TACHOMETER INSTALLATION INSTRUCTIONS

GENERAL INFORMATION

The tachometer is similar to a speedometer in function, but unlike the speedometer, the tach tells the driver how fast the engine's crankshaft is turning in revolutions per minute, instead of how fast the car itself is going in miles per hour.

A tachometer is one of the most important instruments you can have, whether your car is equipped with a manual transmission or an automatic transmission.

If your car has a manual transmission, the tachometer helps you drive more efficiently by allowing you to keep the engine in the peak torque range thus saving gas. It also helps you accelerate faster by letting you know the exact moment to shift. Knowing when to properly shift allows the driver to take full advantage of his car's available horsepower and torque without over-revving the engine. Also, the tach can be a very valuable diagnostic tool as well. For example, if the tach indicates an increase in engine speed but the speedometer fails to show a corresponding increase in mph, a slipping clutch may be indicated.

If your car is equipped with an automatic transmission, a tach will instantly show your engine's response to the transmission's automatic shift pattern. Cars equipped with the multi-speed automatic transmissions that allow the driver to shift manually, can use the tachometer much the same as if the car had a standard transmission.

In both types of transmissions, the tachometer protects your engine from over-revving at the top end of the engine's rpm range. For example, the tach can warn you of over-revving caused by your wheels spinning on a wet or icy surface.

Finally, we wish to take this opportunity to thank you for purchasing a Pentron tachometer. We are sure it will give you years of reliable service providing you follow the simple guidelines for installation which we have included below.

NOTE: This tach is designed to work on 4, 6, 8 cylinder engines with a 12-volt, negative ground ignition systems only.

Figure 1.

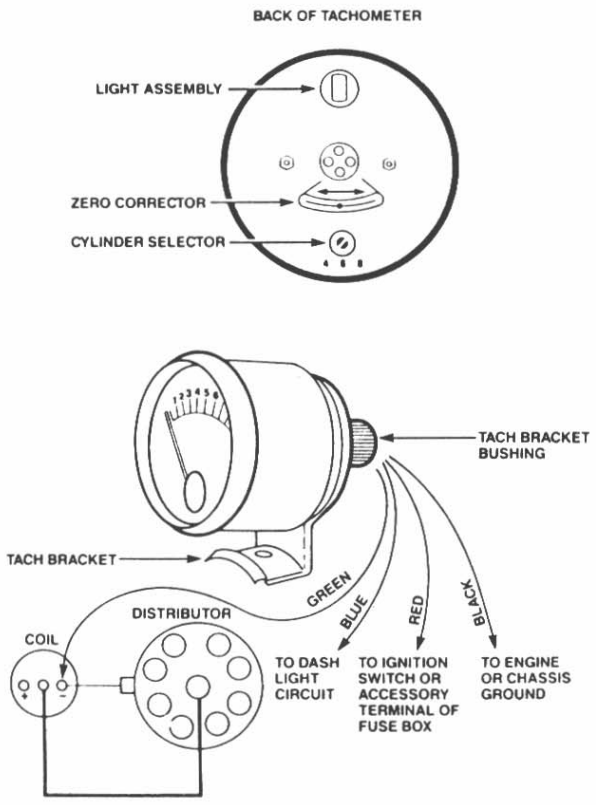
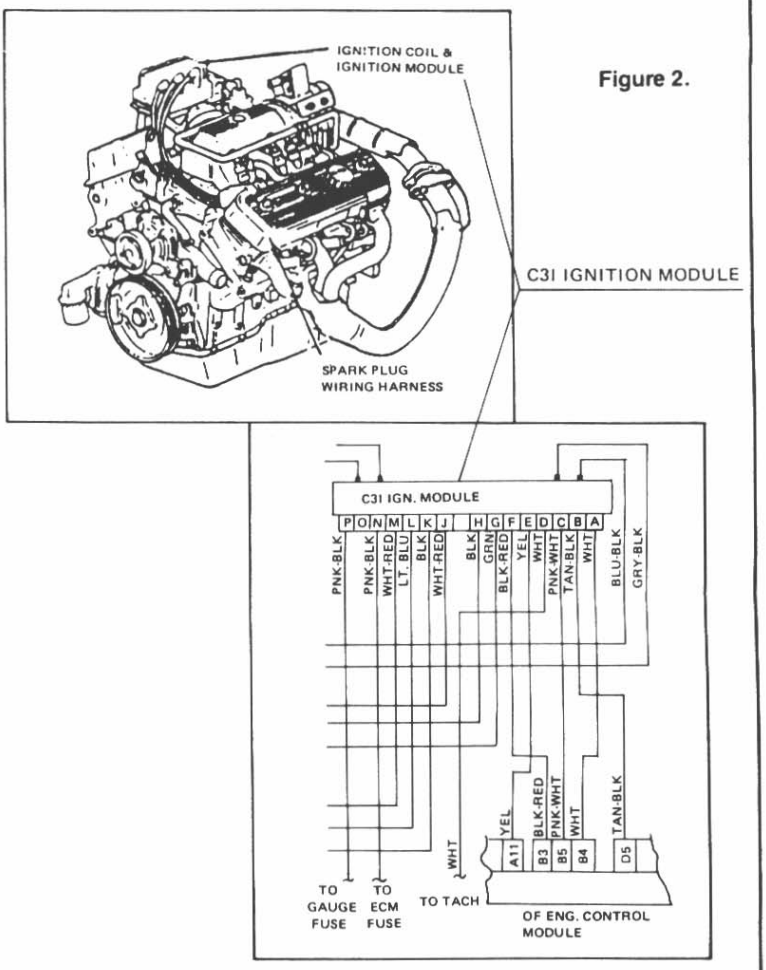


Figure 2.



HOOK-UP INSTRUCTIONS

NOTE: The following instructions are for original equipped ignition systems. Due to the great number of aftermarket systems, it is impractical to list all the different trigger connections (Step 6). For aftermarket ignition triggering instructions, refer to the manufacturer of the ignition system.

CAUTION: 1. Disconnect the battery ground cable, during the installation, from the battery to avoid accidential grounding of the electrical system.

2. Never run the engine with the tach only partially connected.

1. Use 18 gauge insulated stranded copper wire (not included with tach) for all connections. Determine the length of wire needed for each connection (Step 3–6). Cut the wire and strip both ends of all pieces.
2. Connect these wires to the four colored wires leading form the rear of the tach. Bullet connections or crimp terminals are recommended (not included).
3. Connect the BLACK wire to a good engine or chassis ground. Avoid painted or insulated surfaces (Figure 1).

NOTE: Many dash boards and their support brackets are not properly grounded.

4. Connect the BLUE wire to the vehicle's dash light circuit (Figure 1).
5. Connect the RED wire to the ignition switch circuit or the accessory terminal of the fuse box (Figure 1).
6. The GREEN trigger wire should be connected using one of the following procedures.
   a. ALL VEHICLES EXCEPT THOSE LISTED BELOW connect the GREEN trigger wire to the negative (–) terminal of the coil (Figure 1).
   b. GENERAL MOTOR VEHICLES with the High Energy Ignition (HEI) System—connect the GREEN trigger wire to the tach terminal on the distributor or coil using a piece of shrink tubing (not included) and female spade connector.
   c. FORD VEHICLES connect the GREEN trigger wire to the coil terminal marked DEC or "–" (negative terminal).
   d. For vehicles with C3I ignition systems, connect the green wire from the tach to the white wire coming from the C3I ignition module. All other connections are the same as those instructions for other ignition systems (Figure 2).

NOTE: On some imports, the green trigger wire should be connected to a terminal on the module. Refer to the manufacturer for instructions.

7. Check to see that all connections are tight and well insulated.

MOUNTING INSTRUCTIONS

1. Using a slender screw driver, turn the 4, 6, 8 cylinder selector switch on the rear of the tach (clockwise or counterclockwise) until either end of the slot lines up with the appropriate number of cylinders for your engine (Figure 1).
2. To ensure maximum accuracy, if the needle on the tach is not exactly on zero, use the zero corrector on the rear of the tach to reposition the needle on zero (Figure 1).
3. Fasten the tach bracket to the tach with the tach bracket bushing. You will have to disconnect the wires to connect the tach bracket and bushing to the tach (Figure 1).
4. Mount tach assembly as follows:
   a. **For on-dash mounting**—use the hole in the base of the tach bracket, along with a number 10 bolt, nut and lockwasher, attach the tach assembly to dash by drilling a 7/32" hole at the desired point.
   b. **For steering column mounting**—An adjustable hose clamp can be purchased at your local auto supply store. Place the adjustable clamp around the steering column and the tach bracket and tighten.

CAUTION: If your vehicle is equipped with an energy absorbing safety steering column, mount the tach on the column so it will not interfere with the built-in travel of the steering column in case of an accident.

TROUBLESHOOTING GUIDE

If your tach does not function properly after installation, check the following points:

1. Did you set the cylinder selector switch to match number of cylinders on engine?
2. Double check all electrical connections to be sure they are secure, and correct.
3. If neither tach light nor meter operate, double check your "ground" and "ignition switch" connections.
4. Be sure to follow the correct "trigger procedure" for your particular vehicle. (Changing or altering ignition circuit or ignition components will affect operation of tach and may even damage it.)
5. A faulty ignition can affect the operation of your tach. For example, point bounce will cause erratic movement of the tach reading as will an open spark plug wire.

FULL ONE (1) YEAR WARRANTY

PENTRON PRODUCTS, 9999 Walford Avenue, Cleveland, Ohio 44012, warrants to the user that this unit will be free from defects in materials and workmanship for a period of one (1) year from the date of original purchase.

Any unit that fails within this period will be repaired or replaced at PENTRON's option and without charge when returned to the factory.
PENTRON requests that a copy of the oringinal, dated sales receipt be returned with the unit to determine if the warranty period is still in effect.

This warranty does not apply to damages caused by accident, alterations, or improper or unreasonable use. Expendable items, e.g. batteries, fuses, lamp bulbs, flash tubes, are also excluded from the scope of this warranty.

PENTRON PRODUCTS, DISCLAIMS ANY LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY WRITTEN WARRANTY ON THE UNIT. Some states do not allow the disclaimer of liability for incidental or consequential damages, so the above disclaimer may not apply to you. This warranty gives specific legal rights, and you may also have rights which vary from state to state.

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