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# Juniper NETWORKS AP24 Multi Gigabit Wi-Fi Access Point Installation Guide

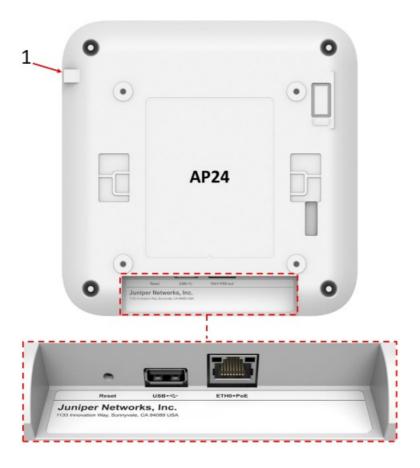


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#### **AP24 Hardware Installation Guide**

#### Overview

The AP24 contains three IEEE 802.11ax radios that deliver 2×2 MIMO with two spatial streams when operating in multi-user (MU) or single-user (SU) mode. The AP24 can operate simultaneously in the 6GHz band, 5GHz band, and 2.4GHz band or two bands and a dedicated tri-band scan radio.

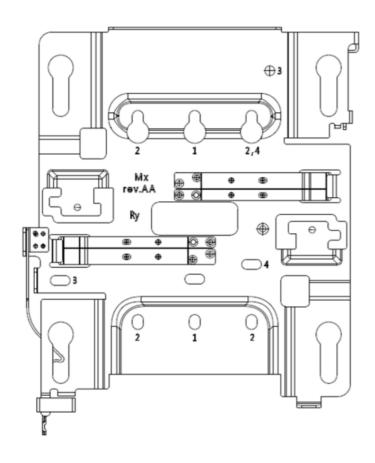


# 1. Safety tie

Reset	Reset to the factory default settings
USB	USB2.0 support interface
Eth0+PoE	100/1000/2500/5000 BASE-T RJ45 interface that supports 802.3at/802.3bt PoE PD

# **AP24 Mounting**

**APBR-U Mounting box options** 

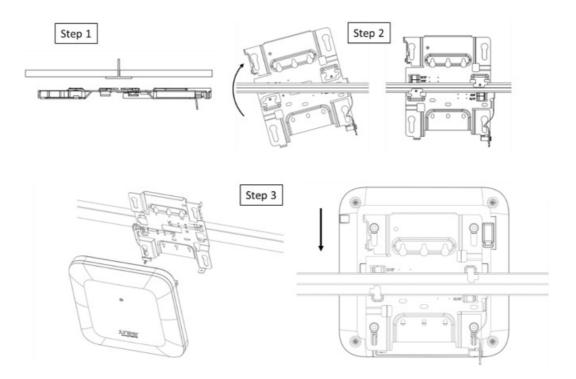


Holes	Mounting options
1	US Single gang, 4 inch round, 3.5 inch round
2	US Double gang, Wall/ceiling mount
3	US 4 inch square
4	EU junction box

In a wall mount installation, please use screws that have a 1/4in. (6.3mm) diameter head with a length at least 2 in. (50.8mm).

APBR-U that is in the AP24 box includes a set screw and an eyehook.

Mounting to a 9/16 inch or 15/16 inch T-bar

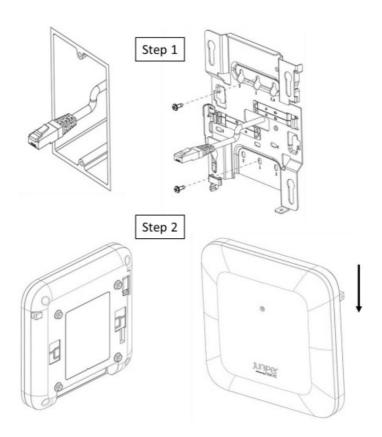


Step1. Mount APBR-U to the t-bar

Step2. Rotate APBR-U to lock to the t-bar

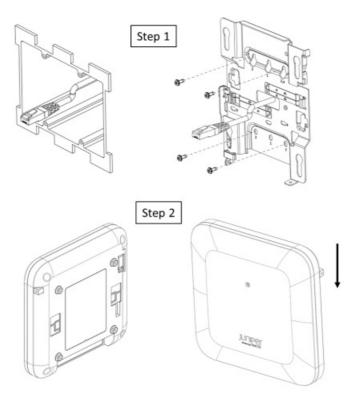
Step3. Slide the AP with shoulder screws on the APBR-U until the lock is engaged

US single gang, 3.5 or 4 inch round junction box



Step 1 Mount APBR-U to the box using two screws and the #1 holes. Make sure Ethernet cable extends thru the bracket.

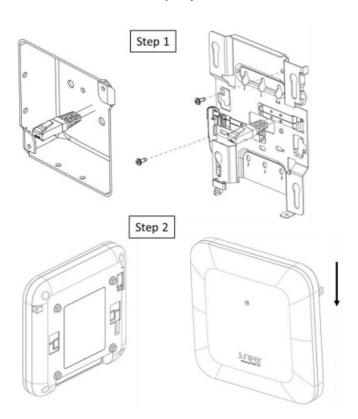
Step 2 Slide the AP with shoulder screws on the APBR-U until the lock is engaged



Step 1 Mount APBR-U to the box using two screws and the #2 holes. Make sure Ethernet cable extends thru the bracket.

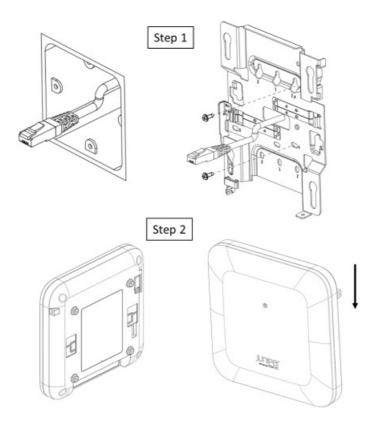
Step 2 Slide the AP with shoulder screws on the APBR-U until the lock is engaged





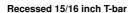
Step 1 Mount APBR-U to the box using two screws and the #3 holes. Make sure Ethernet cable extends thru the bracket.

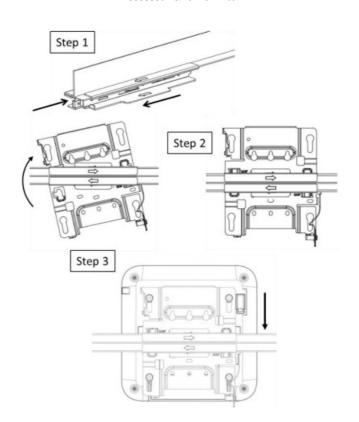
Step 2 Slide the AP with shoulder screws on the APBR-U until the lock is engaged



Step 1 Mount APBR-U to the box using two screws and the #4 holes. Make sure Ethernet cable extends thru the bracket.

Step 2 Slide the AP with shoulder screws on the APBR-U until the lock is engaged

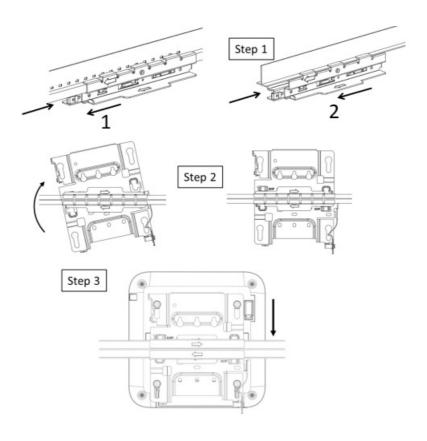




Step 1 Mount the APBR-ADP-RT15 to the t-bar

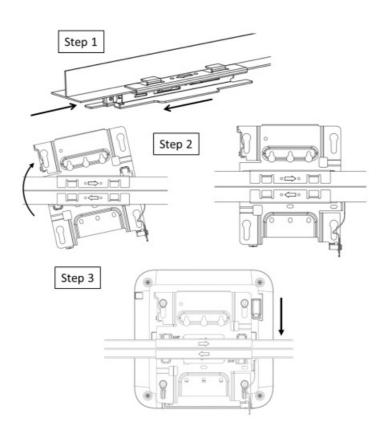
Step 2 Mount the APBR-U to the APBR-ADP-RT15. Rotate the APBR-U to lock to the APBR-ADP-RT15

Step 3 Slide the AP with shoulder screws on the APBR-U until the lock is engaged

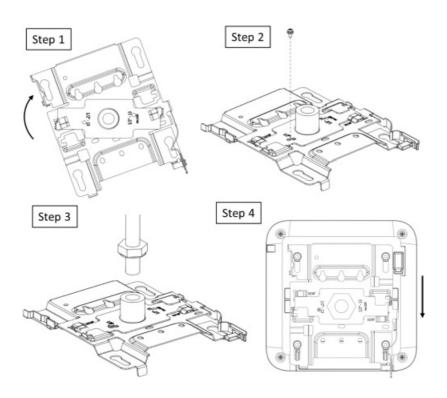


- 1. 9/16" channel rail
- 2. 9/16" recessed t- bar
- Step 1 Mount the APBR-ADP-CR9 to the t-bar
- Step 2 Mount the APBR-U to the APBR-ADP-CR9. Rotate the APBR-U to lock to the APBR-ADP-CR9
- Step 3 Slide the AP with shoulder screws on the APBR-U until the lock is engaged

## 1.5 inch T-bar



#### Threaded rod adapter (1/2", 5/8", or M16)



- Step 1 Install the APBR-ADP-T12 to the APBR-U. Rotate to lock.
- Step 2 Secure the APBR-ADP-T12 to the APBR-U with the provided screw
- Step 3 Install the bracket assembly to the 1/2" threaded rod and secure with the provided lock washer and nut.
- Step 4 Slide the AP with shoulder screws on the APBR-U until the lock is engaged

The same instructions work for the APBR-ADP-T58 or APBR-ADP-M16

The threaded rod adapter attaches to a rod that is either 1/2"-13, 5/8"-11, or M16-2.

#### **Technical Specifications:**

Feature	Description				
Power options	802.3at/802.3bt PoE				
Dimensions	185mm x 185mm x 39mm (7.28in x 7.28in x 1.54in)				
Weight	AP24: 0.75 kg (1.65 lbs)				
Operating temperature	AP24: 0° to 40° C				
Operating humidity	10% to 90% maximum relative humidity, non-condensing				
Operating altitude	3,048m (10,000 ft)				
Electromagnetic emissions	FCC Part 15 Class B				
I/O	1 – 100/1000/2500BASE-T auto-sensing RJ-45 with PoE USB2.0				
RF	2.4GHz or 6GHz – 2×2:2SS 802.11ax MU-MIMO & SU-MIMO 5GHz – 2×2:2SS 802.11ax MU-MIMO & SU-MIMO 1×1: 1SS 802.11ax 2.4GHz/5GHz/6GHz scan 2.4GHz BLE with Omni Antenna				
Maximum PHY rate	Total maximum PHY rate – 3600 Mbps 6GHz – 2400 Mbps 5GHz – 1200 Mbps 2.4GHz – 600 Mbps				
Indicators	Multi-color status LED				
Safety standards	CSA 62368-1 CAN/CSA-C22.2 No. 62368-1-19 UL 2043 ICES-003:2020 Issue 7, Class B (Canada)				

Suitable for use in environmental air space in accordance with Section 300-22(C) of the National Electrical Code, and Sections 2-128, 12-010(3), and 12-100 of the Canadian Electrical Code, Part 1, CSA C22.1.

## **Warranty Information**

The AP24 family of Access Points comes with a limited lifetime warranty.

## Included in the box:

- 1. AP24
- 2. APBR-U

Ordering Information:

## **Access Points**

AP24-US	802.11ax 6E 2+2+2 – Internal Antenna for the US Regulatory domain
AP24-WW	802.11ax 6E 2+2+2 - Internal Antenna for the WW Regulatory domain

## **Mounting brackets**

APBR-U	Universal AP Bracket for T-Rail and Drywall mounting for Indoor Access Points
APBR-ADP-T58	Adapter for 5/8-inch threaded rod bracket
APBR-ADP-M16	Adapter for 16mm threaded rod bracket
APBR-ADP-T12	Adapter for 1/2-inch threaded rod bracket
APBR-ADP-CR9	Adapter for channel rail and recessed 9/16" t-rail
APBR-ADP-RT15	Adapter for recessed 15/16" t-rail
APBR-ADP-WS15	Adapter for recessed 1.5" t-rail

### **Power Supply options**

802.3at or 802.3bt PoE power

#### **Regulatory Compliance Information:**

This product and all interconnected equipment must be installed indoors within the same building, including the associated LAN connections as defined by the 802.3at Standard.

Operations in the 5.15GHz - 5.35GHz band are restricted to indoor usage only.

If you need further assistance with purchasing the power source, please contact Juniper Networks, Inc.

#### FCC Requirement for Operation in the United States of America:

FCC Part 15.247, 15.407, 15.107, and 15.109

## FCC Guideline for Human Exposure

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance between the radiator & your body; AP24 - 20cm

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

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

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

- Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
- This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
- For operation within 5.15 ~ 5.25GHz / 5.47 ~5.725GHz / 5.925 ~ 7.125GHz frequency range, it is restricted to indoor environment.
- The 5.925 ~ 7.125GHz operation of this device is prohibited on oil platforms, cars, trains, boats, and aircraft, except that operation of this device is permitted in large aircraft while flying above 10,000 feet.
- Operation of transmitters in the 5.925-7.125 GHz band is prohibited for control of or Communications with unmanned aircraft systems.

#### **Industry Canada**

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

#### **IC Caution**

- (i) The device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;
- (ii) The maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall be such that the equipment still complies with the e.i.r.p. limit;
- (iii) The maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits specified for point-topoint and non-point-to-point operation as appropriate; and
- (iv) Operation shall be limited to indoor use only.
- (v) Operation on oil platforms, cars, trains, boats and aircraft shall be prohibited except for on large aircraft flying above 10,000 ft.
- (vi) Devices shall not be used for control of or communications with unmanned aircraft systems

#### **Radiation Exposure Statement:**

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm (AP24) between the radiator & your body.

CE



Hereby, Juniper Networks, Inc. declares that the radio equipment type (AP24) is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following: <a href="https://www.mist.com/support/">https://www.mist.com/support/</a>

The frequency and maximum transmitted Power in EU:

Bluetooth/Thread/Zigbee:

Frequency range (MHz)	Maximum EIRP in EU (dBm)
2400 – 2483.5	9.98

#### WLAN:

Frequency range (MHz)	Maximum EIRP in EU (dBm)
2400 – 2483.5	19.97
5150 – 5250	22.99
5250 - 5350	22.99
5500 – 5700	28.60
5745 – 5825	13.97
5945 – 6425	22.96

This equipment complies with EU radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

The device is restricted to indoor use only when operating in 5150 to 5350 MHz and 5945 to 6425MHz frequency ranges.

AT	BE	BG	CZ	DK	EE	FR	DE	IS
ΙE	IT	EL	ES	CY	LV	LI	LT	LU
HU	MT	NL	NO	PL	PT	RO	SI	SK
TR	FI	SE	СН	HR	UK	(NI)		

#### UK

Hereby, Juniper Networks, Inc. declares that the radio equipment type (AP24) is in compliance with Radio Equipment Regulations 2017. The full text of the UK declaration of conformity is available at the following: <a href="https://www.mist.com/support/">https://www.mist.com/support/</a>

The frequency and maximum transmitted Power in UK:

## Bluetooth:

Frequency range (MHz)	Maximum EIRP in UK (dBm)
2400 – 2483.5	9.98

#### WLAN:

Frequency range (MHz)	Maximum EIRP in UK (dBm)
2400 – 2483.5	19.97
5150 – 5250	22.99
5250 - 5350	22.99
5500 – 5700	28.58
5745 – 5825	22.94
5925 – 6425	22.96

This equipment complies with UK radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

The device is restricted to indoor use only when operating in 5150 to 5350 MHz and 5925 to 6425MHz frequency ranges.



#### Japan

AP24 Access Point is restricted to indoor use only when operating in 5150-5350MHz and 5925 to 6425MHz frequency ranges.

Juniper Business Use Only

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## **Documents / Resources**



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## References

- .:: Support Mist
- User Manual

Manuals+, Privacy Policy