

Mounting instruction for**Item N°. 8500 Alloy differential gear self-locking double****Item N°. 8501 Alloy differential gear self-locking quadruple****Item N°. 8503 Alloy differential gear self-locking double f. ball drive****Item N°. 8504 Alloy differential gear self-locking quadruple f. ball drive****Item N°. 8497 Conversion kit double self-locking f. diff. gear****Item N°. 8502 Conversion kit quadruple self-locking f. diff. gear**

The differential gears 8503 and 8504 can only be mounted in connection with the sets 9470, 9471 or 9472, depending on the model.


**Radio control
Racing cars**

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Mounting

Press ball bearing 8493 on the alloy diff. housing.

Insert the diff. bevel gear wheels 8500/3 and 6067 together with the friction disks 8500/2 and the stop plates (in the set) into the alloy differential housing 8486 or 8486/2 as shown on the picture. Now press in both differential driving axles 6069/1 or 6069/2 and also the bevel wheel axles 8490 or 6068. The borings of the differential housing must be in true alignment with the borings of the differential bevel gear wheels. If you notice a misalignment of the borings, take the complete package out of the differential housing and replace the diff. bevel gear wheels one tooth offset. Then mount the complete package back in the diff. housing.

Quadruple self-locking: Squeeze out the bevel wheel axle a little and push a stop disk between bevel gear wheel B and alloy diff. housing. Mount the second stop disk in the same way.

Now pull out the differential bevel wheel axle 6068/8490 half. Then mount one thrust ball bearing 8491, afterwards both pressure disks 8496/1 with the cones opposed to the middle and last the second thrust ball bearing 8491. Press the differential bevel wheel axle 8490 completely into the differential housing 8486 again. Turn the differential driving axles 6069/1 or 6069/2 and check if the differential gear runs easy. Too much tooth clearance can be balanced with the enclosed shim rings 6743 (5x17x0,1).

Apply about half a tube of FG Klüber grease 6501 on the differential bevel gear wheels and insert the o-rings 8489 in the provided groove of the alloy differential housing 8486.

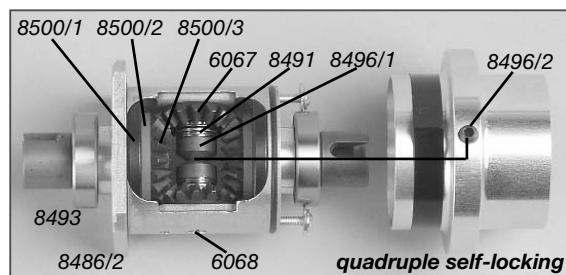
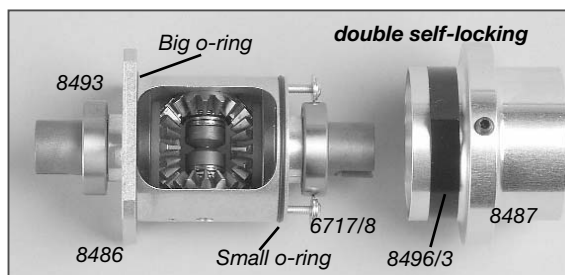
Shrink the shrinkdown plastic tubing 8496/3 on to the differential socket with a hair dryer.

According to the usage of the model you have to mount the gear wheel 48 teeth or the toothed belt wheel for the Formula 1. Push the alloy socket 8487 on to the differential housing as shown on the picture. At the same time screw the adjusting screws 8496/2 into the M5 borings of the alloy socket until they lay firm between the pressure disks 8496/1, use some securing lacquer. Fix the alloy socket with the M3 screws.

Explanation

The valve effect of a self-locking differential gear is caused by the torque which is developed when the bevel gear wheels 8500/3 or 6067 press on the friction disk or stop plate and the higher friction causes a brake effect. Additional these differential gears can be locked mechanically through adjusting screws in the alloy socket if you screw these in in clockwise direction. To lock this differential mechanically, turn in both adjusting screw symmetrically in clockwise direction. You achieve less valve effect if you unscrew them anticlockwise.

Inserting of the diff. bevel gear wheels or of the complete package becomes much easier if you use the FG mounting tool 8505.

**Spare parts**

- 6067 Differential bevel gear wheel B, 2 pcs.
- 6068 Bevel differential gear axle, 1 pce.
- 6069/1 Differential driving axle pluggable, 1 pce.
- 6069/2 Ball diff. axle, 1 pce.
- 6717/8 Oval flange head screw M3x8, 5 pcs.
- 6743 Shim rings 5x17x0,1mm, 10 pcs.
- 8486 Alloy differential housing, 1 pce.
- 8486/2 Alloy diff. hous. quadruple self-locking, 1 pce.
- 8487 Alloy socket, 1 pce.
- 8489 O-rings, 2 pcs.
- 8490 Bevel wheel axle, 1 pce.
- 8491 Thrust ball bearing 5x12x4, 1 pce.
- 8493 Ball bearings 15x28x7, 2 pcs.
- 8496/1 Pressure disks, 2 pcs.
- 8496/2 Adjusting screws, 2 pcs.
- 8496/3 Shrinkdown plastic tubing, 2 pcs.
- 8499/1 Needle bearing for differential, 2 pcs.
- 8499/2 Bolts for differential, 2 pcs.
- 8500/1 Stop plates, 2 pcs.
- 8500/2 Friction disks, 2 pcs.
- 8500/3 Diff. bevel gear wheel self-locking, 2 pcs.
- 8501/2 Stop disks, 2 pcs.

