

Battery Management System

BM100
BP100-12VT

Quick Start Guide

Typical Scenario

Connect the Battery Manager to the utility power with an AC/DC adapter cord whose output power is more than **60W**.

Special Scenario

For battery string whose total voltage is **between 15V and 60V**, connect the Battery Manager to the first and last terminal of the battery string with the included power cable (L4). (**WARNING:** A battery can present a high risk of short circuit current and electrical shock. Please pay attention to the input voltage.)

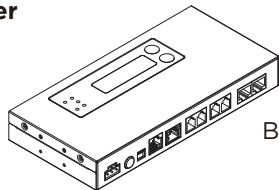
8. Press the **RESTART** button for one second to restart the system.

9. IP address will show on the LCD interface once the Manager is powered and the system is initialized, or you can find it through [**About** → **Network info.** → **IPv4 address**]. Use the IP address to login to the Web Interface. The factory default Username/Password is **admin/admin**.

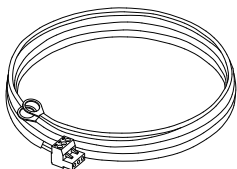
Note: Once the number of battery string and connected battery has been changed from last configuration, please configure it via web interface on the [**Battery** → **Configuration**], select the number of string(s) and batteries per string, and then click **Apply**. Or you can reset the system to the factory default setting via LCD interface on the [**Reset/Reboot** → **Reset** → **Confirm**].

PRODUCT CONTENTS

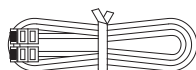
Battery Manager



Battery Manager
BM100



Power Cable*
(244cm; L4)

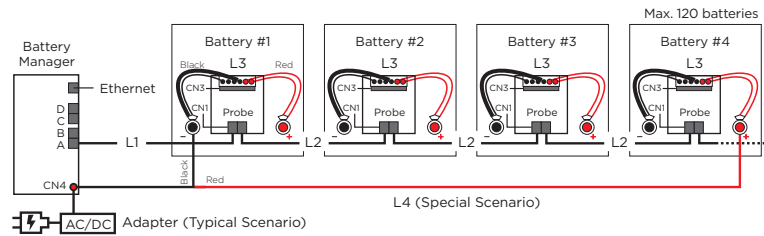


Communication Cable (x4)
(90cm; L1)

*For 4 or less batteries per string.

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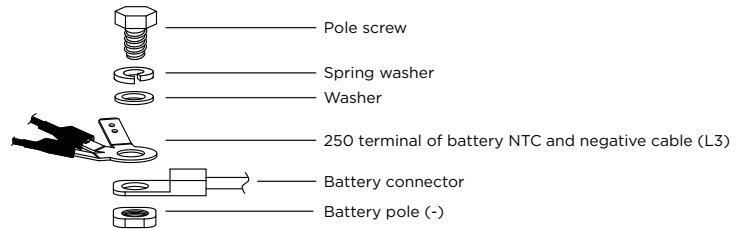
INSTALLATION GUIDE



⚠ WARNING: Highly recommended to use insulated gloves when installing the battery probes.

1. Connect the battery connecting cable (L3) to M8 or M10 ring washers (L5). Besides, make sure that the M8 or M10 washers (L5) are installed above the battery series connection wire.

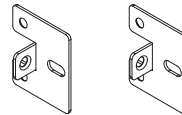
Note: Please see below illustration for correct installation of the two black cables. Besides, connect the red cable to the battery pole (+).



2. Connect the cable to each Battery Probe through battery connector (CN3).
3. Fix each Battery Probe to each battery with Loop tape.

Note: When fixing the Battery Probes to the batteries, make sure it is easy to observe the LED indicators of the Battery Probe.
4. Connect the Battery Manager's 'A' (RJ25) port to the 'Left' ('In') RJ25 port (CN1) of the first Battery Probe with the communication cable (L1).
5. Connect Battery Probes with one another through RJ25 ports (CN1) of Battery Probes with probe communication cables (L2), and up to 120 Battery Probes in a string.
6. Connect an Ethernet cable to the Ethernet port of the Manager.
7. Provide power to the Battery Manager through an AC/DC adapter. The required Battery Manager input voltage is **15V min, 60V max**.

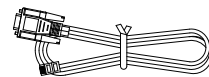
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2 Mounting Brackets

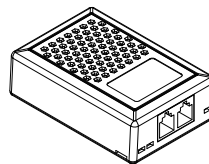


4 Bracket Mounting Screws

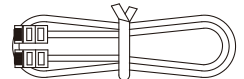


DB9/RJ45 Communication Cable (183cm)

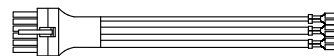
Battery Probe



Battery Probe
BP100-12VT



Probe Communication Cable
(30cm; L2)



Battery Connecting Cable
(250 terminal; 30cm; L3)



4 Ring Washers
(M8 Ring*2, M10 Ring*2; L5)

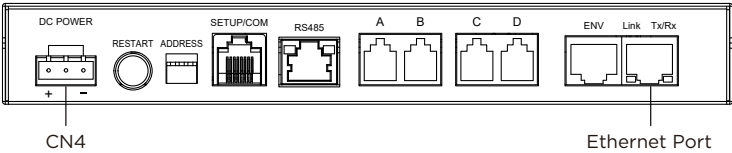
⚠ WARNING: This product can expose you to chemicals including Styrene, which is known to the State of California to cause cancer, and Bisphenol-A, which is known to the State of California to cause birth defects or other reproductive harm.

For more information go to www.P65Warnings.ca.gov.

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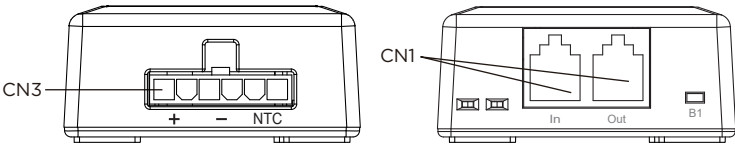
PANEL DESCRIPTION

Battery Manager



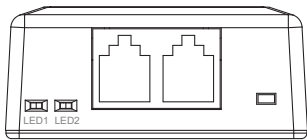
Name	Description
DC POWER (CN4)	Power input of the Battery Manager
RESTART	Button to restart the system and detect the battery setting
ADDRESS	Battery Manager RS485 communication address, LSB is on the left
SETUP/COM	Port for firmware upgrade and current sensors
RS485	Port for MODBUS communication
A/B/C/D	Port connected to Battery Probes Note: Every string has to connect to the same quantity of Battery Probes.
ENV	Port connected to environmental sensor
Ethernet Port	Port connected to the Ethernet cable

Battery Probe



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Battery Probe



LED Name	Condition
LED1 (Red)	Steady: The battery is abnormal.
LED2 (Green)	Steady: Power is provided, the communication is normal, and datagram is receiving or transmitting. Flashing: The power of the battery probe is on and the communication is under testing.



Disposal

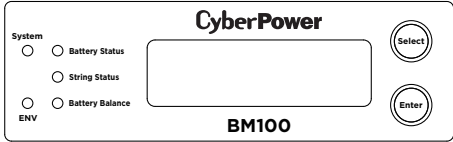
The Waste Electrical and Electronic Equipment (WEEE) Directive aims to contribute to sustainable production and consumption by contributing to the efficient use of resources and the retrieval of secondary raw materials through re-use, recycling and other forms of recovery. The symbol on this product and/or its packaging indicates that the product must be disposed of separately from ordinary household wastes at its end of life. Contact your related WEEE management authority, local office, or your household waste disposal service about information on the recycling drop off site.

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Name	Description
Battery Connector (CN3)	Connected to battery (The red cable (+) has to connect to the battery positive pole; the two black cables (-) and NTC have to connect to the battery negative pole)
In/Out (CN1)	Port connected to Battery Manager through the 'In' port, and to another Battery Probe (Left side is 'In' and right side is 'Out')
B1	Communication test button

LED INDICATORS

Battery Manager



LED Name	Condition
System	Green (steady): The Battery Manager is supplied with power and works normally. Red (steady): The communication or conditions of battery probes are abnormal.
ENV	Green (steady): The communication of the environmental sensor is normal. Red (steady): The condition of the environmental sensor is abnormal.
Battery Status	Green (steady): The connected batteries are normal. Red (steady): The voltage, temperature or resistance of the connected batteries are abnormal.
String Status	Green (steady): The battery string is normal. Red (steady): The voltage or current of the battery string is abnormal.
Battery Balance	Green (steady): The battery voltage is balanced. Green (flashing): The battery voltage is equalizing (or balancing).

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