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# **INSTALLATION INSTRUCTIONS**

## **SINGLE CHANNEL ISOLATOR**

REVISION: C

11/08/2012

## INSTRUCTIONS

The following instructions are meant to supplement the installation of the automobile conversion system. Please refer to their instructions for additional information.

The purpose of the isolator is to isolate digital system signal to drive vehicles gauges such as vehicle tachometer.

Depending on the vehicle system layout, the isolator will be installing by splicing a single wire or multiple wires that shares other system components.

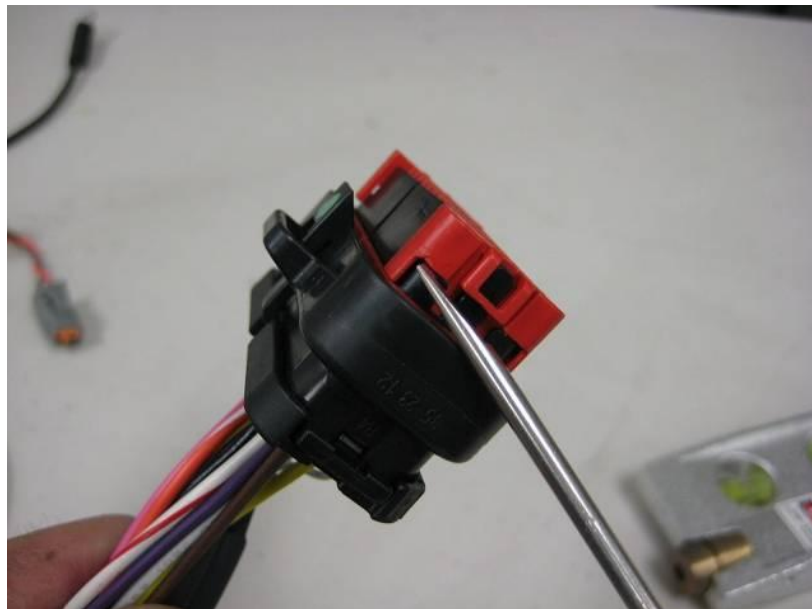
The following procedure is to install and wiring the single channel isolator module along with the vehicle tachometer.

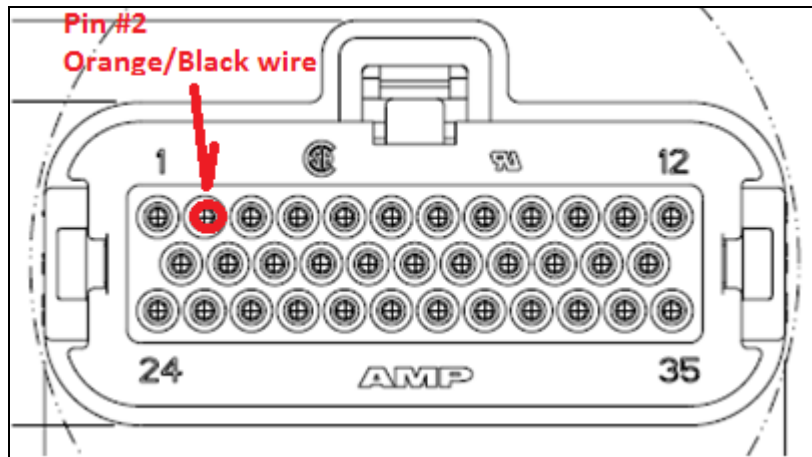
For reference, a schematic is included at the end of this document.

1. Verify the kit includes the Isolator Module and the Isolator Connector Harness.



2. Locate a suitable location to install the isolator module. It is preferred to install the module as close as possible to the motor controller. The isolator module can be installed by using the appropriate fasteners through the mounting holes. As an alternative, the isolator module can be installed by using heavy duty double side adhesive tape.
3. Connect the isolator harness to the isolator module.
4. Connect the Red/Blue wire from the Isolator harness to the red/blue wire (pin 25) from the controller harness.
5. Connect the Orange / Black wire from the Isolator harness to motor controller connector (pin 2) from the controller harness.
  - 5.1. Pry the Main Harness connector securing device. Repeat at the opposite side of the connector. Note: Pry ONLY about ¼" out and DO NOT remove the connector securing device from the connector. See pictures.





- 5.2. At connector there will be numbers molded at each corners. These numbers are the pins designations. Install the Orange /Black wire by fully insert it at pins # 2 (See above picture)
6. After fully inserting the wire, push the connector securing device back into the connector. If becomes difficult, DO NOT continue this operation. Check that all the wires are fully inserted into the connector before trying again.

7. Connect the Black wire from the Isolator harness to vehicle chassis ground.
8. Connect the Red wire from the Isolator harness to the switched side of the OEM vehicle key switch wire.
9. Connect the Green wire from the Isolator harness to the OEM Tachometer Input Wire.

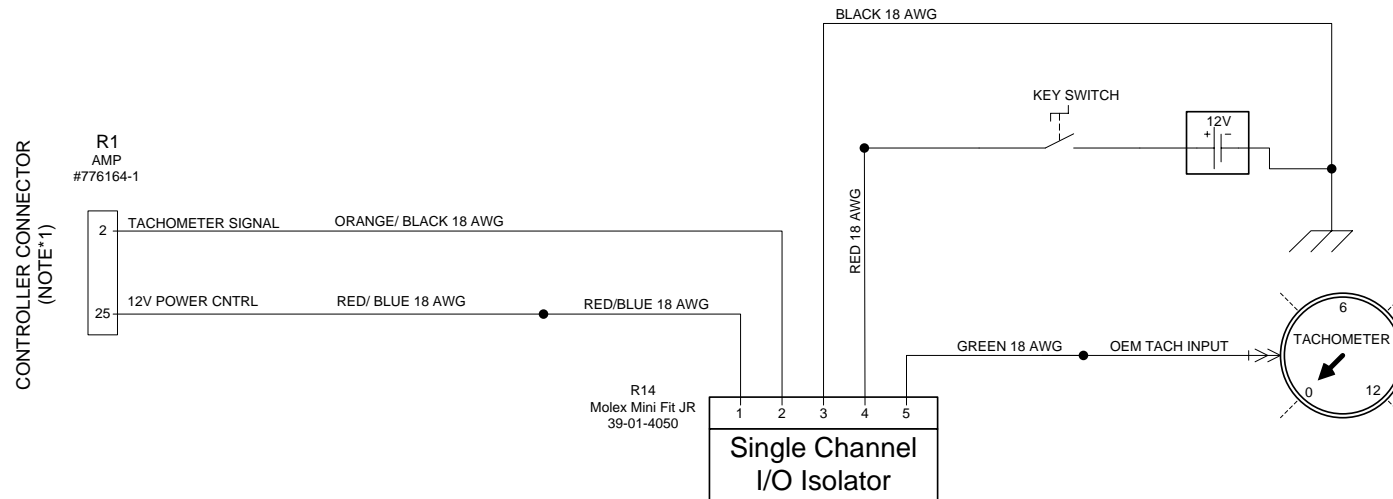
#### PARAMETER SETTING FOR TACHOMETER

To set the maximum frequency (Hertz) for the tachometer, multiply the number of cylinder of the stock engine times 66.6 (# cylinder x 66.6).

For example, the number of cylinder of the stock engine is 4. Then,  $4 \times 66.6$  equals 266.4 Hertz.

The default frequency parameter is 266.4 Hertz.

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**NOTE:**

(\*\*1) OTHER ELECTRICAL CONNECTIONS AND SYSTEM COMPONENTS ARE NOT DISPLAYED IN THIS PAGE.

**I/O ISOLATOR PIN FUNCTION**

- 1 – CHANNEL 1 CONTROLLER 12V
- 2 – CHANNEL 1 TACHOMETER SIGNAL
- 3 – CHANNEL 1 VEHICLE GROUND
- 4 – CHANNEL 1 VEHICLE 12V
- 5 – CHANNEL 1 OUTPUT TO TACHOMETER

|                   |                 |   |            |
|-------------------|-----------------|---|------------|
| CAD TYPE<br>VISIO | CAD LOC.        | CAD FILE  | DRW SIZE B |
| OPER. NO.         | UNIT            | DRAWING 1010-1CH-ISOLATOR-001                     |            |
| DESIGN            | DETAIL          | TITLE   |            |
| CHECKED           | SAFETY          | SINGLE CHANNEL OPTO-ISOLATOR<br>SYSTEM SCHEMATICS |            |
| SCALE<br>NONE     | DATE<br>4/19/12 | REVISION C<br>SHEET 1 OF 1                        | HPEVS      |