

65MM 3 Gauge Set Instructions



The following instructions are for the installation of your Gauge Set. Before you begin, lay out all items and ensure there are no missing parts. If any items are missing, please STOP immediately and contact GlowShift Gauges.

What's Included

- Volt Gauge
- Water Temperature Gauge
- Oil Pressure Gauge
- 1/8-27 NPT Water Temperature Sensor
- 1/8-27 NPT Oil Pressure Sensor
- Power & Sensor Harnesses
- Mounting Brackets

Wiring Schematic

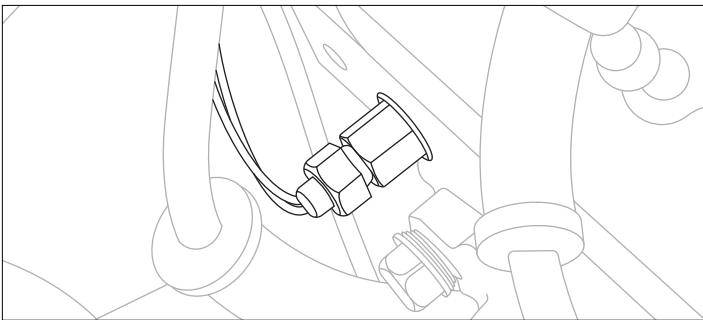
Red: 12v Ignition Switched Source (+)

Orange: 12v Headlight Switched Source (+)

Black: Vehicle/Engine Ground (-)

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

Water Temperature Installation

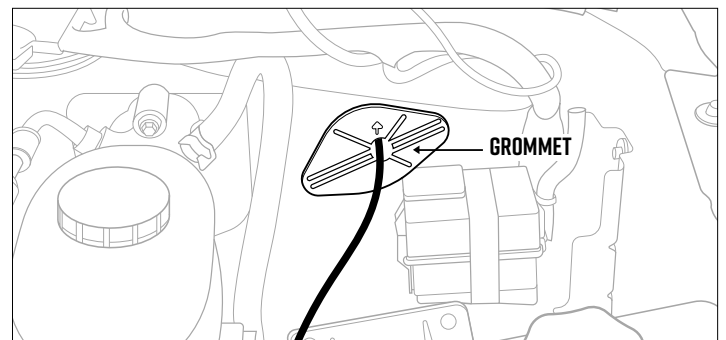


1. There are several different ways to connect a Water Temperature Gauge to your vehicle. In some cases an adapter is needed to adapt the 1/8-27 NPT Sensor.

Note: If you install the sensor after the vehicles thermostat, the gauge will not display a reading until the vehicle thermostat has been opened.

- **Coolant Fluid Port:** Identify a coolant fluid port located on your engine and remove the port plug. Directly install the water temperature sensor to the coolant port. Additional adapters may be required if the coolant port is not threaded to 1/8-27 NPT.
- **Stock Sensor Location:** Use a T-fitting 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.
- **Water Temp Adapter:** Please take a look at www.GlowShift.com for available adapters including Thread Adapters and T-Fittings. We also offer several different-sized Water Sender Hose Attachment adapters ranging from 13mm-52mm. Simply measure the inside diameter of your radiator hose and install in between two cut halves, securing it with the supplied hose clamps.

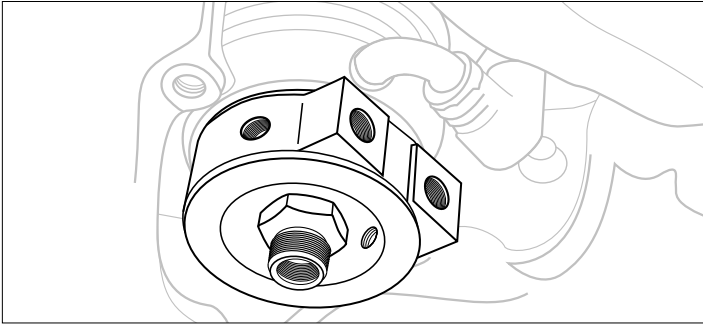
2. To install the Water Temperature Sensor, start by applying Teflon tape to the Water Temperature Sensor threads. Install the 1/8-27 NPT Water Temperature Sensor to your vehicle's system using one of the mentioned methods that will work best for your application. Tighten the sensor using a 14mm wrench.
3. Plug the Water Temperature Sensor Harness into the Water Temperature Sensor and route it through the engine bay and through the firewall keeping it clear of any moving parts and heat sources. Be sure to use a grommet when routing the Water Temperature Sensor Harness through the firewall to protect it from being cut or damaged. If one is not available you will need to drill a hole and install a grommet. An extended harness is available on www.GlowShift.com if the included harness is not long enough.



4. Plug the Water Temperature Sensor Harness into the back of the Water Temperature Gauge.
5. Before starting the engine, be sure to refill/replace any coolant lost during the installation process to the manufacturer's specifications.

Oil Pressure Installation

1. There are several different ways to connect an Oil Pressure Gauge to your vehicle. In most cases an adapter is needed to adapt the 1/8-27 NPT Sensor to your system.
 - **Oil Galley Test Port:** Some engine Oil Gallies will have a test port plug. Remove the port plug and install the supplied pressure sensor. Additional adapters may be required if the port is not threaded to 1/8-27 NPT.
 - **Oil Filter Adapter Installation:** You can purchase an Oil Filter Sandwich Adapter from www.GlowShift.com. This adapter installs between your oil filter and engine block, providing you with 4 sensor ports in which you can install the Oil Pressure Sensor.
 - **T-Fitting Installation:** Remove your stock Oil Pressure Sensor and fasten a T-fitting in its place. 1/8-27 NPT T-Fittings are available for purchase at www.GlowShift.com. Using a T-fitting allows you to "T" off of the port and open up 3 more, which then allows for the stock and GlowShift sensors to be installed and operate simultaneously.
2. Please take a look at www.GlowShift.com for available adapters including Thread Adapters, Sandwich Plates, T-Fittings and Remote Line Kits. For more detailed information please go to page #2.
3. Find the location in which you wish to install your Oil Pressure Sensor and have the adapter ready (if required).



4. Place a Catch Pan in the area where you will be working in order to catch any lost oil.
5. Drain the oil pan if needed.
6. Remove any plugs needed to gain access to the oil galley port if installing in that location.
7. Install the Oil Pressure Sensor into the desired location and tighten using a 22mm wrench.

8. Plug the Oil Pressure Sensor Harness into the Oil Pressure Sensor and route through the engine bay and through the firewall keeping it clear of any moving parts and heat sources. Be sure to use a grommet when routing the Oil Pressure Sensor Harness through the firewall to protect it from being cut or damaged. If one is not available you will need to drill a hole and install a grommet. An extended harness is available on www.GlowShift.com if the included harness is not long enough.
9. Plug the Oil Pressure Sensor Harness into the back of the Oil Pressure Gauge.
10. Before starting the engine, be sure to refill/replace any oil lost during the installation process to the manufacturer's specifications.

Detailed Oil Pressure Information

Adapters are available at www.GlowShift.com

We have adapters available that help to simplify the installation of your Oil Pressure Sensor so that you can take Oil Pressure readings:

- **Oil Filter Sandwich Adapter:** Fits between the oil filter and engine block, giving you 1/8-27 NPT ports in order to read oil pressure. Please be sure to verify your oil filter size in order to get the correct adapter.
- **Oil Cooler Adapter:** Very similar to the sandwich adapter but this adapter has a diverter plate tied directly into oil cooler specific -10AN ports that will feed and return an oil cooler, allowing you to monitor pressure from either the hot side or cold side of the cooler.
- **Vehicle Specific Adapters:** Please visit www.GlowShift.com for a full list of vehicle specific adapters that allow you to thread the gauge's 1/8-27 NPT sensor into a specific location on your engine.
- **Oil Galley Plug:** Allows you to easily install an oil pressure sensor to the engine block for accurate readings directly from the source.
- **Sensor Relocation Hose Kit:** Repositions your gauge sensor from tight areas where the sensor may not fit and moves to locations such as the firewall or fender well.

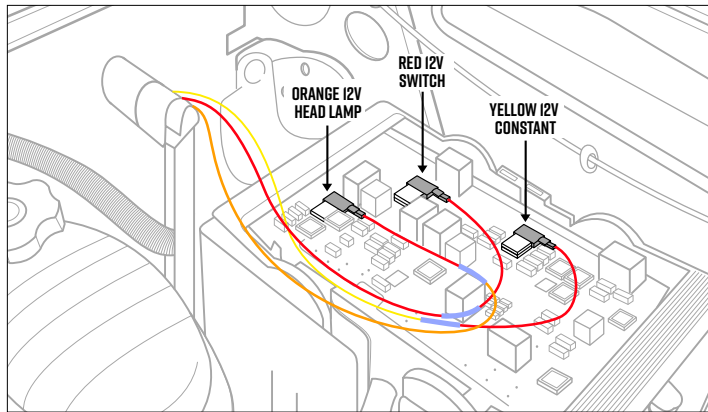
Gauge Set Wiring

1. In order to test for power, reconnect the Negative Battery Terminal.
2. It may be necessary to remove Vehicle Trim and/or Kick Panels in order to gain access to the vehicle's Fuse Box.
3. Using a Test Light, locate a Switched 12-Volt Power Source in the vehicle's Fuse Panel that receives 12-Volt power when the ignition is turned on. You can splice into the circuit or use an optional expandable circuit, connect the **Red Wires** of the gauges to the Switched 12-Volt Power Source.

Note: It is required to use an automotive grade 18-20 gauge wire and proper splice connectors when extending any of the power wires.

4. Connect the **Orange Wires** of the gauges to the positive head light switch Power Source using a Splice Connector or Expandable Circuit either in the Fuse Box or the switch itself in order to have the gauge face dim 30% when the headlights are turned on.

Note: Make sure that the connection source is **not** adjustable. If the voltage is reduced when you lower the Dimmer Wheel it could cause the gauge to flash from not having enough voltage.



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



ONE YEAR NON-TRANSFERRABLE LIMITED WARRANTY & DISCLAIMER

GlowShift Gauges, LLC ("GlowShift") 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, GlowShift will repair or replace this Product if it is determined by GlowShift 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.GlowShift.com, to determine the warranty coverage in the countries in which they are located.

GlowShift 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. GlowShift's warranty does not cover any expenses incurred in removing Products that are defective or reinstalling 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 GlowShift (but for customers in the contiguous United States, GlowShift 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. GlowShift will return the repaired or replaced Product, freight prepaid, to the Purchaser. GlowShift does not provide Purchasers with temporary replacement units during the warranty period or at any other time.

This limited warranty is nontransferable 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 & 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 GlowShift. All warranty claims must be made within the warranty period, and any Products returned to GlowShift must be shipped in accordance with GlowShift's procedures (including use of RMA numbers supplied by GlowShift 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. GlowShift does not provide a warranty on replacement gauge sensors.
 - 2. EXCLUSIVE REMEDY; ACCEPTANCE:** Purchaser's exclusive remedy and GlowShift's sole obligation is to supply (or pay for) all labor necessary to repair any Product found to be defective within the 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:** GlowShift 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 nonqualified 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. GlowShift excludes from warranty coverage Products sold AS IS and/or WITH ALL FAULTS. GlowShift 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, GLOWSHIFT 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 2312(3) OF THE UNIFORM COMMERCIAL CODE OR IN ANY OTHER STATE STATUTE.

LIMITATION OF LIABILITY

THE LIABILITY OF GLOWSHIFT, 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 GLOWSHIFT 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 nontransferable 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.