

BP12, BP24, PS24

12 Ahr and 24 Ahr Power Supplies



The BP12 (shown above) and BP24 include a bracket for mounting to the backplate of an ENC16/18 enclosure. The 27758, an optional BP12 mounting kit, is also offered if more secure mounting is required.

Battery Packs

The BP12 and BP24 are battery packs for powering systems¹ that have higher current drain equipment such as satellite transmitters. They consist of a rechargeable battery, enclosure mounting bracket, and cables. The BP12 and BP24 require a regulated charging source (provided by the CH100 or CH200 regulator connected to an unregulated solar panel or a wall charger).

Regulator

The regulator controls the current flowing to the battery and prevents the battery current from flowing to the charging source. A regulator is required to connect the BP12 or BP24's sealed rechargeable battery to an external charging source (e.g., solar panel, wall charger).

The CH100 regulator is for standard applications. The maximum charging current of the CH100 is 1.2 A, which means that the largest solar panel that can be used is an SP20.

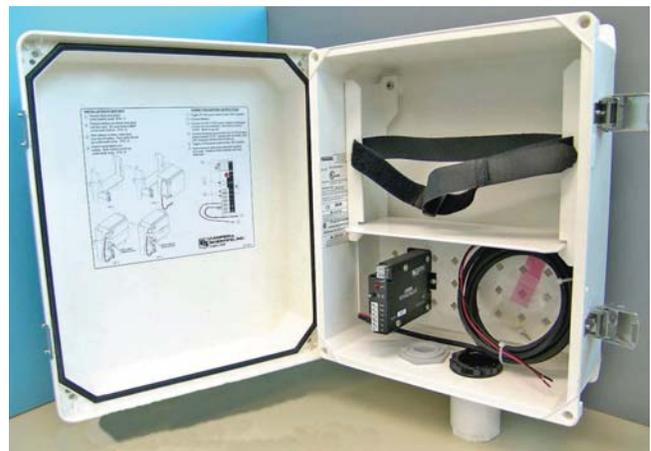


Top view of a CH200 showing its LEDs and terminals.

The CH200 is a microcontroller-based smart regulator with two-step constant voltage charging that optimize battery charging and increases the battery's life. It has input terminals that allow simultaneous connection of two charging sources. It also measures various input, output, and status parameters to allow close monitoring of the battery. The SP70 70-W solar panel can be connected to the CH200.

Integrated Power Supply

The PS24 consists of a 24-Ahr sealed rechargeable battery, CH100 regulator, enclosure mounting bracket, power cable, and a 10" x 12" environmental enclosure. This power supply is intended for systems such as the ET107 where the weather station's enclosure is not large enough to house a BP24 battery. The enclosure has one conduit for cable entry and several options for mounting it on a tripod or tower. The battery should be recharged via a charging source (see below).



Above shows the PS24's enclosure, CH100, power cable, and battery bracket. The battery is shipped separately, and must be installed by the user.

Accessories

Charging Sources

Several wall chargers and solar panels are offered for recharging the batteries (see Ordering Information). Solar panels charge batteries by converting sunlight into direct current. Wall chargers use power from external ac power lines to recharge the batteries.

Adapters

Campbell Scientific offers two adapters that fasten onto our regulators. An A100 adapter used with a regulator and a battery pack can power peripherals and external devices at nondatalogger sites such as repeater stations. The A105 adapter increases the number of 12 V and ground terminals available on the regulator. The A100 and A105 cannot be connected to the regulator at the same time.



¹Information about calculating power usage is included in our Power Supply Overview brochure and Power Supply application note. Brochures and application notes are available from: www.campbellsci.com

Ordering Information

Battery Packs

BP12	12V Sealed Rechargeable Battery w/Mounts, 12 Ahr
BP24	12V Sealed Rechargeable Battery w/Mounts, 24 Ahr

Regulators

CH100	12 V Charging Regulator
CH200	12 V Smart Charge Controller

Integrated Power Supply

PS24	24 Ahr Power Supply w/10" x 12" Enclosure
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Enclosure Mounts Options for PS24 (choose one)

-NM	No Enclosure Mounting
-MM	Tripod Mast Mounting
-LM	Leg Mounting for CM110-series light-weight tripods
-TM	Tower Mounting

Adapters for the CH100 or CH200

A100	Null Modem Adapter
A105	12 V Terminal Expansion Adapter

Wall Chargers for CH100, CH200, or PS24

9591	Wall Charger 18 Vac 1.2 A Output, 110 Vac Input, 6 ft Cable
22110	Wall Charger 18 Vac 1.2 A Output, 110 Vac Input, 6 ft Cable for prewired enclosure.
14014	Wall Charger 18 Vdc Output 90 to 264 Vac 47 to 63 Hz Input. Must choose a power cable option (see below).
22111	Wall Charger 18 Vdc Output 90 to 264 Vac 47 to 63 Hz Input for prewired enclosure. Must choose a power cable option (see below).

Power Cable Options for 14014 or 22111 (choose one)

-NC	No Power Cable
-USC	US Cable
-EUC	Continental European Cable
-UKC	United Kingdom/Ireland Cable
-AUC	Australia/New Zealand Cable
-CNC	China Cable

Solar Panels for CH100, CH200, or PS24

SP10	10 W Solar Panel with 20 ft Cable
SP10-PW	10 W Solar Panel with 20 ft cable for prewired enclosure
SP20	20 W Solar Panel with 20 ft Cable
SP20-PW	20 W Solar Panel with 20 ft cable for prewired enclosure

Specifications

Battery Packs

Output Voltage:	12 Vdc
Nominal Capacity	
BP12:	12 Amp hours
BP24:	24 Amp hours
Temperature:	
Charge:	-15° to +50°C
Discharge:	-20° to +60°C
Storage:	-20° to +50°C (fully charged)

Weight

BP12:	9.8 lbs (4.4 kg)
BP24:	22.4 lbs (10.2 kg)

Dimensions (with mounting bracket)

BP12:	7.5" x 4.0" x 3.8" (19.1 x 10.3 x 9.7 cm)
BP24:	8.4" x 7.0" x 5.1" (21.3 x 17.7 x 13.0 cm)

CH100 Regulator²

Input Voltage (CHG terminals):	15 to 28 VDC or 18 VAC RMS
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Battery Connections

Charging Output Voltage:	Temperature compensated float charge for battery
Temperature Compensation Range:	-40° to +60°C
Max. Charging Current:	1.2 A (allows one SP20 or SP10 to be used)

Power Out (+12 terminals)

Voltage:	Unregulated 12 V from battery
Temperature Current Limited with 3 A Thermal Fuse:	> 3 A @ < 20°C; 3 A @ 20°C; 2.1A @ 50°C; 1.8 A @ 60°C

Weight:	5.5 oz. (158 g)
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Dimensions

Height:	4.0" (10.2 cm)
Width:	2.76" (7.0 cm)
Depth:	1.5" (3.9 cm)



The BP24 24-Ahr battery pack can power a Campbell Scientific system that has above average power requirements.

² CH200 specifications as well as more information are provided in the CH200 and PS200 product brochure.

