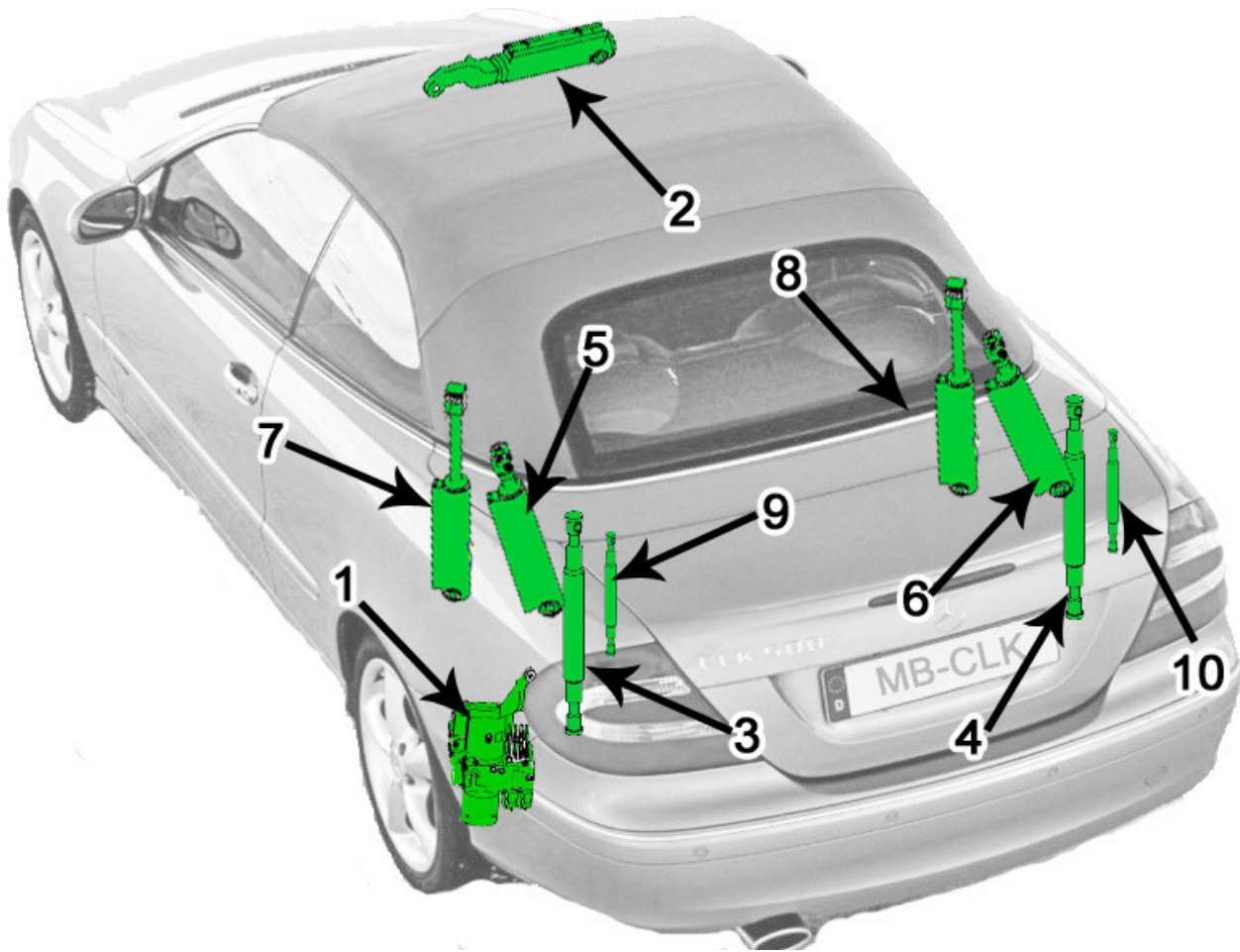


Mercedes-Benz

W209

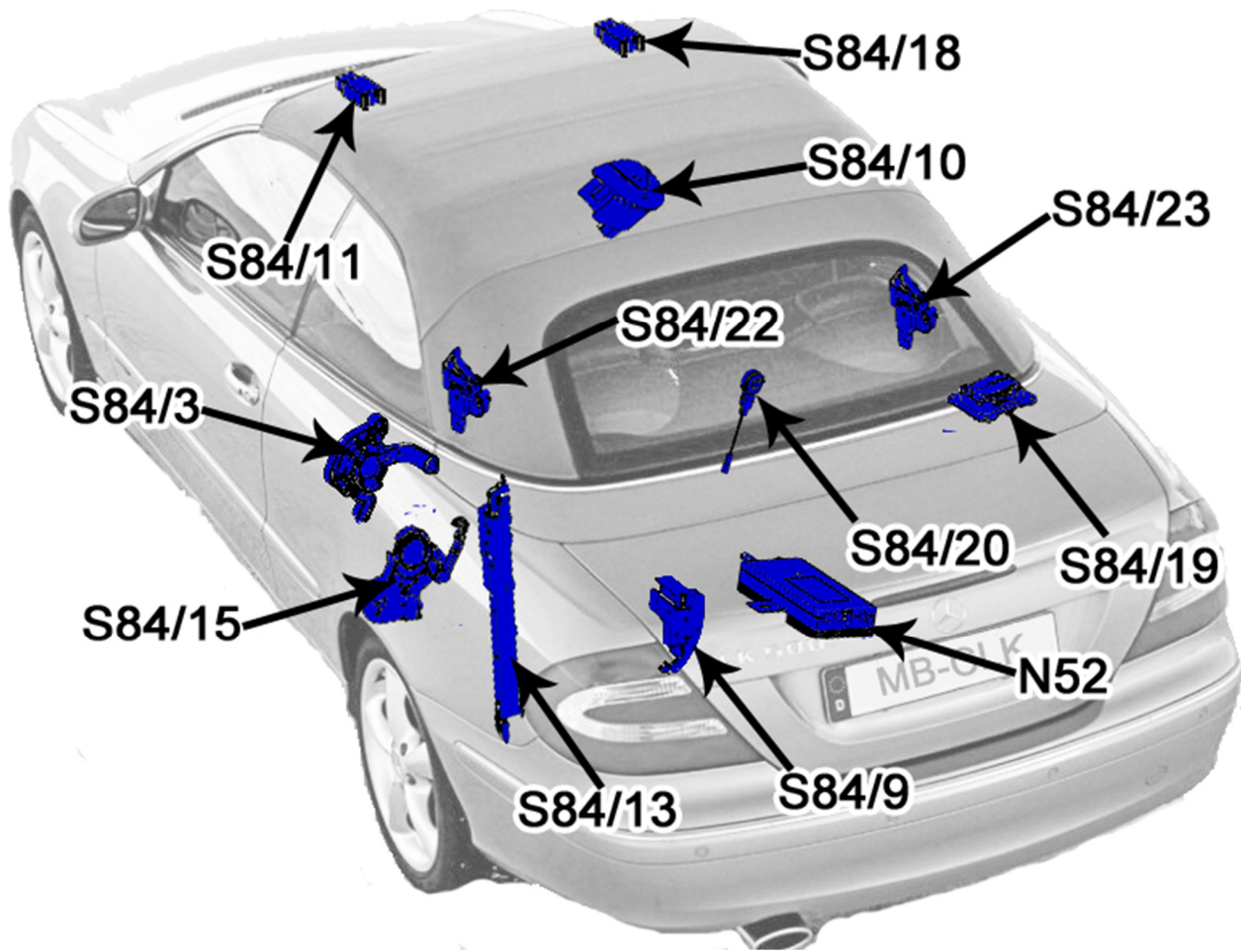
Soft Top  
Operation  
Diagnostic Aid

## Hydraulic Parts



Cylinder Designation	Name of Cylinder
1	Hydraulic Pump - A2098000648
2	Front Lock Cylinder - A2098001172
3	Left Soft Top Compartment Cover Lid Cylinder - A2098001272
4	Right Soft Top Compartment Cver Lid Cylinder - A2098001272
5	Left Bow Cylinder - A2098000972
6	Right Bow Cylinder - A2098000972
7	Left Top Actuation Cylinder - A2098000772
8	Right Top Actuation Cylinder - A2098000872
9	Left Trunk Lid Cylinder (with trunk closer option 881) - A2098001472
10	Right Trunk Lid Cylinder (with trunk closer option 881) - A2098001472

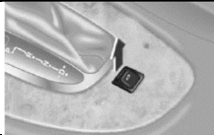






## Electrical Parts






Switch Designation	Name of Switch
S84/3	Soft Top Open Limit Switch - A2098202010
S84/9	Trunk Partition Limit Switch - A2098209310
S84/10	Soft Top Actuation Switch (dual Position) - A2098203110
S84/11	Soft Top Locked Limit Switch - A2098201151
S84/13	Compartment Cover Lid Open/Close Limit Switch (dual position) - A2098201810
S84/15	Bow Up/Down Limit Switch (dual position) - A2098202110
S84/18	Soft Top in Catch Position Limit Switch - A2098202410
S84/19	Bow Locked Limit Switch - A2098201710
S84/20	Ski Bag Limit Switch (optional with ski bag) - A2098209410
S84/22	Compartment Cover Lid in Catch Position Limit Switch, Left - A2098201910
S84/23	Compartment Cover Lid in Catch Position Limit Switch, Right - A2098201910
N52	Soft Top Actuation Control Module (part no. varies)







- Note that S84/20 only exists if the car has the options ski bag pass-through in the rear seatback.
- S814/13 has two positions: “s1” indicated that the lid is fully closed, “s2” indicates that it is fully open.
- S84/23 may not exist on early models (pre-MY2005 facelift). This was added and is wired in series with S84/13s1 so that both switches must be activated in order for the compartment cover lid to be recognized in the “catch” position.
- The “catch” position of the soft top means that it has reached the windshield, but is not necessarily locked in place.
- The “catch” position of the compartment cover lid means that the front edge of the lid has lowered and locked into the C-shaped hooks behind the rear seat headrests, but the trailing edge of the lid may not yet be fully lowered.





# Opening Sequence

	<p>STAGE 0: S84/10 is continuously activated. S84/9 and S84/20 verify that the trunk partition and optional ski bag are closed. Side windows lower.</p>
	<p>STAGE 1: Cylinders 3 and 4 are activated to raise the compartment cover lid until switch S84/19 registers that the bow has released from the lid and switch S84/13 registers that the lid is no longer in the closed position.</p>
	<p>STAGE 2: Cylinder 2 is activated to release the front latch. Switch S84/11 registers that the roof is no longer locked, and S84/18 registers that the roof is still in the catch position.</p>
	<p>STAGE 3: Cylinders 5 and 6 are activated to raise the rear glass (bow). Switch S84/15 registers that the bow is now in the fully upright position</p>
	<p>STAGE 4: Cylinders 3 and 4 are activated to raise the compartment cover lid fully. Switch S84/13 registers that the compartment cover lid is in the fully raised position.</p>
	<p>STAGE 5: Cylinders 5 and 6 are activated to lower the bow (rear glass). Switch S84/15 registers that the bow is lowered.</p>
	<p>STAGE 6: Cylinders 7 and 8 are activated to begin lowering the top into the trunk. Switch S84/18 registers that the roof is no longer in the catch position. As the top lowers, the flaps are mechanically connected to the mechanism and are extended.</p>

	<p>STAGE 7: Cylinders 7 and 8 continue to lower the top fully into the trunk. Switch S84/3 registers that the top is fully lowered.</p>
	<p>STAGE 8: Cylinders 3 and 4 are activated to lower the compartment cover lid. Switches S84/22 and S84/23 register that the compartment lid is in the catch position.</p>
	<p>STAGE 9: Cylinders 3 and 4 are activated to pull the compartment cover lid fully closed. Switch S84/13 registers that the compartment cover lid is fully closed. Opening Sequence is completed.</p>

## Closing Sequence

	STAGE 0: S84/10 is continuously activated.
	STAGE 1: Cylinders 3 and 4 are activated to fully raise the compartment cover lid Switch S84/13 registers that the compart cover lid is fully raised
	STAGE 2: Cylinders 7 and 8 are activated to raise the soft top from the trunk. Switch S84/3 registers that the soft top is no longer lowered. As the top lowers, the flaps are mechanically connected to the mechanism and are extended.
	STAGE 3: Switch S84/18 registers that the soft top has reached the windshield.
	STAGE 4: Cylinders 5 and 6 are activated to raise the bow (rear glass). Switch S84/15 registers that the bow is in the fully raised position.
	STAGE 5: Cylinder 2 is activated to lock the roof onto the windshield. Switch S84/11 registers that the roof is locked to the windshield.

	<p>STAGE 6: Cylinders 3 and 4 are activated to lower the compartment cover lid. Switch S84/13 registers that the lid is no longer in the fully raised position. The lid continues to lower until switches S84/22 and S84/23 register that the compartment cover lid is in the catch position</p>
	<p>STAGE 7: Cylinders 5 and 6 are activated to lower the bow (rear glass). Switch S84/15 registers that the bow is no longer in the fully raised position as the bow lowers. Switch S85/14 registers that the bow is in the lowered position</p>
	<p>STAGE 8: Cylinders 3 and 4 are activated to fully close the compartment cover lid. Switch S84/19 registers that the bow is locked to the lid. Switch S84/13 registers that the compartment cover lid is fully closed</p>
	<p>STAGE 9: Side windows raise. Closing sequence is completed</p>



## Revision History

Version	Date	Notes
1.0	2017-08-05	Initial document creation
1.1	2017-08-06	Formatted open/close stages into tabular format, added diagrams showing component positions, added page numbers
1.2	2017-08-06	Corrections based on feedback from forum member Keyhole, added notes section to electrical components list, added revision history
1.3	2017-08-30	Modified order of open and close to correct for when the front windshield latch is operated.