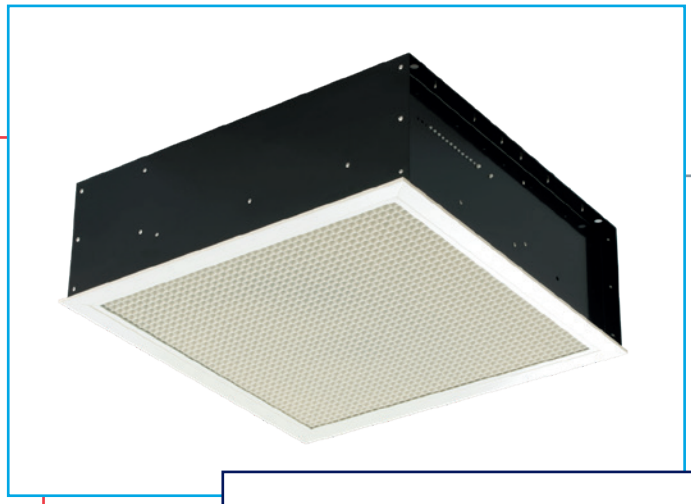

SPC Unitary Product Troubleshooting Guide

Issue 1

Contents

Customer Support & Troubleshooting Guide

This guide will help you diagnose and resolve issues with your **SPC unit**, including **Belgravia Fan Convectors**, **Tilevectors**, **Forcefield Air Curtains**, and **CiRRUS Unit Heaters**. It provides step-by-step instructions to:

- Carry out **fault-finding checks** to identify common issues
- Perform **voltage testing** to check electrical functionality
- Adjust the **fan/motor speed voltage**
- Contact SPC's **Technical Team** if further support is needed

By following this guide, you should be able to troubleshoot and fix most issues on-site. If you still need assistance, our Technical Team's contact details are at the end of this document.

1. IOM Manual References

Visit our Literature page on our website to view the Installation, Operation & Maintenance Manuals (IOMs) for the specific product you are working on. The references are listed below:

- IOM 69 Belgravia Classic Fan Convector
- IOM 70 Belgravia Supreme Fan Convector
- IOM 71 Belgravia Tilevector
- IOM 83 Forcefield Air Curtain
- IOM 85 Belgravia Tilevector Plus
- IOM 90 CiRRUS Unit Heater

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2. Fault finding

Below is a list of common faults and the steps required to resolve them:

Fault	Remedy
No Fan Operation	Check fuse on fan terminal blocks
	Check power supply to unit
	Check for loose wiring or damage to wiring
	Check switches, controls, FSB
	Check impeller runs freely
No Heating – LPHW	Check hot water to unit
	Check LTC or ALTC contact on pipework
	Check coil vented
	Check integrity of wiring
	Check thermostat operation (if fitted)
No Heating – Electric	Check thermal cut-out switch (red button on internal connection panels), press home to reset and re-check unit operation
	Check integrity of wiring
	Check power supply to electric element contactors
	Check thermostat/switch operation (if fitted)
	Check all fans/motors are spinning and no obstruction to airflow

3. Voltage Testing

Ensure you have a multi-meter capable of measuring 10VDC ready before performing the following tests:

1. Check that you have **230VAC** across the **Live and Neutral** terminals
2. Check that you have **10VDC** across the **A1 and 0V** terminals
3. Check that you have **10VDC** across the **A2 and 0V** terminals
4. Check that you have between **1V and 10V** across the **A7 and 0V** terminals
5. If **230VAC power is present** but the **fans/motor are not spinning**, add a **link across A1 and A7** (remove any existing wires from these terminals). If the fan/motor spins at full **10V**, this indicates a **fault with the switches, thermostats, or wiring**
6. Test each switch/thermostat by linking them out **one at a time** to identify whether the fault lies with the switch, thermostat, or wiring

4. Changing Speed Voltage

The fan/motor speed can be adjusted via the PCB board:

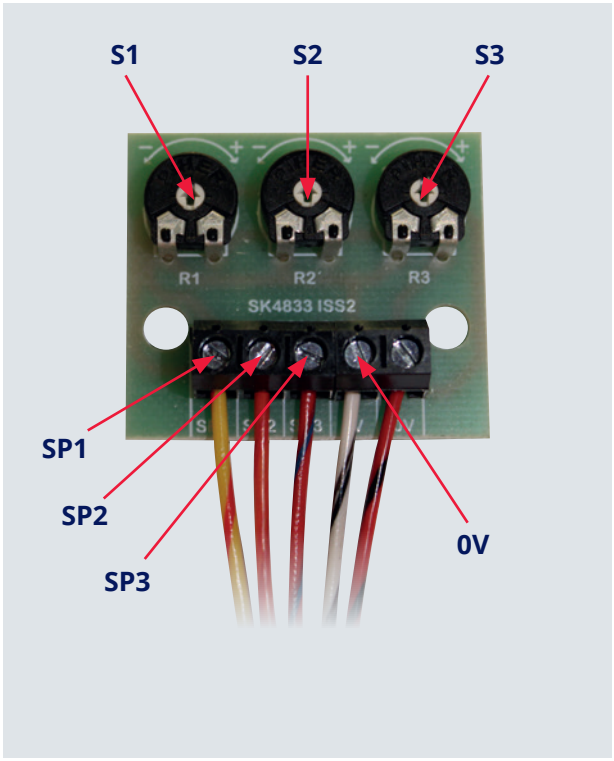
- **Belgravia Classic & Supreme Fan Convectors** – PCB board is fitted on the motor plate/fan deck.
- **Belgravia Tilevectors** – PCB board is located behind the motor cover plate (this must be removed).
- **Airdor Forcefield Air Curtain** – PCB board is fitted on the electrical bracket.

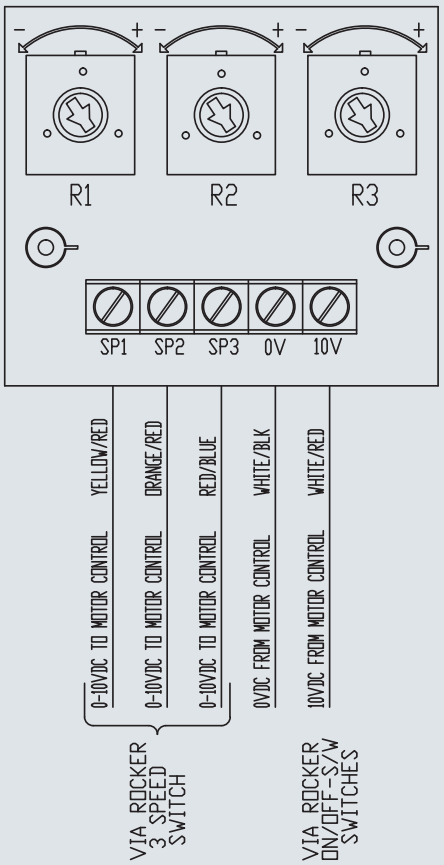
There are two ways to adjust the speed:

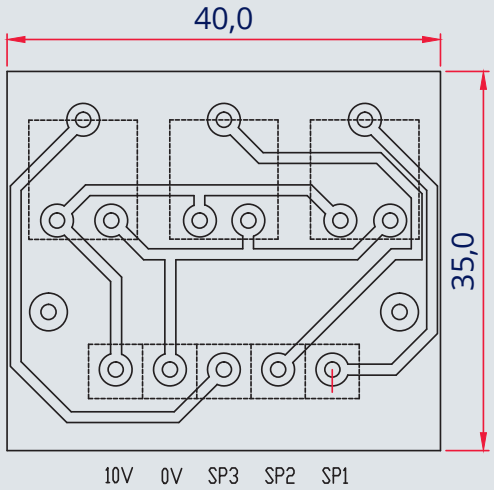
1. If there is a link across 'A7' and 'S2', move the wire from 'S2' to either:
   - 'S1' for low speed, or
   - 'S3' for high speed.

2. Using a multi-meter:
   - Set your probes across 'SP1' and '0V'.
   - Turn the potentiometer 'R1' clockwise to increase the speed.
   - Repeat this process for 'SP2' and 'SP3'.

Note: The potentiometer must be set to a minimum of 1.5VDC







5. Contact SPC Technical Team for Further Support

If the unit remains faulty after **fault finding** and **voltage testing**, please contact the **SPC Technical Team** for assistance at **0116 249 0044 (Option 1)**.

To help us access the job details quickly, please have the **Order Number or Serial Number** ready before calling. These can be found on the labels fitted inside the units (see below).

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