

- This manual contains important safety information for the MB240XR. Please read it carefully before beginning installation and operation.
- Do not connect the battery unit until you have read and understood the instruction manual for the BN240XR UPS.

## Applicable Models

- This add-on battery unit is designed for use with the BN240XR.

## Safety instructions Read these important safety instructions before installing and using this product.

- The meanings of the safety symbols used in this manual are explained below.

	<b>Warning</b>	Misuse may cause death or serious injury.
	<b>Caution</b>	Misuse may cause injury or property damage.

\*Property damage means damage to houses/household effects, livestock, and pets.

- : Indicates prohibited actions (don'ts). For example, indicates that disassembly is prohibited.
- : Indicates necessary actions (do's). For example, indicates that grounding is necessary.

Notice that do's and don'ts of "Caution" may bring about a serious accident depending on the circumstances. These do's and don'ts are critical, and must be observed strictly.

### Warnings

#### Do not disassemble, repair, and/or modify the MB240XR.

- Doing so may result in electric shock or fire.



#### If liquid is leaking out from the battery, do not touch it.

- Doing so may lead to blindness and/or burns.
- If the liquid gets in your eyes or on your skin, wash with clean water and consult a doctor.



#### When replacing the battery, do not insert anything metal into the battery.

- Doing so may cause an electric shock or short circuit.



### Warnings (product usage)

#### Do not use this product in applications where a very high degree of reliability and safety are required, such as in the cases below. (This product is designed and manufactured for use with OA equipment, such as personal computers.)

- Medical devices and/or systems that support life directly
- Applications that may adversely affect the safety of people (such as in the operation and control of automobiles and elevators)
- Applications that adversely affect the maintenance of utilities in the event of failure (such as in critical computer systems and trunk lines)
- Applications with a similar level of importance



### Cautions (installation)

#### Unpacking and carrying the MB240XR requires the following number of people: BN240XR/MB240XR: 3 or more people

- There is a danger of injury, of dropping the battery unit, or of it falling over.



#### Be careful when unpacking and carrying the battery unit, because it is heavy.

#### Place and use it on a stable and level surface.

- If the MB240XR unit falls over, or if you drop it, it may cause injury.
- The weight of the MB240XR MB240XR : 29 kg (add-on battery unit)
- In the event that the MB240XR falls, stop using it, inspect it, and have it repaired if necessary.



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## **Cautions (installation)**

**Keep packing materials, including plastic bags and film, out of the reach of children.**

- Should children swallow or put their head into the packing materials, there is danger of suffocation.



**Do not use the MB240XR where the maximum temperature exceeds 40°C.**

- Battery deterioration will occur rapidly.
- Doing so may cause failure or malfunction of the UPS.



**Do not install or store the MB240XR in the following types of places:**

- Places with high or low temperatures, or with high humidity
- Places that receive direct sunlight
- Places that are directly heated by a heat source such as a stove
- Places where there is vibration, or that cause physical shock to the MB240XR
- Places where there is dust, corrosive gas, salt, or flammable gas
- Outdoors
- Placing the MB240XR in these types of locations may result in malfunction, deterioration or fire.



**Do not obstruct the air inlets and outlets on the sides and the rear.**

**Do not place the MB240XR in an enclosed space and do not put a cover on it.**

- Doing so may lead to abnormal overheating or fire.
- The internal temperature will increase, possibly causing failure of the UPS and/or battery deterioration.
- Install the MB240XR 5cm or further away from the wall.



**Do not install the MB240XR in ways other than those specified.**

**Do not install the MB240XR on a structurally unsound base.**

- For installation procedures, refer to "2-1 Installation" on page 7.
- If the add-on battery unit falls over, or if you drop it, injury may result.



**When performing rack installation, make sure to use both the support angles and the table clamps.**

**When connecting the battery unit and/or adding another battery unit, be sure to place the unit in a lower position than the main unit.**

- Use the support angles and table clamps when performing rack installation. Without the support angles, the front clamp alone cannot support the weight of the MB240XR.
- The weight of the UPS      BN240XR : 38 kg  
  MB240XR : 29 kg (add-on battery unit)



**In a case where the MB240XR is to be mounted on a rack, place it on the lowest part of the rack.**

- Injury may result if it falls.



**Be sure to use the supplied mounting screws.**

- Screws other than those supplied may not be strong enough to support the MB240XR, causing it to fall.



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## **Cautions (use)**

**In a case where the Battery Replacement Lamp comes on or the backup time becomes shorter than the required backup time, replace the battery pack with a new one while the UPS is running, or stop the UPS and discard the old battery pack.**




- Continuing to operate the UPS may result in fire.

Ambient temperature	Estimated life expectancy
20°C	2 to 3 years
30°C	1 to 1.5 years

\* The table on the left shows the estimated life expectancy of a battery pack in normal operating conditions. This is not the warranty period.

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**When you notice abnormal sound or smell, smoke, or liquid coming from the inside of the UPS, turn OFF the power switch (  ) immediately, and remove the AC Input Plug from the wall outlet (commercial power).**



- Continuous operation under abnormal conditions like these may cause a leakage of current or fire.
- If you notice abnormal conditions, absolutely do not operate the device, and contact us or the distributor from which you purchased this product for inspection and repair.
- Make sure that it is possible to instantly remove the AC Input Plug from a wall outlet (commercial power) at the onset of a failure.

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**Do not place objects on the MB240XR, and do not drop metal objects into it.**



- Doing so may cause distortion and/or damage to the top case or an internal circuit failure, which may lead to a fire.

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**Do not place the MB240XR in an enclosed space or put a cover on it.**



- Doing so may lead to abnormal overheating and/or fire.

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**Do not spill water on the MB240XR or get it wet.**



- Doing so may cause an electric shock or fire.
- If water is spilled on the MB240XR, stop using it, inspect it, and have it repaired if necessary.

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**Do not insert metal objects into the battery connector or the add-on battery connector. Do not short-circuit the connector terminals.**



- Doing so may cause an electric shock.
  - There is a risk of combustion, battery explosion, and burn injury.
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## Cautions (battery replacement)

### Do not short-circuit the battery with a metal object.

- Doing so may result in burn injury or fire.
- Even in a dead battery, there is some current remaining.



### Do not toss a battery into a fire. Do not try to break a battery.

- The battery may explode or dilute sulfuric acid may leak.



### Do not use any batteries other than those specified.

- Doing so may lead to a fire.
- Battery pack product models: BP240XR (for BN240XR, MB240XR)



### Do not use a new battery and an old battery at the same time. (when adding BN240XR battery)

- Rapid deterioration of battery may occur, and dilute sulfuric acid may leak.



### Do not drop the battery, and make sure that it does not receive any strong impact.

- Dilute sulfuric acid may leak.



### Do not replace the battery in a place near flammable gas.

- A spark may occur when connecting the battery, and lead to a fire.



### Replace a battery on a structurally sound base.

- Hold the battery securely with both hands to avoid dropping.
- Failure to do so may result in injury due to the battery falling, or in burn injury from liquid (acid) that leaks out.



### If there is liquid coming from the replaced battery pack, do not touch it.

- If touched, the liquid (dilute sulfuric acid) may cause burn injury or blindness.



### Do not disassemble or modify the battery.

- Doing so may cause a leakage of dilute sulfuric acid, which may cause blindness and burns.




## Notes

### Charge the battery (for at least 12 hours) immediately after purchase.

- If you do not use your UPS for a long time after purchase, the battery may deteriorate and become unusable.
- After inserting the AC Input Plug of the UPS into a wall outlet (commercial power), the battery automatically begins to charge.

### When you want to store the UPS or the MB240XR, charge the battery until the battery charge indicator turns on.

- In a case where you do not use the battery, it discharges naturally and will become completely discharged if it is left for a long period of time. The backup time may become shorter or the battery may become unusable.
- The expiration date of the battery installed in the UPS is 6 months after the battery being charged to the full capacity.
- When storing the battery for longer than 6 months, insert the AC Input Plug of the UPS in a wall outlet (commercial power) and charge the battery before six months has expired.
- When the UPS is in storage, make sure that the power switch (  ) is OFF.

### Recycling and discarding the battery

- The UPS has a lead acid battery. The battery is a recyclable and valuable resource. We need your cooperation in recycling old batteries, batteries that you replace with a new batteries, and the batteries you used to discard.



### Storage places

- Do not store the UPS in a place exposed to direct sunlight. High temperatures may cause the battery to deteriorate and become unusable.

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# IMPORTANT SAFETY INSTRUCTIONS

## 1. SAVE THESE INSTRUCTIONS

This manual contains important instructions for Model MB240XR that should be followed during installation of the UPS and batteries.

## 2. SYMBOL



This symbol indicates the ground.



This symbol indicates that the on UPS is ON.



This symbol indicates that the UPS is OFF.



This symbol indicates AC voltage.



This symbol indicates DC voltage.



This symbol indicates phase.

## 3. INTERNAL BATTERY

Internal battery voltage is 72V DC for BN240XR and MB240XR.

## 4. TEMPERATURE RATING

The maximum ambient temperature of the UPS is 40°C.

## 5. ENVIRONMENT

The unit is intended for installation in a temperature controlled, indoor area free of conductive contaminants.

# 1. Preparation

## 1-1 Unpacking the MB240XR

Be careful when unpacking and carrying the battery unit, because it is heavy.  
The weight of the MB240XR: 29 kg

## 1-2 Checking the accessories

If you notice any defects or anything wrong, please contact your distributor at once.

### ● Add-on battery unit (MB240XR) item list

1. Main unit ..... 1
2. Battery unit connection cable ..... 1
3. Signal cable  
(modular cable for battery unit) ..... 1
4. Upright coupling plate ..... 1
5. EIA 19-inch rackmount fittings  
and support angles ..... 1 set
6. Instruction manual (Japanese) ..... 1
7. Instruction manual (English) ..... 1
8. Warranty ..... 1



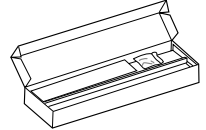
Battery unit connection cable



Upright coupling plate



Signal cable  
(modular cable for battery unit)

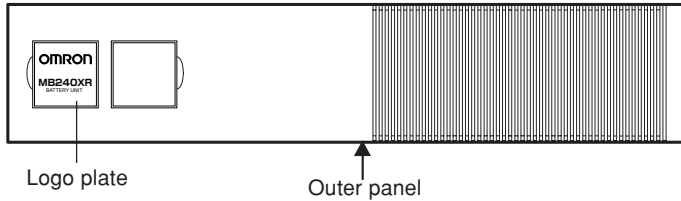


EIA 19-inch rackmount fittings  
and support angles

## 1-3 Part names

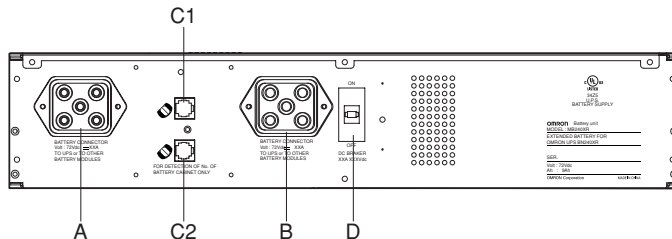
### 1. Front panel

#### ● MB240XR (Add-on battery)



Note: There is a fixing screw for the battery panel beneath the logo plate.

#### ● MB240XR (Rear panel)



- A Add-on battery connector (to BN240XR/previously connected MB240XR)
- B Add-on battery (MB240XR) connector (to additionally connected MB240XR)
- C1,C2 Add-on battery signal connector
- D Battery overcurrent breaker (63A)  
(Turn the breaker ON when operating.)

# 2. Installation and connection

## 2-1 Installation

The MB240XR can be installed in the following ways. Choose the one best suited for your environment.


1. Rackmount installation
2. Stationary installation
  - Horizontal
  - Upright installation for BN240XR/MB240XR

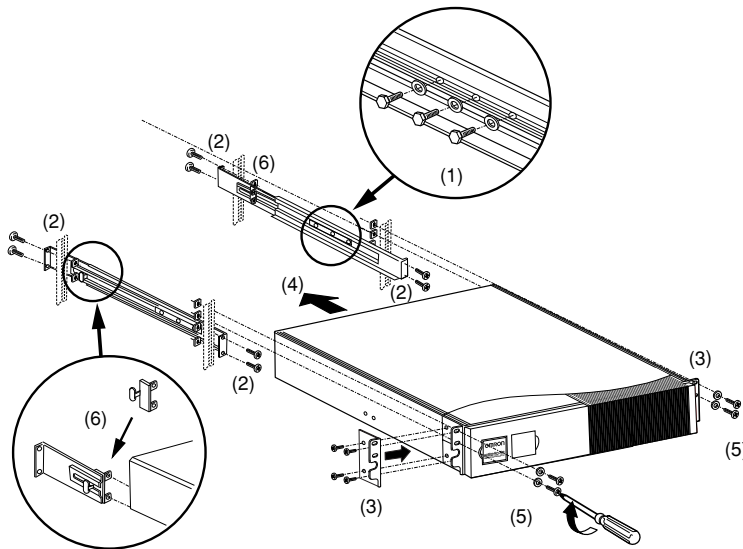
### 1. Rackmount installation (EIA 19-inch rack/server rack)

#### ● Rack installation for BN240XR (MB240XR)

Follow steps (1) through (6) for installation.

Two kinds of nuts for the screws (2) and (5) are attached. Select the nuts suitable to the rack.

-  **Make sure to use the support clamps (support angles, front support clamps (3), and rear support clamps (6)).**  
Set MB240XR under the main unit (BN240XR).



### 2. Stationary installation

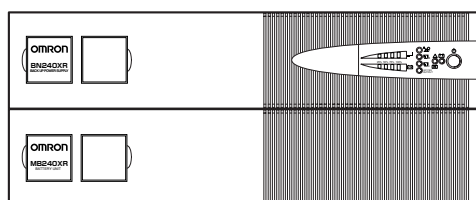
Perform installation only as shown in the diagrams below.

#### ● Horizontal installation

This product does not have rubber feet, and there are no screw threads on the bottom side. For stationary horizontal installation, make sure that this product does not slide or fall.

BN240XR

MB240XR



## 2-2 Connecting a battery unit (MB240XR)

- It is possible to connect up to two add-on battery units (MB240XR) to the BN240XR.
- The connection work can be implemented while the main unit (BN240XR) is energized.

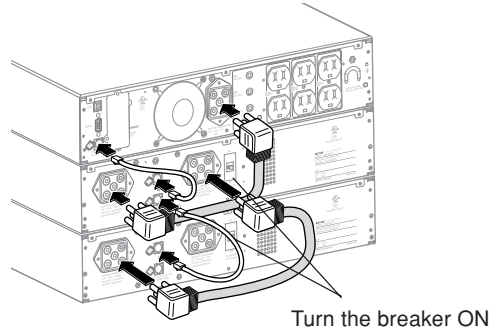
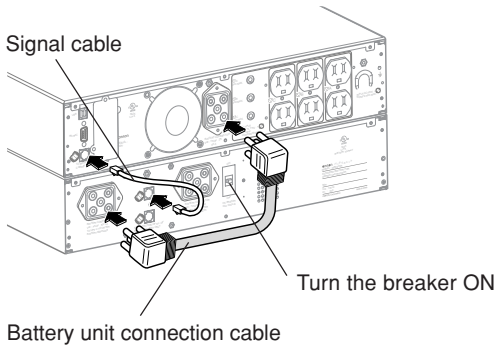
When connected to a 2.4KVA/2000W device, the backup time for one add-on battery is about 10 minutes, and the backup time for two add-on batteries is about 20 minutes (for new battery at ambient temperature of 20°C). The time required for recharging completely discharged batteries is 24 hours for one battery, and 36 hours for two batteries.

- Connect the MB240XR using the included battery connection cable.
- Connect the MB240XR using the included signal cable (modular cable) as shown below.
- Make sure that the breakers on the back of the MB240XR are all switched ON.

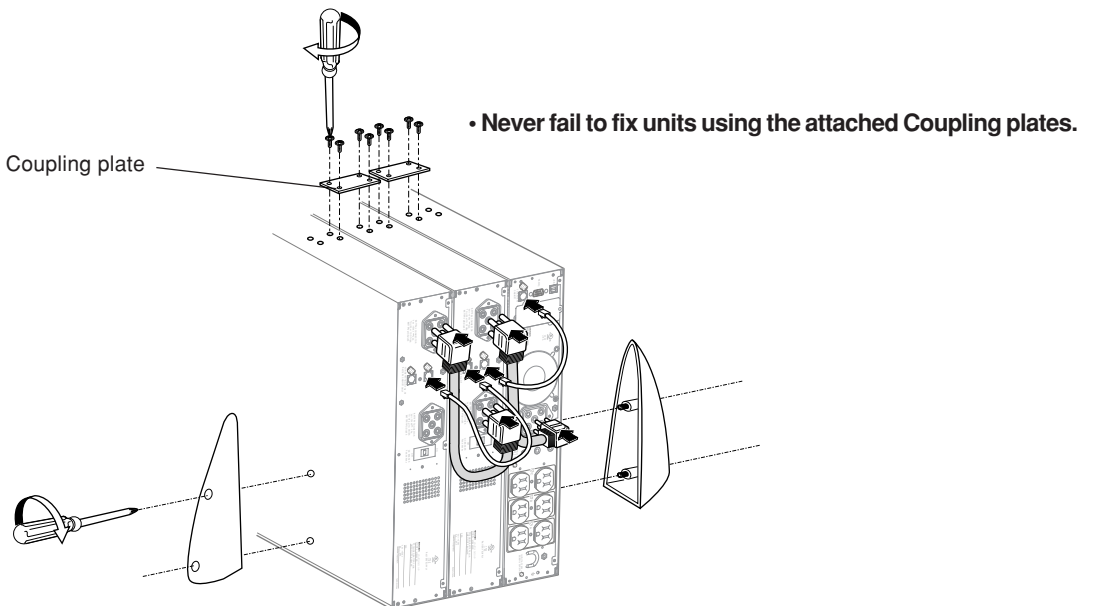
 **Do not connect a telephone line to the modular jack.** 

### ● Connection of one MB240XR unit

### ● Connection of two MB240XR units



### ● Connection in the case of upright installation

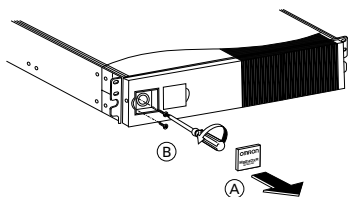




## 2-3 Battery pack changing procedure for MB240XR

### ● Replaceable battery pack

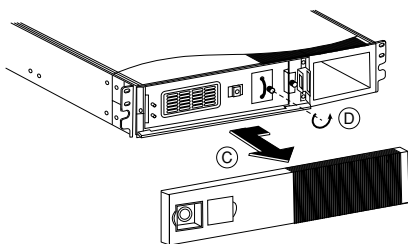
Model name: BP240XR



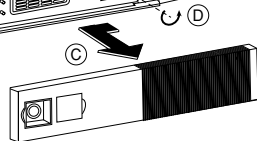
(A) Use a screwdriver to pry off the square plate on the left with the OMRON logo printed on it.



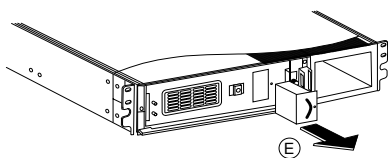
(B) Remove the two screws.



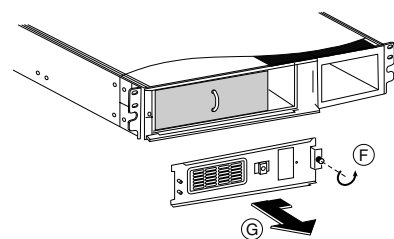
(C) Firmly pull the left side of the plastic panel toward you.



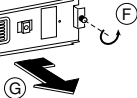
(D) Remove the screw of the safety plug.



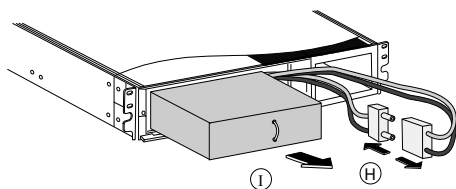
(E) Pull out the safety plug.  
(The connection inside the battery is cut.)



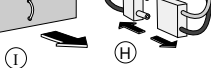
(F) Remove the screw that holds the metal cover in place.



(G) Slide the metal cover to the left and remove it.



(H) Pull out the battery pack as far as 10 cm.  
Firmly pull forward on the connector located on the right side to detach it.



(I) Slowly pull out the battery pack.

**⚠** During removal, when the red line on the top side of the battery becomes visible, this indicates that after 10 cm, it will be completely pulled out. Carefully hold both the left and right sides of the battery when removing it so that you do not drop it.

- Install the new battery pack by following the above steps in reverse order.
- Press firmly on the battery pack connector until the lock stops.

## 2-4 Checking and processing after battery replacement

### ● When using the UPS monitoring software

- After replacing the battery, perform a "self-diagnosis" to check operation.
- If the battery deterioration alarm sounds, perform a "self-diagnosis". When it finishes normally, the battery deterioration alarm stops and normal operation is restored.
- Input the new battery replacement date.

### ● When the UPS monitoring software is not being used

- Remove the AC plug to check whether the UPS is going into Battery mode when commercial power is cut.
- When the battery deterioration alarm sounds:  
Turn OFF the power switch to shut down the UPS, and then restart it. The battery deterioration alarm stops.  
If you do not want to shut down the UPS, turn OFF the power switch of the UPS and turn it back ON within 3 seconds. This stops the battery deterioration alarm without stopping the output. (When the power switch is turned OFF, a beep sounds for 3 seconds. Turn the power switch back ON while the beep is sounding.)

**NOTE:**

**After replacing the battery, immediately dispose of the old battery.**

- Dilute sulfuric acid may leak from batteries stored for long periods of time.
- Contact our Electronic Systems & Equipments repair center for information on battery disposal.