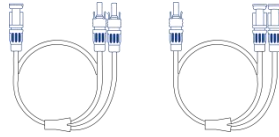# Junior Box
USER MANUAL

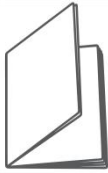**Balcony Solar System**

What's in the Box

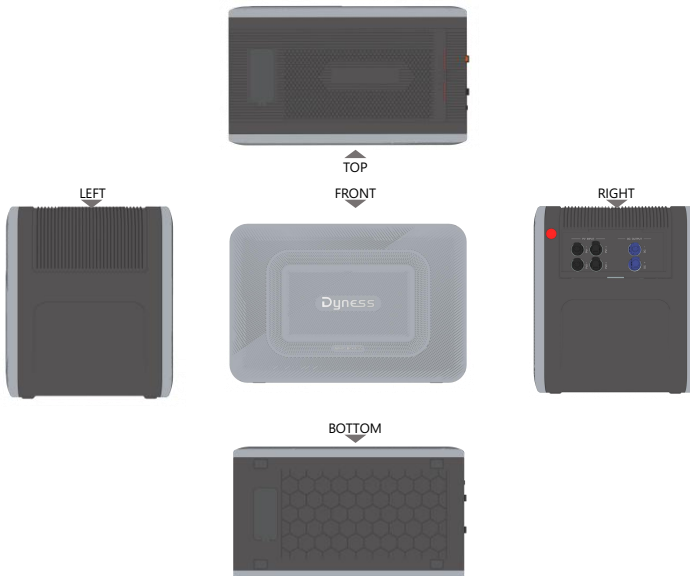Dyness Junior Box

MC4 DC Output Cable(3m) ×2

User Manual

Overview

Product Overview

TOP

LEFT   FRONT   RIGHT

BOTTOM
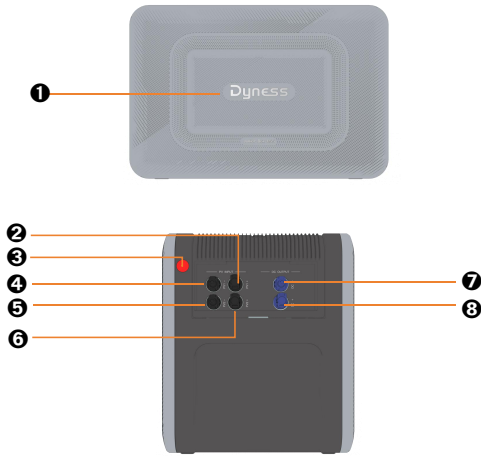
❶ BMS	❺ MC4 ports for PV2-
❷ MC4 ports for PV1+	❻ MC4 ports for PV2+
❸ Power Button	❼ MC4 ports for DC-(To Micro INVT)
❹ MC4 ports for PV1-	❽ MC4 ports for DC+(To Micro INVT)

Button Controls

Button	Action	Function
3S	Press for 3 seconds	Turn Junior Box on
	Press for 3 seconds	Turn Junior Box off

Getting Started

Install Your Junior Box

Option A: Position your Junior Box on a hard, level floor.
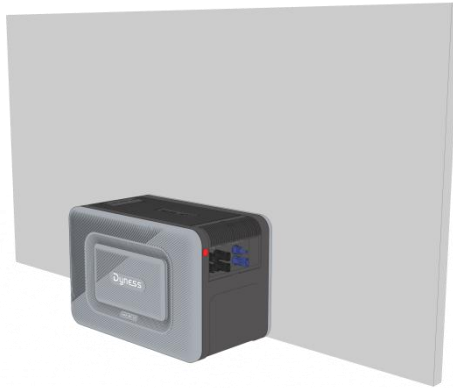
Option B: Mount your Junior Box onto a solid concrete wall using additional mount brackets*.

*Mount brackets need to be purchased separately

Connect Cables

Single Junior Box

1. Connect Junior Box to the micro inverter using the included MC4 output cables.

2. Connect the micro inverter to a home outlet using the original cable.

3. Connect the solar panels to Junior Box using solar panel extension cables.

MC4 DC Output Cable

Solar Panel Extension Cable
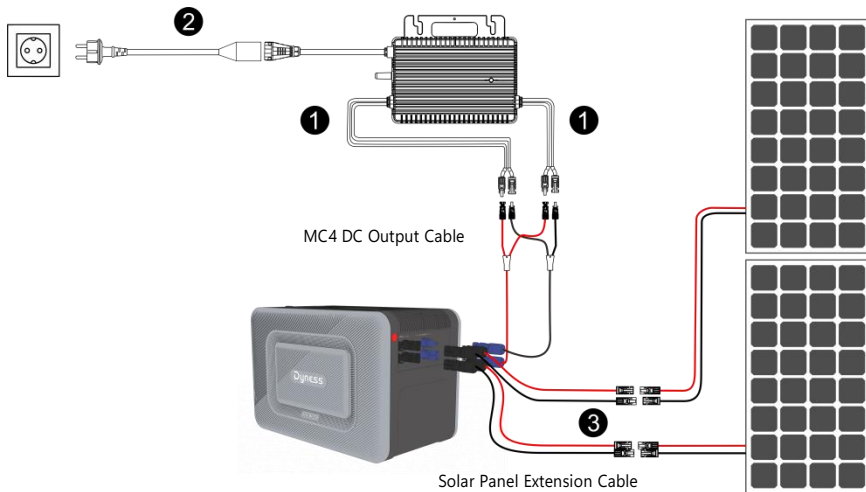
4. Press the power button for 3 seconds to turn on your Junior Box.

3S

When powered on, the BMS status LED will display blue .

Blue light
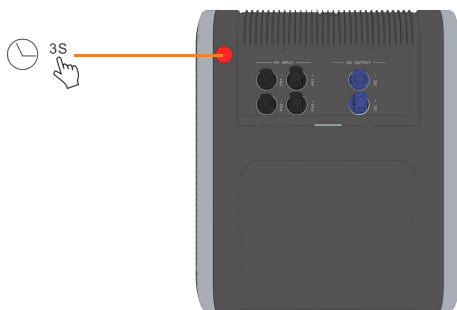
Extended Junior Box

Junior Box supports up to 3 stack expansions (Extended Battery)* with a capacity of 6.4KWh

1. Install the stack connector* on the battery expansion port on the top of the bottomExtended
   Battery , and stack the Junior Box on the bottom module.

   *The stack connector is an extended battery accessory
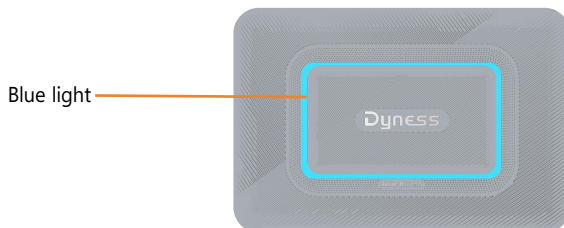

Stack Connector

2. Connect the Junior Box(built-in MPPT module) to the micro inverter using the included MC4
   DC Output Cable(3m).

3. Connect the micro inverter to a home outlet using the original cable.

4. Connect solar panels to Junior Box using Solar Panel Extension Cable

Install the stack connector on the battery
expansion port on the top of the bottom module

MC4 DC Output Cable (3m)

Solar Panel Extension Cable

No need to install MPPT module
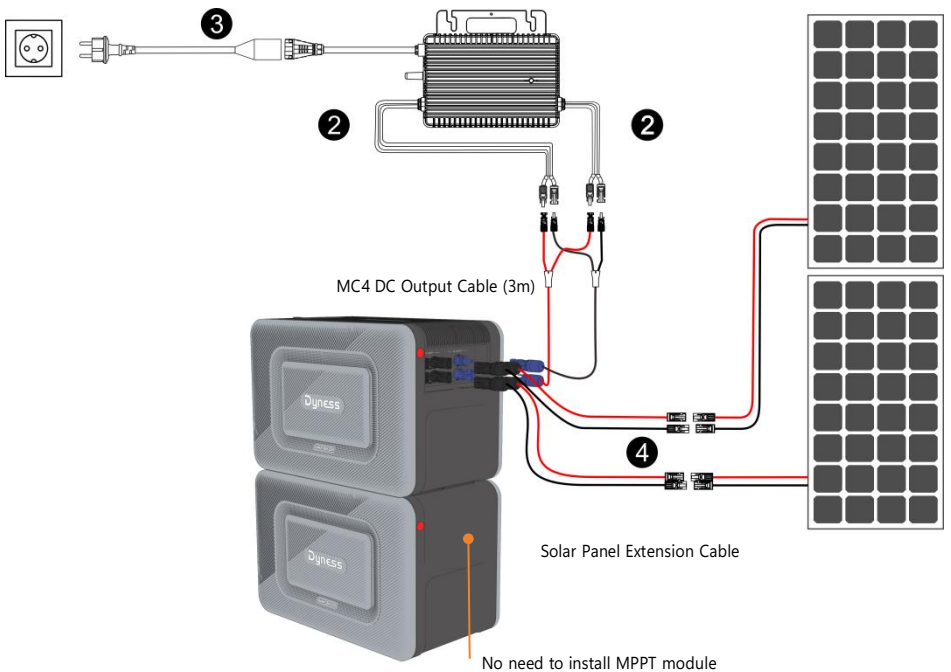
5. Press the power button for 3 seconds to turn on your Junior Box.

When powered on, the BMS status LED will display blue .

Blue light

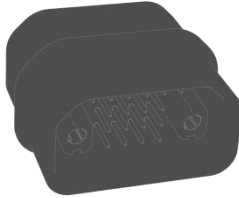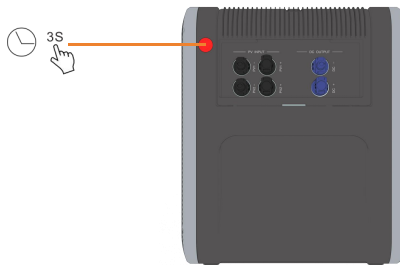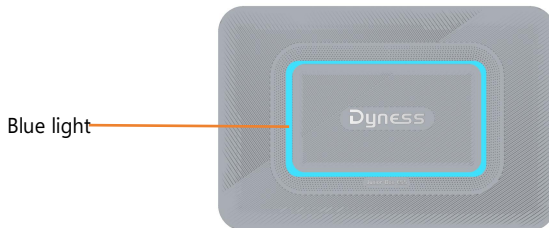*Note: 1. The Extended Battery sold separately.

2. Do not stack two Junior Boxes directly.

Dyness Smart ESS App for Smart Control

Download the Dyness Smart ESS App to get full functionality of your Junior Box from the **App Store** (iOS devices) or **Scan QR Code**(Android devices).
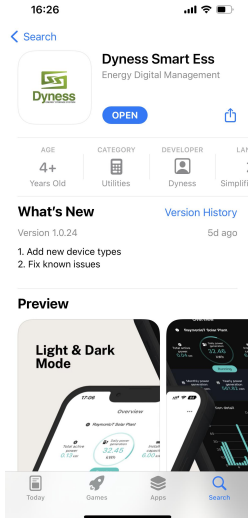
WIFI distribution network, use Dyness smart ESS app to scan the QR code in the Wi-Fi Logger label

Dyness Smart ESS App Instruction

Storage and Maintenance

For optimal performance, follow the instructions below to store and maintain your Junior Box regularly.

- Keep the product on a flat surface when using, charging, and storing.
- Use a cotton cloth and water to clean. Do not use steel wool or other hard materials for

cleaning.

- For long-term storage, charge and discharge Junior Box once every 3 months (discharge Junior Box to 20%, then recharge it to 80%).

- If the BMS fails, it can be removed and replaced with a new BMS, as shown in the following figure. Before removing the BMS, ensure that the battery is turned off.

❶ Insert two flat-head screwdrivers into the middle of the BMS

❷ Pull out the BMS that needs replacing

❸ Insert the new BMS

- If the MPPT fails and needs to be replaced, first plug the MC4 wiring harness, then press the MPPT buckle and pull out the MPPT module.
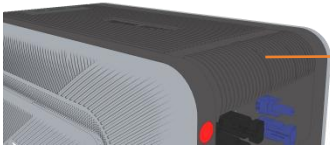
Click here to pull out the MPPT

Pull out the MPPT

Specifications

BASIC		
	Battery Type	LiFePO4
	System Energy	1.6KWh
	Dimensions	420mm*283.5mm*245mm
	Weight	18KG
	Protection Level	IP55
	Cycle Life	≥8000 Cycles
	Warranty	10 Years
	Charging Temp. Range	0 °C to 55 °C
	Discharging Temp. Range	-20 °C to 55 °C
	APP	Yes
	Communication	RS485
	Max.PV Input Power（W）	1200W
	Max. Input Voltage（V）	65V
	MPPT Range(V)	18-60V

	Max.Input/ Output Currrent(A)	30A
	Max. Output(W)	800W
Expansion	Expansion Method	Stackable
	Maximum Expansion Modules	4 (Junior Box+3Extended Battery)
	Maximum expansion energy	6.4KWh

Specifications are subject to change without notice.

Safety Information

1. Please carefully read the documents before installing, operating or maintaining the equipment. The documents are subject to change due to product updates or other reasons.

2. Do not put heavy objects on the equipment.

3. Ensure that all cables and connectors are intact and dry before connecting to prevent electric shocks.

4. Do not install or operate the equipment in extreme weather events such as lightning, snow, heavy rain, strong wind and so on.

5. Do not damage, smear or rip off any warning labels on the equipment.

6. Do not hit, pull, drag, squeeze or step on the equipment, or throw it into the fire, as there is risk of explosion.

7. After installing, please clean the remains of the installation, such as boxes, clipped cable ties, ripped insulation materials, etc.

8. Do not modify or repair the equipment, please contact our customer service or qualified personnel if necessary.

9. Use tools and the equipment correctly to prevent personal injuries and product damage.

10. Understand the components and function of the grid-tied PV power system. Make sure that all electrical connections, and voltage and frequency at the connection point meet the local microinverter grid-tie requirements and electrical standards.

11. The installation location should be convenient for you to put out the connectors.

12. Before you pull out the AC (or battery) connector from the microinverter, disconnect the cable from the AC socket (or battery's) end.

13. Do not clean the product with harmful chemicals or detergents.

14. Misuse, dropping, or excessive force may cause product damage.

15. Do not use or store this product in direct sunlight for a long period, such as in a car, cargo bed, or any other place where it will be exposed to high temperatures. Doing so may cause the product to malfunction, deteriorate, or generate heat.

16. Do not use this product near strong static electricity or strong magnetic fields.

17. Do not immerse the product in water. If the product accidentally falls into water, place it in a safe, open place and keep it away from fire until it is completely dry.

Environment requirements

1. Make sure the equipment is installed, operated or stored in a well ventilated place.

2. Do not install or operate the equipment near flammable, explosive, corrosive, caustic or moist sources.

3. Do not expose the equipment to strong electromagnetic fields to avoid radio interference.

Customer Service

Email：sales@dyness-tech.com

Tel：+86 400 666 0655

Web：www.dyness.com

For more details, please scan the QR code or visit: https://www.dyness.com/qa

Or scan the QR code below:

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