

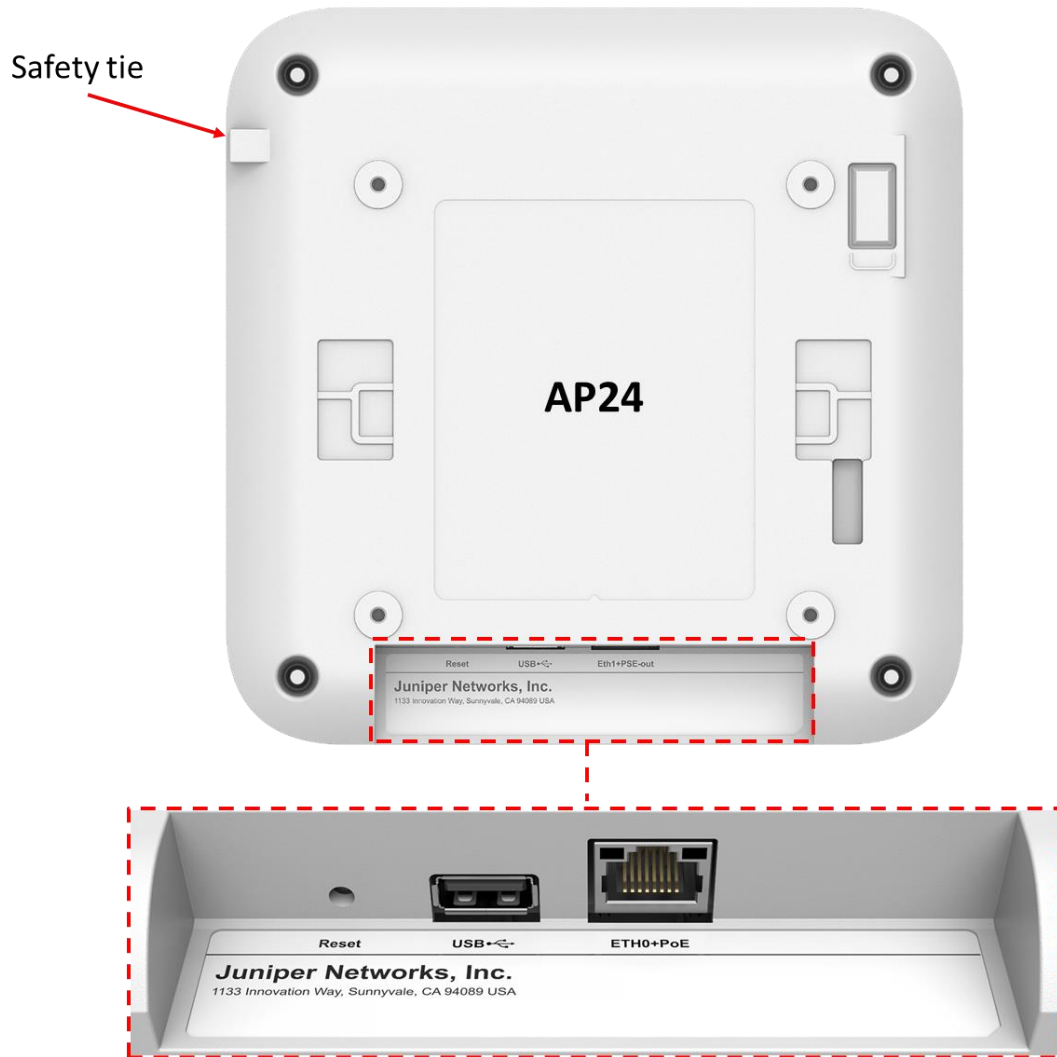


## AP24 Hardware Installation Guide

### Overview

The AP24 contains three IEEE 802.11ax radios that deliver 2x2 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.

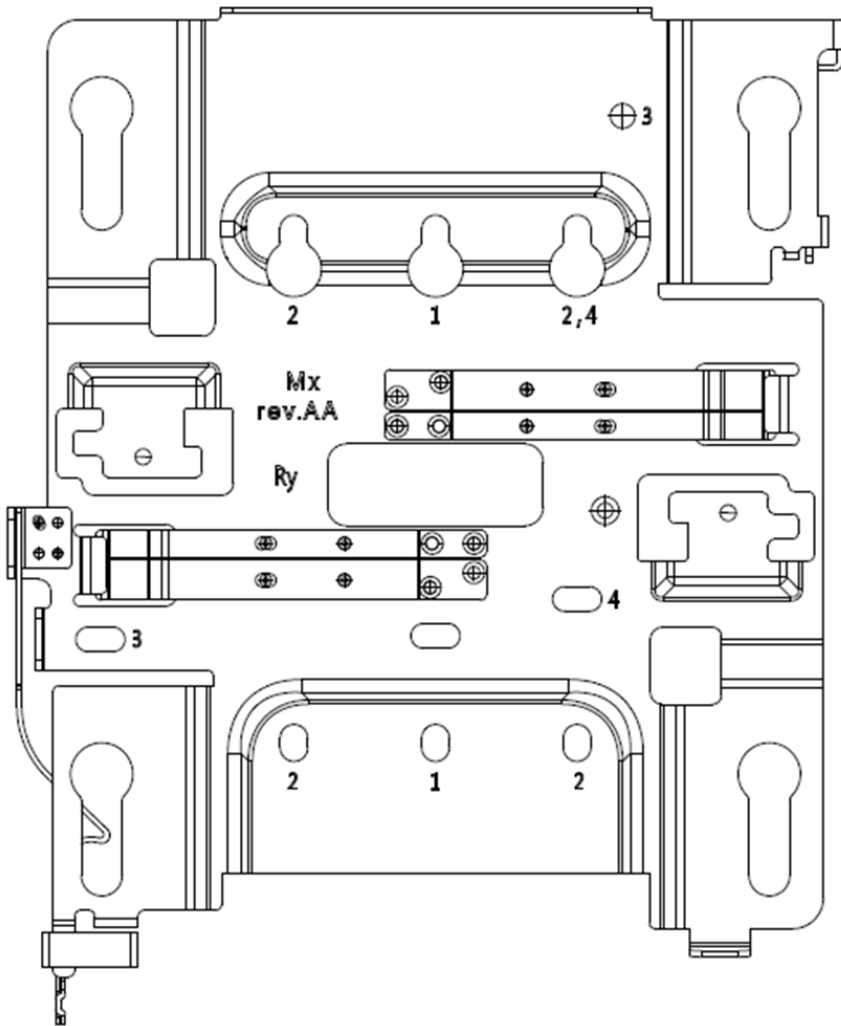
## I/O ports



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

## AP24 Mounting

# APBR-U Mounting box options

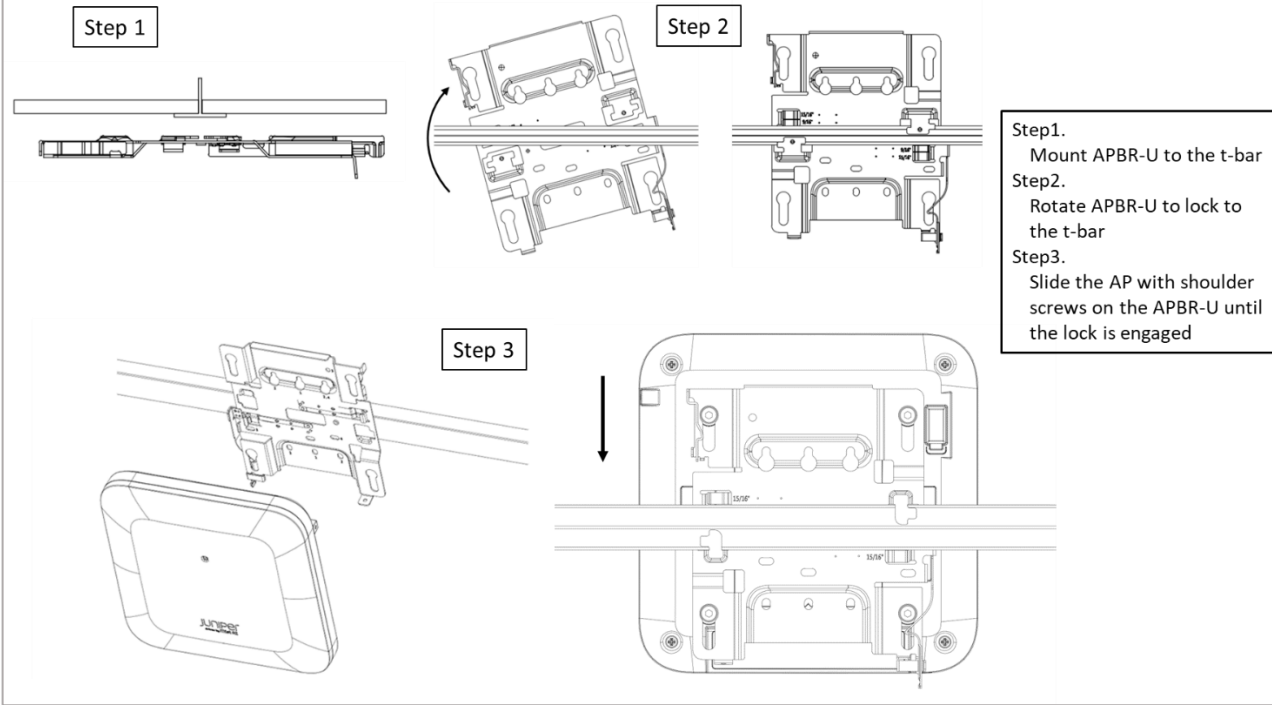


Holes	Mounting options
1	US Single gang, 4 inch round, 3.5 inch round
2	US Double gang, Wall/ceiling mount
3	US 4 inch square
4	EU junction box

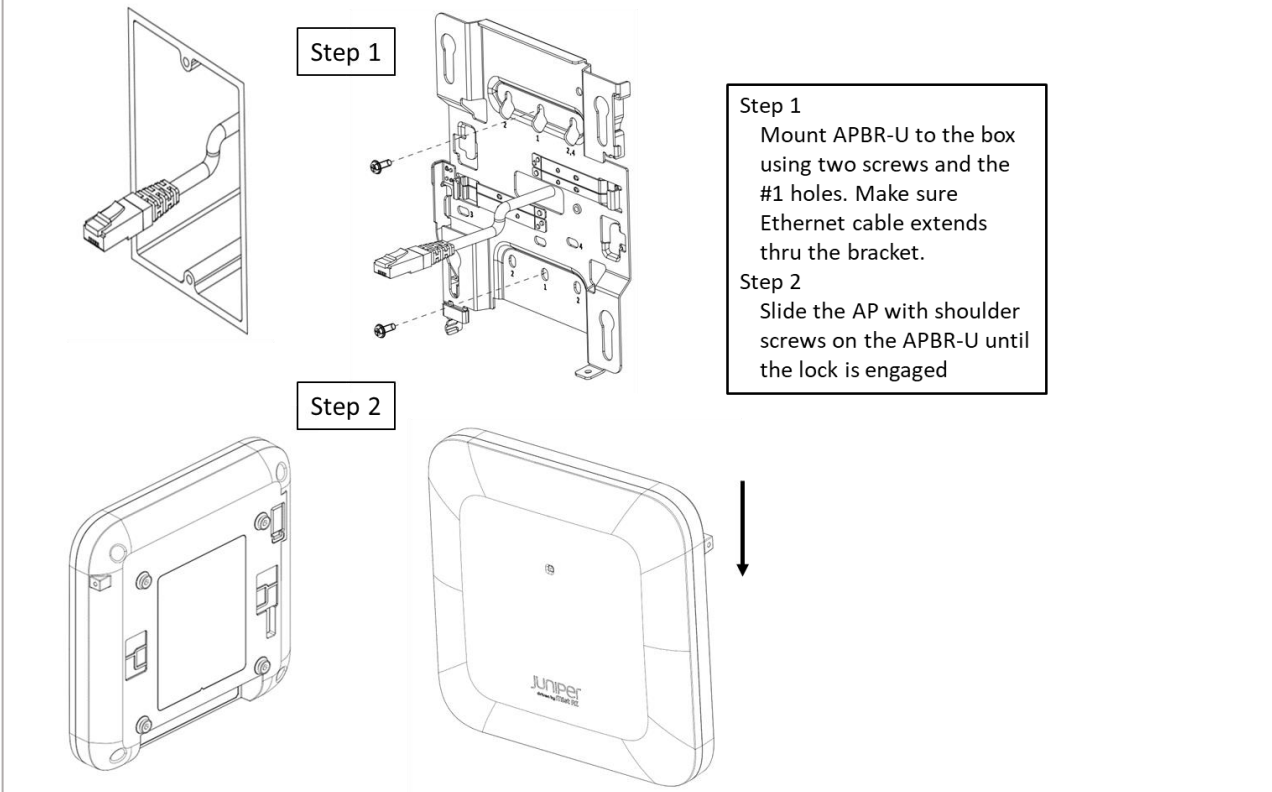
In a wall mount installation, please use screws that have a 1/4in. (6.3mm) diameter head with a length at least 2 in. (50.8mm).

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

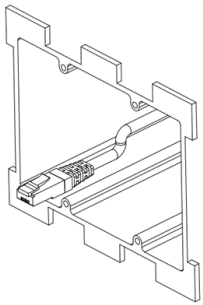
## Mounting to a 9/16 inch or 15/16 inch T-bar



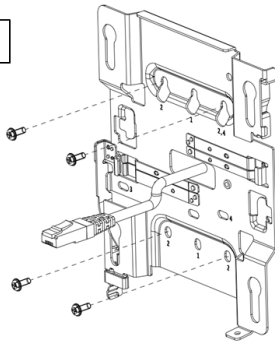
## US single gang, 3.5 or 4 inch round junction box



## US double gang junction box



Step 1



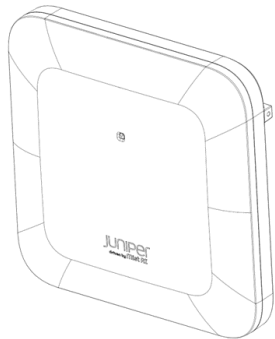
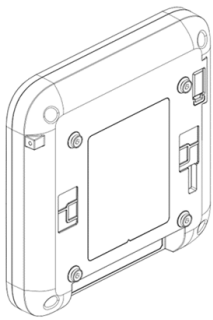
Step 1

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

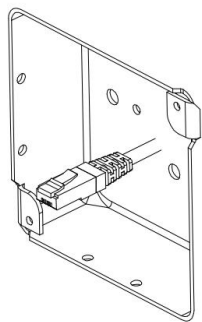
Step 2

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

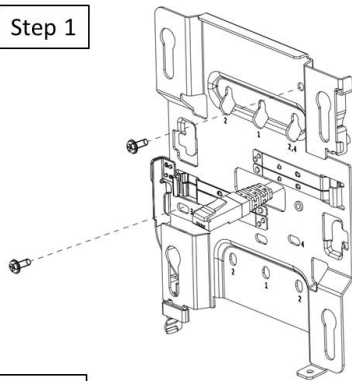
Step 2



## US 4 inch square junction box



Step 1



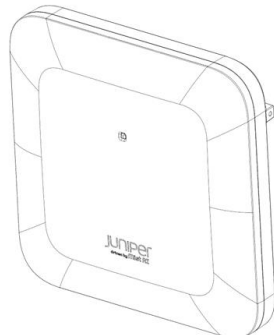
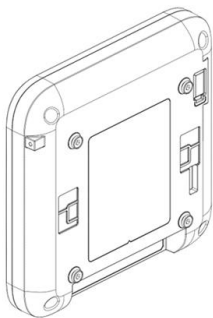
Step 1

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

Step 2

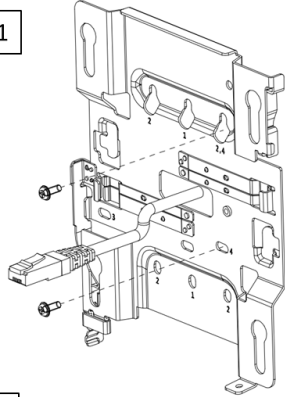
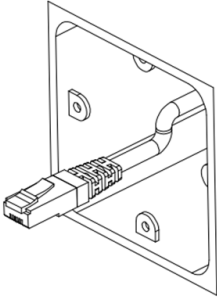
Slide the AP with shoulder screws on the APBR-U until the lock is engaged

Step 2



# EU junction box

Step 1



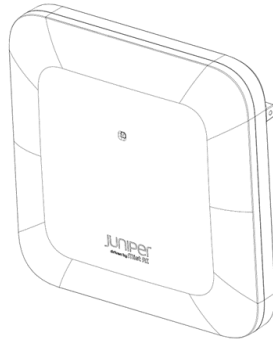
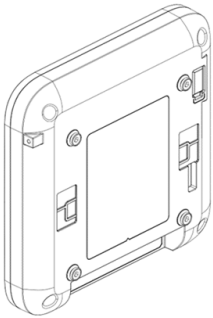
Step 1

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

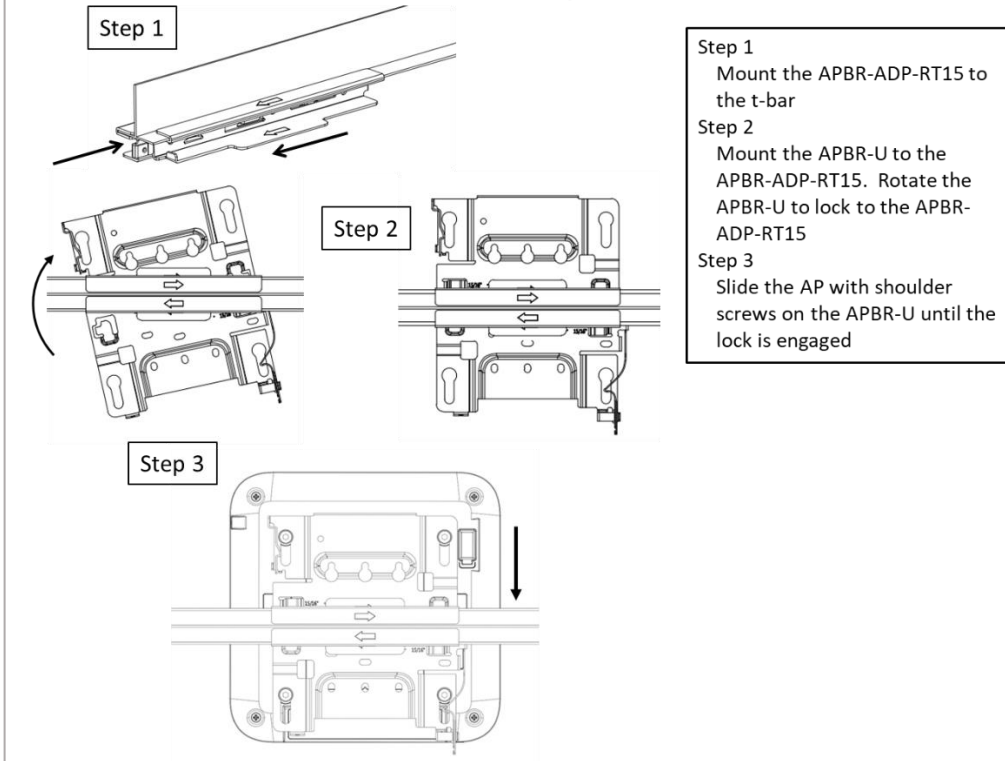
Step 2

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

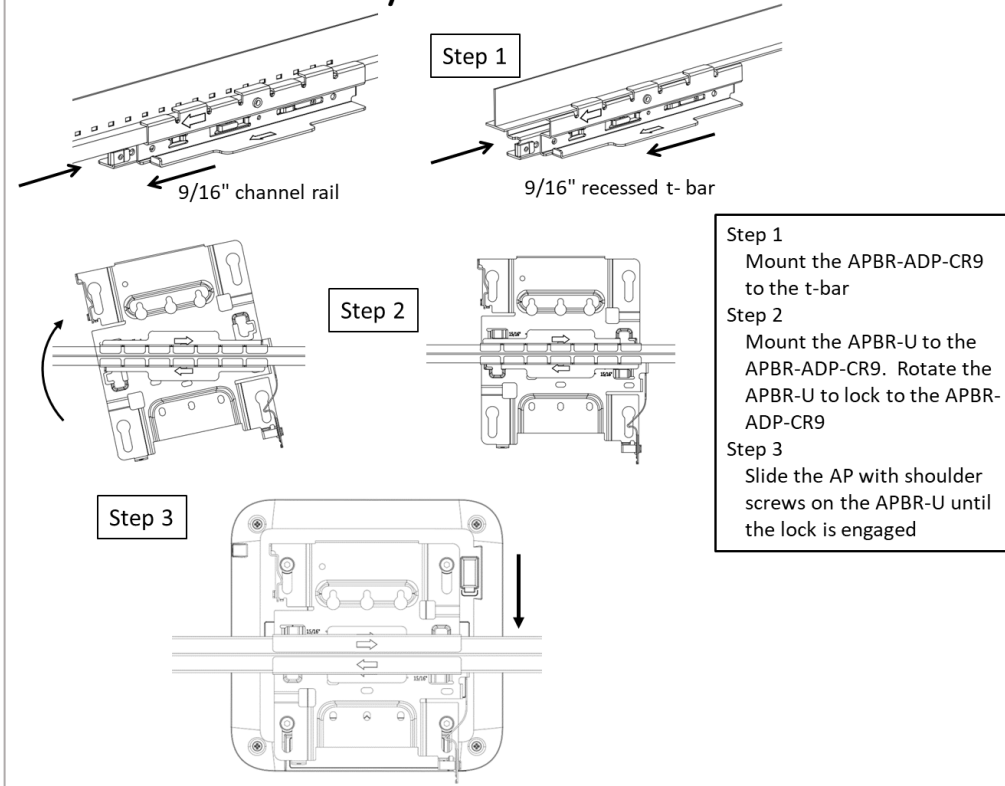
Step 2



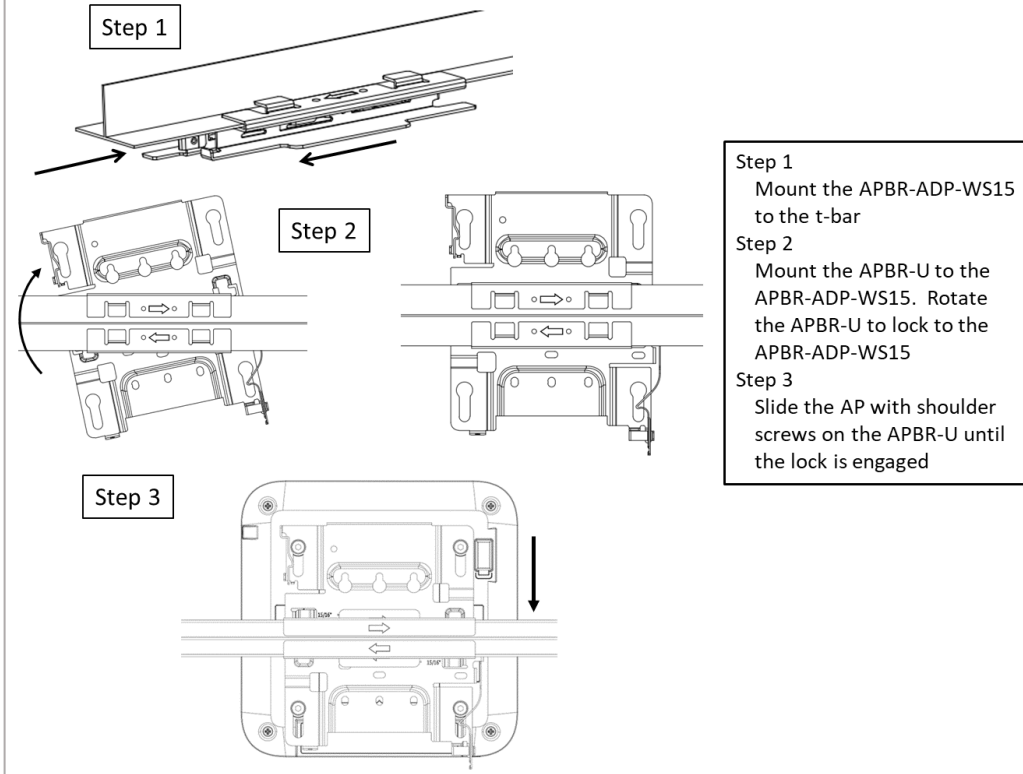
## Recessed 15/16 inch T-bar



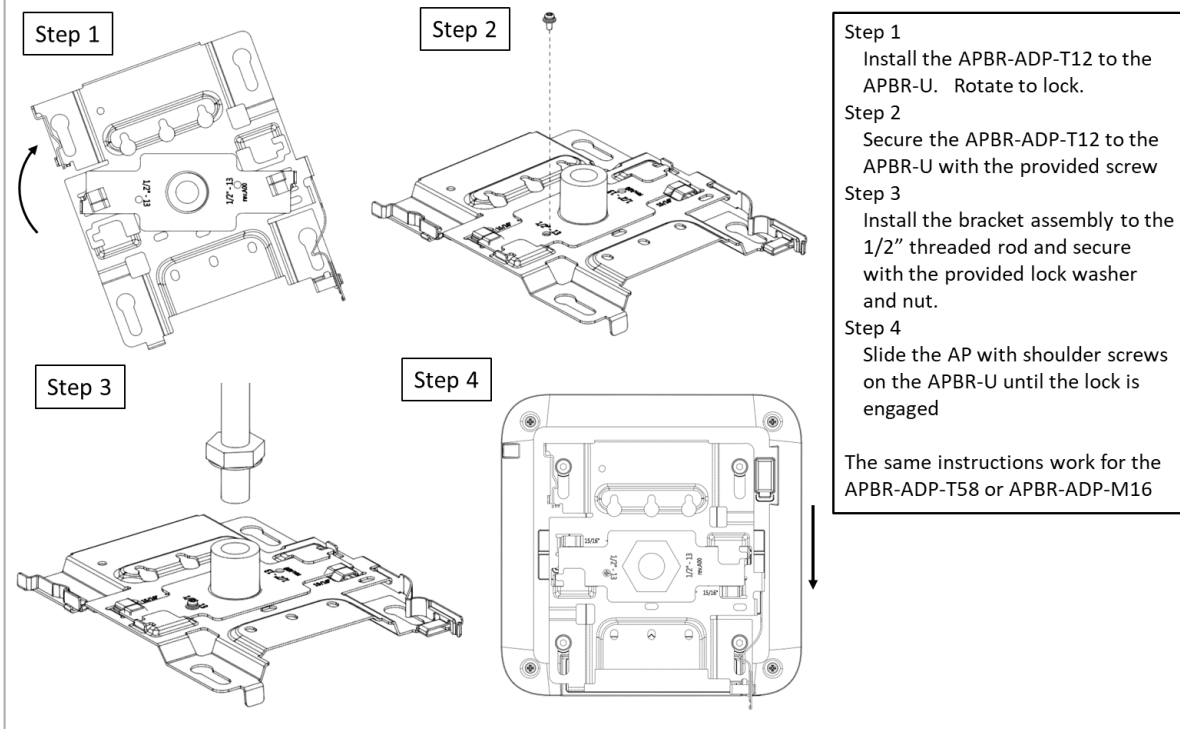
## Recessed 9/16 inch T-bar or channel rail



## 1.5 inch T-bar



## Threaded rod adapter (1/2", 5/8", or 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 - 2x2:2SS 802.11ax MU-MIMO & SU-MIMO 5GHz - 2x2:2SS 802.11ax MU-MIMO & SU-MIMO 1x1: 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.

## FCC Caution

- 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.

Cet appareil contient des émetteurs / récepteurs exempts de licence qui sont conformes au (x) RSS (s) exemptés de licence d'Innovation, Sciences et Développement économique Canada. L'opération est soumise aux deux conditions suivantes: (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

### 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-to-point 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

### Avertissement

- (i) les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;
- (ii) le gain maximal d'antenne permis pour les dispositifs utilisant les bandes de 5250 à 5350 MHz et de 5470 à 5725 MHz doit être conforme à la limite de la p.i.r.e.;
- (iii) le gain maximal d'antenne permis (pour les dispositifs utilisant la bande de 5725 à 5850 MHz) doit être conforme à la limite de la p.i.r.e. spécifiée pour l'exploitation point à point et l'exploitation non point à point, selon le cas;
- (iv) Utilisation limitée à l'intérieur seulement.
- (v) Utilisation interdite à bord de plateformes de forage pétrolier, de voitures, de trains, de bateaux et d'aéronefs, sauf à bord d'un gros aéronef volant à plus de 10 000 pieds d'altitude.

(vi) Les dispositifs ne doivent pas être utilisés pour commander des systèmes d'aéronef sans pilote ni pour communiquer avec de tels systèmes.

### **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.

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20cm (AP24) de distance entre la source de rayonnement et votre corps.



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:

<https://www.mist.com/support/>

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 product is for use by authorized professionals and in environments where the product has been assessed for safe and compliant operation. The installer is responsible for ensuring that the equipment meets all local safety requirements for the installed location.

For products not certified for use in Hazardous Locations, the equipment is not suitable for use in explosive environments, in the presence of flammable liquids, near explosives, or in areas where blasting is occurring.

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
	IE	IT	EL	ES	CY	LV	LI	LT	LU
	HU	MT	NL	NO	PL	PT	RO	SI	SK
	TR	FI	SE	CH	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:

<https://www.mist.com/support/>

The frequency and maximum transmitted Power in UK:

### Bluetooth:

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

### WLAN:

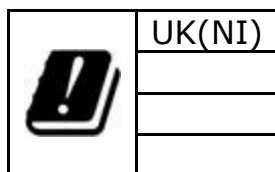
Frequency range (MHz)	Maximum EIRP in UK (dBm)
2400 – 2483.5	19.97
5150 – 5250	22.99
5250 – 5350	22.99
5500 – 5700	28.58
5745 – 5825	22.94
5925 – 6425	22.96

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.

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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.

この装置は、クラスB機器です。この装置は、住宅環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。

取扱説明書に従って正しい取り扱いをして下さい。

VCCI-B

## Morocco

AGREE PAR L'ANRT MAROC

AP24 -

Numéro d'agrément: MR 39148 ANRT 2023

Date d'agrément: 12/07/2023

## Thailand

- เครื่องโทรคมนาคมและอุปกรณ์นี้มีความสอดคล้องตามมาตรฐานหรือข้อกำหนดทางเทคนิคของ กสทช.



The image shows a regulatory notice from the National Telecommunications and Information Commission (NTIC) of Thailand. At the top is the NTIC logo, a golden Garuda bird with wings spread, above the text 'nab.' in red. Below the logo is Thai text: 'เครื่องวิทยุคมนาคมนี้ ได้รับยกเว้น ไม่ต้องได้รับใบอนุญาตให้มี ใช้งานเครื่องวิทยุคมนาคม หรือตั้งสถานีวิทยุคมนาคมตามประกาศ กสทช. เรื่อง เครื่องวิทยุคมนาคม และสถานีวิทยุคมนาคมที่ได้รับยกเว้นไม่ต้องได้รับใบอนุญาตวิทยุคมนาคม ตามพระราชบัญญัติวิทยุคมนาคม พ.ศ. 2498'. At the bottom left is a QR code. At the bottom right is the NTIC logo again, with the text 'nab. | โทรคมนาคม' in red, 'กำกับดูแลเพื่อประชาชน' in black, and 'Call Center 1200 (InSW5)' in black.

## Taiwan

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