SPEEDHUT®
Freedom CAN-bus Gauge Instructions

Freedom
CAN-BUS • OBDII • GAUGES

Figure 1: Gauge Power and Lighting Setup

Power Draw = 0.2 Amp
3A to 5A Inline Fuse Recommended
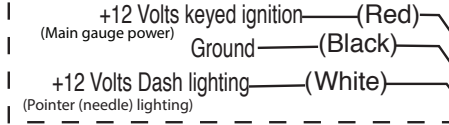for +12 Keyed Ignition

Note: Tie together the +12volt dash lighting white wire to the +12 volt inverter white wire and connect to the same dash lighting source.

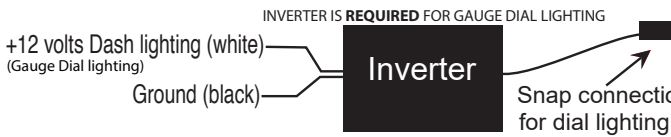Power distribution cable to plug all gauges into

+12 Volts keyed ignition————(Red)
(Main gauge power)
Ground————(Black)
+12 Volts Dash lighting————(White)
(Pointer (needle) lighting)

Turn signals and High Beam Indicator (if applicable)
**left turn signal +12V pulse ——(green with yellow)
**right turn signal +12V pulse ——(green with red)
**high beam wire +12V ——(blue with white)

INVERTER IS **REQUIRED** FOR GAUGE DIAL LIGHTING

+12 volts Dash lighting (white)
(Gauge Dial lighting)
Ground (black)

Inverter

Snap connection for dial lighting

Dial Lighting Inverter Note: Single EL dial lighting inverter included with individual gauge. Multi-gauge EL dial inverter included with gauge set of 3 to 8 gauges.
Protect any unused connectors. Damage to an unused connector could cause inverter failure.

1. Disconnect negative (-) battery cable
2. Hook up power requirements as shown in **Figure 1**.
3. Daisy Chain the gauges together (Gauges can be daisy chained in any order. See **Figure 2**)
4. Connect the chain of gauges to the OBDII wiring using the OBDII connector or wire it direct to *CAN high* and *CAN low* ECU lines.
CAUTION: Do not connect the Daisy Chain while connected to a powered OBDII system. Failure to do so will throw a check engine code.
      Wire Direct Note: Speedhut Freedom CAN-BUS gauges (individual or daisy chained) will not function when used in conjunction with any other OBDII device. Cycle the gauge power to restore proper gauge function.
5. Mount gauge(s) for easy viewing. Use spin lock ring (included) to mount to panel.
6. Reconnect negative (-) battery cable.

Figure 2: OBDII and Daisy Chain Setup

CAUTION: Do not connect the Daisy Chain while connected to a powered OBDII system. Failure to do so will throw a check engine code.

Daisy Chain Jacks only applicable to old Model CAN-Bus gauges

Note: Any number of CAN-bus Gauges can be daisy chained together in any order.

Gray Wire - CAN High

Black Wire - CAN low

Does your vechicle support the CAN-BUS protocol?
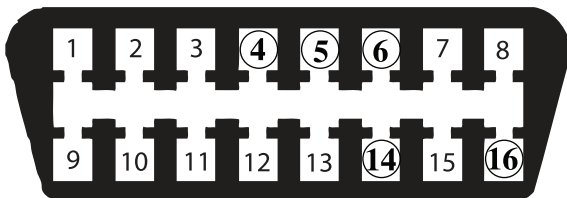
Vehicle's OBDII connector pin numbering

OBDII CAN (J1979) protocol Pinout:
If the vehicle has wires that connect to pins 6 and 14 of the OBDII connector then the vehicle supports the CAN-BUS (J1979) protocol.
Pin 4 -- Chassis Ground
Pin 5 -- Signal Ground
Pin 6 -- CAN High (data)
Pin 14 -- CAN Low (data)
Pin 16 -- +12volt Battery power (not for use as gauge power)

6/12/2020

SPEEDHUT®
Freedom CAN-bus Speedometer Functions

Freedom
CAN-BUS • OBDII • GAUGES

Menu Features - momentarily press button on speedometer to select different menu items.

Odometer and trip

000000 MI — Odometer (shows up to 999,999 miles or kmh)

000000 MI — Trip Odometer (shows up to 99,999.9 miles or kmh)
Press and hold button to reset trip.

Check Engine Enabled/Disabled

ENABLED
CHECK ENGINE

By default the Check Engine Alert is enabled.
Press and hold the button to toggle
between "ENABLED" and "DISABLED".

ENABLED - Speedometer will show check engine codes and allow you to clear them from the car's computer.
DISABLED - Speedometer will not show any check engine codes.

Speed Calibration

Note: To ensure your safety during Speed Calibration we suggest you have a passenger assist you while performing the speed calibration.

SPEED CALIBRATION
SPEED CALI.
30

1. Press the button several times until the Speed Calibration menu item is displayed on the LCD screen.

2. Press and hold button for 2-3 seconds to initiate the calibration mode.

3. The LCD screen will prompt you to drive the vehicle to a calibration speed (30 mph, if metric 50 KM/H).

4. Using a known accurate speed device (GPS or similar) drive your vehicle to the calibration speed.

5. When the vehicle reaches the exact calibration speed (30 mph, if metric - 50 KM/H), have a passenger promptly press the button.

6. Calibration is completed. Speedometer will exit calibration automatically and begin displaying the correct speed.

Note: If no accurate speed device is available, you can match the speed of your vehicle with a vehicle that is traveling at the calibration speed.

Check Engine Alert

000000 MI
CHECK ENGINE
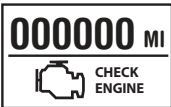
OBDII system has detected a problem.
Momentarily press the button to see the
Check Engine code.

DTC 1/1
P0234

Press and hold the button to clear the code.

Peak Recall (if available)
If your speedometer has peak recal you can quickly tell how fast your car went by pressing and holding for 2 seconds the button on the gauge. LCD will display peak MPH. After releasing button, press again within 2 seconds to clear peak memory. Speedo is now ready to store another peak.

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