

Digital to Analog V8 Tachometer Driver

GM 6.6L Duramax 2001-2007
(112030000)

Installation Guide

DISCLAIMER OF LIABILITY

Performance products can increase horsepower above and beyond factory specifications. Additional horsepower creates more stress on the drive-train components, which could result in drive-train failure.

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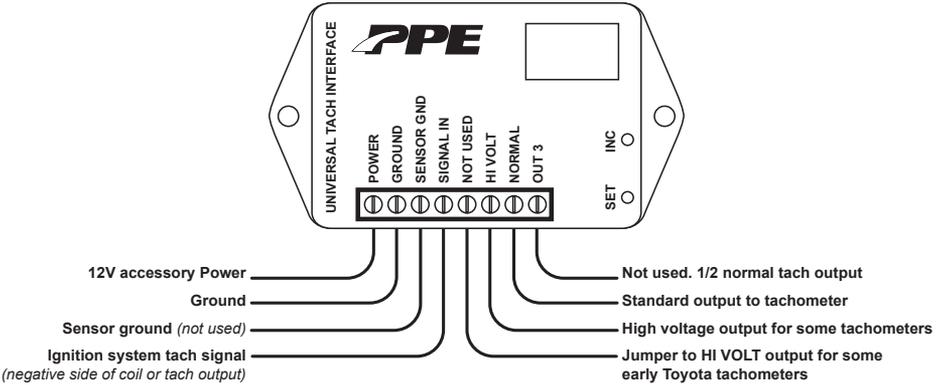
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This unit can recalibrate an ignition system tachometer signal. Adjustment is done by setting the cylinder count for the incoming engine signal (1-16) and the cylinder count for the outgoing gauge signal (1-16). Fine adjustment can also be done to make corrections to the gauge needle reading.

** If the NORMAL output does not drive your tachometer, use HI VOLT.*



Setup

OUT: Set output (gauge) cylinder count. 1 – 16 allowed.

(Fine cal is set to 1.00)

A 2000 RPM signal will be generated reflecting the current cylinder count for gauge testing.

IN: Change input (engine) cylinder count. 1 – 16 allowed.

(Fine cal is set to 1.00)

519: change between 5V low voltage “LO” and 12V normal “HI” signal types.

1. Begin with the key off.
2. Press and hold the SET switch while turning the key on. The display will show the current version code.
3. Release the SET switch. The display will show “IN”.
4. Press and release the INC switch until the desired setup option is displayed: IN, OUT, 5 19, END
5. Press and release the SET switch to select the setup option.
6. Press and release the INC switch to change the setting. Press and release the SET switch to save it.

Setup example:

If you have a factory 6 cylinder tachometer and are now using an 8 cylinder engine, set the engine cylinder count “IN” to 8 and the gauge cylinder count “OUT” to 6.

Diagnostic Testing

The basic power up and operation can be verified with the display on the SGI-8E. The dot in the upper left corner will be on steady when the unit is powered up and not getting a tachometer signal. The dot will be flashing when a tachometer signal is present. When the key is first turned on, the display will show the current fine adjust CAL value for a few seconds. If both switches are pressed at the same time the current, incoming speed signal frequency will be displayed. If the frequency displayed has a decimal point, then the reading is kHz, otherwise the reading is Hz.

Both the input and outputs can be tested with special diagnostic modes.

To test the outputs and tachometer reading with the engine off:

1. Begin with the key off.
2. Press and hold the SET switch while turning the key on. The display will show the current version code.
3. Release the SET switch. The display will show "IN".
4. Press and release the INC switch until "OUT" is shown.
5. Press and release the SET switch. The display will show the current gauge cylinder setting and be supplying a 2000 RPM signal.
6. Press and release the INC switch until the gauge reading is close to 2000 RPM. Press and release the SET switch to quit.

To test the input while driving:

1. Begin with the key off.
2. Press and hold the INC switch while turning the key on. The display will show "TST".
3. Release the SET switch. The display will show "---".
4. Anytime either switch is pressed the display will update and hold the frequency. This can be done to determine the type of signal being fed to the SGI-8. This information can be supplied to tech support to assist in setup and configuration of the unit.
5. The unit will remain in this mode until the key is turned off.

Trouble Shooting Guide

Problem	Possible cause	Solution
Tachometer will not work. No lights on display.	No power to SGI-8	Check the power and ground terminals on the SGI-8. Should be 11-15 V dc.
Tachometer will not work. Dot on steady.	No input signal. SGI-8 set for wrong input type. OEM filter circuit between SGI-8 and gauge.	Test for 1-20 volts AC at the signal in terminal with the engine running. Change the Setup -519 option. See instructions on first page. Make sure SGI-8 connects directly to the gauge
Tachometer will not work. Dot is flashing.	Wrong output type High voltage boost required.	Try switching from NORMAL to HI VOLT Use HI VOLT to drive gauge and jumper NOT USED terminal over to HI VOLT
Tachometer will not read at high rpm.	SGI-8 set for wrong input type	Change the Setup - 519 option. See instructions on first page
Tachometer is reading incorrectly	Engine or gauge setting incorrect. Engine or gauge setting incorrect. Gauge requires fine adjust.	Change the Setup In or Out values. See instructions on first page. Use the "+" or "-" buttons to correct the gauge reading



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