



Fusion 50 Access Point Quick Start Guide

Part Number: 001287, Rev. 1



Product Description

Fusion 50 Access Point is a high-performance SMB 802.11b/g access point, which also supports bridge mode to enable multiple wired Ethernet clients' access to wireless environments. In addition, Fusion 50 supports Wi-Fi protected access standards to provide higher-level of security for network data and communication. Fusion 50 is also fully compatible with IEEE 802.11b standard, so it is able to connect to existing 802.11b-compliant devices.

Packaging

- Fusion 50 Access Point
- Power adapter (5V)
- Detachable antennas (two)
- 1.5" sheet metal screws (two)
- 1" wood sheet rock screws (two)
- Plastic wall anchors (two)
- Fusion 50 Access Point Quick Start Guide

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Installation

Prerequisites

The following are the prerequisites that you need to adhere to before attempting to install the Fusion 50 access point:

- For ease of cable connections, ensure that the access point is near a hub or computer, as well as a reliable power source.
- Ensure that the access point is away from any equipment that might cause radio signal interference, such as, transformers, heavy-duty motors, fluorescent lights, microwave ovens, refrigerators, or other.

Note: Do not place the Fusion 50 on any type of metal surface.

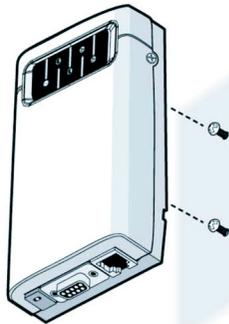
Mounting the Fusion 50 Access Point

Do the following to mount an access point:

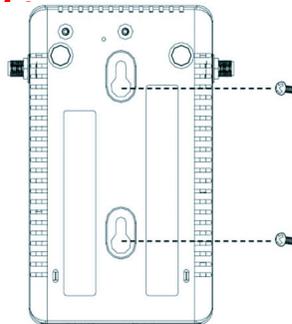
1. Find a solid mounting point on the wall, such as a stud or main building member. You may need to use a stud finder to find a solid wooden structure.

Installation

2. Place marks on the wall that correspond to the distance between the two mounting holes located at the back of the AP. The holes are approximately 2.5" apart.
3. Use a drill (approximately 3/16 drill bit) to make a hole into the wall where you made the marks.
4. Insert the wall anchors (if necessary).
5. Attach the mounting screws to the wall where you made the holes.
6. Mount the unit onto the wall by fitting the mounting holes to the screws.



Place the screws on the wall



Place the unit onto the wall

Connecting the Cables

You can provide power to the Fusion 50 either by using the AC power module or over an Ethernet connection, which utilizes power-sourcing equipment (PSE).

Note: If you intend to use an Ethernet connection for power, ensure that the connecting device (that is, a hub or switch) is Power over Ethernet (PoE) IEEE compliant.

Do the following to connect the cables for the Fusion 50:

- Connect the power cable to the power adaptor and then to a power supply.
- Connect the Ethernet cable to the Ethernet port and then to a client device such as a hub or computer. Again, you can use an Ethernet connection to provide power to the AP.

At power up, the AP starts a one-minute boot-up sequence. The Power LED flash green as soon as power is applied. You can perform initial configuration as soon as the system completes its boot-up sequence (see “Configuration” on page 6).

Note: To avoid the possibility of a transmission loop, do not connect an AP that is set in wireless client (infrastructure) mode directly to the LAN (e.g., through a wall port or through a hub directly connected to the LAN).

Configuration

Prerequisites

Before configuring the Fusion 50 access point, ensure that your hub or computer is on the same network as the access point and find the MAC address on the label of the access point (for example, 00:12:32:A3:81:2c:15).

Creating an AP Template

An AP template is a quick way to configure and activate several access points discovered on your network.

Do the following to create an AP Template:

1. Start a web browser session.
2. Using HTTP, enter the defined IP address of the controller in the URL field, for example:

```
http://192.168.110.104
```

Note: 192.168.110.104 is the default IP used to start CompleteMobility Express. If this address does not open the User Authentication page, contact the technical support department for U4EA wireless.

Configuration

3. Enter your user name (default is *admin*).
4. Enter your password (default is *default*).
5. Click **Login**.
6. Go to Wireless LAN > Controller > Configuration > Access Points > AP Template tab and check the **Basic** radio button.
7. Click **Edit**.

The screenshot shows the 'ACCESS POINT TEMPLATE CONFIGURATION' web page. At the top, there are tabs for 'Activated APs', 'AP Template', 'New APs', and 'AP Operations'. Below the tabs are 'Cancel' and 'Apply' buttons. The main configuration area includes several radio button options: 'Apply to all currently activated APs' (Yes/No), 'Automatically activate new APs' (Yes/No), and 'Apply template to new APs' (Yes/No). The 'Apply template to new APs' option is selected. Below these are two text input fields: 'Long Term Key Seed' (containing 32 hex digits) and 'Radio Preference' (with radio buttons for 5 GHz and 2.4 GHz, where 2.4 GHz is selected). A section titled 'Tunnel Port Policy Settings*' contains two more text input fields for 'Inner DSCP' and 'Inner Layer 2 Priority'. At the bottom, there is a 'Transceiver' section with two radio buttons, 'A' and 'G', where 'G' is selected.

Configuration

8. Keep the following default settings:
 - a. Apply to all currently activated APs: **No**.
 - b. Automatically activate new APs: **No**.
 - c. Apply template to new APs: **Yes**.
9. In the Long Term Key Seed field, enter a user-defined 32 digit hex key for LTKS. The default value is to enter **1** (one) 32 times.
10. Keep the Radio Preference at its default setting: **2.4 GHz**.
11. At this time, do not configure a Tunnel Port Policy.
12. Click the G tab and do the following to configure transceiver G (2.4 GHz):
 - a. Keep the default setting for Channel: **Auto**.
 - b. Keep the default setting for Allow Stations: **Yes**.
 - c. Set Scan for Rogues to **No**.
13. Click **Apply**.

Activating your APs

Next, view and activate all discovered (but inactive) APs on your network.

Do the following to activate APs:

1. Go to Wireless LAN > Controller > Configuration > Access Points > New APs tab.
2. Select the APs that you want activated by adding a check mark in the **Select** column.

U4EA
CompleteMobility Express 5.0 Beta
(Fusion 300)

Save Configuration Logout

Host Name: U4EA
Uptime: 1 hour 32 minutes

Thu Jul 03 2008 18:29:23 GMT-0700 (Pacific Daylight Time) [Switch's clock is 7 hours later]

Collaps All

Chassis
- Global
- Wireless LAN
- Controller
- Configuration
- Main
- RADIUS
- ESS/Security
- Access Points
- Rogue Policy
- Tunnels
- RF Management
- Captive Portal
- Monitoring

WIRELESS CONTROLLER CONFIGURATION

Activated APs AP Template New APs AP Operations

ACTIVATE NEW ACCESS POINTS [1]

The following Access Point has been discovered on your network, but has not yet been activated for this U4EA Tech Wireless Controller.

Select	IP Address	Wired MAC Address	Last Contact	Imprinted	Security	Status
<input type="checkbox"/>	192.168.113.105	00:03:7f:12:34:56	5 seconds ago	192.168.113.201	Auto	New

Activate these APs using the template
 Activate these APs and leave the radios disabled.
(If you leave the [Tx] field blank, a key will be randomly generated.)
Long Term Key: [] (32 hexadecimal digits)

Use shift-click / control-click to toggle the checkbox in the current row and all the rows below.

Delete Activate

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Configuration

3. Check the **Activate these APs using the template** radio button.
4. Click **Activate**.

The system will now use the AP template that you created in “Creating an AP Template” on page 6 to activate the selected APs.

5. You can verify that all APs were activated by waiting a minute and then going to Wireless LAN > Controller > Configuration > Access Points > Activated APs tab. The activated APs should now appear.

Note: If this is the first time that you activated an AP, then the software on the AP upgrades automatically. The AP is unreachable for about a minute while the software upgrades.

6. Finally, save the configuration by clicking **Save Configuration** located on top of the user interface.

Regulator Information

Pending

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Finding Product Documentation

The CD included with the Fusion 300 has the following documentation:

- Fusion 300 Wireless LAN Hardware Installation Guide
- Fusion 50 Access Point Quick Start Guide
- CompleteMobility Express 5.0 Web UI Operation Guide
- CompleteMobility Express 5.0 CLI Reference Guide

Further documentation may be obtained at the U4EA support site www.u4eatech.com/support

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Downloading the Latest Documentation

Updated versions of product documentation can be downloaded from the support Web site. To download any information from the support Web site:

1. Go to URL <https://support.u4eatechinc.com/U4EACustomerPortal/LoginForCustomerPortal.asp>
2. Login to your account using your login and password. If authentication is denied, contact support at support@u4eatech.com
3. Once logged in, browse through the items available under “My Downloads” and double-click on the document name to start the download.
4. Contact support at support@u4eatech.com for more information.

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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.

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

If this device is going to be operated in 5.15 ~ 5.25GHz frequency range, then it is restricted in indoor environment only.

FCC 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 minimum distance **20cm** between the radiator & your body.