Classic Instruments

1955-1956 Chevy Bel-Era

Installation Manual

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Welcome to the Team of Classic Instruments!

Our congratulations and appreciation for your purchase of the finest quality set of specialty instruments ever produced! Your instrument set has been conceived, designed, and manufactured by Classic Instruments, Inc. in the U.S.A. Each instrument has been tested and certified for accuracy and quality before packaging and shipping.

For trouble-free installation and operation, follow the instructions exactly as outlined. Your instruments were assembled to precise specifications and although each has a five (5) year warranty covering defective parts and workmanship – this warranty will not cover instruments or sending units which have been installed incorrectly.

LIMITED WARRANTY

Classic Instruments, Inc. (CI) warrants to the original purchaser that any CI product manufactured or supplied by CI will be free from defects in material and workmanship under normal use and service for a period of five (5) years from date of purchase.

Improper installation, use of sending units other than CI's or attempted repair or adjustments by other than CI shall void this warranty. Disassembly of any instruments or senders for whatever reason shall specifically void this warranty.

Purchaser requesting a product to be repaired or replaced under warranty must first call CI at 1-800-575-0461 before the return of defective part. Send defective part either to 826 Moll Drive, through UPS, or to P.O. Box 411 through U.S. Mail, Boyne City, MI 49712, USA. Include a written description of the failure with defective part.

Purchaser agrees and accepts that under no circumstances will a warranty replacement be furnished until CI has first received, inspected, and tested the returned part.

All other warranties expressed or implied are hereby excluded including any implied warranty of merchandise and implied warranty of fitness for a particular purpose. The sole and exclusive remedy for breach of this warranty is limited to the replacement set forth above.

It is expressly agreed that there shall be no further remedy for consequential or other type of damage, including any claim for loss of profit, engine damage or injury.

TECHNICAL ASSISTANCE
1-231-582-0461
OR
Visit our new website for the latest in gauge design and updates to our installation manual at:

www.classicinstruments.com

'55-'56 Chevy Part Identification
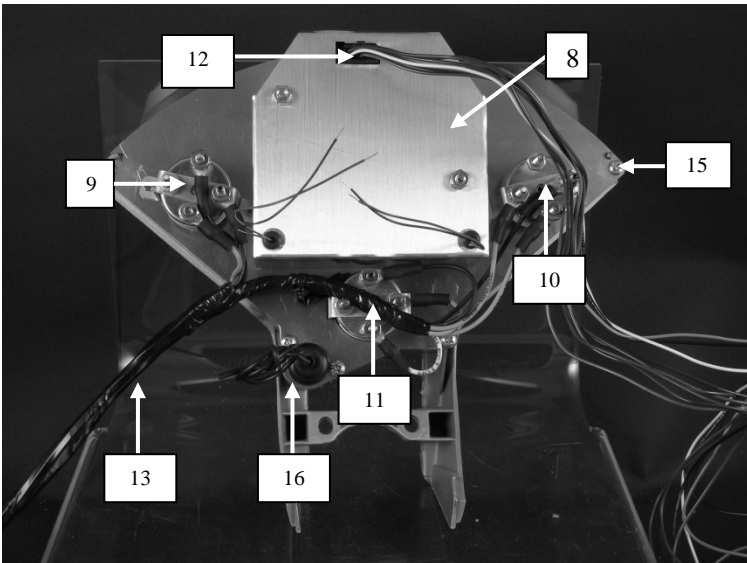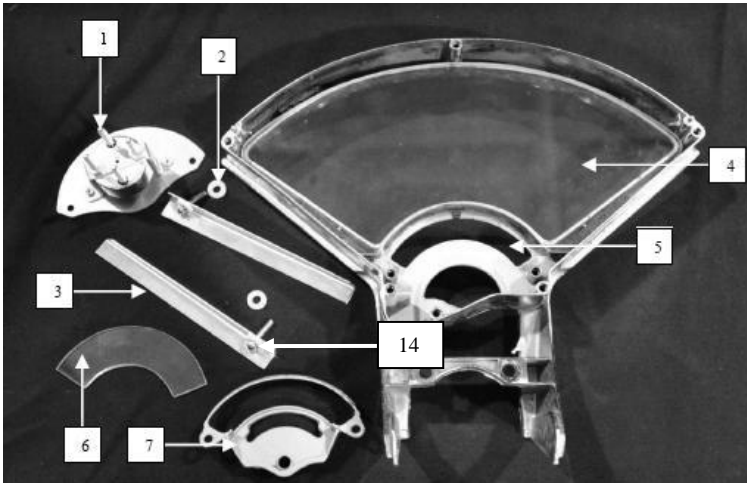
1 Gear Selector Movement *(optional)*	9 Temperature Movement
2 Nylon Washer *x6*	10 Fuel Movement
3 Glass Bracket *x2*	11 Gear Selector Installed *(Optional)*
4 Large Glass *x1*	12 Speedo, Tach, Oil & Volts Harness
5 Gear Selector Housing	13 Fuel & Temp Harness
6 Gear Selector Glass *(optional) x1*	14 Glass Bracket Hold-down Screws *x2*
7 Gear Selector Bracket *(OE Part)*	15 Bezel Mounting Screws *x6*
8 Speedo, Tach, Oil & Volts Housing	16 Gauge Light *x1*

Installing Your 1955/56 Classic Gauge Set

Disassemble the Original Gauge Set

Step 1: When using the original stock bezel, disassemble the dash by removing the bezel. (Figure 1)

Figure 1

Figure 2

Step 2: Place the original bezel face down on a flat surface. (Figure 2)

Step 3: Remove the six (6) screws that hold the gauge cluster in the bezel. The screws are located around the perimeter of the bezel. (Figure 3)
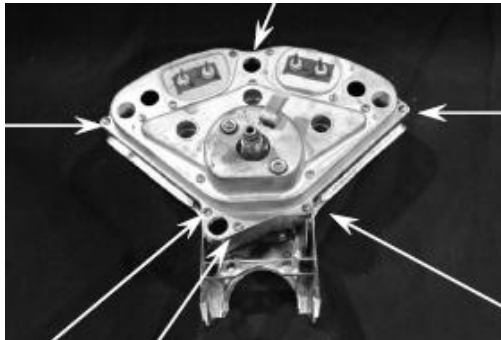
Figure 3

Step 4: Remove gauge cluster from bezel.

Step 5: Remove inner insert and glass. (Figure 4)
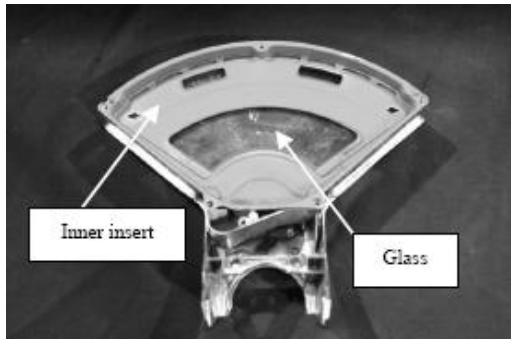
Figure 4

For manual transmissions, skip steps 6 – 8 and go directly to assembly section.

Step 6: For automatic transmissions, remove gear selector bracket (2 screws) and disengage spring. (Figure 5)
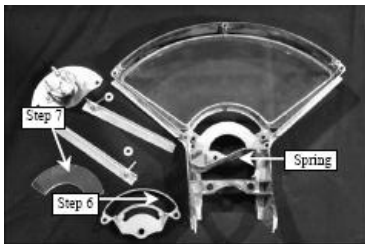
Figure 5
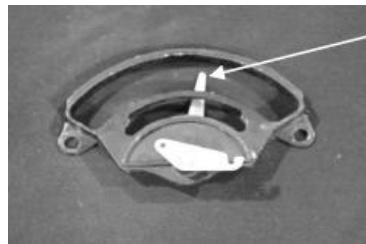
Figure 6

Step 7: Remove gear selector glass. (Figure 5)

Step 8: Remove stock gear selector pointer. (Figure 6)

Assembling Your New Classic Gauge Set

Note: Assembling using after-market bezel may require enlargements of mounting holes.

For manual transmissions, skip steps 1 – 4 & 6

Step 1: Place the furnished gear selector glass (small) over the gear selector housing.

Step 2: Before placing gear selector bracket over glass, file corners about 1/8 inch on the back side. (Figure 7)

Step 3: Use a very small amount of trim tape (supplied) on the back of the gear selector bracket to adhere glass.
Note: Make sure that the tape is not visible from the front.
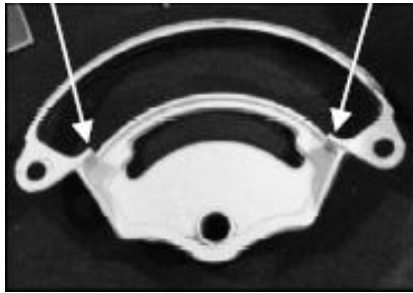
Figure 7

Step 4: Place gear selector bracket over gear selector glass.

Step 5: Use a very small amount of trim tape (supplied) around bezel and rim, then place large glass into the housing in order to cushion glass and prevent glass rattle. (Figure 8)
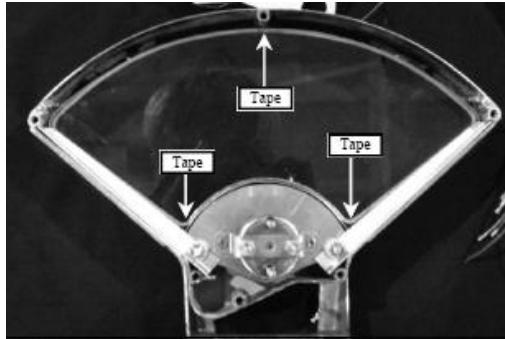
Figure 8

Step 6: Place gear selector movement over stock bracket. (Figure 8)

Step 7: Stack nylon washers over the mounting holes of the gear selector movement to make glass bracket level with glass. (Figure 9)
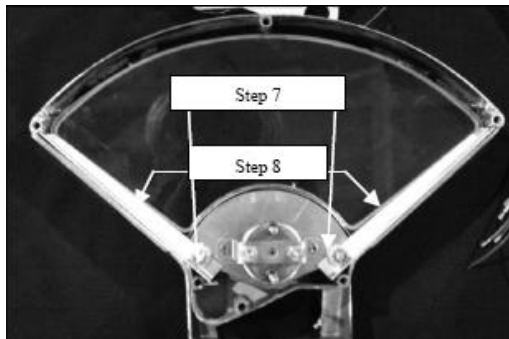
Figure 9

Step 8: Place glass brackets on each side of the bracket, making sure to push it into the corners completely. Screw down with (2) 8-32 x ½" screws and star washers. (Figure 9 & 10)
Note: Brackets must be level with glass.
Note: The hole in the brackets may need to be elongated in order to make it fit flush.

Mount Brackets With Sides Turned Up
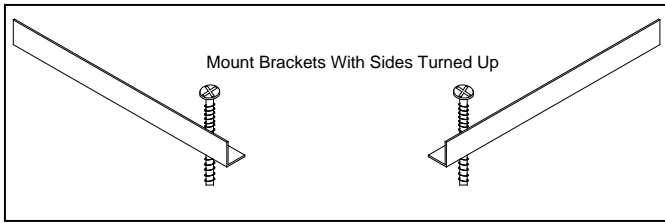
FIGURE 10

Step 9: Place Classic Instruments cluster into bezel.

Step 10: Use the six (6) furnished screws to screw the Classic Instruments cluster to the bezel.
Note: The aluminum housing interferes with the top hole. Remove both nuts in housing, insert mounting screw, and replace the two aluminum housing nuts.

Step 11: Plug supplied light into the bottom of the gauge cluster.

1955 / 1956 Chevy Wiring Diagrams

Using Classic Instruments Pulse Signal Generator

Black

Dk. Green

Pink

Black

White

Orange

White Tip

Red Tip

Black Tip

Right Turn Indicator

Left Turn Indicator

LED INDICATORS
BLACK = GROUND
RED = 12 VOLT

Tan

Pink

Black

Turn Indicators:
Red = Turn Signal Switch
Black = Common Ground

+12VDC (*Dash Lights*)

[PINK - **A**] +12VDC switched
[TAN - **B**] Fuel Level Signal
[BLACK - **C**] Good Chassis Ground
[DK. GREEN - **D**] Temperature Signal
[WHITE / BLACK - **E**] Gear Selector Signal (if used)
[ORANGE - **F**] +12VDC Gear Selector (if used)

[BROWN] Function / Setup signal

[RED] +12VDC output for speed generator
(*used only with SN16 or SN16FD*)

[PURPLE] Speed Signal

[GREEN] +12VDC High Beam Signal

[WHITE] Tachometer Signal

[BLACK] Good Chassis Ground

[PINK] +12VDC *Switched*

Good Chassis Ground

[BLUE] Oil Pressure Signal

[GREY] +12VDC Gauge Lights

Pushbutton

White

Good Chassis Ground

Red

Black

SN16

SN16F

Using Transmission Vehicle Speed Sensor

Black
Dk. Green
Pink

Black
White
Orange

White Tip
Red Tip
Black Tip

Right Turn Indicator
Left Turn Indicator

LED INDICATORS
BLACK = GROUND
RED = 12 VOLT

Turn indicators:
Red = Turn Signal Switch
Black = Common Ground

Tan
Pink
Black

+12VDC (Dash Lights)

[PINK - **A**] +12VDC switched
[TAN - **B**] Fuel Level Signal
[BLACK - **C**] Good Chassis Ground
[DK. GREEN - **D**] Temperature Signal
[WHITE / BLACK - **E**] Gear Selector Signal (if used)
[ORANGE - **F**] +12VDC Gear Selector (if used)

[BROWN] Function / Setup signal

Good Chassis Ground

Pushbutton

[BLUE] Oil Pressure Signal

[GREY] +12VDC Gauge Lights

[WHITE] Tachometer Signal

[GREEN] +12VDC High Beam Signal

[PURPLE] Speed Signal

[RED] +12VDC output for speed generator
(used only with SN16 or SN16FD)

Not Used

[BLACK] Good Chassis Ground

[PINK] +12VDC Switched

Good Chassis Ground
(ground at same place as Black wire)

Using ECM Speed Signal

Black
Dk. Green
Pink

Black
White
Orange

White Tip
Red Tip
Black Tip

Right Turn Indicator
Left Turn Indicator

LED INDICATORS
BLACK = GROUND
RED = 12 VOLT

Tan
Pink
Black

Turn Indicators:
Red = Turn Signal Switch
Black = Common Ground

+12VDC (*Dash Lights*)

[PINK - **A**] +12VDC *switched*
[TAN - **B**] Fuel Level Signal
[BLACK - **C**] Good Chassis Ground
[DK. GREEN - **D**] Temperature Signal
[WHITE / BLACK - **E**] Gear Selector Signal (if used)
[ORANGE - **F**] +12VDC Gear Selector (if used)

[BROWN] Function / Setup signal

Good Chassis Ground

Pushbutton

[BLUE] Oil Pressure Signal

[GREY] +12VDC Gauge Lights

[WHITE] Tachometer Signal

[GREEN] +12VDC High Beam Signal

[PURPLE] Speed Signal

[RED] +12VDC output for speed generator
(*used only with SN16 or SN16FD*)

Not Used

[BLACK] Good Chassis Ground

[PINK] +12VDC Switched

ECM Computer

Speed Signal
(*Usually a Green Wire*)

Wiring your 1955 / 56 Chevy Classic Gauge Set

Speedometer, Tachometer, Volt and Oil Pressure Gauge

Step 1: Connect the pink wire of the instrument harness to a +12VDC switched power source.

Step 2: Connect the black wire of the instrument harness to a good chassis ground.

Step 3: Connect the purple wire of the instrument harness to one of the following:

- One of the wires from a mechanical 2-wire pulse signal generator. Connect the other wire to instrument ground from step 2.
- The white wire from a mechanical 3-wire pulse signal generator.
- One of the wires from a built in 2-wire electronic speed sensor on the transmission. Connect the other wire to instrument ground from step 2.
- Speedometer signal wire from the computer.

Step 4: Connect the red wire of the instrument harness to the red wire of a mechanical 3-wire pulse signal generator (*only if 3-wire sender is being used*).

- Connect the black wire of a mechanical 3-wire pulse signal generator to a good chassis ground (*if 3-wire sender is being used*).

Step 5: Connect the white wire of the instrument harness to the tachometer signal.
See Table 1

Step 6: Connect the blue wire of the instrument harness to the oil pressure sender.
See Figure 10

Step 7: Connect the grey wire of the instrument harness to a +12VDC dash light power source.

Step 8: Connect the green wire of the instrument harness to the +12VDC high beam indicator signal.

Step 9: Connect the brown wire of the instrument harness to one lead of the function / setup pushbutton.

- Connect the other lead of the function / setup pushbutton to a good chassis ground.

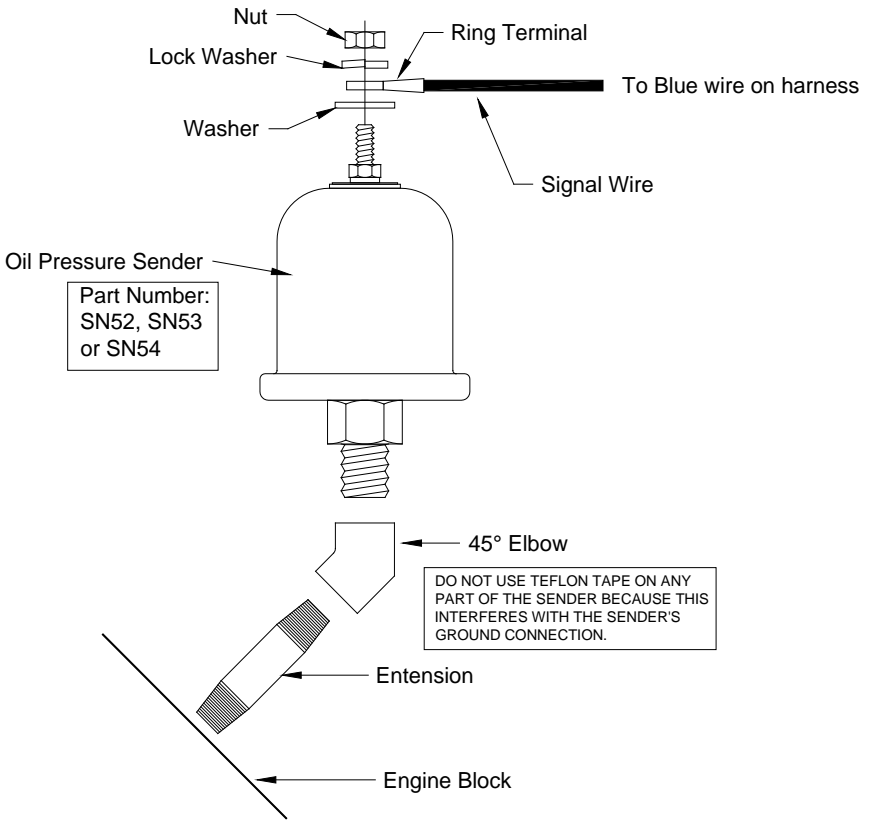| Ignition System	Tachometer Signal Source
Standard Points & Condenser System	Negative side of coil (usually marked "-")
GM – HEI (High Energy Ignition) System	Terminal marked "TACH" on coil side of distributor cap.
MSD (Multiple Spark Discharge) System	TACH post on MSD box. If there isn't a box, signal comes from negative side of coil. If tachometer doesn't respond correctly, your MSD system may require a MSD TACH adapter part #8910 or #8920. Contact MSD for the correct adapter for your application.
Vertex Magneto System	"KILL" terminal on side of Vertex magneto body. An external adapter such as a MSD Pro Mag Tach Converter #8132 may be required.
Mallory Ignition System	Negative side of coil (usually marked "-") **Important!** Some Mallory ignition systems require the tachometer to be set at the 4-cylinder setting.
ECM (computer) Tachometer Signal	Signal comes from the computer. You may need to set the tachometer at the 4-cylinder setting.
All Other Ignition Systems	Please look at the owner's manual for the location of the tachometer signal.

Table 1

Nut

Lock Washer

Washer

Ring Terminal

To Blue wire on harness

Signal Wire

Oil Pressure Sender

Part Number:
SN52, SN53
or SN54

45° Elbow

DO NOT USE TEFLON TAPE ON ANY
PART OF THE SENDER BECAUSE THIS
INTERFERES WITH THE SENDER'S
GROUND CONNECTION.

Entension

Engine Block

Figure 10

Fuel and Temperature Gauge

Step 1: Connect a +12VDC switched source to the pink wire (position A) of the fuel / temperature wiring harness.

Step 2: Connect a good chassis ground to the black wire (position C) of the fuel / temperature wiring harness.

Step 3: Connect the fuel sender to the tan wire (position B) of the fuel / temperature wiring harness. See figure 11 for wiring diagram. Note: Requires 0-30 ohm fuel sender.

Step 4: Connect the temperature sender to the dark green wire (position D) of the fuel / temperature wiring harness. See figure 12 for wiring diagram.
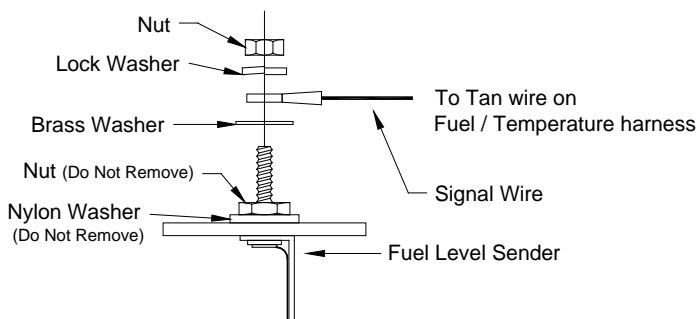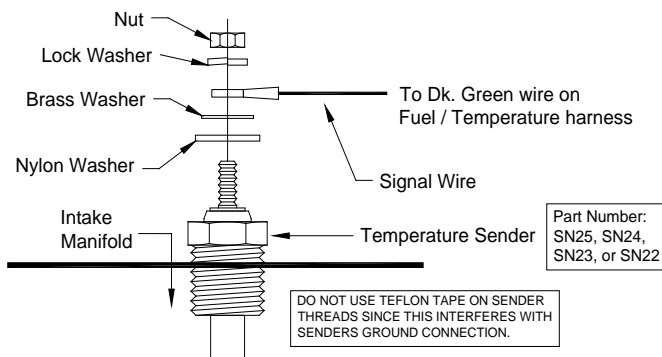
Nut
Lock Washer
Brass Washer
Nut (Do Not Remove)
Nylon Washer (Do Not Remove)
To Tan wire on Fuel / Temperature harness
Signal Wire
Fuel Level Sender

<u>Figure 11</u>

Nut
Lock Washer
Brass Washer
Nylon Washer
To Dk. Green wire on Fuel / Temperature harness
Signal Wire
Intake Manifold
Temperature Sender
Part Number: SN25, SN24, SN23, or SN22
DO NOT USE TEFLON TAPE ON SENDER THREADS SINCE THIS INTERFERES WITH SENDERS GROUND CONNECTION.

<u>Figure 12</u>

Gear Selector Gauge

Step 1: Connect a +12VDC switched source to the orange wire (position F) of the fuel / temperature wiring harness.

Step 2: Connect a wire from the "to gauge" position on the SN46 gear selector interface to the white wire (position E) of the fuel / temperature wiring harness.

Step 3: Connect the wire loop on the end of the orange wire of the fuel / temperature wiring harness to the gear selector gauge post marked with orange or red paint.

Step 4: Connect the wire loop on the end of the white wire of the fuel / temperature wiring harness to the gear selector gauge post marked with white paint.

Step 5: Connect the wire loop on the end of the black wire of the fuel / temperature wiring harness to the gear selector gauge post marked with black paint.

See Figure 13 & supplemental instructions included with the SN46 gear selector sender for details on how to wire / calibrate the gear selector sender.
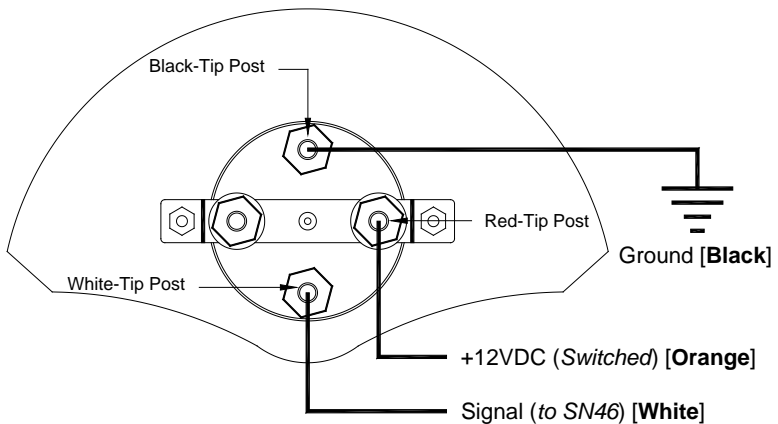

Black-Tip Post

Red-Tip Post

Ground [**Black**]

White-Tip Post

+12VDC (*Switched*) [**Orange**]

Signal (*to SN46*) [**White**]

Figure 13

Setting Up Your Speedometer and Tachometer

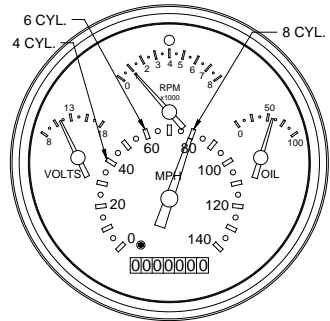| Speedometer / Tachometer Setup Option Menu		
Tach Pointer Location	**Setup Option**	**Description**
1000 RPM	Tachometer Cylinder Setup	Sets number of cylinders.
2000 RPM	Tachometer Signal Type	Selects between 5V and 12V tachometer signal.
3000 RPM	Speed Auto Calibrate	Calibrates speed using an exact marked mile.
4000 RPM	Real-Time Speed Adjust	Manually increase or decrease speed.
8000 RPM	Exit	Exit setup

Entering Setup Mode:

1) Start with the power off. While pressing the function button, start the vehicle's engine. Release the function button when the engine is running and the speedometer pointer is at 70MPH.

2) The tachometer will point to 1000 RPM and the speedometer will point at 70MPH once you have successfully entered the setup mode.

3) Tapping the function button will cycle through the setup options. (tachometer position)

4) Pressing and holding (approx. 4 seconds) the function button will select the current setup option that the tachometer is indicating.

5) When setup is complete, select the exit option (8000 RPM) then press and hold the function button for another 4 seconds.
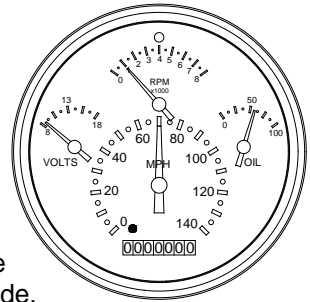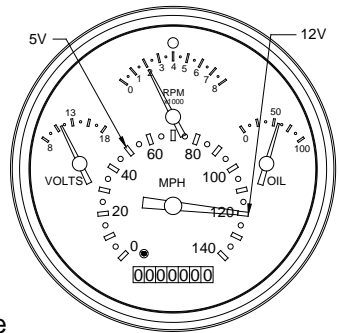
Tachometer Setup:

Cylinder Select:

1) Enter setup mode.
2) Tap the function button until the tachometer points to 1000 RPM (tachometer cylinder setup option).
3) Press and hold the function button for 4 seconds to enter the tachometer cylinder setup mode. The speedometer will point to the current cylinder number setting (40 MPH for 4 cylinders, 60 MPH for 6 cylinders, etc…).
4) Tap the function button until the correct setting is selected.
5) Press and hold the function button for 4 seconds to save the setting. The speedometer pointer will again point up and the tachometer will point to 8000 RPM (exit). Tachometer cylinder selection is now set.
6) If you are finished making setup changes, press and hold the function button for 4 seconds with the tachometer pointing to 8000 RPM to exit setup mode.

Tachometer Signal Type:

1)   Enter setup mode.
2)   Tap the function button until the tachometer points to 2000 RPM (tachometer signal type option).
3)   Press and hold the function button for 4 seconds to enter the tachometer signal type mode. The speedometer will point to the current setting (50 MPH for 5V signal or 120 MPH for 12V signal). *Note: Use 5V setting if tachometer signal comes from a computer. For any other signal use 12V.*
4)   Tap the function button until the correct tachometer signal type setting is selected.
5)   Press and hold the function button for 4 seconds to save the setting. The speedometer pointer will again point up and the tachometer will point to 8000 RPM (exit). Tachometer signal type is now set.
6)   If you are finished making setup changes, press and hold the function button for 4 seconds with the tachometer pointing to 8000 RPM to exit setup mode.
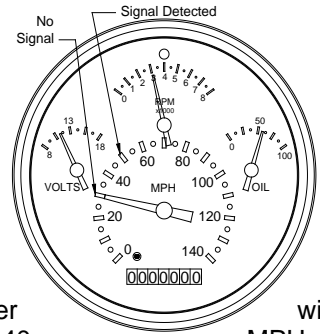
Speedometer Setup:

There are two ways to calibrate the speedometer. Speed auto calibrate (using an exact marked mile) and real-time speed adjust (manually adjust speed up or down). It is recommended you use the speed auto calibrate option first and then make any fine tune adjustments using the real-time speed adjust option.

Speed Auto Calibrate:

1) Enter setup mode.
2) Tap the function button until the tachometer points to 3000 RPM (speed auto calibrate option).
3) Press and hold the function button for 4 seconds to enter the speed auto calibrate mode. The speedometer will point to 30 MPH (on a 140 MPH speedometer) indicating you are in speed auto calibrate mode.
4) Begin driving the measured mile. The tachometer will operate as normal but the odometer will not move. When a speed signal is detected, the speedometer will point to 45 MPH. If a speed signal is NOT detected, the speedometer will continue to point at 30 MPH.
5) At the end of the measured mile, press and hold the function button for 4 seconds. The speedometer will again point up and the tachometer will point to 8000 RPM (exit). The speedometer is now calibrated.
6) If you are finished making setup changes, press and hold the function button for 4 seconds with the tachometer pointing to 8000 RPM to exit setup mode.

Real-Time Speed Adjust:

1)   Enter setup mode.
2)   Tap the function button until the tachometer points to 4000 RPM (real-time speed adjust option).

3)   Press and hold the function button for 4 seconds to enter the real-time speed adjust mode.
4)   Begin driving the vehicle at a   steady known speed (using a GPS or pacing another vehicle). The tachometer will remain at 4000 RPM to indicate the gauge is in real-time speed adjust mode.
5)   Pressing the function button will begin to increase the speed reading until the button is released.
6)   The next time the function button is pressed the speed reading will decrease.
7)   Continue adjusting the speedometer reading until the correct speed is achieved.
8)   If no adjustments are made for 8 seconds, the current calibration setting will be saved. The speed setting may still be adjusted after this until the key is turned off and will be saved again after 8 seconds of function button inactivity. When finished adjusting the speed, bring the vehicle to a stop and turn the key off to exit the setup mode.