

# **User's Manual**

# DuraVision<sup>®</sup> MDF2701W

**Color LCD Monitor** 

# **Important**

Carefully read this User's Manual and Setup Manual before use to use the monitor correctly.

- See the Setup Manual for monitor installation and connection.
- For the latest product information including the "User's Manual", refer to 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 is intended for use in marine chart display systems, radar displays, or machinery monitoring on ships.
- It is not intended for use in applications such as the following that require extremely high reliability and safety. Please refrain from using it for such purposes.
  - 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.)
- This product may not be covered by warranty for uses other than those described in this
  manual.
- · The specifications noted in this manual are only applicable when the following are used:
  - Power cords provided with the product
  - Signal cables specified by us
- · Only use optional products manufactured or specified by us with this product.

#### About the LCD Panel

- It takes about 30 minutes (under our measurement conditions) for the monitor display to stabilize. Please wait 30 minutes or more after the monitor power has been turned on, and then adjust the monitor.
- Monitors should be set to a lower brilliance to prevent a loss in the screen quality caused by long-term use and to maintain stable use.
- When the screen image is changed after displaying the same image for extended
  periods of time, an afterimage may remain. Use the screensaver or power save function
  to avoid displaying the same image for extended periods of time. An afterimage may
  appear even after a short time period has elapsed depending on the displayed image.
  To remove such a phenomenon, change the image or keep the power turned off for
  several hours.
- If the monitor displays continuously over a long period of time, smudges or burn-in may appear. To maximize the life of the monitor, we recommend the monitor be turned off periodically.
- The LCD panel is manufactured using high-precision technology. Although, missing pixels or lit pixels may appear on the LCD panel, this is not a malfunction. Percentage of effective dots: 99.9994 % or higher.
- The backlight of the LCD panel has a fixed lifetime. Depending on the usage pattern, such as usage for long continuous periods, the lifespan of the backlight may run out sooner, requiring replacement. When the screen becomes dark or begins to flicker, please contact your local EIZO representative.
- Do not scratch or press on the LCD panel with any sharp objects, at this may result in damage to the LCD panel. Do not attempt to brush with tissues as this may scratch the panel.

#### **About the Installation**

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.

## Cleaning

- Periodic cleaning is recommended to keep the product looking new and to prolong its operation lifetime.
- Stains on the product can be removed by moistening part of a soft cloth with water or by using our ScreenCleaner and gently wiping.

#### **Attention**

- Do not let liquids come into direct contact with the product. If it does, wipe it off immediately.
- Do not allow liquids to get into gaps or inside the product.
- When using chemicals for cleaning or disinfection, chemicals such as alcohol and disinfectant
  may cause gloss variation, tarnishing, and fading of the product, and also quality deterioration of
  the displayed image. Do not use chemicals on a frequent basis.
- · Never use a thinner, benzene, wax, or abrasive cleaner as they may damage the product.
- 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.

## To Use the Monitor Comfortably

- An excessively dark or bright screen may affect your eyes. Adjust the brightness of the monitor according to the environmental conditions.
- Staring at the monitor for a long time tires your eyes. Take a 10-minute rest every hour.
- Look at the screen from a proper distance and from a proper angle.

# **CONTENTS**

	Abo	out This Product				
		About the Usage of This Product	3			
		About the LCD Panel	3			
		About the Installation	4			
		Cleaning	4			
		To Use the Monitor Comfortably	4			
1	Intro	oduction	7			
	1.1	Features	7			
2		ic Adjustment / Settings	8			
_	2.1	Adjusting Brightness	8			
2						
3		anced Adjustment / Setting	9			
	3.1	Basic Operation of the Setting Menu	9			
	3.2	· ·	10			
			10			
		Č	12 15			
			15 16			
			16 16			
	A -I					
4		C	17 17			
	4.1	·	17 40			
	4.2	•	18			
5	Trou	ıbleshooting	20			
	5.1	No Picture	20			
	5.2	Imaging Problems (Digital and Analog)	21			
	5.3	Imaging Problems (Analog only)	22			
	5.4	Other Problems	22			
6	Mair	ntenance	23			
	6.1	Periodic confirmation of buzzer warning sound	23			
7	Refe	erence	24			
	7.1	Specifications	24			
		7.1.1 LCD Panel	24			
		7.1.2 Protective Glass	24			
		7.1.3 Video Signals	24			
		7.1.4 Communication	24			
		7.1.5 Power	25			
		· ·	25			
		7.1.7 Operating Environmental Requirements	25			

## CONTENTS

		Transport / Storage Conditions	
	7.1.9	Viewing Distance	25
	7.1.10	Protection structure	25
7.2	Compa	atible Resolutions	26
Арр	endix		27
	Traden	nark	27
	License	9	27
	Testing	g Standard	27
	Type A	pproval of Ship Classification	27
	Other (	Certifications	28
	Warnin	g for Radio interference	28
		For Europe, etc Only	28
	LIMITE	D WARRANTY	28

# 1 Introduction

Thank you very much for choosing an EIZO color LCD monitor.

#### 1.1 Features

- · 27.0-inch screen
- Supports 1920 x 1080 resolution
- · Equipped with a wide viewing angle panel
- Achieves high visibility and improved screen intensity through optical bonding<sup>\*1</sup>
- · Dimming down to low brightness

Also equipped with a mode that turns off the backlight.

(You can set the state when "Brilliance" in the adjustment menu is set to the lowest value.)

(See Backlight Off Mode [▶ 19].)

The front buttons of the monitor light up

The front buttons (control buttons) light up in green so you can operate the monitor even in dark environments. You can also adjust the brightness of the light.

(See Indicator [▶ 15].)

Equipped with a warning buzzer It can be controlled from the system.

· Equipped with AC / DC power supply

Equipped with AC and DC power inputs to support a variety of installation environments. In addition, by connecting to both power sources, it can be used as a backup power supply when an AC power failure occurs. (If connected to both, the AC power be prioritized.)

- Supports HDCP copyright protection technology
- · Type approval of ship classification

This product is pending approval for the following types of ship classifications:

- NK (Nippon Kaiji Kyokai)
- DNV (Norway Register of Shipping)
- ABS (American Bureau of Shipping)
- LR (Lloyd's Register of Shipping)

For the latest information on approvals for ship classifications, please refer to our web

(www.eizoglobal.com)

Maritime standards

This product complies with the IEC60945 4th edition standard.

Technology that fills the gap (air space) between an LCD panel and a clear panel with resin and then bonds them together.

# 2 Basic Adjustment / Settings

# 2.1 Adjusting Brightness

Settings: "0%" - "100%"

The brightness of the screen can be adjusted to suit the installation environment or personal preference.

The screen brightness is adjusted by changing the brightness of the backlight (light source from the LCD back panel).

- Press or .
   The brilliance adjustment screen appears.
- 2. Specify the setting using **④** or **▶**.
- 3. Press when you are finished with the settings.

# 3 Advanced Adjustment / Setting

This chapter describes the advanced monitor adjustment and setting procedures using the Setting menu.

For basic functions, see 2 Basic Adjustment / Settings [▶ 8].

# 3.1 Basic Operation of the Setting Menu

1. Press . The Setting menu appears.



2. Select the menu to adjust/set with **③ ●**, then press **●**. The Sub menu appears.



3. Select the menu to adjust/set with  $\bigcirc$   $\bigcirc$ , then press  $\bigcirc$ . The Adjustment/Setting menu appears.

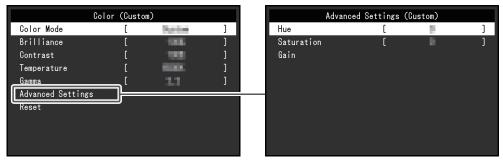


- 4. Perform adjustment/setting with **④ ▶**, then press **●**.
- 5. Pressing (3) several times will close the menu.

## 3.2 Setting Menu Functions

#### 3.2.1 Color

The color mode settings can be adjusted according to personal preference. The adjusted settings are saved for each color mode.



Functions that can be adjusted differ depending on the color mode.

#### ✓: Adjustable, -: Not adjustable

Function		Color Mode	
		Custom	Day
			Dusk
			Night
Brilliance		✓	✓
Contrast		✓	-
Temperature		✓	-
Gamma	Gamma		-
Advanced Settings	Hue	✓	-
	Saturation	✓	-
	Gain	✓	-
Reset		<b>√</b>	✓

#### **Attention**

- It takes about 30 minutes for the monitor display to stabilize. Please wait 30 minutes or more
  after power to the monitor has been turned on before adjusting the monitor.
- The same image may be observed in different colors on multiple monitors due to monitor-specific characteristics. Make fine color adjustments visually when matching colors across multiple monitors. Follow the procedure below to adjust and match colors across multiple monitors.
- 1. Display a white screen on each monitor.
- 2. Use one of the monitors as a visual reference point to make adjustments to "Brilliance", "Temperature", and "Gain" on the other monitors.

#### **Color Mode**

Settings: "Custom" / "Day" / "Dusk" / "Night"

Switches display modes.

There are three modes (Day, Dusk, Night) that comply with the ECDIS standard, and a mode (Custom) that allows you to configure settings that suit your preferences.

#### **Brilliance**

Settings: "0%" - "100%"

The screen brightness is adjusted by changing the brightness of the backlight (light source from the LCD back panel).

#### Note

- The value shown in "%" is for reference.
- 0% can only be set when Backlight Off Mode is set to "On".
- You can also set by pressing 
   or 
   (2.1 Adjusting Brightness [▶ 8]).
- When adjusting the brilliance by holding down or b, the adjustment will stop when the default setting is reached. If you press or , you can continue adjusting (When "ECDIS Indicator": "On" and "Color Mode": "Day", "Dusk", "Night").

#### **Attention**

· If you change the value to a value other than the default setting, the display will not conform to the ECDIS standard anymore.

#### **Contrast**

Settings: "0%" - "100%"

Adjusts the contrast between bright and dark areas of the screen.

#### Note

- The value shown in "%" is for reference.
- When the contrast is set to 100 %, all color gradations can be displayed.

#### **Temperature**

Settings: "Native" / "4000 K" - "10000 K" (in increments of 500 K. 9300 K is included) / "User"

Adjusts the color temperature.

The color temperature is normally used to express the hue of "White" and/or "Black" with a numerical value. The value is expressed in degrees "K" (Kelvin).

The screen becomes reddish at low color temperatures and bluish at high color temperatures, similar to the temperatures of a flame. A gain preset value is set for each color temperature setting value.

#### Note

- The value shown in "K" is available only as a reference.
- "Gain" allows you to perform more advanced adjustment (see Advanced Settings Gain [ 12]).
- If set to "Native", the image is displayed in the preset color of the LCD panel (Gain: 100 for each RGB channel).
- · When the gain is changed, the color temperature setting changes to "User".

#### Gamma

Settings: "1.8" / "2.0" / "2.2" / "2.4" / "2.6"

Adjusts the gamma value.

While the brightness of the monitor varies depending on the video level of the input signal, the variation rate is not directly proportional to the input signal. Maintaining the balance between the input signal and brightness of the monitor is referred to as "Gamma correction".

#### **Advanced Settings - Hue**

Settings: "-100" - "100"

This function allows you to adjust hue.

#### Note

· Using this function may prevent some color gradations from being able to be displayed.

#### **Advanced Settings - Saturation**

Settings: "-100" - "100"

This function allows you to adjust color saturation.

#### **Note**

- Using this function may prevent some color gradations from being able to be displayed.
- The minimum value (-100) changes the screen to monochrome.

#### **Advanced Settings - Gain**

Settings: "0%" - "100%"

The brightness of each red, green, and blue color component is referred to as "Gain". The hue of "white" can be changed by adjusting the gain.

#### Note

- The value shown in "%" is for reference.
- · Using this function may prevent some color gradations from being able to be displayed.
- The gain value changes according to the color temperature.
- When the gain is changed, the color temperature setting changes to "User".

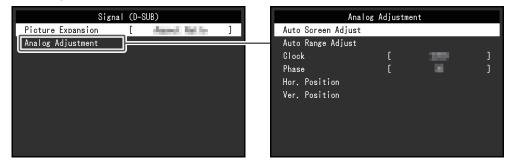
#### Reset

Resets any color adjustments for the currently selected color mode back to the default settings.

#### 3.2.2 Signal

Set the details regarding input signal, such as the screen size and color format.

· D-Sub input



DVI/DisplayPort™ input



The functions that can be set differ depending on the input signal.

✓: Can be set, -: Cannot be set.

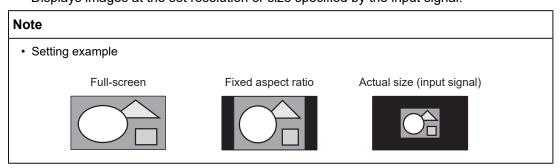
Function	Input Signal		
	DisplayPort	DVI	D-SUB
Picture Expansion	✓	✓	✓
Analog Adjustment	-	-	✓

#### **Picture Expansion**

Settings: "Full Screen" / "Aspect Ratio" / "Dot by Dot"

The screen size of the monitor display can be changed.

- "Full Screen"
  - Displays images in full screen. Since aspect ratios are not maintained, images may be distorted in some cases.
- "Aspect Ratio"
  - Displays images in full screen. As aspect ratios are maintained, blank horizontal or vertical borders may appear.
- · "Dot by Dot" Displays images at the set resolution or size specified by the input signal.



#### **Analog Adjustment - Auto Screen Adjust**

Screen flickering, display position, and size can be adjusted automatically. Selecting "Auto Screen Adjust" displays a message. Select "Yes" to enable this function.

#### Note

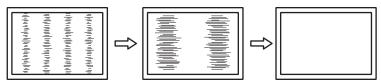
- The auto screen adjust function will operate correctly if an image is displayed in the entire displayable area of the screen. It will not operate correctly in the following cases:
  - When an image is displayed in only part of a screen like the command prompt
  - When black is used in the background, such as a wallpaper
     Also, when the function may not work correctly in part of the graphics board

#### **Analog Adjustment - Auto Range Adjust**

The signal output level can be automatically adjusted to enable display of all color gradations (0 to 255). When you select "Auto Range Adjust", a message will appear. Select "Yes".

#### **Analog Adjustment - Clock**

Flickering of vertical lines or part of the screen can be minimized.

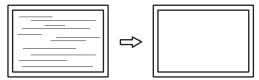


#### Note

• It is easy to overlook the point where the setting is suitable, so please finely adjust.

#### **Analog Adjustment - Phase**

Flickering or bleeding of the screen as a whole can be minimized.

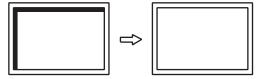


#### **Note**

- Flickering or bleeding may not fully disappear, depending on the PC and graphics board you are using.
- If vertical stripes appear on the screen after completing the setting, adjust "Clock" again.

#### Analog Adjustment - Hor. Position / Ver. Position

The display position (horizontal, vertical) of the screen can be adjusted.



#### Note

Since the number of pixels and the pixel positions are fixed on the LCD monitor, only one
position is provided to display images correctly. The display position can be adjusted to set the
image to its correct position.

#### 3.2.3 Preferences

The monitor settings can be configured to suit your usage environment or preferences.



#### Input

Settings: "DVI" / "DisplayPort" / "D-SUB"

Selects the input signal.

#### **Power Save**

Settings: "On" / "Off"

The monitor can be set to enter power saving mode according to the state of the PC.

The monitor changes to power saving mode about 15 seconds after signal input ceases to be detected.

When the monitor has shifted to power saving mode, images are not displayed on the screen.

- · Exiting power saving mode
  - The monitor automatically exits power saving mode when the monitor receives input

#### Note

· At the time of shifting to power saving mode, a message that indicates the transition is displayed five seconds in advance.

#### Indicator

Settings: "1" - "7"

The brightness of the control buttons and power button can be set. (Default setting: 4)

#### **Monitor Reset**

Restores all settings to their default settings except for the following settings:

- · Settings on the "Administrator Settings" menu
- "Input" in the "Preferences" menu

#### 3.2.4 Languages

Settings: "English" / "German" / "French" / "Spanish" / "Italian" / "Swedish" / "Japanese" / "Simplified Chinese" / "Traditional Chinese"

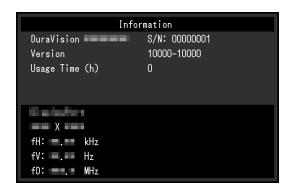
The display language for menus and messages can be selected.



#### 3.2.5 Information

You can check the monitor information (model name, serial number (S/N), firmware version, usage time) and the input signal information.

Example:

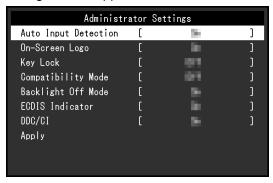


# **4 Administrator Settings**

This chapter describes how to configure monitor operation using the "Administrator Settings" menu.

## 4.1 Basic Operation of the "Administrator Settings" Menu

- 1. Press and hold (b) for more than 5 seconds to turn off the monitor.
- 2. Holding down ③ and pressing ⑥ for more than 2 seconds will turn on the monitor. The "Administrator Settings" menu appears.

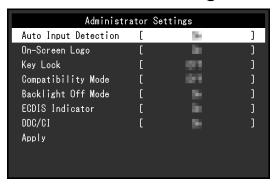


3. Select an item to set with  $\bigcirc$  be then press  $\bigcirc$ . The Adjustment/Setting menu appears.



- 4. Set with **④ ▶**, then press **●**. The "Administrator Settings" menu appears.
- 5. Select "Apply" then press ●. The settings are applied and the "Administrator Settings" menu exits.

# 4.2 Functions of the "Administrator Settings" Menu



#### **Auto Input Detection**

Settings: "On" / "Off"

This function automatically recognizes the connector through which PC signals are input, and displays images on the screen accordingly.

• "On"

When the monitor is connected to multiple PCs, if a specific PC enters power saving mode or no signals are input to the monitor, the connector is automatically changed to another one to which signals are input.

"Off"

To be set to this when manually selecting input signals.

#### Note

• When this function is set to "On", the monitor only enters the power saving mode when signals are not input from any PC.

#### **On-Screen Logo**

Settings: "On" / "Off"

When the monitor is turned on, the EIZO logo appears on the screen.

When this function is set to "Off", the EIZO logo does not appear.

#### **Key Lock**

Settings: "Off" / "Menu" / "All"

In order to prevent changes to the settings, the operation buttons on the front of the monitor can be locked.

- "Off" (default setting)
   Enables all buttons.
- "All"
  Locks all buttons except the power button.

#### **Note**

• When a button is pressed while the lock is on, "Locked" will be displayed on the screen.

#### **Compatibility Mode**

Settings: "On" / "Off"

If you want to avoid the following phenomena, set this function to "On":

· The positions of windows and icons are shifted when the monitor is turned off/on or has returned from the power saving mode.

#### **Backlight Off Mode**

Settings: "On" / "Off"

If it is set to "On" and "Brilliance" is set to the lowest value, the backlight turns off and the screen becomes completely black. (Except when the adjustment menu is displayed, when an input signal error is displayed, when the EIZO logo is displayed, etc.)

If it is set to "Off" and "Brilliance" is set to the lowest value, the screen will not become completely black.

#### **ECDIS Indicator**

Settings: "On" / "Off"

If this function is set to "On", the ECDIS indicator will light up.

#### Note

- The ECDIS indicator will not light up in the following cases.
  - When "ECDIS Indicator": "Off"
  - When "Color Mode": "Custom"
  - The monitor brilliance is not set according to the ECDIS adjustment value
  - Correct signal is not input

#### DDC/CI

Settings: "On" / "Off"

Switch between enabling or disabling DDC/CI communication.

# 5 Troubleshooting

#### 5.1 No Picture

#### All control buttons do not light up

- · Check whether the power cord is connected properly.
- Turn on the main power switch on the back of the monitor.
- Turn off the main power switch on the back of the monitor, and then turn it on again a few minutes later.

#### Only the power button lights up (in green)

• Press (6).

#### All control buttons light up (in green)

- Adjust the brightness of the screen (see Brilliance [ 11]).
- Try switching the input signal (see Input [▶ 15]).
- Turn the setting "On" for "Compatibility Mode" on the "Administrator Settings" menu (see Compatibility Mode [▶ 19]).
- · Move the mouse or press any key on the keyboard.
- · Check whether the PC is turned on.

#### The message "No Signal" appears on the screen.

Example:

DisplayPort No Signal

- The message shown above may appear, because some PCs do not output a signal immediately after power-on.
- · Check whether the PC is turned on.
- · Check whether the signal cable is connected properly.
- · Switch the input signal.
- Try setting "Auto Input Detection" in the "Administrator Settings" menu to "Off" and switching the input signal manually (see Auto Input Detection [▶ 18]).

### The message "Signal Error" appears on the screen.

Example:

DisplayPort Signal Error

- Check whether the PC is configured to meet the resolution and vertical scan frequency requirements of the monitor (see 7.2 Compatible Resolutions [▶ 26]).
- · Reboot the PC.
- Select an appropriate setting using the graphics board's utility. Refer to the User's Manual of the graphics board for details.

## 5.2 Imaging Problems (Digital and Analog)

#### The screen is too bright or too dark

 Adjust "Brilliance" in the Setting menu (see Color [> 10]). (The LCD monitor backlight has a limited life span. If the screen becomes dark or begins to flicker, contact your local EIZO representative.)

#### The screen suddenly became dark / Even when increasing the value of "Brilliance" in the Adjustment menu, the screen does not become brighter

 This product constantly monitors the internal temperature of the monitor. If the internal temperature becomes too high and exceeds a certain level, it may limit the brightness to reduce the internal temperature. In such a case, you cannot set the brightness above the limit. This condition will return to normal when the internal temperature drops. If the internal temperature continues to rise, the power of the monitor will automatically turn off.

#### Letters and images are blurred

- Check whether the PC is configured to meet the resolution and vertical scan frequency requirements of the monitor (see 7.2 Compatible Resolutions [ 26]).
- Try setting the magnification of display on the OS to "100 %". When using multiple monitors, try setting the magnification of display to "100 %" on all monitors.

#### Afterimage visible

- Afterimages are particular to LCD monitors. Avoid displaying the same image for a long
- · Use the screen saver or power saving function to avoid displaying the same image for extended periods of time.
- Depending on the image, an afterimage may appear even if it was displayed for a short period of time. To remove such a phenomenon, change the image or keep the power turned off for several hours.

#### Green / red / blue / white / dark dots remain on the screen

This is due to LCD panel characteristics and not a malfunction.

#### Interference patterns or pressure marks remain on the LCD panel

Leave the monitor with a white or black screen. The symptom may disappear.

#### The positions of windows and icons are shifted when the monitor is turned off/on or when restored from power saving mode.

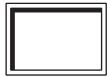
• Turn the setting "On" for "Compatibility Mode" on the "Administrator Settings" menu (see Compatibility Mode [▶ 19]).

#### Images are not displayed over the entire area of the screen.

- Try changing "Picture Expansion" in the Setting menu (see Picture Expansion [> 13]).
- · Check whether the setting for the resolution of the PC matches the resolution of the monitor.

# 5.3 Imaging Problems (Analog only)

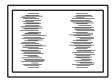
#### Screen is misaligned



- Use "Hor. Position" or "Ver. Position" in the Setting menu to adjust the positioning of the screen (see Analog Adjustment Hor. Position / Ver. Position [▶ 14]).
- If the graphics board's utility has a function to change the position of the image, use that function to adjust the position.

#### Vertical lines appear on the screen / Part of the screen is flickering





• Try adjusting "Clock" in the Setting menu (see Analog Adjustment - Clock [▶ 14]).

### The whole screen appears to flicker or bleed



• Try adjusting "Phase" in the Setting menu (see Analog Adjustment - Phase [ 14]).

#### **5.4 Other Problems**

#### The Setting menu does not appear

• Check whether the operation lock function is enabled (see Key Lock [ 18]).

# Even when the mouse or keyboard are used, the PC does not return from sleep.

• Turn the setting "On" for "Compatibility Mode" on the "Administrator Settings" menu (see Compatibility Mode [▶ 19]).

# 6 Maintenance

# 6.1 Periodic confirmation of buzzer warning sound

- This monitor is equipped with a buzzer that can produce warning sounds under system control.
- It is recommended to periodically verify that the buzzer warning sound is functioning. For verification, please use the system control.

#### Note

• For more information on system control, please contact your local EIZO representative.

# 7 Reference

# 7.1 Specifications

## 7.1.1 LCD Panel

Backlight	LED
Size	27" (68.6 cm)
Resolution	1920 dots x 1080 lines
Display Size (H x V)	597.6 mm x 336.2 mm
Pixel Pitch (H x V)	0.311 mm x 0.311 mm
Display Colors	8-bit colors: 16.77 million colors
Viewing Angle (H / V, typical)	89° / 89°
Maximum Brightness (typical)	350 cd/m <sup>2</sup>
Contrast Ratio (typical)	3000:1
Response time (typical) Black -> White -> Black	12 ms

#### 7.1.2 Protective Glass

Surface coating	Anti-reflection, anti-fingerprint
Surface hardness	5H

# 7.1.3 Video Signals

Input Terminals		DisplayPort (HDCP 1.3 compatible) x 1, DVI (HDCP 1.4 compatible) x 1, D-Sub 15 pin (mini) x 1
Digital Scanning Frequency	DisplayPort, DVI-D	31 kHz – 76 kHz / 59 Hz – 61 Hz, 69 Hz – 71 Hz (at 720 x 400)
(H / V *1)		
Analog Scanning Frequency	D-Sub	31 kHz – 81 kHz / 56 Hz – 76 Hz, 56 Hz – 61 Hz (at 1600 x 1200, 1920 x 1200)
(H / V *1)		
Dot clock		162 MHz
(Max.)		
Synchronization Signal		H / V separate, positive / negative

<sup>\*1</sup> The vertical scan frequency supported varies according to the resolution. For more information, see 7.2 Compatible Resolutions [▶ 26].

#### 7.1.4 Communication

USB	Port	USB-B connector (upstream) x 1
	Standard	USB Specification Revision 2.0
RS-232C	Port	D-Sub 9 pin (female) x 1

#### 7.1.5 **Power**

Input	AC	100 V – 240 V +10 % / -15 %, 50 / 60 Hz, 0.50 A – 0.25 A
	DC	24 V +30 % / -10 %, 1.85 A
Maximum Power	AC	45 W or less
Consumption	DC	44 W or less
Power Save Mode	AC	5 W or less*1
	DC	5 W or less*1
Standby Mode	AC	5 W or less
	DC	5 W or less

<sup>\*1</sup> No external load is connected, default setting

## 7.1.6 Physical Specifications

Dimensions (W x H x D)	656.0 mm x 454.0 mm x 62.5 mm
Net Weight	Approx. 8.4 kg

## 7.1.7 Operating Environmental Requirements

Temperature	-15 °C – 55 °C
Humidity	10 % – 93 % R.H. (no dew condensation)
Air Pressure	540 hPa – 1060 hPa

## 7.1.8 Transport / Storage Conditions

Temperature	-20 °C – 60 °C
Humidity	10 % – 93 % R.H. (no dew condensation)
Air Pressure	540 hPa – 1060 hPa

#### 7.1.9 Viewing Distance

Viewing Distance (recommended)	1073 mm or more (based on IEC 62288)
--------------------------------	--------------------------------------

#### 7.1.10 Protection structure

Front	IP65
Back	IP22*1

 $<sup>^{\</sup>star1}$  When using the DC terminal block and installing it at a downward angle of 15° to 30°, use the terminal block "FRONT-MSTB 2,5 / 4-STF-5,08".

# 7.2 Compatible Resolutions

The monitor supports the following resolutions:

✓: Supported, -: Not supported

Resolution	Vertical scan frequency (Hz)	DisplayPort	DVI	D-Sub
640 x 480	59.940	✓	✓	✓
640 x 480	60.000	✓	✓	✓
640 x 480	72.809	-	-	✓
640 x 480	75.000	-	-	✓
720 x 400	70.087	✓	✓	✓
800 x 600	56.250	-	-	✓
800 x 600	60.317	✓	✓	✓
800 x 600	72.188	-	-	✓
800 x 600	75.000	-	-	✓
1024 x 768	60.004	✓	✓	✓
1024 x 768	70.069	-	-	✓
1024 x 768	75.029	-	-	✓
1280 x 960	60.000	✓	✓	✓
1280 x 1024	60.020	✓	✓	✓
1280 x 1024	75.025	-	-	✓
1600 x 1200	59.924	✓	✓	✓
1600 x 1200	60.000	✓	✓	✓
1680 x 1050	59.883	✓	✓	✓
1680 x 1050	59.954	✓	✓	✓
1920 x 1080*1	60.000	✓	✓	✓
1920 x 1200	59.950	✓	✓	✓

<sup>\*1</sup> Recommended resolution

#### Note

• Only progressive is supported for the Scan Format.

# **Appendix**

#### **Trademark**

The terms HDMI, HDMI High-Definition Multimedia Interface, HDMI trade dress and the HDMI Logos are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.

DisplayPort, the DisplayPort Compliance Logo and VESA are trademarks of the Video Electronics Standards Association in the United States and other countries.

The SuperSpeed USB Trident Logo is a registered trademark of USB Implementers Forum, Inc.



The SuperSpeed USB Power Delivery Trident Logos are trademarks of USB Implementers Forum, Inc.



USB Type-C and USB-C are registered trademarks of USB Implementers Forum, Inc.

DICOM is the registered trademark of the National Electrical Manufacturers Association for its standards publications relating to digital communications of medical information.

Kensington and Microsaver are registered trademarks of ACCO Brands Corporation.

Thunderbolt is a trademark of Intel Corporation in the United States and/or other countries.

Microsoft and Windows are registered trademarks of Microsoft Corporation in the United States and other countries.

Adobe is a registered trademark of Adobe in the United States and other countries.

Apple, macOS, Mac OS, OS X, macOS Sierra, Macintosh and ColorSync are trademarks of Apple Inc.

EIZO, the EIZO Logo, ColorEdge, CuratOR, DuraVision, FlexScan, FORIS, RadiCS, RadiForce, RadiNET, Raptor, and ScreenManager are registered trademarks of EIZO Corporation in Japan and other countries.

ColorEdge Tablet Controller, ColorNavigator, EcoView NET, EIZO EasyPIX, EIZO Monitor Configurator, EIZO ScreenSlicer, G-Ignition, i•Sound, Quick Color Match, RadiLight, Re/ Vue, SafeGuard, Screen Administrator, Screen InStyle, ScreenCleaner, SwitchLink, and UniColor Pro are trademarks of EIZO Corporation.

All other company names, product names, and logos are trademarks or registered trademarks of their respective owners.

#### License

The bitmap font used for this product is designed by Ricoh Industrial Solutions Inc.

# **Testing Standard**

This product complies with the IEC60945 4th edition standard.

Equipment category: b) protected from the weather

# **Type Approval of Ship Classification**

This product is pending approval for the following types of ship classifications:

- · NK (Nippon Kaiji Kyokai)
- · DNV (DNV Register of Shipping)

- · ABS (American Bureau of Shipping)
- · LR (Lloyd's Register of Shipping)
- \* For the latest information on approvals for ship classifications, please refer to our web site. (www.eizoglobal.com)

#### **Other Certifications**

This product is pending approval for EU RO MR TAC (EU mutual recognition).

\* For the latest information on certifications, please refer to our web site.

(www.eizoglobal.com)

# Warning for Radio interference

#### For Europe, 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 three (3) 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 ten (10) 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:

- 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 not anticipated by EIZO;
- 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 exterior deterioration or discoloration of the Product, including that of the surface of the LCD panel, the touch panel and the protect panel;
- 9. Any defect of the Product caused by placement in a location where it may be affected by strong vibrations or shocks;
- 10. Any defect of the Product caused by leaking battery liquid;
- 11. Any deterioration of display performance caused by the deterioration of expendable parts such as the LCD panel and/or backlight, etc. (e.g. changes in brightness, changes in brightness uniformity, changes in color, changes in color uniformity, defects in pixels including burnt pixels, etc.);
- 12. 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.

EIZO AND DISTRIBUTORS MAKE NO FURTHER WARRANTIES, EXPRESSED OR IMPLIED, WITH RESPECT TO, INCLUDING, WITHOUT LIMITATION, THE PRODUCT AND ITS QUALITY, PERFORMANCE, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR USE.

IN NO EVENT SHALL EIZO OR DISTRIBUTORS BE LIABLE FOR ANY INCIDENTAL, INDIRECT, SPECIAL, CONSEQUENTIAL OR OTHER DAMAGE WHATSOEVER (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFIT, BUSINESS INTERRUPTION, LOSS OF BUSINESS INFORMATION, OR ANY OTHER PECUNIARY LOSS) ARISING OUT OF THE USE OR INABILITY TO USE THE PRODUCT OR IN ANY CONNECTION WITH THE PRODUCT, WHETHER BASED ON CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, EVEN IF EIZO OR DISTRIBUTORS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

THIS EXCLUSION ALSO INCLUDES ANY LIABILITY WHICH MAY ARISE OUT OF THIRD PARTY CLAIMS AGAINST THE ORIGINAL PURCHASER. THE ESSENCE OF THIS PROVISION IS TO LIMIT THE POTENTIAL LIABILITY OF EIZO AND DISTRIBUTORS ARISING OUT OF THIS LIMITED WARRANTY AND/OR SALES.

