Loopcomm

User Manual

HIGHPOWER™ TOUCH SCREEN WI-FI® RANGE EXTENDER S1

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INTRODUCTION

Thank you for purchasing Loopcomm product. At loopcomm we strive to provide you with the highest quality products through innovation and advanced technology. We pride ourselves on delivering products that outperform the competition and go beyond your expectations. If you have any questions please feel free to contact us. We'd love to hear from you and thank you for your support!

Email: support@loopcomm.com

Website: www.loopcomm.com

Product view

Package Contents

Check to make sure you have all the contents within your package:

- High Power Touch Screen Wi-Fi Range Extender
- Detachable High Gain Antenna
- Stylus
- Setup Guide
- CD: User Manual
- Product Stand
- Power Adapter

Product Description

1. LCD Screen: 3.5" LCD touch screen. Displays the user interface for configuring the Range Extender as well as the status.

2. Stylus: Input tool that assists in navigating the LCD touch screen Menu.

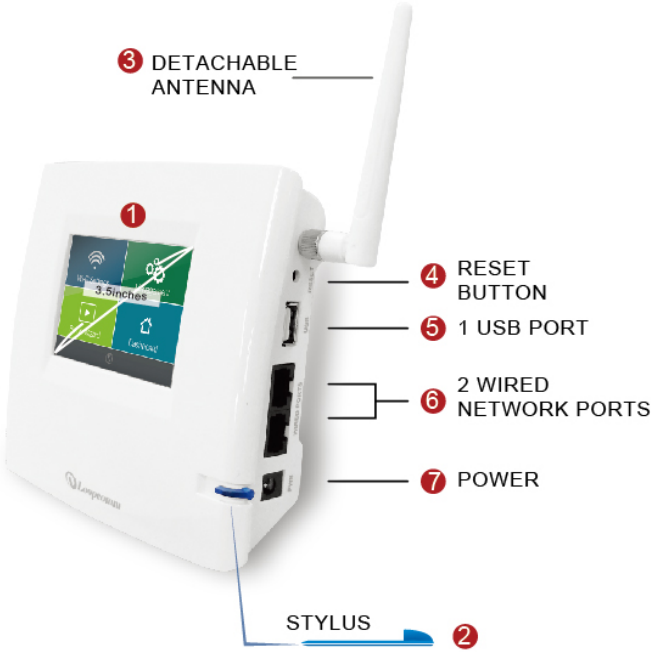
3. Antenna Connectors (ANT): RJ-SMA antenna connector. Compatible with all antennas that have RP-SMA connectors.

4. Reset: Button used to reset device. Push down once to reboot, hold down for 5-10 seconds to reset to factory default settings.

5. USB Port: USB 2.0 Port used to attach USB storage devices, such as a USB flash drive or external hard drive, for file sharing.

6. Wired Ports: RJ-45 ports for connecting wired computers or network devices.

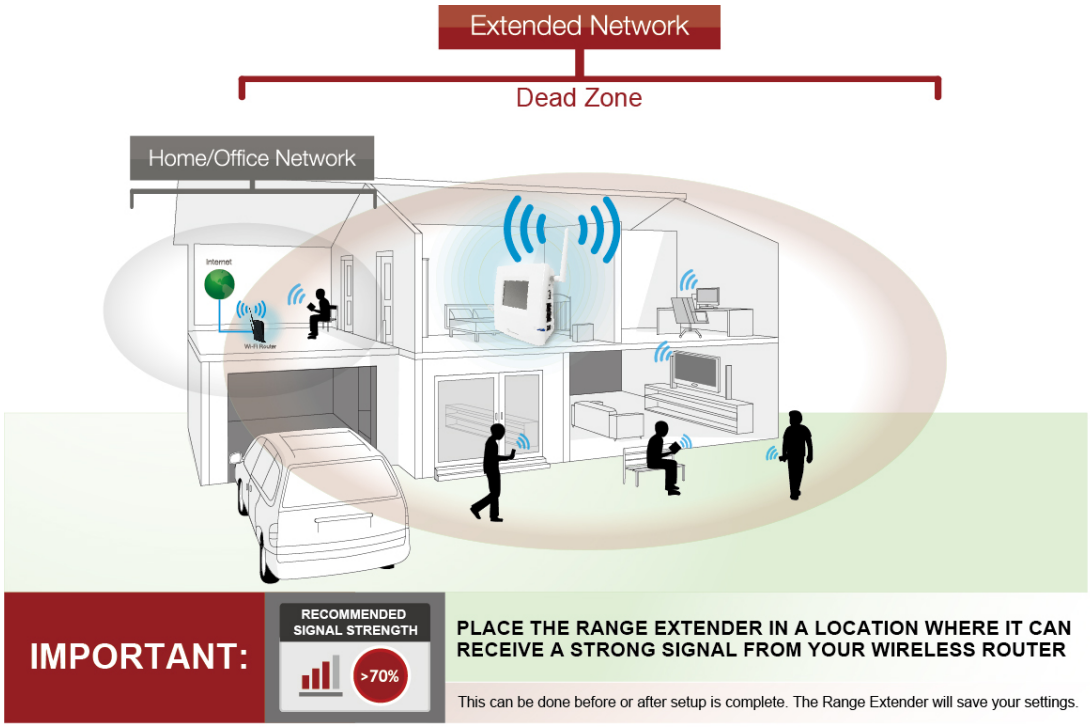
7. Power (PWR): Power adapter port. DC 12V 1A.



SETUP GUIDE (TOUCH SCREEN)

Find a Setup Location

The location of where you install the Range Extender is very important to how it will function. The optimal setup location should be somewhere no more than halfway between your Wi-Fi router and your Wi-Fi dead zone.



Power On the Range Extender

a. Attach the included antenna.
b. Attach the Power Adapter to the Range Extender's PWR Port and plug it into an available power outlet.
c. The Loopcomm, Logo will appear as the unit boots up, and then the Dashboard screen will appear.

Navigating the Touch Screen Menu

Before we begin, here are a few tips on how to navigate the Touch Screen Menu:

Language Selection: Tap the Globe icon, found on the bottom of the Settings screen, to change the language of the menu.

Back Arrow: Tap the Left Arrow, found on the upper left corner of many screens, to navigate back to the previous page.

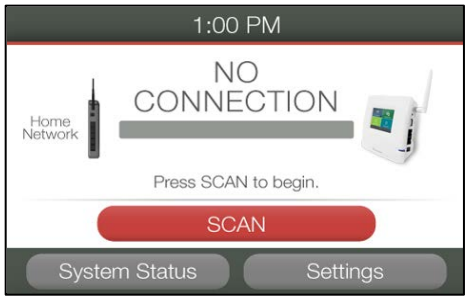
Home Button: Tap the Home icon, found on the bottom of many screens, to return to the Dashboard at any time.

Navigation Button: Tap the Left or Right Arrow to navigate between multiple pages for one screen. The dots in this example indicate there are 3 pages to see.

Keyboards/Keypads: Tap on a Blank Field to access a keyboard or keypad for entering in information such as your Network ID and Security Key.

Welcome to the Dashboard

The Dashboard will provide you with the current status of the Range Extender.



Tap SCAN to find an available network to extend.

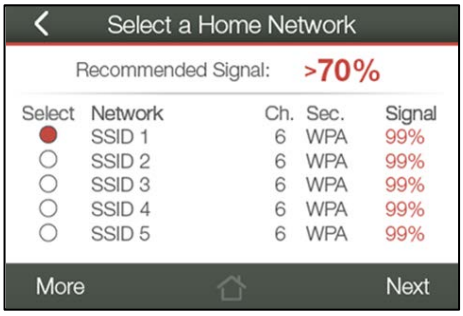
During the setup process, the wizard will refer to the *Home Network* and the *Extended Network*:

The *Home Network* is the network you are trying to Extend.

The *Extended Network* is the network that is rebroadcasted and extended by the Range Extender.

Select a Home Network to Extend

Select the Wi-Fi network that you wish to extend and tap Next to continue. Check that your Wi-Fi Network has a signal strength of 70% or greater.



If you fail to find any Wi-Fi networks, or your signal strength is below 70%, the Range Extender may be placed too far from the Wi-Fi network that you are trying to extend. Move your Range Extender closer to the Wi-Fi network that you are trying to extend and tap Rescan to scan again.

The Scan results page will display information regarding the name of the network (SSID), the channel which the Wi-Fi network is operating on and the security type of the network. The results page will also display what the signal strength is of every network detected.

Connecting to a Secure Network

If the Wi-Fi network you are trying to extend has Wi-Fi security enabled, you will be prompted to enter a Security Key. If you don't select a secure network, you will not see this page.

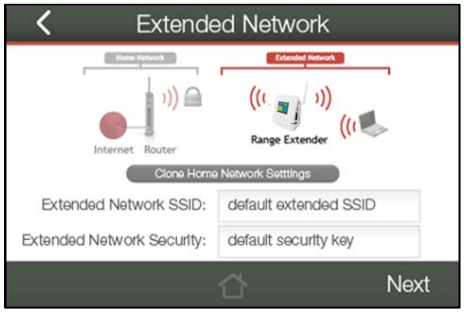
Enter the security key in the space provided. You do not need to select what type of security it is, just simply type in the key and tap Next.

The Wizard will automatically detect your home network's security settings. If you do not know the key to the network you are trying to extend, then tap the Back arrow to select another network.

Extended Network Settings

The default SSID of the Range Extender's Extended Network is "**Loopcomm**".

If you choose to Clone the settings from your Home Network, the wizard will copy the SSID and Security Key of your Home Network.



The SSID of the Extended Network will have a "_RE" at the end of its name. For example: Home_Network_RE.

You can also manually enter a new network ID and security key. The new security key must be at least 8 characters long.

Tap Next to apply the settings.

Apply Settings

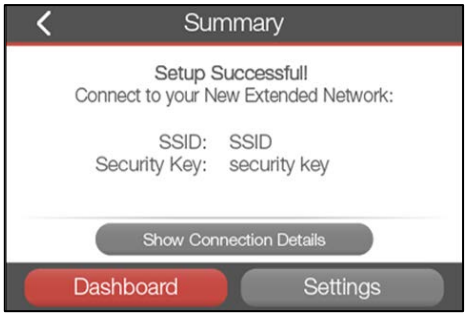
DO NOT LEAVE THIS SCREEN.

Allow the progress bar to complete and the Wizard will automatically redirect you to the next step.

Setup Summary

Congratulations, the Range Extender is now successfully configured! Your settings are now saved.

If you haven't already positioned your Range Extender in an optimal location, you may do so now. All Range Extender settings are saved and the unit can be safely powered off for relocation.



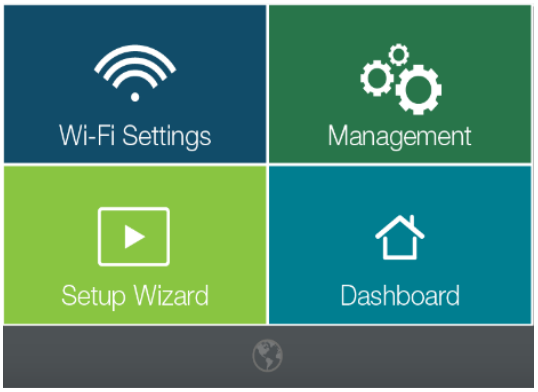
You may also attach any wired network devices to the wired ports on the side of the Range Extender at this time.

If the Extended Network connection fails try the following…

a. Check to see that your Home Network security settings are correct.
b. Check on the SCAN screen that your Home Network is showing a signal of 70% or greater. If not, move the Range Extender closer to your Home Network router and try again.
c. Check that your Home Network router's DHCP server is enabled.
d. Try changing the channel of the Home Network router to a higher channel number (5-11) and run the Wizard again.
e. If possible, check the Internet connection for your Home Network Wi-Fi router. Connect directly to your Home Network Wi-Fi router. If you are unable to access the internet through the Home Network Wi-Fi router, you must first fix this problem. The Range Extender will not be able to obtain internet access through a router that does not have internet access. Once Internet access is restored on your Home Network Wi-Fi router, connect to the Range Extender again and retry the Wizard.
f. Return to the Wizard and attempt to connect to another Home Network known to have Internet access.
g. Reboot (unplug the power adapter of the Range Extender from the power outlet and plug it back in) the Range Extender and check to see if the connection is established (some networks may be very slow and take longer than the allotted time for the Range Extender to successfully connect).

MORE SETTINGS (TOUCH SCREEN)

The Range Extender's Touch Screen Menu provides a host of features that you can easily configure with the touch of your finger. To access the main Settings Menu tap Settings from the Dashboard. From there you can access additional Wi-Fi Settings or Management Settings.



Note: For more advanced features and detailed options please access the web menu through your web browser, http://setup.loopcomm.com

WI-FI SETTINGS (TOUCH SCREEN)

Home Network Settings

Home Network Settings allow you to adjust settings for your Range Extender's connection with your Home Network router. Should you choose to skip the Setup Wizard and manually configure your Range Extender, this is the menu you use to do so.

Home Network SSID: Manually enter the Identification name of the Home Network you wish to connect to Internet.

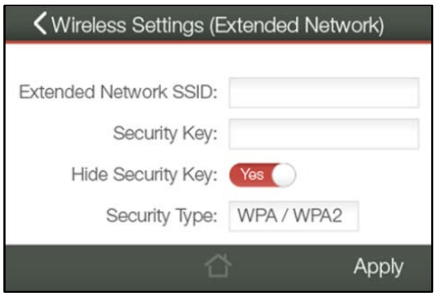
Security Key: Enter the Security Key of the Home Network. This is the password that you normally use when connecting directly to your home Wi-Fi connection.

Security Type: Select the encryption method used by your Home Network.

Channel Number: Enter the Channel number of the Home Network.
If the Settings entered here do not match the Settings of your home router, a connection between the router and the Range Extender will not be established.

More detailed settings can be found by accessing the web menu, setup.loopcomm.com

Extended Network Settings



The Extended Network Settings page allows you to adjust settings for your Extended Network.

Extended Network SSID: This is the Identification name of the repeated/extended network.

Security Key: Enter the security key of the Extended Network. This is the password that your network devices will use to connect to the Extended Network.

Security Type: Select the encryption method used by the Home Network. This setting must match the Security Type setting of your Home Network router.

More detailed settings can be found by accessing the web menu, setup.loopcomm.com

Guest Network

Toggle Guest Networks to On to create a Guest Network. Guest Networks provide a separate Wi-Fi network, with unique settings for users to connect to internet.

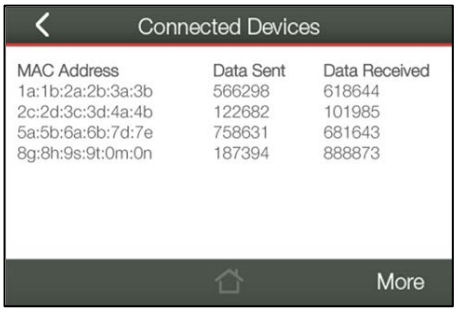
Guest Network SSID: This is the Identification name of your new Guest Network.

Security Key: Enter the security key of the Guest Network. This is the password that your network devices will use to connect your new Guest Network.

Security Type: Select the encryption method used by the Home Network. This setting must match the Security Type setting of your Home Network router.

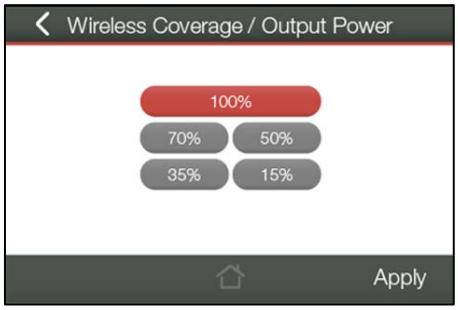
More detailed settings can be found by accessing the web menu, setup.loopcomm.com

Connected Devices



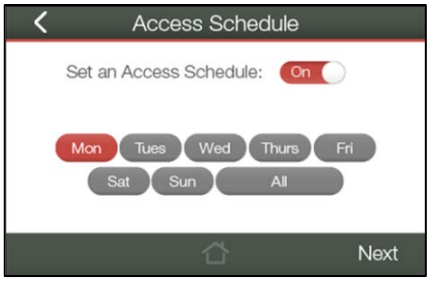
Connected Devices displays all users currently connected to the Range Extender's Extended Network. It provides a list of MAC Addresses for each connected device and the sent and received data for each.

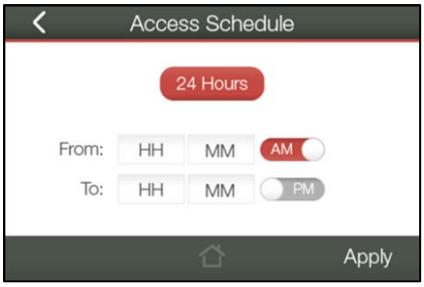
Wi-Fi Coverage Controls



Adjust the output power of the Range Extender to control the coverage distance of your Extended Wi-Fi Network. For a smaller coverage area you can select a lower output power. For the maximum Wi-Fi coverage select the **100%** selection. Note that if you select a lower output power, your connection to your Home Network will also decrease in range. So be careful and test your signal strength after each adjustment.

Access Schedule





You can set a schedule for when your Wi-Fi is enabled or disabled (both Home Network and the Extended Network) through the Access Schedule menu. To do so:

a. Toggle the Access Schedule to On.
b. Select which days you wish for your Wi-Fi to be available, one day at a time. Select the first day and tap Next.
c. Then select the time frame during that day that you wish for Wi-Fi to be available. Tap Apply to save your settings.
d. Tap the next day that you wish to schedule and then repeat steps a-c.

Your Access Schedule will also control the Internet access for wired connections. For more detailed settings, access setup.loopcomm.com

Note: Make sure you have already configured your System Clock in order for your schedule to work correctly. Time Zone Settings can be adjusted from the Settings menu under Management > Clock / Date

Wi-Fi Protected Setup (WPS)

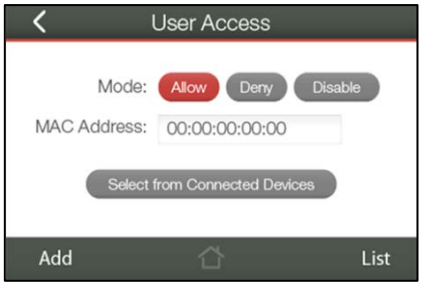
WPS is a Wi-Fi feature created to make Wi-Fi setup simple and easy. Some Wi-Fi routers and adapters support this feature with varying names (i.e. One Touch Setup or WPS).

You may enable WPS setup here by tapping Start WPS PBC.

Follow the steps on the Range Extender to complete WPS setup.

More detailed settings can be found by accessing the web menu, setup.loopcomm.com

User Access



User Access allows you to deny access or allow access to specific users that are connecting wirelessly to the Extended Network. Each Wi-Fi device has a unique address called a MAC address (a 12 digit hex number).

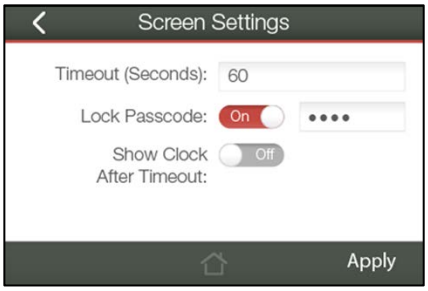
By inputting the MAC address into the field, you can define whether that device is allowed to connect to your network or not allowed.

Tap Select from Connected Devices to conveniently alter the access of devices that are already connected to the Extended Network.

MANAGEMENT SETTINGS (TOUCH)

Screen Settings

Manage the behavior and security of the LCD screen:



Timeout: When the touch screen is inactive past the duration of the Timeout time (in seconds), it will turn off to conserve power.

Lock Passcode: You can turn on a screen that has turned off simply by touching the screen. The Lock Passcode is a 4 digit security code used to secure access to the screen. If the Passcode is incorrect, the Touch Screen Menu will not appear. (Note: If you forget your passcode, simply reset the Range Extender back to default settings by holding down the reset button on the right panel of the Range Extender for 5-10 seconds)

Show Clock After Timeout: The Range Extender can automatically display the time and date after the timeout time has elapsed instead of turning the screen off.

Clock / Date

Maintain the internal clock for the Range Extender by syncing with Internet.

Your clock and date settings need to be accurate in order for Logs and Wi-Fi Access Schedules to work correctly.

If you wish for the Clock to show on your screen when the Range Extender is timed-out, toggle this to On.

Be sure to Apply settings to save them.

System Details

The Device Status provides you with a snapshot of your Range Extender's current connections and settings.

Home Wi-Fi Network Settings: This section displays the current status of the connection between the Range Extender and your Home Network. When viewing this section, it is important to check that your Home Network SSID is correct and the channel number matches your Home Network's channel number settings.

Connection Status: The Connection State will say "Connected" when there are no problems with the connection to your Home Network.

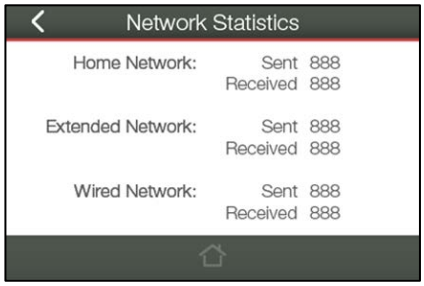
Extended Wi-Fi Network Settings: This shows the current settings for your Extended Wi-Fi Network. The IP settings for your Range Extender will change as you connect and disconnect from your Home Network. When connected to your Home Network, the network IP settings will be assigned by your Home Network. When not connected, the Range Extender will use its own default network IP settings.

Device Details: This section provides you with information on the version and builds time of your firmware. This is used to help our support department determine what firmware version your device is running.

The Current Date/Time is the setting for the System Clock. If this time is off, go to the System Clock section and configure your system time.

Statistics

These statistics show the data activity for each network connection.



Home Network: These statistics show the data activity for all upload and download data between the Home Network and the Range Extender.

Extended Wi-Fi Network: These statistics show all data activity for all users connected wirelessly to the Range Extender.

Wired Network: The Wired Connection statistics show all data activity for all users physically connected to the wired ports on the Range Extender.

USB Storage

Share a USB storage device with computers on both the Home Network and the Extended Network of the Range Extender.

Insert a USB storage device, such as a flash drive or external hard drive, to the USB port on the side of the Range Extender and follow the directions below for your operating system. The computer must be connected to your Home Network or Extended Network in order to access the storage device. You may also want to Map the Network Drive so it shows up as a standard drive on your computer for easier access.

More detailed settings can be found by accessing the web menu, setup.loopcomm.com

Windows 7 & Vista

To access the drive from your Windows desktop:

Note: If the USB drive does not appear automatically under your Networked devices (Windows 7, Vista or Mac OS X), you will need to Map the Network Drive.

a. Click the Start button
b. Click Computer
c. On the Computer page, the drive should appear on the left hand column under Network as LOOPCOMM_RE_USB

To Map the Network Drive:

a. Click the Start button
b. Click Computer
c. Click Map Network Drive from the top bar
d. Select a drive letter (any), then enter in the folder field: \\LOOPCOMM_RE_USB\public\ **or** \\Range Extender's LAN IP address\public\
e. If the drive fails to open, click browse and locate LOOPCOMM_RE_USB under Network

Windows XP

To access the drive from your Windows desktop:

Note: If the USB drive does not appear automatically under your Networked devices (Windows 7, Vista or Mac OS X), you will need to Map the Network Drive.

a. Click the Start button
b. Click My Computer
c. Click on My Network Places and locate the drive named LOOPCOMM_RE_USB

To Map the network drive:

a. Click the Start button
b. Right Click My Computer and select Map Network Drive
c. Select a drive letter (any), then enter in the folder field: \\LOOPCOMM_RE_USB\public\ **or** \\Range Extender's LAN IP address\public\
d. If the drive fails to open, click browse and locate LOOPCOMM_RE_USB under Network

Mac OS X

To access the drive from your Mac desktop:

Note: If the USB drive does not appear automatically under your Networked devices, you will need to Map your Network Drive (Instructions below).

a. Open Finder
b. On the left hand menu, under Shared, click LOOPCOMM_RE_USB

To Map the network drive:

a. Open Finder
b. From the menu on the top of the desktop, select Go
c. Select Connect To Server from the drop down menu
d. Enter the address of the network drive:
   smb://LOOPCOMM_RE_USB/public **or** smb://Range Extender's LAN ip address/public
e. Then click Connect

If the network drive does not appear on your Mac desktop, follow these steps:

a. Open Finder
b. Select Preferences from the drop down menu
c. Check show Connected Servers
d. The drive should now appear on your desktop

System Logs

System Logs are useful for viewing the activity and history of the Range Extender. The System Logs are also used by Loopcomm techs to help troubleshoot your Range Extender when needed.

It is recommended that you enable all logs in the event that troubleshooting is required. All log entries are deleted each time the Range Extender reboots or is powered off.

More detailed log information can be found by accessing the web menu, setup.loopcomm.com

Upgrade Firmware

Loopcomm continuously updates the firmware for all products in an effort to constantly improve our products and their user experiences. When connected to an active connection with Internet access, the Range Extender can automatically check for new firmware updates that are available by tapping Check for Updates. Follow the prompts to complete the upgrade process.

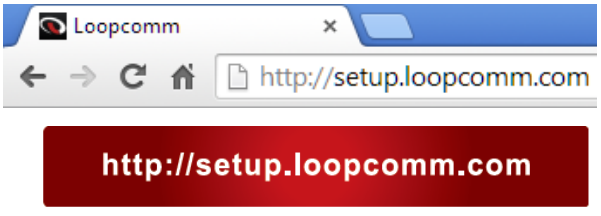
Before upgrading the firmware, remember to always save your current settings first by going to Save/Reload Settings via the web menu. The firmware upgrade process will reset the settings of the Range Extender to default settings.

More detailed settings can be found by accessing the web menu, setup.loopcomm.com

ACCESSING THE WEB MENU

The Range Extender can be configured via the simple to use Touch Screen Menu or via a web browser with the Web Menu. The Web Menu features a more advanced, more detailed interface with additional configuration options that may not be found on the Touch Screen Menu. To access the Web Menu, simply connect your computer, tablet, or smartphone to the Wi-Fi network or the wired network port of the Range Extender.

a. Open your web browser
b. Type **http://setup.loopcomm.com** into the web address bar
c. If the web menu fails to open, type in the following IP address into your web address bar: **http://192.168.1.240**



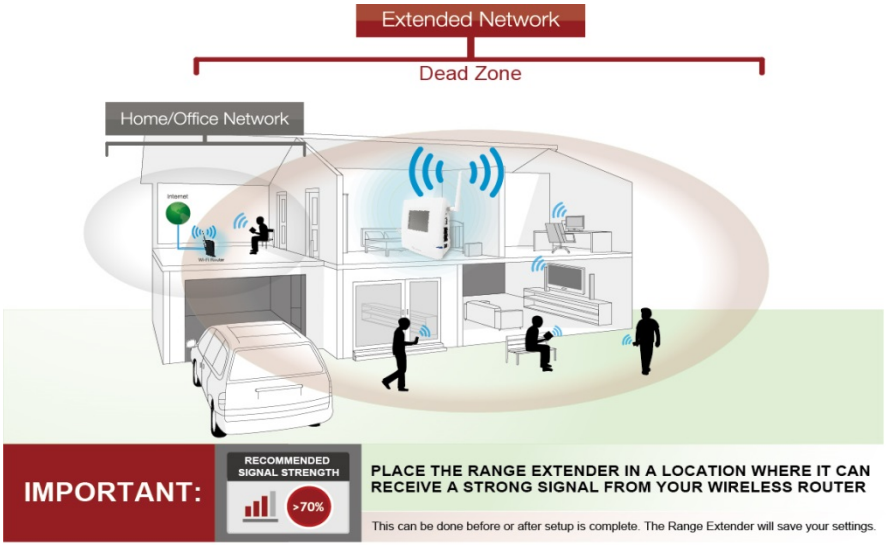
NOTE: IF YOU HAVE PROBLEMS ACCESSING THE WEB MENU

a. Disconnect your PC from all Wi-Fi networks
b. Attach an Ethernet cable between the PC and the Range Extender
c. Open your web browser and go to **http://setup.loopcomm.com** again

SETUP GUIDE (WEB MENU)

Find a Setup Location

The location of where you install the Range Extender is very important to how it will function. The optimal setup location should be somewhere no more than halfway between your Wi-Fi router and your Wi-Fi dead zone.

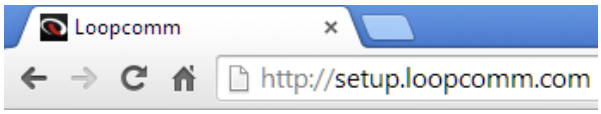


Connect your PC, Tablet, or Smartphone to the Range Extender

a. Attach the included antenna.
b. Attach the Power Adapter to the Range Extender's PWR Port and an available power outlet.
c. The Range Extender should boot up with the Loopcomm Logo and then the Dashboard screen should appear.
d. Connect your PC, Tablet, or Smartphone to the Range Extender's Wi-Fi network: Loopcomm.

Open your Web Browser to Access the Setup Wizard

a. Open your web browser
b. Type **http://setup.loopcomm.com** into the web address bar
c. If the web menu fails to open, type in the following IP address into your web address bar: **http://192.168.1.240**



http://setup.loopcomm.com

NOTE: IF YOU HAVE PROBLEMS ACCESSING THE WEB MENU

a. Disconnect your PC from all Wi-Fi networks
b. Attach an Ethernet cable between the PC and the Range Extender
c. Open your web browser and go to **http://setup.loopcomm.com** again

Welcome to the Dashboard

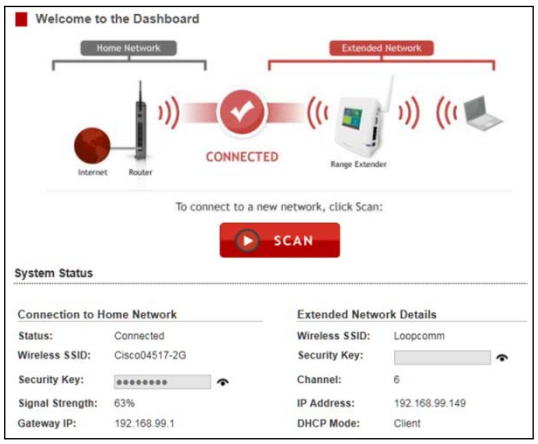
The Dashboard will provide you with the current status of the Range Extender.

Click SCAN to find an available network to extend.

The diagram on this page displays the terms used to describe:

1) The network you are trying to extend (Home Network).
2) The network that is rebroadcasted and extended (Extended Network).

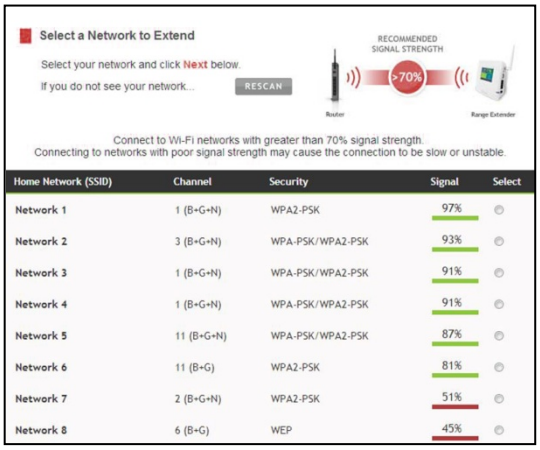
Study this diagram carefully as the terms used in the following instructions will refer to these names.



Scan for a Home Network to Extend

Highlight and select the Wi-Fi network that you wish to extend and click Next to continue. Check that your Wi- Fi Network has a signal strength of 70% or greater.

If you fail to find any Wi-Fi networks, or your signal strength is below 70%, the Range Extender may be placed too far from the Wi-Fi network that you are trying to extend. Move your Range Extender closer to the Wi-Fi router of the network that you are trying to extend and click Rescan.



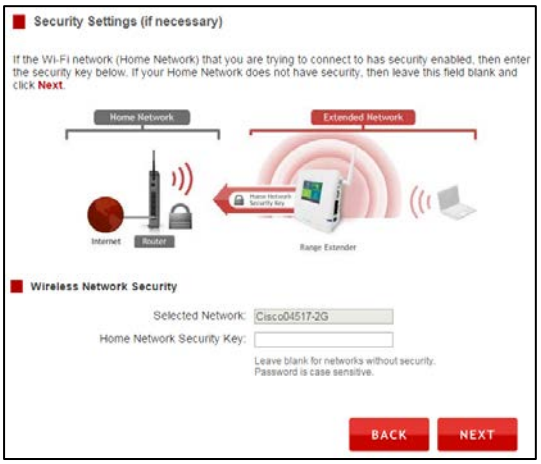
The Scan results page will display information regarding the name of the network (SSID), the channel which the Wi-Fi network is operating on and the security type of the network. The results page will also display what the signal strength is coming from each specific network detected.

Connecting to a Secure Network

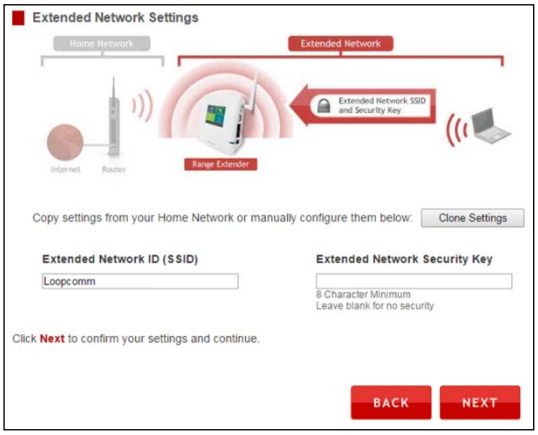
If the Wi-Fi network you are trying to extend has Wi-Fi security enabled, you will be prompted to enter a Security key. If you don't select a secure network, you will not this page.

Enter the Security Key in the space provided. You do not need to select what type of security it is, just simply type in the Key and click Next.

The Wizard will automatically detect your home network's security settings. If you do not know the Key to the network you are trying to extend, then click Back and select another network.



Extended Network Settings



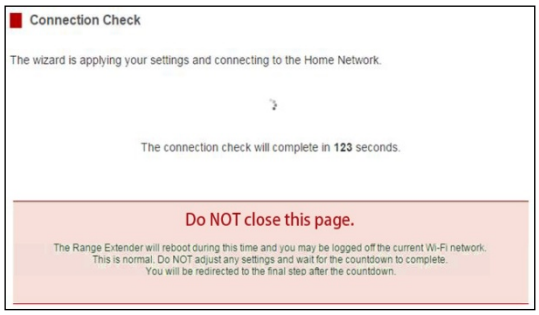
The default SSID of the Range Extender is **Loopcomm**. If you choose to Clone Settings from your Home Network, the wizard will copy the SSID and Security Key of your Home Network.

The SSID of the Extended Network will have a "_RE" at the end of its name. For example: Home_Network_RE

You can also manually enter a new SSID and Security Key. The new security key must be at least 8 characters long.

Click Next to apply the settings.

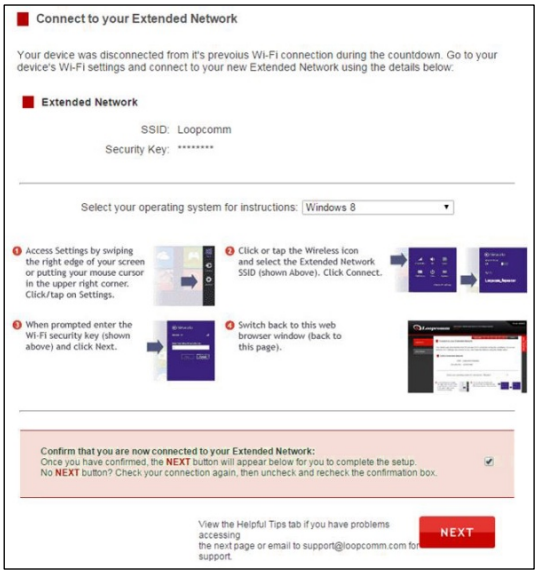
Connection Check



DO NOT LEAVE OR REFRESH THIS PAGE.

Allow the countdown to complete and the Wizard will automatically redirect you to the next step.

Connect to the new Extended Network



During the countdown process, the Range Extender will reboot and disconnect the Wi-Fi connection. At this point, you will need to reconnect your PC, Tablet, or Smartphone to the new Extended Network. Follow the instructions on the screen to connect to the Extended Network.

Once you have connected, click the check box to confirm. The Next button will appear allowing you to complete the setup process.

If there are problems with your configuration, the Wizard will inform you to rescan for a network to extend.

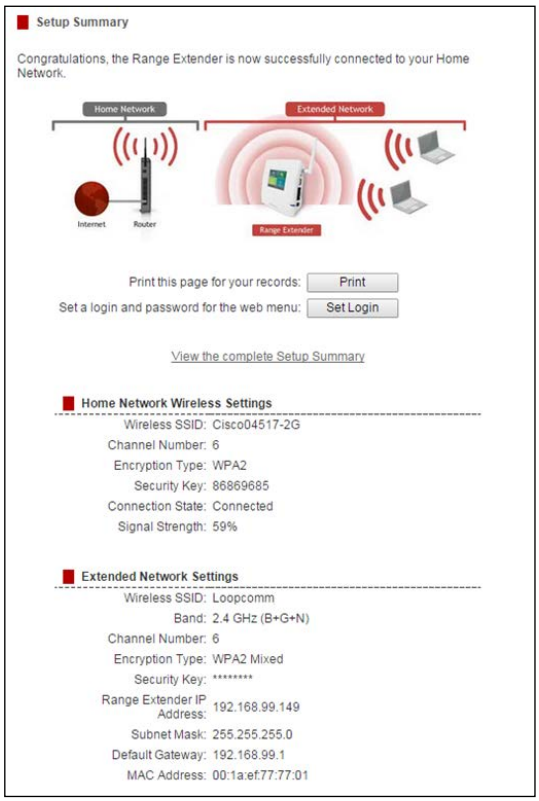
If there are no problems, you will see the Setup Summary on the following page.

Setup Summary

Congratulations, the Range Extender is now successfully configured! Your settings are now saved.

If you haven't already positioned your Range Extender in an optimal location, you may do so now. All Range Extender settings are saved and it can be safely powered off for relocation.

You may also attach any wired network devices to the wired ports on the side of the Range Extender.



If the Home/Office Network connection fails try the following…

a. Check to see that your Home Network security settings are correct.
b. Check on the SCAN page that your Home Network is showing a signal of 70% or greater. If not, move the Range Extender closer to your Home Network router and try again.
c. Check that your Home Network router's DHCP server is enabled.
d. Try changing the channel of the Home Network router to a higher channel number (5-11) and run the Wizard again.
e. If possible, check the Internet connection for your Home Network Wi-Fi router. Connect directly to your Home Network Wi-Fi router. If you are unable to access the internet through the Home Network Wi-Fi router, you must first fix this problem. The Range Extender will not be able to obtain internet access through a router that does not have internet access. Once Internet access is restored, connect to the Range Extender again and retry the Wizard.
f. Return to the Wizard and attempt to connect to another Home Network known to have Internet access.
g. Reboot (unplug the power adapter of the Range Extender from the power outlet and plug it back in) the Range Extender and check to see if the connection is established (some networks may be very slow and take longer than the allotted time for the Range Extender to successfully connect).

WI-FI SETTINGS (WEB BROWSER)

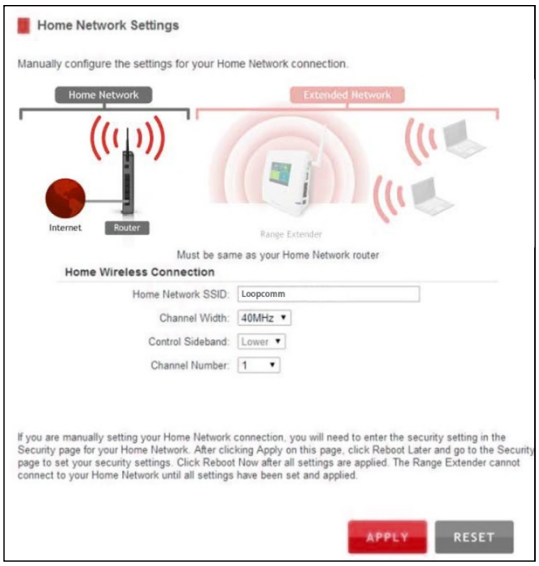
Home Network Settings

Home Network Settings allow you to adjust settings for your Range Extender's connection with your Home Network router. Should you choose to skip the Setup Wizard and manually configure your Range Extender, this is the menu you use to do so.

Home Network SSID: Manually enter the Identification name of the Home Network you wish to connect to Internet.

Channel Number: Enter the channel number of the Home Network. If the channel number does not match, a connection will not be established.

Channel Width: Wi-Fi operates in two separate channel widths, 20Hz and 40Hz. 20Hz allows operation on channels 1-11, while 40Hz is 5-11. 40Hz allows for faster speeds. Select the channel width you wish to use for your network. This setting must match that of your Home Network for a successful connection.

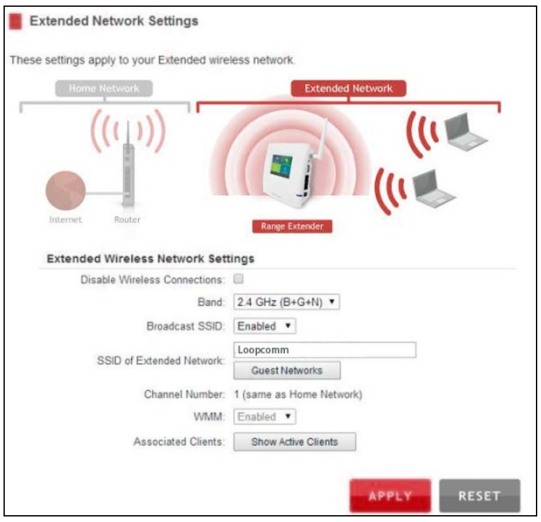


Extended Network Settings

The Extended Network Settings page allows you to adjust settings for your Extended Network.

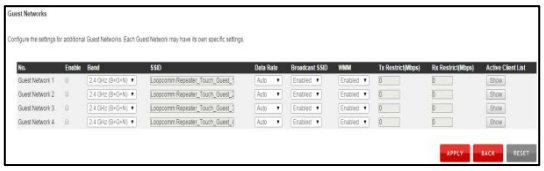
Band: Allows you to setup access under a specific combination of Wi-Fi speed standards.

Broadcast SSID: Selecting Disable Broadcast SSID will hide the visibility of the Range Extender's SSID. Users must manually enter the SSID to connect.



Guest Network

Click Enable to create a Guest Network. Guest Networks provide a separate Wi-Fi network, with unique settings for users to connect to.



SSID: This is the name of your Guest Network.

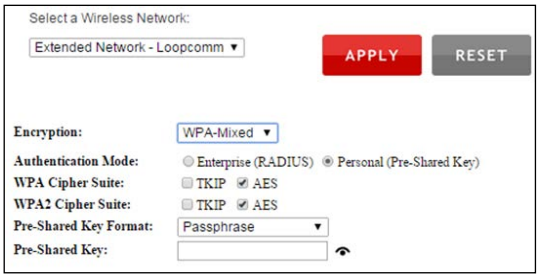
Data Rate: You can restrict access to the Guest Network by setting a lower bandwidth by changing the band (i.e. only allow 802.11b access to specific users).

Associated Clients: View all computers and network devices that are wirelessly connected to your Guest Network.

To set security settings for the Guest Network go to: Wi-Fi Settings **>** Security.

Security

Wi-Fi security allows you to change the type of Wi-Fi security settings for your Extended Network or your Home Network.



Note: If you adjust the security in your Home Network and it is incorrect, you will no longer have a successful connection to your Home Network. You must first adjust the security of your Home Network on your Home Network router.

Using the drop down menu, you can select which network you wish to configure and you may adjust the security settings below.

If you are using the Multiple AP/SSID feature, you will be able to adjust the security settings for your additional SSIDs here as well.

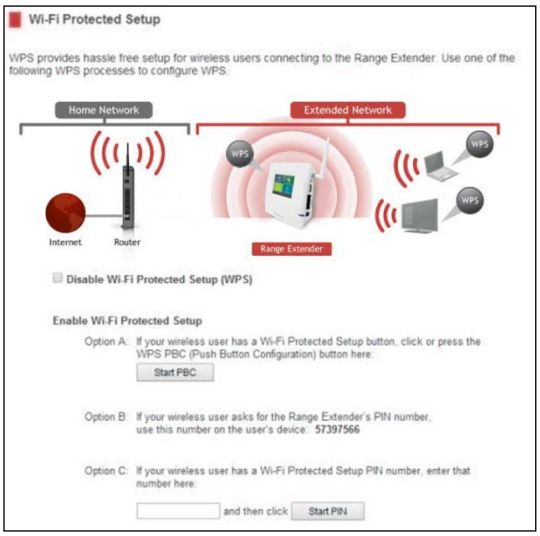
For more information on the differences between the types of Wi-Fi security available, please visit our company website: **www.loopcomm.com**

Wi-Fi Protected Setup (WPS)

WPS is a Wi-Fi feature created to make Wi-Fi setup simple and easy. Some Wi-Fi routers and adapters support this feature with varying names (i.e. One Touch Setup or WPS).

You may enable WPS setup here by selecting the type of WPS setup you wish to use. The Range Extender supports all types of WPS setup.

Push Button: You may push the WPS button on the web menu or use the physical button on the back of the Range Extender.



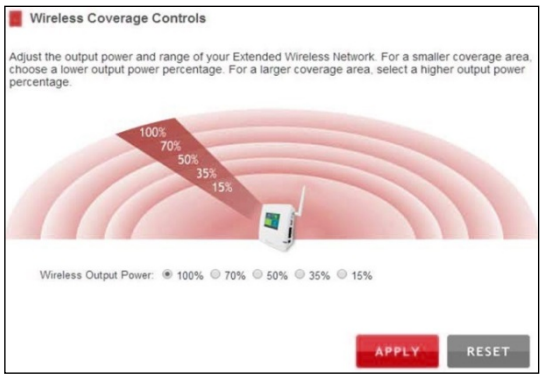
User Access

User Access allows you to deny access or allow access to specific users connecting wirelessly to the Extended Network. Each Wi-Fi device has a unique address called a MAC address (a 12 digit hex number).

By inputting the MAC address into the field, you can define whether that device is allowed into your network or not allowed.

Wi-Fi Coverage Controls

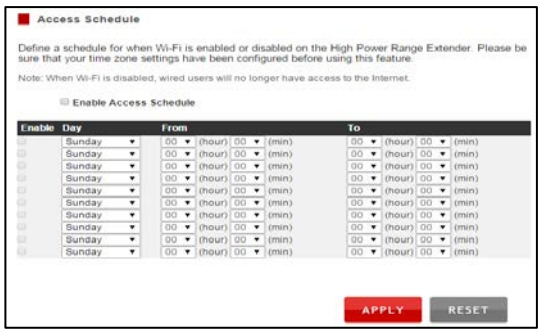
Adjust the output power of the Range Extender to control the coverage distance of your Extended Wi-Fi Network. For a smaller coverage area you can select a lower output power. For larger areas and the maximum Wi-Fi coverage select the 100% selection. Note that if you select a lower output power, your connection to your Home Network will also decrease in range. So be careful and test your signal strength after each adjustment.



Access Schedule

You can set a schedule for when your Wi-Fi is enabled or disabled (both Home Network and the Extended Network) through the Access Schedule feature. To do so:

a. Enable Access Schedule.
b. Select which days you wish for your Wi-Fi to be available.
c. Select the time frame during that day that you wish for Wi-Fi to be available.
d. Apply Changes.



The Access Schedule will also adjust the internet access for wired connections on specified days.

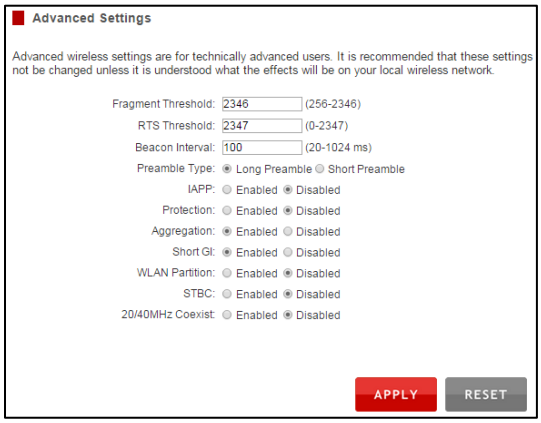
Note: Make sure you have already configured your System Clock in order for your schedule to work correctly. Time Zone Settings can be adjusted from the web menu under Management > Time Zone Settings.

Advanced Settings

It is recommended that only experts in Wi-Fi configuration adjust the advanced Wi-Fi settings for the Range Extender.

These settings allow you to control the details of your Wi-Fi network configuration.

Here are a few definitions on some settings:



Fragment Threshold: The Default and Recommended setting is at 2346, meaning the Range Extender will never fragment any frames that it sends to Wi-Fi users.

RTS Threshold: Adjusts the size of RTS data packets.
Lower values reduce throughput, but allow the system to recover quicker from interference/collisions.
Higher values provide the fastest throughput.

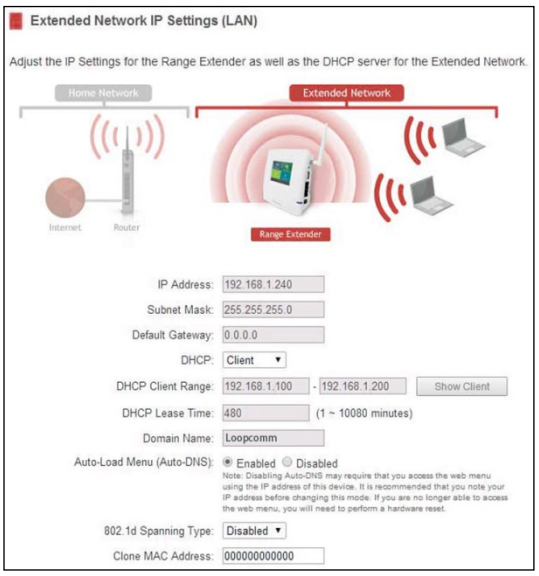
Beacon Interval: Indicates the frequency interval of the beacon. A beacon is a packet broadcast by the Range Extender to sync the Wi-Fi network.

Preamble Type: Defines the length of the Cyclic Redundancy Check for communication between the Range Extender and roaming Wi-Fi users.

IAPP: Inter-Access Point Protocol.

STBC: Space Time Block Coding improves reception by coding the data stream in blocks.

NETWORK SETTINGS (WEB MENU)



IP Address: The IP address of the Range Extender. Subnet Mask: The subnet of the Range Extender.

Default Gateway: The access point to another network, normally the Range Extender or your router.

DHCP: The Range Extender includes a complex AUTO DHCP feature to help manage the IP addresses within your extended network and with your Home Network. When connected to a Home Network, the Range Extender will obtain an IP address from your Home Network's router and act as a DHCP Client. However, when there is no connection available, the Range Extender will act as a DHCP Server. You may also manually control the IP settings of the Range Extender by choosing Client, Server or Disabled from the DHCP drop down menu. This is only for advanced users.

DHCP Client Range: The range of IP addresses the Range Extender's DHCP server will assign to users and devices connecting to the Range Extender.

Static DHCP: You may set a static IP address within your DHCP network. The Range Extender will track the device via its MAC address and assign it a pre-defined IP address each time the device logs into the network. Obtain IP settings from the Home router or manually enter your IP settings.

Auto Load Menu (Auto-DNS): When the Range Extender loses connection to your Home Network it will automatically redirect your web browser to the web menu. To turn this feature off, you can disable Auto-DNS. Note: Disabling Auto-DNS will require that you access the web menu using the IP address of this device. It is recommended that you note your IP address before changing this mode. If you are no longer able to access the web menu, you will need to perform a hardware reset.

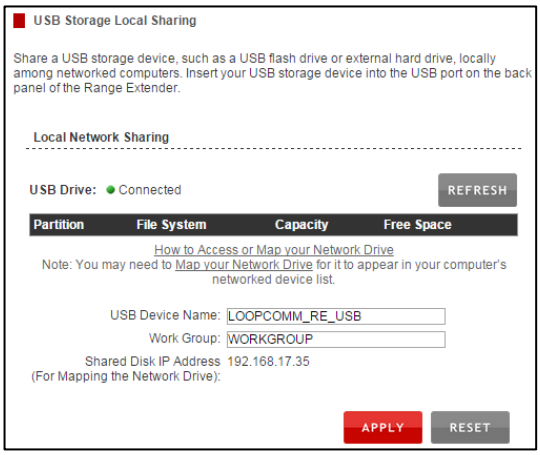
Domain Name: The Domain Name allows you to change the URL which is used to access the Setup Menu for the Range Extender. For example, entering http://setup.loopcomm.com into your web browser while connected to the Range Extender, will guide you to the Web menu for the Range Extender. By changing the Domain Name, you will change the URL entered to access the Web menu. If you forget the Domain Name you entered and can no longer access the Web menu, then you will need to reset your Range Extender to default settings by holding down the reset button on the side panel for 5-10 seconds.

USB STORAGE (WEB MENU)

USB Storage (Web): Local Sharing

Share a USB storage device with computers on the local network of the High Power Range Extender.

Insert a USB storage device, such as a flash drive or external hard drive, to the USB port on the back of the Range Extender and follow the directions below for your operating system. The computer must be connected to your Home Network or Extended Network to access the storage device. You may also want to Map the Network Drive so it shows up as a standard drive on your computer for easier access.



Windows 7 & Vista

To access the drive from your Windows desktop:

Note: If the USB drive does not appear automatically under your Networked devices (Windows 7, Vista or Mac OS X), you will need to Map the Network Drive.

a. Click the Start button
b. Click Computer
c. On the Computer page, the drive should appear on the left hand column under Network as: LOOPCOMM_RE_USB

To Map the network drive:

a. Click the Start button
b. Click Computer
c. Click Map Network Drive from the top bar
d. Select a drive letter (any), then enter in the folder field: \\LOOPCOMM_RE_USB\public\ **or** \\Range Extender's LAN IP address\public\
e. If the drive fails to open, click Browse and locate LOOPCOMM_RE_USB under Network

Windows XP

To access the drive from your Windows desktop:

Note: If the USB drive does not appear automatically under your Networked devices (Windows 7, Vista or Mac OS X), you will need to Map the Network Drive.

a. Click the Start button
b. Click My Computer
c. Click on My Network Places and locate the drive named LOOPCOMM_RE_USB

To Map the network drive:

a. Click the Start button
b. Right click My Computer and select Map Network Drive
c. Select a drive letter (any), then enter in the folder field: \\LOOPCOMM_RE_USB\public\ **or** \\Range Extender's LAN IP address\public\
d. If the drive fails to open, click Browse and locate LOOPCOMM_RE_USB under Network

Mac OS X

To access the drive from your Mac desktop:

Note: If the USB drive does not appear automatically under your Networked devices, you will need to Map your Network Drive (Instructions below).

a. Open Finder
b. On the left hand menu, under Shared, click LOOPCOMM_RE_USB

To Map the network drive:

a. Open Finder
b. From the menu on the top of the desktop, select Go
c. Select Connect To Server from the drop down menu
d. Enter the address of the network drive:
   smb://LOOPCOMM_RE_USB/public **or** smb://Range Extender's LAN ip address/public
e. Then click Connect

If the network drive does not appear on your Mac desktop, follow these steps:

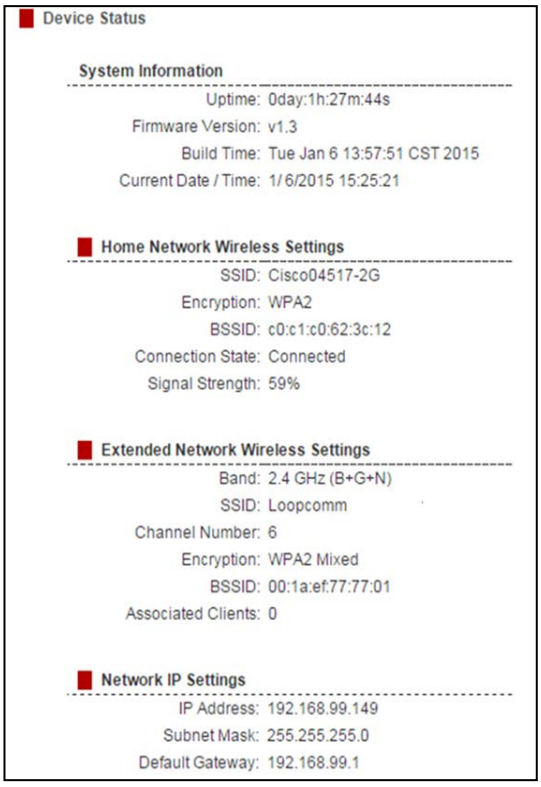
a. Open Finder
b. Select Preferences from the drop down menu
c. Check Show Connected Servers
d. The drive should now appear on your desktop

MANAGEMENT FEATURES (WEB BROWSER)

The Management features on the Range Extender allow you to view the status of your Range Extender and adjust other settings such as your System Clock, Passwords, and Firmware Upgrades among other administrative functions.

Device Status

The Device Status provides you with a snapshot of your Range Extender's current connections and settings.



System Information: This section provides you with information on the version and builds time of your firmware. This is used to help our support department determine what firmware version your device is running.

The Current Date / Time is the setting for the system clock. If this time is off, go to the System Clock section and configure your system time.

Home Wi-Fi Network Settings: This section displays the current status of the connection between the Range Extender and your Home Network. When viewing this section, it is important to check that your Home Network SSID is correct and the channel number matches your Home Network's channel number settings.

Connection State: The Connection State will say "Connected" when there are no problems with the connection to your Home Network.

If the Connection State shows "Waiting for Keys" then the WPA/WPA2 security key you entered is incorrect.

If the Connection State shows "Scanning" the Range Extender may be too far away from your home/office router.

The Signal Strength display can be updated by refreshing the page and is a good tool to use for finding the optimal installation location. A signal strength of 70% or greater is recommended for stable operation of the Range Extender.

Extended Wi-Fi Network Settings: Shows the current settings for your Extended Wi-Fi Network.

Range Extender IP Settings: The network IP settings for your Range Extender will change as you connect and disconnect from your Home Network. When connected to your Home Network, the network IP settings will be assigned by your Home Network. When not connected, the Range Extender will use its own default network IP settings.

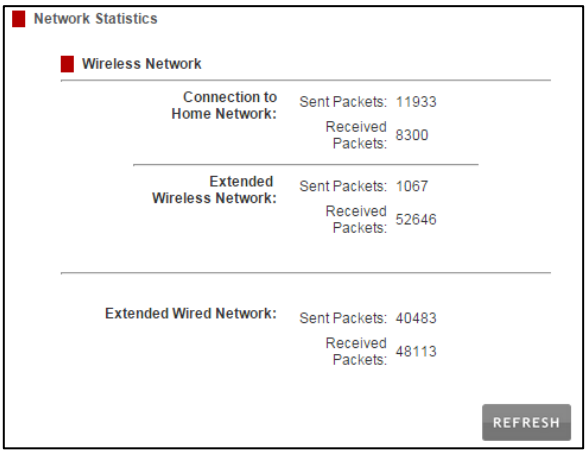
Statistics

These statistics show the data activity for each network connection.

Connection to Home Network: These statistics show the data activity for all upload and download data between the Home Network and the Range Extender.

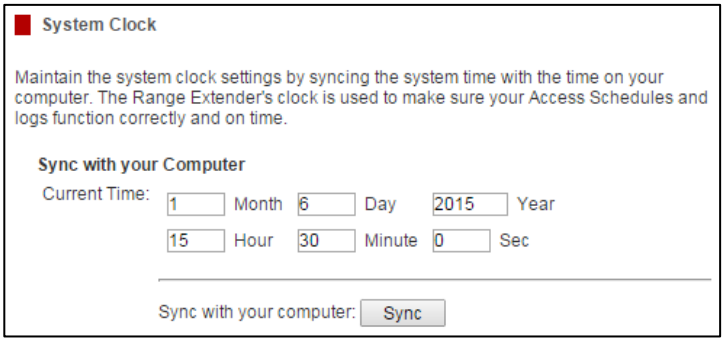
Extended Wi-Fi Network: These statistics show all data activity for all users wirelessly connected to the Range Extender.

Extended Wired Network: These statistics show all data activity for all users physically connected to the wired ports on the Range Extender.



System Clock

Maintain the internal clock for the Range Extender by syncing with your computer's time. Your system clock settings need to be accurate in order for Logs and Wi-Fi Access Schedules to work correctly.



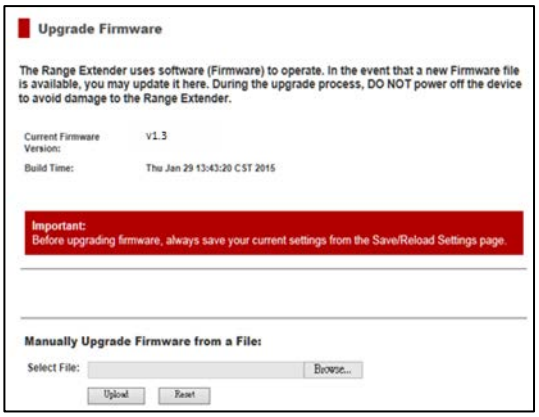
System Logs

System Logs are useful for viewing the activity and history of the Range Extender. The System Logs are also used by Loopcomm techs to help troubleshoot your Range Extender when needed.

It is recommended that you enable all logs in the event that troubleshooting is required. All log entries are deleted each time the Range Extender reboots or is powered off.

Upgrade Firmware

Loopcomm continuously updates the firmware for all products in an effort to constantly improve our products and their user experiences.



Follow the prompts to complete the upgrade process.

Before upgrading the firmware, remember to always save your current settings first by going to the Save/Reload Settings page. The firmware upgrade process will reset the settings of the Range Extender to default settings.

Manual Firmware Upgrade: In the case that the Range Extender does not have access to the Internet, you can manually upgrade the firmware by downloading the firmware file from the Loopcomm website. The firmware update is downloaded as a zip file and you will need to have an unzipping program to open the file. Inside the file there will be a text document with details on the current firmware release and instructions on how to upgrade the firmware.
To manually upgrade your firmware:

a. Download the file from www.loopcomm.com and remember the location where you saved it. Firmware files may also be provided by Loopcomm.
b. Click Choose File and locate the file.
c. Click Upload to begin upgrading.

Note: Firmware files normally have a **.bin** file extension.

Save and Reload Settings

Saving your current settings allows you to back-up your current settings which may be reloaded at a later time. This feature may be useful for testing new features and settings without having to worry about returning to a stable platform.

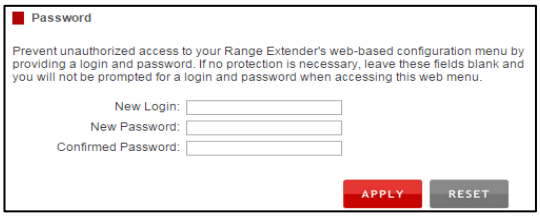
To save current settings:
a. Click Save
b. Select a file name and location

To load previously saved settings:
a. Click Browse
b. Locate the previously saved settings file
c. Click Upload to restore the settings to the saved file.

You may also reset the Range Extender's settings to factory settings by pressing Reset. By resetting the Range Extender, you will lose all previous configurations and will need to run the Wizard again to reconnect to the Home Network.

Password Settings

By default, the Range Extender does not require a password to login to the web menu. If you wish to enable a password to protect unauthorized access to the web menu and Wizard, you may enter one here.



TECHNICAL SPECIFICATIONS

Wireless Standard: 802.11n,802.11b/g

Frequency Band: 2.4 GHz

Wireless Speed: 300Mbps (Rx), 300Mbps (Tx)

Amplifier:

- 2 x High Power 2.4GHz Amplifiers
- 2 x Low Noise Amplifiers

Wireless Security: WEP, WPA, WPA2

Antennas:

- 1 x Detachable High Gain Antenna
- 1 x Internal High Gain Antenna.

Ports: 2xRJ-45 10/100 LAN ports

Mounting: Wall, Desktop

Setup Requirements:

- Wireless 2.4GHz 802.11b/g/n Network
  (Will not work in 5GHz Wireless-N mode)

DEFAULT SETTINGS

The default settings for your Range Extender are listed here. If for some reason you need to return your Range Extender back to default settings, hold down the Reset button on the side panel for 10 seconds. The Range Extender will reset back to factory settings as listed below:

IP Address: 192.168.1.240

Web Menu Access: http://setup.loopcomm.com

SSID: Loopcomm

TROUBLESHOOTING

The tips in this guide are listed in order of relevance. Try solution (a) before trying solution (b), etc.

Troubleshooting: Home Network Connection Issues

I cannot connect to my Home Network. I received an error when running the Setup Wizard.

a. Your Home Network may be secured. Double check that you have the correct Security Key to connect to the Home Network.
b. Your Range Extender may be located too far from your Home Network. Run through the Setup Wizard again. On the SCAN screen, your Home Network should show a signal strength of 70% or greater. If it does not, move the Range Extender closer to your Home Network and try again.
c. Check to see that your Home Network router's DHCP server is enabled. The Range Extender needs to obtain an IP from your Home Network router.

I cannot find my Home Network when scanning for Wi-Fi networks in the Setup Wizard.

a. The Range Extender may be out of range. Move the Range Extender closer to the Wi-Fi router and try the Setup Wizard again from the Touch Screen Menu. It is recommended that your Home Network shows a signal strength of 70% or greater in the Wizard SCAN results.
b. The Home Network may be a dual band Wi-Fi router. The Range Extender supports 802.11b/g/n 2.4GHz routers. If your Home Network uses a dual-band router, it will not work with the Range Extender. Adjust the dual-band router's configuration to disable the 5GHz band.
c. From the touch screen Dashboard, go to Settings then the Wi-Fi Settings menu to access Wireless Coverage settings. Make sure the setting is at 100% and try again.
d. Make sure that your Home Network's Wi-Fi SSID is broadcasting and not hidden. If your Home Network SSID is hidden, you will need to manually setup the Range Extender through the Wi-Fi Settings > Home Network Settings menu.

My Range Extender was working fine previously, but now I can no longer access the Internet through the Range Extender. Or, I had a POWER OUTAGE and now the Range Extender no longer works.

a. The connection to your Home Network has been dropped. This can be caused by several events to your home Wi-Fi connection. When this occurs, simply run the Setup Wizard again from the Touch Screen Menu and reconfigure the Range Extender.
b. The Range Extender automatically reconfigures itself in the event of a channel change on your router. However, in the case that it does not, check to see that your home Wi-Fi router settings have not changed. Any changes to the SSID, security, or channel number from the original settings will disconnect the Range Extender's connection to the home network. **A power outage can cause a change in the channel of your router.** To solve this simply run the Setup Wizard again from the Touch Screen Menu and reconfigure your Home Network connection. You can also set a static channel number on your router to prevent this from happening again in the future.
c. Check to see that your home Wi-Fi router is still on. If it has been turned off please turn it back on. The Range Extender should automatically reconnect to your Home Network within 10 minutes.
d. If the range extender does not automatically reconnect, try rebooting the Range Extender by unplugging the power cable and plugging it back in.

I have a dual-band router and I cannot extend it.

a. Log into the Web Menu for your dual-band Wi-Fi router and adjust the Wi-Fi settings. Change the Wi-Fi band to 2.4GHz single band mode only. The Range Extender will not be able to extend the 5GHz band.

I cannot find any Wi-Fi networks (Home Networks) to extend.

a. The Range Extender may be out of range. Move the Range Extender closer towards the Wi-Fi router and try the Setup Wizard again from the Touch Screen Menu.
b. The antenna on your Range Extender may be loose. Tighten the antenna connection and try again.
c. The Wi-Fi Home Network may not be a compatible Wi-Fi network (802.11b/g/n).

I am connected to a Home Network; however, I do not have Internet Access.

a. The Home Network itself may not have Internet access. Check to see that you have internet access by connecting directly to the Home Network first. If you are able to go online then this is not a problem. If you cannot go online, then the Home Network's Internet connection must first be resolved.
b. You may have a DNS issue and the Range Extender is not obtaining the IP settings from your Home Network. Try to reboot the Range Extender and then access a website. If that fails, then reboot the Home Router to see if that fixes it.
c. There may be an IP conflict with your Home Network and your Extended Network. Try to adjust the IP Settings of your Extended Network using IP values that are different from your Home Network.

I can no longer connect to the Range Extender wirelessly.

a. Power on and off the Range Extender and try again.
b. The connection to the Home Network may be down. Run through the Setup Wizard again. After you have successfully reset the Home Network connection, try connecting wirelessly again.

The connection to the Home Network seems slow. File transfers take a long time to transfer.

a. You may be too far away from your Home Network. The closer the Range Extender is to your Home Network, the better its connection will be. The Range Extender must have a strong signal in order to extend the signal with fast speeds and further range. Move the Range Extender closer to your Home Network and try again.

Troubleshooting: Touch Screen Issues

I forgot the touch screen passcode for the Range Extender and can no longer access the Touch Screen Menu.

a. Once you have exhausted all attempts at recovering your passcode, reset the Range Extender to default settings by holding the reset button, located on the right side of the Range Extender, for 5 to 10 seconds. The Range Extender will reboot and erase all current settings. You will need to reconfigure the Range Extender.

The touch screen turns off too quickly.

a. From the Dashboard screen, tap on Settings. Tap on Management Settings and then Screen Settings. This screen will allow you to adjust the timeout time for the screen to turn off when there is an interval of no activity.

Troubleshooting: Wireless Issues

I am only getting 3 or 4 wireless signal bars on my wireless computer and I am within 10 feet of the Range Extender.

a. Step back at least 10 feet from the Range Extender and check your signal again. The Range Extender emits high power, long range Wi-Fi signals that may confuse your wireless adapter signal reading at close range. The speed and signal are at 100%, however your readout may not be displaying the data correctly.
b. Check that your antenna is fastened tightly to the antenna connector.
c. The wireless channel that your network is running on may be congested. Change the wireless channel on your home Router and reconnect the Range Extender.

The range from the Range Extender seems low.

a. Check to see that your Wi-Fi output settings are at 100%. From the Dashboard, go to Settings, then to the Wi-Fi Settings menu and access the Wireless Coverage settings. Make sure the output power is at 100%.
b. Your Range Extender may be installed in a poor location. Avoid setting up your Range Extender in areas with high interference, such as near refrigerators, microwaves, metallic objects and low surfaces. Install the Range Extender in a higher location if possible.
c. Check the connections of the Antenna to the Range Extender. Tighten it if necessary.
d. Adjust the Antenna of the Range Extender in different angles.

Troubleshooting: Web Menu Access Issues

I entered http://setup.loopcomm.com and it failed to open the Web Menu.

a. Make sure your computer is connected to the Range Extender's Wi-Fi network: Loopcomm
b. Try to use a different web browser. We recommend the Google Chrome web browser.
c. Try to open your web browser to the default IP address by putting this number into your web browser instead: 192.168.1.240
d. Power off (unplug the power adapter from the Range Extender) the Range Extender and power it back on. Try again.
e. Reset your Range Extender to default settings by holding the Reset Button (located on the side panel) for ten (10) seconds and try again.
f. If steps (a) thru (e) fail, disconnect your PC from all Wi-Fi networks. Attach an Ethernet cable between the Range Extender and your PC. Try to access http://setup.loopcomm.com again.

I could NEVER log onto the Range Extender wirelessly.

a. Check that your Wi-Fi adapter supports WPA2 Wi-Fi security. If it does not then you will need to change the Wi-Fi security on the Range Extender. Go to the Web Menu, select Wi-Fi Settings and then Wi-Fi Security. Select the Extended Network from the drop down menu and either disable security or downgrade the security to WEP. Try connecting again.
b. The connection to the Home Network may be down. Use an Ethernet cable and connect directly to the Range Extender with a PC. Access the Web Menu by opening your PC's web browser to http://setup.loopcomm.com and run through the Wizard again. After you have successfully reset the Home Network connection, try connecting wirelessly again.
c. If you have previously connected to the Range Extender or a device with the same network name (SSID), the password might be saved in your devices Wi-Fi profile. Delete the Wi-Fi profile and try again. (Refer to your device Manufacturer's guide on how to delete the Wi-Fi profile).

I can no longer access the Web Menu or the Range Extender no longer responds.

a. Connect to your Range Extender and try to access http://setup.loopcomm.com using your web browser.

b. If you are advanced in networking troubleshooting, log onto your home router's web interface. Look for the DHCP client list and try to find the IP address of your Range Extender assigned by your home router. Once you have it, connect to the Range Extender using an Ethernet cable. Open your web browser and enter the IP address into the address bar.

c. Reset the Range Extender back to default settings and try the Wizard again. To reset the Range Extender back to default settings, push the Reset Button (on the side panel) for five (5) to ten (10) seconds then let go. After the Range Extender has fully reset, use an Ethernet cable (not included) and connect to the Range Extender. Login to the Web Menu at http://setup.loopcomm.com and run through the Wizard.

Troubleshooting: USB Storage & Other Miscellaneous Issues

I cannot access my USB storage device after I plug it into the Range Extender.

Follow the instructions below for your operating system.

Windows 7 & Vista

To access the drive from your Windows desktop:

Note: If the USB drive does not appear automatically under your Networked devices (Windows 7, Vista or Mac OS X), you will need to Map the Network Drive.

a. Click the Start button.
b. Click Computer.
c. On the Computer page, the drive should appear on the left hand column under Network as LOOPCOMM_RE_USB.

To Map the Network Drive:

a. Click the Start button.
b. Click Computer.
c. Click Map Network Drive from the top bar.
d. Select a drive letter (any), then enter in the folder field: \\LOOPCOMM_RE_USB **or** \\shared disk IP address
e. If the drive fails to open, click browse and locate LOOPCOMM_RE_USB under Network.

Windows XP

To access the drive from your Windows desktop:

Note: If the USB drive does not appear automatically under your Networked devices (Windows 7, Vista or Mac OS X), you will need to Map the Network Drive.

a. Click the Start button.
b. Click My Computer.
c. Click on My Network Places and locate the drive named LOOPCOMM_RE_USB.

To Map the network drive:

a. Click the Start button.
b. Right click My Computer and select Map Network Drive.
c. Select a drive letter (any), then enter in the folder field: \\LOOPCOMM_RE_USB **or** \\shareddisk IP address
d. If the drive fails to open, click browse and locate LOOPCOMM_RE_USB under Network.

Mac OS X

To access the drive from your Mac desktop:

Note: If the USB drive does not appear automatically under your Networked devices (Windows 7, Vista or Mac OS X), you will need to Map the Network Drive.

a. Open Finder.
b. On the left hand menu, under Shared, click LOOPCOMM USB.

To Map the network drive:

a. Open Finder.
b. From the menu on the top of the desktop, select Go.
c. Select Connect To Server from the drop down menu.
d. Enter the address of the network drive: LOOPCOMM_RE_USB **or** shared disk IP address, then click Connect.

The Range Extender freezes or I cannot access the web when a USB storage device is connected.

a. Remove the USB storage device from the Range Extender and reboot it by unplugging the power adapter. Once rebooted, try inserting the USB storage device again.
b. Make sure your USB storage device is not corrupted and is working properly and try again.

Additional USB Storage troubleshooting tips may be available online at the Loopcomm Technology,. Please check the Support for the latest updates and features for USB Storage support.

My Wi-Fi Access Schedule is being erratic and not working at the correct times.

a. You need to adjust your Clock / Date settings from the Management Settings screen.

Wi-Fi Protected Setup (WPS) is not working. Push button configuration does not detect the connection.

a. The Range Extender supports WPS connections however some companies may use proprietary code for their own push button configurations. Try connecting using the Windows wireless utility or Mac wireless utility instead.

REGULATORY INFORMATION

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 or more 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:

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.

RF Radiation Exposure and Hazard Statement:

To ensure compliance with FCC RF exposure requirements, this device must be installed in a location such that the antenna of the device will be greater than 20 cm (8 in.) away from all persons. Using higher gain antennas and types of antennas not covered under the FCC certification of this product is not allowed. Installers of the radio and end users of the product must adhere to the installation instructions provided in this manual. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Non-modification Statement:

Use only the integral antenna supplied by the manufacturer when operating this device. Unauthorized antennas, modifications, or attachments could damage the TI Navigator access point and violate FCC regulations. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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