

SITE PREPARATION

# Malibu / Sovereign



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**This site preparation provides information regarding recommended installation procedures. It shall be seen as guideline and can always be superseded by local regulations.**

This document has been developed to supply accurate and targeted information in order to make the site ready for Malibu/Sovereign. Combining good engineering practice with a well prepared installation site, will ensure a worry free installation the day your bath is delivered. Please read through the complete Site Preparation instructions prior to preparing your site.

In order to ensure that we accomplish your demands, we are grateful if this information is read. This will facilitate the installation procedure and give the correct and optimal working conditions of all involved persons.

Definitions in this Site Preparation

## **WARNING**

Means: Safety warning. Failure to understand and obey this warning may result in injury to you or to others.

## **CAUTION**

Means: Failure to follow these instructions may cause damage to all or parts of the system or equipment.

## **NOTE**

Means: This is important information for the correct use of this system or equipment.



Means: The name and address of the manufacturer.

# Safety Instructions

## **WARNING**

**All drainage, water and electrical installation work should be carried out by qualified personnel, in accordance with local and national regulations**

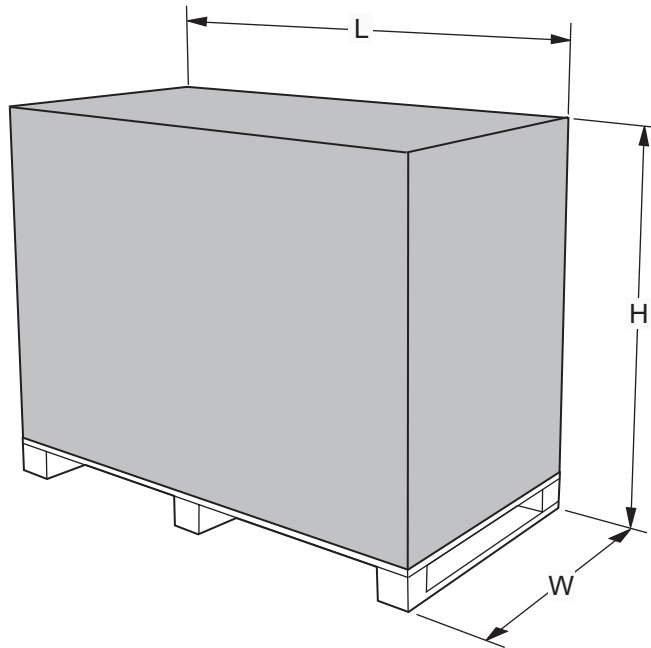
## **NOTE**

It is the responsibility of the customer to prepare the site before the installation procedure starts.

## **WARNING**

**To avoid personal damage due to heavy lifts, suitable transporting aids must be available when installing the product.**

Measurement and weight of the box with content	
Measurements	H = 1311 mm (51 5/8") L = 1830 mm (75") W = 800 mm (31 1/2")
Weight	230 kg ± 5 kg 507 lb ± 11 lb

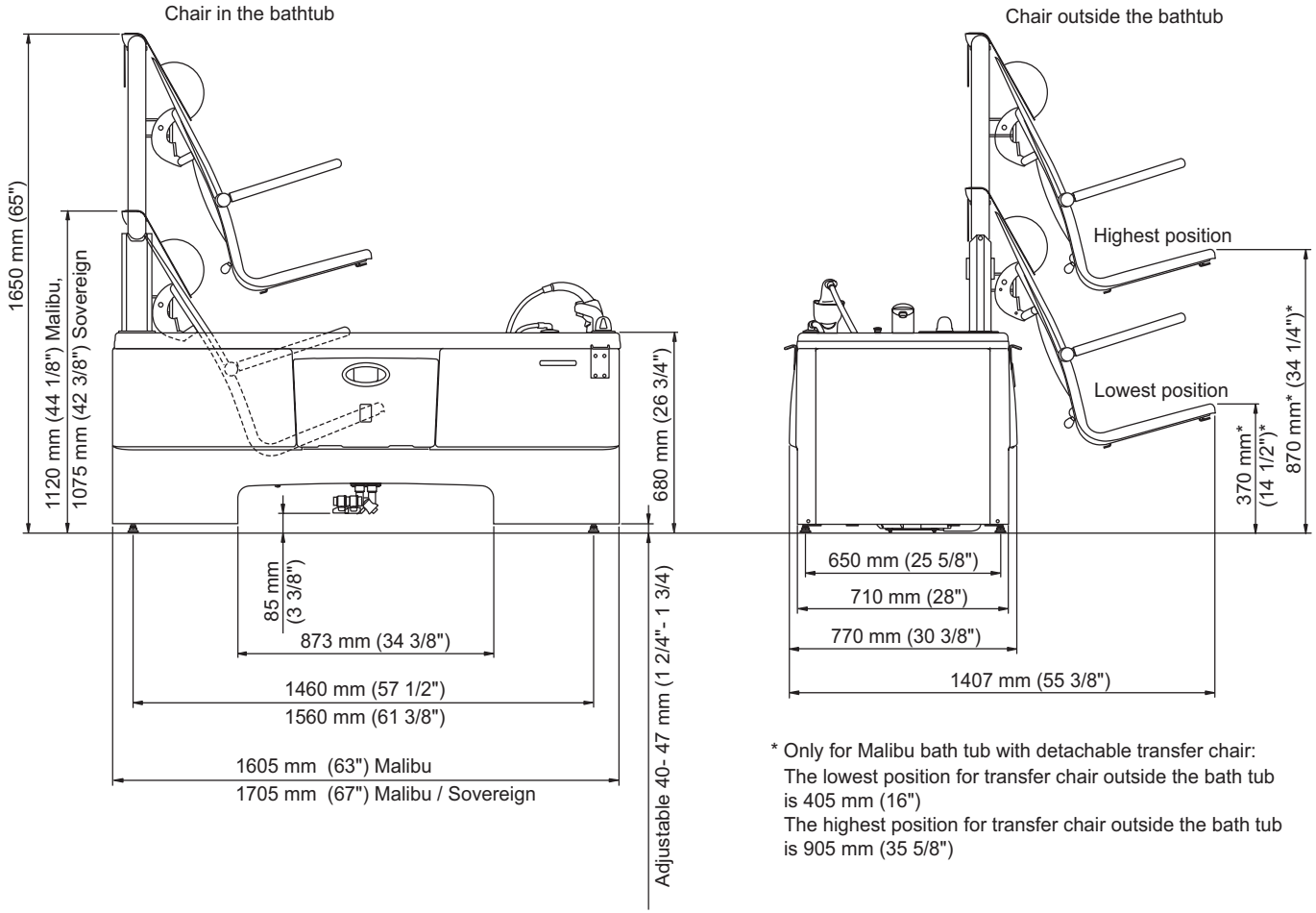


Measurement and weight of the Malibu/Sovereign	
Measurements	H = 1120 mm (44 3/8") (Malibu) 1075 mm (42 3/8") (Sovereign) L = 1605 mm (63 1/4") (Malibu) 1705 mm (67 1/8") (Sovereign) W = 770 mm (30 3/8")
Weight	190 kg ± 5 kg 419 lb ± 11 lb

# Overall Dimensions

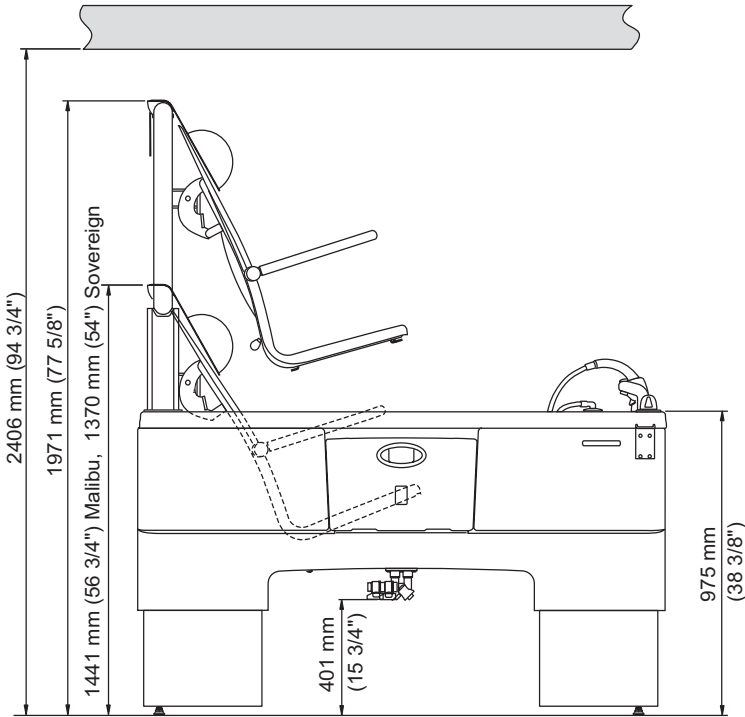
Bathtub in lowest position.

All measurements are in mm/inches unless otherwise stated.

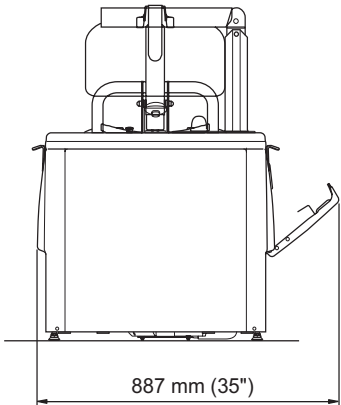


Bathtub in highest position.

Chair always in the bathtub.



Disinfection door opened



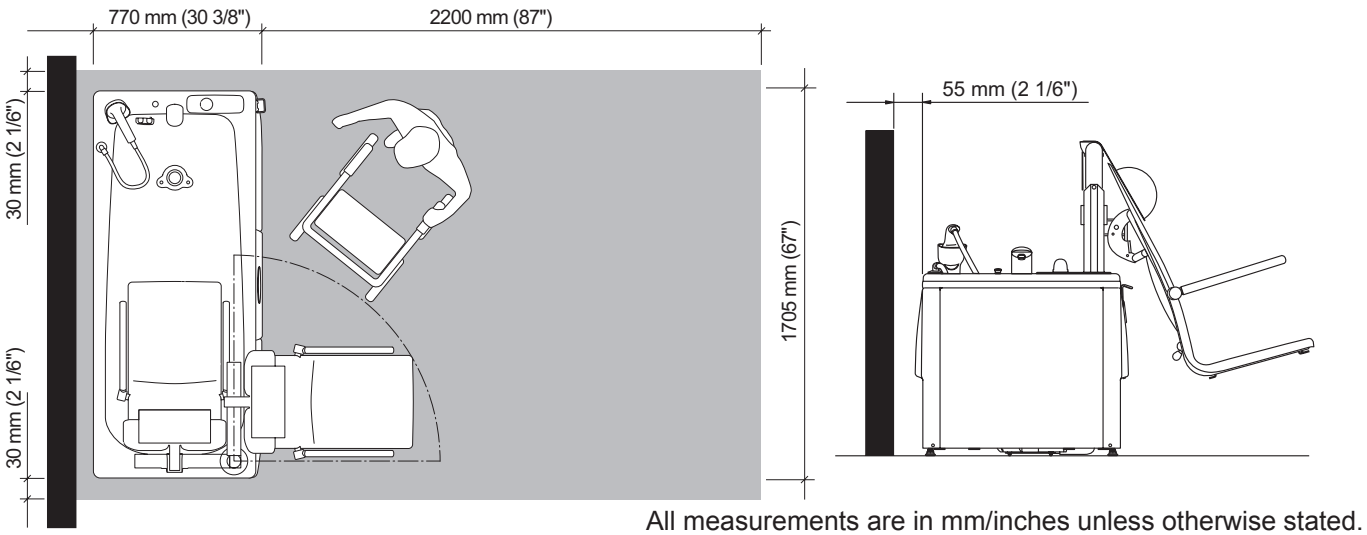
# Space Requirements

Malibu/Sovereign should always be installed according to recommended space requirements, to provide optimal working conditions for caregivers and resident.

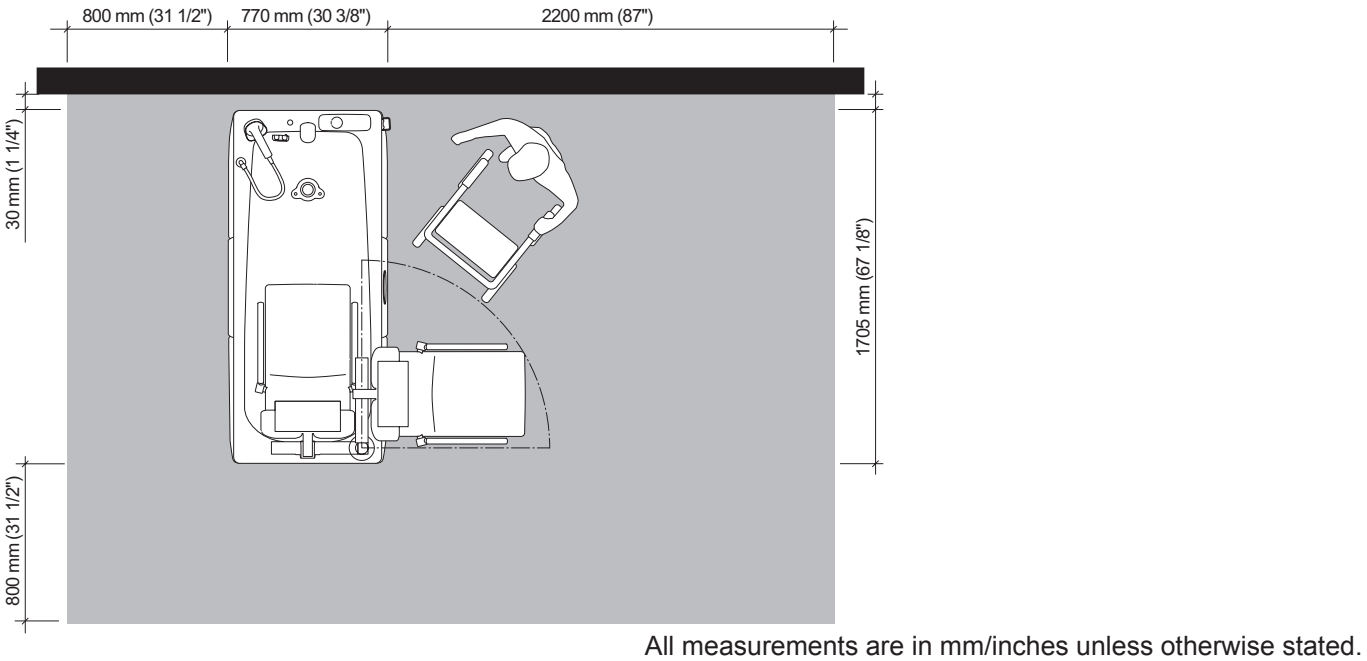
**NOTE**  
Space for furniture and other personal items are not included in these measurements.

**NOTE**  
These dimensions are approximate and unless otherwise stated, should be treated as minimum requirements.

## Wall position



## Island position



Allowed Combinations	
Malibu/Sovereign bath integrates with the following Arjo products:	Maxi Sky (All models but MS 1000 & Large hanger bars & Strecher) Maxi Move (All hanger bars but Large & Strechers) Maxi Twin (All hanger bars but Large) Sara 3000, Sara Plus, Sara Lite, Sara Steady (All models)
No other combinations are allowed	

## WARNING

All drainage, water and electrical installation work should be carried out by qualified personnel, in accordance with local and national regulations.

### Floor Requirements

Maximum floor load	576 kg /1 m <sup>2</sup>
Maximum floor pressure	4.5 N/mm <sup>2</sup>

- The floor should be made of a slip-resistant material, free of bumps and must be water sealed.
- When using a floor drain, the floor must have a maximum slope of 1:50 towards floor drainage with a capacity exceeding the minimum drainage capacity.
- Arjo recommends floor sink drain within the chassis foot end frame, see Fig 1
- The floor construction must be suitable for anchoring the bolts.

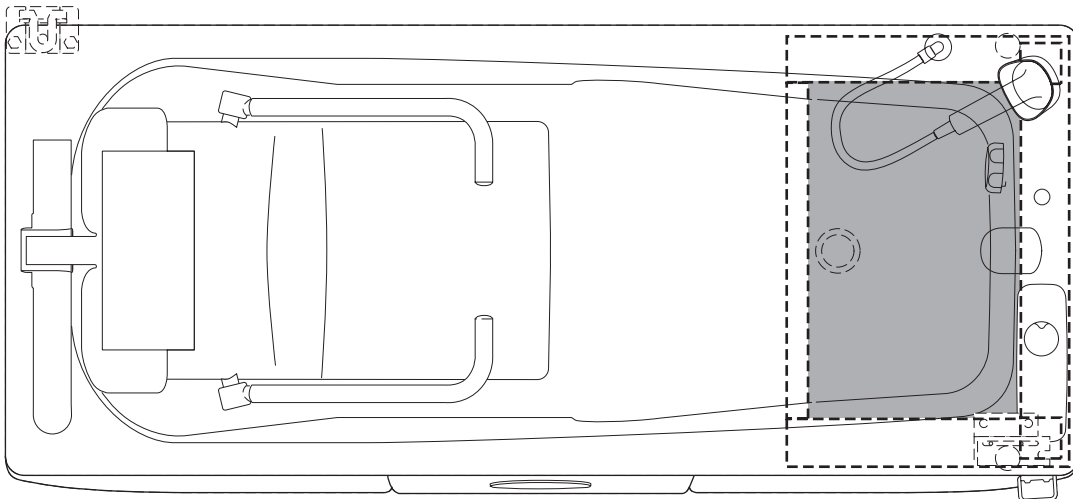


Fig. 1



Water Supply Requirements	
Maximum static pressure	6 bar (600 kPa, 87 psi)
Min. dynamic pressure	1 bar (100 kPa, 15 psi)
Cold water temperature	2 - 20°C (36 - 68°F)
Hot water temperature	60 - 80°C (140 - 176°F)
Hot/Cold Water connection	G3/4" male (customers connection)
Connect with shut off valves between unit and supply net, minimum through Ø 16 mm	

## Water Supply Preparations

The water supply can be arranged according to two main alternatives:

- Water connection from floor,
- Water connection from wall

Check with local regulations.

Drainage Requirements	
Min. drainage capacity	100 l/min (26.4 gal/min)
Drain position	Floor
The bath must be connected to drainage. Create airgap if needed.	
Connections must be done in accordance with local regulations.	

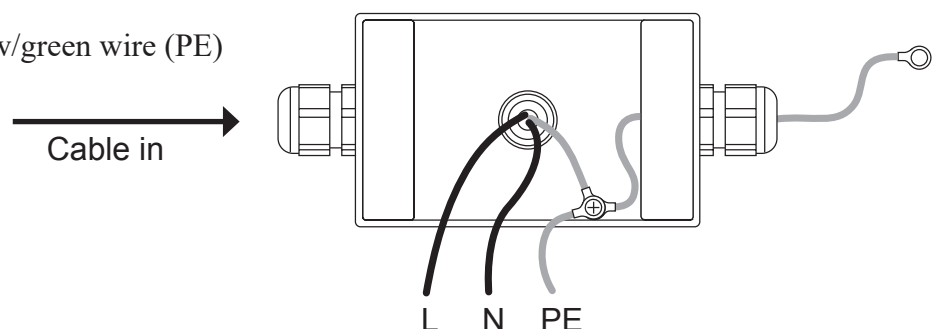
## WARNING

- To avoid risk of electric shock, this equipment must only be connected to a supply mains with protective earth.
- The unit must be connected from the bonding point labelled on the unit to the equipotential bonding point of the room or, if in accordance with local regulations the equipotential bonding is achieved through the protective earth. The same applies to all stationary equipment in the vicinity of the bath.
- The unit must be continuously powered and connected to a electrical power disconnection device and to separate fuse with ground fault interrupter in accordance with local codes and regulations.
- The product must be protected by a ground fault circuit interrupter, GFCI (not supplied).
- Check that the electrical supply corresponds with the information on the data label.
- The mains connection cable shall be adequately provided with additional mechanical protection both on the distance over/on the floor and on the wall.
- The mains connection cable shall be protected against being run over by equipment with castors.
- The mains connection cable shall be provided with adequate strain relive.
- The mains connection cable type shall be selected so that it can withstand the heat, humidity and chemical load that can be expected in the location.

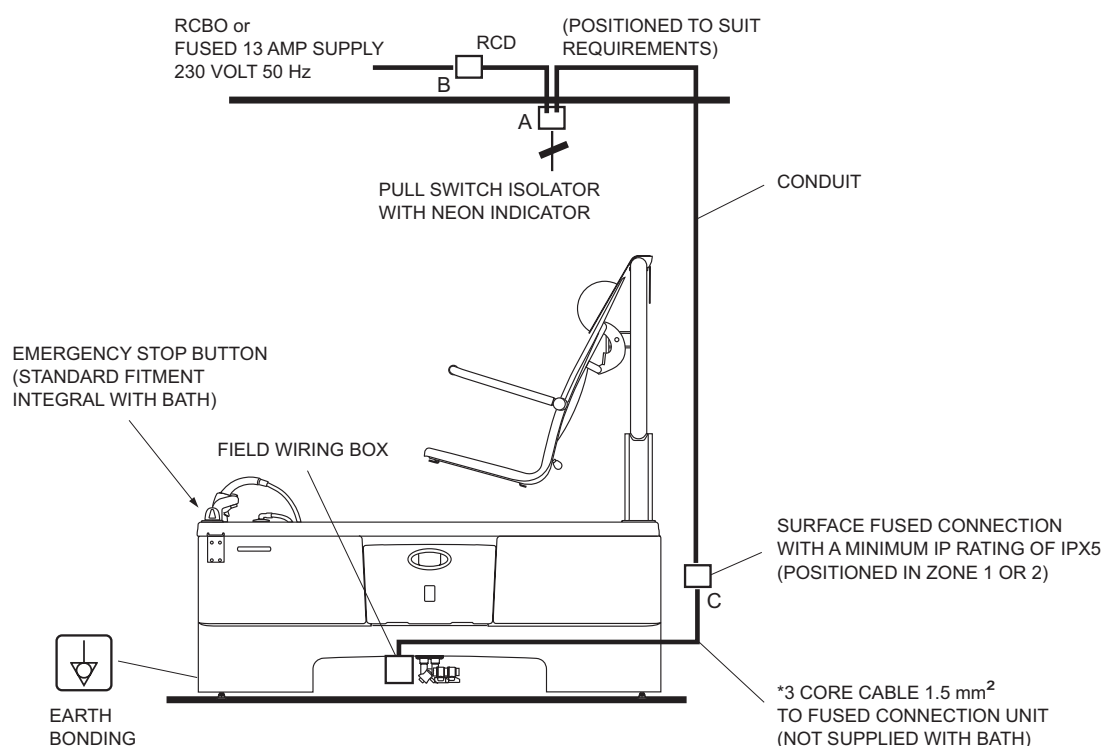
Market	Voltage	Frequency	Mains supply fuse External fuses	Max Power Consumption	RCD
Europe	230V single phase AC	50 Hz	10A	800VA	30mA

## Connect the wires as described below:

- Neutral to the blue wire (N)
- Phase to the brown wire (L)
- Protective earth to the yellow/green wire (PE)



<b>Mains disconnection device</b>	
Permanently installed in wall. Visible and accessible at all times	
Mains transient voltage	4 kV*
Creepage distance	3 mm*
Air clearance	1.8 mm*
Direction of movement	Up and down, right and left, clockwise and counterclockwise
* If local regulations are higher, then they have to be met.	



### Electrical fittings to be supplied by customer are:

- Ceiling mounted pull switch isolator with indicator (Double Pole with 3mm air gap) to BS EN 60669-1:2000, (was BS 3676).
- RCD (Residual Current Device) not exceeding 30mA to BS EN 61008-1 1995 in compliance with IEE Regulations for electrical equipment in bathrooms. Alternatively a RCBO (Residual current operated circuit breaker with integral over current protection) to BSEN 61009-1: 1995 may be used. To help in choosing a suitable device the Power consumption of the bath is 800VA and at initial switch on the bath draws a peak current of 10A for a duration of 130 milliseconds. When fitting a RCBO, to avoid nuisance tripping it may be necessary to fit a 10A 30mA unit.
- 13A surface fused connection unit with a minimum IP rating of IPX5 in compliance with IEE Regulations for electrical equipment in bathrooms. A 5A fuse should be fitted.  
If there is a requirement for a Booster Pump or a Multi Clean disinfection module then a separate 13A surface fused connection should be provided for each unit. In both instances a 5A fuse should be fitted.

Refer to Arjo Technical Support in further detail is required.

\* Where 3 core cable is shown use: 1.5mm<sup>2</sup>

Ref: BS6500 and BASEC approved.

## IMPORTANT:

The unit/s must be connected to a surface fused connection (minimum IPX5 rating), 13 amp supply of 230 volts AC50Hz single phase supply and meeting EN 60601-1 the safety standard for medical electrical equipment.

The power supply shall be through a RCD (Residual Current Device) not exceeding 30mA in compliance with IEE Regulations for electrical equipment in bathrooms.

Alternatively the power supply may be through a RCBO (Residual Current operated circuit breaker with integral over current protection). See overleaf for further information.

## NOTE

Supplementary earth bonding will be supplied via connecting the appliance by the flex to the earth terminal in the unit according to IEE Regulation 544.2.5 from BS7671:2008.

## NOTE

The surface fused connection unit of the fixed wiring installation must have the appropriate earth bonding installed and be positioned in ZONE 1 or 2 (see figure on the next page, position C) according to IEE Regulations.

## IMPORTANT:

**It is the responsibility of the customer to provide the correct certificated connection** for the Arjo engineer to connect the unit.

If a booster Pump assembly is installed, the base plate on which the pump assembly is mounted must be earthed.

# List of Standards and Certifications

STANDARDS / CERTIFICATIONS	DESCRIPTION
<b>EN/ISO/IEC/UL 60601-1</b>	Medical electrical equipment Part 1: General requirements for basic safety and essential performance.
<b>EN 60601-1-2</b>	Electromagnetic Compatibility - Requirements and Tests
<b>EN 60601-1-11</b>	Requirements for medical electrical equipment and medical electrical systems used in the home healthcare environment.
<b>CAN/CSA-C22.2 No. 601.1</b>	Medical equipment Certified for Canada
<b>ANSI Z124. 1-1995</b>	Standards for Plastic Bathtub Units
<b>ANSI/ASME A112.19.8-1987</b>	Suction Fittings
<b>ANSI/ASSE 1014-1989</b>	Handheld Shower
<b>ANSI/ASSE 1016-2005</b>	Individual Thermostatic, Pressure Balancing and Combination Pressure Balancing and Thermostatic Control Valves for Individual Fixtures.
<b>EN 1717:2001</b>	Protection against pollution of portable water in water installation and general requirements of devices to prevent pollution by backflow.
<b>WRAS Certificates</b>	Water Supply (Water Fittings) Regulations 1999 (the Water Byelaws 2000 in Scotland) WRAS approved to the UK Water Supply Bylaws. WRAS approval to: National Health Service Model Engineering Specification D 08-TMV3. Thermostatic Mixing Valves (Health care Premises). Designation Code: HP/LP-S41/T44.

# Check Points prior to the Installation SITE PREPARATION 02.AZ.00EN Rev 2

Always make sure that the following checkpoints are fulfilled and completed prior to the installation.  
Reference to values and other information in this manual.

		COMPLETED
Water cold/hot	Pressure, temperature, location, local/national requirements, hot water min: 200 l / bath	
Drain	Location, capacity, local/national requirements	
Power	Fusing, capacity, local/national requirements	
Potential equalization	Local/national requirements	
Equipotential bonding point	Make sure the equipotential bonding point is close to the bath tub	
Attachments floor/wall	Fittings, local/national requirements	
Floor loads	Construction, materials, local/national requirements	
Materials	Slip/moisture protection, local/national requirements	
Floor	Slope, evenness, thresholds, local/national requirements	
Floor construction	Floor construction suitable for anchoring bolts (Make sure there are no heat slings or water pipes)	
Installation accessibility	Doors, measurements, elevators	
Space requirements	For personal and patient	
Service accessibility	For maintenance staff and annual service	

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