TruRize™ Clinical Chair

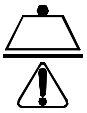
Operations Manual

REF 3333

EN

3333-009-001 Rev AA.0 2022-02

Symbols

	Refer to instruction manual/booklet
	Consult instructions for use
	General warning
	Caution
REF	Catalogue number/model
SN	Serial number
US Patents	For US Patents see www.stryker.com/patents
MD	European medical device
EC REP	Authorized representative in the European Community
CE	CE mark
	Manufacturer
	Date of manufacture
	Importer
	Safe working load
	Mass of product
	Unit provides terminal for connection of a potential equalization conductor. The potential equalization conductor provides direct connection between the unit and potential equalization busbar of the electrical installation.
	Protective earth ground
IPX2	Protection from dripping water

	Type B applied part
	Medical Equipment Classified by Underwriters Laboratories Inc. With Respect to Electric Shock, Fire, and Mechanical Hazards Only in Accordance with ANSI/AAMI ES60601-1: 2005 and CAN/ CSA-C22.2 No. 60601-1:08.
	In accordance with European Directive 2012/19/EU on Waste Electrical and Electronic Equipment (WEEE) as amended, this symbol indicates that the product should be collected separately for recycling. Do not dispose of as unsorted municipal waste. Contact local distributor for disposal information. Ensure infected equipment is decontaminated prior to recycling.

Table of Contents

Warning/Caution/Note Definition

The words **WARNING**, **CAUTION**, and **NOTE** carry special meanings and should be carefully reviewed.

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.

CAUTION

Alerts the reader of a potentially hazardous situation which, if not avoided, may result in minor or moderate injury to the user or patient or damage to the product or other property. This includes special care necessary for the safe and effective use of the device and the care necessary to avoid damage to a device that may occur as a result of use or misuse.

Note - Provides special information to make maintenance easier or important instructions clearer.

Summary of safety precautions

Always read and strictly follow the warnings and cautions listed on this page. Service only by qualified personnel.

CAUTION

- Improper usage of the product can cause injury to the occupant or operator. Operate the product only as described in this manual.
- Do not modify the product or any components of the product. Modifying the product can cause unpredictable operation resulting in injury to occupant or operator. Modifying the product also voids its warranty.
- Do not use the product for CPR procedures, X-ray procedures, or with a defibrillator.
- Do not use the product in an oxygen-rich environment, such as an oxygen tent.
- Always allow the product to reach operating temperature before conducting any setup or testing functional operations to prevent permanent product damage.
- Always operate the product when all operators and occupants are clear of the mechanisms.
- Always properly handle the power cord to avoid the risk of entanglement, damage to the power cord, or potential shock hazards. If the power cord is damaged, immediately remove the product from service and contact the appropriate maintenance personnel.
- Always plug the product directly into a properly grounded hospital-grade or medical-grade wall outlet to achieve grounding reliability.
- Do not block access to the hospital-grade plug or medical-grade wall outlet when placing the product.
- Electric shock risk. This equipment must only be connected to a supply mains with protective earth.
- Always apply the parking brake when an occupant is getting into or out of the product to avoid instability.
- Always apply the parking brake when the occupant is unattended.
- Do not apply the parking brake to stop a rolling chair.
- Do not park the product on a slope or uneven surface to avoid unintended product movement.
- Always return product to the Upright 1 position when not in use to avoid trip hazard.
- Only raise the armrests when needed for occupant access or ease of transfers.
- Always avoid the pinch point between the armrest, backrest, and seat when you reposition the armrests. Make sure that the occupant is clear of the armrests.
- Do not sit or stand on the armrests, footrest, or backrest to avoid instability.
- Always keep the armrest down when the chair is occupied.
- Always supervise the occupant in the Stand Assist, Full-Flat Transfer, and Trend positions.
- Always make sure that the product is free from external obstructions when you raise or lower the backrest, footrest, or lift. If you move the product into an external obstruction, you may cause environmental or product damage.
- If using the battery backup option and the battery status is low or critical, the occupant control panel is disabled.
- Always make sure that the nurse call system has been properly configured before use.
- Do not pull or catch the IV lines or dialysis lines that are routed over either armrest guide when you move the product.
- Do not trap the IV lines or dialysis lines between the armrest and seat, armrest and backrest, or seat and footrest.
- Do not hang any items (such as IV bags or Foley bags) on the armrest guide.
- Do not rotate the armrest backward to rest on the armrest guide when lines are routed over the armrest guide.
- Only attach Foley bags to the Foley bag hook.
- Do not hang bags that exceed 10 lb (4.5 kg) onto the Foley bag hook.
- Always store the power cord before you transport the product.
- Do not use any powered motion functionality while the power cord is stored around the mobility handle or armrest guide.
- Always use more than one operator to transport an occupant if the occupant’s weight approaches the safe working load to avoid the risk of operator injury.
- Do not overload the product above the safe working load of 350 lb (158 kg).
- When powering the product with the battery, the chair functionality is limited by the present charge of the battery as shown by the battery status indicator.
- Always plug the product into a wall outlet (regulated AC power source) when not in use to maintain a sufficient battery charge and to maximize product performance while operating on battery power.
- Do not clean, disinfect, service, or perform maintenance while the product is in use.

- Always unplug the power cord from the wall outlet when large spills occur near the circuit boards, cables, and motors. Remove the occupant from the product, clean up the fluid, and inspect the product. Fluids can cause unpredictable operation and decreased functionality of any electrical product. Do not return the product to service until it is completely dry and you have tested for safe operation.
- Always wipe with clean water (or 70% isopropyl alcohol, if using **Virex®** TB) and dry each product after disinfecting. Some disinfectants are corrosive in nature and may cause damage to the product. If you do not rinse and dry the product, you may leave a corrosive residue on the surface of the product. This corrosive residue could cause premature degradation of critical components. Failure to follow these disinfecting instructions may void your warranty.
- The use of accessories, transducers, and cables, other than those specified or provided by the manufacturer, could result in increased electromagnetic emissions or decreased electromagnetic immunity and result in improper operation.
- The emissions characteristics of this equipment make it suitable for use in industrial areas and hospitals (CISPR 11 class A). If it is used in a residential environment (for which CISPR 11 class B is normally required) this equipment might not offer adequate protection to radio-frequency communication services. The user might need to take mitigation measures, such as relocating or re-orienting the equipment.
- Portable RF communications equipment, including peripherals such as antenna cables and external antennas, should be no closer than 12 inches (30 cm) to any part of **TruRize**, including cables specified by the manufacturer.
- Avoid stacking or placing equipment adjacent with other equipment to prevent improper operation of the products. If such use is necessary, carefully observe stacked or adjacent equipment to make sure that they are operating properly.

Introduction

This manual assists you with the operation or maintenance of your Stryker product. Read this manual before operating or maintaining this product. Set methods and procedures to educate and train your staff on the safe operation or maintenance of this product.

CAUTION

- Improper usage of the product can cause injury to the occupant or operator. Operate the product only as described in this manual.
- Do not modify the product or any components of the product. Modifying the product can cause unpredictable operation resulting in injury to occupant or operator. Modifying the product also voids its warranty.

Note

- This manual is a permanent part of the product and should remain with the product even if the product is sold.
- Stryker continually seeks advancements in product design and quality. This manual contains the most current product information available at the time of printing. There may be minor discrepancies between your product and this manual. If you have any questions, contact Stryker Customer Service or Technical Support at 1-800-327-0770.

Product description

The **TruRize**™ clinical chair is an AC-powered chair that consists of a base, lift system, seat, backrest, footrest, and two armrests. The operator control panels, located bilaterally on the outside of the backrest, include controls for occupant detection, occupant control panel lockout, seat height functions, Upright 1, Upright 2, Recline, Full-Flat Transfer, Trend, and Stand Assist.

The base includes four casters that enable manual movement. Each caster has a means of braking that prevents caster rolling and swivel motion. You can press on the parking brake pedal to apply the parking brake manually.

The chair includes three key indicators that are displayed on the operator control panel to provide the operator with information for chair occupancy, parking brake engagement, and battery charge level. There are a limited set of occupant-accessible controls for chair positioning located on the inside of each armrest. You can lock out the occupant controls with the operator control panel. The chair includes a management solution to accommodate Foley bags. The chair can be equipped with the battery backup option that enables limited product functionality.

Indications for use

TruRize is intended to provide a support structure that places human occupants in upright, seated, recline, supine, and trend positions. The product provides lift assistance for occupants who may have difficulty rising from a seated to a standing position.

Contraindications

None known.

Clinical benefits

Occupant positioning and lift assistance

Expected service life

TruRize has a seven year expected service life under normal use conditions and with appropriate periodic maintenance.

TruRize cushions have a three year expected service life under normal use conditions and with appropriate periodic maintenance. A normal use condition is defined as one cleaning or disinfecting per day with recommended cleaners or disinfecting agents.

The optional backup batteries have a two year expected service life under normal use conditions.

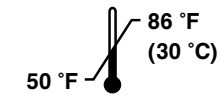
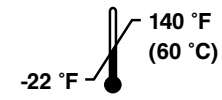
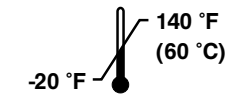
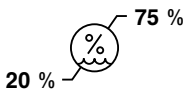
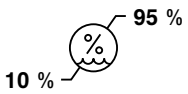
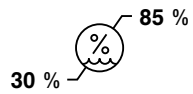
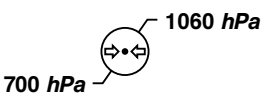
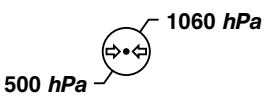
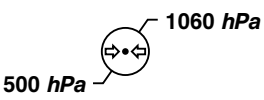
Disposal/recycle

Always follow the current local recommendations and/or regulations governing environmental protection and the risks associated with recycling or disposing of the equipment at the end of its useful life.

Specifications

 Safe Working Load **Note** - Safe working load indicates the sum of the occupant and accessory weight.	350 lb	158 kg
Product weight	315 lb	143 kg
Overall product height (upright 1 high height)	61 in. ± 1 in.	155 cm ± 2.5 cm
Overall product width (upright 1)	34 in. ± 1 in.	86 cm ± 2.5 cm
Overall length (full-flat transfer)	73 in. ± 1 in.	185 cm ± 2.5 cm
Seat height from floor (upright 1 low height)	19 in. ± 1 in.	48 cm ± 2.5 cm
Seat width (upright 1)	26 in. ± 1 in.	66 cm ± 2.5 cm
Seat depth (upright 1)	19 in. ± 1 in.	48 cm ± 2.5 cm
Maximum Trend angle	8.5°	
Casters	3.5 in. diameter	
Electrical requirements	100-240VAC, 50/60Hz ±1Hz nominal, 4 A	
Battery option	(2) 12VDC lead acid batteries	
Duty cycle	2 mins of actuation and 18 mins idle	

Stryker reserves the right to change specifications without notice.

Environmental conditions	Operation	Storage	Transportation
Temperature			
Relative humidity			
Atmospheric pressure			

Note - If you expose the product to temperatures above 104 degrees F (40 degrees C) for prolonged periods it may reduce the expected service life of the batteries.

In accordance with the European REACH regulation and other environmental regulatory requirements, the components that contain declarable substances are listed.

Description	Number	Substance of very high concern (SVHC) chemical name
CPU board assembly	3333-005-810	TGIC, lead monoxide, diboron trioxide
Operator control assembly, patient right	3333-005-950	Lead
Operator control assembly, patient left	3333-005-960	Lead
Operator control assembly, patient right, international	3333-005-970	Lead
Operator control assembly, patient left, international	3333-005-980	Lead

Product illustration

Figure 1 – TruRize

A	Pivoting armrest
B	Armrest release handle
C	Backrest
D	Caster
E	Footrest
F	Mobility handle

G	Occupant control panel
H	Operator control panel
I	Parking brake pedal
J	Seat
K	Armrest guide
L	Foley bag hook

Contact information

Contact Stryker Customer Service or Technical Support at: 1-800-327-0770.

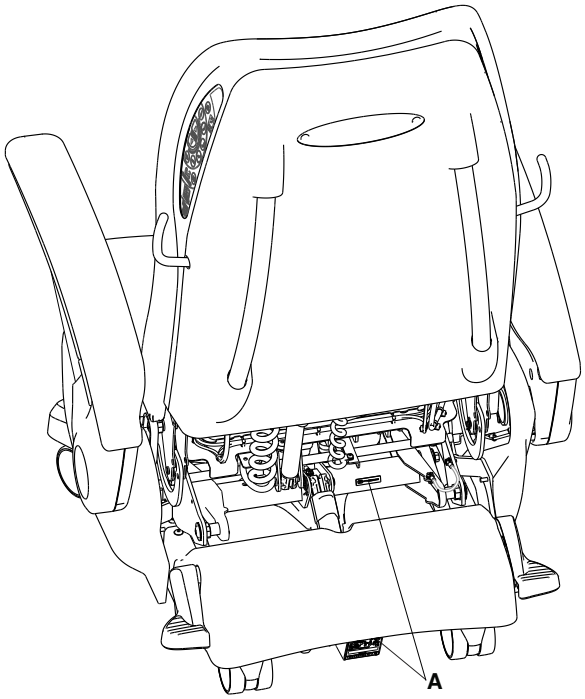
Stryker Medical
3800 E. Centre Avenue
Portage, MI 49002
USA

Note - The user and/or the occupant should report any serious product-related incident to both the manufacturer and the Competent authority of the European Member State where the user and/or occupant is established.

To view your operations or maintenance manual online, see https://techweb.stryker.com/.

Have the serial number (A) of your Stryker product available when calling Stryker Customer Service or Technical Support. Include the serial number in all written communication.

Serial number location



Serial number key

The sequential number is the last five digits of the serial number.

Setup

CAUTION

- Do not use the product for CPR procedures, X-ray procedures, or with a defibrillator.
- Do not use the product in an oxygen-rich environment, such as an oxygen tent.
- Always allow the product to reach operating temperature before conducting any setup or testing functional operations to prevent permanent product damage.
- Always operate the product when all operators and occupants are clear of the mechanisms.
- Always properly handle the power cord to avoid the risk of entanglement, damage to the power cord, or potential shock hazards. If the power cord is damaged, immediately remove the product from service and contact the appropriate maintenance personnel.
- Always plug the product directly into a properly grounded hospital-grade or medical-grade wall outlet to achieve grounding reliability.

Before you place the product into service, make sure that these components are working properly:

1. Visually inspect the product for any signs of shipping damage.
2. If your product is equipped with the battery backup option, make sure that the battery on/off switch (|/O) (A) is turned on (|) before you plug the power cord into a wall outlet.

   Note - If the battery on/off switch (|/O) is set to O, then the battery backup option is off. If the battery on/off (|/O) switch is set to |, then the battery backup option is on.
3. Plug the power cord into a wall outlet.
4. Allow the batteries to fully charge before using the product function on battery power only.
5. Make sure that the power indicator illuminates on the operator control panel and the service indicator is not illuminated.

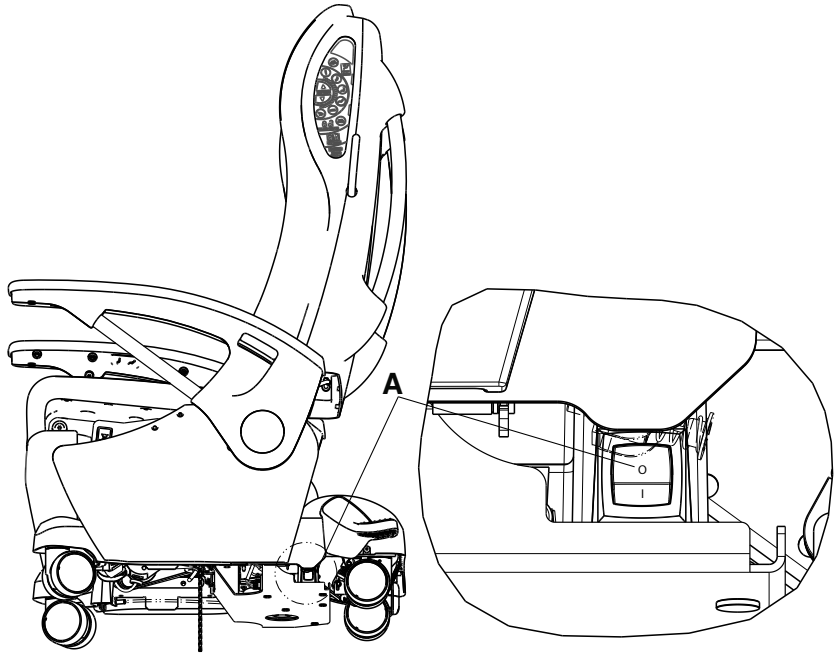


Figure 2 – Battery on/off (|/O) switch

Operation

Powering the product on and off

CAUTION

- Do not block access to the hospital-grade plug or medical-grade wall outlet when placing the product.
- Electric shock risk. This equipment must only be connected to a supply mains with protective earth.
- Always plug the product directly into a properly grounded hospital-grade or medical-grade wall outlet to achieve grounding reliability.

To power on the product, plug the power cord into a wall outlet.

To power on the product with the battery backup option, press the battery on/off switch (|/O) (A) to on (|) (Figure 2). Then, plug the power cord into a wall outlet.

To power off the product, unplug the power cord from the wall outlet.

To power off the product with the battery backup option, press the battery on/off switch (|/O) (A) to off (O) (Figure 2). Then, unplug the power cord from the wall outlet.

You must fully charge your battery if it has been in a deep battery discharge for an extended length of time or if you just turned the battery on/off switch (|/O) to on (|) (Figure 2). To recharge, see *Charging the battery (option)* (page 19). The battery status indicator may show battery status as critical until the charge cycle is complete.

Applying or releasing the parking brake

CAUTION

- Always apply the parking brake when an occupant is getting into or out of the product to avoid instability.
- Always apply the parking brake when the occupant is unattended.
- Do not apply the parking brake to stop a rolling chair.
- Do not park the product on a slope or uneven surface to avoid unintended product movement.

To apply the parking brake, push down on the parking brake pedal. Push on the product to make sure that the parking brake is working.

Note - Lock illuminates white when you apply the parking brake on the operator control panel.

To release the parking brake, pull up on the parking brake pedal.

Note - Unlock flashes white when you release the parking brake on the operator control panel.

Seating an occupant

To seat an occupant:

1. Apply the parking brake. Push on the product to make sure that the parking brake is working.
2. Place the **TruRize** arms into the forward locking position.
3. Set **TruRize** to the Upright 1 position or Stand Assist position to seat an occupant (*Positioning the chair* (page 13)).
4. Seat the occupant with their back against the backrest and arms forward.
5. Place the occupant in any comfortable position.
6. Set **TruRize** options, including lockouts and the chair exit system.

Transferring an occupant

CAUTION - Always return product to the Upright 1 position when not in use to avoid trip hazard.

To transfer an occupant:

1. Using the mobility handle, push or pull **TruRize** to the desired location.
2. Plug the power cord into a wall outlet.
3. Apply the parking brake. Push on the product to make sure that the parking brake is working.
4. Position **TruRize** in the Upright 1 position to transfer to or from a seat. Use the Full-Flat Transfer position to transfer to or from a bed or stretcher (*Positioning the chair* (page 13)). Adjust height, as necessary.
5. Raise the armrest or armrests until resting on the armrest guide.
6. Transfer the occupant to or from **TruRize** using a transfer board to bridge the gap between the starting and ending surface. Make sure that the starting surface is 1-2 in. higher than the end surface.
7. Lower the armrest or armrests until latched.
8. Move **TruRize** into a comfortable occupant position.

Raising the armrests

CAUTION

- Only raise the armrests when needed for occupant access or ease of transfers.
- Always avoid the pinch point between the armrest, backrest, and seat when you reposition the armrests. Make sure that the occupant is clear of the armrests.
- Do not sit or stand on the armrests, footrest, or backrest to avoid instability.

To raise the armrests:

1. Use one hand to operate the armrest release handle and the other hand to raise the armrest.
2. Rotate the armrest backward until resting on the armrest guide.

Note - If the armrest release handle does not function, adjust the set screw. If the armrest feels loose, tighten the set screw clockwise. If the armrest release handle activation is not smooth, loosen the set screw counterclockwise.

Lowering the armrests

CAUTION

- Always keep the armrest down when the chair is occupied.
- Always avoid the pinch point between the armrest, backrest, and seat when you reposition the armrests. Make sure that the occupant is clear of the armrests.
- Do not sit or stand on the armrests, footrest, or backrest to avoid instability.

To lower the armrests, move the armrest into the forward position until latched.

Positioning the chair

Stand Assist

Upright 1

Upright 2

Recline

Full-Flat Transfer

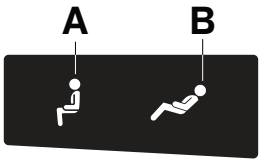
Trend

CAUTION

- Always supervise the occupant in the Stand Assist, Full-Flat Transfer, and Trend positions.
- Always make sure that the product is free from external obstructions when you raise or lower the backrest, footrest, or lift. If you move the product into an external obstruction, you may cause environmental or product damage.

Occupant control panel

Healthcare professionals must instruct occupants how to operate the occupant control panel.

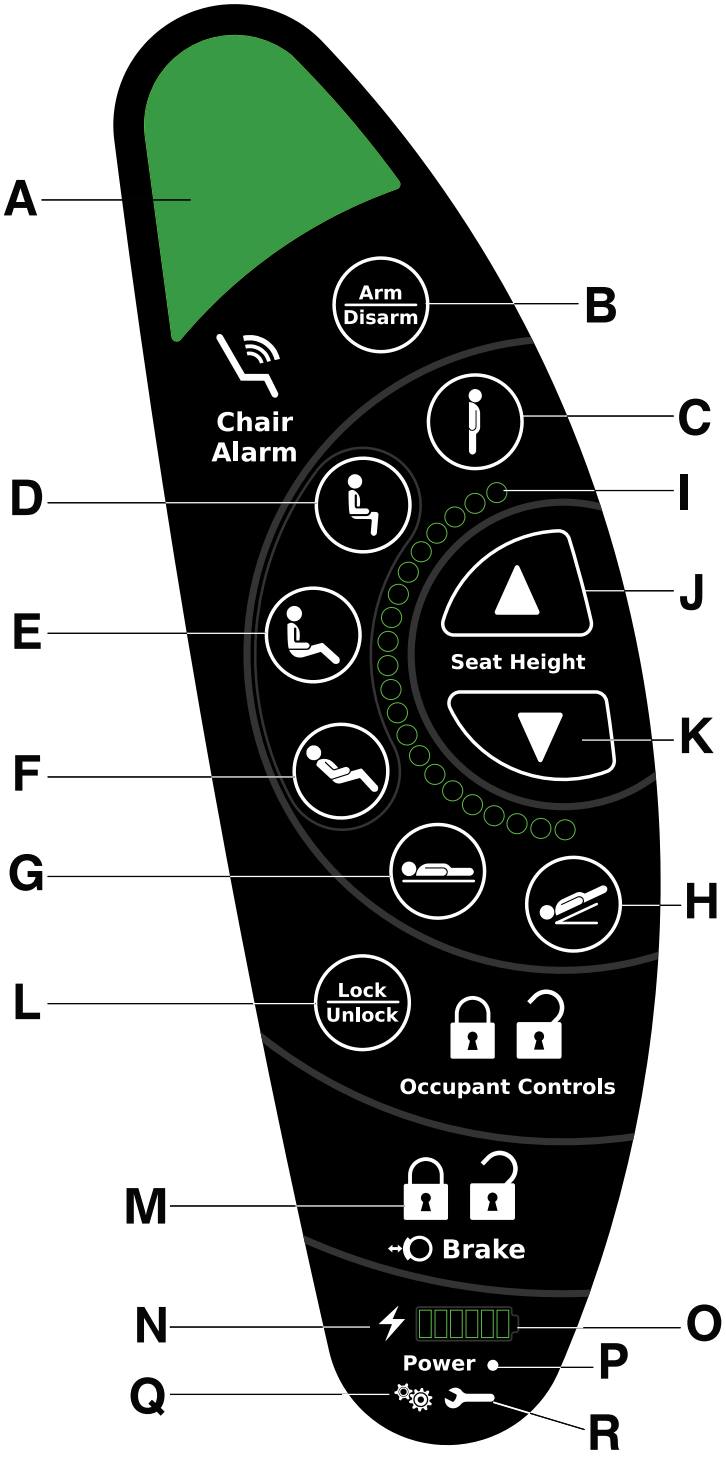


A	Upright 1	Places the product into the Upright 1 position
B	Recline	Lowers the backrest, tilts the seat back, and raises the footrest

CAUTION

- Always return product to the Upright 1 position when not in use to avoid trip hazard.
- If using the battery backup option and the battery status is low or critical, the occupant control panel is disabled.

Operator control panel



	Name	Function
A	Chair exit alarm	Illuminates green when you arm the chair exit system. Flashes yellow and triggers an audible alarm when an occupant exits the chair.
B	Chair alarm arm/disarm	Press once to arm the chair exit system. Press again to disarm the chair exit system. • The minimum occupant weight required to detect an occupant to arm the chair exit system is 65 lb • Stand Assist, Full-Flat Transfer and Trend positions are unavailable when you arm the chair exit system • The chair exit system will only arm when in the Upright 1, Upright 2, and Recline positions and when you apply the parking brake • The chair exit system alarm continues to sound until you press arm/disarm
C	Stand Assist	Provides lift assistance for occupants who may have difficulty rising from a seated to a standing position. Only available when you apply the parking brake.
D	Upright 1	Places the product into the Upright 1 position
E	Upright 2	Places the product into the Upright 2 position and extends the footrest
F	Recline	Lowers the backrest and tilts the seat back
G	Full-Flat Transfer	Places the product into a flat position for transfer to or from a bed or stretcher
H	Trend	Places the product into the Trend position (head down with foot up)
I	Chair position indicator	Follows the chair's position status from one position to another
J	Seat height up	Raises the seat height
K	Seat height down	Lowers the seat height
L	Occupant control lock/unlock	Lock illuminates white when you lock the occupant control panel. Unlock illuminates white when you unlock the occupant control panel.
M	Parking brake status indicator	Lock illuminates white when you apply the parking brake. Unlock flashes white when you release the parking brake.
N	Battery charging indicator (option)	Illuminates to indicate that the battery is charging
O	Battery status indicator (option)	Indicates the charge left in the battery
P	Power indicator	Illuminates when the product is powered
Q	Diagnostics indicator	Illuminates when in diagnostics mode. Unplug product and call maintenance.
R	Service indicator	Power the product off, then power the product back on (*Powering the product on and off* (page 11)). If indicator is off, continue normal operation. If indicator illuminates, unplug product and call maintenance.

Power save (sleep) mode activates after five minutes without button activation. Any contact on the operator control panel or occupant control panel buttons will exit out of the power save (sleep) mode.

Alarm conditions

There are three alarm conditions that may occur after the operator arms the chair exit system.

The chair exit alarm is an audible alarm (57 dB as measured per IEC 60601-1-8: 2012) that notifies the operator when any of the following medium priority alarm conditions occur:

Alarm condition	Result
Occupant exits the chair	Occupant exited the chair and is at a potential risk of fall
Parking brake is unlocked with the chair exit system armed	Occupant is in an unsafe state to be left unattended and is at a potential risk of fall. The chair stability has been compromised as the chair may shift with occupant movement.
Battery status indicator is low with the chair exit system armed	Occupant is no longer being monitored by the chair exit system and is at a potential risk of fall. The battery is at a discharged state in which the chair will not be able to inform the operator if the occupant exits the chair. If monitoring is required, you must reconnect the chair to AC power.

Note - The chair may activate the chair exit alarm if the chair cannot determine presence of an occupant. This may occur when an occupant exits the chair long enough to activate the alarm, then sits back down.

To turn off the alarm, press the chair alarm arm/disarm on the operator control panel to disarm the chair exit system.

Connecting the chair exit system to the nurse call system (option)

CAUTION - Always make sure that the nurse call system has been properly configured before use.

For communication between the chair exit system and your facility's nurse call system, connect the 1/4 in. nurse call communication cable to the 1/4 in. phone connector on the head wall port.

This cable will default in a normally open configuration. If your nurse call system is setup as a normally closed configuration, see the maintenance manual for instructions about how to change to a normally closed configuration. For chair exit system alarm information, see *Alarm conditions* (page 16).

Note

- There will be a one second delay from when the occupant exits the chair to when the chair exit system notifies the facility's nurse call system.
- The 1/4 in. nurse call communication cable limits are 0.5A, 42.4 VDC (30 VAC).
- The nurse call functionality in the medical device has not been evaluated for the requirements of Clause 17 (Normal Operation) of UL 1069. The user is responsible to determine the operability of the chair exit system with all systems the medical device is connected.

Managing lines with the armrest guide

You can use either armrest guide on the side of the backrest as an occupant line management system.

CAUTION

- Do not pull or catch the IV lines or dialysis lines that are routed over either armrest guide when you move the product.
- Do not trap the IV lines or dialysis lines between the armrest and seat, armrest and backrest, or seat and footrest.
- Do not hang any items (such as IV bags or Foley bags) on the armrest guide.
- Do not rotate the armrest backward to rest on the armrest guide when lines are routed over the armrest guide.

To manage lines with the armrest guide:

1. Position the IV pole caddy next to **TruRize**.
2. Route the IV lines or dialysis lines from the IV pole caddy over the armrest guide to the occupant.

Securing a Foley bag to the Foley bag hook

CAUTION

- Only attach Foley bags to the Foley bag hook.
- Do not hang bags that exceed 10 lb (4.5 kg) onto the Foley bag hook.

To secure a Foley bag to the Foley bag hook, place the hook of the Foley bag on the Foley bag hook. Make sure that you secure the Foley bag to the Foley bag hook.

Storing the power cord

CAUTION

- Always store the power cord before you transport the product.
- Do not use any powered motion functionality while the power cord is stored around the mobility handle or armrest guide.

To store the power cord:

1. Unplug the power cord from the wall outlet.
2. Wrap the cord around the mobility handle or armrest guide.

Extending or retracting the power cord with the retractable power cord reel (option)

The retractable cord reel stores the power cord inside of the base.

CAUTION - Always store the power cord before you transport the product.

To extend the power cord, pull the power cord out from the retractable cord reel to the desired length.

To retract the power cord:

1. Unplug the power cord from the wall outlet.
2. Pull lightly on the power cord.
3. Slowly guide the power cord into the retractable cord reel.

Transporting an occupant

CAUTION

- Always use more than one operator to transport an occupant if the occupant's weight approaches the safe working load to avoid the risk of operator injury.
- Do not overload the product above the safe working load of 350 lb (158 kg).

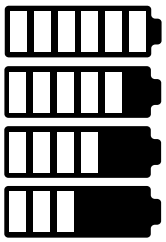
To transport an occupant:

1. Place **TruRize** at or in between the Upright 1 and Upright 2 positions.
2. Lock the occupant control panel.
3. Unplug the power cord from the wall outlet.
4. Store the power cord (*Storing the power cord* (page 17) or *Extending or retracting the power cord with the retractable power cord reel (option)* (page 17)).
5. Release the parking brake (*Applying or releasing the parking brake* (page 11)).
6. Using the mobility handle, push or pull the chair.

Checking the battery status (option)

You can use the battery backup option to power the product when no AC power is available.

CAUTION - When powering the product with the battery, the chair functionality is limited by the present charge of the battery as shown by the battery status indicator.

Battery status indicator		
Good		All functions allowed for full or partial battery power (as shown)
Low		• Only motions moving toward Upright 1 are allowed using operator controls • Cannot arm the chair exit system • Battery status indicator LEDs blink • Occupant control panel is disabled

Battery status indicator		
Critical		• No motion allowed • Cannot arm the chair exit system • The chair exit system alarms if pre-armed • Nurse call signal, if equipped • Battery status indicator LED blinks • Occupant control panel is disabled • Audible chirp
No power		No power

Note

- Power save (sleep) mode activates after five minutes without button activation. Any contact on the operator control panel or occupant control panel buttons will exit out of the power save (sleep) mode.
- When the battery status is low and the chair exit system is armed, the chair exit system alarms to indicate that you must plug the power cord into a wall outlet to continue to monitor the occupant.
- If you observe unexpected behavior on any control panel while on battery power, plug the power cord in and allow the battery to charge to a full six bars. If the unexpected behavior continues after the full charge, unplug the power cord and call maintenance.

You must fully charge your battery if it has been in a deep battery discharge for an extended length of time or if you just turned the battery on/off switch (|/O) to on (|) (Figure 2). To recharge, see *Charging the battery (option)* (page 19). The battery status indicator may show battery status as critical until the charge cycle is complete.

Charging the battery (option)

CAUTION - Always plug the product into a wall outlet (regulated AC power source) when not in use to maintain a sufficient battery charge and to maximize product performance while operating on battery power.

To charge the battery:

1. Make sure that the battery on/off switch (|/O) (A) is turned on (|).
2. Plug the power cord into a wall outlet.
3. Make sure that the battery charging indicator on the operator control panel illuminates to indicate that the battery is charging.

Note

- The battery will have a full charge within eight hours.
- If you expose the product to temperatures above 104 degrees F (40 degrees C) for prolonged periods it may reduce the expected service life of the batteries.

Cleaning and disinfecting with wipes

For United States only. Confirm availability for your configuration or region. Call Stryker Customer Service: 1-800-327-0770.

Stryker’s preferred wipes (2060-000-001 6" x 10" or 2060-000-002 9" x 12") include the following active ingredients:

- n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride - 0.154%
- n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride - 0.154%
- Isopropanol - 21.000%

Non-active ingredient: Ethylene Glycol Monobutyl Ether – < 3%

Note - For safety information, read the product label.

To clean or disinfect the external product surface:

1. To clean, wipe external surfaces with a fresh, clean wipe to remove all visible soils. Repeat as necessary until the product is clean.

   Note
   - Use as many wipes as necessary.
   - Complete step 1 before you disinfect.
2. To disinfect, wipe external surfaces with a fresh, clean wipe until wet. Allow the external surface to remain wet for two minutes at room temperature.
3. Allow the product to dry before you return it to service.

Cleaning

CAUTION

- Do not clean, disinfect, service, or perform maintenance while the product is in use.
- Always unplug the power cord from the wall outlet when large spills occur near the circuit boards, cables, and motors. Remove the occupant from the product, clean up the fluid, and inspect the product. Fluids can cause unpredictable operation and decreased functionality of any electrical product. Do not return the product to service until it is completely dry and you have tested for safe operation.

To remove undesirable build-up prior to disinfecting between uses:

1. Hand wash all surfaces on the product with a mild detergent using spray or pre-soaked wipes.
2. Clean all exposed surfaces. Pay attention to high contact areas, such as the footrest cushion, seat cushion, backrest cushion, footrest covers, armrest overmold and covers, and backrest mobility handles.
3. Follow the cleaning solution manufacturer’s instructions for appropriate contact time and rinsing requirements.
4. Dry the product thoroughly before returning the product to service.

Avoid over saturation. Do not allow the product to remain wet.

Disinfecting

CAUTION

- Do not clean, disinfect, service, or perform maintenance while the product is in use.
- Always unplug the power cord from the wall outlet when large spills occur near the circuit boards, cables, and motors. Remove the occupant from the product, clean up the fluid, and inspect the product. Fluids can cause unpredictable operation and decreased functionality of any electrical product. Do not return the product to service until it is completely dry and you have tested for safe operation.
- Always wipe with clean water (or 70% isopropyl alcohol, if using **Virex**® TB) and dry each product after disinfecting. Some disinfectants are corrosive in nature and may cause damage to the product. If you do not rinse and dry the product, you may leave a corrosive residue on the surface of the product. This corrosive residue could cause premature degradation of critical components. Failure to follow these disinfecting instructions may void your warranty.

The recommended disinfectants for this product's surfaces include the following:

- Quaternary (active ingredient - ammonium chloride) that contain less than 3% glycol ether
- Phenolic (active ingredient - o-phenylphenol)
- Chlorinated bleach solution (use up to UK disinfecting 10,000 ppm available chlorine (941 mL of a 5.25% sodium hypochlorite solution per 4000 mL of water))
- Alcohol (active ingredient - 70% isopropyl alcohol)
- ≤ 21% isopropanol alcohol

To wipe down the product with disinfectant between uses:

1. Follow the manufacturer's dilution recommendations exactly.
2. Apply the recommended disinfectant solution by spray or pre-soaked wipes.
3. Hand wash all surfaces of the product with the recommended disinfectant.
4. Disinfect all exposed surfaces. Pay attention to high contact areas, such as the footrest cushion, seat cushion, backrest cushion, footrest covers, armrest overmold and covers, and backrest mobility handles.
5. Follow the disinfecting solution manufacturer's instructions for appropriate contact time and rinsing requirements.
6. Dry the product thoroughly before returning the product to service.

Avoid over saturation. Do not allow the product to remain wet.

Follow the manufacturer's dilution recommendations for appropriate contact time and rinsing requirements. Follow the chemical manufacturer's guidelines for proper disinfecting.

Preventive maintenance

Remove product from service before you perform the preventive maintenance inspection. Check all items listed during annual preventive maintenance for all Stryker Medical products. You may need to perform preventive maintenance checks more often based on your level of product usage. Service only by qualified personnel.

Inspect the following items:

_____ All welds

_____ All fasteners are secure

_____ Casters swivel and rotate

_____ Casters are not loose or wobbly

_____ Casters are free of wax and debris

_____ Parking brake operates and all casters lock when you apply the parking brake

_____ Backrest, seat, and footrest cushions are not ripped or torn

_____ Armrests for cracks or splits

_____ Armrests move, latch, and stow

_____ Chair exit system alarms when armed while seat is unloaded and indicators operate

_____ Chair exit system does not alarm when armed while the seat is loaded with more than 65 lb

_____ All functions on operator control panels operate

_____ All functions on occupant control panels operate

_____ Batteries for replacement (every two years) (option)

_____ Batteries can power product when AC is unplugged (option)

_____ Batteries are charging (battery charging indicator) when you plug the power cord into a wall outlet (option)

_____ 1/4 in. nurse call communication cable functionality (option)

_____ Power cord not frayed

_____ Cables not worn or pinched

_____ All visible electrical connections tight

_____ All grounds secure to the frame

_____ Ground impedance not more than 200 mΩ (milliohms)

_____ Earth leakage current not more than 300 µA (microamps) for 120V or 500 µA (microamps) for 240V depending on condition

_____ Ground chain is clean, intact, and has at least two links touching the floor

_____ Foley bag hook, armrest guide, and plastic covers are free from wear, tear, stresses. and mechanical damage

_____ No rust or corrosion of parts

Product serial number:
Completed by:
Date:

EMC information

CAUTION

- The use of accessories, transducers, and cables, other than those specified or provided by the manufacturer, could result in increased electromagnetic emissions or decreased electromagnetic immunity and result in improper operation.
- The emissions characteristics of this equipment make it suitable for use in industrial areas and hospitals (CISPR 11 class A). If it is used in a residential environment (for which CISPR 11 class B is normally required) this equipment might not offer adequate protection to radio-frequency communication services. The user might need to take mitigation measures, such as relocating or re-orienting the equipment.

Guidance and manufacturer's declaration - electromagnetic emissions		
TruRize is intended for use in the electromagnetic environment specified below. The customer or the user of **TruRize** should assure that it is used in such an environment.		
Emissions test	**Compliance**	**Electromagnetic environment**
RF Emissions CISPR 11	Group 1	**TruRize** uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF Emissions CISPR 11	Class A	**TruRize** is suitable for use in all establishments other than domestic and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic Emissions IEC 61000-3-2	Class A	
Voltage Fluctuations Flicker Emissions IEC 61000-3-3	Complies	

CAUTION

- Portable RF communications equipment, including peripherals such as antenna cables and external antennas, should be no closer than 12 inches (30 cm) to any part of **TruRize**, including cables specified by the manufacturer.
- Avoid stacking or placing equipment adjacent with other equipment to prevent improper operation of the products. If such use is necessary, carefully observe stacked or adjacent equipment to make sure that they are operating properly.

Recommended separations distances between portable and mobile RF communications equipment and TruRize			
TruRize is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of **TruRize** can help prevent electromagnetic interferences by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and **TruRize** as recommended below, according to the maximum output power of the communications equipment.			
Rated maximum output power of transmitter W	**Separation distance according to frequency of transmitter** m		
	150 kHz to 80 MHz **D=(1.2) (√*P*)**	**80 MHz to 800 MHz** **D=(0.35) (√*P*)**	**800 MHz to 2.7 GHz** **D=(0.70) (√*P*)**
0.01	0.12	0.12	0.23

Recommended separations distances between portable and mobile RF communications equipment and TruRize			
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23
For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer. Note 1: At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies. Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.			

Guidance and manufacturer's declaration - electromagnetic immunity			
TruRize is suitable for use in the electromagnetic environment specified below. The customer or the user of **TruRize** should assure that it is used in such an environment.			
Immunity test	**IEC 60601 test level**	**Compliance level**	**Electromagnetic environment-guidance**
Electrostatic discharge (ESD) IEC 61000-4-2	±8 kV contact ±15 kV air	±8 kV contact ±15 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrostatic fast Transient/ burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output lines	±2 kV for power supply lines ±1 kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV line(s) to line(s) ±2 kV line(s) to earth	±1 kV line(s) to line(s) ±2 kV line(s) to earth	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, voltage variations and short interruptions on power supply input lines IEC 61000-4-11	0% U_T for 0.5 cycles at 0°, 45°, 90°, 135°, 180°, 225°, 270°, and 315° 0% U_T for 1 cycle 70% U_T (30% dip in U_T) for 25 cycles 0% U_T for 25 cycles	0% U_T for 0.5 cycles at 0°, 45°, 90°, 135°, 180°, 225°, 270°, and 315° 0% U_T for 1 cycle 70% U_T (30% dip in U_T) for 25 cycles 0% U_T for 25 cycles	Mains power quality should be that of a typical commercial or hospital environment. If the user of **TruRize** requires continued operation during power main interruptions, it is recommended that the device be powered from an uninterrupted power supply or a battery.
Power frequency (50/60Hz) magnetic field IEC 61000-4-8	30 A/m	30 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

Guidance and manufacturer's declaration - electromagnetic immunity			
Note: U_T is the a.c. mains voltage before applications of the test level.			
Conducted RF IEC 61000-4-6 Radiated RF IEC 61000-4-3	3 Vrms 150 kHz to 80 MHz 6 Vrms in ISM radio bands 3 V/m 80 MHz to 2.7 GHz	3 Vrms 6 Vrms in ISM radio bands 3 V/m	Portable and mobile RF communications equipment should be used no closer to any part of **TruRize**, including cables, than the recommended separation distance calculated from the equation appropriate for the frequency of the transmitter. Recommended separation distance D=(1.2) (√*P*) 80 MHz to 800 MHz D=(2.3) (√*P*) 800 MHz to 2.7 GHz where *P* is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and *d* is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site [a] should be less than the compliance level in each frequency range.[b] Interference may occur in the vicinity of equipment marked with the following symbol: 

Guidance and manufacturer's declaration – electromagnetic immunity
Note 1: At 80 MHz and 800 MHz, the higher frequency range applies. **Note 2:** These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people. **Note 3:** The ISM (Industrial, Scientific, and Medical) bands between 0.15 MHz and 80 MHz are 6.765 MHz to 6.795 MHz; 13.553 MHz to 13.567 MHz; 26.957 MHz to 27.283 MHz; and 40.66 MHz to 40.70 MHz.
[a] Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast, and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which **TruRize** is used exceeds the applicable RF compliance level above, the **TruRize** system should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating **TruRize**. [b] Over the frequency range 150 kHz to 80 MHz, field strengths are less than 3 V/m.

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