Health Care Technical Service
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Short manual for Automatic Voltage Switches (AVS)

The AVS **protects** your medical equipment of dangerous changes in the power supply like: **spikes** and **surges** (very short and very high voltage of thousands of volts), **over voltage** (longer lasting high level of voltage), brown out/ **under voltage** (longer lasting low level of voltage). When changes like this occur the AVS **cuts off** the connection between the protected medical equipment and the dangerous power supply. When the power supply is in the normal level, the AVS reconnects the medical equipment and the power supply after a short **delay**.

General:
Do not expose the equipment to rain, moisture or liquids, clean only with a dry cloth.
Make sure that your load does not exceed the rating of the AVS (30 Amps).
The standard window for working is voltage between 190- 260 volts.
On the first switch on there will be a delay of three minutes.
Please let the AVS plugged in and only switch off the medical equipment.

LED
The LED's show you how the AVS is working:

Red LED: Dangerously high incoming voltage, medical equipment is switched OFF

Yellow LED: AVS WAITS and is going to switch the medical equipment on, equipment is still switched OFF

Green LED: Good voltage, medical equipment is switched ON

Yellow LED: AVS WAITS and is going to switch the medical equipment on, equipment is still switched OFF

Red LED: Dangerously low incoming voltage, medical equipment is switched OFF
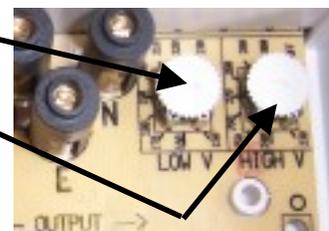
Voltage:
To change the voltage- window the AVS is working in please do as follows:
Please before opening the AVS be sure that the AVS is disconnected from the main power supply.

1. Remove the both caps of the screws in front of the AVS
2. Remove the two screws
3. To set the low limit: please turn the wheel LOW V to the wanted position (190 V at least is recommended)
4. To set the high limit: please turn the wheel HIGH V to the wanted position (260 V at maximum is recommended)
5. Close the AVS when changes are set

Delay

To change the time delay (means: the time the AVS waits before it switches on after a power break), please do as follows:

Please before opening the AVS be sure that the AVS is disconnected from the main power supply.

1. Remove the both caps of the screws in front of the AVS
2. Remove the two screws
3. To set the delay: please turn the wheel WAIT to the wanted position (30 sec at least is recommended)

If you want to switch on the equipment immediately you can press the **bypass** button. Please do this only if you cant wait the delay time, because the delay is an important feature that protects your medical equipment
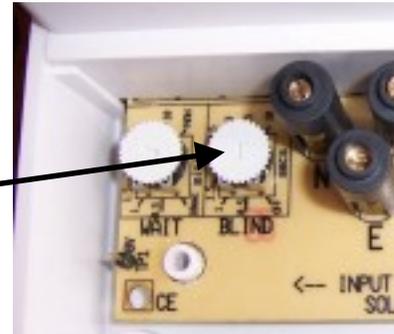
Blind time

To change the blind time (means: the time the AVS waits when voltage is too low before it switches off the protected equipment), please do as follows:

Please before opening the AVS be sure that the AVS is disconnected from the main power supply.

1. Remove the both caps of the screws in front of the AVS
2. Remove the two screws
3. To set the blind time: please turn the wheel BLIND to the wanted position (1.5 sec is recommended)

Problems

Symptom	Possible cause	Remedy
The AVS does not switch on, none of the LED's are lit	1. The fuse has blown 2. No power available at the input	Call service Connect to power
The AVS appears to be working normally but the load is not being switched on	1. Load is not plugged in 2. Load is not switched on 3. Load fuse has blown 4. Load is broken 5. Main voltage is too high or too low (red or yellow LED's are on, green LED is off)	Plug in load Switch on load Change load fuse Repair load Wait until the main voltage is in the normal parameters again

Service

In case that this manual doesn't help or you have further questions please contact

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