

AutoSync – Installation guide

Supported vehicles:

2007.5-2014 Silverado/Sierra 2500-3500

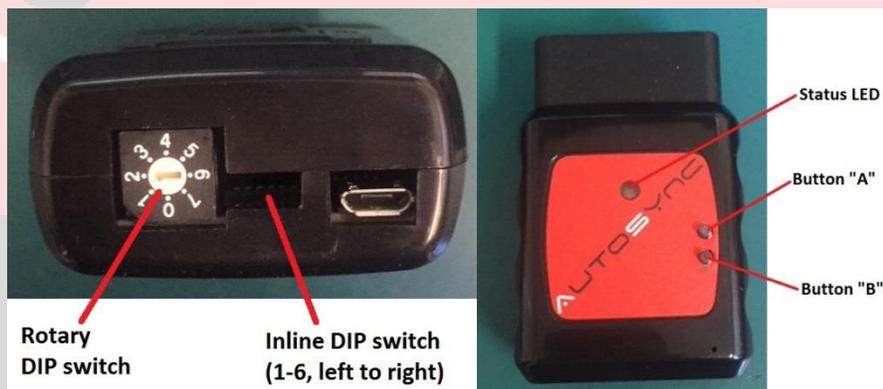
2007.5-2013 Silverado/Sierra 1500

2007-2014 Tahoe/Yukon/Suburban/Escalade/Denali

Thank you for purchasing the AutoSync. This is an all-in-one easy-to-install module that adds many enhanced functional and comfort features to your GMT-900 truck or SUV. Upon unpacking your AutoSync, please inspect it carefully for any broken pieces that might have been damaged in shipping.

The only tools required are a small flat-head screwdriver to set the rotary DIP switch, and paper clip to set the inline DIP switches.

Please see picture below, note the DIP switches, and the status LED. All DIP switch setting changes must be made with the module unplugged from the truck. There are also two momentary push-buttons on the top of the module marked "A" and "B". The AutoSync must remain plugged in at all times for features to work. TPMS threshold programming and remote keyfob learning do NOT require AutoSync to remain plugged in. You can use AutoSync with an OBD port splitter (to use simultaneously with another scan tool, Edge Insight, EZ Lynk, etc) **however the AutoSync boost/EGT display may not work correctly**. AutoSync will not drain your battery when left plugged in with the vehicle off, and it will not cause any harm if you unplug/plug-in AutoSync while the vehicle is running.



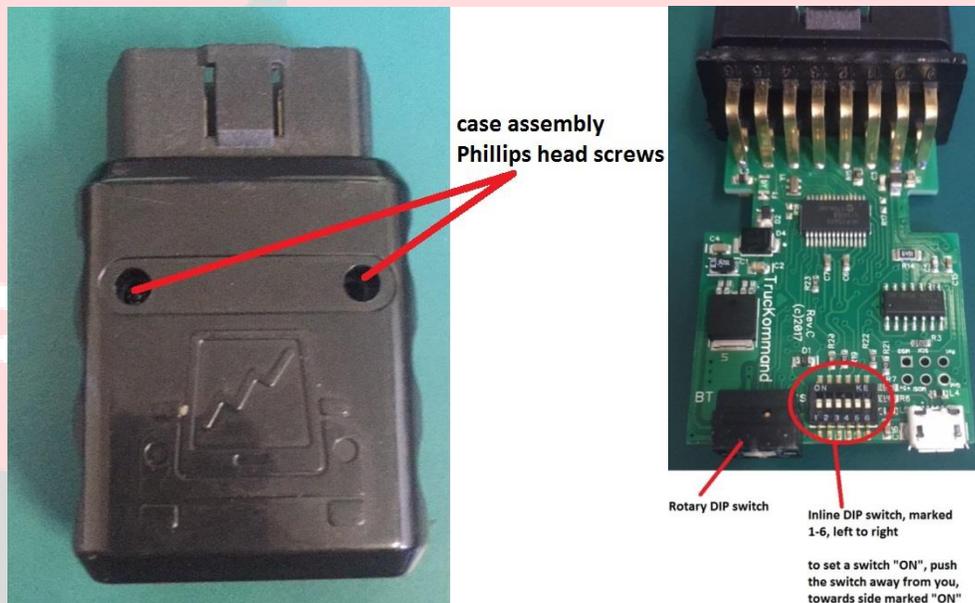
Inline DIP switch (left to right):

1. Unused, must be set to "OFF".
2. Brake light strobe feature: ON/OFF
3. Turn signal activates backup camera display: ON/OFF
4. External scan tool (Edge, EZ Lynk, etc) also hooked up via OBD y-cable? (yes=ON, no=OFF)
5. EFILive/EZ-Lynk switchable tuning: ON/OFF
6. Unused, must be set to "OFF".

Rotary DIP switch:

0. TPMS disabled
1. TPMS warning threshold set to 25psi
2. TPMS warning threshold set to 35psi
3. TPMS warning threshold set to 45psi
4. TPMS warning threshold set to 50psi
5. TPMS warning threshold set to 55psi
6. TPMS warning threshold set to 60psi
7. TPMS warning threshold set to 65psi

NOTE: It might be difficult to see/access the DIP switches, use a flash light and the picture below for a reference. A curved pick or paperclip works best, to set a switch "ON", very carefully push the switch away from you. The switches are small; use extra care when actuating them and you will feel a soft click. If need be, you can also open the case by removing the two small Phillips head screws and VERY CAREFULLY pull the two case halves apart. When re-assembling, be sure to NOT over tighten the screws!



NOTE: AutoSync data display is default set to US/SAE units, if you wish to see data in metric units, simply use the factory **Driver Info Center (DIC)** controls to set the vehicles units to "metric". The AutoSync will detect this change directly from the vehicles Body Control Module and automatically reconfigure itself to metric units.

The following features are activated using the mirror position directional-pad. When the left/right selector is set to left or right (as shown by the left/right indicator light), the mirror d-pad button will control mirror movement and position as normal. When the left/right selector is "centered", the mirror d-pad button will control the AutoSync features.

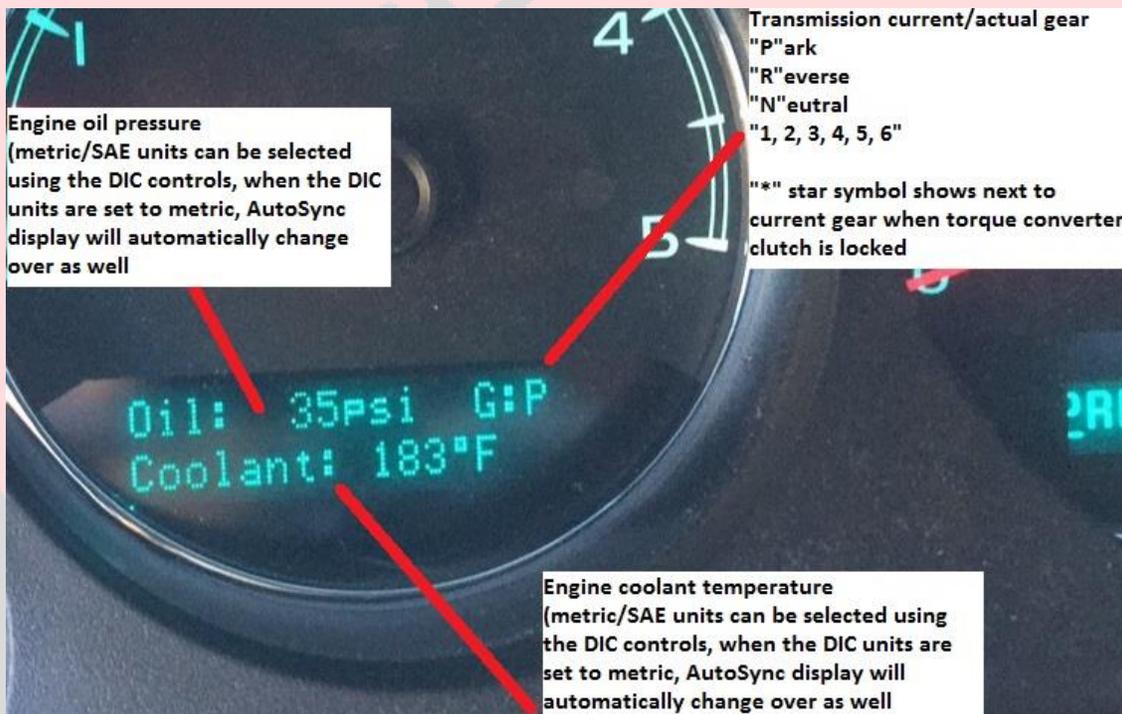
IMPORTANT NOTE: the engine data DIC display feature works on: all SUV's, SLT/LTZ/Denali pickups, and SLE/LT pickups WITH factory power-fold mirrors (check the glovebox RPO sticker for "DL3"). If you have an SLE/LT/base truck WITHOUT factory power fold mirrors (DL3), the DIC engine data display will NOT work. This is not an AutoSync limitation, it is unfortunately simply due to the way GM wired/configured the lower trim vehicles...



-“DIESEL VEHICLES ONLY”- Momentarily press the “LEFT” arrow of the mirror d-pad to activate the turbocharger boost pressure and Exhaust Gas Temperature display in the Driver Info Center (DIC). EGT is measured via the factory “EGT-1” sensor (turbo outlet for LML, downpipe pre-catalytic converter for LMM...**NOTE** this EGT reading will be 150-200* lower than a typical exhaust manifold reading) **If the Diesel Particulate Filter (DPF) regeneration process is currently active, an “R” will also be shown next to the EGT temp reading.**



-Momentarily press the “RIGHT” arrow of the mirror d-pad to activate engine coolant temperature (ECT), engine oil pressure (EOP), transmission current gear, and torque converter clutch lockup status. “G: _” is the transmission current gear display, which will show P,N,R,1,2,3,4,5,6 depending on current transmission gear. If the torque converter is locked, a “*” star symbol will show next to the current gear number.



When you activate either of these data displays, you will hear a “beep” tone from the stereo, and the live data display will show up in the DIC. The info is updated/refreshed in real time several times per second.

To “lock” the data display on and prevent the ~7 second timeout, simply press and HOLD the left or right button for roughly 2 seconds. You will then hear a second “beep” tone, indicating that the DIC data display is “locked” on. **To clear/unlock the data display, press the “UP” arrow of the mirror d-pad.**

IMPORTANT NOTE: If you use the vehicle’s dash mounted DIC buttons to force-clear the DIC while the AutoSync live data display is active, you might find that the AutoSync data display does not work next time you select the left/right buttons. To “re-sync” the AutoSync with the DIC, momentarily press the “UP” arrow of the mirror d-pad, wait a few seconds, and then try re-selecting the desired live data display with the left/right arrow buttons.

-Momentarily press the “DOWN” arrow of the mirror d-pad to activate the backup camera “peek” feature at any time. You will hear a “beep” tone and the navigation unit display will switch to backup camera mode (to check on trailer, cargo, blind spots, etc) for approximately 5 seconds, and then automatically return to regular navigation/radio display.

-If you wish to also have the backup camera automatically turn on for several seconds with the turn signals (helpful for viewing blind spots!), set inline DIP switch 3 to “ON” (see DIP switch setting instructions on page 2. **NOTE: these backup camera feature works on 2012-2014 vehicles with factory navigation system only.**



Automatic torque converter lockup controller mode enables the AutoSync to force-lock the torque converter under high horsepower applications when lockup might normally be delayed or limited due to the TCM’s over-protective TCC apply logic. This mode will immediately force-lock the converter

regardless of TCM programming, to ensure consistency at the drag strip and sled pulling track. On higher horsepower trucks, it can improve E.T. and trap speed as well. Unlike other manual lockup controllers on the market, this mode will NOT set any codes, and is fully automatic/hands-free.

The following conditions must be met before the AutoSync will force-lock the torque converter:

- greater than 95% throttle
- 2nd gear or above
- brake pedal not pressed
- greater than 30mph vehicle speed
- greater than 2000rpm engine speed

Torque converter lockup controller function is automatically “armed” whenever the driver manually switches off Traction Control System (TCS) with the TCS button on the dash. Note: you only have to manually turn off TCS (**short** button press) in order for the torque converter lockup controller to function. **You do NOT have to also turn off Electronic Stability Control (ESC/Stabilitrak)**. TCS is what limits wheelspin in a straight line, ESC is what corrects adverse yaw and provides vehicle rollover mitigation.

AutoSync is specifically programmed this way so you are allowed some wheelspin when the torque converter is force-locked, while still leaving ESC and rollover mitigation active. The automatic lockup controller will also work with ESC fully disabled (long 5-second button press), but is not advised due to risk of injury/death in a rollover or loss of control.



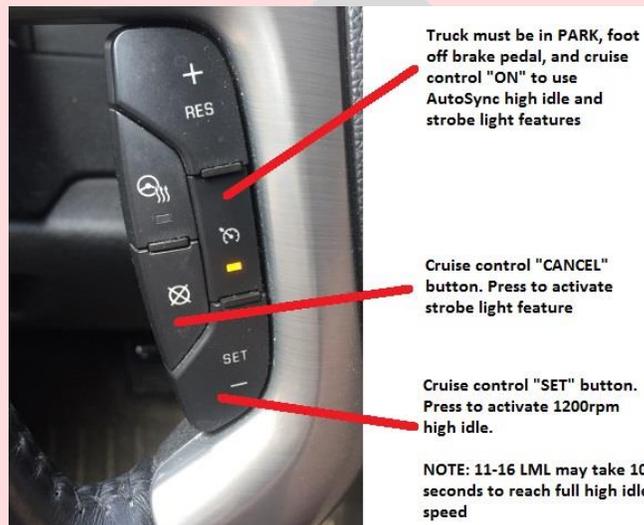
NOTE: The following trucks do NOT have ESC/TCS, and therefore the automatic lockup controller will be armed at all times:

- All 2007-2014 model year 3500 dually trucks

-All 2007-2008 short bed and long bed single-rear-wheel 2500/3500 trucks

-All 2009-2010 long bed single-rear-wheel 2500/3500 trucks

High idle mode allows the user to manually set the engine at 1200rpm high idle speed to improve heater performance in the cold, AC performance in the hot, or to provide additional alternator power during vehicle jump starting. To use high idle, be sure that the truck is in park, foot is off the brake pedal, and cruise control on/off switch is "ON" (cruise LED illuminated). Press the cruise "SET" button to engage high idle. Press the brake pedal to disable high idle. NOTE: 2011-2016 LML trucks may appear to take a while to idle up to 1200rpm, this is normal.



-Strobe light mode enables an exterior lighting feature that continuously cycles the front turn signals, rear turn signals, brake lights, reverse lights, fog lights and high beam headlights in a rapidly repeating fashion. To enable strobe light mode, the cruise control on/off button must be "ON", truck must be in park, and foot off brake. Press the cruise "CANCEL" button to enable strobe light mode. The truck will chime once, and the DIC will show "STROBE LIGHTS ON". To disable strobe light mode, press the brake pedal. NOTE: it might take several extra seconds to clear the "STROBE LIGHTS ON" message in the DIC. Strobe light mode is not allowed while the vehicle is moving due to FMVSS/DOT lighting regulations.



-Another enhanced lighting feature is the brake light strobe feature. This adds the function of strobing the brake lights rapidly twice before illuminating solid whenever the brake is pressed, similar to fire/EMS vehicles' brake lights. To enable this feature, set inline DIP switch 2 to "ON". (see page 2)

TPMS disable mode allows the driver to disable the factory Tire Pressure Monitoring System. Many aftermarket wheels are designed as such that TPMS sensors do not mount/fit properly, thus disrupting the system and causing a TPMS warning light along with "SERVICE TIRE MONITOR" message in the DIC. Be sure the vehicle is fully powered down and AutoSync is unplugged. Using a small flathead screwdriver, set the rotary DIP switch to "0". This will disable TPMS and suppress both the warning light/DIC message. **The AutoSync must remain plugged in for the TPMS disable feature to work. If the AutoSync is unplugged, the TPMS warning will reappear within the next 1-2 ignition cycles.**

NOTE: when the AutoSync is set to disable TPMS, the truck will still chime and display a temporary "TPMS DISABLED" message in the DIC several seconds after startup. This is simply to warn the driver that TPMS has been disabled by AutoSync. The DIC message will self-clear after ~5 seconds.



If you wish to keep TPMS enabled/functional, but simply want to lower the warning threshold (the tire pressure at which the dash warning comes on), AutoSync can do that as well. This is useful for cold winter months, or vehicles that are unloaded/not towing and want to run a little less tire pressure.

Start with vehicle OFF. Unplug AutoSync and set the rotary DIP switch to the desired warning threshold pressure. See rotary DIP switch chart on page 2 of instructions. Plug AutoSync in, and turn ignition ON (do not start engine). Wait 15 seconds. Press the "B" button on the AutoSync. You will hear a chime, indicating TPMS threshold program mode is active. Within 10 seconds, you will hear another chime, indicating TPMS program mode is complete. Turn ignition OFF and wait 30 seconds. TPMS warning threshold warning is complete.

GM removed the ability for the user to self-program additional remote keyfobs on 2010+ vehicles. For 2007-2010 vehicles, you can learn new keyfobs using the DIC menu buttons. For later vehicles without this menu option in the DIC, AutoSync can perform this function without requiring a trip to the dealer. Turn ignition ON, engine off. Press the "A" button on the AutoSync. You will hear a beep, and the DIC

will show “REMOTE LEARNING ACTIVE”. When the “REMOTE LEARNING ACTIVE” message comes up on the DIC, press and hold both LOCK and UNLOCK buttons simultaneously of the new keyfob that you wish to program. After ~5 seconds, you should hear another beep, and the DIC message will clear. Turn the ignition OFF, wait 30 seconds, and the new keyfob should be fully programmed. You can add up to 8 total keyfobs to one vehicle.

Work light mode is a function of the AutoSync that allows you to manually turn on the cargo/bed light and reverse lights at the same time. This is useful for providing illumination to the rear area of the truck at night for hooking up trailers, loading the bed, etc. To use the work light mode, the ignition must be ON and vehicle in PARK. Set the parking brake. You will hear a chime and see “WORK LIGHT ON” message in the DIC, indicating the bed light/reverse lights work light mode is active. To turn off work light mode, release the parking brake. The bed/reverse lights will turn off and the DIC message will self-clear within 5 seconds.



AutoSync provides additional window convenience features/enhancements as well.

NOTE: these express up/down window features work on all SUV's, SLT/LTZ/Denali pickup truck, and SLE/LT pickup truck WITH factory power-fold mirrors (check the glovebox RPO sticker for “DL3”). If you have an SLE/LT/base pickup truck WITHOUT factory power fold mirrors (DL3), the DIC engine data display will NOT work. This is not an AutoSync limitation, it is unfortunately simply due to the way GM wired/configured the lower trim vehicles...

-“Express up” (one-touch) for the drivers front window. Simply “blip” the driver’s window switch up, and the window will automatically fully close. To immediately stop express-up at any time, blip the driver window switch “down”. To partially close the window (without activating express-up), holding the window switch “up” for longer than ~1 second will stop express-up from activating. In other words, a short flick of the switch activates express-up, a longer hold of the switch will not activate express-up.

-“Express down” (one-touch) for both rear windows. Simply “blip” either rear window switch down, and the respective window will automatically open fully. Halting express-down operation, or only partially

opening the window (without express-down activating) is accomplished in the same manner as the above-explained drivers express window operation.

-NOTE: Express-up on the rear windows, or front passenger window is **NOT** available due to lack of pinch-protection logic in the window motors, and risk of inadvertently trapping a front/rear passenger in the window. **Be sure to exercise care when using the AutoSync express up/down window functions, and NEVER allow any children to sit in the vehicle unattended!!!**

Window control and mirror fold control via the remote keyfob lock/unlock buttons while the vehicle is off (and within range of the keyfob) is also available.

-To unfold the power-fold mirrors (if equipped) while the truck is off, press the “unlock” button 3 times within ~5 seconds.

-To open the windows while the truck is off, press the “unlock” button 4 times within ~5 seconds.

-To fold the power-fold mirrors (if equipped) while the truck is off, press the “lock” button 3 times within ~5 seconds.

-To close the windows while the truck is off, press the “lock” button 4 times within ~5 seconds.

NOTE 1: these window/mirror features work on all SUV’s, SLT/LTZ/Denali pickup truck, and SLE/LT pickup truck WITH factory power-fold mirrors (check the glovebox RPO sticker for “DL3”). If you have an SLE/LT/base pickup truck WITHOUT factory power fold mirrors (DL3), the DIC engine data display will NOT work. This is not an AutoSync limitation, it is unfortunately simply due to the way GM wired/configured the lower trim vehicles...

NOTE 2: Be sure to exercise care when using the AutoSync remote open/close window functions, and NEVER allow any children to sit in the vehicle unattended!!!

NOTE 3: On vehicles without BT DieselWorks BCM (body control module) tuning, the remote keyfob functions will only open/close the front windows. To enable rear window control via remote keyfob, you will need BCM tuning.

NOTE 4: DO NOT remotely operate the windows with the keyfob if you do not have direct line-of-sight with the vehicle! This is to ensure that the windows actually close fully, and that nothing is in danger of being pinched in the closing window. If a window happens to bind, it will obviously not close properly...we will not be held responsible if one or more of the windows fails to fully open/close (due to mechanical or electrical problem) when using the remote keyfob!!

NOTE 5: The sunroof will NOT open/close via the remote keyfob. This is for windows/mirrors only!

NOTE 6: AutoSync adds an additional feature that allows you to learn the “6-button” factory Tahoe/Suburban remote keyfob to your pickup truck. This will give you two extra auxiliary control buttons (the SUV’s rear hatch buttons) to open/close the windows WITHOUT having to press the lock/unlock buttons!



EFI Live DSP-5 / EZ Lynk SOTF switching. AutoSync enables an alternative to engine tune switching that is much cleaner and more attractive than the traditional rotary “knob”. This allows you to select tunes 1-5 using the tap-shift buttons on the shifter, and the DIC.

-The “DSP/SOTF signal” wire is an additional accessory for the AutoSync to add this feature. The wire must be inserted into pin position 8 of the OBD port.

-Unbolt the OBD port from the dash bracket, and remove the top row blue plastic retainer clip using a small screwdriver or pick. Insert the AutoSync DSP/SOTF wire into pin position 8 (top row, furthest right...confirm with the small pin location numbers printed on the OBD port connector itself).

-Cut the “SIGNAL” wire going to the existing rotary DSP/SOTF knob switch. Usually this wire color is purple or blue. Splice the AutoSync DSP/SOTF wire to the DSP/SOTF signal wire that you just cut. The ground (usually black) wire going to the old rotary switch can be cut/taped off/removed. **BE SURE TO DOUBLE CHECK WHICH WIRES YOU ARE WORKING WITH. SPLICING THE AUTOSYNC DSP/SOTF WIRE TO THE “GROUND” WIRE OF THE OLD ROTARY KNOB SWITCH WILL DESTROY THE AUTOSYNC AND VOID WARRANTIES!**

To use the AutoSync DSP/SOTF switch (be sure inline DIP switch 5 is set to “ON”, see page 2):

-**Be sure you are in any gear position except “M” manual** (tune switching is disabled when in Manual)

-**To check what tune you are currently in:** tap either the “+” or “-” button on the shifter. You will hear a “beep” and the currently selected tune will show up in the DIC for several seconds and then clear.

-**To change tunes:** press and hold either the “+” (increase tune) or “-” (decrease tune) button on the shifter for ~2 seconds. The currently selected tune will show up in the DIC. Keep holding the button, you will hear a second beep, and the tune change will show in the DIC for several seconds before clearing.