

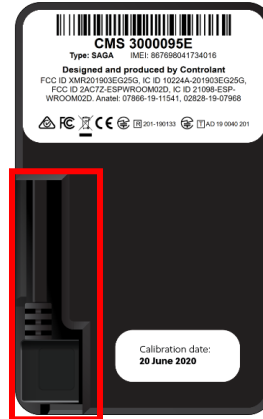
Saga™ Logger

Charging instructions

Charging loggers

1

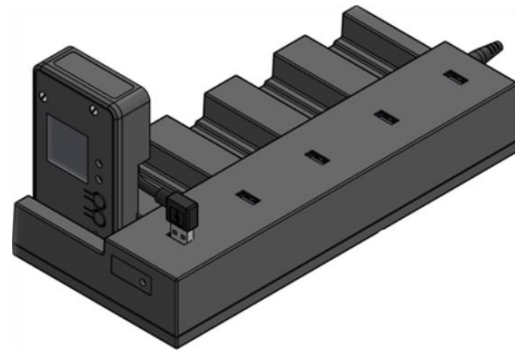
Unplug the USB cable from the side of the logger.



Loggers are charged at Controlant service centers. Only charge loggers that are below the required threshold for the designated shipment.

2

Plug the USB cable into a charging port.



The logger can be charged by any USB port that provides power however, it is recommended to use the charging station provided by Controlant.

The logger wakes up when plugged into a charger.

3

Read the icons that appear when plugged in.



The display will show a USB icon for a few moments when first plugged in.



When charging, the battery icon on the logger display has a flash symbol.



When fully charged, the battery percentage will show alongside the charging icon.



4

Charge each logger until fully charged.

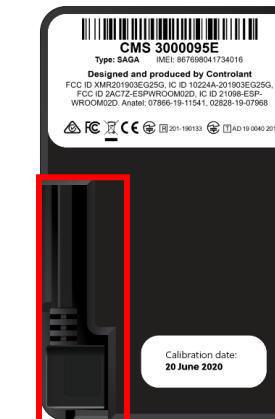


Fully charging the logger from depleted takes 6 hours. The logger wakes up when fully charged and again when it's removed from the charger.

Note: Leaving the logger on charge for an extended period (>24 hours) is not recommended as it may affect battery health and performance. Extended charging does not present any safety hazard.

5

Unplug the logger from the charging port.

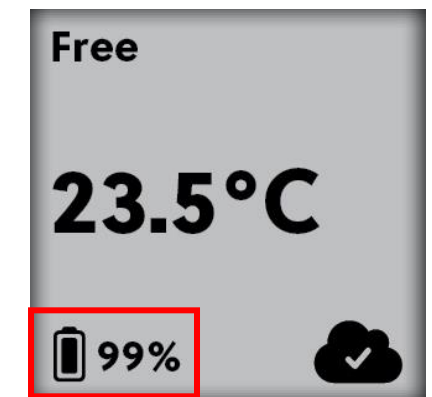


Once unplugged, reinsert the USB port back into the logger.

Note: The logger heats up while charging and therefore, **loggers should not be placed directly in a shipment right after being unplugged.** Each logger should be allowed to recover for **at least 30 minutes** after being removed from charging for the temperature measurements to be accurate.

6

Logger is charged.



The battery icon shows the remaining battery, with the black bar size shrinking as the battery level reduces, along with the percentage next to it reducing.

Charging environment

Guidelines for setting up an optimal charging environment:

1. Controlant charging stations positioning

Set up the charging stations on a stable, easy-to-clean base, like metal shelving. If possible, place the electrical outlets behind or between the charging stations as this makes it easier to access each station and retrieve the loggers quickly.

2. Ambient temperature

The loggers detect the ambient temperature and the ambient temperature ranges for charging are:

Maximum
37°C / 98.6°F

Above this, the charging process will interrupt, and a barred battery icon will show on the display. Charging will resume once the ambient temperature cools down.

Optimal
15-25°C
59-77°F

The charging area/room should be well-ventilated and at room temperature. Ambient temperatures above 30°C/86°F will have a negative effect on charging.

Minimum
0°C / 32°F

Below this, the charging process will interrupt, and a barred battery icon will show on the display. Charging will resume once the ambient temperature warms up.

3. Logger orientation

The devices generate heat while charging, especially toward the end of the charging cycle. Make sure that the devices are standing upright and are not leaning against each other while charging as the temperature may increase further, preventing the battery from fully charging.

Probe management for Saga-P loggers

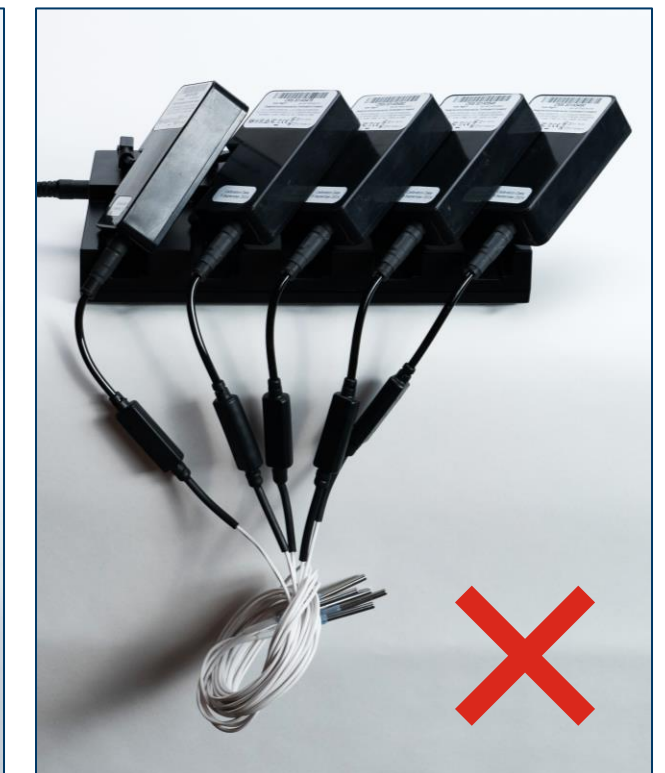


To prevent the probes from bending, place the Controlant charging station at the edge of the base so the probes can hang down. Coil the probe before charging, to keep it from touching the floor. If charging five devices at once, coil the probes together.

Standard loggers



Probe loggers



Battery



Battery type

Controlant loggers have a rechargeable NiMH (Nickel–metal hydride) battery of 2500mAh, with a lifecycle of at least 300 cycles.



Hazardous?

NiMH batteries are not considered hazardous goods.



Expected battery life

Note that many factors can affect battery life including low temperature, cellular conditions, additional wake-ups (e.g., buttons presses and alarms), etc.

Wake-up interval	Expected battery life
1 hour	20 days
2 hours	35 days
3 hours	45 days
6 hours	75 days
12 hours	110 days
24 hours	>110 days