

CAP-5015D

Outdoor Wireless AP/Bridge/Router/CPE

Quick Installation Guide

Version 1.0.3

WiBorne, Inc.

1. Before You Start



Package Contents

- | | |
|-----------------------------------|-----|
| • CAP-5015D | x 1 |
| • Quick Installation Guide | x 1 |
| • CD-ROM (with UG and QIG) | x 1 |
| • Power Adapter DC24V or 48V 0.5A | x 1 |
| • PoE injector | x 1 |
| • Mounting Kit | x 1 |

Required Equipments

- Web Browser: Internet Explorer (6.0 or above), Firefox, or Safari.
- A Computer with a network adapter properly installed.
- 2 x RJ45 Ethernet cables.

Panel Function Description

Front Panel



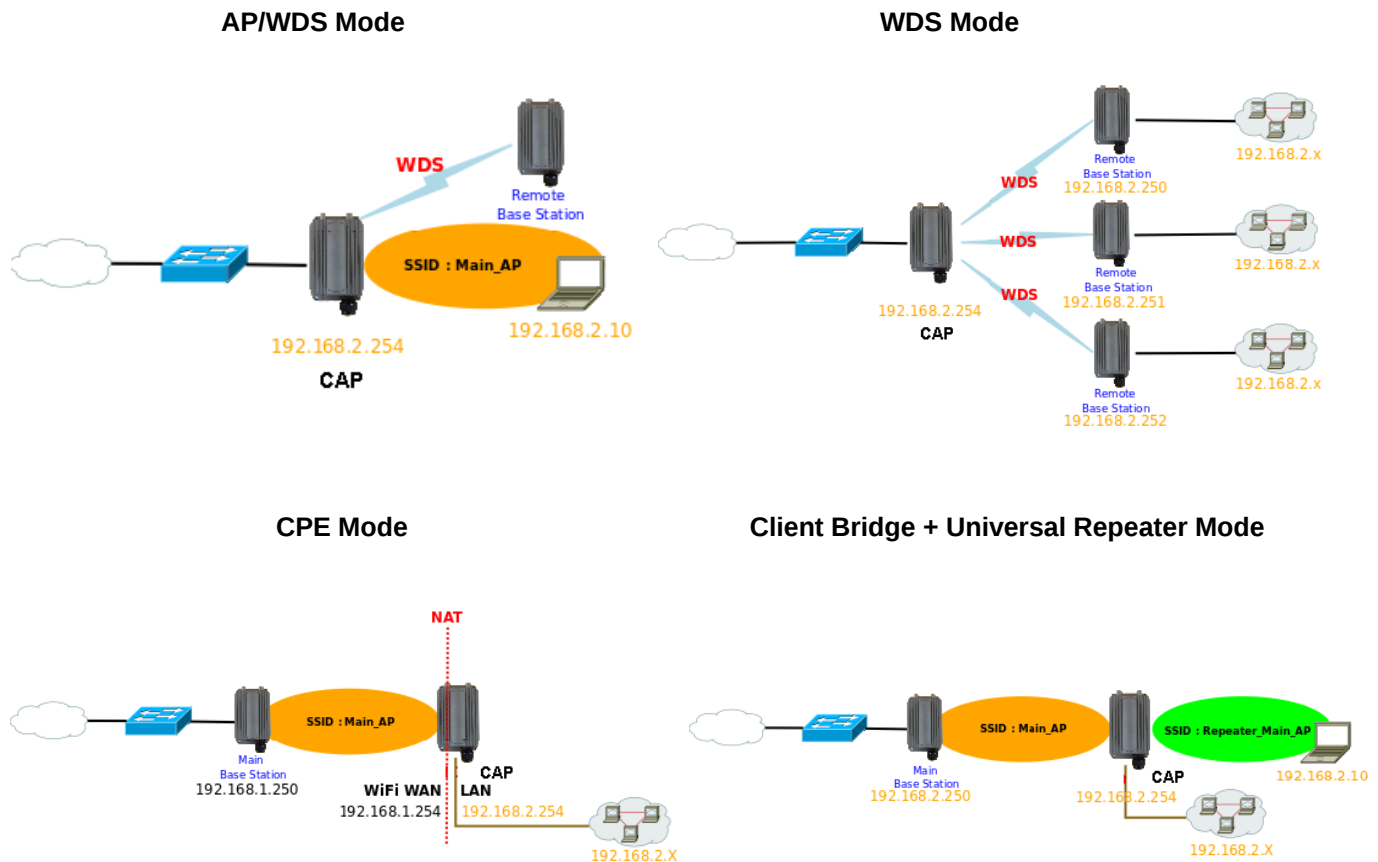
Rear Panel



1. Reboot Button: Unscrew the screw and click Reset button to restart system or reset to default configurations.
 - Press and hold the Reset button for 2 seconds and release to restart system. The LED except Power indicator will be off prior of restart.
 - Press and hold the Reset button for more than 10 seconds to reset the system to default configurations.
2. Power: Green LED ON indicates power on, and OFF indicates power off.
3. WLAN: Green LED FLASH indicates Wireless Transmit.
4. LAN: Green LED ON indicates connection, OFF indicates no connection, FLASH indicates Packets transmit
5. PoE Connector: For connecting to PSE
6. Optional N-type Connector(s): For connecting to N-Type Antenna

Application in Wireless Network

CAP-5015D is a multiple mode system which can be configured either as a wireless gateway or an access point as desired. It also can be used as a WDS link for Ethernet network expansion. Following diagrams illustrate applications for **AP Mode**, **WDS Mode**, **CPE Mode**, and **Client Bridge + Universal Repeater Mode**.



2. Hardware Installation



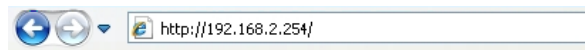
Note:

- Using the 1st RJ45 Ethernet cable, connect one end of this cable onto the Power over Ethernet (PoE) connector of CAP-5015D
- Connect the opposite end of above cable to the **P+DATA OUT** port on the PoE Injector
- Using the 2nd RJ45 Ethernet cable, connect one end of this cable onto the **DATA IN** port of the PoE Injector
- Connect the opposite end of the 2nd RJ45 cable onto a LAN port on your network or computer
- Connect the power cord into the PoE Injector. Then connect the power cord to a power outlet.

3. Configuring the Access Point

Note:

1. It is recommended that you configure the Access Point from a wired computer. Before configuring the Access Point, a Static IP address must be assigned to your computer's network adapter in the subnet of **192.168.2.x**. Since the Access Point's default IP address is **192.168.2.254**, make sure no other network devices are assigned an IP address of **192.168.2.254**. (Refer to **How to configure TCP/IP settings on your PC**.)
2. Disable any anti-virus and firewall programs before configuring the access point.
3. Type in 192.168.2.254 from your web browser:



4. Login is **root**, password is **default**. If your previous mode is set with CPE mode then login and password are both **admin** for management account.
5. Click **Wireless -> Virtual AP Setup**, Configure the LAN settings to match your network settings and then click **Save** button.

LAN Setup

Ethernet Connection Type Mode : ☒ Static IP ☐ Dynamic IP		DNS DNS : ☒ No Default DNS Server ☐ Specify DNS Server IP Primary : Secondary :	
Static IP IP Address : 192.168.2.254 IP Netmask : 255.255.255.0 IP Gateway : 192.168.2.1		802.1d Spanning Tree STP : ☐ Enable ☒ Disable	
Save			

6. Select **Edit** for the desired Virtual AP(VAP):

VAP List					
VAP	ESSID	Status	Security Type	MAC Action	Edit
Primary AP	Main_AP	On	Disable	Disable	Edit
VAP1		Off	Disable	Disable	Edit
VAP2		Off	Disable	Disable	Edit
VAP3		Off	Disable	Disable	Edit
VAP4		Off	Disable	Disable	Edit
VAP5		Off	Disable	Disable	Edit
VAP6		Off	Disable	Disable	Edit

7. Enter the desired **ESSID**.
8. Select the desired **Security Type**. To protect your network from any unauthorized access it is recommended to enable wireless encryption. The example below shows WPA2-PSK option.

Security

MAC Address : 00:11:A3:0A:7B:FA

ESSID : Main_AP

Client Isolation : ☐ Enable ☒ Disable

Hidden SSID : ☐ Enable ☒ Disable

Maximum Clients : 32

VLAN Tag(ID) : ☐ Enable ☒ Disable 1 (1-4094)

Security Type : WPA2-PSK

9. Select the Cipher Suite (Type) such as **AES**. Enter a Pre-shared Key and then click **Save** button. The key must be between **8 and 63 ASCII** or **64 HEX** characters. Make sure to save the encryption key.

WPA General

Cipher Suite : AES

Pre-shared Key :

Group Key Update Period : 3600 seconds

10. Click Reboot:

Reboot

i You must be reboot the system after changing settings. Rebooting the system will not delete any of your configuration settings. Click reboot button to reboot the system.

Reboot

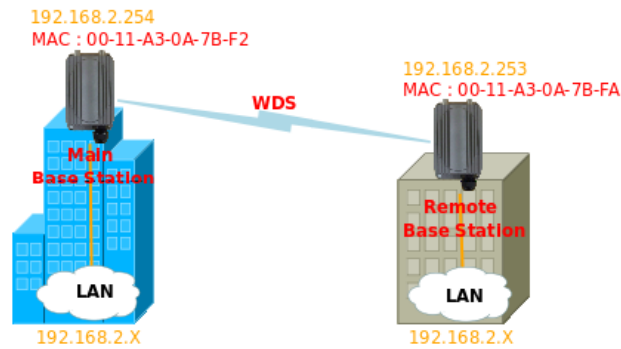
Your installation is complete.

4. Configuring for WDS Link

Note:

- The system provides WDS function on **Router AP Mode**, **AP Mode**, and **WDS Mode**.
- WDS Link requires at least 2 units of CAP-5015D. The Two wired networks (LAN) need to be on the same subnet.
- The WDS Link needs to be set at same **Channel** and with same **Security Type**.
- To be familiar with WDS mode, you can configure in lab environment prior of mounting the CAP-5015D on field.
- Once you set CAP-5015D to be on **WDS Mode**, wireless clients will not be able to connect to the CAP-5015D, unless such clients are on the same WDS mode.

The example below illustrates **WDS Mode**:



Setting Up the Main CAP-5015D (Main Base Station)

- Copy down the 12 digit MAC Address of the Remote CAP-5015D (Remote Base Station). The MAC Address is on the **Overview** Page (**Status -> Overview**) and Wireless General **Setup** Page (**Wireless ->General Setup**)

Wireless Information

MAC Address : 00:11:A3:0A:7B:FA

Channel : 44

Rate : 300 Mb/s

Receive Bytes : 0

Receive Packets : 0

Transmit Bytes : 33683

Transmit Packets : 346

- Follows steps shown on above section to configure the **Access Point** mode:

General Setup

MAC Address : 00:11:A3:0A:7B:FA

Band Mode : 802.11 a/n mixed mode

AP Isolation : ☐ Enable ☒ Disable

Country : NONE

Channel : 44

Tx Power : 10 %

- Click **System -> Operating Mode**. Select **WDS Mode** and then click **Save & Reboot** button.

Operating Mode

Mode : ☒ AP Mode

☐ WDS Mode

☐ CPE Mode

☐ Client Bridge + Universal Repeater Mode

Save&Reboot

- Once system is back, click **Wireless -> WDS Setup**, Click **Enable** and enter the MAC Address of Remote CAP-5015D. Then click **Save** button.

WDS MAC List

Enable	WDS Peer's MAC Address	Description
☒	01. 00 11 A3 0A 7B FA	
☐	02. [][] [][] [][] [][]	
☐	03. [][] [][] [][] [][]	
☐	04. [][] [][] [][] [][]	

- Click **Reboot**:

i You must reboot the system after changing settings. Rebooting the system will not delete any of your configuration settings. Click reboot button to reboot the system.

Reboot

Setting Up the Remote CAP-5015D (Remote Base Station)

- Copy down the 12 digit MAC Address of the Main CAP-5015D (Main Base Station). The MAC Address is on the **Overview** Page (**Status -> Overview**), or Wireless General **Setup** Page(**Wireless ->General Setup**)
- Configure Remote CAP-5015D by following steps shown on previous section **Configure the Access Point**. Make sure IP Address of the Remote CAP-5015D to be different from the Main CAP-5015D.
- After Setting Up the Main and Remote CAP-5015D, please click **Status -> WDS Status**.
- Verify the Remote CAP-5015D's **MAC Address** and **Signal Strength (RSSI)**, it should show IP address of Main CAP-5015D:

WDS Link Status						
MAC Address	Signal Strength ANT0	Signal Strength ANT1	Phy Mode	BandWidth	MCS	SGI
00:11:A3:0A:7B:FA	100% (-41 dBm)	76% (-60 dBm)	HTMIX	40M	15	1

5. How to configure TCP/IP settings on your Windows

- Go into the **Control Panel**, double-click the **Network Connections** icon and then right-click the **Local Area Connection** icon and then click Properties.
- Click **Internet Protocol (TCP/IP)** and then click Properties. Then click on **Use the follow IP address**, and make sure you assign your network adapter an IP address in the subnet of **192.168.2.X**, but is different than the IP address used for configured CAP-5015D.

