

BT DieselWorks AutoSync G2 – Installation guide

(rev.A, firmware v3.40 and up)

THESE INSTRUCTIONS ARE ONLY FOR THE NEW AutoSync “G2”

2007.5-2013 Silverado/Sierra 1500 pickup

2007.5-2014 Silverado/Sierra 2500-3500 pickup

2007-2014 Avalanche/Tahoe/Yukon/Suburban/Escalade SUV

2008-2009 Hummer H2/H2-SUT

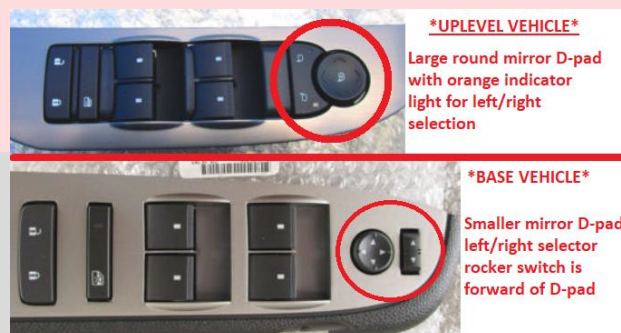
Thank you for purchasing the BT DieselWorks AutoSync. The AutoSync is a patent-pending revolutionary new easy-to-install module that adds many enhanced functional and comfort features to many GM late model vehicles. Please be sure to also follow the **quick-start guide** on the ‘AutoSync installation guides’ page on our website. **Page 3-4 of this manual gives a quick overview of features. It is VERY important to register your AutoSync and pair it to your WiFi (page 14) as soon as possible to validate warranty.**

IMPORTANT NOTE REGARDING VEHICLE TRIM LEVEL:

Some features may operate differently depending on vehicle trim level, options, and configuration. In these instructions, there will be references to “**uplevel vehicles**” and “**base vehicles**”. There are some overlap and edge cases so please read carefully. **An easy way to tell is by looking at the mirror switch.**

Uplevel vehicles: All SUVs, Avalanche, All Hummers, All Silverado LTZ, All Sierra SLT, All Sierra Denali. Silverado LT and Sierra SLE *only with* DL3 RPO code (check glovebox sticker). Mirror left/right selector must be *centered* (no orange LED on) to use the mirror D-pad to control the AutoSync.

Base vehicles: Silverado/Sierra WT (work truck), Silverado LT and Sierra SLE *without* DL3 RPO code.

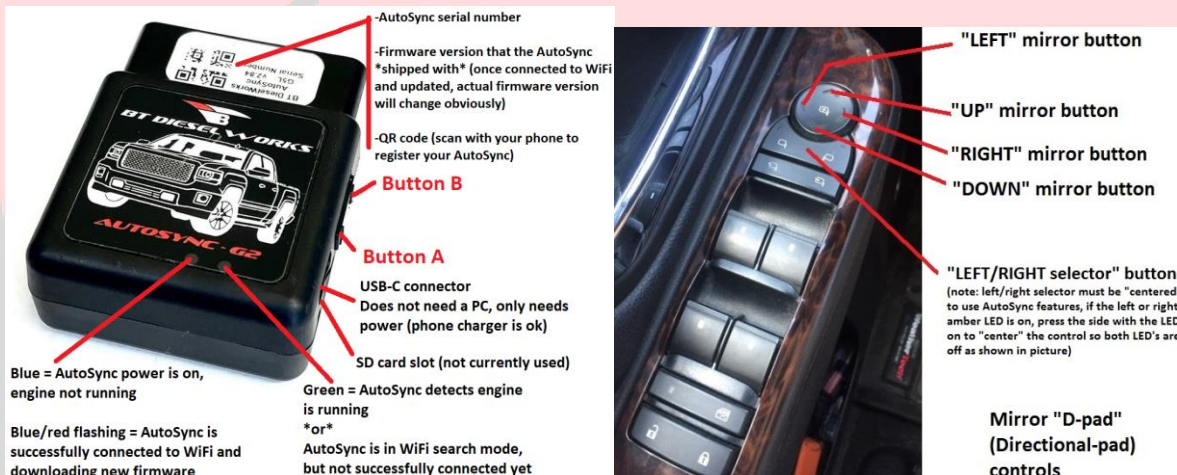


Important note regarding vehicles with 4-speed transmission: Many AutoSync functions listed in the instructions reference using the transmission shifter +/- buttons, which are only present on 6-speed vehicles. If you have a 4-speed uplevel vehicle, simply use the mirror d-pad up/down buttons in place of the transmission shifter +/- buttons. If you have a 4-speed base vehicle, unfortunately the AutoSync available functions and features are limited.

I know these instructions are long/boring, but PLEASE try to at least glance over every page first (especially page 3-4). 95% of tech support email/questions we get are simply due to misunderstanding/not reading the instructions. ☺

On the AutoSync, there two momentary push-buttons on the side of the module marked "A" and "B" (buttons are NOT used, do not press them), 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, 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. 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 "LTR" fuse in the underhood fuse box. 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.**



Most features are found within the AutoSync Configuration/Setup menu

There are two methods to enter the config menu

6-speed vehicles with tapshift buttons on the shifter can use either method 1 or method 2.

4-speed vehicles without tapshift buttons on the shifter can only use method 2.

Method 1- Cruise control ON (orange LED on). Ignition on, engine running OR not running, does not matter. Press and hold the cruise control RES+ button and tapshift + button together for several seconds until you hear a chime and see “AutoSync Config Menu”, then you can release the buttons.

Method 2- Cruise control ON (orange LED on). Ignition on, engine off. Press and hold the brake pedal, and press and hold the accelerator pedal to the floor for several seconds until you hear a chime and see “AutoSync Config Menu”, then you can release the pedals.

6-speed vehicles, use the tapshift +/- buttons to scroll up/down through the AutoSync config menu.

4-speed UPLEVEL vehicles use the mirror UP/DOWN buttons (be sure the left/right side selector is centered) to scroll up/down through the AutoSync config menu. Unfortunately 4-speed BASE vehicles cannot use the AutoSync config menu at this time.

Once in the AutoSync config menu, the cruise control SET/RESUME buttons are used to select options as shown on the DIC (ie it'll say 'Press RES+'). The AutoSync config menu also has several sub-menus to make navigation easier (Vehicle Setup, AutoSync Setup). The cruise CANCEL button is used to “back up” out of sub-menus. Turn cruise control OFF to exit the AutoSync config menu at any time.

Menu navigation tree explained below

AutoSync Config Menu (top main menu):

- Vehicle Setup (submenu, see page 4)
- AutoSync Setup (submenu, see page 4)
- Read DTCs (see page 11 of manual)
- AutoSync current running firmware version and your AutoSync's serial number
- Module Programming (for flashing custom BCM tuning, see page 12 of manual)

- AFM Enable/Disable (Active Fuel Management, gas only, see page 11 of manual)
- Inj Balance Rates (diesel only, fuel injector balance rates, see page 6 of manual)
- Firmware Update (activate WiFi firmware update, see page 14 of manual)

AutoSync Setup Menu (submenu, if you're in here, press cruise CANCEL to return to top config menu)

- Turn signal camera (press cruise SET to disable, RES to enable, see page 9 of instruction manual)
- DSP / SOTF Control (press cruise SET to disable, RES to enable, see page 8 of instruction manual)
- SecureIdle (press cruise SET to disable, RES to enable, see page 12 of instruction manual)
- Auto Mirror Fold (press cruise SET to disable, RES to enable, see page 10 of instruction manual)
- Lockup Controller (press cruise RES to configure lockup settings, see page 12 of instruction manual)
- Express Windows (press cruise SET to cycle through options, see page 10 of instruction manual)
- Strobe Lights (press cruise SET to cycle through options, see page 7 of instruction manual)
- Eng Data Req Mode (press cruise RES to cycle through options, see page 6 of instruction manual)

Vehicle Setup Menu (submenu, if you're in here, press cruise CANCEL to return to top config menu)

- TPMS Setup (press cruise RES to configure TPMS settings, see page 9 of instruction manual)
- Remote Fob Learn (press cruise RES to learn new keyfob, see page 10 of instruction manual)
- Last DPF regen at X miles (diesel only, displays the odometer mileage of the last regen initiation)
- Brake Pedal Learn (press cruise RES to learn 2012-2014 brake pedal sensor if sensor was replaced)
- Radio VIN Reset (press cruise RES to clear radio TheftLock/VIN, see page 10 of instruction manual)
- Inj Pump Test (diesel only, press cruise RES to start pump test, see page 6 of instruction manual)
- DPF Regen (diesel only, press cruise RES for stationary regen, SET for mobile regen, see page 6 of instruction manual)
- TAPS Reset (diesel only, press cruise RES for transmission relearn, see page 7 of instruction manual)
- DEF Level (diesel only, displays roughly-estimated remaining Diesel Exhaust Fluid level)

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 display in the DIC.

Viewing Live Data (base vehicles) – To view live data from the vehicle, press the rear defrost button 4x in a row. If your HVAC controls do not have the rear defrost button, use the mirror heat button. You will hear a beep, and page-1 of the live data will appear in the Driver Info Center (DIC). To cycle through the pages of data, press the drivers door lock button. To clear the DIC and return back to the factory odometer display, press the “road” DIC button on the dash. To then bring up the AutoSync display again, press the rear defrost button 4x again. NOTE: Under some conditions, you might have to press the rear defrost button another 4x. So if the AutoSync data does not appear in the DIC after pressing the rear defrost button 4x, simply wait 5 seconds, then press the rear defrost button 4x again.

Viewing Live Data (uplevel vehicles) – To view live data from the vehicle, be sure that the mirror left/right side selector is centered (see picture above for mirror button references). Press the RIGHT mirror button to bring up Page 1 (you will hear a beep and the live data will appear in the Driver Info Center). Pressing the LEFT mirror button will bring up Page 2. Pressing the LEFT button again will then cycle to page 3, 4, 5, and then loop around back to page 2. To clear the DIC and return back to the factory odometer display, press the UP mirror button.

Page 1 (gas and diesel): Oil pressure, coolant temp (CT), oil temperature (OT, not supported on all vehicles. If your vehicle does not support oil temperature display, you will only see Coolant temp), and current transmission gear. A “*” icon will appear next to the current gear display when the torque converter clutch is locked.

Page 2 (diesel only): Turbo boost pressure, exhaust gas temperature (EGT). The EGT is read from the “EGT-1” sensor, which is at the turbocharger exhaust outlet on LML Duramax, and in the downpipe before the catalytic converter on LML Duramax. If your vehicle has deleted emissions or a failed EGT sensor, the EGT reading will be 1832°F. If your vehicle is deleted, it is possible to relocate/reinstall the EGT-1 sensor so the AutoSync EGT reading will work properly. We do not provide any instructions on this relocation procedure; a quick google search should turn up some DIY articles.

Page 2 (gas only): Ignition timing/spark (Sprk), Intake air temperature (IAT), ignition timing knock retard (Knock), fuel alcohol/ethanol content (Eth, this reading is only functional on flex-fuel vehicles).

Page 3 (diesel only): Desired fuel rail pressure (des. FRP), actual fuel rail pressure (act. FRP)

Page 3 (gas only): Manifold pressure (MP), torque converter clutch slip rpm (Slp), Mass airflow (MAF), transmission fluid temperature (TFT).

Page 4 (diesel only): Fuel main injection rate (Fuel Rate), fuel injection main base timing (Timing).

Page 5 (diesel only): Intake air temperature (IAT), Diesel particulate filter soot grams (DPF), turbocharger vane position (TCV), torque converter clutch slip RPM (Slip).

NOTE: If you are using the AutoSync with another OBD device via a splitter and notice that engine data display is garbled or implausible, set the engine data request mode to “Mode-22” (located in the AutoSync Setup submenu of the AutoSync config menu, explained on page 4)

Fuel injector balance rates (diesel only) – In addition to regular live engine data, the AutoSync can also display fuel injector balance rates. Balance rates should only be checked when the engine is warmed up and in park, or drive with foot on brake. To view balance rates, go into the AutoSync config menu (config menu navigation is explained on page 4-5), and scroll to “Injector Balance Rates”. Press the cruise control RESUME button to enter the menu. Use the transmission tapshift +/- buttons to scroll through all 8 cylinder readings. Press cruise control CANCEL to back out of the menu.

Diesel Particulate Filter regen (diesel only) – This feature allows you to perform a manual DPF regen if the DPF becomes overfull. If your DPF is damaged in some way, this will not fix it! DPF regen is found in the AutoSync config menu (config menu navigation is explained on page 4-5). There are two modes, stationary (STA) and mobile (MBL). Stationary regen is used when the vehicle is parked and can take up to 45 minutes. **Be sure that the vehicle is outside on pavement, hood open, and the exhaust area is COMPLETELY CLEAR. When in stationary regen mode, the exhaust temperatures can get very hot and potentially set fire to grass/walls/anything flammable near the back of the truck.** When stationary regen is activated (cruise control RES button), the engine will become very loud and sound like an airplane taking off; this is normal. Mobile regen is if you’re planning on taking the truck for a long drive and want to force a regen before the DPF is full. Select the MBL option (cruise control SET button), and this will tell the ECM to attempt a regen next time the truck is driving on the highway and all other regen parameters are met.

Injection pump test (2011+ LML diesel only) – This feature allows you to perform a manual rail pressure test on the CP4.2 injection pump. Inj Pump Test is found in the AutoSync config menu (config menu navigation is explained on page 4-5) and activated by pressing the cruise control RES button when the vehicle is parked, at idle, and warmed up to temperature. This basic test is not special or definitive; it simply just ramps up rail pressure and checks that the actual rail pressure and desired rail pressure match. **If the AutoSync says “failed”, do NOT assume that your CP4.2 is going bad. All it means is that it should be further diagnosed and checked by a competent diesel shop/technician with a more advanced scan tool.** If the pump is then determined to be fine, you can ignore the AutoSync “failed” message.

DEF level (2011+ diesel only) – This reading is found in the AutoSync config menu (config menu navigation is explained on page 4-5) and shows an roughly-estimated value of how much Diesel Exhaust Fluid is left in the DEF tank.

Transmission TAPS reset (diesel only) – This feature allows you to clear/reset the adaptive shifting values and presets on your Allison transmission. This is also known as a “transmission relearn”. The TAPS reset is found in the AutoSync config menu (config menu navigation is explained on page 4-5) and is activated by pressing the cruise control RESUME button. Be sure that the transmission fluid temp is above ~110°F before doing a relearn.

High Idle – This feature allows you to manually increase engine RPM while the vehicle is parked to aid in engine warm up, jump starting other vehicles, etc. To activate high idle, vehicle must be parked, foot off brake, with cruise control ON. Press and hold the cruise SET button for a second or two until you hear a chime. The engine will then increase in RPM to the high idle preset (~1500rpm). Once high idle is engaged, you can manually adjust the engine RPM up or down (1000-2000rpm) by using the cruise control SET and RESUME buttons. You will hear a beep each time you press a button, indicating that a new speed has been selected. To disable high idle, press the brake pedal or turn cruise control OFF. If manual high idle does not work (no chime when you press and hold cruise SET), be sure that your cruise control switch and brake pedal switch are not broken. It is not uncommon for 2007-2011 brake pedal switches to fail. IMPORTANT NOTE: 2011+ LML Duramax can sometimes take a few seconds to engage high idle and the RPM increase will be very slow. This is normal, be patient.

Strobe Lights – To activate the exterior strobe lights, be sure the cruise control switch is ON (orange light illuminated) and your foot is off the brake pedal. Press and hold the cruise control CANCEL switch for a second or so. You will hear a chime and the DIC will show “STROBE LIGHTS ACTIVE”. To turn off the strobe lights, turn off the cruise control. The strobe lights will work any time the ignition switch is on and will work when the vehicle is driving as well (check your local laws and regulations). If the strobe lights do not turn on, verify that your cruise control switch and brake pedal switch are working properly.

NOTE: You can adjust the strobe light pattern to only use the rear lights etc. This adjustment is found in the AutoSync config menu, config menu navigation is explained on page 4-5.

Work Lights – Work lights is a mode that will turn on the reverse lights and bed/cargo lights to illuminate the rear of the vehicle. To turn on the work lights, vehicle in park, set the parking brake, and

momentarily pull back the turn signal lever to the “flash to pass” position. The work lights will turn on and “WORK LIGHTS ACTIVE” will appear in the DIC. To turn off the work lights, release the parking brake.

Launch Control – Launch control feature only works if your vehicle has Stabilitrak (electronic stability control/traction control). If your vehicle does not have a traction control button and you do not have “JL4” listed in the glovebox RPO codes, then launch control will not work. Launch control is a feature that uses the ABS module to automatically hold the brakes while boosting up the engine during a drag race launch. To use launch control, the DIC must first be clear of all AutoSync displays (it must be showing the factory odometer, etc display). Cruise control ON. Vehicle stopped/in drive. Hold your foot firmly on the brake pedal. Press and hold the cruise control SET button for a second or so. You will feel the brake pedal vibrate/ABS pump activate and the DIC will show “launch control”. Release the brake pedal. Apply the accelerator pedal to your desired launch RPM. You will hear “beeps” counting down to release (5 seconds). Floor the accelerator pedal and the brakes will then automatically release. You can also manually release the brakes before the 5 second timeout by pressing the cruise control RESUME button. The brakes will also immediately release if engine speed goes above 2600rpm.

IMPORTANT: This feature is obviously very rough on driveline/steering components. You can break things very easily if your vehicle isn't setup/built properly. Use this feature 100% at your own risk!

DSP/SOTF tune switching – Diesel only, requires custom DSP/SOTF engine tuning. We do not do any engine tuning, please don't ask. This feature enables an alternative to engine tune switching that is much cleaner and more attractive than the traditional rotary “knob”.

-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!**

Once you have installed the wire, the DSP feature must also be enabled in the AutoSync config menu (config menu navigation is explained on page 4-5). When the DSP feature is enabled in the AutoSync config menu, you can change your tune position up and down (1-5) by pressing and HOLDING either the + or – button of the transmission shifter with the engine running. You will hear a beep and the tunes will

cycle up or down. To view the currently selected tune without changing the tune, press either the + or – button on the shifter momentarily (don't hold it).

NOTE: If you see “DSP/SOTF Tune ERROR” in the DIC, it can mean either the DSP/SOTF wire is installed incorrectly, a proper DSP/SOTF tune is not loaded in the ECM, or the person you bought your ECM tuning from setup something differently for the SOTF control (which is out of our control).

Using this feature requires the AutoSync DSP/SOTF wire accessory:

<https://www.btdieselworks.com/collections/wiringharness/products/autosync-dsp-sotf-wire>

2wd low range mode – If your vehicle has 4 wheel drive, the AutoSync can activate a special mode that will allow low range to be selected while remaining in 2-wheel-drive. This can be helpful for backing trailers up hills without losing your turning radius like you do in 4 wheel drive. To activate 2wd low range, the vehicle must first be in 4wd low range (see your owners manual). Once the vehicle is in 4wd low range, move the transmission shifter to NEUTRAL, and press the drivers door lock button. You will hear two chimes. Wait a few seconds for the front axle to disengage, and then you can shift to drive/reverse. To re-engage 4wd, shift back to NEUTRAL, then press the drivers door lock button again.

Turn signal backup camera – This is a feature that will automatically display the backup camera view for a few seconds when you put a turn signal on. This can potentially help give a better view of blind spots. This feature only works on 2012-2014 vehicles with the factory navigation radio (RPO code “UYS”, check your glovebox). It may or may not also work on 2007-2014 vehicles with the backup camera mounted in the rear view mirror. It will NOT work on 2007-2011 vehicles with factory navigation radio. It will NOT work with any aftermarket navigation radios. If your vehicle is compatible, go into the AutoSync config menu and scroll to “Turn Signal Camera” and set it to enabled (config menu navigation is explained on page 4-5). Once enabled, any time a turn signal is put on, the navigation display will show the backup camera for a few seconds.

Manual backup camera view – This is a feature that will allow you to manually view the backup camera at any time while driving. This feature only works on 2012-2014 vehicles with the factory navigation radio (RPO code “UYS”, check your glovebox). It may or may not also work on 2007-2014 vehicles with the backup camera mounted in the rear view mirror. This feature also requires your vehicle to be “uplevel” (check your drivers door window switch style, see page 3). It will NOT work on 2007-2011 vehicles with factory navigation radio. It will NOT work with any aftermarket navigation radios. To activate the manual backup camera view, be sure that the left/right side mirror selector is centered, and then press the mirror DOWN button. The backup camera will appear for several seconds.

TPMS adjust – This feature allows you to adjust your tire pressure monitoring system warning threshold. You can also disable the TPMS system (use caution). NOTE: One AutoSync can be used to program TPMS warning threshold in multiple vehicles, however the TPMS disable feature only works if the AutoSync is plugged in. The TPMS adjustment settings are in the AutoSync config menu (config menu navigation is explained on page 4-5).

Radio VIN Reset – This feature allows you to clear/reset the VIN on factory radios and navigation units. This option is found in the AutoSync config menu (config menu navigation is explained on page 4-5). If you have installed a new factory radio and the radio shows “LOCKED” or “THEFTLOCK ACTIVE”, you can use this feature to reset the radio VIN.

Auto Mirror Fold – This feature will automatically open/close the power fold mirrors when the vehicle is locked/unlocked with the keyfob. **IMPORTANT NOTE: This AutoSync feature has been temporarily disabled in the latest firmware due to a few isolated cases of the mirror function unexpectedly randomly becoming permanently inoperative after extended use. We are currently trying to trace the root cause of this issue to enable it again, but until it is fixed, we have disabled the feature for safety. There is no current ETA on when it will be re-enabled, please do not ask. Thanks for understanding!**

Keyfob Learn – This feature allows you to learn new remote keyfobs to the vehicle. 2010 and older vehicles can do this from the factory via the DIC controls, however GM removed this feature in 2011+ vehicles. This option is found in the AutoSync config menu (config menu navigation is explained on page 4-5). Once activated by pressing the cruise control RESUME button, press and HOLD the LOCK and UNLOCK buttons together on the new keyfob to be programmed. The doors should lock/unlock, indicating the learn was successful. You will then hear a chime and the AutoSync config menu will exit. Up to 8 fobs can be learned to one vehicle.

Keyfob-activated windows – This feature allows you to remotely open and close the windows from the keyfob while the vehicle is off. You must be within keyfob range for this to work (obviously). To remotely open the windows, press the UNLOCK button on the keyfob 4x in a row. To close the windows, press the LOCK button on the keyfob 4x in a row. **NOTE: This feature only works on uplevel vehicles (see page 3)**

Express-up/down (one-touch) window control – This feature allows you add one-touch-close feature to the drivers front window, and add one-touch-open to the rear windows. This feature must first be enabled in the AutoSync config menu (config menu navigation is explained on page 4-5). Once you are in the “Express Windows” menu, press the cruise control SET button to cycle through modes. Driver and

Rear (driver express up, and rear express down enabled), driver only (driver express up only), rear only (rear express down only), disabled. Once this feature is enabled, momentarily pull up on the drivers window switch to fully close the drivers front window, or momentarily press down on the rear window buttons to fully open the rear windows. To immediately stop the drivers window while express-up is active, just press the window switch “down”. **NOTE: This feature only works on uplevel vehicles (see page 3).**

DANGER: There is no “pinch protection” or safety reversal logic built into the window motors. If the window is in express-up mode, it WILL NOT STOP if an arm/finger/etc gets in the way!

DTC (codes) read/clear – This feature allows you to read and clear Diagnostic Trouble Codes from all modules. The AutoSync is unique and special in that it can read and clear enhanced DTCs from ALL modules in the vehicle! Almost all other competing scan tools and OBD devices will only read limited DTCs in the engine/transmission. The DTC read/clear function is in the AutoSync config menu (config menu navigation is explained on page 4-5). To read DTCs, press the cruise control SET button and wait several seconds for the DTC read to complete. If there are any stored DTCs, they will be displayed in a list that you can scroll using the transmission shifter +/- buttons (or the mirror up/down buttons if you have a 4-speed uplevel vehicle). If there are more than 1 code stored, the current displayed/total will be shown, and also if the DTC is “Current” or “History” (the error was set sometime in the past 50 ignition cycles, but has since fixed itself).

“P” codes are Powertrain, “C” codes are Chassis, “B” codes are Body, “U” codes are communications/CAN bus codes. The module that set the code is also displayed. DTCs are shown as the 4 digit DTC, as well as the “symptom byte” to give further information about the DTC. For example if the DIC shows:

(1/5) – Current

BCM – B3442-6C

That means that there are 5 total DTCs set in the vehicle, DTC #1 of the list of 5 is B3442, symptom byte 6C, set by the Body Control Module.

To clear DTCs from all modules, back up one level (press the cruise control cancel button) to where the DIC says “Read DTCs = SET, Clear DTCs = RES”. Press the cruise control RESUME button to clear all DTCs.

AFM Disable – This feature allows you to disable the Active Fuel Management (AFM) feature for gasoline vehicles (displacement on demand, V4 mode, etc). This setting is enabled/disabled in the AutoSync config menu (config menu navigation is explained on page 4-5). The AutoSync must remain plugged in for the AFM disable to work.

SecureIdle – This feature allows you to lock the shifter in Park when the vehicle is stationary and locked using the keyfob. This can be useful if you want to leave your vehicle running while adding an extra layer of security if someone were to break in and try to drive the vehicle away. You'll have to put your remote keyfob on a quick-release so you can detach it from the key and lock the vehicle once you exit. If the brake pedal is pressed and you try to shift with SecureIdle activated, the shifter will remain locked and you will hear loud beeps from the radio. SecureIdle will automatically disengage when you return to the vehicle and unlock it using the keyfob. This feature is enabled/disabled in the AutoSync config menu (config menu navigation is explained on page 4-5). **There are many important notes with this feature...READ CAREFULLY. This shifter lock is NOT foolproof, it is merely a basic deterrent. If the AutoSync is unplugged, the feature will be disabled/bypassed within a few seconds. If the AutoSync misses a CAN message from the door locks, it might not activate SecureIdle properly, and many other reasons as well. Don't ever leave the vehicle running unattended with children in it. Don't ever leave the vehicle running in a garage.** If you get back in the vehicle and notice that the shifter is still locked and you hear beeps with the brake pedal pressed, simply just unplug the AutoSync for a few seconds and plug it back in to reset SecureIdle.

Torque Converter Lockup Controller (diesel only) – This feature allows you to automatically force lock the torque converter based on throttle position, RPM, speed. It is a known fact that when a Duramax is tuned above 500hp or so, the TCM can get confused and inhibit the torque converter from locking at full throttle. This results in less power getting to the ground, inconsistent racing times, etc. This lockup controller feature should only be used when drag racing or sled pulling; it is not designed to keep the converter locked for more than a minute or so. If you are driving normally at less than full throttle, simply putting the transmission in tow/haul mode should do everything you need it to do as far as locking the converter. To use the lockup controller, you must first go into the AutoSync config menu (config menu navigation is explained on page 4-5) and enable the feature.

You can also custom tune the automatic mode lockup parameters in the Lockup Controller submenu (vehicle speed, RPM, etc) of the AutoSync Setup menu if you wish. Once the feature is enabled, the lockup controller is armed by manually turning off traction control. If your vehicle does not have traction control, then the lockup controller is armed all the time by default. Once the lockup controller is armed, it will lock any time the throttle position is over 90%, and all of your other parameters are met. If throttle position drops below 10%, the brakes are applied, ABS becomes active, or vehicle speed drops below 15mph, the lockup controller will revert back to factory for safety. **This feature will NOT help a stock transmission hold more power!**

Module Programming – This is found in the AutoSync config menu (config menu navigation is explained on page 4-5), and is used to flash custom BCM tuning into the vehicle. **Custom BCM tuning is available as an extra-cost upgrade.** BCM tuning can add/modify hundreds 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, etc.

BCM tuning can be purchased here (downloads to AutoSync over WiFi): www.btdieselworks.com



AutoSync OTA (Over The Air) 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 easy and directly over WiFi, you do not need a PC/laptop. When you first setup your AutoSync, you must do a one-time WiFi setup procedure to connect the AutoSync to your WiFi network (see below).

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 config menu (see below) and scroll to the page that shows the AutoSync firmware version and serial number. Press the cruise control RESUME button to activate the firmware update.

- **NOTE: If you have purchased BCM tuning, the BCM tune files are only downloaded when you manually trigger a firmware update from the AutoSync config menu. BCM tune files do NOT get automatically downloaded when the AutoSync does the automatic firmware update mentioned above.**

- **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 2-3 times, the WiFi signal is probably too weak, and you must use the “offboard” procedure explained below.**

Initial WiFi setup when you first get the AutoSync

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 the website, this AutoSync manager website is NOT the same website as the online store where you purchased the AutoSync from!

- **NOTE: This WiFi setup procedure only has to be done once, from then on, your AutoSync will remember your WiFi settings. You will only need to redo the WiFi setup if you want to pair the AutoSync to a new WiFi network (or your WiFi password changes etc).**

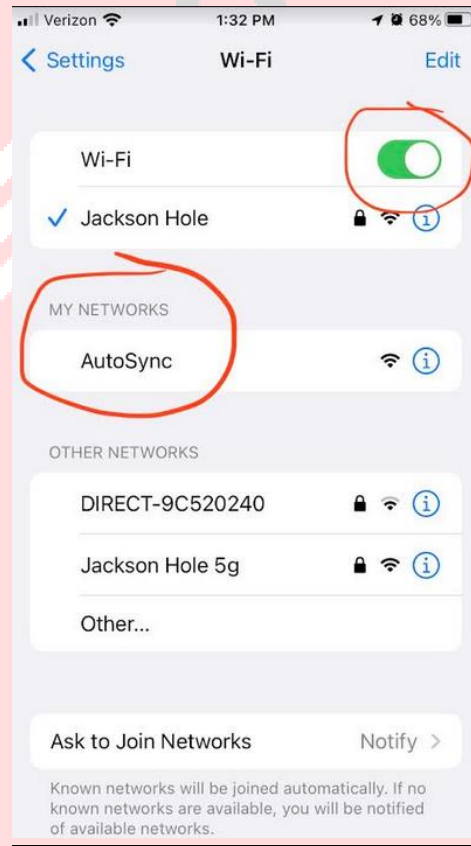
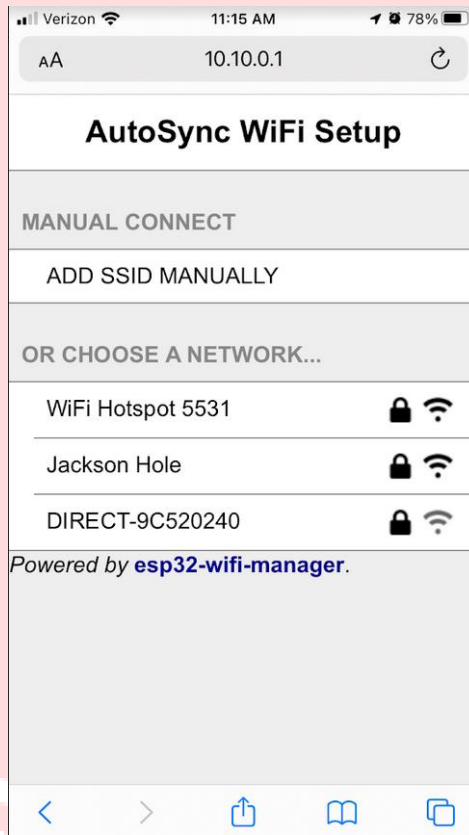
- **NOTE: If you are connecting the AutoSync to a phone hotspot, you might need an additional phone/tablet...activate the hotspot on one phone, and then use the other phone to connect to the AutoSync and setup the WiFi.**

- **NOTE: The AutoSync only works with 2.4ghz WiFi. If you are using an iPhone hotspot, you might have to go into settings and turn on the “Maximize compatibility” option to force the iPhone to 2.4ghz.**

1. Ignition on engine off, go into the AutoSync config menu (see below) and scroll to the page that shows “Firmware Update, Press RES+”. Press cruise control RESUME to activate the firmware update. The DIC will show “Connect to AutoSync using your phone”
2. Using your phone, search for available WiFi networks. Within a few seconds, the WiFi network “AutoSync” should appear. **If it does not appear within 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 DIC will show “Connection Success, Please Wait...”. 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 DIC will show “Frmwre Dnload” with a progress display. The AutoSync is now downloading the updated firmware from the internet and reprogramming itself. **If you have purchased the extra optional custom BCM tuning, the DIC may show “Purchases Download”.** The “Tunes” read out on the DIC refers to the status of the optional BCM tuning download. “N/A” means tuning as not been purchased, “Updated” means new tunes were downloaded successfully. “Up to Date” means tuning is current. “Limt Xceed” means you have tried too many tune file downloads in a row (there is a limit to how many downloads you can do in 24 hours). “Not Ready” means the BCM tune files are not complete on the AutoSync server.
7. When the firmware download has completed (it should take less than 3 minutes), the DIC will show “Download Complete”. Turn the cruise control OFF to reboot and load the new firmware.

If the radio screen shows “Update Failed! Error: xxxxxx”, 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. If the DIC shows “AutoSync not registered”, please confirm that you have setup your account properly at autosync.btdieselworks.com, and your account has the correct AutoSync serial number listed.

8. If update procedure/message display seems to be hanging for more than several minutes, turn the ignition OFF, unplug the AutoSync for 10 seconds, and try update procedure again. **The firmware download procedure is fail-safe. The AutoSync will not be harmed if a firmware download is interrupted/unplugged.**



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 15.**
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.

