



AN EXCHANGE OF TECHNICAL INFORMATION

Number: TL001 – 2024
Subject: ML5 Smart Battery Charger (07-00614-00)

Released: January 19, 2024

To assist with the charging and discharging of ML5 smart batteries for use and transport, Carrier has created a smart battery charger, part number 07-00614-00.



This charger can charge or discharge ML5 batteries to 30% or 100%. Setting to 100% allows batteries to be fully charged before being put into a unit and be stored on the shelf with trickle charge. Setting to 30% allows the batteries to be discharged to a safe level if they need to be shipped or revive some dead batteries if their voltage dropped below operational levels.

The charger can charge or discharge up to 4 batteries at once, and is hot-swappable, allowing batteries to be plugged in or removed quickly when working with more than 4 batteries. The batteries communicate with charger, allowing the charger to determine the status of the battery and illuminate an LED indicator next to the connected port to indicate the status of the battery. The estimated average charge and discharge times are in the table. Connecting only one battery to each discharge group of ports will discharge them faster. See image on the next page for discharge groups.


Battery PN	Storage life at	
	30% SOC	100% SOC
79-66081 / 30-00551	~7.5 months	~17 months
79-66085 / 30-66609	~15 months	~34 months

Estimated times:	Battery PN	Charge Level	Charge Time
Charge Time	79-66081 / 30-00551	0% → 30%	~1 hr
		30% → 100%	~2 hr
	79-66085 / 30-66609	0% → 30%	~1.75 hr
		30% → 100%	~4 hr
Discharge Time	79-66081 / 30-00551	x4 100% → 30%	~7.5 hr
		x2 100% → 30%	~3.5 hr
	79-66085 / 30-66609	x4 100% → 30%	~13.5 hr
		x2 100% → 30%	~7.5 hr

Service Engineering / Container Products

Please circulate copies of this bulletin to all service and management personnel as soon as possible.

Each port has its own indicator, allowing the status of each battery to be determined at a glance. If the light is blue the port is ready to charge to the set level. If a battery plugged in and the port is blue, check the connection to the port and ensure the battery is fully seated. If the indicator is blinking green, the battery is being charged or discharged to the set charge level. The indicator turns solid green when the battery reaches the desired charge level. If the LED blinks red, it means the batteries are detecting high temperatures. If this occurs, ensure the batteries and/or charger is in a ventilated area and out of direct sunlight. The battery charger should be used between 0°C - 30°C (32°F - 86 °F). If the indicator remains a solid red, an issue with the battery has been detected and the battery will stop charging or discharging. This battery should be considered as bad and not be used.

Power adapter specs (source locally)	
Barrel Plug Dimensions	2.5mm ID x 5.5mm OD x 9.5mm Length
Barrel Plug Polarity	
Output Voltage	12 VDC
Min. Output Current	5A
Other requirements	-Adapter must be equipped with surge protection. -Cable length of adapter must not exceed 3m.

For compatibility worldwide, the charger does not come with a power plug. The user can source a connector locally that meets the above requirements and works with their existing outlets and wall power. Picture for reference only.

