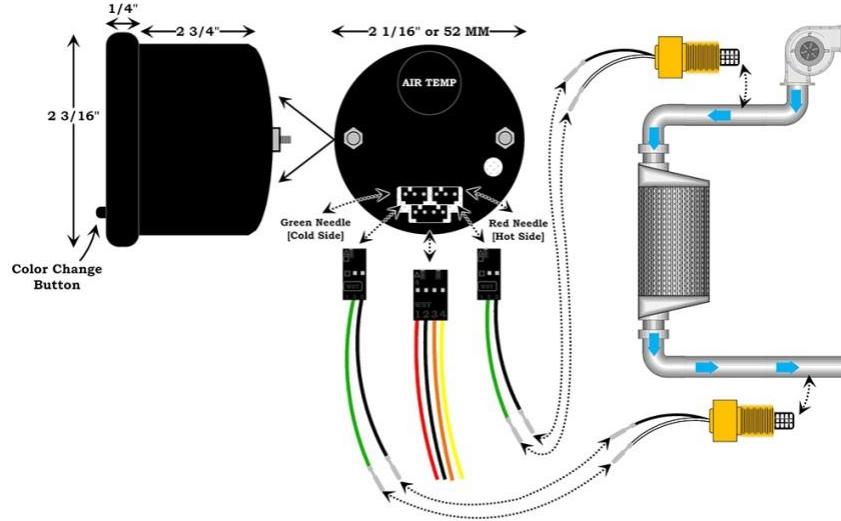


## 7 Color Series Dual Air Intake Temperature Gauge

For Product Numbers: GS-T720, GS-C720, GS-W720



### Wire Harness Color Code

<b>Red:</b> 12v Ignition Source (+) ( <b>switched</b> )	<b>Black:</b> Connects to black wire on sensor
<b>Yellow:</b> 12v Constant Source (+) ( <b>un-switched</b> )	<b>Green:</b> Connects to white wire on sensor
<b>Black:</b> Vehicle Ground (-)	<b>Black:</b> Connects to black wire on sensor
<b>Orange:</b> 12v Switched Headlamp Source (+) ( <b>optional</b> )	<b>Green:</b> Connects to white wire on sensor

1. Disconnect the vehicle's negative battery cable.

### Pre-Intercooler (Hot Side) and Post Intercooler (Cold Side) Sensor Installation

1. Locate either the hot or cold side intercooler pipe and mark the spot where you are going to install the sensor with a scoring tool.

#### Mounting Locations:

- The hot side sensor should be installed after the turbo and before the intercooler.
- The cold side sensor should be installed after the intercooler and before the intake.

**Note:** To make the installation of the sensors easier, you may want to remove the section of the pipe you are installing the sensor to.

2. Start the sensor installation by drilling a small pilot hole in your hot/cold pipe in the location you marked with the scoring tool.

3. Once you drilled your pilot hole, slowly increase the size of the hole until you reach an end drill bit size of 37/64ths.

**Note:** Be sure to use an industrial vacuum while drilling the hole to the correct size. Doing this will allow you to clean out the metal shavings that are caused from drilling.

4. Once the hole in the hot/cold pipe has been drilled to 37/64ths, tap the hole to 3/8-18NPT. This will allow you to screw the sensor directly into the pipe.

**Note:** If the pipe wall is too thin to tap, you will have to weld a 3/8-18NPT bung to the pipe to install the sensor. We recommend a professional installation if you need to weld the bung to the pipe.

5. Now that your pipe(s) is tapped to 3/8-18NPT or your 3/8-18NPT bung is installed, you can install your sensors.

#### Connecting the Power Wire Harness

1. Connect both green and black sensor wire harnesses to the back of the gauge.

**Note:** Looking at the back of the gauge, the top left connection is for the green (cold side) needle and the top right connection is for the red (hot side) needle.

**Note:** Once the wires are connected, it's a good idea to label them to avoid confusion when connecting to the sensors.

2. Once the wires are connected to the back of the gauge, run them to both sensor mounting locations and connect them to the sensors. The green wire on the harness connects to the white wire on the sensor, while the black wire on the harness connects to the black wire on the sensor.

**Note:** When passing the sensor wires through the firewall be sure there is a grommet installed so the wires do not get cut or pinched.

**Note:** When extending the sensor wires, use 18 gauge automotive grade wire.

5. Using automotive grade wiring (18 gauge); connect the **yellow wire** to a positive 12 volt **constant (un-switched)** source either on the vehicle or in the fuse box.

- **Note:** If you are connecting the yellow wire directly to the battery, you **MUST** install a 3 amp fuse within 6-8 inches of the battery connection.

6. Using automotive grade wiring (18 gauge); connect the **red wire** to a positive 12 volt **ignition (switched)** source. It may be connected to the fuse panel, an accessory wire, or any positive 12 volt source that turns on and off with the ignition.

7. Using automotive grade wiring (18 gauge); connect the **black wire** to any good (unpainted) ground connection. You may also route a wire directly to the negative side of the vehicle's battery.

8. The Night Time Dimming feature decreases the brightness of the gauge face by 30%. Connect the **orange wire** to the 12 volt positive headlamp source. This allows the mode to be activated when the headlights come on. This step is optional and will not affect operation of the gauge if it is omitted.

- **Note:** Do not connect the orange wire to a dimmer wheel. This will cause the gauge lighting to flicker.

9. Reconnect the vehicle's negative battery cable.

- If your gauge(s) do not illuminate or do not recall your last saved color, your switched and un-switched sources are reversed.
- If your gauge(s) only illuminate red then the yellow wire for constant source is not connected properly.
- Be sure all of your wiring is correct to ensure proper gauge operation.

*Additional Installation Information & Material Requirements*

- **GlowShift Gauges Approved Conductor Wires:** Successfully installing GlowShift Gauges may require lengths of wire (sizes and quantity depend on vehicle, gauge type, gauge location and / or sensor location). For correct and proper GlowShift Gauge installation and operation, the use of 18 Gauge (wire diameter) automotive grade conductor wire with sheathing is recommended for one or more gauges per vehicle. When installing and routing wires from the engine compartment, to inside the vehicle cabin, always employ the use of a rubber grommet. This will prevent and deter the stripping of power supply and / or sensor wires that is necessary to deliver vital statistics about your engine to your GlowShift engine monitoring instruments. Never use wire nuts to fasten or bound vehicle / gauge or sensor wiring. Always use securing crimp connectors or solder individual wire junctions together for optimum gauge installation and operation.
- **GlowShift Gauges Approved Installation Accessories:** GlowShift Gauges may require the installer or user to provide additional products, accessories or adapters for the correct installation and operation of a gauge or sensor, as per the GlowShift Installation Instructions. When installing and routing hoses to or from the engine compartment, to inside the vehicle cabin, always employ the use of a rubber grommet. This will prevent and deter the stretching or pinching of hoses that is necessary to deliver vital statistics about your engine to your GlowShift engine monitoring instruments.
- **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 of installation for a product or device, you should consult a licensed professional.

**ONE YEAR NON-TRANSFERRABLE LIMITED WARRANTY AND 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 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 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 non-transferrable 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 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 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. 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 2-312(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 non-transferrable 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.