

# 3-3/8" IN-DASH ELECTRIC TACHOMETER INSTALLATION INSTRUCTIONS



## PRECAUTIONS

Read instructions completely before installation.

Follow ALL safety precautions when working on vehicle.  
Always wear safety glasses.

ALWAYS disconnect (-) negative battery cable before making electrical connections.

## WIRING

Top Row, Left to Right

SIG – Signal\*

LAMP1 – Dash 12V (+) Lighting for White Backlight

GRD – Good Ground

LAMP2 – Dash 12V (+) Lighting for Amber Backlight

Bottom Row, Left to Right

ACC – 12V (+) Ignition

OUT – Not Used

CAL – Not Used

BATT – 12V (+) Positive

NOTE: the BATT connection to 12V (+) positive is only required if Return to Zero function is required after ignition is turned off.

Use 20 AWG stranded or heavier wire for installation.

## GENERAL APPLICATION

12-volt DC negative (-) ground electrical systems (10-20 VDC).

**CAUTION:** As a safety precaution, the 12V (+) terminal of this product should be fused before connecting it to the 12V (+) ignition switch. We recommend using a 4 Amp, 3 AG fast-acting type cartridge fuse.

## THROUGH-THE-DIAL LIGHT COLOR

To get white backlighting, connect the LAMP1 wire to your 12V (+) light circuit. To get amber backlighting connect the LAMP2 connection to your 12V (+) light circuit.

## SIGNAL INTERFACE

Tachometer signal (SIG) wire connection varies with vehicle make, model and ignition type. Typical tachometer signal source locations are outlined below.

Always consult the service manual for the vehicle you are working on to ensure proper connection.

**NEVER CONNECT SIGNAL WIRE TO THE COIL WHEN USING AN MSD OR SIMILAR HIGH OUTPUT CAPACITIVE DISCHARGE STYLE IGNITION SYSTEM.**

Incorrect installation will damage the tachometer and the warranty will be voided.

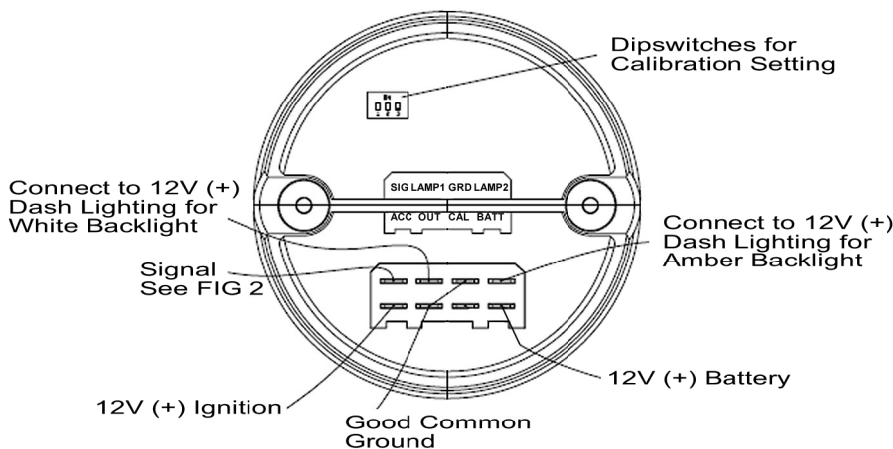


FIG 1

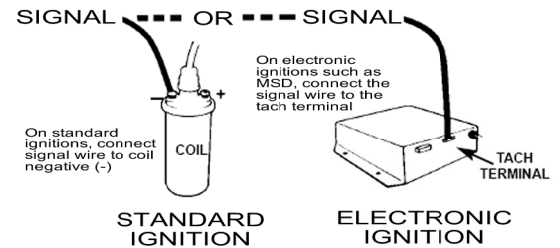


FIG 2

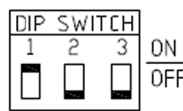
## CALIBRATION/PULSES PER REVOLUTION (PPR)

The tachometer is calibrated based on pulses per revolution (PPR). Due to modern car design (ECM's, on-board computers etc.) the old standard rule, "half the number of cylinders equals the pulses per revolution (PPR)", no longer applies. Pulses per revolution (PPR) relates to how many times the ignition fires per crankshaft revolution. Tachometer outputs can range from 1 PPR to 4 PPR for a V8 engine. So, the new standard is to refer to PPR instead of the number of cylinders.

## CALIBRATION

Calibration of the tachometer is done via dipswitches in the back of the gauge. There are 3 dipswitches, each of which can be set to OFF (down) or ON (up). Use the following table to determine the correct dipswitch combination for your PPR.

1 PPR (2 CYL)	OFF	OFF	ON
2 PPR (4 CYL)	OFF	ON	OFF
3 PPR (6 CYL)	OFF	ON	ON
4 PPR (8 CYL)	ON	OFF	OFF
5 PPR (10 CYL)	ON	OFF	ON
6 PPR (12 CYL)	ON	ON	OFF



4 PPR Setting

## DISTRIBUTOR IGNITION

Connect the tachometer signal wire to the negative terminal of the coil. The PPR of this signal is usually half the number of cylinders.

## COIL PACK OR DISTRIBUTORLESS SYSTEM

Option 1. Connect the tachometer signal wire to the signal wire from the ECU to the factory instrument cluster. The PPR of this signal is usually half the number of cylinders.

Option 2. Connect the signal wire to a coil trigger wire. There is typically 1 wire for each pair of cylinders. The PPR of this signal is usually 1.

## COIL NEAR PLUG or COIL ON PLUG

Option 1. Connect the tachometer signal wire to the signal wire from the ECU to the factory instrument cluster. The PPR of this signal is usually half the number of cylinders.

Option 2. Use this solution only if Option 1 is not available. Connect a tachometer signal adapter (purchased separately) to a coil trigger wire. Connect the tachometer signal wire to the adapter per the adapter manufacturer's instructions.

## HIGH DISCHARGE IGNITIONS

Never connect the signal wire to the coil when using a high output discharge ignition system (i.e. MSD). Damage to the tachometer will occur and the warranty will be voided. Only connect the tachometer signal wire to the supplied tachometer terminal.