



MISSION COMMAND TECHNOLOGIES

Category: Storage with Management

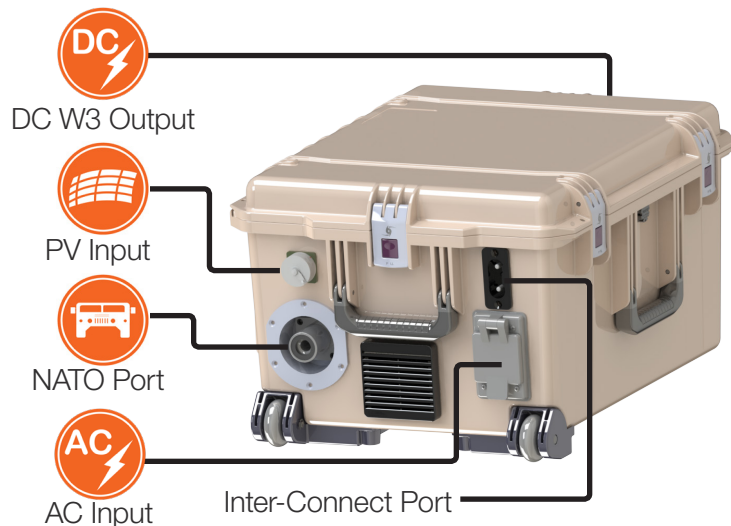
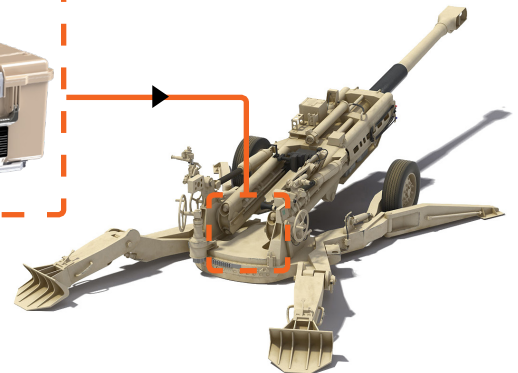
24VDC M777 Power Kit

All in One

The 24VDC M777 Power Kit is a single-case, portable power solution designed to meet the power needs of the M777 Howitzer in the field. The Kit outputs 24 VDC power and includes 2.6 kWh of energy storage using lithium iron phosphate (LiFePO₄) chemistry. It can accept 24 VDC power, solar power, and universal AC power. The 24VDC M777 Power Kit transports in the M777 cradle by latching into the racks on either side. The compact case size allows two Kits to be mounted in the same M777 for increased capability. The Kit includes foldable solar panels that fit in the case and deploy in minutes.

How the Kit Works

The Kit accepts 24 VDC power generation inputs (e.g., solar, wind, etc.) through a Maximum Power Point Tracking (MPPT) charge controller. It accepts 120 VAC or 230 VAC grid or generator power through a universal AC charger. Both of these inputs charge the internal 24 VDC batteries. The DC load of the M777 Howitzer draws power from the batteries by connecting to the W3 power output of the Kit. A second Kit can easily connect to the first using a 24VDC Inter-Connect port to increase capacity.



Features

- Racks into M777 Howitzer cradle
- 2.6 kWh (108 Ah) of storage
 - Capable of over 3000 charge/discharge cycles at 80% discharge
- Supports 300 W 24 VDC continuous load
- Supports 1000 W 24 VDC surge load
- Accepts and processes 24 VDC power, solar power, and universal AC power
- External state of charge (SOC) meter
- Daisy-chains with additional Kit
- Two-man lift
- Ruggedized for extreme conditions
- Plug & Play for deployment in minutes





MISSION COMMAND TECHNOLOGIES

Category: Storage with Management

24VDC M777 Power Kit

General (@77 °F/25 °C)

Nominal Operating Voltage	24 VDC
Battery	(4) 24 VDC LiFePO ₄ battery
Input Battery Voltage Range	24.0–28.8 VDC
Capacity	108 Ah
Energy Storage	2.6 kWh
Kit Energy Density	19 Wh/kg
Max Charge Rate (DC)	40 A continuous
Max Discharge Rate (DC)	40 A continuous
Self-discharge Rate	< 5% per month
Cycle Life (@ 77 °F/25 °C)	≥ 3000 cycles to 80% state of health
Shelf Life (@ 77 °F/25 °C)	<ul style="list-style-type: none"> • 5.6 years to 80% state of health • 7.0 years to 75% state of health
Internal Cooling	Forced convection with (1) internal fan
User Interface	LCD and push-button menu controls
Case	Pelican 2750
Warranty	1-year materials and workmanship

Solar Specifications (@77 °F/25 °C)

Rated Power per Panel	125 W
Rated Voltage at MPP per Panel	31.0 VDC
Rated Current at MPP per Panel	4.8 A
Open Circuit Voltage per Panel	39.0 V
Weight per Panel	3.25 lb (1.48 kg)
Total Panels	4
Total Rated Power	500 W

Charge Controller Specifications (@77 °F/25 °C)

Maximum PV Input Voltage	57 VDC
Maximum PV Input Current	30 A (@ 24 V nominal)
Maximum PV Power	800 W
Efficiency	97% (typical)
Charging Stages	Bulk, absorb
Charge Control Method	Maximum Power Point Tracking (MPPT)

AC Charger Specifications (@77 °F/25 °C)

Charging Stages	Single stage
Continuous Output Current	5 A
Charging Efficiency	95% (typical)
DC Output Voltage	28 V nominal

Safety

Breaker(s)	(1) 120-240 VAC input 5 A, (1) DC W3 out 50A
------------	--

Connections

Input(s)	<ul style="list-style-type: none"> • (1) AC input 120-240 VAC, 5 A (NEMA 5-15P) • (1) PV input 24 VDC, 30 A (Amphenol bayonet CB2-22-2SC)
Output(s)	<ul style="list-style-type: none"> • (1) DC W3 output 24 VDC, 50 A
Input/Output(s)	<ul style="list-style-type: none"> • (1) Inter-Connect port 24 VDC, 50 A (Deltran 224-0061-BK) • (1) NATO receptacle 24 VDC, 50 A

Environmental

Operating Temperature	-13 °F to +104 °F (-25 °C to +40 °C), derated operation up to 149 °F (65 °C)
Charge Temperature	+41 °F to +113 °F (+5 °C to +45 °C), derated outside this range
Storage Temperature	-4 °F to 140 °F (-20 °C to +60 °C)
Operating Humidity	10 to 90% RH noncondensing

Weights and Dimensions (L x W x H)

Weight	140 lb (63.50 kg)
Dimensions	24.60 x 19.70 x 14.40 in (62.5 x 50.0 x 36.6 cm)

Includes

- (1) M777 Howitzer Power Case
- (4) 125 W Foldable Solar Panels

Case Color Options

Standard Color	Tan
	Black
	Silver
	Orange
	Yellow
	OD Green
Optional Colors	

