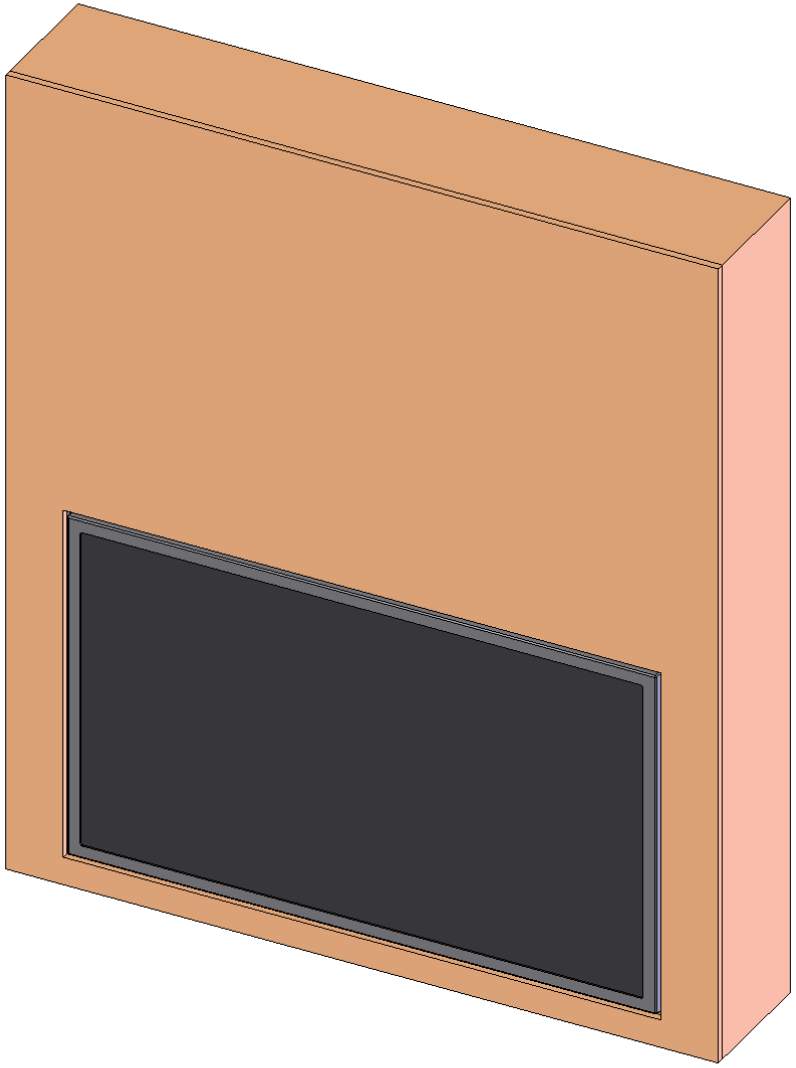
SPS V 1200
Instruction Sheet

Sliding Panel System
With Plasma Advance

ISSUE: 003

www.futureautomation.co.uk

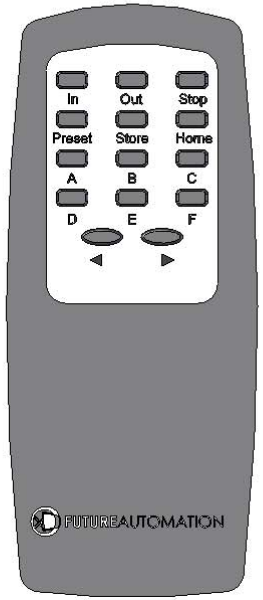


FUTUREAUTOMATION

Your Pack Should Contain

One SPS SP V 1200 mechanism. A Single Panel mechanism for Vertical travel. Moves panel in and up or in and down. It has a maximum travel of 1200mm. For use with panels no larger than 1200mm high.

IR Remote Control x1

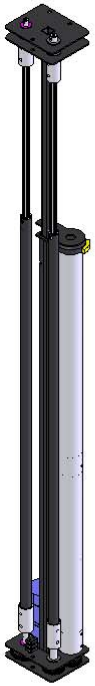


Panel Mechanisms

RIGHT x1

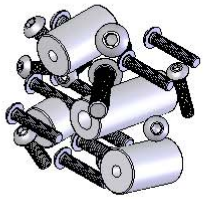
LEFT x1

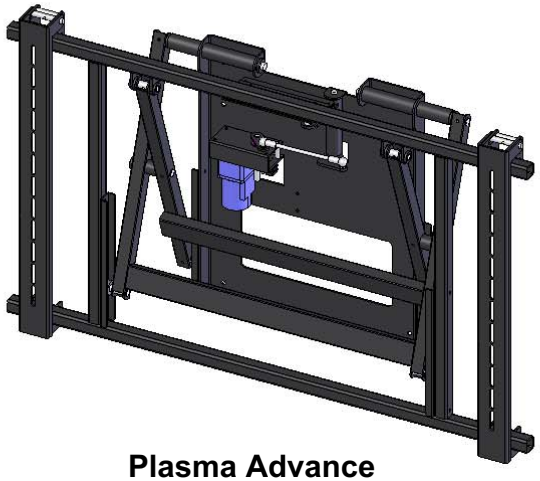
Drive Unit x1



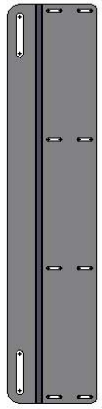
Fixtures Pack Including

Group A Mounting Kit x1
M5 x35mm Bolts x4
M5 Nuts x4
M6 x 10mm CSK Bolts x8
M10 Thick Washers x4

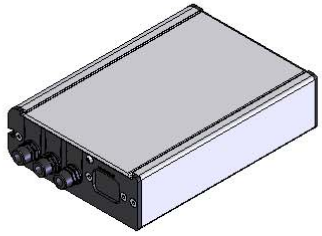




Plasma Advance Heavy Unit x1



Panel Mount Plates x2



Control Box & Necessary Cables x1

WARNING
It is the responsiblity of the installer to warn all potential end users of the dangers of interfering with mechanisms during operation

IMPORTANT
Mechanisms which lift or move weights need to be checked on a yearly basis for any damage which may result in an accident

FUTUREAUTOMATION

Before You Begin 1

Preliminary Checks

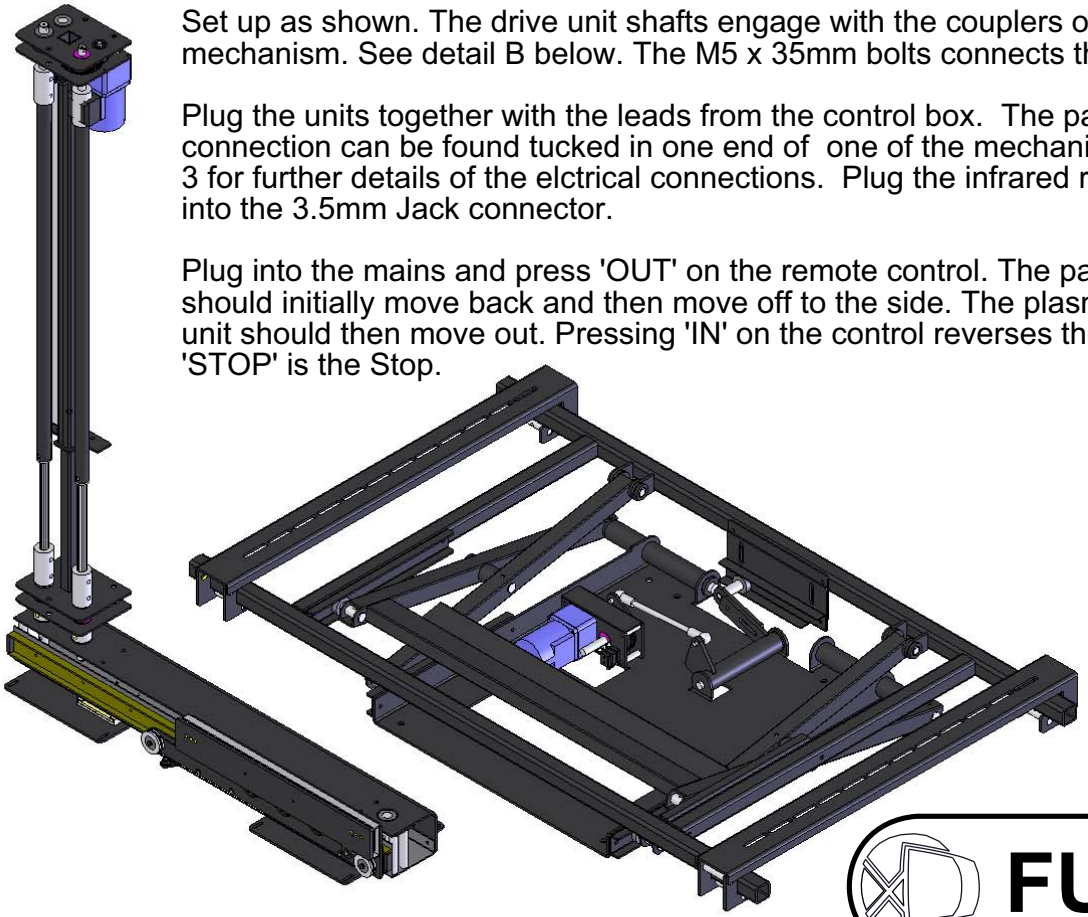
The enclosure to house the mechanism should be completely finished prior to installing the mechanism. It is important to check various dimensions against the Technical sheet for this mechanism prior to starting the installation. This will highlight any errors which may make installation impossible.

It is well worth setting up the mechanism out of the cabinet to familiarise yourself with the general operation.

Set up as shown. The drive unit shafts engage with the couplers on the panel mechanism. See detail B below. The M5 x 35mm bolts connects them.

Plug the units together with the leads from the control box. The panel mechanism connection can be found tucked in one end of one of the mechanisms. See sheet 3 for further details of the elctrical connections. Plug the infrared receiver cable into the 3.5mm Jack connector.

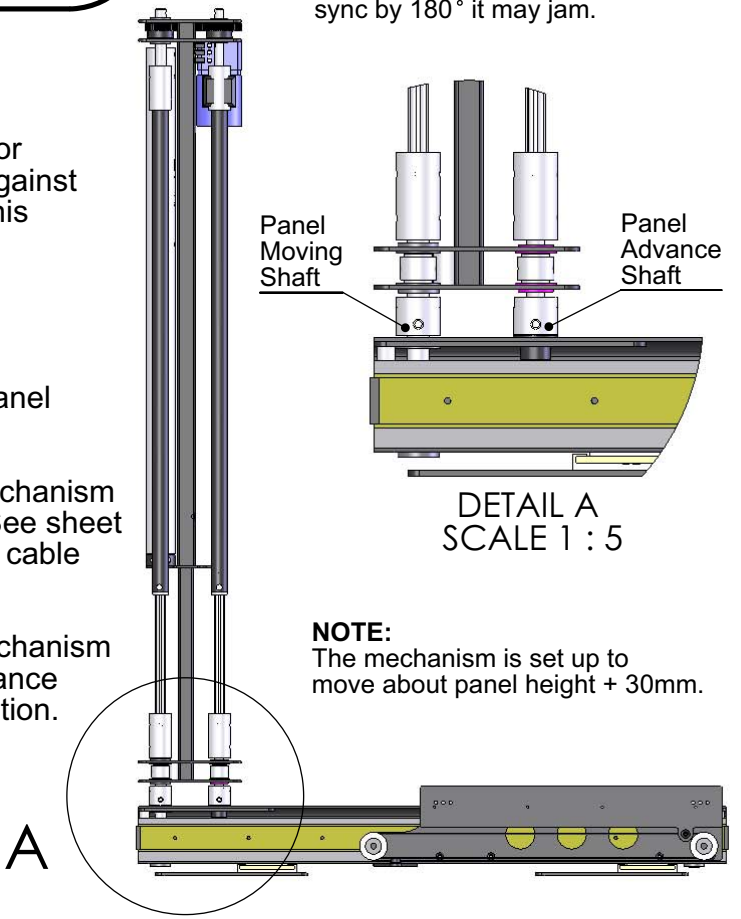
Plug into the mains and press 'OUT' on the remote control. The panel mechanism should initially move back and then move off to the side. The plasma advance unit should then move out. Pressing 'IN' on the control reverses the operation. 'STOP' is the Stop.



NOTE:
Panel Advance Shaft rotates 180°to create a forward-back motion of 40mm. If out of sync by 180° it may jam.

DETAIL A
SCALE 1 : 5

NOTE:
The mechanism is set up to move about panel height + 30mm.

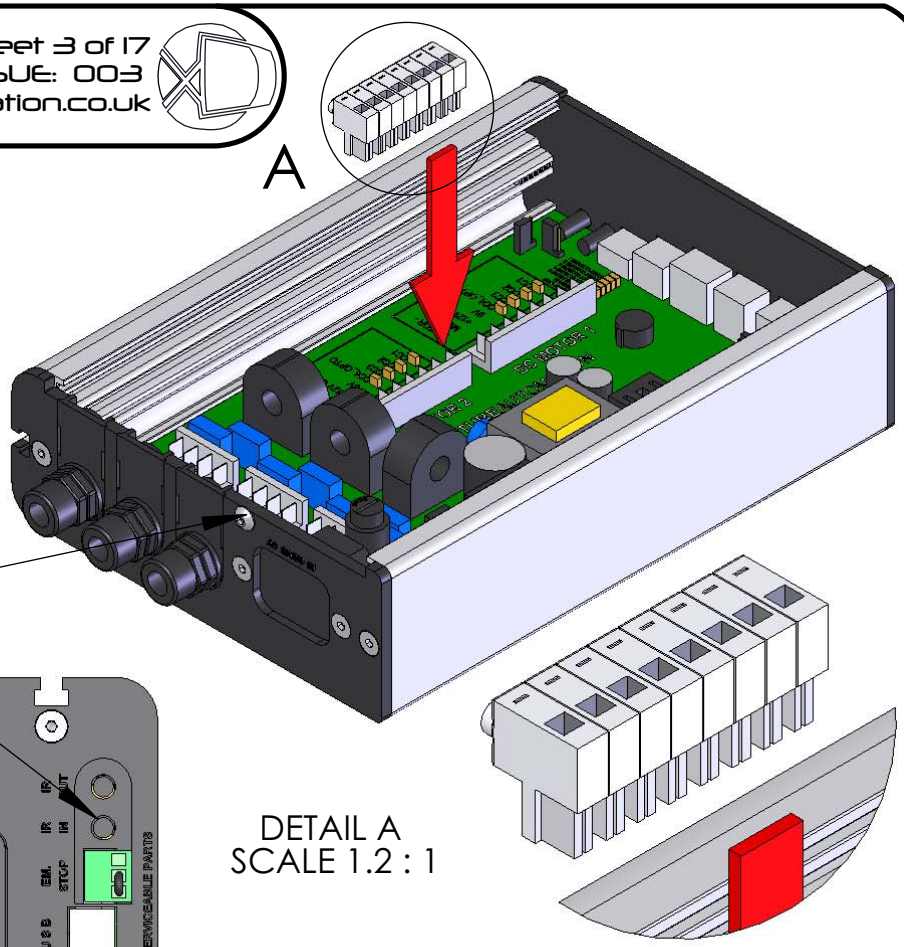


Do not adjust any of the cams on the mechanism. They are factory set to the correct positions. If you think you need to make adjustments to the cams please contact Future Automation first.

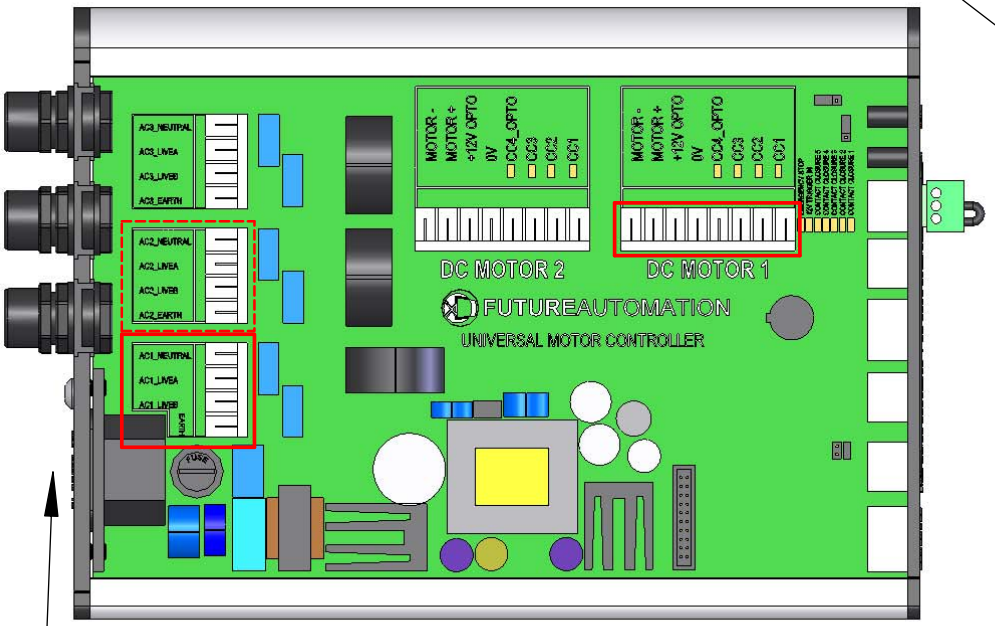
Before You Begin 2

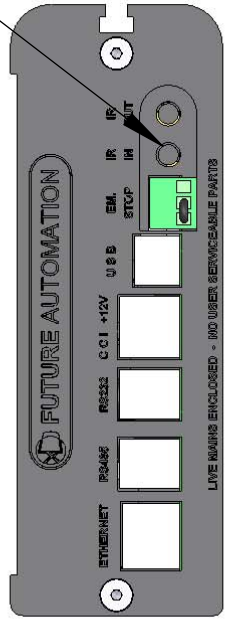
Electrical Connections

The SPS V 1200 mechanism must be connected to both the AC1 and DC1 blocks of connections. All connections must be made for the mechanism to function fully.



DETAIL A
SCALE 1.2 : 1

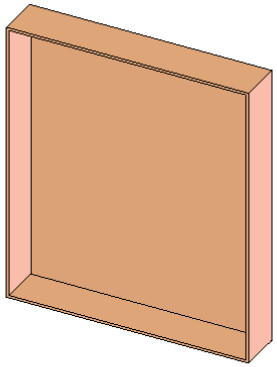


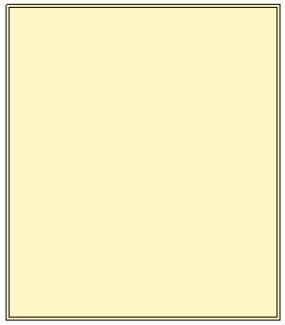


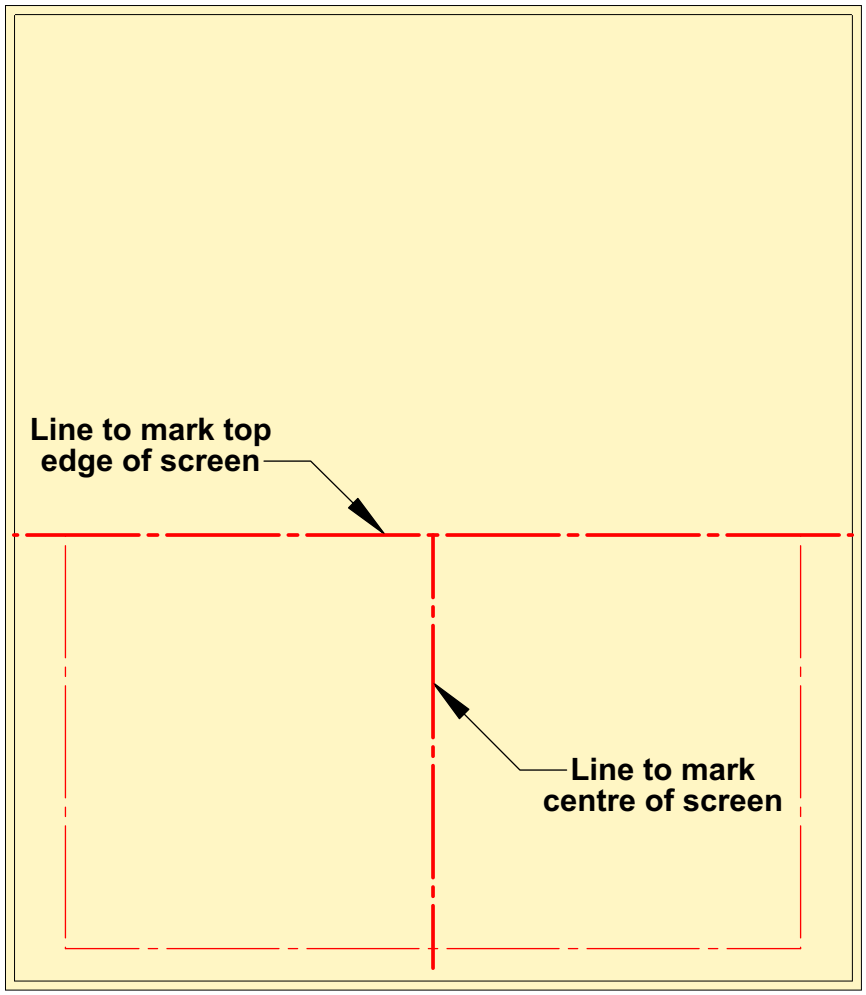
It is VERY important that when all of the electrical connections are made, the connector blocks are connected in the way shown above, with all the wires coming directly out the top of the connector blocks.

Stage 1

Mark The Screen Position In The Enclosure







Marking Up

Firstly, mark where you intend the top of the plasma screen to be on the back wall of the enclosure.

Then mark a line showing where the centre of the screen / opening will be.

It may be helpful to mark out the outline of the whole plasma screen on the wall. This will help when positioning the moving panel mechanism.

Stage 2

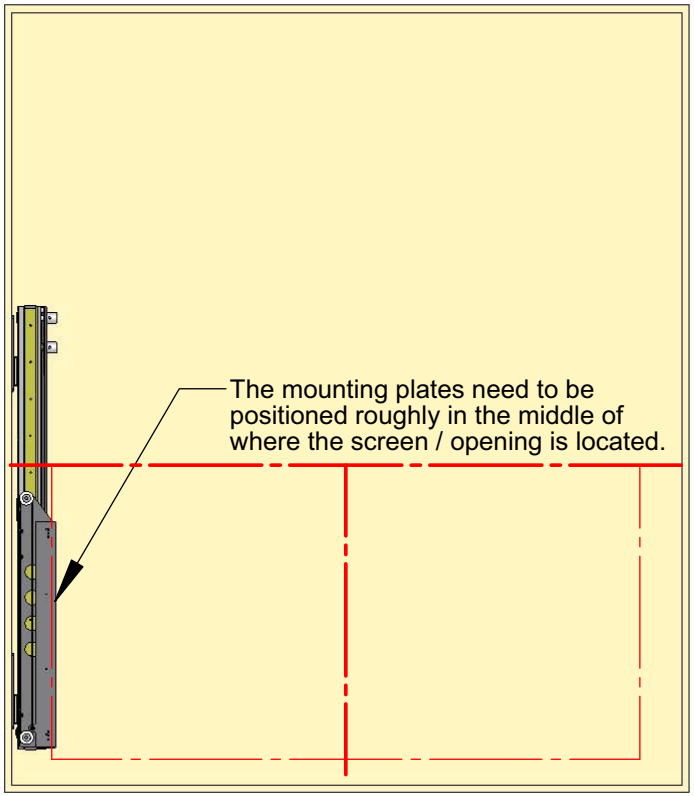
Positioning The Moving Panel Mechanisms

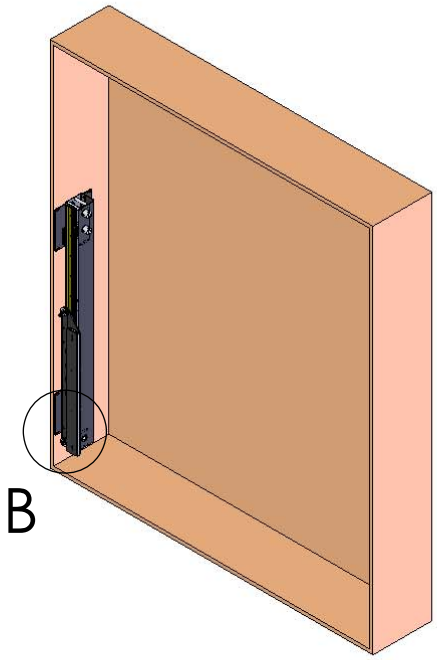
Before the mechanisms can be fitted, it is important to decide on the exact positions where they need to be. Make sure that you have the mechanisms in the down and in position at this point.

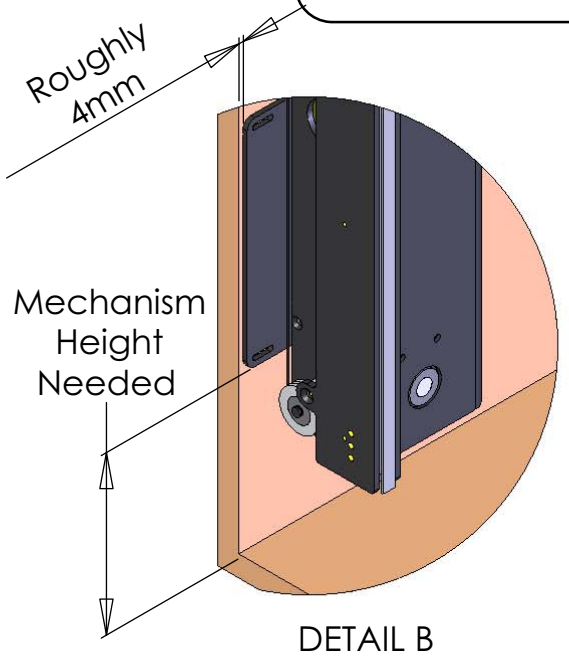
Measure

Place one of the moving panel mechanisms on the side of the enclosure. Raise the mechanism until the mounting plates are roughly in the middle of the screen position.

With the mechanism in place, measure the height that is needed to acheive this position.



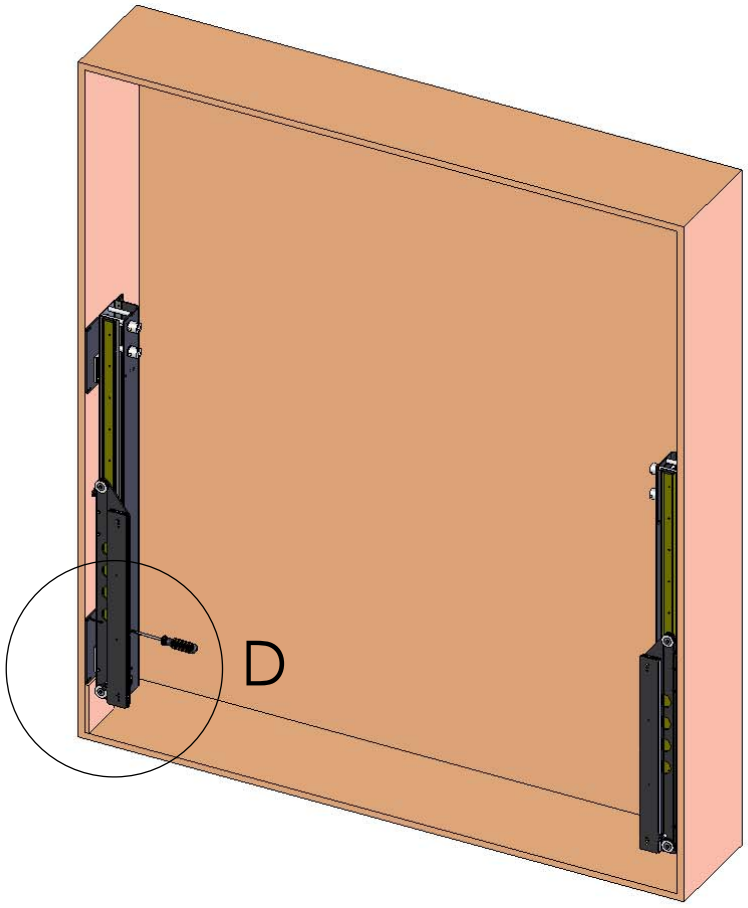


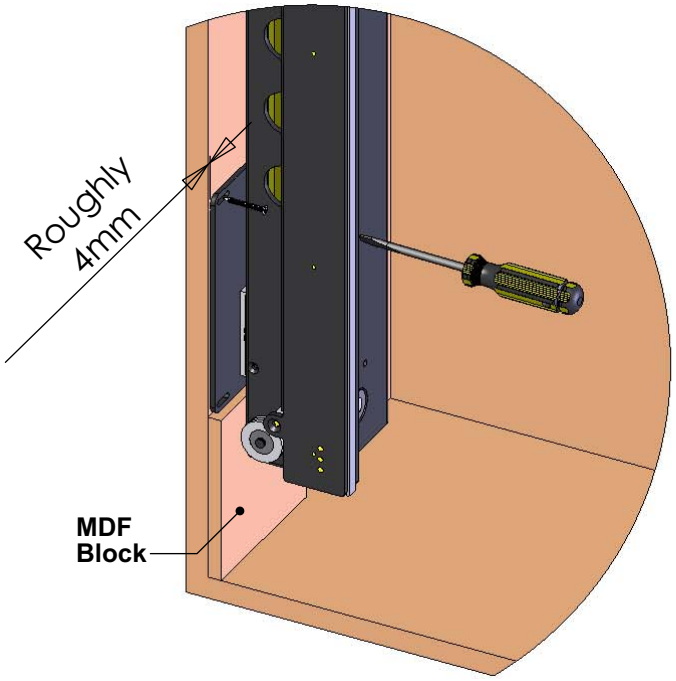


Stage 3

Fitting The Moving Panel Mechanism

Before fixing the mechanisms, it is a good idea to cut a piece of wood to the size that you have just measured to provide the correct height. You can then sit both the mechanisms on the block of wood, knowing they are both at the correct height.





DETAIL D
SCALE 1 : 6

Fixing

The moving panel mechanisms should be positioned roughly 4mm in from the the edge of the enclosure.

Be sure to fix in the centre of the fixing slots to allow for adjustments at a later stage.

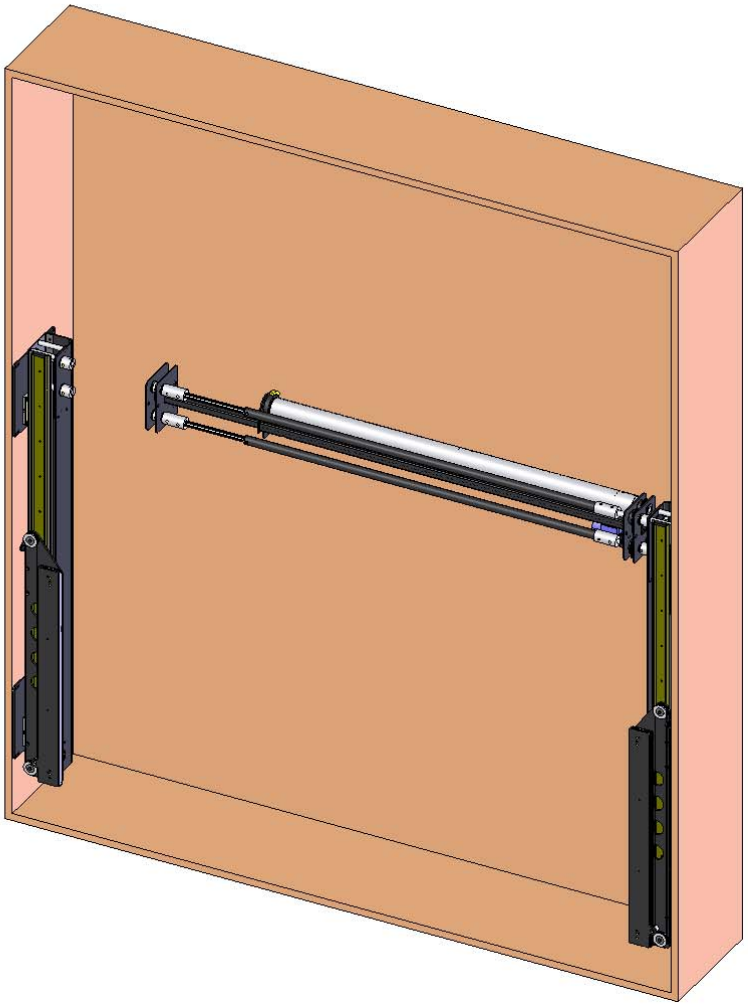
Make sure to use the appropriate fixing type for the material you will be fixing to.

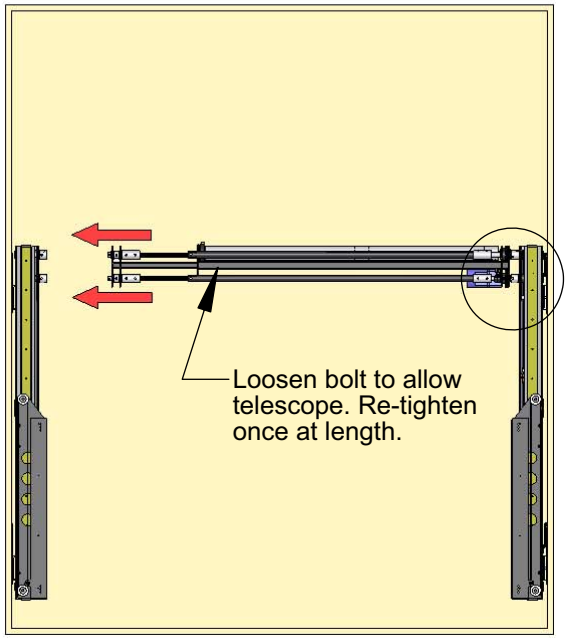
Make sure the mechanisms are level and parallel with each other before continuing.

Stage 4

Fitting The Drive Unit

It is important that at this point both moving panel mechanisms are in the same down and in position.





From your test earlier (page 2) you should be able to make sure the shafts are not 180° out of sync at this stage.

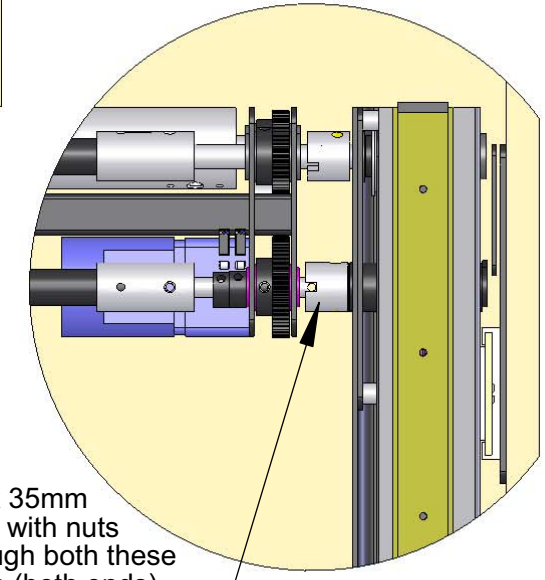
Fitting

The drive unit is a telescopic piece of equipment. Locate the 'motor end' of the unit in the two couplers at the top of the right hand moving panel mechanism first.

Then extend the drive shafts of the unit until they locate in the couplers on the left hand moving panel mechanism.

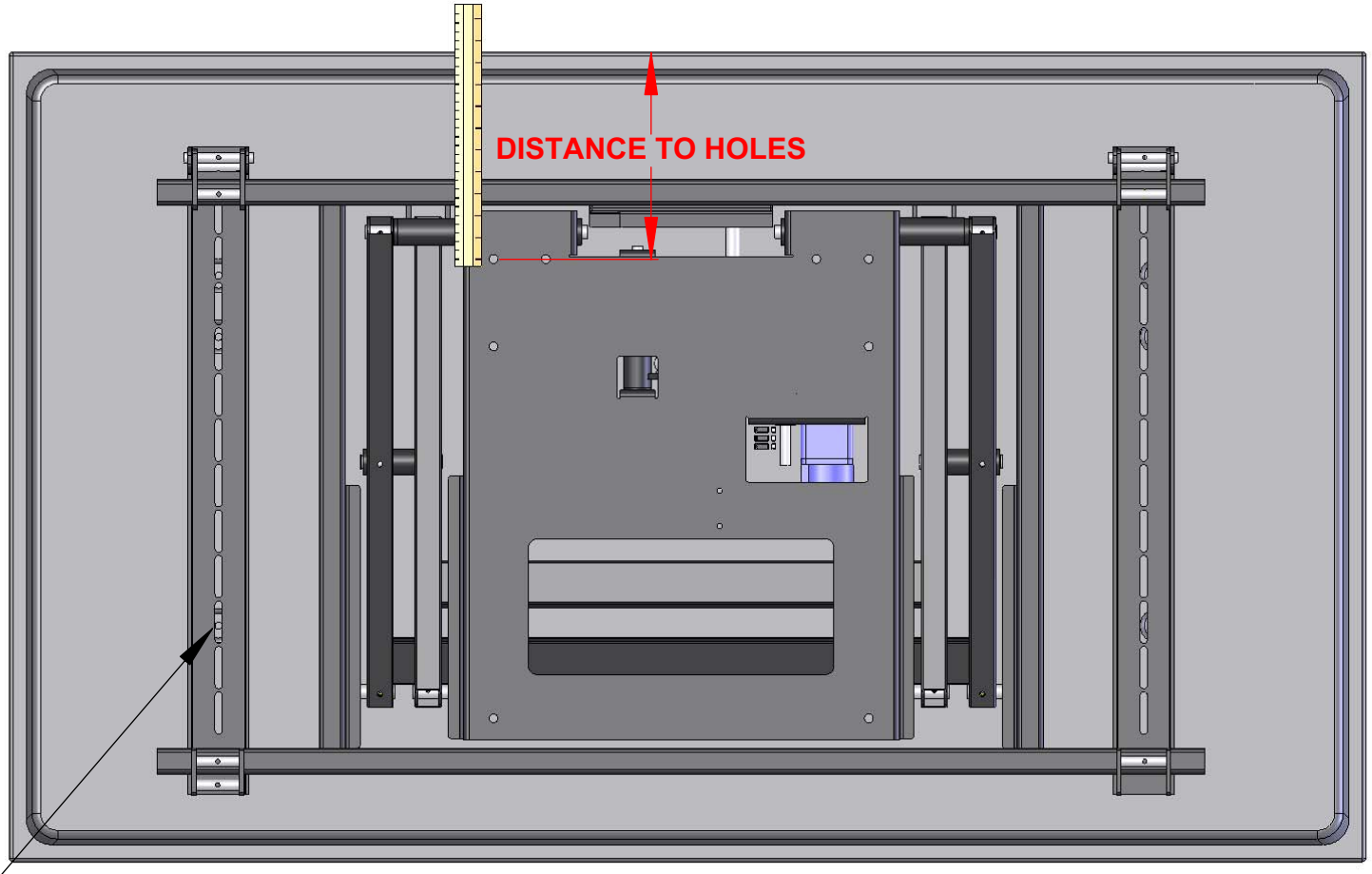
Then use the M5 x 35mm bolts and nuts to secure the shafts in the couplers.

DETAIL E



Stage 5

Fit The Advance Unit To The Back Of The Screen



Try to position the uprights so that the screen mount holes are towards the middle of the slots, to allow for adjustment later.

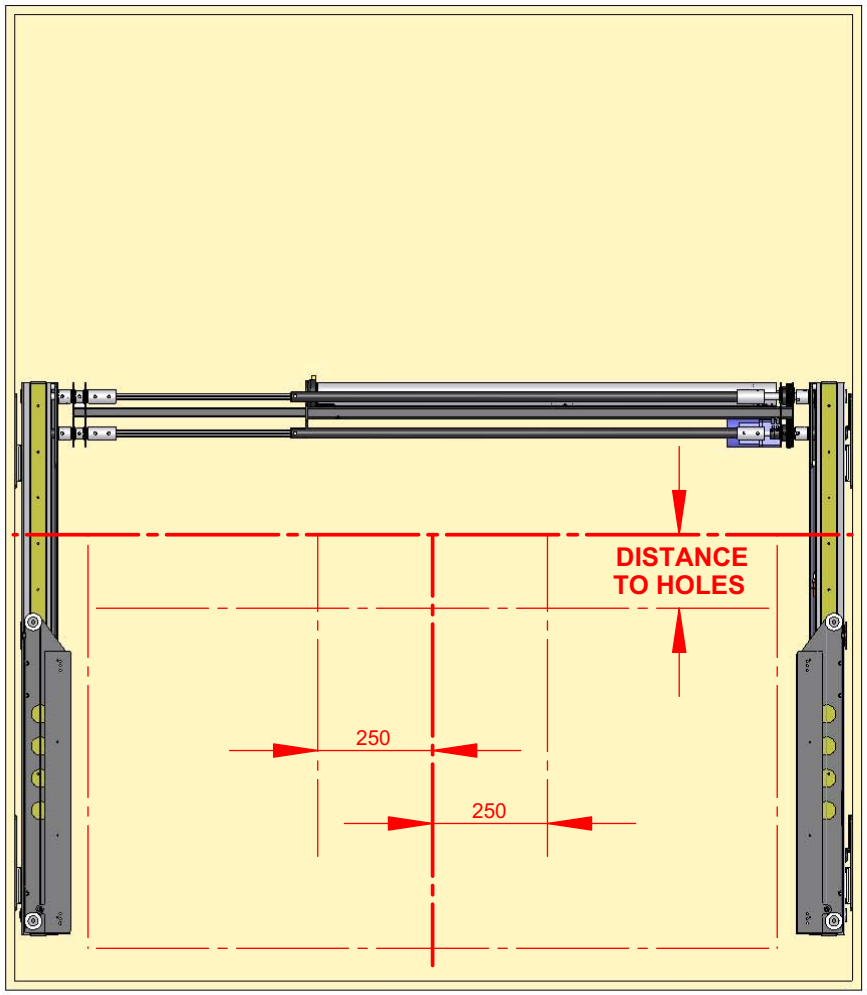
Measure

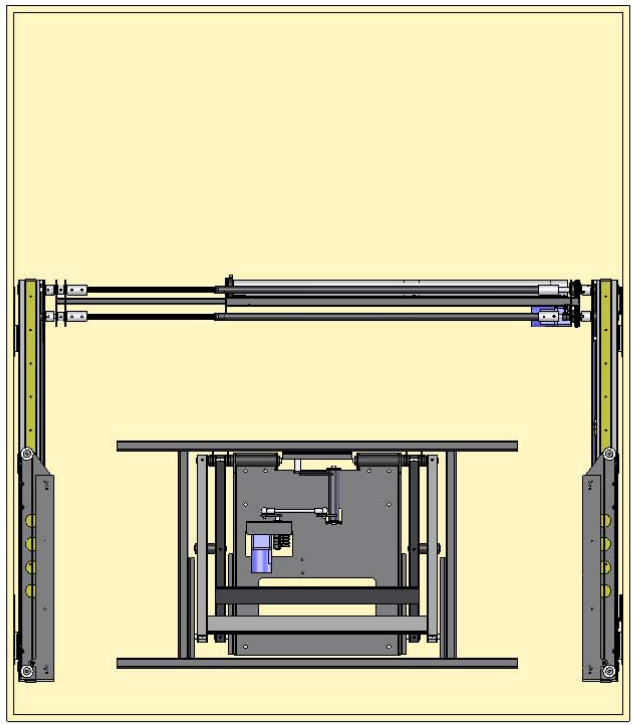
Measure the distance from the top of the screen down to the top set of mounting holes in the advance unit wall plate.

This measurement will be needed to establish where the plasma advance heavy unit has to be located on the wall.

Stage 6

Fitting The Advance Unit To The Wall





Marking Up

Mark a line across the back of the enclosure that marks out the vertical position of the top set of holes on the wall plate.

This is where the measurement that you took in stage 5 is required.

You can also mark where the sides of the wall plate need to be. The wall plate is 500mm wide, so mark two vertical lines 250mm to each side of the centre line you marked out earlier on.

Fixing

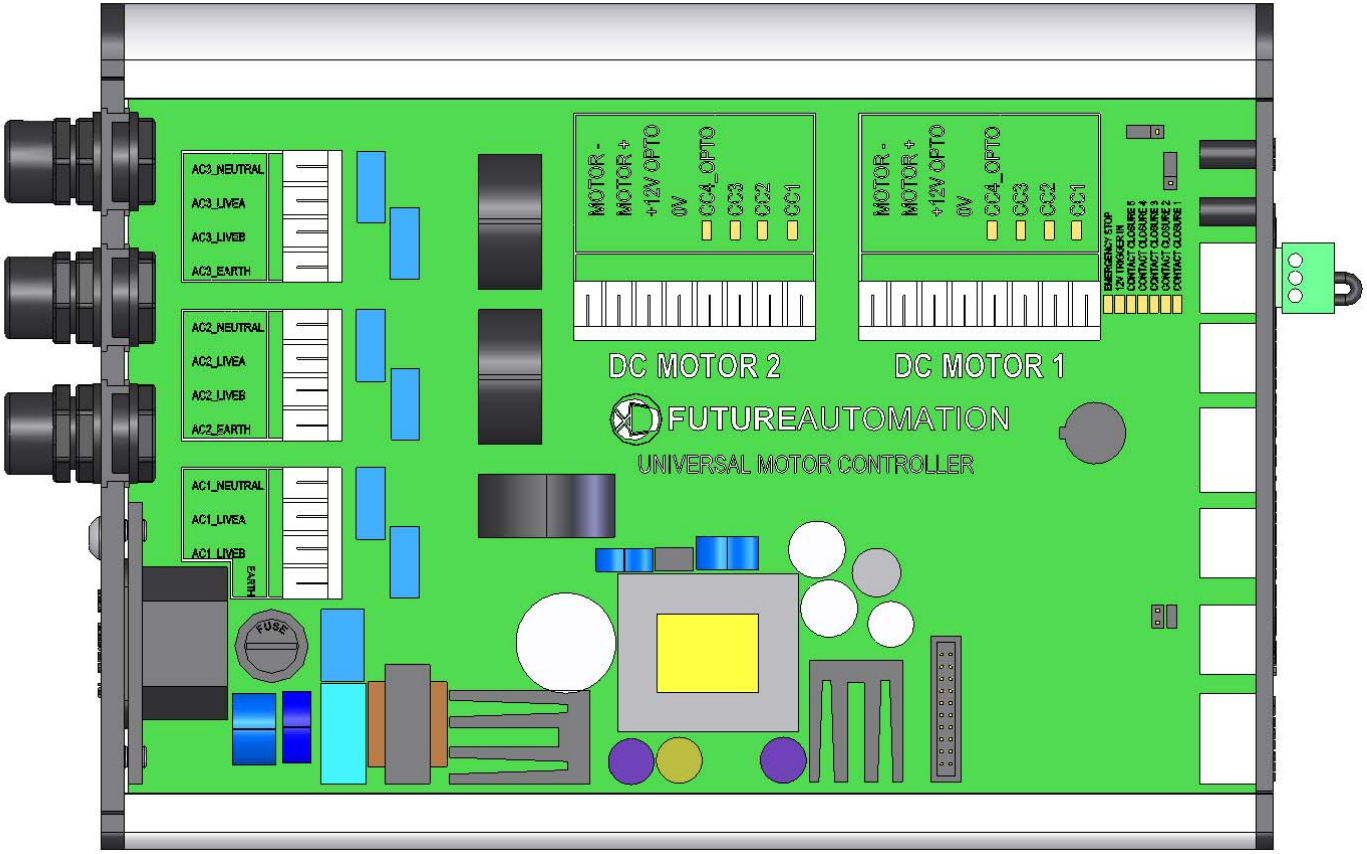
Using the guide lines you have marked on the wall, place the advance unit on the wall between the two vertical lines and move until the top four holes lay in line with the horizontal line you marked out for them.

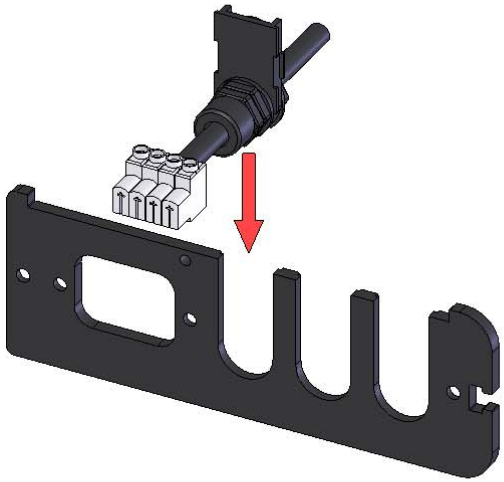
Using a level, fix through the top four holes. The suitability of wall fixings will depend on the type of wall the product is being fixed to.

If unsure, please seek instruction from your supplying dealer.

Stage 7

Connecting The Mechanisms





Refer to Sheet 14 for further details on connecting the mechanism.

Connecting

To connect the three mechanisms together electrically, is very simple.

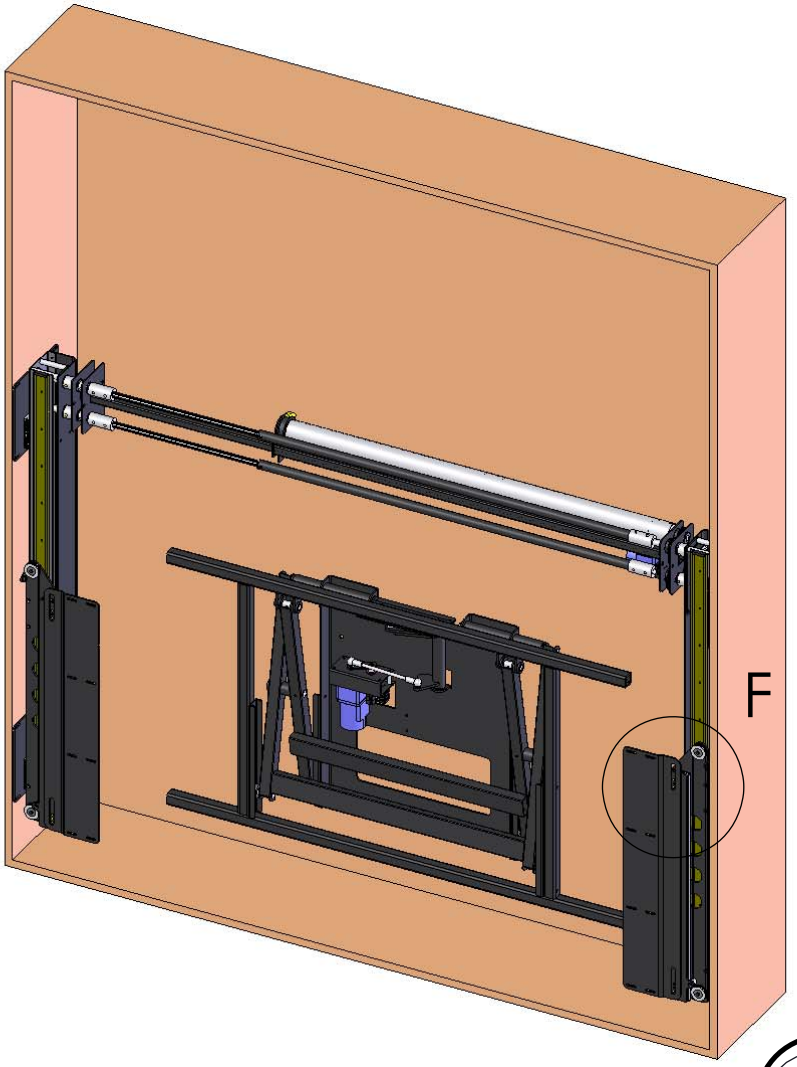
Each mechanism has a set of wires coming from it. On the ends of the wires are control box inserts and block connectors.

These wires are marked with a label telling you which set of connectors the block connectors must go to.

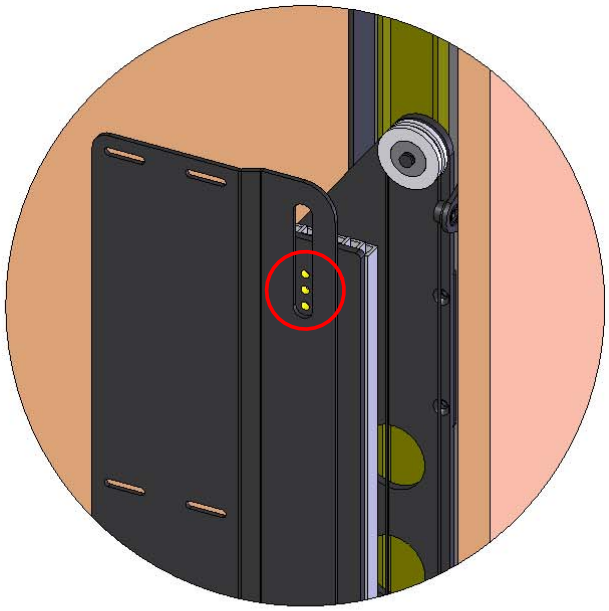
The inserts then slide into the slots on the side of the control box.

Stage 8

Fitting The Panel Mounting Plates



The mounting plates fix to the runners with M6 x 10 CSK bolts with washers. There are a choice of 3 heights to fix the bolts on to. The large slots also allow for a lot of adjustability. Use two fixings in each slot.

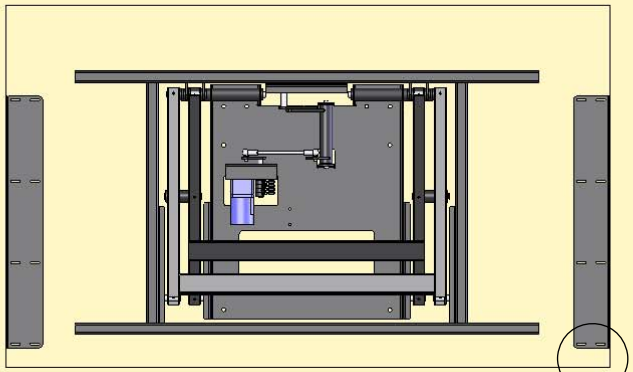


DETAIL F
SCALE 1 : 4

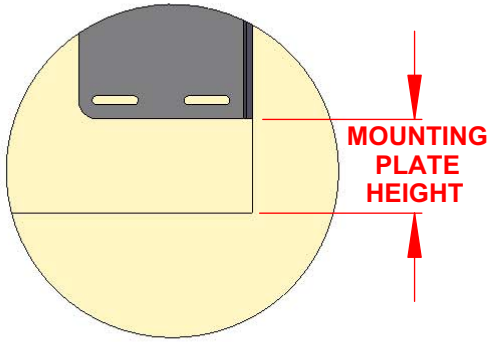
Stage 9

Fit The Front Panel & Moving Panel

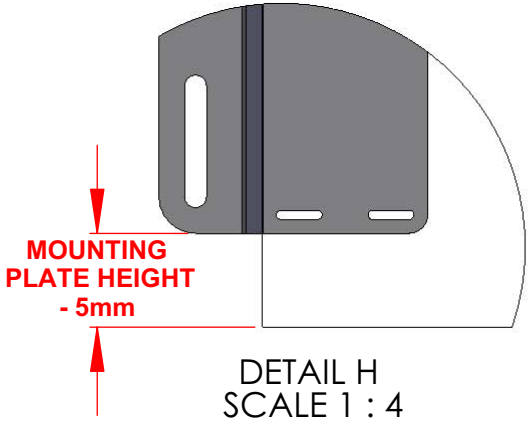
FRONT PANEL



G

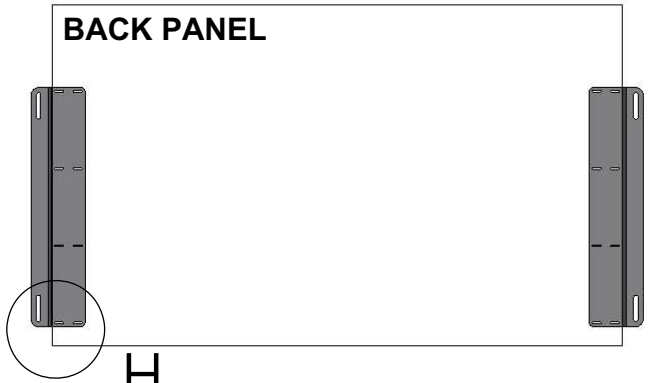


DETAIL G
SCALE 1 : 4



DETAIL H
SCALE 1 : 4

BACK PANEL



H

Fixing

Fix the front panel to the enclosure. Measure the height of the panel mounting plates from the bottom of the opening.

Remove the front panel, and the panel mounting plates.

Then screw the panel mounting plates to the back of the moving panel.

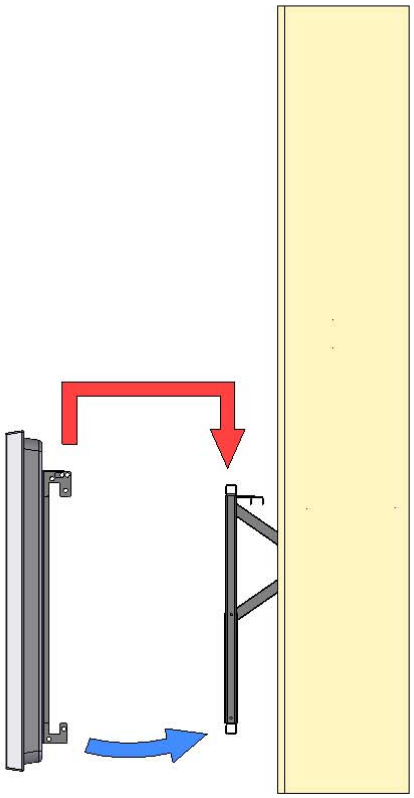
Then fit the moving panel to the mechanism and re-attach the front panel.

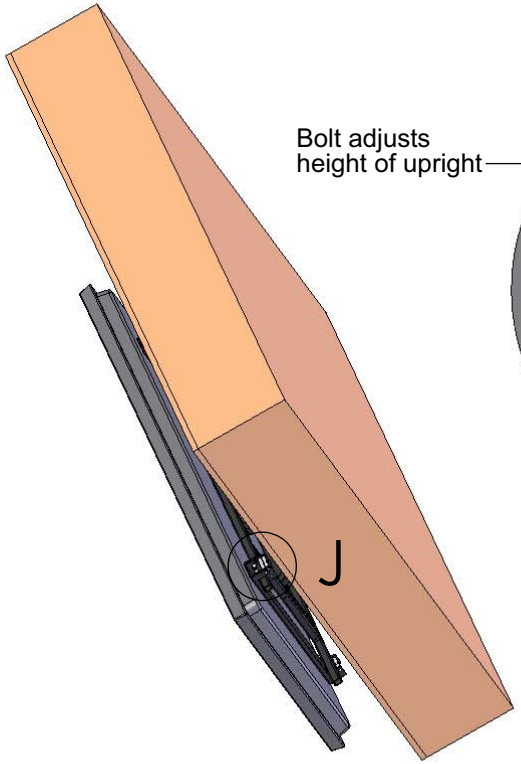
Stage 10

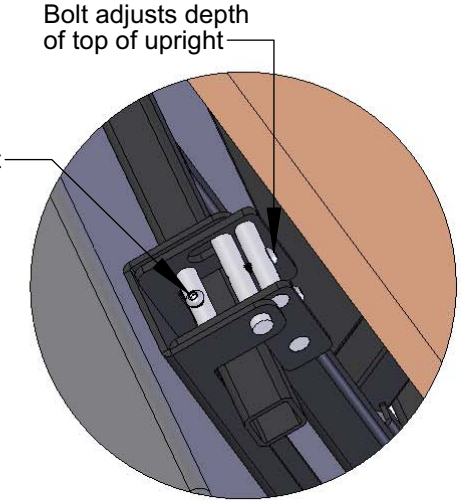
Fitting The Plasma Screen

In order to fit the plasma screen, the mechanism must be extended to it's full reach. Press 'OUT' on the remote control and wait for the plasma advance mechanism to reach its pre-set out position. Once out, press 'B' on the the remote control repeatedly to pulse the mechanism out until the frame is extended fully. The mechanism is now in a service mode.

Once extended, the frame can be manually pulled out further, so that the plasma screen with uprights can be hooked over the frame.





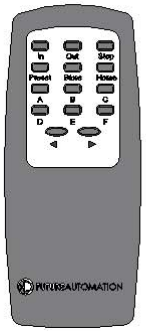


DETAIL J

Screen Adjustments

Once the screen is hooked over the frame, the position of the screen may require some finer adjustment.

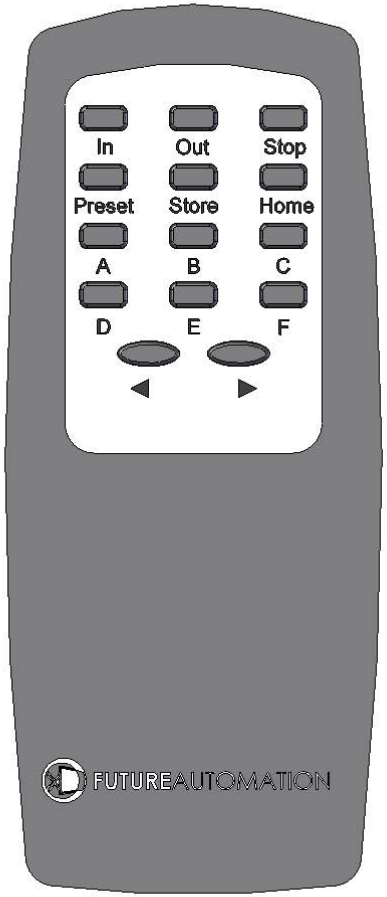
On the back of both uprights is a bolt that can alter the height of the upright. There are also bolts to alter the depth of the upright. One at the top and one at the bottom, so an angle can be acheived if required.



To return the mechanism from service mode to user mode, press 'A' repeatedly on the remote to pulse the framework back in. Once the mechanisms won't go back any further, wait for two seconds, and the mechanism is then in user mode.

Stage II

Operating The Mechanism



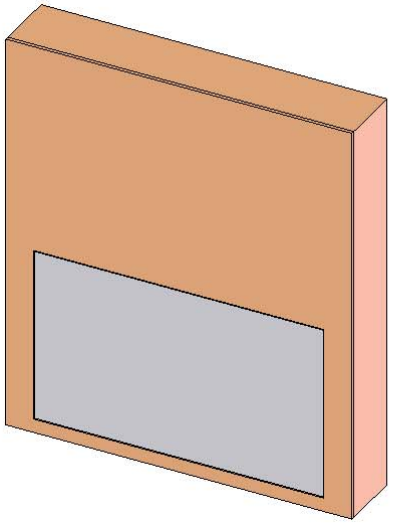
OUT
Panel moves in and up and plasma moves OUT to fill space

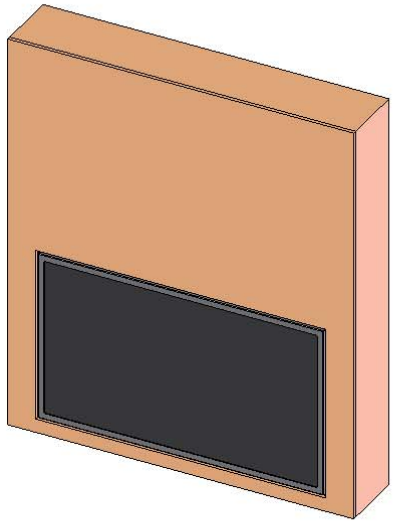
IN
Plasma moves back IN and panel moves down and out to fill space

STOP
Stops the mechanism

B
Pulses the plasma advance mechanism OUT in order to gain access to rear screen in service mode

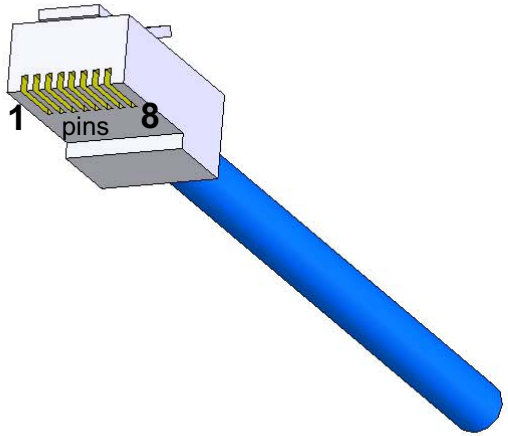
A
Pulses the plasma advance mechanism IN when entire mechanism is in OUT position

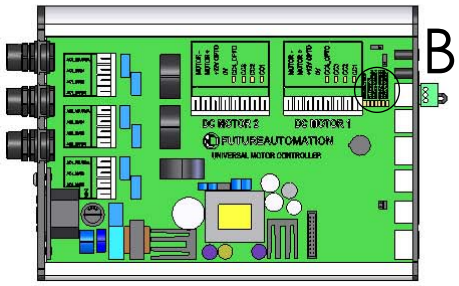




Contact Closure

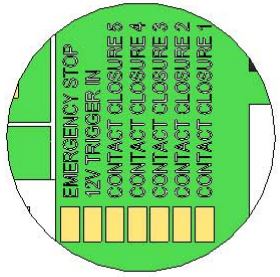
Use an RJ45 connector in the CC1 socket on the control box to operate via contact closure.





There are a number of LEDs which will light up when the corresponding contact closure connections are shorted together.

A red LED will light up when the emergency stop link is removed.



DETAIL B
SCALE 1.5 : 1

PIN	568 A	568 B	DESCRIPTION	ACTION
1	W/G	W/O	12V SUPPLY CURRENT LIMITED	
2	G	O	12V TRIGGER	When 12V is attached, device will go OUT. When 12V is removed, device will go IN.
3	W/O	W/G	GROUND	
4	BL	BL	DEVICE TOGGLE	Momentary short to ground will switch the device between states of IN / OUT. CC5
5	W/BL	W/BL	DEVICE IN LATCHED	When shorted to ground, device will go OUT. When short removed, device will go IN. CC4
6	O	G	DEVICE STOP	When shorted to ground, stops device in current position. CC3
7	W/BR	W/BR	DEVICE IN	Momentary short to ground will make device go IN. CC2
8	BR	BR	DEVICE OUT	Momentary short to ground will make device go OUT. CC1

RS232

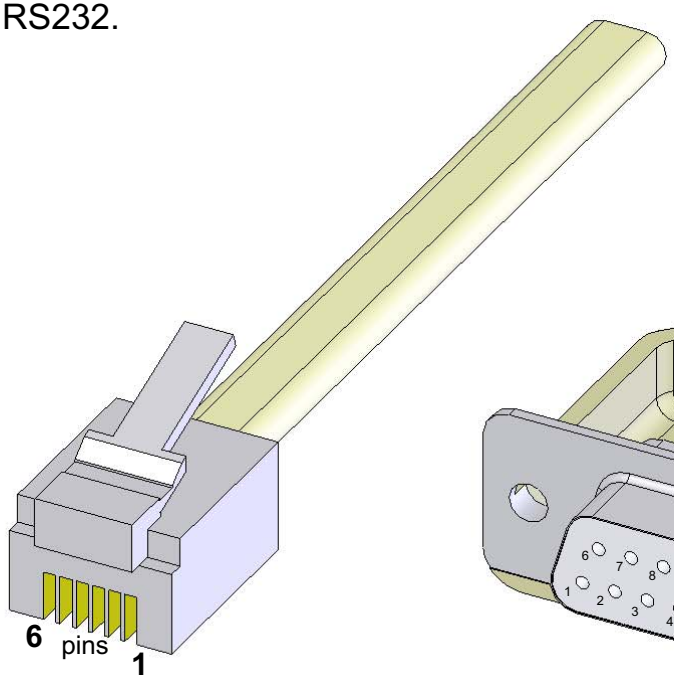
Use an RJ11 connector in the socket marked RS232 on the control box to operate using RS232.

DETAILS

Band rate: 9600
Stop bit: 1
Parity: None
Databits: 8

PROTOCOL

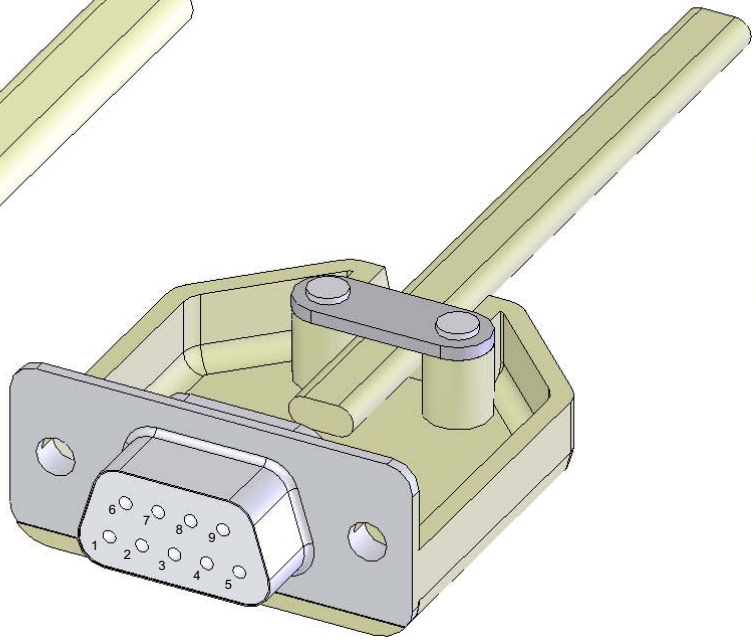
ASCI
fa in, = Device IN
fa out, = Device OUT
fa stop, = Device STOP



PIN 1: IN

PIN 6: OUT

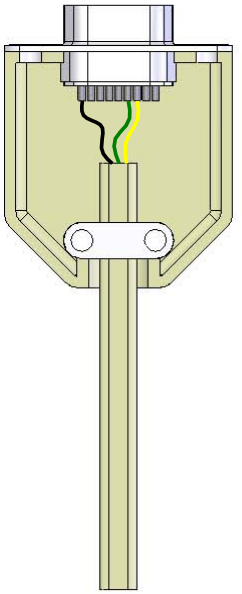
PIN 3&4: GROUND



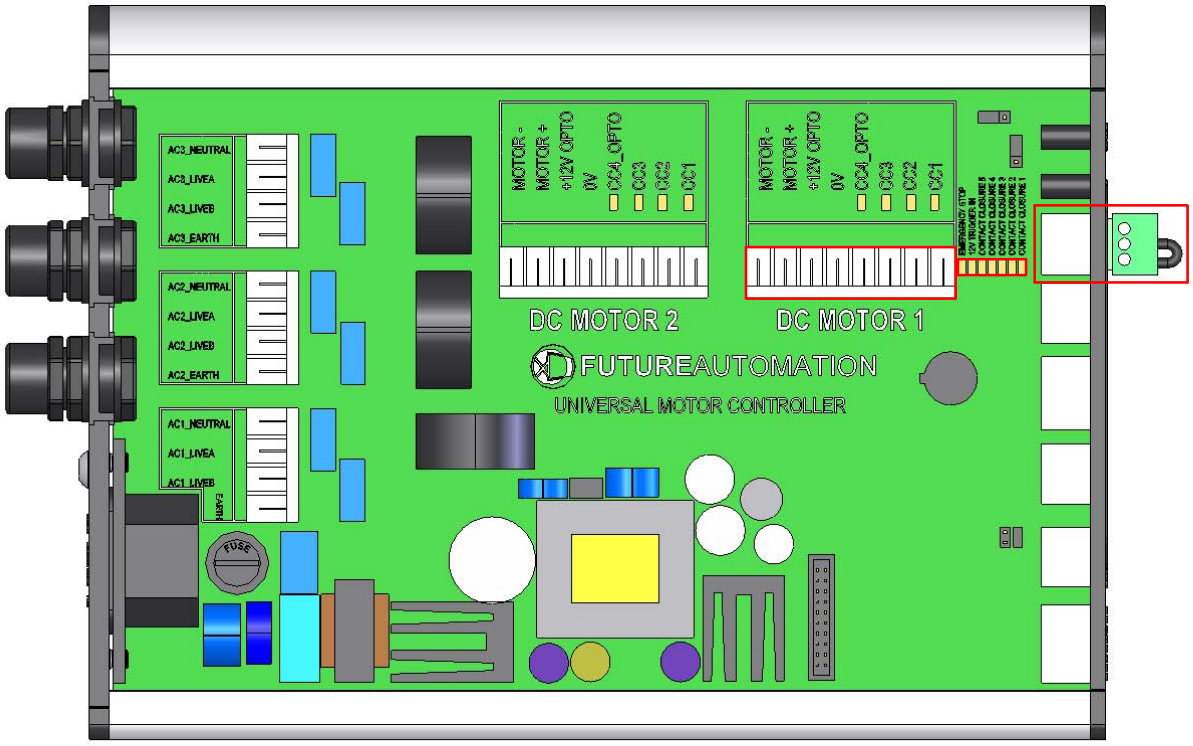
PIN 2: IN

PIN 3: OUT

PIN 5: GROUND



Operation Details



Contact Closure LEDs
To show the contact closure operation is working correctly. LEDs are on when connections are shorted together.

EMERGENCY STOP
This connection will stop all functions of the mechanism once broken / removed. Red LED will also be on.