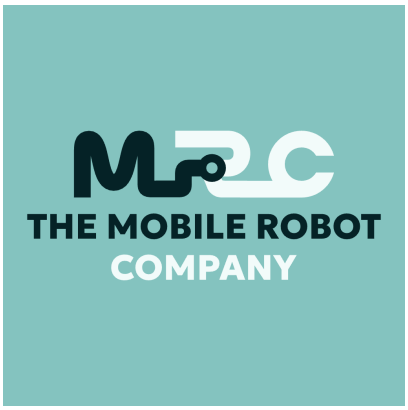

The Mobile Robot Company

Knowledge Center — Charging and Battery · 2026-08-04

https://info.mobilerobot.com/support/faq/charging-and-battery

Charging and Battery

Common questions about powering the J1600 through a working day.

What battery does the J1600 use?

A 24 V, 200 Ah lithium iron phosphate (LiFePO4) battery (https://info.mobilerobot.com/documentation/technical-reference/battery-specifications/). The drive motor (https://info.mobilerobot.com/documentation/technical-reference/electrical-specifications/) is a 1.5 kW AC motor and the lift motor is rated 2.2 kW. The battery is tested per UN 38.3 (https://info.mobilerobot.com/safety-compliance/certificates/battery-un-38-3-documentation/) (UN Manual of Tests and Criteria, subsection 38.3) for transport.

How long does it run on a charge?

Runtime exceeds eight hours in a typical duty cycle. The measured drain rates are:

Condition	Battery drain
Driving fully loaded	approximately 13% per hour
Driving without load	approximately 12% per hour
Standby	approximately 2% per hour

These rates imply roughly 7.7 hours of continuous fully loaded driving or 8.3 hours unloaded, before allowing for standby, lifting, duty cycle, battery reserve, and operating conditions. Treat those calculated figures as indicative, not guaranteed runtimes.

How fast does it charge?

Approximately 47 percentage points of charge per hour.

What charging options are there?

Two:

- **Manual charging (https://info.mobilerobot.com/documentation/user-guides/charging/)** — plug in the charger during a break or when the machine is idle, exactly as you would with a conventional electric pallet jack.
- **Automatic charging (https://info.mobilerobot.com/applications/scenarios/automatic-charging/)** — with the optional automatic charger, the robot drives to the station, positions itself at the charger, and a charging interface extends to the vehicle's charging plates. This enables opportunity charging whenever the robot is not busy.

Automatic charging is an advanced automation capability. When purchased, its setup is part of Day 1 of the installation and commissioning package (https://info.mobilerobot.com/support/faq/installation/).

What do the chargers cost?

2026 end-user list prices:

Item	List price
Manual charger	€3,600
Automatic charger	€8,400

Is a charger included with the robot?

A charger is not included with the J1600 (from €65,000) — choose a manual or automatic charger (https://info.mobilerobot.com/documentation/installation/charger-installation/) when configuring your order. See Pricing and purchasing (https://info.mobilerobot.com/support/faq/pricing-and-purchasing/) for typical configurations.

Can the robot work a full single shift?

That is the design target: the economics and runtime are aimed at single-shift operations of eight hours per day, five days per week. With opportunity charging via

the automatic charger (https://info.mobilerobot.com/products/chargers-and-accessories/automatic-charger/), the robot tops up whenever it is idle. See Product and capabilities (https://info.mobilerobot.com/support/faq/product-and-capabilities/) for the target operation profile.