

IP-COM

Install Guide

M50/M80
Multi-WAN Hotspot Router

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This document is only for reference and may be subject to change without notice.

Conventions

This document is applicable to IP-COM multi-WAN hotspot routers M50 and M80.

In this document, router refers to M50 or M80, unless otherwise stipulated.

All the product images in this document are only for reference.

Symbol definition

Symbol	Description
 Note	This symbol is used to highlight information of importance or special interest. Ignoring this type of note may result in ineffective configurations, loss of data or damage to device.
 Tip	This symbol is used to highlight a procedure that will save time or resources.

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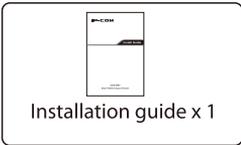
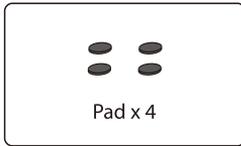
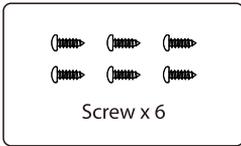
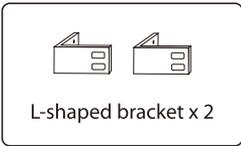
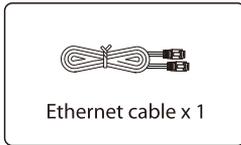
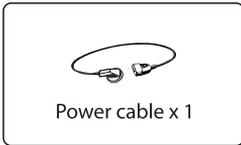
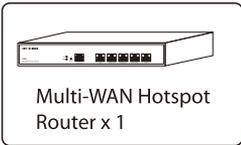
Chapter 1 Get to Know Your Device

1.1 Introduction

The IP-COM Multi-WAN Hotspot Router M50/M80 offers various enterprise-dedicated functions including AP management, authentication, filter management, intelligent bandwidth control, PPTP/L2TP/IPSec VPN, and multi-WAN, making it the optimum choice for small - and medium-size enterprises (SMEs) for intelligent network access and management.

1.2 Packing List

The package should include the following items:



If any of the items is incorrect, missing, or damaged, please keep the original package and contact the local reseller or distributor immediately.

1.3 Appearance

1.3.1 Front Panel

M50

The front panel includes LED indicators, a Console port, RJ45 ports, and a Reset button.

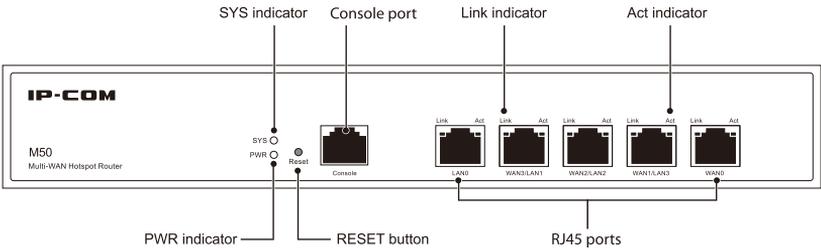


Figure 1-1 M50 front panel

M80

The front panel includes LED indicators, a USB port, RJ45 ports, and a Reset button.

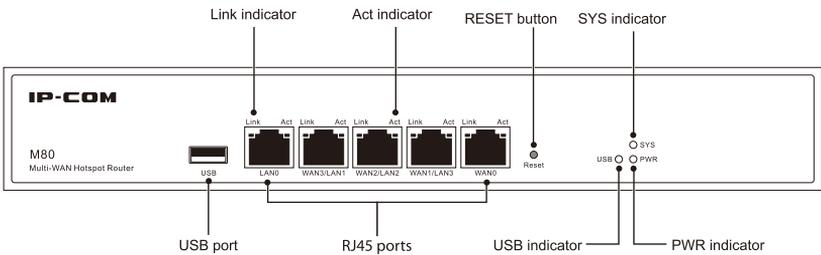


Figure 1-2 M80 front panel

LED Indicators

M50/M80 provides one PWR indicator and one SYS indicator, as well as one Link indicator and one Act indicator for each RJ45 port. M80 also provides one USB indicator.

LED Indicator	State Description
PWR	Solid on: The router has been powered on properly.
	Off: The router is not connected to a power supply properly or not connected to a power supply.
SYS	Blinking: The system is working properly.
	Solid on: The system is faulty.
	Off: System startup is not complete.
USB	Solid on: The USB port is connected to a USB device.
	Blinking: Data is being read from or written to the USB device connected to the router.
	Off: The USB port is not connected properly or not connected to a USB device.
Link	Solid on: The port is connected properly.
	Off: The port is not connected properly or not connected.
Act	Solid on: The port is not transmitting or receiving data.
	Blinking: The port is transmitting or receiving data.

Console Port

M50 provides one Console port, which can be connected to a serial port of a computer for debugging.

USB Port

M80 provides one USB port, which can be connected to a USB device such as a USB drive or printer.

RJ45 Port

M50/M80 provides five 10/100/1000 Mbps auto-negotiation RJ45 ports. Each port has one Link indicator and one Act indicator.

The leftmost port is always a LAN port, the rightmost port is always a WAN port, and the three ports in the middle can be changed to either WAN ports or LAN ports as required. By default, the rightmost two RJ45 ports are WAN ports, whereas the leftmost three RJ45 ports are LAN ports.

Reset Button

Use this button to restore the factory settings of the router.

To restore the factory settings of the router, use a slim object to hold down the Reset button for 8 seconds after the router startup is complete, and then wait about 1 minute until the SYS indicator blinks again.

1.3.2 Rear Panel

The rear panel includes one power switch, one power jack, and one grounding terminal. M50 and M80 have similar rear panels.

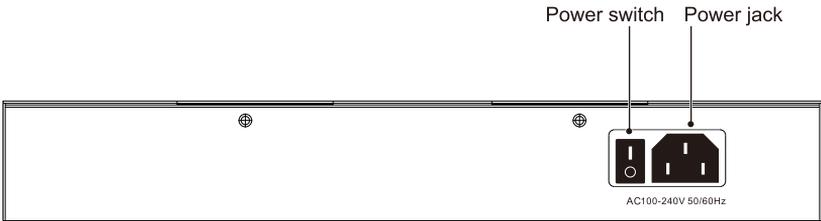


Figure 1-3 Rear panel (example: M50)

Power Switch

Use this switch to power on/off the router.

Power Jack

Use the power cable included with the package to connect the power jack to a power receptacle.

Chapter 2 Installing the Router

2.1 Precautions

To prevent damaging the router or causing a personal injury, pay attention to the following precautions:

2.1.1 Safety Precautions

- Wear ESD gloves and keep the router powered off during installation.
- Use the power cable included with the package to supply power to the router.
- Make sure that the input voltage falls within the input voltage range specified on the label of the router.
- Make sure that the louver of the router is not blocked.
- Do not remove the housing of the router.
- Disconnect the router from the power supply before cleaning it. Do not scrub the router with any liquid.
- Position the device away from power lines, electric lamps, and power grids.



There is a warranty void sticker covering one of the screws on the housing of the router and it will be broken when you remove the housing of the router. Do not remove the housing of the router without the permission of our local reseller or distributor. Otherwise, you shall be responsible for any consequences caused thereby and your maintenance request will be rejected by the reseller or distributor.

2.1.2 Environmental Requirements

Temperature and Humidity

See Appendix B "Specifications."

Anti-static Protection

Electrostatic adsorption occurs if dust falls onto the router, which may cause poor metal contact that disables the router to work properly. To prevent this problem, pay attention to the following:

- Keep the air in the ambient environment clean. Regularly perform dedusting.
- Make sure that the router is grounded properly.

Lightning Protection

A surge current caused by a lightning strike may directly or indirectly damage the router. To protect the router against such surge current:

- Make sure that the power receptacle to which the router is connected and the subrack or workbench where the router is mounted are grounded properly.
- Perform cabling properly to avoid lightning induction. If outdoor cabling is required, you are recommended to deploy a signal lightning arrester.

Mounting

Make sure that:

- The subrack or workbench where the router is mounted is stable and level.
- The place where the router is installed is well-ventilated and a gap of at least 10 cm is left on all sides of the router for cooling.
- No heavy object is placed on the router.
- There is a gap of at least 1.5 cm between the router on a subrack and the other devices above or below it.

2.1.3 Tool Preparation

You may need ESD gloves and a Phillips screwdriver during installation. Prepare them before installation.

2.2 Installing the Router

You can place the router on a workbench or mount it onto a standard 19-inch subrack.

2.2.1 Workbench Mounting

Step1: Place the router upside down on the workbench, and paste the four pads onto the round recesses in the corners of the housing.

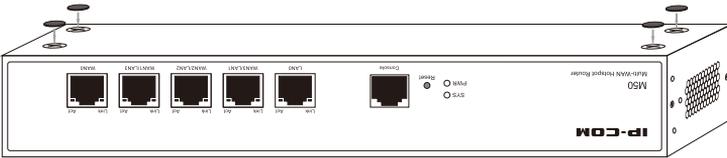


Figure 2-1 Pasting the pads (example: M50)

Step 2: Place the router right side up on the workbench.

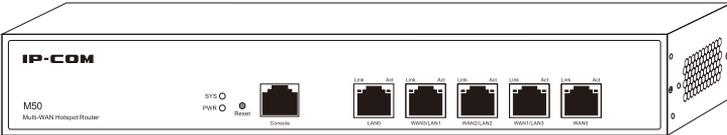


Figure 2-2 Workbench-mounted router (example: M50)

Chapter 3 Connecting Devices

Step 1: Connect the router and other network devices according to the following topology.

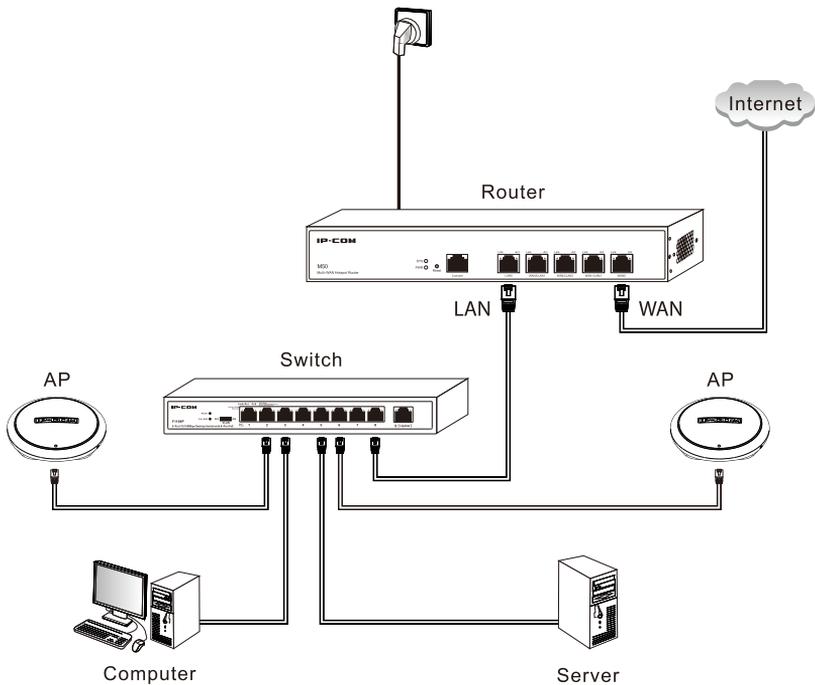


Figure 3-1 Connecting devices (example: M50)

Step 2: Switch on the router. The router initializes. Verify that:

- All the indicators except the SYS and USB indicators turn on.
- After initialization is complete, the PWR indicator stays solid on, the SYS indicator blinks, the Link indicators of the connected RJ45 ports stay solid on, and the Act indicators of the connected RJ45 ports stay solid on or blink.

Chapter 4 Connecting to the Internet

4.1 Logging In to the Router Web UI

Step 1: Start a web browser on the computer and access 192.168.0.252.

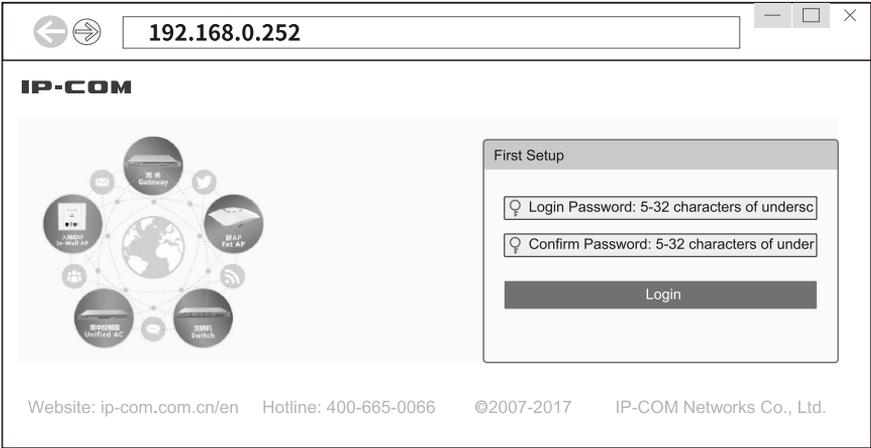


Figure 4-1 First setup page

Step 2: Set your login password and click **Login**.

4.2 Configuring the Router

Before configuring the router, determine your internet connection type based on the following table or by consulting your internet service provider (ISP).

If Your ISP Provides	Your Internet Connection Type Is
A user name and a password	PPPoE

IP address information (IP address, subnet mask, default gateway, DNS, and so on)

Static IP address

Neither

Dynamic IP address



The router provides two WAN ports by default. The WAN0 port is used as an example for description.

Scenario 1: Setting Up a Connection in PPPoE Mode

1. Set **Connection Type** to **PPPoE**.
2. Set **PPPoE Username** and **PPPoE Password** to the user name and password provided by your ISP.
3. Click **OK**.

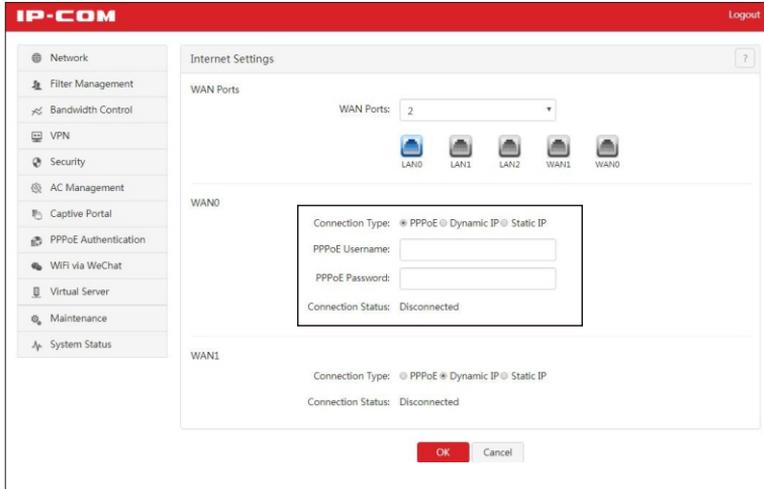


Figure 4-2 Setting up a connection in PPPoE mode

Wait a second for the connection status of the WAN0 port to change to **Authentication success**. Then, you can access the internet.

Scenario 2: Setting Up a Connection in Dynamic IP Mode

1. Set **Connection Type** to **Dynamic IP**.
2. Click **OK**.

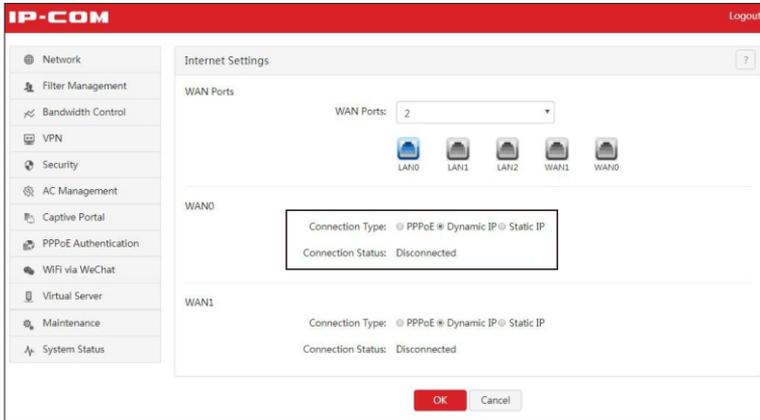


Figure 4-3 Setting up a connection in Dynamic IP mode

Wait a second for the connection status of the WAN0 port to change to **Connected**. Then, you can access the internet.

Scenario 3: Setting Up a Connection in Static IP Mode

1. Set **Connection Type** to **Static IP**.
2. Set **IP Address**, **Subnet Mask**, **Gateway**, **Primary DNS**, and **Secondary DNS** to the values provided by your ISP.
3. Click **OK**.

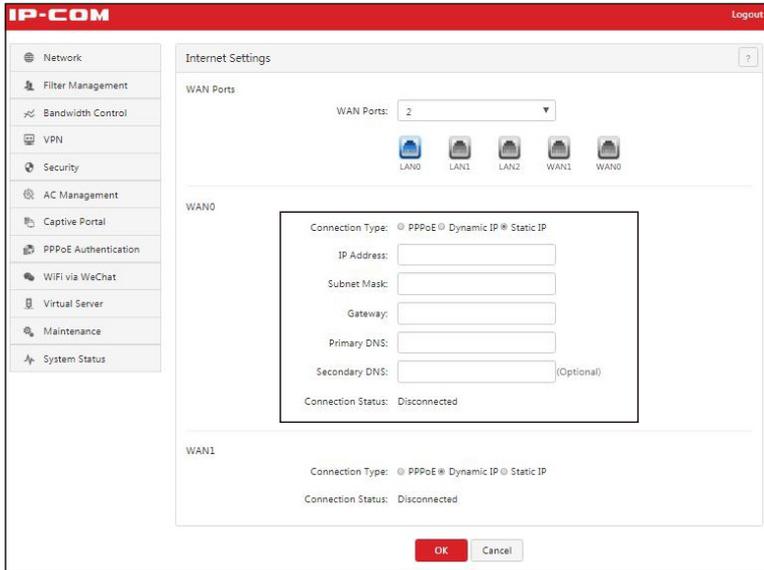


Figure 4-4 Setting up a connection in Static IP mode

Wait a second for the connection status of the WAN0 port to change to **Connected**. Then, you can access the internet.

Appendix A FAQ

Q1: I cannot log in to the router at 192.168.0.252. What should I do?

A1: Try the following solutions:

- Ensure the Ethernet cables are properly connected.
- Verify that the local connection of your computer is set to **Obtain an IP address automatically** and **Obtain DNS server address automatically**, and that the IP address obtained by your computer is 192.168.0.*X*, where *X* ranges from 1 to 254 (except 252).
- Clear the cache of your web browser or replace the web browser, and try login again.
- Disable the firewall of your computer or replace the computer, and try login again.
- Ensure that the IP address 192.168.0.252 is not used by another device in the LAN.
- If the problem persists, restore the factory settings of the router and try login again.

Q2:How can I restore the factory settings?

A2: After router startup is complete, use a slim object to hold down the Reset button on the front panel for 8 seconds, and then wait about 1 minute for the system to restart.

Appendix B Specifications

Model	M50	M80
Maximum number of clients	100	300
CPU	ARM 800 MHz	ARM 1.4 GHz
Memory	512 MB	
Flash	128 MB	
Ethernet ports	10/100/1000 Mbps auto-negotiation RJ45 port x 5	10/100/1000 Mbps auto-negotiation RJ45 port x 5
Other ports	Console port x 1	USB 3.0 port x 1
LED indicators	PWR indicator x 1 SYS indicator x 1 Link indicator x 1 for each RJ45 port Act indicator x 1 for each RJ45 port	PWR indicator x 1 SYS indicator x 1 USB indicator x 1 Link indicator x 1 for each RJ45 port Act indicator x 1 for each RJ45 port
Buttons/switches	Reset button x 1 Power switch x 1	
Operating environment	Operating temperature: 0°C~40°C Operating humidity: 10%~90% RH, non-condensing	

Model	M50	M80
Storage environment	Storage temperature: -40°C ~70°C Storage humidity: 5%~90% RH, non-condensing	
Input power	100-240 VAC, 50/60 Hz	
Dimensions (L x W x H)	294 mm x 178.8 mm x 44 mm	

Appendix C Safety and Emission Statement



CE Mark Warning

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

Where the disconnect device is not incorporated in the equipment (see 3.4.3) or where the plug on the power supply cord is intended to serve as the disconnect device, the installation instructions shall state that:

For PLUGGABLE EQUIPMENT, the socket-outlet shall be installed near the equipment and shall be easily accessible.

Warning: The mains plug is used as disconnect device, the disconnect device shall remain readily operable.

The Product is designed for IT Power Distribution System.

NOTE: (1) The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. (2) To avoid unnecessary radiation interference, it is recommended to use a shielded RJ45 cable.

RECYCLING



This product bears the selective sorting symbol for Waste electrical and electronic equipment (WEEE). This means that this product must be handled pursuant to European directive 2012/19/EU in order to be recycled or dismantled to minimize its impact on the environment.

User has the choice to give his product to a competent recycling organization or to the retailer when he buys an new electrical or electronic equipment.



FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Caution!

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: (1) The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. (2) To avoid unnecessary radiation interference, it is recommended to use a shielded RJ45 cable.

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