Doric



VENTUS automation

AUTOMATED HARDWARE

POWER STRUTS

"The easy way to PLUG&*PLAY*" Automate servery windows with Doric's self latching, self locking Power Struts.

Doric Ventus Automated Hardware provides a complete range of automated hardware for Residential and Commercial applications.

The Power Strut is a electric power driven actuator capable of opening large awning windows and other window systems.

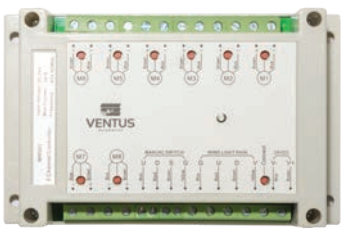
Unlike any other servery style window, this unit is designed to open, close and secure itself unassisted. The actuators push the latch to unhook itself, allowing then the window to lift open, up to 90 degrees with some window systems.

The design of the latch plate is integral to the system. By incorporating the Linear Actuators with the latch mechanism, the user can drive the hook down and then use the connection point on the latch as the drive mount. The unique design of the combination ensures the hook remains unlocked until the final 15 mm of strut travel when the latch internals allow it to drive up and lock.

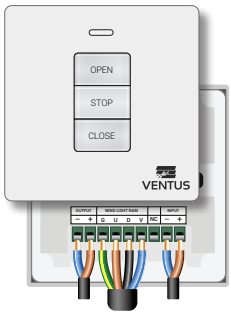
PLUG&***PLAY*** SYSTEM

The Doric Ventus 'Plug & Play' system consists of a simple range of controllers, switches and motors all connected via quick connect plugs.

Running on the Ventus 24 Volt 'Plug & Play' system provides simplicity & reliability that is easy to install and does not require an electrician to connect together.



8 Channel Controller



1 Channel Controller



2 Pin Plugs
Power and Motors



4 Pin Plugs
Accessories



POWER SUPPLY

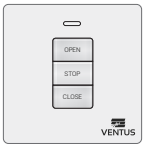
Running on 24V DC, the system by design only requires a GPO or regular mains power outlet at the reach of the supplied power pack to plug into. Not needing an electrician to wire up all the hardware components is a key benefit of the Doric Ventus 'Plug & Play' system.

AUTOMATED CONTROLS

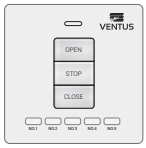
A Wind Light Rain Sensor can be added to offer an automatic control when the weather turns undesirable. The system also alternatively allows to connect into the existing Building Management System (BMS) or C-BUS.

REMOTES & CONTROLS

One controller can be connected to an infinite number of switches and remotes, allowing you to put the controls where you want for absolute convenience.



WT211
1-Channel wireless wall mounted switch



WT215
5-Channel wireless wall mounted switch

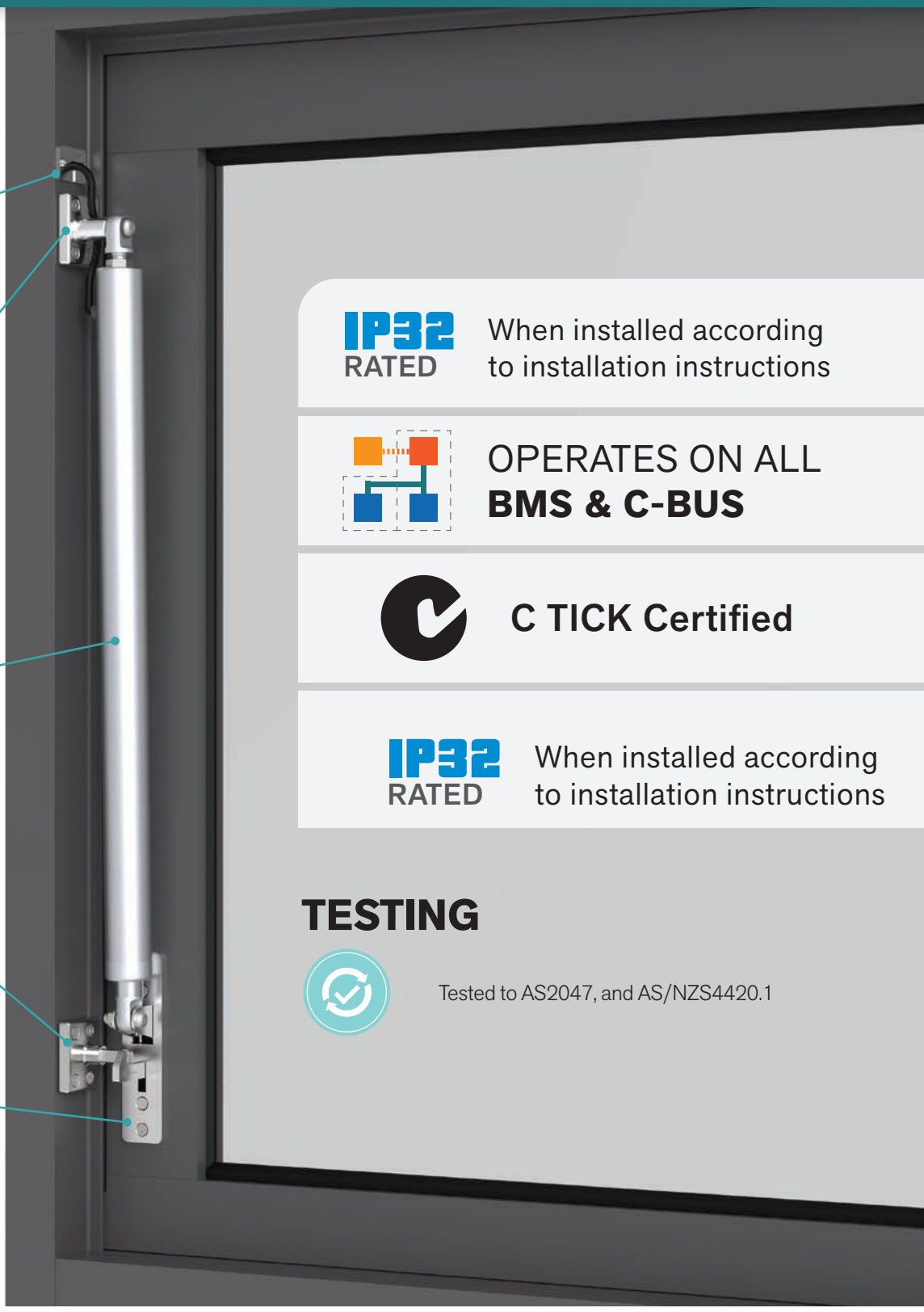


RT111
1-Channel wireless remote control



RT1116
16-Channel wireless remote control





IP32 RATED — When installed according to installation instructions

OPERATES ON ALL **BMS & C-BUS**

C TICK Certified

IP32 RATED — When installed according to installation instructions

TESTING

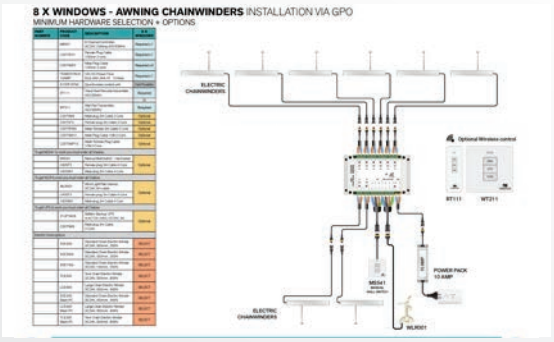
Tested to AS2047, and AS/NZS4420.1

VENTUS | POWER STRUTS



WIRELESS CONTROL

Wireless Hand Held Remote and Wireless Wall Switch offers control from convenient locations and is easily paired to the Plug&*Play* Controller Unit.



EASY TO FOLLOW COLOUR CHARTS

Installation is made a breeze with the easy to follow colour chart and wiring drawings.



QUICK CONNECT PLUGS

The Doric Ventus system connects fast and simple by the use of quick connect plugs.



NO ELECTRICIAN WIRING

Using quick connect plugs and a 24V DC power pack plugging into a general power outlet (GPO), the system does not require a licensed electrician to connect all the components.

The easy way to **PLUG&*PLAY***



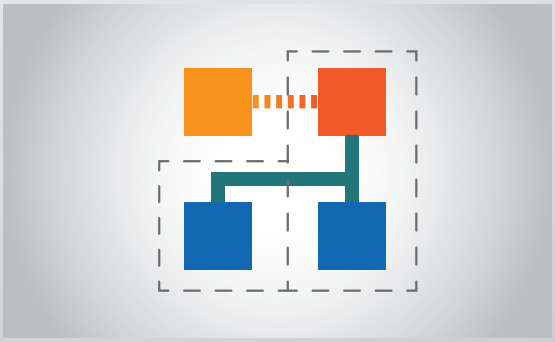
STAINLESS STEEL COMPONENTS

The top and bottom mounts are fabricated from 316 Stainless steel to offer superior corrosion resistance in a variety of environments.



BOTTOM LATCH MECHANISM

Designed to self latch on close, the hook and mount allows the window to remain secure until the actuator unlocks and opens the window.



MULTIPLE INSTALLATION OPTIONS

The system can operate either standalone or integrate with BMS, C-BUS, & GPO installations, adding for flexibility of control and installation.

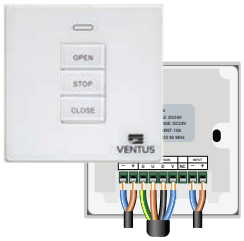


CLEAR VIEW, LOW PROFILE

The Linear Actuator and Mount Blocks sit hard up against the jamb and high up when open, creating minimal obstruction and a clear opening.

AUTO HARDWARE COMPONENTS

All the hardware you need and no confusion. The Doric Ventus range encompasses control units at the heart of the system, power supply, control pads and wireless remotes, automated sensors, leads, extensions, accessories and the window operator motors themselves. Doric also provides comprehensive wiring diagrams to aid in the 'Plug & Play' installation.



MR536
1-Channel control unit



MR551
8-Channel control unit



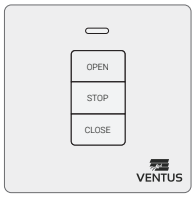
POWER PACK 2.5AMP
Mains power 240V AC
to 24V DC



POWER PACK 10AMP
Mains power 240V AC
to 24V DC



21UP2403
UPS Battery backup power



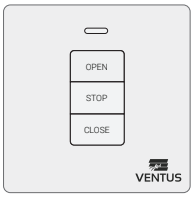
MS541
Wired wall mounted
switch



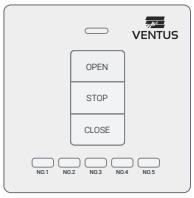
RT111
1-Channel wireless
remote control



RT1116
16-Channel wireless
remote control



WT211
1-Channel wireless
wall mounted switch



WT215
5-Channel wireless
wall mounted switch



WLR001
Wind Light Rain Sensor



C2075F01
2-Core female plug 100mm



C2075M01
2-Core male plug 100mm



C2075F3
2-Core female plug 3m



C2075M3
2-Core male plug 3m



C2075FM3
2-Core female-male plug 3m



C2075FM10
2-Core female-male plug 10m



C2075M10
2-Core male plug 10m



C405F3
4-Core female plug 3m



C405M3
4-Core male plug 3m



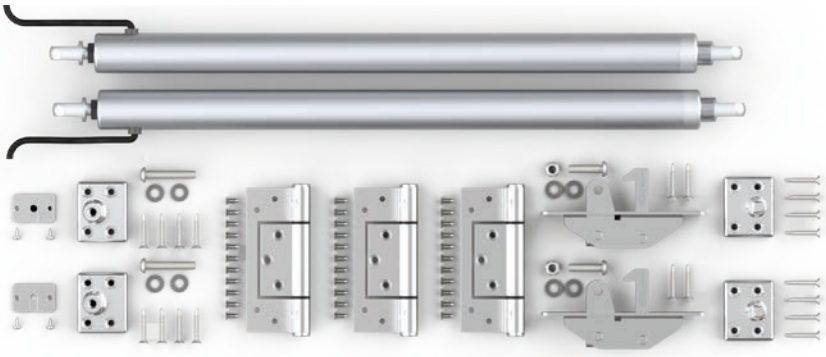
C405FM3
4-Core female-male plug 3m



S102HL
Power Strut SYNC Lead

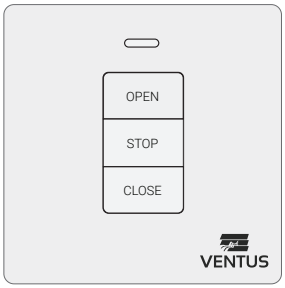


C1F2M TEST LEAD
On-site test unit

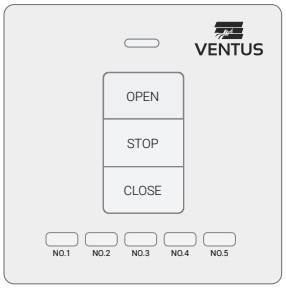


POWER STRUT SYSTEM

PAIRING WIRELESS TRANSMITTERS



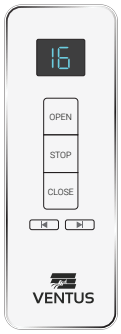
WT211



WT215



RT111



RT1116

SPECIFICATIONS

Model	Channel	Working Frequency	Transmission Distance	Button Battery	Operating Current	Receiving Sensitivity
WT211	1	433.92MHz	< 50m	3V CR2O32	≤ 10mA	-100dBm
WT215	5	433.92MHz	< 50m	3V CR243O	≤ 10mA	-100dBm
RT111	1	433.92MHz	< 50m	3V CR243O	≤ 10mA	-100dBm
RT1116	16	433.92MHz	< 50m	3V CR243O	≤ 10mA	-100dBm

Pairing Wireless Transmitters **Guide**

OPERATION DESCRIPTION

- Before setting multi channel transmitter, please choose a channel you want to program and control.
- Setting method of single channel remote is as same as multi channel remote.

MATCHING CODE

- Power the controller on
- Press [STOP] on the MR536 or the red button on the MR551 for 5 seconds
- Press [OPEN] on the remote
- LED flashes 3 times to confirm pairing has been made

CLEARING SINGLE CODE

- Power the controller on
- Press [STOP] on the MR536 or the red button on the MR551 for 5 seconds
- Press [CLOSE] on the remote *within* 15 seconds
- LED flashes 3 times to confirm pairing has been removed

LOCKING CHANNEL *(For RT1116 only)*

- Select the required channel
- On the back of the remote, press the small gold button three times quickly to lock and unlock
- It will default back to unlock after power off or reset

REPLACING BATTERY

- Open the back board of the transmitter
- Take out the used battery and place the new one
- Close the back board
- Please dispose of the used battery appropriately

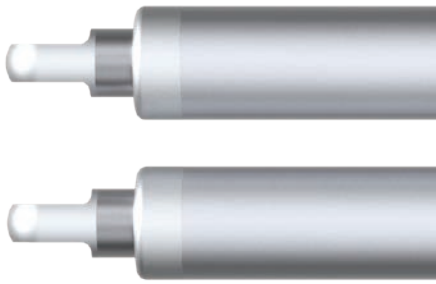
TROUBLESHOOTING

No.	Symptom	Solution
1	LED on the transmitter is off or weak.	1. Make sure the cover is installed ready. 2. Change the battery.
2	The transmitter and the receiver work well, the motor does not work.	1. Check the wiring of motor. 2. Check all control connections.

POWER STRUT SELECTION TABLE

1. Select the **Sash Height (mm)** you are building in the second last column on the table below.
2. Ensure the **Max Sash Weight (kg)** in the end column is **greater** than what you are building, if your sash is heavier, you cannot use this strut.

- **The Cut Out Dimension is then applied to your sash**



1000N STRUTS

Order No.	Strut Codes	Closed Length (mm)	Open Length (mm)
9115077	605-855 Strut 250 24V DC 1000N	605	855
9115078	700-950 Strut 250 24V DC 1000N	700	950
9115079	750-1060 Strut 310 24V DC 1000N	750	1060
9115080	850-1160 Strut 310 24V DC 1000N	850	1160
9115081	850-1260 Strut 410 24V DC 1000N	850	1260
9115082	950-1360 Strut 410 24V DC 1000N	950	1360
9115083	1050-1460 Strut 410 24V DC 1000N	1050	1460
9115084	1150-1560 Strut 410 24V DC 1000N	1150	1560
9121982	900-1380 Strut 540 24V DC 1000N	900	1380
9126377	950-1490 Strut 540 24V DC 1000N	950	1490
9121158	1000-1596 Strut 596 24V DC 1000N	1000	1596

600N STRUTS

Order No.	Strut Codes	Closed Length (mm)	Open Length (mm)
9106177	600-850 Strut 250 24V DC 600N	600	850
9106182	700-950 Strut 250 24V DC 600N	700	950
9106183	800-1050 Strut 250 24V DC 600N	800	1050
9106184	900-1150 Strut 250 24V DC 600N	900	1150
9106185	1000-1250 Strut 250 24V DC 600N	1000	1250
9107552	1100-1350 Strut 250 24V DC 600N	1100	1350
9106186	1200-1510 Strut 310 24V DC 600N	1200	1510
9106187	1200-1610 Strut 410 24V DC 600N	1200	1610



		1. Select Your Sash Height	2. Confirm Sash Weight is Under Max (kg)
Strut Throw (mm)	**Latchbox Cutout (mm)**	**Sash Height (mm)**	**Max Sash Weight (kg)**
250	828	950-1049	53
250	923	1050-1149	49
310	1023	1150-1249	60
310	1123	1250-1349	55
410	1223	1350-1449	77
410	1323	1450-1549	72
410	1423	1550-1649	68
410	1523	1650-1750	65
480	1323	1450-1549	90
540	1423	1550-1649	96
596	1523	1650-1749	100

		1. Select Your Sash Height	2. Confirm Sash Weight is Under Max (kg)
Strut Throw (mm)	**Latchbox Cutout (mm)**	**Sash Height (mm)**	**Max Sash Weight (kg)**
250	823	950-1049	32
250	923	1050-1149	29
250	1023	1150-1249	27
250	1123	1250-1349	25
250	1223	1350-1449	23
250	1323	1450-1599	21
310	1473	1600-1699	27
410	1573	1700-1800	38

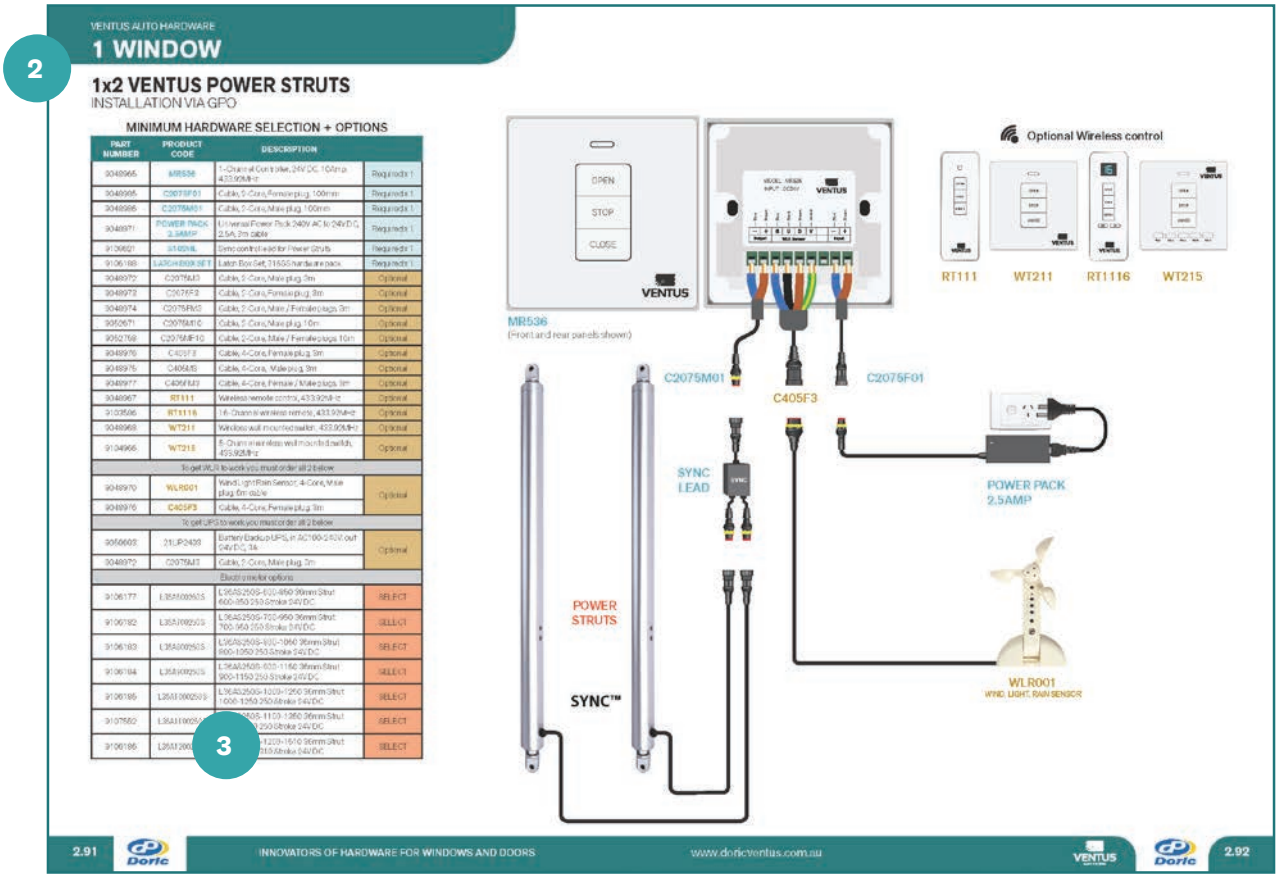
HOW TO USE THE SCHEMATICS

The following easy to follow schematics are set up in relation to a minimum equipment list. This minimum equipment list can be found on each page of the wiring drawings to help reference the necessary parts needed and how they relate to one another. The drawings do not show additional extension cables as your requirements vary; include additional cables where required.

To use this document you need to follow a few very simple steps.

1. Read and understand hardware requirements.
2. Refer to the header on each chart to first find the number of windows you need to automate and secondly find the matching hardware.
3. Each chart has a table listing all the parts available for that particular setup. Simply follow the list to help identify, select and show the location of the parts you will use.
4. If you find you have too many motors for the available channels, divide the openings/windows into groups. For example, if there are 7 windows, use two MR551 8-Channel controllers and plan accordingly. Maximum number of struts that can be connected to an 8-channel controller is 4 sets (8 motors).

Parts are designed to plug together via the use of the male and female Quick Connect Plugs that helps remove confusion and speeds installation. Wiring hookups not using the Plug & Play method is possible, electricians can follow the guide on the specifications required.



GENERAL GUIDELINES

Some Basic **Ground Rules**

1. The Ventus system operates on 24V DC outputted from a power pack plugged into 240V AC mains power outlet via “GPO”.
2. All Plug & Play cables are supplied in 100mm, 3m and 10m lengths.
3. Use a Synchroniser Lead (Sync Lead) to operate two Power Struts on the same window.
4. If you decide to not use the Ventus plug & play leads, any electrician can cut the plugs and connect to our controls as long as cable joins on site are made with soldered joints.

Step 1. Identify the drawing that you will be wanting to install.

Step 2. Refer to the List of parts

Required	=	Item required. The system cannot function without this item.
Optional	=	This is an optional item. The user can select optional accessories or parts as required for the system to operate.
Select	=	This is a required item with options. The user will need to select at least one of these to operate that setup.

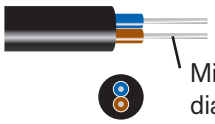
Installation without ‘Plug & Play’
Have your electrician install for you.

When installations do not require the Ventus ‘Plug & Play’ connectors, the installation can be made using direct connections following the guidelines below.

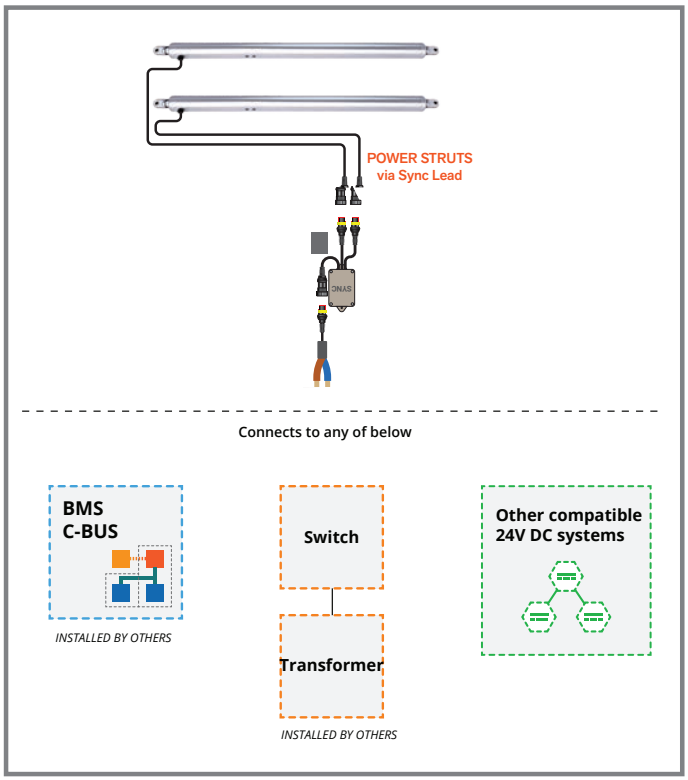
This must be completed by a ***Licensed Electrician*** and support the minimum requirements.

Requirements:

- Motor hardware operates on 24V DC and requires a minimum cable diameter of 0.75mm to reduce voltage loss over longer distances.
- Use a Synchronizer Lead (Sync Lead) to operate two Automated Power Struts on the same window.
- Non ‘Plug & Play’ cable joins ***must be*** a soldered joint.



Minimum cable diameter of 0.75mm each



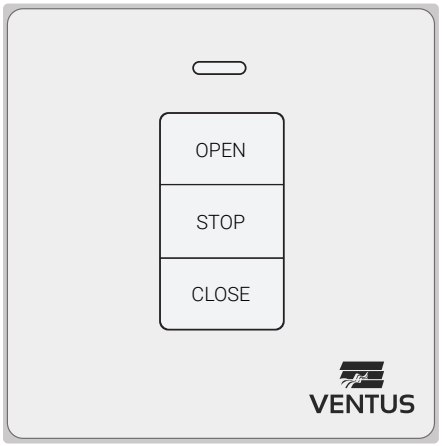
1 WINDOW

1x2 VENTUS POWER STRUTS
INSTALLATION VIA GPO

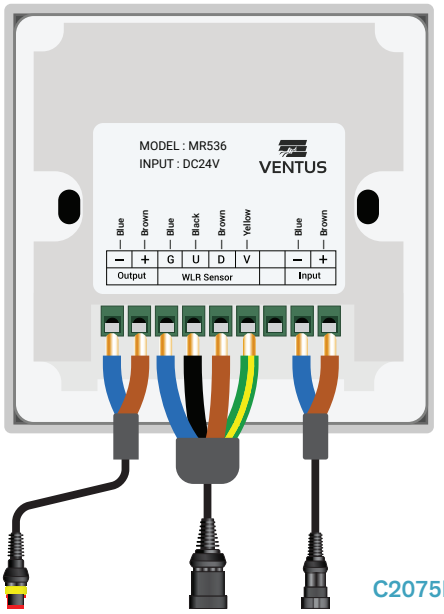
MINIMUM HARDWARE SELECTION + OPTIONS

PART NUMBER	PRODUCT CODE	DESCRIPTION	
9048965	MR536	1-Channel Controller, 24V DC, 10Amp, 433.92MHz	Required x 1
9048985	C2075F01	Cable, 2-Core, Female plug, 100mm	Required x 1
9048986	C2075M01	Cable, 2-Core, Male plug, 100mm	Required x 1
9048971	POWER PACK 2.5AMP	Universal Power Pack 240V AC to 24V DC, 2.5A, 3m cable	Required x 1
9108621	S102HL	Sync control lead for Power Struts	Required x 1
9106188	LATCH BOX SET	Latch Box Set, 316SS hardware pack	Required x 1
9048972	C2075M3	Cable, 2-Core, Male plug, 3m	Optional
9048973	C2075F3	Cable, 2-Core, Female plug, 3m	Optional
9048974	C2075FM3	Cable, 2-Core, Male / Female plugs, 3m	Optional
9052671	C2075M10	Cable, 2-Core, Male plug, 10m	Optional
9052758	C2075MF10	Cable, 2-Core, Male / Female plugs, 10m	Optional
9048976	C405F3	Cable, 4-Core, Female plug, 3m	Optional
9048975	C405M3	Cable, 4-Core, Male plug, 3m	Optional
9048977	C405FM3	Cable, 4-Core, Female / Male plugs, 3m	Optional
9048967	RT111	Wireless remote control, 433.92MHz	Optional
9103586	RT1116	16-Channel wireless remote, 433.92MHz	Optional
9048968	WT211	Wireless wall mounted switch, 433.92MHz	Optional
9104966	WT215	5-Channel wireless wall mounted switch, 433.92MHz	Optional
To get WLR to work you must order all 2 below			
9048970	WLR001	Wind Light Rain Sensor, 4-Core, Male plug, 6m cable	Optional
9048976	C405F3	Cable, 4-Core, Female plug, 3m	
To get UPS to work you must order all 2 below			
9050603	21UP2403	Battery Backup UPS, in AC100-240V, out 24V DC, 3A	Optional
9048972	C2075M3	Cable, 2-Core, Male plug, 3m	
Electric motor options			
Check Power Strut Selection Table for available options			SELECT

1x2 VENTUS POWER STRUTS
INSTALLATION VIA GPO



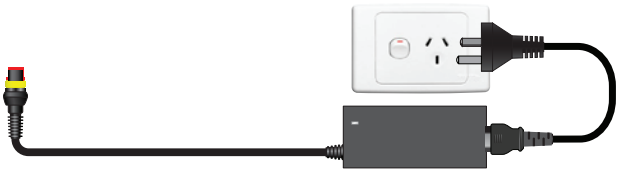
MR536
(Front and rear panels shown)



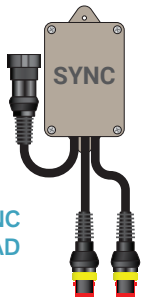
C2075M01

C405F3

C2075F01



POWER PACK 2.5AMP



SYNC
LEAD

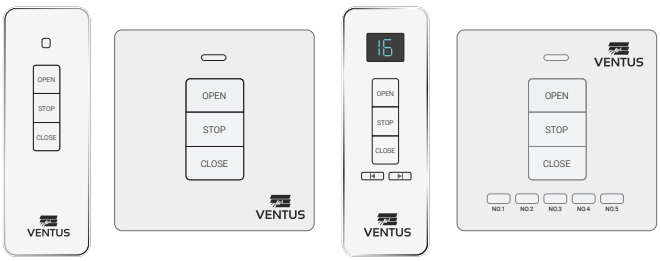
POWER
STRUTS

SYNC™



WLR001
WIND, LIGHT, RAIN SENSOR

Optional Wireless control



RT111 WT211 RT1116 WT215

1 WINDOW

1x2 VENTUS POWER STRUTS
WITH BMS INTEGRATION

MINIMUM HARDWARE SELECTION + OPTIONS

PART NUMBER	PRODUCT CODE	DESCRIPTION	
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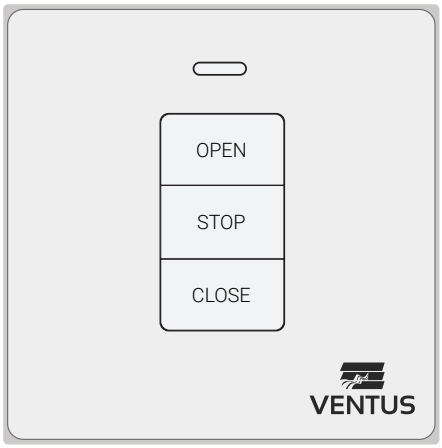
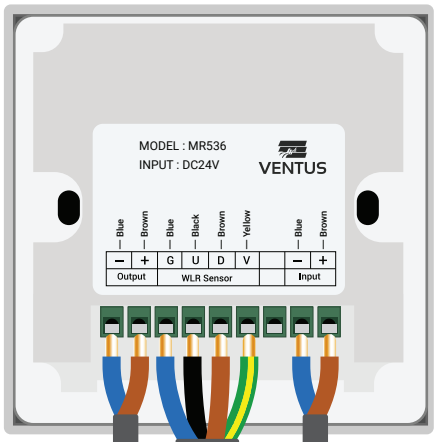
9048973	C2075F3	Cable, 2-Core, Female plug, 3m	Optional
9048974	C2075FM3	Cable, 2-Core, Male / Female plugs, 3m	Optional
9052671	C2075M10	Cable, 2-Core, Male plug, 10m	Optional
9052758	C2075MF10	Cable, 2-Core, Male / Female plugs, 10m	Optional
9048976	C405F3	Cable, 4-Core, Female plug, 3m	Optional
9048975	C405M3	Cable, 4-Core, Male plug, 3m	Optional
9048977	C405FM3	Cable, 4-Core, Female / Male plugs, 3m	Optional
9048967	RT111	Wireless remote control, 433.92MHz	Optional
9103586	RT1116	16-Channel wireless remote, 433.92MHz	Optional
9048968	WT211	Wireless wall mounted switch, 433.92MHz	Optional
9104966	WT215	5-Channel wireless wall mounted switch, 433.92MHz	Optional
BMS Connection requires			
9048976	C405F3	Cable, 4-Core, Female plug, 3m	Optional
9048975	C405M3	Cable, 4-Core, Male plug, 3m	
To get UPS to work you must order all 2 below			
9050603	21UP2403	Battery Backup UPS, in AC100-240V, out 24V DC, 3A	Optional
9048972	C2075M3	Cable, 2-Core, Male plug, 3m	
Electric motor options			
Check Power Strut Selection Table for available options			SELECT

1x2 VENTUS POWER STRUTS
WITH BMS INTEGRATION



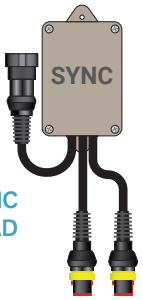


MR536
(Front and rear panels shown)

C2075M01

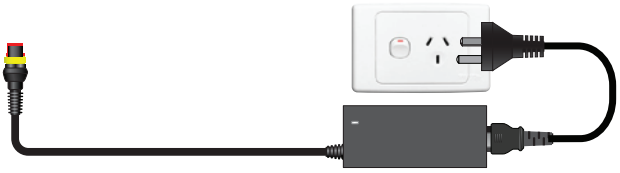
C405F3

C2075F01



SYNC
LEAD

C405M3

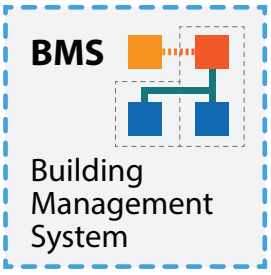


POWER PACK 2.5AMP

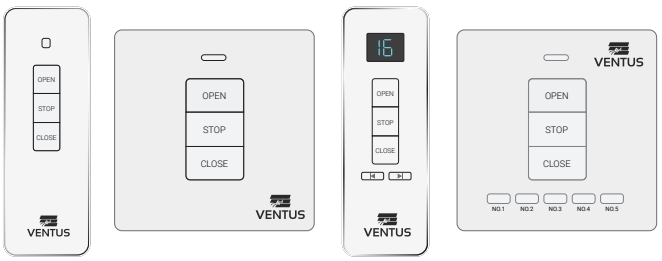


POWER
STRUTS

SYNC™



Optional Wireless control



RT111 WT211 RT1116 WT215

4 WINDOWS *(MAXIMUM)*

4x2 VENTUS POWER STRUTS

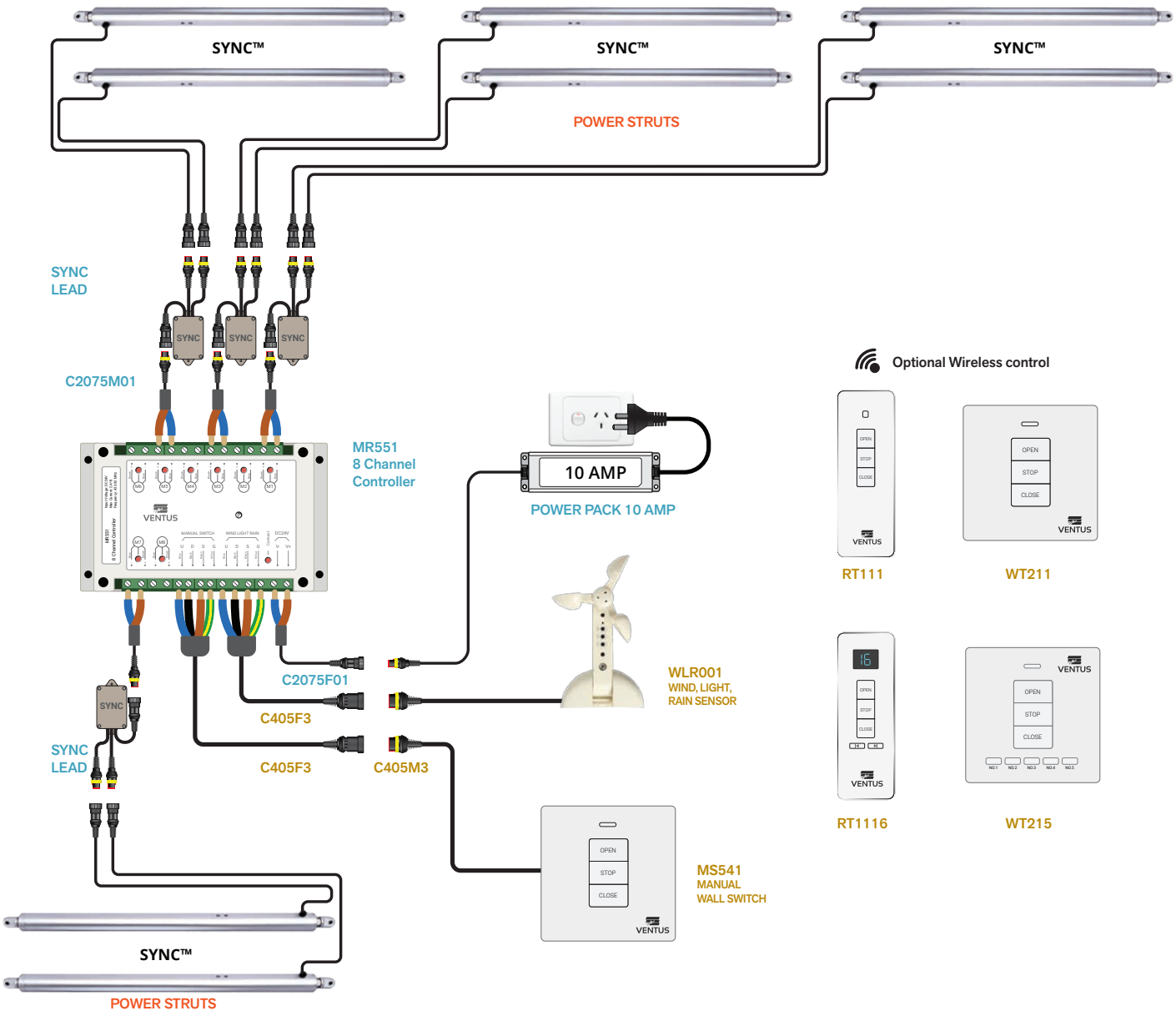
INSTALLATION VIA GPO

MINIMUM HARDWARE SELECTION + OPTIONS

PART NUMBER	PRODUCT CODE	DESCRIPTION	
9048966	MR551	8-Channel Controller, 24V DC, 2.8Amp, 433.92MHz	Required x 1
9048985	C2075F01	Cable, 2-Core, Female plug, 100mm	Required x 1
9048986	C2075M01	Cable, 2-Core, Male plug, 100mm	Required x 4
9052175	POWER PACK 10AMP	Power Pack 240V AC to 24V DC, 10 Amp - ELG-240-24A-3Y	Required x 1
9108621	S102HL	Sync control lead for Power Struts	Required x 1
9106188	LATCH BOX SET	Latch Box Set, 316SS hardware pack	Required x 1
9048972	C2075M3	Cable, 2-Core, Male plug, 3m	Optional
9048973	C2075F3	Cable, 2-Core, Female plug, 3m	Optional
9048974	C2075FM3	Cable, 2-Core, Male / Female plugs, 3m	Optional
9052671	C2075M10	Cable, 2-Core, Male plug, 10m	Optional
9052758	C2075MF10	Cable, 2-Core, Male / Female plugs, 10m	Optional
9048976	C405F3	Cable, 4-Core, Female plug, 3m	Optional
9048975	C405M3	Cable, 4-Core, Male plug, 3m	Optional
9048977	C405FM3	Cable, 4-Core, Female / Male plugs, 3m	Optional
You must select at least one remote below or MS541			Required
9048967	RT111	Wireless remote control, 433.92MHz	SELECT
9103586	RT1116	16-Channel wireless remote, 433.92MHz	SELECT
9048968	WT211	Wireless wall mounted switch, 433.92MHz	SELECT
9104966	WT215	5-Channel wireless wall switch, 433.92MHz	SELECT
To get MS541 to work you must order all 3 below			
9048969	MS541	Wired wall mounted switch	Optional
9048976	C405F3	Cable, 4-Core, Female plug, 3m	
9048975	C405M3	Cable, 4-Core, Male plug, 3m	
To get WLR to work you must order all 2 below			
9048970	WLR001	Wind Light Rain Sensor, 4-Core, Male plug, 6m cable	Optional
9048976	C405F3	Cable, 4-Core, Female plug, 3m	
To get UPS to work you must order all 2 below			
9050603	21UP2403	Battery Backup UPS, in AC100-240V, out 24V DC, 3A	Optional
9048972	C2075M3	Cable, 2-Core, Male plug, 3m	
Electric motor options			
Check Power Strut Selection Table for available options			SELECT

Please Note:
Each Strut equals 1 Channel / 1 Motor. Maximum of 4 windows / 8 struts per controller.

4x2 VENTUS POWER STRUTS
INSTALLATION VIA GPO



4 WINDOWS *(MAXIMUM)*

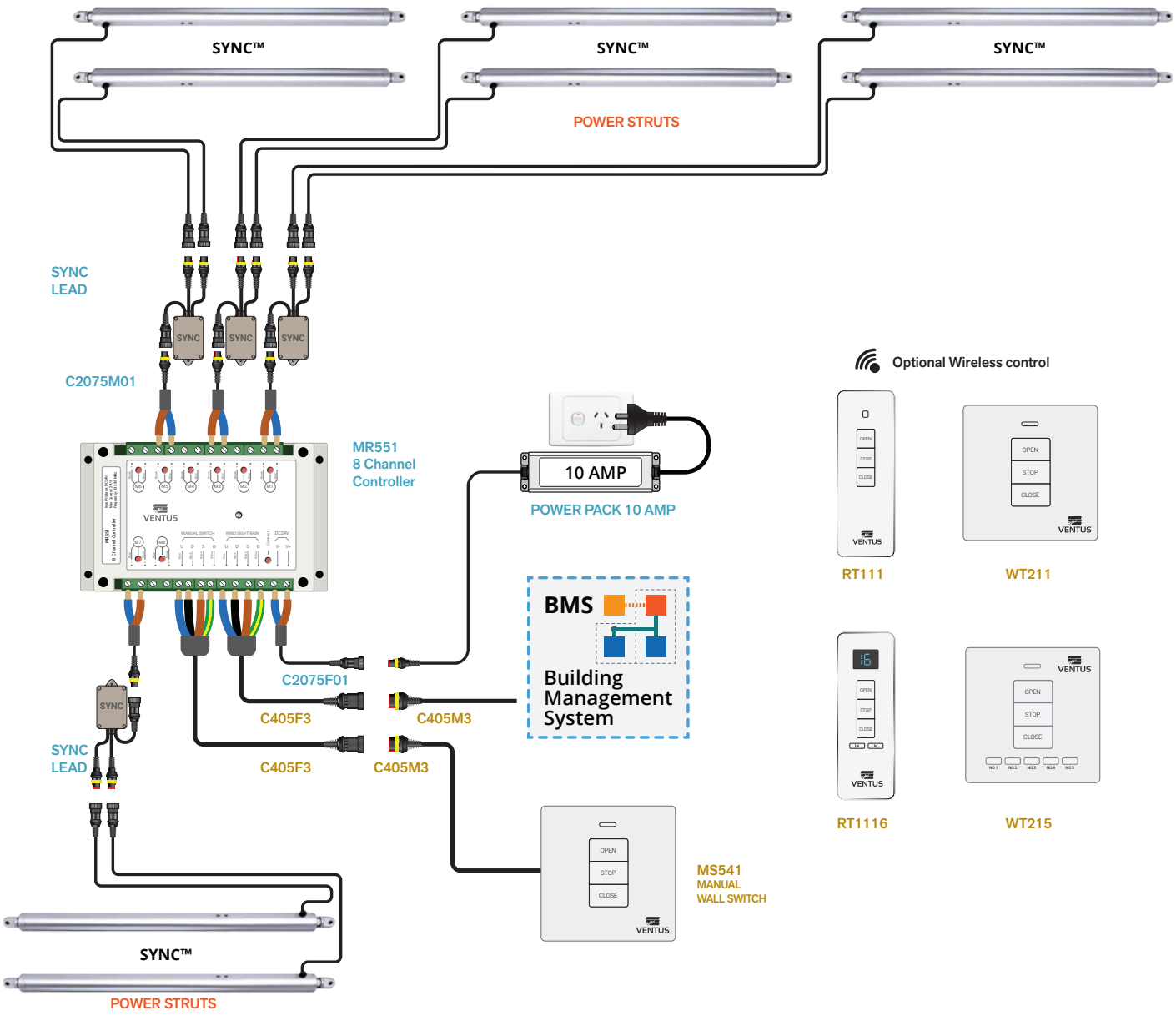
4x2 VENTUS POWER STRUTS
WITH BMS INTEGRATION

MINIMUM HARDWARE SELECTION + OPTIONS

PART NUMBER	PRODUCT CODE	DESCRIPTION	
9048966	MR551	8-Channel Controller, 24V DC, 2.8Amp, 433.92MHz	Required x 1
9048985	C2075F01	Cable, 2-Core, Female plug, 100mm	Required x 1
9048986	C2075M01	Cable, 2-Core, Male plug, 100mm	Required x 4
9052175	POWER PACK 10AMP	Power Pack 240V AC to 24V DC, 10 Amp - ELG-240-24A-3Y	Required x 1
9108621	S102HL	Sync control lead for Power Struts	Required x 1
9106188	LATCH BOX SET	Latch Box Set, 316SS hardware pack	Required x 1
9048972	C2075M3	Cable, 2-Core, Male plug, 3m	Optional
9048973	C2075F3	Cable, 2-Core, Female plug, 3m	Optional
9048974	C2075FM3	Cable, 2-Core, Male / Female plugs, 3m	Optional
9052671	C2075M10	Cable, 2-Core, Male plug, 10m	Optional
9052758	C2075MF10	Cable, 2-Core, Male / Female plugs, 10m	Optional
9048976	C405F3	Cable, 4-Core, Female plug, 3m	Optional
9048975	C405M3	Cable, 4-Core, Male plug, 3m	Optional
9048977	C405FM3	Cable, 4-Core, Female / Male plugs, 3m	Optional
You must select at least one remote below or MS541			Required
9048967	RT111	Wireless remote control, 433.92MHz	SELECT
9103586	RT1116	16-Channel wireless remote, 433.92MHz	SELECT
9048968	WT211	Wireless wall mounted switch, 433.92MHz	SELECT
9104966	WT215	5-Channel wireless wall switch, 433.92MHz	SELECT
To get MS541 to work you must order all 3 below			
9048969	MS541	Wired wall mounted switch	Optional
9048976	C405F3	Cable, 4-Core, Female plug, 3m	
9048975	C405M3	Cable, 4-Core, Male plug, 3m	
BMS Connection requires			
9048976	C405F3	Cable, 4-Core, Female plug, 3m	Optional
9048975	C405M3	Cable, 4-Core, Male plug, 3m	
To get UPS to work you must order all 2 below			
9050603	21UP2403	Battery Backup UPS, in AC100-240V, out 24V DC, 3A	Optional
9048972	C2075M3	Cable, 2-Core, Male plug, 3m	
Electric motor options			
Check Power Strut Selection Table for available options			SELECT

Please Note:
Each Strut equals 1 Channel / 1 Motor. Maximum of 4 windows / 8 struts per controller.

4x2 VENTUS POWER STRUTS
WITH BMS INTEGRATION



INNOVATORS
OF HARDWARE FOR WINDOWS AND DOORS

Ventus Power Struts 2025 1.2 - 13.02.2025

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