

Service Manual

for

AVERO Premium tub 190

Part No. 278400

AVERO Premium tub 175

Part No. 278300



Picture shows
AVERO Premium 190
Part No. 278400

PRISM MEDICAL

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1. Preface

Dear Customer,

Thank you for purchasing an AVERO Premium tub from BEKA Hospitec.

Please consider the following points:

1. Read this manual carefully.
2. Use this device for its intended purpose only.
3. Operating this device is only admissible by trained personnel.
4. Maintenance and safety checks must be carried out by authorized distributors only.
5. Additional set ups, changes or repairs must be carried out by authorized companies only.

We do not take any liability for additional set ups, changes or repairs as well as for the product or product functions, if they were carried out by non-authorized companies.

Liability and warranty

The manufacturer of the tub shall only be responsible for the safety and reliability of the device if:

- a. the installation has been done by an authorized BEKA Hospitec distributor,
- b. the respective space is in compliance with local regulatory guidelines i.e. CSA,
- c. the device is used for its intended purpose only, and
- d. functionality checks are carried out on a regular basis.

CAUTION:



It is imperative that all safety instructions be observed. (see User/Operating Manual for AVERO Premium tub)!

WARNING:



Any unauthorized repair, rebuildings and changes are forbidden for safety reasons and exclude a liability of the manufacturer for the damages resulting from it. For the damages which result from the use of spare parts not released by the manufacturers or accessories every other liability of the manufacturer is excluded.

2. Care and Maintenance

To ensure safe and problem free operation, the following tests should be performed daily:

- Visual inspection of the tub (external damaged and wear),
- Check screws (missing, loose, tight),
- Check the tub for lifting function,
- Check operation of the hand control (up / down movement, water),
- Test the emergency lowering (mechanical).

2.1 Transport and Storage

The operating and storage conditions can be found in the Technical Data (see Chap. 8.1).

2.2 Inspection

A “safety technology inspection” (STI) must be performed on the AVERO Premium tub at intervals of 12 months.

Performance of the safety technology inspections and maintenance must be recorded.

An inspection must be arranged at expiration date as per the “red” test sticker on the reverse side, please contact the manufacturer or the authorized distributor to arrange.

The inspections or repairs must only be performed by the manufacturer or by technical personnel authorized by the manufacturer with the use of original parts.

2.3 Service-Agreements

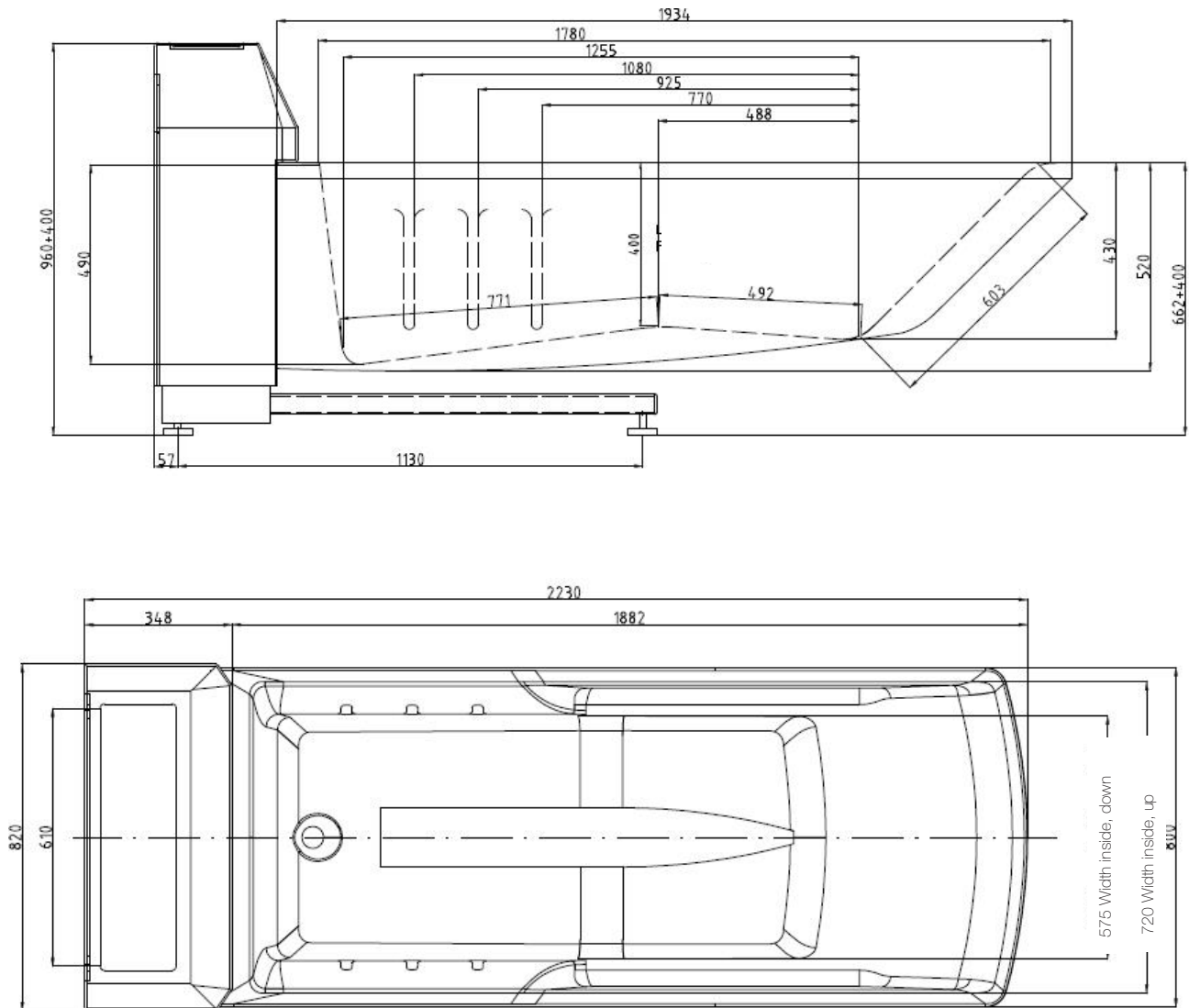
BEKA Hospitec and BEKA’s representatives provide you several variants on service agreements for regular safety checks of your BEKA product.

2.4 Recycling

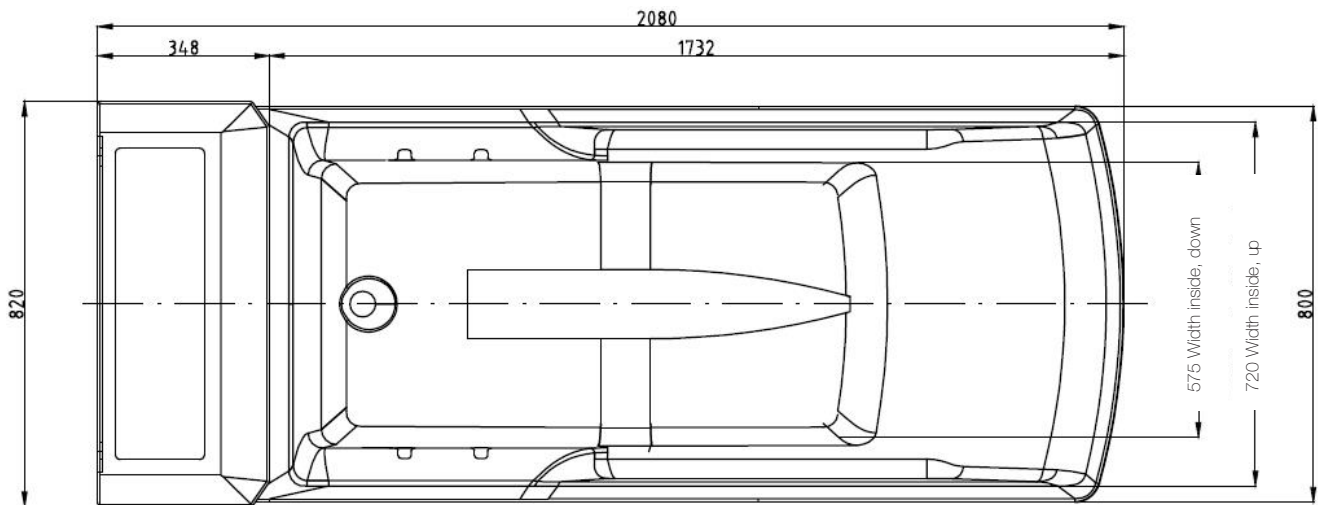
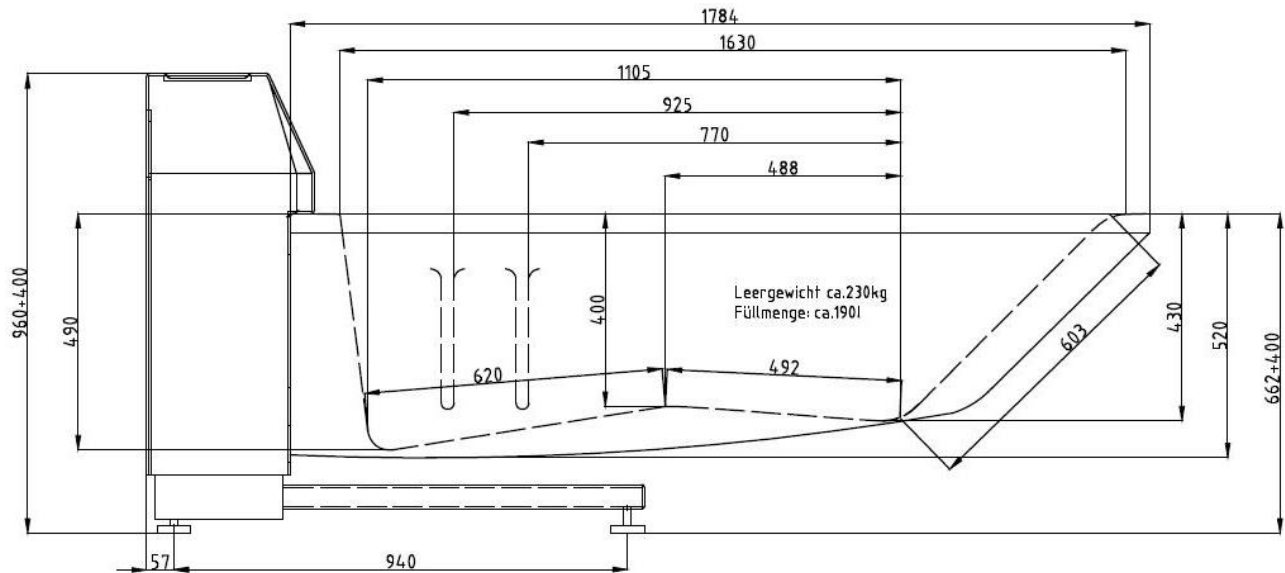
Recycling at the end of the product life must be done accordingly to the local regulations. For further information please contact your BEKA distributor.

3. Dimensions

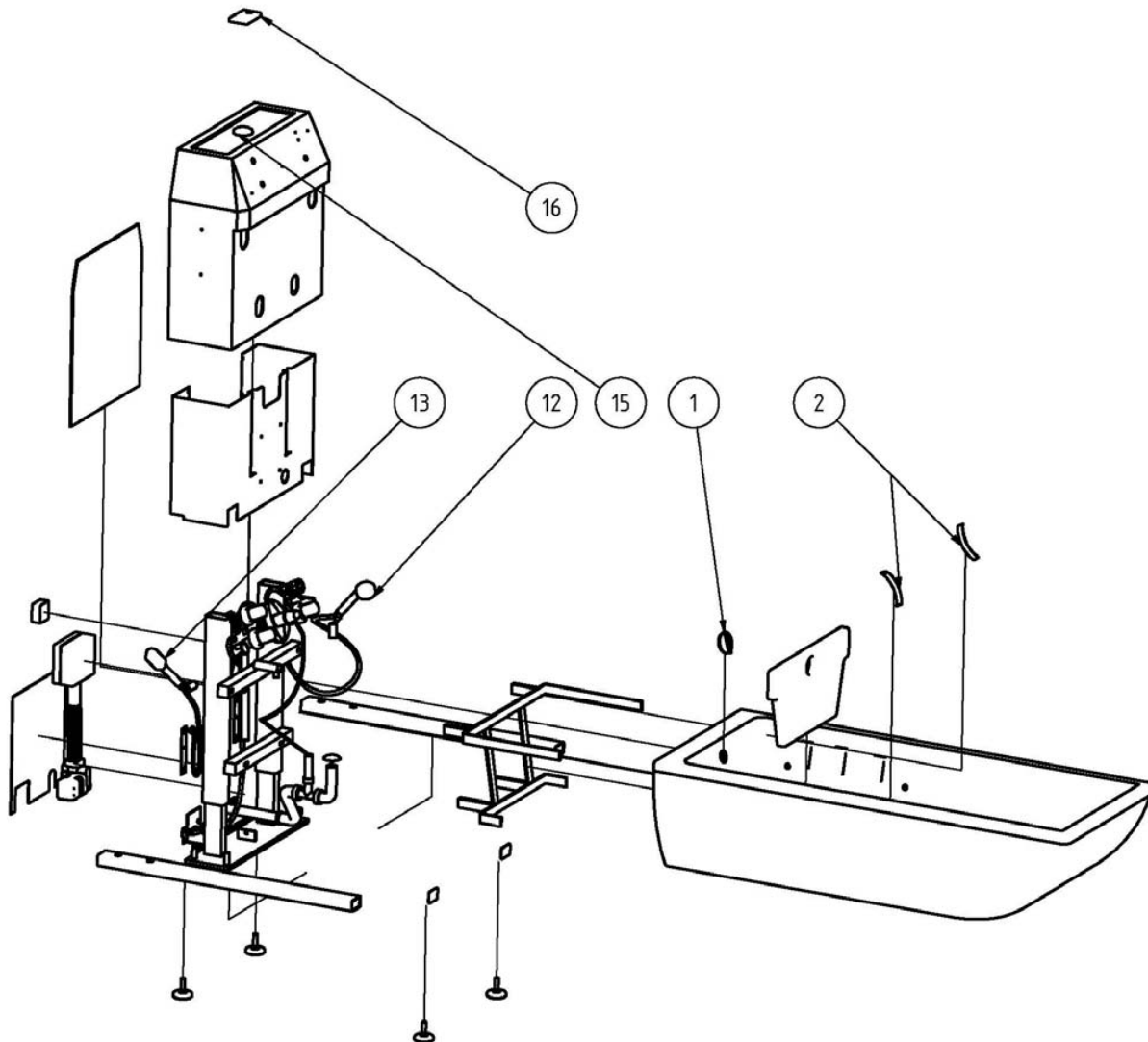
3.1 AVERO Premium 190 (mm)



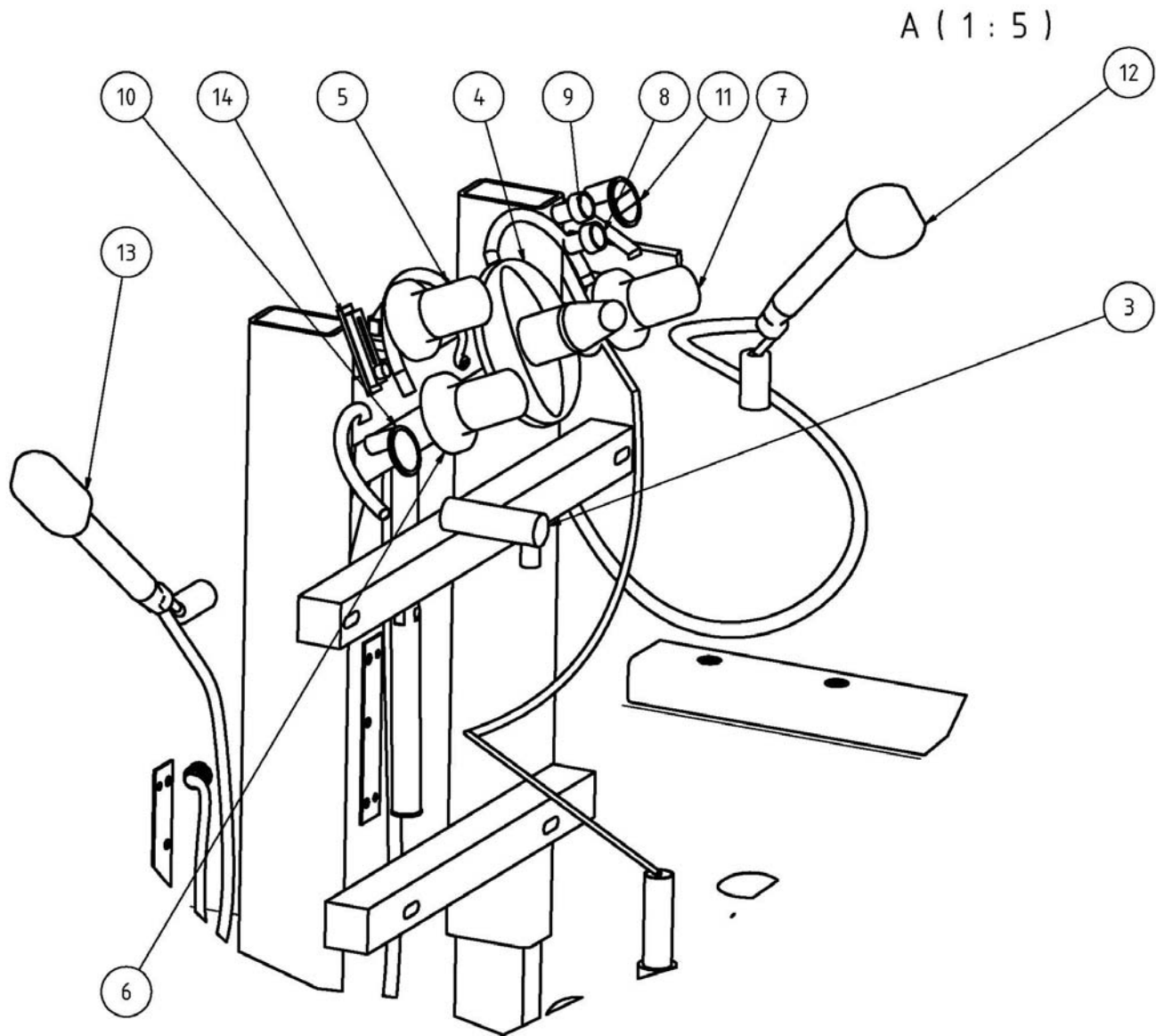
3.2 AVERO Premium 175 (mm)



4. Assemblies



Number	Description	Number	Description
1	Blower motor	12	Control unit
2	Guide roller (POM C)	13	Magnet valve for filling the tub
3	Armored tube (cold water)	14	Magnet valve for disinfection
4	Armored tube (warm water)	15	Injector
5	Earthing	16	Distributor / Mains supply
6	Magnet valve for hand shower	17	Hoist motor
7	Sensor for mixed water (HB + WB)	18	Sensor for bath water
8	USB connection for sound system	19	Control for sound system
9	Thermostat Mattsson	20	Guide roller (POM C)
10	Bracket for control element	21	Lifting support
11	Control element		



Number	Description	Number	Description
1	Overflow Turning knob (open/close)	9	Pushbutton for tub DOWN
2	Grab bars (left/right)	10	Automatic tub filling
3	Tub water inlet	11	Inlet temperature thermometer
4	Concealed thermostat with scald protection	12	Handheld shower
5	Disinfection valve	13	Disinfection spray nozzle
6	Tub filling valve	14	Disinfection injector
7	Handheld shower valve	15	Disinfectant filling connector
8	Pushbutton for tub UP	16	Locking cover for disinfectant container

AVERO Premium

Part. No.	Pos. No.	Article	Unit	Picture
278411		Control box 120volt	1	
278412		Lifting Actuator	1	
278413		Tub foot, rear	2	
278414		Handheld shower wand	1	
278415		Solenoid 1/2	1	
278416		Fitting	1	
278417		Disinfection spray wand	1	
278418		Bracket for handheld shower	1	
278419		Bracket for handheld shower (Disinfection)	1	
278420		Fan motor	1	

AVERO Premium

Part. No.	Pos. No.	Article	Unit	Picture
278421		Nozzles, complete	1	
278422		Hose	1	
278423		Hose clamps	(10 pcs.)	
278424		T-piece for hose	(5 pcs.)	
278425		Elbow connection	(Set of 12)	
278426		Air distributor incl. ear hose clips	1	
278427		Overflow turning knob	1	
278428		Complete drain assembly	1	
278429		Fill level sensor	1	
278430		Insert for backflow preventer	1	

AVERO Premium

Part. No.	Pos. No.	Article	Unit	Picture
278431		Cover for backflow preventer	2	
278432		Connecting hose 12½”	4	
278433		Connecting hose 20½”	3	
278434		Connecting hose 36½”	2	
278435		Roller for lifting column	4	
278436		CSA injector	1	
278437		CSA flow meter	1	
278438		Clear glass tube	1	
278410		Disinfectant container (1.9 l)	1	

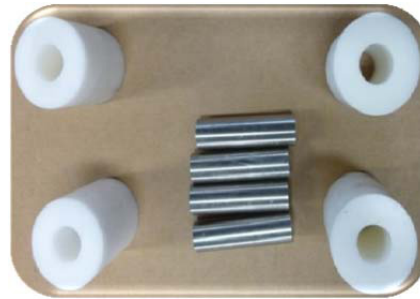
5. Instructions

5.1 Roller (POM)

Picture 1:

Required tools:

- 1 x ratchet
- 1 x socket 17 mm
- 1 x open-end wrench 17 mm



Picture 2:

Additional parts:

- 4 x POM
- 4 x screws

Picture 3:

Loosen the nuts using the ratchet and the open-end wrench.



Picture 4:

Remove the nut from the screw.

Picture 5:

Remove the washer from the screw.



Picture 6:

Remove the screw and the left POM.

Picture 7:

Remove the screw and the right POM.



Picture 8:

The illustration shows the frame without the POM slide bearing.

5.2 Main board control

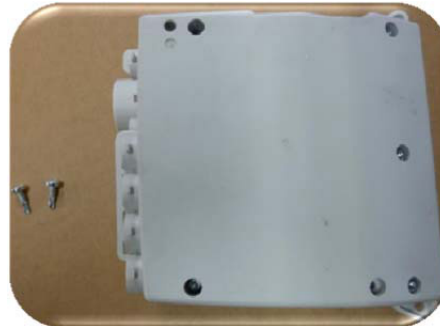
Picture 1:

Required tools:
 1 x battery-operated
 screwdriver
 1 x bit AW 25



Picture 2:

Additional parts:
 1 x control
 Main board
 incl. screws



Picture 3:

Remove all cables
 from the control.



Picture 4:

Remove the
 cover of the
 disinfectant
 container
 and take the
 container out
 from the open
 back wall.



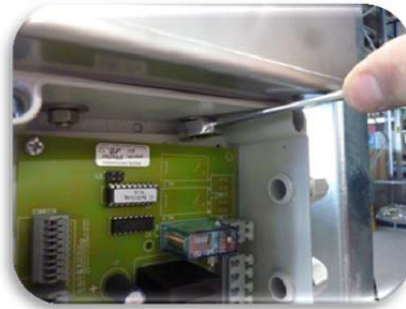
Picture 5:

Loosen the four
 screws from the
 distributor unit
 (Aerospa).



Picture 6:

Remove the two
 screws that hold the
 distributor unit.
 Then fold the distributor
 unit away toward the
 bottom.



Picture 7:

Lift the 2 black lines.



Picture 8:

Remove the left and
 right screw from the
 control housing.



5.3 Lifting actuator

Picture 1:

Required tools:

- 1 x ratchet
- 1 x socket 17 mm
- 1 x open-end wrench
17 mm



Picture 2:

Required parts:

- 1 x lifting motor
incl. accessories

Picture 3:

Disconnect the power supply.



Picture 4:

Disconnect all cables from the control. (Cable for control, cable for lifting motor).

Picture 5:

Loosen the lower screw on the lifting motor.



Picture 6:

Loosen the upper screw on the lifting motor.

Picture 7:

Remove the lock nut and washer from the upper screw of the lifting motor.



Picture 8:

The illustration shows the removed lock nut and washer from the upper screw of the lifting motor.

Picture 9:
Remove the screw, incl. the washer, from the upper motor mount.



Picture 10:
Remove the screw, incl. the washer, from the lower motor mount.



Picture 11:
Remove the connecting cable from the lifting motor.



Picture 12:
Remove the screw from the lower motor mount and take the lifting motor out of the lifting frame.



5.4 Flow meter

Picture 1:
Required tools:
1 x pipe wrench, medium size



Picture 2:
The illustration shows the installed flow meter in the control panel of the AVERO Premium.



Picture 3:
Open the rear wall as described in point 5.18.



Picture 4:
The illustration shows the flow meter in installed condition.



Picture 5:
Remove the hose
clamps from behind.



Picture 6:
The illustration shows
the removed hose
clamps.



Picture 7:
Remove the
2 connecting
hoses from the
flow meter.



Picture 8:
The illustration shows
the connecting hoses
removed from the flow
meter.



Picture 9:
Remove the 2 fastening
clips from the flow meter.



Picture 10:
You can take the
flow meter out of the
control panel.



5.5 Lifting frame water piping

Picture 1:
Required tools:
1 x pipe wrench, large
1 x pipe wrench, medium
size



Picture 2:
Additional parts:
2 x flex hoses
4 x angle connections



Picture 3:

The illustration shows the water piping completely attached on the lifting support of the AVERO Premium.



Picture 4:

The illustration shows the cold and hot water connections of the AVERO Premium for the on-site connection.



Picture 5:

Loosen the union nut of the cold water line using the pipe wrench.



Picture 6:

Loosen the union nut of the hot water line using the pipe wrench.



Picture 7:

Remove the union nut from the thread of the connection.



Picture 8:

Loosen the nuts using the two pipe wrenches.



Picture 9:

Unscrew the angle connections.



Picture 10:

The illustration shows the upper connections for cold and hot water (internal piping).



Picture 11:

Loosen the union nut of the cold water line using the pipe wrench.

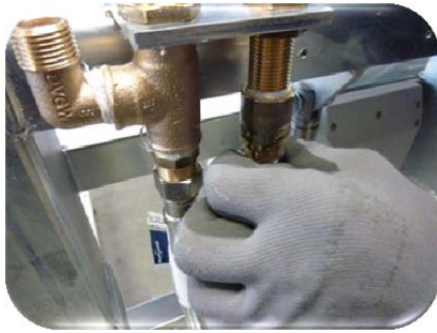


Picture 12:

Loosen the union nut of the hot water line using the pipe wrench.



Picture 13:
Remove the union nut from the thread of the connection for hot water.



Picture 14:
Remove the union nut from the thread of the connection for cold water.



Picture 15:
Loosen the nuts for the cold water connection using the two pipe wrenches.



Picture 16:
Loosen the nuts for the hot water connection using the two pipe wrenches.



5.6 Fan motor

Picture 1:
Required tools:
1 x Allen wrench 2.5 mm
1 x open-end wrench 10 mm



Picture 2:
Additional parts:
1 x fan motor



Picture 3:
Open the distributor unit and unclamp the line for the fan motor.



Picture 4:
Open the distributor unit and unclamp the line for the fan motor.



Picture 5:

The illustration shows the fan motor fastened to the mounting bracket with perforated metal strap.



Picture 6:

Loosen the screw from the mounting bracket and the perforated metal strap.



Picture 7:

Remove the perforated metal strap from the fan motor.



Picture 8:

Remove the cable ties.



Picture 9:

Loosen and remove the left and right screws from the fan bracket.



Picture 10:

Take the fan motor, together with the bracket, off the lifting support of the AVERO Premium.



Picture 11:

Loosen the first locking screw of the fan motor from the bracket.



Picture 12:

Repeat this work step for the second locking screw.



5.7 Automatic tub filling control

Picture 1:

Required tools:

- 1 x Phillips screwdriver
- 1 x combination wrench 10 mm
- 1 x Allen wrench 4 mm



Picture 2:

The illustration shows the control for automatic filling mounted on the disinfectant holder. To open the rear wall, follow the instructions in point 5.18.



Picture 3:

Open the cover of the distributor unit. Then unclamp all cables and remove them from the distributor unit.



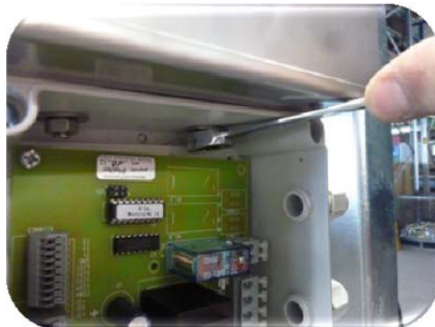
Picture 4:

The illustration shows the screws for installing the distributor unit in the retaining plate for disinfectant.



Picture 5:

Loosen and remove the two screws from the distributor unit.



Picture 6:

The illustration shows how to loosen and remove the two screws from the distributor unit.



Picture 7:

You can take out the distributor unit.



5.8 Solenoid

Picture 1:

Required tools:
1 x pipe wrench, large
1 x pipe wrench, small
1 x screwdriver, small



Picture 2:

Additional parts:
1 x solenoid valve



Picture 3:

Open the back wall of the AVERO Premium, see point 5.18.



Picture 4:

Using the screwdriver, loosen the screw for the plug-in contact on the solenoid and pull out the plug-in contact.



Picture 5:

Loosen and remove the union nut from the fabric hose.



Picture 6:

Loosen the threaded connection on the left side of the solenoid valve and then take out the solenoid valve.



5.9 Fittings

Picture 1:

Required tools:

- 1 x screwdriver
- 1 x pipe wrench, large



Picture 2:

- The illustration shows the installed fitting group: -
- Handheld spray for disinfection (top left),
- Tub inlet (lower left),
- Normal handheld shower (lower right).



Picture 3:

- Take off the knob
by pulling upward.



Picture 4:

- Take off the
screw using the
screwdriver.



Picture 5:

- Pull the adapter
fixture out using the
pipe wrench.



Picture 6:

- The illustration shows
the removed adapter
fixture.



5.10 Thermostat

Picture 1:

Required tools:
1 x screwdriver 10 mm



Picture 2:

Additional parts:
1 x thermostat battery



Picture 3:

The illustration shows the completely installed fittings and operating elements of the AVERO Premium.



Picture 4:

Take the cover off the thermostat rotary mechanism.



Picture 5:

Loosen and remove the locking screw from the thermostat rotary mechanism.



Picture 6:

Remove the sealing sleeve.



Picture 7:

Remove the cover by prying it out from below with the screwdriver in the recess.



Picture 8:

The illustration shows the removed cover from the thermostat.



Picture 9:
Loosen and remove the left and right screws from the thermostat mounting plate.



Picture 10:
The illustration shows the exposed thermostat. Now the inserts (filter, etc.) can be taken out and replaced.



5.11 Disinfectant container

Picture 1:
Open the back wall of the AVERO Premium as described in point 5.18.



Picture 2:
The illustration shows the disinfectant container installed in the control panel.



Picture 3:
Remove the threaded connection from the disinfectant container.



Picture 4:
Take out the disinfectant container by pulling it diagonally out of the bracket.



Picture 5:

Take the suction hose out of the disinfectant container and take out the disinfectant container.



5.12 Air nozzles (without fan hose)

Picture 1:

Required tools:

- 1 x nipper pliers
- 1 x shears
- 1 x Loctite sealing compound
- 1 x pipe wrench (without teeth).



Picture 2:

Additional parts:
Hose clamps
Air nozzle incl. accessories



Picture 3:

The illustration shows the hose clamp fastened on the hose and connecting valve.



Picture 4:

Take off the hose clamp using the nipper pliers.



Picture 5:
Disconnect the hose clamp from the hose.



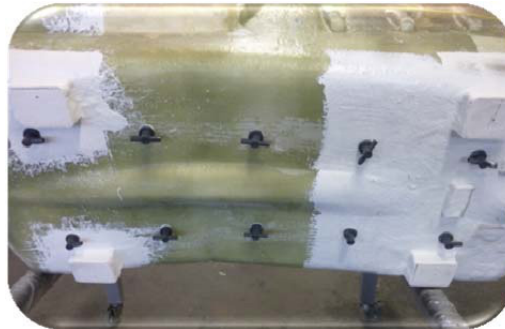
Picture 6:
The illustration shows the air hose on the connecting valve (without hose clamp).



Picture 7:
Pull the air hose off the connecting valve.



Picture 8:
The illustration shows all the connecting valves screwed on the tub body (tub body outside view).



Picture 9:
The illustration shows the connecting valve screwed on.



Picture 10:
Remove the cover of the air nozzle using a small flat screwdriver.



Picture 11:
The illustration shows the cover removed from the air nozzle.



Picture 12:
Hold the air nozzle tightly from above using pliers with no teeth.



Picture 13:
Loosen and remove the connecting valves by turning in counter-clockwise direction.



Picture 14:
The illustration shows the connecting valve removed from the air nozzle.

Picture 15:
You can take out the air nozzle.



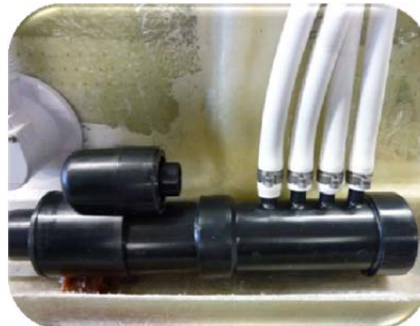
5.13 Air distributor

Picture 1:
Required tools:
1 x nipper pliers
1 x shears



Picture 2:
Additional parts:
1 x air distributor

Picture 3:
Loosen the cable tie that holds the air hoses together.



Picture 4:
The illustration shows the air hoses on the air distributor loosened from the tie

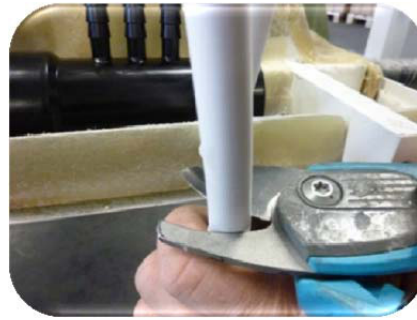
Picture 5:

Loosen the air hose from the valves of the air distributor. Take off the hose clamp using nipper pliers.



Picture 6:

Cut the air hoses to the required length.



5.14 Operating element for air bubble bathing system

Picture 1:

Required tools:
1 x screwdriver with extension
1 x socket 10 mm



Picture 2:

Additional parts:
1 x operating element for Air bubble bathing system



Picture 3:

The illustration shows the installed operating element (outside view).



Picture 4:

The illustration shows the fastened operating element (inside view).



Picture 5:

Loosen operating element using the screwdriver (in each case upper right and lower left).

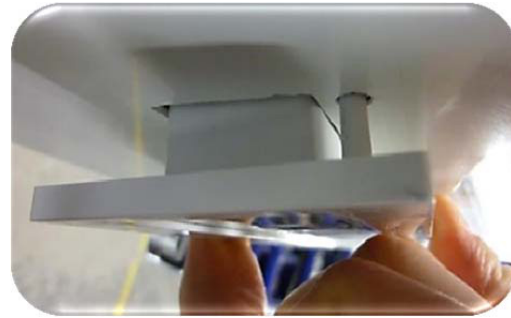


Picture 6:

Pull the connecting cable out of the operating element connector.



Picture 7:
The illustration shows the operating element with threaded connection loosened (inside view).



Picture 8:
Take the operating element out straight to the front.

Picture 9:
The illustration shows the removal of the operating element.



Picture 10:
The illustration shows the recess in which the operating element is installed.

5.15 Operating element for automatic water stop

Picture 1:
Required tools:
1 x slotted screw driver, small
1 x carpet knife
1 x combination pliers



Picture 2:
Additional parts:
1 x operating element
for autom.
water stop

Picture 3:
The illustration shows the operating element for the autom. water stop mounted on the control console.



Picture 4:
Open the distributor unit shown here.

Picture 5:

Unclamp the cable from the autom. water stop and remove the cable from the distributor unit.



Picture 6:

Press out lightly glued operating element from the back. If necessary, loosen somewhat with carpet knife. Pull the operating element, with the cable, out of the control panel.



5.16 Removal of the bathtub from the lifting frame

Picture 1:

Required tools:
 1 x ratchet with extension
 1 x socket 10 mm
 1 x bit AW 2.5
 1 x batteryoperated screwdriver



Picture 2:

The illustrations here show the fastening screws from the control panel to the tub body.

Picture 3:

Here you see the fastening screw with a washer.



Picture 4:

Loosen and remove all fastening screws (left and right).

Picture 5:
Loosen and remove all fastening screws (left and right).



Picture 6:
Loosen the left and right adjusting screws.



Picture 7:
Loosen and remove the upper fastening screws (right).



Picture 8:
Loosen and remove the upper fastening screws (left).



Picture 9:
The illustration shows the lower fastening screws.



Picture 10:
Loosen and remove the upper fastening screws (left and right).



Picture 11:
The illustration shows the removed nuts (right).



Picture 12:
The illustration shows the removed nuts (left).



Picture 13:
Loosen the hose clamp on the fan motor and take out the hose.



Picture 14:
The illustration shows the tub body on the lifting frame.



Picture 15:
Take the tub body out of the lifting frame.



Picture 16:
The illustration shows the tub body removed from the lifting frame.

5.17 Sensor for automatic water stop

Picture 1:
Required tools:
1 x slotted screw driver, small
1 x carpet knife
1 x combination pliers



1 x sensor for autom. water stop

Picture 3:
Loosen the sensor using a carpet knife.



Picture 4:
Open the distributor unit in order to unclamp the cable from the sensor.

Picture 5:
Unclamp the cable from the sensor and take the cable out of the distributor unit. Note that the PG threaded connection must be opened.



Picture 6:
Apply a layer of transparent silicone to the reverse side of the sensor and place it at the position of the old sensor.

Picture 7:
Affix the new sensor at the old position.



Picture 8:
Guide the cable through the PG threaded connection into the distributor unit and clamp the cable of the sensor. Then screw on PG threaded connection again.

5.18 Opening and closing the rear wall

Picture 1:
Required tools:
1 x screwdriver PH2



Picture 2:
Remove all screws (9 pcs.) from the rear wall.

Picture 3:
The illustration shows the screws removed from the rear wall. You can take it out.



Picture 4:
The illustration shows the rear wall taken out.

5.19 Change machine feet

Picture 1:

Required tools:

1 x Open-end wrench 13 mm



Picture 2:

Loosen and remove the machine foot with the open-end wrench.

5.20 Change turning knob set

Picture 1:

Required tools:

1 x Screwdriver PH2



Picture 2:

Additional parts:
1 x turning knob/
drain plug set

Picture 3:

The picture shows the turning knob.



Picture 4:

Loosen the screw with the screwdriver. Remove the turning knob by pulling.

Picture 5:

Remove the screw connection.



Picture 6:

The picture shows the removed screw connection of the turning knob set.

5.21 Change turning knob (drain plug)

Picture 1:

Required tools:

1 x Screwdriver PH2



Picture 2:

Additional parts:

1 x turning knob set

Picture 3:

The picture shows the drain plug.



Picture 4:

Remove the drain plug.

Picture 5:

Loosen and remove the screw of the drain cover.



Picture 6:

Remove the drain cover.

Picture 7:

The picture shows the removed drain cover.



5.22 Change hand shower holder

Picture 1:

Required tools:

- 1 x Ratchet
- 1 x Socket 10 mm
- 1 x Extension bar
- 1 x Allen key 2.5 mm



Picture 2:

Additional parts:

- 1 x Hand shower holder incl. accessories

Picture 3:

The picture shows the hand shower holder incl. the elbow connection.



Picture 4:

Loosen the headless screw from the hand shower holder.

Picture 5:

Loosen the nut of the hand shower holder.



Picture 6:

The picture shows the nut of the hand shower holder.

Picture 7:

Remove the nut of the hand shower holder.



Picture 8:

The picture shows the removed nut of the hand shower holder.

5.22 Change hand shower holder /CONT...

Picture 9:

Remove the sub part of the hand shower holder.



5.23 Change hand shower and hose

Picture 1:

Additional parts:
1 x Hand shower
incl. hand shower
hose



Picture 2:

The picture shows the hand shower.

Picture 3:

Unscrew the cap nut of the hand shower.



Picture 4:

The picture shows the unscrewed hand shower hose with the cap nut.

5.24 Change disinfectant wand, hose & holder

Picture 1:

Required tools:

1 x Allen key 2.5 mm



Picture 2:

Additional parts:

1 x Hand shower (disinfection)

Picture 3:

The picture shows the disinfection hand shower with the elbow connection.



Picture 4:

Remove the two screws with the Allen key.



Picture 5:

The picture shows the elbow connection of the disinfection hand shower.



Picture 6:

Unscrew the hand shower hose of the elbow connection.



Picture 7:

Unscrew the cap nut of the disinfection hand shower.



5.25 Temperature indicator

Picture 1:
Additional parts: 1 x Temperature indicator incl. accessories



Picture 2 to 3:
The pictures 2 and 3 show the built-in temperature indicator of the AVERO Premium new.



Picture 4:
The temperature unit can be set from Fahrenheit to ° C and vice versa, by pressing the small black button (marked in red in the picture).



Picture 5:
You can insert the temperature indicator.



CAUTION:



To change the temperature indicator, you have to open the cover on the backside of the control panel (s. chap. 12.8).

5.26 Open the back cover

Picture 1:

Required tools:
1 x Screwdriver PH2



Picture 2:

The picture shows the back cover of the AVERO Premium new.

Picture 3:

Loosen and remove all 9 screws of the back cover.



Picture 4:

The picture shows the removed back cover.

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6. Periodic Inspection

Periodic Inspection acc. to EN ISO 10535					
Testing organisation:		Typ of performance		Engineer	
BEKA Hospitec GmbH Am Rübenmorgen 3 35582 Wetzlar / Dutenhofen		Recurrent Test (SC) Device: AVERO Phoenix SN: Applied part type: B Location:		Michael Los Santos Typ: Lifting tub Manufacturer: BEKA Hospitec GmbH Mains connection: DPS Protection class: I	
Accessories:	SN:	YES	NO	Note	
1	<input type="checkbox"/>	<input type="checkbox"/>		
2	<input type="checkbox"/>	<input type="checkbox"/>		
Visual and Functional Test		Pass	Fail	Note	
1. Check tub and panel (dents, scratches, deformities, unusual surface wear)		<input type="checkbox"/>	<input type="checkbox"/>		
1.1 Check base frame (scratches, deformities, unusual surface wear)		<input type="checkbox"/>	<input type="checkbox"/>		
1.2 Check screw connections (strength)		<input type="checkbox"/>	<input type="checkbox"/>		
1.3 Check all vital parts (corrosion, damage)		<input type="checkbox"/>	<input type="checkbox"/>		
1.4 Perform full feature functionality test		<input type="checkbox"/>	<input type="checkbox"/>		
1.5 Check thermostatic mixer		<input type="checkbox"/>	<input type="checkbox"/>		
1.6 Check and if necessary clean filters (incoming water)		<input type="checkbox"/>	<input type="checkbox"/>		
1.7 Check hand control (check all functions)		<input type="checkbox"/>	<input type="checkbox"/>		
1.8 Check valves		<input type="checkbox"/>	<input type="checkbox"/>		
1.9 Check emergency lowering (electrical)		<input type="checkbox"/>	<input type="checkbox"/>		
1.10 Check labeling (SN, REF, CE-Sign)		<input type="checkbox"/>	<input type="checkbox"/>		
1.11 Check hoses and connections (leaks, damage)		<input type="checkbox"/>	<input type="checkbox"/>		
1.12 Check disinfection		<input type="checkbox"/>	<input type="checkbox"/>		
1.13 Check handle (strength)		<input type="checkbox"/>	<input type="checkbox"/>		
1.14 Check electrical connections (damage)		<input type="checkbox"/>	<input type="checkbox"/>		
1.15 Documentation (Operating Manual, etc.)		<input type="checkbox"/>	<input type="checkbox"/>		
Test Equipment:	SN:	Calibration Date:			
Safety Test, DIN EN 62353	Max Value	reference value	measured value	Complies	
				YES	NO
				<input type="checkbox"/>	<input type="checkbox"/>
Insulation resistance	> 1.0 MΩ	<input type="text"/> MΩ	<input type="text"/> MΩ	<input type="checkbox"/>	<input type="checkbox"/>
Leakage Current	< 250 μA	<input type="text"/> μA	<input type="text"/> μA	<input type="checkbox"/>	<input type="checkbox"/>
Patient Leakage current	< 50 μA	<input type="text"/> μA	<input type="text"/> μA	<input type="checkbox"/>	<input type="checkbox"/>
Overall assessment:	Next Service Date				
<input type="checkbox"/> No safety or functional deficiencies were detected.	MM / YY /				
<input type="checkbox"/> No direct risk, deficiencies detected may be corrected on short term.					
<input type="checkbox"/> Equipment does not comply – Taking out of service – is recommended!					
Evaluation:	Date	Signature Test Engineer			
	_____	_____			
FB 19/01_EN Rev.00					
PIE: Permanent installed equipment NPS: Non-Detachable Power Supply Cord DPS: Detachable Power Supply Cord					

8. Troubleshooting / User support

10.1 Troubleshooting

Problem	Solution
The height adjustment of the tub does not work.	<ul style="list-style-type: none"> a) Check the power supply. b) Check the connections between the PLC and operating unit. c) Check control unit for damage. d) Check cable for damage.
The tub remains in the upper end position.	Check that power is supplied.
The lifting motor does not work.	Check that power is supplied.
Actuator stalls/stops during lift.	The lifting capacity is exceeded (max. patient weight).
Power and temperature indicators do not light.	Check that the fuse is on.
No power.	<ul style="list-style-type: none"> a) Check the fuse. b) Check cable for damage.
No water.	<ul style="list-style-type: none"> a) Check the lock valves of the cold and hot water as well as the pipe interrupter. b) Check the water inlet filter.
The automatic filling does not work.	Disconnect from the mains. Run a restart. If this does not achieve the desired results, please contact the BEKA Service.
Tub only filling with either hot or cold water.	<ul style="list-style-type: none"> a) Check that hot and cold water connections are reversed (on site). b) Check the filter and the inlet and outlet fittings for blockage.
Water flow rate is too low.	<ul style="list-style-type: none"> a) Check the filter and the inlet and outlet fittings for blockage. b) Check that the flow rate is sufficient for supply conditions. c) Check the connection hoses for kinking.
Water leaking at filling spout.	Check for damaged seals and replace.

Problem	Relief
Filling speed too fast.	Water pressure too high (Install pressure reducer on site).
Water drains during the bathing process.	<ul style="list-style-type: none"> a) Check water plugs and if necessary, adjust the screw on the water plugs again. b) Check seal for dirt and damage.
The bath water does not drain.	<ul style="list-style-type: none"> a) Check water plugs and if necessary, adjust the screw on the water plugs again. b) Check seal for dirt and damage.
Disinfection does not work.	<ul style="list-style-type: none"> a) Check flowmeter (maybe closed). b) Check disinfectant container. c) Check hose of disinfectant.
The air spa system does not work.	Check that power is supplied.
The air spa system fails during operation.	<ul style="list-style-type: none"> a) The air spa system has been used for more than 15 minutes. Let it cool down. b) Overheating due to high ambient temperature. Let it cool down.
The sound system does not work.	<ul style="list-style-type: none"> a) Check if the USB stick is inserted correctly. b) Check if the USB flash drive is defective. Insert new USB stick.
If you hear unusual noises on the lifting tub.	Contact BEKA's Authorized Service representative.
If the lifting tub is damaged. representative.	Contact BEKA's Authorized Service representative.

10.2 Customer service

Please contact the customer service of your local distributor or the manufacturer, if the AVERO Premium tub does not function properly and you could not eliminate the error with the relief actions according to section 10.1.

8. Appendix

8.1 Technical data

Dimensions and Weights

Length 190:	223 cm
Width 190:	82 cm
Length 175:	208 cm
Width 175:	82 cm
Inside width (down) 190 / 175:	57.5 cm
Inside width (up) 190 / 175:	72.0 cm
Height 190 / 175:	96.0 – 136.0 cm
Height min. 190 / 175:	66.2 cm
Height max. 190 / 175:	106.2 cm
Weight without water 190:	ca. 250 kg
Weight without water 175:	ca. 230 kg
Weight with water completely filled 190	ca. 415kg
Weight with water completely filled 175	ca. 375kg
Capacity (without patient) 190: ca.	220 L
Capacity (without patient) 175: ca.	190 L
Filling time at 3bar (43.51psi):	61 L/min
Emptying time:	52 L/min
Patient weight:	max. 220 kg
SWL (Safe Working Load):	300 kg (patient and water)
Application part:	Type B
Type of protection:	I

Electrical data

Voltage:	120 V, 60 Hz
Power consumption:	10.5 Amp. (1260 VA)

Control unit

Type of protection:	II
Application part:	Type B
Operating mode:	Continuous operation
Input voltage:	120 V~ (AC) / 60 Hz
Power input:	10.5 Amp.

Electrical motor data

Power supply:	24 Volt (DC)
Frequency:	50/60 Hz
Power input:	6 Amp.
Power-on time max.:	2 Min On and 18 Min Off
Protection type:	IP X4

Operating element

Accuracy of the display:	+/- 1 °C
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ENVIRONMENTAL CONDITIONS**Operation**

Temperature range:	Between 10° C and 40° C
Relative humidity:	Non-condensing between 30% and 95%
Atmospheric pressure range:	800 – 1060 hPa

Storage and Transport

Temperature range:	Between -20° C and 70° C
Relative humidity:	Non-condensing between 10% and 80%
Atmospheric pressure range:	500 – 1100 hPa

Manufacturer:



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 Fax: +49(0)641-9 22 20 - 20
 info@beka-hospitec.de
 www.beka-hospitec.de

8.2 Icons and symbols used



Observe accompanying documents / operating manual.



Caution for a hazard area.



Feet shall not be placed on the base frame.



Application part “Type B” according to DIN EN 60601-1.



No domestic waste.

Do not put the treatment system, and packaging materials into the domestic waste.



CE mark according to 93/42/EEC for medical products.



Indoor use only.



Type of protection: Class I

IPX4

Water splashing against the enclosure from any direction shall have no harmful effect.

8.3 Declaration of conformity

The declaration of conformity of the lifting tub will be provided by the manufacturer BEKA Hospitec GmbH upon your request.

8.4 Accessories AVERO Premium tub

Part No.	Description
278401	Avero Premium Tub Shortener
278402	Avero Premium Disinfection system
278403	Avero Premium Auto Fill
278404	Avero Premium Air-jet system (10 jets)
278405	Avero Premium Shampoo/Bath dispenser system
278410	Avero Premium Jug with disinfectant solution
278414	Avero Premium shower wand
278417	Avero Premium disinfectant wand
278418	Avero Premium shower wand holder
278419	Avero Premium disinfectant wand holder

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