

Otto Bock®

QUALITY FOR LIFE



Hubfix II Service Manual

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1 Preface

Regular maintenance is important – it increases safety and service life of the product.

All rehab products should be checked and serviced once a year.

When using a product often, however, or when a product is being used by children or adolescents who are still growing or by patients whose clinical picture changes, it is recommended to check, readjust and possibly service the product at an interval of 6 months.

For all service and maintenance work use only original spare parts.

The service and maintenance work described in this manual should be performed by skilled specialist staff only and not by the user of the product.

This service and maintenance manual refers to the respective spare parts catalogs and instructions for use of the described products; therefore, please use all the documents together.

Please use the maintenance schedules (check list) for duplication. Keep the completed maintenance schedules and hand over a copy to the customer.

| | Instructions for Use | Spare Parts Catalog |
|-----------|----------------------|---------------------|
| Hubfix II | 647G154 | 646K68 |

2 Safety

For all maintenance and repair work, there are a few points you should always observe:



Use suitable tools (refer to page 3 and the following pages).



Wear appropriate clothing as well as gloves and safety glasses, if necessary.



Secure the product to prevent it from tipping over or falling off the workbench, for example.



Study the service and maintenance instructions before beginning your work.



You should become familiar with the functions of the product first. If you do not know the product, please first study the instructions for use before inspecting the product.



If no instructions for use are available to you, please order them from the manufacturer (refer to the overview of all Otto Bock Branches „Otto Bock Worldwide“).



You can also download the document from our homepage under **www.ottobock.de** or **www.ottobock.com**.



Clean / Disinfect the product before starting inspection. Please also refer to the instructions for use regarding any care instructions or specific product inspection information.



Many of the screw fastenings use thread lock or nylock nuts. If you have to undo such screw fastenings please replace the respective nut with a new thread and/or nylock nut. If new thread lock or nylock nuts are not available, use a liquid thread lock substance with medium strength (e.g. Loctite 241 or Euro Lock A24.20).

3 Maintenance Schedule and Required Tools

The following list shows you the tools and auxiliaries mentioned in the text.



Flex ratchet and
Socket wrench bits sizes 10 -17



Wrenches
Sizes 10 -17



Allen wrench hex keys
Size 2.5 – 6 mm



Screwdrivers
Blade width 2.5 mm



Water pump pliers DIN 8976
Handle width up to 32 mm



Plastic hammer



PVC tubing section
(e.g. HR11590005)



Disassembly aid:
Screw M8x60 ISO 4017
Washer 8,4 DIN 9021
Nut M8 DIN 934 (2x)

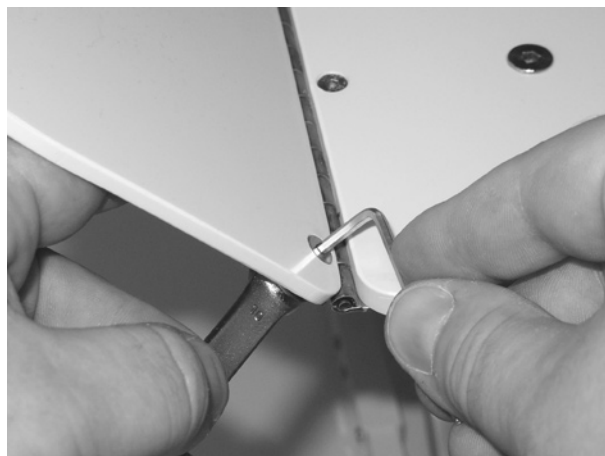
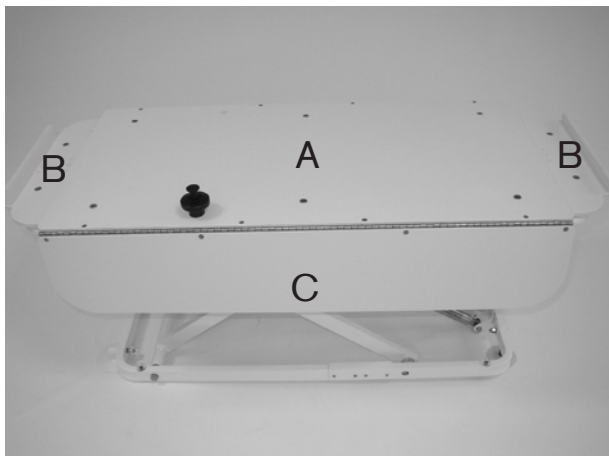


Liquid thread lock
„medium strength“

| | | | | | | | |
|---|---|--|--|------------------------------|--|--------------------------|--|
| Maintenance Schedule for Regular Service | | Hubfix II | | Customer: | | | |
| Item | Range | Inspection (check list) | | | | | |
| | SN.: | 1.) Function / Setting (refer to 647G154 instructions for use) | | 2.) Damages/ Deformations | | 3.) Screw Connections | |
| | Hubfix II | | | | | | |
| 4.1 | Cover | - Movable panels | | x | | x | |
| | | - Clamps | | x | | x | |
| 4.2 | Upper frame | - Profile rollers | | x | | x | |
| | | - Telescoping tube | | | | | |
| 4.3 | Double scissor construction | - Folding mechanism | | x | | x | |
| 4.4 | Lower frame | - Profile rollers | | x | | x | |
| | | - Suction cup feet | | x | | x | |
| 4.5 | Gas spring with release mechanism | - Folding mechanism | | x | | x | |
| | Do the settings of the bath lift comply with the user's requirements? | | | | | | |
| The maintenance was carried out by: _____ on: _____ | | | | | | | |

4 Settings / Retrofit / Exchange

4.1 Cover



The cover consists of a cover plate (A), two movable panels (B) and two wings (C).
The wings are connected to the cover plate by piano hinges.

Exchanging a wing:

Open and remove the four screw connections between the wing and the hinge and detach the wing.

Exchanging a hinge: After you have disassembled the wing, open and remove the four screw connections between the hinge and the cover plate and detach the hinge.

For re-assembly, please proceed in reverse order.

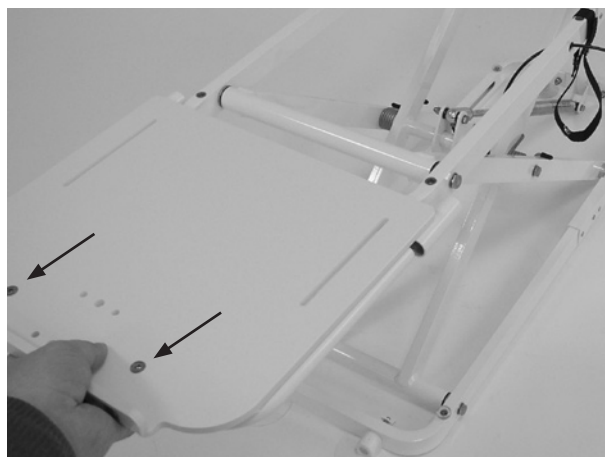
Attention: When mounting the plastic nuts, use a ring wrench or a socket wrench.



Follow the instructions for adjusting the movable panels **in** the instructions for use.

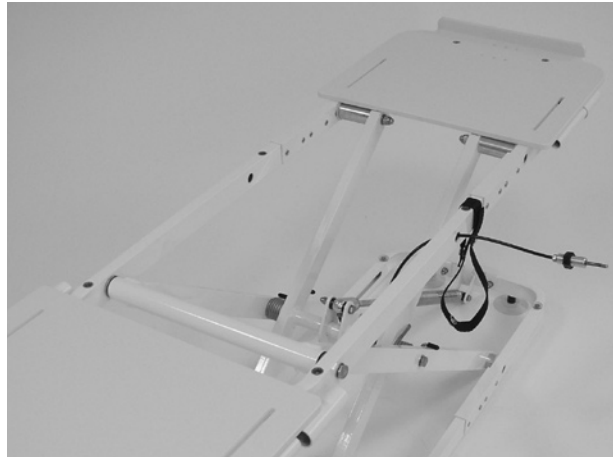
Exchanging a movable panel

Open and remove the marked screws and completely remove the movable panel with the telescoping tube on it.



Open and remove the screw connection between the movable panel and the telescoping tube and detach the movable panel.

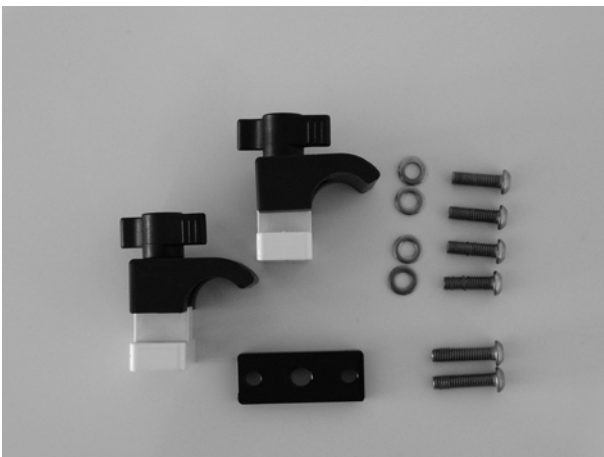
For re-assembly, please proceed in reverse order.



Exchanging the Cover Plate

After removing the piano hinges and wings, please first disassemble the release knob (refer to 4.5). Now open and remove the six screws in the cover plate and lift it up.

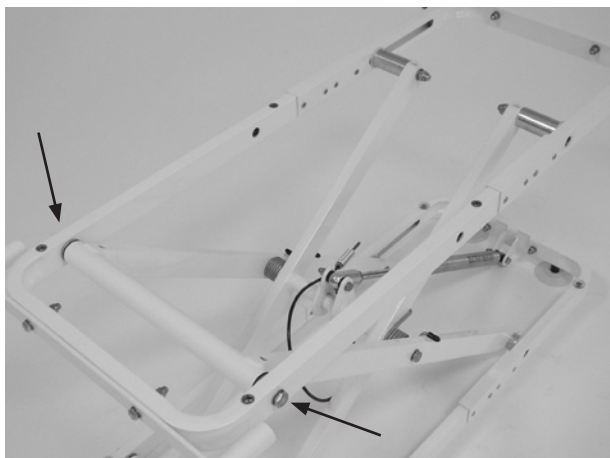
For re-assembly, please proceed in reverse order.



Assembly/Adjustment/Exchange of the Fasteners

Observe the information given in the instructions for use.

4.2 Upper Frame



Exchanging the Upper Frame

First remove the entire cover (refer to 4.1). In doing so, the wing must not be separated from the cover plate.

Remove the two plastic nuts from the release unit (see 4.5) and pull these back through the upper frame toward the inside.

Open and remove the screws between the upper frame and the double scissor construction. If necessary, use the disassembly aid.

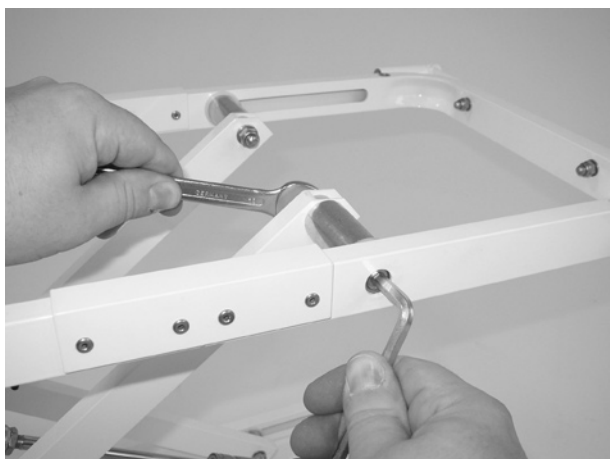
For re-assembly, please proceed in reverse order. Please pay attention to the instructions under 4.5



Inserting the Disassembly Aid

The screw connection of the double scissor construction on the upper frame, lower frame and between the internal and external scissor construction consists of two screws that are screwed into an axle. After loosening a screw, it is possible that the axle with the second screw will turn with it while opening.

Screw the disassembly aid into the axle as shown in the photo and fix the axle with the two lock nuts, one after the other. Now loosen and remove the screw connection on the opposite side. Unscrew the lock nuts and remove the disassembling aid.



After you have removed the two screws between the upper frame and the double scissor construction, you can move the upper frame so that the screw heads of the screw connections on the other side can be unscrewed with an allen wrench hex key as shown in the photo.

Open and remove the screw connections on both sides and remove the upper frame.

For re-assembly, please proceed in reverse order.

Use new, stainless steel, self-locking cap nuts.

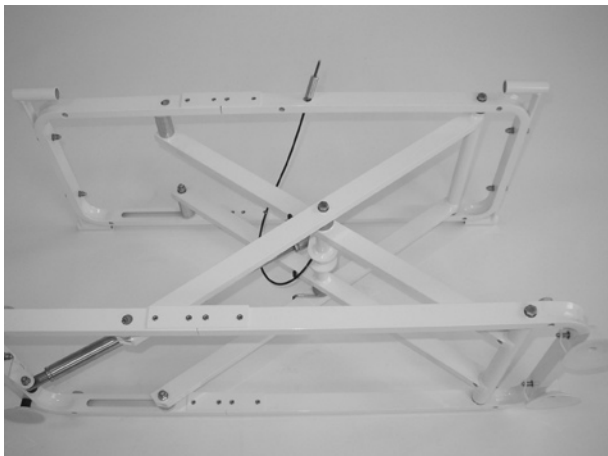


To **exchange the telescoping tubes** proceed as explained under „**Exchanging a movable panel.**“

To **exchange the telescoping tube holder**, open and remove both screw connections to the upper frame and detach the holder.

For re-assembly, please proceed in reverse order.

4.3 Double Scissor Construction



Exchanging the Double Scissor Construction

For all information on mounting and disassembling, please refer to the instructions of the component groups attached to the double scissor construction.

For disassembling the double scissor construction, you must dismantle the upper frame (refer to 4.2), the lower frame (refer to 4.4) and the release head of the hydraulic release mechanism (refer to 4.5)



Exchanging the Leg Springs

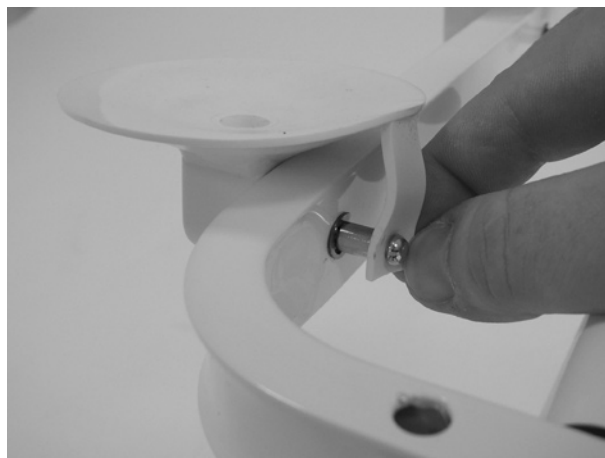
Be sure to re-assemble the leg springs as shown here in the picture.

4.4 Lower Frame



Exchanging the Suction Plates with Bore Holes

The suction plates only serve as rubber feet and should not have any suction effect.
The suction plates are screwed into the lower frame and can be screwed on and unscrewed by hand.



Exchanging the Suction Plate

First remove the release clip from the holding bolt.



Then lever the lock ring from the holding bolt with a small screwdriver.



Now you can pull the suction plate out of the lower frame.

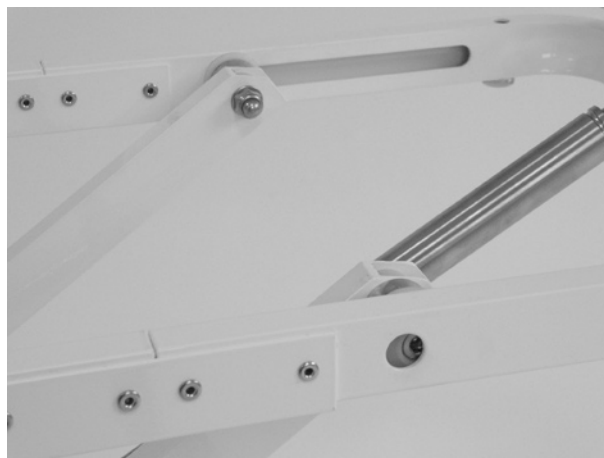
For re-assembly, please proceed in reverse order.



Exchanging the Lower Frame

Open and remove the screws between the lower frame and the double scissor construction. If necessary, use the disassembly aid.

For re-assembly, please proceed in reverse order.



After you have removed the two screws between the lower frame and the double scissor construction, you can move the lower frame so that the screw heads of the screw connections on the other side can be unscrewed with an allen wrench hex key as shown in the photo.

Open and remove the screw connections on both sides and remove the lower frame.

For re-assembly, please proceed in reverse order.

Use new, stainless steel, self-locking cap nuts.



Open and remove the screw connection between the gas compression spring and the storage location for the gas compression spring.

For **exchanging the gas compression spring**, open and remove both the screw connections between the lower frame and the holder as well as the screw connections for the gas compression spring before detaching the holder for the gas compression spring.

For re-assembly, please proceed in reverse order.

Use new, stainless steel, self-locking cap nuts.

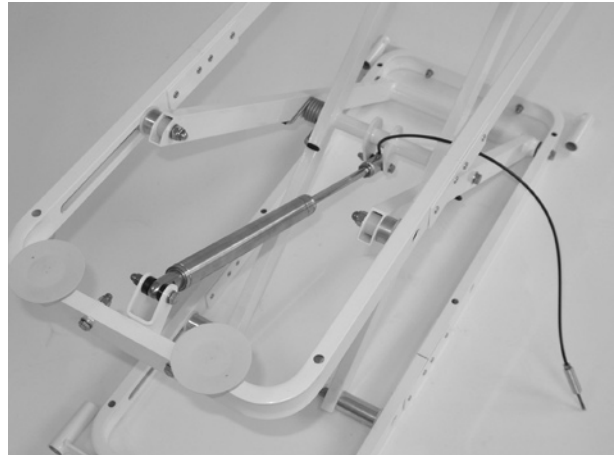
4.5 Gas Spring with Release Mechanism



Exchanging of the Hydraulic Release Mechanism

Remove the push button from the release unit. Tighten the plastic nuts with a wrench and turn the release knob away from the release unit. Pull the release unit out of the cover plate and also unscrew both plastic nuts from the release unit.

When assembling and reconstructing **the position of the release knob, please pay attention** to the information in the instructions for use.



Pull the hydraulic tube and the release unit through the upper frame toward the inside and disassemble the release head.

To **exchange the gas compression spring**, open and remove the screw connections between the gas compression spring and the holder. After loosening the lock nuts, unscrew the piston of the gas compression spring from the still screwed in release head. The release knob must not be disassembled for this.

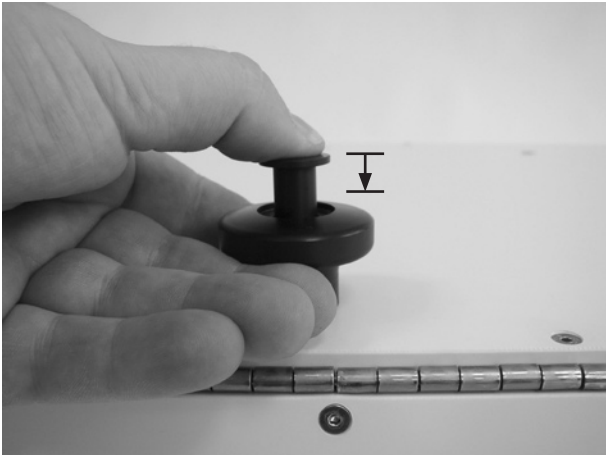
When assembling, make sure you set the hydraulic release devices correctly.



To **disassemble the release head**, first open the lock nuts underneath the release head. Open and remove the screw connection between the release head and the double scissor construction. Then unscrew the release head from the piston of the gas compression spring.

For re-assembly, please proceed in reverse order.

When assembling, make sure you set the hydraulic release devices correctly.



Setting the Hydraulic Release Device

After the release knob has been assembled with the release unit, and the release head with the gas compression spring, set the release mechanism so that the push button can move approx. 1 mm before the piston in the release head touches the valve pin in the piston of the gas compression spring.

By screwing the piston of the gas compression spring into the release head, the space decreases; by unscrewing it, the space becomes larger.

Use a piece of PVC tubing or leather to turn the piston rod so as not to damage it with pliers.



Make a **final inspection** of the functions.

After pressing the release button, it must be possible to let down the cover.

After letting go of the release button, the cover must remain at the desired height.

Check to make sure that the tube of the hydraulic release unit is not bent or clamped.

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