Setup Manual

DuraVision®
SGX0031

Streaming Gateway Box

Software Version 7.3

Important

Carefully read this Setup Manual and User's Manual (downloaded from the website) before use to use the monitor correctly. Please retain this manual for future reference.

- You can check the latest product information, including the Setup Manual, from our web site.
  www.eizoglobal.com

This product has been adjusted specifically for use in the region to which it was originally shipped.
If operated outside this region, the product may not perform as stated in the specifications.

No part of this manual may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, or otherwise, without the prior written permission of EIZO Corporation.
EIZO Corporation is under no obligation to hold any submitted material or information confidential unless prior arrangements are made pursuant to EIZO Corporation’s receipt of said information. Although every effort has been made to ensure that this manual provides up-to-date information, please note that EIZO product specifications are subject to change without notice.

About This Product

About the Usage of This Product

- This product transmits video from a network camera to another system equipped with a decoding function. If using this product for the following kinds of applications, where an extremely high degree of reliability and safety is required, then measures should be in place to maintain safety while using this product:
  - Transportation equipment (ships, aircraft, trains, and automobiles)
  - Remote control systems for industrial machinery such as construction machinery
  - Safety devices (Disaster prevention systems, security control systems, etc.)
  - Life-critical devices (medical devices, such as life-support devices and operating room devices)
  - Nuclear energy control devices (Nuclear energy control systems, security control systems of nuclear facilities, etc.)
  - Major system communication devices (operation control systems of transportation systems, air traffic control systems, etc.)
- This product has been adjusted specifically for use in the region to which it was originally shipped. If the product is used outside the region, it may not operate as specified in the specifications.
- This product may not be covered by warranty for uses other than those described in this manual.
- The specifications outlined in this document apply only when using the AC adapter and signal cables specified by EIZO.
- Only use optional products manufactured or specified by us with this product.

About the Installation

- If you place this product on a lacquer-coated desk, the color may adhere to the bottom of the product due to the composition of the rubber. Please check before use.
- Dew condensation may form on the surface or interior of this product when it is brought into a cold room, when the temperature suddenly rises, or when it is moved from a cold room to a warm room. In that case, do not turn the product on. Instead wait until the dew condensation disappears, otherwise it may cause some damage to the product.
- Please place this product horizontally on a stable surface, such as a desk, with the flat side facing down.
  By using the dedicated mounting bracket (sold separately), this product can be mounted and used on a monitor. The mounting bracket can be purchased on the EIZO website.www.eizoglobal.com
  Refer to the mounting bracket instruction manual for installation directions when using mounting brackets.

Cybersecurity Warnings and Responsibilities

- Please take the following measures to protect products and information assets from cyberattacks.
  - Prevent unauthorized physical access to the product by third parties.
  - Manage passwords so that they are not leaked.
  - Use this product on a secure network such as one that is isolated from the internet, a network within a firewall, or a VPN (Virtual Private Network).
- The latest software will be available on our website. Please review the update details and update the software as necessary, under your own responsibility.
- This product encrypts and holds personal information, such as user names and passwords, and uses it for device authentication. In order to prevent information from being leaked, ensure proper disposal methods, such as erasing or destroying data when discarding the product.
- This product is equipped with various security features to prevent malicious access. To improve the security of the product, use these features properly.
  - HTTPS functionality
  - IP address filter function
  - IEEE 802.1X functionality
  - LDAP function
- For details on each function, refer to the User's Manual.

Cleaning

- Periodic cleaning is recommended to keep the product looking new and to prolong its operation lifetime.
- Gently wipe off any dirt on the product with a small amount of water or a soft cloth dampened with a mild detergent diluted in water.

Attention

- Never use a thinner, benzene, wax, or abrasive cleaner as they may damage the product.
- Use of alcohol or other chemicals for disinfection may lead to cracks, changes in gloss, discoloration, fading, or deterioration of display image quality. Be careful of the following points when using the product.
  - Do not let chemicals come into direct contact with the product.
  - Do not use wet wipers that have been impregnated with chemical solution, as they may contain a lot of liquid.
  - Do not allow chemicals to enter gaps or the interior of the product. Doing so may cause product malfunction.
- For more information on cleaning and disinfection, please refer to our web site.
  How to check: Access www.eizoglobal.com and type "disinfect" in the site search box to search.

Disclaimer

- EIZO shall not be held responsible for any direct or indirect damages (including, but not limited to, loss of anticipated profits) arising from the use or malfunction of this product, or any other related issues.
  - Misuse or negligence by the customer
  - Disassembly, repair, or modification by the customer
  - Inability to display images due to any reason or cause, including product malfunction or defects
  - Combination with third-party equipment or devices
  - Occurrence of privacy violations or other issues related to the customer's surveillance images due to any reason
  - Loss of registered or recorded information for any reason
- This product can transmit images monitored by a camera but this product alone does not prevent crimes or other incidents.

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1 Introduction

This document explains the settings required to transmit camera (network camera) images.

1.1 Package Contents

Check that all of the following items are included in the package. If any of these are missing or damaged, contact your dealer or local EIZO representative listed separately.

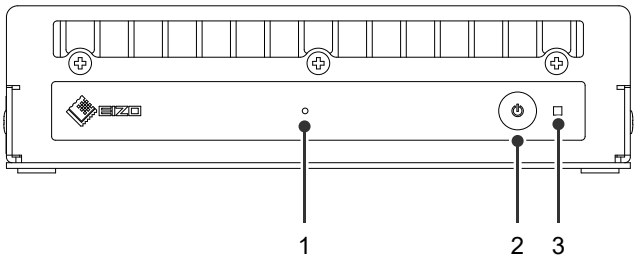
Note

- The User's Manual is not included with the product. Please download it from our web site using the steps below.
  1. Access www.eizoglobal.com.
  2. From the menu, select "Support" > "Manuals."
  3. In the "Enter model name" text box, enter "SGX0031," and then press the "Search" button.
  4. Click the icon for the User's Manual.
- It is recommended that the box and packing materials be stored so that they can be used to move or transport this product.

- SGX0031 (main unit)
- PCSK-04 / PCSK-03 / PCSK-03R mounting screws (M3 x 6) x 2
  Used when attaching the small terminal mounting adapter (PCSK-04 / PCSK-03 / PCSK-03R).
- Setup Manual (this document)
- PRECAUTIONS

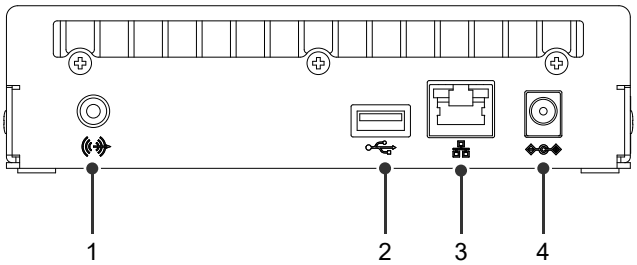
1.2 Controls and Functions

1.2.1 Front



1. Reset button	Pressing and holding the button for 10 seconds will reset all settings to their default state except for system logs, operation logs, the current time, time zone settings, license activation information, and the software version.
2. ⏻ button	Turns the power on or off.
3. Power indicator	Displays the operating status of the product. Blue: Normal operation mode Flashing blue: Starting up Red: Power off Off: Main power is off

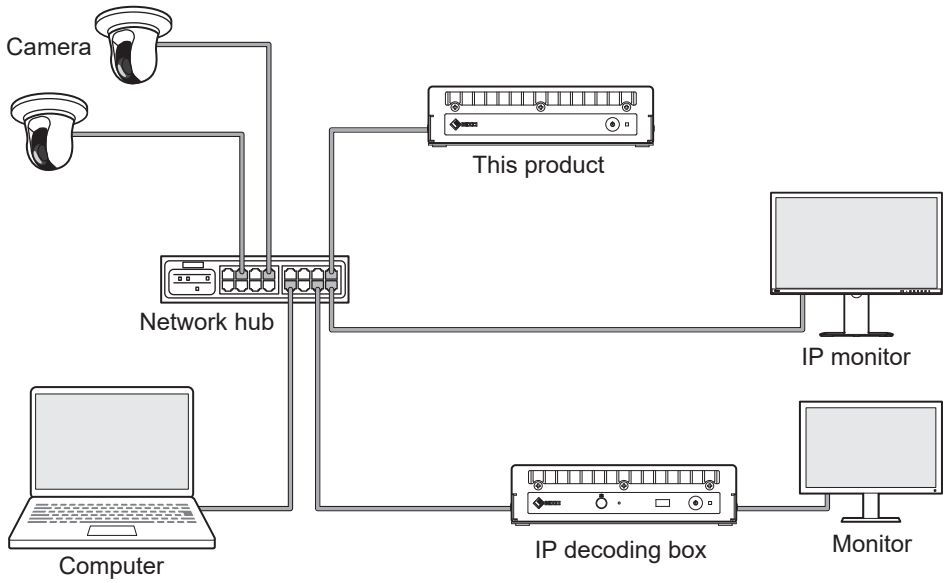
1.2.2 Back



1. Stereo mini jack	Cannot be used.		
2. USB downstream port	Cannot be used.		
3. LAN port	Connects the network cable. Supplies power when connected to a network hub that supports PoE+.		
		a) Active LED	Off: No data communication
			Flashing orange: Data communication in progress
		b) Link LED	Off: Network connection not established
			Green: Network connection established
4. DC input	Connects the AC adapter (sold separately).		

1.3 System Configuration

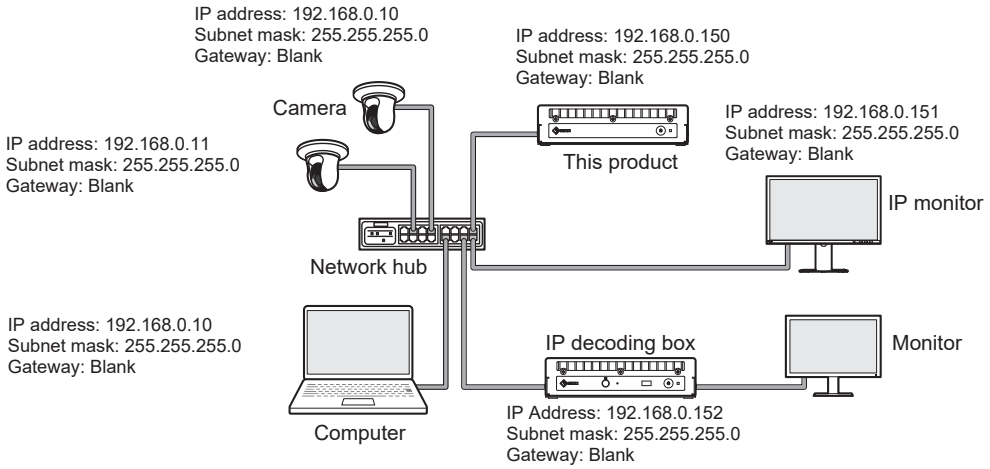
This product is used by connecting to a network.



Note

IP Addresses

- Since an IP address is equivalent to an address on a network, you must set a unique IP address for each device (refer to "System Settings" - "Configure Network Settings" in the User's Manual). If an IP address that conflicts with another device is set, communication will not function properly.



- If your environment does not have a gateway (default gateway), you do not need to set "Gateway."
- The default IP address for this product is "192.168.0.150." When installing multiple units, set unique IP addresses (refer to 4.6 Checking for Duplicate IP Addresses [▶ 33]).

1.3.1 Camera (Network camera)

Cameras compliant with ONVIF® Profile S, Axis cameras, or Panasonic/i-PRO cameras

Attention

Camera compatibility

- In addition to displaying video, this product supports changing camera settings. However, some functions may be unavailable if the required API is not provided. For functions that are not available from this product or do not work as expected, please operate them directly on the camera.

ONVIF is a trademark of ONVIF Inc.

1.3.2 Network hub

1000BASE-T / 100BASE-TX compatible network hub

When choosing a network hub, check the following:

- This product supports PoE+. By connecting to a PoE+ compatible network hub, this product can receive power through the network cable.
- If your network hub does not support PoE+, you will need to use an AC adapter (sold separately) to supply power to this product.
- When supplying power to the camera through a network cable, use a PoE-compatible network hub.

Attention
• This product supports only the PoE+ 2-Event Classification method. If your network hub does not support the 2-Event Classification method, supply power from an AC adapter (sold separately).

1.3.3 Network cable

Category 5e or higher straight cable

1.3.4 Computer

Used to set up this product and cameras.

If your computer does not have a LAN port, consider using a USB LAN adapter.

1.3.5 IP decoding box / IP monitor

When receiving streams transmitted from this product, set the following on the IP decoding box/IP monitor side.

- Set "Protocol" to "EIZO Streaming Gateway" when registering the camera

For details, refer to the User's Manual of each product.

2 Setup

2.1 What to Prepare

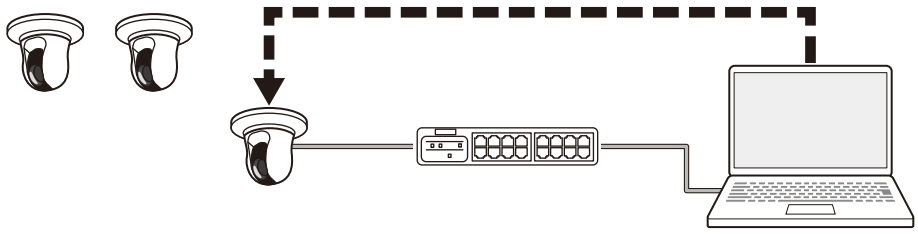
Prepare a computer.

If you do not have an Internet connection at your work location, please have the following files on your computer in advance.

File	Where to get it
Set of user manuals • Setup Manual (this document) • User's Manual	Please download the necessary files from the EIZO web page. www.eizoglobal.com/support/db/products/model/SGX0031
Latest version of system software	
License file	Additional features are available with the purchase of a license. For details on features, refer to the User's Manual. For details on purchasing a license, contact your dealer or local EIZO representative.

2.2 Setting Cameras

The camera must be configured in advance.



Refer to the User's Manual of the camera and perform the following settings.

2.2.1 Username and Password

Set a password of up to 32 characters using alphanumeric characters and symbols for a user with administrative privileges.

2.2.2 Date and Time

Select a time zone and set the correct date and time.

2.2.3 IP Address

Set an IP address that does not overlap with another device.

2.2.4 Stream

Set the stream to match the decoding performance of this product.

- Check if the stream is enabled.
- When using the "Panasonic/i-PRO" protocol, it connects to stream 2 by default.

Video compression format

Select the video compression format according to the "Protocol" used for camera registration.

- "ONVIF"
  H.264 or MJPEG (when "Media Type" is "Media1"), or H.265 or H.264 (when "Media Type" is "Media2"[*1]).
- "AXIS®"
  H.265 or H.264
- "Panasonic/i-PRO"
  H.265 or H.264

[*1] The camera must comply with both ONVIF Profile S and ONVIF Profile T.

Note

- For the latest operating status for H.265, refer to the camera compatibility information on the EIZO website.

Bit Rate

Set a value to 8192 kbps or less. (4096 kbps recommended)

Resolution / Frame Rate

When streaming in Merge mode, set "Resolution" and "Frame Rate" according to the number of cameras to be displayed simultaneously.

Merge mode decoding performance (H.265 / H.264, when "Bit Rate" is set to "4096 kbps")

4 Screens Layout	3840 x 2160 / 20 fps, 1920 x 1080 / 60 fps, 1280 x 720 / 60 fps
9 Screens Layout	1920 x 1080 / 30 fps, 1280 x 720 / 50 fps, 640 x 480 / 60 fps
12 Screens Layout	1920 x 1080 / 20 fps, 1280 x 720 / 40 fps, 640 x 480 / 60 fps
16 Screens Layout	1920 x 1080 / 20 fps, 1280 x 720 / 40 fps, 640 x 480 / 60 fps
32 Screens Layout	1280 x 720 / 15 fps, 640 x 480 / 30 fps

MJPEG

640 x 480 / 30 fps

Attention

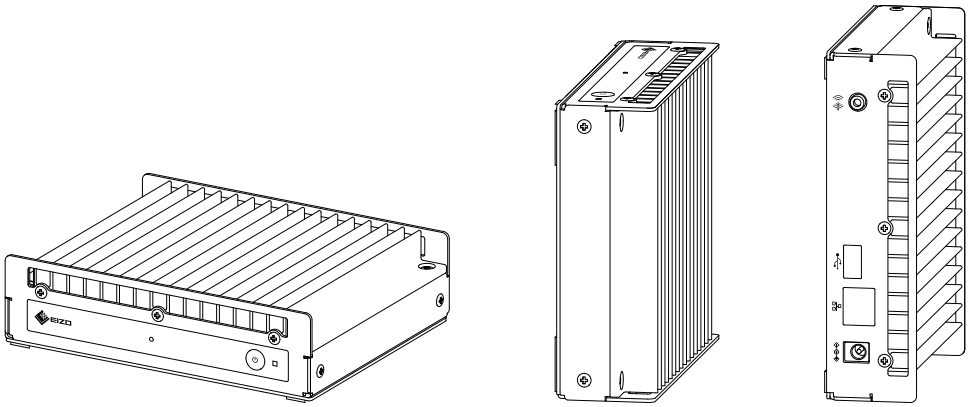
- The values above are provided for reference purposes.
- If the stream exceeds the display capabilities of this product, the frame rate of the camera footage will be forcibly reduced. Reduce the resolution and/or bit rate.

2.3 Installation

Place this product on a stable surface, such as a desk, or install it using the dedicated mounting bracket (sold separately).

To protect the product and information assets from cyber attacks, take measures under your responsibility to prevent third parties from physically accessing the product.

The possible installation orientations are as follows.



2.4 Connecting the Power

There are 2 ways to supply power to this product.

2.4.1 Power supply via PoE+

When connected to a PoE+ compatible network hub, this product can receive power through the network cable.

Attention
• This product supports only the PoE+ 2-Event Classification method. If your network hub does not support the 2-Event Classification method, supply power from an AC adapter (sold separately).

2.4.2 Power supply via AC adapter (sold separately)

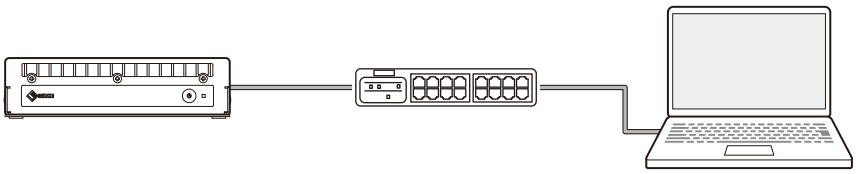
If your network hub does not support PoE+, use an AC adapter (sold separately). Follow the steps below to complete the connection.

1. Connect the power cord to the AC adapter.
2. Connect the output terminal of the AC adapter to the DC input terminal of the product (insert it firmly all the way in).
3. Connect the power plug to the power outlet.

When the AC adapter is used while connected to a PoE+ compatible network hub, power is supplied from the AC adapter.

2.5 Connecting this Product to a Computer

1. Use network cables to connect this product and a computer to a network hub.



2.6 User Registration at Initial Startup

When starting this product for the first time, the initial setup wizard appears. Follow the on-screen instructions to configure each item.

1. Press the power button (⏻) on the front of the product to turn on the power.
   The power indicator flashes blue while the system is preparing to start. It takes about 1 minute to start up.
   Once the system starts, the power indicator turns blue.
2. Launch the web browser.
   It is recommended to use Microsoft Edge version 79 or later.
3. Enter the address to access the product.
   – https://<IP address of this product>
   – http://<IP address of this product>
   The default settings are as follows.
   – https://192.168.0.150/
   – http://192.168.0.150/
   The initial setup wizard appears.

Note

- Since communication via HTTP is not encrypted, there is a risk that data may be intercepted by a third party. To ensure secure communication, it is recommended to use HTTPS.
- When accessing via HTTPS, a warning may appear in the browser, but this is normal behavior. If a warning appears, click "Advanced Settings" or "More Information" and select "Access this site (not secure)." After logging in, register a "CA-Signed Certificate" so that the warning will no longer be displayed.
- When accessing via HTTP, a warning message appears. Check the content of the message and take the necessary action.

4. Follow the on-screen instructions to configure each item.
   – "Language" (Language [▶ 16])
   – "Time Zone" (Time Zone [▶ 17])
   – "Date Format" (Date Format [▶ 17])
   – "Time Format" (Time Format [▶ 17])
   – "Clock Mode" (Clock Mode [▶ 17])
   – "Date and Time" (Date and Time [▶ 17])
   – "User Level" (User Level [▶ 17])
   – "Username" (Username [▶ 17])
   – "Password" (Password [▶ 17])
   – "Confirm Password" (Confirm Password [▶ 17])
   – "IP Address" (IP Address [▶ 17])
   – "IP Address" (IP Address [▶ 18])
   – "Subnet Mask" (Subnet Mask [▶ 18])
   – "Gateway" (Gateway [▶ 18])
   – "Hostname" (Hostname [▶ 18])
   – "Protocol" (Protocol [▶ 18])
5. Click "Apply."
6. Click "OK" in the confirmation dialog box.

Language

Settings: "日本語" / "English" / "Deutsch"

Select the language.

Time Zone

Select the time zone.

Date Format

Settings: "yyyy/mm/dd" / "Mmm/dd/yyyy" / "dd/Mmm/yyyy" / "mm/dd/yyyy" / "dd/mm/yyyy" / "No Date Display"

Select the date display format.

Time Format

Settings: "24h" / "12h"

Select the time display format.

Clock Mode

Settings: "Auto (Sync with PC)" / "Manual"

Select the time setting method.

Date and Time

Set the current time.

User Level

Settings: "LIVE" / "CAMERA CONTROL" / "ADMIN"

Select the user level.

The user level cannot be selected when registering for the first time (fixed to "ADMIN").

Username

Enter a username. Set the username to meet the following conditions.

- 1-16 characters
- Alphanumeric characters and symbols only
- Does not contain the following characters: # & : " < > \

The following usernames cannot be set.

- "." / ".." / "auto-login"

Password

Enter a password. Set a password that is difficult for a third party to guess.

- 8 to 16 characters
- At least one uppercase and lowercase English letter
- At least one number
- Does not contain the character \

Confirm Password

Enter the same password again for confirmation.

IP Address

Settings: "DHCP" / "Manual"

Select the IP address setting method.

Note

- If a DHCP server is used, selecting "DHCP" sets the IP address automatically. The IP address assigned by DHCP is not displayed, so check it with a network scan tool.

IP Address

Settings: "0.0.0.1" – "255.255.255.254"

Set an IP address that is not used by other devices.

Note

- The default IP address is "192.168.0.150." When installing multiple units of this product, IP decoding boxes, or IP monitors, set unique IP addresses.
  For details on how to check for duplicate IP addresses, refer to 4.6 Checking for Duplicate IP Addresses [▶ 33].

Subnet Mask

Settings: "0.0.0.1" – "255.255.255.254"

Set the subnet mask.

Gateway

Settings: "0.0.0.1" – "255.255.255.254"

Set the default gateway.

If the environment does not have a default gateway, you do not need to set "Gateway." Keep the default setting or leave it blank.

Hostname

Settings: Alphanumeric, - (hyphen) (up to 63 characters)

If "DHCP" is selected in "IP Address," enter the host name to register with the DHCP server. The default setting is "[Product Name]-[MAC Address]." Automatic registration with DNS depends on the settings on the DHCP/DNS server side.

Protocol

Settings: "HTTPS" / "HTTP and HTTPS"

Select the communication protocol with the web server.

The web browser address for accessing this product varies depending on the selected protocol.

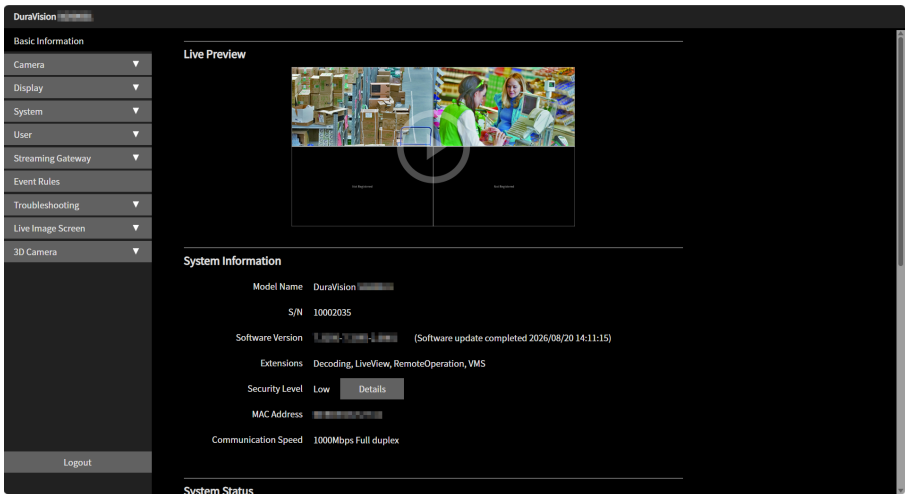
- "HTTPS": https://<IP address of this product>/
- "HTTP and HTTPS":
  https://<IP address of this product>/ or http://<IP address of this product>/

2.7 Displaying the Setting Screen

1. Press the power button (⏻) on the front of the product.
   While preparing to start, the power indicator blinks blue. It takes about 1 minute for the device to start up.
   When it starts up, the power indicator turns blue.
2. Launch the browser.
3. Enter the following address to access the site.
   Since communication via HTTP is not encrypted, there is a risk that data may be intercepted by a third party. We recommend using HTTPS to ensure secure communication.
   – https://<IP address of this product>
   – http://<IP address of this product>
   For the initial settings, the following applies:
   – https://192.168.0.150/
   – http://192.168.0.150/
4. Enter a username and a password.
5. Click "Sign in."
   The setting screen is displayed.

Note

- If the setting screen does not appear, try the following address.
  – https://<IP address of this product>/index.html
  – http://<IP address of this product>/index.html



2.8 Connecting Devices

1. Using network cables, connect this product, cameras, computers, and IP decoding boxes/IP monitors to a network hub.
   Make sure there are no duplicate IP addresses before connecting devices.

2.9 Registering a Camera Using Auto Discovery

Cameras connected to the network can be automatically detected and registered.

Attention

- The following cameras and video encoders must be registered manually (refer to 3.3 Registering a Camera Manually [▶ 25]).
  - Cameras that cannot be automatically detected
    - Cameras on different subnets cannot be detected automatically.
    - Depending on the cameras, there are settings that refuse automatic detection, or settings that allow automatic detection only for a certain period of time after turning on the power.
  - Fisheye/panoramic cameras with multiple video streams
  - Video encoder with multiple cameras connected

1. Select "Camera" > "Camera Registration."
2. Click "Camera Auto Discovery."
3. Set each item.
   - "Protocol" (Protocol [▶ 20])
   - "User Name" (User Name [▶ 20])
   - "Password" (Password [▶ 20])
4. Click "OK."
   A list of detected cameras is displayed.
   Whether a camera can be automatically detected depends on the camera and network. Cameras that do not appear in the list must be registered manually.
5. Check the camera you want to register and click "Add."
6. Click "Apply."
7. Click "OK" in the confirmation dialog box.

Protocol

Select the protocol to control the camera.

- "ONVIF"[*1]
  ONVIF Profile S compatible cameras
- "AXIS"
  Axis cameras (VAPIX®)
- "Panasonic/i-PRO"
  Panasonic/i-Pro cameras

[*1] When "Protocol" is set to "ONVIF," the "Media Type" will be "Media1."

User Name

Enter the username of the camera. A user with administrative privileges is required.

Password

Enter the password for the camera.

2.10 Set the Streaming Mode and Protocol

1. Select "Streaming Gateway" > "Streaming Gateway."
2. Set each item.
   – "Streaming Gateway" (Streaming Gateway [▶ 21])
   – "Protocol Settings" (Protocol Settings [▶ 21])
3. Click "Apply."

2.10.1 Streaming Gateway

Streaming mode

Settings: "Merge mode" / "Merge mode (Low Latency)"*1 / "Relay mode" / "Off"

*1 If the compression format is H.264, the "Profile" setting value is ignored.

Select the streaming mode.

- "Merge mode"
  Streams video from multiple cameras in a customized layout as a single stream. Up to two streaming settings can be configured.
- "Merge mode (Low Latency)"
  This mode minimizes delay in merge mode. It is suitable for operations requiring low latency, such as remote control. Only one streaming setting can be configured. Depending on the configured encoding values, the specified frame rate may not be achieved. In this case, lower the resolution or frame rate.
- "Relay mode"
  Re-streams video received from individual cameras using the RTSP or SRT protocol without processing. Streaming is performed without processing the video, so encoding settings cannot be configured.

2.10.2 Protocol Settings

RTSP - Username

Settings: Alphanumerics and symbols (up to 32 characters, excluding " ? / \ { | } ~ % : ` ,)

Enter the RTSP username.

Set according to your environment. You can set the username and password even if both fields are blank (you cannot set them if only one is blank). If both fields are left blank, streaming will be performed without authentication.

RTSP - Password

Settings: Alphanumerics and symbols (up to 32 characters, excluding " ? / \ { | } ~ % : ` ,)

Enter the RTSP password.

Set according to your environment. You can set the username and password even if both fields are blank (you cannot set them if only one is blank). If both fields are left blank, streaming will be performed without authentication.

RTSP - Port

Settings: "554" / "1024" – "65535"

Set the RTSP port number.

RTSP - RTP Packets Size

Settings: "400" – "1400"

Set the RTP packet size (unit: bytes).

SRT - Encryption

Settings: "None" / "AES-128" / "AES-192" / "AES-256"

Select the encryption method.

SRT - Passphrase

Settings: Alphanumeric characters and symbols (10 to 79 characters)

Set the passphrase.

Set according to your environment. You can set it to blank. If both fields are left blank, streaming will be performed without authentication.

SRT - TS Packets Count

Settings: "1" – "7"

Set the number of TS packets to be inserted into the SRT packets to be transmitted.

2.11 Configuring Streaming Settings

1. Select "Streaming Gateway" > "Streaming settings."
2. Click Edit ( ) for the camera you want to configure streaming settings.
3. Set each item.
   - "Camera Name" (Camera Name [▶ 22])
   - "Encode" (Encode [▶ 22])
   - "Protocol" (Protocol [▶ 22])
   - "IP Setting Method" (IP Setting Method [▶ 23])
   - "Port" (Port [▶ 23])
   - "MPEG2-TS" (MPEG2-TS [▶ 23])
4. Click "Apply."

Camera Name

When "Streaming mode" is set to "Merge mode" or "Merge mode (Low Latency)," "Live_View" is displayed.

When "Streaming mode" is set to "Relay mode," the same camera name as on the "Camera Registration" screen is displayed.

Encode

Settings: "Encoding Setting 1" / "Encoding Setting 2"

Select the encoding setting. For details on encoding settings, refer to 2.12 Configuring Encoding Settings [▶ 23].

Can be configured only when "Streaming mode" is set to "Merge mode" or "Merge mode (Low Latency)."

Protocol

Settings: "RTSP" / "SRT" / "RTP"

Select the protocol.

- "RTSP"
  A protocol widely used in surveillance cameras, etc. In most situations select this option.
- "SRT"
  Use when security or line quality is a priority. A license may be required when receiving on an IP decoding box/IP monitor, etc.
- "RTP"
  Delivers an RTP stream to the specified IP address and port.

IP Setting Method

Settings: "0.0.0.1" – "255.255.255.254" (excluding the multicast range "224.0.0.0" – "239.255.255.255")

Set the IP address.

Can be configured when "Protocol" is set to "RTP."

Port

Settings: "1024" – "65535"

Set the port number.

Can bet set if "Protocol" is "SRT" or "RTP."

MPEG2-TS

Settings: "1024" – "65535"

When retransmitting via MPEG2-TS over RTP, check "Enable."

Can bet set if "Protocol" is "RTSP."

2.12 Configuring Encoding Settings

1. Select "Streaming Gateway" > "Encoding Settings."
2. Set each item.
   – "Codec" (Codec [▶ 23])
   – "Resolution" (Resolution [▶ 23])
   – "Video Quality" (Video Quality [▶ 24])
   – "Frame Rate[1-60 fps]" (Frame Rate[1-60 fps] [▶ 24])
   – "Bitrate[256-16384 kbps]" (Bitrate[256-16384 kbps] [▶ 24])
   – "GOV Length[1-60]" (GOV Length[1-60] [▶ 24])
   – "Profile" (Profile [▶ 24])
3. Click "Apply."

Codec

Settings: "H.264" / "H.265"

Set the compression format.

Resolution

Settings: "2880x1620" / "2560x1600" / "1920x1080" / "1280x720" / "640x360"

Select the resolution.

Video Quality

Settings: "10" – "100" (in increments of 10)

Set the video quality.

Frame Rate[1-60 fps]

Settings: "1" – "60"

Set the frame rate (video image update interval).

Bitrate[256-16384 kbps]

Settings: "256" – "16384"

Set the bit rate.

GOV Length[1-60]

Settings: "1" – "60"

Set the I frame interval.

Profile

Settings: "Baseline" / "Main" / "High"

Select the profile. If "Codec" is "H.265," it is set to "Main."

3 Other Settings

3.1 Updating Software

You can perform a software version upgrade. Please download the version update file from the EIZO website (www.eizoglobal.com) in advance. For stable operation of the system, it is recommended to use the latest software. It is not possible to revert to an older version.

1. Select "System" > "Maintenance."
2. Click "Software Update" > "File" > "Browse."
3. Select the software file (extension: duraup4).
4. Click "Start."
5. Click "OK" in the confirmation dialog box.
   The process starts.
   During processing, the power indicator flashes red. Do not turn off the power. It takes approximately 10 minutes to update the software.

3.2 Registering a License

1. Select "System" > "Maintenance."
2. Click "License Activation" > "Extensions" > "Activate."
3. Click "Browse" and select the license file (extension: duralic).
4. Click "OK."
   The process starts.
   Close the browser and wait 2 minutes before accessing again.

Attention
• Selecting "Deactivate" will remove all additional registered licenses.

3.3 Registering a Camera Manually

The following cameras and video encoders must be registered manually.

- Cameras that cannot be automatically detected
- Fisheye/panoramic cameras with multiple and different video streams
  - Register multiple fisheye/panoramic cameras with the same IP address and specify the streams to be displayed.
- Video encoder with multiple cameras connected
  - Register multiple video encoders with the same IP address and specify the streams to be displayed. For Panasonic/i-PRO video encoders that support multiple channels, specify the camera to be displayed in "Channel."

Attention
• Cameras must be connected to the network even when registering them manually.

For the procedure to register cameras manually, refer to the User's Manual.

3.4 Check the Stream Using an IP Decoding Box/IP Monitor

Check the stream being streamed from this product with an IP decoding box/IP monitor.

On the IP decoding box/IP monitor side, set the following.

- Set "Protocol" to "EIZO Streaming Gateway" when registering the camera

For details, refer to the User's Manual of each product.

4 Troubleshooting

4.1 Power Problems

4.1.1 Video is not being streamed

- The power indicator is not lit
  - Is the power correctly connected? Connect the AC adapter or network hub that supports PoE+.
  - Are the power cords of the AC adapter and network hub properly connected?
- The power indicator is red
  - Press the power button (⏻) on the front of the product.
- The power indicator is flashing red
  - Connected to a PoE-compatible network hub but power is insufficient. Connect to a network that supports PoE+ or to an AC adapter (sold separately).

4.1.2 After a power outage, the camera image is no longer displayed

- If the error code "E**-**" is displayed, refer to 4.3 Video Problems [▶ 29].
- Request streaming again from the camera.
  - Select "Live Image Screen" > "Stream Refresh" and click "Stream Refresh" > "Execute."
- Depending on the camera, the settings may be reset when the power is turned off and on again. Make sure the camera settings are correct (refer to 2.2 Setting Cameras [▶ 13]).

4.1.3 Restarts all of a sudden

- When the temperature inside the product rises high, this product may restart repeatedly. Check the temperature around this product. The internal temperature may rise high when the product is used in a narrow or poorly ventilated place or when the product is used with an object placed on top of it.

4.2 Camera Registration Problems

4.2.1 Camera cannot be detected automatically

- Whether a camera can be automatically detected depends on the camera and network. Cameras that do not appear in the list must be registered manually. For the procedure to manually register the camera, refer to the User's Manual.

4.2.2 Communication error appears when clicking "Apply" in auto discovery

Auto discovery also detects cameras that do not have an IP address, username, or password set. To register, the camera must be configured correctly.

- Make sure you can connect to the camera (refer to 4.5 Checking a Camera Connection with Ping [▶ 33]).
- Check that a password is set for the camera (refer to 2.2 Setting Cameras [▶ 13]).
- Make sure the user you entered has administrative privileges.
- If different user names and passwords are set for each camera, check the position number where the error is displayed, click the edit icon ( ) and re-enter the username and password.

4.2.3 Communication error appears when clicking "Apply" in manual registration

- Make sure you can connect to the camera (refer to 4.5 Checking a Camera Connection with Ping [▶ 33]).
- Check that a password is set for the camera (refer to 2.2 Setting Cameras [▶ 13]).
- Make sure the user account you entered has administrative privileges.
- Make sure the IP address, port (typically "80," or "443" if SSL is enabled), username and password of the camera are correct.
- Depending on the camera, there are settings to enable ONVIF connections, and relevant settings for the port, user, and password. Check if there are settings related to ONVIF profiles on the camera.
- Cameras not verified by EIZO may not be compatible with this product. Consider registering cameras with the "DirectUri" protocol. For the RTSP stream URI (URI starting with rtsp://) to be entered as the URI, refer to the User's Manual of the camera or contact the camera manufacturer. When connected via the "DirectUri" protocol, video can be displayed, but PTZ control and setting changes cannot be performed on the camera.

4.3 Video Problems

4.3.1 Error message "E**-**" is displayed

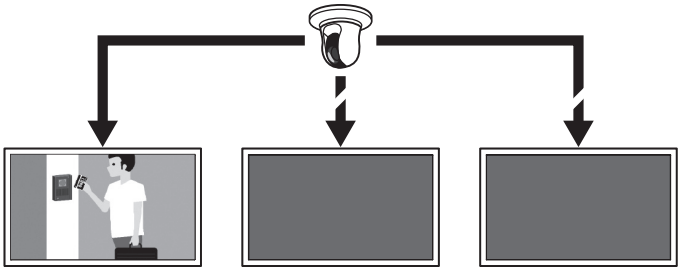
If the problem is not resolved, refer to Correct image is not displayed [▶ 31].

- E01-**
  - Check if the camera streaming settings are correct (refer to 2.2 Setting Cameras [▶ 13]).
  - There is a possibility that the camera is not working properly due to the high load. Disconnect other network devices accessing the camera or reduce the resolution or bit rate of the camera.
  - If the camera is connected to a different subnet, check that TCP and UDP communication is permitted on the router connecting the subnets.
- E02-**

  E02-02
  - Authentication has failed. Make sure the username and password of the camera are correct.

  E02-03
  - Streaming has stopped. If the error is caused by the camera being turned off or disconnection of the camera, the error changes to E02-04.
  - If the camera is connected to a different subnet, check that TCP and UDP communication is permitted on the router connecting the subnets.

  E02-04
  - Check if the power of the camera is on.
  - Make sure you can connect to the camera (refer to 4.5 Checking a Camera Connection with Ping [▶ 33]).
  - Make sure there are no duplicate IP addresses for the product or camera (refer to 4.6 Checking for Duplicate IP Addresses [▶ 33]).
    If the IP addresses of the products are duplicated, the camera image will be sent to only one device.



Products with duplicate IP addresses

  E02-07
  - If "Certificate Validation" is enabled, make sure that the certificate expiration date and other information are correct.

E03-**

– The network bandwidth may be under pressure or the display performance of this product may be exceeded. Reduce the resolution and/or bit rate of the camera (refer to 2.2 Setting Cameras [▶ 13]).

E04-**

– A resolution which is incompatible with this product may be set.
Try changing the resolution of the camera (refer to2.2 Setting Cameras [▶ 13]).

E05-**

– The stream format from the camera may be different from that of this product. Check the settings of the camera and this product and then restart this product.

E06-**

– The multicast setting value may not be set correctly. Check the settings of the camera.

E07-**

– The network may not be connected, such as the network cable is not connected to this product. Check the network connection.

E08-**

– There is no available license to use the camera protocol. Check the license.

4.3.2 Moving object slows down or speeds up

If the problem is not resolved, refer to Correct image is not displayed [▶ 31].

- The stream may contain B frames.
  – Select "Live Image Screen" > "Advanced" and turn "B frame decode buffer" to "Enable." If the problem does not resolve, uncheck the box.
  – Select "Live Image Screen" > "Advanced" and turn "Skip non-reference frames" to "Enable." If the problem does not resolve, uncheck the box.
- If B frames are the cause, disabling B frames on the camera can also resolve the problem.
- Frames may not be output according to the timestamp from the camera. Select "Live Image Screen" > "Advanced" and turn "Sync timestamp" to "Enable." If the problem does not resolve, uncheck the box.

4.3.3 Correct image is not displayed

Images are distorted

Displayed images are not smooth

Black images are displayed

Images are displayed or distorted at different times

- Select "Live Image Screen" > "Advanced" and turn "Network traffic condition" to "On." A circle indicating the communication status is displayed in the upper right corner of the image. If the circle is green, communication is normal.



  If the circle is yellow or red, packets are not received successfully. There is a problem with the camera or network path.
  - There is a possibility that the camera is not working properly due to the high load. Disconnect other network devices accessing the camera or reduce the resolution of bit rate of the camera.
  - Make sure there are no problems with the router, hubs, or network cables in the network path.

  If the circle is gray, the stream exceeds the indicated performance of this product.
  - Reduce the resolution and/or bit rate of the camera.
- Make sure there are no duplicate IP addresses for the product or camera (refer to 4.6 Checking for Duplicate IP Addresses [▶ 33]).
- Make sure the camera user entered has administrative privileges.
- Check if the camera streaming settings are correct (refer to 2.2 Setting Cameras [▶ 13]).
- If the protocol is "ONVIF," "AXIS" or "Panasonic/i-PRO" and the transmission mode is "Unicast," select "RTP over RTSP" as the connection method. Since TCP is used for streaming, the problem may resolve with packet control.
- Check whether the used hubs and network cables are appropriate for handling the amount of information transferred. If the transmission mode is unicast, the amount of information transferred is (camera bit rate) x (number of connections).
- Select "Troubleshooting" > "Network Connection Status," and check the current communication bandwidth (sending, receiving).

4.4 Other Problems

4.4.1 Cannot log in / cannot display the setting screen

- Re-enter the username and password.
- It is necessary to log in as a user with a user level of "ADMIN."
- Make sure there are no duplicate IP addresses for the product (refer to 4.6 Checking for Duplicate IP Addresses [▶ 33]).
- Make sure the IP address of the computer is correct (refer to 4.7 Checking the IP Address of a Computer [▶ 33]).
- Reset the account information using the Reset button, and perform the initial user registration (refer to 1.2 Controls and Functions [▶ 9]).

4.4.2 The set date and time are not displayed correctly

- If the product has not been connected to a power source for over a week, the system date and time will not be displayed accurately. If this happens, set the date and time again (see "System Settings" - "Set the Date and Time" in the User's Manual).

4.4.3 License registration fails

- Check that the correct date and time are set in the system (see "System Settings" - "Set the Date and Time" in the User's Manual).
- Send the error code, product name, serial number, product software version, and the license file that caused the error to your license dealer.

4.4.4 Cannot access this product because the IP address is unknown

- If an IP decoding box/IP monitor is receiving images from this product, the IP address of this product may be confirmed from the setting screen (camera registration screen).
- Press the Reset button on the front of the product to reset the product information (refer to 1.2 Controls and Functions [▶ 9]). The IP address returns to its default setting (192.168.0.150).

4.5 Checking a Camera Connection with Ping

To execute a Ping, perform one of the following.

- Click "Ping" in the "Camera Registration" edit screen.
- Select "Troubleshooting" > "Connection Confirmation," then select the camera and click "ping" > "Run."

If the camera cannot be connected, "Destination Host Unreachable" is displayed. Make sure the camera is turned on and that there are no problems with the routers, hubs, or network cables in the network path.

- Example) Execution results
  - If the camera can be connected

```
PING 192.168.0.27 (192.168.0.27) 56(84) bytes of data.
64 bytes from 192.168.0.27: icmp_seq=1 ttl=64 time=0.741 ms
64 bytes from 192.168.0.27: icmp_seq=2 ttl=64 time=0.771 ms
64 bytes from 192.168.0.27: icmp_seq=3 ttl=64 time=0.797 ms
```

  - If the camera cannot be connected

```
PING 192.168.0.27 (192.168.0.27) 56(84) bytes of data.
From 192.168.0.150 icmp_seq=1 Destination Host Unreachable
From 192.168.0.150 icmp_seq=2 Destination Host Unreachable
From 192.168.0.150 icmp_seq=3 Destination Host Unreachable
```

4.6 Checking for Duplicate IP Addresses

a. Select "Troubleshooting" > "Network Connection Status" and click "Current Status." If the IP address of this product is duplicated with other devices, "Unicast reply from" will be displayed for the number of duplicated units. Set unique IP addresses.

- Example) Execution result
  - If there are no duplicate IP addresses

```
ARPING 192.168.0.150 from 0.0.0.0 eth0
Sent 2 probes (2 broadcast(s))
Received 0 response(s)
```

  - If there are duplicate IP addresses

```
ARPING 192.168.0.150 from 0.0.0.0 eth0
Unicast reply from 192.168.0.150 [00:00:00:00:00:00] *1
Sent 2 probes (2 broadcast(s))
Received 0 response(s)
```

*1 The MAC address of duplicate device is displayed.

4.7 Checking the IP Address of a Computer

For Windows computers, you can check and change the LAN port network settings by following the steps below.

1. Press Windows + R key.
2. Enter ncpa.cpl in the "Run" window and click "OK."
3. Select "Ethernet" from the list and double-click.
   If there are multiple LAN ports, "Ethernet 2" and "Ethernet 3" are displayed.
4. Select "Internet Protocol Version 4 (TCP/IPv4)" and click "Properties."
5. Change the network settings and click "OK."

For setting details, contact the computer manufacturer.

Appendix

Warning for Radio interference

For U.S.A, Canada Only

FCC Supplier's Declaration of Conformity

We, the Responsible Party

Company: EIZO Inc.

Address: 5710 Warland Drive, Cypress, CA 90630

Phone: (562) 431-5011

declare that the product

Trade name: EIZO

Model: DuraVision SGX0031

is in conformity with Part 15 of the FCC Rules. Operation of this product is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

WARNING!

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will required to correct the interference at his own expense.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note

Use the attached specified cable below with this product so as to keep interference within the limits of a Class A digital device.

- AC Adapter

Canadian Notice

This Class A information technology equipment complies with Canadian ICES-003.

Cet équipement informatique de classe A est conforme à la norme NMB-003 du Canada.

For Europe, Australia, New Zealand, etc Only

Warning

Operation of this equipment in a residential environment could cause radio interference.

Warnung

Der Betrieb dieses Geräts in einer Wohnumgebung könnte Funkstörungen verursachen.

Avertissement

L'utilisation de cet équipement dans une zone résidentielle pourrait provoquer des interférences radio.

LIMITED WARRANTY

EIZO Corporation (hereinafter referred to as "EIZO") and distributors authorized by EIZO (hereinafter referred to as the "Distributors") warrant, subject to and in accordance with the terms of this limited warranty (hereinafter referred to as the "Warranty"), to the original purchaser (hereinafter referred to as the "Original Purchaser") who purchased the product specified in this document (hereinafter referred to as the "Product") from EIZO or Distributors, that EIZO and Distributors shall, at their sole discretion, either repair or replace the Product at no charge if the Original Purchaser becomes aware within the Warranty Period (defined below) that the Product malfunctions or is damaged in the course of normal use of the Product in accordance with the description in the instruction manual of the Product (hereinafter referred to as the "User's Manual").

The period of this Warranty is two (2) years from the date of purchase of the Product (hereinafter referred to as the "Warranty Period").

EIZO and Distributors shall bear no liability or obligation with regard to the Product in relation to the Original Purchaser or any third parties other than as provided under this Warranty.

EIZO and Distributors will cease to hold or store any parts (excluding design parts) of the Product upon expiration of five (5) years after the production of the Product is discontinued.

In repairing the Product, EIZO and Distributors will use renewal parts which comply with our QC standards. If the unit cannot be repaired due to its condition or the stockout of a relevant part, EIZO and Distributors may offer the replacement by a product with equivalent performance instead of repairing it.

The Warranty is valid only in the countries or territories where the Distributors are located. The Warranty does not restrict any legal rights of the Original Purchaser.

Notwithstanding any other provision of this Warranty, EIZO and Distributors shall have no obligation under this Warranty whatsoever in any of the cases as set forth below:

1. Any defect of the Product caused by freight damage, modification, alteration, abuse, misuse, accident, incorrect installation, disaster, adherent dust, faulty maintenance and/or improper repair by third party other than EIZO and Distributors;
2. Any incompatibility of the Product due to possible technical innovations and/or regulations;
3. Any deterioration of the sensor, including measurement value of the sensor;
4. Any defect of the Product caused by external equipments;
5. Any defect of the Product caused by the use under environmental conditions other than EIZO and Distributors' estimation;
6. Any deterioration of the attachments of the Product (e.g. cables, User's Manual, CD-ROM, etc.);
7. Any deterioration of the consumables, and/or accessories of the Product (e.g. batteries, remote controller, touch pen, etc.);
8. Any deformation, discoloration, and/or warp of the exterior of the Product;

9. Any defect of the Product caused by placement in a location where it may be affected by strong vibrations or shocks;
10. Any deterioration or malfunction of the cooling fan caused by adherent dust.

To obtain service under the Warranty, the Original Purchaser must deliver the Product, freight prepaid, in its original package or other adequate package affording an equal degree of protection, assuming the risk of damage and/or loss in transit, to the local Distributor. The Original Purchaser must present proof of purchase of the Product and the date of such purchase when requesting services under the Warranty.

The Warranty Period for any replaced and/or repaired product under this Warranty shall expire at the end of the original Warranty Period.

EIZO OR DISTRIBUTORS ARE NOT RESPONSIBLE FOR ANY DAMAGE TO, OR LOSS OF, DATA OR OTHER INFORMATION STORED IN ANY MEDIA OR ANY PART OF ANY PRODUCT RETURNED TO EIZO OR DISTRIBUTORS FOR REPAIR.

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