

SMSVAGA

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CHARGING AND STORING THE BATTERY

SMS Scale · maintenance guide

The gel battery powers the SMS Scale through the whole season. How it is charged and how it is stored over winter decides whether it lasts one season or several.

This is chapter 11 of the SMS Scale manual, published separately so that it can be kept with the battery.

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smsvaga.com

OPTICAL d.o.o. · Kruševac

Charging the battery

A gel (lead-acid) battery must be charged only with a charger intended for gel and AGM batteries, with automatic voltage regulation. Ordinary car chargers do not have this regulation and can damage the battery permanently.

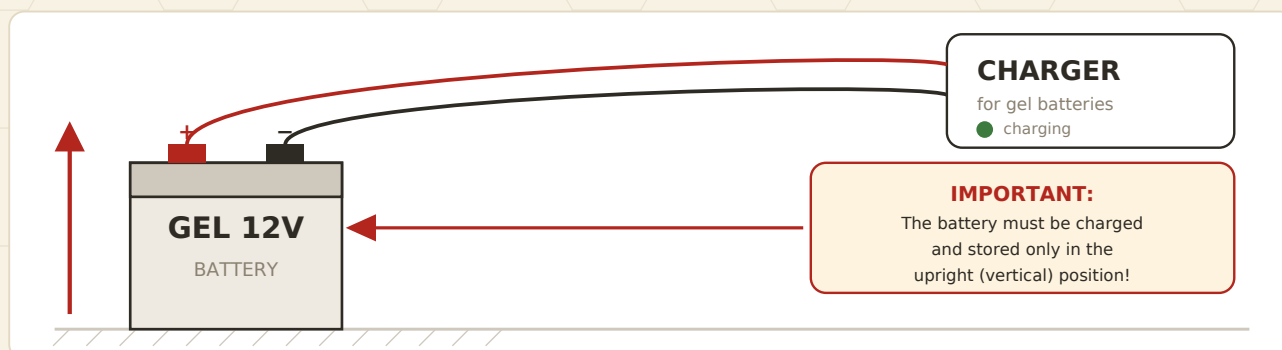
What is limited	Limit
Charging voltage	14.4 V at most
Charging current	2 A at most
Charging time	usually 6 to 12 hours

How long charging takes depends on the capacity of the battery and on how empty it was. Charging is finished only when the charger says so — while it runs, a red light is usually on, and when the battery is full, a green one comes on.

Charge the battery in a dry, ventilated room, at a temperature above freezing. Connect the clamps first — red to plus, black to minus — and only then plug the charger into the mains.

While charging and while stored, the battery must stand upright. A battery left lying down loses electrolyte and weakens permanently.

Charging the gel battery in an upright position



Storing over winter

At the end of the beekeeping season take the battery off the scale, clean the clamps and charge it fully. Store it in a dry, cool place, ideally at 5 to 15 °C.

Never in freezing conditions. A discharged battery can freeze and crack at low temperatures.

Lead-acid batteries discharge on their own over time, so top the battery up every two months through the winter. Never leave it empty — standing discharged causes sulfation of the plates and a permanent loss of capacity.

Charge it fully before the new season. A healthy, fully charged 12 V gel battery at rest reads about 12.8 V. A battery kept this way lasts several seasons and keeps the SMS Scale running through the whole forage.