

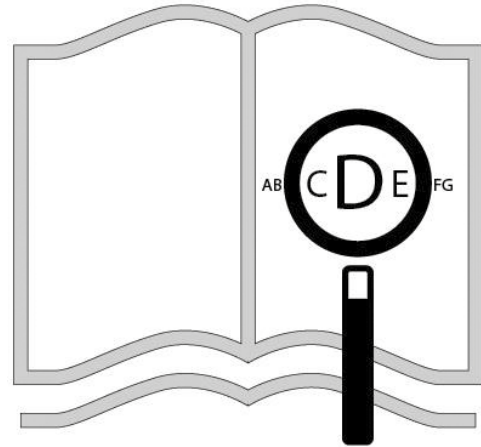
Pushing device

000690843.03

R20

Assembly instructions

www.sunrisemedical.com



If you are visually impaired, this document can be viewed in PDF format at www.sunrisemedical.co.uk or alternatively is available on request in large text.

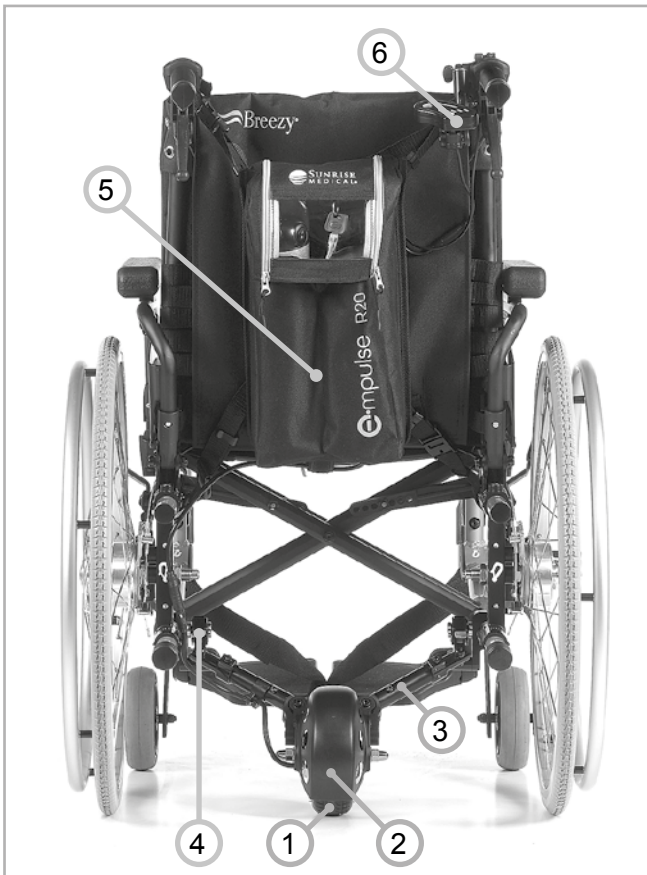
Components of the pushing device

We at SUNRISE MEDICAL have been awarded the ISO-9001 certificate, which affirms the quality of our products at every stage, from R & D to production. This products meet the requirements in accordance with EC guidelines

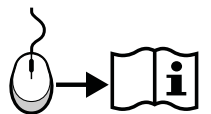


R20 pushing device

1. Drive wheel
2. Mudguard
3. Docking Arm
4. Docking clamp
5. Back pack with battery and controller
6. Control unit



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Foreword

Dear Customer,

We are very pleased that you have decided in favour of a high-quality SUNRISE MEDICAL product. This user's manual will provide numerous tips and ideas so that your new pushing device can become a trustworthy and reliable partner in your daily life.

For Sunrise Medical, it is very important that we have a good relationship with our customers. We like to keep you up-to-date about new and current developments at our company.

Keeping close to our customers means: fast service, as little red tape as possible and working closely with customers.

When you need replacement parts or accessories, or if you just have a question about your pushing device – we are there for you. We want you to be satisfied with our products and service. At Sunrise Medical we are constantly working to develop our products further. For this reason, changes can occur in our range of products with regard to form, technology, and equipment.

Consequently, no claims can be construed from the data or pictures contained in this user's manual.

The management system of SUNRISE MEDICAL is certified to EN ISO 9001, ISO 13485 and ISO 14001.

As the manufacturer, SUNRISE MEDICAL, declares that the lightweight wheelchairs conform to the 93/42/EEC / 2007/47/EEC guideline.

Please contact your local, authorised SUNRISE MEDICAL dealer if you have any questions regarding the use, maintenance or safety of your pushing device. In case there is no authorised dealer in your area, or you have any questions about product safety and product recalls, contact Sunrise Medical either in writing or by telephone.

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VIDEO

Delivery

Your new pushing device is delivered fully assembled in a cardboard box. In order to avoid any damage during transportation, loose parts or parts to be fitted, are packed separately in the cardboard box.

Unpacking:

Check the shipping cardboard box for external damage which may have been caused during transportation.









Remove all packaging material.

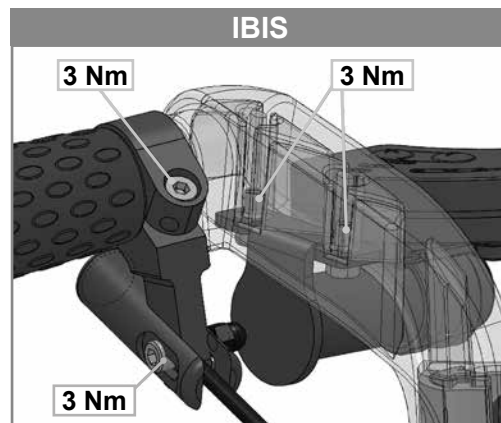
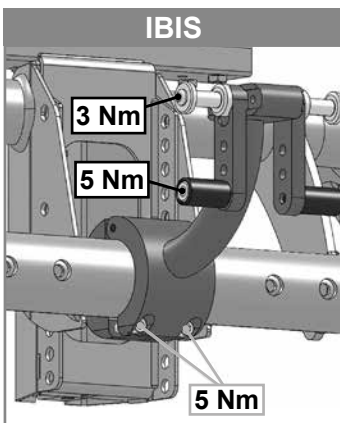
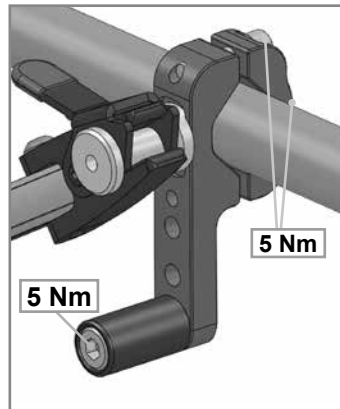
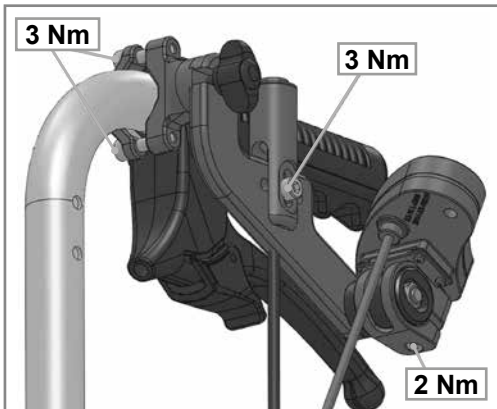
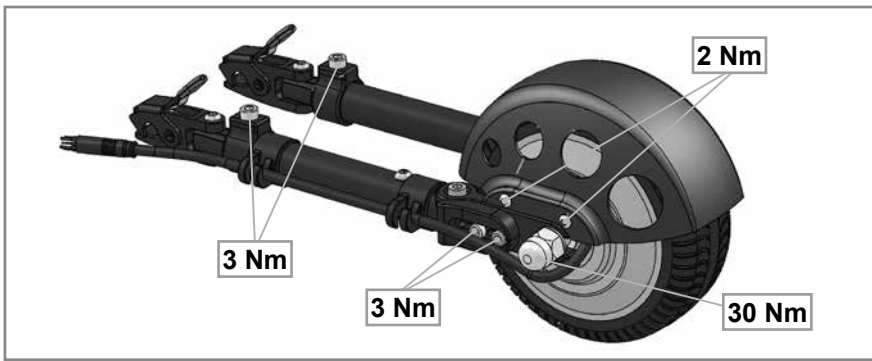
Take the pushing device carefully out of the box and check that the delivery is complete.

Check all parts for surface damage, scratches, cracks, dents, distortions and other defects.

NOTE: Should you find any damage, or if any parts are missing please let us know immediately.

The delivery of the pushing device contains:

Delivery	Description	Quantity
	Drive wheel with integrated motor including brackets	1
	Back pack with LI-ION 36V/5.8Ah battery with battery bracket and 2 keys, motor controller	1
	Control unit (in the back pack)	1
	LI-ION 36V/5.8Ah battery for wheelchair (in the back pack)	1
	Battery bracket, 2 keys (in the back pack)	
	Motor controller 36V / 15A (in the back pack)	1
	Docking clamps (1 clamp on the Ibis)	2
	Charger 36 V 1.35 A	1



The screws used are fitted with threadlock at the factory and after fitting, cannot be re-used. After that they should be replaced or alternatively re-secured with threadlock to medium tightness (Loctite 243).

WARNING:

Secured nuts may only be used once.

Fitting the wheel unit

Preparation/tools and assembly site:

In order to fit the powered pushing device to a wheelchair and adjust it, you will need the following tools:



Stop bracket min. 25 cm long



Hex Allen wrench, sizes 4, 5 and 6



Hex Allen wrench, sizes 8 and 10



Folding rule



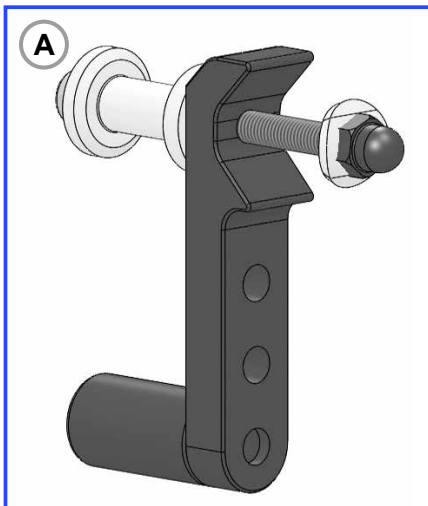
Protractor



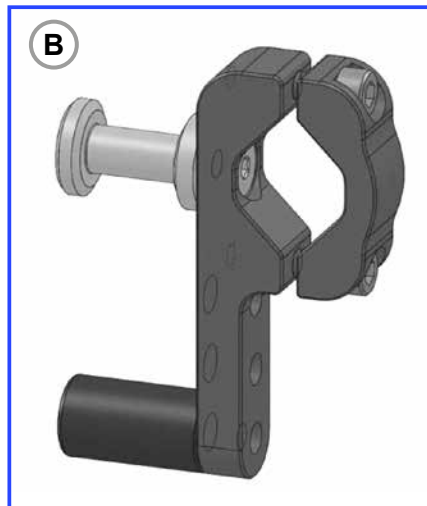
ATTENTION!: Fit the powered pushing device on a worktop, lifting platform or workbench. We do not recommend that it is fitted and adjusted when on the floor.

Docking system:

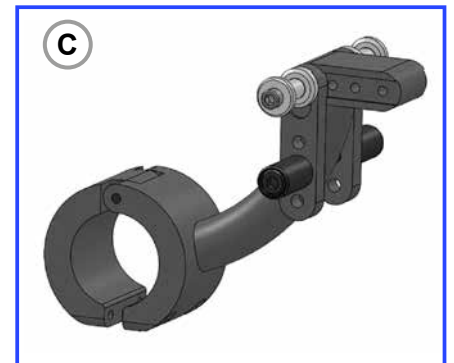
There are three different types of docking systems (A, B, C) depending on the type of wheelchair, which are fitted on the lower frame tube.



A
Screw version
(requires an existing hole in the frame tube)



B
Clamp version
(will be clamped to the lower frame tube)



C
Clamp version for the Ibis
(will be clamped to the centre of the lower frame tube)

Fitting the docking system (A)



Find a free hole in the lower frame tube. (As shown in the figure, you can use a threaded hole which already exists for attaching the device). The aim should be to fit move the bracket as far forward as possible (e.g. for chairs with cross braces immediately behind the cross-tube assembly).

Now insert the screw (1) and the washer (2) from the outside through the hole and then push the bar (A) over the screw. Then screw the docking pin (D) with the screw (1). When tightening the screw (1), make sure that the wrench flats of the docking pin (D) are positioned in the recess of the bar (A). (Torque setting: 3 Nm) Make this attachment on both sides in the same way. After attaching the clamps, these should be at an angle of 90° to the floor (Fig. 2).

FIG. 1

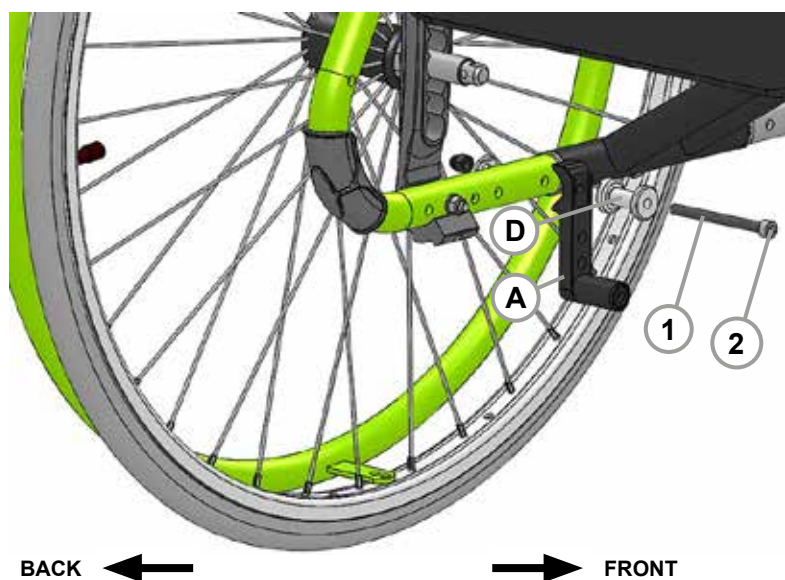


FIG. 2

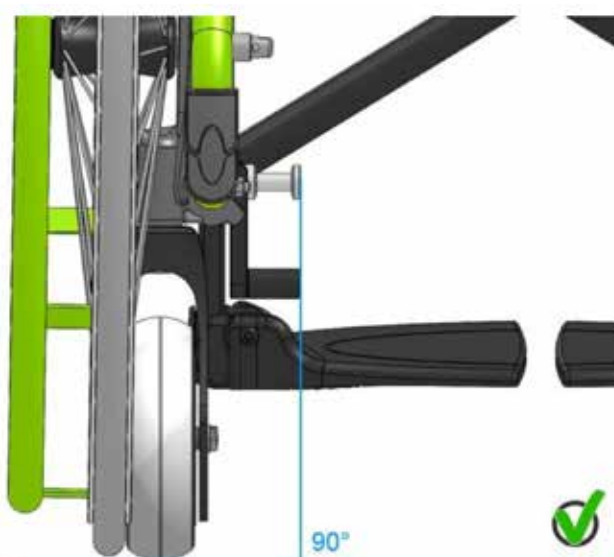


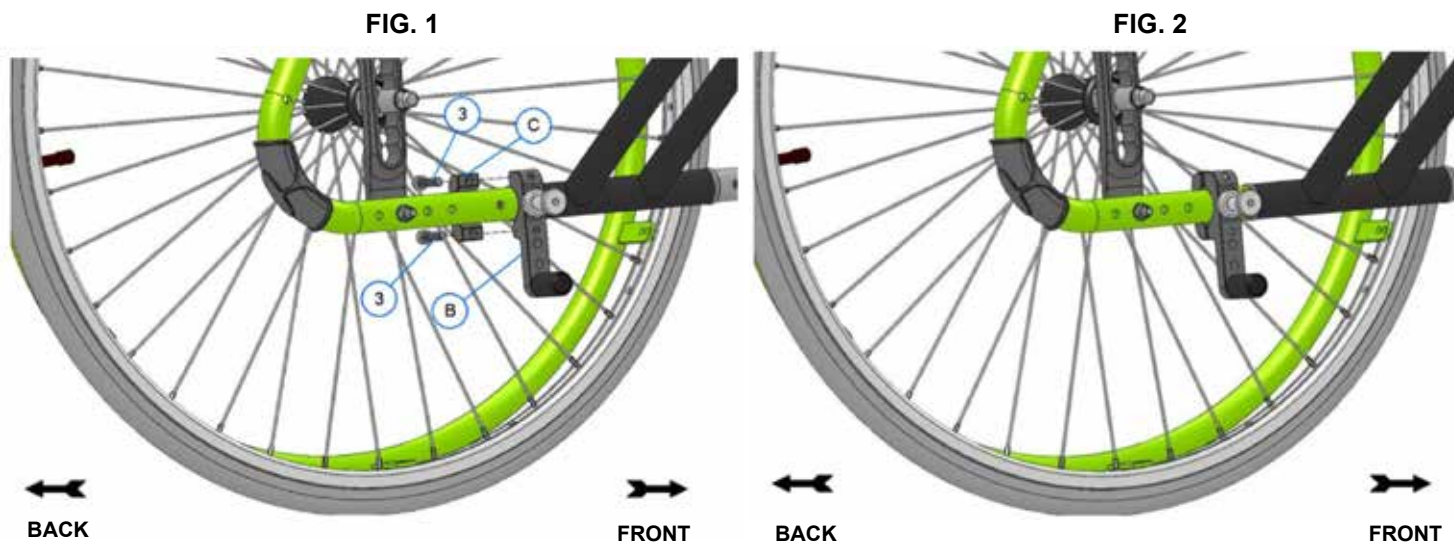
FIG. 3



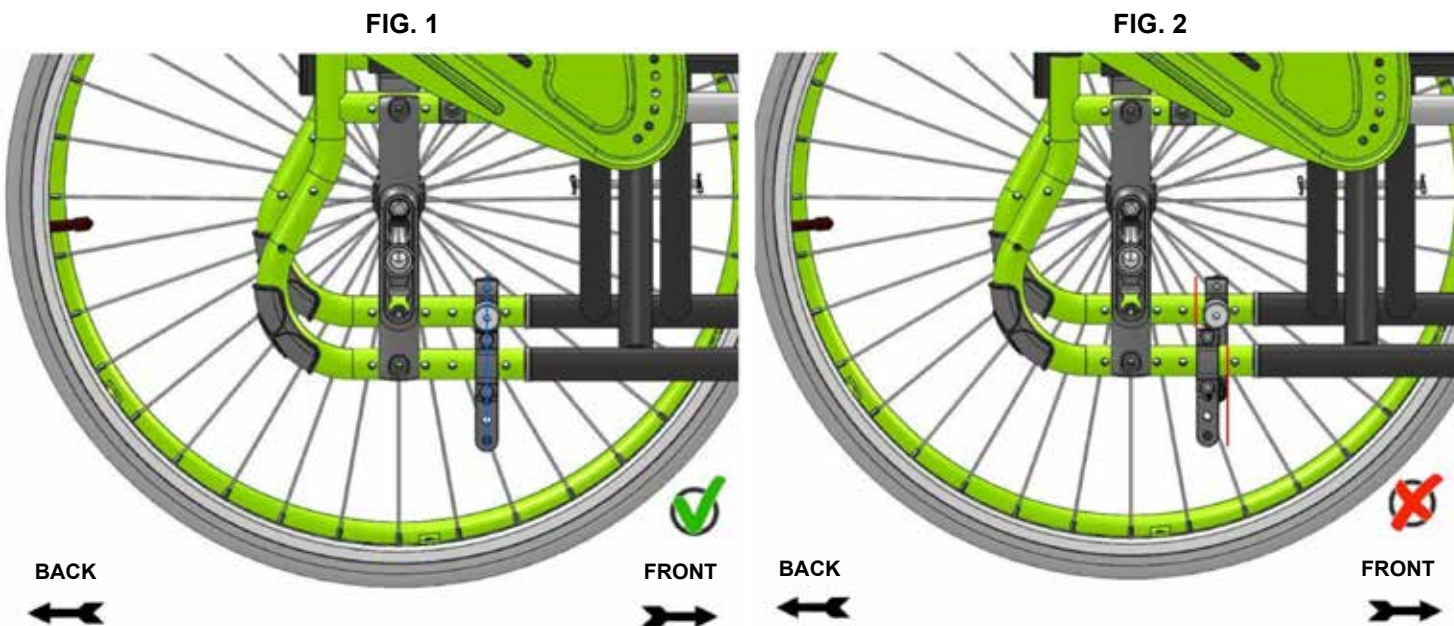
Fitting the docking system (B)



Position the clamping jaws (C) around the lower frame tube from the outside and the bar (B) from the inside and screw both parts together with the screws (3). Only tighten the screws (3) gently, so that the clamp (B-C) can still be rotated and moved. Make this attachment on both sides in the same way.



Position the two clamps (B-C) exactly opposite each other (Fig.1) in such a way that both clamps are at the same height. To do this use a reference point from which you can measure (e.g. from the axle plate of the wheelchair to the clamp), if necessary undo the screws (3) a little and move both clamps (B-C) so that they are at the same level. Then re-tighten the screws (3) gently.



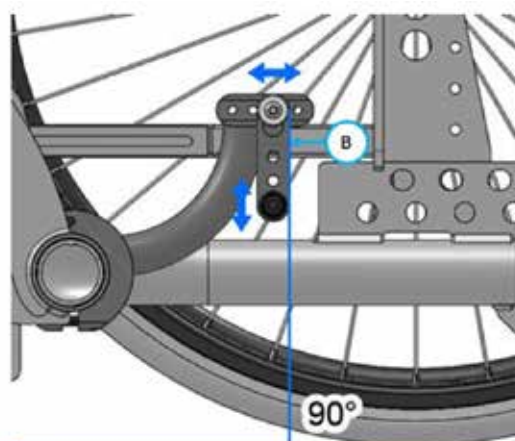
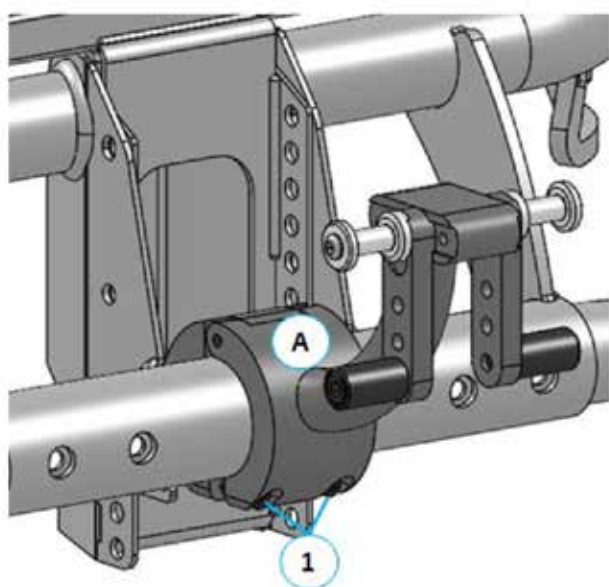
Then you must position the clamps (B-C) on both sides using a stop bracket, making sure they are still at right angles to the floor. Put the bracket on your worktop and adjust the clamp (B-C) to 90°, as shown in the figures. Once you have adjusted both sides to be at right angles, then tighten the screws (3). (Torque setting: 3 Nm).



Fitting the docking system (C):

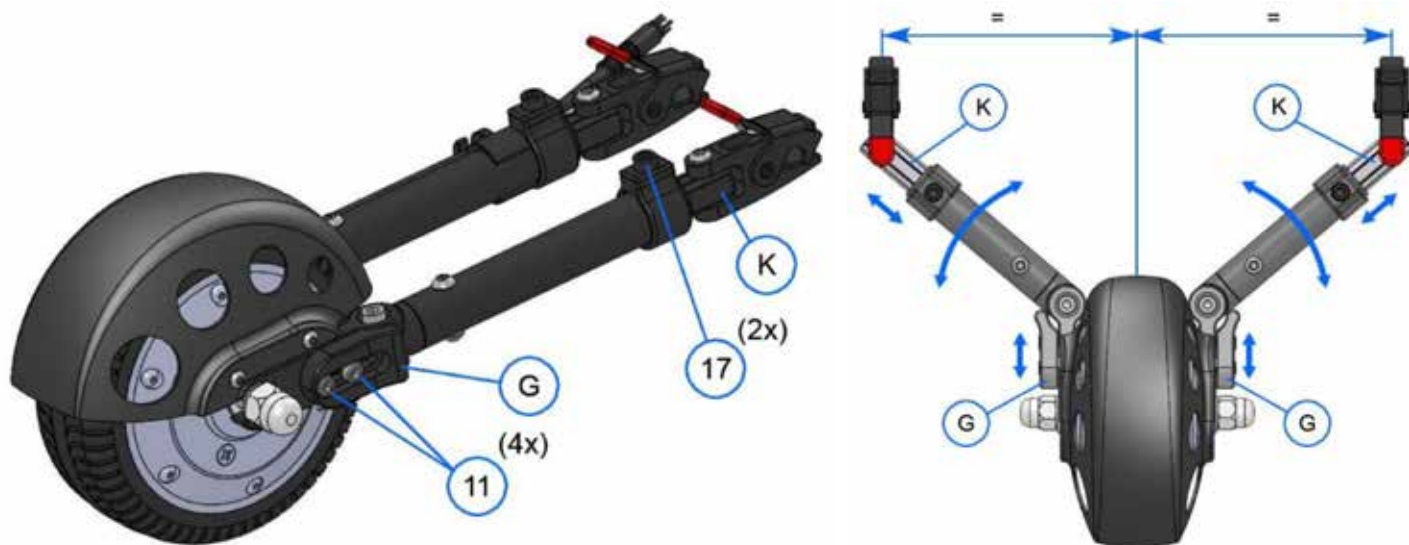


Position the clamp (A) around the lower frame tube and screw both parts together with the screws (1). Only tighten the screws (1) gently, so that the clamp (A) can still be rotated and moved. Now adjust the clamp so that it is exactly central and the bar (B) is vertical to the floor. Now tighten the screws (torque setting: 5 Nm).



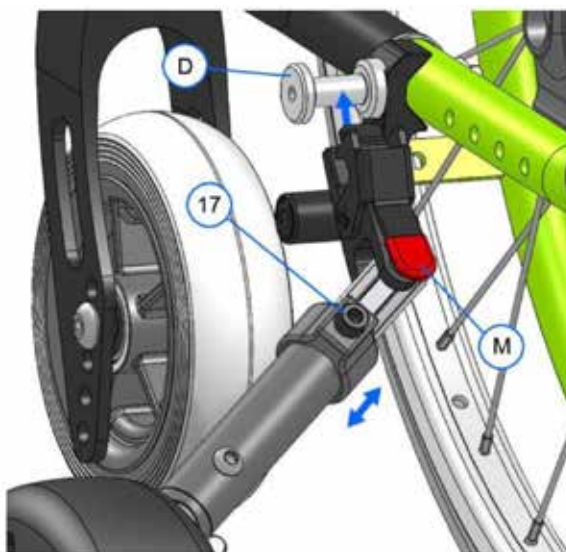
Preparation of the pushing device

Undo the screws (11) and (17) on both sides so that the jaws (G) and the telescopic tube (K) can be adjusted.



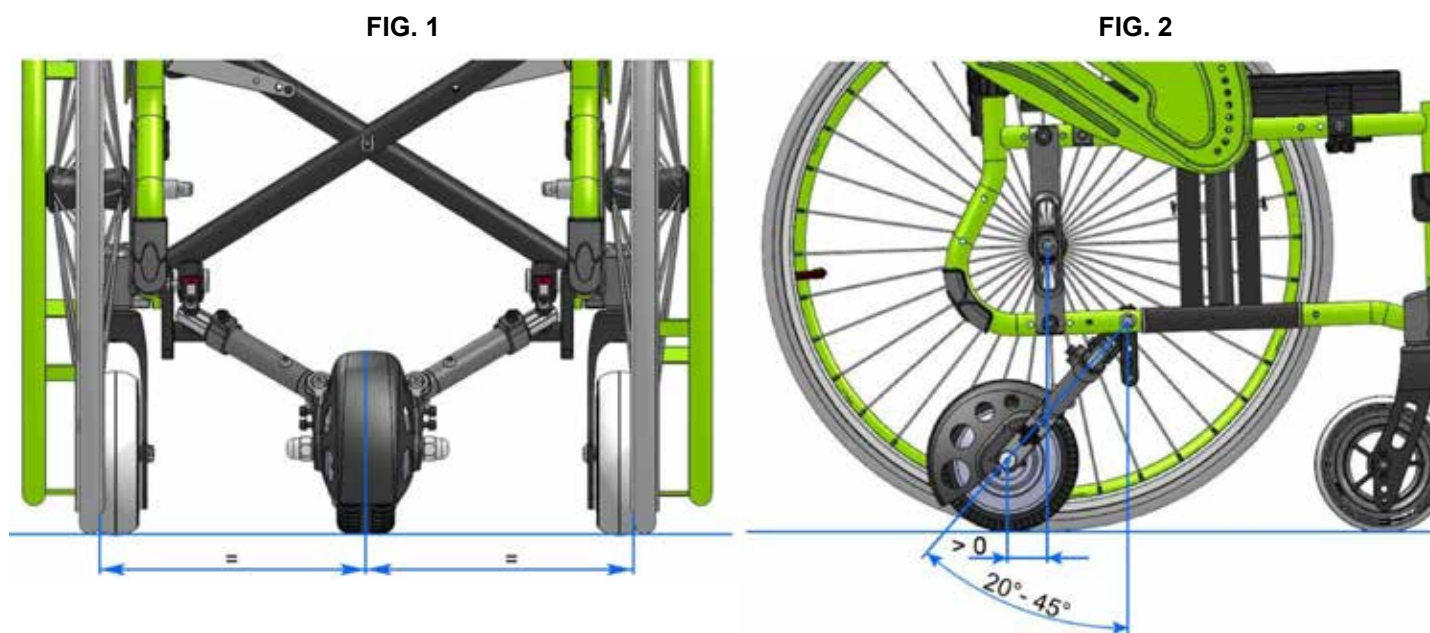
Fitting the pushing aid

Undo the right and left parts by pressing the release button (M) on the lever – and position this over the docking pin (D).



Positioning the pushing device:

Adjust the pushing device to a central position between the drive wheels of the wheelchair (Fig. 1). Then adjust the angle to the frame and adjust the distance from the pushing wheel to the centre of the drive wheel (Fig. 2). The pushing device should be as close as possible to the axle of the drive wheel. With the Ibis, this can be achieved by moving the docking pins in the bracket.



ATTENTION! – The angle between the vertical and the pushing wheel must be at least 20° and max. 45°. This guarantees that the pushing wheel will drive the wheelchair safely. (No slipping)

Final adjustment and tightening the screws

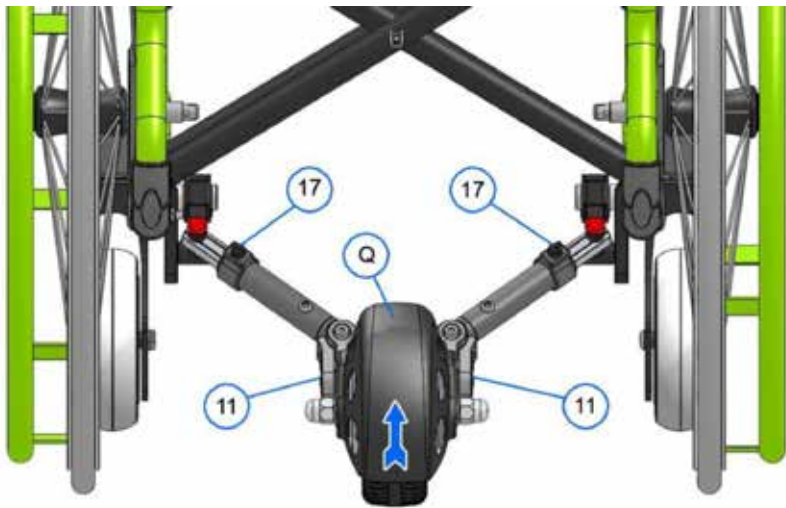
If the wheel is positioned correctly, the screws are only to be tightened as follows.

Attention: Please follow the sequence exactly!

First of all, adjust the stop jaws (G). Push the jaws (G) right and left forward until they are up against the hinge (figure) and then tighten the screws (11) on both sides (torque setting: 3 Nm).

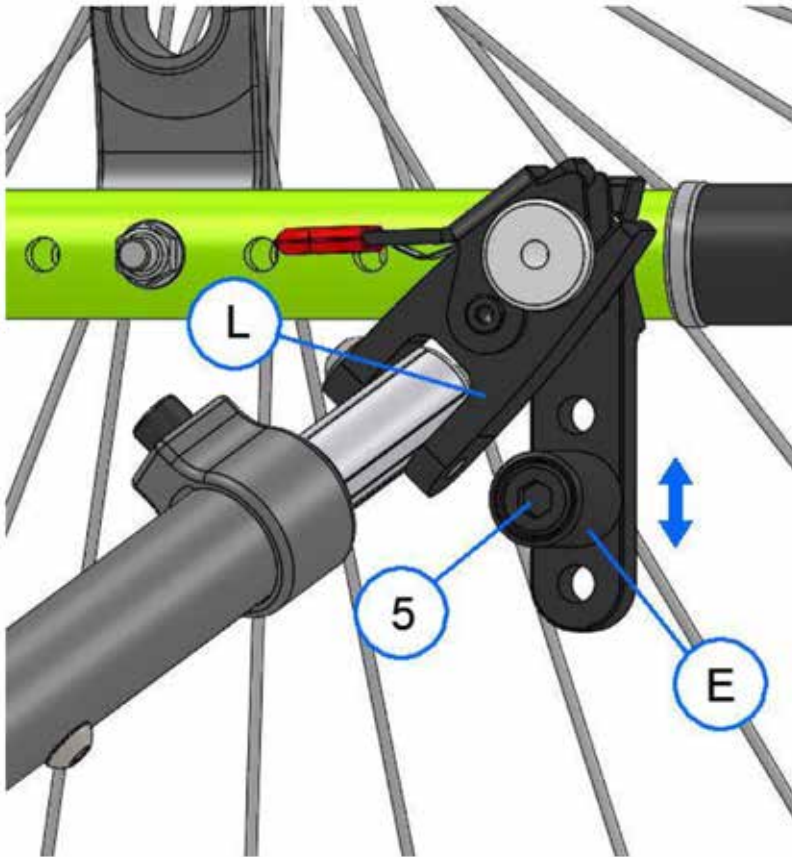
Attention: The jaws must be positioned in the breaks in the interlocking teeth!





Press the pushing unit (preferably on the mudguard (Q) by hand forwards gently, so that it is slightly under tension and then tighten the screws (17). (Torque setting: 3 Nm)

Attention: Activate the brakes on the wheelchair!



Now adjust the torque supports (E) (stop) on the right and left. To do this undo the screw (5) and position the torque supports (E) such that the distance to the lock (L) is as small as possible.

The pushing device should now be fitted in the centre of the wheelchair and should be firm and rigid.

Preparation of the back pack

Press the button (S1) in order to undo the 4 retaining straps (R1-R4) on the back pack.



Attaching the retaining straps to the wheelchair

The two upper retaining straps (R1-R2) are fixed to the backrest tube – the two lower retaining straps (R3-R4) can be fixed to a free part of the wheelchair as required (e.g. on the upper frame tube, on the backrest tube or the axle brackets).

Attaching the retaining straps to the wheelchair (Fig. 1-4):



1 Position the strap from one side of the tube. When doing this the Velcro is facing outwards



2 Position the strap round the tube and pull through the loop



3 Pull the strap through and fold backwards



4 Position the strap completely round the tube so that the Velcro parts fit together

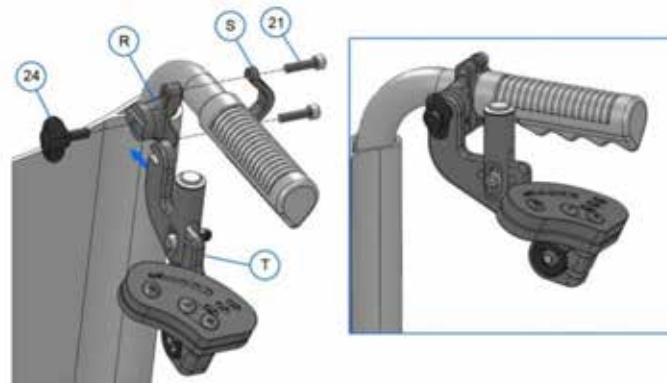
Fitting the back pack onto the wheelchair

Connect the four corners of the back pack with the buckle (T1) of the retaining straps. Adjust the straps (T2) to the required width for your wheelchair. Any surplus strap can be fixed using the retaining clips (T3).

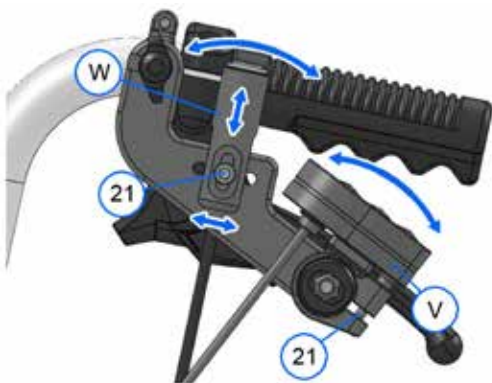


Mounting the control unit

Take the complete control unit (T) through the rear zip fastening of the back pack. Now undo the screws (21) – position the gripper clamp (S) from the outside and the beam clamp (R) from inside around the backrest tube.



By undoing the wing bolt (24), the control unit (T) can be fully removed and stored in the back pack. To do this, pull the control unit (T) through the rear zip fastening of the back pack and store it in the right back pack pocket.



Adjusting the control unit

1. By undoing or removing the screw fitting (21) you can adjust the height, position and angle of the pushbutton (W). Once you have found the ideal position, screw the unit back on.
2. By undoing the other screw (21), you can change the angle of the display (V). Once you have found the ideal position, screw the unit back on.

Mounting the control unit on the Ibis

Remove the pushing handle (A), push the gripper clamp (B) of the pushbutton over the handle and tighten the screws (1) gently, so that the gripper clamp can still be rotated. Now adjust the gripper clamp (B) such that the pushbutton is easily accessible. Now tighten the screws (torque setting: 3 Nm) and push the pushing handle (A) back on. Then fix the display bracket (C) using the self-tapping screws (2) on the handle.



ATTENTION! – The pushing handle must be firmly fitted and must not come off the tube.

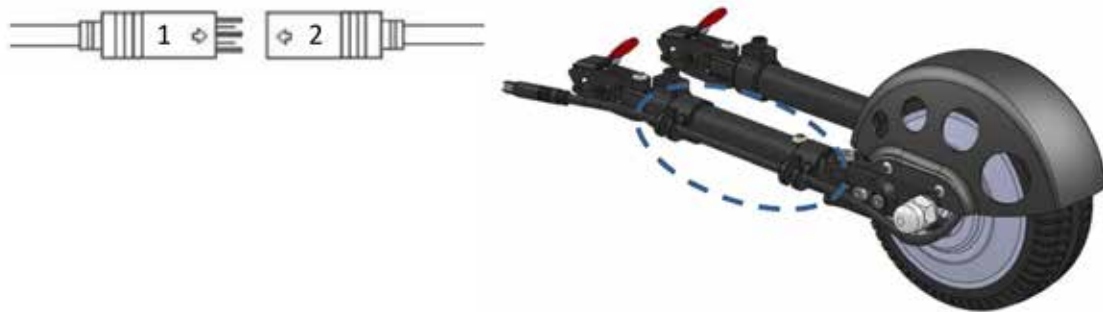


Adjusting the control unit on the Ibis

1. By undoing the screw fitting (21) you can adjust the height, position and angle of the pushbutton (W). For additional angle adjustment of the button, the screw (22) can be undone and the angle can be altered by rotating the gripper clamp. Once you have found the ideal position, screw the screws back in.
2. By undoing the screw (23), you can change the angle of the display (V). Once you have found the ideal position, screw the unit back on.



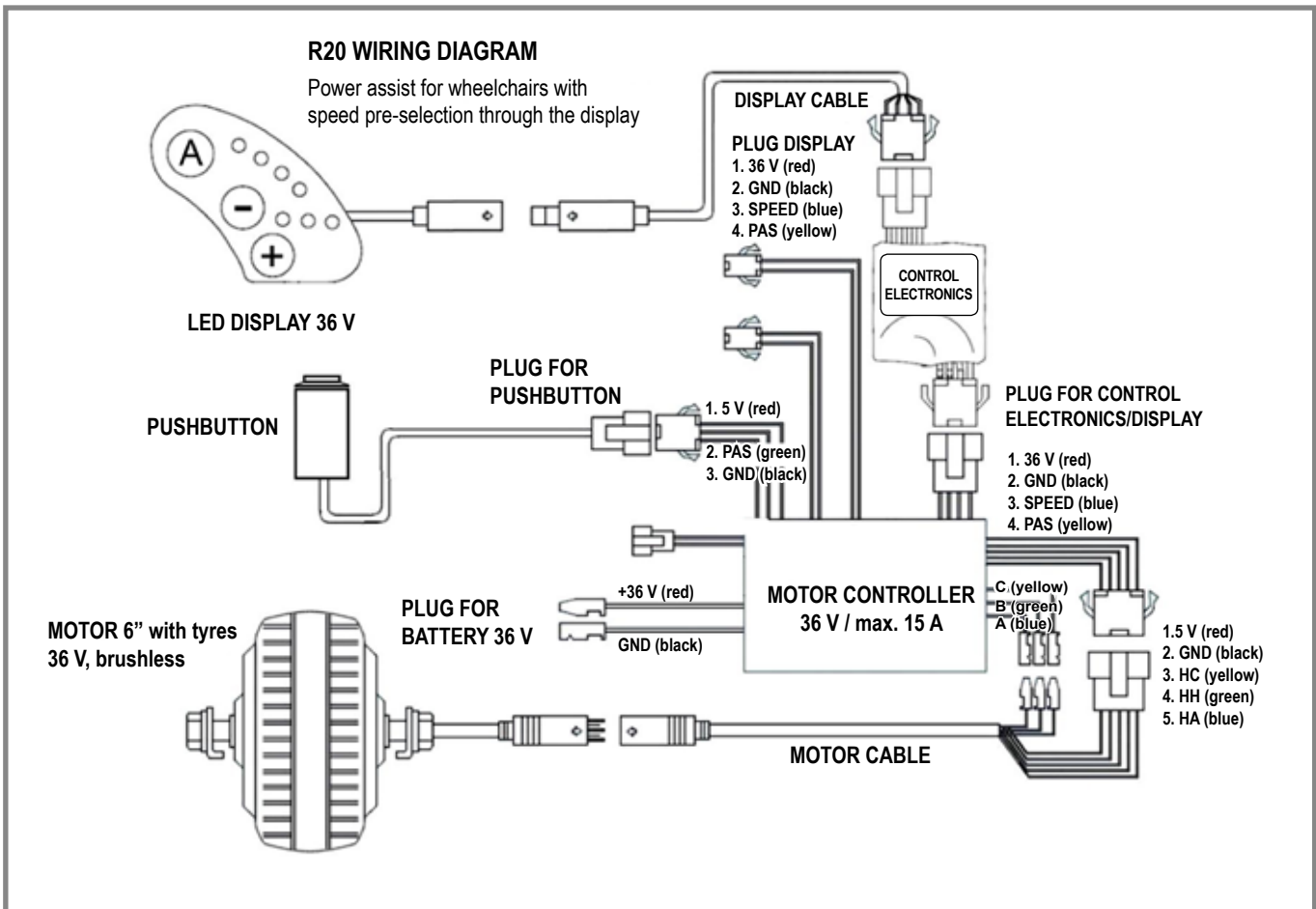
Connect the motor cable (1) with the cable from the controller box (2) and then fix it to the frame using cable ties (see Fig.).



Excess cable can be stored in the back pack.



ATTENTION! – It is essential that you make sure plug connections are tight, in order to avoid any possible malfunctions due to insufficient contacts.







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