

QC MANUAL

FOR PROMOVEC BIKES

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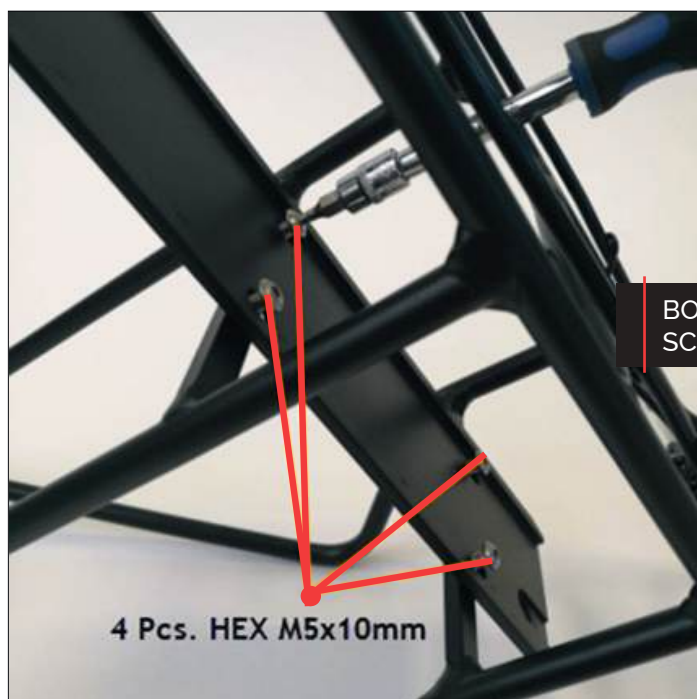
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CARRIER

TORQUE SPEC FOR SCREWS:

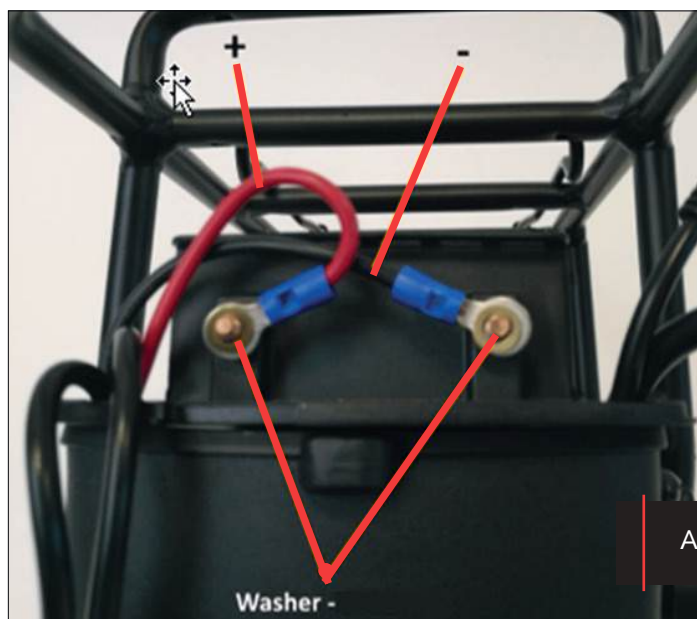
DIMENSION – HEX SCREWS	COMPATIBLE	PAGE	TORQUE SPEC
Black - HEX Counter sunk M5x8mm for Bot-tompart	Carrier 5	Page 8	2 Nm
Silver - HEX M5x8mm for controller	Carrier 5	Page 8	2 Nm
HEX M5x10mm	Carrier 6, 4, 2	Page 4, 7	2 Nm
HEX M5x12mm	Carrier 6, 5, 4, 2	Page 9	4 Nm
HEX M6x12mm	Carrier 6, 5, 4, 2	Page 10	4 Nm
DIMENSION – TORX SCREWS		PAGE	TORQUE SPEC
Torx – 3x16mm	Carrier 6 & 4	Page 6	2 Nm
Torx – 3.5x20mm	Carrier 2	Page 6	2 Nm
Torx – 4x20mm	Carrier 6	Page 7	2 Nm
DIMENSION - BOLT		PAGE	TORQUE SPEC
Bolt - M6x20	Carrier 6 & 4	Page 9	5 Nm
DIMENSION - NUT		PAGE	TORQUE Spec
M4 Nut with washer	Carrier 6, 4 & 2	Page 9	2 Nm
M6 nut	Carrier 6 & 4	Page 9	5 Nm

PLACEMENT OF FITTINGS:



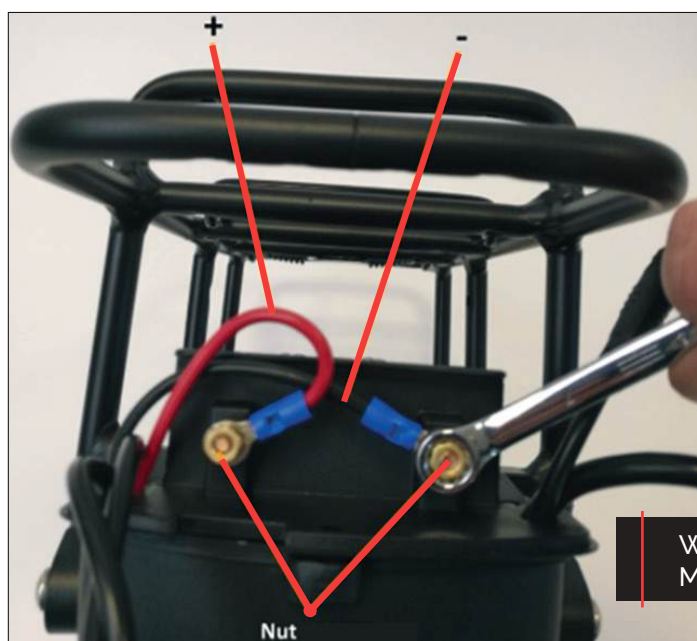
1

BOTTOMPART
SCREW – M5X10MM



2

ADD WASHER

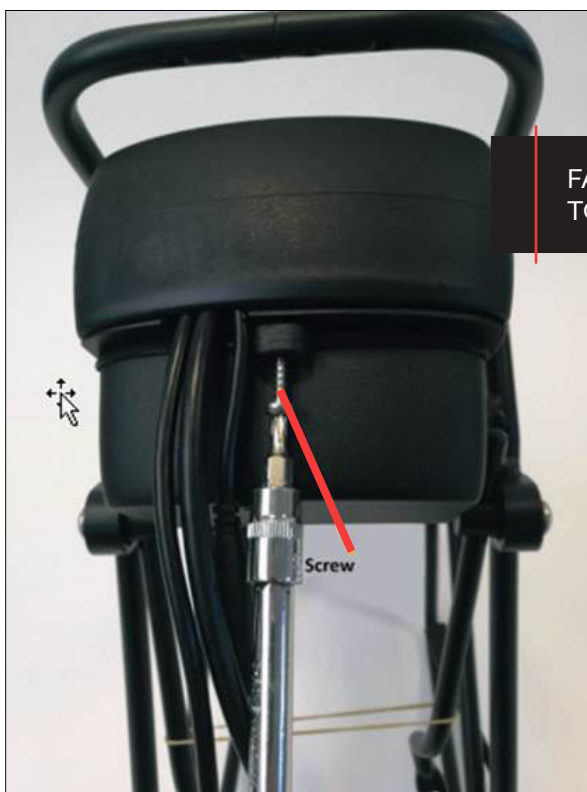


3

WASHER AND
M4 NUT (2 NM)

4

FASTEN THE COVER BY USING 1 PCS
TORX SCREW 3.5X20MM (2 NM)



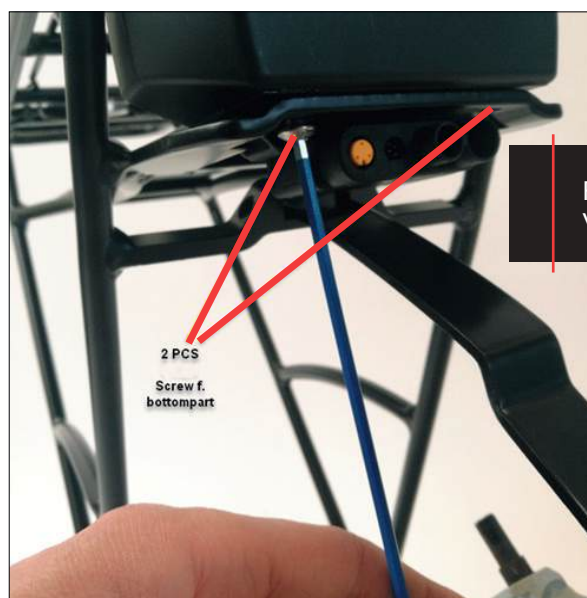
5

FASTEN THE BOTTOMPART TO THE CONTROLLER
WITH 2 PCS. OF TORX 3X16MM WITH 2 NM.



6

FASTEN THE CONTROLLER ONTO THE CARRIER
WITH HEX M5X10MM (2 NM).



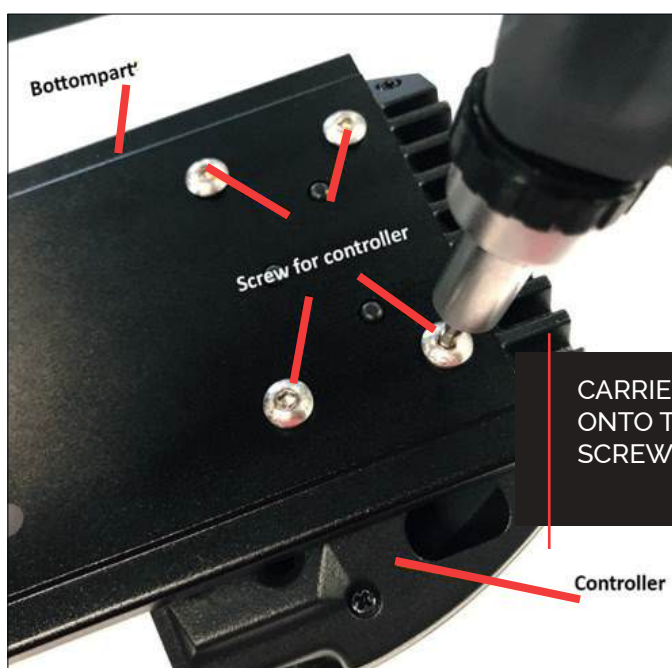
7



FOR CARRIER 6 IT IS POSSIBLE TO HAVE AN XL BATTERY BUT YOU NEED TO INSTALL THE FOLLOWING BATTERY GUIDE. FASTEN THE GUIDE WITH 2 PCS. OF TORX 4X20MM (2 NM)

OBS!!! THIS DOES NOT APPLY FOR CARRIER 4

8



CARRIER 5 START BY MOUNTING THE CONTROLLER ONTO THE BOTTOMPART USING THE FOUR HEX M5X8 SCREWS (2 NM)

9



CARRIER 5: MOUNT THE BOTTOM PART ONTO THE CARRIER WITH THE FOUR BLACK HEX 5X8 SCREWS (2 NM)



10

PLACEMENT OF HEX M5X12MM



11

PLACEMENT OF BOLT M6X20MM WITH M6 NUT



12

PLACEMENT OF HEX M6X12MM

MOTOR



FRONT MOTOR

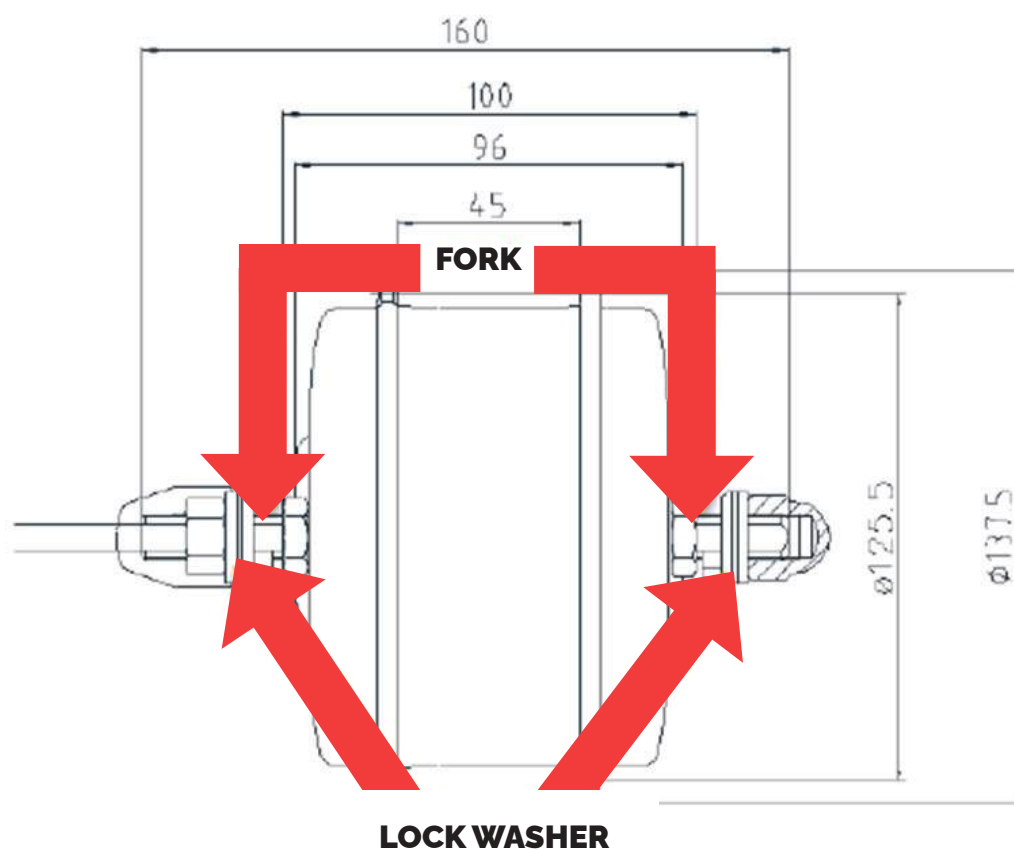
This guide will cover every aspect of the assembly as, required to torque, placement of the washers and fork placement.

TORQUE SPEC FOR FRONT MOTOR

DIMENSION - NUT	PCS.	TORQUE SPEC
Cone nut - M 15	2	25 Nm
Nut - M 18	2	25 Nm

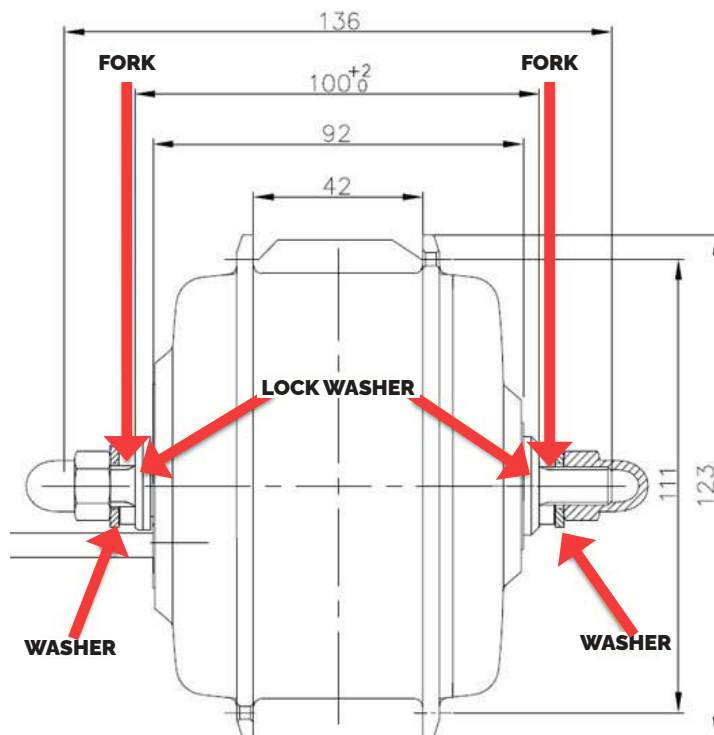
50080-3/50127

PLACEMENT OF FORK, WASHER, AND LOCK WASHER



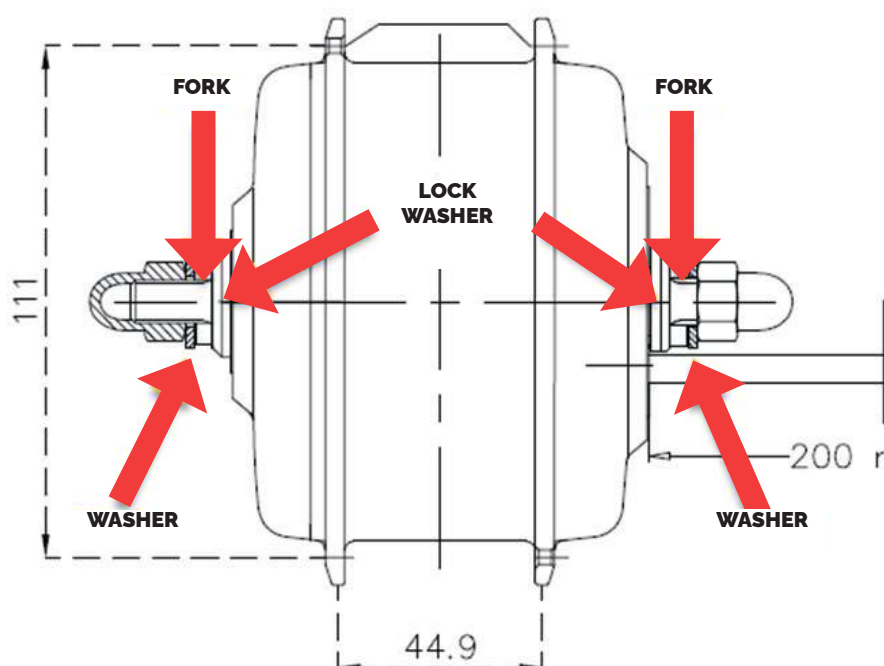
50275-2-BL

PLACEMENT OF FORK, WASHER, AND LOCK WASHER



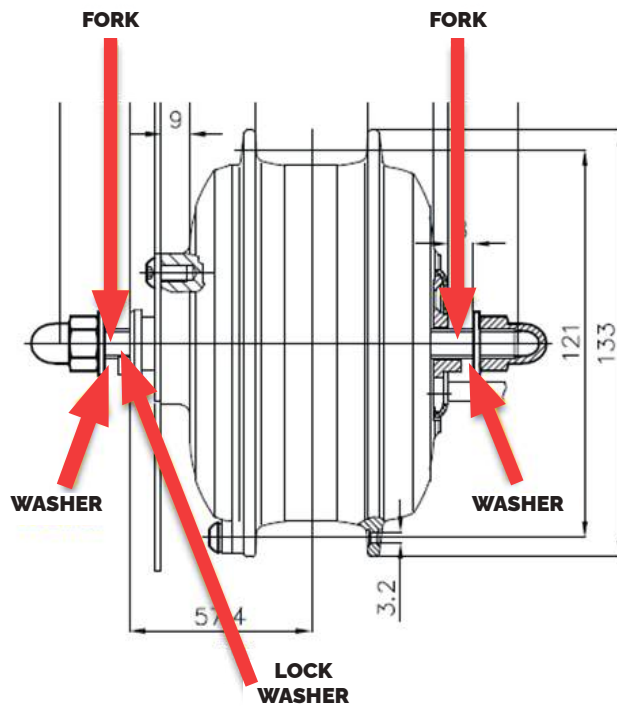
50697

PLACEMENT OF FORK, WASHER, AND LOCK WASHER



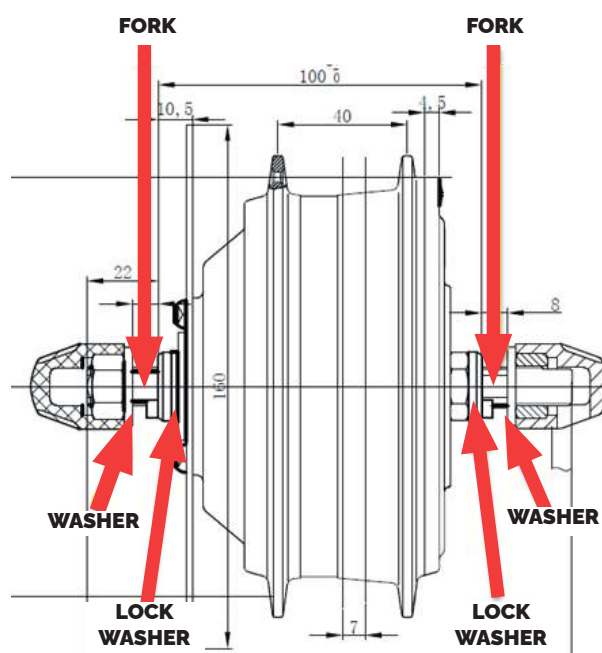
50710

PLACEMENT OF FORK, WASHER, AND LOCK WASHER



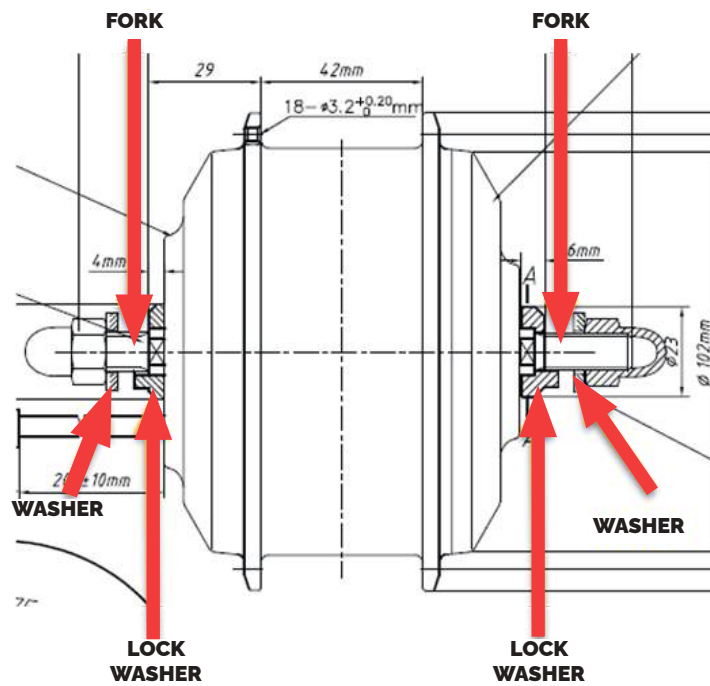
50742

PLACEMENT OF FORK, WASHER, AND LOCK WASHER



50975

PLACEMENT OF FORK, WASHER, AND LOCK WASHER



REAR MOTOR

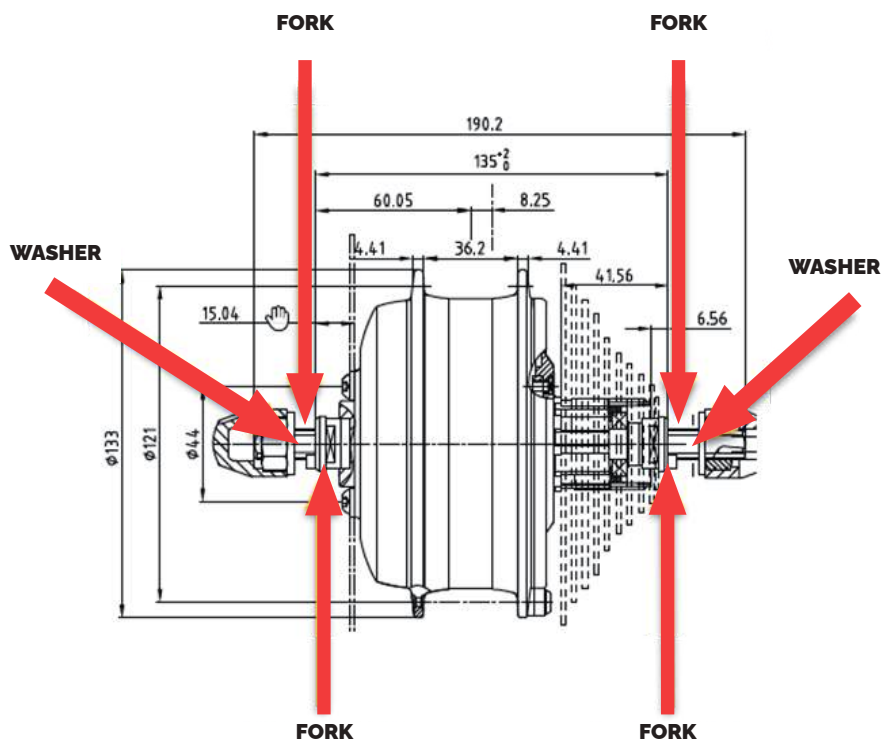


TORQUE SPEC FOR REAR MOTOR

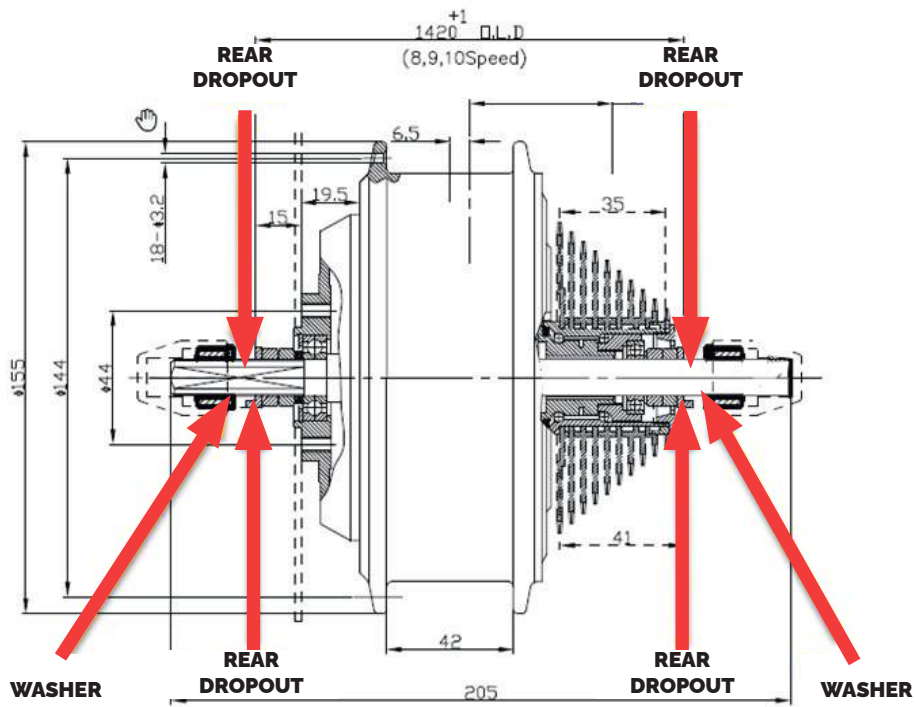
DIMENSION - NUT	PCS.	TORQUE SPEC
Cone nut - M 15	2	25 Nm
Nut - M 18	2	25 Nm

50609-1-BL

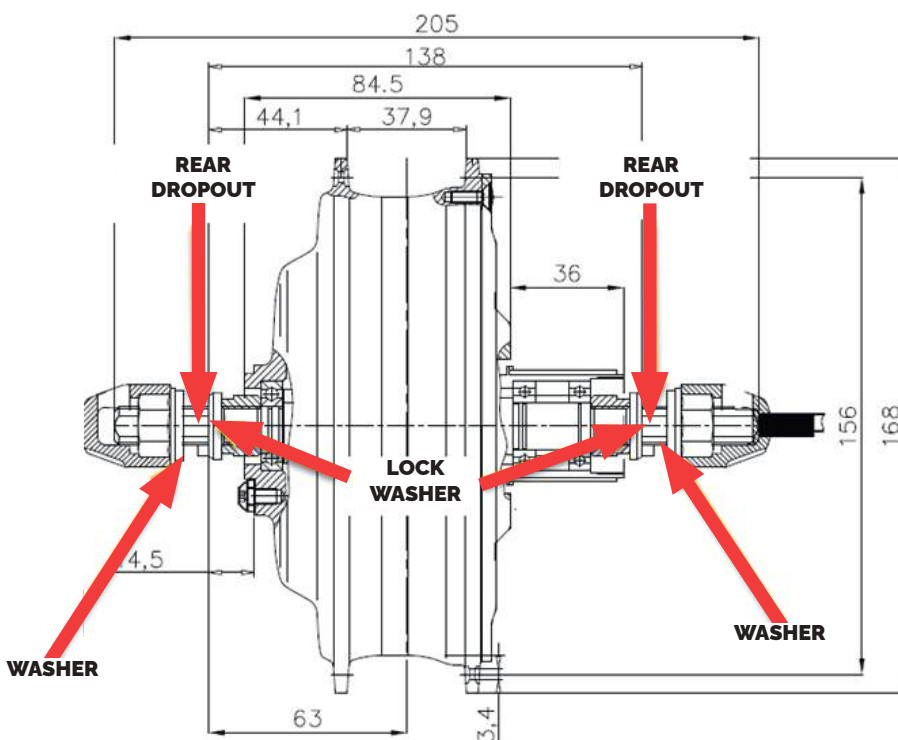
PLACEMENT OF REAR DROP, WASHER, AND LOCK WASHER



PLACEMENT OF REAR DROPOUT, WASHER, AND LOCK WASHER

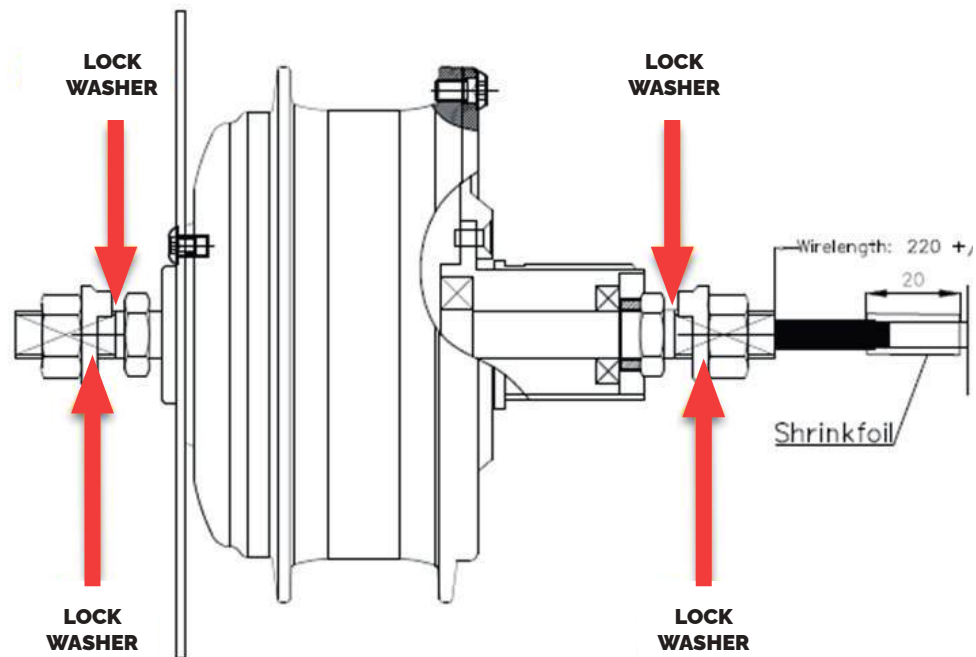


PLACEMENT OF REAR DROPOUT, WASHER, AND LOCK WASHER



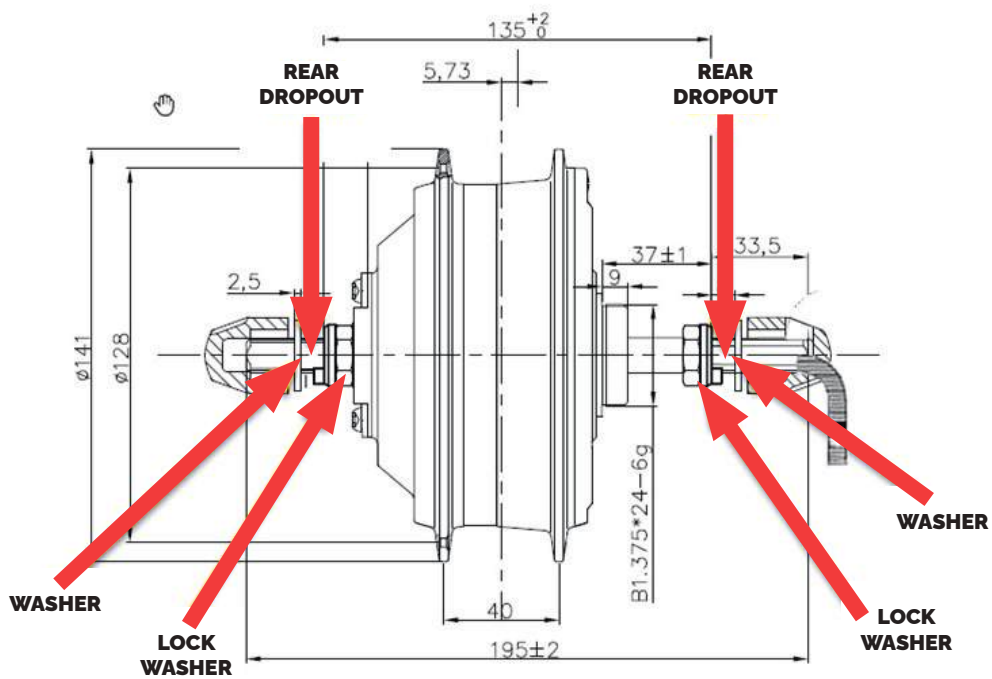
50765

PLACEMENT OF REAR DROPOUT, WASHER, AND LOCK WASHER



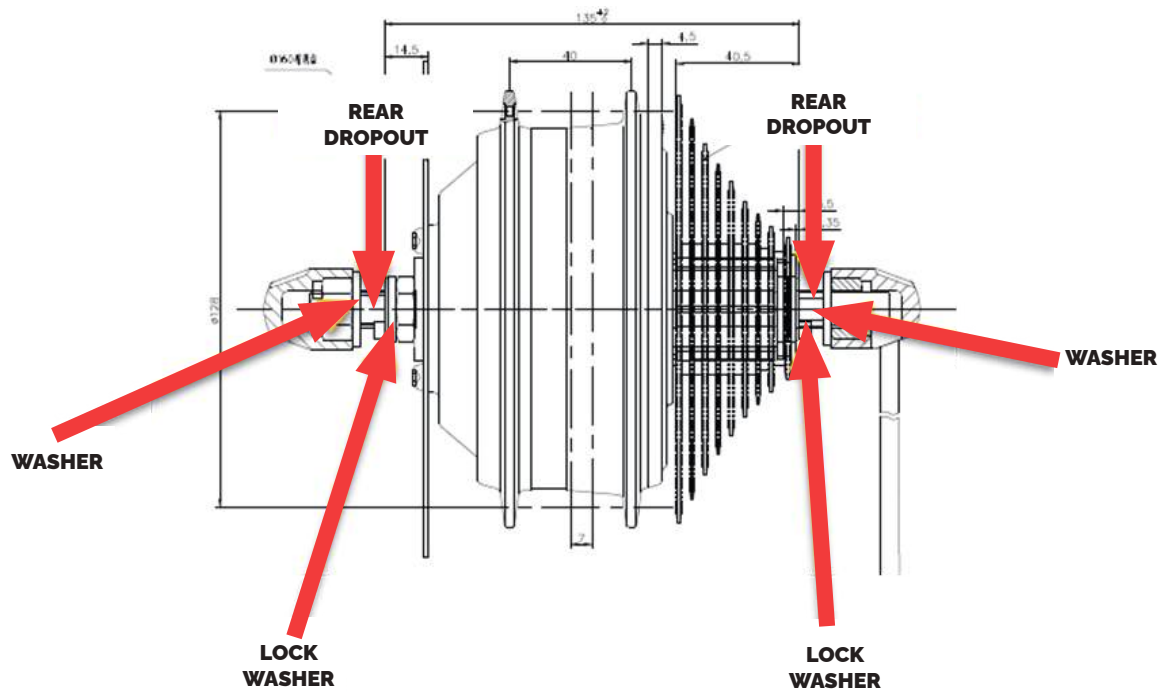
50963

PLACEMENT OF REAR DROPOUT, WASHER, AND LOCK WASHER



50971

PLACEMENT OF REAR DROPOUT, WASHER, AND LOCK WASHER



CENTER MOTOR



TORQUE SPEC FOR REAR MOTOR

DIMENSION - SCREWS	FITS	PCS.	TORQUE SPEC
HEX M5X18MM	50361, 50371, 50969 and 50970	3	6 NM
TORX 30 - 12MM	51767	3	6 NM
DIMENSION - NUT		PCS.	TORQUE SPEC
HEX SOCKET NUT - M5X55MM	50361, 50371, 50969 and 50970	3	6 NM
Torx Socket nut – Torx 30x60MM	51767	3	6 NM

PLACEMENT OF FITTINGS - 50361, 50371, 50969 AND 50970



TIGHTEN THE THREE HEX M6X18 SCREWS WITH HEX SOCKET NUT – M5X55MM SOCKETNUTS (6 NM) FOR THE CENTER MOTOR



USE THE 3 TORX SOCKET NUT – 30X60MM FOR THE FOLLOWING MOUNTING POINTS AND TIGHTEN WITH 3 TORX SCREWS TORX 30 – 12MM (6 NM)

FRAME - WIRING

DOWNTUBE 1

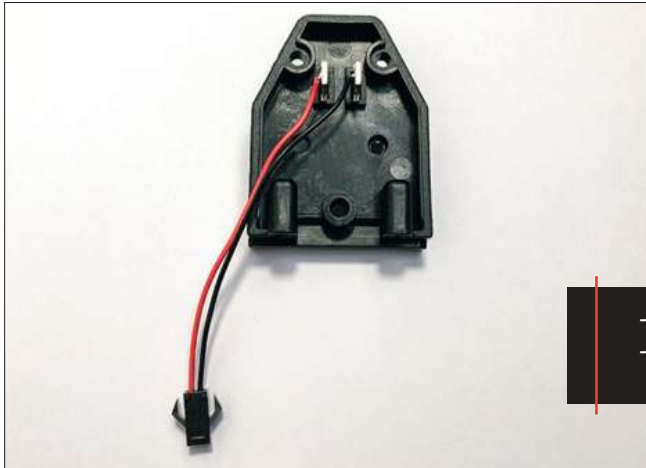
TORQUE SPEC FOR SCREW/FITTINGS

DIMENSION - SCREWS	PCS.	PAGE	TORQUE SPEC
TORX 15 X 7 MM - COUNTERSUNK	2	28	1.2 NM
TORX 30 - 9MM	9	21, 23, 28	1.5 NM
DIMENSION - NUT	PCS.	PAGE	TORQUE SPEC
M4	2	21	6 NM



OVERVIEW OF THE COMPONENTS

A



TAKE THE COMMUNICATION WIRE AND FIT THE TERMINALS TO THE FRONT PART

1



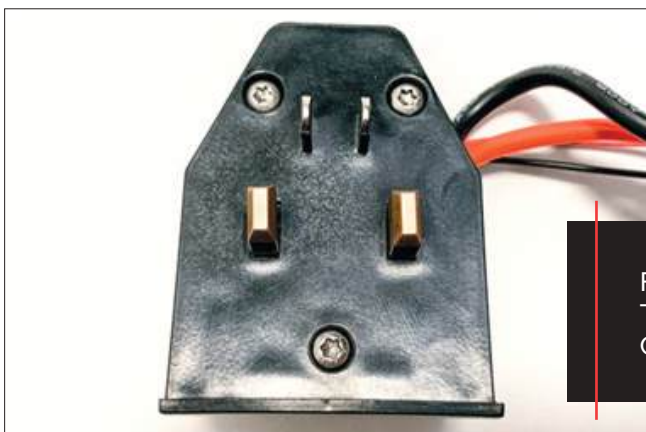
TAKE THE TWO POWER TERMINALS AND FIT THESE TO THE FRONT PART. RED → LEFT HOLE, BLACK → RIGHT HOLE. FASTEN THE TERMINALS WITH TWO WASHERS AND TWO NUTS (1.0NM)

2



CONNECT THE FRONT PART TO THE REAR PART AND MAKE SURE NO WIRES ARE STUCK

3



FIT AND TIGHTEN THE THREE SCREWS "TORX 3 – 9 MM" TO THE FRONT PART (1.5 NM). CONNECT THE POWER CABLES FROM THE CENTER MOTOR TO THE SOCKET

4



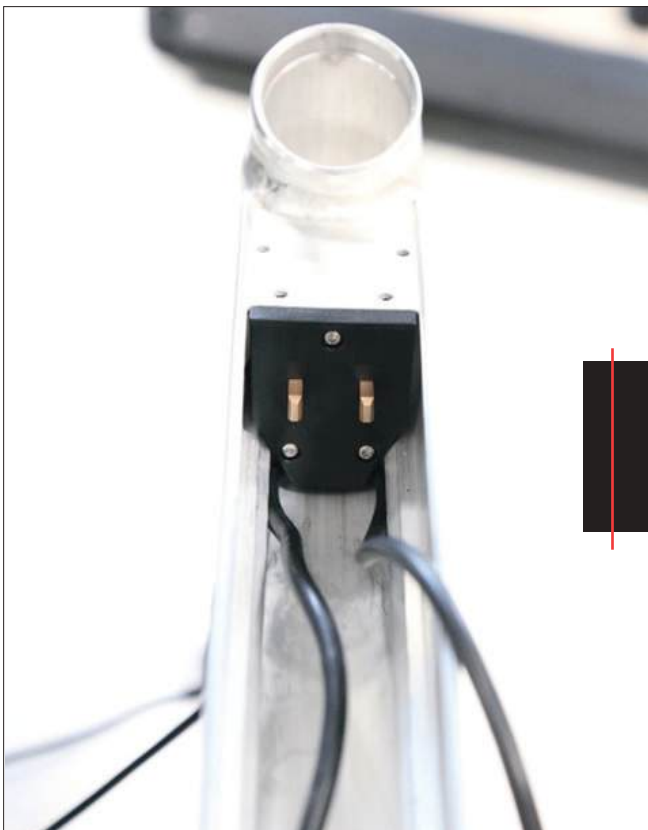
5

TAKE THE DISPLAY AND PUT THE WIRE INTO THE UPPER HOLE OF THE DOWNTUBE



6

FIT THE WIRE FROM THE MOTOR AND DISPLAY TO THE SOCKET BOX HUB



7

FIT THE SOCKET BOX HUB INTO PLACE.
IMPORTANT: MAKE SURE THE WIRES ARE GUIDED
ON EACH SIDE OF THE SOCKET BOX HUB



FIT AND TIGHTEN THE FOUR M3X9 SCREWS (1.2 NM)
FOR THE SOCKET BOX HUB

8



PUT THE WIRE FROM THE SOCKET BOX HUB INTO THE
LOWER HOLE OF THE DOWNTUBE



9



MAKE SURE THE WIRES ARE POSITIONED LIKE THIS AND
FIT THE CENTER MOTOR TO THE FRAME. MAKE SURE
THE SPEED SENSOR WIRE DOESN'T GET STUCK.

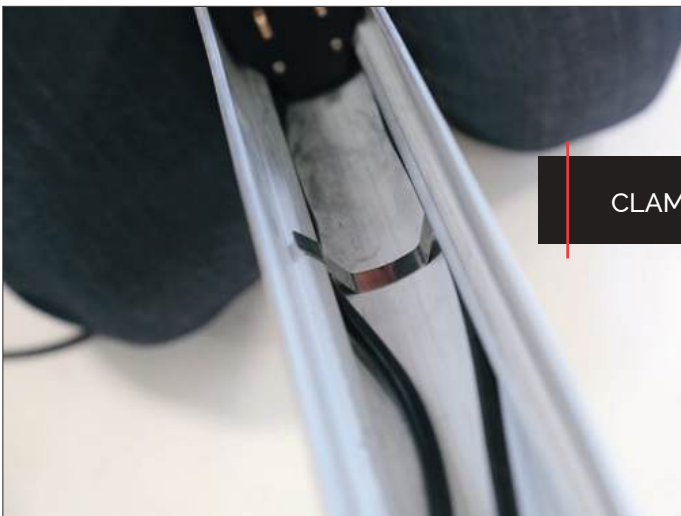
FOR MOUNTING THE MOTOR SEE PAGE. 25

10



11

TURN THE FRAME AND RUN THE WIRES IN EACH SIDE. FIT TWO OF THE THREE CLAMPS – ONE CLOSE TO THE SOCKET BOX HUB AND ONE IN THE MIDDLE.



12

CLAMP CLOSEST TO THE SOCKET BOX HUB



13

PUSH THE WIRES IN PLACE



14

TAKE THE PARTS FOR THE LOCKING MECHANISM



15

MOUNT THE TWO SCREWS LOOSELY AND MAKE SURE THE KEY PART CAN MOVE AROUND



16

PUSH THE LOCKING MECHANISM IN PLACE. MAKE SURE THE WIRES ARE POSITIONED CORRECT.

NB! REMEMBER TO PUSH LOCKING MECHANISM ALL THE WAY SO IT IS VERTICAL. IF THIS IS NOT DONE THE BATTERY WON'T FIT



17

FIT THE KEY INTO THE LOCK TO USE IT AS A GUIDE WHILE FITTING



18

WHEN IN PLACE TIGHTEN THE TWO M3X9
SCREWS (**1.2NM**)



19

YOU MAY NOW TIGHTEN THE TWO TORX 15 X 7MM
SCREWS FOR THE LOCK (**1.2NM**)



20

FIT THE LAST CLAMP CLOSEST TO THE
LOCKING MECHANISM

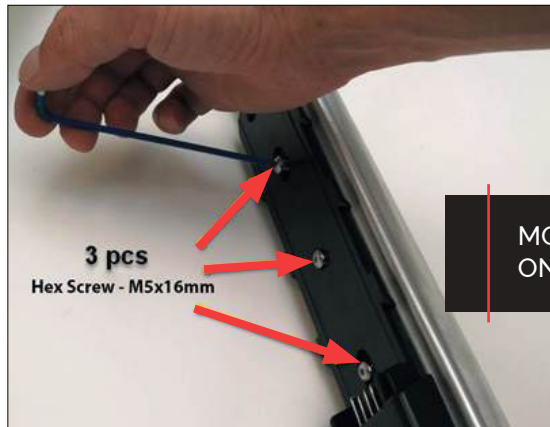
FINAL CONTROL OF THE ASSEMBLED DOWNTUBE 1

1. Check if the battery can be locked in, if not adjust the lock unit by tighten the lock.
2. Battery fitment, does the battery slide in easily? If not, control if there is a gaps between socket box and frame or lock unit and the frame.
3. Are the clips secured properly inside the frame?
4. Is the routing of the wire correctly done?

DOWNTUBE 2

TORQUE SPEC FOR SCREW/FITTINGS

DIMENSION - HEX SCREWS	PCS.	PAGE	TORQUE SPEC
HEX SCREW - M5X16MM	3	30	1.5 NM



1

MOUNT THE CENTER SCREW
ON THE CONTROLLER (2 NM)



2

TAKE THE MOTOR CABLE AND GUIDE
TOWARDS THE BOTTOM OF THE FRAME.



3

GUIDE THE MOTOR CABLE ALONG THE
FRAME TO THE REAR MOTOR



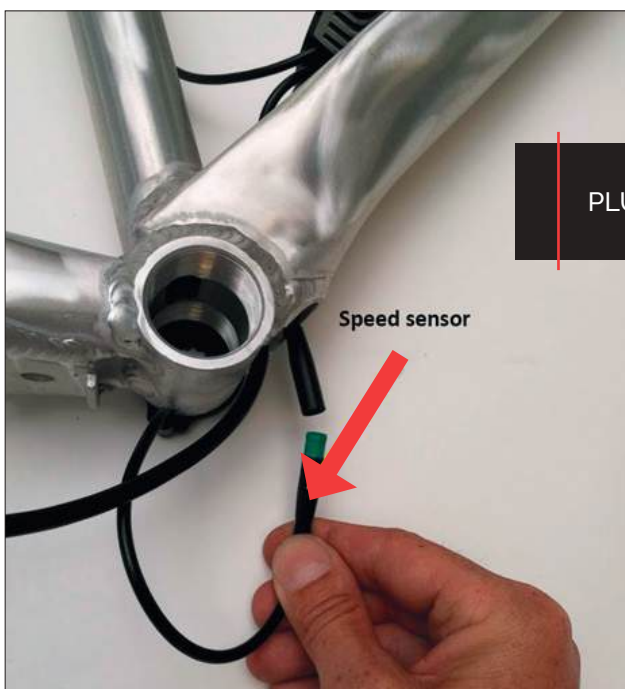
4

TAKE THE SPEED SENSOR – GREEN PLUG



5

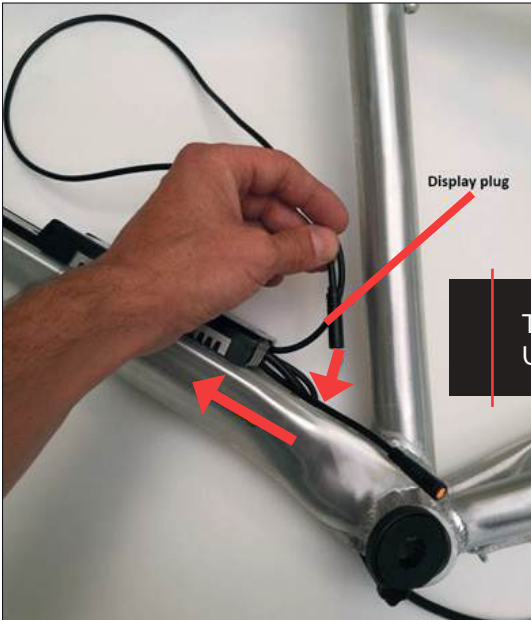
GUIDE THE SPEED SENSOR PLUG TO
THE BOTTOM OF THE FRAME



6

PLUG THE SPEED SENSOR TO ITS PLUG

7



TAKE THE DISPLAY AND GUIDE IT
UP TOWARDS THE DOWNTUBE

8



PULL THE WIRE OUT OF THE HOLE

INTUBE

TORQUE SPEC FOR SCREW/FITTINGS

DIMENSION - CROSS SCREWS	PCS.	PAGE	TORQUE SPEC
CROSS SCREW - M3X10MM	6	29,30	1.5 NM
CROSS SCREW - M3X30MM	2	30	1.5 NM



1

MOUNT THE LOCK UNIT
FROM THE INSIDE



2

TAKE THE SOCKET BOX (CONNECTOR END) AND PRESS IT
UP THE DOWNTUBE. **NB! MATCH THE GROOVES ON THE
FRAME AND SOCKET BOX WHEN FITTING THE SOCKET
BOX.**



3

SECURE THE LOCK UNIT TO THE SOCKET BOX BY SCREWING IN THE FOLLOWING SCREWS "CROSS M3X10MM" IN THE HIGHLIGHTED CIRCLES. (1,5NM)



4

SECURE THE SOCKET BOX TO THE FRAME BY SCREWING IN THE FOLLOWING SCREWS "CROSS M3X10MM" IN THE HIGHLIGHTED CIRCLES. (1,5NM)



5

GUIDE THE WIRES TO RIGHT SIDE OF DOWNTUBE AS SHOWN IN THE PICTURE. **NB! THE BOTTOM COVER/PART WON'T FIT IF THIS IS NOT DONE.**

6



PLACE THE BOTTOM COVER/PART IN THE DOWNTUBE AND SCREW WITH THE FOLLOWING SCREW "CROSS M3X30MM" (1,5NM)

7



SECURE THE SUPPORT END TO THE FRAME BY SCREWING IN THE FOLLOWING SCREWS "CROSS M3X10MM" IN THE HIGHLIGHTED CIRCLES. (1,5NM) **NB! MATCH THE GROOVES ON THE FRAME AND SUPPORT END WHEN FITTING THE SUPPORT END.**

8



SECURE THE SUPPORT END TO THE BOTTOM COVER/PART BY SCREWING IN THE FOLLOWING SCREW "CROSS M3X30MM" (1,5NM)



ACCESSORIES

SPEED SENSOR - BB VERSION



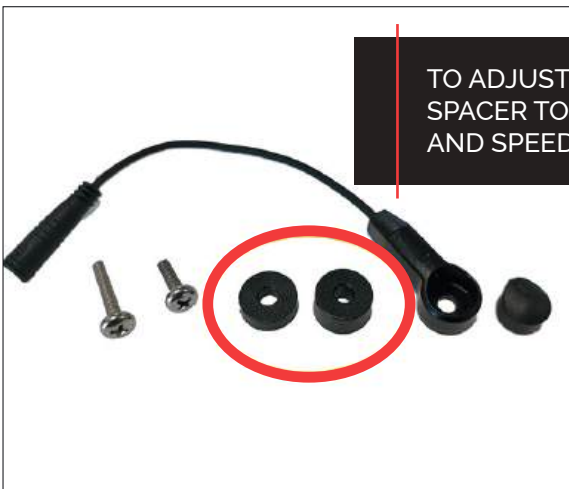
AFTER TIGHTENING DOWN THE CRANK ARM THERE NEEDS TO BE AT LEAST 1MM GAP BETWEEN THE SPEED SENSOR AND CRANK ARM.

SPEED SENSOR - CENTERMOTOR VERSION TORQUE SPEC FOR MAGNET

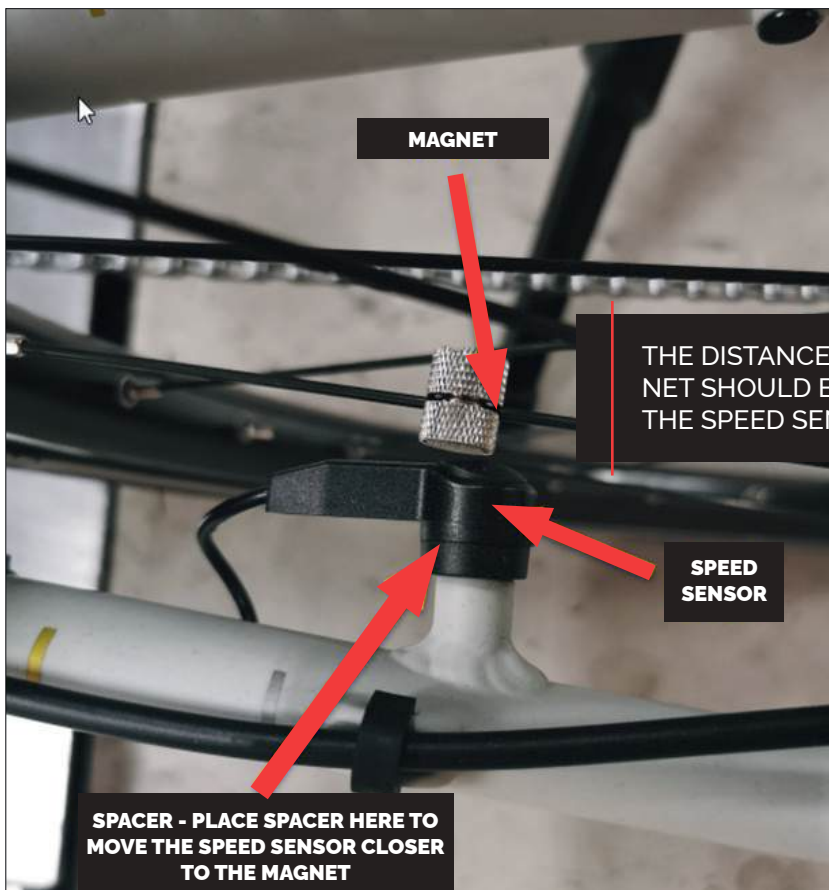
DIMENSION - CROSS SCREWS	FITS	PICTURE	TORQUE SPEC
FLAT HEAD SCREW - MAGNET	INSTALLED IN THE SPOKE		2 NM
CROSS HEAD SCREW – M5X12MM OR M5X10MM	FOR THE SPEED SENSOR, INSTALLED ON THE FRAME		2 NM



THE MAGNET ON THE SPOKE NEED TO BE ALIGNED WITH THE DOT ON THE SPEED SENSOR. IF THIS IS NOT DONE THAT SPEED SENSOR WILL NOT RECOGNIZE THE MAGNET AND THROW AN ERROR CODE 7



TO ADJUST THE SPEED SENSOR, USE THE INCLUDED SPACER TO ADJUST THE SPACE BETWEEN THE MAGNET AND SPEED SENSOR



THE DISTANCE BETWEEN THE SPEED SENSOR AND MAGNET SHOULD BE BETWEEN 3-7 MM. IF THIS IS NOT DONE THE SPEED SENSOR WILL THROW AN ERROR CODE 7.



DISPLAY

torque spec for DISPLAY

DIMENSION - CROSS SCREWS	DISPLAY TYPE	HANDLEBAR	BRACKET	THROTTLE/ BUTTONS	TORQUE SPEC
CROSS SCREW M3X12MM	50713, 50973, 50982, 51394	x			< 1.0 NM
CROSS SCREW M3X16MM	50946, 50947	x			< 1.0 NM
DIMENSION - HEX SCREWS	DISPLAY TYPE	HANDLEBAR	BRACKET	THROTTLE/ BUTTONS	TORQUE SPEC
HEX SCREW - M3X6MM	51811, 51812		x		< 1.0 NM
HEX SCREW - M3X7MM	51206	x			< 1.0 NM
HEX SCREW - M3X10MM	50946, 50947, 51812, 51211			x	< 1.0 NM
HEX SCREW - M3X12MM	51811, 51812	x			< 1.0 NM
HEX SCREW - M3X20MM	51211	x			< 1.0 NM
HEX SCREW - M3X22MM	51811		x		< 1.0 NM
HEX SCREW - M4X7MM	51211		x		< 1.0 NM

PLUG

When connecting the plugs be aware of the arrows on the plugs and other components. The arrows need to be aligned to each other before connecting them together. **OBS! Can be found on all our wires and controller unit**



V1 CONNECTORS



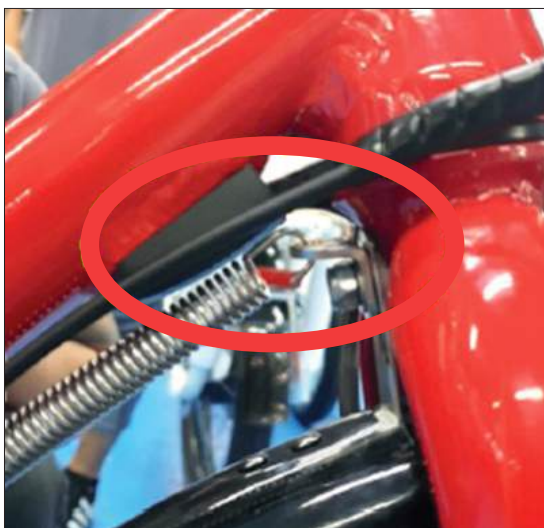
V2 CONNECTORS

Be aware that the V1 connectors for display has a flat spot and the V2 Connectors is round

SPRING



The tap needs to point up as shown in the picture



If there is any wiring or wire cover near the spring as the picture, turn the bracket downwards, so there is room enough

LIGHT WIRE

Check the if the wire for light is plugged into the right terminals some wire light is marked as white and black.

White wire = PLUS (+) **Black Wire** = Minus (-)



FENDER

Check and adjust the fender, so there is equal space around the tire.



SADDLE

The saddle needs to be horizontal



CARRIER

Needs to be horizontal as shown in the picture



LIGHT ANGLE

Light needs to be align so the light beam points 10-20° down



CONTACT PROMOVEC

When you contact Promovec via email regarding a specific case we kindly ask you to always have the following information at hand:

- Bicycle brand
- Year of production
- Date of purchase
- Attach a copy of the receipt
- Describe the problem as detailed as possible

Mail: **service@promovec.dk**
Tel.: **+45 8740 2867**

ABOUT PROMOVEC'S WORK

Danish design and high quality standards are key ingredients in our work and our efforts to find the best solutions for the electric bicycles of the future. We use only the best materials and the most advanced production technology. To ensure that we constantly live up to the requirement for high quality and operational reliability, we carry out ongoing quality tests of individual

components. This work has been ongoing for more than 10 years, so Promovec today is Scandinavia's largest developer of electric bicycles and is a well-known name in the European market.

FOLLOW US

