Longevity COM007

5.8GHz Wireless

Outdoor CPE

User Manual

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Important Safeguards and Warnings

Please read the following safeguards and warnings carefully before using the product in order to avoid damages losses and body injuries.

Electrical Safety Information

- ✧ This product uses 48V POE as power source. Connection to a different power source than those specified may result in improper operation, damage to the equipment or pose a fire hazard if the limitations are not followed.
- ✧ There are no operator serviceable parts inside this equipment. Service should be provided only by a qualified service technician.
- ✧ Do not use this product in location that can be submerged by water.
- ✧ Do not install this product during an electrical storm. There may be a risk of electric shock from lightning.

Notice Information

- ■ All the designs, software and instructions here are subject to change without prior written notice.
- ■ We would not be responsible for any damages and losses caused by improper operations or installation. Do not allow non-authorized or unqualified personnel with any kind of intervention to the product.
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- ■ Please visit our website www.rhinoco.com.au for more information.

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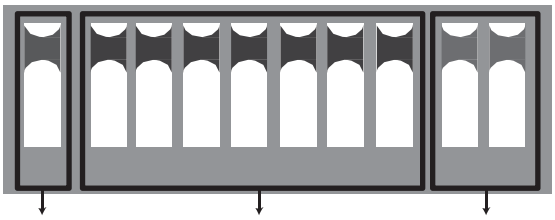
Introduction

Longevity COM007 is designed for long distance transmission of IP packets which is commonly used in PC network and network cameras. The DIP switches enable the installer/user to set up the device IP address and frequency with ease.

DIP switch settings



Mode IP segment Tx/Rx IP address

<table>
<tr><td>Mode
(DIP Switch 1)</td><td>ON = Transmitter (Connect to network video recorder or PC)
OFF = Receiver (Connect to network cameras or internet modem)</td></tr>
<tr><td>IP segment
(DIP switch 2-8)</td><td>See Table 1</td></tr>
<tr><td>Tx/Rx IP address
(DIP switch 9-10)</td><td>Tx/Rx IP address: Since one transmitter supports up to 4 receivers, we need to set different IP address for the receivers as follow:

<table>
<tr><th>DIP switch 1</th><th>DIP switch 9</th><th>DIP switch 10</th><th>Tx/Rx IP address</th></tr>
<tr><td>ON (Transmitter Mode)</td><td>ON ↑</td><td>ON ↑</td><td>x.x.x.1</td></tr>
<tr><td rowspan="4">OFF (Receivers Mode)</td><td>OFF ↓</td><td>OFF ↓</td><td>x.x.x.2</td></tr>
<tr><td>OFF ↓</td><td>ON ↑</td><td>x.x.x.3</td></tr>
<tr><td>ON ↑</td><td>OFF ↓</td><td>x.x.x.4</td></tr>
<tr><td>ON ↑</td><td>ON ↑</td><td>x.x.x.5</td></tr>
</table>
where x=IP segment according to Table 1

i.e. the last digit of the transmitter must be 1 and those of receivers are 2,3,4,5.</td></tr>
</table>

For example, if we want to set up a transmitter with IP address 172.19.127.1 and receiver IP address 172.19.127.3:

	Switch1	Switch2	Switch3	Switch4	Switch5	Switch6	Switch7	Switch8	Switch9	Switch10
Transmitter	ON ↑	ON ↑	ON ↑	ON ↑	ON ↑	ON ↑	ON ↑	ON ↑	ON ↑	ON ↑
Receiver	OFF ↓	ON ↑	ON ↑	ON ↑	ON ↑	ON ↑	ON ↑	ON ↑	OFF ↓	ON ↑

Note：

1. Turn power off before setting the DIP switches.
2. Unlike ordinary wireless access points, the transmitter/receiver will not broadcast the SSID.
3. Switch 2-8 of the receiver and transmitter must be the same.

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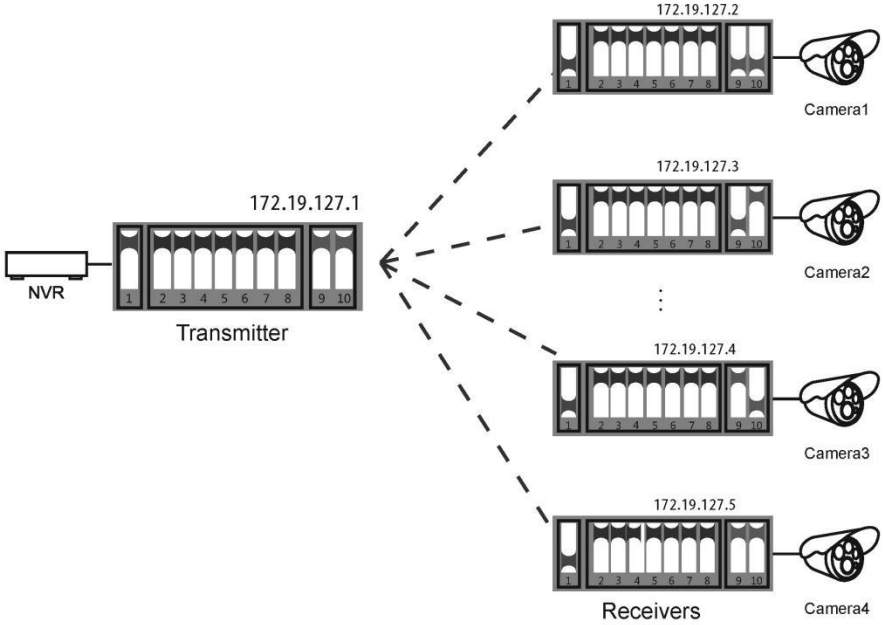
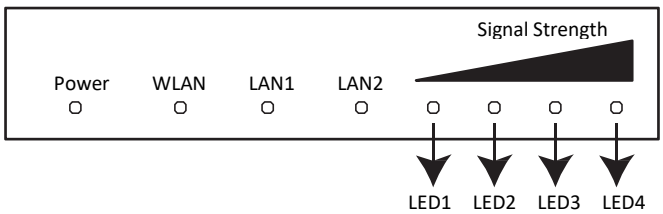


LED indicators



LED	Status	Description
Power (Red)	On	Power is on.
	Off	Power is off.
WLAN (Blue)	Flashing	Wireless LAN is connected.
LAN1	On	LAN1 is connected.
LAN2	On	LAN2 is connected.
Signal LEDs	LED1 On	Signal is too weak.
	LED1-2 On	Signal is weak.
	LED1-3 On	Signal is good.
	LED1-4 On	Signal is strong.
	LED4 On ONLY	Signal is excellent.

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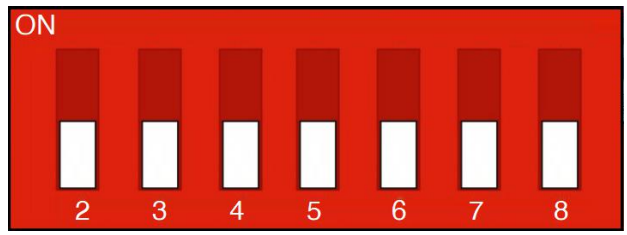
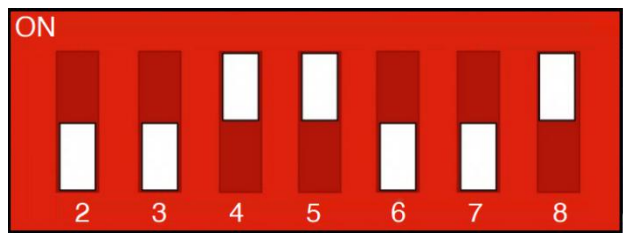
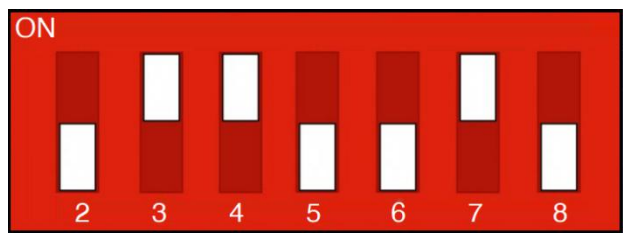
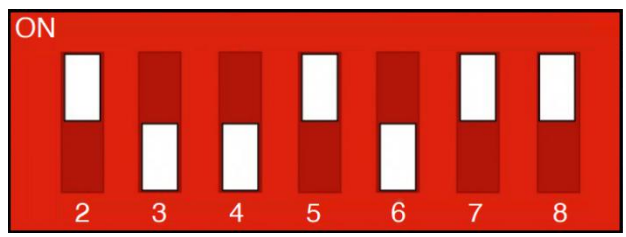
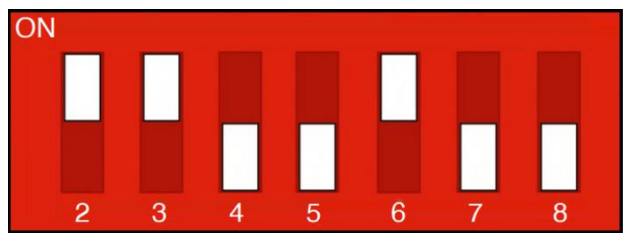
Recommened frequencies in Australia

Different countries apply their own regulations to the allowable channels, allowed users and maximum power levels within these frequency ranges.

The following table lists the available frequencies in Australia. **DO NOT** use frequency which may infringe the regulation to prevent interfere of other radio network devices.

Frequency (MHz)	Area of installation	IP segment	DIP switch setting
5180	**Indoors only**	172.19.0.x	
		172.19.25.x	
		172.19.50.x	
		172.19.75.x	
		172.19.100.x	

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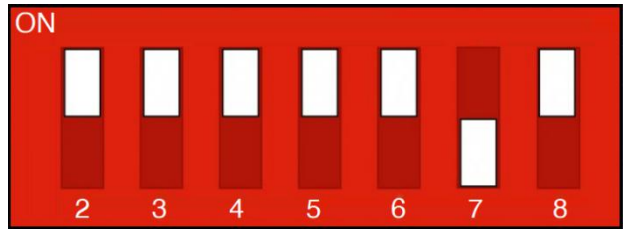
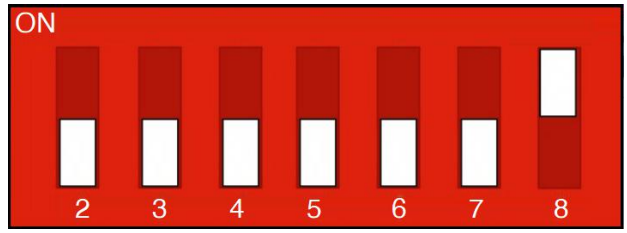
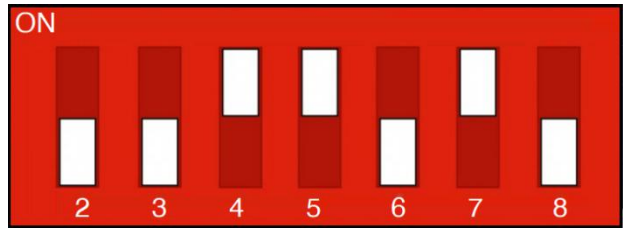
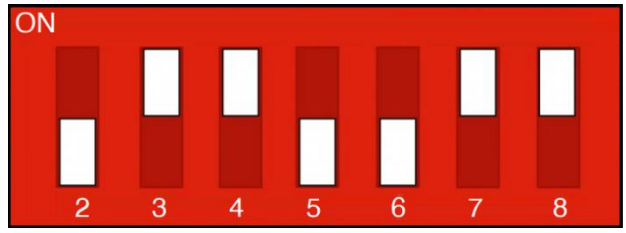
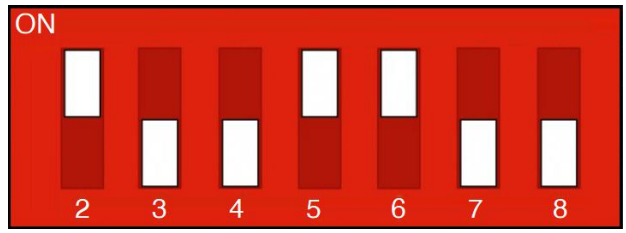
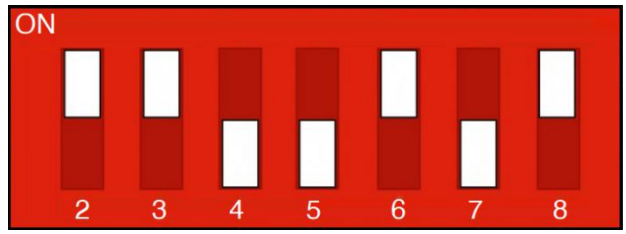
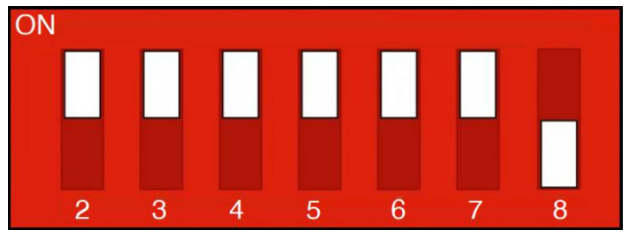
		172.19.125.x	
5200	**Indoors only**	172.19.1.x	
		172.19.26.x	
		172.19.51.x	
		172.19.76.x	
		172.19.101.x	
		172.19.126.x	

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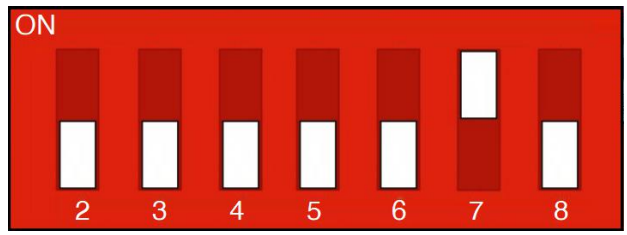
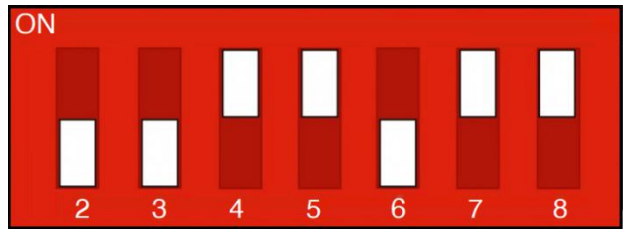
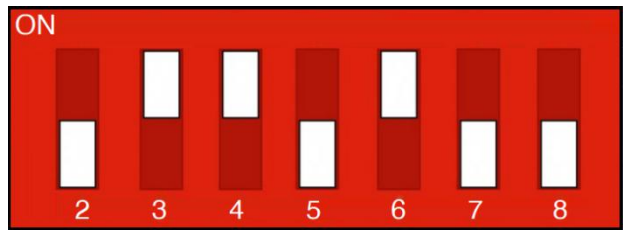
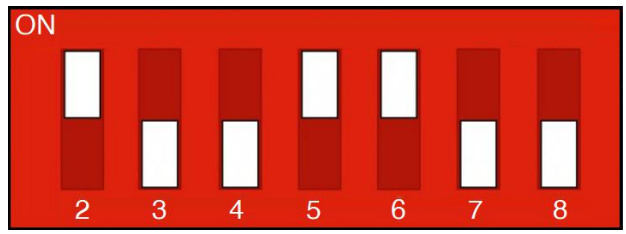
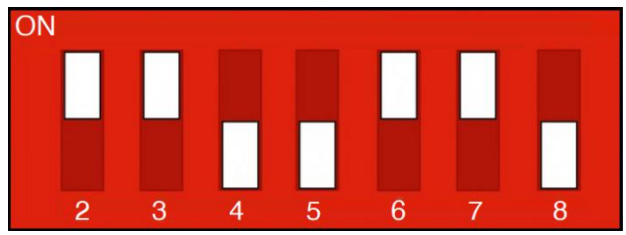
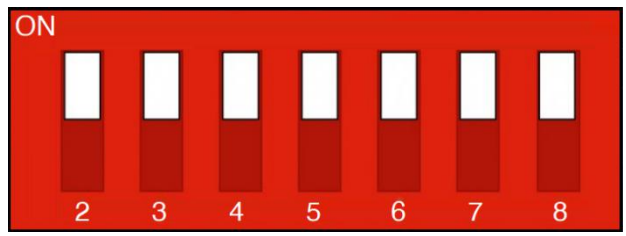
5220	**Indoors only**	172.19.2.x	
		172.19.27.x	
		172.19.52.x	
		172.19.77.x	
		172.19.102.x	
		172.19.127.x	

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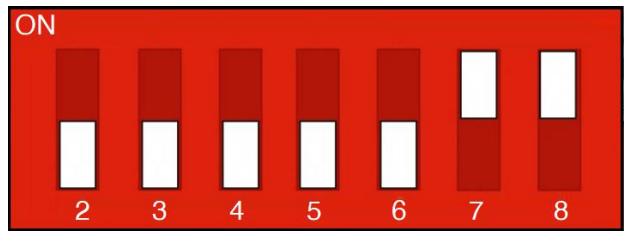
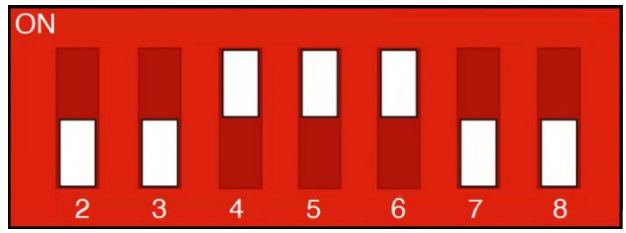
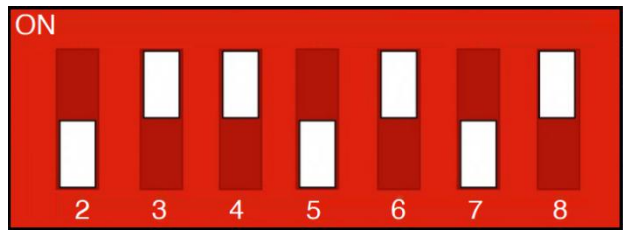
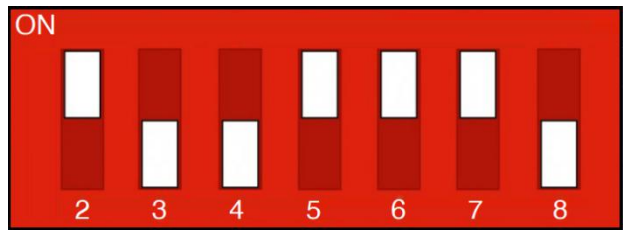
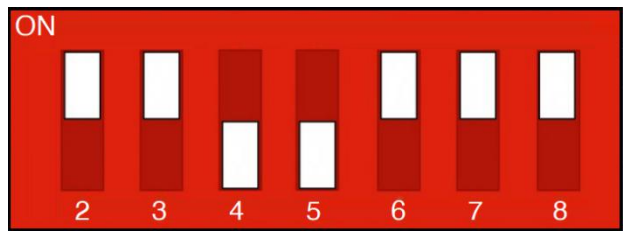
5240	**Indoors only**	172.19.3.x	
		172.19.28.x	
		172.19.53.x	
		172.19.78.x	
		172.19.103.x	

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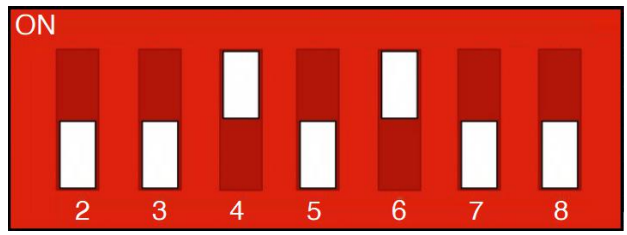
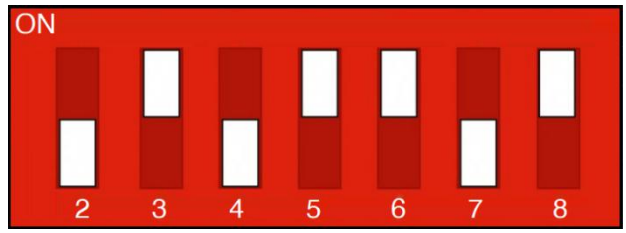
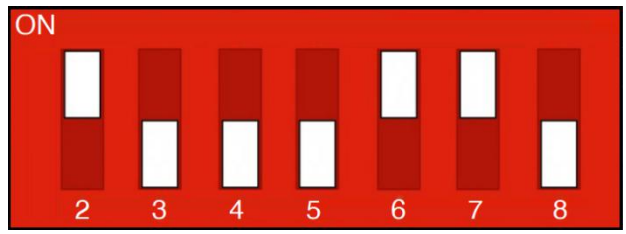
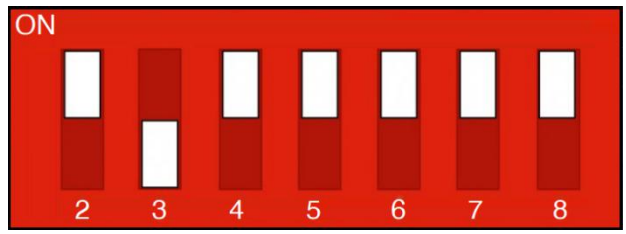
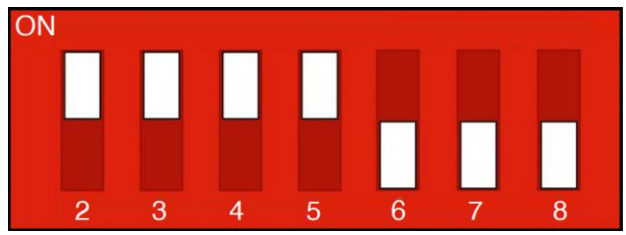
5745	**Indoors and Outdoors**	172.19.20.x	
		172.19.45.x	
		172.19.70.x	
		172.19.95.x	
		172.19.120.x	

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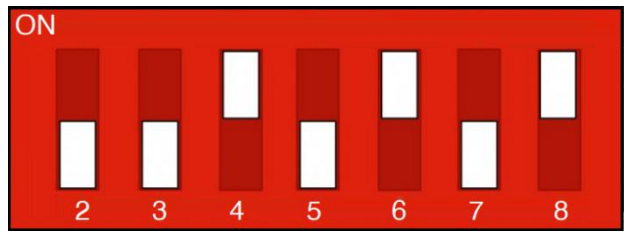
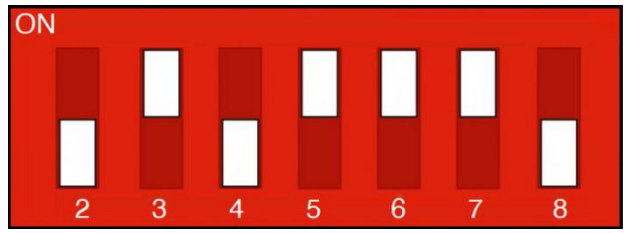
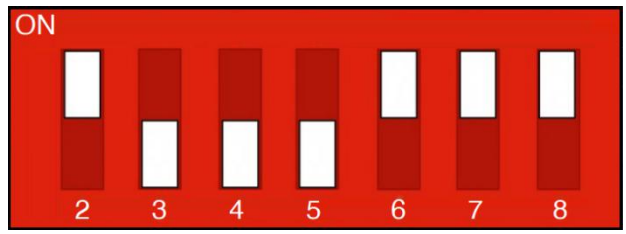
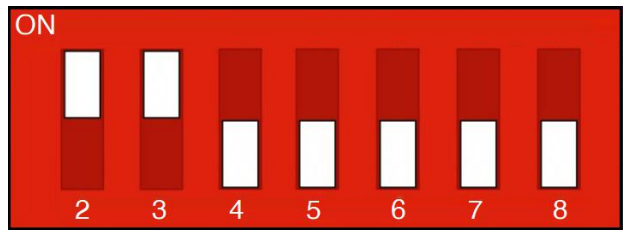
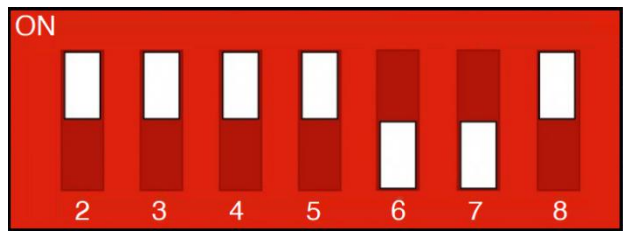
5765	**Indoors and Outdoors**	172.19.21.x	
		172.19.46.x	
		172.19.71.x	
		172.19.96.x	
		172.19.121.x	

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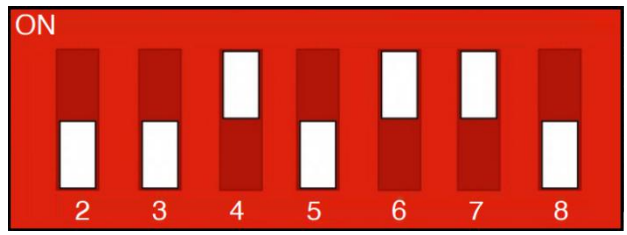
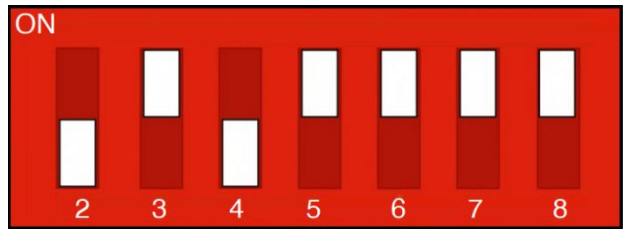
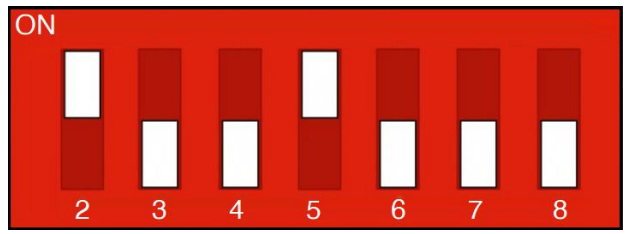
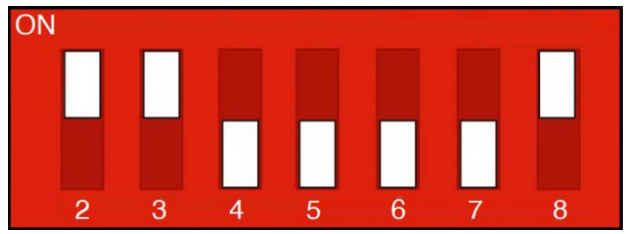
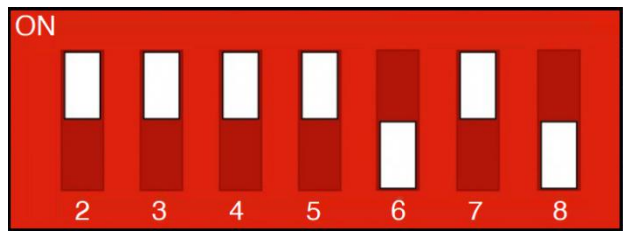
5785	**Indoors and Outdoors**	172.19.22.x	
		172.19.47.x	
		172.19.72.x	
		172.19.97.x	
		172.19.122.x	

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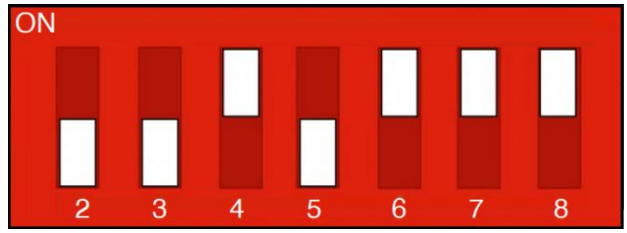
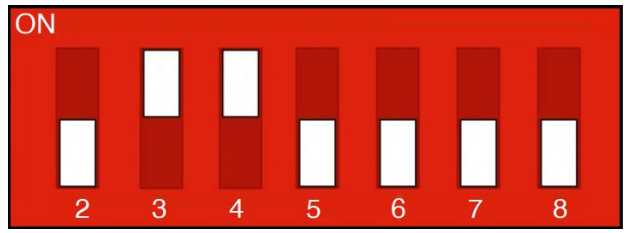
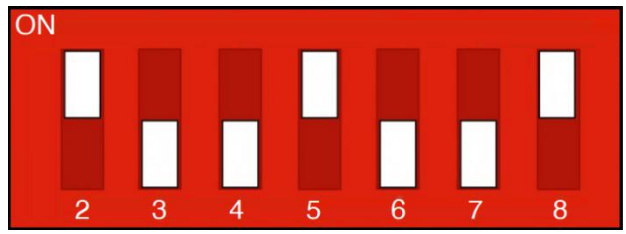
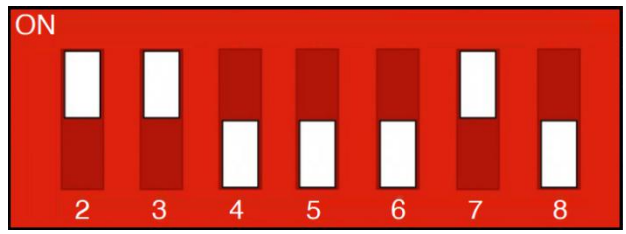
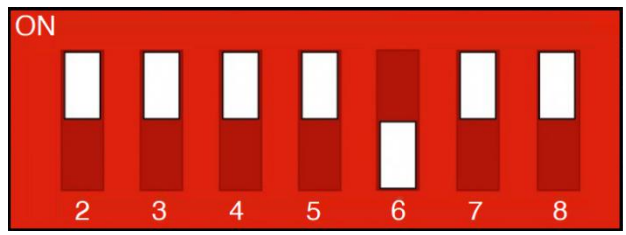
5805	**Indoors and Outdoors**	172.19.23.x	
		172.19.48.x	
		172.19.73.x	
		172.19.98.x	
		172.19.123.x	

Table 1

Note: You can download the full frequency range DIP switch setting table from: https://www.rhinoco.com.au/file/download/3934

Disclaimer: We do not guarantee the validity of the information above, please contact your network administrator for more information.

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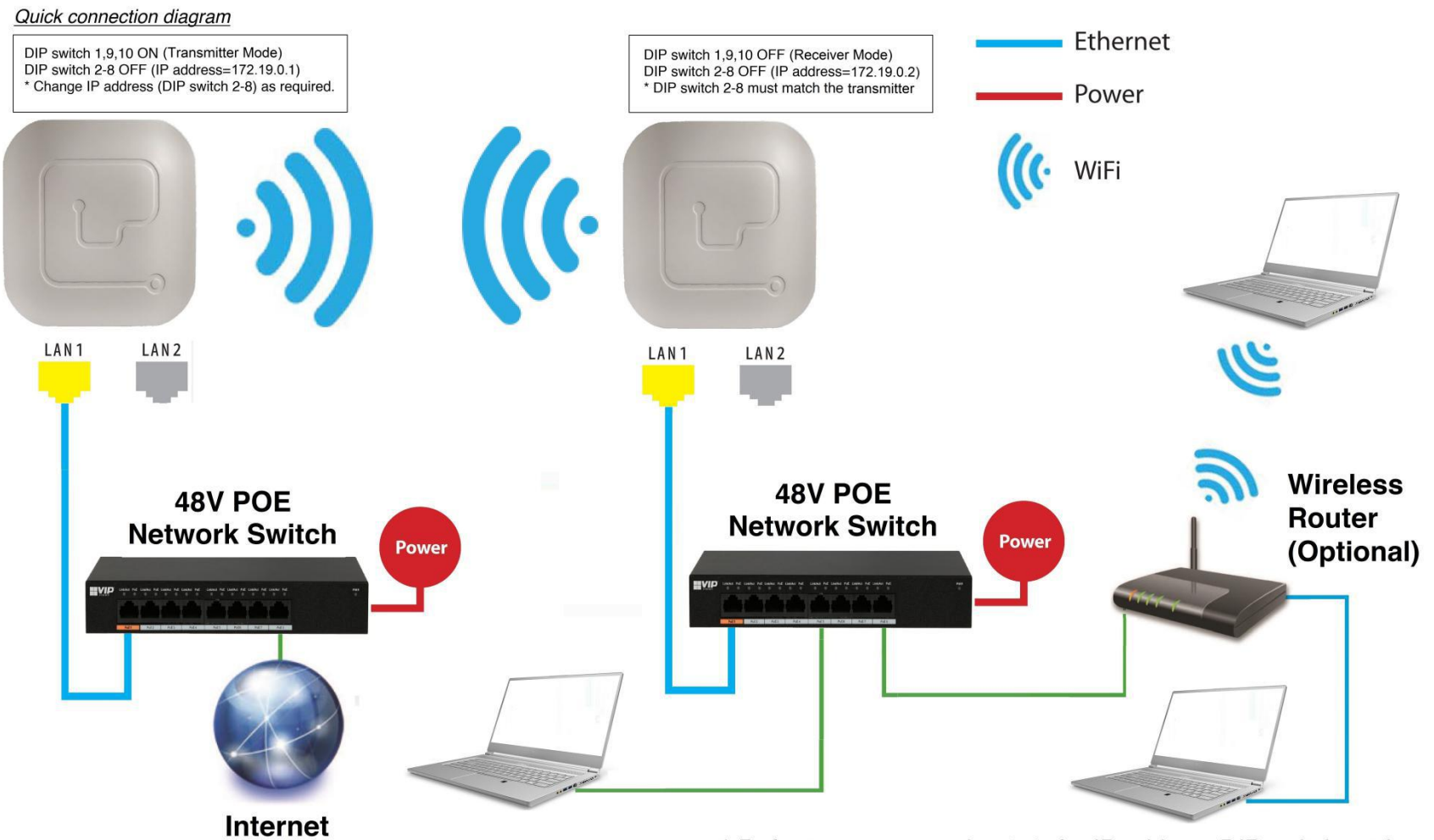
Application 1 - Network Extender



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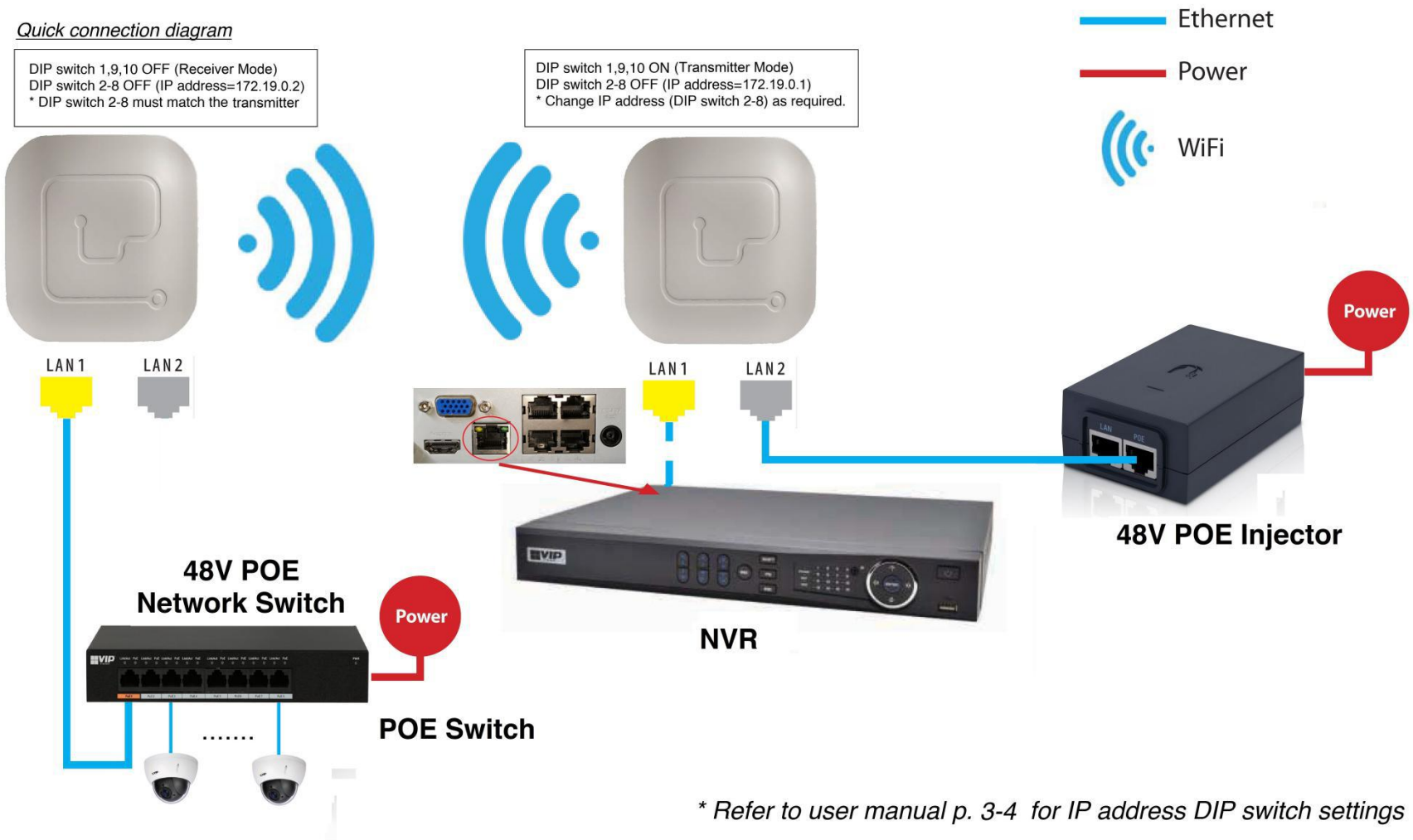
Application 2 - Network Video Recorder + Camera



** Refer to user manual p. 3-4 for IP address DIP switch settings*

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Installation Considerations

Mounting Height: For optimum performance, make sure a clear line of sight between the transmitter and receiver. An elevated location is recommended. Obstacles like trees, buildings and large steel structures will weaken the wireless signal.

Orientation: Make sure the transmitter and receiver is installed face-to-face to achieve maximum performance.

FAQs

Q: Do I need a power supply for the transmitter/receiver?
A: No, you don't. The transmitter/receiver is powered by 48V POE. Use a CAT5e/CAT6 cable, connect one port(Lan1 or LAN2) to a 48V POE network switch or a 48V POE splitter. Connect the other port to the network device.

Q: WLAN and LAN LEDs don't turn on when I power up the transmitter/receiver? Why?
A: When power up, it takes about one minute to initialize the device, please wait.

Q: WLAN LED is on now but the signal strength LEDs don't? Why?
A: The signal strength LEDs will light only when a successful connection is established. When power up, it takes about three minutes to search the receiver with the same IP address, please wait.

Q: How to reset the device?
A: Press and hold the RST button for three seconds when power is on.

Q: I connect the CPE as network bridge. How can I test the connection?
A: You can ping both the transmitter and receiver.

For example, if the transmitter address is 172.19.0.1 and those of receiver is 172.19.0.2:

1. Change the IP address of the PC to 172.19.0.xx where xx=6 to 255. Change the subnet mask to 255.255.0.0
2. Ping the receiver side first (because the receiver is connected to the PC):
   In Command mode, type: **ping 172.19.0.2 <ENTER>**
   If the connection is successful, it will reply as follow:

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```
Pinging 172.19.0.2 with 32 bytes of data:
Reply from 172.19.0.2: bytes=32 time<1ms TTL=64
Reply from 172.19.0.2: bytes=32 time=1ms TTL=64
Reply from 172.19.0.2: bytes=32 time<1ms TTL=64
Reply from 172.19.0.2: bytes=32 time<1ms TTL=64

Ping statistics for 172.19.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

Note: Make sure 0% loss as the receiver is connected to the PC direct, it should get 100% hit rate (0% loss).

The connection between the PC and the receiver is established.

Now test the connection between the transmitter and receiver:

3. In Command mode, type: **ping 172.19.0.1 <ENTER>**
   If the connection is successful, it will reply as follow:

```
Pinging 172.19.0.1 with 32 bytes of data:
Reply from 172.19.0.1: bytes=32 time<1ms TTL=64
Reply from 172.19.0.1: bytes=32 time=1ms TTL=64
Reply from 172.19.0.1: bytes=32 time<1ms TTL=64
Reply from 172.19.0.1: bytes=32 time<1ms TTL=64

Ping statistics for 172.19.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

Note: The ideal case is to have 100% hit rate (0% loss). If not, adjust the CPE's orientation, height and distance to achieve the best performance.

You can also test the connection continuously by typing: **ping 172.19.0.1 -t <ENTER>**

Press **Ctrl-C** to stop testing.

4. Type **exit** to return to Windows platform.

Q: Is there a web platform for the transmitted and receiver?
A: Yes, you can access the web platform by entering the IP address of the transmitter/receiver. The parameters are tuned for maximum performance when shipped, **DO NOT CHANGE THE PARAMETERS IF YOUR ARE NOT SURE.**

For example, if the transmitter address is 172.19.0.1 and those of receiver is 172.19.0.2:

1. Change the IP address of the PC to 172.19.0.xx where xx=6 to 255. Change the subnet mask to 255.255.0.0
2. Type the IP address of the transmitter/receiver in a web browser:
   Example: **http://172.19.0.1 <ENTER>** (transmitter) or **http://172.19.0.2 <ENTER>** (receiver). The default password is "**password**".

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