INSTRUCTIONS FOR THE INSTALLATION OF THE PROGRAMMABLE TACHOMETER ARE CONTAINED HEREIN. USE IS RESTRICTED TO 12-VOLT NEGATIVE GROUND ELECTRICAL SYSTEMS. LIGHT BULB, IF SUPPLIED, IS 12 VOLT.

Tools and Materials Needed For Installation:
- 16 Gauge stranded, insulated wire
- Non-insulated ¼" spade connectors
- ⅛" or ⅜" or 4" hole saw
- Drill and drill bit set
- Half-round file
- Tape measure or ruler
- Small tools: wrench or nut driver, utility knife, pliers, etc.

Tachometer Installation:

NOTE: If you will use your tachometer with an alternator, you must first wire it (Diagram E) and calibrate it (Diagrams D & F) before mounting it. For all other applications, start here.

1. Select the location where you will mount the gauge, and mark a center point.
2. Cut either a ⅛" (80 mm) or a ⅜" (85 mm) or a 4" (100 mm) hole, depending on the size of the tachometer you’re installing. If the gauge is too snug, use a file to slightly enlarge the opening. (Diagram A)
3. Slip the mounting bracket or the VDO Spin-Lok™ Clamp over the back of the tachometer as shown in Diagram B. Tighten until the tachometer can no longer be rotated by hand. Do Not Overtighten.

Wiring the Tachometer:

1. Run wires from the tachometer location to a:
   a) +12 volt power terminal.
   (This positive power source MUST BE SWITCHED, and should be protected with a fuse);

These instructions contain information about gauges of different sizes. Consequently, you must determine the size of your gauge before cutting any holes!

CAUTION!!!

Merchandise warranted against defects in factory workmanship and materials for a period of 24 months after purchase. This warranty applies to the first retailer purchaser and covers only those products exposed to normal use or service. Provisions of this warranty shall not apply to a VDO product used for a purpose for which it is not designed, or which has been altered in any way that would be detrimental to the performance or life of the product, or misapplication, misuse, negligence or accident. On any VDO part or VDO product found to be defective after examination by manufacturer, manufacturer will either repair or replace the merchandise through the original selling dealer. Manufacturer assumes no responsibility for diagnosis, removal and/or installation labor, loss of vehicle use, loss of time, inconvenience or any other consequential expenses. The warranties herein are in lieu of any other expressed or implied warranties, including any implied warranty of merchantability of fitness, and any other obligation on the part of manufacturer or selling dealer.

NOTE: This is a “Limited Warranty” as defined by the Magnuson-Moss Warranty Act of 1975.

Programmable Tachometer

1-800-265-1818

CAUTION: Read these instructions thoroughly before making installation. Do not deviate from assembly or wiring instructions. Always disconnect battery ground before making any electrical connections.
b) light switch (also after the fuse box);
c) good ground location;
d) location of the signal source (alternator, coil or other tachometer signal source).

2. Connect wiring to the appropriate tachometer terminals as shown in Diagram E.

Configuring the VDO Tachometer:
Before the tachometer will function properly with your engine, you will need to set the switches as shown in Diagrams C or D. Diagram C shows how to set the switches for use with an ignition coil or electronic control box; Diagram D shows how to set the switches when using the tachometer with an alternator.

On tachometers used with alternators only, fine tuning must be performed (after you set the switches) by using the potentiometer on the rear of the instrument. See Diagram F.

At this point, the installation and wiring of your new VDO Programmable Tachometer is complete. Turn on the ignition and the lights in the car and check to see that the instrument and light work properly. If they don’t, re-check your wiring, referring to Diagram E.

Diagram A
Gauge dimensions

Diagram B
Proper mounting with VDO's Spin-Lok Clamp or mounting bracket

Diagram C
With Coil or ECM, use this table to set switches for number of cylinders

Diagram D
With alternator, use this table to calculate pulses/revolution & set switches

Use this table if your tachometer signal comes from the alternator.

<table>
<thead>
<tr>
<th>Dip Switch</th>
<th>3000 RPM TACH</th>
<th>4000 RPM TACH</th>
<th>6000 RPM TACH</th>
<th>7000 RPM TACH</th>
<th>8000 RPM TACH</th>
<th>Pulses per Revolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>6-9</td>
</tr>
<tr>
<td>Off</td>
<td>Off</td>
<td>On</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>6-9</td>
</tr>
<tr>
<td>Off</td>
<td>On</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>6-9</td>
</tr>
<tr>
<td>On</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>6-9</td>
</tr>
<tr>
<td>On</td>
<td>Off</td>
<td>On</td>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>6-9</td>
</tr>
</tbody>
</table>

The following formula can be used to determine the number of pulses per revolution:

\[ \text{Pulses per Revolution} = \frac{\pi D}{2} \times \frac{N}{P} \]

Where:
- \( D \) is the diameter of the crankshaft pulley (\( \theta D \))
- \( N \) is the speed of the alternator pulley (in rpm)
- \( P \) is the number of poles in the alternator

For example, if \( D = 6 \) inches and \( P = 2 \) poles, then:

\[ \text{Pulses per Revolution} = \frac{\pi \times 6}{2} \times \frac{12}{2} = 18 \text{ pulses per revolution} \]