Infra Solution[®] Z-3001







User Manual





Simple. Flexible. Compact



Rack access control has become critically important for all data centers and server rooms.

InfraSolution Z-3001 access control solution not only meets the high level of rack access security but also supports POE to reduces the implementation time and expense of having electrical power cabling installed. Moreover, the compact Z-3001 control box is compatible to a variety of rack handle packages which allows the flexible and simple integration to different kinds of IT server racks.

AUSTIN[®] HUGHES

Legal Information

First English printing, March 2025

Information in this document has been carefully checked for accuracy; however, no guarantee is given to the correctness of the contents. The information in this document is subject to change without notice. We are not liable for any injury or loss that results from the use of this equipment.

Safety Instructions

Please read all of these instructions carefully before you use the device. Save this manual for future reference.

- Unplug equipment before cleaning. Don't use liquid or spray detergent; use a moist cloth.
- Keep equipment away from excessive humidity and heat. Preferably, keep it in an air-conditioned environment with temperatures not exceeding 40° Celsius (104° Fahrenheit).
- When installing, place the equipment on a sturdy, level surface to prevent it from accidentally falling and causing damage to other equipment or injury to persons nearby.
- When the equipment is in an open position, do not cover, block or in any way obstruct the gap between it and the power supply. Proper air convection is necessary to keep it from overheating.
- Arrange the equipment's power cord in such a way that others won't trip or fall over it.
- If you are using a power cord that didn't ship with the equipment, ensure that it is rated for the voltage and current labelled on the equipment's electrical ratings label. The voltage rating on the cord should be higher than the one listed on the equipment's ratings label.
- Observe all precautions and warnings attached to the equipment.
- If you don't intend on using the equipment for a long time, disconnect it from the power outlet to prevent being damaged by transient over-voltage.
- Keep all liquids away from the equipment to minimize the risk of accidental spillage. Liquid spilled on to the power supply or on other hardware may cause damage, fire or electrical shock.
- Only qualified service personnel should open the chassis. Opening it yourself could damage the equipment and invalidate its warranty.
- If any part of the equipment becomes damaged or stops functioning, have it checked by qualified service personnel.

What the warranty does not cover

- Any product, on which the serial number has been defaced, modified or removed.
- Damage, deterioration or malfunction resulting from:
 - Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
 Repair or attempted repair by anyone not authorized by us.
 Any damage of the product due to shipment.
 - ☐ Causes external to the product, such as electric power fluctuation or failure.
 - ☐ Use of supplies or parts not meeting our specifications.
 - ☐ Normal wear and tear.
 - ☐ Any other causes which does not relate to a product defect.
- Removal, installation, and set-up service charges.

☐ Removal or installation of the product.

Regulatory Notices Federal Communications Commission (FCC)

This equipment has been tested and found to comply with the limits 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 in business, industrial and commercial environments.

Any changes or modifications made to this equipment may void the user's authority to operate this equipment. 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:

- Re-position 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.

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

IMPORTANT NOTE: To comply with the FCC RF exposure compliance requirements, no change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user's authority to operate the device.

Contents

< Part. 1 >	Hardware	
1.1	Package Contents	P.1
1.2	Hardware Specification	P.2
1.3	Installation Diagram	P.3
1.4	Handle (Z-800P / Z-800M) Installation	P.4
1.5	Door Sensor Installation	P.15
1.6	Key Features	P.19
1.7	Meter (PDU) Level Setting	P.20
1.8	PDU Daisy Chain Connection	P.20
1.9	Expansion Fan Units Level Setting	P.21
1.10	Fan Daisy Chain Connection	P.21
< Part. 2 >	Initial Installation and Configuration	
2.1	Connecting the Z-3001 to a Power Source	P.22
2.2	Connecting the Z-3001 to a computer	P.23
2.3	Connecting the Z-3001 to your Network	P.24
2.4	Configuring the Z-3001	P.24
< Part. 3 >	Using the Web Interface	
3.1	Supported Web Browser	P.25
3.2	First Time login	P.25
3.3	Rack Access	P.27
3.4	Rack Power	P.30
3.5	Rack Airflow	P.33
3.6	Rack Sensor	P.35
< Part. 4 >	System	
4.1	Network	P.36
4.2	Date & Time	P.39
4.3	Authentication	P.40
4.4	Service	P.42
4.5	Notification	P.46
4.6	Maintenance	P.48

< Part 1 > Hardware

< 1.1 > Package Contents

Unpacking

The equipment comes with the standard parts shown on the package contents. Check and make sure they are included and in good condition. If anything is missing, or damage, contact the supplier immediately.

Package Content

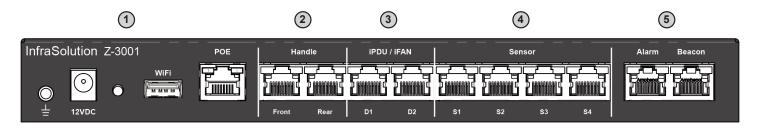
- · InfraBox x 1
- · Smartcard Handle x 2
- · Door Sensor x 2
- · SmartCard x 1
- · Handle Key x 1
- · Power adaptor x 1
- · Mounting kit x 1
- · Handle mounting screw set x 1





< 1.2 > Hardware Specification

Intelligent Rack Access Control Solution





Network & Power Connection

- PoE (Power over Ethernet):
 Connect to PoE switch for network IP access & power.
- USB WIFI Port : Optional WIFI kit connection
- Alternative 12VDC :
 If PoE power connection unavailable



Smart Handle Connection

- Z-700 smart access control package :
 Swing handles + door sensors + control panel(s)
 or
- **Z-800 smart access control package** : Handles + door sensors



iPDU & iFAN Connection

- Intelligent PDU: 1-Phase & 3-Phase PDUs
- Intelligent Fan :
 Door mount fan & 1U fan tray
- * iPDU and iFan support cascading up to 4 respectively



S1 / S2 / S3 / S4 - Sensor Connection

- Temperature & Humidity Sensor:
 Low profile design with magnetic base to affix to rack
 (2m or 4m)
- Temperature Sensor:
 Low profile design with magnetic base to affix to rack
 (2m or 4m)
- Smoke Sensor:
 Once triggered, red LED lights up with continuous beep sound (1m or 3m)
- Shock Sensor :
 Alert the physical vibration on the rack (1m or 3m)
- Water Sensor:
 Via 5M rope round the rack bottom, detect any fluid leakage (3m)



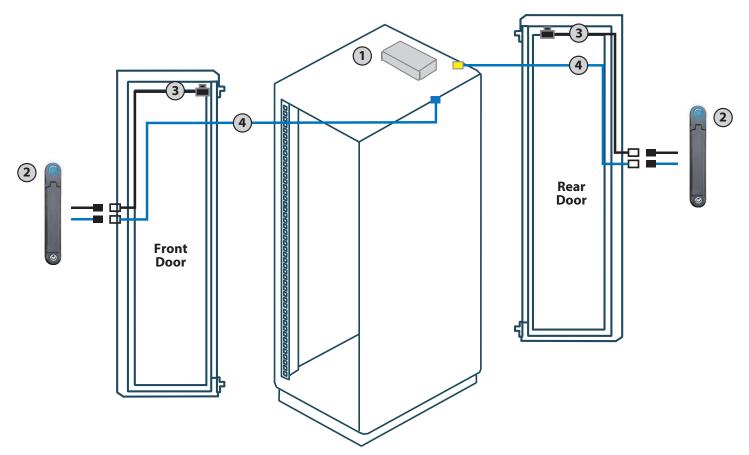
Alarm & Beacon

 Alarm : Connect to 3rd party alarm system

• Blue LED Beacon :
Alerting user to alarm status (1m or 3m)

Product Dimension (W x D x H)	260 x 80 x 30 mm
Packing Dimension (W x D x H)	375 x 259 x 107 mm
Net / Gross Weight	2.35 kg (5.17 lbs) / 2.85 kg (6.27lbs)
Power Consumption	12VDC, 2.5A, max. 30W
Operating Temperature	0° to 55°C Degree
Storage Temperature	-5° to 60°C Degree
Relative Humidity	5~90%, non-condensing
Mounting	Side mount kit x1, rackmount kit x1
Safety Regulatory	FCC & CE certified
Environmental	RoHS2 & REACH compliant by SGS

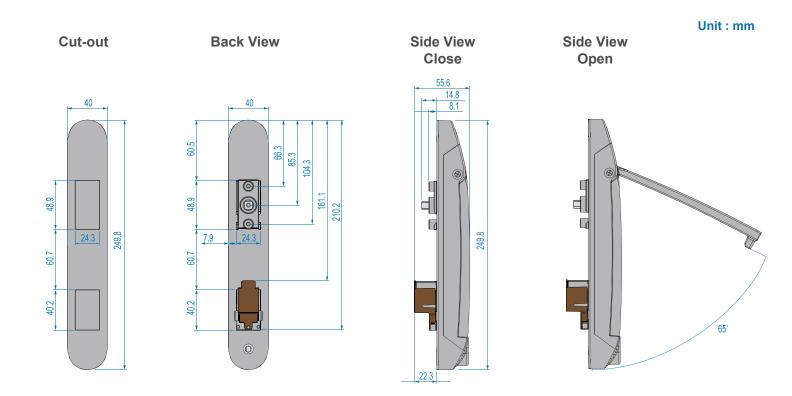
< 1.3 > Installation Diagram



- 1 InfraBox Z-3001
- 2 Smartcard handle
- (3) Mechanical or IR door sensors with 6ft cable
- 4 Door cable

Universal Mounting Cut-out

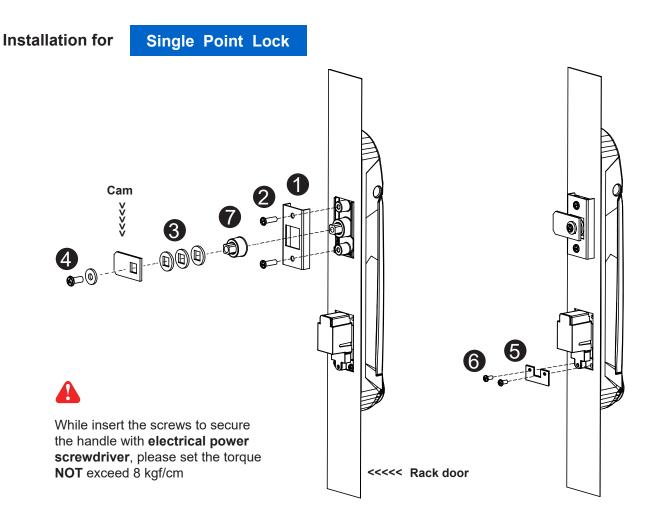
To achieve the highest level of interoperability offered in the rack industry, the Z-800 handle applies the universal mounting cut-out. It avoids costly and complicated door customization for the smartcard handle integration.



Models of left / right side opening

Z-800P / Z-800M support left side open. If user requires right side open, please order Z-800P-R / Z-800M-R.

Model	Left side open	Right side open	
Z-800P	✓ Proximity		
Z-800M	✓ MiFARE		
Z-800P - R		✓ Proximity	
Z-800M - R		✓ MiFARE	



- 1. Mount the smartcard handle to the universal mounting position.
- 2. Place the 1 handle mounting bracket with 2 M4 x 9mm screw x 2 to secure the handle.
- 3. Attach the Cam with ③ square hole washer(s) to adjust and to fit the cam locking position. The extension spigot ⑦ required or not for installation is subject to the rack door locking design.
 Note: If the cam cannot fit the locking position after adjustment, customization for the cam is required.
 Cam customization service upon your request, please contact your sales representative.
- 4. Insert the 4 M5 x 15mm screw x 1 with circle hole washer to secure the Cam to the handle.
- 5. Place the **5** U bracket with **6** M3 x 10mm screw x 2 to further secure the handle in place.

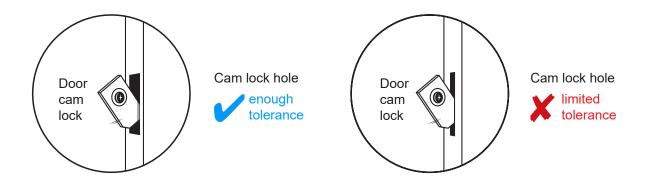
Handle mounting screw set for single point lock

		Qty.	Single Point Lock
0	Handle mounting bracket	2	✓
2	M4 x 9mm screw for 1	4	✓
3	Square hole washer	6	✓
4	Circle hole washer w/ M5 x 15mm screw	2	~
6	U bracket	2	✓
6	M3 x 10mm screw for 5	4	✓
7	Extensions spigot	2	✓

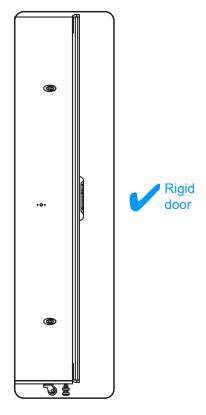


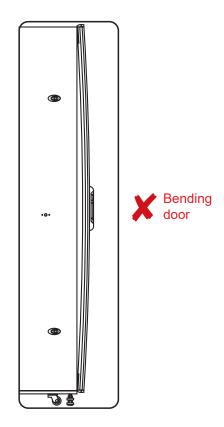
Pay attention to the following points when install the lock system. Otherwise, it may cause handle distortion and malfunction.

- - 2 The cut-out of the cam hole with enough space tolerance.

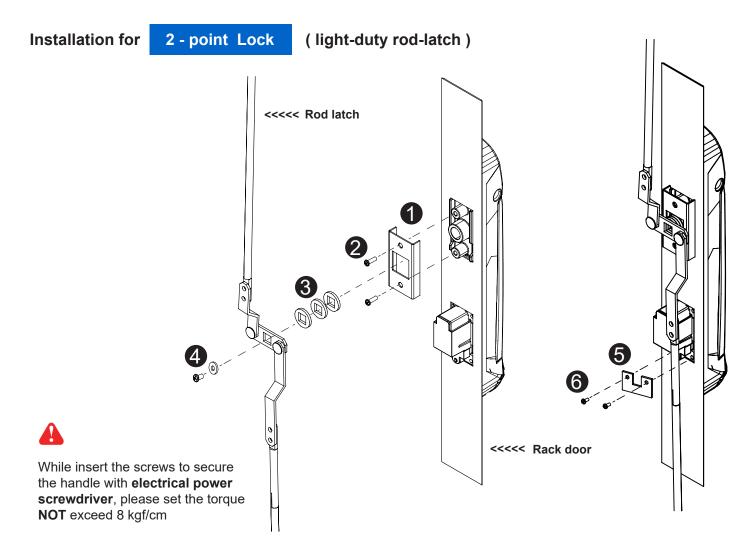


2. Make sure the rack door is rigid and no bending.





3. Don't over tighten the fixing screws.



- 1. Mount the smartcard handle to the universal mounting position.
- 2. Place the 1 handle mounting bracket with 2 M4 x 9mm screw x 2 to secure the handle.
- 3. Attach the **Rod-latch** with **3** square hole washer(s) to adjust and to fit the door top & bottom locking position.
- 4. Insert the 4 M5 x 15mm screw x 1 with circle hole washer to secure the Rod-latch to the handle.
- 5. Place the **5** U bracket with **6** M3 x 10mm screw x 2 to further secure the handle in place.

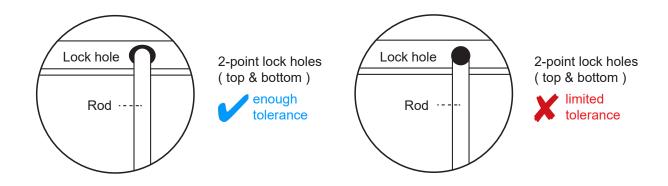
Handle mounting screw set for 2-point lock (light-duty)

		Qty.	2-Point Lock
			light-duty
0	Handle mounting bracket	2	✓
2	M4 x 9mm screw for 1	4	✓
8	Square hole washer	6	✓
4	Circle hole washer w/ M5 x 15mm screw	2	✓
6	U bracket	2	✓
6	M3 x 10mm screw for 5	4	
7	Extensions spigot	2	X

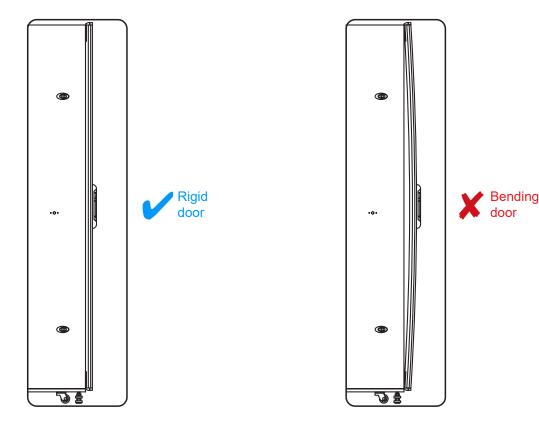


Pay attention to the following points when install the lock system. Otherwise, it may cause handle distortion and malfunction.

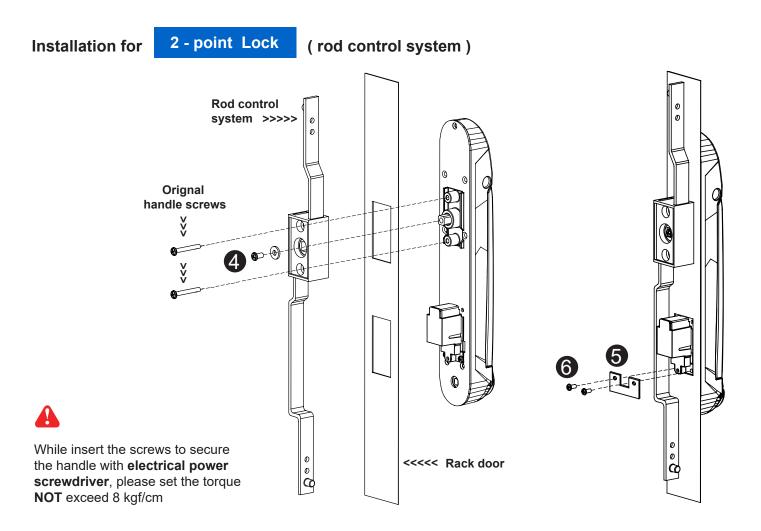
- 1. Make sure Two ends of latch rod can entry into the top & bottom holes without stress.
 - 2 The top & bottom holes with enough space tolerance.



2. Make sure the rack door is rigid and no bending.



3. Don't over tighten the fixing screws.



- 1. Mount the smartcard handle to the universal mounting position.
- 2. Attach the **Rod control system** to the handle and insert the 4 M5 x 15mm screw x 1 with circle hole washer to secure the position.
- 3. Insert **Orignal handle screws** x 2 through the **Rod control system** and door to the handle to fix it in place.
- 4. Place the **5** U bracket with **6** M3 x 10mm screw x 2 to further secure the handle in place.

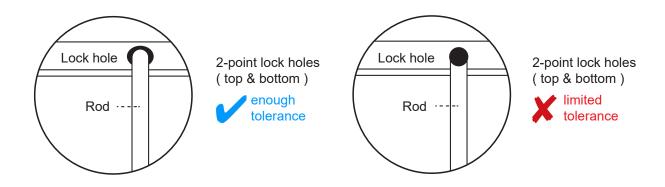
Handle mounting screw set for 2-Point Lock (with rod control)

		Qty.	2-Point Lock
			(with rod control)
0	Handle mounting bracket	2	X
2	M4 x 9mm screw for 1	4	X
3	Square hole washer	6	X
4	Circle hole washer w/ M5 x 15mm screw	2	✓
6	U bracket	2	✓
6	M3 x 10mm screw for 5	4	✓
7	Extensions spigot	2	Х

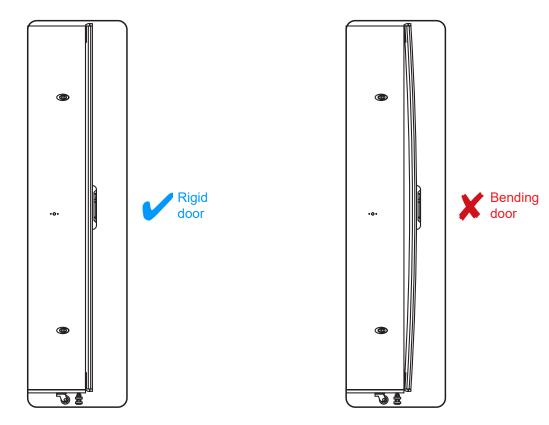


Pay attention to the following points when install the lock system. Otherwise, it may cause handle distortion and malfunction.

- 1. Make sure Two ends of latch rod can entry into the top & bottom holes without stress.
 - 2 The top & bottom holes with enough space tolerance.



2. Make sure the rack door is rigid and no bending.

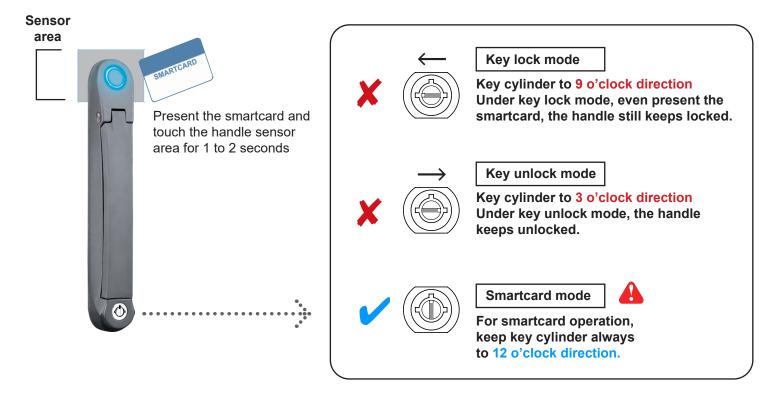


3. Don't over tighten the fixing screws.

Important Note for Key lock

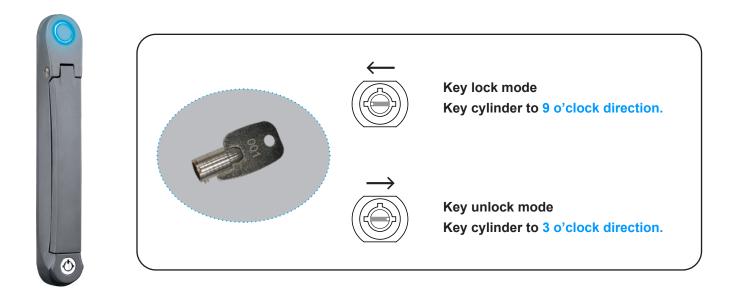


Under Smartcard mode, always keep key cylinder to 12 o'clock direction.





- Unless the smartcard handle is defective, lock / unlock the handle by key is NOT recommended
- Please insert & turn the key with push force



Maintenance Key (MK-001)



- Improper key usage may cause the cylinder stuck at abnormal direction 1 to 2 o' clock.
- Under this circumstance, the maintenance key (MK-001) is required to solve the problem.
- Please insert the maintenance key to the cylinder with push force for turning it to normal direction 9 or 12 or 3 o'clock.



Important Note for Handle

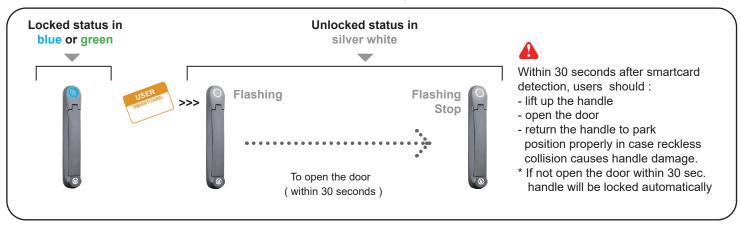
For your own safety, please return the handle to park position properly in case reckless collision.



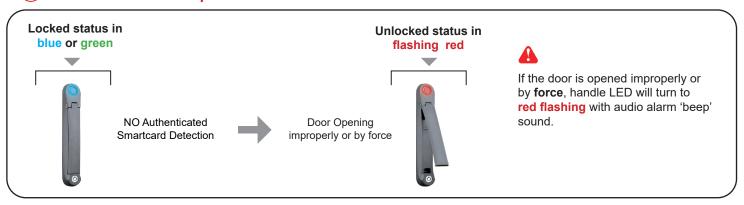




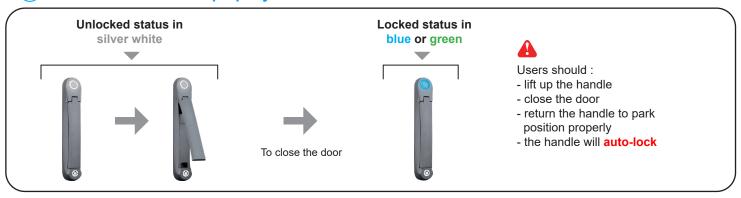
How to unlock the handle & open the door properly



✗ Unauthorized door-open



How to close the door properly



Intentionally Left Blank

IR Door Sensor, pair (S-DIR)

Features

- Magnetic base for easy setup
- No custom cutting required on doors
- Light weight & mini size (33 x 19 x 7 mm)
- 2m cord

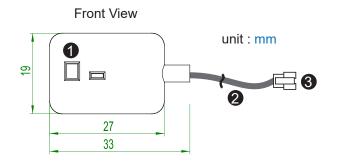


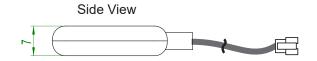
Requirement

- rack frame made of ferrous metal (iron)
- sensing distance
- door close: < 40mm
- door open : > 50mm

Package content

- IR sensor w/ 2m cable x 2
- reflective label x 2 (opposite to the IR door sensor for a better response, size: 30 x 40 mm)





0	Sensor area
2	2m cable
8	Cable jack (connect to handle)

Installation steps

- connect to the handle

- guide & fix the cable with cable clips (bundle with handle package)

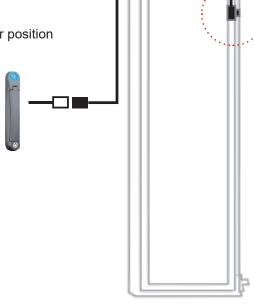
- place the sensor at the top of the door, close to the hinge side

- adjust the sensor to ensure the sensing distance between door to frame within 5mm while door in close status

- stick the reflective label on the rack frame just opposite to the sensor position sensing distance

door close: < 40mm

door open : > 50mm

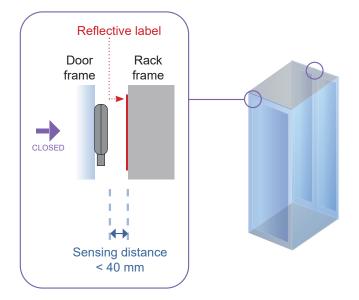


Suggested sensor position

Sensor Operation

DOOR CLOSE

- close door
- IR sensor detects the rack frame
- DOOR CLOSE SIGNAL sends out



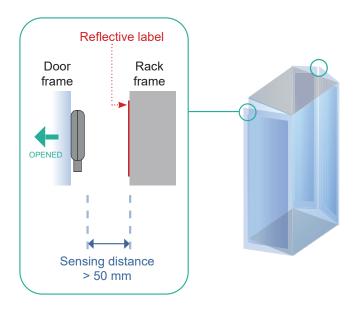


sensing distance

door close : < 40mm door open : > 50mm

DOOR OPEN

- open door
- IR sensor lose detection with rack frame
- DOOR OPEN SIGNAL sends out



Mechanical Door Sensor, pair (S-DSW)

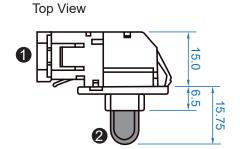
- Low cost / precise
- Size (36.3 x 15 x 30.75 mm)
- 2m cord

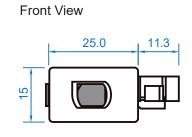
Package content

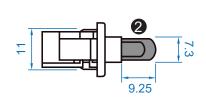
Mechanical sensor w/ 2m cable x 2

Side View

Mounting bracket x 2





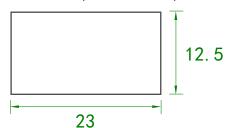


unit: mm

_	Cable connector
2	Press button (total travel distance : 9.25 mm)
	(min. actuation distance : 3.00 mm)

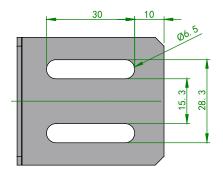
Mounting by custom cutout on door frame

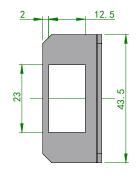
Cutout size (23 x 12.5 mm)

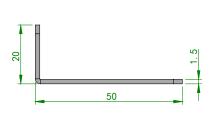


Mounting by bundled bracket

Ø6.5mm hole cutting required on door frame







unit: mm

Installation steps

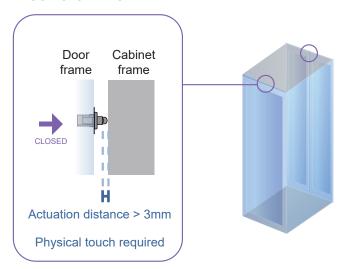
- connect to the handle
- place the sensor at the top middle of the door
- secure it with mounting screws x 2



Sensor Operation

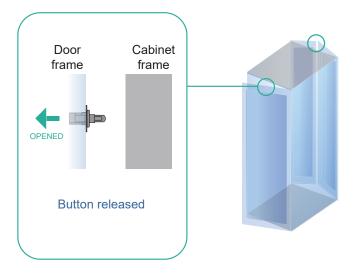
DOOR CLOSE

- close door
- Sensor button is pressed on
- DOOR CLOSE SIGNAL sends out



DOOR OPEN

- open door
- Sensor button is released
- DOOR OPEN SIGNAL sends out

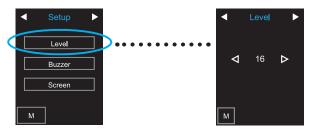


< 1.6 > Key Features

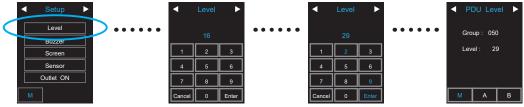
Features		
Capacity	InfraBox	1
	Concurrent user	1
System	Alarm Mail Server Setting	V
	802.1X authentication	V
	User authentication by Microsoft Active Directory & LDAP	✓
	SNMPv1/v2c & SNMPv3 setting	✓
Handle	Door open by remote	V
	Last Door open & close record	✓
	Card addition to individual handle	Max. 100
PDU	Energy consumption (kWh) monitoring	✓
	Current loading (Amp.) monitoring	✓
	Outlet level measurement	✓
	Individual / multiple outlet switch ON / OFF	✓
	Current loading alarm / rising alert / low alert threshold setting	✓
	Temp-humid sensor monitoring	✓
Fan unit	CFM & Temp monitoring	V
	Unit CFM(fan speed)setting	✓
	Auto CFM control setting	✓
	Individual fan kit on / off	V
	Fan unit on / off	V
Sensor	Temp-humid alarm / rising alert threshold setting	V
	Temp-humid status monitoring	✓
	Audio & visual alarm output setting for individual sensor	V

< 1.7 > Meter (PDU) Level Setting

With touchscreen function



With touchscreen function

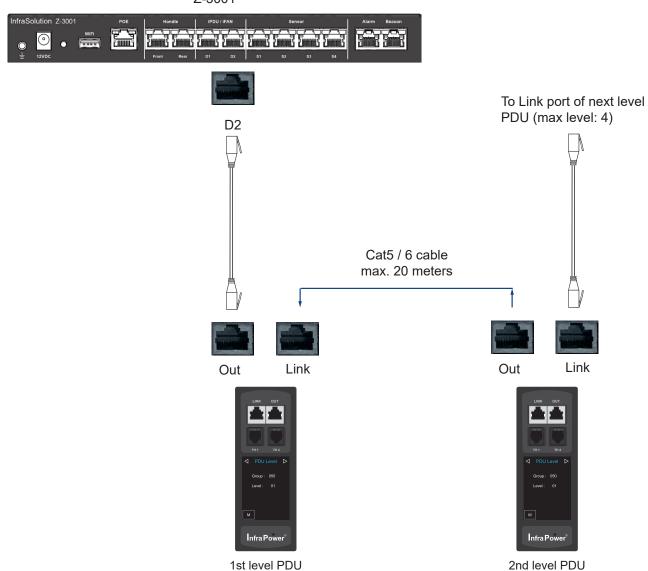




For PDU with firmware version V37 or above

< 1.8 > PDU Daisy Chain Connection





< 1.9 > Expansion Fan Units Level Setting

- Please follow the steps below the set the daisy chain level for expansion fan units
- For the cabling connection, please refer to next page.

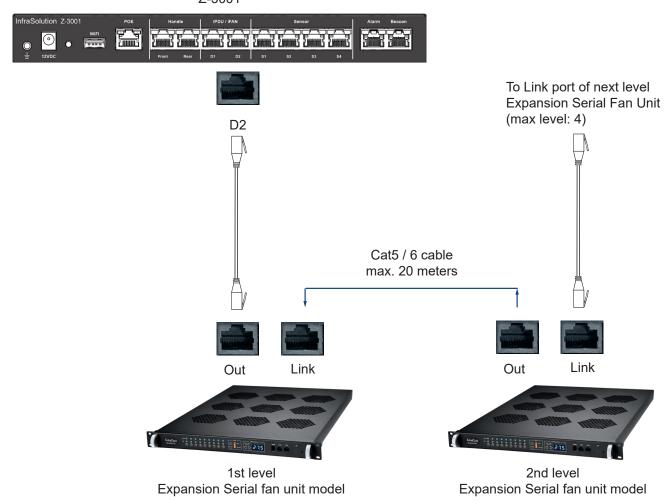
Step 1. Press and hold the " toutton for 5 seconds.

Step 2. Press or arrow button to set the daisy chain level



< 1.10 > Fan Daisy Chain Connection

Z-3001

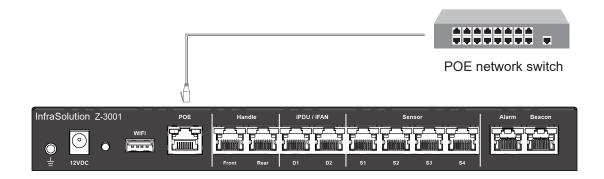


< Part 2 > Initial Installation and Configuration

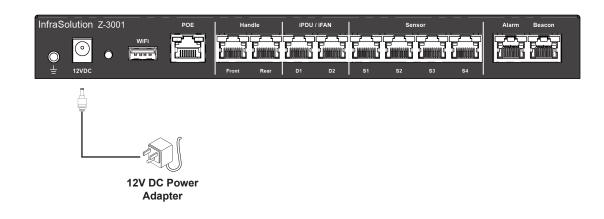
< 2.1 > Connecting the Z-3001 to a Power Source

There are 2 ways to support power to the Z-3001:

- Over POE network switch

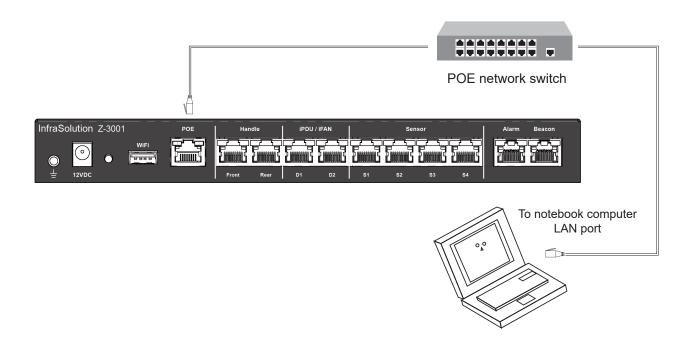


- Using a 12VDC Power adapter

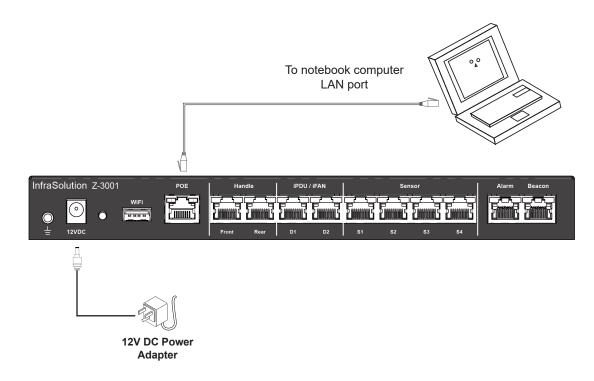


< 2.2 > Connecting the Z-3001 to a computer

- Z-3001 > POE switch > computer



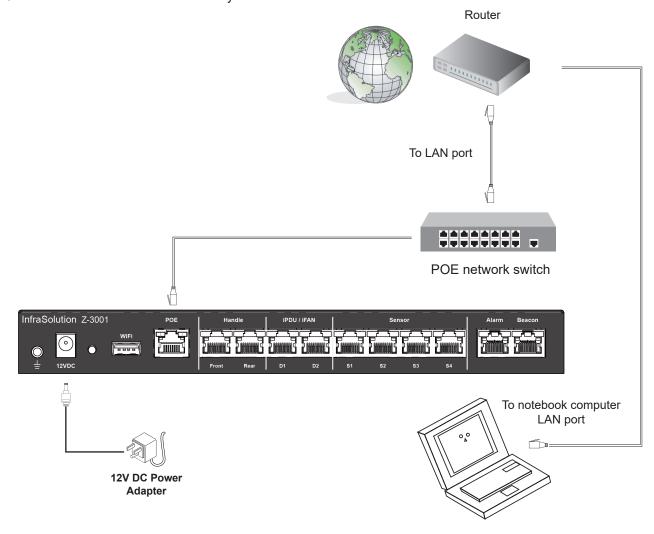
- Z-3001 > computer using 12VDC power adapter



< 2.3 > Connecting the Z-3001 to your Network

To remotely administer the Z-3001, you must connect the Z-3001 to your local area network (LAN).

- Connect a standard network patch cable to the POE port on the Z-3001
- Connect the other end of the cable to your LAN



< 2.4 > Configuring the **Z**-3001

You can initially configure the Z-3001 by connecting it to a computer, or to a TCP/IP network that supports DHCP.

- Configuration over a DHCP-enabled network:
 - i. Connect the Z-3001 to a DHCP-enabled IPv4 network.
 - ii. Provide the Mac address of the Z-3001 and Ask your network administrator to retrieve the DHCP-assigned IPv4 address
 - iii. Launch a web browser to configure the Z-3001. See < 3.2 > First Time Login
- Configuration using a connected computer:
 - i. Connect the Z-3001 to a computer. See < 2.2 > Connecting the Z-3001 to a computer.
 - ii. An IP address 192.168.0.1 will automatically assigned to the Z-3001.
 - iii. Configure the IP setting of the connected computer so that it is under the same network of the Z-3001.
 - iv. Use the connected computer to configure the Z-3001 via web interface.
 - v. Launch the web browser on the computer, and type 192.168.0.1 to access the Z-3001.

< Part 3 > Using the Web Interface

< 3.1 > Supported Web Browser

- Microsoft Edge
- Internet Explorer 11
- Google Chrome 128 and later
- Firefox 128 and later

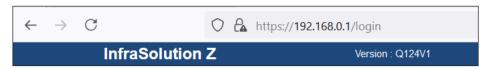
< 3.2 > First Time login

For the first time login, please use the default login name and password to login. (Default login name and password : 00000000).

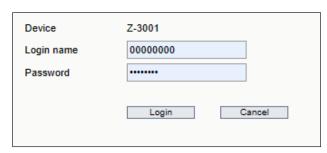
Due to the security issue, you must change the login password for the first time login.

To login to the Web interface:

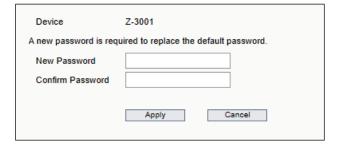
i. Open a browser and type the IP address of the Z-3001



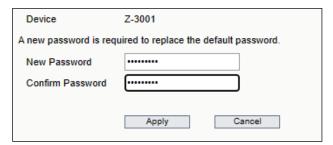
- ii. If any security alert message appears, accept it.
- iii. The login screen displays. Input the login name and password. Then click "Login "



iv. The following screen displays and you must change the login password. Otherwise, you cannot login.

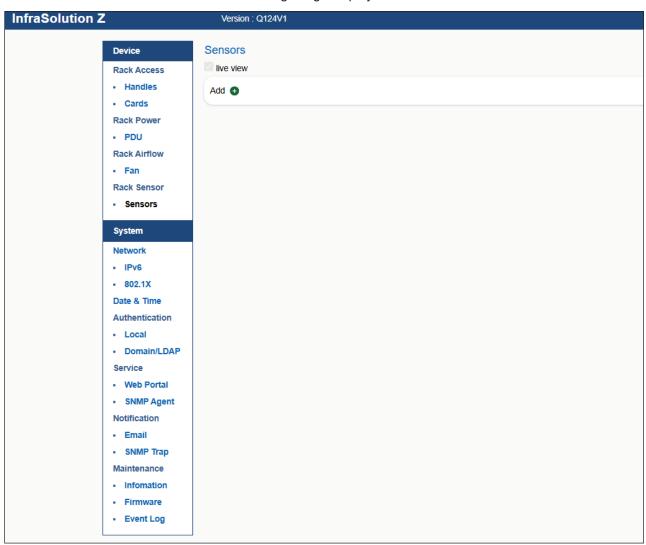


v. Input the new password and confirm the new password and click "Apply".



< 3.2 > First Time login

vi. The Z-3001 web interface similar to the following image displays.



< 3.3 > Rack Access

Under Rack Access, you can add the handle connect to the Z-3001. Once you add the handle(s), you must assign the smartcard to the handle(s) to open the door locally.

- Handle
 - i. Go to Rack Access > Handles. Then click " " to add handle(s).



ii. Tick "F" or "R" to add front / rear handle or both handles. Then click "Apply"



i ii. Click "OK" after the handle(s) are added successfully.



iv. Then you will see the handle's status.



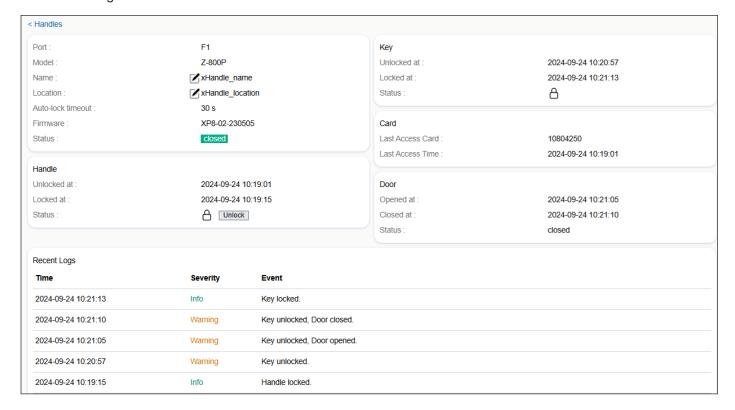
In this page, you can directly to unlock the handle remotely by clicking "Unlock". If the door is not opened within 30 seconds, the handle(s) will be relocked automatically.

v. You can move the cursor to the Label of the handle and you will see the "Remove" under the Model of the handle to remove it from the monitoring.



< 3.3 > Rack Access

vi. You can also click "F1" or "R1" to go to the handle detail page which provides the event log of the handles. You can also change the handle name & location.

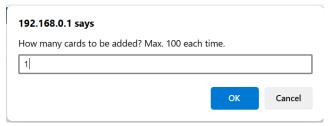


- Cards

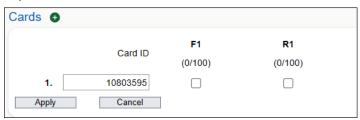
i. Go to Rack Access > Cards. Then click " 💵 "



ii. Input how many cards you want to add to the Z-3001 and click "OK".

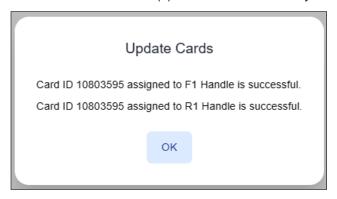


iii. Input the smartcard no. and tick which handle can be unlock by this card and click "Apply"



< 3.3 > Rack Access

iv. Click "OK" after the card(s) are added successfully.



v. Now you can use the card you added to unlock the handle(s) you select. In this illustration, both front and rear handle can be unlock by the card no. 10803595.



vi. To delete a smartcard, just move the cursor to the smartcard you want to delete. Then click "S" and click "OK" from the pop up window to confirm.



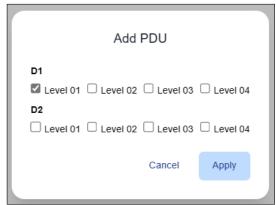
< 3.4 > Rack Power

Under Rack Power, you can add the intelligent W series PDU(s) connected to the Z-3001 for monitoring and control. The max. no. of PDU in the cascade chain is 4. Ensure the PDU level in the cascade chain is unique. Please refer to P10 for PDU level setting.

- PDU
 - i. Go to Rack Power > PDU, click " to add PDU(s) connected to the Z-3001.



ii. Tick the level(s) of the PDU you connected to the Z-3001 & click "Apply"

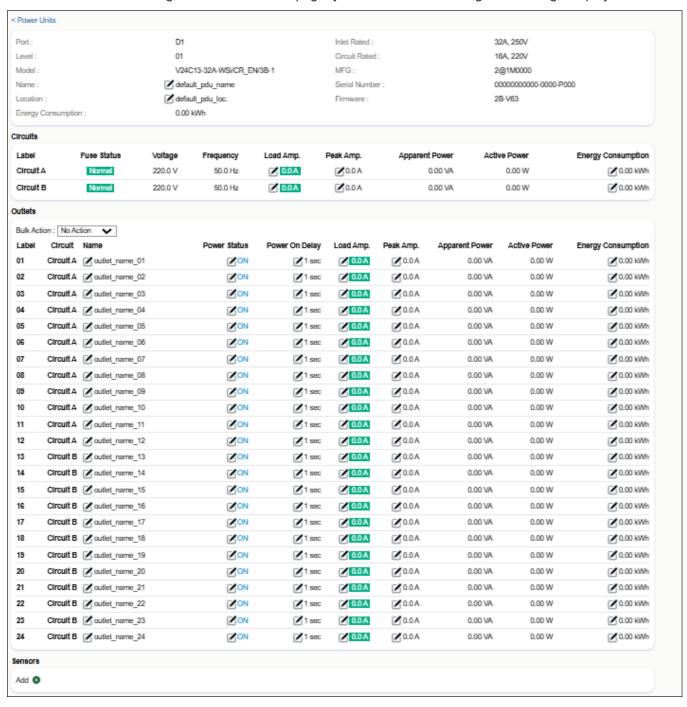


iii. Once the addition is succeeded, you can see the following similar image displays.



< 3.4 > Rack Power

iv. You can click PDU level to go to the PDU details page. you can see the following similar image displays.



You can:

- Change the PDU name & location
- Change circuit's or bank's alarm, rising alert & low alert ampere threshold
- Reset circuit's or bank's peak ampere
- · Reset circuit's or bank's energy consumption
- Switch ON or OFF outlet(s) (Switched PDU only)
- · View ON / OFF status of each PDU's outlet
- · View aggregated current on the PDU
- View latest loading & energy consumption of each PDU outlet (Outlet Measurement PDU only)
- · View latest voltage of each PDU bank or circuit
- View the outlet power up sequence delay setting of each outlet (Switched PDU only)
- · Set the outlet power up sequence delay of each outlet (Switched PDU only)
- · Change the outlet name
- Enable monitoring Temp / TH / Smoke / Door sensor connected to the PDU's sensor port.

< 3.4 > Rack Power

v. To monitor the sensor(s) connected to the PDU, click " • "



vi. Tick the sensor port you have installed the sensor(s) and click "Apply". Then click "OK" from the pop up window displays the addition of sensor is successful.



vii. Once the addition is succeeded, you can see the following similar image displays.



You can:

- · Change the sensor type
- · Change the sensor location
- · View the sensor status
- View the sensor reading (Temp & TH sensor only)
- Change the Temp & Humid sensor alarm & rising alert threshold setting (Temp & TH sensor only)

< 3.5 > Rack Airflow

Under Rack Airflow, you can add the intelligent remote fan unit(s) connected to the Z-3001 for monitoring and control. The max. no. of fan unit in the cascade chain is 4. Ensure the fan unit level in the cascade chain is unique. Please refer to P13 for fan unit level setting.

- Fan

i. Go to Rack Airflow > Fan, click " to add Fan unit(s) connected to the Z-3001.



ii. Tick the level(s) of the fan unit(s) you connected to the Z-3001 & click "Apply"

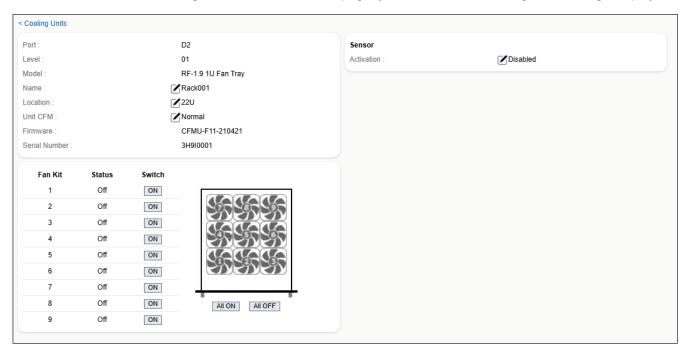


iii. Once the addition is succeeded, you can see the following similar image displays.



< 3.5 > Rack Airflow

iv. You can click Fan unit level to go to the Fan unit details page. you can see the following similar image displays.



You can:

- · View the fan unit model
- · Change the name, location & the unit CFM setting
- · Switch ON / OFF the fan unit
- · View the fan unit status
- Enable monitoring Temp sensor connected to the fan unit's sensor port.
- v. To monitor the Temp sensor connected to the fan unit, click "



vi. Select "Enable" & Click "Apply".



viii. Once the addition is succeeded, you can see the following similar image displays.



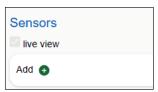
You can:

- · Change the sensor location
- · View the sensor status & reading
- Change the Temp sensor alarm & rising alert threshold setting.
- Enable / disable the Auto CFM control setting. When enabled, the fan unit will operate in Max. speed if the temp alarm threshold is triggered.

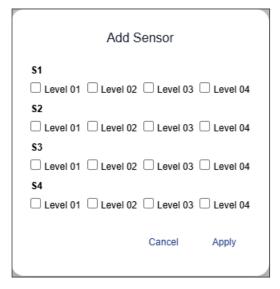
< 3.6 > Rack Sensor

Under Rack Sensor, you can add the Temp or TH sensor(s) connected to the Z-3001 for monitoring and control.

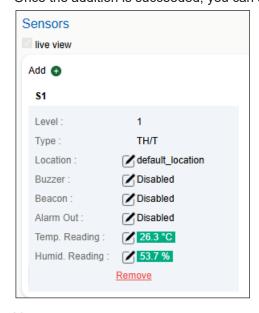
- Sensors
 - i. Go to Rack Sensor > Sensors, click " 🏴 " to add sensor(s) connected to the Z-3001



ii. Tick the level(s) of the sensor(s) you connected to the Z-3001 & click "Apply". The sensor level is automatically detected.



iii. Once the addition is succeeded, you can see the following similar image displays.



You can:

- Click " to add another sensor(s).
- Change the sensor Location
- · View the sensor status & reading
- Change the Temp or TH sensor alarm & rising alert threshold setting.
- Enable buzzer, beacon or alarm out when sensor reading above the alarm threshold setting.
- Highlight the sensor you want to remove from monitoring and click "Remove".

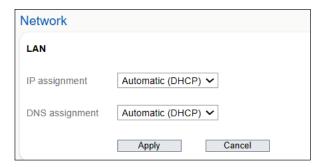
< Part 4 > System

< 4.1 > Network

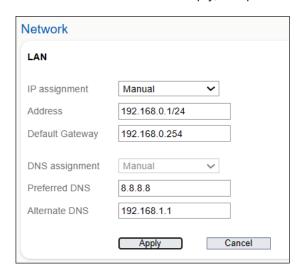
Network allows you to configure the IPv4, IPv6 and 802.1x authentication setting.

IPv4 network setting

i. Click Network and you can see the following image displays. You can change the IPv4 setting. The default IP4 assignment and DNS assignment is DHCP.



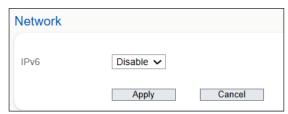
ii. If your network does not support DHCP, you can change the IP assignment to "Manual". Then input the IPv4 ad dress & subnet prefix in "Address" and the Gateway to "Default Gateway". You can input "Preferred DNS" and "Alternate DNS" or let them empty, it depends on your network requirement. Then click "Apply".



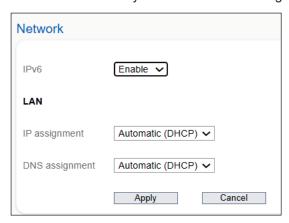
< 4.1 > Network

IPv6 network setting

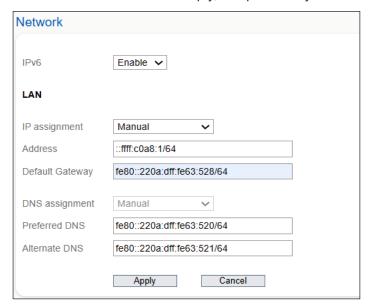
If your network supports IPv6, go to Network > IPv6 to configure your IPv6 network setting.
 Default IPv6 setting is "Disable"



ii. Select "Enable" and you can see the following image displays. If your IPv6 network supports DHCP, click "Apply ".



iii. If your network does not support DHCP, you can change the IP assignment to "Manual". Then input the IPv6 address & subnet prefix in "Address" and the Gateway to "Default Gateway". You can input "Preferred DNS" and "Alternate DNS" or let them empty, it depends on your network requirement. Then click "Apply".



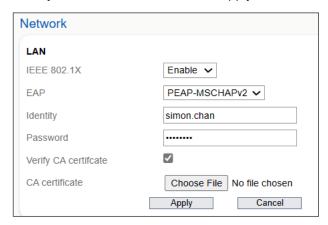
< 4.1 > Network

802.1x authentication

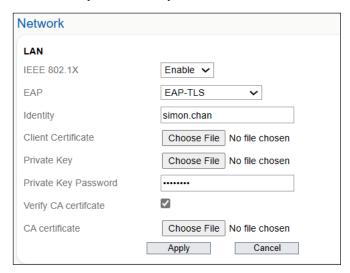
i. Go to Network > 802.1X and you can see the following image displays.



ii. Select "Enable" and you can select EAP authentication as "PEAP-MSCHAPv2" or "EAP-TLS". If you select "PEAP-MSCHAPv2". Input the "Identity", "Password" & CA certificate in .PEM format if you tick "Verify CA certificate". Then click "Apply".



iii. If you select "EAP-TLS", input Identity, Client Certificate, Private Key, Private Key Password & CA certificate if you tick "Verify CA certificate". Then click "Apply".

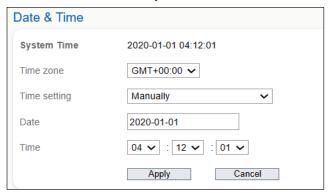


< 4.2 > Date & Time

You can set the internal clock on the Z-3001 manually or link to a Network Time Protocol (NTP) server. To set the date & time :

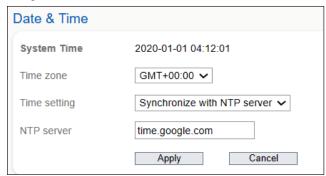
- i. Go to System > Date & Time
- ii. Click the Time zone to select your time zone from the list.
- iii. Select the method for setting the date & time

Set Date & Time Manually:



- · Select "Manually" from the time setting field
- Input the date
- · Select the time from the list
- · Click "Apply "

Using the NTP server:



- Select "Synchronize with NTP server" from Time setting field
- Input the NTP server to the NTP server field
- Click "Apply "

< 4.3 > Authentication

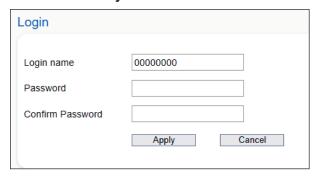
For security purposes, users attempting to login to the Z-3001 must be authenticated.

The Z-3001 supports one of the following authentication mechanisms.

- Local user on the Z-3001
- Lightweight Directory Access Protocol (LDAP)

By default, the Z-3001 is configured for local authentication. If you prefer external authentication, you must provide the Z-3001 with information about the external Authentication and Authorization (AA) server.

Authentication by local user

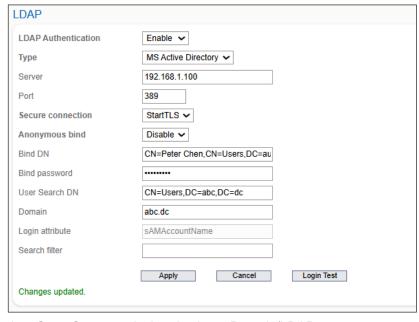


- i. Go to System > Authentication > Local
- ii. Input the new login name in "Login name" field
- iii. Input new password in "Password " field.

(You can leave the password unchanged if you just want to change the login name.)

- iv. Input the new password in "Confirm password" field for verification
- v. Click "Apply"

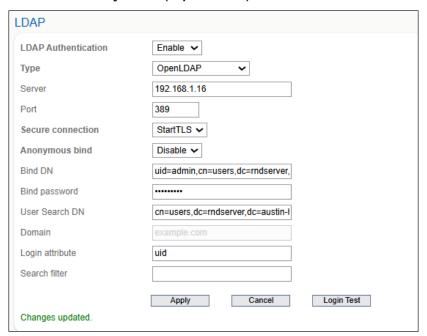
Authentication by LDAP (MS Active Directory)



- i. Go to System > Authentication > Domain/LDAP
- ii. Select "Enable" from LDAP authentication field
- iii. Select "MS Active Directory" from the Type field.
- iv. Input the IP address or hostname in the Server field
- v. Input the port no. in the port field
- vi. Select the secure connection type (StartTLS / TLS / none) from secure connection field
- vii. Select Enable / Disable from Anonymous bind field. Default is "Disable". If you select Enable, you need NOT to input Bind DN & Bind Password field.
- viii. Input the Bind DN in the Bind DN field.
- ix. Input the Bind password in the Bind password field.
- x. Input user search DN in the User Search DN field.
- xi. Input the name of the Active Directory Domain in the Domain field.
- xii. Input the criteria for finding user objects within the directory tree in the Search filter field.
- xiii. Click "Apply "

< 4.3 > Authentication

Authentication by LDAP (OpenLDAP)



- i. Go to System > Authentication > Domain/LDAP
- ii. Select "Enable" from LDAP authentication field
- iii. Select "OpenLDAP" from the Type field.
- iv. Input the IP address or hostname in the Server field
- v. Input the port no. in the port field
- vi. Select the secure connection type (StartTLS / TLS / none) from secure connection field
- vii. Select Enable / Disable from Anonymous bind field. Default is "Disable". If you select Enable, you need not to input Bind DN & Bind Password field.
- viii. Input the Bind DN in the Bind DN field.
- ix. Input the Bind password in the Bind password field.
- x. Input user search DN in the User Search DN field.
- xi. Input the login attribute in the Login Attribute field.
- xii. Input the criteria for finding user objects within the directory tree in the Search filter field.
- xiii. Click "Apply"

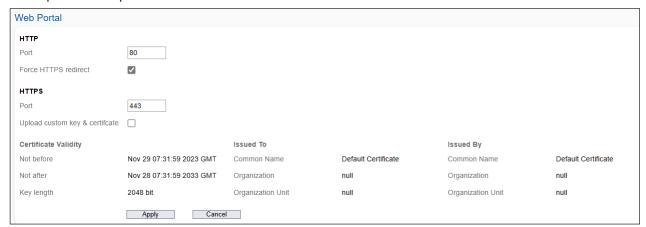
< 4.4 > Service

In Service, you can change the WEB portal setting to access the WEB interface. You can also enable or disable SNMP communication between an SNMP manager and the Z-3001.

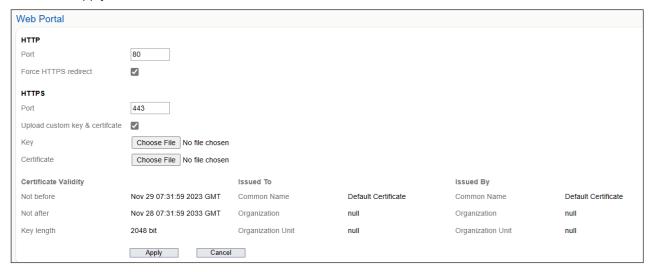
Web Portal

The default port number of HTTP is 80 and Force HTTPS redirect is enabled. The default port number of HTTPS is 443. To change the setting:

- i. Go to Service > Web Portal
- ii. Input the new port for HTTP
- Disable or enable Force HTTPS redirect
- iv. Input the new port for HTTPS

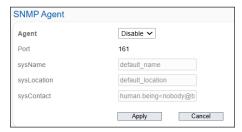


- v. If you check Upload custom key & certificate, you can see the following similar image displays.
- vi. Import the Key in .PEM format
- vii. Import the Certificate in .PEM format
- viii. Click "Apply"



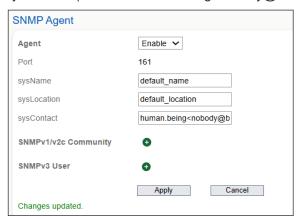
SNMP Agent

i. Go to Service > SNMP Agent

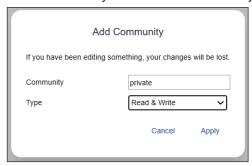


< 4.4 > Service

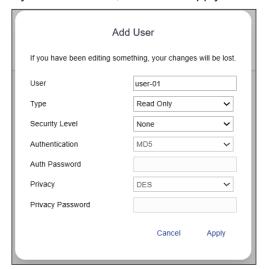
ii. Enable SNMP Agent. Input sysName (default : default_name), sysLocation (default : default_location), sysContact (default : human.being<nobody@but.you>)



- iii. If you enable v1/v2c, click " [●] " next to SNMPv1/v2c Community.
- iv. Input the value of Community.
- v. Select Read Only or Read & Write from Type field. Then click "Apply"



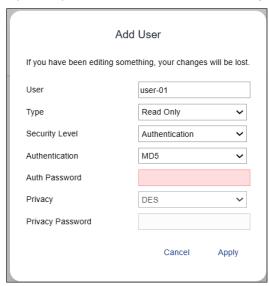
- vi. If you enable SNMPv3, click " next to SNMPv3 User.
- vii. Input the user name in User field
- viii. Select Read Only or Read & Write from Type field
- ix. Select None / Authentication / Privacy from Security Level field
- x. If you select None, then click "Apply.



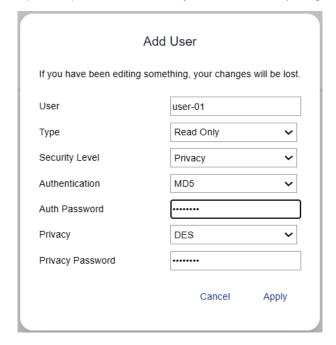
xi. If you select "Authentication" from Security Level field, select MD5/SHA/SHA-224/SHA-256/SHA-384/SHA-512 from Authentication field

< 4.4 > Service

xii. Input the password in Auth Password field (Length: 8 ~ 32 char.). Then click "Apply"



- xiii. If you select "Privacy" from Security field, select MD5/SHA/SHA-224/SHA-256/SHA-384/SHA-512 from Authentication field.
- xiv. Input the password in Auth Password field (Length: $8 \sim 32$ char.).
- xv. Select DES/AES/AES-128/AES-192/AES-256 from Privacy field
- xvi. Input the password in Privacy Password field (Length: 8 ~ 32 char.). Then click "Apply"



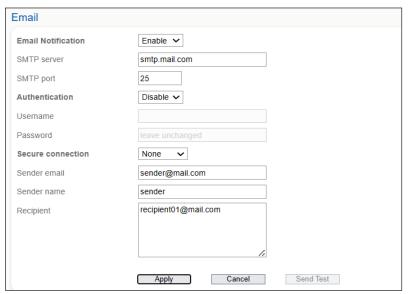
Intentionally Left Blank

< 4.5 > Notification

In Notification, you can enable the alarm email server and SNMP trap. When event or alert is triggered, the Z-3001 will send out an email and SNMP trap to a specific user(s).

Email

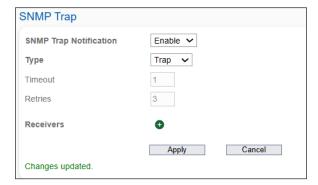
- i. Go to Notification > Email
- ii. Select Enable from Notification field. Default is Disable
- iii. Input the IP address or domain name of the SMTP server
- iv. Input the SMTP port. Default is 25
- v. Select Disable / Enable from Authentication field
- vi. If select Enable from Authentication field, input sender email address in Username field and password in Password field.
- vii. Select None/StartTLS from Secure Connection field
- viii. Input the sender email address in Sender email field
- ix. Input the name in the Sender name field
- Input the receiver's email address in the Recipient field.
 If more than one recipient, please use semi-colon or comma to separate each email address.
- xi. Click "Apply".



SNMP Trap

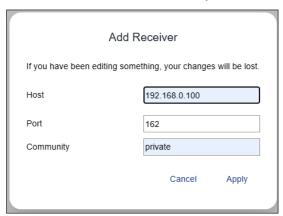
To receive event or alert notification via SNMP, please configure the SNMP trap setting.

- i. Go to Notification > SNMP Trap
- ii. Select Enable from SNMP Trap Notification field. Default is Disable.
- iii. Select Trap/Inform from Type field.
- iv. If you select Inform from Type field. Please input the time interval in seconds after which a new inform communication is resent if the first is not received in the Timeout field. Input the number of time you want to resend the inform communication if it fails in Retries field.



< 4.5 > Notification

v. Click " next to the Receivers, you can see the following similar image displays.



- vi. Input the IP address in the Host field. This is the address to which notifications are sent by the SNMP agent.
- vii. Input the port number used to access the host in the Port field.
- viii. Input the value of community in Community field used to access the Z-3001
- ix. Click "Apply"
- x. Repeat v to ix to add more receivers.



< 4.6 > Maintenance

In Maintenance, you can view the system information, do the firmware update and view the event log.

Information

i. Go to Maintenance > Information, you can see the following similar image displays.

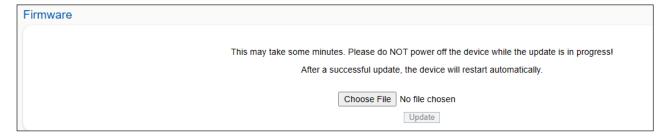


- ii. You can view the system and network information.
- iii. Click "Reboot" to reboot the Z-3001

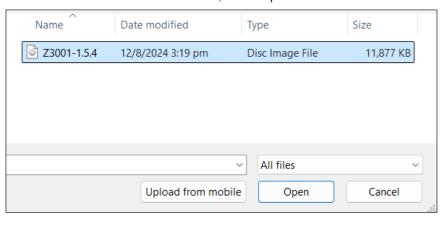
Firmware

To perform the firmware update of the Z-3001

- Download the appropriate firmware file in .img extension from the link below
- ii. Go to Maintenance > Firmware
- iii. Click "Choose File" to select firmware file to update



iv. Once the firmware file is chosen, click "Open"



< 4.5 > Maintenance

v. Click "Update" to start the firmware update process.

Once the firmware update completes, the WEBUI goes back to the login page.

This may take some minutes. Please do NOT power off the device while the update is in progress!

After a successful update, the device will restart automatically.

Choose File Z3001-1.5.4.img

Update

Event Log
Event log shows the Date, time, severity level and details of the events or alerts from the Z-3001.

ogs			
Date	Time (UTC+08:00)	Severity	Message
2024-10-09	21:37:28	Info	S1 Sensor 01 connected.
2024-10-09	21:37:28	Info	S1 Sensor 01 addition is successful.
2024-10-09	21:37:09	Info	S2 Sensor 01 removal is successful.
2024-10-09	21:37:05	Info	S1 Sensor 01 removal is successful.
2024-10-09	21:36:51	Critical	S1 Out of range.
2024-10-09	21:36:03	Critical	SNMP inform 192.168.1.174:162 is failed.
2024-10-09	21:36:03	Critical	SNMP inform 192.168.1.174:162 is failed.

