

Soft Top Rear Locking Cylinders

Level of difficulty: Fairly easy – very rewarding!

Tools needed:

- M10 socket and 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, and the MB-supplied soft top tool with a 10-mm box wrench at one end)



For inspection only:

- No tools required, and only a few minutes to open the tonneau cover, lift the soft top rear, and look at the cylinders...

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 tonneau cover.
(If your tonneau cover should not open or unlock automatically, you can unlock it with the MB supplied tool with the 5-mm Allen wrench at one end. The tonneau cover unlocking bolt is hiding between the roll bar and the rear seat side panel...)



2. Raise the soft top, and keep the rear of the soft top raised.
3. Inspection for leaks:



(Passenger side rear lock, next to tonneau lift cylinder...)

(Passenger side rear lock, next to tonneau lift cylinder...)

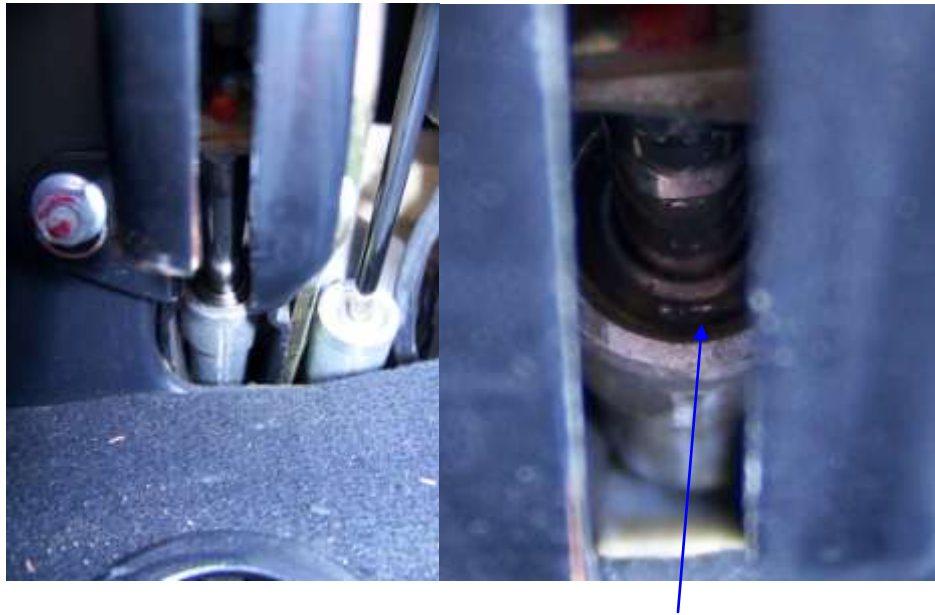
The locking cylinders are mounted upright, and they have a groove below the point from which they would be leaking. If you don't find any oil at first, cycle the roof a few times and check again!

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Once the leak is substantial enough, the oil will work its way down the front of the trunk, eventually dripping behind your rear tires. Your hydraulic system may eventually not work properly when the hydraulic fluid level gets too low, and the cylinders cannot develop enough pressure. Your hydraulic pump may suffer damage when working with low fluid levels.

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.

The pictures below show the passenger side lock cylinder leaking at little – see the oil film in the groove, visible in the zoom... Once either the rear lock cylinder or the tonneau lift cylinder leak more substantially, the oil will naturally drain down the front of your trunk and end up behind your tire. Thus, if you already have oil spots behind your rear tire, this could be from the rear locking cylinder, as well as the tonneau lift cylinder...



(Some oil in the lock cylinder's groove)

4. Start the rear lock removal with an empty trunk. Remove the windscreen cover, if equipped. Removal of the CD player can be avoided, but is optional.

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5. Remove fuse panel cover on the trunk's front wall: open it, and carefully unclip it.



6. Remove the floor mat and the battery cover/passenger side trim panel by unscrewing the clip on the top (if the clip still exists in your car...).



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7. To remove the carpeted panels in the front and on the driver side of the trunk, remove all panel clips holding them down. The clips are secured with pins that need to be pushed out with a flat screwdriver first.

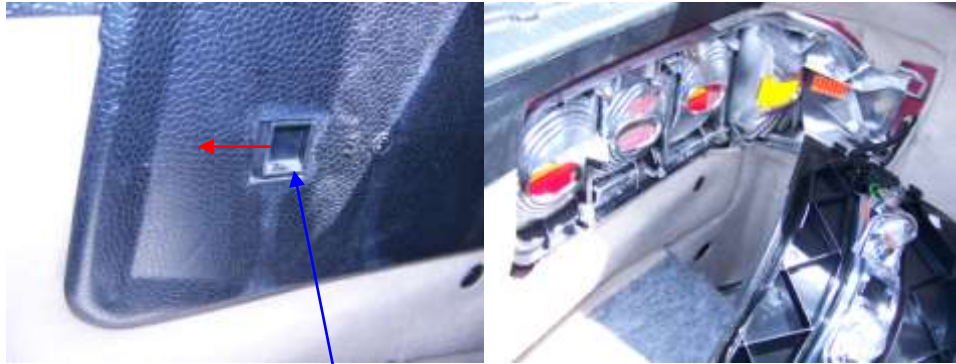


8. Removal of the side panel on the driver side can be cumbersome if there is a CD changer installed. You can work on the lock and/or tonneau lift cylinder removal by only bending the panel back to make enough room. Even the front panel does not have to be removed completely; it has to be pulled back on the passenger side, though, as shown in the following picture...



9. (If you want to 'play it safe', then remove the CD changer, remove the left tail light assembly, and pull out the left carpeted trunk panel)

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(Pull the spring-loaded latch of the tail light assembly, swing the assembly open, and remove it.)

10. Remove the c-clip on top of the tonneau lift cylinder, slide the cylinder off its pivot pin, and push the piston all the way down (to avoid it getting scratched). This way, you create access to remove the 10-mm nuts that hold the lock in place.

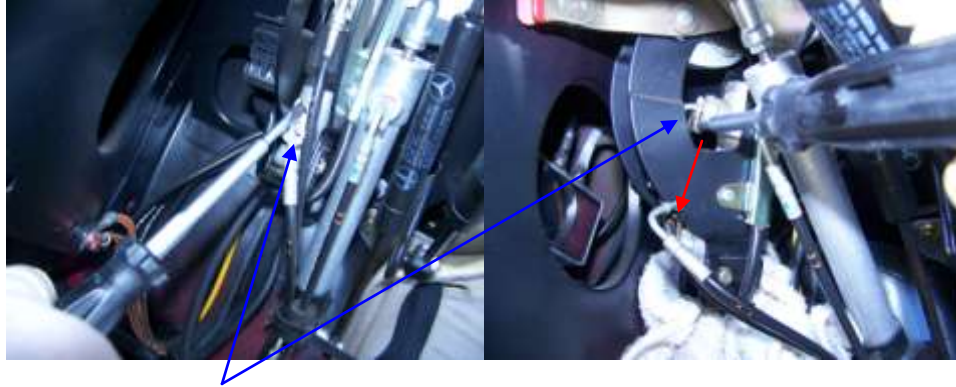


(Remove the c-clip)

(With the tonneau lift cylinder pushed in, remove three 10-mm nuts)

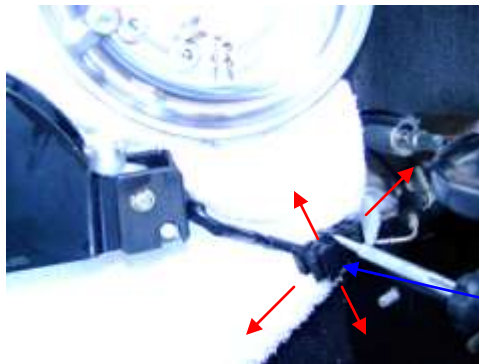
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11. Remove the hydraulic line clips and place a rag under the lock assembly. Make sure not to loose the clips; MB does not sell them separately! Carefully twist the hydraulic lines out of the cylinder, and wrap them in the rag.



(Remove hydraulic line clips)

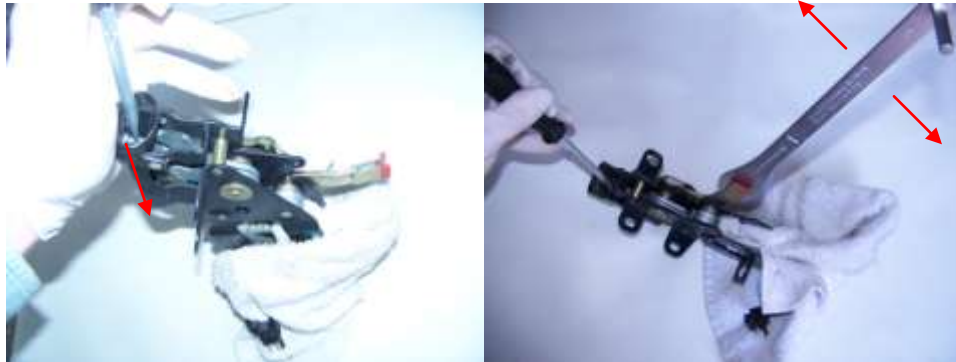
12. Pull the lock assembly out towards the rear. Unplug the microswitch. Wrap the hydraulic line receptacles of the cylinder in a rag.



(Unclip and unplug the microswitch)

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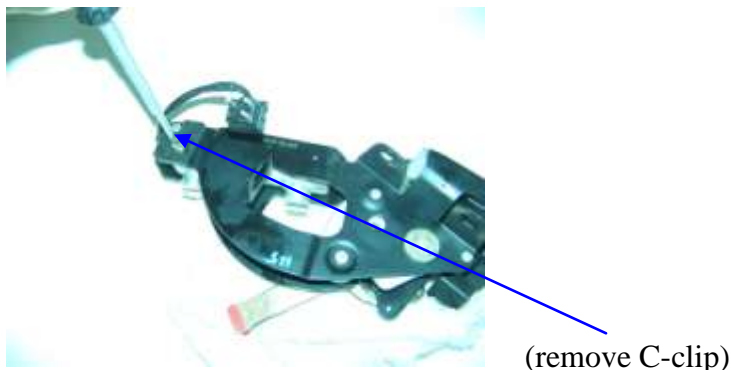
13. Remove the remaining oil out of the cylinder by cycling it several times: push a screwdriver into the latch as if the rear soft top were coming down into it, and cycle the mechanism back and forth all the way several times with the MB-supplied soft top tool (thin 10-mm wrench). You will have to unlock the linkage after each cycle by pushing the screwdriver into the latch. Make sure to keep the cylinder wrapped in a rag, or oil will squirt all over the place!



Important: Top Hydraulics would be happy to accept the locking cylinders mounted to the locks, at no extra charge! The reason is, the pistons can be hard to remove from the locks, 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 rear soft top 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:

- Remove the C-clip on the cylinder pivoting bolt with a small, flat screwdriver. Remove the pivoting bolt.



- Soften the threadlock.

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You can use, in order of effectiveness: heatgun (be careful not to overdo it), acetone (nail polish remover), or WD-40 (over-night application).



(threadlock)

- Hold the part into which the cylinder is screwed firmly in a vise, pliers, or an appropriate wrench, and carefully use a narrow 7-mm box 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... The air will eventually be vented from the system, after you have cycled it a number of times. Align the lock assembly with the marks that the 10-mm nuts made originally, and no further alignment should be needed.

Remember to wrap the assemblies carefully when shipping to us, so that the pistons do not get scratched during transport.

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

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

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