

## Cleaning the Idle Control Valve

If you've come to reading this, then you must already have the good old fluctuating idle issue.

What you will need:

- Can of Carburettor Cleaner
- Screwdriver
- New jubilee clip (about 3cm to 4cm diameter) – depends on how you do things...
- Strong fingers!

The removal of the ICV is different between the 6 pot engines and the 1.6 or 1.8 4 pot. I'll start with the 6 pot (320, 323, 325 & 328)

Standing in front of the car, there is a gap between the oil filter housing and the intake manifold (see left pic below) – now if you look a bit further in you can just see the ICV. It's the shiny black thing in the right hand picture. The blurred silver at the bottom of the pic is the oil filter housing.



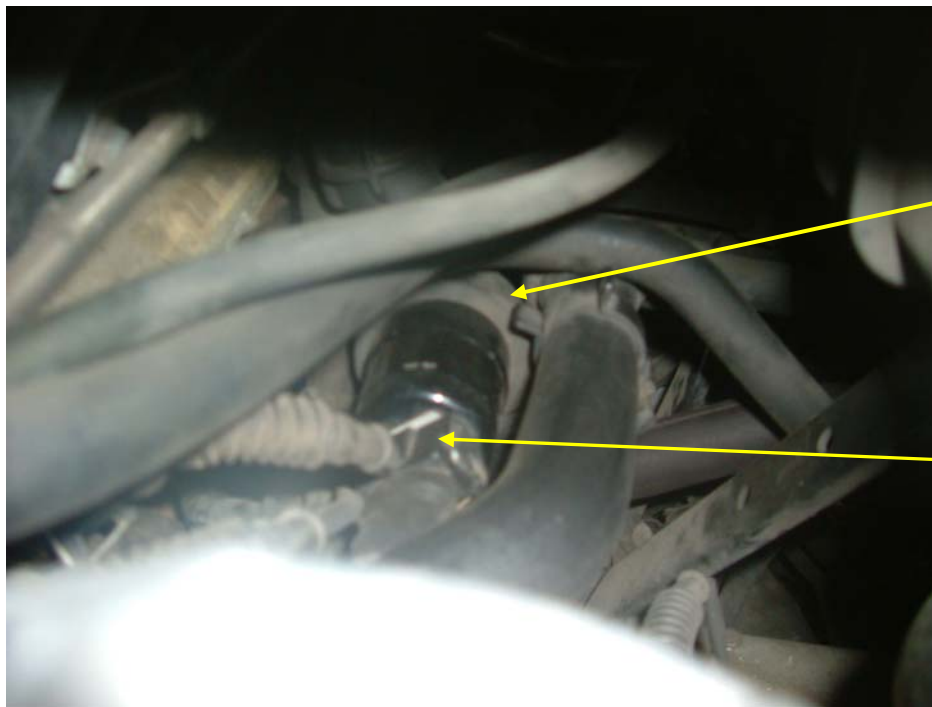
Ok, so now you know where it is! DEFINITELY better to do this when the car engine is cold...or you will burn yourself (hence I had the green cloth there, as my engine was most decidedly hot!)

First thing you will need to do is remove the plastic duct that goes to the alternator. Top bit near the radiator just pulls off, and the bottom is held on with a jubilee clip. So undo this.

(pic on next page)



Now, with this removed, you have more access to the ICV. The ICV is held in place by a large rubber band type fixing – so to get it out of this, all you need to do is disconnect the electrical connection and push the valve towards the car.



Rubber  
fixing

Connector

If you look right under the manifold, you will be able to see a 90 degree bend tube that goes from the ICV up to the plastic intake manifold. I couldn't get the camera in there to take a picture.

You need to pull this hose off the ICV. Again, do this as gently as possible, as the other end of that 90 degree hose is connected to the plastic manifold, and you don't want to go breaking the bit it fits onto.

You can now start to ease the ICV out from underneath the manifold. Be careful not to force anything as you may damage other tubes or electrical connections under there. Just ease it out – round the metal manifold support bars and other tubes.



At this point, make note of which tube came off the ICV – there is an arrow on the ICV to show which was air is supposed to flow through it.



90 degree hose fits on this end!



Ok, now you need to get the other hose off the other side.

You have 2 options here:

1. Prise open the clip and remove the hose – good job you have another jubilee clip now huh?!
2. Trace the hose back to the rubber boot just before the ICV and pull the hose out of the rubber boot instead, so you remove the whole hose whilst still attached to the ICV.

It makes no difference really, whatever floats your boat.

Have a look into your ICV (with or without rubber tube in tow) – eeeewww!!! Black carbon gunk all over the place! Right, with your can of Carb cleaner, blast all that black deposit away. Spray it, shake it, spray it, shake it, block off 1 end, fill it up with cleaner, shake it – you get the idea.

Make sure you spray it into both sides of the ICV (or down the hose on the other side!) until no more mess is coming out. The inside bit of your ICV should be nice and shiny again.



Now, you can re-assemble it all. If you took the old clip off the hose, make sure you put the hoses back on the right way round (as mentioned earlier).

Take care when threading the ICV back into place so that you do not crease any hoses and inhibit air flow.

The trickiest part here is trying to push the 90 degree rubber hose back on once the ICV is back in it's rubber band fixing. It's really fiddly, but keep at it – you'll get it on in the end.

OK – now the 4 pot motors you'll need to do the following to get at the ICV.

Your engine will look something like this (with a bit of luck!)

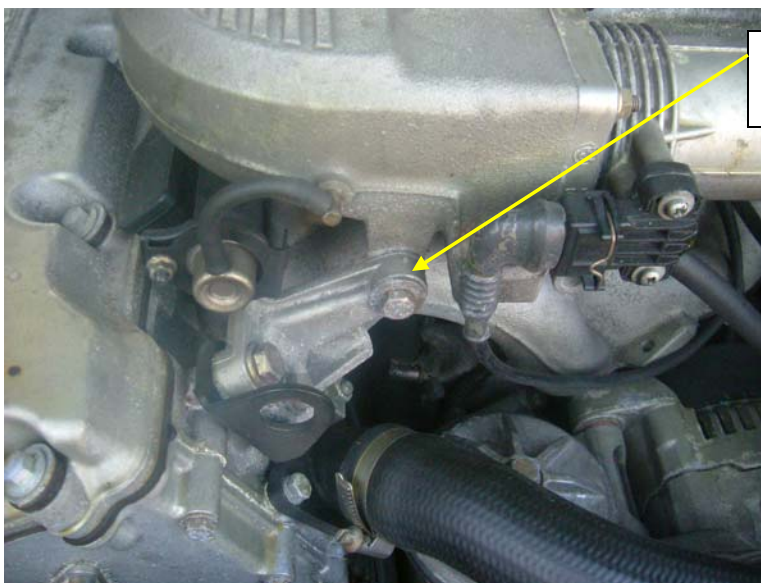


ICV is under here!

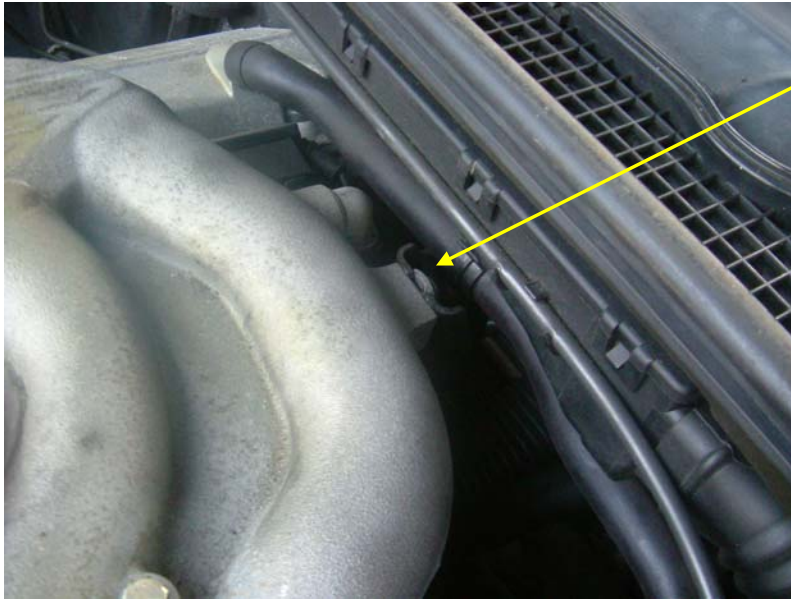
You may just be able to see the end of it if you look from the direction of the yellow arrow above.

The easiest way I found was to remove the intake manifold, as there are no gaskets that need replacing (well, none that I came across anyway!)

Pay attention now!

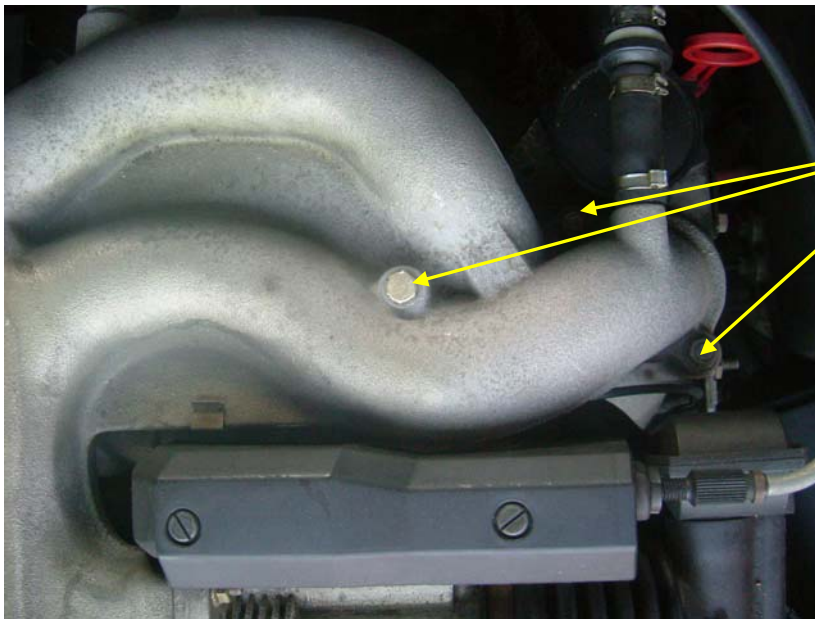


Remove this bolt

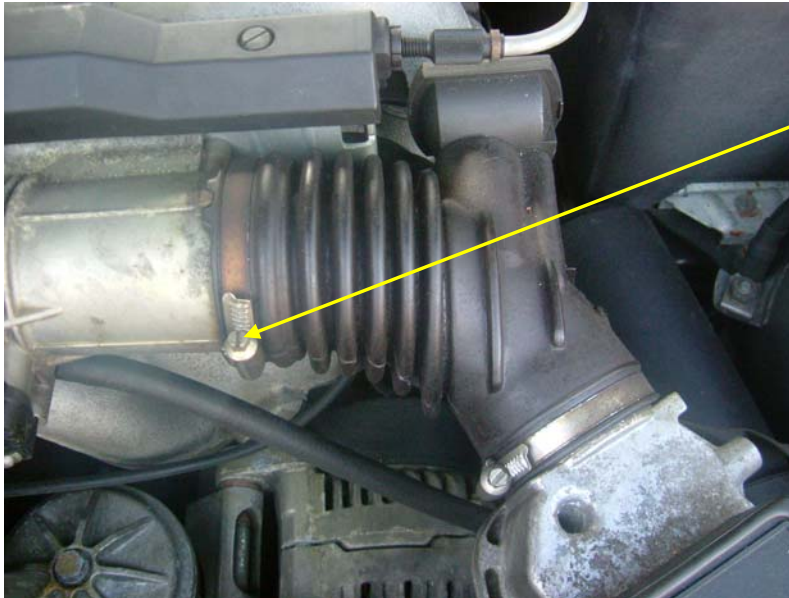


Loosen this nut

and then remove these 3 bolts



Now take off the rubber boot



Undo this clip  
and slide the  
boot off

Now, assuming all bolts are out, and relevant nuts loosened, you should be able to lift off the metal manifold.

**You don't need to lift it right off the car (you can't anyway because of cables attached) – you only need to lift it away enough so you can get access to the ICV.**

Haven't got a picture of it, but it looks the same as the one in the above procedure.

Same applies – remove hoses, make sure you note which one goes on which side, clean and refit.

Hope that helps!

Russell

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**\*\*Just because you have to say this: Please remember this is only what I did and these notes (albeit described in great detail) are for guidance only. As with anything car related, if you are unsure, please get advice or help from a professional mechanic. I / e36coupe.com cannot and will not be held responsible if you damage something up on your car. Thanks\*\***