



CASE STUDY

Dingli. Sealed-body charge tuning without opening the housing.

Dingli specifies the ALT-700 inside a sealed body cavity on a new platform. With TREKOn, charge curves are reconfigured over Bluetooth from a phone — no panel removal, no dock cable, no compromised IP rating.

MEWP ZHEJIANG, CHINA ALT-700

AT A GLANCE	
CUSTOMER	Dingli (Zhejiang Dingli Machinery)
REGION	Zhejiang, China
APPLICATION	MEWP — mast / piston lifts
PLATFORM	New-generation mast-lift product line with integrated, sealed battery compartment
CHARGER	ALT-700
DEPLOYED	Factory-fitted, series production
PARTNER	Direct from Alternative Track

The Challenge

Aerial work platforms keep getting more integrated. To shrink the footprint and protect the electronics from site debris and weather, the OEM tucked the charger inside the body of its new mast lift — bolted to the chassis, behind a sealed access panel, alongside the hydraulic pack.

That integration creates a working problem the moment the charger is in the machine. A standard charger needs a wired interface to change the charge curve. To adapt to a different battery chemistry, swap an algorithm for a new pack supplier, or tune CV-stage current for a long-life profile, the factory has to crack the panel, run a USB or serial cable, and reseal. Every reseal risks the IP rating. Every reseal eats minutes per machine that don't scale across a production line.

Field service hits the same wall. A technician sent to a site to change the charging behaviour brings a laptop, an adapter, the right cable, and the patience to break the seal and put it back together. Most field calls don't justify that overhead, so the work either doesn't get done or it gets done badly.

The Solution

The ALT-700 ships with TREKOn, a Bluetooth interface that runs against any modern phone. Charge profiles, output limits, and the full algorithm library are reachable wirelessly from inside the cab or next to the machine. No cable, no panel removal, no rebuild of the seal.

In production, that changes the calibration step. The line worker walks the machine, opens the app, selects the right algorithm for the pack that was just fitted, and the charger is set. The body stays closed from the moment the charger is bolted in.

In field service, the same flow makes a charge-curve change a phone job. A distributor can tune a profile remotely on the OEM's instruction, or a technician on site can pull the current charge history off the charger and adjust without ever exposing the electronics to the environment.

WHY THIS CHARGER

ALT-700

720W output with TREKon Bluetooth. The OEM picked it for the wireless reconfiguration above all — sealed installations stay sealed, calibration stays a phone job, and the IP67 rating is never re-tested because the housing is never reopened.



The charger sits inside the sealed body cavity of the mast lift, alongside the hydraulic and electrical hardware. With TREKon, every charge-curve change runs over Bluetooth — the access panel stays closed and the IP67 seal is never broken in the field.

Deployment

The ALT-700 is factory-fitted to the new mast-lift line in series production. Pre-ship calibration happens at the cell on the assembly line via TREKon. The OEM ships finished machines with the charger configured for the pack already installed, and re-tuning over the machine's life is a no-tool operation.

The Result

Factory throughput holds up. The production line doesn't budget reseal time into machine build hours, because the charger is calibrated through the panel, not behind it.

Field service is simpler. Distributors and end-users adjust charge profiles with a phone instead of a service kit. The OEM ships fewer service tools and less training material with each unit, because the standard interaction with the charger no longer requires either.

The integration choice survives audit. Because the housing is never reopened in the field, the IP67 protection that the OEM committed to in its product specification holds across the life of the machine.

FROM THE DEPLOYMENT



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