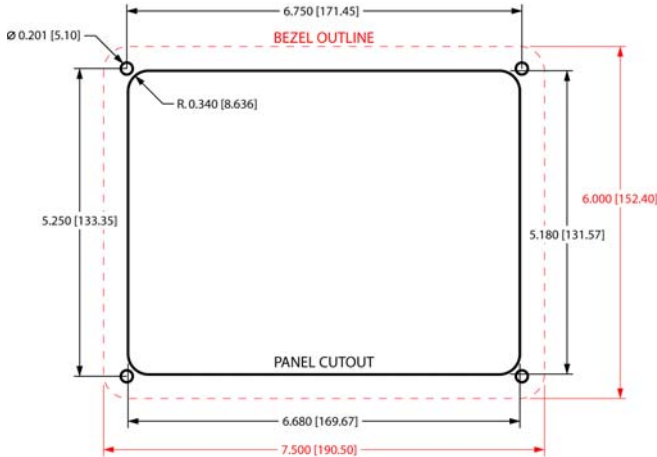


# Class 1

## Total Pressure Governor Plus (TPG+) OEM Quick Manual

### INSTALLATION

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



### DISCHARGE PRESSURE TRANSDUCER INSTALLATION

Install the 300 psi (2068 kPa, 20 bar) discharge pressure transducer (p/n 113557) on the discharge side of the pump. The pressure connection is a 1/4-18 NPT male port. A 'T' fitting can be used to share the pressure gauge outlet on the discharge manifold.

### INTAKE PRESSURE TRANSDUCER INSTALLATION

Install the 300 psi (2068 kPa, 20 bar) intake pressure transducer (p/n 113557) on the intake side of the pump. The pressure connection is a 1/4-18 NPT male port.

### VERIFY ENGINE RPM

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.



### VERIFY INTERLOCKS

The TPG+ requires OEM provided interlocks THROTTLE READY and PUMP ENGAGED for proper operation. The TPG+ utilizes backlit text to indicate interlock status. The interlock status indicators are located directly beneath the switch panel.

Activate the throttle ready interlock. (Apply system power to pin 2 of connector C4). Verify the **THROTTLE READY** text illuminates.

- ▶ The TPG+ will operate in RPM mode only and cannot be changed to pressure mode.

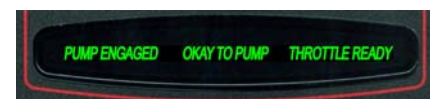
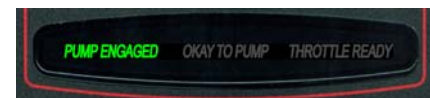
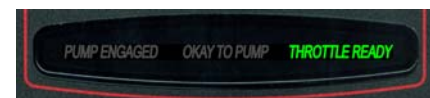
Activate the pump engaged interlock. (Apply system power to pin 10 of connector C4). Verify the **PUMP ENGAGED** text illuminates.

- ▶ 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 C4).

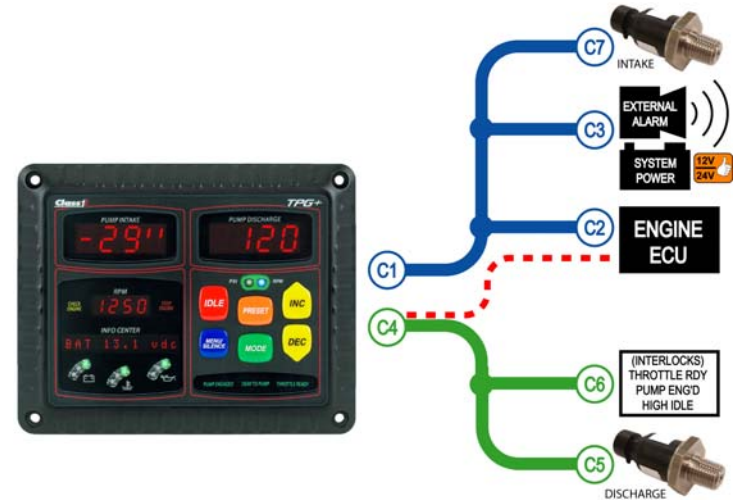
Verify the **PUMP ENGAGED**, **OKAY TO PUMP**, and **THROTTLE READY** text illuminates.

- ▶ The TPG+ will operate in either mode.

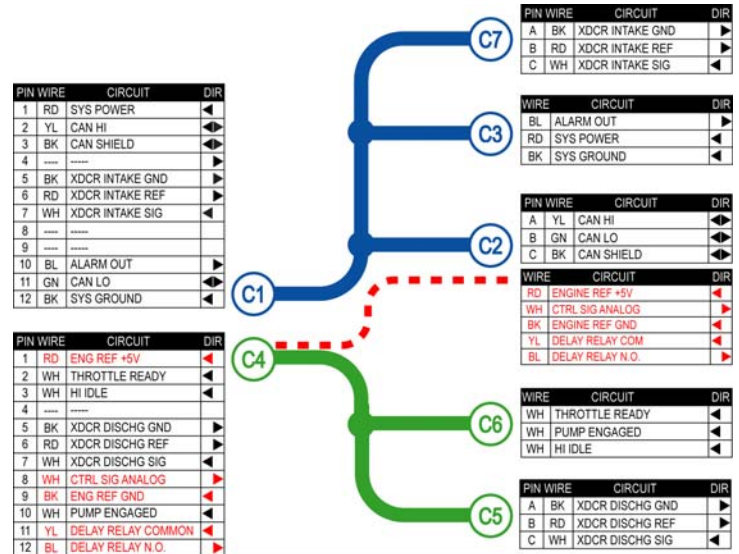


### WIRING HARNESS

The main system harness (p/n 118453) 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 118454) depicted in red.



## ZERO CALIBRATE THE DISCHARGE 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.


-  +  The INFO CENTER 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 INFO CENTER display shows the menu item: **-SENSOR CAL-**.
-  **ONCE** Press the INC switch once. The INFO CENTER display shows **INT:ZERO=XXX**.
-  + **HOLD** Press the INC switch and hold. The INFO CENTER display shows **DIS:LIVE=XXX**. Verify the value is between 130 and 155. Release the INC switch. The INFO CENTER display will show **DIS:ZERO=XXX**.
-  **ONCE** Press the PRESET switch once. The INFO CENTER display shows **NEW ZERO=XXX**. Verify the value is between 130 and 155.
-  **ONCE** Press the IDLE switch once. The INFO CENTER 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 C4).

Verify the **PUMP ENGAGED**, **OKAY TO PUMP**, and **THROTTLE READY** text illuminates.






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



-  **ONCE** Press the MODE switch once. The INFO CENTER 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 INFO CENTER display shows **IDLE** and the engine RPM will reduce to the idle RPM. The INFO CENTER display then shows **RPM XXXX**.

For detailed operation and troubleshooting consult the full manual (p/n 118711) available from the Class 1 web site

[www.Class1.com](http://www.Class1.com)

  
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