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INSTALLATION GUIDE

Digital RPM 3 Mode Window Switch

Part Number: 18961



Caution: Do NOT allow any of the switch wires other than the RED (power source) wire to touch any 12V source, as this will cause the Unit to malfunction or destroy the functionality of the switch.

** Always disconnect the battery before attempting any electrical work on your vehicle. **

WIRING INSTRUCTIONS

Note: Automotive circuit connectors are the preferred method of connecting wires. However, you may solder if you prefer.

Note: If doing a LS engine swap, pick up the tach signal wire from the ECM/ECU and then set the tach switch to 4-cylinders.

INSTALLATION:

Ground – Black - This is the main ground for the display system. A wire should be run from this board to the vehicle engine block for the best ground. Use 18 AWG or larger wire to ensure sufficient grounding. Proper vehicle grounding is extremely important for any gauges (or electronics) to operate correctly. The engine block should have heavy ground cables connected to the battery, frame, and firewall. Failure to properly ground the engine block, senders, or digital dash can cause incorrect or erratic operation.

Power - Red - Connect the power terminal to accessory +12V power from the fuse panel or vehicle wiring harness. Using a 5-amp fuse or an inline 5-amp fuse holder. This terminal should have power when the key is on or in accessory position. Use 18 AWG wire to ensure the system receives a sufficient power feed.

Tach Input – Grey - Connect to the negative terminal of the ignition coil, or if using a high energy CD ignition, connect to the TACH output of your ignition system instead of the coil.

Tach Output – Blue - Connect to the negative/ground side of the device that you want to activate at the desired RPM.

Warning: Most Late Model vehicles that do not have a distributor or have multiple coils will require the use of a Tach Adapter.

If the device to which the blue wire is attached draws more than 3 amps, a relay must be used to drive that device or damage will occur to the unit.

If your vehicle has a **separate ignition coil**, connect the gray wire to the **negative (-)** side of the coil – the wire that goes to the points or electronic ignition module.

If your vehicle has a **GM HEI ignition**, connect to the terminal marked 'TACH', or, on some systems, a single white wire with a spade terminal.

If your vehicle has an **after-market ignition** – some systems will connect to the TACH output terminal.

If your vehicle has a **computer-controlled ignition** system, consult the service manual for the wire color and location for Tach signal output.

If your vehicle has a **magneto** system, connect the tach signal wire to the negative side of the coil. **Do not** connect the tach terminal to the positive (+ or high voltage) side of the ignition coil.

SET UP WINDOW

Note: You must set window settings before starting engine. To reset to default settings with ignition off press and hold both buttons then turn ignition on, and this will reset to factory. Changing a setting is confirmed by a slight blink in the display. Wait for blink after a change, before starting engine

You now have Three Modes available for the Digital RPM Switch, Mode function list:

1st menu item allows selection of one of three modes: 1L, 2L, 2Lb

2nd menu sets limit, low if window modes 2L or 2Lb, single if digital switch mode 1L (1 Limit)

2.5 menu sets high limit only if window modes 2L (2 Limit) or 2Lb (2 Limit bottom entry)

3rd menu allows selection of cylinders display shows: 1cyL 2cyl 4cyL 6cyL 8cyL 10cy 12_cy 4th

menu allows switch to be set to Normally Open (NO) or Normally Closed (NC).

For normally open, switch activation closes switch.

For normally closed, switch activation opens switch.

Switch connects to ground.

4th menu mode ends when it detects Tach signal.

Either button will display high RPM memory recall, after menu mode is over.

NOTE: Changing a setting is confirmed by a slight blink in the display. Wait for blink after a change, before starting engine.

MODE FUNCTION

For all modes: Two buttons, Left Increase, and the Right Decrease

Window Mode 1L: User enters one RPM value. If measured RPM is over that value, activates switch. If RPM is below that value, switch deactivates.

Window Mode 2L: User sets two limits, first is low limit, second is high limit. If measured RPM is within those limits, switch activates. If measured RPM is outside limits, switch deactivates.

Window Mode 2Lb: Same as Window Mode 2L, except once measured RPM leaves window, it only re-activates once it enters the window from the low limit side.

OPERATION:

The unit comes with a factory setting for an 8-cylinder engine, with activation at 5000 RPM *Normally Open*. The display will stay in Settings Mode until it receives a signal from the ignition system. To program the unit after starting the engine, shut the engine off and turn on only the ignition.

When in Settings Mode, use push buttons on the device face to change the RPM switch setting in increments of 100 RPM at a time, up to 9900 RPM. The left button increases, while the right button decreases. Once you are at the desired setting, the LED display will stay on the RPM setting for a few seconds. After you have finished, the readout will continue to display your setting for a couple of seconds, then it will proceed to the next setting which is the **Deactivation** setting. After setting the desired 'turnoff' RPM, the unit will then jump to the NO and NC settings. Finally, wait a few seconds and the device will move on to the final selection, number of cylinders. The device is programmed for use with 1, 2, 4, 6, 8, and 12-cylinder engines. Use the left button to make your selection after the unit is done displaying the NO/NC status. When you are satisfied with your settings, start your engine and your device will start to operate automatically.

A blue LED will indicate when the switch is activated, or power is able to flow.