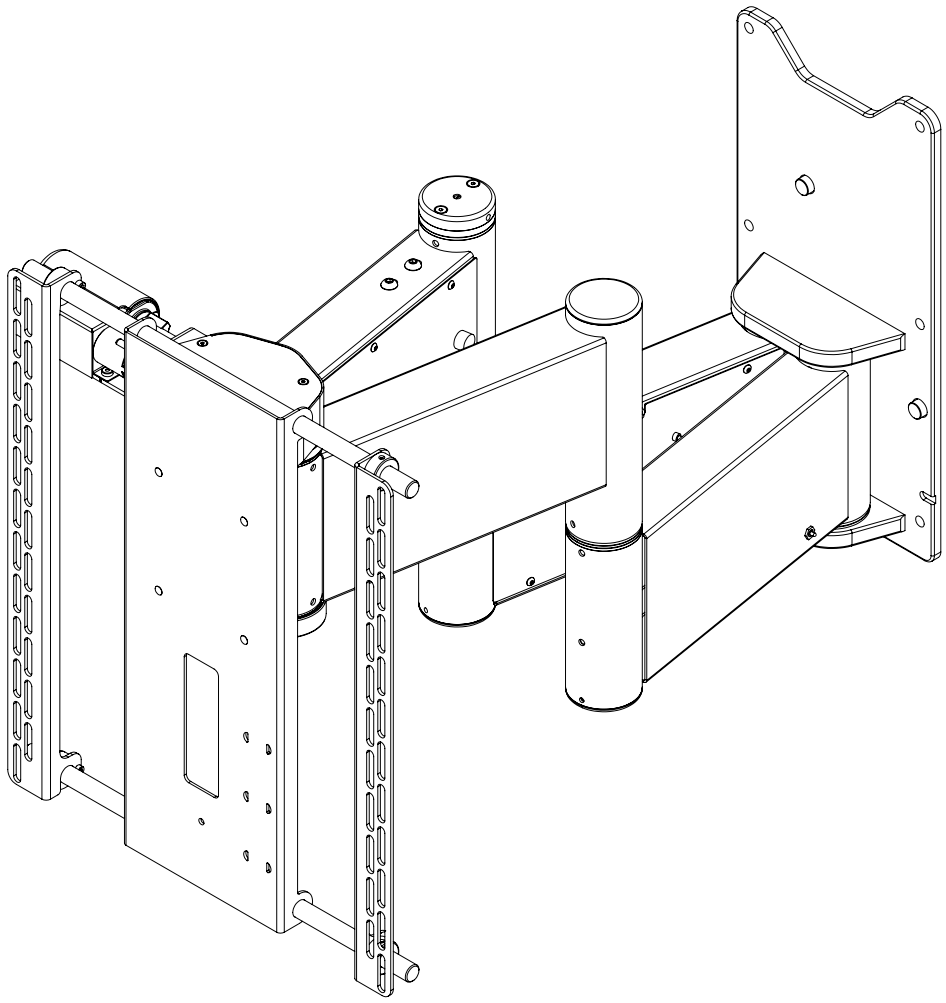
future automation

QA2 / QA2-60

TWO WAY ARTICULATED TV WALL MOUNT 42” - 80”



INSTALLATION
INSTRUCTIONS

ISSUE **007**

SAFETY
DISCLAIMER

IMPORTANT SAFETY INSTRUCTIONS BELOW

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 four times the weight of the component and any additional apparatus mounted to the component.

WARNING: Do not exceed the weight capacity for this product as listed below. 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: Risk of death or serious injury may occur when children climb on audio and/or video equipment or furniture. A remote control or toys placed on the furnishing may encourage a child to climb on the furnishing and as a result the furnishing may tip over on to the child.

WARNING: Risk of death or serious injury may occur. Relocating audio and/or video equipment to furniture not specifically designed to support audio and/or video equipment may result in death or serious injury due to the furnishing collapsing or over turning onto a child or adult.

WARNING – RISK OF INJURY!

Only for use with equipment weighing
QA2 - **99LBS (45KG) OR LESS**.
QA2-60 - **176LBS (80KG) OR LESS**

Use with heavier projectors/equipment may lead to instability causing tip over or failure resulting in death or serious injury.

Bracket Suitable for Residential and Commercial Use.

ADDITIONAL WARNINGS:

1. Keep all documentation/instructions after fitting.
2. Read all technical instructions fully before installation and use. It is the installer's responsibility to ensure that all documentation is passed on to the end user and read fully before operation.
3. Do not use near water or outdoors unless the product has been specifically designed to do so.
4. Protect any cables or cords being used near this bracket from being walked on or pinched to prevent damage and risk of injury.
5. Use this product only for its intended purpose as described in the product instructions and only use attachments/ accessories specified by the manufacturer.
6. Do not operate the product if it 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. Contact the original installer/manufacturer to arrange repair or return.

WARNING - To reduce the risk of burns, fire, electric shock, or injury to persons:

1. Clean only with a dry cloth and always unplug any electrical items being used in conjunction with this product before cleaning.

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.

PRODUCT WARRANTY
& RISK ASSESSMENT

WARRANTY INFORMATION

WARNING - The warranty offered for this product shall be annulled if the product is used improperly or in a way that is in breach of our Terms of Service.

Future Automation provides warranty for the mechanism you purchased for the period of **24 months** from the date of purchase, provided that it isn't used for unintended purposes.

Under the warranty, Future Automation aims to either solve the issue remotely (via telephone or email support) or if the mechanism requires a part, arrange a visit to your premises by a Future Automation approved engineer or send replacement items where appropriate.

Warranty repairs will be carried out as quickly as possible, but subject to parts availability. This warranty period is respectively extended for the period of a repair.

A malfunctioning product must be cleaned and placed into suitable packaging to protect against transit damage before organising delivery to a repair workshop.

All the complaints about defects must be submitted to the vendor/installer that sold this product, rather than directly to the manufacturer.

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

The warranty does not cover the following:

- Damages resulting from improper product use or maintenance.
- Repairs carried out by unauthorized persons.
- Natural wear and tear during operation.
- Damages caused by the buyer.
- Accidental damages caused by a customer or damages caused as a result of careless attitude or usage, or damages caused by natural disasters (natural phenomena).
- Any electrical, or other environmental work external to your Future Automation mechanism including power cuts, surges etc.
- 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.

A separate Safety and Servicing Information document is provided with these instructions (additional copies can be found at www.futureautomation.co.uk/safety), and this document **MUST** be filled out by the approved Future Automation Dealer who is installing the product. This Warranty Sheet must be held by the end user for the duration of the products life and will be referred to during servicing or warranty queries.

The Safety and Servicing Information document also contains two Service History Forms that must be filled in by the approved Future Automation dealer who is performing the first required yearly service of this product.

One copy of the Service History Form must be held by the customer (along with the Warranty Sheet) and a duplicate copy must be held by the approved Future Automation dealer that performed the service. Missing and/or mismatching documents may delay or invalidate warranty claims.

Additional Service History Forms can be found on the Future Automation website for further yearly services.

RISK ASSESSMENT INFORMATION

It is the installer's responsibility to perform a risk assessment of installed products. Future Automation can provide guidelines to installers/dealer about what should be included in a risk assessment, but due to the individual nuances of each location/site, Future Automation cannot provide a full list of areas to risk assess.

For full risk assessment and safety information please view our Safety and Servicing guide available at www.futureautomation.net/safety

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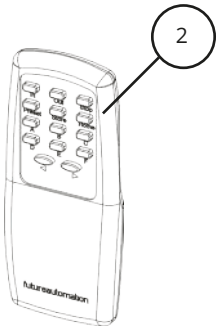
- 1.1 - SCREEN MOUNT PLATE
- 1.2 - WALL MOUNT PLATE
- 1.3 - MECHANISM COVER
- 1.4 - LINK ARM
- 1.5 - WALL BUFFER
- 1.6 - LOCK BARREL

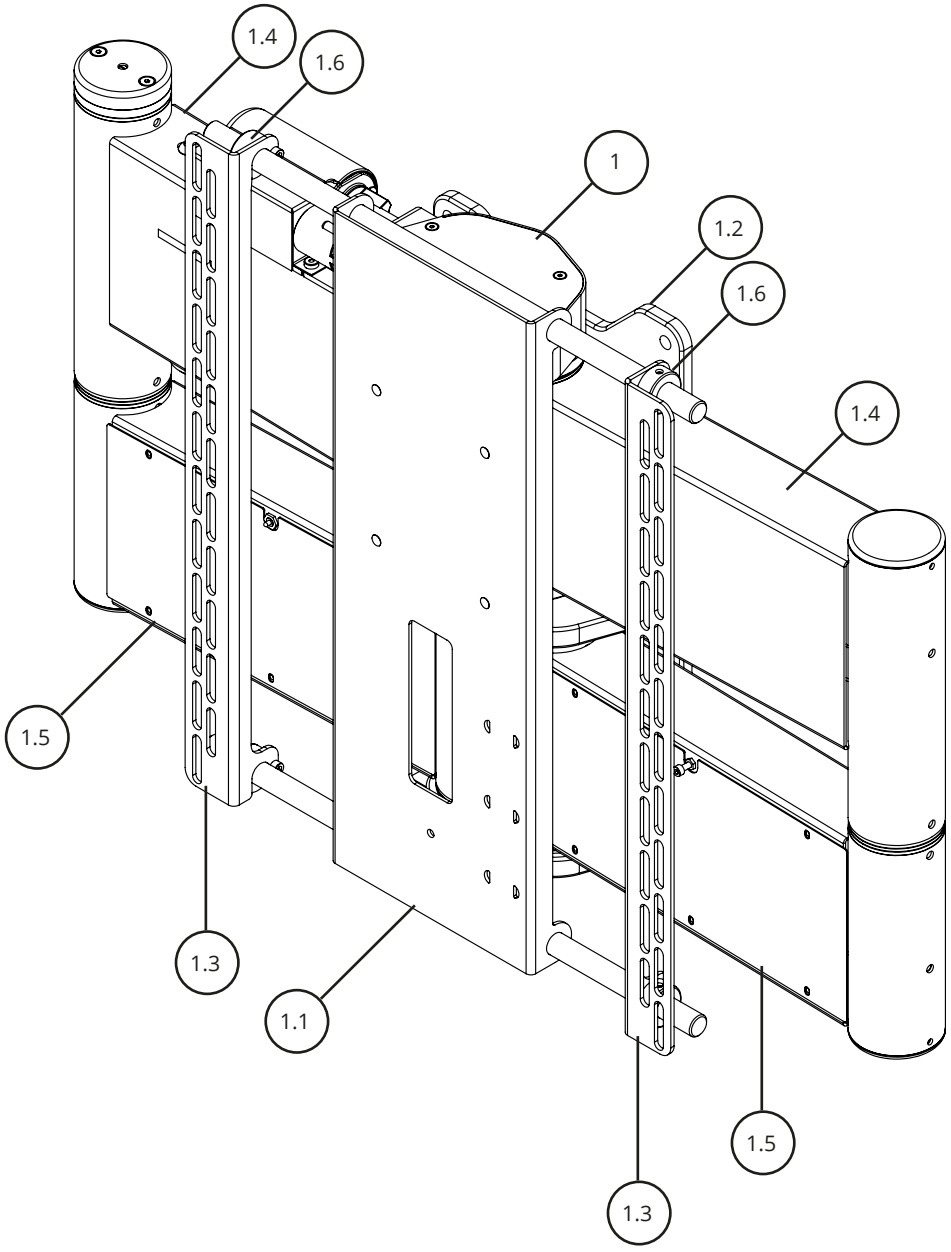
2 - QA2 CONTROL BOARD (SIZE & STYLE MAY VARY)

ITEMS NOT SHOWN ON PAGE

3 - QA2 ACCESSORY PACK

- 3.1 - X2 AAA BATTERIES
- 3.2 - MAINS POWER LEAD
- 3.3 - INFRA-REF CONTROL LEAD
- 3.4 - CAT5 LEAD WITH RJ45 CONNECTOR
- 3.5 - SCREEN FIXINGS PACK (MULTI-PACK OF NUTS, BOLTS AND WASHERS)

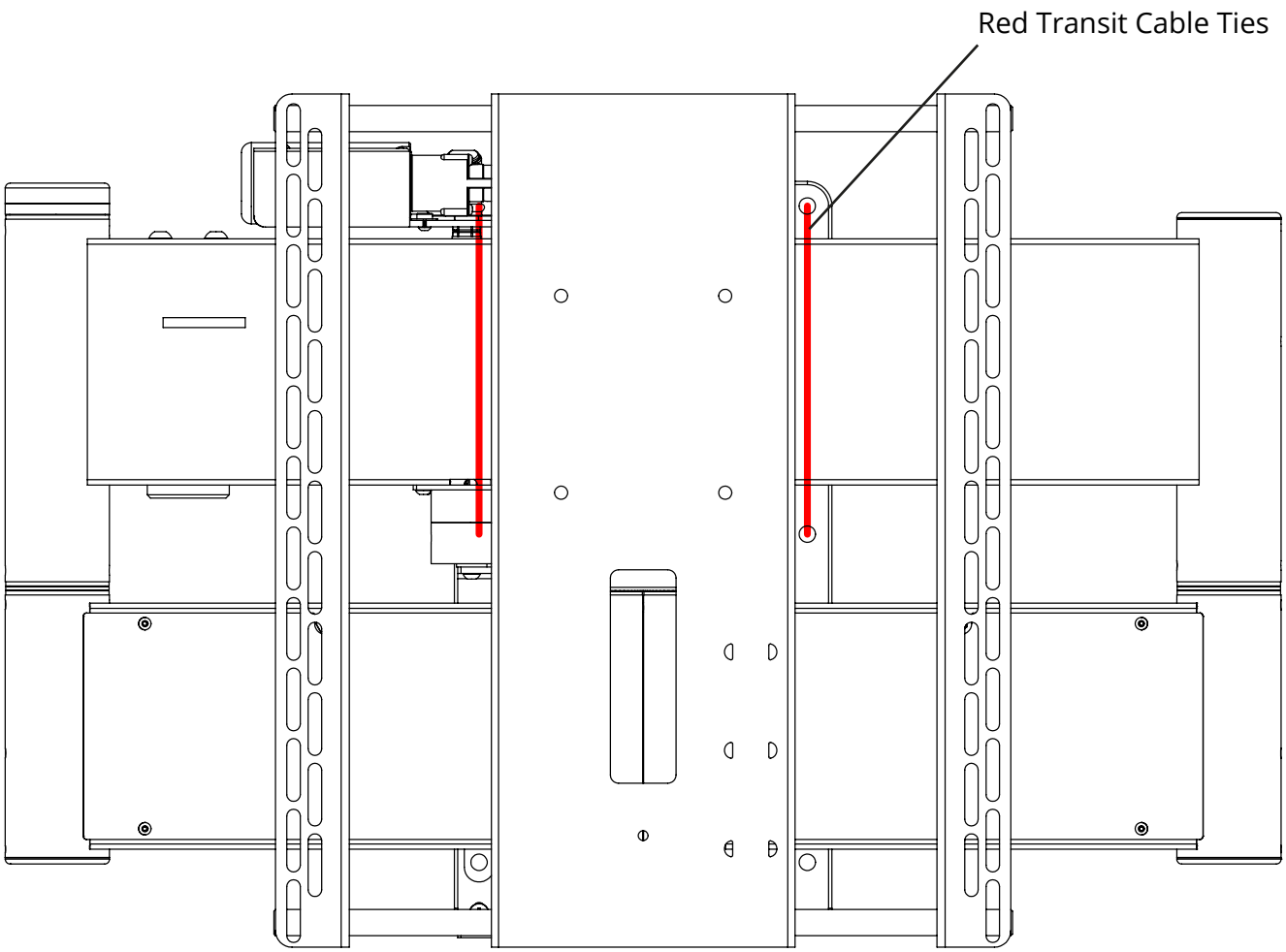




INITIAL
TESTING

Before installing of the QA2 mechanism, the following should be checked;

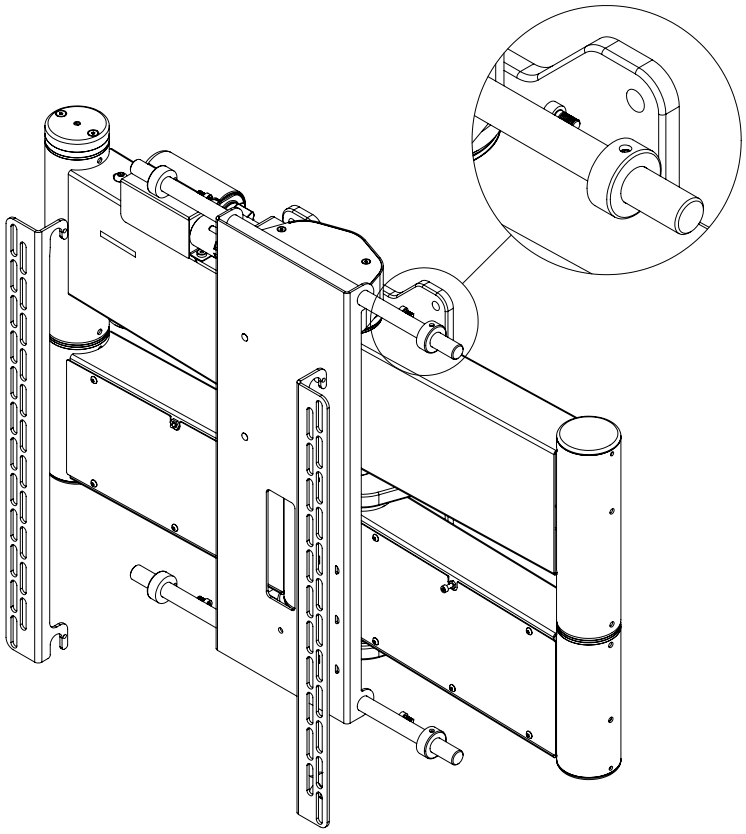
- There is no damage to any part of the QA2 mechanism, control board, or wiring.
- All internal and external mechanism wiring is secure.
- The mechanism is in the fully CLOSED position.
- The mechanism operates correctly. This can be tested by moving the mechanism between the CLOSED and OPEN positions using the IR remote (Refer to page 14 for operating instructions)



If your screen is not a VESA compatible, then a custom adapter will need to be added to the QA2 bracket to suit your screen. Further instructions relating to any custom mount will be included with the custom adapter.

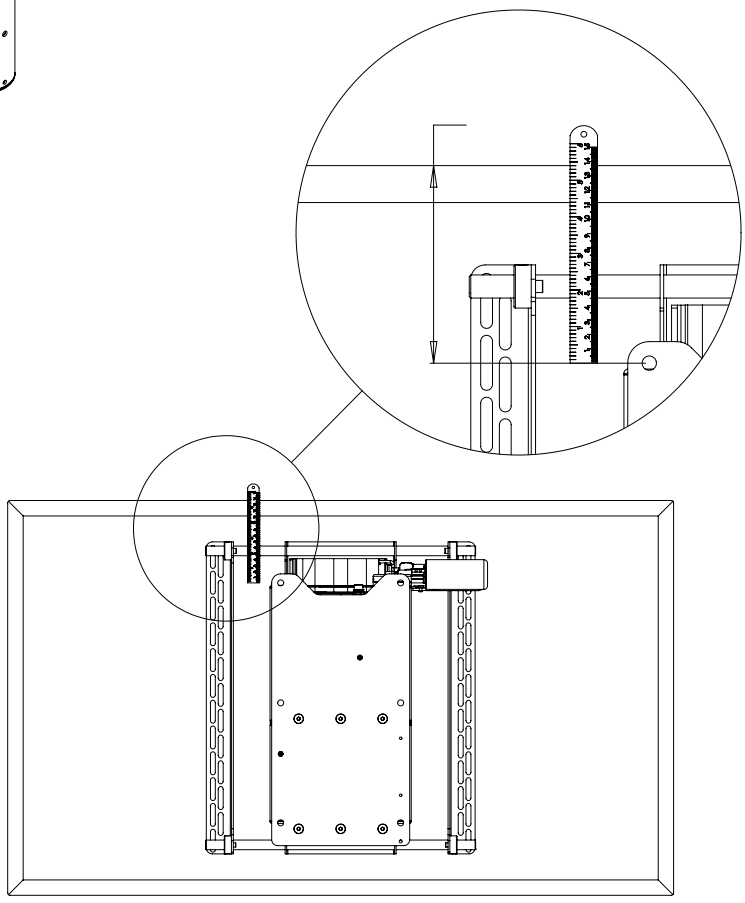
When fitting the screen to the mechanism, make sure that the center of any adapter plate is in line with the center hole on the mechanism.

VERTICAL HEIGHT
ADJUSTMENT



1

First release the screen uprights by removing the bolt on the upright restraints shown in the detail view (left).



2

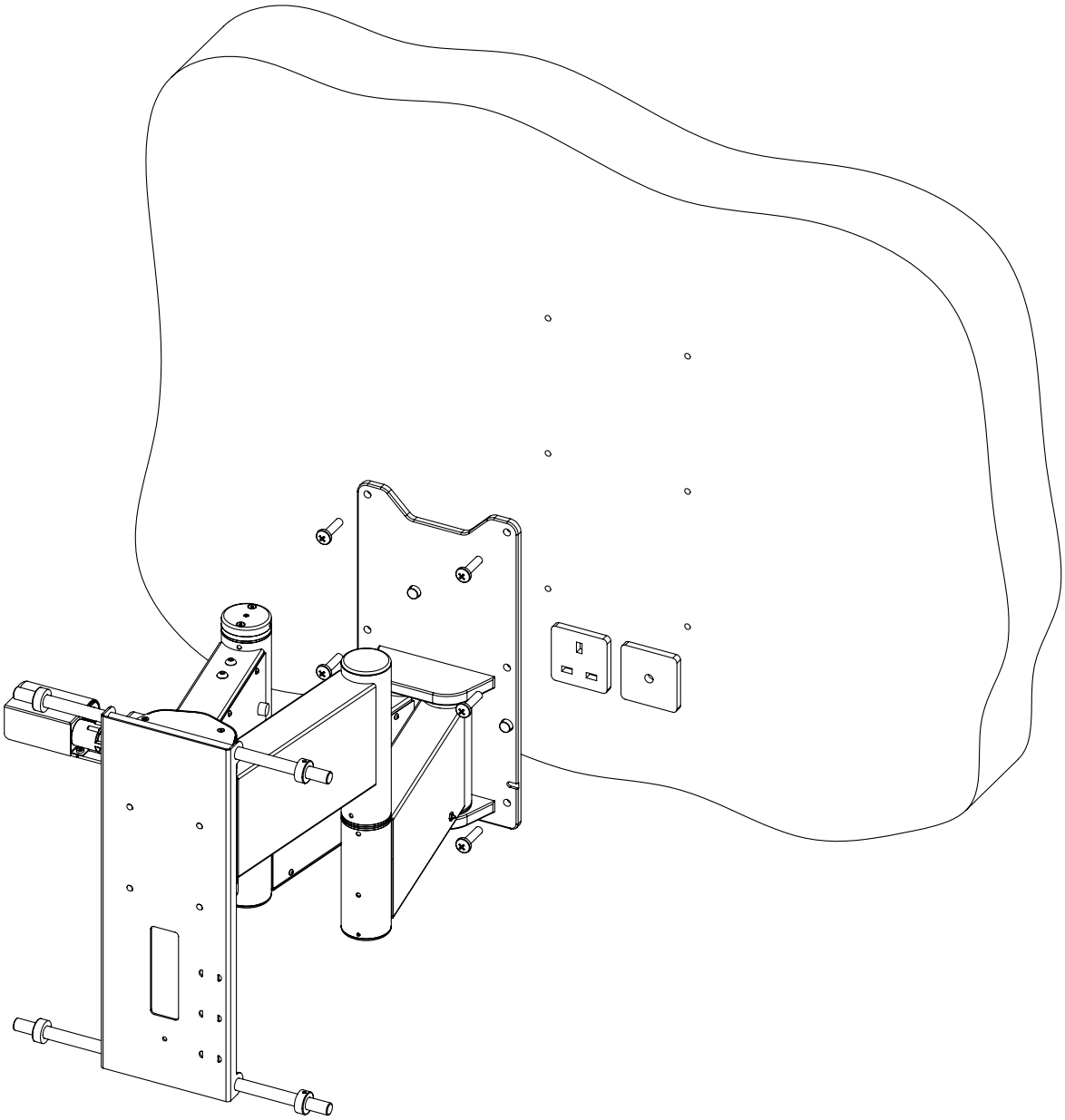
Align the uprights on the rear of the screen and measure down to the wall plate fixing holes so mounting height can be determined on the wall.

Remove screen from the mount before attaching the mechanism to the wall

FIXING THE MECHANISM
TO THE WALL

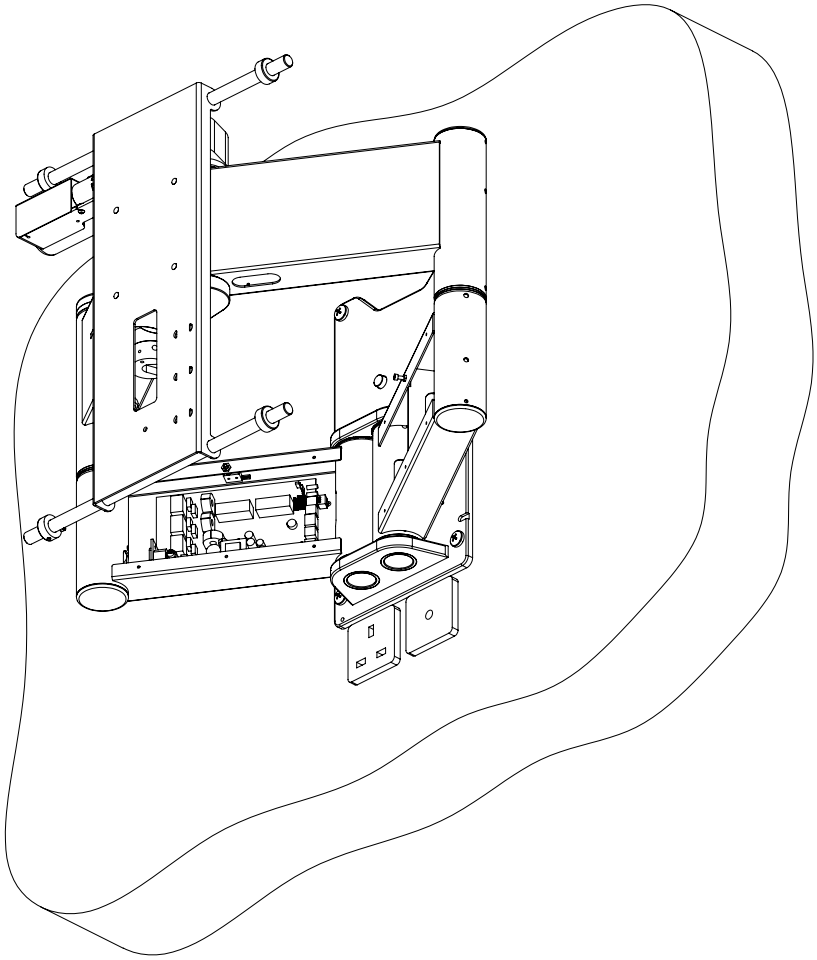
Once you have decided on the location of your screen you can fix the wall plate to the wall.

- Fix through one of the top holes first.
- Using the wall plate as a template, mark the other holes before drilling into the wall.
- Make sure a spirit level is used at all times to ensure mechanism remains level.
- Make sure the wall which the QA2 is being mounted is structurally suitable.
- Minimum 2 person install step.



It is the installers responsibility to choose the appropriate fixings when attaching to the wall and to make sure the mechanism is secure and safe.

SIDE PANEL
PANEL REMOVAL

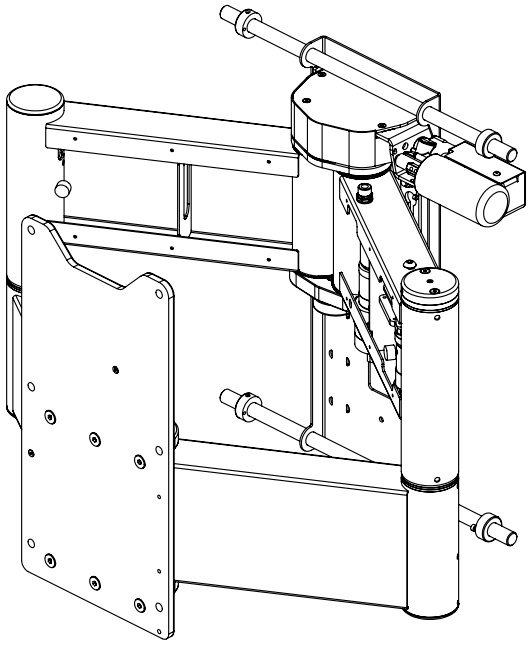


1

Power the mechanism half way out so all the arm cover panels are accessible.

2

Remove the bolts and 4 cover panels so the interiors of the arms are accessible.



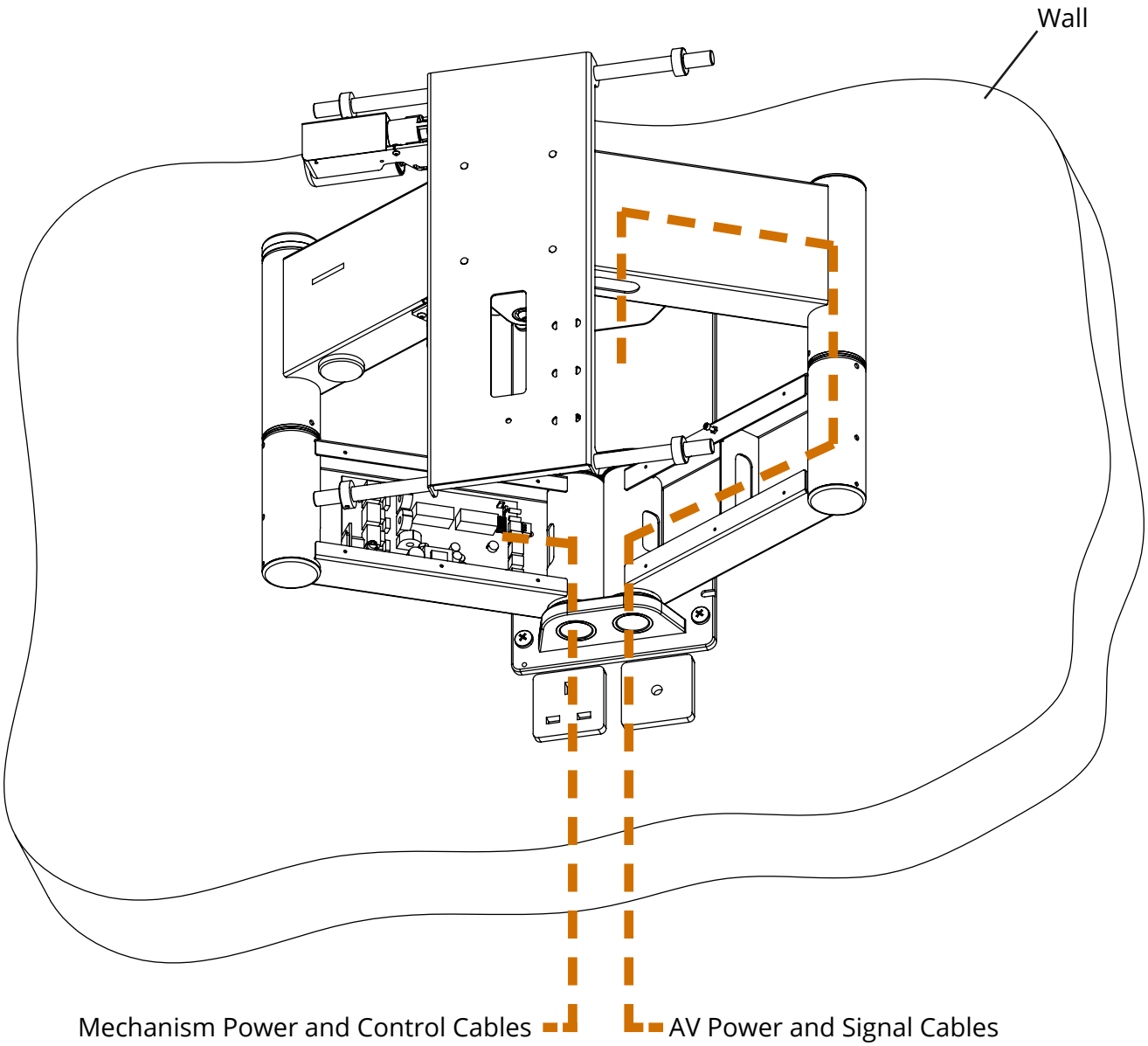
CABLE
MANAGEMENT

1

Feed the screen, speaker and signal cables though the bottom of the mechanism and then out into the lower arm, then up the elbow tube and out into the upper arm. Then out the lower face of the upper arm and through the center of the screen plate ready to connect to the screen.

2

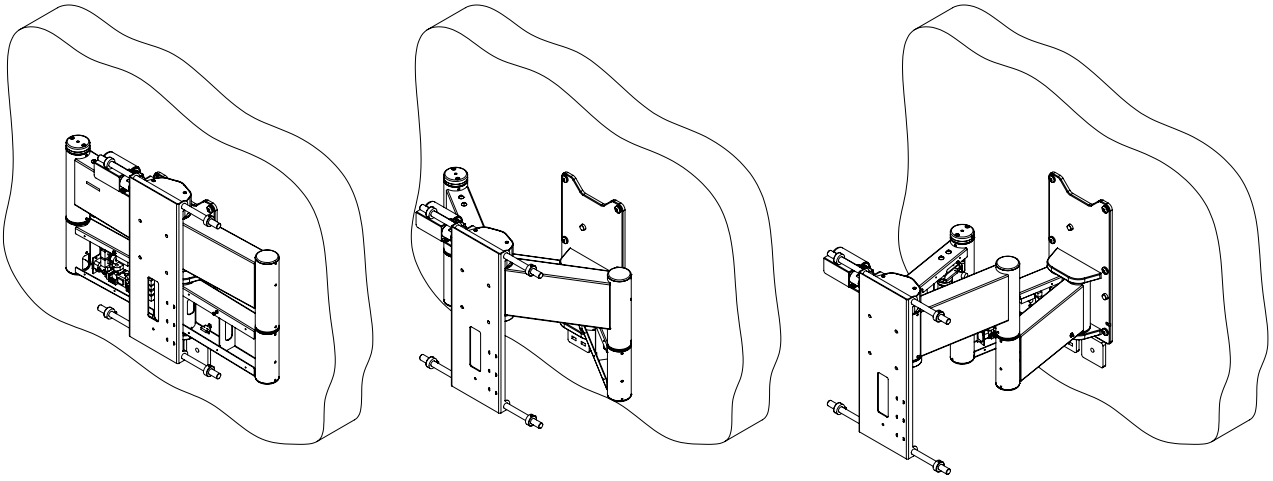
Feed the mechanism power and IR cable through the other bottom arm as shown and connect to control board.



MECHANISM TESTING &
COVER PLATE REPLACEMENT

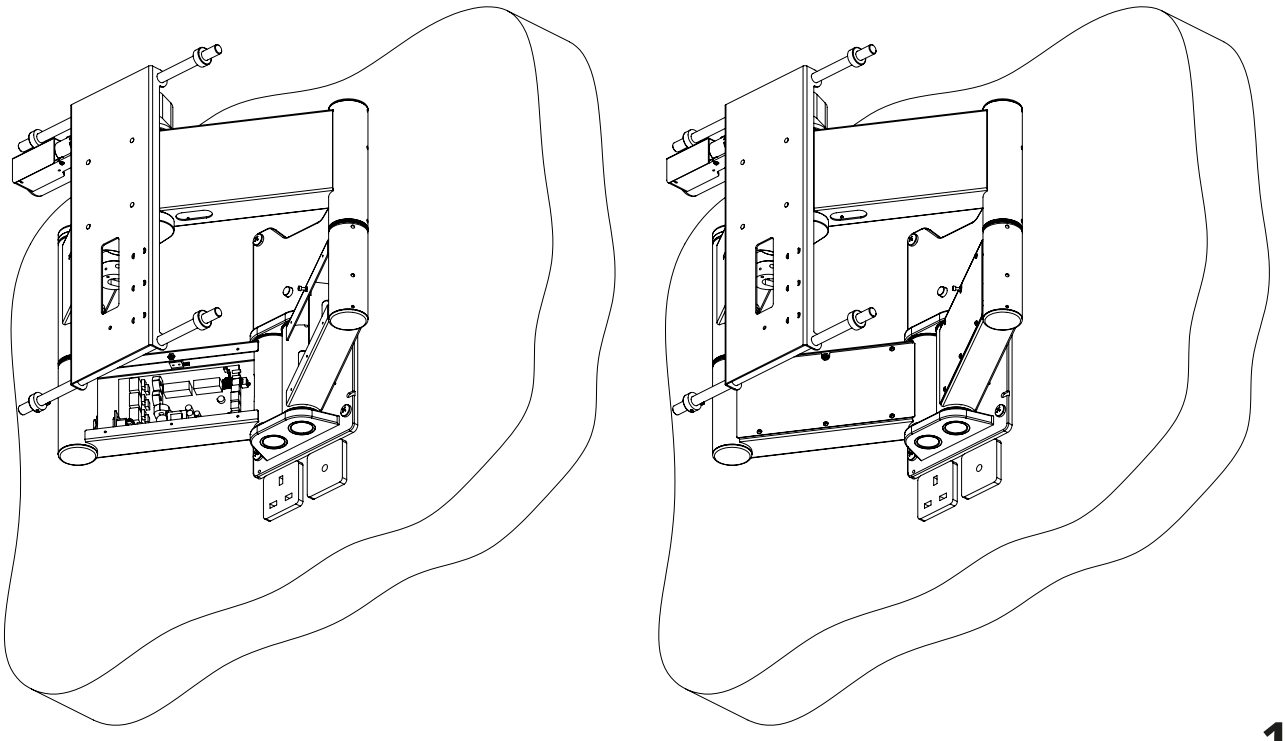
1

This is a good point to test the mechanism and make sure it's working properly. Make sure all cables are restrained/cable tied in the arms and have enough slack for movement.



2

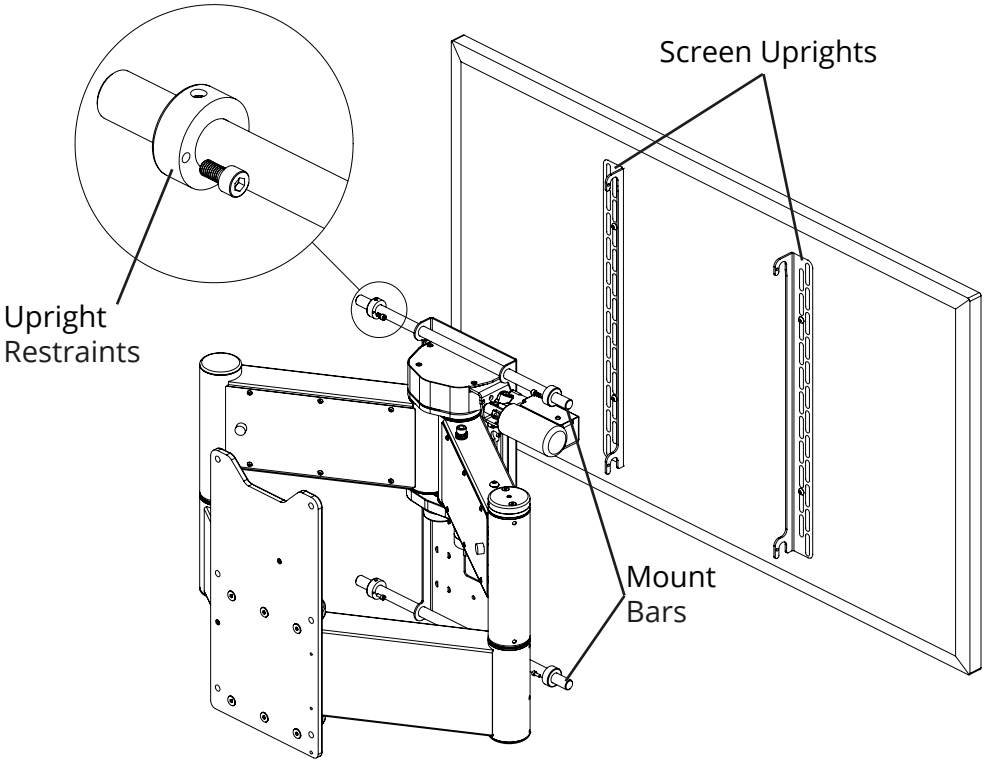
Finally fix all the arm panel covers back on.



SCREEN
MOUNTING

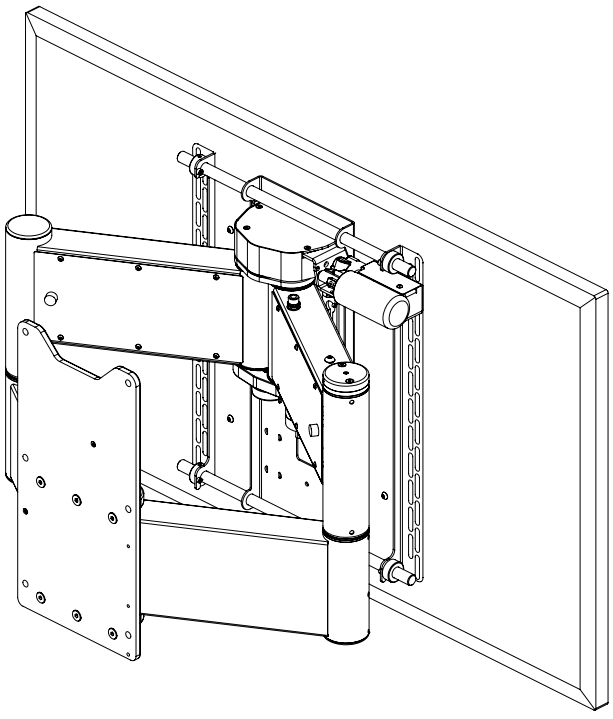
1

Hook screen uprights over Mount Bars



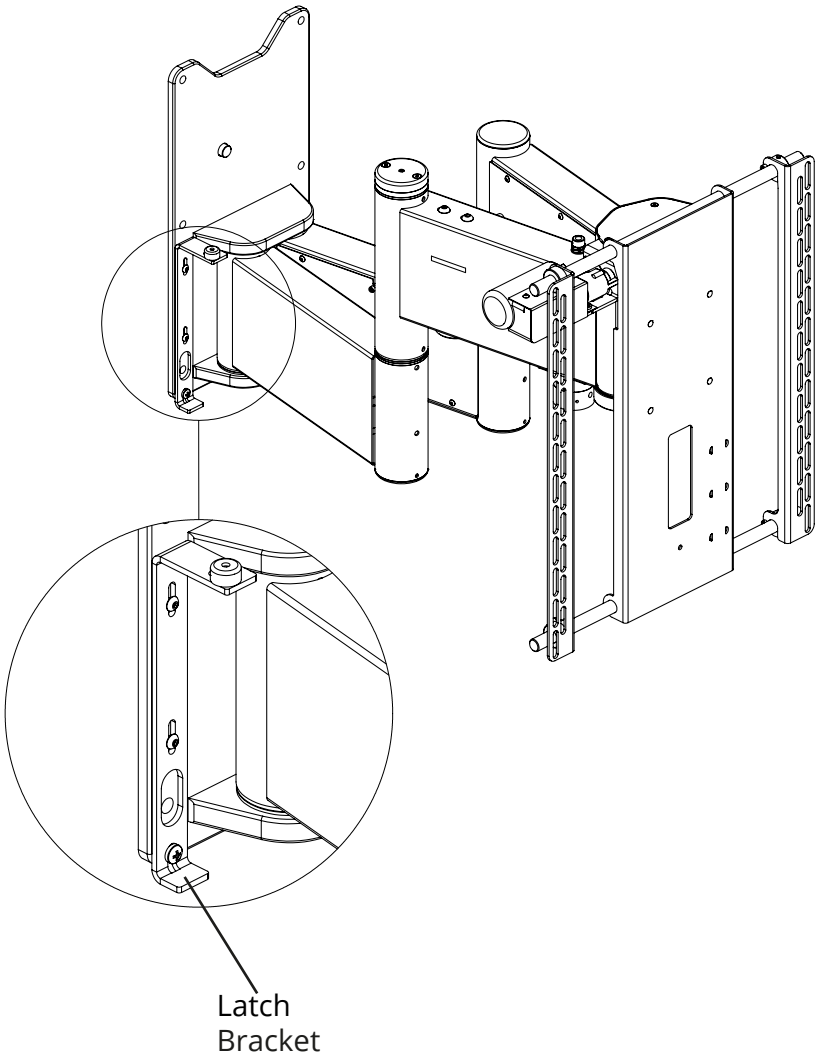
2

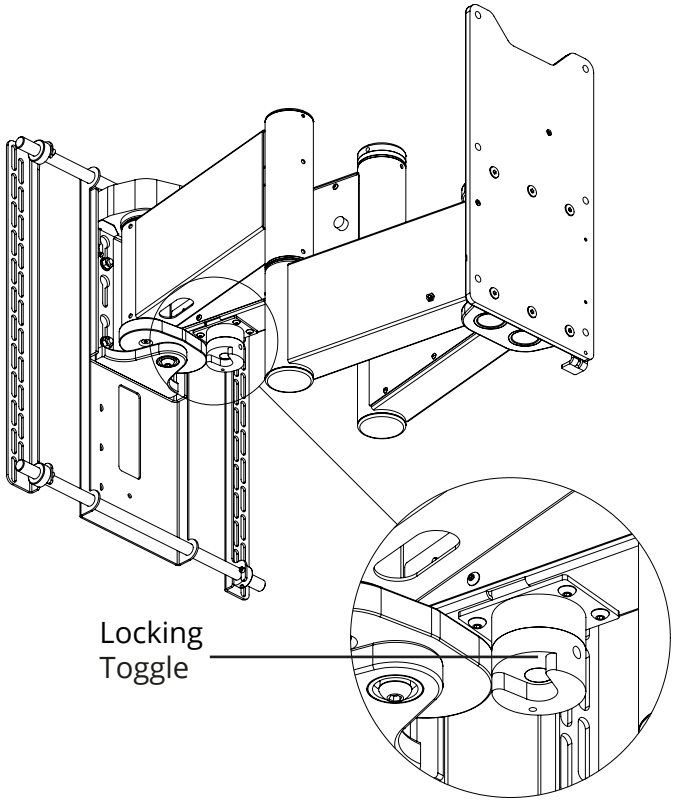
Secure Upright Restraints using included fixings



MARINE
LOCK

An optional marine lock is available which locks the mechanism in the IN position against the wall, making it suitable for indoor marine installations.



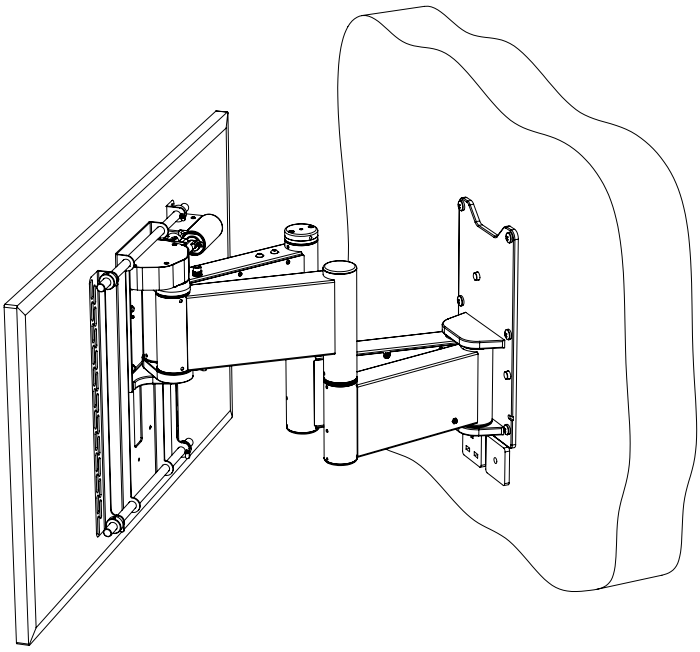


PRODUCT CODES:
QA2 M
QA2 60 M

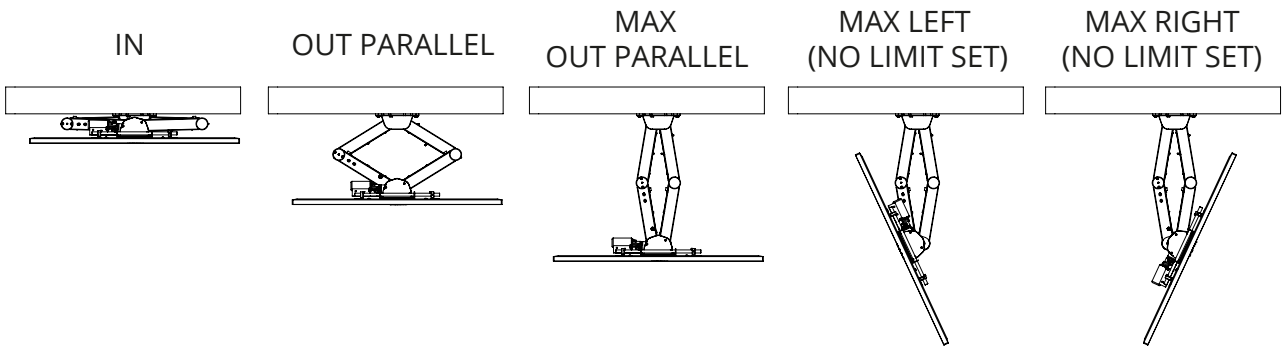
STORING MECHANISM
POSITIONS

Before storing new mechanism positions it is important to check the following.

- Make sure that all side panels are fitted securely in place
- Nothing is obstructing the movement of the mechanism or screen.
- Product is square and level on the wall.
- The product condition is good and all the wiring is neatly organised.



Bracket Movement Examples:



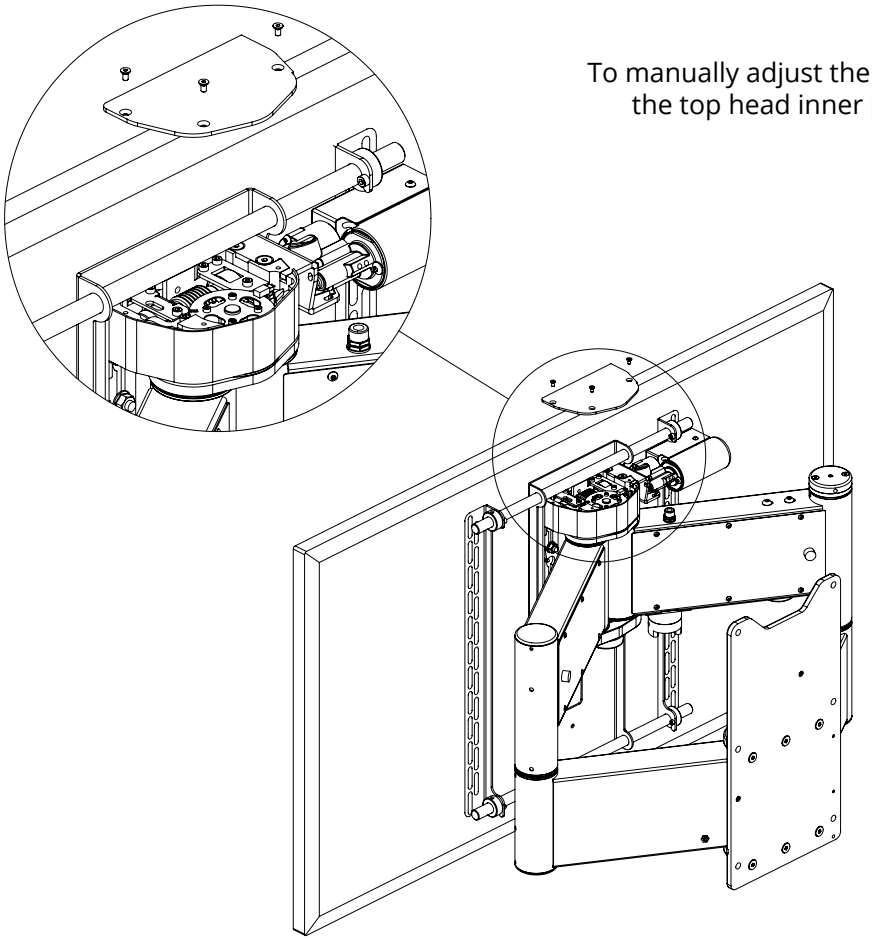
Storing new locations - Press STOP in the desired position then press STORE and you'll have a 2 second window to press HOME, PRESET or buttons A-F to save that position to that particular button.

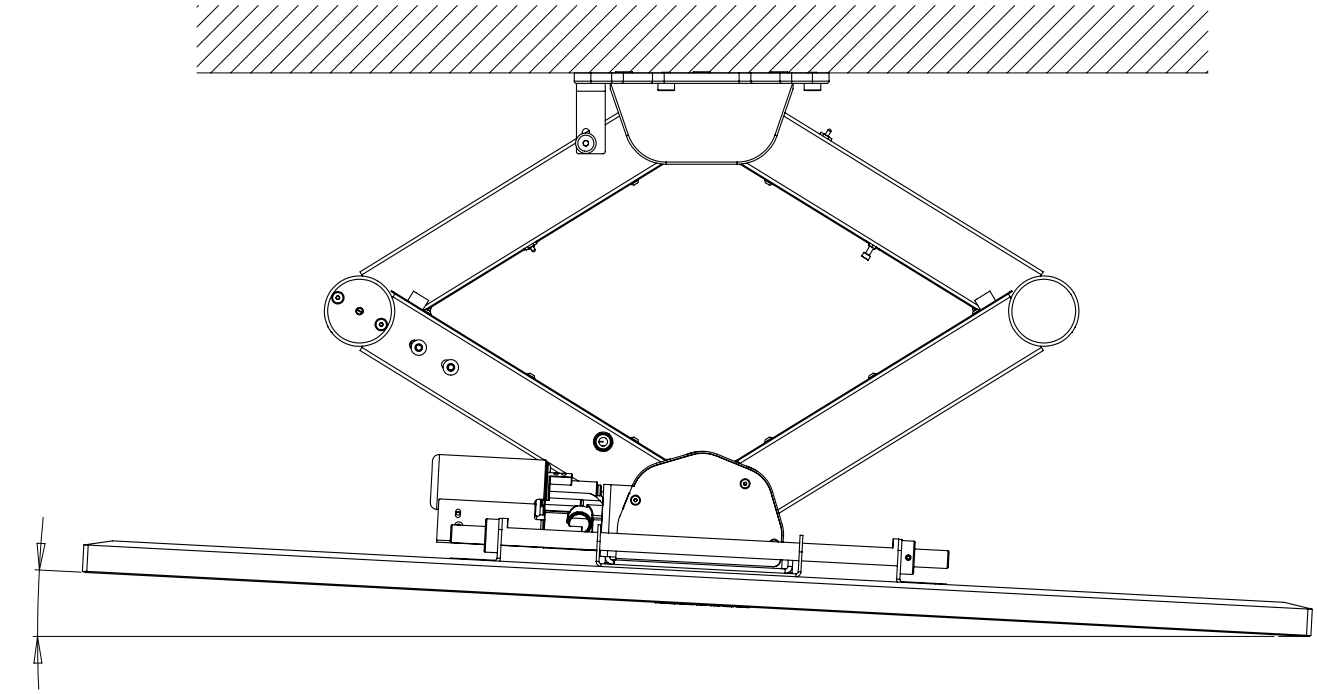
Multiple custom positions can be stored.

MANUAL HEAD
ROTATION

1

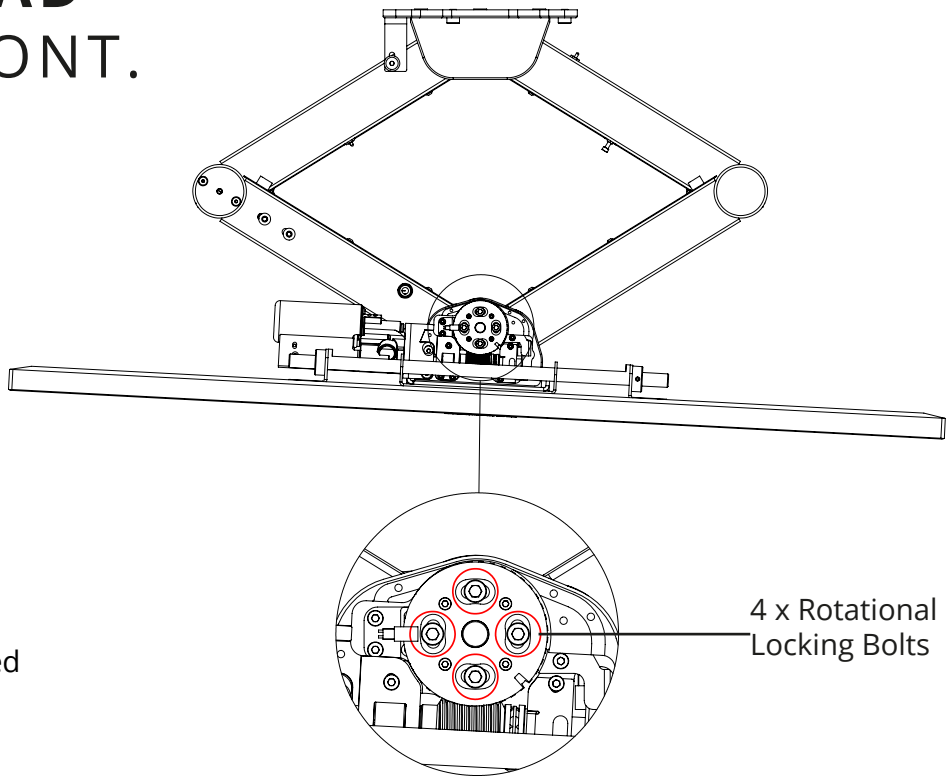
To manually adjust the parallel head position firstly remove the top head inner plate as shown in the detail view.





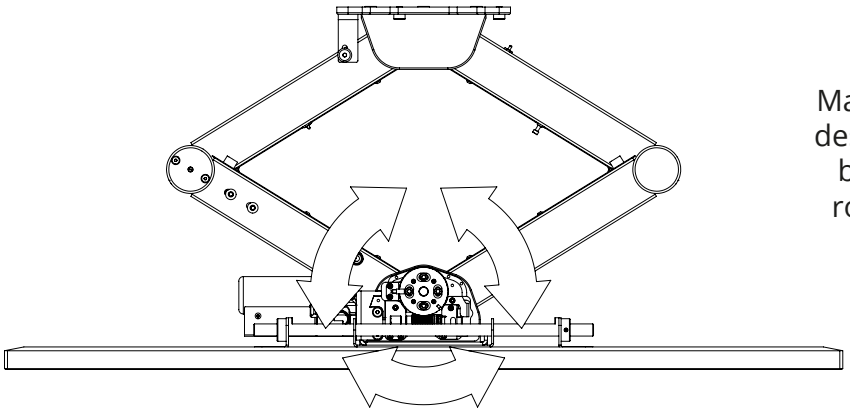
Head Angle

MANUAL HEAD
ROTATION CONT.



1

Loosen the 4 rotational locking bolts circled in red in the detail view.

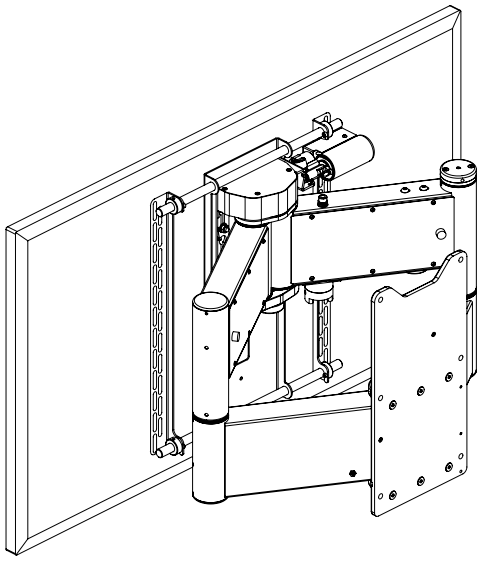


2

Manually rotate the head into the desired parallel position then lock back in place by tightening the rotational locking bolts back up

3

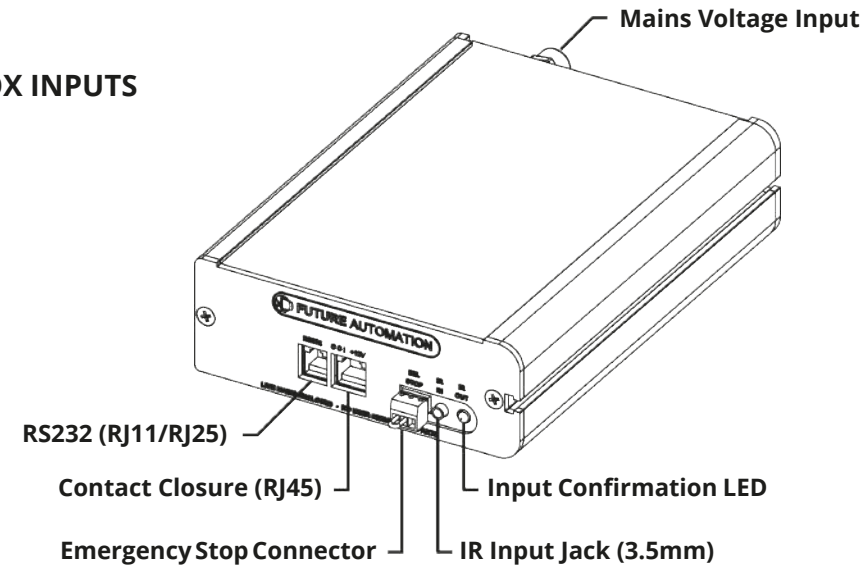
Finally replace the head inner plate back onto of the head



GENERAL
CONTROL

This mechanism has multiple standard control methods, each of which requires a different input method to the control box. For ease, the input sockets on the control board are labelled below.
(Control box size and style may vary to image shown)

CONTROL BOX INPUTS

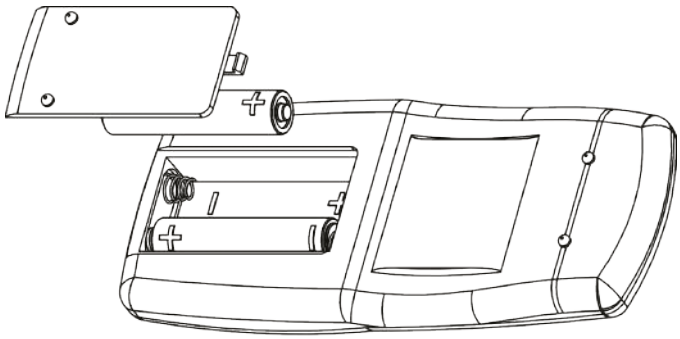


MECHANISM EMERGENCY STOP CONNECTOR

This mechanism features an Emergency Stop Connector, which MUST be plugged into the control box in the connector labelled above for the mechanism to operate. If this connector is not plugged in, the Input Confirmation LED will be permanently lit. As per the red plastic tag attached to the Emergency Stop Connector (and shown below), the small loop of wire in this connector is designed to be replaced by a third party safety mechanism.

REPLACING MECHANISM BATTERIES

The standard Future Automation Infrared (IR) remote control required x2 AAA batteries to operate. These are provided with the mechanism in the Accessories Pack. These batteries can be replaced as the per the image below.



INFRARED
(IR)

This Mechanism can be controlled via the supplied 14 button Infrared (IR) Remote Control, pair with the supplied Infrared (IR) lead and sensor.

The mechanism's functions can be controlled by plugging the Infrared (IR) lead and sensor into the 3.5mm IR Input Jack shown on the General Mechanism Control page.

Confirmation of Infrared (IR) input will be shown by a single flash of the large green LED located on the end of the control box.

As Infrared (IR) control works over line of site, the Infrared (IR) sensor must be directly viewable from what ever location the remote control is being used from.

Infrared (IR) Remote Control Button Layout

IN - Brings the mechanism into the cabinet.

PRESET - Brings the mechanism to the configured flushed recess position

STORE - Programs current mechanism position to learn position.

OUT - Brings the mechanism out of the cabinet, without swivelling.

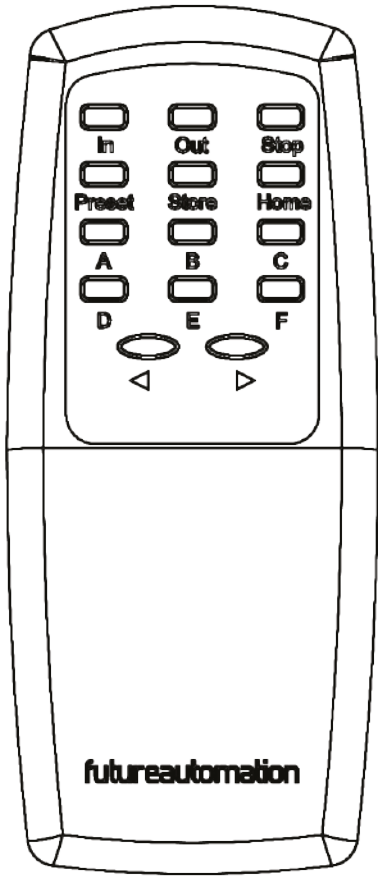
STOP - Will stop the operation of the mechanism at ANY position.

HOME - Brings the mechanism OUT and centres the head

< - Brings the mechanism OUT and rotates the head left

> - Brings the mechanism OUT and rotates the head right

STORE + PRESET - Pressed with 1 second of each other sets flush recess position



STORE + A - Pressed with 1 second of each other sets safe turn position

STORE + OUT - Pressed with 1 second of each other sets maximum OUT position

STORE + STOP + OUT - Pressed with 1 second of each other clears maximum OUT position

STORE + D-F - Pressed with 1 second of each other stores positions D - F.

D, E, F - Brings the mechanism OUT and rotates the head to viewing angle D, E or F

STORE + < - Pressed with 1 second of each other sets left rotational limit

STORE + STOP + < - Pressed with 1 second of each other clears left rotational limit

STORE + > - Pressed with 1 second of each other sets rightrotational limit

STORE + STOP + > - Pressed with 1 second of each other clears right rotational limit

IMPORTANT

Only buttons indicated above are functional with the product. Any other button press will STOP the mechanism.

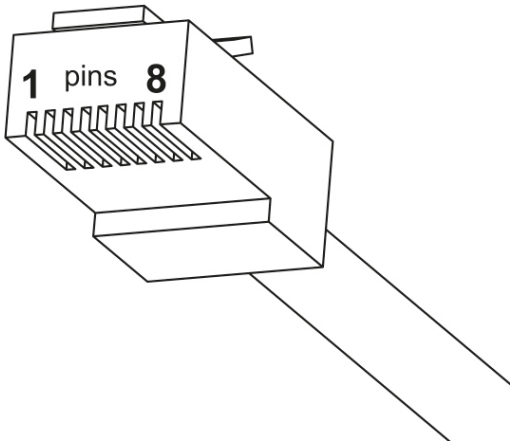
CONTACT
CLOSURE

This Mechanism can be controlled via Contact Closure, utilising the 8 Pin RJ45 Connector attached to a length of CAT5 (Type 568A or 568B) cable.

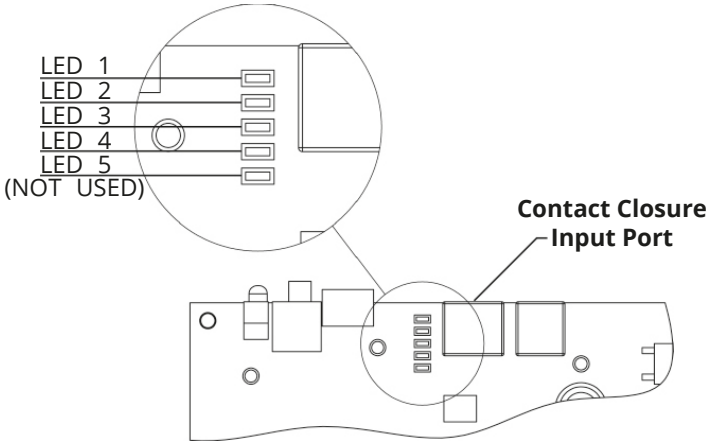
The mechanism's functions can be controlled by plugging this into the RJ45 port on the mechanism control board, then shorting pins 1-8 on this connector as shown in the Contact Closure Input Table below.

Confirmation of Contact Closure input will be shown by a single flash of the large green LED located on the end of the control box, as well as illumination of the corresponding Contact Closure LED on the printed circuit board as shown below.

RJ45 Pin Layout



Contact Closure LED Layout



Contact Closure Input Table

PIN	DESCRIPTION	ACTION
1		
2		
3	GROUND	GROUND
4		
5	POSITION D	MOMENTARY SHORT TO GROUND (PIIN 3), WILL MAKE DEVICE GO TO VIEWING POSITION D
6	POSITION F	MOMENTARY SHORT TO GROUND (PIIN 3), WILL MAKE DEVICE GO TO VIEWING POSITION F
7	PRESET	MOMENTARY SHORT TO GROUND (PIIN 3), WILL MAKE DEVICE GO TO THE FLUSH RECESS POSITON
8	DEVICE IN	MOMENTARY SHORT TO GROUND (PIN 3), MAKES DEVICE GO IN.

WIRE/CABLE TYPE		LED INDICATOR
568A	568B	
W G	W O	
G	O	
W O	W G	
B	B	
W B	W B	LED 4
O	G	LED 3
W BR	W BR	LED 2
BR	BR	LED 1

RS232
CONTROL

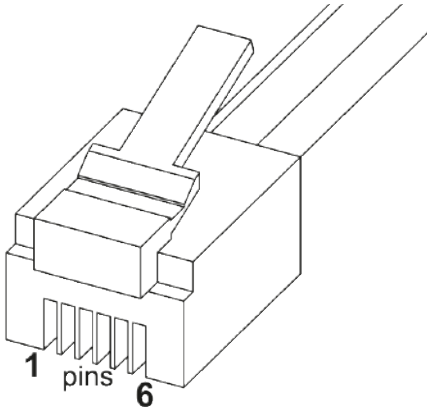
This Mechanism can be controlled via RS232, utilising a 6 Pin RJ11/RJ25 connector OR 9 Pin Serial connector attached to a length of 6 core cable.

The mechanism's functions can be controlled by plugging this into the RJ11/RJ25 port on the mechanism control box, then inputting the RS232 commands shown in the RS232 Input Table below.

Confirmation of Contact Closure input will be shown by a single flash of the large green LED located on the end of the control box.

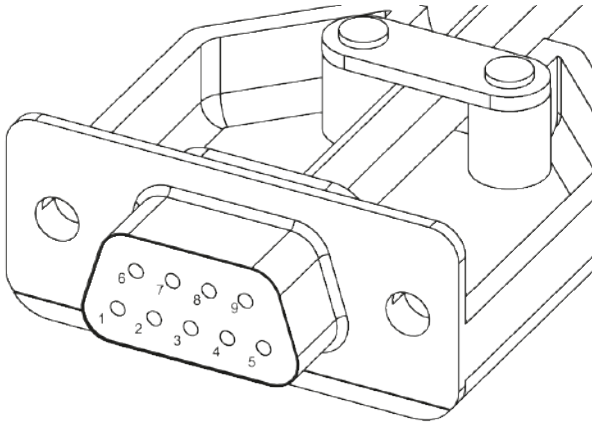
RJ11/RJ25 PIN LAYOUT

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



SERIAL PIN LAYOUT

PIN 2: RX
PIN 3: TX
PIN 5: GROUND



RS232 PROGRAMMING DETAILS

Baud Rate: 9600

Stop Bit: 1

Parity: None

Databits: 8

RJ11/RJ25	Func.	9 PIN Serial	Colour
PIN 1	TX-RX	PIN 2	Blue
PIN 3	GROUND	PIN 5	Green
PIN 4	GROUND	PIN 5	Red
PIN 6	RX-TX	PIN 3	White

RS232 INPUT TABLE

IMPORTANT - Ensure all protocols are entered exactly as written below, including Carriage Return (ENTER / ASCII 13)

Protocol	Action
fa_in Carriage Return (Enter / ASCII 13)	Device IN
fa_out Carriage Return (Enter / ASCII 13)	Device OUT with NO SWIVEL
fa_right Carriage Return (Enter / ASCII 13)	Device OUT, swivel to right
fa_left Carriage Return (Enter / ASCII 13)	Device OUT, swivel to left
fa_preset Carriage Return (Enter / ASCII 13)	Device to flush recess position
fa_d Carriage Return (Enter / ASCII 13)	Device OUT to memory position D
fa_e Carriage Return (Enter / ASCII 13)	Device OUT to memory position E
fa_f Carriage Return (Enter / ASCII 13)	Device OUT to memory position F
fa_stop Carriage Return (Enter / ASCII 13)	Device STOP (At any position)
fa_home Carriage Return (Enter / ASCII 13)	Device OUT, swivel centered

NOTES

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