Sara 3000™

Operating and Product Care Instructions
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The SARA 3000 is produced in Belgium by MEDIBO MEDICAL PRODUCTS for GETINGE AB and sold under the ARJO brand.
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Thank you for using SARA 3000.

If you would require information, further to these Operating and Product Care Instructions, or replacement parts, please contact your local ARJO representative who can provide comprehensive support and service programs to maximize the long-term safety, reliability and value of your SARA 3000.

If there is anything in these Operating and Product Care Instructions that is confusing or difficult to understand, please contact your local ARJO representative.

Contact details appear on the back cover of this document.

Should any other information (e.g. a video or abbreviated Guidelines For Use) accompany these Operating and Product Care Instructions, please note that they do not replace the information in this booklet as the latter also contains important safety instructions. Any abridged guidelines are not a replacement of the full instructions for SARA 3000, its parts and ARJO sling. Before operating SARA 3000 be sure that you read, understand and follow all the instructions and guidelines for both SARA 3000 and the ARJO sling.
Intended use

SARA 3000 is a mobile raising aid, with a Safe Working Load of 200 kg (440 lbs), intended to be used for raising to a standing position and short transfer of residents (e.g. raising from bed and transit to wheelchair, or from wheelchair to toilet) in hospitals, nursing homes or other health care facilities where the resident has been clinically assessed to correspond to the following categories;

Category C
- Sits in a wheelchair
- Is able to partially bear weight on at least one leg.
- Has some trunk stability
- Dependent on carer in most situations
- Physically demanding for carer.
- Stimulation of remaining abilities is important.

SARA 3000 shall always be handled by a trained caregiver, continuously attending to the resident, and in accordance with the instructions outlined in these Operating and Product Care Instructions.

SARA 3000 is intended to be used with clip slings only - except for the ‘Transfer Slings’ which also have loops for attachment of the leg flaps to the central lug situated on the resident support arms.

Use slings that are designed for SARA 3000.

General Safety Instructions

Any references made to the ‘resident’ or ‘patient’ in this document, means the person being raised.

⚠️ Warning: READ BEFORE USE.
Before using your SARA 3000 you must read and fully understand these Operating and Product Care Instructions. You must be trained on SARA 3000, and any accessories, as well as its functions and controls.

The Operating and Product Care Instructions are mandatory for the safe and effective handling of Sara 3000, including the safety of the resident and the caregiver.

⚠️ Warning: Only Medibo Medical Products N.V. designated parts, designed for the purpose shall be used for SARA 3000 to avoid injuries attributable to the use of inadequate parts.

Unauthorized modifications or repairs on SARA 3000 may affect its safety and will invalidate any warranty. Medibo Medical Products N.V. will not accept responsibility for any accidents, incidents or lack of performance that occur as a result of any such unauthorized modification or repair.

⚠️ Warning: Before attempting to use SARA 3000, a full clinical assessment of the resident his/her condition, and suitability must be carried out by a qualified person.

⚠️ Caution: Although it is manufactured to a high standard, the Sara 3000 and its accessories shall not be left for extended periods in humid or wet areas. Do not under any circumstances spray the Sara 3000 or accessories (excluding slings or ARJO approved wet environment equipment) with water, such as under the shower.
Symbols and Definitions used in this document

Attention special disposal requirements

Recyclable goods

Type B protection against electrical shock in accordance with IEC 601-1

Product Lifetime

Expected operational life of SARA 3000 is 150 000 lifting cycles, providing the product has been regularly serviced and maintained as indicated in these instructions (see the “Care and Preventive Maintenance” section in particular).

The actuator shall be replaced every 50 000 lifting cycles.

The operational life of the slings is dependent on the actual use conditions.

Therefore, before use, always make sure that the sling loops and straps do not show signs of fraying, tearing or other damage and that there is no damage, (i.e. cracking, bending, breaking) to the attachment clips. If any such damage is observed, do not use the sling.

The slings need to be cleaned, maintained and inspected in accordance with the ARJO Sling Information documents, and this document.

Other consumable parts, e.g. batteries, slings, etc., are also subject to wear and their expected operational life is dependent on usage.

Definitions

**Warning:** Means: Failure to follow these instructions may result in injury to yourself or others.

**Caution:** Means: Failure to follow these instructions may cause damage to the product(s).
1. Clip Attachment Points
2. Battery Pack
3. Steering Handgrips
4. Control Handset
5. Motor/Actuator
6. Knee Support
7. Foot Support
8. Rear Castors with Brake
9. Stop Button (red) and Reset Button (green)
10. Dual Up/Down Control
11. System Failure Lowering Override
12. Battery Discharge Indicator and Hour Meter
13. Base of Chassis
14. Chassis Vertical Mast
15. Scale Unit Display (if fitted)
16. Front Castors
17. Battery Release Button
18. Resident Support Arms
19. Resident Support Grips
20. Clips
21. Leg Flaps
22. Loops
23. Anti-skid Back Support
24. Padding
25. Chest Fixation Strap
Installation Instructions.

The Sara 3000 is delivered to you in fully assembled state.

Unpack the battery pack supplied, and fully charge it for a minimum of 24 hours, see “Battery Charging” section.

When the battery pack is fully charged, disconnect the electric power, remove the pack from the charger, and insert it fully back into the Sara 3000 battery compartment located at the rear of the mast.

Features and functions

**Control Handset:** A semi-remote control unit attached to the Sara 3000 by an extending cable. The handset controls are for the raising / lowering and chassis leg opening/closing functions. Direction arrows adjacent to the buttons indicate each function (see Fig. 2). If pressure is released from any button during use, the powered movement will stop immediately.

**Dual control switch:**- as an option to the semi-remote control handset, the raising and lowering of the resident support arms can be controlled from this switch, situated on the front of the electronics/battery compartment. A label adjacent to the switch is for function identification (see Fig. 1). This switch will function even if the handset cable has been unplugged.

**Emergency Stop Button** (red) (see Fig. 1): If you have to immediately stop any powered movement, (other than by releasing pressure on the button on the control handset), press the red “stop button” located on the control panel above the battery. This function can also be used to ensure that powered operation cannot accidently start when either using the Sara 3000, or leaving it in storage or unattended.

Once the red Stop Button has been operated, the green reset button has to be pushed into reset the red stop button. Now the Sara 3000 can be operated again.

**Warning:** The caregiver shall be aware that from the moment the lowering and raising functions are used, the resident support arms shall follow the movement of the used function. If the resident support arms do not follow the movement indicated by the use of the pressed control button, release the button immediately and check for obstructions. Before removing the obstruction, make sure the resident will be supported and in a safe position at all time.

The following safety features have been put in place;

**Automatic Cut Out - for use when Raising:** (see Fig. 1) (not a caregiver / operator control but a function built into the electronics)

If the equipment is inadvertently overloaded (trying to raise a resident heavier than permitted), an automatic ‘cut out’ operates to prevent the Sara 3000 lifting a load in excess of the safe working load; this will stop the lift motion automatically. If this automatic cut out occurs, the electronics will reset when the button on the handset is released. After this, the resident can be lowered, by pressing the “lower” function button on the handset. Remove the resident from the equipment.
Automatic Stop Function - for use when Lowering: (see Fig. 1) Great care shall be taken not to lower the resident support arms onto the resident or any other obstruction, particularly when the resident is standing up and weight bearing. If this shall happen, the motor will continue to run but downward movement will be blocked by the obstruction. If this occurs, release pressure from the "lower" button immediately and operate the "raise" button until the equipment is clear. Then remove the obstruction.

System failure lower override: This can be used in the event of main control failure. In the unlikely event that the control handset or dual control feature fails to operate the Sara 3000, with a resident still supported by the sling, provision for lowering has been made, using the system failure lower override, situated on the actuator, (see Figs. 1 & 3). A label situated on the control collar is for quick and easy recognition (see Fig. 3) To operate this function, pull the slide control upwards until the resident’s own weight enables the mast to slowly lower. To cease lowering release the slide control. Only use this function in the event of normal control failure, do not use it for normal function lowering.

**Warning:** Before operating the ‘system failure lower override’ to lower a resident, always ensure that a chair or suitable support is underneath ready to support the resident.

Battery Discharge Indicator: (see Fig. 1) This is a small LED display, located on the battery pack holder, which shows the charge condition of the battery.

Hour Meter: (see Fig. 1) This is a small LCD display which shows the total duration of powered operation (in hours). This is primarily intended as an aid to service engineers and to help the caregiver calculate maintenance intervals.

Chassis Castor Brakes: The chassis rear castors have brakes which can be foot operated if required (see Fig. 4), to keep the Sara 3000 in position.

Foot Support: For positioning before and supporting the resident’s feet during raising and transferring.

Lower Leg Straps: Accessory used to ensure that the lower parts of the resident’s legs stay close to the knee support. They pass around the knee supports, then around the resident’s lower calves. To fasten, click the strap into it’s socket as with a seatbelt. Ensure that the straps are firm but comfortable for the resident.

Adjustable Width Chassis Legs: To open the chassis legs to any variable width, press the appropriate button on the control handset. When pressure is released from the button, movement will stop and the chassis legs will remain securely in position.

The resident shall be transferred with the chassis legs closed, as this will be easier to maneuver through doorways, etc.
Check list before use

For a list of what to check before use, please read the “Care and Preventive Maintenance” section of this document.

Preparation before transfer

Before approaching the resident, the caregiver shall always tell the resident what they are going to do, and have the correct size sling ready.

If required, the chassis legs may be opened to go around a chair, wheelchair or to avoid bed legs or any other obstruction.

Although a resident can be put into the sling with the Sara 3000 close by, it may be easier to do so with the Sara 3000 moved away.

For the transfer of residents and use of various slings refer to the instruction provided by the manufacturer of the sling.

Warning: Adjust the height of the resident Support arms to avoid approaching the resident at eye level. Make allowances for the resident’s arms and any obstructions, such as chair arms, fixed handrails, shower grips, etc.

Using Standing Sling or using Transfer Sling

For more information on slings, please read the sling documentation that was delivered with the sling, and the sling label.

Fig. 1 shows a Transfer Sling and a Standing Sling, and their different parts referred to in this manual.

Warning: An assessment must be made for each individual resident being raised by the SARA 3000 - by a medically qualified person - as to whether the resident requires the lower leg straps when using the standing sling. Use if necessary, e.g. with unruly residents, residents with spasms, etc. that were assessed as suitable to be raised with the SARA 3000.

Do not use the leg fixation strap when using the Transfer sling.

The top of the sling can be recognised by the washing label which is placed on the outside top rim of the sling.

Encourage the resident to lean forward slightly to enable the sling to be placed around his/her lower back (see Fig. 6). Position the sling around the resident’s back so that the bottom of the sling lies horizontally about two inches or five centimeters above the resident’s waistline, with the resident’s arms outside the sling. Ensure that the support strap is separated and brought loosely around the body, and is not twisted or trapped behind the resident’s back.
When applying the transfer sling, take each leg section of the sling in turn and slide under each leg, (see Fig. 5).

To fasten the support strap securely, press the buckles (if available) or velcro (if available) together. The strap shall be tight, but comfortable for the resident. See fig 9. Remember to tighten the strap once the resident becomes raised from the chair.

The sling may be applied before or after the Sara 3000 is brought into position.

**Warning:** The sling chest support strap must always be applied and fastened when using the sling.

The sling support strap will help to support the resident in the sling during the raising procedure. The strap also retains the sling in the correct position around the resident.

If the Sara 3000 is not already close to the resident, bring it to the resident. Apply the clips to the attachment points, and secure them for safety by pulling the clips as shown in Fig. 7.

When using the transfer sling; identify the attachment loop on each leg-side -left and right- of the sling and attach them on the central lug located in between the resident support arms, positioned towards the resident. (see Fig 8)
When the resident is ready, help or allow the resident to place his/her feet on the foot support. Push the Sara 3000 toward the resident to easily assist with this.

If required, the chassis legs may be opened to go around a chair, by operating the appropriate control button.

Carefully push the Sara 3000 in closer to make full lower leg contact with the knee support. (see Fig. 9)

![Fig. 9](image)

**Warning:** Always check that all the sling attachement clips are securely connected and fully in position before and during the lifting cycle, and in tension as the resident’s weight is gradually taken up.

Make sure each clip is attached to the correct clip attachment point on the resident support arms, and each loop is attached correctly and secure onto the lug should the Transfer Sling be used.

![Fig. 9](image)

The resident then must hold on to the resident support grips with one or both hands. The resident is then ready to be raised (see Fig 10).

![Fig. 10](image)

Operate the button on the handset or dual control panel to raise the resident just clear of the chair, then stop the equipment by letting go of the button. (See Fig. 2).

When raising the resident with a standing sling, the resident’s body posture shall go from seated to standing position. When raising the resident with a transfer sling, the resident’s body posture shall go from seated to seated / recumbant position.

The resident’s body will be supported by the sling under the armpits, at the lower back and the chest. When raising with the transfer sling, the resident’s lower body will also be supported.

When raising with the standing sling, if the resident is able to offer some assistance to stand, this may be beneficial for resident confidence and muscular exercise. Encourage the resident to give as much assistance as possible to raise from the chair and/or steady themselves. Ensure resident lies back against sling at all times.

When raising with the transfer sling, the resident shall not aid in being raised.

When using the transfer sling, do not raise the resident higher than seating position, as doing so will not be comfortable for the resident.

Use the raise button on the control handset to raise the resident to a suitable and comfortable height for the particular function (see Fig. 11).

If the handset control button or the dual control button is released during a function, powered motion will stop immediately.
When using the standing sling, the resident can be raised to a fully standing position (see Fig. 12).

Residents who can only hold on to the resident support grips with one hand, such as those who have suffered a stroke, may still be raised with the Sara 3000, but their disabled arm shall be held down in front of the body during the raising by the caregiver (or a second caregiver), while their functioning hand holds the resident support arm in the normal way.

Now transfer the resident to desired position such as the toilet, wheelchair, chair, bed, etc. The resident shall not be transferred over long distances.

The transfer shall be performed with the chassis legs closed, as this will be easier when maneuvering through doorways, etc.

While the resident is raised, make any necessary adjustments to clothing, incontinence pads, etc., before lowering again. Use the control handset to carefully lower the resident. Apply the foot operated rear castor brakes to keep the Sara 3000 in position.

Warning: When lowering the resident back into a seated position, ensure that the resident is positioned in such a way that the resident is fully supported by the seat, chair, toilet, etc. the resident is lowered on. Great care shall be taken not to lower the resident support arms onto the resident or any obstructions.

Remove the sling when the resident is seated by opening chest support strap, then pull the clips of the sling upward to unlock them from the resident support arms.

Warning: Do not attempt to release the attachment clips, loops or the Chest Fixation Strap (see Fig. 1) while the resident is supported by the sling.

Warning: The resident’s feet shall always remain in full contact with the foot support.

When raising, check to ensure that the resident’s feet do not lift from the foot support. If they do, lower the resident immediately until resident’s feet fully reach the foot support.

If residents can stand sufficiently well and lock their knees in the normal way when fully raised, their knees may come away from the knee-support and they will be able to lean back into the sling.
Resident scale (if fitted)

Key

1. Scale display unit
2. Operating button and visual display
3. Load cell cover
4. Label on console

Do not touch mast during weighing process.

If your Sara 3000 has been fitted with the ARJO Scale, this gives your Sara 3000 the added advantage of being able to weigh residents as they are raised.

⚠️ Warning: The scale has been designed to only weigh hospital or care facility residents under the supervision of trained nursing staff.

Verification labels/seals E.C. Units only

After verification, the following marks will be found on the scale unit, specific marks for the EU are in *italic* typeface:

- Verification scale interval.
- The identification number of the notified body that has carried out the EC surveillance.
- A green sticker bearing a capital letter 'M' in black signifying that the scale is suitable for an approved application in accordance with Council Directive 90/384/EEC.
- The number of the EC type approval certificate.
- The accuracy class.
- A seal bearing the identification and number of the verification body.

Re-verification

Re-verification of approved weigh scales must be carried out in accordance with local authority rules (as specified by each country). If the seals are broken (e.g. during repair or replacement of the scale unit) then the scale must be disqualified and not used again until re-verification has been carried out.
Display symbols/functions

The scale has an LCD which displays various numbers and symbols which are described in Fig. 15.

1. **Upper indicator**
   Shows weight in kilograms or pounds.

2. **( - )**
   Shows, when weight is negative. (See section Weighing with the resident already suspended in the sling.)

3. **Menu functions**
   Shows “Operation” function. Other functions are only available when calibrating.

4. **Mode display**
   ‘B/G’ indicates Gross Weight
   ‘NET’ indicates Net Weight

5. **Battery symbol**
   If on - battery power is low. (Approximately 1 hour of operation left).
   All digits flashing- batteries are exhausted.

6. **Lock symbol**
   Input password. (Only available for special and configuration functions. Contact ARJO Service Department if a password is required).

7. **‘Zero’symbol**
   Displayed when the Scale is in zero range, ± 25g.

8. **Dual range symbol (example)**
   L/H switched on : range 1 : e is 100g
   L/H switched off : range 2 ; e is 200g

9. **Min symbol**
   Displayed when the load is below 2kg.

10. **Max symbol**
    Displayed when the load is above 190kg. If the Scale is overloaded, remove the load immediately. Do not move the Scale/ equipment until the symbol is switched off.

11. **Trend indicator**
    Visual weighing range indicator. Blocks are displayed which increase from left to right as loading increases.

12. **Unit of measurement**
    The unit of measurement for an official use in hospitals in Europe is in kilograms only and can not be changed. In any other case the unit of measurement can be changed from “kg” into “lbs” and vice versa by pressing the operating button for a minimum of 10 seconds.
There are two methods to weigh the resident:-

Method ‘A’ - Weighing before the resident is standing on the footrest.

Press the scale operating button (see Fig. 16).

With agitated residents, the caregiver shall wait until the resident is calm before attempting to weigh.

A display test is performed, all segments of the display are shown for approximately one second.

The display will show ‘WAIT’ and after some seconds will display the mode that the scale is in.

Hang the sling to be used over the resident support arms, and press the operating button again.

The scale will display ‘NET 0.0’ (see Fig. 17).

Remove the sling and position it around the resident, as in normal raising procedure.

Raise the resident until clear of any obstructions e.g. bed, chair, floor etc.

Do not press the button again - the number displayed will be the weight of the resident.

For European scales only: If the word TILT appears on the display, move the Sara 3000 to a position where the floor surface is on a level acceptable for the scale to operate correctly.

Do not touch or lean on the resident, or the Sara 3000 itself during the weighing operation, as the mast and resident support arms are integral parts of the weighing equipment.

The scale, once switched on will operate for 6 minutes. After this time, the scale will automatically switch off. If this happens, press the button again.

Caution: Do not overload the scale. If the scale unit displays ‘MAX’, lower the resident immediately onto a bed/chair.

The scale can be ‘re-netted’ during operation.

Caution: Do NOT hold the scale display unit or the mounting tube to assist in manoeuvring the Sara 3000.

Method ‘B’ - Weighing with the resident already standing on the footrest.

Ensure the resident is raised and clear of any obstructions, e.g. bed, chair, floor etc.

Press the scale operating button (see Fig. 16).

With agitated residents, the caregiver shall wait until the resident is calm before attempting to weigh.

A display test will be performed, all display segments are shown for approximately one second.
The display will show ‘WAIT’ and after some seconds will display the mode that the scale is in.

Ignore the weight displayed, and press the operating button again.

The scale will display “NET 0.0” (see Fig. 17).

**Caution:** Do not overload the scale. If the scale displays ‘MAX’, lower the resident immediately onto a bed or chair.

Lower the resident to a suitable position and remove the sling.

Hang the sling over the resident support arm only.

The weight is displayed, and, although having a minus (-) sign in front of it, is the weight of the resident.

Remove the sling.

If the word TILT appears on the display, move the Sara 3000 to a position where the floor surface is on a level acceptable for the scale to operate correctly.

The scale, once switched on will operate for 6 minutes. After this time, the scale will automatically switch off. shall this happen, press the button again.

Do not touch or lean on the resident, or the Sara 3000 itself during the weighing operation. Ensure that no part of the resident touches the mast or resident support arms during weighing, as the resident support arms are an integral part of the weighing equipment.

The scale can be re-netted during operation.

**Caution:** Do NOT hold the scale display unit or the mounting tube to assist in manoeuvring the Sara 3000.

---

**Scale battery installation/change**

![Figure 18](image)

If the battery symbol is displayed on the scale LCD, there is enough power left for approximately 1 hour of operation.

To change the batteries:-

Open the battery compartment cover, by firstly removing the two screws using a small bladed screwdriver. Remove the cover.

Pull out the battery holder carefully.

Disconnect the push-on connector from the end of the battery holder if necessary.

Remove the existing batteries from the battery holder and replace using four “AA” size batteries or equivalent, ensuring correct polarity (shown on the holder).

Replace the battery holder and refit the battery compartment cover and tighten the screws.

If the batteries are inserted incorrectly, this will not damage the circuit board.

Rechargeable batteries may be used, however, the operating time of the scale between charges will be shorter than if non rechargeable batteries are used.

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**Care of your scale**

The scale is adapted to the same conditions as the Sara 3000. For cleaning instructions see the ‘Desinfection, cleaning and maintenance’ section in the main operating instructions issued for your Sara 3000.

Apart from cleaning and battery changing, no other special maintenance shall be required.
The Sara 3000 incorporates a battery discharge indicator, situated on the rear of the battery/electronics compartment (see inset to Fig. 1).

It is recommended that the battery is removed from the equipment and recharged when the battery discharge indicator LED displays orange light.

Recharging the battery pack before it reaches a low state of battery charge or certainly totally discharged will prolong its life.

To ensure the Sara 3000 is always ready for use, it is recommended that a freshly charged battery pack is always available. This is achieved by having additional battery packs available and keeping one on charge while the other is in use.

It may be considered good protocol to have a freshly charged battery ready for the start of every work shift.

**Warning:** Do not crush, puncture, open, dismantle or otherwise mechanically interfere with batteries.

Should the battery casing become cracked, and electrolyte come into contact with skin or clothing, wash immediately with water.

If the electrolyte contacts the eyes, wash immediately with copious amounts of water, and seek medical attention.

No smoking or naked flames in battery vicinity.

Do not charge batteries in a sealed container.

Do not place batteries near, or dispose of, in a fire.

Do not short circuit a battery.

Do not store batteries at temperatures in excess of 60°C (140°F).

**Warning:** The battery charger is for use only with batteries that are supplied by ARJO to be used with the Sara 3000.

To avoid overheating, the charger must not be covered while in use.

Do not attempt to open or tamper with the charger unit in any way, for any repair the charger must be sent to the manufacturer.

The mains electricity socket must be easily accessible. Remove the connection plug from the socket.

When disposing of batteries, contact the appropriate local authority for advice.

The abbreviation ‘Pb’ shown adjacent to the recycling and trash bin symbols on the battery pack label is the element symbol for lead, and indicates that the battery contains lead and therefore should not be disposed of in the normal manner but must be recycled.

Do not expose the charger unit to dust.

**Place the battery pack on charge as follows:**

When the battery discharge indicator LED on the Sara 3000 displays orange, complete your lift cycle then take the Sara 3000 to a convenient situation and remove the battery pack by holding the grip handle on the top and lift clear (see Fig 19).
Take the battery to the battery charger unit, ensure the charger is not connected to the mains and plug the charger into the battery.

Place the battery pack on the charger as follows:

Insert the battery pack into the charger unit in a manner similar to installing it in the Sara 3000 and push it firmly in. The charging connector will automatically couple. Then switch on the power.

A yellow light will be displayed on the charger unit when the battery is totally or partially discharged. This will change to a green light when the battery is fully charged, indicating that the charger has automatically switched to ‘trickle charge’ (keeping the battery at a full level of charge).

There is no on/off switch. To stop the charger from working disconnect the main plug from the supply socket when not in use.

The battery pack may be left connected to the charger unit when it is fully charged without being damaged by overcharging, this will also ensure the battery is kept fully charged.

| Caution: | Always disconnect the mains supply before disconnecting the battery from the charger unit. |

When the battery pack is fully charged, disconnect the power, remove the pack from the charger, and insert it back into the Sara 3000.

An electrical connection is made automatically.

Ensure the green Reset Button is pressed in.

The Sara 3000 is now ready for use.

A discharged battery shall be left approximately 8 hours to totally recharge.

Warning: Hold the pack firmly when taking it out and putting it back into the Sara 3000 or with the battery charger, to ensure it does not drop and become damaged, or cause personal injury.
General equipment Cleaning and Care

How often the following actions are taken depends on how often the equipment is used. Unless otherwise stated, before each and every use follow the cleaning, care and inspection procedures described in this section.

Caution: It is recommended that equipment, accessories and slings supplied by ARJO are regularly cleaned and/or disinfected between each resident use if necessary, or daily as a minimum. If the slings and equipment need cleaning, or are suspected of being contaminated, follow the cleaning and/or disinfection procedures recommended below, before re-using the equipment. This is especially important when using the same equipment for another resident, to minimise the risk of cross infection.

For cleaning your equipment and accessories wipe down with a damp cloth using warm water to which a disinfectant/cleaner has been added e.g. “ARJO CLEAN” - disinfectant/cleaner or equivalent.

For disinfection of contaminated equipment and accessories, use the preferred method of wiping the product completely with “hard surface disinfectant wipes” that are supplied impregnated with a 70% v/v solution of Isopropyl Alcohol.

A rubbing action will be necessary when using the wipes to promote effective disinfection of the surfaces.

70% v/v Isopropyl Alcohol wipes have been proved to be effective against MRSA and several other micro-organisms under light soiling conditions.

Warning: Do not soak the product which could cause corrosion.

Caution: If a hot air dryer is used to dry the equipment, the temperature must not exceed 80°C (176°F). Do not use petroleum based solvents or similar, since this may damage plastic parts.

Warning: Cleaning and disinfection products must be used in accordance with the manufacturers instructions and suitable eye, hand and clothing protection must be worn at all times when handling disinfectants.

Daily checks

Please read the Care and Preventive maintenance section of this document for instructions on what needs to be checked daily.

Warning: Ensure that the castors are firmly secured to the chassis.

Carefully inspect all plastic parts, in particular where there is personal contact with the resident’s body, ensure that no cracks or sharp edges have developed which could injure the resident’s skin or become unhygienic.

Check that all external fittings are secure and that all screws and nuts are tight.

Servicing Advice

Warning: ARJO recommends that Sara 3000 be maintained at regular intervals. See Preventive Maintenance Schedule section in this document.
Disinfection, Cleaning and Maintenance

Parts lists and circuit diagrams

These are available on request from ARJO or its approved distributors.
Spare parts, if required, are available from Arjo or its approved distributors.
Special tools are required for certain component replacement.

Environmental Advice

When disposing of any items associated with the equipment, contact the appropriate local authority for advice.

Slings

**Warning:** The slings shall be checked before using with each resident and if necessary washed according to instructions on the sling.

With regard to laundering, slings shall not be classified as linen. Slings shall be cleaned and disinfected only in strict accordance with the manufacturers instructions.

Mechanical pressure shall be avoided during the washing and drying procedure e.g. rolling or pressing, as these can damage parts vital to the safe and comfortable operation of the sling.

**Caution:** Wash using normal detergents, do not iron. Follow the instructions on the label of the sling.

It is essential that the sling attachment cords, the slings, their straps and attachment clips are carefully inspected before each and every use - as indicated in the Preventive Maintenance Schedule.

If the slings, cords or straps are frayed, or the clips damaged, the sling or attachment cord should be withdrawn from use immediately and replaced.

**Warning:** If in any doubt about the correct functioning of the Sara 3000, withdraw it from use and contact Arjo Service Department.

Periodic Testing

To be carried out at weekly intervals:
For normal operation - raise and lower the resident support arms using the control handset and dual control switch, this is to test for full and efficient movement.

**Emergency Stop:**
- Test the emergency stop facility by operating the control handset to raise or lower the resident support arms, and whilst operating, press in the emergency stop button. (See inset to Fig. 1).
Powered movement should stop immediately.
Reset to normal function by resetting out the button.
Repeat this test using the dual control switch.

**Adjustable Width Chassis Function:**
- Open and close the chassis legs to check for full and efficient movement.

**General Equipment Condition:**
- A general visual inspection of all external parts should be carried out, and all functions should be tested for correct operation, to ensure that no adverse damage has occurred during use.
Care and Preventive Maintenance

The Sara 3000 is subject to wear and tear, and the following actions must be performed when specified to ensure that the product remains within its original manufacturing specification.

Warning

The points on this checklist are the minimum the manufacturer recommends. In some cases due to heavy use of the product and exposure to aggressive environment, more frequent inspections shall be carried out. Continuing to use this product without conducting regular inspections or when a fault is found will seriously compromise the user and residents’ safety. Local regulations and standards may be higher than the manufacturers. Preventive maintenance specified in this manual can prevent accidents.

Preventive Maintenance Schedule

<table>
<thead>
<tr>
<th>Action/Check</th>
<th>Before each use</th>
<th>Every week</th>
<th>Every 12 months</th>
<th>Every 2 years</th>
<th>Every 3 years</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAREGIVER OBLIGATIONS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Examine the sling, straps and clips for damage or fraying as required. Refer to sling documentation.</td>
<td>X</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visually check exposed surfaces for damage, sharp edges, etc.</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visually check sling attachment points. Do not use if damaged.</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make sure all labels are attached. See Operating Instructions for location.</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check to make sure the handgrips are secure. Rebond if required.</td>
<td>X</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Examine the charger and wires for integrity and connections.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>S</td>
</tr>
<tr>
<td>Operate the Sara 3000 through its full range.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visually check the handset and cable for damage.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perform a full function test on the Sara 3000.</td>
<td>X</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check operation of the Stop/Reset and System Lower Override Device.</td>
<td>X</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check batteries for leakage and/or deterioration. Replace if required.</td>
<td>X</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make sure all fixings, screws, nuts are secure and tight.</td>
<td>X</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check all castor wheels for wear. Replace as required.</td>
<td>X</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check that the covers fit correctly and are not damaged. Replace as required.</td>
<td>X</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check for evidence of corrosion. Replace as necessary.</td>
<td>X</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check that batteries will charge when in charging station.</td>
<td>X</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Replace all batteries every 3 years from installation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>S</td>
</tr>
</tbody>
</table>

Warning

The actions marked with ‘S’ must be carried out by qualified personnel, using correct tools and knowledge of procedures. Failure to meet these requirements could result in personal injuries and/or unsafe product.
1. Product Name
2. Safe Working Load - 200 kg (440 lbs) and serial number
3. Battery Information
4. Emergency Stop and Reset Button Identification
5. Battery Discharge Indicator and Hour Meter
6. ARJO logo
7. Attention: Read Operating Instructions
8. UL / CSA standard label
Component Weights

<table>
<thead>
<tr>
<th>Description</th>
<th>kg</th>
<th>(lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sara 3000 complete</td>
<td>62</td>
<td>(137)</td>
</tr>
<tr>
<td>Sara 3000 with Scale complete</td>
<td>71.7</td>
<td>(158)</td>
</tr>
</tbody>
</table>

In normal use, the complete Sara 3000 can be broken up into two parts:
- Battery Pack ................................................................. 3.8 (8.4)
- Sara 3000 (without Battery Pack) .......... 58.2 (128)
- Sara 3000 with Scale (without Battery Pack) .... 67.9 (150)

The Sara 3000 is not intended to be broken up into more than these parts.

Safe Working Load

<table>
<thead>
<tr>
<th>Description</th>
<th>kg</th>
<th>(lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sara 3000</td>
<td>200</td>
<td>(440)</td>
</tr>
<tr>
<td>All slings</td>
<td>200</td>
<td>(440)</td>
</tr>
</tbody>
</table>

All slings - please verify with the SWL on the sling label.

Electrical

- Battery Type: (Rechargeable - sealed lead acid)
- Battery Part Number: NDA0100
- Battery capacity: 24V 4Ah
- Lift - Protection Class - intrusion of liquid: IPX4
- Lift - Protection Class - shock protection: Internally powered equipment
- Lift nominal voltage: 24V
- Fuse - Overload: 5A (thermal cutout)
- Fuse - PCB: 10A (time delay)
- Battery Charger Type: FW7318M/24
- Battery Charger Manufacturer: Friwo Mobile Power GmbH
- Battery Charger rated supply voltage: 100-240V AC
- Battery Charger nature of supply: AC
- Battery Charger supply frequency: 50-60 Hz
- Battery Charger power output: 1 A
- Battery Charger rated output voltage: 24V DC
- Battery Charger - Protection Class - intrusion of liquid: IP40
- Battery Charger - Protection Class - shock protection: Class II double insulated
- Battery Charger Part Number (country code between brackets): NDA8200 - EU, NDA8200 - GB, NDA8200 - CH, NDA8200 - US, NDA8200 - AU

Medical Equipment:- type B protection against electrical shock in accordance with IEC 601-1)
ARJO resident Handling products meet the requirements of Electromagnetic Compatibility (EMC) as stated in clause 12.5 of Annex 1 of the Medical Devices Directive 93/42/EEC.

Although compliant with EMC requirements, there is a remote chance that close proximity usage may affect overly sensitive electrical equipment.

Conforms to UL standard 2601-1 and certified to CAN/CSA standard C22.2 No 601.1-M90

<table>
<thead>
<tr>
<th>Description</th>
<th>Duty cycle</th>
<th>Max volts</th>
<th>Max amps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mast Lift Actuator</td>
<td>10% - (6 min/hr)</td>
<td>24</td>
<td>5</td>
</tr>
<tr>
<td>&quot;V&quot; Chassis Actuator</td>
<td>10% - (6 min/hr)</td>
<td>24</td>
<td>1</td>
</tr>
</tbody>
</table>

Mode of operation: intermittent
Environmental Specifications

**Environment**
- **Air Humidity/Storage**: 80% @ 20°C (68°F)
- **Usage temperature range (ambient)**: +5°C (41°F) to +35°C (95°F)
- **Optimum Usage Temperature (ambient)**: +20°C (68°F) to +25°C (77°F)
- **Storage and transportation temperature (ambient)**: -10°C (14°F) to +45°C (113°F)

**Maximum sound power level**
- In accordance with ISO 3746: 53dB (dB re 1pW ± 3dB)

**Scale**
- **Weight Range**: 2-190 kg (4,4-419 lbs.)
- **Power Supply**: 6V DC (4 x AA Batteries)
- **Battery Life**: 120 hours
- **Degree of Protection**: IP 53
- **Accuracy (verified class III scale)**
  - 2-50 kg: ± 50g
  - 50-120 kg: ± 100g
  - 120-190 kg: ± 200g
### Technical Specification

**Abb. Dimensions**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value 1</th>
<th>Value 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Max. Height of C.S.P.</td>
<td>1700 mm</td>
<td>66.9&quot;</td>
</tr>
<tr>
<td>B. Raising / Lifting Range</td>
<td>795 mm</td>
<td>31.3&quot;</td>
</tr>
<tr>
<td>C. Min. Height of C.S.P.</td>
<td>905 mm</td>
<td>35.6&quot;</td>
</tr>
<tr>
<td>D. Height</td>
<td>1140 mm</td>
<td>44.9&quot;</td>
</tr>
<tr>
<td>E. Chassis Min. Clearance</td>
<td>45 mm</td>
<td>1.8&quot;</td>
</tr>
<tr>
<td>F. Chassis Max. Height</td>
<td>110 mm</td>
<td>4.3&quot;</td>
</tr>
<tr>
<td>G. Chassis Total External Length</td>
<td>1035 mm</td>
<td>40.7&quot;</td>
</tr>
<tr>
<td>H. Chassis Max. Internal Length</td>
<td>625 mm</td>
<td>24.6&quot;</td>
</tr>
<tr>
<td>I. Chassis Footplate /-support Length</td>
<td>270 mm</td>
<td>10.6&quot;</td>
</tr>
<tr>
<td>J. Chassis Min. Internal Width</td>
<td>540 mm</td>
<td>21.3&quot;</td>
</tr>
<tr>
<td>K. Chassis Min. External Width</td>
<td>640 mm</td>
<td>25.2&quot;</td>
</tr>
<tr>
<td>L. Chassis Max. Internal Width</td>
<td>890 mm</td>
<td>35&quot;</td>
</tr>
<tr>
<td>M. Chassis Max. External Width</td>
<td>990 mm</td>
<td>39&quot;</td>
</tr>
<tr>
<td>N. lifting Reach Min. Height C.S.P.</td>
<td>500 mm</td>
<td>19.7&quot;</td>
</tr>
<tr>
<td>O. lifting Reach Max. Height C.S.P.</td>
<td>30 mm</td>
<td>1.2&quot;</td>
</tr>
<tr>
<td>P. Turning circle</td>
<td>1035 mm</td>
<td>40.7&quot;</td>
</tr>
</tbody>
</table>

'C.S.P.' stands for 'Central Suspension Point': a reference point on the Sara 3000 used for measurements. As CSP on the Sara 3000 we have used the clips attachment point closest to the resident at the start of the raising cycle.

Technical specifications may be revised and changed without prior notice.

---

![Fig. 22](image-url)
## Problem Solving / Trouble Shooting Guide

### Problem description

<table>
<thead>
<tr>
<th>Problem description</th>
<th>Probable cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Sara 3000 is (brand new and) not functioning at all.</td>
<td>Emergency stop button (red) is still engaged.</td>
<td>Please press green Reset button to disengage the Stop button (red).</td>
</tr>
<tr>
<td>The Sara 3000 is raising and lowering slower than normal.</td>
<td>Low battery power level.</td>
<td>Please check LED light, digital display and hour meter on the mast of the Sara 3000, just above the battery. In case of doubt change the battery on the Sara 3000 with a fully charged battery and compare performance. In case of low battery power level, please charge the battery and use a fully charged one to continue using the Sara 3000.</td>
</tr>
<tr>
<td>The Sara 3000 is not raising or lowering, and/or the chassis can not be opened or closed.</td>
<td>Handcontrol is damaged.</td>
<td>Please try operating the Sara 3000 with the Dual Up/ Down Control situated on the mast of the Sara 3000. should the equipment fully function when these controls are used, and should it not fully function when using the handcontrol, the handcontrol is to be replaced.</td>
</tr>
<tr>
<td>As above, the Sara 3000 does not function properly, not with the handcontrol, neither with the Dual Up-Down Control switches.</td>
<td>Electronics PCB is malfunctioning</td>
<td>Please contact your Arjo dealer or Arjo approved service engineer.</td>
</tr>
<tr>
<td>While pressing the ‘raise’ button, the Sara 3000 makes a noise but the resident support arms or the resident are not moving upwards</td>
<td>Actuator (on res. support arms or in chassis) is malfunctioning</td>
<td>Please contact your Arjo dealer or Arjo approved service engineer.</td>
</tr>
<tr>
<td>While pressing the ‘Chassis legs open’ button, the Sara 3000 makes a noise but the chassis legs are not opening.</td>
<td>An obstruction is blocking the resident support arms.</td>
<td>Please remove the obstruction and check thoroughly for damage before continuing the lifting cycle. When in doubt use the System Failure Lowering Override, to put the resident back into a safe seated position, before removing the Sara 3000 and placing it out of order. Only recommence using the Sara 3000 after it has been inspected and approved for safe working by an Arjo approved engineer.</td>
</tr>
<tr>
<td></td>
<td>An obstruction is blocking the chassis legs.</td>
<td>Please remove the obstruction and check thoroughly for damage before continuing the lifting cycle. When in doubt use the System Failure Lowering Override to put the resident back into a safe seated position before removing the Sara 3000 and placing it out of order until it has been inspected and approved for safe working by an Arjo approved engineer.</td>
</tr>
</tbody>
</table>