

**Industrial 5-/8-Port 10/100TX  
Compact Ethernet Switch**

**ISW-500T/ISW-800T**

User's Manual


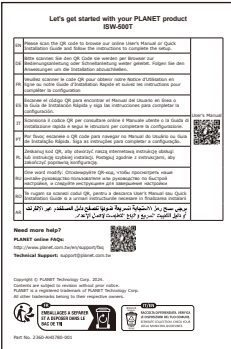

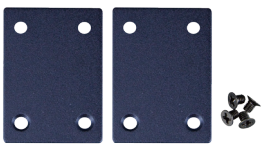

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# 1. Package Contents

Thank you for purchasing PLANET industrial 5-/8-port 10/100TX Compact Ethernet Switch, ISW-500T/800T. In the following section, the term **“Industrial Ethernet Switch”** means the ISW-500T or ISW-800T.

Open the box of the Industrial Ethernet Switch and carefully unpack it. The box should contain the following items:

Industrial Ethernet Switch x 1	QR Code Sheet x 1	
		
DIN-rail Kit x 1	Wall-mount Kit x 1	RJ45 Dust Cap
		 <p>ISW-500T x 5 ISW-800T x 8</p>

If any of these are missing or damaged, please contact your dealer immediately; if possible, retain the carton including the original packing material, and use them again to repack the product in case there is a need to return it to us for repair.

## 2. Product Specifications

Product	ISW-500T	ISW-800T
Hardware Specifications		
Hardware Version	2	
Copper Ports	5 x 10/100BASE-TX RJ45 TP auto-MDI/MDI-X, auto negotiation	8 x 10/100BASE-TX RJ45 TP auto-MDI/MDI-X, auto negotiation
Connector	Removable 6-pin terminal block Pin 1/2 for Power 1; Pin 3/4 for fault alarm; Pin 5/6 for Power 2	
Alarm	Provides one relay output for power failure. Alarm relay current carry ability: 1A@DC 24V	
LED	3 x LED for system and power: <ul style="list-style-type: none"> <li>■ Green: DC Power 1</li> <li>■ Green: DC Power 2</li> <li>■ Red: Power Alarm</li> </ul> 1 x LED for each copper port: <ul style="list-style-type: none"> <li>■ Green: 10/100Mbps LNK/ACT</li> </ul>	
ESD Protection	6KV	
EFT Protection	6KV	
Power Requirements	12~48V DC, redundant power with reverse polarity protection function, 24V AC power support	
Power Consumption / Dissipation	Max. 1.1 watts/3.77BTU (Power on without any connection) Max. 2 watts/6.86BTU (Ethernet full loading)	Max. 1.1 watts/3.77BTU (Power on without any connection) Max. 2.5 watts/8.57BTU (Ethernet full loading)
Installation	DIN-rail kit and wall-mount ear	
Enclosure	IP30 metal case	
Dimensions (W x D x H)	30 x 70 x 104 mm	41 x 70 x 115 mm
Weight	255g	300g

Standards Conformance		
Switch Processing Scheme	Store-and-Forward	
Address Table	1K entries	
Shared Data Buffer	448K bits	
Flow Control	Back pressure for half duplex IEEE 802.3x pause frame for full duplex	
Switch Fabric	1Gbps	1.6Gbps
Throughput (packet per second)	0.74Mpps@64bytes	1.19Mpps@ 64 bytes
Network Cables	10/100BASE-TX Cat. 3, 4, 5, 5e, 6 UTP cable (max. 100 meters) EIA/TIA-568 100-ohm STP (max. 100 meters)	
Standards Conformance		
Standards Compliance	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3x Full-Duplex Flow Control IEEE 802.3az Energy Efficient Ethernet IEEE 802.1p Class of Service PROFINET Traffic Passthrough with QoS	
Regulatory Compliance	FCC Part 15 Class A, CE	
Stability Testing	IEC60068-2-32 (free fall) IEC60068-2-27 (shock) IEC60068-2-6 (vibration)	
Environment		
Temperature	Operating: -40 ~ 75 degrees C Storage: -40 ~ 85 degrees C	
Humidity	Operating: 5~95%, Storage: 5~95% (non-condensing)	

### 3. Hardware Introduction

#### 3.1 Three-View Diagram

The three-view diagram of the **Industrial Ethernet Switch** consists of five or eight auto-sensing 10/100BASE-TX **RJ45 port** and one **removable 6-pin terminal block**. The LED indicators are also located on the front panel.

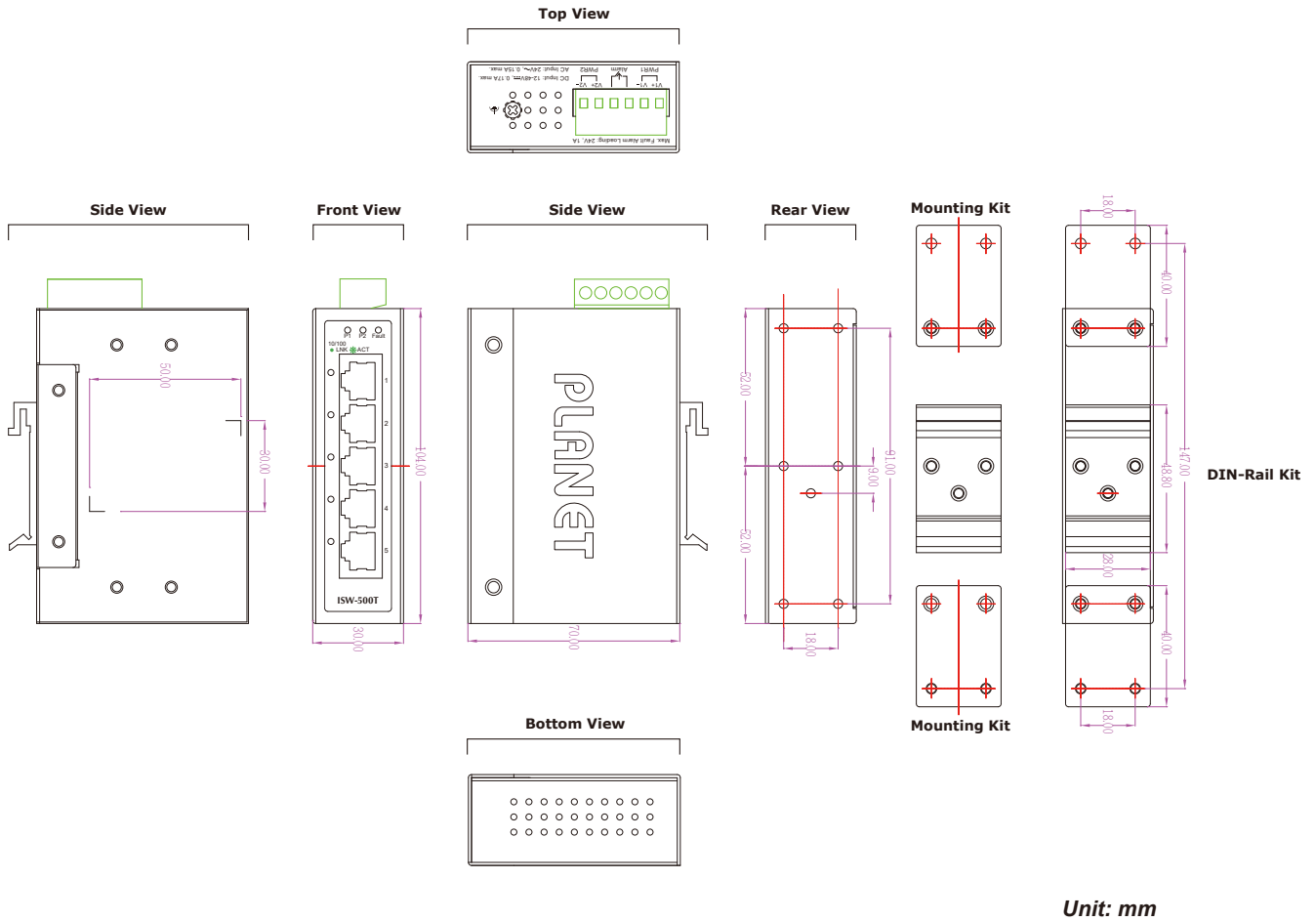
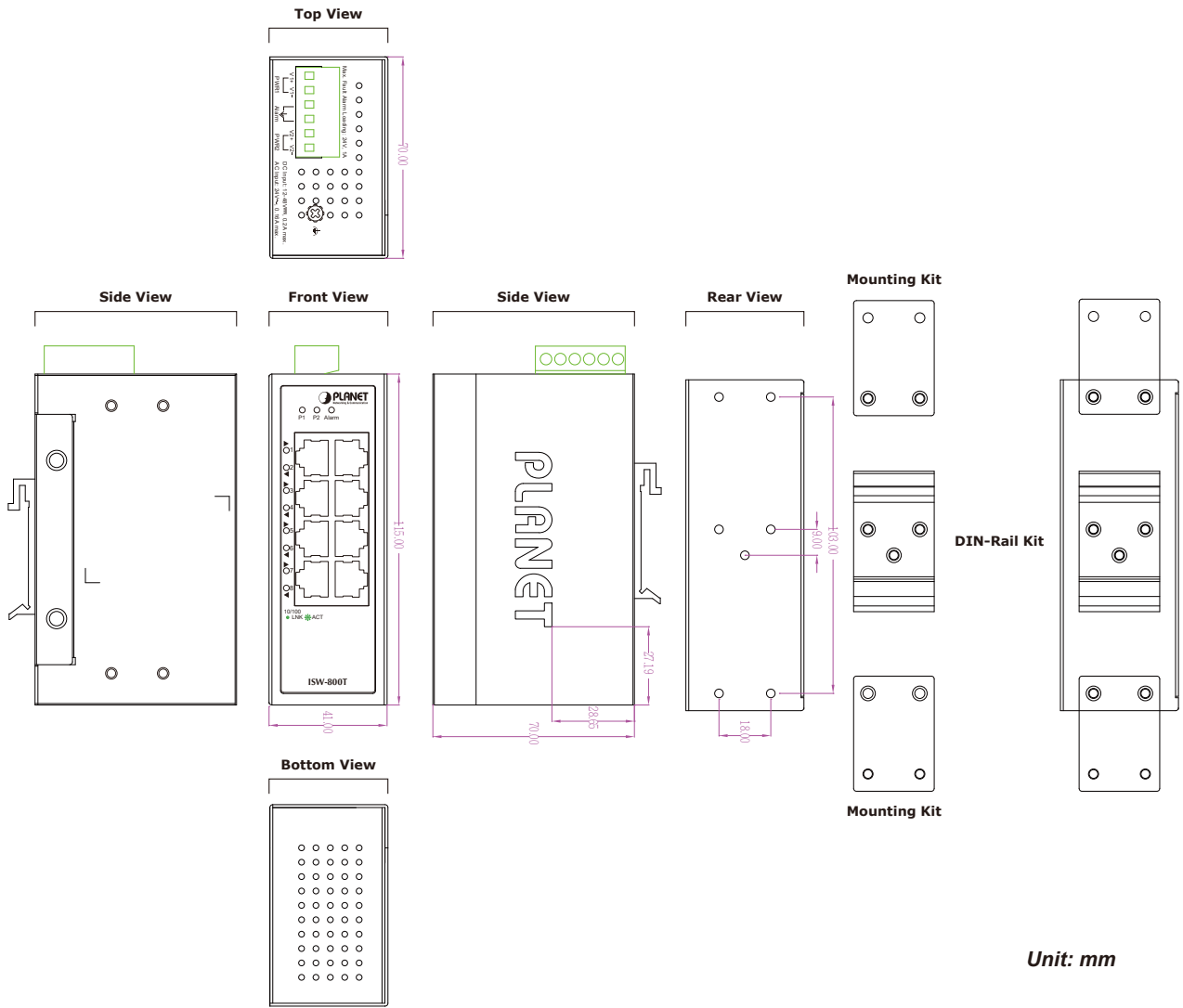


Figure 1: ISW-500T Three-View Diagram



**Figure 2: ISW-800T Three-View Diagram**

### 3.2 Front View

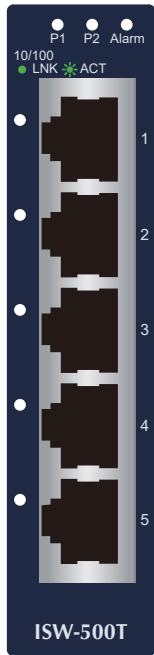


Figure 3: ISW-500T Front View

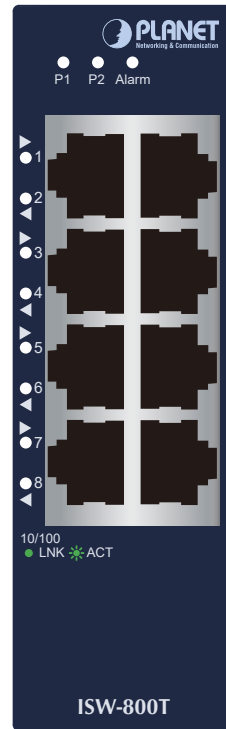


Figure 4: ISW-800T Front View

### 3.3 LED Definition

#### ■ System

LED	Color	Function
DC1	Green	<b>Lights</b> to indicate DC power input 1 has power.
DC2	Green	<b>Lights</b> to indicate DC power input 2 has power.
Alarm	Red	<b>Lights</b> to indicate that AC or DC power has failed.

#### ■ Per 10/100BASE-TX Port

LED	Color	Function
10/100 LNK/ACT	Green	<b>Lights</b> Indicating the port is running at <b>10/100Mbps</b> and successfully established.
		<b>Blinks</b> Indicating that the switch is actively sending or receiving data over that port.



### 3.4 Top View

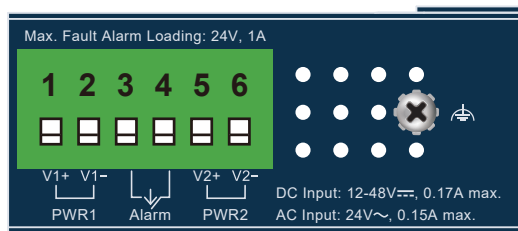


Figure 5: ISW-500T Top View

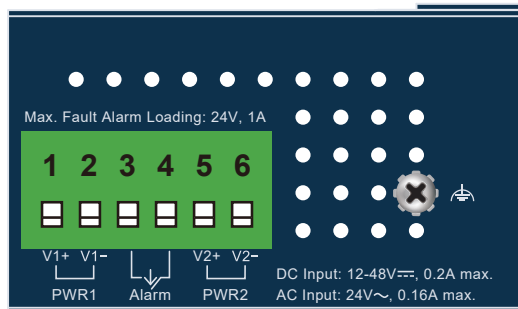


Figure 6: ISW-800T Top View

### 3.5 Wiring the Power Inputs

The 6-contact terminal block connector on the top panel of Industrial Ethernet Switch is used for two DC redundant power inputs. Please follow the steps below to insert the power wire by professionals.



Caution

When performing any of the procedures like inserting the wires or tightening the wire-clamp screws, make sure the power is OFF to prevent from getting an electric shock.

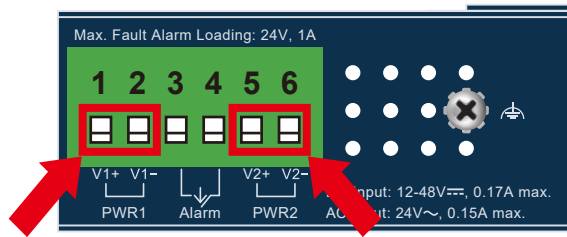


Caution

Lorsque vous effectuez l'une des procédures telles que l'insertion des fils ou le serrage des vis de serrage, assurez-vous que l'alimentation est coupée pour éviter tout choc électrique.

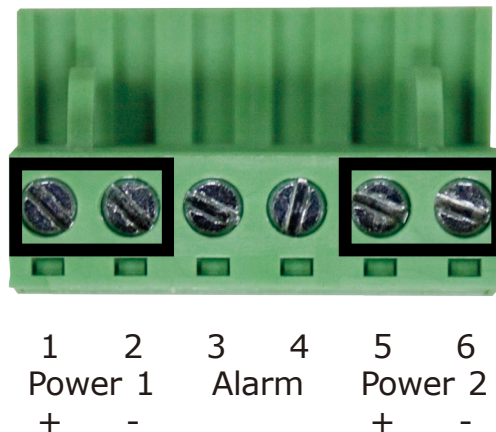
## [ISW-500T]

1. Insert positive and negative DC power wires into contacts 1 and 2 for Power 1, or 5 and 6 for Power 2.



Wire Range	Wire Type	FW	Torque In-lbs (N.m)
12-24 AWG Str/Sol	Cu	2	5 (0.56)

2. This product is intended to be supplied with a UL-listed power adapter or power source, rated 24V AC 50/60Hz min. 0.15A or 12-48V DC min. 0.17A, and Tma 75°C (max.).
3. Tighten the wire-clamp screws for preventing the wires from loosening.



Note

1. The power input range is 12V ~ 48V DC and supports 24V AC.
2. Use one power input when using 24V AC.

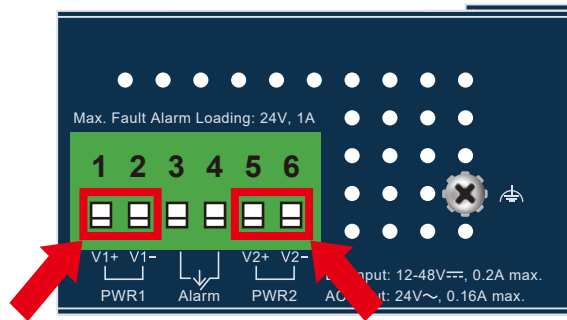


Note

1. La plage d'entrée d'alimentation est de 12V ~ 48V DC et prend en charge 24V AC.
2. Utilisez une entrée d'alimentation lorsque vous utilisez 24V AC.

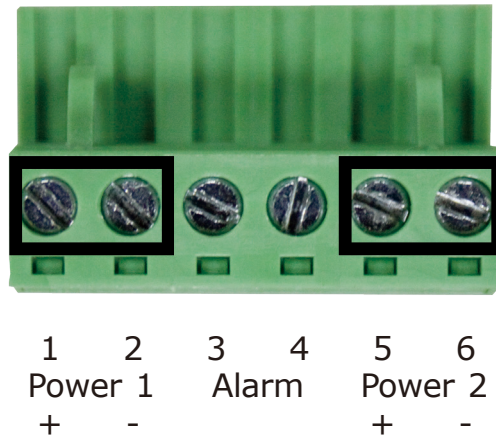
**[ISW-800T]**

1. Insert positive and negative DC power wires into contacts 1 and 2 for POWER 1, or contacts 5 and 6 for POWER.



Wire Range	Wire Type	FW	Torque In-lbs (N.m)
12-24 AWG Str/Sol	Cu	2	5 (0.56)

2. This product is intended to be supplied with a UL-listed power adapter or power source, rated 24V AC, 50/60Hz min. 0.16A or 12-48V DC, min. 0.2A, and Tma 75°C (max.).
3. Tighten the wire-clamp screws for preventing the wires from loosening.



Note

1. The power input range is 12V ~ 48V DC and supports 24V AC.
2. Use one power input when using 24V AC.

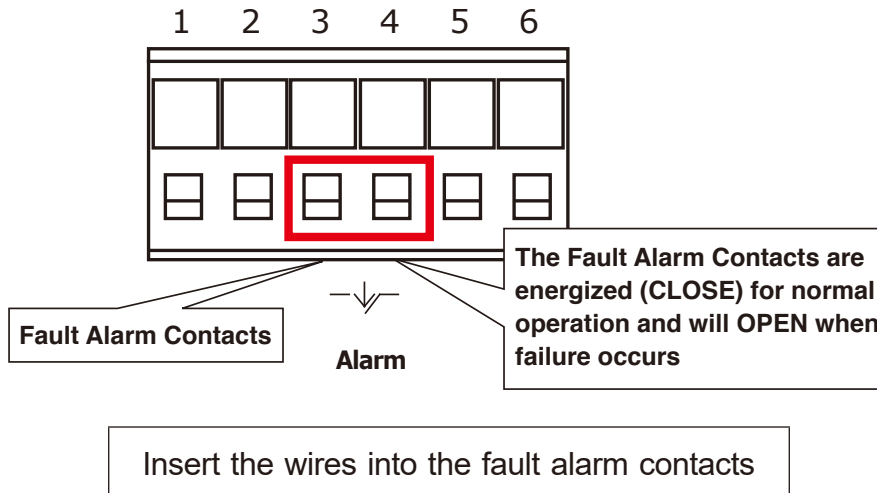


Note

1. La plage d'entrée d'alimentation est de 12V ~ 48V DC et prend en charge 24V AC.
2. Utilisez une entrée d'alimentation lorsque vous utilisez 24V AC.

### 3.6 Wiring the Fault Alarm Contact

The fault alarm contacts are in the middle of the terminal block connector as the picture shows below. Inserting the wires, the Industrial Ethernet Switch will detect the fault status of the power failure and then forms an open circuit. The following illustration shows an application example for wiring the fault alarm contacts.

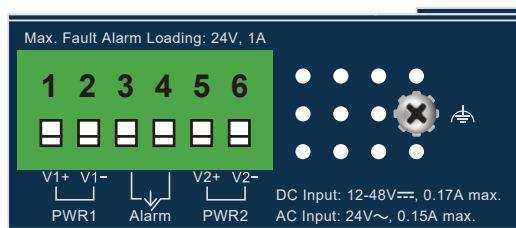


Wire Range	Wire Type	FW	Torque In-lbs (N.m)
12-24 AWG Str/Sol	Cu	2	5 (0.56)


Alarm relay circuit accepts up to 24V DC, 1A.

### 3.7 Grounding the Device

Users MUST complete grounding wired with power cord adapter or power supply source should be connected to a socket outlet with an earthing connection; otherwise, a sudden lightning could cause fatal damage to the device



 **Note** EMD (Lightning) DAMAGE IS NOT COVERED UNDER WARRANTY.

 **Note** LES DOMMAGES EMD (éclair) NE SONT PAS PRIS SOUS GARANTIE.

## 4. Installation

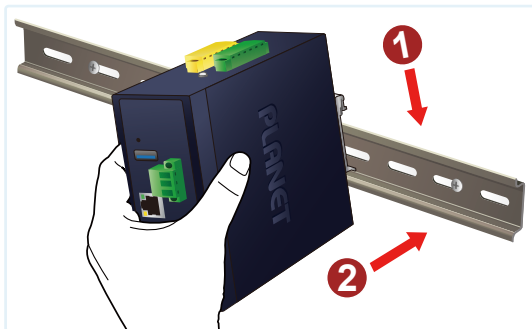
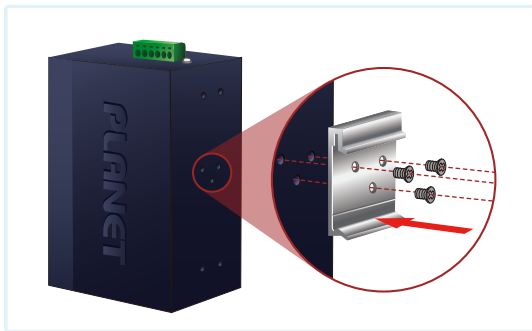
This section describes the functionalities of the Industrial Ethernet Switch's components and guides you to installing it on the DIN rail and wall. Please read this chapter completely before continuing.



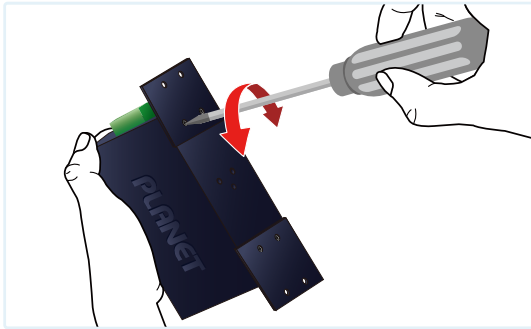
Note

This following pictures show the user how to install the device, and the device is not ISW-500T or ISW-800T.

### 4.1 DIN-rail Mounting Installation

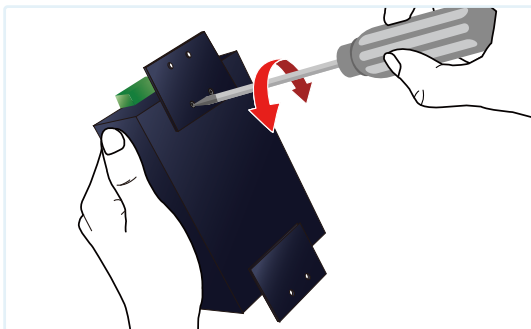


## 4.2 Wall-mount Plate Mounting



Mount on product or wall (Screw size and quantity: 4mm (L), 3mm (dia.) and 4pcs); DIN-rail mount on product (Screw size and quantity: 4mm (L), 3mm (dia.) and 3pcs)

## 4.3 Side Wall-mount Plate Mounting



Caution

You must use the screws supplied with the wall-mounting brackets. Damage caused to the parts by using incorrect screws would invalidate your warranty.



Caution

Vous devez utiliser les vis fournies avec les supports muraux. Les dommages causés aux pièces par l'utilisation de vis incorrectes invalideraient votre garantie.

## **5. 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 switch support team.

PLANET online FAQs:

<http://www.planet.com.tw/en/support/faq.php>

Support team mail address:

[support@planet.com.tw](mailto:support@planet.com.tw)

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## **FCC Warning**

This equipment has been tested and found to comply with the regulations for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this user's guide, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

## **Avertissement de la FCC**

Cet équipement a été testé et jugé conforme à la réglementation pour un appareil numérique de classe A, conformément à la partie 15 des règles de la FCC. Ces limites sont conçues pour fournir une protection raisonnable contre les interférences nuisibles lorsque l'équipement est utilisé dans un environnement commercial. Cet équipement génère, utilise et peut émettre de l'énergie radiofréquence et, s'il n'est pas installé et utilisé conformément au présent guide de l'utilisateur, peut causer des interférences nuisibles aux communications radio. Le fonctionnement de ces équipements dans une zone résidentielle est susceptible de provoquer des interférences préjudiciables, auquel cas l'utilisateur sera tenu de corriger les interférences à ses propres frais.

## **CE Mark Warning**

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

This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

## **Avertissement de marquage CE**

Il s'agit d'un produit de classe A. Dans un environnement domestique, ce produit peut provoquer des interférences radio, auquel cas l'utilisateur peut être tenu de prendre des mesures adéquates.

Cet équipement est conforme à la classe A du CISPR 32. Dans un environnement résidentiel, cet équipement peut causer des interférences radio.



## WEEE Warning



To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.

## Avertissement WEEE



Afin d'éviter les effets potentiels sur l'environnement et la santé humaine résultant de la présence de substances dangereuses dans les équipements électriques et électroniques, les utilisateurs finaux d'équipements électriques et électroniques devraient comprendre la signification du symbole du bac à roulettes barré. Ne jetez pas les WEEE en tant que déchets municipaux non triés et devez les collecter séparément.