HQA2

Two Way Articulated TV Wall Mount 80"-110"

Installation Instructions

futureautomation
moving audio visual solutions
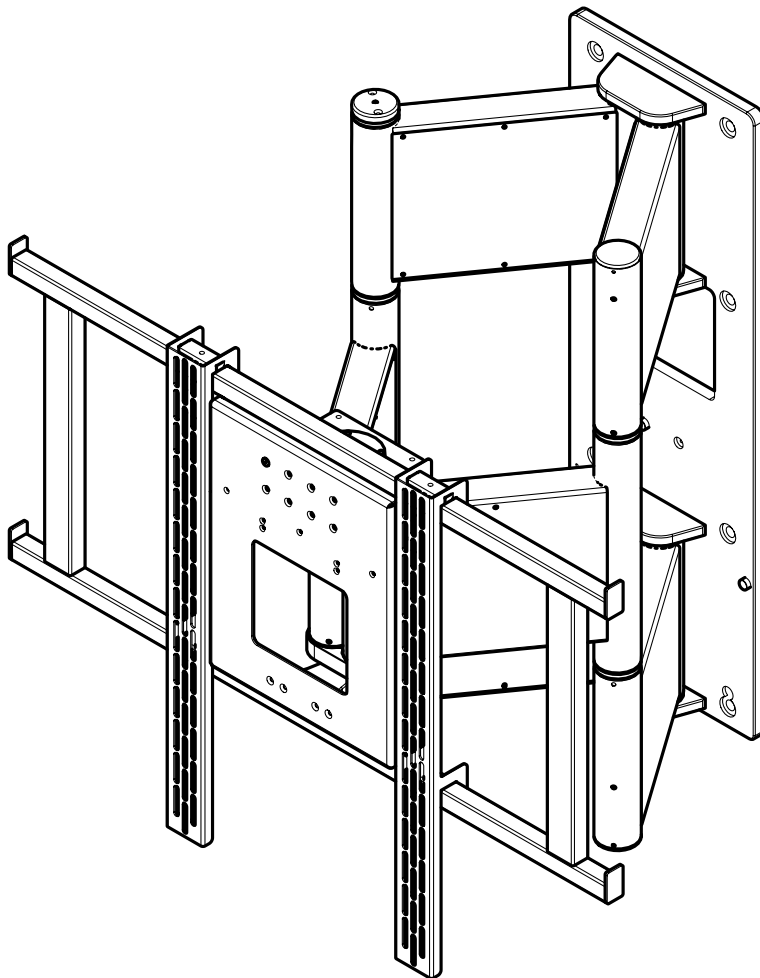
Safety Disclaimer

Product 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 **330LBS (150KG) 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.

WARNING:
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 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 the 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 these instructions and only use attachments/accessories specified by the manufacturer.
6.   Refer all servicing to qualified personnel. Servicing is required regularly on an annual basis.
7.   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.

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Package Contents:
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    1.2 - Top Head Plate
    1.3 - Cover Panel
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    1.5 - Latch Bracket

    *Optional: 1.6 - Marine Lock
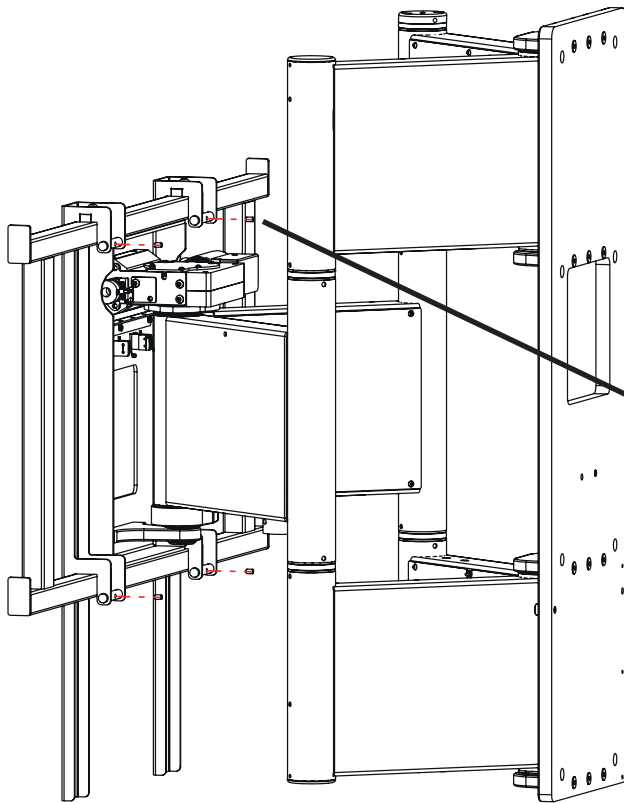
2 - Infrared (IR) Remote Control

Items Not Shown On Page:
HQA2 Accessory Pack
    - x2 AAA Batteries
    - Mains Power Lead
    - Infrared Control Lead
    - CAT5 Lead with RJ45 Connector
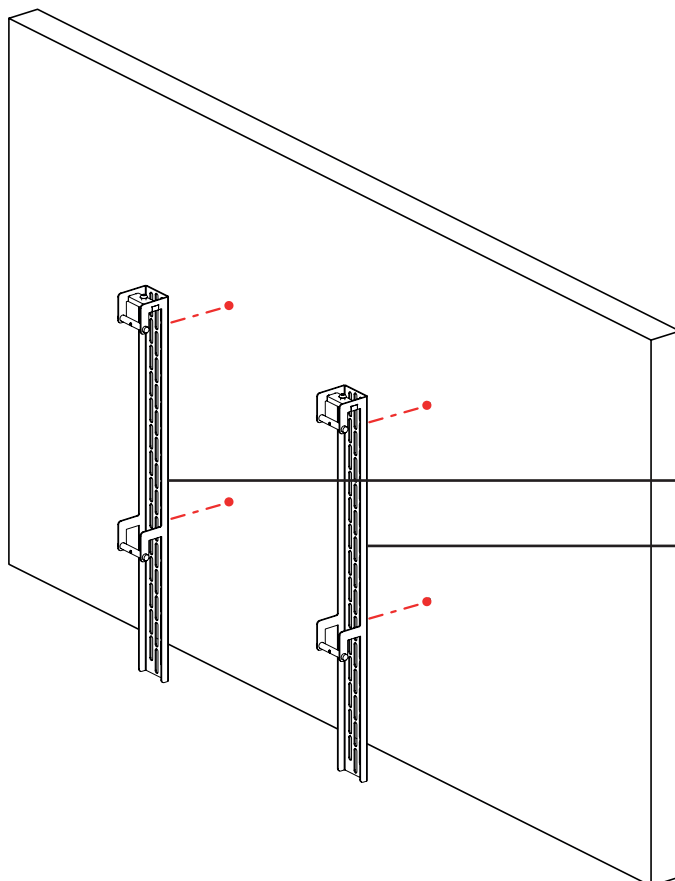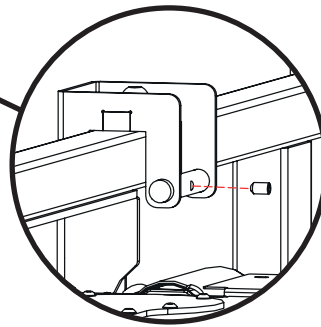   - Screen Fixings Pack (Multi-pack of Bolts, Washer and Spacers)
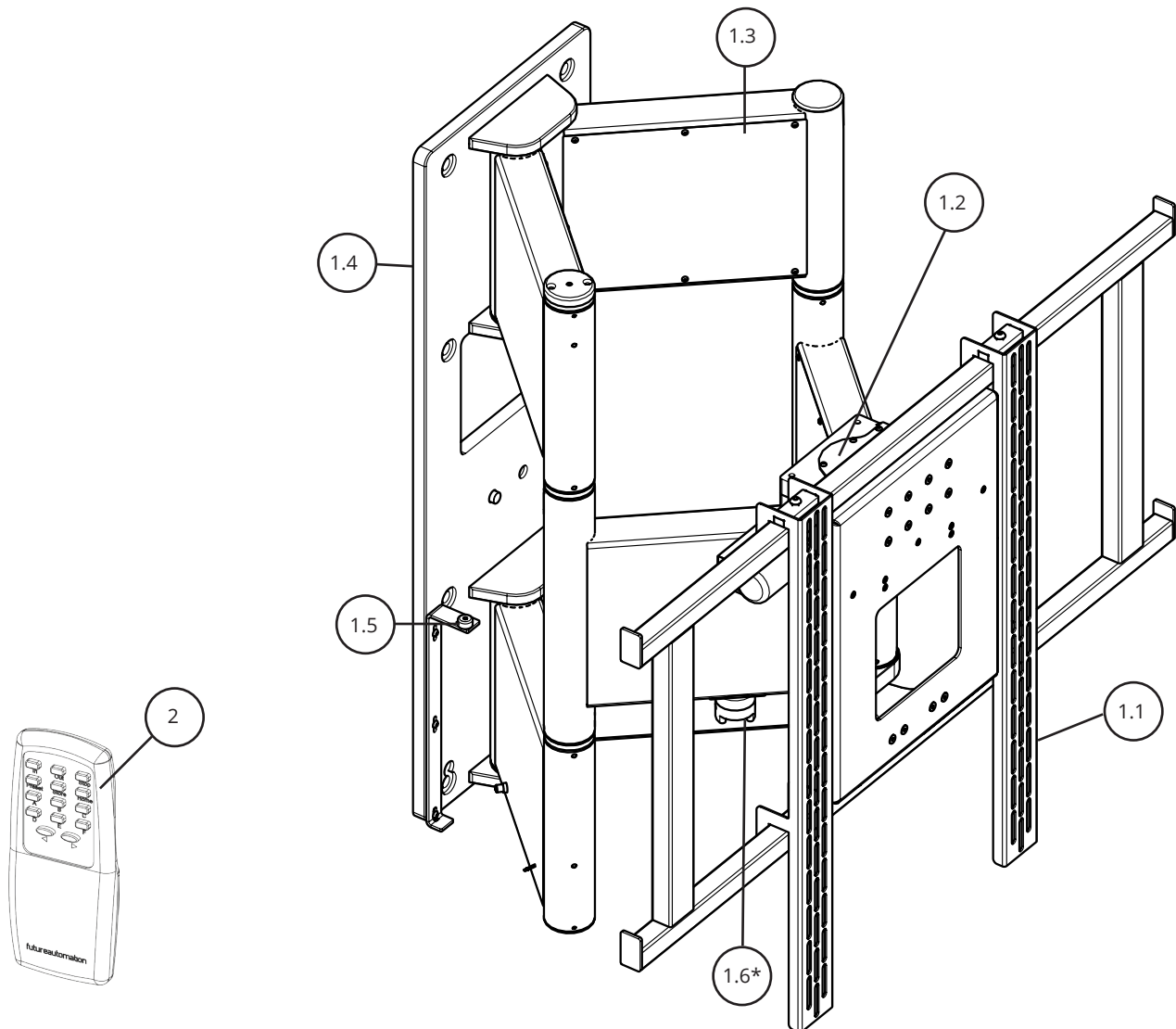
Installation Instructions

Upright Mounting

- Loosen or remove the four grub screws to release the Uprights from the main assembly.

  Keep the grub screws safe for re-assembly later.

- Align Screen Uprights onto the rear of the display and bolt through into the VESA mounting holes.

NOTE: If the display is not VESA compatible a custom adapter will need to be added at this stage.
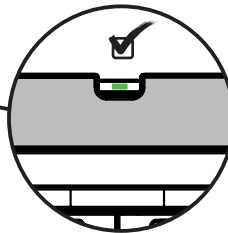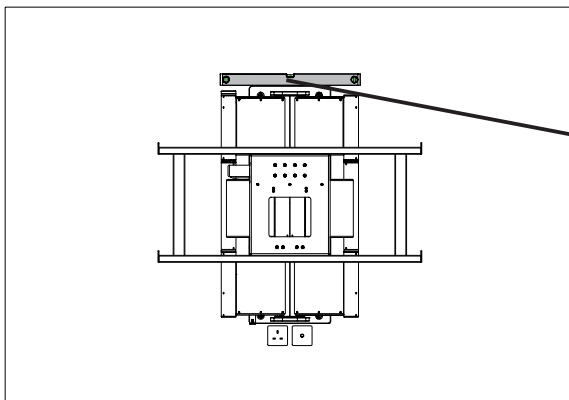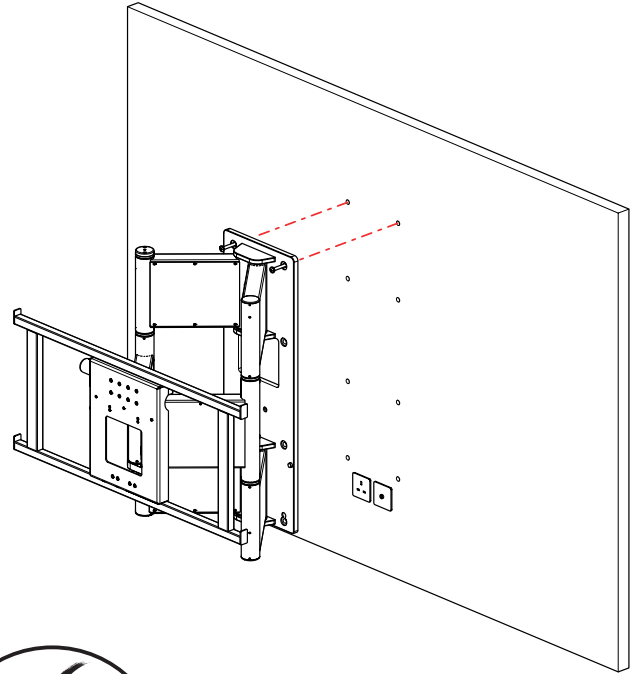
Display

Uprights

Installation Instructions

Wall Mounting

Ensure the mounting wall is structurally suitable and appropriate fixings are used before continuing installation.
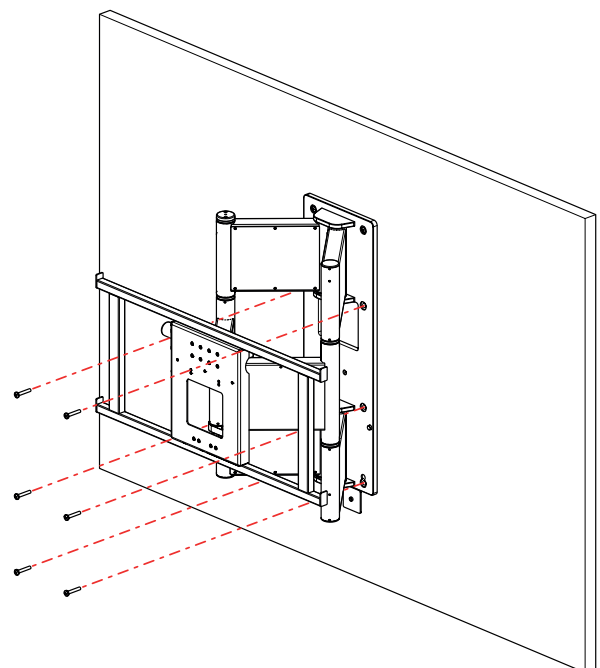
- Fix through top two holes of Wall Plate first.

NOTE: Minimum three person install stage.

- Ensure mechanism is level before fixing through remaining holes in Wall Plate.

- Once mechanism is level, secure the other fixings in place to complete Wall Plate installation.
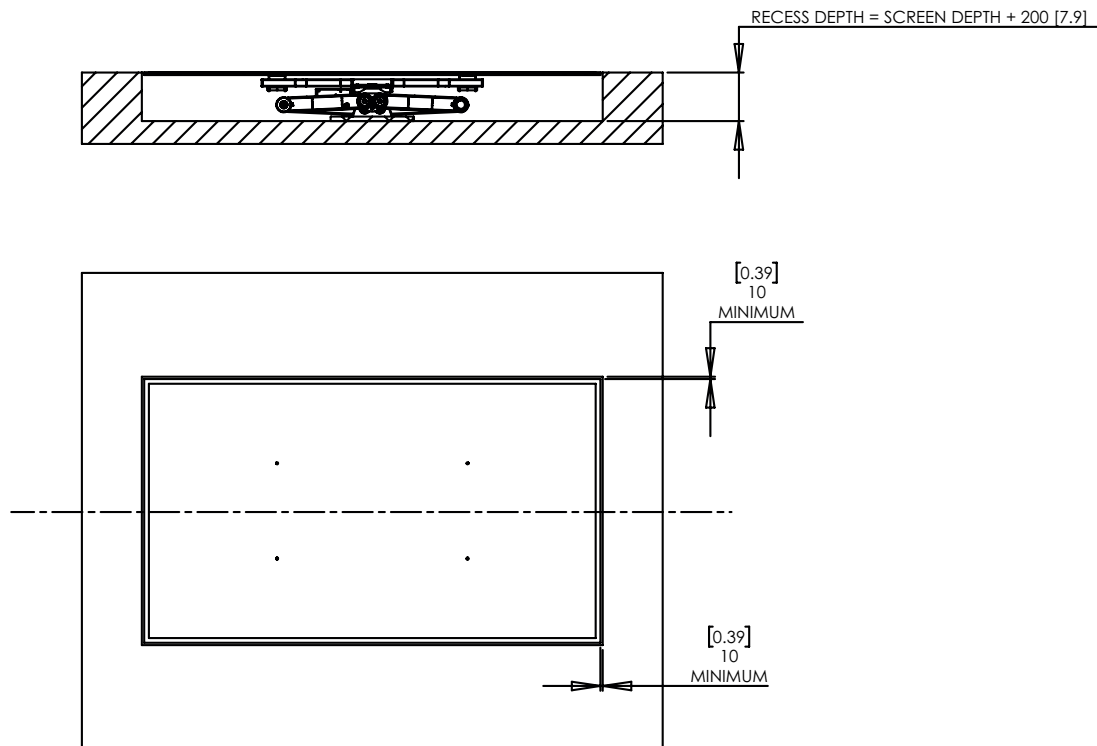
⚠

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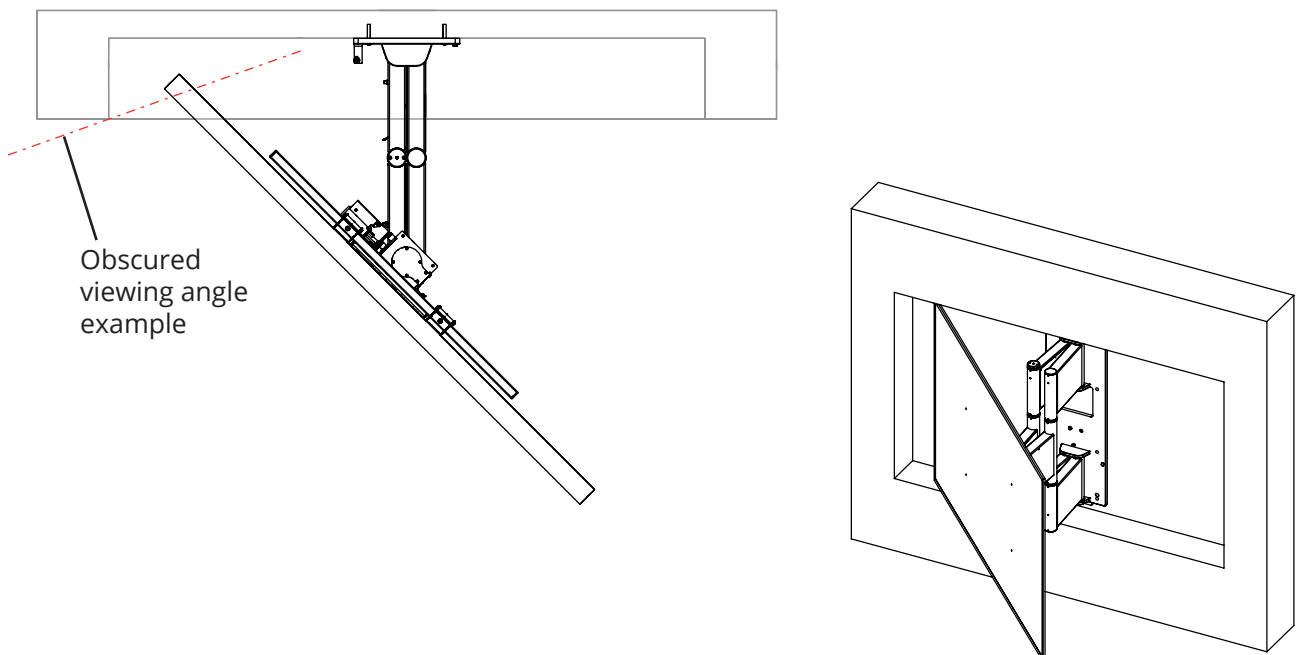
Installation Instructions

Recess Mounting

- In order to mount the HQA2 in a recess, a minimum of 10mm perimeter gap from the screen is required, also ensure adequate ventilation for tight recesses.

RECESS DEPTH = SCREEN DEPTH + 200 [7.9]

$\begin{bmatrix}0.39\end{bmatrix}$
10
MINIMUM

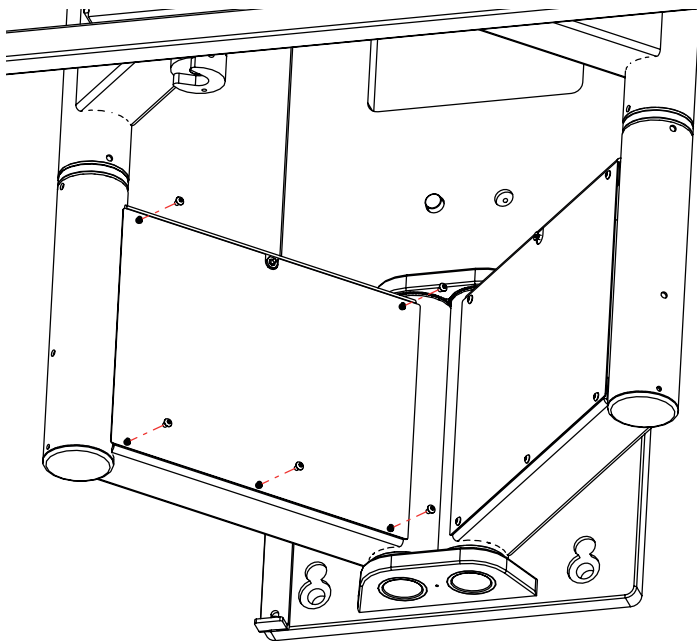$\begin{bmatrix}0.39\end{bmatrix}$
10
MINIMUM

- When putting in recesses and using the bracket at the maximum angle, beware of obscuring part of the screen. With a deeper or wider screen the maximum angle will need to be reduced.
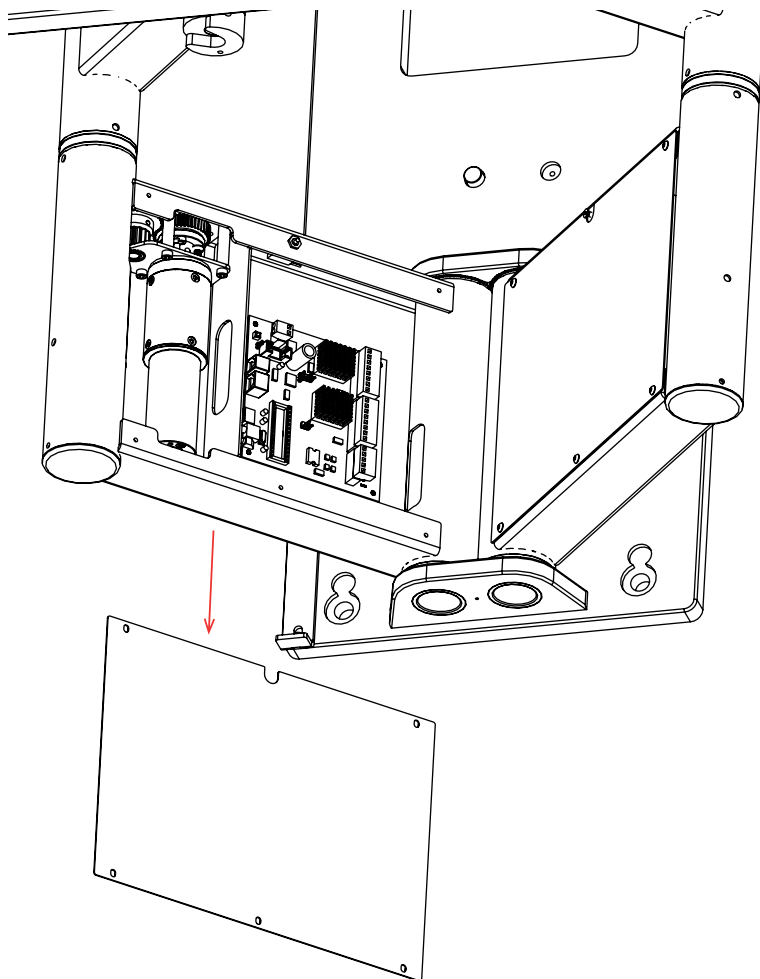
Obscured viewing angle example

Installation Instructions

Removing Cover Panels

- Power the mechanism half way out so all the arm cover panels are accessible and remove screws.

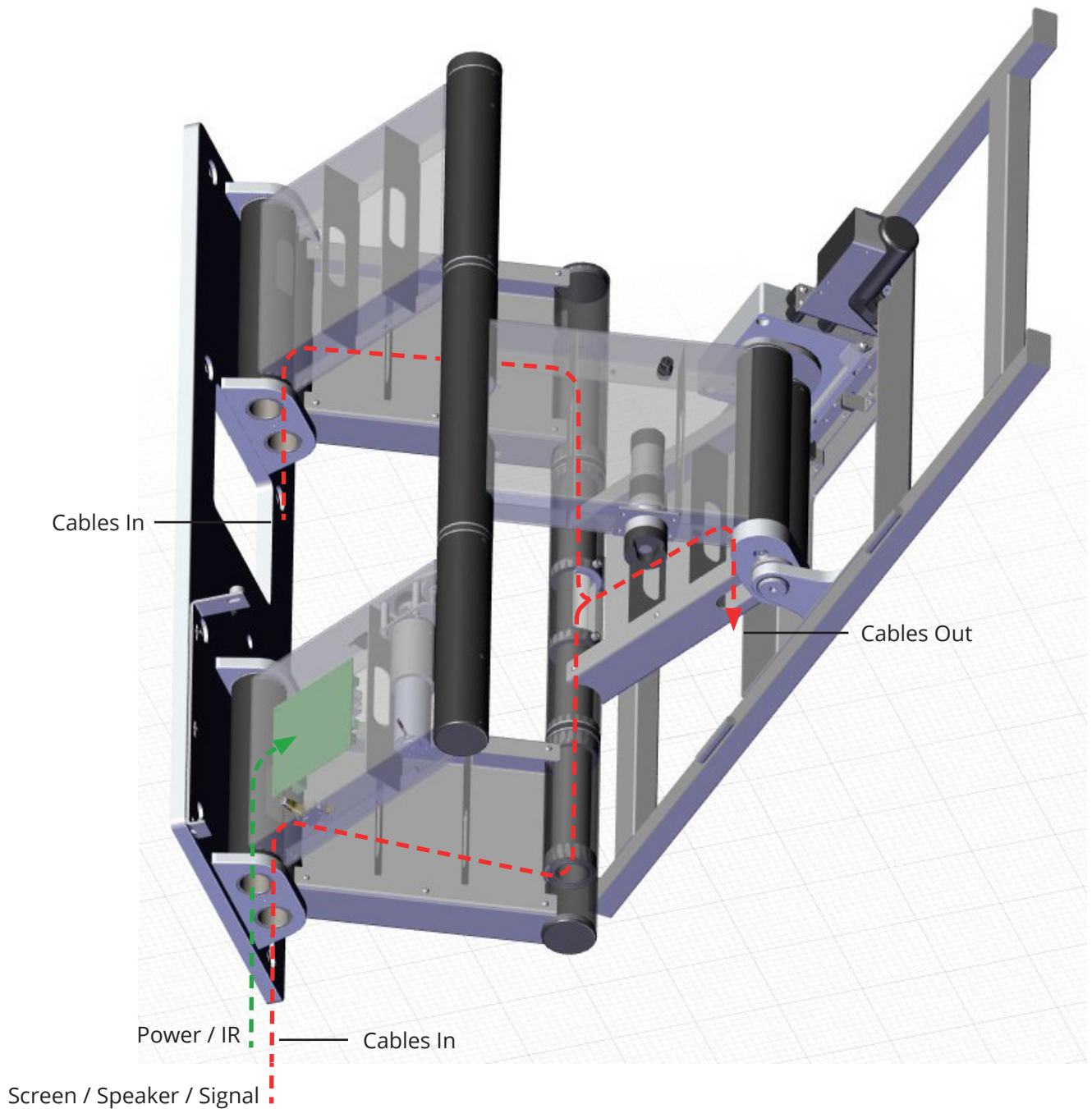- Repeat for other cover panels required for cable installation and store safely.

Installation Instructions

Cable Management

Cables In

Cables Out

Power / IR   Cables In

Screen / Speaker / Signal

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

- Feed the screen, speaker and signal cables though the unit following as per the image above.

Installation Instructions

Testing The Mechanism

- Power mechanism to a variety of positions to ensure all commands are working correctly.

- Ensure all cables are securely fastened and there is enough slack to allow for full head rotation.
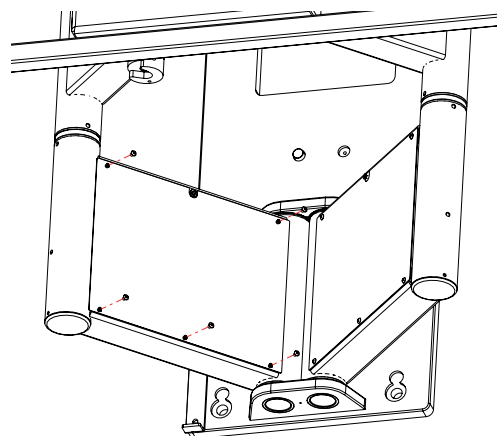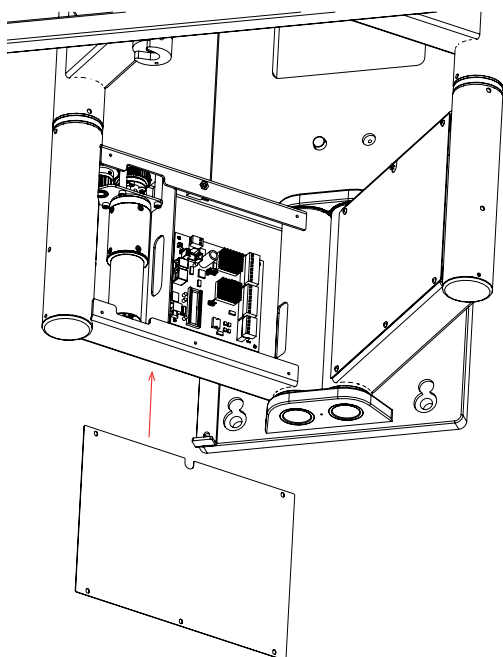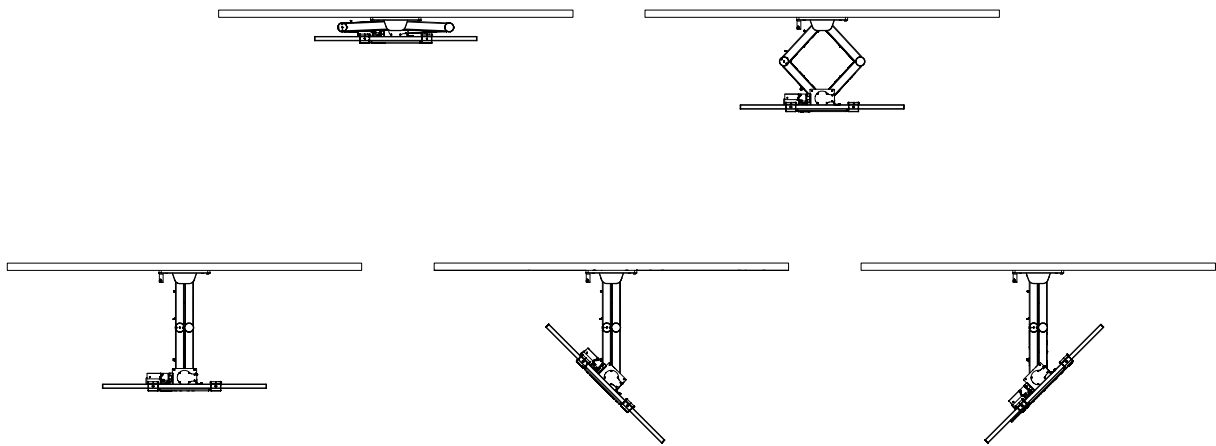
- Once checks have been completed replace cover panels.

Installation Instructions

Screen Mounting

- Hook Screen Uprights onto the center of the mechanism.
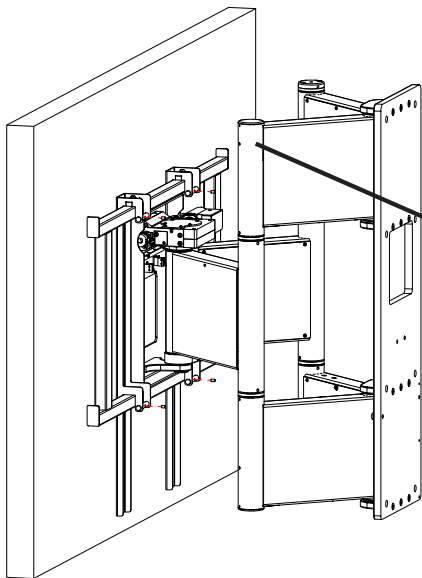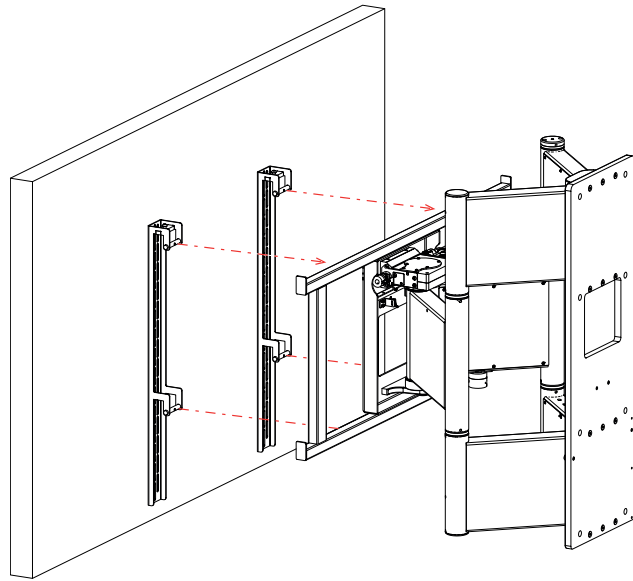
- Tighten grub screws in each of the four Upright restraints to lock horizontal shift of the screen.

- Connect all screen, speaker and signal cables to the display.

- You can fine tune the level of the display by rotating the bolt on top of the Uprights.
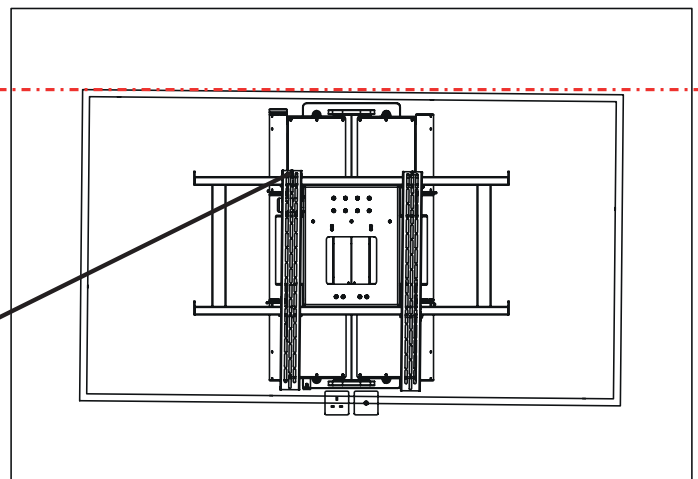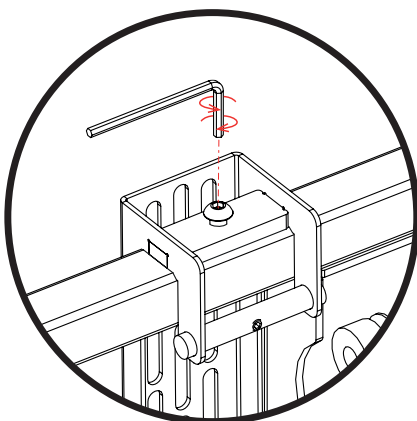
Installation Instructions

Manual Rotation Adjustment

- To manually adjust the parallel head position remove the top head inner plate as shown below.
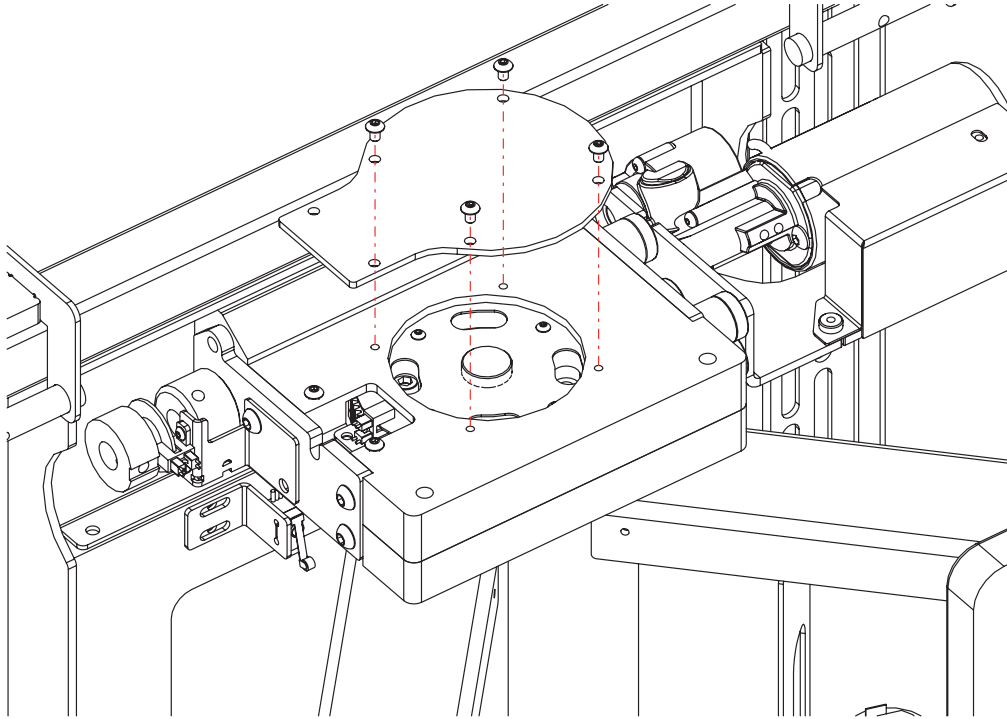
- Loosen the 4 rotational locking bolts circled in the detail view.

4x Rotational
Locking Bolts

Top Head Inner Plate
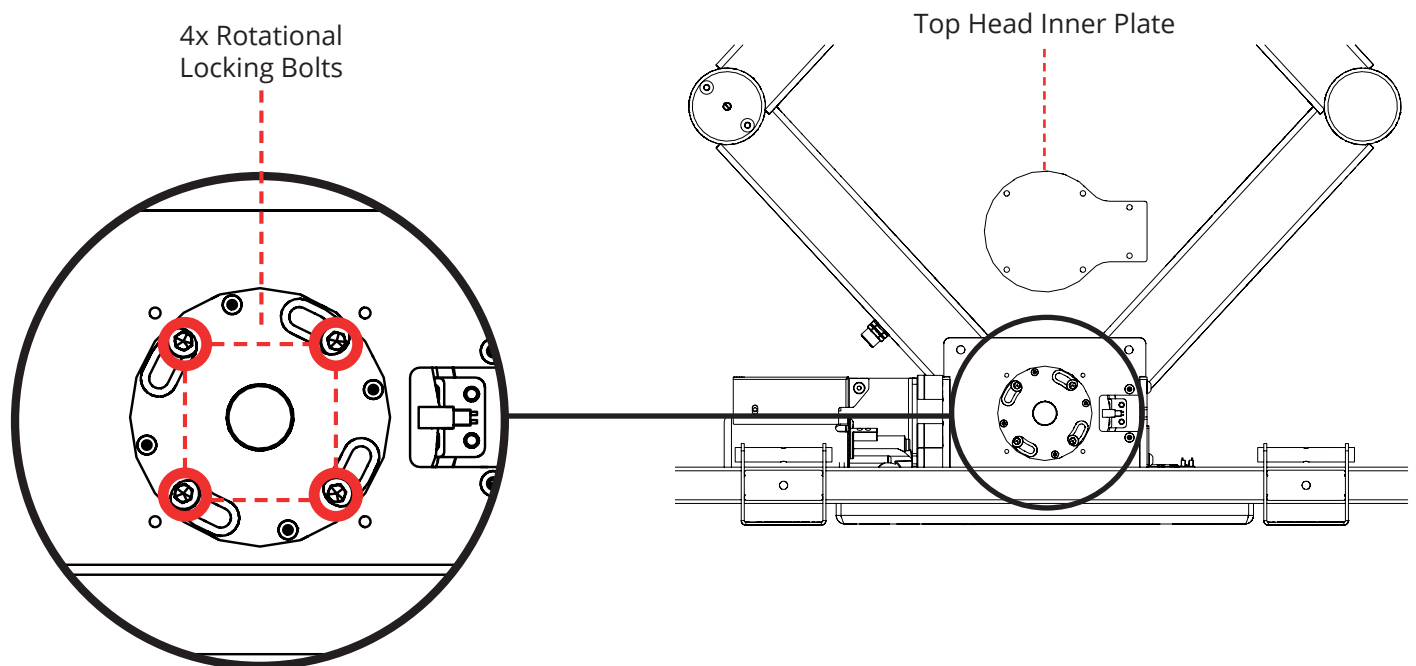
Installation Instructions

Manual Rotation Adjustment

- Manually rotate the head into the desired parallel position then lock back in place by tighten the rotational locking bolts back up.
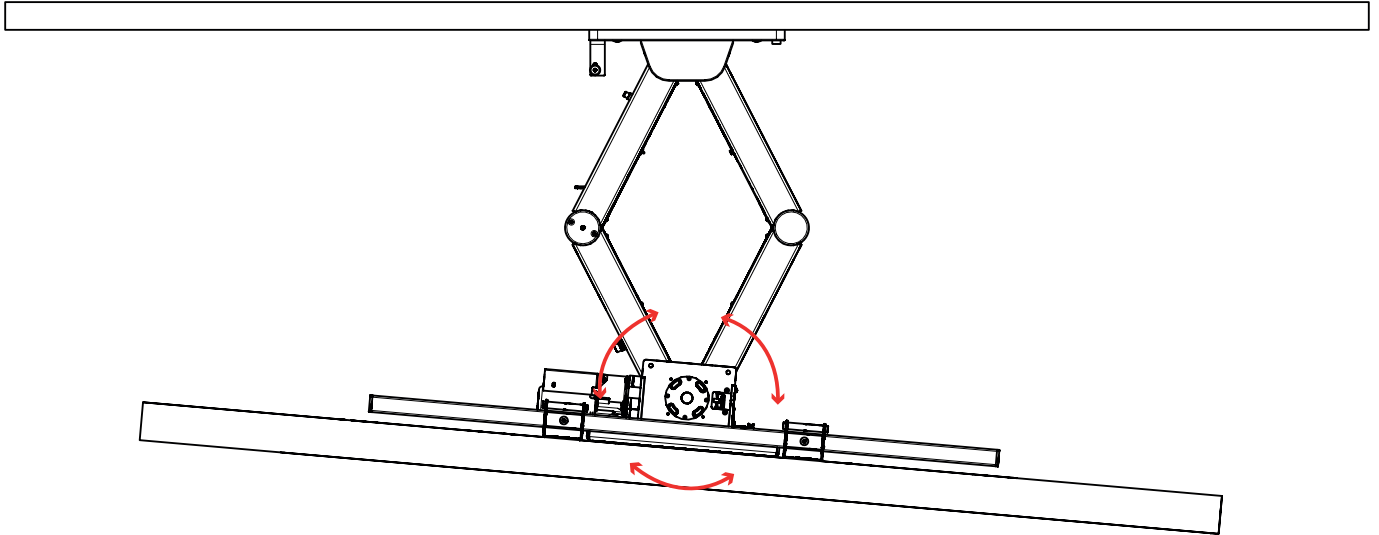
- Finally replace the head inner plate back onto of the head.
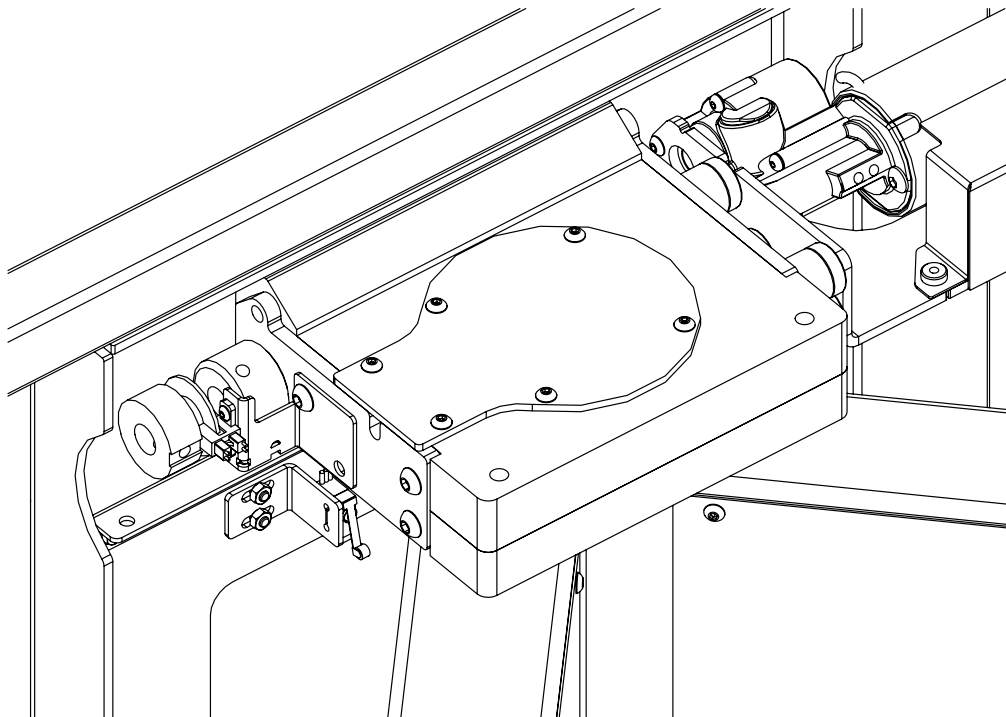
Installation Instructions

Marine Catch

The HQA2 can be ordered with an optional marine lock to securely lock the mechanism in the IN position.

Marine Lock
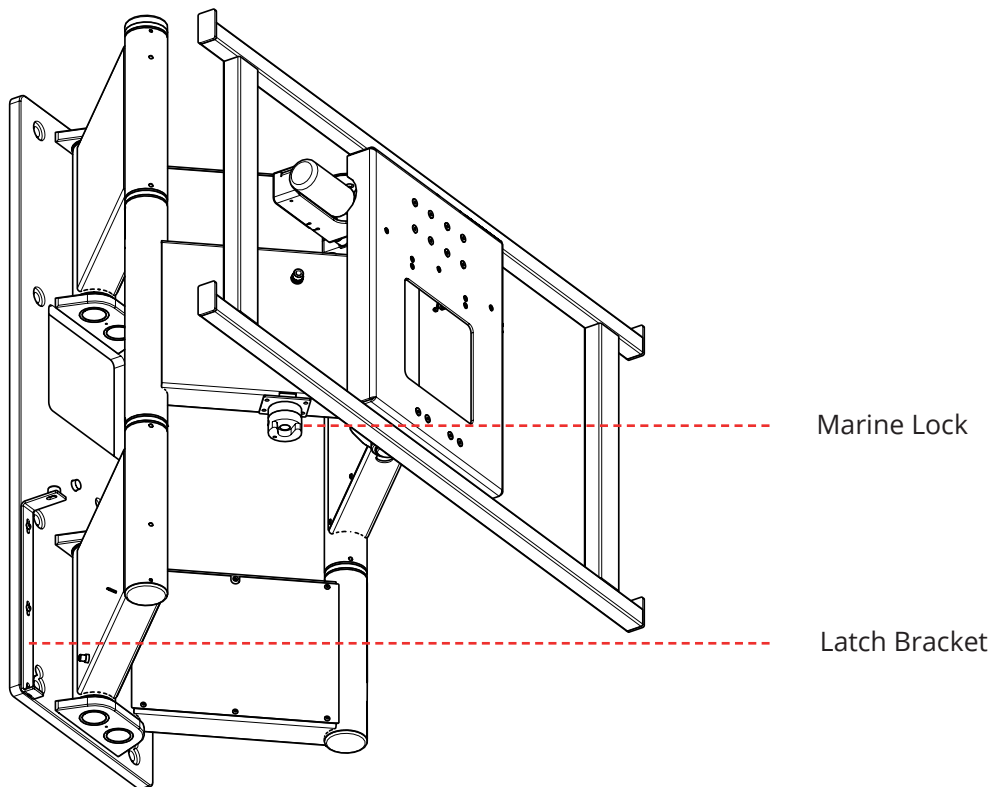
Latch Bracket

Marine Lock mechanism rotates
to secure the main assembly.
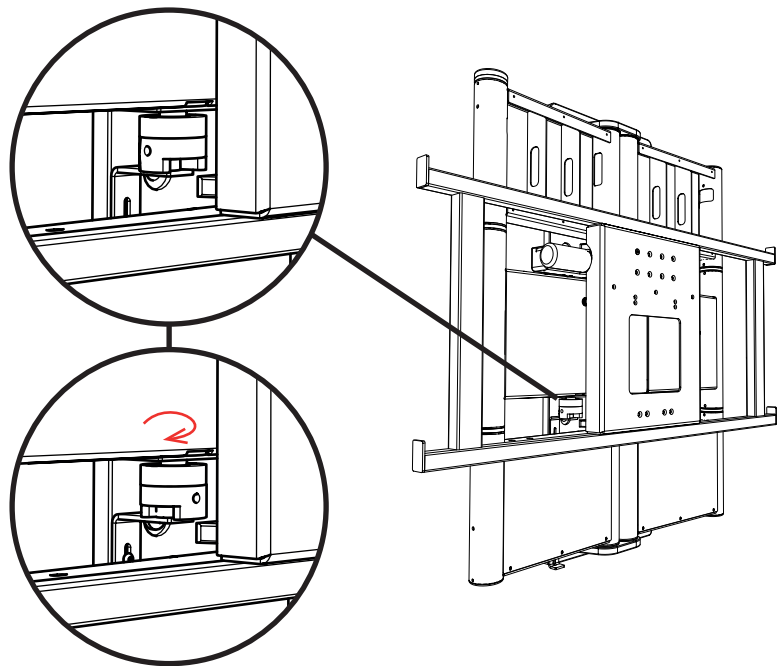
• Suitable for indoor marine installations.
• Latch bracket can be lowered to release the lock in the event of a power/ motor fault.

Mechanism Control

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

Mains Voltage Input

RS232 (RJ11/RJ25)

Contact Closure (RJ45)

Input Confirmation LED

Emergency Stop Connector

IR Input Jack (3.5mm)
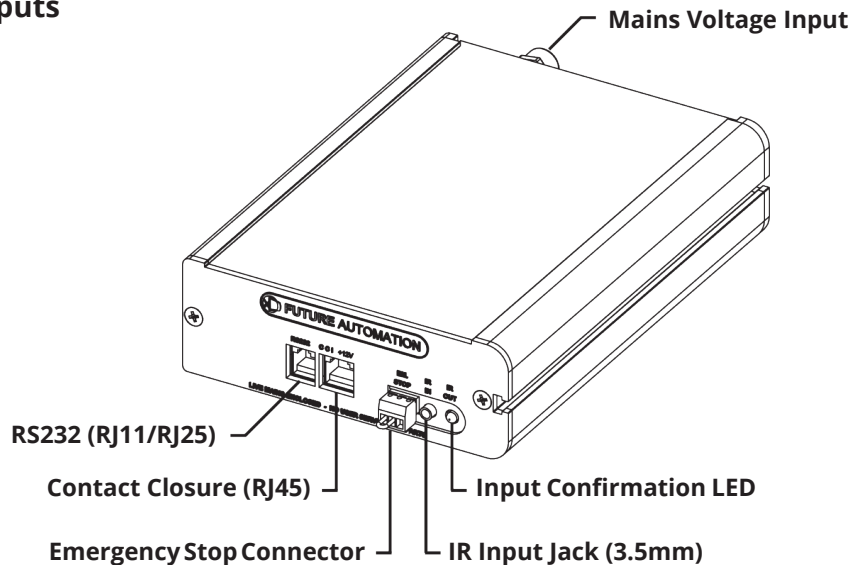
Mechanism Emergency Stop Connector

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.


Refer to Mechanism Instructions.

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This emergency stop loop is designed to be removed and replaced with a safety device.

Full safety information can be found at
www.futureautomation.co.uk/safety

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.
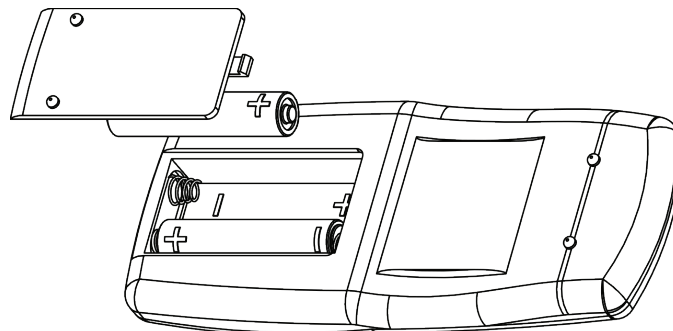
Mechanism Control

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 mechanism to learnt 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 - Takes mechanism to forward facing position when swivelled.

< - Rotates mechanism left.

> - Rotates mechanism right.
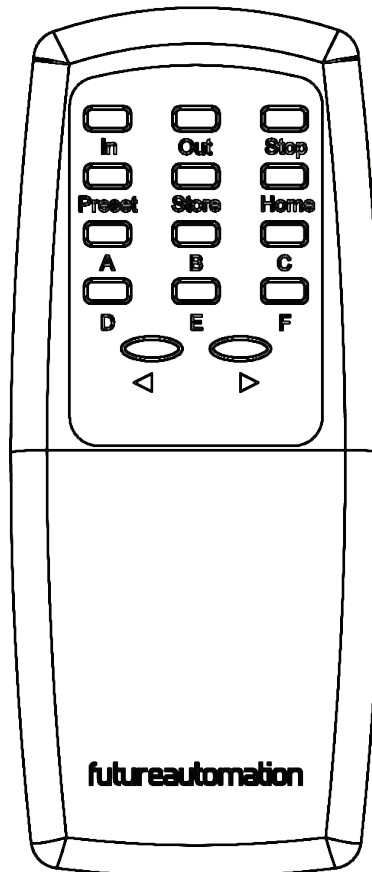
STORE + PRESET - Pressed with 1 second of each other stores **PRESET** position.

STORE + E - Pressed with 1 second of each other clears **PRESET** and sets swivel 180° right and left.

STORE + D - Pressed with 1 second of each other sets left swivel limit.

STORE + F - Pressed with 1 second of each other sets right swivel limit.

STORE + A-C - Pressed with 1 second of each other stores positions A-C.

A, B, C - Brings the mechanism to mechanism to learnt position.

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

Mechanism Control

Contact Closure

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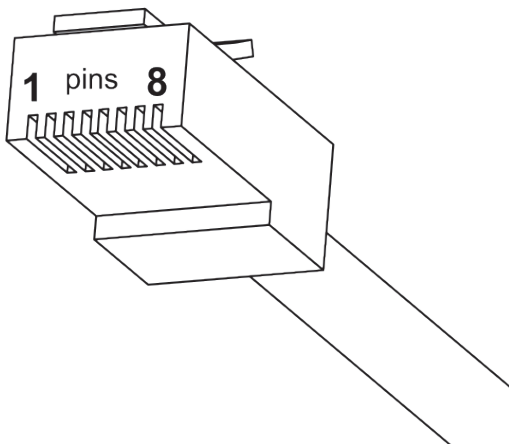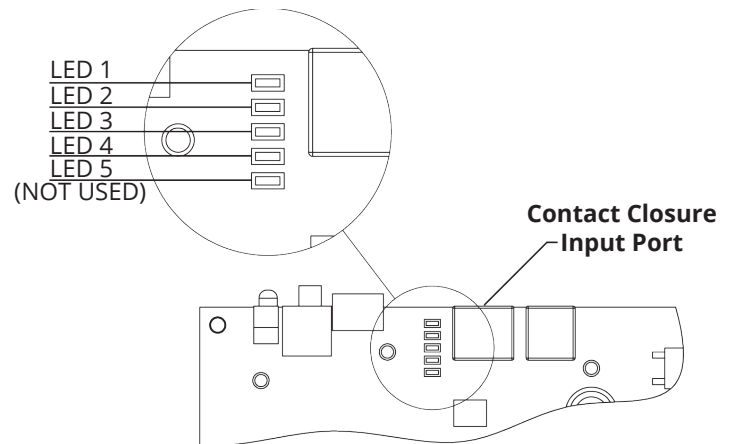
Confirmation of Contact Closure input will be shown by a single flash of the large green LED located on the end of the control box, as well as illumination of the corresponding Contact Closure LED on the printed circuit board as shown below.

RJ45 Pin Layout

Contact Closure LED Layout

LED 1
LED 2
LED 3
LED 4
LED 5
(NOT USED)

Contact Closure Input Port

Contact Closure Input Table

PIN	DESCRIPTION	ACTION	WIRE/CABLE TYPE		LED INDICATOR
			568A	568B	
1	12V SUPPLY	12V SUPPLY - CURRENT LIMITED	W/G	W/O	
2			G	O	
3	GROUND	GROUND	W/O	W/G	
4			B	B	
5	DEVICE LEFT	MOMENTARY SHORT TO GROUND (PIN 3), WILL MAKE DEVICE GO LEFT.	W/B	W/B	LED 4
6	DEVICE RIGHT	MOMENTARY SHORT TO GROUND (PIN 3), WILL MAKE DEVICE GO RIGHT.	O	G	LED 3
7	DEVICE HOME	MOMENTARY SHORT TO GROUND (PIN 3), MAKES DEVICE GO OUT / HOME.	W/BR	W/BR	LED 2
8	DEVICE IN	MOMENTARY SHORT TO GROUND (PIN 3), MAKES DEVICE GO IN.	BR	BR	LED 1

Mechanism Control

RS232

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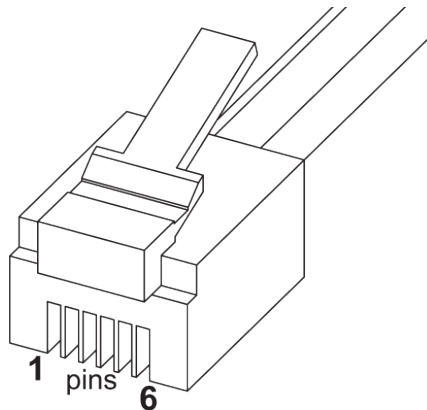
Confirmation of Contact Closure input will be shown by a single flash of the large green LED located on the end of the control box.

RJ11/RJ25 Pin Layout
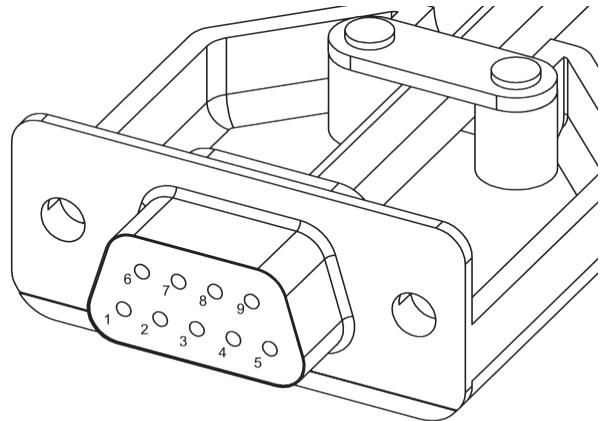**PIN 1: RX**
PIN 6: TX
PIN 3 & 4: GROUND

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 RIGHT limit
fa_left Carriage Return (Enter / ASCII 13)	Device OUT LEFT limit
fa_preset Carriage Return (Enter / ASCII 13)	Device to PRESET memory position
fa_a Carriage Return (Enter / ASCII 13)	Device OUT to memory position A
fa_b Carriage Return (Enter / ASCII 13)	Device OUT to memory position B
fa_c Carriage Return (Enter / ASCII 13)	Device OUT to memory position C
fa_stop Carriage Return (Enter / ASCII 13)	Device STOP (At any position)
fa_home Carriage Return (Enter / ASCII 13)	Device OUT swivel parallel

Product Warranty

Future Automation - Product Warranty Details

Your warranty 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.**

Under the warranty, we aim 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.

Support for any problems that are not hardware or software faults are excluded from the warranty entitlement.

Warranty repairs will be carried out as rapidly as possible, but subject to parts availability.

Some things are not covered under warranty, 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.

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

Customer Support - Contact Details

European Office

Address:
Unit 6-8
Brunel Road
Bedford
Bedfordshire
MK41 9TG

Phone: +44 (0) 1438 833577
Email: info@futureautomation.co.uk

Office Hours:
Mon - Fri 8:00 to 17:30 GMT
Saturday & Sunday - Closed

North American Office

Address:
Enterprise Park
127 Venture Drive
Dover
NH
03820

Phone: +1 (603) 742 9181
Email: info@futureautomation.net

Office Hours:
Mon - Fri 7:00 to 17:00 EST
Saturday & Sunday - Closed

Product/Installer Details - To be Complete By Original Installer

Installer Contact Details:

Contact Address:
_____
_____
_____
_____
_____

Contact Phone:_____

Contact Email:_____

Original Installation Date:_____

Product Serial Number:_____

Contact Information

European Office

Address:
Unit 6-8
Brunel Road
Bedford
Bedfordshire
MK41 9TG

Phone: +44 (0) 1438 833577
Email: info@futureautomation.co.uk

Office Hours:
Mon - Fri 8:00 to 17:30 GMT
Saturday & Sunday - Closed

North American Office

Address:
Enterprise Park
127 Venture Drive
Dover
NH
03820

Phone: +1 (603) 742 9181
Email: info@futureautomation.net

Office Hours:
Mon - Fri 7:00 to 17:00 EST
Saturday & Sunday - Closed