

2007.5-2010 DURAMAX LMM GAUGE POD DIGITAL SWITCH

Installation Guide

Read the complete guide before beginning. Keep removed hardware organized, follow all safety precautions, and verify all connections before operating the vehicle.



07.5-10 LMM DURAMAX

Digital Switch

TUNING

Installation

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This instruction manual covers installation of the gauge pod mount DSP/SOTF switch for 2007.5-2010 LMM GMT-900 trucks only.

, LLC will not be held responsible for any personal, property, truck, vehicle, engine/powertrain, or transmission damage/injury that may result with the use of this module. This is an aftermarket part; just like any other aftermarket performance truck parts, install/use it at your own risk. Be sure to use caution when working around yellow connectors or wiring as these can be related to the SIR (airbag) system.

STEP 1

Unbolt the OBD2 plug.



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STEP 2

Use a small screwdriver, Remove the BLUE pin lock by releasing the 2 clip locks



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STEP 3

Remove the BLUE pin lock



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STEP 4

Insert the OBD2 side wire into pin 8



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STEP 5

Re-install the Blue Pinlock and re-attach the OBD2 Plug



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STEP 1

Disconnect batteries.

STEP 2

Decide where to mount the gauge pod switch and route OBD wiring harness carefully so it does not rub on any sharp edges or interfere with steering column/brake pedal/accelerator pedal linkage.

STEP 3

Unbolt the OBD port to allow easier access to the back side.

STEP 4

Using a small screwdriver or pick, carefully remove the OBD port "top row" blue plastic retainer clip.

STEP 5

Insert the included DSP/SOTF wire into pin position 8 of the OBD port. There are small numbers on the back side of the OBD port connector indicating pin position.

STEP 6

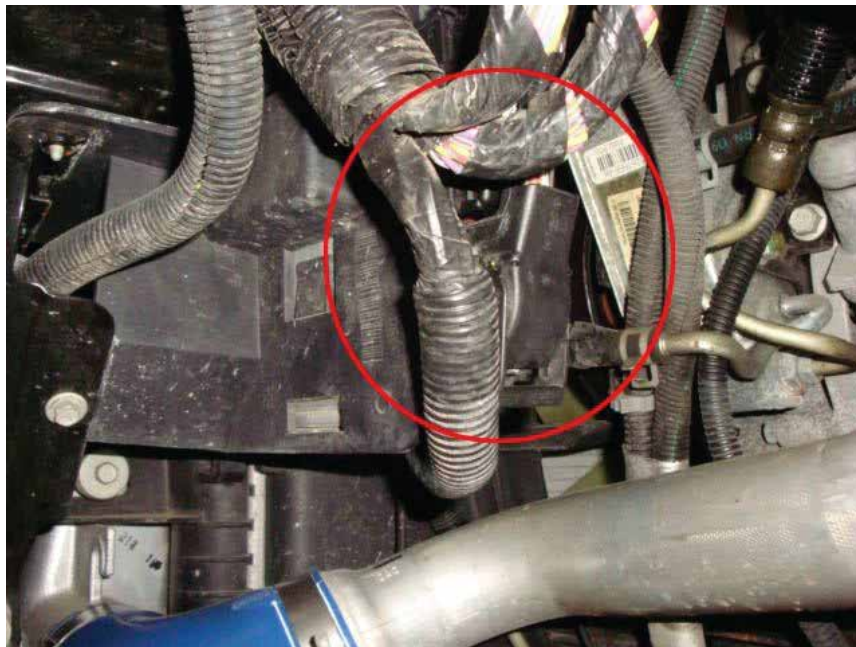
Replace the blue plastic OBD port pin retainer clip and re-install the OBD port on the dash bracket.

STEP 7

Route the wire through the firewall to the ECM. Be sure to wrap and carefully secure the wire so it does not rub on any sharp surfaces, hot surfaces, or moving parts! Failure to do so may result in chaffed wiring and permanent gauge pod switch damage.

STEP 8

Remove the ECM "C1" connector, the large 96-pin connector.



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STEP 9

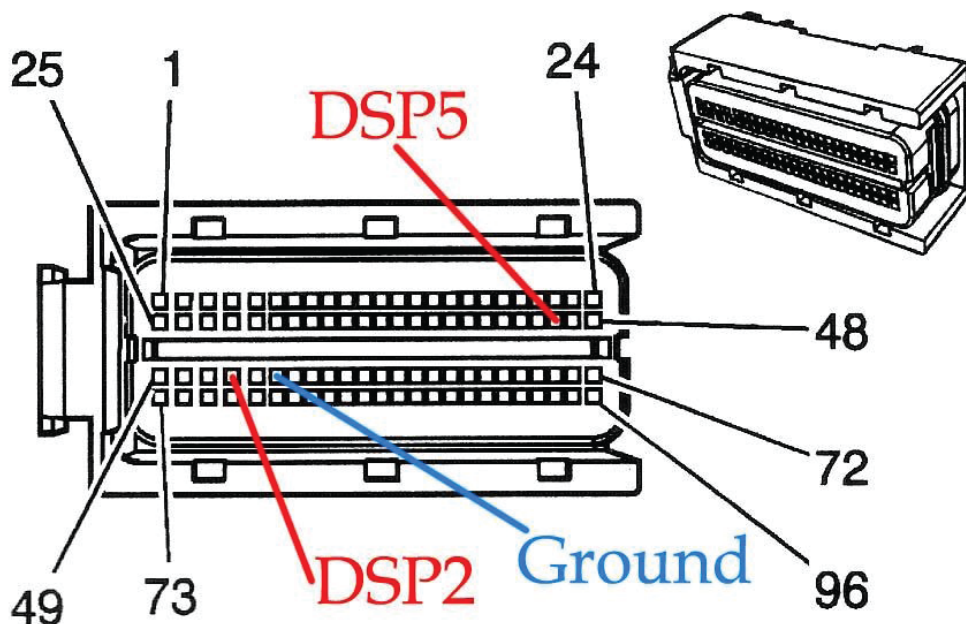
Using a small screwdriver or pick, carefully pry off the wire dress cover, and remove the purple pin retaining clip as shown.

STEP 10

Insert the DSP/SOTF wire into pin position 46 on the C1 ECM connector. Be sure to double check pin position and refer to ECM connector picture below. Pin 46 is next to a TAN wire. Inserting the pin into the wrong position may damage the ECM or gauge pod switch.



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STEP 11

Once the pin is inserted, replace the purple pin retainer clip. Give the wire a VERY GENTILE tug to be sure it is fully seated and locked in place.

STEP 12

Replace the connector wire dress cover, and reconnect the ECM connector. Be sure to double check DSP/SOTF wire routing again that it is not contacting any sharp/hot/moving parts!

STEP 13

Gauge pod switch display dimming is controlled automatically via CAN bus messages, no need to splice into your headlight switch wiring for night time display dimming!

STEP 14

Reconnect batteries.

STEP 15

First, plug the DSP/SOTF harness into the gauge pod switch, then connect the OBD plug on the DSP/SOTF harness into the vehicle's OBD port.

STEP 16

The switch should light up and turn on. NOTE: if the switch shows "-" on the display, simply press the "UP" arrow button once to initialize the switch. Once initialized, the switch should show a number, 1-5, indicating which tune is currently selected.

07.5-10 LMM Duramax

Digital Switch

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Truck year/engine configuration

STEP 1

Press and hold the UP arrow of the switch. While holding the UP arrow button plug in the OBD2 plug from the switch. The switch will power on and show P (program). Once it shows P, you can release the UP arrow.

STEP 2

The switch display will then show either "H", "1", or "2" for a few seconds, go blank for a second, then return to regular operation. "H" is 2001-2005 LB7/LLY Duramax, "1" is 2006-2010 LBZ/LMM Duramax, "2" is 2011-2016 LML Duramax and Ford Superduty 11-17

STEP 3

Each time programming mode is manually entered (following steps 1-3), the setting will step up one level (H, 1, 2), and then loop back around to "H". Once you have followed steps 1-3 the appropriate amount of times to get the "P" setting to H (LB7/LLY), you can turn the ignition OFF, wait a few seconds, and the year setting will be saved. You can re-enter programming mode (or example, if you are removing and installing the switch on a different truck) at any time by following steps 1-3.

Switch wake-up/sleep source

This programming mode is to setup the switch for automatic on/off based on CAN bus activity. When CAN traffic is detected by the switch (ie, when the ignition is turned on), the switch wakes up and turns on. When CAN traffic stops (ie, truck is shut off), the switch will wait an extra ~10 seconds, and then put itself to sleep so as not to drain the trucks battery.

The two settings on the switch are "C" for CAN bus wake up/sleep, and "D" for DISCRETE wakeup/sleep source. The "D" discrete power setting is only for 2001-2005 Duramax that does not have CAN pins wired into the OBD port and thus cannot be switched on/off automatically. "D" discrete setting for 2001-2005 Duramax simply turns the switch on/off with the ignition key.

STEP 1

Press and hold the DOWN arrow of the switch. While holding the DOWN arrow button plug in the OBD2 plug from the switch.

STEP 2

The switch will power on and show the current switch wake/sleep source. "D" (discrete, 01-05 Duramax only) or "C" (CAN, 2006+ Duramax and Ford). The switch display will then go blank for a second, then return to regular operation.

STEP 3

If the switch shows D, and returns to normal operation, the switch is configured properly.

STEP 4

To select the correct setting for switch wake-up. REPEAT steps 1-3

STEP 5

Double check on/off operation of the switch, with the key ON, the switch should be on, and the switch should then turn off as soon as the key is turned OFF.

Setup Complete Double check all connections, secure/tape any extra wire, reinstall trim panels, and enjoy gauge pod digital DSP/SOTF switch!

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High Idle MODE

The gauge pod digital DSP/SOTF switch also has a manual high idle mode for faster winter warm up, jump starting other vehicles, etc. To activate the high idle mode, the truck must be in PARK and your foot must be OFF the brake pedal. Press the "DOWN" arrow several times until the switch display shows "1". When the display shows "1", press and hold the "DOWN" arrow for ~3 seconds, and the display will change to "H" (High idle). Within a few seconds, the engine should begin to increase speed to ~1200 rpm.

To exit high idle mode, press the "UP" arrow, or press the brake pedal.



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WIRE CHART

PURPLE: NOT CONNECTED

RED: NOT CONNECTED

GREEN: NOT CONNECTED

Yellow/Green: NOT CONNECTED

BLUE: NOT CONNECTED



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06-07 LBZ Duramax

Digital Switch

TUNING

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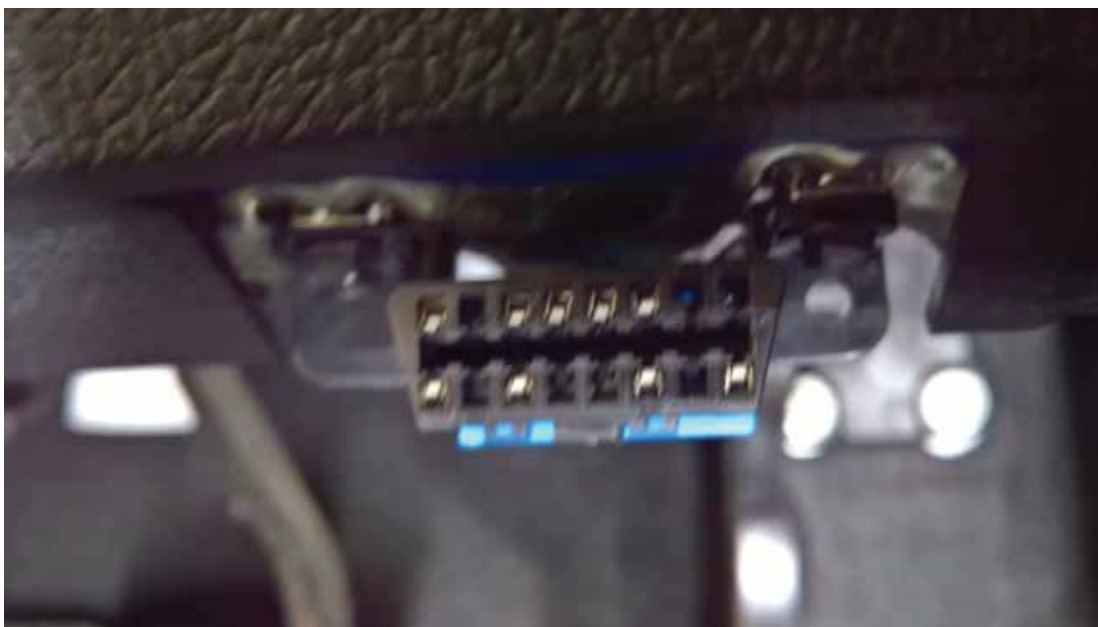
TM

This instruction manual covers installation of the gauge pod mount DSP/SOTF switch for 2006-2007 LBZ "classic/GMT-800" trucks only.

, LLC will not be held responsible for any personal, property, truck, vehicle, engine/powertrain, or transmission damage/injury that may result with the use of this module. This is an aftermarket part; just like any other aftermarket performance truck parts, install/use it at your own risk. Be sure to use caution when working around yellow connectors or wiring as these can be related to the SIR (airbag) system.

STEP 1

Unbolt the OBD2 plug.



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STEP 2

Use a small screwdriver, Remove the BLUE pin lock by releasing the 2 clip locks



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STEP 3

Remove the BLUE pin lock



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STEP 4

Insert the OBD2 side wire into pin 8



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STEP 5

Re-install the Blue Pinlock and re-attach the OBD2 Plug



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06-07 LBZ Duramax

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STEP 1

Disconnect batteries.

STEP 2

Decide where to mount the gauge pod switch and route OBD wiring harness carefully so it does not rub on any sharp edges or interfere with steering column/brake pedal/accelerator pedal linkage.

STEP 3

Unbolt the OBD port to allow easier access to the back side.

STEP 4

Using a small screwdriver or pick, carefully remove the OBD port "top row" blue plastic retainer clip.

STEP 5

Insert the included DSP/SOTF wire into pin position 8 of the OBD port. There are small numbers on the back side of the OBD port connector indicating pin position.

STEP 6

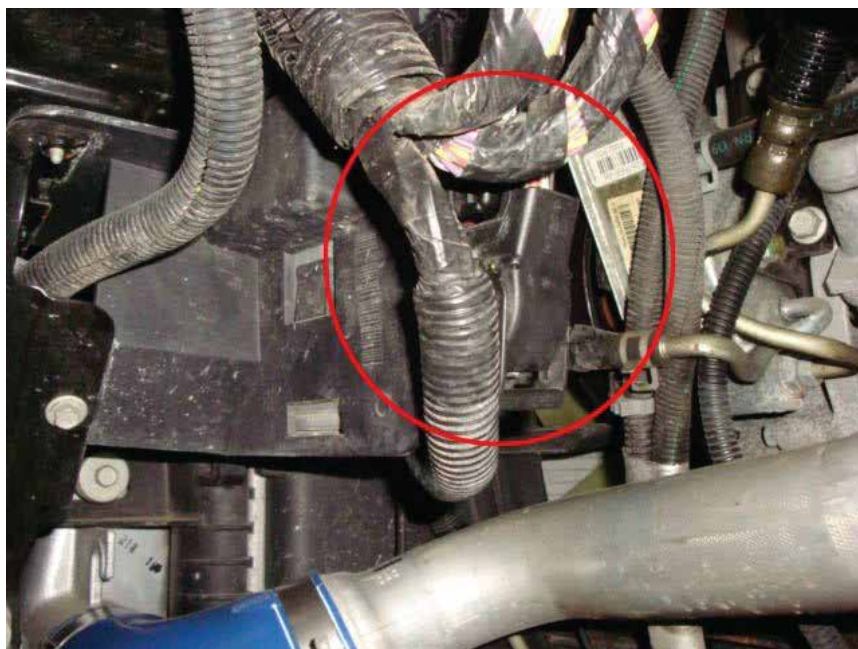
Replace the blue plastic OBD port pin retainer clip and re-install the OBD port on the dash bracket.

STEP 7

Route the wire through the firewall to the ECM. Be sure to wrap and carefully secure the wire so it does not rub on any sharp surfaces, hot surfaces, or moving parts! Failure to do so may result in chaffed wiring and permanent gauge pod switch damage.

STEP 8

Remove the ECM "C1" connector, the large 96-pin connector.



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06-07 LBZ Duramax

Digital Switch

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STEP 9

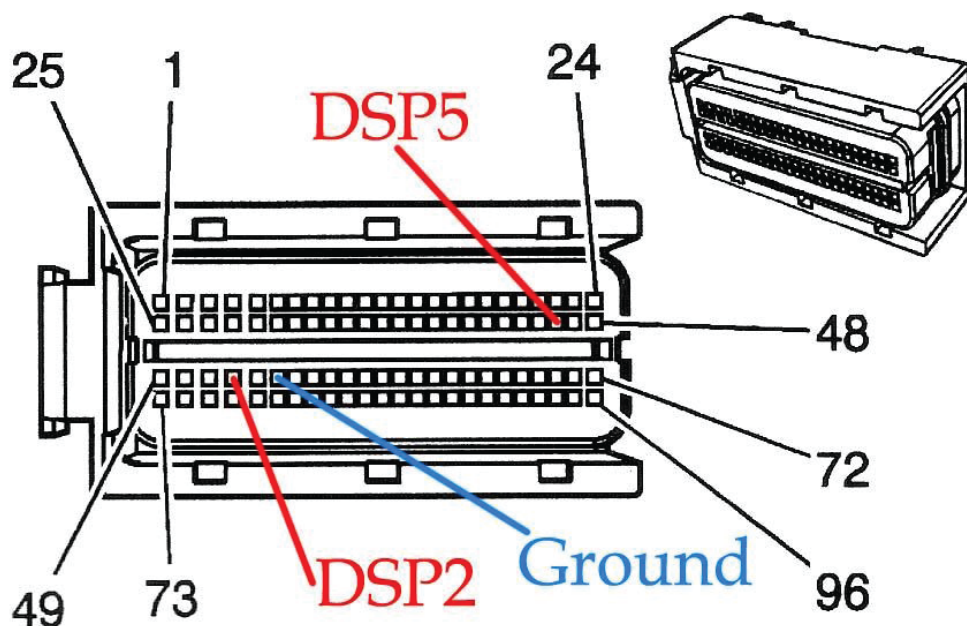
Using a small screwdriver or pick, carefully pry off the wire dress cover, and remove the purple pin retaining clip as shown.

STEP 10

Insert the DSP/SOTF wire into pin position 46 on the C1 ECM connector. Be sure to double check pin position and refer to ECM connector picture below. Pin 46 is next to a gray wire. Inserting the pin into the wrong position may damage the ECM or gauge pod switch.



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STEP 11

Once the pin is inserted, replace the purple pin retainer clip. Give the wire a VERY GENTILE tug to be sure it is fully seated and locked in place.

STEP 12

Replace the connector wire dress cover, and reconnect the ECM connector. Be sure to double check DSP/SOTF wire routing again that it is not contacting any sharp/hot/moving parts!

STEP 13

Route the PURPLE wire on the gauge pod switch harness to the back of the headlight switch. This is the signal wire for night time gauge backlight dimming, so the display of the DSP/SOTF switch dims automatically with the factory dash lighting dimmer control on the headlight switch.

STEP 14

Splice ("T") the PURPLE wire of the DSP/SOTF harness into the BROWN/WHITE-STRIPED wire on the headlight switch connector. Be sure to tape and secure all connections and splices correctly.

STEP 15

Reconnect batteries.

STEP 16

First, plug the DSP/SOTF harness into the gauge pod switch, then connect the OBD plug on the DSP/SOTF harness into the vehicle's OBD port.

STEP 17

The switch should light up and turn on. NOTE: if the switch shows "-" on the display, simply press the "UP" arrow button once to initialize the switch. Once initialized, the switch should show a number, 1-5, indicating which tune is currently selected.

06-07 LBZ Duramax

Digital Switch

Installation

Programming/setup procedure NOTE: The switch is set to a default mode from the factory and must be configured/setup for your particular truck.

The "UP" arrow is for configuring the year/engine of truck.

The "DOWN" arrow is for configuring the switch wake-up/sleep source

Truck year/engine configuration

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Press and hold the UP arrow of the switch. While holding the UP arrow button plug in the OBD2 plug from the switch. The switch will power on and show P (program). Once it shows P, you can release the UP arrow.

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The switch display will then show either "H", "1", or "2" for a few seconds, go blank for a second, then return to regular operation. "H" is 2001-2005 LB7/LLY Duramax, "1" is 2006-2010 LBZ/LMM Duramax, "2" is 2011-2016 LML Duramax and Ford Superduty 11-17

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Press and hold the DOWN arrow of the switch. While holding the DOWN arrow button plug in the OBD2 plug from the switch.

STEP 2

The switch will power on and show the current switch wake/sleep source. "D" (discrete, 01-05 Duramax only) or "C" (CAN, 2006+ Duramax and Ford). The switch display will then go blank for a second, then return to regular operation.

STEP 3

If the switch shows D, and returns to normal operation, the switch is configured properly.

STEP 4

To select the correct setting for switch wake-up. REPEAT steps 1-3

STEP 5

Double check on/off operation of the switch, with the key ON, the switch should be on, and the switch should then turn off as soon as the key is turned OFF.

Setup Complete Double check all connections, secure/tape any extra wire, reinstall trim panels, and enjoy gauge pod digital DSP/SOTF switch!

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NOTE: on 2011-2016 LML trucks, it may take an extra ~5 seconds to engage high idle, and the RPM rise rate may appear slow, taking an extra ~10 seconds to reach the full 1200 rpm. This is normal.

To exit high idle mode, press the "UP" arrow, or press the brake pedal.



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WIRE CHART

PURPLE: ILLUMINATION

RED: NOT CONNECTED

GREEN: NOT CONNECTED

Yellow/Green: NOT CONNECTED

BLUE: NOT CONNECTED



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