

SERVICE MANUAL

Revision: R1



ECHO-FLEX 4400 4400-D



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1. CONTACT US

Before contacting us, make sure to have the following information ready:

- **7-digit serial number (example: 1234567);**
- **Model number or name (example: 4400-D).**

This information is available on label located on base of the table.





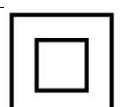




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2. INTENDED USE




























ECHO-FLEX table is AC powered table that can be adjusted to different position. It is used to support a patient during medical examination or short procedure. It is intended to be operated by healthcare professional in a medical environment including hospitals, clinics and doctor's office.









3. SYMBOL IDENTIFICATION

The following symbols and their definitions are used throughout this manual.

Symbol	Definition
	WARNING. Alerts the reader about a situation, which if not avoided, could result in death or serious injury. It may also describe potential serious adverse reactions and safety hazards.
	Warning, electrical shock hazard.
	Operator must read manual before using this equipment.
	Protective earth (ground).
	Class II or double insulated electrical equipment.
	Electrical safety, type B applied part.
	No sitting.
	No stepping.
	This device contains materials that are potentially hazardous to the environment. In accordance with directive on waste electrical and electronic equipment (WEEE), Product's electrical system and accessories should not be disposed as unsorted municipal waste. Consult your instructional policies and local regulations regarding disposal.

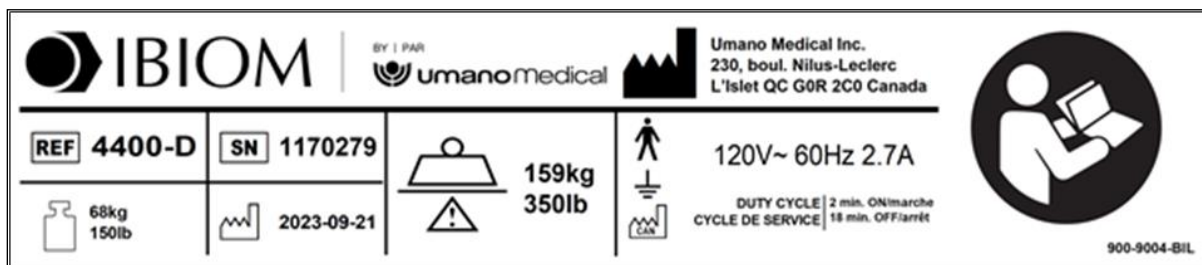
4. WARNINGS

	MANDATORY. Read, understand and keep this manual before starting to use Umano Medical's products. This manual must be available for everyone using Umano Medical's products.
	WARNING. ECHO-FLEX™ table is designed for indoor use on flat surfaces.
	WARNING. Always lock wheels before the patient is placed on table.
	WARNING. Never use braking system to stop a moving table.
	WARNING. Do not use ECHO-FLEX™ table for any purpose other than the intended use.
	WARNING. Do not modify this equipment without Umano Medical's authorization.
	WARNING. Do not use in oxygen-rich environment.
	WARNING. Do not use in MRI environment.
	WARNING. Do not use in wet environment.
	WARNING. Do not use for CPR or X-ray procedures or with defibrillator.
	WARNING. Never exceed safe working load of 350lb or 159kg on table. Safe working load includes patient's weight and accessories.
	WARNING. Never exceed safe working load of 25lb or 11kg on IV pole.
	WARNING. Do not sit on backrest.
	WARNING. Do not leave patient unattended.
	WARNING. Do not use ECHO-FLEX™ table as a transport stretcher to move the patient from one room or floor to another.
	WARNING. To ensure proper operation of the table, maintenance must be done as described in this manual.
	WARNING. Read the warnings in the various sections of this manual.
	WARNING. Do not roll on power cable or hand control cable.
	WARNING. Keep all cables out of reach of children.
	WARNING. Keep all cables away from moving parts.
	WARNING. Do not move table by pulling hand control, power cable or any other cable.
	WARNING. Never use the table if the power cable or any other cables are damaged.
	WARNING. Keep the power cable out of heat sources.
	WARNING. Always ensure there is sufficient clearance around the table before activating the various movements to avoid collisions with the environment, equipment and people.
	WARNING. Always have patient enter and exit table from the side.
	WARNING. Avoid placing hands and other body parts near moving parts or locking mechanism.
	WARNING. Once security rail is closed, make sure it is securely locked.














	WARNING. Always raise security rail once the patient is in place.
	WARNING. Do not let fall mobile parts.
	WARNING. Never exceed duty cycle of 2/18 (2 minutes ON and 18 minutes OFF).
	WARNING. Medical staff should inform the patient on how to adjust table.
	WARNING. If patient is not able to adjust table, the hand control should be placed out of the patient's reach.
	WARNING. Always lower table to minimum height for patient access.
	WARNING. Defective or damaged batteries may leak acid and adequate precautions must be taken during handling and transportation.
	WARNING. Do not open the battery case as damage to the cell or circuitry may develop excessive heat.

5. LABEL












The product identification label is located on the product base. This image and the information contained herein is for informational purposes only.



Symbol identification

	Manufacturer's name and address
	Product code or name
	7-digit serial number
	Product's weight
	Date of manufacture (YYYY-MM-DD)
	Maximum safe working load (maximum patient weight)
	Made in Canada
	Type B applied part
	Protective earth (ground)
	Obligation to read the operation manual
	Required voltage (120V), alternating current
	Fréquence du courant (60Hz), ampérage maximale (2.7A)
	Maximum activation time followed by minimum deactivation time

6. CLEANING INSTRUCTIONS

	WARNING. Always clean table between patient to avoid contamination.
	WARNING. Clean table immediately after spillage of bodily or other fluids.
	WARNING. Protect mattress cover from sharp and rough objects to avoid damaging it.
	WARNING. Always inspect mattress to ensure its integrity. A damaged mattress can absorb contaminated liquids. In case of tear or wear, contact Umano Medical to immediately replace the damaged mattress.
	WARNING. Do not wash with pressure or steam.
	WARNING. It is the user's responsibility to wear adequate protective equipment to avoid contamination from bodily fluids or other dirt on table.
	WARNING. Any damage to the mattresses caused by the use of a product other than those mentioned in this section or at a different concentration is not covered by the warranty.
	WARNING. Do not use cleaning products containing other products or in concentration other than those specified in this section.
	WARNING. Do not use abrasive cleaning products.
	WARNING. Avoid placing hands and other body parts near moving parts or locking mechanism.
	WARNING. It is the user's responsibility to ensure that these instructions are in accordance with the institution's internal infection control procedures.

6.1 Recommended cleaning products

- Disinfectant containing sodium hypochlorite (bleaching product) in a maximum concentration of 0.5%. Always rinse with clean water and dry with a clean cloth.
- Disinfectant containing hydrogen peroxide diluted in a maximum concentration of 0.5%. Always rinse with clean water and dry with a clean cloth.
- Disinfectant containing alcohol diluted in a maximum concentration of 22%. Always rinse with clean water and dry with a clean cloth.
- It is recommended to use “ready-to-use” cleaning products.

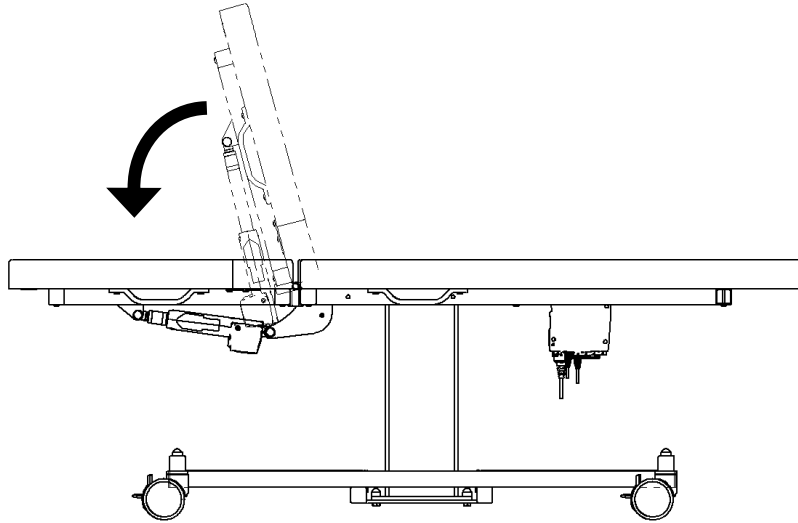
Notes:

- Always test the cleaning product in an inconspicuous place to check the effect of this product on the cleaned surface.
- Always follow manufacturer's cleaning products instructions.
- Clean spill as soon as possible to prevent penetration and becoming a permanent stain.

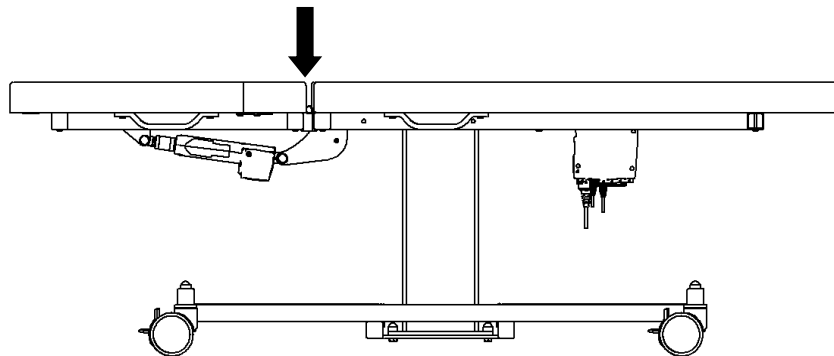
6.2 Cleaning procedure

Procedure for effective cleaning of surfaces and openings.

1. Lower the backrest completely.



2. Clean all mattress surfaces, including surfaces in openings between the backrest and main section. **IMPORTANT:** Allow the surfaces to dry before raising the backrest.



NOTE: In case of major spill, it is possible to remove all mattresses for a complete cleaning. Please contact Umano Medical for further details.

3. Clean all parts that may be contaminated and/or that are in contact with the patient, such as security rails, IV pole, handles, table base, etc.

7. SPECIFICATIONS

7.1 Product specifications



Width	27 in / 69 cm
Length	77 in / 196 cm
Backrest	27 in / 69 cm
Main section	48 in / 122 cm
Operation	<ul style="list-style-type: none"> • 2 functions hand control device (backrest and height). • Foot switch (option). • Button controller (option).
Adjustable backrest	0° to 75°
Adjustable height	24.5 to 36.5 in / 62 to 93 cm
Maximum safe working load	350 lb / 159 kg
Wheel diameter	4 in / 10 cm
Weight*	150 lb / 68 kg
Mattress cover	Vinyl <ul style="list-style-type: none"> • Waterproof • Anti-microbial • Stain resistant** • Fire retardant <ul style="list-style-type: none"> • FMVSS-302 • CA TB 117-2013 (Section 1-Cover Fabric) • BIFMA Class A • NFPA 260 • UFAC Class 1

Umano Medical Inc. reserves the right to change specifications without notice.

* May vary depending on options.

** If cleaning instructions are followed.

7.2 Electrical specifications

Volt	120 VAC, alternating current
Amperage	2.7A
Actuators	24 VDC, direct current
Frequency	60 Hz
Hospital grade plug	Yes
Electrical protection	 Class I
Applied part	 Type B
Battery type (option)	Rechargeable sealed lead acid
Battery capacity (option)	1.3 Ah
Protection class (IP)	Control box : IPX4 Actuator : IPX4 Lifting column: IPX0 Hand control: IPX1 Double foot switch: IPX6 Button controller: IPX0 Battery: IPX1
Duty cycle	Intermittent 2/18 Max 2 minutes on 18 minutes off

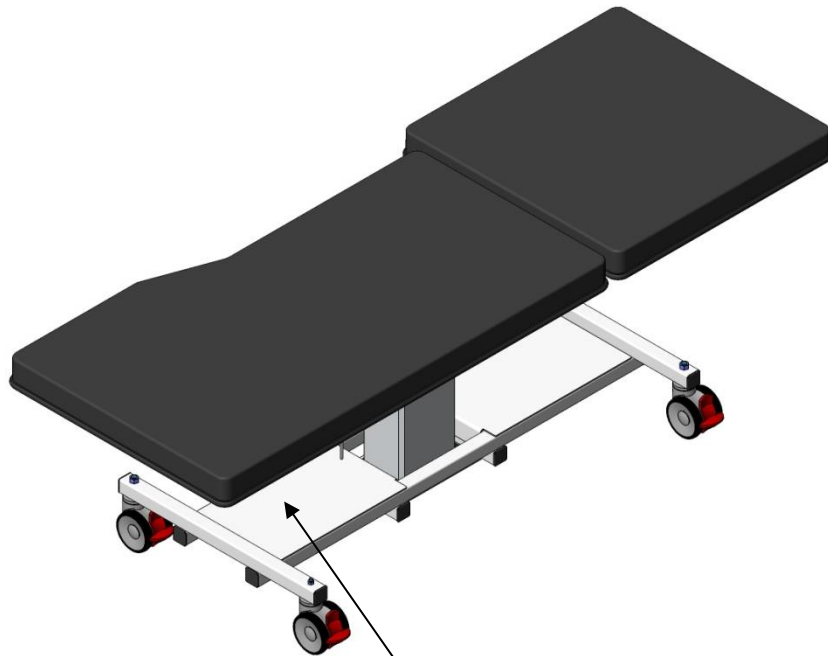
Umano Medical Inc. reserves the right to change specifications without notice.

7.3 Environmental conditions

Conditions	Temperature	Relative humidity	Pressure
Normal condition	5 °C to 40 °C	20% - 80%	70-106 kPa
Storage	-10 °C to 50 °C	20% - 80%	70-106 kPa
Transport	-10 °C to 50 °C	20% - 80%	70-106 kPa

7.4 Certification

Umano Medical's product are certified according to CSA SPE 3000 standard for electrical medical device except contrary indication. Label is located on the base of the product.



8. WARRANTY

The Umano Medical tables are designed for a 10-year service life under normal use, conditions, and with periodic maintenance as recommended in Maintenance 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

servicing@umanomedical.com













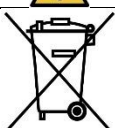
9. WASTE DISPOSAL

	WARNING. Before disposal, clean equipment properly to avoid contamination.
	WARNING. Disposal of this equipment should only be done by qualified personnel.
	WARNING. This equipment contains electronic components that may cause environmental damage. Please dispose of it properly in accordance with the regulations in force in your region.

- Before disposal, equipment must be clean properly to avoid contamination.
- Equipment can be disposed of by separating the different components for recycling and/or disposal.
- Always follow local regulations for proper disposal of the various components of the equipment.

COMPONENT GROUP	MATERIAL GROUP
Actuators, lifting column, control box, controls, cables and other electronic components	Electronic
Metal structure	Metal
Battery pack	Batteries
Plastic parts	Plastic
Mattress	Foam and textiles

10. MAINTENANCE

	MANDATORY. Read, understand and keep this manual before starting to use Umano Medical's products. This manual must be available for everyone using Umano Medical's products.
	WARNING. Maintenance on this equipment should only be performed by qualified personnel.
	WARNING. Do not modify this equipment without Umano Medical's authorization.
	WARNING. To ensure proper operation of the product, maintenance must be done as described in this manual.
	WARNING. Always clean table before performing any maintenance work to avoid contamination.
	WARNING. Protect mattress cover from sharp and rough objects to avoid damaging it.
	WARNING. Always unplug table and battery before carrying out any maintenance work.
	WARNING. Avoid placing hands and other body parts near moving parts or locking mechanism.
	WARNING. In order to maintain your warranty and ensure the proper functioning of the product, maintenance indicated in this manual must be performed.
	WARNING. Umano Medical accepts no responsibility for any incident if the maintenance has not been carried out as described in this manual.
	WARNING. Warranty will void if preventive maintenance is not performed at least once a year or more depending on usage.
	WARNING. Use only spare parts supplied by Umano Medical.
	WARNING. This equipment contains electronic components that may cause environmental damage. Please dispose of it properly in accordance with the regulations in force in your region.

Following items must be inspected at least once a year. You may need to perform maintenance more often based on your level of product usage.

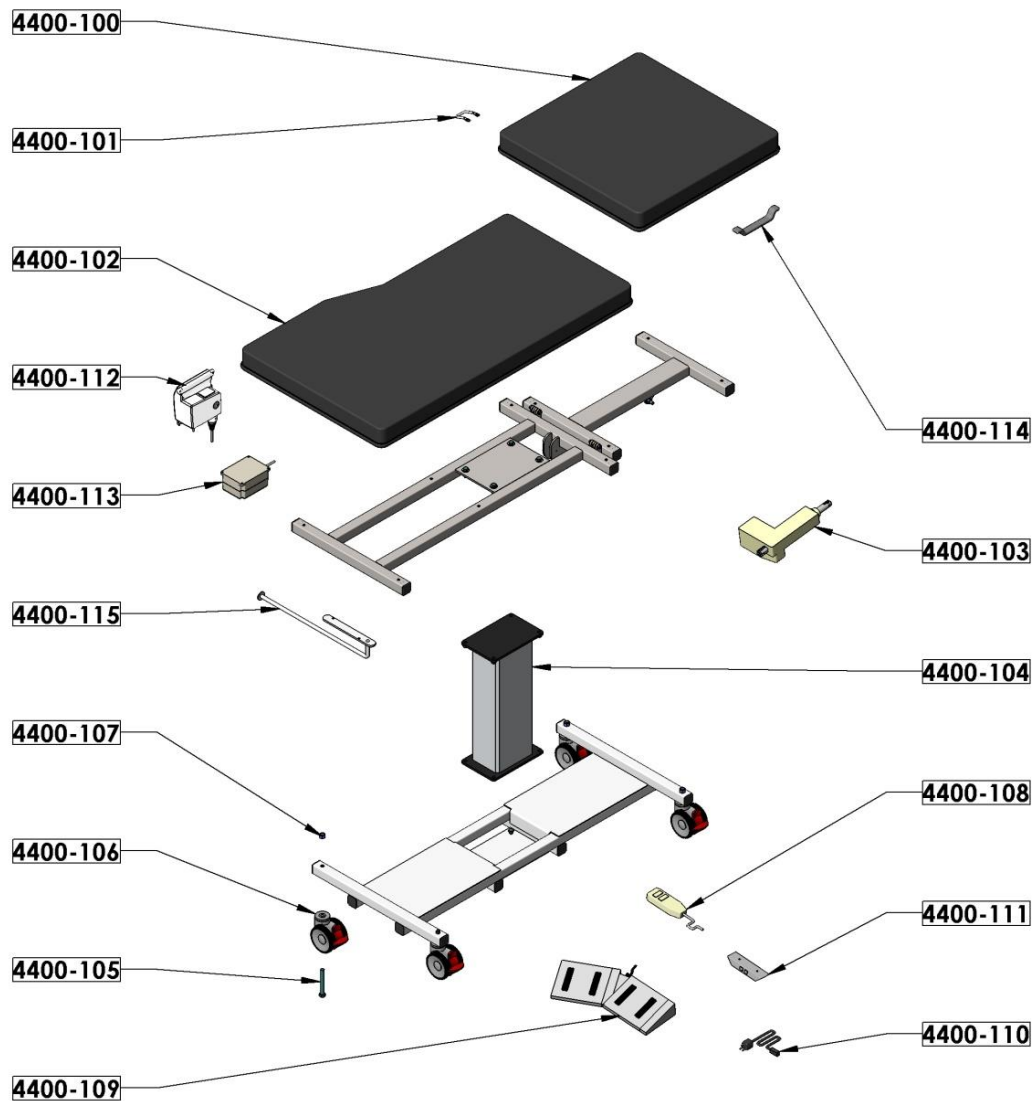
	All welds.
	All fasteners tightened.
	Casters swivel and rotate.
	Casters are not loose.
	Casters are free of dust.
	Central brake system operates and all casters lock when pedal brake activated.
	All mattresses (back, seat, leg, arms) are not ripped or torn.
	All functions on hand control work properly.
	All functions on foot control work properly (option).
	All functions on button control work properly (option).
	Battery can power product when AC is unplugged (option).
	Battery is charging when power cord plunged into wall outlet (option).
	Ventilation aperture on battery is intact throughout its length (option).
	Power cable not frayed.
	Cables not worn or pinched.
	All visible electrical connections tight.
	No rust or corrosion of parts.
	All attachment points of electrical components are in good condition.
	All moving parts and locking mechanisms are working properly (side and retractable table).

Serial number:	
Done by:	
Date:	

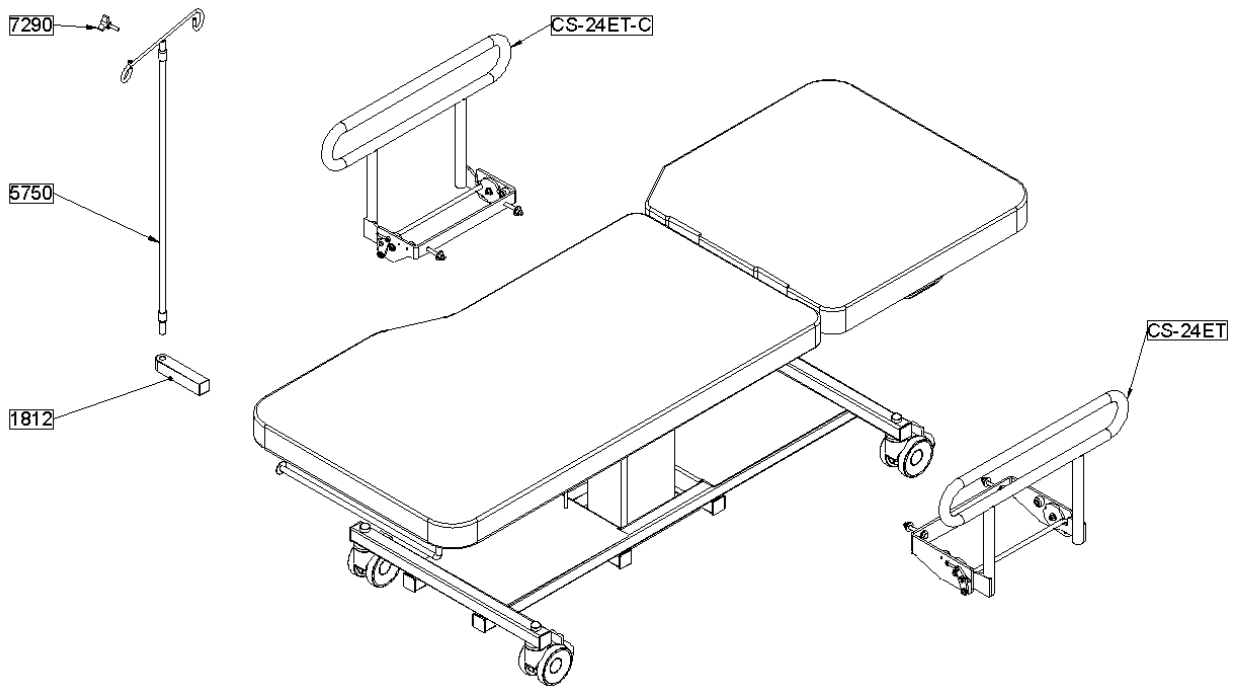
11. TROUBLESHOOTING

Problem	Cause	Check	Correction
Hand or foot switch doesn't work properly	Hand or foot switch may be damaged.	Make sure that the hand or foot switch is properly connected in the control box. Make sure power cable is properly connected in the wall outlet.	Hand or foot switch must be replaced. See spare parts list section to find the spare parts number and contact us.
Hand or foot switch isn't working properly.	Hand or foot switch may be damaged.	Make sure that the hand or foot switch is properly connected in the control box. Make sure power cable is properly connected in the wall outlet.	Hand or foot switch must be replaced. See spare parts list section to find the spare parts number and contact us.
	The control box may be damaged.	Make sure that all cables are properly connected (control box, electrical outlet, motor cables...) Invert motor cables in control box and try the hand or foot switch again,	If the problem remains, the control box is working properly, the hand or foot switch needs to be replaced. See spare parts list section to find the spare parts number and contact us. If the problem has changed, the control box is damaged and must be replaced. See spare parts list section to find the spare parts number and contact us.

12. SPARE PARTS

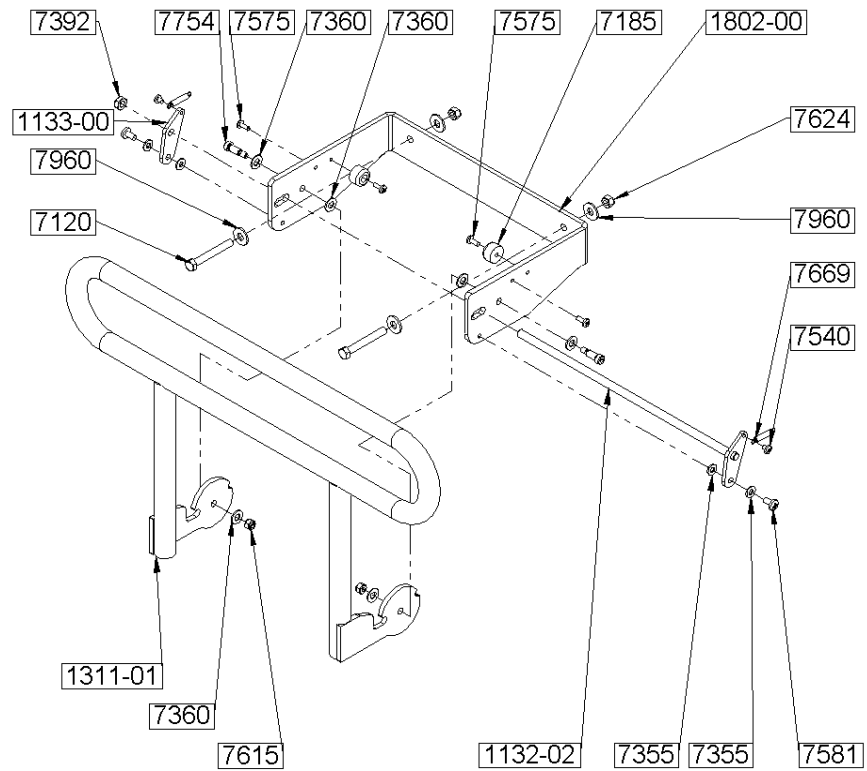


ITEM #	# PART	DESCRIPTION
4400-100	---	Backrest mattress
4400-101	7280PF	Hook for hand controller
4400-102	---	Mattress
4400-103	2630	150mm backrest electric actuator
4400-104	2200	300mm electric lifting column
4400-105	7092	Bolt 1/2"-13NC x 4 in. for wheel fixation
4400-106	3715	100mm double wheels with individual brake
4400-107	7390	Lock nut 1/2"-13NC
4400-108	2221	Double hand control
4400-109	PD-1	Double foot control
4400-110	2180	Power cord
4400-111	2410	Double button
4400-112	2140	4 channel control box with integrated charger
4400-113	2030	Battery
4400-114	6650	Handle
4400-115	1800PF	Paper dispenser

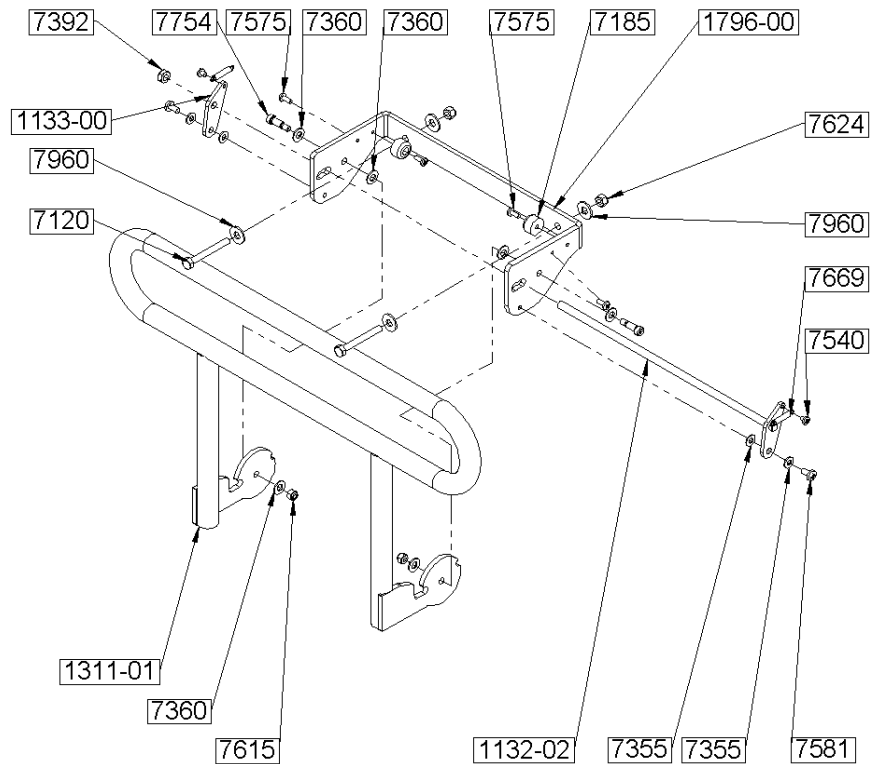


# PART	DESCRIPTION
1812	IV pole hanger
5750	IV pole
7290	Knob
CS-24ET	Security rail curve side (see next pages for details)
CS-24ET-C	Security rail no curve side (see next pages for details)

CS-24ET



CS-24ET-C



# PART	DESCRIPTION
1132PF	Locking bar security rail 4400
1133PF	Plate for locking mechanism security rail 4400
1311PF	Security rail 4400
1802PF	Long support for 4400 security rail
1796PF	Short support for 4400 security rail
7120	Bolt 5/16"-18NC x 2.5"
7185	Stopper
7355	Nylon washer 1/4"
7360	Nylon washer 5/16"
7392	Lock nut 3/8"-24NF
7540	Screw #10-32NC x 1/4"
7575	Screw #10-32NC x 1/2"
7581	Screw 1/4"-20NC x 1/2"
7615	Lock nut 1/4"-20NC
7624	Lock nut 5/16"-18NC
7669	Spring
7754	Shoulder bolt 5/16" x 5/8"
7960	Metal washer 5/16"



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