Industrial
Layer 2+ Managed
Ethernet Switch

ITS-5216 Series

Quick Installation Guide

Table of Contents

1. Package Contents 3
2. Recommended Optional Accessories 4
3. Connector Pin Assignment 5
   3.1 M12 K-coded DC Power Connector Pin Assignment 5
   3.2 M12 K-coded DC Power Cable Pin Assignment 5
   3.3 M12 X-coded Ethernet Port Connector Pin Assignment 6
   3.4 M12 A-coded USB Console Port Connector Pin Assignment 7
   3.5 M12 A-coded Alarm & DI/DO Connector Pin Assignment 8
4. Requirements 9
5 Hardware Installation 10
   5.1 Wall Mount Installation 10
   5.2 Wall Hanging Installation 11
   5.3 Grounding the Device 12
6. Starting Web Management 13
   6.1 Logging in to the Industrial Managed Switch 13
   6.2 Saving Configuration via Web 16
7. Terminal Setup 18
   7.1 Logging on to the Console 19
   7.2 Configuring IP Address via Console 20
8. Recovering Back to Default Configuration 23
9. Customer Support 24

1. Package Contents

Thank you for purchasing **PLANET L2+ Industrial Managed Ethernet Switch, ITS-5216 series**. The descriptions of these models are as follows:

■ Wide Voltage (WV) Input Range Series

Model	Description
ITS-5216-8P4T-WV	Industrial L2+ 8-Port 10/100/1000T 802.3at PoE M12 + 4-Port 10/100/1000T M12 Managed Ethernet Switch
ITS-5216-8P2TB-WV	Industrial L2+ 8-Port 10/100/1000T 802.3at PoE M12 + 2-Port 10/100/1000T M12 Bypass Managed Ethernet Switch

In this guide, the term **"Industrial Managed Switch"** refers specifically to the above models.

Open the box of the Industrial Managed Switch and carefully unpack it. The box should contain the following items for each model:

- The Industrial Managed Switch x 1
- Quick Installation Guide Sheet x 1
- Wall-mounted Kit x 1
- 2m 8-pin X-coded M12-to-RJ45 UTP Cable x 1

If any item is found missing or damaged, please contact your local reseller for replacement.

Note

1. For security reason, please change and memorize the new password after this first setup.
2. Only accept command in lowercase letter under console interface.
3. The box does not contain the 5-Pin K-coded M12 Female to bare end power cable.
4. Please contact your local reseller to purchase CB-M2K5FF-150 from PLANET.

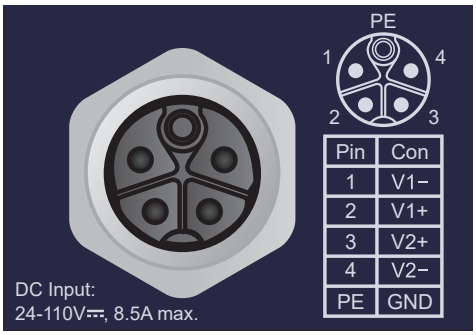
2. Recommended Optional Accessories

Accessories	
CB-M12X8MRJ-200	8-pin X-coded M12 Male to RJ45 Ethernet Cable (2 meters)
CB-M12A5MUSB-100	5 Pin A-Coded M12 Male to USB Type-A Cable, 1 meter
CB-M12A5MF-120	5-Pin A-Coded M12 Male to bare end power or I/O cable, 1.2 meters
CB-M12K5FF-150	5-Pin K-coded M12 Female to bare end power cable, 1.5 meters

3. Connector Pin Assignment

3.1 M12 K-coded DC Power Connector Pin Assignment

The front panel of the ITS-5216 Series features a M12 5-pin K-coded male connector for DC power input. The pin assignment for the M12 DC power connector is illustrated below:

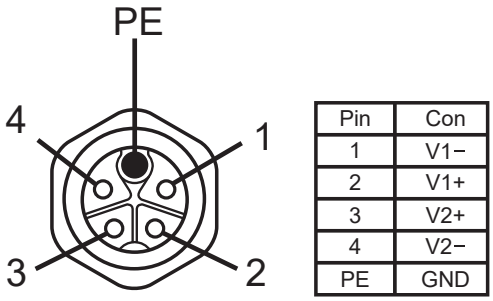


3.2 M12 K-coded DC Power Cable Pin Assignment

To supply DC power, please use a **M12 5-pin K-coded female connector power cable** (available as an optional accessory). The pin assignment for the M12 DC power cable is illustrated below:

Note

1. The box does not contain the 5-Pin K-coded M12 Female to bare end power cable.
2. Please contact your local reseller to purchase CB-M2K5FF-150 from PLANET.



5-pin M12 K-coded male Power Connector Pin Assignment

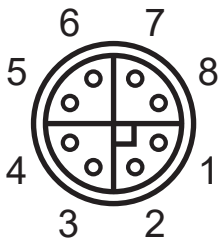
Note

Make sure you connect the correct power pin to your DC power source.

1. The wire gauge for the power cable should be in the range of **12 ~ 20 AWG**.
2. The DC power input range is **24 ~ 110V DC** (WV Series).

3.3 M12 X-coded Ethernet Port Connector Pin Assignment

The front panel of the ITS-5216 Series features 1000BASE-T Ethernet ports that utilize M12 8-pin X-coded female connectors. These ports are designed for connecting Ethernet equipment via Cat5/5e/6A UTP cables. The pinout for the M12 8-pin X-coded input interface is illustrated below:



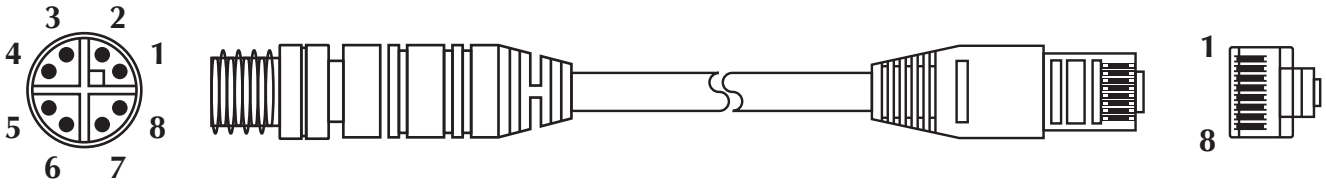
Pin	Con
1	DA+
2	DA−
3	DB+
4	DB−
5	DD+
6	DD−
7	DC−
8	DC+

8-pin M12 X-coded Female 1000BASE-T Connector Pin Assignment

Note

As each Ethernet port of the Industrial Managed Switch is running in auto negotiation mode, make sure the Ethernet ports of the corresponding Ethernet devices are also running in auto negotiation mode; otherwise, the Ethernet performance will be poor.

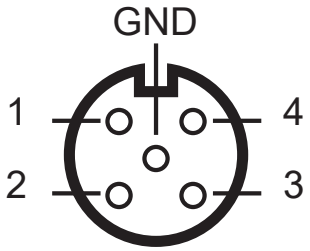
■ **M12 (8-pin, X-coded Male) to RJ45 (8-pin) Straight-through UTP Cabling**



M12 X-coded Male Connector Pin No.	MDI 1000BASE-T Signal ID	T568B Color	RJ45 Connector Pin No
1	BI_DA+	white/orange	1
2	BI_DA-	orange	2
3	BI_DB+	white/green	3
4	BI_DB-	green	6
5	BI_DD+	white/brown	7
6	BI_DD-	brown	8
7	BI_DC-	White/blue	5
8	BI_DC+	blue	4

3.4 M12 A-coded USB Console Port Connector Pin Assignment

The front panel of the ITS-5216 Series features a **USB console port** that utilizes an **M12 5-pin A-coded Female connector**. Users can connect to the workstation using either an adapter or the **CB-M12A5MUSB-100** cable. The pinout for the M12 5-pin A-coded input interface is illustrated below:



Pin	Con
1	D−
2	D+
3	NC
4	VBUS
GND	GND

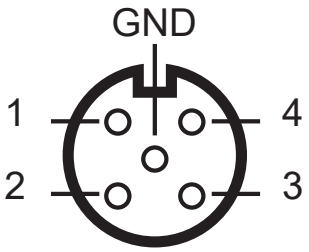
5-pin M12 A-coded Female Connector Pin Assignment - USB Console Port

Note

The **CB-M12A5MUSB-100** cable is not included in the package. If needed, please contact your local reseller to purchase the cable from PLANET.

3.5 M12 A-coded Alarm & DI/DO Connector Pin Assignment

The front panel of the ITS-5216 Series includes alarm and digital input/output functions that utilize an **M12 5-pin A-coded Female connector**. Users can connect to the workstation using either an adapter or the CB-M12A5MF-120 cables. The pinout for the M12 5-pin A-coded input interface is illustrated below:



Pin	Con
1	DI
2	Alarm
3	Alarm
4	DO
GND	GND

5-pin M12 A-coded Female Connector Pin Assignment - Alarm & DI/DO

Note

The **CB-M12A5MF-120** cable is not included in the package. If needed, please contact your local reseller to purchase the cable from PLANET.

4. Requirements

- **Workstations** running Windows 10/11, MAC OS 10.15 or later, Linux, UNIX, or other platforms are compatible with TCP/IP protocols.
- Workstations are installed with **Ethernet NIC** (Network Interface Card).
- **Ethernet Port Connection**
  - Network cables – Use network (UTP) cables with M12 (X-coded) and RJ45 connectors.
  - The above Workstations are installed with Web browser.

Note

It is recommended to use Google Chrome, Microsoft Edge or FireFox to access the Industrial Managed Switch. If the Web interface of the Industrial Managed Switch is not accessible, please turn off the anti-virus software or firewall and then try it again.

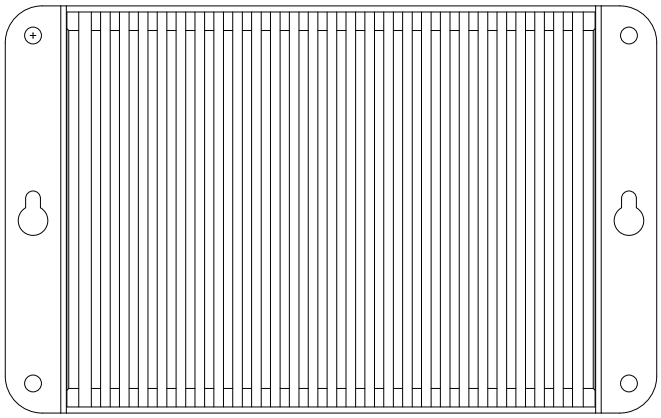
- **Serial Port Connection** (Terminal)
  - The above Workstations come with USB ports
  - The above Workstations have been installed with **terminal emulator**, such as Tera Term or PuTTY.
  - USB cable (P/N: **CB-M12A5MUSB-100**) – One end is attached to the USB port on the computer and the other end is connected to the USB M12 console port of the Industrial Managed Switch.

5 Hardware Installation

5.1 Wall Mount Installation

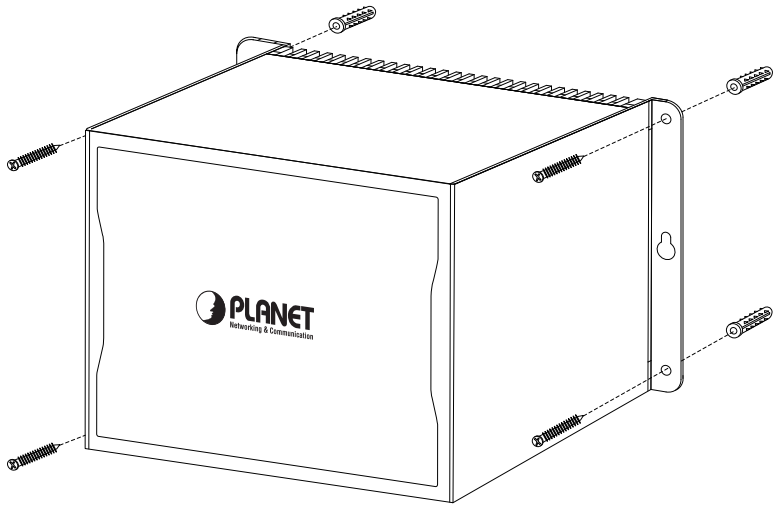
To install the Industrial Managed Switch on the Wall, simply follow the following steps:

Step 1: Four holes with an 8mm diameter are required in the wall. The distances between the four holes are shown below.



Step 2: Install a conductor pipe inside the board hole and flush the edge of the conductor pipe with the wall surface.

Step 3: Screw the bolts into the conductor pipe. The Industrial Managed Switch is between bolts and conductor pipe, as shown below.

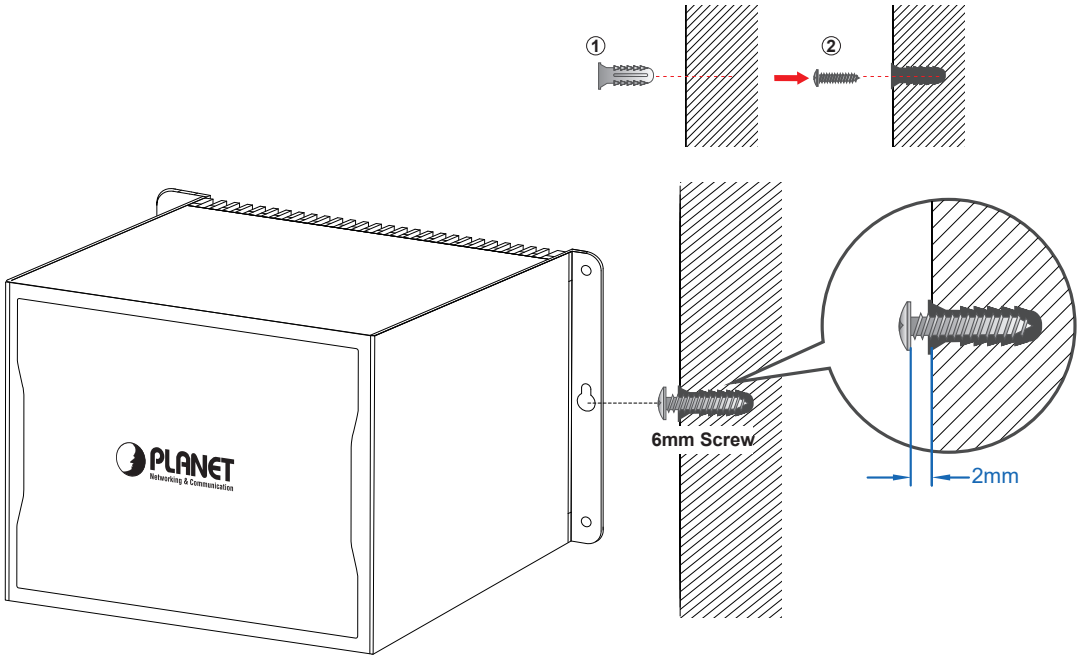


5.2 Wall Hanging Installation

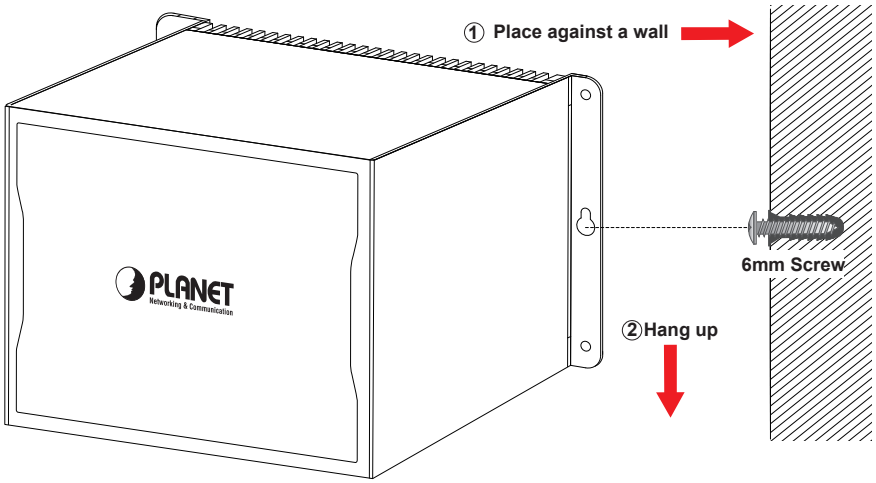
To hang the Industrial Managed Switch on the wall, simply follow the following steps:

Step 1: Four holes with an 8mm diameter are required in the wall. The distances between the four holes are shown below.

Step 2: Place four anchors inside the board hole by hammering them. Then screw the four screws leaving a space of 2mm apart as shown in the circled diagram below.



Step 3: The Industrial Managed Switch, shown in the picture below, can now be hung on the wall.



5.3 Grounding the Device

The device MUST come with grounding wire. Otherwise, a sudden lightning could cause fatal damage to the device.

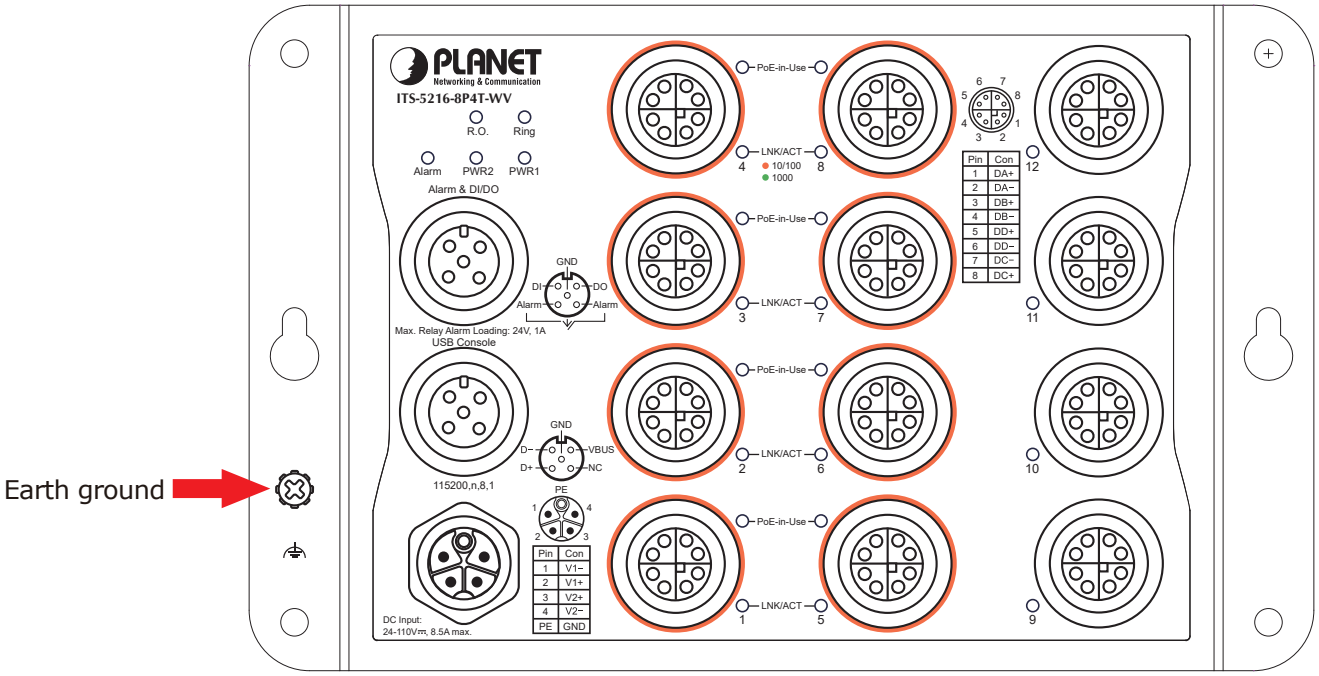


Figure 5-1: ITS-5216 Series Earth Grounding

6. Starting Web Management

The following shows how to start up the **Web Management** of the Industrial Managed Switch. Note the Industrial Managed Switch is configured through an Ethernet connection. Please make sure the manager PC must be set to the same **IP subnet address** as shown in **Figure 6-1**.

For example, the default IP address of the Industrial Managed Switch is ***192.168.0.100***, then the manager PC should be set to ***192.168.0.x*** (where x is a number between 1 and 254, except 100), and the default subnet mask is ***255.255.255.0***.

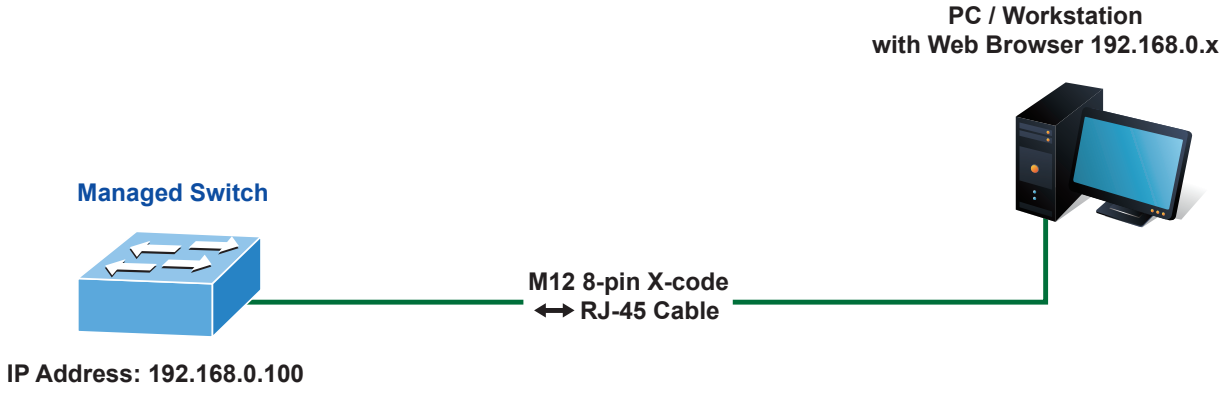


Figure 6-1: IP Management Diagram

6.1 Logging in to the Industrial Managed Switch

1. Use your preferred web browser such as Chrome, Edge, Firefox, etc. and enter IP address ***https://192.168.0.100*** (the factory default IP address) to access the Web interface.

2. When the following dialog box appears, please enter the default username and password. The factory default user name and password are shown as follows.

Default IP Address: **192.168.0.100**
Default Username: **admin**
Default Password: **sw + the last 6 characters of the MAC ID in lowercase**

Find the MAC ID on your device label. The default password is "sw" followed by the last six lowercase characters of the MAC ID.

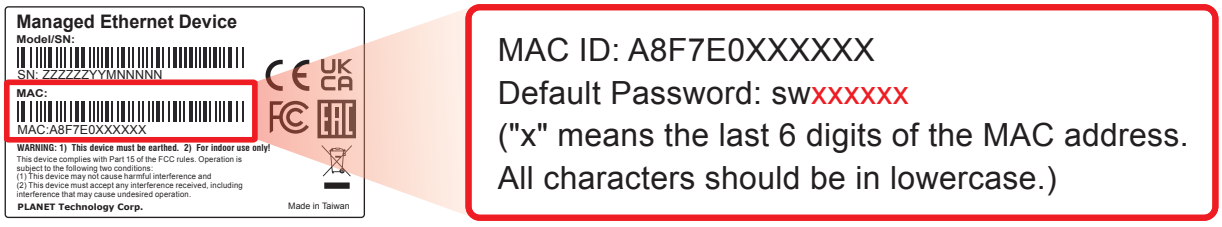


Figure 6-2: MAC ID Label

The login screen in **Figure 6-3** appears.

Figure 6-3: Login Screen

Note

If you have already changed the password via console or web login, please use this new password to log in.

3. After logging in, you will be prompted to change the initial password to a permanent one.

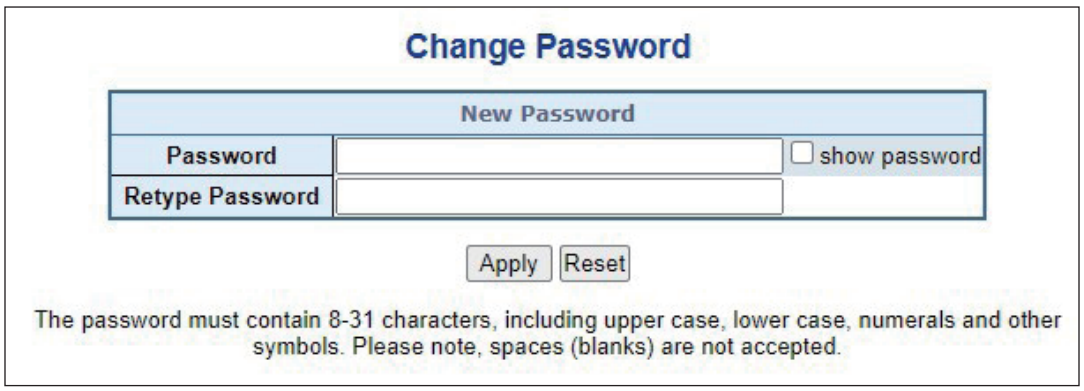


Figure 6-4: Change Password Screen

4. Once the password change is complete, re-enter the web interface using your new password and the main screen appears as **Figure 6-5** shows.

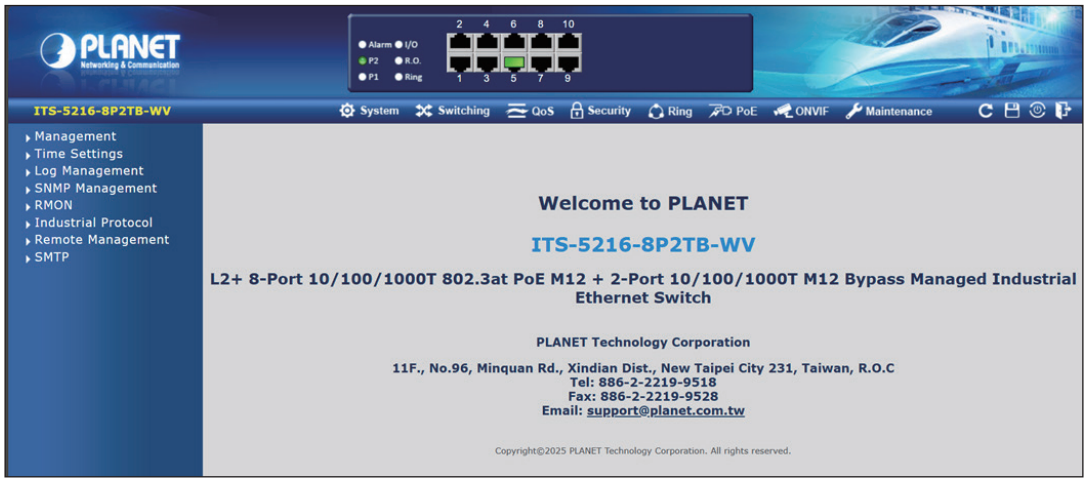


Figure 6-5: Web Main Screen of Industrial Managed Switch

The Switch Menu on the top of the Web page lets you access all the commands and statistics the Industrial Managed Switch provides. The Switch Menu always contains one or more buttons, such as **"System"**, **"Switching"**, **"Routing"**, **"QoS"**, **"Security"**, **"PoE"**, **"Ring"**, **"ONVIF"** and **"Maintenance"**.

Figure 6-6: Switch Menu

Figure 6-7a: Switch Sub-menu

Figure 6-7b: Switch Sub-menu

Now, you can use the Web management interface to continue the Switch management. Please refer to the user manual for more.

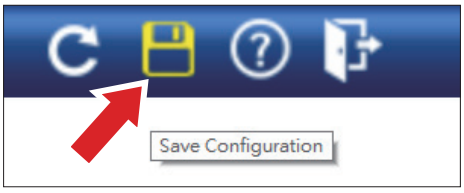
Note

If you are not familiar with Switch functions or the related parameter, press **"Help icon"** anytime on the Web page to get the help description.

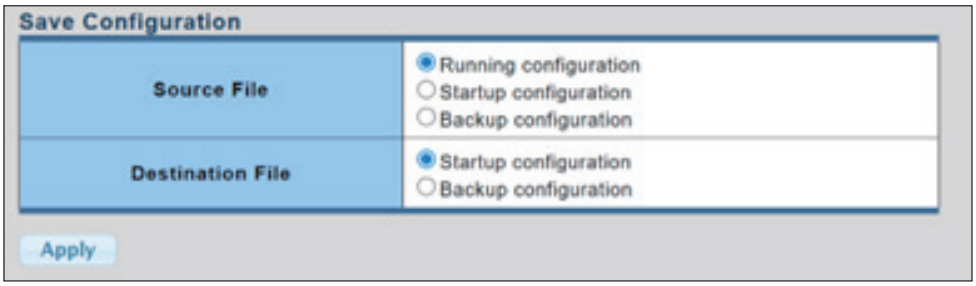
6.2 Saving Configuration via Web

To save all applied changes and set the current configuration as a startup configuration, the startup-configuration file will be loaded automatically across a system reboot.

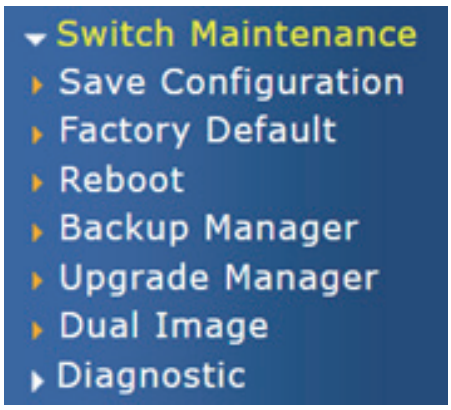
1. Click the Save icon on the top Switch Menu bar.



2. Press the **"Save Configuration"** button.



3. Or the other way to save the setting is to Click **Maintenance**, **Save Startup Config**.



7. Terminal Setup

To configure the system, connect one end of a USB data cable to a **USB Port** on a PC or notebook computer and the other end to the **USB M12 console port** of the Industrial Managed Switch as shown in **Figure 7-1**.

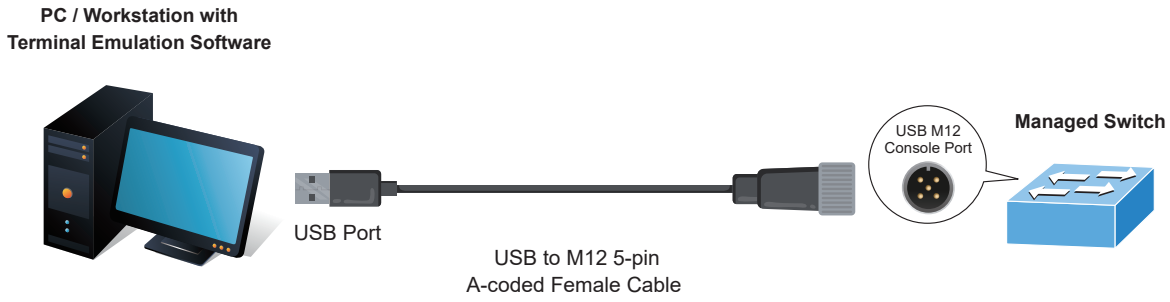


Figure 7-1: Industrial Managed Switch Console Connectivity

A terminal program is required to make the software connection to the Industrial Managed Switch. Tera Term program may be a good choice.

1. Run terminal program on the OS
2. When the following screen appears, make sure that the COM port should be configured as:

   - Baud: 115200
   - Data bits: 8
   - Parity: None
   - Stop bits: 1
   - Flow control: None

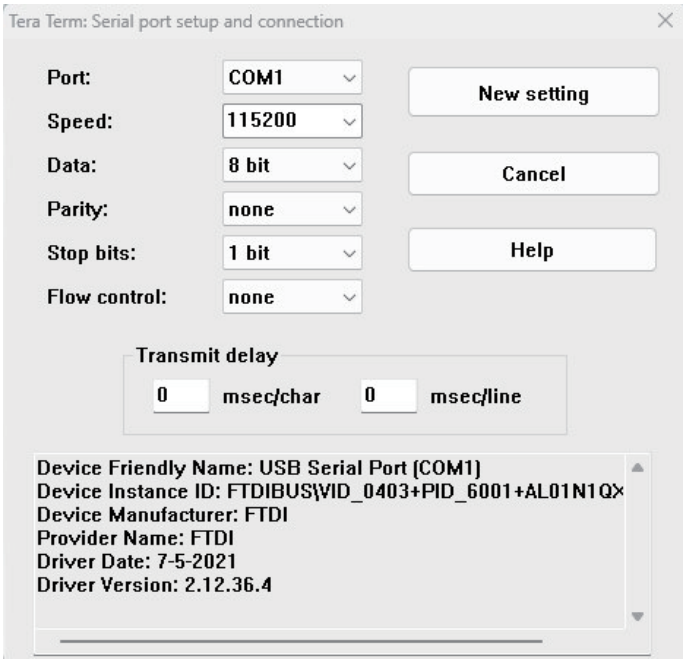


Figure 7-2: COM Port Configuration

7.1 Logging on to the Console

Once the terminal has been connected to the device, power on the Industrial Managed Switch and the terminal will display **"running testing procedures"**.

Note

1. The following console screen is based on the ITS-5216-8P2TB-WV.
2. The display of the ITS-5216 series is the same as that of the ITS-5216-8P2TB-WV.

Then, the following message asks for the login user name and password. The factory default user name and password are shown as follows.

Username: **admin**
Password: **sw + the last 6 characters of the MAC ID in lowercase**

Find the MAC ID on your device label. The default password is "sw" followed by the last six lowercase characters of the MAC ID.

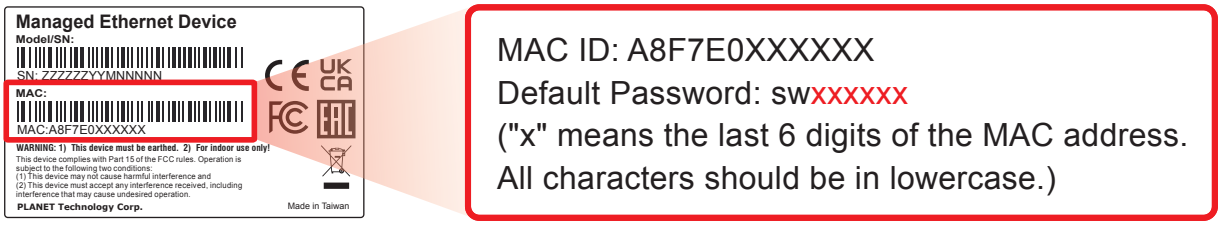


Figure 7-3: MAC ID Label

Enter the default username and password, then set a new password according to the rule-based prompt and confirm it. Upon success, press any key to return to the login prompt. Log in with "admin" and the "new password" to access CLI.

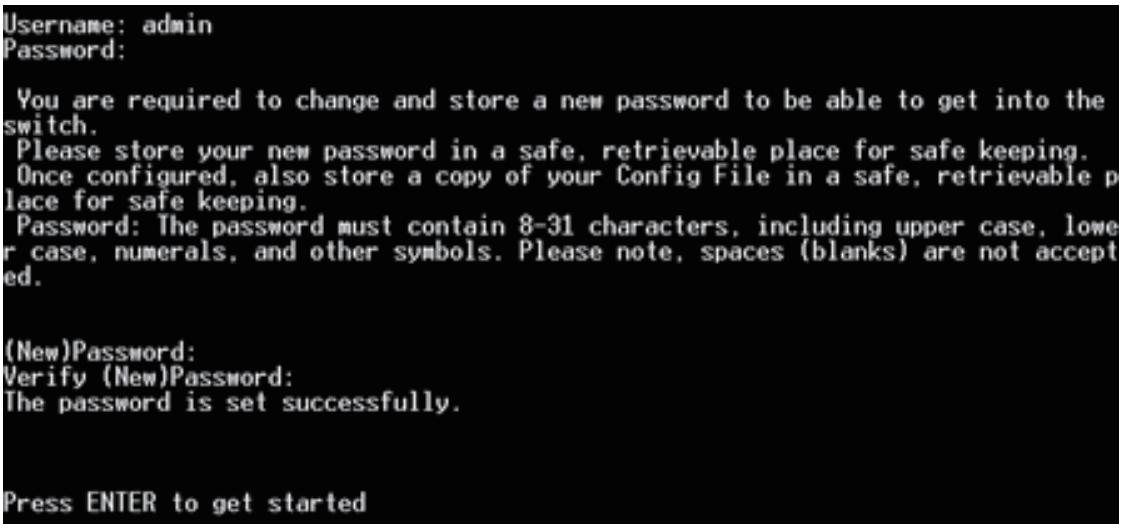


Figure 7-4: Create a New Password and Login Again

You can now enter commands to manage the Switch. For a detailed description of the commands, please refer to the following chapters.

Note

1. For security reason, **please change and memorize the new password after this first setup**.
2. Only accept command in **lowercase letter** under console interface.

7.2 Configuring IP Address via Console

Once the terminal has been connected to the device, power on the Industrial Managed Switch and the terminal will display **"running testing procedures"**.

The Industrial Managed Switch is shipped with default IP address shown below:

IP Address: **192.168.0.100**
Subnet Mask: **255.255.255.0**

To check the current IP address or modify a new IP address for the Industrial Managed Switch, please use the procedures as follows:

■ Display of Current IP Address

1. At the **"#"** prompt, enter **"show ip interface brief"**.

```
ITS-5126-Series# show ip interface brief
```

2. The screen displays the current IP address shown in **Figure 4-5**.

Figure 7-5: IP Information Screen

■ Configuration of the IP address

3. At the **"#"** prompt, enter the following command and press **<Enter>** as shown in Figure 7-6.

```
ITS-5216-Series# configure terminal
ITS-5216-Series (config)# interface vlan 1
ITS-5216-Series (config-if-vlan)# ip address 192.168.1.100 255.255.255.0
```

The previous command would apply the following settings for the Industrial Managed Switch.

IP Address: 192.168.1.100
Subnet Mask: 255.255.255.0

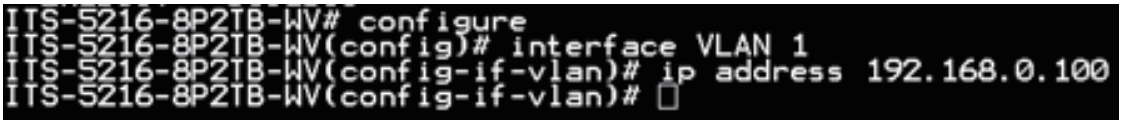


Figure 7-6: Configuring IP Address Screen

4. Repeat the previous steps to check if the IP address has changed.

If the IP is successfully configured, the Industrial Managed Switch will apply the new IP address setting immediately. You can access the Web interface of Industrial Managed Switch through the new IP address.

■ Storing Current Switch Configuration

5. At the **"#"** prompt, enter the following command and press **<Enter>**.

Figure 7-7: Saving Current Configuration Command Screen

Note

If you are not familiar with console command or the related parameter, enter "**help**" anytime in console to get the help description.

8. Recovering Back to Default Configuration

Note

The following recovery process is based on the ITS-5216-8P2TB-WV, and it applies to other models in the ITS-5216 series as well.

■ IP address has been changed or admin password has been forgotten

To reset the IP address to the default IP Address **"192.168.0.100"** and restore the user password to its factory default (the default password is sw + the last 6 characters of the MAC ID in lowercase), remove the grounding screw and press the reset button located on the bottom of the case for approximately **5 seconds**. Once the device has rebooted, you can log in to the web interface management within the same subnet of 192.168.0.xx and **must** re-secure the grounding screw to ensure system safety.

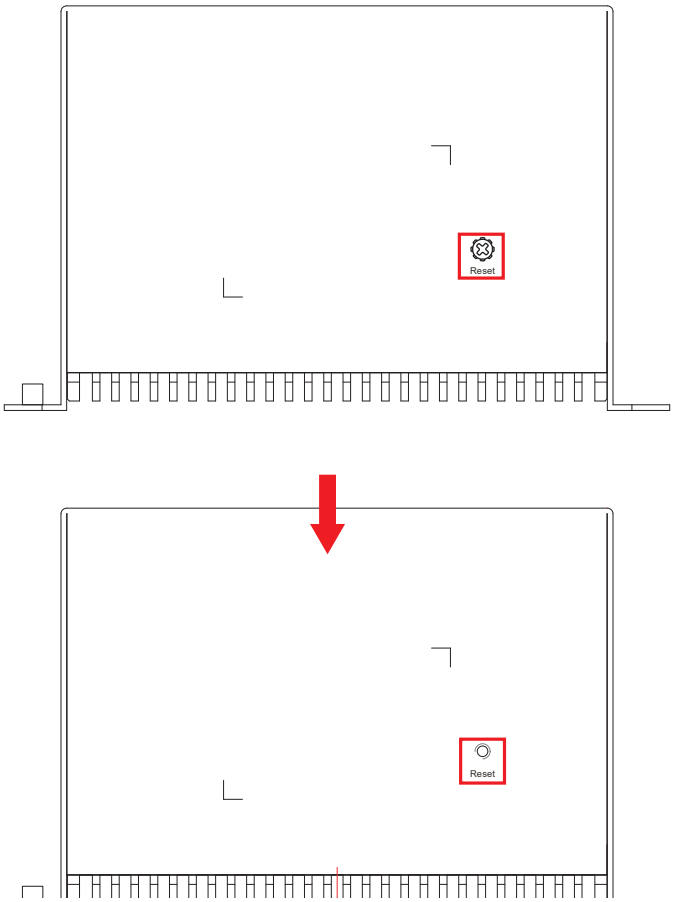


Figure 8-1: ITS-5216 Series Reset Button

9. Customer Support

Thank you for purchasing PLANET products. You can browse our online FAQ resource on PLANET Web site first to check if it could solve your issue. If you need more support information, please contact PLANET support team.

PLANET online FAQs:
https://www.planet.com.tw/en/support/faq

Support team mail address:
support@planet.com.tw

ITS-5216 Series User's Manual
https://www.planet.com.tw/en/support/downloads?&method=keyword&keyword=ITS-5216&view=3#list

(Please select your switch model name from the drop-down menu of Product Model.)

Copyright © PLANET Technology Corp. 2025
Contents are subject to revision without prior notice.
PLANET is a registered trademark of PLANET Technology Corp.
All other trademarks belong to their respective owners.