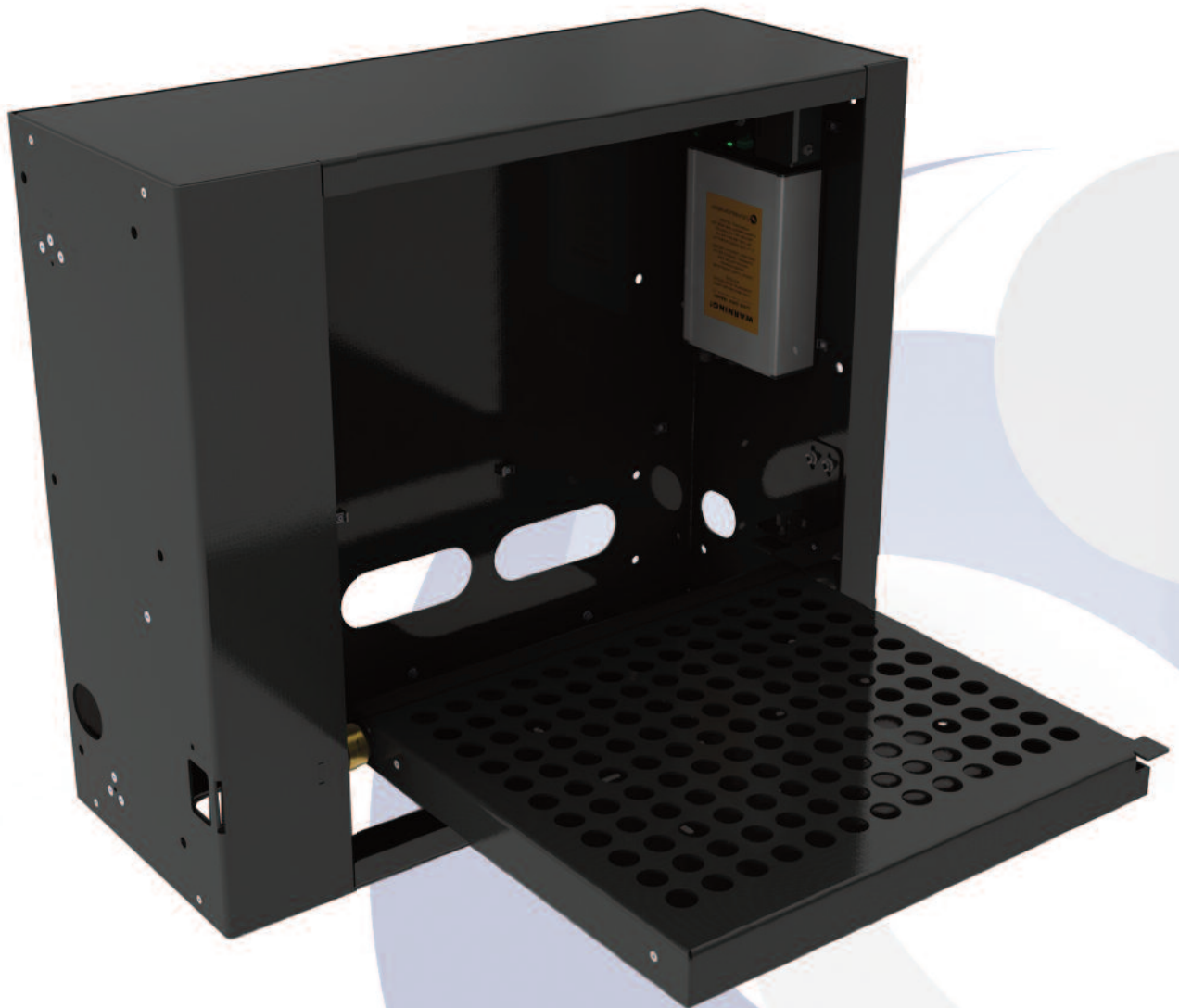


# Installation Instructions

## PH2 - Projector Hinge

### Design Highlights

- Outputs for 3rd Party Product Control
- Cassette Housing for Ease of Installation
- Full Cable Management
- Innovative Design



Thank you for choosing  
**futureautomation**

# PH2 - Projector Hinge



Caution  
Warning



Beware of  
Moving Parts



Danger  
Electricity



Keep Hands  
Clear

## 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 from 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.

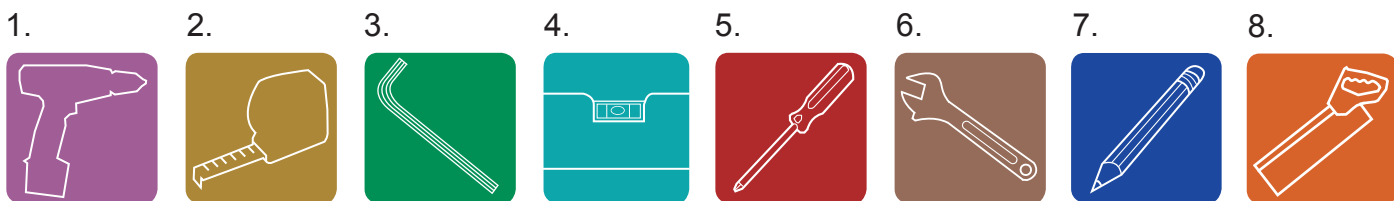
Future Sound & Vision trading as Future Automation intend to make this and all documentation as accurate as possible. However, Future Automation makes no claim that the information contained herein covers all details, conditions or variations, nor does it provide for every possible contingency in connection 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.

# PH2 - Projector Hinge

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# PH2 - Projector Hinge

## Tool Indicator Icons



- |                   |                   |                   |             |
|-------------------|-------------------|-------------------|-------------|
| 1. - Drill        | 3. - Allen Keys   | 5. - Screwdrivers | 7. - Pencil |
| 2. - Tape measure | 4. - Spirit Level | 6. - Spanners     | 8. - Saw    |

## 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.



# PH2 - Projector Hinge

## Package Contents

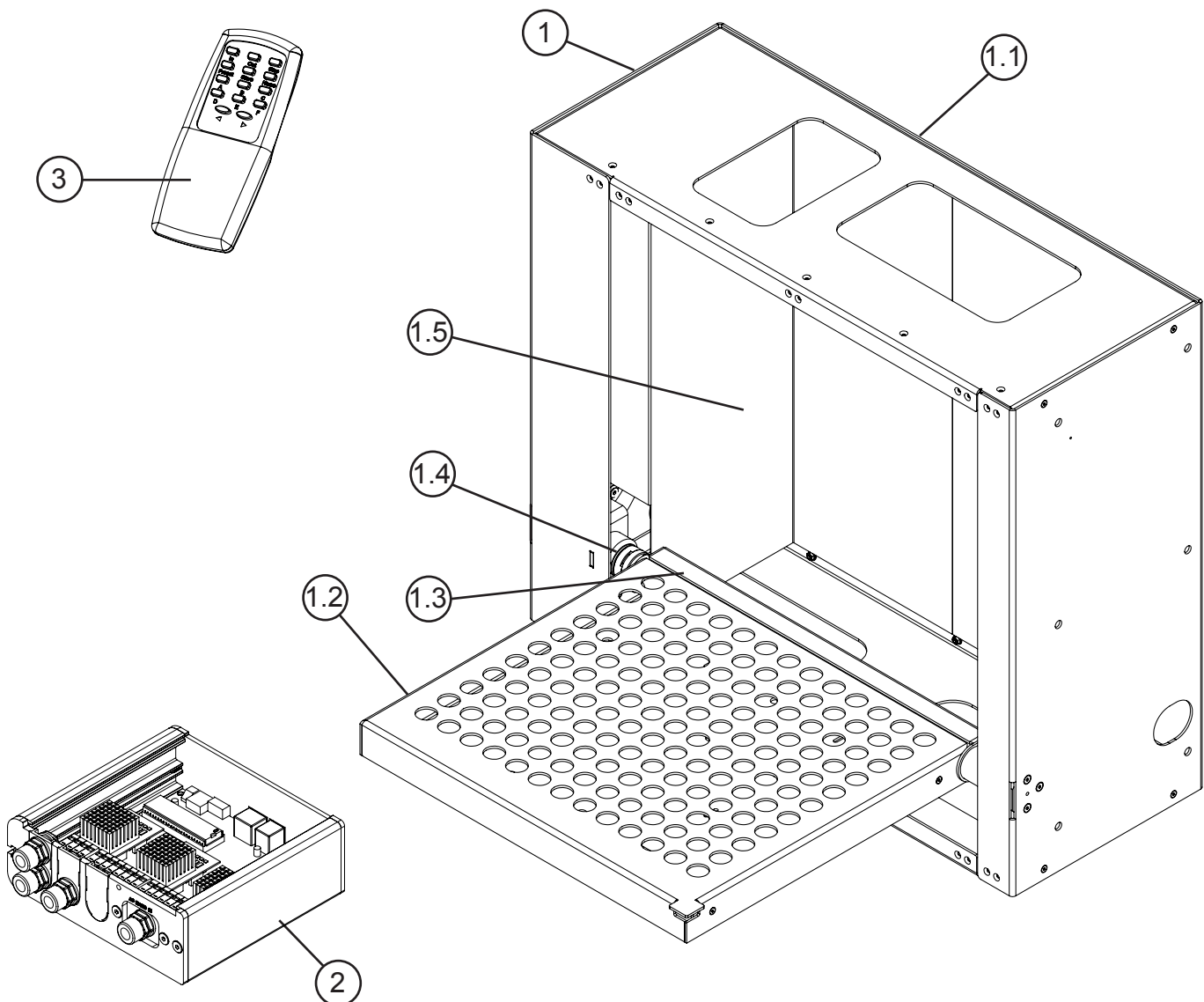
- 1 - Mechanism
- 1.1 - Inner Wall Carriage
- 1.2 - Projector Plate
- 1.3 - Pivot Hinge
- 1.4 - Hinge Lock
- 1.5 - Internal Covers
- 2 - Control Box
- 3 - IR Remote Control

## Not Shown On Page

- 4 - x2 AAA Batteries
- 5 - Multi Pack Of Nuts, Bolts & Washers
- 6 - Mains Power & Other Leads

## Nuts & Bolts Multipack:

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



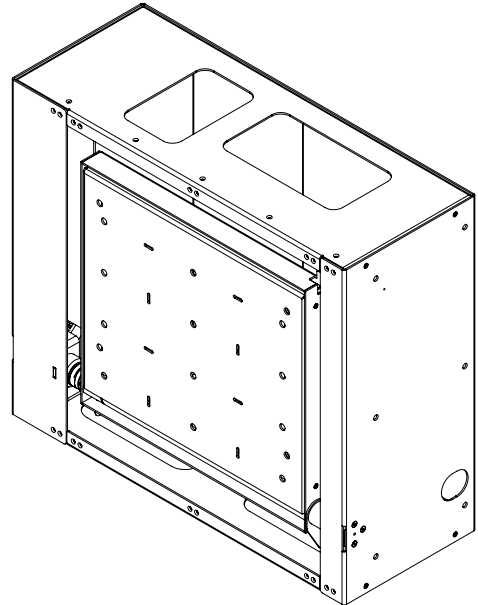
# PH2 - Projector Hinge

## Testing

### Before you start testing, check the following:

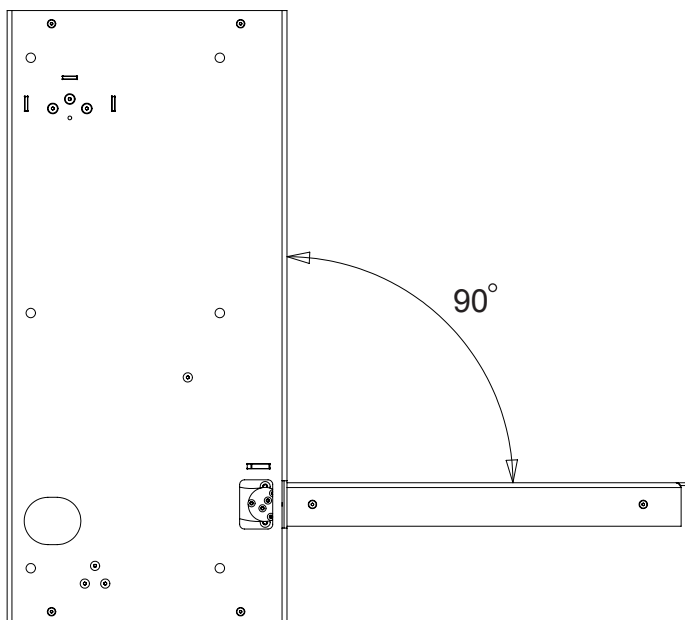
- The product is in good condition
- No damage to any parts
- Wiring is all secure
- The unit is in the closed position
- Test the mechanism
- See page 16 for remote operations

Test the unit when it is sitting on the floor and is secure!

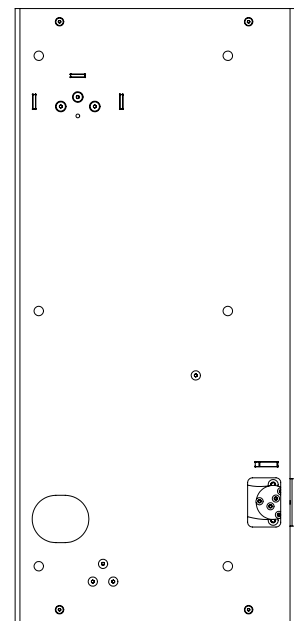


## Mechanism Movement

Open Position



Closed Position



# PH2 - Projector Hinge

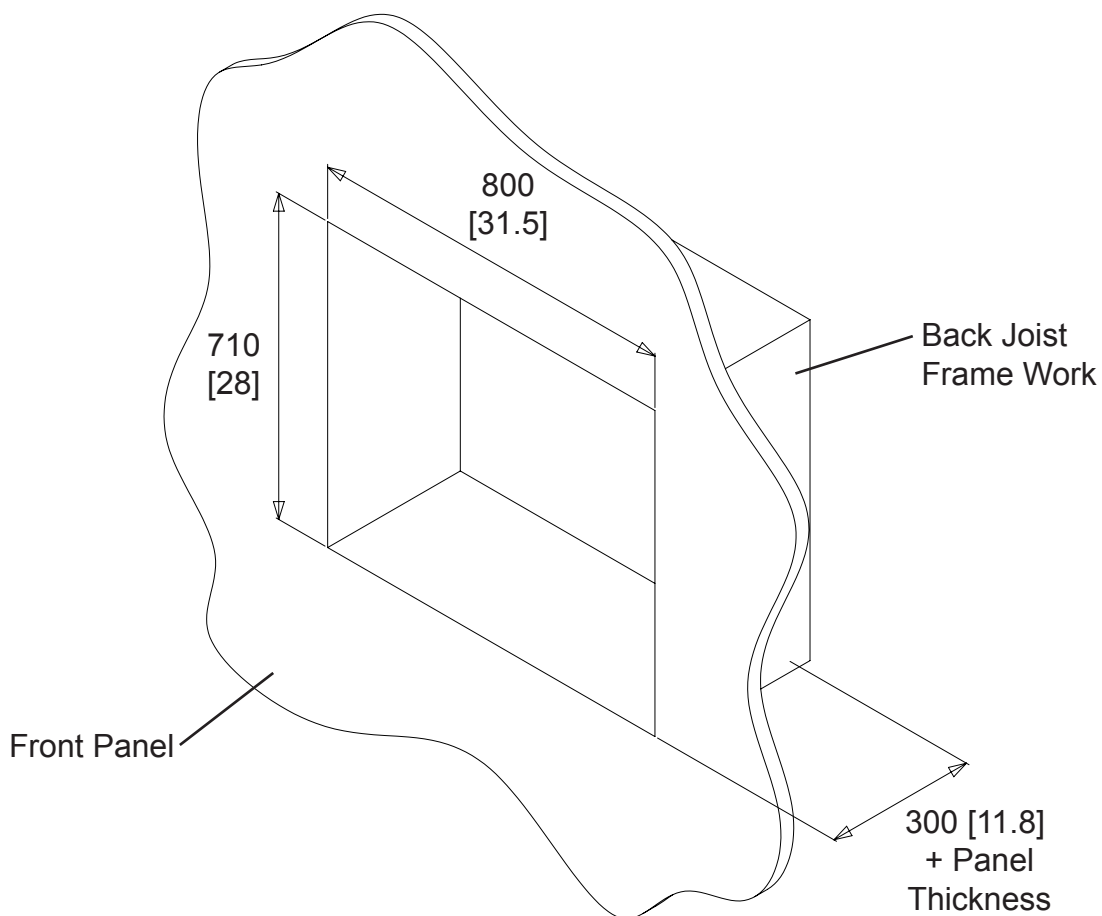


## Creating the void in the wall

- Hole size for mechanism: **PH2 - Width 800mm**  
**Height 710mm**  
**Depth 300mm**



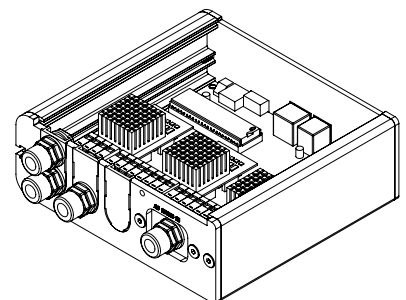
- Clear space free from joists and other objects
- Secure timber joists in place to support the unit left, right top and bottom
- ORGANISE CABLES READY TO THREAD THROUGH THE MECHANISM



## Control box setup



- ON BOARD ELECTRONICS!
- Control box wiring, refer to page 12 Electrical Connections
- Connect the control box to the mains power supply
- Connect the infrared remote sensor even if you are going to use switch control
- Cables can be easily extended





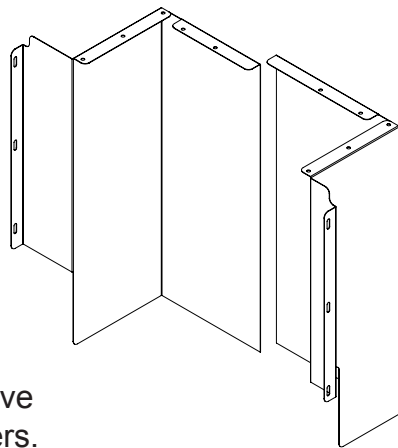
# PH2 - Projector Hinge



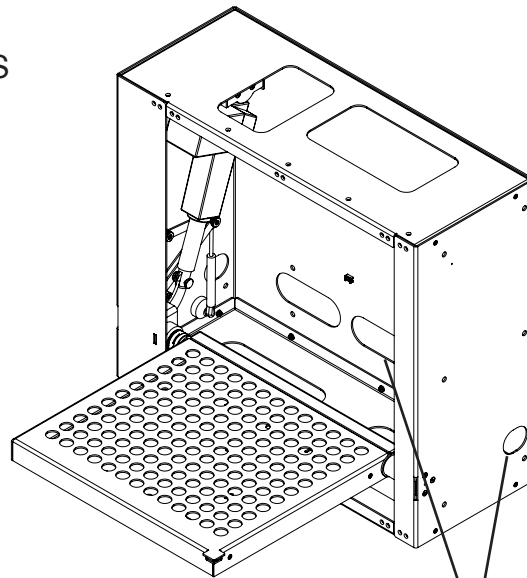
## Installation of the mechanism into the wall



- ORGANISE THE CABLES READY TO THREAD THROUGH THE CABLE HOLES ON THE SIDE OF THE PRODUCT!
- Secure into internally out into the joist frame work
- Check the mechanism and movement



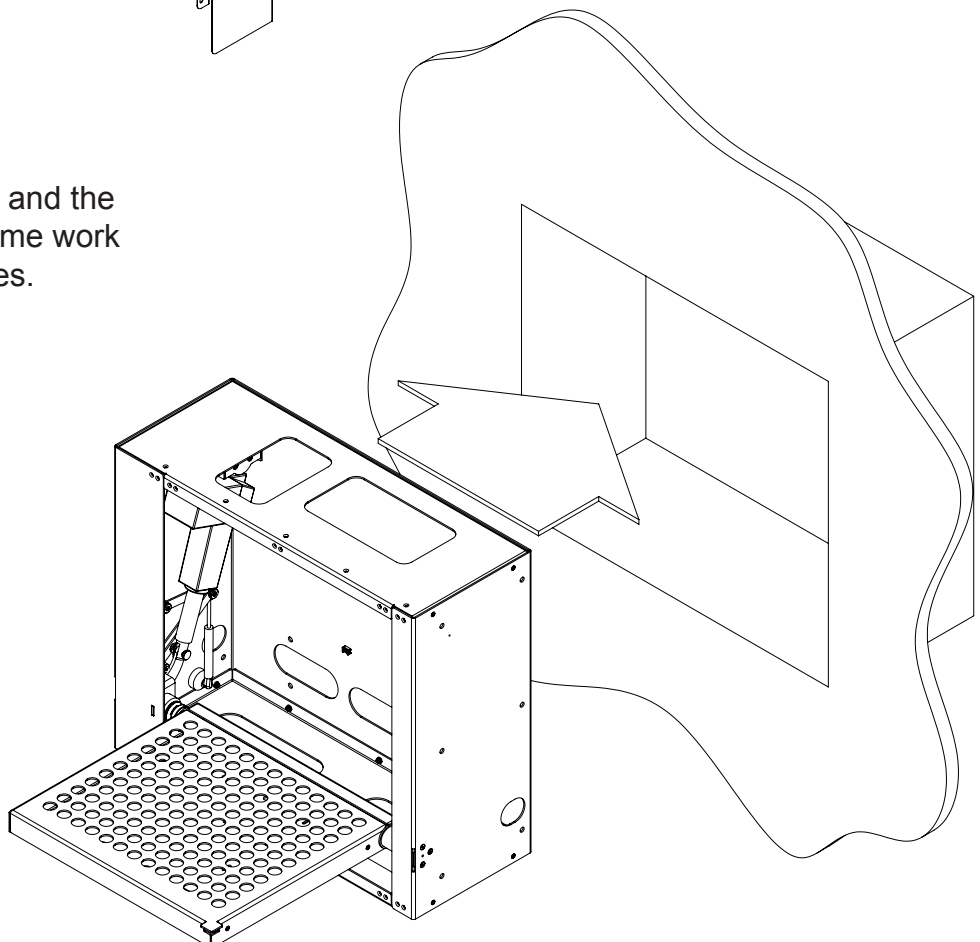
Make sure to remove the 2 internal covers.



Holes for cables to be threaded through.

Run cables for the projector and the mechanism through joist frame work and mechanism access holes.

Insert cassette body into the joist frame work. Make sure the mechanism is in the down position so you can get to the internal fixing holes.





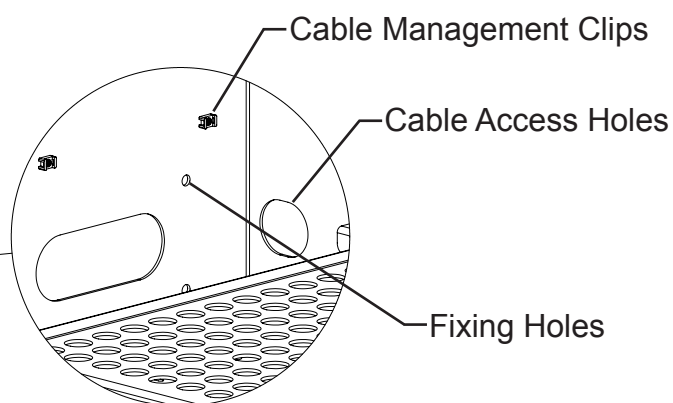
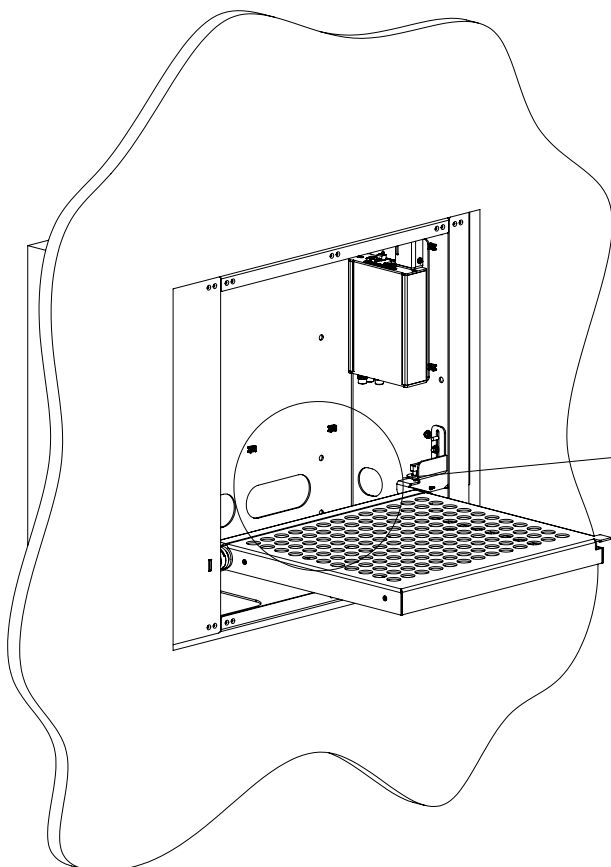
# PH2 - Projector Hinge



## Cable Management & Cladding

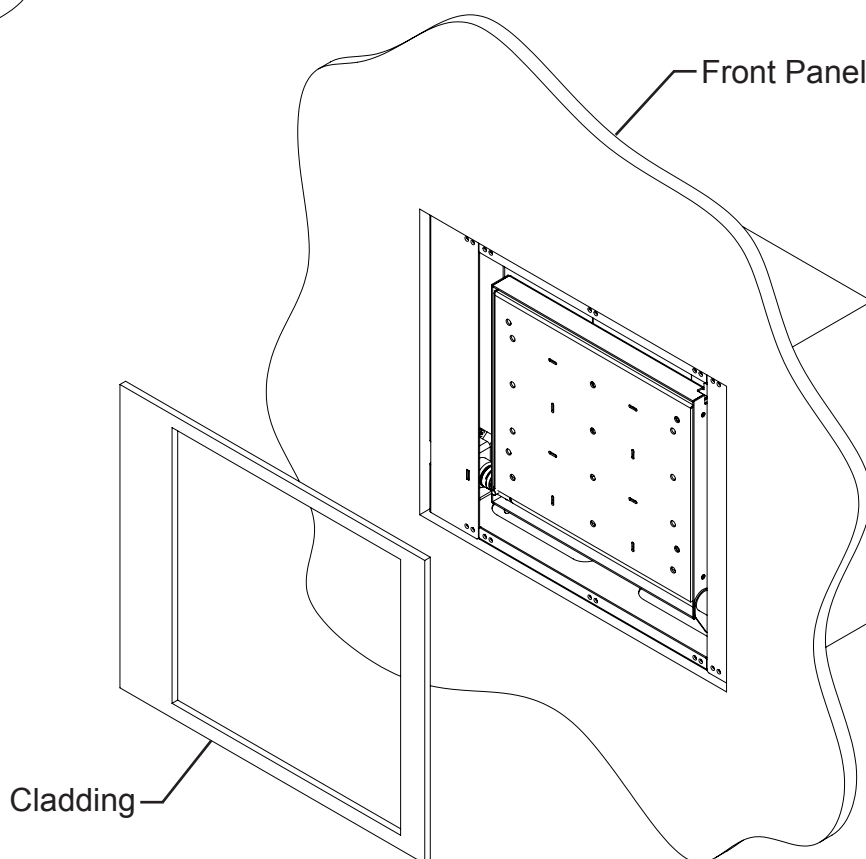
Secure the mechanism in place from the inside using the fixing holes in the sides and back.

Thread cables through access holes in the mechanism.



After product is secured replace the internal covers back into the mechanism.

Finish cladding around the aperture parameter, either with plaster board or MDF strips in an existing wall. Remember you may have to access the mechanism for future servicing.

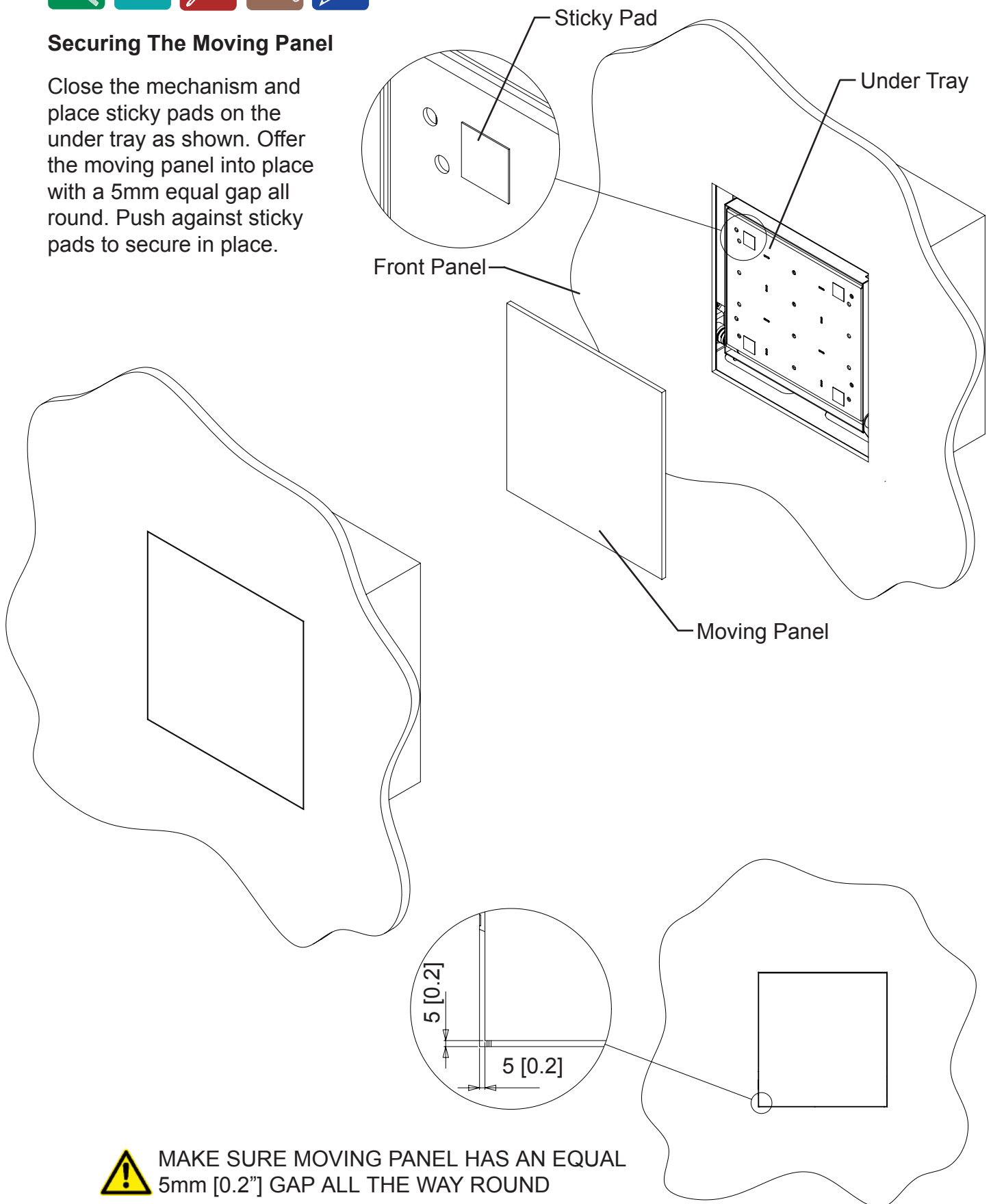


# PH2 - Projector Hinge



## Securing The Moving Panel

Close the mechanism and place sticky pads on the under tray as shown. Offer the moving panel into place with a 5mm equal gap all round. Push against sticky pads to secure in place.



# PH2 - Projector Hinge



## Mounting Front Panel

Open the mechanism and remove all 4 side locking bolts to release the under tray.

4 x Side  
Locking Bolts

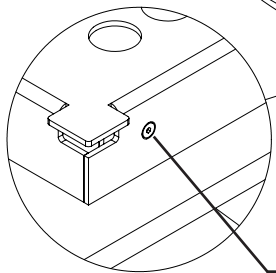
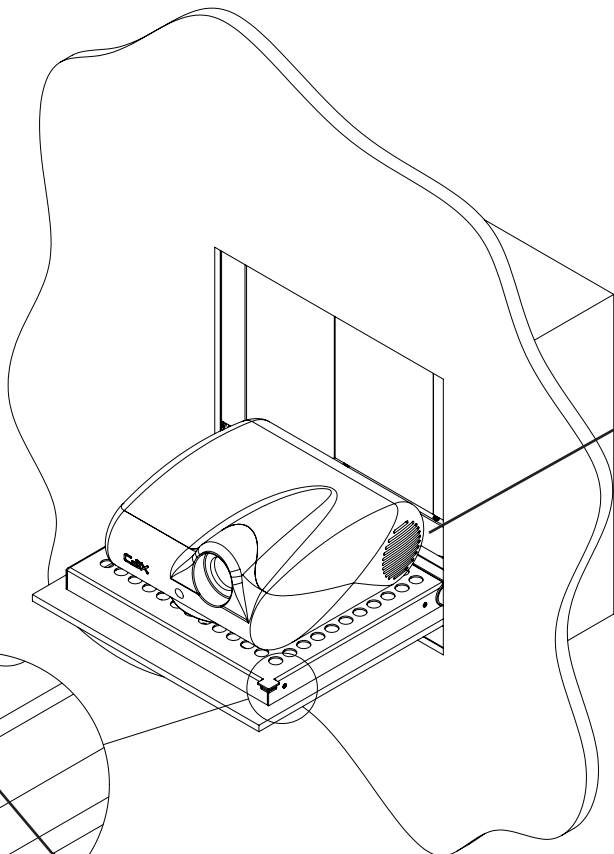
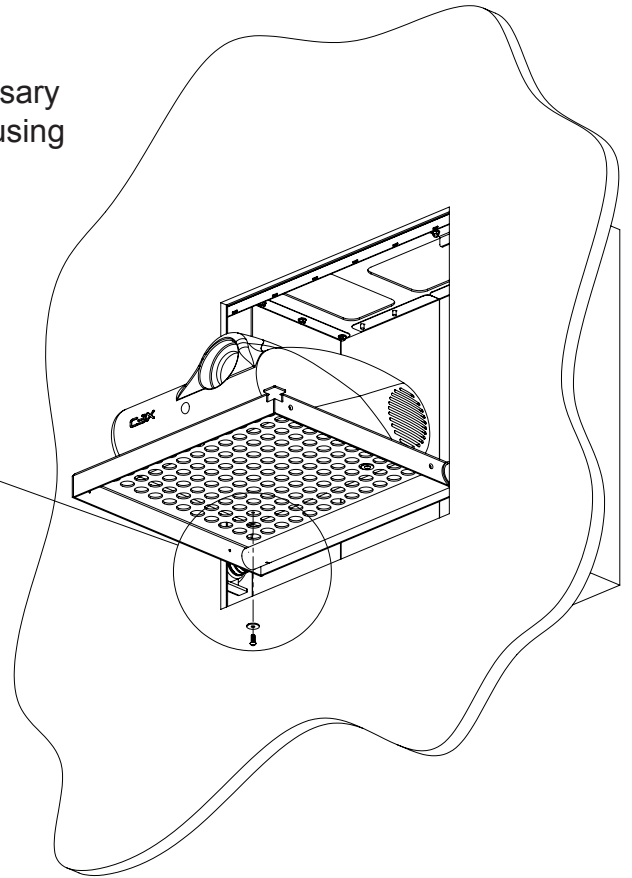
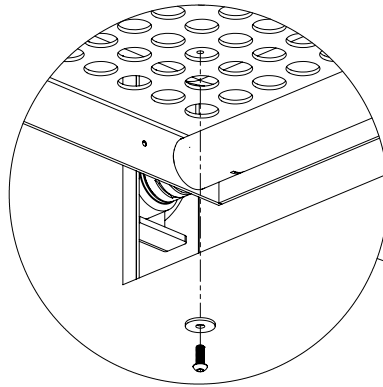
Remove the under tray and moving panel as shown and secure together using the appropriate fixings.

# PH2 - Projector Hinge

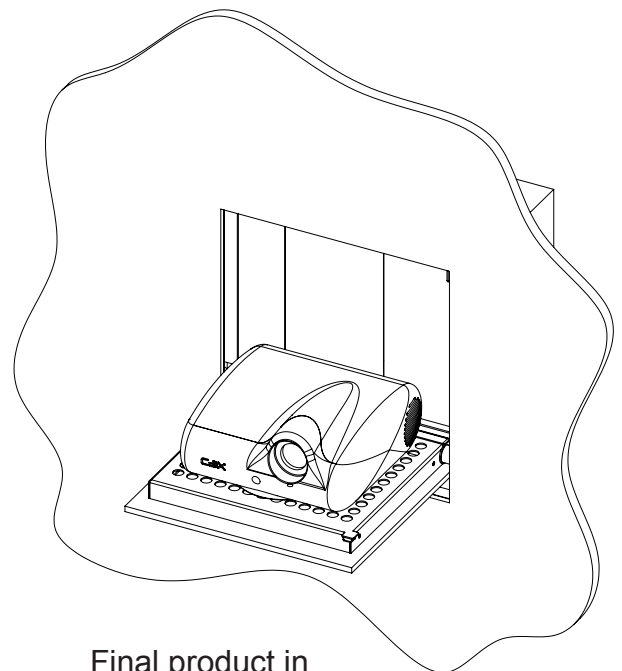


## Mounting The Projector

Mount the projector in place and connect the necessary cables. Secure projector down from the underside using the appropriate fixings.



Offer the under tray and moving panel back up and secure back in place using the 4 side locking bolts.



Final product in the open position.

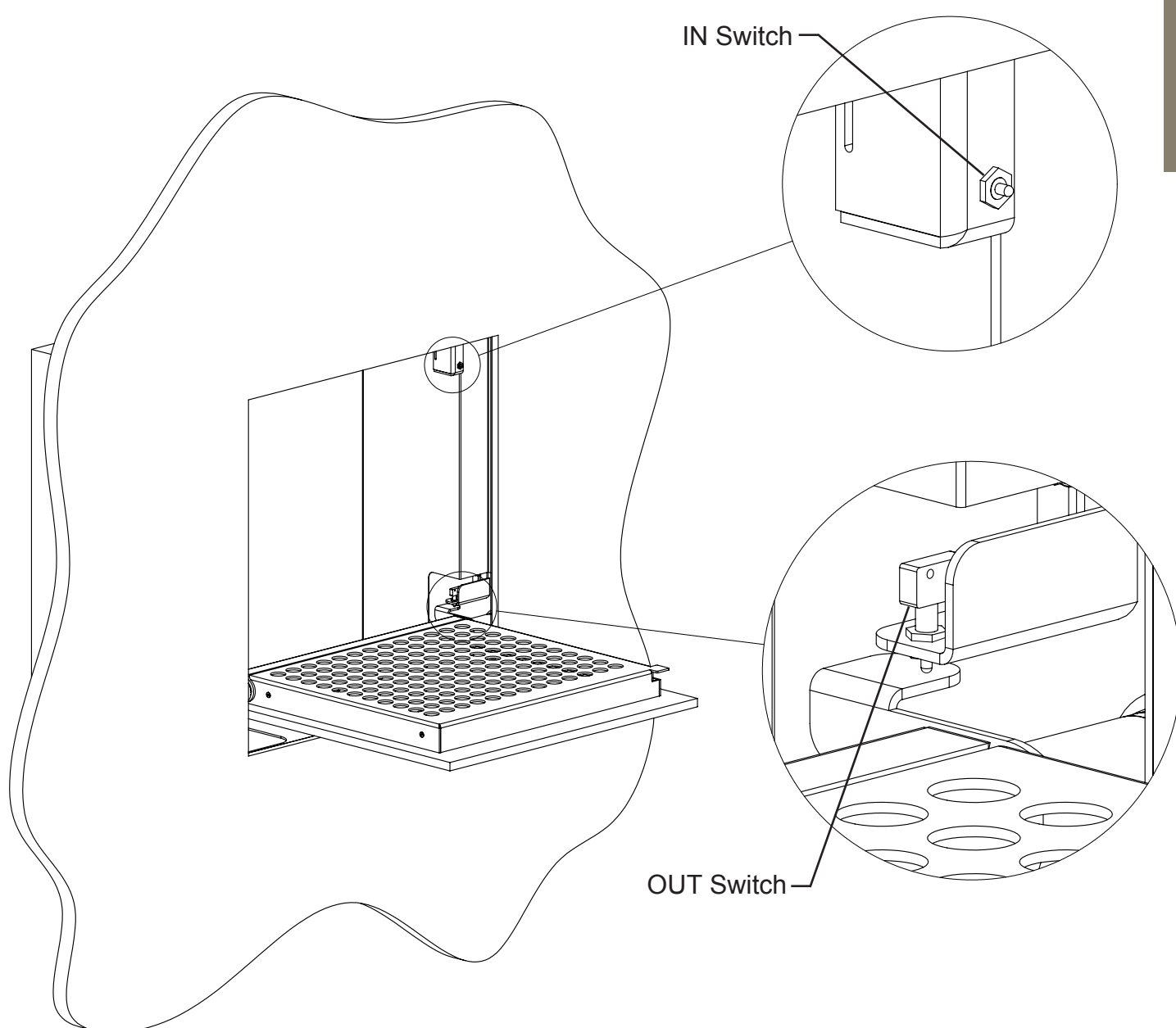
# PH2 - Projector Hinge



## In & Out Position Adjustment

Turn the screws that hold the switches in place to adjust the IN and OUT position.

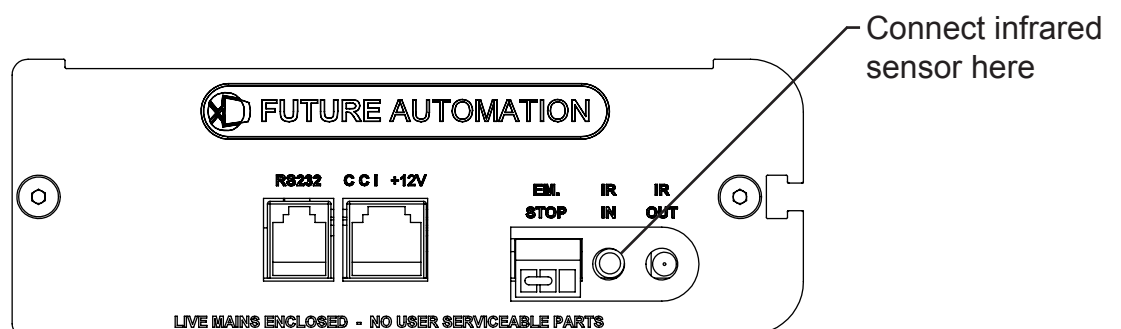
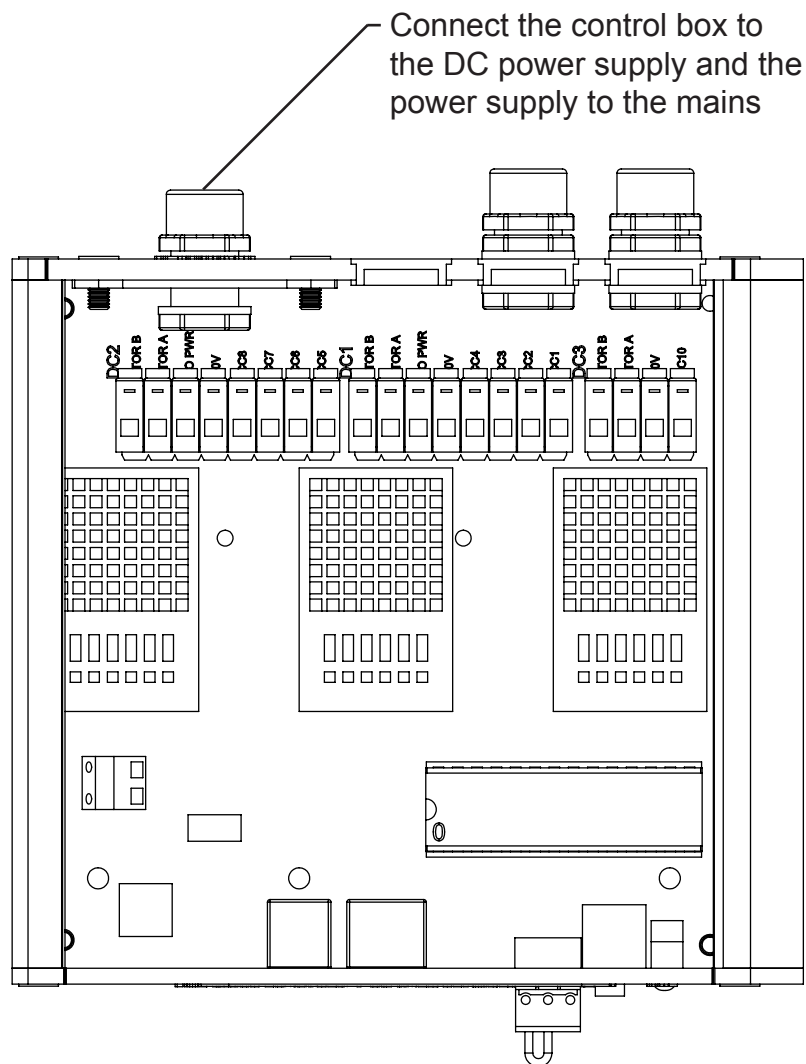
Once the mechanism is installed there might be a little under or over travel which can be sorted by adjusting these switches.



# PH2 - Projector Hinge



## Electrical Connections & Control Box

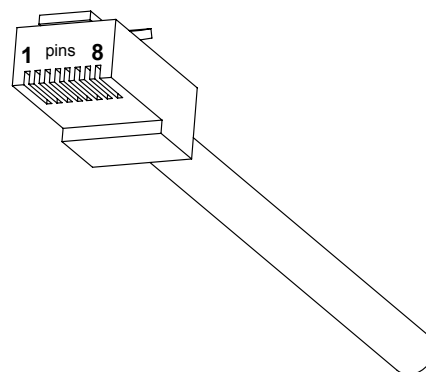


# PH2 - Projector Hinge

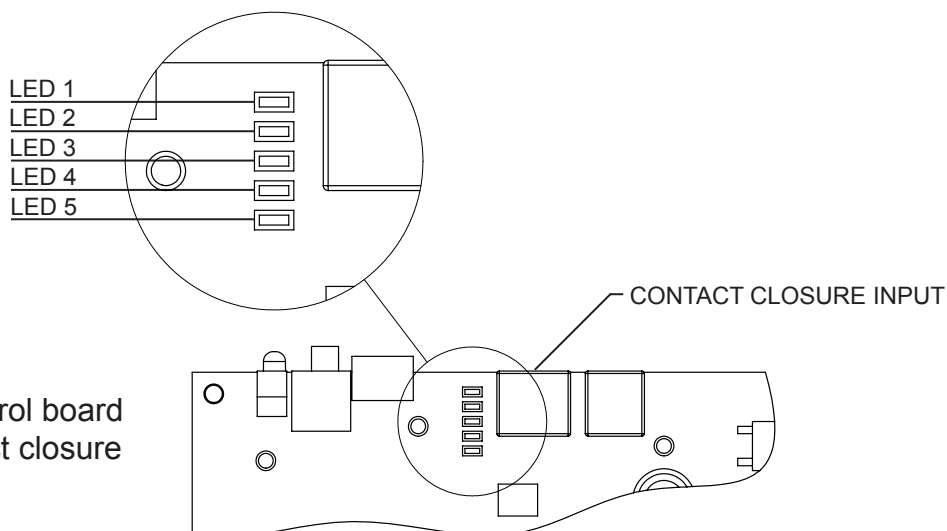


## Contact Closure

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



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



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



# PH2 - Projector Hinge



## RS232

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

### Details

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

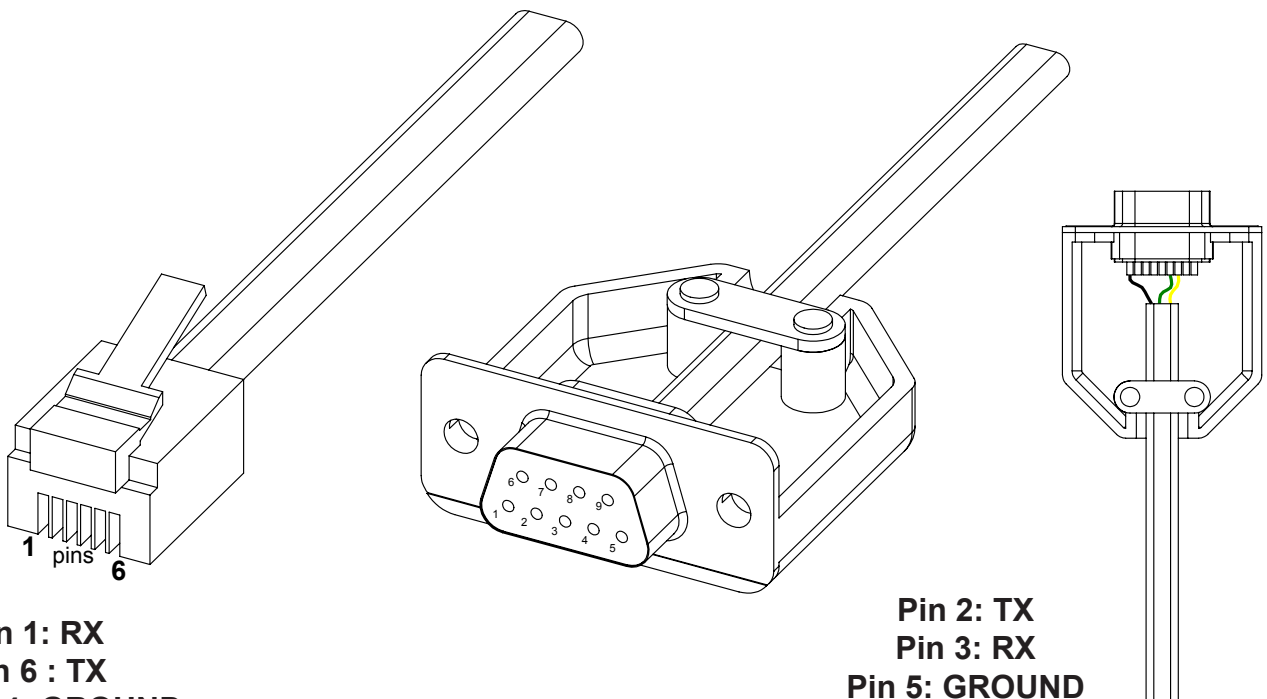
RJ25		9 PIN D
PIN 1: RX	TO	PIN 2: TX
PIN 6: TX	TO	PIN 3: RX
PIN 3: GROUND	TO	PIN 5: GROUND
PIN 4: GROUND	TO	PIN 5: GROUND



### IMPORTANT

Ensure protocol is entered exactly as written.

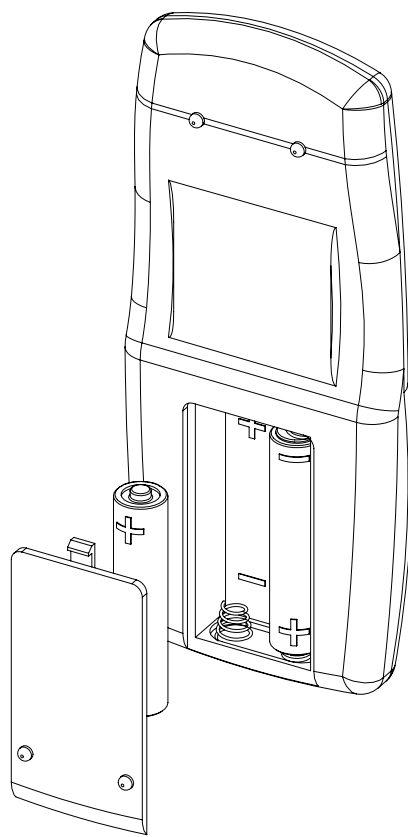
Protocol	Action
fa_in Carriage Return (Enter ↵ )	Device IN
fa_out Carriage Return (Enter ↵ )	Device OUT
fa_stop Carriage Return (Enter ↵ )	Device STOP (At any position)



# PH2 - Projector Hinge



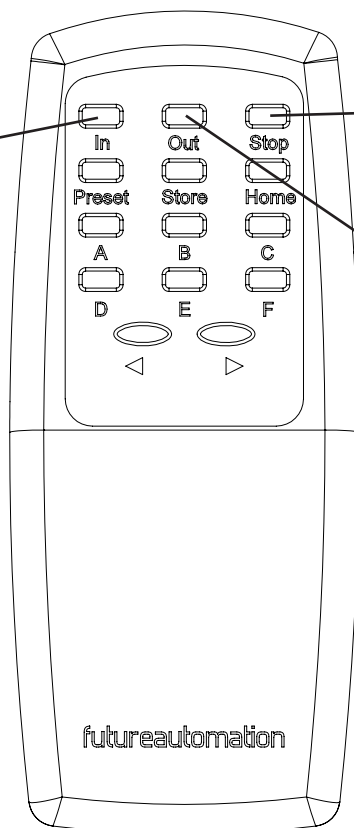
## Replacing batteries



**Future Automation IR Remote**  
Controller needs x2 AAA batteries  
which are provided within the  
packaging.

## Operation Buttons

**In** - Raises the  
mechanism



**Stop** - Will stop  
the operation at  
any point

**Out** - Lowers the  
mechanism



### Safety Note

When the mechanism is moving,  
if any button is pressed apart  
from those already assigned, the  
mechanism will stop immediately.

# PH2 - Projector Hinge

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## PH2 Projector Hinge Mechanism - Trouble shooting?

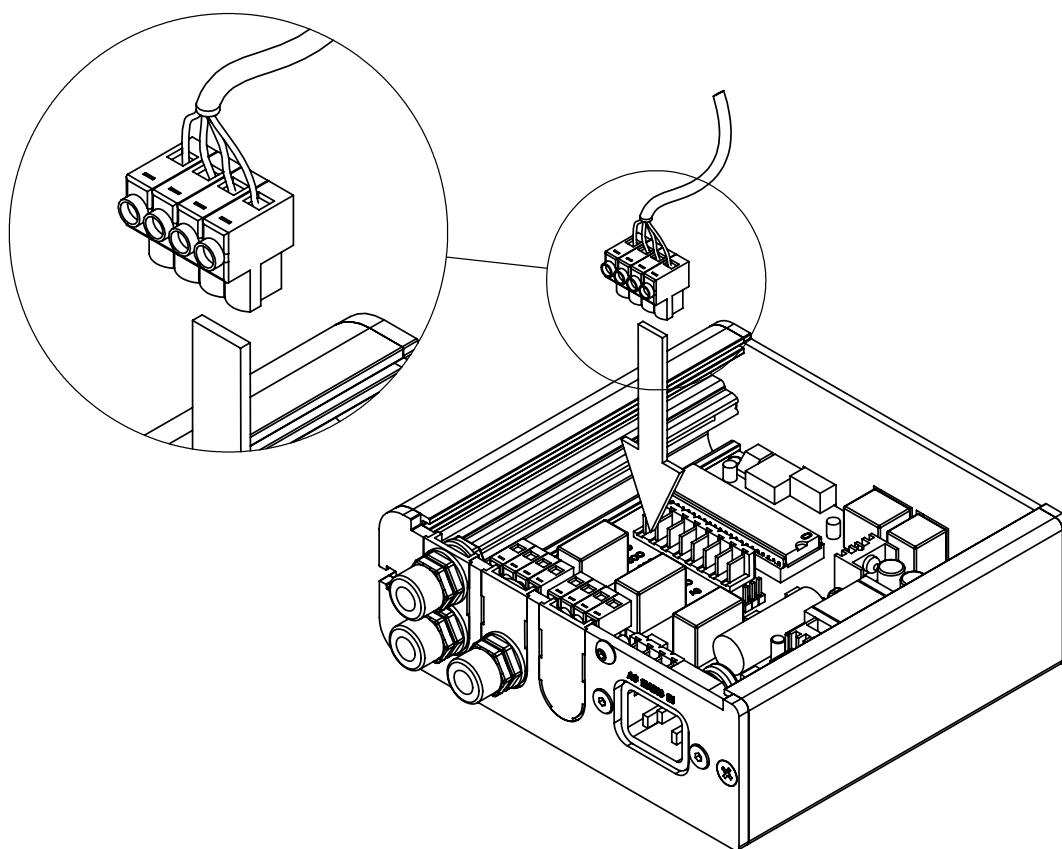
For information on our products or trouble shooting please refer to our web site - **[www.futureautomation.co.uk](http://www.futureautomation.co.uk)** or for questions on installations and our product range please phone us on - **+44(0) 1438 833577** and ask for our technical support department

# PH2 - Projector Hinge



## Test motor operation

If the lift is not working, you can test the motor directly. To do so, you will need to locate and open the control box.



**CAUTION.** Apply mains voltage taking all necessary grounding precautions.

Use live (brown) and switch live (black) to change direction of motor. If the motor works, contact manufacture to replace control box.

# PH2 - Projector Hinge



A general technical overview of the PH2 projector hinge mechanism.

	PH2
<b>Product Dimensions (W,D,H)</b>	800x300x710mm [31.5x11.8x28"]
<b>Weight (Kg)</b>	35Kg [77.2lb]
<b>Power Consumption</b>	110W
<b>Power Consumption On Standby</b>	3W
<b>Lifting Capacity (Kg)</b>	25Kg [55.1lb]
<b>Standard Colour</b>	Black / White
<b>Rotate Angle</b>	90°
<b>Max Projector Size (W,D,H)</b>	460x510x190mm [18.1x20.1x7.5"]
<b>Control</b>	IR Remote, RS232 & Contact Closure
<b>Power Supply</b>	240V or 110V
<b>Control Of 3rd Party Product</b>	Yes
<b>Output Power Supply</b>	12V - 240V
<b>Control Box Size (W,D,H)</b>	150x150x52mm [5.9x5.9x2"]
<b>Shipping Details</b>	
<b>Dimensions (W,D,H)</b>	950x400x950mm [37.4x15.7x37.4"]
<b>Weight (Kg)</b>	40Kg [88.2lb]

# PH2 - Projector Hinge

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**Notes...**



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