

# Aeron® Window Control System

Easy opening. With Aeron®, you can effortlessly open those hard-to-reach windows, allowing fresh natural air to flow in.

# Contents



Aeron® Smart Window Actuator

Page 3



Aeron® System Wireless Remote

Page 7



Yale Connect Plus Hub 2

Page 9



Aeron® Wireless ZigBee Module

Page 11



Aeron<sup>®</sup> Accessories and Spare parts

Page 13

### Aeron® Window Control System



The all new Yale Aeron<sup>®</sup> is a Smart Window Control System designed to operate your windows at the touch of a button, whether using a wall switch or the Aeron<sup>®</sup> Wireless Remote, or even from anywhere around the world using your smart device with the Yale Home App. The perfect solution to control hard-to-reach windows or those that are too heavy to be operated by hand. The Smart Aeron<sup>®</sup> Window Control System offers the perfect combination of convenience, flexibility and safety with the ability to control up to 30 windows from a single hub, opening and closing windows individually or in groups using the Yale Home App or Aeron<sup>®</sup> Remote.

Not only does its wireless functionality open up a world of new possibilities of window control, but it also makes installation a breeze compared to current systems. No more complicated wiring all around your house to allow communication between the different window actuators – just run power to each unit and the rest is taken care of wirelessly through the advanced Zigbee mesh network.

Allowing for a generous window opening of 250mm, the Aeron® can also be restricted to four different preset maximum opening positions (100mm, 150mm, 200mm and 250mm) depending on the individual requirements of the occupants and the installation. Aside from the preset maximum positions, a 'vent' position of 75mm is available as an option regardless of the maximum position, allowing natural ventilation and heating/cooling which contribute to an energy efficient home. The window opening restrictions also facilitate conformance to Building Code of Australia - Prevention of Falls from Windows, when window opening is restricted to 100mm and used in conjunction with approved window systems.

In addition to all the new features, the Aeron® retains key features of current systems, with the option to work with any 3rd party building management system and/ or Fire system, using hard-wired configurations. Refer to the wiring diagram for more information.

Aeron<sup>®</sup> is easy to upgrade too, with the flexibility of adding additional windows at a later stage. Being on the Yale Home App lets you integrate with your other, Yale Home devices, such as door locks. Ultimate control is only a touch away with the option to instantly close all windows at once when leaving the house or locking up for the night.

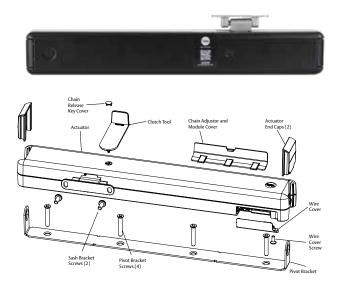
Note: Aeron<sup>®</sup> wiring must be completed by a licensed electrician. Please ensure that all wiring is completed by a professional to be compliant as governed by local building codes, regulations, and/or laws.

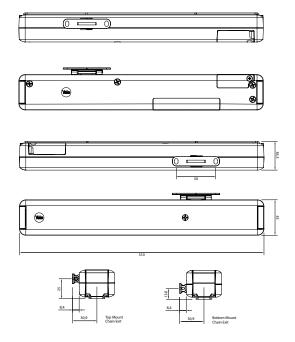
#### Application

- Awning and casement windows
- High, out of reach windows
- Conveniently open single or a group of windows
- Commercial buildings
- Residential buildings

**Note:** Indoor use only. Aeron® Actuator must be used on hard-to-reach windows.

## Aeron® Window Control System





### **Benefits**

- Provides automated operation of awning or casement windows that are too high or too large to be manually operated
- Unit can be top or bottom mounted with no additional parts required
- Provides natural ventilation: heating or cooling (depending on the climate)
- Smart Home technology gives capability for smart automation of window operations
- Contributes to an energy efficient home
- Operated via wall switch, wireless remote or Yale Home App
- Automatically close windows when it rains with the additional Rain Sensor \* (Coming soon)
- No complicated network wiring required
- Over The Air (OTA) updates for the smart accessories
- Retrofittable to Conel and Elevation Actuators



### **Technical Specifications**

recnnical Specifications	
Chain Limiting	Limit chain between 100-250mm at 50mm increments
Maximum Peak Load	600mA
Maximum Chain Opening	275mm
Dimensions	310L x 45W x 36H (dimensions are in mm)
Endurance	12,000 Cycles
Operating Temperature	0° to 50°C
Opening/Closing Time (full stroke)	Approx 30 sec
Finishes	Black (BLK), White (WH), Special Powdercoat (SPEC)
Humidity	0 to 95%
Materials	Actuator body: Cast zinc Sash bracket: Cast 304SS Chain: Stainless steel 304 Pivot bracket: Pressed Stainless steel 304
Operating Force Open/Close	90N
Negative Holding Force	3000N
NSS Testing on chain	1000 Hours
Noise Level	55dB @ Maximum window Load
Compliance	<ul> <li>Regulatory Compliance Mark (RCM) for AU &amp; NZ</li> <li>IP30 Rated (if installed according to installation instructions)</li> <li>FCC Part 15b Compliance (Actuator with Zigbee module)</li> <li>FCC Part 15C Compliance (Zigbee module FCC ID: 2A9SQ-SWAAZMD)</li> <li>ICES-003:2020 ISSUE 7 (Actuator with Zigbee module)</li> <li>Industry Canada (Zigbee module IC ID: 29955-SWAAZMD)</li> </ul>
Australian Standard	<ul> <li>Australian Window Standard for negative force strength pressure (AS4145.3-2001)</li> <li>DW2 Australian Window Standard (AS4145.3-2001)</li> </ul>

### Aeron® Window Control System

### Window Sizes

- Maximum Window width Single Actuator 900mm
- Maximum Window width Double Actuators\* 2400mm
- Minimum Window height 300mm

Note: Actuator chain may need to be restricted, based on the sash size, as per the Aeron $^{\odot}$  window matrix.

\* Must be in Sync connection.

#### **Aeron® Actuator Features**

- Intuitive app controls: The app allows you to control all your windows actuators and offers preset options such as 'closed,' 'vent,' 'half,' and 'full' for easy window management
- Quieter operation: Whisper quiet, only 55dB even at full load
- Simultaneous operation: The actuators, equipped with 24V DC motors, can operate in unison, and be grouped together for synchronised control
- Wide window coverage: Synchronise two actuators to cater to wider windows, ensuring efficient operation
- Secure window seal: Each actuator provides a robust closing force of 9kg, ensuring a tight window seal when closed
- **Durable construction:** The Aeron® system features a strong and corrosion resistant stainless-steel chain (grade 304) for long-lasting performance
- Adjustable chain length: The chain length extension can be easily adjusted in predefined lengths using a slide switch, allowing you to limit the window opening as desired
- **Easy installation:** The removable sash bracket simplifies the installation process by disconnecting the chain, and the chain release key also enables the chain to move freely during installation meaning that installation can be completed without power connection
- Wireless setup: Once powered, no more wiring is required (unless hard-wired wall switch is desired), and all remaining setups can be done through wireless devices
- Zigbee Mesh network: Each actuator adds to the mesh network around the home, meaning that actuators don't need to connect back to a base Yale Hub device, but can connect to each other. This reduces the need for multiple Yale Hub units around the home.
- Multiple control options: Operate the system conveniently through the Yale Home App, a handheld remote control, or a wall switch, offering versatility to suit your preferences
- **Comprehensive compatibility:** Suitable for awning or casement windows, the Aeron<sup>®</sup> system can be fixed to both timber and aluminium window frames

#### Aeron® Smart Window Actuator Item Numbers

Description	Part Number
Yale Aeron Wireless Actuator Black	YAR/WSWA/1/BLK
Yale Aeron Wireless Actuator White	YAR/WSWA/1/WH
Yale Aeron Wireless Actuator Spec	YAR/WSWA/1/SPEC

#### Accessories

Description	Part Number
Yale Connect Plus Hub 2	YAR/SWAA/HUB/-I-D
Yale Aeron System Zigbee Remote	YAR/SWAA/ZRT
Yale Aeron Actuator Zigbee Module	YAR/SWAA/ZMD
Yale Aeron Sync Loom	YAR/SWAA/SSL
Yale Aeron Standard 24VDC Power Supply	YAR/SWAA/SPS

#### **Spare Parts**

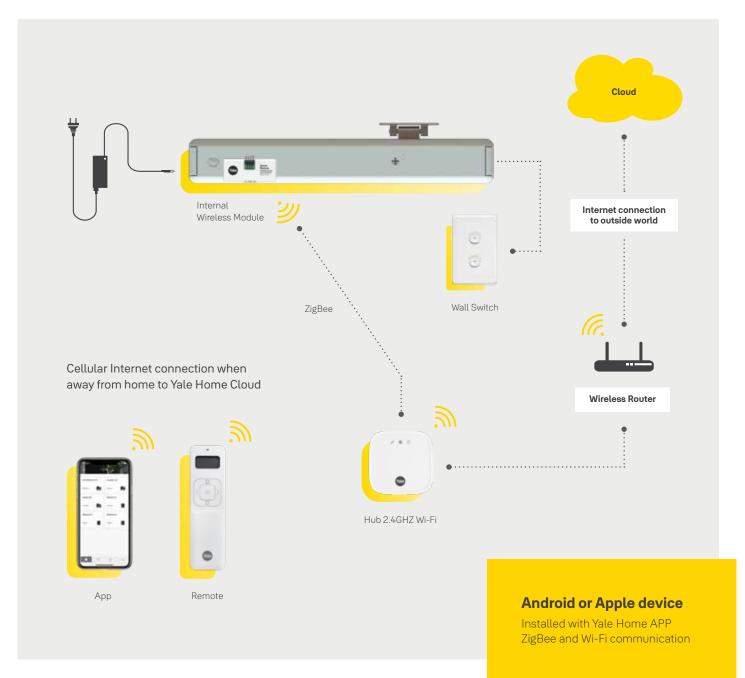
Description	Part Number
Yale Aeron Actuator Accessory Pack	YAR/SWAA/AP
Yale Aeron Actuator End Cap Black	YAR/SWAA/EC/BLK
Yale Aeron Actuator End Cap White	YAR/SWAA/EC/WH
Yale Aeron Actuator End Cap Spec	YAR/SWAA/EC/SPEC
Yale Aeron Pivot Bracket	YAR/SWAA/PVT
Yale Aeron Wiring 6pin Connector Plug	YAR/SWAA/W6CP

#### **Other Notes:**

- 24V DC Power supply needs to be ordered separately; One power supply has enough power to operate 2 actuators (Sync setup) / windows.
- If two actuators are synchronized, they will only count as one device on the system. Wireless module must be removed from the Slave unit and slave unit must use power supply from master unit instead of having its own power supply
- A Yale Hub is required for wireless setup and connectivity, including use of Wireless Remote or smart Yale Home app. Yale Connect Plus Hub 2 is the primary Yale Hub offered with the Aeron<sup>®</sup> system, but alternative Yale Hub devices listed on the website as compatible with Aeron<sup>®</sup> may be used
- Maximum of 10 actuators can be connected to one wall switch. For optimal
  performance, AWG26 cable is recommended with 30m maximum run lengths.
- Maximum of 30 actuators can be connected to one remote
- Maximum 30 actuators and 4 remotes can be connected to Hub
- Rain sensors can operate when connected to hub wirelessly or wall switch network
- Hard-wired rain sensors will only operate the actuator directly wired to sensor

# Aeron<sup>®</sup> System Overview

### Product Operation Overview



### Aeron<sup>®</sup> System Wireless Remote



Designed to support Yale Aeron® Smart Window Actuators throughout your home, the Aeron® Wireless Remote works in conjunction with the Yale Hub keeping all smart actuators connected using Zigbee mesh technology. Yale's Aeron® Wireless Remote is a modern designed, user-friendly hand-held device which can control up to 30 Aeron® Window Actuators. The Aeron® system remote can Open or Close individual or groups of windows with just the press of the button.

Users have the option to instantly close all windows at once when leaving the building or locking up for the night if all actuators are grouped together. Aeron<sup>®</sup> remote allows you to easily decide which window or group of windows you would like to: Open or Close. For easy installation, Remote can be set into the Engineering mode to allow installer to test the Actuators without the need of internet.

Scan QR code on back of the remote to get more information.

### Applications

- Commercial Buildings
- Residential Buildings

Note: Indoor use only

### Benefits

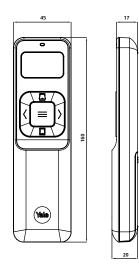
- 1.30-inch LCD interactive display gives clear visibility at day and night
- Different LED light colours and patterns for various operations (Refer to Remote Manual for detailed information)
- Auto Sleep Mode conserves battery and switches screen off
- OTA updates
- Simple pairing process
- Control up to 30 windows
- The actuators can be split into 4 groups and each group can be controlled independently
- Instantly open or close all windows
- Engineering mode to test Actuators onsite without Internet connection
- Synchronize window grouping and position from Yale Home App
- Error message lights
- Great range\* enabled by connection into the Zigbee mesh network created by the Hub and all connected Actuators
- All windows are automatically assigned to G1 (Group 1). Windows need to be re-assigned to special groups as required
- Low Battery Alert
- Easy Factory reset
- Comes with Wall cradle with inbuilt magnet to mount remote on the wall

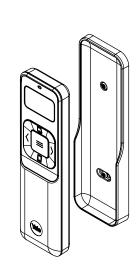
\*Depend on the building layout and material



## Aeron® System Wireless Remote







### **Hints and Tips**

**Low Battery Alert:** When the battery level is below 20% the LED flashes Red slowly every 2 seconds

**Sleep mode:** After 10 seconds of idle time, the Remote will automatically enter into sleep mode

**OTA (Over The Air Update):** The OTA is a wireless update used to ensure the latest software updates are installed for the Aeron® to operate smoothly. During the OTA process the LED will flash Green. When an OTA update is successful, the remote LED will illuminate Green for 3 seconds. If the OTA update fails the LED will illuminate Red for 3 seconds.

The OTA will automatically take place when an update is available.

### **Factory Reset**

On the back of the remote, under the battery cover is a factory reset button. To factory reset the remote, (batteries must be in the remote when doing this), push a paperclip into the reset hole and press for 5 seconds. The LED on the front of the remote will flash Green when the remote has been reset. Restarting the remote will automatically place it into pairing mode.

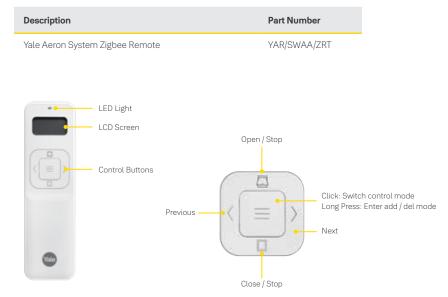
- By default, all the actuators in the system are assigned to Group 1. Actuators cannot be added or removed from Group 1. Groups 2 to 4 can be modified as required
- Press and hold "confirm" and "Left button" together for 5 sec to activate Engineering mode. Green light will turn Green Solid for 1 second to show engineering mode is active. Releasing buttons will have screen showing 9 and 99 which indicates remote is in Engineering mode. Remove the battery or reset the remote to deactivate Engineering mode. Once Actuators are connected to Hub/Yale Home App, Engineering mode cannot be activated for the actuators.

### **Technical Specifications**

Dimensions	160H x 45W x 20D (dimensions are in mm)
Environment	Operational temperature range 0° to +60°C
Finishes	Snow White
Humidity	90% @ 35°C
Materials	White Polycarbonate
Power	2 x AA Batteries included
	<ul> <li>Regulatory Compliance Mark (RCM) for AU &amp; NZ</li> <li>IP32 Rated</li> </ul>
Compliance	FCC Part 15b Compliance
	<ul> <li>FCC Part 15C Compliance (FCC ID: 2A9SQ-SWAAZRT)</li> </ul>
	• ICES-003:2020 ISSUE 7

• Industry Canada (IC ID: 29955-SWAAZMD)

#### Aeron<sup>®</sup> System Wireless Remote



Yale Aeron<sup>®</sup> Window Control System Catalogue 1300 LOCK UP (1300 562 587)

### Yale Connect Plus Hub 2



The Yale Connect Plus Hub 2 allows you to access the Aeron® Smart Window system from anywhere in the world. You can Open, Half-open, Vent, or Close windows, add or remove devices, create groups and assign names as required for the flexibility.

Designed to support up to 30 Aeron® Actuators, and 4 remotes throughout your home, the Yale Connect Plus Hub 2 keeps smart devices connected with great range\*.

The Connect Plus Hub 2 works with Yale Home App and can easily be integrated into other Yale Smart products for home automation system.

\*Home size, layout and building material can impact performance. Medium and larger sized home may require additional devices for full coverage.

### Applications

- Commercial Buildings
- Residential Buildings

Note: Indoor use only



### **Benefits**

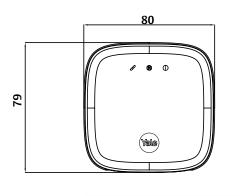
- Support 30 Aeron® actuators and 4 remotes
- Seamlessly manage Yale Aeron® smart system from anywhere using the Yale Home App
- Simple App-driven set-up process
- OTA updates
- QR code for quick access to Yale Home App
- Can be wall mounted or be placed on table
- Different LED lights to show status of the Hub
- Great range
- Compatible with 2.4GHz wi-fi network. Does not support 5GHz network
- Manual Wi-Fi pair and Reset options

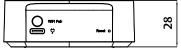
### Technical Specifications

rechnical Specifications	
Communication	Wi-Fi 2.4GHz, ZigBee
Dimensions	$80W \times 79H \times 28D$ (dimensions are in mm)
Power	5 VDC/1.0A power adaptor through USB-C power adapter (included)
Plug Type	l plug
Operating Temperature	0-60°C (For Hub), 0-40°C (For Power adapter included)
Operating Humidity	10-90% Non-condensing
Finish	Snow White
Compliance	<ul> <li>Regulatory Compliance Mark (RCM) for AU &amp; NZ</li> <li>IP20 Rated</li> <li>FCC Part 15C Compliance (FCC ID: 2A9SQ-SWAAHUB)</li> <li>Industry Canada (IC ID: 29955-SWAAHUB)</li> </ul>

### Yale® Connect Plus Hub 2







### Hints & Tips for different LED lights operations:

LED Name	Power Indicator	Wi-Fi Indicator	Server Indicator
Power Status			
Device has powered up	On		
Device is OFF	Off		
Factory Reset			
In Progress	Blink (250ms)	Blink (250ms)	Blink (250ms)
Reset and entered pairing mode	Blink (1sec)		
Wi-Fi Status			
Connected to the router	On	On	
Hub is waiting to connect to the Wi-Fi	On	Blink (1sec)	
Firmware is updating	On	Blink (250ms)	
Wi-Fi Connection Error		Off	
Server Connection			
Connected to the Yale Home server			On
Disconnected from the server			Off
Connected to the server with data communication occurring			Blink (50ms on; 50ms off)
Hub status			
Hub setup and operational	On	On	On

### Aeron<sup>®</sup> Connect Plus Hub

Description	Part Number
Yale Connect Plus Hub 2	YAR/SWAA/HUB/-I-D

### Aeron<sup>®</sup> Wireless ZigBee Module



The Aeron® Wireless Zigbee Module allows the Aeron® Window Actuator wireless connectivity and smart functions. It relays commands from the Yale Connect Plus Hub 2 to the Actuator, as well as transmitting out to the Hub and other Actuators within the Zigbee mesh network.

The Aeron® Module is the special component that makes the Aeron® Window Actuator wireless, allowing users to upgrade from hard-wired wall switches to the world of possibilities opened up by wireless setup. All it takes is to connect through Yale Connect Plus Hub 2.

Each Aeron® Actuator comes wireless-ready with Aeron® Module pre-installed, which can be replaced or removed if not required. I.e, in Synchronisation connection Slave actuator must NOT have a Module installed in it.

### Benefits

- Operate window actuators wirelessly with Remote or the Yale Home App
- Zigbee mesh certified
- Easy to install/remove from the actuator
- Wireless Aeron® Module allows Aeron® actuator to register on the App hassle-free
- QR code scannable



### Technical Specifications

Communication	ZigBee
Dimensions	58W x 25H x 7.3D (dimensions are in mm)
Power	5 VDC/1.0A (Powered by Aeron Host Actuator)
Operating Temperature	0-40°C
Operating Humidity	10-90% Non-condensing
Finish	Matt White
	Regulatory Compliance Mark (RCM) for AU & NZ
	<ul> <li>FCC Part 15b Compliance (Actuator with Zigbee module)</li> </ul>
Compliance	FCC Part 15C Compliance (Zigbee module FCC ID: 2A9SQ-SWAAZMD)
	• ICES-003:2020 ISSUE 7 (Actuator with Zigbee module)

• Industry Canada (Zigbee module IC ID: 29955-SWAAZMD)

### Aeron® Wireless ZigBee Module





### **Hints and Tips**

### Module interchangeability

As noted, the Aeron<sup>®</sup> Module can be removed if desired, but a handy thing to know is that the Module is the piece of the Actuator that gives it an 'identity' within the network. This means that users can move Modules to different Aeron<sup>®</sup> Window Actuators, and the ID within the network (Aeron<sup>®</sup> Remote or Yale Home App) will move with the Module. This can be handy during setup phase where a user may want to move things around, or even do all of their setup from one room, and then distribute the Modules around the home to their liking.

#### Aeron® System Wireless Remote

Description Yale Aeron Actuator Zigbee Module Part Number

YAR/SWAA/ZMD

### Aeron® Accessories & Spare Parts







Range of accessories and spare parts are available to support Aeron® Smart Window System installation.

### YAR/SWAA/SPS: Yale Aeron® Standard 24VDC Power Supply

Each Aeron<sup>®</sup> Window Actuator requires 24V DC power supply. The Yale Aeron<sup>®</sup> Standard 24VDC Power Supply is a transformer designed to convert mains power to the required 24V DC used to power each Window Actuator. Please consult a professional to work through the requirements for your system.

**Note:** Wiring must be completed by a licensed electrician. Please ensure that all wiring is completed by a professional to be compliant as governed by local building codes, regulations, and/or laws.

#### **Features and Specifications**

- 24V DC, 1.67A
- 600mA per Actuator. One power supply can power up to two Aeron® actuators
- For double Actuators (Synchronisation) setup, the same power supply must be used for both actuators

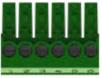


### YAR/SWAA/SSL: Yale Aeron® Sync Loom

The 1.8m long synchronisation loom cable allows a pair of actuators to be synchronised to operate together, with one actuator designated the master controlling operator and the other a slave actuator. Ideal for windows more than 900mm wide, or for heavy windows, where two actuators are required to operate the window.

### Aeron<sup>®</sup> Accessories & Spare Parts





### **Spares**

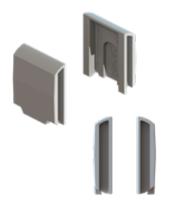
The following products are all Spare Parts and all come complete with every Aeron<sup>®</sup> Window Actuator. They are listed as additional spares if required to be purchased separately.

### YAR/SWAA/W6CP: Yale Aeron® Wiring 6pin Connector Plug

6 Pin removeable connector plug specifically designed for Aeron<sup>®</sup> Actuator for easy wiring installation is available to purchased separately. Pins are marked with #1 to #6 to guide electrician on how to wire, guided by the installation instructions and wiring diagrams.

### **Connector plug Pin Guide**

- #1 V IN 24+ : Power from Transformer
- #2 IN 24- : Power from Transformer
- #3 OUT 24+ : Power output to switch (Common)
- #4 SW CLOSE : Switch Wire to Close
- #5 SW OPEN : Switch Wire to Open
- #6 V OUT 24- : Earth (Ground)



#### YAR/SWAA/EC/\*\*\*: Yale Aeron® Actuator End Cap

Actuator end caps are used to mount Aeron® Actuator body on the Pivot bracket and cover the ends. End caps are colour matched with actuator body. Range of colours are available on application. End Caps are made from Cast Zinc and comes in pairs of two.

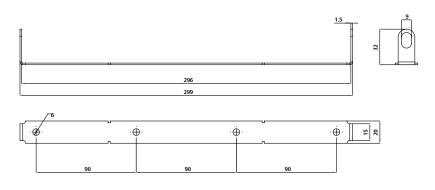
Description	Part Number
Yale Aeron Actuator End Cap Black	YAR/SWAA/EC/BLK
Yale Aeron Actuator End Cap White	YAR/SWAA/EC/WH
Yale Aeron Actuator End Cap SPEC	YAR/SWAA/EC/SPEC

### Aeron<sup>®</sup> Accessories & Spare Parts



### YAR/SWAA/PVT: Yale Aeron® Pivot Bracket

Integrated one piece pivot bracket made from pressed stainless steel 304 material allows Aeron<sup>®</sup> Actuator to be easily installed. The Yale Aeron<sup>®</sup> Pivot bracket allows the Aeron<sup>®</sup> Actuator to move slightly as it operates the window and ensures actuator follows the opening and closing arc of the window to increase the longevity of system.





#### YAR/SWAA/AP: Yale Aeron® Actuator Accessory Pack

The Yale Aeron® Actuator Accessory kit include the following components:

- 1 x Chain release tool (Black)
- 1 x Clutch cover (Black)
- 1 x Aeron<sup>®</sup> cable entry cover (Black)
- 1 x Aeron<sup>®</sup> module cover (Black)
- 1 x 4g x 40 Stainless Steel Pozi #1 screw
- 4 x 8g x 1 Stainless Steel countersunk #2 screw
- 2 x 8g x 1/2 Stainless Steel pan #2 screw

Note: Aeron® covers are available in Black colour only.

ASSA ABLOY Australia Head Office

ASSA ABLOY Australia Pty Limited 235 Huntingdale Road, Oakleigh Victoria, 3166 Australia

1300 LOCK UP (1300 562 587) customerservice.au@assaabloy.com assaabloy.com/au

### yalehome.com/au



#### Disclaimer

Whilst every effort has been made to ensure that the information (including product images and drawings) contained in this brochure is accurate at the time of publication, ASSA ABLOY Australia Pty Limited ("ASSA ABLOY") recommends that you consult ASSA ABLOY or its agents prior to placing an order to ascertain current information on specific products, as ASSA ABLOY reserves the right to make changes without notice. ASSA ABLOY will not be liable for any injury, loss or damage whatsoever, arising from any errors or omissions in the information contained in the brochure or arising from the use or application of the information contained herein. © 2023 copyright by ASSA ABLOY All rights reserved

ASSA ABLOY Australia Pty Limited ABN 90 086 451 907 © 2023\_10 | MC13815