

Micanda

The European Bike Fundamentals.

Dealer's Manual Specifications & Technical documents



Micanda

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To ensure safety

Important notice

This Dealer's Manual is intended to be used only by professional bicycle mechanics.

Users who are not a professional bicycle mechanic or otherwise suitably qualified, should not install the components by themselves.

If anything in this Dealer's Manual is unclear to you, before or during installation, stop the installation and contact Miranda at mirandabikeparts.com/en/contacts

For safety reasons and proper functioning of the components, please strictly follow the instructions of this Dealer's Manual.

Please make sure the user thoroughly reads and follows the User's Manual belonging to this product.

The User's Manual is included with the product and can be downloaded at <https://mirandabikeparts.com/en/downloads>

At all times make sure you wear appropriate or legally required personal protective equipment while installing bicycle parts.

For the classification of product hazards, we use the following definitions:



DANGER is used to indicate a hazardous situation which, if not avoided, will result in death or serious injury.



WARNING is used to indicate a hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION is used to indicate a hazardous situation which, if not avoided, could result in minor or moderate injury.

Important safety information

WARNING

Improper installation of MIRANDA parts may cause an unexpected failure of the parts or the bicycle.

Only use MIRANDA parts in combination with compatible parts.

Do not touch a rotating chainring.

Keep objects and body parts away from a rotating chainring.

Do not modify the product.

Do not use a damaged chainring (other than by normal wear and tear).

CAUTION

Be careful not to let your clothing, laces or any other object get caught in the chainring while riding.

Do not touch the teeth of a chainring. They can be sharp.

Make sure to use the correct chainline as specified in the instruction manual of the bicycle. Incorrect chainline can damage the chainring, chain, the entire drive train and bicycle frame, and the rider may fall and be injured.

Notice

A chainring is subject to wear and tear depending on its use.

The proper functioning of the chainring in combination with the chain and other parts of the drivetrain must be tested before riding the bicycle.

To ensure the best performance, use only a chain that is compatible with the chainring.

To protect the chainring from damage in case of striking an object, we recommend using a bash guard or skid plate.

Clean the chainring with a neutral detergent regularly, preferably after each ride, to extend its life and enhance its functioning.

Clean the chain with a neutral detergent regularly and lubricate it, to extend its life and enhance its functioning.

Checks before riding the bicycle

Before riding the bicycle, please check the following items. If any problems are found, please make sure to solve them.






- Are any damages visible on the chainring, e.g. cracks, broken or bent teeth or deformations?
- Is shifting gear going smoothly?
- Is pedaling going smoothly?
- Do you hear any abnormal sound while riding?

Compatibility













Cranks

Crank	Interfaces available
Alpha	ISIS  BNI   
Beta	ISIS  BNI   
Gamma	ISIS  BNI 
Delta	ISIS  BNI   
Classic	ISIS  BNI   
Psi	ISIS  BNI   
Epsilon	ISIS  BNI   
Omega	ISIS  BNI   
Kappa	ISIS  BNI   
Elegance	
Iota	ISIS  BNI   
Lambda	ISIS  BNI   
Zeta	ISIS  BNI   
Sigma	ISIS  BNI   
Kies	ISIS  BNI   
Strada	ISIS  BNI   
Crius	ISIS  BNI   
Mirage	ISIS  BNI   
Tethys	ISIS  BNI   
Delta LS	
Kronos	
Delta BFG	

Chainrings and spiderless

Tooth profile	Tooth name	Recommended chains	Not recommended
	STANDARD CHAINRINGS	All 7, 8, 9, and 10 speed chains	11, 12 and 13 speed chains
	CHAIN FLOW	All 9, 10 and 11 speed chains	12 and 13 speed chains
	CHAIN FLOW 3D	9, 10, 11 speed chains and Sram Eagle non T-type	Sram Eagle and Road 12 speed T-type, 12 speed Shimano Hyperglide+, KMC DLC and X12 and 13 speed chains
	CHAIN FLOW SE12	designed for Sram Eagle and Road 12 speed T-type, 12 speed Shimano Hyperglide+, KMC DLC and X12	13 speed chains
	CHAIN FLOW CE13	Designed for 13 speed EKAR C13 Campagnolo	-----

List of tools

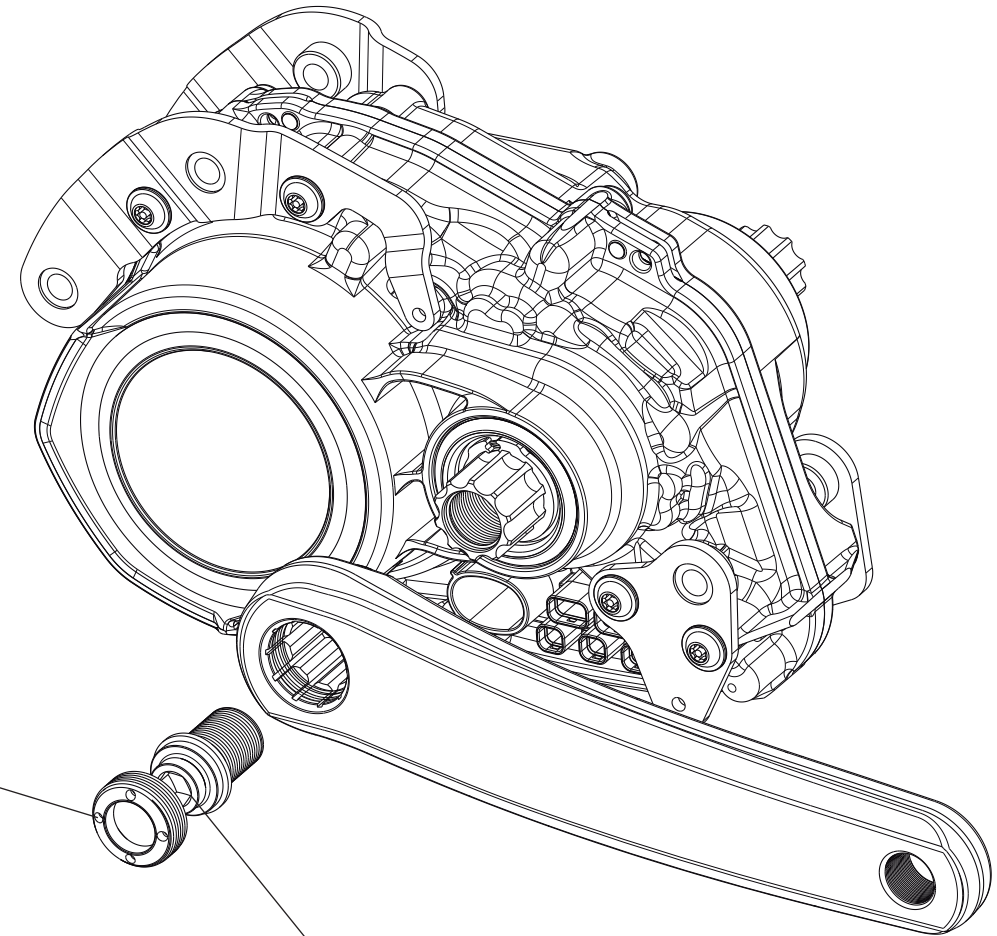
COMPONENT	LOCATION USED/ SCREW TYPE		TOOL
Crank arm	Crank bolts		8mm hex key + torque wrench
	Self-extracting Cap		(2.3mm) Pin spanner
	Crank side screws		5mm hex key + torque wrench
	Crank plastic cap		10mm hex key + torque wrench
	Crank puller + wrench		10mm hex key + torque wrench
Chainring	Lockring G2		Bosch® 0275009003 tool
	Lockring G3 & G4		Bosch® 2123266 tool
	Lockring SH		TL-FC39 tool + torque wrench
	Chainring bolt		6mm hex key + torque wrench
	Chainring nut		Chainring nut wrench
	Directmount chainguard		Cross head screwdriver
Chainguide	Chainguide screws		4mm hex key + torque wrench

Installation and removal of the left crank

If it is not already assembled, prepare the self-extracting crank bolt as illustrated.
If using the plastic cap, just insert the bolt.

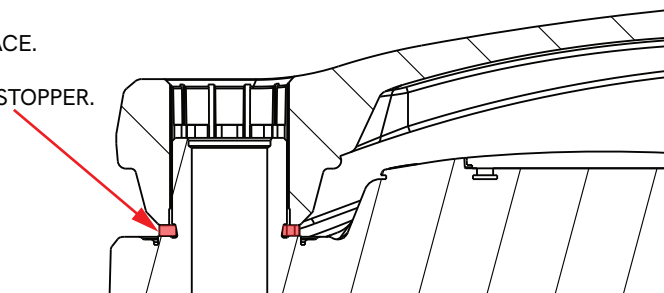
1 - Using the 8mm hex and the torque wrench, tight the ISIS crank at the recommended torque of 57 to 64 N·m.

To remove the cranks, if the self-extracting crank bolt is assembled, just use the 8mm hex key and the crank should pull himself off. In case of the standard plastic cap, after removing the crank, you will need the crank puller to get the crank off.



 **CAUTION**

NOT ALLOWED FREE SPACE.
APPLY TORQUE TILL THE
CRANK CONTACTS THE STOPPER.

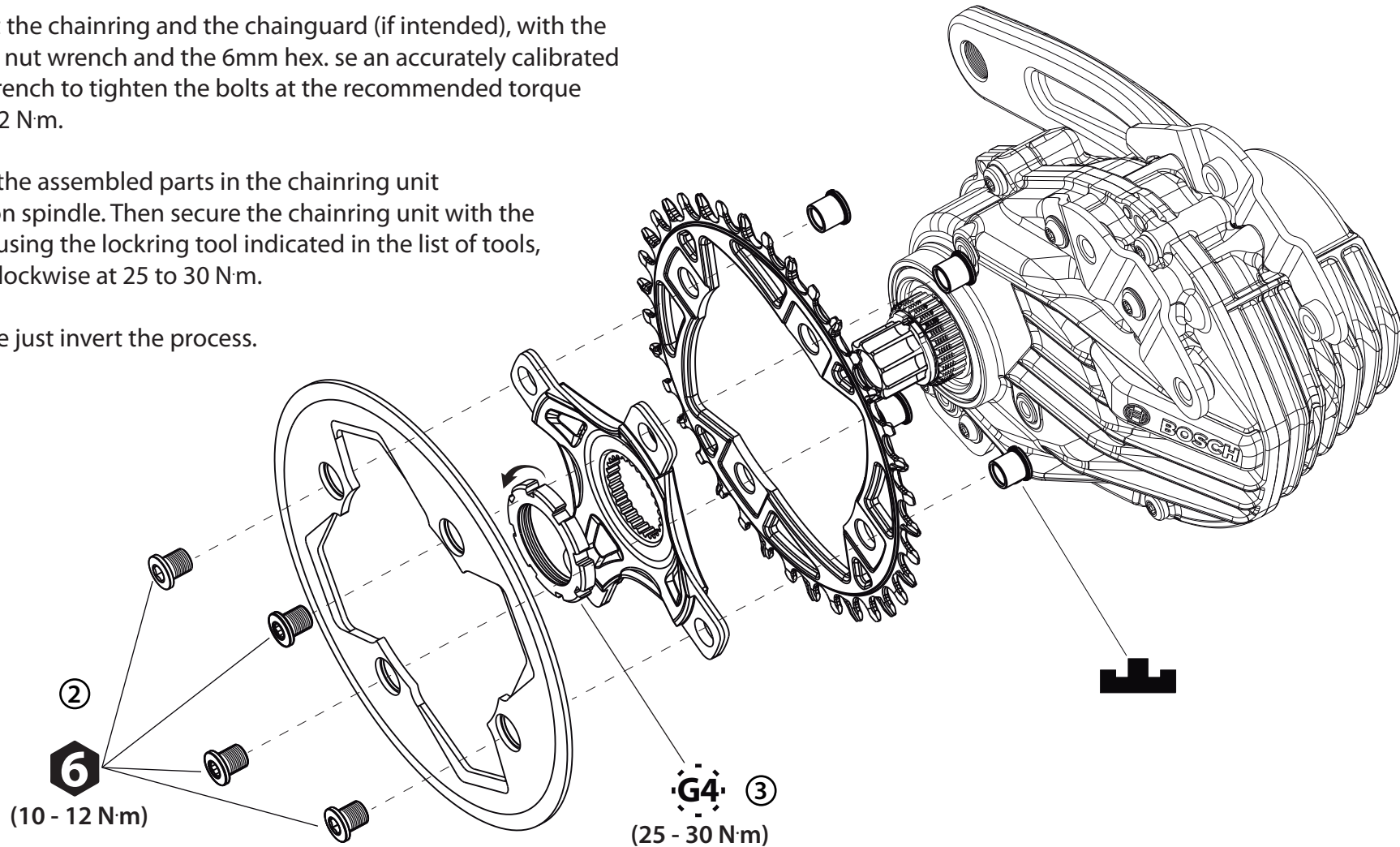


Installation of the spider, chainring and chainguard

2 - Mount the chainring and the chainguard (if intended), with the chainring nut wrench and the 6mm hex. se an accurately calibrated torque wrench to tighten the bolts at the recommended torque of 10 to 12 N·m.

3 - Insert the assembled parts in the chainring unit installation spindle. Then secure the chainring unit with the lockring, using the lockring tool indicated in the list of tools, counter clockwise at 25 to 30 N·m.

To remove just invert the process.

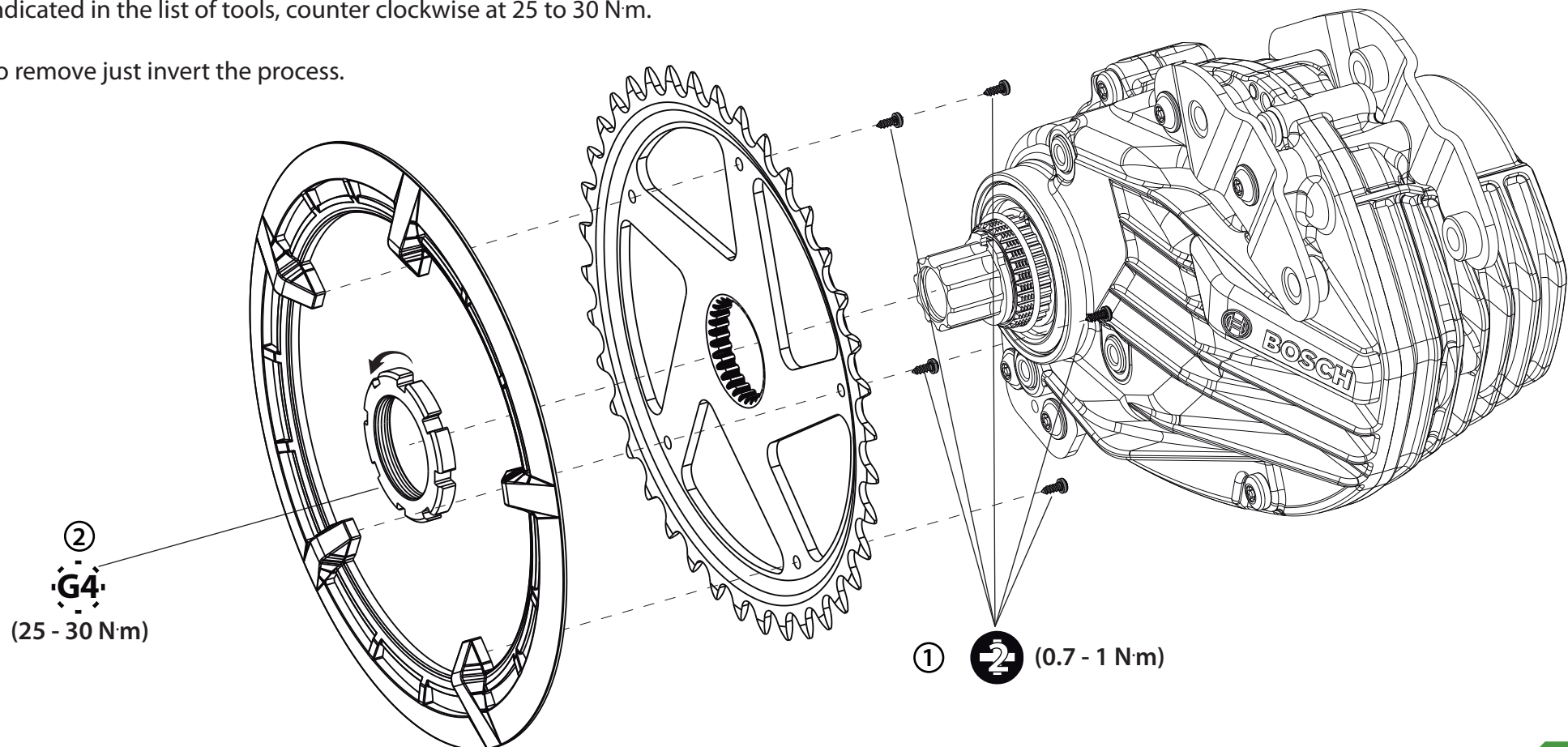


Installation of the spiderless chainring and chainguard

1 - Mount the chainguard (if intended), to the direct mount chainring with the cross head screwdriver, and tight the screws at 0.7 N·m.

2 - Insert the assembled parts in the chainring unit installation spindle. Then secure the chainring unit with the locking tool indicated in the list of tools, counter clockwise at 25 to 30 N·m.

To remove just invert the process.



Installation of the spiderless chainring and chainguard

CAUTION

Assembling the wrong chainline can damage the chainring, chain, and all your drive train, which can cause an accident. Please make sure of the chainline you need, and choose the correct spiderless chainring for your ebike

- Standard 47,5mm;
- Boost 52mm.

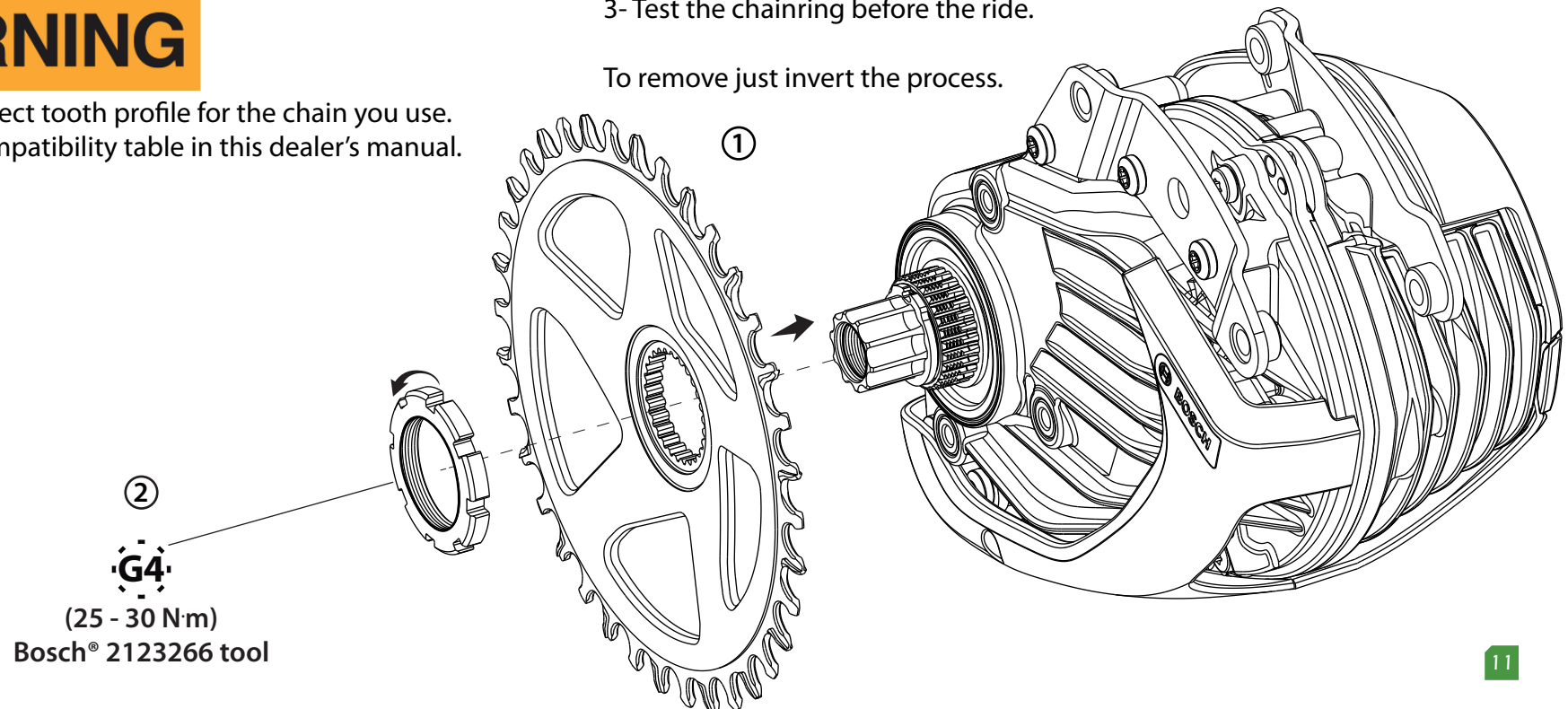
WARNING

Also choose the correct tooth profile for the chain you use. Please check the compatibility table in this dealer's manual.

Follow these steps for the installation:

- 1- Insert the spiderless chainring in the chainring unit installation spindle.
- 2- Then secure the spiderless chainring with the locking, using the locking tool Bosch® 2123266, counterclockwise at 25 to 30 N.m.
- 3- Test the chainring before the ride.

To remove just invert the process.



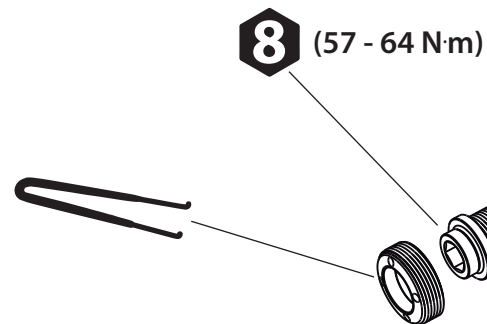
Installation and removal of the right crank

If it is not already assembled, prepare the self-extracting crank bolt as illustrated.

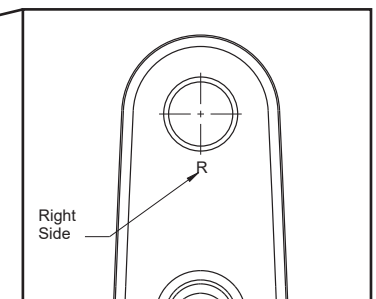
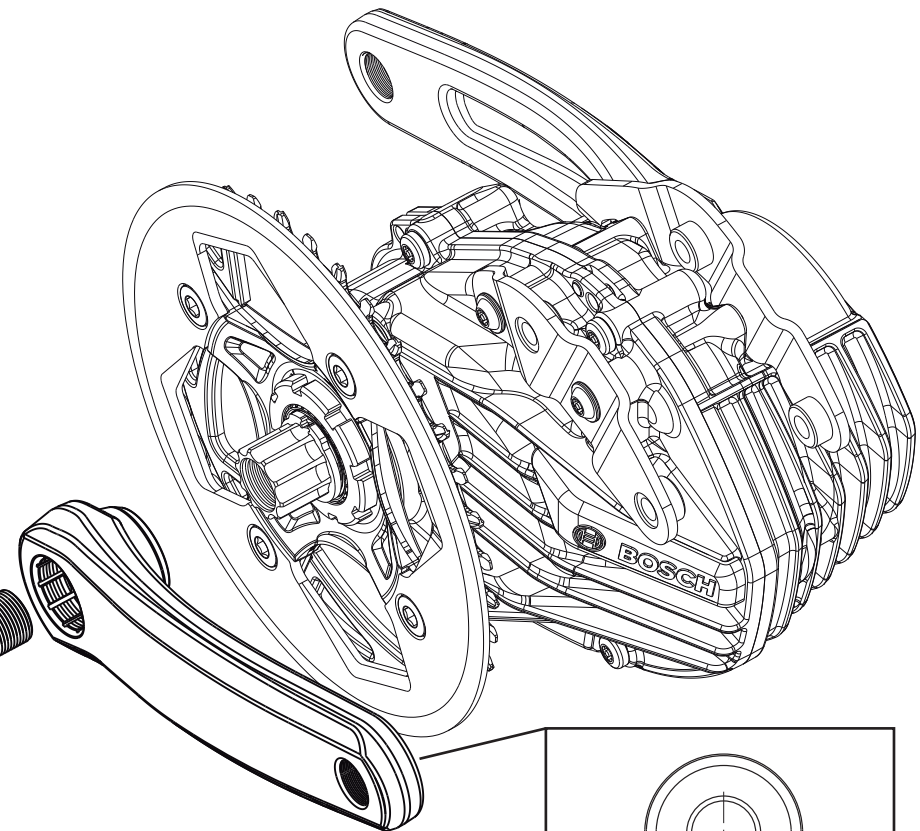
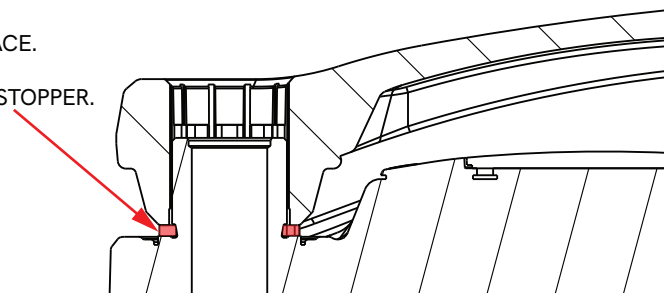
If using the plastic cap, just insert the bolt.

Then using the 8mm hex and the torque wrench, tight the ISIS crank at the recommended torque of 57 to 64 N·m.

To remove the cranks, if the self-extracting crank bolt is assembled, just use the 8mm hex key and the crank should pull himself off. In case of the standard plastic cap, after removing the crank, you will need the crank puller to get the crank off.

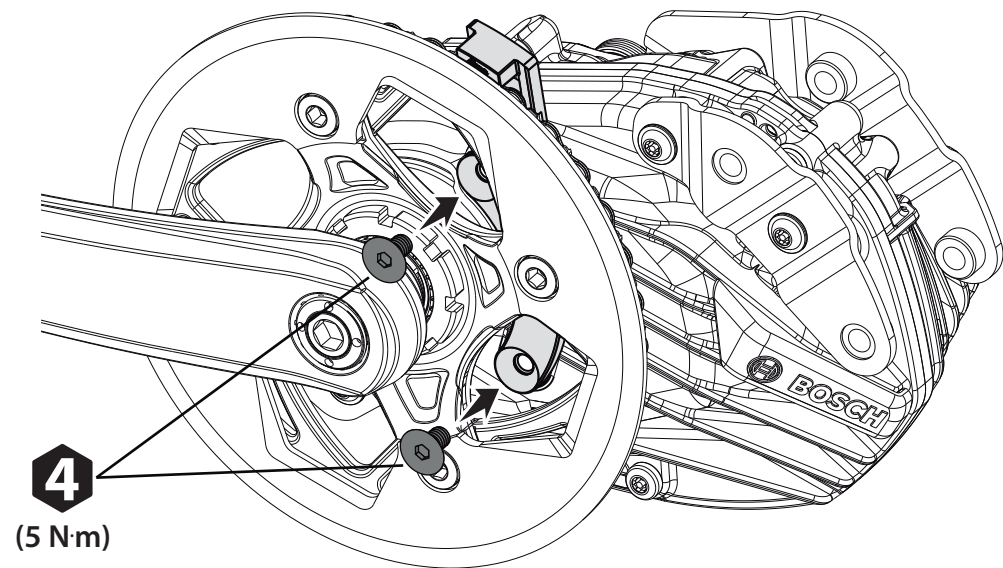
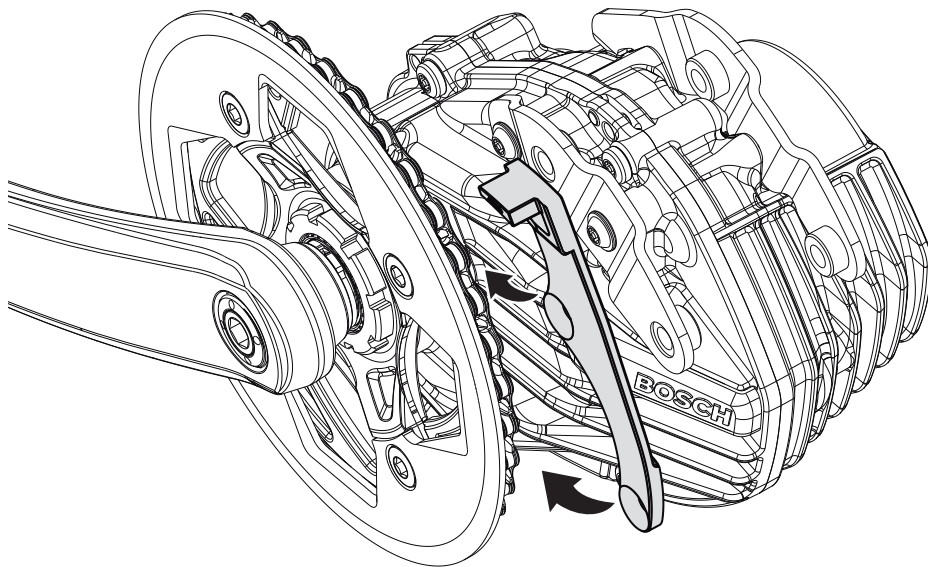


NOT ALLOWED FREE SPACE.
APPLY TORQUE TILL THE
CRANK CONTACTS THE STOPPER.



Installation of the chainguide G4

To install the chainguide just slide it in between the chainring and the motor, until aligned with the mounting holes. Then adjust the crankset until you have space to insert the screws. Tight the screws with the 4mm hex key, at 5 N·m.



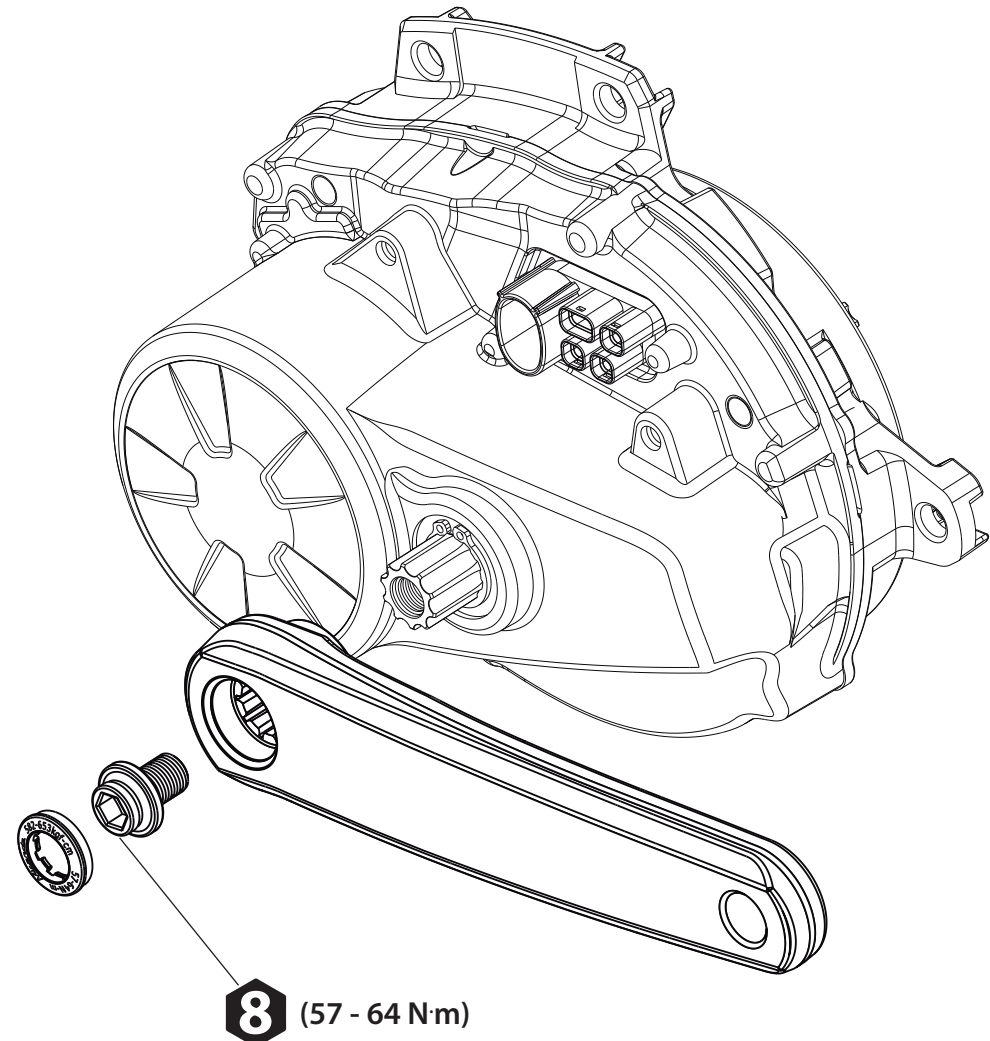
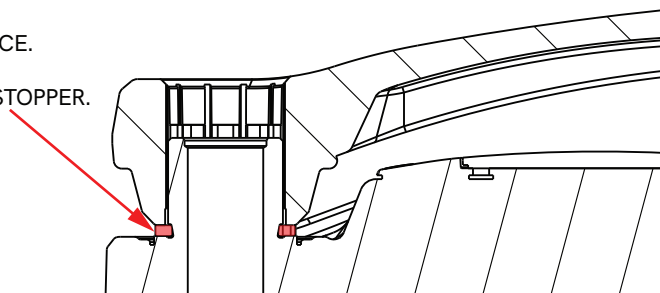
Installation and removal of the left crank

If it is not already assembled, prepare the self-extracting crank bolt.
If using the plastic cap, just insert the cap in the bolt.
Then using the 8mm hex and the torque wrench, tight the BNI crank at the recommended torque of 57 to 64 N·m.

To remove the cranks, if the self-extracting crank bolt is assembled, just use the 8mm hex key and the crank should pull himself off. In case of the standard plastic cap, after removing the crank, you will need the crank puller to get the crank off.

 **CAUTION**

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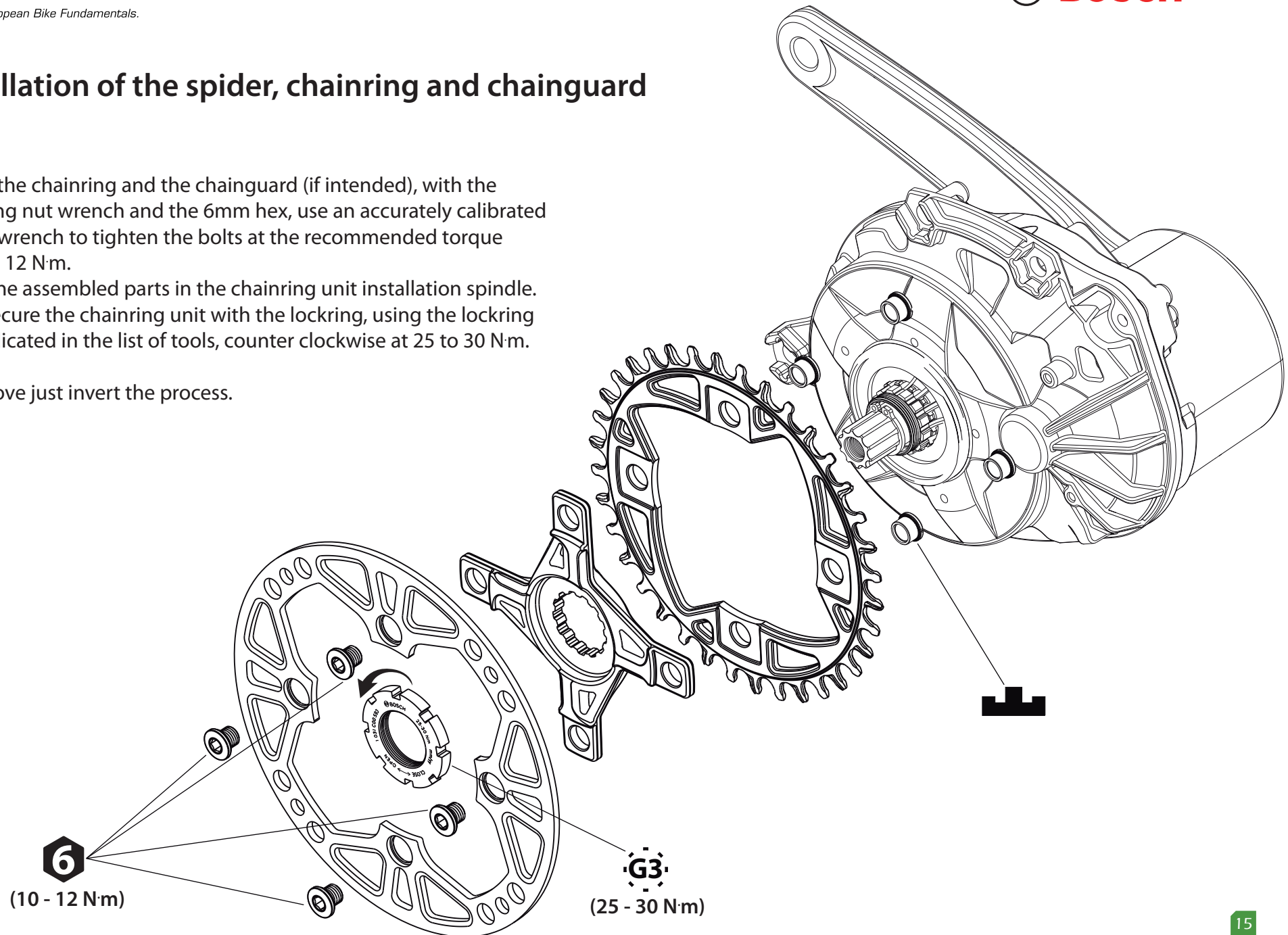


Installation of the spider, chainring and chainguard

Mount the chainring and the chainguard (if intended), with the chainring nut wrench and the 6mm hex, use an accurately calibrated torque wrench to tighten the bolts at the recommended torque of 10 to 12 N·m.

Insert the assembled parts in the chainring unit installation spindle. Then secure the chainring unit with the lockring, using the lockring tool indicated in the list of tools, counter clockwise at 25 to 30 N·m.

To remove just invert the process.



Installation and removal of the right crank

If it is not already assembled, prepare the self-extracting crank bolt as illustrated.
If using the plastic cap, just insert the bolt.

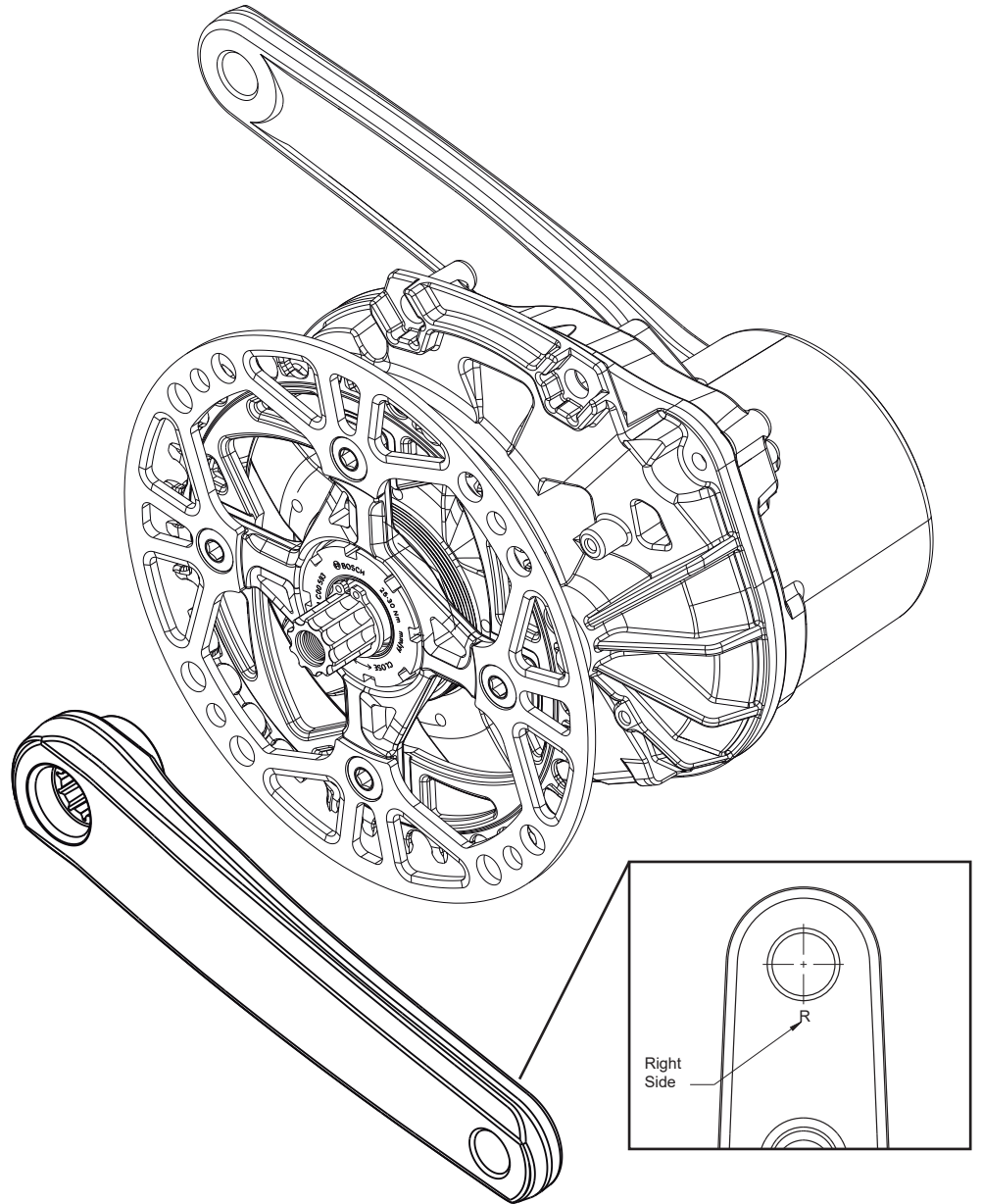
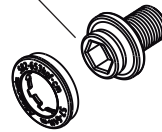
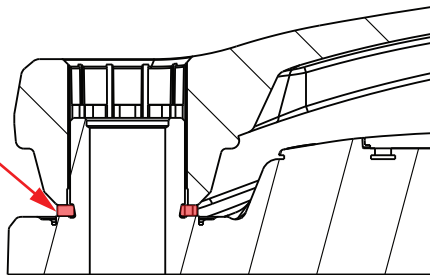
1 - Using the 8mm hex and the torque wrench, tight the ISIS crank at the recommended torque of 57 to 64 N·m.

To remove the cranks, if the self-extracting crank bolt is assembled, just use the 8mm hex key and the crank should pull himself off. In case of the standard plastic cap, after removing the crank, you will need the crank puller to get the crank off.

 **CAUTION**

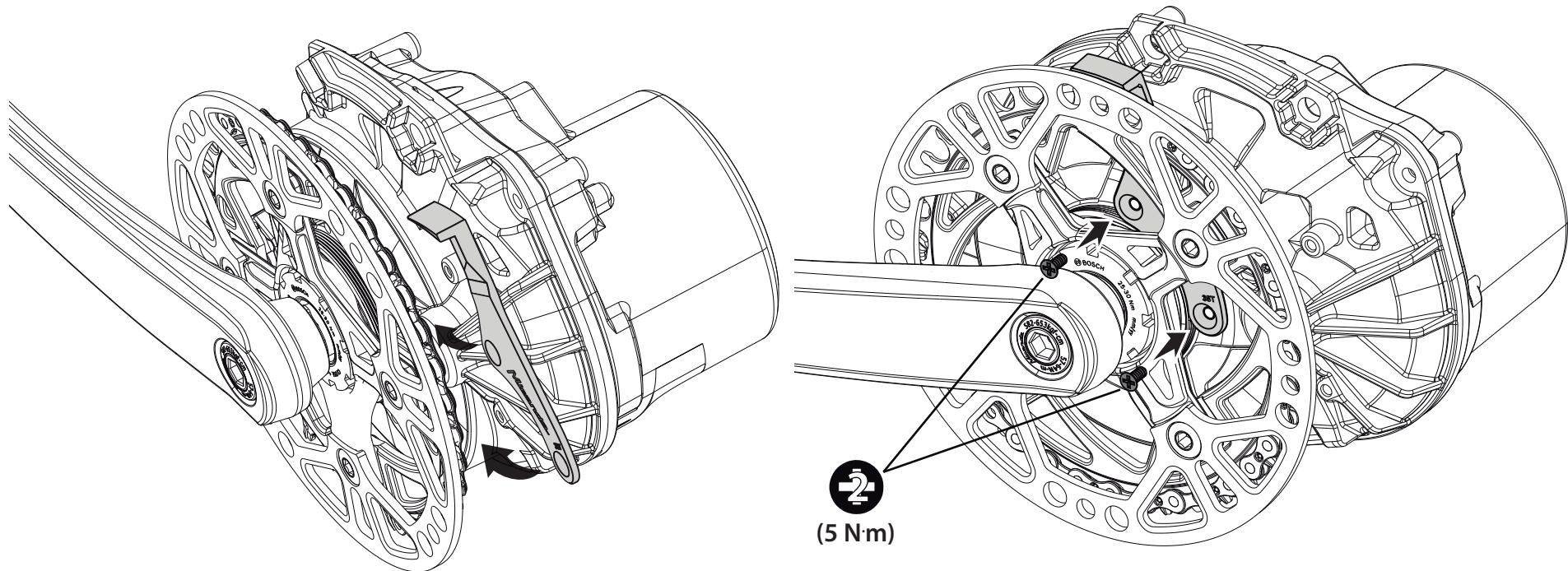
8 (57 - 64 N·m)

NOT ALLOWED FREE SPACE.
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Installation of the chainguide G3

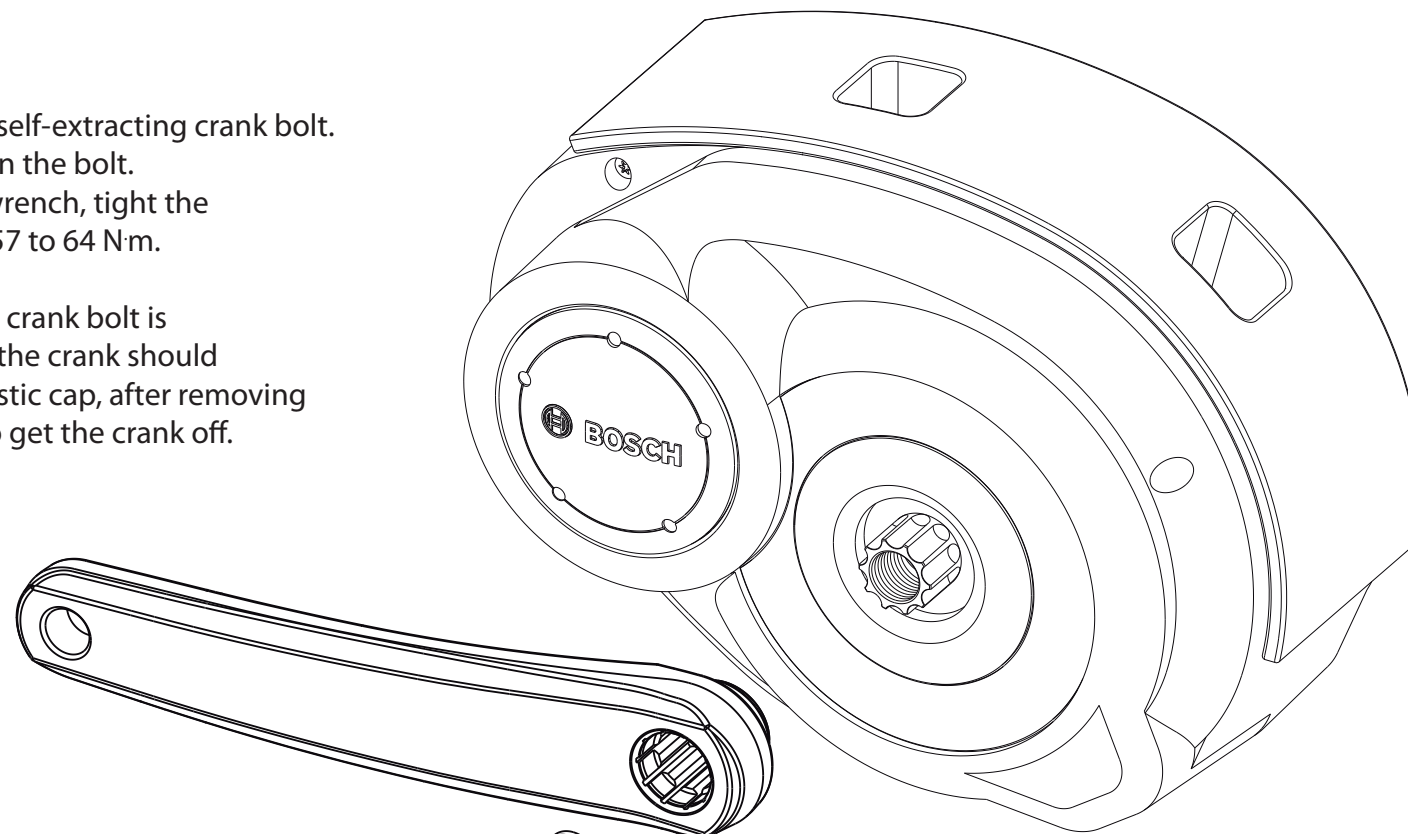
To install the chainguide just slide it in between the chainring and the motor, until aligned with the mounting holes. Then adjust the crankset until you have space to insert the screws. Tight the screws with the crosshead screwdriver, at 5 N·m.



Installation and removal of the left crank

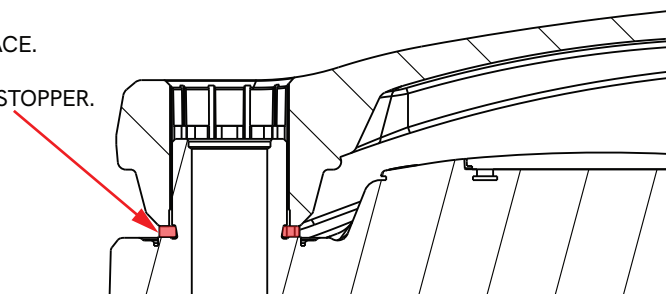
If it is not already assembled, prepare the self-extracting crank bolt.
If using the plastic cap, just insert the cap in the bolt.
Then using the 8mm hex and the torque wrench, tight the ISIS crank at the recommended torque of 57 to 64 N·m.

To remove the cranks, if the self-extracting crank bolt is assembled, just use the 8mm hex key and the crank should pull himself off. In case of the standard plastic cap, after removing the crank, you will need the crank puller to get the crank off.



 **CAUTION**

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CRANK CONTACTS THE STOPPER.



Installation of the Miranda sprocket and E-chainguard nut

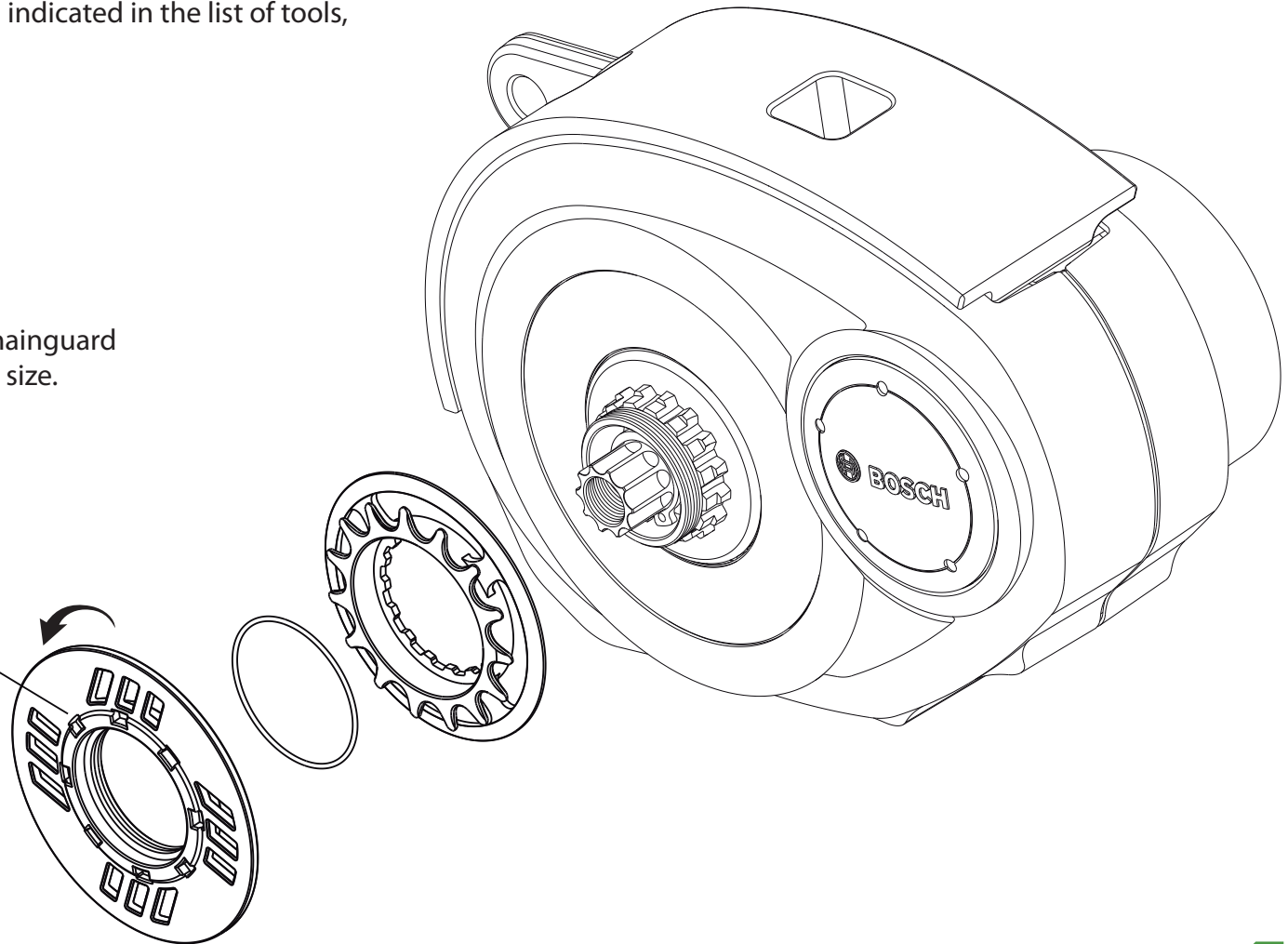
Mount the Miranda sprocket or flat chainring on the motor shaft.
Insert the oring in the motor shaft, and attach the E-chainguard nut
or the Bosch locknut using the lockring tool indicated in the list of tools,
counter clockwise at 25 to 30 N·m.

To remove just invert the process.

CAUTION

Please make sure that the sprocket and E-chainguard
nut are the corresponding pair in offset and size.

(25 - 30 N·m)



Installation and removal of the right crank

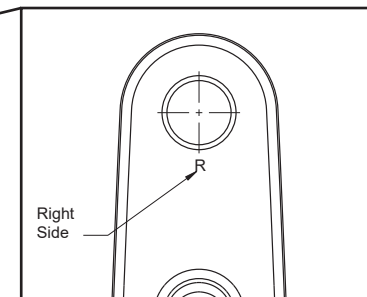
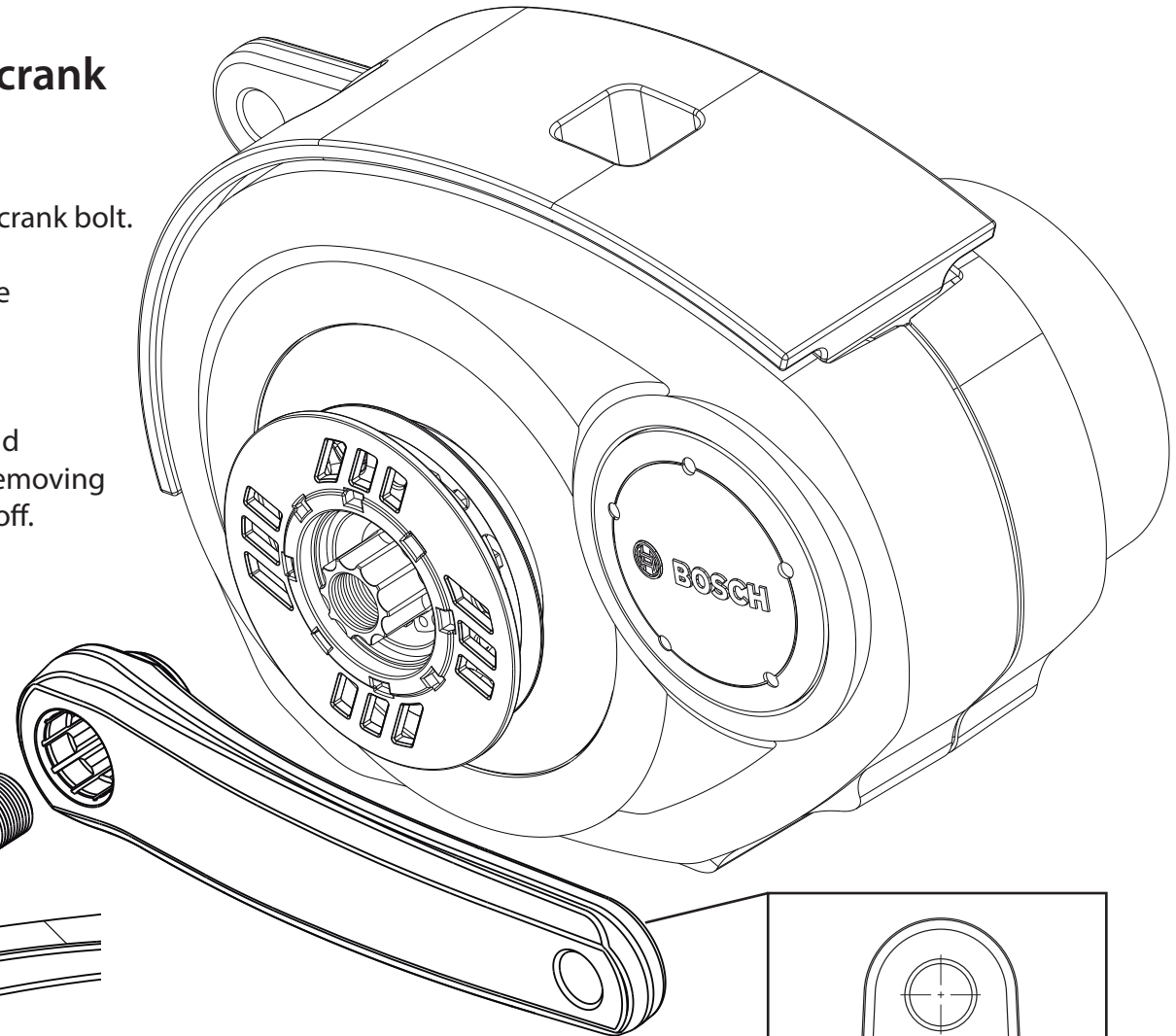
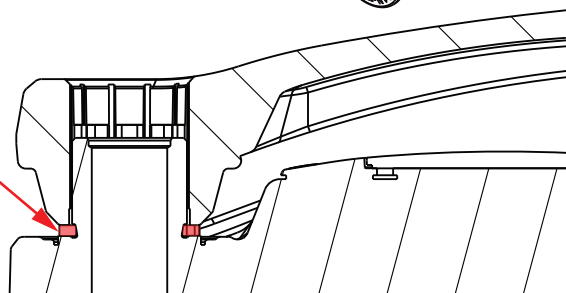
If it is not already assembled, prepare the self-extracting crank bolt.
If using the plastic cap, just insert the cap in the bolt.
Then using the 8mm hex and the torque wrench, tight the ISIS crank at the recommended torque of 57 to 64 N·m.

To remove the cranks, if the self-extracting crank bolt is assembled, just use the 8mm hex key and the crank should pull himself off. In case of the standard plastic cap, after removing the crank, you will need the crank puller to get the crank off.

8 (57 - 64 N·m)

 **CAUTION**

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CRANK CONTACTS THE STOPPER.

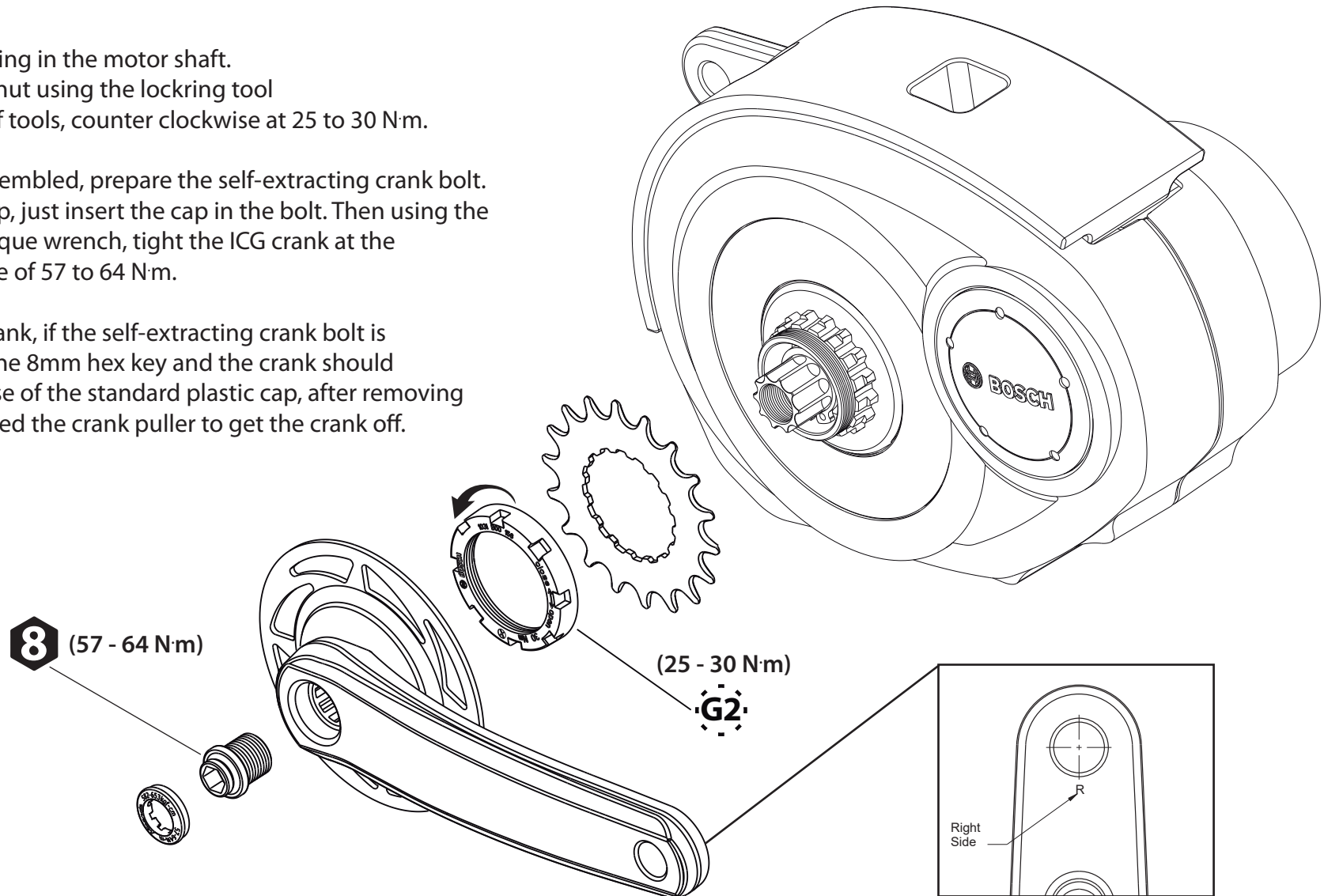


Installation and removal of the ICG right crank

Mount the flat chainring in the motor shaft.
Insert the Bosch locknut using the lockring tool indicated in the list of tools, counter clockwise at 25 to 30 N·m.

If it is not already assembled, prepare the self-extracting crank bolt.
If using the plastic cap, just insert the cap in the bolt. Then using the 8mm hex and the torque wrench, tight the ICG crank at the recommended torque of 57 to 64 N·m.

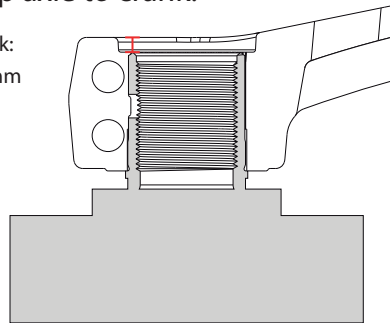
To remove the ICG crank, if the self-extracting crank bolt is assembled, just use the 8mm hex key and the crank should pull himself off. In case of the standard plastic cap, after removing the crank, you will need the crank puller to get the crank off.



Installation and removal of the left crank

1 - Align the crank gap with the hole present in the motor shaft and insert the crank until the axle stopper zone. Please check the measure from top axle to crank.

Distance from top axle to crank:
E6100 and E7000 - Approx. 2mm
E8000 - Approx. 0,5mm
EP8 - Approx. 3mm



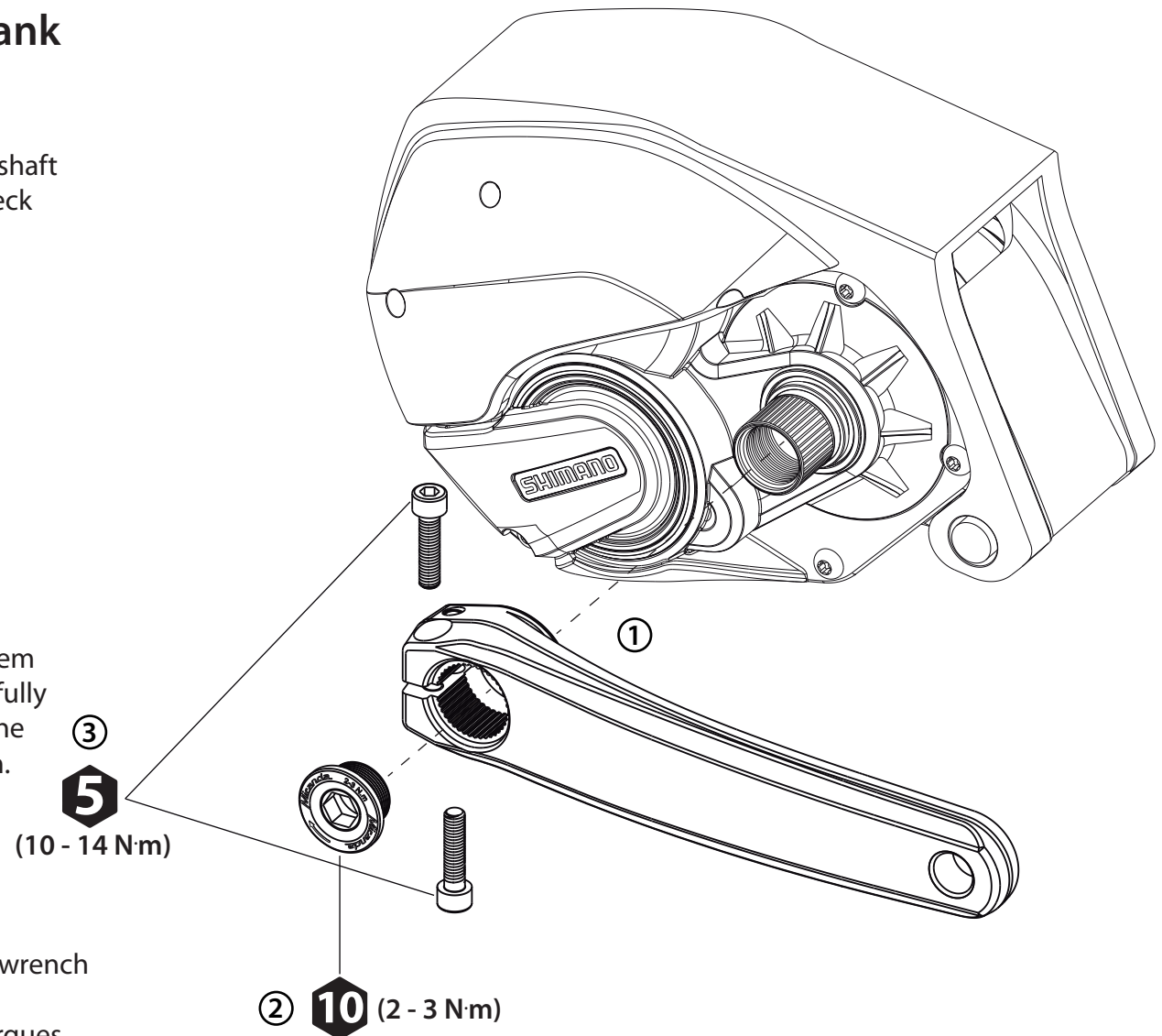
2 - Use the 10mm hex to install the crank cap at 2 to 3 N·m.

3 - Mount the two crank arms mounting bolts and tighten them alternately and incrementally rather than each bolt being fully tightened all at once. Use a torque wrench to check that the final tightening torques are within the range of 10 - 14 N·m.

CAUTION

After riding approximately 60 km (37 miles), use a torque wrench to re-check the tightening torques.

It is also important to periodically check the tightening torques. If the tightening torques are too low or if the mounting bolts are not tightened alternately in stages, the cranks may come off during the ride, causing the rider to lose control and fall. Please instruct the user accordingly.



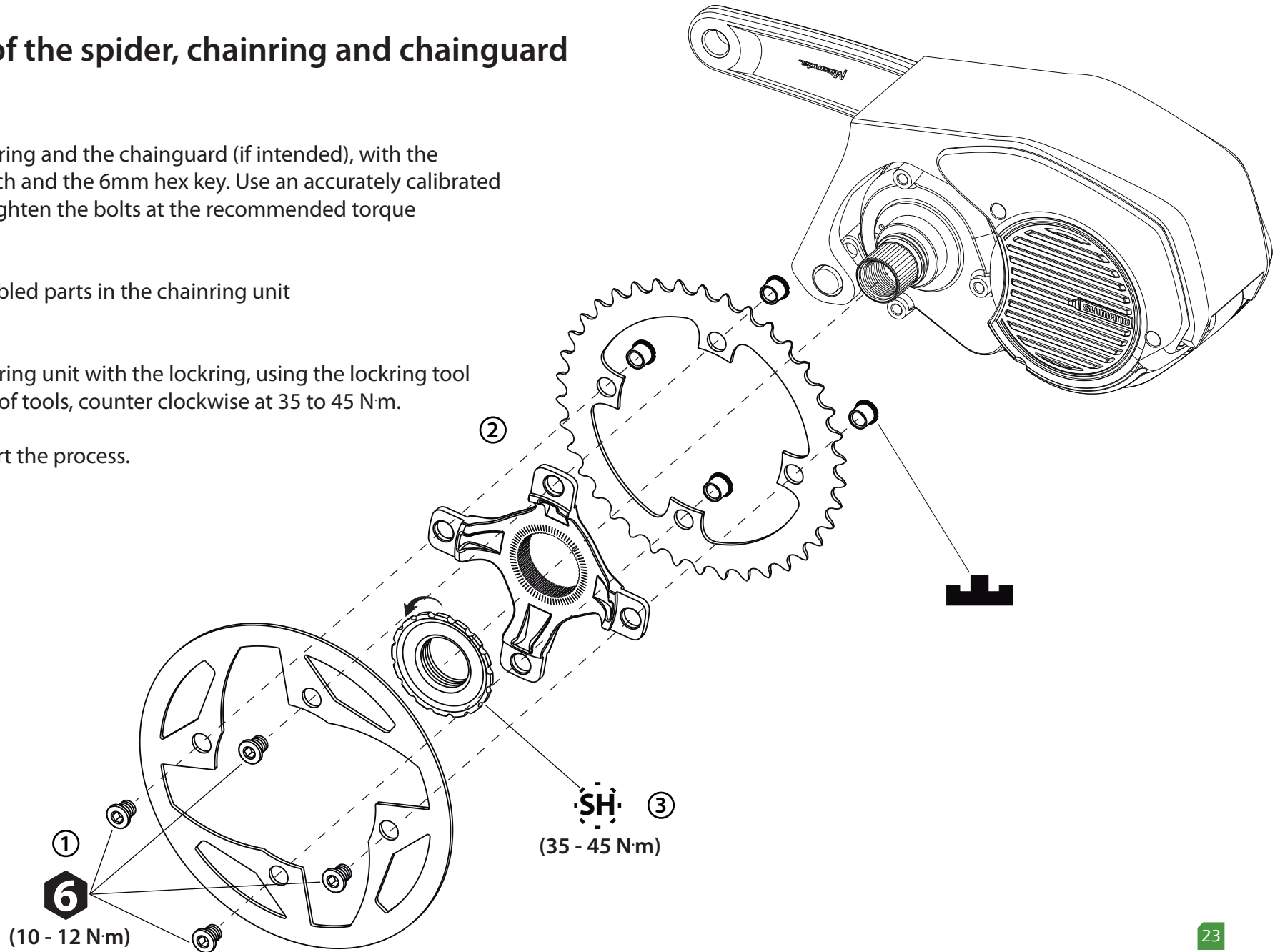
Installation of the spider, chainring and chainguard

1 - Mount the chainring and the chainguard (if intended), with the chainring nut wrench and the 6mm hex key. Use an accurately calibrated torque wrench to tighten the bolts at the recommended torque of 10 to 12 N·m.

2 - Insert the assembled parts in the chainring unit installation spindle.

3 - Secure the chainring unit with the lockring, using the lockring tool indicated in the list of tools, counter clockwise at 35 to 45 N·m.

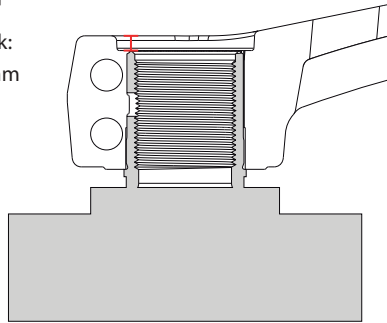
To remove just invert the process.



Installation and removal of the right crank

1 - Align the crank gap with the hole present in the motor shaft and insert the crank until the axle stopper zone. Please check the measure from top axle to crank.

Distance from top axle to crank:
E6100 and E7000 - Approx. 2mm
E8000 - Approx. 0,5mm
EP8 - Approx. 3mm



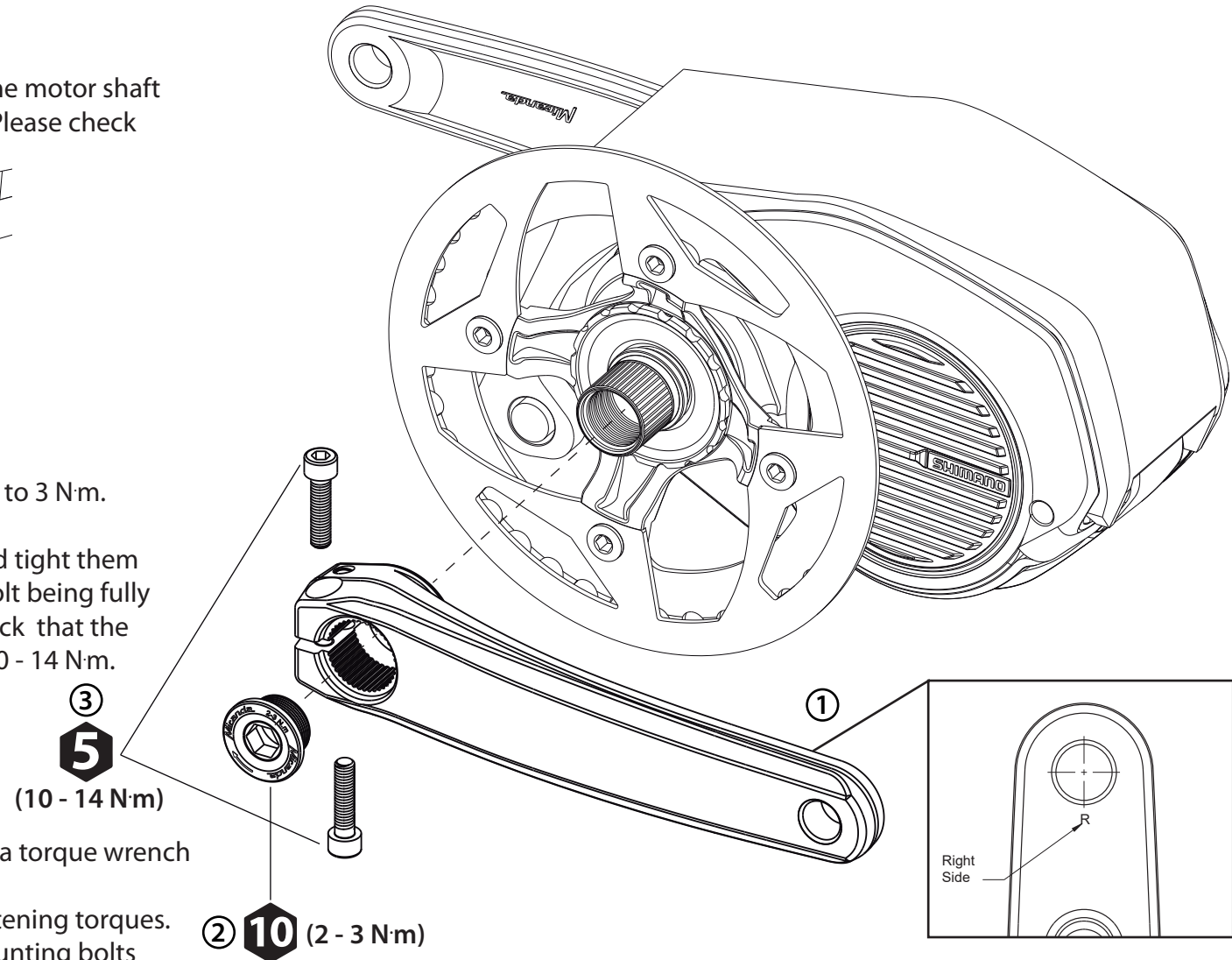
2 - Use the 10mm hex to install the crank cap at 2 to 3 N·m.

3 - Mount the two crank arms mounting bolts and tighten them alternately and incrementally rather than each bolt being fully tightened all at once. Use a torque wrench to check that the final tightening torques are within the range of 10 - 14 N·m.

CAUTION

After riding approximately 60 km (37 miles), use a torque wrench to re-check the tightening torques.

It is also important to periodically check the tightening torques. If the tightening torques are too low or if the mounting bolts are not tightened alternately in stages, the cranks may come off during the ride, causing the rider to lose control and fall. Please instruct the user accordingly.

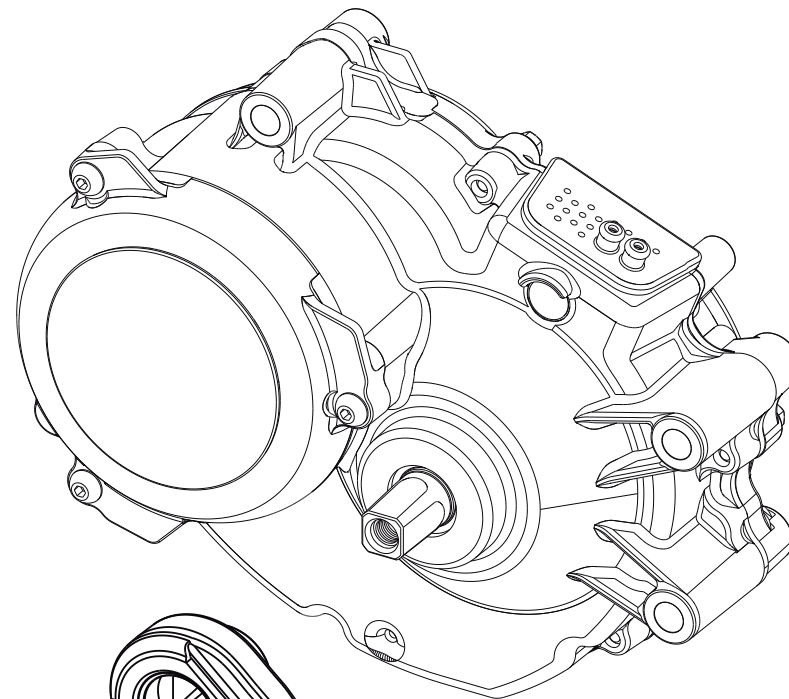


Installation and removal of the left crank

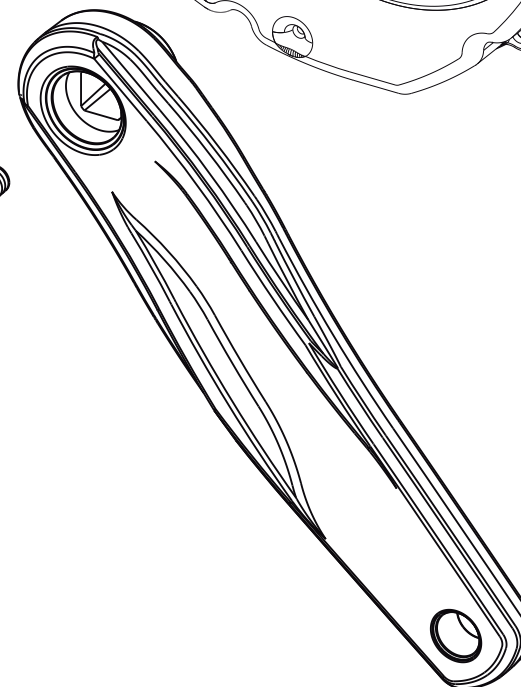
If it is not already assembled, prepare the self-extracting crank bolt as illustrated.

If using the plastic cap, just insert the bolt. Then using the 8mm hex and the torque wrench, tight the JIS crank at the recommended torque of 47 to 54 N·m.

To remove the cranks, if the self-extracting crank bolt is assembled, just use the 8mm hex key and the crank should pull himself off. In case of the standard plastic cap, after removing the crank, you will need the crank puller to get the crank off.



(47 - 54 N·m) **8**

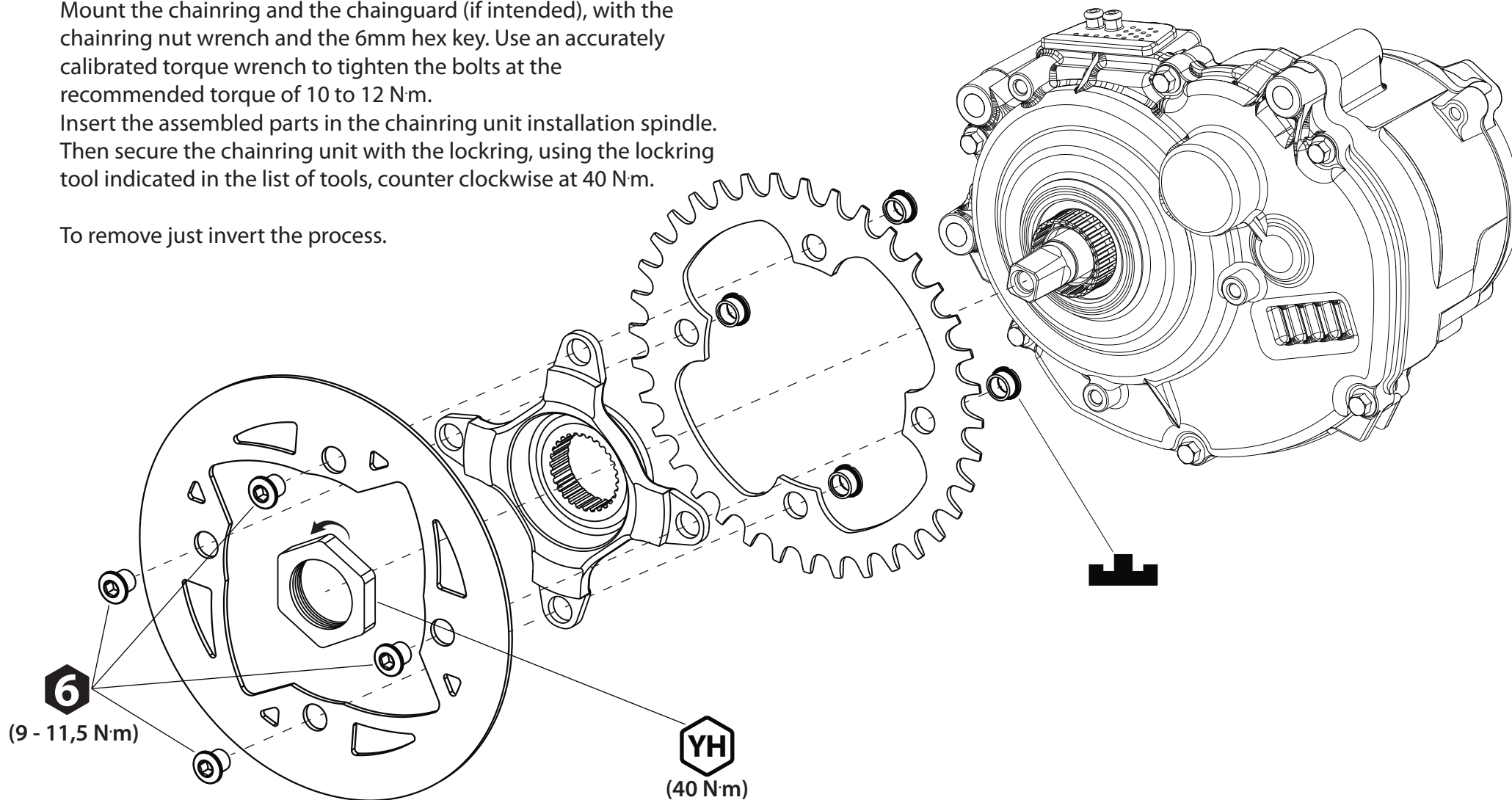


Installation of the spider, chainring and chainguard

Mount the chainring and the chainguard (if intended), with the chainring nut wrench and the 6mm hex key. Use an accurately calibrated torque wrench to tighten the bolts at the recommended torque of 10 to 12 N·m.

Insert the assembled parts in the chainring unit installation spindle. Then secure the chainring unit with the lockring, using the lockring tool indicated in the list of tools, counter clockwise at 40 N·m.

To remove just invert the process.



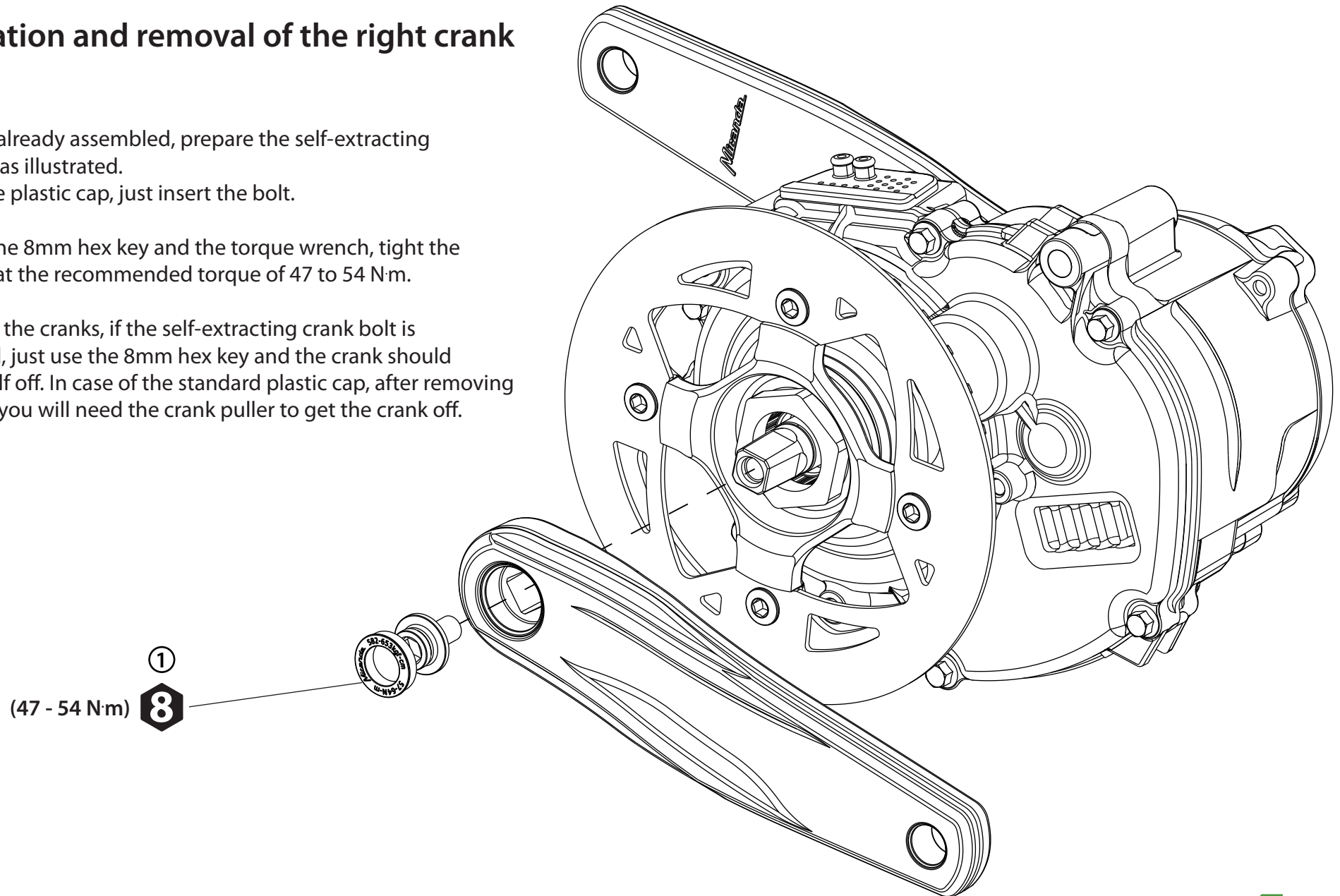
Installation and removal of the right crank

If it is not already assembled, prepare the self-extracting crank bolt as illustrated.

If using the plastic cap, just insert the bolt.

1 - Using the 8mm hex key and the torque wrench, tight the ISIS crank at the recommended torque of 47 to 54 N·m.

To remove the cranks, if the self-extracting crank bolt is assembled, just use the 8mm hex key and the crank should pull himself off. In case of the standard plastic cap, after removing the crank, you will need the crank puller to get the crank off.



MGreen Installation

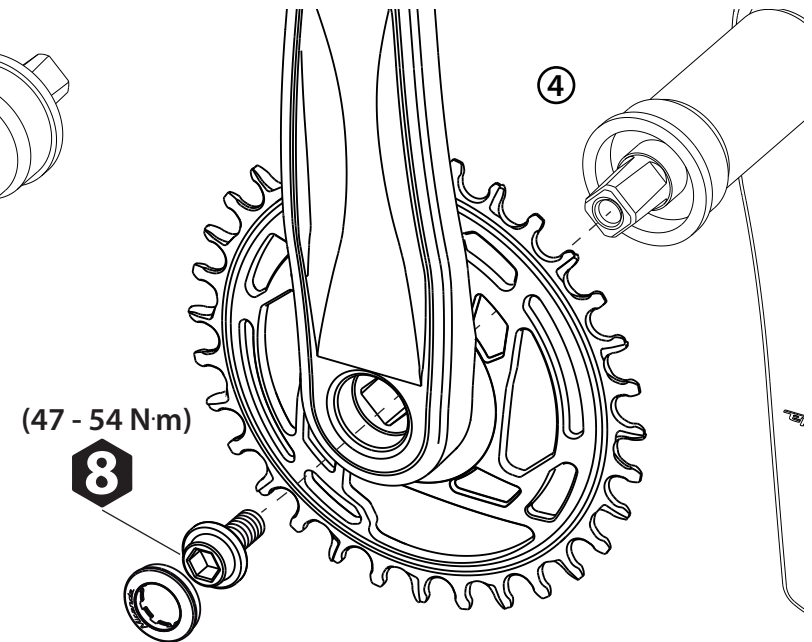
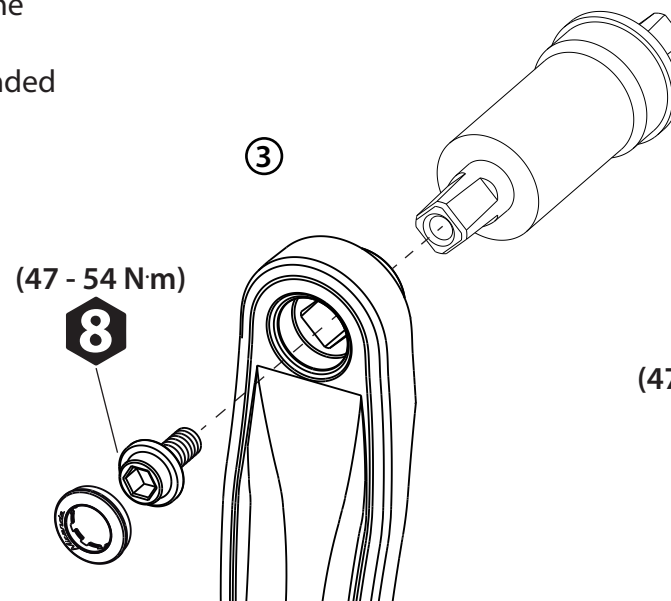
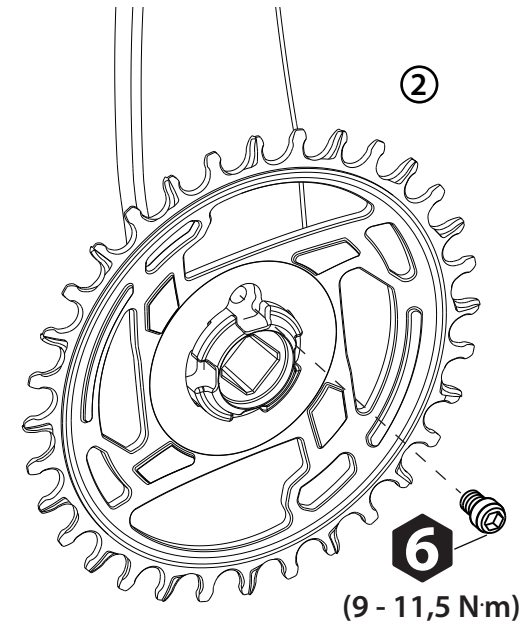
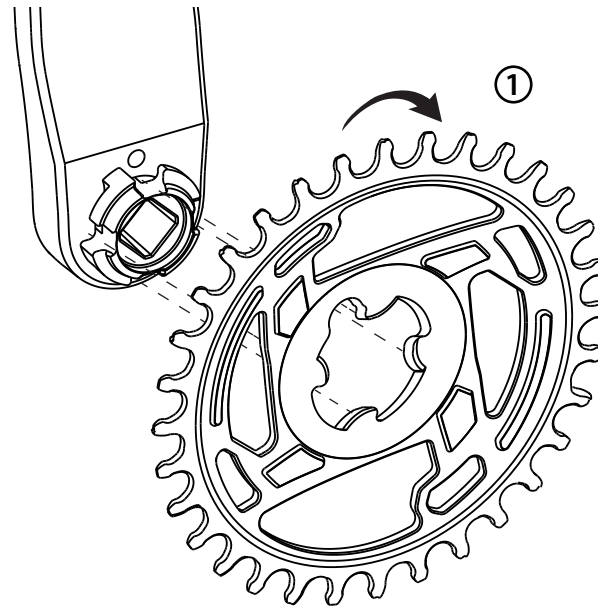
1 - Mount the MGreen chainring by aligning the chainring splines to the crank slots, inserting the chainring and rotating clockwise.

2 - Screw the M6 bolt with the hex key.

3 - Mount the left crank in the axle, with the 8mm hex key and the torque wrench, tight the JIS crank at the recommended torque of 47 to 54 N·m.

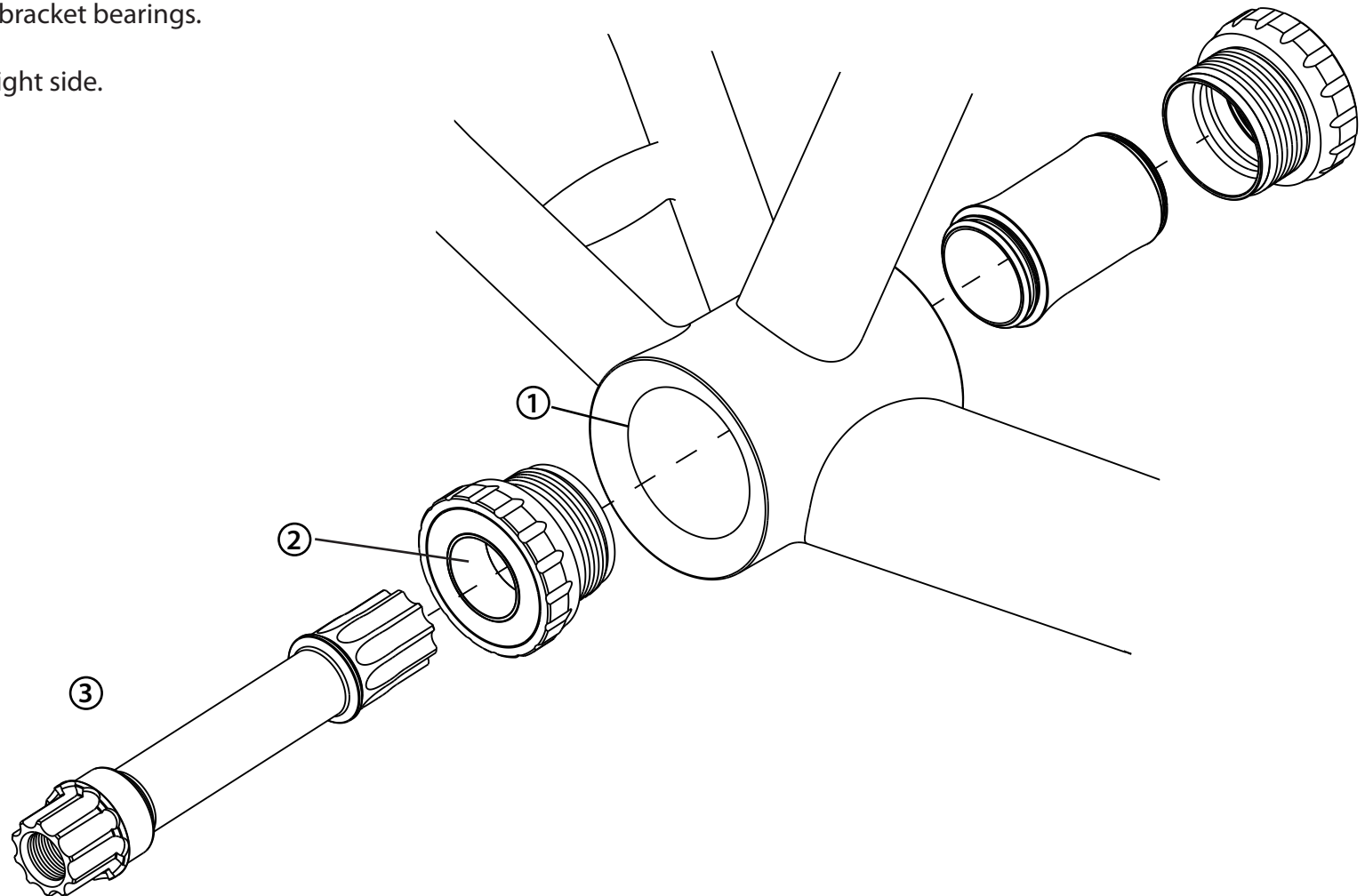
4 - Align the crankset the opposite way of the left crank and mount the right crankset in the axle, with the 8mm hex key and the torque wrench, tight the crankset at the recommended torque of 47 to 54 N·m.

To remove just invert the process.



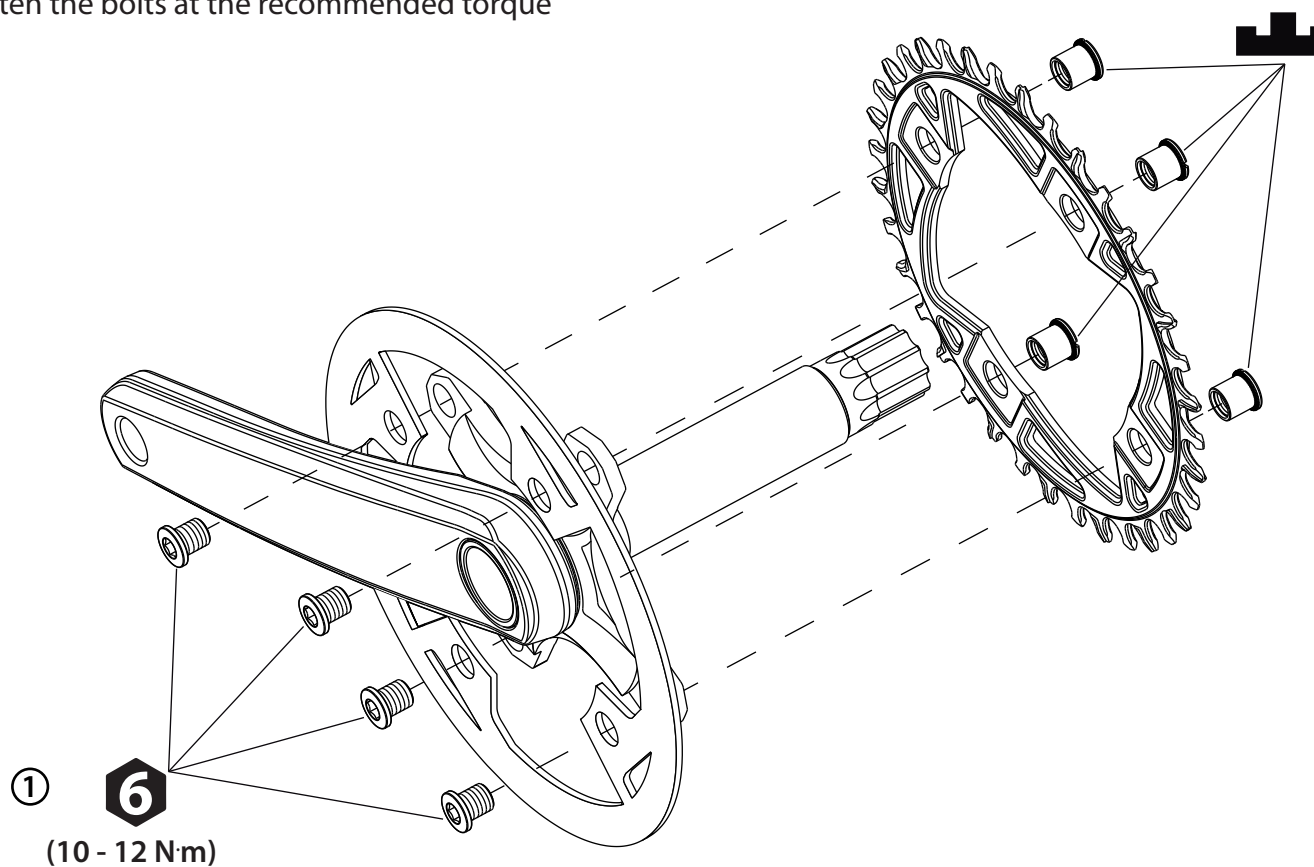
XMOD installation

- 1 - Screw the bottom bracket cups to the frame shell.
- 2 - Apply grease to the bottom bracket bearings.
- 3 - Insert the spindle from the right side.



Hollowtube crankset installation

1 - Mount the chainring and the chainguard (if intended), with the chainring nut wrench and the 6mm hex, use an accurately calibrated torque wrench to tighten the bolts at the recommended torque of 10 to 12 N·m.

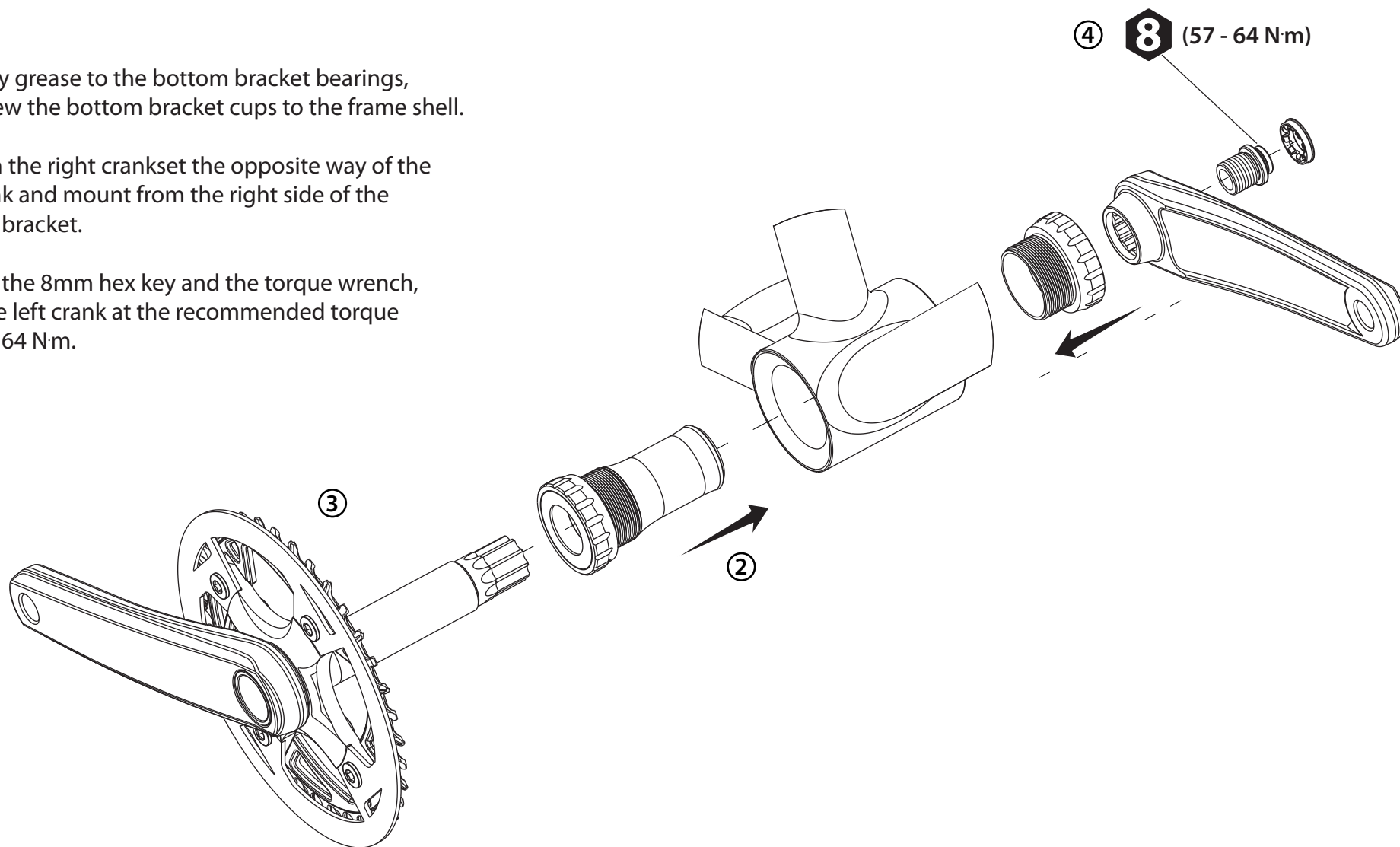


Hollowtube crankset installation

2 - Apply grease to the bottom bracket bearings, and screw the bottom bracket cups to the frame shell.

3 - Align the right crankset the opposite way of the left crank and mount from the right side of the bottom bracket.

4 - With the 8mm hex key and the torque wrench, tight the left crank at the recommended torque of 57 to 64 N·m.



Installation and removal of the pedal

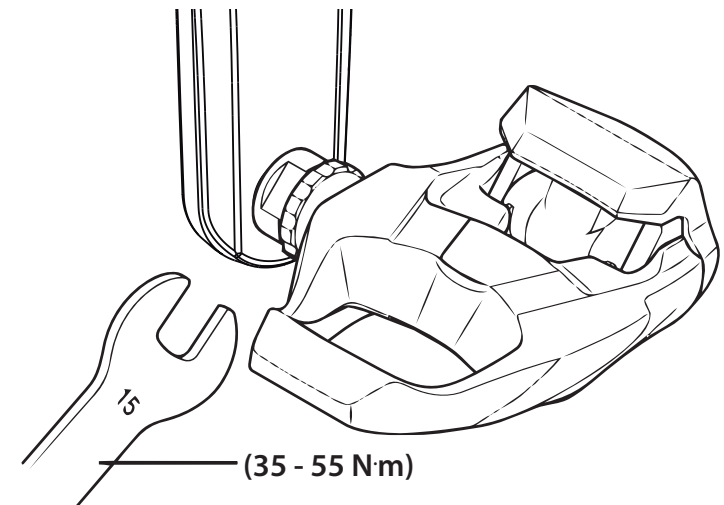
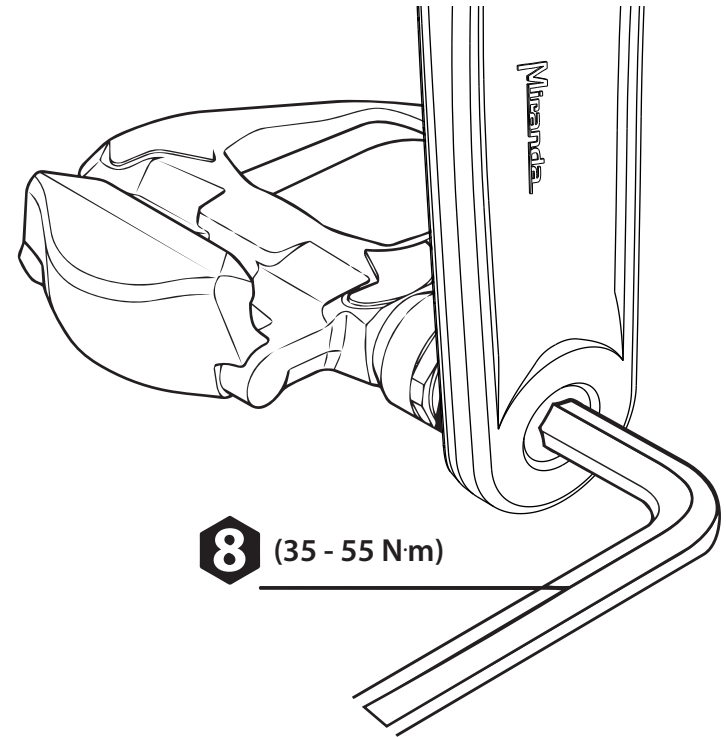
- 1- Apply a thin layer of bicycle grease to the pedal threads.
This prevents "cold welding" and ensures easy removal in the future.
- 2 - Pedals are side-specific. Look for the "L" (Left) and "R" (Right) marks on the pedal axles, and the corresponding crank side.
Miranda cranks use BSC 9/16"x20 L/R type threads; make sure your pedals are compatible.
- 3 - Start threading the pedals by hand. If you feel resistance immediately, stop. You may be cross-threading and you can damage the crank thread. Back out and try again.
- 4 - Final tightening with the wrench or hex key should be to a torque value of 35 to 55N·m (310 – 480 in. lbs.).

WARNING

Always check the pedal assembly before riding. Improper installation or riding with loose pedals can cause permanent, irreparable damage to the cranks and may result in serious injury to the rider.



Contact area should be flat
between pedal shoulder and crank



Installation of the handlebar Stem SM1

This product will only be on sale on Q1 2022

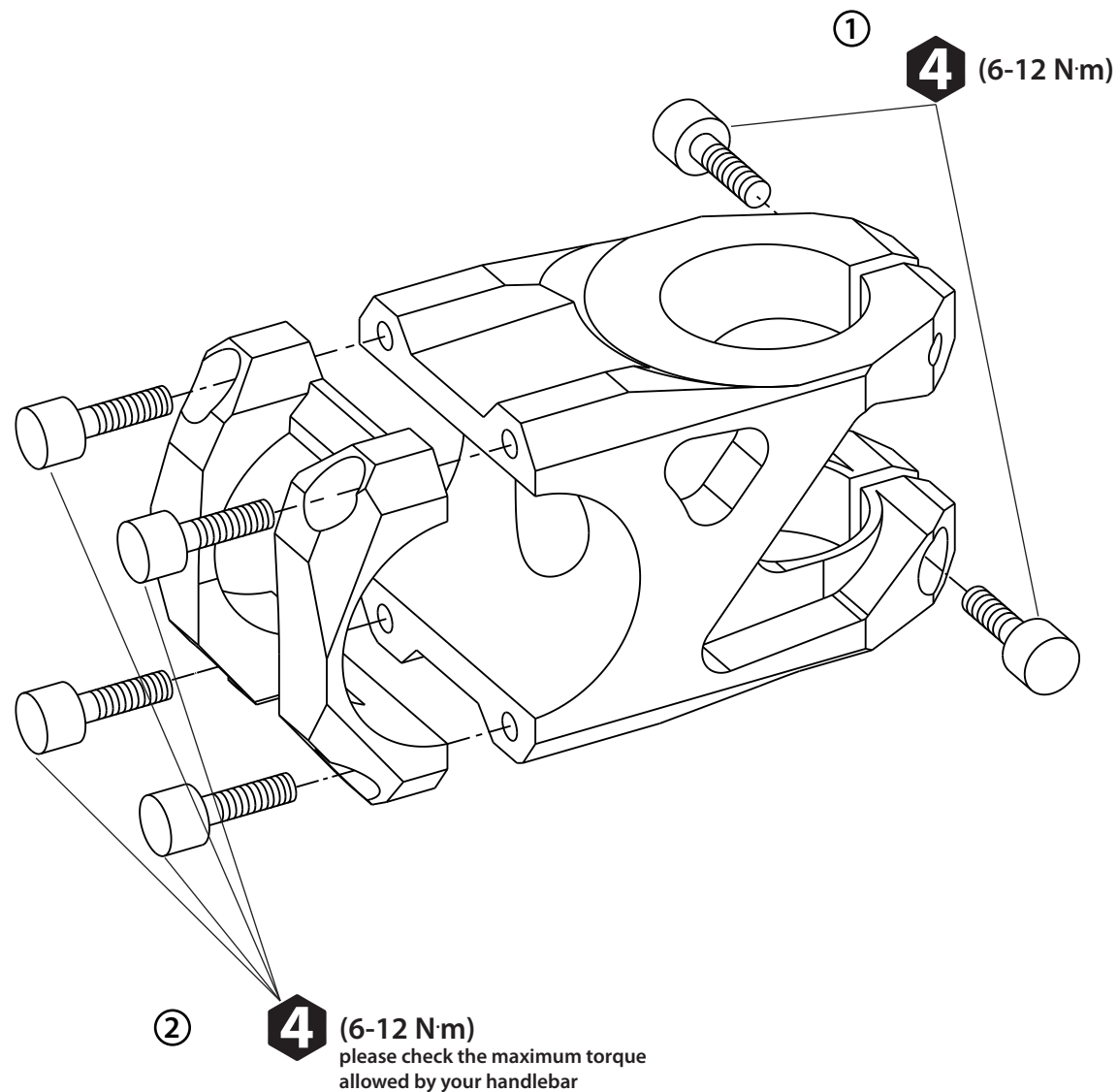
⚠ WARNING

Basic technical knowledge is required for the assembly of this product. If you do not have this knowledge, please use the services of a specialist bicycle dealer.

- With the handlebar stem removed, please mount the SM1 stem onto the frame, and make sure to tight the bolt on the steering set.

- Using the 4mm Hex and the torque wrench, tight the two lateral bolts ① at the recommended torque of 6-12 N·m. Make sure that it is aligned with the frame so that the handlebar will be straight once attached.

- With the handlebar stem in a stable position, remove the four bolts on the front plate ② with the 4mm Hex and install the handlebar (please check the maximum torque allowed by your handlebar). Re-attach the front plate and align the handlebar with the stem in the desired angle, and tight the bolts.



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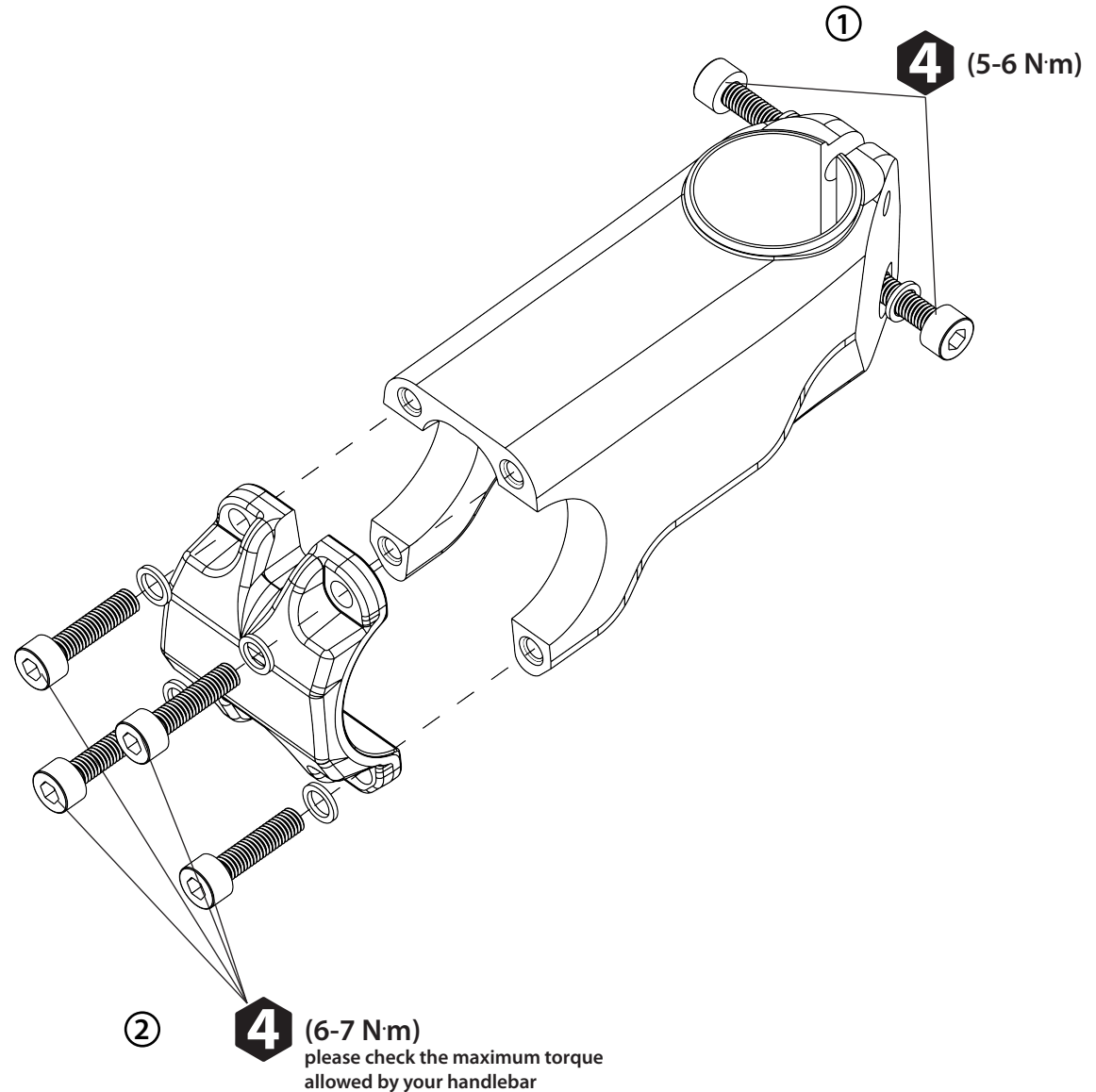
Installation of the handlebar Stem M1

This product will only be on sale on Q1 2022

⚠ WARNING

Basic technical knowledge is required for the assembly of this product. If you do not have this knowledge, please use the services of a specialist bicycle dealer.

- With the handlebar stem removed, please mount the M1 stem onto the frame, and make sure to tight the bolt on the steering set.
- Using the 4mm Hex and the torque wrench, tight the two lateral bolts ① at the recommended torque of 5-6 N·m. Make sure that it is aligned with the frame so that the handlebar will be straight once attached.
- With the handlebar stem in a stable position, remove the four bolts on the front plate ② with the 4mm Hex and install the handlebar (please check the maximum torque allowed by your handlebar). Re-attach the front plate and align the handlebar with the stem in the desired angle, and tight the bolts.



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This Dealer's Manual is subject to change without notice.
For the latest version, please check: <https://www.mirandabikeparts.com/en/downloads>

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