

2 | Preparation

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2.1 Items to Check

Before installing this product, ensure that the following prerequisites are completed.

2.1.1 Preparing the Computer

■ Installing Pro-Server EX

After confirming the computer you are planning to install the software onto is compatible with the operating environment, run the install. If the computer you are using is not compatible with the Pro-Server EX operating environment, the software may not work properly.

For details about the operating environment, see "OPERATING ENVIRONMENT 1-9".

If the trial version is installed, see "1.5 About the Trial Version".

■ Application Software

Check that the software required by the Pro-Server EX feature you want to use is installed.

For supported software, refer to "OPERATING ENVIRONMENT".

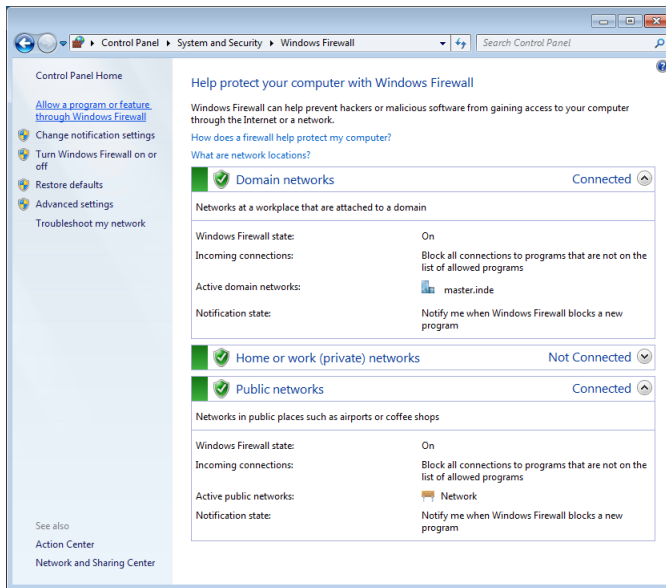
■ Windows Firewall

Depending on your operating system, there are cases when a message displays indicating the Windows firewall is blocking communication. In those instances, set up the [**Check firewall status**].

If "Release Block" does not display, use the Control Panel's [Check firewall status] command to set up the following.

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- | | |
|-------------|--|
| NOTE | • Depending on the operating system you are using, the display and part names may differ. If so, replace the names with those with similar features used in your system configuration. |
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- 1 From the Control Panel, select [Check firewall status] and then [Allow a program or feature through Windows Firewall] to display the [Allowed Programs] page.

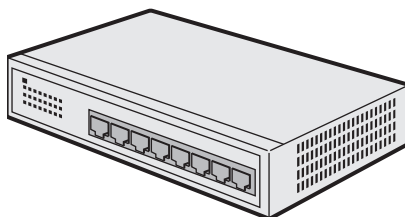


- 2 From [Change Settings], select [Allow another program].
- 3 In the [Add a Program] dialog box, select the Pro-Server EX and Pro-Studio EX applications, and click [Add].
- 4 Select the domain and other settings as required by your environment, and click [OK].

2.1.2 Necessary Equipment

■ LAN Hub

Used to connect all the Ethernet cables together. A LAN hub is necessary even when connecting one PC and one display unit (one-to-one connection).



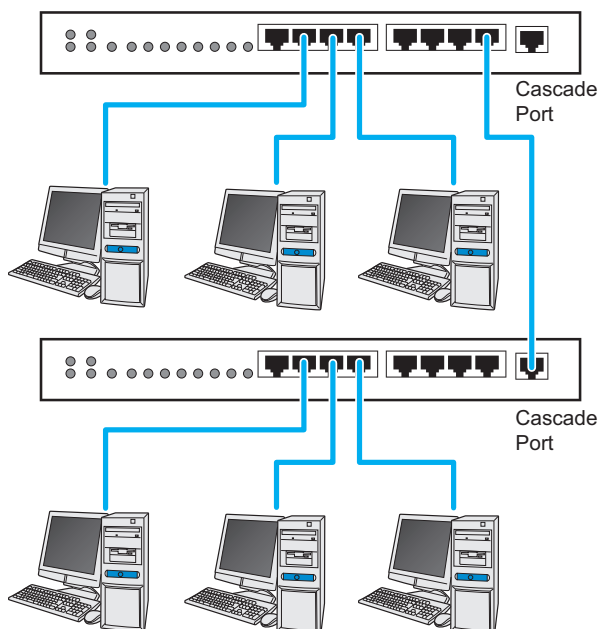
- Prepare equipment that conforms to the communication specifications of the PC and display unit Ethernet ports.
- The minimum number of ports required is a sum of PCs and display units to be connected. When the ports are not enough, prepare plural LAN hubs and make a cascade connection. Refer to the operation manual of the LAN hub for the connection method.

What is a cascade connection?

To connect plural LAN hubs using cable wires. This can increase the number of devices to be connected to one network.

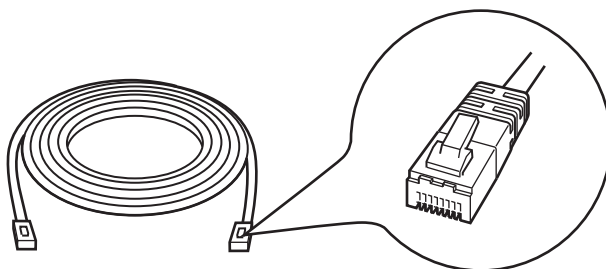
For a cascade connection, 1 port is required for cascade.

(Connection Sample)



■ Ethernet Cable (straight cable)

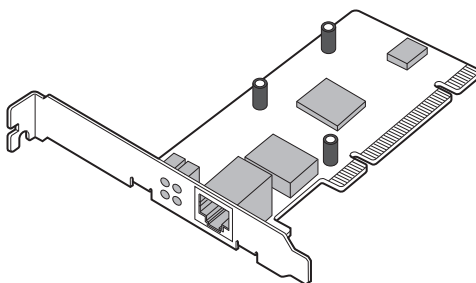
Used to connect the PC and the display unit



- This cable is necessary even when connecting one PC and one display unit (one-to-one connection) since a LAN hub is used even in this case. When you use a cross cable for connection, we do not guarantee the operation.
- The minimum number of cables required is a sum of PCs and display units to be connected.
Prepare equipment that conforms to the communication specifications of the PC and display unit Ethernet ports.

■ Network Adapter (LAN board/LAN card)

Used by attaching to the PC.



(Illustration shows a LAN board)

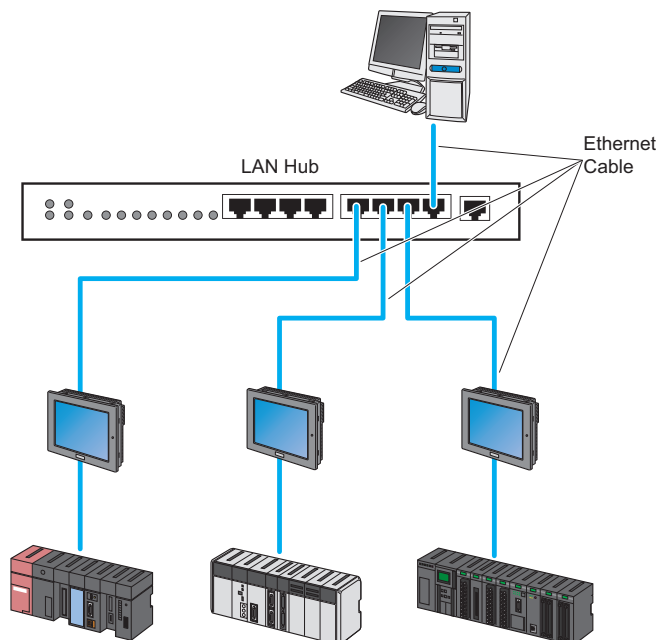
- When the Ethernet port for system connection has been preinstalled on the PC, it is not necessary to attach a network adapter.
- Follow either appropriate method below to attach the network adapter to the PC. Refer to the operation manual of the PC or the network adapter for more details about attaching method.
 - Attach a LAN board to the expansion slot of the PC.
 - Attach a LAN card to the PC card slot of the PC.

2.2 Connecting PC with display unit

The following explains how to connect the PC and the display units using Ethernet cables.

Connect Ethernet cables to the PC and the display units separately, and then connect them together using a LAN hub as shown below.

Example: Connecting three display units and one PC



■ For a Secure use of Pro-Server EX

1 To build a secure network for unauthorized access prevention

- Build a communication environment using encrypted communications (ex. VPN).
- Check that the network is secured before communication is established and data is transferred through the Ethernet.

2 Prevent Unauthorized Operation when Pro-Server EX started as a Service

- Hide the Pro-Server EX task tray icon to help prevent unauthorized operations, such as downloading a network project file by a third party. For information, refer to “34.1 Setting Up the Environment of 'Pro-Server EX'”.
- Use the security features in Windows (set a password, run the runtime with administrator authority, use the auto-logout feature, etc.).
- When using Windows administrator account for runtime, define the secured password and security settings.

3 To protect information from alteration

- Carefully manage your own data.
- When transferring a network project file, the project transfer status does not appear on the display unit. To help prevent unauthorized operation by a third party that could go unnoticed, transfer only after preparing a secure communication environment. Even on a local area network, prepare a secure communication environment to reduce the likelihood of interference from a third party. (Example) Strictly manage the physical location of the LAN hub that provides a communication link between Pro-Server EX and the display unit.

2.3 Setting PC Network

The following explains how to connect the PC to the display units via a network (Ethernet).

Necessary settings are:

- Operation check of the network adapter (LAN board/card); and
- Setting of TCP/IP protocol

What is TCP/IP protocol?

One of the network protocols (standards regarding communication such as communication speed, and communication method). TCP/IP protocol is a combination of "TCP" (Transmission Control Protocol) and "IP" (Internet Protocol). This protocol is used on the Internet and electronic mails, and is the most popular protocol currently used.

Setting methods differ depending on the OS installed on the PC.

- 2.3.1 In Case of Using Windows Vista or later
- 2.3.2 In Case of Using Windows XP

2.3.1 In Case of Using Windows Vista or later

IMPORTANT

- Log on to Windows with the user name of "Credential Manager" or of the equivalent administrator authority. Refer to the operation manual of the OS for user authority.

NOTE

- Depending on the operating system you are using, the display and part names may differ. If so, replace the names with those with similar features used in your system configuration.

1 Operation Check of Network Adapter

Check that the network adapter (LAN board/LAN card) attached to the PC performs correctly using the "Device manager" of Windows.

(1) Turn on the PC power and start Windows.

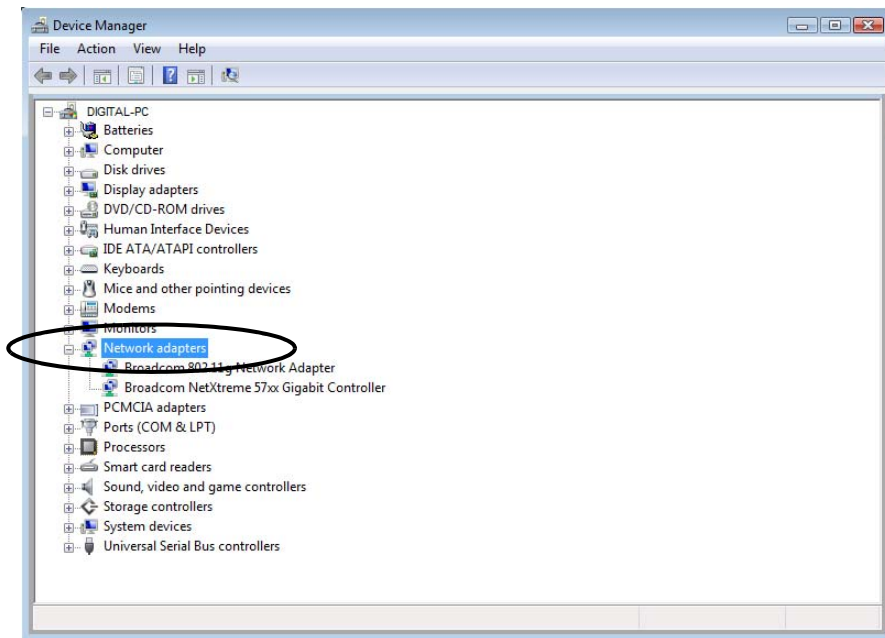
(2) Follow the steps for your operating system, and open the [Device Manager].

IMPORTANT

- The [User Account Control] dialog box may be displayed. When it is displayed, click the [Continue] button.

(3) On the "Device Manager" screen, double-click the "Network Adapter" in the list of the hardware devices displayed.

Confirm that the name of the network adapter being attached to the PC is displayed.



NOTE

- The "x" mark or "!" mark displayed at the head of the name shows that the network adapter is not performing correctly. Take actions so that the network adapter performs correctly referring to the operation manual of the network adapter, etc.
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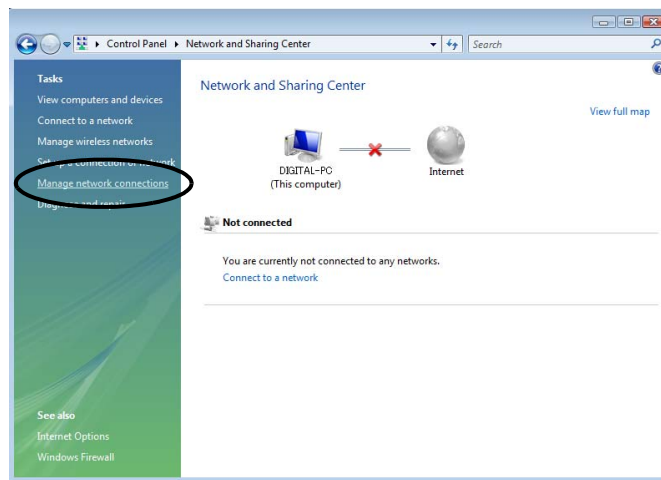
(4) Click the [x] (close) button to close the "Device Manager" screen.

2 Setting of TCP/IP protocol

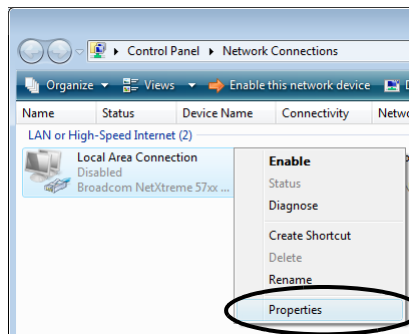
IMPORTANT • Contact the network administrator before operation.

(1) Open [Network and Sharing Center].

(2) Click [Manage Network Connections] on the displayed screen. (When using Windows 7 or Windows 8 / 8.1 click [Change adapter settings].)

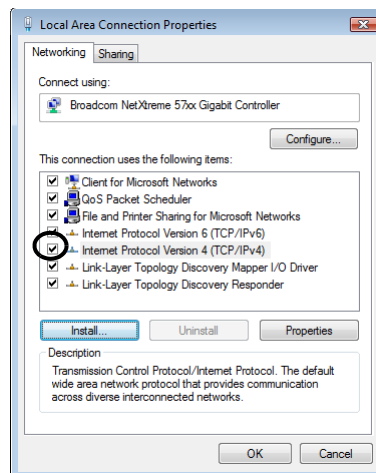


(3) On the "Network Connection" screen, right-click the "Local Area Connection" icon, and then select "Properties" from the menu.

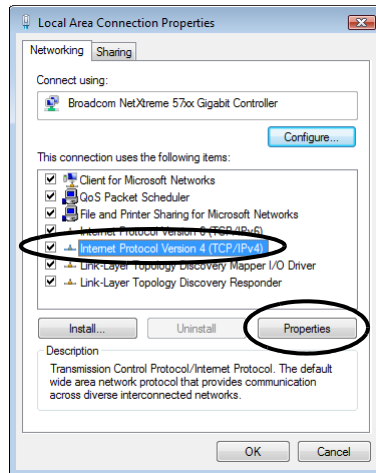


IMPORTANT • The [User Account Control] dialog box may be displayed. When it is displayed, click the [Continue] button.

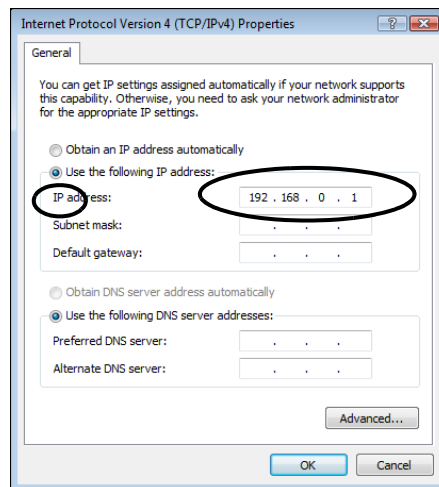
(4) On the "Local Area Connection Properties" dialogue, confirm that the check box of the [Internet Protocol Version4 (TCP/IPv4)] in [This connections uses the following items] is turned on.
If not, click the check box to turn on.



(5) Select [Internet Protocol Version4 (TCP/IPv4)], and then click the [Properties].



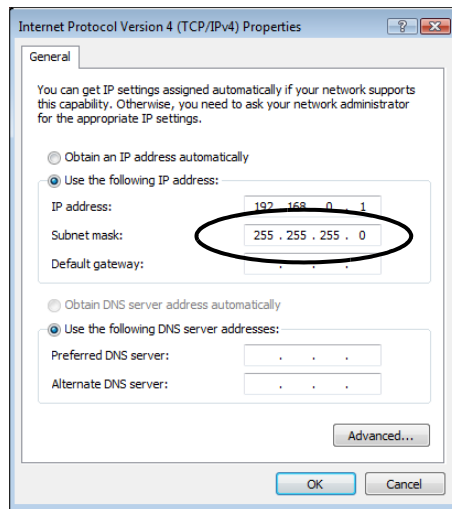
(6) In the [Internet Protocol Version4 (TCP/IPv4) Properties] dialogue, select [Use the following IP address], and then enter the IP address of the PC into the [IP address] field.



What is IP address?

Internet protocol numerical address assigned to each computer on the network so that its location and activities can be distinguished from other computers. The IP address takes the form of four numbers separated by dots, for example: 192.168.0.3

(7) Click the [Subnet Mask] field, and the subnet mask will be entered automatically. If necessary, change the subnet mask, and then click the [OK] button.



NOTE

- If no relay device to the other network such as a router is connected, it is not necessary to input about [Default Gateway].
- If the subnet masks for PC and display unit are different, display unit is not displayed in the list when finding node.

What is Subnet Mask?

The subnet mask is used to determine what subnet an IP address belongs to. An IP address has two components: the network address that represents the network being connected and the host address that is used to distinguish individual device.

For example, consider the IP address "192.168.2.1" and the Subnet Mask "255.255.255.0". Each address in a binary pattern is:

```
IP address      : 11000000.10101000.00000010.00000001
Subnet Mask    : 11111111.11111111.11111111.00000000
```

In the IP address, the part shown in a logical "1" in the Subnet Mask represents the network number, and the part shown in a logical "0" in the Subnet Mask represents the host number. Accordingly, the areas allocated for the network number and the host number in the IP address "192.168.2.1" are as follow.

IP Address : 11000000 . 10101000 . 00000010 . 00000001
Network number Host number

- (8) If necessary, perform the setting related to DNS server.
- (9) Click the [OK] button to close the "Properties of Local Area Connection" dialogue.
- (10) Click the [x] (close) button to close the "Network Connection" dialogue.
- (11) Reboot the PC to enable the setting.

This completes the network setting.

2.3.2 In Case of Using Windows XP

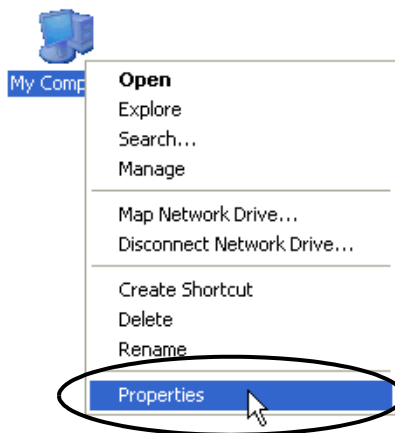
- IMPORTANT** • Log on to Windows with the user name of "Credential Manager" or of the equivalent administrator authority. Refer to the operation manual of the OS for user authority.

1 Operation Check of Network Adapter

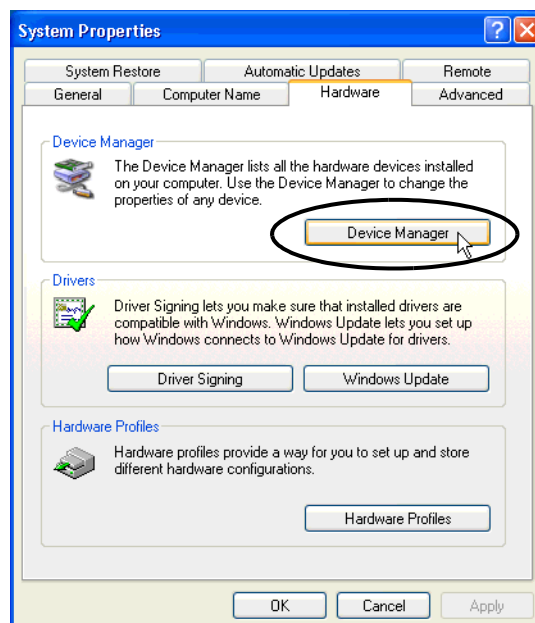
Check that the network adapter (LAN board/LAN card) attached to the PC performs correctly using the "Device manager" of Windows.

(1) Turn on the PC power and start Windows.

(2) On the desktop, right-click the "My Computer" icon, and then select "Properties" from the menu.

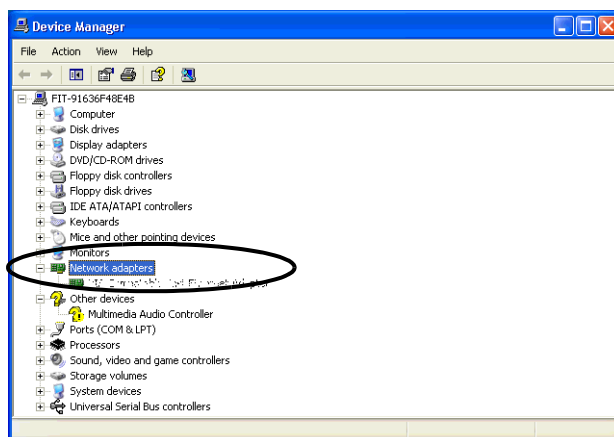


(3) On the "System Properties" dialogue, click the [Hardware] tab, and then the [Device Manager] button.



(4) On the "Device Manager" screen, double-click the "Network Adapter" in the list of the hardware devices displayed.

Confirm that the name of the network adapter being attached to the PC is displayed.

**NOTE**

- The "x" mark or "!" mark displayed at the head of the name shows that the network adapter is not performing correctly. Take actions so that the network adapter performs correctly referring to the operation manual of the network adapter, etc.

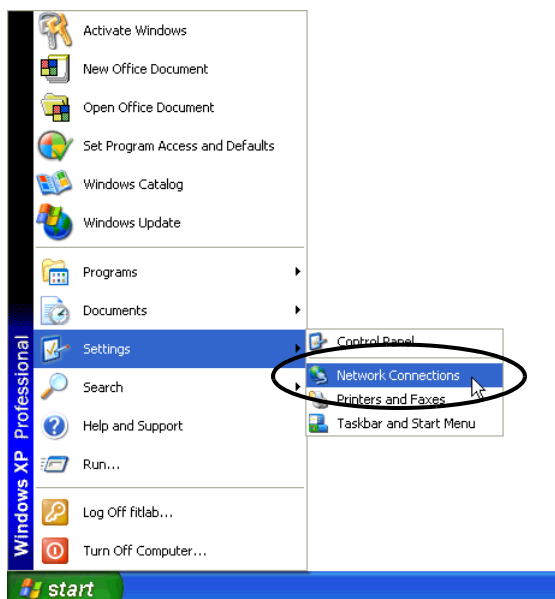
(5) Click the [x] (close) button to close the "Device Manager" screen.

(6) Click the [OK] button to close the "System Properties" dialogue.

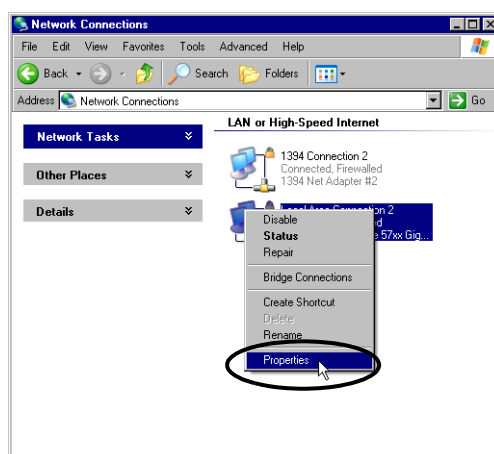
2 Setting of TCP/IP protocol

IMPORTANT • Contact the network administrator before operation.

(1) Click the [Start] button in the task bar, and then select the "Network Connection" from "Settings".)

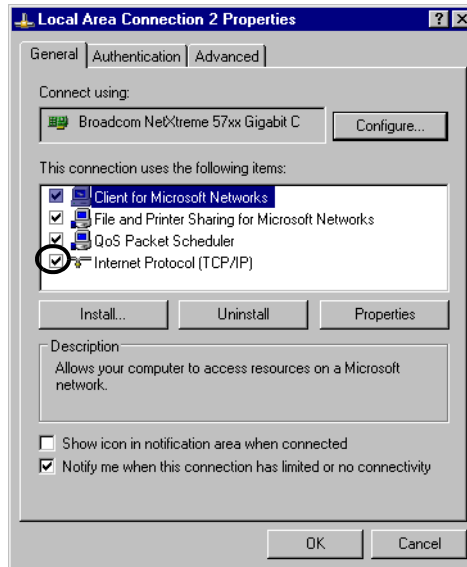


(2) On the displayed screen, right-click the "Local Area Connection" icon, and then select "Properties" from the menu.

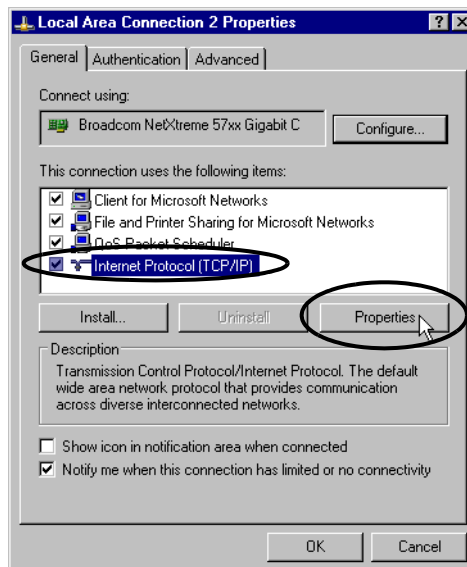


(3) On the "Local Area Connection Properties" dialogue, confirm that the check box of the [Internet Protocol (TCP/IP)] is turned on.

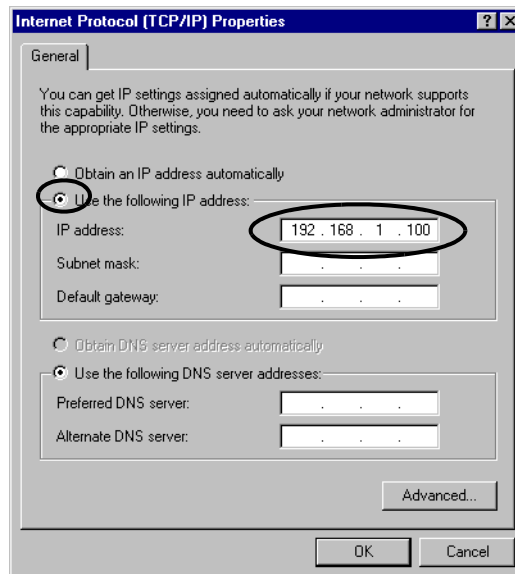
If not, click the check box to turn on.



(4) Select [Internet Protocol (TCP/IP)], and then click the [Properties].



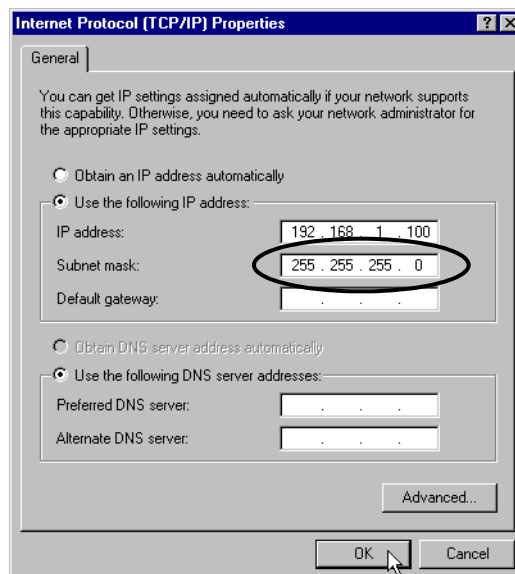
(5) In the [Internet Protocol (TCP/IP) Properties] dialogue, select [Use the following IP address], and then enter the IP address of the PC into the [IP address] field.



What is IP address?

Internet protocol numerical address assigned to each computer on the network so that its location and activities can be distinguished from other computers. The IP address takes the form of four numbers separated by dots, for example: 192.168.0.3

(6) Click the [Subnet Mask] field, and the subnet mask will be entered automatically. If necessary, change the subnet mask, and then click the [OK] button.



NOTE

What is Subnet Mask?

For example, consider the IP address "192.168.2.1" and the Subnet Mask "255.255.255.0". Each address in a binary pattern is:

```
IP address      : 11000000.10101000.00000010.00000001
Subnet Mask    : 11111111.11111111.11111111.00000000
```

IP Address : 11000000 . 10101000 . 00000010 . 00000001
Network number Host number

- This completes the network setting.

2.4 Set the network of display unit

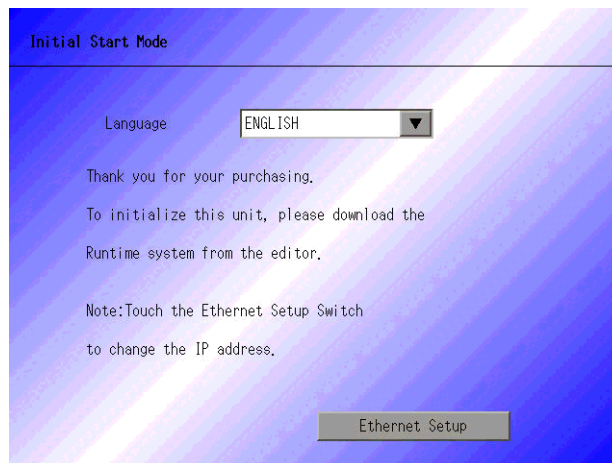
The following explains how to connect the display units via a network (Ethernet).

This section explains how to configure Ethernet settings for a display unit directly out of the box. For information on how to check or edit Ethernet settings after you transfer a screen project file to the display unit, refer to the corresponding user documentation for the screen editing software.

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- NOTE** • Depending on the operating system you are using, the display and part names may differ. If so, replace the names with those with similar features used in your system configuration.
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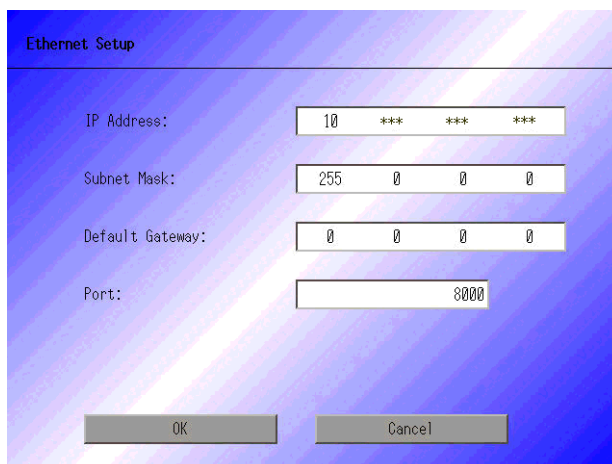
1 Turn on the display unit's power.

After a while, the "Initial Transfer Mode" screen or the "Welcome" screen will appear on the monitor of the display unit.



2 Touch the [Ethernet Setting] button.

The "Ethernet Setting" screen will appear. This screen displays default settings.



- 3 Enter the numbers of the IP address, Subnet Mask, Default Gateway and Self Node, and then touch the [Set] button.

Contact the network administrator for the values to set.

NOTE

- If no relay device to the other network such as a router is connected, it is not necessary to input about [Default Gateway].
-

This completes the network setting of the display unit.