

66 31 010 Adjusting Remote Sensor (LRR Sensor) (2009-2010 Only)**Special tools required:**

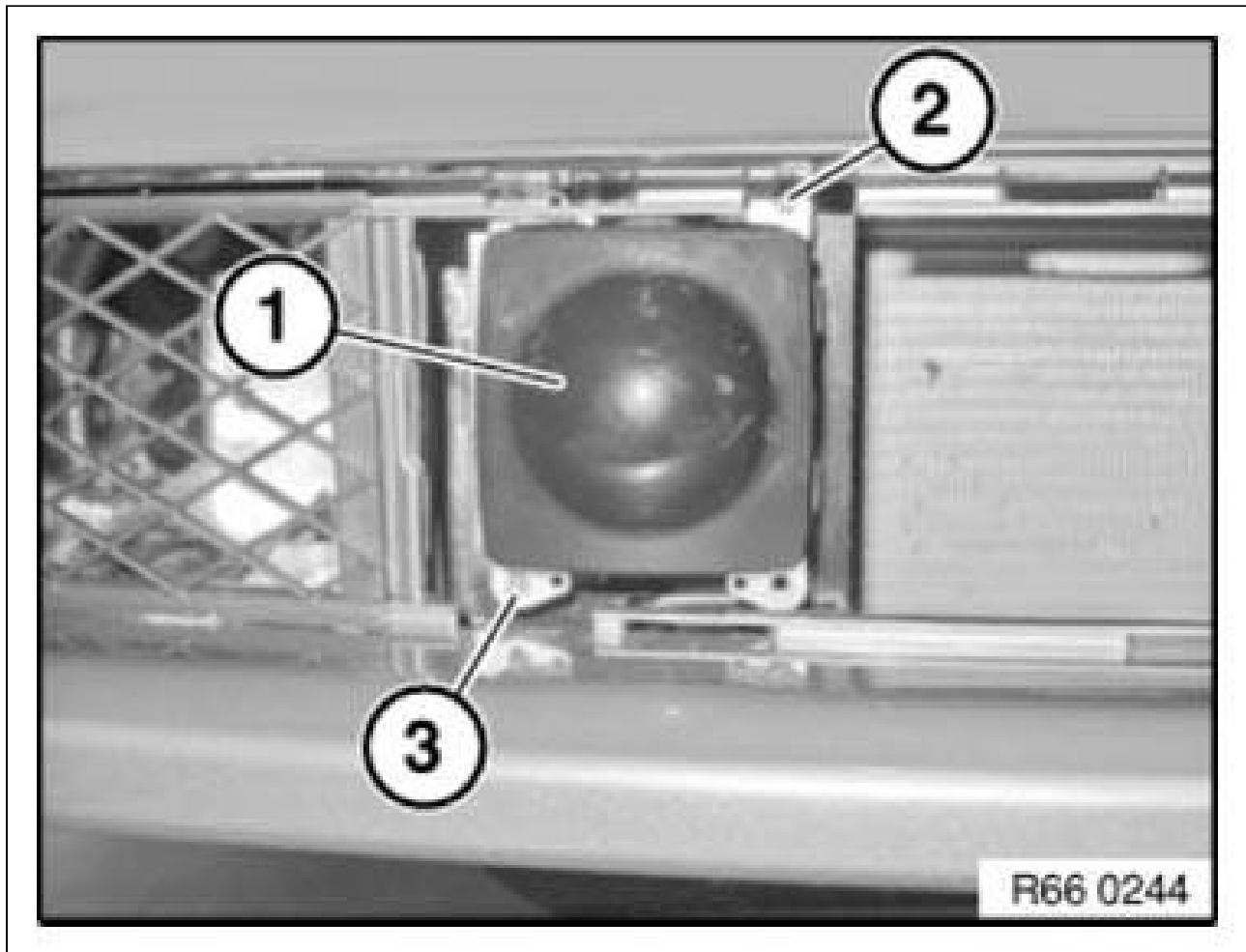
- 36 1 100
- 36 1 130

Carry out adjustment of long-range sensor (1) with special tool 36 1 130 by means of adjusting screws (2) and (3).

(2) = horizontal adjustment

(3) = vertical adjustment

Fig 1: Identifying Long-Range Sensor And Adjusting Screws



Courtesy of BMW OF NORTH AMERICA, INC.

Special tool required:

Active Cruise Control ACC adjusting device, complete.

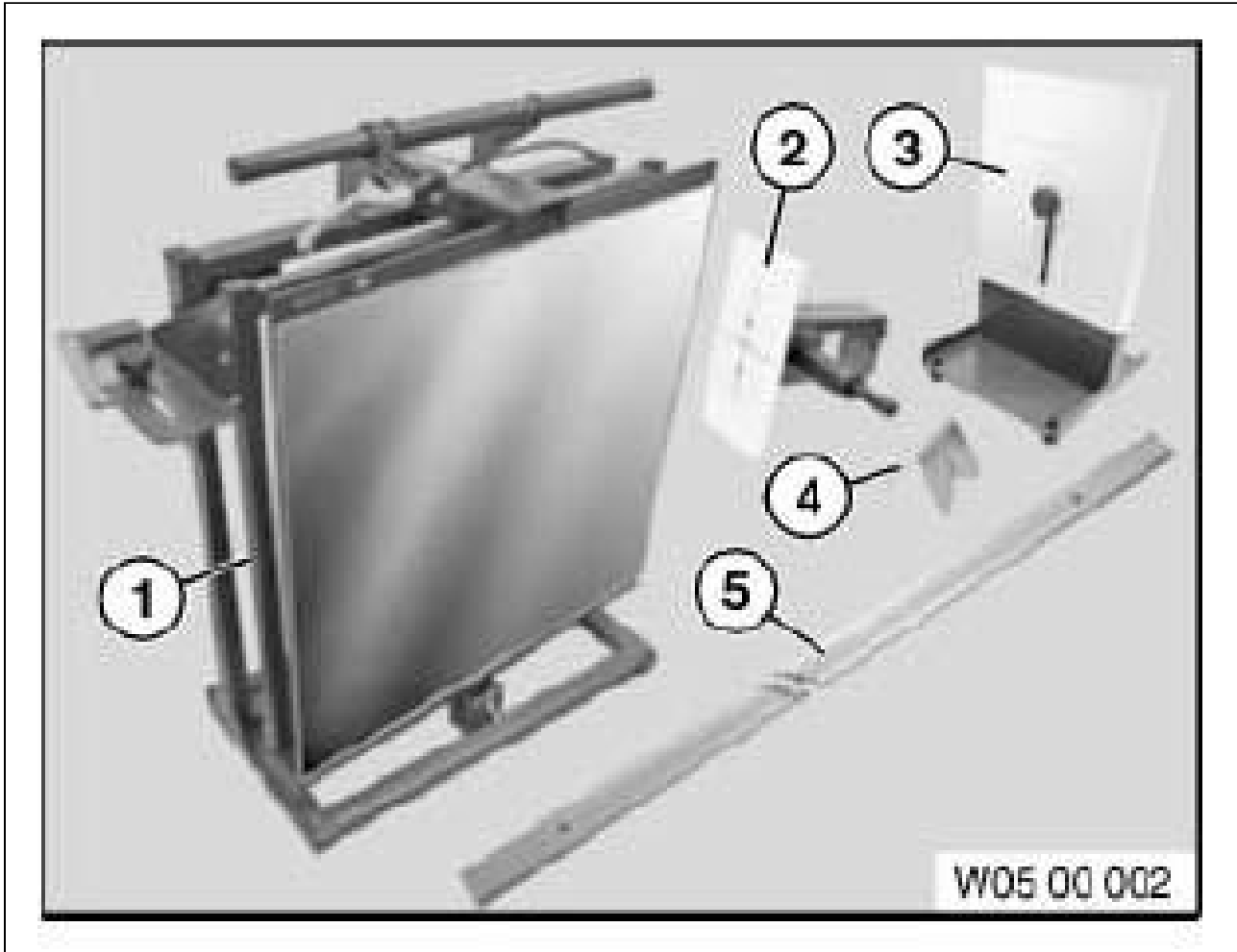
Order number: 81 10 0 021 292

Consisting of:

1. Mirror, complete
2. Wheel laser

3. Slotted diaphragm
4. Control bracket (for initial installation of rail)
5. Rail
6. Setup and Owner's Handbook (not shown)

Fig 2: Identifying Active Cruise Control ACC Adjusting Device Components



Courtesy of BMW OF NORTH AMERICA, INC.

NOTE: A holder which is not included in the scope of delivery is required to support the wheel laser. Use either the quick-action clamp from the existing KDS or ACC wheel holder (36 1 100).

NOTE: Follow instructions for ACC ADJUSTMENT TOOL

NOTE: To adjust the ACC sensor, connect the BMW diagnosis system and fit the ACC adjusting device. Select ACC system in diagnosis. Start test module "ACC adjustment" (service functions) and proceed in accordance with instructions.
Handle ACC adjusting device in accordance with the manufacturer's instructions provided with device.

ACC Adjustment Tool

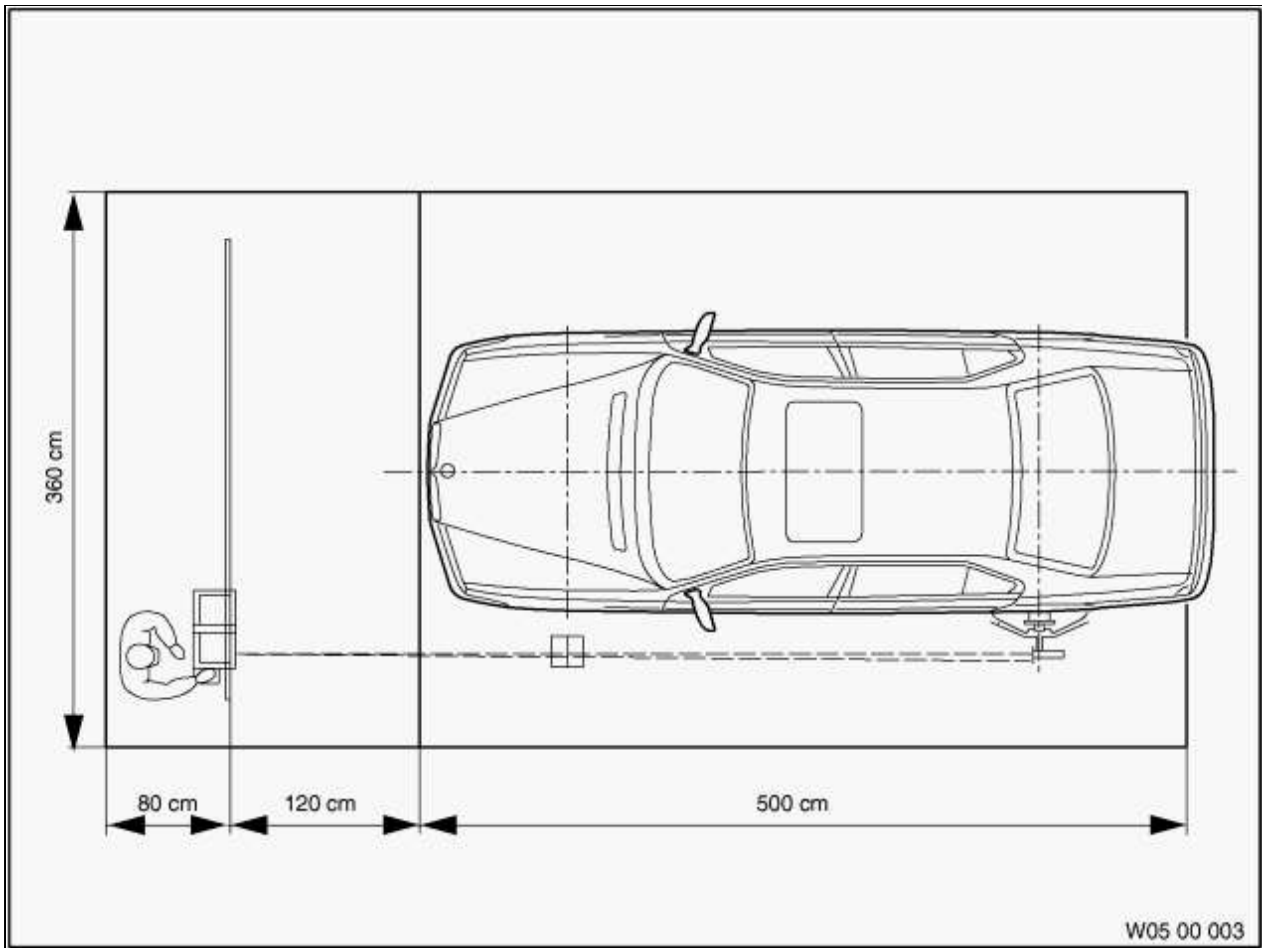
NOTE: The Active Cruise Control (ACC) is a development of the cruise-control system (FRG). It uses a radar sensor to detect vehicle driving in front. The engine and brakes are used to adjust the vehicle's speed and distance to the vehicle in front. The ACC adjustment tool has been developed for testing and adjusting the ACC sensor. The ACC sensor must be adjusted very conscientiously as a deviation in the sensor setting of just 0.2° to the dynamic driving axis can have a negative effect on the function of the complete system.

Requirements For The Measurement Area For ACC Adjusting Device:

Dimensions:

1. Accessible area behind mirror: at least 80 m
2. Distance between mirror and vehicle: 120 cm +/- 5 cm
3. Total work bay size: 360 cm x 700 cm

Fig 3: Identifying Measurement Area For ACC Adjusting Device

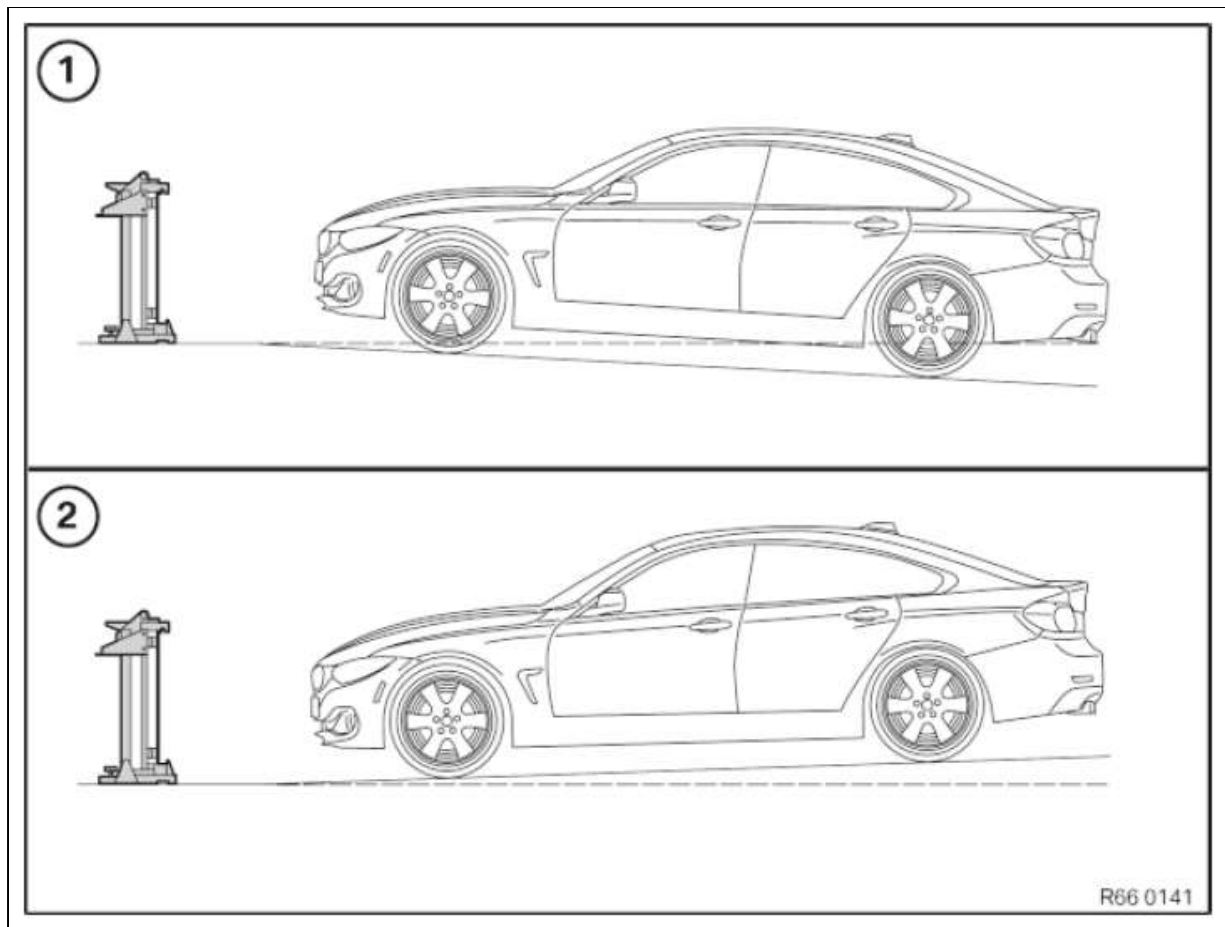


Courtesy of BMW OF NORTH AMERICA, INC.

Maximum unevenness on floor:

- Floor space for adjustment tool: no more than 1 mm
- Floor space for vehicle: no more than 10 mm

Fig 4: Identifying Maximum Irregularity Of Floor Surface



Courtesy of BMW OF NORTH AMERICA, INC.

Maximum inclination on floor space for vehicle:

- Downward incline of floor surface: no more than 3°
 - See (1) in Fig 4
- Upward incline of floor surface: no more than 1°
 - See (2) in Fig 4

NOTE: Setting up the ACC adjusting device comprises the following steps:

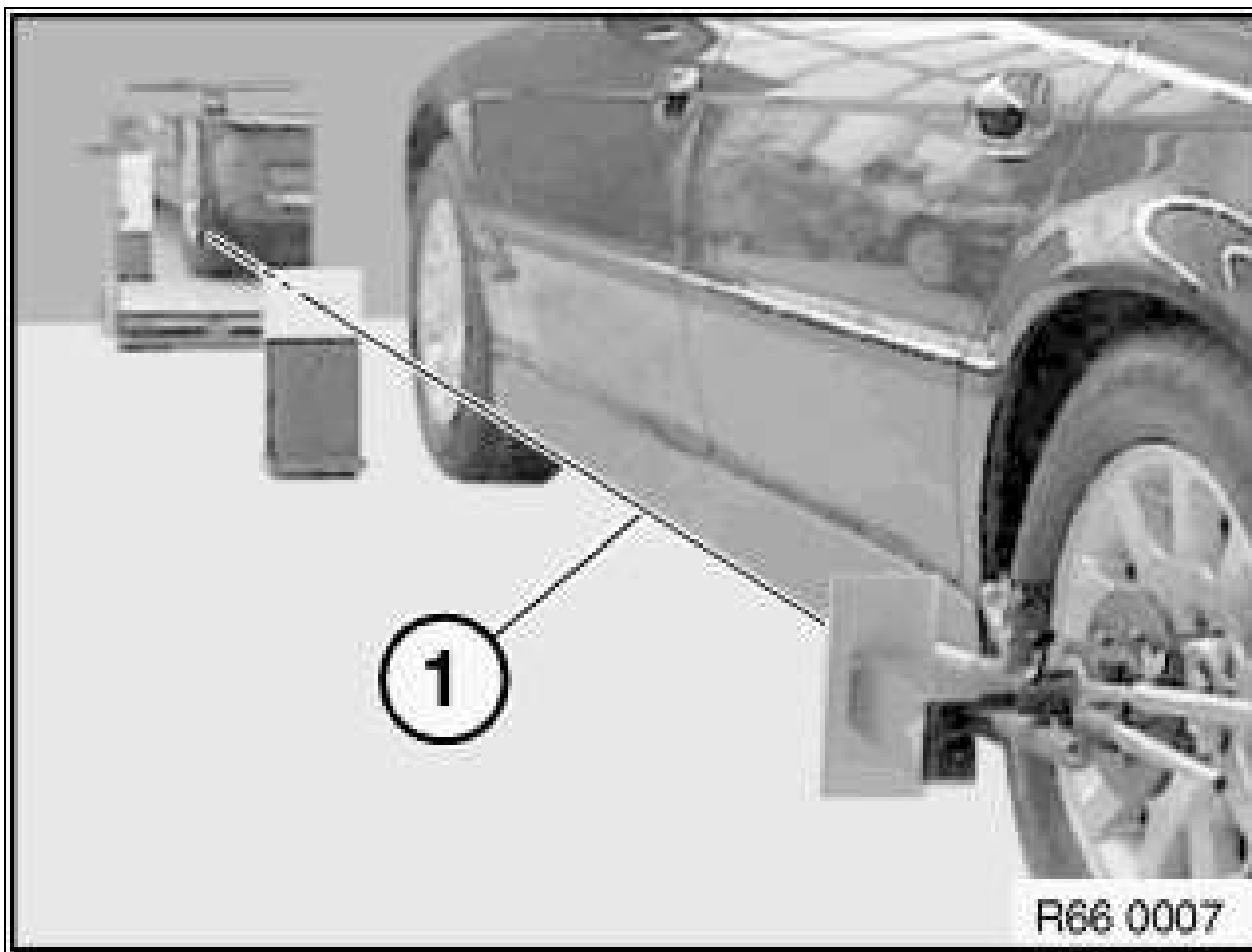
- Assembly of adjustment tool
- Assembly of rail
- Basic setting of adjustment tool on measuring bay

Application Of ACC Adjustment Tool

The precise procedure for measuring the ACC sensor is described in the BMW diagnosis system. Select ACC system in diagnosis, start test module "ACC adjustment" (in "Service functions") and proceed as instructed.

The illustration shows the wheel laser on the KDS quick-release fastener on the rear wheel and the laser beam (1) to the mirror through the slotted cover on the front wheel.

Fig 5: Identifying Laser Beam



Courtesy of BMW OF NORTH AMERICA, INC.

Technical data:

Wheel laser performance data:

Beam output	0.5 - 1 mW
Point size	Ø 3 mm
Operating range	approx. 30 m
Temperature range	-10°C to +40°C
Power supply	3 - 6 V (Baby / Mignon 1.5 V)
Laser diodes	Laser class 2
Wavelength	650 nm +/- 10 nm

Mechanical data:

Weight of ACC running rail	approx. 7.5 kg
Weight of mirror, complete	approx. 14 kg

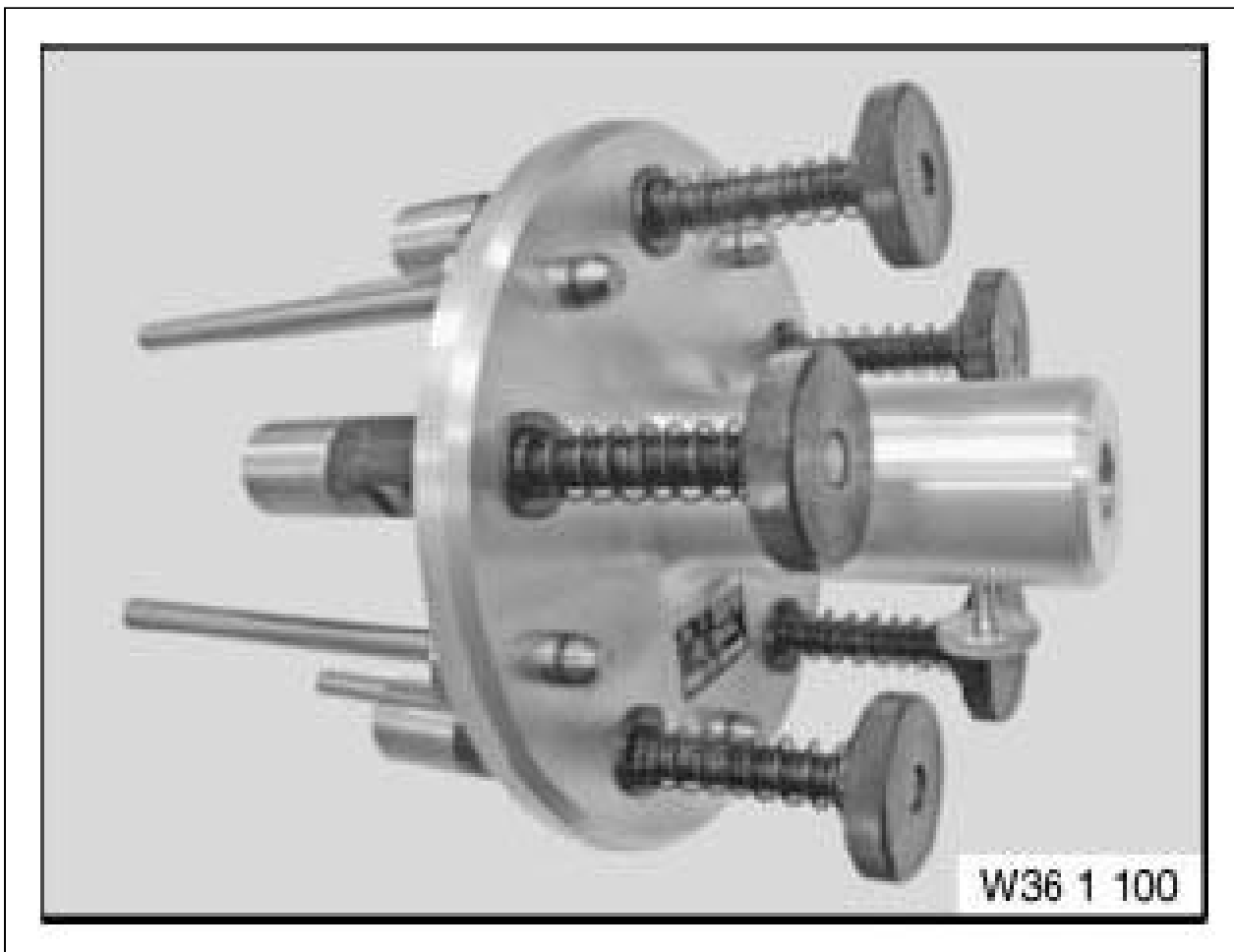
Length of ACC running rail	3.0 m
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Special Tools For The ACC

1. Wheel adapter for ACC wheel laser: BMW order number: 36 1 100

If a KDS quick-release fastener from the companies Beissbarth or Hunter is not available, a separate quick-release fastener can be ordered as an alternative, please refer to illustration.

Fig 6: Identifying ACC Wheel Holder

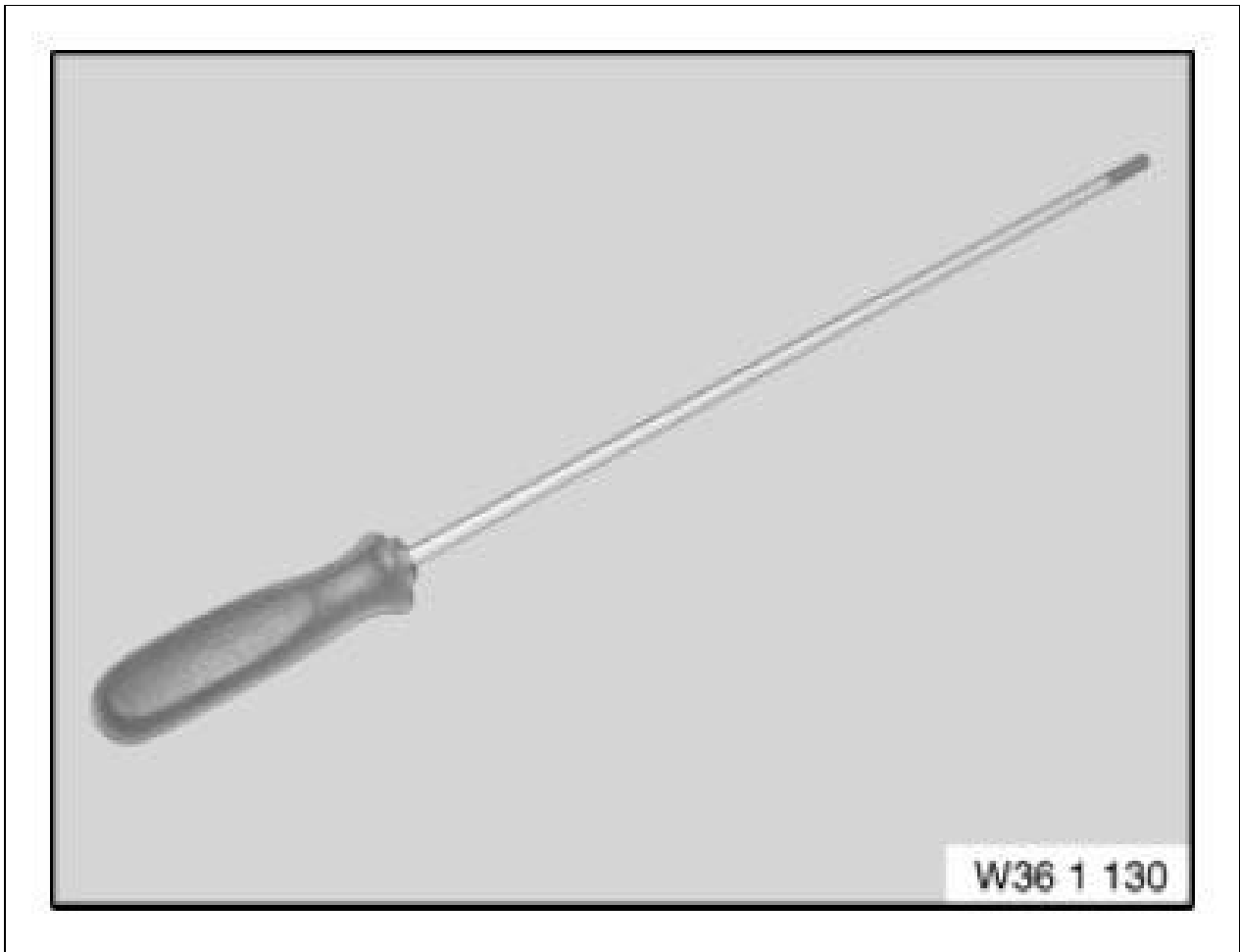


Courtesy of BMW OF NORTH AMERICA, INC.

2. Adjustment key for ACC sensor 1: BMW order number: 36 1 130

The Torx key (T20) is needed for adjusting ACC sensor 1.

Fig 7: Identifying Torx (361130)

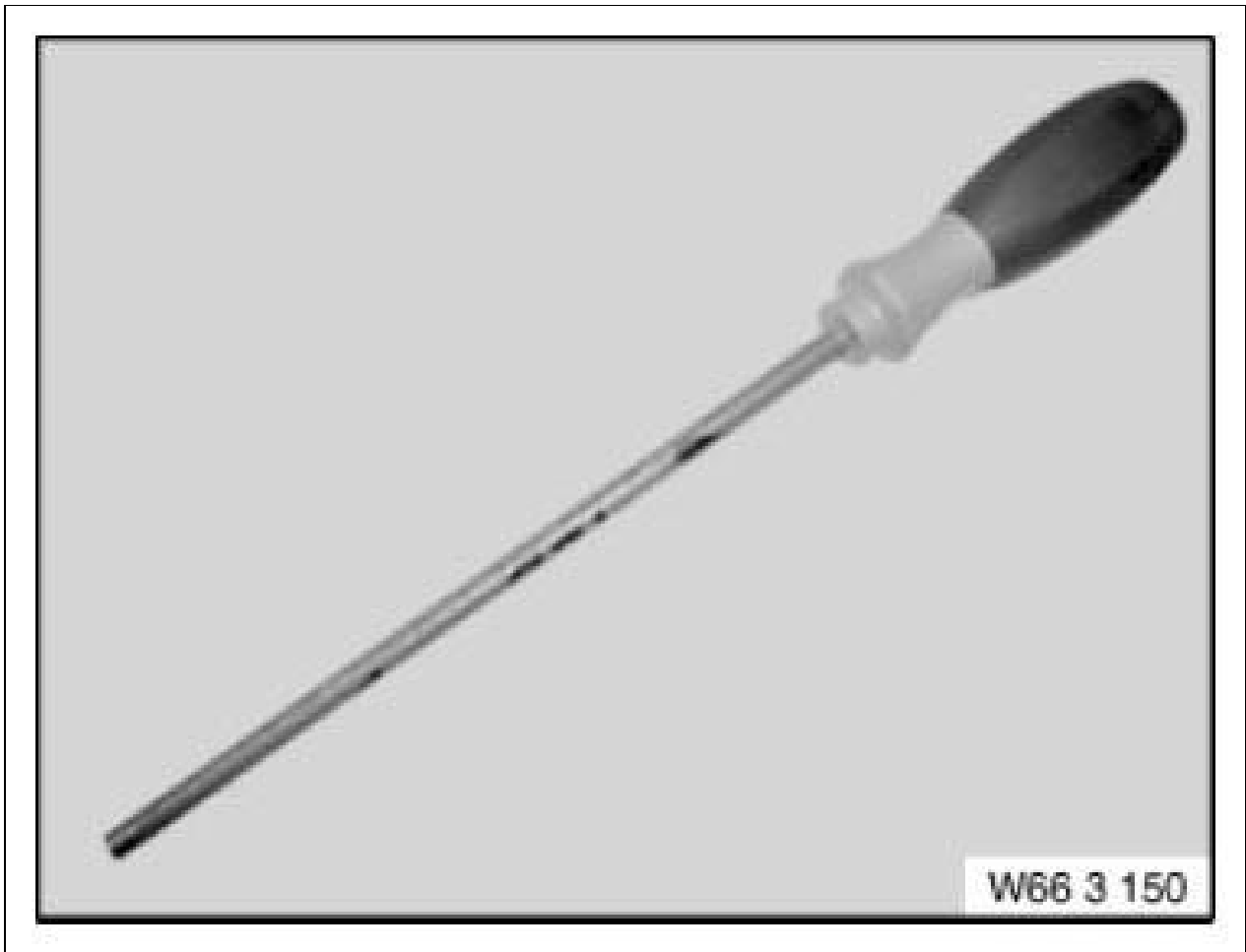


Courtesy of BMW OF NORTH AMERICA, INC.

3. Adjustment key for ACC sensor 2: BMW order number: 66 3 150

The socket for adjusting ACC sensor 2 has a width across the flats of 3.5 mm and a shaft length of 160 mm.

Fig 8: Identifying Socket Wrench (663150)



Courtesy of BMW OF NORTH AMERICA, INC.