Sales designation:	Vehicle ident. number:	Engine number:	Unit number:	Gr.:	Entry:	Mod.Y.:	Op. no.:
CLK 200 Cabriolet	WDB208435*	111.945		91.59			

GF91.59-P-2000KA	Roll bar manual actuation, function	Full-size view	Validity OFF	Page:	2/ 6

GF91.59-P-2000KA	Roll bar manual actuation, function	4.2.98

Models 208.435 /444 /445 /447 /448 /465 /470

4   Locking pawl
5   Spring (for crash deployment)
7   Lock (coupling)

D   Piston side hydraulic connection
E   Rod side hydraulic connection

Add. Functions	Document Functions		What is new?	Document: 1 / 1	Level: 2		Menu	Help	Previous Screen

Start | wis | Benzworl... | 12:58

P91.53-2001-12

The **manual actuation** (raising and lowering) of the roll bar ensues with the aid of the **RB switch (manual operation, S83**. Manual actuation is also possible when the soft top is closed and when driving.
The roll bar's raising speed is significantly lower during manual actuation than in a crash deployment.

Lowering roll bar

When lowering (automatic for soft top operation or with S83), the gear rack's lock pawl is unlocked and the hydraulic cylinder on the rod side has pressure applied to it **(arrow E)**. This then lowers the roll bar.
The lowering movement causes the spring for the roll bar's crash deployment to be automatically re-tensioned.

The roll bar's raising speed is significantly lower during manual actuation than in a crash deployment.

Raising roll bar

The hydraulic cylinder when being raised has pressure applied to the piston side **(arrow D)** and rod side. While the roll bar moves upwards the spring is relaxed **(5)**.

The roll bar's raising speed is controlled by a throttle in the control element and by dampers. The raising force results from spring force, hydraulic force and throttle forces.

In order to prevent any noise occurring when the roll bar is raised (lock pawl - gear rack), the spring-loaded lock pawls **(4)** on both sides are swiveled hydraulically away from the gear rack.

When the upper limit position is reached it is signaled by the **roll bar (RB) raised limit switch (S83/6)**.

Manual actuation after crash deployment

To lower the roll bar after a crash deployment the S83 switch must be pressed in any direction until the lock (7) can be heard to engage in place. The hydraulic cylinder has pressure applied to it over the **RB valve block (Y57)** and

----

roll bar.

The lowering movement causes the spring for the roll bar's crash deployment to be automatically re-tensioned.

When the lower limit position is reached it is signaled by the **roll bar (RB) lowered limit switch (S83/5)**.

Blocking of manual actuation

Operation of the roll bar with the aid of S83 is blocked by the **roll bar (RB)/soft top operation control module (N52)** in the following instances:

- during an automatic triggering of the roll bar
- at a fault on the S83
- at undervoltage in the vehicle's electric system
- at overheating of the **motor (A7/5m1 motor)** of the **roll bar (RB)/soft top operation hydraulic unit (A7/5)**
- at intermediate positions of the soft top
- at various errors in the N52

-----

the **deployment solenoid (Y57/1)** is moved upwards to engage with the lock (7), in order to "capture" the roll bar. After this the roll bar can be lowered again.

----- | ----- |

☞GF	Roll bar crash deployment, function		GF91.59-P-2001KA
☞GF	Roll bar hydraulics, function		GF91.53-P-3000KA
☞GF	Roll bar system malfunction indicator lamp control, function		GF91.59-P-3000KA
☞GF	Roll bar/soft top operation control module, location/task/design/function		GF77.39-P-3100KA
☞GF	Roll bar actuation (manual operation) switch, location/task/design/function		GF91.59-P-2100KA
☞GF	Roll bar raised limit switch, location/task/design/function		GF91.59-P-2101KA
☞GF	Roll bar lowered limit switch, location/task/design/function		GF91.59-P-2102KA
☞GF	Roll bar/soft top operation hydraulic unit, location/task/design/function		GF77.30-P-3100KA
☞GF	Roll bar valve block, location/task/design/function		GF91.53-P-2200KA
☞GF	Hydraulic cylinder roll bar, location/task/design/function		GF91.53-P-2100KA