

### Gauge Installation:

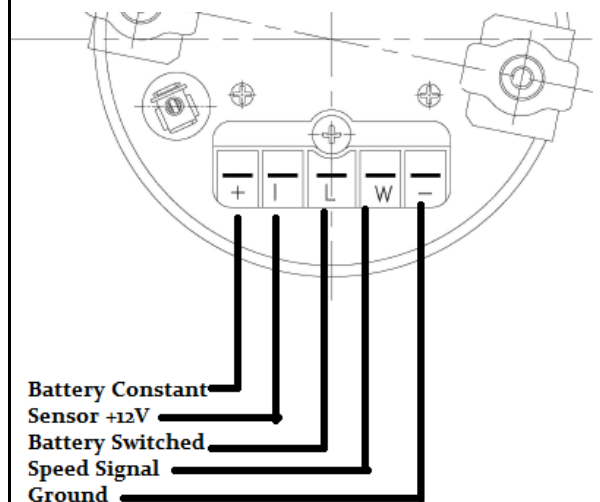
1. Select the desired mounting location of the instrument.
2. Depending on your mounting configuration, it might be necessary to program the gauge before installation (for example, if you will not have access to the button on the lens).
3. Mount the gauge and secure with the included hardware.

### Wiring the Gauge:

1. Route wires from the instrument to:
  - (a) Battery (+) constant power after the fuse box or user supplied in line fuse (5 amp, fast blow) to terminal “+”
  - (b) Battery (+) switched power after the fuse box or user supplied in line fuse (1 amp, fast blow) to terminal “L”
  - (c) Light switch after the fuse box, or user supplied in line fuse (1 amp) and switch to light bulbs
  - (d) Ground location not shared with other electronics (such as battery (-) negative terminal or direct to chassis) to terminal “-” and light bulbs.
  - (e) Speed signal source to terminal “W”
  - (f) Optional. Terminal “I” for (+) voltage to speed sensor.

Terminal	Description
+	Constant power (12v or 24v)
I	Optional - power for speed sensor
L	Switched Power
W	Speed sensor input
-	Ground

Read these instructions thoroughly before installation. Do not deviate from assembly or wiring diagram. Always disconnect battery ground before making any electrical connections.



## 356 Gauge Speedometer 100mm

Tech Support 1-800-265-1818  
<http://usa.vdo.com>

Instruction Sheet # A2C59506785

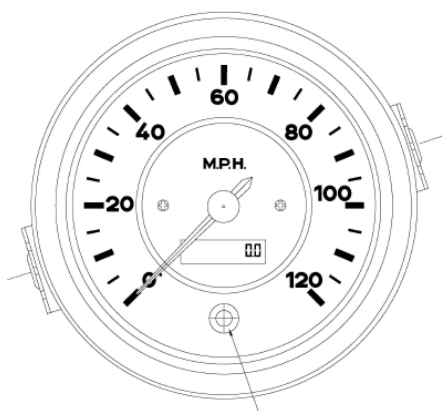
Rev 07-2014

### Programming the speedometer:

Calibrating the speedometer can be accomplished by one of three methods.

1. Automatic Calibration by driving on a road with an exact distance of one (1) mile clearly marked or on a dynamometer.
2. By the input of the known pulse-per-mile (kilometer) for the vehicle and sensor being used with the speedometer.
3. Using a reference point for adjustment of fine tuning.

The calibration mode is accessed by pressing the button below the LCD display and holding it BEFORE and while the ignition is turned on.



The LCD display will cycle through the three methods of calibration.

### **Autocalibration**

- a. Press and hold the button on the front of the speedometer and start the vehicle.
- b. Release the button when "AutOCL" appears in the display. After a few seconds "bUttOn" will show in the display.
- c. When you are ready to begin your mile run press the button once more and "StArt" will appear and you can begin driving one mile. Speed does not matter.

**(Note: During the calibration run the needle will not move on the speedometer and "StArt" will flash. This is normal)**

- d. When you have driven exactly one mile press the

button again. The microprocessor will then calculate the pulses received within its range limit of 500 to 350,000 and display that pulse count in the LCD display for a few seconds. The autocalibration will complete when the needle does a full sweep and returns to "0". However, if the speedometer does not see any pulses or a pulse range outside of its range the LCD will display "F - 0.0"

### **Manual Calibration with a known value**

- a. Press and hold the button on the front of the speedometer and start the vehicle.
- b. Release the button when "PuLSE" appears in the LCD display.
- c. After a few seconds the display will begin flashing a series of numbers. The last digit to the right is fixed at zero (0) and cannot be changed.
- d. As each number flashes from right to left you can change that value by pressing the button.
- e. As an example you can enter a pulse rate of 43850. When the first digit flashes press the button to enter a 5 (the last number is always zero and can't be changed) When the next digit flashes enter 8 then 3 then 4.

**Note:** If you are using the VDO GPS speed sender, the pulse setting to enter is 200,000

- f. With the display now reading 43850 allow the setting mode to time out. You will know this is complete when the needle does a full sweep of the dial and the LCD display shows "0.0"
- g. This method also allows you to manually adjust the pulses after an autocalibration has been done.

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### **Manual Calibration (Fine Tuning)**

You can manually adjust the analog pointer on your speedometer.

*To manually calibrate the analog display (needle) with the vehicle on a dyno at a specified speed.*

- a. Press and hold the button on the front of the speedometer and start the vehicle.
- b. Release the button when "AdJuSt" appears in the LCD display.
- c. Press the button once and "uP" will be displayed. Pressing the button twice in rapid succession will display "dn"
- d. When either "uP" or "dn" is displayed hold the button in and the pointer will move slowly in the direction selected. Holding the button longer will allow the pointer to move faster.
- e. When the pointer is adjusted to where you want it release the button and wait. If no adjustments are made within one minute the speedometer will revert to normal operation.

NOTE: If you have adjusted the pointer beyond its calibration range the display will flash and you will only be able to move the pointer in one direction back to the calibration range either up or down.

### **Speedometer Operation**

- a. In normal operation the LCD will display total miles driven or trip distance.
- b. Pressing the button will toggle the display between these two displays.
- c. Pressing and holding the button will reset the trip distance regardless of which distance is currently displayed.

Merchandise warranted against defects in factory workmanship and materials for a period of 24 months after purchase. This warranty applies to the first retail 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 products, or misapplication, misuse, negligence or accident. On any VDO part or VDO product found to be defective after examination by manufacturer, manufacturer will only 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 or merchantability of fitness, and any other obligation on the part of manufacturer, or selling dealer.