## BT DieselWorks AutoSync G2 – Installation guide

THESE INSTRUCTIONS ARE FOR THE NEW AutoSync "G2" firmware 3.85 and up

Requires IO4/IO5/IO6/IOB radios (check glovebox RPO sticker)

Does NOT work on IO3, IOR, IOT (or any of the T1xx new body style pickups)

2014-2018 Silverado/Sierra 1500 pickup

2015-2019 Silverado/Sierra 2500-3500 pickup

2015-2020 Tahoe/Yukon/Suburban/Escalade SUV

2015-2018 Colorado/Canyon pickup

And many other 2014ish-2019ish GM cars with IO4/IO5/IO6/IOB radio

Thank you for purchasing the BT DieselWorks AutoSync. The AutoSync is a patent-pending revolutionary new easy-to-install module that adds many enhanced functional and comfort features to many GM late model vehicles. Please be sure to also follow the quick-start guide on the 'AutoSync installation guides' page on our website. It is VERY important to register your AutoSync and pair it to your WiFi as soon as possible to validate warranty and receive the latest firmware updates and new feature additions.

I know these instructions are long/boring, but <u>PLEASE</u> try to at least glance over every page first. 95% of tech support email/questions we get are simply due to misunderstanding/not reading the instructions. ©

NOTE: 2017+ vehicles have several feature limitations and also require one additional minor wiring change under the dash at the Serial Data Gateway module connector. Please see the additional 2017+ supplement document instructions on our website on how to perform this wiring change/pin swap.

NOTE: We now offer a plug-and-play SDGM bypass harness to make the installation extremely easy on 2017+ vehicles. This harness installs in less than 2 minutes and negates the need to do the old wiring/pin swap. The wiring/pin swap can be tricky, and the pins are quite fragile...the SDGM harness is less than \$10 and will potentially save huge headaches:

https://www.btdieselworks.com/collections/autosync/products/2017-sdgm-bypass-harness

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On the AutoSync, there two momentary push-buttons on the side of the module marked "A" and "B" (not normally used), and two status LEDs. The AutoSync must remain plugged in at all times for features to work. You can use AutoSync with an OBD port splitter (to use simultaneously with another scan tool, Edge Insight, EZ Lynk, etc), however compatibility is NOT guaranteed unless you use the BT DieselWorks OBD splitter, available at our website. 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.

Installing the AutoSync is as simple as plugging it into your truck's OBD port, located under the dash. Be sure the ignition is OFF when first installing the AutoSync. The AutoSync will NOT void any powertrain or bumper-to-bumper warranties, and is completely undetectable by the dealer. As soon as the AutoSync is unplugged, all traces/footprints are removed. The LED shows AutoSync system status at a glance: BLUE-AutoSync is powered up, and vehicle CAN bus activity is being detected. GREEN- AutoSync is powered up, CAN bus is active, and engine is running. The green LED can also mean the AutoSync is in WiFi search mode, but has not yet connected to a valid WiFi network. If the LED does not turn on when plugged in, that means there is no power at the OBD port...check the "DLC/DSM" fuse. If the OBD port confirmed has power, try plugging the AutoSync into USB power (phone charger works fine). If the LED still does not light up when plugged into USB power, the AutoSync is damaged/defective.



**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.

To activate/display the AutoSync main menu with the key on, **engine NOT running**, press the cruise control **"CANCEL"** button on the steering wheel.

To activate/display the AutoSync main menu with the **engine running**, press the **rear defrost** button 4 times in a row (4 times within ~4 seconds).

To step "back" a menu page at any time, press the "< BACK" button on the radio controls, OR press the "←" icon at the top left of the screen.

#### To exit the AutoSync menu at any time:

<u>IO4/IO5/IO6 radios:</u> Press the "home" button on the radio controls, OR press the "Exit" icon at the top right of the screen.

**IOB radios:** Press and hold the cruise control **CANCEL** button for a few seconds



View Rear Camera – This is found on page 1 of the AutoSync main menu. Press this icon to momentarily switch to the backup camera display. The backup camera will display for a few seconds (you can adjust the timeout value in the AutoSync Settings menu), and then automatically return back to the AutoSync menu. Requires camera wiring mod or harness purchase.

Video explaining tailgate wiring mod: <a href="https://youtu.be/nB-QMF7z">https://youtu.be/nB-QMF7z</a> WY

https://harnessdr.com/product/2016-2019-silverado-sierra-reverse-camera-adapter-harness/

NOTE: If you have not done the wiring modification correctly, the radio screen will be blank and/or say "service rear vision system" if you use the AutoSync to manually turn the backup camera on while driving. CHECK THE HARNESS MODIFICATIONS BEFORE EMAILING ME SAYING "HEY, THE BACKUP CAMERA OR TURN SIGNAL CAMERA FUNCTION DOESN'T WORK!"

Strobe Lights – Found on page 1 of the AutoSync main menu. This activates exterior strobe light mode. This will rapidly flash all exterior lighting (headlights, front turn signals, rear turn signals, CHMSL, reverse lights, fog lights) in an alternating pattern. CHECK LOCAL LAWS regarding use of this feature! 2017+ vehicles, this feature usually only works with key on, engine off. If the engine is running and you try to turn the strobe lights on, the button will say "Strobe Lights: Not Avail."

We have recently developed a custom unlock method to allow strobes (and work lights) with engine running/driving on 2017+ vehicles! <a href="www.btdieselworks.com/collections/other-module-programming/products/2017-bcm-unlock-license-strobe-lights">www.btdieselworks.com/collections/other-module-programming/products/2017-bcm-unlock-license-strobe-lights</a>

Work Lights – Found on page 1 of the AutoSync main menu. This activates exterior work light mode. Work light mode manually turns on all cargo/bed lighting, as well as reverse lights. This feature is useful for illuminating the rear of the vehicle at night, hooking up trailers at night, checking on cargo, etc.

2017+ vehicles have the same limitations as mentioned above for the strobe lights feature. The special BCM unlock procedure mentioned above will allow work lights with engine running on 2017+.

NOTE: On 2017+ vehicles when the work lights are turned on, the backup camera will come on (and hide the AutoSync menu buttons). To turn work lights OFF, press the cruise control CANCEL button.

**Powertrain Data** – Found on page 1 of the AutoSync main menu. The powertrain data page displays live engine/transmission data, as shown below.

Diesel PIDs include boost, EGT, coolant temp (ECT), oil pressure, current gear, torque converter clutch (TCC) locked/unlocked, DSP/SOTF tune, turbocharger vane position, actual fuel rail pressure (aFRP), desired fuel rail pressure (dFRP), main injection fuel rate, main injection timing.

Gasoline PIDs include spark advance, knock retard, MAF, MAP, engine load, coolant temp (ECT), oil pressure, current gear, torque converter clutch (TCC) locked/unlocked.



**NOTE:** the "EGT" reading is derived from the factory "EGT-1" sensor, located in the factory downpipe at the outlet of the turbocharger (LML) or "EGR-1" in the manifold (L5P). **If this sensor is unplugged or removed due to an aftermarket downpipe, EGT will not display correctly and will default to "1832\*F".** If your truck is 'deleted', you can extend the factory sensor wiring and re-locate the factory EGT-1 sensor to the exhaust manifold for a more accurate "pre-turbo" reading.

#### There are two additional icons on the bottom of the Powertrain Data screen (IO4/IO5/IO6 radio only).

The "RECORDS" icon will display a page that shows the peak recorded values for each PID. These PID peak records are stored permanently even if the AutoSync is unplugged. To clear/reset the PID peak records, press the "ERASE" icon on the bottom of the "engine data records" page.

The "Minimize" icon will shrink the live engine data display to a small bar along the bottom of the screen. This is helpful for keeping essential data at a glance, while still being able to view the navigation map, radio controls, etc.



Due to the smaller size of the "minimized" view, only two PIDs are able to be displayed at once in this mode. To cycle through the pages of minimized data display, press the drivers door lock button. To switch back to the engine data full page, press the "Show Maneuver" icon.

Another great feature of the "minimized" mode, is that this minimized data is also mirrored on the **Driver Info Center (DIC)** display in the instrument cluster, for easy/quick viewing without having to look over at the radio/navigation screen. To view the engine data in the DIC, use the steering wheel DIC controls to switch to the "NAVIGATION" page in the DIC, as shown below (non-Denali shown, Denali instrument cluster is similar/works the same way). **NOTE: DIC data display is only available when the** "minimized" engine data view is active. To fully hide the minimized data view on the radio/nav screen, while still keeping the DIC data display active, press the "Dismiss" icon on the radio/nav screen, shown above. Press "Show Maneuver" to return to the full engine data page (this will simultaneously cancel the DIC engine data display, as explained above).

If the minimized view on the radio/nav screen has been "dismissed" or accidentally cleared, simply press the rear defrost button 4 times to re-enter the AutoSync main menu.

NOTE: secondary engine data display in the instrument cluster only works with the UDD (4" color DIC) and UHS (8" Denali color DIC) instrument clusters. It does NOT work on IOB radios and/or the UDC (black and white DIC) base model instrument clusters.







**-ECM Tune Switching (Diesel vehicles):** The ECM tune switching menu is found on AutoSync main menu, page 2. This menu allows you to control EFILive DSP or EZ Lynk SOTF tune level. Simply tap whichever tune you want to switch to, and the DSP/SOTF mode will immediately be changed. The currently selected tune will be highlighted with a "()" around the number, as shown in the picture below.

NOTE: 2015-2016 LML requires additional AutoSync DSP/SOTF tune control wiring kit, sold separately. See page 17 of this instruction manual for the AutoSync DSP/SOTF wire kit installation guide.

NOTE: 2017-2019 L5P requires custom HP Tuners SOTF tuning (we do NOT sell engine tuning).

Gas vehicles: The icon that shows "ECM Tune Switching" in the picture above only shows on diesel vehicles. When AutoSync is plugged into a gas vehicle, this icon will be replaced with "AFM: Enabled/Disabled". To disable the Active Fuel Management mode on your gas vehicle, set this to "DISABLED". This setting will be remembered, you do NOT have to set AFM to disable every time you drive the vehicle.

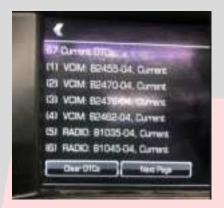
**High Idle** – This is found on page 2 of the AutoSync main menu. When the vehicle is in park with foot off brake pedal, press this button to turn on the manual high idle function. Once the high idle mode is on, you can adjust the engine RPM up/down (roughly 1000-2000rpm) using the cruise control +/- buttons.

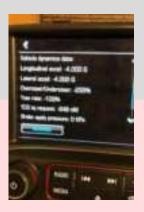
**NOTE:** There is also a high idle shortcut to activate the mode **without having to go into the AutoSync menu.** When the engine is idling in park, foot off brake, press and hold the cruise SET button for a second or so. You will hear a chime and high idle will engage. To cancel high idle, press the brake pedal.

**NOTE:** on 2011-2016 LML, the high idle might take up to 15 seconds to engage and reach full RPM.

**NOTE:** You can also remotely trigger high-idle by momentarily pressing the alarm/horn button on your remote keyfob. Do NOT "hold" the button though, that will set off the alarm.

Read DTCs — This is found on page 2 of the AutoSync main menu. This function will read/display the current/history Diagnostic Trouble Codes. The AutoSync is unique in that it will read codes from EVERY module in the vehicle! The only other tools on the market that will read all codes in every module cost thousands of dollars...Edge, Ez Lynk, and other competitors only read basic engine/transmission DTCs! The DTCs are displayed in a numbered list with module, DTC, and status (current/history). Current means that the fault currently exists. History means that the fault is not currently present, but has occurred momentarily at least once in the past 50 ignition cycles. If there are more than 6 current DTCs, press the "Next Page" button to scroll. "Clear DTCs" will clear all current/history DTCs from all modules.







Vehicle Dynamics Data – This is found on page 2 of the AutoSync main menu. This displays live chassis-dynamics data from the stability control and traction control systems. Vehicle dynamics PIDs include:

Longitudinal acceleration (forward/backward Y-axis G-force), Lateral acceleration (side-to-side X-axis G-force). Oversteer/understeer (if the vehicle is steady on its driver-intended path, if there is adverse yaw creating an oversteer-fishtailing event, or an understeer-'plowing' event). Yaw rate (yaw/Z-axis rotation rate). TCS torque request (engine torque as requested by the traction control system, during wheel-slip, you will see this PID showing that TCS is requesting torque reduction). Brake apply pressure (how much brake fluid pressure is being applied to the brake calipers, whether it be by the driver pressing the brake pedal, or the ABS module applying brake pressure during a TCS/ESC event).

In similar fashion to the engine data display page, the vehicle dynamics page also records peak records that can be recalled by pressing the "RECORDS" icon, and cleared by pressing the "RESET" icon on the vehicle dynamics records page

Launch Control – This is found on page 3 of the AutoSync main menu. This does not work on 2017+ vehicles, sorry. This exclusive feature uses the ABS module to act as a 'smart' line-lock/automatic launch control feature. The vehicle should be in 4-wheel-drive, and have the brake pedal firmly applied before activating. Follow the on-screen instructions, and when you are ready to activate it, press the cruise control "SET" button.

You will hear the ABS motor run for ~2 seconds and feel some vibration in the brake pedal and you may see an ABS warning light; this is normal.

When the ABS motor stops running, the launch control braking is fully charged. An on-screen countdown (5, 4, 3, 2, 1) will display, and you can release the brake pedal and bring the engine RPM's up to ~2200rpm. When the countdown hits 0, the ABS module will immediately dump brake pressure and launch the truck.

You can also manually release brake pressure and force-launch the truck at any time during the countdown by pressing the cruise control "RESUME" button.







NOTE: It is strongly advisable to NOT use launch control repeatedly, and you should allow several minutes' cool-down time for the ABS pump motor and ABS solenoids between launch control events. Repeatedly/continuously using launch control MAY cause premature wear on the ABS pump motor and solenoid valves.

**Performance Timer** – This feature is found on AutoSync main menu, page 3. This function allows the user to measure the vehicles 0-60mph time. Follow the on-screen instructions to use the feature. If the vehicle is moving, the status will show "NOT READY". When the vehicle is completely stopped and the timer is ready to begin, the status will show "READY". As soon as the vehicle starts moving, the timer will begin counting and the status will show "RUNNING". When the vehicle hits 60mph, the status will show "COMPLETE", and the 0-60mph time will be displayed on the screen. The AutoSync will automatically store the fastest time, and this time will be saved even if the AutoSync is unplugged. If a faster 0-60mph time is accomplished, the AutoSync will automatically update the saved "Best time". To clear the "best time" records and reset the value to the default max time (65.54 seconds), press the "Clear Records" icon.

NOTE: This test will only be accurate if your tire size is set correctly! If you have larger-than-stock tires and your ECM tune/speedometer has not been corrected for the larger size tires, this 0-60mph time will be inaccurate. Using GPS, verify that your speedometer is correct to ensure accurate results.

**Vehicle Setup** – This is a sub-menu found on page 3 of the AutoSync main menu. This sub-menu contains several vehicle-related setup and configuration options:





- **-Remote Keyfob Learn** (only for vehicles with keyed ignition, does not work on push-button-start vehicles)
- **-TPMS** warning threshold programming, or disable TPMS completely.
- -OnStar/DEF Reset. This will reset the OnStar remote vehicle speed limiting function, and also clear any nuisance "Service Emissions System" messages that are stuck in the DIC and cant be cleared with scan tools. NOTE: Obviously this wont work on a stock vehicle. This will only clear/reset the warning messages after your vehicle has been tuned/deleted.
- -Fuel System Tests. This menu displays injector balance rates on diesel vehicles. Balance rates should only be checked at idle, with the engine warmed up to temperature. In the Fuel System Tests page, there is a "Pump Test" icon. This will run a test on the high pressure injection pump by ramping up fuel rail pressure while verifying that the injection pump can properly build maximum fuel rail pressure. This test is ONLY FOR BASIC REFERENCE. Do not contact us with questions about test results, we cannot remotely diagnose any potential fuel system issues.
- **-DPF Regen.** This is a feature to force manual regeneration mode for the Diesel Particulate Filter. There are two modes, stationary and mobile. **NOTE: Stationary DPF regen will be very loud and 'scary'.**
- -Allison Fast Learn. This is only for vehicles with the Allison transmission. The transmission must be warmed up before doing these procedures. This function will perform the Allison transmission TAPS reset and Allison transmission fast learn procedures. TAPS reset clears the adaptive shifting values, and fast learn performs a complete clutch fill and release timing/volume learn procedure.

**-TAPS reset.** This is only for Allison transmissions. This can be used if the transmission is shifting harshly after drastically changing ECM tuning, or otherwise increasing the engine power level.

Fast learn should ONLY be used once upon initial installation of a new or rebuilt transmission. Fast learn is a three-stage dynamic process that will take several minutes and require the driver to shift the transmission between forward/reverse while the TCM applies clutches and measures fill/apply times.

When fast learn is initiated, the radio screen will show further instructions on how to complete the Fast Learn process (shift to drive, shift to reverse, etc).

Do NOT use TAPS reset or Fast Learn without first consulting your tuner or transmission builder!

**AutoSync Info** – This is found on page 3 of the AutoSync main menu. This page lists the AutoSync's currently installed firmware version, firmware build/date, serial number, flash memory storage size (4 megabytes, 8MB, 16MB), the vehicle platform it is currently plugged into, and RAM utilization stats.

The "Firmware Update" button (only visible key on engine off, see page 17 for more info) will initiate a firmware update procedure, and (if purchased), the BCM tune file download procedure. Obviously the AutoSync must be within range of your WiFi network for this to work and the AutoSync WiFi must be configured manually. If you cannot park your truck within WiFi range, use the "offboard" update procedure, explained in the separate AutoSync Quick-Start guide. You only have to do the AutoSync WiFi setup (with your phone) once; the AutoSync saves your WiFi info.

**AutoSync Setup** – This is a sub-menu found on page 4 of the AutoSync main menu. This sub-menu contains several vehicle-related setup and configuration options:



- -Camera Settings. This page is to enable/disable the turn signal camera feature (automatically peek at backup camera for a customizable duration of time when a turn signal is activated) and adjust the associated turn signal camera timeout settings.
- -TC Lockup Config. This page is to configure the settings of the AutoSync's built in torque converter lockup controller. Here you can adjust the RPM, vehicle speed, and minimum gear that must be met in order for the AutoSync to automatically command torque converter lockup. You can also configure the lockup controller enable/disable status to save across ignition cycles here. (if you have the lockup controller turned on/armed and shut the truck off, the lockup controller will automatically re-enable next time you start the vehicle).
- -Securidle Settings. This is a feature that will allow you to turn your ignition off and remove the key while still keeping the engine/HVAC running. This can be used as a turbo timer or security feature. There is an option to adjust a timeout value if you want the vehicle to stay running indefinitely, OR if you want it to automatically shut off after a preset time. NOTE: This is not fool-proof; the AutoSync must remain plugged in for this to function. If the AutoSync has a software anomaly or loses power while Securidle is engaged, the engine will shut off within 5 seconds. DO NOT rely on this to safely keep animals cool/warm in a running vehicle! NOTE: Just as with the strobe lights feature, this requires the BCM unlock to work on 2017+ vehicles. See top of page 6 for details!
- -WiFi Config: Home/OnStar selects whether the AutoSync uses your home/manually setup WiFi network/password credentials <u>OR</u> the vehicle's built in OnStar 4G LTE hotspot. If you have a valid OnStar WiFi hotspot plan, you can set this to "OnStar" and the AutoSync will then automatically use/connect to the vehicle hotspot WiFi.
- -Strobe Light Settings. This menu allows you to select several different patterns for the AutoSync strobe lights feature. All lights, all lights except headlights, rear lights only, rear lights only except reverse lights. You can also adjust how quickly the strobe lights cycle. The "fast" setting works best with LED lighting.
- -Reverse Work Lights. This feature will make the AutoSync automatically turn on the cargo/bed lamps when the vehicle is shifted into reverse, for additional illumination while backing up at night. NOTE: Just as with the strobe lights feature, this requires the BCM unlock to work on 2017+ vehicles. See top of page 6 for details!
- -Engine Data. There are two different methods of polling the ECM to read live data. Dynamic is preferred because it allows faster data reading/display, however it might have compatibility issues if you are using the AutoSync on an OBD splitter with another scan tool (Edge CTS, Ez Lynk, Banks etc). If you are using the AutoSync simultaneously with another scan tool device and the readings on one or both devices are erratic or corrupted, try switching the Engine Data setting to "Mode-22".
- -Aux Apprch Lights. This setting adds a feature that will automatically turn on your cargo/bed lights when you unlock your truck with the keyfob at night. This can be helpful to provided extra exterior illumination in addition to the vehicle's factory approach lighting (headlights, reverse lights, etc). NOTE:

Just as with the strobe lights feature, this requires the BCM unlock to work on 2017+ vehicles. See top of page 6 for details!

**TC Lockup Controller** –This is found on page 4 of the AutoSync main menu. This menu option is only visible/accessible with engine running.

The lockup controller has two modes: automatic and manual. Automatic mode will automatically immediately force lock the torque converter whenever the accelerator pedal is greater than 95%, vehicle speed is above "X" mph, engine speed is over "X" rpm, and the transmission is in "X" gear.

"X" are user-adjustable variables found in the "AutoSync Setup – TC Lockup Config" menu.

Manual mode allows the user to have full manual control of the torque converter lockup, as long as the vehicle speed is above 25mph and the brake pedal is NOT applied. When in manual mode, press the cruise control ON/OFF button to force-lock the converter. Press the cruise control CANCEL button to force-unlock the converter. If the brake pedal is applied, the lockup controller function is canceled.

**To select auto or manual mode:** press the "Mode" icon button on the bottom of the screen. The lockup controller "AUTO" mode can be used any time, on the street or track. The "MANUAL" mode should only be used on the race track/sled pull track. To disable the lockup controller function, press "off"

NOTE: You can also arm/enable the lockup controller using this shortcut: press/hold the tow/haul button for several seconds until you hear a chime.

Module Programming – Custom BCM (body control module), IPC (instrument cluster), radio, HMI (human machine interface), EBCM (ABS module) tuning is available as an extra-cost upgrade. This tuning can add/modify <a href="HUNDREDS"><u>HUNDREDS</u></a> of extra awesome features such as remote start time extend, disable door chime, disable LED turn signal hyperflash, speed limiter adjust, cargo light while driving, modify door lock settings, modify night time approach/exit lighting settings, auto headlight settings, wiper settings, add extra menus to the instrument cluster, remove warning messages, add features, change alert sounds, allow video in motion, change manual radio-on timeout, IPC/radio graphical themes, allow Stabilitrak to stay fully OFF above 35mph etc.

Programming is purchased on our website (downloads to AutoSync over WiFi) btdieselworks.com

## Other Hidden AutoSync Features

**Window control** – This function allows you to open and close the side windows via remote keyfob. **First,** be sure that the "remote window operation" is set to "ON" in the factory radio/nav settings. From the factory radio home screen, press the settings icon, then "vehicle", then "remote lock, unlock, start", then "remote window operation", set to ON.

-To open all of the windows while the truck is off, hold the "UNLOCK" button on the remote keyfob.

-To close all of the windows while the truck is off, hold the "LOCK" button on the remote keyfob.

NOTE: sunroof open/close and rear sliding window open/close is NOT supported by remote control

NOTE: Just as with the strobe lights feature, this requires the BCM unlock to work on 2017+ vehicles. See top of page 6 for details!

Video override — AutoSync can disable the factory video lockout features that prevent use while the vehicle is not in Park. To activate this, be sure the vehicle is in Drive, and press-hold the cruise control ON/OFF button for approximately 4 seconds. You will hear a chime and a "Video In motion active!" message will pop up on the screen for several seconds and then self-clear. The video lockout will then be disabled. You must re-initiate this override function every time the vehicle is restarted or shifted back into park. Unfortunately, navigation destination entry function is not able to be overridden by AutoSync. THIS FUNCTION IS ILLEGAL TO USE ON PUBLIC ROADWAYS. DISTRACTED DRIVING CAN BE DEADLY!!!!

Radio / HMI VIN clear – AutoSync has the ability to clear and reset the VIN lock on both radios and HMI modules. This is useful if you are swapping/replacing HMI modules or radios. The dealer cannot clear the VIN on these modules, this is an AutoSync-exclusive!

When a new radio or HMI module is installed, the radio screen will be black with a "theftlock" message. To unlock the radio and HMI module, start with the key on engine off, AutoSync plugged in. Press the accelerator pedal to the floor and hold it. While still holding the accelerator pedal, press and hold the brake pedal. While holding the brake and accelerator pedal, press and hold the cruise control set/coast button. Within a second or two, the radio screen will show "NO VIN". When the radio screen shows "NO VIN", release the pedals and cruise control button. The radio will then reset and the normal home screen will return. Cycle the key OFF for 30 seconds, then cycle the key back on, and the radio/HMI module will now have your trucks VIN stored.

**HVAC Forced Recirculation Mode** – From the factory, even when the user presses the "recirculate" button on the HVAC controls, the recirculation mode door does NOT completely close. When the HVAC is on recirculate mode, the fresh air door actually only closes about 90%. Roughly 10% of outside air is still being pulled in. With the HVAC in Auto mode, press the recirculation button on the HVAC controls (the vehicle with the curved arrow) 4x in a row. You will hear a chime, and might hear a slight change in the blower motor/airflow sounds. To cancel forced max-recirc, press the "Auto" button on the HVAC.

The only time this AutoSync feature should be used is if you are in extremely dusty conditions and need to completely seal the cabin. I do not recommend using it for an extended period of time. The feature will default back to off every time you start the truck.

EFILive DSP-5 / EZ Lynk / HP Tuners SOTF switching installation (diesel only) — AutoSync enables an alternative to engine tune switching that is much cleaner and more attractive than the traditional rotary "knob". For 2015-2016 LML, a "DSP/SOTF signal" wire is a required additional accessory (sold separately) in order for the AutoSync to utilize this feature. 2017+ L5P tune switching is via OBD/CAN. https://www.btdieselworks.com/collections/autosync/products/autosync-dsp-sotf-wire

- -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 your existing rotary DSP/SOTF knob switch. Usually this wire color is purple or yellow, and goes to Pin 11 on the gray ECM "C3" connector. 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 TRIPLE CHECK WHICH WIRES YOU ARE WORKING WITH. SPLICING THE AUTOSYNC DSP/SOTF WIRE TO THE "GROUND" WIRE OF THE OLD ROTARY KNOB SWITCH OR OTHERWISE INSTALLING INCORRECTLY WILL DESTROY THE AUTOSYNC AND VOID ALL WARRANTIES!

Pictures/additional info of installation are available on Duramax Tuner's website: https://knowledge.duramaxtuner.com/knowledge/2011-2016-lml-sotf-switch-installation-for-ez-lynkefi-live

### **AutoSync automatic OTA firmware update**

Occasionally we add new features to the AutoSync or fix minor bugs/glitches that might occur in the field. Updating the AutoSync is extremely and directly over WiFi, you do not need a PC/laptop.

Firmware updates usually occur automatically in the background whenever the vehicle is within range of your home WiFi network and has been parked/ignition off for more than several minutes. However you can also manually trigger a firmware update by going into the AutoSync Info page (main menu, page 3) with the key on engine off, and press "Firmware Update".

NOTE: If you have purchased BCM tuning, the BCM tune files are only downloaded when you go into the AutoSync Info page and manually trigger a firmware update. BCM tune files do NOT get automatically downloaded when the AutoSync does the automatic firmware update mentioned above.

First, you must create an account on the BT DieselWorks AutoSync firmware update server. Scan the QR code on the AutoSync with your phone and it will take you to the AutoSync registration page. If you are registering via a computer, go to autosync.btdieselworks.com (do NOT forget to enter your AutoSync serial number if doing manual registration via a computer)

NOTE: Be sure that your truck is parked within range of your WiFi router, or inside a garage with WiFi access. Leaving the vehicles doors/windows OPEN might be needed to ensure that the AutoSync can pick up a good WiFi signal. If the update procedure fails, or "hangs" more than 3-4 times, the WiFi signal is probably too weak, and you must use the "offboard" procedure explained on page 19.

NOTE: If your truck has an active OnStar 4G internet WiFi hotspot plan active, the AutoSync can be configured to automatically connect to your trucks WiFi hotspot to handle the firmware update.

- Ignition is ON, engine OFF. Access the AutoSync menu (press the cruise CANCEL button) and scroll to PAGE-4. Press "AutoSync Info".
- NOTE: The following steps must happen within ~60 seconds, otherwise the AutoSync will time out, exit the setup menu, and you will have to start over again.
- NOTE: If your truck has an active WiFi hotspot internet plan, skip steps 2-5!
  - 1. Press the "FIRMWARE UPDATE" button on the bottom of the radio screen, and then follow the on-screen instructions.
  - 2. Using your phone, search for available WiFi networks. Within a few seconds, the WiFi network "AutoSync" should appear. If it does not appear with in 10sec, turn your phone WiFi off for a second, then on again.

- 3. Connect to the AutoSync WiFi network. Once your phone is connected, the AutoSync configuration menu should appear automatically on your phone. If it does not appear within a few seconds, open your phones web browser and go to the website "10.10.0.1"
- 4. The AutoSync will then list all of the WiFi networks that are within range. If your WiFi network does not appear, wait a few seconds. If your WiFi network still does not appear within ~10 seconds, check that your WiFi router is working, and the AutoSync is within range of your router. NOTE: The AutoSync can only connect to 2.4ghz WiFi networks. 5ghz WiFi is not supported.
- 5. Click on your home WiFi network name and type in your WiFi router password (note: passwords are case-sensitive). The AutoSync will now attempt to connect to your WiFi network. If the connection is successful, your phone will exit the AutoSync configuration menu, and the radio screen will show "WiFi connection Success. AutoSync will now connect to the internet to check for new firmware". If the AutoSync does not connect within 10 seconds, double check that your WiFi password is correct, unplug the AutoSync, plug it back in and try again. NOTE: You only have to do this WiFi setup procedure once. The AutoSync will permanently save your WiFi info.
- 6. Once the AutoSync has connected successfully, within a few seconds, the radio screen will show "Downloading new firmware! DO NOT DISTURB AUTOSYNC". The AutoSync is now downloading the updated firmware from the internet and reprogramming itself. When the firmware download has completed (it should take less than 30 seconds), the radio screen will show "Firmware Update Success". Press the radio home button to reboot and load the new firmware. If the radio screen shows "Update Failed! Error: xxxxxxxx", exit the AutoSync menu, turn the ignition OFF, unplug the AutoSync for 10 seconds, plug it back in, and try the update procedure again. If it still fails after multiple attempts, this is most likely due to a bad internet/WiFi connection.
- 7. If update procedure seems to be hanging for more than several minutes, (stuck on "Firmware download do not disturb" message), turn the ignition OFF, unplug the AutoSync for 10 seconds, and try update procedure again. If the firmware update screen is "stuck" on the radio and you cant clear it...unplug the AutoSync, plug it back in, and press the cruise "CANCEL" button to re-initialize the AutoSync menu.



# Alternate "offboard" update method if you cannot move your truck within range of your WiFi router

- 1. Be sure you are sitting near your WiFi router. Locate any regular phone charger or power supply, be sure it is capable of supplying at least 1-amp or 1000mA. **Note:** if you have also purchased additional BCM tuning separately, this "offboard update procedure" will also download your BCM tuning in addition to the latest AutoSync firmware. Any standard USB-C cable will work.
- 2. Plug the AutoSync into USB power, the LED will turn on BLUE, wait roughly 10 seconds. The LED will turn GREEN indicating that the AutoSync is on offboard programming mode and searching for WiFi.
- 3. Note: If you have already entered your home network's WiFi credentials at a previous time, the LED will only turn GREEN for a second, and then will start flashing alternating RED/BLUE, indicating it has already connected and is downloading the new firmware...leave it alone! If the LED just stays GREEN, that means there is no WiFi that has been configured yet (or WiFi is out of range) and you need to follow steps 2-5 above on page 17-18.
- 4. Once the AutoSync has successfully connected to your home WiFi network, the LED start flashing alternating RED/BLUE, indicating it has connected and is currently downloading new firmware. Once the firmware has finished downloading, the LED may go back to solid blue for a few seconds, then back to alternating RED/BLUE. After that second cycle, the LED should turn off completely, indicating that the AutoSync is finished downloading and can be unplugged. The entire procedure should not take longer than 6 minutes or so. If the firmware update does not complete within that time, unplug the AutoSync and try the procedure again.
- 5. If the LED flashes RED only (no blue) or goes solid RED, that means the firmware update has failed. Double check your WiFi settings, check that your internet connection and WiFi router are working correctly, unplug the AutoSync and try again.

