SETUP MANUAL

KW automotive

Set Up Manual KW-Variant 3

No. 685 80 051

Our 2-way adjustable competition shock absorber is based on the KW twin tube damping system, and features independent bump and rebound adjustment. Depending on the sealing and the adjusting system of the individual kit, our systems may be filled with pressures of 3 to 8 bars, or without any pressure at all.

Rebound:

The rebound setting can be adjusted at the upper end of the piston rod via an adjustment wheel.
There are 2 different versions regarding the setting of the rebound. In version 1 the adjustment wheel will be put on the upper end of the piston rod. In version 2 the adjustment wheel is already mounted on the piston rod.
In both versions, the adjustment will be done based on closed status (max. hard). The closed status is reached when the adjustment wheel is completely turned to hard (+). ("0" on the adjustable wheel).
The effective adjustment range is 0 – 16 clicks open.

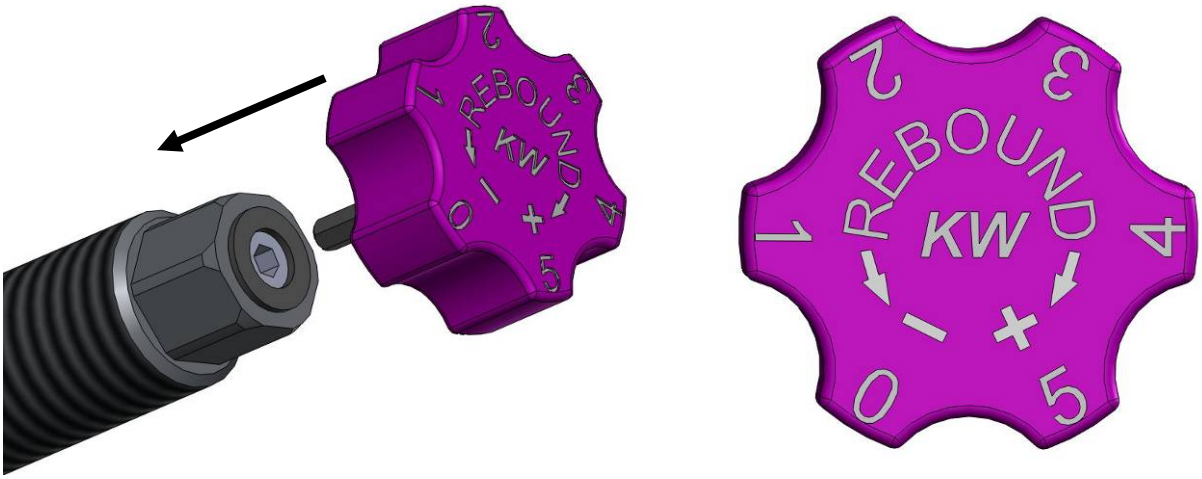
Never apply force to the adjusting mechanism of the shock absorber. As soon as you reach the end of the adjustment range, you will recognize a certain resistance. Stop turning to avoid damage to the bottom valve.

Impact of the rebound

Little rebound power improve driving comfort during slow driving, but reduce stability and control accuracy while fast driving, especially with appropriate adjustment.
High rebound power improve the handling at the front axle, but possibly reduce the grip. The driving comfort will be extremely limited. In no case you should drive with one axle hard and one axle soft.

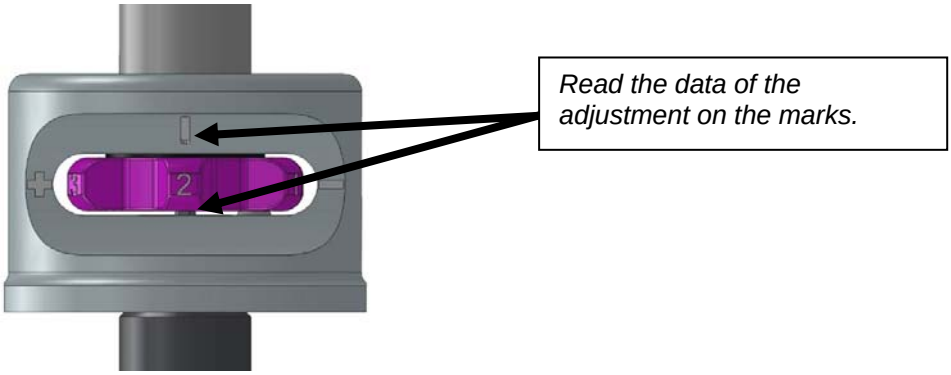
Version 1 (Adjustment wheel for clipping on):

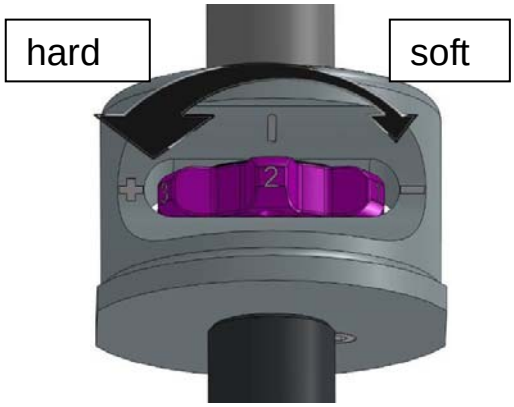
*The adjustment wheel has to be put on the piston rod. With clockwise rotation of the adjustment wheel the rebound damping will become harder. With anti-clockwise rotation the rebound damping will become softer. The click directions are labeled with "**+**" (harder) and "**-**" (softer) on the adjustment wheel.*



Version 2 (Integrated adjustability):

*The numbers on the adjustment wheel show current setup and facilitate the setup of the dampers. The click direction, in which the rebound becomes harder respectively softer, is marked on the adjustment header with a "**+**" (rebound becomes harder) and a "**-**" (rebound becomes softer). Numeration on the adjustment header is one sided. The numbers of the adjustment wheel can be read on site with marks at the adjustment header. The data of the adjustment wheel can be read from the marks.*

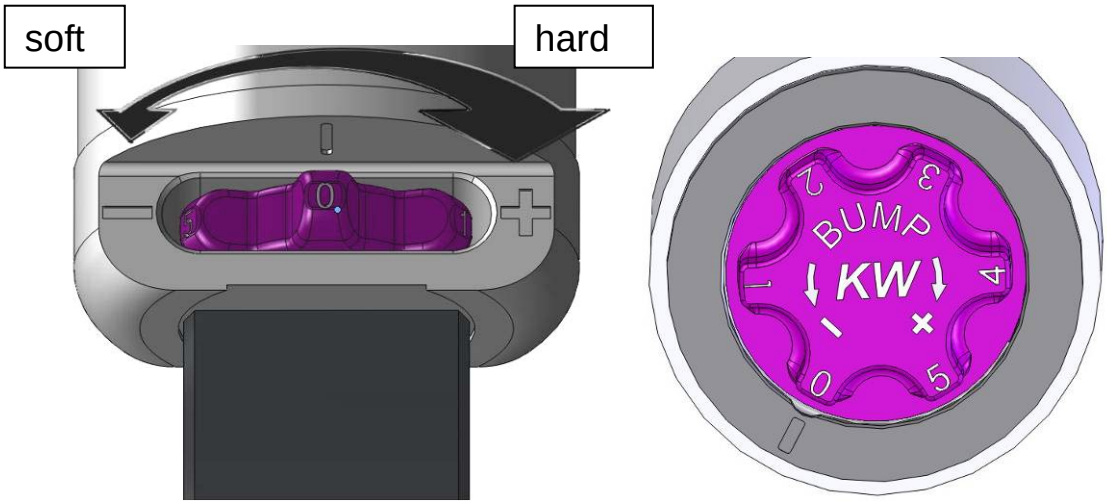




Bump:
Adjustment of compression damping takes place at the bottom of the damper, also with the support of the adjustment wheel. The adjustment will be done based on the closed valve (max. hard). The closed valve can be reached by turning the adjustment wheel completely to hard (+).
The maximum effective adjustment is 0 – 12 clicks.

Influence of low speed compression adjustment
Compression adjustment has significant influence on handling and driving behaviour.
Genera rules are:
A harder compression adjustment on the front axle makes the car more precise and more aggressive, whereas a softer adjustment favours a more forgiving steering behaviour.
Harder compression adjustment on the rear makes the car more stable on fast direction changes and helps if it has too much tendency to over steer. On the other hand, a softer rear compression makes the rear looser and might improve the handling if the car was too tight or had too much under steer before.
However, too much compression might cause uncomfortable and loud tyre role and/or costs grip.
Due to the digressive characteristic of the high speed section in our compression valve, hard adjustments do barely affect ride comfort on hard kerbs and bumps.

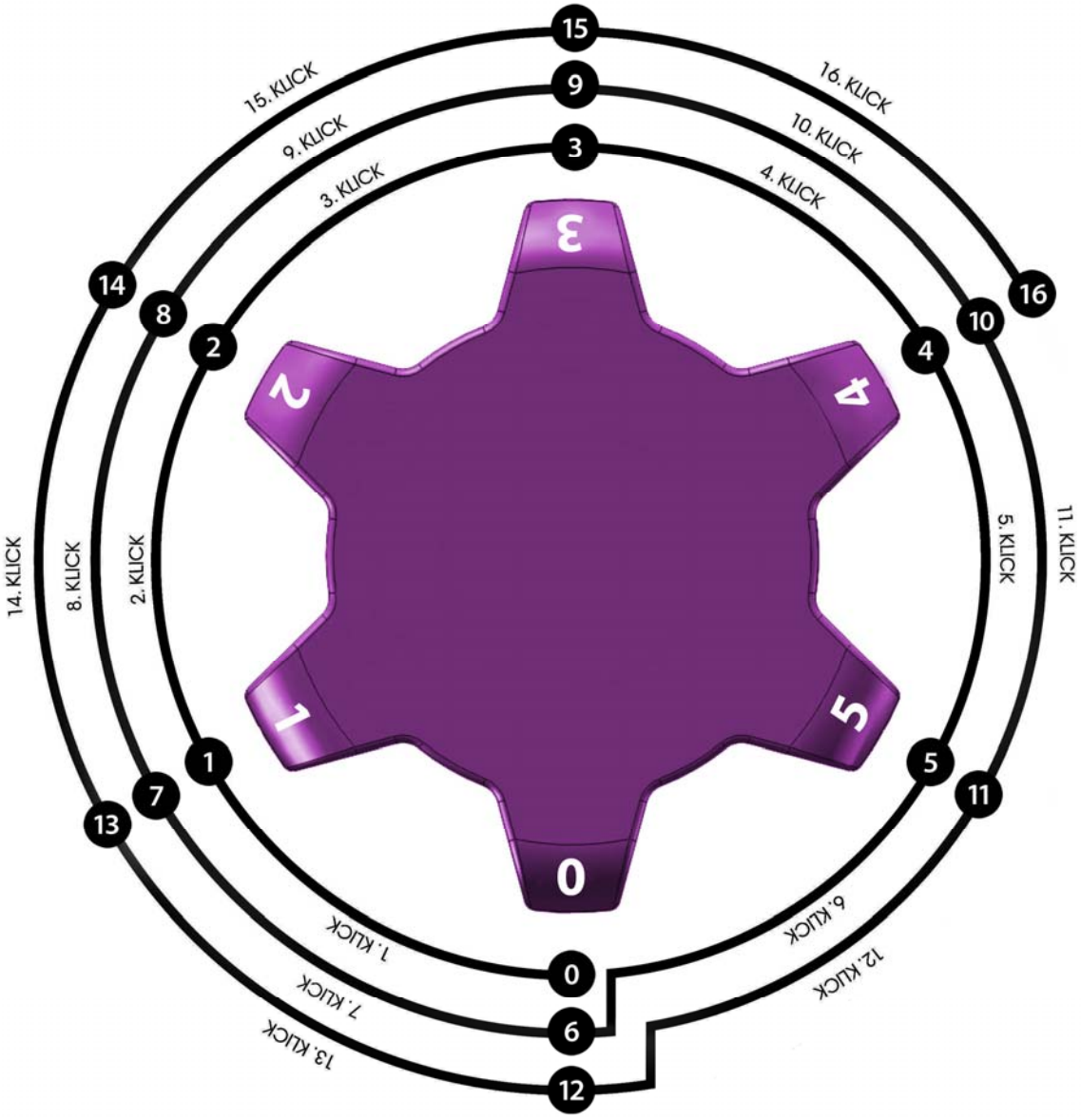
Never apply force to the adjusting mechanism of the shock absorber. As soon as you reach the end of the adjustment range, you will recognize a certain resistance. Stop turning to avoid damage to the bottom valve.



Delivery status

Our dampers will be delivered always in basic setup. This basic setup was specified for your car at the front and rear axle. In case of reset the dampers into the basic setup, the values of the table are valid.

Front axle	*Rebound:*	*9*	*Clicks open*	*Bump:*	*5*	*Clicks open*
Rear axle	*Rebound:*	*9*	*Clicks open*	*Bump:*	*4*	*Clicks open*

Example: Adjusting the basic setup rebound front axle:

Basic setup rebound is 9 clicks open.
First the rebound needs to be turned clockwise, direction ”hard“ (+). Afterwards, the adjustment wheel needs to be turned anti-clockwise, direction “soft” (-) until the adjustment wheel clicks 9 times.
The adjustment wheel now shows the number 3.
The single adjustment positions are described in the following chart.