

# Fitting instructions for fuel catalyst tank units

## **\*\* ESSENTIAL INFORMATION FOR SAFETY AND RESULTS \*\***

**Fitting fuel catalyst tank units is very simple in most cases. However:**

- Please always remember that **fuel is hazardous** and safety precautions such as 'no smoking' etc. must always be taken
- Please be aware that there are cases (especially with modern cars) in which fitting is less simple. Therefore **please read these instructions before fitting** and if in any kind of doubt fuel catalysts **must** be fitted by a suitably qualified technician especially as these instructions, detailed as they are, cannot cover every possible eventuality.



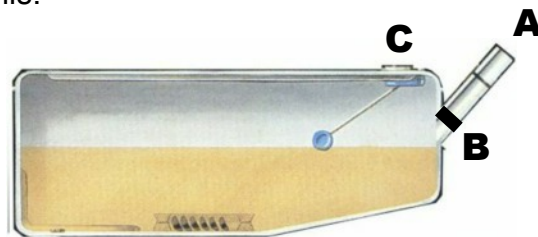
Fitting a fuel catalyst into a Ford Anglia classic car... just drop the catalyst unit(s) into the tank!

Fitting is also this simple in most instances from trucks to lawnmowers to marine outboards and much else besides.

But there are exceptions and **these instructions must therefore be read before fitting**

## Three ways to fit fuel catalyst tank units:

To be effective fuel catalyst tank units **MUST** be immersed in fuel, and this means they **MUST** always be placed in or near to the bottom of the fuel tank and there are three potential ways to achieve this.



**FITTING VIA THE FILLER NECK ('A' in the above illustration).**

With machinery from all powered garden equipment and marine outboard engines that we know of, as with most trucks, vans and motorcycles, as well as with many cars (especially older cars), and with much else besides, all that needs to be done is simply to insert catalyst unit(s) into the fuel filler neck tank (as with the above Ford Anglia classic car example) and they will drop directly into the tank - - job done!

**FIRST HOWEVER**, in order to ensure that this will work in your particular application, it must be ensured that there are no obstructions between the fuel filler aperture and the fuel tank that would prevent the catalyst(s) from reaching the bottom of the tank.

In machinery such as garden equipment and motorcycles and marine outboards etc. a simple visual check will often show that both our large IT200 (24mm) and small IT 100 (17.5mm) catalysts can easily be inserted into the tank via the fuel filler neck.

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But if a visual check reveals that there are, or there maybe, obstructions between the fuel filler aperture and the fuel tank, then a sufficient length of clean flexible hosepipe can be inserted through the fuel filler aperture to establish that there is an unobstructed route for the catalyst(s) to reach the bottom of the tank. Then, if the hosepipe is wet with fuel when it is withdrawn, or if the tank is low on fuel it is obvious from the distance between filler aperture and the tank that the hosepipe has reached the tank, then it will be clear that there is no obstruction and the catalyst(s) can be inserted into the tank.

**IMPORTANT:** Many modern **DIESEL** vehicles have 'anti-misfueling' devices fitted at the entrance to the filler neck in order to prevent being erroneously filled with petrol. Be careful with these as once hosepipe is inserted into these it may be difficult to retrieve. If in any doubt please be sure to seek the assistance of a professional mechanic



Left: 17.5mm fuel tank catalysts  
Right: large 24mm fuel tank catalysts

However in modern cars with narrow fuel filler apertures small 17.5mm catalysts should be used as they will migrate more easily to the tank, and this procedure should be followed:

- a) Wait until the fuel tank level is quite low (a quarter tank or less) on fuel before fitting, which should be done at a filling station when refuelling with petrol or diesel
- b) Start by dropping a single catalyst element into the filler neck, and then wash it down into the tank with 5 or so litres of fuel
- c) next drop another single catalyst element into the filler neck and then wash down into the tank with another 4 or 5 litres of fuel, and so on until all the catalyst elements are fitted.

#### **OTHER POINTS ON FITTING FUEL CATALYSTS VIA FUEL FILLER APERTURES:**

The foregoing covers the vast majority of applications where fitting fuel catalysts via the fuel filler aperture is straightforward. But in case of any difficulty or doubt please always remember that fuel catalysts ~~must~~ then be fitted by a suitably qualified technician.

#### **MISC. KNOWN POINTS TO LOOK OUT FOR:**

- In some modern motorcycles there may be delicate parts inside fuel tanks, especially exposed fuel pump terminals. In such cases it is normally possible to suspend a fuel tank catalyst from the filler cap using steel (not galvanised) or copper wire for example, in order to keep the catalyst close to the bottom of the tank but away from the delicate part in question
- Some diesel vehicles (such as many Jaguar Land Rover diesel models) have devices to prevent inadvertent filling with petrol and these may be triggered by the action inserting hosepipe to check for access to the fuel tank. In such cases that we know of, a special tool is supplied with the vehicle to reset the device.

**In cases in which it is not possible to fit fuel catalysts via the fuel filler neck there are normally two alternative options for fitting:**

**FITTING VIA JUNCTION OF FILLER HOSE / TUBE & ENTRY TO THE TANK** ('B' in the illustration on page 1, previous).

First, in order to prevent possibility of fuel spillage, ensure the level of fuel in the tank is

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below the level of filler hose / tube entry to the tank. Next, undo the hose / tube securing clip or mechanism as appropriate and slide back the hose / tube. Next, check that there are no restrictions that would prevent entry to the tank and then, provided there are no restrictions, insert the catalyst(s) into the tank and re-connect the hose / tube to the tank ensuring a fuel-tight fit.

**FITTING VIA FUEL GAUGE 'SENDER UNIT', WHICH IN MANY MODERN VEHICLES WILL BE INTEGRAL WITH THE FUEL PUMP ('C' in the illustration on page 1, previous).**

First, in order to prevent possibility of fuel spillage, ensure the level of fuel in the tank is below the level of the sender unit in order to prevent possibility of fuel spillage.

Next, locate sender unit which in a car may often be found under an inspection plate under back seat or boot compartment.

Then, provided the level of the fuel is sufficiently low to avoid spillage, lift out the sender unit or ease it aside and drop the fuel catalyst unit into the tank so that it falls to the bottom.

Next, refit the fuel gauge sender unit ensuring fuel-tight fit.

**ESSENTIAL WITH MODERN VEHICLES HAVING FUEL GAUGE SENDER UNITS INTEGRAL WITH FUEL PUMPS IN 'SWIRL POTS':**

NEVER fit the catalyst(s) INSIDE the swirl pot. Instead, always ensure they reach the bottom of the tank OUTSIDE the swirl pot.

**And finally:**

- If information (such as diagrams of fuel systems) relevant to your particular application is needed, it can often be found with an Internet search or from dealers in the case of cars
- **And please bear in mind that these instructions cover almost every application but cannot possibly cover every application in existence, which is another reason why, if in any kind of doubt, fuel catalysts MUST be fitted by a suitably qualified technician.**

**Questions? Please email:**  
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