

Installation Instructions

SAC-U1 - Smart Airflow Control Unit 1

Design Highlights

- Temperature controlled variable fan state & speed with equipment overheat alarm
- Near silent operation with vibration isolating rubber mounts
- Height efficient design to maximise use of space within rack / cabinet
- Optional 19" Rack mounting supplied (1U)
- Self contained unit with onboard electronics for simple installation



Thank you for choosing
futureautomation

SAC-U1- Smart Airflow Control Unit 1



Caution
Warning



Beware of
Moving Parts



Danger
Electricity



Keep Hands
Clear

Safety Disclaimer

Important Safety Instructions

Explanation of graphical symbols

-(Electric Shock Symbol) = The lightning flash within an equilateral triangle is intended to alert you to the presence of un-insulated "dangerous voltage" within the products enclosure that may be of sufficient magnitude to constitute an electric shock to persons

-(Caution Symbol) = The exclamation point within an equilateral triangle is intended to alert you to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product

-(Tools Symbols) = The tools symbol within a coloured square are intended to highlight the required tools necessary for correct and safe installation of the product. These are intended as a guide only, and it is at the installer's discretion as to which tools are used.

WARNING: RISK OF ELECTRIC SHOCK, ONLY AUTHORIZED INSTALLERS TO OPEN THE POWER CONTROL BOX.

WARNING: To reduce the risk of fire or electric shock, do not expose electrical parts to rain or moisture, unless the product has been specifically designed to do so.

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 the four times the weight of the component.

WARNING: Do not exceed the weight capacity. 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: Failure to provide adequate structural strength for this component can result in serious personal injury or damage to equipment! It is the installer's responsibility to make sure the structure to which this component is attached can support five times the combined weight of all equipment. Reinforce the structure as required before installing the component.

Warnings:

1. 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.
2. Keep all documentation.
3. Heed all warnings.
4. Follow all technical specifications and instructions during installation.
5. Do not use near water unless the product has been specifically designed to do so.
6. Clean only with a dry cloth.
7. Do not defeat the purpose of the polarized or grounding type plug. A polarized plug has two blades, one wider than the other. A grounding type plug has two blades and a grounding prong. The wide blade or third prong are provided for your safety. If the provided plug does not fit your outlet, consult an electrician or contact the manufacturer.
8. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where the exit from the apparatus.
9. Unplug the apparatus during lightning storms or when unused for long periods of time.
10. Only use attachments/accessories specified by the manufacturer.
11. Refer all servicing to qualified personnel. Servicing is required regularly on an annual basis, when the apparatus 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.
12. To completely disconnect the apparatus from the AC mains, disconnect the power cord plug from the AC receptacle on the power control box.
13. To prevent overheating, do not cover the apparatus. Install in accordance with the instructions.
14. UK, Ireland and Hong Kong only – The power cord is supplied with a 13A plug having an earthing pin. The apparatus is earthed and this pin is not required for safety, merely to operate the safety shutter of mains outlet.
15. No naked flames such as lit candles should be placed on the unit.
16. Observe and follow the local regulations when disposing of batteries.
17. Do not expose the unit to dripping or splashing fluids.
18. Do not place objects filled with liquid, such as vases, on the unit.
19. Do not expose the batteries to excessive heat such as sunshine, fire or the like.
20. For all mounted apparatus, the apparatus should be installed on solid wood, bricks, concrete or solid wood columns and battens.
21. Always turn off power at source before putting on or taking off parts and cleaning.
22. Do not use outdoors unless marked for outdoor use.
23. Exceeding the weight capacity can result in serious personal injury or damage to equipment.

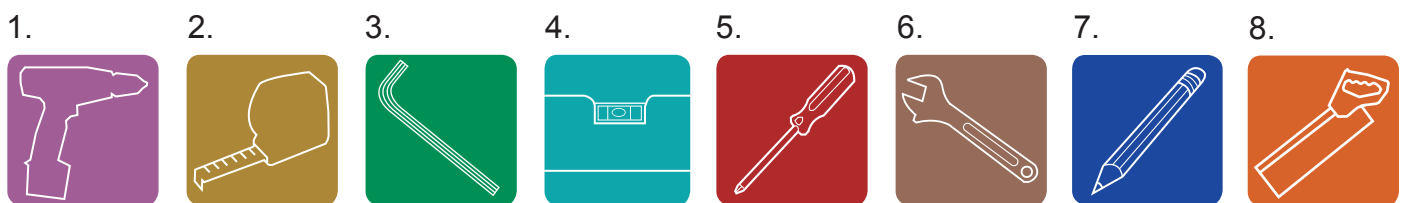
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Tool Indicator Icons



1. - Drill

2. - Tape measure

3. - Allen Keys

4. - Spirit Level

5. - Screwdrivers

6. - Spanners

7. - Pencil

8. - Saw

Product Warranty

This product carries a warranty that 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. Support for any problems that are not hardware faults are excluded from the warranty entitlement. This warranty does not affect your statutory consumer rights.

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;
- Use of the product over the specified weight capacity;
- Any damage to products during transit that is not checked and notified as "unchecked" or "damaged" upon receipt of delivery.

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

SAC-U1- Smart Airflow Control Unit 1

Package Contents

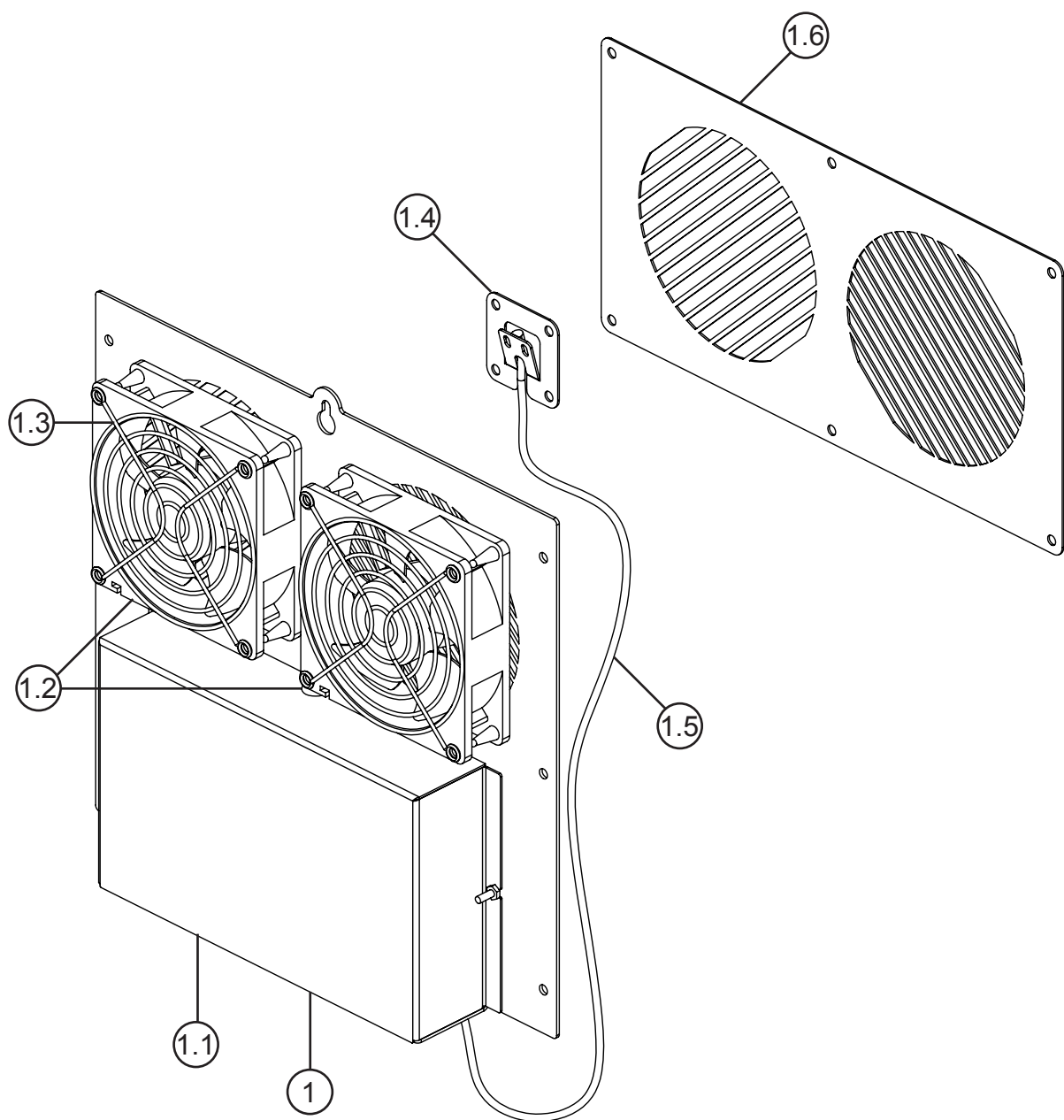
- 1 - SAC-U1 Unit
- 1.1 - Onboard Electronics
- 1.2 - Cooling Fans
- 1.3 - Fan Finger Gaurds
- 1.4 - Temperature Sensor Bracket
- 1.5 - Thermometer Cable
- 1.6 - External Trim Panel

Not Shown On Page

- 2 - IEC Mains Lead

Before you Start, Check the Following:

- The product is in good condition
- No damage to any parts
- Wiring is all secure



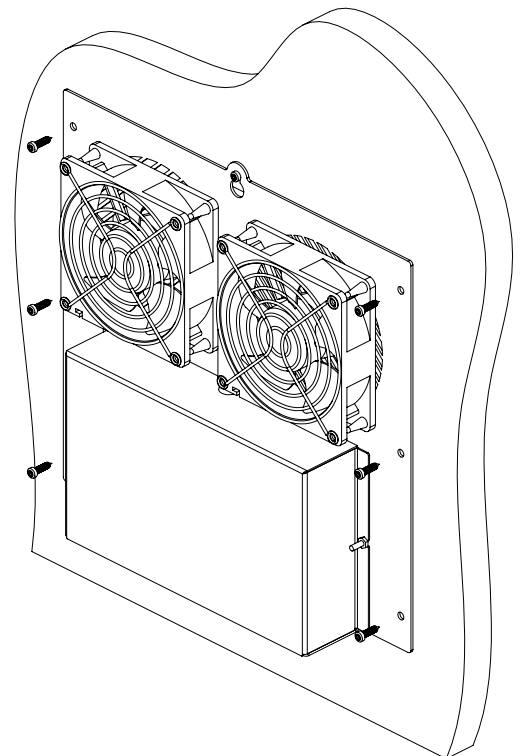
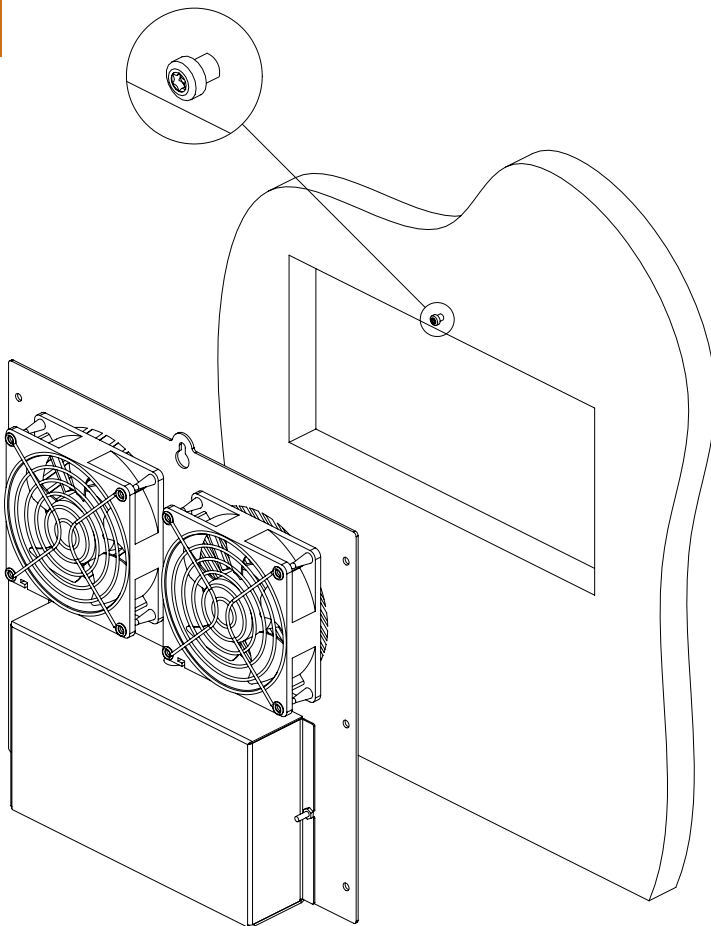
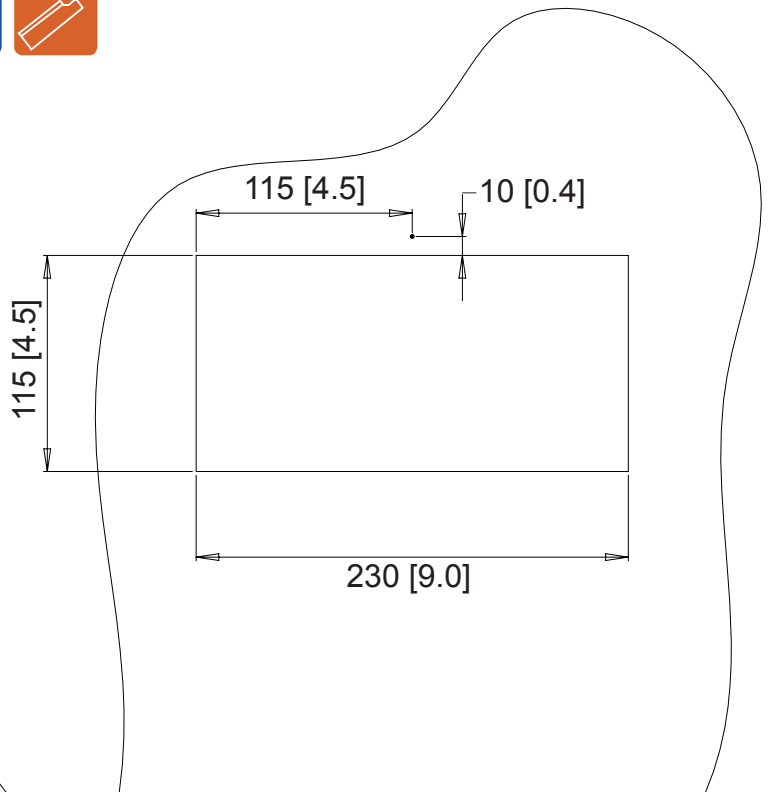
SAC-U1- Smart Airflow Control Unit 1



Mounting the SAC Unit

Measure where you want the SAC unit to be mounted and cut a void in the cabinet with the dimensions shown.

Fix a screw into the cabinet 10mm [0.4"] above the top edge in the centre as shown. Leave some of the screw out from the surface as shown in the detailed view.



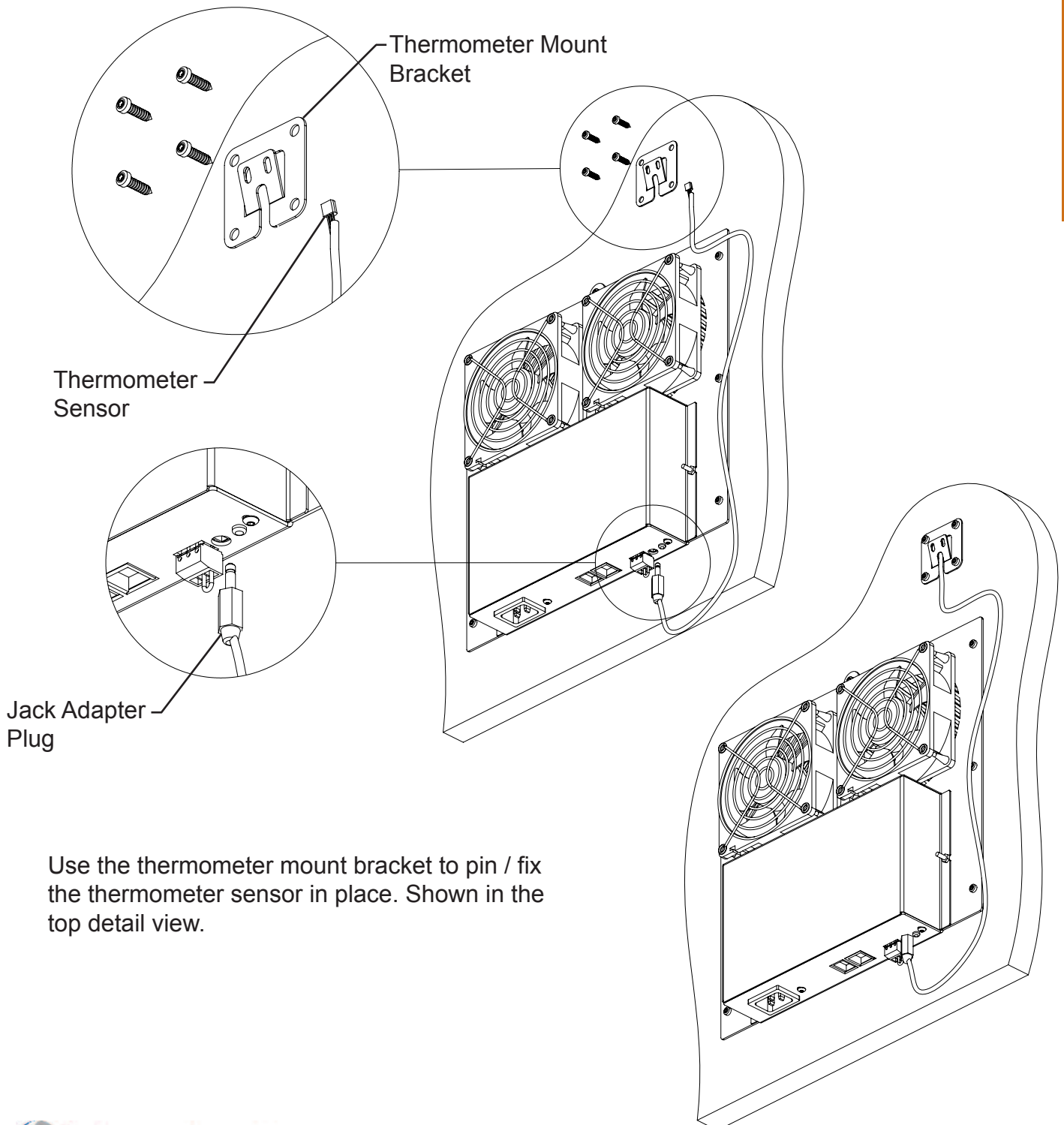
Mount the SAC-U1 over the screw head using the key hole slot. Make sure the unit is square and then fix in place using the other six mount holes.

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Fitting the Thermometer

Plug the thermometer into the unit using the jack adapter plug. Make sure to place the thermometer in the most relevant place to monitor the temperature. Either next to the AV equipment or at the highest point within the cabinet.



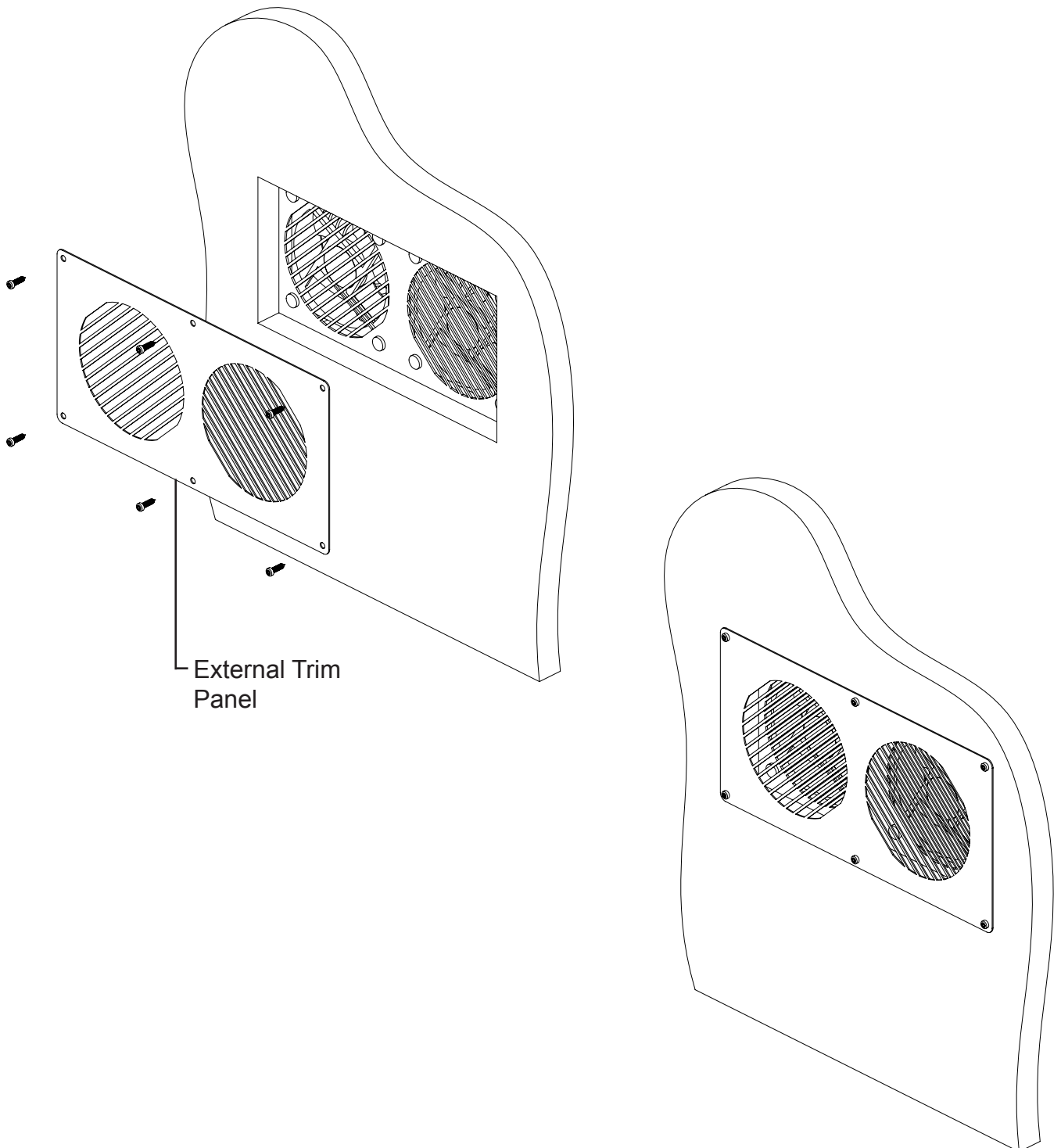
Use the thermometer mount bracket to pin / fix the thermometer sensor in place. Shown in the top detail view.

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Mounting the External Trim Plate

Offer the external trim panel over the void and mark X6 holes positions.
Secure in place using relevant fixings.



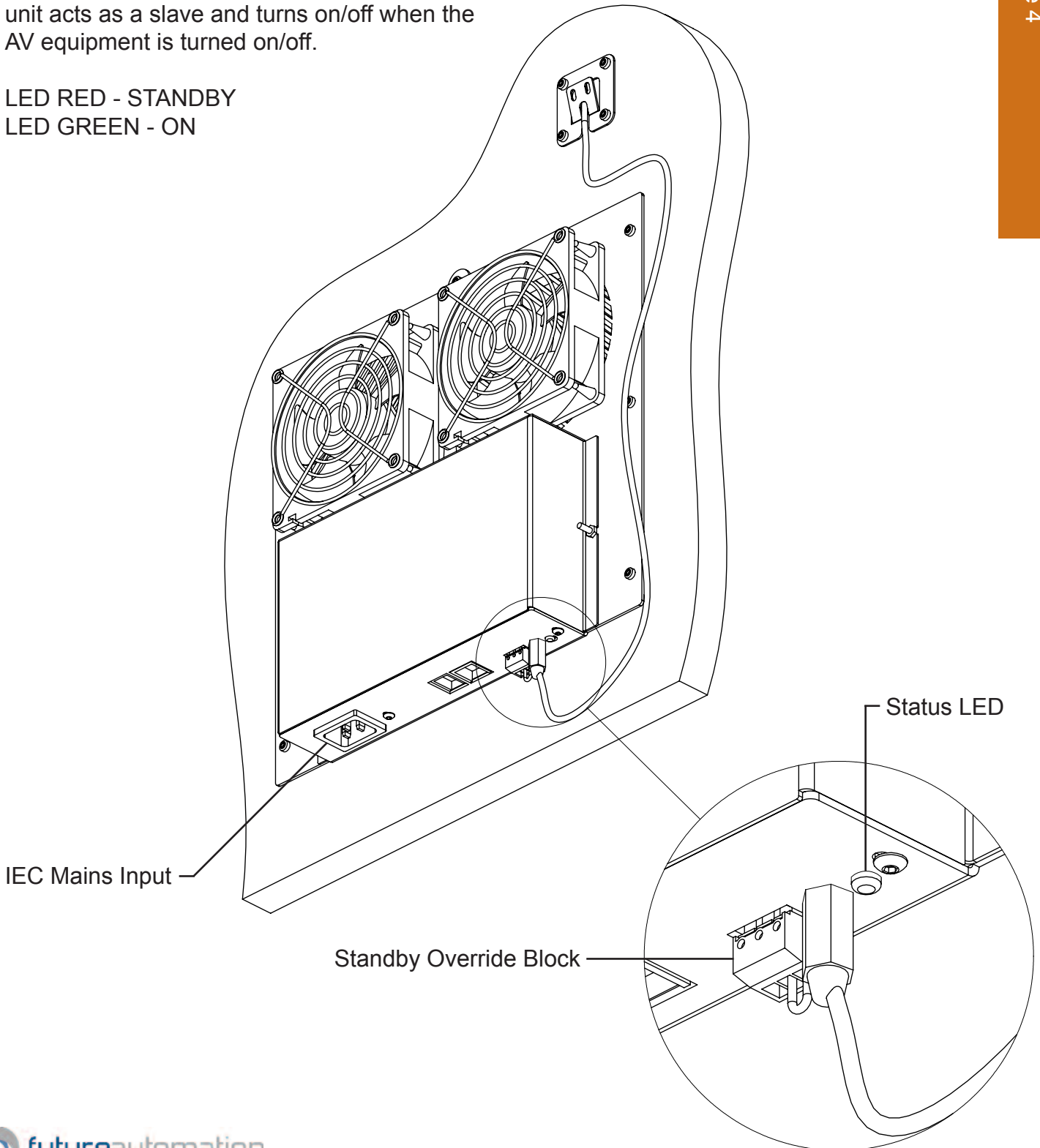
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Standby Override Block

The SAC unit will only work if the standby override block is plugged in, unless you connect the SAC unit to the AV equipment then the SAC unit acts as a slave and turns on/off when the AV equipment is turned on/off.

- LED RED - STANDBY
- LED GREEN - ON

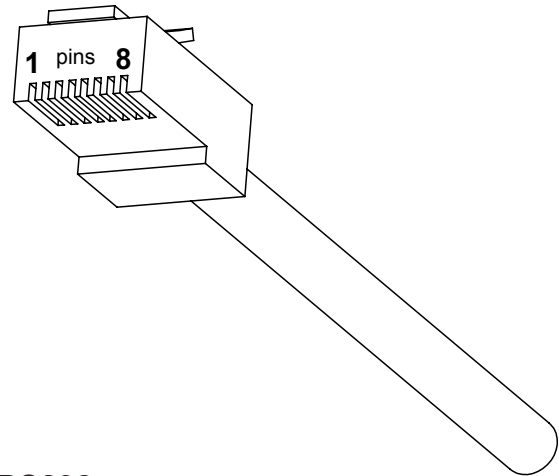


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Contact Closure

The contact closure is not presently used.



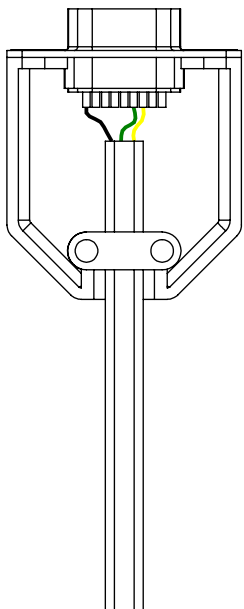
RS232

- Use an RJ25 connector in the socket marked RS232 on the control box to operate using RS232

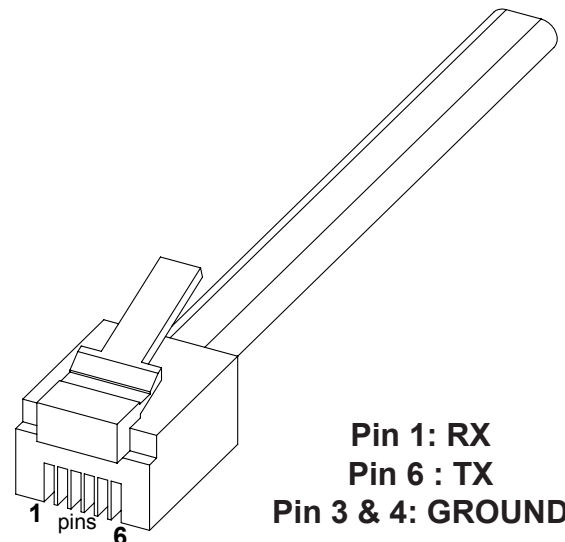
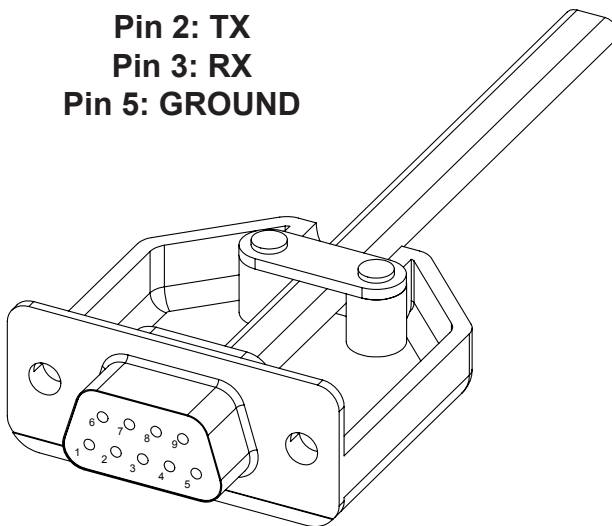
Details

Baud rate: 9600
 Stop bit: 1
 Parity: None
 Databits: 8

RJ25		9 PIN D
PIN 1: RX	TO	PIN 2: TX
PIN 6: TX	TO	PIN 3: RX
PIN 3: GROUND	TO	PIN 5: GROUND
PIN 4: GROUND	TO	PIN 5: GROUND



Pin 2: TX
Pin 3: RX
Pin 5: GROUND



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

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RS232



IMPORTANT

Ensure protocol is entered exactly as written, including Carriage Return ← (Enter / ASCII 13) immediately after the last character.



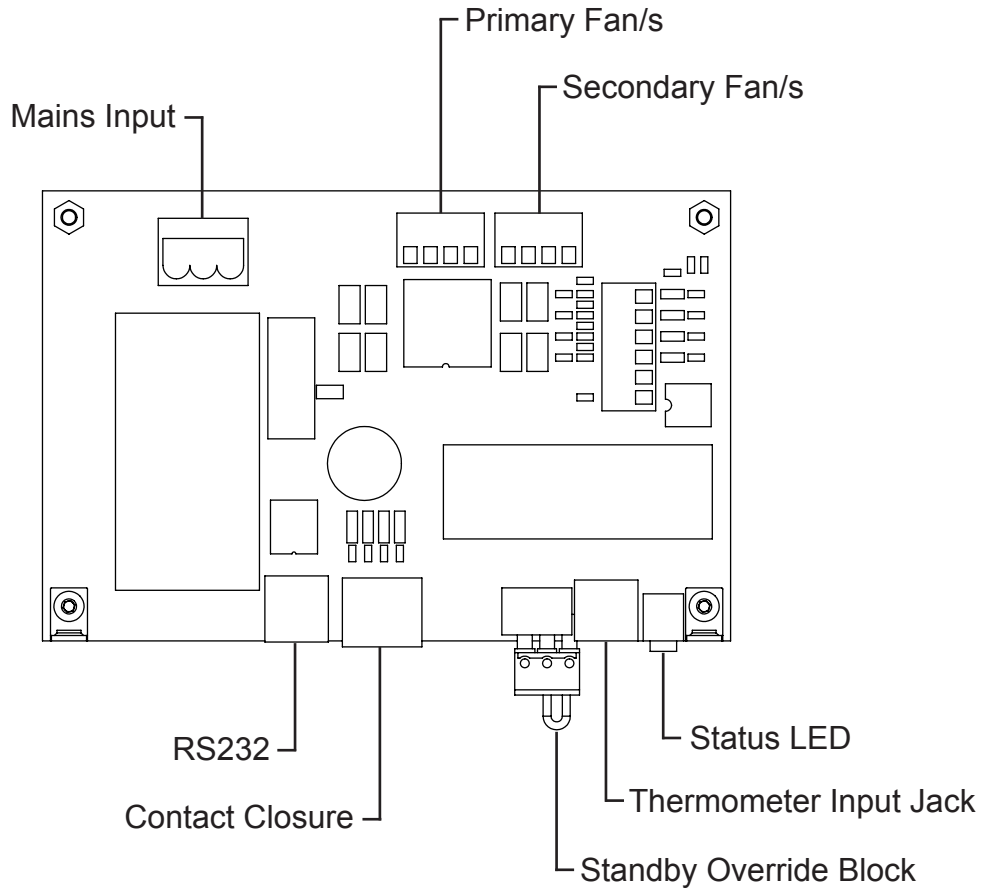
The command temperature sets shown are just an example

COMMAND	ACTION
scale c ←	Sets temperature control to Centigrade ° C (Default)
scale f ←	Sets temperature control to Fahrenheit F
on 28 ←	Turns primary fans on at set temperature (Default set 26 °C)
boost 32 ←	Turns secondary fans on at set temperature (Default set 28 °C)
alarm 36 ←	Alarm will sound at set temperature (Default set 45 °C)
off 22 ←	Turns off all fans on at set temperature (Default set 24 °C)
ENQUIRY	RESPONSE
on ? ←	Shows current set temperature of when fans turn on
boost ? ←	Shows current set temperature of when secondary fans turn on
alarm ? ←	Shows current set temperature of when alarm sounds
off ? ←	Shows current set temperature of when fans turn off
? ←	Shows current temperature
lo ? ←	Shows lowest recorded temperature
hi ? ←	Shows highest recorded temperature
reset hi ←	Resets record of highest temperature
reset lo ←	Resets record of lowest temperature

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Connectivity Details



SAC - Trouble shooting

For information & technical support on our products please refer to the relevant web site or phone number -

General Contact
info@futureautomation.co.uk
+44 (0)1438 833577

US Contact
info@futureautomation.net
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SAC-U1- Smart Airflow Control Unit 1



Technical Overview

A general technical overview of the SAC, Smart Airflow Control range.

	SAC-T	SAC-U1	SAC-U2
Product Dimensions (W,H,D)	484x54x405mm [19x2.1x15.9"]	260x252x41mm [10.2x10x1.6"]	260x135x31mm [10.2x5.3x1.2"]
Control Box Dimensions (W,H,D)	N / A	N / A	94x150x52mm [3.7x5.9x2"]
Weight (Kg)	4Kg [8.8lb]	1.5Kg [3.3lb]	1.5Kg [3.3lb]
Power Consumption	Max 100W	Max 80W	Max 80W
Power Consumption On Standby	3W	3W	3W
Standard Colour	Black	Black	Black
MAX Airflow	268.6m3/h	134.3m3/h	134.3m3/h
MAX Fan Speed	2400rpm	2400rpm	2400rpm
MAX Noise Level	28dB	28dB	28dB
Control	RS232 + Standby Override	RS232 + Standby Override	RS232 + Standby Override
Power Supply	240V or 110V	240V or 110V	240V or 110V
Control Of 3rd Party Product	No	No	No
Output Power Supply	No	No	No
LCD Display + Push Button Control	Yes	No	No
Shipping Details			
Dimensions (W,D,H)	600x100x500mm [23.6x3.9x19.7"]	350x350x50mm [13.8x13.8x2"]	350x200x50mm [13.8x7.9x2"]
Weight (Kg)	5Kg [11lb]	2.5Kg [5.5lb]	2.5Kg [5.5lb]

Notes...



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