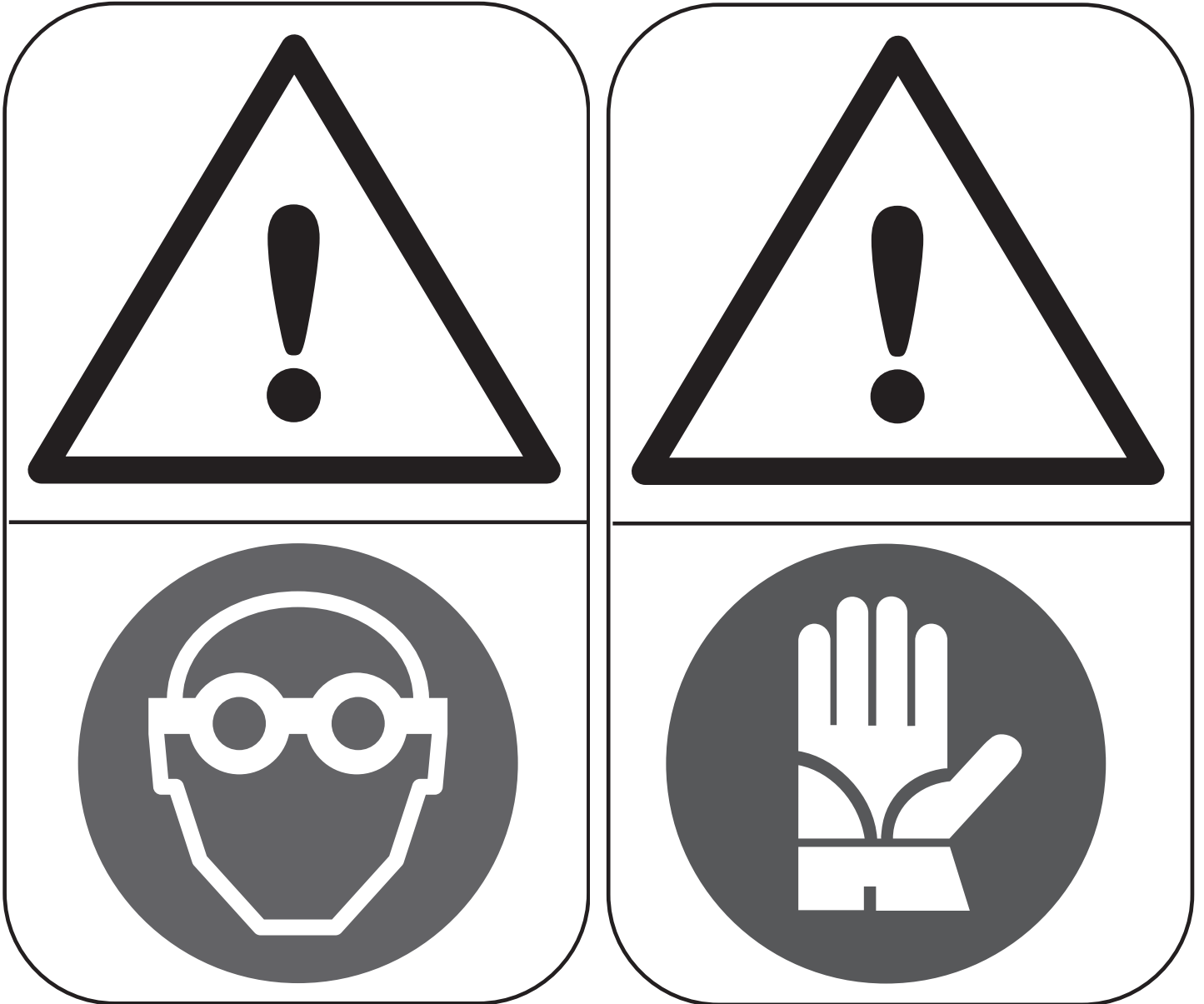




**10s / 11s REAR DERAILLEUR**  
**(2009 / 2014 range)**

## WARNING!

Always wear protective gloves and glasses while working on the bicycle.



**THIS TECHNICAL MANUAL IS INTENDED FOR USE BY PROFESSIONAL MECHANICS.**

Combinations other than those shown in the tables could cause the drivetrain to malfunction and result in accidents, physical injury or death.

The use of components that do not belong to the correct range can significantly reduce the overall performance of the drivetrain, and it is therefore advisable not to mix components from old ranges with those from the new one.



# 10s / 11s REAR DERAILLEUR

## 1 - TECHNICAL SPECIFICATIONS

### 1.1 - 10s REAR DERAILLEUR TECHNICAL SPECIFICATIONS

10s REAR DERAILLEUR	CAPACITY (TEETH)	MAX SPROCKET (TEETH)	MIN SPROCKET (TEETH)	CHAINRING FRONT DIFFERENCE (TEETH)
Short cage	32	30	11	16
Medium cage	37	30	11	22
Long cage (only for triple crankset)	40	30	11	22

### 1.2 - 11s REAR DERAILLEUR TECHNICAL SPECIFICATIONS (2009 / 2014 range)

11s REAR DERAILLEUR	CAPACITY (TEETH)	MAX SPROCKET (TEETH)	MIN SPROCKET (TEETH)	CHAINRING FRONT DIFFERENCE (TEETH)
Short cage	33	29	11	16
Long cage	39	29	11	22

## 2 - COMPATIBILITY

### 2.1 - COMPATIBILITY OF 10s REAR DERAILLEUR

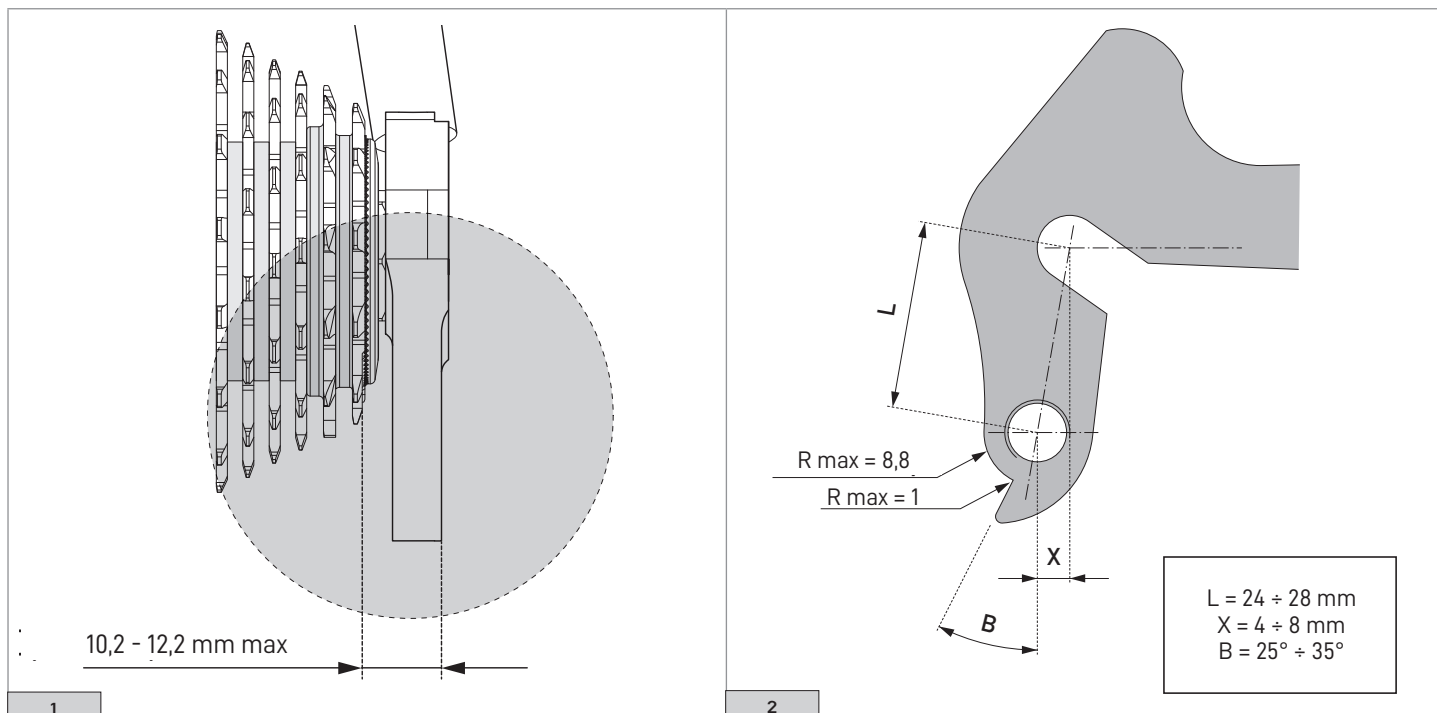
CONTROL LEVERS	CHAIN	CRANKSET	FRONT DERAILLEUR
Ergopower Power - Shift 10s	Ultra - Narrow 10s	Power - Torque system 10s	10s
Ergopower Power - Shift 10s (for triple crankset)		triple crankset 10s	for triple crankset 10s
Bar - End 10s		Power - Torque system 10s	Power - Torque system 10s

### 2.2 - COMPATIBILITY OF 11s REAR DERAILLEUR (2009 / 2014 range)

CONTROL LEVERS	CHAIN	CRANKSET	FRONT DERAILLEUR
Ergopower Ultra - Shift 11s Ergopower Power - Shift 11s	11s	Ultra - Torque 11s	11s
Ergopower Power - Shift 11s (for triple crankset)		Power - Torque system 11s	
		Comp Ultra 11s / Comp One 11s	
Bar - End 11s		triple crankset 11s	for triple crankset 11s
		Bora Ultra 11s / Bullet Ultra 11s	11s

## 3 - INTERFACE WITH THE FRAME

### 3.1 - DROP-OUT SPECIFICATIONS



1

The stroke of the cage in relation to the cable throw is checked by Campagnolo Quality Control for each single piece produced. The distance of the rear derailleur hanger from the first sprocket influences this stroke, so it is indispensable to stay within the tolerance prescribed as per the drawing (Fig. 1).

2

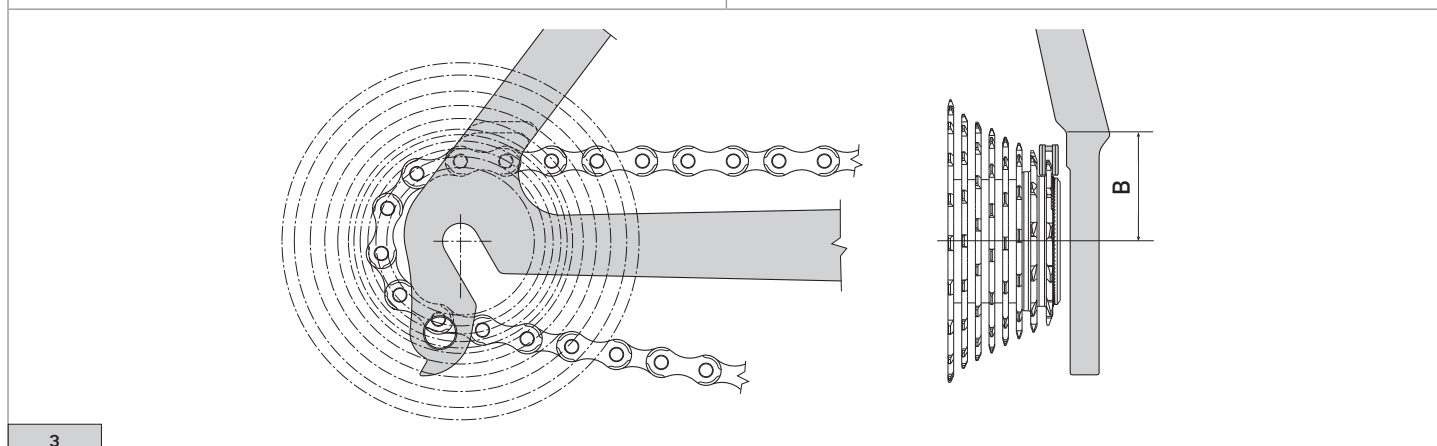
#### WARNING!

Campagnolo® rear derailleurs are designed to work with dropouts that have the dimensions shown in Fig. 2.

For your safety and for the performance of the drivetrain please make sure that the dropout of your bicycle has those dimensions.

If you have any doubts please have a qualified mechanic inspect your bike before using it.

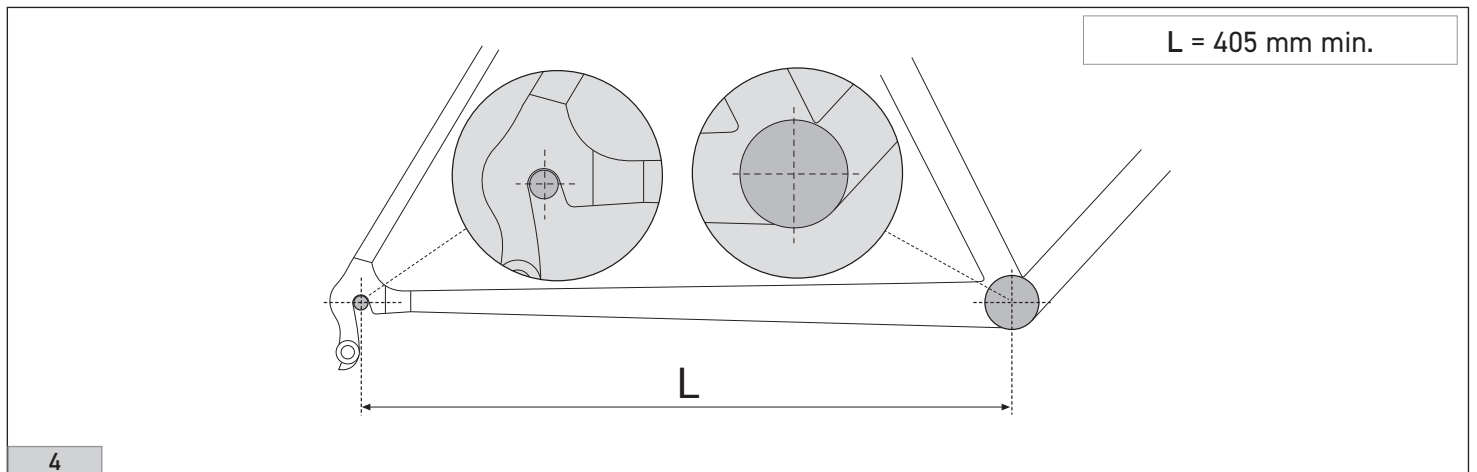
Drop-outs outside these specifications can lead to a serious loss of performance.



3

N° TEETH	B (Fig. 3)
Z 11	30 mm
Z 12	30 mm
Z 13	32 mm

## 3.2 - MINIMUM CHAINSTAY LENGTH



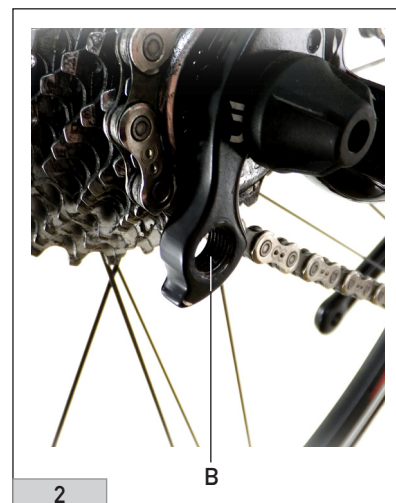
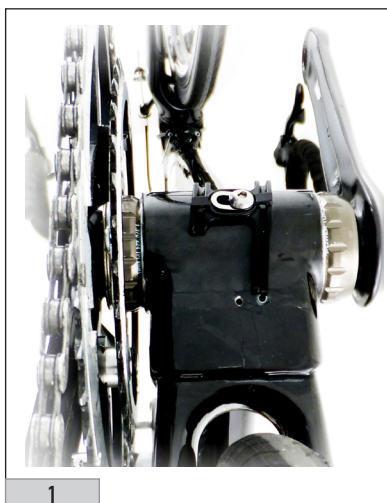
## 4 - ASSEMBLY

### 4.1 - PREPARING THE FRAME

- Check that the Campagnolo® plate (Fig. 1) is fitted under the bottom bracket shell.

Different plates can also give rise to a serious loss of performance.

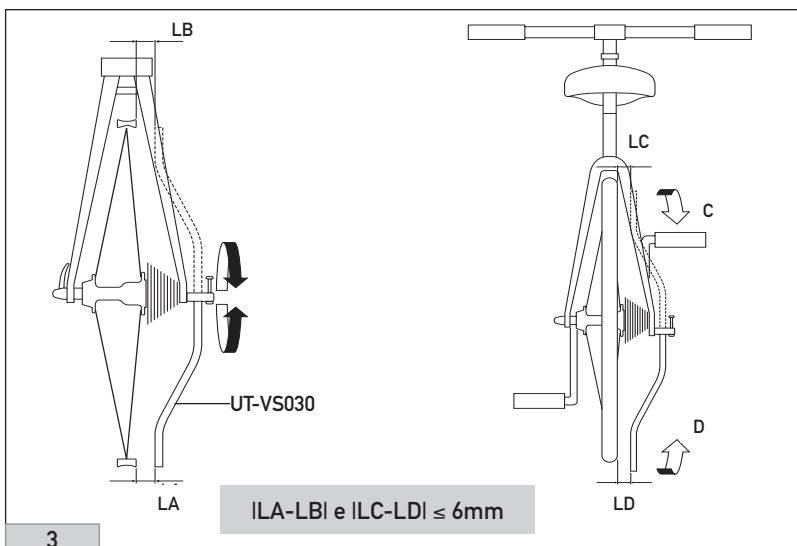
- Chase the threads of the rear derailleur hanger (B - Fig. 2) using a tool tap with threading M10x1.



#### CAUTION

Check and, if necessary, realign the rear derailleur dropout only by using Campagnolo® tool UT-VS030 (Fig. 3).

NEVER straighten the dropout with the rear derailleur assembled because you could damage the dropout and cause irreparable damage or loss in functionality to your rear derailleur.

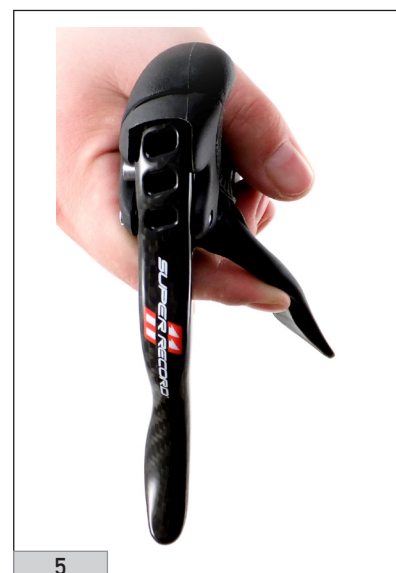
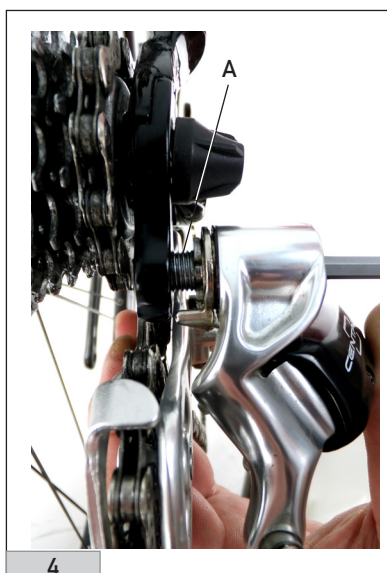


### 4.2 - REAR DERAILLEUR ASSEMBLY AND ADJUSTMENT

- Secure the rear derailleur to the frame using screw (A - Fig. 4), and tighten with a TORX T-25.

Tightening torque: 10-12 Nm (88-106 in.lbs).

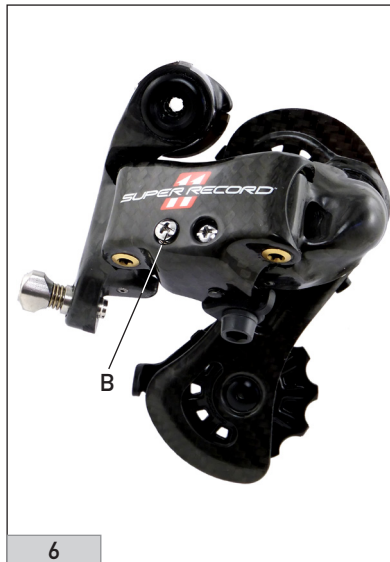
- Carry out this adjustment with the chain on the smallest cassette sprocket and with the Ergopower control button zero-ed (Fig. 5).



- Turn the screw (B - Fig. 6) until perfect alignment is obtained between the centreline of the top roller and the axis of the first sprocket (Fig. 7).

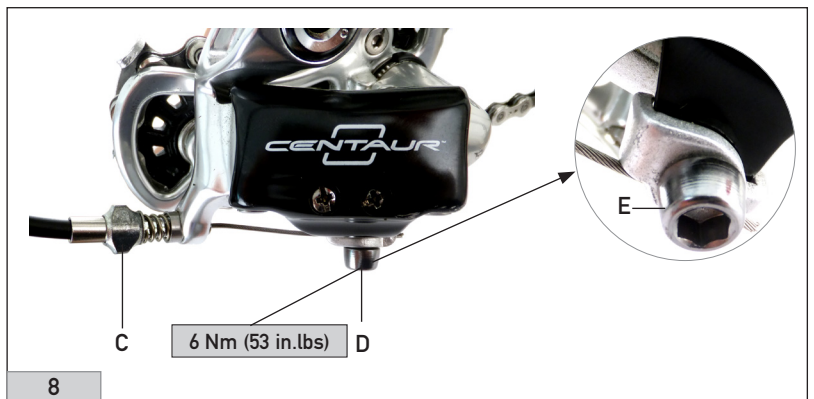
- Check the length and, if necessary, shorten the casing.
- Take care to cut it straight across without altering the configuration of the casing and without damaging the cable in any way. If the cable is damaged, please replace it before riding your bicycle. If the casing is too short, rear derailleur operation will be affected.

Cables and casings do not require lubrication since they are supplied already lubricated.



- Pass the cable through the adjustment screw (C - Fig. 8) and insert the end of the housing; then pass the cable underneath the plate (E - Fig. 8) and clamp it by tightening the Allen screw (D - Fig. 8) at a tightening torque of 6 Nm - (53 in.lbs).

Cut the excess cable at about two cm. from the clamping screw and protect the end with a cable cap.



- Make sure that the screw (G - Fig. 10) is correctly adjusted: by operating the gear lever with the chain on the largest sprocket, the inner plate of the derailleur cage must NOT come into contact with the spokes.

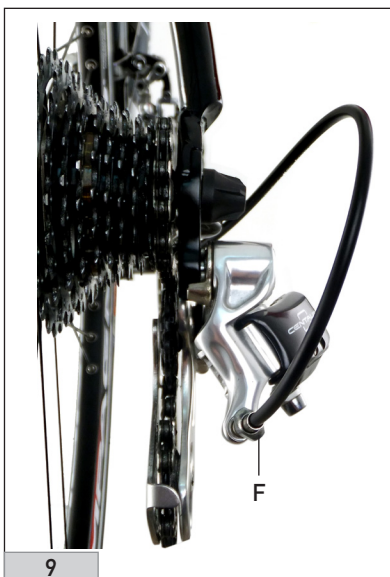
- Position the chain on the 5TH sprocket counting from the smallest (4TH for 10s).

- Turn the cable tension adjuster (F - Fig. 9) until perfect alignment is obtained between the centreline of the top roller and the centreline of the 5TH sprocket (4TH for 10s).

- If the centring between the midway point of the rear derailleur and the midway point of the 5th sprocket (4th for 10s) is not perfect: turn the set screw anticlockwise (F - Fig. 9) to move the rear derailleur inward or turn clockwise to move the rear derailleur outward.

- Check that when the shifter is actuated accordingly, the rear derailleur positions the chain on the largest sprocket; if this does not occur, turn the screw (G - Fig. 10) repeatedly (slackening it until the chain is positioned on the largest sprocket without overshifting).

- Make sure that all gear ratios work perfectly.



**IMPORTANT!**

If you have a frame with internal cable runs, also ensure that there is no contact between the rear and front derailleur cables. If necessary, completely loosen the front derailleur cable, checking rear derailleur operation in these conditions.

- Fit the chain on the max. sprocket and on the smallest front chainring.

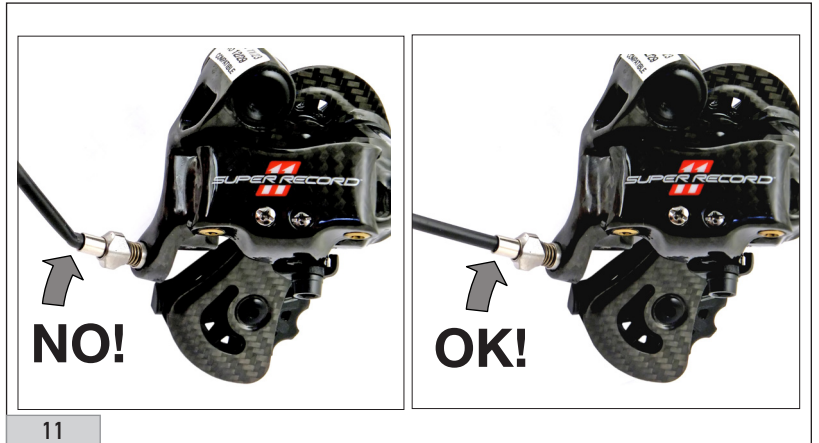


**WARNING!**

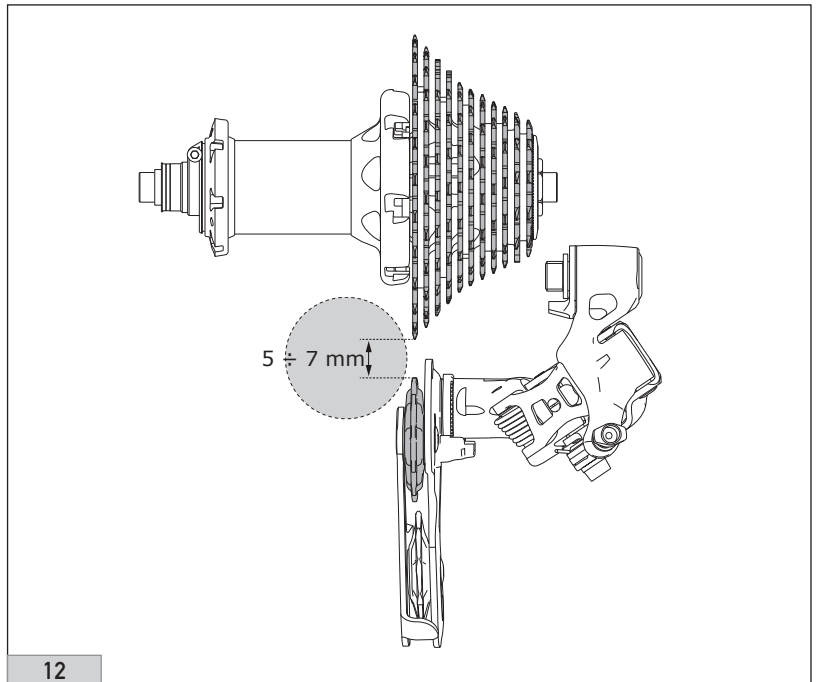
Derailleur adjustments must be performed by skilled personnel: a badly adjusted derailleur can result in an accident, personal injury or death.

**CAUTION**

Use **ONLY** original Campagnolo housing end (internal diameter 4.3 mm - Fig. 11). Check that no abnormal folds have been created by forcing the cable.



Adjust the screw (H - Fig. 10) and position the derailleur cages as in Fig. 12. A distance which is too great or too small compared with the specifications indicated could have a negative impact on snappy shifting.





## 5 - MAINTENANCE OF THE REAR DERAILLEUR

• The duration of the components is variable based on the conditions of use, frequency and quality of maintenance. For proper component maintenance, it is necessary to frequently perform the cleaning and lubrication operations, especially under conditions of heavy use (e.g. each time after washing the bicycle, after use in wet conditions, on dusty or muddy roads etc.).

- Lubricate all the joints regularly.
- If the rollers do not rotate smoothly, clean thoroughly and replace if necessary.
- To remove the rollers, unscrew the screws (C - Fig. 1) with a 3 mm Allen screw.

### WARNING!

The two rollers are different: on the upper section, fit the roller (A - Fig. 1) marked "UPPER" (with side play); in the lower section, fit the roller (B - Fig. 1) marked "LOWER": it is unidirectional and must be fitted so that it rotates in the direction indicated by the arrows (Fig. 2).

### WARNING!

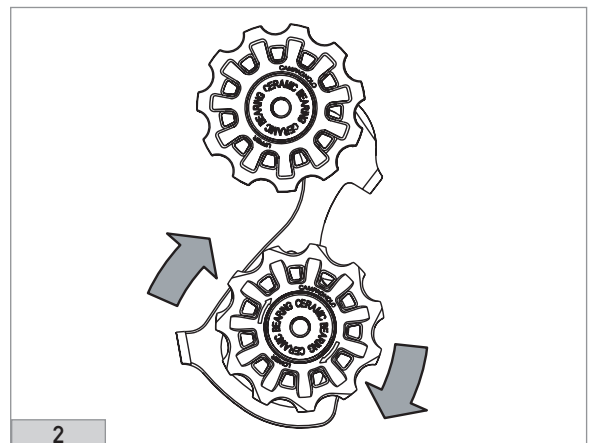
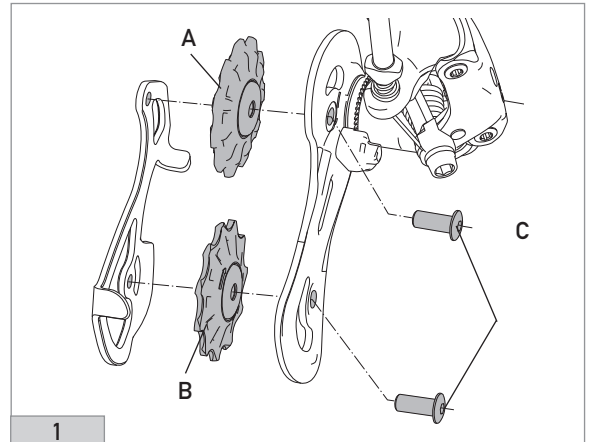
Comply with the following specifications when replacing the pulley:

TIGHTENING TORQUE
11s: 2,7 Nm (24 in.lbs)
10s: 3 Nm (27 in.lbs)

- Dirt seriously damage bicycles and their components. Thoroughly rinse, clean and dry your bike after using it in these conditions.



For cleaning the bicycle only use environmentally-friendly and neutral products without caustic substances and safe to use for you and for the environment.



- Never spray your bicycle with water under pressure. Pressurized water, even from the nozzle of a small garden hose, can pass seals and enter into your Campagnolo® components, damaging them beyond repair. Wash your bicycle and Campagnolo® components by wiping them down with water and neutral soap. Dry them using a soft cloth. Never use abrasive or metal pads.
- Before lubricating, thoroughly clean the drive system (chain, sprocket set, chainrings and derailleur pulleys) with a brush or cloth saturated with an appropriate degreaser or detergent.
- Relubricate the components carefully using a lubricant suitable to purpose.
- Using poor-quality or incorrect lubricant may damage the chain and cause excessive wear or damage to the system. A damaged drive system can malfunction, resulting in an accident, personal injury or death.
- After applying the lubricant move the cranks and engage all possible gear combinations in order to thoroughly lubricate the entire drive system.
- Thoroughly clean any residual lubricant from the bicycle and floor.
- At the end of the lubrication operation, CAREFULLY degrease rims and brake pads.



### WARNING!

Traces of lubricant on the rims and brake pads can reduce or eliminate the braking capabilities of your bicycle, resulting in an accident, personal injury or death.

 **WARNING!**

Salty environments (such as winter roads or roads near the sea) may lead to galvanic corrosion of most of the bicycle's exposed components. To prevent damage, malfunctions and accidents, rinse, dry and carefully re-lubricate all components which are subject to this phenomenon.

- Do not expose the products to high temperature, do not leave them closed in cars parked under the sun, do not keep them near radiators or other heat sources, do not leave carbon or plastic products in direct sunlight.

## 6 – PERIODIC MAINTENANCE TABLE

Maintenance intervals are strictly approximate and may vary significantly in relation to the intensity and conditions of use (for example: competitions, rain, winter roads with salt, weight of the athlete, etc.). Schedule the appropriate maintenance with your mechanic.

PROCEDURE	MILEAGE IN KM (MAX)	TIME (MAX)	METHOD FOR CHECKING
Check screws are tightened to the correct torque	2000	2 MONTHS	Torque wrench
Lubricate the axles regularly	6000	6 MONTHS	
Check alignment frame drop-out	2000	2 MONTHS	Rear derailleur hanger alignment tool UT-VS030
Wheel cleaning	500	1 MONTH	
Replacement if necessary wheels	2000	2 MONTHS	