

EGRIPMENT

Generic Track System - Live

Manual

Gebruiksaanwijzing

Mode d'emploi

Bedienungsanleitung

Brukanvisning

Brugsvejledning

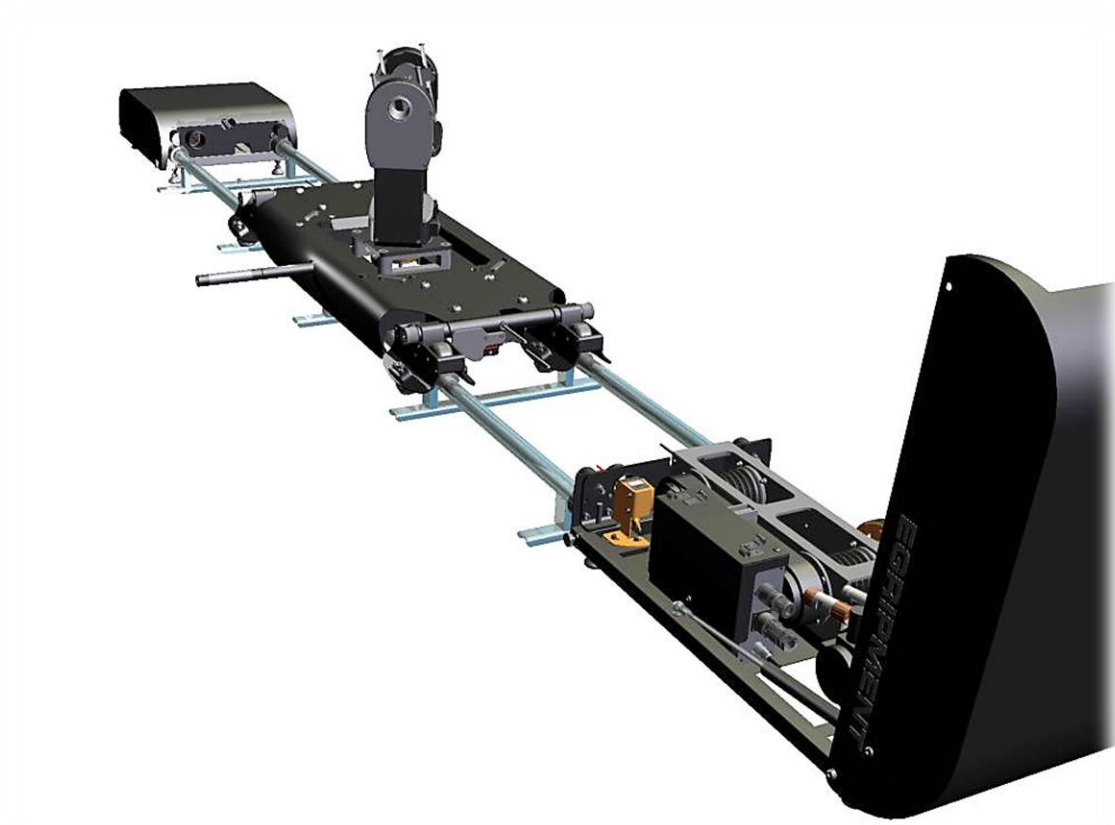


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DIRECTIONS FOR USE

We thank you for your purchase of an Egripment Generic Track System, which we fully anticipate will match your expectations. To correctly and safely operate your Egripment Generic Track System and it's accessories it is essential that you follow the directions and instructions.

WARNING

ADVICE

Even if you have set up or used an Egripment Track system, Crane or Remote Head in the past, it is vital that you read and fully understand this Owner's Manual before you begin assembly. Although all Tracking systems, Cranes and Remote Heads in the Egripment range have the same basic principles, and are therefore part of a modular system, each has its own unique way in which it should be assembled and operated. All details relating to the assembly and operation of the Generic Track System and Remote Head are specified in this Manual.

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The advice regarding handling, safety, and warnings which is enclosed in this Manual relate to all of the Tracking Systems and Remote Heads supplied by Egripment.

To assist the purchaser, and the purchaser's authorized operators and users, Egripment has prepared detailed guidelines, which are included in this Manual. Failure to follow these guidelines may void the warranty. Any mechanical or electrical alterations that are made to the Remote Head, or any Egripment products, without prior discussions and approval from the manufacturer, will void the warranty.

FAILURE TO COMPLY WITH OR TO CIRCUMVENT THESE INSTRUCTIONS MAY EXPOSE PERSONS USING THE EQUIPMENT, AND PERSONS IN THE VICINITY, TO HAZARDS WHICH ARE LIKELY TO RESULT IN INJURY.

For the best and safest results, please ensure that your operator is a careful and reasonable individual, who will obey the requirements, and not exceed the limits described in these instructions.

WARNING**ADVICE**



Visible laser light; laser protection class 2

Use of controls or adjustments other than those specified herein may result in hazardous radiation exposure. Damage to the retina is possible.

- **Do not stare into the laser beam!**
- **Adhere to the caution and warning notes on the product label!**
- **Never block the beam between Sensor and Dolly!**

The Track system operates with 2 Laser Distance sensors. Each one is located on the far end of the rail length. The beam is reflecting on a dolly surface so the system now's when the dolly is near each far end.



PLEASE ENSURE THAT THESE INSTRUCTIONS ACCOMPANY THE EQUIPMENT AT ALL TIMES. FAILURE TO COMPLY WITH OR TO CIRCUMVENT THESE INSTRUCTIONS MAY EXPOSE PERSONS USING THE EQUIPMENT, AND PERSONS IN THE VICINITY, TO HAZARDS WHICH ARE LIKELY TO RESULT IN INJURY.

INTRODUCTION

THE EGRIPMENT GENERIC TRACK SYSTEM

The Egripment Generic Track system is an Camera Tracking System designed and engineered for the exclusive use of Film or TV professionals.

A dolly with a Remote Head attached is pulled along various lengths of straight rails by a cord. On both sides of the system are units attached, One Drive with the motor Unit and a Return Unit.

To assist the PURCHASER and PURCHASER'S authorized operators and users, EGRIPMENT has prepared the detailed guidelines prescribed in the Instructions, which follow the warranty.

FAILURE TO COMPLY WITH THESE INSTRUCTIONS, OR ANY ATTEMPT TO CIRCUMVENT ANY OF THESE INSTRUCTIONS, MAY EXPOSE PERSONS USING THE EQUIPMENT, OR IN THE VICINITY OF THE EQUIPMENT, TO HAZARDS WHICH ARE LIKELY TO RESULT IN INJURY TO THEM.

For the best and safest results, make sure that your operator is a careful and reasonable individual who will deliberately obey the requirements and not exceed the limits prescribed in the instructions.

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PLEASE ENSURE THAT THESE INSTRUCTIONS ACCOMPANY THE EQUIPMENT AT ALL TIMES.

THIS INSTRUCTION MANUAL IS DIVIDED INTO THREE SECTIONS:

SECTION 1:

Assembly and setting up the Generic Track System

SECTION 2:

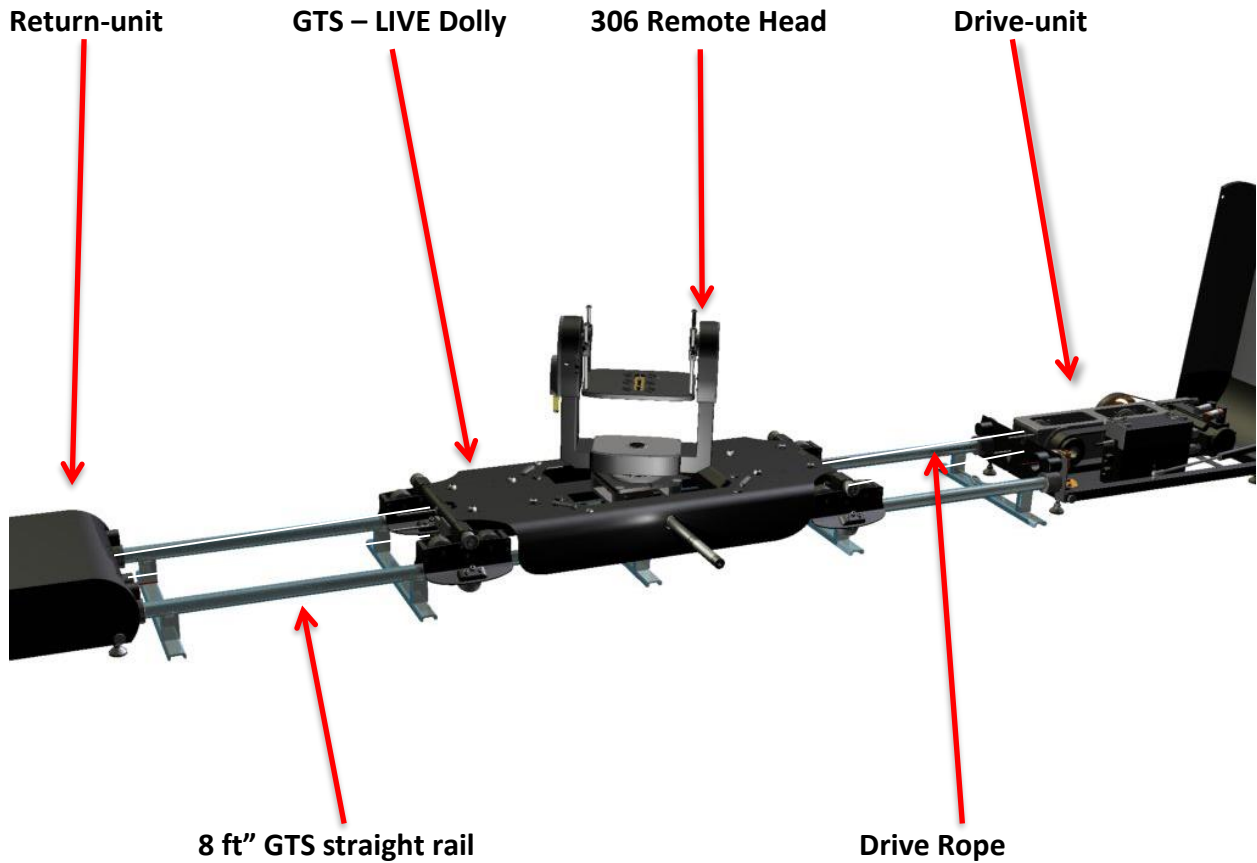
Electrical connections and Laser End-Stop set up

SECTION 3:

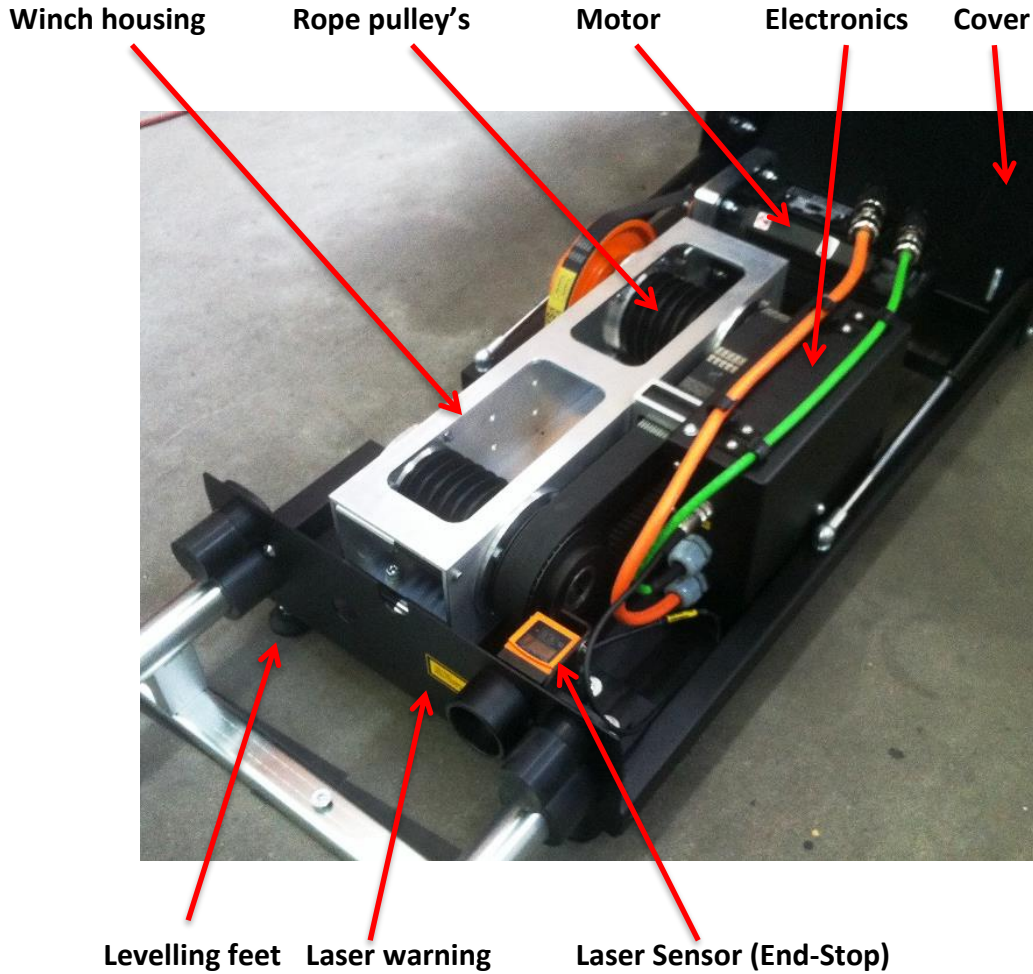
Checklist and Warnings

PLEASE MAKE SURE YOU READ AND UNDERSTAND ALL OF THESE INSTRUCTIONS BEFORE YOU START SETTING UP ANY OF THE ABOVE MENTIONED PRODUCTS.

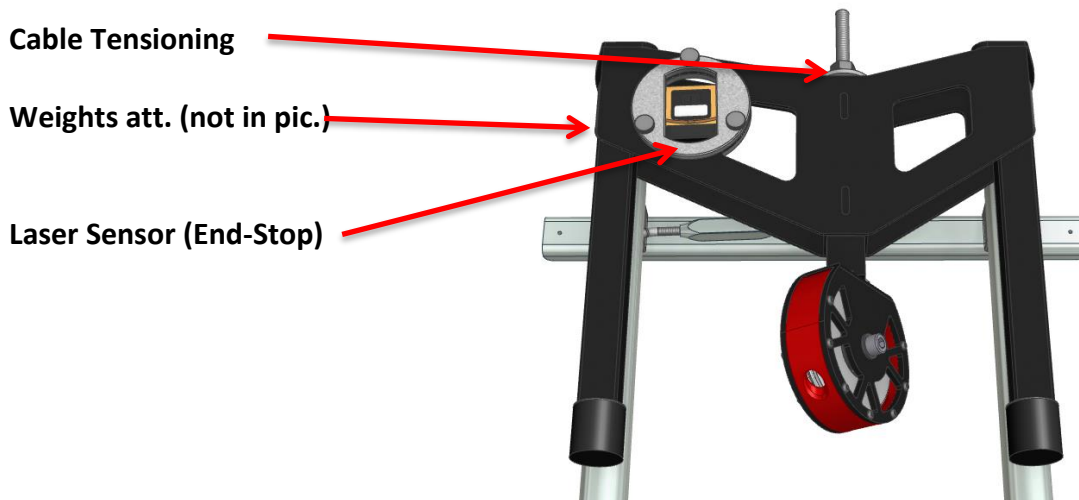
GTS SYSTEM - TERMINOLOGY



DRIVE UNIT TERMINOLOGY



RETURN UNIT TERMINOLOGY



SECTION 1

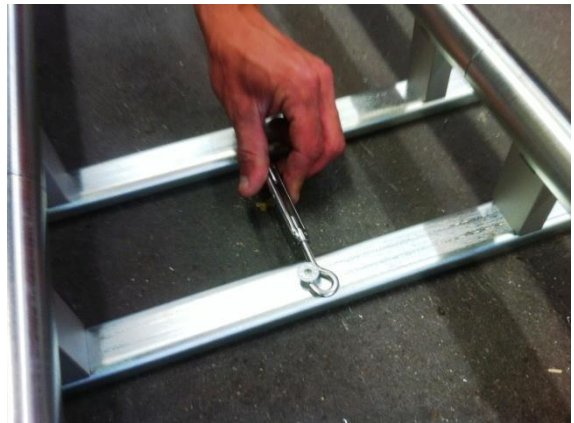
The Instructions to assemble and set up the Generic Track System

HOW TO INSTALL THE GENERIC TRACK RAILS

1. Make sure that you place the rails on a stable solid surface. You need 50cm free space to place the rails, this is ex. moving cables on the side of the dolly.



2. Tighten the rails to each other hand-tight so that there aren't any gaps visible.



3. Make sure that the rails is NOT curved and lays perfectly straight!

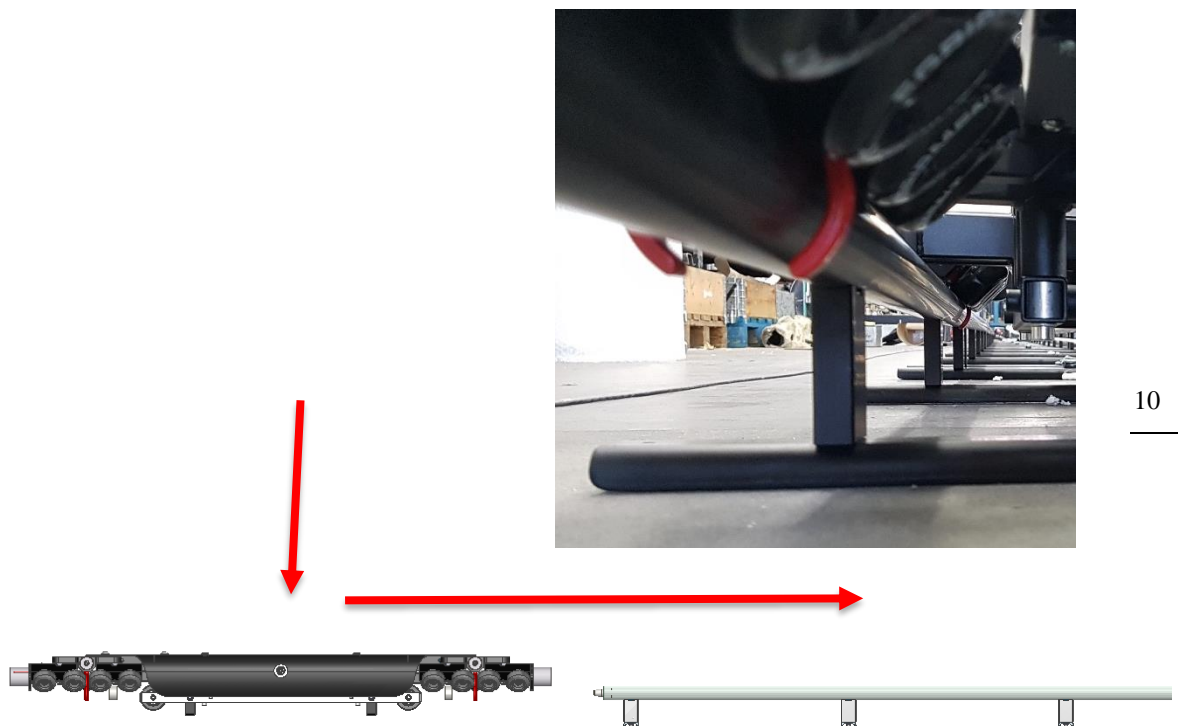


MOUNTING THE DRIVE AND RETURN UNIT TO THE TRACK

4. Place the dolly from a far end on the track. (Only with self-retaining wheel units.) Make sure that the lower angled wheels are under the rails on both sides! A dolly with boogiewheels can be lowered on top of the track.

The Dolly can only be placed in one direction! Make sure that cables and reflector plates are in line!

Place the dolly from an open end on the track and roll it on the track. The red rail clamp avoid tipping the dolly over and are there for safety.



5. Place the Drive and Return unit on each far end of the rails. (we recommend to place the Drive unit on the side close to the operator)

There are 2 types of Return Unit, Depending on the configuration but the basics are the same.

TYPE NO.1



TYPE NO.2.



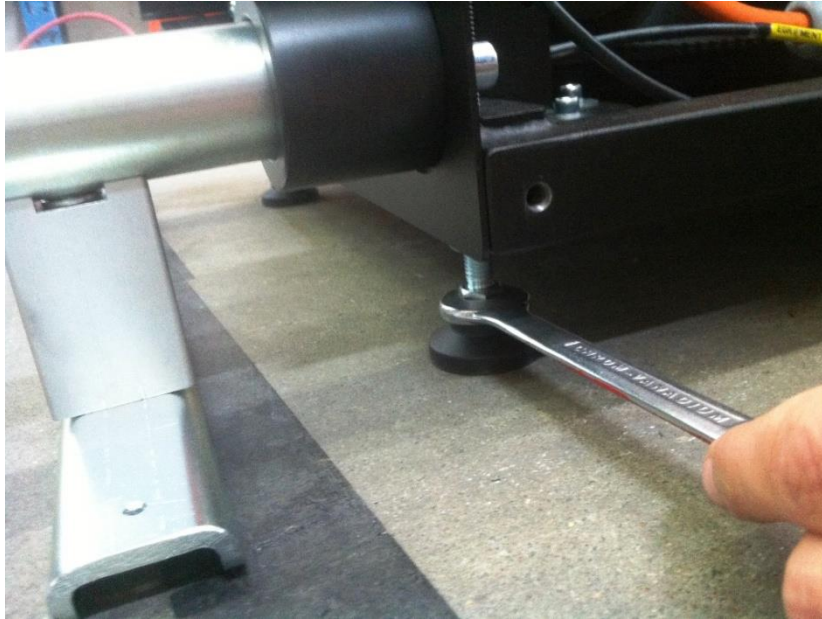
6. When both units are attached level the complete system. Use wedges or frames under the system. Both units can be leveled on their 4 levelling feet.



7. Place a spirit level on the Drive unit on top of the Tube inside the box.



8. With a key you can adjust the height of each unit. Be sure that each unit is perfectly level and in line with the rails!



9. Place five 10Kg weights in the Return unit to avoid that the unit will tip over when tensioning the drive cord.



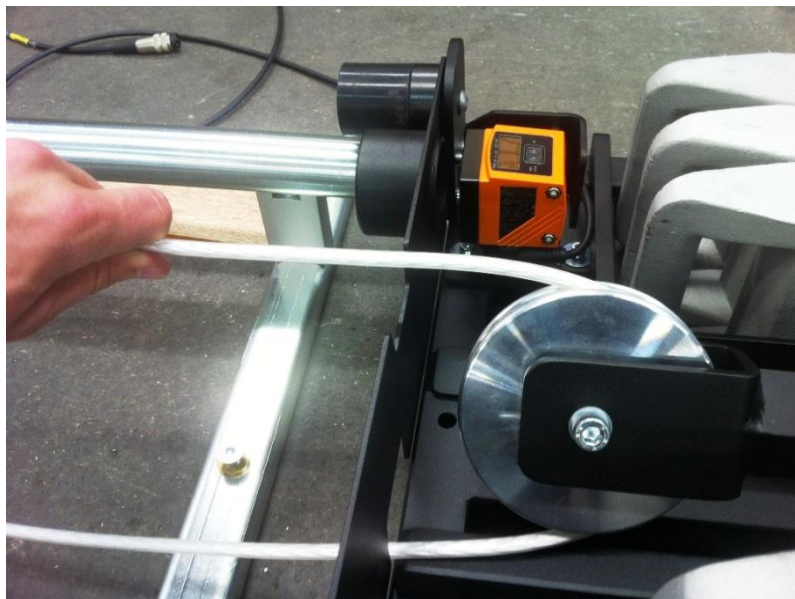
INSTALLATION OF THE DRIVE CORD/CABLE

10. Move the dolly by hand to the Drive unit, place it 1m before it.
11. Make sure that you use the correct cord, only use the special High strength Dynema cord witch Egripment supplied with the system. The cord length you need is:

Rail length (in Meters) x 2 + 8 M = ... M

When you have more cord then needed for your rail length it is possible to store this extra cable on the Dolly.

12. Place the cord drum near the Drive unit and pull the cord along the track to the Dolly
13. The cord has to be looped underneath the Dolly and can then be pulled towards the Return unit.
14. Loop the cord from BOTTOM to TOP and make sure the tensioning pulley is in its most FORWARD positioning



15. Pull the cord back to the Dolly.

ATTACHING THE CABLE TO THE DOLLY

16. Remove the 2 small covers from the Dolly to attach the cables. First attach only the cable on the Return unit side.
17. Enter the Dolly with the Cord by using the special hole in the middle of the Dolly.



15

18. Round the husk 3 times and return the cable (underneath the bottom plate) to the clamp in front of the dolly.



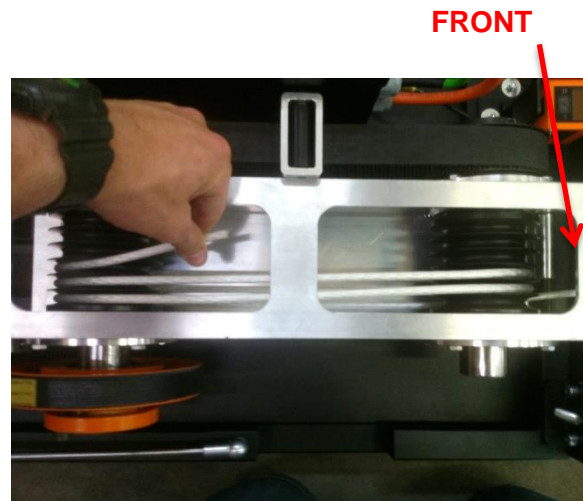
CABLE LOOP INSIDE DRIVE UNIT

19. For the loop in the Drive unit you need ca. 4 meters of cable, start to enter the Drive unit at the bottom.



20. Pull the cable completely to the back so there is no spare cable left and dolly is still ca. 1m from the Drive unit.

21. Start rounding each pulley and shift with each round one stroke.



22. With the last round the cable has to leave the winch housing in a STRAIGHT line, (see picture)



23. Pull the cable towards the dolly and attach it like described in article 16.-18.

EXTRA CAUTION FOR WINCH HOUSING

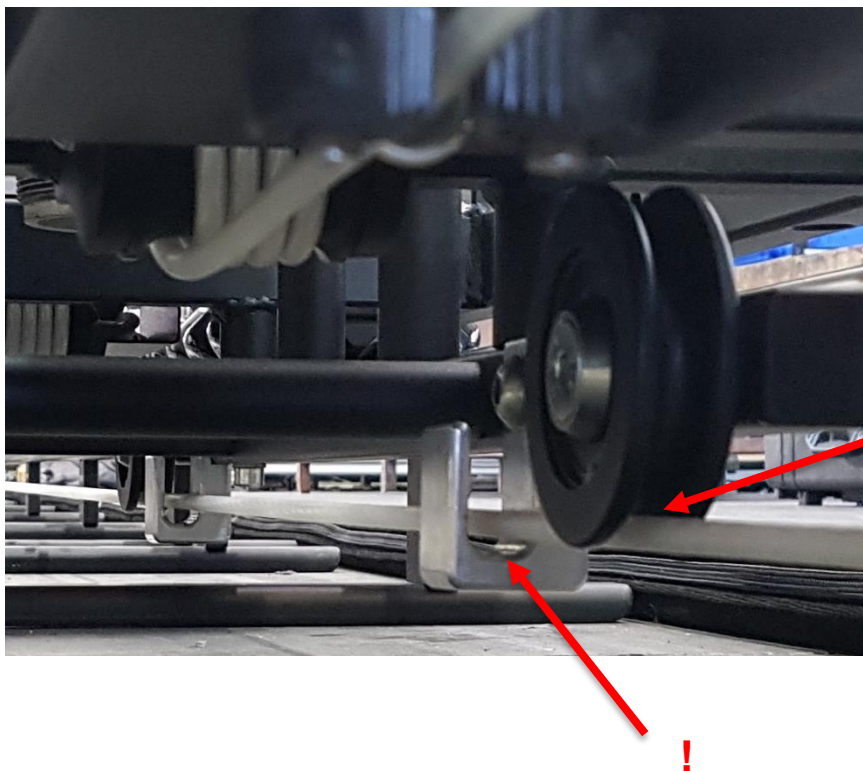
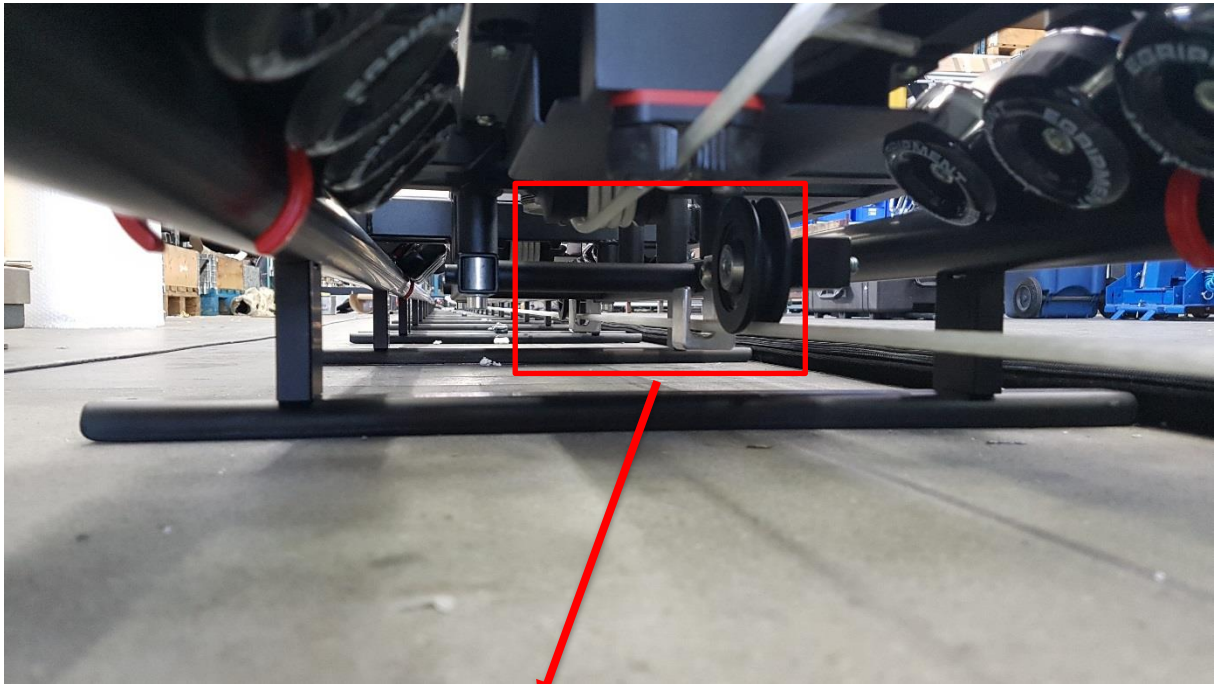
- Never connect any electronics before the drive rope is fixed
- Caution to moving parts or pulleys when pulling on rope
- Use only clean, undamaged high strength Dynatec ropes supplied by Egripment.

TIGHTEN THE DRIVE ROPE

24. Before tensioning the system on the Return unit pull as much loose cable out of the system by the Dolly.
Pull on the end witch comes out of the clamp and give it the slack in the part that comes out of the unit. Repeat this until you can't tighten it any stronger by hand.
25. Place the loose cable underneath the dolly on its pulley's, these will provide that the cable isn't hanging or bouncing on the crossbars at long lengths.

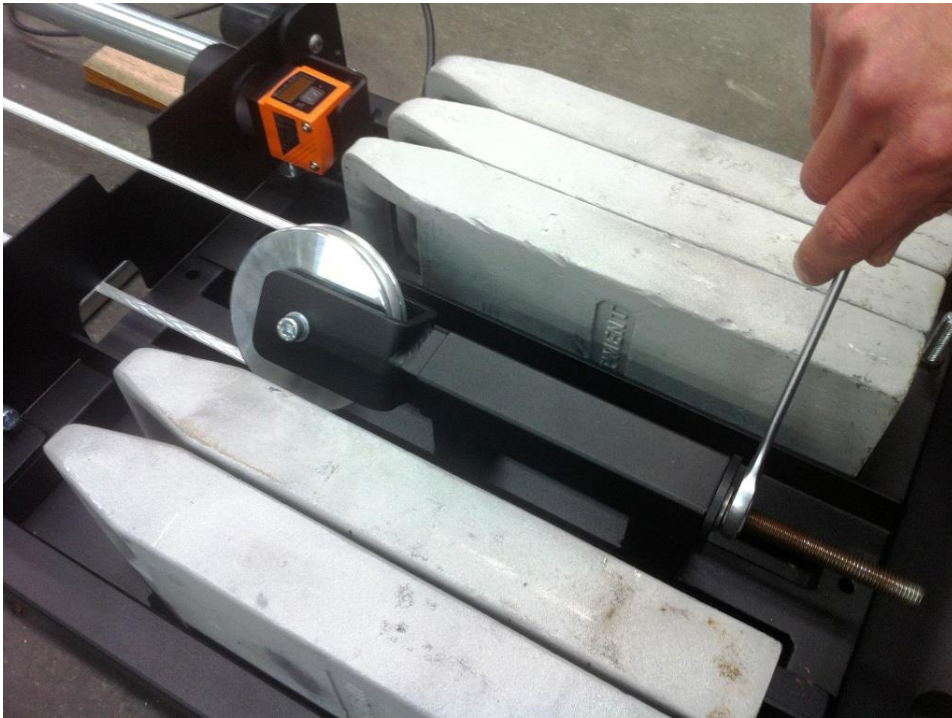


EXTRA DOLLY NOTICE:

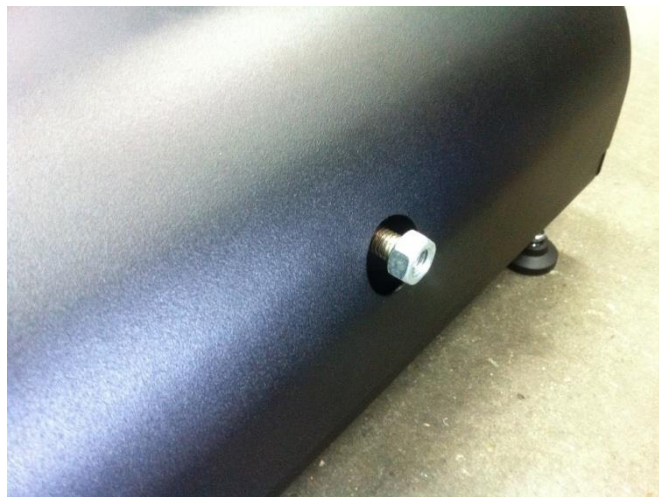


25A. Make sure the cable that goes underneath the dolly runs underneath the pulley's and through the cable safety hook's. These clamps avoid the cable jump out of the pulley.

26. With a spanner you're able to tension de drive cable inside the Return unit. First remove the retaining nut and then tension the cable.
27. For tensioning the guideline is that the cable may not touch the crossbars of the track when the dolly is on a far end. In most situations this is $\frac{3}{4}$ of the length you're able to tension. (when using smaller rail lengths the cable will be quicker at its correct tension)

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28. After tensioning move the dolly by hand along the rails and check again if the rope isn't touching crossbars at any dolly position. (result of slack cable in winch housing) If necessary tighten it further.
29. Place retaining nut and screw it against each other. It is possible to tighten/loosen the cable with closed cover, using a socket spanner



SECTION 2

Electrical connections and Laser End-Stop Set up

Connections

Route the cable of the Laser Distance Sensor on the Return Unit through the hole in the bottom and connect to the 'Laser Sensor Extension Cable' (LSEC).



Connect this extension cable to the 'Sensor Far-Side'-input on the drive unit.



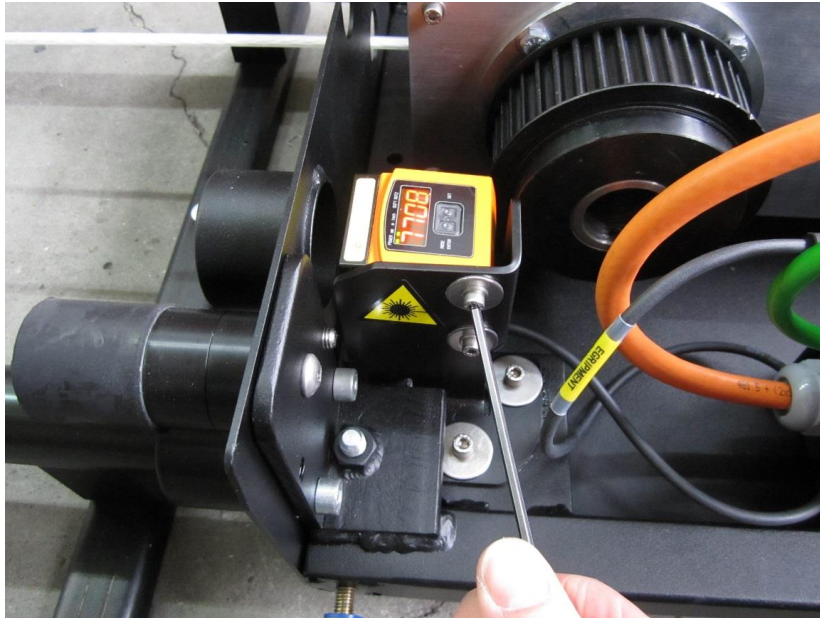
Connect the Drive unit to the external Amplifier box Using the 'Motor Power cable External' (MPE) and the 'Encoder Sensor cable External' (ESE).

Complete the rest of the cable connections as per our cabling diagram on the next page.

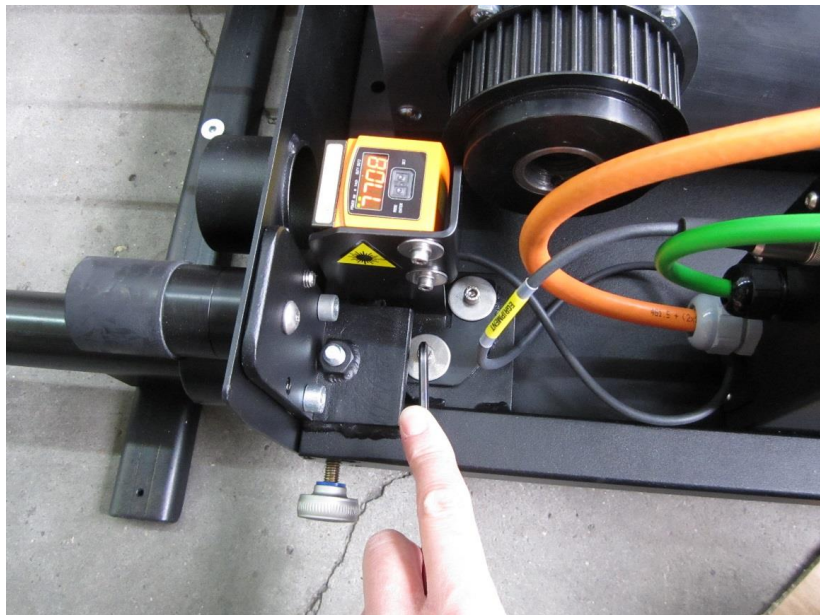
Aligning the Laser's

After making sure the track is aligned in a straight line and levelled to be as perfectly horizontal as possible, place the dolly (by hand) to approximately 7.5 to 9.5 meter from the drive unit.

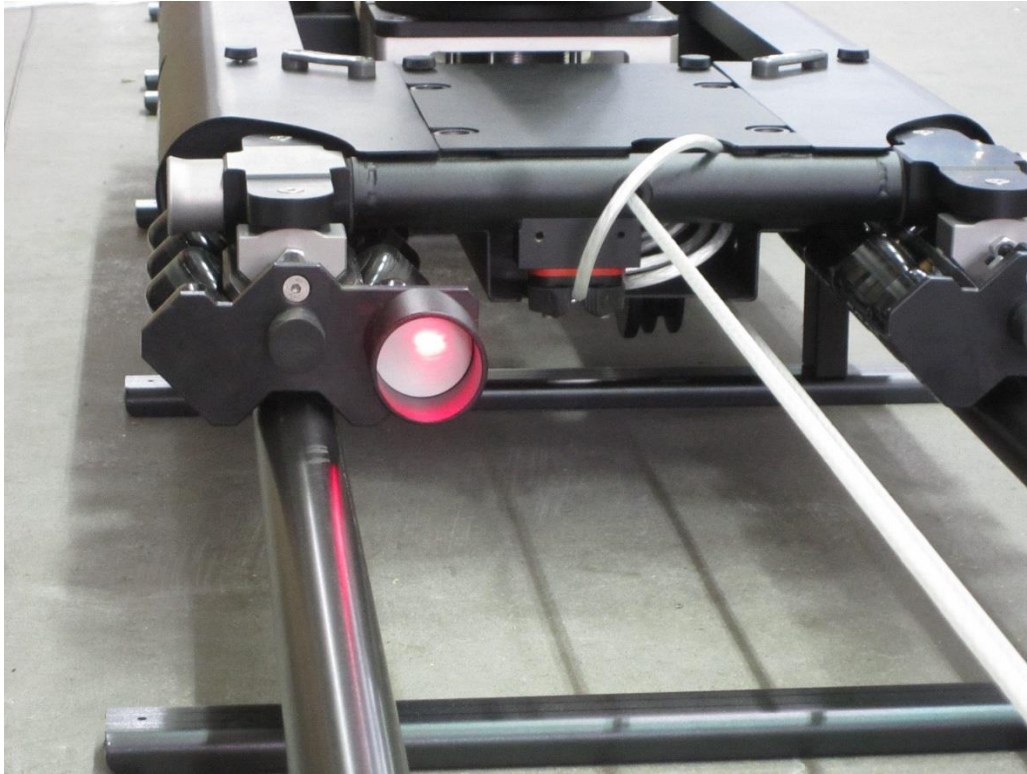
Using a 3mm Allen wrench, adjust the Laser distance sensors so that the LASER-light is hitting the white target (reflective surface) as close to the middle as possible.



Loosen both screws slightly in the vertical plane to rotate the LASER Distance Sensor up or down.



Loosen both screws in the horizontal plane slightly to rotate the LASER Distance Sensor to the left or right.



Please note that the LASER-spot may drift when tightening any of the screws. Therefore, try to make only small adjustments and slowly tighten the screws while monitoring and adjusting the position of the spot.

Repeat this process on the far end of the track with the LASER Distance Sensor mounted on the return-unit.

Note:

Ideally the LASER light should hit the white target throughout the whole travel-range of the dolly.

If the track is not perfectly straight and level the LASER light may shoot underneath the dolly while the dolly is moving further away. Reflections of the light from one sensor may then interfere with a correct reading on the other sensor and cause the dolly to stop driving smoothly.

To overcome this problem it is best to adjust both LASER's slightly upward (so they reflect on the upper-half of the white targets when they are within the sensor's reach (< 10 meter).

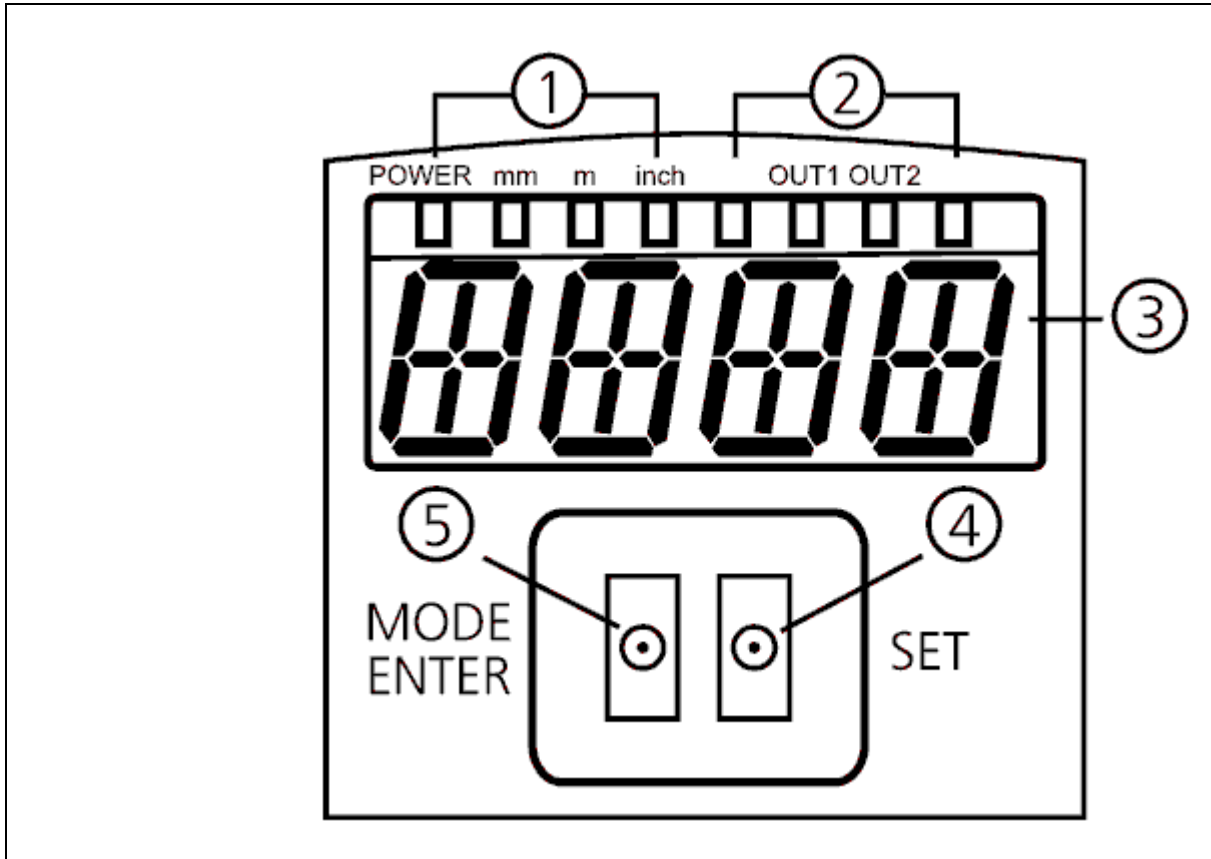
WARNING!

Once both LASER Distance Sensors have been aligned correctly do NOT drive the system at full speed yet!

Be aware that the settings of the parameters in each of the Sensors could be left at an inappropriate setting for your track-length, dolly-load and speed.

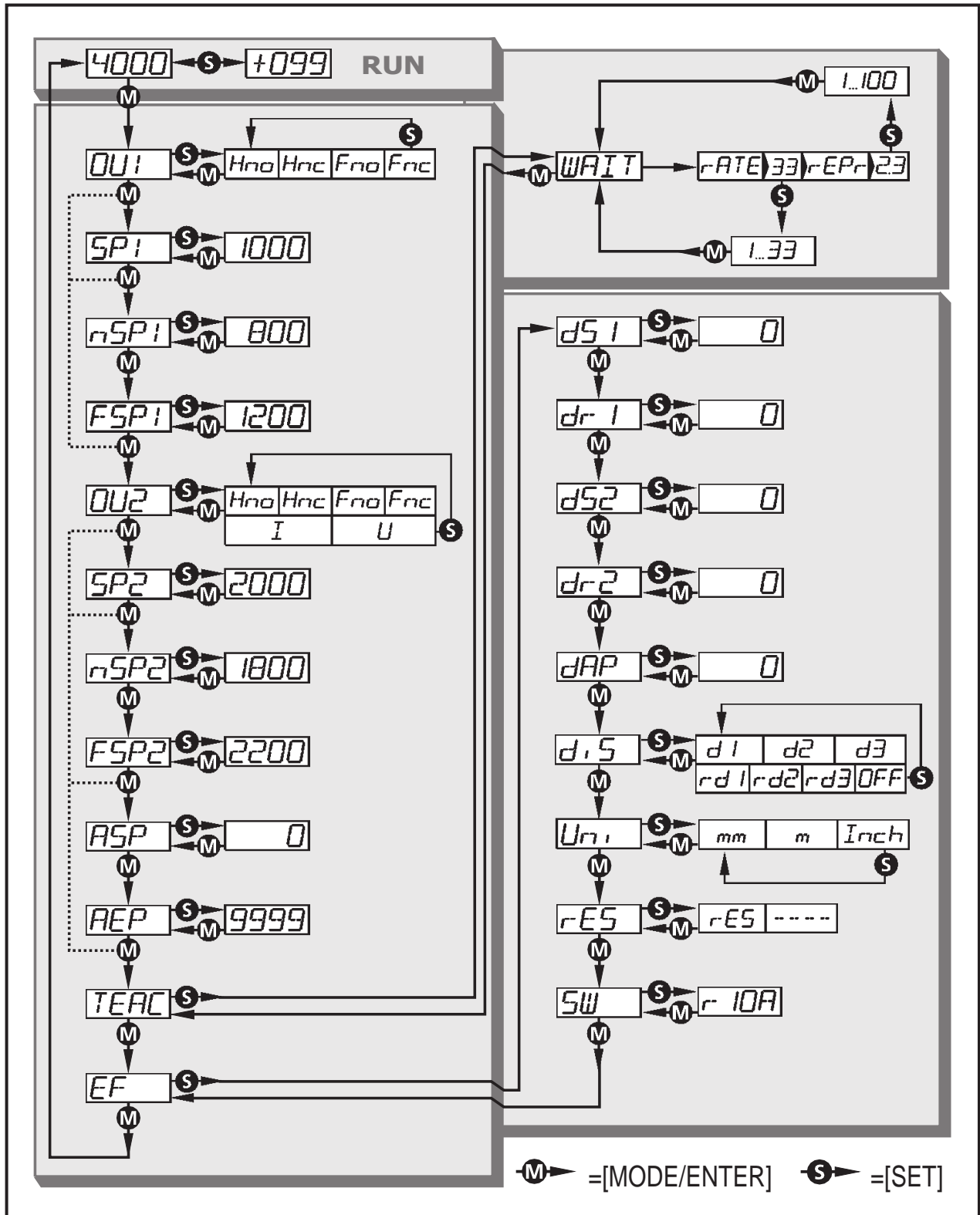
Check the settings of both sensors as per the next pages first before, slowly, increasing the velocity.

Display and buttons

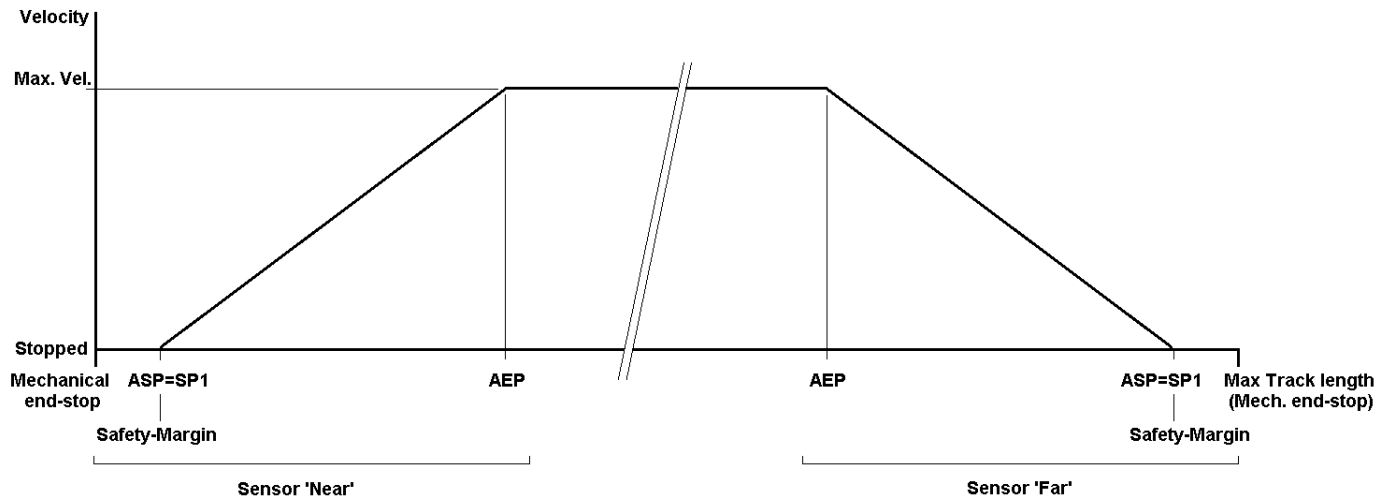


1: LED's Green	Lighting LED = Power and set display unit (mm, m, inch)
2: LED's Yellow	Indication of the switching output state
3: 4-digit alphanumeric display	Indication of the measured distance, the parameters and parameter values.
4: Programming button [SET]	Setting of the parameter values (scrolling by holding pressed; press briefly to increment).
5: Programming button [MODE/ENTER]	Selection of the parameters and acknowledgement of the parameter values.

Menu Structure



Functional graph



This functional graph represents a track of an undetermined length and the (maximum) velocity of the dolly going in either direction. Please notice there are 2 sensors (called Sensor 'Near' and Sensor 'Far'). Each of these sensors should be 'set' with the same (default) parameters unless, for some reason, you are unable to use the entire track and need to set the 'soft-stop' further away from the drive- or return unit.

The Safety-Margin, on both ends, is the minimum distance the dolly needs when approaching the end of the track at maximum speed. This safety-margin should NOT be set lower than 750 mm and should be guarded closely!

The AEP value, Analogue End Point, is usually set to the maximum measuring distance of the sensor (9999 millimetre for an O1D405) for the smoothest deceleration.

When using a relatively short track you may want to lower this value.

WARNING!

Once both LASER Distance Sensors have been aligned and set-up correctly DO NOT DRIVE the system at full speed yet!

Please ensure that the dolly decelerates smoothly and stops at a safe distance from the mechanical end-stops at a slow and safe speed first before, slowly, increasing the velocity to the maximum.

Parameter List

Default Parameter list for each Optical Distance Sensor, O1D405

Parameters		Setting
OU1	Configuration for output 1	Hno
SP1	Switch point 1	750* (same as ASP)
nSP1	Window function switch point „near“	-
FSP1	Window function switch point "far"	-
OU2	Configuration for output 2	I
SP2	Switch point 2	-
nSP2	Window function switch point "near"	-
FSP2	Window function switch point "far"	-
ASP	Analogue start point	750* (same as SP1)
AEP	Analogue end point	9999 (= max)
TEAC	Sampling rate/repeatability	rate = 33
dS1	Switch-on delay for output 1	0.1
dr1	Switch-off delay for output 1	0
dS2	Switch-on delay for output 2	0
dr2	Switch-off delay for output 2	0
dAP	Damping of the signal measured	0.50
dis	Display setting	d1
Uni	Display unit	Mm

*) Note:

Set parameters SP1 and AEP to the same value to achieve the smoothest deceleration and stop of the dolly.

SECTION 3

Check-list and Warnings

‘READY TO GO’ - CHECKLIST

- Check that the Amplifier Box is disconnected from mains
- Lay out all the cables.
- Connect all the cables except mains power.
- Allow enough space for the cable-loom from the Dolly to move freely.
- Set the speed controls to minimum
- Make sure the Emergency Stop Button is pressed.
- Connect mains power to the Amplifier Box.
- Check the Laser-Alignment for the End-Stops on both ends of the Track as per the procedure in Section 2.
- Release the Emergency Stop Button and press the Reset-button.
The system will switch on.
- Start checking the functionality of the End stops by slowly driving the dolly towards both ends.
- Ensure the Track operator always has a clear view on the Track.
- Keep the Emergency Button in arms reach of the Track operator.
- ALWAYS keep checking the cable-loom being pulled by the dolly!



THINGS YOU MUST NEVER DO WITH THE GENERIC TRACK.

- ❖ DO NOT OPERATE THE TRACK IF YOU DON'T HAVE A CLEAR VIEW ON THE SYSTEM.
- ❖ DO NOT OPERATE THE TRACK WHEN PEOPLE ARE ON, OR TOO CLOSE TO, THE TRACK AND DOLLY.
- ❖ DO NOT LOAD THE DOLLY WITH GROSS WEIGHT (OTHER THAN A CAMERA AND REMOTE HEAD) IN EXCESS OF THE INDICATED MAXIMUM LOAD.
- ❖ DO NOT DRILL INTO, WELD ONTO, OR ALTER ANY ELEMENTS OR PARTS OF THE SYSTEM.
- ❖ NEVER PERMIT ANYONE WHO IS NOT THOROUGHLY TRAINED IN THE USE OF THE GENERIC TRACK AND WHO HAS NOT READ AND UNDERSTOOD THESE INSTRUCTIONS AND PROHIBITIONS, TO OPERATE THE TRACK.
- ❖ DO NOT COMMENCE TO OPERATE THE GENERIC TRACK UNTIL YOU ARE CERTAIN THAT YOUR REMOTE HEAD, CAMERA AND, WHEN APPLICABLE, POWER SUPPLY(S) ARE FASTENED AND SECURED TIGHTLY TO THE DOLLY.
- ❖ DO NOT PLACE YOUR HANDS IN PINCH POINT LIKE AREAS.