

INSTALLATION INSTRUCTIONS

MSD Exhaust Pressure Module, PN 7767

ONLINE PRODUCT REGISTRATION: Register your MSD product online. Registering your product will help if there is ever a warranty issue with your product and helps the MSD R&D team create new products that you ask for! Go to www.msdpower.com/registration.

Note : This product cannot be used with Solid Core spark plug wires.

Parts Included:

- 1 - MSD Exhaust Pressure Module PN 7767
- 1 - Sensor 1 Harness PN 22711
- 1 - Pressure Sensor PN 2269
- 1 - Parts bag
- 1 - Plumbing Kit PN PK0001ERL
 - 4AN Stainless Steel Hardline w/ Tube Nuts & Tube Sleeves – 18” Long
 - 4AN Speed-Flex Hose - 24” Long
 - Exhaust Weld Bung w/ 4 AN Male Flare
 - Adapter 1/8” NPT Female to -4AN Male Flare
 - Adapter -4 AN Male Union
 - Cushion Clamp & Mounting Hardware

Parts Required:

- PN 7730 Power Grid
- PN 7766 MSD Dual O2 Sensor Module
- PN 7740 MSD Hub

Optional Parts:

- PN 22691 - Pressure Sensor 2 w/Harness
- PN PK0001ERL Plumbing Kit (for Sensor 2)

Replacement Parts:

- PN 22711 - Pressure Sensor 1 Harness
- PN 22721 - Pressure Sensor 2 Harness
- PN 2269 - Pressure Sensor

FEATURES

- Compensates for exhaust back pressure
- Allows for placing an Oxygen Sensor on each cylinder in boosted applications
- Optional second pressure sensor for dual turbo applications
- Plug and Play Power Grid Module
- Can be used as a stand-alone Power Grid module for monitoring and recording any pressure up to 75 psig.

OPERATION

Gas pressure offsets the lambda measurement of any wide-band oxygen sensor. This pressure dependency introduces an error in wide-band readings when installed upstream of a turbo. Using the MSD Exhaust Pressure Module corrects this issue. It allows the wide-band controller, PN 7766, to compensate for the variances in the exhaust back pressure. When a single pressure sensor is used, the compensation applies to all the sensors in the system. In dual turbo applications, the use of a second sensor improves the accuracy by compensating for the differences between the two sides of the engine. Even if an Oxygen Sensor Module, PN 7766, is not used, the PN 7767 Module can be used for monitoring and recording any pressure up to 75 psig.

RED LED - LED ON indicates the module is communicating with MSD View.

MOUNTING

The MSD Exhaust Pressure module must be mounted in a sturdy, dry location and not exposed to extreme heat. Also, take note of the module's location with respect to the pressure sensor locations and harness lengths. The included parts bag will contain required hardware for mounting the unit. The unit should not be immersed or subjected to direct spray from a power washer.

While the pressure sensor will measure exhaust pressure, its operating temperatures should be kept under 100°C (212°F). To accomplish this, a stainless steel tubing and fitting kit, PN PK0001ERL, is supplied to install the pressure sensor away from direct heat on the exhaust. This will ensure a safe operating temperature for the pressure sensor and protect it from the harsh conditions that exist in close proximity to the turbo and exhaust system(s).

WIRING

The MSD Exhaust Pressure Sensor module comes with one pressure sensor and corresponding harness. To power the module, connect the CAN cable to the Power Grid system via the MSD CAN Hub (PN 7740). The MSD CAN pigtail is used to communicate with the Power Grid CAN BUS system. **(Figure 4)**

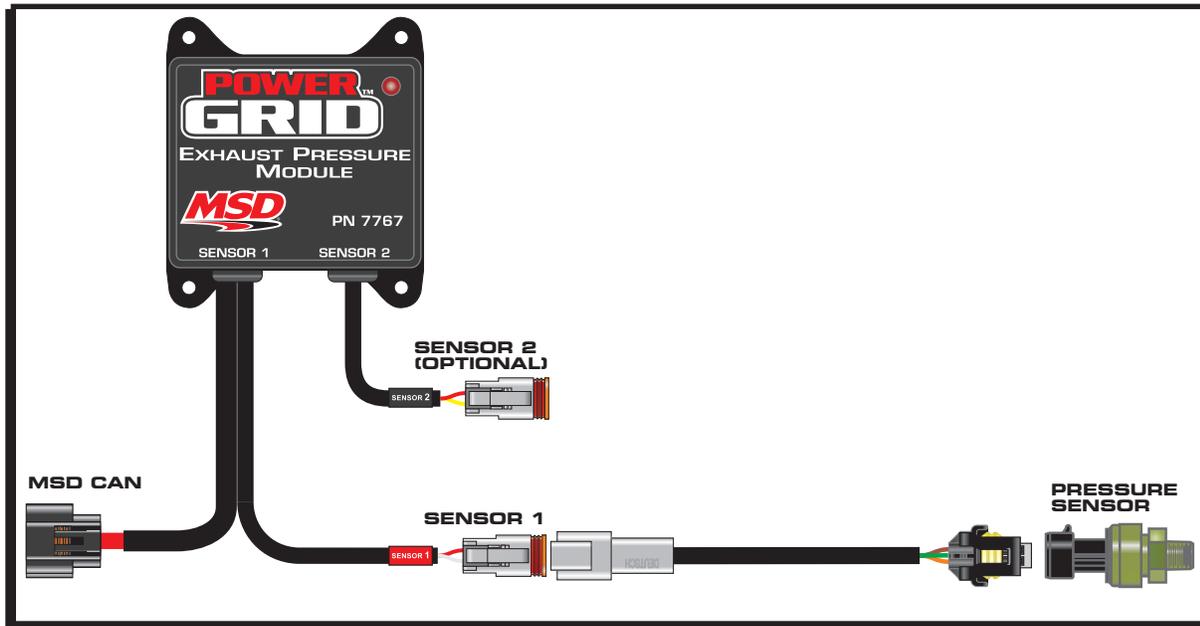


Figure 1. Exhaust Pressure Module

PRESSURE SENSOR INSTALLATION

To install the pressure sensor follow the hardware mounting instructions provided in the Exhaust Back Pressure Kit PN PK0001ERL .

INSTALLATION OF MULTIPLE DEVICES.

Important: When two Exhaust sensors are used, Exhaust Pressure 1 must be installed on the same side of the engine as the Oxygen Sensor 1 of the PN 7766, and Exhaust Pressure 2 on the same side of the engine as Oxygen Sensor 2.

Multiple Oxygen Sensor Modules, PN 7766, can be used with the Power Grid. Only one Exhaust Pressure Module should be used. When using multiple Oxygen Sensor Modules with an Exhaust Pressure Module, **all** Sensor 1 harnesses must be attached to cylinders on the same side of the engine. All Sensor 2 harnesses must be attached to cylinders on the opposite side of the engine.

MSD VIEW DATA ACQUISITION

DATA ACQUISITION

The data acquisition in this module works in conjunction with the Power Grid data recorder and can record the exhaust pressure sensor(s) installed.

When connected to the Power Grid, the pressure sensor sends the enabled data acquisition channels over the CAN BUS to be recorded by the Power Grid. Exhaust Pressure channels will be recorded at a rate of up to 10 samples per second.

MONITOR ITEMS

Under the Monitor/Gauge tabs, a real time display of the pressure sensor readings are displayed. **(Figure 3)**

DATA ACQUISITION		
Function	Value	Units
Exhaust Pressure 1	Enable	Select
Exhaust Pressure 2	Enable	Select

Figure 2. Data Acquisition

Monitor		
Name	Value	Units
Exhaust Pressure 1	0.0	PSI
Exhaust Pressure 2	0.0	PSI

Figure 3. Monitor Items

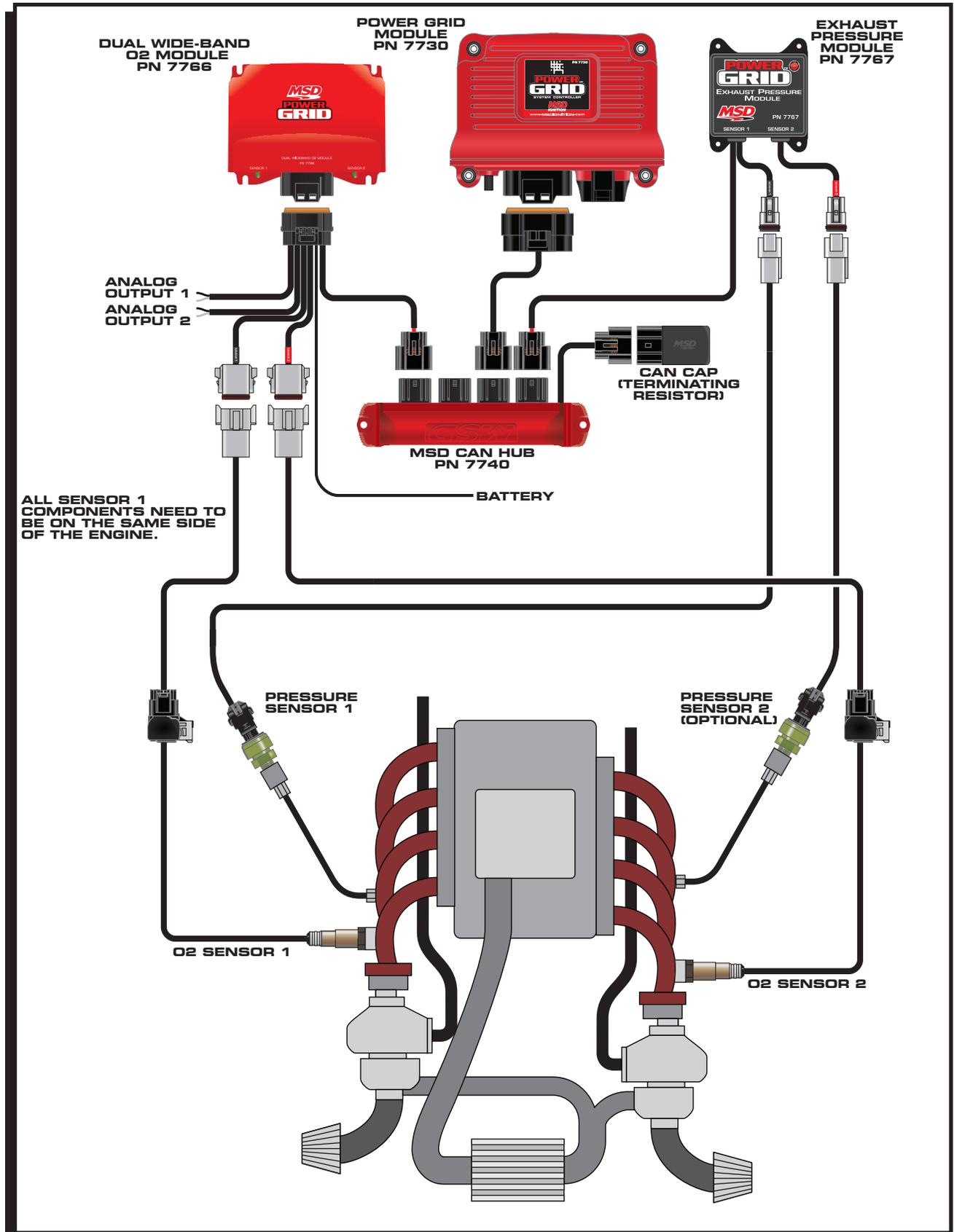


Figure 4. Exhaust Pressure Module with Dual Wide Band O2 Module PN 7766

ALERTS

Alerts can assist in trouble shooting issues that affect the operation of the Exhaust Pressure module.

The alerts window will display both active and older alerts. The alerts pop up window can be disabled by checking the 'Disable Auto Popup'

box and the history of alerts can be cleared using the 'Clear History' button. See **Table 1** for the list of alerts for the Exhaust Pressure module.

ALERTS	
ALERT	DESCRIPTION
Low Battery Voltage	Battery Voltage is Low
High Battery Voltage	Battery Voltage is High
Sensor 1 Open	Connection to Sensor 1 is open
Sensor 2 Open	Connection to Sensor 2 is open
EEPROM Error	Internal Error. Requires setting "Defaults" (under the "Edit" menu) and "Clear History". If this does not correct the error, contact customer service.

Table 1. Alerts

WIRING CHART

FUNCTION	PIN	WIRE COLOR	WIRE DESCRIPTION	NOTES
CAN	1	Black 22GA	Can Lo	Connects to Power Grid Can Bus for Power communication
	2	Gray (Yel Slv)	Can Shield	
	3	Black	Ground	
	4	Red 22GA	Can Hi	
	5	Red	Ignition 12V	
	6	Not Used	Not Used	
Pressure Sensor 1	1	Brown	Ground	Connect to Pressure Sensor (PN 2269)
	2	Orange	5V	
	3	Light Green	Signal	
Pressure Sensor 2	1	Brown	Ground	Connect to Pressure Sensor (PN 2269)
	2	Orange	5V	
	3	Light Blue	Signal	

Service

In case of malfunction, this MSD component will be repaired free of charge according to the terms of the warranty. When returning MSD components for warranty service, **Proof of Purchase** must be supplied for verification. After the warranty period has expired, repair service is based on a minimum and maximum fee.

All returns must have a Return Material Authorization (RMA) number issued to them before being returned. To obtain an RMA number please contact MSD Customer Service at 1 (888) 258-3835 or visit our website at www.msdpower.com/rma to automatically obtain a number and shipping information.

When returning the unit for repair, leave all wires at the length in which you have them installed. Be sure to include a detailed account of any problems experienced, and what components and accessories are installed on the vehicle. The repaired unit will be returned as soon as possible using Ground shipping methods (ground shipping is covered by warranty). For more information, call MSD at (915) 855-7123. MSD technicians are available from 7:00 a.m. to 5:00 p.m. Monday - Friday (mountain time).

Limited Warranty

MSD warrants this product to be free from defects in material and workmanship under its intended normal use*, when properly installed and purchased from an authorized MSD dealer, for a period of one year from the date of the original purchase. This warranty is void for any products purchased through auction websites. If found to be defective as mentioned above, it will be repaired or replaced at the option of MSD. Any item that is covered under this warranty will be returned free of charge using Ground shipping methods.

This shall constitute the sole remedy of the purchaser and the sole liability of MSD. To the extent permitted by law, the foregoing is exclusive and in lieu of all other warranties or representation whether expressed or implied, including any implied warranty of merchantability or fitness. In no event shall MSD or its suppliers be liable for special or consequential damages.

*Intended normal use means that this item is being used as was originally intended and for the original application as sold by MSD. Any modifications to this item or if it is used on an application other than what MSD markets the product, the warranty will be void. It is the sole responsibility of the customer to determine that this item will work for the application they are intending. MSD will accept no liability for custom applications.