

# INSTALLATION INSTRUCTIONS SPEEDOMETER / HOURMETER / CLOCK

## 1 PREPARATION FOR INSTALLATION

1. Read these instructions completely before installing the gauge, and seek the advice of a professional if you are not familiar with the installation of vehicle instrumentation or the functions of the related vehicle systems.
2. Always read the vehicle's service manual and follow its safety precautions before any test or service procedure is performed.
3. Install gauges only when engine is cool and ignition is off.

4. 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.

5. Determine a mounting location for the gauge. Choose a location that does not impair visibility, or interfere with driving. Check behind the mounting location for any wiring or components before drilling.

## 2 GAUGE INSTALLATION

### A. SPEEDOMETER / CLOCK (Figure 1)

1. Determine a location on the dashboard that can be cut out without striking any objects from behind the dash. If an existing hole is already available for use, proceed to step 3.
2. Using a template, cut out a 3 3/8" (85.7 mm) (or as needed) hole through the dashboard.
3. Using a round file, smooth out any rough edges around the hole.
4. Insert gauge through front of the hole in dashboard.
5. Hold gauge case and rotate gauge, as needed, until gauge dial face is properly positioned in front of dashboard.
6. Tighten locking ring onto gauge in a clockwise direction until gauge is tight against dashboard. Tighten locking ring **HAND TIGHT ONLY**.

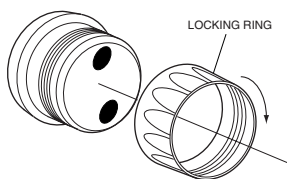


Figure 1

### B. HOURMETER

The hourmeter will use one of two types of mounting options; "In-Dash Mount" (using a mounting cup) or "Flange Mount." Be sure to use the installation instructions appropriate to your hourmeter.

#### Flange Mount (Figure 2)

1. Determine a location on the dashboard that can be cut out without striking any objects from behind the dash. If an existing hole is already available for use, proceed to step 3.
2. Using a template, cut out a 2" (50.8 mm) hole through the dashboard.
3. Using a round file, smooth out any rough edges around the hole.
4. Insert gauge through front of the hole in dashboard.

5. Hold gauge case and rotate gauge, as needed, until gauge dial face is properly positioned in front of dashboard.

6. Using the gauge flange as a template, mark the location for three mounting screws.

7. Using a 1/8" (3.18 mm) drill bit, drill three holes through the dashboard.

8. Insert gauge through front of the hole in dashboard, and secure with three screws, lock washers and nuts provided. Tighten nuts to 5 inch-pounds (0.57 Newton-meters).

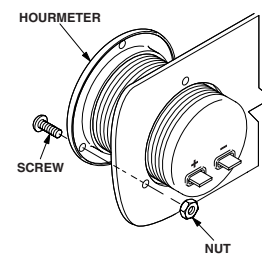


Figure 2

#### In-Dash Mount (Figure 3)

1. Determine a location on the dashboard that can be cut out without striking any objects from behind the dash. If an existing hole is already available for use, proceed to step 3.

2. Using a template, cut out a 2" (50.8 mm) hole through the dashboard.

3. Using a round file, smooth out any rough edges around the hole.

4. Insert gauge through front of the hole in dashboard.

5. Hold gauge case and rotate gauge, as needed, until gauge dial face is properly positioned in front of dashboard.

6. Tighten locking ring onto gauge in a clockwise direction until gauge is tight against dashboard. Tighten locking ring **HAND TIGHT ONLY**.

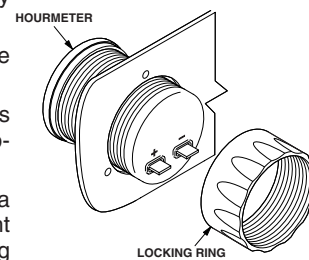


Figure 3

## 3 GAUGE LIGHT INSTALLATION AND CONNECTION - Speedometer

**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.**

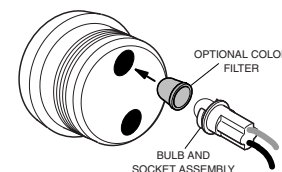


Figure 4

## 4 GAUGE CONNECTION

### A. SPEEDOMETER (Figure 4)

Connection of the speedometer requires using the vehicle's existing speedometer cable. Route existing speedometer cable to rear of speedometer and connect cable to 5/8"-18 male connector on rear of speedometer. If the cable drive and/or the female threaded connector from the vehicle's speedometer cable does not fit, you must buy an adapter and/or replace the speedometer cable. See **IMPORTANT** note below. Connection adapters and cables are available from most speedometer shops.

**IMPORTANT:** The speedometer is designed for a 1:1 drive ratio (60 mph or 96,5 km/h at 1000 RPM) using a 5/8"-18 cable thread shaft. This shaft requires a 0.104" (2,64 mm) square female cable drive. If the vehicle's tire size or differential ARE NOT stock (original), speedometer accuracy will be affected. It may be necessary to change to a different pinion gear to achieve the required 60 MPH at 1,000 RPM.

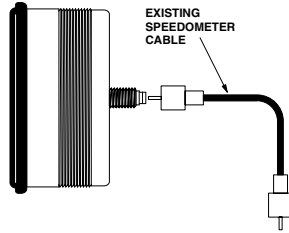


Figure 4

### TRIPMETER OPERATION

The speedometer is equipped with a four-segment resettable Tripmeter. To reset the Tripmeter, rotate the Tripmeter reset knob counterclockwise until the Tripmeter shows "0000".

### B. HOURMETER / CLOCK (Figure 5)

**NOTE:** Hourmeter / clock operating voltage is 10 VDC minimum to 80 VDC maximum (polarity-sensitive).

**NOTE:** Lead wires must be purchased separately. Use 16 - 18 AWG wire minimum.

1. Determine routing for gauge lead wires. Use an existing firewall grommet, or drill a 3/8" (9.5 mm) hole through firewall to accommodate lead wires. Install a rubber grommet (purchased separately) in hole, and use shrink tubing to protect lead wires from chaffing or other damage.
2. Install and crimp or solder 1/4" female spade connectors (purchased separately) on gauge positive (+) and negative (-) lead wires.
3. Connect lead wires to hourmeter or clock positive (+) and negative (-) spade posts. Route lead wires through grommet in firewall.
4. Connect free ends of hourmeter or clock lead wires to vehicle electrical system:

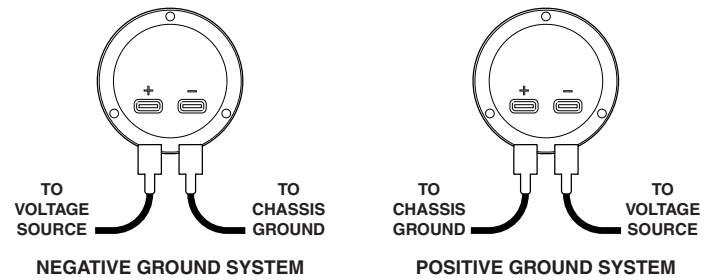
#### HOURMETER

##### For Negative Ground Systems

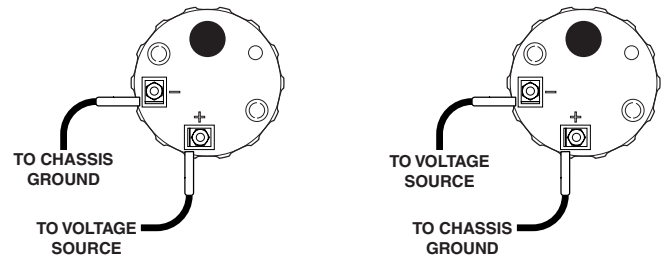
- Connect hourmeter positive lead wire to a switched voltage source in the vehicle electrical system.
- Connect hourmeter negative lead wire to a good bare metal chassis ground.

##### For Positive Ground Systems

- Connect hourmeter negative lead wire to a switched voltage source in the vehicle electrical system.
- Connect hourmeter positive lead wire to a good bare metal chassis ground.



#### HOURMETER CONNECTION



#### NEGATIVE GROUND SYSTEM

#### POSITIVE GROUND SYSTEM

#### CLOCK CONNECTION

Figure 5

#### CLOCK

##### For Negative Ground Systems

- Connect clock positive lead wire to an unswitched (constant) voltage source in the vehicle electrical system.
- Connect clock negative lead wire to a good bare metal chassis ground.

##### For Positive Ground Systems

- Connect clock negative lead wire to an unswitched (constant) voltage source in the vehicle electrical system.
- Connect clock positive lead wire to a good bare metal chassis ground.

5. Secure lead wires along their route to prevent damage from sharp edges, moving parts or hot engine components.
6. Reconnect negative (-) battery cable.

- **For Hourmeter:** Start and run engine for several minutes and verify hourmeter accumulates operating time.
- **For Clock:** Observe clock for several minutes and verify time advances.