



Preliminary Steps

1. Read instructions thoroughly. The installation of this product requires the expertise of a trained automotive mechanic. Please consult a qualified mechanic if you have not had training in the proper installation of instruments.
2. Determine ideal mounting location. Choose a location that will not obstruct visibility or impair driving. Consult your vehicle's repair manual to locate:
 - A. Water temperature port
 - B. 12V ignition switch or fuse box
 - C. Oil pressure port
3. Consult your vehicle's manual to determine the best route for tubing to follow. Choose a path free from hazard of moving parts or hot engine components.
4. Disconnect negative (-) battery cable. Do not allow cable to touch battery or any metal.

NOTE: Disconnecting battery ground may require you to re-program your radio station and clock after re-connection.
5. Hold the console in desired mounting location and use as a template to mark drill holes on the underside of dash.
6. Drill holes with an $\frac{1}{8}$ " drill bit and mount bracket under dash using self-tapping screws and flat washers provided.

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

NOTE: 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.

Important Assembly Procedures To Follow

1. Tighten nuts and lock washer that secure the gauge mounting bracket. Be sure they are not so tight as to bend or distort mounting bracket.
2. **Electrical Connections**
Install additional wiring and hardware as shown in diagrams below. Now tighten the outer nut while holding the inner nut. This is the only correct procedure and must be followed to insure safe electrical connections. This applies to both the gauge and sender connections.
3. Make sure wires are not rubbing against metal or each other.

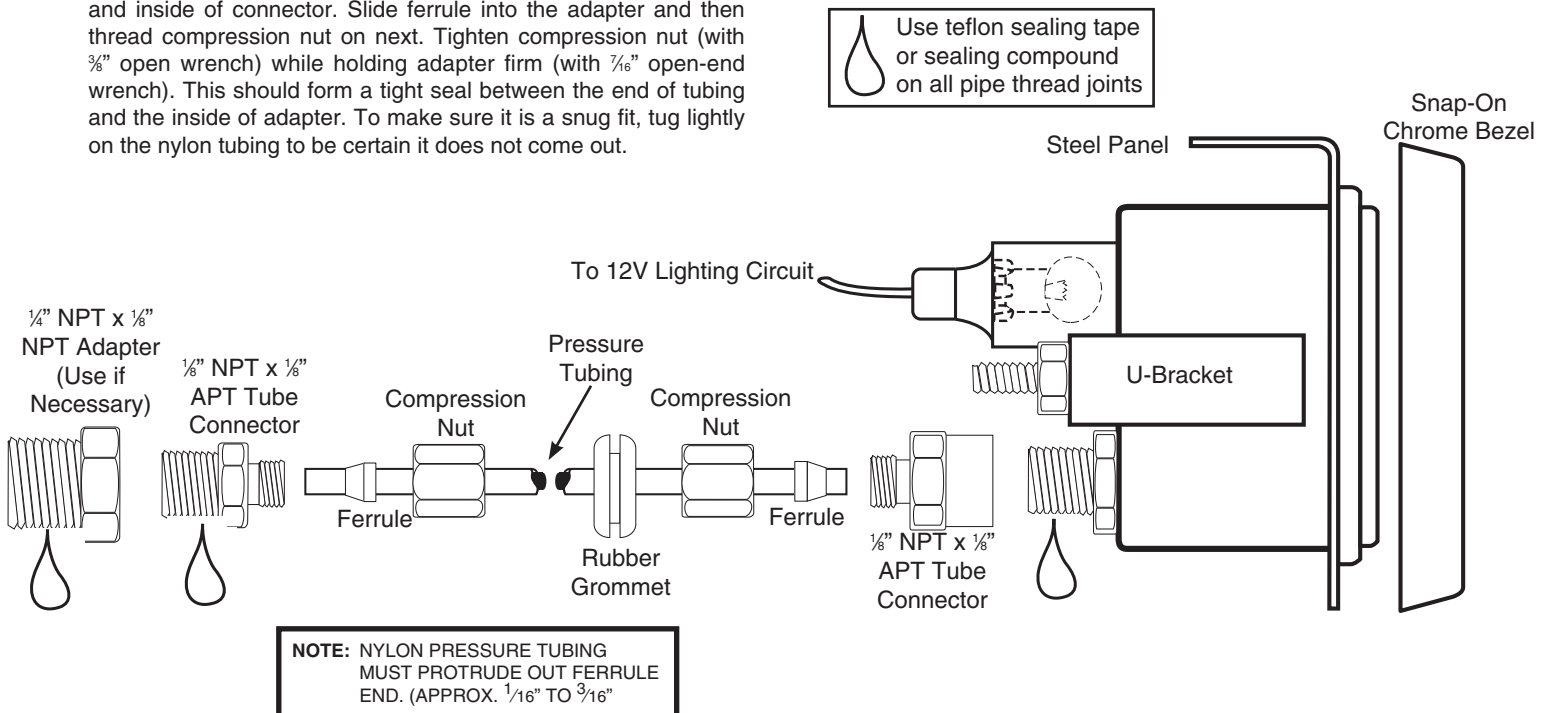
NOTE: Install gauges when engine is cool.

Oil Pressure

1. Drill a $\frac{3}{8}$ " dia. hole in the firewall. Install a rubber grommet provided in firewall to insulate tubing where it passes through sheet metal.
2. Remove existing oil pressure sender. (For computerized vehicles, see caution in Preliminary Steps.) Install $\frac{1}{8}$ " NPT adapter with $\frac{7}{16}$ " open-end wrench in this location using sealing compound on pipe threads. If $\frac{1}{4}$ " NPT adapter is needed, install it first with $\frac{9}{16}$ " open-end wrench. Be sure to hold $\frac{1}{4}$ " adapter while tightening $\frac{1}{8}$ " NPT tube connector firmly with $\frac{7}{16}$ " open-end wrench.
3. To help prevent leaks, be sure the end of the nylon tubing is cut cleanly. Insert end of tubing into the $\frac{1}{8}$ " NPT tube connector. Apply pressure to maintain constant bond between end of tubing and inside of connector. Slide ferrule into the adapter and then thread compression nut on next. Tighten compression nut (with $\frac{9}{16}$ " open wrench) while holding adapter firm (with $\frac{7}{16}$ " open-end wrench). This should form a tight seal between the end of tubing and the inside of adapter. To make sure it is a snug fit, tug lightly on the nylon tubing to be certain it does not come out.

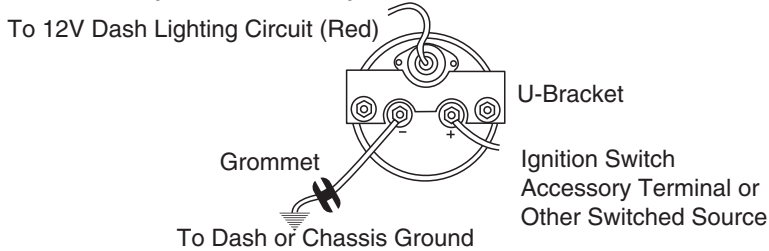
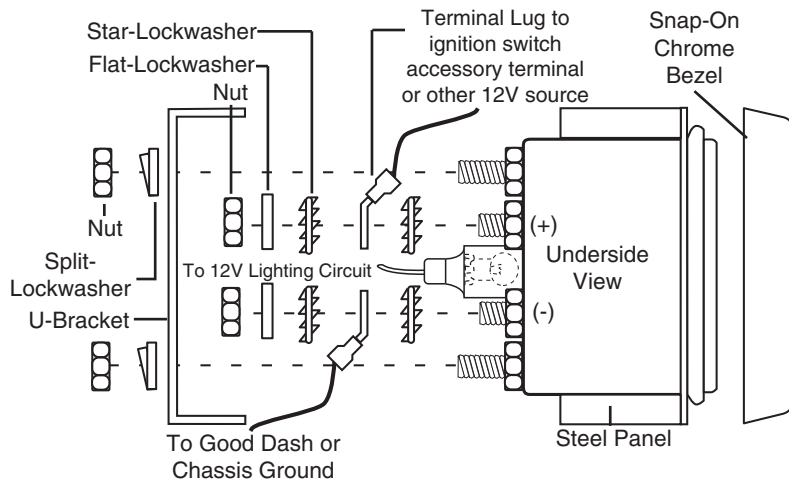
4. Route tubing through small grommet in firewall and cut to meet mounted panel (leave one foot extra length before cutting). Try to avoid potential hazard of moving parts or hot engine components.
5. Secure gauge in mounted panel using U-bracket.
6. Using sealing compound (and $\frac{9}{16}$ " open-end wrench), attach $\frac{1}{8}$ " NPT female adapter to back of gauge. Slide compression nut and ferrule on this end of tubing and tighten in the same manner described in step 3. (Use $\frac{9}{16}$ " and $\frac{3}{8}$ " open-end wrenches.)

See final procedures to complete installation.



Voltmeter

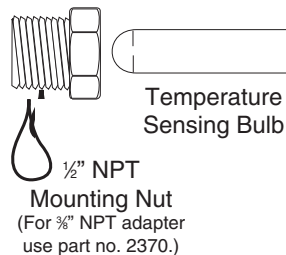
1. Negative (-) battery cable should remain disconnected.
2. Fasten voltmeter in metal panel using U-bracket, two split-lockwashers, and two #10 nuts. Tighten firmly, but do not bend or distort brackets.
3. Cut two lengths of 18-gauge wire. Auto Meter Kit No. 2217 (18-gauge) is recommended. One wire is for connecting gauge to fuse box, the other connects to good engine ground. Strip insulation back ¼" on one end of each wire. Attach terminal lug and wire to positive (+) terminal on back of gauge as shown above. Connect other end of this wire to appropriate 12V source at fuse box. Attach the ground wire to negative (-) terminal on back of gauge as shown above and connect other end to good dash or chassis ground bolt.
CAUTION: Be careful not to touch 12 volt wire to negative (-) terminal on back of gauge or the instrument will be damaged.
See final procedures to complete installation.



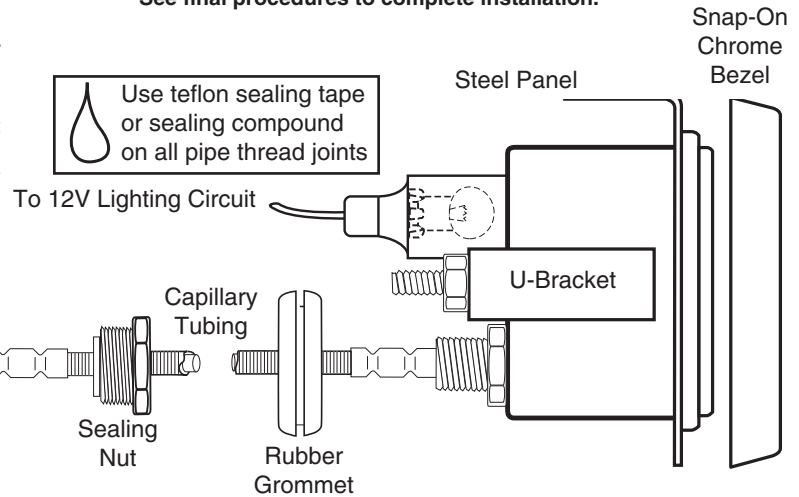
Water Temperature

1. Drain antifreeze from **cooled** radiator into a container. *Never drain hot coolant!* Save antifreeze to refill radiator after installation.
2. Drill a 7/8" dia. hole in the firewall and route temperature sensing bulb through mounted panel first and then through firewall. Install a rubber grommet provided in firewall hole to hold gauge tubing in place.
3. Using sealing compound on threads, insert and tighten mounting nut in the ½" NPT port in engine. (Use 7/8" open-end wrench.) If port opening is not ½" NPT, purchase proper adapter at an auto parts store. Insert temperature sensing bulb into mounting nut and carefully thread the sealing nut into the mounting nut. Be sure to hold the mounting nut securely (with 7/8" open-end wrench) while tightening sealing nut (with 5/8" open-end wrench). Check that tubing is free from hazard of moving parts or hot engine components.
4. Refill radiator with coolant.

NOTE: Whenever removing temp. sensing bulb, loosen sealing nut but **DO NOT** allow mounting nut to rotate. Rotation may break capillary tubing, thus voiding warranty.



5. Secure gauge in mounted panel using U-bracket.
See final procedures to complete installation.



Final Procedure

1. Insert light bulb and socket assembly into back of gauge. Connect red lighting wire to 12V power source in dash lighting circuit. Light socket is grounded through gauge case. It may be necessary to attach a separate ground wire between the case stud and good engine ground if light does not operate.
2. Reconnect negative(-) battery cable. Re-program your clock and radio if necessary.
3. Wrap a clean rag around fittings on back of oil pressure gauge and place a pan on the floor under them to protect vehicle interior from potential leaking oil. Start the engine and run for 30 seconds. Shut off engine and check rag for leaks. If none appear, start engine again and visually check all connections for leaks.

SERVICE

For service send your product to Auto Meter in a well packed shipping carton. Please include a note explaining what the problem is, the year and model of your vehicle, engine size, etc. and 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 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 to the consumer, when it is determined by Auto Meter Products, Inc. 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 instruments. In no event shall this warranty exceed the original purchase price of the Auto Meter instruments nor shall Auto Meter Products, Inc. be responsible for special, incidental or consequential damages or costs incurred due to the failure of this product. Warranty claims to Auto Meter must be transportation prepaid and accompanied with dated proof of purchase. This warranty applies only to the original purchaser of product and is non-transferable. 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 Products, Inc. disclaims any liability for consequential damages due to breach of any written or implied warranty on all products manufactured by Auto Meter.

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