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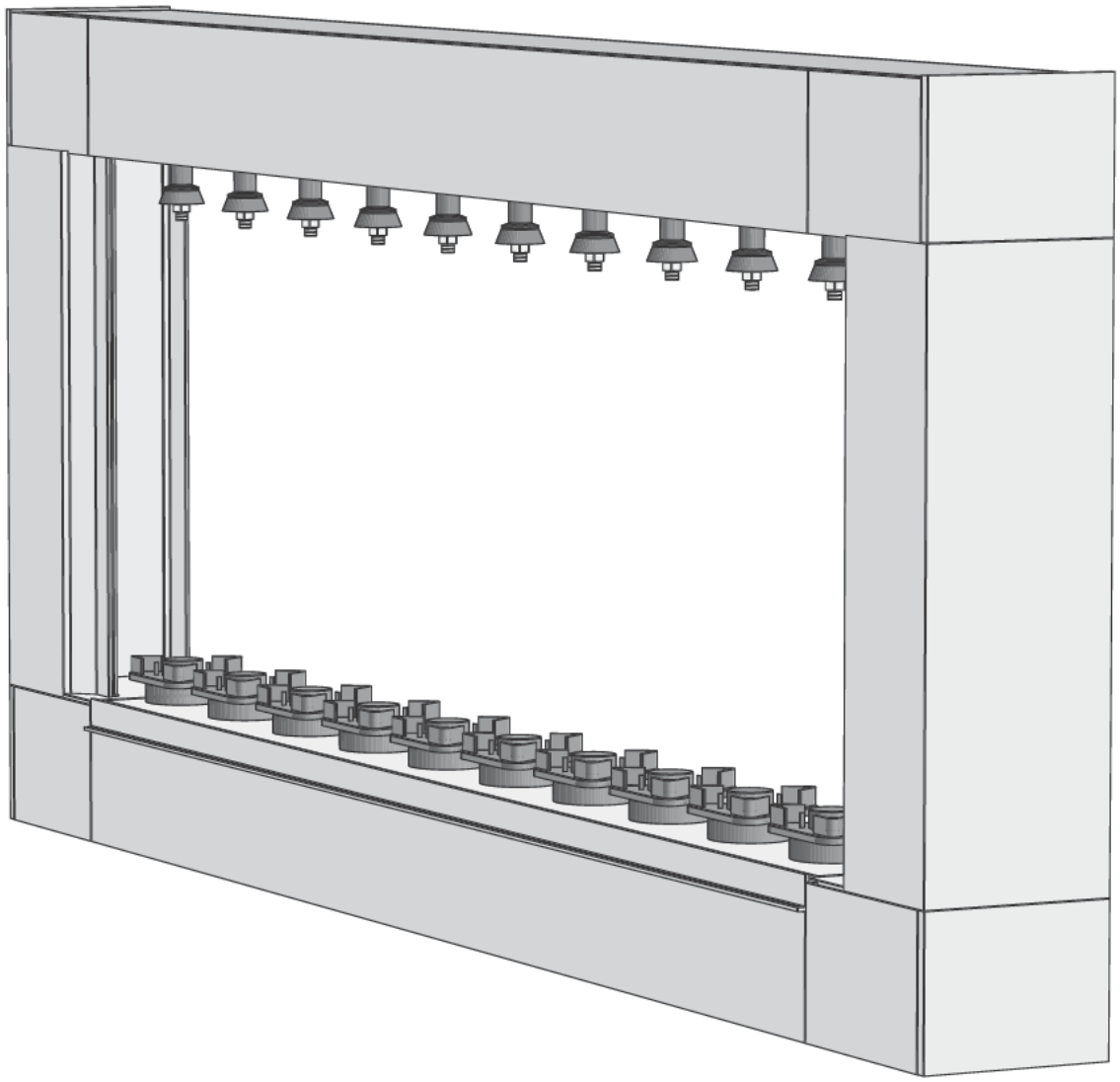


Prismaplus Installation Guide

For service staff only

Version dated February 2006

Consult our website regularly
for the most recent version of our manual
www.prismaflex.com/products/pdf/Prismaplus-EN-Low-Res.pdf

Before you assemble and mount Prismaplus, think about the following...

1) A poor mounting will *always* result in problems and premature wear of the parts.

2) It is preferable that the drive beam is supported throughout its length with a beam of sufficient size. If support brackets are used, they should not be far apart.

3) It is extremely important that the top and drive beams are mounted completely horizontal & parallel, and that they do not tip forward or backward, or warp.

4) Always mount a rigid back cover (wind break) behind the sign, preventing wind turbulences and light shining through the prisms. You may fix the back cover right onto the upper and lower mounting rails. In snowy locations, cut out an opening along the lower end of the sign preventing accumulation of snow. This opening should be approx. 10 cm high and made throughout the length of the sign. Furthermore, in the event that there is space between sign and wind break, we strongly recommend side enclosures as well.

5) It is recommended to drill drainage holes (at least 8 mm diameter) every 500 mm through the bottom of the lower mounting rail to prevent accumulation of rain, snow or sand in the drive beam.

6) After the assembly, ensure that there are no mounting bolts or nuts inside the drive beam that could get in the way of the rotating parts.

7) Check that there is a sufficient and equal gap between all the prisms (check all three faces). If needed, remove vinyl and paper cuttings from the gap.

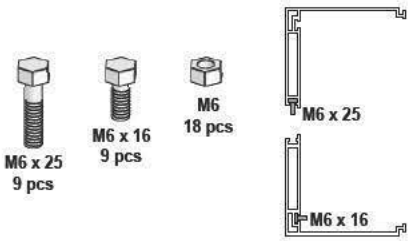
8) To ensure a smooth wave movement, check that all shaft gears are lined up (see 6.4).

9) For the split version, make sure to follow the recommended number of clips and distance between them (section 10). Furthermore, check that the blades are secured properly by the clips, both slide-in and snap-in (section 11).

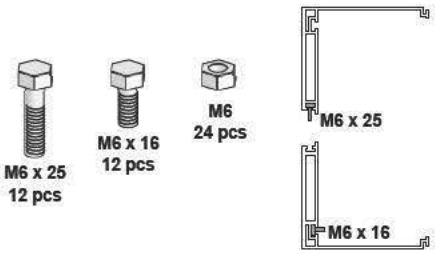
10) All units of measure used in this Installation Guide are metric. Note that:
1 inch = 25.4 mm
1 foot = 304.8 mm

KITS

Frame screw kit 3
Screws and nuts for
3 modules, top and bottom.

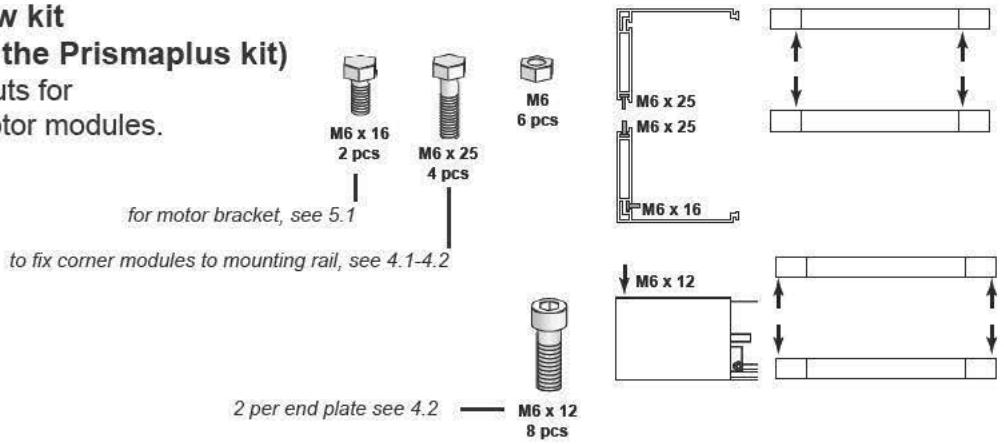


Frame screw kit 4
Screws and nuts for
4 modules, top and bottom.



Example:
A 6 x 3 m sign has 2 "frame screw kits 3"
A 14.5 x 4.27 m (14' x48') has 3 "frame kits 4" and 1 "frame kit 3"
A 4 x 3 m sign has 1 "frame screw kit 4"

Corner screw kit
(included in the Prismaplus kit)
Screws and nuts for
corner and motor modules.



Other items included ...

frame screw tool
(socket wrench)

shaft couplings

And ...

screw driver
allen key 4 mm and 5 mm
spares:
screw M6x12
4 X screws M6x16
2 X screws M6x25
4 X lock-nuts M6
3 X shaft gear assemblies
3 X prism seats
3 X prism bevel gears
1 X shaft coupling assembly

If split version ...

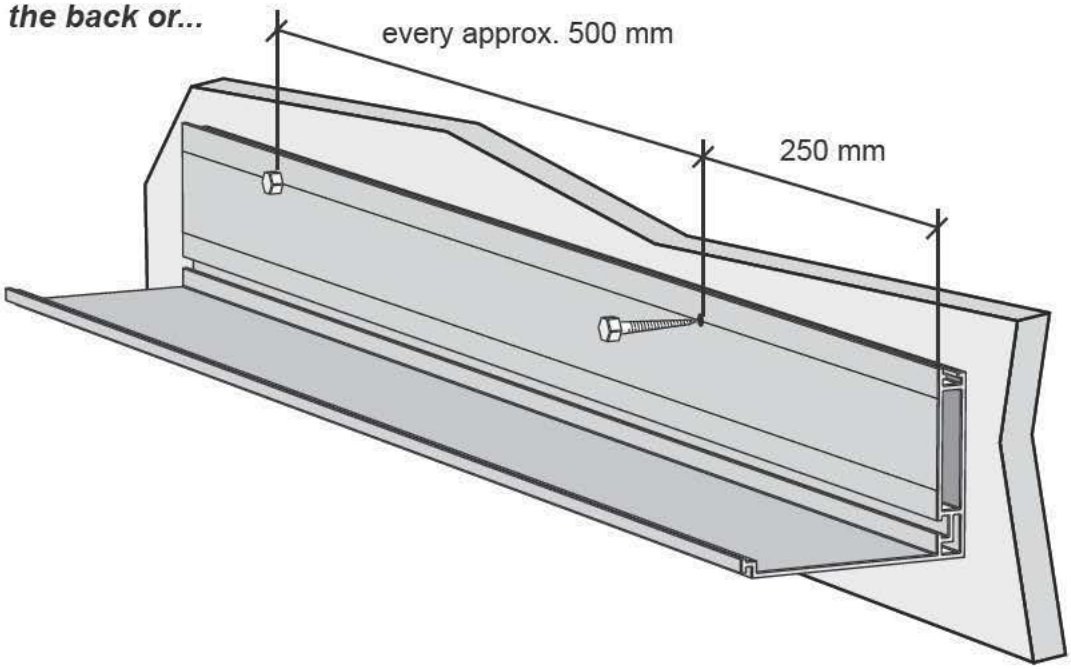
blade puller

And ...

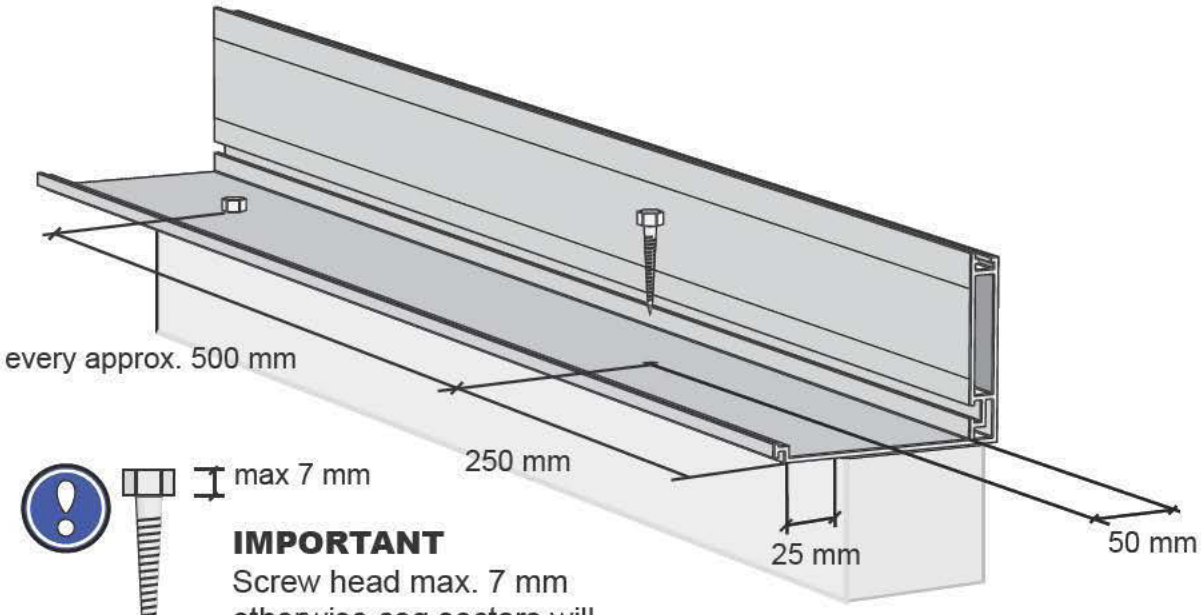
clip screw kit
drill bit for clip screw

1. FIXING THE BOTTOM MOUNTING RAIL

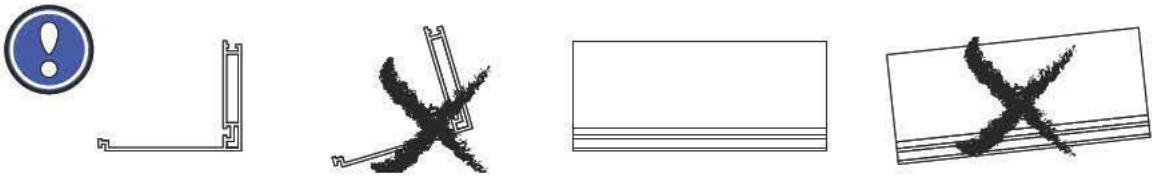
...through the back or...



...through the bottom.



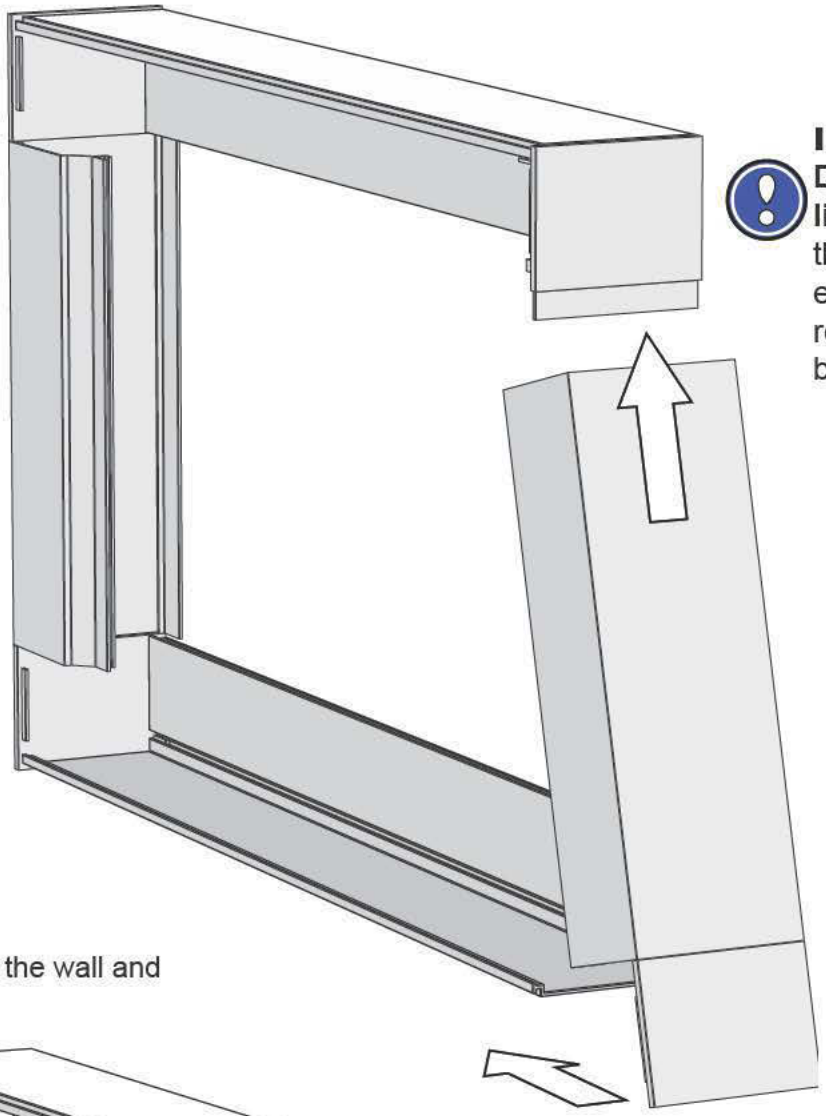
IMPORTANT
Screw head max. 7 mm
otherwise cog sectors will
hit screws.



2. FIXING TOP MOUNTING RAIL

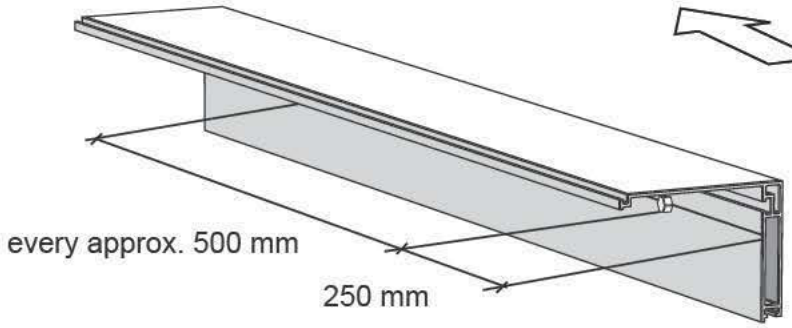
... through the back or through the bottom.

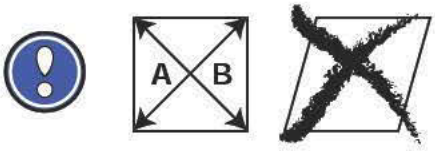
2.1 To get the correct distance between top and bottom mounting rails, use end plates and side beams on both ends of each mounting rail. Note that the purpose of this procedure is to get the right measurement. See IMPORTANT.



IMPORTANT
Do not attempt to **lift** the top rail with the side beam and end plate. This will result in the end plate breaking

2.2 Clamp it to the wall and secure it.



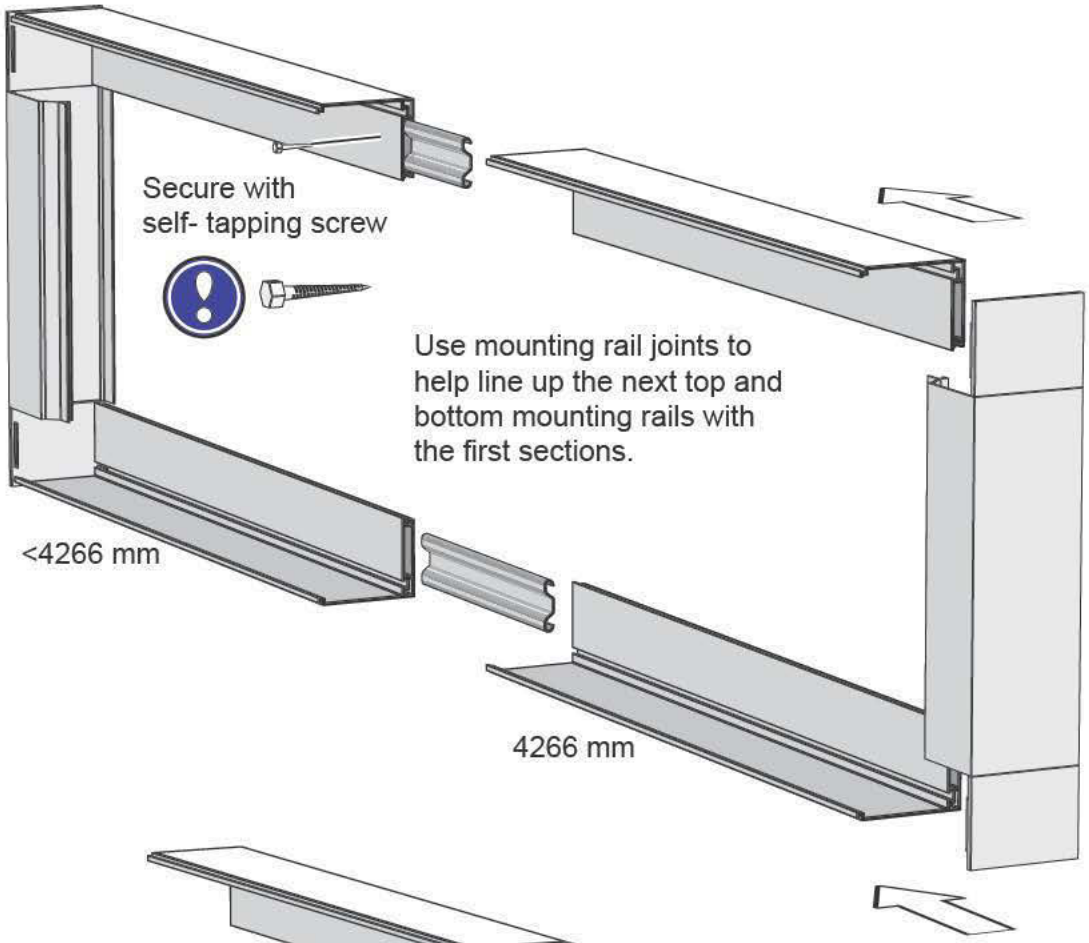


3. IF SIGN IS WIDER THAN 4 M (more than 38 prisms)

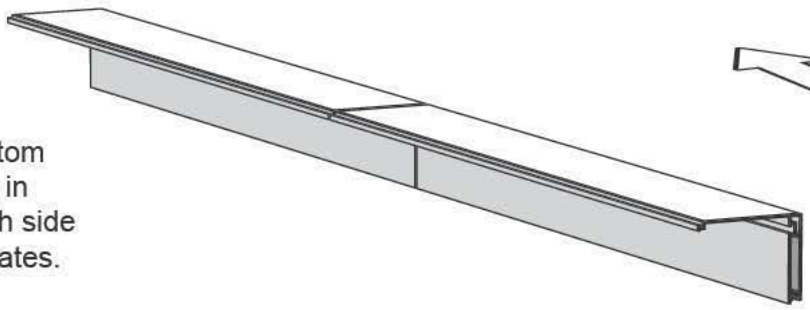
...the mounting rails will consist of two or more sections.

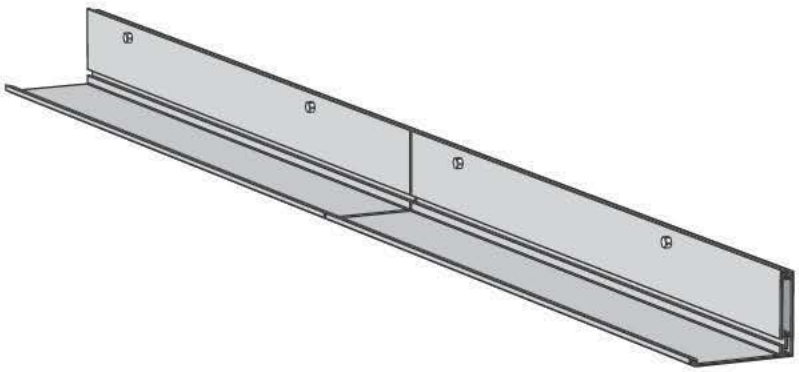
3.1 Start with the shortest mounting rail sections and fix in the same manner as points 2.1 & 2.2

3.2 Remove side beam and end plates on the right-hand side.



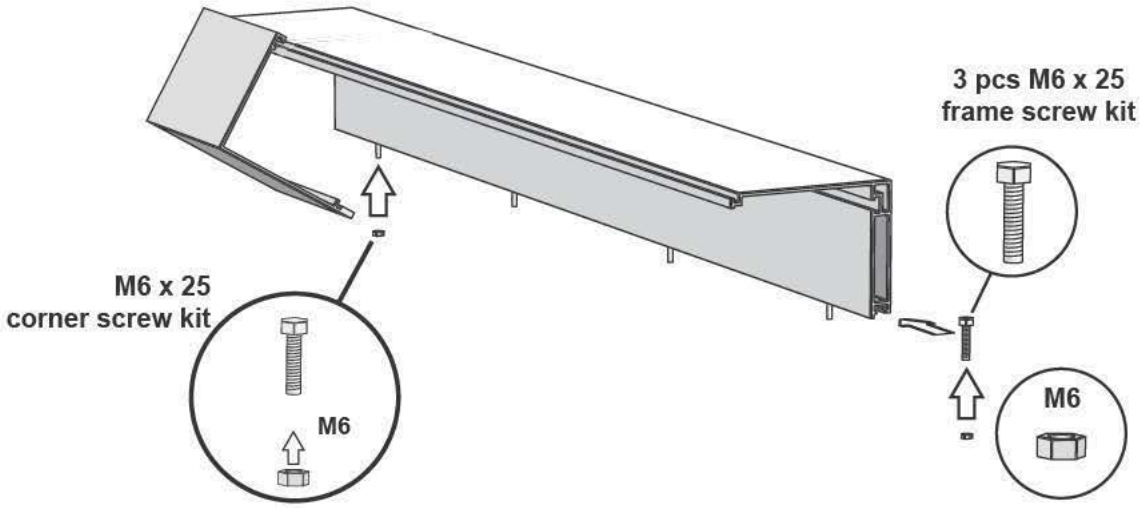
3.3 When top and bottom mounting rails are in place, remove both side beams and end plates.



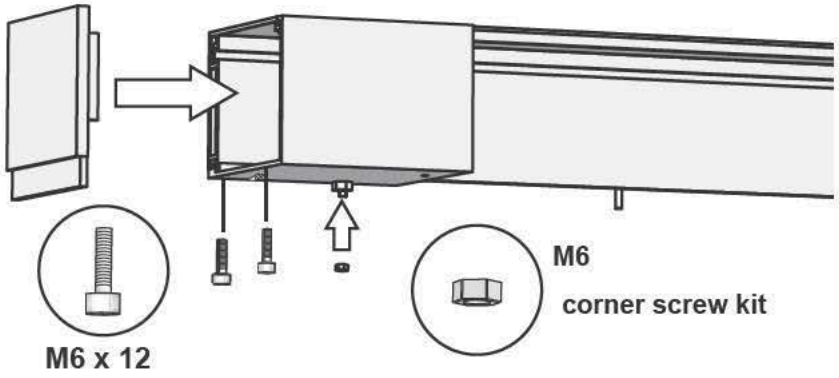


4. FIXING MODULES ONTO THE TOP MOUNTING RAIL

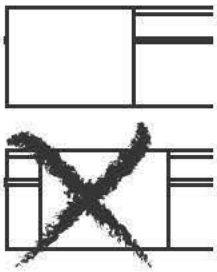
4.1 Thread the nuts onto the screws and insert into the tracks.
3 screws per top module (frame screw kit) and 1 screw per corner module (corner screw kit).



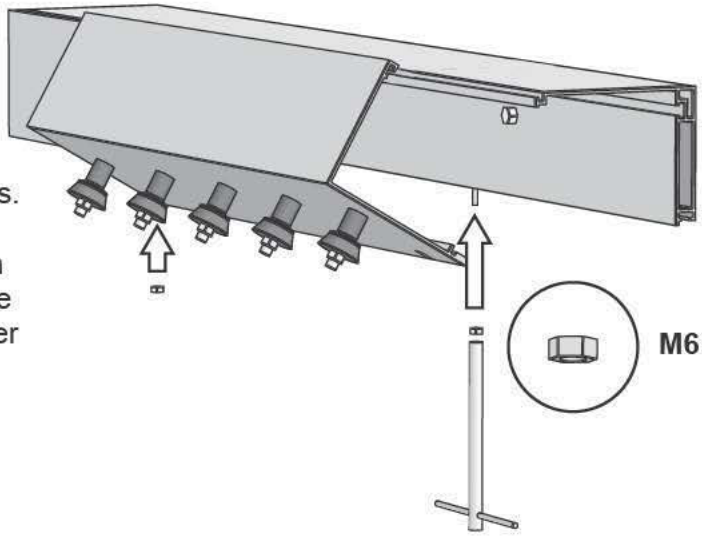
4.2 Hang the first corner module and secure with appropriate screws and nuts. Ensure that the corner is lined up with the outer edge of the mounting rail (as per *Picture 1*).



Picture 1



4.3 Hang the top modules onto the mounting rail. Use the socket wrench provided to tighten the nuts. When all top modules are in place, hang the other top corner module as per 4.2.

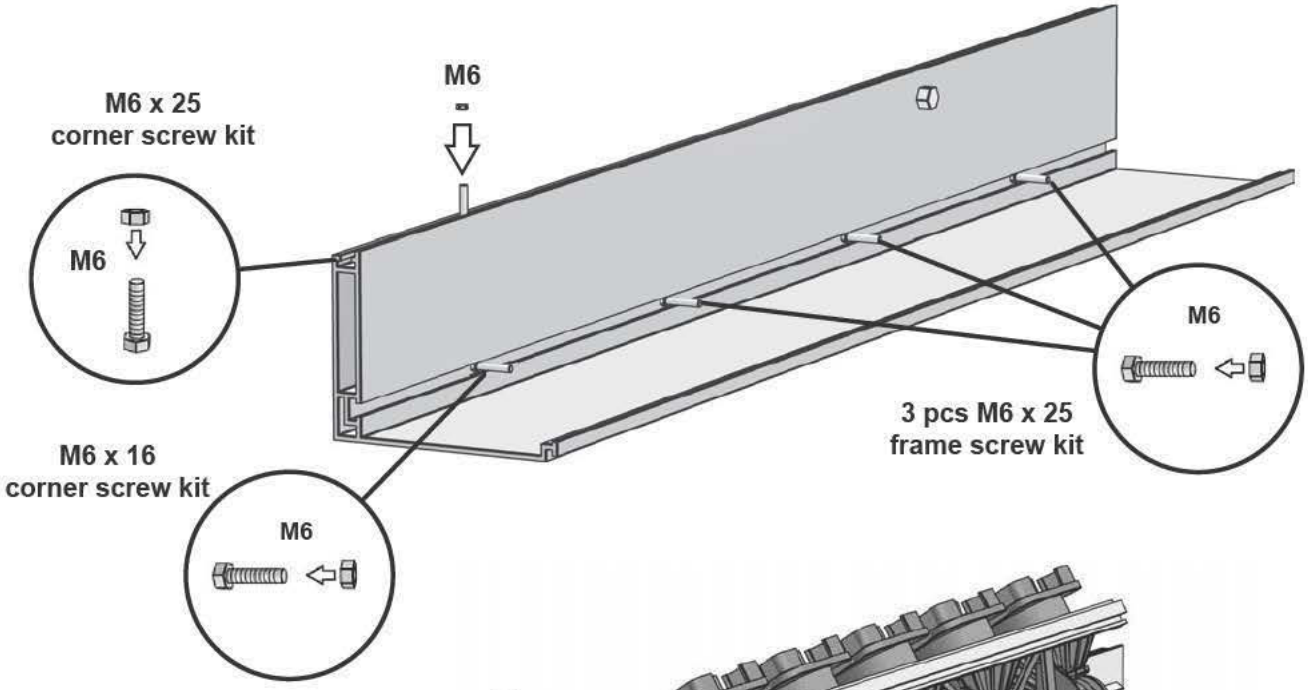


IMPORTANT
A c/c 108 mm has left and right top module.
All right hand side are marked with yellow sticker.

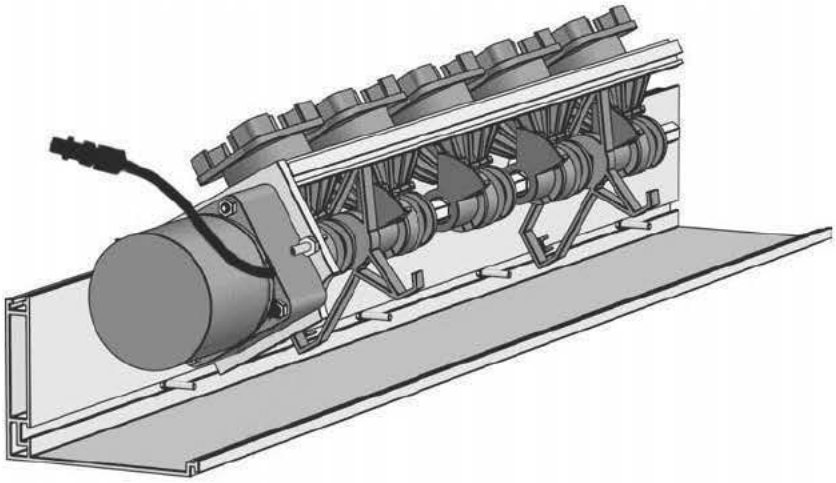
R

5. FIXING THE MOTOR MODULE ONTO THE BOTTOM MOUNTING RAIL

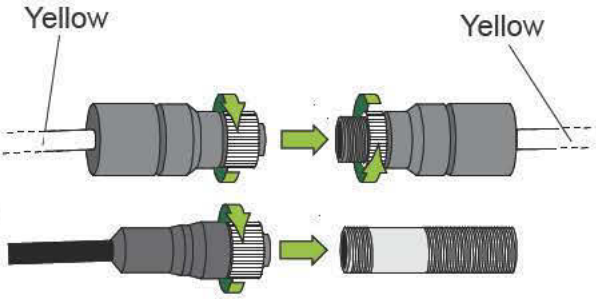
5.1 Thread the nuts onto the screws and insert into the tracks.
In the lower track, 3 screws (frame screw kit) per drive module, plus 1 from the corner screw kit. In the upper track, 1 screw from the corner screw kit.



5.2 Hang the left motor module on the mounting rail.



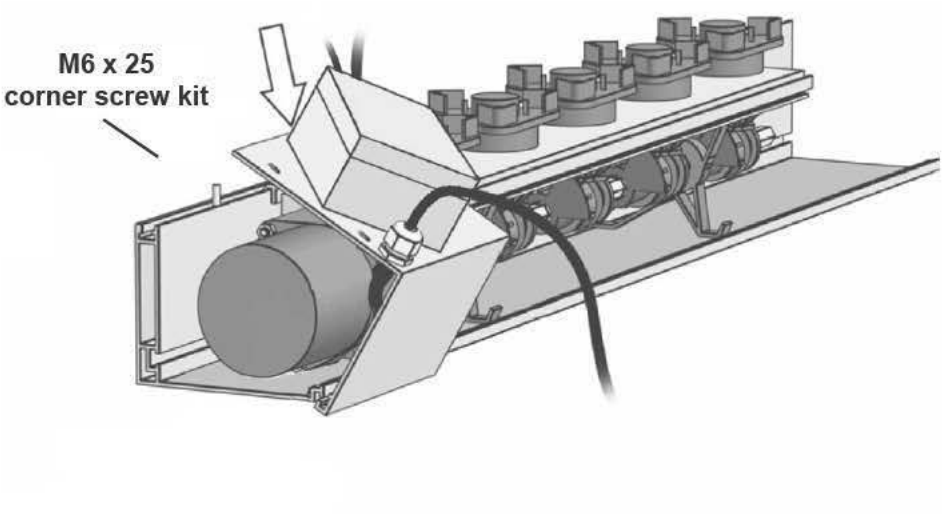
5.3 Connect sensor and motor cables to the cables from the motor cover.
Tighten the connectors and screw the casings together.



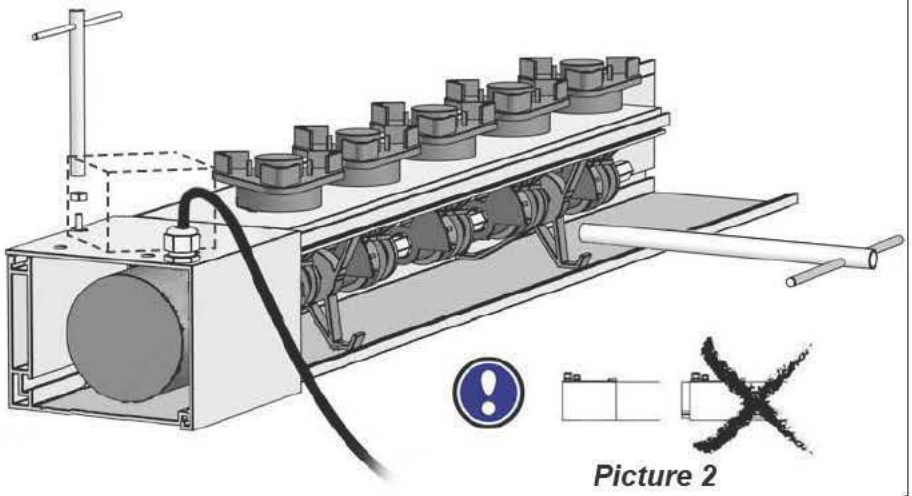
Make sure the sensor cable and motor cable are correctly connected;
The cable from the motor with yellow marking need to be connected with motor cable also with yellow marking.
The remaining cable needs to be connected with the sensor.

5. (CONT.) FIXING THE MOTOR MODULE ONTO THE BOTTOM MOUNTING RAIL

5.4 Place the motor cover edge to edge with the mounting rail and ...

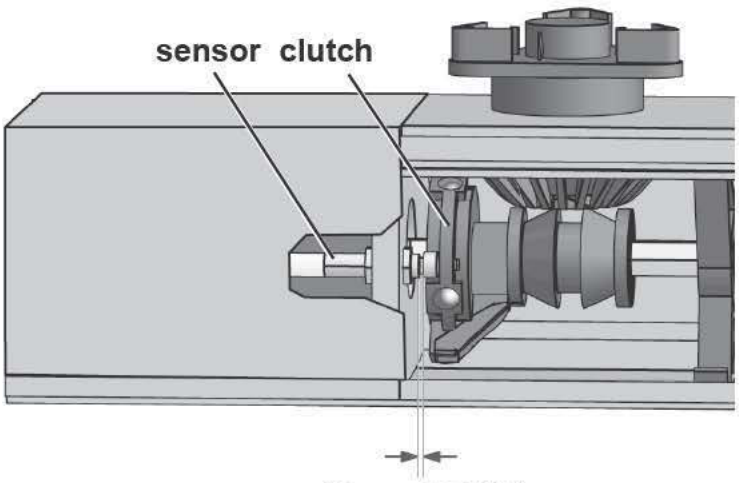


5.5 With the socket wrench provided, tighten the nuts on the moter cover and the drive module.
Ensure that the motor cover is lined up with the outer edge of the mounting rail (as per *Picture 2*).



Picture 2

5.6 The clutch and sensors are pre-assembled and pre-adjusted before delivery.
The distance between the sensor and the "pause reference" should be max.
1.0 mm or 1/25".
WARNING: The clutch is spring loaded and can cause *injury* if taken apart.

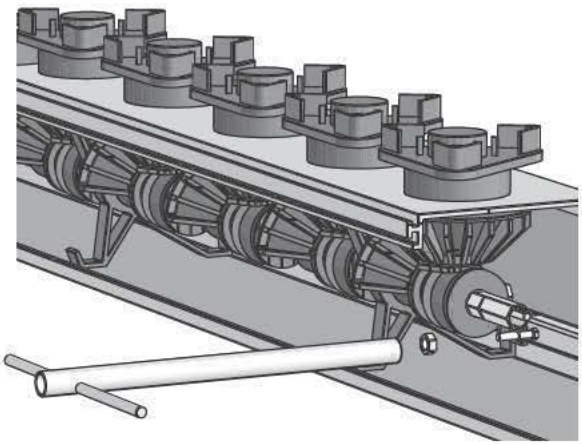


1,0 mm OR 1/25"
(about the thickness of a credit card)

6. FIXING DRIVE MODULES ONTO BOTTOM RAIL

Note: if your sign has two motors, refer to section 7 as well.

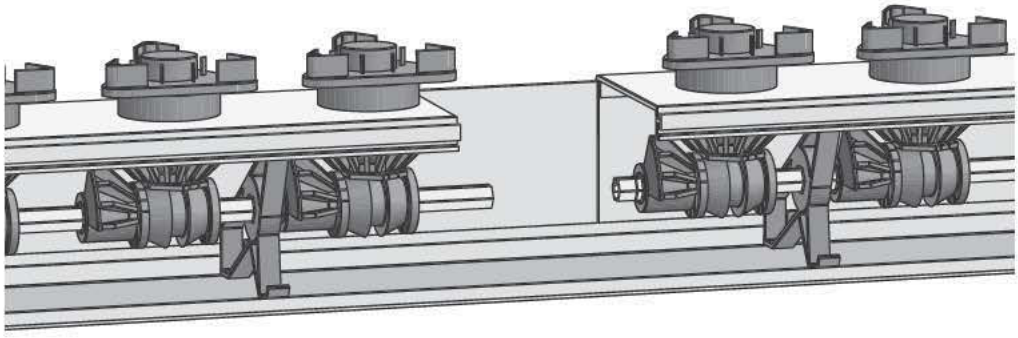
6.1 Hang a drive module next to the motor module. Secure the shaft supports with the screws. Tighten the nuts with the socket wrench provided.

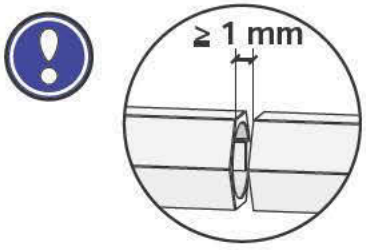


6.2 Fixing the remaining drive modules

Hang the second drive module onto the mounting rail and slide it until it meets the first one. Fasten the three shaft supports with screws and tighten nuts.

NOTE: Do not fit the shaft coupling between module one and two yet. This will be done at a later stage (ref. 6.5).

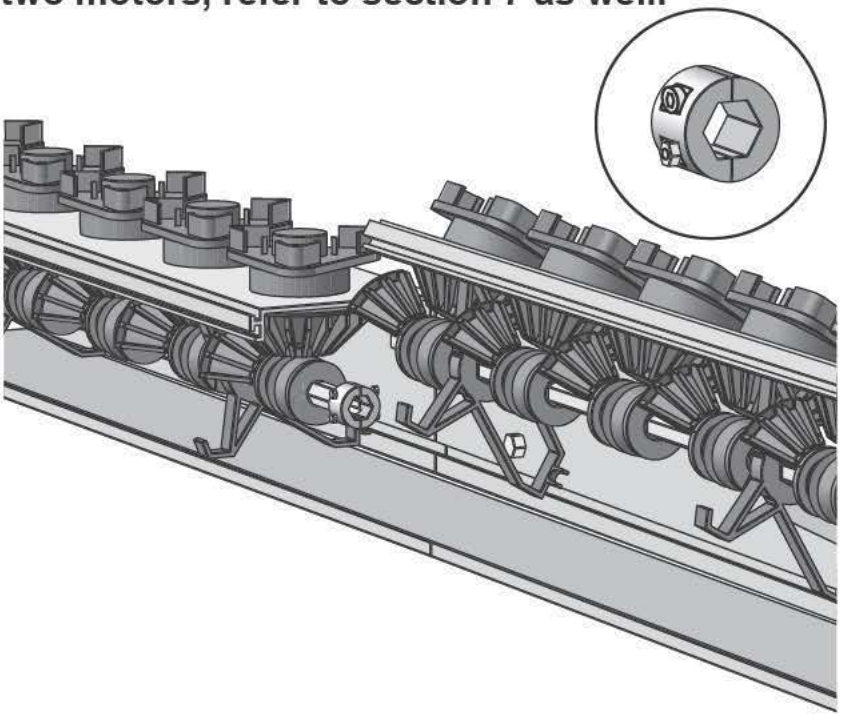




6. (CONT.) FIXING DRIVE MODULES ONTO BOTTOM RAIL

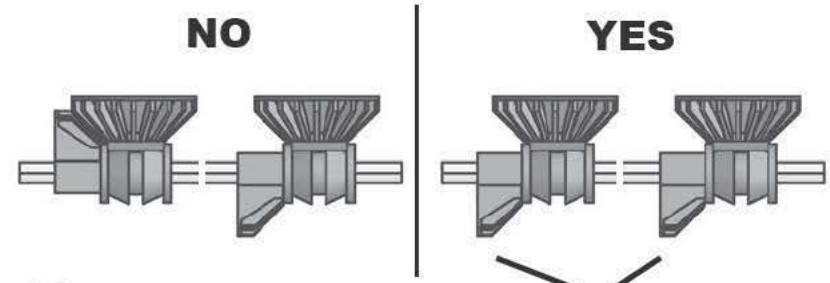
Note: if your sign has two motors, refer to section 7 as well.

6.3 Fit the shaft coupling onto the right-hand shaft end of the second drive module. Fit the third module to the mounting rail.



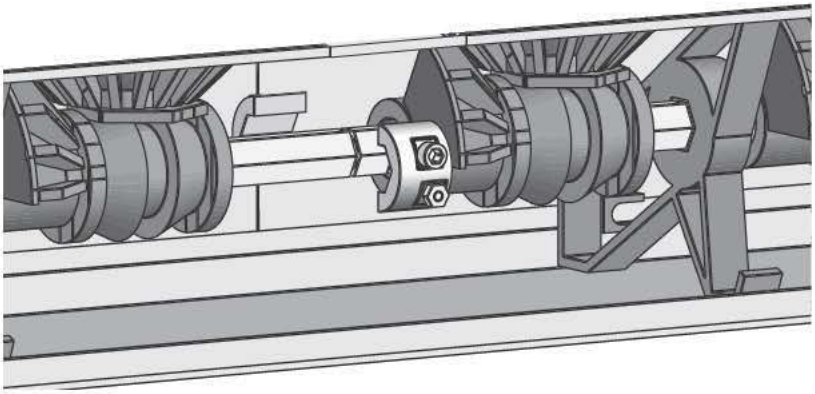
6.4 Align the last cog of the module with the first one of the next module.
Fit the shaft coupling onto the shaft and tighten it. Turn the shaft to tighten both screws.

Proceed until all drive modules are fitted.



Make sure all screws and nuts are tightened.

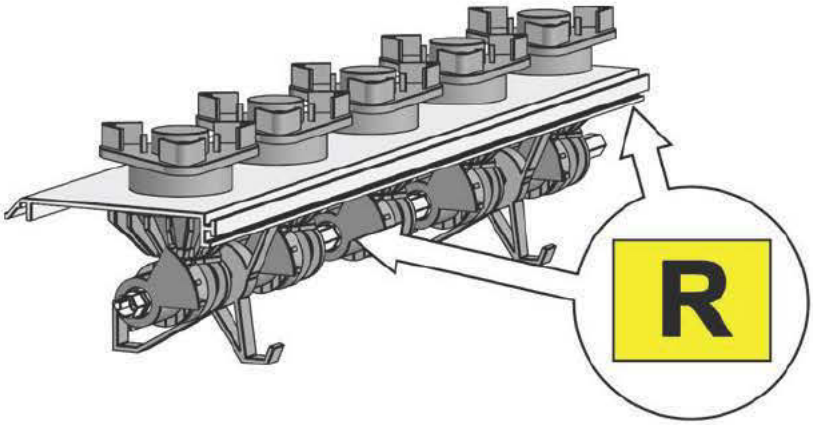
6.5 Fit the last coupling between drive modules one and two. Turn the free end of the shaft with the wrench to align the shaft. Finally, hang the corner module as per 4.2.
If your sign has 2 motors, refer to section 7 at this point.



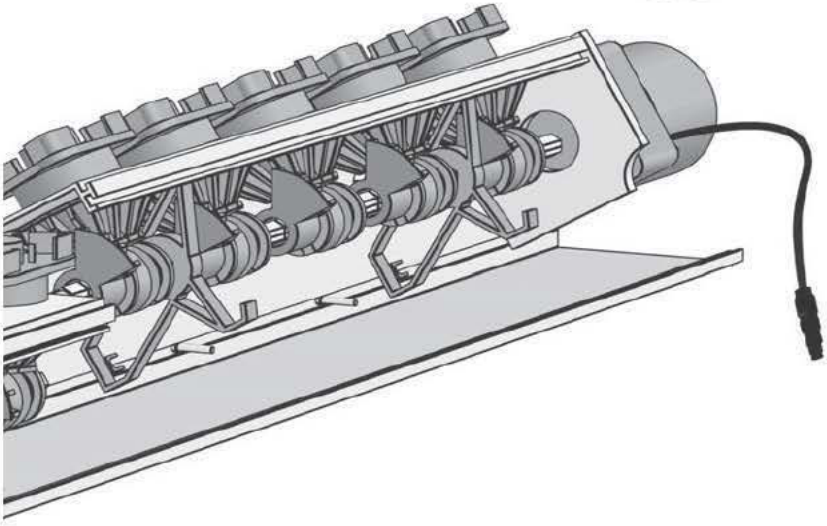
7. *FOR SIGNS WITH TWO MOTORS*
FIXING THE RIGHT-HAND MOTOR MODULE ONTO THE BOTTOM MOUNTING RAIL

7.1 As a standard, signs wider than 6 m (58 prisms) have left AND right modules.

Marked with an “R” (yellow sticker), the RIGHT modules are to be placed on the right-hand half of the sign.
The non-marked modules are to be placed on the left-hand side of the sign.

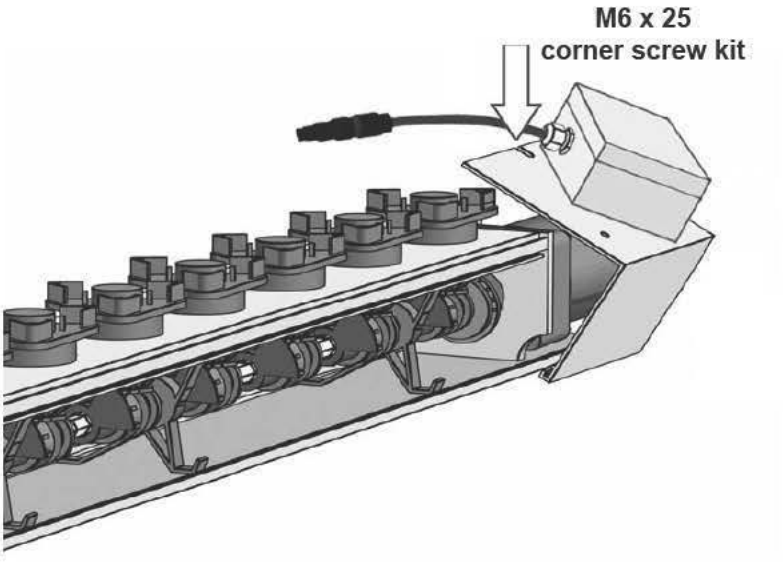


7.2 Hang the right-hand motor module on the mounting rail.



7.3 Connect the cables. Tighten the connectors and screw the casings together.

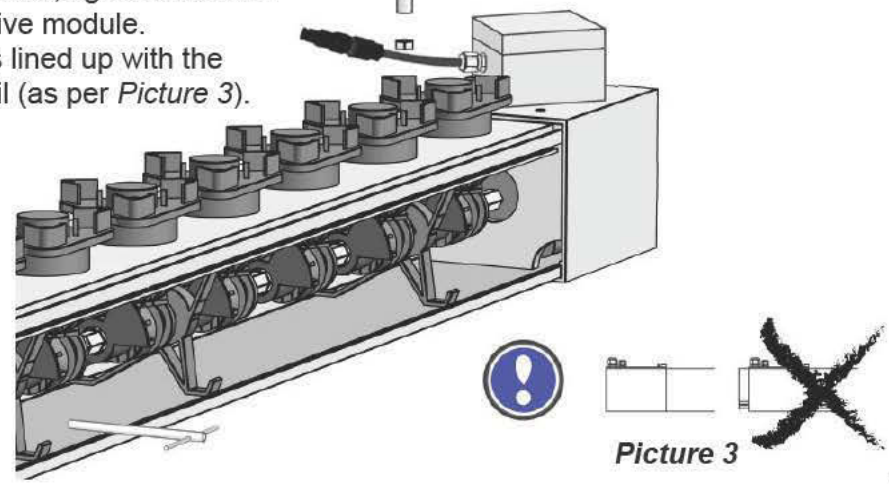
7.4 Place the motor cover edge to edge with the mounting rail and...



7. *(CONT.) FOR SIGNS WITH TWO MOTORS*
FIXING THE RIGHT-HAND MOTOR MODULE ONTO THE BOTTOM MOUNTING RAIL

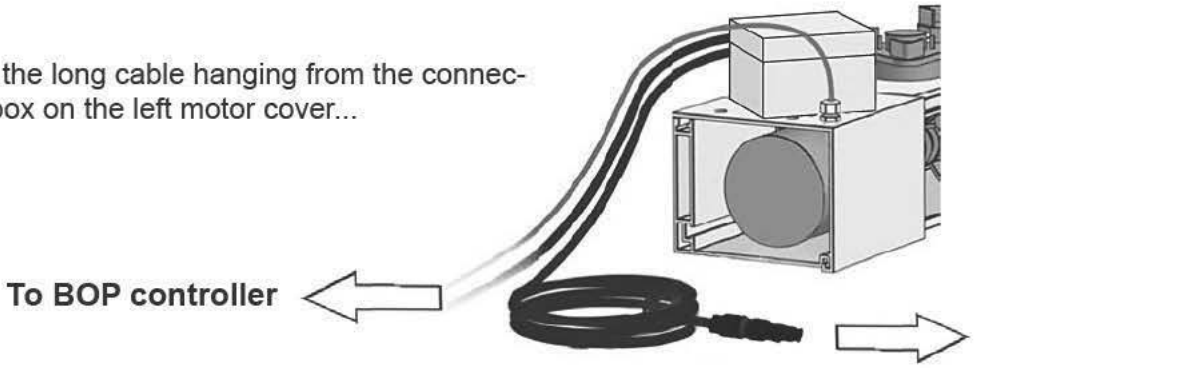
M6 corner screw kit

7.5 ...with the socket wrench provided, tighten the nuts on the moter cover and the drive module. Ensure that the motor cover is lined up with the outer edge of the mounting rail (as per *Picture 3*).

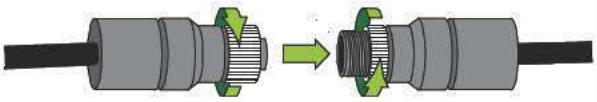


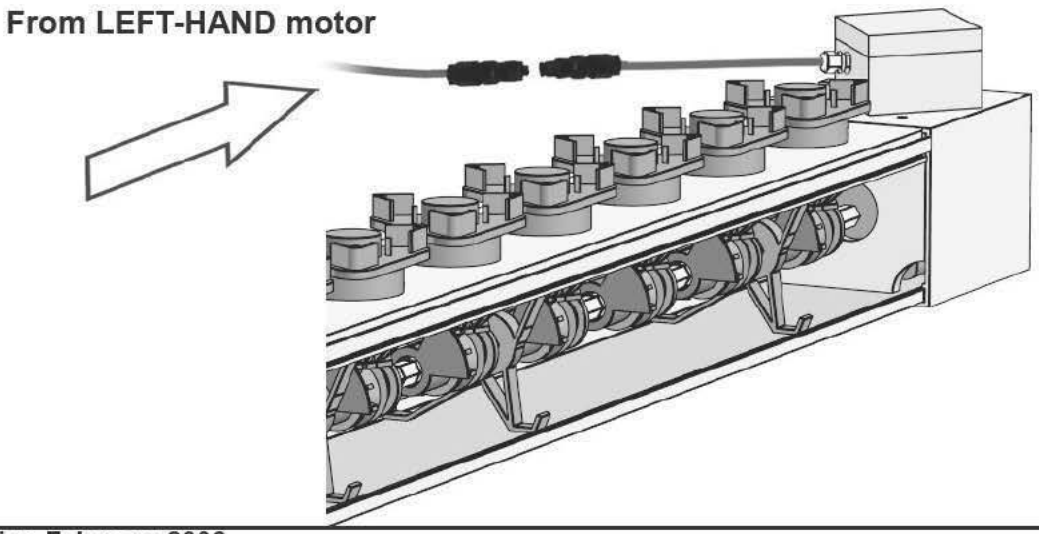
Picture 3

7.6 Take the long cable hanging from the connection box on the left motor cover...



7.7 ...lead it behind the sign, along the drive beam and connect the cable connectors with each other.

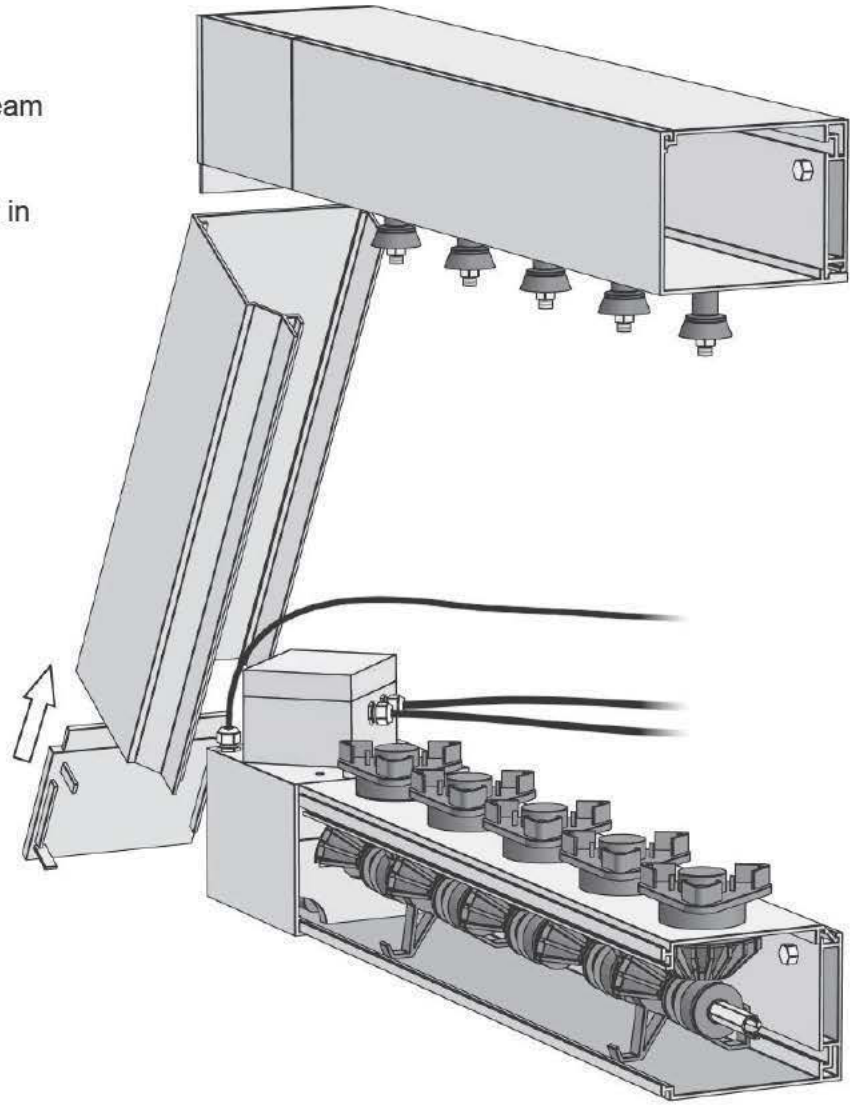


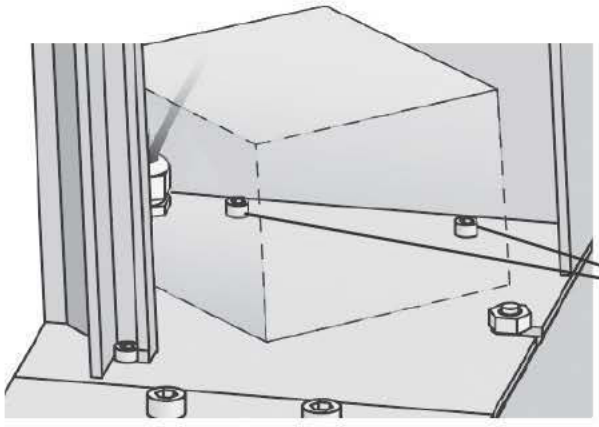


8. FIXING SIDE BEAMS & END PLATES

Place the left-hand side beam and bottom end plate.

Place the right-hand beam in the same manner.

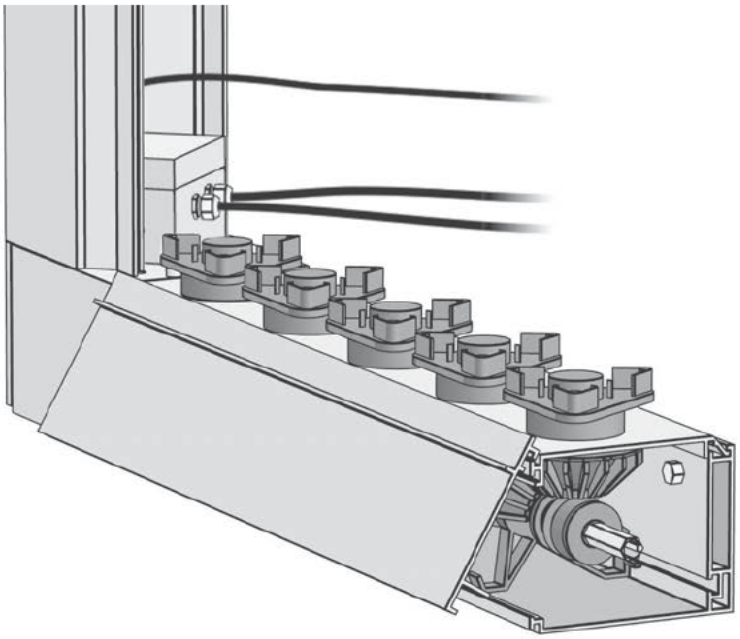




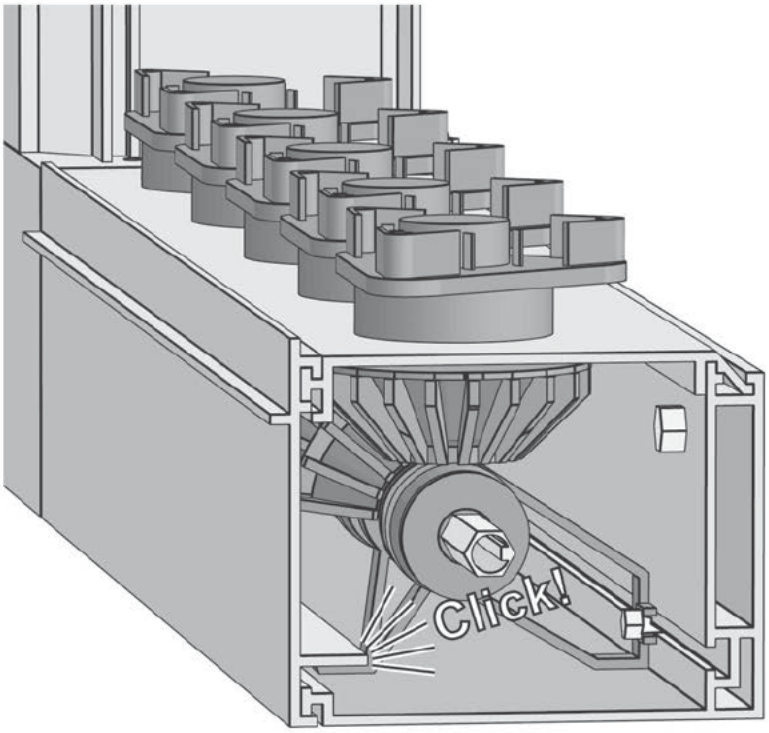
M6 x 12 end plates

9. FIXING COVER PLATES

9.1 Hang the cover plates onto the drive module.



9.2 Push on the cover plates until they snap into the correct position.



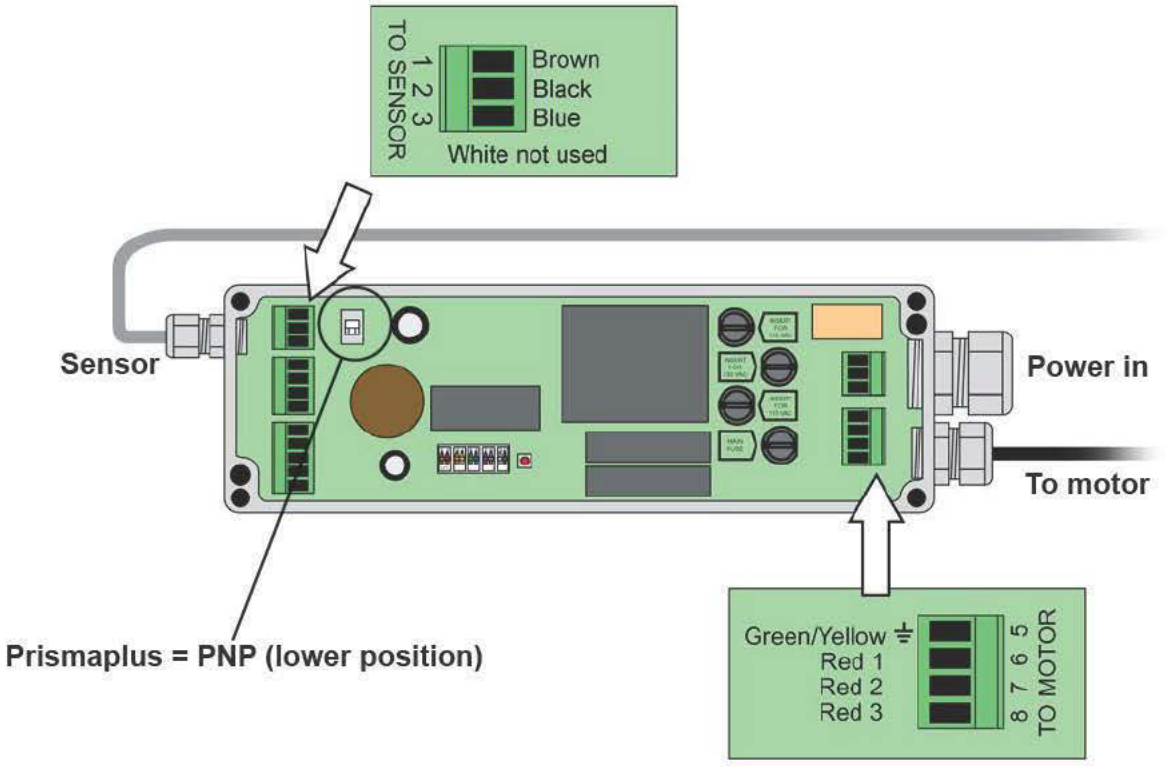
FOR SERVICE STAFF ONLY

10. CONNECTING THE CONTROL UNIT (BASIC OPTION PLUS - BOP)

WARNINGS!

> ***1) Switch power OFF when working on sign. Do not reset only.***
> ***2) For safety purposes, you should install an emergency stop switch at proximity of the sign.***
> ***3) If the sign is within pedestrians' reach, mount a protective device (such as a plexiglas section) preventing people from accessing the prisms and getting injured.***

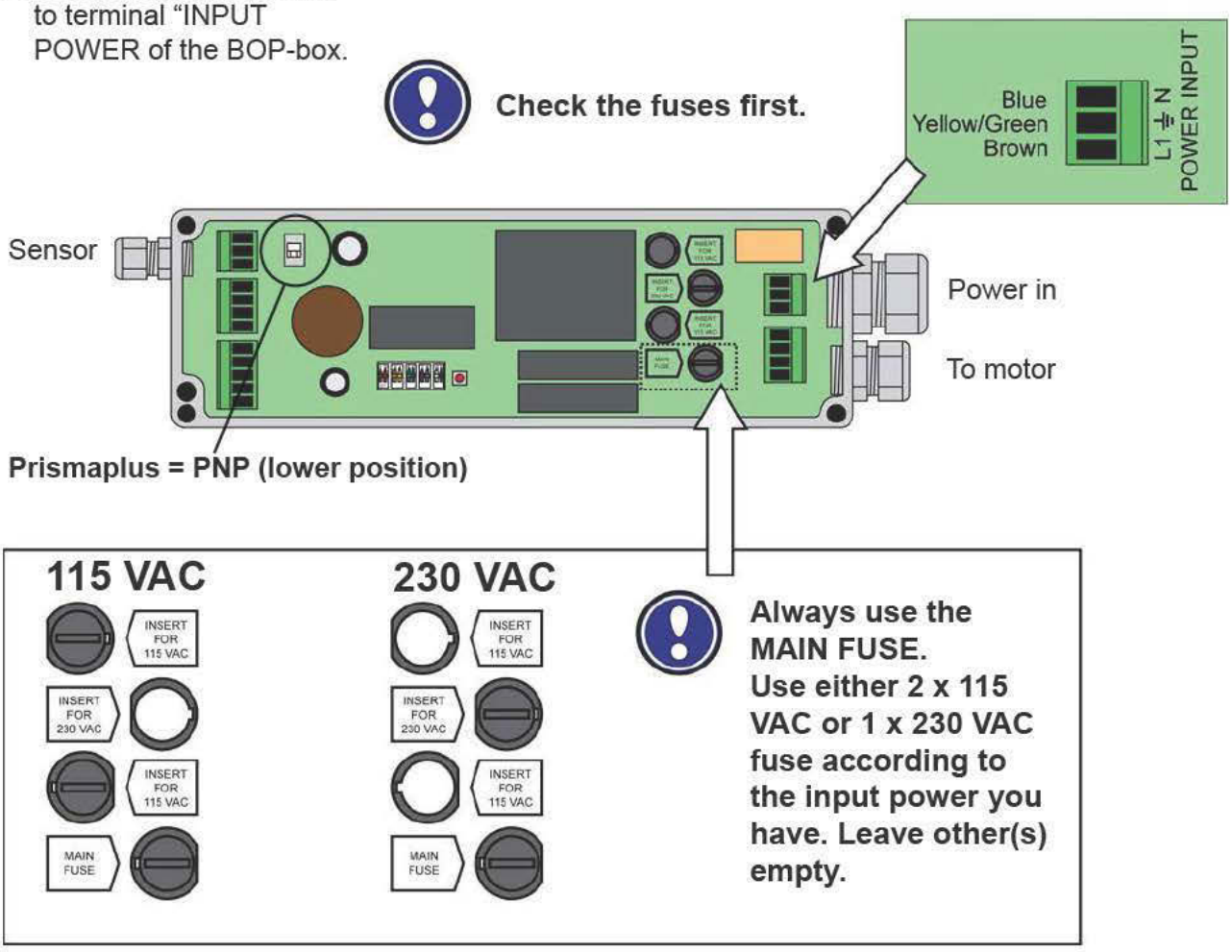
10.1 The electronic controller is delivered with pre-connected motor and sensor cables. Standard cable length is 3 m.



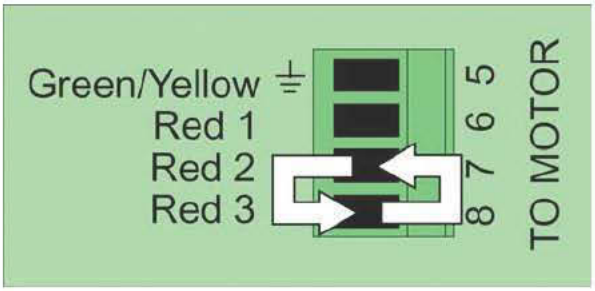
10. (CONT.) CONNECTING THE CONTROL UNIT (BASIC OPTION PLUS - BOP)

10.2. Connect the main power to terminal "INPUT POWER of the BOP-box.

Check the fuses first.

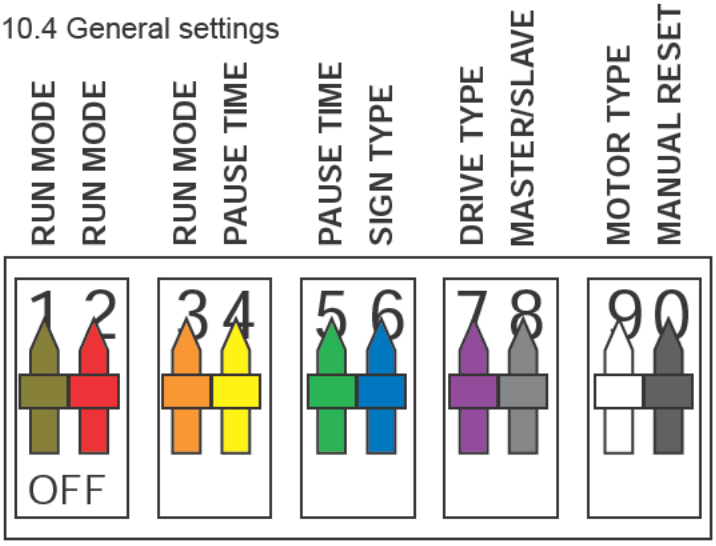


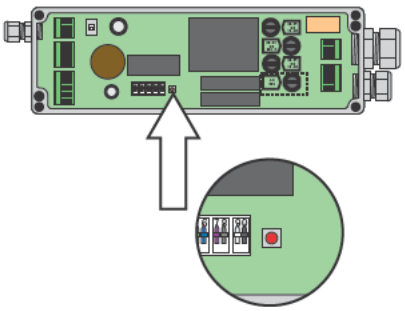
10.3. To change the direction of the rotation, switch wires 7 and 8 on the block marked "TO MOTOR".



10. (CONT.) CONNECTING THE CONTROL UNIT (BASIC OPTION PLUS - BOP)

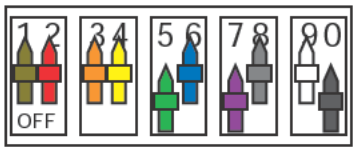
10.4 General settings



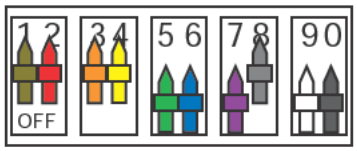


"FACE A" DEFINITION
Press this button until desired "FACE A" is shown *(must be pressed at least 1 sec.)* . Does not apply to belt signs.

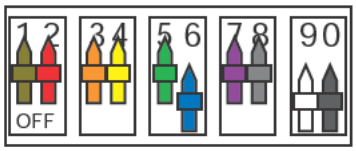
Default settings



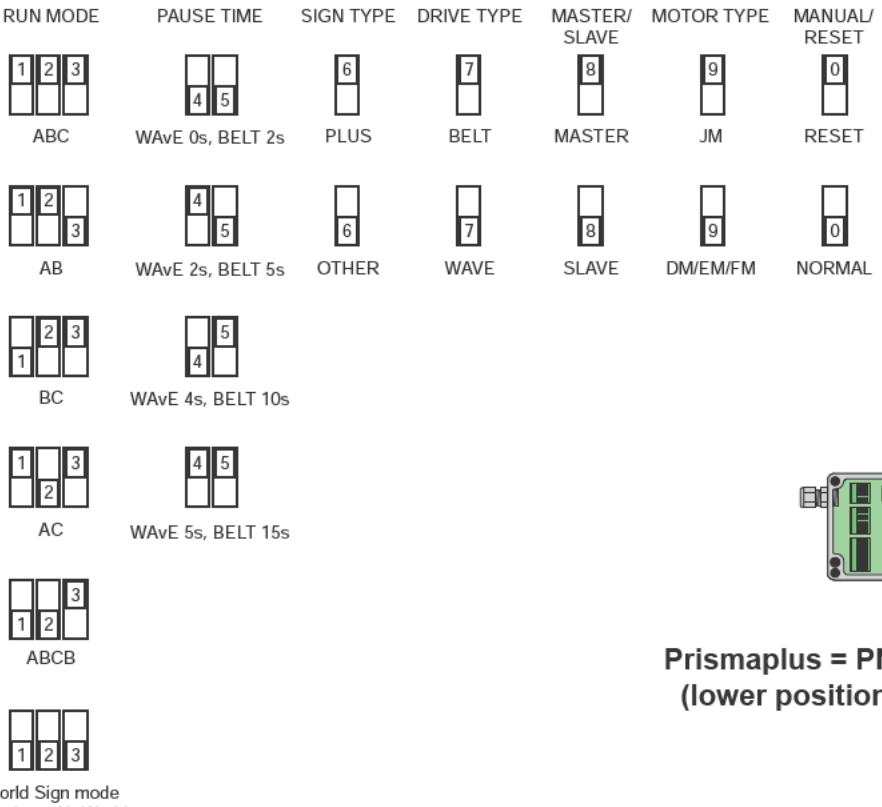
Prismaplus (PPW)



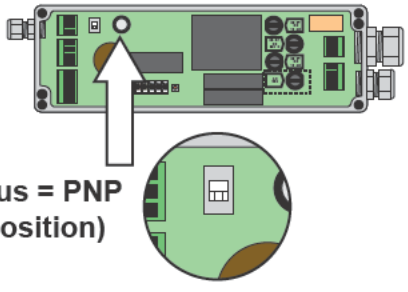
Wave (PWO)



BELT (PVO)



IMPORTANT!
After any swith change, switch 0 must be moved up to "RESET" and down again to "NORMAL"



Prismaplus = PNP (lower position)

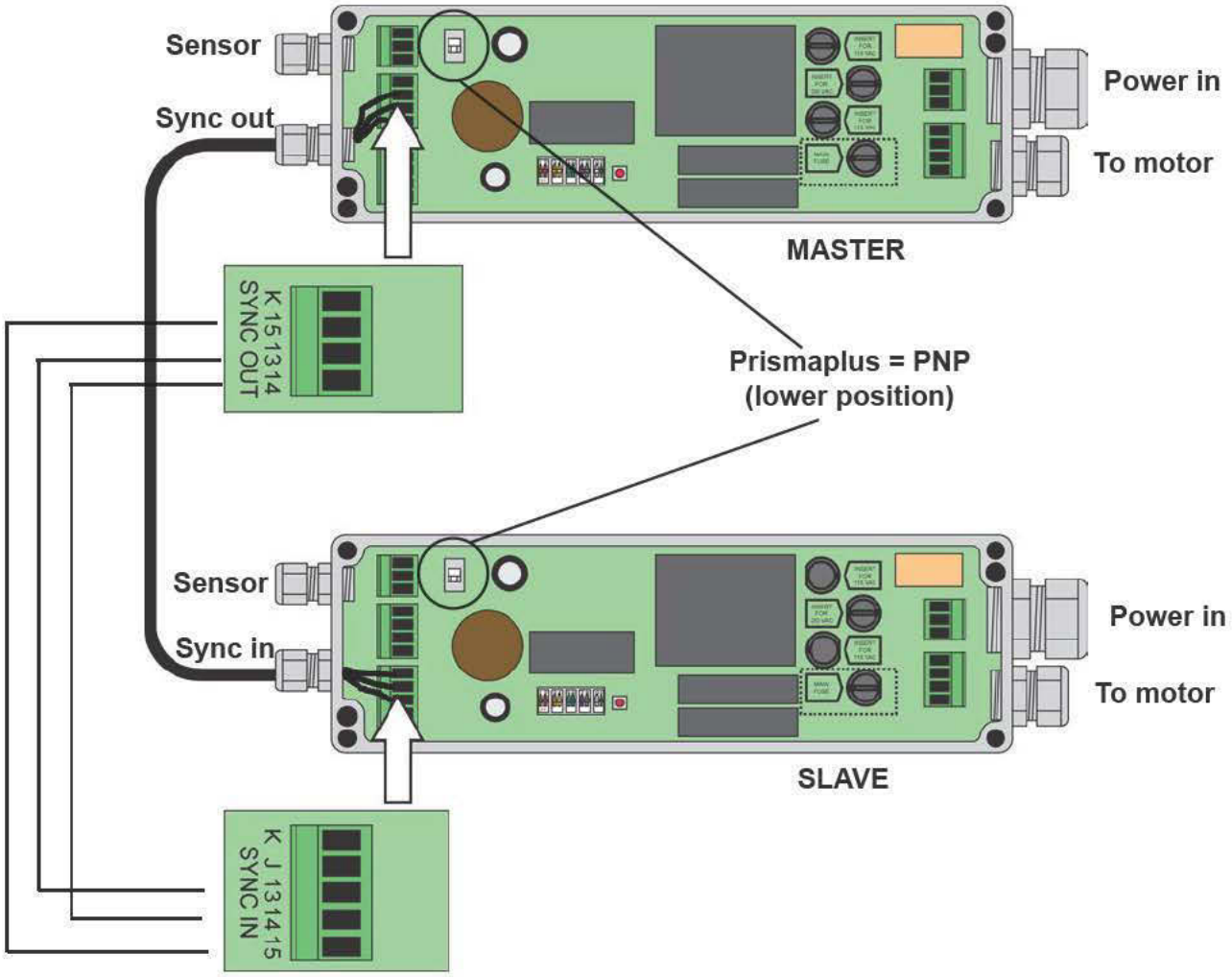
FOR SERVICE STAFF ONLY

11. BASIC OPTION PLUS (BOP) - FEATURES

11.1 Multi-sign synchronization

Connect SYNC OUT (13, 14, 15) on master to SYNC IN (13, 14, 15) on slave 1.
To synchronize more than 2 signs, connect SYNC out on slave 1 to SYNC IN on slave 2, an so on.

NOTE: Do not forget to adjust switch 8 accordingly into the MASTER or SLAVE position.



11.2 Timer input - J , K