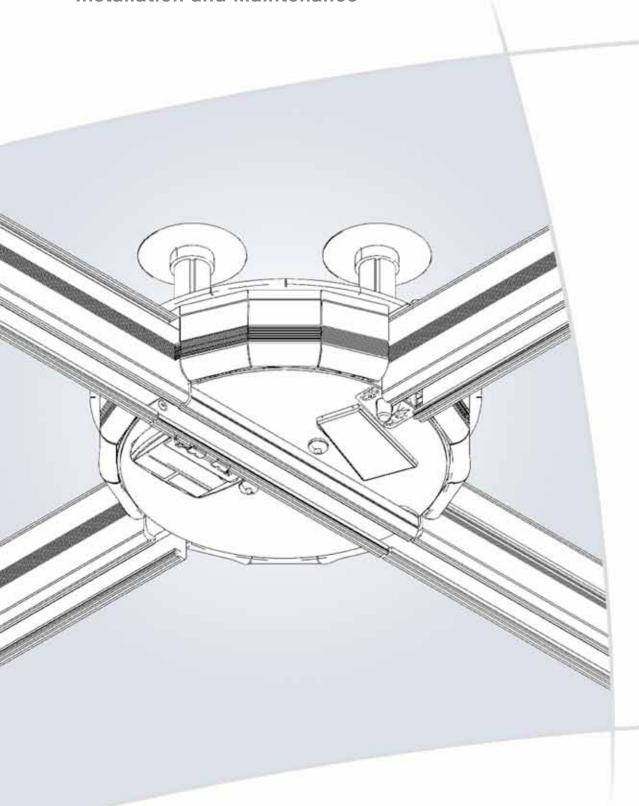
ARJOHUNTLEIGH

GETINGE GROUP

KWIKtrak Turntable

Installation and Maintenance



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...with people in mind



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Safety Instructions

- A. ARJOHUNTLEIGH ceiling lifts and track system must be installed by an authorized contractor or installer and in accordance to local regulations.
- B. Only a qualified technician or installer can remove or install the lift onto the track system.
- C. ARJOHUNTLEIGH strongly advises that only ARJOHUNTLEIGH designated parts, which are designed for the purpose, should be used on equipment and other ARJOHUNTLEIGH supplied appliance to avoid injuries attributable to the use of inadequate parts. ARJOHUNTLEIGH's conditions of sale make specific provisions confirming no liability in such circumstances. Our policy is one of continuous development, and we, therefore reserve the right to change specifications without notice.
- D. Unauthorized modifications on any ARJOHUNTLEIGH equipment may affect its safety and are in breach of any warranty on it. ARJOHUNTLEIGH will not be held responsible for any accidents, incidents or lack of performance that occur as a result of unauthorized modifications to its products.
- E. Dangerous substances: If using hazardous substances be sure how to handle them and refer to applicable information. When in doubt, refer to the local authorities for health and safety requirements.
- F. It is strongly recommended that every technician follows the procedures as indicated in this manual. Every procedure has been studied in perspective on minimizing the risks either for the technician or the ceiling lift. Even if some of the procedures are not the shortest ones, they are the most effective on a long term basis.
- G. Before using the KWIKtrakTurntable, make sure that all end stoppers are in place and well tightened.

Definitions Used in this Manual

WARNING:

Means: Failure to understand and follow this instruction may result in injury to yourself and others.

CAUTION:

Means: Failure to follow this instruction may cause damage to the product(s).

NOTE:

Means: Important information regarding correct use of the product.

Parts Description & Labels

Automatic KWIKtrak Turntable

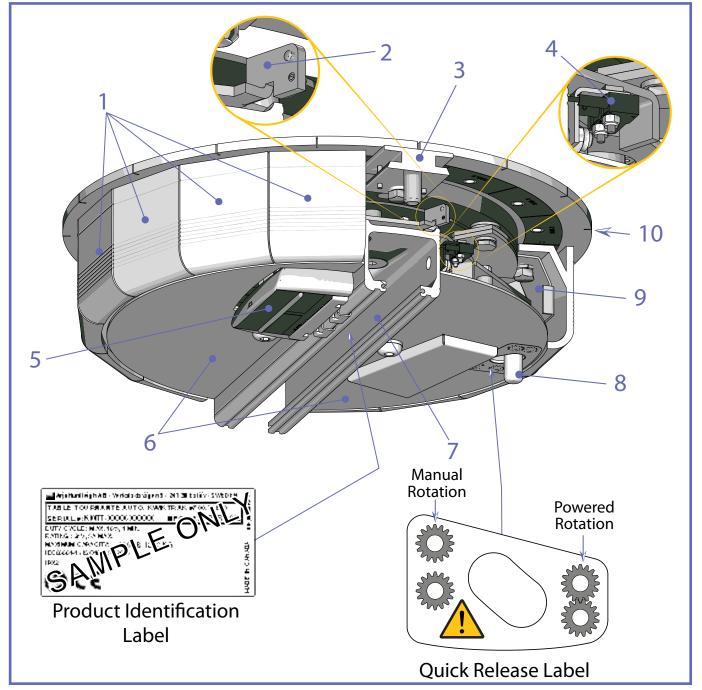


Fig.1

Legend

- 1) End Stoppers
- 2) Limit Arm
- 3) Track Junction Fastener
- 4) Limit Switch
- 5) Activation Station

- 6) Covers
- 7) Pivoting Track
- 8) Quick Release
- 9) Track Simulation Bracket
- 10) Alignment Marks*

^{*} Note: Alignment marks are bigger in "RAIL 1" and "RAIL 1B" positions.

Manual KWIKtrak Turntable

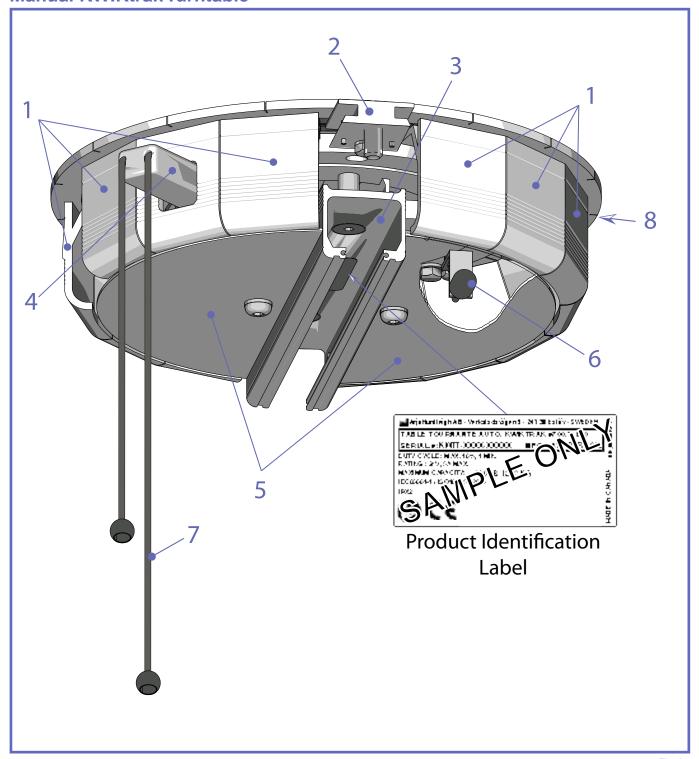


Fig.2

Legend

- 1) End Stoppers
- 2) Track Junction Fastener
- 3) Pivoting Track
- 4) Activation Arm

- 5) Covers
- 6) Limit Stopper
- 7) Activation Pull Cord
- 8) Alignment Marks

^{*} Note: Alignment marks are bigger in "RAIL 1" and "RAIL 1B" positions.

Installing the Automatic KWIKtrak Turntable

Verifying the Packaging Contents

Ensure to have all components of the turntable in hand before beginning the installation.

Open the packaging and remove the parts from the box. It should contain:

Part Description	Qty
Automatic KWIKtrakTurntable	1
End stoppers	8
Track simulation bracket	1
U-clips	2
Track junction fastener	4

Installation General Rules

There are several possible track layouts with the turntable. When planning a track layout you must consider the following:

- End stoppers must be installed in each unused position.
- There is one main path and the possibility of one secondary path out of four available choices, see Fig. 3.
- Maximum rotation is 90° by increment of 22.5°.
- All tracks must be positioned in the green sections. Do not install any tracks in the red sections (marked "NO RAIL"). The end stopper plates that are preinstalled at the factory completely cover these red sections, see Fig. 3.

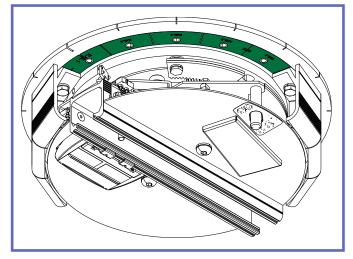


Fig.3

Setting Up Track Layout

1) Remove both covers, see Fig.4.

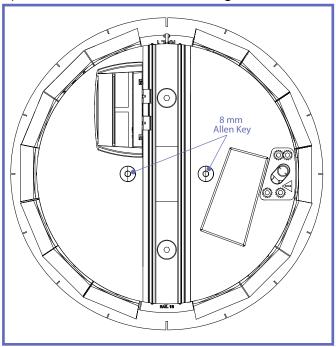


Fig.4

2) Make sure the turntable pivoting track is in "RAIL 1" position.

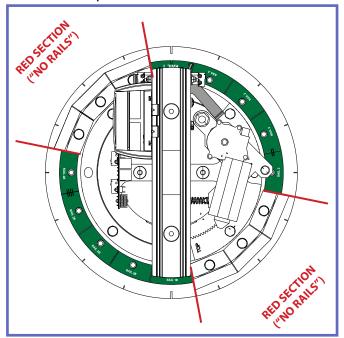


Fig.5

- 3) Setup the track layout on the floor with the turntable track facing down, see Fig. 6.
- 4) Make sure the turntable is place such as the Activation Station is located on the side where the Ceiling Lift contact blades will be placed.
- 5) Place the main track in the position labelled "RAIL 1".
- 6) According to your needs, a track can be placed in the position labelled "RAIL 1B".
- 7) Place the secondary track in one of the eight positions in the green sections labelled "RAIL 2" or "RAIL 2B".

NOTE: If no track is installed in any of "RAIL 2" positions, a track simulation bracket must be installed in the position opposite to the track installed in the "RAIL 2B" position, see Fig. 7.

This track simulation bracket allows the limit switch to detect when the pivoting track is align with the track in "RAIL 2" position.

8) According to your needs, one track can be placed in the green section opposite to the track previously placed providing it is aligned with this one.

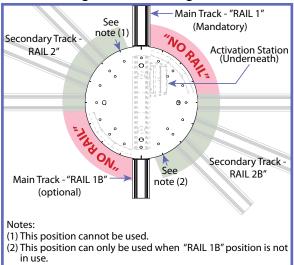


Fig.6

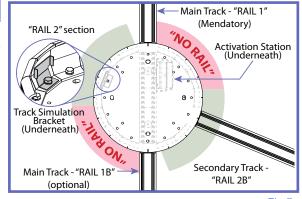


Fig.7

9) Review the track layout, see Fig. 8.

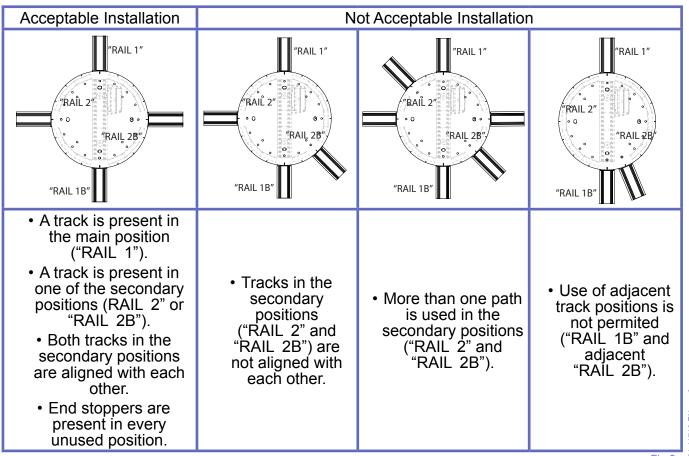


Fig.8

Fixing the KWIKtrakTurntable to the Structure

- Use a rotating laser to align the tracks with the turntable. Use the two alignment marks on the turntable main plate to accomplish with the centre of the tracks, see Fig. 1.
- 2) Use a plumb laser to pinpoint the turntable mounting location on the ceiling. (Refer to the track installation manual for further information). There are four mounting points on the turntable. Refer to Fig.9 to locate drilling location.

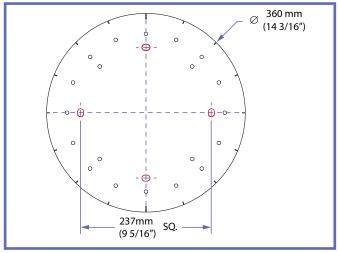


Fig.9

3) Install track junction fasteners on the track ends that will connect to the turntable. Make sure the stoppers (spring pins) are in contact with the track then lock the setscrew in place using a 6 mm Allen Key (recommended torque: 20 N·m or 15 lbf·ft).

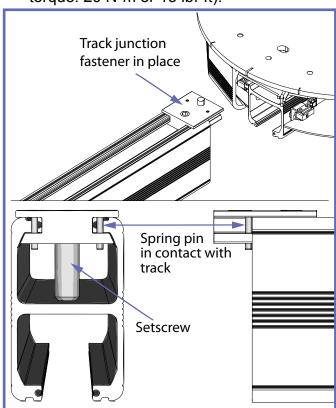
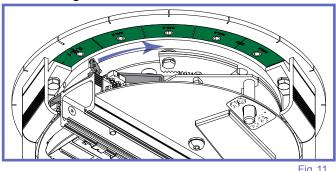


Fig.10

- 4) Mount the turntable to the ceiling.
 - Refer to the KWIKtrak installation manual for details about installing the turntable to the structure.
 - Be aware of any obstacles that can have an impact on the track's course.
 - Use the four holes, as shown on Fig.9.
 - Once installed, the threaded rod used for mounting should not extend more than (½") below the bearing plate.
- Rotate the limit arm inside the turntable to position it between "RAIL 1" and "RAIL 2", see Fig. 11.



6) Attach the tracks to the turntable using the previously installed track fasteners, see Fig. 10. Use a 13 mm socket to screw bolt to 20 N·m (15 lbf·ft). The turntable must be level in all directions.

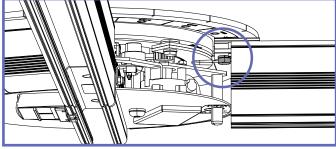


Fig. 12

 Locate the limit arm for the limit switches within the turntable. Insert a metal U-clip on either track wall where the limit arm makes contact with the tracks.

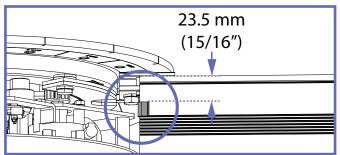


Fig. 13

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8) Install an end stopper on each unused position taking care to align it with the ones along side.

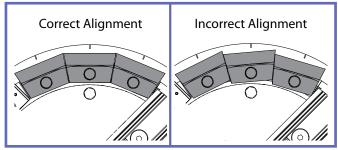


Fig. 14

WARNING: End stoppers are part of a security device. They must be present on every unused position to avoid the lift from falling out of the turntable. Make sure each bolt is tightened to 12 N·m (9 lbf·ft).

- 9) Reinstall the 2 covers, using the button head screws, with a 6 mm Allen Key. Tighten screws to 7 N·m (5 lbf·ft).
- 10) Engage the Quick-release to manually rotate the pivoting track. Proceed with caution to avoid injuries. Make sure that no metal parts such as end stoppers or covers are interfering with each others when the mechanism is being rotated. The bearing plate must turn easily.
- 11) Insert the patient lift unit into the track system. Make sure the lift power contact blades align with the turntable activation station.
- 12) Install end stoppers at each track end to prevent the lift from exiting the track (recommended torque: 12 N·m (9 lbf·ft)).

Final Inspection of the Installation

- 1) Turn on the lift.
- 2) Move the lift under the turntable.
- 3) Wait a few seconds you will hear an audible signal and the turntable will rotate to the next position.
- Move the lift out of the turntable and then bring it back to test the rotation in opposite direction.
- 5) Wait a few seconds you will hear an audible signal and the turntable will turn back to its initial position.
- 6) Check the alignment of the pivoting track and the fixed track if the tracks aren't well aligned, use a 1.5 mm Allen key to adjust the limit arm contact point. Sliding the screw in a direction will make the pivoting track to stop farther in the opposite direction.

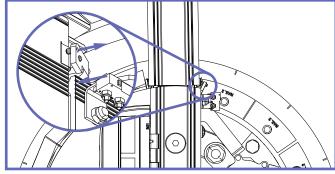


Fig. 15

- Repeat inspection procedure until the pivoting track aligns correctly with both fixed tracks.
- 8) Make sure that the gap between the pivoting track and all fixed tracks is inferior to 1.6 mm [1/16"]).
- 9) Test the Quick-release feature by moving the button sideways and manually turning the pivoting track.
- 10) Upon successful completion of the functional tests, put the covers back then the turntable is ready to use.
- 11) It is recommended to test the turntable in charge (min. SWL) as per instructions in track installation manual.

Verifying the Packaging Contents

Ensure to have all components of the turntable in hand before beginning the installation.

Open the packaging and remove the parts from the box. It should contain:

Part Description	Qty
Manual KWIKtrakTurntable	1
End stoppers	8
Track junction fastener	4

Installation General Rules

There are several possible track layouts with the turntable. When planning a track layout you must consider the following:

- End stoppers must be installed in each unused position.
- Maximum rotation is 90° by increment of 22.5°.
- All tracks must be positioned in the green sections. Do not install any tracks in the red sections (marked "NO RAIL"). The end stopper plates that are preinstalled at the factory completely cover these red sections, see Fig. 16.

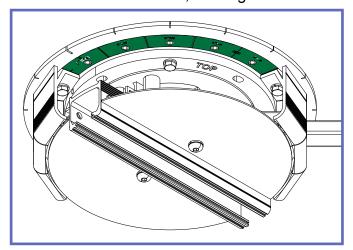


Fig. 16

Setting Up Track Layout

1) Remove both covers, see Fig. 17.

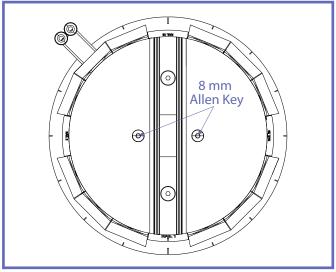
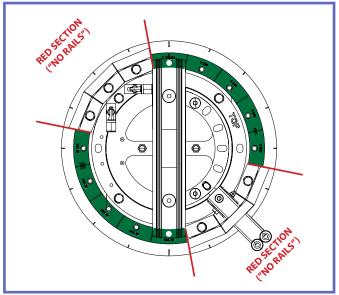
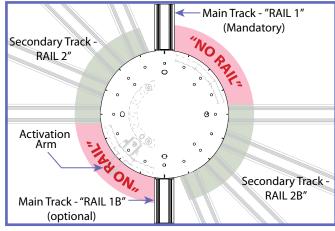


Fig. 17

Make sure the turntable pivoting track is in "RAIL 1" position.



Setup the track layout on the floor with the turntable track facing down, see Fig. 19.



- 4) Place the main track in the position labelled "RAIL 1".
- 5) According to your needs, a track can be placed in the position labelled "RAIL 1B".
- 6) Place the secondary tracks in the green sections labelled "RAIL 2" or "RAIL 2B".
- 7) Review the track layout, see Fig. 20.

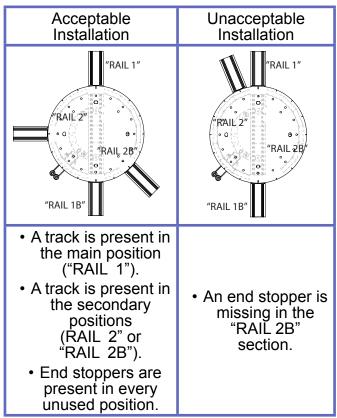


Fig.20

Fixing the KWIKtrak Turntable to the Structure

- 1) Use a rotating laser to align the tracks with the turntable. Use the two alignment marks on the turntable main plate to accomplish with the centre of the tracks, see Fig. 1.
- 2) Use a plumb laser to pinpoint the turntable mounting location on the ceiling. (Refer to the track installation manual for further information). There are four mounting points on the turntable. Refer to Fig.21 to locate drilling location.

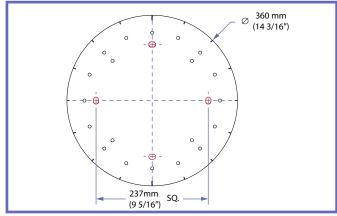


Fig.21

3) Install track junction fasteners on the track ends that will connect to the turntable. Make sure the stoppers (spring pins) are in contact with the track then lock the setscrew in place using a 6 mmAllen Key (recommended torque: 20 N·m or 15 lbf·ft).

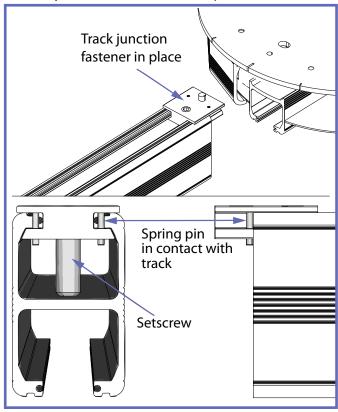


Fig.22

- 4) Mount the turntable to the ceiling.
 - Refer to the KWIKtrak installation manual for details about installing the turntable to the structure.
 - Be aware of any obstacles that can have an impact on the track's course.
 - Use the four holes, as shown on Fig. 21.
 - Once installed, the threaded rod used for mounting should not extend more than (½") below the bearing plate.
- 5) Attach the tracks to the turntable using the previously installed track fasteners, see Fig.22. Use a 13 mm socket to screw bolt to 20 N·m (15 lbf·ft). The turntable must be level in all directions.

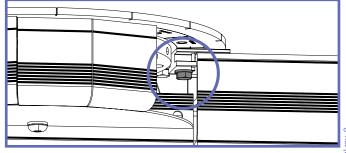


Fig.23

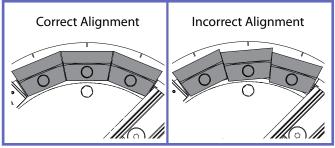


Fig.24

WARNING: End stoppers are part of a security device. They must be present on every unused position to avoid the lift from falling out of the turntable. Make sure each bolt is tightened to 12 N·m (9 lbf·ft).

7) Review position of the limit stoppers. Make sure they are placed to limit the pivoting track maximum course in both directions, see examples in Fig. 25. Use a 10 mm Hex Socket and tighten to 7 N·m (5 lbf·ft).

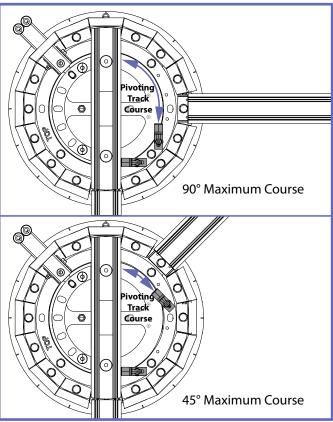


Fig.25

- 8) Reinstall the 2 covers, using the button head screws, with a 6 mm Allen Key. Tighten screws to 7 N·m (5 lbf·ft).
- 9) Install stoppers at each track end to prevent the lift from exiting the track (recommended torque: 12 N·m (9 lbf·ft)).

Adjusting Pull Cord's Length

- 1) If the pull cords are too long, they may be shortened as follows.
- 2) Turn the mechanism halfway so that both cords are of equal length.
- Cut both cords to equal length making sure that you leave at least 20 cm (8 in) on each cord.
- Insert one knob on each cord and secure it with a double knot.
- 5) Remove the warning card.

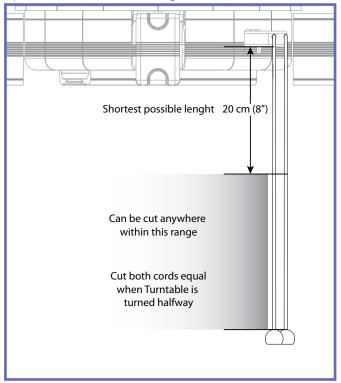


Fig.26

Final Inspection of the Installation

- Pull on the shortest cord to manually rotate the pivoting track. Make sure that no metal parts - such as end stoppers or covers - are interfering with each others when the mechanism is being rotated. The bearing plate must turn easily.
- 2) Make sure that the gap between the pivoting track and all fixed tracks is inferior to 4.0 mm (5/32").
- It is recommended to test the turntable in charge (min. SWL) as per instructions in track installation manual.
- 4) Cut the ropes to the highest reachable height to restraint reach.

The Turntable is ready to use.

Preventive Maintenance Schedule

The equipment is subjected to wear and tear, and the following maintenance instructions must be acted upon when specified to ensure that the equipment remains within its original manufacturing specifications. Care and maintenance must be carried out in accordance with the preventive maintenance schedule below.

Customer obligations must be carried out by qualified personnel in accordance with the instructions in this manual.

WARNING: The maintenance described in the following checklist is the minimum that the manufacturer recommends. In some cases more frequent inspections should be carried out. Continuing to use this equipment without conducting regular inspections or when a fault is found will seriously compromise the safety of the user and of the resident. Local regulations and standards may be higher than those of the manufacturer. Service and preventive maintenance can be arranged with the manufacturer. Preventive maintenance specified in this manual can prevent accidents and reduce repair costs.

WARNING: Safety related maintenance and authorized service must be carried out by qualified personnel, fully trained in servicing procedures by ArjoHuntleigh, and equipped with correct tools and proper documentation including Parts List and Service Manual. Failure to meet these requirements could result in personal injuries and/or unsafe equipment.

Annual Inspection

Inspections for the KWIKtrakTurntable

Inspect for evidence of external damage or missing parts.

Make sure that the activation stations are clean. (Automatic Model)

Make sure the lift moves smoothly between the turntable pivoting track and fixed tracks. Tracks are well aligned in height and rotation and space between them is inferior to 4.0 mm (5/32").

Make sure end stoppers of the Turntable are in place and tightened.

Inspect cords for wear. (Manual Model)

Test the Quick-release feature for proper functioning. (Automatic Model)

Cleaning

To clean the KWIKtrakTurntable, wipe it down with a damp cloth using warm water and mild detergent.

Do not use phenol, chlorine or any other type of solvent that may damage the finish.

To ensure a better rolling surface for the trolley wheels, clean the inside of the track every 4 months. To do so, insert a damp cloth in the opening and slide it from one end of the track to the other.

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Troubleshooting

Automatic Turntable № 700.11600

PROBLEMS	TO CHECK
The turntable does not move when the lift is brought on its track.	 Check if the lift is on. Make sure that there is contact between the contact blades of the lift and the contact plates of the contact box. Check if batteries are not completely discharged. Check if contact plates are clean and free of oxidation. If needed, wash them with a normal detergent.
The turntable does not pivot even if electrical feeding is OK.	 Make sure the Quick-release is disengaged.
Lift or trolley does not move smootly into pivoting track.	 Gap between track ≤ 4.0 mm (5/32"). Height difference between tracks. All structure fasteners are well tightened.

Manual Turntable № 700-11850

PROBLEMS	TO CHECK
The turntable does not move when the cord is pulled.	 Check if other cord is able to move the pivoting track. Make sure cord is not blocked by other components.
The Turntable does not lock the pivoting track.	 Check that the Activating Arm goes back in up position when cord is released.
The pivoting track does not align with the fixed track.	Adjust the limit stopper accordingly.
Lift or trolley does not move smootly into pivoting track.	 Gap between track ≤ 4.0 mm (5/32"). Height difference between tracks. All structure fasteners are well tightened.

Technical Specifications

PRODUCT INFORMATION	KWIKtrak Turntable Control of the Co		
Models	700.11600 : Automatic - (rotation initiated by electric contact with		
	the ceiling lift) 700-11850 : Manual - (rotation activated by pulling a cord)		
Weight, complete	14 kg (30,9 lb)		
Safe Working Load	272 kg (600 lb)		
Rotation speed	30°/s		
Minimum rotation	22,5°		
Maximum rotation	90°		
ELECTRICAL			
The KWIKtrakTurntable has b	peen designed according to ISO 10535:2006 and IEC 60601-1:2005		
WARNING: Wireless communications equipment such as wireless home network devices, mobile phones, cordless telephones and their base stations, walkie-talkies can affect the Automatic KWIKtrak Turntable and should be kept at least 2.34 m away from it. Cables from potentially strong sources of electromagnetic fields should not be placed near the unit.			
Power Requirements (Model № 700.11600)	24 VDC, 1 A (Designed to be powered by the ceiling lift)		
Power Requirements (Model № 700-11850)	Not applicable		
IP rating (Model № 700.11600)	IPx2		
OPERATION AND STORAG	SE CONDITIONS		
Ambient temperature range	Operation: 10°C to 40°C (14 °F to 122 °F) Storage: -40°C to 70°C		
Relative humidity range	Operation: 30% to 75% non-condensing Storage: 10% to 100% non-condensing		
Atmospheric pressure range	Operation: 700 hPa to 1060 hPa Storage: 500 hPa to 1060 hPa		
WARNING : This equipment is not suitable in the presence of flammable anaesthetic mixtures with air or oxygen, or with nitrous oxide.			
RECYCLING			
Package	·		
The KWIKtrak Turntable	Separated and recycled, according to the European Directive 2002/96/EG (WEEE).		
The ArjoHuntleigh Automatic KWIKtrakTurntable meets the requirements of Electromagnetic Compatibility (EMC) as stated in clause 12.5 of Annex 1 of the Medical Devices Directive 93/42/EEC.			

Fig.27

Electromagnetic Compatibility

The following section solely applies to KWIKtrak Turntable model № 700.11600

Electromagnetic Compliance

The KWIKtrakTurntable has been tested for compliance with current regulatory standards regarding its capacity to block EMI (electromagnetic interference) from external sources.

Nonetheless, some procedures can help reduce electromagnetic interferences:

- Use only ArjoHuntleigh cables and spare parts to avoid increased emissions or decreased immunity which can compromise the correct functioning of the equipment.
- Ensure that other devices in patient-monitoring and/or life-support areas comply to accepted emissions standards.
- Maximize the distance between electro-medical devices. High-powered devices may produce EMI that can affect the ceiling lift. Refer to separation distance table further on in this document.

For more information on how to manage the unit's RF electromagnetic environment, please consult the AMI TIR 18-1997 - Guidance on Electromagnetic Compatibility of Medical Devices for Clinical/Biomedical Engineers.

Electromagnetic Emissions

Guidance and Manufacturer's Declaration - Electromagnetic Emissions - For all Equipment and Systems

The KWIKtrak Turntable is intended for use in the electromagnetic environment indicated below. The customer or the user of the KWIKtrak Turntable should assure that it is used in such an environment.

Emissions test	Compliance	Electromagnetic environment - guidance	
RF emissions CISPR 11	Group 1	The KWIKtrak Turntable 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 IEC 61000-3-2	Class B		
Harmonic emissions	Not applicable	The KWIKtrakTurntable is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power	
Voltage fluctuations/flicker emissions IEC 61000-3-3	Not applicable	supply network that supplies buildings used for domestic purposes.	

Guidance and Manufacturer's Declaration - Electromagnetic Immunity - For all Equipment and Systems

The KWIKtrakTurntable is intended for use in electromagnetic environment specified below. The customer or the user of the KWIKtrakTurntable 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	±6 kV contact ±8 kV air	±6 kV contact ±8 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%.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output lines	Not applicable	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV differential mode ±2 kV for input/output	Not applicable	
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5% UT (>95% dip in UT) for 0.5 cycle 40% UT (60% dip in UT) for 5 cycles 70% UT (30% dip in UT) for 25 cycles <5% UT (>95% dip in UT) for 5 sec.	Not applicable	
Power frequency (50/60 Hz) magnetic field	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercials or hospital environment.

NOTE: UT is the AC mains voltage prior to application of the test level.

Guidance and Manufacturer's Declaration - Electromagnetic Immunity -					
	For Equipme	nt and Systems	that are Not Life-Supporting		
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance		
			Portable and mobile RF communications equipment should be used no closer to any part of the KWIKtrakTurntable, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.		
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 Mhz	Not applicable	Recommended separation distance $d = \left[\frac{3.5}{3}\right] \sqrt{P}$ 150 KHz to 80 MHz		
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to	10 V/m	$d = \left[\frac{3.5}{10}\right] \sqrt{P}$ 80 MHz to 800 MHz		
1EC 01000-4-3	2.5 GHz	10 V/m	$d = \left[\frac{7}{10}\right] \sqrt{P}$ 800 MHz to 2.5 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. Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, (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: (((•)))		

NOTE 1: At 80 MHz and 800 MHz, the higher frequency range applies.

NOTE 2: Theses guidelines may not apply in all situations. Electromagnetic propagation if affected by absorption and reflection from structures, objects and people.

(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 the KWIKtrak Turntable is used exceeds the applicable RF compliance level above, the KWIKtrak Turntable should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the KWIKtrak Turntable.

(b) Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

Recommended separation distances between portable and mobile RF communications equipment and the KWIKtrakTurntable.

The KWIKtrak Turntable is intended for use in electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the KWIKtrak Turntable can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communication equipment (transmitters) and the KWIKtrak Turntable as recommended below, according to the maximum output power of the communications equipment.

	Separation distances according to frequency of transmitter m			
Rated maximum output power of transmitter	150 KHz to 80 MHz	80 MHz to 800 MHz	800 MHz to 2.5 GHz	
W	$d = \left[\frac{3.5}{3}\right] \sqrt{P}$	$d = \left[\frac{3.5}{10}\right] \sqrt{P}$	$d = \left[\frac{7}{10}\right] \sqrt{P}$	
0.01	0.12	0.12	0.24	
0.1	0.37	0.37	0.74	
1	1.17	1.17	2.34	
10	3.69	3.69	7.38	
100	11.67	11.67	23.34	

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in metres (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.

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