

# USER MANUAL



## Maintenance Bypass for UNINTERRUPTIBLE POWER SUPPLY

**USBYM**  
**USBYMR**

1 phase input / 1 phase output max 16A  
for UPS up to 3kVA

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# 1 INTRODUCTION AND SAFETY

## 1.1 Introduction

*Thank you for choosing our product.*

The manufacturer is particularly specialised in the development and manufacture of uninterruptible power supplies (UPSs) and related accessories.

This manual contains detailed instructions for installing and using the BYPASS.

To get maximum performance from your device, please read and follow the instructions described herein.

**Keep this manual close to the BYPASS.**

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## 1.2 Precautions and safety rules

This part of the manual contains the precautions to be followed closely as far as SAFETY is concerned.

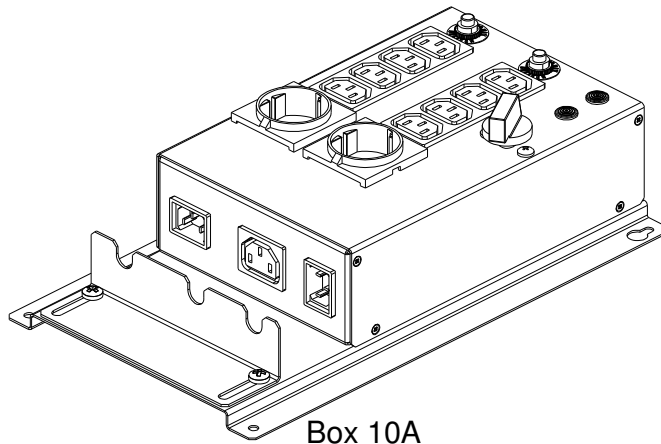
- a) The device must always be earthed during use. Do not remove the plug from the power supply as this would disconnect the safety earth for all devices powered.
- b) The BYPASS has HAZARDOUS electrical voltages inside it. Any maintenance must ONLY be performed by trained personnel.
- c) Do not connect the neutral output to the neutral input or to earth as this may damage the UPS connected to the BYPASS itself.
- d) The output outlets may be live even if the UPS is not connected to the mains.
- e) Do not allow water, liquids in general and/or other foreign objects to get inside the BYPASS. Do not expose the device to direct sunlight or heat sources.
- f) The separable power cable is intended as a sectioning device. Be sure to leave adequate free space near the cable connection for easy disconnection.
- g) Observing the neutral and phase indications relating to plugs and outlets, the BYPASS inserted in a system does not change the existing neutral system.
- h) Do not connect the UPS to plugs or outlets other than the dedicated ones on the BYPASS. Incorrect installation could cause malfunctions or failures of the UPS and the load connected to it.

## 2 PRESENTATION

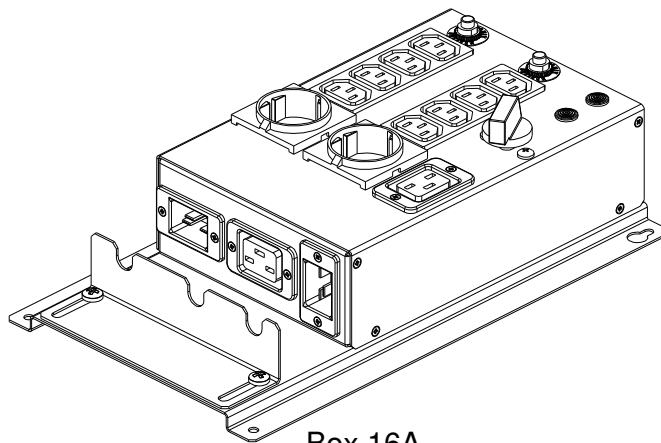
The purpose of a BYPASS is to connect the load to the mains with minimal interruption to allow the ordinary and extraordinary maintenance of the UPS.

The BYPASS makes it possible to switch the utilities connected to it onto the main power line in the event that the UPS is switched off or becomes blocked.

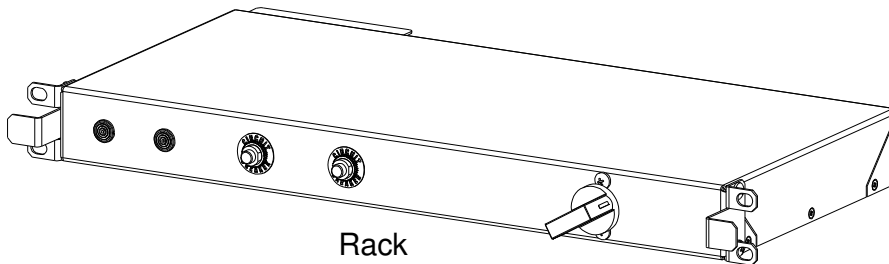
The BYPASS is supplied for installation in rack cabinets or for installation on the wall or above the 10 or 16A UPS (BOX).



Box 10A



Box 16A

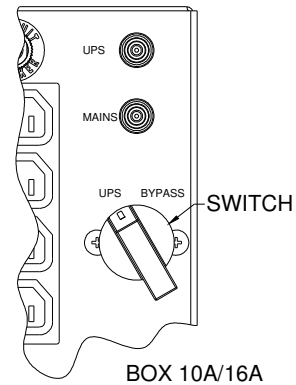
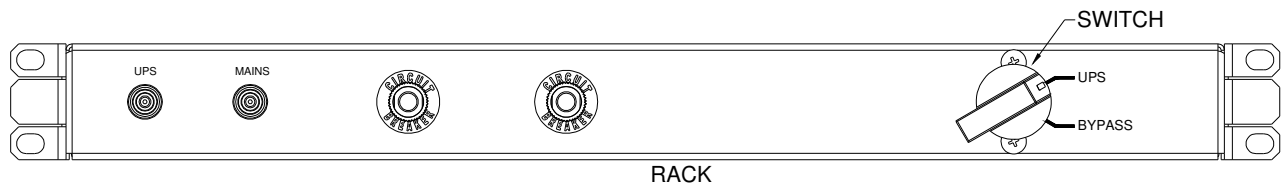


Rack

*N.B. The plug/outlet configurations vary depending on the versions.*

## 2.1 Operating modes

The BYPASS has a manual switch (SWITCH) with which you can choose the operating mode.



### “UPS/BYPASS” SWITCH

SWITCH to select the load power supply from the UPS or mains (BYPASS position).

### “MAINS” light (green) on

Mains present at the bypass input.

### “UPS” light (green) on

UPS voltage present at the bypass input.

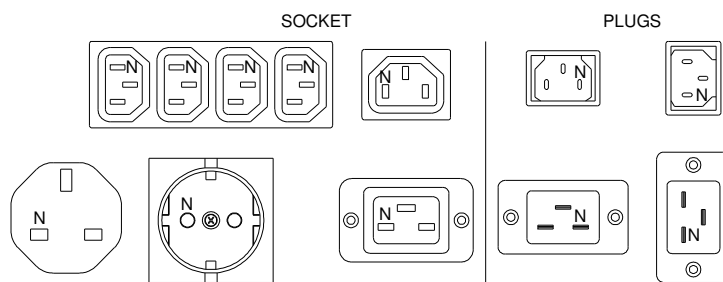
### 3 INSTALLATION

**CAUTION:** before performing the following sequence of operations, ensure that the UPS is completely shut down and is not connected to the mains.

*N.B.* the installation of a 16A circuit breaker (curve C) upstream from the BYPASS is required. This protection is necessary if required by the UPS user manual.

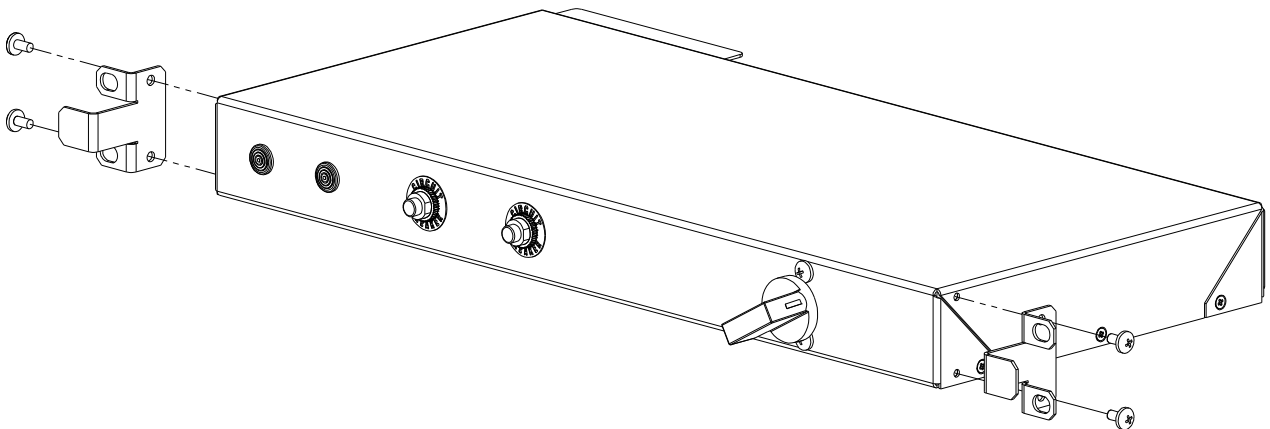
**WARNING:** observing the neutral (N) and phase (P) indications relating to plugs and outlets, the BYPASS inserted in a system does not change the existing neutral system. The neutral system will still be modified if an isolation transformer is present.

**For versions with output cable:** the blue wire identifies the neutral cable, while the yellow-green wire identifies the earthing cable.



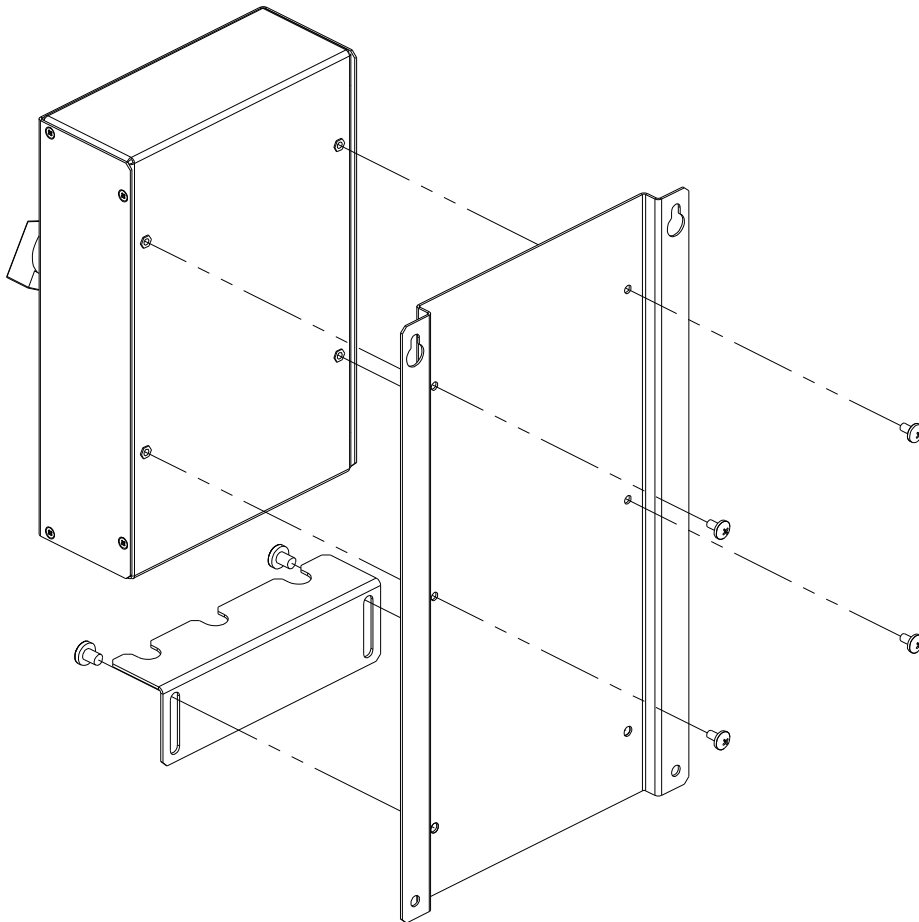
#### 3.1 Rack version

With rack installation, the use of support brackets (L-shaped support guides) available at rack cabinet dealers is recommended.

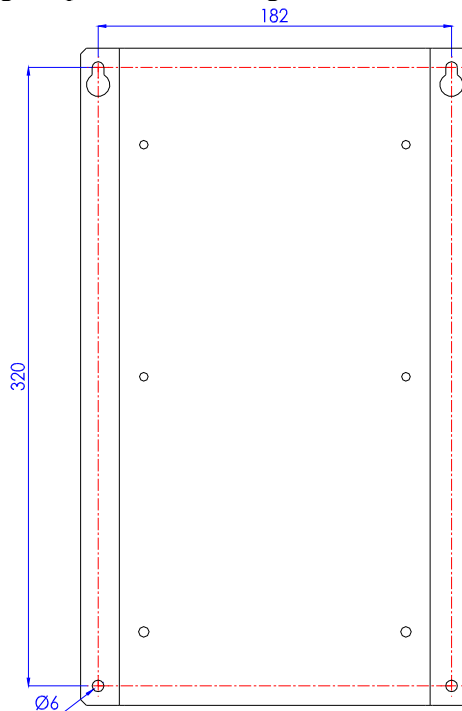


### 3.2 Wall version (BOX)

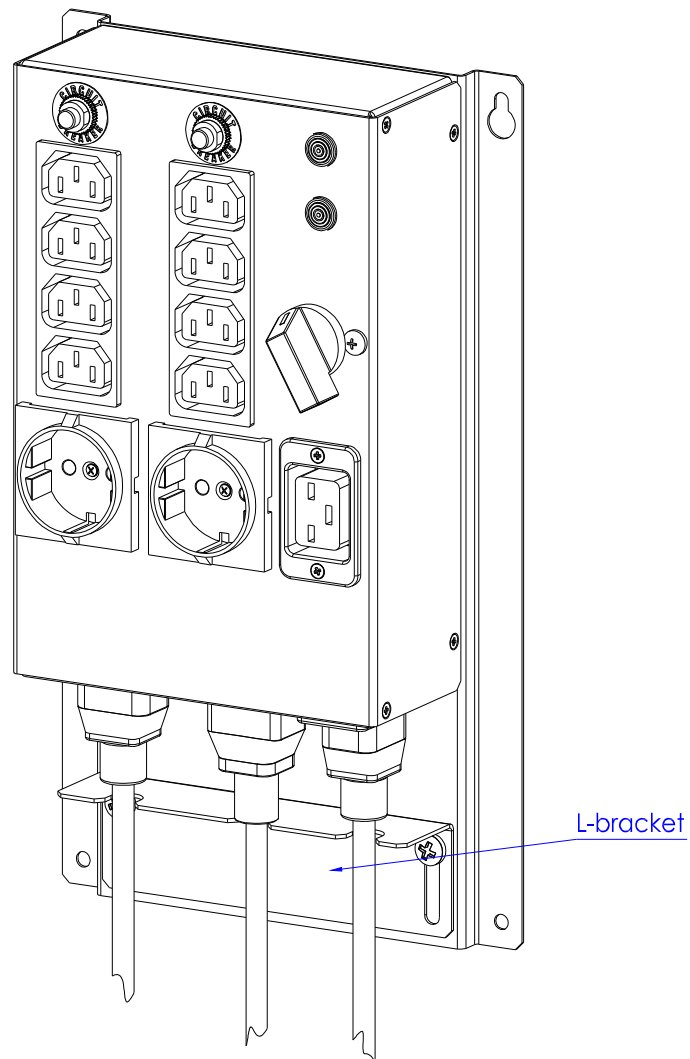
Attach the Bypass to the wall bracket as shown in the figure below, position the slotted L-bracket without fully tightening the two screws.



The figure below shows the drilling template for installing the BYPASS on the wall.



Adjust the L-bracket on the slots to ensure the cables remain secured as shown in the figure.



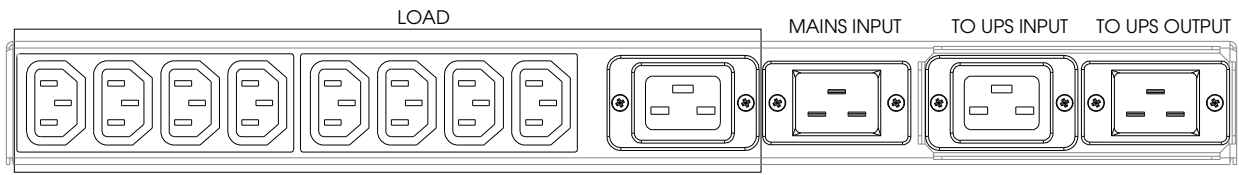
### 3.3 Installation instructions

Before connecting the BYPASS to the UPS, ensure the following conditions are met:

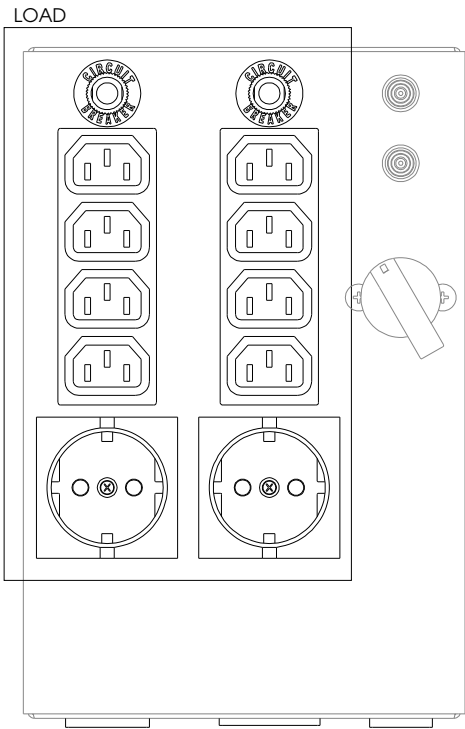
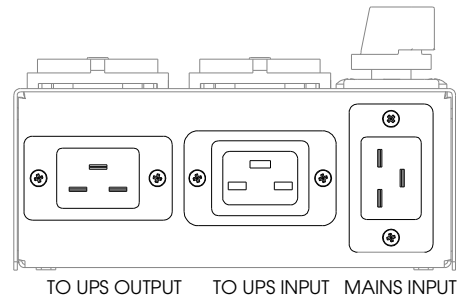
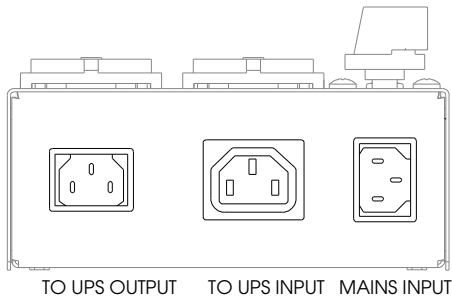
- 1) Do not position in areas exposed to direct sunlight or hot air
- 2) Keep the ambient temperature between 0 °C and 40 °C
- 3) The relative humidity in the environment must not exceed 90%
- 4) Avoid dusty environments



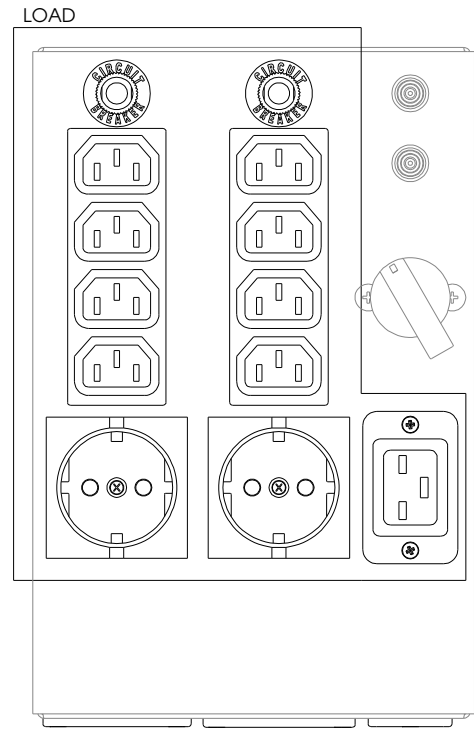
### 3.4 Connecting the BYPASS



Rack version: rear view



10A Version



16A Version

*N.B. The plug/outlet configurations vary depending on the versions.*

1. Check that the SWITCH is in the “BYPASS” position
2. Connect the load to the output outlets (Load)  
*(N.B. The plug/outlet configurations vary depending on the versions)*
3. Connect the UPS input to the outlet located on the BYPASS marked “TO UPS INPUT”
4. Connect the UPS input to the plug located on the BYPASS marked “TO UPS OUTPUT”
5. Connect the power cable to the plug marked “MAINS INPUT”

6. At this point the load is powered. Check that the “MAINS” (green) light is on. If it is not, check that there are no switches open upstream from the BYPASS.
7. Turn on the UPS (follow the instructions in the UPS user manual).
8. Push the SWITCH to “UPS”. Check that the green light is on. If it is not, make sure that the UPS is turned on and check all connections with it.

## **4 USING THE BYPASS**

### **4.1 Instructions to be followed for UPS maintenance**

Instructions to be followed when it is necessary to repair, replace or carry out maintenance on the UPS.

- a. Move the SWITCH to the “BYPASS” position\*
- b. Turn off the UPS
- c. Disconnect the UPS
- d. Reconnect the UPS (new or repaired)
- e. Turn on the UPS
- f. Move the SWITCH to the “UPS” position

\* *When the SWITCH is in the “MAINS” position, any disturbance of the mains affects the load powered by the BYPASS. This means that in the event of a mains blackout, even if the UPS is on, the load is disconnected.*

### **4.2 BYPASS limitations of use**

The BYPASS can power multiple loads at the same time, provided that the total current output is less than 16A for the Box 16A and Rack versions and 10A for the Box 10A version.

## 5 TECHNICAL SPECIFICATIONS

MODEL		BOX 10A
Rated voltage	[Vac]	220 / 230 / 240
Switching time	[ms]	typical: 3      maximum: 5
Maximum current	[A]	10
Ambient temperature	[°C]	0 – 40
Humidity		< 90% without condensation
Protective devices		overcurrent - short circuit
Dimensions H x W x D	[mm]	160 x 65 x 240
Weight	[kg]	3.3

MODEL		BOX 16A (USBYM)
Rated voltage	[Vac]	220 / 230 / 240
Switching time	[ms]	typical: 3      maximum: 5
Maximum current	[A]	16
Ambient temperature	[°C]	0 – 40
Humidity		< 90% without condensation
Protective devices		overcurrent - short circuit
Dimensions H x W x D	[mm]	160 x 65 x 240
Weight	[kg]	3.3

MODEL		RACK 16A (USBYMR)
Rated voltage	[Vac]	220 / 230 / 240
Switching time	[ms]	typical: 3      maximum: 5
Maximum current	[A]	16
Ambient temperature	[°C]	0 – 40
Humidity		< 90% without condensation
Protective devices		overcurrent - short circuit
Dimensions H x W x D		44 (1U) x 440 x 215
Weight	[kg]	6.8

## HEADQUARTERS

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