## Maserati 3200 - Throttle body diagnostic guide

The Maserati 3200 was fitted with one of the early drive by wire systems, when the technology was not widespread. It was therefore flawed in many ways, and the system fitted to the 4200 while similar was much improved and a lot less troublesome.



The throttle bodies can have one of 4 problems. Most common is the rotary sensors fail causing errors (usually P225). These can be replaced with contactless sensors which do not suffer from the physical wear that the originals ones do, and will most likely last a lot longer without trouble.

Note however that these contactless sensors are prone to interference with the motor causing some gentle surging at idle. Its not really noticeable while driving, but when you have seen a 3200 with the idle drifting up and down its almost certainly due to this problem. There is no way of knowing how much this problem will occur before fitting these sensors. Some units have serious problems with this and they can be unusable, some are not affected at all at the idle is rock steady. I measure this problem and have set what I think are acceptable limits for the amount of "variation" and you will see this measured on the print-out with any of my throttle bodies.



The second most common problem is that magnetic assembly internally breaks up and this makes the flap stick and there is a lot of friction over the whole flap movement.

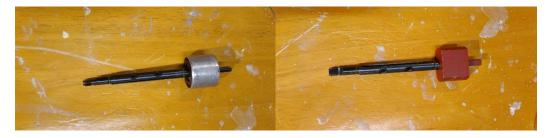
The electronics sometimes fail although this is uncommon, and usually because of magnet break up.

And lastly the choke flap gets gummed up with fuel gum and sticks in the fully closed position. Clearly if its petrol gum that is making it stick you can purchase a good throttle body cleaner and try just cleaning the choke.

Things you can try to work out what's wrong.

You can remove the hoses from the front of the throttle body and just press the flap with your fingers and see how it feels. If its sticking when closed you will feel this when you push it closed, it should spring back to the idle position when you let it go, if you can make it stick closed then it needs cleaned. It has springs so will resist your movements but should be free to move and not stick in position.

If it feels sticky all the time and stays where you put it this is most likely the magnet breaking up. The magnet breaking up requires the whole throttle body to be stripped down to replace it and is best fixed by using the new Volvo designed magnet assemblies which have a metal sheath over the whole magnet to prevent this problem



You can see this in these two photos, left is the new Volvo design and right is the original Maserati unit.

The other test which can point to throttle body problems is the start-up test. The throttle body performs a self-test every time it is switched on. If this fails then this is a clear sign that the throttle body is faulty.

The throttle body makes a whistling/whining noise when its running. If you switch on the ignition without starting the car you should see this sequence

The flap will close and open and then settle to roughly the idle position

The whistling sound will start as soon as you switch it on.

If it is working this whistling sound will be steady and continuous

If it fails its start-up test the whistling noise will stop.

If the noise stops after start-up then your throttle body is faulty.

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I can provide you will a replacement throttle body and I have 3 types I am making

- New converted Volvo throttle body
- Used converted Volvo throttle body
- Re-built original Maserati throttle body

All of these have new Volvo magnet assemblies, new contactless rotary position sensors and new or newer electronics modules. All are fully cleaned and retested to make sure they are as good as they can be. At the moment I still test all the throttle bodies in my own car so they are tested in a real car.

I can also look at your existing throttle body and repair any problems it has developed. If its just the position sensors then I can just replace these the other problems with electronics or magnet assemblies take a bit more work. Inquire for pricing.

If you decide you want one of my ready made ones I can give you a trade in for you old unit to help with the cost.

You can contact me on <a href="mailto:dave@maserati3200.net">dave@maserati3200.net</a>