Set Up a Wireless Connection via Wi-Fi Protected Setup (WPS) on an RV Series Router

Objective

Wi-Fi Protected Setup (WPS) is a wireless security feature that allows devices to connect to the wireless network without having to key in the actual password. WPS was designed to help standardize the setup and configuration of wireless security by simply following any of the three ways below to connect your device to the router wirelessly via WPS:

- Clicking or pressing the WPS button on the client device and clicking the WPS icon on the WPS page of the router web-based setup utility.
- Entering the WPS Personal Identification Number (PIN) of the client device and clicking the **Register** button on the router web-based utility.
- Generating the Router WPS PIN on its web-based utility and entering the same PIN on the client device.

This article aims to show you how to set up a wireless connection on an RV Series router using WPS.

Applicable Devices

RV Series

Software Version

- 1.0.0.17 RV132W
- 1.0.0.21 RV134W
- 1.0.3.22 RV130W
- 1.0.0.16 RV340W

Set Up WPS

Configure Basic Wireless Settings

Note: Images below are taken from the RV130W. Images may vary depending on the model of your device.

Step 1. Log in to the web-based utility and choose Wireless > WPS.

| Getting Started |
|-----------------------|
| Run Setup Wizard |
| Status and Statistics |
| Networking |
| ▼ Wireless |
| Basic Settings |
| Advanced Settings |
| WPS |
| Firewall |
| ▶ VPN |
| ▶ QoS |
| Administration |

Step 2. In the WPS page, click **Edit** to select a wireless network to enable WPS. If you are configuring the RV340W skip to $\underline{\text{Step 3}}$.

| , | WPS |
|---|---|
| | Wi-Fi Protected Setup ™ |
| | SSID: ciscosb1 Edit |
| | Use one of the following for each WPS supported device: |
| | 1. If your client device has a WPS button, click or press that button and then click the button on the right. |
| | OR |
| | 2. If your client device has a WPS PIN number, enter the PIN number here and then click Register |
| | OR |
| | 3. If your client asks for the Router's PIN number, click Generate |
| | Enter 56239560 in your client device within 20 Minutes V |
| | Enable AP With Enrollee PIN |
| | Preshared Key: Add Client to existing network(Use Existing PSK) |
| | Reconfigure network(Generate New PSK) |
| | Wi-Fi Protected Setup Status: Unconfigured |
| | Security: WPA2-Personal |

<u>Step 3.</u> If you are configuring the RV340W, choose an SSID from the WPS drop-down menu.

Note: In the example below, ciscosb2 is chosen.

| WPS | | | | | | |
|-------------------------|------------|--------|------|--|--|--|
| Wi-Fi Protected Setup ™ | | | | | | |
| WPS: | ✓ ciscosb2 | Radio: | 5G 🛟 | | | |
| | | | | | | |

Step 4. From the Radio drop-down menu, choose a radio band that users will use to connect. The options are 2.4G or 5G.

Note: In this example, 5G is chosen.

| WPS | | | | |
|-------------------------|------------|--------|------|--|
| Wi-Fi Protected Setup ™ | | 1 | 2.4G | |
| WPS: | ciscosb2 🖨 | Radio: | √ 5G | |
| | | | | |

Step 5. Ensure that the WPS option is enabled or checked for the desired SSID. The router provides four virtual wireless networks, or four SSIDs and these are ciscosb1, ciscosb2, ciscosb3, and ciscosb4. By default, ciscosb1 has WPS enabled.

| Ba | Basic Settings | | | | | | | | | |
|-----------------|--|----------------|------------|----------------|---------------|------------|------|---------------------------------|-----|-----|
| Radio: 🗹 Enable | | | | | | | | | | |
| v | Vireless N | etwork Mode: | B/G/N-Mix | ed 🔻 | | | | | | |
| v | Vireless C | hannel Width: | • 20MHz | 20/40MHz | | | | | | |
| V | Vireless C | hannel: | Auto | • | | | | | | |
| U | J-APSD (V | MM Power Save) | : 🗹 Enable | | | | | | | |
| h | Wireless | Table | | | | | | | | |
| | | Enable SSID | SSID Name | SSID Broadcast | Security Mode | MAC Filter | VLAN | Wireless Isolation with SSID | WMM | WPS |
| | | | ciscosb1 | ×. | WPA2-Personal | Disabled | 1 | | 1 | |
| | | OFF | ciscosb2 | 1 | Disabled | Disabled | 1 | | 1 | |
| | | OFF | ciscosb3 | 1 | Disabled | Disabled | 1 | | 1 | |
| | | OFF | ciscosb4 | 1 | Disabled | Disabled | 1 | | 1 | |
| | Edit Edit Security Mode Edit MAC Filtering Time of Day Access Edit WPS | | | | | | | | | |
| | Save Cancel | | | | | | | | | |

Step 6. (Optional) If the WPS of the desired SSID is not enabled, check the check box next to that SSID and then click **Edit**.

Note: In this example, WPS is enabled on the Cisco SSID name.

| Wireless | Table | | | | | | |
|-------------|-------------|-------------|-----|-----------------|---------------|--|--|
| | Enable SSID | SSID Name | | SSID Broadcast | Security Mode | | |
| \odot | ON | Cisco | | | WPA2-Personal | | |
| | OFF | ciscosb2 | | A. | Disabled | | |
| | OFF | ciscosb3 | | I. | Disabled | | |
| | OFF | ciscosb4 | | A. | Disabled | | |
| Edit | Edit Se | curity Mode | Edi | t MAC Filtering | Time of Day A | | |
| Save Cancel | | | | | | | |

Step 7. Check the WPS check box to enable WPS and then click Edit WPS.

| MAC Filter | VLAN | Wireless Isolation with SSID | WMM | WPS |
|------------|----------|---------------------------------|----------|-----|
| Disabled | 1 🔻 | | | |
| Disabled | 1 | | | |
| Disabled | 1 | | A | |
| Disabled | 1 | | | |
| ccess | Edit WPS | | | |
| | | | | |
| | | | | |

Step 8. Click Save.

| | Enable SSID | SSID Name | _ | SSID Broadcast | Security Mode | | |
|------|-------------|-------------|-----|--|---------------|--|--|
| | | Cisco | | | WPA2-Personal | | |
| | OFF | ciscosb2 | | I. | Disabled | | |
| | OFF | ciscosb3 | | | Disabled | | |
| | OFF | ciscosb4 | | Image: A start of the start | Disabled | | |
| Edit | t Edit Se | curity Mode | Edi | t MAC Filtering | Time of Day A | | |
| | | | | | | | |
| Save | Cancel | | | | | | |

Step 9. Navigate back to the WPS page and verify that the Wi-Fi Protected Setup Status area shows Configured.

| Wi-Fi Protected Setup Status: | Configured |
|-------------------------------|---------------|
| Network Name (SSID): | ciscosb1 |
| Security: | WPA2-Personal |

You should now have enabled WPS to your desired SSID.

Connect Using the WPS Button

Note: Your client device must support WPS for this feature to work. The WPS push button might be called something else, depending on the brand of your client device. It is typically located somewhere around the Wi-Fi Settings. The images on this section are taken from an Android device.

Step 1. Log in to the web-based utility and choose **Wireless > WPS**.

| Getting Started |
|-----------------------|
| Run Setup Wizard |
| Status and Statistics |
| Networking |
| Wireless |
| Basic Settings |
| Advanced Settings |
| Firewall |
| ► VPN |
| ▶ QoS |
| Administration |

Step 2. Click the **WPS** icon on the page.

| WPS |
|---|
| Wi-Fi Protected Setup ™ |
| SSID: ciscosb1 Edit |
| Use one of the following for each WPS supported device: |
| 1. If your client device has a WPS button, click or press that button and then click the button on the right. |
| OR |
| 2. If your client device has a WPS PIN number, enter the PIN number here and then click Register |
| OR |
| 3. If your client asks for the Router's PIN number, click Generate |
| Enter 56239560 in your client device within 20 Minutes V |
| Preshared Key: Add Client to existing network(Use Existing PSK) |
| Reconfigure network(Generate New PSK) |
| Wi-Fi Protected Setup Status: Unconfigured |
| Security: WPA2-Personal |

Note: A window will appear showing that it is searching for your client device.

Step 3. Locate the WPS option on the client device.

Step 4. Tap the **WPS push button** on the client device to start searching for the RV Series Router.

| < 🔯 Wi-Fi | ON |
|-------------------------------------|--------------|
| Wi-Fi networks | |
| ciscosb Secured | (îț |
| guest Secured | (îț |
| ciscosb1 Secured (WPS available) | |
| WAP131_guest | ((;- |
| WAP131_internal Secured | |
| o 🌣 Advanced | ħ. |
| C 🖅 WPS push button | , |
| s 🕼 WPS PIN entry | Ņ |
| Help | |

Step 5. Tap **OK** to continue when your client device has successfully connected.

| 💿 Wi-Fi | ON |
|--|----------|
| Smart network switch Automatically switch between Wi-Fi and mobile networks to maintain a stable Internet connection. | |
| Wi-Fi networks | |
| ciscosb1 WPS setup | T |
| Connected to Wi-Fi network "ciscosb1". | à |
| \$ | à |
| | |
| Ok Open | 10 |
| Open Open Secured | |
| Open Ciscosb Secured guest Secured | |

Step 6. Back on the router web-based utility, the prompt below will pop up. Click OK.



You should now have connected to the network using the WPS button.

Connect Using the WPS PIN of the Client Device

Note: Your client device must support WPS for this feature to work. The WPS push button might be called something else, depending on the brand of your client device. It is typically located somewhere around the Wi-Fi Settings. The images on this section are taken from an

Android device.

Step 1. Locate the WPS PIN entry option on your client device.

Step 2. Tap WPS PIN entry to get the WPS PIN.

| < 🔯 Wi-Fi | ON |
|-------------------------------------|------|
| Wi-Fi networks | |
| ciscosb Secured | |
| guest Secured | |
| ciscosb1 Secured (WPS available) | |
| WAP131_guest | ((t- |
| WAP131_internal Secured | (77 |
| c 🌣 Advanced | ħ. |
| C =; WPS push button | 2 |
| 😡 🕼 WPS PIN entry | |
| 🕐 Help | |

Step 3. Take note of the PIN.

Note: In this example, the PIN is 37807467.

| < 🔯 Wi-Fi 📃 | ON |
|---|------------|
| Wi-Fi networks | |
| ciscosb1 Secured (WPS available) | - |
| ciscosb | |
| WPS setup | |
| Enter the 37807467 PIN on your | Ĝ |
| up to 2 minutes to complete. | <i>h</i> . |
| \$ 7 | |
| s | <u>X</u> |
| | |
| Cancel | |
| Cancel Open | 1 |
| Open eduroam | |
| Cancel Open eduroam Secured | -1) -1 |
| Cancel Open eduroam Secured cruznet | |

Step 4. On your computer, log in to the web-based utility of your router and navigate to **Wireless > WPS**.

| Getting Started |
|-----------------------|
| Run Setup Wizard |
| Status and Statistics |
| Networking |
| ▼ Wireless |
| Basic Settings |
| Advanced Settings |
| WPS |
| Firewall |
| ► VPN |
| ▶ QoS |
| Administration |

Step 5. In the WPS page, enter the WPS PIN of the client device.

Note: In this example, 37807467 is entered.

| | 2. If your client d | evice has a WF | PS PIN number | r, enter the F | PIN number here |
|---|---------------------|----------------|---------------|----------------|-----------------|
| | 37807467 | and then click | Register | | |
| I | | | | | |

Step 6. Click **Register**. The page should automatically refresh when it is connected.

| 2. If your client d | levice has a W | PS PIN number | enter the PIN number here |
|---------------------|----------------|---------------|---------------------------|
| 37807467 | and then clic | Register | |

Step 7. On the client device, tap **OK** to continue when it has successfully connected to the wireless network.

| 🔯 Wi-Fi | ON |
|--|----------|
| Smart network switch Automatically switch between Wi-Fi and mobile networks to maintain a stable Internet connection. | |
| Wi-Fi networks | |
| ciscosb1 WPS setup | |
| Connected to Wi-Fi network "ciscosb1". | à |
| | |
| 5 | X |
| С С Ореп | |
| б ок Open ciscosb Secured | |
| Ciscosb Secured Guest Secured | |

You should now have connected your wireless client device to the network using its WPS PIN.

Connect Using the WPS PIN of the Router

Step 1. If a client device requires a PIN when connecting via WPS, log in to the web-based utility of the router to obtain its PIN. Alternatively, you may check the label of the router for the WPS PIN. It must be the one beside the WPS icon on the label.

Step 2. Navigate to Wireless > WPS.

| Getting Started |
|-----------------------|
| Run Setup Wizard |
| Status and Statistics |
| Networking |
| ▼ Wireless |
| Basic Settings |
| Advanced Settings |
| WPS |
| Firewall |
| ▶ VPN |
| ▶ QoS |
| Administration |

Step 3. Click Generate and take note of the newly generated PIN.

Note: In this example, the PIN is 47108509 is entered.



Step 4. (Optional) From the PIN lifetimedrop-down menu, choose the desired validity of the key. When the time expires, a new key is negotiated.

Note: In this example, 20 Minutes is chosen.

| 3. If your client asks for the Router's PIN | number, click Generate | |
|---|--------------------------------------|-----------|
| Enter 47108509 in y | our client device within 20 | Minutes 🔻 |
| Enable AP With Enrollee PIN | 0(\$ | Static) |
| Preshared Key: | 20 | Minutes |
| Add Client to e | xisting network(Use Exit 1 H | lour |
| Reconfigure ne | etwork(Generate New P ² I | Hours |
| - | 41 | Hours |
| | 81 | lours |
| Wi-Fi Protected Setup Status: | Unconfigured 24 | Hours |
| Security: | WPA2-Personal | |

Step 5. On your client device, view the available network connections and choose your SSID.

Note: In this example, the client device will be connecting to ciscosb1.

| Not connected | ÷, ^ |
|-----------------------------|----------|
| Connections are available | |
| Wireless Network Connection | ^ |
| ciscosb1 | .all |
| eduroam | |
| NET | <u>.</u> |
| soe-wpa | .atl |
| SEADTEST | .atl |
| cruznet | 31 |
| warner | al In |
| Other Network | at 🗉 |
| Open Network and Sharing C | Center |

Step 6. Enter the PIN that the router generated.

Note: In this example, 47108509 was generated.

| P Connect to a Network | x |
|--|----|
| Type the 8-digit PIN from the router display | |
| PIN: 47108509 | |
| Connect using a security key instead | |
| Back Next Cano | el |

Step 7. Click Next.

| 2 Connect to a Network |
|--|
| Type the 8-digit PIN from the router display |
| PIN: 47108509 |
| Connect using a security key instead |
| Back Next Cancel |

Step 8. Check and confirm that the client or wireless device has successfully connected to the network.



You should now have connected your client device to the network using the WPS PIN of the router.

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