



3-3/8" PROGRAMMABLE RECALL TACHOMETER INSTALLATION INSTRUCTIONS






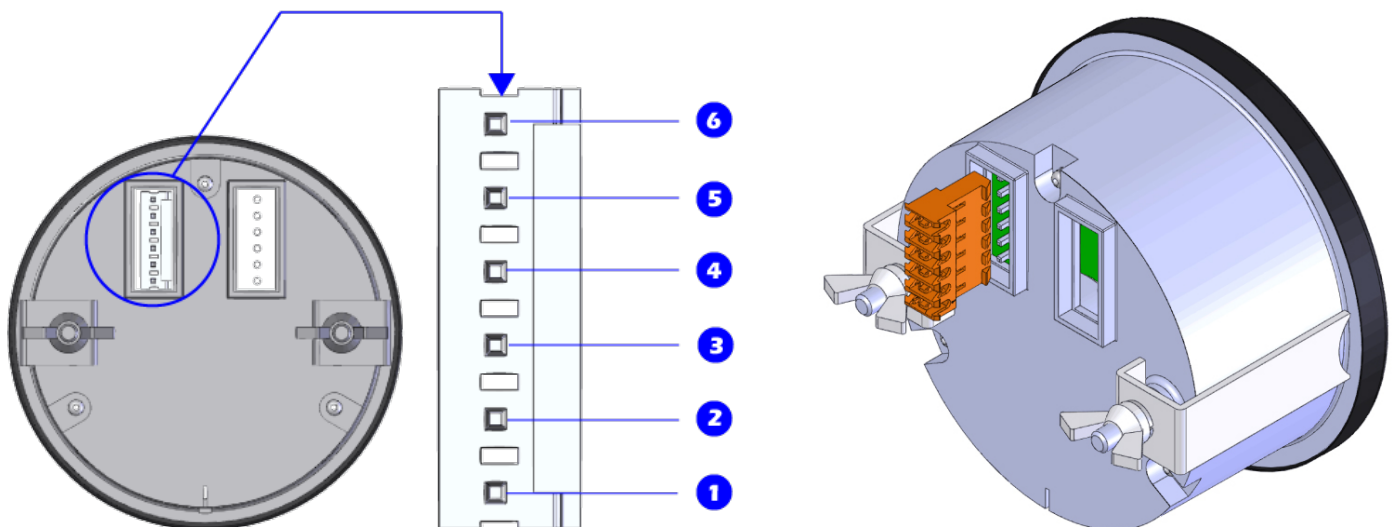
GENERAL INFORMATION

BACKLIGHT: LED
OPERATING VOLTAGE: 11-32 VDC
INPUT: IGNITION, MAGNETIC SENSOR, OR PULSE GENERATOR
TRANSIENT PROTECTION: +100V, -400V
REVERSE VOLTAGE: PROTECTED
RECALL: HIGHEST ENGINE RPM
CALIBRATION: 1 PULSE PER REV TO 250 PULSES PER REV

INSTALLATION

-  **Disconnect batteries.** Do not reconnect battery power until system is fully configured to avoid risk of shock or fire.
-  Connect wiring harness to the vehicle as listed below:

ICON KEY	
	CAUTION
	Tools may be required
	Shown in picture




Pin 1 – Not used.

Pin 2 – Red/Yellow: 5V output, used if a speed sensor (e.g., Hall Effect sensor) requires a 5V source.

Pin 3 – Black: Ground; connect to a clean ground, such as a factory ground bolt.

Pin 4 – Red: Gauge Power; connect to a circuit that switches on with the key switch. If the circuit does not have a fuse or the existing fuse is higher than 3 amps, use a 3 amp inline fuse.

Pin 5 – Green: Tachometer input; connect to the output of the speed sensor or “-” coil terminal.

 **CARE SHOULD BE TAKEN WHEN ROUTING THIS WIRE FROM THE ENGINE COMPARTMENT TO THE INTERIOR. SECURE THE WIRE SUCH THAT IT DOES NOT INTERFERE WITH MOVING PARTS AND USE A GROMMET WHEN PASSING THROUGH THE FIREWALL OR ANY SHARP EDGES.**

Pin 6 – Orange: Dimmer; connect to the factory dimmer circuit either by tapping into the in-cab fuse block or by connecting directly to the wire running from the dimmer on the headlight switch.

PROGRAMMING

Form No. IS194 (Rev. C 12.08.2015)

ISSPRO, INC. • 2515 N.E. Riverside Way • Post Office Box 11177 • Portland, Oregon 97211-1899
503-528-3400 • 800-888-8065 • Fax: 503-528-3495

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User can program the shift light activation level, backlight curve, calibration, and cam/crankshaft sensor selection.

PROGRAM 1 – SHIFT LIGHT ACTIVATION

- Hold down the front button while tuning on power to the tachometer.
- Release the button after the gauge pointer moves to zero. The Back Light and Shift Light should flash once per second to indicate Program 1.
- Press the front button for 1 to 4 seconds to enter this program.
- The Shift Light activation level is indicated by the pointer position. Starting point is zero RPM.
- Press the button for less than 1 second if you want the pointer to advance 100 rpm or press the button for more than 1 second and less than 4 if you want the pointer to advance 1000 rpm. Press the button until the pointer has reached your new value.
- Press the button for more than 5 seconds to save the value. (To discard the new value without saving, turn power off and start over).

PROGRAM 2 – BACKLIGHT CURVE

Headlights must be on during this procedure to adjust the instrument lights. For best results, this should be done in a dark environment.

- Turn on power to the tachometer while pressing the front button. Release the button after the pointer moves to zero.
- Press the front button for less than 1 second and release.
- The shift light will continuously flash twice to indicate Program 2.
- Press and hold the button between 1 and 4 seconds to enter this program.
- Move the vehicles dimmer so that the instrument lights are at maximum.
- Press and hold the button for 1 to 4 seconds. (The gauge will now use this dimmer voltage to represent the highest intensity backlight setting.)
- The backlight should start flashing at a rate of 4 flashes/second.
- Move the vehicle's dimmer to minimum (dash lights barely visible).
- Press and hold the button for 1 to 4 seconds. (The gauge will now use this dimmer voltage to represent the voltage where you want the backlight to transition from on to off.)
- Press and hold the button for more than 5 seconds to save the value. (To discard the new value without saving, turn power off and start over).

PROGRAM 3 – CALIBRATION NUMBER IN PULSES PER REVOLUTION (PPR)

The PPR is the number of pulses that the sensor detects per engine revolution. An example is a sensor mounted on the flywheel housing to detect the flywheel teeth. The PPR is the number of flywheel teeth.

Default factory PPR is 2, thus, calibration may not be required.

If using an ignition input, the PPR is the number of cylinders divided by 2.

- Turn on power to the tachometer while pressing the front button. Release the button after the pointer moves to zero.
- Press and release the button twice quickly (less than 1 second per press).
- The shift light will continuously flash three times to indicate Program 3.

- Press and hold the button for 1 to 4 seconds to enter this program.
- The shift light will cease flashing indicating successful entry to Program 3 mode. The pointer and PPR number are set to zero.
- Pressing the button for less than 1 second will increment the PPR by 1. Pressing the button for 1 second to 4 seconds will increment the number by 10.
- The pointer will move on the gauge in a ratio of 10 RPM per pulse, up to 250 PPR (which will show as 2500 RPM). Use any combination of long and short button presses to reach your desired PPR.
- Press and hold the button for more than 5 seconds to save the value. (To discard the new value without saving, turn power off and start over).

PROGRAM 4 – CAMSHAFT/CRANKSHAFT SENSOR SELECTION

Program 4 is used if the sensor detects teeth on a device driven by a camshaft rather than a crankshaft (such as a Powerstroke™ engine using the CPS), and defaults to crankshaft selection.

- Turn on power to the tachometer while pressing the front button. Release the button after the pointer moves to zero.
- Press and release the button three times quickly (less than 1 second per press).
- The shift light will continuously flash four times to indicate Program 4.
- Press and hold the button for 1 to 4 seconds to enter this program.
- The shift light will be off indicating that the selection is set to Crankshaft. The shift light will flash when the selection is set to Camshaft.
- Momentarily pressing the button will switch between Camshaft and Crankshaft.
- Press and hold the button for more than 5 seconds to save the value. (To discard the new value without saving, turn power off and start over).

TO RECALL THE PEAK RPM

- 1 Momentarily press the button
- 2 Pointer will sweep to the highest RPM reached since last clear
- 3 Clear recall by pressing front button for at least 4 seconds (Pointer will return to zero position when cleared).
- 4 Momentarily press the button to return pointer to normal activity