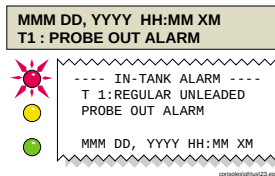
**CAUSE:**

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

MMM DD, YYYY HH:MM XM
L1 : FUEL ALARM



LIQUID STATUS

L 1: TANK 1

FUEL ALARM

MMM DD, YYYY HH:MM XM

console\right\LS124.aps

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.

MMM DD, YYYY HH:MM XM
L1 : SENSOR OUT ALARM



LIQUID STATUS

L 1: TANK 1

SENSOR OUT ALARM

MMM DD, YYYY HH:MM XM

console\right\LS125.aps

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



INTERSTITIAL STATUS

L 1: TANK 1

LEAK ALARM

14-09-97 19:25

console\right\LS126.aps

CAUSE:

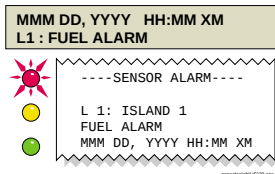
The Interstitial Monitor for the tank shown has detected a change in the interstitial fluid level; a fuel leak may have occurred.

ACTION:

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

Call a Service Contractor to check for fluid loss.

Dual-Float Discriminating Sensor Alarms

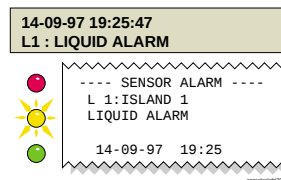


CAUSE:

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

ACTION:

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

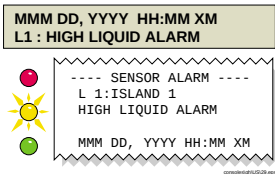


CAUSE:

The sensor at the location shown has detected at least 1 inch of non-hydrocarbon liquid.

ACTION:

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

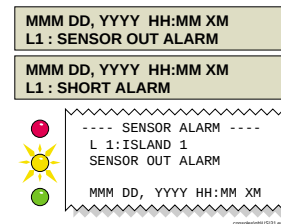


CAUSE:

The sensor at the location shown has detected at least 8 inches of non-hydrocarbon liquid.

ACTION:

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



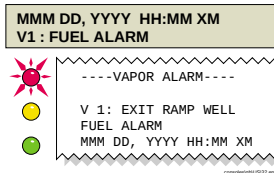
CAUSE:

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

ACTION:

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

Vapor Sensor Alarms

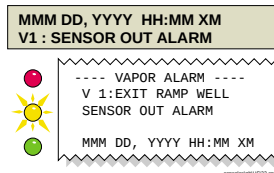


CAUSE:

The vapor sensor at the location shown has detected fuel vapor 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.

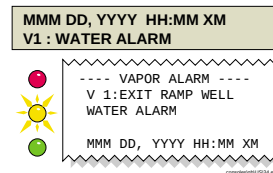


CAUSE:

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

ACTION:

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

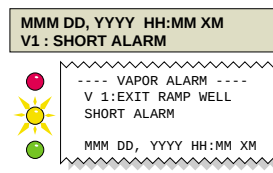


CAUSE:

The vapor 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.



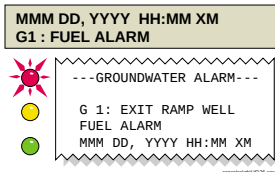
CAUSE:

The vapor 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.

Groundwater Sensor Alarms

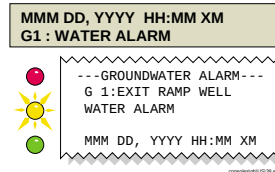


CAUSE:

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.

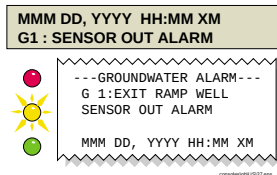


CAUSE:

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.

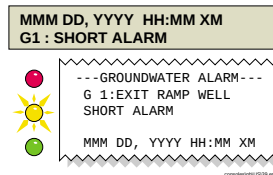


CAUSE:

The Groundwater sensor at the location shown is inoperative.

ACTION:

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



CAUSE:

The Groundwater sensor at the location shown is inoperative.

ACTION:

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

System Status Messages

MMM DD, YYYY HH:MM XM
PAPER OUT

consolevq115140.jpg



CAUSE:

The paper roll is empty.

ACTION:

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

MMM DD, YYYY HH:MM XM
PRINTER ERROR

consolevq115141.jpg



CAUSE:

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

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.

MMM DD, YYYY HH:MM XM
BATTERY OFF

consolevq115142.jpg



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.

MMM DD, YYYY HH:MM XM
SETUP DATA WARNING

consolevq115143.jpg



CAUSE:

A system error has occurred.

ACTION:

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

To Start An In-Tank Leak Test

Press **F** until the display shows:

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

consolidat44.jpg

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

consolidat45.jpg

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

Select the test accuracy, either 0.20 gal/hr or 0.10 gal/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>

consolidat46.jpg

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/ig140.aps

To stop single tank testing:

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

STOP LEAK TEST : TANK X
PRESS <ENTER>

console/ig140.aps

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/ig100.aps

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/ig100.aps

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

In-Tank Leak Test Reports

Press **F** until the display shows:

IN-TANK TEST RESULTS
PRESS <STEP> TO CONTINUE

corrosion/q152.eps

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.

MMM DD, YYYY HH:MM XM

LEAK TEST REPORT

T 1: REGULAR UNLEADED
PROBE SERIAL NUM 012345

TEST STARTING TIME:
MMM DD, YYYY HH:MM XM

TEST LENGTH = 4.3 HRS
STRT VOLUME = 3725 GALS

LEAK TEST RESULTS
0.2 GAL/HR TEST PASS

T 2: SUPER UNLEADED
PROBE SERIAL NUM 105792

TEST STARTING TIME:
MMM DD, YYYY HH:MM XM

TEST LENGTH = 13.6 HRS

corrosion/q115553.eps

Inventory Report

MMM DD, YYYY HH:MM XM
ALL FUNCTIONS NORMAL

consoles/qh/2056.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

consoles/qh/2057.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.

MMM DD, YYYY HH:MM XM

INVENTORY REPORT

T 1:UNLEADED GASOLINE
VOLUME = 8518 GALS
ULLAGE = 1482 GALS
90% ULLAGE= 482 GALS
TC VOLUME = 8492 GALS
HEIGHT =76.26 INCHES
WATER VOL = 0 GALS
WATER = 0.00 INCHES
TEMP = 64.6 DEG F

T 2: SUPER UNLEADED
VOLUME = 7545 GALS
ULLAGE = 2455 GALS
90% ULLAGE= 1455 GALS
TC VOLUME = 7569 GALS
HEIGHT =67.76 INCHES
WATER VOL = 0 GALS

consoles/qh/US155.eps

Last Shift Inventory Report

Page 21

Press **F** until the display shows:

LAST SHIFT INVENTORY
PRESS <STEP> TO CONTINUE

consoles/qh/2058.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 #1
- - - - -
MMM DD, YYYY HH:MM XM

T 1:UNLEADED GASOLINE
VOLUME = 8518 GALS
ULLAGE = 1482 GALS
90% ULLAGE= 482 GALS
TC VOLUME = 8492 GALS

WATER VOL = 0 GALS
WATER = 0.00 INCHES
TEMP = 64.6 DEG F

DLVY ADJUSTMENT : 0
GROSS CHANGE : 0
TC NET CHANGE : 0

HEIGHT = 76.26 INCHES

consoles/qh/US159.eps

Inventory Increase Report

MMM DD, YYYY HH:MM XM
ALL FUNCTIONS NORMAL

console\sig\112556.apx

Press **F** once and **S** until you see the Delivery message (the last delivery amount):

T 1: REGULAR UNLEADED
DELIVERY = 2958 GALS

console\sig\112561.apx

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.

MMM DD, YYYY HH:MM XM
T1:REGULAR UNLEADED
INVENTORY INCREASE

INCREASE START
MMM DD, YYYY HH:MM XM

VOLUME = 5146 GALS
HEIGHT = 44 INCHES
WATER = 0.00 INCHES
TEMP = 46.8 DEG F

INCREASE END
MMM DD, YYYY HH:MM XM

VOLUME = 8104 GALS
HEIGHT = 84 INCHES
WATER = 0.00 INCHES
TEMP = 47.2 DEG F

GROSS INCREASE = 2958
TC NET INCREASE = 2983

console\sig\112562.apx

Entering A Ticketed Delivery Volume (BIR Option)

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 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

consolelqh173.eps

Press **S** until the display shows:

SELECT: EDIT/VIEW
T 1: [product]

consolelqh176.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 1: UNLEADED GASOLINE

TICKETED DELIVERY REPORT
MMM DD, YYYY HH:MM XM
VOLUMES ARE STANDARD

TICKET VOL: 800 GAL
GAUGED VOL: 899 GAL
DLVY VAR : -99 GAL
EST DLVY TEMP : 72.90 F
PRE DLVY TEMP : 72.60 F
POST DLVY TEMP: 73.20 F

consolelqh174.eps

Pressurized Line Leak Detection Tests (PLLD Option)

You can run a PLLD test on all lines or on a single line.

TO START A PLLD TEST

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

START LINE PRESSURE TEST
PRESS <STEP> TO CONTINUE

console\right\lgbl1.epi

Press **S** and the display shows:

SELECT LINE
ALL LINES

console\right\lgbl2.epi

Press **S** to accept all lines. To select a single line, press **C** until you see the line you want, then press **E** and **S**. The display below appears:

SELECT TEST TYPE
3.0 GPH

console\right\lgbl3.epi

This step lets you select 3.0, 0.2, or 0.1 gph line leak tests to run on the selected line(s). If your system does not have 0.2 or 0.1 gph test options, you will not see these selections.

To select 3.0 gph test, press **S**. Press **C** to select 0.2 or 0.1 gph tests, then press **E**. To select the 3.0 gph test, press **S**. The displays shows:

3.0 GPH
PRESS <STEP> TO CONTINUE

console\right\lgbl4.epi

To run the selected test, press **S**. The system displays the message (in this example for all lines):

START LINE TEST: ALL LINE
PRESS <ENTER>

console\right\lgbl5.epi

Press **E** to begin the test. The system displays:

Q# : RUNNING PUMP
PRESS <STEP> TO CONTINUE

consolidated financial statements

To exit this function, press **S**.

TO STOP A PLLD TEST

To stop a PLLD test, press **F** until you see the message:

STOP PRESSURE TEST
PRESS <STEP> TO CONTINUE

[console-ctrl-alt-f7-esp](#)

Press **S**. The system displays the message:

SELECT LINE
ALL LINES

complext@lcs.mit.edu

Press **E** to stop the test on all lines, or press **C**

and the system displays the message:

Page 25

STOP LINE TEST: LINE (#)
PRESS <ENTER>

consolidation/digitalization

Press **E** to stop the test on the line shown, or press **C** until you see the line you want to select, then press **E**. The system stops the test and displays the status message:

Q#: TEST ABORTED
PRESS <STEP> TO CONTINUE

romanticized. (Giblett 11, 12)

When you have stopped the PLLD tests on the desired lines, press **F** to exit.

TO PRINT ALL PLLD TEST RESULTS

Press **F** until you see the display below then press **P**:

PRESSURE LINE RESULTS
PRESS <STEP> TO CONTINUE

romanticized. (Clarke 3, 4)

Wireless Pressurized Line Leak Detection Tests (WPLLD Option)

You can run a WPLLD test on all lines or on a single line.

TO START A WPLLD TEST

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

START WPLLD LINE TEST
PRESS <STEP> TO CONTINUE

considering11/2/gph01.jpg

Press **S** and the display shows:

SELECT LINE
ALL LINES

considering11/2/gph02.jpg

Press **S** to accept all lines. To select a single line, press **C** until you see the line you want, then press **E** and **S**. The display below appears:

SELECT TEST TYPE
3.0 GPH

considering11/2/gph03.jpg

This step lets you select 3.0, 0.2, or 0.1 gph line leak tests to run on the selected line(s). If your system does not have 0.2 or 0.1 gph test options, you will not see these selections.

To select 3.0 gph test, press **S**. Press **C** to select 0.2 or 0.1 gph tests, then press **E**. To select the 3.0 gph test, press **S**. The displays shows:

3.0 GPH
PRESS <STEP> TO CONTINUE

considering11/2/gph04.jpg

To run the selected test, press **S**. The system displays the message (in this example for all lines):

START LINE TEST: ALL LINE
PRESS <ENTER>

considering11/2/gph05.jpg

Press **E** to begin the test. the system displays:

W # : TEST PENDING
PRESS <STEP> TO CONTINUE

console\right\5\wplld1.apx

To exit this function, press **S**.

TO STOP A WPLLD TEST

To stop a WPLLD test, press **F** until you see the message:

STOP WPLLD LINE TEST
PRESS <STEP> TO CONTINUE

console\right\5\wplld7.apx

Press **S**. The system displays the message:

SELECT LINE
ALL LINES

console\right\5\wplld8.apx

Press **E** to stop the test on all lines, or press **C**

and the system displays the message:

SELECT LINE
W#: WPLLD NUMBER #

console\right\5\wplld9.apx

Press **E** to stop the test on the line shown, or press **C** until you see the line you want to select, then press **E**. The system stops the test and displays the status message:

W#: TEST ABORTED
PRESS <STEP> TO CONTINUE

console\right\5\wplld11.apx

When you have stopped the WPLLD tests on the desired lines, press **F** to exit.

TO PRINT ALL WPLLD TEST RESULTS

Press **F** you see the display below then press **P**:

WPLLD LINE RESULTS
PRESS <STEP> TO CONTINUE

console\right\5\wplld12.apx

To Set The System Date

Press **M** until the display shows:

SETUP MODE
PRESS <FUNCTION> TO CONT

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

SETUP MODE
ENTER PASSCODE> _ _ _ _ _ <

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

SYSTEM SETUP
PRESS <STEP> TO CONTINUE

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

SET MONTH DAY YEAR
DATE: 01/ 01/1996

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

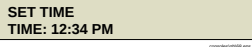
Press **E** , the new date will be displayed:

DATE: 02/17/2000
PRESS <STEP> TO CONTINUE

To Set The System Time

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

The display will show:



SET TIME
TIME: 12:34 PM

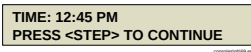
consolidating100.jpg

If the time is correct press **M** **M** to return to the 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:

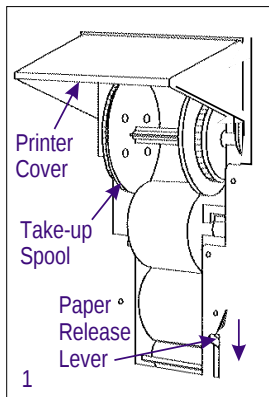


TIME: 12:45 PM
PRESS <STEP> TO CONTINUE

consolidating100.jpg

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

Changing The Printer Paper



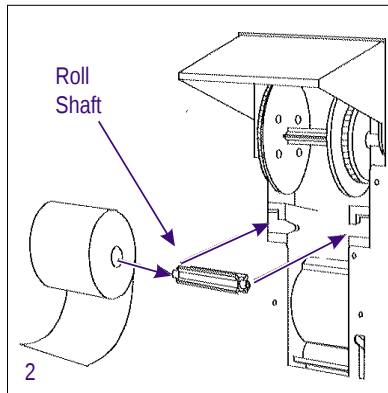
console/qh/p26a.eps

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.

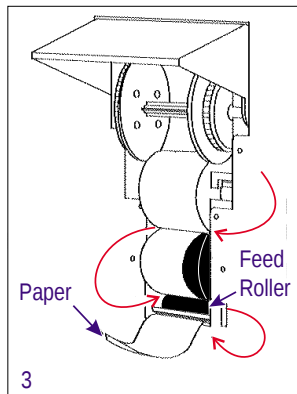


console/qh/p26b.eps

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.

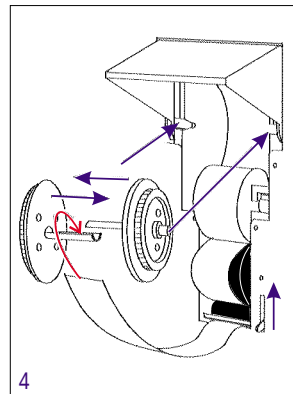
Pull out the old paper roll and any remaining paper. Remove the roll shaft and press it into the new roll (2).



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).



Push the Take-up Spool into the upper slots. Rotate the spool counterclockwise until you remove all slack in the paper.

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

Push the paper release lever up and close the cover.

