



Service Manual Standing Frame





# **Service Manual for the Standing Frame**

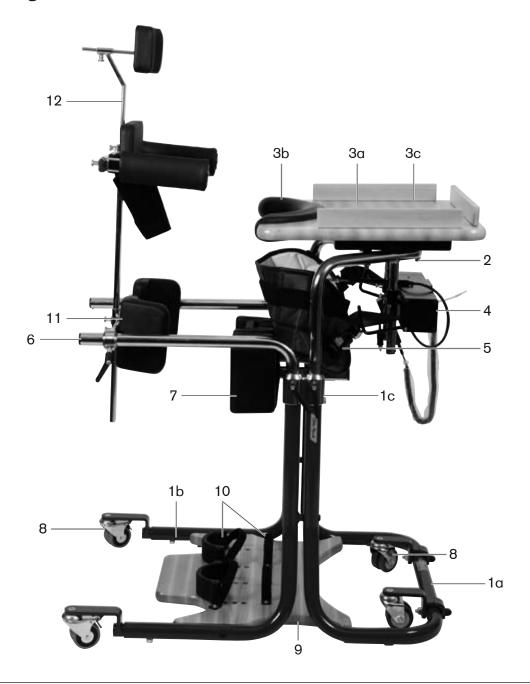
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# Standing Frame – General View



1 Base frame (a: front floor tube; b: floor tube left/right; c: double bushing)
2 Table bend
3 Table top (a: table top; b: abdominal pad; c: table edge)
4 Strap rewinder
5 Patient belt
6 Handrail
7 Knee pads / knee pad holder
8 Casters
9 Footplate
10 Foot fixation
11 Support bar with pads
12 Upper body support



# 1 Introduction

### 1.1 Preface

Regular maintenance is important – it improves the safety and increases the lifespan of the product.

All mobility products should be inspected and serviced once a year.

However, if the product is used frequently, or if it is used by growing children or patients with changing clinical conditions, we recommend readjusting and servicing the product every 6 months.

Only use original spare parts for all service and maintenance.

The service and maintenance tasks described here should only be completed by trained, qualified personnel and not by the user of the appliance.

This service and maintenance manual refers to the spare parts catalogues and instructions for use for the products described. Please use these documents together.

Use the maintenance schedule (check list) as a template for making copies. Retain completed maintenance schedules and provide the customer with a copy.

	Instructions for Use	Spare Parts Catalogue
Standing Frame	647H412	646K52

# 1.2 Technical Support

Your national Otto Bock team will be pleased to answer your technical questions. Contact addresses and telephone numbers are listed on the last pages of this manual.



# 2 Safety Instructions

# 2.1 Explanation of Symbols

△ WARNING Warnings regarding possible risks of severe accident or injury.

**△** CAUTION Warnings regarding possible risks of accident or injury.

**NOTICE** Warnings regarding possible technical damage.

INFORMATION Information regarding operation. Information for service personnel.

# 2.2 General Safety Instructions

# **INFORMATION**

Please read the service and maintenance instructions before commencing work. Familiarise yourself with the functions of the product. If you are not familiar with the product, read the Instructions for Use before inspecting the product.

If you do not have a copy of the Instructions for Use, you can order one from the manufacturer (see the overview of all Otto Bock branches "Otto Bock Worldwide"). You can also download documents from our homepage: www.ottobock.de or www.ottobock.com.

# **△** CAUTION

Risk of injury due to inappropriate work clothes. Wear appropriate clothing, including gloves and safety glasses, if necessary.

# NOTICE

Risk of damage due to incorrect tools. Use appropriate tools. (See Section 3.1)

# NOTICE

Risk of damage to the product. Secure the product to prevent it from tipping over or falling off the workbench.

# NOTICE

**Risk of damage to the product.** Clean/disinfect the product before you start the inspection. Consult the Instructions for Use regarding product care and product-specific inspection information.

# **INFORMATION**

The screws and nuts for many of the screw connections are equipped with thread lock. If you have to undo such screw connections, replace the nut or screw with a screw equipped with new thread lock. If new screws or nuts with thread lock are not available, apply a medium-strength liquid thread lock substance (such as Loctite 241 or Euro Lock A24.20) to the existing screws.



# 3 Required Tools, Maintenance Schedule

# 3.1 Required Tools

The following list shows the tools and accessories required for service.



Phillips head screwdrivers, sizes 3.5/5 mm



Wrenches, sizes 8 mm - 18 mm \*



Allen wrenches, sizes 4 mm - 6 mm \*



Torque wrench, measurement range 5 – 50 Nm



Hand drill/floor model drill press



Twist drills, Ø 4/5/6 mm

<sup>\*</sup> Contained in 481C08=ST010 Tool Set



# 3.2 Maintenance Schedule

	tenance schedule for egular inspections			Customer:	
Item	Component (assembly)	Inspection (check list)			
	Serial number:	1.) Function/setting	dar	pected for mages/ ormations	3.) Screw connections inspected
	Table top/ table bend	- Table top - Abdominal pad - Table bend tube		x x x	x x x
	Base frame	<ul><li>Double bushing (firm seat)</li><li>Front floor tube</li><li>Floor tube left/right</li><li>Gas compression spring (upon disassembly)</li></ul>		x x x	x x x x
	Footplate/ foot fixations	- Screw connection to the frame - Heel restraint - Hook and loop straps		х х х	x x x
	Strap rewinder	- Manual strap rewinders:  - Strap lock  - Strap buckle  - Attachment to the table bend  - Switch lever		x x x x	x x x x
		- Electric strap rewinders: - Strap lock - Strap buckle - Attachment to the table bend - Switch-off function (depending on the model)		x x x	x x x
		Setting/function of switch-off button     Cable/switch/remote control     Battery tray (version with battery)		X X	x x
	Handrail Knee pads	- Locking function - Pads - Attachment		x x x	x x x
	Options	- Upper body support - Support bar with pads - Swivelling support pads - Table top incline adjustment		x x x x	x x x x
Notes		,	1		
Do the	e settings of the Stanc	ling Frame comply with the user's requirer	nents	s? 	
The m	naintenance service w	as carried out by:		on:	



# 4 Settings / Replacement / Retrofit

# **INFORMATION**

The following abbreviations are used in the following:

Standing Frame for Adults: **ASF** Standing Frame for Children: **CSF** 

# 4.1 Table Top / Table Bend

# 4.1.1 Replacing the Table Top

# **INFORMATION**

Before disassembling the table top, the strap rewinder has to be removed. See Section 4.4.1.

The table top of **ASF** and **CSF** is replaced in the same way:

- 1. The table top is attached to the table bend of the **ASF** (Fig. 1) / **CSF** with three Allen head screws (M8x50).
- 2. When using an electric, battery-operated strap rewinder, you first have to mount the battery tray to the bottom side of the table top (see Section 4.1.5). When screwing the table top to the table bend, slide the provided spacer bushings over the externally located Allen head screws (M8x110) (Fig. 2).







# 4.1.2 Replacing the Abdominal Pad

The abdominal pad of **ASF** and **CSF** is replaced in the same way:

- 1. Remove the three Spax® screws 4x30 from the abdominal pad (Fig. 3). Now you can pull the abdominal pad off the table top (Fig. 4).
- 2. For reassembly, please proceed in reverse order.



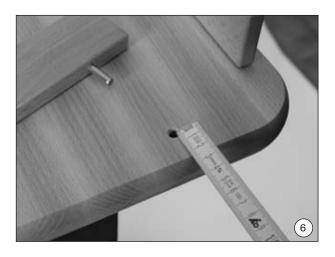


# 4.1.3 Replacing / Retrofitting the Table Edge

The table edges of **ASF** and **CSF** are replaced or retrofitted in the same way:

- 1. Insert the table edges (Fig. 5: 1 x batten, long; 2 x batten, short) with the pre-assembled straight pins into the corresponding bore holes on the margin of the table top.
- 2. If the table edge had not yet been mounted, you first have to drill the bore holes (ø 6 mm) using the provided drilling pattern of freehand. The bore holes should have a distance to the table end of 2 cm (Fig. 6).







### 4.1.4 Replacing the Table Bend

# **INFORMATION**

Before disassembling the table bend, the strap rewinder (see Section 4.4.1) and table top (see Section 4.1.1) have to be removed.

# **△** CAUTION

Risk of injury due to uncontrolled springing up of the table bend. The gas compression springs cause a permanent upward pressure on the table bend tube. Therefore, firmly hold the table bend when releasing the clamp levers and let it glide up slowly/in a controlled manner.

The table bend of **ASF** and **CSF** is replaced in the same way:

- 1. Loosen the clamp levers on the double bushings (Fig. 7) while observing the above safety instruction.
- 2. Pull the table bend vertically out of the guide so that the gas compression springs are exposed (Fig. 8). Replace the table bend, if necessary.
- 3. Fit the table bend precisely (without tilting) over the gas compression spring struts (Fig. 9).
- 4. Evenly push down the table bend against the pressure provided by the gas compression springs and close the clamp levers.
- 5. Finally, insert the lamellar plugs into the open tube ends (Fig. 7, item A).









# 4.1.5 Replacing / Mounting the Battery Pack

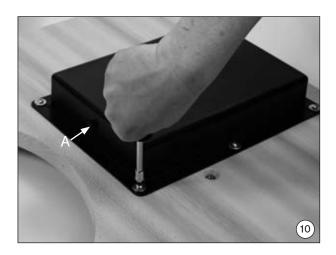
NOTICE

**Risk of damaging the battery cables.** During mounting, take care not to pinch the battery cables between the battery tray edge and plate.

# a) Replacing the Battery Pack

The battery pack is replaced while the table top is unmounted:

- 1. Loosen the six Phillips head screws that attach the battery tray to the bottom side of the table top and remove the battery tray with the batteries (Fig. 10).
- 2. Replace the battery pack, if necessary (set of 4 batteries). Insert the batteries into the battery tray with the lettering up and connect them in series (connect positive pole to negative pole; Fig. 11).
- 3. If necessary, remove the fuse cover cap and replace the fuse (Fig. 10, item A).
- 4. Retighten the screw connections that attach the battery tray to the table top.







# b) Mounting the Battery Pack

To mount an electric, battery-operated strap rewinder, you have to position and mount the battery pack:

- 1. Fix the empty battery tray with an Allen head screw (M8x110) to the table bend (Fig. 12). Lay the table top upon the battery tray.
- 2. Properly align the table top so that it is at right angles and mark the contours of the battery tray on the bottom side of the table top with a pencil.
- 3. To mount the batteries and attach the battery tray, proceed as described in Section 4.1.5 a) using self-tapping Phillips head screws for attachment.





# 4.2 Base Frame

# 4.2.1 Replacing a Double Bushing

## **INFORMATION**

Before disassembling a double bushing, all support pads, the strap rewinder (see Section 4.4.1), the table bend (see Section 4.1.4) with table top and the handrail (see Section 4.5) have to be removed.

The double bushings of **ASF** and **CSF** are replaced in the same way:

- 1. Loosen and remove the set screws (Fig. 13).
- 2. Pull the double bushing off the frame tubes (Fig. 14). Carefully remove the double bushing over the protruding gas compression spring strut.





- 3. Replace the double bushing, if necessary. For this purpose, remove the clamp levers.
- 4. For reassembly, fit the double bushing (without tilting) over the gas compression spring strut and the tube frames.
- 5. Tighten the set screws to hold the double bushing in place. To enable the double bushings to hold the frame at the correct angle, the set screws must be properly seated in the bore holes.
- 6. Screw on the clamp levers. If the thread of the clamp levers does not feature a black coating (old version), grease the thread with standard machine oil/grease.



### 4.2.2 Replacing the Front Floor Tube

The front floor tube of **ASF** and **CSF** is replaced in the same way:

- 1. Remove the double bushings (see Section 4.2.1).
- 2. Remove the cover caps (Fig. 15) and loosen the Allen head screws (M8x35) that connect the front floor tube to the left and right floor tubes (Fig. 16). Upon the removal of the screw, the spacer bushing used to centre the gas compression spring will fall into the floor tube.
- 3. Remove the front floor tube from the rest of the frame.
- 4. Remove the gas compression springs and shake the spacer bushings out of the floor tube.
- 5. Replace the floor tube.
- 6. For reassembly, please proceed in reverse order. Observe the instructions for mounting the gas compression springs (see Section 4.2.4) and the double bushings (see Section 4.2.1).





### 4.2.3 Replacing the Left or Right Floor Tube

# **INFORMATION**

To make sure that the base frame remains stable, replace the left and right floor tube one by one.

### INFORMATION

When working carefully, you can remove/replace the left or right floor tube with fully assembled Standing Frame.

Pay special attention to work step 2 in Sections 4.2.2/4.2.4 for loosening the Allen head screw (M8x35) that connects the front floor tube to the left or right floor tube, respectively. This screw must not be pulled out of the bore hole of the front floor tube.

Should this happen nevertheless, the spacer bushing used to centre the gas compression spring will fall into the front floor tube. In this case you have to perform all work steps that are necessary for disassembling the double bushings and front floor tube and for mounting the gas compression springs. See Sections 4.2.1 / 4.2.2 / 4.2.4.



The left and right floor tubes of **ASF** and **CSF** are replaced in the same way:

- 1. Loosen and remove the set screw from the double bushing (Fig. 13, item A) so that you will later be able to pull the left/right floor tube out of the double bushing.
- 2. If casters or floor tube extensions with rubber feet are mounted, remove them prior to replacing the left/right floor tube (see Sections 4.7.1/4.7.2).
- 3. Remove the lamellar plugs from the left/right floor tube (Fig. 17).
- 4. Loosen the screw that attaches the floor tube to the footplate (Fig. 18).
- 5. Now you can remove and replace the floor tube.
- 6. For reassembly, please proceed in reverse order.





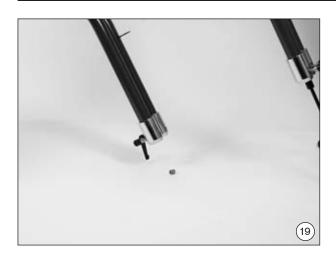
# 4.2.4 Replacing a Gas Compression Spring

# **INFORMATION**

To make sure that the base frame remains stable, replace the gas compression springs one by one.

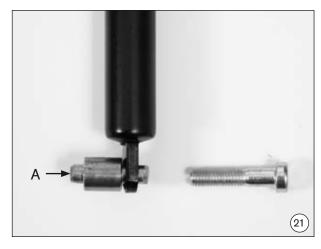
The gas compression springs of **ASF** and **CSF** are replaced in the same way:

- 1. Remove the table bend (see Section 4.1.4).
- 2. Remove the cover cap (Fig. 15) and loosen the Allen head screw (M8x35) that connects the front floor tube to the left or right floor tube (Fig. 16). Upon the removal of the screw, the spacer bushing used to centre the gas compression spring will fall into the floor tube.
- 3. Remove the gas compression spring and shake the spacer bushing out of the floor tube (Fig. 19).



- 4. To be able to position the gas compression spring centred/without play in the floor tube, a spacer bushing has to be fixed to the attachment bracket of the gas compression spring before mounting the spring. For this purpose, use superglue (Fig. 20) and the provided centring pin (Fig. 21, item A).
- 5. Carefully insert the gas compression spring with the spacer bushing pointing inwards (Fig. 22) into the floor tube and align the bushing with the bore hole.
- 6. Carefully insert the Allen head screw (M8x35) into the bore hole and tighten the screw to connect the front floor tube to the left or right floor tube (Fig. 23).
- 7. Finally, put on the cover caps.











# 4.3 Footplate

# 4.3.1 Replacing the Footplate

The footplate of **ASF** and **CSF** is replaced in the same way:

- 1. Remove the lamellar plugs from the left and right floor tubes.
- 2. Loosen and remove the Allen head screws (M8x16) that connect the footplate to the floor tubes (Fig. 24).
- 3. Now you can remove and replace the footplate (Fig. 25).
- 4. If necessary, loosen the screws (arrowed) and replace the footplate holding angles (Fig. 26).
- 5. For reassembly, please proceed in reverse order.









## 4.3.2 Replacing the Foot Fixation

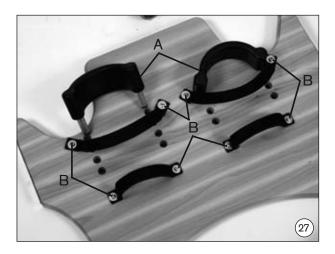
The foot fixation of **ASF** and **CSF** is replaced in the same way:

# a) Replacing the heel restraint

- 1. The heel restraints can be pulled out without the use of tools (Fig. 27, item A).
- 2. Replace the heel restraint and insert it into the bore holes. If you use other bore holes when inserting the heel restraints, you will have to change the position of the hook and loop straps/holding straps (see Section 4.3.2 b).

## b) Replacing/changing the position of the hook and loop straps/holding straps

- 1. Remove the Phillips head screws (4.8 x22; Fig. 27, item B).
- 2. Replace the hook and loop straps/holding straps and retighten the screws. Do not forget the washer.
- 3. If you have changed the position of the heel restraints to other bore holes, you will have to change the position of the hook and loop straps accordingly. Orient yourself on the present bore hole spacing between the heel restraint and the hook and loop strap/holding strap.





# 4.4 Strap Rewinder

# **4.4.1 Replacing the Electric Strap Rewinder** (mains supply/battery)

The electric strap rewinder (mains supply or battery) of ASF and CSF is replaced in the same way:

- 1. Loosen and remove the securing screws on the table bend (Fig. 28).
- 2. Pull the indexing plungers (M10x1) of the strap rewinder out of the table bend's hole channel (Fig. 29).

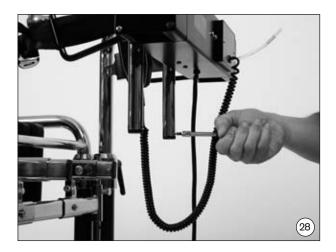
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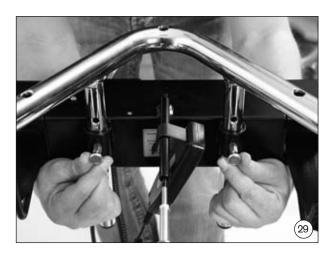
**Risk of damage to cables and add-on components.** Avoid pinching and unnecessary tension of cables. Make sure that add-on components (e.g. the remote control) cannot fall down.

### **INFORMATION**

Keep in mind the weight of the strap rewinder. We recommend supporting the strap rewinder with the forearms upon removal (Fig. 29).

- 3. Let the strap rewinder slip down slowly.
- 4. For reassembly, please proceed in reverse order.
- 5. Finally, hang the patient belt into the strap rewinder. Test the function of the strap rewinder and firm seat of the patient belt (see 647H412 Instructions for Use).







# 4.4.2 Replacing the Emergency/Safety Cut-out Stop Button

## **INFORMATION**

Individual fine adjustment of the emergency/safety cut-out stop button together with the adjustment of the proper table height may only be carried out by the specialist dealer/physiotherapist in the presence of the user (see 647H412 Instructions for Use).

Within the scope of service, the stop button can only be replaced and a rough adjustment be made.

The stop button of **ASF** and **CSF** is replaced in the same way:

- 1. Position yourself so that you can look from above past the edge of the abdominal pad on the edge of the stop button (Fig. 30).
- 2. Loosen the lock nut (Fig. 31). Remove the stop button from the stop bar and replace it.
- 3. For rough adjustment, turn the stop button on the thread of the stop bar until it protrudes about 5 mm beyond the abdominal pad (Fig. 32).
- 4. Firmly retighten the lock nut.





### 4.4.3 Replacing the Manual Strap Rewinder

Replacement of the manual strap rewinder of **ASF** and **CSF** is done in the same way and analogous to the proceeding described in section 4.4.1.

Finally, hang the patient belt into the strap rewinder and check firm seat (see 647H412 Instructions for Use).

Test the function of the release mechanism of the strap (see Section 4.4.4 b as well as 647H412 Instructions for Use).



### 4.4.4 Replacing/Setting the Switch Lever

The switch lever of the manual strap rewinder of **ASF** and **CSF** is replaced in the same way:

### a) Assembly

- 1. Loosen the knurled screw (Fig. 33).
- 2. Replace the switch lever and retighten the knurled screw.

# b) Fine adjustment

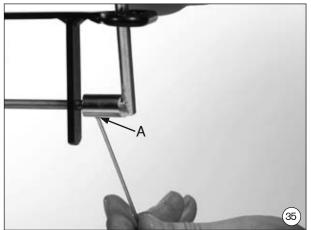
After assembly, the release mechanism of the strap must be verified and adjusted, if necessary. In doing so, the position of the switch lever (for operation of the release mechanism while standing) and the position of the release lever (for operation of the release mechanism while sitting) must correlate:

- 1. Set the release lever to "stand" (Fig. 34).
- 2. Loosen the set screw on the switch lever receiver (Fig. 35, item A) and set the switch lever to "stand" as well.
- 3. Firmly tighten the set screw.
- 4. Finally, test the release mechanism in the positions "stand" and "release" (for the function refer to 647H412 Instructions for Use).











# 4.5 Handrail

# 4.5.1 Replacing the Handrail

The handrail of **ASF** and **CSF** is replaced in the same way:

- 1. Remove the upper body support, if present.
- 2. Remove the securing screw (Fig. 36).
- 3. Loosen the clamp levers and remove the support bar with pads (Fig. 37).
- 4. Loosen the clamp levers and remove the handrail (Fig. 38).
- 5. For reassembly, please proceed in reverse order.









### 4.6 Knee Pads / Knee Pad Holder

# 4.6.1 Removing/Replacing a Knee Pad

The knee pads of **ASF** and **CSF** are replaced in the same way:

- 1. Remove the securing screws (Fig. 39).
- 2. Pull the indexing plungers and remove the knee pads.
- 3. Replace the knee pads. For reassembly, please proceed in reverse order.

# 4.6.2 Replacing the Knee Pad Holder

The knee pad holder of **ASF** and **CSF** in the versions knee pad holder "height-/ depth-adjustable"; knee pad holder "height-/ depth-/ horizontally adjustable"; as well as knee pad holder "height-/ depth-/ horizontally/ angle-adjustable" is replaced in the same way:

- 1. Remove the knee pads (see Section 4.6.1).
- 2. Remove the Allen head screws (M8x30) on the double bushings (Fig. 40) and pull off the knee pad adjustment tubes (left/right) downwards.

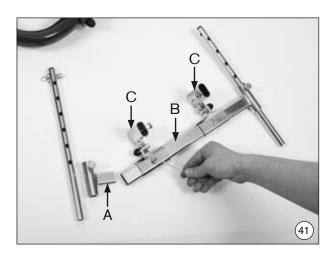
# **INFORMATION**

Firmly hold the knee pad holder to prevent it from slipping down after loosening the second Allen head screw.

- 3. Pull the indexing plungers and remove the knee pad holder.
- 4. If necessary, replace any damaged individual parts (depending on the version according to the 646K52 Spare Parts Catalogue: insertion piece > Fig. 41, item A, knee pad holder > Fig. 41, item B, knee pad bracket > Fig. 41, item C). Firmly retighten the screw connections.
- 5. For reassembly, please proceed in reverse order.







# 4.7 Casters / Transport Wheels / Feet

# 4.7.1 Replacing / Retrofitting Casters with the ASF

# **INFORMATION**

The **ASF** can be used with the following caster/wheel/foot combinations:

- Rear / front casters
- Rear casters / fixed front wheels
- Rear rubber feet / front transport wheels (stationary use)

# **INFORMATION**

After assembly, it is very important to test the function of the wheel locks.

For replacement and retrofitting, please proceed as follows:

### a) Replacing rear casters

- 1. Place the Standing Frame on its side and remove the Allen head screw (M10x16) from the floor tube (Fig. 42).
- 2. Remove the caster/caster receptacle assembly and replace it, if necessary.
- 3. Insert the assembly into the floor tube and firmly retighten the Allen head screw.

### b) Replacing front casters

- 1. Place the Standing Frame on its side and remove the protective cap (Fig. 43).
- 2. Loosen the self-locking nut and remove the Allen head screw (M10x80) from the floor tube (Fig. 44).
- 3. Remove the caster/caster receptacle assembly and replace it, if necessary.
- 4. Hold the assembly to the floor tube (Fig. 45).
- 5. Properly position the assembly and firmly retighten the Allen head screw.
- 6. Put on the protective cap.





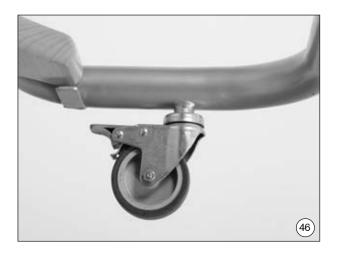




# 4.7.2 Replacing / Retrofitting Casters with the CSF

For retrofitting and replacement of the front/rear casters, which are identical in design (Fig. 46), please proceed as follows:

- 1. Place the Standing Frame on its side.
- 2. Remove the countersunk head screw (M10x20) from the floor tube (Fig. 47).
- 3. Remove the casters and replace them, if necessary.
- 4. Firmly retighten the Allen head screw.







# 4.7.3 Replacing / Retrofitting Fixed Wheels with the ASF

# **INFORMATION**

Fixed front wheels are only used with the **ASF** in combination with rear casters.

For replacement and retrofitting, please proceed as follows:

- 1. Disassemble the present assembly (see Section 4.7.1/4.7.4).
- 2. Mount the wheel receptacle with Allen head screw (M10x55) and self-locking nut. Put on the protective cap (Fig. 48/49).
- 3. Mount the 2 wheels with the countersunk head screw (M6x85) and a self-locking nut (Fig. 50).









# 4.7.4 Replacing / Retrofitting Transport Wheels with the ASF

# **INFORMATION**

Front transport wheels are only used with the **ASF** in combination with rear rubber feet in stationary use.

For replacement and retrofitting, please proceed as follows:

- 1. Disassemble the present assembly (see Section 4.7.1/4.7.3).
- 2. Mount the transport wheel to the floor tube using the Allen head screw (M10x55) and the self-locking nut (Fig. 51).
- 3. Screw the stop bumper into the floor tube's thread provided for this purpose (Fig. 52).





# 4.7.5 Mounting Rear Rubber Feet with the ASF

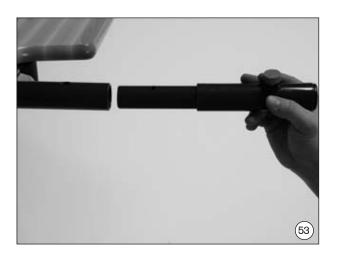
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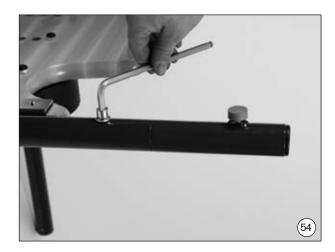
Rear rubber feet are only used with the ASF in combination with front transport wheels in stationary use.

For replacement and retrofitting, please proceed as follows:

- 1. Disassemble the present assembly (see Section 4.7.1).
- 2. Insert the floor tube extension assembly with height-adjustable rubber feet into the floor tube (Fig. 53). Align the floor tube so that the rubber feet can stand flat on the floor.
- 3. Firmly retighten the Allen head screw (Fig. 54).







# 4.8 Accessories

# 4.8.1 Retrofitting the Table Incline Adjustment Mechanism

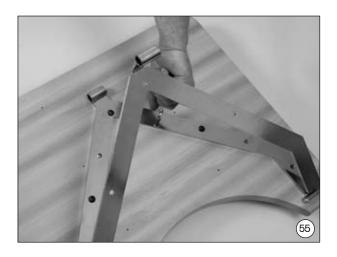
# **INFORMATION**

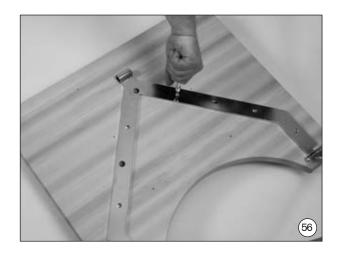
The table incline adjustment mechanism is supplied with mounting pack.

The table incline adjustment mechanism cannot be mounted in combination with the battery-operated strap rewinder.

Despite difference in the basic form of the fixed part and tilting part, the table incline adjustment mechanism of **ASF** and **CSF** is mounted in the same way:

- 1. Position the tilting part on the table top so that the 3 large bore holes in the table top are aligned with the 3 large bore holes of the tilting part (Fig. 55).
- 2. Attach the tilting part to the table top with 6 self-tapping countersunk head screws (4x30) (Fig. 56).

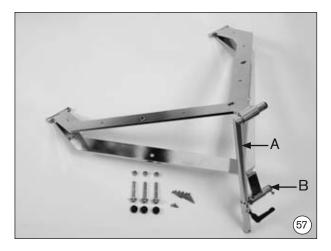




- 3. Put on the adjustment tube (Fig. 57, item A) and adjustment sleeve (Fig. 57, item B).
- 4. Attach the fixed part to the table bend using the provided Allen head screws/ washers /self-locking nuts (Fig. 58).
- 5. Secure the adjustment tube with the provided securing screw (Fig. 59).



6. Put on lamellar plugs onto the nuts underneath the table bend (Fig. 60).









### 4.8.2 Retrofitting the Support Bar with Pads

# **INFORMATION**

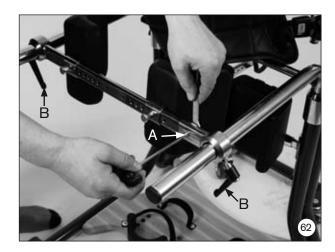
The support with pads is supplied completely assembled. However, it still has to be adapted to the handrail width.

The support bar with pads of **ASF** and **CSF** is mounted in the same way:

- 1. Slide the support bar with the insertion piece onto the handrails.
- 2. Find the proper width at which the support bar/insertion piece can be moved evenly along the handrails. Mark the width (Fig. 61).
- 3. Drill a  $\emptyset$  6 mm bore hole into the support bar using a floor model drill press.
- 4. Slide on the support bar. Screw the insertion piece to the support bar using the Allen head screw (M6x25) and the self-locking nut (Fig. 62, item A).
- 5. Attach the clamp levers (Fig. 62, item B).
- 6. Finally, screw in the securing screw (4.8x9.5) at the end of the left handrail (Fig. 63).









# 4.8.3 Retrofitting the Upper Body Support

# **INFORMATION**

The upper body support is supplied completely assembled. For attachment you have to mount a sliding sleeve to the support bar with pads (see Section 4.8.2).

The upper body support of **ASF** and **CSF** is mounted in the same way:

- 1. Loosen the screw on the support bar's insertion piece (Fig. 62, item A).
- 2. Pull the support bar to the rear until you can remove the insertion piece and one pad (Fig. 64).
- 3. Centre the sliding sleeve on the support bar and affix it with two countersunk head screws M8 and self-locking nuts (Fig. 65/66).
- 4. Pull the index plunger. Insert the upper body support into the sliding sleeve (Fig. 67).

# **INFORMATION**

If necessary, all support pads can be ordered and replaced separately.

For mounting the patient belt to the support, please refer to the 647H535 Instructions for Use.









# 4.8.4 Retrofitting the Swivelling Support Pads

# **INFORMATION**

The swivelling support pads are supplied completely pre-assembled. They are used instead of the strap rewinder especially by users who are able to get into the standing position in one single movement.

The swivelling support pads of **ASF** and **CSF** are mounted in the same way:

- 1. First remove the handrail (refer to Section 4.5.1).
- 2. Remove the strap rewinder, if present (see Section 4.4).
- 3. Loosen and remove the securing screws from the table bend (Fig. 28).

# **INFORMATION**

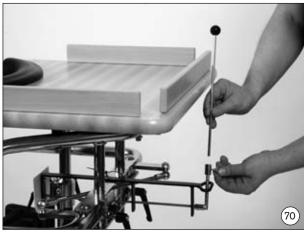
You should perform steps 4 and 5 with the assistance of another person.

- 4. Pull the indexing plungers and slide the swivelling support pads onto the table bend's hole channels (Fig. 68).
- 5. Let the indexing plungers engage and reinsert the securing screws (Fig. 69).
- 6. Affix the upper part of the switch lever with the knurled screw (Fig. 70).



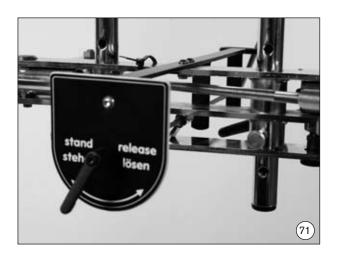






- 7. If necessary, make a fine adjustment of the release mechanism of the swivelling support pads. In doing so, the position of the switch lever (for operation of the release mechanism while standing) and the position of the release lever (for operation of the release mechanism while sitting) must correlate:
- Set the release lever to "stand" (Fig. 71).
- Loosen the set screw on the switch lever receiver (Fig. 72) and set the switch lever to "stand" as well.
- Firmly retighten the set screw.
- Finally, test the release mechanism in the positions "stand" and "release" (for the function refer to 647H412 Instructions for Use).







- 8. If necessary, make a fine adjustment of the support pad distance. For this purpose, extend/shorten the tie rod by turning to the left/right (Fig. 73).
- 9. Finally, test the function of the antifall guard. For this purpose, slide the antifall guard towards the table bend and tighten the clamp lever (Fig. 74). The swivelling mechanism must no longer release now.







# 5 Technical Data

1. Standing Frame for adults	
Width	77.5 cm
Length	107 cm
Height	90 cm - 130 cm
Weight	45 kg
2. Standing Frame for children	
Width	70 cm
Length	85 cm
Height	85 cm - 107 cm
Weight	43 kg
3. Swivelling support pads	
Width	64 cm - 102 cm
Length	95 cm
Height	14 cm
Weight	14 kg
4. Upper body support	
Width	65 cm
Height	100 cm
Depth	35 cm
Adjustment range	32 cm - 58 cm
Weight with support bar	12 kg
5. Electric strap rewinder	
Nominal voltage	230 V
Nominal power	160 W
Device type	В
Protection class	II .
Operating time 50%	Duty cycle = 10 min
Maximum user weight	120 kg
Length	33 cm
Width	43.5 cm

9 cm

11.5 kg

Height

Weight



### Recommended Accessories for the Electric Strap Rewinder

Article description	Article number
Patient belt, small, with lip	RR02.039.00.000
Patient belt, medium, with lip	RR02.040.00.000
Patient belt, large, with lip	RR02.041.00.000

6. Electric strap rewinder with battery		
Nominal voltage	24 v	
Nominal power	160 W	
Device type	В	
Protection class	_	
Operating time 50%	Duty cycle = 10 min	
Maximum user weight	120 kg	
Length	33 cm	
Width	43.5 cm	
Height	9 cm	
Weight	8 kg (without battery)	

7. Table battery charger for the electric strap rewinder with battery		
Input voltage	230 V + 6% cable with Euro plug	
Output voltage	27.6 V	
Output current	0.8 A	
Secondary connection	Approx. 2 m stranded wire, bared and tinned, positive pole marked	
Display	Red LED, which goes out after change to trickle charging	
Temperature range	-20° C to +40° C	
Degree of interference suppression	"N" according to DIN VDE 88 75	
Protection type	IP 20	
Length	1.43 cm	
Width	7.8 cm	
Height	5.8 cm	

Regulated table battery charger for maintenance-free lead batteries (model DL 24-0.8)

The linearly regulated battery charger serves the charging of the maintenance-free lead batteries in the electric strap rewinder.

The output voltage is regulated to 2.3 V pile  $\pm 1\%$  and is provided with a current limitation. In case of overcharge or short circuit the device is electronically regulated to a lower value or is thermally shut off. The charging process is indicated by an LED which goes out after change to trickle charging.

The battery charger is located in a plastic table housing in accordance with the regulations being valid on international level.

INFORMATION The values indicated are measurements which have been theoretically determined. We reserve the right to technical alterations and deviations by 5%.



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