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SIVISION digital

Operating instructions 22" Monitor

REF 64 97 452

English



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1 General information

1.1 Dear Customer,

You have decided to equip your dental treatment center with the integrated SIVISION digital communication system from Sirona.

As such, you have made a significant step towards improving your patient communication. You can therefore easily discuss the source situation, status and the success of treatment with your patients. For indeed a picture says more than a thousand words.

These Operating Instructions are designed to assist you prior to initial use and whenever you require information later on.

Your Sirona Team

1.2 Contact data

Customer service center

For technical questions, use the contact form on the internet at www.sirona.com. Follow the menu items "*CONTACT*" / "*Customer Service Center*" on the navigation bar and click on the "*CONTACT FORM FOR TECHNICAL QUESTIONS*" button.

Manufacturer's address (worldwide)

Sirona Dental Systems GmbH
Fabrikstrasse 31
64625 Bensheim
Germany

Phone: +49 (0) 6251/16-0
Fax: +49 (0) 6251/16-2591
E-mail: contact@sirona.com
www.sirona.com

1.3 General information on the Operating Instructions

Observing the operating instructions

Please familiarize yourself with the unit by reading through these operating instructions before putting them into operation. It is essential that you comply with the specified warning and safety information.

Keep documents safe

Always keep the operating instructions handy in case you or another user require(s) information at a later point in time. Save the operating instructions on the PC or print them out.

Should you subsequently sell the unit, ensure that the operating instructions are included with the unit in paper form or as electronic storage media so that the new owner can be suitably informed about the function of the unit and the warning and safety information provided.

Online portal for technical documents

For technical documents, we have created an online portal at <http://www.sirona.com/manuals>. There, you can download these operating instructions and further documents. If you prefer a document in paper format, please fill out the web form. We would be delighted to send you a printed copy, free of charge.

Help

If you reach an impasse despite having thoroughly studied the operating instructions, please contact your dental depot.

1.4 Warranty and liability

Warranty passport

To safeguard your warranty claims, please complete the attached "Installation Report / Warranty Passport" together with the service engineer immediately after the installation of your unit.

Exclusion of liability

In the event that the system owner fails to fulfill the obligation to perform scheduled inspections and preventive maintenance activities or ignores error messages, Sirona Dental Systems GmbH and its authorized dealers cannot assume any liability for damages.

1.5 Intended use

The 22" monitor is intended for use on dental units made by Sirona.

It serves for viewing intraoral images and any other images resulting from the PC connection.

This device is not intended for operation in areas subject to explosion hazards.

IMPORTANT

If the monitor is used to diagnose X-ray images, special proof is required from the user in terms of the ambient conditions specifying that the monitor is suitable for diagnostic purposes. Please observe the relevant national regulations.

The acceptance test can be performed using the SIDEXIS program, for example. The document entitled "SIDEXIS, digital radiology in dentistry, performing acceptance testing on image display devices for diagnosing with SIDEXIS" (REF 6088699) describes the procedure.

1.6 Formats and symbols used

The formats and symbols used in this document have the following meaning:

<ul style="list-style-type: none"> ✓ Prerequisite 1.First action step 2.Second action step or > Alternative action ↪ Result 	Prompts you to do something.
See "Formats and symbols used [→ 6]"	Identifies a reference to another text passage and specifies its page number.
• List	Designates a list.
"Command/menu item"	Identifies commands, menu items or quotations.


2 Safety information


2.1 Identification of the danger levels

Identification of the danger levels

To prevent personal injury and material damage, please observe the warning and safety information provided in the present operating instructions. Such information is highlighted as follows:

 **DANGER**
An imminent danger that could result in serious bodily injury or death.

 **WARNING**
A possibly dangerous situation that could result in serious bodily injury or death.

 **CAUTION**
A possibly dangerous situation that could result in slight bodily injury.

ATTENTION
A possibly harmful situation which could lead to damage of the product or an object in its environment.

IMPORTANT
Application instructions and other important information.

Tip: Information on making work easier.

2.2 Information on the unit



This symbol can be found on the rating plate on the unit.

Meaning: The accompanying documents are available on the Sirona homepage.

2.3 Maintenance and repair

As manufacturers of dental medical units and in the interest of the operational safety of your system, we stress the importance of having maintenance and repair of this unit performed only by ourselves or by agencies expressly authorized by us. Furthermore, failed components must always be replaced with original spare parts.

2.4 Modifications and extensions of the system

Modifications to this system which might affect the safety of the system owner, patients or other persons are prohibited by law.

For reasons of product safety, this product may be operated only with original Sirona accessories or third-party accessories expressly approved by Sirona. The user assumes the risk of using non-approved accessories.

If any devices not approved by Sirona are connected, they must comply with the applicable standards, e.g.:

- IEC 60950-1 for information technology equipment (e.g. PC) and
- IEC 60601-1 for medical electrical equipment.

The loudspeaker port of the monitor may be connected only to a device that complies with IEC 60950 (e.g. a PC) or IEC 60601-1. Under no circumstances may it be connected to a stereo system, or similar, for example.

If a system is created during the installation process, the requirements of IEC 60601-1, 3rd edition, must be fulfilled.

2.5 Danger of electric shock

To prevent the danger of fire or of electric shock, the product must not be exposed to rain or moisture.

Please do not open or dismantle the unit, as otherwise there will be a risk of electric shock.

2.6 Electromagnetic compatibility



Medical electrical equipment is subject to special precautionary measures with regard to electromagnetic compatibility (EMC). It must be installed and operated in compliance with the specifications provided for the respective treatment center in the document "Installation Requirements".

Portable and mobile RF communications equipment may interfere with medical electrical equipment. Therefore, the use of mobile wireless phones in medical office or hospital environments must be prohibited.

To ensure safe operation from the standpoint of EMC, please observe the chapter entitled "Electromagnetic compatibility" in the document "Installation Requirements".

2.7 Dismantling/Installation

When dismantling and reinstalling the unit, proceed according to the installation instructions for new installation in order to guarantee its proper functioning and stability.

Explosion-hazard areas

This unit must not be used in areas subject to explosion hazards.

3 Unit description

3.1 Standards/approvals

The 22" monitor complies with the following standards:

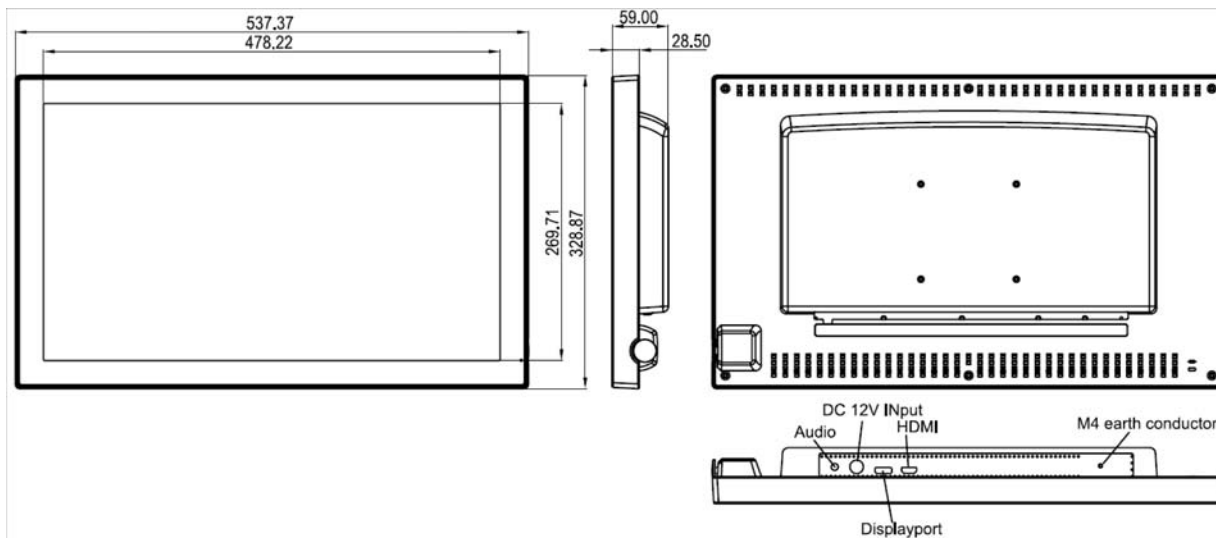
- IEC 60950-1 (information technology equipment, e.g. PC)
- IEC 60601-1-2 (electromagnetic compatibility)

3.2 Technical data

Model designation:	22" monitor
LCD display:	21.5" TFT Color TFT Normally Black
Display size:	476.6 (H) x 268.1 (V) mm
Pixel spacing:	0.248 (H) x 0.248 (V) mm
Display mode:	VESA 1024 x 768 with 60 Hz VESA 1280 x 1024 with 60 Hz VESA 1280 x 720 with 60 Hz VESA 1600 x 900 with 60 Hz VESA 1920 x 1080 with 60 Hz
Maximum resolution:	WUXGA 1920 x 1080 with 60 – 70 Hz
Pixel error rate:	according to ISO 13406-2:2001 Class 2
Contrast ratio:	> 350:1
Brightness:	> 220 cd/m ²
Display color:	16.7 M (6 bit + A-FRC)
Perspective:	178° (vertical / horizontal)
Loudspeakers:	2 x 2 W
Input signal:	Stereo jack 3.5 mm 21-pos. HDMI connector 20-pos. display port connector
Dimensions:	537,7 mm (H) x 328,9 mm (W) x 59 mm (D)
Weight:	~7.0 kg
Mode of operation	Continuous operation
Nominal voltage:	12 V DC
Rated current:	4,5 A
Protection class:	Class I unit – with protective conductor connector
Degree of protection against ingress of water:	Ordinary equipment (IP X0 – without protection against ingress of water)

Transport and storage conditions:	Temperature: -20 °C – +60 °C (-4 °F - 140 °F) Relative humidity: 10 % – 95 % Air pressure: 500 hPa – 1060 hPa
Operating conditions:	Ambient temperature: 10 °C – 40 °C (50 °F – 104 °F) Relative humidity: 10 % – 85 % no condensation Air pressure: 700 hPa – 1060 hPa

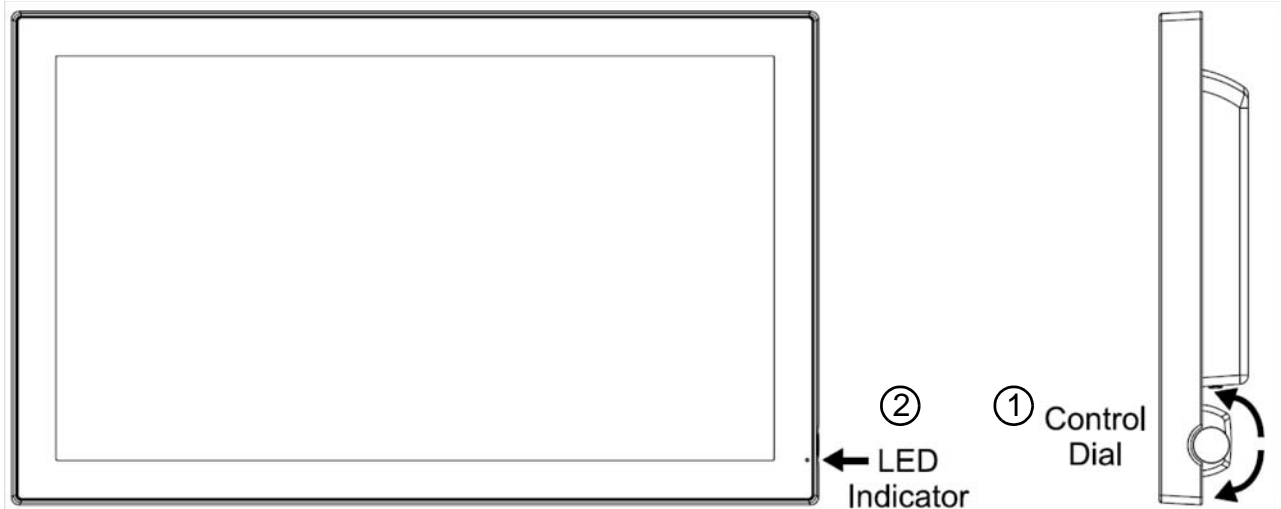
3.3 External Dimensions Landscape



- The specifications and appearance will be changed for improvement without notice

4 Operation

4.1 Operating and display elements



No.	Control	Function
①	Control Dial	The Control Dial is a multi-functional device located behind the LED Indicator on the right side of the front bezel. It has three movements-rotate upward, rotate downward and press inward as a button.
		Power On/Off Press the Control Dial to power the unit on from the off stage (the LED is off). To turn the power off, press the Control Dial and hold for at least 1 second until the LED turns off.
		OSD Control While the monitor is on (green LED and image on the screen), Pressing on the Control Dial activates the OSD. While the OSD menu is active, use the three way movements of the Control Dial to adjust the monitor. Rotate Downward: Move Up/Right, Increase, Larger, More Rotate Upward: Move Down/Left, Decrease, Smaller, Less Button Press: Execute, Do, Save
②	LED Indicator	This LED indicator turns green when the power is switched ON and the power cord is properly attached. It turns amber when the monitor goes into a power saving mode (Active Off). Please refer to the Power Management section of manual for more information.

4.2 Brightness



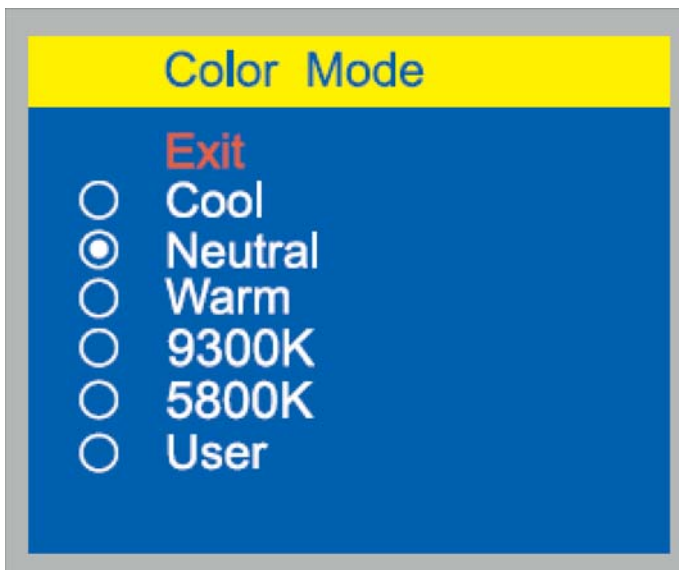
Adjust brightness of the screen. The larger the value is, the screen is , and vice versa. Adjustable at the range from 0 to 100 by a couple of steps.

4.3 Contrast



Adjust contrast of the screen. The larger the value is, the screen is , and vice versa. Adjustable at the range from 0 to 100 by a couple of steps..

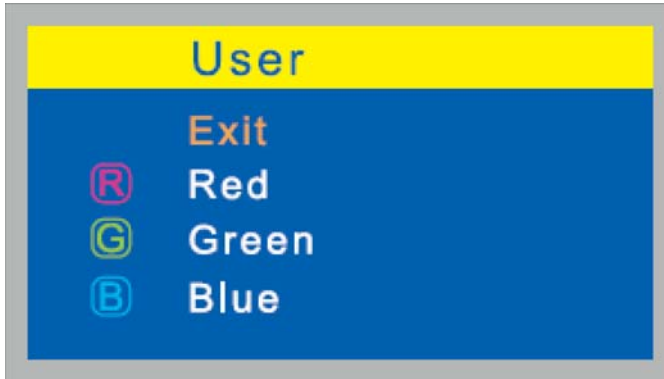
4.4 Color Mode



User can make tone adjustments and settings.

- Exit: Return to Main Menu.
- Cool: Bluish white for general use and CAD / CAM. 8000K is a fixed value by the manufacturer; User cannot change the setting value.
- Neutral: White close to natural light used for publishing trade. 6500K is a fixed value by the manufacturer; User cannot change the setting value.
- Warm: Reddish white mainly suited for photo modification. 5400K is a fixed value by the manufacturer; User cannot change the setting value.
- 9300K: 9300K is a fixed value (0.284 ± 0.03 , 0.299 ± 0.03) by the manufacturer.
- 5800K: 5800K is a fixed value (0.326 ± 0.03 , 0.335 ± 0.03) by the manufacturer. Color temperature (RGB mode only)

4.5 User



User can adjust and set tones.

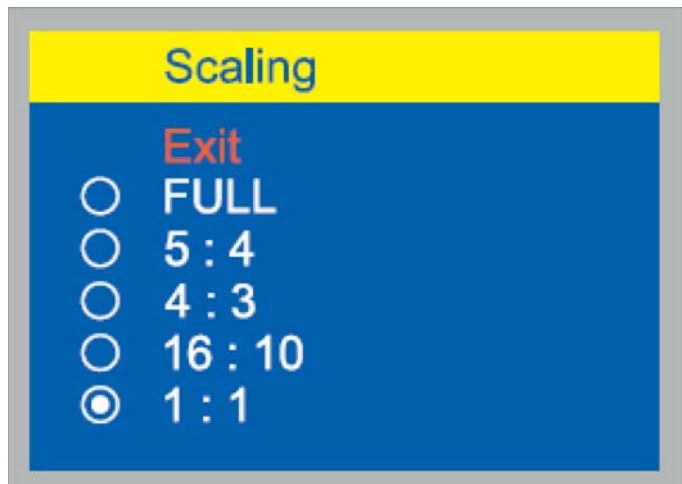
- Exit: Return to Main Menu.
- Red: Adjust red and equivalent colors at the range from 0 to 100.
- Green: Adjust green and equivalent colors at the range from 0 to 100.
- Blue: Adjust blue and equivalent colors at the range from 0 to 100..

4.6 Management



- Exit: Return to Main Menu.

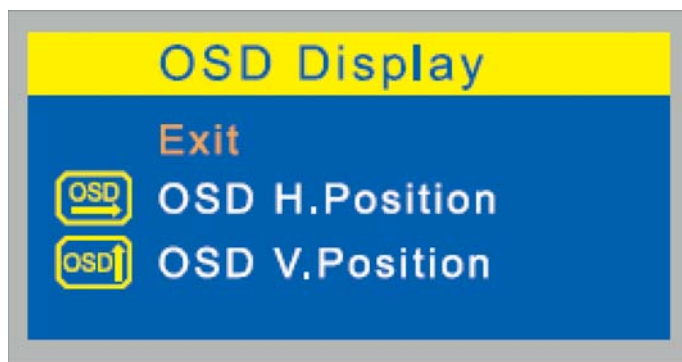
4.6.1 **Scaling**



You can select the control to adjust below items relate to image scaling of Main channel.

- Exit: Return to Main Menu.

4.6.2 **OSD Display**



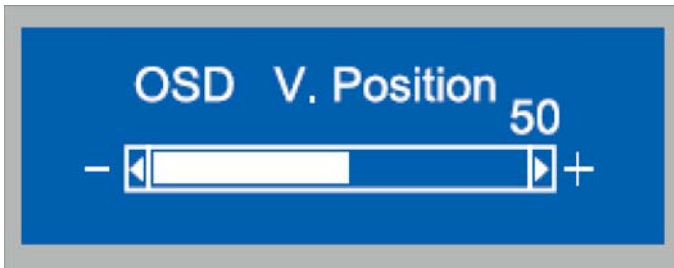
- Exit: Return to Main Menu.

4.6.2.1 **OSD H. Position**



Adjust the horizontal position of OSD. When rotating control dial clockwise, OSD moves to the right, and vice versa.

4.6.2.2 OSD V. Position



Adjust the vertical position of OSD. When rotating control dial clockwise, OSD moves to the up, and vice versa.

4.6.3 Language



Selecting this control to select the language you want.

- English: Display OSD in English.
- Francais: Display OSD in Francais.
- Deutsch: Display OSD in Deutsch.
- Espanol: Display OSD in Espanol.
- Italiano: Display OSD in Italiano.
- Japanese: Display OSD in Japanese.

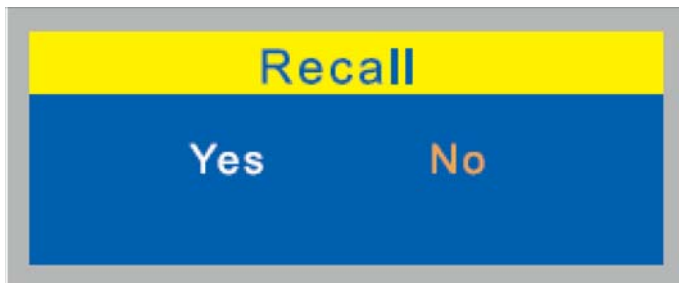
4.6.4 Source



Selecting this control allows you to manually select HDMI or Display Port to automatically detect input sources all.

- Exit: Return to Main Menu.
- HDMI: Display signal from HDMI connector.
- Displayport: Display signal from Displayport connector.

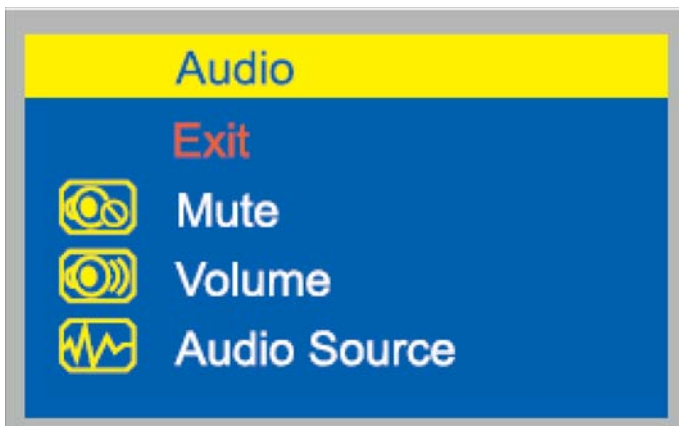
4.6.5 Recall



Initialize the data such as display position and automatic adjustment data to factory default.

4.6.6 Audio

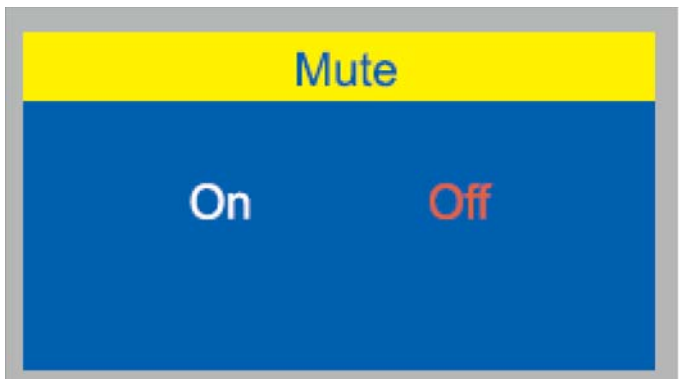
4.6.6.1 Audio (HDMI)



Below menu is under HDMI Source.

- Exit: Return to Main Menu.

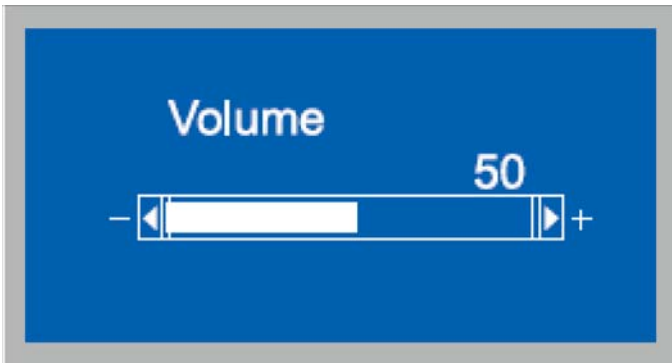
4.6.6.1.1 Mute



To control the audio sound of monitor.

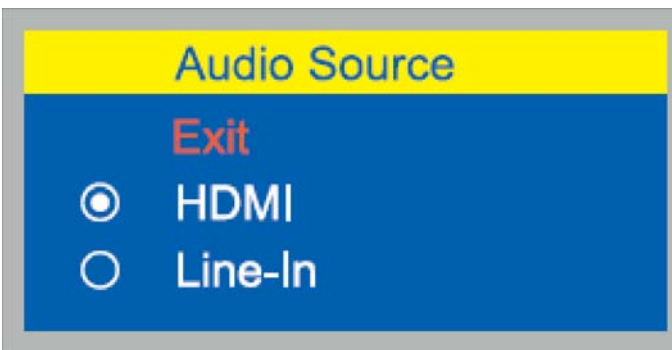
- ON: mute
- Off: no mute

4.6.6.1.2 Volume



Adjust the volume of the audio sound. Selecting this control to volume a scaling. At the range from 0 to 100.

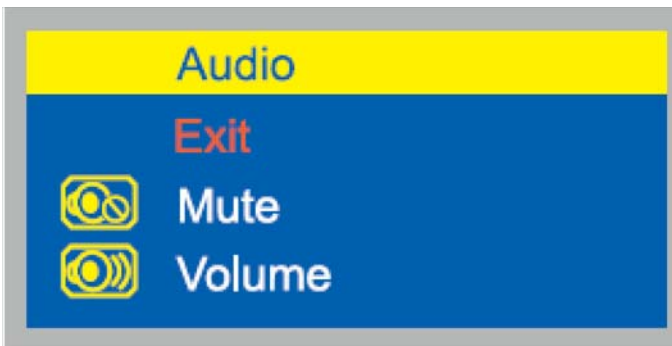
4.6.6.1.3 Audio Source



Selecting this control allows you to manually select Audio source from HDMI or Line-In.

- Exit: Return to Main Menu.

4.6.6.2 Audio (Displayport)



Below menu is under Displayport Source.

- Exit: Return to Main Menu.

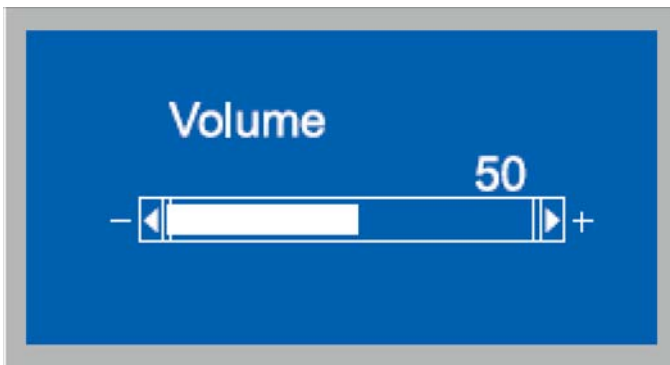
4.6.6.2.1 Mute



To control the audio sound of monitor.

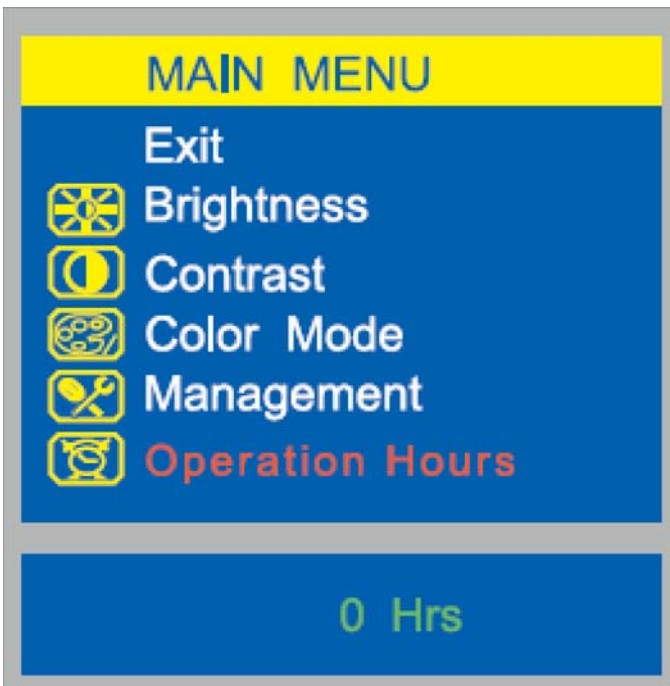
- ON: mute
- Off: no mute

4.6.6.2.2 Volume



Adjust the volume of the audio sound. Selecting this control to volume a scaling. At the range from 0 to 100.

4.7 Operation Hours



Show Monitor's working time.

- Exit: Return to Main Menu.

5 Care and cleaning instructions for the practice team

5.1 Care and cleaning agents

ATTENTION

Use only cleaning and care agents which are approved by Sirona!

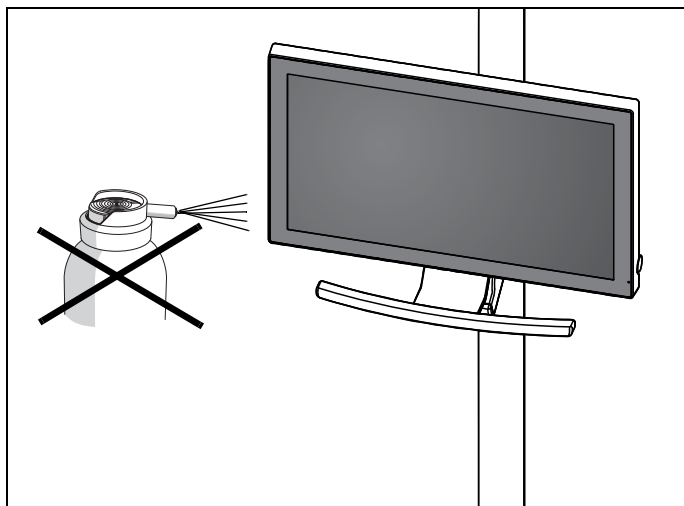
You will find a list of all agents approved at the time of delivery in the documentation folder supplied with your treatment center.

A continuously updated list of approved agents can be downloaded from the Sirona internet homepage under **REF 59 70 905**: ⇒ www.sirona.com

If you do not have Internet access, you can use one of the following two ways to order the list:

- Order from your local dental depot
- Order from Sirona
Tel: ++49 (0) 62 51 / 16-16 16
FAX: ++49 (0) 62 51 / 16-18 18

5.2 Care and cleaning of the monitor



Cleaning

Remove any dirt and disinfectant residues **regularly** using a mild commercial cleaning agent.

Do not use any colored cloths for cleaning, since they may cause discoloration of the surfaces, e.g. in combination with disinfectants!

ATTENTION

Never use corrosive cleaning agents, wax or solvents.

Disinfecting

The glass screen and housing of the monitor can be disinfected by wiping them with a soft cloth.

ATTENTION

Use only cleaning agents which have been approved by Sirona (see above, "Care and cleaning agents")!

ATTENTION

Never spray the monitor with a disinfectant or cleaning agent!

6 Disposal



Your product is marked with the adjacent symbol. Within the European Economic Area, this product is subject to Directive 2002/96/EC as well as the corresponding national laws. This directive requires environmentally sound recycling/disposal of the product. The product must not be disposed of as domestic refuse!

Please observe the disposal regulations applicable in your country.

Disposal procedure

Please note that this product is subject to the stipulations in EC Directive 2002/96 governing waste electrical and electronic equipment and must be disposed of in line with these special requirements within the European Union (EU).

Prior to disassembly / disposal of the product, it must be fully prepared (cleaned / disinfected / sterilized).

When disposing of equipment permanently, please proceed as follows:

In Germany:

To initiate return of the electrical device, please send a disposal order to "enretec GmbH".

1. You can find a form for placing a disposal order on the company's homepage (www.enretec.de) under the menu item "Entsorgung elektrischer und elektronischer Geräte" (Disposal of electric and electronic devices). The form can either be downloaded or completed online.

2. Fill out the form with the corresponding details and send it as an online order or fax it to enretec GmbH at +49(0)3304 3919 590.

You can also get in touch with the following contacts for disposal orders and any questions relating to this you may have:

Phone: +49(0)3304 3919 500;

E-mail: pickup@eomRECYCLING.com

Mailing address: enretec GmbH, Geschäftsbereich eomRECYCLING

Kanalstrasse 17, 16727 Velten

☞ Any nonpermanently installed equipment will be picked up at its installation site in the practice. Permanently installed equipment will be picked up curbside at your address by appointment.



All disassembly, transport and packaging costs are to be borne by the owner/operator of the equipment. The disposal itself is free of charge.

Worldwide (outside Germany):

Please contact your local dental equipment specialist for country-specific information on disposal.

We reserve the right to make any alterations which may be required due to technical improvements.

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