



# Voltshield™ AVS30 APPLIANCE GUARD



## Operating instructions

### INTRODUCTION

Without doubt, power interruptions cause major problems for home and business computing. An unpredictable power supply can lead to worrying problems events such as surges, spikes, brownouts and utility failures. If any of these should occur, there's a strong chance you will suffer from loss of critical data, lowered productivity and even damage to your expensive equipment.

All electrical and electronic equipment, connected to the mains supply is at risk of being damaged from spikes, surges, lightning, brown-outs, power-cuts (blackouts), power back surges, and over-voltage.

Sollatek encompasses a wide range of power protection products for use in many different industries where clean, regulated mains power is critical to their continued operation.

For more information on our range of power protection products, please contact us now.

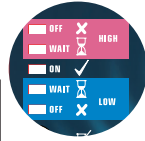
### THE AVS30

The AVS30 micro is an Automatic Voltage Switcher rated at 30 Amps. The AVS will switch off the equipment connected to it if the mains power goes outside pre-set acceptable limits, and will reconnect automatically when the mains power returns to normal. Reconnection takes place after a delay, to ensure stability of the mains.

The new version of the AVS has a built-in microprocessor that adds advanced features. These include:

Five LEDs accurately display the status of the AVS in the following symmetrical traffic light design:

LED Colour	Indicating	Load Status
Red	High incoming voltage	OFF
Yellow	AVS is in wait state after a high voltage transition	OFF
Green	Mains normal	ON
Yellow	AVS is in wait state after a low voltage transition	OFF
Red	Low incoming voltage	OFF



By adding microprocessor control to the AVS30, you can enjoy advanced functions which include:

- \* Variable time delay (see P1 in diagram 2)
- \* Variable Low voltage disconnect level (See P3)
- \* Variable High voltage disconnect level (See P4)
- \* Variable Blind time. Response time to under voltage disconnect (See P2)

**All these new features can be set at installation time.**

- \* The AVS30 Micro has a reset button on the front panel. This button will eliminate the delay time.
- \* 5 LEDs to indicate the state of the mains supply.

### OPERATION

1. Make sure that your load does not exceed the rating of the AVS which is 30Amps.
2. The limits of the AVS as a standard are set for a window of 190-260 volts.
3. The AVS has to be wired to the mains supply and to the equipment it is supplying. Please refer to the wiring diagram on diagram 2 below.
4. On first switching on, there will be no output for the wait time of approximately three minutes (or as set on 'Wait' control) while the AVS monitors the mains.

a) To by-pass the wait time, press the re-set button on the front panel of the AVS30.

b) If a different wait time is required, then change the settings on potentiometer marked WAIT. Settings are available in increments up to 10 minutes.

You can also set the WAIT dial to MAN. While on Manual the AVS30 will not reconnect the mains unless the Reset button is pressed. For that period the yellow LED indicates that the mains are within acceptable limits, after which the green LED goes on and the load is connected.

5. A longer under voltage blind time can be set if high load in-rush currents causes the supply voltage to dip below the low cut off voltage at start-up.

Under voltage blind time means the AVS ignores any undervoltage conditions during this time.

The AVS will not switch off unless the under voltage last longer than the blind time.

6. It is recommended that the AVS is kept switched on, and the appliance switched on and off to prevent activating the time delay every time the appliance is switched on.

### CONNECTION:

**CAUTION: IF THE AVS IS ALREADY WIRED, MAKE SURE IT IS DISCONNECTED FROM THE MAINS BEFORE YOU DO ANY OF THE FOLLOWING:**

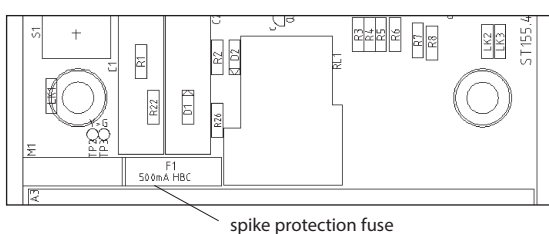
1. Remove the bottom cover to obtain access to connection terminals. To remove bottom cover remove the two white caps and then undo the two screws.
2. Insert cable from the mains supply through the left hand cable gland and connect to the AVS30 Input terminals. (Refer to connection terminals layout diagram 2 below).
3. Insert appliance cable through right hand cable gland and connect to AVS30 output terminals.
4. Tighten the Cordgrip Bushes and return the front cover and two screws and screw caps.

DO NOT OVER TIGHTEN THE SCREW TERMINALS.

### NOTES:

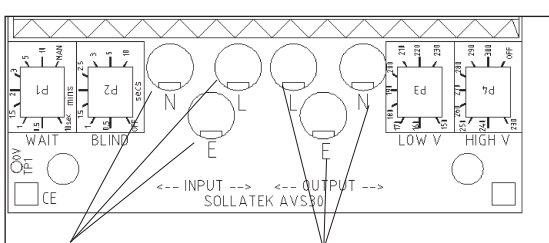
- \* In the upper compartment of the AVS, you will find a fuse (see diagram below). The fuse is not for the load. It is a spike protection fuse. Replace if it gets damaged. (0.5A Anti Surge). To gain access to the upper compartment, ENSURE THAT THE AVS30 IS NOT CONNECTED TO THE MAINS. Remove the screws from the back.
- \* The AVS must be mounted securely on a wall. Place it over one screw at the top and then use the two mounting holes in the terminal compartment.
- \* The supply to the AVS30 must be protected with a fuse or circuit breaker rated at 30A or less.

DIAGRAM 1. AVS30 LOCATION OF SPIKE PROTECTION FUSE



RISK OF  
ELECTRIC SHOCK

DIAGRAM 2. AVS30 CONNECTION TERMINALS LAYOUT



#### AVS30 INPUT

L (Live) to L  
N (Neutral) to N  
E (Earth) to E

#### AVS30 OUTPUT

L (Live) to L out  
N (Neutral) to N out  
E (Earth) to E out if used

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