

1 PREPARATION FOR INSTALLATION

1. Read instructions completely before installation. Seek the advice of a professional if you are not familiar with the installation of vehicle instrumentation or the functions of related vehicle systems.
2. Install gauges only when engine is cool and ignition is off.
3. Make sure all necessary tools, materials, and parts are on hand.

4. Always read the vehicle's service manual and follow it's safety precautions.

5. Disconnect negative (-) battery cable before installing gauges (**do not forget to reconnect battery after installation is complete**).

NOTE: It may be necessary to reprogram your radio, clock, etc. after reconnecting the battery.

2 MOUNTING AND INSTALLATION

NOTE: Additional mounting options (pillar mount, console mount, etc.) and hardware are available for some gauges.

A. PANEL INSTALLATION

For On-Dash or Under-Dash mounting (panel is optional with some gauge models and must be purchased separately).

1. Determine the mounting location for the gauge.
2. Using gauge panel as a template, mark locations for screws.
3. Drill small holes for the screws and secure panel with screws and flat washers provided.

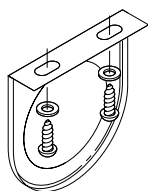


Figure 1. Gauge Panel

B. IN-DASH MOUNTING OPTION

1. Determine a location on the dashboard that can be cut out without striking any objects behind the dash.
2. Using a hole template, cut out a 1-1/2" (3,8 cm), 2" (5,1 cm) or 2-5/8" (6,7 cm) hole, as necessary, through the dashboard.
3. Using a round file, smooth out the rough edges around the drilled hole.

C. INSTALLING GAUGE INTO GAUGE PANEL OR IN-DASH

1. Insert gauge through front of panel or hole in dashboard.
2. Hold gauge case and rotate gauge, as needed, until gauge dial face is properly positioned in front of dashboard/panel.
3. Tighten locking ring on gauge in clockwise direction until gauge is tight against dashboard/panel. Tighten locking ring **HAND TIGHT ONLY**.

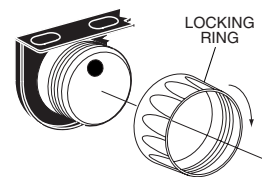


Figure 2. Gauge Equipped with Locking Ring

3 GAUGE LIGHT INSTALLATION AND CONNECTION

NOTE: Depending on the model of gauge, backlighting color may be changed to either red, green or blue by installing the optional color filter over the bulb (not available for all gauge kits).

1. Insert the light bulb and socket assemblies into the light receptacles on the back of the gauge and press firmly to snap/lock into place.

NOTE: Wire for gauge lights must be purchased separately. Use size 18-20 AWG stranded copper wire.

2. Splice the RED or WHITE wire from the gauge light(s) into the vehicle's lighting circuit, between the dimmer control switch and the dash lights (consult the vehicle's service manual for proper wire).

3. Connect light socket BLACK wire to a good chassis ground.
4. Insulate all splices and connections with shrink tubing to prevent shorting.

WARNING: For bulb replacement use only part # 161 Instrument/Indicator wedge type bulbs available at most auto parts stores. **DO NOT USE ANY OTHER PART NUMBER SINCE THE HEAT PRODUCED BY A HIGHER WATTAGE BULB WILL MELT THE GAUGE CASE AND CREATE A FIRE HAZARD.**

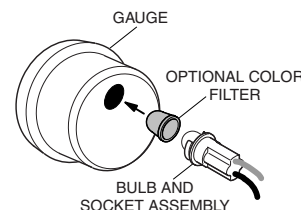


Figure 3. Light Bulb Installation

4 GAUGE CONNECTION

Install Vacuum/Boost gauge as described in Section 2, MOUNTING AND INSTALLATION.

Determine routing for pressure line. Use an existing firewall grommet or drill a 3/8" (9,5 mm) diameter hole through firewall to accommodate pressure line. Install a rubber grommet (purchased separately) in hole, to protect lead wires from chaffing or other damage. Use Teflon tape (purchased separately) on all adapter threads to prevent leaks.

NOTE: The pressure fitting instructions that follow are for the installation of gauges that have a BOOST function. If the gauge you are installing does **not** have a BOOST function, simply connect the vacuum tubing to the back of the gauge fitting, and then to an existing intake manifold vacuum hose using the "T" fitting. No pressure tubing is needed for vacuum gauges that do not have a BOOST function, and the section of the instructions describing pressure fitting connections can be disregarded.

MAKING CONNECTION TO GAUGE

1. Connect nylon pressure tubing to gauge using compression sleeve and compression nut provided. Tighten compression nut until tubing is secure. See Figures 4 and 5.
2. Route nylon tubing through grommet in firewall.

MAKING CONNECTION TO VEHICLE

- Some vehicles are factory equipped with a tapped hole on the intake manifold that is suitable for the Boost/Vacuum gauge nylon tubing connection. If your vehicle is equipped with a suitable tap on the intake manifold follow the directions for "Option One - Intake Manifold Connection" (Figure 4).

NOTE: Make sure this is a vacuum port, and not a coolant port.

- On vehicles without a tap on intake manifold, locate an existing vacuum line where a "T" fitting can be utilized and follow the directions for "Option Two - Existing Vacuum Line Connection" (Figure 5).
- IF YOUR VEHICLE DOES NOT HAVE A TAPPED HOLE ON THE INTAKE MANIFOLD, AND A SUITABLE VACUUM LINE IS NOT AVAILABLE, CONSULT A PROFESSIONAL FOR INSTALLATION OF THIS TYPE OF GAUGE.

Option One - Intake Manifold Connection

See Figure 4 and follow the instructions below:

1. Remove plug from tapped hole on intake manifold and install 1/8" - 27 NPT or 1/4" - 18 NPT adapter, as required, in tapped hole.

NOTE: Additional adapters must be purchased separately.

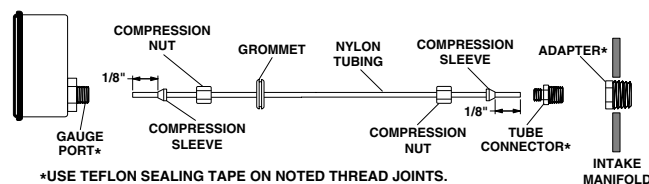


Figure 4. Boost/Vacuum Gauge - Intake Manifold Connection

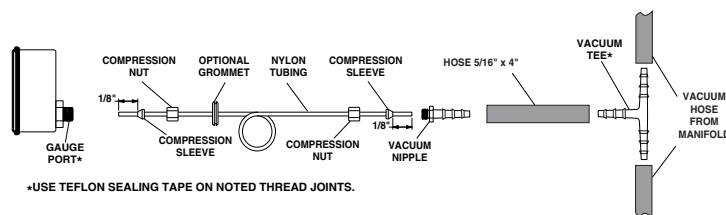


Figure 5. Boost/Vacuum Gauge "T" Fitting Option Connection

2. Connect nylon tubing to the installed adapter using compression sleeve and compression nut provided. Tighten compression nut until tubing is secure.

Option Two - Existing Vacuum Line Connection

See Figure 5 and follow the instructions below:

1. Connect nylon tubing to the 5/16" (7,9 mm) vacuum nipple using compression sleeve and compression nut provided. Tighten compression nut until tubing is secure.
2. Insert vacuum nipple into one end of the 5/16" X 4" (7,9 mm X 10,2 cm) hose (provided); insert the vacuum "T" fitting into the other end of the hose.
3. Cut the selected vacuum hose on the vehicle and install "T" fitting in line with this hose. Use hose clamps (purchased separately) as needed to secure "T" fitting.

FINISHING THE INSTALLATION

1. Secure tubing along its route to prevent damage from sharp edges, moving parts or hot engine components.
2. Reconnect negative (-) battery cable. Start and run engine for approximately 30 seconds and check gauge installation for leaks. Tighten or reseal joints as needed and retest.