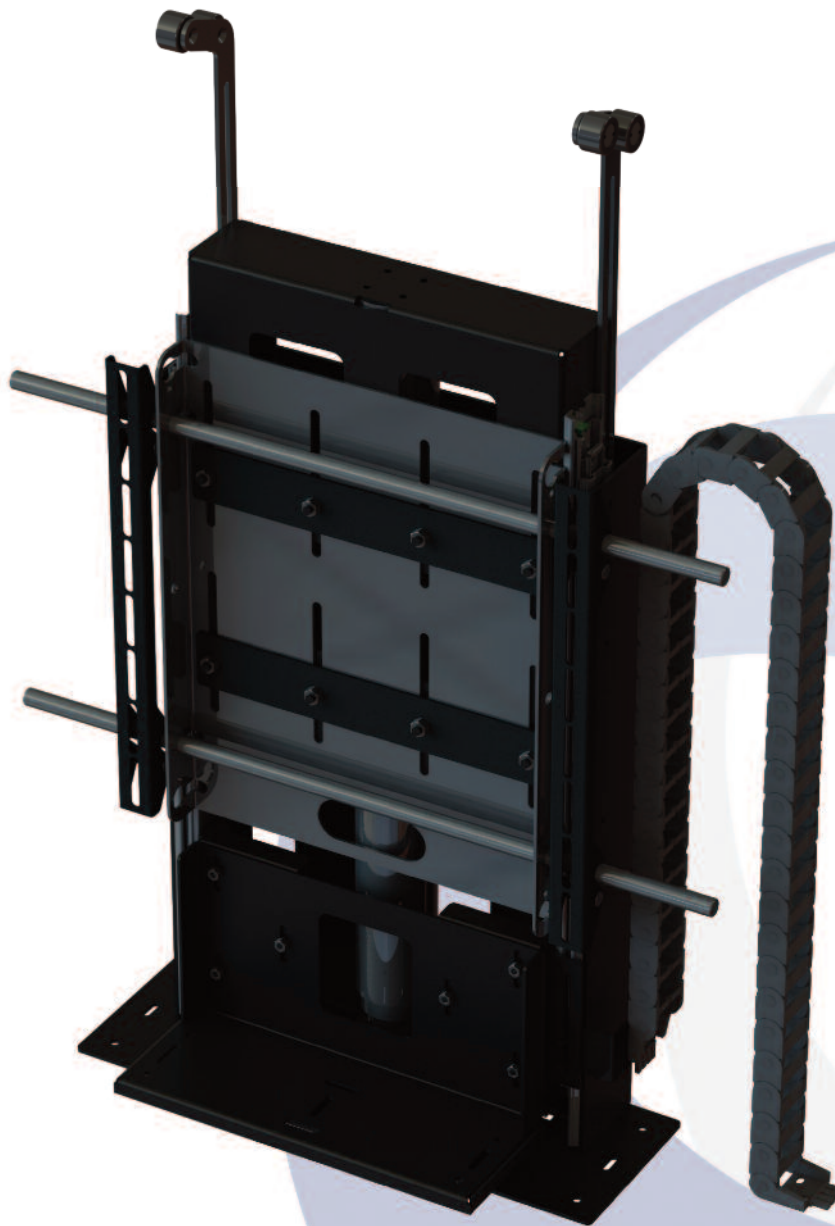


Installation Instructions

AL965 Actuator Lift

Design Highlights

- Push up lid
- Full cable management
- Compact design for minimum spatial requirements
- Only 20mm of height above television required
- Near silent motor system



Thank you for choosing
futureautomation

AL965 Actuator Lift



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.**

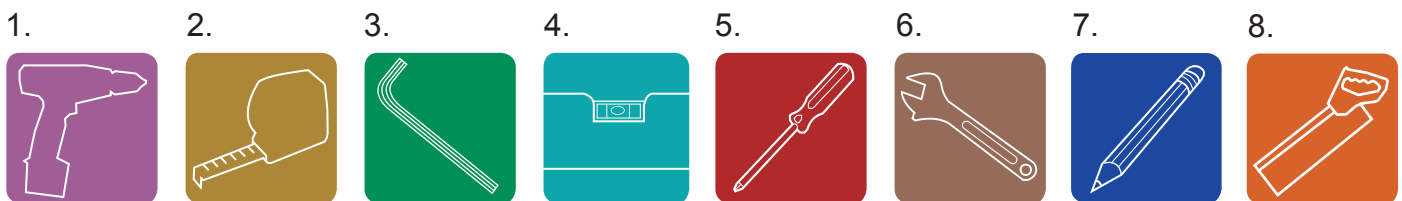
Future Sound & Vision trading as Future Automation intend to make this and all documentation as accurate as possible. However, Future Automation makes no claim that the information contained herein covers all details, conditions or variations, nor does it provide for every possible contingency in connection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

AL965 Actuator Lift

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AL965 Actuator Lift

Tool Indicator Icons



1. - Drill

2. - Tape measure

3. - Allen Keys

4. - Spirit Level

5. - Screwdrivers

6. - Spanners

7. - Pencil

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.

AL965 Actuator Lift

Package Contents

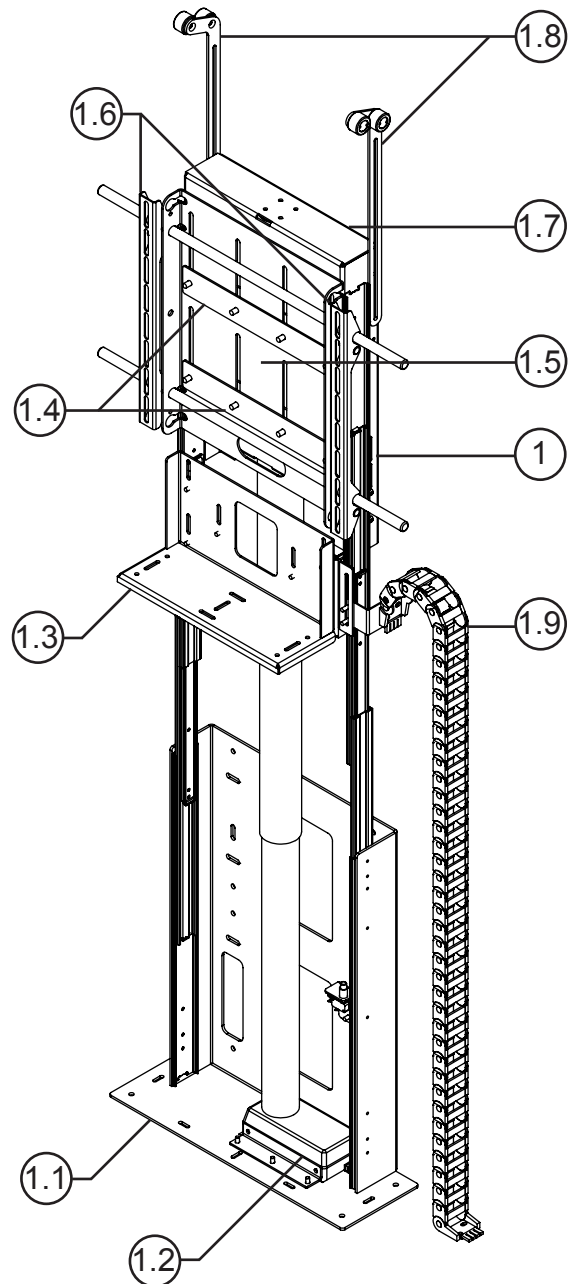
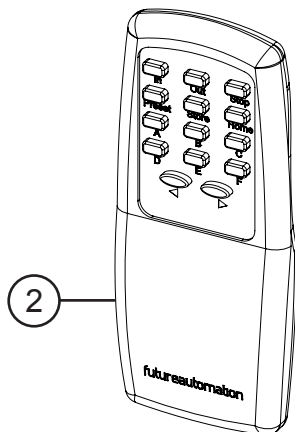
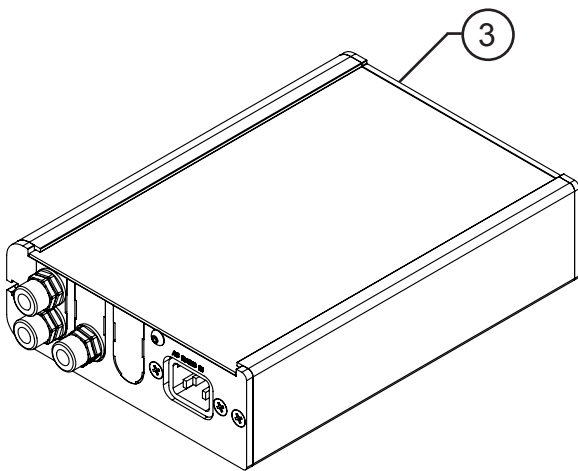
- 1 - Mechanism
- 1.1 - Base Plate
- 1.2 - Linear Actuator
- 1.3 - Base Shelf
- 1.4 - Locking Strip
- 1.5 - Screen Plate
- 1.6 - Screen Uprights
- 1.7 - Top Bracket
- 1.8 - Push Bar
- 1.9 - Cable Management
- 2 - IR Controller
- 5 - Control Box

Not Shown On Page

- 8 - x2 AAA Batteries
- 9 - Multi Pack Of Nuts, Bolts & Washers
- 10 - Mains Power & Other Leads

Nuts & Bolts Multipack:

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

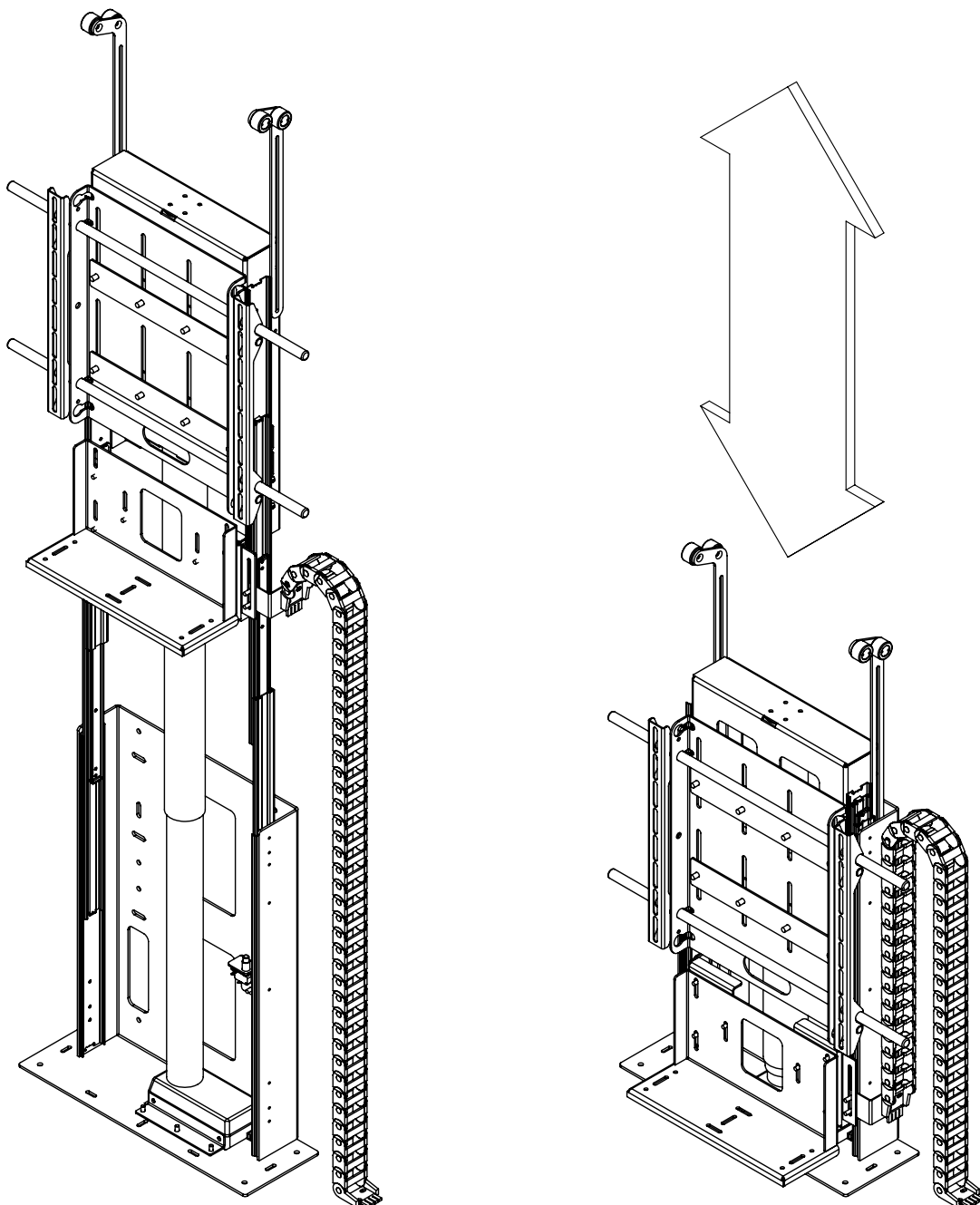


AL965 Actuator Lift

Before you start

Prior to installation, 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 by running it up and down
- Refer to pages 13-15 for mechanism control

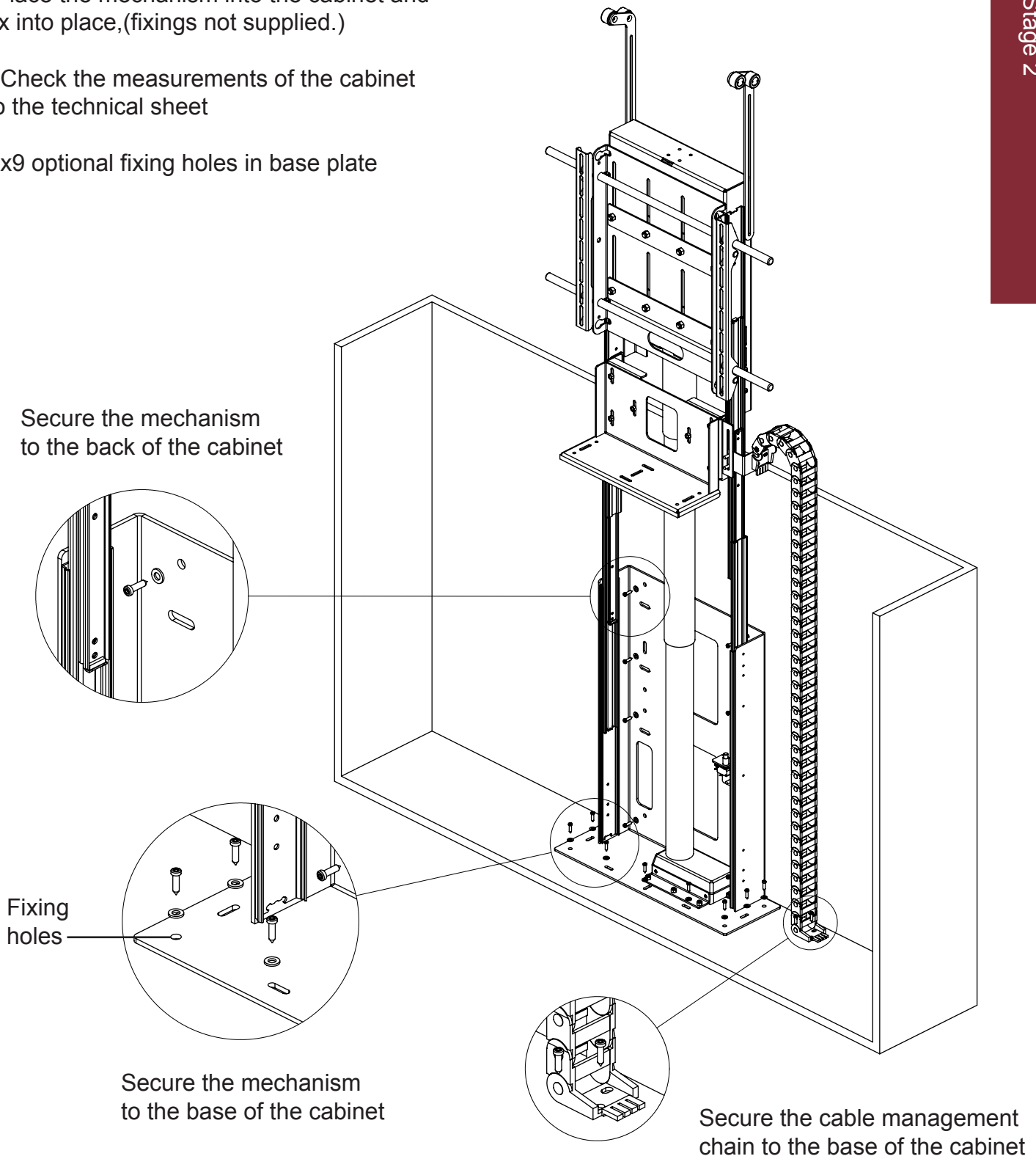


AL965 Actuator Lift



Fixing to the cabinet

- Place the mechanism into the cabinet and fix into place,(fixings not supplied.)
- Check the measurements of the cabinet to the technical sheet
- x9 optional fixing holes in base plate

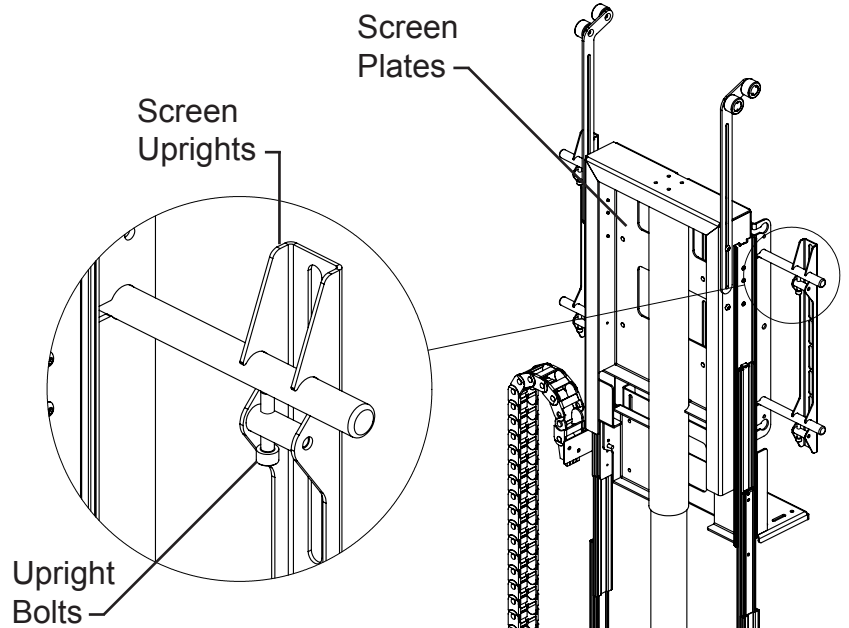


AL965 Actuator Lift

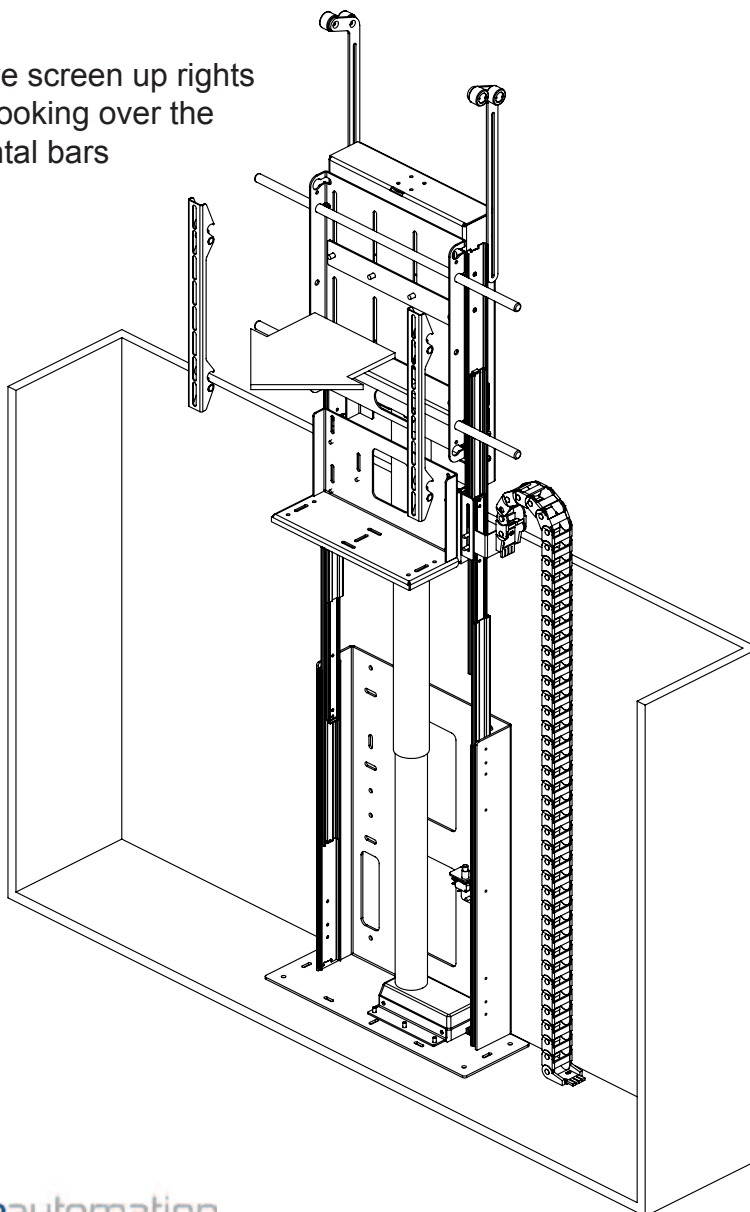


Releasing the screen uprights

Loosen upright bolts as shown to release screen uprights from the screen plate



Remove screen up rights by unhooking over the horizontal bars

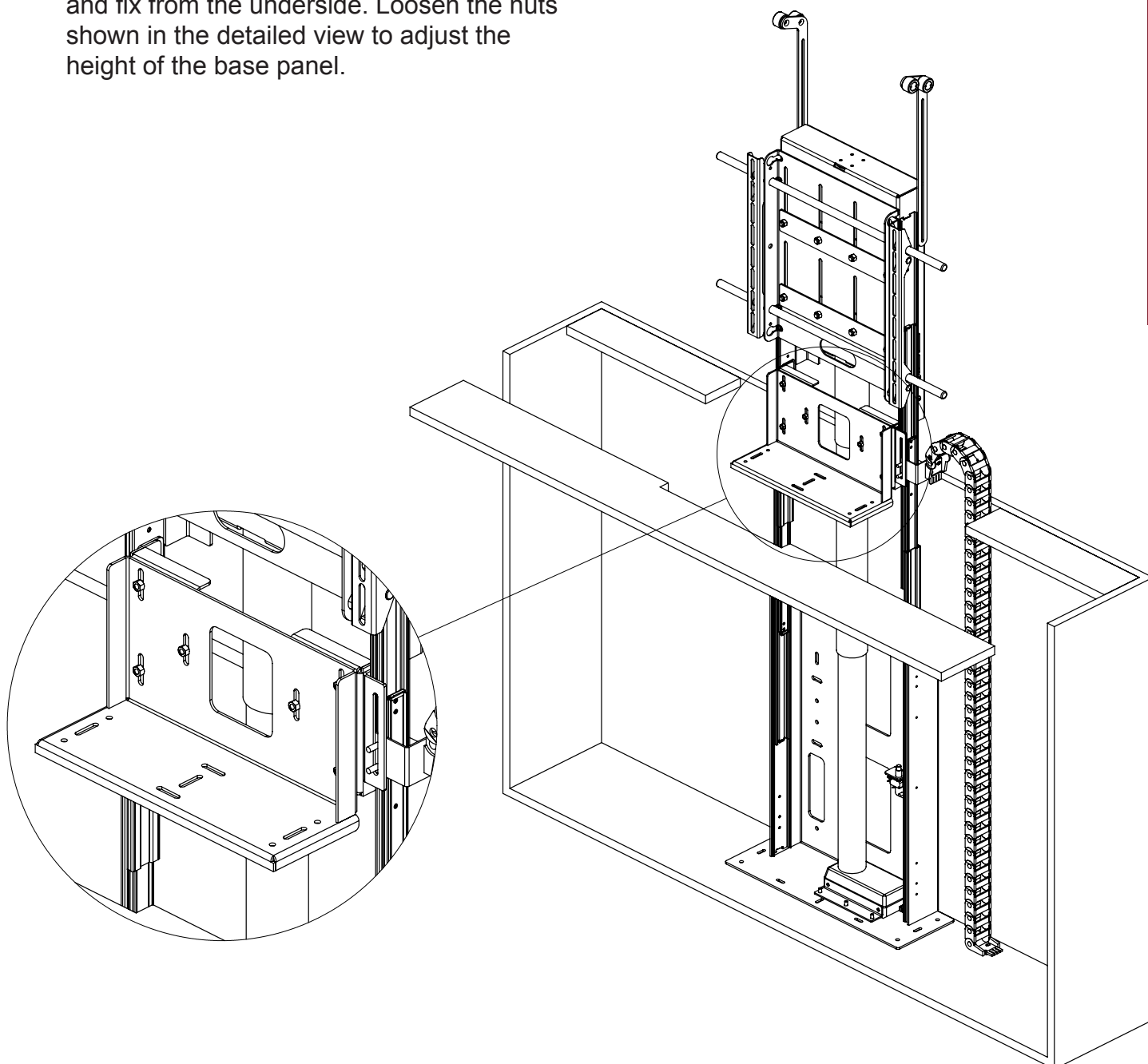


AL965 Actuator Lift



Inserting the shelf

Insert the base panel onto the shelf bracket and fix from the underside. Loosen the nuts shown in the detailed view to adjust the height of the base panel.



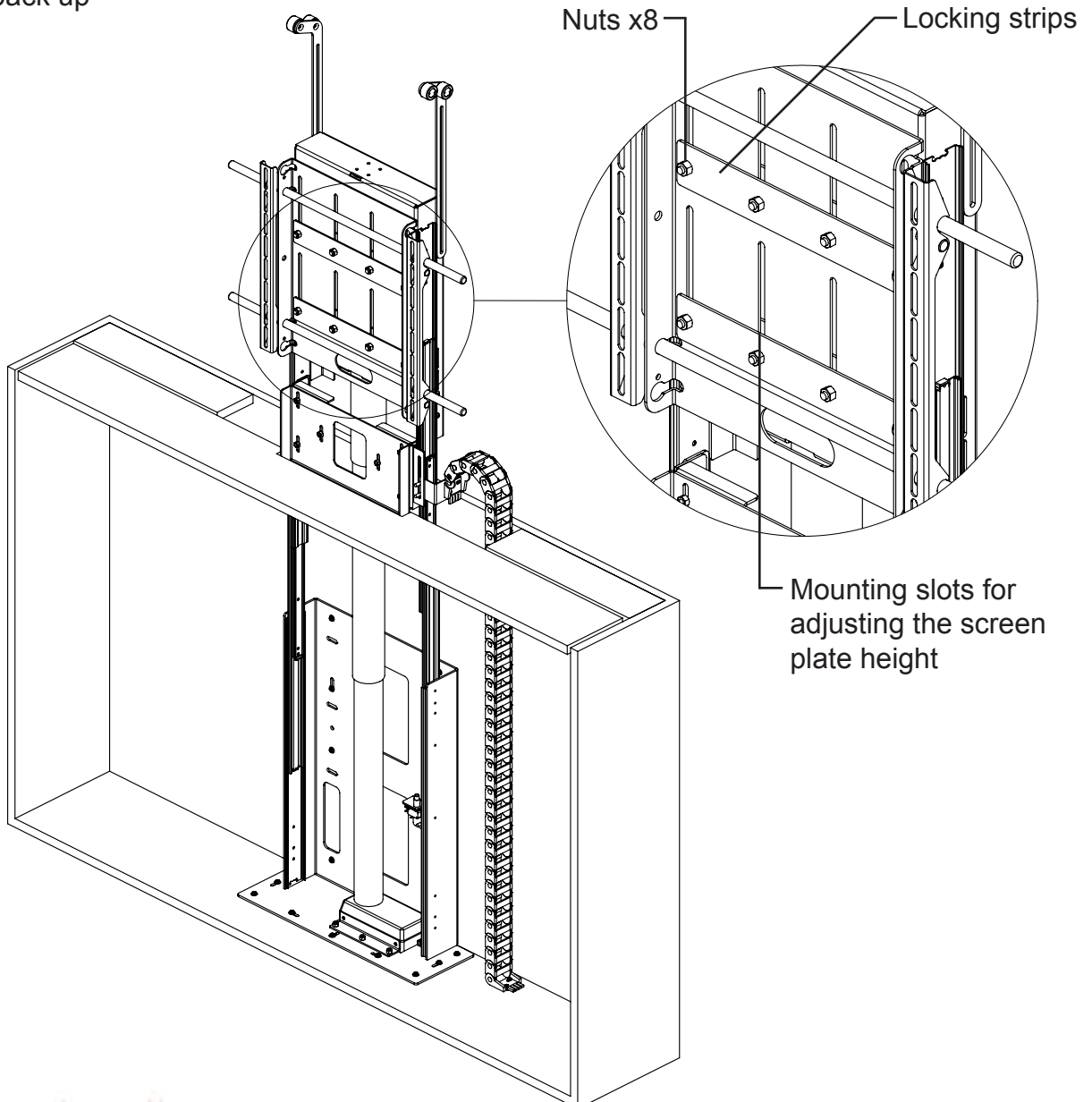
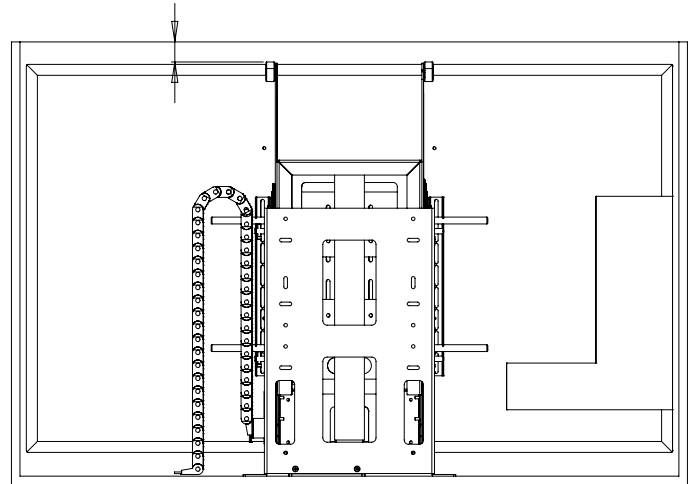
AL965 Actuator Lift



Aligning the screen

Align the top of the screen so that it's just below the underside of the lid when the mechanism is in the IN position
When the lift is fully down the screen needs to be just under the top lid

To change the height of the screen plate loosen the 4 nuts so the locking strips can run freely. Move the screen plate up or down to the desired height then tighten the nuts back up

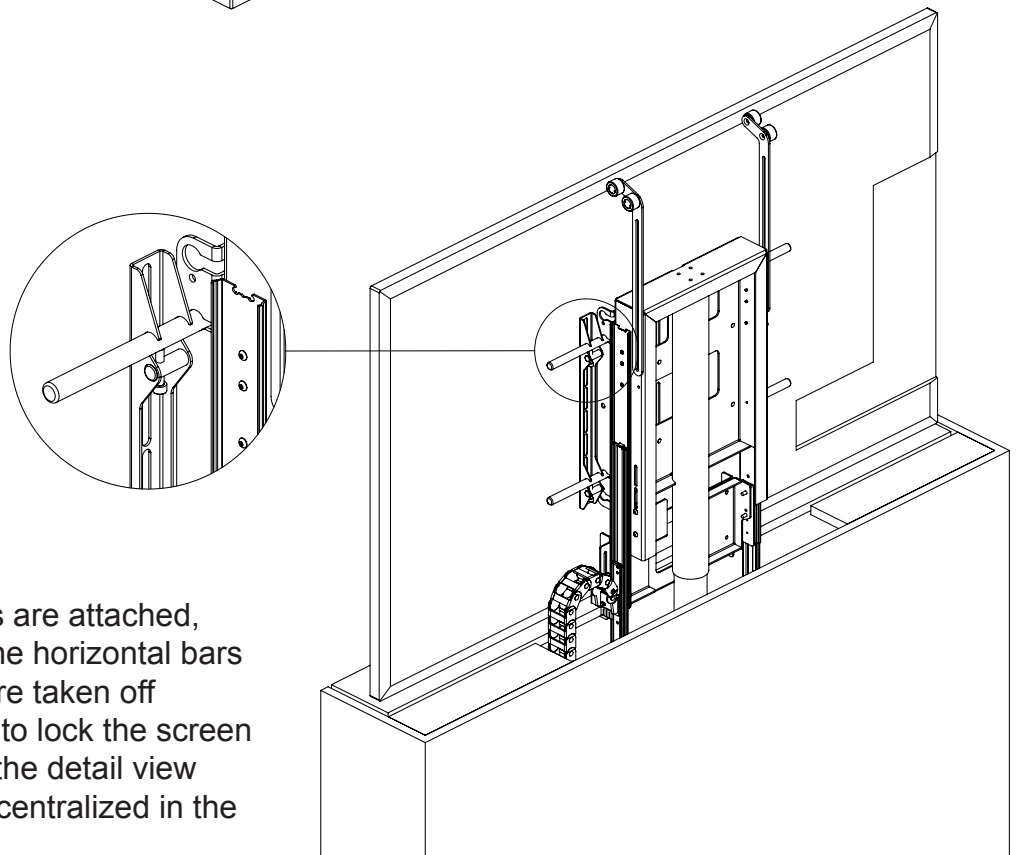
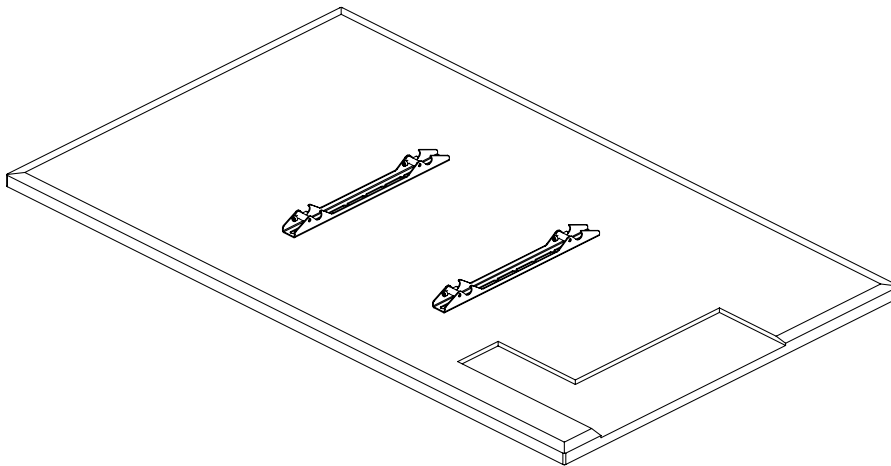


AL965 Actuator Lift



Mounting the screen

- Place the screen uprights into position on the back of the screen
- Secure into place using the range of nuts, bolts and washers provided



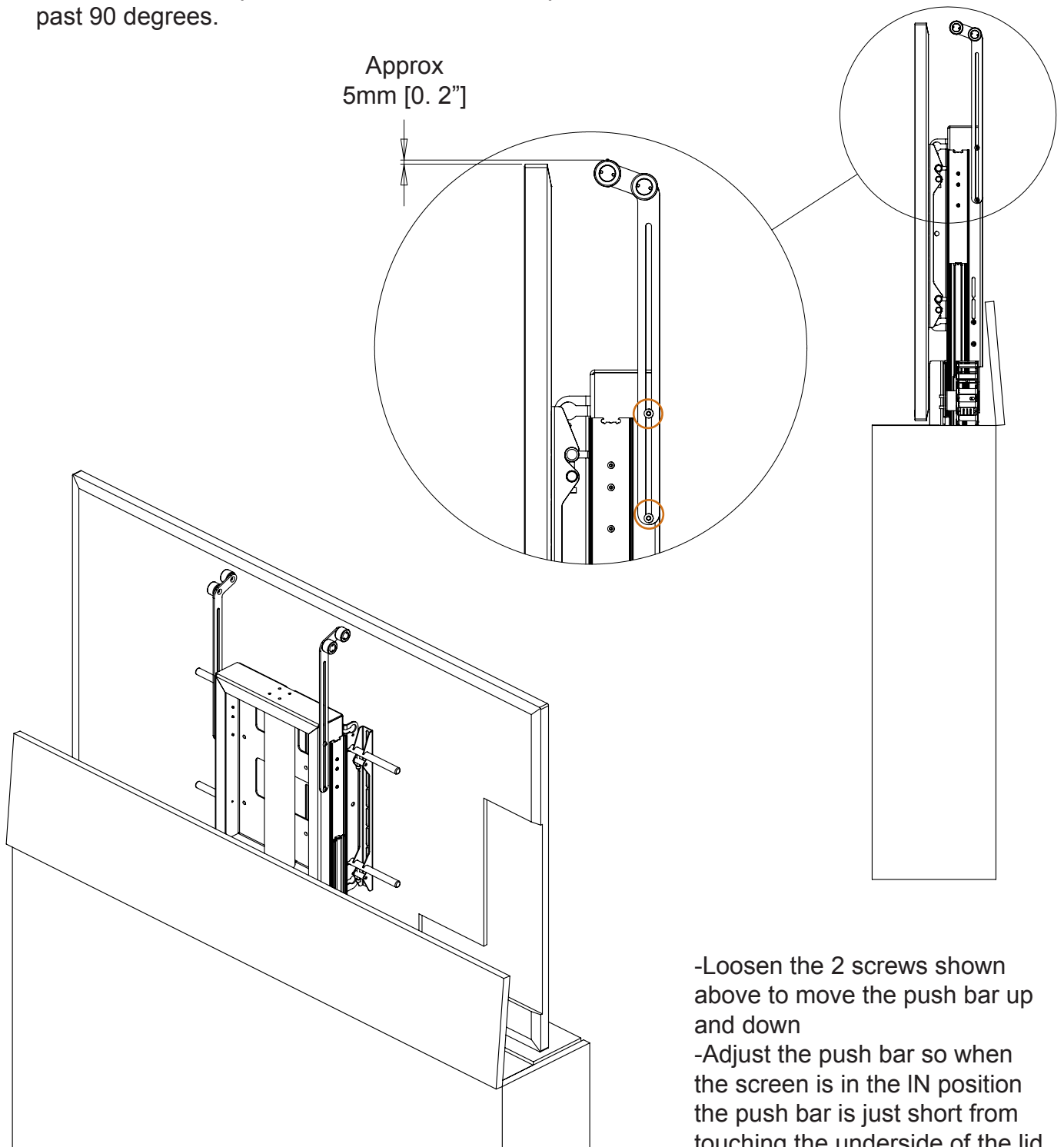
- Once the screen uprights are attached, overlap the screen over the horizontal bars the same way as they were taken off
- Tighten x4 bolts back up to lock the screen into position as shown in the detail view
- Make sure the screen is centralized in the middle of the mechanism

AL965 Actuator Lift



Adjusting the push bars

Make sure that when the mechanism opens the push bar is in contact with the flap at all times and that the flap does not all past 90 degrees.



- Loosen the 2 screws shown above to move the push bar up and down
- Adjust the push bar so when the screen is in the IN position the push bar is just short from touching the underside of the lid

AL965 Actuator Lift



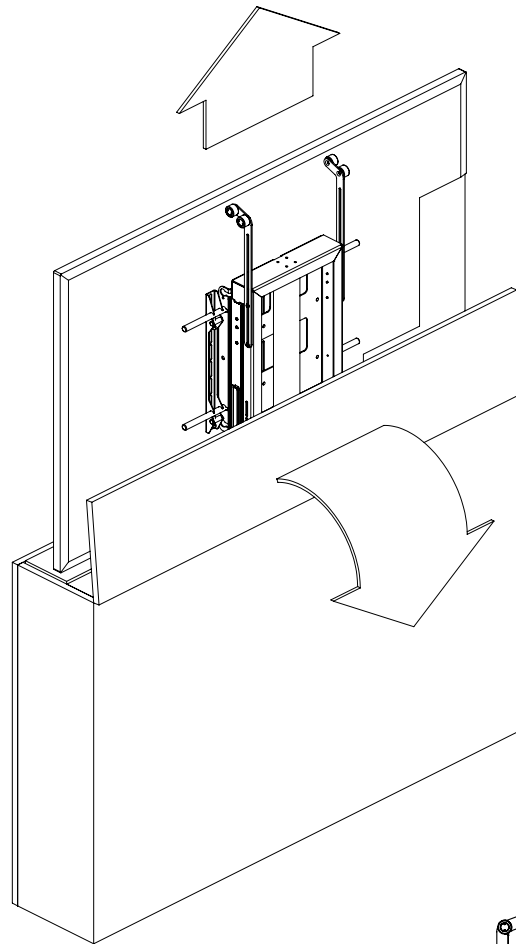
Final checks

Final movement.

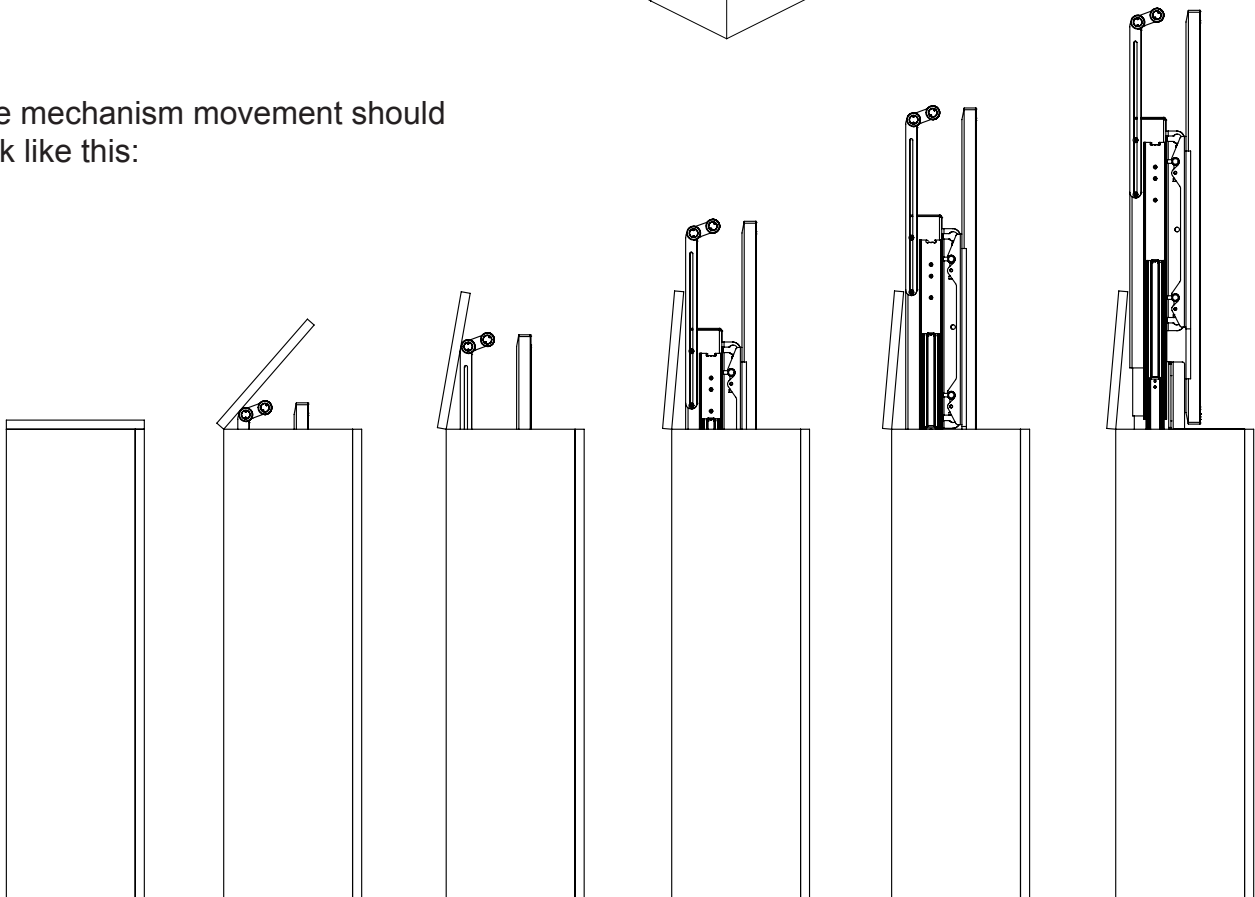
Make sure the unit runs and that the push bars hit and open the flap smoothly



- Make sure that the lid doesn't fall back over its self when the unit opens.
- Product is level and square in the cabinet
- The mechanism runs smoothly and to the stored positions



The mechanism movement should look like this:

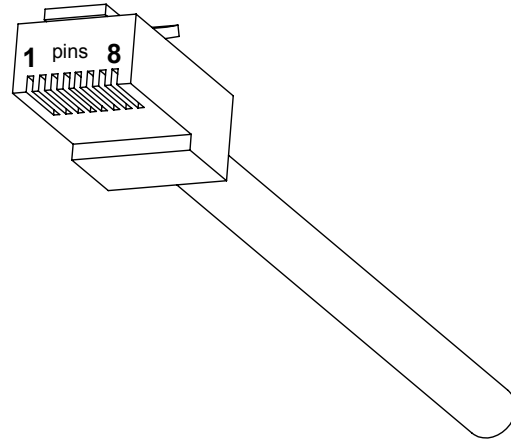


AL965 Actuator Lift



Contact Closure

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

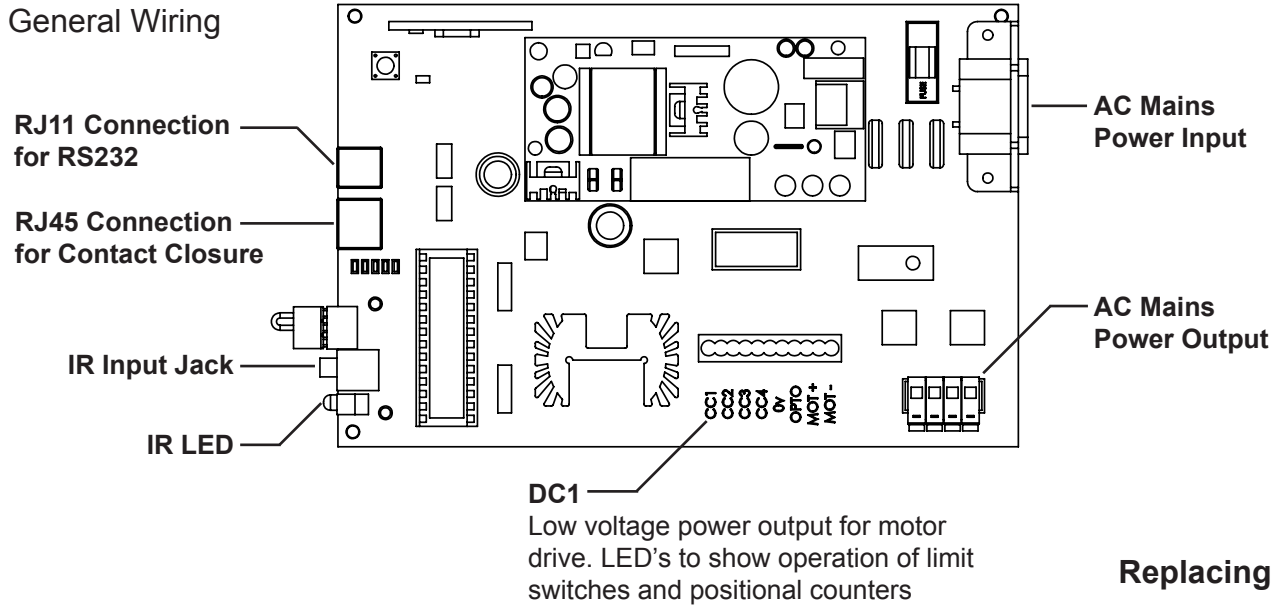


PIN	DESCRIPTION	ACTION	WIRE / CABLE		CONTACT CLOSURE LED INDICATOR
			568A	568B	
1	12V SUPPLY	12V SUPPLY - CURRENT LIMITED	W/G	W/O	
2	12V LATCH	When 12V attached, device will go OUT. When 12V removed device will go IN.	G	O	
3	GROUND	GROUND	W/O	W/G	
4		PIN 4 NOT USED	BL	BL	
5	DEVICE LATCH	Momentary short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

AL965 Actuator Lift

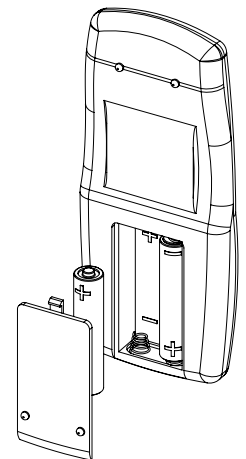
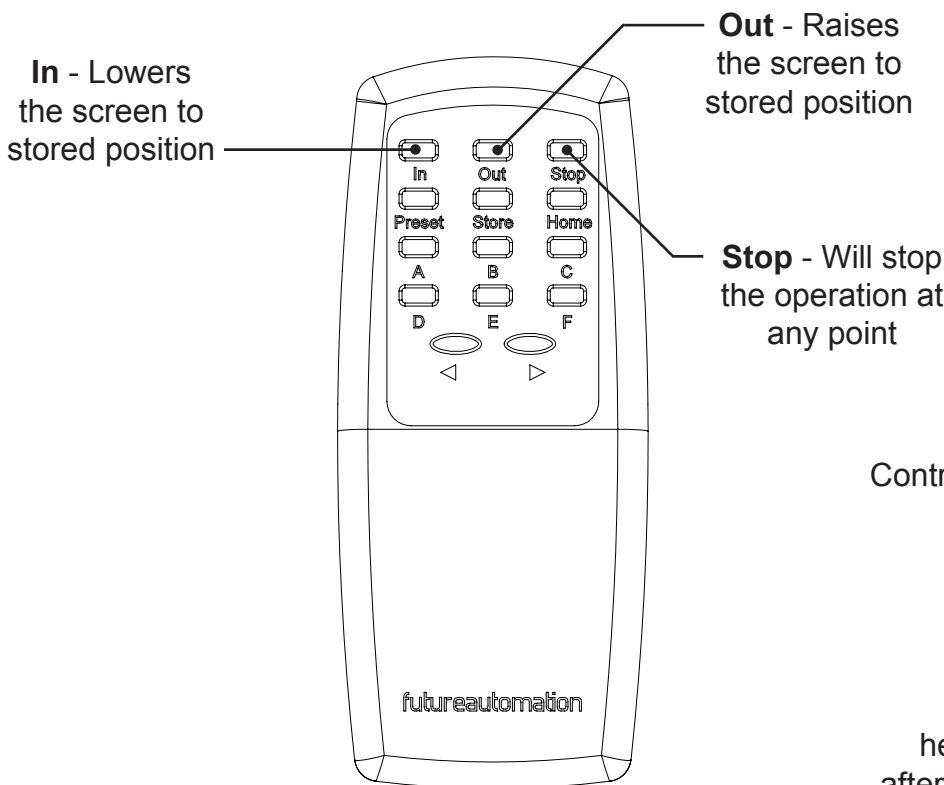


IR Controls General Wiring



Installation: IR Control

Replacing batteries



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

Storing positions

Press STORE + STORE + C to set height, current position will be stored after lift has fully lowered uninterrupted.

An interruption of this movement will cancel height setting.

Press STORE + STORE + B to clear set height.



Safety Note

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

AL965 Actuator Lift



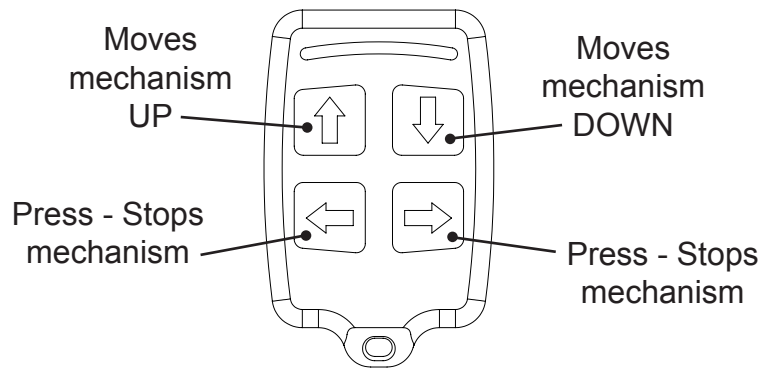
RF Controls

The RF aerial is integrated into the circuit board.



If power is cut the mechanism can only go down.

RF Remote Control



Storing positions

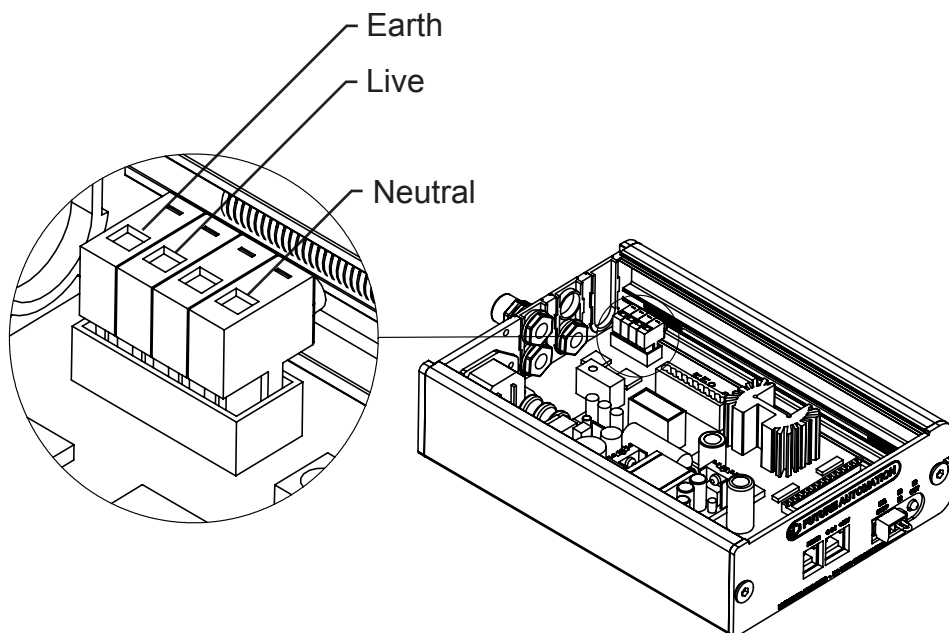
Press STORE + STORE + C to set height, current position will be stored after lift has fully lowered uninterrupted.

An interruption of this movement will cancel height setting.

Press STORE + STORE + B to clear set height.

Mechanism Output Power Supply

It is possible for the power to the screen to be switched by the control box. Use this connector to take power to the screen.



AL965 Actuator Lift



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

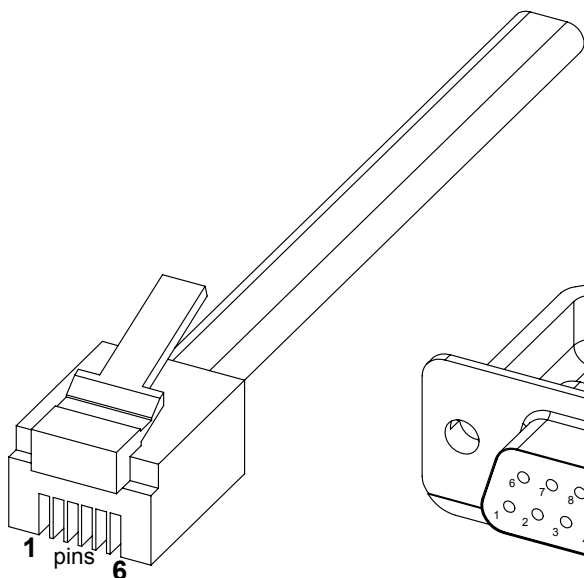
RJ25		9 PIN D
PIN 1: RX	TO	PIN 2: TX
PIN 6: TX	TO	PIN 3: RX
PIN 3: GROUND	TO	PIN 5: GROUND
PIN 4: GROUND	TO	PIN 5: GROUND



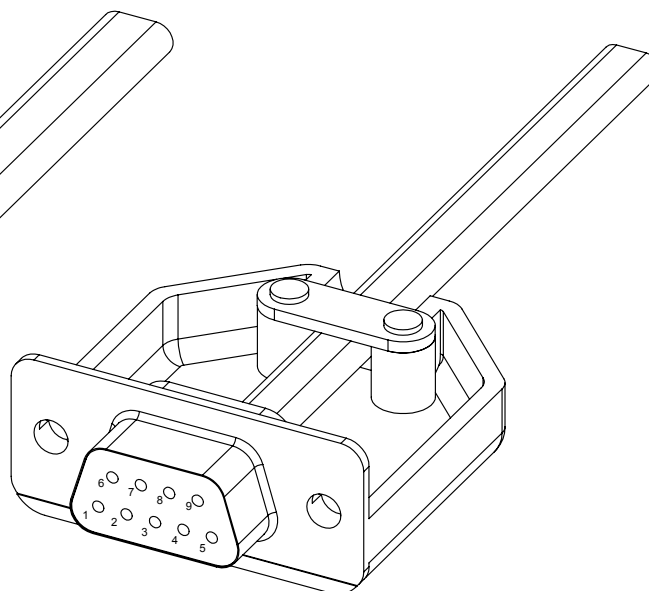
IMPORTANT

Ensure protocol is entered exactly as written.

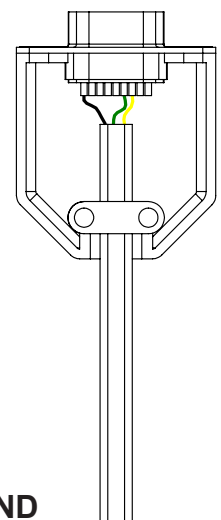
Protocol	Action
fa_in Carriage Return (Enter ↵)	Device IN
fa_out Carriage Return (Enter ↵)	Device OUT
fa_stop Carriage Return (Enter ↵)	Device STOP (At any position)



Pin 1: RX
Pin 6 : TX
Pin 3 & 4: GROUND



Pin 2: TX
Pin 3: RX
Pin 5: GROUND



AL965 Actuator Lift



Actuator lift 965 - Trouble shooting guide

Having problems? - Check the following:

1. Are all the connections correct?
2. Is the mechanism being operated correctly?

If the mechanism does not operate correctly, check the items listed in the table below. Should the problem persist, there may be a malfunction. If this is the case, disconnect the mains power immediately and contact your installer

Symptom	Cause	Remedy	Page
Lift not working	IR receiver not plugged in	Connect IR receiver into 'IR IN' on interface	15
	Remote control or batteries faulty	Replace batteries or remote	15
	Control unit faulty	Contact manufacture	
Lid falls back when open	Incorrect cabinet dimensions	Check cabinet dimensions	13
Rubbing noise when opening	Push bars not at equal distance from flap	Re-position push bar	12
Unable to store positions	Remote control faulty or batteries	Replace batteries or remote	15
	Procedure not followed correctly	Refer to instructions	15

AL965 Actuator Lift



A general technical overview of the AL965 actuator lift

	AL965
Product Dimensions (W,D,H When Closed & Fully Assembled)	740x230x800mm [29.1x9.1x31.5"]
Weight (Kg)	20Kg [44.1lb]
Power Consumption	Max 200W
Power Consumption On Standby	3W
Lifting Capacity (Kg)	50Kg [110.2lb]
Standard Colour	Black
Drop Distance	965mm [38"]
Max Television Size (W,H)	1750x965mm [68.9x38"]
Control	IR Remote, RF Remote & Contact Closure
Power Supply	240V or 110V
Control Of 3rd Party Product	No
Output Power Supply	Yes
Control Box Size (W,D,H)	210x150x50mm [8.3x5.9x2"]
Shipping Details	
Dimensions (W,D,H)	1100x380x860mm [43.3x15x33.9"]
Weight (Kg)	45Kg [99.2lb]

Notes...



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