

mackworth

TX Advanced Ceiling Lift



User Manual

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1 Introduction

This manual covers the TX Advanced 600 ceiling track lifts, along with all their variants and various track types.



Please read and understand this manual thoroughly before using your ceiling track lift. The information in this manual is important for the safety of anyone near the ceiling lift and must be read and understood to help prevent injuries. It is also crucial to the proper operation and maintenance of the ceiling track lift.

Keep this user manual safe for future reference. The contents of this manual are subject to change without prior written notice.

If you have any questions after reviewing this manual, please contact your local authorized representative.

If a serious incident occurs while using this device, please report it to the manufacturer and your national authority.

1.1 Intended Use

The ceiling track lift is a device designed to safely raise and lower people, intended for use with a ceiling track and slings. Together, these three components make up the ceiling track lift system. The lift helps move individuals with limited mobility with minimal effort and risk to the caregiver, while ensuring safety, dignity, and comfort for the person being transferred. It can lift someone from one place, such as a bed, move them along the track to another location, and then lower them into a chair or bath. This lift is intended for indoor use only and is not suitable for outdoor environments.

The ceiling lift is intended for use by trained and competent operators in professional healthcare and home care environments. Operators are not required to possess formal healthcare qualifications; however, they must receive appropriate instruction and training in the safe use of the device before use. The device is intended to assist with the safe transfer of individuals with reduced mobility while supporting their safety, comfort, and dignity.

You may need to seek specialist advice on how to assist some people with specific moving and handling needs. Sources of advice include, but are not limited to, professional bodies and organizations, occupational therapists, physiotherapists, manual handling advisers and ergonomists with experience in health and social care.

1.2 Manufacture

The product is manufactured at the address below:



Prism Medical UK
Unit 1, Tir Llwyd Industrial Estate,
St Asaph Avenue,
Kinmel Bay,
Conwy,
LL18 5JZ
Telephone number: 01924 840100.

1.3 Symbols Used

The table below includes all symbols from BS EN ISO 15223-1 that can be found in this manual and on the product, and what they represent. Refer to this table when you are unsure of what a symbol represents.

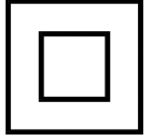
			
Place of Manufacture	Country of Manufacture	Serial number	Catalogue Number
			
Caution – see instructions for use	Consult instructions for use.	UK Conformity Assessed	Safe Working Load
			
For internal use only	Packaging indicator – Keep dry	Do not use it if the package is damaged.	Packaging indicator – This way up
			
Fragile, handle with care	Please observe local laws on recycling	Non-sterile	Atmospheric pressure limitation
			
Temperature range	Humidity range	Class II Equipment	Degree of protection provided by enclosure. N1: Ingress of particles N2: Ingress of water
			
Type 'B' applied part	Type 'BF' applied part		

Table 1-1

1.4 Contraindications / Limitations

No known “contraindications” are associated with using a ceiling track lift, provided it is used in accordance with the manufacturer’s recommendations and guidelines. However, a trained and knowledgeable healthcare professional should conduct a client-specific assessment to determine the most suitable transfer and use method for each individual.

The manufacturer does not specify the required number of operators for our products. This information and recommendation can only be provided after a thorough, personalized, case-specific assessment, as many factors can influence these decisions.

Limitations of the lift include:

- The lift should only be operated by competent and trained people.
- The lift should only be used with patients weighing under the safe working load of the lift.
- Between the lift, sling, carry bar and track system, the lowest safe working load of the components should not be exceeded.
- The lift is only to be used within the track it is installed on. Only an authorized person may relocate lifts.
- The lift is only compatible with the allocated slings found within this manual.
- Lifts are designed for human transfer only. This product is not intended for any other application.
- The operator of the lift must always pay attention to the well-being of the patient. Do not leave patients unsupervised during an operation.
- The lift is not designed for self-lifting. A carer must operate the lift while it is in use.

1.5 Safety Instructions and Warnings

Please read and understand all the statements below, as they pertain to the safety of caregivers and users, as well as warranty requirements. Failure to comply with warnings in this manual may result in injury to the operator and/or client and/or damage to the lift or related components.

- If you are unsure about the correct use of this product, please get in touch with the manufacturer or a professional for further information or training.
- The ceiling track lift and associated accessories are not toys. Do not use it for unsafe practices. Do not allow children to play with the product or any of its components. The lift should not be used for any practice except its intended use.
- In facilities where more than one operator will be responsible for using the lift, it is important that all such members be trained on the product before use. The facility should establish a training program to acquaint new operators with this equipment.
- Your guarantee will be void if any work on the lift is carried out by personnel who are not authorized by the manufacturer.
- To maintain optimum function, the product should be inspected and maintained on a regular basis. See the section ‘Daily checks, Servicing and Cleaning’ within this user manual.
- This manual includes approved accessories relevant to the configurations described.
- The product and the associated accessories are intended only for lifting and transferring a person. The manufacturer shall not be liable for any damage resulting from the misuse, neglect, or intentional destruction of the equipment and/or its associated components.
- Any accessories used with the product should be inspected before each use to ensure they are in good working order. Check for signs of wear and ensure all labels are legible. Report any unusual wear to your local authorized dealer.
- Ensure that a clear space is maintained around the lift. Before using the ceiling lift, always check for and move away from any obstacles.
- When transferring a client, always ensure that the client, carry bar, and lift tape are positioned directly below the lift. Lifting a client with the lift tape at an angle can cause excessive wear, leading to misalignment as it enters the lift. This misalignment can potentially result in damage to the lift tape and mechanical failure of the lift.
- Never leave a user unattended in the ceiling lift.

- If additional accessories have been supplied with the Lift, refer to the instructions included with those items.
- The lift must be installed on the ceiling track before use.
- The lift must be installed only by people authorized by the manufacturer.
- Under no circumstances should the lift, track, sling, or entire system be put under the control of a person who has not been properly trained in the use and care of this equipment. Failure to adhere to this warning may result in serious injury to the operator and/or the individual being lifted/transferred.
- Unauthorized modifications to this product may affect its safety. The manufacturer will not be held responsible for any accident, incident, or performance deficiency arising from unauthorized modification of its products. Your guarantee is void if any modifications are made that are not authorized by the manufacturer. This includes, but is not limited to, shortening the length of the emergency red cord – for example, tying it up or cutting it.
- To maintain safety and performance, do not expose the lift to water or operate it in wet conditions. Your guarantee does not cover any misuse or abuse of the lift system.
- If water enters the lift, discontinue use immediately and contact an authorized service representative for inspection before returning the lift to service.
- There are no user-serviceable parts inside the cover of the lift; likewise, there are no user-serviceable parts in any associated components. Do not remove cover screws or open the lift unit, as this will VOID THE GUARANTEE/WARRANTY.
- The ceiling lift and associated accessories, track, and sling(s) are intended only for lifting and transferring a person. We will not be responsible for any damage caused by the misuse, neglect, or purposeful destruction of the lift and/or its associated components.
- The installation of the lift and its associated parts is certified to have a maximum load of 440 lb./600 lb., depending on the model. Do not exceed the maximum rated load of any of the components.
- There is a risk of an explosion if the ceiling lift is used in the presence of flammable anesthetics.
- Your ceiling lift is for human lifting. Do not use it, or allow it to be used, for any other purpose.
- In areas where children are likely to be present, be vigilant when operating the lift.
- To protect the people present, visually monitor the sling loop connection points during raising, lowering, and transfer stages to ensure the sling remains firmly attached to the carry bar.
- To reduce the risk of unintended use, when the lift is not in use, remove the sling(s) from the product to prevent entrapment or strangulation should the device be tampered with.
- The lift batteries are not a user-serviceable part. Contact your local authorized dealer to arrange for replacement.
- Before initial use, the lift unit must be charged for approximately 8 hours. Refer to the section 'Charging the Lift'. The handset must also be connected to the lift. To connect the handset, refer to section '3.2- handset' (Connecting the Handset to the Lift).
- Between the Ceiling Lift, Carry Bar, Sling and other accessories, the lowest maximum load shall always be used.
- A risk assessment must be performed before using any other manufactured sling, carry bar or ceiling track to ensure 'safe' use can be established.
- Risk of strangulation: Please make sure the handset cable and lift tape are always clear of all people.

- Risk of impact with carry bar: Please take care to ensure the carry bar is clear of the person in the sling when preparing to raise/lower and move them to avoid any contact with that person.
- Risk of collision: The person operating the lift should make sure that when raising, lowering, or moving the lift, no people or objects will obstruct, be injured, or damaged by the movement.
- Ensure that the person being lifted is always raised clear of the floor when using the lift.

Ensure the lift tape remains vertically aligned with the lift when raising or lowering the carry bar. Misalignment may cause the tape to fray and could lead to failure.

- Serious Injury: If, during the use of this device or because of its use, a serious incident has occurred, please report it to the manufacturer and to your national authority.
- Electric Shock: Do not insert any objects into the lift case or battery charging station because of the potential risk of electric shock. To reduce the risk of electric shock, do not install or operate the battery charger if the cable is damaged or the unit has been dropped or damaged.
- Portable RF Communication Devices: Portable RF communications equipment (including peripherals, such as antenna cables and external antenna) should be used no closer than 30cm (12 inches) to any part of the Ceiling Track Lift, including cables specified by the manufacturer; otherwise, degradation of the performance of this equipment could result.
- Vicinity to Other Equipment: Use of this equipment adjacent to or stacked with other equipment should be avoided, as it could cause improper operation. If such use is necessary, monitor this equipment and the other equipment to verify that they are operating normally.
- Specified Accessories: Use of accessories, transducers, and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.



You may need to seek specialist advice on how to assist some people with specific moving-and-handling needs. Sources of advice include, but are not limited to, professional bodies and organizations, occupational therapists, physiotherapists, manual handling advisers and ergonomists with experience in health and social care.

1.6 Electromagnetic Compatibility (EMC) Statement

This statement is made in response to the assumption that the user operates the device with the manufacturer-supplied components. DO NOT use any other power supply with the system, as the manufacturer's adapter has been tested and complies with the EMC standards.

This product has been designed, manufactured, and tested in accordance with the relevant environmental regulations applicable to the device's intended use.

Pacemakers, defibrillators, and other medical devices should be manufactured to withstand Electromagnetic Interference (EMI), in accordance with applicable European directives and regulations. Please consult the user alert card issued to the user regarding the use of electrical items by individuals fitted with these or any other devices.

If users of this equipment are unsure about its EMC compliance, you can request confirmation from the manufacturer that the product meets the appropriate Electromagnetic Compatibility standard.

The table below briefly summarizes the tests conducted in accordance with IEC 60601-1-2.

The Lift is also classified as Class B according to CISPR 11:2009 for use in the home healthcare environment.

The use of the device within the specified area where it is intended to be used will not have a detrimental effect on other devices that have been tested to meet their respective requirements.

Section	Specification Clause	Test Description	Results	Comments/ Base Standard
Configuration and Mode: Test setup standby				
2.1	4.4.1	General Requirement: Risk Management Process for ME Equipment and ME Systems	Pass	
2.2	5	Identification, Marking and Documents	Pass	
Configuration and Mode: Test setup charging				
2.3	7.1.1	Mains Terminal Disturbance Voltage	Pass	CISPR 11: 2009 A1:2010 EN 55016-2-3: 2004 + A1:2005
2.4	7.1.1	Electromagnetic Radiation Disturbance	Pass	CISPR 11: 2009 A1:2010 EN 55016-2-3: 2004 + A1:2005
2.5	7.2.1	Harmonic Current Emissions (AC Power Port)	Pass	EN 61000-3-2: 2014
2.6	7.2.2	Voltage Fluctuations and Flicker (AC Power Port)	Pass	IEC 61000-3-3: 2013
2.7	Table 4	Immunity to Electrostatic Discharge (Enclosure Port)	Pass	IEC 61000-4-2 2008
2.8	Table 4	Immunity to Radiated RF Electromagnetic Fields (Enclosure Port)	Pass	IEC 61000-4-3: 2006 A2:2010
2.9	Table 4	Immunity to Proximity Fields from RF Wireless Communication Equipment (Enclosure Port)	Pass	IEC 61000-4-3: 2006 A2:2010
2.10	Table 5	Immunity to Surges (AC Power Port)	Pass	IEC 61000-4-5: 2005
2.11	Table 5	Immunity to Electrical Fast Transient / Burst (AC Power Port)	Pass	IEC 61000-4-4: 2012
2.12	Table 5	Immunity to Conduct Disturbances Induced by RF Fields (AC Power Port)	Pass	IEC 61000-4-6: 2013
2.13	Table 5	Immunity to Voltage Dips and Voltage Variations (AC Power Port)	Pass	IEC 61000-4-11: 2004
2.14	Table 5	Immunity to Voltage Interruptions (AC Power Port)	Pass	IEC 61000-4-11: 2004
In-Track charging system stand testing				

2.7	Table 4	Immunity to Electrostatic Discharge (Enclosure Port)	Pass	IEC 61000-4-2 2008
Configuration and Mode: Test setup standby				
2.4	7.1.1	Electromagnetic Radiation Disturbance	Pass	CISPR 11: 2009 A1:2010 EN 55016-2-3: 2004 + A1:2005
2.7	Table 4	Immunity to Electrostatic Discharge (Enclosure Port)	Pass	IEC 61000-4-2 2008
2.8	Table 4	Immunity to Radiated RF Electromagnetic Fields (Enclosure Port)	Pass	IEC 61000-4-3: 2006 A2:2010
2.9	Table 4	Immunity to Proximity Fields from RF Wireless Communication Equipment (Enclosure Port)	Pass	IEC 61000-4-3: 2006 A2:2010
Configuration and Mode: Test set up operating up and down				
2.4	7.1.1	Electromagnetic Radiation Disturbance	Pass	CISPR 11: 2009 A1:2010 EN 55016-2-3: 2004 + A1:2005
2.7	Table 4	Immunity to Electrostatic Discharge (Enclosure Port)	Pass	IEC 61000-4-2 2008
2.8	Table 4	Immunity to Radiated RF Electromagnetic Fields (Enclosure Port)	Pass	IEC 61000-4-3: 2006 A2:2010
2.9	Table 4	Immunity to Proximity Fields from RF Wireless Communication Equipment (Enclosure Port)	Pass	IEC 61000-4-3: 2006 A2:2010
Configuration and Mode: Test setup standby				
2.1	4.4.1	General Requirement: Risk Management Process for ME Equipment and ME Systems	Pass	
2.2	5	Identification, Marking and Documents	Pass	

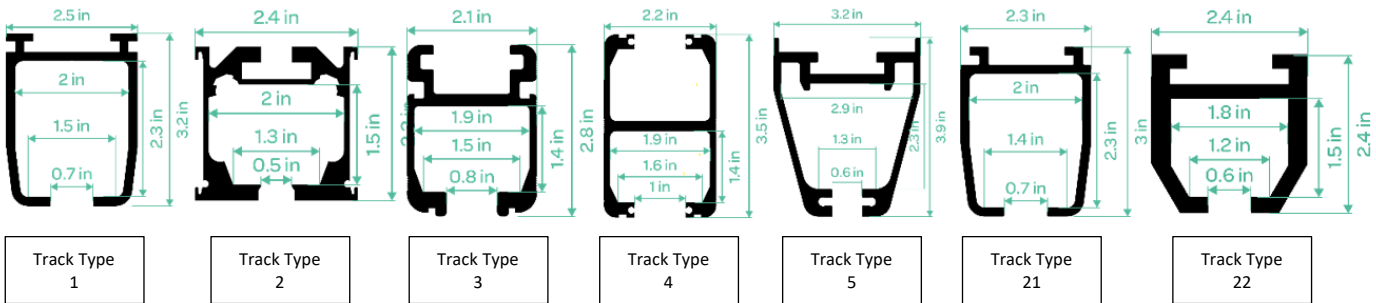
Table 1-7-1

2 Configurations and Key Components

2.1 Product Configurations

Below is a list of track profiles where the lift can be installed, depending on the configuration. The profiles below must match your pre-installed track for the lift to be installed. The table below lists all available configurations for this lift.

Figure 2-1



Lift Variant	Model Number	Track Type
TX600 Advanced MT	122520	Type 1
TX600 Advanced MT	122521	Type 2
TX600 Advanced MT	122522	Type 3
TX600 Advanced MT	122523	Type 4
TX600 Advanced MT	122524	Type 5
TX600 Advanced MT	122531	Type 21
TX600 Advanced MT	122912	Type 22
TX600 Advanced PT	122622	Type 1
TX600 Advanced PT	122666	Type 3
TX600 Advanced PT	122669	Type 4
TX600 Advanced PT	122672	Type 5
TX600 Advanced PT	122532	Type 21
TX600 Advanced PT	122911	Type 22
TX600 Advanced QRT	122679	Type 1
TX600 Advanced QRT	122689	Type 3
TX600 Advanced QRT	122694	Type 4
TX600 Advanced QRT	122699	Type 5
TX600 Advanced MTCC	122621	Type 1
TX600 Advanced MTCC	122665	Type 2
TX600 Advanced MTCC	122668	Type 3
TX600 Advanced MTCC	122671	Type 4
TX600 Advanced MTCC	122674	Type 5
TX600 Advanced MTCC	122914	Type 22
TX600 Advanced PTCC	122624	Type 1
TX600 Advanced PTCC	122667	Type 3
TX600 Advanced PTCC	122670	Type 4
TX600 Advanced PTCC	122673	Type 5
TX600 Advanced PTCC	122913	Type 22
TX600 Advanced MTPT	122620	Type 1
TX600 Advanced PTPT	122623	Type 1
TX600 Advance MTPH	122728	Type 1
TX600 Advance PTPH	122729	Type 1

Table 2-1

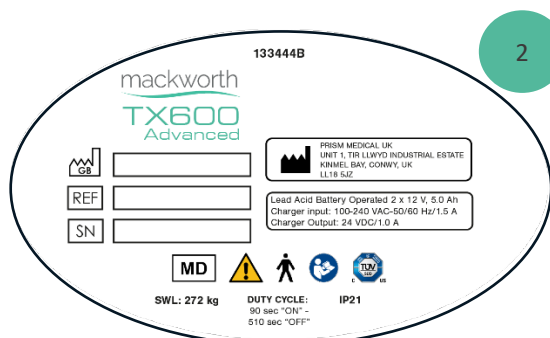
Key: PT = Powered Traverse MT = Manual Traverse MTCC = Manual Traverse Constant Charge PTCC = Powered Traverse Constant Charge MTPT = Manual Traverse Powered Turntable PTPT = Powered Traverse Powered Turntable MTPH = Manual Traverse Powered XY-H System PTPH = Powered Traverse Powered XY-H System QRT = Quick Release Track

2.2 Key Components

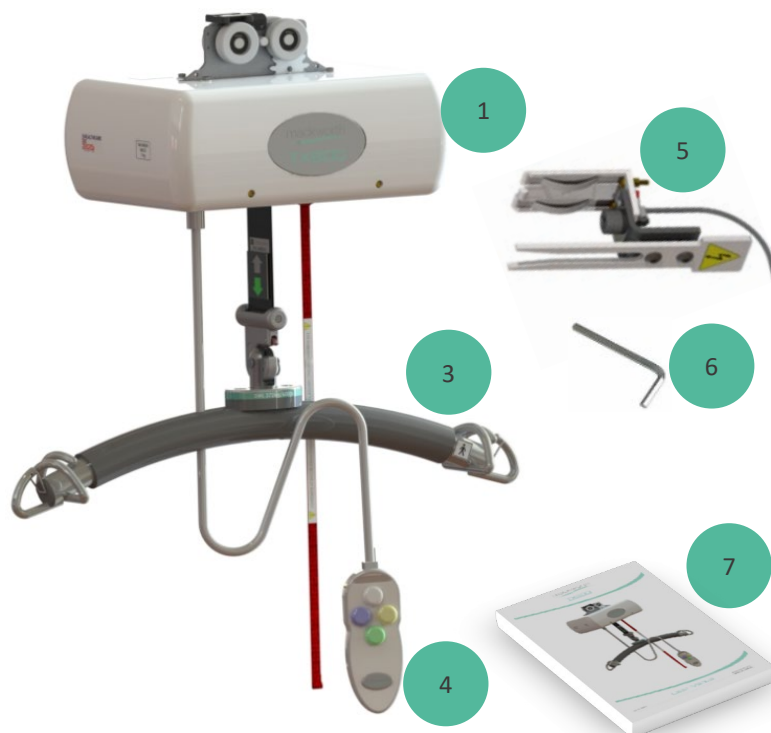
Please review the information below to familiarize yourself with the components of the TX Advanced Lift. The images below show the contents of the ceiling track lift. If you have not received all the components, please contact your local dealer immediately. Contact details are provided on the last page of this manual.

Item	Description
1	TX Advanced Lift
2	Info Label
3	Carry Bar
4	Handset
5	Lift Charger
6	Allen Key
7	User Manual

Table 2-2-1



(Located on the side cover)

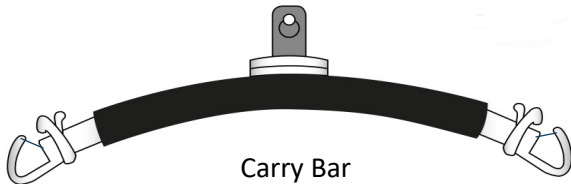


*Disclaimer: The label shown is for illustrative purposes only and may not represent the label affixed to the product. Refer to the product for accurate, current labelling information.

3 Applied Parts

3.1 Body Floating (BF) Applied Parts

A Body floating applied part is a detachable component that has medium- to long-term contact with the user and carer. This includes the carry bar and sling.



3.1.1 Carry Bar

The carry bar is a crucial component of the ceiling lift system. The carry bar features three fixing points at either end, with a safety retaining clip on the outer hook. The carry bar links the ceiling lift to the sling, enabling the user to be transferred.

To attach the carry bar, see the guidelines below:

1. Open the red retaining tab on the QRS by pushing it down. (See figure 3.1.1-1)
2. Hold the carry bar horizontally and insert the boss into the QRS hook. (See figure 3.1.1.-2)
3. Pivot the carry bar down to its natural position and release the retaining tab to secure. (See figure 3.1.1-3)



Figure 3.1.1-1

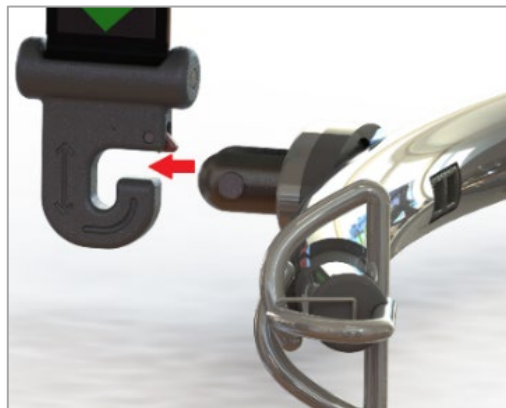


Figure 3.1.1-2

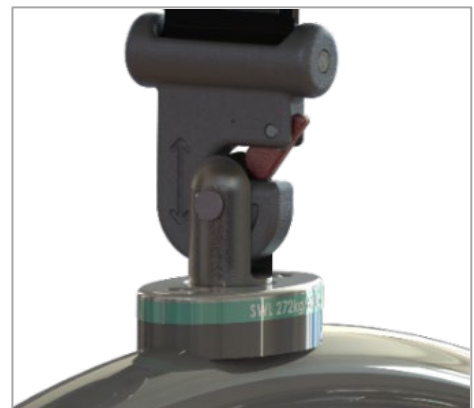


Figure 3.1.1-3

3.1.2 Slings

The sling is a specially designed fabric accessory that attaches to the ceiling lift through the carry bar. The sling provides comfortable support during transfers. The sling is supplied separately from the ceiling lift at the time of purchase. To choose an appropriate sling, the user should be assessed before purchase to determine their specific requirements. See the list below for compatible slings that are recommended for use with this ceiling lift. For a complete list and further information on available slings, refer to the sling user manuals.

Users may use alternative supplied products at their discretion. In utilizing another manufacturer's sling, checks must first be made to ensure the sling is safe to use and meets the requirements of BS EN ISO 10535, and a complete risk assessment must be carried out before use.

Always ensure the sling SWL matches the ceiling lift; for any component across the system, never exceeds the lowest SWL.

Mackworth Sling Range	Care-Ability Sling Range
Mackworth Oak	Universal
Mackworth Yew	Universal Deluxe
Mackworth Hazel	Toilet Access
Mackworth Willow	Hammock
Mackworth Beech	Classic Hammock
Mackworth Pine	Deluxe Hammock
	Comfort In Chair Hammock
	Split Leg in Chair Hammock

Table 3.1.2-1

The way the sling is attached to the carry bar needs to be assessed on an individual basis and documented in the individual's care plan. Furthermore, the person attaching the sling should refer to the sling's user manual for the recommended color-coded loop attachment method and the correct fitting requirements. Only after fully understanding the correct fitting requirements should the sling loops be fitted onto the carry bar.

To attach the sling to the carry bar, follow the guidelines below:

1. Pull the safety retaining clip back to access the carry bar hook. (See figure 3.1.2-1)
2. Place the chosen sling loop onto the hook. (See figure 3.1.2-2)
3. Release the safety retaining clip to secure the loop onto the carry bar. (See figure 3.1.2-3)



Ensure the required loop(s) are on the correct hooks and positioned correctly.



Figure 3.1.2-1



Figure 3.1.2-2



Figure 3.1.2-3

To remove the sling, reverse the process: pull back on the spring locking mechanism, lift the loop out of the hook, and release the locking mechanism.

3.2 Handset

The handset is a crucial component of the ceiling lift system. The handset has 2 to 6 buttons, depending on the selected ceiling lift. The handset operates the ceiling lift, including raising and lowering the carry bar, traversing it along the track, and operating powered auxiliaries (such as turntables).

We recommend that a handset never be detached from the ceiling lift; however, if it becomes inadvertently detached. See the guidelines below to reattach the handset.

1. The handset grommet attaches to the airline grommet on the underside of the ceiling lift. Align the grommets and insert the handset brass inserts into the airline grommet holes. See the images below for reference. Ensure the handset is fully inserted into the airline grommet.
2. Test the handset by operating each button to ensure that the command functions as intended. (See operating instructions for further details.)

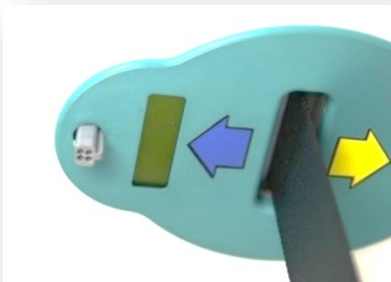


Figure 3.2-1

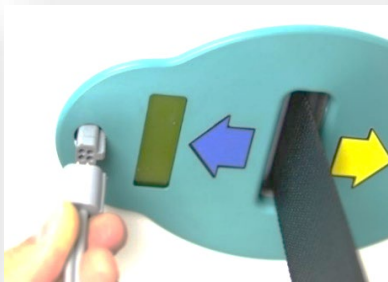


Figure 3.2-2



Figure 3.2-3



A sturdy ladder or steps may be required to access the underside of the ceiling lift to attach the hand controller. Use caution when this is required.

3.2.1 Handset Storage

The Handset is designed to be stored on the carry bar. The Handset has a hook attached to the rear face that slots neatly onto the carry bar (See figure 3.2.1-1). For safekeeping and easy access, store the handset on the carry bar when not in use.



Figure 3.2.1-1

4 Ceiling Lift Operation

4.1 Turning the Ceiling Lift ON and OFF

This toggle switch has three states: On, Off, and E-Lower. Use these features only in an emergency. If the red pull cord is pulled by accident, press the toggle switch vertically into the slot to turn the ceiling lift back on. Once this is done, press any button on the handset to “wake up” the ceiling lift. The display screen will turn on, and the LED will show a steady green.

To conserve battery power, the ceiling lift will automatically shut off after approximately 2 minutes of inactivity.



Figure 4.1-1

4.2 Raising and Lowering the Carry Bar

To raise or lower the carry bar, press the grey and green buttons on the handset. The grey button raises the carry bar, and the green button lowers it. This matches the arrows on the lift tape. This applies across all varied handsets.

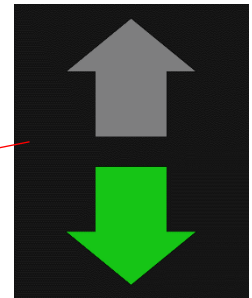
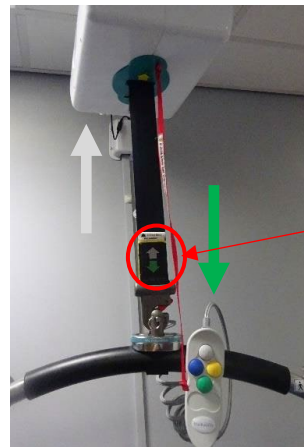


Figure 4.2-1

The operator should hold the carry bar with one hand while raising or lowering it. This will prevent the bar from swaying or colliding with an individual or nearby objects. For the same reasons, raise the carry bar above head height when not in use and when traversing the unloaded ceiling lift.

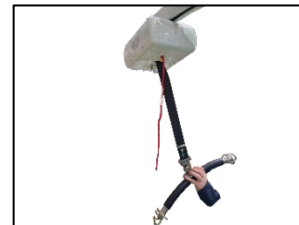


In addition, keep the lifting tape vertically aligned with the lift when raising or lowering the carry bar. Any deviation can cause the tape to fray, potentially leading to lift failure. Please note that if the lift fails due to improper handling, the warranty will not cover it, and you will be liable for the replacement cost.



Correct:

Lift Tape Straight, aligned with the lift



Incorrect:

Lift Tape angled, risking wear or failure

4.3 Traversing the Ceiling Lift



Always take extreme care when moving the ceiling lift along the track. Watch out for and avoid any obstructions that may cause injury to the individual in the sling, damage to the ceiling lift and/or damage to the obstruction. Never pull the ceiling lift along the track using the handset, sling, or emergency cord, as this can adversely affect its performance.

See the relevant section below for either a manual traverse or a powered traverse ceiling lift.

4.3.1 Manual Traverse Ceiling Lift

The ceiling lift should be moved along the track by following the guidelines below:

1. Lower the carry bar to a suitable height to allow the carer to handle it with both hands. Always ensure the client is at a safe height above the floor.
2. Push or pull the carry bar in the required direction for transfer. Ensure the transfer is performed safely and slowly to maximize client comfort.
3. Always ensure the direction of travel is clear of any obstacles.

4.3.2 Powered Traverse Ceiling Lift

The ceiling lift should be moved along the track by following the guidelines below:

4. Lower the carry bar to a suitable height to allow the carer to stabilize the ceiling lift with one hand. Always ensure the client is at a safe height above the floor.
1. To traverse the ceiling lift, operate the blue and yellow buttons found on the handset. The buttons are color-coded to match the directional arrows on the underside of the ceiling lift. Ensure the transfer is performed safely and slowly to maximize client comfort.



Move a powered traversing ceiling lift manually only in an emergency.



Figure 4.3.2-1

4.4 Charging the Ceiling Lift

As standard practice, charge the ceiling lift after each use. Regular charging and avoiding full discharge will help maintain battery life and performance. From full discharge, the batteries take up to 8.5 hours to fully charge.

The ceiling lift LCD displays the remaining battery charge. When the batteries are low, the LCD displays “Low Batt!”, the LED turns orange, and the ceiling lift sounds three single audible beeps.

If the ceiling lift has not been charged during the low-battery period, the LCD will then display “Up: Inhibit!”, the LED will turn red, and the ceiling lift will sound a single audible beep, lasting three seconds. The ceiling lift will no longer lift but will lower to allow the client to exit.

When the ceiling lift is on charge, it may remain connected indefinitely because a built-in regulator prevents overcharging.

4.4.1 Standard Charging

The standard ceiling lift is designed for in-track charging. The charging dock will be located at either end of the track system. To begin charging, traverse the ceiling lift into the charging dock. Once contact is made, the LCD will display “Charging,” and the LED will begin flashing orange.

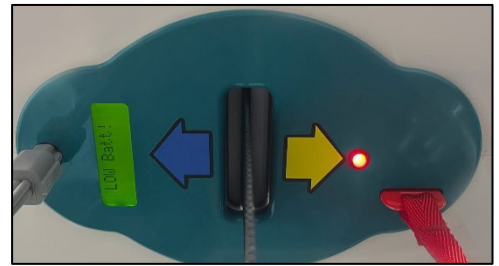


Figure 4.4-1

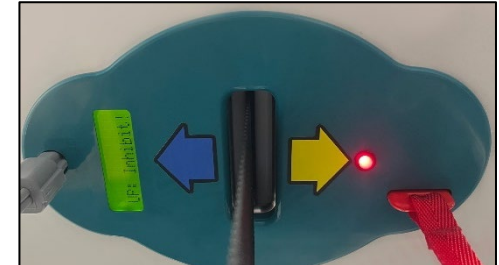


Figure 4.4-2

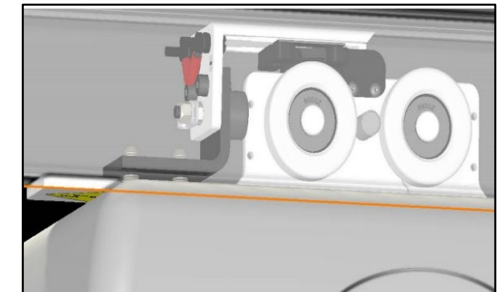


Figure 4.4.1-1

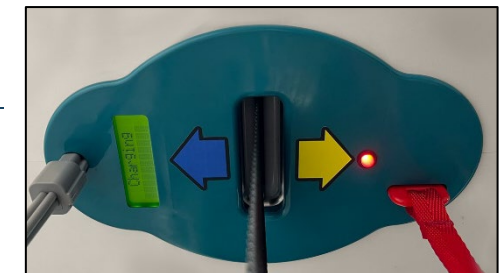


Figure 4.4.2-1



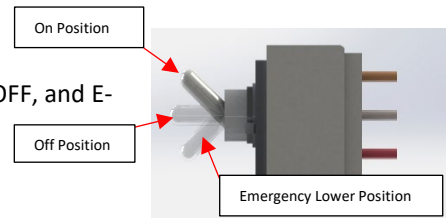
Do not operate the ceiling lift with excessive force when entering the dock, as this can potentially damage both the ceiling lift and the charger.

4.4.2 Constant Charge

Ceiling lifts with the constant-charge feature allow the lift to charge continuously without being docked. This ceiling lift style is always charged, eliminating the need for clients to charge it themselves.

4.5 Emergency Operation

The emergency red cord/tab is located on a toggle switch with three positions: ON, OFF, and E-Lower. See the diagram for reference. Use these emergency-stopping features only in emergencies.



4.5.1 Emergency Stopping

The ceiling lift unit features an emergency shut-off mechanism that allows the operator to disconnect power to the unit.

Pulling the toggle switch down to stage 2 using the red cord will remove power from the ceiling lift. Use this only in an emergency. After activating the red emergency cord, reset the ceiling lift unit to resume operation.

The caregiver should not re-engage the switch to stage 1 after pulling the cord. If the emergency stop has been activated, contact your local authorized dealer to report it. Where applicable, a service engineer may be sent to solve the issue with the ceiling lift. Do not continue using the ceiling lift after activating the emergency stop function without first contacting the local authorized dealer.



Figure 4.5.1-1

4.5.2 Emergency Lowering

If the DOWN button on the handset does not function, or in the event of a power failure, you may lower the person by pulling down and holding the red emergency cord at stage 3 of the toggle switch. In this scenario, the ceiling lift will sound a continuous audible beep until it's released.

Continue pulling down on the red emergency cord until the person is safely lowered to the desired position.

NOTE: The emergency lowering function does not provide a lifting function. Use the Emergency Lower only in an emergency, such as lowering a patient due to a damaged handset or similar circumstances.

After activating the red emergency cord, reset the ceiling lift unit to resume operation.

The caregiver should not re-engage the switch to stage 1 after pulling the cord. If the emergency stop has been activated, contact your local authorized dealer to report it. Where applicable, a service engineer may be sent to resolve the issue with the ceiling lift. Do not continue using the ceiling lift after activating the emergency stop function without first contacting the local authorized dealer.

4.5.3 Manual Emergency Lowering

Use manual emergency lowering only when the emergency lowering cord fails due to total power loss. The manual E-Lower is a last-resort safety feature for when a patient is suspended and cannot be lowered.

To operate, remove the cap from the ceiling lift's side cover (Figure 4.5.3-1). Insert the 4mm Allen key provided with the ceiling lift into the motor unit inside the cover (Figure 4.5.3-2). Turn the Allen Key to manually operate the ceiling lift motor and safely lower the patient.

After using it, remove the Allen Key and reinsert the cap into the cover.

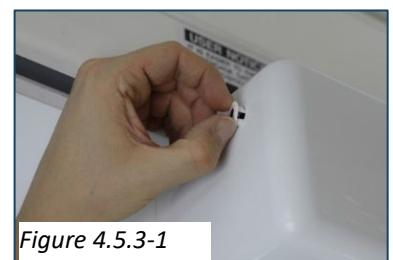


Figure 4.5.3-1

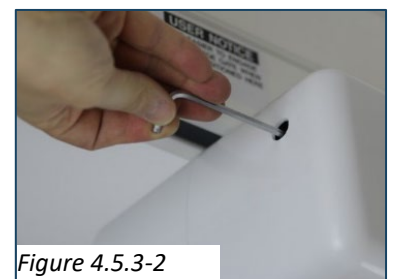


Figure 4.5.3-2

4.6 Turntable

The TX-Advanced can be used with either a manual or a powered turntable. A turntable will have been pre-installed in the track system, and a thorough understanding of safe use and operation is essential. The turntable is a rotating piece of track that allows the ceiling lift to dock, rotate, and exit into another track system. A turntable is commonly used when multiple track systems are present in a room, allowing the ceiling lift to transfer between them.

Key Aspects	
TT600 Manual Turntable	TT600 Powered Turntable
Can be used with all ceiling lifts listed within this manual	Can only be used with the ceiling lifts listed on the table below (Section 4.6.2, Table 4.6.2-1)
14 Possible Track Exit Positions	10 Possible Track Exit Positions
Has an SWL of 600lb	Has an SWL of 600lb
End stops are installed all around the turntable to prevent inadvertent ceiling lift derailment.	End stops are installed all around the turntable to prevent inadvertent ceiling lift derailment.
Rotation is achieved by using the simple pull cord mechanism	The ceiling lift operates the powered turntable when docked. The turntable draws power from the ceiling lift's communications port, and the ceiling lift handset buttons activate rotation.

Table 4.6-1



When using a higher-load-rated ceiling lift with the turntable, always ensure the Turntable SWL is not exceeded.

4.6.1 Manual Turntable Operation

To use the ceiling lift with a manual turntable, follow the generic operation guidelines below:

1. Traverse the ceiling lift into the turntable. (Figure 4.6.1-1)
2. Position the ceiling lift in the center of the turntable rotating track piece. (Figure 4.6.1-2)
3. Grab hold of the looped pull cord and pull downward to rotate the turntable. The looped cord will match the arrow on the underside of the turntable cover. (black and black, white, and white) (Figure 4.6.1-2 and 4.6.1-3)
4. To rotate the turntable in the opposite direction, pull the other looped pull cord.
5. Continue to pull the looped cord until the rotating track aligns with the exiting track system.
6. Always ensure that the two track pieces are perfectly aligned to allow the ceiling lift to exit the turntable.

(Adjusting the alignment is only required when there are more than four track exits on the turntable; otherwise, the internal end bumpers will automatically stop the turntable rotation and will have aligned the exit for you)

7. Once aligned with the track exit, traverse the ceiling lift out of the turntable and into the new track system. (Figure 4.6.1-4)
8. This process applies to entering and exiting all track systems linked to the manual turntable.

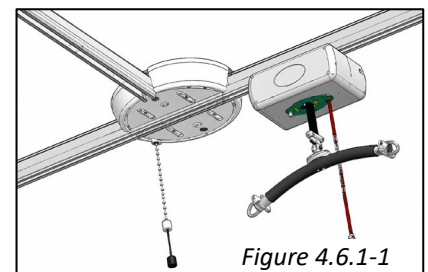


Figure 4.6.1-1

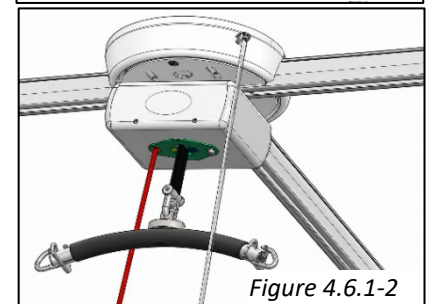


Figure 4.6.1-2

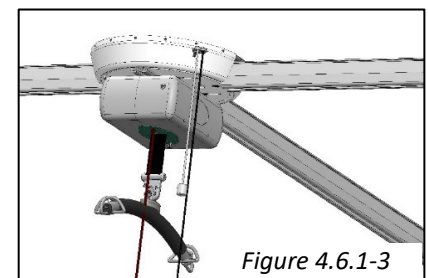


Figure 4.6.1-3

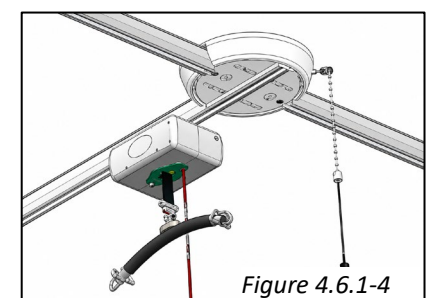


Figure 4.6.1-4

4.6.2 Powered Turntable Operation

Below is a list of all ceiling lifts compatible with the TT600 Powered Turntable.

TX600 Advanced Ceiling Lift Type	Track Type
TX600 Advanced MTPT – 122620	Type 1
TX600 Advanced PTPT – 122623	Type 1

Table 4.6.2-1

The ceiling lift activates the powered turntable once it has docked with the turntable. An auxiliary port on the top of the ceiling lift and the underside of the turntable track allows the ceiling lift to communicate with and power the turntable. Operate the powered turntable using the additional buttons on the hand control, rather than pulling a cord manually. The hand control buttons are white and black, matching the direction of the corresponding arrows at the bottom of the turntable. See the images below for reference.

To use a ceiling lift with a powered turntable, follow the generic operation guide below:

1. Traverse the ceiling lift into the turntable. (Figure 4.6.2-1)
2. Position the ceiling lift at the center of the turntable-rotating track piece. (Figure 4.6.2-2)
3. Determine the color of the arrow pointing in the direction you wish to rotate (black or white).
4. Match this color to the additional buttons located on the handset (black or white).
5. Press and hold the handset button to begin rotating the turntable track. (Figures 4.6.2-2 and 4.6.2-3)
6. Once the rotating track aligns with the desired exiting track, release the handset button.
7. Always ensure the two track pieces are perfectly aligned so the ceiling lift can exit the turntable.

(Adjusting the alignment is only required when there are more than four track exits on the turntable; otherwise, the internal end bumpers will automatically stop the turntable rotation and will have aligned the exit for you.)

8. Once aligned with the track exit, traverse the ceiling lift out of the turntable and into the new track system. (Figure 4.6.2-4)
9. This process applies to entering and exiting all track systems linked to the powered turntable.

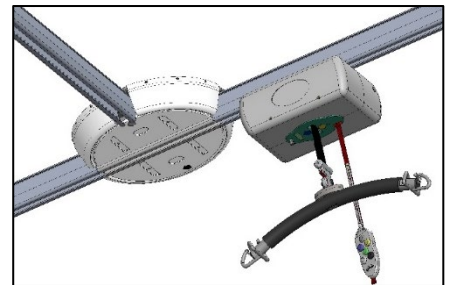


Figure 4.6.2-1

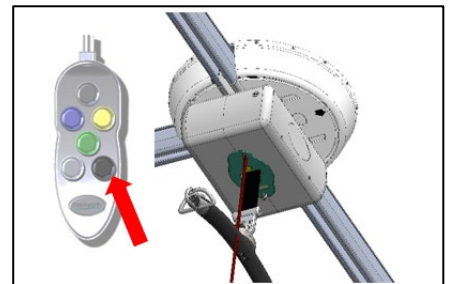


Figure 4.6.2-2

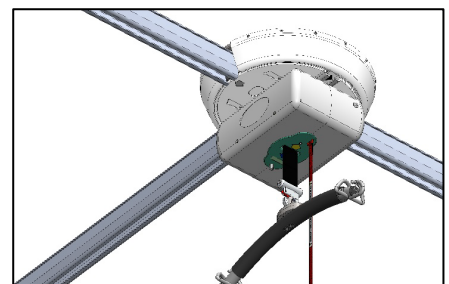


Figure 4.6.2-3

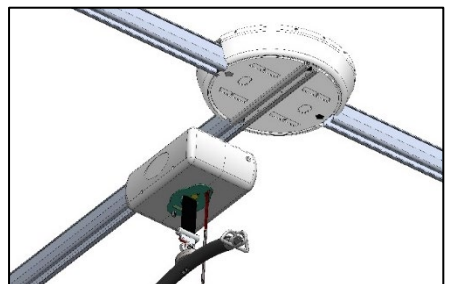


Figure 4.6.2-4

4.7 XY/H-System

The ceiling lift can use an XY track system, also known as an H-System, to provide full room coverage. An XY system consists of two parallel fixed support tracks with a moving rail installed between them. The ceiling lift travels along the moving rail, while the moving rail travels along the two parallel support tracks. This allows the ceiling lift to be positioned at different locations within the area covered by the track system.

XY systems are available with either a manual or powered moving rail. See the relevant section below for operation of the installed system.

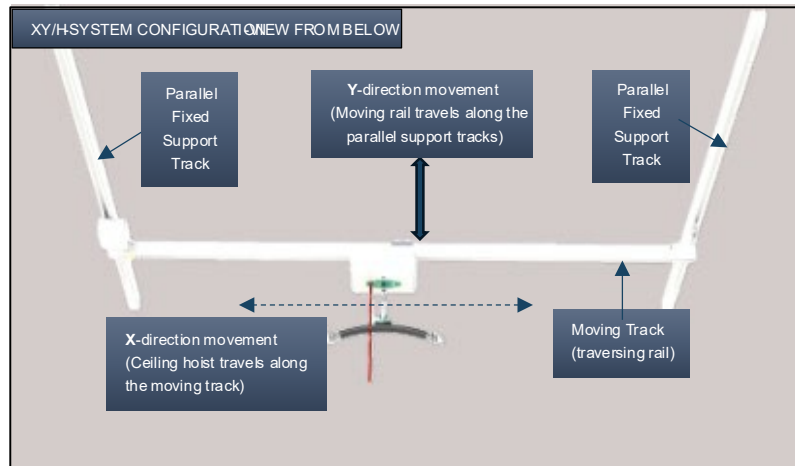


Figure 4.7-1 Illustration of a Typical XY System configuration – view from below

Y direction	<i>Moving rail travels along the parallel support rails</i>
X direction	<i>Ceiling lift travels along the moving rail</i>



CAUTION: Collision hazard. Before moving the ceiling lift or moving rail, ensure the travel path is clear. Avoid contact with the individual, sling, carry bar, lift tape, walls, furniture, medical equipment, and other obstructions.

4.7.1 Manual XY/H-System

In a Manual XY System, the ceiling lift travels along the moving rail, and the moving rail is manually moved along the two parallel support tracks.

Positioning the ceiling lift

The ceiling lift should be positioned within the XY system by following the guidelines below:

1. Position the ceiling lift along the moving rail as required. Refer to Section 4.3.1 or 4.3.2, depending on the ceiling lift configuration.
2. Before moving the moving rail, ensure the direction of travel is clear of people, equipment, and other obstacles.
3. Move the moving rail along the parallel support tracks in the required direction using the carry bar.
4. Ensure the movement is performed safely and slowly for maximum user comfort.
5. Stop moving the rail when the ceiling lift is positioned at the required transfer location.
6. If required, reposition the ceiling lift along the moving rail until the required position is achieved.

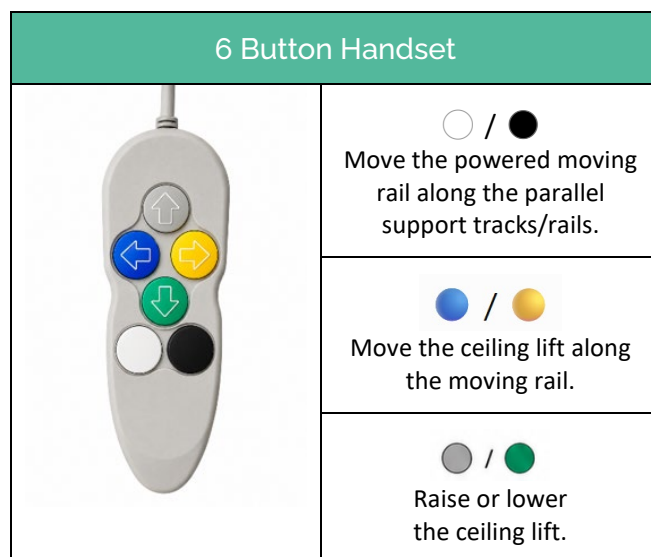
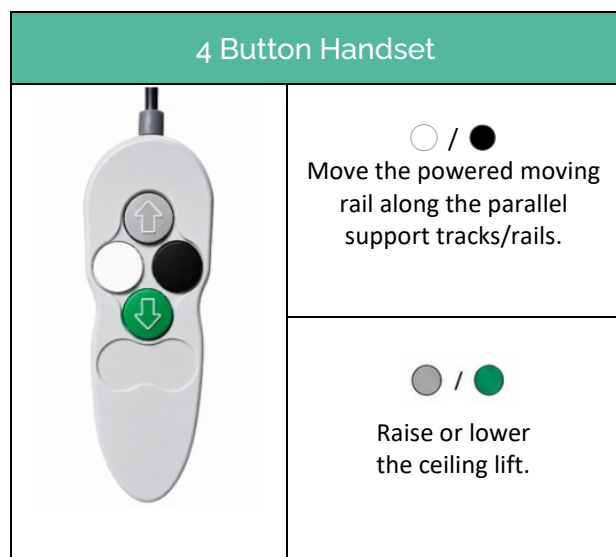


CAUTION: Do not force the moving rail if you encounter resistance. Stop movement and check the track and surrounding area for an obstruction. Do not continue to use the system if damage or a fault is suspected.

4.7.2 Powered XY/H-System

A Powered XY System uses a motorized XY trolley to move the rail along the parallel support tracks. Depending on the ceiling lift configuration, a four- or six-button handset may be fitted.

Handset Controls



CAUTION — Collision hazard. Always maintain control of the ceiling lift and monitor the individual while moving the XY/H-System. Keep the individual, sling, carry bar, and lift tape clear of walls, furniture, medical equipment, and other obstructions throughout the transfer.

Positioning the ceiling lift

The ceiling lift should be positioned within the powered XY system by following the guidelines below:

1. Before moving the ceiling lift or the moving rail, ensure the path of travel is clear of people, equipment, and other obstacles.
2. Position the ceiling lift along the moving rail using the appropriate traverse buttons on the handset. Refer to Section 4.3.2.
3. Press and hold the appropriate WHITE or BLACK button to move the moving rail along the parallel support tracks in the required direction while maintaining control of the carry bar.
4. Monitor the individual in the sling and the direction of travel throughout the movement.
5. Release the handset button when the moving rail reaches the required position.
6. If required, alternate between moving the ceiling lift and the moving rail until the ceiling lift is correctly positioned for the transfer.
7. Perform all movements slowly and in a controlled manner for maximum user comfort.



Do not continue to operate the system if the ceiling lift or moving rail does not move as expected, if abnormal resistance is encountered, or if damage to the track system is suspected. Contact your local authorized dealer for assistance.

5 Technical Specification

5.1 Ceiling Lift Dimensions

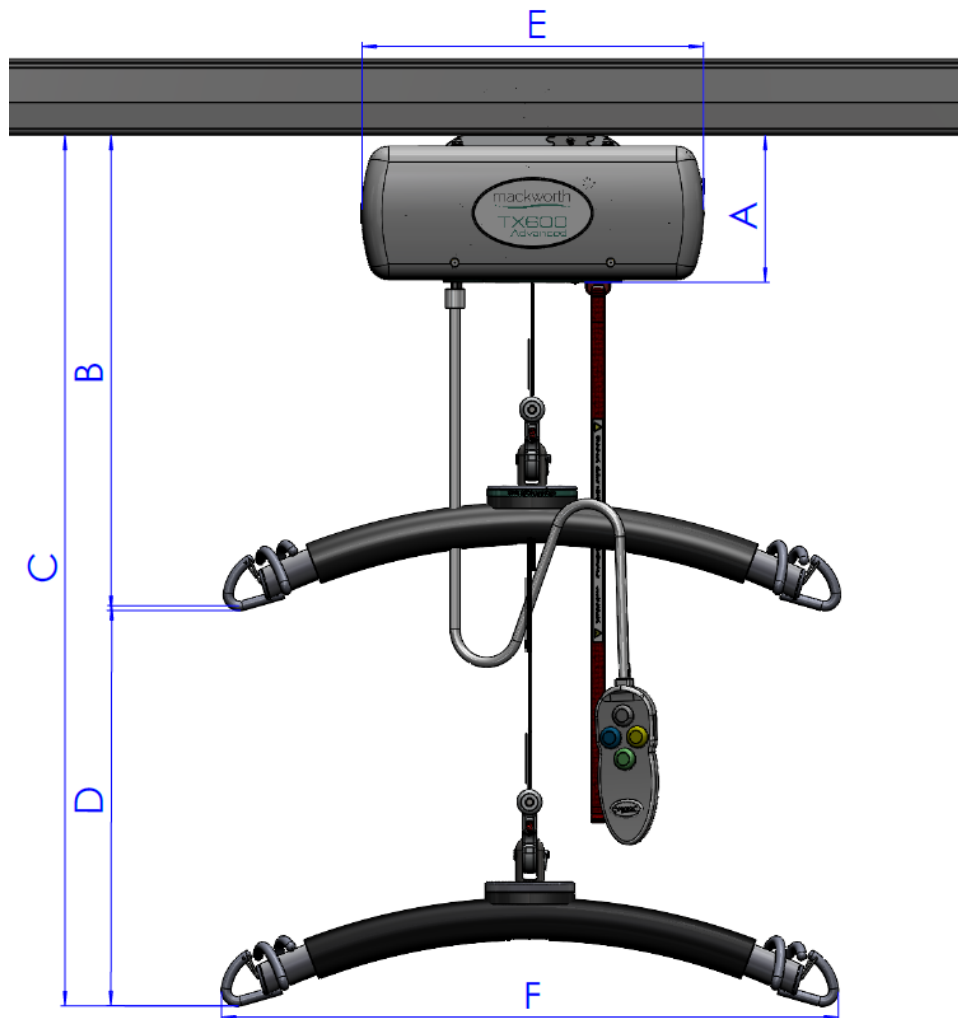


Figure 5.1-1

Ceiling Lift Dimensions - Inches		
Dimensions (Ref to drawing)	Standard Ceiling Lift	QRT Ceiling Lift
A – Track to Ceiling Lift	5.7	7.6
B – Min Distance from Track to Carry Bar	15.6	17.4
C – Max Distance from Track to Carry Bar	94.3	96.1
D – Lifting Range	78.7	78.7
E – Ceiling Lift Width	13.4	13.4
Ceiling Lift Depth	9.8	9.8
F – Carry Bar Width	24.2	24.2

Table 5.1-1

Ceiling Lift Specifications	
Safe Working Loads	
TX Advanced 600	600lb
Lift Speeds	
Lifting Speed 0lb	2.50"/s
Lifting Speed 291lb	1.44"/s
Lifting Speed 440lb	1.23"/s
Lifting Speed 600lb	1.16"/s
Lowering Speed 0lb	2.23"/s
Lowering Speed 291lb	2.25"/s
Lowering Speed 440lb	2.28"/s
Lowering Speed 600lb	2.14"/s
The TX Advanced is intentionally designed to reduce lifting speed as patient load increases, providing smoother, more controlled movement, starting, stopping and positioning at higher loads.	
Battery Specification	
Lead Acid Batteries – x2	24VDC (2x 12VDC) 5.0 AH
Battery Capacity – Raising/Lowering (Top 19.7 inch of Lift Tape) – (291lb)	130 Lifts
Battery Capacity – Raising/Lowering (Top 19.7 inch of Lift Tape) – (440lb)	60 Lifts
Battery Capacity – Raising/Lowering (Top 19.7 inch of Lift Tape) – (600lb)	35 Lifts
Maximum Charging Time	8.5 hrs.
Raising/Lowering Duty Cycle	15% use, 85% rest (90 seconds use, 510 seconds rest)
Component Weights	
Ceiling Lift	22lb
Battery charger	1.5lb
Carry bar	4lb
Handset	0.5lb
Operational Forces	
Handset (Pneumatic)	3N
Emergency cord	15N
Hook locking mechanisms on the lift tape	2.5N
Spring clips on the carry bar	8N
Manually traversing a fully loaded ceiling lift (SWL)	50N
Manually traversing unloaded ceiling lift (No weight)	10N
Charger Specification	
Charger Type	In-Track Charging
Charger Input	100-240V AC 50/60Hz 1.5A
Charger Output	24VDC/1.0A
Motor Specification	
Ceiling Lift Motor	24VDC
Drive Motor (if applicable)	24VDC
Ceiling Lift Protection	
Ceiling Lift Case	Flame Retardant ABS
Ceiling Lift Case Degree of Protection	IP21
Handset Degree of Protection	IP67
Sound Level	
Sound Level	54 dB

5.3 LCD and LED Indications

The table below includes the details on all user display messages. It also includes the LED color, audible beeps, and instructions for each message. This table may help with troubleshooting.

Display Message	Message explanation	LED color	Beep sound	Instruction
LOW Batt!	Battery Status LOW	Orange	1 Beep Repeat	Place the ceiling lift on charge as soon as possible
Charged	Batteries Fully Charged	Green	None	Batteries are full - remove from charging dock
Charging	Charging Currently Active	Orange flashing	None	None - Batteries are charging
Up	Ceiling Lift Lifting Active	Green	None	None - Informative only
Down	Ceiling Lift Lowering Active	Green	None	None - Informative only
No Lim_Sw!	Limit Switch Fault	Green	Constant Beep	Contact Service Centre
UP: Inhibit!	Battery Capacity TOO LOW to Lift	Red	3 Beep Repeat	Place the ceiling lift on charge immediately
Up Lim_Sw!	Up Limit Switch Active	Green	None	None - Informative only, Press down to continue
Down Lim_Sw!	Down Limit Switch Active	Green	None	None - Informative only, Press up to continue
HIGH CURRENT	High Current Draw from the ceiling lift Motor	Green	Beep for 1 Second	Contact Service Centre
PM Due	Preventative Maintenance Due	Green	Beep every 30 minutes	Contact Service Centre

Table 5.3-1

5.4 Standards Applied

The standards that have been applied to the device are as follows:

- IEC 60601-1-1: Medical electrical equipment - Part 1: General requirements for basic safety and essential performance
- IEC 60601-1-2: Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral Standard: Electromagnetic disturbances - Requirements and tests
- IEC 60601-1-11: General requirements for basic safety and essential performance - Collateral Standard: Requirements for medical electrical equipment and medical electrical systems used in the home healthcare environment.
- IEC 62366-1: Medical devices - Part 1: Application of usability engineering to medical devices
- BS EN ISO 14971: Medical devices. Application of risk management to medical devices
- BS EN ISO 12182: Assistive products for persons with disabilities.
- BS EN ISO 10535: Ceiling Lifts for the transfer of disabled persons. Requirements and test methods
- Medical Device Regulation 2017/745 - CE marking of Medical Devices
- UK Medical Device Regulation 2002: UKCA marking of medical devices.
- EN ISO 15223-1: Medical devices. Symbols to be used with medical device labels, labelling, and information to be supplied. General requirements
- EN 1041:2008+A1: Information supplied by the manufacturer of medical devices.
- BS ISO 20417 – Medical Devices – Information to be supplied by the manufacturer.
- Waste Electrical and Electronic Equipment Directive (WEEE) 2012/19/EU

6 Environmental Conditions

The sections below provide detailed information on the environmental conditions the product should maintain throughout its life cycle. Failure to adhere to these conditions may negatively impact on the product's functionality. If you are unsure of any environmental conditions, always seek advice.

6.1 Operating Environment

The ceiling track lift is designed for use in dry environments. The ceiling track lift is intended for use only within internal areas.

The ceiling track lift is intended for use in a professional healthcare facility or home healthcare environment. The ceiling track lift is not suitable for any other environment.

The ceiling track lift is not intended for use in environments with rapid changes in temperature and humidity.

The ceiling track lift is unaffected by lint, dust, or light.

- **Lint** – Due to the nature of the ceiling lift being installed close to the ceiling, very little lint would be likely to gain access into the ceiling lift's workings. The Service Guide recommends wiping the ceiling lift clean during every ceiling lift inspection.
- **Dust** – Due to the nature of the ceiling lift being installed close to the ceiling, very little dust would be likely to gain access to the ceiling lift's workings.
- **Light** – The user controls have been designed to be easily recognizable, and the use of bright colors will help the user in all lighting conditions. The Specification for the ceiling lift dictates that normal use occurs at an ambient luminance of 50–500 lux. Additionally, as the ceiling lift is designed for indoor use only, the user may wish to switch on the room lighting if required. The ceiling lift's LCD is backlit to aid user interaction.

6.1.1 Normal Operating Conditions

+5°C to +40°C (41°F to 104°F) at a relative humidity between 15% and 90% RH, non-condensing but not requiring a water vapor pressure greater than 50 hPa and atmospheric pressure between 700 hPa and 1060 hPa.

6.2 Storage Conditions

The ceiling track lift is intended for internal storage within normal environmental conditions. Store the ceiling track lift in a dry room.

It is not intended for storage in environments with rapid temperature changes.

When storing the ceiling lift, ensure it is clean and dry. For further information, refer to the 'cleaning' section instructions.

6.2.1 Shipping and Storage Conditions

-25°C to +5°C (-13°F to 41°F) with any humidity level.

+5°C to +35°C (41°F to 95°F) at a relative humidity up to 90%.

+35°C to 70°C non-condensing at a water vapor pressure up to 50hPa.

A minimum of 12 hours is required for the ceiling lift to cool from its maximum storage temperature to a temperature ready for its intended use when the ambient temperature is 20°C (68°F).

12 Hours are required for the ceiling lift to warm from the minimum storage temperature until ready for its intended use when the ambient temperature is 20°C (68°F).

7 Daily Checks

The caregiver or individual responsible for operating the ceiling lift must complete an inspection before each use.



Should any of the components listed in the table below fail inspection, DO NOT use the ceiling lift. Contact your local authorized dealer for service. Contact details are provided on the last page of this manual.

Complete all component inspections listed in the table below before using the ceiling lift.

Daily Checklist

Component	Service/Inspection required
Generic	Visual inspection of the external ceiling lift. Significant damage that may compromise the ceiling lift's function and pose a clear safety hazard is unacceptable.
	Check the labelling on the ceiling lift to ensure it is all still legible, including the serial number and other important markings. If the labels are illegible, contact your local authorized dealer immediately.
	Check all accessible, visible nuts and bolts for looseness (such as the carry bar hook). If they are loose or you have concerns, contact your local authorized dealer immediately.
Emergency Stop Button	Check the emergency stop button functionality.
Carry Bar	Inspect the sling-looped attachments for damage, sharp edges, and excessive wear.
	Check that the carry bar rotates and swings freely and that no wear has built up.
	Ensure the spring clips on the carry bar are functional and present.
Lift Tape	Inspect the lift tape for any signs of damage, such as fraying, breaking, or tearing along its entire length. Also inspect the tape stitching for the same signs of damage.
	When transferring a client, ensure that the client's carry bar and lift tape are positioned directly below the lift. Lifting a patient with the lift tape at an angle can cause excessive wear, misalignment when it enters the lift, and potential lift tape damage and mechanical failure.
QRS (Quick Release Hook)	Ensure the QRS locking device is closed when you attach the carry bar.
	Inspect the QRS for damage such as cracking. Ensure the locking device functions correctly.
LED's	Ensure all LEDs work correctly before use.
LCD Display Screen	Ensure the LCD functions correctly and the messages are readable.
Wheels	Ensure the wheels traverse smoothly on the track before moving a patient along the system. Listen for any unusual noises.
Motor	When raising and lowering the ceiling lift, with or without a load, listen for unusual motor noise. Lower the patient immediately if you hear an unusual noise.
Handset	Ensure the handset is functional, the connection to the ceiling lift is correct, and all buttons are working before operating with a client.

7.1 Lift Tape Caution

The image (Figure 7.1-1) indicates a badly worn lift tape. Do not use the ceiling lift until you replace the lift tape. Please contact your local dealer to arrange a service.



Misalignment of the lift tape with the ceiling lift can cause the tape to fray, resulting in delays in lift operation and additional expenses. For smooth, safe operation, ensure the lift tape is vertically aligned with the lift when lowering or raising the carry bar.



Figure 7.1-1

8 Cleaning



To reduce the risk of cross-contamination, clean the ceiling track lift and accessories before using them with a different client. Please follow the recommended cleaning and disinfection guidelines below for the ceiling track lift.

8.1 Ceiling Lift Cover Cleaning

To clean the covers, use a damp cloth, soap/water, and antibacterial spray. Do not use a steam cleaner, as this could damage the ceiling lift's internal components and compromise the label's integrity. Do not use industrial bleaches, abrasive cleaners, or organic solvents.

Thoroughly rinse all cleaning solutions off the product at the end of the cleaning process and dry the product with a dry cloth/towel. Always ensure the product is dry before use.



Take care when cleaning around electrical components to reduce the risk of electric shock or damage to the Ceiling lift.

8.2 Lift Tape Cleaning

Wipe lift tapes with a dry cloth to remove mild dirt and dust. When a spill occurs, clean it as quickly as possible to prevent staining. It is best to dab the spill rather than rub it, as rubbing can cause staining. For more persistent stains and dirt, you can also use hot water with antibacterial spray.

Thoroughly rinse all cleaning solutions from the product at the end of the cleaning process, then dry the product with a dry cloth/towel. Always ensure the product is dry before use.

8.3 Disinfecting

If the ceiling lift requires more thorough cleaning, we recommend Actichlor™ disinfectant (widely available in tablet form and used throughout the healthcare industry).



Follow the manufacturer's safety instructions for this cleaning product before use to ensure safe use for the operator and the client. Ensure the cloth is damp before cleaning.

Apply to the product by wiping it down with a clean, damp cloth. Use the following dilutions to ensure effective cleaning:

- Actichlor™ dissolvable chlorine tablets provide a concentration of 1000 ppm of available chlorine (0.1%) per 1 tablet.
- 1 tablet (1.7g formed tablet (x1)) will create a virucidal solution, diluted in 1 liter of water to provide an effective means to clean a "dirty" product. This is also ideal for use after a Norovirus/winter vomiting outbreak, and can be used as a precaution against C. Diff. It is effective against viruses, bacteria, spores, yeasts, and molds.
- A minimum of 5 minutes contact time with the outer components is recommended to prevent virucidal infections whilst maintaining the integrity of the product. The product can withstand longer contact times; however, a minimum of 5 minutes is required for effective cleaning.
- Blood spills should be dealt with by an increased concentration of the solution – please refer to the instructions on the manufacturer's product labeling.

Dilution chart					
Product used as	Product condition	Concentration (ppm)	Dilution qty* (l)	Tablets per 1l (0.26gal)	Contact time (minutes)
Bactericidal	Clean	200	5 (1.32 gal)	1	1
	Dirty	1000	1 (0.26 gal)	1	5
Yeasticidal	Clean	200	5 (1.32 gal)	1	1
	Dirty	1000	1 (0.26 gal)	1	5
Fungicidal	Clean	2000	1 (0.26 gal)	2	15
	Dirty	5000	1 (0.26 gal)	5	15
Mycobactericidal	Clean	1000	1 (0.26 gal)	1	15
	Dirty	5000	1 (0.26 gal)	5	15
Virucidal	Clean	500	2 (0.53 gal)	1	5
	Dirty	1000	1 (0.26 gal)	1	5
Sporicidal (C. Diff)	Clean	1000	1 (0.26 gal)	1	10
	-	-	-	-	-
Sporicidal	Clean	5000	1 (0.26 gal)	5	10
	-	-	-	-	-

- Dilution is made with water. DO NOT dilute within any other medium.
- When diluted in water, one tablet gives 1000ppm of available chlorine.
- The concentration of the solution depends upon whether the object being cleaned is noticeably dirty (indicated in the table by "Product condition").

Table 8.3-1

Handling and storage safety precautions when using this cleaning agent:		
Advice on Safe Handling	Hygiene Measures	Conditions for Safe Storage
Avoid contact with skin and eyes. Do not breathe dust, fumes, gas, mist, vapor, or spray. Use only with adequate ventilation. Wash your hands thoroughly after handling. Mixing this product with acid or ammonia releases chlorine gas.	Handle in accordance with good industrial hygiene and safety practice. Remove and wash any contaminated clothing before reusing it. Wash face, hands, and any exposed skin thoroughly after handling.	Keep out of reach of children. Keep the container tightly closed. Store in suitable labelled containers. Storage temperature: 0-25°C (32-77°F).
Individual Protective Measures	Dissolve	
Hand protection: Gloves	Dissolve in cold water – With no agitation, 1 tablet will take approximately 10 minutes to fully dissolve in the water used.	
The information above has been extracted from the Actichlor™ MSDS (Manufacturer's Safety Data Sheet). For a full review of the data, please follow the link below: http://www.nhs.gov.uk/media/236215/msds-actichlor-plus.pdf		

Table 8.3-2

9 Servicing

Regular service on the ceiling track lift will help prevent breakdowns and reduce repair costs. It will also improve the product's quality for end clients.



To reduce the risk of injury, do not perform service on the ceiling lift while it is in use. Service must be completed only by an authorized service engineer. Please do not service or repair the product yourself, as doing so will void the warranty.

To ensure the safety and continued proper functioning of your ceiling track lift, we recommend that an approved service engineer performs routine service every 6 months. Regular service by an authorized service engineer helps ensure the product's continued safety, reliability, and intended performance throughout its expected service life. Document the product's service history in the service log at the back of this user manual after each service.

When servicing the product, complete the service checklist.

Service Manual Document Number: 995674.

For spare parts information, refer to the spare parts manual.

Spare Parts Manual Document Number: 992674.

Contact your local authorized dealer if you:

- Need more information.
- If you have any questions about the use or service of your product.
- Notice any change in the performance.
- You want to report an unexpected occurrence.
- You want to arrange a service.
- Need to ascertain necessary information for replacement parts and components.

The expected product lifetime is **10 years**. This depends on usage and compliance with maintenance, servicing, and LOLER inspections. Regular service will increase the expected lifetime.

Serviceable parts within this period are batteries and the lift tape. Batteries should have an expected service life of 200 discharge cycles or 3 years, depending on the charging routine. The lift tape is expected to have a 2-year service life if used correctly; however, visually inspect it before use to verify its integrity.

10 Troubleshooting

If a problem arises with the ceiling lift, refer to the table below for guidance. Find the fault and complete the recommended solution. If the fault is not listed below, or the solution does not correct the problem, contact your local authorized dealer immediately. Contact details are provided on the last page of this manual.

Fault	Action
The handset has become disengaged from the ceiling lift, or the Handset buttons are not responding.	Refer to the section 'Applied Parts'. If this does not correct the fault, contact your local authorized dealer immediately so they can check the ceiling lift to ensure proper continued operation.
The handset button command is continuously activated – UP, DOWN, E-LOWER.	Turn off the ceiling lift using the red pull cord. Contact your local authorized dealer immediately so they can check the ceiling lift to ensure continued proper operation.
No Power Part 1	If you used the emergency red cord to stop or lower the person, the ceiling lift will not operate again until it has been reset. Contact your local authorized dealer immediately to safely inspect and reset the ceiling lift.
No Power Part 2	Operate the hand control to determine if the ceiling lift wakes up. Check the green LED to confirm. If it is not, the ceiling lift may be out of charge. Place the ceiling lift in the charging dock for at least one hour to see if this resolves the issue. If not, contact your local authorized dealer.
The ceiling lift LEDs indicate there is power, but the ceiling lift does not operate in the DOWN direction.	A built-in detector checks the lift tape's slack. This may be sensitive. Apply weight to the carry bar while pressing the DOWN button simultaneously. If this corrects the fault temporarily but not permanently, contact your local authorized dealer to check the ceiling lift and ensure proper continued operation.
The red indicator light on the ceiling lift turns RED and/or a loud alarm sounds when an individual is raised.	The batteries are low and require charging. Refer to the section 'Charging the Ceiling Lift' and charge for at least one hour before trying to raise/lower the carry bar. If this does not correct the fault, contact your local authorized dealer immediately so they can check the ceiling lift to ensure proper continued operation.
The ceiling lift does not pass through a track component such as a turntable or gate.	Refer to the user manual of the specific piece of equipment in question. If the recommended solution does not correct the fault, contact your local authorized dealer immediately so that the track component and ceiling lift can be inspected to ensure proper continued operation.
Intermittent Display Screen – Self-Recovering	If the display screen goes blank but recovers on its own, an electromagnetic disturbance is likely nearby. If the ceiling lift remains operational, continue to use it and investigate the source of the disturbance.
The Display Screen goes blank, but the LED functions	This may be caused by an electromagnetic disturbance. If the ceiling lift remains operational, continue to use it and investigate the source of the disturbance.
Intermittent Motor Performance	This may be caused by an electromagnetic disturbance. If the ceiling lift remains operational, continue to use it and investigate the source of the disturbance. When the motor performance is compromised, contact your local service provider.

Table 10.1-1

11 Disposal

To improve the environment and reduce waste, we manufacture our products, where possible, using recyclable materials. Below are our guidelines for recyclable materials and environmental responsibility.

An approved service engineer should dispose of the ceiling lift at the end of its life cycle. For guidelines on correct decommissioning procedures, refer to the Commissioning Guide (996674).

Please observe local recycling laws and comply with current disposal laws in the community where the product is used. If you are unsure about the guidelines below, contact your local authorities to determine the proper method for disposing of potentially biohazardous parts and accessories.

Fully recyclable:	Considerations when Recycling:
Chassis	Batteries
Plastic Covers	Wiring looms – electronics.
Metallic Internals – Hub, etc.	PCB
Initial packaging of the device (cardboard)	Hand Control
Metallic fixing – Screws, etc.	Motors
Plastic Moldings	Lift Tape
Carry Bar	Charger

Table 11-1



The product may be contaminated and must be disinfected before recycling or disposal. See the section on 'Cleaning' for further details.

12 Warranty

It is impossible to eliminate all risks associated with this product. However, to reduce risk and ensure safe and proper use, the user should always read and understand the user manual. Product failure may occur due to lack of maintenance and care, misuse, unauthorized or improper servicing or alterations, improper storage, environmental use, or normal wear and tear. These factors are all beyond the manufacturer's control. The users take on these risks.

The ceiling track hoist is supplied with a manufacturer's warranty against defects in materials and workmanship. Warranty periods vary by component, as detailed below.

The warranty period commences from the applicable invoice date for the purchase and, where applicable, installation and/or commissioning of the product.

Component	Warranty Period
Motor Unit	5 Years
Gearbox	5 years
Drive/trolley assembly	5 years
Control PCB	2 years
Limit switches/sensors	2 years
Emergency Lowering System	2 years
Charger and mounting carriage	2 years
Batteries	90 days
Lift tape	1 year
Hand control/Handset	1 year
Hoist cover	1 year

The warranty is valid provided that the product has been installed, used, inspected, serviced and maintained in accordance with these Instructions for Use and the manufacturer's recommendations.

The warranty does not cover defects or damage resulting from normal wear and tear, misuse, neglect, accidental or deliberate damage, improper storage, unsuitable environmental conditions, use contrary to these Instructions for Use, or unauthorized modification, repair or servicing.



The warranty is valid provided that the product has been installed, used, inspected, serviced and maintained in accordance with these Instructions for Use and the manufacturer's recommendations.

The warranty does not cover defects or damage resulting from normal wear and tear, misuse, neglect, accidental or deliberate damage, improper storage, unsuitable environmental conditions, use contrary to these Instructions for Use, or unauthorized modification, repair or servicing.

The following conditions apply:

1. **Warranty claims**

Warranty claims are subject to the terms and conditions of the Prism Medical UK Warranty Policy. You may need to provide proof of purchase and/or product identification information when making a warranty claim.

2. **Servicing and maintenance**

The product must be inspected, serviced and maintained in accordance with the manufacturer's recommendations. Warranty coverage may be affected if required maintenance or servicing has not been carried out, or if unauthorized repairs, modifications, or other work is performed.

3. **Normal wear and damage**

The warranty excludes coverage for failure or damage caused by regular wear and tear, misuse, neglect, accidental or intentional harm, or using the product in ways not specified in the Instructions for Use.

4. **Unauthorized repairs or modifications**

Do not attempt to modify, repair, or service the product unless you are appropriately trained and authorized to do so. Carry out repairs and service in accordance with the manufacturer's instructions and, where applicable, use approved replacement parts.

5. **Warranty limitations**

Warranty coverage applies only to defects and components covered by the applicable warranty terms. Replacement or repair of a component under warranty does not remove the requirement for routine inspection, servicing and maintenance of the product.

For full warranty terms, conditions, exclusions and information on making a warranty claim, please contact your local authorized dealer.

This manufacturer's warranty does not affect any statutory rights that may apply.

13 Service Record History

Complete this section after each service, repair, inspection and/or maintenance.

Date:	Time:
Service Type: Service Inspection ☐ Repair ☐ Other ☐	
Completed By: (Printed name) (Signature)	
Company:	
Remarks & Actions Taken:	
Product Left in A Safe & Usable Condition: Yes ☐ No ☐ (if no explanation in actions above)	
Date:	Time:
Service Type: Service Inspection ☐ Repair ☐ Other ☐	
Completed By: (Printed name) (Signature)	
Company:	
Remarks & Actions Taken:	
Product Left in A Safe & Usable Condition: Yes ☐ No ☐ (if no explanation in actions above)	
Date:	Time:
Service Type: Service Inspection ☐ Repair ☐ Other ☐	
Completed By: (Printed name) (Signature)	
Company:	
Remarks & Actions Taken:	
Product Left in A Safe & Usable Condition: Yes ☐ No ☐ (if no explanation in actions above)	
Date:	Time:
Service Type: Service Inspection ☐ Repair ☐ Other ☐	
Completed By: (Printed name) (Signature)	
Company:	
Remarks & Actions Taken:	
Product Left in A Safe & Usable Condition: Yes ☐ No ☐ (if no explanation in actions above)	

Date:	Time:
Service Type: Service Inspection ☐ Repair ☐ Other ☐	
Completed By: (Printed name) (Signature)	
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Product Left in A Safe & Usable Condition: Yes ☐ No ☐ (if no explanation in actions above)	
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Remarks & Actions Taken:	
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Date:	Time:
Service Type: Service Inspection ☐ Repair ☐ Other ☐	
Completed By: (Printed name) (Signature)	
Company:	
Remarks & Actions Taken:	
Product Left in A Safe & Usable Condition: Yes ☐ No ☐ (if no explanation in actions above)	

Dealer/Service Contact Details:

Importer Contact details:

Mackworth USA
54 West Industrial Drive
O'Fallon, MO 63366 USA
314-889-1000
www.mackworthusa.com

Disclaimer

While every effort has been made to ensure the accuracy of the information contained in this manual, no liability can be accepted by Mackworth for any errors or omissions. Mackworth operates a policy of continuous improvement. Specifications and other data are subject to change without notice.

