



## How To: Recalibrate OBC MPG calculation

Courtesy of **Smartmac**

If your OBC is not calculating the fuel economy correctly, here is what to do to recalibrate the OBC.

- 1) First you need to know how much the computer is out by. It might be over-reading or under-reading. The new calibration parameter will reflect this.
- 2) Calculations must be used using l/100 km as this is what the car's computer uses internally.
- 3) Use the following formula to find the new parameter:  
$$\text{NewParameter} = \text{Old parameter} \times (\text{correct fuel economy} / \text{OBC fuel economy})$$
$$\text{NewParameter} = 1072 \times (6.6 / 7.39) = 957$$
 This is the calculation I used for my own car

Now, you'll need to know the parameter the car is using at the moment. This can be found in the OBC 'hidden menu'. Instructions on how to get to it can be found here:

<http://e90.wetpaint.com/page/BC+hidden+menus?t=anon>

The parameter you are looking for is 20.00

Once you got the parameter and you have calculated the new 'recalibrated' one, you will have to enter this on the car. This part is a little messy but not so complicated.

You'll have to change one digit at the time, it works on rotation:

20.01 Change parameter for the Units

20.02 Change parameter for the Tens

20.03 Change parameter for the Hundreds

I did this a few months ago and I have been running a trial double checking OBC figures against manual calculations after every fill up. Results are:

Before change parameter was 1072:

OBC:7.4 Real:6.6

After Parameter change to 957:

1) OBC:7.8 Real:7.8

2) OBC:7.2 Real:7.0

3) OBC:6.9 Real:6.9

The hidden menu is well known within BMW. I found very little information on parameter 20 (obc calibration) so I had to do loads of trials. Most of the info comes from the Spanish BMW club, I just waited to have enough information to prove it actually works.

Most people will accept the obc is correct ( I did for 3 years) but sometimes it is not as parameter 20 is different for every car.

Many forum members have indicated that their OBC readings were quite incorrect.