Installation Instructions

SPS 800 / 1200 - Sliding Panel Mechanism with Screen Advance

Design Highlights

- -Range of Single Panel and Split Panel Options
- -Space Efficient Design
- -Wide Range of Cabinetry and Wall Design Options
- -Unique Functionality

Thank you for choosing futureautomation



Beware of

Moving Parts

Safety Disclaimer

Important Safety Instructions Explanation of graphical symbols

-(Electric Shock Symbol) = The lightning flash within an equilateral triangle is intended to alert you to the presence of un-insulated "dangerous voltage" within the products enclosure that may be of sufficient magnitude to constitute an electric shock to persons -(Caution Symbol) = The exclamation point within an equilateral triangle is intended to alert you to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product

-(Tools Symbols) = The tools symbol within a coloured square are intended to highlight the required tools necessary for correct and safe installation of the product. These are intended as a

guide only, and it is at the installer's discretion as to which tools are used.

WARNING: RISK OF ELECTRIC SHOCK, ONLY AUTHORIZED INSTALLERS TO OPEN THE POWER CONTROL BOX. **WARNING:** To reduce the risk of fire or electric shock, do not expose electrical parts to rain or moisture, unless the product has been specifically designed to do so.

WARNING: Failure to provide adequate structural strengthening, prior to installation can result in serious personal injury or damage to the equipment. It is the installer's responsibility to ensure the structure to which the component is affixed can support the four times the weight of the component.

WARNING: Do not exceed the weight capacity. This can result in serious personal injury or damage to the equipment. It is the installer's responsibility to ensure that the total combined weight of all attached components does not exceed that of the maximum figure stated. **WARNING:** Failure to provide adequate structural strength for this component can result in serious personal injury or damage to equipment! It is the installer's responsibility to make sure the structure to which this component is attached can support five times the combined weight of all equipment. Reinforce the structure as required before installing the component.

Warnings:

- 1. Read all technical instructions fully before installation and use. It is the installer's responsibility to ensure that all documentation is passed on the end user and read fully before operation.
- 2. Keep all documentation.
- 3. Heed all warnings.
- 4. Follow all technical specifications and instructions during installation.
- 5. Do not use near water unless the product has been specifically designed to do so.
- 6. Clean only with a dry cloth.
- 7. Do not defeat the purpose of the polarized or grounding type plug. A polarized plug has two blades, one wider than the other. A grounding type plug has two blades and a grounding prong. The wide blade or third prong are provided for your safety. If the provided plug does not fit your outlet, consult an electrician or contact the manufacturer.
- 8. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where the exit from the apparatus.
- 9. Unplug the apparatus during lightning storms or when unused for long periods of time.
- 10. Only use attachments/accessories specified by the manufacturer.
- 11. Refer all servicing to qualified personnel. Servicing is required regularly on an annual basis, when the apparatus is damaged in any way, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- 12. To completely disconnect the apparatus form the AC mains, disconnect the power cord plug from the AC receptacle on the power control box.
- 13. To prevent overheating, do not cover the apparatus. Install in accordance with the instructions.
- 14. UK, Ireland and Hong Kong only The power cord is supplied with a 13A plug having an earthing pin. The apparatus is earthed and this pin is not required for safety, merely to operate the safety shutter of mains outlet.
- 15. No naked flames such as lit candles should be placed on the unit.
- 16. Observe and follow the local regulations when disposing of batteries.
- 17. Do not expose the unit to dripping or splashing fluids.
- 18. Do not place objects filled with liquid, such as vases, on the unit.
- 19. Do not expose the batteries to excessive heat such as sunshine, fire or the like.
- 20. For all mounted apparatus, the apparatus should be installed on solid wood, bricks, concrete or solid wood columns and battens.
- 21. Always turn off power at source before putting on or taking off parts and cleaning.
- 22. Do not use outdoors unless marked for outdoor use.
- 23. Exceeding the weight capacity can result in serious personal injury or damage to equipment.

Future Sound & Vision trading as Future Automation intend to make this and all documentation as accurate as possible. However, Future Automation makes no claim that the information contained herein covers all details, conditions or variations, nor does it provide for every possible contingency in connection with the installation or use of this product. The information contained in this document is subject to change without prior notice or obligation of any kind. Future Automation makes no representation of warranty, expressed or implied, regarding the information contained herein. Future Automation assumes no responsibility for accuracy, completeness or sufficiency of the information contained in this document.









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Product Warranty

This product carries a warranty that covers the cost of labour and spare parts incurred by any defects in materials and workmanship under normal use during a two year period from date of purchase. Support for any problems that are not hardware faults are excluded from the warranty entitlement. This warranty does not affect your statutory consumer rights.

The following is excluded from warranty service:

- Malfunctioning caused by misuse or damage, accidental or otherwise, or service modification by persons not authorised by Future Automation, or the use of any non Future Automation supplied parts;
- Any electrical, or other environmental work external to your Future Automation mechanism including power cuts, surges or lightning strikes;
- Additional items not supplied by Future Automation although they may have been supplied together by the retailer;
- Any 3rd party software products controlling your mechanism;
- Any transfer of ownership. Warranty is provided only to the initial purchaser;
- Compensation for loss of use of the product, and consequential loss of any kind;
- Use of the product over the specified weight capacity;
- Any damage to products during transit that is not checked and notified as "unchecked" or "damaged" upon receipt of delivery.

Any part of your system that needs to be replaced during a warranty repair becomes the property of Future Automation.



Package Contents

- 1 Panel Mechanism Right
- 2 Panel Mechanism Left
- 3 Panel Drive Unit
- 4a Screen Advance Unit
- 4b SPS PS Bracket
- 5 Screen Advance Heavy Unit
- 6 Panel Mount Plates
- 7 Screen Advance Unit Rollers
- 8 Side Runners
- 9 IR Remote Control
- 10 Control Box
- Not Shown On Page
- 11 x2 AAA Batteries
- 12 Multi Pack Of Nut, Bolts & Washers
- 13 Mains Power & Other Leads



Nuts & Bolts Multipack:

A range of nuts, bolts, washers and spacers to help add in the mounting for your screen

(Your pack may also contain a custom adapter if your screen is not VESA compatible)





SA Option





Before You Begin 1 Preliminary Checks

It is important to check various dimensions against the Technical sheet for this mechanism prior to starting the installation.

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

Set up as shown. The panel drive unit shafts engage with the couplers on the panel mechanism. See detail A, right. The M5 x 35mm bolts connects them. NOTE:

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



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 16 stage 10 for further details of the electrical 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.



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 cam please contact Future Automation first.

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Before You Begin 2 Electrical Connections

The SPS 800 / 1200 mechanism must be connected to both the AC1, 2, 3 and DC1, 2 connection blocks. All connections must be made for the mechanism to fully function





Mark The Screen Position In The Enclosure

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.







Positioning The Moving Panel Mechanism

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.





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 should be the same height as long as the floor is level.



MDF block to help with installation

for the material you will be fixing to.

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Installation: Stage 6

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Fitting The Drive Unit

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

The panel 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.

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.





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Screen Advance Options

Depending on the size of the screen will determine what screen advance unit will be supplied with the mechanism. Option A is the SA (Screen Advance) for smaller screens and option B is the SAH (Screen Advance Heavy) for large screens 60"+.



Option A - Screen Positioning

Measure the distance from the top of the screen down to the centres of the two largest mounting holes in the PS Bracket wall plate. Once you have made that measurement, remove the screen and prepare to fix the bracket to the wall or rear of the enclosure.







Option A - Mounting the PS Bracket to the Wall

Mark where the screen will be mounted on the wall and work out the positioning of the PS bracket on the back of the TV, this will save less adjustment later. Work from the top of the screen to the top of the PS bracket, horizontal dimension are shown below. Make sure the screen and mount are central in the aperture recess.





Option A - Mounting the Screen Advance Unit

Firstly, bolt the two side runners on to the sides of the PS bracket so that the arms of the Screen Advance Unit can slide up and down the channels.

Operate the Plasma Advance Unit so that it is in the 'OUT' position.

In the 'OUT' position, the rollers at the end of the arms should be just below the fixing bolts of the side runners on the PS bracket.

Do not rest the plasma advance unit on top of the PS bracket, as this will interfere with the bracket movement.

Side Runner X2 –

To adjust the SA advance distance loosen the nuts and bolts on the crank arms and slide longer or shorter.

Make sure to keep both arms the same length.



Crank Arm



Option B - Screen Positioning

Measure the distance from the top of the screen down to the centres of the two largest mounting holes in the SAH Bracket wall plate.

Once you have made that measurement, remove the screen and prepare to fix the bracket to the wall or rear of the enclosure.



Image shows where to measure. From this measurement it is possible to determine where to drill the holes in the wall or rear enclosure.





Option B - Mounting the Screen Advance Heavy Unit

With the screen removed, offer the SAH unit into the enclosure and in the correct position. Fix securely in place and make sure the mechanism is square to the enclosure void.

Putting a packer under the SAH would help support the mechanism at the right height when securing to the rear face.





To adjust the SAH advance distance either slide the top mount plate on the slots or alter the crank length by loosening the bolts and slide longer or shorter. Finally you can adjust the distance by rotating the cams, adjust with caution.





Connecting the Mechanisms

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

To connect the Drive Unit to the Side Panels connect the 9 pin AMP plugs together labelled A to A.

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.



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Fit the Panel Mount Plates

The mounting plates fix to the runners with M6 x 10mm CSK bolts with washers. There are a choice of 3 heights to fix the bolts on to. The large slot also allow for a lot of adjustability. Use 1 fixing in each slot.





After fitting the mounting plates, it is a good time to set the mechanism is still operating correctly. Use the supplied IR remote to control the mechanism.



Installation: Stage 12

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Fit the Front Panel and Moving Panel







Panel Up Adjustment

To adjust the panel up position loosen the 2 bolts shown in the detail view. Do not fully remove them. Sliding the switch plate up will make the panel travel higher and sliding it down will travel less. The panel will travel approximately 3 times the distance the switch plate moves. Once desired height position is set tighten the bolts back up.



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Installation: Stage 14

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Panel Down Adjustment

To adjust the down position use the panel mount plate slots. There's 60mm [2.4"] of movement in the slot.







Fitting the Screen

In order to fit the screen, the mechanism must be extended to its full reach. Press 'OUT' on the remote control and wait for the Screen Advance mechanism to reach its pre-set out position.

Once out, press 'B' on 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 screen with uprights can be bolted to the frame.



Once the screen is bolted to the frame, the position of the screen may require some finer adjustment.

Adjustments can be made by altering the height the screen is fixed to the upright slot detail.

If more adjustment is still needed, remove the screen and make adjustments to the PS bracket adjusters, as shown earlier.



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



Contact Closure

- Use an RJ45 connector in the CCI socket on the control box to operate via contact closure



DIN	DESCRIPTION	ΔΟΤΙΟΝΙ	WIRE / CABLE		CONTACT CLOSURE
FIN	DESCRIPTION ACTION		568A	568B	LED INDICATOR
1	12V SUPPLY	12V SUPPLY - CURRENT LIMITED	W/G	W/O	
2	12V LATCH	CH When 12V attached, device will go OUT. When 12V removed, device will go IN.		0	
3	3 GROUND GROUND		w/o	W/G	
4		PIN 4 NOT USED	BL	BL	
5	DEVICE LATCH	Short to GROUND (pin 3), device will go OUT, remove short device will go IN.	W/BL	W/BL	LED 4
6	DEVICE STOP	Momentary short to GROUND (pin 3), stops device in current position.	О	G	LED 3
7	DEVICE OUT	Momentary short to GROUND (pin 3), makes device go OUT.	W/BR	W/BR	LED 2
8	DEVICE IN	Momentary short to GROUND (pin 3), makes device go IN.	BR	BR	LED 1



NOTE:

Earlier versions of the control board may not have these contact closure LED indicators.

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RS232

- Use an RJ25 connector in the socket marked RS232 on the control box to operate using RS232

Pin 1: RX Pin 6 : TX

Pin 3 & 4: GROUND



Details

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

RJ25		9 PIN D
PIN 1: RX	ТО	PIN 2: TX
PIN 6: TX	ТО	PIN 3: RX
PIN 3: GROUND	ТО	PIN 5: GROUND
PIN 4: GROUND	ТО	PIN 5: GROUND

IMPORTANT

Ensure protocol is entered exactly as written, including Carriage Return (Enter / ASCII 13).

Protocol	Action
fa_in Carriage Return (Enter ←)	Device IN
fa_out Carriage Return (Enter ←)	Device OUT
fa_stop Carriage Return (Enter ←)	Device STOP (At any position)

Operation Details







Operation buttons for the IR remote

IN - Screen moves back IN and panel moves down and out to fill space

A - Pulses the plasma advance mechanism in when entire mechanism is in OUT Position

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





Note

Only buttons indicated are functional with the product. Any button pressed when in motion mechanism will stop.

OUT - Panel moves in and up and screen moves OUT to fill space

Stop - Will stop the operation at any position

Panel Down



Screen Out



Replacing batteries

Future Automation IR Remote

Controller needs x2 AAA batteries which are provided within the packaging





A general technical overview of the SPS 800 / 1200 Sliding Panel System.

		SPS 800	SPS 1200
Mechanism Dimensions		Screen Width +270mm [10.6"]	Screen Width +270mm [10.6"]
(W H D)		Screen Height x 2 +100mm [3.9"]	Screen Height x 2 +100mm [3.9"]
		Screen Depth +260 [10.2"]	Screen Depth +260 [10.2"]
Mechanism Weight	SA	75Kg [165.3lb]	85Kg [187.4lb]
	SAH	85Kg [187.4lb]	95Kg [209.4lb]
Moving Panel MAX Weight		15Kg [33.1lb]	15Kg [33.1lb]
MAX Screen Height		785mm [30.9"]	1185mm [46.6"]
Screen Advance MAX Weight	SA	50Kg [110lb]	50Kg [110lb]
	SAH	120Kg [265lb]	120Kg [265lb]
Power Consumption		Max 250W	Max 250W
Power Consumption - On Standby		3W	3W
Standard Colour		Black	Black
	W1400	Telescopic Width 880 - 1400mm [34.6 - 55.1"]	Telescopic Width 880 - 1400mm [34.6 - 55.1"]
Motor Kit Width	W1700	Telescopic Width 1200 - 1700mm [47.2 - 66"]	Telescopic Width 1200 - 1700mm [47.2 - 66"]
	W2100	Telescopic Width 1600 - 2100mm [63 - 82.5"]	Telescopic Width 1600 - 2100mm [63 - 82.5"]
Control		IR Remote, Contact Closure & RS232	IR Remote, Contact Closure & RS232
Power Supply		110V or 240V	110V or 240V
Control Of 3rd Party Product		No	No
Control Box Size (W,D,H)		150x410x52mm [5.9x16.1x2"]	150x410x52mm [5.9x16.1x2"]

SPS 800 / 1200 - Sliding Panel System - Trouble shooting

For information on our products please refer to our web site www.futureautomation.co.uk or for questions on installations and our product range please

phone us on - +44(0) 1438 833577 and ask for our technical support department.

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Notes...





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