

USER MANUAL

KAPPSTEIN DOPPIO CX GEARBOX

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CONTACT

SERVICE/COMPLAINT PROCESSING

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e-mail: service@kappstein.de

PURCHASE SPARE PARTS & TOOLS

web: www.kappstein.de/shop
e-mail: info@kappstein.de



1. DOPPIO CX - BASIC INFORMATION

You have chosen Kappstein's „Doppio CX“, one of the most innovative solutions for gearboxes available on the market. The compact 2-speed planetary gearbox, made of hardened steel, consists of 6 planet gears and is characterized by less wear and a high level of durability.

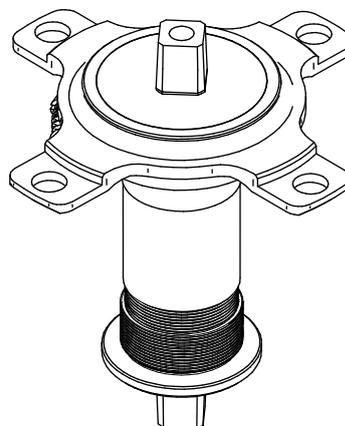
The Doppio CX is compatible with all BSC/BSA-bottom bracket shells from 68-73mm and can be combined with nearly all chainrings, chains, cranks or belt drives due to its slim design, the standardized bolt circle and the JIS-square taper. The innovative Kappstein Shifter and the engraved Kappstein cranks are perfectly matched to the Doppio and combine design with innovative technology.

IMPORTANT INSTRUCTIONS

- 1 Always follow only this installation guide. If you are unsure at any point, or unable to continue assembling, disassembling, or troubleshooting, please contact our service staffs.
- 2 Before installing the Doppio always ensure that all threads are precisely cutted and cleaned. If screwing together is difficult, the thread of the bottom bracket needs to be cut again with a thread cutting tap.
- 3 Pay attention to the default settings for the torque. If the values are not reached, the position of the Doppio may change while riding. The length of the shifter cable could then no longer be sufficient and might harm to the shifting system or the Doppio.
- 4 Basically, the gear ratio may vary. Nevertheless the ratio should not exceed the maximum value of 2.09.
- 5 Always ensure that the chainline/beltline is correct. Avoid using spacers except the spacer, that are included in the delivery.
- 6 Avoid changing gears of the Doppio under load. In the long run this might harm the gear box.

SPECIFICATIONS

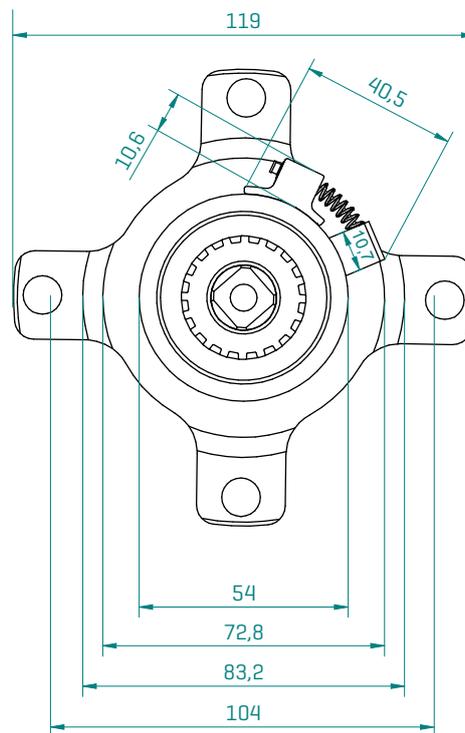
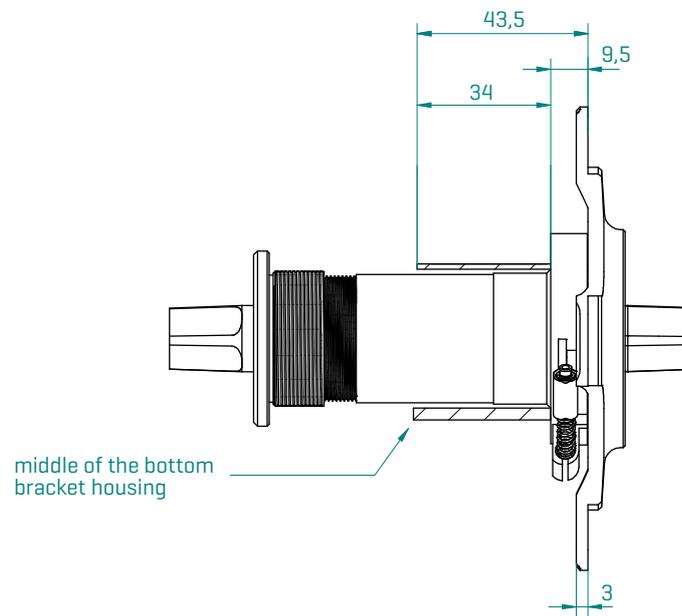
GEARS	2
GEAR RATIO	1:1,57
BB WIDTH	68-73mm
CHAINLINE	43,5mm for 68mm 46mm for 73mm
BOLT CIRCLE	4x104mm
WEIGHT	4x104mm: 735g
SHIFTING TYPE	wire shifter
APPLICATION FIELD	Urban/City/Trekking/E-Bike



2. SAFETY INSTRUCTIONS

- 1 Compliance with the following provisions is a prerequisite for accident-free use and faultless functioning.
- 2 Incorrect handling, installation, maintenance or servicing can lead to accidents causing severe injuries.
- 3 Assembly and maintenance of the Doppio requires a basic knowledge of handling bicycle components. If in any doubt, please consult your retailer or our service team.
- 4 The Doppio should be used only in accordance with its intended purpose.
- 5 The Doppio must be compatible with all parts of the bicycle.
- 6 The Doppio must not be changed or modified. Only use Kappstein spare parts and tools that are recommended by Kappstein for service/maintenance.
- 7 The Doppio must not be used if it is damaged or if there are any signs of a damage. If in any doubt, consult your retailer or the Kappstein service team.

3. DIMENSIONS



4. DELIVERY CONTENT



1 x Doppio CX
bottom bracket system
1 x threadshell



2 x cranks (l/r)
2 x screws (M8 x 25)

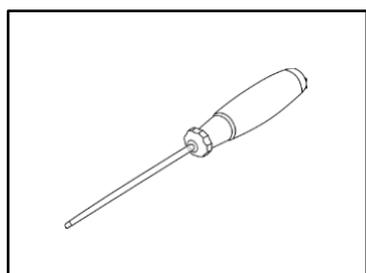


1 x shifter
1 x bowden cable
1 x outer casing
1 x end cap

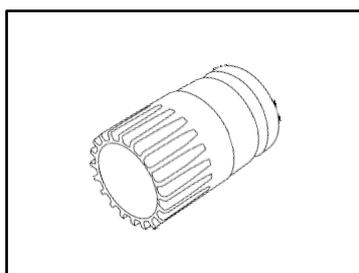


2 x washer:
1 x 0,25mm
1 x 0,5mm

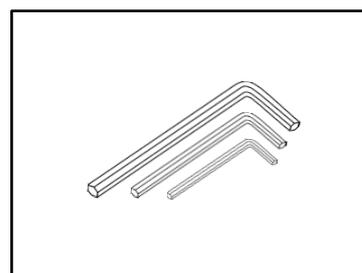
5. REQUIRED TOOLS



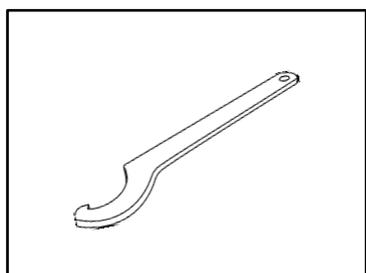
2MM SLOTTED
SCREWDRIVER



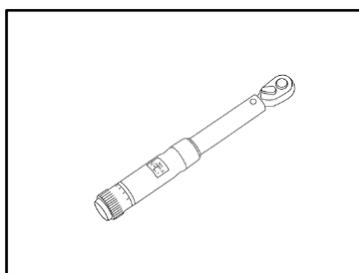
CARTRIDGE TOOL/
BOTTOM BRACKET TOOL



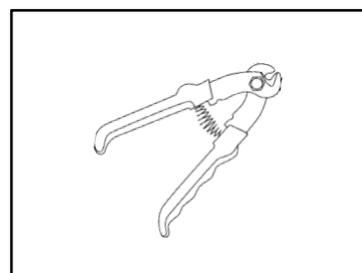
ALLEN KEY-SET



58-62MM C-WRENCH



TORQUE WRENCH



BOWDEN CABLE CUTTER

SPARE PARTS AND TOOLS

POS	DESCRIPTION	ITEM NUMBER
1	Kappstein c-wrench	100380
2	Doppio shifter [incl. bowden cable]	100505
3	Doppio cranks	100502
4	Doppio washer	101226

6. INSTALLATION-GUIDE

STEP 1: INSTALL THE THREADSHELL AND THE GEARBOX TO THE BOTTOM BRACKET

1. Remove the screws, the threadshell and the spring from the Doppio. Screw in the threadshell (right-hand thread) into the left side of the bottom bracket. Use fitting lubricant on both sides. Tighten the threadshell using the bottom bracket tool as well as the torque wrench (20-25Nm).
2. Insert the Doppio (right-hand thread) on the drive side of the bottom bracket and screw it hand tight into the threadshell.
3. Use the c-wrench/torque wrench to tighten the Doppio with 40Nm.

NOTE! It's essential to read through the remarks about the correct use of the c-wrench on page 12 in the appendix.

4. Check the positioning of the bowden cable holder. The clamping device [A] should be in alignment with the seat tube (approx. 6 o'clock position).

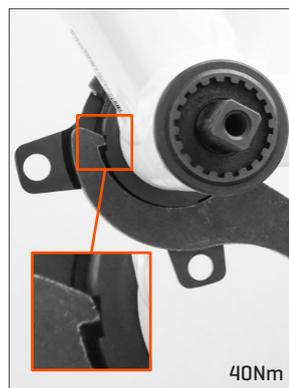
NOTE! The position can be adjusted by using the washers. In order to be able to place the washers, you must unscrew the Doppio. The washers can be placed onto the bottom bracket without further mounting. Use the 0.25mm for a turn of the bowden cable holder counterclockwise by approx. 90°, the 0.5mm approx. 180° or both washers for a turn of approx. 270°.



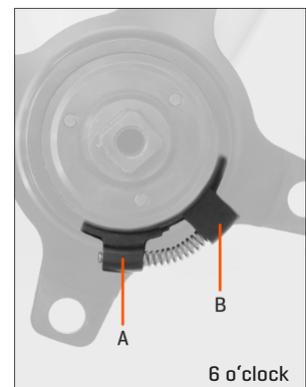
1.



2.



3.



4.

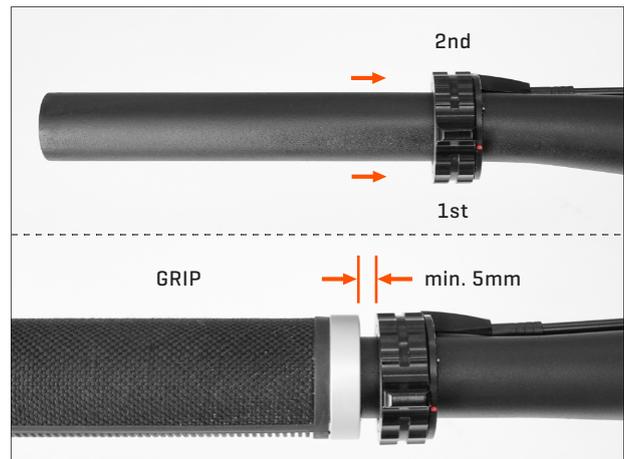
STEP 2: INSTALL THE SHIFTER

- Slide the shifter onto the handlebar (left side). Make sure, that the distance to the handle grip is at least 5mm. The red dot should be at the 11 o'clock position. Now carefully tighten the larger screw with an 2mm allen key just so tight that the shifter can no longer be twisted.
- Move the shifter to the 1st gear/tension mode (figure 5.). Ascertain the required length of the outer casing of the bowden cable. Now shorten the outer casing to it's desired length.

NOTE! Make sure that you have completed these steps before attaching the cable to the bowden cable holder [B].

STEP 3: INSTALL THE BOWDEN CABLE

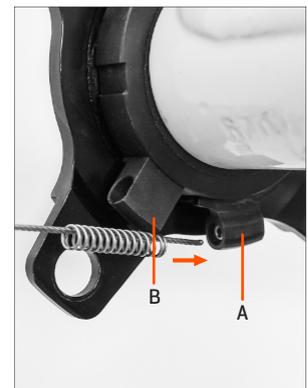
- Lead the bowden cable through the spring.
- Slide the bowden cable through the hole of the clamping device [A]. The clamping device clamps automatically. (to remove, see point 6, deinstallation.)
- Tension the spring between A and B and insert the bowden cable into the cable holder [B]. Insert the outer casing into the cable holder [B].
- Hold the bowden cable and move the clam-ping device [A] towards cable holder [B] so that the spring is tensioned. Now pull the bowden cable as far as it will go. The clam-ping device is automatically clamped. Make sure that the bowden cable fits correctly on both, the shifter and the Doppio.



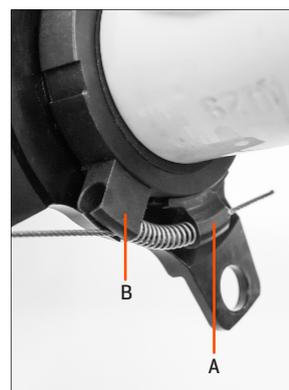
5.



7.



8.



9.



10.

NOTE! When cutting the outer casing of the bowden cable, make sure that it is not under tension between the cable holder (B) and the shifter.

STEP 4: CRANK ARMS & CHAINRING

NOTE! For safety reasons, the bowden cable behind the clamping device (A) should not exceed a length of 2.5cm. This prevents that the bowden cable jams between the chainring and the chain.

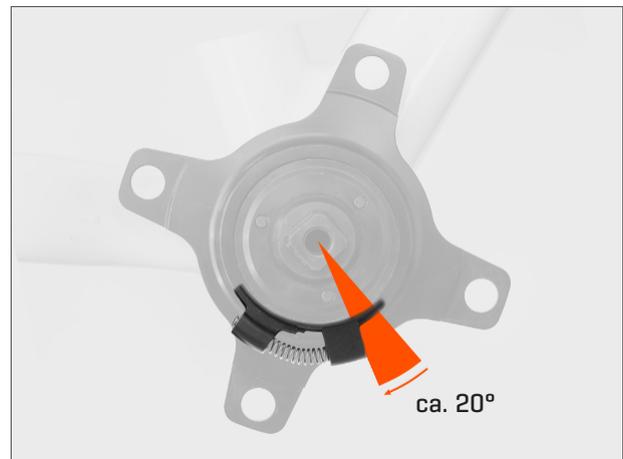
11. The Doppio is in the 1st gear. At this point, perform a functional check by turning the shifter up and down. Now use the wire cutter to shorten the bowden cable and fix the enclosed end cap.

12. Install the chainring (not included).

13. Fasten the cranks on the Doppio with ca. 16Nm using the enclosed screws and an 8mm allen key.

NOTE! The left and right crank arms differ. Crank arm "L" is provided for mounting to the non-drive side (threadshell) and crank arm "R" for mounting to the drive side. (see figure on top of this page)

14. After mounting the chain/belt and the pedals, put a weight onto the Doppio during a test ride. It is to be expected that the switching device will rotate about approximately 20° to its end position.



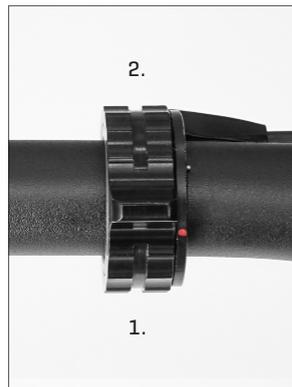
14.

7. DEINSTALLATION-GUIDE

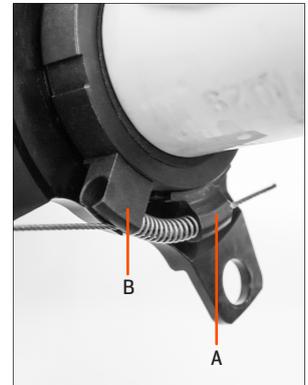
NOTE! Do not start with the thread shell. This could cause damages to the thread.

STEP 1: REMOVE CHAIN, CHAINRING, CRANKS

1. Release chain/belt tension and remove the chain/belt.
2. Uninstall the chainring/front sprocket.
3. Uninstall the crank arms.



4.



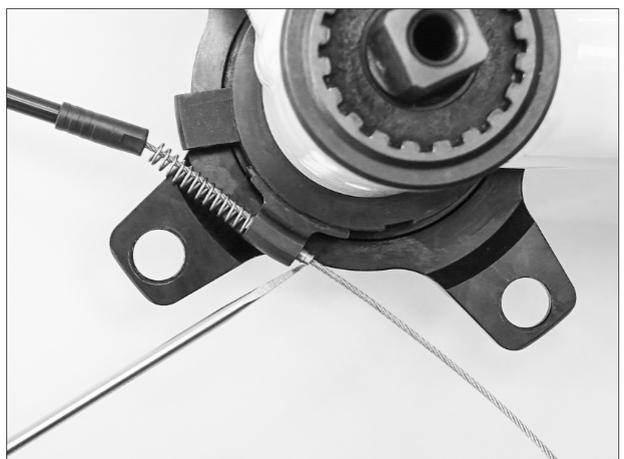
5.

STEP 2: RELEASE THE BOWDEN CABLE

4. Move the shifter to the 2nd gear.
5. Remove the outer casing and lead the bowden cable back through the slot of the cable holder [B]. Unclamp the spring from its holder.
6. Unlock the clamp [A] by carefully pressing the mechanism with a 2mm slotted screwdriver until the silver tube is visible behind the clamping mechanism. Alternatively, pull out the tube as shown in figure 6.b. The clamping mechanism is now released. Pull out the bowden cable, while pressing.



6.a



6.b

9. TROUBLESHOOTING

1 You are unable to switch between the gears.

May be the shifter was not in the first gear [see point 5, installation guide]. In this case, release the bowden cable from the clamping device with a thin screwdriver [see point 6, deinstallation] and pull it back a little. Now switch the shifter to the 1st gear [tensioned mode] and repeat step 3 of the installation-guide.

Another reason for shifting problems can be the wrong position of the bowden cable holder/ clamping device. This can lead to resistance or malfunction during the shifting process. To solve the problem, the bowden cable must be readjusted. Follow the instructions from the beginning and pay attention to the instructions in the appendix. If you still need help, please contact our service team.

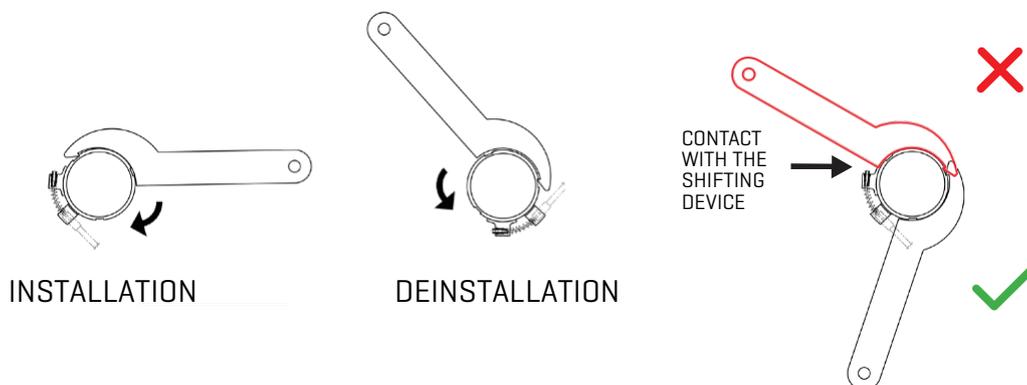
Please check if the cable and shifter have been installed correctly. Check the length of the bowden cable and the outer casing of the bowden cable. Make sure that sufficient space is available for the entire cable, and that no tensions occur at all. Another reason could be a too tight shifter. Loosen the screw and only tighten it that much, that the shifter can not slip during the shifting process.

Check the position of the bowden cable holder [B] [see point 4, installation]. An incorrect position could cause damages to the shifting system and the Doppio.

Changes in the switching process can also be an indication of the slipping of individual components.

2 Problems when tightening the doppio.

When mounting the Doppio using the c-wrench [step 3, installation; point 7, deinstallation] note, that only the tools supplied by Kappstein [or appropriate] should be used. An infringement could result in damage to the switching device. It's important to ensure that the c-wrench does not touch the switching device while tightening. [see figure below]



10. WARRANTY

- 1 Starting from the date of purchase, there is a two-year legal guarantee on material and manufacturing defects.
- 2 Any contradictory or extended national rights of the purchaser are not affected by this warranty.
- 3 Place of performance and jurisdiction is Jena/Germany. German law shall apply. If you have a warranty claim, contact your dealer or the service staffs of the Kappstein GmbH & Co. KG.
- 4 Any defects recognised by Kappstein GmbH & Co. KG as a warranty claim will be repaired or replaced by our in-house service team.

11. DISCLAIMER

- 1 The Doppio CX is designed for the use on urban & city bikes only. Kappstein assumes no liability in case of improper use or use for application fields such as road/gravel (derailleur gear), mtb/enduro or freeride/downhill.
- 2 The Doppio gearbox may only be opened and maintained by Kappstein or authorized dealers. Kappstein assumes no liability in case of an infringement of this manufacturer's requirement.
- 3 Setting the correct position of the clamping device/bowden cable holder is critical and requires attention to technical details. An incorrect mounting position can cause resistance during the shifting process and could damage the Doppio. Due to improper mounting the Doppio could be displaced or detached while driving, which can cause damages. Kappstein assumes no responsibility for damages resulting from incorrect installation or position adjustments.
- 4 Kappstein assumes no responsibility for the use of inappropriate tools. For installation/deinstallation, only use the tools specified in this manual.

THERE IS ALSO NO WARRANTY CLAIM IN CASE OF:

- 1 normal wear and tear of wearable parts,
- 2 improper use, care or negligence,
- 3 non-observance of instructions for use,
- 4 improper repair, assembly or maintenance work,
- 5 use of non-original spare parts and accessories,
- 6 use of non-compatible components,
- 7 modification of any components,
- 8 usage outside of the intended purpose [e.g. MTB, derailleur gear],
- 9 damages due to accidents or consequential damages,
- 10 damages due to delivery and transport,
- 11 obscuring or removing the serial number,
- 12 commercial use or use in sports competitions.

We hope you enjoy your Kappstein product!

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