

SST-MAX OBDII Shift Light instructions [CAN (J1979) protocol]

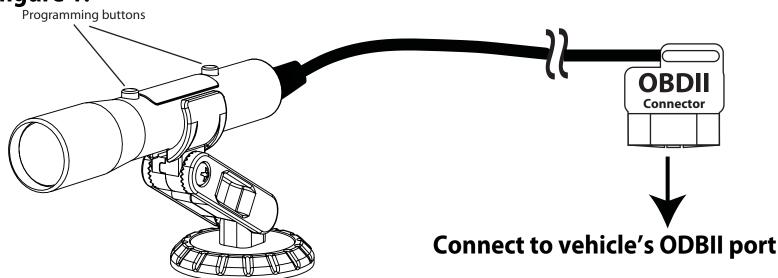


Installation Instructions

1. Plug the OBDII connector into the vehicle's ODBII port.

2. Mount the SST-MAX Shift-light for easy viewing. The Shift-light should be mounted in an area that will allow access to the programming buttons (see figure 1). Note: Use the included double sided tape or a screw (not inlcuded). Arrange the shift light cable so that it will not interfere with steering wheel, gear stick, or pedals.





OBDII NOTE: Speedhut SST-MAX Shift-light will not function when used in conjunction with any other OBDII device.

OPTIONAL: Direct Wire instructions (hard wire the SST-MAX Shift-Light into a PCM/ECU)

1. Disconnect negative (-) Battery Cable

2. Cut off OBDII connector and strip back the insulation to expose the red wire, black wire, white wire, and unshielded wire (see figure 2).

- 3. Connect wiring to the corresponding wires listed in figure 3.
- 4. Mount the SST-MAX Shift-light for easy viewing. The Shift-light should be mounted in an area that will allow access to the programming buttons (see figure 1). Note: Use the included double sided tape or a screw (not inlcuded).
- 5. Reconnect negative (-) battery cable.



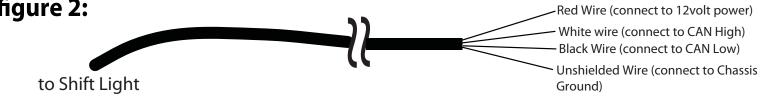
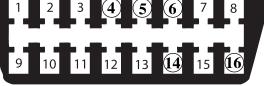


figure 3: OBDII CAN (J1979) protocol Pinout

If the vehicle has wires that connect to pins 6 and 14 of the OBDII connector then the vehicle supports the CAN (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



Vehicle's OBDII connector pin numbering

Power Note: There is no need to disconnect the shift light when not in use. The SST-MAX Shift-light will automatically go into a power saving mode when the vehicle is off. When the engine is started up the Shift-light will instantly be powered on and ready to use.

WARRANTY - Speedhut Inc. warrants to the consumer for a period of 5 years from the date of purchase that this product will be free from defects in materials or workmanship. Speedhut warrants to the consumer for a "LIFE-TIME" that the product circuit board will be free from defects in materials or workmanship. This warranty is limited to the repair or replacement of Speedhut Inc products. Speedhut Inc is not responsible for special, incidental or consequential damages or costs incurred due to the failure of this product. Modification to the product, improper use or installation, accident, water damage, abuse, unauthorized repairs or alterations voids this warranty. Speedhut Inc disclaims any liability for consequential damages due to breach of any written or implied warranty on all products manufactured by Speedhut Inc. Please contact Speedhut Customer Support If you have a problem with this product | support@speedhut.com | 801-221-1460 (9am - 5pm MST)





The SST-MAX OBDII Shift light is equipped with an easy to use LED display menu. The LED display by default will display your engine RPM. 1. Turn on power to the Shift-light by starting up the vehicle (or plug it into the ODBII port).

2. To access most menus follow this procedure below.



Initial Setup Instructions

Power Note: There is no need to disconnect the shift light when not in use. The SST-MAX Shift-light will automatically go into a power saving mode when the vehicle is off. When the engine is started up the Shift-light will instantly be powered on and ready to use.

1. <u>5Pd</u> Select the Number of Speeds for your Vehicle's Transmission

- 1. Select the <u>5Pd</u> menu option, press and hold a button for 2 seconds. Current setting will be displayed.
- 2. Toggle through 1 through 6 to select how many speeds your transmission has.
- 3. To save setting, do not press a button for 5 seconds. Display will blink indicating that the setting has been saved.

2. 🛛 🗁 Program the SST-MAX to your Vehicle's Gear Ratios

The SST-MAX can quickly learn your car's gear ratios, which allows you to setup a different shift point for each individual gear. **Please note: Program menu is only available while engine is running.**

- 1. Select the $P \subset P$ menu option, press and hold a button for 2 seconds. $9 \subset 1$ is displayed.
- 2. Drive the vehicle in 1st gear at a steady speed. Quick press a button, LEDs will blink to indicate 1st gear ratio is saved.
- $(\underline{G_{\Gamma}, 2})$ will automatically be displayed after the 1st gear ratio is set.
- 3. Drive the vehicle in 2nd gear at a steady speed. Quick press a button, LEDs will blink to indicate 2nd gear ratio is saved.
- $(\underline{G}_{\Gamma}, \underline{J})$ will automatically be displayed after the 2nd gear ratio is set.
- 4. Repeat procedure for each remaining gears. 9r. 4 9r. 5 9r. 6

Please note: Driving speed only needs to be steady for each gear and does not need to be close to the red line. For example 5th and 6th gears would be driven at a safe and legal speed (50-70MPH) while corresponding lower gears would be driven at slower steady speeds.

3. <u>SP. 1</u> to <u>SP. 6</u> Set Shift Point for each Gear

1. Select the $5P_{1}$ menu option. press and hold a button for 2 seconds. Current setting will be displayed.

Note: Engine RPM will show as this example: 8.35 = 8350 RPM

2. Toggle through to set your desired shift point.

- 3. To save setting, do not press a button for 5 seconds. Display will blink indicating that the setting has been saved.
- 4. Repeat procedure to set shift point for each gear.

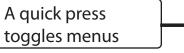
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The SST-MAX OBDII Shift-light features an easy to use LED display menu. The LED display can also display your engine RPM. 1. Turn on power to the Shift-light by starting up the vehicle (or plug it into the ODBI port). 2. To access most menus follow this procedure below.

A quick press enters menu mode



Press hold 2 secs to select menu

Additional Features and Operating Instructions

Power Note: There is no need to disconnect the shift light when not in use. The SST-MAX Shift-light will automatically go into a power saving mode when the vehicle is off. When the engine is started up the Shift-light will instantly be powered on and ready to use.

🛛 🗍 🗍 Engine RPM Peak Recall

The shift-light LED display by default will display the current engine RPM while in use.

Note: Engine RPM is displayed as this example: 8.35 = 8350 RPM

1. Press and hold a button for 2 seconds while viewing the current RPM*. The Peak Recall menu will be displayed.

2. Toggle through ([] to [P, G] to select a gear.

3. Press and hold a button to show the peak RPM for the selected gear, release the button to continue toggling.

P [L] Clear all Peak Recall Memory

1. To clear all peak recall memory, press and hold a button for 2 seconds. Display will blink indicating that the memory has been cleared.

 * The LED display settings can be chnanged to display one of these options - Current RPM, Current Gear, or the display can be turned off. Press and hold a button for 2 seconds while any of these options are displayed to enter the Peak Recall menu.

F d Shift-Light LED brightness settings

You can set the shift light LED brightness. The shift light will retain this setting in memory.

1. Select the 📗 🦳 🗁 menu option, press and hold a button for 2 seconds. Current brightness setting will be displayed.

2. Toggle through brightness setting using buttons.

- OFF = Turns off the shift-light LEDs
 - 1-4 = Indicates a brightness level

3. At desired brightness setting let shift light time out for 5 seconds to save the setting. LEDs will flash 2 times on exit of menu.

$[\Box \subseteq P]$ LED Display Setting

The shift-light will display current engine RPM or current gear on the LED display while in operation. If desired you can turn this feature off.

1. Select the 🛛 🛨 🖻 menu option, press and hold button for 2 seconds. Current display option will be displayed.

2. Press a button to toggle between $[EA_C], [GPd], [Gr], [ELP], and [GFF]$

 (ER_c) - LED display will show current engine RPM while in operation

Note: Engine RPM will show as this example: 8.35 = 8350 RPM

- 「두 尸 님] LED display will show current Speed in MPH
- 9 r. LED display will show current gear number while in operation
- FLP LED display will flip the displayed information upside down.

_ F F) - LED display will be turned off

3. To save the setting, do not press a button for 5 seconds.

Rull Launch RPM Menu

The SST-MAX Shift-Light "Launch" feature allows you to set an RPM launch point. Once the Launch Point is set, the light will turn on when the vehicle's RPM is within 200 RPM below or 200 RPM above the launch point (this is the Launch RPM Zone). If the RPM exceeds 200 above the launch point the light will blink, this indicates that you have passed the launch point RPM. While in the Launch RPM Zone the shift-light is steady on to indicate that you are on the correct RPM. Launch feature is automatically active when vehicle is not moving and the shift light is powered on.

1. Select the $(L \square U)$ menu option, press and hold a button for 2 seconds. Current setting will be displayed.

2. Toggle through 1.00 to 9.99.

Note: Engine RPM will show as this example: 8.35 = 8350 RPM

3. To disable the launch feature - set launch RPM to 9.99

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