

Repairing the door lock of a Citroen XM

Having trouble with those spinning locks? As usual the repair is easy once you know how. Say goodbye to those days of climbing into the car through the tailgate. Just follow the instructions for a full set of working locks. The same instructions apply to both front doors and the tailgate.

Removing the lock from the car door

Open the door to reveal the door edge. Remove the small rubber bung just next to the door lock. Insert a 3mm allen key and remove the grub screw.



Photo1

Next, pull the lock away from the door. You may need to pull on the handle slightly to allow the lock to come out. The black plastic surrounding the lock may stick to the thin plastic base between the door lock and the door. Just prise them apart with a small screwdriver.



Photo2

Next, prise the black plastic shroud off the door lock. Warning – make sure the plastic is warm. It is brittle and will shatter if prised off when cold. There are several points around the perimeter where the black plastic grips the metal. Just ease them off one at a time with a small screwdriver working your way around the edge.



Photo3

Next, remove the little rolled dowel pin which holds the whole lock assembly together. Punch it out with a small nail or a pin punch. Otherwise push it out with a screwdriver until there's enough to grab on the other side with a pair of pliers. Then pull it free from the lock. Once out, the inside barrel of the lock should move quite easily (depending on the extent of the corrosion) in the direction of the hole where you put the key in.



Photo4

The black plastic lever to the left in the photograph should just pull out sideways once the barrel is clear. The right hand assembly in the photo above is where the main lock mechanism is located.



Photo5

Push the inner barrel assembly out of the outer barrel by pushing on the bit where the key goes in whilst holding the outer barrel firmly.



Photo6

The inner barrel is in two halves which separate very easily. The ball bearing at the top left of the photo is one of two ball bearings which stop the barrel rotating when anything other than the correct key is pushed into the lock. The right hand ball bearing with the spring is the anti-theft mechanism which allows the barrel to spin if the wrong key or a screwdriver is used instead of the correct key.

Pull the two halves apart to reveal the tumblers. This is the part which needs lubricating. Thoroughly cover the components in grease and/or WD40 or its equivalent. Push the key in and out of the lock many times to release the mechanism.

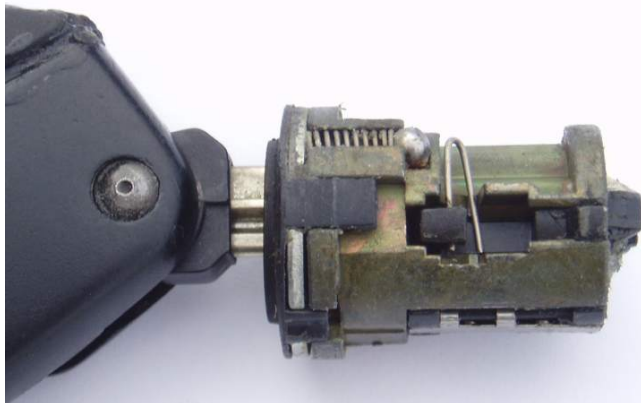


Photo7

When the key is presented to the lock it will go so far in until it meets a slight resistance. At this point the ball bearings are still engaged and the barrel won't turn. **This is the condition in which you will find most locks that won't operate.**

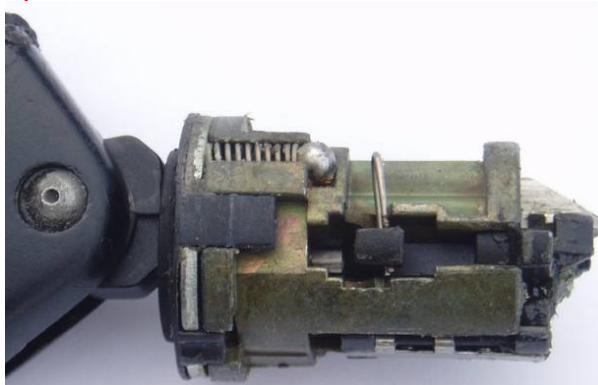


Photo8

If the tumblers are well lubricated the key will pass into the lock by the last little bit of travel. You can see the return spring in the middle of the photograph is compressed which helps to push the key out when you withdraw it. The very end of the key can be seen protruding through the end of the barrel to the right. Just before the ridge at the right hand side you can see a small square block of metal. In the lower photo the square block has moved out of line with the ridge towards the right hand side. The hollow left behind is the space that the two ball bearings drop into. When the two ball bearings drop into the hollow they no longer prevent the barrel from being turned and so the key is rotated to operate the mechanism inside the door.

Reassembly

Once the barrels are all lubricated and working it is now time to reassemble the lock. Reassembly is the reverse of disassembly. The two ball bearings are not diametrically opposed so there's only one way the inner barrel can fit into the next barrel. In the same way the next barrel can only fit into the outer barrel in one location so you can't get it wrong.



Photo9

When fitting the barrel assembly into the gold coloured part, make sure the key hole (which is of centre is located to the bottom of the assembly).