



THALES

Thales Defense & Security, Inc.

Products



22605 Gateway Center Drive
Clarksburg, MD 20871

CAGE Code 23386

Universal Battery Charger (UBC)-GEN 4

Scalable Battery Charging Technology for the Warfighter



The Universal Battery Charger (UBC) is a proven, fielded solution currently installed across a wide range of tactical and combat vehicle platforms. Designed for maximum flexibility, the UBC is a scalable charging system capable of supporting an extensive variety of military and commercial batteries. Its modular architecture and software upgradable design ensure seamless integration of new battery types as requirements evolve.

Compact and rugged, the base unit weighs approximately 6 pounds, making it light enough for rucksack carry yet durable enough for permanent vehicle mounting. Unlike other chargers, the UBC offers a unique capability: it can charge batteries in austere, wet, and harsh weather conditions, even under heavy rain, without the need for protective cover.

Optimized for the modern mission, the UBC efficiently harvests power from solar panels and a wide range of alternative power sources, ensuring mission readiness wherever energy is available.

Capabilities

Key Features

- > U.S. Army's Program of Record Charger
- > Simultaneous Charging of Multiple Battery Types: Thales' Family of Tactical Handheld Radios, (AN/PRC-148 family of batteries and AN/PRC-170), AN/PRC-163, BB-2590, and BB-2525 Conformal Wearable Battery (CWB)
- > Fast Charging: Charges six BB-2525 from 0 to 95% in 2.5 hours
- > User Configurable Battery Adapters, No Tools Required
- > Man Portable and Vehicle Mount
- > Battery State of Charge and State of Health Indicators
- > Standard USB Ports for Charging Phones and Tablets
- > Built-in Solar Mode with Solar Power Meter
- > Built-in Battery Test/Analyzer: Performs battery health check automatically and identifies batteries that have less than 80% health
- > Charges Multiple Batteries: Standard configuration allows charging of multiple standard DoD battery types
- > Built-in power scavenging from a BB-2590
- > Operational MIL-STD-810G: The UBC allows charging in inclement weather and austere environments
- > High Efficiency: Approximately 95% efficient when operating from DC sources
- > Vehicle Mounting: Provides a small and light footprint for vehicle installations
- > Fast Charging: Typical charge time for eight AN/PRC-148/163 and BB-2525 batteries in about 3 hours
- > Scalable: Multiple chargers can be connected to power from a single power source

Technical Specifications

Physical Parameters

Physical (Basic Unit)

Height: 5 in (12.70 cm)

Length: 8.0 in (20.32 cm)

Width: 8.7 in (22.10 cm)

Weight: Approximately 6 lb (2.72 kg)

Environmental Specifications

Per MIL-STD-810G

Vibration (Composite wheeled vehicle)

Shock and Drop

Driven Rain

Sand and Dust

Humidity

Salt Fog

Operating Temperature: -32 °C to 51 °C

Storage Temperature: -33 °C to 71 °C

Data Ports

USB for firmware upgrade

CAN Bus for unit-to-unit communication

Simultaneous Charging 8 batteries and

4 USB devices

Maximum Charge Power (per bay): 70 W

Maximum Input Power: 420 W

Input DC Voltage Range: 10–50 VDC

Input DC Robustness: MIL-STD-1275D

Electrostatic Discharge: IEC-61000-4-2

Level 4

Electromagnetic compliance: MIL-STD-461F

Smart Charging Protocols: Smart Battery

Bus (SMBus), DQ

Power Modes: Solar and maximum power

Display: Multi color LED display

Part Number		System Description	NSN		
	1100770-501	UBC, Dismounted Accessory Kit	6130-01-664-6819		
	1100849-557	UBC, GEN 4 Kit , CWB/Combo Adapters	6130-01-711-0891		
	1100849-502	UBC, GEN 4 Kit, CWB/Universal Adapters			
	1100849-503	UBC, GEN 4 Kit, CWB			
	Part Number	Accessory Description	NSN	Category	
✓	✓	✓	4102871-502	Charger, UBC, No Adapters	
✓	✓	✓	4102869-501	Conformal Battery Adapter	6130-01-664-8300
	✓		4102870-501	Universal Battery Adapter	6130-01-664-8268
			4102962-501	ALR Battery Adapter	
			4103154-501	Spear Battery Adapter	
	✓		4103081-501	Combo Battery Adapter	6130-01-710-7593
✓	✓	✓	1600787-1	AC/DC Power Supply	6130-01-618-4110
✓	✓	✓	855009-001	Power Cord 10A 6 ft L	6150-01-664-8202
✓	✓	✓	85568-003	Cable Assy Univ DC 6 ft L	
	✓	✓	85589-002	DC Input Cable w/Alligator Clips	6150-01-723-1301
✓			85587-002	Cable NATO Slave Vehicle	
✓			85585-001	Cable, DC Input 2-pin SAE	6150-01-664-8171
✓			1600829-23	Transportation Case	8145-01-664-7882
✓			1600987-1	Solar Panel, 120 W	6117-01-664-7860

Part Number			System Description	NSN		
1100849-504			UBC, GEN 4 Kit, ALR			
1100849-505			UBC, GEN 4 Kit, Spear			
1100849-506			UBC, GEN 4 Kit, Javelin			
			Part Number	Accessory Description	NSN	Category
✓	✓	✓	4102871-502	Charger, UBC, No Adapters		
✓			4102869-501	Conformal Battery Adapter	6130-01-664-8300	
	✓	✓	4102870-501	Universal Battery Adapter	6130-01-664-8268	
✓			4102962-501	ALR Battery Adapter		
✓	✓		4103154-501	Spear Battery Adapter		
	✓		4103081-501	Combo Battery Adapter	6130-01-710-7593	
✓	✓	✓	1600787-1	AC/DC Power Supply	6130-01-618-4110	
✓	✓	✓	855009-001	Power Cord 10A 6 ft L	6150-01-664-8202	
✓	✓	✓	85568-003	Cable Assy Univ DC 6 ft L		
✓	✓	✓	85589-002	DC Input Cable w/Alligator Clips	6150-01-723-1301	
			85587-002	Cable NATO Slave Vehicle		
			85585-001	Cable, DC Input 2-pin SAE	6150-01-664-8171	
			1600829-23	Transportation Case	8145-01-664-7882	
			1600987-1	Solar Panel, 120 W	6117-01-664-7860	

Accessories

Part Number	NSN	Accessory Description	
1600787-1	6130-01-618-4110	AC/DC Power Supply	
1600813-3	6117-01-664-7860	Solar Panel, 120W	
1600829-2V	6130-01-664-7897	Tactical Hardcover, Vehicle	
1600929-8	6130-01-664-7904	Tactical Softcover	
1600829-23	8145016647882	Transportation Case	
855009-001	5905-00-078-5966	Power Cord 10A 6 ft L	
85568-003	6150-01-664-8187	Cable Assy Univ DC 6 ft L	
85585-001	6150-01-664-8171	Cable DC Input 18 ft L	
85587-002		Cable Slave, Input NATO	
85589-002	6150-01-643-6789	DC Input Cable With Alligator Clips	
4102869-501-SP	6130-01-664-8300	Conformal Battery Adapter Spare	
4102870-501-SP	6130-01-664-8268	Universal Battery Adapter	
4102962-501-SP		ALR Battery Adapter	
4103154-501-SP		Spearg Battery	
4103081-501-SP		Combo Battery Adapter	
4600171-1	5340-01-666-8655	UBC Shock Tray	

Battery	Device(s)	Number of Batteries	Charging Adapter(s)
AN/PRC-148 Radio Battery	IMBITR Radios and AN/PRC-161 Radio	8	PRC Combo Adapters or Spear Adapters
AN/PRC-148E Radio Battery	AN/PRC-148E Radio (Spear)	8	PRC Combo (4102962-501) or Spear Adapter
AN/PRC-163 Radio Battery	AN/PRC-163 Radio	8	PRC Combo Adapters or Spear Adapters
AN/PRC-170 Radio Battery	AN/PRC-170 Radio (Javelin)	8	Universal Adapter
BB-2590	Various	2	N/A (Standard with UBC)
Conformal Wearable Battery (CWB)	Various	6	CWB Adapter

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Specifications are subject to change without notice.

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