

Wireless Broadband Router

Quick Start Guide

Before reading this guide, be sure to read the "Read This First" supplement.

This guide describes the preparations and settings required to connect to the Internet using the Wireless Broadband Router.

The PCWA-AR300 consists of:

- Broadband Router Unit PCWA-R1
- Wireless LAN Access Point PCWA-A320

In this document, we refer to the Broadband Router Unit as the Router Unit and to the Wireless LAN Access Point as the Wireless Unit.



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Unpacking

When you unpack the unit, make sure that all the following are accounted for.

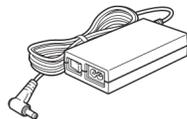
- Router Unit (Broadband Router Unit PCWA-R1)
- Wireless Unit (Wireless LAN Access Point PCWA-A320)



* The Wireless Unit has Access Point functions.

- AC Adapter

- Power cord



- Read This First
- Quick Start Guide (this manual)
- Troubleshooting Guide
- Limited Warranty
- Other documentation

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Each procedure is preceded by a check box. Before proceeding to the next step, confirm that you have completed all necessary tasks by ticking the box. Check

Preparation

Procedure Check
1 Perform the necessary preparations and confirmations for connections

Obtain the information required to make the computer connections.

The procedure in this guide describes the connection process using the factory default settings.

The factory default settings of the Access Point function are:
 Network Name (SSID): The 6-character identifier printed on the label inside the rear cover of the Wireless Unit
 Encryption (WEP): Disabled

Before setting up the Broadband Router, perform the following.

- **Set up the Wireless LAN PC Card or Wireless LAN Converter**
 Perform the required software installation and settings according to the instructions provided with your Wireless LAN PC Card or Wireless LAN Converter to make it operational.

- **Confirm the connection method of the wireless connection on the computer.**
 Refer to the instructions for your Wireless LAN PC Card or Wireless LAN Converter to confirm the connection method of the computer to the Access Point when using a Wireless LAN PC Card or Wireless LAN Converter.
 If using a Wireless LAN PC Card with the Windows XP operating system, connect to the network using the Windows XP Wireless Network function.

- **Configure the TCP/IP settings for the Wireless Network connection on the computer.**
 Configure the TCP/IP settings on the computer as follows.
 • IP address setting: Select "Obtain an IP address automatically".
 • DNS setting: Select "Disable DNS" in the Windows Me operating system.
 Select "Obtain a DNS server address automatically" in the Windows 2000 and Windows XP operating systems.

- **Prepare the Ethernet cable to connect the Router Unit and ADSL or cable modem.**

Hint
 Use a straight-through or cross-over Ethernet cable.

- **Configure the computer firewall settings**
 If you are using the Windows XP Internet Connection Firewall or another personal firewall, you may need to change the security level setting. Refer to the Note below about Computer Firewall Functions for details.

Note
Computer Firewall Functions

When using the Windows XP "Internet Connection Firewall" function

Enabling the Windows XP "Internet Connection Firewall" function may prevent the computer from being accessed externally (this function is disabled by default). This function can prevent connection to your network when you change your Wireless Broadband Router settings. If this happens, disable the "Internet Connection Firewall" function, connect to the network, and then re-enable the function. Refer to Windows XP Help for details (you can search from "Help and Support" on the "Start" menu).

Note
 Make sure that you take appropriate security measures when the "Internet Connection Firewall" function is disabled.

When using personal firewall software provided standalone or as part of anti-virus or network security software

Antivirus scanning and network security software sometimes includes a function called a "personal firewall", intended to prevent unauthorized access by other computers. Depending on the software, the security level of this function may initially be set to a high level. If this high security level setting is left enabled, other computers may be unable to access your computer. This can cause problems such as not being able to connect to the network when changing the Wireless Broadband Router settings. In this event, lower the security level to allow the network connection. While the security level is lowered, pay special attention to security. We highly recommend returning to the original setting after setting up the Wireless Broadband Router. Refer to the software instructions or Help for details.

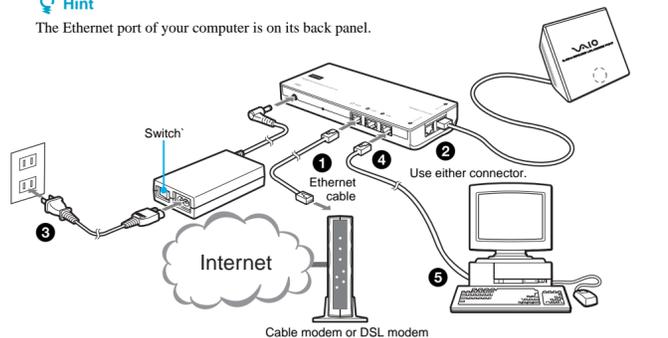
- Notes**
- Pay appropriate attention to security issues.
 - For questions about firewall functions, please contact your firewall software manufacturer.

Procedure Check
2 Connect each unit and turn the power on

Connect each unit as shown in the next figure, and turn the power on.

- 1 Use an Ethernet cable to connect the cable or DSL modem to the WAN connector of the Router Unit.
 - 2 Connect the Wireless Unit to a Wireless Unit/LAN connector.
- Hint**
 There are two Wireless Unit/LAN connectors. Use either one.
- 3 Connect the AC Adapter to the Router Unit, and turn the AC Adapter on.
 - 4 Connect an end of the Ethernet cable to a LAN connector of the Router Unit.
 - 5 Connect the other end of the Ethernet cable to your computer.

Hint
 The Ethernet port of your computer is on its back panel.



When you turn the power on, confirm that the Status indicators on the Wireless Unit and Router Unit change as follows before proceeding to Procedure 3.
 Wireless Unit: Changes from a quickly flashing white light to a slowly flashing one.
 Router Unit: Change from flashing white light to a steadily lit one.

Establish wireless connections

Procedure Check
3 Establish communications between the computer and the Access Point

This description assumes that the connection is established with factory default settings.

Access Point factory default settings
 Network Name (SSID): The 6-character identifier printed on the label inside the rear cover of the Wireless Unit
 Encryption (WEP): Disabled

Confirming the Network Name (SSID)

Configure the wireless communication settings on the computer, and then establish communications between the computer and the Access Point. Refer to the instructions for your Wireless LAN PC Card or Wireless LAN Converter for the setting method.

- Comments**
- The Network Name (SSID) may also be called something like the "ESSID" or "Network ID", depending on the particular device.
 - Encryption may also be called something like "encoding" or "security", depending on the particular device.
 - When using the Windows XP operating system with a Wireless LAN PC Card, on the "Start" menu, click "Connect to" - "Wireless Network Connection", and make the communications settings that affect connection to the Access Point from the dialog box that appears.
 If no "Wireless Network Connection" item can be found on the "Start" menu, on the "Start" menu click "Control Panel" - "Network and Internet Connections" - "Network Connection", and double-click "Wireless Network Connection".

When you are done, verify that an IP address is assigned to the computer. Although communication is possible from this state, for security reasons, be certain to perform the subsequent procedures to change the factory default settings. Also refer to the instructions for your Wireless LAN PC Card or Wireless LAN Converter.

Router Unit Setup

Procedure Check
4 Display the Router Unit Setup Page

Access the Access Point from a Web browser to display the Router Unit Setup Page.

Compatible browsers:
 Internet Explorer 5.5 or later
 Netscape 6.1 or later

Note
 Configure the browser's proxy settings so that the IP address of the Router Unit (factory default 192.168.11.1) bypasses the proxy server. Refer to "Case 1: Cannot display the Setup Page (error message appears)" in the separate Troubleshooting Guide for details about bypassing the proxy server.

Hint
 The Setup Page of this device is stored in the internal memory of the Router Unit.

- 1 Launch the Web browser.
- 2 Enter http://192.168.11.1 in the Address field, and press the Enter key.

Hint
 The IP address 192.168.11.1 is the Router Unit factory default. If the Router's IP address has been changed, contact your network administrator.

The Router Unit Setup Page appears.



Hints

- The Router Unit Setup Page provides both an Easy Setup and an Advanced Setup. We recommend performing the Easy Setup if you are unfamiliar with networks.
- The Router Unit functions as a NAT router.
- When making PPPoE connections to a service provider with a DSL modem, or when using a cable modem, all the required settings can usually be performed with Easy Setup.
- Clicking **Help** or **?** displays Help.

The following procedures describe the setup process using "Easy Setup".

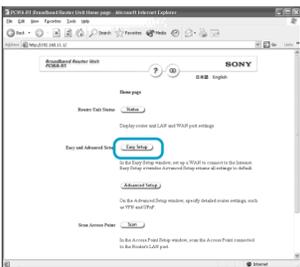
Procedure 5 Check

Configure the Router functions

Configure the Router functions of the Router Unit. The basic settings to connect to the Internet are described here. For details about the settings, refer to Help on the Router Unit Setup Page.

Specific information required to establish an Internet connection is normally provided by your Internet service provider when making the service contract. You may have to refer to this information when setting up the connection, so have the information at hand.

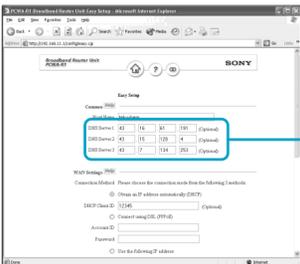
1 Click "Easy Setup".



The Easy Setup page appears.

2 Make basic settings.

Enter a DNS server address if necessary. The DNS server address setting is determined by your Internet service provider.



Refer to the information supplied from your provider to make these entries.

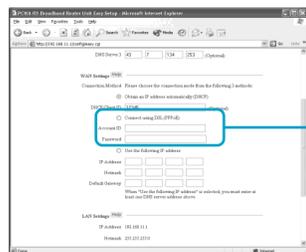
3 Configure your WAN settings (for connection to the Internet).

The entry field to use depends on your Internet service provider, so refer to the information supplied from your provider to make this entry.

Note

Your Internet service provider may not permit the connection of the DSL or cable modem to a router. Please refer to the clauses of your service contract.

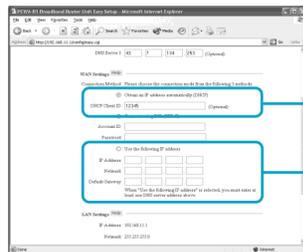
• PPPoE connection with a DSL modem



Select "Connect using DSL (PPPoE)", and enter your account information.

Move this slider to view the hidden part of the window.

• Connection with a cable modem



Referring to your provider's information, select "Obtain an IP address automatically", or select "Use the following IP address" and enter the information specified by your provider.

Hint

- Select from the following depending on the connection method specified by your provider.
- When connecting by DHCP (having an IP address assigned to the computer automatically), select "Obtain an IP address automatically". In this case, please confirm the DHCP client ID (in cases where it is particularly specified).
- When connecting by a fixed IP address (manually assigning the computer IP address), select "Use the following IP address". In this case, enter the IP address for your computer specified by your provider.

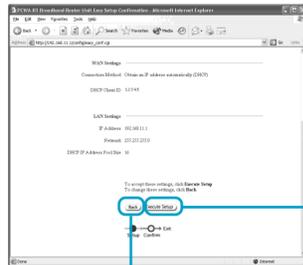
4 Check that the settings are correct, and click "Execute Setup"

1 When finished making settings, click "Next".



The Setup Confirmation window appears.

2 Check that the settings are correct, and click "Execute Setup".



Move this slider to check the settings.

When satisfied with the displayed settings, click here.

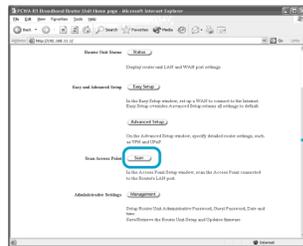
If you want to modify the settings, click here to return to the previous window.

Access Point Function Setup

Procedure 6 Check

Display the Access Point Setup Page

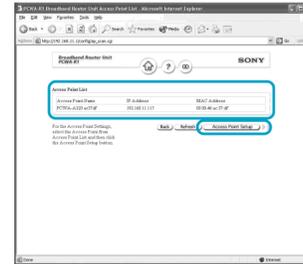
1 Click "Scan".



Move the slider to display the hidden part of the window.

Access Points are searched for, and any discovered Access Points are displayed in the list.

2 Select the Access Point to configure, and click the "Access Point Setup" button.



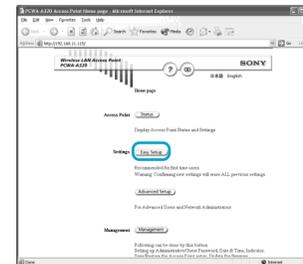
The Access Point Setup page appears.

Procedure 7 Check

Configure the Access Point functions

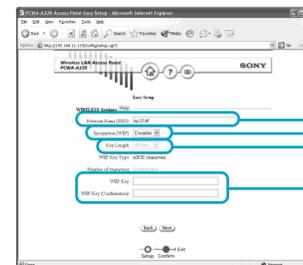
The wireless functions are set in the Wireless Unit. The basic wireless connection settings are described here. For details about the settings, refer to Help the Access Point Setup Page.

1 Click "Easy Setup".



The Easy Setup page appears.

2 Configure settings.



- Enter the Network Name (SSID). The Network Name (SSID) is an ID that serves to identify the wireless network. You should enter up to 32 characters. Permissible characters are letters, numbers, and symbols.

Note

We recommend that you note the Network Name (SSID).

- Set "Encryption (WEP)" to "Enable".

Hint

Encryption (WEP) encodes wireless communications and prevents unauthorized access to the network. The "Encryption Key" is the password required for WEP communications on an encrypted network.

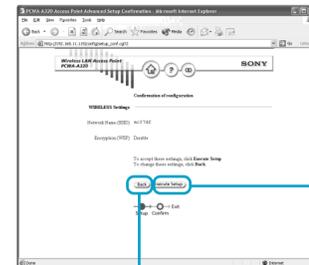
- Select "Key Length".
- Enter the encryption key, and re-enter it again at "WEP Key (confirmation)". If you select "40-bit" for the "Key Length", enter up to five letters, numbers and symbols. If you select "104-bit" for the "Key Length", enter up to 13 letters, numbers and symbols.

Note

We recommend that you note the Encryption Key.

3 Check that the settings are correct, and click "Execute Setup".

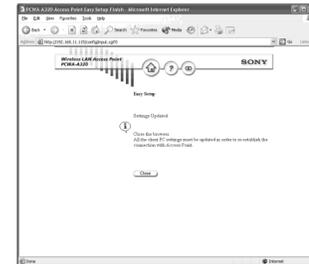
- When finished making settings, click "Next". The Setup Confirmation window appears.
- Check that the settings are correct, and click "Execute Setup".



When satisfied with the displayed settings, click here.

If you want to modify the settings, click here to return to the previous window.

The Setup Completed window appears.



3 Close the Web browser.

Note

When you change the wireless settings, the connection to the Access Point is severed. After performing Procedure 7, make sure that you perform Procedure 8 to reestablish the connection.



Refer to Help for details about Wireless Broadband Router settings.

To display Help, click **Help** or **?** on the Router Unit Setup Page or the Access Point Setup Page.

Configure the Wireless Communication Settings on the computer

Procedure 8 Check

Configure computer settings

Configure the wireless communication settings on the computer used for the setup to match the Access Point settings.

Configure the Network Name (SSID) and Encryption (WEP) wireless communication settings on the computer to match those set in Procedure 7.

Hint

Refer to the instructions of your Wireless LAN PC Card or Wireless LAN Converter for the setting method.

This completes the configuration.



Refer to the Read This First supplement for the following information:

- Installation
- Ethernet cable connection method
- Reset to factory defaults
- Factory default settings
- Status Indicator indications