



2" Snap-in-gauge with Tachometer, Hourmeter and Service Indicator

IS0353

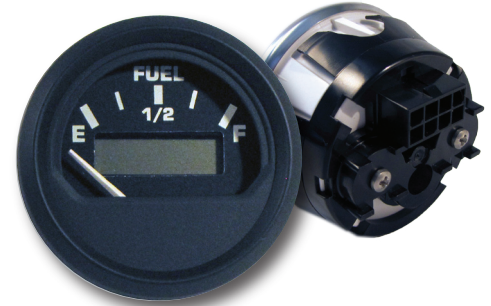
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Designed to SAE specifications for Dust, Vibration and Water intrusion. The Faria Snap-In instruments provide a Heavy Duty instrument in an easy to install push-in case manufactured in the USA.

This multifunction instrument provides many useful features in a small compact design. Available functions include; Inductive Tachometer, Hourmeter, Programmed Service Intervals and an analog discrete function, Fuel Level.

No back clamp, washers, nuts or tools are required to install the gauge into your panel.

With its patented mounting design the Snap-In gauge is designed to install easily and reduce costs. Simply push through the mounting hole. The case springs out to hold your gauge in place.



Caution

Disconnect the battery during installation.

Use stranded, insulated wire not lighter than 18 AWG. Be certain wire insulation is not in danger of melting from engine or exhaust heat or interfering with moving mechanical parts.

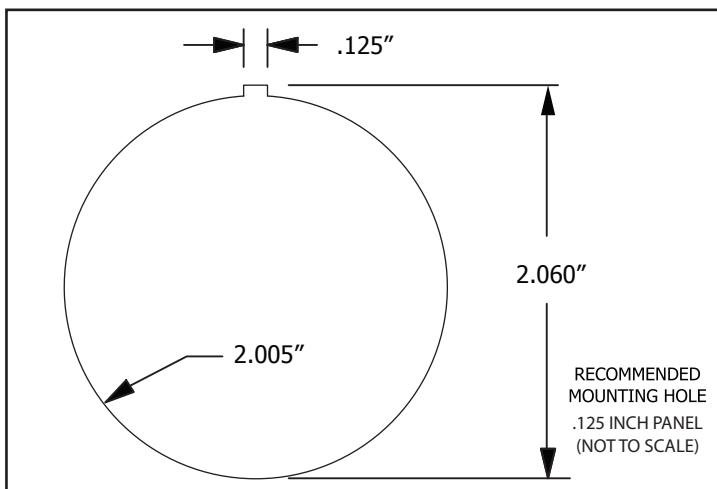
Parts

QTY	Description
1	2-inch Snap-in-gauge
1	Harness with Molex connector

Installation

1. Cut a hole in the dash, following the diagram below. Allow a clearance of 3" (80 mm) for wires. Align the key with the .125 inch indent. Push the snap-in gauge into hole.
2. Connect the 8 pin Molex connector to the gauge.
3. Connect the wire from pin 1 to the electrical ground, generally available in several locations at or near the instrument panel.
4. Connect the wire from pin 3 to the 12 vDC source. It is recommended to connect this to an 12 vDC source controlled by the ignition.
5. Connect the wire from pin 4 to a momentary connect switch Ground.
6. Connect the wire from pin 5 to a 12 vDC connections to illuminate the gauge. (Optional)
7. Connect the wire from pin 2 to the fuel level sender.
8. Connect the wire from pin 8 to the Tachometer signal out wire.
9. Reconnect the battery.

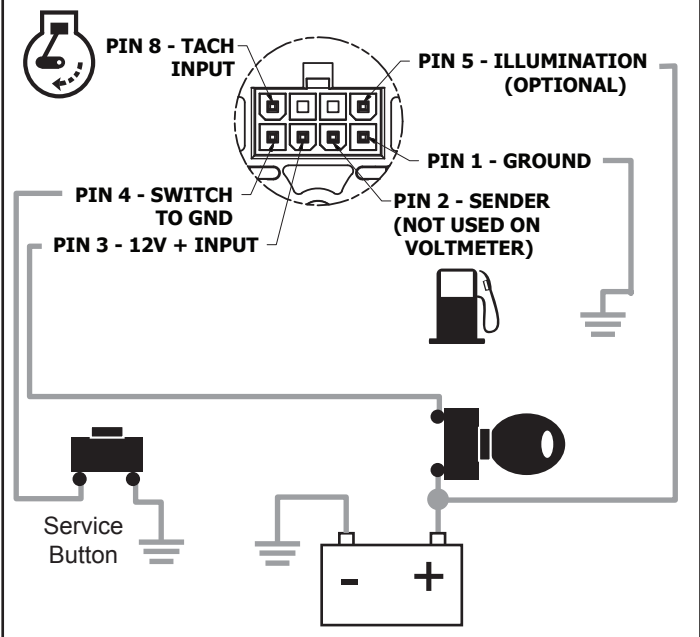
Recommended Hole size



Made in the USA

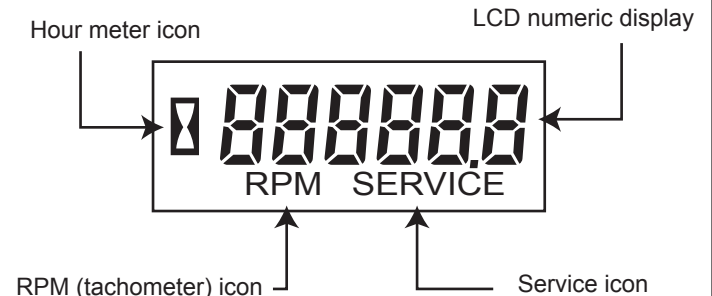
Wiring Diagram

Note: 8 pin Molex connector required.



Operation

1. LCD Screen



Faria Beede Instruments, Inc.
www.FariaBeede.com

Operation

2. Self Test:

When power is first applied at start up, a special sequence shall be used to turn all LCD segments on for 2 seconds.

During this time the instrument is checking functions to ensure accuracy.

3. Hourmeter Function:

Displays on LCD when pulsed input on pin 8 is less than 100 RPM (engine off).

The Hourmeter records and increments the hours while the instrument receives a signal from the Tachometer pin 8. An "Hour Glass" is displayed in the LCD indicating that the LCD is showing Hourmeter.



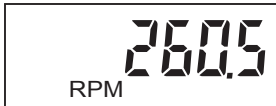
Note: This hourmeter can not be reset to zero, nor hours be removed once they have been recorded. There is no available method for re-setting the hours on this device.

When the maximum reading of 99999.9 hours is reached, the hourmeter will automatically 'roll over' to 00000.0 again.

4. Tachometer Function:

Displays on LCD when pulsed input on pin 8 is more than 100 RPM.

Engine revolutions (RPM) is counted by a pulsed input received on the pin 8 of the connector. "RPM" is displayed on the LCD indicating the LCD is showing Tachometer.



Note: RPMs greater than 100 RPM is required for the "RPM" indicator to show on the LCD.

Tachometer divisor:

Engine revolutions are counted by pulsed inputs on pin 8. The maximum RPM measured is 45000. Multi-cycle engine revolutions (where multiple pulsed inputs are measured for each RPM) may need to be divided to accommodate the increased pulses sent by these engines. The RPM input can be divided up to 4 times for a corrected display of RPMs.

To figure out how much the pulsed inputs need to be divided by, compare the inputs being recorded in the instrument with a known standard shop tachometer.

To set the divisor:

With inputs into pin 8 (engine running) ground pin 4 to pin 1 (Ground) for more than 1 second. The LCD will show the second divisor "2X". Ground pin 4 to pin 1 (Ground) again and the divisor will increase to "4X". Grounding pin 4 to pin 1 (Ground) again will return the divisor to "1X".

Note: The divisor will be automatically disabled after the engine has run for an accumulated 10 hours. No changes will be possible after this point.

5. Service Reminder Function:

The Service Reminder function reminds the operator that a scheduled maintenance is required. When a Service

Reminder alert is triggered the LCD will display "SERVICE" indicating that the next interval has expired and service is due.



There are two levels of Service Reminders in the instrument. The first is a short initial interval, typical for a "Break In" (S1) period. The schedule of the interval is programmed in the instrument at the factory. Once the initial service interval is reset and the "Break In" (S1) period is over this interval will never again be shown.

The second interval is set to remind the operator that a scheduled service is due.

Both intervals can be factory programmed and can be changed in the field. To change the interval, purposely ground pins 4 to pin 1 (Ground), hold for 5 seconds or longer. This enters the programming feature of the instrument.

Note: The programming feature will time-out automatically if no user input occurs within 10 seconds. The instrument will return to the normal operating mode.

Programming the intervals:

Once the instrument is in the programming feature, the LCD will display "S1 20". This is the default value for the first "Break In" (S1) interval.



Momentarily, less than 1 second, ground pin 4 to pin 1 (Ground). The digits in the LCD will increase by 1 digit. Holding pin 4 to pin 1 (Ground) for more than 1 second will increase the digits in groups of 10.

With the "Break In" (S1) service interval set release pin 4 from pin 1 (Ground) for 5 seconds. The LCD will display "S2 50". This is the default hours for the "Service" (S2) interval.



Momentarily, less than 1 second, ground pin 4 to pin 1 (Ground). The digits in the LCD will increase by 1 digit. Holding pin 4 to pin 1 (Ground) for more than 1 second will increase the digits in groups of 10.

With the "Service" (S2) interval set release pin 4 from pin 1 (Ground) for 5 seconds. The LCD will display "S1 XX". Showing the interval selected previously. At this point the intervals are set.

Wait for 10 seconds with no user input and the instrument will return to the normal operating mode.

Resetting the Service interval:

Momentarily, less than 1 second, ground pin 4 to pin 1 (Ground). The LCD icon "SERVICE" will be hidden and the interval restarts.

Note: You can disable the service intervals by setting the intervals to "0".