Getting started

You can build a Wireless LAN environment that connects up to 49 computers (a maximum 16 is recommended) by connecting the Wireless LAN Access Point PCWA-A100 (called the Access Point below) a computer in which the Wireless LAN PC Card PCWA-C100 is inserted. While enabling the sharing of files between all computers connected over the same Wireless LAN, it is also possible for multiple of computers within the same LAN system to connect to the Internet, if the Access Point is connected to a telephone line, an ISDN router, cable modem or to an xDSL modem. Furthermore, you can build a Wireless LAN environment between computers that are installed with the Wireless LAN PC Card without having to use the Access Point. (This is called peer-to-peer connection.)

/ Note

For best results in viewing this help file, use Microsoft Internet Explorer 5 or later. Some graphics may not display properly if you are using an earlier version.

Overview

<u>Wireless LAN Utilities</u> <u>The setup process</u> <u>Before making settings (Important precautions)</u>

Wireless LAN Utilities

There are four types of softw are in the Wireless LAN Utilities. They are described below .

Wireless Palette

This is the softw are that displays the status of communications betw een the computer mounted with the Wireless LAN PC Card and the Access Point. If there are multiple Access Points, you can use it to switch the Access Point connection. Normally, it displays the status of communications in the status area of the taskbar.

Basic Access Point Setup Utility

This is the software to set the Access Point to connect to the Internet. The basic settings for connection are completed when using this software.

Custom Access Point Setup Utility

This is the software for making detailed settings for the Access Point. You can also make detailed settings for Internet connections.

Access Point Firmware Upgrade Utility

This is the softw are for updateing Access Point firmw are.

If the Access Point Setup Utility and Access Point firmw are versions is incompatible, update the Wireless LAN Utilities, or update the Access Point firmw are. Refer <u>here</u> for details on checking and updating versions.

🟅 Note

If you are using Windows 2000, there are restrictions to user rights. See Privileges of Windows 2000 Users for details.

Roles of the Wireless Palette and the Access Point Setup Utilities



(1) Use the Wireless Palette to make settings required for communications between the computer and the Access Point.

(2) Use the Basic Access Point Setup Utility or the Custom Access Point Setup Utility to make settings required for connection between the Access Point and the Internet Service Provider (ISP). The utility must be used on one of the computers on the wireless LAN.

The setup process

The setup process will vary depending on the whether or not your Access Point and Wireless LAN PC Card have been used. Refer to the Wireless LAN PC Card Operating Instructions for details.

🟅 Note

Using an Access Point Setup Utility prior to version 2.0.1 to set to an Access Point whose firmw are version is later than 3.7 and will result in abnormal operation. Before using your existing Access Point Setup Utility, confirm the Access Point Setup Utility version and the Access Point firmw are version to update them as necessary.

Refer here for details on checking and updating the version.

Flow of settings

If the Access Point has not been used:

Connect the Access Point to a power source. Refer to the Wireless LAN Access Point Operating Instructions for details.

If the Wireless LAN PC Card has not been used:

- 1. Insert the Wireless LAN PC Card into your computer.
- 2. Install the Wireless LAN PC Card driver.

🟅 Note

If you are using a computer that has multiple Ethernet interfaces, you must stop using an Ethernet interface other than the Wireless LAN PC Card. Refer to <u>When using a computer that has an Ethernet interface other than the Wireless LAN PC Card</u> for details.

3. Setup the Windows-based environment.

Refer to the Wireless LAN PC Card Operating Instructions for details.

4. Install the accessory software.

Refer to the Wireless LAN Access Point Operating Instructions for details.

Register the Access Point to the Wireless Palette for each computer connected to the Wireless LAN. Refer to the Wireless LAN PC Card Operating Instructions for details.

Make the settings for the Access Point using the Basic Access Point Setup Utility. Refer to the Wireless LAN PC Card Operating Instructions for details.

ϔ Hint

You can make detailed settings for the Access Point if you use the Custom Access Point Setup Utility.

<u>Check the version</u> <u>When using a computer that has an Ethernet interface other than the Wireless LAN PC Card</u> <u>Privileges of Window s 2000 users</u> Using an Access Point Setup Utility prior to version 2.0.1 to set to an Access Point whose firmware version is later than 3.7 will result in abnormal operation. Before using your existing Access Point Setup Utility, alw ays confirm the follow ing:

- The version of the Access Point Setup Utility.
- The firmw are version of the Access Point.

Checking the Access Point Setup Utility version

1. From the Start menu, select VAIO, Wireless LAN, then Custom Access Point Setup Utility or Basic Access Point Setup Utility.

Either the Custom Access Point Setup Utility or the Basic Access Point Setup Utility starts.

2. Check the version that is displayed in the title bar.



Checking the Access Point firmware version

1. Right-click the Wireless Palette in the status area of the taskbar.

2. Select the Version from the menu that is displayed.

If the combination of the Access Point Setup Utility and Access Point firmw are versions is incompatible, update the Wireless LAN Utilities, or update the Access Point firmw are.

From the Start menu, select VAIO, Wireless LAN, Access Point Firmw are Upgrade, then Manual. Refer to the Upgrade Utility Help file for details.

When using a computer that has an Ethernet interface other than the Wireless LAN PC Card

When using the Wireless LAN PC Card, you must stop the use of Ethernet interfaces other than the Wireless LAN PC Card.

- When running the Window s 98 Second Edition
- When running the Window s Me
- When running the Window s 2000

When running the Windows 98 Second Edition:

- 1. From the Start menu, select Settings, then Control Panel.
- 2. Double-click System.
- 3. Select the Device Manager tab and then double-click Network adapters.
- 4. Double-click the network adapter that you want to stop.
- 5. Select the check box for "Disable in this Hardware Profile" in the dialog box that is displayed, then click OK.

An "X" will appear for the device that has been stopped.

6. Click OK.

The System Properties dialog box closes.

When running the Windows Me:

- 1. From the Start menu, select Settings, then Control Panel.
- 2. Double-click System. (If all of the control panel options are not displayed, click "view all Control Panel Options", then double-click System.)
- 3. Select the Device Manager tab and double-click Network adapters.
- 4. Double-click the network adapter that you want to stop.
- 5. Select the check box for "Disable in this Hardware Profile" in the dialog box that is displayed, then click OK.

An "X" will appear for the device that has been stopped.

6. Click OK.

The System Properties dialog box closes.

When running the Windows 2000:

- 1. From the Start menu, select Settings, then Control Panel.
- 2. Double-click System.
- 3. Select the Hardware tab and then click the Device Manager.

The Device Manager window is displayed.

- 4. Double-click Network adapters.
- 5. Double-click the network adapter that you want to stop.
- 6. Select "Do not use this device (disable)" from the Device usage drop-down menu, then click OK.

An "X" will appear for the device that has been stopped.

7. Click 🔀.

The Device Manager window closes.

Privileges of Windows 2000 users

With Windows 2000, functions that can be performed depend on the user's privilege level.

Privilege Level Function

Administrators Installation of driver: Yes Installation of Wireless LAN Utilities: Yes Execution of Wireless LAN Utilities: Yes

Pow er Users (Standard users) Installation of driver: Yes Installation of Wireless LAN Utilities: Yes Execution of Wireless LAN Utilities: Yes with restrictions

Users

(Restricted users) Installation of driver: No Installation of Wireless LAN Utilities: No Execution of Wireless LAN Utilities: Yes with restrictions ¹²

- *1
- Registration of the Access Point is not possible with the Wireless Palette
- Even if the Encryption Key is changed with the Access Point Setup Utility, that setting is not reflected at the client.
- *2
- You can only check the electric wave status with the Wireless Palette.

You cannot run the Basic Access Point Setup Utility or the Custom Access Point Setup Utility.

I Note

Before configuring the Access Point, do the follow ing:

1. Connect the Access Point to a power source.

Refer to the Wireless LAN Access Point Operating Instructions for details.

2. Insert the Wireless LAN PC Card, and install the driver and other software supplied with the Wireless LAN PC Card to your computer.

Refer to the Wireless LAN PC Card Operating Instructions manual for details.

3. Establish a connection to the Access Point using the Wireless Palette.

Refer to the Wireless LAN PC Card Operating Instructions manual for details.

Follow the task sequence below to configure the Access Point using the Custom Setup Utility.

- 1. Proceed to Loading the Access Point configuration to load the current configuration from the Access Point.
- 2. Proceed to <u>Setting common parameters</u> to specify common parameters.
- 3. Proceed to <u>Setting mode-dependent parameters</u> to specify mode-dependent parameters. [Keyword] Configuring the Wireless LAN Access Point Configuring the Access Point

Loading the Access Point configuration

Select the Access Point you want to configure to load its configuration. Make sure your computer can communicate with the Access Point using the Wireless Palette. You may also load the configuration file stored in the hard disk.

1. Click the Start button on the task bar.

The Start menu appears.

2. From the Start menu, select VAIO, Wireless LAN, then Custom Access Point Setup Utility.

The Custom Access Point Setup Utility appears.

3. Verify that the ID displayed in the Access Point ID box is the same as the Access Point ID that you want to set, then enter the password for setting the access point in the Password box and click SCAN.

The passw ord box contains the initial value "public". The Access Point ID is a six-digit number on the label attached on the bottom of the Access Point unit. If the Access Point ID displayed is different from the one on the label, enter the correct ID.

/ Note

If an error message appears, click OK. Verify the follow ing and repeat step 2.

- The Wireless LAN PC Card is inserted in your computer.
- o The Wireless LAN PC Card driver is installed.
- The Access Point is pow ered.
- The Access Point ID is the same as the one displayed.
- The passw ord is correct.
- o The Wireless LAN PC Card and the Access Point are placed close enough to communicate with each other (within approximately 100 m (330 feet)).
- o The Wireless Palette displays the communication status to the Access Point.

ϔ Forgot your password?

You can check your passw ord using the follow ing steps if it was changed after you uploaded the settings.

- Use the Explorer to open the folder to which the Access Point Setup Utility was installed (normally it is: C:\Program Files\Sony\WirelessLAN) on the computer to which the Access Point Setup Utility was set.
- With a text editor such as Notepad, open the file of the filename called "Access Point ID+conf" to which you tried to connect.

If the Access Point ID is "22a224", the filename will be "22a224conf". The Access Point ID and passw ord are listed in that file. Input the passw ord that you confirmed into the Access Point Setup Utility startup screen.

How ever, the Encryption Key is not saved. If "------" is displayed in the Encryption Key item, it means that that Encryption Key has not been changed since the last time.

Also, you can return the passw ord setting to its original status (unset) by resetting the softw are. Read <u>Reset mode and Softw are Reset mode</u> for details on how to reset the softw are.

ϔ Hint

You may also click LOAD to load the configuration file from the hard disk. How ever, you must enter the Encryption Key again because it is not saved.

Communication betw een the Access Point and the Wireless LAN PC Card begins and the "Selection of connection mode and setup of common parameters" dialog box appears. Proceed to <u>Setting common parameters</u> and to <u>Setting mode-dependent parameters</u>.

🚺 Custom Access Point Setu	p Utility Ver. 2.0.2	x
Selection of connection	mode and setup of common parameters	
Connection Mode C Phone C Cable Modem (Router Mode) C Local Only	Common Parameters Wireless Channel Number : 1 Encryption Key : ***** Closed Wireless System System System Administrator Name : System Placement Location : Setup Password : public	
HELP LOA	AD CANCEL NEXT]

Setting common parameters

Specify the common parameters required for building a wireless LAN (Local Area Network). This dialog box includes the following parameters. When you are done, go to <u>Setting mode-dependent parameters</u>.

Channel Number

Select a channel number (1 through 11) from the drop-dow n menu.

/ Note

Assign a unique channel to each Access Point. If an error occurs due to the close proximity of another wireless LAN or Access Point, try another channel.

Encryption Key

You may encrypt wireless communications to protect against unauthorized reception. Enter any five alphanumeric characters to set the Encryption Key.

🟅 Notes

- Write dow n the Encryption Key and keep it in a secure location.
- The last five digits of the Access Point ID are set as the initial value for the Encryption Key. We strongly recommend that you change this to
 prevent unw arranted use from an outside party.

Closed Wireless System

Check this option to shield the Access Point from computers on other wireless LANs.

System Administrator Name

Enter the name of your system administrator. You may enter up to 63 alphanumeric characters including symbols.

ϔ Hint

System Administrator may be left blank.

System Placement Location

Enter a location for your system. You may enter up to 127 alphanumeric characters including symbols.

ϔ Hint

System Placement Location may be left blank.

Setup Passw ord

You can use the passw ord for setting the Access Point for each Access Point. You can enter a maximum of 31 English characters and symbols (ASCII characters). "public" is input as the initial value.

🟅 Note

We strongly recommend that you change the passw ord to prevent settings changes by an outside party. Make a note of the passw ord to which you change so that you will not forget it.

Setting mode-dependent parameters

Select a destination to specify the connection mode you want to use, then specify parameters specific to the connection mode of your choice.

Select a destination from Connection Mode and click NEXT. The window that appears depends on your selection.

Phone

Select this option to connect the Access Point to the telephone line. For further steps, proceed to <u>Setting up dial-up connection</u>.

Cable Modem (Router Mode)

Select this option to connect the Access Point to the cable or xDSL modem. For further steps, proceed to <u>Setting up cable connection</u>.

LAN (Bridge Mode)

Select this option to connect the Access Point to the ISDN router. This mode is also recommended for connecting the Access Point to the existing LAN, such as the corporate LAN. Consult your network administrator to identify the correct connection mode. For further information on the operation, proceed to <u>Setting up ISDN connection</u>.

Local Only

Select this option for standalone use of the Access Point, when you do not want to connect it to any external wired network such as the Internet. For further information, proceed to <u>Setting up local connection</u>.

Setting up dial-up connection

Selecting Phone for Connection Mode in Setting mode-dependent parameters displays the Enter Phone Connection Parameters dialog box.

Setup DHCP Server Setup	Dialup Setup
Account ID	:
Password	:
Password (re-enter)	:
Phone Number 1	:
Phone Number 2	:
DNS Server 1	. 0.0.0.0
DNS Server 2	0.0.0.0
Dialing Mode	Tone -
Hangup After	: 120 Sec.
Automatic Connection	
DNS Server 2 Dialing Mode Hangup After Automatic Connection	: 0 . 0 . 0 . 0 : Tone 💌 : 120 Sec.

🟅 Notes

In the Phone mode, the Access Point serves as the DHCP server for both Ethernet and wireless networks.

Never connect the Access Point in the Phone mode to any existing Ethernet network with the DHCP server.

Consult with your network administrator before connecting the Access Point to the existing Ethernet network.

1. Click the Dialup Setup tab.

This dialog box is for assigning functions to the Access Point for dialing up the ISP.

Account ID

Enter the account ID for connecting to the ISP.

Passw ord

Enter the passw ord for connecting to the ISP.

Passw ord (re-enter) Enter the passw ord for connecting to the ISP once again.

Phone Number 1 Enter the telephone number of the ISP.

Phone Number 2 Enter the alternate telephone number to use when a call to Phone Number 1 is not completed. (This item does not necessarily need to be entered.)

DNS Server 1 Enter the primary DNS server address if the ISP provides it.

DNS Server 2

Enter the secondary DNS server address if the ISP provides it.

Dialing Mode Specify the telephone line type. Select Tone or Pulse.

Hangup After

Enter the length of time you want to allow for inactive communication before hanging up. You may specify up to 2550 seconds (42 minutes and 30 seconds) in units of 10 seconds. The factory default setting is 120 seconds (2 minutes).

Automatic Connection

Check this option to configure the Access Point to automatically make a dial-up attempt when connection to the Internet is needed.

I Notes

- o If Automatic Connection is checked, an intentional connection attempt may be made depending on the computer settings.
- The dial-up connection takes some time to be established, which may cause a time-out message depending on your e-mail or browser application. If a time-out message appears, try sending/receiving mail or reloading the Web page again.
- Note that automatic disconnection may not work due to unexpected packets sent from the Internet. Click Disconnect to disconnect the connection when you are through with the Internet access.

Dial Tone Detect

When you select "Yes", it waits for the dial tone of the telephone line to connect the dial-up.

🟅 Note

To hear the tone signal when you lift the telephone receiver, select "Yes", and select "No" not to hear the dial tone.

2. Click the IP Setup tab.

This dialog box is for assigning an IP address to the Access Point.

ϔ Hint

The Local IP Address and Local Subnet Mask are assigned by default. There is no need to change them.

Local IP Address

Enter the IP address of the Access Point.

Local Subnet Mask Enter the subnet mask of the Access Point.

3. Click the DHCP Server Setup tab.

This dialog box is for specifying functions of the Access Point acting as the local DHCP (Dynamic Host Configuration Protocol) server.

Size of IP Address Pool

Enter the number of IP addresses that the DHCP server holds. This number should be larger than the number of clients (computers) in your wireless LAN. In most cases, enter the recommended maximum number of clients (16). You may specify up to 49 clients. The access speed declines as more clients are added to the LAN.

Lease Time

Enter the valid time period of IP addresses assigned by the DHCP server. You may specify up to 720 minutes.

🌹 Hint

To save the parameters you have entered the Access Point configuration file on the hard disk, click SAVE CONFIG. The file may be loaded by clicking LOAD on the "Selection of connection mode and setup of common parameters" dialog box. See <u>Loading the Access Point configuration</u>.

4. Click NEXT.

A screen appears asking you to confirm the mode you have selected.

5. Click UPLOAD.

The configuration you have made is registered in the Access Point.

🟅 Note

If an error message appears, re-enter the correct data.

6. When the Wireless Access Point Setup - Finish Screen appears, wait about 30 seconds.

🟅 Note

The link test is disabled for 30 seconds after the configuration is uploaded because the Access Point is automatically restarted. You may start the link test when the Power indicator on the Access Point turns green.

The link test between the Access Point and the client is performed using your new configuration.

8. Click FINISH when the message "Link established with Access Point" is displayed.

The Custom Setup Utility closes.

🟅 Note

If an error message appears, open the Custom Access Point Setup Utility and check the configuration.

Setting up cable connection

Selecting Cable Modem for Connection Mode in Setting mode-dependent parameters displays the Setup of Cable Modem Connection Mode dialog box.

Custom Access Point Setup Utilit Setup of Cable Modern Conne IP Setup DHCP Server Setup	ty Ver. 2.0.2 D
Static IP Address (WAN-si	ide) 🗖
WAN IP Address	: 0.0.0.0
WAN Subnet Mask	: 0.0.0.0
Default Router	0.0.0.0
DNS Server 1	0.0.0.0
DNS Server 2	0.0.0.0
Local IP Address	: 10.0.1.1
Local Subnet Mask	255 .255 .255 . 0
DHCP Client ID (Required by some ISPs)	
HELP SAVE CONFIG	G BACK NEXT

ϔ Hints

- The Access Point acts as a NAT router when Cable Modem is selected for Connection Mode.
- Select this mode when connecting the Access Point to a DSL modem if your DSL provider does not use PPPoE for connection.
- 1. Click the IP Setup tab.

This dialog box is for entering the information required for configuring a WAN (Wide Area Network) and assigning local IP addresses.

Static IP Address (WAN-side)

Check this option if the IP address to be used on the computer is specified in your cable modem contract, then fill in the following fields. If this option is left unchecked, the IP address is automatically assigned when connection to the ISP is established.

ϔ Hint

Ask your ISP (cable TV company) for more information.

WAN IP Address Enter the IP address of the WAN.

WAN Subnet Mask Enter the subnet mask of the WAN.

Default Router Enter the IP address of the default router.

DNS Server 1 Enter the primary DNS server address.

DNS Server 2 Enter the secondary DNS server address.

Local IP Address Enter the IP address of the LAN.

ϔ Hint

The Local IP Address is assigned by default. There is no particular need to change them.

Local Subnet Mask Enter the subnet mask of the LAN.

ϔ Hint

The Subnet Mask is assigned by default. There is no particular need to change them.

DHCP Client ID (Required by some ISPs)

With some cable operators, an identifier called a DHCP Client ID will be requested upon IP address acquisition by the client. In these cases, type the ID specified from the cable operator. You may enter up to 63 alphanumeric characters including symbols.

ϔ Hint

When you directly connect your computer to a cable modem, enter the DHCP Client ID in the Computer name text box of the Window's Network dialog box.

2. Click the DHCP Server Setup tab.

This dialog box is for specifying functions of the Access Point acting as the DHCP server for the wireless LAN.

Size of IP Address Pool

Enter the number of IP addresses that the DHCP server holds. This number should be larger than the number of clients (computers) in your wireless LAN. Normally, enter the recommended maximum number of clients, 16.

You may specify up to 49 clients. The more clients you specify, how ever, the more the access speed tends to decline.

Lease Time

Enter the valid time period of IP addresses assigned by the DHCP server. You may specify up to 720 minutes.

ϔ Hint

To save the parameters you have entered the Access Point configuration file on the hard disk, click SAVE CONFIG. The file may be loaded by clicking LOAD on the "Selection of connection mode and setup of common parameters" dialog box. See Loading the Access Point configuration.

3. Click NEXT.

A screen appears asking you to confirm the mode you have selected.

4. Click UPLOAD.

The configuration you have made is registered in the Access Point.

🟅 Note

If an error message appears, re-enter the correct data.

5. When the Wireless Access Point Setup - Finish Screen appears, wait about 30 seconds.

🟅 Note

The link test is disabled for 30 seconds after the configuration is uploaded because the Access Point is automatically restarted. You may start the link test when the Pow er indicator on the Access Point turns green.

6. Click LINK TEST.

The link test between the Access Point and the client is performed using your new configuration.

7. Click FINISH when the message "Link established with Access Point" is displayed.

The Custom Access Point Setup Utility closes.

🟅 Note

If an error message is displayed, open the Custom Access Point Setup Utility and check the configuration.

Setting up LAN connection

Selecting LAN for Connection Mode in <u>Setting mode-dependent parameters</u> displays the Setup of LAN Connection Mode dialog box.

153.69.254.254 255.255.255.0 0.0.0.0

ϔ Hints

- The Access Point acts as a bridge w hen LAN is selected for Connection Mode.
- Select this mode when connecting the Access Point to a DSL modem if your DSL provider does not use PPPoE for connection. Refer here for the procedure.

1. Click the IP Setup tab.

This dialog box is for assigning information such as the IP address of the Access Point.

Static IP Address

Check this option if your ISDN router is not DHCP-compliant or the DHCP is not used, then fill in the following fields.

IP Address Enter the IP address of the Access Point. Subnet Mask Enter the subnet mask of the Access Point. Default Router Enter the IP address for the default router.

🌹 Hints

- Refer to the manual that comes with your ISDN router for details.
- To save the parameters you have entered the Access Point configuration file on the hard disk, click SAVE CONFIG.
 The file may be loaded by clicking LOAD on the "Selection of connection mode and setup of common parameters" dialog box. See Loading the Access Point configuration.

2. Click NEXT.

A screen appears asking you to confirm the mode you have selected.

3. Click UPLOAD.

The configuration you have made is registered in the Access Point.

🟅 Note

If an error message appears, re-enter the correct data.

4. When the Wireless Access Point Setup - Finish Screen appears, wait about 30 seconds.

🥇 Note

The link test is disabled for 30 seconds after the configuration is uploaded because the Access Point is automatically restarted. You may start the link test when the Pow er indicator on the Access Point turns green.

5. Click LINK TEST.

The link test between the Access Point and the client is performed using your new configuration.

$6. \quad \mbox{Click FINISH when the message "Link established with Access Point" is displayed.}$

The Custom Setup Utility closes.

🟅 Note

If an error message appears, open the Custom Setup Utility and check the configuration.

Setting up local connection

Selecting Local Only for Connection Mode in Setting mode-dependent parameters displays the Setup of Local-Only Mode dialog box.

Custom Access F	o <mark>int Setup Utility</mark> Only Mode	Ver	. 2.0.2			2
IP Setup DH0	P Server Setup					
IP Addres Subnet Ma	s ısk	:	10 . 0 255 .255	. 1 .	1	

I Notes

- In the Local mode, the Access Point serves as the DHCP server for both Ethernet and wireless networks.
- Never connect the Access Point in the Local mode to any existing Ethernet network with the DHCP server.
- Consult with your network administrator before connecting the Access Point to the existing Ethernet network. •

1. Click the IP Setup tab.

This dialog box is for entering information required for configuring a LAN.

ϔ Hint

The IP Address and Subnet Mask are assigned by default. There is no particular need to change them.

IP Address

Enter the IP address of the Access Point.

Subnet Mask Enter the subnet mask of the Access Point.

2. Click the DHCP Server Setup tab.

This dialog box is for specifying functions of the Access Point acting as the DHCP server.

Size of IP Address Pool

Enter the number of IP addresses that the DHCP server holds. This number should be larger than the number of clients (computers) in your wireless LAN. Normally, enter the recommended maximum number of clients, 16. You may specify up to 49 clients. The more clients you specify, how ever, the more the access speed tends to decline.

Lease Time

Enter the valid time period of IP addresses assigned by the DHCP server. You may specify up to 720 minutes.

ϔ Hint

To save the parameters you have entered the Access Point configuration file on the hard disk, click SAVE CONFIG. The file may be loaded by clicking LOAD on the "Selection of connection mode and setup of common parameters" dialog box. See Loading the Access Point configuration.

Click NEXT. 3.

4. Click UPLOAD.

The configuration you have made is registered in the Access Point.

🥇 Note

If an error message appears, re-enter the correct data.

5. When the Wireless Access Point Setup - Finish Screen appears, wait about 30 seconds.

🟅 Note

The link test is disabled for 30 seconds after the configuration is uploaded because the Access Point is automatically restarted. You may start the link test when the Pow er indicator on the Access Point turns green.

6. Click LINK TEST.

The link test between the Access Point and the client is performed using your new configuration.

$7. \quad \mbox{Click FINISH when the message "Link established with Access Point" is displayed.}$

The Custom Setup Utility closes.

🟅 Note

If an error message is displayed, open the Custom Setup Utility and check the configuration.

When the Access Point is isolated from the network

If for some reason the Access Point IP address becomes temporarily disabled and is isolated from the network, communications between the Access Point and the client are ensured by the computer allocating a temporary IP address. This will restore the Access Point function. This function is used under the following conditions.

- When the Access Point of a LAN connection mode is connected to a LAN that is not operating on the DHCP server.
- When the ISDN router suddenly stops functioning when the Access Point is connected to the ISDN router.

This explanation describes the former situation.

1. Startup the Custom Access Point Setup Utility.

Custom	Access Point Setup	Utility	Ver. 2.0.2	×	
Enter	Access Point ID and	Setup	Password		
	Access Point ID Setup Password	:	22e224		
Make sure that the Access Point is powered on before proceeding with the configuration process. Initial string for the Setup Password is set to "public".					
Н	ELP		CANCEL	SCAN	

2. Confirm whether or not the Access Point ID and password are correct and click SCAN.

The Access Point IP Address configuration screen is displayed.

3. Enter the same IP address for the sub-net as the client computer into the IP Address for.

Custom Access Point Setup Utility	Ver. 2.0.2
Access Point IP address configu	Iration
IP Address for :	169 ,254 ,213 , 10
Enter the temporary IP Address Point.Enter the IP address that is Go next if the above IP address	in order to configure the Access same subnet with this PC. is fine.
HELP	BACK OK

ϔ Hint

The above screen is an example for a client computer IP address of 169.254.213.100.

4. Click OK.

Communications with the client are established with the temporarily allocated IP address and the "Selection of connection mode and setup of common parameters" screen is displayed.

Custom Access Point Set	up Utility Ver. 2.0.2	x
Selection of connection	mode and setup of common parameters	
Connection Mode	Common Parameters	
C Phone	Wireless Channel Number : 1 💌	
C Cable Modem (Router Mode)	Encryption Key :	
 LAN (Bridge Mode) 	System	
C Local Only	System Administrator Name	
	: Setup Password	
	public	
HELP LO	AD CANCEL NEXT	

ϔ Hint

Any remaining steps uses the same ones as for normal use of the Custom Access Point Setup Utility. Here, we will explain using and example of connecting to the LAN (without a DHCP server) and selecting the LAN connection mode to enable sharing of files and the printer. You can select the Cable Modem connection mode.

5. Set each of the Connection Mode and Common Parameters and click NEXT.

The Setup of LAN Connection Mode screen is displayed.

Setup of LAN Connection Mode	Ver. 2.0.2
IP Setup Static IP Address IP Address Subnet Mask Default Router	✓ 169.254.213.10 255.255.255.0 0.0.0.0
HELP SAVE CONFIG	BACK NEXT

6. Manually set the WAN side (Ethernet side) IP address.

Consult with the network manager regarding the setting of this IP address.

7. Click NEXT.

8. Click UPLOAD.

The configuration you have made is registered in the Access Point.

🟅 Note

If an error message appears, re-enter the correct data.

9. When the Wireless Access Point Setup - Finish Screen appears, wait about 30 seconds.

🟅 Note

The link test is disabled for 30 seconds after the configuration is uploaded because the Access Point is automatically restarted. You may start the link test when the Pow er indicator on the Access Point turns green.

10. Click LINK TEST.

The link test between the Access Point and the client is performed using your new configuration.

$11. \$ Click FINISH when the message "Link established with Access Point" is displayed.

The Custom Setup Utility closes.

🟅 Note

If an error message appears, open the Custom Access Point Setup Utility and check the configuration.

Additional information

Troubleshooting Helpful Information (Technical Tips) Glossary Trademarks

Troubleshooting

Connection cables Phone mode LAN mode Cable Modem mode Changing the status of your connection (Cautions when changing the mode) Encryption Key Setup passw ord Drivers Peer to Peer mode General connections with the Access Point General overview of the Wireless Palette Internet service providers Other information

Can I connect with the 100BASE-TX HUB?

Because the Access Point Ethernet port is a 10BASE-T, use either the 10BASE-T hub or the 100BASE-TX that is compatible to 10BASE/100BASE auto-recognition.

What type of Ethernet cable should I use to connect to the HUB?

Use a straight Ethernet cable when connecting the Access Point to the HUB.

What type of Ethernet cable should I use to connect directly to a computer?

Use a cross Ethernet cable when connecting the Access Point directly to a computer.

Is the Access Point Ethernet interface 100BASE-TX compatible?

The Access Point Ethernet interface is 10BASE-T compatible. It is not compatible to LAN that does not have the 10/100BASE auto-recognition function.

When I launch my browser or e-mail application, the Dial-up Connection dialog box appears and I cannot connect to the Internet. You need to change the Internet connection settings. Follow the steps below.

Using Microsoft Internet Explorer

- 1. Launch Internet Explorer.
- 2. Click Options from the Tools menu.
 - The Internet Options dialog box appears.
- 3. Select the Connections tab.
- 4. Select Never dial a connection.
- 5. Click LAN Settings.

The Local Area Netw ork [LAN] Settings dialog box appears.

- 6. Select Automatically detect settings under Automatic configuration.
- 7. Click OK.

The Local Area Netw ork [LAN] Settings dialog box closes.

8. Click OK.

The Internet Properties dialog box closes.

9. Click Refresh in the browser window.

Using Netscape Communicator

- 1. Launch Netscape Communicator.
- 2. Click Preferences from the Edit menu.

The Preferences dialog box appears.

- 3. Click Advanced.
- 4. Click Proxies, then select "Direct connection to the Internet".
- 5. Click OK.

The Preferences dialog box closes.

6. Click the Reload button in the browser window.

When Automatic Connection is selected, connection to the Internet occurs without warning.

There are cases in which your mail softw are program will automatically and periodically check your mail, depending on the settings you have made for your email softw are program. Also, it will periodically establish a connection with the server for Window's update information. The settings are for automatic connection and are unintentional. Check your settings, and refer to your mail softw are program's help for more information.

I cannot connect for a short period of time after clicking on the To Disconnect button.

The Access Point will not receive connection commands for approximately one minute after manually disconnecting it. Please wait for one minute. This is also true for other clients that are connected to the Access Point.

There is no communication with the Access Point when changing from the LAN mode to the Phone mode.

With the LAN mode, the Access Point is the DHCP client with regard to the ISDN Router. After disconnecting from the ISDN Router (DHCP server), computers installed with the Wireless LAN PC Card try to read the IP address again when the IP address lease time has ended. This is because the ISDN Router (DHCP server) cannot be found and it falls into a state in which it cannot acquire the IP address. Either reset using the Custom Access Point Setup Utility or return the Access Point to the ex-factory status using the <u>Reset mode</u>. Then, use the Access Point Setup Utility to make the settings for the customer's Access Point. You can also use the <u>Softw are Reset mode</u> to set the IP address to an appropriate setting.

Cannot connect to the Internet

First, connect the ISDN Router and the PCWA-A100 Access Point, then connect the pow er supply.

I cannot communicate with the Access Point after changing to the LAN mode.

Possibly, acquisition of the IP address failed.

When you set to the LAN mode, the Access Point acts as a bridge between the Ethernet and Wireless sides. With this mode, the Access Point stops the functions of the DHCP server. In other words, each client tries to get the IP address from the DHCP server (normally the ISDN Router) other than the Access Point.

Therefore, if there is nothing connected to the Access Point's 10BASE-T connector (Ethernet connector), and when connected to a LAN that does not have an operational DHCP server, the Wireless client computer will not be able to obtain the IP address from the DHCP server.

First, connect the Access Point's 10BASE-T connector to a network on which the DHCP server is operating, then connect to the power supply.

Confirm that the Access Point has completely started, then perform either of the follow ing to re-acquire the client's IP address.

1. Select the Access Point to connect with the Wireless Palette Tool Box and click the Select button.

- Startup the Wireless Palette.
- Click to display the Tool Box, then click the Access Point that you want to use.



- O Click Select, then click OK.
- 2. Restart your computer.
- 3. Set the PC card to stop.
- 4. Remove the Wireless LAN PC Card.
- 5. Re-install the Wireless LAN PC Card.
- 6. Re-acquire the IP address.
 - Release or acquire the IP address with winipcfg (or ipconfig). Refer here for details.
 - o Restart the Wireless Palette.

If you cannot connect to any netw ork on w hich the DHCP server is running, refere here.

An inappropriate IP address is set for the network

Take the follow ing steps.

1. Press the reset switch located on the bottom of the Access Point for approximately one second.

The Encryption Key will be without settings (no encryption) for approximately five minutes and the Access Point Setup Utility password will be unset (without a password). (Software Reset mode)

2. Set a blank value for the Encryption Key box of this Access Point connection using the Wireless Palette and click CONNECT.

Connection can sometimes take time.

3. Startup the Custom Access Point Setup Utility.

Depending on the Softw are Reset mode, the ex-factory passw ord will automatically be set to "public". (You can change this passw ord to something other than "public".)

Custom Access Point Setup	Utility Ver. 2	2.0.2	×
Enter Access Point ID and	Setup Pass	word	
Access Point ID	: 226	224	-
Setup Password	: publ	lic	_
Make sure that the Access proceeding with the config Initial string for the Setup P	Point is pow anation proce assword is s	vered on bef ess. et to "public"	ore •.
HELP	C	ANCEL	SCAN

4. Enter the temporary IP address to be allocated assigned to the Access Point. Allocate Assign a suitable IP address with the same subnet as the client.

The screen below shows an example where the client IP address is 123.234.213.100 (255.255.255.0).

٠	Custom Access Point Setup Utility Ver. 2.0.2	X
	Access Point IP address configuration	
	IP Address for : 123 234 213 10	
	Enter the temporary IP Address in order to configure the Access Point Enter the IP address that is same subnet with this PC. Go next if the above IP address is fine.	
	HELP BACK OK]

5. Click OK.

The IP address is assigned to the Access Point and communications between the client and the Access Point are established.

6. Perform the same operations as normal using the Access Point Setup Utility.

Here, we will explain connecting to the LAN (no DHCP server) and selecting the LAN connection mode to enable sharing of files and the printer. You can also select the Cable Modem mode if you are not going to be sharing files or the printer.

Custom Access Point Se	tup Utility Ver. 2.0.2	2
Selection of connectio	n mode and setup of common parameters	
Connection Mode	Common Parameters	
C Phone	Wireless	
	Channel Number : 1 🗨	
C. Cable Modern	Encryption Key : *****	
(Router Mode)	Closed Wireless System	
 LAN (Bridge Mode) C Local Only 	System System Administrator Name : System Placement Location	
	:	
	Setup Password	
	: public	
HELP L	DAD CANCEL NEXT	1

/ Note

Alw ays delete the "*****" in the Encryption Key text box and reset it.

7.~ Select the Static IP Address check box and set the fixed IP address.

Consult with your network administrator regarding the IP address to set.

Setup of LAN Co	onnection Mod	e			
Static IP Ad IP Addres Subnet Ma Default Ro	ldress s ask outer	: [: [:]	✓ 123.234 255.255 0 . 0	213 . 10 <mark> </mark> 255 . 0 0 . 0	

- 8. Click NEXT.
- 9. Click UPLOAD.

This completes the settings.

A Wireless LAN Access Point being used in the LAN mode becomes unable to establish dial-up connections. The Access Point is connected to the telephone line and the power is on. What's the problem? The Access Point can no longer communicate with the Wireless LAN PC card installed in the computer.

In the LAN mode, the Access Point becomes a client to the existing DHCP server, such as an ISDN router. Likewise, the Wireless LAN PC card installed in the computer becomes a client of the existing DHCP server.

In the computer becomes a client of the existing DHCP server. Page 32 After disconnecting from the ISDN router, the Access Point and Wireless LAN PC card attempt to acquire new IP addresses when their lease on existing addresses expires. How ever, they are unable to acquire IP addresses because the DHCP server is not found, so communication is not possible.

When this occurs, temporarily reestablish communication by temporarily assigning an IP address to the Access Point, using the same network segment as for PCs on the network. Communication can then be reestablished by changing settings. Click here for details.

Another way to reestablish communication is to use one of the Access Point's two reset modes to forcibly change the Access Point setting.

Use the reset mode to restore the Access Point to the factory default settings:

After placing the Access Point in the reset mode, restore it to the factory default settings by using the Access Point Firmw are Utility. See the Access Point Firmw are Upgrade Utility Help for the procedure.

Change to Suitable Access Point Settings Using the Software Reset mode

Put the Access Point in the Softw are Reset mode and set an appropriate IP address. You can also use this technique if you forget the encryption key or the passw ord for the Access Point Setup Utility. Click here for details

I cannot connect to the Internet with my cable modem.

Depending on the details of the agreement with your contracted cable operator, there are cases in which only one client can be connected to one cable modem. In this case, your cable modem remembers the MAC address of the PC network card that you have connected until now. It rejects requests for connections to the Internet from anything other than that MAC address.

How to handle

Turn off the pow er to the cable modem that you use and wait for a few seconds. Doing so will cause it to delete from the cable modem the MAC address that it has stored.

Also, depending on the cable television company with which you have an agreement, the MAC address may be registered. If this is the case, you may need to request a change of the MAC address to your cable provider.

Either refer to the cable modem operations manual or contact your cable television company for details.

Changing the status of your connection (Cautions when changing the mode)

Before connecting to another netw ork that has a configuration different from one established for the Access Point, consult with your netw ork administrator and give careful consideration to functions such as the Access Point DHCP server function. We recommend using either the LAN mode or the Cable Modem mode.

This section explains how to make settings for the following cases.

- When the current setting is either Phone mode or Local Only mode and the netw ork to which you w ant to shift is LAN on which the DHCP server is running.
- When the current setting is either Phone mode or Local Only mode and the network to which you want to shift is LAN on which the DHCP server is not running.
- When the current setting is LAN mode and the netw ork to which you want to shift is LAN on which the DHCP server is running.
- When the current setting is LAN mode and the network to which you w ant to shift is LAN on which the DHCP server is not running.
- When the current setting is Cable Modem mode and the network to which you want to shift is LAN on which the DHCP server is running.
- When the current setting is Cable Modem mode and the netw ork to which you want to shift is LAN on which the DHCP server is not running.

When the current setting is either Phone mode or Local Only mode and the network to which you want to shift is LAN on which the DHCP server is running. (For example: From your home to your office.)

🟅 Note

Pay close attention to these changes. We strongly recommend that you consult with the network administrator of the network to which you want to shift when making the changes. Detailed Reasons

- $1. \ \ \,$ Change the Access Point connection mode to the Cable Modem mode.
- 2. Remove the Access Point from the network you are currently using and attach it to the network to which you want to connect, then connect the power and start it up.
- 3. Confirm that the computer that is installed with the PCWA-C100 Wireless LAN PC Card can be connected to the Access Point.
- 4. It is possible, in this state, for file and printer sharing within the Wireless network and to access the Ethernet from the Wireless side. Change the mode of the Access Point to LAN mode to share files and printers between the Wireless and the Ethernet sides. The details of this are explained <u>here</u>.

When the current setting is either Phone mode or Local Only mode and the network to which you want to shift is LAN on which the DHCP server is not running.

🟅 Note

We strongly recommend that you consult with the network administrator of the network to which you want to shift when making these settings.

- 1. Change the Access Point connection mode to the Cable Modem mode.
- 2. Remove the Access Point from the network you are currently using and attach it to the network to which you want to connect, then connect the power and start it up.
- 3. Confirm that the computer that is installed with the Wireless LAN PC Card can be connected to the Access Point.
- 4. Start up the Custom Access Point Setup Utility on the client computer and make network settings on the WAN side of the Access Point.
 - o Leave the mode set to Cable Modem.
 - Select Static IP Address (WAN-side).
 - o Set WAN IP Address and WAN Subnet Mask.
 - Set Default Router and DNS Server as necessary.
 - There is no need to change any settings on the LAN side.

In this case, the Access Point functions as a NAT router betw een the Wireless side and the Ethernet side. Therefore, it is possible to share files and printers within the Wireless netw ork. How ever, the sharing of files and printers betw een the Ethernet side and the Wireless side and accessing the Wireless side from the Ethernet side are not possible.

When the current setting is LAN mode and the network to which you want to shift is LAN on which the DHCP server is running. This can be used as it is if the Access Point settings are the default settings for the LAN mode. In this case, the Access Point functions as a bridge betw een the Wireless side and the Ethernet side. Therefore, it is possible to share files and printers within the Wireless netw ork as well as sharing files and printers betw een the Ethernet and Wireless sides and for the Ethernet and Wireless sides to access each other.

When the current setting is LAN mode and the network to which you want to shift is LAN on which the DHCP server is not running.

🟅 Note

We strongly recommend that you consult with the network administrator of the network to which you want to shift when making these settings.

- 1. Change the Access Point connection mode to the Cable Modem mode.
- 2. Remove the Access Point from the network you are currently using and attach it to the network to which you want to connect, then connect the power and start it up.
- 3. Confirm that the computer that is installed with the PCWA-C100 Wireless LAN PC Card can be connected to the Access Point.
- 4. Start the Custom Access Point Setup Utility on the client computer and make network settings on the WAN side of the Access Point.
 - $_{\odot}$ $\,$ $\,$ The mode can be the cable modem mode as-is.
 - o Select Static IP Address (WAN-side).
 - o Set WAN IP Address and WAN Subnet Mask.
 - o Set Default Router and DNS Server as necessary.
 - There is no need to change any settings on the LAN side.

In this case, the Access Point functions as a NAT router betw een the Wireless and the Ethernet sides. Therefore, it is possible to share files and the printers within the Wireless netw ork, but it is not possible to share files and printers betw een the Ethernet and Wireless sides and to access the Wireless side from the Ethernet side.

When the current setting is the Cable Modem mode and the network to which you want to shift is LAN on which the DHCP server is running.

This can be used as-is if the Access Point settings are the default settings for the Cable Modem mode. In this case, it is possible to share files and printers within the Wireless network and to access the Ethernet side from the Wireless side. To share files and printers and to access between the Ethernet and Wireless sides, change the Access Point mode to LAN mode.

When the current setting is Cable Modem mode and the network to which you want to shift is LAN on which the DHCP server is not running.

🟅 Note

We strongly recommend that you consult with the network administrator of the network to which you want to shift when making these settings.

- 1. Remove the Access Point from the network you are currently using and attach it to the network to which you want to connect, then connect the power and start it up.
- 2. Confirm that the computer that is installed with the Wireless LAN PC Card can be connected to the Access Point.
- 3. Start the Custom Access Point Setup Utility on the client computer and make network settings on the WAN side of the Access Point.
 - The mode can be the cable modem mode as-is.
 - o Select Static IP Address (WAN-side).
 - o Set WAN IP Address and WAN Subnet Mask.
 - Set Default Router and DNS Server as necessary.
 - $_{\odot}$ $\,$ $\,$ There is no need to change any settings on the LAN side.

In this case, the Access Point functions as a NAT router betw een the Wireless and Ethernet sides.

Encryption Key

I forgot the Encryption Key.

There are two ways to remedy this.

- Set to the Softw are Reset mode and reset.
- Use the CD-ROM accessory Access Point Firmw are Upgrade Utility to return the Access Point to its ex-factory setting.

Set to the Software Reset mode and reset.

1. Press the reset switch on the bottom of the Access Point for approximately one second while the power to the Access Point is ON.

The Encryption Key will be disabled for approximately five minutes and the password for the Access Point Setup Utility will also be disabled. (Softw are Reset mode)

2. Select this Access Point using the Wireless Palette, delete the value of the Encryption Key on the setting menu and click CONNECT.

The connection can require some time.

3. Start either the Custom Access Point Setup Utility or the Basic Access Point Setup Utility.

The softw are reset will automatically set the passw ord to its ex-factory setting of "public". (You can now change the passw ord to anything other than "public".)

Custom Access Point Setup Utility	Ver. 2.0.2			
Enter Access Point ID and Setup Password				
Access Point ID :	228224			
Setup Password :	public			
Make sure that the Access Point is powered on before proceeding with the configuration process. Initial string for the Setup Password is set to "public".				
HELP	CANCEL SCAN			

4. Click SCAN.

Selection of communication mode and setup of common parameters dialog box appears.

5. Click NEXT.

🟅 Note

Alw ays delete the "*****" in the Encryption Key text box and reset it.

6. Click NEXT.

The Connection Setup dialog box appears.

7. Click UPLOAD.

The settings are uploaded to the Access Point. Please wait until the Access Point's POWER indicator turns green. It takes approximately 30 seconds.

- 8. After the POWER indicator turns green, click LINK TEST.
- 9. When the confirmation dialog box appears, click FINISH to exit.

The Encryption Key, in its ex-factory setting, is last five digits of the Access Point ID. Refer to the Access Point Firmw are Upgrade Utility Help file for details on returning to the ex-factory settings of the Access Point.

/ Notes

- Other clients connected to this Access Point cannot connect to the Access Point if the Wireless connection settings, such as the Encryption Key, are changed. In that case, use the Wireless Palette to change the Access Point registration contents for each client.
- Also, the Encryption Key is what we call the 40-bit encryption function that conforms to IEEE802.11. It is also sometimes called the "WEP Key" in other company products.

I want to change the Encryption Key.

Use one of the Access Point Setup Utilities on a computer containing the Wireless LAN PC Card to change the Encryption Key. Communications between the Access Point and the above computer are maintained because the change in the Encryption Key is simultaneously reflected on the computer. On any other computers connected to the same Access Point, how ever, you must use the installed Wireless Palette to modify the Access Point's configuration (the Encryption Key in this case).

Note that access to the Wireless LAN Access Point fails if the modification is not performed.

I forgot the Access Point Setup Utility ${\tt password}.$

Use the follow ing operations.

1. Press the reset switch on the bottom the Access Point for approximately one second while the power to the Access Point is ON.

The Encryption Key will be disabled for approximately five minutes and the password for the Access Point Setup Utility will also be disabled. (Softw are Reset mode)

2. Leave the Encryption Key box value blank for the Access Point connection settings using the Wireless Palette, then click Connect.

The connection can require some time.

3. Start either the Custom Access Point Setup Utility (or the Basic Access Point Setup Utility).

The softw are reset will automatically set the passw ord to its ex-factory setting of "public". (You can now change the passw ord to anything other than "public".)

Custom Access Point Setup Utility	Ver. 2.0.2			
Enter Access Point ID and Setup Password				
Access Point ID :	228224			
Setup Password :	public			
Make sure that the Access Point is powered on before proceeding with the configuration process. Initial string for the Setup Password is set to "public".				
HELP	CANCEL SCAN			

4. Click SCAN.

Selection of communication mode and setup of common parameters dialog box appears.

5. Click NEXT.

I Note

Alw ays delete the "*****" in the Encryption Key text box and reset it.

6. Click NEXT.

The Connection Setup dialog box appears.

7. Click UPLOAD.

The settings are uploaded to the Access Point. Please w ait until the Access Point's POWER indicator turns green. It takes approximately 30 seconds.

- 8. After the POWER indicator turns green, click LINK TEST.
- 9. When the confirmation dialog box appears, click FINISH to exit.

I cannot add the TCP/IP protocol even if the driver is installed.

In many cases with this kind of trouble, we have found that there are many other network drivers installed.

In many cases, this problem can be solved by deleting unused or infrequently used netw ork drivers.

We strongly recommend that you confirm the location in the driver installation disk when deleting the driver and set it so that they can be reinstalled later if necessary.

Peer to Peer mode

It takes time to switch to the Peer to Peer mode.

Sw itching to the Peer to Peer mode causes Windows to search the DHCP server on the wireless network to obtain an IP address. Thus, it will take longer if no DHCP server exists. If no response is returned from the DHCP server, an unused IP address in the range of 169.254.0.0 to 169.254.255.255 is assigned (Window's Auto IP feature).

No communications are available in the Peer to Peer mode.

The Auto IP may have assigned an IP address in the range from 169.254.0.0 to 169.254.255.255 to other interfaces including Ethernet and i.LINK (SmartConnect). Follow the steps below for checkup.

For Windows 98 Second Edition / Windows Me

- 1. Select Run from the Start menu and type "winipcfg".
- 2. Click OK.
- 3. Select an interface other than Sony PCWA-C100 Wireless PC Card.
- 4. Check the IP address.
- 5. Verify that no IP address in the range of 169.254.0.0 to 169.254.255.255 is assigned.

If you find any interface that is assigned with one of the addresses in the range of 169.254.0.0 to 196.254.255.255, follow the steps below to disable the interface.

- 1. From the Start menu, select Settings, then Control Panel.
- 2. Double-click System.
- 3. Select the Device Manager tab.
- 4. Double-click Network adapters.
- 5. Double-click the device that you want to disable (e.g. Intel 8255x-based PCI Ethernet Adapter(10/100) for PCG-Z505JX).
- 6. Select "Disable with this hardware profile".
- 7. Click OK. The disabled devices are indicated with a cross mark.
- 8. Click OK to close the System Properties dialog box.

For Windows 2000

- 1. From the Start menu, select Programs, Accessories, then Command Prompt
- 2. Type "ipconfig /all".
- 3. Check the IP address of interfaces other than Sony PCWA-C100 Wireless PC Card.
- 4. Verify that no IP address in the range of 169.254.0.0 to 169.254.255.255 is assigned.

If you find any interface that is assigned with one of the addresses in the range of 169.254.0.0 to 196.254.255.255, follow the steps below to disable the interface.

- 1. From the Start menu, select Settings, then Control Panel.
- 2. Double-click System.
- 3. Select the Hardware tab.
- 4. Click the Device Manager button.
- 5. Double-click Network adapters.
- 6. Double-click the device that you want to disable (e.g. Intel 8255x-based PCI Ethernet Adapter(10/100) for PCG-Z505JX).
- 7. Select "Do not use this device [disable]" from the Device usage drop-down menu.
- 8. Click OK.

The disabled devices are indicated with a cross mark.

9. Click X to close the Device Manager window.

Suddenly, I can't connect with the Access Point.

The follow ing causes can be considered.

- Access Point failure or the pow er is unplugged.
 Confirm w hether or not the pow er supply is connected.
- Access Point is not connected to the netw ork.
 If the Access Point is in ISDN mode, communications cannot be established betw een the Access Point and the Wireless client if the Access Point is not connected to the ISDN Router or to the LAN.
 Check if it is. Also, confirm if the ISDN Router DCHP server function and DCHP server on the LAN are operating normally.
 It is explained in detail here, if you have any questions.
- The Access Point settings w ere changed. If multiple clients are connected to the Access Point, one of them may have changed their Access Point settings. First, you must search for the client w hose Access Point settings w ere changed and ask w hat changes w ere made.
- o If the Encryption Key was changed, it is necessary for you to change the Access Point registration using the Wireless Palette.
- If the connection mode was changed, it is possible that communications with the Access Point cannot be established because the IP address could not be acquired.

If this is the case, determine one person to be the netw ork administrator for the Access Point and change the Access Point Setup Utility passw ord to its ex-factory setting, then change the settings so that no one other than that netw ork administrator can change the settings. When the netw ork administrator is changing the settings, it is necessary to determine the rules such as notifying other members in advance. Refer <u>here</u>, for details regarding the passw ord for the netw ork administrator.

Switching the Access Point fails many times

Symptom 1

Three Access Points are being used. When you switch to a different Access Point:

- 1. The address is acquired by DHCP.
- 2. The IP address of the Access Point is displayed in the Wireless Palette Advanced information.

In this case, communications cannot be established regardless of the states described above. Also, there is no response even to ping to the Access Point. What causes can be considered?

HANDLING

First, confirm the follow ing items.

- 3. After switching, the Access Point is either in Phone mode or Cable Modem mode.
- 4. The setting is the same as a private IP address (such as 10.0.1.1).

In this case, communications cannot be established because the IP address of the ARP table on the PC side and old information remains in the table for the MAC address. In other w ords, the MAC address that remains in the PC is the MAC address of the Access Point from before the sw itch so normal communications cannot be performed.

Normally, it will automatically be deleted if you wait for a short amount of time. How ever, you can also delete it using the following procedures.

5. Startup the MS-DOS prompt.

- For Windows 98 Second Edition
 Startup the MS-DOS prompt from Start, Programs, then MS-DOS Prompt.
- For Windows Me Startup the MS-DOS prompt from Start, Programs, Accessories, then MS-DOS Prompt.
- For Windows 2000
 Startup the Command Prompt from Start, Programs, Accessories, then Command Prompt.
- 6. **Type "arp -d 10.0.0.1" and press the Enter key.** This will delete the old entry to 10.0.1.1.

• Symptom 2

Sw itching to the Access Point that is connected fails and the electric wave reception status becomes out of range. **HANDLING** Confirm the follow ing items.

- 1. Is the Access Point operating correctly?
- 2. Are the pow er supply, ISDN Router or the cable modem and analog telephone lines correctly connected?
- 3. Have the Access Point settings been changed?

4. Has the WEP Key (Encryption Key) been changed? Refer here for detailed explanations.

Perform the following if the switch fails despite the Access Point operating normally.

- 5. Select the Access Point again with the Wireless Palette and click OK.
- 6. Confirm whether or not it switches.

If sw itching still continues to fail, either perform the above operations again or return it to where it originally was and try to reconnect to that Access Point.

Other computers that are connected to the same LAN operate poorly after connecting the Access Point.

Symptom

There are cases in which it is not possible for a client computer that is connected to the same LAN to connect to the Internet after starting to use the Access Point previously connected to a LAN.

HANDLING

Is the DHCP server operating on the LAN? Also, check the connection settings for the Wireless LAN Access Point. Is it set to Phone mode or to Local Only mode?

Regarding these modes, the Access Point functions as the DHCP server for the Ethernet side and in the default settings, the IP addresses from 10.0.1.2 to 10.0.1.17 are assigned to the clients. For that reason, the following connections exist.

- 1. The Access Point responds to the client PC IP address request before responding to the LAN's regular DHCP server.
- 2. If the IP address assigned by the Access Point does not match the LAN IP address, that client does not exist on the LAN.

Therefore, it is not possible for the client to check their mail or to access the Internet.

When connecting the Access Point to the company's existing LAN line, refer <u>here</u> for details. In the meantime, you can remove the Access Point from the LAN and re-acquire the client computer's IP address. Refer <u>here</u> for details on how to acquire the IP address.

Changing the IP address setting of the Access Point disabled communications from the computer.

- The IP address may not match the Access Point and the computer. Try either of the following:
- 1.~ Re-select the Access Point in the Tool Box window of the Wireless Palette.
- 2. Restart the computer.
- 3. Remove and re-insert the Wireless LAN PC Card.
- 4. Follow the steps below to release and re-obtain the IP address running winipcfg (or ipconfig).

For Windows 98 Second Edition / Windows Me

- 1. Select Run from the Start menu and type "winipcfg".
- 2. Click OK.
- 3. Select Sony PCWA-C100 Wireless Card.
- 4. Click Release.
- 5. Click Renew, then check if the re-obtained IP address is suitable for your network environment.

For Windows 2000

- 1. From the Start menu, select Programs, Accessories, then Command Prompt.
- 2. Type "ipconfig /release" and press the Enter key.
- 3. Type "ipconfig /renew" and press the Enter key.

This re-obtains the IP address.

4. Type "ipconfig /all", then check if the IP address obtained is suitable for your network environment.

The name of the same Access Point displayed on the Wireless Palette varies depending on the computer.

The Wireless Palette displays the nickname that each user assigned when registering the Access Point using the Wireless Palette. Therefore, the nickname of a single Access Point varies depending on the user.

The Wireless Palette still shows the previous computer name after change.

The Access Point has not yet recognized the new computer name. Click the Nickname of the Access Point to connect in the Tool Box window of the Wireless Palette and click Select. If the correct information is displayed, click OK.

The connection mode was changed but the IP Address on the Wireless Palette is not displayed.

It takes approximately one minute for the display to be refreshed.

I want to connect to another Internet service provider.

Use one of the Access Point Setup Utilities to register another Internet service provider.

I want to switch between two Internet service providers.

You can register multiple providers using the Wireless Palette. For details, refer to the Wireless Palette Help file.

Under what circumstances do I need to change the wireless channel that the Access Point uses?

If the communication rate is very slow, there may be another active Access Point, an active third-party wireless access point, or an active wireless station nearby, causing radio interference. Changing the wireless channel reduces the radio interference and improves the communication rate.

The condition of the connection on the cable Ethernet side has worsened since the PCWA-A100 Wireless LAN Access Point was connected to my LAN. I cannot access the Internet.

Check the Access Point configuration for the connection mode. Phone or Local Only mode may be assigned. When using the Phone or Local Only connection modes, the Access Point serves as the DHCP server for the Ethernet LAN and assigns IP addresses from 10.0.1.2 to 10.0.1.17 to client computers by default.

Change to Cable Modem or LAN connection mode.

My Access Point is connected in the Cable Modem mode to the Ethernet LAN. File and printer sharing is available on the wireless network but I cannot access a computer or printer on the Ethernet LAN.

In the Cable Modem mode, the LAN Access Point serves as a NAT router between the Ethernet and wireless networks, which does not allow file sharing and access beyond either network.

The ISDN Router mode is recommended if the Access Point is connected to the Ethernet LAN environment such as a corporate network.

I cannot control the dial-up connection from a computer on the Ethernet network.

Not supported.

I want to connect to multiple Access Points.

You can register up to four Access Point connection settings with the Wireless Palette. This way, you can switch connection from one PCWA-A100 Wireless LAN Access Point to another without being troubled with reconfiguration each time you change the destination. How ever, you cannot connect simultaneously to multiple Access Points.

I want to connect more than 16 clients to the Access Point.

Reset the number of clients to connect using the Custom Access Point Setup Utility.

You can set up to a maximum of 49 clients, but we recommend 16. As the number of clients increases, the accessing speed generally decreases.

Is there a function for communication between two Access Points?

You cannot communicate betw een Access Points.

Why is it not possible to connect even though it is within 100 m (330 feet)?

Be aw are that there are differences in the distances that electric waves will reach their target depending on the location of the setup and the surrounding conditions.

Generally, the ultimate distance will decrease if there are metallic walls in the area because of the random reflecting of the electric waves.

It is not possible to dialup from other computers on the Ethernet connection.

This cannot be handled.

When in the telephone line connection mode, I cannot connect to the Internet with a baud rate of 56Kbps.

56Kbps is the maximum baud rate.

Depending on the telephone line, the baud rate may not be as much as 56Kbps.

Can I use it with Bluetooth?

The Wireless LAN that conforms to IEEE802.11b, has a shock recovery function similar to that of the normal Ethernet.

In contrasts, Bluetooth does not have such a function mounted.

Therefore, if you use both products close together, the product that conforms to IEEE802.11b will possibly monopolize the bandwidth. To avoid such an occurrence, separate the two products for use.

Does this correspond to call-back?

Currently, it does not correspond.

Is it possible to connect to the Windows NT RAS server?

No.

Is there an encryption function?

This supports the 40-bit encryption function that conforms to IEEE802.11.

Is it dangerous to use this near a microwave oven?

No, it is not dangerous.

Microw ave ovens also, like the Wireless LAN products that conform to IEEE802.11b, operate with a frequency band of 2.4 GHz. For that reason, if you use it near a microw ave oven, the baud rate will decrease if you use a microw ave oven radar at the same time. This can be said of all products that conform to IEEE802.11b.

Data transmission speed is slow.

• Is there any Wireless LAN Access Point (including other company products) being used near the Access Point? If so, it is possible that they are interfering with each other.

Set the wireless channel using the Access Point Setup Utility.

• Is the Access Point being accessed by several clients at the same time? Try again after w aiting for less crow ded conditions. The PCWA-C100 Wireless LAN PC Card can handle roaming.

Because the Access Point is for the home, it does not have a roaming function. When there are multiple Access Points, you can switch them using the Wireless Palette.

Is it possible for security protection and filtering of a MAC address?

No, these are not supported.

Why is the transfer interrupted when transferring MPEG2 data?

11 Mbps is the logic value of IEEE802.11. The actual rate is thought to be betw een 4 and 5 Mbps. This occurs with products that conform to IEEE802.11b. Accordingly, bandwidth is sometimes insufficient for transferring MPEG2's high rate stream.

Does this have a NetBIOS filtering function?

No, it does not.

Can this be used to receive telephone calls?

No, it cannot.

It is written that if other wireless stations are operating, there will be electric wave interference but what is another wireless station?

Amateur w ireless stations and w ireless LAN products that correspond to IEEE802.11b.

This is not a wireless station, but if used near a microw ave oven, the baud rate will decrease when the microw ave oven is used at the same time.

Nothing was displayed when I checked the log with the Syslog Utility when the dialup connected to the Internet service provider via the Access Point.

It is not possible to display anything because it is processing syslog messages with the accessory application Wireless Palette. So, instead, it is possible to check the status display on the Wireless Palette. Check the status of the Wireless Palette that is started up or the Speed/Status display field in the Wireless Palette details display screen and position your mouse cursor over the telephone icon in the task tray.

Upgrade services

With regard to distribution of upgrade modules or upgrade services, we are considering notification on our Web site. For details, select VAIO, Wireless LAN, Access Point Firmw are Upgrade, then Manual from the Start menu and see the Upgrade Manual.

I want to install two Wireless LAN PC Cards and use it as a Wireless IP gateway.

That is not possible. The installation of two Wireless LAN PC Cards is not supported.

I use a telephone equipped with a door-phone. Can I use the Access Point with the telephone line mode?

The telephones equipped with door-phones or business phone connectors have more pins than normal home phones. In this case, it is necessary to have installation work done. Consult with your phone service that installed your telephone.

Is there a problem of using this on airplanes?

Never use it on an airplane. Use can seriously damage flight instruments. This note is also true for hospitals.

Is it possible to set the PCWA-A100 Wireless Access Point from the computer that is connected to the Ethernet side?

To change the settings of the PCWA-A100 Wireless Access Point, you can perform that only from the computer that is mounted with a Wireless LAN PC Card.

For example, when using the Access Point Firmw are Upgrade Utility, you can set the Access Point from computer that is connected to the Ethernet side.

Is there any problem in using a "call catcher" function?

It is possible that the connection to the Internet will become cut off when a call comes in. To avoid that, we recommend that you stop the use of the "call catcher" function. This is no problem unique to the PCWA-A100. The same thing can be said regarding connecting to the Internet with existing computers.

Can it be used on the desktop PC?

Install the PCWA-C100 Wireless LAN PC Card in VAIO series that have a standard equipment slot for PCMCIA cards, such as the PCV-R62, then you can use the Wireless LAN PC Card to access the Access Point.

Wireless LAN PC Card does not correspond to PCI expansion board adapters. The PCWA-C100 Wireless LAN PC Card does not correspond to USB connection PC card readers.

When does the Ethernet LED flash in orange?

It will flash when transmission is not normal such as when a collision (convergence) has occurred due to packet saturation or when the 10BASE-T connector on this device has no connections.

Is there any problem in using it along with a calling number display system?

Is there a problem in picking up the receiver when communicating?

No, there is no problem.

Do not pick up the receiver when it is communicating.

Helpful information (Technical tips)

Each connection mode function Encryption Key (WEP Key) Setup passw ord Communication channels Reset mode and Softw are Reset mode Compatibility with other company products Eunctions of the Phone mode Functions of the Cable Modem mode Functions of the LAN mode Functions of the Local Only mode

Functions of the Phone mode

The V.90 modem, Ethernet, and Wireless external interfaces of the Access Point can all be used.

• V.90 modem: PPP Client

When dial-up connecting, it automatically acquires the IP addresses from each ISP. Manual settings are not possible.

• Ethernet / Wireless: DHCP Server

The Access Point becomes the DHCP server for the Ethernet and the Wireless Netw ork. It functions as a bridge between the Ethernet side netw ork and the Wireless side netw ork.

In the ex-factory settings, the IP address of the Ethernet and Wireless interface is 10.0.1.1. The IP address range allocated to the clients is 10.0.1.2 to 10.0.1.17 (for 16 clients). You can change this using the Custom Settings Utility.

Functions between each interface

Ethernet - Wireless:

The Access Point functions as a bridge. Therefore, it is possible for clients to access each other and to share files and printers between these two networks.

• V.90 modem - Ethernet:

The Access Point functions as a NAT router. Access from the Internet side is not possible. Conversely, it is possible to access the Internet from the Ethernet client side.

• V.90 modem - Wireless:

The Access Point functions as a NAT router. Access from the Internet side is not possible. Conversely, it is possible to access the Internet from the Wireless client computer.

🟅 Note

Connecting the Access Point in the Phone mode to an existing LAN, such as in your office, must never be done. The reason is that the Access Point acts as the DHCP server for the Ethernet so if your existing LAN already has a DHCP server, there will be conflicts. Refer here for details.

Dialup connect and disconnect

You can use the Wireless Palette to connect and disconnect the dialup. Therefore, you cannot control from the computer connected by the Ethernet.

Automatic disconnect function of the dialup

The automatic disconnect function of the dialup automatically disconnects the telephone when there is no communication of packets over a predetermined amount of time (two minutes at the default setting). This function is to prevent unintentionally long connections.

ϔ Hint

Normally, if there is no action taken by the client (such as receiving or sending mail or brow sing the Web), there is no interaction of packets but rarely is there transmission of packets from the Internet side to a computer.

There are cases in which if packets are being transmitted to the computer regularly, the automatic disconnection will not function.

To prevent accidents, do not rely completely on the automatic disconnection function. When transmission is complete, it is necessary for you to disconnect the phone yourself.

To Connect button

The Access Point will not accept the connection command for approximately one minute after manually disconnecting.

This is the same for other clients that are connected to the same Wireless LAN Access Point.

Precautions when using a network-based game

Currently, we have not confirmed the operation of softw are for netw ork-based games or chat.

When connecting with the Phone mode, the Access Point functions as a NAT router between the Ethernet and Wireless sides, so we believe that software such as network-based games or chat cannot establish communications between themselves.

Functions of the Cable Modem mode

This is the default connection mode for the Access Point. The Access Point's Ethernet and Wireless interfaces are enabled, but the V.90 modem is disabled.

• Ethernet: DHCP Client/Static IP Setting

You can select either to automatically acquire the interface IP (DHCP client) or set to the static setting using the Custom Access Point Setup Utility.

• Wireless: DHCP Server

The Access Point acts as the DHCP server on the Wireless netw ork. The ex-factory setting for the wireless IP address is 10.0.1.1. The range of IP addresses allocated to the clients are 10.0.1.2 to 10.0.1.17 (for 16 clients). These can be changed using the Custom Access Point Setup Utility.

ϔ Hint

The Cable Modem mode is the safest to connect the Access Point to an existing LAN, such as in your office. The reasons are below .

- The Access Point does not act as the DHCP server for the Ethernet (meaning that it does not cause a conflict even if there is a DHCP server on the existing LAN)
- Regardless of the status of the upstream interface (Ethernet interface), the IP address can be allocated according to the DHCP server function for the wireless client computers, so the connection betw een the wireless interface and wireless client computer can be established.

Functions between each interface

Ethernet - Wireless:

The Access Point functions as a NAT router. Therefore, it is possible to share files and printers betw een the Ethernet and wireless network sides. Also, it is possible to access the Ethernet side from the wireless network, but conversely, it is not possible to access the wireless network from the Ethernet side.

Ethernet cables that can be used

This depends on the type of cable mode you are using. Use the same type of cable that is connected between the cable modem and the computer. For details, refer to your cable modem User's Manual.

Sharing files and printers

The Access Point functions as a NAT router betw een the Ethernet side and the Wireless side when connecting with the Cable Modem mode. Therefore, it is not possible to share files or to access betw een the Ethernet and Wireless sides.

In this way, when using in a LAN environment, such as an in-house network, we recommend that you use LAN mode. Refer here for details.

Checking the MAC address on the Ethernet side

You can check using the follow ing method.

- 1. Right-click the Wireless Palette icon in the status are of the taskbar.
- 2. Click Version from the menu that is displayed, then confirm the numbers that are displayed for Wireless Access Point Ethernet Address.

Precautions when using a network-based game

Currently, we have not confirmed the operation of softw are for netw ork-based games or chat.

When connecting with the Cable Modem mode, the Access Point functions as a NAT router between the Ethernet and Wireless sides, so we believe that software such as network-based games or chat cannot establish communications between themselves.

This is the default connection mode for the Access Point. The Access Point's Ethernet and Wireless interfaces are enabled, but the V.90 modem is disabled.

Ethernet: DHCP client/Static IP setting

You can either set to automatically acquire the interface IP address (DHCP client) or the static setting using the Custom Access Point Setup Utility.

• Wireless

The Access Point functions as a bridge betw een the Wireless side netw ork and the Ethernet side netw ork. In the case of the LAN mode, the Access Point is not the DHCP server. Therefore, if set to automatically acquire the IP address by each client on the Wireless Netw ork, another computer upstream (on the Ethernet side) or the ISDN Router will become the DHCP server.

Functions between interfaces

Ethernet - Wireless:

The Access Point functions as a bridge. Therefore, it is possible to share files and printers and to access between the clients on the Ethernet side and Wireless network side.

ϔ Hint

Because it is possible with the LAN mode for clients on the Ethernet side and the Wireless Netw ork side to share files and printers and to access each other, it is the most convenient mode for connecting the Access Point to an existing LAN such as in your office.

How ever, in the default settings of the LAN mode, the Access Point functions as the DHCP client for the Ethernet side. For that reason, it is not possible to acquire the IP address if another DHCP server is not operating with a LAN connecting the Access Point. In that case, communications betw een the Access Point and the Wireless client are not established so settings for the Access Point are impossible. (Refer here for details.)

Ethernet cables that can be used

Either using a cross cable or a straight cable differs according to the ISDN Router that you are using. Use the same type of cable that is connected between your ISDN Router and computer.

For details, refer to the ISDN Router User's Manual.

How to set using the devices

When using the ISDN Router

It is basically presumed that the Access Point is connected to the ISDN line through an ISDN router.

Change the Access Point mode to ISDN Router mode with the Access Point Setup Utility and connect to the ISDN Router with a straight Ethernet cable. For details, see the Operating Instructions and the Help file.

When using a TA

Connect the Access Point LINE/PHONE connector and the TA analog port, then change the mode to the dialup connection mode. In this case, the connection speed with the Internet will be the same as the dialup connection when using the built-in modem on the Access Point.

When connecting to LAN on which the DHCP server is not running

When connecting the Access Point to a LAN on which the DHCP server is not running, and when using the LAN mode, perform the following operations:

- 1. Connect the Access Point to the Ethernet.
- 2. Use the Wireless Palette to switch to the appropriate Access Point, then start the Custom Access Point Setup Utility.
- 3. Assign a temporary IP Address to the Access Point.

Custom Access Point Setup Utility	Ver. 2.0.2	×		
Access Point IP address configu	ration			
IP Address for :	123 ,234 ,213 , 10			
Enter the temporary IP Address in order to configure the Access Point Enter the IP address that is same subnet with this PC. Go next if the above IP address is fine.				
HELP	BACK OK			

4. Change the mode to LAN mode.

Custom Access Point Setup Utility Ver. 2.0.2		
Selection of connection mode and setup of common parameters		
Connection Mode Phone Cable Modem (Router Mode) Can (Bridge Mode) Cacal Only	Common Parameters Wireless Channel Number : 1 Encryption Key : Closed Wireless System System System Administrator Name System Placement Location Setup Password : public	
HELP LOA	AD CANCEL NEXT	

- 5. Apply a check mark for the fixed IP address and set the IP address, subnet mask and default router to the appropriate settings on that LAN.
- 6. Click UPLOAD and register the contents of the settings to the Access Point.
- 7. For the other clients, set the IP address, subnet mask and default router to the appropriate settings on that LAN.

These operations will make it possible to use the Access Point with the LAN mode on LAN on which the DHCP server is not running.

Functions of the Local Only mode

This is the default connection mode for the Access Point. The Access Point's Ethernet and Wireless interfaces are enabled, but the V.90 modem is disabled.

Ethernet/Wireless: DHCP server

The Access Point becomes the DHCP server on the Ethernet and Wireless network. It functions as a bridge between the Ethernet side network and the Wireless side network.

In the ex-factory settings the Ethernet and Wireless interface IP address is 10.0.1.1. The range of the IP address allocated to the clients is from 10.0.1.2 to 10.0.1.17 (for 16 clients). You can change the settings using the Custom Access Point Setup Utility.

Functions between each interface

• Ethernet - Wireless

The Access Point functions as a bridge. Therefore, it is possible for clients to share access with each other and to share files and printers between the two networks.

ϔ Hint

The Access Point in the Local Only mode must never be connected to an existing LAN such as the one in your office. The Access Point acts as the DHCP server for the Ethernet so it is possible that a conflict will occur if there is a DHCP server at the LAN at the connection. Refer here for a detailed example.

To use when not connecting to the Internet

Use the accessory application softw are of the Access Point Setup Utility to set the Access Point mode to Local Only. Also, to connect to an existing LAN on which a DHCP server already exists, refer <u>here</u>.

Encryption Key (WEP Key)

Systems exist with the capability to retrieve IDs from this Wireless Access Point and similar products made by other companies.

If you leave the Encryption Key (WEP Key) at the factory setting, individuals near the customer who has such a system can easily obtain the customer's Encryption Key from the Access Point ID. This would allow them to maliciously use the customer's Access Point to access the Internet through their account. From a security standpoint, we strongly recommend changing the Encryption Key.

/ Note

Make sure to remember Encryption Key changes made by the customer.

You can use the Custom Access Point Setup Utility to set the Access Point to be a closed system. Thereby clients on Wireless LAN connected to another Access Point other than that Access Point cannot view it under normal operations. (This function does not completely conform to IEEE802.11.)

Setup password

Setup passw ord is the passw ord needed to be typed to start the Access Point Setup Utilities. "Public" is input as the initial value at the time of ex-factory, but you can change that using the Custom Access Point Setup Utility.

Therefore, we strongly recommend that the administrator change the passw ord. How ever, you should take a note of the passw ord that was set in case it is forgotten. If it is forgotten, a log file is created in the folder to which the Wireless LAN system is installed on the client computer where the setting for the passw ord was made. You can use a text editor to view the passw ord in the log file.

The name of the log file is Access Point ID + conf (when the ID is 22a224, it is 22a224conf).

If you cannot remember the passw ord at any means, you can cancel the Access Point using the Softw are Reset mode. Refer to <u>Reset mode and Softw are Reset</u> mode for details regarding the Softw are Reset mode.

Communication channels

If the baud rate is extremely slow, it is possible that this system's Access Point or another company's wireless access point or a wireless station is operating nearby.

In that case, it is possible that the electric waves are interfering with each other. You can switch channels to reduce the amount of interference and improve the baud rate.

Refer to Setting common parameters for details on how to change channels.

Reset mode and Software Reset mode

The reset mode and the Softw are Reset mode are used when you cannot make changes to the Access Point for some reason. It is not necessary to use them under normal conditions.

- Reset mode
- Softw are Reset mode

Reset mode

You can return the Access Point to its ex-factory settings by setting it to the Reset mode and then using the Firmw are Update Utility. If, for some reason, the Access Point is completely separated from the network, or if the Access Point firmw are is for some reason, damaged, you can handle almost all trouble excluding physical or electrical damage.

Ex-factory Settings:

- Connection mode: Cable Modem connection mode
- Ethernet (10Base-T) side IP address: Automatic acquisition setting (DHCP client)
- Encryption Key: Last five digits of Access Point ID
- Passw ord of the Access point Setup Utility: public

Carefully consider the composition of the LAN network to which you want to connect and consult with the network administrator of the LAN network to which you want to connect and change to the appropriate settings.

To set to the Reset mode

Hold the reset sw itch by using the tip of a paper clip for about one second w hile pow ering on the Access Point.

- 1. Hold the reset switch by using the tip of a paper clip for about one second while powering on the Access Point.
- 2. Release the reset switch when the POWER indicator lights in orange.

Software Reset mode

The Softw are Reset mode is used for the follow ing problems.

- You have forgotten the Encryption Key (WEP Key).
- You have forgotten the Access Point Setup Utility passw ord.
- An inappropriate IP address is fixed on the Ethernet (10BASE-T) with the ISDN Router Connection mode.

The follow ing states are maintained for five minutes when the Softw are Reset mode is entered.

- Encryption Key (WEP Key): None
- Access Point Setup Utility passw ord: None
- Settings other than the above remain are as they were at the last time they were set.

To set to the Software Reset mode

Hold the reset sw itch using the tip of a paper clip for approximately one second w hile pow ering on the Access Point. The POWER indicator lights in orange.

Compatibility with other company products

Are there cards from other manufacturers that have connection experience with an Access Point?

At this point in time, we do not know.

Basically, it is possible to connect if the card conforms to IEEE802.11b. How ever, we do not cannot assure operation.

Is it possible to connect to an Airport base station?

Although this company cannot assure operation, since the Airport product conforms to IEEE802.11b, connection should be possible. How ever, with regard to sharing files and printers, because the OS itself is different, we think you may need to install a special application. The same problem exists when connecting to a normal Ethernet. Also, we would like to decline any questions regarding that.

🖊 Note

Currently, (November, 2000), we cannot assure connection with the Encryption Key ON.

Is it possible to connect an iBook to the Access Point?

It is possible, though we do not guarantee its operation.

In this case, it is possible to access the Internet via the Access Point, (excluding when using the Local mode), but with regard to sharing files and printers, because the OS itself is different, we think you may need to install a special application.

Also, because of the difference in the method used to set each Access Point, it has been confirmed that it is not possible to set the Access Point from an iBook.

Also, we would like to decline any questions regarding that.

I want to control the dialup from my iBook.

Control of connecting and disconnecting the dial up is performed by the Wireless Palette. Therefore, it is not possible to control from an iBook.

Will it connect to the AirStation made by Melco?

We believe that it is possible to connect, though we do not guarantee operation.

In this case, it is considered that computers installed with this system's Wireless LAN PC Card can access a wireless/cable network that is configured with AirStation.

Regarding accessing of the Internet or the sharing of files and printers, it is considered possible depending on the settings of the AirStation. If the AirStation is set once using the Melco softw are, it is possible to set the AirStation using a brow ser even from a computer that is installed with this system's Wireless LAN PC Card.

Also, we would like to decline any questions regarding that.

🟅 Note

The AirStation is set to 14 with the default settings of the Wireless channel. When using it, change the AirStation channel settings from 1 to 11 using a computer that can set the AirStation.

The name of the PC is not displayed on the Wireless Palette but another company's card that I use conforms to IEEE802.11b. When using another company's card, the guarantee of operations may not match. Use the dedicated PCWA-C100 Wireless LAN PC Card.

Currently, the following ISDN Routers have experience in connection.

- NTT-ME MN128-SOHO Slotin, MN128-SOHO, MN128-R
- YAMAHA Net Volante TA/Remote Router RTA50i
- Furukaw a Electric MUCHO-TL-DSU

Channel number

Frequency used for w ireless communications.

Wireless communications are available only among client computers and Access Points that use the same channel.

Client

Computer on a wireless LAN. It may be called a client computer as well.

DHCP (Dynamic Host Configuration Protocol)

A system that automatically assigns an IP address to computers.

Networks that use the TCP/IP protocol, such as the Internet, use a set of numbers like 192.168.0.1 (IP address) to identify a computer. How ever, it is time-consuming to assign an IP address to every single computer. With the DHCP server, you can assign multiple IP addresses to it and let it assign an IP address to client computers.

DNS (Domain Name System)

A system that automatically assigns an IP address to computers.

Networks that use the TCP/IP protocol, such as the Internet, use a set of numbers like 192.168.0.1 (IP address) to identify a computer. How ever, it is time-consuming to assign an IP address to every single computer. With the DHCP server, you can assign multiple IP addresses to it and let it assign an IP address to client computers.

Encryption Key

Key used in the IEEE802.11-compliant security system (WEP).

Using the Encryption Key as the passw ord, only client computers and Access Points that have the same ID and passw ord may log onto the same wireless LAN for file sharing.

LAN (Local Area Netw ork)

A netw ork which is accessible only to its members, unlike the Internet which is open to an unlimited number of people.

A LAN may be built for different purposes. For example, you can build an office LAN that is accessible only to members of the same department or a home LAN that is accessible only to family members.

WAN (Wide Area Netw ork)

Netw ork that interconnects remote LANs through the Internet or telephone lines.

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