



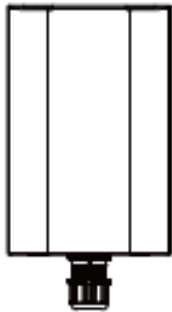
User Manual

WAP683EXT

Version 1.0

Installation

Package Contents



AP/Bridge



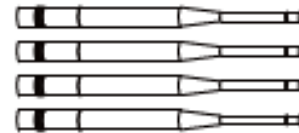
Power Cord



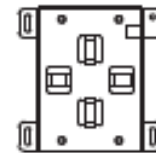
PoE Adapter



Pole Mounting
Strap x2



Detachable Antennas
2 x 2.4GHz Antennas
2 x 5GHz Antennas



Mounting Bracket

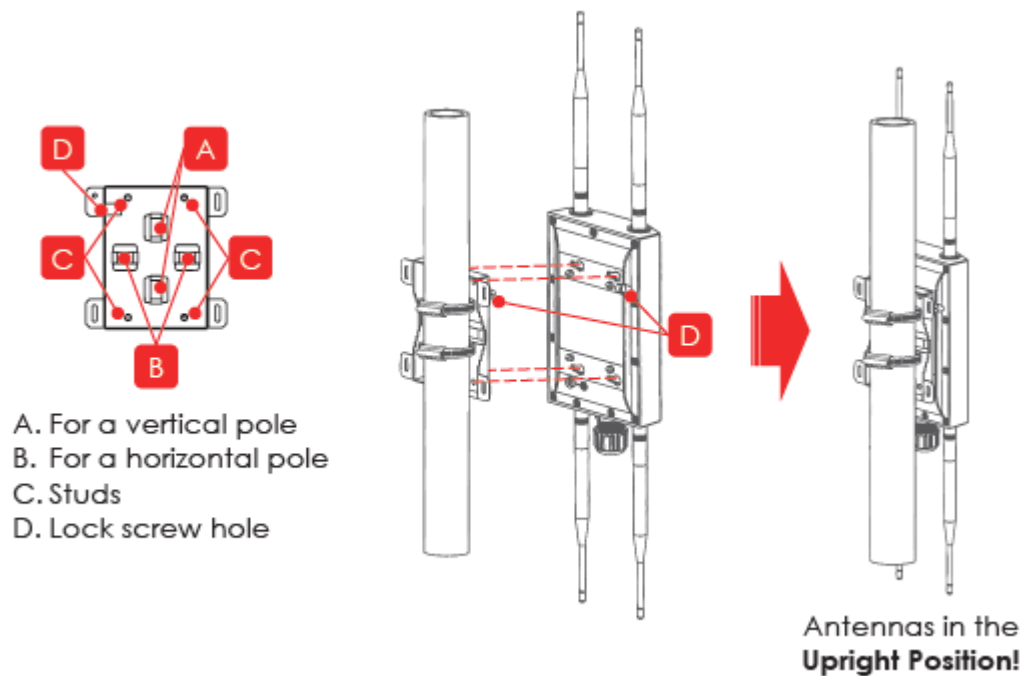


Mounting Screw
Set x 2

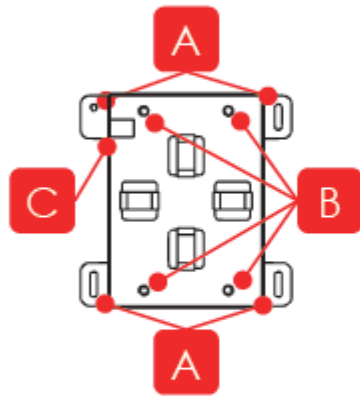


Ground Wire
& Screw Set

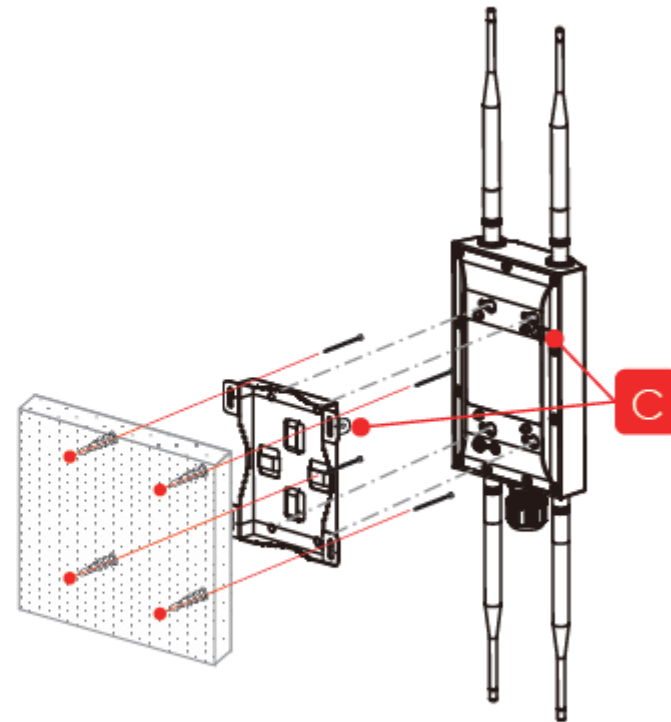
1. Thread the open end of the hose clamps through the two slots of the mounting bracket. The top and bottom slots are used for a vertical pole, and the left and right slots are for a horizontal pole.
2. Determine where the AP is to be placed. Make sure the lock screw hole is in the top left position. Tighten the hose clamps to secure the bracket to the pole.
3. Align the studs of the mounting bracket with the WAP683EXT's mounting slots. Slide the WAP683EXT and lock it to the bracket with the lock screw.



1. Determine where the WAP683EXT is to be placed and mark locations on the wall surface for the four mounting holes of the WAP683EXT's mounting bracket. Use an appropriate drill bit to drill holes of 1/3" (8.1mm) diameter and 1" (26mm) deep. Screw the anchors into the holes and then insert the screws through the mounting bracket into the anchors. Make sure the lock screw hole is in the top left position. Tighten the screws to secure the bracket to the wall.
2. Align the studs of the mounting bracket with the WAP683EXT's mounting slots. Slide the WAP683EXT and lock it to the bracket with the lock screw.



- A. Wall mount holes
- B. Studs
- C. Lock screw hole



Antennas in the **Upright Position!**

Chapter1

Product Overview

Introduction

Key Features

The 802.11ax high performance Access Point with MU-MIMO and OFDMA technology for high-density use on multiple applications

Emplus Wireless Access Point solution is designed for versatile outdoor applications. To meet various requirements for different networking environment, Emplus provides the most flexible and effective solutions as your expectations.

The state-of-the-art 802.11ax and MU-MIMO technology brings high performance on connecting speed and bandwidth. WAP683EXT equips with two powerful RF interfaces which support up to 2402Mbps in 5GHz frequency band and 573Mbps in 2.4GHz frequency band.

Physical Interface (WAP683EXT)

Hardware Overview



- A. LED icons
- B. Mounting slots
- C. Lock screw
- D. Ground point
- E. Ethernet port with cable gland
- F. 2.4GHz RF ports (RP-SMA female type)
- G. 5GHz RF ports (RP-SMA female type)

Physical & Environment

Power Source	PoE: compatible with 802.3at or Passive PoE
Internal High Gain Antenna (Peak Gain)	2x Single-Band @2.4GHz, 5.17dBi (Dipole) 2x Single-Band @5GHz, 5.17dBi (Dipole)
Interface	1 x 10/100/1000/2500Mbps Ethernet Port with 802.3at PoE
Dimensions (W x D x H)	124x190x47 mm
Mounting	Pole Mount/Wall mount
Environment	Operating Temperature: -20°C ~ 60°C Operating Humidity: Up to 90% RH, non-condensing
Technical Specifications	Storage temperature: -30°C ~ 80°C

*This equipment is only to be connected to PoE networks without routing to outside plants.

Applications

Wireless LAN (WLAN) products are easy to install and highly efficient. The following list describes some of the many applications made possible through the power and flexibility of WLANs:

- **Difficult-to-Wire Environments:** There are many situations where wires cannot be installed, deployed easily, or cannot be hidden from view. Older buildings, sites with multiple buildings, and/or areas that make the installation of a Ethernet-based LAN impossible, impractical or expensive are sites where WLAN can be a network solution.
- **Temporary Workgroups:** Create temporary workgroups/networks in more open areas within a building; auditoriums, amphitheaters classrooms, ballrooms, arenas, exhibition centers, or temporary offices where one wants either a permanent or temporary Wireless LAN established.
- **The Ability to Access Real-Time Information:** Doctors/Nurses, Point-of-Sale Employees, and/or Warehouse Workers can access real-time information while dealing with patients, serving customers, and/or processing information.
- **Frequently Changing Environments:** Set up networks in environments that change frequently (i.e.: Show Rooms, Exhibits, etc.).
- **Small Office and Home Office (SOHO) Networks:** SOHO users require a cost-effective, easy, and quick installation of a small network.
- **Training/Educational Facilities:** Training sites at corporations or students at universities use wireless connectivity to exchange information between peers and easily access information for learning purposes.

Appendix A - FCC Interference Statement

Federal Communication Commission Interference Statement

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 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.

IMPORTANT NOTE:

Radiation Exposure Statement:

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

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Country Code selection feature to be disabled for products marketed to the US/CANADA

This radio transmitter FCC ID: 2AL6XWAP683EXT has been approved by FCC to operate with antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	Master Wave	98143MRSX000	Dipole	5.17dBi
2	Master Wave	98143URSX000	Dipole	5.17dBi

Appendix B - CE Interference Statement

Europe – EU Declaration of Conformity

- EN 60950-1

Safety of Information Technology Equipment

- EN 50385

Generic standard to demonstrate the compliance of electronic and electrical apparatus with the basic restrictions related to human exposure to electromagnetic fields (0 Hz - 300 GHz)

- EN 300 328

Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband Transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using spread spectrum modulation techniques; Harmonized EN covering essential requirements under article 3.2 of the Radio Equipment Directive

- EN 301 893

Broadband Radio Access Networks (BRAN); 5 GHz high-performance RLAN; Harmonized EN covering essential requirements of article 3.2 of the Radio Equipment Directive

- EN 301 489-1

Electromagnetic compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements

- EN 301 489-17

Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for 2.4 GHz wideband transmission systems and 5 GHz high-performance RLAN equipment

This device is a 5GHz wideband transmission system (transceiver), intended for use in all EU member states and EFTA countries, except in France and Italy where restrictive use applies.

In Italy, the end-user should apply for a license at the national spectrum authorities to obtain authorization to use the device for setting up outdoor radio links and/or for supplying public access to telecommunications and/or network services.

This device may not be used for setting up outdoor radio links in France, and in some areas, the RF output power may be limited to 10

mW EIRP in the frequency range of 2454 – 2483.5 MHz. For detailed information, the end-user should contact the national spectrum authority in France.

The frequency and the maximum transmitted power in the EU are listed below:

2412-2472MHz: 17dBm

5150-5250 & 5725-5850MHz: 18dBm

cs Česky [Czech]	[Czech] [Jméno výrobce] tímto prohlašuje, že tento [typ zařízení] je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 2014/53/EU.
da Dansk [Danish]	[Danish] Undertegnede [fabrikantens navn] erklærer herved, at følgende udstyr [udstyrets typebetegnelse] overholder de væsentlige krav og øvrige relevante krav i direktiv 2014/53/EU.
de Deutsch [German]	[German] Hiermit erkläre [Name des Herstellers], dass sich das Gerät [Gerätetyp] in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 2014/53/EU befindet.
Eesti [Estonian]	[Estonian] Käesolevaga kinnitab [tootja nimi] seadme [seadme tüüp] vastavust direktiivi 2014/53/EL põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
English	[English] Hereby, [name of manufacturer], declares that this [type of equipment] is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.
Español [Spanish]	[Spanish] Por medio de la presente [nombre del fabricante] declara que el [clase de equipo] cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 2014/53/UE.
Ελληνική [Greek]	[Greek] ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ [name of manufacturer] ΔΗΛΩΝΕΙ ΟΤΙ [type of equipment] ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 2014/53/ΕΕ.

Français [French]	[French] Par la présente [nom du fabricant] déclare que l'appareil [type d'appareil] est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 2014/53/UE.
Italiano [Italian]	[Italian] Con la presente [nome del costruttore] dichiara che questo [tipo di apparecchio] è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 2014/53/UE.
Latviski [Latvian]	[Latvian] Ar šo [name of manufacturer] deklarē, ka [type of equipment] atbilst Direktīvas 2014/53/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
	<i>f equipment / iekārtas tips</i>] atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lietuvių [Lithuanian]	[Lithuanian] Šiuo [manufacturer name] deklaruoja, kad šis [equipment type] atitinka esminius reikalavimus ir kitas 2014/53/EB Direktyvos nuostatas.
Nederlands [Dutch]	[Dutch] Hierbij verklaart [naam van de fabrikant] dat het toestel [type van toestel] in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 2014/53/EU.
Malti [Maltese]	[Maltese] Hawnhekk, [isem tal-manifattur], jiddikjara li dan [il-mudel tal-prodott] jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn rilevanti li hemm fid-Dirrettiva 2014/53/CE.
Magyar [Hungarian]	[Hungarian] Alulírott, [gyártó neve] nyilatkozom, hogy a [... típus]megfelel a vonatkozó
Polski [Polish]	[Polish] Niniejszym [nazwa producenta] oświadczam, że [nazwa wyrobu] jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 2014/53/UE.
Português [Portuguese]	<i>[Portuguese] [Nome do fabricante] declara que este [tipo de equipamento] está em conformidade com os requisitos essenciais e outras disposições relevantes da Diretiva 2014/53/UE.</i>
Slovensko [Slovenian]	[Slovenian] [Ime proizvajalca] izjavlja, da je ta [tip opreme] v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili Direktive 2014/53/EU.
Slovensky [Slovak]	<i>[Slovak] [Meno výrobcu] týmto vyhlasuje, že [typ zariadenia] spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 2014/53/EÚ.</i>
Suomi [Finnish]	<i>[Finnish] [Valmistaja] vakuuttaa täten, että tämä [laitetyyppi] on direktiivin 2014/53/EU oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.</i>

Svenska [Swedish] 	[Swedish] Härmed intygar [företag] att denna [utrustningstyp] uppfyller de väsentliga kraven och övriga relevanta bestämmelser i direktiv 2014/53/EU.
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