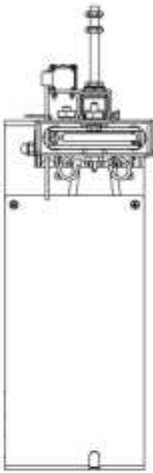
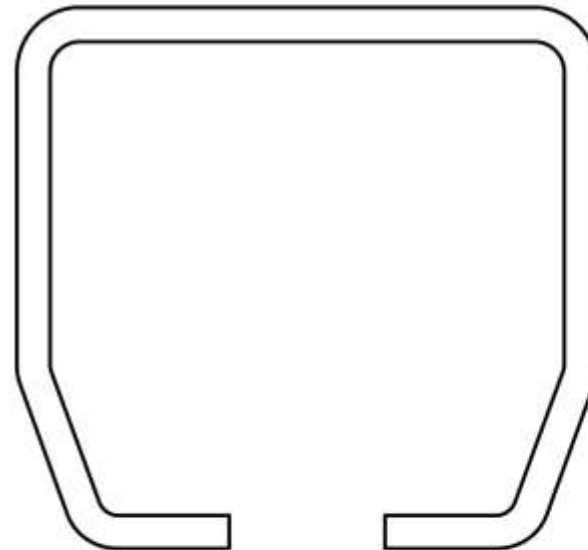


RAIL H100

MOTORISED MOVEMENT WITH ROPE



DISCLAIMER & COPYRIGHT

No part of this publication may be duplicated or edited in any form or by any means, including any type of electronic or mechanical method without prior written permission from ShowTex.



ShowTex NV and its employees are fully aware of their task to provide a reliable edition of this document. Nevertheless they can accept no liability for (the direct or indirect consequences of) imperfections that might remain in this edition. The material in this manual is subject to change without notice.

All products from the ShowTex Rental range are supposed to be returned in the same state as they were rented. Please treat our products with care, allowing the next user to enjoy the products as much as you did. The rented products are internally checked according to the general rental conditions. Be sure to check our rental guidelines on our website before installing and using this product:

<http://www.showtexrental.com/showtex-rental-guidelines>.



Read and understand this user manual before installing and/or operating the automatic reveal system. Failure to follow the instructions in this document could result in serious injury!



As a result of the above warning, any ShowTex product must be installed and operated by a qualified technician who has knowledge of its capabilities as well as its limitations.

Following the guidelines of this manual will reduce the risk of damaging the equipment or injuring yourself and the people around you. Damage to the system caused by any other method of installation than the one shown in this manual can only be repaired or fixed at the customer's expense.

CONTENTS

Disclaimer & copyright	3
Contents	3
Intro	4
Warranty	4
Product description	4
Safety instructions	4
Max. load & distance	5
Technical specifications	6
Components	6
Assembled single track central overlap	9
Front, top and bottom plan view	9
Side and exploded view	10
Assembled double track central overlap	11
Front, top and bottom plan view	11
Side and exploded view	12
Installation	13
Necessary steps	13
Necessary Tools	13
How to... ..	14
Determine number of attachment points & distance between them	14
Secure mounting brackets	15
Secure coupler	15
Insert runners and / or master carriers	16
Insert end stops	16
Prepare the RTD 1000 unit: single track configuration	17
Prepare the RTD 1000 unit: double track configuration	17
Remove the protection plate	17
Installing the RTD 1000 unit	18
Install return pulley	18
Install limit switches	18
Position the limit switches: single track configuration	19
Position the limit switches: double track configuration	19
Guide the double braided rope	20
Secure the double braided rope	20
Connect the limit switches, RTD unit and remote control	22
Connect the limit switches, RTD unit and remote control for DMX setup	23
Set up the DMX values	24
Install curtain	25
Care and maintenance	26
Trouble shooting	26
Contact & support	26

INTRO

Thank you for purchasing a ShowTex product.

Please take a moment to read this manual before installing or starting to use your new curtain track system. It contains important information regarding health and safety regulations and will guide you through the installation process safely and will show you how to use the system without injuring yourself or the people around you.

WARRANTY

ShowTex warrants that its mechanical/technical products, when delivered in new condition, in original packaging, sold directly and used in normal conditions, are free from any defects in manufacturing, materials and workmanship. The warranty shall only apply if the mandatory preventive maintenance actions as described in the technical documentation have been executed by skilled people. Warranty starts on invoice date for a period of 24 months.

Please read the entire warranty declaration on our website www.showtex.com before installing & using this product.

PRODUCT DESCRIPTION

The H100 is an all-round, multifunctional and budget-friendly rail system for medium-heavy to heavy curtains which can be controlled manually, by rope or electrically. The system is compatible with our RTD motor range and can be controlled by the DMX communication protocol. It is the ideal track for television studios and medium-sized venues or theatres.

RTD or Rope Track Drivers are a range of motors provided by ShowTex. They can be used to electronically control the movement of the curtain.



Beware, this manual only covers the motorised rope controlled H100 rail system.

SAFETY INSTRUCTIONS



Do not exceed the maximum carrying capacity of the track and its components. Be sure to check if the capacity of the suspension points corresponds to the weight of the track and the items to be suspended from the track. (**see chapters 'technical specifications' and 'max. load & distance'**)

The maximum distance between each suspension point should be 1,5 m. Allow for extra points in the curtain storage area to support the extra weight of the curtain when gathered together. Be sure to read the technical specifications chapter for more detailed information.

Do not allow any item to be operated or used when in doubt about the safety or good working order to avoid accidents and injuries. Most accidents are the result of lack of training, carelessness and overconfidence, do not assume anything.

Do not use this rail system for any other purpose than hanging and moving stage curtains or light-weight decorative elements.

Only combine this rail system with parts and accessories from the ShowTex curtain track range.

Disassembly must be carried out under the same conditions and following the same steps as assembly. Remove all curtains or other suspended items before removing tracks from their permanent location. Disconnect all parts before removing tracks. Never remove in one piece.



To prevent electrocution and contact with moving parts, disable the power supply before carrying out any work on the units.

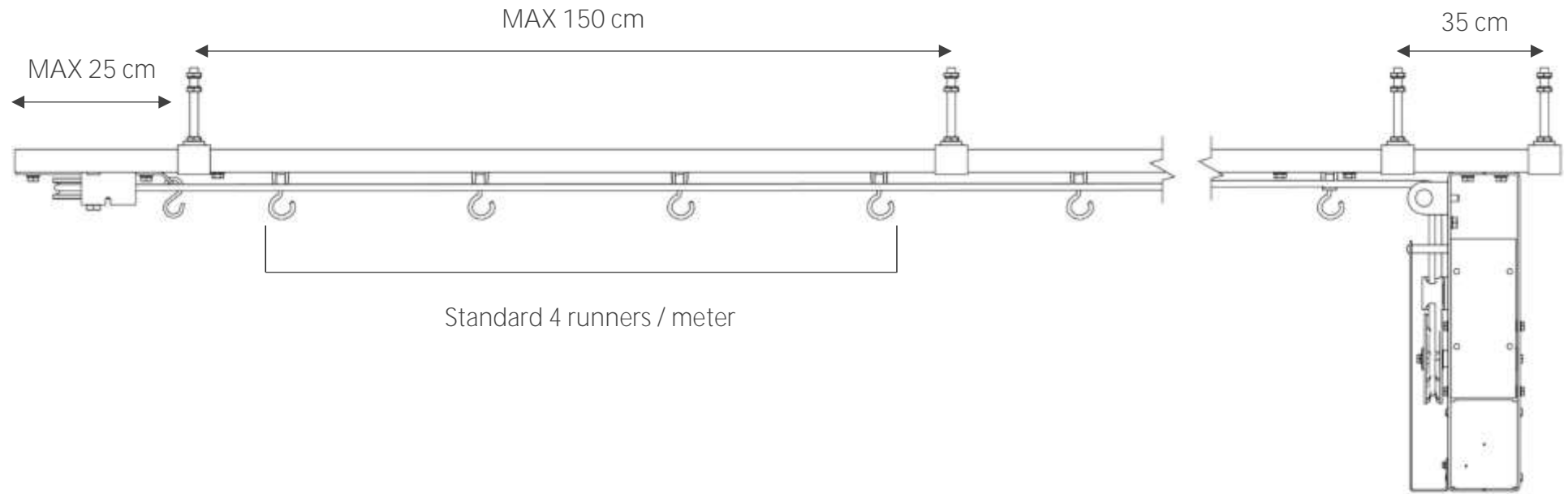
RTD units must be installed with a corresponding earth wire with the same section as the power cable. Installation and operation must take place in a dry frost-free environment.

A sudden unexpected start-up of the system by not disabling the power in both the standard and RTD units creates a risk to the operator.

Be aware, the motion system will continue as long as electricity flows. If a problem occurs, anything in its path can cause damage to the moving curtain until the master or overlap carriers reach the limit switch or the motor unit is shut down.

MAX. LOAD & DISTANCE

Never exceed the maximum distance and approved loads shown in the drawing and graph on this page.



Allow for extra suspension points in the curtain storage area to support the extra weight of the curtain when gathered together!

Art. No.	Description	SWL	Point load between 1.5 m suspension points	Uniformly distributed load between 1.5 m suspension points
8050 0001 6007	Track section	x	61 kg	112 kg
8050 0205 0087	Ball-raced runner	8 kg	x	x
8050 0221 0167	Master carrier	15 kg	x	x
8050 0230 0001	Scenery carrier	60 kg	x	x

TECHNICAL SPECIFICATIONS

COMPONENTS

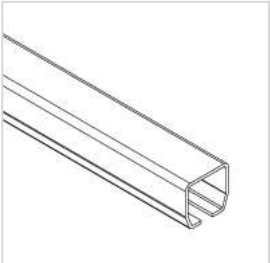
The following components are part of the motorised rail H100 system.

CAUTION! The components included in your shipment will depend on the specific situation in which you want to use this system.

For more technical information please refer to the technical datasheet.

LEGEND

/m	Weight per meter
/p	Weight per piece
/s	Weight per set



1. TRACK				
Art. No.	Colour	Weight	Length	
8050 0001 6001	Galvanised	1.34 kg/p	600 cm	
8050 0001 6007	Black	1.34 kg/p	600 cm	



2. COUPLING				
Art. No.	Colour	Weight	Info	
8050 0040 0801	Galvanised	0.24 kg/p		
8050 0040 0807	Black	0.24 kg/p		
8050 0040 0811	Galvanised	0.24 kg/p	For use in	
8050 0040 0817	Black	0.24 kg/p	combination with ceiling bracket	




3. CEILING BRACKET			
Art. No.	Colour	Weight	
8050 0110 0001	Galvanized	0.18 kg/p	
8050 0110 0007	Black	0.18 kg/p	




4. BRACKET + M10 STUDDING			
Art. No.	Colour	Weight	Height
8050 0130 0101	Galvanized	0.18 kg/p	10 cm
8050 0130 0107	Black	0.18 kg/p	10 cm



5. END STOP		
Art. No.	Colour	Weight
8050 0050 0001	Galvanised	0.03 kg/p

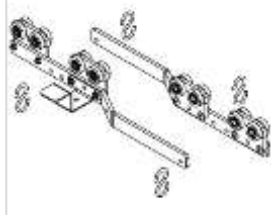


6. BALL-RACED RUNNER			
Art. No.	Colour	Weight	SWL
8050 0205 0083	White	0.03 kg/p	8 kg
8050 0205 0087	Black	0.03 kg/p	8 kg



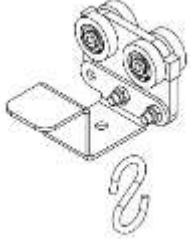
7. BALL-RACED MASTER CARRIER

Art. No.	Colour	Weight	SWL
8050 0221 0163	White	0.05 kg/p	15 kg
8050 0221 0167	Black	0.05 kg/p	15 kg



11. OVERLAP CARRIER SET FOR USE WITH MOTOR

Art. No.	Colour	Weight	Capacity
8050 0246 1167	Black	0.82 kg/p	15 kg



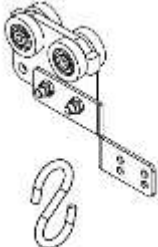
8. MASTER CARRIER FOR USE WITH MOTOR

Art. No.	Colour	Weight	Capacity
8050 0228 0167	Black	0.12 kg/p	15 kg



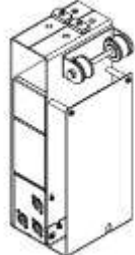
12. SCENERY CARRIER

Art. No.	Colour	Weight	SWL
8050 0230 0001	Galvanised	0.11 kg/p	60 kg



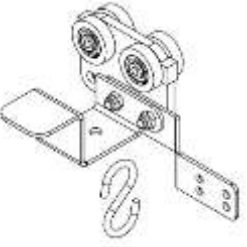
9. SHORT OVERLAP CARRIER

Art. No.	Colour	Weight	SWL
8050 0245 0057	Black	0.09 kg/p	15 kg



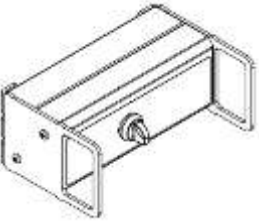
13. RTD 1000

Art. No.	Colour	Weight	Information
8050 0713 2217	Black	11.8 kg	90W/230V/2.3A



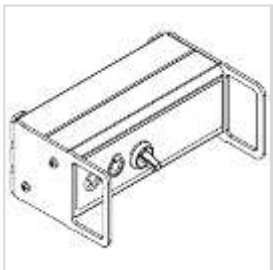
10. SHORT OVERLAP CARRIER FOR USE WITH MOTOR

Art. No.	Colour	Weight	Capacity
8050 0245 1057	Black	0.09 kg/p	15 kg



14. REMOTE CONTROL

Art. No.	Colour	Weight
8050 0950 0007	Black	1.55 kg/p



14. REMOTE CONTROL DMX MODULE

Art. No.	Colour	Weight
8050 0766 0200	Black	1.55 kg/p



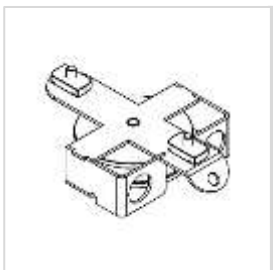
15. LINK CABLE

Art. No.	Colour	Weight	Info
8160 0915 0257	Black	3.24 kg/p	25 m



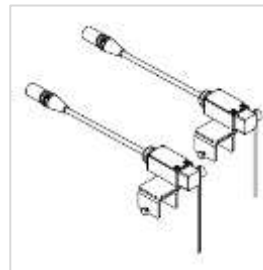
16. POWER CABLE

Art. No.	Colour	Weight	Info
8150 0912 0027	Black	0.44 kg/p	2 m



17. RETURN PULLEY

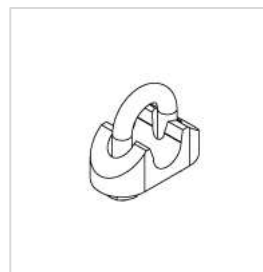
Art. No.	Colour	Weight
8050 0410 0037	Black	0,95 kg/p



18. LIMIT SWITCH SET

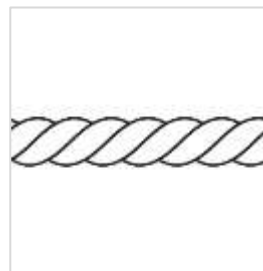
Art. No.	Colour	Info
8050 0770 0030	Green	2 pieces

Plug & Play 1



19. CABLE CLAMP SET

Art. No.	Colour	Weight	Quantity
8050 0248 0035	Inox	0,014 kg/p	3 pieces



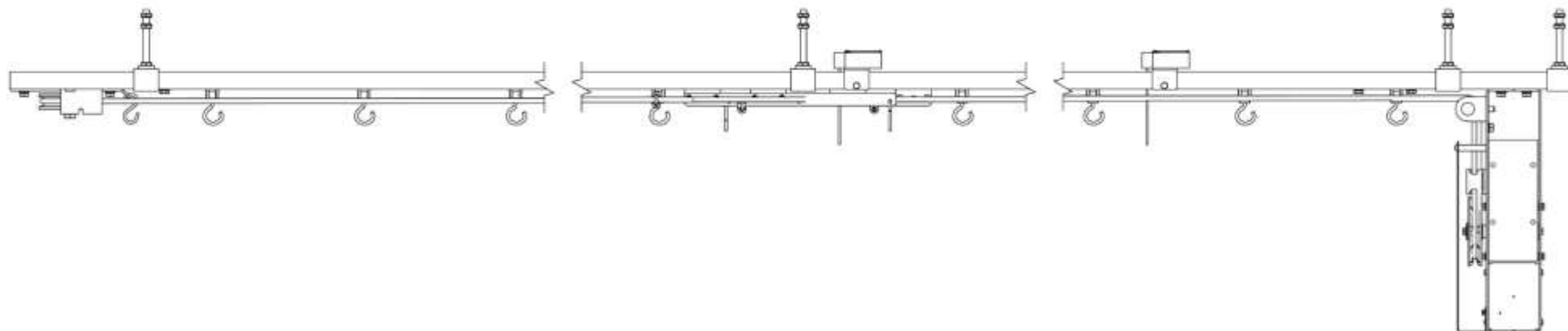
20. DOUBLE BRAIDED ROPE

Art. No.	Colour	Weight	Diameter
7530 0308 0007	Black	0.04kg/m	8mm

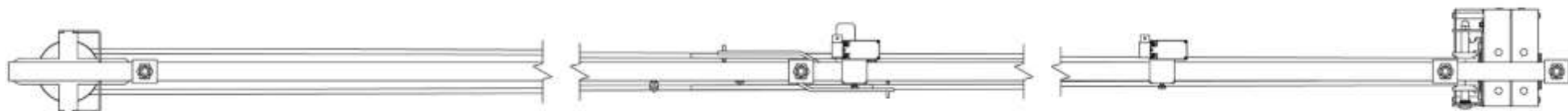
ASSEMBLED SINGLE TRACK CENTRAL OVERLAP

FRONT, TOP AND BOTTOM PLAN VIEW

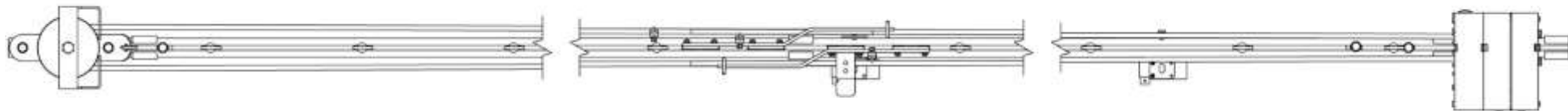
1. Front view



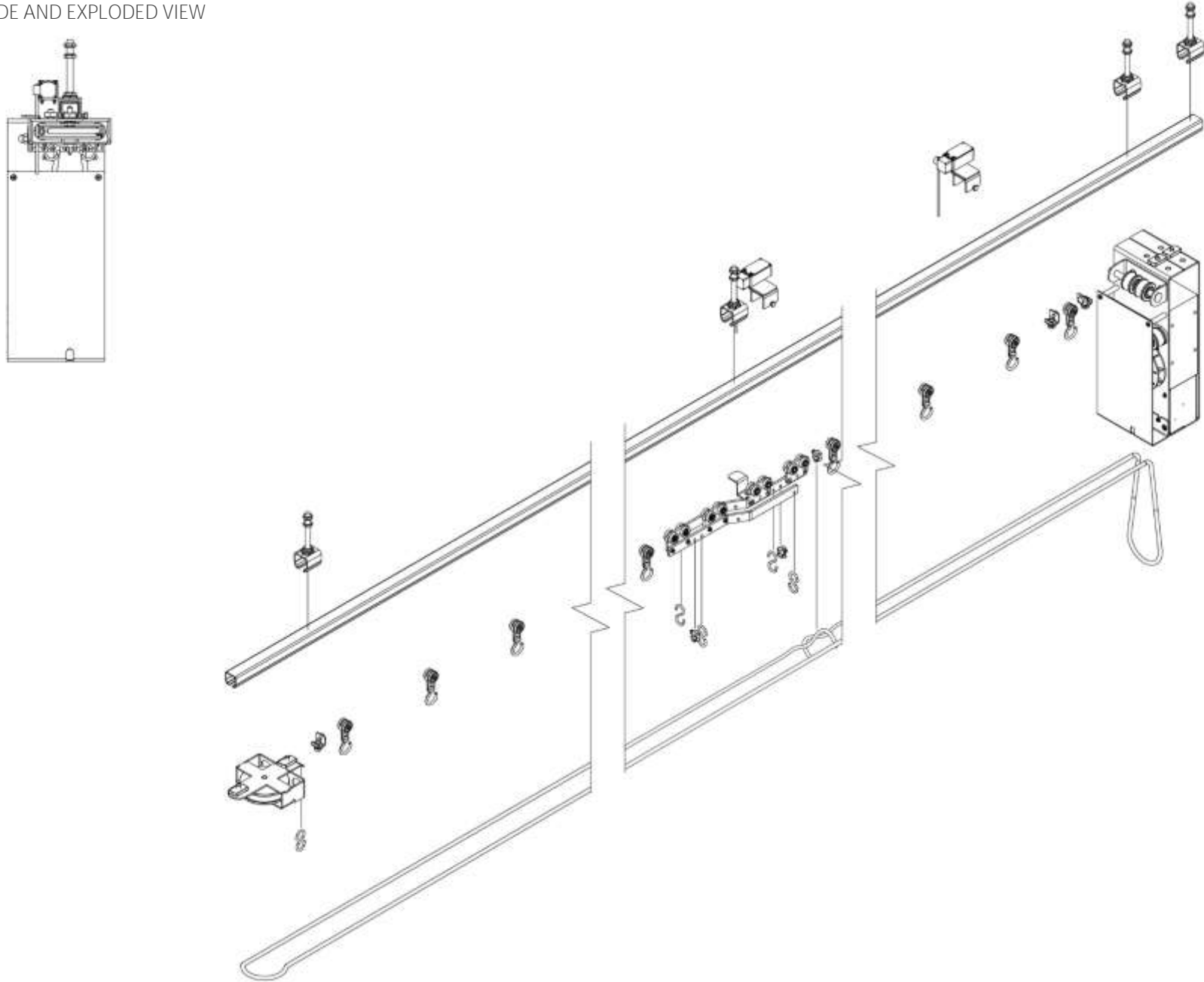
2. Top view



3. Bottom plan view



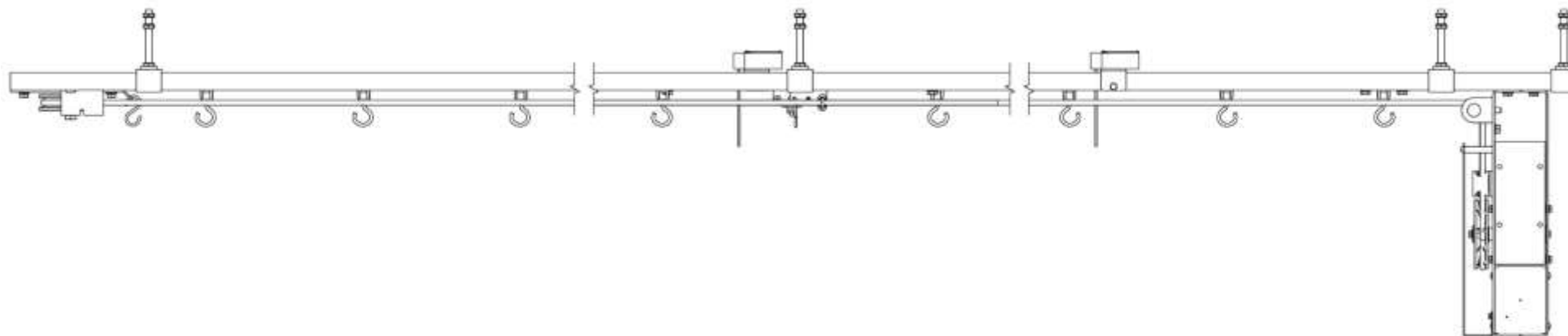
SIDE AND EXPLODED VIEW



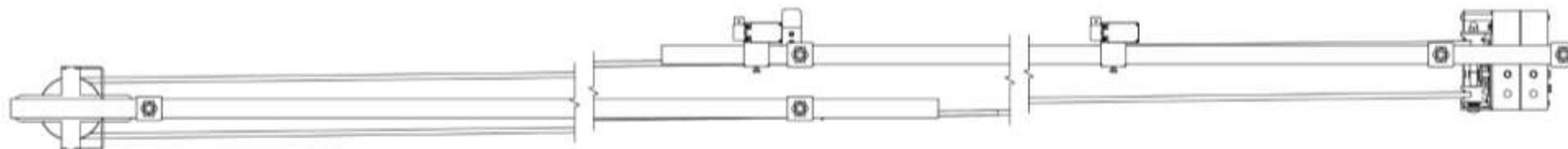
ASSEMBLED DOUBLE TRACK CENTRAL OVERLAP

FRONT, TOP AND BOTTOM PLAN VIEW

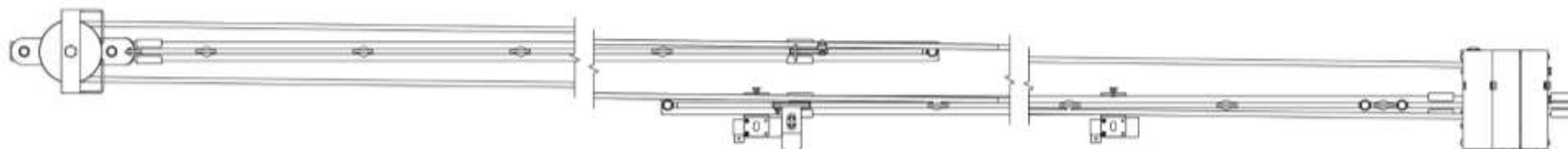
1. Front view



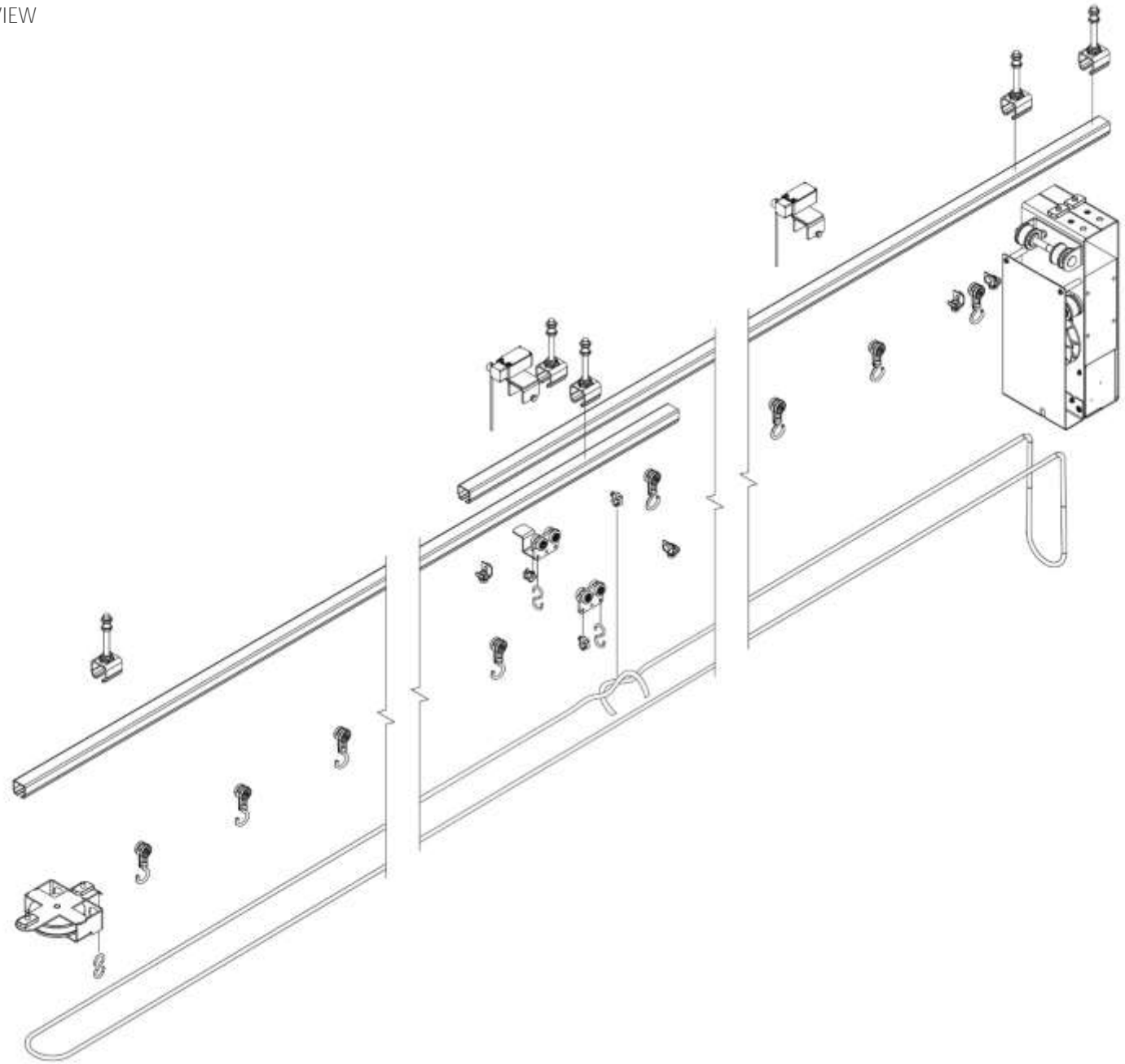
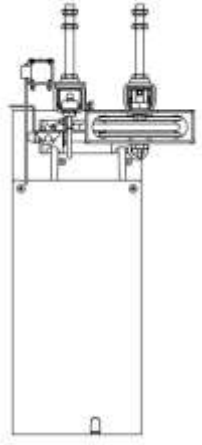
2. Top view



3. Bottom plan view



SIDE AND EXPLODED VIEW




INSTALLATION

This chapter provides all required information and steps necessary for installing a Rail H100 system motorised by a RTD1000 motor unit. Note that a certain technical knowledge and experience are required to understand this guide and install this product.

 **BE SURE TO CHECK THE “HOW TO ...” CHAPTER IN ORDER TO INSTALL CORRECTLY.**

NECESSARY STEPS

1. Determine attachment points & distance between them.
2. Place brackets on rail(s), secure them by hand.
3. Place coupler on outer end of each rail, secure them by hand.
4. Mount first rail in supporting structure & secure brackets to rail.
5. Mount second rail in supporting structure & secure coupler.
6. Repeat step 5 for all other pieces of rail.
7. Insert 1 runner between 2 endstops (optional).
8. Prepare the RTD motor unit.
9. Install the RTD motor unit.
10. Insert runners & master or overlap carriers.
11. Insert 2nd endstop.
12. Install return pulley.
13. Install limit switches.
14. Position limit switches accordingly.
15. Insert double braided rope accordingly.
16. Tension the operating line.
17. Bring master or overlap carriers to centre position of rail or stage.
18. Bring rope ends to correct position just behind the master or overlap carrier.
19. Connect rope to master or overlap carriers.
20. Connect limit switches, RTD unit & remote control accordingly.
21. Connect DMX & set DMX address (optional).
22. Check system without curtain & check curtain width.
23. Hang curtain & test again.
24. Connect curtain ends to fixed runner and return pulley (optional).

 *When installing a rail between 2 walls, don't forget to attach head & return pulley before securing the rail in the supporting structure!*

NECESSARY TOOLS

The following tools are needed to install the H100 rope-controlled rail track



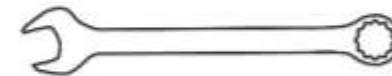
Allen key 3



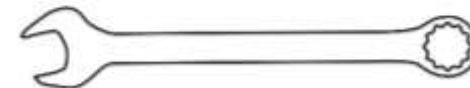
Wrench 8



Wrench 10



Wrench 13



Wrench 17



Screwdriver

HOW TO...

DETERMINE NUMBER OF ATTACHMENT POINTS & DISTANCE BETWEEN THEM

Determine the amount of attachment points you need and calculate the distance between them by following the steps outlined below. Never exceed the maximum distance of 150 cm between each point!

STEP 1: determine net length (L) of the track

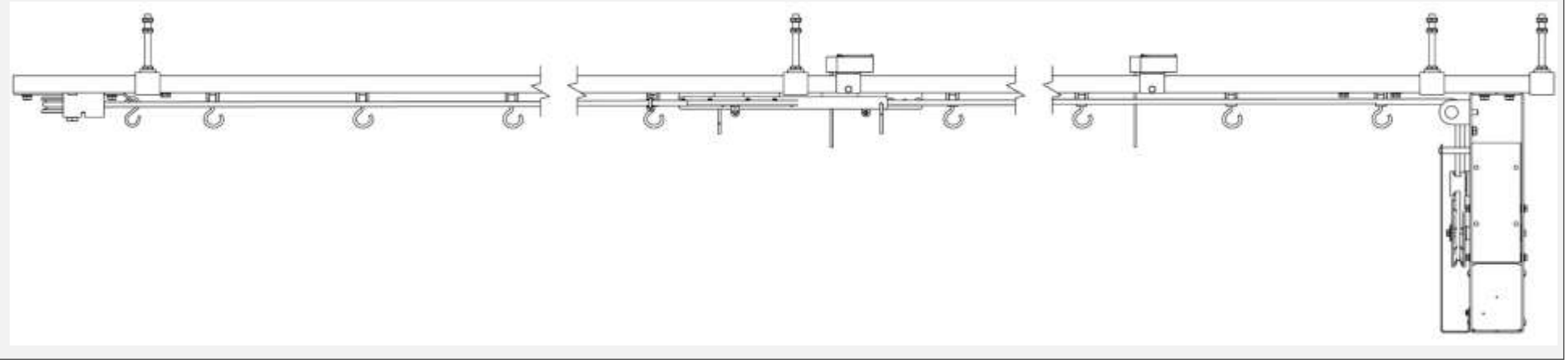
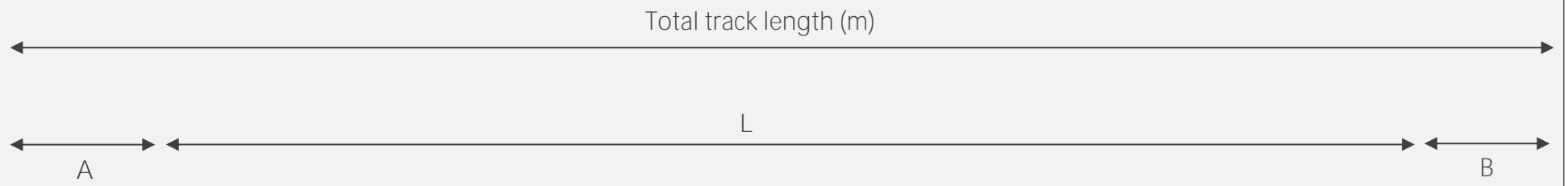
STEP 2: determine number of attachment points (#p)

STEP 3: determine distance between attachment points

$$L = \text{total track length} - (A + B)$$

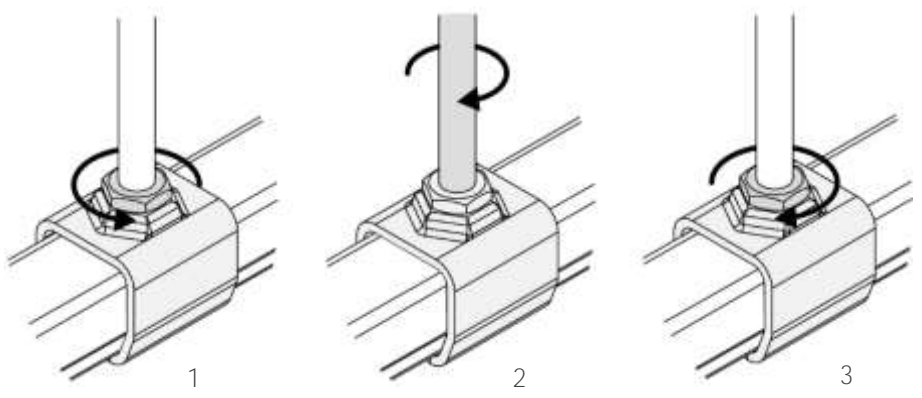
$$\left(\frac{L}{1,5}\right) + 1 = \#p$$

$$\frac{L}{(\#p - 1)} = \text{distance between points}$$



 When connecting two rails with a coupler, always place an extra suspension point within 5 cm of the coupler!

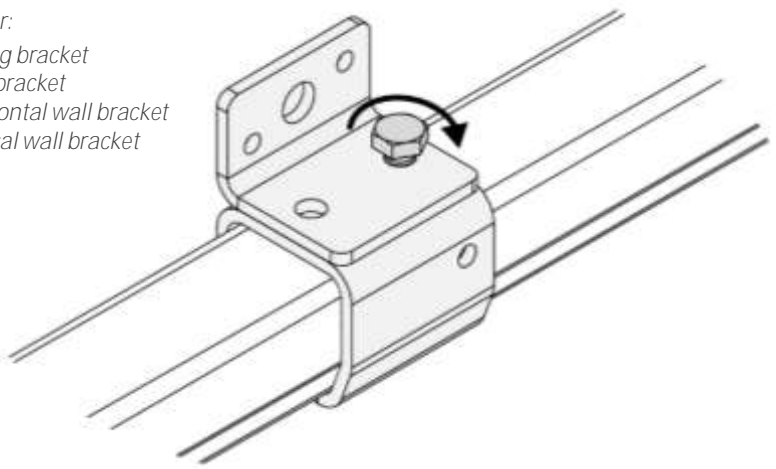
SECURE MOUNTING BRACKETS



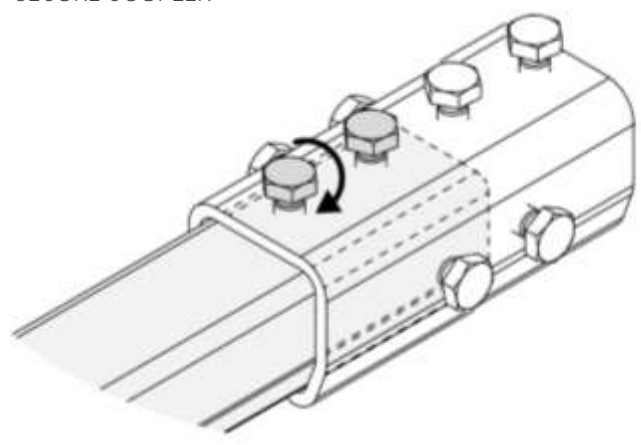
- 1: Loosen nut (M10).
- 2: Fasten threaded rod (M10) hand tight.
- 3: Secure nut (M10).

➤ Fasten the bolt (M6) hand tight in case you are using another type of bracket.

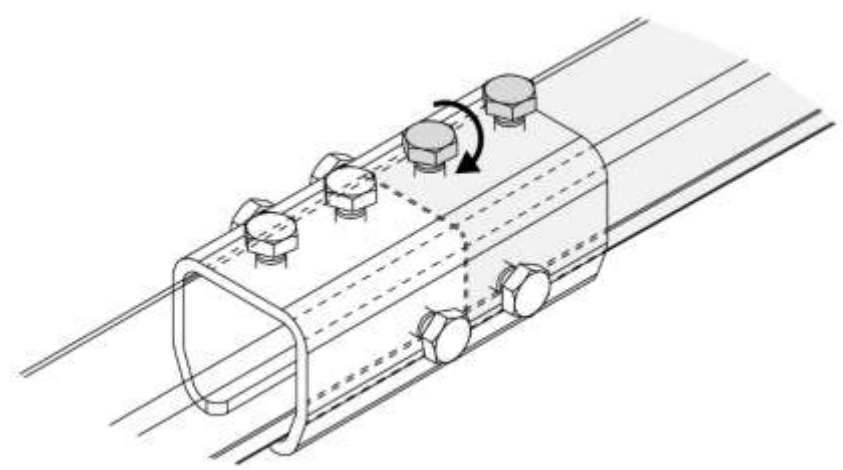
- Applies for:
- 1. Ceiling bracket
 - 2. Wall bracket
 - 3. Horizontal wall bracket
 - 4. Vertical wall bracket



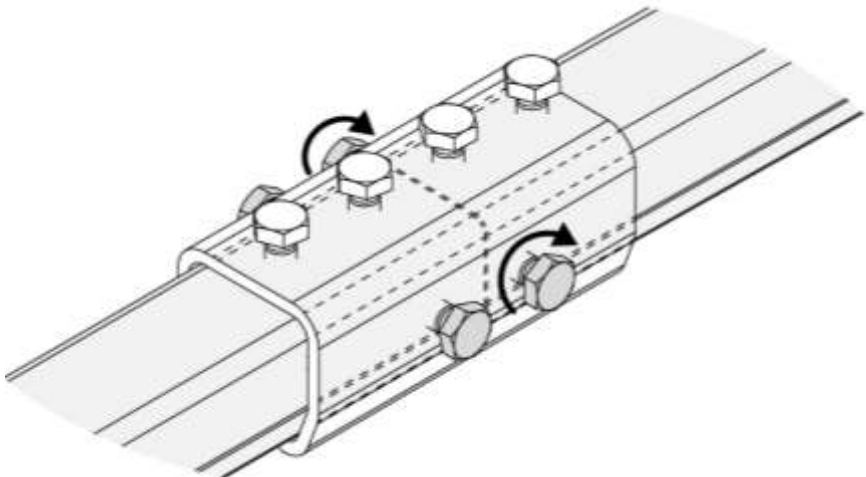
SECURE COUPLER



- 1: Align the rail end in the middle of the coupler.
- 2: Fasten the bolts (M6) on the top side hand tight , give an extra ½ turn to secure.



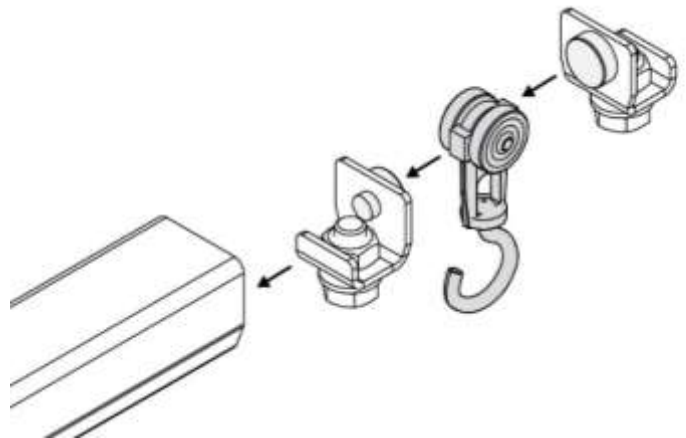
- 3: Align the rail end of the second section in the middle of the coupler.
- 4: Fasten the bolts (M6) on the top side hand tight and give an extra ½ turn to secure, realign if you feel a height difference!



5: Fasten the bolts (M6) on the left and right sides hand tight and give an extra ½ turn to secure, even if the rails are already aligned! Do one side at a time.

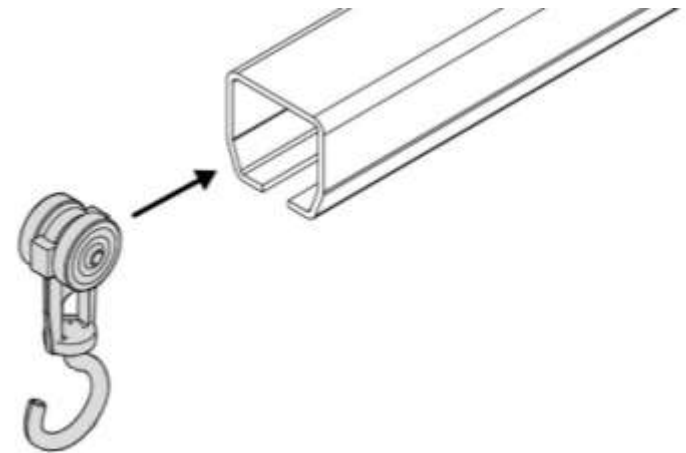
6: Trace the inside of the rail with a finger. Realign the rail if you feel a gap or height difference.

➤ OPTIONAL: INSERT ONE RUNNER BETWEEN TWO END STOPS



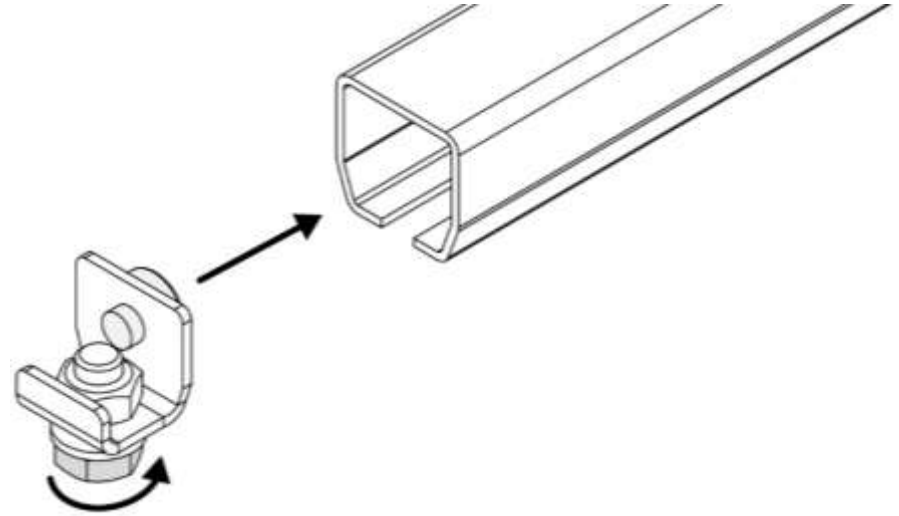
1: Refer to page 9 (single track configuration) or 11 (double track configuration) in order to insert accordingly.

INSERT RUNNERS AND / OR MASTER CARRIERS



1: Refer to page 9 (single track configuration) or 11 (double track configuration) in order to insert the runners & carriers accordingly.

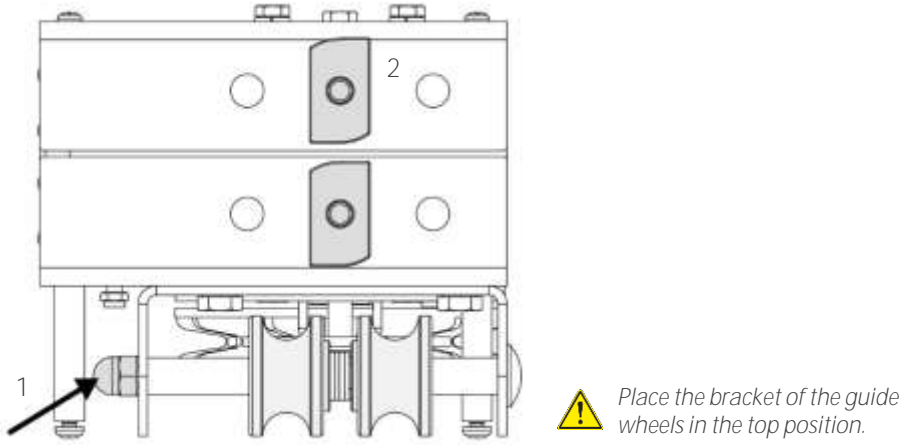
INSERT END STOPS



1: Make sure the rubber muffler faces the runners and or master carriers

2: Fasten the bolt (M8) hand tight, give an extra ½ turn to secure.

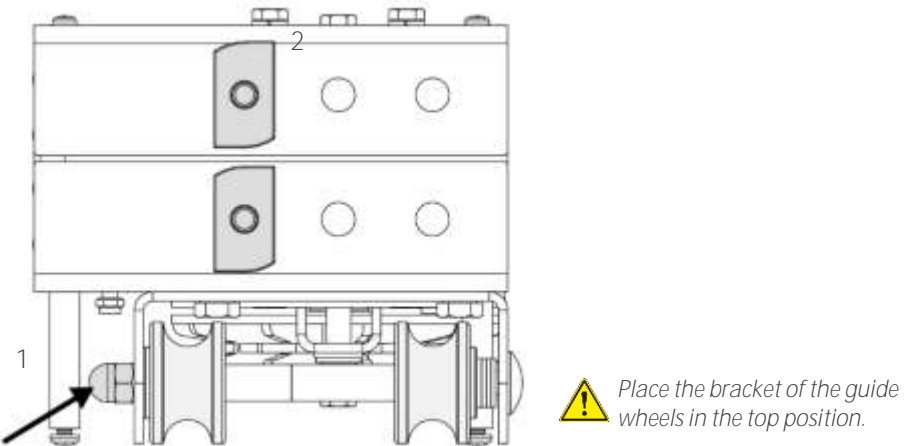
PREPARE THE RTD 1000 UNIT: SINGLE TRACK CONFIGURATION



1: Unfasten bolt, place guide wheels in the correct position & reattach bolt.

2: Place the bolts (M10) on the top of the unit in the correct position.

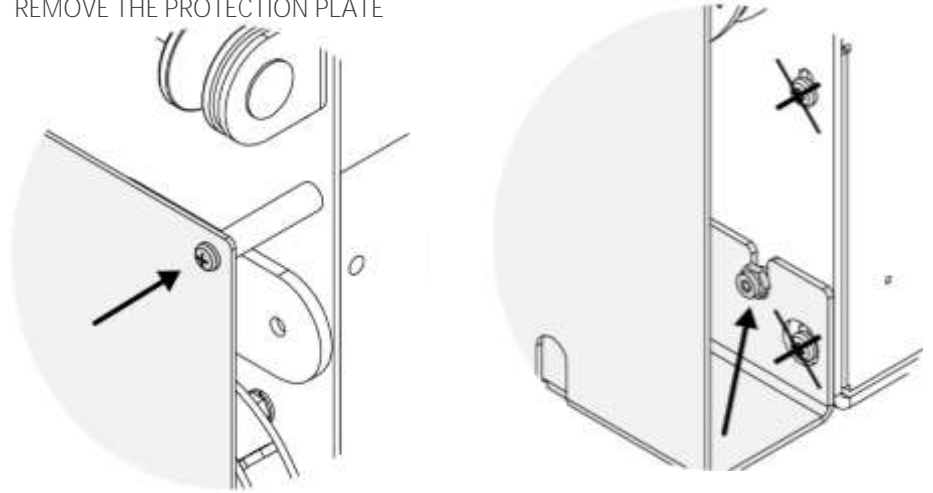
PREPARE THE RTD 1000 UNIT: DOUBLE TRACK CONFIGURATION



1: Unfasten bolt, place guide wheels in the correct position & reattach bolt.

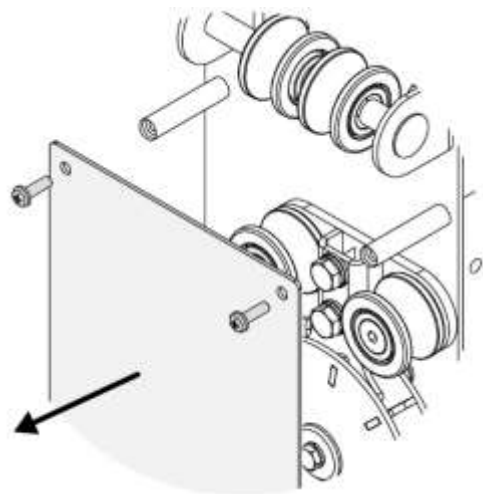
2: Place the bolts (M10) on the top of the unit in the correct position.

REMOVE THE PROTECTION PLATE



1: Unfasten the screws & hex nuts holding the protective plate in place.

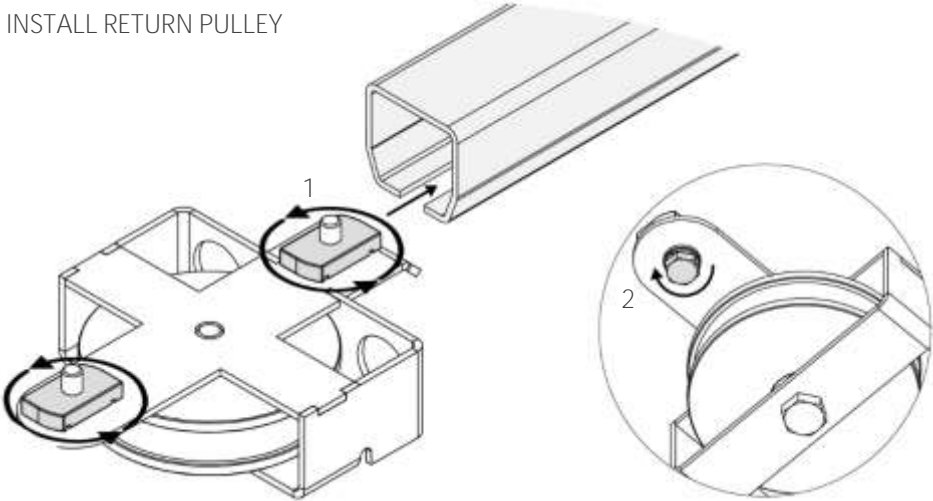
2: Do not remove the screws crossed out in the drawing above.



3: Remove the protective plate.

4: Don't throw away the protective plate, put it back on after threading the rope.

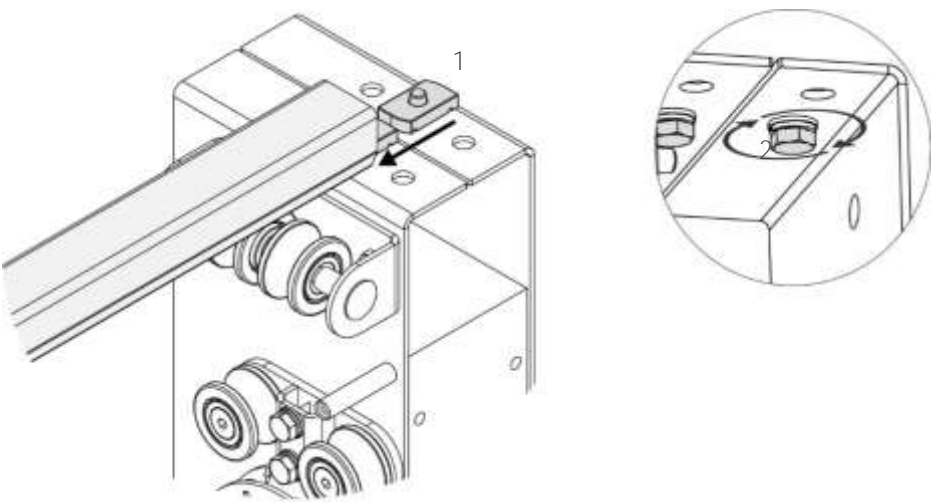
INSTALL RETURN PULLEY



1&2: Loosen both bolts (M8) & slide pulley into the rail.

3: Tighten both nuts (M8).

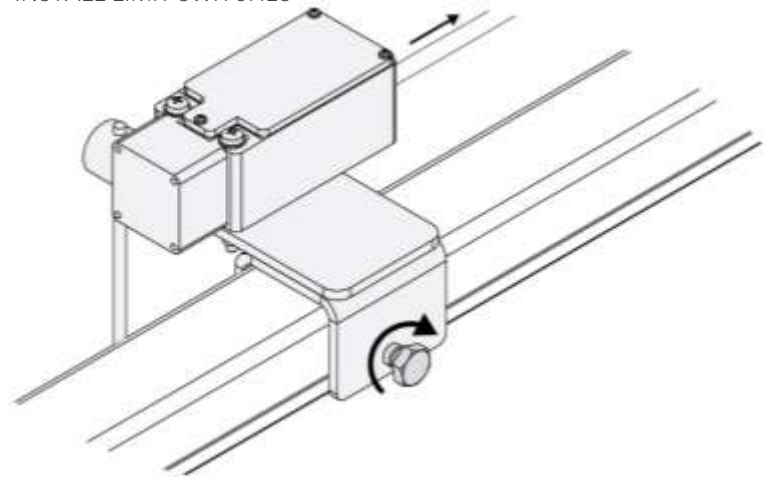
INSTALLING THE RTD 1000 UNIT



1: Unfasten the bolts the same way as shown in the previous step.

2: Slide the motor unit into the rail & tighten both nuts (M8).

INSTALL LIMIT SWITCHES

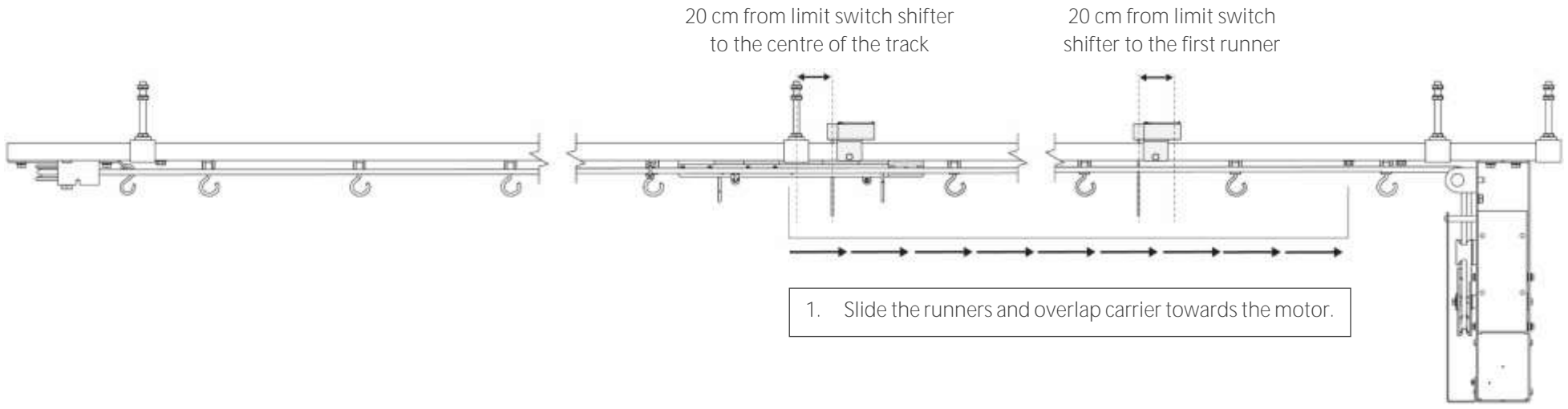


1: Place the bracket of the limit switches on top of the rail.

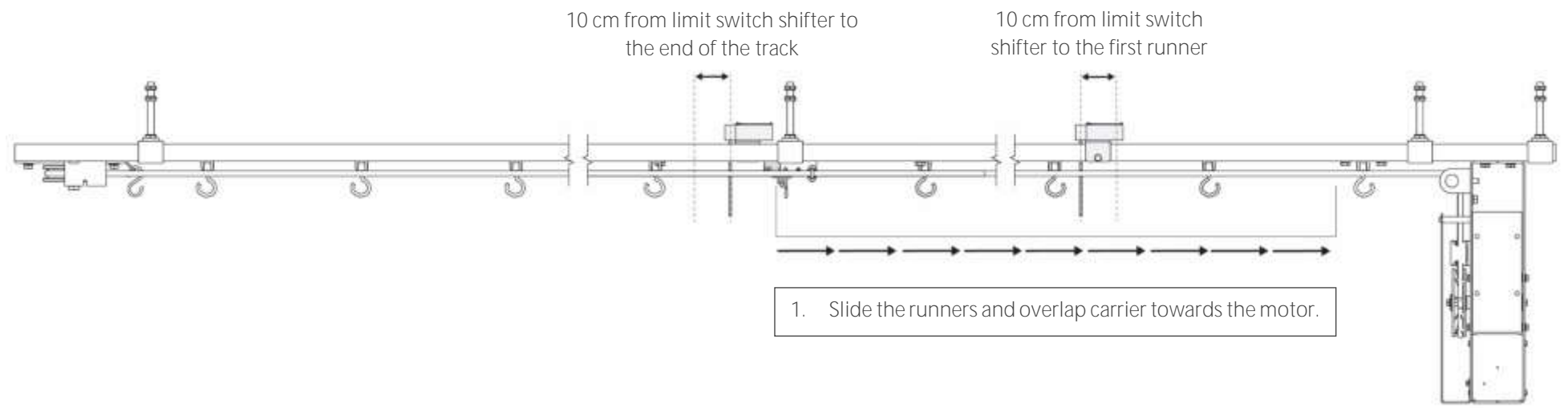
2: Make sure the plug of the link cables faces the motor unit.

3: Fasten the bolts (M6) hand tight, give an extra 1/2 turn to secure.

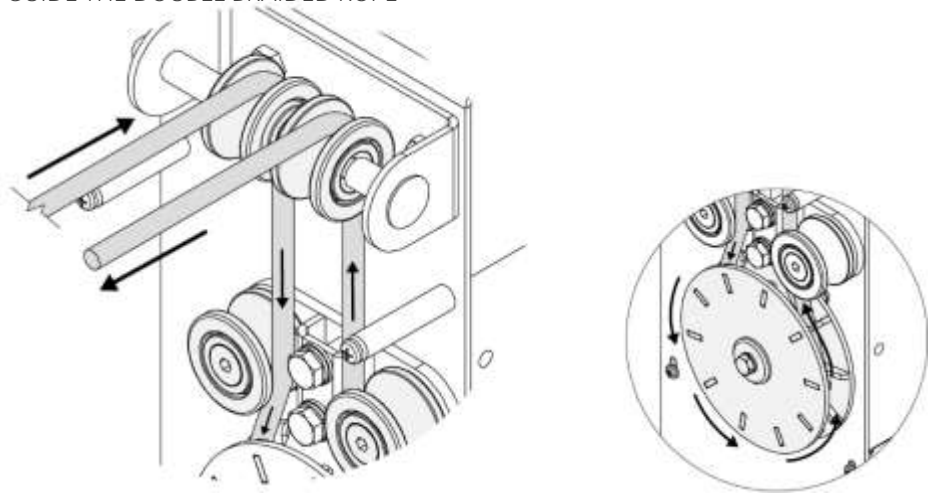
POSITIONING THE LIMIT SWITCHES: SINGLE TRACK CONFIGURATION



POSITIONING THE LIMIT SWITCHES: DOUBLE TRACK CONFIGURATION

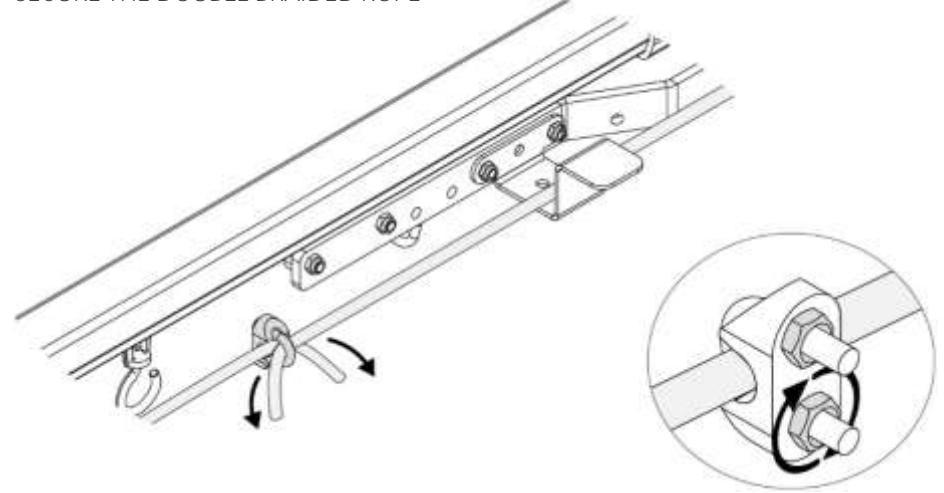


GUIDE THE DOUBLE BRAIDED ROPE

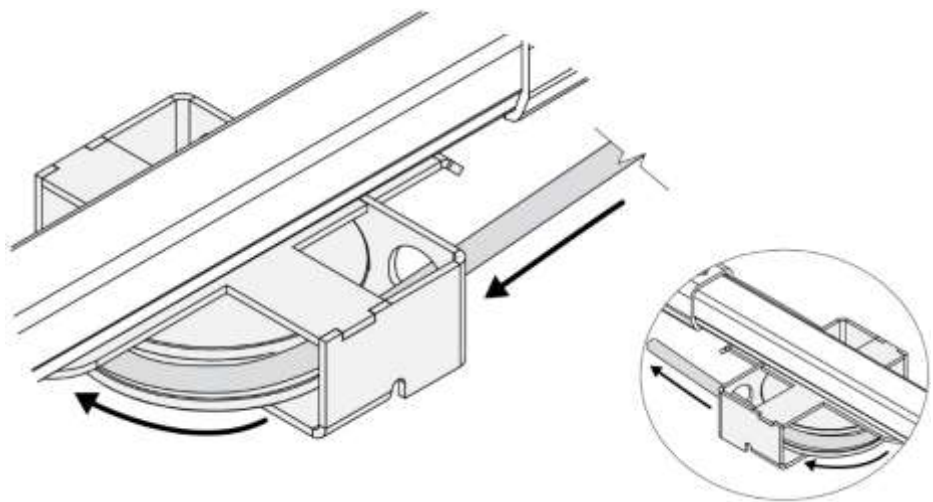


- 1: Thread the rope through the motor, starting on the front side of the rail.
- 2: Take the returning end of the rope & walk to the return pulley.

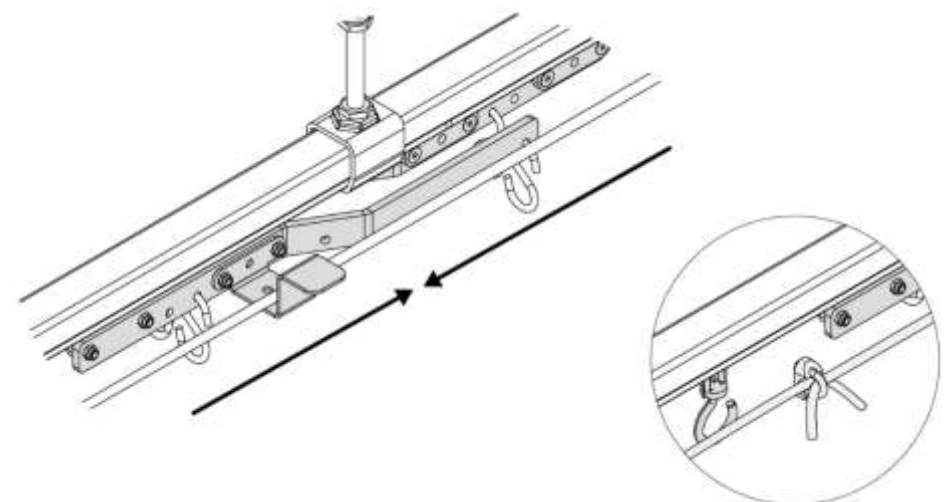
SECURE THE DOUBLE BRAIDED ROPE



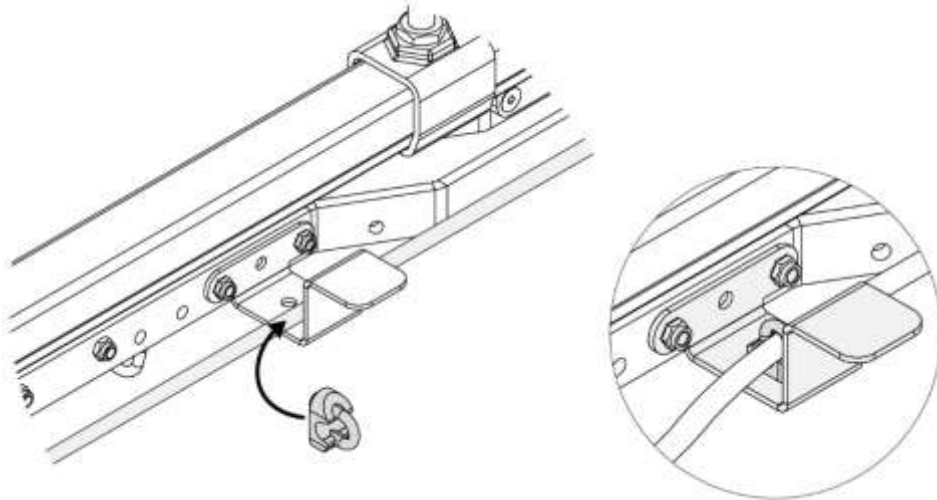
- 1: Connect the rope ends using the first rope clamp.
- 2: Tension the operating line to the correct level by tightening the knot.



- 3: Pull the returning end of the rope through the return pulley.
- 4: Take the rope and walk back to the motor.

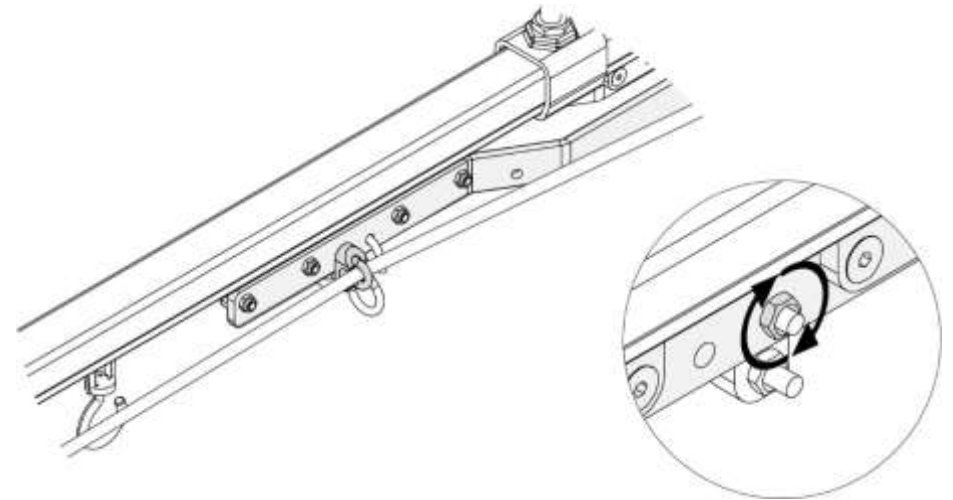


- 3: Bring the (overlap) carriers to the centre position of the rail or stage.
- 4: Bring the rope ends back together just behind the (overlap) carrier.



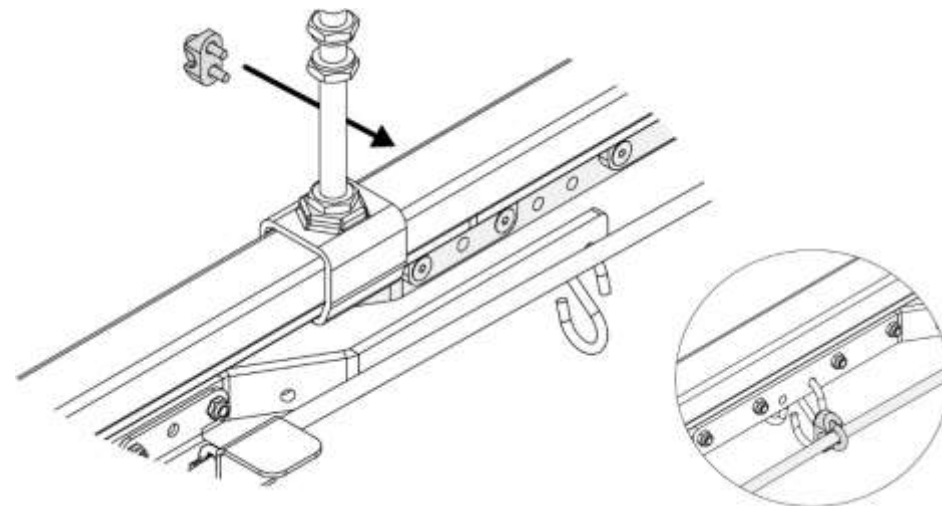
5: Use the 2nd rope clamp to attach the operating line to the first (overlap) carrier.

6: Tighten both nuts of the clamp firmly to prevent the rope from slipping away.



9: Loosen & remove the upper nut in order to attach the clamp to the carrier.

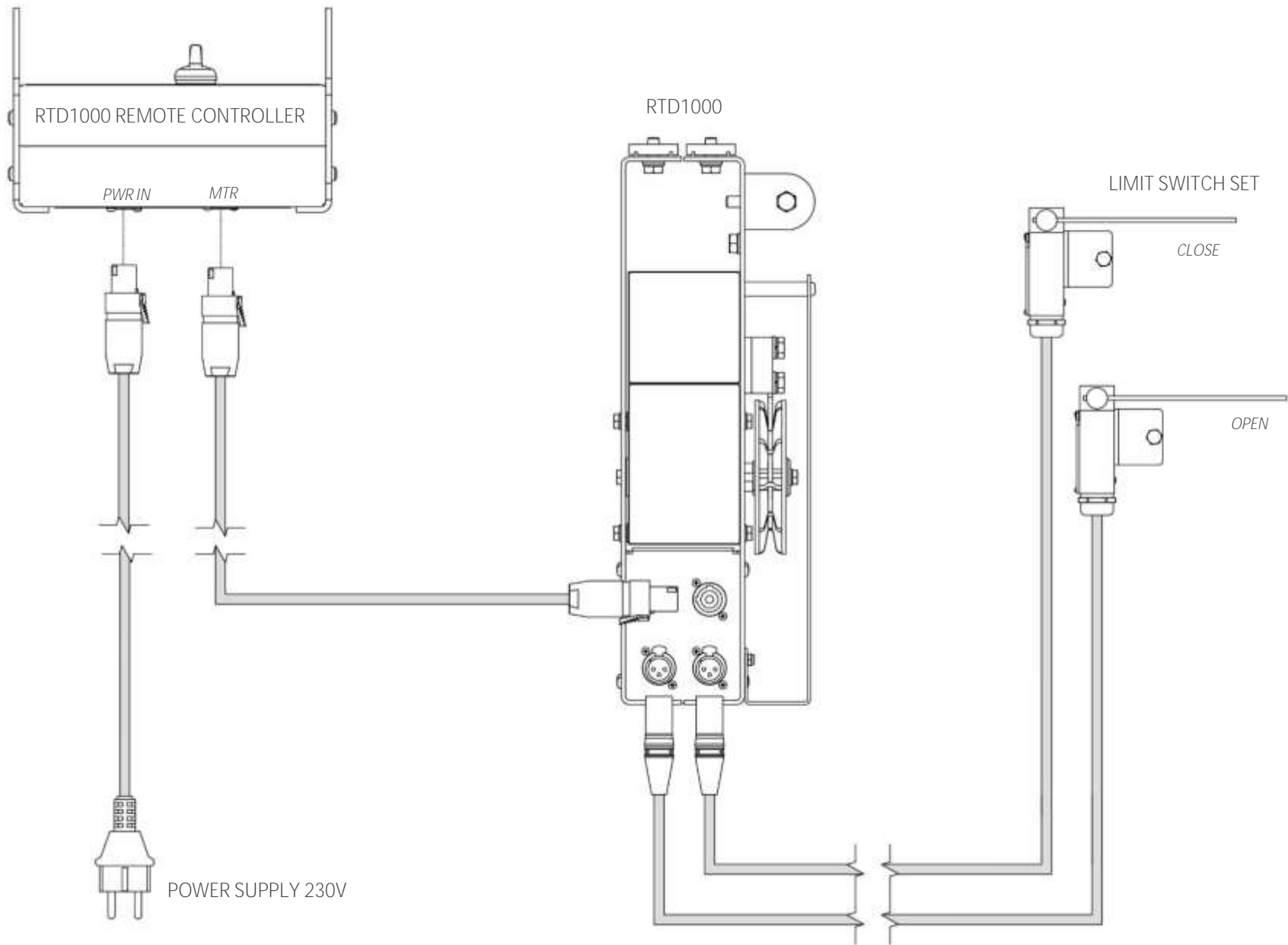
10: Secure the clamp to the carrier by tightening the upper nut.



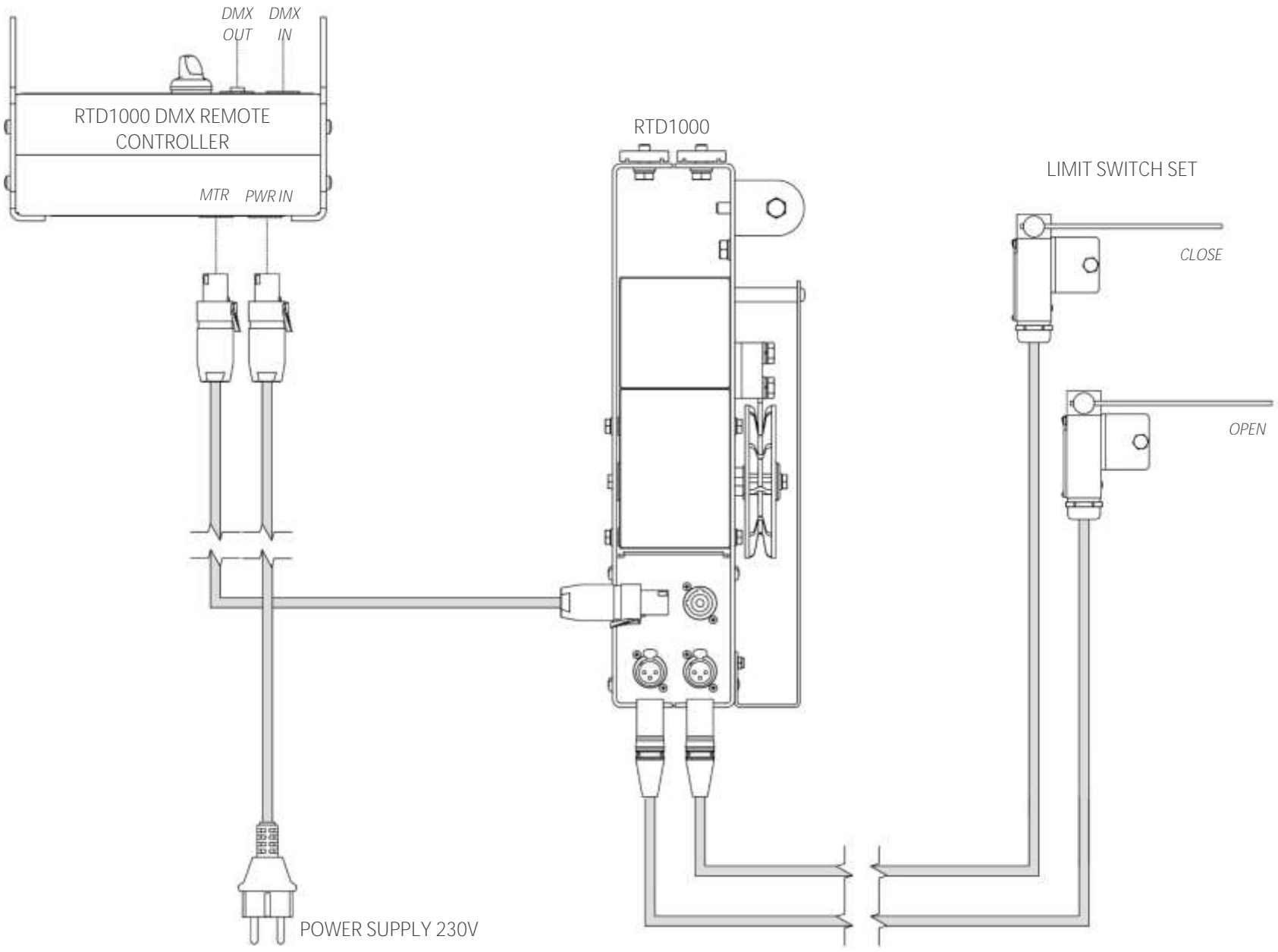
7: Use the 3rd clamp to attach the returning rope to the second (overlap) carrier.

8: Use the lower nut of the clamp to secure the rope to the clamp.



CONNECT THE LIMIT SWITCHES, RTD UNIT AND REMOTE CONTROL

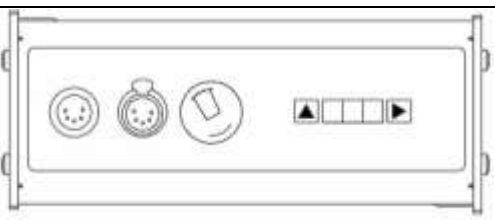


CONNECT THE LIMIT SWITCHES, RTD UNIT AND REMOTE CONTROL FOR DMX SETUP











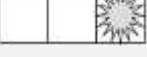




SET UP THE DMX MODULE




-  Scrolling thru the menu.
-  Changing the display.

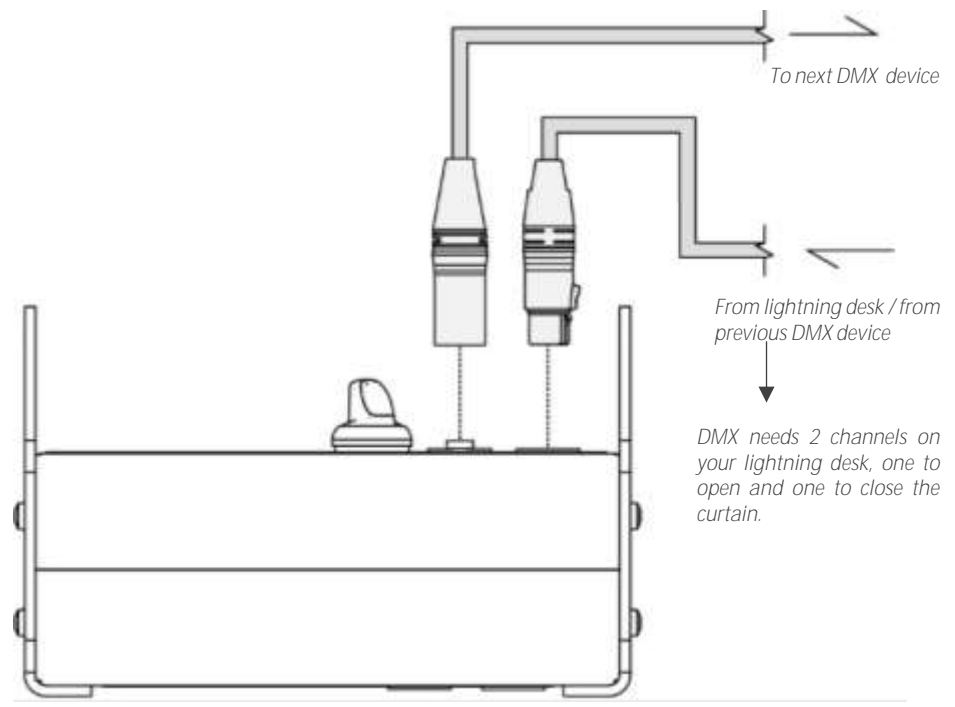


 DMX overrides manual control

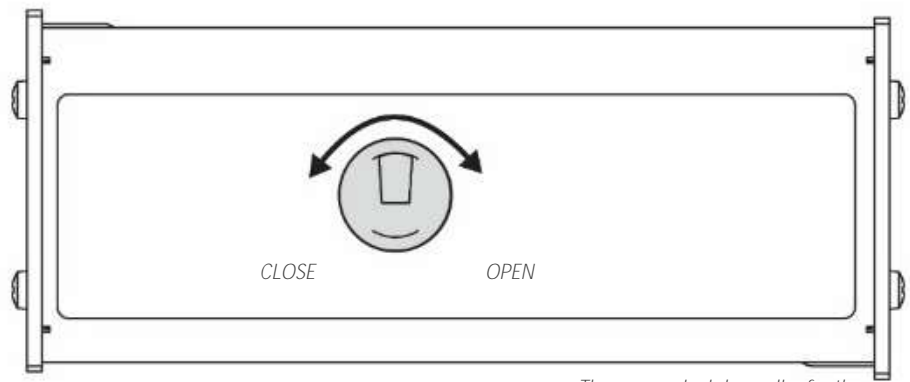
SETTING OF THE DMX VALUE		
Push 1x		On the display appears Adr (after 3 sec the display will turn off). Each DMX address has 3 values.
Push 1x		 The first digit will start blinking (after 5 sec the display will turn off)
	Push on 	To change the value from 0 to 9 (jumps back to 0 after 9)
	Confirm with 	
Push 1x		 The second digit will start blinking (after 5 sec the display will turn off)
	Push on 	To change the value from 0 to 9 (jumps back to 0 after 9)
	Confirm with 	
Push 1x		 The third digit will start blinking (after 5 sec the display will turn off)
	Push on 	To change the value from 0 to 9 (jumps back to 0 after 9)
	Confirm with 	
Confirmation of the setting, wait until REC appears on the display.		
The second channel will automatically follow the start address.		

SCROLLING THRU THE MENU

Push on 	to scroll thru the menu
Adr >>>	setting of DMX adress
S1	Not applicable, has to be set to OFF
S2	To change, push on  choose between ON and OFF) and confirm with 
S3	
S4	(the display will turn off after 5 sec and the last setting will be saved)
DIS	



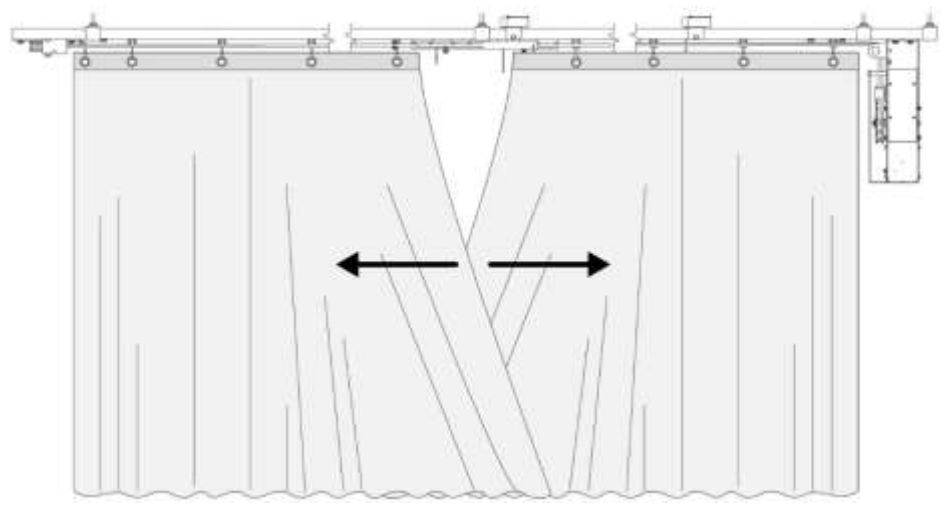
INSTALL CURTAIN



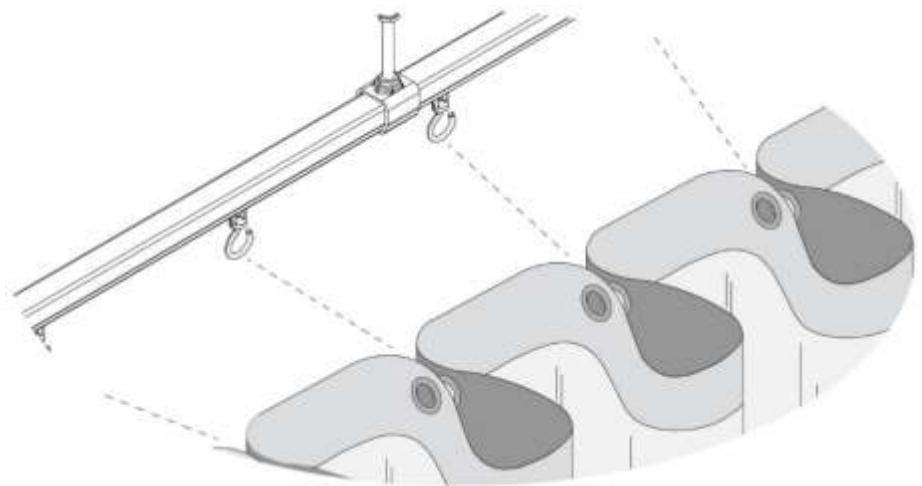
RTD 1000 remote controller

The same principle applies for the RTD 1000 DMX BASIC remote controller

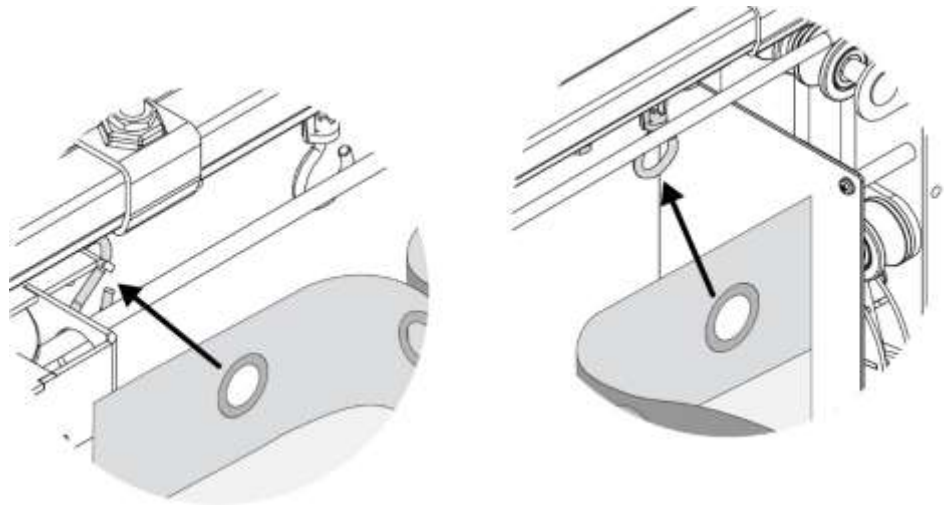
1: Check if the limit switches are plugged into the correct input (trail & error) & if the (overlap) carriers are in line with the centre of the rail or stage. Then use the remote control to open and close the system, if the (overlap) carriers end up at the same point as they started, your system is properly installed.



3: Hang the curtain and do a final check-up of the rail system and curtain width, perform the test using the same method as described in the first step of this chapter.



2: In order to create a pleated curtain you must take two grommets together and attach them to the same swivel hook. When you ordered a flat curtain, simply attach each grommet to a separate swivel hook.



4: Attach one curtain end to the return pulley using a S-hook and attach the other end to the runner between the end stops. This will keep your curtain in place.

CARE AND MAINTENANCE



Periodic, regularly scheduled maintenance inspections are necessary for any mechanical system. A theatrical curtain track system is no different. It has components that must be inspected, adjusted, maintained and replaced. In order to keep your system safe and in good working order, a regular inspection and maintenance program must be implemented.

Follow the schedule outlined below as a minimum maintenance programme. Once the operating personnel has had an opportunity to work with the system during the first year, certain measures **may be added or adjusted depending on your facility's** requirements.

ITEM	w	m
Operate curtain tracks	x	
Listen for unusual carrier noise	x	
Check if curtain tracks are operating smoothly		x
Inspect conditions of operating line		x
Inspect operating line tension		x
Listen for unusual pulley noise		x
Inspect master carriers and cord clamps		x
Inspect curtain to carrier attachment		x
Inspect track joints for alignment		x
Inspect track channel for debris		x
Inspect attachment of track to building structure		x

*W = every week

*M = every 6 months

Within 24hours of using a recently installed system, confirm if the rope tension is at the correct level for curtain movement

The best way to maintain your theatrical curtain track system, including the RTD motor unit, by using it regularly. This will keep the grease properly distributed and allow the inspector to regularly check for unusual noise or drag in the system. Above-average use or operating the curtain track at locations subject to high humidity, dust, extreme temperature changes, etc. may require shorter intervals than indicated in the scheduled programme outlined above.

TROUBLE SHOOTING

Please undertake the following steps if:

THE CURTAIN STOPS MOVING SMOOTHLY

1. Check if objects are obstructing the track.
2. Check for damage to the track, repair if this is the case.
3. Check for debris on the track or runners, if found, remove carefully.
4. Check for damaged runners, replace if applicable.
5. Check that all couplers are aligned without gaps, if not, align them.
6. The joints between tracks should not be too loose or too tight to avoid a bent track.
7. If the curtain slides out of the track, check if the end stops are loose or missing. If necessary, tighten or replace.
8. If your track has a switching point, check that all parts are correctly aligned. If not, adjust alignment.
9. If the operating line loses tension, lower the floor fixed return pulley to retention.
10. If the curtain blocks after triggering the limit switch disconnect the XLR plugs from the motor and reconnect to the other outlet.

CONTACT & SUPPORT

For more technical assistance, please contact your local ShowTex branch, the address and contact information can be found on our website:

www.showtex.com

Have a great show!