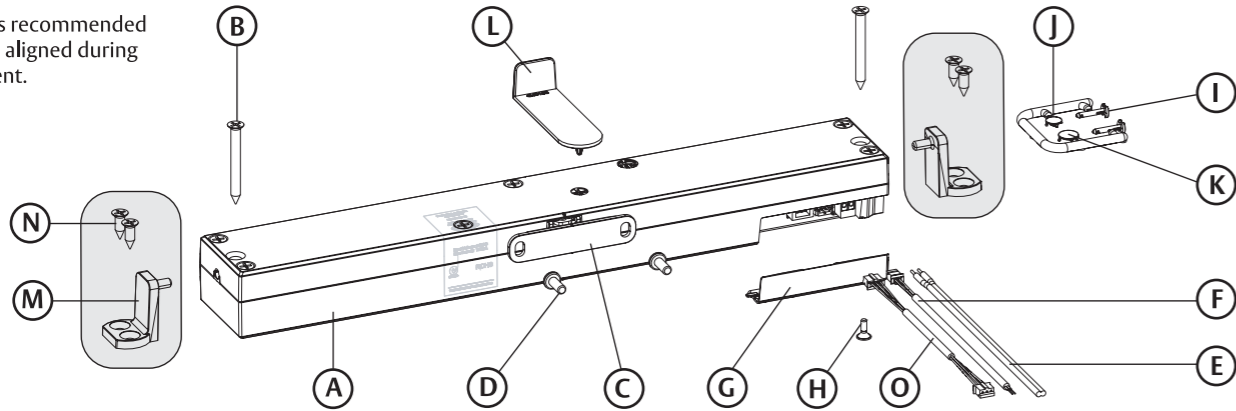Pivot brackets recommended to keep chain aligned during sash movement.

Items Supplied

A Actuator
B Mounting Screws (x2)
C Sash Bracket
D Sash Bracket Screws (x2)
E Power Loom (2m)
F Control Loom (2m)
G Wire Cover
H Wire Cover Screw
I Chain Limiter Plug (x2)
J Chain Limiter Cap
K Clutch Cap
L Clutch Tool
M Pivot Brackets (x2)
N Pivot Bracket Screws (x4)

Purchased Separately

O Synchronisation Loom (1.8m)
   Part Number EWAC-SSL

● Rain Sensor (cable length 2m)
   Part Number EWAC-SRS
● Network Adaptor
   Part Number EWAC-SNA

Tools Required

● Marker
● #2 Phillips Screwdriver
● #2 Sq Driver Bit
● Power Drill
● 3mm Drill Bit
● 8mm Drill Bit
● Long Nose Pliers
● Small Flat Screwdriver
● Silicon (if IP rating required)

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1 Select Single or Double Actuators Per Window
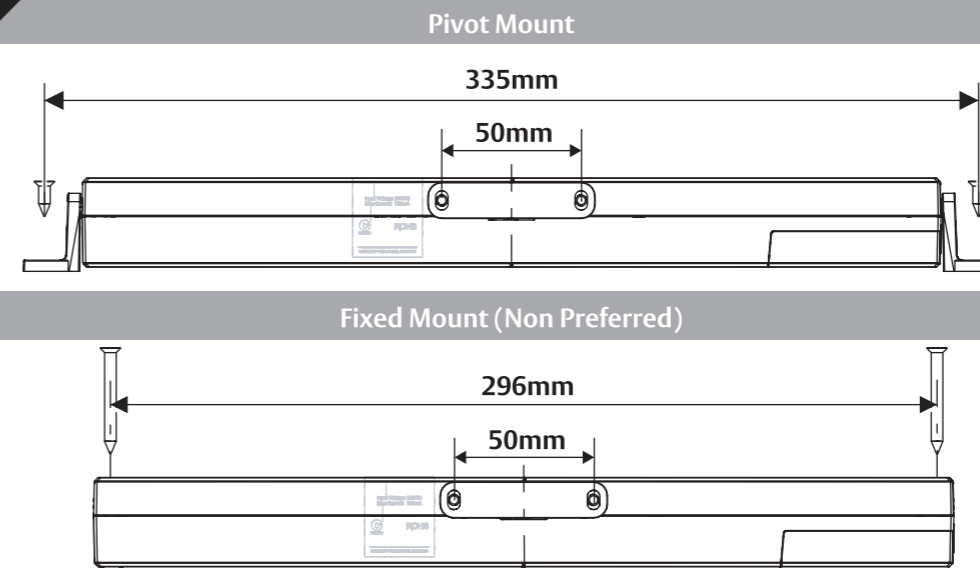

1/5   2400mm   1/5
900mm
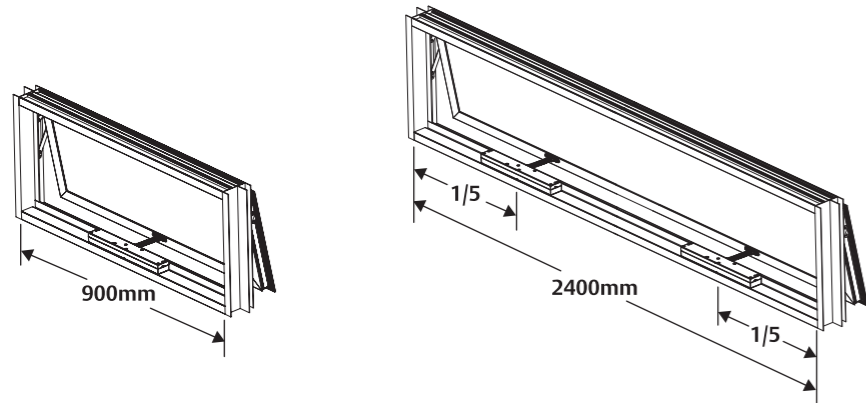
Two actuators required for windows over 900mm.

Synchronisation: 1 x Synchronisation Loom required for double Actuators. Loom connection as per step 9. Remove outer sheathing before tightly bunching excess cable inside Actuator.
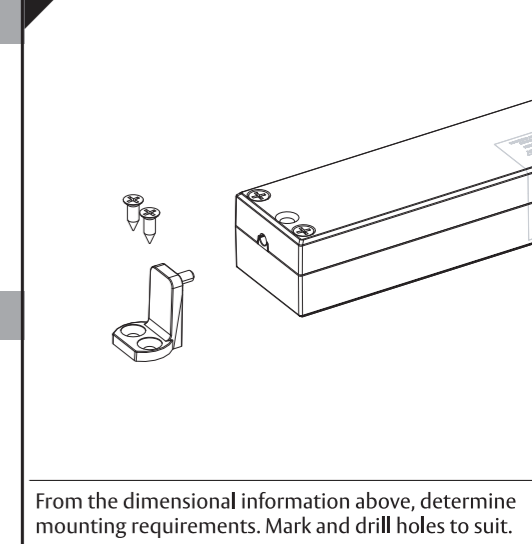
2 Select Chain Exit Height

Pivot Bracket Top Chain Exit
25.5mm
11mm 28mm 10mm

Fixed Mount Top Chain Exit
24mm
27mm 10mm
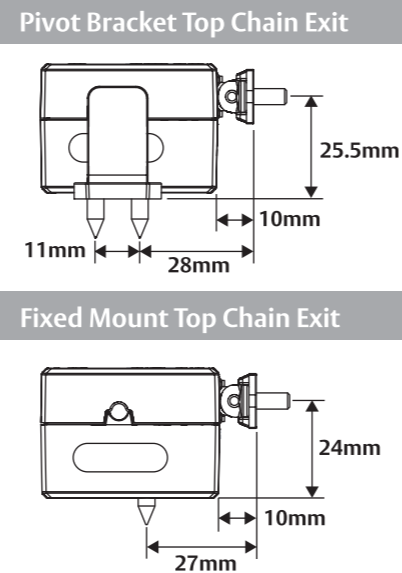
3 Select Fixed or Pivot Bracket Mounting

Pivot Mount
335mm
50mm

Fixed Mount (Non Preferred)
296mm
50mm

4 Prepare Fixing Holes

From the dimensional information above, determine mounting requirements. Mark and drill holes to suit.


Window Restriction Matrix

| Sash height (mm)	Awning Window - With Extruded Hinge	Awning Window with 4 Bar Stay
	Assume Glass is between 3-12mm	
	Sash Width (mm) 500-2400mm	
<299	N/A	N/A
300	110mm	220mm
350	130mm	280mm
400	155mm	300mm
450	180mm	300mm
500	210mm	300mm
550	280mm	300mm
600-1800	300mm	300mm

5 Set Chain Limit
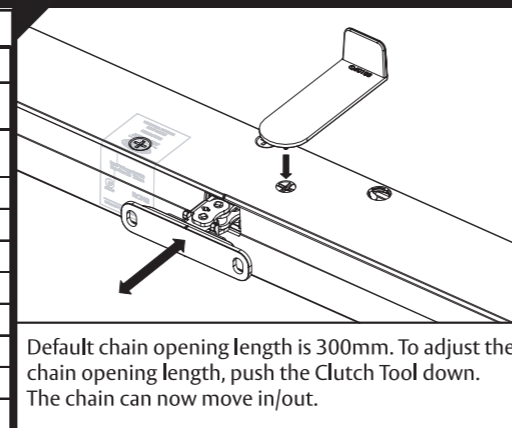
Default chain opening length is 300mm. To adjust the chain opening length, push the Clutch Tool down. The chain can now move in/out.
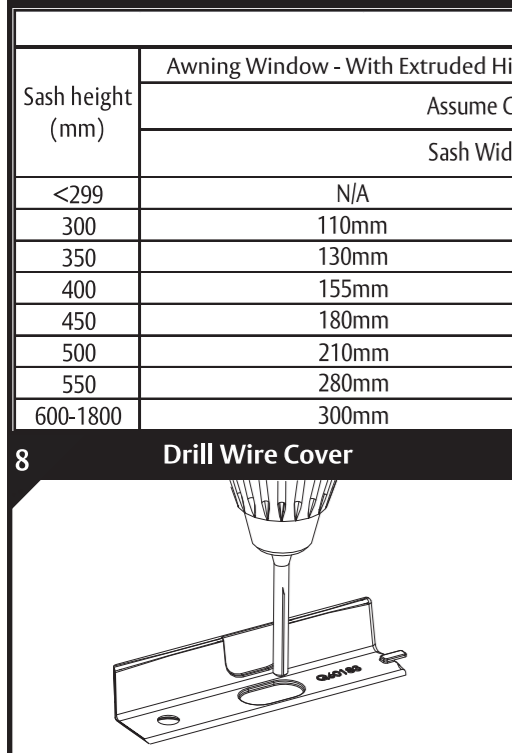
Required Chain Length   Move Chain Back 20mm
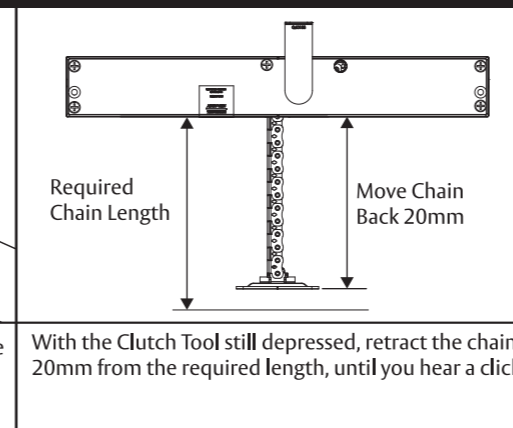
With the Clutch Tool still depressed, retract the chain 20mm from the required length, until you hear a click.

6 Restrict Chain
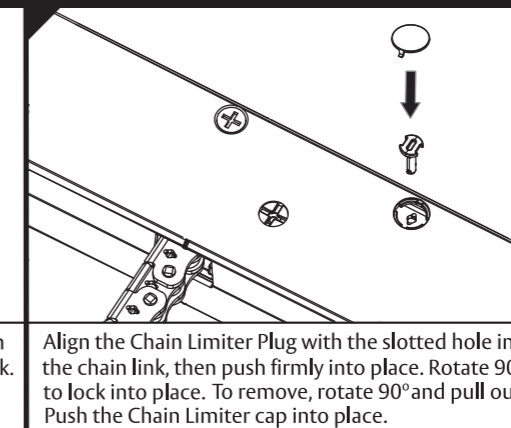
Align the Chain Limiter Plug with the slotted hole in the chain link, then push firmly into place. Rotate 90° to lock into place. To remove, rotate 90° and pull out. Push the Chain Limiter cap into place.

7 Feed wires through Window Sill

Feed Wires through window sill

Drill a hole through the window sill allowing enough space for wires to feed through.

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8 Drill Wire Cover

If required, drill out the notches with an 8mm drill bit to best suit your application.
If the looms are exiting from the end of the product, no drilling is required.

9 Connect Cables
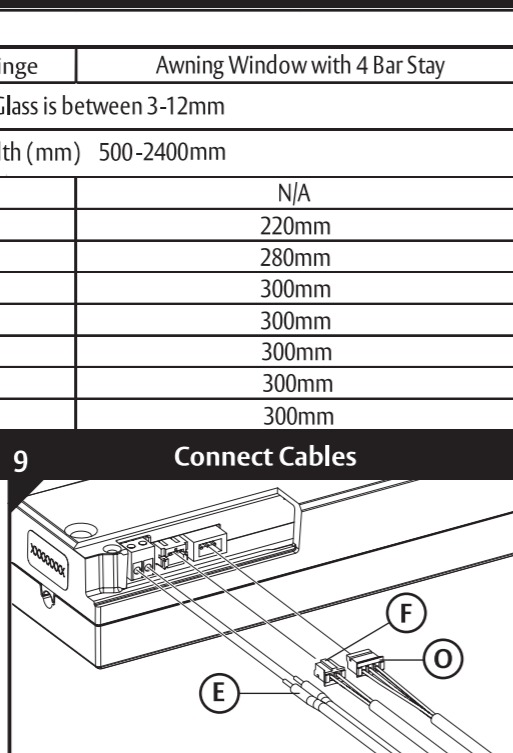
Insert the Ⓔ Power Loom, tigthen terminal screws. Insert the Ⓕ Control Loom, firmly push into place. (Insert Ⓞ Synchronisation Loom if required, firmly push into place) **Note:** Synchronisation Loom not supplied.

10 Secure the Wire Cover

Note the serial no. and location for Keypad programming.
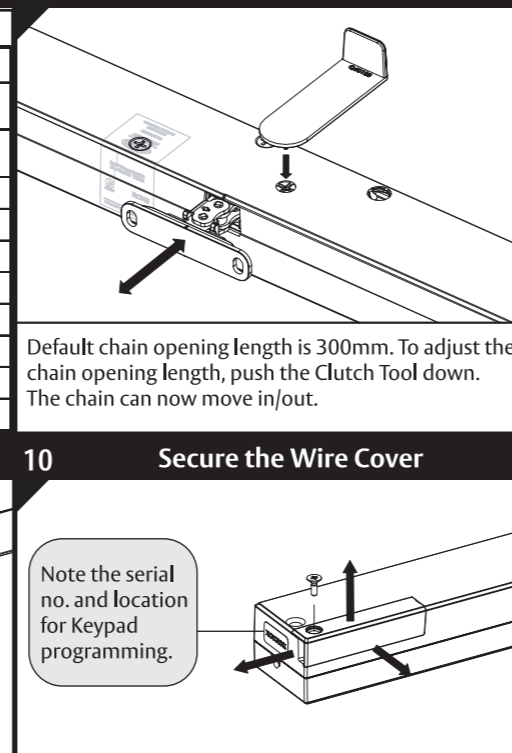
Secure Wire Cover in place with small screw supplied. To achieve IP30 rating, seal the wire exist points with silicon.

11 Secure Sash Bracket
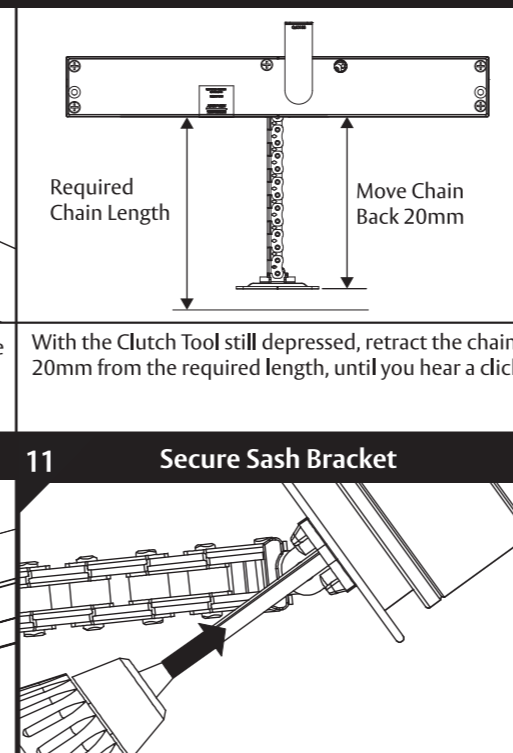
Secure the Sash Bracket to the window sash with screws supplied. Use the Clutch Tool to extend the chain if required. The chain can rotate at the Sash Bracket for ease of access to the fixing screws.

12 Secure Actuator
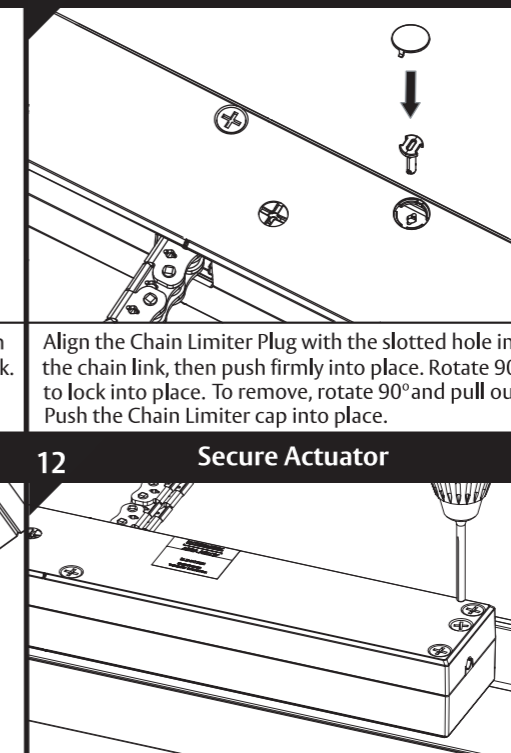
Secure the Actuator to the window sill with screws supplied.
Fixed Mount: 2 x 50mm mounting screws.
Pivot Mount: 4 x 25mm mounting screws.

13 Fit Clutch Cap
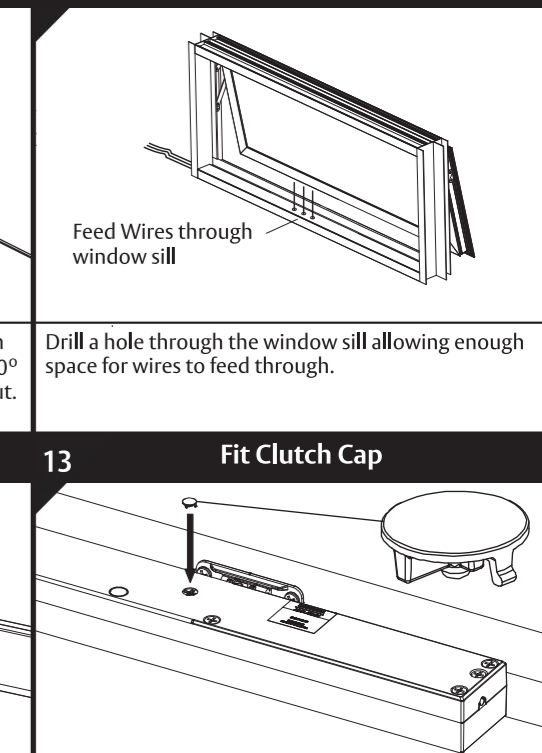
Use the Clutch tool to close window. Push the Clutch Cap into place.

QS00070-121

NOTE:
A 120 Ohm terminating resistor must be placed at each end of the network.

NOTE:
Cat 6 / Cat 5e Twisted Pair network cable

Note:
Actuator Max. Current 750mA each

1m Min

1m Min

1m Min

1m Min

1m Min

2m Max.

2m Max.

2m Max.

BROWN WHITE

BROWN WHITE

WHITE BROWN

WHITE BROWN

+VDC
-VDC

+VDC
-VDC

+VDC
-VDC

Sync loom cable

NSW1
NSW2

WHITE
GREEN
BROWN
BLUE

BLACK
-VDC
+VDC
RED

WHITE
GREEN
BROWN
BLUE
RED
BLACK

BLACK
-VDC
+VDC
RED

CLOSE — NO / NC
OPEN — NO / NC

Minimum of 1 m between joins along network cable.

1m Max

WALL SWITCH

The network adaptor can be placed directly behind the wall switch in the wall cavity.

NETWORK ADAPTOR:
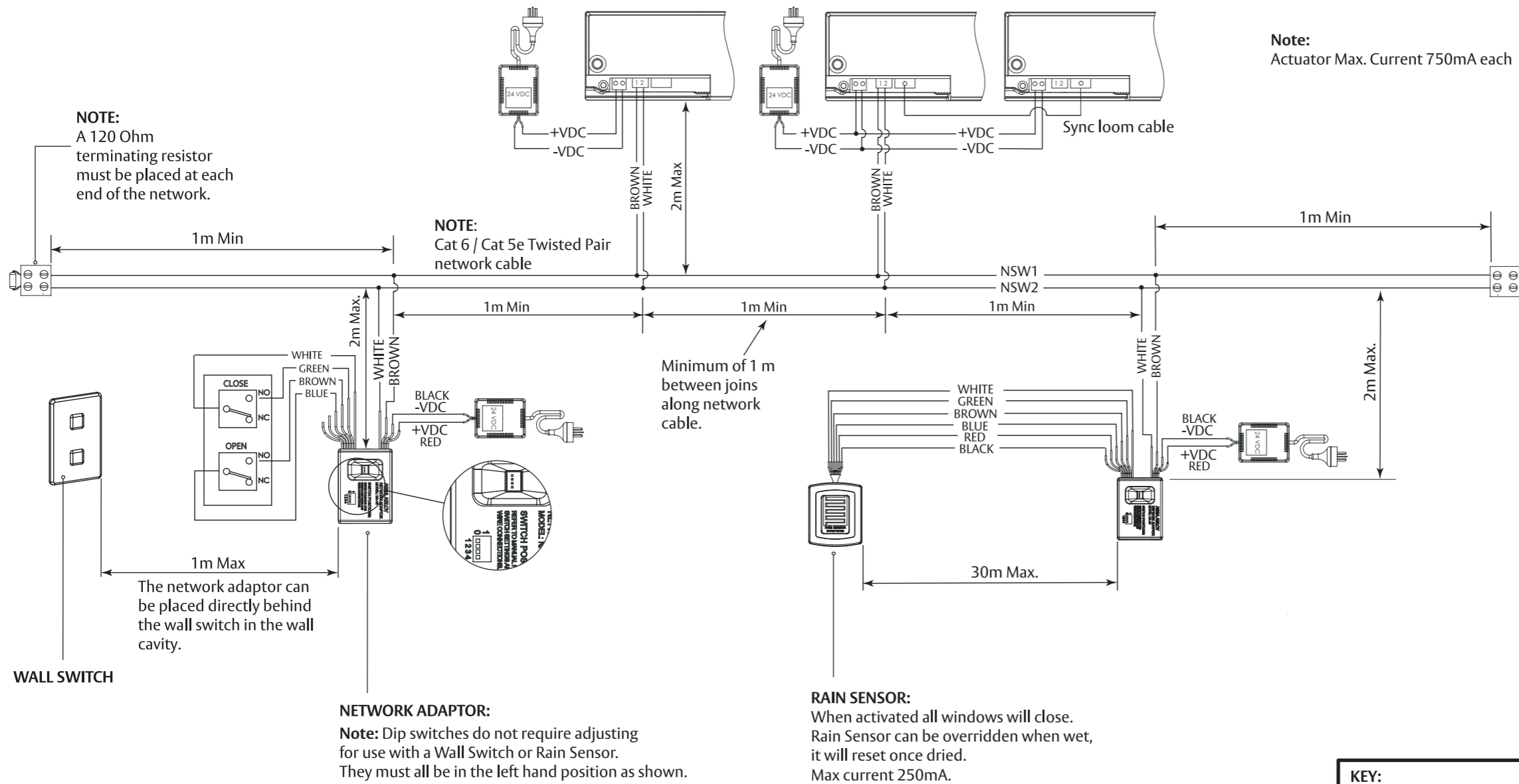**Note:** Dip switches do not require adjusting for use with a Wall Switch or Rain Sensor. They must all be in the left hand position as shown. Max current 100mA.

RAIN SENSOR:
When activated all windows will close. Rain Sensor can be overridden when wet, it will reset once dried. Max current 250mA.

30m Max.

KEY:

NSW1 = Network Signal Wire 1.
NSW2 = Network Signal Wire 2.
NO = Normally Open contact.
NC = Normally Closed contact.

- The power connection on the actuator is not polarity conscious.
- Cat 6 / Cat 5e Twisted Pair Network Cable used for the network cable.
- A 120 Ohm resistor must be connected at each end of the network cable.
- The network signal wires (NSW1 and NSW2) are polarity conscious and must not be shorted or connected the wrong-way around when connecting to devices.
- Each device must be connected to a new point along the network cable so devices are connected in a 'daisy chain'.
- Maximum network cable length is 300 metres
- A maximum of 30 devices can be connected to one network. For example 28 actuators and 2 network adaptors.
- A 'synchronised actuator' is not counted in the number of connected devices because it acts as a slave.
- A maximum of 4 network adaptors can be connected to a network.
- A network adaptor can be connected to a wall switch or a rain sensor, but not both at the same time.
- The network cable can be 'looped down' to the actuators and network adaptors so connecting cable between devices and network cable is 2m or less.
- Ensure all joins along the network cable are made properly. Soldering the joins is recommended.

Rain Sensor

- When the rain sensor detects rain, all the windows connected to the network will close together.
- The windows can to be opened again by pressing the wall switch.
- The windows can also be opened during rain from the wall switch which overrides the rain sensor. However the rain sensor will not reactivate until it has dried out and reset.

Keypad

- Keypads and wall switches are not recommended to be used together on the same network.
- Refer to Keypad installation and programming instructions for additional features.

CALIBRATION AND BASIC FUNCTION

The system must calibrate before use.
Power up the system, wait one minute, then press the open switch.
The windows will open and close twice.
Wait at least one minute before operating the system.

Note: If a window stops during calibration it means that it has safety stopped due to too much load. Press the close switch. Remove the obstruction. Then press the open switch to continue.

Wall Switch Basic Function:
Press the open switch for at least 2 seconds to open the windows.
Press the close switch for at least 2 seconds to close the windows.
Press any switch for at least 2 seconds to stop the windows.

TECHNICAL SPECIFICATION

INPUT VOLTAGE	24V DC
MAXIMUM CURRENT	750mA per Actuator
OPENING TIME	Approx 40 sec
OVERALL DIMENSIONS	308mm x 44mm x 32mm
OPERATING TEMPERATURE	0° - 50°C
HUMIDTY	0% - 95%
NETWORK CABLE LENGTH	300m Max