MOTOZA PERFORMANCE

MOTOZA PERFORMANCE SUITE
1.8T & 2.7T
USER MANUAL

Settings

The “Settings” tab controls how the Motoza PS interface will communicate with your vehicle’s ECU. Before Motoza PS can connect to your vehicle, the settings tab needs to be configured. In most cases, this can be done using the **“Auto-detect”** feature.

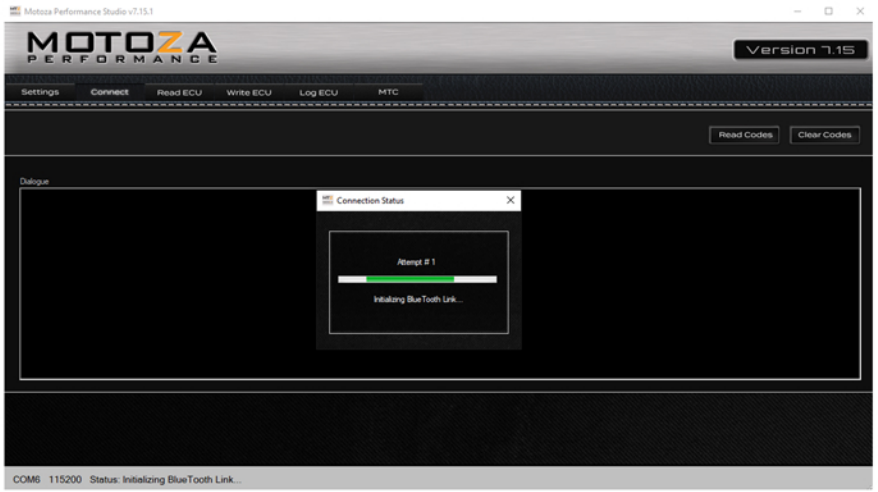
The software will scan through the available ports for a few seconds and should return with the message, “Interface found.” Once the interface has been found, click **“Save”**.

The settings are now saved to the user account and this process does not need to be repeated the next time Motoza PS is used.
If Auto Detect cannot find the interface, please refer to the troubleshooting guide or contact us.

Quick Tip

An option for connection type can also be found under interface settings. The default connection type of automatic works well with most vehicles. In some cases, it may be necessary to manually select a connection type to improve connection with the ECU.

CONNECT



Connect establishes a direct connection between your Windows device and the vehicle's ECU. Clicking "**Connect**" launches the connection dialog which gives a brief description of the connection status while making a maximum of 5 attempts to connect with a supported ECU.

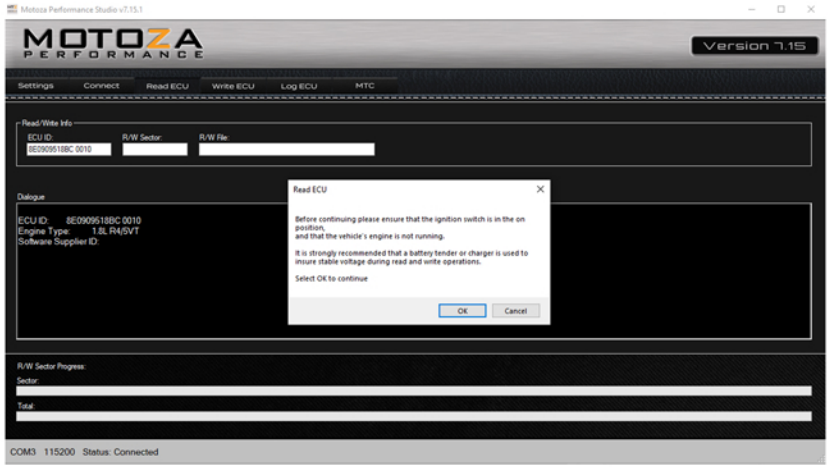
Once a connection is established with the ECU, the connection tab will display your ECU ID, the engine type, and software supplier if applicable.

If you experience trouble connecting, try using a different connection method found under the Settings tab.

QUICK TIP

Diagnostic features are available on the connect tab. "Read Codes" retrieves all fault codes from the ECU and displays them with a brief description. "Clear Codes resets the fault codes; clearing codes also has the effect of resetting adaptation channels and readiness monitors. If switching connection types does not resolve connection issues, or if you receive other error messages, please contact support@motozaperformance.com

READ ECU



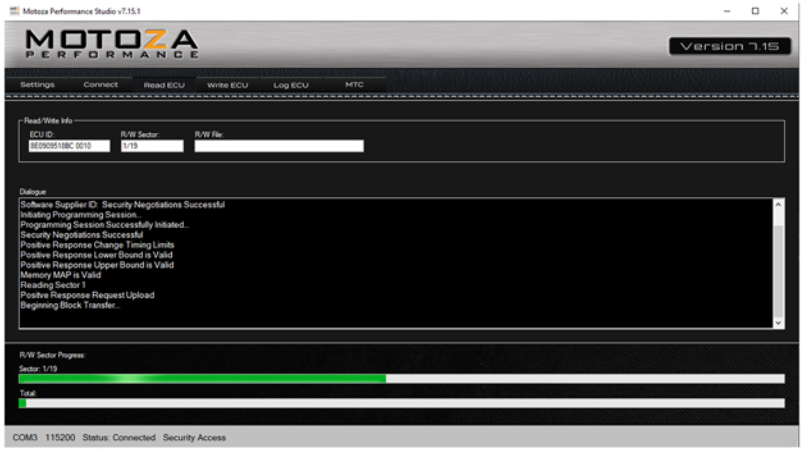
Reading the ECU uploads a complete copy of the ECU's operating system to your PC. The ECU can only be read with the key ON and engine OFF. The initial read of the ECU is a longer process than writing new files to the ECU. The software will read each sector of the ECU.

When complete, the user is prompted to save the read-out. This file will be saved with the extension .mtz. This initial file may be written back to the ECU if at any time the vehicle needs to be returned to stock.

QUICK TIP

Upload your saved .mtz file to http://members.motozaperformance.com to initiate the tuning process. The member site will automatically email us and we will schedule your tune. Once scheduled, you'll receive an email confirming your initial tune setup.

Typically, you will not need to repeat the ECU read process.



WRITE ECU

Writing the ECU is the most sensitive operation performed with Motoza PS.

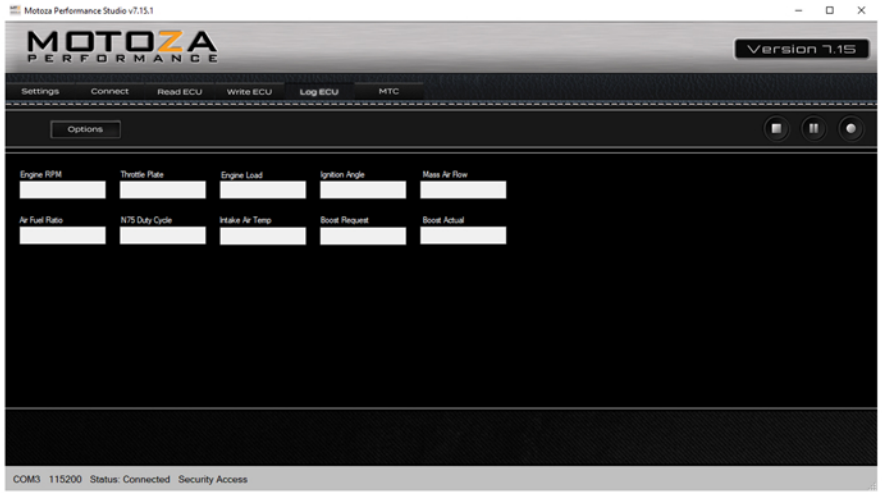
Special care should be taken when writing the ECU to ensure that the vehicle's battery is in good condition and accessories which can cause unstable voltage, (such as audio equipment), should be turned off. We strongly recommend the use of a **battery tender,** (not a battery charger), when writing the ECU to ensure stable voltage. We recommend 1 to 3 amps as the setting for your battery tender.

The write process is similar to the read process. The ECU can only be written with the key ON and engine OFF. The write function is performed much faster than the read function as only sectors of the ECU which have been changed will be written.

When the writing process begins, the user will be prompted to select the file to be written. **Files must be of the .mtz format**. By default, Motoza PS will look for files in **C:\Motoza PS\My ECU**. You may store files in any directory on your computer that you wish, but you will need to point the software to the directory you have chosen.

Once a file is selected, the software will begin transferring the file to the ECU. During this process a series of progress bars will report the status of the transfer. When finished, the user will receive an "ECU Write Successful" message and be prompted to switch the ignition to the OFF position. Wait for at least 5 seconds before switching the key back on and starting the engine.

LOG ECU



The Log ECU tab allows users to easily send files to Motoza for review. Additionally, it can be used to view various sets of data from the ECU. Use the drop-down menu to select the data set to be displayed while logging. Regardless of the data set selected, all data will be recorded in the log.

To begin logging, click the record button at the top right of the screen.

A file dialog is opened after clicking record. Enter a filename and click OK. Your file will be saved as a .csv file. The software will then setup the high speed session and begin logging. With some ECU's it may take a few moments before you see data on the screen.

To end your logging session, click stop. Sessions may also be paused and resumed by clicking the pause button.

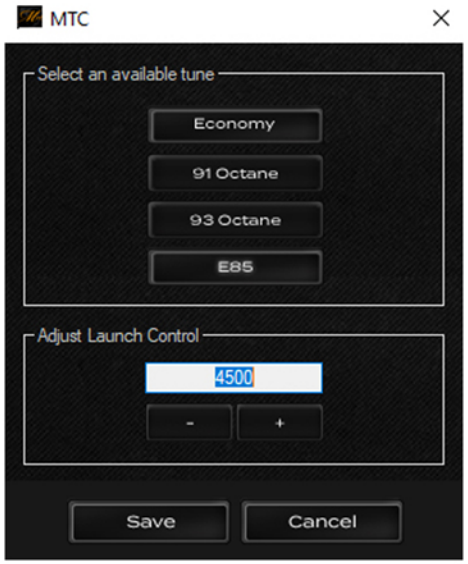
Once completed, this file type is viewable as a spreadsheet in programs such as Microsoft Excel or Google Docs. All units are metric. Regardless of which display group is chosen when clicking options, all variables will be recorded in your log.

QUICK TIP

Before recording a data log after installing a tune, 20 minutes of normal driving is suggested to allow the ECU to adapt. After this period, we suggest logging for 15 minutes or so. Ideally a log will include, idle, throttle, acceleration and deceleration. If it is safe to do so, a hard pull in 3rd gear to redline is helpful.

OPTIONAL FEATURES

MTC (Multi-Tune Control)



The MTC feature retrieves a list of available tunes from the ECU and displays a brief description of each. The current tune will be highlighted. There are 2 or 4 calibrations in an MTC file, select the one you want to use and press “Save” to switch to it immediately.

Generally each tune in the MTC has progressively more ignition. High and low boost files are available instead of multiple octanes.

Unless purchased separately, the MTC tab will not be selectable. For cars with automatic transmissions, the Adjust Launch Control section of the dialog box will not function.

-We recommend switching octanes when the fuel tank is 1/8 full or less.

-For safety, you cannot switch tunes while the vehicle is in motion, but you can switch with the engine running.

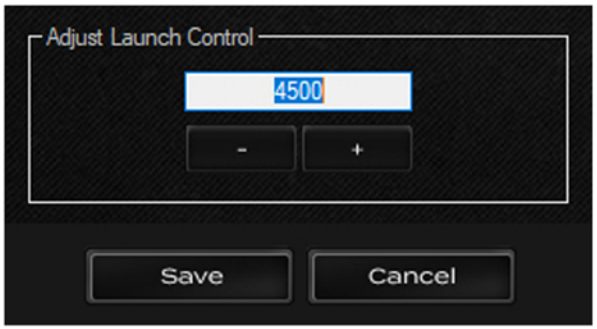
-Once a selection is made, it will stay selected when you switch the car on and off. After flashing the ECU, the MTC will return to the tune in the first position on the list. (You may notice lower timing and boost). You can switch to the appropriate selection immediately after flashing. If you disconnect the battery, the MTC will return to the tune in the first position.

Quick Tip

Multi-Tune Control includes User Adjustable Launch Control and No Lift Shift. No LIft Shift is included when Launch Control is purchased. All features are optional and available for purchase with a Motoza Remote Tune. These additional features may be purchased at any time during or after the tuning process. Launch Control and No Lift Shift require a test pipe and manual transmission. See www.motozaperformance.com for more details.

OPTIONAL FEATURES

User Adjustible Launch Control



Access the User Adjustable Launch Control settings under the MTC tab in Motoza PS. This tab will be available to owners of Launch Control even if MTC has not been purchased, but tune switching will be disabled.

The default launch rpm is set to 3500. Use the plus (+) and minus (-) buttons to adjust the rpms necessary to create a launch condition. Click Save after making your selection.

It is important to note that using Launch Control (also referred to as Anti-Lag) causes fuel to burn in the exhaust manifold and spin up the turbo. This means combustion will be happening in the manifold, turbo, and exhaust rather than just in the cylinders. More energy in the form of heat will be going into these exhaust components than normal and they will get hot quickly. Remember that the motor is water cooled, the exhaust manifold is not!

Do not use this feature on a cold motor. You can minimize the risk of damage to the manifold and turbo by allowing the components to reach operating temperatures prior to engaging Launch Control. Only engage the feature long enough to build boost and launch ASAP. Sitting on the accelerator and clutch for long periods may result in damage or overheating.

WARNING

Launching is very hard on the exhaust & turbo components, as well as the drivetrain when the clutch is released. Launch Control WILL destroy a catalytic converter and should never be used with one. Motoza makes no express or implied warranty to vehicle components when using Launch Control.

OPTIONAL FEATURES

Engaging Launch Control

THESE ARE TRACK USE ONLY FEATURES AND MAY NOT BE USED ON VEHICLES THAT ARE USED ON PUBLIC ROADS. IT IS A VIOLATION OF FEDERAL LAW TO OPERATE A VECHICLE ON PUBLIC ROADS THAT HAS ANY EMISSIONS RELATED EQUIPMENT SUCH AS CATALYTIC CONVERTERS, REMOVED.

Launch control can build boost pressure at a stop with no physical load on the engine. To engage it the following conditions must be met:

-Vehicle is at a stop
-Clutch pedal is engaged
-rpm is greater than the threshold selected. (3500 is the default)

At a stop, clutch pedal down, bring up the revs. As revs increase, ignition will be cut to hold the rpm close to the selected threshold while spinning up the turbo. Keep an eye on your boost gauge and tachometer to adjust the threshold level at a later time. The sound is pretty epic, be prepared, it's loud. Again, do not attempt to use this feature with ANY type of catalytic converter installed.

Engaging No Lift Shift

No lift shift will engage if the following conditions are met:

-RPM is greater than 5000 (this threshold may be changed on request)
-Throttle position is greater than 90% (this percentage may be altered on request)
-Clutch pedal is engaged

All conditions must be true and then the throttle will stay open, continue pumping fuel, and cut ignition to maintain boost pressure between shifts. As soon as the clutch is relased, throttle position decreases, or rpm falls, shifting will return to normal. It is a tight window of approximately 1/2 second to make the shift. No lift shift uses the same principle as launch control but happens so fast that excess heat in the manifold isn't as much of a concern.

ENGAGING ROLLING ANTI-LAG

Rolling anti-lag allows the user to build boost under acceleration with the use of the cruise control set button.

Familiarize yourself with the feature on open track in a straightaway, clear of other vehicles.

Anti-lag will engage when you press and hold the set button. It will remain engaged until the button is released.

After depressing the set button, quickly and fully depress the throttle.

We suggest practice runs at various, speeds, gears, and throttle positions to determine the ideal combination for your vehicle.

ALL MOTOZA PRODUCTS ARE SOLD FOR OFF-ROAD USE