



instructables

Mercedes Benz Vito W447 Viano W639 V Class Guide Rail Gear Repair



by x8rltd

Symptoms of Fault

Sliding door faulty, door sticking, not opening/closing, jumping or juddering door, wire hanging out of door rail.

The Fault

The gears and cables within the sliding door mechanism are poorly made.

The mechanism and motor that control the side sliding door on various Mercedes Benz vans often fails due to the gears and cables being poorly made. The plastic the gears are made from is weak and often break, whilst the cables can stretch or snap.

Mercedes Benz will quote for an entire new motor at over £800 + labour.

The Solution

Restore the function of your sliding door with the X8R refurbishment kit.

The X8R kit contains everything you will need to restore full function to your sliding door mechanism and motor. The X8R components are easy to fit with our handy downloadable instruction guide and YouTube tutorial.

Vehicles Affected

Mercedes Benz Vito W639 2003-2014

Mercedes Benz Viano 2003-2014

Mercedes Benz Valente (Australia) 2003-2014

Mercedes Benz v-Class (Japan) 2003-2014

Associated part numbers:

Door actuator - A6398200142 (left) A6398200442 (right)

For RHD vehicles (UK, Australia etc) driver side door

For LHD vehicles (Europe, America etc) passenger side door

You Will Receive

1 x Repair kit for left OR right hand sliding door



Step 1:

Firstly remove the mechanism from the vehicle. Separate the motor from the mechanism by undoing the screws with a T20 Torx.

Measure the two silver cables protruding from the mechanism, this is important for later. Also take note of which cable goes where and in which direction, take photos if you feel necessary.





Step 2:

Firstly we will replace the motor gears. On the inside of the motor you will see a black sensor protruding on top of the upper gear, use pliers and squeeze on the sensor to push the sensor out of the housing.

There is a locking washer on the top of the upper gear, pull this off using a flathead screwdriver.

Remove the centre gear to expose the four smaller gears. Dispose of the old gears straight away to not confuse them with the new ones.





Step 3:

Pull out the four gear mechanism and replace the old gears for the new, ensuring the teeth are facing the correct way and that the teeth are interlocking. If the mechanism is not pressing down fully when reinstalling, the teeth may not be interlocking correctly.



Step 4:

Replace the centre gear with the new X8R gear.

Press the star locking washer back into position to secure the new gear.

Push the sensor back into the motor housing.
That completes the motor repair.



Step 5:

Now let's repair the mechanism. Remove the top spool by lifting it out.

The next spool has one of the metal cables running around it. Take note of where the cable runs to and the direction it wraps around the spool and the white pulley. Lift out the spool and unravel the cable from it.



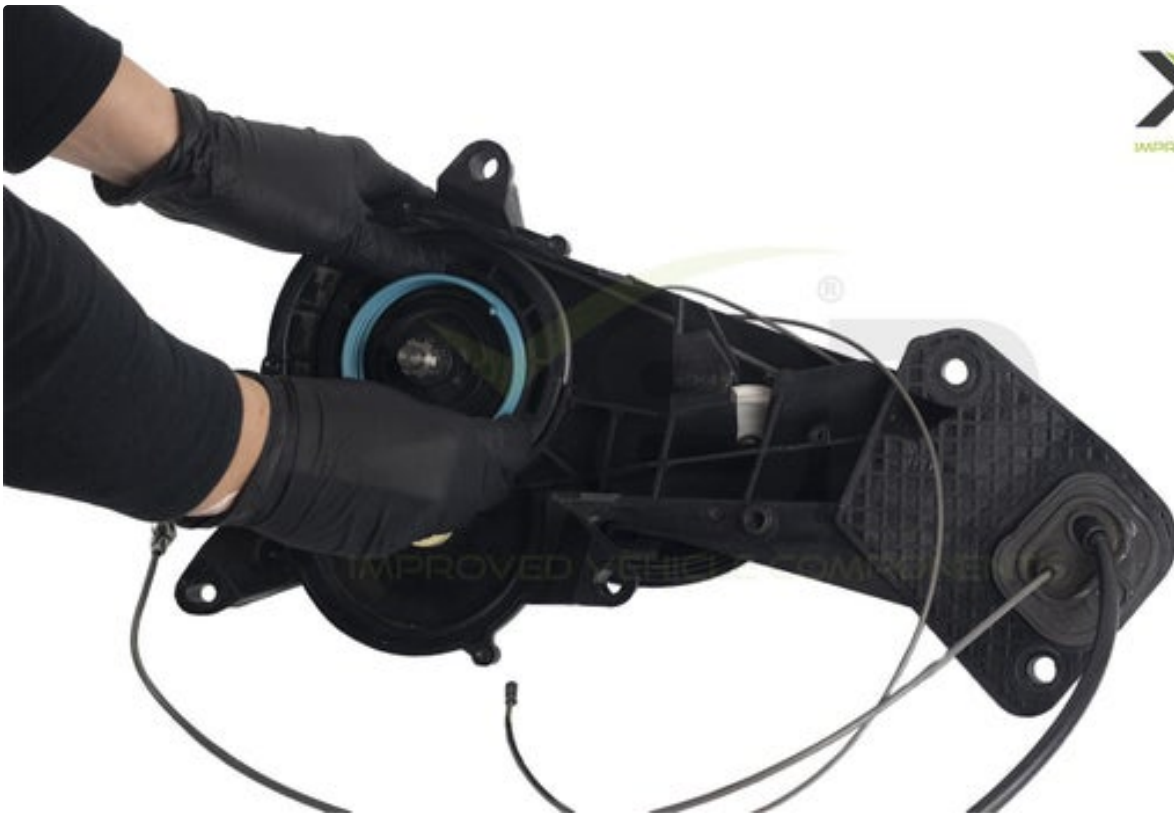


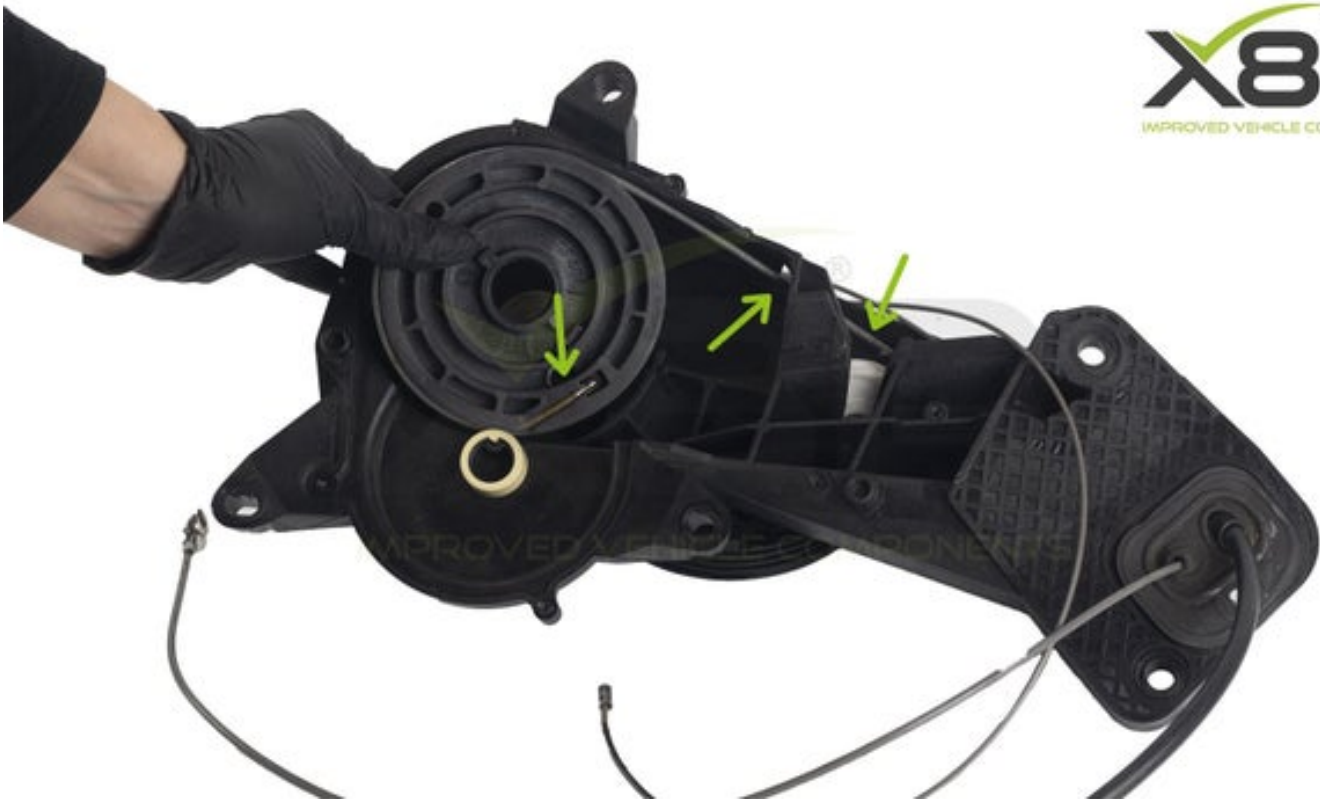
Step 6:

The next step is to remove the blue spring. Before removal, take note of where the spring locates into. This will simply lift out of place.

Next remove the central gear with the metal insert, take a note of which way it goes round. Remove the plastic surround from the metal insert and replace with the new X8R plastic surround.

As per step 5, remove the bottom spool with the cable wrapped around it. Again, take note of where the cable runs to and the direction it wraps around the spool. Lift out the spool and unravel the cable from it.





Step 7:

Take a final note of where the cables are located before removing them.

Pull the cables out of the mechanism. Use a flathead screwdriver to manipulate the ferrules to go through the locating holes.



BACK OF MECHANISM





Step 8:

Next step is to remove the cable from the pulley housing (at the end of the black plastic coated cable). Use a flathead screwdriver to prise open the three clips on the housing, then slide the lid off. Be careful not to prise at the base of the housing (where the black cable meets the housing), as this will snap the lid.

Remove the white pulley using a flathead. Be careful not to lose the mounting screw underneath the pulley. Remove the cable from the pulley and pull the cable completely out of the housing.



Step 9:

Install the new cable by wrapping it around the pulley and pushing the pulley back into the mounting plate. Push the metal end of the cable covering into the housing.

Refit the lid of the pulley housing by sliding it first into the base of the housing, then reattaching the three clips.



Step 10:

Now let's install the new cables into the main body of the mechanism. Press the ferrules through the corresponding holes. For the cable coated in the black rubber, press it through the top hole and for the entirely braided metal cable press it through the bottom hole. Pull the cables through to the correct locations: top cable = thread it over the top white pulley, through the top hole and over the top of the second white pulley, bottom cable = thread it over the bottom white pulley, through the bottom hole and into the base of the mechanism.

Ensure that when you pull the cables through that you measure the length protruding from the mechanism and this length mirrors from the measurements taken in step one.



Step 11:

Before installing the new spools, ensure the off-white coloured bush is in place at the base of the mechanism.

Firstly install the bottom spool, press the ferrule into the slot on the bottom of the spool and wrap the cable around the spool (in the grooves) until there is tension on the cable. Press it into the mechanism and ensure it is the correct way up.

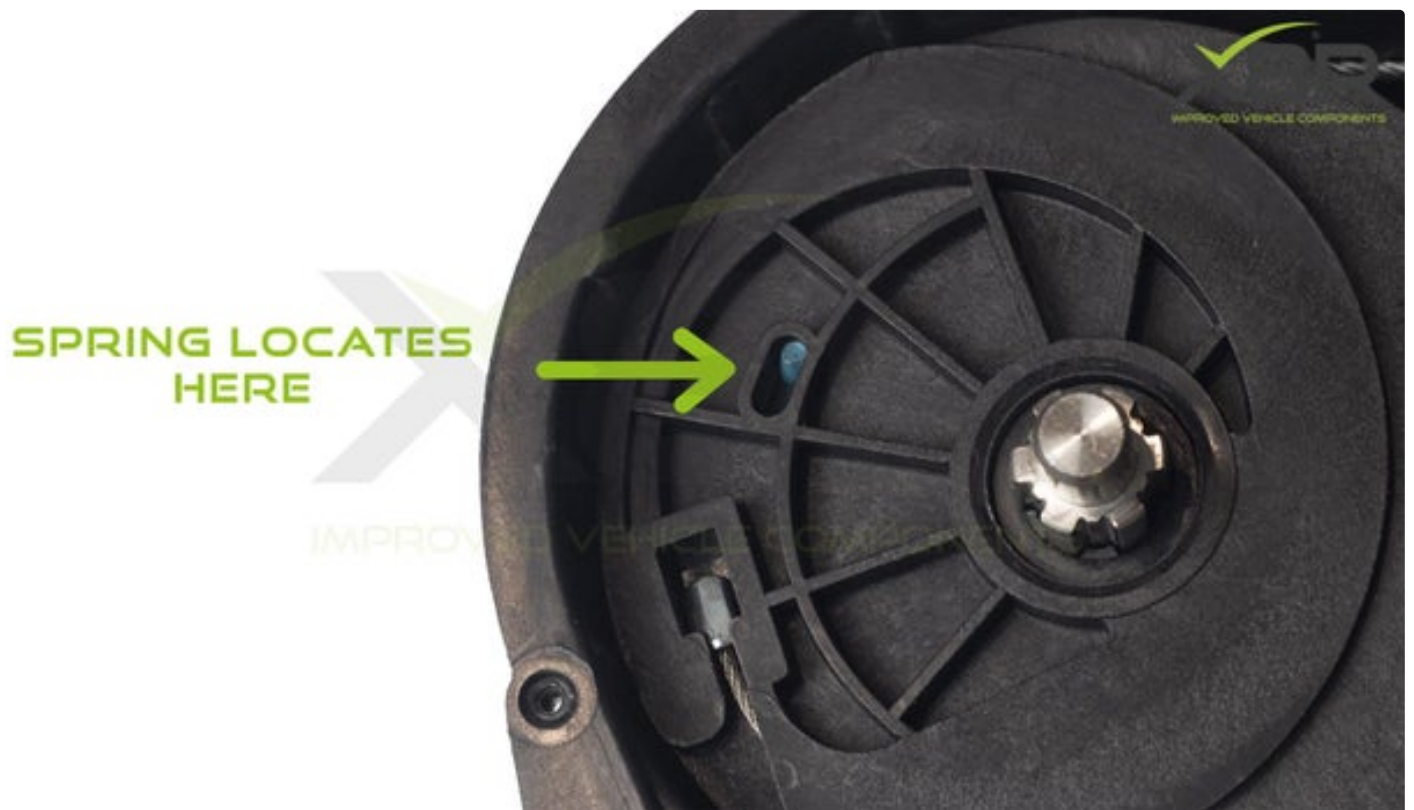




Step 12:

Press the blue spring into the bottom spool and into the locating hole.

Install the new central gear (the one with the metal insert) by pressing it into the central hole.





Step 13:

Install the next spool similarly to the first. Press the ferrule into the slot on the spool and wrap the cable around the spool (around the top face then into the grooves) until there is tension on the cable. Press the spool over the metal insert and ensure the spring is loaded into the locating hole. Ensure that it is the correct way up.

Ensure that the blue spring locates into the top spool.

Press on the top gear (again, ensuring it is the right way up with the teeth facing down). This will slot into place.

At this point test the cables by pulling them all the way through the spools, ensuring the cables can roll from end-to-end. It is important the cables can roll right the way through the mechanism to the end of the cables. If they do not, the cables have not been installed at the original lengths that were measured in step 1.





LOCATING HOLE FOR SPRING





Step 14:

Refit the motor onto the mechanism. Test the cables once more to ensure that the cables roll through the spools and gears properly. Please note that once the motor has been installed there will be more resistance when testing the cables.

This completes the installation. If you need any further guidance on this install or would like to purchase the parts shown please call us on +44 01843 446643 or email us at sales@x8r.co.uk. Please also check out our instruction guide on YouTube. www.x8r.co.uk Installation is carried out at installers risk, if unsure please contact us or a professional, X8R Ltd cannot be held responsible for any adverse result of installing this product or any injuries caused by install, if in doubt ask a professional. All images and texts are copyright X8R Ltd 2023.

