Now save the file with a new name, **File > Save As**. Maybe something like

'Toms Base DSP5 Conversion'

Or often some people might save the file base with the VIN like so

'1GCHK23123F123456 Base DSP5 Conversion'


Once the file has been saved with its new name you now need to close the file down, **File > Close Tuning File**.

Now you need to reopen the file so EFILive will recognise the file is a DSP converted operating system, please also take note of the new operating system number of the DSP converted file (circled in red below).

**DSP2** will become 2xxxxxxx (eg **1**2606128 to **2**2606128)

**DSP5** will become 5xxxxxxx (eg **1**2606128 to **5**2606128)



EFILive automatically populates the new DSP tables with factory maps during the upgrade to get you started. On modified engines these may not be suitable settings, you may need to copy your own tables in to the new DSP section(s).

This upgraded *.tun file will become your "base calibration" for the upgraded Operating System. Always keep a copy of this file incase you need to restore your ECM to its initial Custom Operating System state. Preferably, make a backup of it onto a CD or USB memory stick and store it in a safe place or Email it to a friend.

The final step is to now do an entire ECM reflash with the new DSP operating system and calibrations.  This is covered on the next page.

**Hints for in-vehicle ECM flashing:**

- Ensure your vehicle is keyed to ON (not Accy), without the engine running.
- Ensure the battery is in a good state of charge.

You will need to perform a 'Full Reflash' of your ECM to use the newly created DSP operating system and calibrations. Once this completes successfully you will only need to do 'Calibration' flashing for normal tuning procedures.

The EFILive Tuning Tool manual covers reflashing procedures, it is highly recommended you also refer to that document whilst performing this programming procedure as this covers the correct steps for performing the full ECM flash and how to go about ECM recovery should something go wrong.

With your DSP file loaded press the button circled in the picture below.
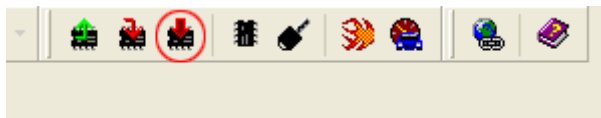


Once the full flashing procedure finishes (approx 8 -11 minutes depending on the ECM type), turn off the IGN for at least 30 seconds to allow all the vehicle modules to fully shut down.

Next, start the truck and ensure everything is running and operating correctly (A/C, cruise control, etc).

Once these tests are complete you can wire up your DSP switch. Once that is complete you can start tuning your DSP programs. Without the DSP switch wired up the ECM will still be running off the factory maps.

It is highly recommended that you disconnect the trucks battery before attempting any wiring modifications.

**Please Note:** Once the DSP OS is flashed in to your ECM you will no longer be able to read the tune back out of the ECM, so please ensure you keep a copy of your tunes safe.

# Wiring the DSP2 Switch

The DSP2 switch works by switching the voltage level at an ECM pin to 0V (ground). The ECM monitors the voltage to determine which program you wish to run.

When the switch is open, the ECM will use the factory maps, when the switch is closed (grounded) the ECM will use the DSP2 tables.
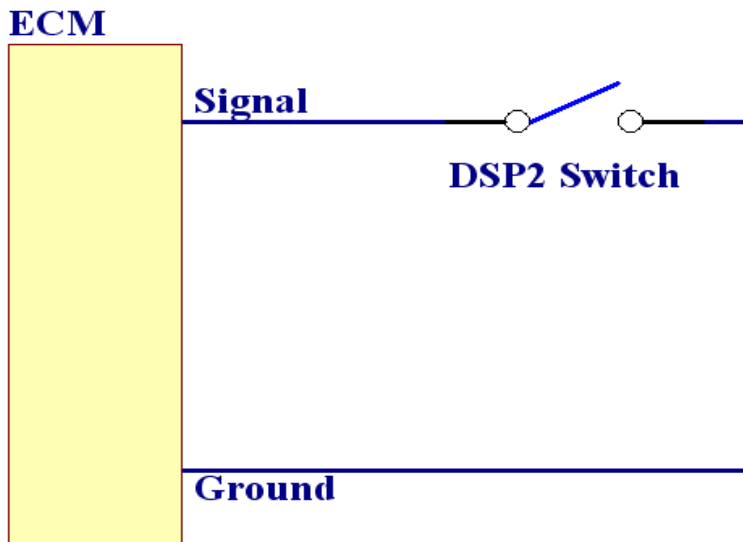


The connections to the ECM from the switch are made to the following pins –

## LBZ & LMM

Signal = Connector 1 (the larger plug), pin 52 , *(next to LtBlue/Black wire)*.

Ground = Connector 1 (the larger plug),  pin 54, *(next to Yellow/Black wire)*.

*Note: It may also be possible to make the ground connection in the cab rather than the ECM.*

(Also see the connector view below for reference)