

### 7 Color 6 Gauge Custom Dashboard Set



The following instructions are for the installation of your 7 Color 6 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

- 3 3/4" Speedometer
- 3 3/4" Tachometer
- Oil Pressure Gauge
- Water Temperature Gauge
- Fuel Level Gauge
- Volt Gauge
- 1/8-27 NPT Oil Pressure Sensor
- 1/8-27 NPT Water Temperature Sensor
- Shift Light and Harness
- Speedometer Fine Tune Adjustment Tool
- Power & Sensor Harnesses
- Mounting Brackets
- Gauge Visors

#### Wire Schematic

**Yellow:** 12v Constant Source (+)

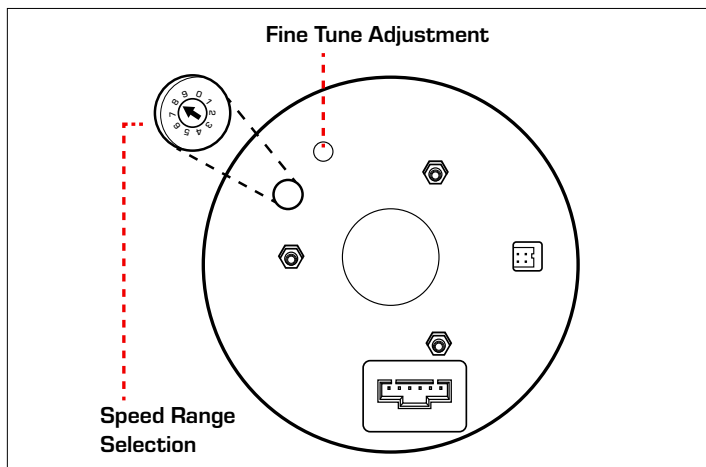
**Red:** 12v Ignition Switched Source (+)

**Orange:** 12v Headlight Switched Source (+)

**Black:** Vehicle/Engine Ground (-)

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

#### Speedometer



There are several different ways to connect a Speedometer to your vehicle. In some cases an adapter is needed to install the Speedometer to your vehicle.

- **Stock Vehicle Speed Sensor:** Locate the vehicle speed sensor usually located on the transmission. Our Speedometer reads a square wave signal.
- **GPS Speedometer Sensor:** If your vehicle does not have a vehicle speed sensor, or the output is not correct, we offer a GPS Speedometer Sensor Kit on [www.GlowShift.com](http://www.GlowShift.com). While the gauge is unplugged, be sure to switch the setting on the back of the gauge to 3 and then you can fine-tune the adjustment once fully installed. This allows a Speedometer to work on any vehicle regardless of the year, make or model.
- **16 Pulse Speedometer Sensor:** If you have a vehicle that has a mechanical GM/Mopar or Ford Speedometer cable, we offer a 16 Pulse Speedometer Sensor on

[www.GlowShift.com](http://www.GlowShift.com). This sensor will connect to the mechanical speedometer cable location and convert the revolutions to a usable electronic signal that our Speedometer is able to read. While the gauge is unplugged, be sure to switch the setting on the back of the gauge to 4 and then you can fine-tune the adjustment once fully installed.

1. Splice the green wire from the gauge to your chosen signal source.
2. Route the green Speedometer signal wire through the engine bay and firewall using a grommet, keeping it clear of any moving parts and heat sources.
3. Plug the Speedometer Power Harness into the back of the Speedometer Gauge.
4. Once all of the gauges are installed, you must drive the vehicle to adjust the speed range on the Speedometer. There are several ways to test the calibration by calculating driving speed from any free app available for download or by driving a specific distance and timing yourself to calculate speed for an approximate calibration. Please be sure to use extreme caution when calibrating the speedometer.

#### Speed Range Selection:

- Adjust the dial switch on the back of the gauge to an approximate range.

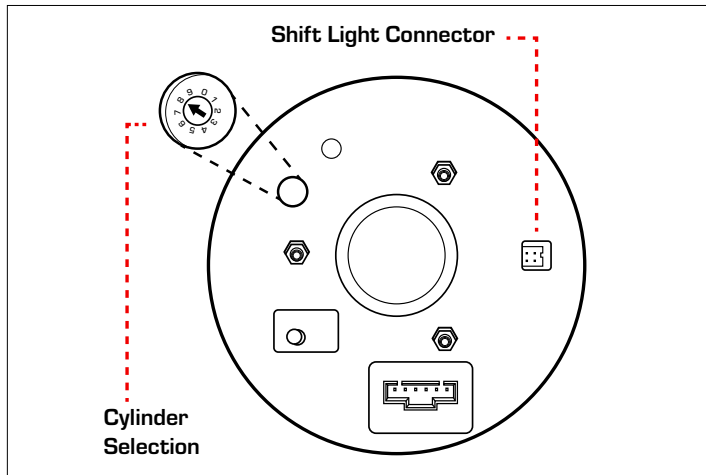
Move the switch from 0,9,8,7,6,5,4,3,2,1 to narrow the speed range.

Move the switch from 1,2,3,4,5,6,7,8,9,0 to widen the speed range.

**Note:** To ensure proper calibration of the speed range selection, unplug the power harness from the gauge, change the selection setting, and reapply power to the gauge.

- Once you have an approximate setting, fine-tune the gauge by using the adjustment knob on the back of the gauge. Turn the knob to pinpoint the exact MPH by using your calibration method or by going off of your stock gauge. If you cannot get the MPH correct, you will have to adjust the switch.

### Tachometer



There are several different ways to connect a Tachometer to your gas vehicle. In some cases, an adapter may be needed. You must consult your vehicle's repair manual to ensure you are using a proper location. If connecting to an aftermarket ignition system, be sure to follow the manufacturer's instructions for connecting a tachometer.

- Negative Side of the Coil:** Some single coil applications will allow you to connect directly to the negative side of the coil for a usable signal.
  - Tach Signal Port:** Some vehicles may have a tachometer test wire to obtain a tachometer signal. Consult your repair manual.
  - Tach Adapter:** It may be necessary to install a Tachometer Adapter if you have a multiple coil system. You can purchase a Tachometer Adapter from an auto parts distributor.
  - Tachometer Filter:** It may be necessary to use a Tachometer Filter if your vehicle has either a points style or HEI ignition system. You can purchase a Tachometer Filter from [www.GlowShift.com](http://www.GlowShift.com).
- Splice the green wire from the gauge to your chosen signal source.
  - Route the Tachometer Harness through the engine bay and firewall using a grommet, keeping it clear of any moving parts and heat sources.
  - Use the Cylinder Selection Switch on the back of the gauge to set the number of engine cylinders on the tachometer to match that of your vehicle. Do this before applying power to the gauge.

**Note:** If you need to change the cylinder selection, you must unplug the power harness from the gauge, make your selection, then reapply power to the gauge for proper calibration.

#### Cylinder Selection:

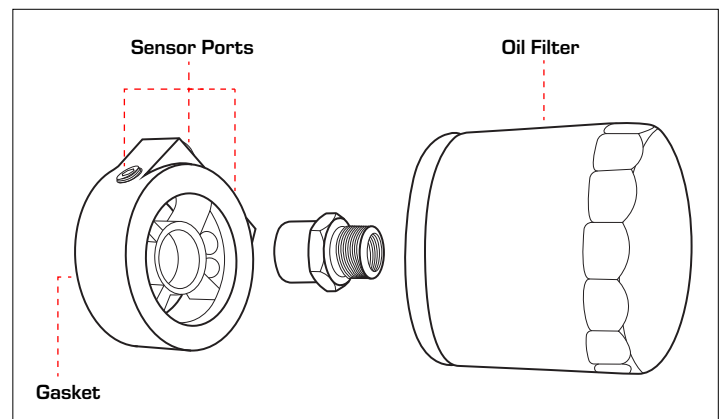
Switch#	Cylinders
0	10
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

- Plug the Tachometer Power Harness into the back of the Tachometer Gauge.

### Oil Pressure Gauge

There are several different ways to connect an Oil Pressure Gauge to your vehicle. In most cases an adapter is needed to install the 1/8-27 NPT Sensor to your system.

- Oil Galley Test Port:** Some engine oil galleys will have a test port plug. Remove the 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](http://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](http://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 while operating simultaneously. Be sure that Teflon tape is used on the sensor threads.

Visit [www.GlowShift.com](http://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 #5.

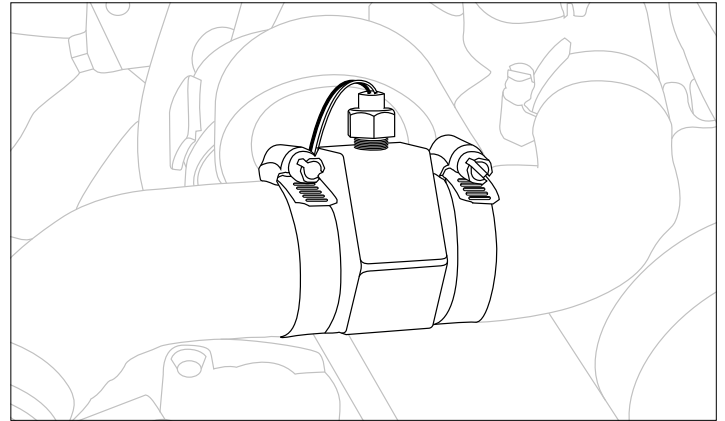
1. Find the location you will use to install your Oil Pressure Sensor and have the adapter ready (if required).
2. Place a Catch Pan in the area where you will be working in order to catch any lost oil.
3. Drain the oil pan if needed.
4. Install the Oil Pressure Sensor into the desired location and tighten using a 22mm wrench.
  - **Oil galley** - Remove any plugs needed to gain access if installing in that location.
5. 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](http://www.GlowShift.com) if the included harness is not long enough.
6. Plug the Oil Pressure Sensor Harness into the back of the Oil Pressure Gauge.
7. Before starting the engine, be sure to refill/replace any oil lost during the installation process to the manufacturer's specifications.

## Water Temperature Gauge

There are several different ways to connect a Water Temperature Gauge to your vehicle. In some cases, an adapter is needed to install the 1/8-27 NPT Sensor. If you install the sensor after the vehicle's thermostat, the gauge will not display a reading until the vehicle is at operating temperature and the thermostat has opened.

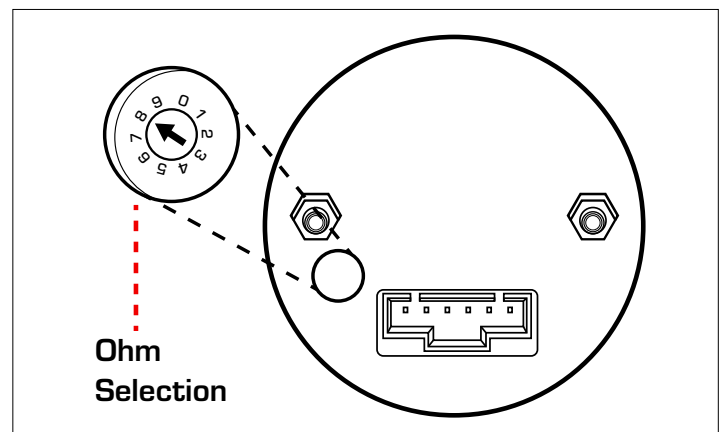
- **Coolant Fluid Port:** Locate a coolant fluid port on your engine and remove the port plug. Directly install the water temperature sensor to the coolant port. Additional adapters may be required if the coolant port is not threaded to 1/8-27 NPT.
- **Stock Sensor Location:** Use a T-fitting to "T" 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:** Visit [www.GlowShift.com](http://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.



1. 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 above methods that will work best for your application. Tighten the sensor using a 14mm wrench.
2. Splice the green wire from the gauge to the white wire of the water temperature sensor.
3. Connect the black wire of the water temperature sensor to any reliable, clean ground connection. You may also route a wire directly to the negative side of the vehicle's battery.
4. Route the Water Temperature Power Harness through the engine bay and firewall using a grommet, keeping it clear of any moving parts and heat sources.
5. Plug the Water Temperature Power Harness into the back of the Water Temperature Gauge.
6. Before starting the vehicle, be sure to refill the system following the manufacturer's recommended procedures.

## Fuel Level Gauge





# INSTALLATION INSTRUCTIONS

856.768.8300 • TechSupport@GlowShiftGauges.com

1. Run the green sensor wire from the Fuel Level Gauge Power Harness to the vehicle's fuel level sensor.
2. Use the Fuel Level Sensor Selection Switch on the back of the gauge to set the correct Ohm ( $\Omega$ ) value scale to match the rating of the vehicle's fuel level sensor. Use the chart below to reference the correct setting that applies closest to the values of your sensor. Please verify settings with a repair manual or a dealer before installation.
  - Be sure that your factory fuel level sensor is properly grounded. You may have to add a secondary ground to ensure it is properly grounded.

**Note:** If you need to change the Ohm selection, you must unplug the power harness from the gauge, make your selection, and then reapply power to the gauge for proper calibration.

"Empty" Ohm Value	"Full" Ohm Value	Switch#
N/A	N/A	0
73 $\Omega$	10 $\Omega$	1
16 $\Omega$	158 $\Omega$	2
0 $\Omega$	30 $\Omega$	3
0 $\Omega$	90 $\Omega$	4
240 $\Omega$	33 $\Omega$	5
107.5 $\Omega$	7 $\Omega$	6
131 $\Omega$	12 $\Omega$	7
0 $\Omega$	120 $\Omega$	8
10 $\Omega$	180 $\Omega$	9

3. Route the Fuel Level Power Harness through the engine bay and firewall using a grommet, keeping it clear of any moving parts and heat sources.
4. Plug the Fuel Level Power Harness into the back of the Fuel Level Gauge.

## Volt Gauge

1. There are no additional steps needed to connect the Volt Gauge. Plug the Volt Power Harness into the back of the Volt Gauge, using a grommet and keeping it clear of any moving parts and heat sources.

## Gauge Wiring

**Note:** Reference wire diagram on page #5

1. With your Gauge Sensor Harness and Signal Wires all connected, plug in the power harnesses and place the gauges in the mounting locations.
2. In order to test for power, reconnect the Negative Battery Terminal.
3. It may be necessary to remove the Vehicle Trim and/or Kick Panels in order to gain access to the vehicle's Fuse Box.

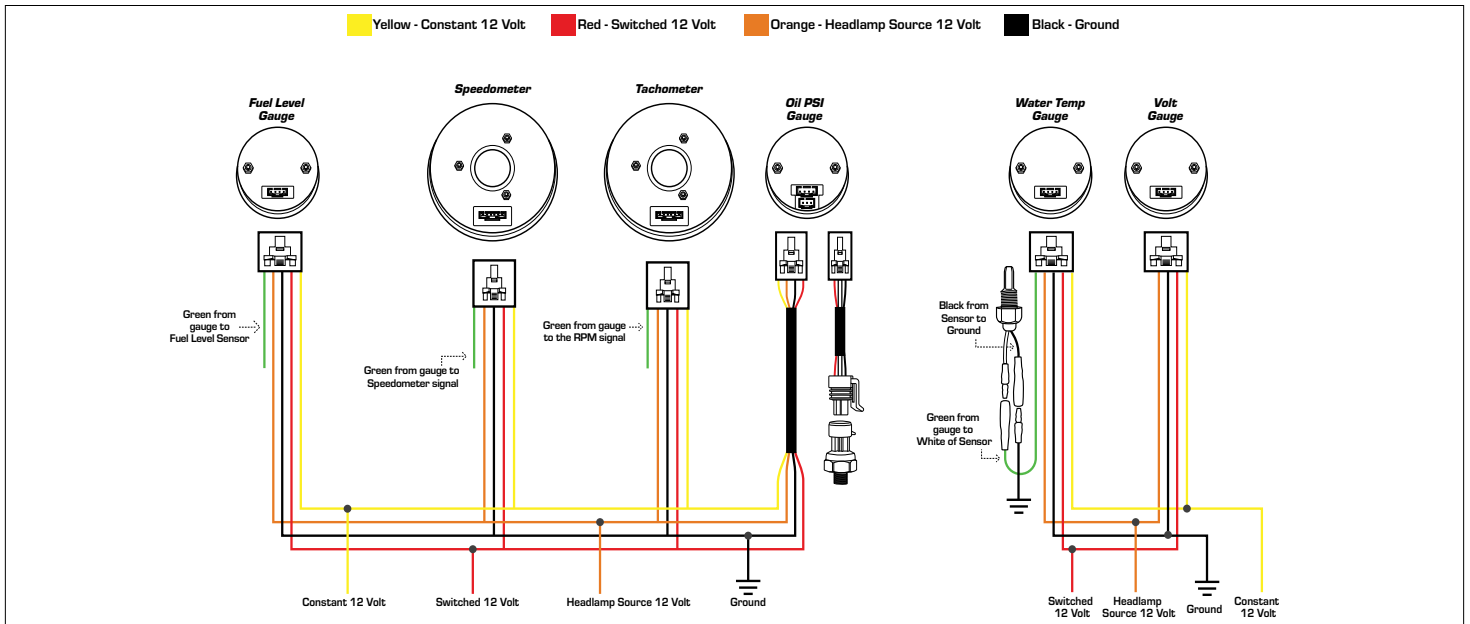
4. Using a test light, locate a constant 12-Volt power source in the vehicle's fuse panel that receives 12- Volt power when the ignition is turned off. You can splice into the circuit or use an optional Expandable Circuit. Connect all of the Yellow Wires from the gauges to the Constant 12-Volt Power Source.

**Note:** It may be easier to connect all the wires of the same color together and run 1 common wire to your source.

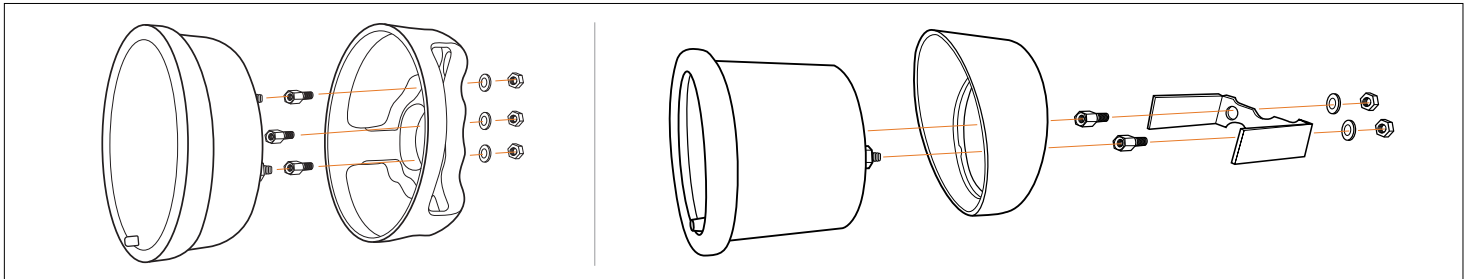
5. Repeat the same step for the Red Wires from the gauges to locate an Ignition Switched 12-Volt Power Source. This source should not have any power with the key turned off and have 12 Volts with the key turned on.
6. Connect the Orange Wires from the gauges to the positive Headlight Switch Power Source using a Splice Connector, either in the fuse box or at the switch itself.

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

7. Locate a clean, reliable grounding source and connect the Black Wires from the gauges.
8. After all wiring is complete, turn the vehicle's key to the "On" position and confirm that your gauges are illuminating.
9. Press the COLOR Changing Button on your gauges and scroll through the 7 Color options as well as the Color Change and Color Fade option: this will allow you to have the Gauge Faces change between all of the colors automatically.
10. Turn on the headlights to ensure that the gauges are dimming.
11. Reinstall any panels that may have been removed.
12. Ensure your gauges are functioning properly.



### 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 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 it can be used if you desire and if there is enough space for it to fit 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.
- GlowShift 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 for the installation of a product, please consult a licensed professional.

### Detailed Pressure Information

- 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 (4) 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 -AN10 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](http://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 to locations such as the firewall or fender well and away from harmful vibrations of the motor that could cause inaccurate readings.



## 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](http://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.