Mount the TPG on the operator’s panel with four #10 screws. The dimensions in the detail below are in inches [millimeters].

The main system harness (p/n 117666) is comprised of a pair of harnesses: the power/communication harness (depicted below in blue) and the signals harness (depicted below in green).

For the analog control option, add harness wires (p/n 117683) depicted above in red.

Install the pressure transducer (p/n 113557) on the discharge side of the pump. The pressure connection is a ¼-18 NPT male port. A “T” fitting can be used to share the pressure gauge outlet on the discharge manifold.

Verify proper J1939 CAN connection to the engine’s ECM by monitoring the RPM display of the TPG while the engine is running. The display should show accurate RPM information.

The TPG requires OEM provided interlocks THROTTLE READY and PUMP ENGAGED for proper operation. The TPG utilizes backlit text to indicate interlock status.

Activate the throttle ready interlock. (Apply system power to pin 2 of connector C5). Verify the THROTTLE READY text below the display illuminates.

► The TPG will operate in RPM mode only and cannot be changed to pressure mode.

Activate the pump engaged interlock. (Apply system power to pin 10 of connector C5). Verify the PUMP ENGAGED text below the display illuminates.

► The TPG will not operate in any mode without the THROTTLE READY interlock.

Activate the throttle ready and pump engaged interlocks. (Apply system power to pins 2 and 10 of connector C5). Verify the PUMP ENGAGED, OKAY TO PUMP, and THROTTLE READY text below the display illuminates.

► The TPG will operate in either mode.
ZERO CALIBRATE THE PRESSURE TRANSDUCER

The pressure indicated by the TPG may not show ‘0’ when the pump discharge pressure is actually zero due to ambient pressure and altitude at your locale.

Display shows **MENU 04 SECS** and begins counting down. Continue holding IDLE and MENU until the display shows ‘**SETUP MENU**’ (4 seconds) and then **MENU LEVEL 2** (2 seconds).

3 TIMES

The display shows the menu item: **-SENSOR CAL-**.

ONCE

Press the INC switch once. The display shows **INT:ZERO=XXX**.

+ HOLD

Press the INC switch and hold. The display shows **DIS:LIVE=XXX**. Verify the value is between 130 and 155. Release the INC switch. The display will show **DIS:ZERO=XXX**.

ONCE

Press the PRESET switch once. The display shows **NEW ZERO=XXX**. Verify the value is between 130 and 155.

ONCE

Press the IDLE switch once. The display shows **—EXITMENU—** and then restarts normal operation.

VERIFY ENGINE CONTROL

Activate the throttle ready and pump engaged interlocks. (Apply system power to pins 2 and 10 of connector C5). Verify the **PUMP ENAGED, OKAY TO PUMP**, and **THROTTLE READY** text below the display illuminates.

ONCE

Press the MODE switch once. The display shows **GOV=PRESSURE**. The PSI indicator is illuminated YELLOW.

ONCE

Press the MODE switch once. The display shows **GOV=THROTTLE**. The RPM indicator is illuminated BLUE.

OR

Engine RPM will change when pressing either the INC or DEC switches.

ONCE

Press the IDLE switch once. The display shows **IDLE** and the engine RPM will reduce to the idle RPM. The display then shows **RPM XXXX**.

Attention Ford F-Series Customers

While pumping or operating in split shaft/PTO mode, do not press the accelerator pedal or brake pedal. If the accelerator pedal or brake pedal is pressed while in split shaft/PTO mode, the engine will return to curb idle and control of the remote throttle or governor will be lost. This will cause the pump to be reduced to idle and water pressure will be reduced.

For complete details please reference service bulletin SB-143 at [www.haleproducts.com](http://www.haleproducts.com).

For detailed operation and troubleshooting consult the full manual (p/n 117684) available from the Class 1 web site [www.Class1.com](http://www.Class1.com)