

Mercedes R129 Front Locking Cylinders

Level of difficulty: Fairly easy – very rewarding!

Tools needed:

- Phillips screwdriver
- T30 Torx screwdriver (or T30 socket with ratchet)
- Flat screwdriver or needle nose pliers or small hooked tool for removal of hydraulic line clip
- Rag or paper towels
- (recommended: magnetic parts tray to hold screws and clips)



For inspection only:

- requires Phillips screwdriver as a tool, and a few minutes to remove the top panel above the windshield

Use as a guideline only – apply common sense, be careful, and wear protective gear! Top Hydraulics, Inc. is not responsible or liable for personal injury or material damage.

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1. Open the soft top. If you plan to remove main lift or bow extension cylinders as well, also raise the roll bar at this point.

2.



(If your soft top should not open or unlock automatically, you can unlock it with the MB supplied tool with the 6-mm Allen wrench at one end; the access is through the plugged holes in front of the visors...)

3. Remove the upper windshield header panel. The panel is fastened with four screws: one Phillips screw at each lock cover (the covers slide out towards the screw holes, i.e., the right one slides to the right and the left one slides to the left), and one Phillips screw each hiding under the molded rubber at the outer edges (you may have to find the outer screws under some caulk...). The panel may stick a little from grime or caulk – it lifts out...

Note: the panel actually slides in and out horizontally in the front via metal tabs and it lifts up in the rear. When re-installing, you may have to massage the rubber seals in the front into place. In most cases, the panel is removed and re-installed quite easily - be patient



(Remove four screws)

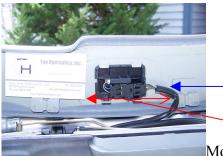
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4. For model years '95 and up: Unless you are only holding up the panel to inspect the cylinders, unplug the sensor that is built into the middle of the windshield header panel. This is important, as the sensor easily slips out of its housing when the panel is hanging by these wires. (See photo next page)

Note: the sensor is a magnetic Reed switch with sensitive solder joints - avoid pulling on the short wires going from the connector to the tiny sensor inside the panel. In case you need to test this sensor: it creates a 'closed circuit' when a magnet is nearby.



Models '95 and up: unplug sensor wire

5. Inspection for leaks: if the sheet metal around the two locking cylinders is at all oily, then your locking cylinders are very likely leaking from their piston seals. If you don't find any oil at first, cycle the roof a few times and check again!

Once the leak is substantial enough, the oil will work its way through the lower part of the windshield header to the inside of your car, eventually dripping on the seats and other places. The seal material used in the OEM cylinders is usually rated for a shelf lifetime of 10 years (replacement cylinders at your dealer may have been on the shelf for awhile already...), and has been designed into the system at the latest in the 1980s. Top Hydraulics, Inc. uses enhanced, more modern seals that provide for extended use, while making an excellent seal.

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(this cylinder looked okay at first glance, until we discovered that the red windshield header surface was wet, and there was some liquid trapped under the wire. Then we cycled the top a few times and removed the whole lock to find the puddle of oil shown in the second picture...)

Note: if you have decided to have your front lock cylinders upgraded by Top Hydraulics, consider the up-front shipping option. For a slightly higher price plus a refundable deposit, Top Hydraulics will send you a set of cylinders, mounted in replacement locks if you wish, before you take out your old cylinders and send them in. That way, you can get everything done in one procedure...

6. Unhook hydraulic lines by sliding back the retaining clips with a screwdriver, needle nose pliers, or a hooked tool.



Do not pull back the lines at this point.

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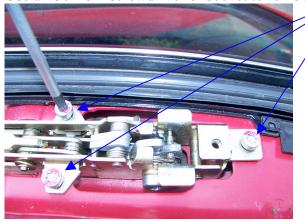


7. Unplug the electric line going to the lock assembly – the connectors just pull apart...



8. Remove the lock assembly:

- Use a T30 Torx screwdriver or socket to remove the three vertical bolts.



- Lift up the lock assembly, place a rag or towel under it, and carefully twist it off the hydraulic lines.



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- Remove the hydraulic fluid from the lock cylinders: Wrap the two hydraulic input ends in a rag and cycle the cylinder a few times by manipulating the linkage (use a screwdriver to push down the latch as if the soft top were coming into the lock, and unlatch by manipulating the linkage in the reverse direction). If you don't cover the two hydraulic holes in the cylinder, fluid will squirt all over!

Important: Top Hydraulics would be happy to accept the locking cylinders mounted to the lock, at no extra charge! The reason is, the piston can be hard to remove from the lock on account of threadlock used. There is a significant chance of first-timers scratching up the piston when trying to remove the cylinder from the lock without first softening the threadlock sufficiently.

If you would like to latch your roof while the cylinders are out for repair, or if you are concerned about shipping costs from overseas, here is how to remove the cylinders from the locks:

- Unbolt the cylinder from the lock with a 4-mm Allen wrench, a T27 or a T25 Torx wrench.
- Soften the threadlock. You can use, in order of effectiveness: heatgun, acetone (nail polish remover), or WD-40 over night.
- Hold the part into which the cylinder is screwed firmly in a 10-mm open wrench, and carefully use a narrow 7-mm open wrench to unscrew the cylinder from the lock
- Be very careful not to scratch the piston surface (do not use pliers or vise grip on the piston!!!), as scratched pistons make the cylinders irreparable. (And if you do scratch it, let us know, and we will likely have a replacement for you...)

Replace in reverse order, and don't forget to use threadlock where it was originally used – a single drop goes a long way! Remember all electrical connections and the clips on the hydraulic lines... Models '95 and younger: make sure that the sensor in the middle of the windshield header is still in its place, and that it has been re-connected.

Remember to wrap the assemblies carefully when shipping to us, so that the pistons do not get scratched during transport. Fill all voids in your parcel, and tape it up well.

For repair and/or seal replacement, ship cylinders to:

Top Hydraulics, Inc. 90730 Southview Lane Florence, OR 97439 USA

Top Hydraulics' default shipping method is USPS Priority Mail, but we would be happy to use a carrier of your choice.

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