

CIS-PWR Powerline Adapter – User Manual



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Welcome to Custom Integration Solutions

Thank you for purchasing CIS devices. Our solutions make it easy for integrators to deploy networks in home and business settings with minimal configuration. Our support team is here to assist with setting up equipment and answering your network related questions.

Overview

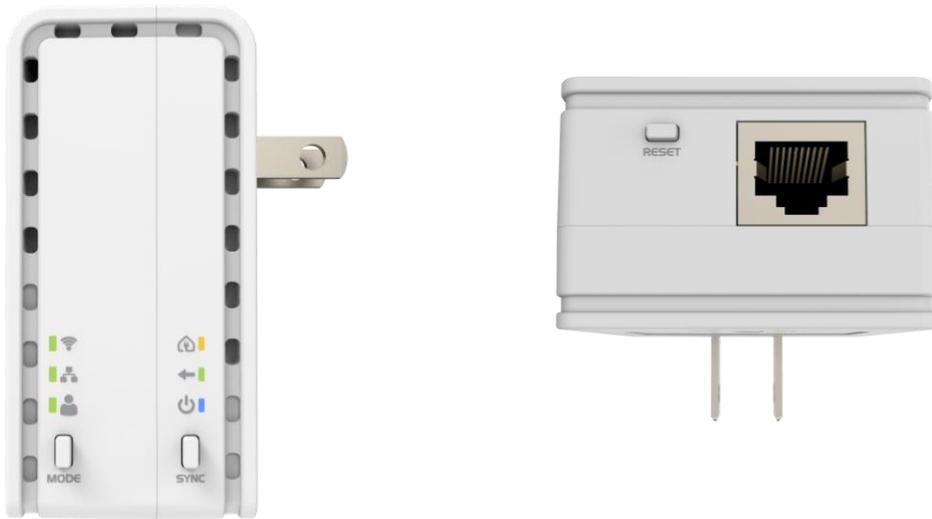
The CIS-PWR provides network access for areas that are lacking in wired network connectivity and are hard to reach via Wi-Fi. Connect one device to your router or switch, then use the built-in access point or ethernet jack to connect devices throughout your home. The CIS-PWR can connect across different household circuits.



Power

The CIS-PWR is compatible with 100-240V AC circuits at 50-60hz. The max power consumption is 6.3W.

Device Details



Ports

- Ethernet – 10/100 mbps. Connect the port on one CIS-PWR to your home network. Connect the ports on additional CIS-PWR devices to your PC, network switch, or other home devices.

LED Indicators

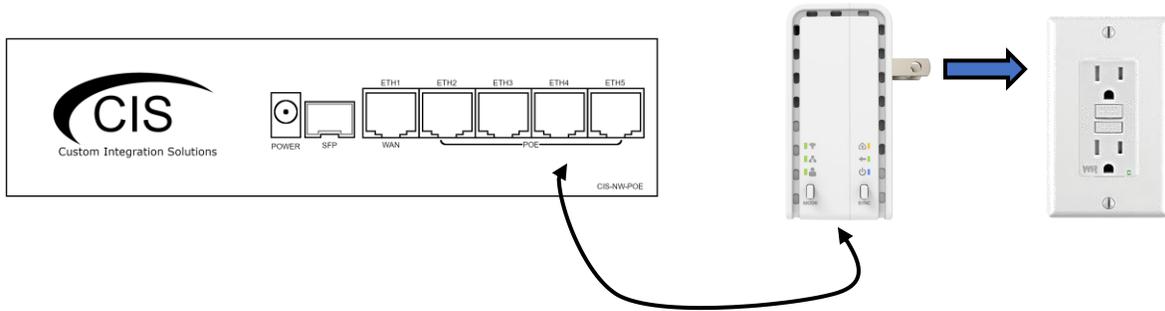
- Wi-Fi – Indicates wireless activity when the access point is enabled.
- Network Link – lights when activity on the ethernet port is detected.
- USB – not used. Will flash when the device is being reset.
- Powerline Network – lights orange when connected to other CIS-PWR devices.
- Power – lit when the device is plugged in

Buttons

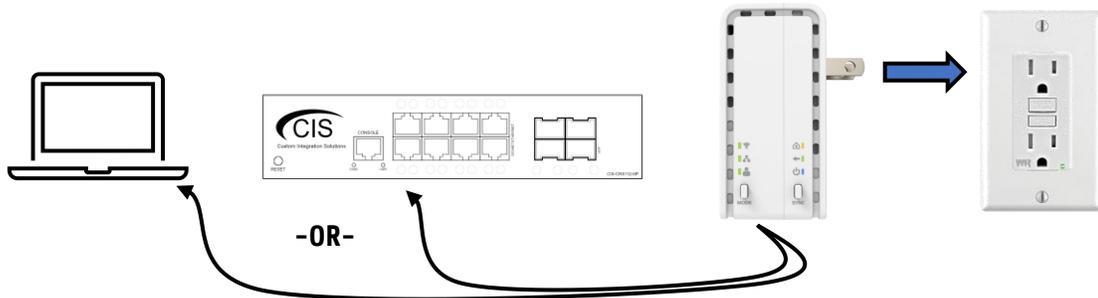
- Mode: Press to link the device to other CIS-PWR devices. Wait until the orange powerline network LED becomes active for the process to complete.
- Sync: Can be used to link devices to their own independent network(s). We highly recommend you use the mode button instead.
- Reset button: If the device is not functioning properly and you suspect a reset may help, you can reset the device. Hold this button while the device is powered off, then apply power. Keeping holding until the USB LED light starts flashing, (5 seconds) then release the button to reset to the default CIS configuration. You can use this procedure if you have forgotten the password to access the device, or simply wish to return the unit to its default configuration state.

Quick Setup

1. Plug in a CIS-PWR device to a wall outlet. Connect it to your home network using an ethernet cable.



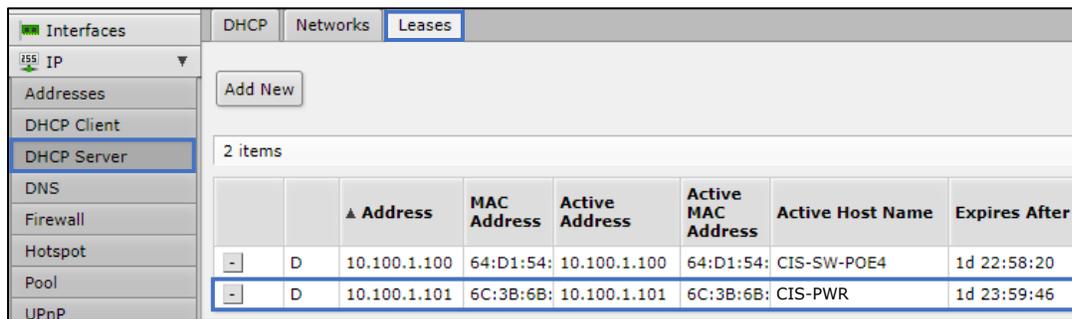
2. Plug in additional CIS-PWR device where connectivity is needed, and a wall outlet is available.
 - a. Connect a device to the ethernet port.
 - b. OR - Connect a switch to the ethernet port to connect multiple devices.
 - c. Enable the built-in access point for wireless access.



Accessing the Web Interface

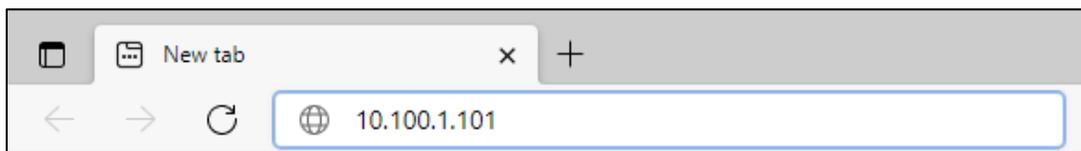
To access the web interface of the CIS-PWR, enter the IP address of the device in your web browser.

1. Access your router's configuration page. On a CIS router, access the **DHCP Server** in the left toolbar, then select the **Leases** tab. Locate the CIS-PWR device in the pool.

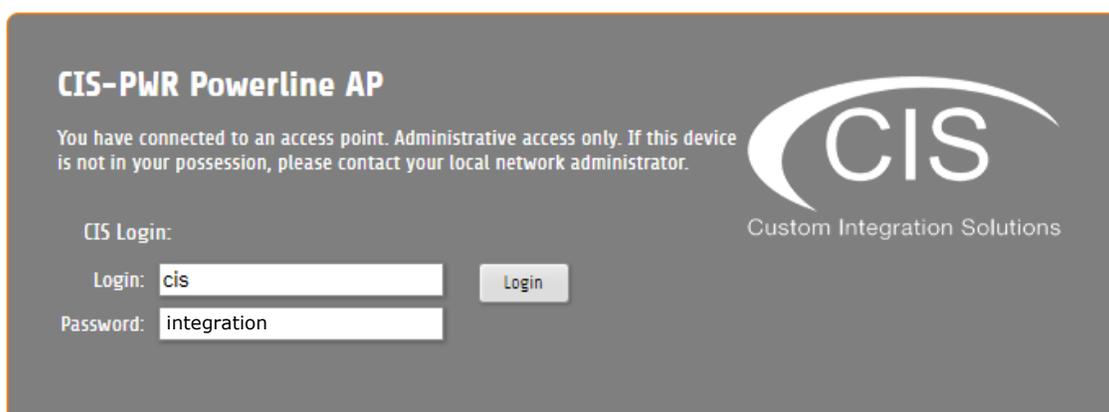


		Address	MAC Address	Active Address	Active MAC Address	Active Host Name	Expires After
-	D	10.100.1.100	64:D1:54:	10.100.1.100	64:D1:54:	CIS-SW-POE4	1d 22:58:20
-	D	10.100.1.101	6C:3B:6B:	10.100.1.101	6C:3B:6B:	CIS-PWR	1d 23:59:46

2. Enter the IP address of the device in a web browser.



3. Log into the CIS-PWR with the username **cis** and the password **integration**.



CIS-PWR Powerline AP

You have connected to an access point. Administrative access only. If this device is not in your possession, please contact your local network administrator.

CIS
Custom Integration Solutions

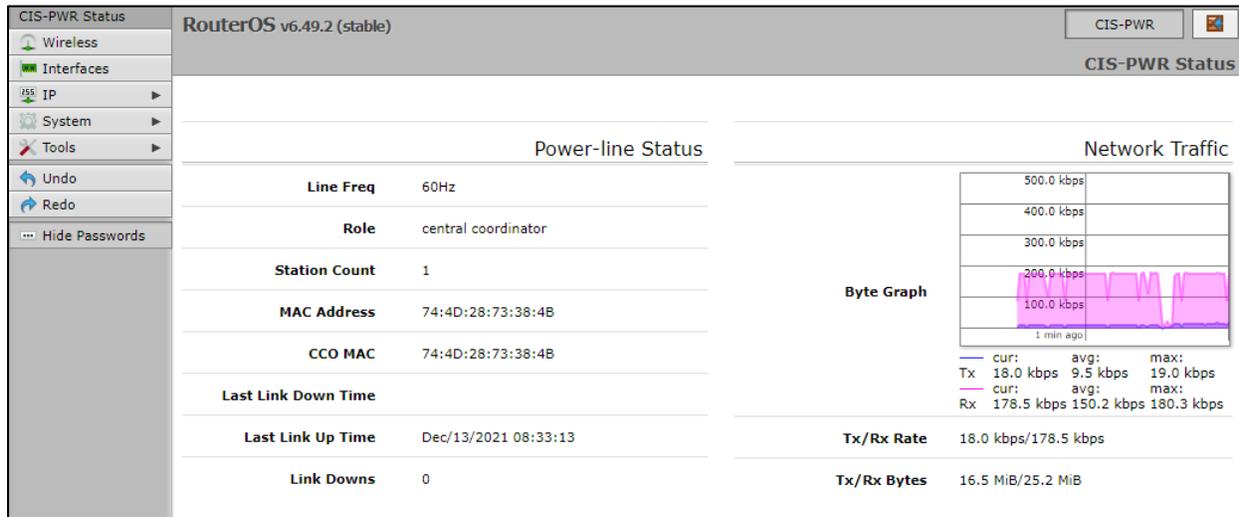
CIS Login:

Login: Login

Password:

The CIS-PWR Web Interface

The status page provides an overview of the powerline connection and network traffic.



Line Freq	Reads the frequency of the alternating current. (60hz in North America)
Role	One CIS-PWR device will be elected to be the central coordinator, while the rest are classified as "Stations". This has no effect on which device is connected to the home network directly.
Station Count	The number of CIS-PWR devices that are connected to the network, minus the central coordinator.
MAC Address	The MAC address of the CIS-PWR device.
CCO MAC	The MAC address of the central coordinator.
Last Link Down Time	Displays the date and time of the last interruption of the powerline connection. Will not display anything if no link downs have occurred since the device was last booted.
Last Link Up Time	Displays the date and time that the most recent powerline connection was established.
Link Downs	The number of disconnections experienced since the device was last booted.

Setting the Device's Identity

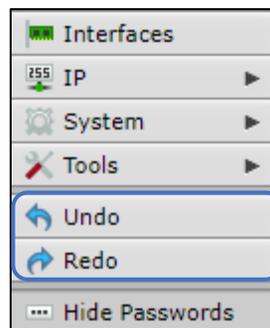
The identity is used to identify your device on the network. Troubleshooting will become easier when you set the identity correctly. We recommend setting the identity based on the location of your powerline adapter. E.g., Garage.

The **Identity** setting can be found in the **System** tab in the left toolbar.



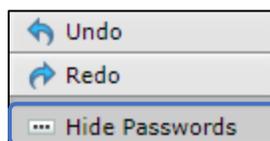
Undo / Redo

Undo and Redo buttons are located in the left toolbar. You may use them to quickly undo/redo any changes made to configuration.



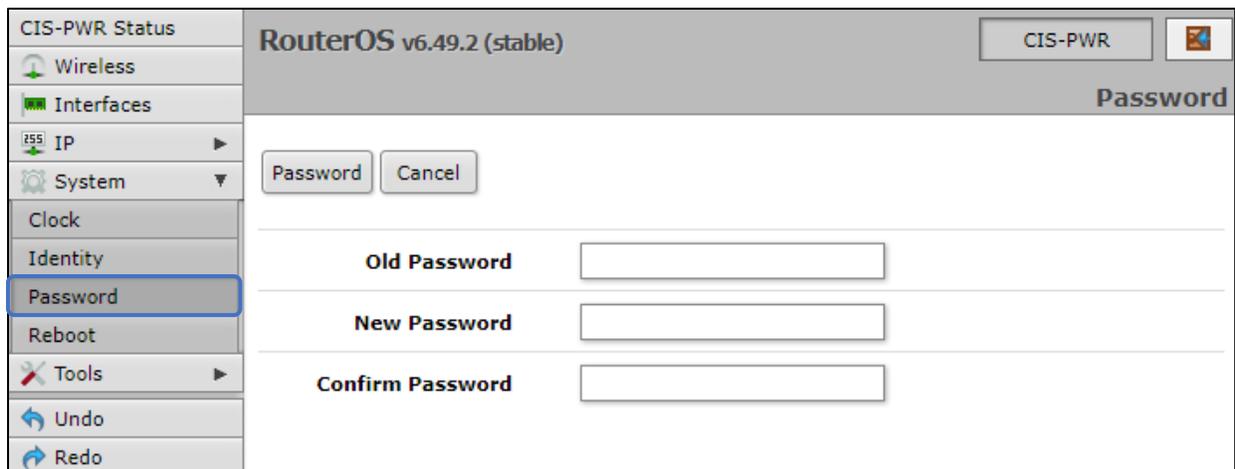
Show / Hide Passwords

Selecting the **Hide Passwords** button in the left toolbar will toggle the displaying of passwords related to Wi-Fi, etc.



Changing the Password

You may change the password to prevent unauthorized access to the device. In the left tool bar, select **System**, then click **Password**.

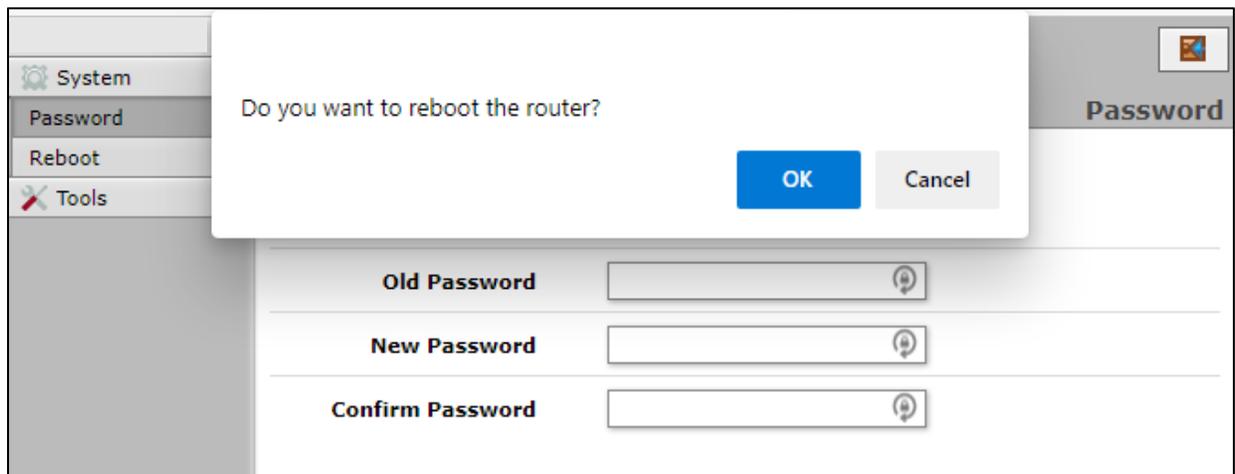


The screenshot shows the RouterOS v6.49.2 (stable) web interface. The left sidebar is expanded to the 'System' menu, with 'Password' selected. The main content area is titled 'Password' and contains three input fields: 'Old Password', 'New Password', and 'Confirm Password'. There are 'Password' and 'Cancel' buttons at the top of the form area.

Enter your existing password in the **Old Password** field, then type your password in the **New Password** and **Confirm Password** fields. Click **Change**.

Rebooting the device

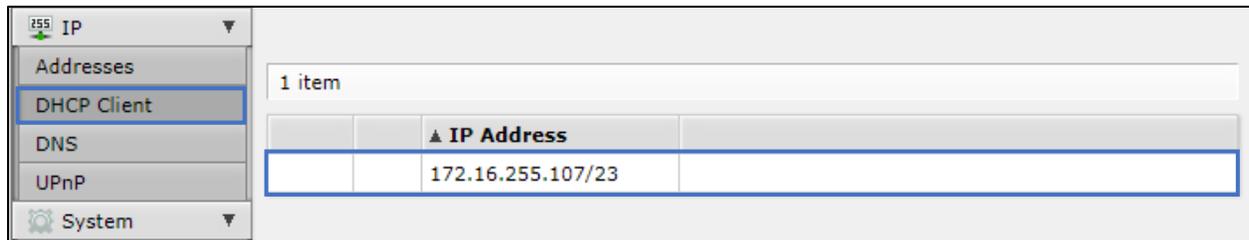
You can reboot the CIS-PWR from the web interface. Select **System**, **Reboot**, then press **OK** to confirm.



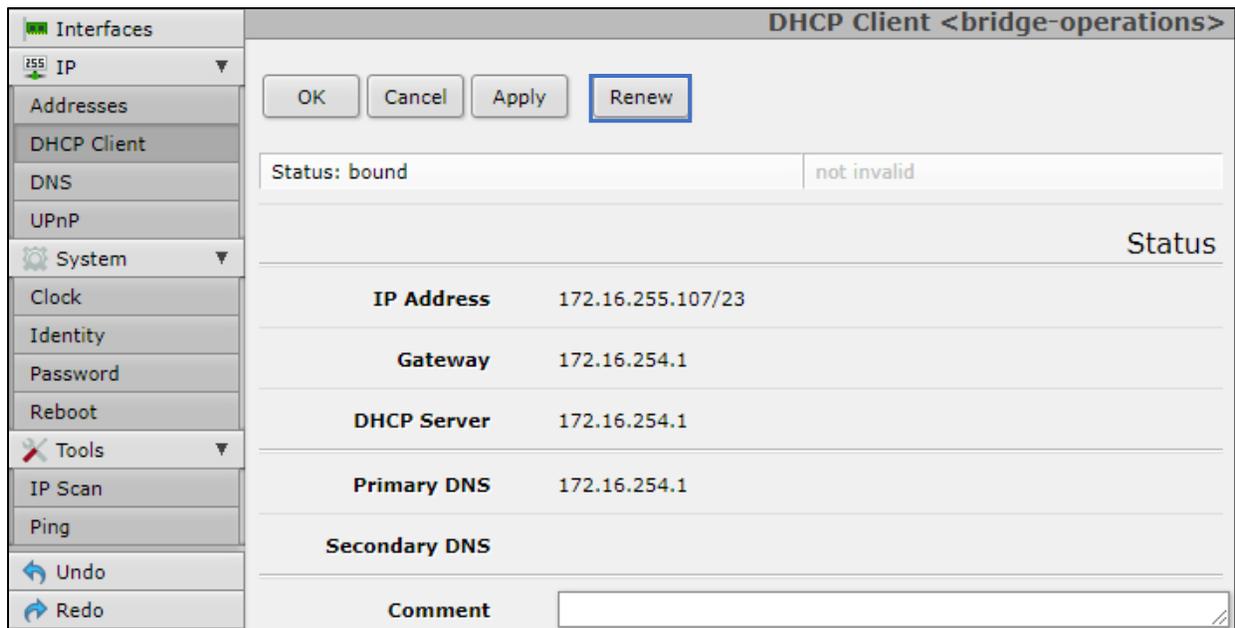
The screenshot shows the RouterOS web interface with a modal dialog box open. The dialog asks 'Do you want to reboot the router?' and has 'OK' and 'Cancel' buttons. The background shows the 'System' menu expanded to 'Reboot', and the 'Password' form is visible behind the dialog.

The DHCP Client

You can renew the IP address of the CIS-PWR by selecting **DHCP Client** under **IP** in the left toolbar, then clicking on the entry in the list.

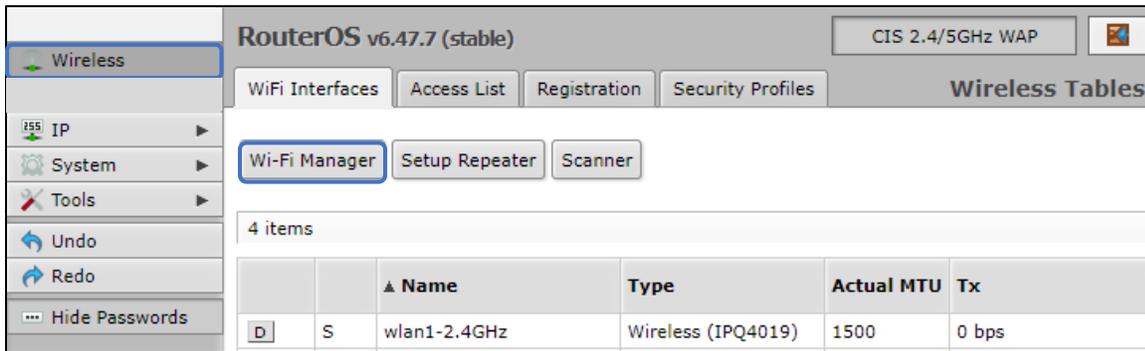


Click the **Renew** button to obtain a new IP address.



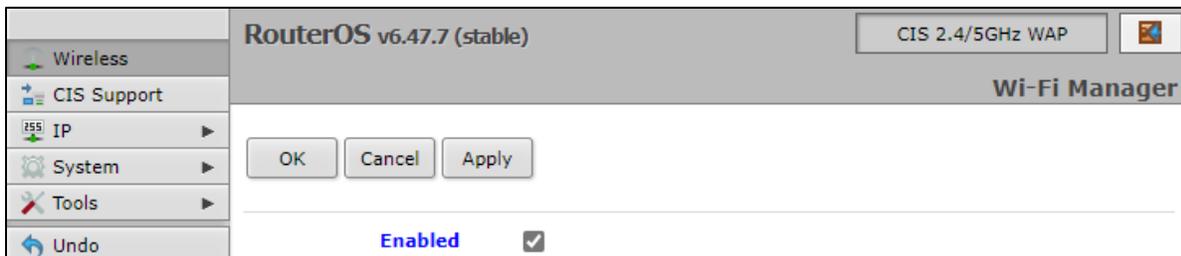
Linking the CIS-PWR to the Wi-Fi Manager

Like the rest of our access points, the CIS-PWR's wireless network can be managed by any CIS router. To link the CIS-PWR, select the **Wireless** section in the left toolbar. In the WiFi Interfaces tab, click **Wi-Fi Manager**.



		▲ Name	Type	Actual MTU	Tx
D	S	wlan1-2.4GHz	Wireless (IPQ4019)	1500	0 bps

Check the **Enabled** box, then click Apply, then OK.



Enabled

For step-by-step instructions on how to configure the Wi-Fi manager, view the router manuals on our website: <https://www.custom-integration-solutions.com/>

Configuring the Access Point (Standalone Mode)

The CIS-PWR can broadcast its own wireless network if a CIS router isn't available.

Setting the SSID

Select the **Wireless** tab from the left toolbar. Click on the entry for the 2.4GHz radio.



CIS-PWR Status RouterOS v6.49.2 (stable) CIS-PWR

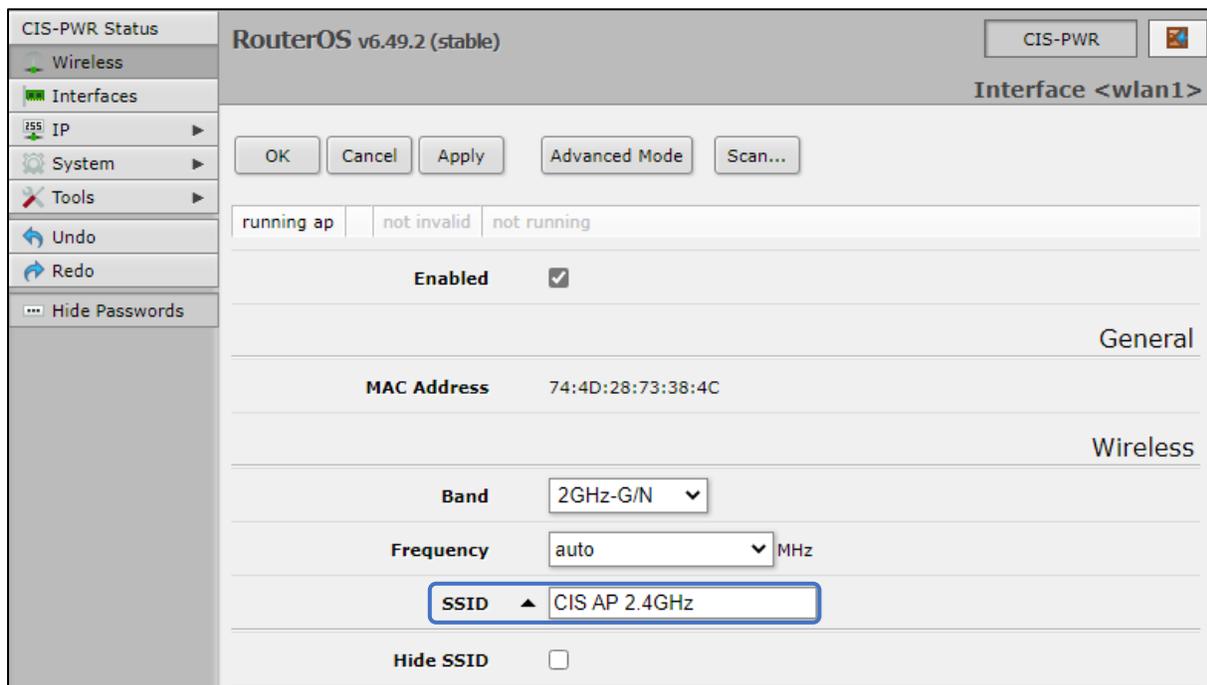
Wireless Interfaces Access List Registration Security Wireless Tables

Wi-Fi Manager Scanner

1 item

		Name	Type	Actual MTU	Tx	Rx
D	S	wlan1	Wireless (Atheros AR9	1500	0 bps	0 bps

Enter your SSID in the **SSID** box.



CIS-PWR Status RouterOS v6.49.2 (stable) CIS-PWR

Wireless Interfaces Access List Registration Security Wireless Tables

Interface <wlan1>

OK Cancel Apply Advanced Mode Scan...

running ap not invalid not running

Enabled

General

MAC Address 74:4D:28:73:38:4C

Wireless

Band 2GHz-G/N

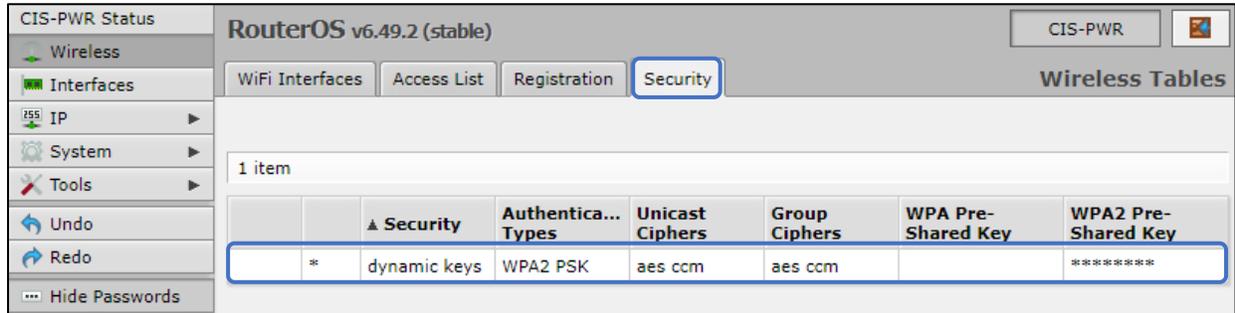
Frequency auto MHz

SSID CIS AP 2.4GHz

Hide SSID

Changing the Wi-Fi Password

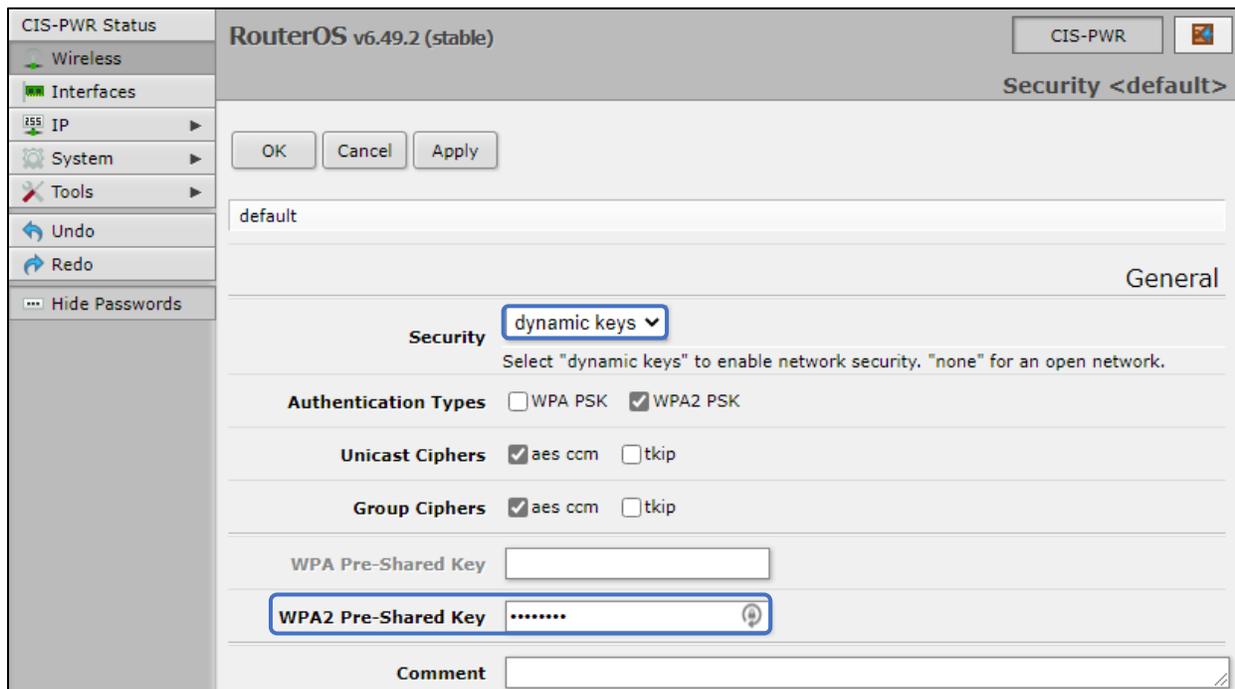
In the **Wireless** section, select the **Security** tab. Click on the default entry below.



The screenshot shows the RouterOS v6.49.2 (stable) interface. The left sidebar has a menu with 'Wireless' selected. The main area shows the 'Security' tab under 'Wireless Tables'. A table with 8 columns is displayed, and the first row is highlighted with a blue border.

	▲ Security	Authentica... Types	Unicast Ciphers	Group Ciphers	WPA Pre-Shared Key	WPA2 Pre-Shared Key
1 item	*	dynamic keys	WPA2 PSK	aes ccm	aes ccm	*****

Select **dynamic keys** to enable Wi-Fi encryption or **none** for an open network. Enter the password in the **WPA2-Pre-Shared Key** field.



The screenshot shows the RouterOS v6.49.2 (stable) interface with the 'Security <default>' configuration dialog open. The 'Security' dropdown is set to 'dynamic keys'. Under 'Authentication Types', 'WPA2 PSK' is selected. Under 'Unicast Ciphers' and 'Group Ciphers', 'aes ccm' is selected. The 'WPA2 Pre-Shared Key' field is highlighted with a blue border and contains a masked password '*****'. There are also 'OK', 'Cancel', and 'Apply' buttons at the top.

We recommend using **WPA2 PSK** and **AES CCM** only. The other options are present for legacy devices.

Tools

IP Scan

The IP Scan tool is used to locate other devices on your network.

To begin, click the arrow next to **Interface** and choose **bridge-operations**. Click the arrow next to **Address Range** and enter the subnet to scan. The default CIS subnet is **10.100.1.0/24**. Click **Start**

Devices will begin to populate in the table below. You can see the IP address, MAC address, and potentially the hostname and SNMP name, if detected.

#	Address	MAC Address	Time (ms)	DNS
---	---------	-------------	-----------	-----

Ping

Use the Ping tool to test connectivity between devices. Enter the IP address in the **Ping To** field and select **bridge-operations** as the interface. You may optionally specify the **Packet Count**.

#	Seq #	Host	Time	Reply Size	TTL	Status
0	0	8.8.8.8	9	56	118	

Troubleshooting

Symptom	Possible causes
The devices do not connect.	<ul style="list-style-type: none">• Plug in two or more CIS-PWR devices and allow time for them to boot.• If the orange light does not come on after a minute or two, press the "Mode" button to force the device to join the CIS network. The LEDs will turn off and on during this process.
The speeds are lower than expected.	<ul style="list-style-type: none">• The CIS-PWR is equipped with a 10/100 mbps ethernet port.• The built-in access point is limited to 2.4 GHz b/g/n. Expected speeds under ideal condition are 20-35 mbps, though higher is possible.
The orange light is flashing.	<ul style="list-style-type: none">• The sync button has been pressed and the device is searching for a network.• Avoid pressing the sync button. It can be used to manually join/leave networks. However, pressing the "Mode" button is much simpler.

Warranty Information

Custom Integration Solutions™ products have a 2-Year Limited Warranty. This warranty includes parts and labor repairs on all components found to be defective in material or workmanship under normal conditions of use. This warranty shall not apply to products that have been abused, modified, or disassembled. Products to be repaired under this warranty must be returned to Custom Integration Solutions™ or a designated service center with prior notification and an assigned return authorization (RA) number.

Contact Information

Web: www.custom-integration-solutions.com

Phone: Technical Support - (888) 976-3651

Email: activations@custom-integration-solutions.com



The CIS-PWR is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EC.