



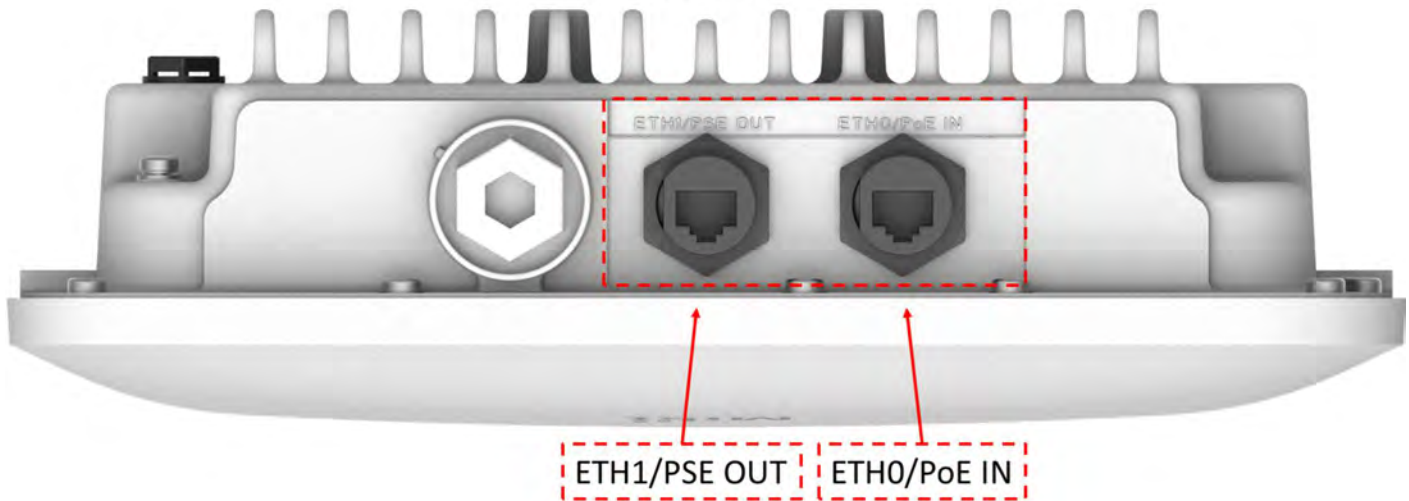
AP63 Hardware Installation Guide

Overview

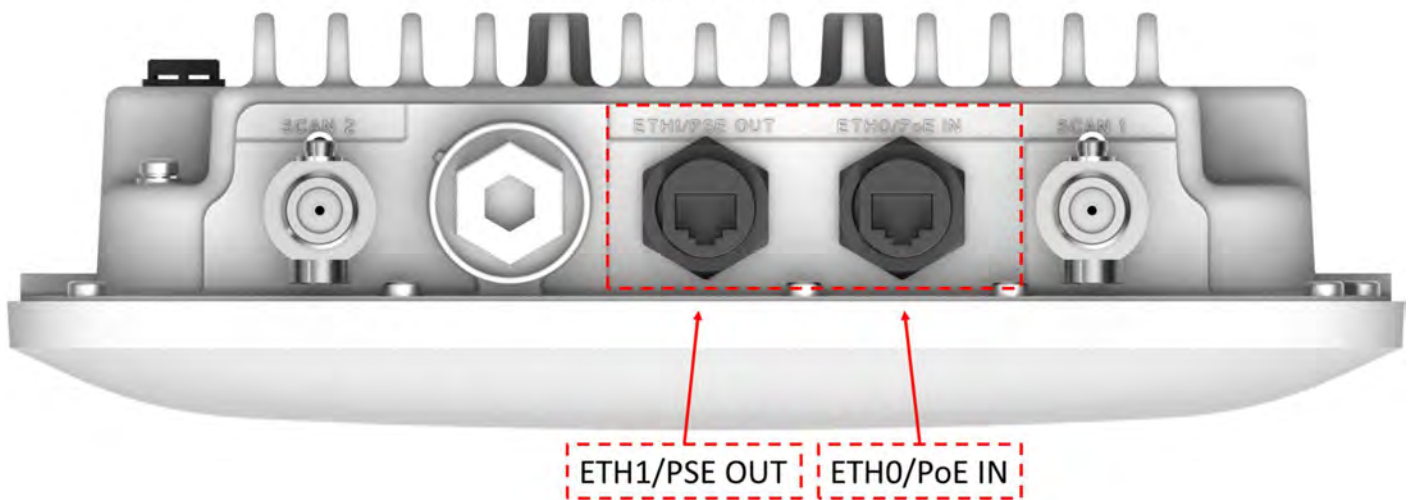
The Mist AP63 is an IP67 rated outdoor access point which contains three IEEE 802.11ax radios that deliver 4x4 MIMO with four spatial streams when operating in multi-user (MU) or single-user (SU) mode.

I/O ports

AP63

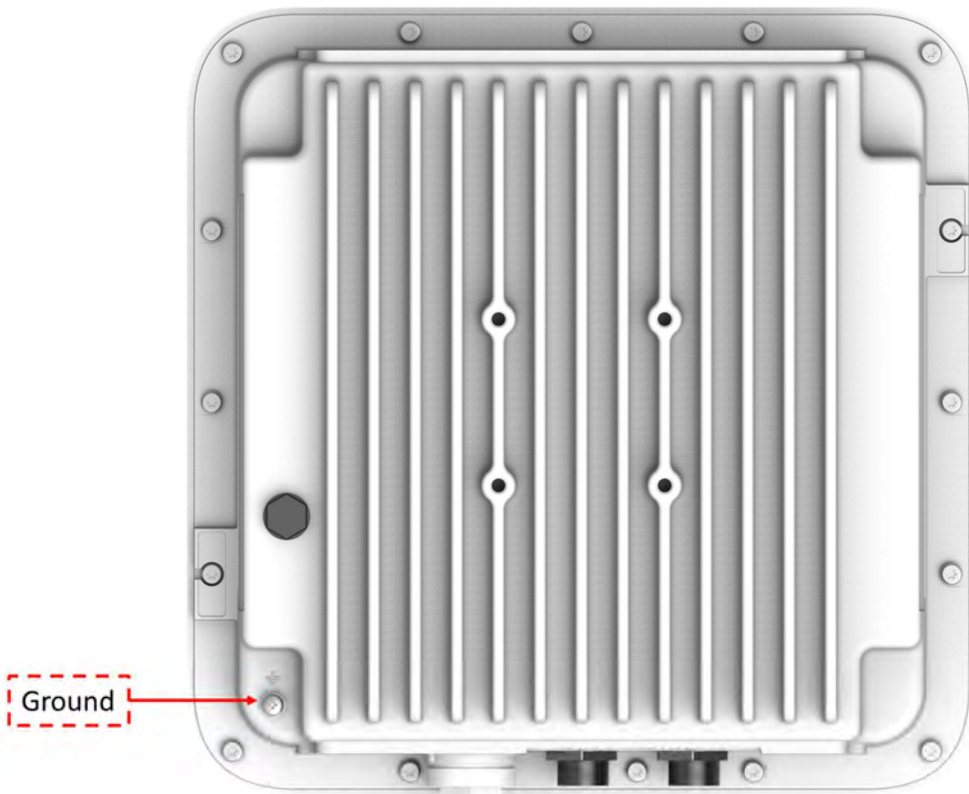


AP63E

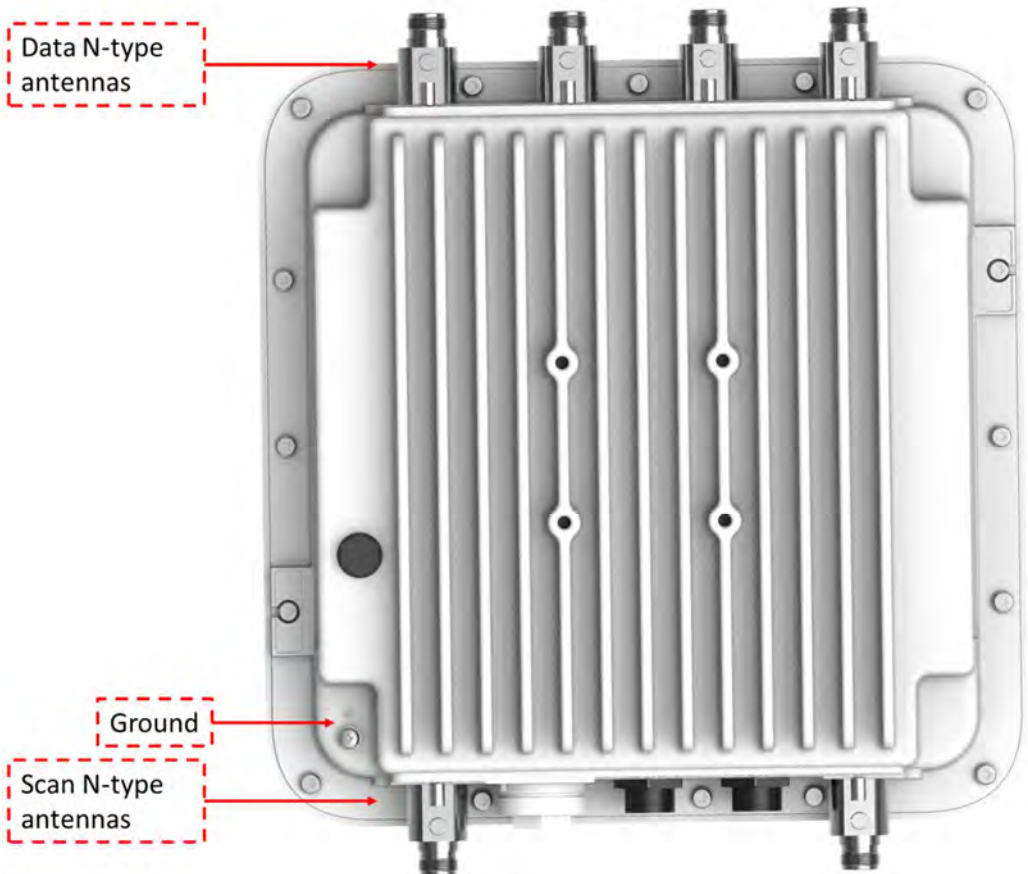


ETH0/PoE IN	100/1000/2500BASE-T RJ45 interface that supports 802.3at/802.3bt PoE PD
ETH1/PSE OUT	10/100/1000BASE-T RJ45 interface + 802.3af PSE (if PoE IN is 802.3bt)

AP63



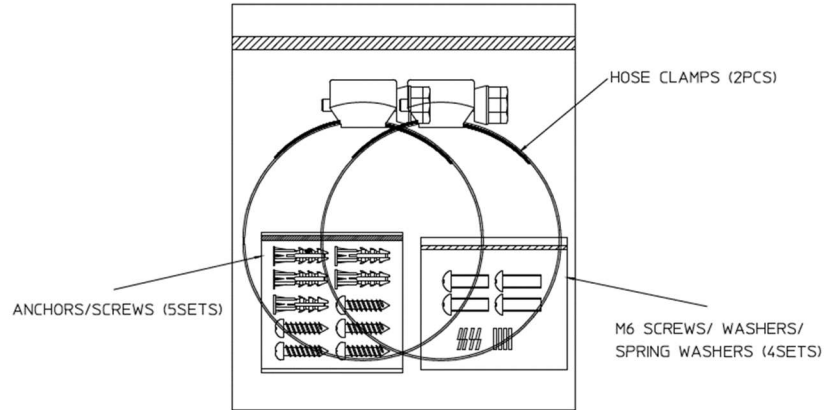
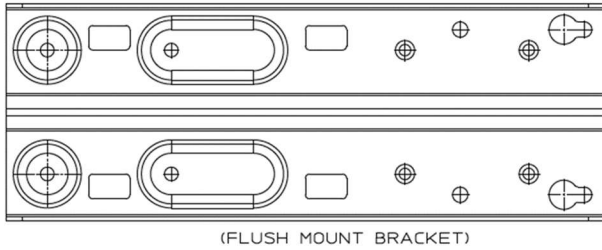
AP63E



AP63 Mounting Kit

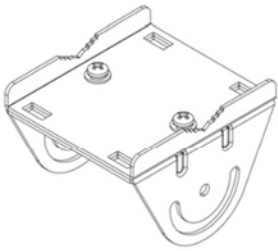
Flush Mount Bracket

APOUTBR-FM

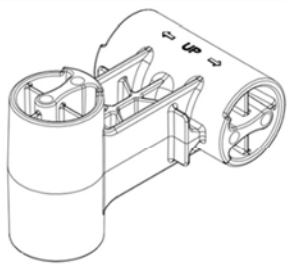


Articulating Mount Bracket

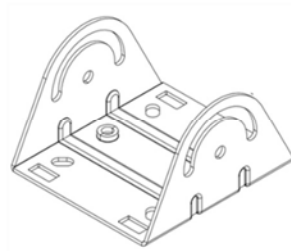
APOUTBR-ART2



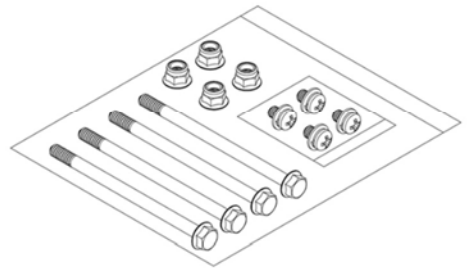
MOUNTING BRACKET 1



MOUNTING BRACKET 2

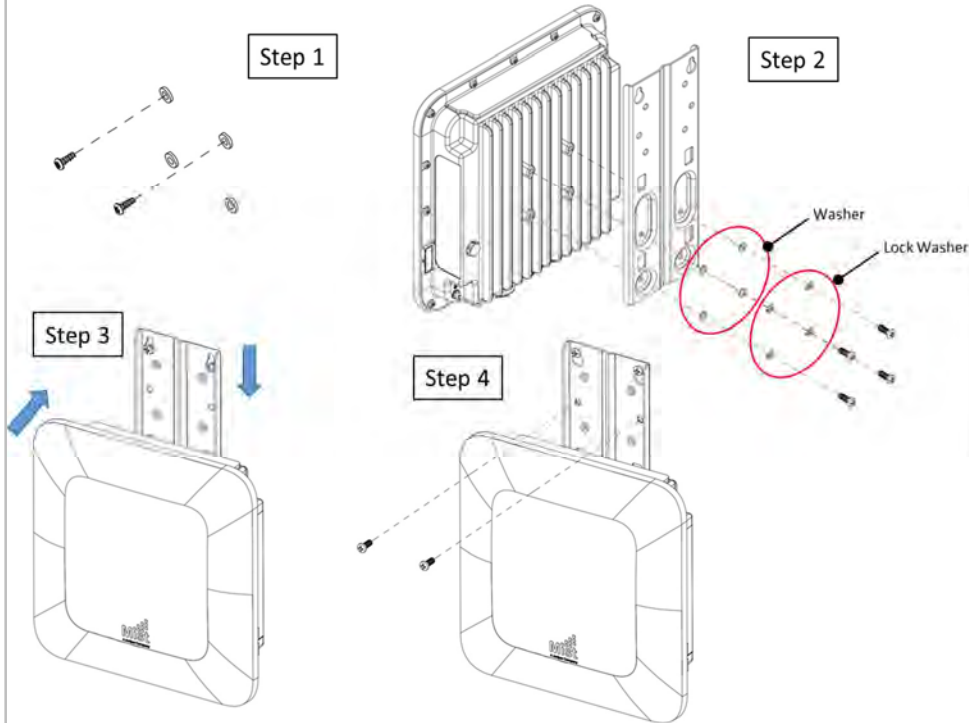


MOUNTING BRACKET 3



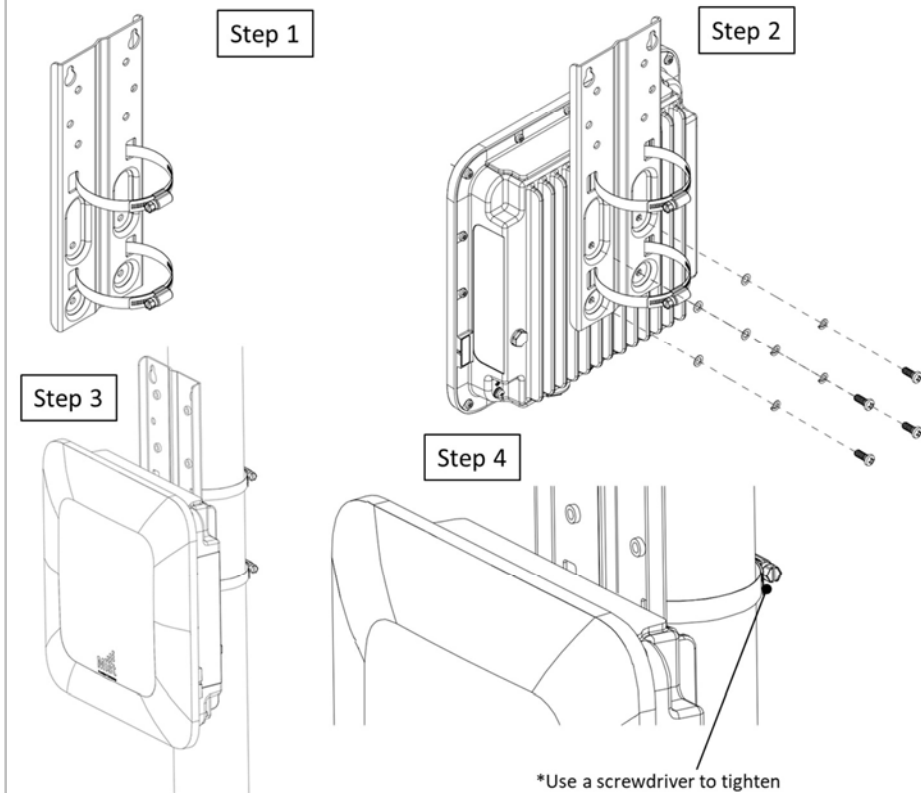
BOLTS / NUTS / M6-10mm SCREWS

Flush Mount to Surface



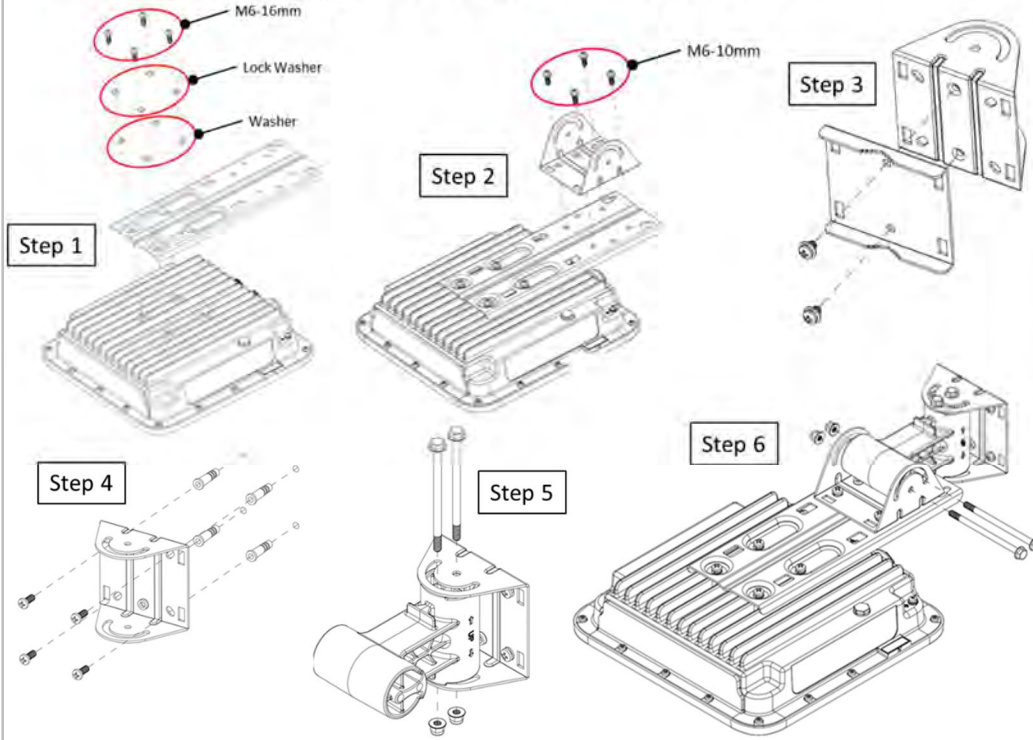
- Step1.**
Drill 4 holes into the surface and insert the 2 upper screws. Tighten halfway into the surface
- Step2.**
Install the APOUTBR-FM onto the AP63
- Step3.**
Install the AP63 with bracket onto the wall using the keyholes on the bracket
- Step4.**
Install the final 2 screws and tighten all into the surface

Flush Mount to Pole



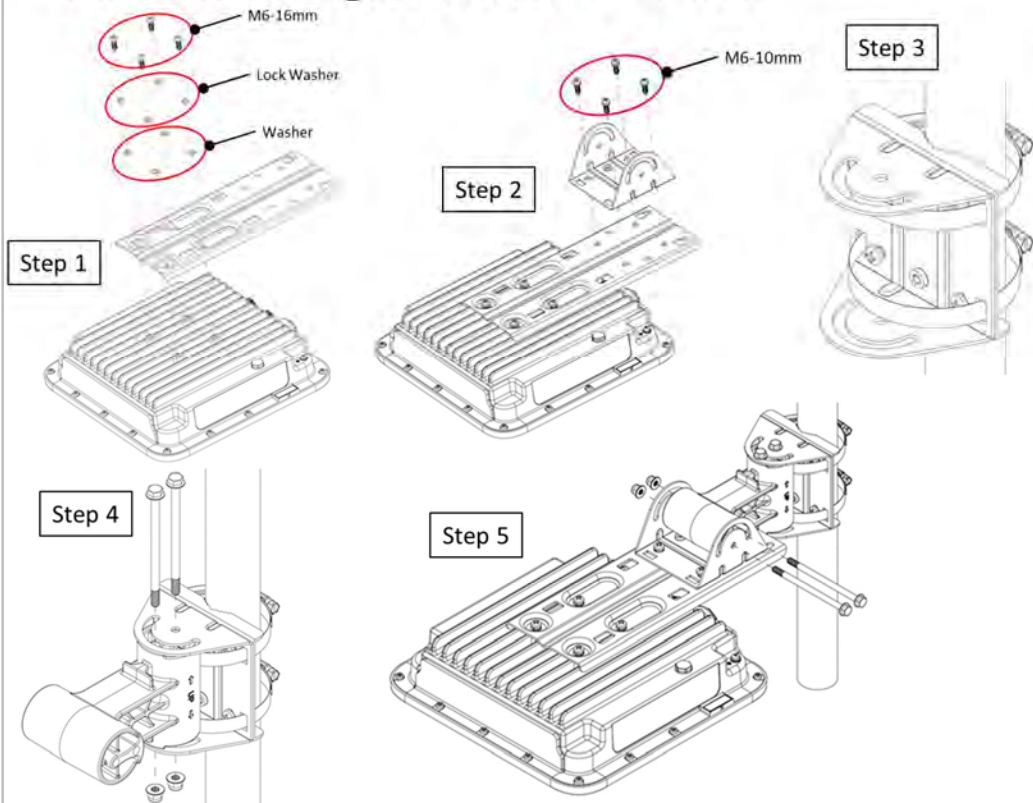
- Step1.**
Install the hose clamps onto the APOUTBR-FM.
- Step2.**
Install the APOUTBR-FM onto the AP63
- Step3.**
Install the AP63 with bracket to the pole
- Step4.**
Tighten the hose clamp screw

Articulating Mount to Surface



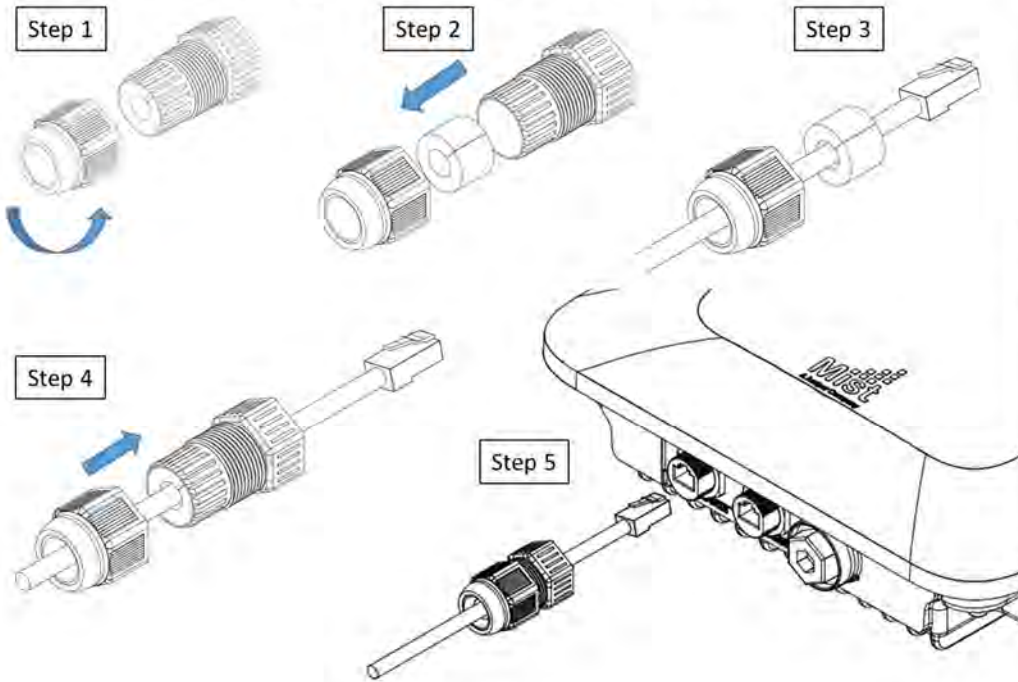
- Step1. Install the APOUTBR-FM to the AP63
- Step2. Install the APOUTBR-ART2 Mounting Bracket3 to the APOUTBR-FM
- Step3. Disassemble APOUTBR-ART2 Mounting Bracket1
- Step4. Install APOUTBR-ART2 Mounting Bracket1 to the surface
- Step5. Assemble APOUTBR-ART2 Mounting Bracket2 to Bracket1. Attach the side with "← UP →" to Bracket1
- Step6. Complete assembling the final parts together

Articulating Mount to Pole



- Step1. Install the APOUTBR-FM to the AP63
- Step2. Install the APOUTBR-ART2 Mounting Bracket3 to the APOUTBR-FM
- Step3. Install APOUTBR-ART2 Mounting Bracket1 to the pole
- Step4. Assemble APOUTBR-ART2 Mounting Bracket2 to Bracket1. Attach the side with "← UP →" to Bracket1
- Step5. Complete assembling the final parts together

Connecting RJ45 Cable Gland



- Step1.
Disassemble cable gland
- Step2.
Remove the blue seal from the cable gland. Select the proper seal:
Blue seal diameter is 7mm - 9.5mm
Red seal diameter is 5.5mm - 7mm
- Step3.
Open the seal and insert the Ethernet cable thru the nut and seal
- Step4.
Push Ethernet cable thru the gland. Push the seal into the gland and loosely tighten the nut
- Step5.
Connect the RJ45, tighten the cable gland to the AP63 meeting a torque spec of 10-12kg-cm, and fully tighten the nut to the cable gland meeting a torque spec of 7-10kg-cm

Technical Specifications:

Feature	Description
Power options	802.3at/802.3bt PoE
Dimensions	285mm x 285mm x 85mm (11.2in x 11.2in x 3.3in)
Weight	AP63: 3.4 kg (7.48 lbs) AP63E: 3.9 kg (8.58 lbs)
Operating temperature	AP63 / AP63E : -40° to 65° C without solar loading AP63 / AP63E: -40° to 55° C with solar loading
Operating humidity	10% to 90% maximum relative humidity, non-condensing
Operating altitude	3,048m (10,000 ft)
Water and Dust	IP67
Electromagnetic emissions	FCC Part 15 Class B
I/O	1 – 100/1000/2500BASE-T auto-sensing RJ-45 with PoE 1 – 10/100/1000BASE-T auto-sensing RJ-45 with PoE out
RF	2.4GHz or 5GHz - 4x4:4SS 802.11ax MU-MIMO & SU-MIMO 5GHz - 4x4:4SS 802.11ax MU-MIMO & SU-MIMO 2.4GHz / 5GHz scanning radio 2.4GHz BLE with Dynamic Antenna Array
Maximum PHY rate	Total maximum PHY rate – 4800 Mbps 5GHz – 2400 Mbps 2.4GHz or 5GHz – 1148 Mbps or 2400Mbps
Indicators	Multi-color status LED
Wind Loading	60 meters/second
Compliance standards	UL 62368-1 CAN/CSA-C22.2 No. 62368-1-14 FCC Part 15.247, 15.407, 15.107, and 15.109 RSS-247 ICES-003 (Canada)

Warranty Information

The AP63 family of Access Points come with a 1 year limited warranty.

Ordering Information:

Access Points

AP63-US	802.11ax 4+4 Outdoor and BLE AP – Internal Antenna for the US Regulatory domain
AP63E-US	802.11ax 4+4 Outdoor and BLE AP – External Antenna for the US Regulatory domain
AP63-WW	802.11ax 4+4 Outdoor and BLE AP – Internal Antenna for the WW Regulatory domain
AP63E-WW	802.11ax 4+4 Outdoor and BLE AP – External Antenna for the WW Regulatory domain

Mounting brackets

APOUTBR-KIT	APOUTBR-FM and APOUTBR-ART2
APOUTBR-FM	Flush mount for Outdoor AP
APOUTBR-ART2	Articulating mount for Outdoor AP

Regulatory Compliance Information:

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 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 31 cm between the radiator & your body.

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.
- It must be Professionally installed.

Industry Canada

This device complies with RSS-247 of the Industry Canada 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.

Ce dispositif est conforme à la norme CNR-247 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet 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.

Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 36 cm between the radiator & your body.

Déclaration d'exposition aux radiations: 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 36 cm de distance entre la source de rayonnement et votre corps.

IC Caution

This radio transmitter (IC: 22068-AP63 / Model: AP63, AP63E) has been approved by Innovation, Science, and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Avertissement

Le présent émetteur radio (IC: 22068-AP63 / Model: AP63, AP63E) a été approuvé par Innovation, Sciences et Développement économique Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal d'antenne. Les types d'antennes non inclus dans cette liste qui ont un gain supérieur au gain maximal indiqué pour tout type listé sont strictement interdits pour une utilisation avec cet appareil.

Approved antenna(s) list:

AP63:

Ant	Brand	Model Name	Antenna Type	Antenna Gain (dBi)			Radio
				WLAN 2.4GHz	WLAN 5GHz	Bluetooth	
1 ~ 4	Juniper	81XKAF15,G35	PIFA	-	6	-	5GHz
5 ~ 8	Juniper	81XKAF15,G35	PIFA	4	-	-	2.4GHz
9	Juniper	81XKAF15,G35	PIFA	2.3	4.7	-	2.4GHz/5GHz
10	Juniper	81XKAF15,G35	PIFA	2.3	4.7	-	2.4GHz/5GHz
11 ~ 18	Juniper	81XKAF15,G35	PIFA	-	-	5.1	BT
19	Juniper	81XKAF15,G35	PIFA	-	-	4.3	BT
20	Juniper	81XKAF15,G35	PIFA	-	-	1.4	BT

AP63E:

Ant	Port	Brand	Model Name	Antenna Type	Antenna Gain (dBi)			Radio
					WLAN 2.4GHz	WLAN 5GHz	Bluetooth	
1	1 ~ 6	Acceltex	ATS-OO-245-46-6NP-36	Omni	4	6	-	2.4GHz/5GHz
2	1 ~ 6	Acceltex	ATS-OP-245-810-6NP-36	Patch	8	10	-	2.4GHz/5GHz
3 ~ 10		Juniper	81XKAF15,G35	PIFA	-	-	5.1	BT
11		Juniper	81XKAF15,G35	PIFA	-	-	4.3	BT
12		Juniper	81XKAF15,G35	PIFA	-	-	1.4	BT



This device complies with the Radio Equipment Directive, 2014/53/EU, issued by the Commission of the European Community.

Hereby, Juniper Networks, Inc. declares that the radio equipment type (AP63) 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 EIRP Power in EU:

Bluetooth:

Frequency range (MHz)	Maximum EIRP in EU (dBm)
2400 – 2483.5	8.19

WLAN:

Frequency range (MHz)	Maximum EIRP in EU (dBm) – Ext. Omni	Maximum EIRP in EU (dBm) – Ext. Patch	Maximum EIRP in EU (dBm) – Int. PIFA
2400 – 2483.5	19.99	19.99	19.99
5470 – 5725	29.99	29.99	29.93
5725 – 5850	13.94	13.98	13.97

The minimum distance between the user or bystander and the radiating structure of the transmitter is 20 cm.