



THE SOLLATEK WIDE INPUT VOLTAGE STABILISER SVS04E

Microprocessor controlled Stabiliser

INSTRUCTION MANUAL

- Before using the SVS please read all instructions carefully.
- Keep these instructions for future reference.



Safety

- All equipment designed and manufactured by Sollatek (UK) Ltd complies with the latest safety codes of practice. You should still follow all safety instructions and use caution when installing and operating electrical equipment.
- To avoid the risk of shock, DO NOT expose this equipment to rain, moisture or liquid spillage.
- Before attempting to use the SVS (Sollatek Voltage Stabiliser) ensure that the total loading of your equipment does not exceed the maximum rating of the SVS.
- To check the rating of your SVS, refer to the label on the back of the unit.
- Do not attempt to dismantle the SVS, to do so will invalidate the guarantee. There are no user serviceable parts inside.

Description

The SVS04E-22 is designed for usage with fridges, freezers, coolers and vending machines rated up to 4Amps. This unit can accept a very wide input voltage range to allow for very low voltage in some countries.

As both high and low mains voltage can damage your electrical equipment, the Sollatek SVS is designed to monitor and correct the incoming supply continuously.

If the voltage rises or drops, the SVS will stabilise the output to ensure that the voltage reaching your equipment remains constant at 230V (±6%), within the operating range of the unit.

The Sollatek SVS has a modern state of the art LED display to indicate accurately the state of the input and the output voltage supplied to your load.

The Sollatek SVS is unique in having a built-in Sollatek AVS™ (Automatic Voltage Switcher). This adds the following protective functions;

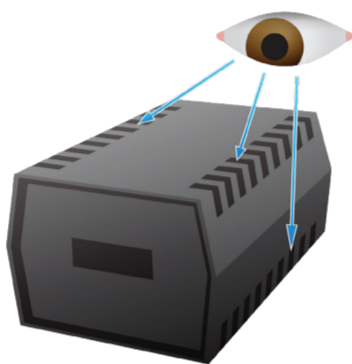
- Provides a start-up delay which prevents rapid switching ON and OFF of the appliance in serious fluctuations. This is especially important for loads that use compressors (e.g. Fridges, Freezers, Coolers, Air conditioners) and vital for sensitive electronic equipment like computers, photocopiers, fax machines, lab equipment, medical instruments etc.
- Provides a shutdown and disconnect function whereby it will disconnect switch off your equipment in cases where the fluctuations are extremely BAD and the SVS can not safely correct the voltage.
- The Sollatek SVS has a built-in microprocessor which adds the advanced feature TimeSave™. TimeSave™ means that when the mains return to normal from a brown-out, the SVS checks the duration of the OFF time.

The SVS also protects your electrical equipment against power spikes and surges. By using the SVS you will ensure a stable, and clean voltage supply to your equipment.

Unpacking & Inspection

After removing the protective packaging from the SVS unit, inspect the ventilation slots to ensure that they are free from all obstruction. Use a vacuum cleaner to dislodge any obstructions.

Retain the box and packaging material to return the SVS unit in the unlikely event of its operational failure.

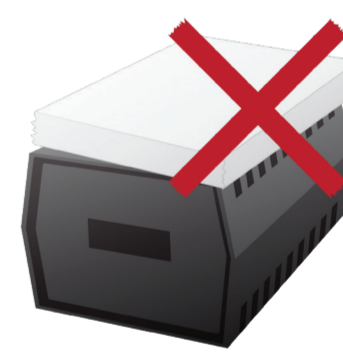
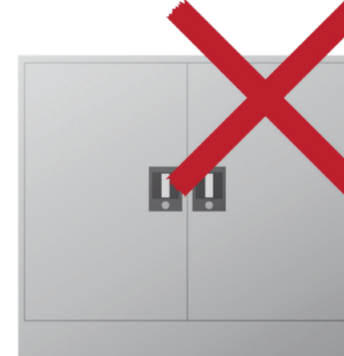
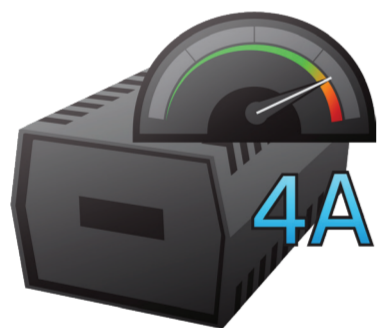


Installation

WARNING: This appliance must be earthed. Ensure the rating of the load doesn't exceed the capacity of the SVS. If in doubt consult your electrician.

If your mains outlet only has a 2-pin socket, consult a qualified electrician. If you are unfamiliar with installing electrical equipment consult a qualified electrician.

- Although the unit does not produce excessive heat, ensure that it is positioned so that a free flow of air allows the unit to cool.
- Do not install inside a closed cupboard and do not allow papers or other materials to be piled on top.
- Position the unit on a hard surface.



Operating Sequence

- On first turning the unit on:**
 - if it has been switched off for more than 6 minutes, the SVS04E will power up in 10 seconds.
 - If the unit has been switched off for less than 6 minutes, the SVS04E will wait for 6 minutes before powering up. This allows proper protection of the fridge/compressor and any load connect to it and prevents frequent switching on and off.
 - Some models are configured with shorter Time Delay. Refer to model specifications.
- While the unit is waiting to power on, the LED display will show the input Voltage level. By pressing the Toggle switch, the display will show the output voltage which should be 000
- As the unit is powered, the display (if still on Output mode) will show the output voltage from the SVS04E.
- The SVS04E has a very wide input voltage range. Refer to the table below. This will illustrate the expected output voltage at a particular input voltage.
- If the input voltage is either below 95V or above 290V, the SVS04E – using its inbuilt AVS™ will disconnect the voltage to the output and protects your load. The display will show the corresponding input voltage level and 000 for the output.
- Power will be automatically re-instated (after the start up delay – see point 1 above) once the input voltage comes within operating range (>100V and lower than <290V)



Input and output voltage response for standard models

	230V																																																																																													
INPUT	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	290																																																							
OUTPUT	OFF	182	191	200	209	218	227	236	245	254	263	272	281	290	299	308	317	326	335	344	353	362	371	380	389	398	407	416	425	434	443	452	461	470	479	488	497	506	515	524	533	542	551	560	569	578	587	596	605	614	623	632	641	650	659	668	677	686	695	704	713	722	731	740	749	758	767	776	785	794	803	812	821	830	839	848	857	866	875	884	893	902	911	920	929	938	947	956	965	974	983	992	1000	OFF

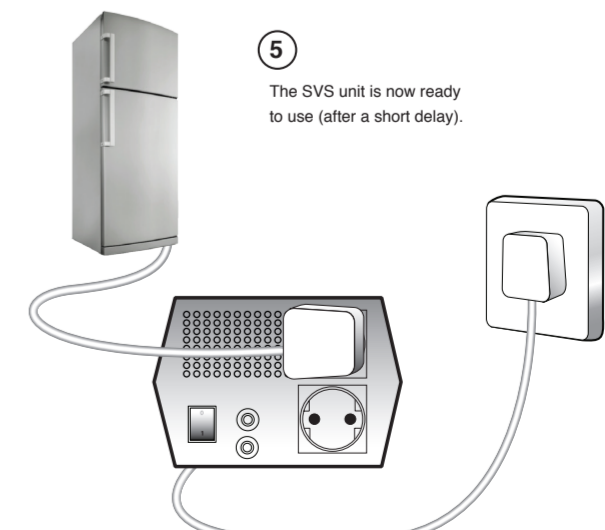
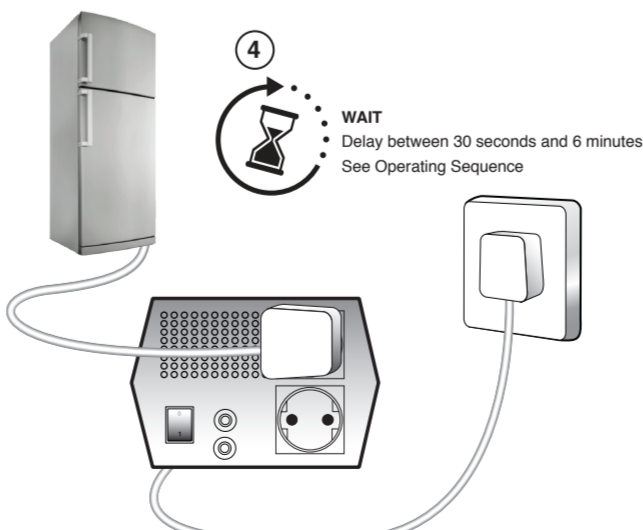
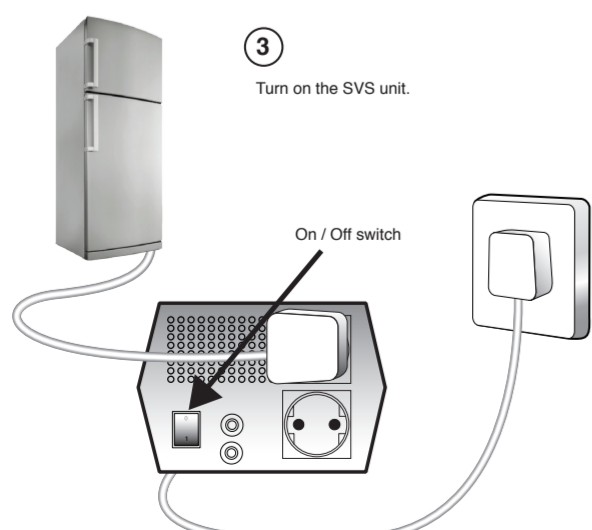
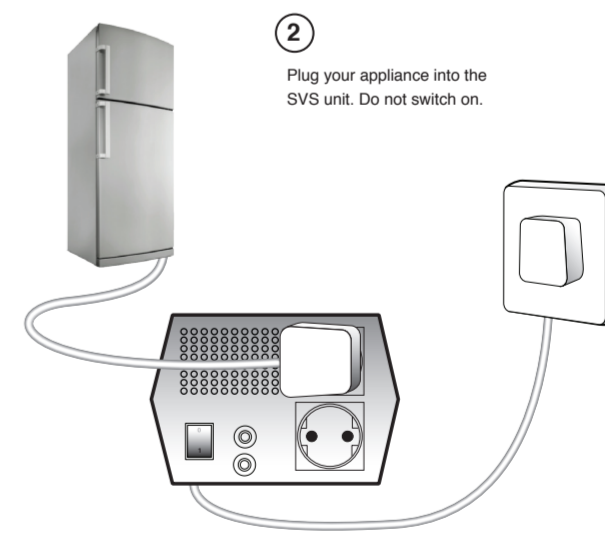
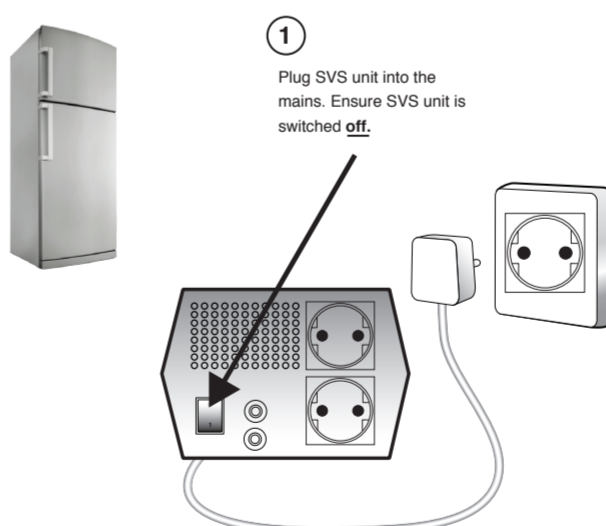
Troubleshooting

Symptom	Possible Cause	Remedy
The unit does not switch on. None of the LEDs are lit.	1) The fuse has blown. 2) The mains switch is not on. 3) No power is available on the input.	Change the fuse for a fuse of the correct rating. Ensure that the load current does not exceed the capacity of the unit. If after changing the fuse the unit is still not functioning return the unit for repair. Ensure that you are using the correct voltage (i.e. 230V or 110V)
The unit appears to be functioning normally but the load is not being switched on.	Load is not plugged in. Load is not Switched on. Load fuse has blown. Time delay is in progress	1) Check that the load is plugged in. 2) Check that the input voltage is within the input range of the SVS. 3) Check that the load is switched on. 4) Wait for the delay to end.
The SVS continuously performs self-test. If it finds a fault the LEDs will continuously light from top to bottom repeatedly in one of two patterns.	1) Possible internal fault. The fault could be temporary or permanent. 2) Very bad mains waveform or frequency.	1) Ensure that the load current does not exceed the rating of the SVS. 2) Turn the appliance off then switch SVS off. Restart the unit as per operating instructions. 3) If the above doesn't solve the problem please return the unit to a Sollatek service centre.

Standard operation instructions

Please follow the procedure below to connect your SVS;

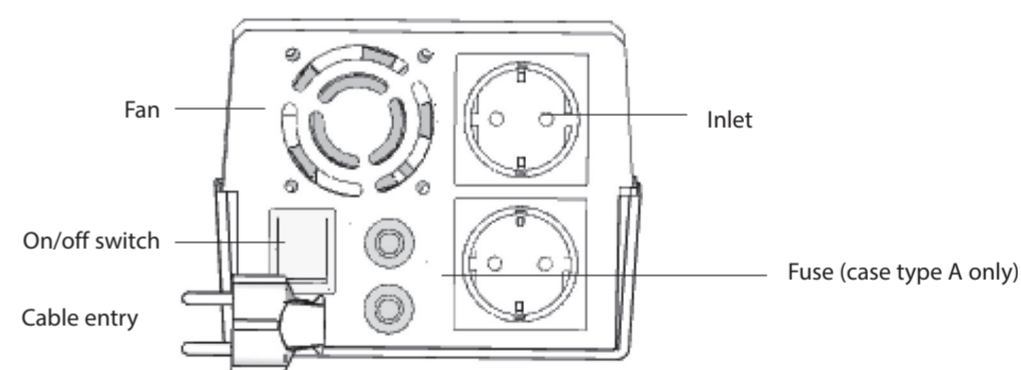
- Turn your equipment OFF and unplug it from the wall socket.
- Ensure that the switch on the SVS is OFF.
- Plug the SVS into the wall socket or input and plug your equipment into the SVS.
- Turn the power ON at the wall socket.
- Turn the SVS switch ON.
- Turn your equipment ON.
- The SVS model has a built-in AVS (Sollatek Automatic Voltage Switcher). This will ensure that the load is not connected immediately. The delay will ensure that the mains is good before connecting the load and protects the equipment from rapid switching on and off.
- Once the wait period (see specifications) has passed, the SVS will relay power to your equipment.
- The display give you a visual indication of the input and output voltage.
- Any variation to the input power supply, up or down, will be monitored and adjusted by the SVS.



Specifications

Model	SVS04-22
Output Current	4Amps
VA@230V	920V
VA@240V	960V
Weight	7.2kg
Case type	Plastic
AVS function	YES
Spike protection	YES
Dimension unpacked(mm)	162 x 132 x 275
Input/output range	
Input range	95 - 290V
Output	182 - 245V
Frequency range	45Hz to 75Hz
General	
Derating factor	10% to 15% per 10°C above 40°C
Synchronization	Output synchronized to input
Permissible overload	1000% for 100ms, 150% for 4 minutes, 110% for 15 minutes
Load types	Suitable for fridges, freezers, coolers and vending machines rated up to 4A
Technology	Transformer tap switching using relay based
Efficiency	>97% (at 100% linear load)
Control	Microcontroller based control system provides self checks, system integrity monitoring and diagnostic indicators
Control protection	Internal surge arrestors and filters in control circuit protect against disturbances. Filtering algorithms and fault tolerant software protect against disturbances and false measurements
Ambient temperature range	0 to +55°C
Relative humidity	<95%, non condensing
Acoustic noise	< 45 dB (A)
Expected service life	> 10 years
Standards	Manufactured to comply with :- ISO9001:2000, CE, EN 50081-1:1992, EN 50082-1:1998, EN 55022:1998, EN 61000-4-2:1995/1998, EN 61000-4-3:1996, EN 61000-4-4:1995, EN 61000-4-5:1995, EN 61000-4-6:1996, EN 61000-4-11:1994, DD ENV 50204, BS EN 61558-1, EN 60065, EN 60555
Correction speed	750 Volts per sec
Response	Within 0.1 second
Efficiency	88% at 25% load, 94% at 50% load, 96% at 75% load, 97% at 100% load
Power factors	Unaffected by load power factor
AVS™ function	Automatic voltage switcher: output is switched off to protect device against over and under voltage
TimeSave™ function	Reduced startup delay if unit was off for more than the standard delay period to 10 seconds

Rear panel



Guarantee

Sollatek (UK) Ltd guarantee that if within 2 years of purchase this appliance fails due to faulty workmanship or materials we will repair or replace it free of charge provided that:

- The appliance has been correctly installed and used within the electrical range as specified on the appliance nameplate.
- The appliance has been used in accordance with the operating instructions.
- There has been no attempt to open the unit for any reason whatsoever.
- The unit is returned to Sollatek or Sollatek agent in good condition.
- Sollatek shall not be liable under the terms of this guarantee for any material fault or damage as a result of failure of this appliance.
- This guarantee does not affect your statutory or Common Law rights.

Warranty & Returns

Should your SVS unit need repair, the quickest and simplest way is to return it to your dealer or to a Sollatek Service Centre or direct to the nearest Sollatek office.

IMPORTANT : Before returning a unit to a Sollatek Service Centre, contact the returns department to obtain a returns number. You will be asked for the following information which you should have ready;

Your name, address, telephone, fax (if available), email (if available)
Date purchased, where purchased
Serial number, model number
Local voltage and type of load.
Description of fault

Once you have the returns number, ensure that the unit is securely packed enclosing a short note with details as above and mark the unit clearly with the returns number. Remember also to add your name and address.

Complying with the above will ensure that your unit will be treated promptly and efficiently. Without a returns number it will not be possible to trace a unit or check progress of repair of the unit.

All specifications are subject to change without prior notice.

Sollatek™
the power to protect

SOLLATEK UK LTD.

Tel: +44 (1753) 214 500

sales@sollatek.com

www.sollatek.com

For more information on Sollatek's voltage protection range refer to the VP Catalogue.
or visit www.sollatek.com

ISO9001: 2008 accredited company

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Sollatek (UK) Ltd.
Sollatek House, Waterside Drive, Langley, Slough SL3 6EZ UK