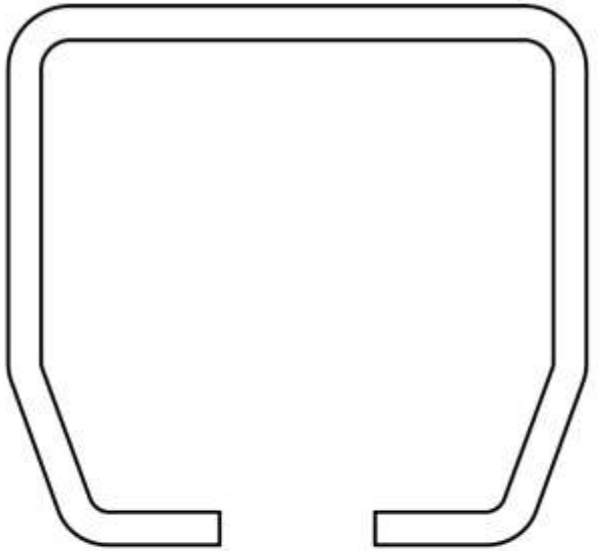
INSTALLATION MANUAL

RAIL H100

MANUAL MOVEMENT WITH ROPE



ShowTex
AMAZING STAGE FABRICS IN MOTION

04/2017

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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.

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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 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.

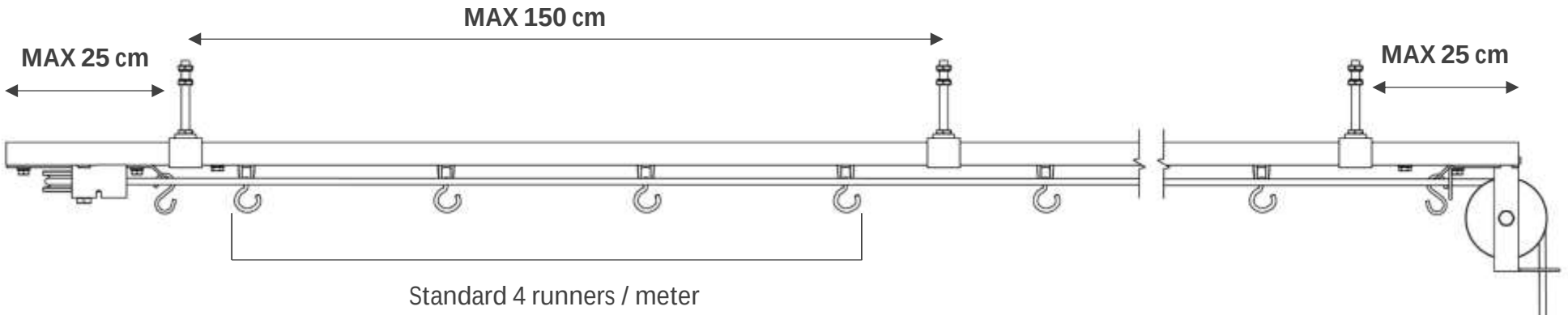
Do not use this rail system for any other purpose than hanging and moving stage curtains or light-weight decorative elements.

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.

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

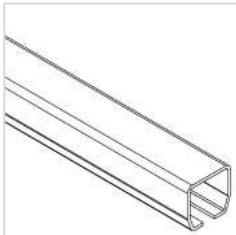
The following components are part of the manually rope-controlled H100 system.

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.

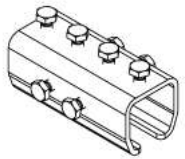
LEGEND

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



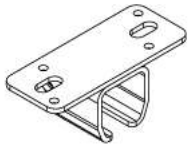
1. TRACK

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



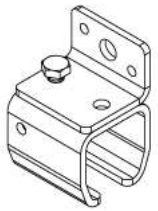
2. COUPLING

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 combination with ceiling bracket*
8050 0040 0817	*Black*	*0.24 kg/p*	



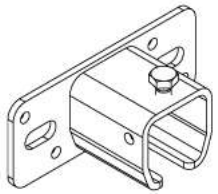
3. CEILING BRACKET

Art. No.	Colour	Weight
8050 0110 0001	Galvanised	0.18 kg/p
8050 0110 0007	Black	0.18 kg/p



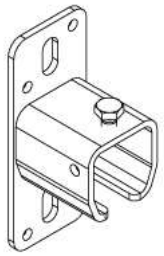
4. WALL BRACKET

Art. No.	Colour	Weight
8050 0100 0001	Galvanised	0.14 kg/p
8050 0100 0007	Black	0.14 kg/p



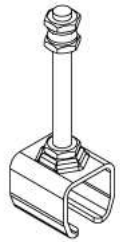
5. HORIZONTAL WALL BRACKET

Art. No.	Colour	Weight
8050 0100 0037	Black	0.14 kg/p



6. VERTICAL WALL BRACKET

Art. No.	Colour	Weight
8050 0100 0057	Black	0.14 kg/p



7. BRACKET + M10 STUDDING

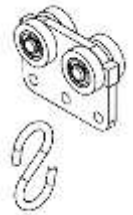
Art. No.	Colour	Weight	Height
8050 0130 0101	Galvanised	0.18 kg/p	10 cm
8050 0130 0107	Black	0.18 kg/p	10 cm

8. END STOP

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

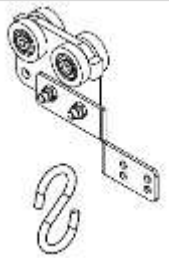
9. BALL-RACED RUNNER

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



10. 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



12. SHORT OVERLAP CARRIER

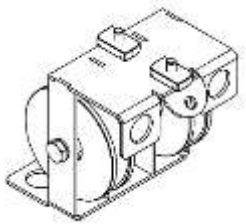
Art. No.	Colour	Weight	SWL
8050 0245 0057	Black	0.09 kg/p	15 kg

13. OVERLAP CARRIER SET

Art. No.	Colour	Weight	Quantity
8050 0246 0167	Black	0.82 kg/p	2 pieces

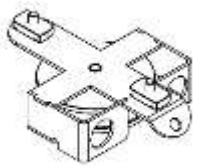
14. SCENERY CARRIER

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



15.HEAD PULLEY

Art. No.	Colour	Weight
8050 0400 0037	Black	1,65 kg/p



16.RETURN PULLEY

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

17. WEIGHTED RETURN PULLEY

Art. No.	Colour	Weight
8050 0415 0057	Black	5,5 kg/p

18. FLOOR-FIXED RETURN PULLEY

Art. No.	Colour	Weight
8050 0420 0007	Black	3,38 kg/p

19. CABLE CLAMP SET

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

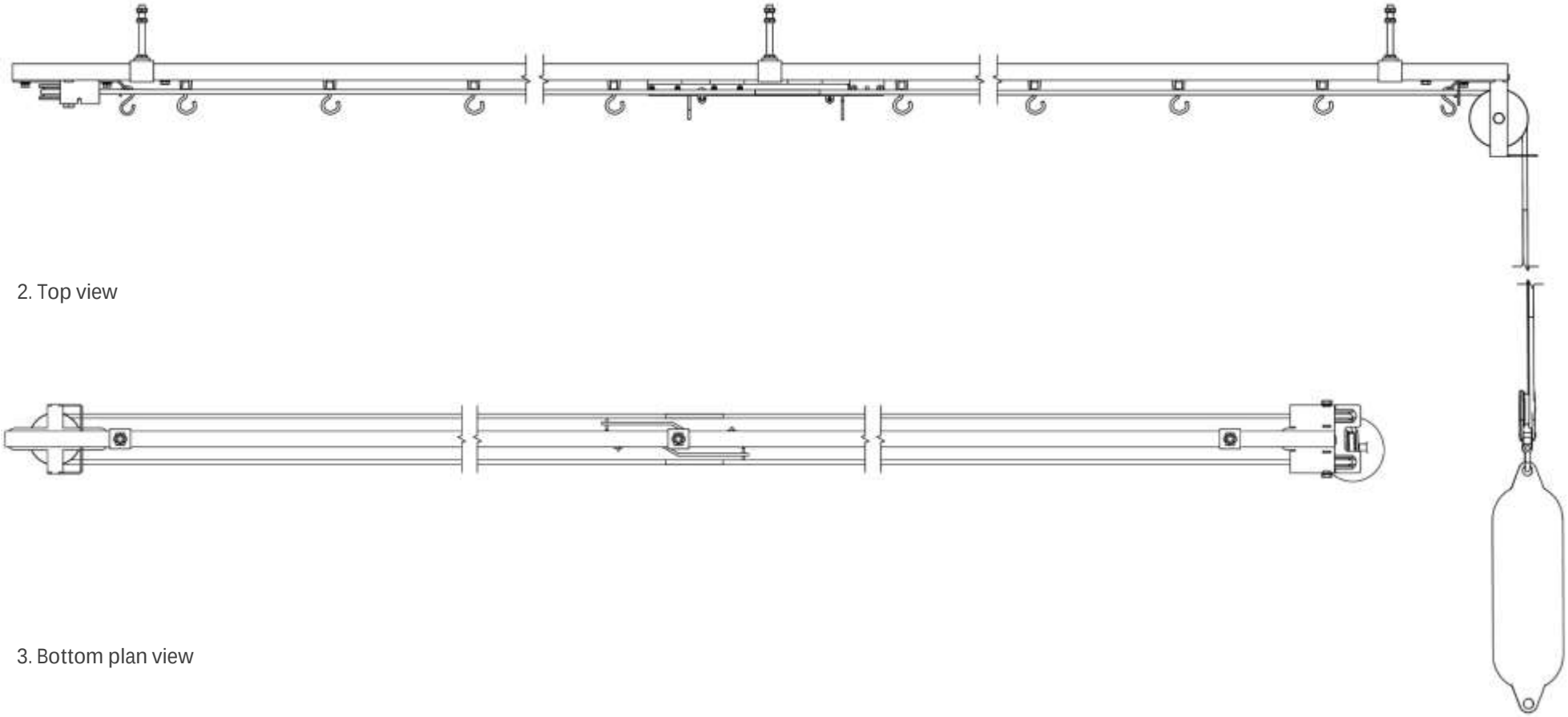
20. DOUBLE BRAIDED ROPE

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

ASSEMBLED SINGLE TRACK CENTRAL OVERLAP

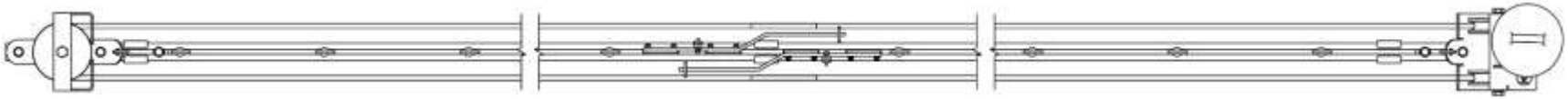
FRONT, TOP AND BOTTOM PLAN VIEW

1. Front view

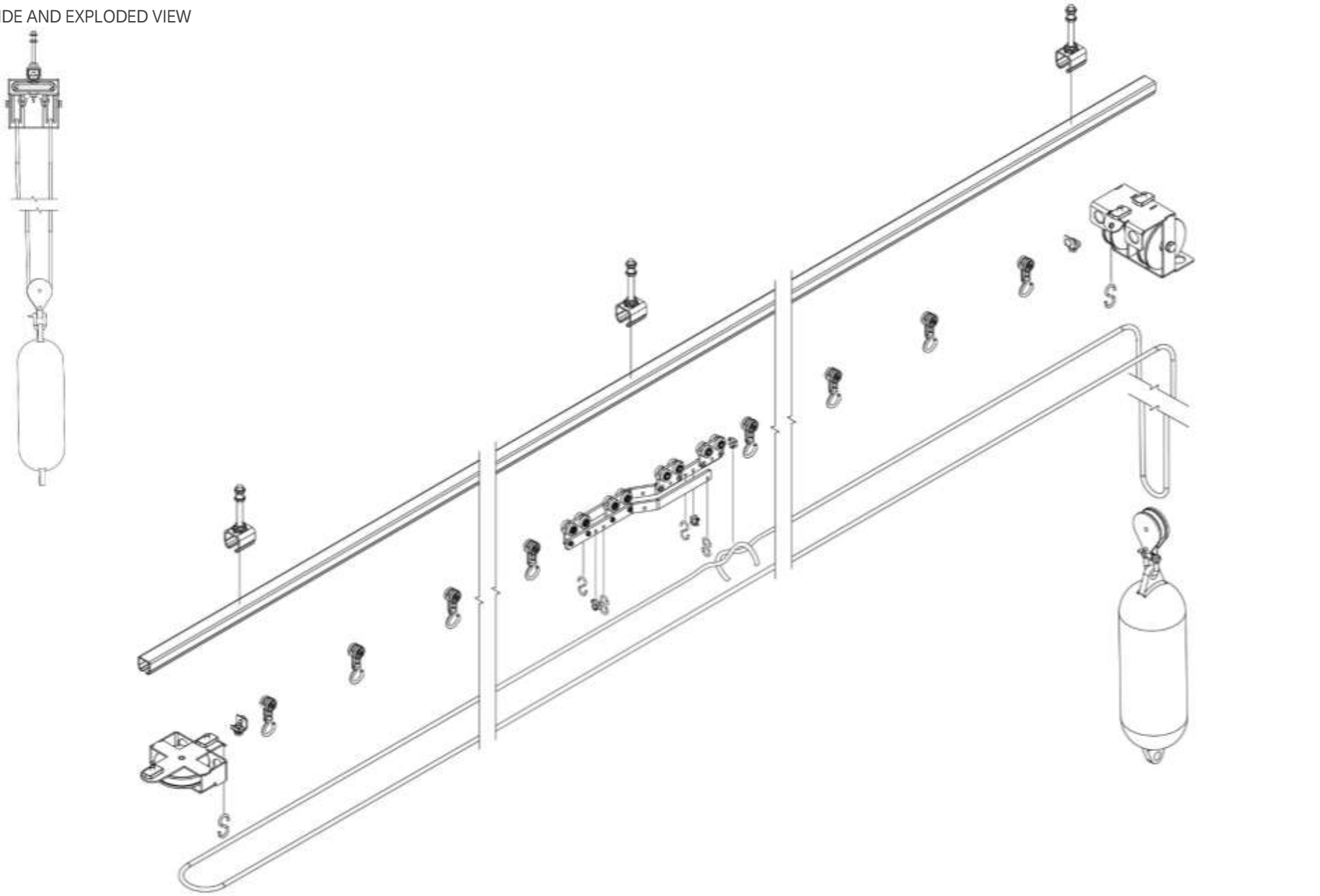


2. Top view

3. Bottom plan view



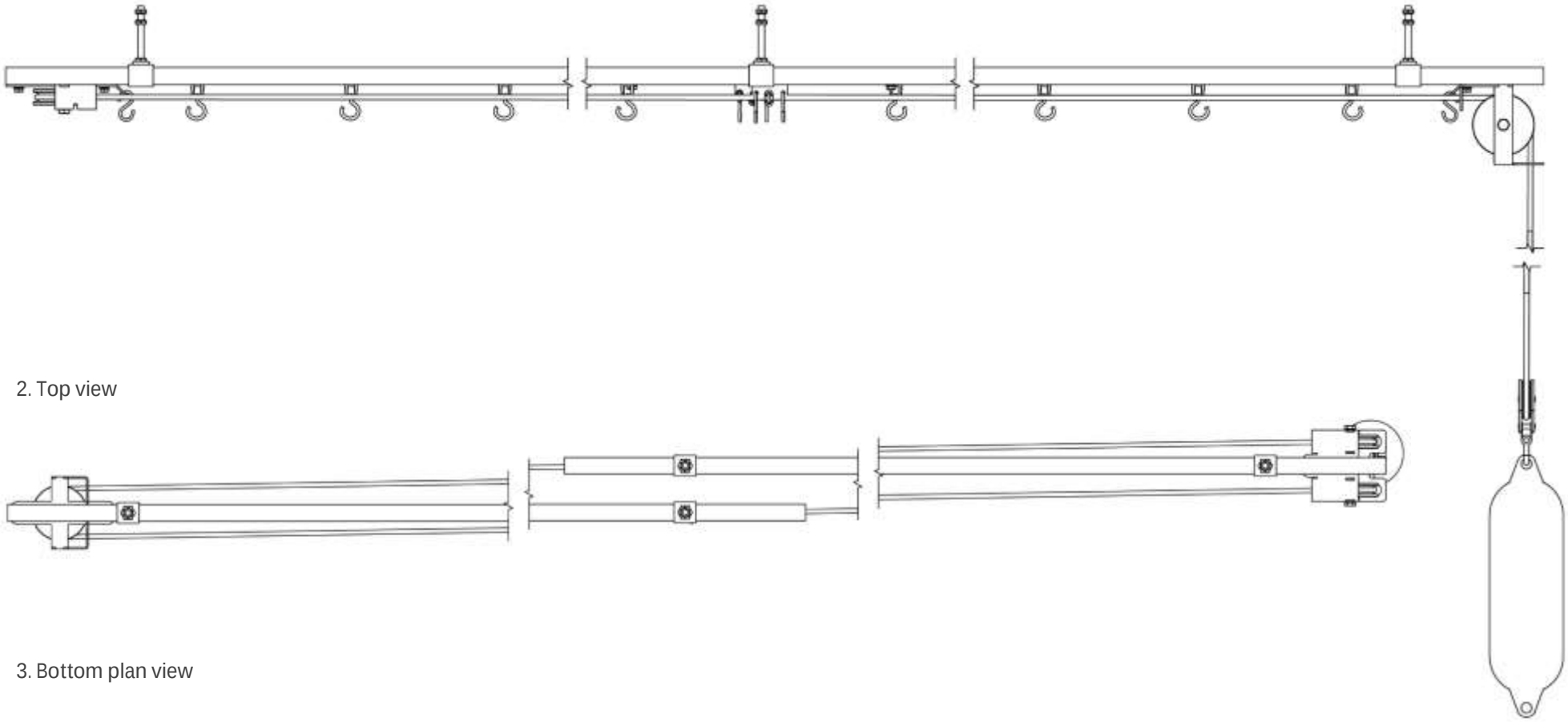
SIDE AND EXPLODED VIEW



ASSEMBLED DOUBLE TRACK CENTRAL OVERLAP

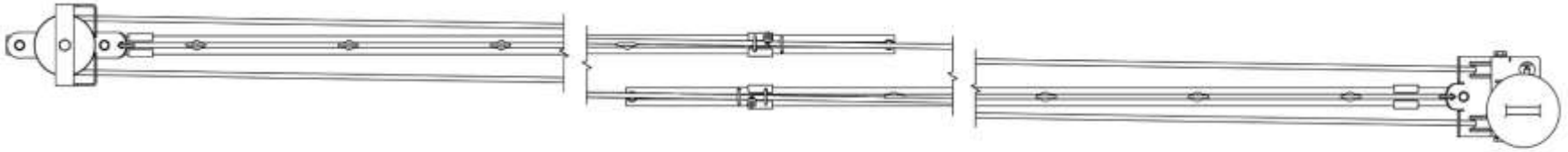
FRONT, TOP AND BOTTOM PLAN VIEW

1. Front view

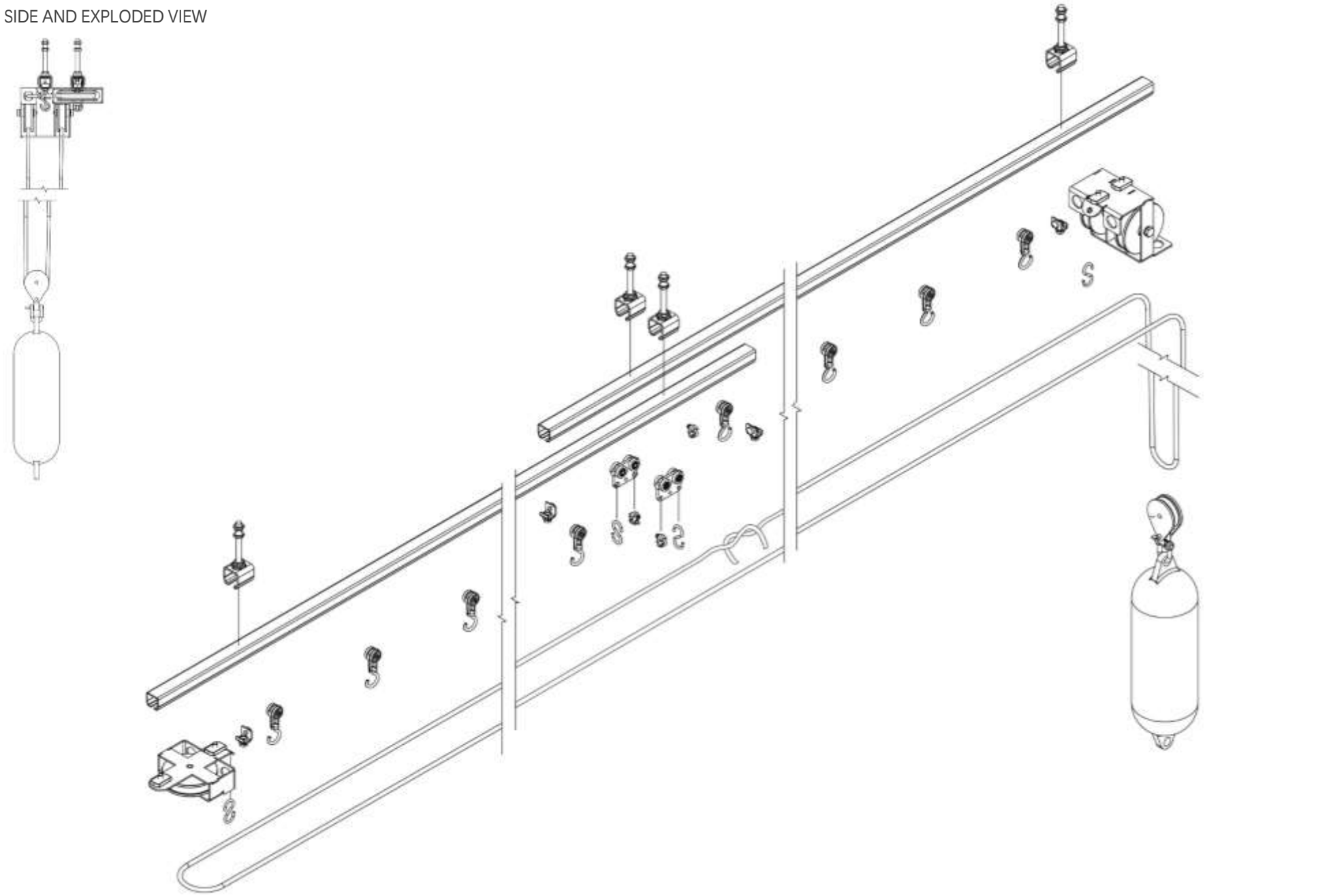


2. Top view

3. Bottom plan view



SIDE AND EXPLODED VIEW



INSTALLATION

This chapter provides all required information and steps necessary for installing a manually rope-controlled Rail H100 system.
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 first end stop **(optional for single track installation).**
8. Install head pulley.
9. Insert runners and master or overlap carriers.
10. Insert 2nd end stop **(optional for single track installation).**
11. Insert return pulley.
12. Add weighted return or floor-fixed pulley.
13. Insert double braided rope accordingly.
14. Tighten the operation line.
15. Connect rope to master or overlap carriers using the rope clamps.
16. Test system without curtain & check curtain width.
17. Hang curtain & test again.
18. Connect curtain ends to head/return pulley. **(optional)**

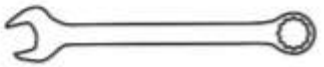
When installing a rail between 2 walls, don't forget to attach head & return pulley before securing the rail in the supporting structure!

NECESSARY TOOLS

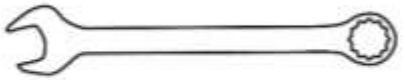
The following tools are needed to install the H100 rope controlled rail track

Allen key n° 3

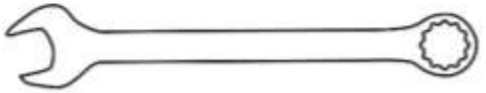
Wrench 8



Wrench 10



Wrench 13



Wrench 17

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

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

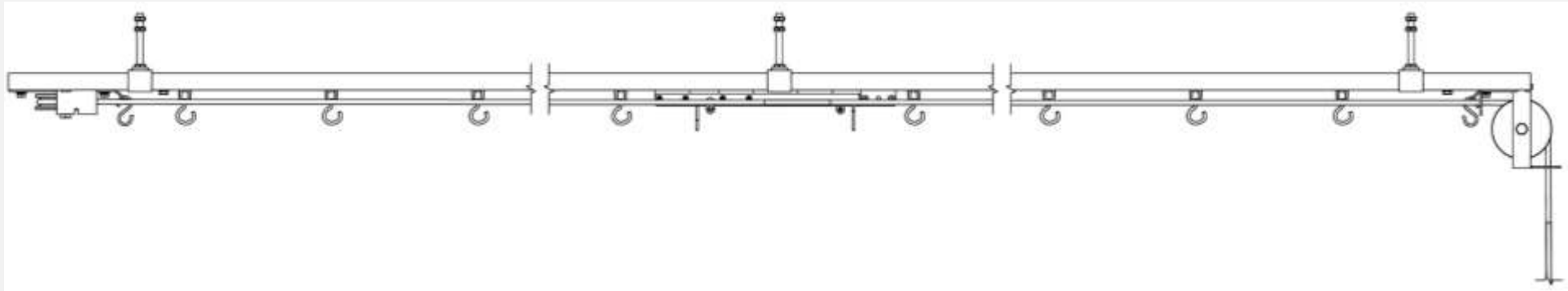
STEP 2: determine number of attachment points (#p)

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

Total track length (m)

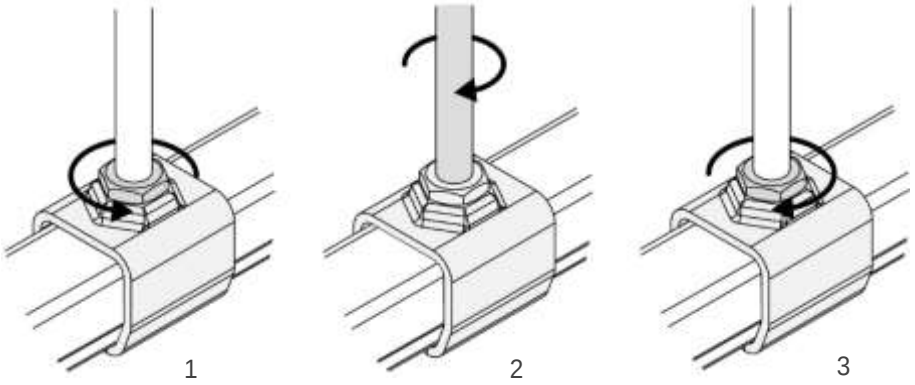
STEP 3: determine distance between attachment points

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



⚠ *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).

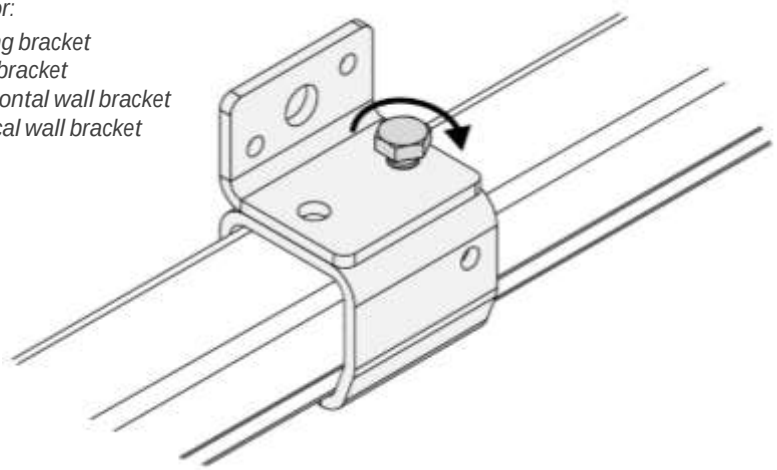
2: Fasten threaded rod (M10) hand tight.

3: Secure nut (M10).

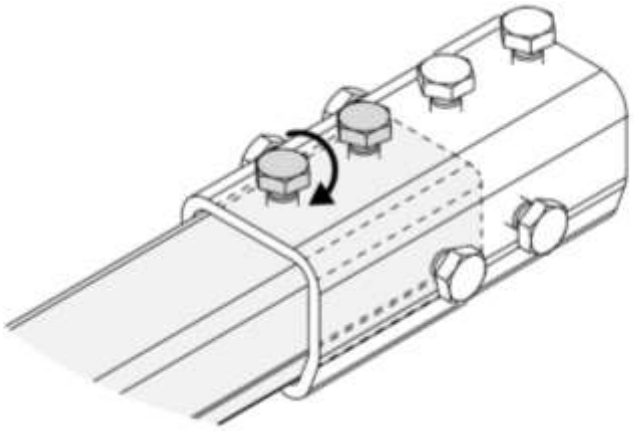
➢ Fasten the bolt (M6) hand tight in case you are using another type of bracket.

Applies for:

1. *Ceiling bracket*
2. *Wall bracket*
3. *Horizontal wall bracket*
4. *Vertical wall bracket*

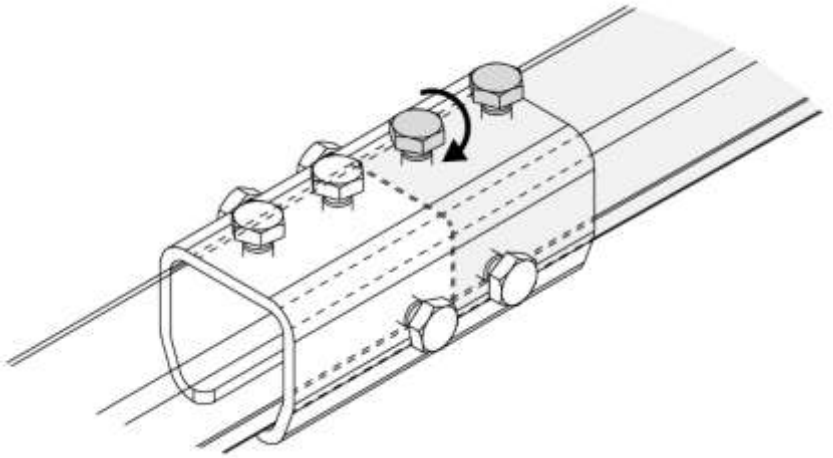


SECURE COUPLER



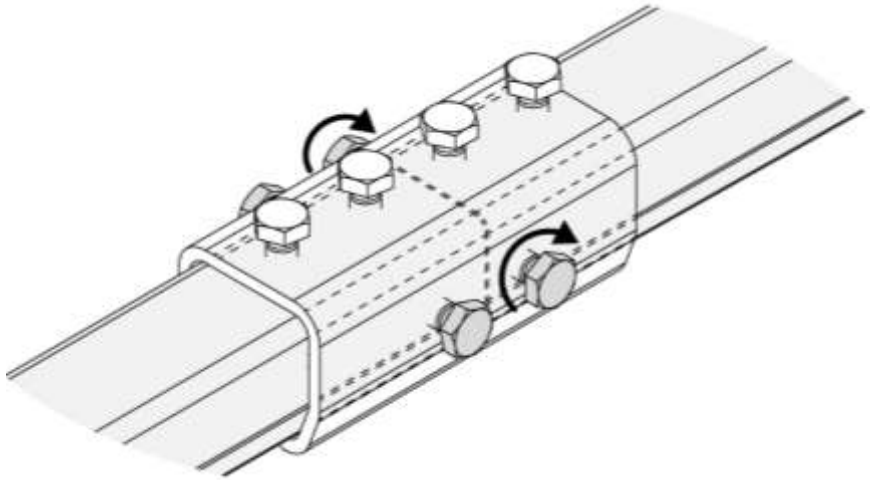
1: Align the rail end in the middle of the coupler.

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.

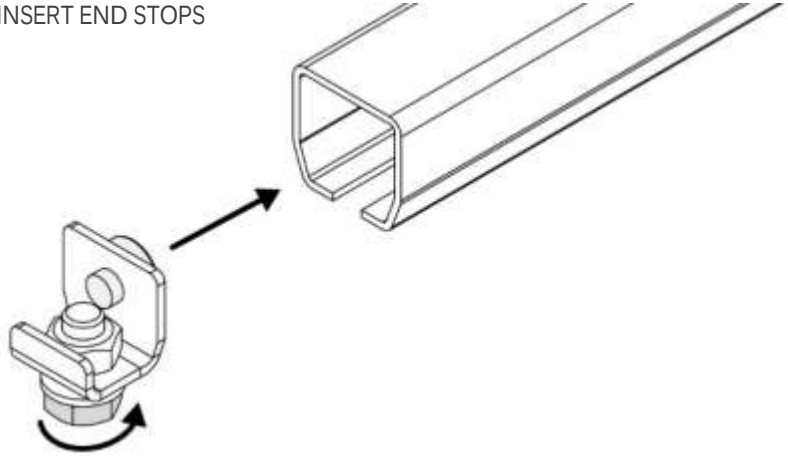
4: Fasten the bolts (M6) on the top side hand tight, give an extra ½ turn to secure. Realign if you feel a height difference!



5: Fasten the bolts (M6) on the left and right sides hand tight, 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.

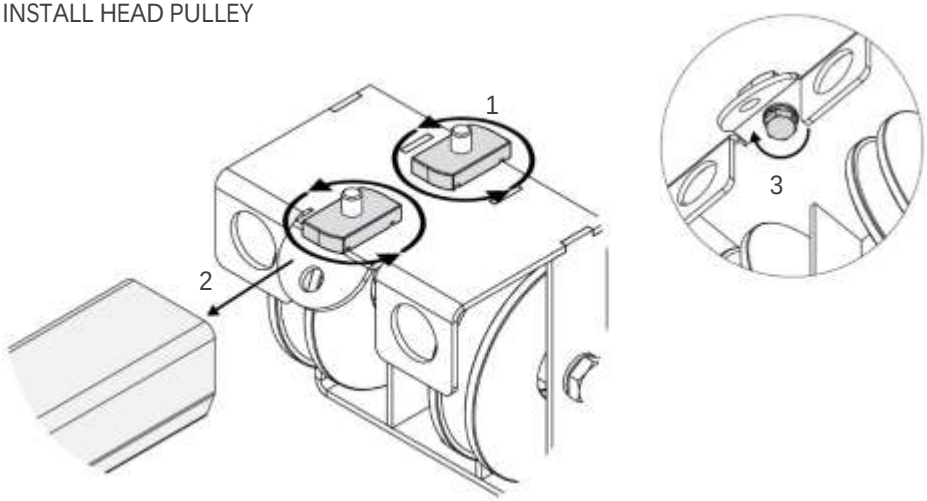
INSERT END STOPS



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.

INSTALL HEAD PULLEY

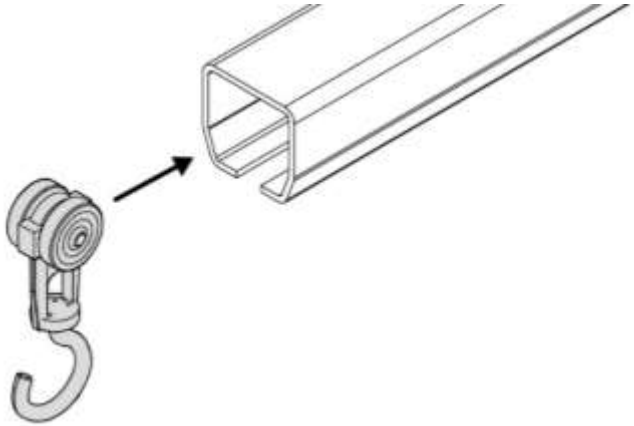


1: Loosen both bolts (M8).

2: Slide pulley into the rail.

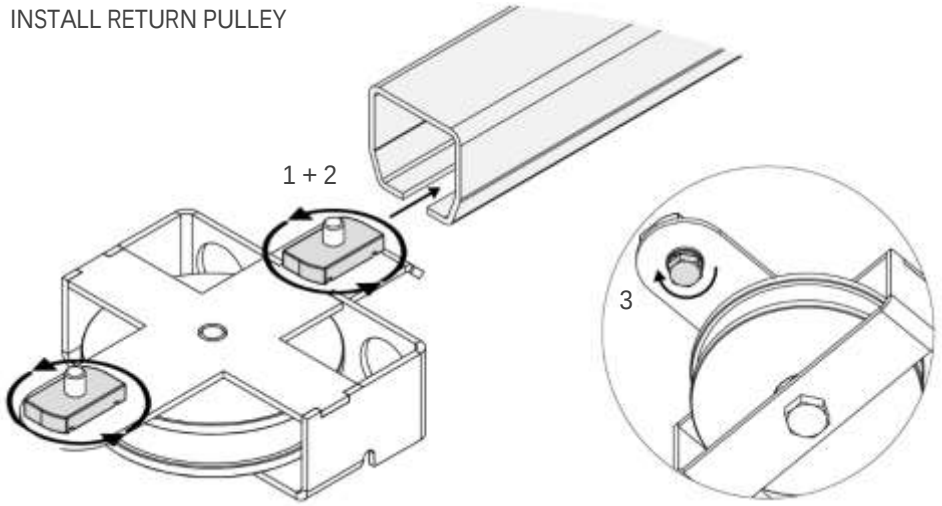
3: Tighten both nuts (M8).

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.

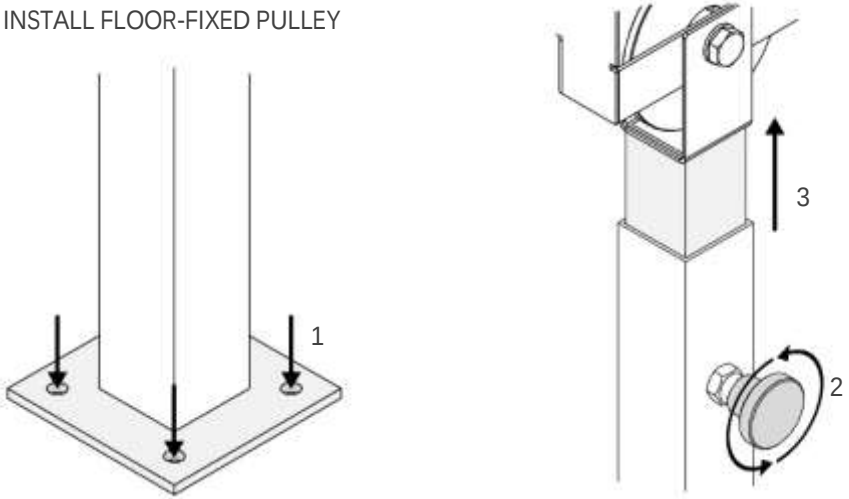
INSTALL RETURN PULLEY



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

3: Tighten both nuts (M8).

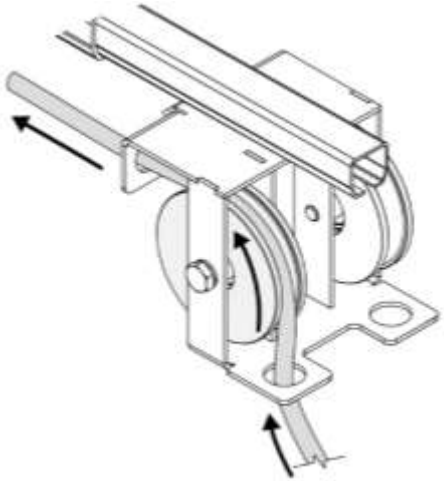
INSTALL FLOOR-FIXED PULLEY



1: Secure pulley into the floor, in line with the head pulley.

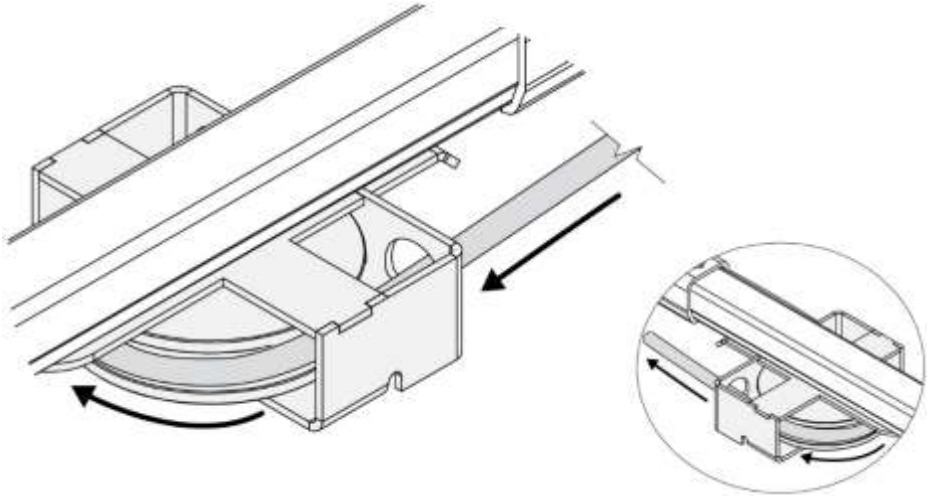
2&3: Loosen the knob, extend pulley to max height and tighten the knob.

GUIDE THE DOUBLE BRAIDED ROPE



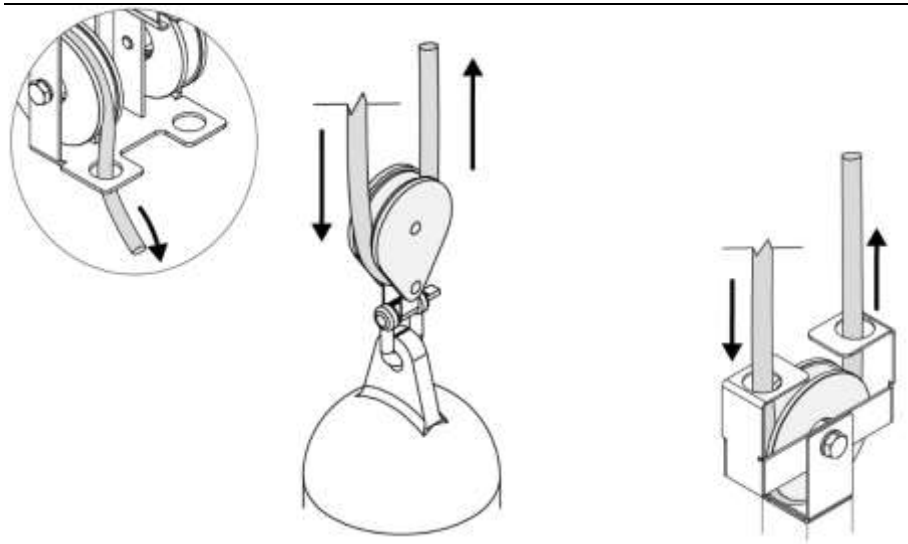
1: Pull the end of the rope through the correct guide wheel of the head pulley

2: Take the end of the rope & walk to the return pulley.

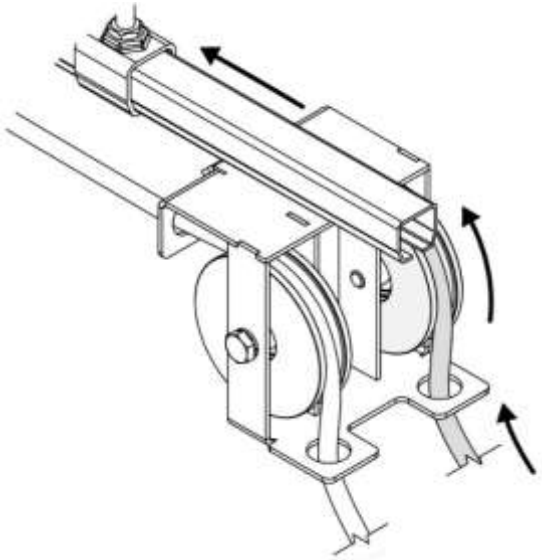


3: Pull the rope through the return pulley & walk back towards the head pulley.

4: Stop at the centre of the rail/stage and leave the rope there for now.

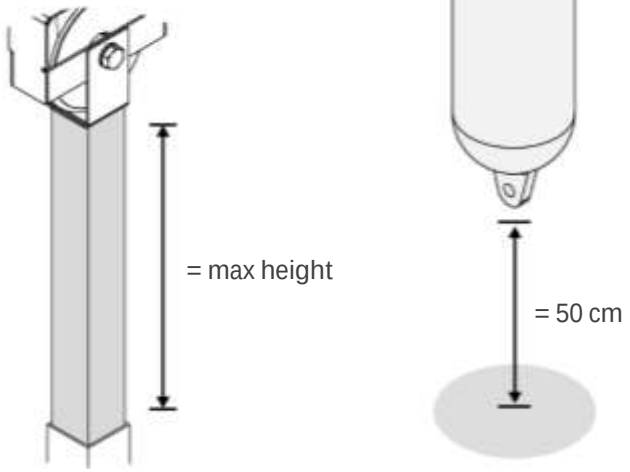


5: **Take the other rope end,** the one still hanging out of the head pulley & pull it down either through the weighted return pulley or the floor-fixed return pulley.

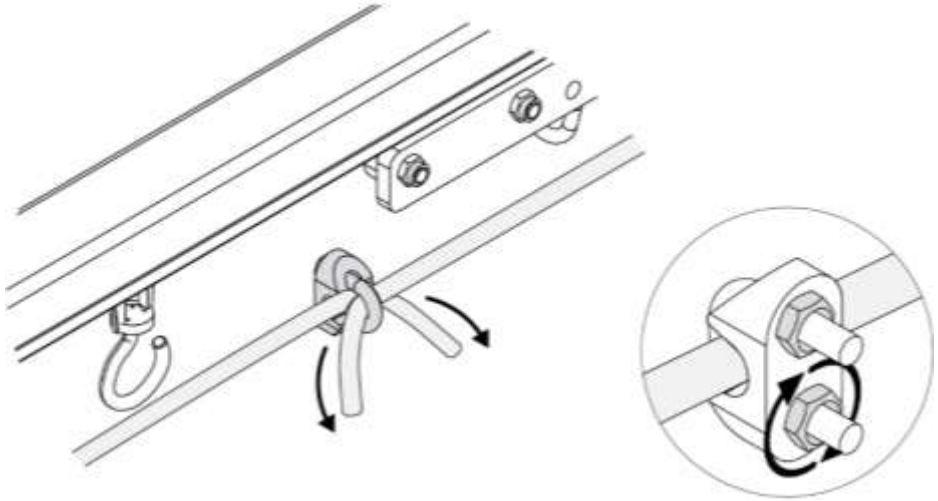


6: Take the same rope end and pull it up to the head pulley and then go through the second guide wheel of the head pulley and walk to the centre of the rail.

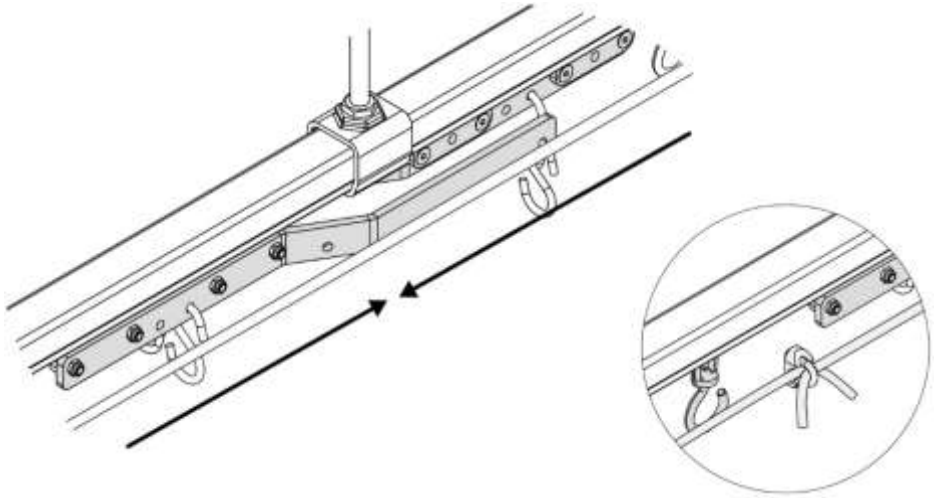
SECURE THE DOUBLE BRAIDED ROPE



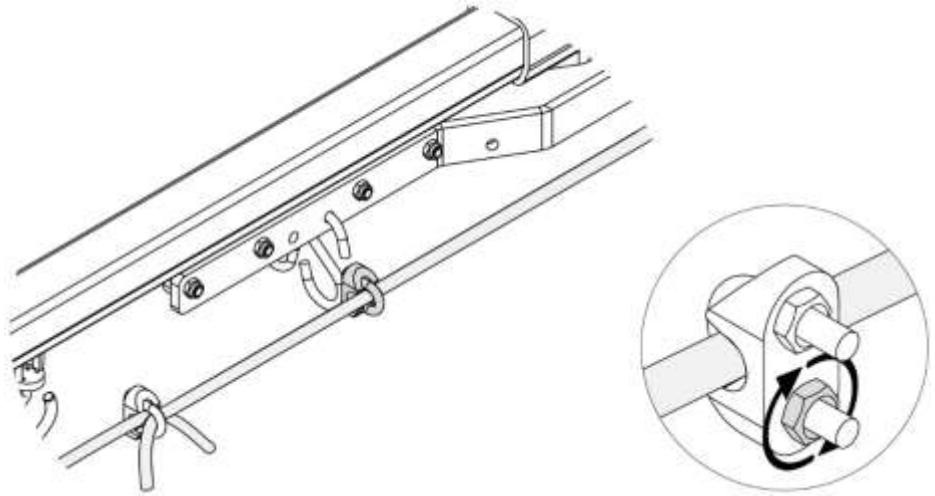
1: Make sure the floor-fixed pulley is pulled out until its max height. When using the weighted return pulley hold it 50 cm above the ground.



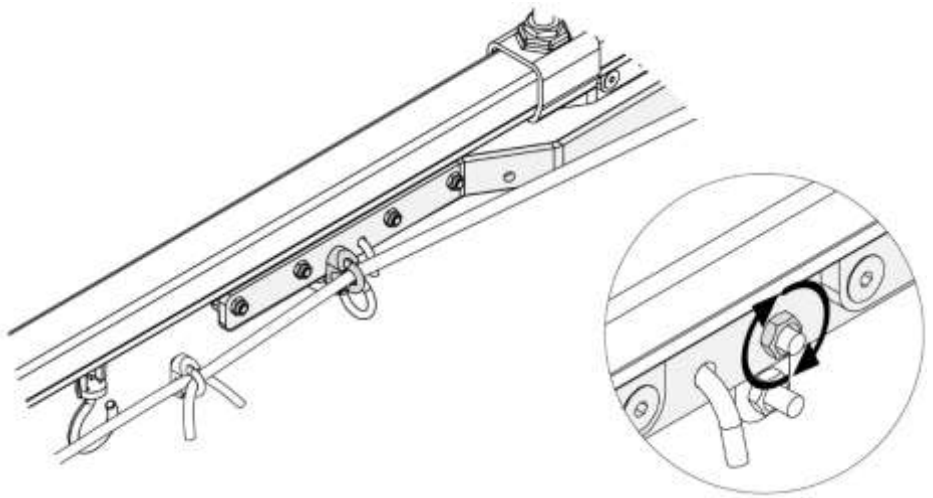
2: Tension the operating line by connecting the rope ends with the first rope clamp. Tighten both bolts firmly to prevent the rope from slipping away.



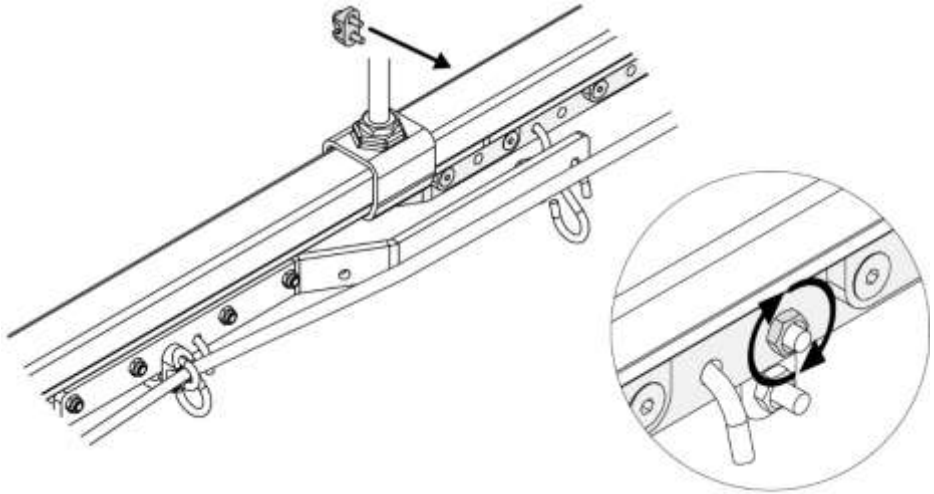
3: Bring the carriers to the centre position of the rail or stage. Make sure the two rope ends come back together at the point between the (overlap) carrier and the first runner.



4: Attach the 2nd rope clamp to the operating line next to the first connection. Only use the lower bolt this time and tighten firmly to prevent the rope from slipping away.

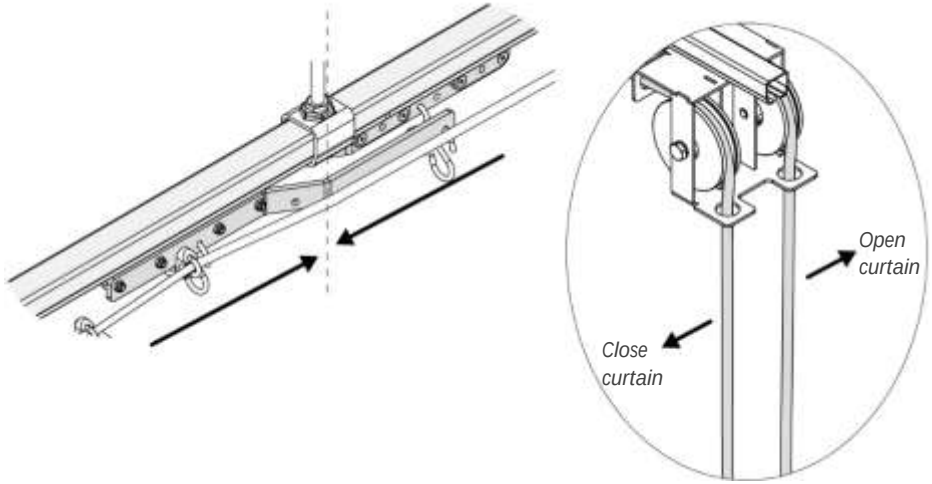


5: Attach the upper thread of the clamp with the (overlap) carrier and use the upper bolt to secure the rope. Tighten the bolt firmly to prevent the rope from slipping away.

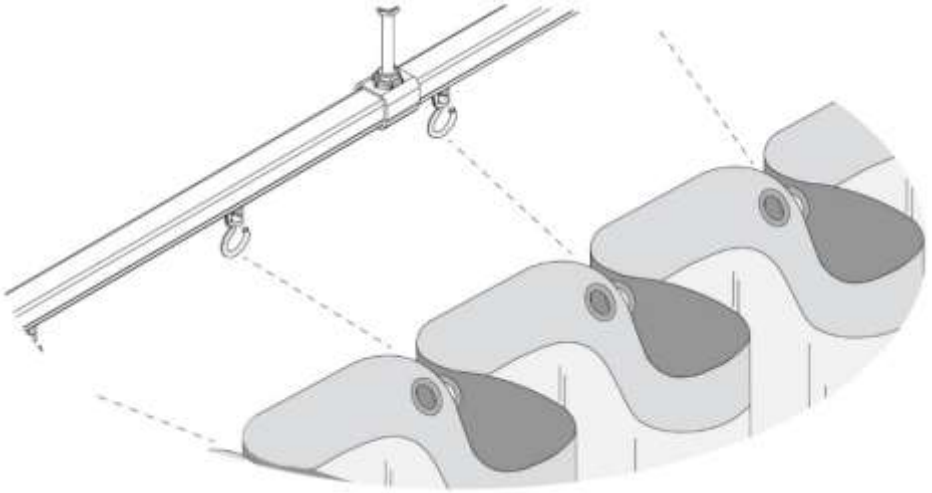


6: Now attach the returning rope to the other (overlap) carrier following the same procedure as shown in the fourth and fifth step of this chapter.

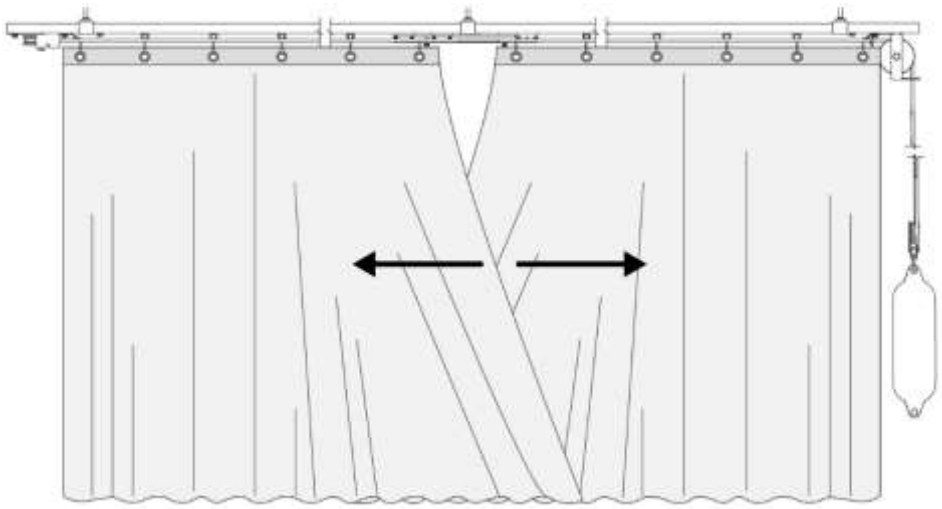
INSTALL THE CURTAIN



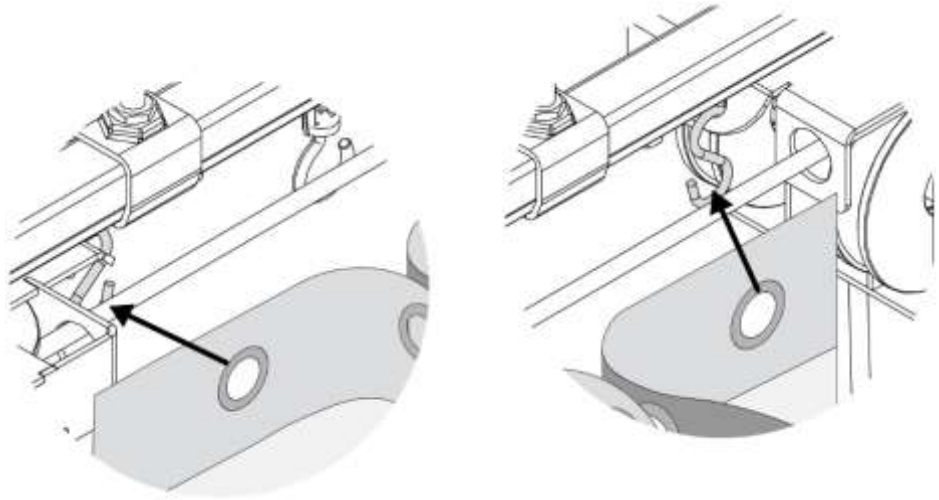
1: Check if the (overlap) carriers are in line with the centre of the rail or stage. Then pull the rope to open and close the system, if the (overlap) carriers end up at the same point as they started, your system is properly installed.



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.



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.



4: Attach one curtain end to the return pulley using an S-hook and attach the other end to the head pulley, also by using an S-hook. 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, is 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.	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.

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!