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INSTALLATION INSTRUCTIONS

DUAL CHANNEL ISOLATOR

REVISION: B

8/16/2012

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. Also, the isolator can be used to convert key start switch output signal to digital input for the motor controller.

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

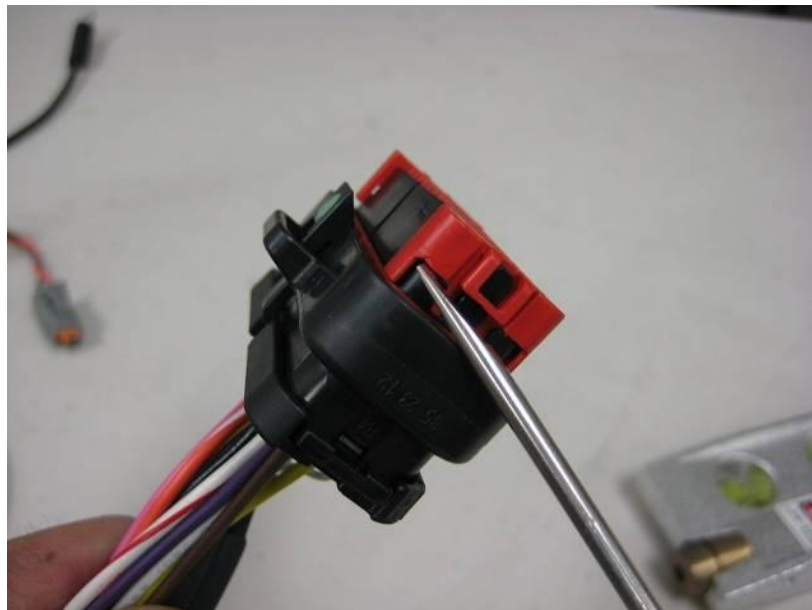
The following procedure is to install and wiring the isolator module with dual channels along with the vehicle tachometer and key start switch.

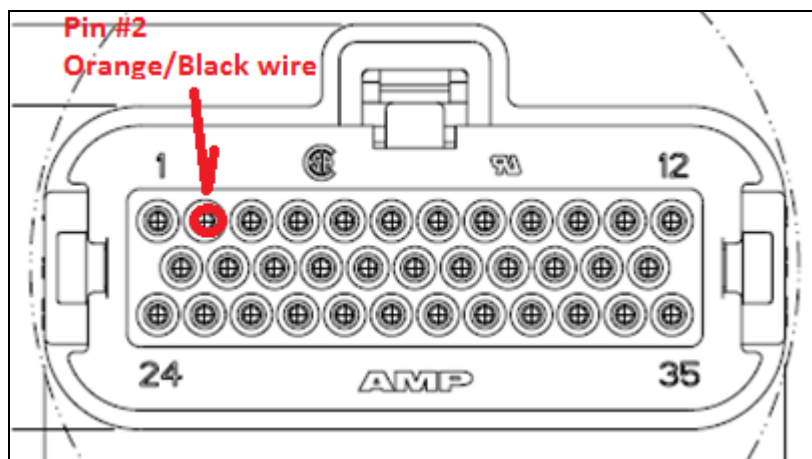
For reference, a schematic is included at the end of this document.

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

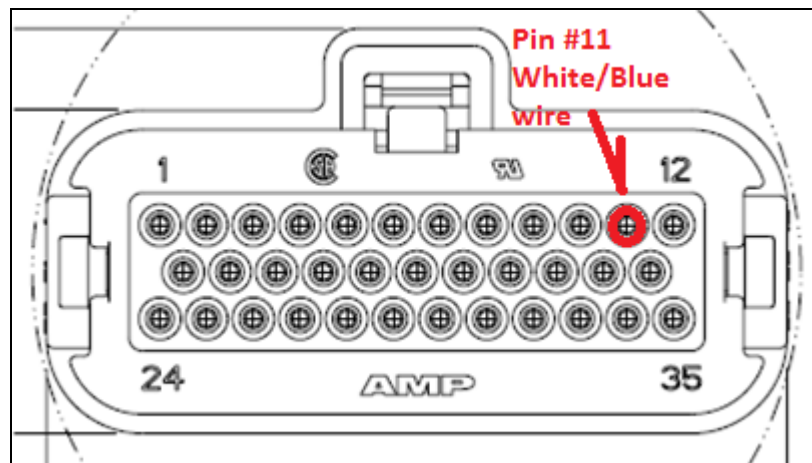


2. Locate a suitable location to install the isolator module. It is preferred to install the module as close as possible to the motor controller. The isolator module can be installed by using the appropriate fasteners through the mounting holes. As an alternative, the isolator module can be installed 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. Connect the White/ Blue wire from the Isolator harness to the motor controller connector (pin 11) from the controller harness.
 - 6.1. Install the White/Blue wire by fully insert it at pins # 11.



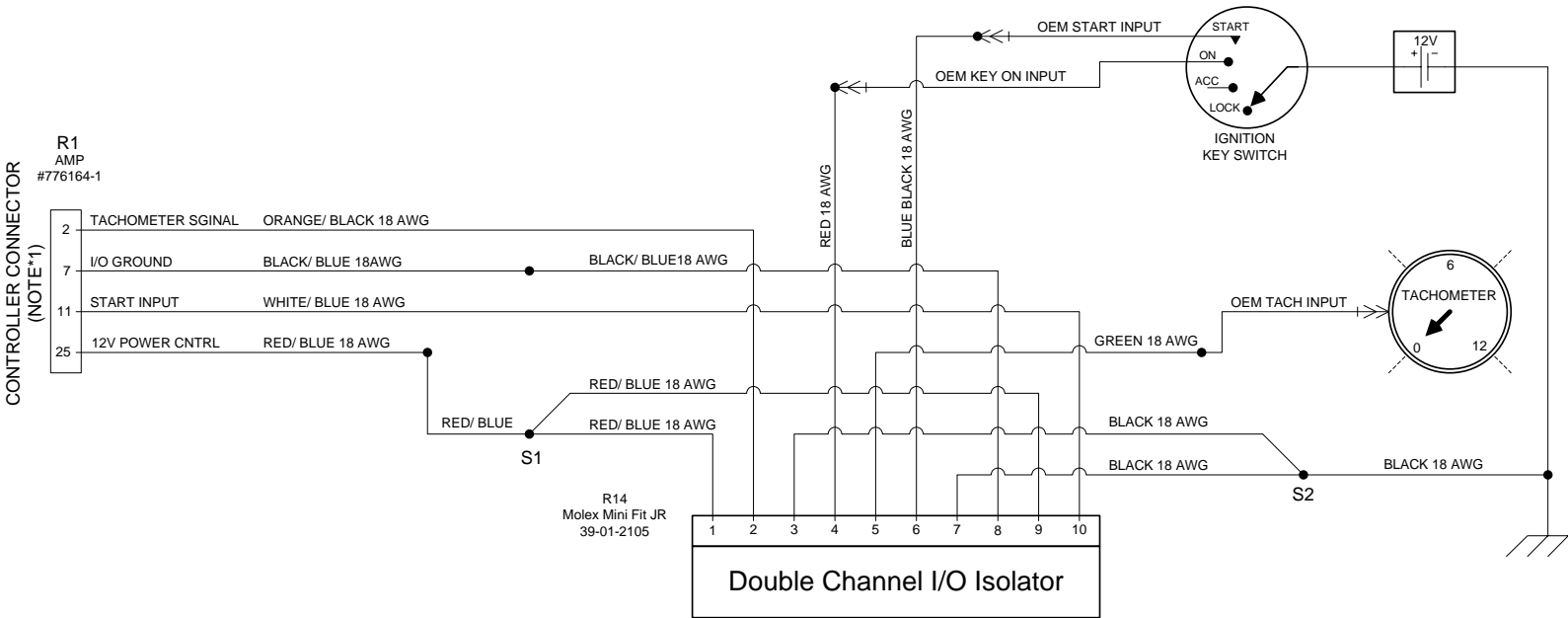
7. After fully inserting the wires, push the connector securing device back into the connector. If becomes difficult, DO NOT continue this operation. Check that all the wires are fully inserted into the connector before trying again.
8. Connect the Black/ Blue wire from the Isolator harness to the Black/blue wire (pin 7) from the controller harness.
9. Connect the Black wire from the Isolator harness to chassis ground.
10. Connect the Green wire from the Isolator harness to the OEM Tachometer Input Wire.
11. Connect the Red wire from the Isolator harness to the OEM vehicle ignition key at ON position wire.
12. Connect the Blue/ Black wire from the Isolator harness to the OEM vehicle ignition key at the Start position 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 x 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 OUTPUT
- 3 – CHANNEL 1 GROUND
- 4 – CHANNEL 1 VEHICLE 12V
- 5 – CHANNEL 1 OUTPUT TO TACHOMETER
- 6 – CHANNEL 2 IGNITION KEY INPUT
- 7 – CHANNEL 2 GROUND
- 8 – CHANNEL 2 CONTROLLER I/O GROUND
- 9 – CHANNEL 2 CONTROLLER 12V
- 10 – CHANNEL 2 CONTROLLER START INPUT

CAD TYPE VISIO	CAD LOC.	CAD FILE	DRW SIZE B
OPER. NO.	UNIT	DRAWING 1010-2CH-ISOLATOR-001	
DESIGN	DETAIL	TITTLE DUAL CHANNEL OPTO-ISOLATOR SYSTEM SCHEMATICS	
CHECKED	SAFETY		
SCALE NONE	DATE 4/19/12	REVISION B SHEET 1 OF 1	HPEVS