



AUTOFLASH 2™

SHIFTING PERFORMANCE

TMC MOTORSPORT
'THE HOME OF THE ORIGINAL FLASH TOOL'



User Installation Guide 2024/25



The all new TCU Engine & Gearbox Tuning Tool



New TCU Tool with the newly added visual programming feature LED for 2024!

PLEASE READ ENTIRE GUIDE BEFORE INSTALATION. FAILUIRE TO DO SO COULD CAUSE DAMAGE TO YOUR VEHICLE.

Thank you for choosing the new TCU Tuning module. Below is an over view of the tool and installation guide.

What's New with the TCU Tuning Tool ?

The all-new TCU Tool is a fully reworked and reprogrammed new plug n play OBD tool that not only unlocks manufacturer's transmission settings within the vehicles control modules to give better gear shifts, increased performance and release torque. It now also provides adaptation reset as standard helping you get the most from your vehicle, which provides an essential component in your vehicles modifications and upgrade path.

The new updated TCU Tool was developed with two advanced functional requirements.

1. *The need to improve and optimize the gear shift speeds and modify torque settings in the modern automatic gearing systems to improve the overall driving experience.*
2. *The need to create a simple to use **Plug n Play OBD** solution which is easy to install and at an affordable price.*

How does it work?

The all-new TCU Flash Tool integrates with the vehicles onboard communications network via OBD to access the ECU, TCU and Convenience modules to adjust/reset the shift strategies within the OEM (Original Equipment Manufacturer) control components to "point" or "re address" these strategies to the best and most optimal settings.

This includes changing the transmission shift speed pointer to a faster/different setting. The internal components that make up the mechanics of the transmission have a wide range of tolerance and multiple settings allowing manufacturers in most cases to use single components across a whole range of vehicles, from a VW golf to a

Lamborghini Aventador. They all contain similar if not the same generation components, usually built in the same factory, but have model specific programs that are used for their specific application.



The New TCU provides a Clean Start Point

Over time your vehicle may have adapted to a slower shift due to a previous owner or the way the vehicle has been driven over time. Unique to the new TCU Tool we have now added the extra function of resetting this to provide a 'Clean slate' install. This is an essential step when modifying or tuning as it gives the user a factory clean reference point and base line. This is the first time we have added this feature to our new line of TCU products and only available on the new !

What's all the Torque About?

Torque Limits are also set in various systems and control modules within the vehicle; this is set by the manufacturer and is one of the easy ways to electronically limit power in certain models of vehicles.

This allows the manufacturer to release many different power variants with different driving characteristics with only a single engine. This is a much more cost effective way of creating a vehicle range without the need to manufacture multiple engines at different power levels.

We all know how many power variants are available for the VW Golf 2.0TDi. Same engine different software settings.

The New TCU Releases Lost Power.

By simply unlocking, resetting and amending the torque settings to the various other manufacturers settings we can allow the vehicle to produce and deliver power safely and still stay within the manufacturers specified limits.

This style of 'derestricting' ensures that key settings such as clamping force, slip, torque limits, shift speeds etc. all remain within not only manufacturers spec, but also component spec, thus never exceeding safety of shortening component life.

Before you Begin!

**PLEASE READ THIS SECTION CAREFULLY.
FAILURE TO DO SO MAY RESULT IN DAMAGE TO YOUR VEHICLE**



How do I Know my TCU Tool Is genuine?

Firstly ensure that you are using a genuine tool and that it was purchased through the approved reseller network.

All new Latest TCU tools are serial number marked and contain the latest firmware and software settings available. Please ensure you are installing the latest version and a genuine product This can be quickly and easily checked by contacting your reseller.

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Is my TCU Tool Genuine/Authentic? What to check?

1. Does it have the 'Original' Authentic/Genuine serialised Hologram sticker?



2. Does it Look Like the items pictured?



3. Was it purchased from one of our authorized resellers?

4. Are you using the latest version of the tool available?

IF YOU ANSWER NO TO THE ABOVE QUESTIONS OR ARE UNSURE ABOUT ANY OF THE ABOVE OR IF

YOU'RE TCU TOOL IS GENUINE PLEASE STOP!

FAILURE TO AUTHENTICATE COULD CAUSE DAMAGE TO YOUR VEHICLE

INSTALLATION GUIDE

How do I Install the new TCU Tool?

The new TCU Flash device is a simple Plug in OBD Flash unit.

Plug the unit into the OBD port, wait for the procedure to complete and then remove from the OBD slot, it really is that Simple!

Once installed the tool is then locked to that vehicles **VIN (Vehicle Identity Number)**, which can be flashed multiple time to refresh the upgrade if it has been erased by the Main dealer or Manufacturer.

Please read through the entire installation procedure prior to
Installing to familiarise yourself with this guide.

ONCE PROCEDURE IS COMPLETE THE TOOL IS LOCKED TO THAT VEHICLES VIN. DO NOT PLUG INTO ANY OTHER VEHICLE THIS MAY CAUSE DAMAGE.

The follow guide sets out the **7 step procedure** for installation of the OBD flash tool & the procedure to return to stock/standard settings.

Step 1. Switch 'ON' ignition, but do not start engine. Ensure dashboard/ignition lights are illuminated.

Step 2. Locate OBD port (on board diagnostic plug) usually located in the drivers foot well.

Step 3. With the ignition still in the 'ON' position (engine NOT started) insert the flash tool into the socket. You should hear an audible beep and the LED will illuminate. The tool is now active and begun to program.

Step 4. Once the upgrade is complete the unit will begin to beep constantly confirming the process has completed successfully and the LED will switch OFF.

Step 5. Remove the flash tool from the OBD port and switch ignition into the 'OFF' position.

Step 6. IMPORTANT – Start the engine by turning the key only.

During Idle, on some vehicles you may hear the engine hunt or revs fluctuate at this time and then eventually settle, this is normal.

-DO NOT PRESS GAS/Throttle/Accelerator Pedal and allow to idle for 5 mins.

-DO NOT REV the vehicle or attempt to drive at this point. The vehicle is in its learning phase and must idle.

if the accelerator is pressed during the idle phase, remove the battery terminal for 15 mins and restart the procedure again from step 1.

Step 7. IMPORTANT. After you have allowed the vehicle to idle for 5 mins, you must now drive the vehicle **using the full rev range and in all gears and modes, in both sport and manual.** The vehicle will now begin the adaption phase and adjust to the new upgrade and settings.

This phase can take anything from 10 – 100+ miles depending on vehicle. Once complete the vehicle will feel sharper and more responsive. As long as the full rev range is used and various modes selected you will be good to go, further adaptation will then take place over normal driving etc..

REMOVAL – If you require the TCU Tune to be removed this must be done at the main dealer with a standard flash back to stock or reset at dealer level.

Trouble Shooting Guide.

Before the unit is installed your vehicle must be free from error codes or faults codes on the ECU. This can be quickly checked with a hand held OBD scanning diagnostic tool.

All faults must be cleared for the procedure to work correctly, failure to do this will result in the TCU Flash upgrade not installing to the vehicle.

Please ensure OBD plug is undamaged on the vehicle and free from dirt/moisture prior to installation.

This unit is for **12v Vehicles only**, for 24v vehicles (fleet/truck) please contact us for an adapter kit/cable set. Make sure you run the vehicle for at least 50 miles for the adaptation phase to complete after the upgrade has installed. This time allows the vehicle to adjust to the new settings giving sharper more responsive driving experience.

LED does not light up? – Check power to OBD port.

No Sound or Very Quiet – Due to voltage differences sometimes the internal sounder can be quite. as long as LED is lit, the unit will begin to program the vehicle and flash once complete..

Version History? – TMC solely manufactured and developed 4 versions of the Original TCU Tool, from the prototype, through to the very latest LED version 2016/24.

Throughout the development we introduced new hardware and software to ensure future proof compatibility with modern vehicles. Faster Controllers, revamped circuit design and extra on-board flash memory to cater for the latest vehicles.

I have the old version does this matter? – No, as long as you purchased from a recognized TMC reseller or direct from ourselves your version will be matched to Your vehicle. All TMC Autoflash Units are backwards compatible, so as long as you have the latest version available at the time of purchase you are good to go.

My Flash Tool Doesn't look like yours? – TMC are the original and only manufacturer of the Autoflash TCU tool . We supply our products to many trusted resellers globally. There have been many copies made of the original tool out there which have caused many catastrophic failures or simply don't do anything . The only way to be 100% sure is to buy direct from TMC or a trusted TMC reseller. If your tool does not look like the ones pictured above please contact your reseller and ask the question 'is this a TMC Autoflash' .

Thank you for choosing TMC Motorsport and our TCU Autoflash Module Upgrade.

"If it doesn't look like an TMC Autoflash, it isn't !"

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1 **About TMC Motorsport**

TMC Motorsport is a globally renowned and forward thinking company supplying high-technology motorsport and tuning products to a global network of distributors, resellers and end users.

Using our industry expertise and knowledge we have manufactured and developed some of the world's most cutting edge tuning technology of which we continue to grow and expand, with one single goal in mind, to be the best at what we do in the industry.

2 Our constant investment in technology means that we always offer our customers the very best product available. With our latest multi-channel technology we can tune the engines that other companies simply can't.

We pride ourselves on top class customer service with high quality premium products using only the latest technology and components. We feel this sets us apart from many other sellers out there making us unique in the motorsport industry.