

# MAINTENANCE MANUAL

ALFINE 11-SPEED | ALFINE 8-SPEED | NEXUS 8-SPEED | NEXUS 7-SPEED | NEXUS 3-SPEED

02 11-SPEED: Oil maintenance: Draining the Old Oil

---

03 11-SPEED: Oil maintenance: Cleaning and Adding New Oil

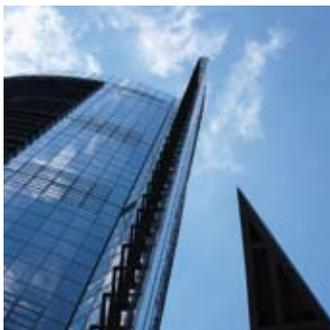
---

04 3-7-8-SPEED: Disassembly and Assembly of the Internal Unit

---

05 3-7-8-SPEED: Oil Maintenance Kit

---



## MAINTENANCE ALFINE 11-SPEED

For longer durability, smooth turning and shifting, the ALFINE 11-Speed SG-S700 hub uses oil lubrication. Maintenance is very easy as the oil can be replaced without even removing the wheel from the bicycle.

### Procedures:

1. Draining the old oil
2. Cleaning the inside
3. Adding new oil

**Service intervals Alfine 11-speed:**  
 \_ After the first 1000 km of usage  
 \_ Then after each 5000 km or every 2 years (whatever comes first)

When the bike is used in severe (weather) conditions, it may be necessary to shorten this interval.

### 1. DRAINING THE OLD OIL



1 With the oil port in the upper position, remove the oil port bolt with O-ring using a 3 mm Allen key.



2 Attach the bleed nipple with O-ring and tube and tighten it using a 10 mm spanner. Tightening torque: 1-3 Nm.



3 With the oil port still in the upper position, attach the syringe with its piston fully pushed in.



4 Turn the wheel slowly, until the oil port is in the lower position.



5 Wait 5 minutes until the oil has settled. Pull the syringe's piston slowly to drain all the old oil from the hub.



6 Turn the wheel slowly, until the oil port is in the upper position.



7 Carefully remove the syringe and tube containing the old oil.



TL-S703 (Syringe)  
Code number: Y-13098023



SG-S700 Oil (1 l)  
Code number: Y-13098480  
SG-S700 Oil (50 ml)  
Code number: Y-13098481

### 2. CLEANING THE INSIDE

After draining the old oil and before adding the new oil, the inside of the hub should be cleaned first. Please follow steps 1 to 7 from the procedure described below. With this cleaning procedure, the last remaining old oil is removed from the hub too. Finally the new oil can be injected which makes the bike ready for another 2 years or 5000 km.



1 Fill the syringe with 25 ml SG-S700 oil.



2 Assemble the bleed nipple with tube and attach the syringe. Push the piston slowly to inject the new oil into the hub.



3 To reduce the pressure inside the hub, periodically pull the piston back a little.



4 Once all the oil has been pushed out of the syringe, detach it from the tube to let the remaining oil in the tube flow into the hub.



5 Remove the bleed nipple with O-ring and the tube.



6 Reassemble the oil port bolt with O-ring and tighten it with a 3 mm Allen key. Tightening torque: 2-3 Nm.

7 Now turn the wheel for 1 minute while shifting the gears up and down. By doing this, the new oil will mix with the old oil which was possibly left in the hub. Remove the oil used for cleaning the inside, following the procedure "DRAINING THE OLD OIL" as described on page 02.

### 3. ADDING NEW OIL

Inject 25 ml of new SG-S700 oil into the hub following the steps 1-6 from the procedure described on this page. Finally clean any oil that may have been spilled on the hub, etc.

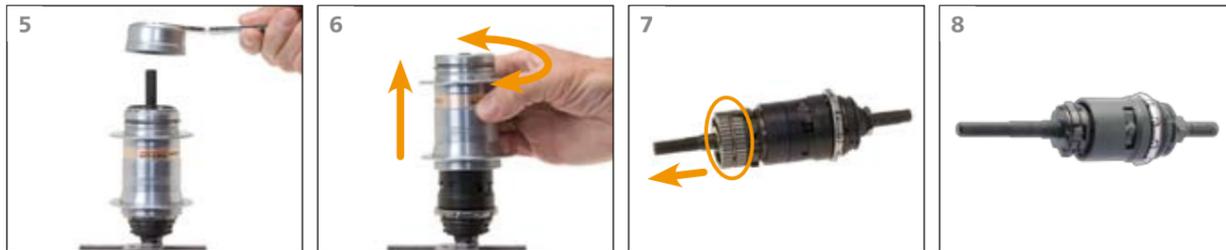
### MAINTENANCE 3-, 7-, AND 8-SPEED

To perform maintenance on the 3-, 7-, 8-Speed NEXUS and 8-Speed ALFINE hubs, the internal unit first needs to be removed from the hub.  
In the basic instructions below we show the main points for attention. The pictures are from various models but can be used as a guideline for the others models too.

#### DISASSEMBLY

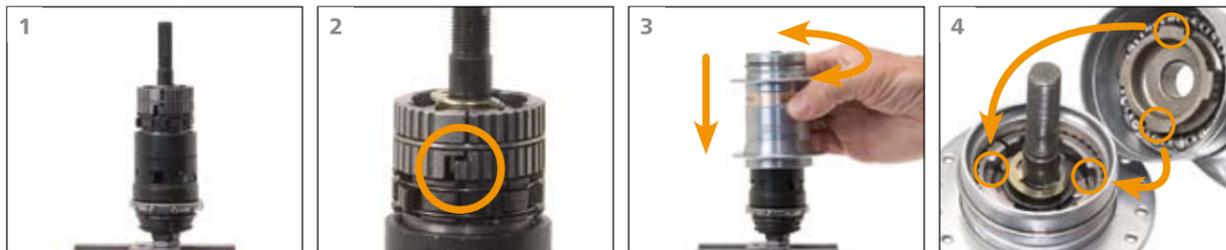


**1** Hold the two flat surfaces of the hub axle in a vice. **Note:** Do not damage the threads of the axle. Carefully remove the right-hand dust cap.  
**2** On ALFINE 8-Speed hubs, use the special tool TL-AF10 to remove the dust cap. Note the direction!  
**3** Turn the hub around and remove the left-hand lock nut and cone.  
**4** For coaster brake hubs, remove the 2 left-hand lock nuts to remove the brake arm unit.

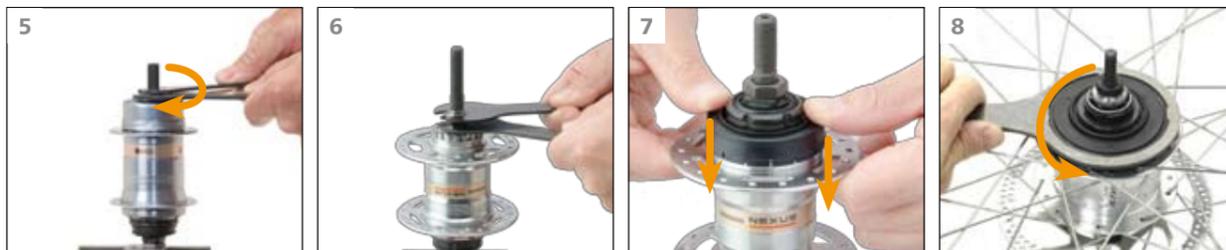


**5** Remove the brake arm unit.  
**6** While turning the hubshell left and right, move it upwards to remove it. Do not use any force!  
**7** On coaster brake hubs, the brake shoe unit must be removed before dipping the unit in the oil.  
**8** Now the internal unit can be used for the oil maintenance procedure as described on page 05.

#### ASSEMBLY



**1** Hold the two flat surfaces of the hub axle in a vice. **Note:** Do not damage the threads of the axle.  
**2** Check to make sure that the slide spring is correctly positioned in the brake shoe unit.  
**3** While turning the hubshell left and right, move it carefully downwards to place it. Do not use any force!  
**4** Align the notches of the brake arm unit with the serrations of the brake shoe unit. Place the brake arm unit.



**5** Assemble the left-hand cone and lock nut.  
**6** Always adjust the hub so that the shell can be turned smoothly without any play after tightening.  
**7** Turn the hub around and attach the right-hand dust cap.  
**8** On ALFINE 8-Speed hubs, use the special tool TL-AF10 to tighten the dust cap. Note the direction!

### OIL MAINTENANCE KIT FOR 3-, 7-, AND 8-SPEED

Shimano recommends performing maintenance on an internal geared hub every 5000 km or every 2 years. When the bike is used in severe (weather) conditions, it may be necessary to shorten this interval.

We offer a genuine oil dipping kit for this. Simply dip the internal unit into the special oil for 90 seconds. Next, let the surplus oil drip from the unit and reassemble it in the wheel.

Use this procedure for a quick and complete maintenance. As every part is lubricated continuously, a higher durability of the internal mechanism is the result.

WB Maintenance Oil  
Code number: Y00298010



Dipping Vessel  
Code number: Y00201100



Oil Can  
Code number: Y00201000



**1** Fill the dipping vessel with WB oil.  
**2** For coaster brake hubs, first remove the brake shoe unit! Immerse the internal unit into the oil from the left side. Immerse until the oil reaches up to the top of the ring gear unit.  
**3** Keep the internal unit immersed in this way for approximately 90 seconds.



**4** Remove the internal unit from the oil.  
**5** Let the excess oil drain off for approximately 60 seconds.  
**6** Reassemble the brake shoe and grease it with NEXUS grease (code number: Y-04120800).

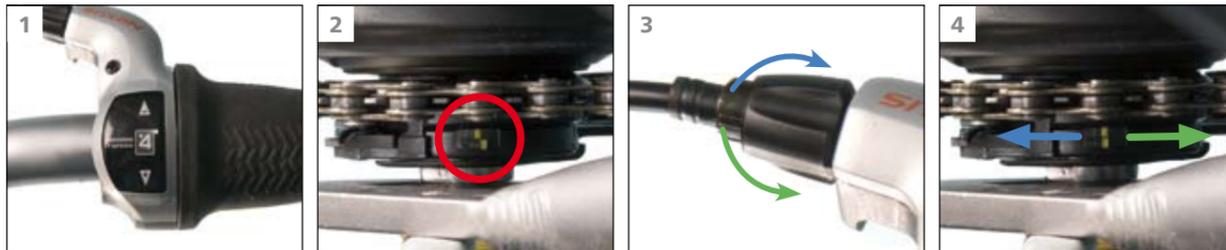
ADJUSTING THE GEARS

3-SPEED



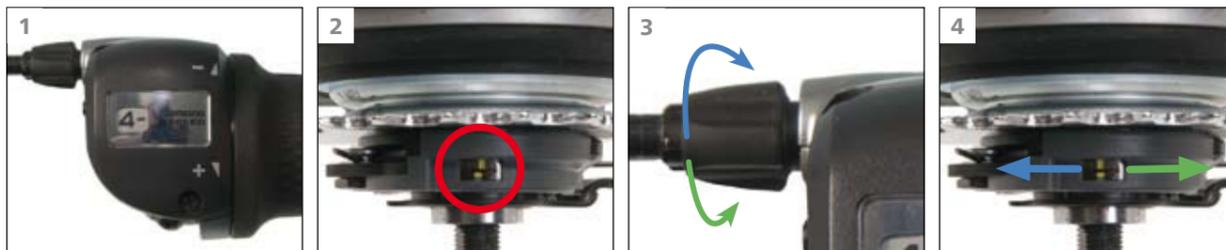
1 Shift up from gear 1 to gear 2.  
 2 Check whether the red line on the push rod is aligned with the end of the axle.  
 3 If the red line is not visible, then check if the yellow marking is in between the two white lines.  
 4 By turning the cable adjustment bolt, the setting can be changed. After shifting up from 1 to 2, reconfirm the setting.

7-SPEED



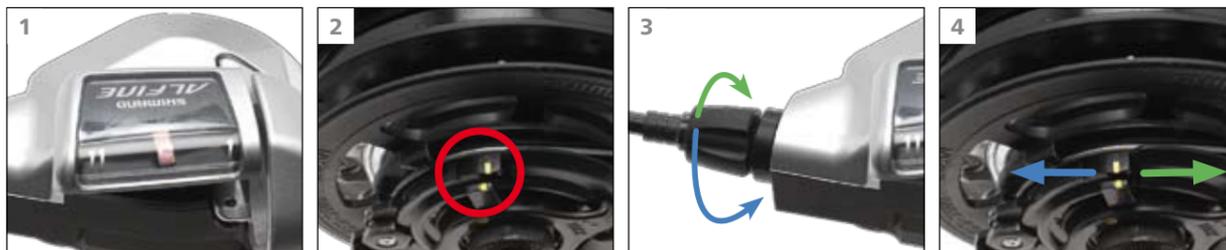
1 Shift up from gear 1 to gear 4.  
 2 Check the alignment of the markings in the window of the cassette joint.  
 3 If the alignment is not correct, adjust it with the cable adjustment bolt on the shifter.  
 4 If the markings are aligned, the cable is correctly adjusted. After shifting up from 1 to 4, reconfirm the setting.

8-SPEED



1 Shift up from gear 1 to gear 4.  
 2 Check the alignment of the markings in the window of the cassette joint.  
 3 If the alignment is not correct, adjust it with the cable adjustment bolt on the shifter.  
 4 If the markings are aligned, the cable is correctly adjusted. After shifting up from 1 to 4, reconfirm the setting.

11-SPEED ALFINE



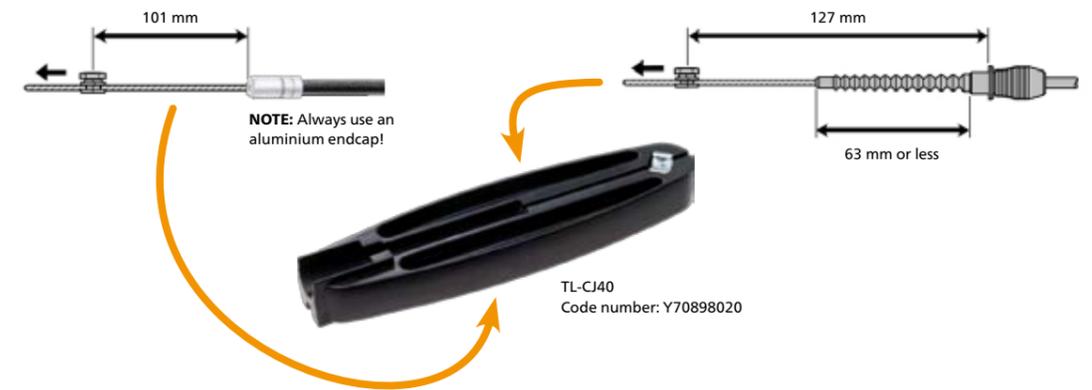
1 Shift down from gear 11 to gear 6.  
 2 Check the alignment of the markings on the cassette joint.  
 3 If the alignment is not correct, adjust it with the cable adjustment bolt on the shifter.  
 4 If the markings are aligned, the cable is correctly adjusted. After shifting down from 11 to 6, reconfirm the setting.

CASSETTE JOINT

7-SPEED



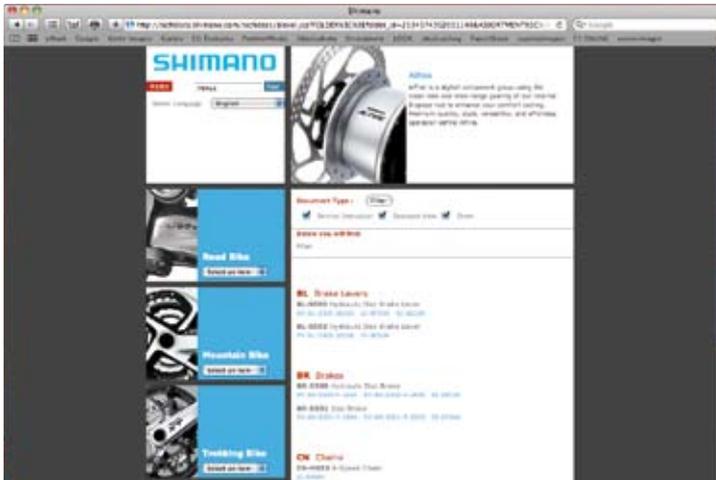
8-SPEED



11-SPEED



[HTTP://TECHDOCS.SHIMANO.COM](http://techdocs.shimano.com)



Visit <http://techdocs.shimano.com> for all the technical information on our products, such as:

- Service Instructions
  - Exploded Views
- Available in 29 languages.