

# Using a Wheelchair Power Source With the Tobii C-Series

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C-Series devices may be powered from alternative power sources, such as from the battery of a wheelchair, instead of having to rely upon battery power or connection to a wall socket. This instruction details the recommended installation and explains particular requirements that must be maintained in order to fulfill Tobii's commitment to product safety.

### IMPORTANT!

Although this instruction details a specific installation, the exact installation, including specific parts used, is at the discretion of the installer. Note that other devices may have specific warranties or limitations concerning the installation of equipment such as this product. Installation in violation of such warranties or limitations are done at the discretion of the installer. Hence, the installer shall take full responsibility for the installation, including its function after installation, its compliance and safety

## Recommended Installation

⚠ The installation **MUST BE** performed by an experienced wheelchair technician.

The DC-DC Converter :

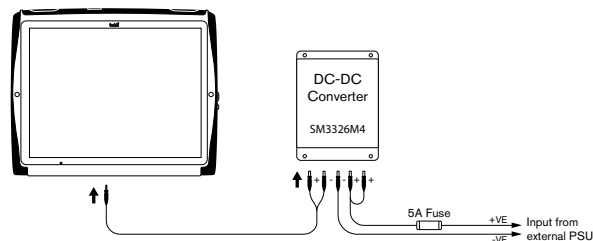
- Is designed to be used with a 24 V wheelchair battery
- Must be installed in a location protected from dirt, humidity and out of reach of the user
- Must only be used to supply power to a C-Series device
- **MUST NOT BE** used for any other type of device


⚠ Do not charge the C-Series batteries from the wheelchair power source outside the temperature range specified for the C-Series batteries (between 0 and 50 °C , 32 and 122 °F).

All cables must be strapped every 10 cm with weather and UV resistant straps.

Once mounted, the C-Series device shall be connected to the external Power Supply Unit (PSU) through a DC-DC Converter to ensure that the device receives the necessary voltage to function correctly.

The connection from the DC-DC Converter to the external supply source must be fused using a 5A slow burning fuse.



 All the functions of the wheelchair MUST BE tested after the installation by an experienced wheelchair technician.

The installed DC-DC Converter must be inspected for possible damage or defects regularly, at least once a year. Repair or replace any damaged items immediately.

The required current and voltage ratings for the external PSU shall be consistent with the ratings of the DC-DC Converter and in compliance with IEC60601-1. In particular for the SM3326 DC-DC converter these shall be as follows:

Recommended Input Voltage	18.0 – 32.0 Volts DC.
Current Rating	> 5 A

## Mandatory Requirements for Installations

In short, all installations shall be in accordance to IEC60601-1. Specifically, special attention shall be paid to the requirements detailed in the table below from this standard and all requirements must be fulfilled in order to meet the mandatory requirements for this product.

Section	Section Heading
6.2	Protection against electric shock (Classification)
7.2.5	ME EQUIPMENT intended to receive power from other equipment (Markings)
7.3.4	Fuses, THERMAL CUT-OUTS and OVER-CURRENT RELEASES
7.9.2.3	ME EQUIPMENT specified for connection to a separate power supply (Markings)
7.9.2.14	ACCESSORIES, supplementary equipment, used material (Instructions for Use)
8.2.2	Connection to an external d.c. power source (Electrical Requirements)
16.3	Power supply (Markings)

The above referenced sections were taken from version IEC60601-1:2005 October 2006. These may be subject to change.