

3 Gauge Diesel Set Instructions



The following instructions are for the installation of your Diesel Gauge Package, which includes a 60 PSI Boost Gauge, Exhaust Temperature Gauge and Transmission Temperature Gauge. Before you begin, lay out all items and ensure there are no missing parts. If any items are missing, please STOP immediately and contact MaxTow Gauges.

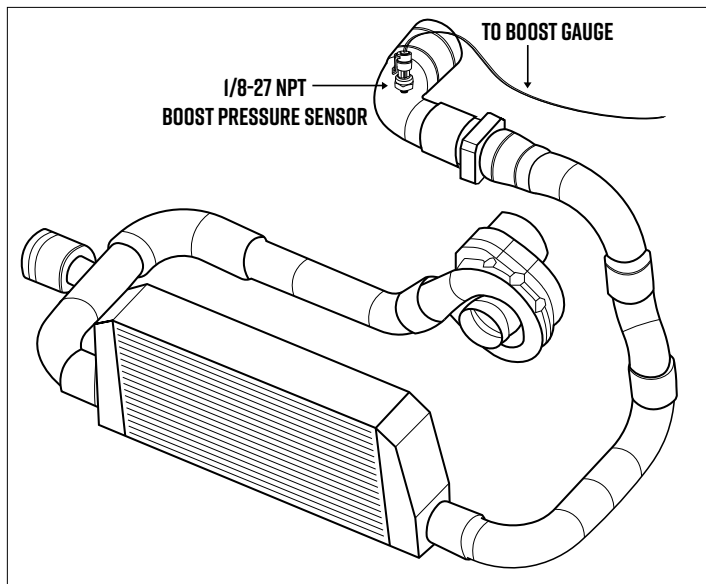
What's Included in Your DS1/DS10 Set

- 60 PSI Boost Gauge & 1/8-27 NPT Pressure Sensor
- Exhaust Gas Temperature & 1/8-27 NPT Probe
- Transmission Temperature Gauge & 1/8-27 NPT Temperature Sensor
- All Gauges come with Power and Sensor Harnesses, Mounting Bracket and Gauge Visor
- 3 Gauge Wiring Kit

⚠ WARNING Disconnect negative battery terminals before starting any work on the vehicle.

Boost Gauge

1. Determine the location in which you will install the Boost Pressure Sensor. In some applications a Boost Adapter can be used and in others you may have to drill and tap the vehicle's Intake Manifold to 1/8-27 NPT. Popular adapters are listed on page 3 which are available at MaxTow.com.



2. Thread the Boost Pressure Sensor into the Boost Adapter or the tapped hole and tighten with an **22mm wrench**.
3. Plug the Boost Pressure Sensor Harness into the Boost Pressure Sensor.
4. Route the Boost Pressure Sensor Harness through the firewall from the engine bay, keeping it clear of any moving parts and heat sources.

Wiring Schematic

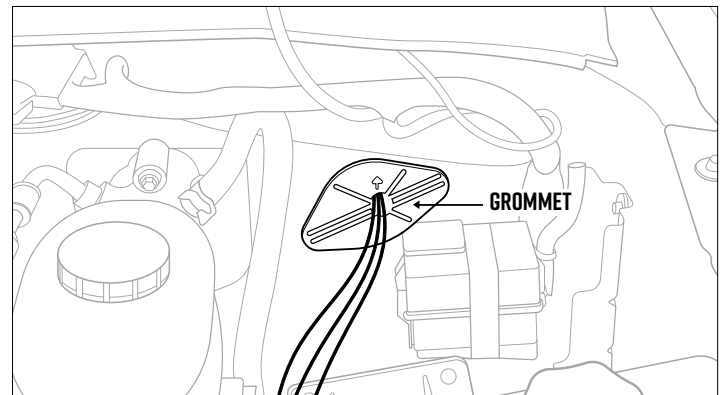
Red: 12v Constant Source (+)

White: 12v Ignition Switched Source (+)

Orange: 12v Headlight Switched Source (+)

Black: Vehicle/Engine Ground (-)

Note: Be sure to use a grommet when routing the Harness through the firewall to protect it from being cut or damaged. Make sure it is large enough to run all the Sensor Wiring into the vehicle's cabin. If one is not available you will need to drill a hole and install a grommet.



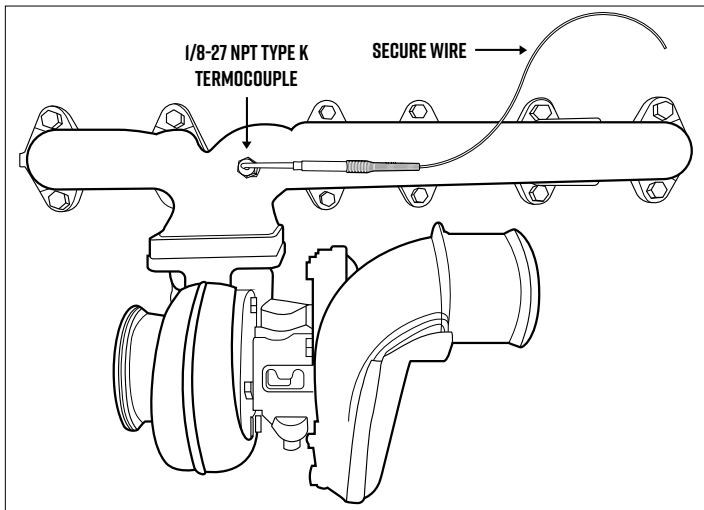
5. Plug the Boost Pressure Sensor Harness into the back of the Boost Gauge.

Exhaust Gas Temperature Gauge (EGT)

We recommend installing the probe pre-turbo for the most accurate reading. Locate a flat portion on the Exhaust Manifold. Make sure to find a location on the manifold where all cylinders flow into one before the turbo.

1. Use a punch to mark the location for drilling. Some vehicles may require removal of the Inner Fender Well, or to be raised by a lift for easier access.

Note: Some aftermarket Exhaust Manifolds may already include Exhaust Probe Ports, eliminating the need for drilling.



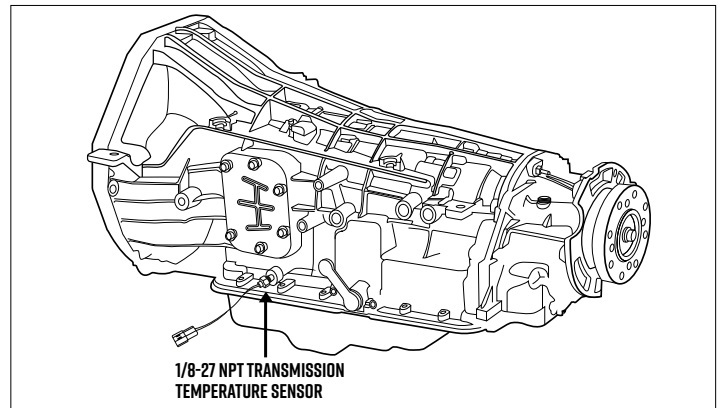
2. Starting with a **1/8" Drill Bit** drill a hole at the marked location stepping up to a size **"R" Drill Bit**.
3. Use Cutting Oil to tap the drilled hole to 1/8-27 NPT. Take caution while tapping and tap a little at a time, backing the tap up clearing any shavings that could possibly get in the way.
4. When you are done tapping, clean out all of the shavings inside the manifold or pipe using a magnet and a shop vacuum.
5. Brush Silver Grade Anti-Seize onto the threads of the Exhaust Temperature Probe Fitting and thread into the tapped hole. Tighten using a **14mm wrench**.
6. Install the Exhaust Temperature Probe into the manifold ensuring the tip of the probe is roughly halfway inside the manifold and tighten using a **14mm wrench**.
7. Plug the Exhaust Temperature Sensor Harness into the Exhaust Temperature Probe Connector.
8. Route the Exhaust Temperature Sensor Harness through the engine bay, through the firewall, using a grommet, keeping it clear of any moving parts.
9. Plug the Exhaust Temperature Sensor Harness into the back of the Exhaust Temperature Gauge.

Transmission Temperature Gauge

There are several different ways to connect a Transmission Temperature Gauge to your vehicle. In some cases an adapter is needed to adapt the 1/8-27 NPT Sensor to your automatic transmission. Please take a look at MaxTow.com for available adapters including Thread Adapters, Test Port Extenders and T-Fittings. Popular adapters are listed on page 4 which are available at MaxTow.com.

Temperature Sensor Installation

1. To install the Transmission Temperature Sensor, start by applying Teflon tape to the Temperature Sensor Threads.



2. There are three common types of Transmission Temperature Sensor installations. MaxTow recommends installing the sensor to a Test Port, Stock Sensor Location, Cooler Line, or Transmission Pan. If the thread size does not match, or if the sensor is too long, a Thread Adapter is required:

- **Transmission Test Port:** Most vehicle transmissions come equipped with a Test Port Location. This may be located on either the driver or passenger sides of the transmission near the Transmission Oil Pan. The bolt in this port should be removed and the depth of the Test Port should be verified to ensure there is a minimum of 7/8" for the Transmission Temperature Sensor to clear. If there is not enough clearance a Test Port Extender may be used in some applications.

Note: A Test Port Extender is needed on all 94-07.5 Dodge Ram trucks with a 48RE Transmission.

- **Stock Sensor Location:** Use a T-Fitting (optional) to "T" off your stock sensor location. This will allow you to keep your stock sensor installed, while also allowing you to install an Aftermarket Temperature Sensor.
- **Cooler Line:** Most vehicle transmissions have two Cooler Lines. Measure your vehicle's Cooler Line to determine what size adapter will be required. Common diameters are 5/16", 3/8", 1/2", 5/8".

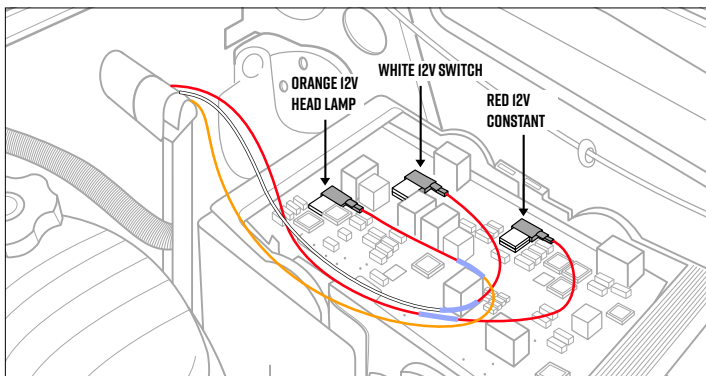
Note: Make sure to have a Catch Pan available to catch any lost transmission fluid.

3. Install the 1/8-27 NPT Transmission Temperature Sensor to your vehicle's transmission system using one of the above methods that will work best for your application, tightening the sensor using a **14mm wrench**.
4. Plug in and route the Transmission Temperature Sensor Harness through the engine bay, through the firewall, using a grommet, keeping it clear of any moving parts and heat sources.
5. Plug the Transmission Temperature Sensor Harness into the back of the Transmission Temperature Gauge.
6. Before starting the vehicle be sure to refill the transmission following the manufacturer's recommended procedures.

Gauge Wiring

1. With all of the sensor wires connected, place the gauges in the mounting location and plug in the power wiring harnesses.
2. In order to test for power, reconnect the Negative Battery Terminals.
3. It may be necessary to remove Vehicle Trim and/or Kick Panels in order to gain access to the vehicle's Fuse Box.
4. Using a Test Light, locate a Constant 12-Volt Power Source in the vehicle's Fuse Panel that receives 12-Volt Power when the ignition is turned off. You can splice into the circuit or use an optional expandable circuit, connect the **Red Wire** of the gauge to the constant 12-Volt Power Source.
5. Repeat the same step for the **White Wire** of the gauge to locate an ignition switched 12-Volt Power Source. This source should not have any power with the key turned off and have 12-Volts with the key turned on.
6. Connect the **Orange Wire** of the gauge to the Positive Headlight Switch Power Source using a Splice Connector or Expandable Circuit either in the Fuse Box or the switch itself.

Note: Make sure that the connection source does not dim. If the voltage is reduced when you lower the Dimmer Wheel it will cause the gauges to flash from not having enough voltage.



7. Locate a clean, reliable grounding source and connect the **Black Wire** from the gauges.
8. After all wiring is complete, turn the vehicle's key to the "On" position and ensure your gauges illuminate.
9. Turn on the headlights to ensure that the gauges are dimming.
10. Start vehicle and check for leaks, and top off any fluids if necessary.
11. Reinstall any panels that may have been removed.
12. Test drive your vehicle to ensure all gauges are functioning properly.

Note: The Boost Gauge will only read while under a load. Make sure to drive the vehicle in order to check the operation of the Boost Gauge.

Selectable Brightness Levels

The Double Vision Gauge Series features 3 selectable brightness settings for both day and night time lighting modes. Below are the instructions on how to program each lighting mode.

Day Mode

- Press and hold the button located on the gauge face until a d1 appears in the digital display.
- Press the button again to cycle through the 3 dimming modes.
- Press the button until you have selected your desired setting. Do not touch the button for 5 seconds and the gauge will save your selection.

Night Mode

- This mode is only available if the orange dimmer wire is connected, and your headlights are powered.
- Press and hold the button located on the gauge face until a n1 appears in the digital display.
- Press the button again to cycle through the 3 dimming modes.
- Press the button until you have selected your desired setting. Do not touch the button for 5 seconds and the gauge will save your selection.

Available Adapters

We have several adapters available on MaxTow.com in order to help with your installation. We have several vehicle specific adapters for Power Stroke, Cummins and Duramax applications as well as universal options. Some examples include:

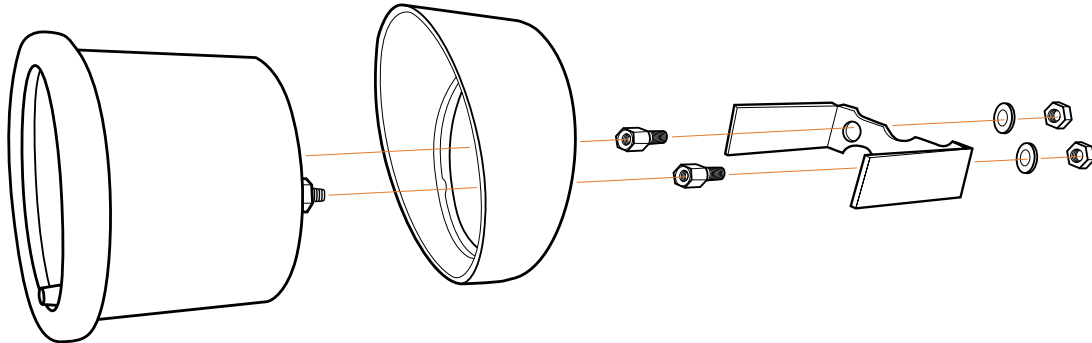
Boost

- Intake Heater Plug Adapter for a 99-02 7.3 Power Stroke and an 01-04 Duramax
- 3/16" Map Line T-fitting
- Boost Bolt Adapters for 5.9L and 6.7L Cummins and GM 6.5L Detroit

Transmission Temperature

- Test port adapters for Allison 1000, 6R140, 47RH, 47RE and 49RE
- 5/16", 3/8", 1/2" and 5/8" In line T-Fittings
- Transmission & Oil Pan Temperature Sensor Adapter Kit

Additional Information



- The supplied optional gauge visor is intended to be placed on the gauge so that the thickest part is at the top, creating a cover over the gauge to help keep sun glare off of the gauge face.
- The included mounting bracket is designed to be used on a flat universal-style mount in order to keep the gauge secure. In some cases one or both legs of the bracket may need to be modified to fit the thickness and contour of the mount. Our A-pillar gauge pods do not require the use of the mounting bracket but can be used if you desire, and there is enough space to fit it between the gauge and the gauge pod. When installing the bracket onto the gauge, make sure **not** to over-tighten as it could pull the rear studs on the back of the gauge and damage it.
- MaxTow Gauges Installation Instructions: Installation documents are solely to provide a guide for individuals that are mechanically and electronically able to install products. If you are unsure about the correct procedure of installation for a product, you should consult a licensed professional.



INSTALLATION INSTRUCTIONS

1.877.7MAXTOW • Support@MaxTow.com



ONE YEAR NON-TRANSFERABLE LIMITED WARRANTY AND DISCLAIMER

MaxTow Performance, LLC. ("MaxTow") warrants to the original retail consumer purchaser, and not any other purchaser or subsequent owner, that this Product will be free from defects in material or workmanship for a period of **one (1) year** from the purchase date.

For a period of **one (1) year** from the date of purchase, at no charge to the Purchaser, MaxTow will repair or replace this Product if it is determined by MaxTow to be defective. After the warranty period, the Purchaser must pay all charges for parts and labor.

Coverage under this warranty is only valid within the United States, including its territories, as well as in certain other countries. Purchasers should check our website, www.MaxTow.com, to determine the warranty coverage in the countries in which they are located.

MaxTow does **not warrant the installation** of the Product, which is the sole responsibility of the Purchaser. Installation should be done by licensed professionals. Improper installation may cause damage to the Product and any vehicle in which it is installed, and may cause burns and electrical injury to individuals. MaxTow's warranty does not cover any expenses incurred in removing Products that are defective or re-installing replacement Products in their place.

During the warranty period, to have the Product repaired or replaced, the Purchaser must return the Product, freight prepaid by the Purchaser, to MaxTow (but for customers in the contiguous United States, MaxTow will pay the shipping charges if any Product fails during the first thirty (30) days after purchase). The Product must be returned in its original carton or in a similar package affording an equal degree of protection. MaxTow will return the repaired or replaced Product, freight prepaid, to the Purchaser. MaxTow does not provide Purchasers with temporary replacement units during the warranty period or at any other time.

This limited warranty is non-transferable and will automatically terminate if the original retail consumer purchaser resells the Product or transfers the vehicle in which the Product is installed. An "original retail consumer purchaser" is a person who originally purchases the Product, or a gift recipient of a new Product that is in its original packaging and unopened.

This limited warranty is subject to all of the following terms and conditions:

TERMS AND CONDITIONS

1. NOTIFICATION OF CLAIMS; WARRANTY SERVICE: If Purchaser believes that a Product is defective in material or workmanship, written notice with an explanation of the claim shall be given promptly by Purchaser to MaxTow. All warranty claims must be made within the warranty period, and any Products returned to MaxTow must be shipped in accordance with MaxTow's procedures (including use of RMA numbers supplied by MaxTow after notification). The repair or replacement of any Product or part thereof shall not extend the original warranty period. The specific warranty on the repaired part only (not including gauge sensors) shall be in effect for a period of ninety (90) days following the repair or replacement of that part, or the remaining period of the Product warranty, whichever is greater. MaxTow does not provide a warranty on replacement gauge sensors.

2. EXCLUSIVE REMEDY; ACCEPTANCE: Purchaser's exclusive remedy and MaxTow's sole obligation is to supply (or pay for) all labor necessary to repair any Product found to be defective within the warranty period and to supply new or rebuilt replacements for defective parts. MaxTow will refund the purchase price for such Product only if repair or replacement fails to remedy the defect. Purchaser's failure to make a claim as provided in paragraph 1 above or continued use of the Product shall constitute an unqualified acceptance of such Product and a waiver by Purchaser of all claims thereto.

3. EXCEPTIONS TO LIMITED WARRANTY: MaxTow shall have no obligation to Purchaser with respect to any Product that is subjected to any of the following: abuse, improper use, negligence, accident, modification, failure to follow the operating procedures outlined in the user's manual, failure to follow the maintenance procedures in the service manual for the Product, attempted repair by non-qualified personnel, operation of the Product outside of the published environmental and electrical parameters, or if the Product's original identification (trademark, serial number) markings have been defaced, altered, or removed. MaxTow excludes from warranty coverage Products sold AS IS and/or WITH ALL FAULTS. MaxTow also excludes from warranty coverage any consumable items such as fuses and batteries.

All software and accompanying documentation furnished with, or as part of the Product is furnished "AS IS" (i.e., without any warranty of any kind), except where expressly provided otherwise in any documentation or license agreement furnished with the Product.

4. PROOF OF PURCHASE; REGISTRATION: The Purchaser's dated bill of sale must be retained as evidence of the date of purchase and to establish warranty eligibility. Registration of any Product or of this limited warranty is voluntary, and failure to register will not diminish any rights available under this warranty.

DISCLAIMER OF WARRANTY

EXCEPT FOR THE FOREGOING WARRANTIES, MAXTOW HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ANY WARRANTY WITH REGARD TO ANY CLAIM OF INFRINGEMENT THAT MAY BE PROVIDED IN SECTION 2-312(3) OF THE UNIFORM COMMERCIAL CODE OR IN ANY OTHER STATE STATUTE.

LIMITATION OF LIABILITY

THE LIABILITY OF MAXTOW, IF ANY, AND PURCHASER'S SOLE AND EXCLUSIVE REMEDY FOR DAMAGES FOR ANY CLAIM OF ANY KIND WHATSOEVER, REGARDLESS OF THE LEGAL THEORY AND WHETHER ARISING IN TORT OR CONTRACT, SHALL NOT BE GREATER THAN THE ACTUAL PURCHASE PRICE OF THE PRODUCT FOR WHICH SUCH CLAIM IS MADE. IN NO EVENT SHALL MAXTOW BE LIABLE TO PURCHASER FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND INCLUDING, BUT NOT LIMITED TO, COMPENSATION, REIMBURSEMENT OR DAMAGES ON ACCOUNT OF THE LOSS OF PRESENT OR PROSPECTIVE PROFITS OR FOR ANY OTHER REASON WHATSOEVER.

GOVERNING LAW: This non-transferable limited warranty shall be governed by the law of the State of New Jersey, U.S.A., and the United States of America, excluding their conflicts of laws principles. The courts of Camden County, New Jersey, shall have the exclusive jurisdiction over any legal action with respect to this warranty.

This limited warranty gives specific legal rights. You may also have other rights that may vary from state to state or from country to country. Some states or countries do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you. You are advised to consult applicable state or country laws for a full determination of rights.