

User's Manual

DuraVision[®] FDS1783T

Touch Panel Color LCD Monitor

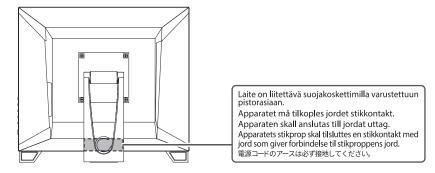
Important

Please read this "User's Manual", and "PRECAUTIONS" (separate volume) carefully to familiarize yourself with safe and effective usage.

- See the Setup Guide for monitor installation and connection.
- For the latest product information including the "User's Manual", refer to our web site:

www.eizoglobal.com

Location of Caution Statement



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 suited to general purposes like creating documents, viewing multimedia content.
- This is not intended to be used for diagnostic purposes.
- 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 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 brightness 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.
- (Cautions for the Use of the Touch Panel)
 During touch operation

Be careful of the following points. Otherwise, damage may occur to the monitor.

- Do not strongly press, scratch, or poke the touch panel.
- Do not touch the touch panel with hard objects such as ballpoint pens or metals.

About the Installation

- If you place this product on a lacquer-coated desk, the color may adhere to the bottom of the stand due to the composition of the rubber. Check the desk surface 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.

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.
- 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.

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1 Introduction

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

1.1 Features

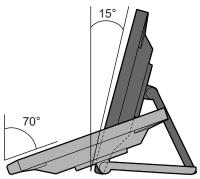
1.1.1 Full-Flat Design

A full-flat design with a flat bezel is adopted. You can properly touch right to the edge of the screen.



1.1.2 Easy-to-touch Stand Mechanism

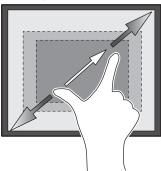
The tilt angle can be adjusted steplessly. You can smoothly change the screen position to make it easier to work in a way that suits how you are using the monitor, such as for office work or multi-touch operations.



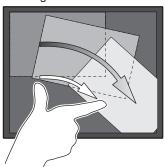
1.1.3 10-point Multi-touch Support

Multi-touch can be used to zoom in/out and rotate. The screen responds to light touches, so flick and drag operations can be performed with ease.



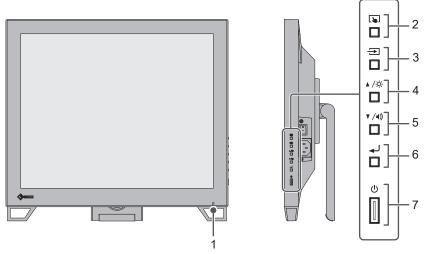


Rotating



1.2 Controls and Functions

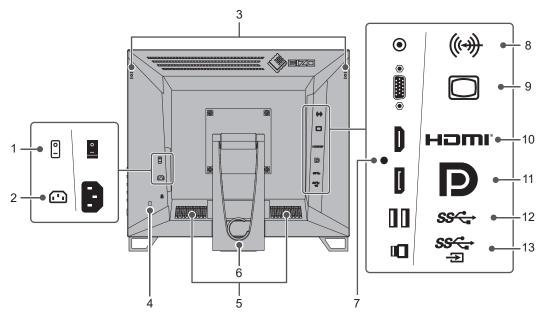
1.2.1 Front



1. Power Indicator	Indicates the operation status of the monitor.		
	Blue: Screen display		
	Orange: Power saving mode		
	Off: Main power / power off		
2. 🔊 button	Enables/disables and adjusts the sensitivity of the touch panel.		
3. → button	Switches the input signals to be displayed.		
4. ▲ /່່ button 1	Selects items displayed in the Setting menu, adjusts or sets the functions, and displays the brightness adjustment screen.		
5. ▼ /◀)) button ⁻¹	Selects items displayed in the Setting menu, adjusts or sets the functions, and displays the volume adjustment screen.		
6. ← button	Displays the Setting menu, confirms the adjustment items of each menu, and saves adjustment results.		
7. (button	Turns the power on or off.		

^{*1} In this manual, the $\blacktriangle/$ $\stackrel{*}{\Rightarrow}$ button may be displayed as \blacktriangle , and the $\blacktriangledown/$ $\stackrel{*}{\blacktriangleleft}$) button may be displayed as \blacktriangledown .

1.2.2 Back



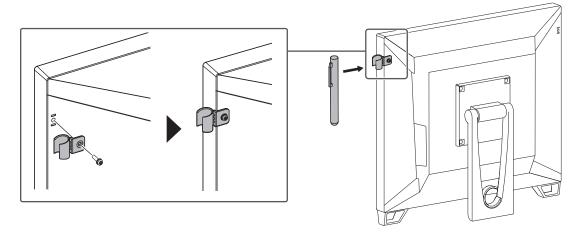
4	Mada a sana a saddala	T 11		
1. Main power switch		Turns the main power on or off.		
		: On, ⊙: Off		
2.	Power connector	Connects the power cord.		
Touch pen holder mounting hole		For mounting the touch pen holder (see 1.3 Mounting the Touch Pen Holder [> 10]).		
4.	Security lock slot	Complies with Kensington's MicroSaver security system.		
5.	Speakers	Outputs audio.		
6. Stand (with cable holder)		Allows adjustment of the angle.		
7.	Tie band mounting hole	Attach a tie band to prevent the HDMI cable from disconnecting.		
8.	Stereo mini jack	By connecting an external device using a stereo mini jack cable, external audio can be output from the monitor.		
9.	D-Sub15 pin (mini) connector	Connects to a PC with D-Sub output.		
10.	HDMI connector	Connects to a PC with HDMI signal output.		
11. DisplayPort™ connector		Connects to a PC with DisplayPort signal output.		
12.	USB-A connector (downstream)	Connects to a peripheral USB device.		
13.	USB-B connector (upstream)	Connects to a USB cable if using the monitor as a touch panel monitor, or if using the USB hub function.		

1.3 Mounting the Touch Pen Holder

Note

The touch pen holder is included with the touch pen (optional accessory).

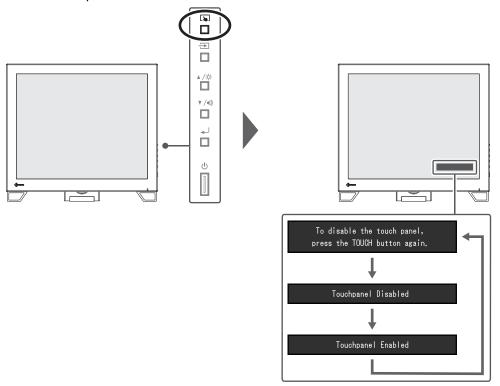
Mount the touch pen holder in either of the holes to the left and right on the rear side of the monitor. To mount the holder, use the touch pen holder mounting screw.



2 Basic Adjustment / Setting

2.1 Enabling / Disabling the Touch Panel

You can enable or disable the touch panel. This is useful when you want to temporarily disable the touch panel function.

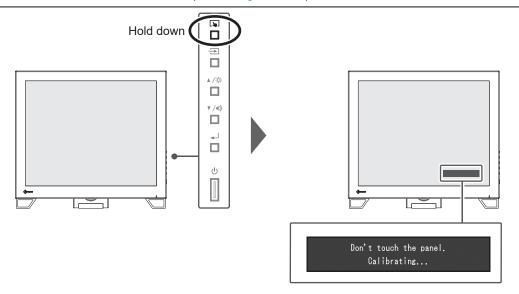


2.2 Adjusting Touch Sensitivity

You can adjust (calibrate) the touch sensitivity by holding down . You make adjustments if you are having problems with touch operations.

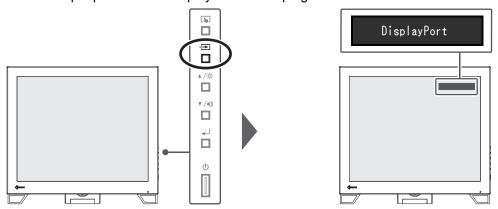
Note

- Please make sure to run TPOffset after setting up the monitor.
- If the problem does not resolve after adjusting the touch sensitivity, run TPOffset. TPOffset can be downloaded from our web site (www.eizoglobal.com).



2.3 Switching Input Signals

When a monitor has multiple signal inputs, the signal to display on-screen can be changed. The selected input port name is displayed on the top right of the screen.

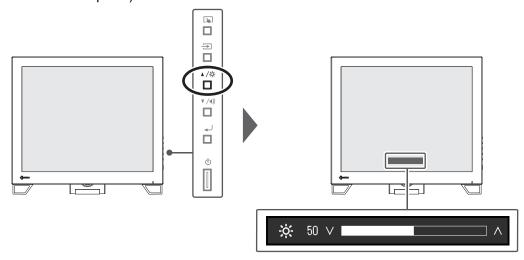


2.4 Adjusting Brightness

Settings: "0" - "100"

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

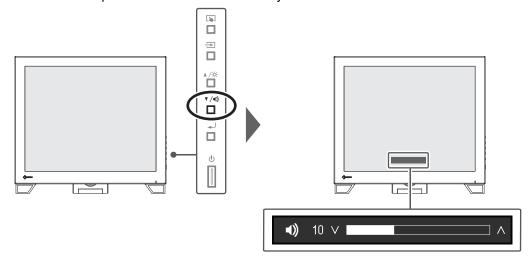
The screen brightness is adjusted by changing the brightness of the backlight (light source from the LCD back panel).



2.5 Adjusting Volume

Settings: "0" - "30"

The volume of the speakers can be set individually.



3 Touch Panel Settings

3.1 Setting Up the Touch Panel

The touch panel functions of this product differ according to the driver used and the driver setup. Set it according to your application.

Function	Windows standard driver	Dedicated touch panel driver (DMT-DD) ⁻¹		
Driver installation	Not required	Required		
Touch sound output	-	✓		
Multiple connections*2	✓	✓		
Operation mode	Touch digitizer*3	Touch digitizer*3 *4	Mouse emulation*4	
Multi-touch operation	✓	✓	-	

^{*1} Can be downloaded from our web site (www.eizoglobal.com).

Note

- After completing the settings, run the "TPOffset" software and adjust the sensitivity of the touch panel. TPOffset can be downloaded from our web site (www.eizoglobal.com).
- Always perform "TPOffset" during initial settings or when the setting environment is changed.

If using a Windows standard driver, see the following for the settings.

3.2 Correcting the Touch Position

Make adjustments to align the touch position with the position of the cursor displayed in response to touching.

Attention

- The monitor is easily affected by large conductive materials, so please keep hands and metallic objects away from the screen.
- If the "User Account Control" dialog box displays during operation, follow the screen instructions.
- 1. Open the Windows control panel.

How to open differs depending on the operating system.

Windows 11

From the start menu, select "All apps" - "Windows Tools" - "Control Panel".

Windows 10

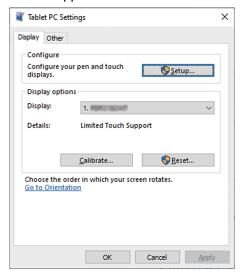
From the start menu, select "All Apps" - "Windows System" - "Control Panel".

^{*2} Two or more of these monitors can be connected to a PC

^{*3} Touch operations may not be recognized in applications designed using mouse emulation.

^{*4} For more information about the setup procedure, refer to the User's Manual of the touch panel driver.

2. Click "Hardware and Sound" - "Tablet PC Settings". The "Tablet PC Settings" screen appears.



3. Click "Setup" in the "Display" tab. A touchscreen specification screen with a white background is displayed.

Attention

- · If using the monitor in a multiple monitor environment, specify the touchscreen according to the message displayed on screen.
- 4. Touch the screen with your finger. The touched screen is recognized as a touchscreen.
- 5. Click "Calibrate". A white screen appears in the background.

Attention

- · If using the monitor in a multi-monitor environment, select the monitor to be used for correcting the touch position in the "Display" pull-down menu, and then click "Calibrate".
- 6. Touch the touch marker (cross) with your finger for a few seconds and then release your finger.

Sixteen touch markers are displayed on the top left, top right, bottom left and bottom right of the screen in sequence.

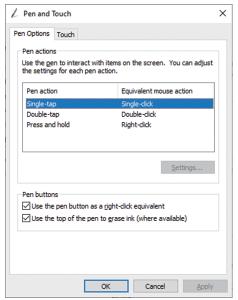


Note

- · On the second and subsequent times, the touch markers appear in four locations. If you want to display the touch markers in 16 locations again, press "Reset" in the "Tablet PC Settings".
- 7. When you have finished correcting the touch position, click "Yes" and save the adjustment data.
- 8. Click "OK" to close the screen.

3.3 Set Touch Panel Operations

- Open the Windows control panel.
 How to open differs depending on the operating system (see 3.2 Correcting the Touch Position [> 14]).
- 2. Click "Hardware and Sound" "Pen and Touch". The "Pen and Touch" screen appears.



Configure the touch panel operation settings in the "Pen and Touch" screen. For more details about the settings, see each setting screen and Windows help.

3. When you have completed the settings, click "OK" to close the screen.

4 Advanced Adjustments / Settings

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

For basic functions, see 2 Basic Adjustment / Setting [11].

4.1 Basic Operation of the Setting Menu

1. Press ↓ J. The Setting menu appears.



2. Select the menu to adjust/set with ▲ ▼, then press ← J. The Sub menu appears.



3. Select the menu to adjust/set with ▲ ▼, then press ◄ J. The Adjustment/Setting menu appears.



- 4. Perform adjustment/setting with ▲ ▼, then press ◄ J. The Sub menu appears.
- 5. Select "Return" in the Sub menu, then press The Setting menu appears.
- The Setting menu exits.

4.2 Setting Menu Functions

4.2.1 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	
		User1	sRGB
		User2	
Brightness		✓	✓
Contrast		✓	-
Temperature	Temperature		-
Gamma	Gamma		-
Advanced Settings	Overdrive	✓	-
	Hue	✓	-
	Saturation	✓	-
	Gain	√	-
Reset		✓	✓

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 "Brightness", "Temperature", and "Gain" on the other monitors.

Color Mode

Settings: "User1" / "User2" / "sRGB"

Switch to the mode that suits the usage of the monitor.

The color mode settings can also be adjusted according to personal preference. Select the color mode for adjustment and perform adjustment using the relevant functions.

Note

- The adjustment status of each mode is as follows:
 - User1, User2: Select either of these modes to set a user-defined display mode.
 - sRGB: Suitable for color matching with sRGB compatible peripherals.

Brightness

Settings: "0" - "100"

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

Note

• If the image is too dark even when the brightness is set to 100, adjust the contrast.

Contrast

Settings: "0" - "100"

The brightness of the screen is adjusted by varying the video signal level.

Note

- A contrast of 50 displays every color gradation.
- · When adjusting the monitor, it is recommended to perform brightness adjustment, which does not lose gradation characteristics, prior to contrast adjustment.
- · Perform contrast adjustment in the following cases:
 - If the image is too dark even when the brightness is set to 100 (Set the contrast to higher than 50.)

Temperature

Settings: "Off" / "4000 K" - "10000 K (in increments of 500 K, 9300 K is included.)" 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 [> 20]).
- · If set to "Off", 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 "Off".

Gamma

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

Adjusts the gamma.

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".

Note

• If "sRGB" is selected for the color mode, "sRGB" is displayed for the gamma value.

Advanced Settings - Overdrive

Settings: "Enhanced" / "Standard" / "Off"

This function allows you to set the overdrive intensity based on the use of the monitor.

Image lag can be reduced by using the "Enhanced" setting when displaying moving images.

Note

Depending on the display resolution and the setting of "Picture Expansion [▶ 21]", overdrive
may be set to "Off".

Advanced Settings - Hue

Settings: "-50" - "50"

Adjusts the hue.

Note

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

Advanced Settings - Saturation

Settings: "-50" - "50"

Adjusts the color saturation.

Note

- Using this function may prevent some color gradations from being able to be displayed.
- The minimum value (-50) 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

- 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 "Off".

Reset

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

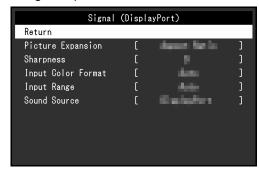
4.2.2 Signal

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

· For D-Sub input



• For HDMI / DisplayPort signal input



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

√: Can be set, -: Cannot be set.

Function	Input Signal			
	DisplayPort	HDMI	D-SUB	
Picture Expansion	✓	✓	✓	
Sharpness	✓	✓	✓	
Input Color Format	✓	✓	-	
Input Range	✓	✓	-	
Source	✓	✓	-	
Analog Adjustment	-	-	✓	

Picture Expansion

Settings: "Auto*1" / "Full Screen" / "Aspect Ratio" / "Dot by Dot"

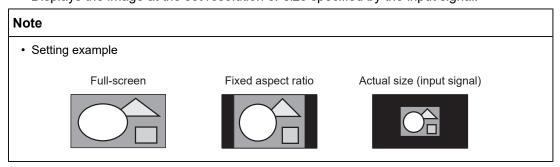
The screen size of the monitor display can be changed.

• "Auto"

The monitor automatically changes the screen size according to the aspect ratio and resolution information from the PC.

^{*1} Only enabled during HDMI® signal input

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



Sharpness

Settings: "-2" - "2"

When a low-resolution image is displayed using picture expansion mode ("Full Screen" or "Aspect Ratio"), the text and lines of the image may appear blurry. This blurriness can be reduced by configuring the settings for sharpness.

Note

• For some display resolutions, it is not necessary to configure the settings for sharpness. ("Sharpness" is not a value that can be selected.)

Input Color Format

Settings: "Auto" / "YUV 4:2:2*1" / "YUV 4:4:4*1" / "YUV*2" / "RGB"

The color format of the input signal can be specified.

Try changing this setting if colors are not displayed correctly.

- *1 Only enabled during HDMI signal input
- *2 Only enabled during DisplayPort signal input

Input Range

Settings: "Auto" / "Full" / "Limited"

Depending on the video reproduction device, there may be a restriction on black and white video signal levels output to the monitor. This kind of signal is called "Limited range". On the other hand, unlimited signals are called "Full range".

- "Auto"
 - Input signal brightness range is automatically judged and is displayed appropriately (recommended setting). Depending on the video reproduction device, Limited range and Full range may not be able to be judged by the monitor. In such a case, selecting "Full" or "Limited" will allow it to be displayed appropriately.
- "Full"

To be selected in case of Full range signals. Appropriate display can be obtained when this is selected, in case both blacks and whites are corrupted.

· "Limited"

To be selected in case of Limited range signals. In case this is selected, the output signal range is expanded from 0 to 255 to obtain an appropriate display when black is pale and white is dull.

Note

 When "YUV" is selected in "Input Color Format", the setting is automatically set to "Limited". Additionally, when "Auto" is selected and the monitor determines the input color format to be YUV, the setting is automatically set to "Limited".

Sound Source

Settings: "Stereo Mini Jack" / "HDMI*1" / "DisplayPort*2"

You can switch the sound source for HDMI signal input or DisplayPort signal input.

- *1 Only enabled during HDMI signal input
- *2 Only enabled during DisplayPort signal input

Note

· For HDMI signal input and D-Sub signal input that do not include audio signals, the setting is fixed as "Stereo Mini Jack".

Analog Adjustment - Auto Screen Adjust

Screen flicker, display position and size and be automatically adjusted. When you select "Auto Screen Adjust", a message will appear. Select "Yes".

Note

- The automatic screen adjustment 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
- When a signal is input to the monitor for the first time, or when the resolution or horizontal/ vertical scan frequency is changed to one that had not been displayed before, it is automatically adjusted (signals with a resolution of 800 x 600 (SVGA) or above).

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.

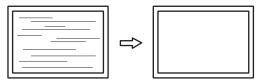


Note

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.

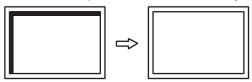


Note

- 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.

4.2.3 Preferences

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



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 and audio is not output.

- · How to exit power saving mode
 - Press the button or button.
 - 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.
- When not using the monitor, you can turn off the main power supply or disconnect the power plug so that the power is cut completely.
- When Compatibility Mode [> 28] is set to "On", even if the monitor shifts to power saving mode, devices connected to the USB downstream port are operational. For this reason, the power consumption of the monitor varies depending on the connected devices, even in power saving

Indicator

Settings: "1" - "7" / "Off"

The brightness of the control buttons and power button can be set. The larger the set value, the brighter the power indicator lights up. On the other hand, the smaller the value, the darker it becomes. The "Off" setting turns off the power switch indicator. (Default setting: 4)

Monitor Reset

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

- · Settings on the "Administrator Settings" menu
- Enabling/disabling the touch panel

4.2.4 Languages

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

The display language for menus and messages can be selected.



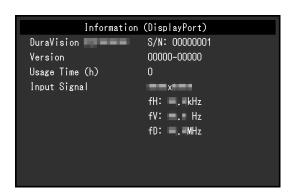
Attention

• The display language of the "Administrator Settings" menu (English) cannot be changed.

4.2.5 Information

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

Example:

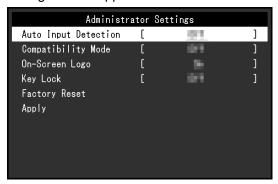


5 Administrator Settings

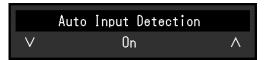
This chapter describes how to configure monitor operation using the "Administrator Settings" menu.

5.1 Basic Operation of the "Administrator Settings" Menu

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



3. Select an item to set with ▲ ▼ then press ← J. The Adjustment/Setting menu appears.

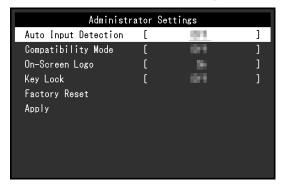


- 4. Set with ▲ ▼, then press ← J. The "Administrator Settings" menu appears.
- 5. Select "Apply" then press ← J. The settings are applied and the "Administrator Settings" menu exits.

Attention

• The language (English) of the "Administrator Settings" menu cannot be changed.

5.2 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"

When selecting the input signal manually, select this setting. Select the input signal to display using the operation switch () on the front of the monitor (see 2.3 Switching Input Signals [12]).

Note

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

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.
- Even when the mouse or keyboard are used, the PC does not return from sleep.
- When the power to the monitor is turned off, a device connected to the USB downstream port does not work, or power is not supplied to the connected device.

On-Screen Logo

Settings: "On" / "Off"

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

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

Key Lock

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

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

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

Factory Reset

Restores the settings to the factory default settings.

6 Troubleshooting

6.1 No Picture

Power switch indicator does not light up

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

Power switch indicator lights up: Blue

• Increase "Brightness", "Contrast", or "Gain" in the Setting menu (see Color [▶ 18]).

Power switch indicator lights up: Orange

- Use \longrightarrow to try switching the input signal.
- In the "Administrator Settings" menu, set "Compatibility Mode" to "On" (see Compatibility Mode [▶ 28]).
- · Move the mouse or press any key on the keyboard.
- · Touch the touch panel.
- · Check whether the PC is turned on.
- · Turn off the main power, and then turn it on again.

The message "No Signal" appears in the screen

Example:

DisplayPort No Signal

- The message shown above may appear as some PCs do not output the signal immediately after power-on.
- · Check whether the PC is turned on.
- Check whether the signal cable is connected properly. Connect the signal cables to the connectors of the corresponding input signal.
- Use
 to try switching the input signal.
- Turn off the main power, and then turn it on again.
- Try setting "Auto Input Detection" in the "Administrator Settings" menu to "Off" and switching the input signal manually (see Auto Input Detection [▶ 28]).

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 7.5 Compatible Resolutions [> 43]).

- · 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.

6.2 Imaging Problems (Digital and Analog)

The screen is too bright or too dark

 Adjust "Brightness" or "Contrast" in the Setting menu to adjust it (see Color [> 18]). (The LCD monitor backlight has a limited life span. If the screen becomes dark or begins to flicker, contact your local EIZO representative.)

Letters and images are blurred

- Check whether the PC is configured to meet the resolution and vertical scan frequency requirements of the monitor (see 7.5 Compatible Resolutions [> 43]).
- Try setting the magnification of display on the OS to "100 %". When using multiple monitors, try setting the display magnification to "100 %" on all monitors.

Afterimage visible

- · Afterimages are particular to LCD monitors. Avoid displaying the same image for a long time.
- 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.

Noise appears on the screen

- In the Setting menu, set "Overdrive" to "Off" (see Advanced Settings Overdrive [▶ 20]).
- · When inputting HDCP system signals, normal images may not be displayed immediately.

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 "Administrator Settings" for "Compatibility Mode" on the "On" menu (see Compatibility Mode [▶ 28]).

The color shown on the screen is not correct

Try changing "Input Color Format" in the Setting menu (see Input Color Format [22]).

Images are not displayed over the entire area of the screen

Try changing "Picture Expansion" in the Setting menu (see Picture Expansion [21]).

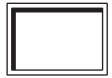
 Check whether the setting for the resolution of the PC matches the resolution of the monitor.

Fog remains even after wiping the screen / Condensation inside the glass

If fog remains even after wiping the screen, there may be condensation on the inside of
the protective glass on the LCD panel. Wait a while for the condensation to disappear.
Even if condensation occurs on the inside of the glass in this manner, it does not cause
malfunction or deterioration of the product.

6.3 Imaging Problems (Analog only)

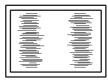
Screen is misaligned



- Use "Hor. Position" or "Ver. Position" in the Setting menu to adjust the positioning of the screen (see Analog Adjustment Hor. Position / Ver. Position [▶ 24]).
- If the graphics board utility or similar software has a function to change the position of the image, use that function to make adjustments.

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





• Try adjusting "Clock" in the Setting menu (see Analog Adjustment - Clock [▶ 23]).

The whole screen appears to flicker or bleed



Try adjusting "Phase" in the Setting menu (see Analog Adjustment - Phase [▶ 24]).

6.4 Touch Panel Problems

Touch operations do not work

- · Check that the monitor and PC are connected with a USB cable.
- Press (see 2.1 Enabling / Disabling the Touch Panel () 11]).
- Check that the power cords of the monitor and PC are connected to a grounded main outlet. Failure to ground the equipment may result in malfunction.
- Execute TPOffset to adjust the touch panel sensitivity.

The touch and cursor positions are misaligned / The cursor jumps

- Connect the monitor and PC via the supplied cable. The touch panel may not work correctly if a conversion adapter is used.
- Turn off the monitor, and then turn it on again.
- · Adjust the touch position.
 - If you are using a dedicated touch panel driver, see the User Manual of the touch panel driver.
 - If you are using the Windows standard driver, see 3.2 Correcting the Touch Position [**)** 14].
- Check that the power cords of the monitor and PC are connected to a grounded main outlet. Failure to ground the equipment may result in malfunction.
- Changing the position or angle of the monitor may cause the cursor to jump.
- · If something with high dielectric properties, such as metal, is placed close to the touch panel surface, it may cause malfunction. Please keep a distance of at least 10 mm between the touch panel surface and metal, etc.
- · If the touch panel is dirty, the touch panel may not operate properly. Clean the touch panel (see Cleaning [> 4]).
- · If you use a cleaner with an antistatic agent on the touch panel surface, this may affect the sensitivity of the touch panel and cause the cursor position to shift.
- Do not touch the touch panel for 5 seconds after the PC starts up, after turning on the monitor, or after connecting the USB cable. Touching the touch panel too soon may cause incorrect cursor positioning or disable touch operation. If this occurs, turn the monitor off, and then turn it on again.
- Execute TPOffset to adjust the touch panel sensitivity.
- · Changing the screen size of the monitor may cause the cursor position to become misaligned. If the screen size has been changed, adjust the touch position.
- When displaying at a resolution other than the recommended resolution, the touch position and cursor position may become misaligned due to the scaling function of the graphics board. Check the settings of the graphics driver and change the display scaling from the graphics driver to the monitor. After changing the setting, adjust the touch position again.

The cursor is not displayed at the touch position, but is displayed in the center of the monitor

- Adjust the touch position.
 - If you are using a dedicated touch panel driver, see the User Manual of the touch panel driver.
 - If you are using the Windows standard driver, see 3.2 Correcting the Touch Position [**1** 14].

Cursor shakes / Drawing lines are unstable

- Check that the power cords of the monitor and PC are connected to a grounded main outlet. If not connected to ground, this may result in malfunction.
- Execute TPOffset to adjust the touch panel sensitivity.
- · If something with high dielectric properties, such as metal, is placed close to the touch panel surface, it may cause malfunction. Please keep a distance of at least 10 mm between the touch panel surface and metal, etc.

 When multiple monitors are placed close to each other, leave space between the monitors.

Touch panel correction does not function correctly

- If you are using a dedicated touch panel driver, see the User Manual of the touch panel driver.
- Reset the adjustment state (In the Windows control panel, click "Reset" under the "Display" tab of "Tablet PC Settings") and correct the touch position (see 3.2 Correcting the Touch Position [▶ 14]).
- Once "Setup" has been completed in the "Display" tab of the "Tablet PC Settings" window accessible from the Windows Control Panel, close the "Tablet PC Settings" once, open the "Display" tab of "Tablet PC Settings" again, and then adjust the touch position.

Touch sounds do not work

If you are using a Windows standard driver, touch sounds will not output. If you want to
output touch sound, use the dedicated touch panel driver (see 3.1 Setting Up the Touch
Panel [> 14]).

Multi-touch does not work

- · Reboot the PC.
- If you are using a dedicated touch panel driver, refer to the Touch Panel Driver User's Manual.

6.5 Other Problems

The Setting menu does not appear

Check whether the operation switch lock function is active (see Key Lock [> 28]).

Cannot select items in the Setting menu

- · Items that are displayed with gray text cannot be changed.
- "Color" items cannot be changed in some color modes. Setting the color mode to "User1" or "User2" will allow you to change all items (see Color ▶ 18]).

No audio output

- · Check whether the volume is set to "0".
- Check the PC and audio playback software to see whether they are configured correctly.
- When using the DisplayPort signal input and HDMI signal input, check the "Sound Source" settings (see Sound Source [▶ 23]).
- When using D-Sub input, check if the stereo mini jack cable (commercially available product) is connected.

USB peripheral devices connected to the monitor do not work

- · Check whether the USB cable is correctly connected between the PC and the monitor.
- Check whether the USB cable is correctly connected between the peripheral and the monitor.
- Try using a different USB port on the monitor.
- · Try using a different USB port on the PC.
- Update the USB drivers for peripheral devices.
- · Reboot the PC.
- · When "Administrator Settings" is set to "Off" in the "Compatibility Mode" menu and the power of the monitor is turned off, devices connected to the USB downstream port are not operational. Change the setting for "Compatibility Mode" to "On" (see Compatibility Mode [▶ 28]).
- If the peripheral devices work correctly when they are directly connected to the PC, contact your local EIZO representative.
- Check the PC's BIOS setting for USB when using Windows. (Refer to the User's Manual of the PC for details.)
- · Update the OS of the PC.

Power indicator is flashing orange

- · This symptom may occur when the PC is connected to the DisplayPort connector. Use a signal cable recommended by us for the connection. Turn the monitor off and on.
- · Check the connection and condition of the USB peripheral devices connected to the monitor.
- Turn off the main power switch on the back of the monitor, and then turn it on again.

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

 In the "Administrator Settings" menu, set "Compatibility Mode" to "On" (see Compatibility Mode (▶ 281).

The message "Changes to this setting may increase power consumption." appears on the screen

Example:



This is a message that will only be displayed during the initial setup when using a function that may potentially increase power consumption. Select "OK" to proceed to the next step.

7 Reference

7.1 Arm Installation Procedure

An optional arm (or optional stand) can be attached by removing the stand section. Please refer to our web site for optional arms (or optional stands) that are supported.

(www.eizoglobal.com)

When attaching an arm or stand, the installable orientations and movement range (tilt angle) are as follows:

· Orientation



· Movement range (tilt angle)







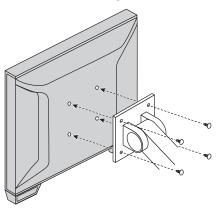
Up: 90°

Attention

- When attaching a monitor arm or stand, follow the instructions of the respective User's Manual.
- When using a monitor arm or stand of another manufacturer, confirm the following in advance and select one conforming to the VESA standard:
 - Clearance between screw holes: 100 mm x 100 mm
 - Plate thickness: 2.6 mm
 - Strong enough to support weight of the monitor unit (excluding the stand) and attachments such as cables
- · When using another manufacturer's arm or stand, use the following screws to secure it.
 - Screws fixing the stand to the monitor
- · Connect the cables after attaching an arm or stand.
- The monitor, arm, and stand are heavy. Dropping them may result in injury or equipment damage.
- Check the tightness of the screws periodically. If the screws are not tight enough, the monitor may come unattached. This may be the cause of injury or damage.
- 1. Lay the LCD monitor on a soft cloth spread over a stable and flat surface with the LCD panel surface facing down.
- 2. Remove the stand.

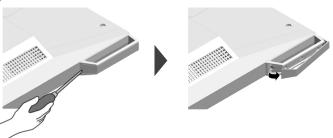
Using a screwdriver, remove the screws securing the unit and the stand.

3. Attach the arm or stand to the monitor. Use the screws specified in the arm or stand User's Manual for installation.



Note

- To install vertically, use the following procedure to remove the leg from underneath the monitor.
- 1. Remove the leg cover.



2. Remove the screws securing the unit and feet.



3. Slide the feet toward the outer side of the monitor to remove, as shown in the drawing below. You can cover the screw holes with screw cover sheets.

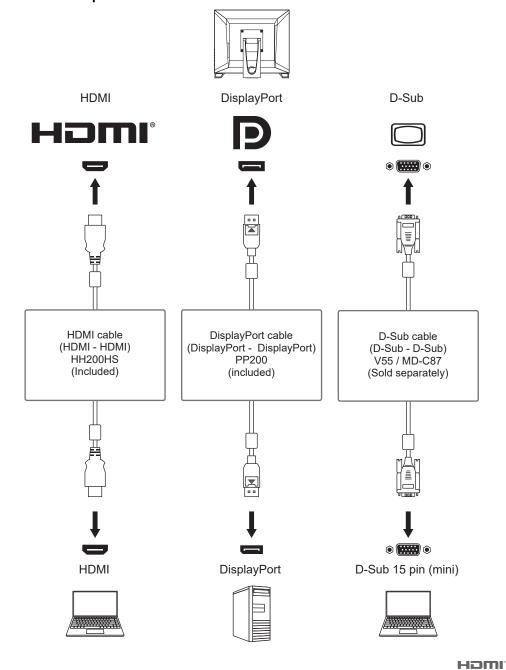


· Please store the removed parts in a safe place.

7.2 Connecting Multiple PCs

This product can be connected to multiple PCs and the display can be switched between the connections.

Connection Examples



Attention

• The touch panel only works on a USB-connected PC.

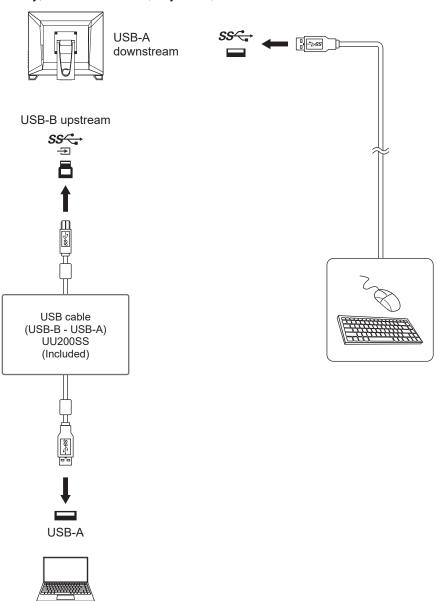
Note

- You can select the input signal to display using the operation button (=>) on the side of the monitor (see 2.3 Switching Input Signals [12]).
- This product provides a function that automatically recognizes the connector through which signals are input, and displays images on the screen accordingly (see Auto Input Detection [**>** 28]).

7.3 Using the USB Hub Function

This monitor is equipped with a USB hub. It functions as a USB hub when connected to a USB-compatible PC, allowing the connection of peripheral USB devices.

- 1. Connect the USB cable.
- 2. If necessary, connect a mouse, keyboard, or other device to the USB downstream port.



Attention

- This function may not work depending on the PC you are using, your OS, and your peripheral devices. Contact the manufacturer of each device for information about USB compatibility.
- Even when the monitor is in power saving mode, devices connected to the USB downstream port are operational. Due to this, the power consumption of the monitor varies depending on the connected devices, even in power saving mode.
- When the main power switch of the monitor is off, a device connected to the USB downstream port will not operate.
- When "Compatibility Mode [> 28]" is set to "Off" and the power of the monitor is turned off, a device connected to the USB downstream port will not operate.

Note

 This product supports USB 5Gbps. When connecting to peripheral devices that support USB 5Gbps, high-speed data communication is possible.

7.4 Specifications

7.4.1 LCD Panel

Туре	IPS (Anti-Glare)
Backlight	LED
Size	17.0" (43.3 cm)
Resolution	1280 dots x 1024 lines
Display Size (H x V)	337.9 mm x 270.3 mm
Pixel Pitch	0.264 mm x 0.264 mm
Display Colors	8 bit colors: 16.77 million colors
Viewing Angle (H / V, typical)	178° / 178°
Contrast Ratio (typical)	1000:1
Response time (typical)	14 ms (middle tone area)

7.4.2 Touch Panel

Surface Treatment	Anti-glare
Surface hardness	5H
Communication method	USB
Detection Method	Projected capacitive technology
Supported Operating Systems*1	Windows 11
	Windows 10 (32 bit / 64 bit)
Number of simultaneous touch points	Max. 10 points

^{*1} EIZO support will end when OS vendor support ends.

7.4.3 Video Signals

Input Terminals		DisplayPort (HDCP 1.3 compatible) x 1
·		
		HDMI (HDCP 1.4 compatible) *1 x 1
		D-Sub 15 pin (mini) x 1
Digital Scanning	DisplayPort	Horizontal: 31 kHz – 64 kHz
Frequency*2		Vertical: 59 Hz – 60 Hz (720 x 400: 69 Hz – 71 Hz)
	HDMI	Horizontal: 31 kHz – 64 kHz
		Vertical: 59 Hz – 60 Hz (720 x 400: 69 Hz – 71 Hz)
Analog Scanning	D-Sub	Horizontal: 31 kHz – 80 kHz
Frequency*2		Vertical: 56 Hz – 75 Hz
Frame Synchronization Mode		49 Hz – 61 Hz
Max. Dot Clock	DisplayPort	108.0 MHz
	HDMI	108.0 MHz
	D-Sub	135.0 MHz

^{*1} HDMI CEC (mutual control) is not supported.

^{*2} The vertical scan frequency supported varies according to the resolution (see 7.5 Compatible Resolutions [43]).

7.4.4 USB

Port	Upstream	USB-B x 1	
	Downstream	USB-A x 2	
Standard		USB Specification Revision 3.2	
Communication Speed		5 Gbps, 480 Mbps, 12 Mbps, 1.5 Mbps	
Power Supply Downstream (USB-A)		Max. 900 mA per port	

7.4.5 Audio

		2ch linear PCM (32 kHz / 44.1 kHz / 48 kHz / 88.2 kHz / 96 kHz / 176.4 kHz / 192 kHz)
	HDMI	2ch linear PCM (32 kHz / 44.1 kHz / 48 kHz / 88.2 kHz / 96 kHz / 176.4 kHz / 192 kHz)
Speakers		2 W + 2 W
Input Terminals		Stereo mini jack x 1
		DisplayPort x 1
		HDMI x 1
		(each shared with video signals)

7.4.6 Power

Input	100 – 240 VAC ±10 %, 50 / 60 Hz, 0.75 A – 0.40 A
Maximum Power Consumption	45 W or less
Power Save Mode	0.5 W or less*1
Standby Mode (typical)	0.3 W ^{*1}

^{*1} No USB upstream port is connected, "Administrator Settings" - "Compatibility Mode" is "Off", no external load is connected, and the default settings are kept

7.4.7 Physical Specifications

Dimensions (W x H x D)	391.8 mm x 141.6 mm x 400.4 mm (Tilt: 70°)
	391.8 mm x 348.0 mm x 214.9 mm (Tilt: 15°)
Dimensions (W x H x D) (Without Stand)	391.8 mm x 330.6 mm x 54.0 mm
Net Weight	Approx. 4.4 kg
Net Weight (Without Stand)	Approx. 3.9 kg
Tilt	15° – 70°

7.4.8 Operating Environment Requirements

Temperature	5°C – 35°C
Humidity	20 % – 80 % R.H. (no dew condensation)
Air Pressure	540 hPa – 1060 hPa

7.4.9 Transport / Storage Conditions

Temperature	-20°C – 60°C
Humidity	10 % – 92 % R.H. (no dew condensation)
Air Pressure	200 hPa – 1060 hPa

7.5 Compatible Resolutions

The monitor supports the following resolutions.

√: Supported, -: Not supported

Resolution	Vertical scan frequency (Hz)	DisplayPort	HDMI	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	✓	✓	✓
720 x 480	59.940	✓	✓	-
720 x 480	60.000	✓	✓	-
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 720	59.940	✓	✓	-
1280 x 720	60.000	✓	✓	✓
1280 x 960	60.000	✓	✓	✓
1280 x 1024*1	60.020	✓	✓	✓
1280 x 1024*1	75.025	-	-	✓

^{*1} Recommended resolution

Note

• For the scan format, progressive scan is only supported.

Appendix

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Medical Standard

- When designing or using medical devices with this product, please comply with the standards and requirements of IEC60601-1.
- Power supplied equipment can emit electromagnetic waves, that could influence, limit or result in malfunction of the product. Install the equipment in a controlled environment, where such effects are avoided.

Classification of Equipment

· Type of protection against electric shock: Class I

• EMC class: IEC60601-1-2 Group 1 Class B

· Mode of operation: Continuous

• IP Class: IPX0

EMC Information

DuraVision FDS1783T has the capability to display images correctly.

Environments of Intended Use

DuraVision FDS1783T is intended for use in the following environments:

· Professional healthcare facility environments such as clinics and hospitals

The following environments are not suitable for DuraVision FDS1783T to be used:

- · Home healthcare environments
- In the vicinity of high-frequency surgical equipments such as electrosurgical knives
- · In the vicinity of short-wave therapy equipments
- RF shielded room of the medical equipment systems for MRI
- · In shielded location Special environments
- · Installed in vehicles including ambulances
- · Other special environments

. WARNING

The DuraVision FDS1783T requires special precautions regarding EMC and need to be installed.
 You need to carefully read EMC Information and the "PRECAUTIONS" section in this document, and observe the following instructions when installing and operating the product.

! WARNING

• The DuraVision FDS1783T should not be used adjacent to or stacked with other equipment. If adjacent or stacked use is necessary, the equipment or system should be observed to verify normal operation in the configuration in which it will be used.

! WARNING

 When using a portable RF communication equipment, keep it 30 cm (12 inches) or more away from any part, including cables, of the DuraVision FDS1783T. Otherwise, degradation of the performance of this equipment could result.

№ WARNING

 Anyone who connects additional equipment to the signal input part or signal output parts, configuring a medical system, is responsible that the system complies with the requirements of IEC60601-1-2.

⚠ WARNING

• Do not touch the signal input/output connectors while using DuraVision FDS1783T. It may affect the displayed image.

Be sure to use the cables attached to the product, or cables recommended by EIZO.
 Use of cables other than those recommended by EIZO for this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and improper operation.

Signal port	Max. cable length	Shielding	Ferrite core	Recommended cable
DisplayPort	2 m	Shielded	With ferrite cores	PP200
HDMI	2 m	Shielded	With ferrite cores	HH200HS
D-Sub 15 pin (mini)	1.8 m	Shielded	With ferrite cores	-
USB-B	2 m	Shielded	With ferrite cores	UU200SS
(Upstream)				
USB-A	2 m	Shielded	Without ferrite cores	-
(Downstream)				
Stereo mini jack	2.1 m	Shielded	Without ferrite cores	-
AC inlet	2 m	Unshielded	Without ferrite cores	Grounded
(or AC input)				

Technical Descriptions

Electromagnetic emissions

DuraVision FDS1783T is intended for use in the electromagnetic environment specified below.

The customer or the user of DuraVision FDS1783T should assure that DuraVision FDS1783T is used in the following environment.

Emission test	Complian ce	Electromagnetic environment - Guidance	
RF emissions CISPR11	Group 1	DuraVision FDS1783T uses RF energy only for its internal function.	
		Therefore, its RF emission are very low and are not likely to cause any interference in nearby electronic equipment.	
RF emissions CISPR11	Class B	DuraVision FDS1783T is suitable for use in all establishments, including domestic establishments and those directly connected	
Harmonic emissions IEC61000-3-2	Class D	to the public low-voltage power supply network that supplies buildings used for domestic purposes.	
Voltage fluctuations / flicker emissions IEC61000-3-3	Compliant		

Electromagnetic immunity

DuraVision FDS1783T has been tested at the following compliance levels (C) according to the testing requirements (T) for professional healthcare facility environments specified in IEC60601-1-2.

The customer or the user of DuraVision FDS1783T should assure that DuraVision FDS1783T is used in the following environment.

Immunity test	Test level (T)	Compliance level (C)	Electromagnetic environment - Guidance
Electrostatic discharge (ESD) IEC61000-4-2	±8 kV contact discharge ±15 kV air discharge	±8 kV contact discharge ±15 kV air discharge	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrical fast transients / bursts IEC61000-4-4	±2 kV power lines ±1 kV input / output lines	±2 kV power lines ±1 kV input / output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surges IEC61000-4-5	±1 kV line to line ±2 kV line to ground	±1 kV line to line ±2 kV line to ground	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC61000-4-11	$\begin{array}{l} 0 \ \% \ U_{T} \ (100 \ \% \ dip \ in \\ U_{T}) \ 0.5 \ cycles \ and \ 1 \\ cycle \\ 70 \ \% \ U_{T} \ (30 \ \% \ dip \ in \\ U_{T}) \ 25 \ cycles \ / \ 50 \ Hz \\ 0 \ \% \ U_{T} \ (100 \ \% \ dip \ in \\ U_{T}) \ 250 \ cycles \ / \ 50 \\ Hz \\ \end{array}$	$\begin{array}{l} 0 \ \% \ U_{T} \ (100 \ \% \ dip \ in \\ U_{T}) \ 0.5 \ cycles \ and \ 1 \\ cycle \\ 70 \ \% \ U_{T} \ (30 \ \% \ dip \ in \\ U_{T}) \ 25 \ cycles \ / \ 50 \ Hz \\ 0 \ \% \ U_{T} \ (100 \ \% \ dip \ in \\ U_{T}) \ 250 \ cycles \ / \ 50 \\ Hz \\ \end{array}$	Mains power quality should be that of a typical commercial or hospital environment. If the user of DuraVision FDS1783T requires continued operation during power mains interruptions, it is recommended that DuraVision FDS1783T be powered from an uninterruptible power supply or a battery.
Power frequency magnetic fields IEC61000-4-8	30 A/m (50 / 60 Hz)	30 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
			The product should be kept at least 15 cm away from the source of power frequency magnetic fields during use.

Immunity test	Test level (T)	Compliance level (C)	Electromagnetic environment - Guidance
			Portable and mobile RF communications equipment should be used no closer to any part of DuraVision FDS1783T, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.
			Recommended separation distance
Conducted disturbances induced	3 Vrms 150 kHz to 80 MHz	3 Vrms	d = 1.2√P
by RF fields IEC61000-4-6	6 Vrms ISM bands between 150 kHz and 80 MHz ^{*1}	6 Vrms	d = 1.2√P
Radiated RF fields	3 V/m	3 V/m	d = 1.2√P, 80 MHz – 800 MHz
IEC61000-4-3	80 MHz – 2.7 GHz		d = 2.3√P, 800 MHz – 2.7 GHz
			Where "P" is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and "d" is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey ¹² , should be less than the compliance level in each frequency range ³ .
			Interference may occur in the vicinity of equipment marked with the following symbol.
			((<u>\(\(\)\)</u>)

Note

- U_T is the a.c. mains voltage prior to application of the test level.
- At 80 MHz and 800 MHz, the higher frequency range applies.
- These guidelines regarding conducted interference induced by RF fields or radiated RF fields may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

^{*1} The ISM (Industrial, Scientific, and Medical) bands between 150 kHz and 80 MHz are 6.765 MHz to 6.795 MHz, 13.553 MHz to 13.567 MHz, 26.957 MHz to 27.283 MHz, and 40.66 MHz to 40.70 MHz.

^{*2} Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which DuraVision FDS1783T is used exceeds the applicable RF compliance level above, DuraVision FDS1783T should be observed to verify normal operation. If

abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating DuraVision FDS1783T.

Recommended separation distances between portable or mobile RF communication equipment and the DuraVision FDS1783T

DuraVision FDS1783T is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of DuraVision FDS1783T can help prevent electromagnetic interference by maintaining a minimum distance (30 cm) between portable and mobile RF communications equipment (transmitters) and DuraVision FDS1783T. DuraVision FDS1783T has been tested at the following compliance level (C) for the requirement test level (T) of the proximity electromagnetic field immunity in the RF communication service.

Test frequency (MHz)	Bandwidth*1 (MHz)	Service*1	Modulation*2	Test level (T)*3 (V/m)	Compliance level (C) (V/m)
385	380 – 390	TETRA 400	Pulse modulation*2 18 Hz	27	27
450	430 – 470	GMRS 460, FRS 460	FM ±5 kHz deviation 1 kHz sine	28	28
710	704 – 787	LTE Band 13, 17	Pulse modulation*2 217 Hz	9	9
745					
780					
810	800 – 960	GSM 800 / 900,	Pulse modulation*2	28	28
870		TETRA 800, iDEN 820	18 Hz		
930		CDMA 850, LTE Band 5			
1720	1700 – 1990	,	Pulse modulation*2	28	28
1845		CDMA 1900;	217 Hz		
1970		GSM 1900; DECT; LTE Band 1, 3, 4, 25; UMTS			
2450	2400 – 2570	Bluetooth®, WLAN, 802.11 b/g/n, RFID 2450, LTE Band 7	Pulse modulation ^{*2} 217 Hz	28	28
5240	5100 – 5800	WLAN 802.11 a/n	Pulse modulation*2	9	9
5500			217 Hz		
5785					

^{*1} For some services, only the uplink frequencies are included.

 $^{^{*3}}$ Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

^{*2} The carrier wave is modulated using a 50 % duty cycle square wave signal.

^{*3} Test levels were calculated based on maximum power and a separation distance of 30 cm.

The customer or the user of DuraVision FDS1783T can help prevent interference caused by the proximity magnetic field by maintaining a minimum distance (15 cm) between RF transmitters and DuraVision FDS1783T. DuraVision FDS1783T has been tested at the following compliance level (C) for the requirement test level (T) of proximity magnetic field immunity.

Test frequency	Modulation	Test level (T) (A/m)	Compliance level (C) (A/m)
134.2 kHz	Pulse modulation*1	65	65
	2.1 kHz		
13.56 MHz	Pulse modulation*1	7.5	7.5
	50 kHz		

^{*1} The carrier wave is modulated using a 50 % duty cycle square wave signal.

For other portable and mobile RF communication equipments (transmitters), minimum distance between portable and mobile RF communications equipment (transmitters) and DuraVision FDS1783T as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of	Separation distance according to frequency of transmitter (m)			
transmitter (W)	150 kHz – 80 MHz d = 1.2√P	80 MHz – 800 MHz d = 1.2√P	800 MHz – 2.7 GHz d = 2.3√P	
0.01	0.12	0.12	0.23	
0.1	0.38	0.38	0.73	
1	1.2	1.2	2.3	
10	3.8	3.8	7.3	
100	12	12	23	

For transmitters rated at a maximum output power not listed above, the recommended separation distance "d" in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where "P" is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

Note

- At 80 MHz and 800 MHz, the separation distance for a higher frequency range must be applied.
- These guidelines regarding conducted interference induced by RF fields or radiated RF fields may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

Symbols on the product

A	Crossed-out wheeled bin marking (product): the product should not be disposed of as unsorted waste but must be sent to separate collection facilities for recovery and recycling in EU.
CE	CE marking: EU conformity mark in accordance with the provisions of Council Directive and/or Regulation (EU).
UK	UKCA marking: Mark signifying compliance with UK regulations
②	Recycling symbol for corrugated cardboard used for packaging
	Recycling symbol
2	Maximum stacking limit (the number in the symbol varies according to the product.)
<u> </u>	This side up
Ť	Keep dry
Ī	Fragile



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