

Campagnolo®

BAR END
BRAKE
LEVERS



**WARNING!**

Carefully read, follow and understand the instructions given in this manual. It is an essential part of the product, and you should keep it in a safe place for future reference.

MECHANIC QUALIFICATION - Please be advised that many bicycle service and repair tasks require specialized knowledge, tools and experience. General mechanical aptitude may not be sufficient to properly service or repair your bicycle. If you have any doubt whatsoever regarding your service/repair ability, please take your bicycle to a qualified repair shop.

"AN ACCIDENT" - Please note that throughout this manual, reference is made that "an accident" could occur. Any accident could result in damage to your bicycle, its components and, more importantly, could cause you or a bystander to sustain severe personal injury or even death.

INTENDED USE - This Campagnolo® product is designed and manufactured for use only on road racing style bicycles that are ridden **only** on smooth road or track surfaces. Any other use of this product, such as off-road or on trails **is forbidden**.

LIFESPAN - WEAR - INSPECTION REQUIREMENT - The lifespan of Campagnolo® components depends on many factors, such as rider size and riding conditions. Impacts, falls, improper use or harsh use in general may compromise the structural integrity of the components and significantly reduce their lifespan. Some components are also subject to wear over time. Please have your bicycle regularly inspected by a qualified mechanic for any cracks, deformation, signs of fatigue or wear (use of penetrating fluid or other visual enhancers to locate cracks on parts is recommended). If the inspection reveals any deformation, cracks, impact marks or stress marks, no matter how slight, **immediately** replace the component; components that have experienced excessive wear also need **immediate** replacement. The frequency of inspection depends on many factors; check with your authorized Campagnolo® representative to select a schedule that is best for you.

If you weigh 82 kg/180 lbs or more, you must be especially vigilant and have your bicycle inspected more frequently (than someone weighing less than 82 kg/180 lbs) for any evidence of cracks, deformation, or other signs of fatigue or stress. Check with your mechanic to discuss whether the components you selected are suitable for your use, and to determine the frequency of inspections.

Important PERFORMANCE, SAFETY and WARRANTY Notice - The parts and components of Campagnolo® 9s, 10s, 11s drivetrains, braking systems, rims, pedals and all other Campagnolo® products, are designed as a single integrated system. To avoid compromises in terms of SAFETY, PERFORMANCE, DURABILITY, FUNCTION, and to prevent voiding the WARRANTY, use only the parts and components supplied or specified by Campagnolo S.r.l., without interfacing them with or substituting them with products, parts or components manufactured by other companies.

Note

Tools supplied by other manufacturers for components similar to Campagnolo® components, may not be compatible with Campagnolo® components. Likewise, tools supplied by Campagnolo s.r.l. may not be compatible with components supplied by other manufacturers. Always check with your mechanic or the tool manufacturer to insure compatibility before using tools supplied by one manufacturer on components supplied by another.

The user of this Campagnolo® product expressly recognizes that there are risks inherent in bicycle riding, including but not limited to the risk that a component of the bicycle can fail, resulting in an accident, personal injury or death. By his purchase and use of this Campagnolo® product, the user expressly, voluntarily and knowingly accepts and/or assumes these risks, including but not limited to the risk of passive or active negligence of Campagnolo s.r.l. or hidden, latent or obvious defects in the product, and agrees to hold Campagnolo s.r.l. harmless to the fullest extent permitted by law against any resulting damages.

If you ever have any questions, please contact your mechanic or your nearest Campagnolo® dealer for additional information.

SAFETY RECOMMENDATIONS

- Never make any modifications whatsoever to any component of any Campagnolo® product.
- Parts which have been bent or otherwise damaged in an accident or as a result of any other impact must not be re-straightened. They must be replaced immediately with original Campagnolo® parts.
- Wear clothes which are snug-fitting and which make you visible to traffic, such as neon fluorescent or other bright colors.
- Avoid biking at night because it is more difficult for you to be seen by traffic, and it is more difficult for you to see obstructions on the ground. If you do ride at night, you should equip your bicycle with and use a headlight and a tail light.
- Never use a bicycle or bicycle component unless you are thoroughly familiar with its use and maintenance history. "Used" equipment may have been misused and abused, and can unexpectedly fail resulting in an accident.
- Always wear a properly fitted and fastened bicycle helmet that has been approved by ANSI or SNELL.

BEFORE EVERY RIDE

DO NOT RIDE YOUR BICYCLE IF IT DOES NOT PASS THIS PRE-RIDE TEST CORRECT ANY CONDITION BEFORE YOUR RIDE.

- Be sure that all of the components of your bicycle, including but not limited to your brakes, pedals, handgrips, handlebars, frame and seating system, are in optimum condition and suitable for use.
- Be sure that none of the components of bicycle are bent, damaged or out of alignment.
- Check you brake pads and cables to be sure they are in good condition.
- Test your brakes in the beginning of your ride to make sure that they are operating properly.
- Learn and follow the local bicycle laws and regulations, and obey **all** traffic signals, signs and laws while you ride.

If you ever any comments, questions or concerns, please contact your nearest Campagnolo Service Center. A list of service centers may be found on our website at www.campagnolo.com.

1. TOOLS

4 mm Allen key	3 mm Allen key
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2. TECHNICAL SPECIFICATIONS



WARNING! COMPATIBILITY

The BAR END brake levers are compatible ONLY with caliper brakes.

COMPATIBILITY WITH HANDLEBAR

- Aluminium time trial handlebar.
- Carbon fiber time trial handlebar with aluminium inserts where the brakes are installed.
- Handlebar internal diameter: 18.9 – 20.6 mm.

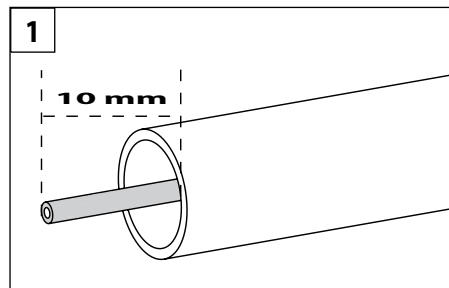
2.1 - CABLE AND SHEATH TECHNICAL SPECIFICATIONS

Front brake cables:	800 mm long	1.6 mm diameter
Back brake cables:	1600 mm long	1.6 mm diameter
Front brake cable housing:	580 mm long	4,9 mm diameter
Back brake cable housing:	1250 mm long	4,9 mm diameter

3. BRAKE LEVER ASSEMBLY

Front brake cable housing:	580 mm long	4,9 mm diameter
Back brake cable housing:	1250 mm long	4,9 mm diameter

- Get the housing to pass through the handlebar and adjust its length letting it stick out at the front for about 10 mm (Fig. 1).

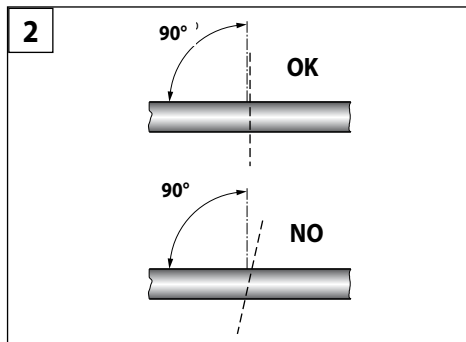


WARNING!

Before cutting the sheath, check the selected length is suitable to the size of your frame. An incorrect length of cable and sheathing might jeopardize your ability to steer or control the bike and might cause accidents, injuries and even death.

NOTE

The sheath must be cut at a right angle without altering its section (Fig. 2). After cutting the sheath, make sure it is still round in order to avoid friction between the cable and the sheath itself.

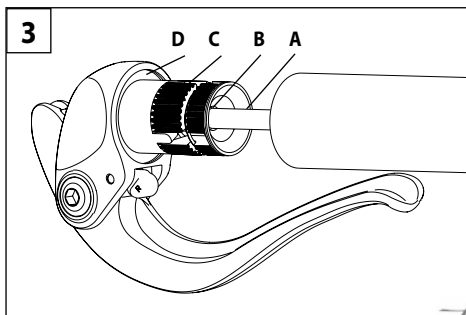


- Insert the end (A – Fig. 3) of the sheath into the back housing (B – Fig. 3) of the control.

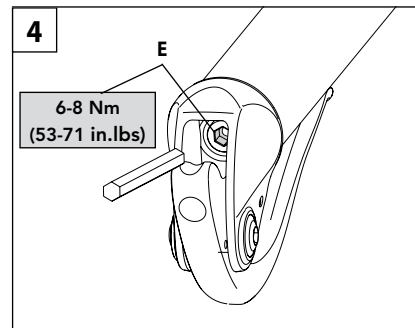
NOTE

The **BAR-END** brake levers do not need any housing end cap.

- Insert the expanding part (C – Fig. 3) of the lever into the handlebar bringing it level with the face (D – Fig. 3).



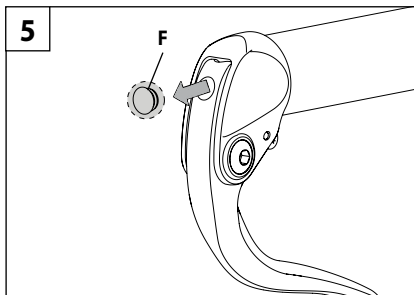
- Fix the lever with a 4 mm Allen key, tightening the screw (E – Fig. 4) fitted inside the lever itself, at **6-8 Nm (53 - 71 in. lbs)**.



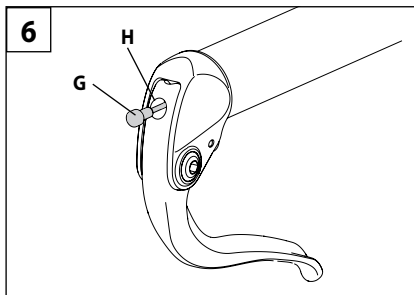
If a carbon fibre handlebar is used, it might be necessary to reduce the tightening torque in order not to damage the handlebar. Contact the manufacturer of the bike and of the handlebar to get all the necessary information on the correct tightening torques.

4. ASSEMBLING AND FITTING THE CABLE

- Remove rubber cap (F – Fig. 5) from the front of the brake lever.



- Insert cable (G – Fig. 6) making it go through hole (H – Fig. 6) of the brake lever and the hole in fixing screw (E – Fig. 4).

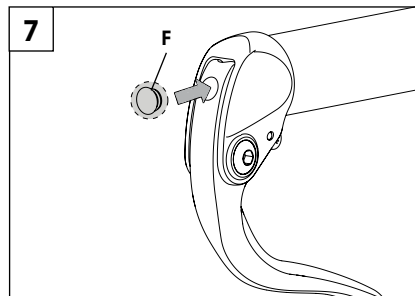


Make sure the cable slides freely in the sheath.

The cables of the front brakes are 800 mm long and have a 1.6 mm diameter.
The cables of the back brakes are 1600 mm long and have a 1.6 mm diameter.

- Fix the cable with the brake fastening screw (refer to the brake user manual).

- Replace cap (F – Fig. 7) into the brake lever hole.



! WARNING!

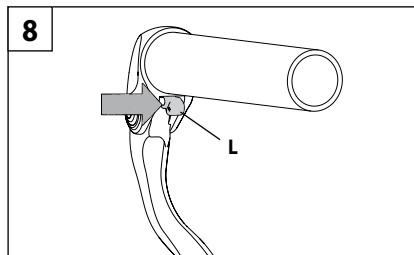
Once the cable is installed, check it doesn't foul steering or any other bike function. Any fouling might jeopardize your ability to steer or control the bike and might cause accidents, injuries and even death.

5. DISMANTLING THE WHEEL

The Bar-End brake levers are fitted with a button allowing the brake to be released, making dismantling the wheels easier.

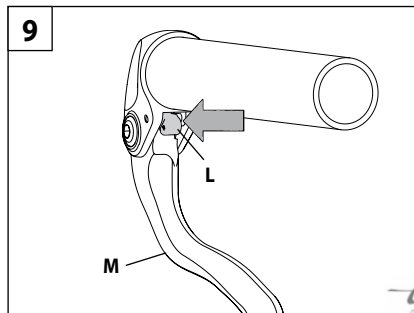
5.1 - OPENING THE BRAKE CALIPER

- To open the brake caliper, press button (L – Fig. 8) from the inside towards the outside.



5.2 - RESETTNG THE BRAKE CALIPER

- Acting on brake lever (M – Fig. 9), press at the same time button (L – Fig. 9) from the outside towards the inside.



6. MAINTENANCE OF THE BAR END LEVERS

The cables and housings must be replaced every 2 years or after 20,000 km maximum.

If the bike is used in competitions, the cables and housings must be replaced every year or after 15,000 km maximum.

The intervals stated are just an indication and might vary significantly according to the conditions and intensity with which the bike is used (i.e. significant factors are: competitions, rain, salted roads during the winter, cyclist's weight, etc.). To identify the best intervals for your characteristics, contact your mechanic.

Dirt damages the bike and its components seriously. Clean, rinse and dry your bike thoroughly after using it.

Never wash your bike with a pressure washer. Pressurized water, even the water coming out of a garden hose, may penetrate gaskets and enter your Campagnolo® components, damaging them irreparably. Wash your bike and Campagnolo® components with water and a neutral detergent. Dry with a soft cloth: never use abrasive or metal brushes.