

BB CUPS

ULTRA-TORQUE
POWER-TORQUE / POWER-TORQUE +

⚠ WARNING!

This technical manual is intended for use by professional mechanics.

Anyone who is not a qualified professional for bicycle assembly must not attempt to install and operate on the components independently due to the risk of carrying out incorrect operations which could cause the components to malfunction, resulting in accidents, physical injury or even death.

1 - TECHNICAL SPECIFICATIONS

IMPORTANT!

WHEN USING THESE BOTTOM BRACKET CUPS WITH THE EPS DRIVETRAIN, THE BOTTOM BRACKET CABLE GUIDE TUBE MUST BE FITTED BEFORE STARTING INSTALLATION.



ULTRA-TORQUE™	Thread		Press-Fit				
	ITA	BSA	BB30	BB86	PF30	BB RIGHT	BB386
	70x (36x24 tpi)	68x (1,37"x24 tpi)	68x42	86,5x41	68x46	79x46	86,5x46

POWER-TORQUE™ POWER-TORQUE+™	Thread		Press-Fit				
	ITA	BSA	BB30	BB86	PF30	BB30A	BB386
	70x (36x24 tpi)	68x (1,37"x24 tpi)	68x42	86,5x41	68x46	73x42	86,5x46

2 - COMPATIBILITY

In order to help you and to enhance performance, Campagnolo has introduced a distinctive mark (a boxed letter as illustrated here) on the new **Super Record**, **Record** and **Chorus** unit parts in order to point out their compatibility.

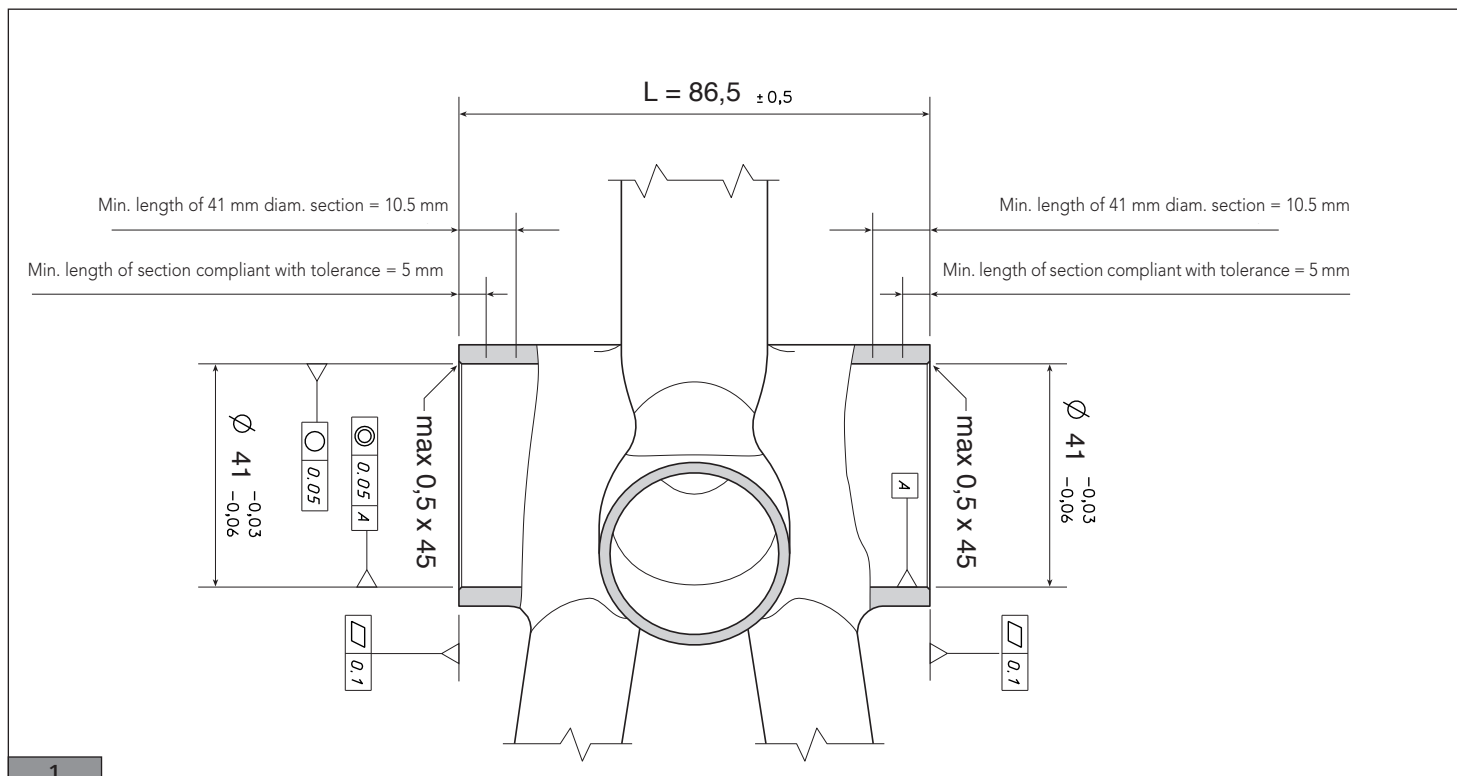
Therefore, please ensure that the letter in the parts that operate for shifting (right-hand Ergopower or bar end and rear derailleur) and in the parts that operate for derailings (left-hand Ergopower or bar end and front derailleur, crankset and bottom bracket cup) correspond.



2 - INTERFACE WITH FRAME

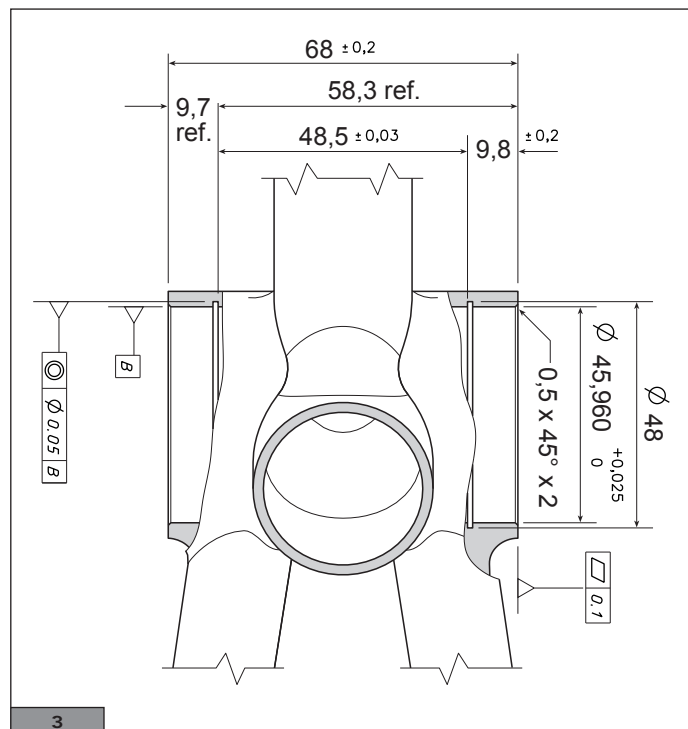
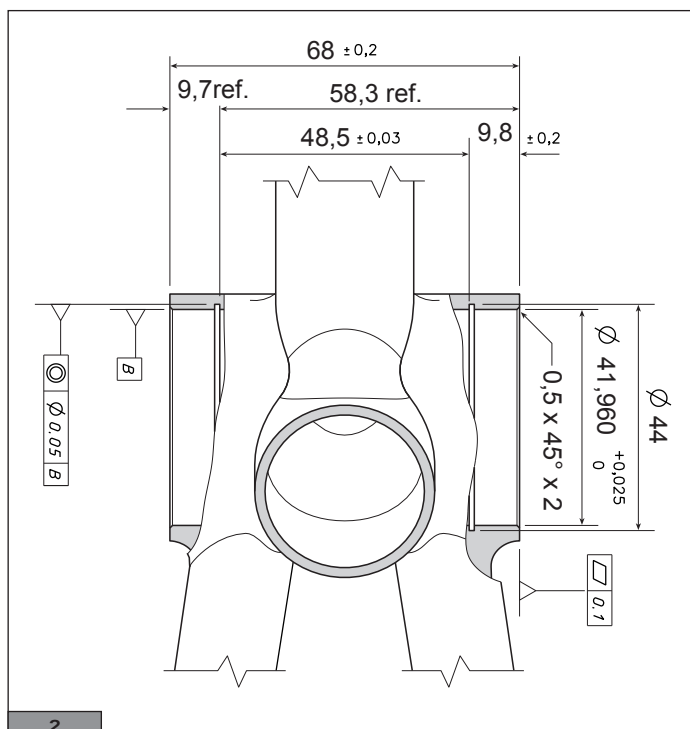
When installing a crankset on a frame, the bottom bracket shell must comply with the tolerances specified. If the mating tolerances comply with specifications, correct operation is ensured by the matching dimensions.

3.1 - BOTTOM BRACKET SHELL L = 86.5 mm X Ø 41 mm (FIG. 1) - OS-FIT VERSION



3.2 - BOTTOM BRACKET SHELL L = 68 mm X Ø 42 mm (FIG. 2) - OS-FIT VERSION

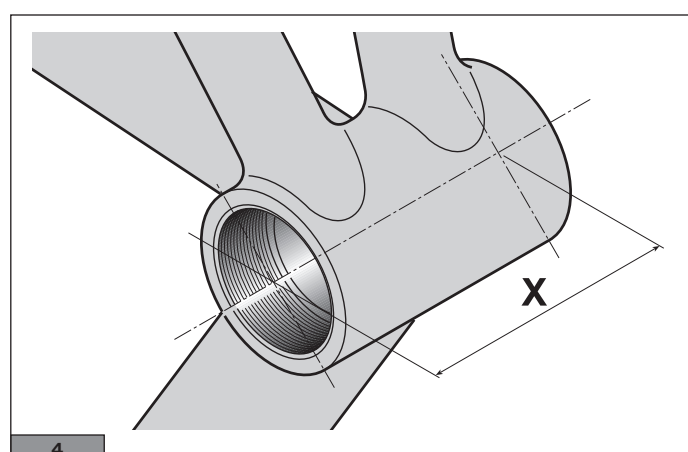
BOTTOM BRACKET SHELL L = 68 mm X Ø 46 mm (FIG. 3) - OS-FIT VERSION



3.3 - COMPATIBILITY WITH BOTTOM BRACKET SHELLS - STANDARD VERSION

The Campagnolo Ultra-Torque / Power-Torque system crankset is compatible with bottom bracket shells that have the following widths:

TYPE	X (Fig. 4)
ITALIAN THREAD	69.2 mm - 70.8 mm
ENGLISH THREAD	67.2 mm - 68.8 mm



4 - ASSEMBLY

4.1 - MOUNTING STANDARD BOTTOM BRACKET CUPS

When a bike frame is manufactured, the bottom bracket shell is often deformed. In addition, paint residue is often left on the edge of the shell and on its threads. Therefore, in order to prevent the bottom bracket (bb) cups from being twisted off their ideal working axis, it is necessary to face and tap the bb shell (unless this operation has been performed by the frame manufacturer).

- Make sure that the threads (A - Fig. 1) of the bb shell are compatible with the threads of the bb cups:

- **Italian thread:** 36x24 tpi

- **English thread:** 1.370x24 tpi

- True the thread (A - fig.1) of the cassette using a suitable tool.

- Face the bottom bracket shell (B - Fig. 2) respecting the measures X (Fig. 4 - chapter "INTERFACE WITH THE FRAME"), using a suitable tool.

- Make sure that there is a water draining hole on the bottom of the bb shell. If there is no such hole, do not simply drill one. You must contact the frame manufacturer for further information and clarification in this regard.

- Clean and degrease the threads of the bb shell. (Fig.3)

IMPORTANT

To know which bottom bracket cups are best suited for you, see the bottom bracket cup / crankset compatibility table on page 1.

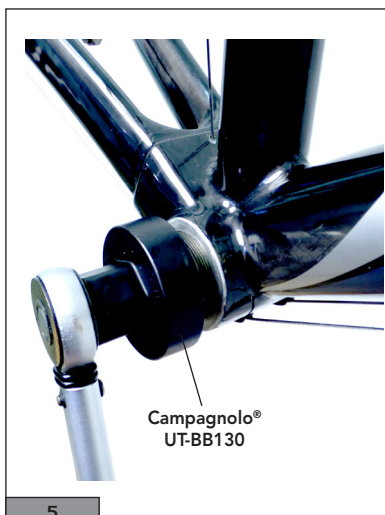
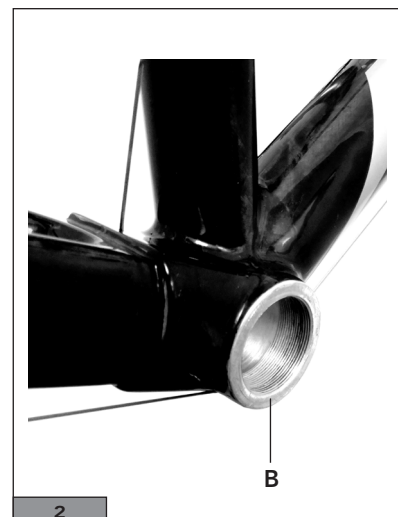
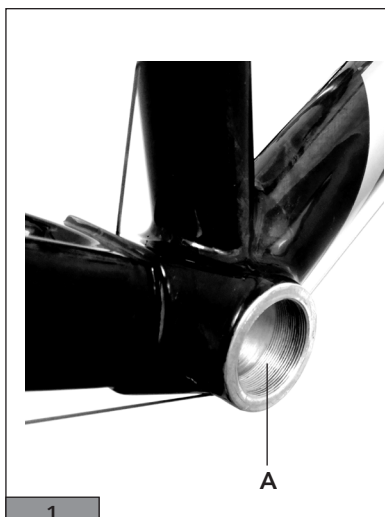
- Take the bb right cup, screw it in fully (Fig. 4) and tighten at **35 Nm (310 in.lbs)** with the Campagnolo UT-BB130 tool and the torque wrench (Fig. 5).

CAUTION

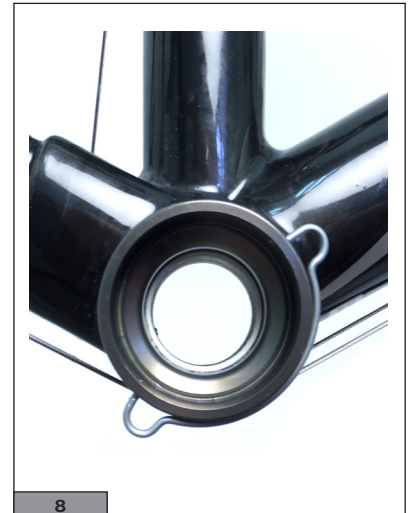
The right hand bottom bracket cup with English thread is a left hand thread.

- Repeat the previous step with the left cup.

- Make sure that the bearing set are correctly greased (Fig. 6).



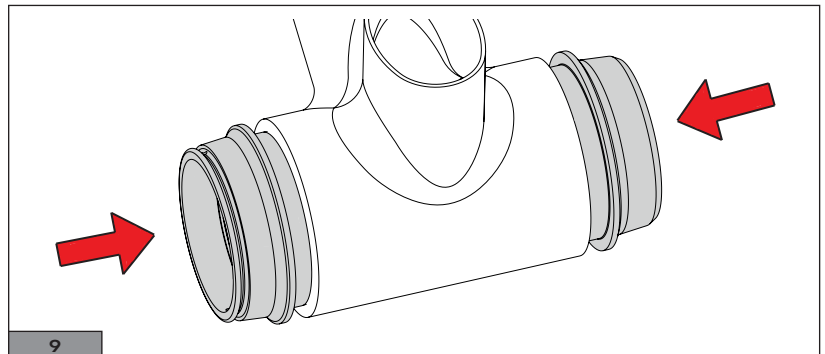
- Identify the two holes in the groove of the right-hand cup (Fig. 7).
- Position the retaining spring so that the two ends are near the holes (Fig. 8). Do not insert the spring fully.



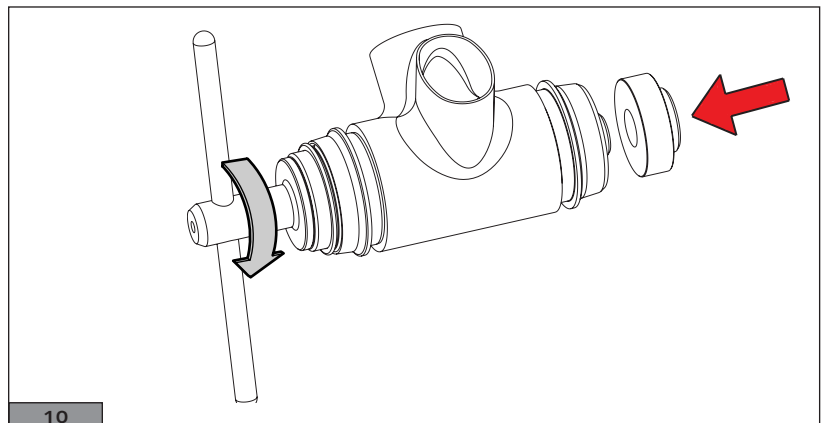
4.2 - MOUNTING OS-FIT BOTTOM BRACKET CUPS

4.2.1 - MOUNTING OS-FIT BOTTOM BRACKET CUPS: STANDARD PROCEDURE

- Press both bottom bracket cups into the bottom bracket until the bottom bracket cups encounter resistance and the O-ring enters the bottom bracket itself and is no longer visible (Fig. 9).

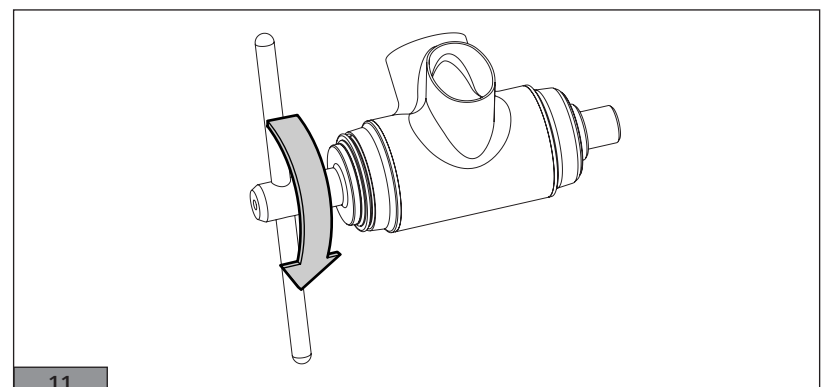


- Engage the tool UT-BB140 into the right hand bottom bracket cup to bring it into contact with the inner surface in the bottom bracket cup.
- Tighten the tool UT-BB140 into the left hand bottom bracket cup to bring it into contact with the bottom bracket cup itself (Fig. 10).

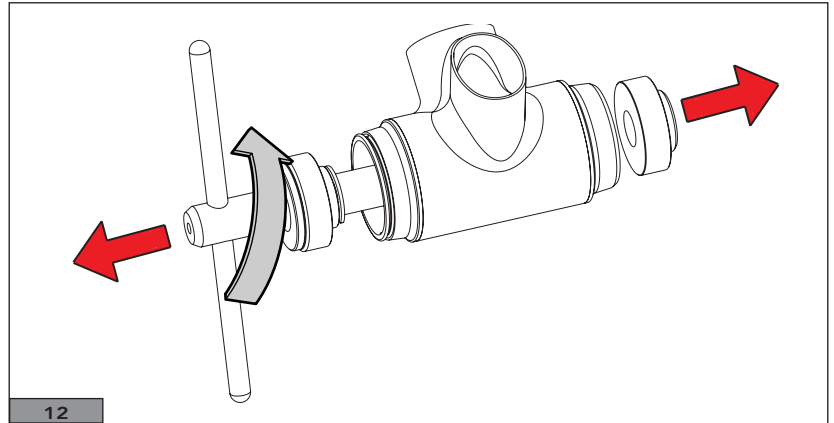


- Turn the lever of tool UT-BB140 clockwise until both bottom bracket cups are flush with the bottom bracket (Fig. 11).

Before removing the tool, check that the bottom bracket cups are installed correctly on the bottom bracket (Fig. 11).



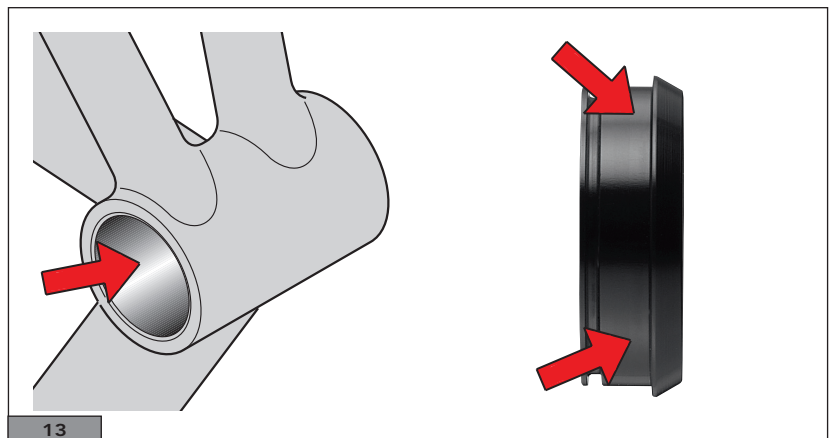
- Turn the lever of tool UT-BB140 anticlockwise to unscrew the left hand bottom bracket cup completely, then remove the screw (Fig. 12).



4.2.2 - MOUNTING OS-FIT BOTTOM BRACKET CUPS: PROCEDURE WITH GLUEING

. If the pairing complies with the specifications (indicated in Fig. 1 - Fig. 2 and Fig. 3 - Section 3), operation is ensured by the reciprocal dimensions. In the event that the bottom bracket shell does not comply with the foreseen tolerances, or in case of doubts, we recommend glueing the bottom bracket cups to the bottom bracket cup shell, following the procedure shown below.

- Thoroughly clean the inner surfaces of the bottom bracket shell which will mate with the bottom bracket cups (Fig. 13) with isopropyl alcohol and a cloth. Leave to dry completely.



- Thoroughly clean the outer surfaces of the bottom bracket cups (Fig. 13) with isopropyl alcohol and a cloth, and leave to dry. Do not touch the cleaned surfaces.

- To accelerate the curing time of the Loctite adhesive which will be used later in the procedure, apply Loctite Primer 7471 or Loctite Primer 7649 on all the surfaces of the bottom bracket shell which will be in contact with the bottom bracket cups (Fig. 14). Leave to dry for approximately 5 minutes then clean off any excess primer with isopropyl alcohol.



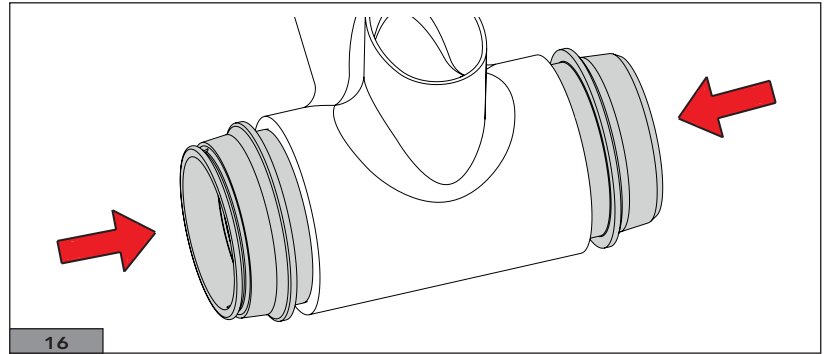
- Repeat the previous procedure on the outer surface of the bottom bracket cups and leave to dry for approximately 5 minutes.

- Use a brush to carefully apply Loctite 603 (quicker drying) or Loctite 609 on the outer surfaces of the bottom bracket cups (Fig. 15).

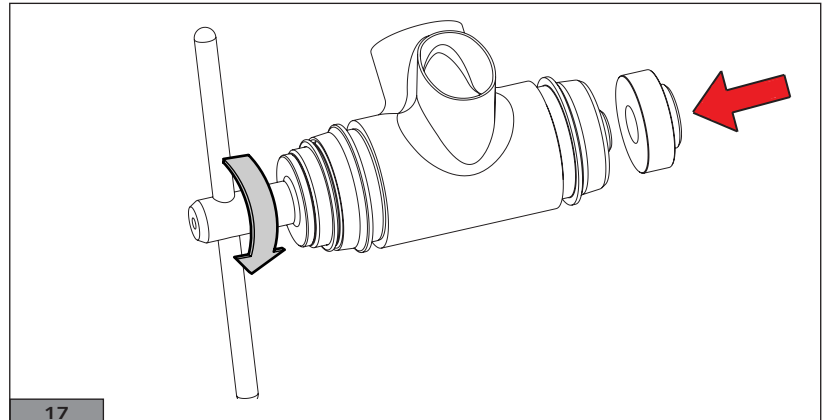
- Clean the brush after use with isopropyl alcohol.



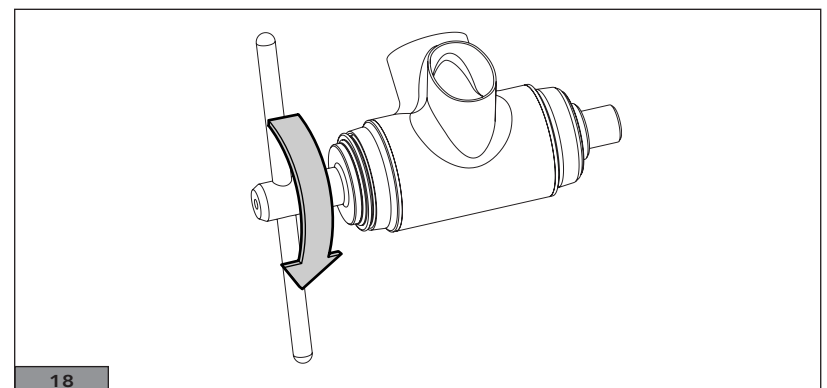
- Press both bottom bracket cups into the bottom bracket until the bottom bracket cups encounter resistance and the O-ring enters the bottom bracket itself and is no longer visible (Fig. 16).



- Engage the tool UT-BB140 into the right hand bottom bracket cup to bring it into contact with the inner surface in the bottom bracket cup.
- Tighten the tool UT-BB140 into the left hand bottom bracket cup to bring it into contact with the bottom bracket cup itself (Fig. 17).

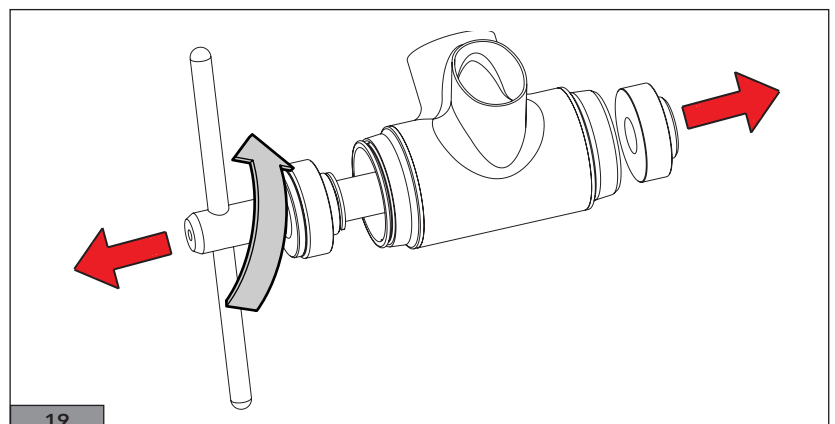


- Turn the lever of tool UT-BB140 clockwise until both bottom bracket cups are flush with the bottom bracket (Fig. 18).



Before removing the tool, check that the bottom bracket cups are installed correctly on the bottom bracket (Fig. 18).

- Turn the lever of tool UT-BB140 anticlockwise to unscrew the left hand bottom bracket cup completely, then remove the screw (Fig. 19).
- Clean off any excess Loctite with isopropyl alcohol and wait approximately 24 hours before using the bicycle to be sure that the adhesive has cured completely.



5 - MAINTENANCE

- Maintenance intervals are purely indicative and may be significantly different in relation to conditions of use and the intensity of your activity (for example: racing, rain, salted Winter roads, weight of the rider etc.). Check with your mechanic to select a schedule that is best for you.

OPERATION	DISTANCE KM (MAX)	TIME (MAX)	DETAILED INDICATIONS
ULTRA - TORQUE™			
check bearing sliding and replacement if necessary, grease semi pivots, bearing housings	6000		USB bearings
cleaning and lubrication with synthetic oil	12.000	12 months	CULT bearings
check bearing sliding and replacement if necessary, grease semi pivots, bearing housings	4.000	6 months	STANDARD bearings
POWER - TORQUE™ / POWER - TORQUE+™			
Check bearing sliding and replacement if necessary, grease pivot, bearing housings	4.000	6 months	

- To replace the bearings, contact a Campagnolo Service Center.
- Only clean the crankset and the cups using specific products for cleaning bikes. Never use solvents and non-neutral detergents.
- Salt, mud and sand seriously damage bicycles and their components. Thoroughly rinse, clean and dry your bike after using it in these conditions.
- 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.
- Do not expose the products to high temperatures, do not leave them closed in cars parked in the sun, do not store them near radiators or other heat sources, do not store carbon or plastic products in direct sunlight.