

TRIAD



User and Maintenance Manual

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Original instructions

This manual is used for different markets/jurisdiction and the information covers various features and options for the TRIAD chair.

This publication is also available in other languages.

Use of the masculine form in this document refers to both men and women.

Printed in Canada

TABLE OF CONTENTS

INTRODUCTION	4	PREVENTIVE MAINTENANCE ..	22
Product description	4	Verification list for annual preventive maintenance	23
Product intended use	4		
Contact	4	MAINTENANCE PROCEDURES	24
Technical specifications	5	Colors Table	24
Symbols and definitions	7	Replacement of a wheel	25
Pictograms and definitions	8	Replacement of the control box	27
Safety measures	9	Replacement of the battery	29
Gradation and definition of safety measures	9	Replacement of the actuator	31
Safety measures	9	Replacement of the remote control	32
		Replacement of a cushion - leg section ...	33
GETTING STARTED	12	Replacement of a cushion - seat section .	34
Chair set up	12	Replacement of a cushion - backrest section	35
OPERATING INSTRUCTIONS	14	CLEANING	37
Central braking and steering	14	Cleaning	37
Chair movements	15	Disinfection	38
Hand control	15	Cleaning procedure	39
Hand control lights	16		
Armrests	16	TROUBLESHOOTING	40
Removing the armrests	17		
Raising the armrests	17	DISPOSAL AND RECYCLING	42
Pivoting the armrests	18		
Retractable shelf (option)	18	WARRANTY	43
Swivel shelf (option)	19	Shipment receipt	43
Rechargeable battery (option)	19	Product return	43
Trendelenburg position	20	Limited warranty	43
Trendelenburg foot control (option)	21	Parts and service	43

INTRODUCTION

This manual includes instructions and information necessary for normal and safe use of the TRIAD chair. Reading and comprehension of the instructions and information included in this manual, or in any other document provided with the product, are required before usage, or before performing any maintenance on the equipment.

Product description

The TRIAD chair is a powered treatment armchair. On wheels with central lock, the device standard configuration comes with fixed transport handles, hand controller and pivoting armrests. The chair offers the Trendelenburg positioning and adjustment of backrest, leg and footrest sections as well as height. A variety of options and accessories are offered, and are described in this manual. These include but are not limited to: swivel table, retractable tray, foot control, battery pack and rear central lock pedal. The chair's maximum safe working load is 450 lb/205 kg. The expected service life is 10 years, with a normal use and regular maintenance.

Product intended use

The TRIAD chair is an electric chair that can be adjusted to different positions. It is designed to support a patient during a medical examination, treatment or procedure. It is intended for medical purposes including, but not limited to, healthcare environments and/or departments: clinics, doctor's office, ambulatory healthcare, hospitals, oncology, dialysis therapy, day infusion, blood donation, pathology, emergency, day surgery.

Users are medical professionals, caregivers, maintenance personnel and patients, in cases where the patient was deemed able to be granted the controls related to adjustments for better comfort.

Contact

The manufacturer can be contacted for any assistance regarding the set up or the use of the chair and its maintenance.

Reporting problems:

The user and/or patient should report any suspected serious incident related to the device by informing the manufacturer and the competent authority of the member state in which the serious incident has occurred.

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Technical specifications

Weights and dimensions		
Weight of the chair (can vary depending on options)	250 lb	114 kg
Safe working load (includes patient and accessories)	450 lb	205 kg
Length prone sitting	83" 60"	211 cm 152 cm
Width without arm-rest with arm-rest	24" 38"	61 cm 97 cm
Height highest lowest	28" 20"	71 cm 51 cm
Arm-rest length width	19" 7"	48 cm 18 cm
Diameter of the wheels	5"	12,7 cm
Angulations		
Back section	-10° to 80°	
Leg section	10° to -50°	
Trendelenburg	-10°	
Cushion		
Vinyl	Water-proof Anti-microbial Stain resistant Fire resistant FMVSS-302 CA TB 117-2013 (Section 1-Cover Fabric) BIFMA Class A NFPA 260 UFAC Class 1	
Environmental conditions		
Usage ambient temperature relative humidity atmospheric pressure	41 °F to 104 °F 20 to 80 % 70 to 106 kPa	5 °C to 40 °C 20 to 80 % 70 to 106 kPa
Transport and storage ambient temperature relative humidity atmospheric pressure	14 °F to 122 °F 20 to 80 % 70 to 106 kPa	-10 °C to 50 °C 20 to 80 % 70 to 106 kPa

Electrical characteristics	
Protection level	Control box : IPX6 Actuator : IPX4 Column : IPX6 Hand switch : IPX4 Foot switch : IPX6 Battery : IPX6
Electrical discharge protection level	Class II, Type B
Tension	120 VCA, 60 Hz
Amperage	3.6 A
Actuators	24 VDC, continuous power
Battery type	rechargeable sealed lead acid battery
Duty cycle	2 minute ON, 18 minutes OFF

Symbols and definitions

Different symbols are used on the product and in this manual. Their purpose is to inform the user on functional details or on safety related measures.

	Indicates the medical device manufacturer		Indicates the need for the user to consult the instructions for use for cautionary information such as warnings and precautions that cannot be presented on the medical device itself
	Indicates the date when the medical device was manufactured		Indicates the total maximum load for a safe use of equipment
	Indicates that the medical device was manufactured in Canada		Indicates the need for the user to consult instructions for use or electronic instructions for use
	Indicates a Type B applied part complying with the specified requirements of this standard to provide protection against electric shock, particularly regarding allowable patient leakage current and patient auxiliary current		Indicates a general mandatory action
	Indicates a terminal which is intended for connection to an external conductor for protection against electric shock in case of a fault, or the terminal of protective earth (ground) electrode		Indicates that when disposed, the equipment must be collected separately in accordance with the European Directive 2002/96 relatively to waste electrical and electronic equipment (WEEE)
	Indicates that on the rating plate, the equipment is suitable for alternating current only to relevant terminals		Indicates the manufacturer's catalogue number so that the medical device can be identified
	Indicates that caution is necessary when operating the device or control close to where the symbol is placed, or to indicate that the current situation needs operator awareness or operator action in order to avoid undesirable consequences		Indicates the product weight
	Indicates that the product has a double electrical insulation		

Pictograms and definitions

Different pictograms are used on the product and in this manual. Their purpose is to facilitate the reading and the understanding of the different functionalities to the user..



Sitting prohibited



Mounting prohibited



Do not obstruct zone

Safety measures

Terms DANGER, WARNING, ATTENTION and IMPORTANT are used in this manual to indicate important measures to take for use or maintenance of the equipment. The gradation, the definitions and safety measures shall be carefully reviewed and understood before use.

Gradation and definition of safety measures

DANGER

Indicates an imminent hazardous situation, which if not avoided, will result in serious injury or death.

WARNING

Indicates a potentially dangerous situation, which if not avoided, could result in a moderate to a severe injury or death.

ATTENTION

Indicates a potentially dangerous situation, which if not avoided, could result in a minor to moderate injury or, in damages to the product or to the environment.

IMPORTANT

Indicates additional precisions on user or maintenance instructions.

Safety measures

IMPORTANT

Reading and understanding of safety measures included in this manual are required prior to set up, usage and/or maintenance of the chair. Users shall be trained on product usage and knowledgeable of hazards associated with usage of electric chairs.

DANGER

- **ELECTRIC SHOCK HAZARD.** Always unplug the power cord and, if applicable, unplug the batteries harness before performing maintenance and/or repairs on the chair. If not avoided, situation could result in severe injury or death.
- **ELECTRIC SHOCK HAZARD.** Use of defibrillator with this product may cause damages to product and/or result in electrical burns. The metallic components of this chair can accumulate or channel defibrillator charges and discharge it to any person in close proximity.



WARNING

- Make sure the brakes are activated before the patient takes place on the chair.
- This chair is designed to support a maximum weight of 450lb/205 kg, including the patient and the accessories. If the limit is not respected, the chair's functionalities could not function correctly and permanent damages to the chair could occur.
- The armrest is designed to support a maximum weight of 80lb/36kg including the patient and the accessories. Damages to the armrests could cause patient falls and/or permanent damages to the chair.
- The swivel shelf (option) is designed to support a maximum weight of 25lb/11kg.
- The retractable shelf on the armrest (option) is designed to support a maximum weight of 10lb/4.5kg.
- The footrest is designed to support a maximum weight of 100lb/45kg including the patient and the accessories.
- Do not sit on the chair backrest. Damages could cause patient falls and/or permanent damages to the chair.
- Do not sit on the chair armrest. Damages could cause patient falls and/or permanent damages to the chair.
- Do not sit on the chair footrest. Damages could cause patient falls and/or permanent damages to the chair.
- Always set the chair to its lowest height before seating a patient.
- Always lower and fix the armrests once the patient is seated.
- Make sure the armrest rotation is locked once the patient is in place.
- Do not use the chair to move a patient from one room to another or from one level to another.
- Keep the cables away from the reach of children.
- Keep hands and other body parts away from the different locking mechanisms when using them.
- Make sure the swivel shelf's mechanism is securely in place before the patient takes seat on the chair.
- If the patient isn't able to use the chair by themselves, the hand control must be kept out of reach.
- Keep hands and other body parts away from moving parts of the chair when adjusting it. Minor to moderate injuries could occur.
- Damaged or defective batteries could cause acid leaks and adequate safety precautions must be taken during manipulation and transport.
- Make sure to take all necessary precautions when manipulating the various accessories (swivel shelf, mini-bicycle, armrests, etc.) to avoid any injuries.

**ATTENTION**

- Patient surveillance and control of their access to the chair's functions are under the establishment's responsibility
- Unplug the power cable from the outlet before moving the chair. If not unplugged, damages to the chair and/or to the environment could be caused.
- Make sure the power cable is intact before plugging it into an outlet.
- When manipulation of the power cable is required, make sure the necessary safety precautions are taken in order to prevent it from getting caught between certain parts of the chair.
- This chair is designed to be used indoors on a flat surface.
- Do not use the braking system to interrupt the chair's movement while in motion.
- Do not use in a humid environment.
- Do not use in an oxygen-rich environment.
- Do not use for CPR, x-ray or defibrillator purposes.
- To ensure product effectiveness, perform the recommended maintenance.
- This chair is neither designed or destined for MRI purposes. Use in intended environments only.
- Do not roll the chair over the power cable or the hand control cable.
- Do not use any cable as a means to move the chair.
- No modification to this equipment is allowed, unless it was approved by the manufacturer, performed by qualified personnel, and inspected and tested to ensure it is safe to use.
- Keep all cables away from heat sources.
- Always make sure to have enough free room around the chair before executing the various movements to avoid collisions with the environment or persons.
- The patient must take position on the chair from the side exclusively.
- Never go beyond the duty cycle of 2/18 (2 minutes in function and 18 minutes stopped).
- Medical personnel is responsible of informing the patient on how to adjust the chair.
- Do not open the battery box, because the cell or the circuit could be damaged and develop excessive heat.

GETTING STARTED

IMPORTANT

Read and understand all information covered in this manual before operating the equipment. Users shall be knowledgeable about inherent hazards related to use of electric chairs.

Chair set up

WARNING

- Make sure the brakes are activated before the patient takes place on the chair.
- Keep the cables away from the reach of children.

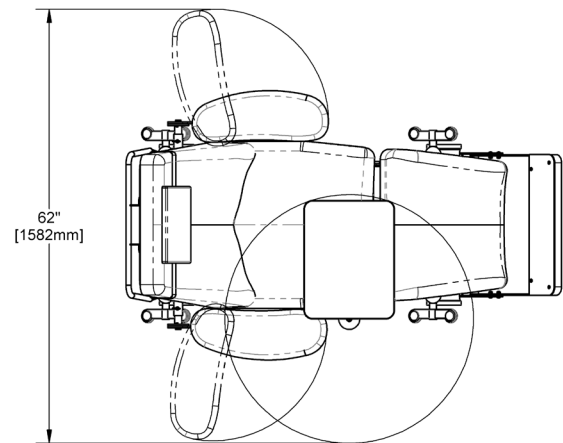
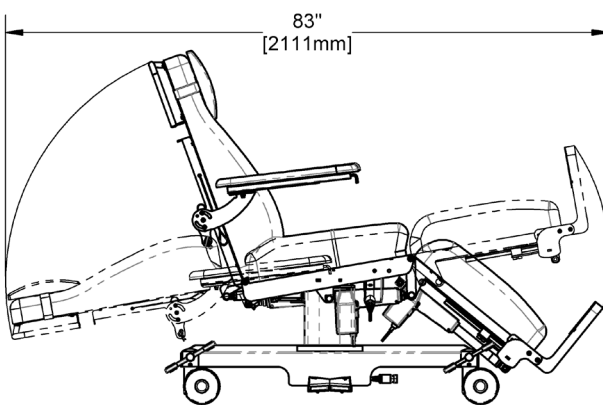
ATTENTION

- Patient surveillance and control of their access to the chair's functions are under the establishment's responsibility
- Make sure the power cable is intact before plugging it into an outlet.
- When manipulation of the power cable is required, make sure the necessary safety precautions are taken in order to prevent it from getting caught between certain parts of the chair.
- Always make sure to have enough free room around the chair before executing the various movements to avoid collisions with the environment or persons.
- This chair is designed to be used indoors on a flat surface.
- Do not use the braking system to interrupt the chair's movement while in motion.
- Do not use in a humid environment.
- Do not use in an oxygen-rich environment.
- Do not use for CPR, x-ray or defibrillator purposes.
- This chair is neither designed nor intended for MRI purposes. Use in intended environments only.
- Do not roll the chair over the power cable or the remote control cable.
- Do not use any cable as a means to move the chair.
- Never go beyond the duty cycle of 2/18 (2 minutes in function and 18 minutes stopped).
- Keep all cables away from heat sources.

IMPORTANT

Chair must be properly installed and verified prior to be put in service. Refer to the list below to ensure proper set up.

1. Once the product is unpacked and placed in the desired location, install all applicable accessories.
2. Perform a complete visual inspection of the chair. Contact **Umamo Medical** or local representative if there are any damages or missing item.
3. To prevent permanent damages, ensure chair has reached [environmental conditions for use](#) (page 5) prior to plugging it to a wall socket. Refer to the section of [technical specifications](#) (page 5).
4. Make sure there is enough space surrounding the product as to avoid collisions with the environment in any position.



5. Once the chair is in place, activate the braking system.
6. Remove all remaining packaging on the product. For example, the plastic protector on the remote control's cable.
7. Plug in the power cable.
8. Perform an operation test to ensure the chair works as intended. Contact **Umamo Medical** or local representative if any problem arises following an operation test.

OPERATING INSTRUCTIONS

Central braking and steering

The TRIAD chair is equipped with a central and directional braking system. Using the pedals found on either side of the chair, this allows the user to either lock the chair in place, put it in a neutral position or limit the chair's movements to one direction only.

WARNING

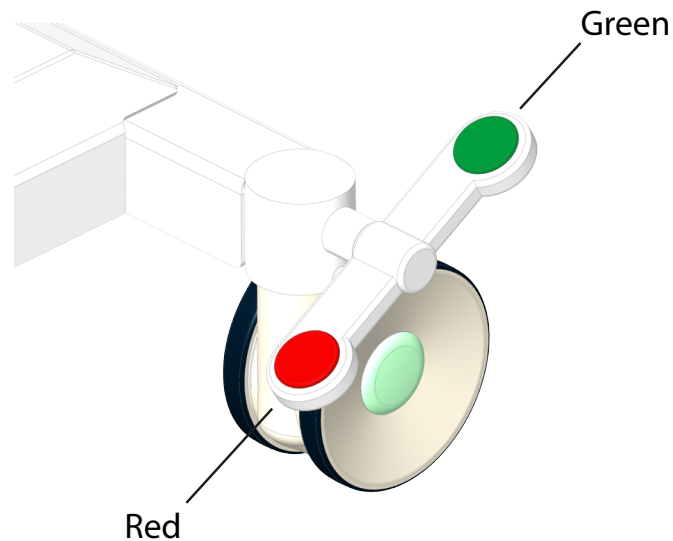
- Make sure the brakes are activated before the patient takes place on the chair.

ATTENTION

- Do not use the braking system to interrupt the chair's movement while in motion.
- Do not use any cable as a means to move the chair.
- Do not use the chair as a gurney to move a patient from one room to another or from one level to another.

The central brake can be activated with one of the pedals located on each side of the chair. You only need to activate the pedal with your foot in one of the three (3) positions:

- Red: Four (4) wheels are locked
- Neutral: Four (4) wheels are unlocked
- Green: One (1) wheel is aligned on the chair's axis and the other three (3) wheels are unlocked.



Chair movements

The TRIAD chair's different sections can be moved independently from one another, using the provided hand control.

WARNING

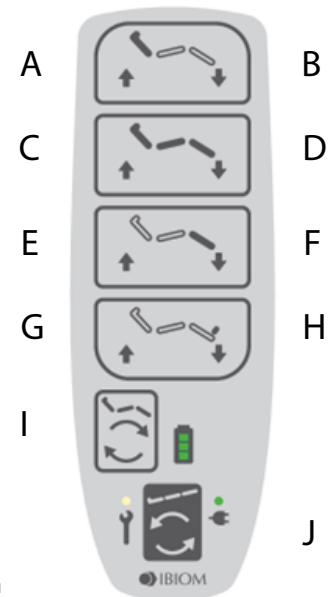
- Make sure the brakes are activated before the patient takes place on the chair.
- Always set the chair to its lowest height before seating a patient.
- If the patient isn't able to use the chair by themselves, the hand control must be kept out of reach.
- Keep hands and other body parts away from moving parts of the chair when adjusting it.

ATTENTION

- Do not use the braking system to interrupt the chair's movement while in motion.
- The patient must take position on the chair from the side exclusively.
- Make sure the power cable is intact before plugging it into an outlet.
- Patient surveillance and control of their access to the chair's functions are under the establishment's responsibility
- Medical personnel is responsible of informing the patient on how to adjust the chair.
- Keep all cables away from moving parts.

Hand control

- **A:** Tilt the backrest upwards
- **B:** Tilt the backrest downwards
- **C:** Raise the chair
- **D:** Lower the chair
- **E:** Raise the leg section
- **F:** Lower the leg section
- **G:** Raise the footrest
- **H:** Lower the footrest
- **I:** Simultaneous movement: tilt the backrest upwards and lower the leg section (seated position)
- **J:** Simultaneous movements: tilt the backrest downwards and raise the legs (Trendelenburg)



Hand control lights

A: 3 full lights: 70% to 100% capacity; 2 full lights: 20% to 70% capacity; 1 blinking light with audio signal when executing a function: 0% to 20% capacity; No lights: battery empty or no battery.

B: Service light (see troubleshooting section).

C: A lit green light indicates that the chair is plugged into a wall socket.



Armrests

The TRIAD chair is equipped with removable armrests. They can also be pivoted along both the horizontal and vertical axes.

WARNING

- Always take the necessary safety precautions before manipulating the accessories.
- The arm rest is designed to support a maximum weight of 80lb/36kg including the patient and the accessories. Damages to the armrests could cause patient falls and/or permanent damages to the chair.
- Do not sit on the chair armrest. Damages could cause patient falls and/or permanent damages to the chair.

ATTENTION

- The patient must take position on the chair from the side exclusively.
- Patient surveillance and control of their access to the chair's functions are under the establishment's responsibility.
- Always lower and fix the armrests once the patient is seated.
- Make sure the armrest rotation is locked once the patient is in place.

Removing the armrests

1. Remove the pin with the help of the metal ring.

ATTENTION:

Do not pull on the wire connecting the pin to the structure.

2. Remove the armrest.



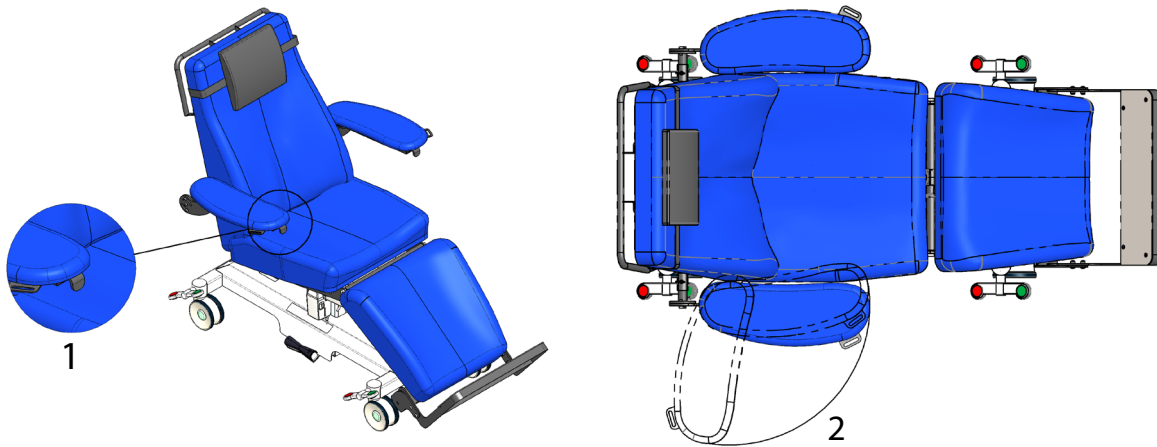
Raising the armrests

Both armrests can be raised unless they are combined to other options (closing plate or retractable shelf on the armrest). In those cases, the armrest is locked in place for security purposes.

1. Hold the armrest from underneath.
2. Raise the armrest to its highest position. No locking system required; the armrest will maintain its position by itself.



Pivoting the armrests

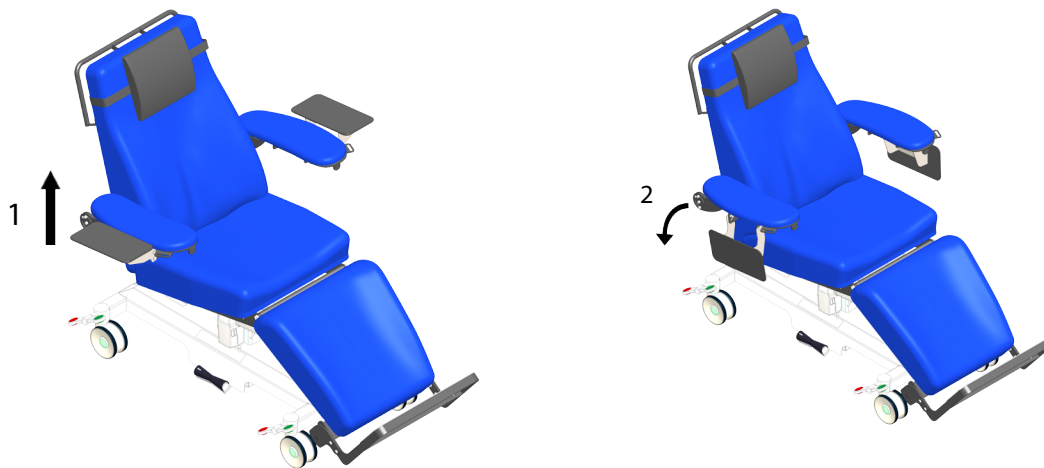


1. Press on the lever and maintain it pressed.
2. Pivot the armrest to the desired position and release the lever.
3. Ensure the armrest is locked in place before using.

Retractable shelf on armrest (option)

⚠ WARNING

- The retractable shelf on the armrest (option) is designed to support a maximum weight of 10lb/4.5kg.



1. Lift the shelf slightly.
2. Delicately fold down the shelf.

Swivel shelf (option)

WARNING

- The swivel shelf is designed to support a maximum weight of 25lb/11kg.
- Make sure the swivel shelf's mechanism is securely in place before the patient takes seat on the chair.
- Always take the necessary safety precautions before manipulating the accessories.

1. Insert the tube in the support on either side of the chair, under the cushion. Insert until a resistance is met.

2. Screw the knob to lock the shelf in place. Turn it until a considerable resistance is met.

3. To remove the shelf, untighten the knob and remove the shelf.



Rechargeable battery (option)

WARNING

- Damaged or defective batteries could cause acid leaks and adequate safety precautions must be taken during manipulation and transport.

ATTENTION

- Never go beyond the duty cycle of 2/18 (2 minutes in function and 18 minutes stopped).
- Do not open the battery box, because the cell or the circuit could be damaged and develop excessive heat.

Always allow the battery to stabilize at room temperature before using it.

After every day of use, recharge the battery for a period of 8 hours. To do this, simply plug in the power cord to the wall. Do not let the battery completely run out of charge. Do not use the battery as the primary power source, but as a backup.

It is possible to use the battery when it is plugged into the power supply without risk of damaging it.

If the battery isn't used every day, recharge it as needed.

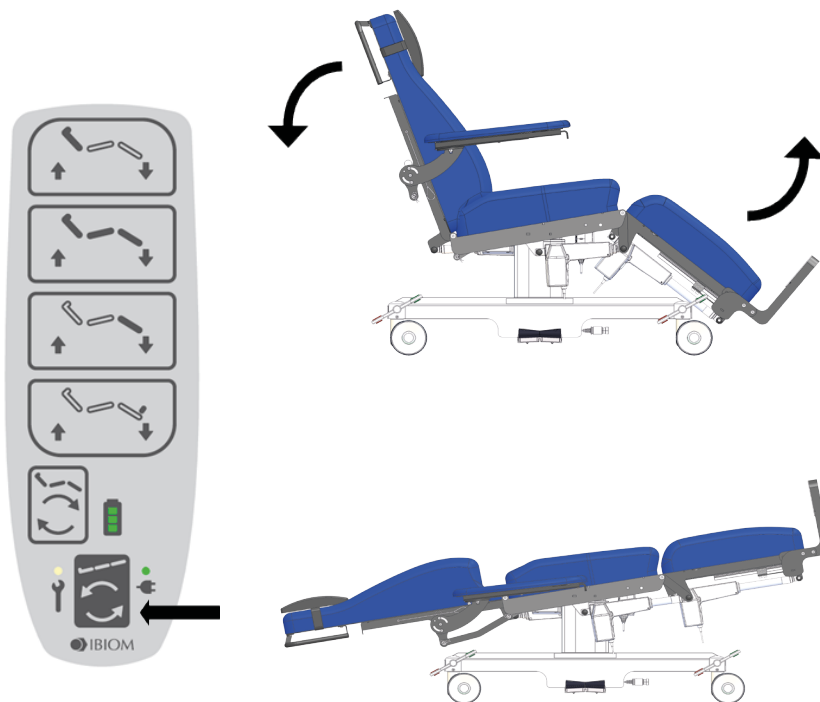
Trendelenburg position

⚠ WARNING

- Do not use the chair to move a patient from one room to another or from one level to another.

⚠ ATTENTION

- Always make sure to have enough free room around the chair before executing the various movements to avoid collisions with the environment or persons.



To activate the Trendelenburg position, press on the appropriate button on the remote. This function allows the simultaneous tilting downwards of the backrest and the raising of the leg section.

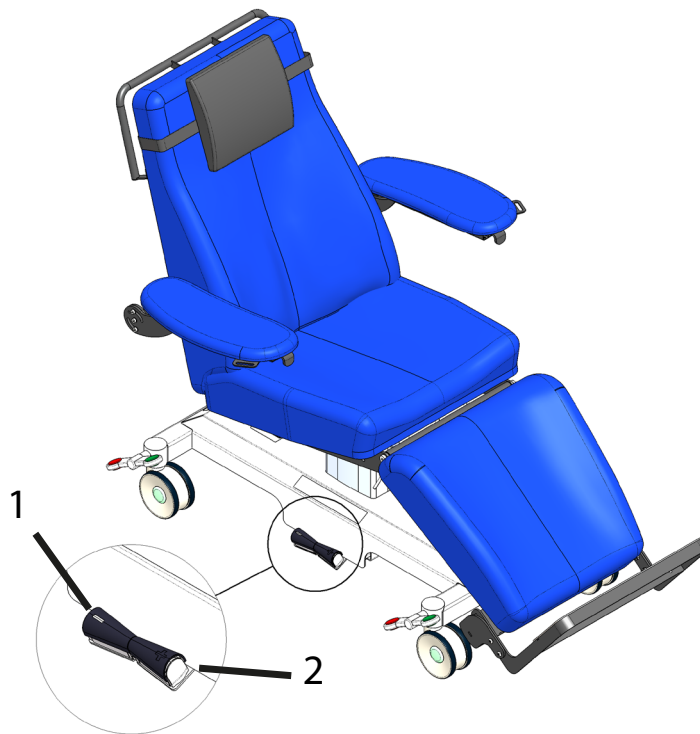
Trendelenburg foot control (option)

WARNING

- Keep hands and other body parts away from the different locking mechanisms when using them.

ATTENTION

- Always make sure to have enough free room around the chair before executing the various movements to avoid collisions with the environment or persons.



The Trendelenburg foot controls can be found on each side of the chair:

1. To activate the Trendelenburg position, press on the "minus" sign on the handle with your foot. This function allows the simultaneous tilting downwards of the backrest and the raising of the leg section to place the patient in a prone position (Trendelenburg).
2. To simultaneously tilt the backrest upwards and lower the leg section, press on the "plus" sign on the handle.

PREVENTIVE MAINTENANCE

Once a year, preventive maintenance is required on this equipment. This maintenance program is based on a normal use. The frequency of the preventive maintenance must be increased if needed. A minimum of one verification per year of every article in the [Verification list for annual preventive maintenance](#) (page 23) is recommended.



WARNING

- Only trained and authorized personnel can perform preventive maintenance and servicing on this equipment. If that isn't respected, the situation could incur injuries or permanent damages to the equipment.
- Keep hands and other body parts away from moving parts once the chair is adjusted.



ATTENTION

- Do not modify the equipment without authorization from Umano Medical.
- Clean the chair before performing the maintenance to avoid contamination.
- Protect the mattress fabric from rough and sharp objects to avoid damaging it.
- Unplug the chair and the battery before performing maintenance.
- In order to uphold the warranty and ensure the product works properly, maintenance must be performed annually.
- Use only the spare parts provided by Umano Medical.
- This equipment contains electronic parts that could cause damages to the environment. Dispose of them in the adequate manner by following local guidelines.

Verification list for annual preventive maintenance

Use a copy of this list for annual maintenance. Note if an adjustment or fix is required. Keep on file.

Serial number and location :

Date of preventive maintenance :

Preventive maintenance performed by :

- Welding
- Screws and bolts are well fixed
- Equipment is clean and free of dust or other debris
- Wheels roll and pivot
- Wheels are well fixed
- Wheels are free of dust and other debris
- Central braking system is functional and every wheel blocks when the braking pedal is engaged
- Cushion is in good condition
- Armrests can be removed and put back in place
- Every hand control control function works properly
- Every foot control function works properly (option)
- Every button works properly
- The battery powers the table when the power cable is unplugged (option)
- The battery charges when the power cables is connected to the wall outlet (option)
- Air vents on the battery are in good condition (option)
- Power cable is undamaged
- Cables are neither damaged, crushed or in a state of deterioration
- All visible electrical connections are plugged properly
- All visible electrical connections are in good condition
- No visible signs of rust or corrosion
- All attachment points of electrical components are in good condition
- All moving parts and locking mechanisms work properly

Notes, adjustments, fixes:

MAINTENANCE PROCEDURES

WARNING

- Only authorized personnel can perform preventive maintenance and servicing on this equipment. If that is not respected, the situation could result in injuries or permanent damages to the equipment.
- Only authorized personnel can perform preventive maintenance and servicing on this equipment. If that is not respected, the situation could result in faulty electrical connections and lead to electrical or fire hazards.
- When needed, maintenance personnel must secure the equipment and its components to ensure safety.

ATTENTION

- No modification to this equipment should be performed before obtaining approval from the manufacturer, by unqualified personnel. The equipment must be tested and inspected to ensure its safety.
- If a replacement is necessary, always use new parts provided by the manufacturer. If not, it could incur negative effects on the product and void the warranty.

Colors Table

A part number followed by « XXX » requires that we replace the letters by the appropriate color code. Refer to the colors table.

Color Description	Color code
Sky Blue	012
Metal Grey	013
Wedgewood	014
Ash	015
Cobalt	016
Desert Rose	017

Replacement of a wheel

Required tools:

- 3mm hexagonal key
- 4mm hexagonal socket
- Phillips #3 screwdriver
- Rubber hammer
- Torque wrench

Parts needed:

- Wheel (R36-1788) (red sticker)
- Directional wheel (R36-1787) (green sticker)
- Loctite 243

Procedure:

1. Place the chair in a position that allows access to the wheels and central braking system located under the base of the chair. Take all necessary precautions to avoid injuries or damaging the chair:
 - Make sure the chair is supported by the base only.
 - Do not lift the chair by the extremities (backrest and legs section).
 - Do not tilt the chair on its side to access the base.
2. Place the central braking mechanism on the directional position (green pedal engaged).
3. Using the 3mm hexagonal key, unscrew the set screw holding the pivot of the transmission bar (H). Perform this step on the side of the wheel to replace.
4. Place the wheel on neutral.
5. On this step, 2 configurations are possible:
 - When the wheel to replace doesn't have a pedal, remove the screw (A) using the Phillips #3 screwdriver and the bolt (D) using the 4mm hexagonal socket.
 - When the wheel to replace has a pedal, untighten the bolt (D) using the 4mm hexagonal socket and remove the pedal. The use of force may be necessary. Remove the bolt using the 4mm hexagonal socket.
 - Keep the washers, screws and bolts (A,B,C,D).
6. Using the flat head screwdriver and the rubber hammer (if needed), push the hexagonal rod (G) approximately 3 inches.
7. Remove the wheel. Take note of the wheel's orientation by looking at the sticker (red or green) on the wheel's rod (red = braking (E), green = braking and direction (F)). When installed, the sticker on the wheel should be on the left-hand side, from the perspective of someone sitting on the chair. It is important to replace the faulty wheel with the same type of wheel to ensure the mechanism works properly.
8. Install the new wheel using the bolt (D) from step 5. Apply the loctite 243. Do not tighten the bolt completely.
9. Insert the hexagonal rod (G) in the wheel's ring, using the rubber hammer if needed.

10. For a wheel equipped with a braking mechanism, put the brake pedal back in place and fix in place using the torque wrench and the screw (D) from step 2 with a torque of 62lb-in. For a wheel not equipped with a braking mechanism, install the screw (A) and the washers (B,C) from step 2. Apply the loctite 243 on the bolt.
11. Tighten the bolt (D) from step 8.
12. Reinstall the pivot of the transmission bar (H). Apply the loctite to the set screw and tighten using the 3mm hexagonal key.
13. Test the central brakes, directional function and the chair's movements to make sure they work properly.
14. Put back in service.

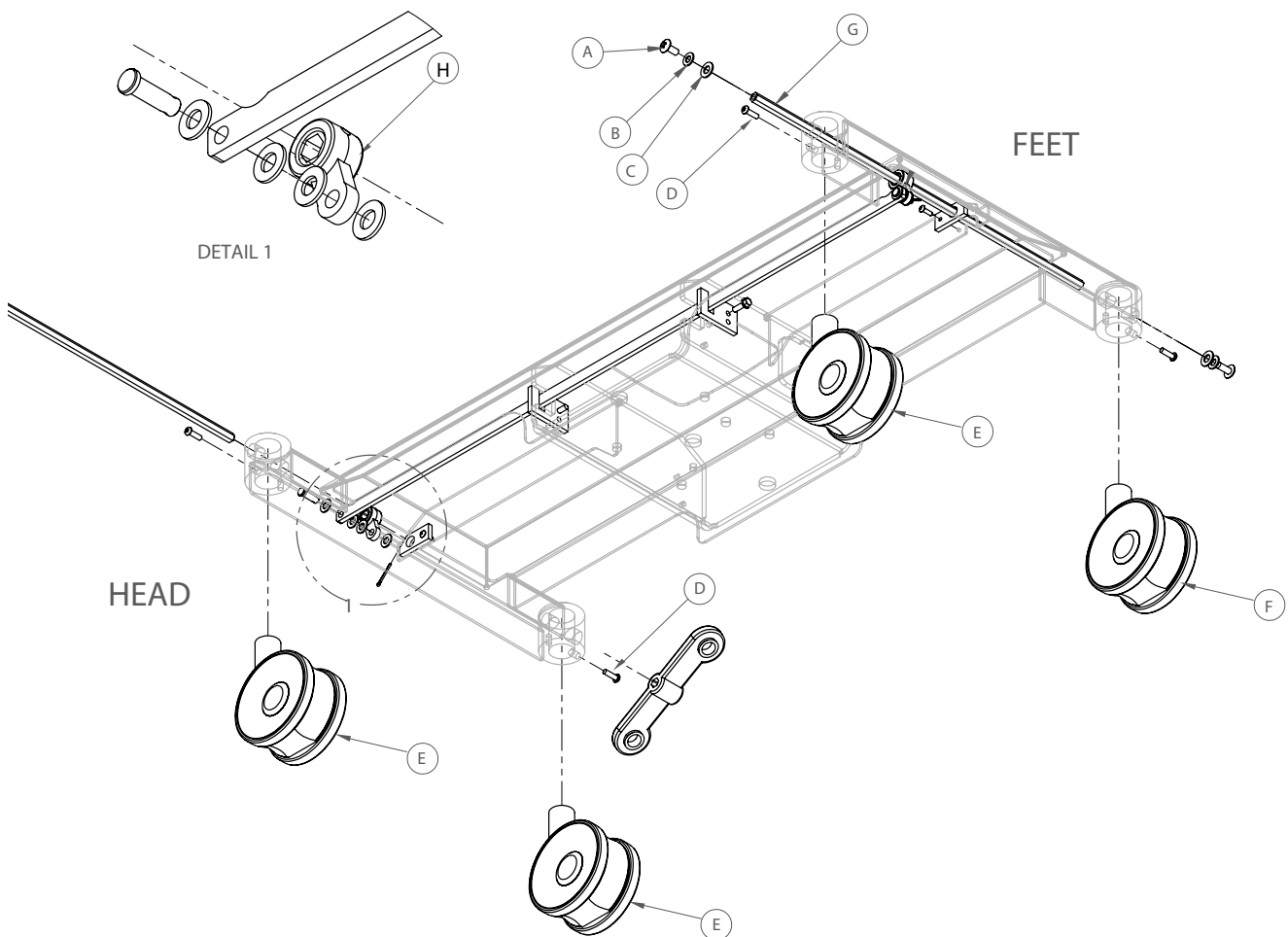


Illustration R-01: Replacement of a wheel

Replacement of the control box

Required tools:

- Small flat head screwdriver
- Permanent marker

Parts needed:

- Control box (QDF904-0009)

Procedure:

1. Raise the chair to its maximum height. Lift the leg section to its highest position. This will facilitate access to the control box.
2. Unplug the chair from the wall socket.
3. Open the control box by inserting the head of the flat head screwdriver in the orifices (C).
4. Remove the control box (A) from its support by pressing the button (D) and sliding the box off of its support.
5. Remove the power cable (B) of the control box using the small flat head screwdriver. Insert the head of the screwdriver in the orifice (red).
6. Unplug the cables found inside the control box. Identify the cables using the permanent marker (Illustration R-03).
7. Install the control box on the support (Illustration R-02). Use the upper slot on the control box.
8. Plug the cables in the new control box.
9. Plug the power cable (B) on the control box.
10. Put the lid back on the control box.
11. Plug the chair back into the wall socket.
12. Test the chair's different electrical functions.
13. Put back in service.

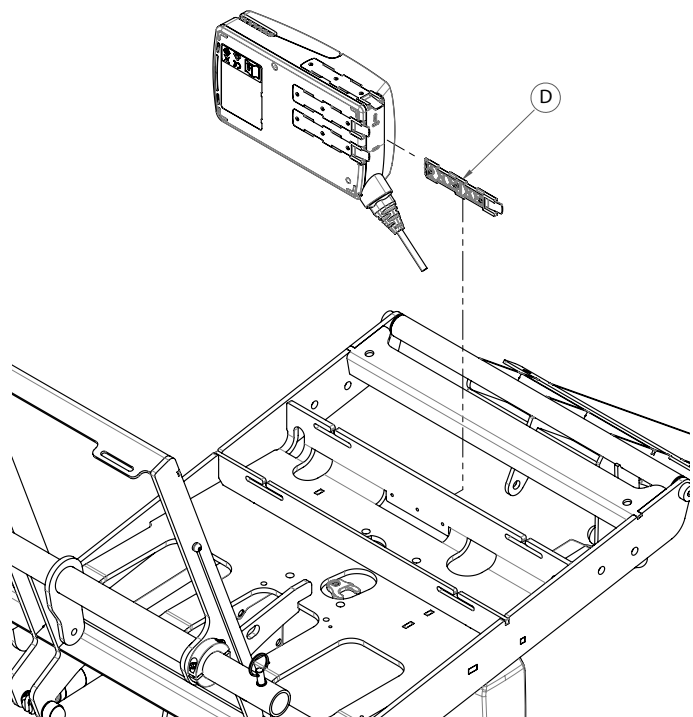


Illustration R-02: Installing the control box

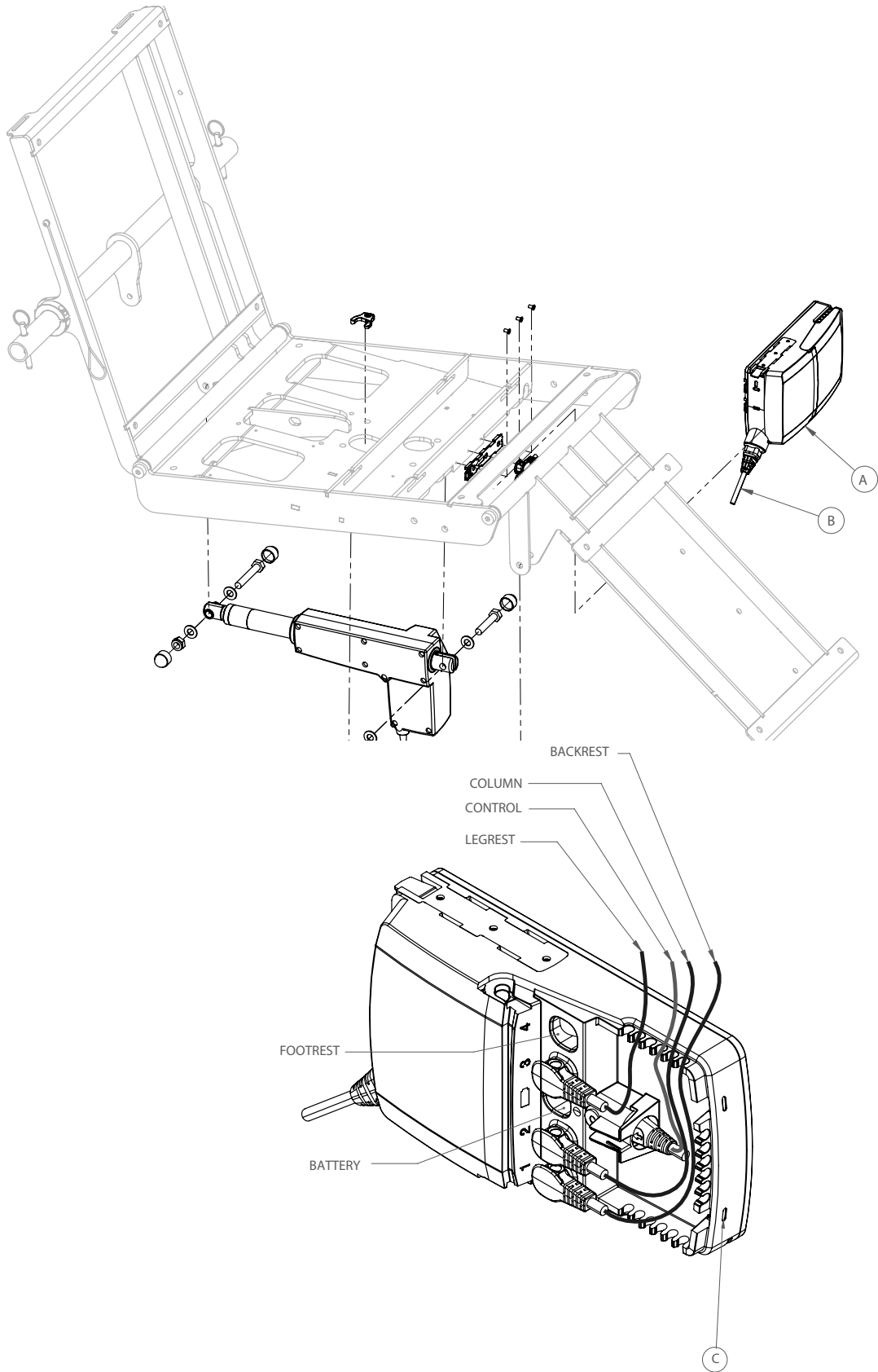


Illustration R-03: Replacement of the control box

Replacement of the battery

Required tools:

- Flat head screwdriver
- 3/32" hexagonal key

Parts needed:

- Battery (#2034)
- Cable (I-2171)
- 4 8-32 screws (#7187)
- 2 tie-wraps (#7872)

Procédure:

1. Raise the chair to its maximum height. Raise the back section at a minimum angle of 45 degrees.
2. Unplug the chair from the wall socket.
3. Lock the 4 wheels.

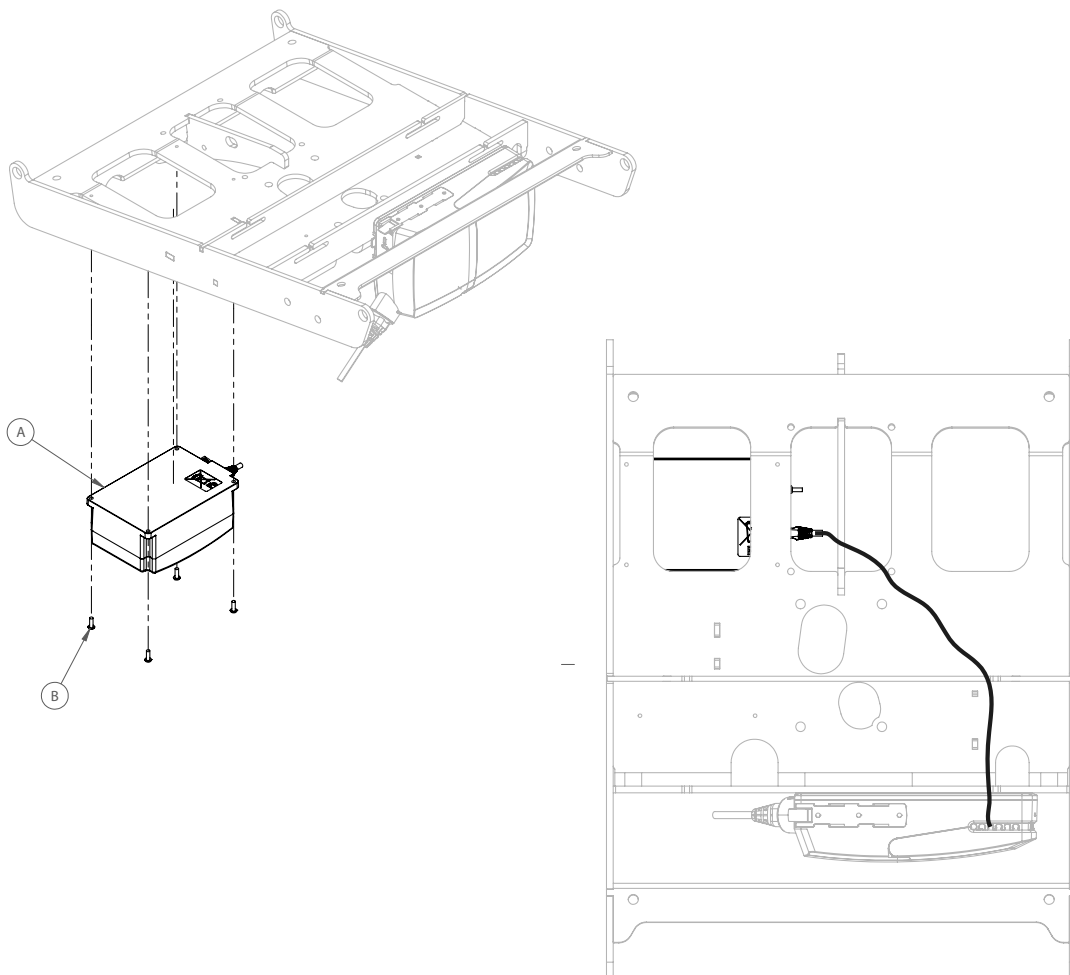


Illustration R-04: Replacement of the battery

4. Remove the seat cushion. To do so, refer to the adequate procedure found in this manual.
5. When adding a battery, skip to step 7. When replacing a battery, use the Phillips #2 screwdriver to remove the 4 screws (B) (Illustration R-04) holding the battery. Remove the battery.
6. Open the control box by inserting the head of the flat head screwdriver in the orifices (C) (Illustration R-03). Unplug the battery.
7. Using the hexagonal key and the 4 provided screws (B), install the battery (A) in the designated position (Illustration R-04). Make sure the battery is installed in the correct orientation.
8. Pass the cable through the seat section (Illustration R-04).
9. Open the control box (if not opened on step 6) by inserting the head of the flat head screwdriver in the orifices (C). (Illustration R-03)
10. Plug the battery cable in the control box (Illustration R-03). Make sure to install the elbow connector in the control box and the straight connector in the battery.
11. Attach the cable to the other cables using the provided tie-wraps.
12. Close the control box.
13. Test the chair's different electrical functions without plugging it to the wall socket.
14. Reinstall the seat cushion.
15. Plug the chair back into the wall socket.
16. Test the chair's different electrical functions again.
17. Put back in service.

Replacement of the actuator

Required tools:

- 2 17mm, or 11/16" wrenches
- Grease
- Small flat head screwdriver

Parts needed:

- LA31 actuator for TRIAD (#2661)

Procedure:

1. Engage the brakes.
2. Raise the chair to its maximum height.
3. Remove the armrests (page 15).
4. Lower the backrest to its lowest position.
5. Unplug the chair from the wall socket.
6. If the actuator's cable must be replaced, the seat mattress will also have to be removed. Refer to the appropriate procedure, which can be found in this manual. Take notice of the position of the cable before unplugging it to help with the installation of the new cable.
7. Remove the plastic caps covering the actuator's bolts and keep them.
8. Unplug the actuator, using the small flat head screwdriver, if needed.
9. Using the 17mm wrenches, remove the nuts and bolts. Support the backrest when performing this step to avoid any damages to the chair.
10. Install the new actuator using the nuts and bolts from step 9. Grease the bolts before installation. Stop tightening when the bolts reach the actuator, to make sure it is not damaged.
11. Plug the actuator into the control box. Make sure the cable isn't in a place that could cause it to get stuck between moving parts of the chair.
12. Plug the chair into the wall socket.
13. Test the chair's movements.
14. Put the plastic caps back on the bolts.
15. Put the chair back in service.

Replacement of the hand control

Required tools:

- Flat head screwdriver

Parts needed:

- Hand control (#2223)

Procedure:

1. Engage the brakes.
2. Raise the chair to it's maximum height.
3. Unplug the chair from the wall socket.
4. Open the control box by inserting the head of the flat head screwdriver in the orifices (C) (Illustration R-03).
5. Unplug the battery from the control box, for chairs equipped with the battery option (Illustration R-03).
6. Unplug the hand control.
7. Plug the new hand control into the control box.
8. Plug in the battery, for chairs equipped with the battery option.
9. Put the lid back on the control box.
10. Plug the chair back in the wall socket.
11. Test the hand control.
12. Put the chair back in service.

Replacement of a cushion - leg section

Required tools:

- Phillips #3 screwdriver

Parts needed:

- Leg section cushion (904-0104XXX)

Procedure:

1. Engage the brakes.
2. Remove the armrests.
3. Raise the chair to its maximum height.
4. Lower the backrest to its lowest position.
5. Position the leg section in a horizontal orientation.
6. Unplug the chair from the wall socket.
7. Using the Phillips #3 screwdriver, remove the 4 screws holding the seat cushion and the 4 screws holding the leg section cushion. Remove the cushions. Keep the screws and the seat cushion.
8. Install the leg section cushion using 4 of the screws from step 7 and the Phillips #3 screwdriver. The vinyl membrane must be oriented towards the seat.
9. Plug the chair in the wall socket. Lower the backrest and the leg section to their lowest position. Unplug the chair again.
10. Install the seat cushion using the 4 remaining screws from step 7 and the Phillips #3 screwdriver. Make sure the vinyl flaps of the backrest and leg section cushions are aligned with the screw holes. The leg section cushion vinyl flap has no holes. Holes will need to be pierced with the screws when installing the seat cushion.
11. Plug the chair back into the wall socket.
12. Test the chair's movements. Make sure the vinyl flaps aren't too strained when moving the chair sections.
13. Put the chair back in service.

Replacement of a cushion - seat section

Required tools:

- Phillips #3 screwdriver

Parts needed:

- Seat section cushion (904-0103XXX)

Procedure:

1. Engage the brakes.
2. Remove the armrests.
3. Raise the chair to its maximum height.
4. Lower the backrest to its lowest position.
5. Lower the leg section to its lowest position.
6. Unplug the chair from the wall socket.
7. Using the Phillips #3 screwdriver, remove the 4 screws holding the seat cushion. Remove the cushion. Keep the screws.
8. Install the seat cushion using the 4 screws from step 7 and the Phillips #3 screwdriver. Make sure the vinyl flaps of the backrest and leg section cushions are aligned with the screw holes.
9. Plug the chair back into the wall socket.
10. Test the chair's movements. Make sure the vinyl flaps aren't too strained when moving the chair sections.
11. Put the chair back in service.

Replacement of a cushion - backrest section

Required tools:

- Phillips #3 screwdriver

Parts needed:

- Backrest section cushion (904-0102XXX)

Procedure:

1. Engage the brakes.
2. Remove the armrests.
3. Raise the chair to its maximum height.
4. Place the backrest to an angle of approximately 45 degrees.
5. Lower the leg section to its lowest position.
6. Unplug the chair from the wall socket.
7. Using the Phillips #3 screwdriver, remove the 4 screws holding the seat cushion and the 8 screws holding the backrest section cushion and the handle. Remove the cushions, the plastic cover (A), the handle (B) and the headrest (C) (Illustration R-05). Keep the screws, the seat cushion, the handle, the headrest and the plastic cover.
8. Install the backrest section cushion, the handle, the headrest and the plastic cover using 8 of the screws from step 7 and the Phillips #3 screwdriver.
9. Plug the chair in the wall socket. Lower the leg section and the backrest to their lowest position. Unplug the chair again.
10. Install the seat cushion using the 4 remaining screws from step 7 and the Phillips #3 screwdriver. Make sure the vinyl flaps of the backrest and leg section cushions are aligned with the screw holes. The backrest section cushion vinyl flap has no holes. Holes will need to be pierced with the screws when installing the seat cushion.
11. Plug the chair back into the wall socket.
12. Test the chair's movements. Make sure the vinyl flaps aren't too strained when moving the chair sections.
13. Put the chair back in service.

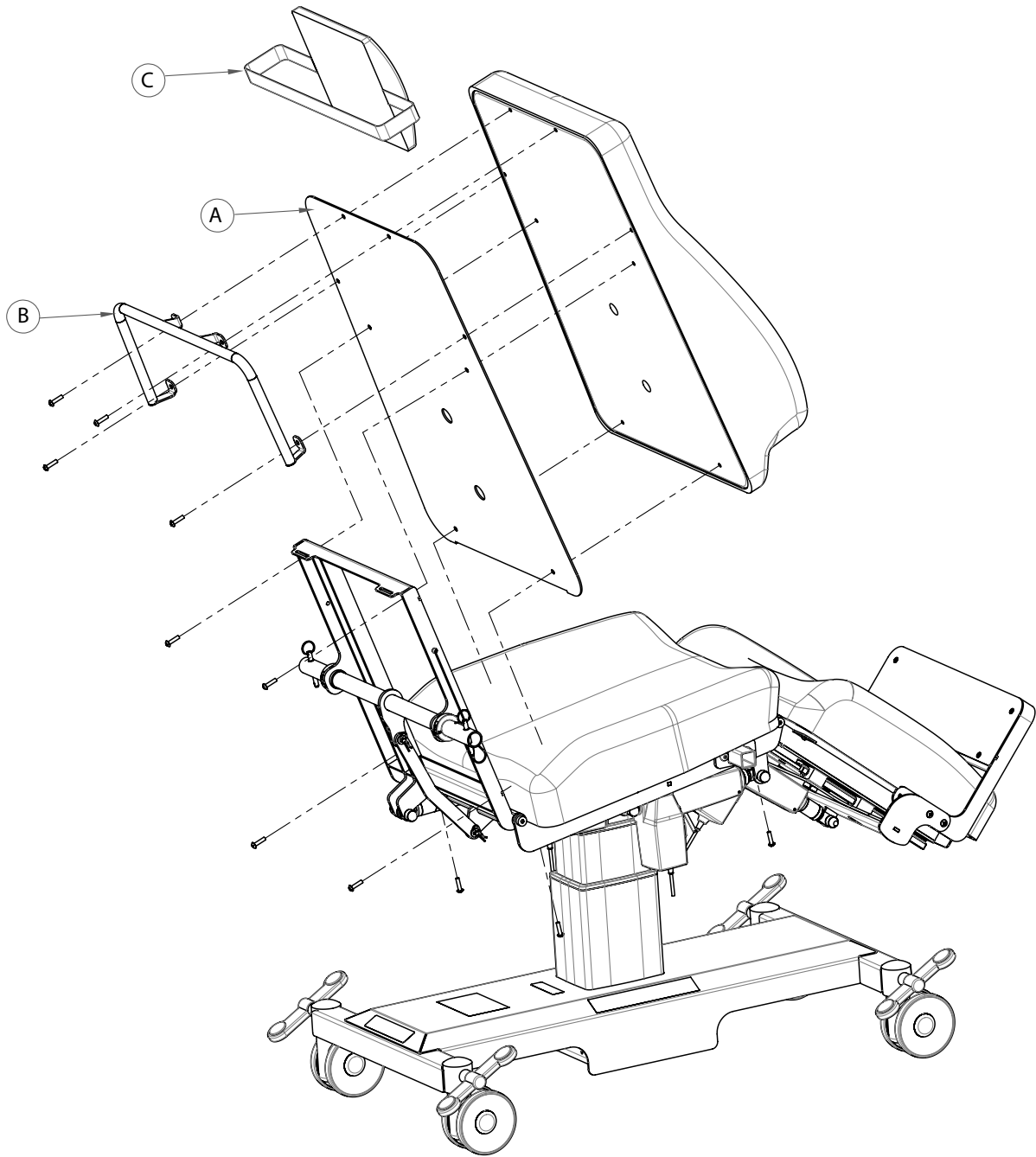


Illustration R-05: Replacement of the backrest cushion

CLEANING



WARNING

- Keep hands and other body parts away from the different locking mechanisms when using them.



ATTENTION

- Clean the chair after every patient to avoid contamination. Always follow internal cleaning and infection control procedures.
- Clean the chair immediately after any spill of bodily fluids or other.
- Protect the cushion covering of sharp and rough objects to avoid damaging it.
- Inspect the mattress to ensure its integrity. A damaged cushion could absorb contaminated liquids. In the case of damage, contact Umano Medical to immediately replace the damaged cushion.
- Do not steam or power wash.
- It is the user's responsibility to wear adequate safety equipment to avoid contamination from bodily fluids or other contaminants.
- Damage to the cushion caused by the usage of a product other than those mentioned in this section or at a different concentration isn't covered by the warranty.
- Do not use cleaning products other than those mentioned in this section or at a different concentration.
- Do not use abrasive cleaning products.
- The user is responsible of making sure these instructions are aligned with the establishments internal procedures regarding infection control.

Cleaning

Hand wash all surfaces with a soft cloth moistened with warm soapy water. Avoid build up and over saturation of water or soap. Ensure that cleaning solution does not stay on surface longer than manufacturer's instructions. Always wipe clean and dry all surfaces.

Disinfection

Chair and accessories should be disinfected between patient uses. Always rinse with clean water and dry with a clean rag after disinfection. This chair and compatible accessories are designed to be disinfected with standard commercial solutions. As guidance, here are active concentrations of tested ingredients:

- Desinfectant containing sodium hypochlorite (bleaching product) diluted to a maximum concentration of 0.5%.
- Desinfectant containing hydrogen peroxyde diluted to a maximum concentration of 0.5%.
- Desinfectant containing alcohol diluted to a maximum concentration of 22%.
- It is recommended to use "ready-to-use" cleaning products.

IMPORTANT

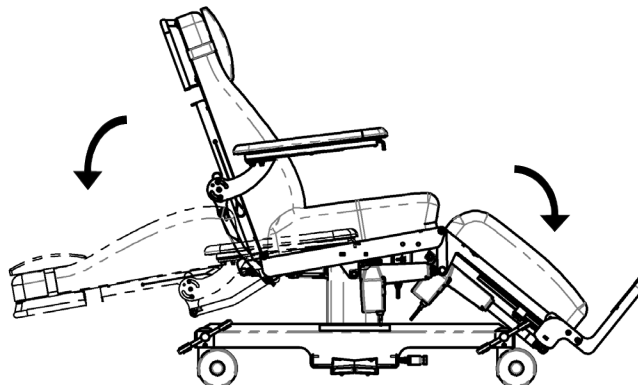
Always test a cleaning product on a non-visible part of the cushion to verify the products effect on the surface.

Always follow the product manufacturer's indications.

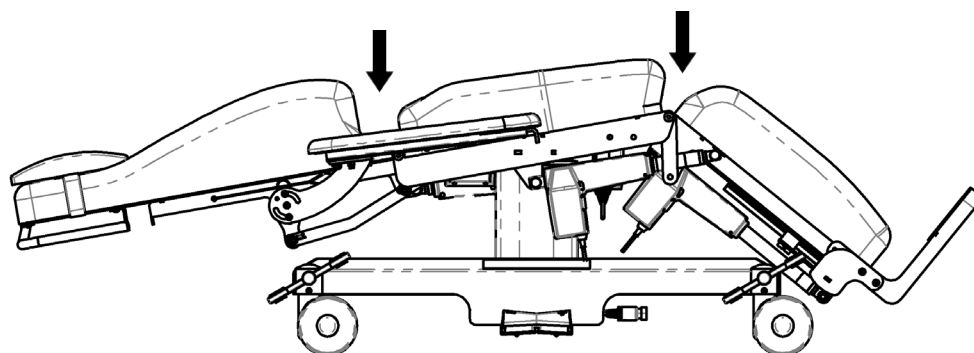
It is important to clean the surface immediately after a spill to avoid permanent damage to the fabric.

Cleaning procedure

1. Tilt the backrest downwards completely.
2. Tilt the leg section downwards completely.



3. Clean every surface of the cushion, including the surfaces in the openings between the backrest and the seat and between the seat and the leg section. Allow the surfaces to dry before tilting the backrest or the leg section back up.



IMPORTANT

In the event of a major spill, it is possible to dismantle all the cushions to perform a deep clean. In such cases, contact Umano Medical for more details.

4. Clean the armrests.
5. Clean the pillow, including the section under the pillow.
6. Clean every component susceptible of being contaminated or in frequent contact with patients, which includes the swivel shelf, the handles, the closing plates, the base of the chair, etc.

TROUBLESHOOTING

Problem	Verification to perform	Cause	Correction
No movement related function works.	No light is activated on the hand control when any button is pressed.	The chair is not powered.	<p>Plug the equipment into the wall socket.</p> <p>Make sure the cable is not damaged and is connected the the control box properly.</p> <p>Make sure the buildings wall socket is functional.</p> <p>If the problem remains, proceed to the next cause.</p>
		The hand control is disconnected or defective.	Try the foot control functions (option). If it does not work as intended, contact Umamo Medical.
	The service light is blinking rapidly and an audible signal is heard whenever a button is pressed.	Control box is faulty.	Press and hold the two buttons of the second row of the hand control for at least 5 seconds. Then, place the chair to its lowest position and try the movements again. If the problem remains, contact Umamo Medical.
One of the movements doesn't work properly.	The service light is lit continuously while the button associated with the function is pressed. No audio signal.	Maximum safe working load busted on one of the actuators.	Reduce load and make sure nothing can get in the way of the chair's movements. If the problem remains, contact Umamo Medical.
	The chair height can no longer be raised, but can be lowered. While lowering the height, an audible signal is heard.	Control box is faulty.	Lower the chair to its minimum height Try the movements again. If the problem remains, contact Umamo Medical.

Problem	Verification to perform	Cause	Correction
<p>An audible signal is heard continuously while the chair is moving (models with battery only).</p>	<p>The bottom box of the battery light is blinking and the electrical connexion indicator is unlit.</p>	<p>Low battery.</p>	<p>Plug the equipment into the wall socket. The indicators should blink.</p> <p>Make sure the power cable is not damaged and is properly plugged to the control box.</p> <p>Make sure the building's wall socket is functional.</p>
<p>The chair's functions do not work on batteries but work when plugged into the wall socket. (models with battery only).</p>	<p>No light is lit on the hand control when any button is pressed.</p>	<p>Battery empty, disconnected or defective.</p>	<p>Plug the equipment into the wall socket. The indicators should blink.</p> <p>If the issue is resolved, leave the equipment plugged in for at least 8 hours to recharge the battery (ATTENTION: Never let the battery drain completely, it could reduce its performance over time).</p> <p>If the battery indicators remain unlit, contact Umano Medical.</p>

DISPOSAL AND RECYCLING

Before disposing of equipment, clean thoroughly to avoid contamination.

Equipment can be thrown away by separating the components for recycling and/or disposal.

Always follow local guidelines to ensure the adequate disposal of the equipments different components.

Component	Recycling group
Actuators, column, control box, switches, cables and other electrical components	Electronic waste
Metal structure	Metal waste
Battery	Battery waste
Plastic parts	Plastic waste
Cushion	Wood, textiles and foam waste

WARRANTY

The **Umano Medical** chairs are designed for a 10-year service life under normal use, conditions, and with periodic maintenance as recommended in this manual.

Shipment receipt

The purchaser should examine the shipment upon receipt. **Umano Medical** must be notified by the purchaser within 30 days of invoice of any short shipment, or any order-mistake.

Apparent shipment damage must be noted on delivery receipt and notified immediately to **Umano Medical**. A claim in the amount of replacement cost will be initiated with the carrier for the damages incurred. If any damage is found, the purchaser must notify **Umano Medical** within 15 days of shipment receipt.

Product return

Merchandise cannot be returned without approval from **Umano Medical**. An authorization number will be provided which must be printed on the packaging of the returned merchandise. Modified or discontinued products are not subject to return.

Limited warranty

Umano Medical warrants to the original purchaser that the products shall be free of structural defects in material and workmanship for a determined period after date of delivery; refer to the purchase documentation for information about the available warranty time periods. **Umano Medical's** obligation under this warranty is expressly limited to supplying replacement parts and/or service for, or replacing, at its option, any product that is, in the sole discretion of **Umano Medical**, found to be defective. In addition, **Umano Medical** warrants for life to the original purchaser that the welds on its products will be free from structural defects.

Any repair using non-authorized or non-original parts and any product alteration or modification will void this warranty.

Parts and service

Original service parts are available for the lifetime of the product. Contact **Umano Medical** at:

Umano Medical Inc.

230 boulevard Nilus-Leclerc, L'Islet QC G0R 2C0 CANADA

T: (418) 247-3986

T: (844) 409-4030

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