PowerView™ - Model PV101 V3.1– Fuel Sender Calibration

Setting Fuel Level Analog Input

This option enables the operator to configure the PV101 to accept the optional Murphy Fuel Sender (Model ES2F recommended) for fuel level information or to program the unit to accept the non-Murphy fuel sender*.

The PV101 is set from the factory to accept a backlight dimmer input. These instructions show exactly what needs to be completed to set the PV101 analog input to read Model ES2F Murphy Fuel Sender and how to program the unit for use with a non-Murphy fuel sender*.
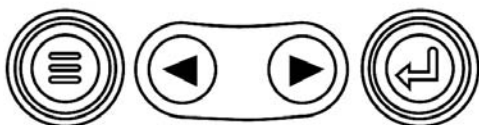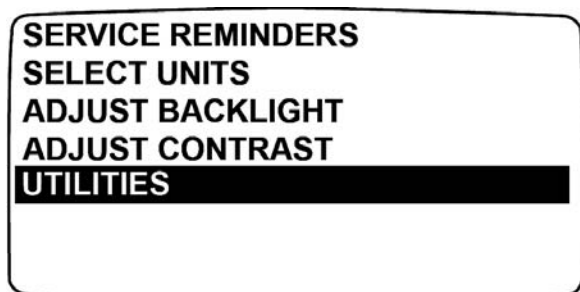
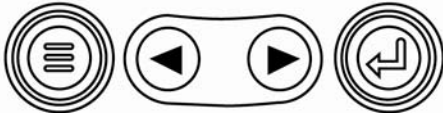*A linear curve is used to calibrate a non-Murphy fuel sender.
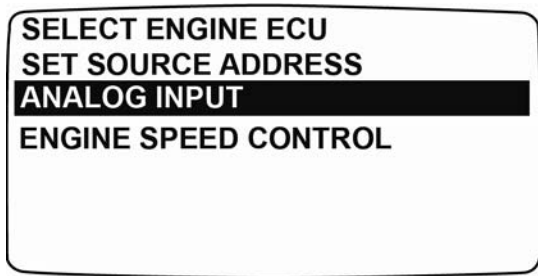
Navigation Buttons

	MENU Pressing **[MENU]** will take you the menu or it will exit the option, return the display to the UTILITIES MENU and discard any changes.
	LEFT ARROW Pressing **[LEFT ARROW]** will decrement the number.
	RIGHT ARROW Pressing **[RIGHT ARROW]** will increment the number.
	ENTER Pressing **[Enter]** will select the option displayed much like the ENTER key on a keyboard.

Location

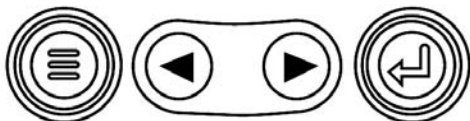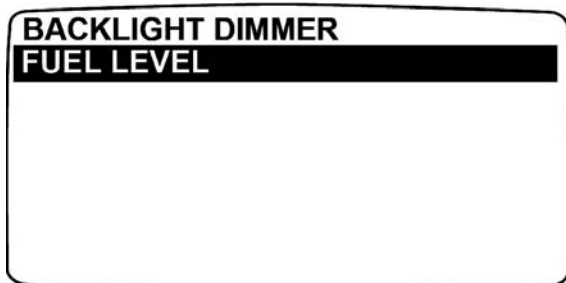To begin the process, locate the ANALOG INPUT option is located in the Utilities menu.

Select ANALOG INPUT

Select Fuel Level

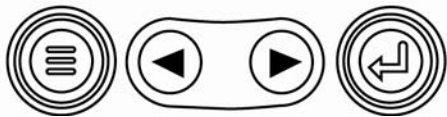The next screen displayed is the **BACKLIGHT DIMMER/FUEL LEVEL** selection screen.
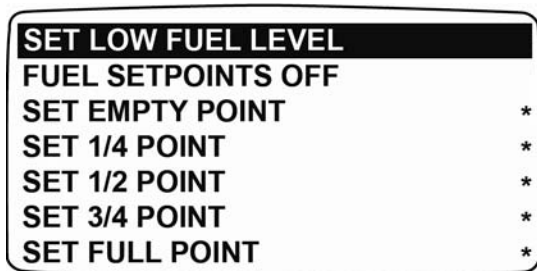
Select **FUEL LEVEL**.
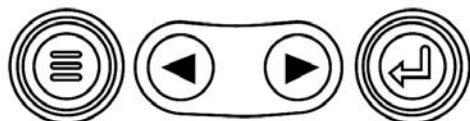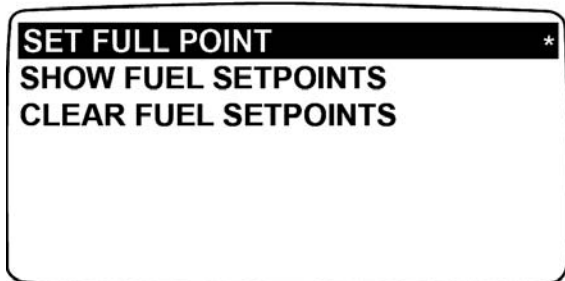
Using the Murphy Fuel Sender

The next screen displayed is the **FUEL SENDER SETUP** screen. The PV101 ships from the factory set to be used with a Murphy fuel sender. The **FUEL SETPOINTS OFF** must be shown to work with a Murphy fuel sender. Press the right and left arrow keys to navigate the menu. There are two pages to this screen.

> **NOTE:** When Fuel Setpoints OFF is set, these screens are displayed but they are not available for modification. For a non-Murphy fuel sender, see the USING A NON-MURPHY FUEL SENDER section in this document.
>
> **NOTE:** The asterisk indicates that the setpoint has been set.
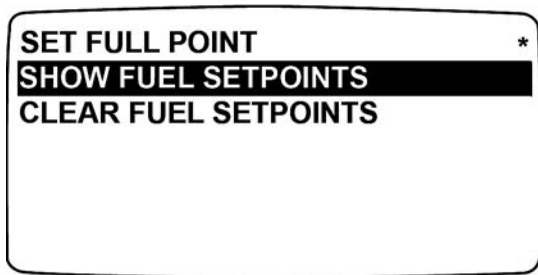

Continue to press the right arrow key to scroll the menu and to see page two of this screen. It contains the following selections:
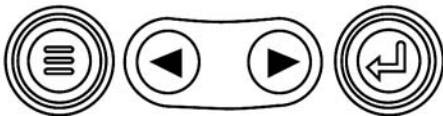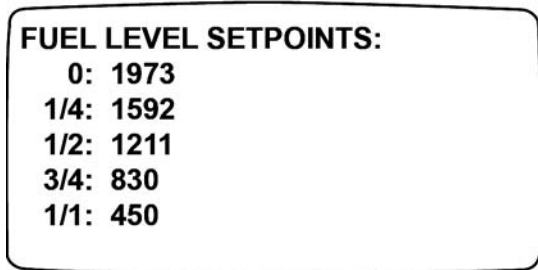
Show Fuel Setpoints

The Murphy Standard Fuel Sender settings are preloaded in the device. To view these settings select **SHOW FUEL SETPOINTS**.
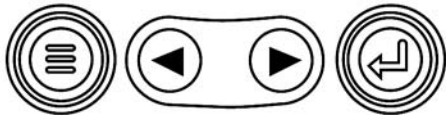
```
SET FULL POINT              *
SHOW FUEL SETPOINTS
CLEAR FUEL SETPOINTS
```

The following screen is displayed:

```
FUEL LEVEL SETPOINTS:
   0:  1973
  1/4: 1592
  1/2: 1211
  3/4: 830
  1/1: 450
```

NOTE: The numbers displayed on the above screen are Murphy Standard settings.

Low Fuel Level Setpoint

The next screen displayed is the **LOW FUEL SETPOINT** screen. The default setting is 10%. This setting enables the PV101 to generate a DTC (Diagnostic Trouble Code) displaying low fuel level.

Adjusting Low Fuel Level Setting

To change the Low Fuel Level setpoint, use the left and right arrows to increase or decrease the set point. Select **[MENU]** to cancel or **[ENTER]** to confirm the setpoint.
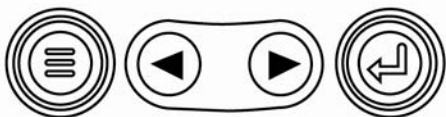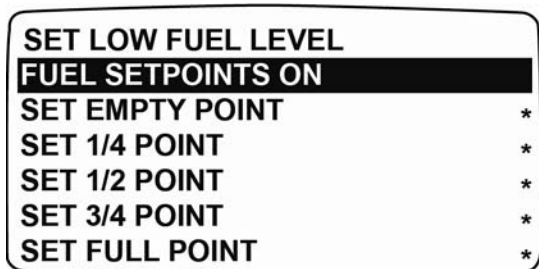
> **NOTE:** To change the setpoint from backlight dimmer input to fuel level input the **[ENTER/OK]** selection must be made.
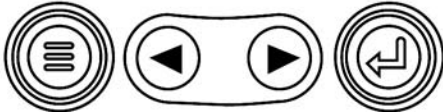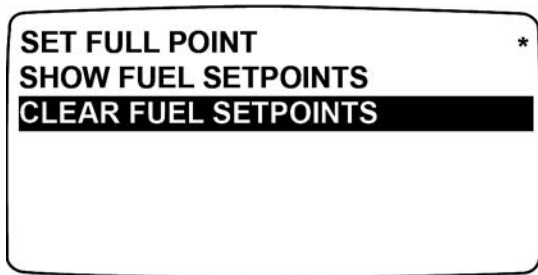
Using a Non-Murphy Fuel Sender

The next screen displayed is the **FUEL SENDER SETUP** screen. The **FUEL SETPOINTS ON** must be shown to work with a non-Murphy fuel sender. With the **FUEL SETPOINTS ON** displayed, the unit can be set to use a non-Murphy Fuel Sender.

> **NOTE:** The Murphy Standard setpoints must be cleared before continuing.

Clear Fuel Setpoints

Use the right arrow key to scroll down to page 2 and select **CLEAR FUEL SETPOINTS**. This will clear the Murphy Standard settings.
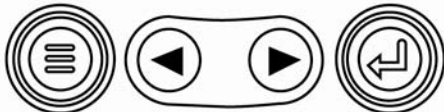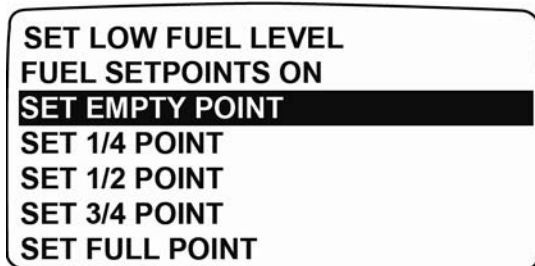

> **NOTE:** The SET EMPTY POINT, SET 1/4 POINT, SET 1/2 POINT, SET 3/4 POINT and SET FULL POINT must be programmed before continuing.
>
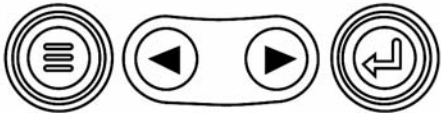> **NOTE:** Once the setpoints have been cleared, the asterisks are removed.

Set Empty Point

First select **SET EMPTY POINT** with fuel tank empty.

> **NOTE:** The fuel tank must be empty to begin this process.

The following screen is displayed. Then set the resistive value. It represents the Empty point from the non-Murphy fuel sender that must be sent to the PV101. While sending the resistive value, select **[YES]** and the PV101 will have a new low fuel setpoint setting.
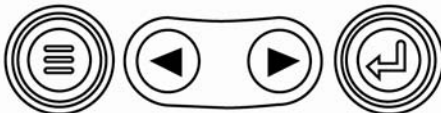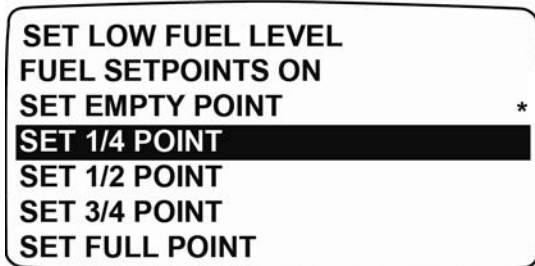

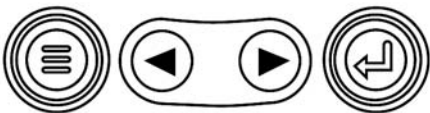Once the new settings are set, the menu will be displayed.

> **NOTE:** Once the setpoint has been set, an asterisk is displayed to the right of the setpoint.

Set 1/4 Point, 1/2 Point, and 3/4 Point

Add fuel to 25% of the tank's capacity and select the 1/4 point setpoint.
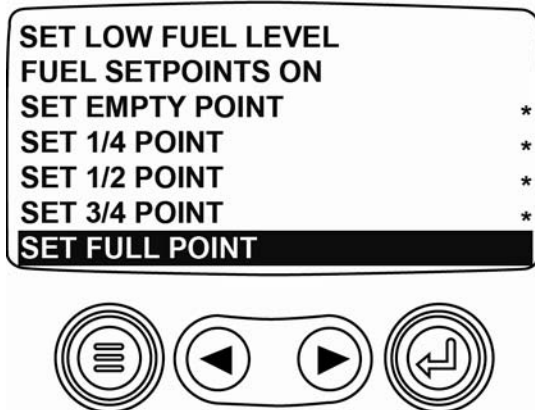

The following screen is displayed.

Select **[YES]** while sending the resistive value.
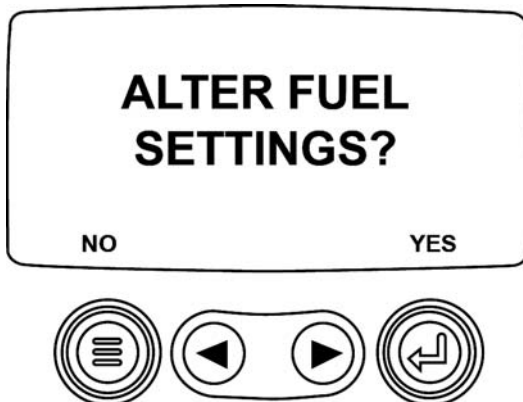
Set Remaining Setpoints

Add fuel to 50% of the tank's capacity to set the 1/2 point setpoint and 75% of the tank's capacity to set the 3/4 point setpoint.

Set Full Point

Add fuel to fill the tank to its full capacity and select **SET FULL POINT**.

```
SET LOW FUEL LEVEL
FUEL SETPOINTS ON
SET EMPTY POINT        *
SET 1/4 POINT          *
SET 1/2 POINT          *
SET 3/4 POINT          *
SET FULL POINT
```
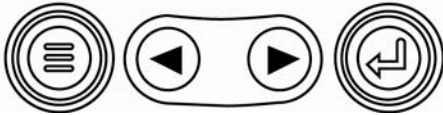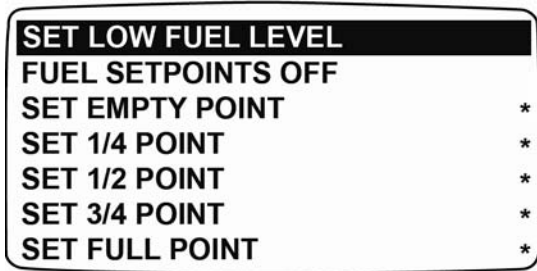
The following screen is displayed and now the resistive value that represents the Full point from the non-Murphy fuel sender must be sent to the PV101. While sending the resistive value, select **[YES]** and the PV101 will have a new Full fuel setpoint setting.
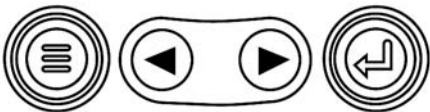
```
ALTER FUEL
SETTINGS?

NO              YES
```

Now that the Non-Murphy fuel sender calibration process is completed, the **FUEL SENDER SETUP SCREEN** will be displayed. Select **FUEL LEVEL**.

Low Fuel Level Setpoint

The next screen displayed is the LOW FUEL SETPOINT screen. The default setting is 10%. This enables the PV101 to generate a DTC (Diagnostic Trouble Code) that displays the low fuel level.
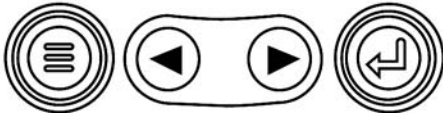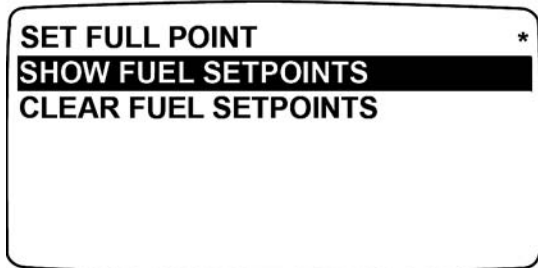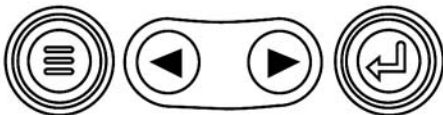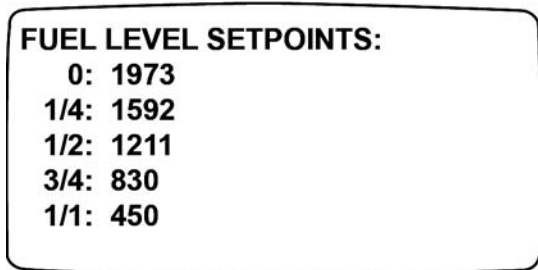

Adjusting Low Fuel Level Setting

To change the Low Fuel Level setpoint, use the left and right arrows to increase or decrease the setpoint. Select the menu button to cancel or the enter button to confirm. To change the setpoint from backlight dimmer input to fuel level input the enter/OK must be selected.

Show Fuel Setpoints

To Sender settings are preloaded in the device. To view these settings select **SHOW FUEL SETPOINTS**.

```
SET FULL POINT              *
SHOW FUEL SETPOINTS
CLEAR FUEL SETPOINTS
```

The following screen is displayed:

```
FUEL LEVEL SETPOINTS:
   0: 1973
 1/4: 1592
 1/2: 1211
 3/4: 830
 1/1: 450
```

NOTE: The numbers displayed on the above screen are *examples only*. The numbers displayed on the newly set PV101 will be different.

NOTE: Once these setpoints are complete, you can add them to your configuration via the Configuration tool and they can become default values.