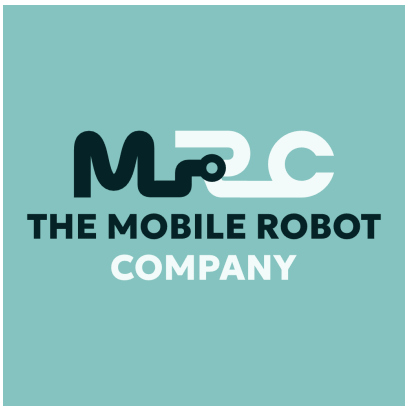

The Mobile Robot Company

Knowledge Center — Charging Problems · 2026-08-04

https://info.mobilerobot.com/support/troubleshooting/charging-problems

Charging Problems

The J1600 uses a 24 V, 200 Ah lithium iron phosphate (LiFePO4) battery (https://info.mobilerobot.com/documentation/technical-reference/battery-specifications/) and supports two charging methods (https://info.mobilerobot.com/documentation/user-guides/charging/): manual plug-in charging and an optional automatic charging station. Before treating charging behavior as a fault, compare it with the expected rates below.

Expected rates

Behavior	Rate
Charging	approximately 47 percentage points per hour
Drain, driving fully loaded	approximately 13% per hour
Drain, driving unloaded	approximately 12% per hour
Drain, standby	approximately 2% per hour

Runtime exceeds eight hours in a typical duty cycle. The drain rates imply roughly 7.7 hours of continuous fully loaded driving or 8.3 hours unloaded, but these are calculated figures, not guaranteed runtimes — standby time, lifting, duty cycle, battery reserve, and operating conditions all affect the result.

A battery that loses around 2% per hour while the robot sits idle is behaving normally, not leaking charge. A robot parked unplugged over a weekend can reasonably arrive at a low battery — see Robot will not start (https://info.mobilerobot.com/support/troubleshooting/robot-will-not-start/).

Manual charging

Manual charging (https://info.mobilerobot.com/products/chargers-and-accessories/manual-charger/) works like a conventional electric pallet jack: plug in the charger during a break or whenever the machine is idle. If the robot does not charge, verify that the charger is connected at both ends and powered.

Automatic charging does not happen

Automatic charging (https://info.mobilerobot.com/applications/scenarios/automatic-charging/) is an optional, advanced automation capability that requires the automatic charger. When it works, the robot drives to the station, positions itself at the charger, and a charging interface extends to the vehicle's charging plates — enabling opportunity charging whenever the robot is not busy.

If the robot never charges itself, check that:

- an automatic charger (https://info.mobilerobot.com/products/chargers-and-accessories/automatic-charger/) was actually purchased — the manual charger does not support self-docking;
- the station was set up (https://info.mobilerobot.com/documentation/installation/charger-installation/) and commissioned. When bought with the installation and commissioning package, automatic-charging setup is part of Day 1 on site.

Unresolved charging faults

For a charger that stays dead, a battery that will not accept charge, or a robot that fails to dock despite a commissioned station, contact support — see Submit a support request (https://info.mobilerobot.com/support/contact/submit-a-support-request/).

> ⚠ **WARNING**
>
> Do not open the battery compartment or service the charger yourself. Battery and charger service goes through your service partner (https://info.mobilerobot.com/support/contact/find-a-service-partner/).