



# C7x00 C-Series Battery Analyzers



## Specifications

### Hardware

Battery Analyzers	C7200 C-Series	C7400 C-Series	C7400ER C-Series
Application	Programmable battery analyzer with custom and universal battery adapters to provide fully automated analysis with optional PC interface. Custom battery adapters are purchased separately.		
Independent Bays	2	4	4
Battery voltage	1.2-15V	1.2-15V	1.2–36V (nominal) 45V total
Charge/discharge	100mA–4A in 25mA increments	100mA–4A in 25mA increments	100mA–6A in 25mA increments
	If set rating exceeds limit, current scales down. Services batteries of up to 24Ah.		
Maximum charge power	40W/bay 40W total	55W/bay 80W total	75W/bay 170W total
Maximum discharge power	35W/bay 70W total	35W/bay 140W total	75W/bay 200W total
Power management	Fully loaded, batteries go on waiting queue. Will resume when demand moderates. Ah values entered above the analyzer's current limit are automatically lowered to workable values with C-rate adjustments		
Line voltages	100-240VAC, 50-60Hz; 1.5A max	100-240VAC, 50-60Hz; 1.75A max	100–240VAC, 50–60Hz; 4A max
Chemistries	Lithium-ion, nickel-metal-hydride, nickel-cadmium, lead-acid		
Charge method	Lead Acid: Constant voltage with current limit, saturation charge, float charge Nickel-based: Constant current; negative slope or plateau timer, trickle charge Li-ion: Constant voltage with current limit, saturation charge, no trickle charge Temperature sensing and override.		
Discharge method	Constant discharge current to end-of-discharge voltage threshold.		
Battery Adapters	SnapLock™ with custom and universal adapters. C-code configures analyzer. Each adapter has room for 10 C-codes. Re-programming with menu function. Battery Adapters include temperature sensor.		

**Battery Analyzers****C7200 C-Series****C7400 C-Series****C7400ER C-Series****Target Selector**

Serves as gatekeeper User-selectable from 50% to 100%. Batteries that meet performance meeting expectation get a green light, low capacity gets amber, and other anomalies get a red light.

**Service programs**

Auto: Charge-discharge-charge; applies Recondition on nickel-based batteries if user-set target capacity is not met.  
 Charge: Applies fast charge with full-charge termination.  
 Prime: Discharge-charge-charge. Reads spare capacity, prepares batteries by cycling until maximum capacity is reached.  
 Extended Prime: 16h trickle charge prior. Prepares non-formatted batteries.  
 Self-Discharge: Measures self-discharge of batteries.  
 Lifecycle: Cycles battery until capacity fades to Target Selector threshold.  
 Discharge Only: Prepares battery for shipping and storage.  
 OhmTest™: Measure battery resistance with DC pulses (IEC61436 standard).  
 Runtime: Provides 3 discharge levels, programmable in hours and minutes.  
 Boost: Activates protection circuit of Li-ion batteries after low discharge.  
 Custom: Allows 100 user-defined programs of charge, discharge, waits, repeats, etc.  
 Note: Supervision recommended when overriding safety redundancies.

**Data ports**

RS-232 or USB interfaces to PC (RS-232 recommended).

**Typical Throughput**

30-40 batteries/hr  
 Fleet of 80 batteries

60-80 batteries/hour  
 Fleet of 160 batteries

60-80 batteries/hour  
 Fleet of 160 batteries

Full service throughput based on monthly service. Each analyzer services two battery batches every 24h), 20 days per month.

**Physical**

L: 12.1"; 307mm  
 W: 9.4"; 240mm  
 H: 3.5"; 90mm

L: 14.4"; 366mm  
 W: 11.0"; 280mm  
 H: 3.8"; 97mm

L: 15.4"; 391mm  
 W: 11.0"; 280mm  
 H: 4.2"; 107mm

**Weight**

3.2 kg (7.1 lb) net

4.54 kg (10.05 lb.) net

5.5 kg (12.1lb) net

**Environmental**

Recommended operating temperature 5°C to 35°C (41°F to 95°F)  
 Recommended storage temperatures -20°C to 70°C (-4F to 159°F)

**Firmware**

Upgradeable with PC-BatteryShop™ over the Internet, flash memory.  
 Lifetime upgrade subscription available.

**Approvals**

Tested and approved to comply with CSA/UL/CE standards.  
 RoHS, WEEE and FCC Type A compliant.

**Warranty**

Cadex warrants the analyzer against defective materials and workmanship for a period of two (2) years from the original purchase date.

**PC-BatteryShop™ Software**

System supports up to 32 C7x00 battery analyzers, or 128 channels for simultaneous service

**Computer Requirements**

Dedicated computer (not used for other programs). Microsoft Windows OS (Windows 10 64-bit). Recommended 1 GHz CPU or better, 512MB of RAM and at least 250MB free hard disk space. One serial port or USB 2.0 port for each Cadex battery analyzer.