TLS4/8601 Series Consoles

Software/Hardware Upgrade & Replacement Manual

VEEDER-ROOT

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DAMAGE CLAIMS / LOST EQUIPMENT

Thoroughly examine all components and units as soon as they are received. If any cartons are damaged or missing, write a complete and detailed description of the damage or shortage on the face of the freight bill. The carrier's agent must verify the inspection and sign the description. Refuse only the damaged product, not the entire shipment.

Veeder-Root must be notified of any damages and/or shortages within 30 days of receipt of the shipment, as stated in our Terms and Conditions.

VEEDER-ROOT'S PREFERRED CARRIER

1. Contact Veeder-Root Customer Service at 800-873-3313 with the specific part numbers and quantities that were missing or received damaged.

2. Fax signed Bill of Lading (BOL) to Veeder-Root Customer Service at 800-234-5350.

3. Veeder-Root will file the claim with the carrier and replace the damaged/missing product at no charge to the customer. Customer Service will work with production facility to have the replacement product shipped as soon as possible.

CUSTOMER'S PREFERRED CARRIER

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3. If "lost" equipment is delivered at a later date and is not needed, Veeder-Root will allow a Return to Stock without a restocking fee.

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RETURN SHIPPING

For the parts return procedure, please follow the appropriate instructions in the "General Returned Goods Policy" pages in the "Policies and Literature" section of the Veeder-Root **North American Environmental Products** price list. Veeder-Root will not accept any return product without a Return Goods Authorization (RGA) number clearly printed on the outside of the package.

Figures

Tables

Introduction

This manual contains instructions for TLS4/8601 Series ATG hardware assembly replacement and software maintenance procedures.

Contractor Certification Requirements

Veeder-Root requires the following minimum training certifications for contractors who will install and setup the equipment discussed in this manual:

Installer (Level 1) Certification: Contractors holding valid Installer Certification are approved to perform wiring and conduit routing; equipment mounting; probe, sensor and carbon canister vapor polisher installation; wireless equipment installation; tank and line preparation; and line leak detector installation.

ATG Technician (Level 2/3 or 4) Certification: Contractors holding valid ATG Technician Certifications are approved to perform installation checkout, startup, programming and operations training, system tests, troubleshooting and servicing for all Veeder-Root Series Tank Monitoring Systems, including Line Leak Detection. In addition, Contractors with the following sub-certification designations are approved to perform installation checkout, startup, programming, system tests, troubleshooting, service techniques and operations training on the designated system.

- Wireless 2
- Tall Tank

Related Documents

577014-022   TLS4 Certification Site Prep Manual

577014-058   TLS4 Troubleshooting Manual

Safety Precautions

The following safety symbols may be used throughout this manual to alert you to important safety hazards and precautions.

	EXPLOSIVE Fuels and their vapors are extremely explosive if ignited.		**FLAMMABLE** Fuels and their vapors are extremely flammable.
	ELECTRICITY High voltage exists in, and is supplied to, the device. A potential shock hazard exists.		**TURN POWER OFF** Live power to a device creates a potential shock hazard. Turn Off power to the device and associated accessories when servicing the unit.
NOTICE	**NOTICE** NOTICE is used to address practices not related to physical injury.	**⚠WARNING**	**WARNING** WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.
	STATIC SENSITIVE COMPONENTS Wear grounded anti-static wrist strap before handling the printed circuit boards and mounted components.		**READ ALL RELATED MANUALS** Knowledge of all related procedures before you begin work is important. Read and understand all manuals thoroughly. If you do not understand a procedure, ask someone who does.

⚠ **WARNING**

This product is to be installed and operated in the highly combustible environment of a gasoline station where flammable liquids and explosive vapors may be present.
ATTEMPTING TO SERVICE TANK MONITORS AND EQUIPMENT WITHOUT PROPER TRAINING CAN CAUSE DAMAGE TO PROPERTY, ENVIRONMENT, RESULTING IN PERSONAL INJURY OR DEATH.
The following hazards exist:
1. Electrical shock resulting in serious injury or death may result if power is on during component installation.
Observe the following precautions:
1. Read and follow all instructions in this manual, including all safety warnings.
2. Comply with all applicable codes including: the National Electrical Code; federal, state, and local codes; and other applicable safety codes.
3. Before installing this device, turn Off, tag/lock out power to the system.
4. Substitution of components may impair intrinsic safety.

TLS4/8601 Kits

Table 1. Miscellaneous Upgrade/Replacement Kits

Part No.	Kit
330020-742	Upgrade DL4 To TLS4, EDIM, With Touch Screen
333530-002	Feature Upgrade (TLS4, TLS4B, TLS4c, TLS4i, TLS-S1, DL4)
330020-744	Operating Software Upgrade (TLS4, TLS4B, TLS4c, TLS4i, TLS-S1, DL4, DL)
330020-745	SD Card Kit, 4G (TLS4, TLS4B, TLS4c, TLS4i, TLS-S1, DL4, DL)
330020-746	CPU Board Replacement Kit, EDIM, With Touch Screen (TLS4)
333530-005	CPU Board Replacement Kit, EDIM, No Screen (TLS4, DL4)
333530-006	CPU Board Replacement Kit With Touch Screen (TLS4B, TLS-S1)
333530-007	CPU Board Replacement Kit, No Screen (TLS4B, TLS-S1, DL)
333530-009	CPU Board Replacement Kit, CDIM, With Touch Screen (TLS4)
333530-010	CPU Board Replacement Kit, CDIM, With No Touch Screen (TLS4, DL4)
333530-011	CPU Board Replacement Kit With Touch Screen (TLS4c)
333530-012	CPU Board Replacement Kit, No Screen (TLS4c)
333530-013	CPU Board Replacement Kit With Touch Screen (TLS4i)
333530-014	CPU Board Replacement Kit, No Screen (TLS4i)
333530-015	CPU Board Replacement Kit With IFSF LON, No Screen (TLS4)
333530-016	CPU Board Replacement Kit With IFSF LON, With Touch Screen (TLS4)

Table 1. Miscellaneous Upgrade/Replacement Kits

Part No.	Kit
333530-017	CPU Board Replacement Kit With IFSF LON, No Screen (TLS4B, TLS-S1)
333530-018	CPU Board Replacement Kit With IFSF LON, With Touch Screen (TLS4B, TLS-S1)
330020-750	USIOM Board Replacement Kit, AC (TLS4, TLS4i, DL4)
330020-753	USIOM Board Replacement Kit, DC (TLS4B)
330020-752	USIOM Board Replacement Kit, DC (TLS4)
330020-751	USIOM Board Replacement Kit, AC (TLS4B, TLS4c, TLS-S1, DL)
330020-769	iButton Replacement Kit (TLS4, TLS4B, TLS4c, TLS4i, TLS-S1, DL4, DL)
330020-754	USB Back-up Thumb Drive (TLS4, TLS4B, TLS4c, TLS4i, TLS-S1, DL4, DL)
330020-755	Replacement TLS4 Cover
330020-756	Replacement DL4 Cover
330020-757	Replacement Cover, Blank
330020-758	Replacement DL Cover
330020-764	Replacement TLS4B Cover
330020-810	Replacement TLS4c Cover
330020-811	Replacement TLS4i Cover
330020-812	Replacement TLS-S1 Cover
330020-759	Replacement CPU Battery
330020-779	Cable Kit (USIOM To CPU)

Component Identification

Figure 1 through Figure 4 show assembly and component locations referenced in this manual.
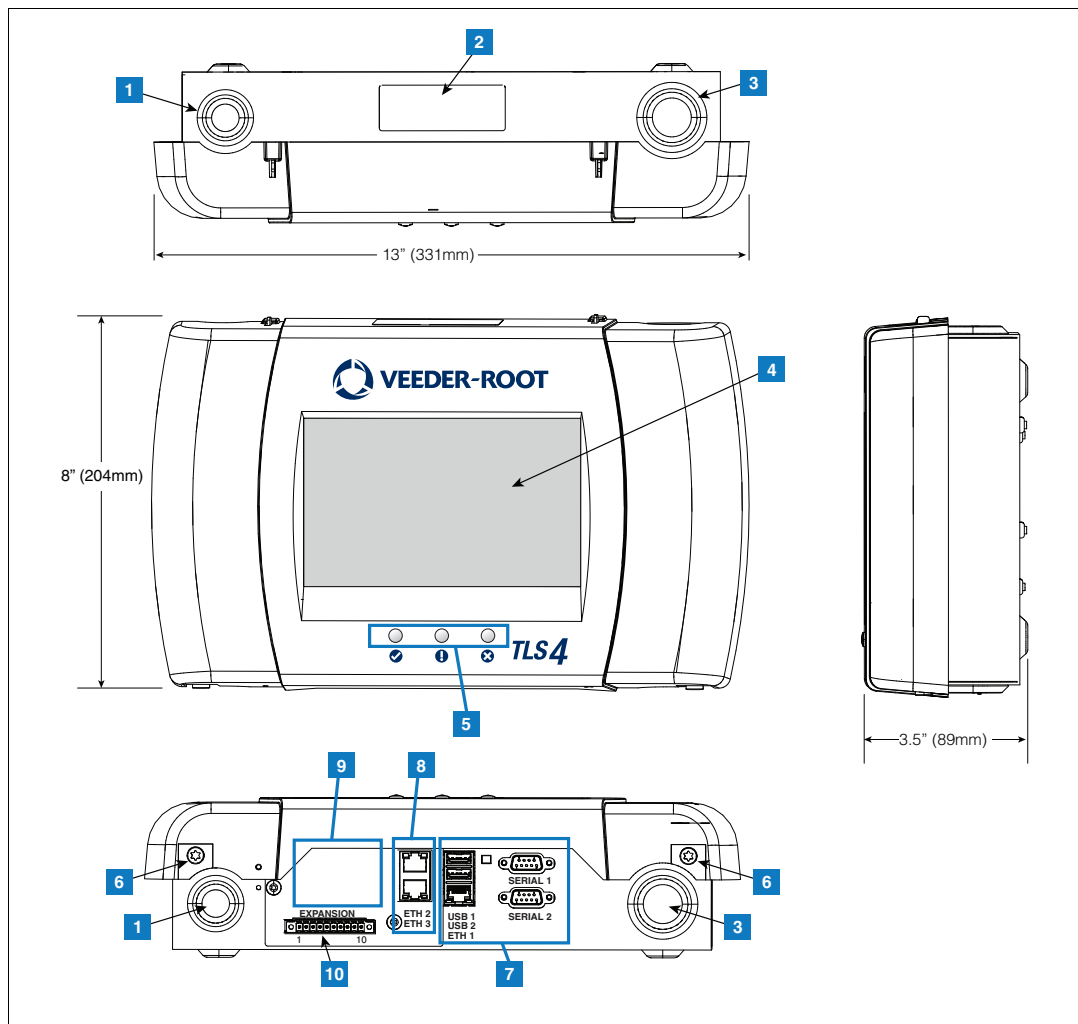
Figure 1. TLS4/8601 Series Console - Dimensions

1. Power conduit knockout (1 top/1 bottom)
2. Console label contains input power ratings and Form and Serial number
3. Intrinsically safe wiring conduit knockout (1 top/1 bottom)
4. Optional touch screen display
5. Status LEDs
6. T15 screws secure cover (2 places)

7. Communication ports - standard:
   Serial ports 1 (full handshaking) and 2
   USB ports 1 and 2
   Ethernet port 1
8. Communication port - optional integrated Ethernet switch ports 2 and 3
9. Factory Installed Optional Module
10. Expansion port
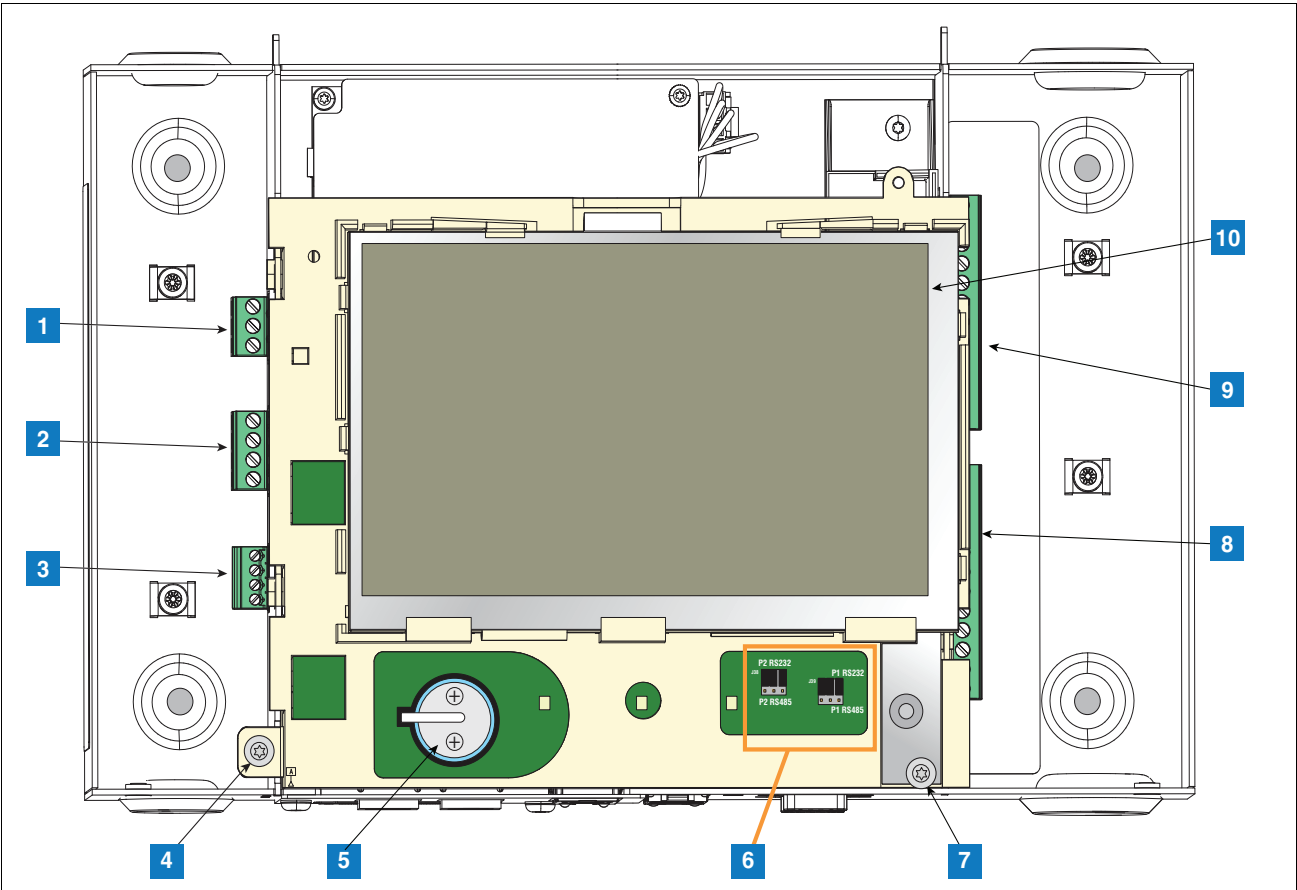
Figure 2.   Component Locations (Front Cover Removed)

LEGEND FOR NUMBERED BOXES IN Figure 2

1. AC or DC input power connector (as ordered)
2. High voltage output relay connector
3. Low voltage external input connector
4. T15 screw secures Display/CPU assembly
5. Rechargeable 3V Lithium battery (battery backup)
6. RS232/485 selection jumpers SERIAL 1 (P1) and SERIAL 2 (P2)(factory set to RS232 position)
7. T20 screw secures Display/CPU assembly
8. Optional 6-device intrinsically safe input connector (7 - 12)
9. Standard 6-device intrinsically safe input connector (1 - 6)

10. Optional Graphical User Interface (GUI) display (on non-display consoles, the GUI display is replaced with the Alarm Reset (Ack) button panel shown below
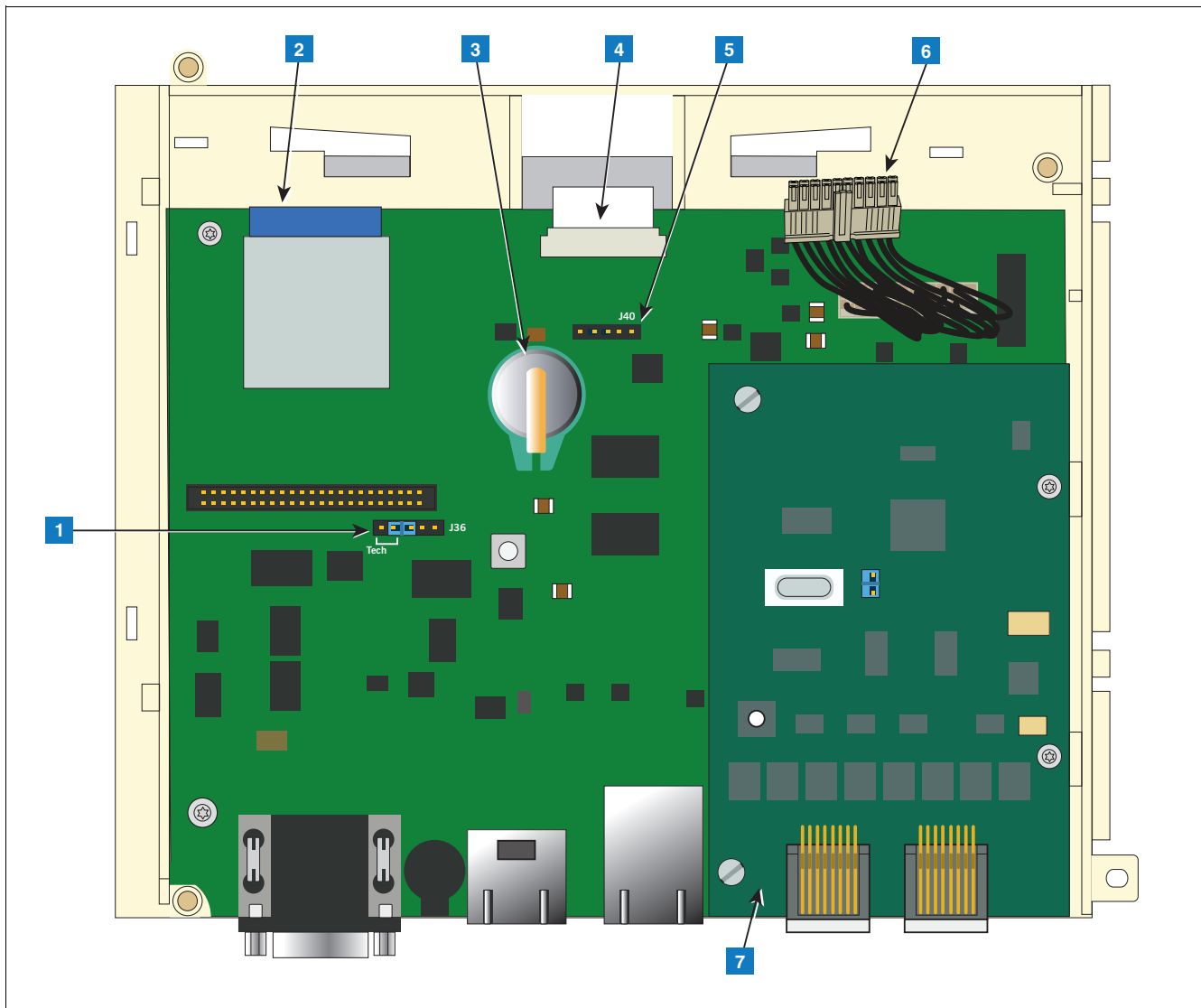
Figure 3.   Component Locations Underside Of Display/CPU Board Ass'y.

<table>
<tr><td colspan="2" align="center">**LEGEND FOR NUMBERED BOXES IN Figure 3**</td></tr>
<tr><td>
1. J36 Mode Jumper (shown in Operating Mode Position)
2. SD Card
3. Software Features iButton
4. Display ribbon cable connector - Consoles with GUI display only
</td><td>
5. Ack switch cable connector (J40) - Consoles without display only
6. 20-pin CPU-to-USIOM board cable
7. Optional CDIM module or IFSF module (CDIM module shown)
</td></tr>
</table>

Figure 4.   Component Locations USIOM Board

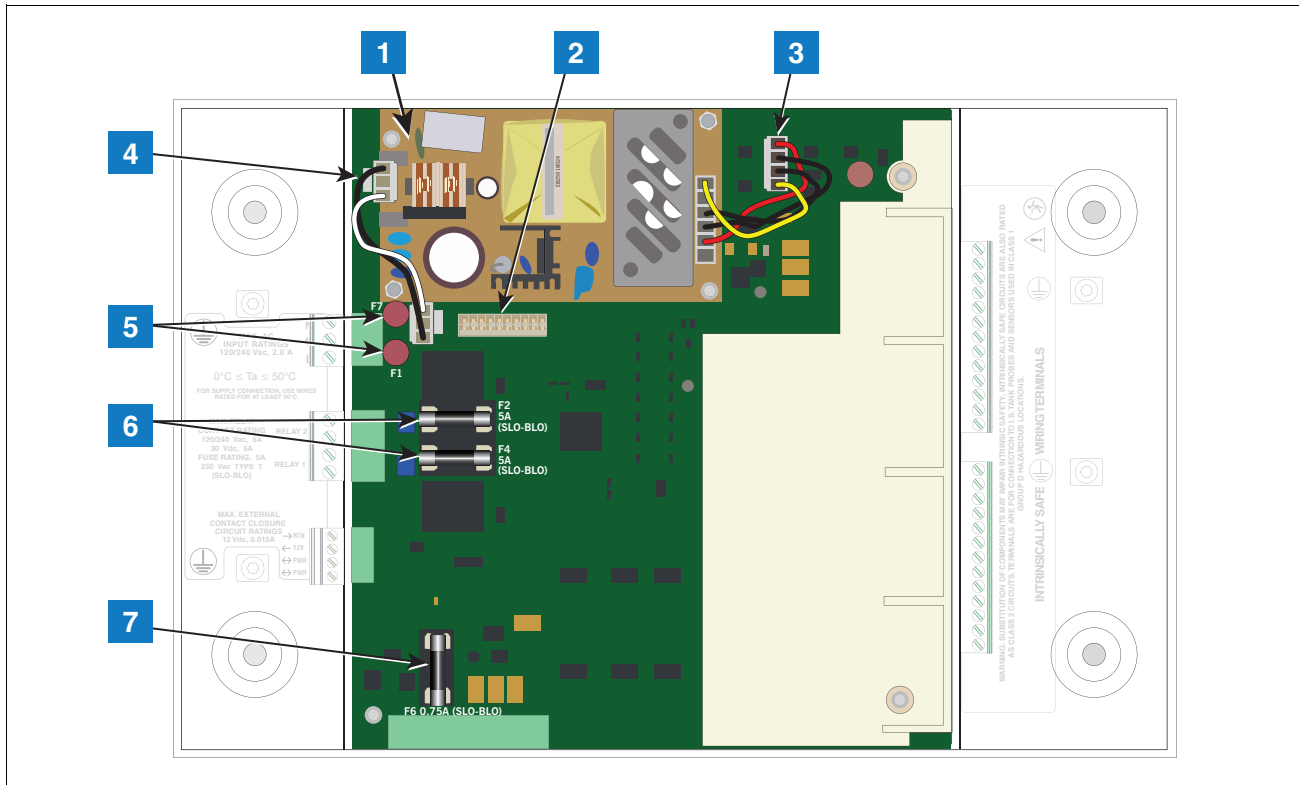| LEGEND FOR NUMBERED BOXES IN Figure 4 |
| --- |

1. Power Supply Board (protective cover removed)
2. 20-pin connector for Display/CPU-to-USIOM board cable
3. DC output cable
4. AC input cable

5. Fuses F7 and F1
6. Relay output fuses F2 (R2) and F4 (R1)
7. Fuse F6 24 Vdc (Expansion option)

Component Replacement Procedures

In non-display consoles the Ack/CPU assembly is, except for the display screen itself, essentially the same as the Display/CPU assembly. The Display ribbon cable connects to a different CPU board connector than the Ack switch panel cable plug (see Items 4 and 5 in Figure 3). Other than the GUI display and Ack switch panel difference, the additional removal procedures discussed in this section are identical.

Removing Display/CPU Assembly

Avoid unnecessary contact with the CPU board components to avoid static damage to the board's circuitry. Wear grounded anti-static wrist strap before handling printed circuit boards.

⚠WARNING **Turn off, tag and lockout the breaker that supplies power to the console.**

1. Remove the two T15 Torx shoulder screws under the front cover of the console (Item 6 in Figure 1). Tilt the bottom of the cover out as you lift it off of the two hooks in the top of the console's housing.

2. Using masking tape, mark each connected comm cable with the port to which each cable is attached and remove the comm cables.

3. Remove the T15 #8 x 0.3125 screw (Item 4 in Figure 2) and the T20 #8 x 0.875 screw (Item 7 in Figure 2) securing the Display/CPU assembly to the console and set them aside. Slide the Display/CPU assembly up as far as it will go and tilt out the bottom of the assembly to access the short 20-pin cable connecting the Display/CPU assembly to the USIOM board in the console. Disconnect the cable plug from its USIOM board socket by pressing against the vertical locking lever in the middle of the plug as you lift it away from the socket.

4. The CPU board is on the underside of the Display/CPU assembly.

Removing The SD Card

1. Follow the steps above to remove the Display/CPU or Ack/CPU assembly.

    With the Display/CPU assembly removed, set it on a clean surface, display side down. The SD card (Item 2 in Figure 3) is removed by pushing in gently on the end of the card and quickly releasing it so it springs free of its enclosure's latch.

2. When replacing the SD card, always check the read/write-protect switch on the side of the card is in the position shown in Figure 5. Orient the card, contacts down and angled corner to the left, as you gently push the card into its enclosure until it clicks into the enclosure's latch.
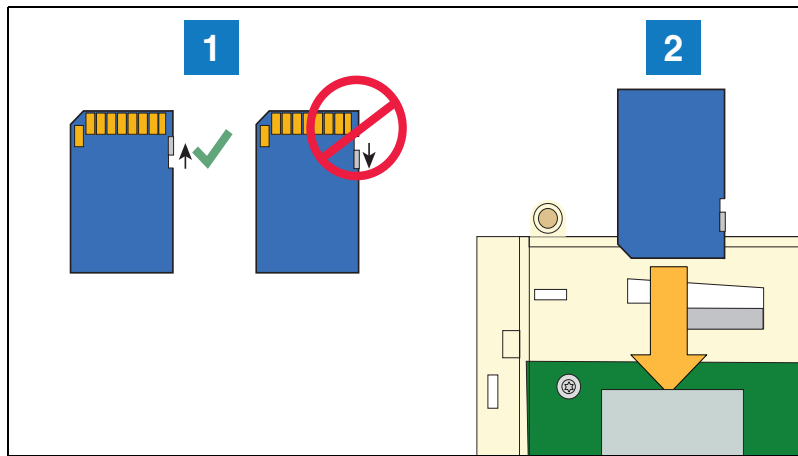
Figure 5. Inserting SD Card In Its CPU board Enclosure

LEGEND FOR NUMBERED BOXES IN Figure 5

1. Check the SD Card read/write slide position.

2. Insert the SD card into its enclosure with the contact side facing the CPU board.

Replacing The Features iButton

1. Remove the Display/CPU Assembly as discussed on page 8.

2. Place the Display/CPU Assembly on a clean surface, display side down.

3. Locate the Features iButton (Item 3 in Figure 3).

4. Slide the iButton out from under the retaining clip until it is free of the holder.

5. With the flanged end up, slide the replacement iButton under the retaining clip until it snaps securely into the holder.

Replacing the Backup Battery

1. Remove the front cover of the TLS4 following step 1 and 2 of the Display/CPU Assembly removal instructions on page 8.

2. Locate the backup battery beneath the display (Item 5 in Figure 2).

3. Slide the battery out from under the retaining clip until it is free of the holder.

4. With the '+' side up, slide the replacement battery under the retaining clip until it snaps securely into the holder.

Replacing the USIOM Board

1. Remove the Display/CPU Assembly as discussed on page 8.

2. Place the Display/CPU Assembly aside on a clean surface.

3. Remove all plugs connected to the USIOM board (identified by arrows in Figure 6).

4. Remove the two T15 #8 x 0.3125 screws securing the expansion comm port plate to the bottom of the console enclosure and set them aside with the comm plate. (see Figure 7).

5. Remove the T15 #6 x 0.375 screw from the lower left corner of the USIOM board (see Figure 8) and set it aside.

6. Remove the two T10 #4 x 0.625 screws from the opposite corners of the power supply board and set them aside (see Figure 9).

7. Remove the two T15 #6 x 0.375 screws securing the I.S. cover and right side of the USIOM board to the console chassis (see Figure 10). Set the plastic I.S. cover, the two T15 screws holding the cover aside.

8. With your fingers under the two I.S. sockets and your thumbs positioned on top of them, lift/pry the right side of the USIOM board out enough to release the USIOM board from the snap-on retaining post between the two I.S. sockets (see Figure 11).

9. With the USIOM board now free from the retaining post, swing the right side of the USIOM board toward you as you lift it free of the chassis.

10. Install the replacement USIOM board by reversing steps 9 through 3 above.
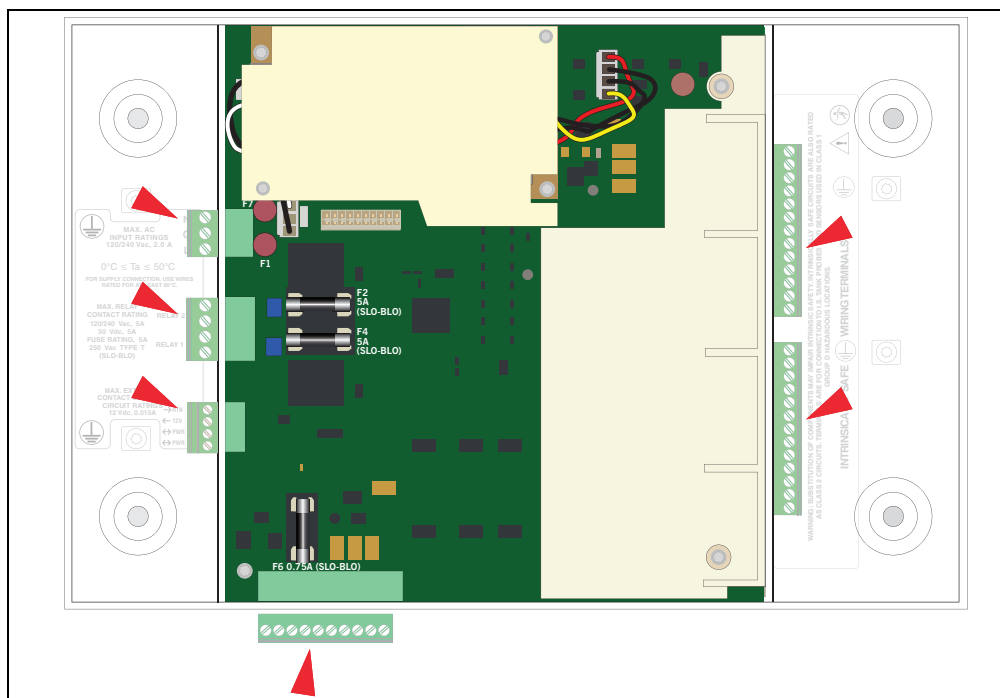

Figure 6.   Remove all plugs attached to USIOM board
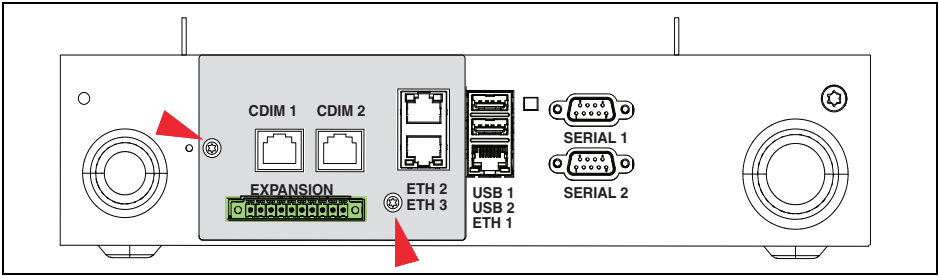
Figure 7.   Remove Two T15 Screws Securing Comm Plate
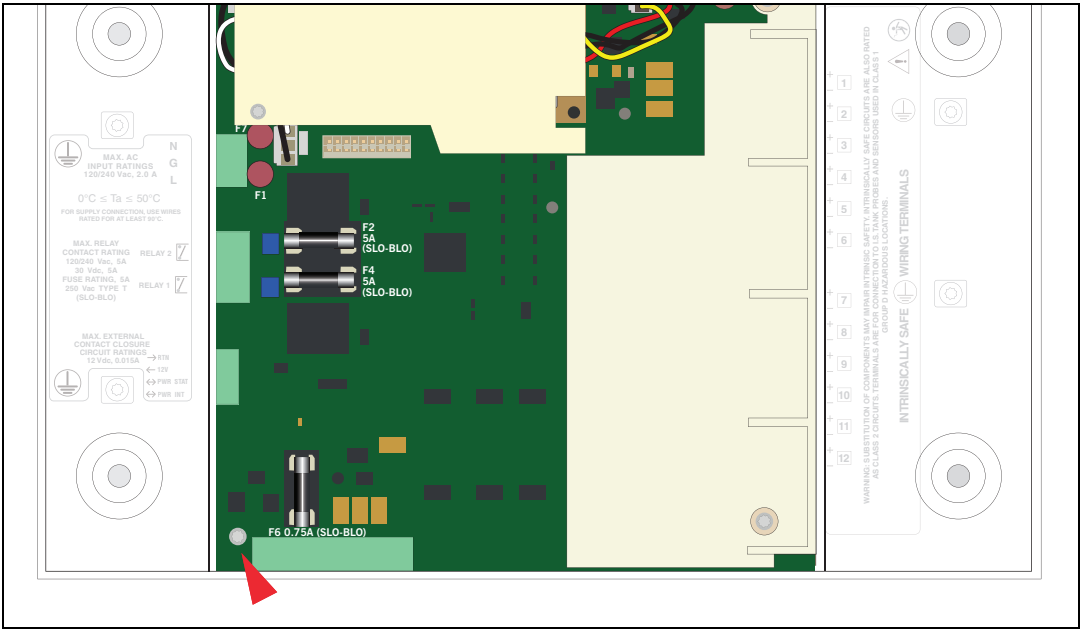
Figure 8.   Remove Lower Left Corner USIOM Board T15 Screw
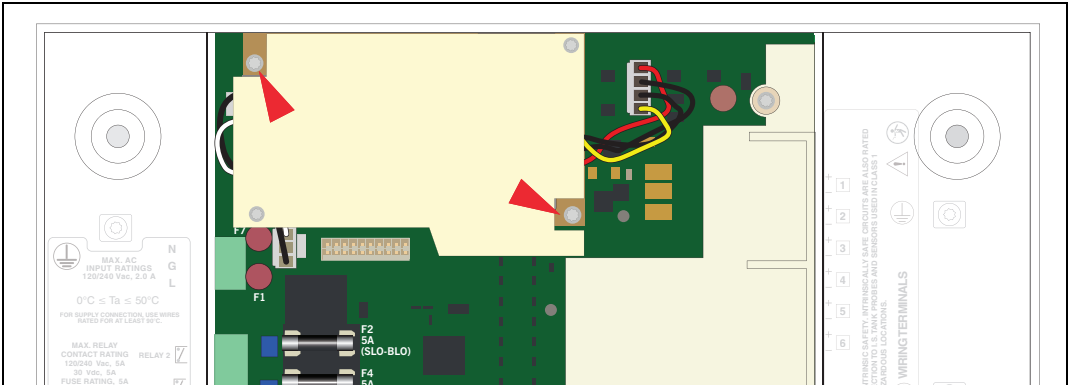
Figure 9.   Remove Two Corner T10 Screws From Power Supply Board
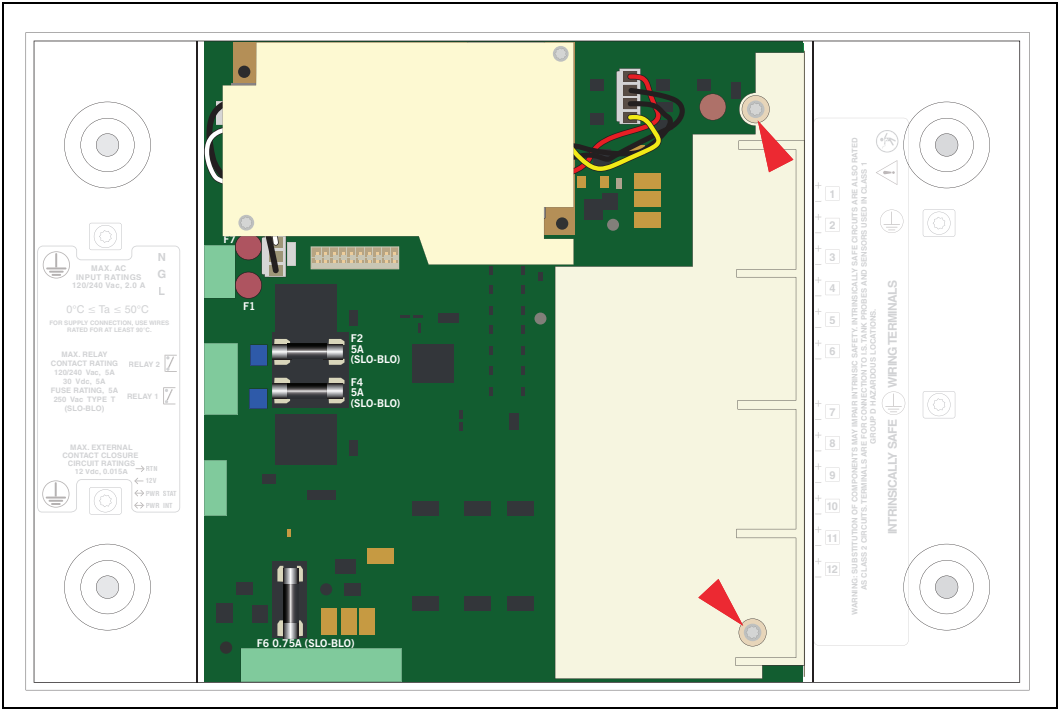
Figure 10.   Remove Two T15 Screws Securing I.S. Cover
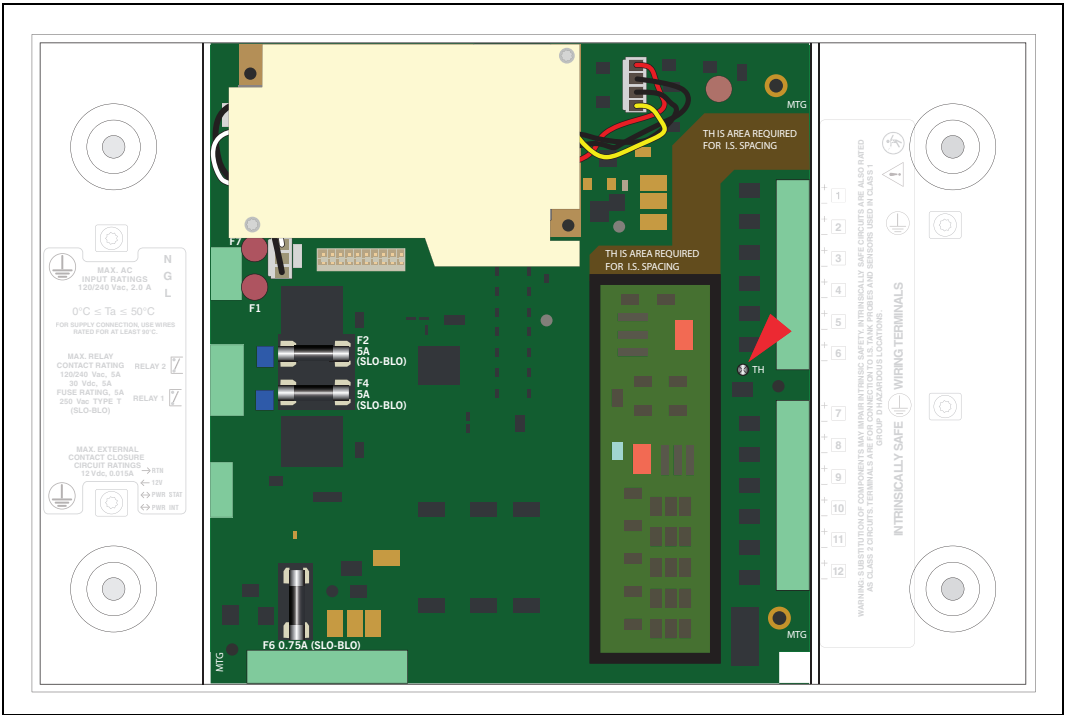
Figure 11.   USIOM Board Snap-On Retaining Post

Software Maintenance and Upgrades

The Main or Home screen is the primary entry to TLS4 software maintenance screens. Touch the Menu>Software Upgrade icons to view a list of the available Software Maintenance screens (see Figure 12).
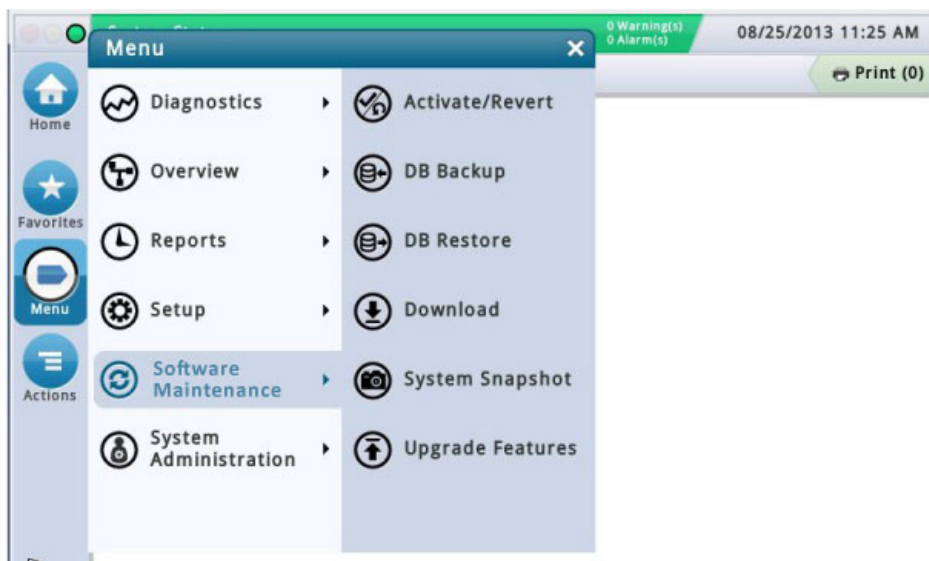
Figure 12.   Menu Screen

Activate/Revert Screen (Menu>Software Maintenance>Activate/Revert)

This screen lets you activate newly installed software or revert to a previously stored version of software. During the activation process, several dialog boxes will be displayed to inform you of key events (see Figure 13).
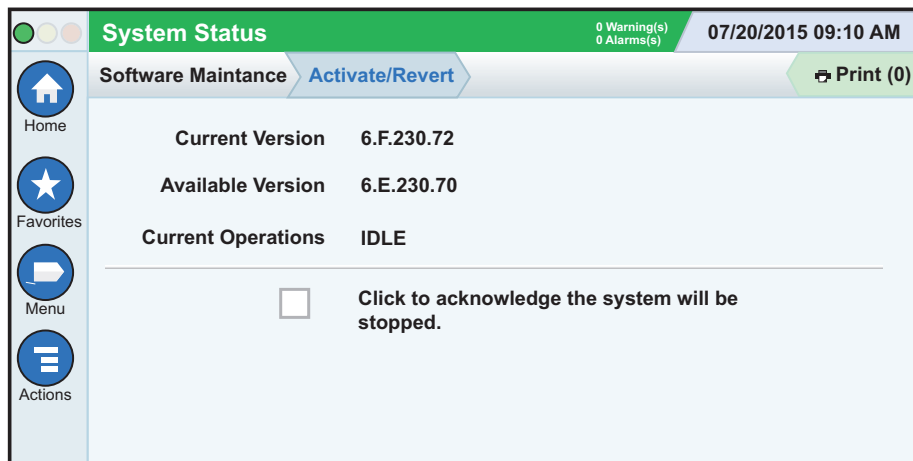
Figure 13.   Activate/Revert Screen

NOTES ON REVERTING TO A PREVIOUS SOFTWARE VERSION

A copy of the previous (older) system software and databases is stored on the console SD card. If the current (newer) version of system software/features does not perform properly, the Revert operation gives you the ability to revert to the previous software version stored in the SD card. No USB devices are required for the revert operation.

| NOTICE | **During feature activation, there must be no dispensing (the activation process only takes a few minutes, however).** |

Table 2. Activate/Revert Screen Field Descriptions

| Field	Description
Current Version	Current version of software (**x.xx xxx.x**) installed in the console
Available Version	Version of software that can be accessed by the console (Not Available will display if a version of software has not been stored).
Current Operation	Status of the console: **Idle** (no software is being installed or reverted), or **Activating** (a software install is in progress)
Connection Message	Not applicable to a revert or upgrade process.
Disclaimer	Lists any messages for the newly activated software.
Click to acknowledge the system will be stopped [check box]	Select this check box to agree to start a software install/reversion procedure.
Revert	Starts the actual Revert process. Note: When you click **Revert**, a confirmation prompt displays, letting you know that the system will restart (reboot) to do the revert. If the system is not in use, Touch the ✔ button to continue. The system reboots and the system is reverted.
Activate	Starts the actual Activate process. Note: When you click **Activate**, a confirmation prompt displays, letting you know that the system will restart (reboot) to do the revert. If the system is not in use, Touch the ✔ button to continue. The system reboots and the new system software is activated.

DB Backup (Menu>Software Maintenance>DB Backup)
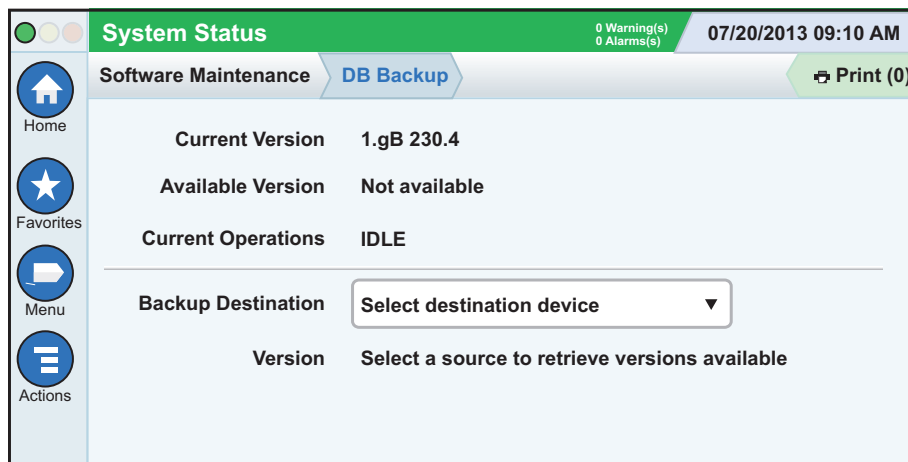
Figure 14. DB Backup Screen

This screen lets you backup the data file of the console. A valid V-R USB recovery thumb drive is required. For ultimate protection against possible loss of data and to protect against system crashes, run the DB Backup operation daily.

> **NOTICE** It is very important that you keep the V-R Code/Feature and Recovery USB thumb drives in a secure location.

Table 3. DB Backup Screen Field Descriptions

Field	Description
Current Version	Current version of software (**x.xx xxx.x**) installed in the console
Available Version	Not applicable to a backup.
Current Operation	Status of the console: **Idle** (no backup procedure is executing), or **Discovering Backup Device** (system is validating installed thumb drive) **Backup Operation has started** (backup is in progress)
Connection Message	Lists any messages that may occur between the device and the console.
Backup destination	Backup destination (device) for your data files (the normal choice is "Thumb drive")
Version	USB drive name.
Backup	Starts the actual backup.
Backup Progress	Completion percentage of backup process.

EXAMPLE DATABASE BACKUP PROCEDURE

> **NOTICE** A valid Backup Thumbdrive must be Windows© FAT32 formatted and must have at least 4 GB of available memory.

1. Insert your valid USB backup thumb drive into one of the console's USB ports.

2. Navigate to the Menu>Software Maintenance>DB Backup screen.

3. Select thumb drive as the backup destination. Notice the Version field displays thumb drive information.

4. Touch **Backup** button to begin the backup.

5. After completing the backup, the 'Backup Completed Successfully!' message appears.

6. Remove the thumb drive and put it in a secure location.

NOTICE   **The DB Backup procedure should be performed on a weekly basis.**

DB Restore (Menu>Software Maintenance>DB Restore)

● ○ ●	**System Status**	0 Warning(s) 0 Alarms(s)	**07/20/2013 09:10 AM**

Software Maintenance   **DB Restore**   🖶 Print (0)

Home

Current Version	**1.gB 230.4**
Available Version	**Not available**
Current Operations	**IDLE**
Backup Destination	**Select destination device** ▼
Version	**Select a source to retrieve versions available**

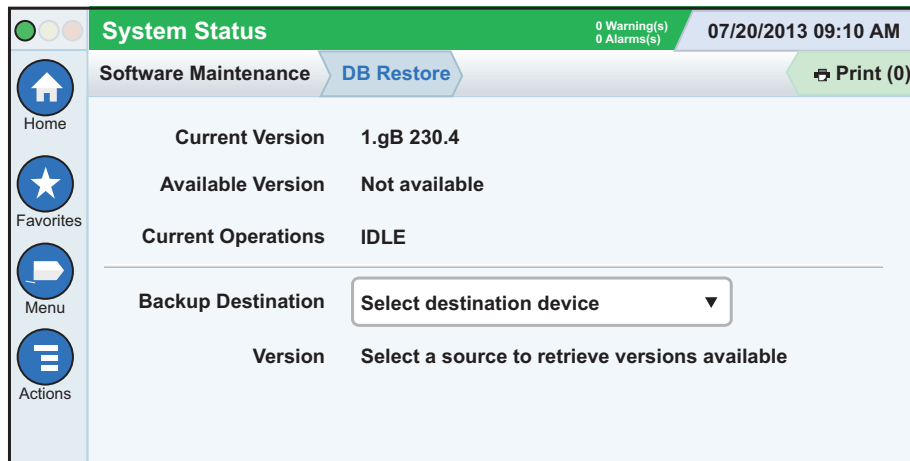**Favorites**

Menu

Actions

Figure 15.   DB Restore Screen

This screen lets you restore the data files of the console. A valid V-R USB recovery thumb drive (with previously backed up data) is required. For ultimate protection against possible loss of data and to protect against system crashes, run the Backup operation daily.

NOTICE   **The V-R Code/Feature and Recovery USB thumb drives should be kept in a secure location.**

Table 4. DB Restore Screen Field Descriptions

Field	Description
Current Version	Current version of software (**x.xx xxx.x**) installed in the console
Available Version	Version of software that can be accessed by the console (Not applicable to a backup).
Current Operation	Status of the console: **Idle** (no restore procedure is executing), or **Discovering Restore Device** (system is validating installed thumb drive) **Restore Operation in Progress** (restore is in progress)
Connection Message	Lists any messages that may occur between the device and the console.

Table 4. DB Restore Screen Field Descriptions

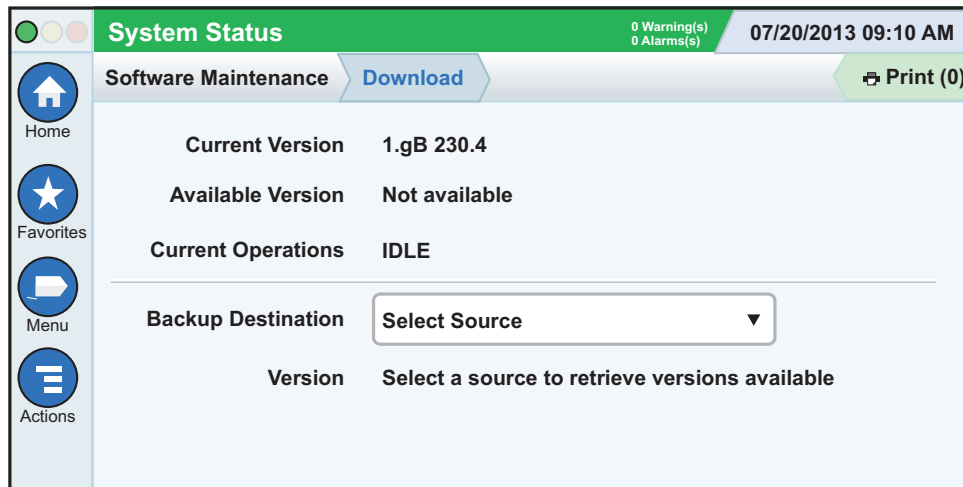| Field	Description
Restore destination	Select the device containing the data files for the restore (the normal choice is "Thumb drive").
Version	Date and software version of when the data archive was created.
Restore	Starts the actual restore. Note: When you click **Restore**, a confirmation prompt displays, letting you know that the system will restart (reboot) to do the restore. If the system is not in use, touch the ✔ button to continue. The system reboots and the database is restored.
Restore Progress	Completion percentage of restore process.

Download (Menu>Software Maintenance>Download)

● ○ ●	**System Status** 0 Warning(s) 0 Alarms(s) 07/20/2013 09:10 AM

Software Maintenance ▸ **Download**   🖶 Print (0)

🏠 Home
⭐ Favorites
▶ Menu
☰ Actions

Current Version   **1.gB 230.4**

Available Version   **Not available**

Current Operations   **IDLE**

Backup Destination   **Select Source**   ▼

Version   **Select a source to retrieve versions available**

Figure 16.   Download Screen

This screen lets you do USB downloads from either a valid V-R Code/Features USB thumb drive or a V-R Recovery USB thumb drive that is plugged into a USB port in the console.

NOTICE **The V-R Code/Feature and Recovery USB thumb drives should be kept in a secure location.**

Table 5. Download Screen Field Descriptions

Field	Description
Current Version	Current version of software (**x.xx xxx.x**) installed in the console
Available Version	Version of software that can be accessed on the USB drive.
Current Operation	Status of the console: **Idle** (no backup procedure is executing), **Scanning Devices** (system is validating installed thumb drive), **Reading Update List** **Downloading**

Table 5. Download Screen Field Descriptions

Field	Description
Connection Message	Lists any messages that may occur between the device and the console.
Download Source	Device where the files are coming from.
Version	Date and software version of when the data archive was created.
Restore	Starts the actual download. NOTE: When you click Download, a confirmation prompt displays, letting you know that the system will restart (reboot) to do the download. If the system is not in use, touch the ☑ button to continue. The system reboots and the database is restored.
Restore Progress	Completion percentage of download process.

EXAMPLE SOFTWARE DOWNLOAD PROCEDURE

1. Insert the software upgrade thumb drive into one of the USB ports.

2. Navigate to the Menu>Software Maintenance>Download screen.

3. Touch the Download Source down arrow and select the thumb drive. Notice the Version field displays contained software version.

4. Touch the **Download** button to begin the software download.

5. After successful completion of the download (approximately 30 minutes), the 'Download Completed' message appears.

6. Navigate to the Menu>Software Maintenance>Activate/Revert screen. Notice the Current version and Available (downloaded) version are displayed.

7. Touch the box beside the message 'Click to acknowledge the system will be stopped.'

8. Touch the Activate button to overwrite the Current of software with the Available (just downloaded) version of software.

9. The Confirmation Needed dialog box displays. Touch the ✓ button to confirm and activate the new software, or touch the X button to cancel the activation.

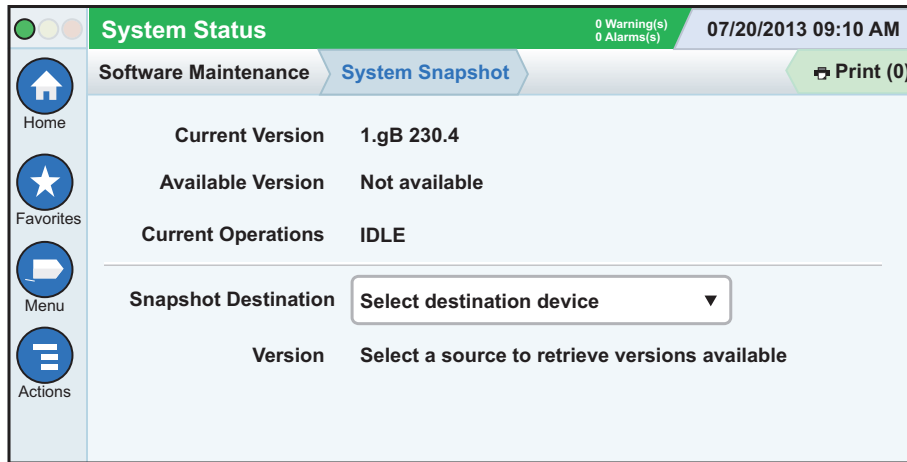# System Snapshot (Menu>Software Maintenance>System Snapshot)

Figure 17.   System Snapshot Screen

If a problem cannot be diagnosed over the phone with technical support, tech support may request a System Snapshot be taken and returned V-R. The System Snapshot captures comprehensive system data to facilitate a thorough problem analysis. This screen lets you copy a System Snapshot to a USB thumb drive that is plugged into a USB port in the console.

Table 6. System Snapshot Screen Field Descriptions

Field	Description
Current Version	Current version of software (**x.xx xxx.x**) installed in the console
Available Version	Previous version of software or Not Available message.
Current Operation	Status of the console: **Idle** **Activate Snapshot**
Snapshot Destination	Select destination device
Version	Describes the destination device.

EXAMPLE SYSTEM SNAPSHOT PROCEDURE

1. Insert a USB thumb drive with at least 10 Mb of free space into one of the USB ports.

2. Navigate to the Menu>Software Maintenance>System Snapshot screen.

3. Touch the Snapshot Destination field down arrow and select the thumb drive. Notice the Version field displays information about the thumb drive.

4. Touch the **Take Snapshot** button to begin the procedure.

5. After successful completion of the snapshot (approximately 3 minutes), the 'Snapshot Completed' message appears and you can remove the thumb drive.

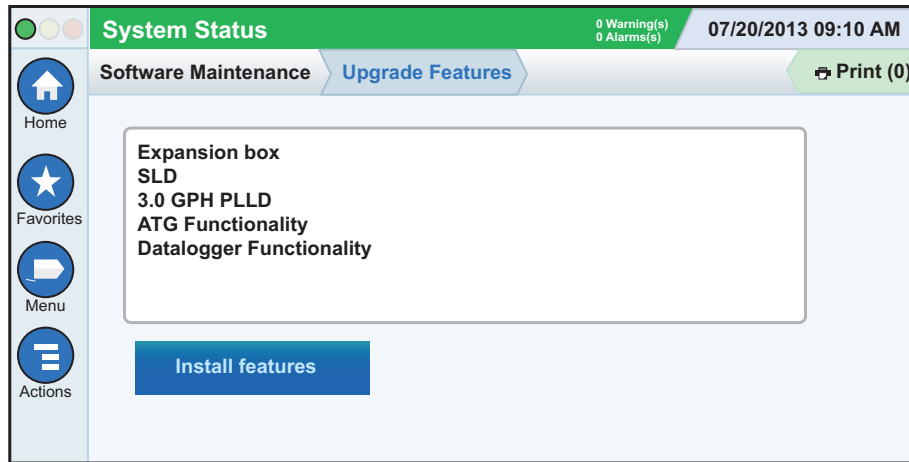# Upgrade Features (Menu>Software Maintenance>Upgrade Features)

Figure 18.   Upgrade Features Screen

This screen lets you activate features that were newly installed on your console. During the activation process, several dialog boxes will be displayed to inform you of key events.

NOTICE   **During feature activation there must be no dispensing. However, the activation process only takes a few minutes.**

Following activation, the console converts the setup databases. If new features are installed and activated, setup(s) relevant to the new feature(s) will be required.

Table 7. Upgrade Features Screen Field Descriptions

Field	Description
Feature (box)	List features which are available to be activated. Multiple features may be activated concurrently. Select the boxes beside each of the desired items in this column. If you change your mind about a selection, select the box again to remove the check.
Install features button	Touch to start the installation process.
Status [during installation]	Current status of each feature with one of the following messages: **Ready to Activate** **Activation in Progress**

SOFTWARE FEATURES UPGRADE PROCEDURE

Before installing a software feature upgrade, perform a system backup using the V-R Backup thumb drive (P/N 332970-002) as discussed in "DB Backup (Menu>Software Maintenance>DB Backup)" on page 15.

| NOTICE | **The V-R Backup thumb drive is different from a V-R Software Upgrade thumb drive - the two are not interchangeable.** |

1. Get the USB adapter with the installed feature upgrade iButton from the upgrade kit.

2. Insert the USB Adapter into a USB port in the bottom of the console as shown in Figure 19.

3. From the Home Screen, touch the following: Menu>Software Maintenance >Upgrade Features.

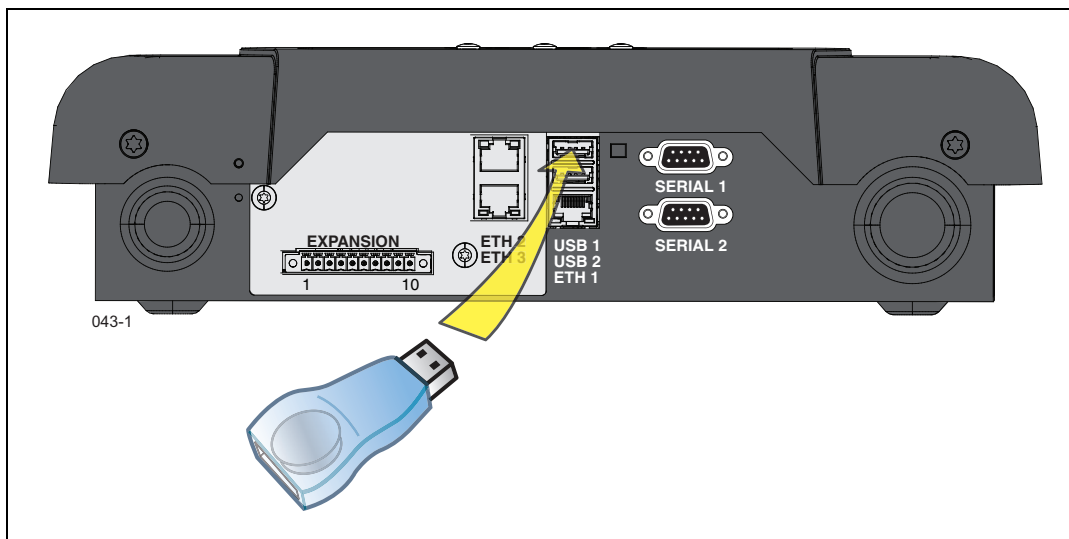| NOTICE | **You will have to scroll to see Upgrade Features option in Software Maintenance.** |

Figure 19.   Insert The iButton Adapter Thumb Drive Into A USB Port On The TLS-4 Console

4. Touch the Install Features button to start the installation process.

5. When you have completed the Upgrade Features procedure, remove the upgrade thumb drive.

6. From the Home Screen, touch the following Menu > Overview > About and verify that the features in the upgrade were installed.

7. With the new software features installed, perform a system backup using the V-R Backup thumb drive (P/N 332970-002) as discussed in "DB Backup (Menu>Software Maintenance>DB Backup)" on page 15.

| NOTICE | **The V-R Backup thumb drive is different from a V-R Software Upgrade thumb drive - the two are not interchangeable.** |

VEEDER-ROOT