

AutoFlash by MADNESS



Thank you for purchasing the AutoFlash by MADNESS!
Below is an overview of the module along with installation instructions.

What is the AutoFlash?

The AutoFlash is a TCU (Transmission Control Unit) Tool is a remarkable new plug and play OBD tool that unlocks manufacturer transmission settings within the vehicle's control module to increase shift speed and increase torque limitations throughout the gearing.

The tool was developed with two basic consumer 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 and Play OBD solution to bypass the anti-tune technology (locked ECUs) imposed by manufacturers.

What does it do?

Due to the delicate nature surrounding our research and development we can't give away all of our secrets. In short, the TCU Flash Tool integrates with the communications network through the ECU, TCU and Convenience modules to alter the strategy addresses hidden within the OEM (Original Equipment Manufacturer) devices to "point" or "re-address" these strategies to the most optimal setting.

Eg. In simple terms, address 4 may be faster than address setting 8 so we re-align the pointer to the new address.

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. 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 limits of torque are also set in various systems and control modules within the vehicle. These limitations are set by the manufacturer and is an easy way to electronically limit power in certain module vehicles allowing 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.

Eg. VW 2.0 TDi engine available as 100bhp 102bhp / 140bhp / 143bhp / 170bhp / 184bhp

By simply unlocking and changing the torque settings to the various other factory settings we can allow the vehicle to produce and deliver power safely and still stay within the manufacturer's specified limits. This style of "de-restricting" ensures that key settings such as clamping force, slip, torque limits, shift speeds etc. all remain within not only manufacturer specs but also component spec thus never exceeding safety or risking shortening component life.

Does the AutoFlash work on Manual Transmissions?

Although the AutoFlash was predominantly developed for automatic transmissions, it also has the ability to release torque in the rev range for manual transmissions. As with most modern vehicles, the manufacturer limits torque on both automatic and manual transmissions. This is done through various on-board ECU / controllers.

The AutoFlash has the ability to open up the torque settings on both automatic and manual transmissions allowing more power to be delivered throughout the rev range.

How do I fit the unit?

The AutoFlash 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!

Once installed, the AutoFlash is locked to that vehicle's VIN (Vehicle Identification Number). It can be flashed multiple times if the upgrade has been erased by the dealership or manufacturer.

Installation Procedure

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

Please note that once the upgrade is completed the AutoFlash will be VIN locked to that vehicle and will only work on that vehicle.

Installation Guide

The following guide sets out the 7 step procedure for installation of the AutoFlash and the procedure for returning your vehicle back to stock / standard settings.

1. Switch your ignition ON but do not start the engine. Ensure your dash lights are on
2. Locate the OBD port on your vehicle (usually located in the driver's footwell)
3. With the ignition still in the ON position (engine NOT started), insert the flash tool into the OBD port. You should hear an audible beep and the LED should illuminate
4. Once the upgrade is complete, the unit will begin to beep constantly confirming the process has been completed successfully
5. Remove the AutoFlash from the OBD port and switch the ignition to the OFF position
6. **IMPORTANT** - Start the engine and idle your vehicle for 5 minutes

On some vehicles you may hear the engine hunt / rev and then eventually settle.

DO NOT TOUCH THE ACCELERATOR PEDAL. DO NOT REV YOUR ENGINE.

The vehicle is in its learning phase and must idle. If the accelerator pedal was pressed, remove the battery terminal for 15 minutes and restart the procedure from step 1.

7. After 5 minutes of idle you may now drive the vehicle using the full rev range in all gears and modes. The vehicle will now begin the adaptation phase and adjust to the new upgrade. This learning phase can take anything from 10 - 100+ miles depending on your vehicle. Once complete, the vehicle will feel sharper and more responsive.

You have now completed the AutoFlash TCU Upgrade!

Returning your vehicle back to stock settings

The following procedure provides details on how to return the vehicle back to the original stock settings. This can only be used on the original vehicle the upgrade was completed on.

1. Enter your vehicle and close all the doors. Switch your ignition ON but do not start the engine. Ensure your dash lights are on
2. Locate the OBD port on your vehicle (usually located in the driver's footwell) and insert the AutoFlash into the OBD port
3. When the AutoFlash is inserted into the OBD port it will make a long beep tone. Whilst this tone can be heard, immediately press and hold the "Lock" door function on your vehicle's remote control key fob
4. The AutoFlash should now stop sounding. You should now wait for the intermittent beeps (flashing has stopped) for the stock settings to be written back to the vehicle

Now continue to *Step 5 above to complete the process

Troubleshooting

Before the unit is installed, your vehicle must be free from error codes or fault codes on the ECU. You can check for codes with a handheld OBD scanning diagnostic tool.

All faults must be cleared for the procedure to work correctly. Failure to not clear codes will result in the AutoFlash upgrade not installing on the vehicle.

Please ensure your OBD is undamaged and is free from dirt / moisture prior to installation.

This unit is for 12v vehicles only.

Make sure to run the vehicle for a minimum of 50 miles for the adaptation phase to complete after the AutoFlash has been installed. The adaptation phase allows the vehicle to adjust to the new settings and give you a sharper, more responsive driving experience.

Thank you for choosing MADNESS Autoworks and our AutoFlash Upgrade Module!

If you need further assistance, please don't hesitate in reaching out to us!

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