MURPHY®

by ENOVATION CONTROLS

PowerView®
Model PV780

Operations Manual

In order to consistently bring you the highest quality, full-featured products, we reserve the right to change our specifications and designs at any time. The latest version of this manual can be found at support.enovationcontrols.com, then search for PV780.

WARNING

Please read the following information before installing.

BEFORE BEGINNING INSTALLATION OF THIS MURPHY PRODUCT:

Read and follow all installation instructions.

Please contact Enovation Controls immediately if you have any questions.

Table of Contents

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Flat Screen Display

A color screen displays gauges, soft key commands, and fault messages, as well as menu options for setup and configuration.

Soft Key Commands

Columns of vertical commands may be located to the left and/or right of the display. They will change according to the options available for the screen being displayed.

Function Keys

The function keys correspond to the soft key commands and allow selections to be made accordingly.

MENU Key

Pressing the **MENU** key at any time displays the list of menu options.

ENTER Key

Pressing the **ENTER** key will select the option displayed much like the **ENTER** key on a keyboard. The **ENTER** key also brings up the soft keys. Press once to display the left and right arrows. Press twice to display all the soft keys. Press three times to hide all the soft keys.

Setting Up your PV780 Display for the First Time

The guidelines presented below are intended for setting up the PV780 display for the first time. Once the configuration is set up, there is no need to revisit or change any of the settings.

> **NOTE:** If you require assistance during the set up process, contact Enovation Controls customer support at the office nearest to you (see page 16).
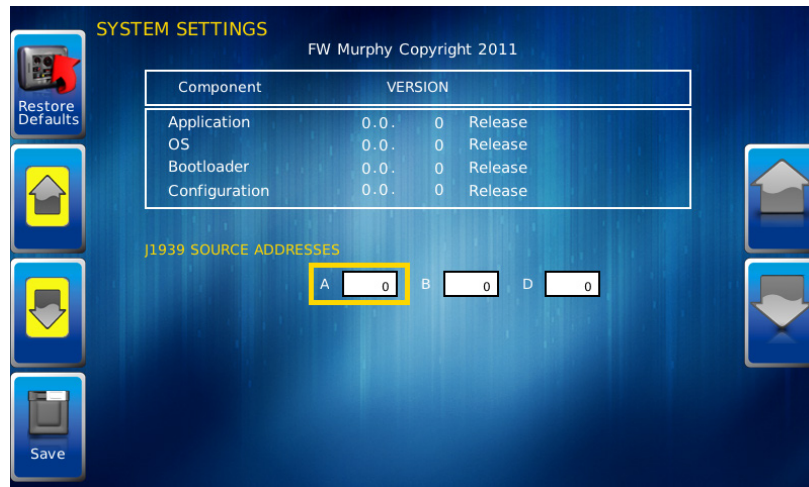
1. At the main menu, press the soft key to the left of Utilities.

2. The Utilities sub-menu is displayed.

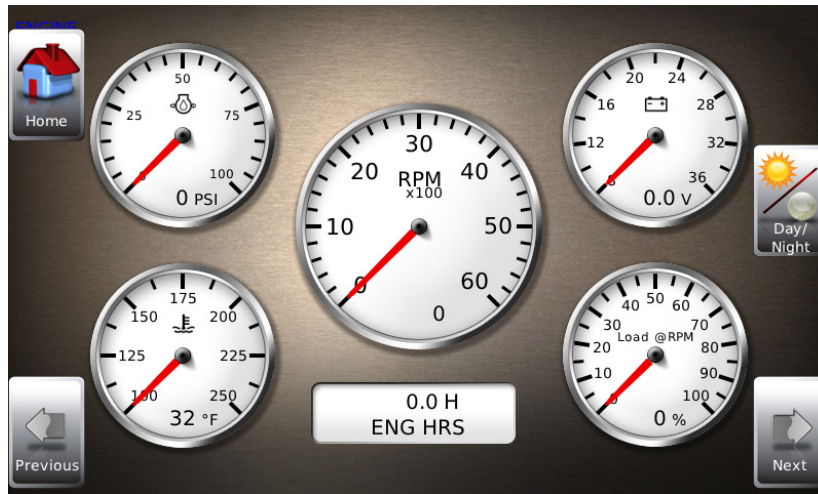3. From the Utilities sub-menu, select System Settings. The following screen is displayed:

4. With the cursor highlighting the J1939 source addresses, use the left side soft keys to scroll through the ports and the right side soft keys to change the address. Press the Save key to save selected changes or the Restore Defaults key to return to the default settings.

Product Features

Power Up

The PowerView display is most frequently installed with power connected to the ignition. When the ignition is turned on, the PowerView display powers up and the engine health statistics can be viewed via preset gauges.

To see more gauge screens, press the **Enter** key.

Main Menu

The main menu is activated at any time by pressing the **Menu** key on the display.

The following features are accessed through the main menu:

- **Gauge Display** – provides a series of screens that display engine and auxiliary information in a variety of formats.
- **Engine Diagnostics** – displays a list of engine fault codes and descriptions.

- **User Settings** – allows you to customize the display options for ambient light and brightness, set US or metric units, language, specify the Home screen and screen setup status.
- **Utilities** – allows configuration of the plug address. Also displays software version information at the top of the page.

Gauge Display

The Gauge Display screen consists of several predefined layouts that contain combinations of analog gauges, straight bar gauges, or digital (text) readouts. These screens are displayed upon startup.

To scroll through the various gauge screens, press the **Prev** and **Next** soft keys. This can be repeated until all screens have been viewed. The currently displayed screen will stay active until another key is pressed.

Soft Key Commands

When a Gauge Display screen is active, pressing the **Enter** key will display soft key commands, as shown below. Continuing to press **Enter** will toggle through any additional soft keys, and will eventually remove the soft key commands from the screen.

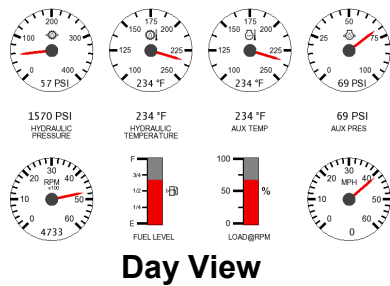Soft Key commands provide quick navigation and access to the following features:

- Home
- Day/Night
- Prev
- Next

Home - This one-touch navigation feature allows a pre-defined Home screen to be accessed from the available Gauge Display screens. Once selected, the Home screen will be displayed anytime the **Home** key is pressed.

> **NOTE:** For instructions on how to setup the Home screen, refer to the **User Settings** section of this manual.

Day/Night - Allows you to toggle the display screen between Day View and Night View.

> **NOTE:** This feature can also be changed in the **User Settings**, see this section of this manual.

Day View

Night View

Video – When enabled, displays either full screen video or partial video within a window on the gauge display.

> **NOTE**: For instructions on how to enable full or partial screen video, refer to the **User Settings** section of this manual.
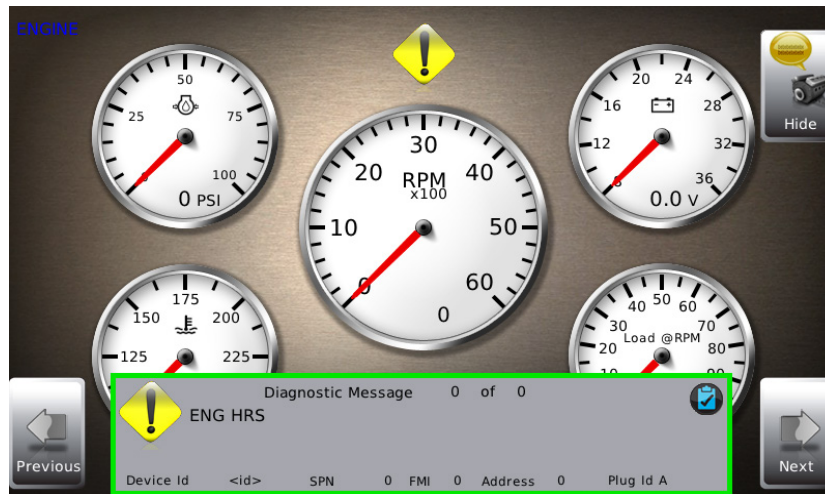

Full Screen Video

Example Partial Screen Video
(Video Screen displayed is from custom configuration)

Previous and **Next** keys allow you to scroll through and display the various gauge screens.

> **NOTE:** For instructions on how to turn screens ON or OFF, refer to the **User Settings** section of this manual.

Fault Code Pop-ups

A fault condition will trigger a popup dialog box on the screen describing the nature of the fault. Corresponding red or amber fault lights on the corners of the unit are also activated to indicate the severity of the fault. The following screen is an example of warning fault code popup.

How to Hide/Show Faults

To hide the fault code popup being displayed on the screen, press the soft key on the right next to the Hide icon. The popup will disappear, however the Warning or Stop icon will remain on the screen to indicate there is still a fault. Pressing Hide does not clear the fault; it only hides the popup message.
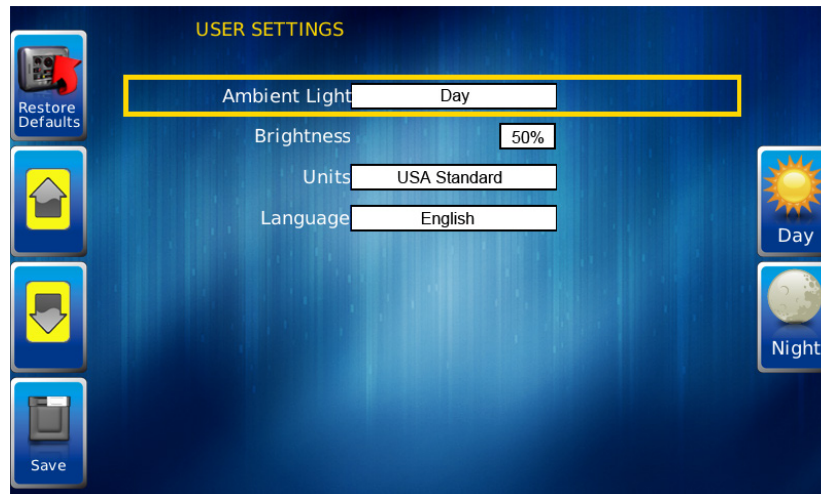
When a fault code has been hidden, a Recall icon will remain on the right side. When this soft key is pressed, the fault code will again be displayed. When a popup message has been activated, a pop-up message will be displayed until the alarm is acknowledged by pressing the Hide key.

Scrolling Through Multiple Messages

The title-bar of the fault code popup may indicate multiple messages, as in Diagnostic Message 1 of 3. Press the **Prev** and **Next** keys to scroll through the different messages.
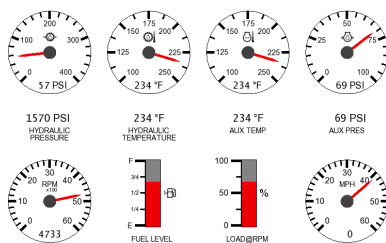
User Settings

User Settings provides options to specify viewing preferences for the PV750 Display. Pressing **Up** and **Down** navigates through the options. To change an option, press the corresponding soft key next to the desired soft key command.
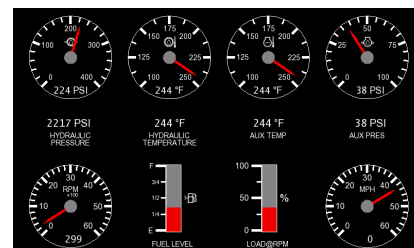

Ambient Light

Night and Day options are provided for ambient lighting. The screens below illustrate these options. When the ambient lighting settings are changed in User Settings, the power-on default is changed.
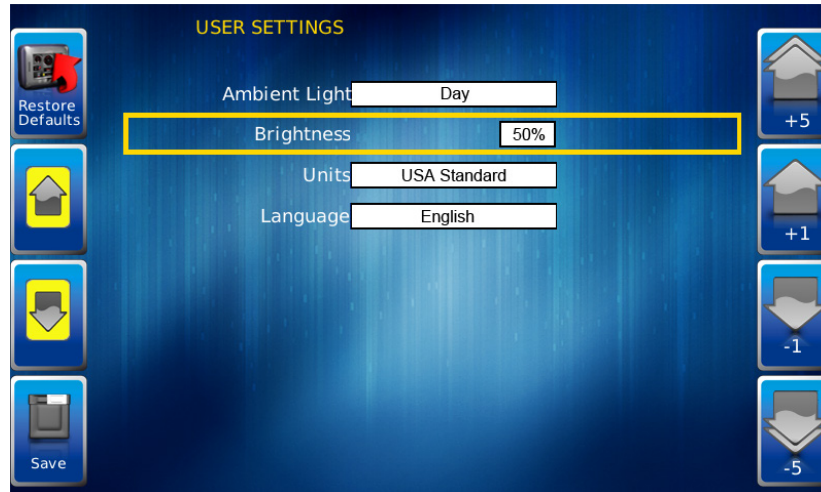

Day View   **Night View**

| NOTE: The ambient lighting option is also accessible through soft key commands on the gauge display screens. When selected, the **Day/Night** soft key toggles the display to the opposite mode.

Brightness

You can set the brightness control by using the soft keys to change the settings in +1% and +5% increments until the desired brightness is achieved.
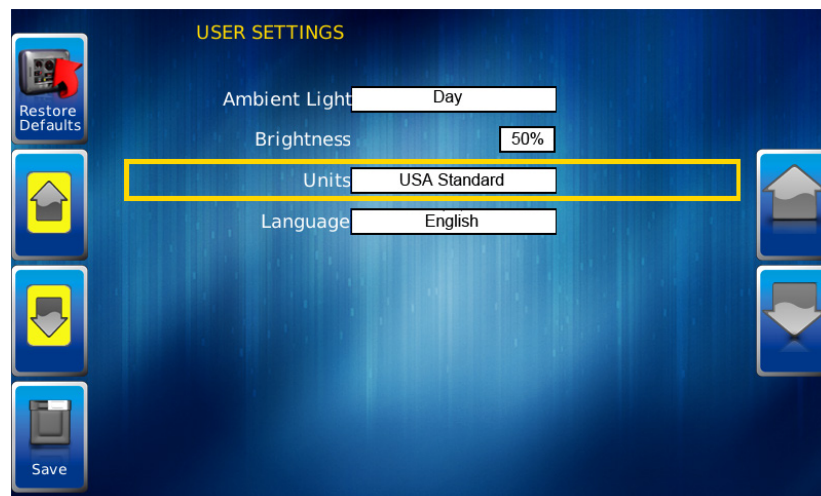

> **NOTE**: Brightness level will change with ambient light setting. Two brightness levels are saved; one for day and one for night.
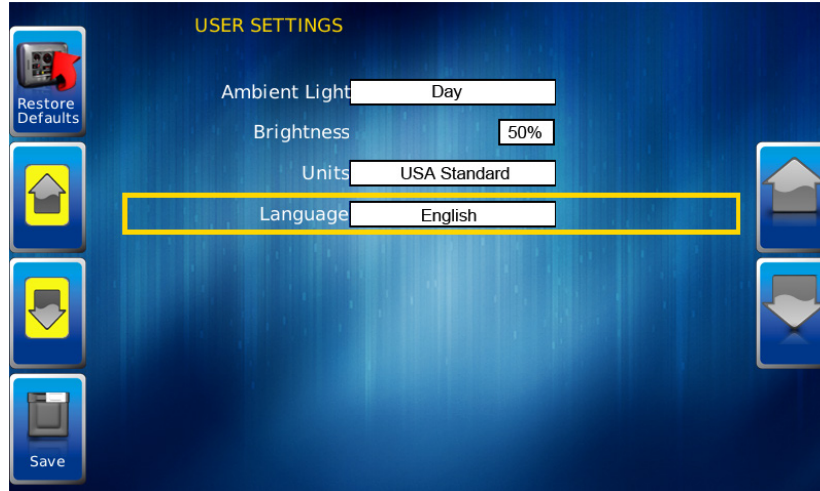
Units

Select how units are displayed by using the soft keys to select from the following:

- USA Standard
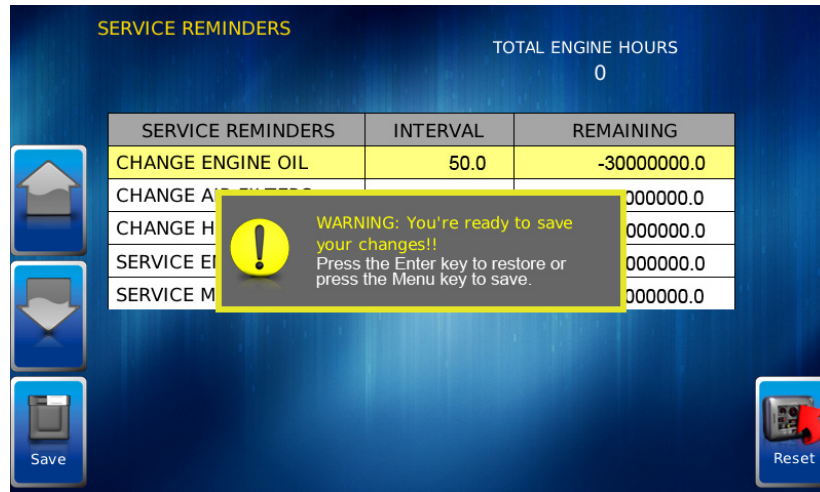- Metric Bar
- Metric kPa
- British Standard

Language

This option allows you to select the language that will be displayed on the PowerView. Available languages include English, French, Spanish, German, Italian, and Chinese. Languages are selected from the soft keys. Press **More** to view additional languages.

Save

Once all changes have been made, press **Save**. The following confirmation screen is displayed.

Restore Defaults

Restore Defaults sets the display to the original factory settings. During troubleshooting, this can be used as a last resort to completely reset the display to a known state.

To restore the default user settings, press **Restore Defaults.** Confirm the action on the next page.
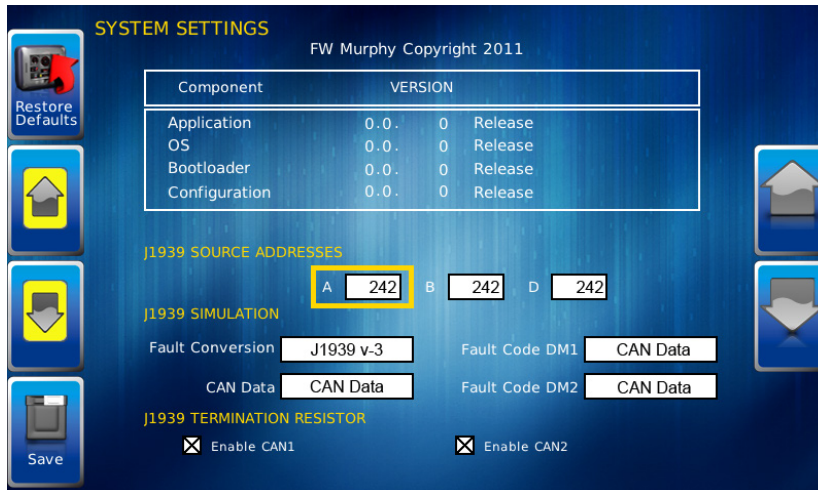
Utilities

Utilities allow you to reset external gauges and configure communication settings. It is typically only accessed when the unit is first installed in order to configure the unit. The following sub-menu is displayed when Utilities is selected.

System Settings

The System Settings screen displays the current software version loaded on the PV750 display. You can set individual settings for the available options and **Save**, or choose to select **Restore Defaults** for the factory settings.
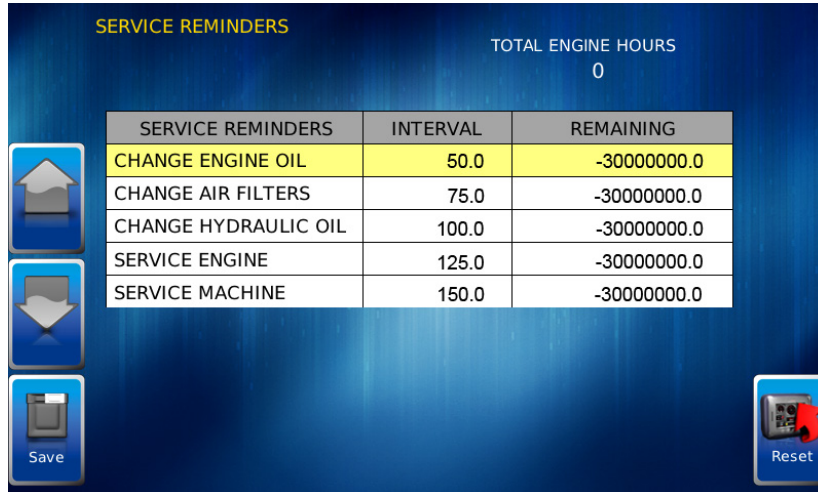

The yellow **Up** and **Down** keys on the left allow you to move the cursor through J1939 Source Addresses fields. While the cursor is highlighting a field, the gray **Up** and **Down** keys scroll through available options. Once all the options have been selected, press **Save**.

Service Reminders

This option allows you to reset the 5 built-in service reminders:

- Change Engine Oil – Default interval 50.0 Hrs.
- Chang Air Filters – Default interval 75.0 Hrs.
- Change Hydraulic Oil – Default interval 100.0 Hrs.
- Service Engine – Default interval 125.0 Hrs.
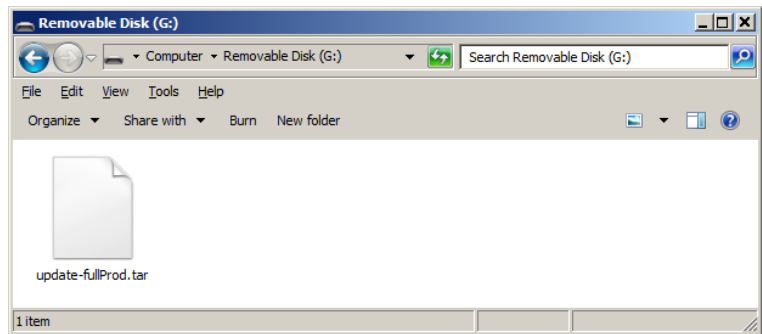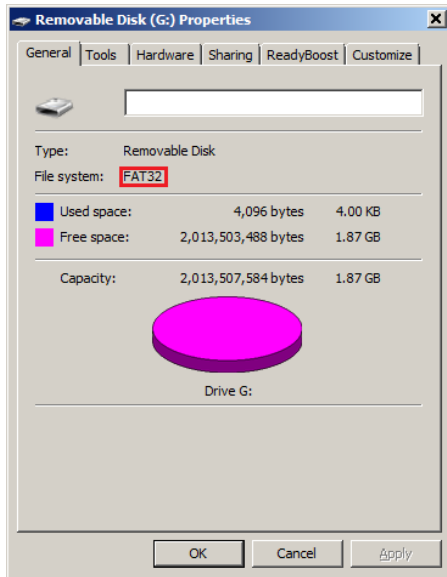- Service Machine – Default interval 150.0 Hrs.

Software Updates

Upload a New Configuration File to the Display

1. This display accepts a USB Drive to upload a new configuration file. Follow these steps to upload a new configuration file to the display:

    a. Obtain a FAT32 formatted USB thumb drive.

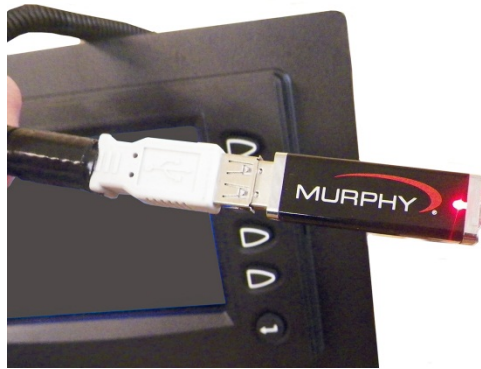   b. Copy the update file from your computer to a USB drive.

NOTE: We recommend the update file is the only file on the root directory of the USB drive.

	CAUTION: Avoid damaging the Display. If you lose power to the display or connection to the USB drive during the download, the display will be damaged and must be sent back to the factory.

2. Power-off the Display. (Unplug the power connector from the back side of the display.)

3. Install the USB drive:

    a. Insert the Programming Cable into the gray connector on the back side of the display.

    b. Insert the USB drive containing the update file into the USB connector end on the Programming Cable

4. With the USB drive in place, press and hold the enter key (bottom right) on the display for a few seconds as you power on the display. The system will boot up in configuration mode.

> **NOTE:** If you do not see the update file, use the up and down arrows to view files available. (This is only necessary if other files are also on the USB root directory, which is not recommended.)

5. Press the soft key next to the right arrow to select the file in view. Press again to confirm. The Progress Bar Screen displays the current download by percent.

6. Allow the display to automatically reboot when you see the Check Mark Screen momentarily.

7. You have successfully uploaded the new update file when you see the Murphy screen momentarily display.

8. Power-Off the display and remove the components:

a. If applicable, remove the Programming Cable and the USB thumb drive.

b. If applicable, reconnect any other components you may have removed.

c. Power-on the display when ready for use.

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