

INSTALLATION INSTRUCTIONS MECHANICAL GAUGES

2650-1606-00 Rev. B

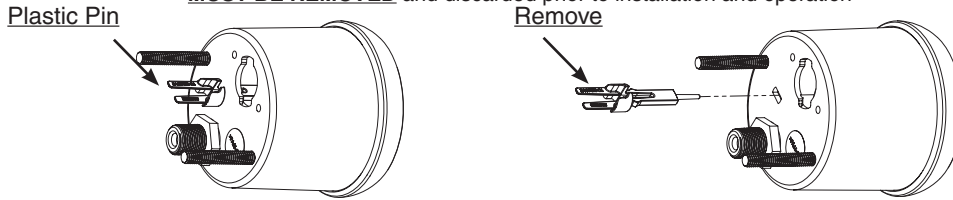


QUESTIONS:

If after completely reading these instructions you have questions regarding the operation or installation of your instrument(s), please contact Auto Meter Technical Service at 866-248-6357. You may also email us at service@autometer.com. Additional information can also be found at <http://www.autometer.com>

ON MECHANICAL VAC/BOOST GAUGES

To maintain proper calibration during shipping, the pointer of this gauge is held off zero by a plastic "pin" inserted into the gauge case and movement. This pin **MUST BE REMOVED** and discarded prior to installation and operation



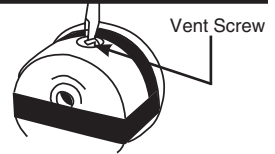
VENTING FOR LIQUID FILLED GAUGES ONLY

Auto Meter's Pro Comp Liquid Filled Gauges are equipped with a vent screw on the top of the case. Internal case pressure can change due to altitude, barometric pressure, and temperature, causing an inaccurate or "off zero" reading on more sensitive low pressure gauges such as 0-15 psi fuel pressure, vacuum, boost, and vacuum/boost gauges. To prevent this it is recommended that the gauge be vented.

With the vent screw in the upright position, turn the screw two turns counterclockwise to equalize the gauge case pressure. This allows the gauge to breathe and self adjust.

OVER-TIGHTENING OF VENT SCREW WILL DAMAGE THREADS.

GAUGE READING	CONDITION
1 PSI Low	30° F. Temp. Rise
1 PSI High	2000 Ft. Altitude Increase



Note on Ultra-Nite (Glow In The Dark)

The glow in the dark coating on the dial of the Ultra-nite gauge may turn gray if exposed to direct sunlight for extended periods of time. When the car is not being used and will be in direct sunlight for long periods of time, place the provided red plastic cover on the gauge.

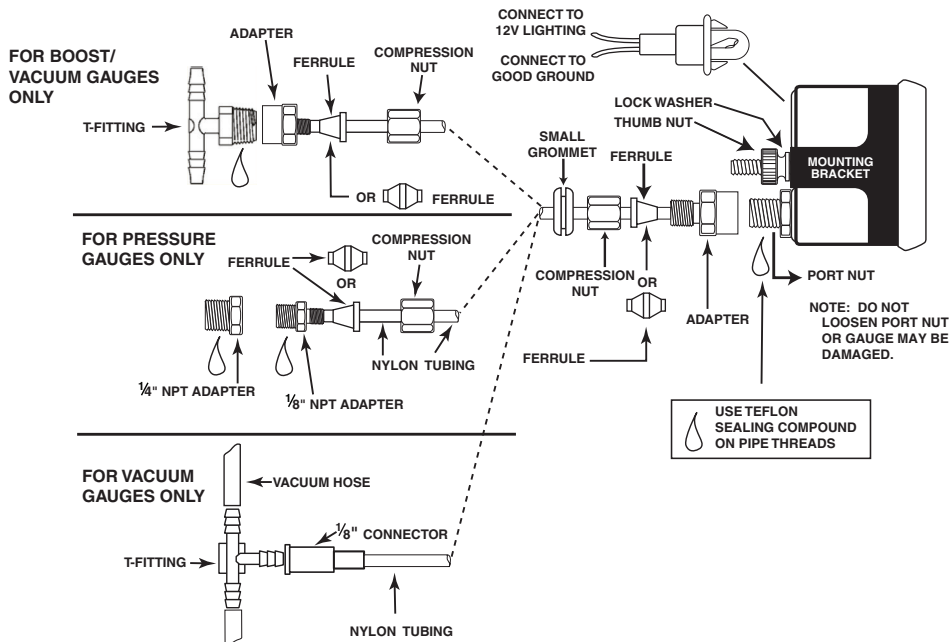
LED REPLACEMENT KITS ARE SOLD ONE PER PACKAGE

3284-Red LED Replacement Kit, 3285-Green LED Replacement Kit, 3286-Blue LED Replacement Kit, 3287-Amber LED Replacement Kit, 3288-White LED Replacement Kit

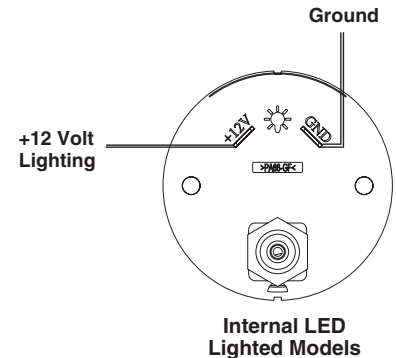
Metric Adapters

If this product is to be installed on a vehicle requiring metric fittings, please contact your local Auto Meter dealer to purchase metric adapters. A complete listing of the fittings available can be found in our catalog or online at <http://www.autometer.com>

PRESSURE, VACUUM & BOOST GAUGES



NOTE: DO NOT OVER TIGHTEN ADAPTER FITTING OR GAUGE MAY BE DAMAGED.

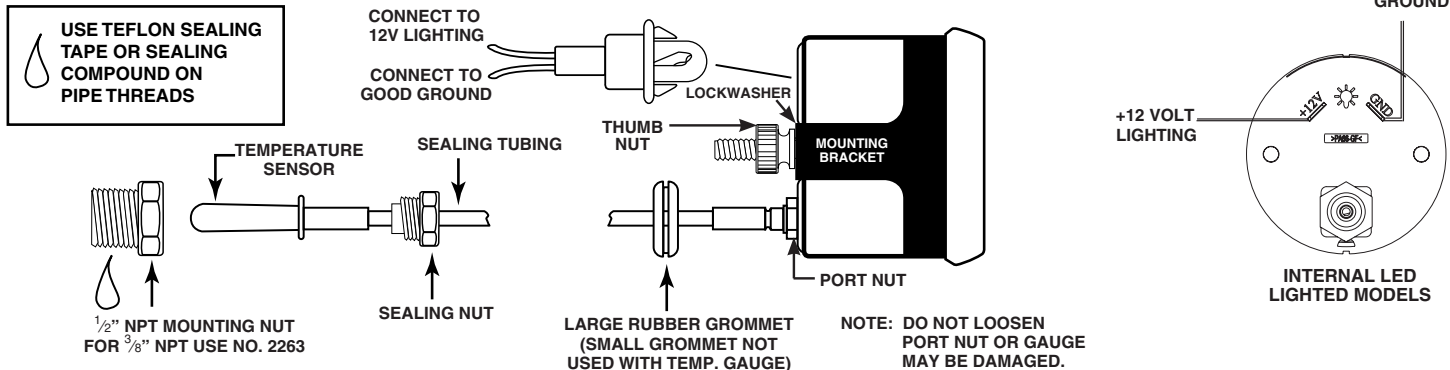


NOTE: Some late model vehicles use electronic sensors in their pressure and temperature senders for engine control functions. Before removing the original sender, we recommend that you contact your automotive dealer to be sure no critical functions will be disrupted. With pressure gauges, it is beneficial to add a T-fitting to install your new gauge and to keep the warning light operational. This allows you to monitor the pressure and still have a warning light to indicate emergency conditions.

- Gauges may be mounted in In-dash holes, or in Auto Meter custom mounting Solutions. Secure gauge with mounting clamps supplied. 2-1/16" gauges mount in 2-1/16" diameter hole, 2-5/8" gauges mount in 2-5/8" diameter hole.
- Drill 3/8" dia. holes and install rubber grommet where pressure or vacuum line passes through sheet metal, such as firewall.

- Attach nylon pressure line to fitting on back of gauge using adapter, ferrule, and compression nut as shown in diagram above. Route line through grommet to engine compartment. Connect line to pressure port on engine by using 1/8" adapter (1/4" if needed), ferrule and compression nut for pressure gauges or 1/8" connector and T-fitting for vacuum gauges.
- Make sure line is free from hazard of moving parts or hot engine components. It is recommended that Auto Meter 3224 copper tubing kit be used where a potential hazard exists.
- Start engine and thoroughly check installation for leaks.
- Twist in light socket assembly and connect one wire to dash lighting circuit or other 12V power source and the other wire to a good ground.

TEMPERATURE GAUGES



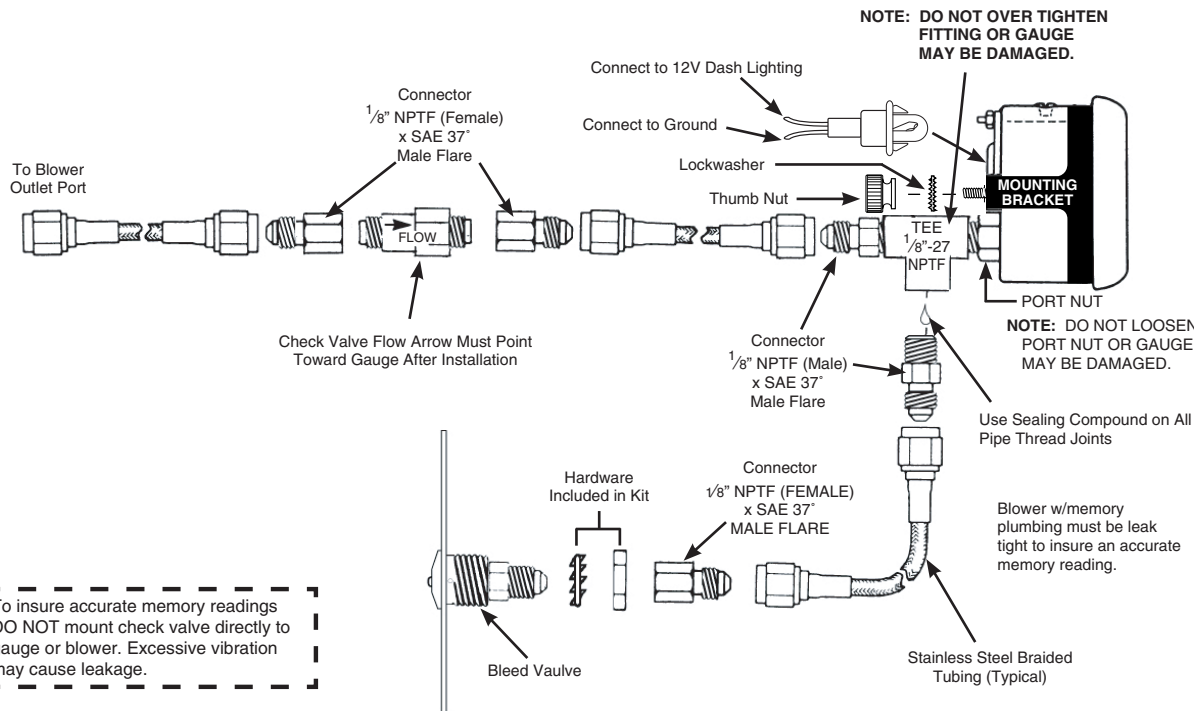
NOTE: Some late model vehicles use electronic sensors in their pressure and temperature senders for engine control functions. Before removing the original sender, we recommend that you contact your automotive dealer to be sure no critical functions will be disrupted.

- Gauge may be mounted in-dash or in the Auto Meter custom mounting solutions. Secure gauge with mounting clamps supplied. 2-1/16" gauges mount in 2-1/16" diameter hole, 2-5/8" gauges mount in 2-5/8" diameter hole.

CAUTION: DO NOT make severe bends in the capillary tubing. It may break internally, thus, voiding the warranty. DO NOT remove capillary tubing from gauge.

- Cut a 7/8" dia. hole in firewall. Place grommet on capillary tubing. A slit must be made in the grommet to accomplish this. Route sensing bulb through firewall and secure grommet in the 7/8" hole.
- Insert and tighten mounting nut in the 1/2" NPT port on engine. (For engines with a 3/8" NPT port use Auto Meter adapter # 2263). Insert temperature sensing bulb in the mounting nut and carefully tighten sealing nut, while holding mounting nut. The Oil Temperature gauge usually requires drilling a hole and welding the Auto Meter # 2261 steel weld fitting in the oil pan. Be sure to check for adequate internal clearances for the temperature sensing bulb. Install temperature sensing bulb as described above.
- Make sure gauge tubing is free from hazard of moving parts or hot engine components.
- Start engine and thoroughly inspect installation for any leaks.
- Twist in light socket assembly and connect one wire to dash lighting circuit or other 12V power source and the other wire to a good ground.

BLOWER WITH MEMORY



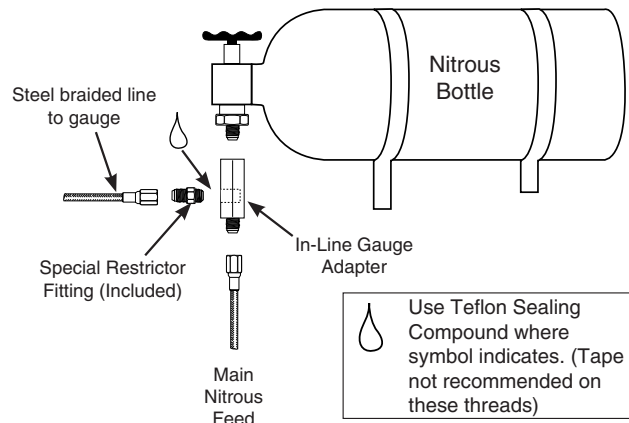
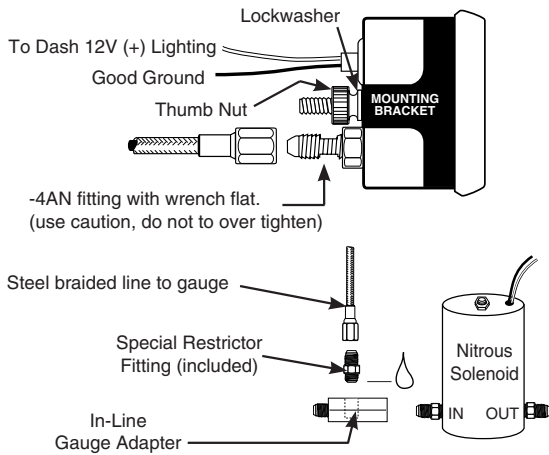
NOTE: To insure accurate memory readings DO NOT mount check valve directly to gauge or blower. Excessive vibration may cause leakage.

- Secure two 1/8"-27 NPTF x #4 SAE 37" flare connectors to the 1/8"-27 NPTF tee as shown in the installation above.
NOTE: The connector flare (37) must be compatible with the ends on the stainless steel braided tubing. Auto Meter braided stainless steel tubing no. 3227 and 3228 include #4 SAE 37" flare female swivel ends.
- Drill 3/8" dia. hole and install rubber grommet where pressure line passes through firewall into engine compartment.
- Secure two 1/8"-27 NPTF female x SAE 37" male flare connectors to the check valve as shown above. Secure the check valve and connector assembly to one end of a length of braided stainless steel tubing.
NOTE: The arrow on the check valve must be pointing toward the gauge as shown in the diagram above.
- Secure the opposite end of the tubing and check valve assembly to the tee on the back of the gauge. Route the pressure line through the firewall into the engine

compartment. Connect another length of braided stainless steel tubing between the check valve and the blower outlet port.

NOTE: Keep line clear of moving parts or hot engine components.

- Secure a 1/8"-27 NPTF female x SAE male flare connector to the bleed valve.
- Using the nut and lock washer provided, secure the bleed valve and connector assembly in-dash or wherever it is convenient for the driver.
- Connect length of braided stainless steel tubing between the tee on back of gauge and the bleed valve.
- Start engine and thoroughly check for any leaks. When engine is shut off, gauge should not leak down until bleed valve is pushed. If gauge leaks, check and tighten all connections.
- Connect the WHITE light wire to dash lighting circuit or other 12V source. Connect the BLACK light wire to a good engine ground. (which applicable)



Use Teflon Sealing Compound where symbol indicates. (Tape not recommended on these threads)

FUEL PRESSURE GAUGES (W/ ISOLATOR)

1. Install gauge and tubing assembly in an in-dash hole that is 2-1/16" in diameter for 2-1/16" models and 2-5/8" diameter for 2-5/8" models. Gauge may also be mounted in Auto Meter Accessory underdash panels. Securely mount gauge using mounting bracket provided. If mounting gauge is somewhere other than in-dash or underdash, you may be required to fabricate necessary provision.
2. Isolator must be mounted in engine compartment. **(DO NOT mount on firewall per NHRA/IHRA rules.)** Drill two 1/64" dia. holes in desired location. Mount isolator mounting bracket using the bolts, lockwashers, and nuts provided. **Gauge and isolator should be mounted at the same height to insure accurate readings. If not mounted level with each other, the fluid weight will cause a slight accuracy error.**
3. Drill a 7/8" dia. hole in firewall in line with center of mounting bracket. Route the braided tubing through hole into engine compartment.
4. With filled portion of isolator in upright position, remove dust plug. Pull braided tubing through center of isolator bracket and hold end in upright position. Remove dust plug and quickly thread braided tubing into isolator port (be careful not to spill any fluid).

* Bleed Screw

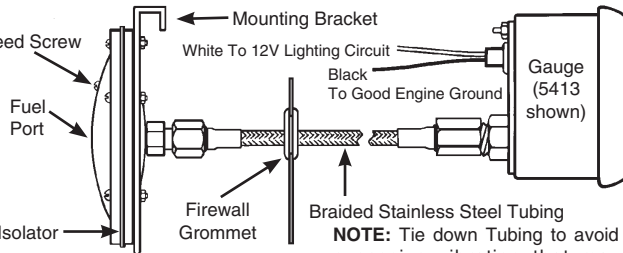
Should excess air in the fuel side of the isolator cause erratic gauge action, bleed excess air out by just loosening the bleed screw enough to allow air passage. Do not remove the bleed screw. Tighten screw when fuel trickles out.

See NHRA/IHRA rulebook, or your sanctioning body for specific position requirements.

7/16" - 20 Adaptor

Fuel Line
Braided Stainless Steel Tubing
(Purchased separately. Auto Meter Model No. 3227 or 3228 is recommended).

* Bleed Screw

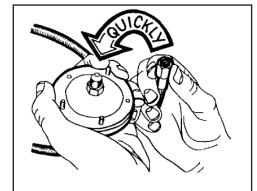


WARNING
Isolator must be mounted in engine compartment.

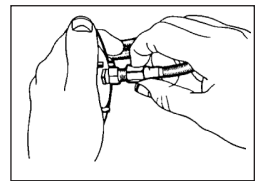
- NOTE:** Fluid leaking from system will cause gauge to read incorrectly. If leakage occurs, fill isolator with solution of half water, half propylene glycol (antifreeze). Repeat Step 4.
5. Secure fuel pressure isolator to mounting bracket using the lockwashers and nuts provided.
 6. Slit rubber grommet provided and position in firewall hole so braided tubing holds firmly in place.
 7. Determine most desirable location (in line between fuel pump and carburetor) to plumb into fuel system. Thread necessary adaptor fittings into fuel side of isolator.
- NOTE:** Use thread sealant on all pipe threads to insure a leak free seal.
8. Tee isolator into vehicle's fuel system. We highly recommend that Auto Meter braided stainless steel tubing (Models 3227, 3228, or 3229) be used for this application.
 9. With engine running, check to make sure gauge pointer moves in a smooth manner and reads the correct idling pressure.
 10. Connect white light wire to dash lighting circuit or other 12V source. Connect black wire to good engine ground.

IMPORTANT:

Gauge and isolator should be mounted at the same height to insure accurate readings. If not mounted level with each other, the fluid weight will cause a slight accuracy error.



WARNING
Tubing is sealed with fluid inside. **DO NOT DISMANTLE ASSEMBLY.** Read instructions before installing gauge.



TUBING AND HOSE

3222	Nylon Tubing, 10ft., 1/8" dia. w/ Ferrules Only for mech. press. gauges up to 200 psi (except fuel press gauges).	3228	Braided Stainless Steel Hose, 6ft. #4, 3/16" ID Fittings For mech. press. gauges. Recommended for fuel press. gauges.
3223	Nylon Tubing, 10ft., 1/8" dia. w/ Fittings & Ferrules Only for mech. press. gauges up to 200 psi (except fuel press. gauges).	3229	Braided Stainless Steel Hose, 4ft. #4, 3/16" ID Fittings For mech. press. gauges. Recommended for fuel press. gauges.
3226	Nylon Tubing, 12ft., 1/8" dia. For mech. press. gauges (except fuel or brake press. gauges).	3234	Braided Stainless Steel Hose, 3ft. #3, 3/16" ID Fittings For mech. press. gauges. Recommended for fuel press. gauges.
3224	Copper Tubing, 6ft., 1/8" dia. For mech. press. gauges (except fuel or brake press. gauges).	3235	Braided Stainless Steel Hose, 4ft. #3, 3/16" ID Fittings For mech. press. gauges. Recommended for fuel press. gauges.
3227	Braided Stainless Steel Hose, 3ft. #4, 3/16" ID Fittings For mech. press. gauges. Recommended for fuel press. gauges.	3236	Braided Stainless Steel Hose, 6ft. #3, 3/16" ID Fittings For mech. press. gauges. Recommended for fuel press. gauges.

SERVICE

For service send your product to Auto Meter in a well packed shipping carton. Please include a note explaining what the problem is along with your phone number. If you are sending product back for Warranty adjustment, you must include a copy (or original) of your sales receipt from the place of purchase.

12 MONTH LIMITED WARRANTY

AUTO METER Products, Inc. warrants to the consumer that all AUTO METER High Performance products purchased from an Authorized AUTO METER Reseller will be free from defects in material and workmanship for a period of twelve (12) months from date of the original purchase. Products that fail within this 12 month warranty period will be repaired or replaced at AUTO METER's option, when determined by AUTO METER that the product failed due to defects in material or workmanship. This warranty is limited to the repair or replacement of parts in the AUTO METER High Performance product and the necessary labor done by AUTO METER to effect the repair or replacement of the AUTO METER High Performance product. In no event shall AUTO METER's cost to repair or replace an AUTO METER High Performance Product under this warranty exceed the original purchase price of the AUTO METER High Performance Product. Nor shall AUTO METER Products, Inc. be responsible for special, incidental or consequential damages or costs incurred due to the failure of an AUTO METER High Performance Product. This warranty applies only to the original purchaser of the AUTO METER High Performance Product and is non-transferable. This warranty also applies only to AUTO METER High Performance Products purchased from an Authorized AUTO METER Reseller. All implied warranties shall be limited in duration to the said 12 month warranty period. Breaking the instrument seal, improper use or installation, accident, water damage, abuse, unauthorized repairs or alterations voids this warranty. AUTO METER disclaims any liability for consequential damages due to the breach of any written or implied warranty on all products manufactured by AUTO METER Products, Inc. For a comprehensive listing of Un-Authorized Auto Meter Resellers please visit www.autometer.com/autometerlocator/index/unauthorized.

FOR SERVICE SEND TO: **AUTO METER PRODUCTS, INC.** 413 W. Elm St., Sycamore, IL 60178 USA (866) 248-6357

Email us at service@autometer.com