

How to use Re-Calibration Dongle

For Mazda BT-50 2006-2011, and Ford Ranger PJ and PK models only.



The Re-calibration Dongle is only used for calibrating Mass Air Flow (MAF) Sensor at the Air Cleaner Box.

The MAF sensor is base reference point for all the fuel calculation of your engine so it is a very important device to look after.

The sensor can be out of calibration by dirt contamination despite it has a very good air filter.

The main contaminant is chemical based pollution, which air filter cannot filter. With time, the pollution scum can be built up in the sensor and interfere with quick response and inaccurate metering of air mass flow. It will also be contaminated by crankcase ventilation gas, when the engine is turned off due to the nature of pressure.

Also, another reason they go out of calibration is simply aging electronics inside, which they need re-calibration. Even perfectly working MAF sensor will be out of calibration in about 100,000km. It can cause slow acceleration or poor fuel economy with black smoke. Many car service people simply replace the sensor, but very often there is nothing wrong with the sensor. It is just simply dirty or need re-calibration.

I strongly recommend to clean the MAF sensor first.

Cleaning MAF sensor.

Use sensor cleaner sprays or solvent spray to clean two places.

The first place to clean is a small chamber outside of main chimney which is an Intake Air Temperature sensor (IAT). Don't touch the IAT sensor with spray nozzle give some distance like 5cm. Thoroughly spray both side and make sure the sensor is clean. The liquid which sprayed will quickly dry off itself.

Now the second place to clean is the main stack of the chamber, look deep into the chamber you will find fine platinum wound coil assembly. That is the actual air flow sensor and they are extremely fragile in nature, so DON'T TOUCH with spray nozzle. If you touch them, even very light touch, they will simply disintegrate into many bits.

Shake off excessive cleaning liquid and let them dry off itself.

Re-Calibration procedure:

1.. Plug in the Re-Cal dongle into the OBD (On Board Diagnostic) socket under the hand brake.

2.. Start engine at idle, then wait for engine coolant temperature to reach normal range. The gauge in the instrument panel is not accurate at all, it may be indicated around 70-80c.

3... Go around the block a few times in high RPM with a lot of gear changes to give engine hard work. **(Be careful for driving, watch out for the road)**

It is best to have your coolant temperature 85-90C before start re-Cal.

4... Park the car in safe and flat position, Turn off Air-Conditioning.

Turn off the manual mapper by throwing the switch to By-pass position.

Then push the dongle button 5 times within 5 seconds. The car computer will turn glow plug lamp on then start auto calibration of MAF sensor by automatically revving engine at 750RPM, 1500RPM, and 2500RPM twice.

The car computer will flash glow lamp 5 times as they complete calibration.

Now you can turn on the manual mapper by throwing the switch into ON position.

Note: The car computer will terminate calibration half way due to the engine coolant temperature is falling below 80c.

If the coolant temperature is high but still terminate calibration half way means it does not need any calibration or the MAF sensor measuring range is shifted beyond calibration.

There is no way this procedure will damage your engine. It is safe!

Please note: above instruction is given in thorough experience, and in good faith with manufacturer's instruction. You must know what you are doing. Ozbush Electronics is not responsible in any way what happen to you by using this device.

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