COMTREND CORPORATION

WAP-5836
Wireless Extender
User Manual

Version A1.0, May 25, 2012

Preface

This manual provides information related to the installation and operation of this device. The individual reading this manual is presumed to have a basic understanding of telecommunications terminology and concepts.

If you find the product to be inoperable or malfunctioning, please contact technical support for immediate service by email at INT-support@comtrend.com

For product update, new product release, manual revision, or software upgrades, please visit our website at http://www.comtrend.com

Important Safety Instructions

With reference to unpacking, installation, use, and maintenance of your electronic device, the following basic guidelines are recommended:

- Do not use or install this product near water, to avoid fire or shock hazard. For example, near a bathtub, kitchen sink or laundry tub, or near a swimming pool. Also, do not expose the equipment to rain or damp areas (e.g. a wet basement).
- Do not connect the power supply cord on elevated surfaces. Allow it to lie freely. There should be no obstructions in its path and no heavy items should be placed on the cord. In addition, do not walk on, step on, or mistreat the cord.
- Use only the power cord and adapter that are shipped with this device.
- To safeguard the equipment against overheating, make sure that all openings in the unit that offer exposure to air are not blocked.
-

⚠️ **WARNING**

- Disconnect the power line from the device before servicing.

NOTE:	This document is subject to change without notice.

Protect Our Environment

 This symbol indicates that when the equipment has reached the end of its useful life, it must be taken to a recycling centre and processed separate from domestic waste.

The cardboard box, the plastic contained in the packaging, and the parts that make up this router can be recycled in accordance with regionally established regulations. Never dispose of this electronic equipment along with your household waste; you may be subject to penalties or sanctions under the law. Instead, please be responsible and ask for disposal instructions from your local government.

Table of Contents

Chapter 1 Introduction

The Comtrend WAP-5836 is a carrier-grade WiFi-based Access Point (AP) designed to reliably distribute multiple High-Definition IP video streams (HD-IPTV) within the home. Working in conjunction with multiple WAP-5836 devices in client mode, this multimedia home networking system provides users with a high quality viewing experience while eliminating the need to install new cable wiring.

This User's Guide assumes that the reader has basic to intermediate computer and Internet skills. All the basic computer networking, Internet, and other information required to configure the home network and the devices is provided herein.

Chapter 2 Your WAP-5836

2.1 Package Contents

Your WAP-5836 box contains the following items:

1. One WAP-5836 Wireless Video Extender

2. One CAT5 Ethernet Cable

3. One Power Adapter

4. One Quick Installation Guide

2.2 Hardware Overview

The WAP-5836 "Access Point" connects to the video source that can be a gateway, a cable/DSL modem or a DVR/PVR device.

The WAP-5836 "Client" connects to the set-top box receiving video, or other media-streaming devices like a game console or Internet-connect TV.

The WAP-5836 device is designed to be placed on a desktop. All of the cables exit from the rear of the device. The status display LEDs are located at the front of the device and are easily visible.
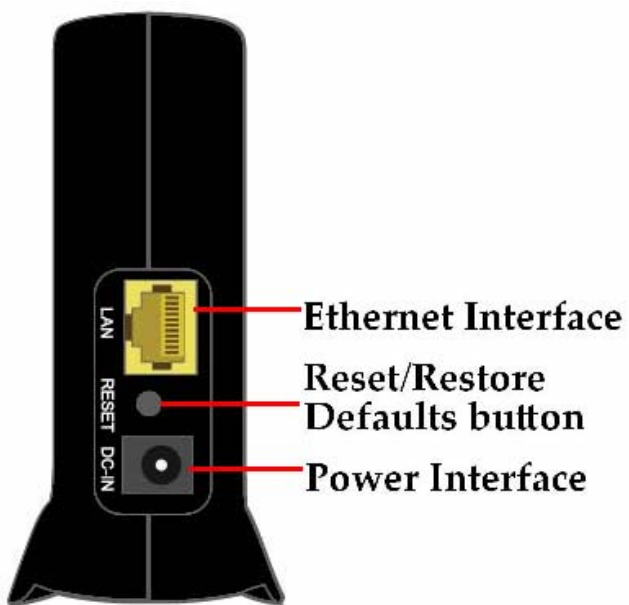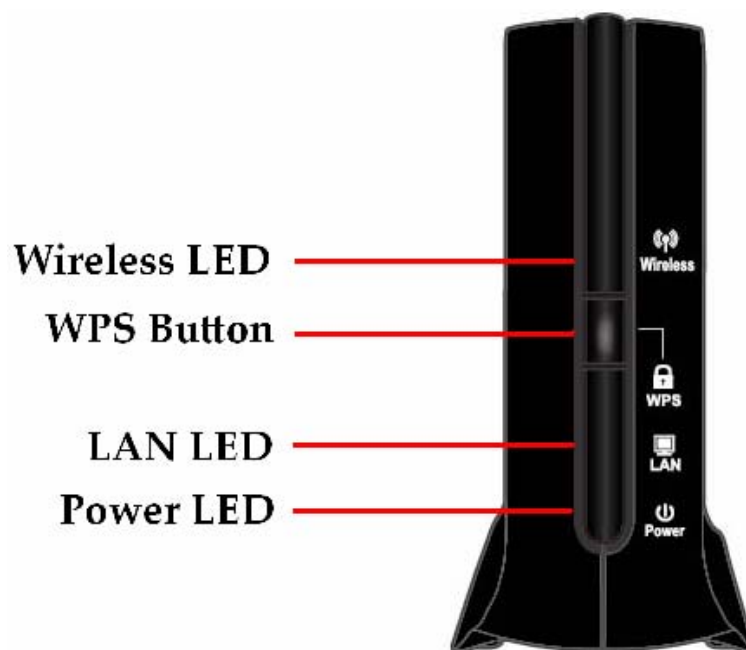
WAP-5836

The following table describes the connectors on the rear panel.

WAP-5836 Rear Panel – Connectors

Name	Description
Power In	DC power input. 12 VDC.
Reset	Reset and restore defaults button.
Ethernet	Data and Management Ethernet port.

WAP-5836 LEDs

The following table describes the LED indications on the front panel.

Name	Color	Description
Power	On Blue	The device is powered on.
	Off	The device is powered off.
LAN	Flashing Blue	Activity on the wired network interface.
	On Blue	The LAN port is connected to a network device.
	Off	The LAN port is either not connected or there is no activity on the link.
WPS	On Blue	WPS pairing has finished successfully. This is a temporary state that lasts for 2 minutes.
	Flashing Blue	WPS pairing is in progress. This is a temporary state that lasts for 2 minutes or until WPS pairing succeeds.
	Off	Default.

Wireless LED	On Blue	**Access Point Behavior** - At least one Client is associated with the Access Point.
		Client Behavior – The Client is associated with an Access Point and can receive at least one high definition high definition video stream.
	On Amber	**Client Behavior** – The Client is associated with an Access Point but does not have enough capacity to receive high definition video streams.
	Off	**Access Point Behavior** - No Clients are associated with the Access Point.
		Client Behavior – The Client is not associated with an Access Point.

The following LED combinations describe special indications:

Combination –The Wireless, LAN and WPS LEDs are flashing simultaneously for 30 seconds.

Description – The device is undergoing a "Restore Defaults" procedure.

Combination –The Wireless, LAN and WPS LEDs are flashing in sequence for one minute.

Description – The device is undergoing a "Software Upgrade" procedure.

WAP-5836 Front Panel – Buttons

Name	Description
WPS	Wireless Protected Setup (WPS) button.

Chapter 3 Setting Up Your WAP-5836

Setting up the Comtrend WAP-5836 involves the following steps:

- Powering up your device (s)
- Placing, connecting, and pairing your device (s)

After performing these steps, you can start streaming High Definition video through the WAP-5836.

3.1 Powering up your device

To power up the WAP-5836 device:

Plug in the 12V A/C adapter and connect it to the WAP-5836 device.

⚠ **WARNING**
Using a power supply with a different voltage rating then the one included with the WAP-5836 device will cause damage and void the warranty for this product.

Note: There is no On/Off switch. Once you connect the power adapter, the WAP-5836 device powers up.

3.2 Placing and connecting your devices

A. Setting an AP device

1. Place one WAP-5836 device on an easily accessible surface near the Home Gateway or Router. Make sure the Gateway or Router is powered on and active.

2. Plug one end of the Ethernet cable into the LAN port of the Home Gateway device and the other end into the Ethernet port of the WAP-5836.

3. Ensure that the DHCP Server functionality on your Home Gateway or Router is enabled. The WAP-5836 device that gets a DHCP IP Address will be automatically set in Access Point (AP) mode for a simplified setup process.

Home Gateway
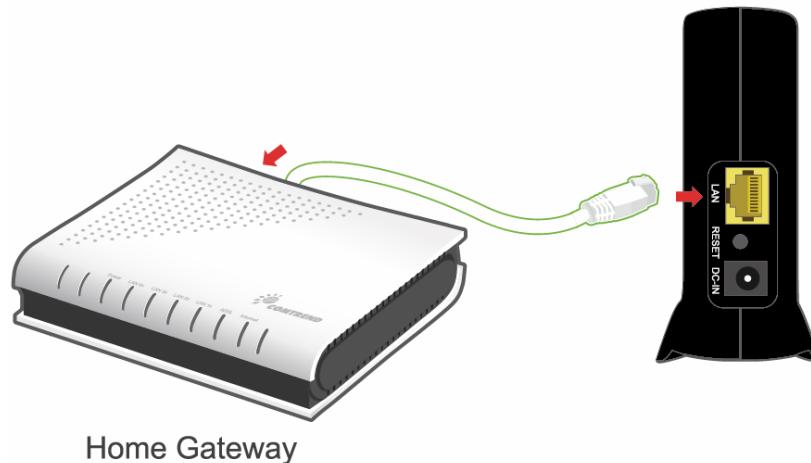
Make sure that the 🖳 LAN LED on the WAP-5836 is flashing blue.
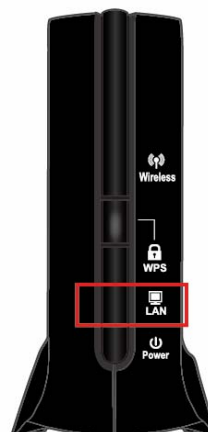
B. Setting a Client device

1. Place another WAP-5836 device on an easily accessible surface near the set top box. Plug one end of the Ethernet cable into the LAN port of the Set Top Box and the other end into the Ethernet port of the WAP-5836.

2. Since the STB will not issue an IP address to the WAP-5836, it will automatically be set to Client mode.

Set Top Box
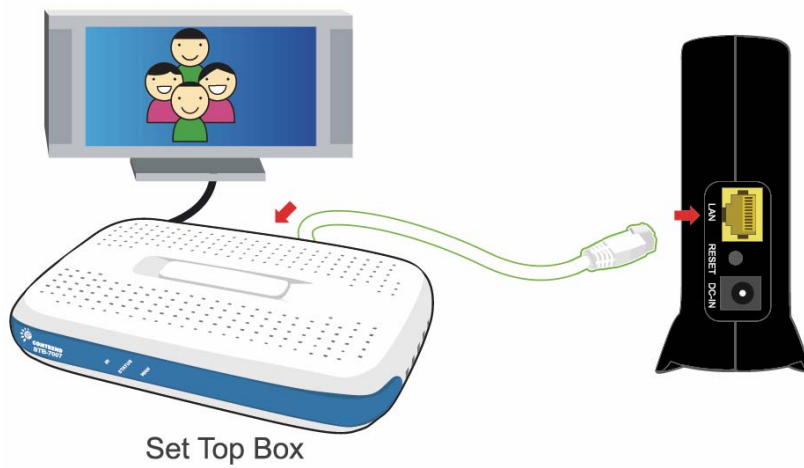
3.3 Pairing your devices

For initial pairing, it is recommended that you place the WAP-5836 AP and Client devices within the same room. Once paired, they can then be put in their desired locations.

Step 1. Pair the devices:

Press the WPS button on the "AP" front panel for 3-5 seconds and release it.

The 🔒 LED will begin flashing blue.

Press the WPS button on the "Client" for 3-5 seconds and release it.

The 🔒 LED will begin flashing blue.

NOTE – The WPS buttons can be pressed in any order as long as they are pressed within 2 minutes of each other.

Step 2. Wait for the pairing process to complete by watching the LEDs on the devices:

• The 🔒WPS LEDs will flash blue for a few seconds after pressing the WPS button for both AP & Client.
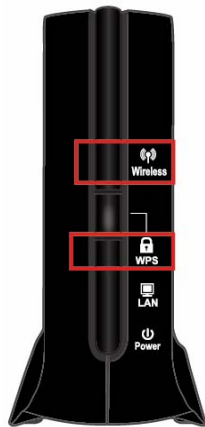
• The 🔒WPS LEDs will change to solid blue after successful pairing and turn off two minutes later.

• The Wireless Wireless LEDs will then be solid blue.

• The Client Wireless wireless LED could be solid amber when the association is not able to receive a high quality HD stream.

If pairing is unsuccessful:

• The 🔒WPS LEDs will flash blue for two minutes and then turn off.

Congratulations! You have finished installing your new Wireless Extender devices. To test your connectivity, turn on the TV and set top box, and then watch any available TV channel.

Note: To add additional WAP-5836 Clients to your network, you will need to perform the pairing procedures as explained above.

3.4 Connecting to Your WAP-5836 Device

Your WAP-5836 by default is set to Client mode. If you connect your WAP-5836 to a Home Gateway, the Auto-detect function will switch the WAP-5836 to AP (Access Point) mode.

Note: If the WAP-5836 is connected to a Gateway or Router that has a DHCP server, it will automatically get an IP address from that device. Be sure to check your Gateway or Router to see what IP address was given to the WAP-5836 device and use that to login to the Web Configuration page.

The WAP-5836 Client device is pre-configured with the following IP parameters:

- IP Address: 10.0.0.10

- Net Mask: 255.0.0.0

In order to connect your management computer to the WAP-5836 device, connect your WAP-5836 device directly to your computer and change the IP address of your computer so that it is on the same subnet as the WAP-5836 device (by default 10.x.x.x). Since this disconnects your computer from your computer network, you may need to restore this setting later.

To change the IP address of your computer:
1. Connect an Ethernet cable between the Ethernet port of the WAP-5836 device and the Ethernet port of your computer.

2. From your computer's desktop, click **Start > Settings > Network Connections** and double-click the LAN connection for your computer network. The Local Area Connection Status window appears.

3. From the General tab, click **Properties**. The Local Area Connection Properties window appears.

4. Select **Internet Protocol (TCP/IP)** and click **Properties**. The Internet Protocol (TCP/IP) Properties window appears.
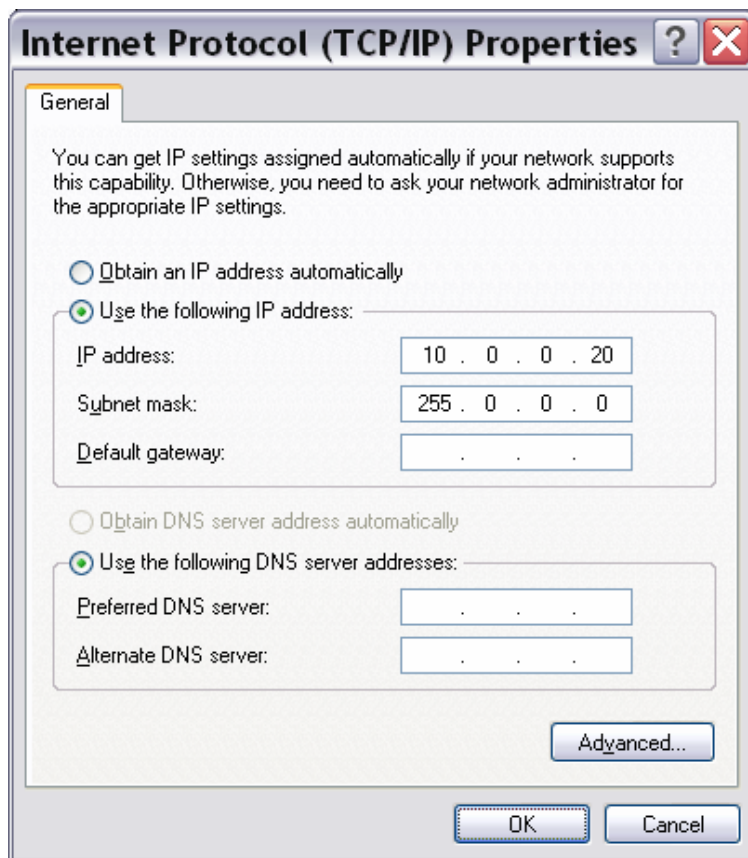
Internet Protocol (TCP/IP) Properties Window

5. Make a note of the current settings in this window. You will need to know these settings when reconnecting your computer to your computer network.

6. Check **Use the following IP address** and type an IP address in the same subnet as the WAP-5836, in the following format: 10.x.x.x. Be sure to use an IP address that is different from the IP address of your WAP-5836 device, which is 10.0.0.10 by default.

7. Click **OK** to save the information and close the Internet Protocol (TCP/IP) Properties window.

8. Click **OK** to close the Local Area Connection Properties window.

9. Click **Close** to close the Local Area Connection Status window.

Chapter 4 Management - Getting Started

The WAP-5836 Management Application is a web-based tool that enables you to manage and configure your WAP-5836 device. This chapter describes how to navigate through the WAP-5836 Management Application:
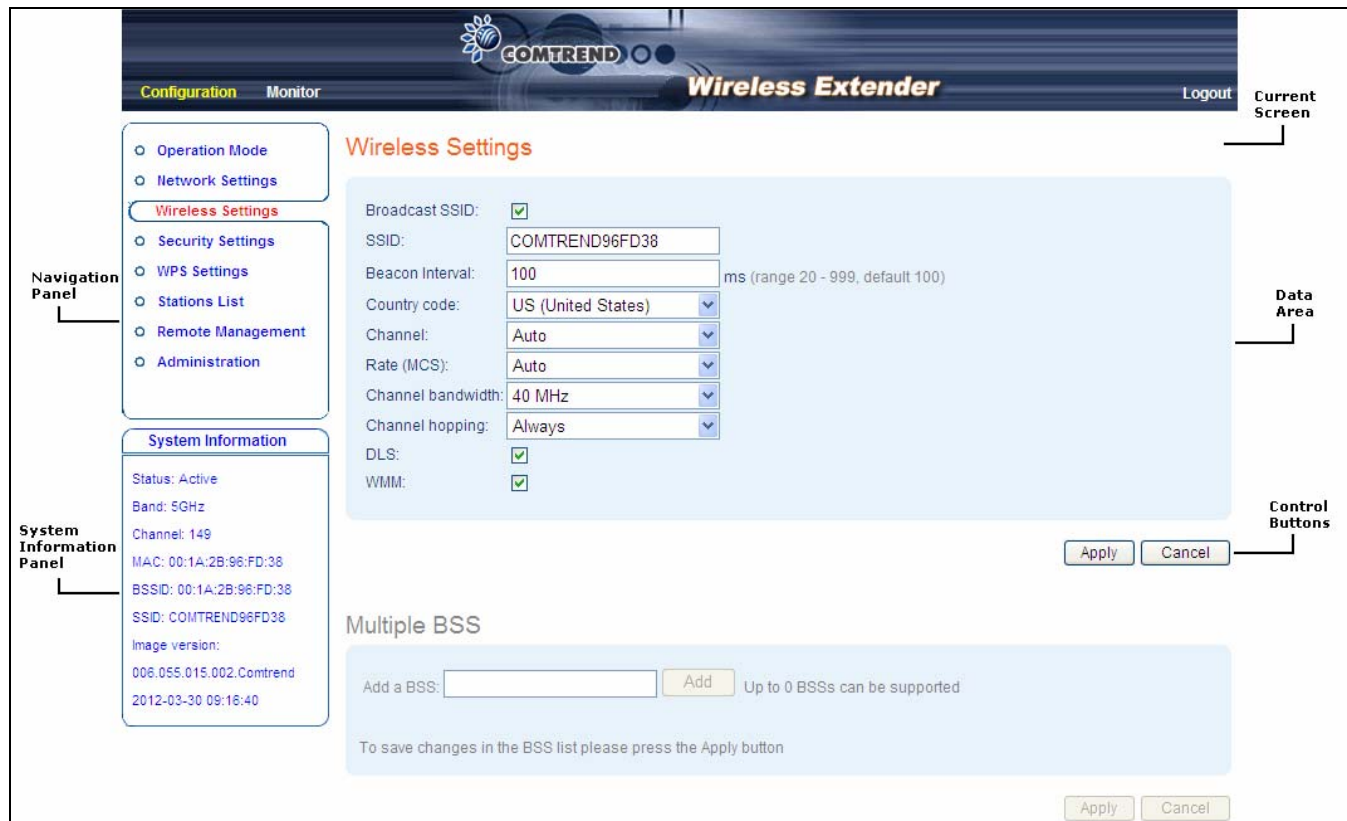
4.1 Login to the WAP-5836Management Application

WAP-5836 Management Application – Login Screen

The WAP-5836 Management Application is password protected. To access its functions you first need to successfully login:

1. Type the username and password into the appropriate fields and click on the *Login* button.

2. On successful login you will be forwarded to a WAP-5836 Management Application configuration screen.

Note: The default username and password is *root* and *12345*. To change these values refer to Performing Administration.

4.2 Navigating the WAP-5836 Management Application

WAP-5836 Management Application Window

The WAP-5836 Management Application contains the following controls and areas to help you navigate the graphic user interface and configure its parameters.

- **Main Menu** – Enables you to access the functions of the WAP-5836 Management Application. The Main Menu is divided into the following submenu items: Configuration, Monitor and Logout.

- **Navigation Panel** – Displays the configuration screens available for each submenu item.

- **Current Screen** – Displays the name of the current configuration screen.

- **System Information Panel** – Displays system status information. This panel is always visible and displays the following information:

- **Status** – Indicates whether the system is currently active or stopped.
- **Band** – Indicates that the system is currently transmitting in the 5Ghz radio band.
- **Channel** – The index number of the channel currently in use.
- **MAC** – The local MAC Address of the device.
- **BSSID** – Basic Service Set Identifier. This field uniquely identifies each BSS. You cannot configure this parameter using the WAP-5836 Management Application.
- **SSID** – Service Set Identifier. The code attached to beacon frames and connection establishment frames.
- **Image Version** – The current software image version of the device.
- **Data Area** – For each configuration screen, the Data Area displays the relevant parameters and controls.
- **Control Buttons** – Enable you to perform operations related to the current configuration screen.

Note: You can Logout from the application anytime by selecting the Logout menu item at the upper left corner of the screen.

Note: The WAP-5836 device can be configured to act either as an Access Point or as a Client. Each mode of operation has different configuration screens.

Chapter 5 Managing the WAP-5836 Device

The WAP-5836 Management Application is a user-friendly application that enables you to configure and control all the parameters of the WAP-5836. The main menu contains the following options:

- Configuration
- Monitor

Note: Clicking Cancel in any of the WAP-5836 Management Application windows discards any unsaved changes you have made. The WAP-5836 Management Application then re-queries the WAP-5836 device and refreshes the display.

5.1 Configuring the WAP-5836 Device

5.1.1 Selecting Operation mode

To select operation mode:

1. From the main menu of the WAP-5836 Management Application, click **Configuration** and from the Navigation Panel, click **Operation Mode**. The Configuration, Operation Mode window appears.

WAP-5836 Management Application – Configuration, Operation Mode Window

The following table describes the parameters you can configure from this window:

WAP-5836 Configuration – Operation Mode

Parameter	Description
Operation Mode	Determines if the WAP-5836 device will act as a Wi-Fi Access Point or Client.

2. Click **Apply** to update the settings immediately. The system displays an update message.

3. Click **OK** and wait for the wireless led on your WAP-5836 to switch off, then reopen your browser and use the correct IP address for the mode you switched to (Client 10.0.0.10), (AP 10.0.0.2).

5.1.2 Defining Network Settings

To define network settings:

1. From the main menu of the WAP-5836 Management Application, click
   Configuration. The Configuration, Network Settings window appears.

WAP-5836 Management Application – Configuration, Network Settings Window

The following table describes the parameters you can configure from this window:

WAP-5836 Configuration – Network Parameters

Parameter	Description
Ethernet port mode	The properties of the Ethernet (LAN) port of the device: Can be either auto negotiated up to 1Gbps or fixed to 100Mbps.
Obtain an IP address automatically	When selected, the device acts as a DHCP client and obtains its IP properties automatically.
IP Address	Input the IP address of the WAP-5836 device.
Subnet Mask	Input the subnet mask of the WAP-5836 device.
Default Gateway	Input the default gateway of the WAP-5836 device.
DNS Server	Input the DNS Server address of the WAP-5836 device.
Enable Dynamic DNS	If you want to enable the DDNS function, select the checkbox.
Alias	Input the alias for the DDNS service.
Login	Input the login name for the DDNS service.
Password	Input DDNS service password or key.
VLAN Transparent	Select the checkbox to enable the VLAN transparent forwarding function.
Enable IGMP Proxy	Select the checkbox to enable the IGMP proxy function.
Enable IGMP SSM	Select the checkbox to enable the IGMP Source-Specific Multicast function.

2. Click **Apply** to update the settings immediately. The system displays an update message.

3. Click **OK** and wait for the system to restart.

5.1.3 Defining Wireless Settings

To define wireless settings in Access Point mode:

1. From the main menu of the WAP-5836 Management Application, click **Configuration** and from the Navigation Panel, then click **Wireless Settings**. The Configuration, Wireless Settings window appears.

WAP-5836 Management Application – Configuration, Wireless Settings Window

The table below describes the parameters you can configure from this window:

WAP-5836 Configuration – Wireless Parameters

Parameter	Description
Broadcast SSID	When checked, the system broadcasts its SSID in beacon and probe response frames.
SSID	Service set identifier. The code attached to beacon frames and connection establishment frames. The SSID is a string of ASCII characters.
Beacon Interval	The time interval between beacon frames sent out by the system. Possible values: 20 – 999 milliseconds.
Country code	Your country of operation. ⚠ **WARNING** This device will automatically limit the allowable channels determined by the current country of operation. Incorrectly entering the country of operation may result in illegal operation and may cause harmful interference to other systems.
Channel	Select the desired channel from the dropdown list, or let the system select the best working channel automatically by choosing 'AutoSelect' from the drop down list.
Rate	The transmission rate (MCS). Possible values: 0-23, and Auto. Selecting auto lets the system dynamically adapt the transmission rate to suit current network conditions.
Channel bandwidth	The bandwidth that system occupies.
Channel hopping	Determines the system behavior when interference is detected: Always – Change channel as soon as interference is detected on the current radio channel. Conditional – Change channel as soon as interference is detected only if no video is being streamed through the system.

DLS	When checked the system employs the direct link protocol to enable direct client to client communication. Use this option when client devices in your network can stream video to each other, such as in a Multi-Room DVR deployment.
WMM	When checked, the WiFi QoS (Quality of Service) will be enabled.

2. Click **Apply** to update the settings immediately. The system displays an update message.

3. Click **OK** and wait for the system to restart.

To define wireless settings in Client mode:

1. From the main menu of the WAP-5836 Management Application, click **Configuration** and from the Navigation Panel, then click **Wireless Settings**. The Configuration, Wireless Settings window appears.

WAP-5836 Management Application – Configuration, Wireless Settings Window

The table below describes the parameters you can configure from this window:

WAP-5836 Configuration – Wireless Parameters

Parameter	Description
Rate	The transmission rate (MCS). Possible values: 0-23, and Auto. Selecting auto lets the system dynamically adapt the transmission rate to suit current network conditions.
Channel bandwidth	The bandwidth that system occupies.

2. Click **Apply** to update the settings immediately. The system displays an update message.

3. Click **OK** and wait for the system to restart.

5.1.4 Defining Security Settings (Access Point Mode Only)

To define Security settings:

1. From the main menu of the WAP-5836 Management Application, click **Configuration** and from the Navigation Panel, click **Security Settings**. The Configuration, Security Settings window appears.

The WAP-5836 device can be configured to operate in one of the following security modes:

- **Unsecured** – Wireless security is disabled, any client can associate to the WAP-5836 Access Point and the wireless signal is passed unencrypted.

- **WPA2** – Stands for WiFi Protected Access. It is based on the IEEE 802.11i standard and uses AES encryption algorithm. WPA2 is much more secure than WEP, it provides best in class encryption and user authentication. It is recommended that you enable WPA2 at all times.

> **Note:** "To be able to use Wireless Protected Setup (WPS) features (See Defining WPS Settings), it is required that you enable the WPA2 security mode ".

WAP-5836 Management Application – Configuration, Security Settings Window, WPA2 Mode

WAP-5836 Configuration – Security Parameters WPA2 mode

Parameter	Description
Security Mode	The selected security mode. Possible values: Disable, WEP and WPA2-PSK.
Pass Phrase	The security pass phrase to be used for generating the WPA2 encryption keys. The pass phrase can be 8 to 63 bytes long.

2. Click **Apply** to update the settings immediately. The system displays an update message.

3. Click **OK** and wait for the system to restart.

5.1.4.1 Access Policy

Allow or disallow access to identified users.

Parameter	Description
Policy	Allow: To identify the permitted devices (by MAC)
	Reject: To identify the prohibited devices (by MAC)
	Disables: Disable the Access Policy function
Add a station MAC	To configure the permitted/prohibited devices' MAC addresses.

5.1.5 Defining WPS Settings

WPS is a standard for easy and secure setup of wireless home networks, created by the WiFi alliance. The WAP-5836 WPS-PBC configuration method allows you to pair a WAP-5836 Access Point and client device using a push button (See Pairing your devices).

To define WPS settings in Access Point mode:

1. From the main menu of the WAP-5836 Management Application, click **Configuration** and from the Navigation Panel, click **WPS Settings**. The Configuration, WPS Settings window appears.

WAP-5836 Management Application – Configuration, WPS Settings Window

The following table describes the actions that can be performed from this window:

WAP-5836 Configuration – WPS Parameters

Parameter	Description
WPS	Enable / Disable WPS.
WPS Connection (Internal Registrar) Configure Enrollee via PBC	Select this option to configure an enrollee via push button control.
Start WPS Button	Initiates a WPS pairing procedure.
WPS Connection (Internal Registrar) Configure Enrollee via PIN	Select this option to configure an enrollee via PIN code type configuration.
Configure	Click this button to trigger the WPS connecting process.
WPS Summary	Displays a quick summary of the WPS parameters.
WPS Status	Indicates the status of the WPS pairing procedure.

2. Click **Apply** to update the settings offline. The system stores the new settings and prompts you to restart the system.

3. Click **YES** and wait for the system to restart.

Note: A WPS pairing procedure can also be initiated by pressing the WPS button on the front panel of the device.

To define WPS settings in Client mode:

1. From the main menu of the WAP-5836 Management Application, click **Configuration** and from the Navigation Panel, then click **WPS Settings**. The Configuration, WPS Settings window appears.

WAP-5836 Management Application – Configuration, WPS Settings Window

The following table describes the actions that can be performed from this window:

WAP-5836 Configuration – WPS Parameters

Parameter	Description
WPS PBC Connect: Start WPS PBC Button	Click this button to trigger the WPS PBC process
WPS PIN Connect: Start WPS PIN Button	Click this button to trigger the WPS process base on the PIN code, the PIN code needs to be the same on both sides(Server/Client)
Client PIN	Input the PIN code value
WPS AP SSID	The WPS enabled AP's SSID
WPS Status	Indicates the status of the WPS pairing procedure

2. Click **Apply** to update the settings offline. The system stores the new settings and prompts you to restart the system.

3. Click **YES** and wait for the system to restart.

Note: A WPS pairing procedure can also be initiated by pressing the WPS button on the front panel of the device.

5.1.6 Site Survey (Client Mode Only)

The site survey window allows you to find and connect the WAP-5836 client to a wireless Access Point.

To find and connect to a wireless Access Point:

1. From the main menu of the WAP-5836 Management Application, click **Configuration** and from the Navigation Panel, click **Site Survey**. The Configuration, Site survey window appears.

WAP-5836 Management Application – Configuration, Site Survey Window

The following table describes the parameters in the site survey table:

WAP-5836 Configuration – Site Survey table

Parameter	Description
SSID	Service Set Identifier. The code attached to beacon frames and connection establishment frames.
BSSID	Basic Service Set Identifier. This field uniquely identifies each BSS.
RSSI	The signal quality between the Access Point and the Client.
Channel	The wireless channel that the Access Point is operating in.
Encryption	The encryption scheme used by the Access Point.
Authentication	The Authentication scheme used by the Access Point.
State	Indicates if this is an Ad-Hoc connection or an infrastructure network.

2. Select the Access Point you want to connect to and click the **Connect** button.

3. Click **Apply** and wait several seconds for the Client to connect.

Clicking the **Rescan** button initiates a new site survey scan and may temporarily interrupt the service to the wireless Client.

5.1.7 Stations List (Access Point Mode Only)

The Stations List window presents a list of clients connected to the WAP-5836 Access Point.

WAP-5836 Management Application – Configuration, Associated Stations List Window

The following table describes the parameters in the stations list:

WAP-5836 Configuration – Stations List

Parameter	Description
MAC Address	The MAC Address of the associated client.
Rate	The modulation (physical data rate) that the Access Point services the Client with.
Bandwidth	The bandwidth that the Access Point uses when sending data to the Client.

5.1.8 Configuring Remote Management

The WAP-5836 implements mechanisms that enable its remote management and trouble shooting.

- Remote Logging – When enabled, the WAP-5836 periodically uploads event and performance monitoring logs to a pre-designated FTP server.

- UPnP – When enabled, the WAP-5836 uses UPnP to access the home gateway device and configure its port mapping table to enable accessing it remotely.

- NTP – When enabled, the WAP-5836 uses NTP protocol to obtain the date & time.

To configure Remote Management settings in Access Point mode:

1. From the main menu of the WAP-5836 Management Application, click **Configuration** and from the Navigation Panel, click **Remote management**. The Configuration, Remote Management window appears.

Configuration **Monitor** **Wireless Extender** Logout

Remote Management

- O **Operation Mode**
- O **Network Settings**
- O **Wireless Settings**
- O **Security Settings**
- O **WPS Settings**
- O **Stations List**
- **Remote Management**
- O **Administration**

System Information

Status: Active
Band: 5GHz
Channel: 149
MAC: 00:1A:2B:96:FD:38
BSSID: 00:1A:2B:96:FD:38
SSID: COMTREND96FD38
Image version:
006.055.015.002.Comtrend
2012-03-30 09:16:40

Enable Remote Logging: ☐
FTP Server: ☐ . ☐ . ☐ . ☐
FTP Folder: [   ]
FTP Username: [   ]
FTP Password: [   ]
Logging Interval: [24   ] (hours)

Enable UPnP: ☐
Base Port: [   ]

Enable NTP: ☑
Primary NTP Server: [0.pool.ntp.org   ]
Secondary NTP Server: [   ]
Time Zone: [(GMT) England   ▼]

TR-069 Configuration
Enable TR-069: ☐
ACS URL: [   ]
ACS Username: [   ]
ACS Password: [   ]
Periodic Inform Enable: ☐
Periodic Inform Interval: [300   ] (sec)
Enable ConnectionRequest notify: ☑
ConnectionRequestUsername: [Comtrend   ]
ConnectionRequestPassword: [••••••••   ]

[Apply] [Cancel]

Management Application – Configuration, Remote Management Window

The following table describes the actions that can be performed from this window:

WAP-5836 Configuration – Remote Management

Parameter	Description
Enable Remote Logging	Enable / Disable Remote logging.
FTP Server	The IP address of the FTP server onto which the logs will be uploaded.
FTP Folder	The folder name into which the logs will be uploaded.
FTP Username	The FTP user name.
FTP Password	The FTP password.
Logging Interval	The period in hours of the scheduled log uploads.
Enable UPnP	Enable / Disable UPnP based port mapping configuration in the Home Gateway.
Base Port	The port at the Home Gateway that the device will be mapped to. In case the selected port is already mapped in the gateway, the next available port will be used.
Enable NTP	Enable / Disable time synchronization with an NTP server.
Primary NTP Server	The IP address of the primary NTP server.
Secondary NTP Server	The IP address of the secondary NTP server.
Time zone	The time zone the device resides in.
Enable TR-069	Select the box to enable the TR-069 function.
ACS URL	Input the ACS server's URL here. The ACS URL should be provided by the ISP.
ACS Username	Input the user name for ACS authentication. It should be provided by the ISP.
ACS Password	Input the password for ACS authentication. It should be provided by the ISP.
Periodic Inform Enable	Select this checkbox to let the device send Inform messages periodically.

Periodic Inform Interval	The Inform message interval timer.
Enable Connection Request notify	Select this checkbox to enable the connection request sent out by the device.
Connection Request Username	Input the user name to construct the TR-069 connection with the ACS. It should be provided by the ISP.
Connection Request Password	Input the password to construct the TR-069 connection with the ACS. It should be provided by the ISP

2. Click **Apply** to update the settings offline. The system stores the new settings and prompts you to restart the system.

3. Click **YES** and wait for the system to restart.

To configure Remote Management settings in Client mode:

1. From the main menu of the WAP-5836 Management Application, click **Configuration** and from the Navigation Panel, click **Remote management**. The Configuration, Remote Management window appears.

WAP-5836 Management Application – Configuration, Remote Management Window

The following table describes the actions that can be performed from this window:

WAP-5836 Configuration – Remote Management

Parameter	Description
Enable UPnP	Enable / Disable UPnP based port mapping configuration in the Home Gateway.
Base Port	The port at the Home Gateway that the device will be mapped to. In case the selected port is already mapped in the gateway, the next available port will be used.
Enable NTP	Enable / Disable time synchronization with an NTP server.
Primary NTP Server	The IP address of the primary NTP server.
Secondary NTP Server	The IP address of the secondary NTP server.
Time zone	The time zone the device resides in.
Enable TR-069	Select the box to enable the TR-069 function.
ACS URL	Input the ACS server's URL here. The ACS URL should be provided by the ISP.
ACS Username	Input the user name for ACS authentication. It should be provided by the ISP.
ACS Password	Input the password for ACS authentication. It should be provided by the ISP.
Periodic Inform Enable	Select this checkbox to let the device send Inform messages periodically.
Periodic Inform Interval	The Inform message interval timer.
Enable Connection Request notify	Select this checkbox to enable the connection request sent out by the device.
Connection Request Username	Input the user name to construct the TR-069 connection with the ACS. It should be provided by the ISP.
Connection Request Password	Input the password to construct the TR-069 connection with the ACS. It should be provided by the ISP.

2. Click **Apply** to update the settings offline. The system stores the new settings and prompts you to restart the system.

3. Click **YES** and wait for the system to restart.

5.1.9 Performing Administration

To perform administration:

From the main menu of the WAP-5836 Management Application, click **Configuration** and from the Navigation Panel, click **Administration**. The Configuration, Administration window appears.

WAP-5836 Management Application – Configuration, Administration Window

The Configuration, Administration window is divided into the following sections:

- Software Upgrade
- Flash Components
- Control Buttons

To perform Software Upgrade:

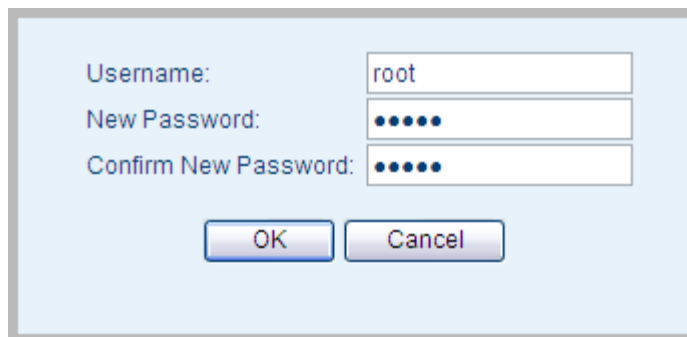1. Click the *browse* button, select the new image file and press *Open*.
2. Click the *Start Upgrade* Button, confirm the action by pressing *OK* in the confirmation window and wait for the action to finish.
3. After the Software Upgrade finishes you can see the new software version number in the System Information Panel.

⚠ "Do not power off or reset the WAP-5836 device while Software Upgrade is in progress".

To change the password of the WAP-5836:

1. Click the *Change Password* Button. The following window appears:

WAP-5836 Management Application – Change Password Window

2. Fill the new password details in the change password window and press OK.

3. After the successful completion of the operation you will be prompted to login again.

Note: Only a single user (root) is supported in the current release.

To download log files from the WAP-5836 device:

1. Click the *Download Log Files* Button.

2. A confirmation window will prompt you to confirm the download.

To restore the WAP-5836 configuration to factory defaults:

1. Click the *Restore Defaults* Button, confirm the action by pressing *OK* in the confirmation window and wait for the action to finish.

Note: You can also restore the WAP-5836 device to factory defaults by pressing and holding the Reset button for 10 seconds.

To reset the WAP-5836 device:

1. Click the *Reset* Button, confirm the action by pressing *OK* in the confirmation window and wait for the action to finish.

Note:
A. You can also restore the WAP-5836 device to factory defaults by pressing and holding the Reset button for 10 seconds.
B. If you previously changed the AP device to Client or changed the Client device to AP, the same operation mode will exist after Restore Defaults Button.

5.2 Monitoring the WAP-5836 Device

The WAP-5836 Management Application Monitor displays information about the current status of your WAP-5836 Device. The system continually monitors a variety of network parameters and displays them in the Counters window.

5.2.1 Viewing System Parameters

To view System Parameters:

- From the main menu of the WAP-5836 Management Application, click **Monitor**. The Monitor, Counters window appears.

WAP-5836 Management Application – Monitor, Counters Window

Appendix A Troubleshooting

Basic setup	
Symptom	Advised solution
The Power LED is off	Make sure that: • The power cord is connected to the device and that the power adapter is properly connected to a functioning power outlet. • You are using the power adapter that was supplied with the product.
The LAN LED is off	Make sure that: • The LAN cable connectors are securely plugged in at the wireless video extender device and at the network device (gateway, modem or set top box). • The connected network device is turned on. • You are using the correct cable type for your Ethernet equipment that is at least UTP CAT5 with RJ45 connectors.
The Wireless LED is not on	• Make sure that you have completed a successful pairing procedure as described in Pairing your devices.
You are seeing artifacts on the TV screen	• Make sure that the wireless video extender devices are placed according to the recommendation in Placing and connecting your devices.
No access to the WAP-5836web control pages.	• Make sure that your computer IP address is 10.XXX.YYY.ZZZ and its subnet mask is 255.0.0.0. • If your WAP-5836 IP address has been changed, please assign the computer an IP address in the same range as the WAP-5836 IP Address.

	• If the WAP-5836 is connected to a Gateway or Router that has a DHCP server, it will automatically get an IP address from that device. Be sure to check your Gateway or Router to see what IP address was given to the WAP-5836 unit and use that to log in to the Web Configuration page. *Remember*: Whenever a change is made in the Setup of the Access Point, the **Apply** button must be used to save the settings to the Access Point. *Remember*: The Access Point control web page is not accessible from the wireless client/adapter segment.