

TECH SESSIONS WITH HARRISON MOTORSPORTS
PERFORMANCE CHIP INSTALLATION
(3 Series E30)

A relatively simple and cost effective power upgrade for your older 3 Series, an aftermarket chip will remap your fuel injection and give your Bimmer new-found power. There are many chip manufacturers for this vehicle, with marginal differences in horsepower/torque increases. Installation is the same for all chips.

Most importantly, disconnect the battery. You will be working with the vehicle ECU, and do not want any voltage spikes. The ECU for these vehicles is located in the top of the glove compartment, beyond an access panel. Remove the four nuts holding the computer and pull it out. Disengage the harness clip and fully remove the unit.

YOU MUST MAKE SURE YOU ARE PROPERLY GROUNDED BEFORE OPENING THE COMPUTER! Use a grounding strap to ground yourself to the metal frame of the ECU. This will prevent any static electricity from being discharged while working with the delicate electronics. Once grounded, turn the unit over and note the metal tabs keeping it together. Carefully bend these tabs back and separate the unit.

Inside the computer you will see two circuit boards stacked upon each other, held together by a ribbon of wires. To access the factory chip, you must disconnect the harness from the top board to remove it. Push the tabs on the front of the connector inward, and angle the board up. A mild amount of force will be needed to do this, but if you encounter any additional resistance, do not force it. This could severely damage the board resulting in the need for a new ECU. If you feel it hanging up, inspect and free the hang up before proceeding. Once the board is removed from the connector, carefully fold it over and out of the way.

Once you see the bottom board, you will notice a few chips installed. The one we will be removing is the chip with the plastic cover on it. To remove the chip, **CAREFULLY** wedge a small flathead screwdriver in between the circuit board and the chip, and pry it up, making sure to use equal pressure on both sides of the chip.

Noting the orientation of the new chip in relation to the old one, carefully press it into the board. Reinstall the plastic protector and then the top circuit board. Make sure you line up the two plastic connectors so that they click together. Reinstall the metal cover, and bend the tabs back into place. Now you can install the computer back into the glove box, making sure to line up the pins on the computer with the pins on the harness.

Before you start your newly chipped Bimmer, make sure you have high octane (91 or up) fuel in your tank. Due to the nature of the timing map the new chip has, your car will have to run high octane fuel to fully take advantage of this timing map. Failure to run high octane will result in pinging or knocking.

Enjoy your new Bavarian hotrod! Please note, fuel consumption may be increased as a direct result of the increased grin/heavy right foot factor, inherent of a chip upgrade.