

Pacific Performance Engineering, Inc.
www.ppediesel.com

2001-2010 GM Trucks **Pyrometer Gauge Kit** **Installation Guide**

DISCLAIMER OF LIABILITY

This is a performance product increases horsepower above and beyond factory specifications. As a result, more horsepower creates more stress on the drivetrain components, which could result in drivetrain failure. This product is intended for off-road use only. Use at your own risk.

This agreement sets forth the terms and conditions for the use of this product. The installation of this product indicates that the Buyer has read and understands this agreement and accepts the terms and conditions.

Pacific Performance Engineering Inc., its distributors, employees, and dealers (the "Seller") shall not be responsible for the product's proper use and service. The buyer hereby waives all liability claims.

The Buyer hereby acknowledges no reliance on the Sellers skill or judgment to select or furnish goods suitable for any particular purpose and that there are no liabilities which extend beyond the description on the face hereof, and the Buyer hereby waives all remedies or liabilities expressed or implied, arising by law or otherwise (including without any obligation of the Seller with respect to fitness, merchantability and consequential damages), or whether or not occasioned by the Seller's negligence. The Seller disclaims any warranty and expressly disclaims any liability for personal injury or damages. The Buyer acknowledges and agrees that the disclaimer of any liability for personal injury is a material term for this agreement and the Buyer agrees to indemnify the Seller and to hold the Seller harmless from any claim related to the item of equipment purchased. Under no circumstances will the Seller be liable for any damages or expenses by reason of use or sale of any such equipment. The Seller assumes no liability regarding the improper installation or misapplication of its products. It is the installer's responsibility to check for proper installation and if in doubt contact the manufacturer.

The Buyer is solely responsible for all warranty issues from the manufacturer.

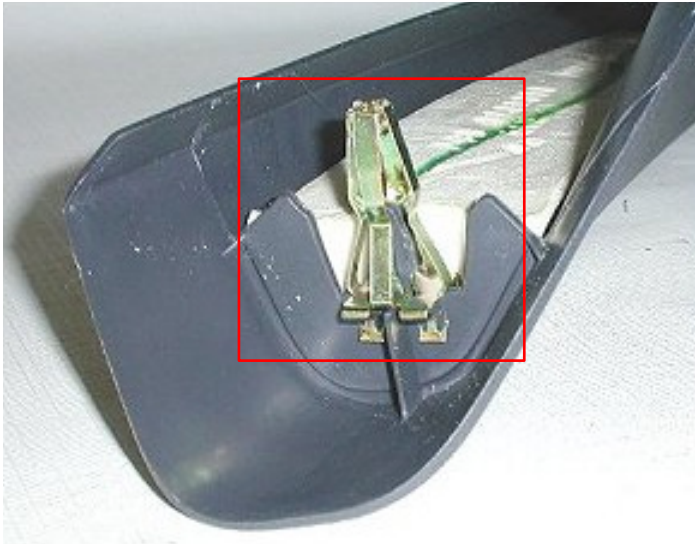
LIMITATION OF WARRANTY

The Seller gives Limited Warranty as to description, quality, merchantability, and fitness for a particular purpose, productiveness, or any other matter of Seller's product sold herewith. The Seller shall not be responsible for the products proper use and service and the Buyer hereby waives all rights other than those expressly written herein. This warranty shall not be extended, altered or varied except by a written instrument signed by Seller and Buyer. The Warranty is limited to two (2) years from the date of sale and limited solely to the parts contained within the products kit. All products that are in question of Warranty must be returned prepaid to the Seller and must be accompanied by a dated proof of purchase receipt. All Warranty claims are subject to approval by Seller. Under no circumstances will the Seller be liable for any labor charged or travel time incurred in diagnosis for defects, removal, or reinstallation of this product or any other contingent expenses.

Under no circumstances will the Seller be liable for any damage or expenses incurred by reason of the use or sale of any such equipment. In the event that the buyer does not agree with this agreement: the buyer may promptly return this product, in a new and unused condition in its original packaging, with a dated proof of purchase to the place of purchase within ten (10) days from date of purchase for a full refund. The installation of this product indicates that the buyer has read and understands this agreement and accepts its terms and conditions.

INSTALLATION:

The gauges simply press into place (no additional hardware is needed). The truck's A-pillar molding is removed by working your fingers behind the top edge, to the left of the visor, then pulling back and to the right. The metal spring clamp shown here will pull out. The bottom of the factory A-pillar molding can then be pulled straight back, while you lift the molding out of the recess in the dash.



You will need to cut an oval shaped opening in the original A-pillar molding to allow the boost pressure tube and gauge wiring to pass through. It is best to make the opening in the molding a few inches below the bottom gauge location. We have also found that a trial fit of the gauge pod to the molding will help you locate the position for the oval shaped hole. Now you will want to lay the fully assembled and painted gauge pod onto the dash. Run the boost pressure tube and all of the wiring down through the opening at the foot of the A-pillar opening in the dash, and out through the fuse-block panel access on the side of the dash.

Tip the A-pillar assembly up and onto the truck's A-pillar frame, and begin moving the pod/molding into position while taking-up any slack in the wiring and boost tube as the pillar pod is slid into place. The 6' thermo-coupler wire and boost pressure tube need to be pushed through the large rubber grommet located on the left side of the firewall. Cut a 1" slit in the boot, tape the wire/tube to a stiff rod and then push them through. This boot is double-sided, so you'll need to make a slit in both sides. Once you complete the wire/tube routing, a bead of black silicone sealer is needed to re-seal the boot around the wires and tubing. Splice into the 1/4" rubber pressure line that is part of the Duramax turbo wastegate actuator. You may need additional fittings / adaptors to make this connection. Reading boost pressure at this point will be upstream of the intercooler, which could be 1-2 PSI higher than the actual intake manifold pressure. Given the variables involved, this is as accurate as it needs to be, and is certainly easier than drilling/tapping the aluminum intake.





We chose to drill a 21/64" hole and tap it for a port in the 1/8" NPT the exhaust manifold for a more accurate exhaust temperature reading. A turbocharger can absorb anywhere between 100° and 300° F, depending on the engine RPM and load, as the exhaust heat turns into mechanical energy and spins the turbine.

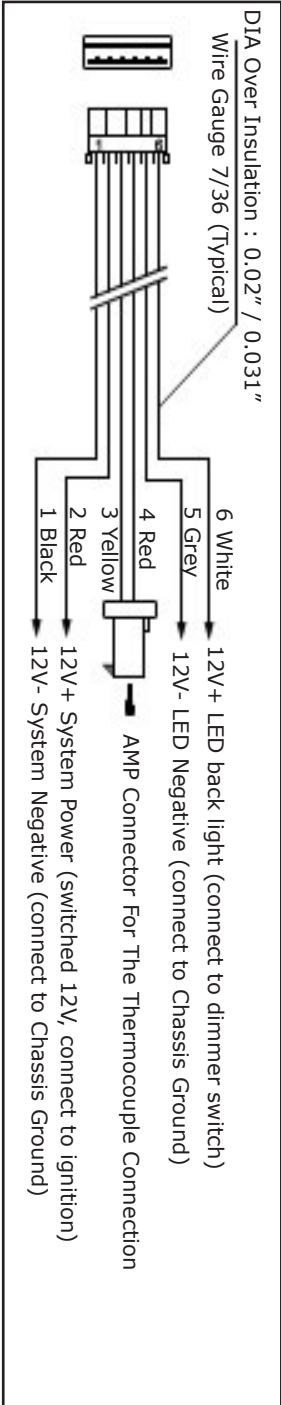
Placing the thermo-coupler in the down pipe (after the turbo) will produce more variability in temperature response and will produce a lower overall temperature. An "after the turbo" thermo-coupler location makes it more difficult to evaluate exhaust temperature.

Drilling and tapping on the upstream side of the turbocharger might be a little disconcerting, but the following method is both safe and easy. It probably wouldn't take a very large piece of metal to damage the turbine blades, but doing it correctly greatly reduces the chance of damage. Access to the passenger side exhaust manifold is through the front wheel-well.



The photo on the left shows both the power and ground connections. The ground connection used is a stud that can be double-nutted with a 6mm nut with a crimon electrical connection. Both the gauge lamp grounds and the gauge ground connections are made at this point.

6 PIN Female Molex Connector Used For Stepper Motor Pyrometer Connections





PACIFIC PERFORMANCE ENGINEERING

Pacific Performance Engineering, Inc.
303 N. Placentia Avenue
Fullerton, CA 92831

www.ppediesel.com
sales@ppediesel.com
Phone: (714) 985-4825
Fax: (714) 985-9907