

# CyberPower

## User's Manual

MBP20HVIEC6

MBP20HVAU3

MBP20HVDE3

Cyber Power Systems, Inc.  
[www.cyberpower.com](http://www.cyberpower.com)

K01-0000262-01

## IMPORTANT SAFETY INSTRUCTIONS

This manual contains important instructions. Please read and follow all instructions carefully during installation and operation of the unit. Read this manual thoroughly before attempting to unpack, install, or operate the MBP (Maintenance Bypass PDU).

**CAUTION!** The MBP must be connected to a grounded AC power outlet with fuse or circuit breaker protection. DO NOT plug the MBP into an outlet that is not grounded.

**CAUTION!** The MBP should be placed near the connected equipment and easily accessible.

**CAUTION!** To prevent the risk of fire or electric shock, install in a temperature and humidity controlled indoor area, free of conductive contaminants. (Please see specifications for acceptable temperature and humidity range).

**CAUTION! (No User Serviceable Parts):** Risk of electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

**CAUTION!** To reduce the risk of fire, connect the UPS to a branch circuit with 16 amperes maximum over-current protection in accordance to CE requirement.

**CAUTION!** The AC outlet where the MBP is connected should be close to the unit and easily accessible.

**CAUTION!** Please use only VDE-tested, CE-marked mains cable, (e.g. the mains cable of your equipment), to connect the MBP to the AC outlet.

**CAUTION!** Please use only VDE-tested, CE-marked power cables to connect any equipment to the MBP.

**CAUTION!** The MBP are only qualified maintenance personnel may carry out installations.

**CAUTION!** Do not unplug the unit from AC Power during operation, as this will invalidate the protective ground insulation.

**CAUTION!** To avoid electric shock, turn off and unplug the unit before installing the input/output power cord with a ground wire. Connect the ground wire prior to connecting the line wires!

**CAUTION!** Do not use an improper size power cord as it may cause damage to your equipment and cause fire hazards.

**CAUTION!** Wiring must be done by qualified personnel.

**CAUTION! DO NOT USE FOR MEDICAL OR LIFE SUPPORT EQUIPMENT!** Under no circumstances this unit should be used for medical applications involving life support equipment and/or patient care.

**CAUTION! DO NOT USE WITH OR NEAR AQUARIUMS!** To reduce the risk of fire, do not use with or near aquariums. Condensation from the aquarium can come in contact with metal electrical contacts and cause the machine to short out.

**CAUTION!** The unit has a dangerous amount of voltage. When the MBP indicators is on, the units may continue to supply power thus the unit's outlets may have a dangerous amount of voltage even when it's not plugged in to the wall outlet.

**CAUTION!** Make sure everything is turned off and disconnected completely before conducting any maintenance, repairs or shipment.

**CAUTION!** Connect the Protection Earth (PE) safety conductor before any other cables are connected.

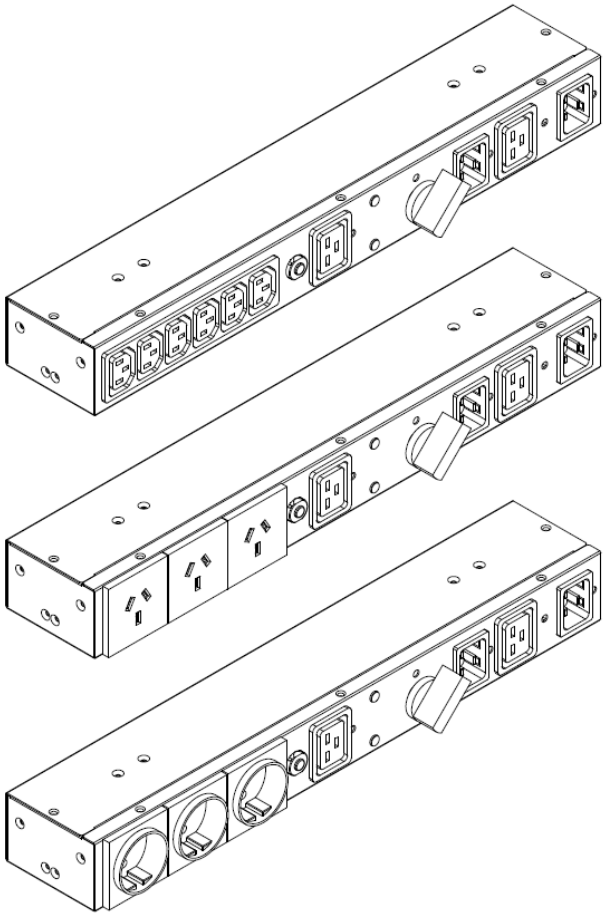
**CAUTION!** Never install a MBP, or associated wiring or equipment, during a lightning storm.

**CAUTION!** Do not work alone under hazardous conditions.

**DO NOT INSTALL THE MBP WHERE IT WOULD BE EXPOSED TO DIRECT SUNLIGHT OR NEAR A STRONG HEAT SOURCE!**

**DO NOT CONNECT DOMESTIC APPLIANCES SUCH AS HAIR DRYERS TO MBP OUTPUT SOCKETS!**

# UNPACKING



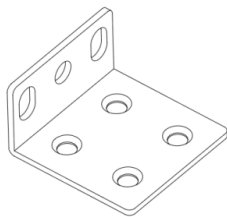
IEC, AU or DE MBP  
(Maintenance Bypass PDU)



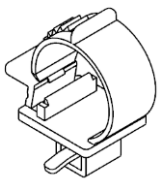
User's manual



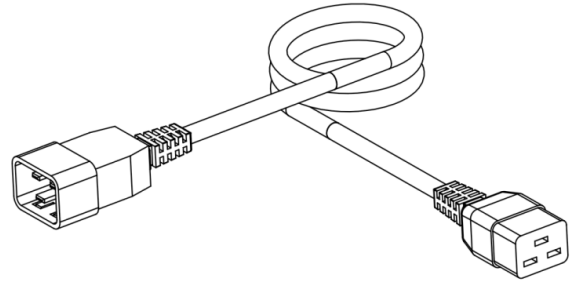
Register card



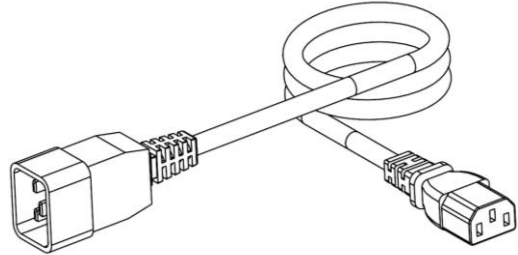
Rackmount brackets (2)



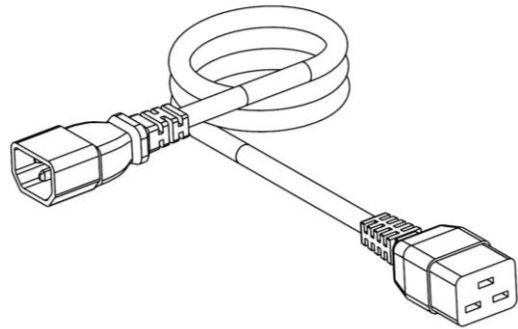
Power Cord Retention Clips (4)



C20/C19 Power cords (2)



C20/C13 Power cord (1)



C14/C19 Power cord (1)



Flat head screws: M4X8L (4)



Pan head screws: M5X12L (4)



Cable Ties (10 for MBP20HVIEC6 model,  
4 for MBP20HVAU3 & MBP20HVDE3 models)

# HARDWARE INSTALLATION

## **HARDWARE INSTALLATION**

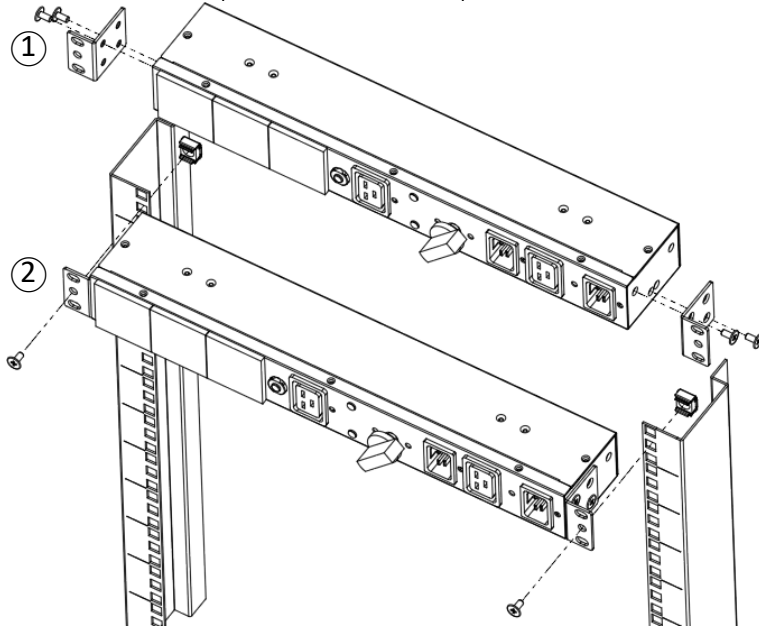
These versatile MBP can be mounted in a rackmount or vertical tower orientation. Please follow the instructions below for the respective mounting methods.

### **Step 1: Brackets installation**

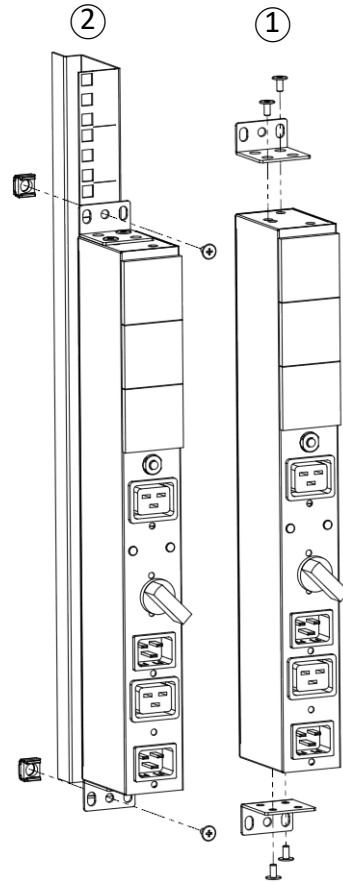
Attach the two brackets to the MBP using the provided screws M4X8L\*4pcs.

### **Step 2: MBP Installation**

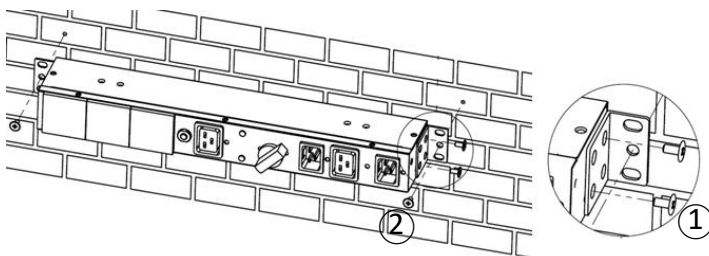
Secure the MBP with the provided screws M5X12L\*2pcs.



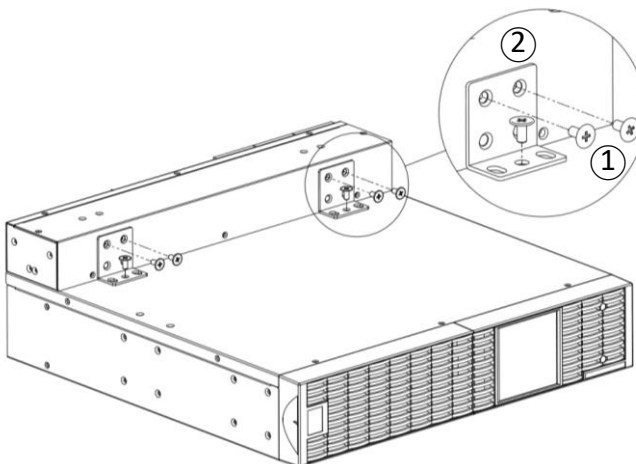
MBP mounted horizontally in a rackmount



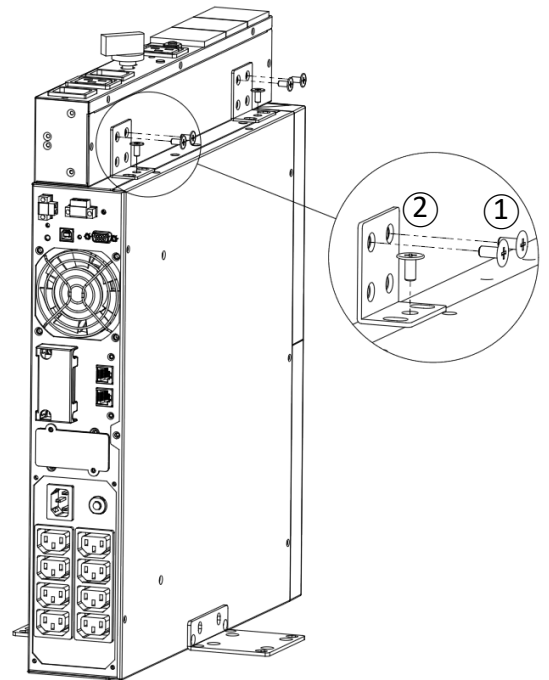
MBP mounted vertically in a rackmount



Wall-mounted



MBP mounted with UPS in rackmount mode

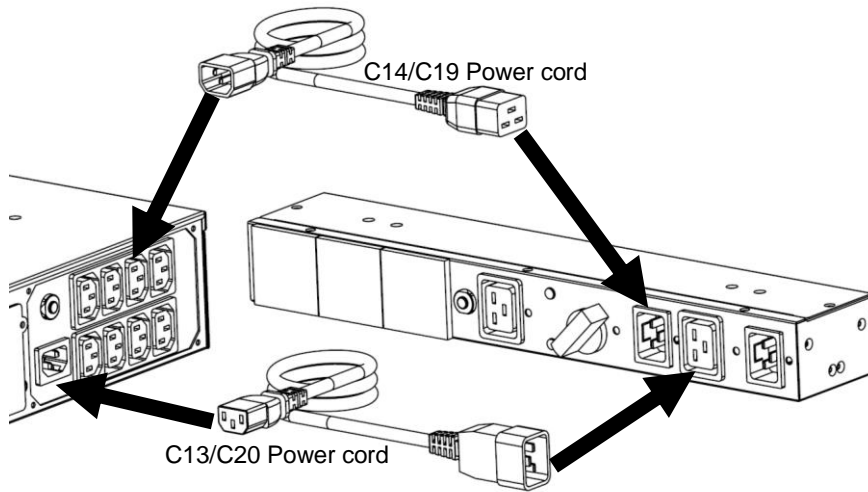


MBP mounted with UPS in tower mode

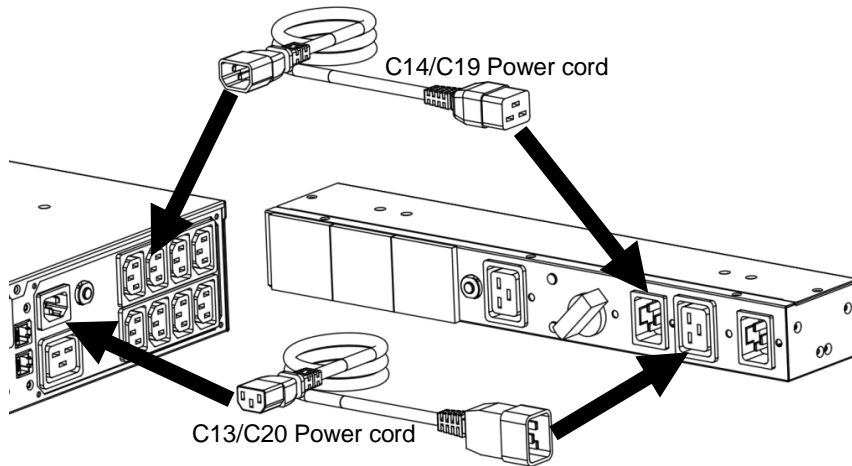
## CONNECTING THE INPUT/ OUTPUT

### **INPUT/ OUTPUT CONFIGURATION**

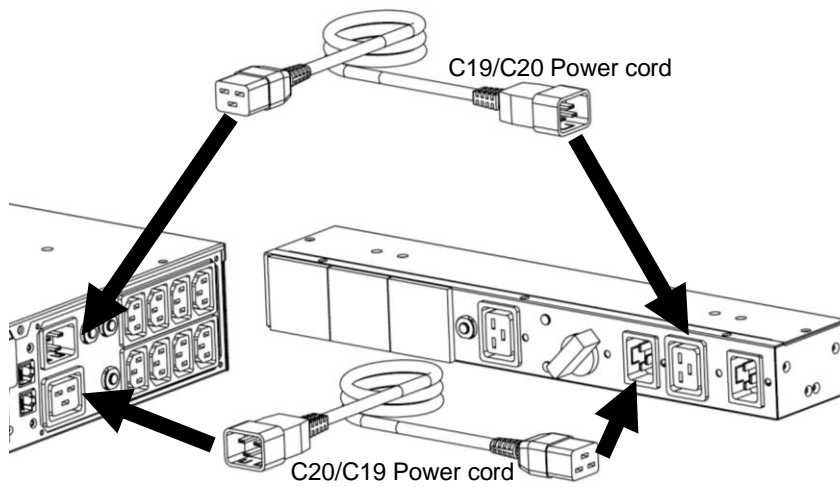
Connect the input/output as shown in the following diagram.



**1K/1.5K configuration**



**2K configuration**



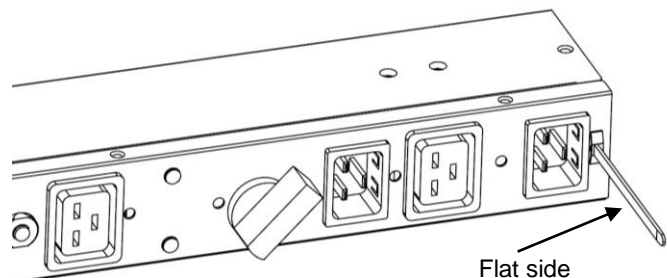
**3K configuration**

## INSTALLING/REMOVING THE RETENTION CLIP

### **INSTALLING THE RETENTION CLIP**

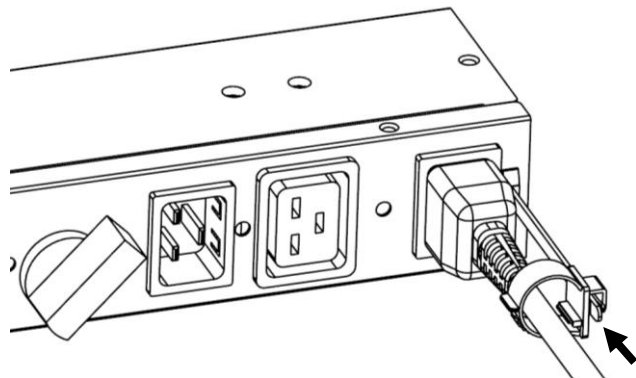
#### **Step 1: Cable Tie Installation**

Insert the Cable Tie into the hole beside the socket on the MBP. Note the flat side of the Cable Tie should face to the socket which the power cord will be inserted.



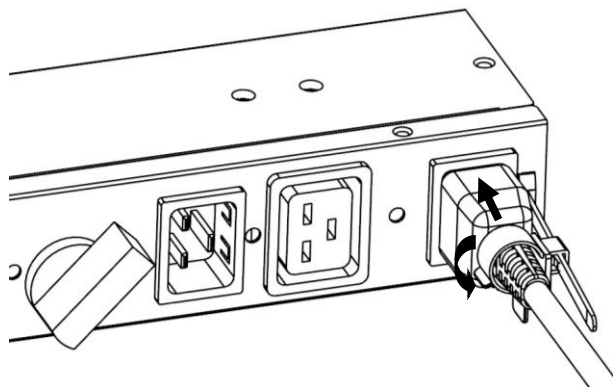
#### **Step 2: Retention Clip Installation**

Place a Retention Clip on the power cord. Insert the power cord to the MBP. Align and Insert the Cable Tie into the Retention Clip.



#### **Step 3: Fasten Retention Clip**

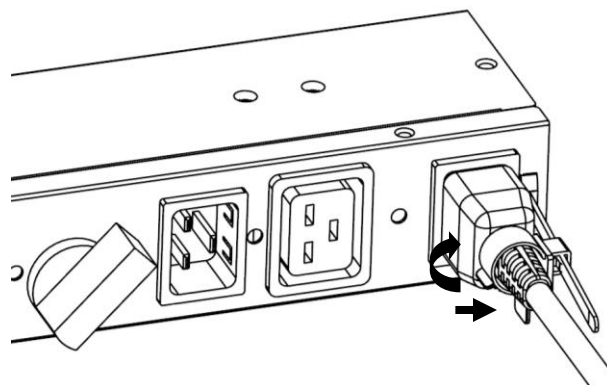
Push the Retention Clip until it touches the plug and fasten the Retention Clip.



### **REMOVING THE RETENTION CLIP**

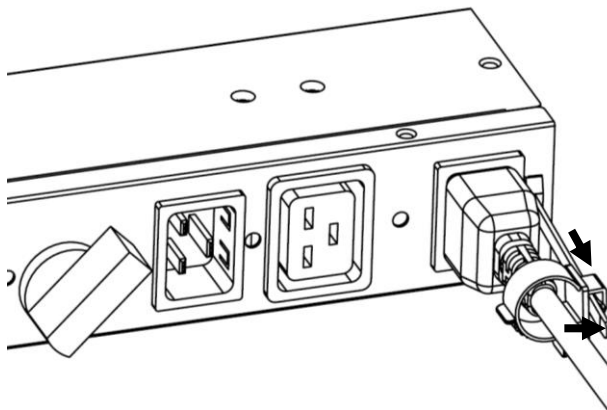
#### **Step 1: Loosen Retention Clip**

Loosen the Retention Clip by pushing it to the right.



#### **Step 2: Remove Retention Clip**

Remove the Retention Clip by pulling the Cable Tie to the right.



# BASIC OPERATION

## **MBP FRONT PANEL DESCRIPTION**

**1. AC Output Outlets**

Provide output power to the connected equipment. The supplied power source can be selected by manual bypass switch to ensure nonstop operation during maintenance or UPS replacement.

**2. Output Circuit Breaker**

Provide output overload and fault protection.

**3. "Normal" LED Indicator**

Indicate that the connected equipment is supplied by UPS output.

**4. "Bypass" LED Indicator**

Indicate that the connected equipment is supplied directly by utility power.

**5. Manual Bypass Switch**

Provide UPS output to connected equipment when turned to "Normal", provide utility power to connected equipment when turned to "Bypass".

**6. "To UPS Output" Inlet**

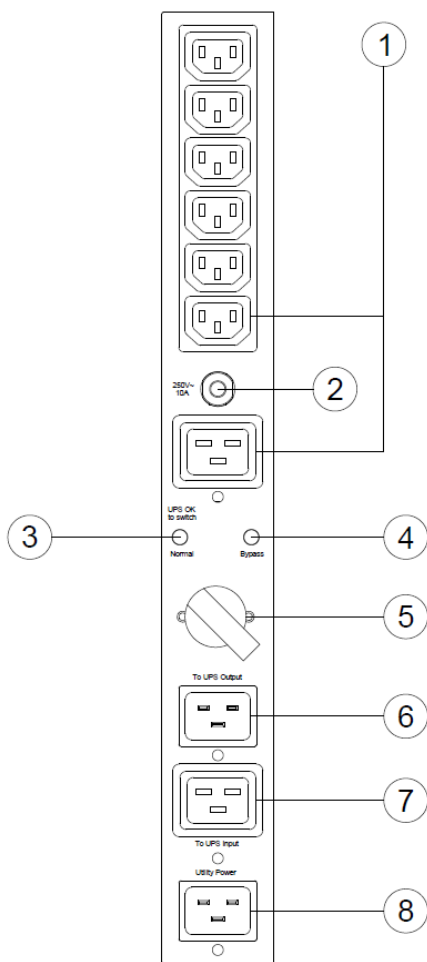
Connect the AC Power cord to UPS Output.

**7. "To UPS Input" Outlet**

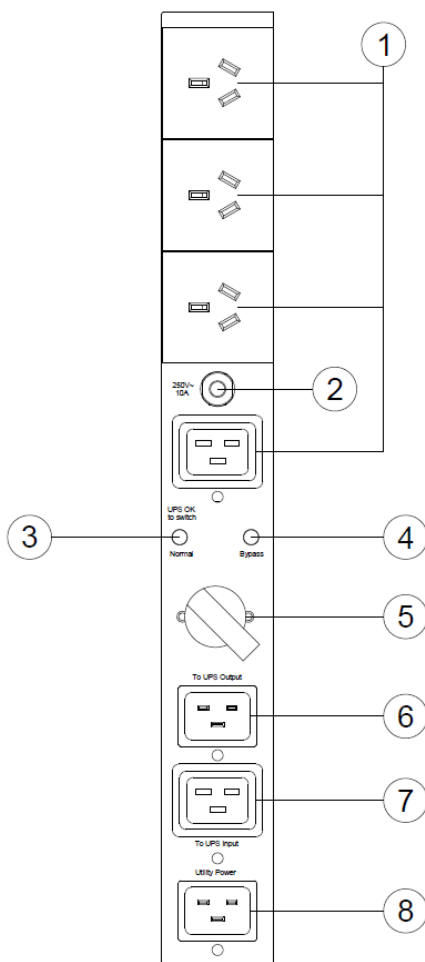
Connect the AC Power cord to UPS Input.

**8. "Utility Power" Inlet**

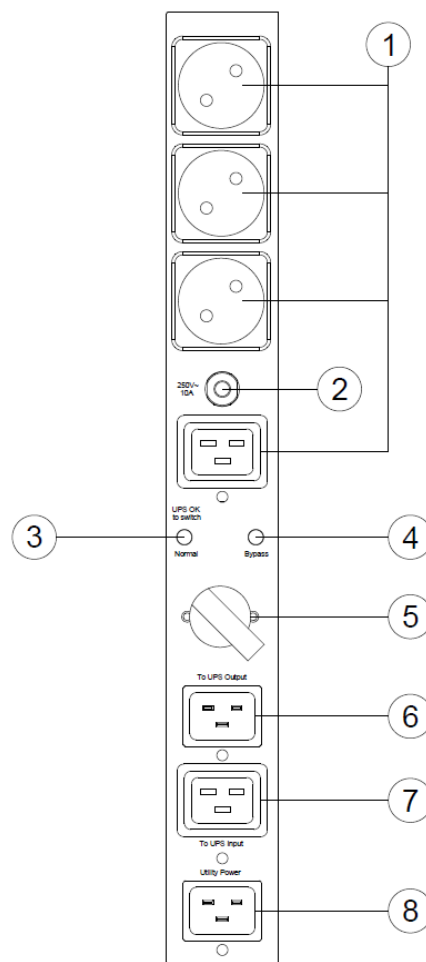
Connect the AC Power cord to a properly wired and grounded outlet.



**MBP20HVIEC6**



**MBP20HVAU3**



**MBP20HVDE3**

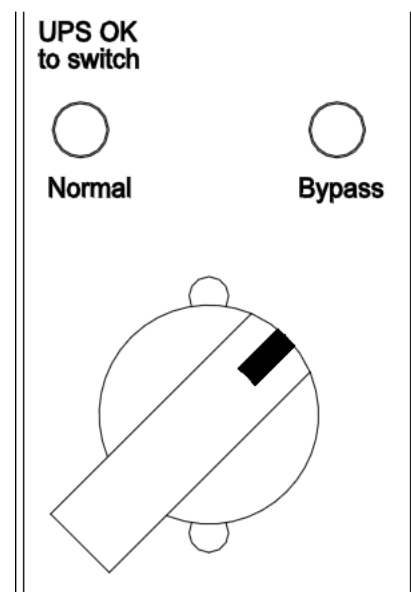
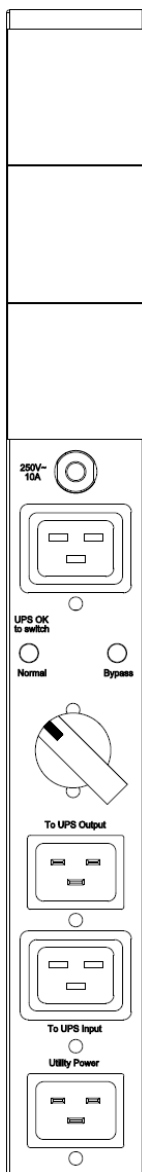
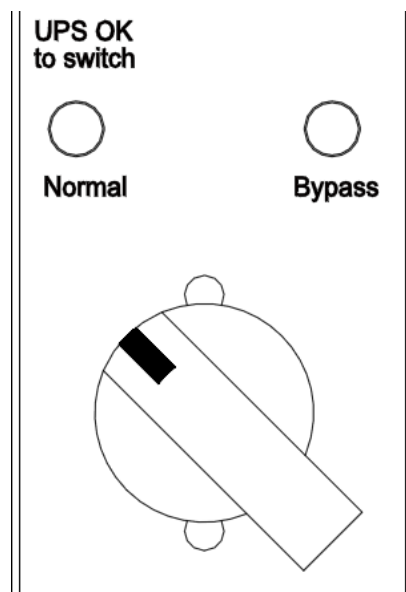
# MAINTENANCE

## **MAINTENANCE BYPASS PDU OPERATION**

This operation allows qualified personnel to remove the MBP from the UPS for routine maintenance or replacement without disrupting power to connected equipment.

The connected equipment is supplied by UPS output when the Manual Bypass Switch is turned to "Normal".

The connected equipment is supplied by utility power when the Manual Bypass Switch is turned to "Bypass".



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