

Solsum VC Voltage Converter 12V / 24V Input 3V, 6V, 7,5V, 9V, 12V Output



Please read this operating instructions thoroughly before you start the installation!

Solsum VC allows the connection of devices (e. g. radios) which need a lower operation voltage to a 24 or 12V accumulator.

Adjusting the output voltage

The output voltage is adjusted by a 5-rowed jumper block at the front of the converter. The jumper has to be placed on the these needles where the value wished is printed.

The output voltage has to be adjusted before the converter is connected, as otherwise the connected user can be damaged.

The output voltage must not be higher than the admissible supply voltage of the connected user.

Connection the voltage converter

1. Adjust the voltage at the converter
2. Connect it with the system battery
3. Connect the user

When the output voltage is to be changed
=> Disconnect in the inverse order, change voltage and connect in the above order

The right screw connection terminal "IN" marked with the battery symbol has to be connected with the input voltage (battery): The left connection terminal "OUT" marked with the radio has to be connected with the users.

Note the correct polarity of the connected users. A inverted polarity of the user can technically not be recognised.

When the voltage converter is connected properly the green LED (OK) is shining.

When red LED (WRONG POLARITY) is shining, the supply voltage is connected at the wrong polarity.

The output voltage is reset to 3V when the jumper is removed during operation.

The output voltage can only be measured during load operation, in no-load operation the measured voltage can slightly differ from the value adjusted.

The maximum current drain of the system is dependent from the supply voltage and the adjusted output voltage.. See following table or formula:

$$I_{out} = \frac{9W}{U_{in} - U_{out}} \quad I_{out} \leq 1500mA$$

Input.	3V	6V	7,5V	9V	12V
Output	12V 1000mA	1500mA	1500mA	1500mA	0V
	24V 400mA	500mA	500mA	600mA	700mA

The output is short-circuit proof and protected from overload. Nevertheless are short-circuits and overloading to be avoided.

Warning:

1. Short-Circuits are to avoided: Risk of fire!

2. There is a high risk of sparking in direct-current systems during the installation as well as operation. Do not install components in rooms where highly flammable gas mixtures can develop (e.g. by gas cylinders, lacquers, solvents). Consult you a qualified person when in doubt.

INSTALLATION

Note that all users connected at the same time must not take more current than the maximum admissible load current.

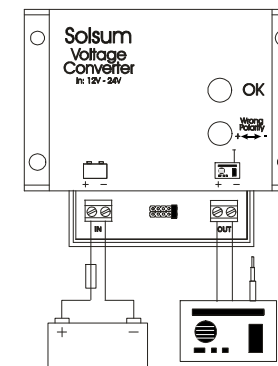
Important:

The installation place of the converter must be protected from weather influences. Make sure that the converter is mounted on a wall with the terminal showing downwards. It has to be made sure that there is enough air for cooling. The cooling slits must not be covered.

In order to take full advantage of the converter, it has to be connected with the current source and the users. It is recommended to insert a fuse (ca. 2A) into the system cable. The voltage of all system components has to be coordinated. This has to be checked before installation!

Proceed in following order:

1. Connect the current source with the screw terminal (Figure. 1). Use the biggest possible cable diameter, in order to keep power loss down. (see technical data). Only when short-circuit proof cables are used the battery cable has not to be secured. Otherwise a fuse has to be inserted directly at the plus pole of the battery, in order to avoid short-circuits at the cable to the converter.
- 2) At last connect the users with the voltage converter. Pay attention to correct polarity during installation, in order to avoid damages.



Technical Data:

Input Voltage.....	5V-30V
Output Voltage.....	3V / 6V / 7,5V / 9V / 12V
Self-Consumption.....	2mA (U _e = 12V)
Output Current.....	< 1500 mA
Connection Terminal.....	2,5mm ²
Dimensions.....	98x89x35
Max. Power Loss.....	9W