

High Power Wireless-N

600mW Smart Repeater

LP-9698SR

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INTRODUCTION

Thank you for purchasing this Loopcomm Technology product. At Loopcomm Technology 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!

Web: www.loopcomm.com

GETTING STARTED

Package Contents

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

- High Power Smart Repeater
- Two Detachable 7dBi High Gain Antennas
- RJ-45 Ethernet Cable
- Setup Guide
- CD: User's Manual
- Vertical Mounting Base

LED Indicators

(From Top to Bottom)



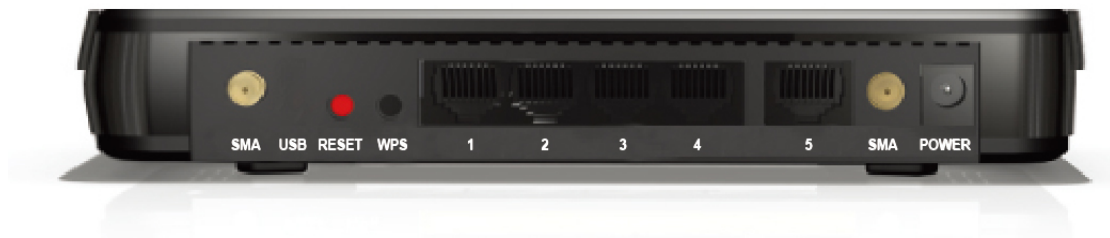
Power: Indicates when the High Power Smart Repeater is powered on. The LED will stay lit when power adapter is plugged into repeater.

Wireless Activity: Blinks rapidly when wireless data traffic is passing through the Smart Repeater. When there is a problem with the Wi-Fi connection this LED will remain off or blink steadily.

Wired Devices (1-5): Indicates when a networking device is connected to a wired port on the back of the High Power Smart Repeater. The LED blinks rapidly when wired data traffic is transmitted or received.

WPS: Wi-Fi Protected Setup activity. When the WPS mode is activated the WPS LED blinks as it awaits a connection.

Back Panel Description



Antenna Connectors (1-2): RP-SMA antenna connectors. Compatible with all antennas that have RP-SMA connectors. Upgradable to high gain antennas for more range.

Reset: Push down once to reboot the High Power Repeater. Hold down for 5-10 seconds to reset the repeater back to factory settings.

WPS: Hold down for 3 seconds to enable WPS push button configuration.

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

Power: Power adapter port. DC 12V 1A.

SETUP GUIDE

Find a Setup Location

The location of where you install the Smart Repeater is very important to how it will function. The optimal setup location should be somewhere no more than halfway between your wireless router and your wireless dead zone.

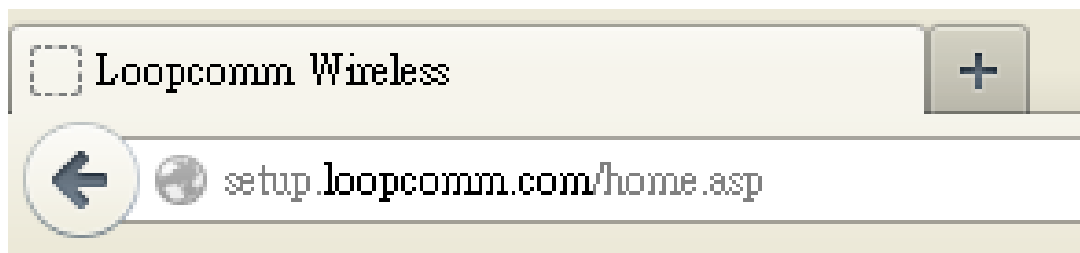
Connect your PC to the Smart Repeater

1. Connect the two included high gain antennas by screwing them into the antenna connectors.
2. Use the included Ethernet cable to connect one end into any Wired Port on the Smart Repeater and use the other end to connect to the network port on your laptop or desktop computer.
3. Connect the power adapter to the power port on the back of the Smart Repeater.

***Do NOT attempt to connect to the Smart Repeater with a wireless connection at this time.**

Open your Web Browser to Access the Setup Wizard

1. Open your web browser.
2. Type in: <http://setup.loopcomm.com> into the web address bar
3. If the web menu fails to open, type in the following IP address into your web address bar: **http://192.168.1.250**



1. Disconnect your PC from all wireless networks, open your browser and try again.
2. If you continue to have problems accessing the Web Menu, disconnect the cable from your computer to the Repeater. Connect wirelessly (SSID: Loopcomm_Repeater and Password: loopcommwifi) and try again.

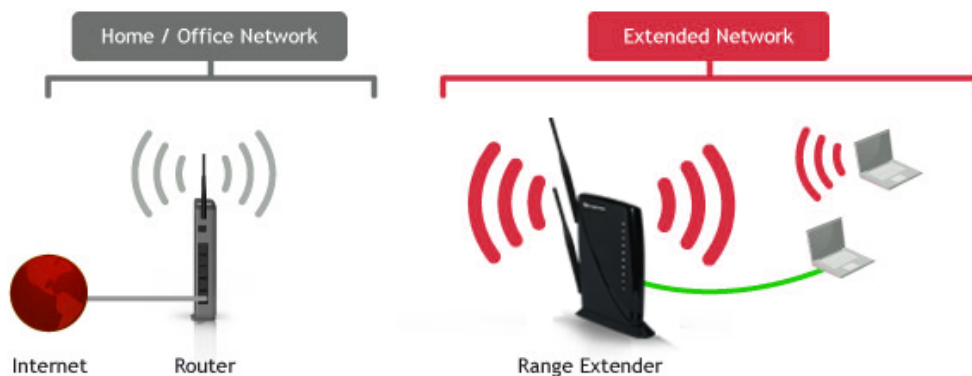
Welcome to the Smart Setup Wizard

When the web menu appears, click **Next** to proceed with the Smart Setup Wizard.

■ Welcome to the Smart Setup Wizard

The Loopcomm Wireless High Power Range Extender / Smart Repeater extends your wireless coverage by repeating the signal from your home or office wireless network (Home Network). The Smart Setup Wizard will guide you through the simple setup of your High Power Range Extender / Smart Repeater. Click Next to continue!

If the connection to your Home Router drops, your web browser will automatically redirect you to this page. Check that your Home Router is functioning correctly and run the Smart Setup Wizard again to reconnect the High Power Range Extender / Smart Repeater to your Router.



This menu has been designed to work with:
Microsoft Internet Explorer 8 (or above), Google Chrome, and Apple Safari web browsers.
If you are using another web browser, then it is recommended that you switch to one of the approved web browsers to avoid issues with the web menu features.

NEXT

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

- 1) The network you are trying to repeat (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.

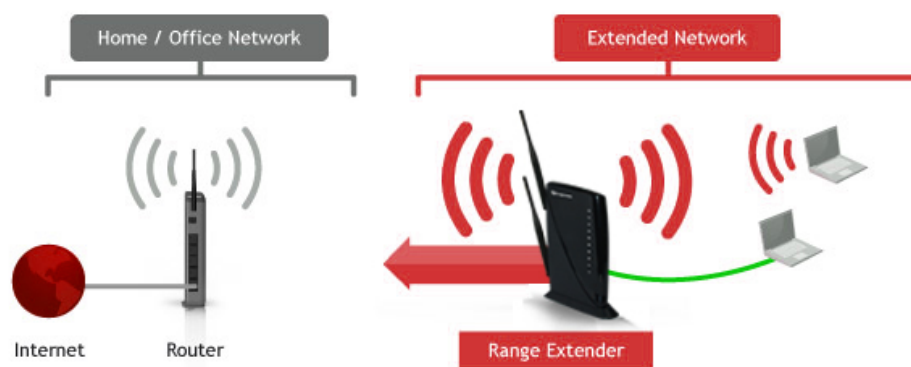
Scan for a Wireless Network

Click **SCAN** to begin searching for available wireless networks to repeat.



■ Scan for Network

To set up your High Power Range Extender / Smart Repeater you will need to first scan for an available Wi-Fi network "Home / Office Network" to connect to and redistribute within your "Extended Network."



Scan for a Wireless Network to Repeat

It is recommended that you connect to a wireless network with greater than 70% signal strength. Connecting to a network with poor signal strength may cause the connection to be unstable.



Highlight your network and click **Next** to continue. Check that your Wireless Network has a signal strength of 70% or greater.

If you fail to find any wireless networks, or your signal strength is below 70%, the Smart Repeater may be placed too far from the wireless network that you are trying to repeat. Move your Smart Repeater closer to the wireless network that you are trying to repeat and click SCAN again.

The Scan results page will display information regarding the name of the network (SSID), the channel which the wireless network is operating on and the type of network that it is. AP stands for Access Point and is the standard type of wireless network. The results page will also display whether or not your network has security and what the signal strength is coming from each specific network detected.

Connecting to a Secure Network

WELCOME

1

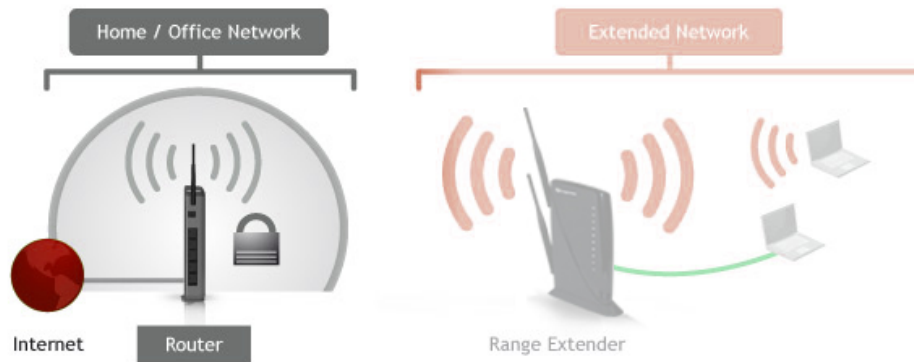
2

3

FINISH

Security Settings (if necessary)

If the Wi-Fi network (Home Network) that you are trying to connect to has security enabled, then enter the security key below. If your Home Network does not have security, leave this field blank and click Next.



Home Network Security Key:

Leave blank for networks without security

BACK

NEXT

If the wireless network you are trying to repeat has wireless security enabled, you will be prompted to enter a security key. If you did not select a secure network, continue to the next step. 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 Smart Setup Wizard will automatically detect your home network's security settings. If you do not know the key to the network you are trying to repeat, then click back and select another network

Repeater Settings (SSID)



■ Range Extender / Smart Repeater Settings

Configure the settings for your Extended Network:



The default SSID of the Smart Repeater is “**Loopcomm_Repeater**” This SSID for the Extended Network may be changed by adjusting the name in the field for the Extended Wireless Network ID.

This ID will be used by wireless users connecting to the Smart Repeater to identify the Smart Repeater’s Extended Network.

It is recommended to use the default settings.

Repeater Settings (Security)

Extended Network Security Key:
8 Character Minimum
Leave blank for no security

Click Next to confirm your settings and continue. The High Power Range Extender / Smart Repeater will reboot and perform a connection test. Please do not disconnect the High Power Range Extender / Smart Repeater during reboot.

BACK

NEXT

By default, the Extended Network has security enabled. The WPA security key is “**loopcommwifi**” Users trying to connect to the Smart Repeater wirelessly will be prompted to enter this key. It is recommended that you use the default settings for the wireless security key.

To change the security key, simply retype your new key in the field and click **Next**. Write your security key down somewhere safe for future reference.

No security key is necessary for computers connecting to the Smart Repeater using a wired connection to the LAN ports.

After clicking Next, the Smart Repeater will reboot and apply your settings. Be patient and do not make any changes or adjustments to the Smart Repeater at this time.

Setup Summary

Once the Smart Repeater has rebooted, it will load the Setup Summary page and provide you with the details of your setup.



■ Setup Summary

Congratulations, the High Power Range Extender / Smart Repeater is now successfully connected to your Home Network. You may disconnect from the High Power Range Extender / Smart Repeater and connect wirelessly or attach additional computers and devices to the wired network ports on the back of the High Power Range Extender / Smart Repeater.

PRINT THIS PAGE FOR YOUR RECORDS:

Print

Home Network Settings:

SSID: LP-7696_RD
Channel Number: 1
Encryption: WPA2
BSSID: 00:e0:4c:81:96:b1
Connection State: Connected

Extended Network Settings:

SSID: Loopcomm_Repeater
Encryption: WPA2 Mixed

IP Address of the Range
Extender / Smart Repeater: 192.168.1.103
Subnet Mask: 255.255.255.0
Default Gateway: 192.168.1.1
DHCP Server: Auto
MAC Address: 00:e0:4c:81:96:b1

FINISH

REFRESH

At this time, you may disconnect from the Smart Repeater and start a wireless connection.

If you have any wired devices that you would like to attach to the Smart Repeater, you may do so now as well.

Enjoy your Extended network!

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

1. Check to see that your Home Network security settings are correct.
2. Check on the SCAN page that your Home Network is showing a signal of 70% or greater. If not, move the Smart Repeater closer to your Home Network router and try again.
3. Check that your Home Network router's DHCP server is enabled.
4. Try changing the channel of the Home Network router to a higher channel number (5-11) and run the Setup Wizard again.
5. If possible, check the Internet connection for your Home Network wireless router. Connect directly to your Home Network wireless router. If you are unable to access the internet through the Home Network wireless router, you must first fix this problem. The Smart Repeater 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 Smart Repeater again and retry the Smart Setup Wizard.
6. Return to the Smart Setup Wizard and attempt to connect to another Home Network known to have Internet access.
7. Try to reboot (unplug the power from the Smart Repeater and plug it back in) the Smart Repeater and check to see if the connection is established (some networks may be very slow and take longer than the allotted time for the Smart Repeater to successfully connect).

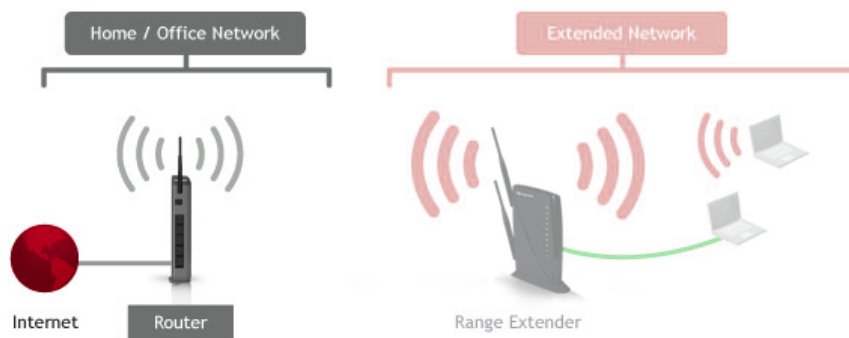
WIRELESS SETTINGS

Home Network Settings

The Home Network Settings page allows you to adjust settings for your Home Network connection. These settings are for adjusting the Smart Repeater after you have already gone through the Smart Setup Wizard and wish to adjust your current configurations.

■ Home Network Settings

Manually configure the settings for your Home Network connection.



Home Wireless Connection

Home Network SSID:

Channel Number: Must be same as your Home Network router

Channel Width:

Control Sideband:

If you are manually setting your Home Network connection, you will need to enter the security setting in the Security page for your Home Network. After clicking Apply on this page, click Reboot Later and go to the Security page to set your security settings. Click Reboot Now after all settings are applied. The High Power Range Extender / Smart Repeater cannot connect to your Home Network until all settings have been set and applied.

APPLY

RESET

item	Description
Home Network SSID	Manually enter the Identification name of the Home Network you wish to connect to.
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.

Extended Wireless Network Settings

Disable Wireless Connections:

Band:

Broadcast SSID: Enable Disable

Data Rate:

SSID of Extended Network:

Channel Number: (same as Home Network)

WMM:

Associated Clients:

APPLY

RESET

Item	Description
Band	Select the compatible Wi-Fi standard and speed for your wireless network.
Broadcast SSID	Selecting Disable Broadcast SSID will hide the visibility of the repeater's SSID. Users must manually enter the SSID to connect.
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).
SSID of Extended Network	Click "Guest Network" to create a SSID for guests.
Associated Clients	View all computers and network devices that are connected to your Guest Network wirelessly.

Guest Network

Guest Networks

Configure the settings for additional Guest Network. The Guest Network may have its own specific SSID and security settings.

No.	Enable	Band	SSID	Data Rate	Broadcast SSID	Active Client List
Guest Network 1	<input type="checkbox"/>	2.4 GHz (B+G+N)	Lokpottam_Repeater_VAP1	Auto	Enabled	Show

[APPLY](#) [BACK](#) [RESET](#)

Click **“Enable”** to create a Guest Network. Guest Networks provide a separate wireless network, with unique settings for users to connect to.

SSID: This is the name of your Guest Network.

To set security settings for the Guest Network go to: Wireless Settings > Security.

Wireless Settings: Security

Wireless security allows you to change the type of wireless security settings for your Extended Network or your Home Network.

Select Wireless Network:

Extended: Loopcomm_Repeater ▾

APPLY

RESET

Encryption: WPA-Mixed ▾

Authentication Mode: Enterprise (RADIUS) Personal (Pre-Shared Key)

WPA Cipher Suite: TKIP AES

WPA2 Cipher Suite: TKIP AES

Pre-Shared Key Format: Passphrase ▾

Pre-Shared Key: ●●●●●●●●●●●●●●●●

Item	Description
Encryption	Enables the use of Microsoft Point-to-Point Encryption (MPPE).
Authentication Mode	While Encryption is selected to be WPA. Click to select the WPA Authentication Mode with Enterprise (RADIUS) or Personal (Pre-Shared Key).
WPA Cipher Suite	A medium level encryption and is supported by most wireless devices and operating systems.
WPA2 Cipher Suite	A high level encryption and is supported by most wireless devices and operating systems.
Pre-Shared Key Format	While Encryption is selected to be WPA. Select the Pre-shared key format from the pull-down menu. The format can be Passphrase or Hex (64 characters). [WPA, Personal(Pre-Shared Key) only]
Pre-Shared Key	WEP: When you select WEP, please input 5, 13 (ASCII), 10 or 26 (HEX) characters for WEP Key. WPA-PSK/WPA2-PSK: When WPA/WPA2 Pre-shared key encryption is selected, please fill in the Pre-shared key. The format can be passphrase or Hex (64 characters)

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.

Using the drop down menu, you can select which network you wish to configure and 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 check the Learning Center of the Loopcomm Technology website: setup.loopcomm.com

Wireless Settings: Wi-Fi Protected Setup (WPS)

Enable Wi-Fi Protected Setup

Option A: If your wireless user has a Wi-Fi Protected Setup button, click or press the WPS PBC (Push Button Configuration) button here:

Option B: If your wireless user asks for the High Power Range Extender / Smart Repeater's PIN number, use this number on the user's device: **33592121**

Option C: If your wireless user has a Wi-Fi Protected Setup PIN number, enter that number here:

and then click

item	Description
Option A	Push button: You may push the WPS button on the web menu or use the physical button on the back of the High Power Router.
Option B	PIN: Some wireless devices use PIN number to access wireless network. If your wireless device requests for a PIN number, use the PIN code located here.
Option C	Enter PIN: Some wireless devices require that you use a PIN number to add them to the wireless network. If your wireless device has a PIN number located the number and enter in the field, then press Start Pin.

WPS is a Wi-Fi feature created to make Wi-Fi setup simple and easy. Some wireless 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 Smart Repeater 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 Smart Repeater.

Wireless Settings: Advanced Settings

It is recommended that only experts in Wi-Fi configuration adjust the advanced wireless settings for the Smart Repeater.

These settings allow you to control the details of your wireless network configuration.

■ Advanced Settings

Advanced wireless settings are for technically advanced users. It is recommended that these settings not be changed unless it is understood what the effects will be on your local wireless network.

Fragment Threshold: (256-2346)

RTS Thresold: (0-2347)

Beacon Interval: (20-1024 ms)

Preamble Type: Long Preamble Short Preamble

IAPP: Enabled Disabled

Protection: Enabled Disabled

Aggregation: Enabled Disabled

Short GI: Enabled Disabled

WLAN Partition: Enabled Disabled

STBC: Enabled Disabled

20/40MHz Coexist: Enabled Disabled

APPLY

RESET

Here are a few definitions on some settings.

Item	Description
Fragment Threshold	The Default and Recommended setting is at 2346, meaning the High Power Repeater will never fragment any frames that it sends to wireless 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 repeater to sync the wireless network
Preamble Type	Defines the length of the Cyclic Redundancy Check for communication between the repeater and roaming wireless users.
IAPP	Inter-Access Point Protocol
Protection	Protect 802.11n user priority.
Aggregation	Click to enable or disable the Aggregation function.
Short GI	Guard intervals are used to ensure that distinct transmissions do not interfere with one another. Only effect under Mixed Mode.
WLAN Partition	Click to enable or disable the WLAN Partition function.
STBC	Space Time Block Coding improves reception by coding the data stream in blocks.

SMART FEATURES

The Smart Repeater provides your Extended Network with Smart Features that help to provide convenience and protection for your Extended Network.

Smart Features allow you to control access to your Extended Network through on/off schedules, specific user authorizations as well as through the size of your wireless coverage for your Extended Network.

These settings are **ONLY** for your Extended Network and do not apply to your Home Network.

Wireless Settings: Access Schedule

Access Schedule

Define a schedule for when Wi-Fi is enabled or disabled on the High Power Range Extender / Smart Repeater. Please be sure that your time zone settings have been configured before using this feature.

Note: When Wi-Fi is disabled, wired users will no longer have access to the Internet.

Enable Access Schedule

Wi-Fi Enabled Days:

Everyday Sun Mon Tue Wed Thu Fri Sat

Hours of Each Day:

24 Hours From : To :

APPLY

RESET

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.

Enabling Access Schedule will also disable 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.

Wireless Settings: User Access Control

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

User Access Control

Allow or deny wireless access to specific users by entering the MAC address of the device below. The MAC address of a networking device is a 12 digit hex number normally found on a label on the bottom of the device (e.g. 1A2B3C4F5A6D).

Wireless Access Control Mode:

MAC Address:

Comment:

Current Access Control Table

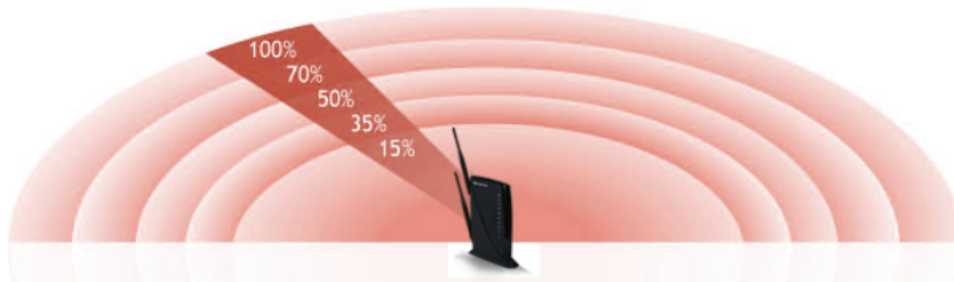
MAC Address	Comment	Select
<input type="button" value="Delete Selected"/> <input type="button" value="Delete All"/> <input type="button" value="Reset"/>		

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

Wireless Settings: Wireless Coverage Controls

■ Wireless Coverage Controls

Adjust the output power and range of your Extended Wireless Network. For a smaller coverage area, choose a lower output power percentage. For a larger coverage area, select a higher output power percentage.



Wireless Output Power: 100% 70% 50% 35% 15%

Adjust the output power of the Smart Repeater to control the coverage distance of your Extended Wireless Network. For a smaller coverage area you can select a lower output power. For the maximum wireless 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

IP SETTINGS

IP Address:

Subnet Mask:

Default Gateway:

DHCP: ▾

DHCP Client Range: -

Static DHCP:

Auto-Load Menu (Auto-DNS): Enabled Disabled
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:

802.1d Spanning Type: ▾

Clone MAC Address:

Item	Description
IP Address	The IP address of the Smart Repeater. Subnet Mask: The subnet of the Smart Repeater.
Subnet Mask	The subnet of the High Power Router.
Default Gateway	The access points to another network, normally the Smart Repeater or your router.
DHCP	The Smart Repeater 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 Repeater 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 Repeater will act as a DHCP Server. You may also manually control the IP settings of the Smart Repeater 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 Smart Repeater's DHCP server will assign to users and devices connecting to the Smart Repeater
Static DHCP	You may set a static IP address within your DHCP network. The Smart Repeater 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 Smart Repeater 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 Smart Repeater. For example, entering http://setup.loopcomm.com into your web browser while connected to the Smart Repeater, will guide you to the Web menu for the Smart Repeater. 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 Smart Repeater to default settings by holding down the reset button on the back panel for 5-10 seconds.
802.1d Spanning Type	A network protocol that ensures a loop-free topology for networks that have Ethernet bridges. The STP prevents bridge loops and allows a network design to include redundant links to provide automatic backup paths if active links fails.
Clone Mac address	The High Power Router can use a Mac address that you define as its own. This is often used when an Internet Provider only authorizes one Mac address to access the Internet. Cloning the MAC address will make it so that the cloned Mac address is the only MAC address seen by the Internet provider.

MANAGEMENT FEATURES

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

Management: System Status

The System Status provides you with a snapshot of your Smart Repeater's current connections and settings.

■ Repeater Status

System Information

Uptime: 0day:0h:46m:8s
Firmware Version: 1.2f.06
Build Time: Fri Sep 28 16:34:01 CST 2012
Current Date / Time: 9/28/2012 17:20:06

Home Network Wireless Settings

Band: 2.4 GHz (B+G+N)
SSID: Cisco04517-2G
Channel Number: 2
Encryption: WPA2
BSSID: 00:e0:4c:81:96:b1
Connection State: Scanning
Signal Strength: 0%

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.

Item	Description
System Information	This section provides you with information on the version and the build time of your firmware. This is used to help our support department determine what firmware version your device is running.
Home Wireless Network Settings	This section displays the current status of the connection between the High Power Smart Repeater and your Home Network. When viewing this section it is important to check that your Home Network SSID is correct, that the channel number matches your Home Network's channel number settings.

Extended Network Wireless Settings

SSID: Loopcomm_Repeater
Encryption: WPA2 Mixed
BSSID: 00:00:00:00:00:00
Associated Clients: 1

Range Extender / Smart Repeater IP Settings

IP Protocol: Fixed IP
IP Address: 192.168.1.250
Subnet Mask: 255.255.255.0
Default Gateway: 0.0.0.0
DHCP Server: Auto
MAC Address: 00:e0:4c:81:96:b1

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 Smart Repeater 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 High Power Smart Repeater.

Item	Description
Extended Wireless Network Settings	Shows the current settings for your Extended Wireless Network.
Smart Repeater IP Settings	The network IP settings for your High Power Smart Repeater 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 High Power Smart Repeater will use its own default network IP settings.

Management: Statistics

These statistics show the data activity for each network connection.

■ Network Statistics

Connection to Home Network: Sent Packets: 505
Received Packets: 38325

Extended Wireless Network: Sent Packets: 6157
Received Packets: 0

Extended Wired Network: Sent Packets: 8567
Received Packets: 6111

REFRESH

Item	Description
Connection to Home Network	This statistics shows the data activity for all upload and download data between the Home Network and the Smart Repeater.
Extended Wireless Network	These statistics shows all data activity for all users connected wirelessly to the Smart Repeater.
Extended Wired Network	The Wired Connection statistics shows all data activity for all users physically connected to the wired ports on the Smart Repeater.

Management: System Clock

■ System Clock

Maintain the system clock settings by syncing the system time with the time on your computer. The High Power Range Extender / Smart Repeater's clock is used to make sure your Access Schedules and logs function correctly and on time.

Current Time: Month Day Year
 Hour Minute Sec

Sync with your computer:

Maintain the internal clock for the Smart Repeater by syncing with your computer's time. Your system clock settings need to be accurate in order for logs and wireless access schedules to work correctly.

Management: System Logs

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

■ System Logs

View network and system activity for your High Power Range Extender / Smart Repeater.

Enable Log

Current Time: System (ALL) Wireless

Enable Remote Log Log Server IP Address:

APPLY

REFRESH

CLEAR

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

Management: Upgrade Firmware

■ Upgrade Firmware

The High Power Range Extender / Smart Repeater uses software (firmware) to operate. In the event that a new firmware file is available, you may update it here. During the upgrade process, DO NOT power off the device to avoid damage to the High Power Range Extender / Smart Repeater.

Current Firmware Version: 1.2f.06

Build Time: Fri Sep 28 16:34:01 CST 2012

Select File:

Loopcomm Technology continuously updates the firmware for all products in an effort to constantly improve our products and their user experiences. Check the Downloads page for your product frequently to see if there are any updates.

The firmware update is downloaded as a zip file from the Support Webpage link on the left. You will need to have an unzipping program to open the file. Inside the file 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 the www.loopcomm.com/support website and remember the location where you saved it. Firmware files may also be provided by Loopcomm Technology support reps.
- b. Click Choose File and locate the file.
- c. Click Upload to begin upgrading.

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

Management: Save and Reload Settings

Save Settings to File:

Load Settings from File:

Reset Settings to Default:

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 Smart Repeater's settings to factory settings by pressing Reset. By resetting the Smart Repeater you will lose all previous configurations and will need to run the Smart Setup Wizard again to reconnect to a Home Network.

Management: Password Settings

Password

Prevent unauthorized access to your High Power Range Extender / Smart Repeater's web-based configuration menu by providing a user name and password. If no protection is necessary, leave these fields blank and you will not be prompted for a login and password when accessing this web menu.

New Login:

New Password:

Confirmed Password:

By default, the Smart Repeater 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 Smart Setup Wizard, you may enter one here.

Item	Description
New Login	Fill in the user name to login
New Password	Fill in the user password to login
Confirmed Password	Check the password again.

TECHNICAL SPECIFICATIONS

Wireless Standard: 802.11n, 802.11b/g

Frequency Band: 2.4 GHz

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

Amplifier: Dual 600mW High Power Amplifiers/Dual Low Noise Amplifiers

Wireless Sensitivity: -95dBm

Wireless Output Power: Up to 28dBm

Wireless Security: WEP, WPA, WPA2, WPA Mixed, WPS

Wireless Access Control: MAC address filtering

Wireless Access Scheduling: Specific day and time

Wireless Coverage Control: 15% - 100% Output Power

Antennas:

2 x Detachable High Gain 7dBi Antennas

2 x Reverse SMA Connector

Ports: 5 x RJ-45 10/100 LAN ports

Mounting: Stand or Desktop

Warranty: 1 Year

Setup Requirements:

Wired or wireless PC/Mac and an available

802.11b/g/n wireless network

Google Chrome, Internet Explorer (8.0 and up) or Safari web browser

DEFAULT SETTINGS

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

- IP Address: **192.168.1.250**
- Web Menu Access: **<http://setup.loopcomm.com>**
- SSID: **Loopcomm_Repeater**
- Security Key (WPA2/WPA/AES): **loopcommwifi**

TROUBLESHOOTING AND SUPPORT INFORMATION

We are here to help. If you have any issues with your Smart Repeater please contact us. To contact Loopcomm Technology' Technical Support use one of the following methods:

Web: www.loopcomm.com/support

Troubleshooting

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

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

1. Make sure your computer is connected to the Smart Repeater using the included Ethernet cable. Do not try to connect with a wireless connection. Ensure that the power on the Smart Repeater is on.
2. Make sure your computer is NOT connected to any wireless networks. If it is, disconnect and try again.
3. Try to use a different web browser. We recommend the Google Chrome web browser.
4. Try to open your web browser to the default IP address by putting this number into your web browser instead: 192.168.1.250
5. Power off (unplug the power adapter) the Smart Repeater and power it back on. Try again.
6. Reset your Smart Repeater to default settings by holding the Reset Button (located on the back panel) for ten (10) seconds and try again.

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

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

I cannot find my Home Network when scanning for wireless networks in the Smart Setup Wizard

1. The Smart Repeater may be out of range. Move the Smart Repeater closer towards the wireless router and try the Setup Wizard again from the Web Menu. It is recommended that your Home Network shows a signal strength of 70% or greater in the Smart Setup Wizard SCAN results.
2. The Home Network may be a dual band wireless router. The Smart Repeater supports 802.11b/g/n 2.4GHz routers. If your Home Network uses a dual-band router, it will not work with the Smart Repeater. Adjust the dual-band router's configuration to disable the 5GHz band.
3. Go to the Smart Features tab in the web menu and access the Wireless Coverage Controls. Make sure the setting is at 100% and try again.
4. Make sure that your Home Network's wireless SSID is broadcasting and not hidden. If your Home Network SSID is hidden, you will need to manually setup the Smart Repeater through the Wireless Settings > Home Network Settings menu.

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

1. The connection to your Home Network has been dropped. This can be caused by several events to your home wireless connection. When this occurs you may rescan for another network by accessing <http://setup.loopcomm.com> to connect to and repeat or you may try to fix the issues with your Home Network and your home wireless router.
2. Check to see that your home wireless router settings have not changed. Any changes to the SSID, security, or channel number from the original settings will disconnect the Smart Repeater'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 Smart Setup Wizard again from the web 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.

1. If you cannot access the setup menu, check to see that your Smart Repeater is still on. Reboot the Smart Repeater by unplugging the power adapter and plugging it back in. Check to see if your connection has been reestablished by viewing a website. If you do not have a connection, logon to <http://setup.loopcomm.com> and configure a new Home Network connection.

2. Check to see that your home wireless router is still on. If it has been turned off please turn it back on. The Smart Repeater should automatically reconnect to your Home Network within 10 minutes.

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

Log into the Web Menu for your dual-band wireless router and adjust the wireless settings. Change the wireless band to 2.4GHz single band mode only. Disable the 5GHz wireless band.

I cannot find any wireless networks (Home Networks) to repeat.

1. The Smart Repeater may be out of range. Move the Smart Repeater closer towards the wireless router and try the Setup Wizard again from the Web Menu.
2. The antenna on your Smart Repeater may be loose. Tighten the antenna connection and try again.
3. The wireless Home Network may not be a compatible wireless network (802.11b/g/n).

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

1. 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.
2. You may have a DNS issue and the Smart Repeater is not obtaining the IP settings from your Home Network. Try to reboot the Smart Repeater and then accessing a website. If that fails, then reboot the Home Router to see if that fixes it.
3. 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 Smart Repeater wirelessly.

1. Power on and off the Smart Repeater and try again.
2. The connection to the Home Network may be down. Use an Ethernet cable and connect directly to the Smart Repeater. Access <http://setup.loopcomm.com> and run through the Smart Setup Wizard again. After you have successfully reset the Home Network connection, try connecting wirelessly again.

I could NEVER log onto the Smart Repeater wirelessly.

1. Check that your wireless adapter supports WPA2 wireless security. If it does not then you will need to change the wireless security on the Smart Repeater. Go to the Web Menu, select Wireless Settings and then Wireless Security. Select the Extended Network from the drop down menu and either disable security or downgrade the security to WEP. Try connecting again.
2. The connection to the Home Network may be down. Use an Ethernet cable and connect directly to the Smart Repeater. Access <http://setup.loopcomm.com> and run through the Smart Setup Wizard again. After you have successfully reset the Home Network connection, try connecting wirelessly again.

I can no longer access the Web Menu or the Smart Repeater no longer responds.

1. Connect to your Smart Repeater and try to access <http://setup.loopcomm.com> using your web browser.
2. 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 Smart Repeater assigned by your home router. Once you have it, connect to the Smart Repeater using an Ethernet cable. Open your web browser and enter the IP address into the address bar.
3. Reset the Smart Repeater back to default settings and try the Smart Setup Wizard again. To reset the Repeater back to default settings, push the Reset Button (on the back panel) down for five (5) to ten (10) seconds then let go. After the Smart Repeater has fully reset, use an Ethernet cable and connect to the Smart Repeater. Login to the Web Menu at <http://setup.loopcomm.com> and run through the Wizard.

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

1. You may be too far away from your Home Network. The closer the Smart Repeater is to your Home Network, the better its connection will be. The Smart Repeater must have a strong signal in order to repeat the signal with fast speeds and further range. Move the Smart Repeater closer to your Home Network and try again.
2. You may be downloading from the Internet and not within your Home Network or Extended Network. Files transferred through the Internet are limited by your ISP speed and the data download speeds from the website that you are downloading from.
3. Your computer may be using an older Wi-Fi adapter with lower speed limits (802.11b/g).

The range from the Smart Repeater seems low.

1. Check to see that your wireless output settings are at 100%. Go to the Web Menu, Wireless Settings and check the Advanced Settings. Make sure the output power is at 100%.
2. Your Smart Repeater may be installed in a poor location. Avoid setting up your Smart Repeater in areas with high interference, such as, near fridges, microwaves, metallic objects and low surfaces. Install the Smart Repeater in a higher location if possible.
3. Check the connections of the Antennas to the Smart Repeater. Tighten them if necessary.
4. Adjust the Antennas of the Smart Repeater in different angles.

My Wireless Access Schedule is being erratic and not working at the correct times.

You need to adjust your Time Zone Settings from the Management Web Menu page.

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

The Smart Repeater 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.