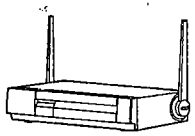
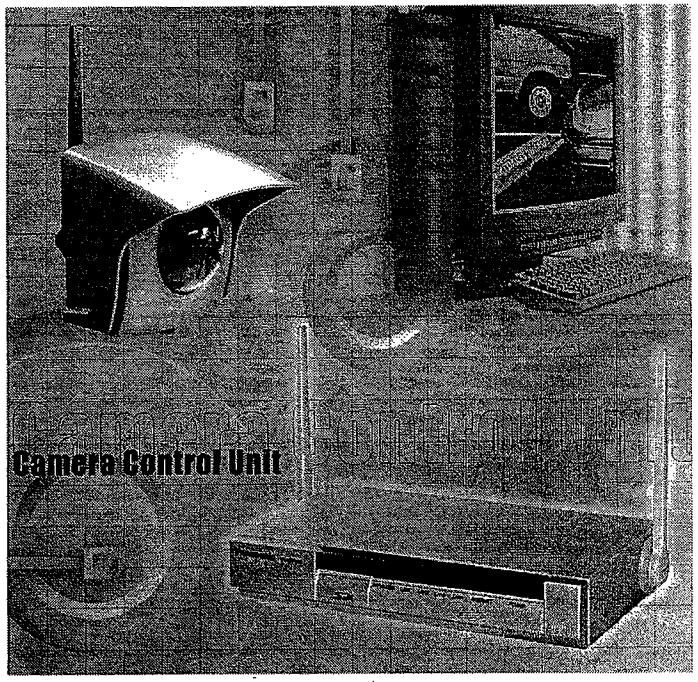
Panasonic



Camera Control Unit

Operating Instructions

Model No. **KX-HGW600**



Please read this manual before using and save this manual for future reference.
Panasonic World Wide Web Address: http://www.panasonic.com
for customers in the USA or Puerto Rico

Before Initial Use

Please read IMPORTANT SAFETY INSTRUCTIONS on page 110 before use.
Read and understand all instructions.

Thank you for purchasing the Panasonic KX-HGW600.

Attach your purchase receipt here.

For your future reference

Serial No. _____ Date of purchase _____
(found on the rear side of the unit)

Name and address of dealer _____

FOR OPERATION ASSISTANCE:
—Call
1-800-272-7033
—Refer to
the Panasonic world wide web site
http://www.panasonic.com
—Refer to
the support function of the KX-HGW600 administration web screen (See p. 47.)

- Netscape and Netscape Navigator are registered trademarks of Netscape Communications Corporation.
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The operating instructions are subject to change without notice.

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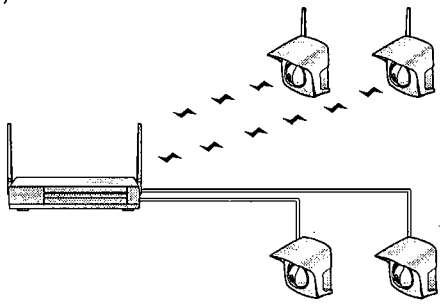
Overview

Features

The main features of the KX-HGW600 are described as follows:

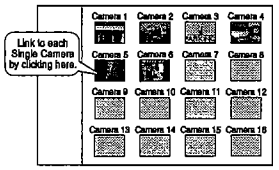
Network Camera Automatic Setup

Just connect your Panasonic Network Camera to the KX-HGW600. This feature automatically configures the network parameters such as IP address, port no., Port Forwarding (IP Masquerade) feature. (Max. 16 Network Cameras)



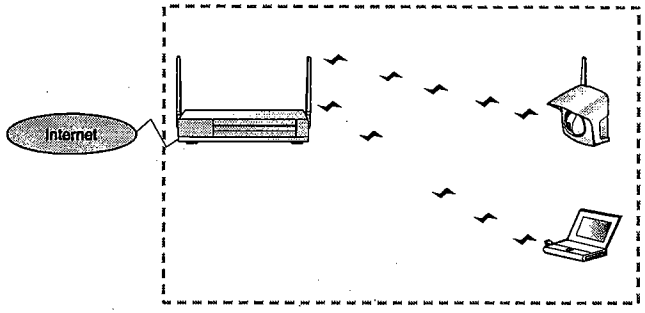
Network Camera screen

Using **Network Camera screen**, you can simultaneously view up to 16 images at various locations or from the web browser over the Internet. Clicking on each Camera Name switches to the Single Camera screen from the Multi-Camera screen.



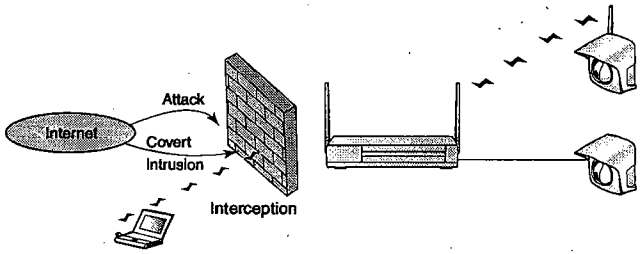
11 Mbps Data Transmission via Wireless Network

The KX-HGW600 corresponds to the wireless system based on IEEE 802.11b. Wireless transmission speed of 11 Mbps is possible.



High Security

The KX-HGW600 is equipped with the security functions using the measures such as IP Filtering, Access Control, Encryption (up to 128 Bit) and MAC Address Filtering.



PPPoE Support

The KX-HGW600 supports PPPoE protocol.

Fully configurable through a web browser

The KX-HGW600 can be set up from a Microsoft® Windows® operating system or Macintosh® computer using a web browser.

System Requirements

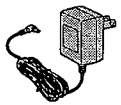
The PC (Personal Computer) and the network used to set up the KX-HGW600 must meet the requirements below.

Item	Windows	Macintosh
Operating System	Microsoft Windows 95 Microsoft Windows 98 Microsoft Windows Me Microsoft Windows NT® Microsoft Windows 2000 Microsoft Windows XP	Mac® OS 8.1 - 9.2 Mac OS X/10.1
Interface	Ethernet interface Ethernet cable	Ethernet interface Ethernet cable
RAM	16MB or more	16MB or more
Network Protocol	TCP/IP network protocol installed	Open Transport 1.3 or later installed
Web browser	Internet Explorer 5.0 or later/ Netscape Navigator® 4.7 or later	Internet Explorer 5.0 or later/ Netscape Navigator 4.7 or later

Included Accessories

For extra orders, call 1-800-332-5368.

☐ AC Adaptor (☞ p. 48)
Order No. PQLV12



one

☐ Screws (☞ p. 21)
Order No. PQHE5004Z

two

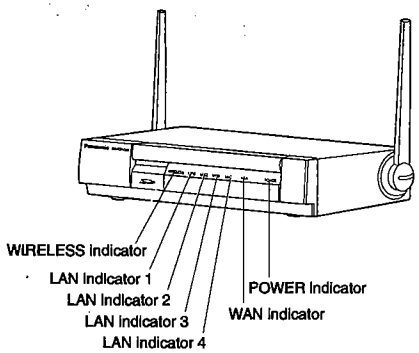
☐ Ethernet cable (Category 5 Straight Cable) (☞ p. 15-18)
Order No. PQJA10138Z

one

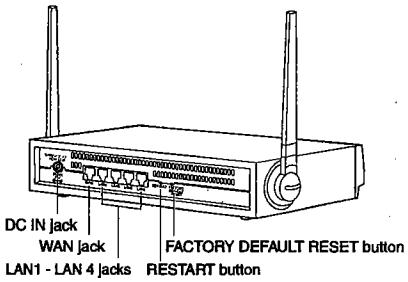
- If any items are missing or damaged, check with the place of purchase or contact our Continued Services Technical Support Line.
- The order numbers listed above are subject to change without notice.
- Save the original carton and packing materials for future shipping and transportation of the unit.

Part Names

Front View



Rear View



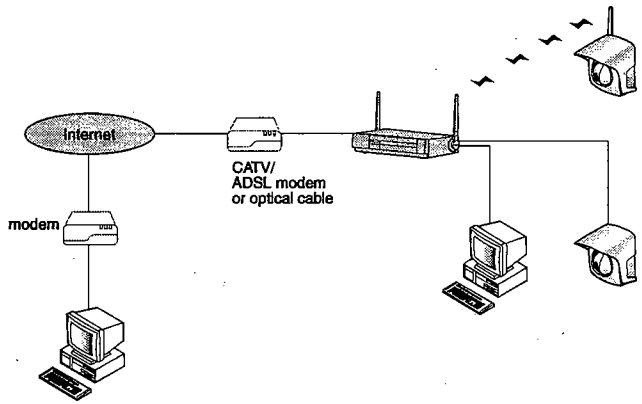
For assistance, please call: 1-800-272-7033

Indicators

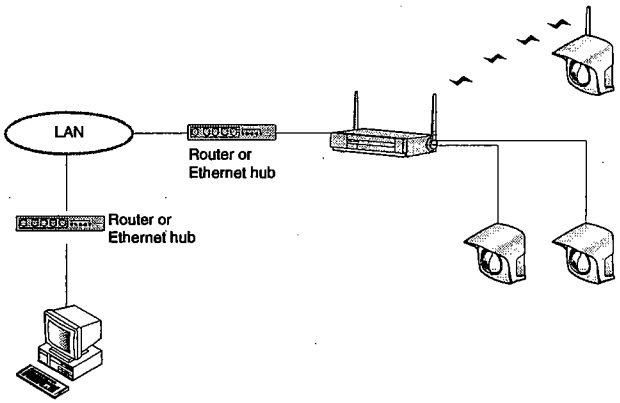
LED	Light Color	Indicates
POWER	Green	The KX-HGW600 is turned on.
	Red	The KX-HGW600 hardware is defective. Press the RESTART button on the KX-HGW600.
WAN	Green	The KX-HGW600 is turned on and successfully connected to an optical cable or a cable/xDSL modem.
	Green (Blinking)	The KX-HGW600 is sending or receiving data through this port.
LAN 1–4	Green	The KX-HGW600 is turned on and successfully connected to a hub, Network Camera or a PC.
	Green (Blinking)	The KX-HGW600 is sending or receiving data through this port.
WIRELESS	Green	The KX-HGW600 is connecting with the wireless LAN as the Wireless Access Point.
	Green (Blinking)	The KX-HGW600 is sending or receiving data in a wireless network.

Diagram of Connections

■ Internet Direct Connection with optical cable or cable/xDSL modem — [Type 1]



■ LAN Connection with Ethernet Switching Hub — [Type 2]



Preparation

Before starting to install the KX-HGW600, make sure that you have everything below and all the devices are turned off.

- A Windows or Macintosh computer with web browser software*, a network card (Ethernet or wireless card) and TCP/IP installed.
- An optical cable or a cable/xDSL modem with a cable
- An Internet access account information provided by the ISP

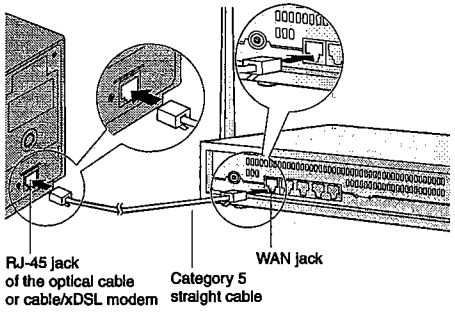
*See "System Requirements" on p. 9 for recommended web browsers.

Connecting the KX-HGW600 to an Optical Cable or Cable/ xDSL Modem

1 Make sure the cable/xDSL modem is turned off.

2 Connect the category 5 straight cable (with 8-pin RJ-45 connector) to the RJ-45 jack of the optical cable or cable/xDSL modem.

3 Connect the other end of the category 5 straight cable to the WAN jack of the KX-HGW600.



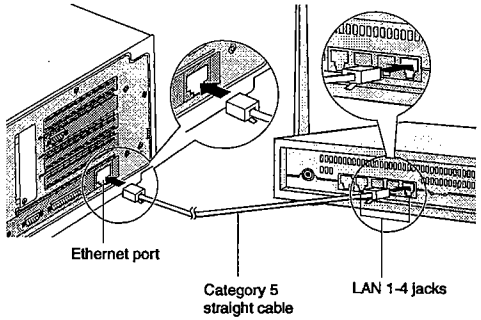
Connecting the KX-HGW600 to a PC

Before connecting a PC directly to the KX-HGW600, the connection type on the PC has to be set DHCP.

1 Make sure the PC is turned off.

2 Connect the category 5 straight cable (user-supplied) to one of the LAN jacks of the KX-HGW600.

3 Connect the other end of the category 5 straight cable to the Ethernet port of the PC.

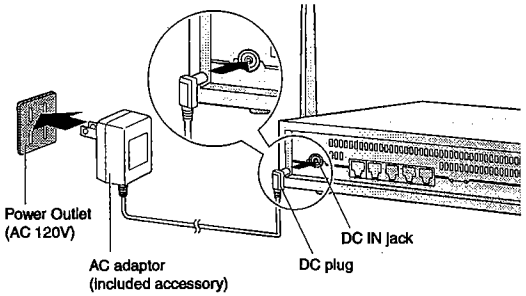


- The KX-HGW600 can be connected to a PC regardless of the polarity of the Ethernet port because it identifies and switches the polarity automatically.

Turning on the Devices

After completing the connection between the PC and the KX-HGW600, follow the steps below.

1 Connect the DC plug of the AC adaptor to the DC IN jack of the KX-HGW600 and connect the AC plug of the AC adaptor to the power outlet.



Notes:

- The AC Adaptor is used as the main disconnect device, ensure that the socket-outlet is located/installed near the equipment and is easily accessible.
- **USE ONLY WITH Panasonic AC ADAPTOR (Order No. PQLV12).**

2 Turn on the PCs connected to the KX-HGW600.

- After turning on all the devices, see p. 12 and make sure that the appropriate indicator lights are on.

Accessing the KX-HGW600 Administration Web Screen

The KX-HGW600 has a built-in http server function. If you can access the KX-HGW600 administration web screen, the connection between the KX-HGW600 and the PC has been successfully made.
Follow the steps below and confirm the setup of the PCs.

1 On the PC, start up your web browser.

2 Enter "http://192.168.0.254" in the address field (URL line) of your web browser. The Camera Portal site appears.

If the Camera Portal site does not appear:

1: Make sure "http://192.168.0.254" has been correctly entered into the address field (URL line).

2: Make sure the connections between the PC and the KX-HGW600 have been successfully made.

3: Make sure that the PCs and the KX-HGW600 have been turned on in the proper order. See "Turning on the Devices" on p. 17 for more detailed information.

3 Click **[Setting Screen]**.
The **User Name/ID** and **Password** dialog box appears.

4 Type **KX-HGW** in the **Password** data field.
Leave the User Name/ID data field blank.

5 Click **[OK]**.
The KX-HGW600 administration web screen appears.

Installation

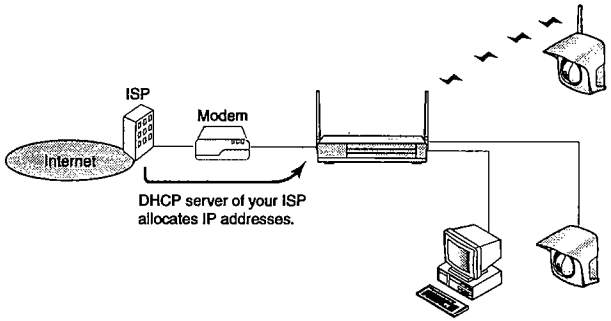
Information:
- You can change the password on the KX-HGW600 administration web screen. See p. 69 for more detailed information.
- For more details about the web screens, see "About the KX-HGW600 Administration Web Screen" on p.30.

Internet Configuration

Depending on the ISP, your Internet connection will be one of four types. Check the information provided by the ISP and make sure which type of connection is required. Then, select the appropriate connection type from DHCP, Static, PPPoE (Terminal) or PPPoE (LAN) or on the KX-HGW600 administration web screen and enter the parameters if required by the ISP.

■ DHCP Connection (Internet Connection using a CATV network)

When the DHCP server of your CATV provider automatically allocates IP addresses to the HGW600 on the network, follow the steps below.



1 Click **[Basic Setup]** on the KX-HGW600 administration web screen.
The default setting of the Basic Setup is "DHCP Connection".
A mark " ○ " is displayed next to the connection type which is currently selected.

2 Select **[DHCP]**.

3 Enter the **[Device Name]**, **[Gateway]**, **[DNS Server 1]**, **[DNS Server 2]** and **[Domain Name]** in the appropriate data field if required by the ISP.

- To undo the current settings, click **[Undo]**.

4 When you have finished, click **[Save]**. The settings will be saved.

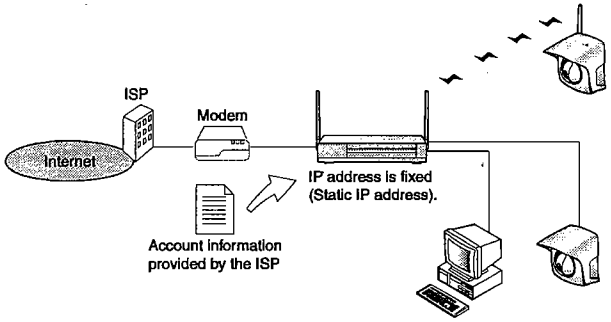
5 When prompted, click **[Restart Now!]** on the KX-HGW600 administration web screen.

Note:
Do not enter the space in the data field.

Connecting to the Internet

■ Static Connection (Internet Connection using a static IP address)

When you assign the IP address specified by the ISP, follow the steps below.



1 Click **[Basic Setup]** on the KX-HGW600 administration web screen. A mark " ○ " is displayed next to the connection type which is currently selected.

2 Select **[Static Connection]**.

3 Enter the **[IP Address]**, **[Netmask Gateway]**, **[DNS Server 1]** and **[DNS Server 2]** in the appropriate data field. Enter the **[Domain Name]** in the appropriate data field if specified by the ISP.

- To undo the current settings, click **[Undo]**.

4 When you have finished, click **[Save]**. The settings will be saved.

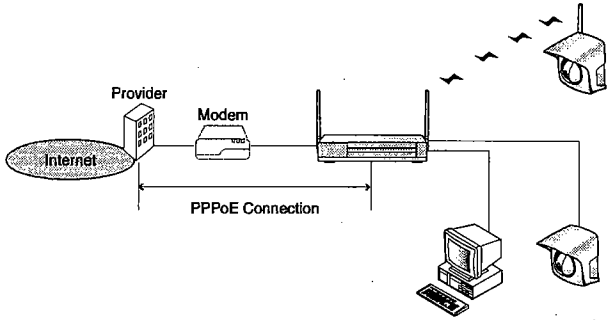
5 When prompted, click **[Restart Now!]** on the KX-HGW600 administration web screen.

Note:
Do not enter the space in the data field.

Connecting to the Internet

■ PPPoE Connection (Terminal Type)

When the ISP requires you to use the PPPoE Connection (Terminal Type), follow the steps below.



1 Click **[Basic Setup]** on the KX-HGW600 administration web screen. A mark " ○ " is displayed next to the connection type which is currently selected.

2 Select **[PPPoE Connection (Terminal Type)]**.

3 Enter the **[User Name]**, **[Password]** and **[DNS Server 1]** in the appropriate data field. Enter the **[Service Name]**, **[Access Concentrator Name]** (sometimes specified as "AC Name"), **[DNS Server 2]** and **[Domain Name]** if specified by the ISP.

- To undo the current settings, click **[Undo]**.

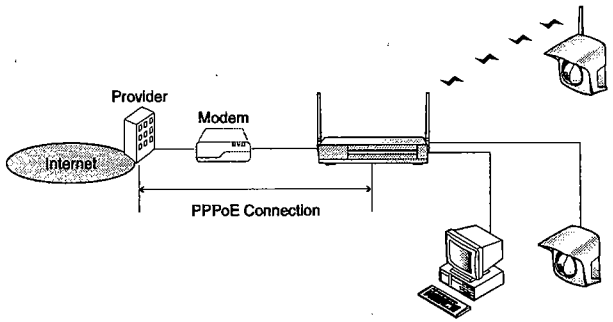
4 When you have finished, click **[Save]**. The settings will be saved.

5 When prompted, click **[Restart Now!]** on the KX-HGW600 administration web screen.

Note:
Do not enter the space in the data field.

■ PPPoE Connection (LAN Type)

When the ISP requires you to use the PPPoE Connection (LAN Type), follow the steps below.



1 Click **[Basic Setup]** on the KX-HGW600 administration web screen. A mark "○ " is displayed next to the connection type which is currently selected.

2 Select **[PPPoE Connection (LAN Type)]**.

3 Enter the **[User Name]**, **[Password]** and **[DNS Server 1]** in the appropriate data field. Enter the **[Service Name]**, **[Access Concentrator Name]** (sometimes specified as "AC Name"), **[DNS Server 2]** and **[Domain Name]** if specified by the ISP.

- To undo the current settings, click **[Undo]**.

4 When you have finished, click **[Save]**. The settings will be saved.

5 When prompted, click **[Restart Now!]** on the KX-HGW600 administration web screen.

Note:
Do not enter the space in the data field.

Confirmation of the Internet Setup

After you have confirmed the connection between the PC and the KX-HGW600, and set up your Internet connection parameters.
If you can access a WWW (World Wide Web) site, the connection between the Internet and the KX-HGW600 has been successfully made.
Follow the steps below and confirm the setup of the Internet.

1 On the PC, start up your web browser.

2 Enter the address of a web site in the address field (URL line) of your web browser and press the Enter key on your PC. A WWW site appears.

If a web site does not appear:

1: Make sure the address of the web site has been correctly entered in the address field (URL line) of the web browser.
2: Make sure that "Accessing the KX-HGW600 administration Web Screen" on p. 18 is successfully made.
3: Make sure the connection between the KX-HGW600 and the optical cable or cable/xDSL modem is successfully made.
4: Make sure that the PCs and the KX-HGW600 have been turned on in proper order. See "Turning on the Devices" on p. 17 for more detailed information.
5: Confirm the information on your Internet connection provided by your ISP. If you are required to enter some parameters, see "Basic Setup" on p. 51 and set the parameters to the KX-HGW600.

Connecting to your Panasonic Network Camera (Automatic Setup Feature)

Installation

After your Panasonic Network Camera is connected to the KX-HGW600 and is turned on, the network parameters (IP address, Subnet Mask, etc.) can be configured automatically.

1 After completing the KX-HGW600 setup, make sure the KX-HGW600 and the PCs are turned off.

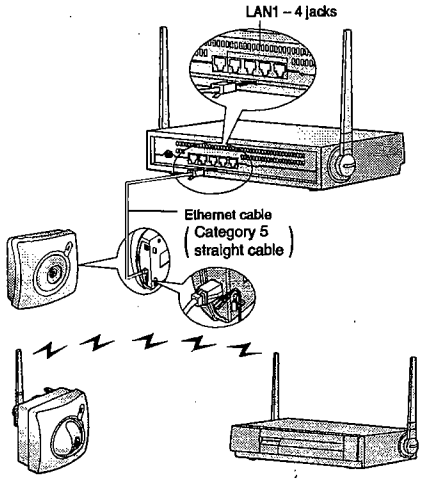
2 ■ **Wired Communication [Type-A]**

1.) Connect the category 5 straight cable to one of the LAN jacks of the KX-HGW600.

2.) Connect the other end of the category 5 straight cable to the Ethernet port of the Network Camera.

■ **Wireless Communication [Type-B]**

Make sure the Network Camera is located near the KX-HGW600.



3 Connect the PC to the KX-HGW600.

- The KX-HGW600 can be connected to a PC regardless of the polarity of the Ethernet port because it identifies and switches the polarity automatically.

4 Turn on the KX-HGW600, Network Camera and PC in this order.
After the Network Camera is powered up, it starts to communicate with the KX-HGW600 that control transmission paths on the network and

For assistance, please call: 1-800-272-7033

configure the network parameters automatically. Then, you can see the registered network information of the Network Camera on the **Camera Setup window.**

The network parameters are as follows:

IP Address
Subnet Mask
Default Gateway
DNS Server Address
Port No.

Viewing the Network Camera Screen

When accessing the **Camera Portal site**, you can view the Network Camera screen.

1 Access the **Camera Portal site.**
The Network Camera screen configured the network parameters beforehand is displayed.

2 Click the desired image field.
The Network Camera screen is displayed.

If the Camera Portal site does not appear:

1: Make sure "http://192.168.0.254168.0.254" has been correctly entered into the address field (URL line).

2: Make sure the connections between the Network Camera/PC and the KX-HGW600 have been successfully made.

3: Make sure that the Network Camera, PC and the KX-HGW600 have been turned on in the proper order. See "Turning on the Devices" on p. 17 for more detailed information.

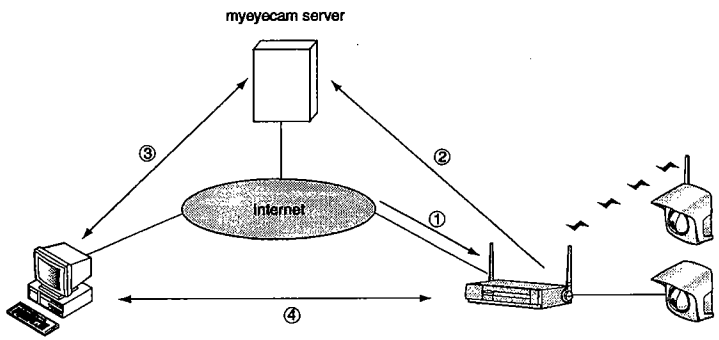
Connecting to the Internet

■ Port Forwarding (IP Masquerade)

The Port Forwarding table allows you to view the Network Camera screen connected to the KX-HGW600 over the Internet. When the data communication is performed from the Internet to the other devices in the LAN, the packet is sent to the KX-HGW600 and the KX-HGW600 transmits the packet to specific network equipment.

■ DDNS (Dynamic Domain Name System) service

DDNS feature allows you to use the global IP address assigned dynamically by the ISP as Domain Name. To use DDNS feature, you need to sign up for the MYEYECAM.COM service (paid subscription service). MYEYECAM.COM allows you to create a personal web address at which your camera's live imagery can be found on the Internet. Thus, you (or anyone you choose) can access your Panasonic Network Camera screen from virtually any Internet connection point around the world.



How it Works:

1. Your ISP assigns the global IP address automatically to the KX-HGW600 The global IP address assigned at this time is not always fixed and varies depending on the situation.
2. The global IP address and the Domain Name are registered automatically into the myeycam server.
3. Go to a web browser and enter the personal URL including Domain Name.Then your web browser automatically searches for the global IP address of the KX-HGW600 on the myeyecam server.
4. You can view your Panasonic Network Camera screen over the Internet.

Connecting to the Internet

To use the DDNS service, follow the steps below.

1 Click **[Additional Setup]** on the KX-HGW600 administration web screen.

2 Click **[DDNS]**.

3 Click **[Use]** check box.

4 Enter your E-mail address in the DDNS Setup data field.

5 Click **[Save]**.

Your Panasonic Network Camera automatically accesses the myeyecam server via the Internet to notify it of your e-mail address and obtain your personal URL address (7-day trial registration) and purchasing information.
If you want to subscribe to the DDNS service at once, just go to www.myeyecam.com and fill out the quick form for procedures.

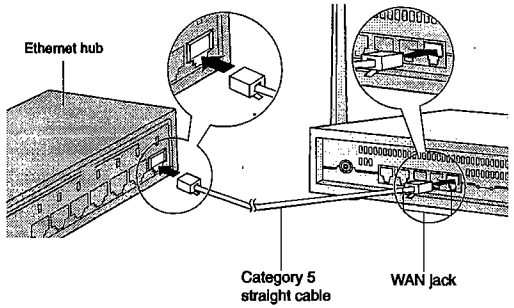
Connecting to the LAN

Connecting the KX-HGW600 to an Ethernet Hub

Note:
If using an Ethernet connection, an Ethernet card and software have to be installed properly on the PC first.

1 Connect the category 5 straight cable to WAN jack of the KX-HGW600.

2 Connect the other end of the category 5 straight cable to the port of the Ethernet Hub.



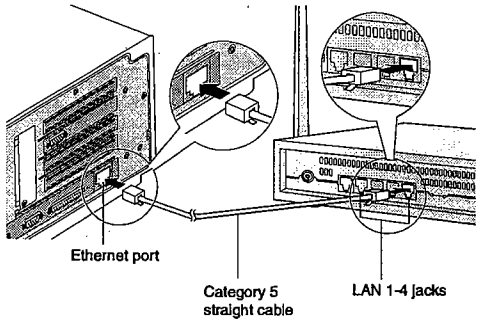
Connecting the KX-HGW600 to a PC

Note:
Before connecting a PC directly to the KX-HGW600, the connection type on the PC has to be set DHCP.

1 Make sure the PC is turned off.

2 Connect the category 5 straight cable (user-supplied) to one of the LAN jacks of the KX-HGW600.

3 Connect the other end of the category 5 straight cable to the Ethernet port of the PC.

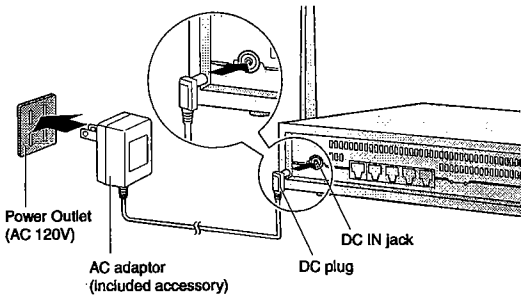


- The KX-HGW600 can be connected to a PC regardless of the polarity of the Ethernet port because it identifies and switches the polarity automatically.

Turning on the Devices

After completing the connection between the PC and the KX-HGW600, follow the steps below.

1 Connect the DC plug of the AC adaptor to the DC IN jack of the KX-HGW600 and connect the AC plug of the AC adaptor to the power outlet.



Notes:

- The AC Adaptor is used as the main disconnect device, ensure that the socket-outlet is located/installed near the equipment and is easily accessible.
- **USE ONLY WITH Panasonic AC ADAPTOR (Order No. PQLV12).**

2 Turn on the PCs connected to the KX-HGW600.

- After turning on all the devices, see p. 12 and make sure that the appropriate indicator lights are on.

Accessing the KX-HGW600 Administration Web Screen

The KX-HGW600 has a built-in http server function. If you can access the KX-HGW600 administration web screen, the connection between the KX-HGW600 and the PC has been successfully made.
Follow the steps below and confirm the setup of the PCs.

1 On the PC, start up your web browser.

2 Enter "http://192.168.0.254" in the address field (URL line) of your web browser. The **Camera Portal site** appears.

If the Camera Portal site does not appear:

1: Make sure "http://192.168.0.254" has been correctly entered into the address field (URL line).

2: Make sure the connections between the Network Camera/PC and the KX-HGW600 have been successfully made.

3: Make sure that the Network Camera, PC and the KX-HGW600 have been turned on in the proper order. See "Turning on the Devices" on p. 17 for more detailed information.

3 Click **[Setting Screen]**. The **User Name/ID** and **Password** dialog box appears.

4 Type **KX-HGW** in the **Password** data field.
Leave the User Name/ID data field blank.

5 Click **[OK]**. The KX-HGW600 administration web screen appears.

Information:

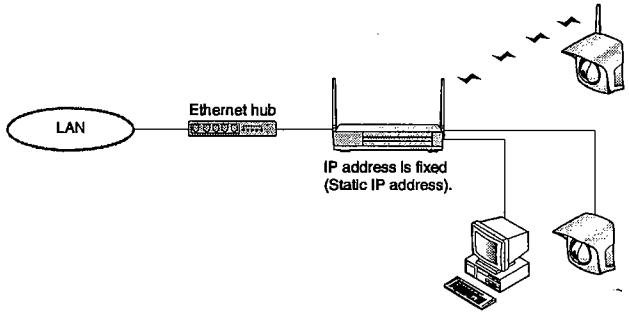
- You can change the password on the KX-HGW600 administration web screen. See p. 69 for more detailed information.
- For more details about the web screens, see "About the KX-HGW600 Administration Web Screen" on p.30.

LAN Configuration

Your LAN connection will be Static Connection using a static IP address.

■ Static Connection (LAN Connection using a static IP address)

When the IP address on the LAN side is fixed, follow the steps below.



1 Click **[Basic Setup]** on the KX-HGW600 administration web screen. A mark " ○ " is displayed next to the connection type which is currently selected.

2 Enter the **[IP Address]**, **[Netmask Gateway]**, **[DNS Server 1]** and **[DNS Server 2]** in the appropriate data field. Enter the **[Domain Name]** in the appropriate data field if required.

- To undo the current settings, click **[Undo]**.

Installation

3 When you have finished, click **[Save]**. The settings will be saved.

4 When prompted, click **[Restart Now!]** on the KX-HGW600 administration web screen.

Note:
Do not enter the space in the data field.

Confirmation of the LAN Setup

After you have set up your LAN connection parameters, if you can access the KX-HGW600 home page screen (**Camera Portal site**), the connection between the LAN and the KX-HGW600 has been successfully made.

1 On the PC in the LAN, start up your web browser.

2 Enter "http://192.168.0.254" in the address field (URL line) of your web browser. The **Camera Portal site** appears.

If the Camera Portal site does not appear:

1: Make sure the address of the web site has been correctly entered in the address field (URL line) of the web browser.

2: Make sure the connection between the KX-HGW600 and the Ethernet hub is successfully made.

3: Make sure that the PCs and the KX-HGW600 have been turned on in proper order. See "Turning on the Devices" on p. 17 for more detailed information.

Connecting to your Panasonic Network Camera (Automatic Setup Feature)

After your Panasonic Network Camera is connected to the KX-HGW600 and is turned on, the network parameters (IP address, Subnet Mask, etc.) can be configured automatically.

1 After completing the KX-HGW600 setup, make sure the KX-HGW600 and the PCs are turned off.

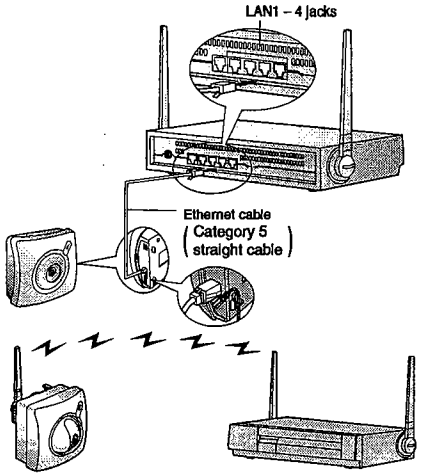
2 ■ **Wired Communication [Type-A]**

1.) Connect the category 5 straight cable to one of the LAN jacks of the KX-HGW600.

2.) Connect the other end of the category 5 straight cable to the Ethernet port of the Network Camera.

■ **Wireless Communication [Type-B]**

Make sure the Network Camera is located near the KX-HGW600.



3 Connect the PC to the KX-HGW600.

The KX-HGW600 can be connected to a PC regardless of the polarity of the Ethernet port because it identifies and switches the polarity automatically.

4 Turn on the KX-HGW600.

5 Turn on the Network Camera.

6 Turn on the PC.

After the Network Camera is installed, it starts to communicate with the KX-HGW600 that control transmission paths on the network and configure the network parameters automatically. Then, you can see the network information of the Network Camera registered on the **Camera Setup window.**

The network parameters are as follows:

IP Address
Subnet Mask
Default Gateway
DNS Server Address
Port No.

Viewing the Network Camera Screen

Installation

When accessing the **Camera Portal site**, you can view the Network Camera screen.

1 Access the **Camera Portal site**.
The list of the Network Camera images completed the network settings beforehand is displayed.

2 Click the desired image of Network Camera.
The Network Camera image is displayed.

If the Camera Portal site does not appear:

1: Make sure "http://192.168.0.254168.0.254" has been correctly entered into the address field (URL line).

2: Make sure the connections between the Network Camera/PC and the KX-HGW600 have been successfully made.

3: Make sure that the Network Camera, PC and the KX-HGW600 have been turned on in the proper order. See "Turning on the Devices" on p. 17 for more detailed information.

■ **Port Forwarding (IP Masquerade)**

Connecting to the LAN

About the KX-HGW600 Administration Web Screen

The KX-HGW600 Administration Web Screen allows you to easily program the KX-HGW600 from your PC and to access other helpful information regarding operation of the unit.

Function:

① Camera Portal:	Allows you to view the Network Camera screen

Configuration:

② Basic Setup:	Allows you to set the basic parameters used to access the Internet/LAN
③ Camera Setup:	Allows you to set up the Network Camera
④ Wireless Setup:	Allows you to set up the parameters for wireless communication and for security.

Extend Feature:

⑤ IP Masquerade:	Translates multiple IP addresses on the private LAN to one global IP address that is sent out to the Internet/LAN
⑥ IP Filtering:	Analyzes the incoming and outgoing packets and lets them pass or intercept based on the information (Source IP Address, Destination IP Address, Source Port, Destination Port, Protocol, etc.)
⑦ Additional Setup:	Allows you to set the LAN parameters and additional parameters used to access the Internet

System Command:

⑧ Change Password:	Allows you to change the user name/ID and password to access the KX-HGW600 administration web screen
⑨ Firmware Upgrade:*	Allows you to upgrade the KX-HGW600 software
⑩ Restart:	Allows you to restart the KX-HGW600 with all the parameters preserved

⑪ Factory Default Reset:	Allows you to initialize the KX-HGW600, resetting all the parameters
⑫ PPPoE Connection:	Allows you to manually initiate/stop your PPPoE connection
⑬ Ping:	Allows you to confirm if a device with an IP address is successfully linked to your KX-HGW600

Information:

⑭ Status:	Allows you to view the status of the KX-HGW600
⑮ Usage Data:	Allows you to view the statistics of the KX-HGW600
⑯ User Registration*:	Allows you to connect to the web site for your registration
⑰ Support*:	Allows you to connect to the web site for helping you with the KX-HGW600
⑱ Filtering Log:	Allows you to view the log information applied by the rules of filtering setting
⑲ Help:	Provides you with instructions about the commands and functions of the KX-HGW600 administration web screen

* This function requires an Internet connection.

Notes:

- If you enter the setup parameters, do not enter the space in the data field.
- When you change the setup parameters, restart all the Network Camera/PCs connected to the KX-HGW600.
- The KX-HGW600 web screens that are shown in this Operating Instructions manual are subject to change without notice.
- To prevent this unit from working improperly, never turn off the PC while saving.

Configuration

Basic Setup

Basic Setup window allows you to set the several network parameters for your Internet/LAN connection by some carriers or ISPs (Internet Service Providers). To set the parameters, follow the steps below.

1 Click **[Basic Setup]** on the KX-HGW600 administration web screen.

See the next page for instructions about each data field.

2 Check the account information for Internet/LAN connection and select the appropriate connection type. See p. 20 or 35 for more detailed information.

3 Enter each parameter in the appropriate data field.

- To reset the current settings, click **[Undo]**.

4 When you have finished, click **[Save]**. The settings will be saved.

5 When prompted, click **[Restart Now!]** on the KX-HGW600 administration web screen.

■ Instructions for the data fields

Unless the ISP requires you to enter the parameters, leave these data fields blank.

Your Internet/LAN connection will be one of several types. Then, select the appropriate connection type on the KX-HGW600 administration web screen and enter the parameters if required.
See "Internet Configuration" on p. X and "LAN Configuration" on p. X for more detailed information.

DHCP Connection • **Device Name** • **Gateway** • **DNS Server 1/ DNS Server 2** • **Domain Name**	When the ISP uses the DHCP server function, basically no settings of the parameters are needed. Check the information provided by the ISP and enter the Device Name, Gateway, DNS Server 1/2 and Domain Name in the appropriate data field if required.
Static Connection • **IP Address** • **Netmask** • **Gateway** • **DNS Server 1/ DNS Server 2** • **Domain Name**	When the ISP requires you to the static IP connection, enter the IP Address, Netmask Gateway and DNS Server 1/2 in the appropriate data field. Enter the Domain Name in the appropriate data field if required.
PPPoE Connection* (Terminal type) • **User Name/Password** • **Service Name** • **Access Concentrator Name** • **DNS Server 1/ DNS Server 2** • **Domain Name**	When the ISP requires you to use the PPPoE connection, enter the User Name and Password in the appropriate data field. Check the information provided by the ISP and enter the Service Name, Access Concentrator Name (sometimes specified as "AC Name"), DNS Server 1/2 and Domain Name in the appropriate field if required. *The parameters for the PPPoE connection have not been collected in the **Memo** sections of Quick Prep Sheet. To set these parameters to the KX-HGW600, refer to the information from your carrier or ISP.
PPPoE Connection (LAN type)	PENDING

Camera Setup

Camera Setup window allows you to set the parameters to connect the KX-HGW600 to your Panasonic Network Camera.
When connected to the Network Camera, the KX-HGW600 recognizes the camera automatically and assigns a unique IP address and a port number to each Network Camera. When you want to change the Camera Setup setting, follow the steps below manually.

Using the Web Screen

1 Click **[Camera Setup]** on the KX-HGW600 administration web screen.

2 Click **[Use]** or **[Do Not Use]** check box in the **Automatic Setup** setting.

3 Click the number of the Network Camera you want to edit.

4 Enter each parameter in the appropriate data field and click **[Add]**.
See below for instructions about each data field.
- To reset the current settings, click **[Undo]**.

5 When you have finished, click **[Save]**. The setting will be saved.

6 When prompted, click **[Restart Now!]** on the KX-HGW600 administration web screen.

Instructions for the data fields

Automatic Setup • **Use** • **Do Not Use**	Select **[Use]** or **[Do Not Use]**.
• **Camera Name**	Enter the desired Camera Name up to 16 alphanumeric characters.
• **Port No.**	Set up the port number of the Network Camera.
• **IP Address**	Enter the IP address or URL of the Network Camera.

For assistance, please call: 1-800-272-7033

■ Screen Assignment

Screen Assignment window allows you to set the display form and the location of the **Network Camera screen** connected to the KX-HGW600.

1 Click **[Screen Assignment]**. See below for instructions about each data field.

2 Select **[only Camera Name]**, or **[Picture]** in the Display Form Setting.

3 Click the screen frame you want to set up in the **Screen Assignment** setting.

4 Select the target Network Camera from the pull-down menu and click **[Select]**.
- To remove a Network Camera from the screen frame, select **[the camera setup from the portal is removed]**.

5 When you have finished, click **[Save]**. The setting will be saved.
- To reset the current settings, click **[Undo]**.

Instructions for the data fields

• **Display Form**	Select the display form of the Network Camera.
• **Screen Assignment**	PENDING

■ Access Control

Access Control window allows you to set the parameters to control the access to the **Network Camera screen** from the WAN side.

1 Click **[Access Control]**.
See below for instructions about each data field.

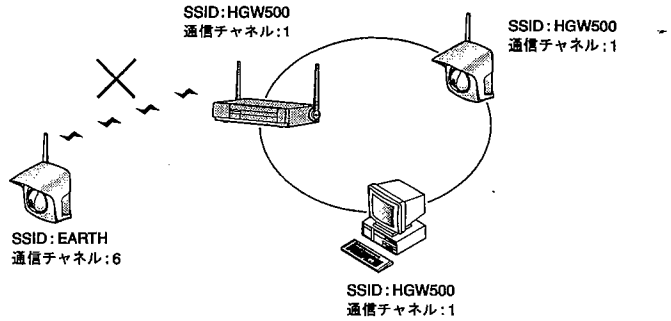
2 Select **[Disabled]**, **[Enabled]** or **[Security]**.

Instructions for the data fields

• **Disabled**	Access to the **Camera Portal site** from the WAN side is forbidden.
• **Enabled**	Anyone can access the **Camera Portal site** from the WAN side. To access the KX-HGW600 administration web screen, the password setting by general user is needed.
• **Security**	The administrator can access the **Camera Portal site** by entering the password. To access the KX-HGW600 administration web screen, the password setting by general user is needed.

Wireless Setup

Wireless Setup window allows you to set up the parameters for wireless communication and for security. A wireless network communicates using the radio frequency (channel), such as TVs or cordless telephones.
To communicate, all the nodes in a wireless network must be set the same SSID and radio frequency channel. SSID (Service Set IDentifier) is a network name which is the unique name shared among all points in a wireless network.



- To prevent an invalid access to the wireless network, security setting is strongly recommended (See P.X).

1 Click **[Wireless Setup]** on the KX-HGW600 administration web screen.
See the next page for instructions about each data field.

2 Enter the SSID in the **Network ID (SSID) Setup** data field and set **Permit SSID blanked clients connection?** and **Channel Setup**.

- To reset the current settings, click **[Undo]**. Do the same with the wireless devices.

3 When you have finished, click **[Save]**. The setting will be saved.

4 When prompted, click **[Restart Now!]** on the KX-HGW600 administration web screen.

Instructions for the data fields

• **Network ID (SSID) Setup**	SSID (Service Set IDentifier): Network Name which is the unique name shared among all points in a wireless network. For security, only the wireless devices that are programmed with the same SSID as the KX-HGW600 can communicate. Set the SSID as follows: (The default setting of the SSID is "HGW600"). • The SSID is case-sensitive. • You can enter the SSID up to 32 alphanumeric characters.
• **Permit SSID blanked clients connection?**	When **[Permit]** is selected, the wireless device which is set "ANY" or blank in the Network ID (SSID) Setup data field can communicate. (The SSID parameter of the KX-HGW600 is converted to the parameter of each wireless device.) For security, selecting **[Do Not Permit]** is recommended.
• **Channel Setup**	You can set the number of the radio frequency channel on which a wireless network communicates. This channel can be selected from channel 1 to 11 using the Channel Number pull-down menu. (The default setting of the Channel Number is "1"). If one or more wireless networks are communicating each other, the transmission speed may be reduced due to the same frequency being used. In this case, change to a different frequencies for a good communication.

Information:

Set **Eencryption** or **MAC Address Filtering** if necessary.

To encrypt the data that is transmitted over your wireless network, click **[Encryption]** on the Wireless Setup administration web screen. (See page 57.)

If you want to limit the connections from the wireless devices to the KX-HGW600, click **[MAC Address Filtering]**. (See page 62.)

Encryption

Encryption window allows you to encode the data that is transmitted over your wireless network. By setting an encryption key in the KX-HGW600, you can prevent wireless packets from being decrypted externally.
To read an encrypted data, the same encryption key must be programmed into each wireless device.
The KX-HGW600 supports not only Shared Key but Open System as the encryption system and switches automatically to the encryption system corresponding to each wireless device.

The encryption key is created by the keyword.
There are two types of encryption key: 40(64) Bit and 128 Bit
128-bit encryption is more secure than 40-bit encryption.

1 Click **[Encryption]**.

2 Select **[Disabled]**, **[Enabled (40bit)]** or **[Enabled (128bit)]** from the pull-down menu.
If you select **[Enabled (40bit)]**, for all the devices, set the same encryption code and standard key as the KX-HGW600.

<When you select [Enabled (40 bit)]>
The following screen appears.

1. Select **[Passphrase (typing a keyword)]** or **[Manual (typing hexadecimal digits)]**.
2. When you select **[Passphrase]**, enter the keyword and select one of four Standard keys.
   When you select **[Manual]**, the following screen appears.
   Enter 10 digits of hexadecimal values in each standard key (1 to 4) data field and select one of the standard keys.
   If you select **[Enabled (40bit)]**, for all the devices, set the same encryption code and standard key as the KX-HGW600.

<When you select [Enabled (128 bit)]>
The following screen appears.

1. Select **[Passphrase (typing a keyword)]** or **[Manual (typing hexadecimal digits)]**.
2. When you select **[Passphrase]**, enter the keyword.
   When you select **[Manual]**, the following screen appears.
   Enter 26 digits of hexadecimal values in the standard key data field.

3 Click **[Save]**.

4 Confirm the above setting and click **[Restart Now!]**.

Instructions for the data fields

• **Encryption Setup**	The KX-HGW600 allows you to select between 40 (64) bit and 128 bit encryption. When you select **[Disable]**, the code does not work. The higher the bit number, more secure the encryption. However, the higher the bit number, the slower the transmission speed.
• **Standard key**	When you select **[Enabled (40 bit)]** in the Encryption Setup setting, select one of four Standard keys.
• **Entry option**	Depending on the existing wireless device on your network, select **[Manual]**. Normally, it is recommended that you select **[Automatic]**.
• **Keyword**	You can enter the keyword up to 31 alphanumeric characters (case sensitive) to create a new WEP key.

■ MAC Address Filtering

MAC Address Filtering window allows you to limit the wireless devices including the Network Camera and PCs linked to the KX-HGW600. Each network card has a MAC address which is assigned as a physical address unique through the world. Only the wireless devices that have MAC address registered in the MAC Address data field can communicate.

1 Click **[Add]**.

2 Click **[Use]** check box in the **Filtering** setting.

3 Click **[Add]** in the **Current Status** setting.

4 Enter the MAC address in the data field, and click **[Add]**.

Separate each two-digit group (0-9, A-F or a-f) by entering a colon ":" between them.

5 Click **[Save]**.

6 Confirm the above setting and click **[Restart Now!]**.

(Continued ➧)

IP Masquerade

IP Masquerade window translates the private IP address on the private LAN into one global IP address that is sent out to the Internet/LAN.

1 Click **[IP Masquerade]** on the KX-HGW600 administration web screen.

2 Click **[Use]** or **[Do Not Use]** check box in the **IP Masquerade** setting. The default setting of the KX-HGW600 is "**Use**".
When you set the Port Forwarding (IP Masquerade) using one IP address provided by the ISP, click **[Use]** check box and **[Port Forwarding]**.

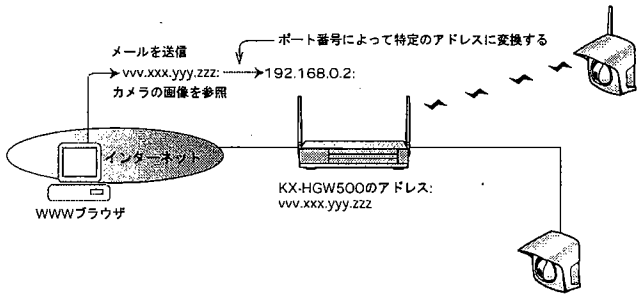
3 When you have finished, click **[Save]**. The settings will be saved.

4 When prompted, click **[Restart Now!]** on the KX-HGW600 administration web screen.

Using the Web Screen

■ Port Forwarding (IP Masquerade)

The Port Forwarding table allows you to view the Network Camera screen connected to the KX-HGW600 over the Internet. When the data communication is performed from the Internet to the other devices in the LAN, the packet is sent to the KX-HGW600 and the KX-HGW600 transmits the packet to specific network equipment.



1 Click **[IP Masquerade]** on the KX-HGW600 administration web screen.

2 Click **[Port Forwarding]**.

3 Click **[Add]**.

4 Select **[Enabled]** and the protocol from the pull-down menu.

5 Enter the port no. in the Forwarding Port Range data field.

6 Enter the IP address of the devices in the LAN in the Forwarding IP Address data field.

7 Click **[Add]**.

8 When you have finished, Click **[Save]**.

9 When prompted, click **[Restart Now!]**.

Extend Feature

The Protocol, Forwarding Port Range and IP Address can be specified in the table below.

• **Entry**	Select **[Enabled]** or **[Disabled]**. When set to **[Enabled]**, the entry works as specified. When set to **[Disabled]**, the entry does not work but will work when set to **[Enabled]** later.
• **Protocol**	Set the protocol(s) with which you use to send/receive a data from the Internet by selecting from the protocol selector. The TCP, UDP or TCP&UDP are available.
• **Forwarding Port Range**	Specify the port(s) to receive data from the Internet. • When a single port is desired, type the port number. • When a range of port is desired, enter the range using "-". For example, to specify the ports from 2000 to 3000, enter as "2000-3000". The starting port number must be lower in value than ending port number.
• **IP Address**	Set the private IP address of the other devices connected to the KX-HGW600. A data from the Internet is forwarded to the IP address entered in this data field. It is recommended to set up the KX-HGW600 for a static IP network.

Note:

Setting the table may pose a security risk because the unknown packet is sent from the outside network. Please set the table only when you need to.

IP Filtering

IP Filtering window allows you to control the access to a network by letting the incoming and outgoing packets pass or intercept (Source IP Address, Destination IP Address, Source Port, Destination Port, Protocol, etc.) Used properly, IP filtering is a tool for improving network security. It is processed in the order of the entry number from lower to higher.

■ To add filter settings

1 Click **[IP Filtering]** on the KX-HGW600 administration web screen.

2 Click **[Add]** in the Current Status setting.

3 Enter each parameter in the appropriate data field and click **[Add]**.

4 When you have finished, click **[Add]**. The settings will be saved.
After completing the filtering setup, be sure to click **[Save]**.

5 When prompted, click **[Restart Now!]** on the KX-HGW600 administration web screen.

<Example>
To prohibit the access from the outside

No	Type	Direct	IP Address	Port	IP Address	Port	Protocol	Log
61	Disable	L->W	*	*	*	135	TCP&UDP	yes
62	Disable	L->W	*	135	*	*	TCP&UDP	yes
63	Disable	W->L	*	*	*	135	TCP&UDP	yes
64	Disable	W->L	*	135	*	*	TCP&UDP	yes
65	Disable	L->W	*	*	*	445	TCP&UDP	yes
66	Disable	L->W	*	445	*	*	TCP&UDP	yes
67	Disable	W->L	*	*	*	445	TCP&UDP	yes
68	Disable	W->L	*	445	*	*	TCP&UDP	yes

• **No**	Specify the entry number (1-64). IP filtering is processed in the order of the entry number from lower to higher. A previously assigned entry number overwrites the first one.
• **Type**	Select **[Enabled]** or **[Disabled]**. When a packet meets all the conditions specified, whether to pass (Enabled) or intercept (Disabled) the packet is carried out.
• **Direction**	Select **[W->L]** or **[L->W]**. Specify whether the packet is inbound to (L->W) or outbound from (W->L) WAN.
• **Source IP Address**	Specify the source IP address of filtering packets. Do not enter the space in the data field. • When a single IP address is desired, enter the IP address in the upper data field. • When a range of IP address is desired, enter the low IP address in the upper data field and the high IP address in the lower data field. For example, to specify the IP address from "192.168.03" to "192.168.0.10", enter "192.168.03" in the upper data field and "192.168.0.10" in the lower data field. • "*" substitutes all the IP addresses.
• **Source Port**	Specify the source port(s) of packets filtering. Do not enter the space in the data field. • When a single port is desired, enter the port number in the upper data field. • When a range of port is desired, enter the low port number in the upper data field and the high port number in the lower data field. For example, to specify the port from 2000 to 3000, enter "2000" in the upper data field and "3000" in the lower data field. • "*" substitutes all the port.
• **Destination IP Address**	Specify the destination IP address of filtering packets. The input rules are the same as those of "Source IP Address".

• **Destination Port**	Specify the destination port(s) of packets filtering. The input rules are the same as those of "Source Port".
• **Protocol**	Set the protocol(s) with which you use to send/receive a data from the Internet by selecting from the protocol selector. The TCP, UDP, TCP&UDP, TCPEST or TCPFIN are available.
• **Log Output**	Store temporarily the record of packet information and specify whether to display the log or not on the Filtering Log screen.

Extend Feature

■ To modify Filter Setting

1 Click **[IP Filtering]** on the KX-HGW600 administration web screen.

2 Click the entry number you want to change or delete from the list of filtering setting.

3 Change the setting item and click **[Change]**. To delete the setting item, click **[Delete]**.

- To undo the current settings, click **[Undo]**.

4 When you have finished, click **[Save]**.

The settings will be saved.

5 When prompted, click **[Restart Now!]** on the KX-HGW600 administration web screen.

■ To change the priority of the Filter Setting

IP Filtering is processed in the order of the entry number from lower to higher. To change the priority of the filtering setting, enter the source entry number in the left data field and the destination entry number in the right data field. Then click **[Move]** and **[Save]**. When prompted, click **[Restart Now!]** on the KX-HGW600 administration web screen.

Additional Setup

Additional Setup window allows you to set the LAN parameters and additional parameters used to access the Internet.
To change the LAN settings, follow the steps below.

Using the Web Screen

1 Click **[Additional Setup]** on the KX-HGW600 administration web screen. See p. 72 and 76 for instructions about each field.

2 Click the setting item and enter each parameter in the appropriate data field.

- To undo the current settings, click **[Undo]**.

3 When you have finished, click **[Save]**. The settings will be saved.

4 When prompted, click **[Restart Now!]** on the KX-HGW600 administration web screen.

System Command

■ IP Address (Home side) DHCP Server

When you use the KX-HGW600 DHCP server function, the KX-HGW600 can automatically assign an IP to each device in a LAN.

Instructions for the data fields

• **IP Address (Home side)** **IP Address**	Enter the IP address of the KX-HGW600 in this data field. The default parameter is "192.168.0.254". The IP address must be set out of the **Available Address Range**.
Netmask	Enter the netmask of the IP address of the KX-HGW600 in this data field.
• **DHCP** **DHCP Server**	This function enables the KX-HGW600 to assign an IP address automatically to a device in a LAN. The default setting of the KX-HGW600 is "Use". To set up the KX-HGW600 for a static IP network, click **[Do Not Use]** check box. If you change the DHCP server setting, set the IP address in the each PC.
Available Address Range	When the DHCP server function of the KX-HGW600 is used, enter the extent of the assigned private IP addresses in this data field, up to 128 addresses.
• **DHCP Static Use/Do Not Use**	
IP Address (Home side)	
MAC Address	

■ PPPoE

When a PPPoE connection is used to connect to the ISP, you can select how to initiate/stop the PPPoE connection. First, select how to connect from the **Connect**. If your payment plan with your ISP does not include unlimited Internet access and you are charged, instead, according to your usage, it is recommended that you select **[Automatic]** or **[Manual]**.

Instructions for the data fields

Connect • **Always connected**	The PPPoE connection is online as long as the KX-HGW600 is turned on. This is the default setting. This function allows you to stop the PPPoE connection on the PPPoE connection screen. To initiate the PPPoE connection again, restart the PC.
• **Automatic**	The PPPoE connection is online only when data is being sent to the Internet from a PC in the LAN. This function allows you to initiate/stop the PPPoE connection on the PPPoE connection screen, as the Manual setting does. For more details, see p. 83.
• **Manual**	The PPPoE connection is online only when you click **[Connect]** on the PPPoE connection screen. To stop the PPPoE connection, click **[Disconnect]** on the PPPoE connection screen. For more details, see p. 83.
Disconnection on idle	If enabled, the KX-HGW600 detects when the PPPoE connection is idle and will automatically disconnect it when the length of idle time exceeds the user-specified limit. When you use this function, check **[Enabled]** and specify the time (1-99 minute). When **[Always connected]** is selected, the timer does not work.

System command

■ DNS Relay

When an IP address of the device in a LAN is fixed, you need to enter the IP address of DNS server to access the Internet. By using the DNS Relay function, this troublesome operation of entry can be omitted. The KX-HGW600 accesses the DNS server on the Internet as a substitute for the device in the LAN and sends the DNS information to the device in the LAN..

Note:
When you connect the DNS server on the LAN, do not use DNS relay function.

Instructions for the data fields

• **Use**	The KX-HGW600 informs the devices in the LAN that its own is an address of DNS server. The default setting of the KX-HGW600 is "Use". When an IP address of the PC is fixed, enter the IP address (192.168.0.254) of the KX-HGW600.
• **Do Not Use**	This function does not work. When an IP address of the PC is fixed, enter the IP address of DNS server.

■ MTU size

MTU (Maximum Transmission Unit) specifies the maximum size of a packet that can be transferred in one frame over a network.
Any messages larger than the MTU are divided into smaller packets before being sent, which slows down transmission speeds.

Normally, the KX-HGW600 optimizes the MTU size automatically. Change the MTU size only when you need.

Note:

Depending on the MTU setting, the transmission speed may be slow extremely.

System command

■ Dynamic Routing

You can specify whether or not to send the RIP (Routing Information Protocol) from the Internet/LAN to the LAN/Internet.

Instructions for the data fields

• **LAN Side**	Normally set to **[Enabled]**. If there are one or more routers that access the Internet on the LAN, and then RIP information is sent from the other routers to the LAN side, set to "Disabled". If there are no other routers, RIP information is sent via the KX-HGW600 from the PC to the Internet.
• **Internet Side**	If RIP information is sent to the Internet side, the network information on the LAN side may be seen by the external PCs. For security, normally set to **[Disabled]**.

Change Password

Change Password window allows you to change the password (p. 51) of the KX-HGW600.

1 Click **[Change Password]** on the KX-HGW600 administration web screen. The screen below appears.

2 Enter a new user name into the **New user ID** text field (up to 15 digits).

3 Enter a new password into the **New password** text field (up to 15 digits) and retype the new password in the **Retype new password** text field for confirmation, then click **[Save]**.

Notes:

- Do not use the copy/paste function on your PC when entering information into two password fields.
- The passwords are case-sensitive.

- If completed, the screen below appears.
- If not completed, the screen below appears.
- Your new password is different from the retyped one. Try retyping the new password again.

4 When the user ID and Password dialog box appears, enter the new user ID and Password in each data field, then click **[OK]**.

For Windows **For Macintosh**

If you cannot remember the password after changing it, initialize the KX-HGW600 to reset the password to the default setting **"KX-HGW"**. See "To Initialize the KX-HGW600" on p. 90.

Firmware Upgrade

Firmware Upgrade window allows you to install new KX-HGW600 software. After the software has been updated, all the parameters of the KX-HGW600 are preserved. To update the latest software, follow the steps below.

Before updating, please read the information text file (ex. Readme.txt) contained in the new software.

1 Click **[Firmware Upgrade]** on the KX-HGW600 administration web screen. The screen below appears.

2 Click the colored text "here" at the bottom of the KX-HGW600 administration web screen. On the web site, follow the instructions and download the firmware to your PC.

3 Click **[Browse...]** to select the software from the file selector.

The **Choose file** (for Windows) or **Open** (for Macintosh) dialog box appears.

For Windows **For Macintosh**

4 Select the desired software file from the file list and click **[Open]**.

5 The selected file name appears in the **Filename** field of the Firmware Upgrade web screen. If you already know the new software file name, you can type it into the filename field directly.

6 Make sure the new software file name is selected and click **[Upgrade]**.

- If completed, after a few seconds, the screen below appears.
- If not completed, an error message appears. See below "Error messages" for more detailed information.

7 Click **[Restart Now!]** to restart the KX-HGW600.

The KX-HGW600 restarts.

Notes:

- After updating, initialize the KX-HGW600 by pressing the FACTORY DEFAULT RESET button if required.
- When you use the KX-HGW600 DHCP server function (p. 71), restart all the Network Camera/PCs connected to the KX-HGW600.

Information:

The latest KX-HGW600 software is also available as follows:

- Included in a floppy disk or compact disk that came with the product.

  OR
- Downloaded from the Panasonic support web site.
  http://www.kmelink.net/ipproducts/us/download/index.html

Error messages

Error Message	Cause and Remedy
• **File size is invalid** • **CRC error occurred**	Your selected software file is damaged. If the software file was downloaded from the Panasonic support site, download it again. If the software file was copied from a floppy disk or compact disk, make sure the disk that contains the software is not broken.
• **Selected file is invalid**	Your selected software file is not for the KX-HGW600. Reselect the proper file and update it again. OR Make sure your KX-HGW600 hardware version matches the software file by reading the readme file that comes with the software file.
• **Not enough memory**	The KX-HGW600's internal memory has been depleted. Restart the KX-HGW600 and update it again.

Restart

Restart window allows you to restart the KX-HGW600. All the parameters of the KX-HGW600 are preserved.

1 Click **[Restart]** on the KX-HGW600 administration web screen.

The screen below appears.

2 Click **[Restart Now!]**. The KX-HGW600 restarts.

Note:

When you use the KX-HGW600 DHCP server function (p. 71), restart all the Network Camera/PCs connected to the KX-HGW600.

Factory Default Reset

Factory Default Reset window allows you to initialize all the parameters of the KX-HGW600. All the parameters return to their default settings.

1 Click **[Factory Default Reset]** on the KX-HGW600 administration web screen. The screen below appears.

2 Click **[Clear Setting Now!]**.

All the parameters of the KX-HGW600 are initialized to the preset factory default settings.

Note:

When you use the KX-HGW600 DHCP server function (p. 71), restart all the Network Camera/PCs connected to the KX-HGW600.

PPPoE Connection

PPPoE Connection window allows you to manually initiate/stop your KX-HGW600 PPPoE connection to the ISP. Depending on the PPPoE connection status, two different kinds of web screens appear. You can initiate/stop the PPPoE connection by clicking the button on the KX-HGW600 administration web screen.

Note:

This command is used regardless of the types of PPPoE connection.

When the PPPoE connection is being made

The window below appears.

1 To disconnect the PPPoE connection, click **[Disconnect]**.

When the PPPoE connection is not being made

The window below appears.

1 To initiate the PPPoE connection, click **[Connect]**.

Ping

Ping window allows you to confirm if a device over the Internet or on the LAN is successfully linked to your KX-HGW600 on the TCP/IP network. When a device is connected correctly and the power to the device is on, a "Success!" message appears on the display.

1 Click **[Ping]** on the KX-HGW600 administration web screen.

The screen below appears.

2 Enter the IP address of the device (Ex. 192.168.0.254) you want to ping.

- To clear the IP address data field, click **[Clear]**.

3 Click **[Ping]**.

- If completed, the screen below appears.
- If not completed, the screen below appears.
- The IP address might be invalid or some other reasons might be considered.

Information

Status

Status window allows you to view the KX-HGW600 serial number, the hardware and software version information and the device status of the KX-HGW600. This information may be helpful if you need to contact our Continued Services Technical Support Line for assistance with the KX-HGW600.

1 Click **[Status]** on the KX-HGW600 administration web screen.
The screen below appears.

Usage Data

Usage Data window allows you to view the KX-HGW600 statistics.
This information may be helpful if you need to contact contact our Continued Services Technical Support Line for assistance with the KX-HGW600.

1 Click **[Usage Data]** on the KX-HGW600 administration web screen.

The screen below appears.

User Registration

User Registration window allows you to connect to the web site for registration. To help you register, the KX-HGW600 collects and displays the hardware and software information of your KX-HGW600. You do not have to register the information of a particular item if you do not want to.

1 Click **[User Registration]** on the KX-HGW600 administration web screen. The screen below appears.
Your KX-HGW600 hardware and software information parameters are shown in each box.

- you do not want to register the parameters of an item, select **[Do not send]** from the drop-down list.

- To undo the current settings, click **[Undo]**.

Note:
It is recommended that you register all the information so that our servicenters may best assist you in the future.

2 Click **[Submit]** to register your KX-HGW600.
You will connect to the Panasonic support web site. For more detailed information, follow the instructions of the web site.

Support

Support window allows you to connect to the Panasonic support web site and to transmit the KX-HGW600's hardware and software information to the support team for assistance. You do not have to register the information of a particular item if you do not want to.

1 Click **[Support]** on the KX-HGW600 administration web screen.
The screen below appears.
Your KX-HGW600 hardware and software information parameters are shown in each box.

- you do not want to register the parameters of an item, arrow mark at the right of each parameter and select **[Do not send]**.

- To undo the current settings, click **[Undo]**.

Note:
It is recommended to register all the information for your future assistance with the KX-HGW600 from the servicenters.

2 Click **[Submit]** to register your KX-HGW600.
You will connect to the Panasonic support web site. For more detailed information, follow the instructions of the web site.

Filtering Log

If you enable logging on the IP Filtering screen, the KX-HGW600 will keep a record of the packet information.
You can view up to 4000 latest information consisting of entry number, type, direction, the source or destination port number and so on.

Note:
When you restart the KX-HGW600, the information of filtering log is deleted.

1 Click **[Filtering Log]** on the KX-HGW600 administration web screen.

- To undo the current settings, click **[Undo]**.
- When you delete the recorded log, click **[Delete Log]**.

Help

Help window provides you with instructions for each function of the KX-HGW600 administration web screen.

1 Click **[Help]** on the KX-HGW600 administration web screen.
The screen below appears.

2 Select the text you want to explore.

Restarting the KX-HGW600

The KX-HGW600 has two buttons on the rear side of the unit. These two buttons are used to initialize or restart the KX-HGW600.

To Initialize the KX-HGW600

When you do not remember the KX-HGW600 password (p. 51) or when you need to clear all the parameters of the KX-HGW600, press and hold the FACTORY DEFAULT RESET button for a few seconds. The FACTORY DEFAULT RESET button allows you to initialize all the parameters of the KX-HGW600 to the factory presets.

To Restart the KX-HGW600

When the KX-HGW600 POWER indicator blinks or lights red (p. 12), press the RESTART button. The RESTART button allows you to restart the KX-HGW600 with all the parameters preserved.

Note:
When you use the KX-HGW600 DHCP server function (p. 71), restart all the Network Cameras/PCs connected to the KX-HGW600.

Security of Wireless Network

In a wireless network, data security is maintained using the following three measures. According to your security needs, use any combination of these security options and strengthen your security..

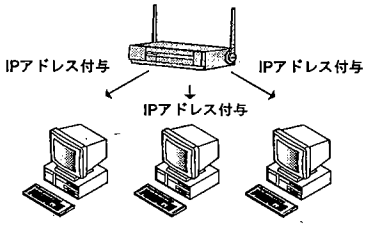
SSID	SSID (Service Set IDentifier) is a network name which is the unique name shared among all points in a wireless network. To communicate with others in a wireless group, the same SSID must be programmed into each wireless device. **Advantage:** It is easy to program the SSID into each wireless device. **Disadvantage:** If the unauthorized user steals the SSID, he may be break into your PC. For security, specify a unique SSID that others do not guess for a wireless network, not using your name or birthday.
MAC Address Filtering	If the MAC address of each network card has not been registered in the MAC Address Filtering screen, the wireless devices cannot link to the KX -HGW600. **Advantage:** Even if SSID or encryption key is stolen by an unauthorized user, the wireless devices that have the MAC address unregistered in the MAC Address Filtering screen cannot communicate with the KX-HGW600. **Disadvantage:** The greater the scale of wireless network is, the more vexatious the MAC address administration may be.
WEP Encryption	This setup allows you to encode the data that is transmitted over your wireless network. By setting an encryption key in the KX-HGW600, you can prevent wireless packets from being decrypted externally. To read an encrypted file, the same encryption key must be programmed into each wireless device. There are two types of WEP encryption key, 40(64)-bit and 128-bit versions. **Advantage:** The higher the bit number, the more secure the encryption. **Disadvantage:** The higher the bit number, the slower the transmission speed.

Setting the Static Network Parameters

Every Network Camera/PC in a TCP/IP network, including the KX-HGW600, needs to have an IP address. The KX-HGW600 is preset to assign an IP address to each Network Camera/PC in a LAN using the DHCP server function. This type of network is called as **dynamic IP network.**
By disabling the KX-HGW600 DHCP server function and specifying a unique IP address for each Network Camera/PC in the LAN, a **static IP network** can be created.
When the IP address of a Network Camera/PC in has to always be fixed, you need to set the static IP network parameters.
To set up the KX-HGW600 for a static IP network, see p. 71 and disable the DHCP server function in the Optional Setup screen.

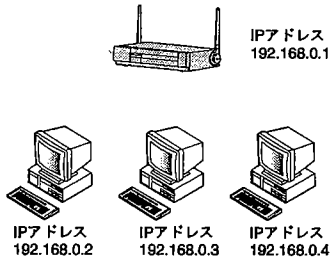
Dynamic IP Network (DHCP server function active)

The KX-HGW600 assigns an IP address to each PC automatically (DHCP server function).



Static IP Network (DHCP server function inactive)

The KX-HGW600 does not assign an IP address to each PC automatically. Beforehand, each PC has to be assigned a unique IP address manually.



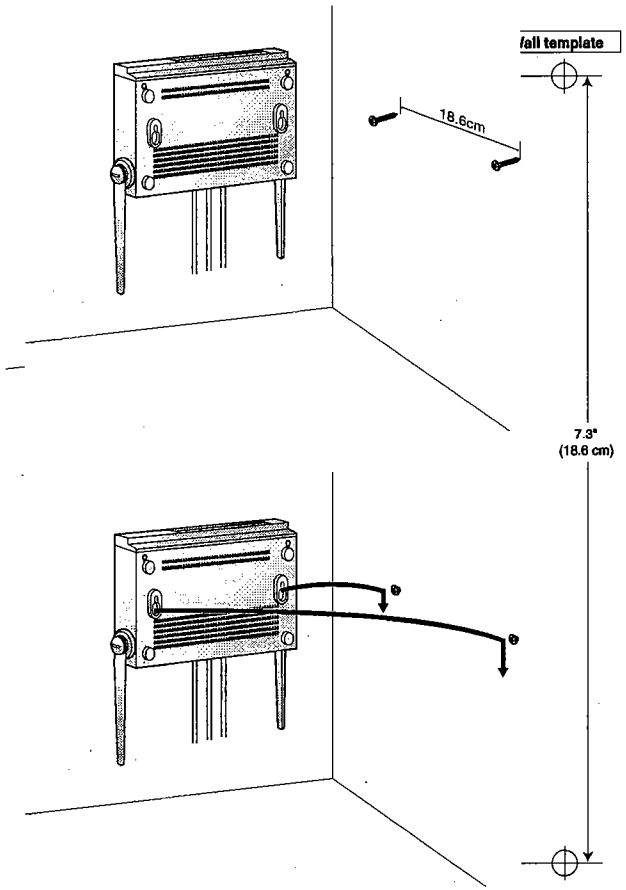
Useful Information

Wall Mounting

The KX-HGW600 can be mounted on a wall.

1 Install the two screws (included accessories) into the wall using the wall template.

2 Mount the unit on the screws, then slide it down.



Troubleshooting

Problem	Cause and Remedy
The POWER indicator on the KX-HGW600 is not lit.	• Make sure that the KX-HGW600 has been turned on.
The POWER indicator on the KX-HGW600 lights red.	• The KX-HGW600 hardware is defective. Press the RESTART button on the KX-HGW600 or contact our Continued Services Technical Support Line.
The optical cable or cable/xDSL modem network does not work and the WAN indicator on the KX-HGW600 is not lit.	• Make sure the connection between the KX-HGW600 and the optical cable or cable/xDSL modem is successfully made.
The Ethernet network does not work and the LAN 1–4 indicator on the KX-HGW600 is not lit.	• Make sure the connections between the PC and the KX-HGW600 have been successfully made. • Make sure that the PCs and the KX-HGW600 have been turned on in the proper order. See "Turning on the Devices" on p. 17 for more detailed information. • Install an Ethernet card and software properly on the PC.
The KX-HGW600 administration web screen does not appear.	• According to the status of the LAN, the web screen does not appear quickly. Wait a second. • Make sure the ETHERNET indicator is on. Make sure the LAN card indicator is on. If any indicator is off, check the LAN connections. • Make sure that the KX-HGW600, Network Camera and the PCs have been turned on in the proper order. See "Turning on the Devices" on p. 17 for more detailed information. • Check the connection between the KX-HGW600 and the PC by using the Ping command on the Windows PC. If you receive no reply from Ping command, check the LAN connection. • The PC is not assigned an IP address by the KX-HGW600. Make sure the PC is set to "Obtain an IP address automatically" (for Windows, p. 25) or "Using DHCP Server" (for Macintosh, p. 39) and restart. • When you change the IP address of the KX-HGW600 (p. 71), enter the new IP address in the address field of the web browser (p. 51). • Confirm the setup of the web browser. • Java script is used on the KX-HGW600 administration web screen. If Java script is invalid on the setup of the web browser, access the KX-HGW600 administration web screen after enabling Java script. • Type KX-HGW in the Password data field. Leave the User Name/ID data field blank.

Troubleshooting

Problem	Cause and Remedy
You cannot connect the KX-HGW600 to the PCs in a wireless LAN.	• Make sure a wireless LAN PC card on the Windows PC is set as follows: Transmission mode: Infrastructure SSID(ESSID): KX-HGW600 Encryption: None • Your PC or the KX-HGW600 may be located away from radio wave. Or there may be an obstacle to the wall of concrete. Locate your PC near this equipment.
A WWW (World Wide Web) site does not appear.	• Make sure the address of the web site has been correctly entered in the address field (URL line) of the web browser. • If you connect the KX-HGW600 to the other lines, make sure it is connected to the modem. Confirm the connections between the KX-HGW600 and LAN. • Confirm the information on your Internet connection provided by your ISP. If you are required to enter some parameters, see "Basic Setup" on p. 51 and set the parameters to the KX-HGW600. • Check the Status screen (p. 85) of the KX-HGW600 administration web screen. From the Status screen, make sure the KX-HGW600 is assigned an IP address from the ISP. If it isn't, setup the parameters in the Basic Setup screen. • Set up the proxy server use (p. 111–115). • If you turn the KX-HGW600 off while accessing the Internet with PPPoE connection, it may take for about 5 to 20 minutes. Wait for a second.
"The system has detected a conflict for IP address with the system having hardware address XX:XX:XX:XX:XX:XX" or "Another device on your TCP/IP internet, which has the physical address XX:XX:XX:XX:XX:XX, is currently using the same IP address XXX.XXX.XXX.XXX. Your TCP/IP network interface has been shut down" is displayed in the dialog box.	• Turn off the KX-HGW600 and all the PCs, and then turn on the KX-HGW600 again. After that, turn on the PCs. • Make sure all the PCs are set to "Obtain an IP address automatically" (for Windows, p. 25) or Using DHCP Server (for Macintosh, p. 39). Use the DHCP server function of the KX-HGW600. • Check that the static IP address is the same value within the KX-HGW600 DHCP Available Address Range (p. 70).
"Host Unknown" is displayed after you changed the KX-HGW600 Setup.	• Restart the PC and access the KX-HGW600 web screen again.
You do not remember the LAN side IP address of the KX-HGW600.	• Check the "Installed gateways" (for Windows, p. 26) or "Router address" (for Macintosh, p. 39) address field of the PC. If a parameter exists in the address field, it is the LAN side IP address of the KX-HGW600.

Problem	Cause and Remedy
You do not remember the password (p. 51) to use the KX-HGW600 administration web screens.	• Initialize the KX-HGW600 (p. 90) by pressing the FACTORY DEFAULT RESET button. The FACTORY DEFAULT RESET button allows you to initialize all the parameters of the KX-HGW600 to the factory presets. Then, restart the PCs in the LAN and reconfigure the KX-HGW600.
Microsoft Netmeeting® conferencing software does not work.	• The KX-HGW600 does not support the Microsoft Netmeeting.
When you click **[Restart]** on the KX-HGW600 administration web screen, the home page does not appear.	• Click the colored and underlined IP address (i.e, http://192.168.0.254) that appears on the "Restarting" web screen to jump to the **Camera Portal site**.
If you cannot solve your problem.	• Call our customer call center at 1-800-272-7033. • After the limited warranty, call our Continued Services Technical Support Line at 1-900-555-PANA (1-900-555-7262).

Specifications

Ethernet LAN Interface (WAN):	Protocol Ports: One 10 Base-T RJ-45 port for cable/xDSL modem Standards: IEEE802.3 (10Base-T), IEEE802.3u Speed: 10 Mbps (automatic assignment) Data communications mode: Half duplex/full duplex (automatic identification) MDI/MDI-X: automatic detection
Ethernet LAN Interface (LAN):	Protocol Ports: Four 10 Base-T Ethernet RJ-45 ports Standards: IEEE802.3 (10Base-T), IEEE802.3u (100Base-TX) Speed: 10/100 Mbps (automatic assignment) Data communications mode: Half duplex/full duplex (automatic identification) MDI/MDI-X: automatic detection
Wireless LAN Interface:	Antenna: Diversity type Channel: 11CH Standards: IEEE802.11b Speed: 11/5.5/2/1 Mbps Communications distance (depending on ambient conditions): 65 m indoors, 160 m outdoors at 11 Mbps 85 m indoors, 250 m outdoors at 5.5 Mbps 110 m indoors, 400 m outdoors at 2 Mbps 130 m indoors, 550 m outdoors at 1 Mbps
LED Display:	Power, WAN, LAN 1-4, WIRELESS
Button:	FACTORY DEFAULT RESET, RESTART
Environmental:	Operation temperature: +5°C to +40°C (+41°F to +104°F) Humidity: 45% to 85%
Dimension (HWD):	1.65″ (42 mm) × 10.2″ (260 mm) × 5.9″ (150 mm)
Weight:	500 g
Power:	DC-12V IN Approx. 10W (Max)

Important Safety Instructions

When using this unit, basic safety precautions should always be followed to reduce the risk of fire, electric shock, or personal injury.

1. Read and understand all instructions.
2. Follow all warnings and instructions marked on this unit.
3. Unplug this unit from AC outlets before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use this unit near water, for example, near a bathtub, washbowl, kitchen sink, or the like.
5. Place this unit securely on a stable surface. Serious damage and/or injury may result if the unit falls.
6. Do not cover slots and openings on the unit. They are provided for ventilation and protection against overheating. Never place the unit near radiators, or in a place where proper ventilation is not provided.
7. Use only the power source marked on the unit. If you are not sure of the type of power supplied to your home, consult your dealer or local power company.
8. Do not place objects on the power cord. Install the unit where no one can step or trip on the cord.
9. Do not overload wall outlets and extension cords. This can result in the risk of fire or electric shock.
10. Never push any objects through slots in this unit. This may result in the risk of fire or electric shock. Never spill any liquid on the unit.
11. To reduce the risk of electric shock, do not disassemble this unit. Take the unit to an authorized servicenter when service is required. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassembly can cause electric shock when the unit is subsequently used.
12. Unplug this unit from the wall outlet and refer servicing to an authorized servicenter when the following conditions occur:
    A. When the power supply cord or plug is damaged or frayed.
    B. If liquid has been spilled into the unit.
    C. If the unit has been exposed to rain or water.
    D. If the unit does not work normally by following the operating instructions. Adjust only controls covered by the operating instructions. Improper adjustment may require extensive work by an authorized servicenter.
    E. If the unit has been dropped or physically damaged.
    F. If the unit exhibits a distinct change in performance.
13. During thunderstorms, avoid using telephones except cordless types. There may be a remote risk of an electric shock from lightning.
14. Do not use this unit to report a gas leak, when in the vicinity of the leak.

SAVE THESE INSTRUCTIONS

WARNING:

- TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR ANY TYPE OF MOISTURE.

FCC and Other Information

Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

— Reorient or relocate the receiving antenna.
— Increase the separation between the equipment and receiver.
— Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
—Consult the dealer or an experienced radio/TV technician for help.

Some wireless Camera Control Unit operate at frequencies that may cause interference to nearby TVs and VCRs. To minimize or prevent such interference, the base of the wireless Camera Control Unit should not be placed near or on top of a TV or VCR. If interference is experienced, move the wireless Camera Control Unit further away from the TV or VCR. This will often reduce or eliminate, interference. Operating near 2.4 GHz electrical appliances may cause interference. Move away from the electrical appliances.

- **Environment** — do not place the unit in a room where the temperature is less than 14°F (-20°C) or greater than 122°F (50°C). Allow 4" (10 cm) clearance around the unit for proper ventilation. Avoid excessive smoke, dust, mechanical vibration, shock, or direct sunlight.
- **Routine care** — wipe the unit with a soft cloth. Do not use benzine, thinner, or any abrasive powder. When you leave the unit unused for a long period of time, unplug the AC adaptor from the outlet.
- **If there is any trouble** — consult an authorized Panasonic Factory Service Center.

CAUTION

- To comply with FCC RF exposure requirements in uncontrolled environment:
  - This equipment must be installed and operated in accordance with provided instructions and a minimum 20 cm spacing must be provided between antenna and all person's body (excluding extremities of hands, wrist and feet) during wireless modes of operation.
  - This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.
- **Medical**
  Consult the manufacturer of any personal medical devices, such as pacemakers, to determine if they are adequately shielded from external RF (radio frequency) energy. (The unit operates in the frequency range of 2401 MHz to 2483 MHz, and the power output level is 0.1 watts.) Do not use the unit in health care facilities if any regulations posted in the area instruct you not to do so. Hospitals or health care facilities may be using equipment that could be sensitive to external RF (radio frequency) energy.
- Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this device.

No responsibility will be taken by our company with respect to consequences resulting from the use and/or the damage of the Camera Control Unit.

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For assistance, please call: 1-800-272-7033

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