SiroCam UAF Plus

Operating Instructions
# Table of contents

1 General information ................................................................................................ 4
  1.1 Dear customer ............................................................................................. 4
  1.2 Contact information ...................................................................................... 4
  1.3 About this user manual ................................................................................ 5
    1.3.1 General information ....................................................................... 5
    1.3.2 Conventions................................................................................... 6
    1.3.3 Identification of the danger levels .................................................. 7
    1.3.4 Formats and symbols used............................................................ 7
  1.4 Intended use ................................................................................................ 7
  1.5 Requirements............................................................................................... 8
    1.5.1 Operating systems ......................................................................... 8
    1.5.2 PC workstation ............................................................................... 8

2 Safety...................................................................................................................... 9
  2.1 Symbols ....................................................................................................... 10
  2.2 WEEE .......................................................................................................... 11

3 Installation............................................................................................................... 12
  3.1 Install Sidexis 4 video modules .................................................................... 12
  3.2 Install Sirona UAF Plus module ................................................................. 14

4 Operation ................................................................................................................ 16
  4.1 Prior to initial use ......................................................................................... 16
  4.2 Camera description...................................................................................... 16
  4.3 Connect the camera..................................................................................... 16
  4.4 Camera options............................................................................................ 17
    4.4.1 Turning the camera on or off.......................................................... 17
    4.4.2 Keyboard shortcuts........................................................................ 17
  4.5 Protective sheaths ....................................................................................... 18
  4.6 Operate the camera ..................................................................................... 19
    4.6.1 Operating SiroCam UAF Plus ........................................................ 19
  4.7 Stream live images ...................................................................................... 20
  4.8 Display and capture still images ................................................................. 20
  4.9 Save or discard images in Sidexis 4........................................................... 21
    4.9.1 Saving images ............................................................................... 21
    4.9.2 Discarding images ......................................................................... 22
    4.9.3 Changing selections....................................................................... 22
4.10 Video window controls ................................................................................. 24
4.11 Video options ............................................................................................... 25

5  Cleaning ........................................................................................................... 26
   5.1 Handpiece ................................................................................................ 26
   5.2 Lens surface ............................................................................................... 26
   5.3 Cleaning products ...................................................................................... 26

6  Technical data .................................................................................................. 27
   6.1 Optical ........................................................................................................ 27
   6.2 Physical ...................................................................................................... 27
   6.3 Electrical ................................................................................................... 27
   6.4 Ambient ..................................................................................................... 28
   6.5 Specifications ............................................................................................ 28
   6.6 Electromagnetic Emissions ....................................................................... 28
   6.7 Electromagnetic Immunity ......................................................................... 29

7  Error messages .................................................................................................. 31

8  Troubleshooting ................................................................................................ 32

9  Accessories and consumables .......................................................................... 33
1 General information

1.1 Dear customer

We are pleased that you have added the SiroCam UAF Plus intraoral camera from Dentsply Sirona to your practice.

The SiroCam UAF Plus camera provides another opportunity for you to communicate with your patients about their intraoral health and to educate them about the treatment plans that are of value to them. Here are some of the important features of your new camera:

- High resolution image quality
- Multi-function on / off / capture button
- Auto-focus capability
- Capture and save still images
- Easy to hold and handle and simple to operate
- Easily portable between operatories.

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

We wish you a great deal of success with the SiroCam UAF Plus.

Your SiroCam UAF Plus Team

1.2 Contact information

Customer service center
For technical questions, use the contact form on the Internet at: http://srvcontact.sirona.com

Authorized agent in the EU
Sirona Dental Systems GmbH
Fabrikstrasse 31
64625 Bensheim
Germany
Tel.: +49 (0) 6251/16-0
Fax: +49 (0) 6251/16-2591
e-mail: contact@dentsplysirona.com
www.dentsplysirona.com

Manufacturer's address
Sirona Dental, Inc.
30-30 47th Avenue, Suite 500
Long Island City, New York 11101
U.S.A.
Tel.: 1-718-937-5765
Fax: 1-718-937-5962
e-mail: contact@dentsplysirona.com
www.dentsplysirona.com
1.3 About this user manual

1.3.1 General information

Read the document
Use this manual to become familiar with the software before using it. It is essential that you observe the warning and safety information specified in this manual.

Target group
This user manual is aimed at dentists and other dental, orthodontic, and medical specialists.

Original language
The original version of this document was written in the English language.

Keep the document safe
Always keep the user manual handy in case you or another user require(s) information at a later point in time. Save the user manual on a PC or print it out.

If you sell the software, make sure that the user manual is included with it either as a hard copy or on an electronic storage device so that the new owner can familiarize himself with its functions and the specified warning and safety information.

Online portal for technical documentation
We have set up an online portal for technical documentation at http://www.dentsplysirona.com/manuals. From here, you can download this user manual and other documents in PDF format. If you require a document in paper form, we ask you to fill out the web form for “Ordering paper-based operating instructions”. We will then be happy to send you a paper copy free of charge.
### 1.3.2 Conventions

<table>
<thead>
<tr>
<th>Example</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Click</td>
<td>A single click down and releasing of the left mouse button.</td>
</tr>
<tr>
<td>Double-click</td>
<td>Clicking and releasing of the left mouse button twice in quick succession.</td>
</tr>
<tr>
<td>Drag &amp; drop</td>
<td>Pulling along and letting go. Click the left mouse button on an element, hold it and then release the mouse button on a possible target.</td>
</tr>
<tr>
<td>Activate / deactivate a check box</td>
<td>Selecting / deselecting a check box with a mouse click in order to activate / deactivate its underlying function.</td>
</tr>
<tr>
<td>Activate / deactivate an option button</td>
<td>Selecting / deselecting an option button with a mouse click in order to activate / deactivate its underlying function.</td>
</tr>
</tbody>
</table>
1.3.3 Identification of the danger levels

To prevent personal injury and material damage, please observe the warning and safety information provided in these 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.

**NOTE**
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 for simplifying work.

1.3.4 Formats and symbols used

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

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>Prerequisite</td>
</tr>
<tr>
<td>✓ 1. First action step</td>
<td></td>
</tr>
<tr>
<td>✓ 2. Second action step</td>
<td></td>
</tr>
<tr>
<td>✓ or ➢ Alternative action</td>
<td></td>
</tr>
<tr>
<td>✓ ➢ Result</td>
<td></td>
</tr>
<tr>
<td>✓ ➢ Individual action step</td>
<td></td>
</tr>
</tbody>
</table>

See "Formats and symbols used [→ 7]"

Prompts you to do something.

Identifies a reference to another text passage and specifies its page number.

Designates a list.

Indicates commands / menu items or quotations.

1.4 Intended use

SiroCam UAF Plus is intended for intraoral use by dental professionals. It is not intended to be used for any kind of diagnosis.
1.5 Requirements

1.5.1 Operating systems

SiroCam UAF Plus is compatible with Sidexis 4.2 or higher.
Sidexis 4.2 is compatible with the following operating systems:
- Windows 10 Professional (64-bit)
- Windows 8.1 Professional (64-bit)
- Windows 7 Professional SP1 (32- and 64-bit)

1.5.2 PC workstation

The PC should meet the following minimum requirements for the SiroCam UAF Plus:

- Processor: Dual-core, min. 2 GHz
- Main memory: 1 GB (minimum)
- Graphic settings: 1024 x 768 pixels (minimum)
- Graphics card: 24 bpp, 128 MB (minimum)
- Hard disk: 5 GB free hard disk capacity (minimum)
- USB port: USB 2.0 or 3.0

When doing so, observe the system requirements for Sidexis 4.
2 Safety

Check the Camera before Using It

There are no customer-serviceable components in the camera. However, before each usage, check the outer surface of the camera for any signs of physical damage or defect. The surface of the camera should have a smooth finish, with no evidence of chipping or damage to either the handpiece housing or the lens section. If detected, contact your local distributor of Dentsply Sirona products for further instructions.

Always Use Sheaths

Use protective camera sheaths every time the camera is used. Never use the intraoral camera without a protective sheath. Never use a damaged sheath. Always dispose of the sheath after every patient.

Protective sheaths are single-use items and must not be reused under any circumstance. Reuse of single-use devices/instruments may cause them to become contaminated, compromise their intended function, and result in patient and user infection, injury and/or illness.

RF Interference Considerations

Although the camera is designed to provide a reasonable degree of protection from electromagnetic interference, according to IEC International regulations, it must be installed at an adequate distance from electricity transformer rooms, static continuity units, two-way amateur radios and cellular phones. To ensure proper operation, the latter (meaning, electricity transformer rooms, static continuity units, two-way amateur radios and cellular phones) can be used only at a minimum distance of 1.5m from any part of the camera.

Any instrumentation or equipment for professional use located near the camera must conform to Electromagnetic Compatibility regulations. Nonconforming equipment, with known poor immunity to electromagnetic fields, may not operate properly unless they are installed at a distance of at least 3m and supplied by a dedicated electric line.

Operate the Camera as Directed

Always use the camera in accordance with the directions and recommendations contained in this guide and other accompanying or referenced documentation. Do not attempt to modify the camera or use it in system configurations not specified in this or other product documents.

Only Dentists or Authorized Designees Are Permitted to Operate the System

To ensure the correct use of the camera in a clinical environment, for purposes that correspond to its intended design and application, only dentists, or their designees, are authorized to operate the device.

Ensure Proper Camera and PC Workstation Installation and Operation

The camera has been determined to be in accordance with international safety standards and is deemed suitable for use within the patient area,
which extends from the patient for a distance of 1.5m. To comply with these standards, do not operate non-medical equipment (such as a PC workstation) inside the patient area. Outside the patient area, the presence of approved non-medical grade equipment and Listed / Approved / IEC 60950-1 certified Information Technology Equipment (ITE) computer equipment is acceptable.

The host computer (PC workstation) should be CE-approved and conform with the Low Voltage [73/23/EC] and EMC Directive [89/336/ERC]. Also, to help ensure optimal performance, ensure that all software programs residing on the workstation are virus-free and have been adequately tested so they will not impact imaging applications after installation.

### 2.1 Symbols

Sirona Dental products display markings to indicate compliance with regulatory requirements and applicable technical standards.

- **Indicates Type BF equipment in accordance with applicable medical device safety standards (IEC/EN/UL 60601-1)**

  ![Symbol](image)

  Indicates an attention to customers to consult accompanying documents for information needed for proper use of device

- **Manufacturer’s address**

  ![Symbol](image)

  Indicates conformance to European Union Medical Devices Directive (MDD) 93/42/EEC

- **Signifies certification to the product safety requirements of the USA and Canada**

  ![Symbol](image)

These symbols, with the serial number of the camera, can be found on the label attached to the camera cable.
2.2 WEEE

Background

The European Union’s Waste Electrical and Electronic Equipment (WEEE) Directive (2002/96/EC) has been implemented in member states as of August 13, 2005. This directive, which seeks to reduce the waste of electrical and electronic equipment through re-use, recycling, and recovery, imposes several requirements on producers. Sirona Dental and its Dealers are committed to complying with the Directive.

All Sirona products subject to the WEEE Directive and shipped after August 13, 2005 will be compliant with WEEE marking requirements. These products will be identified with the “crossed-out wheeled bin” WEEE symbol shown below, as defined in European Standard EN 50419, and in accordance with WEEE Directive 2002/96/EC.

This “crossed-out wheeled bin” symbol on the product or its packaging indicates that this product must not be disposed of with other unsorted municipal waste. Instead, it is the user’s responsibility to dispose of Electrical and Electronic Equipment (EEE) by handing it over to a designated collection point for the reuse or recycling of waste electrical and electronic equipment. The separate collection and reuse or recycling of Electrical and Electronic waste equipment will help to conserve natural resources and ensure that it is recycled in a manner that protects the environment and human health. For more information about where you can drop off your waste equipment for recycling, please contact your local officials.

WEEE from Users Other than Private Households

According to the WEEE Directive, Sirona Dental or its Dealers will fulfill its obligations for the management of WEEE from users other than private households. Furthermore, as required by the WEEE Directive, in order to determine unequivocally when the equipment was put on the market, the manufacturer’s date is placed on the equipment.

Information for Reuse Centers, Treatment and Recycling Facilities

As required by the WEEE Directive, Sirona Dental or its Dealers will provide reuse, treatment, and recycling information for each type of new EEE put on the market within one year of the date in which the equipment is put on the market.

Information will include the different EEE components and materials as well as the location of substances in these items. The information will be provided as a printed document or in electronic media (on CD-ROM or by web download, for example).
3 Installation

3.1 Install Sidexis 4 video modules

To install the Sidexis 4 video modules, please perform the following steps:

- Sidexis 4 (version 4.2 or higher) is installed.
- Sidexis 4 is closed.
- The camera is not connected to the PC.

1. Log onto your PC with an administrator account.
2. Insert the "SiroCam UAF Plus" CD into your PC's CD/DVD drive.
3. Browse for the "Sidexis Video Modules" setup folder and open it.
4. Double-click on the setup file to start the installation.
   - The setup window opens.
5. At the Welcome screen, click Next.

6. Please wait while the setup program installs the video module for your system.
3.1 Install Sidexis 4 video modules

7. When setup is complete, click Finish.
3.2 Install Sirona UAF Plus module

To install the Sirona UAF Plus module, please perform the following steps:

- Sidexis 4 (version 4.2 or higher) is installed.
- Sidexis 4 is closed.
- The camera is not connected to the PC.
- You are logged into your PC with an administrator account.
- The “SiroCam UAF Plus” CD is in your PC’s CD/DVD drive.

1. Browse for the “Sirona UAF Plus Module” setup folder and open it.
2. Double-click on the setup file to start the installation.
   - The setup window opens.
3. At the Welcome screen, click Next.

4. Please wait while the setup program installs the Sirona UAF Plus module for your system.
3 Installation

3.2 Install Sirona UAF Plus module

5. When setup is complete, click Finish.
4 Operation

4.1 Prior to initial use

Before using the camera for the first time, make sure you have cleaned it thoroughly. Procedures for cleaning the camera handpiece and the lens surface can be found in the “Cleaning” section of this document.

4.2 Camera description

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Camera head with lens</td>
</tr>
<tr>
<td>2</td>
<td>Multi-function button</td>
</tr>
<tr>
<td>3</td>
<td>Camera handpiece</td>
</tr>
<tr>
<td>4</td>
<td>Cable with USB connector</td>
</tr>
</tbody>
</table>

4.3 Connect the camera

Connect the camera to a USB 2.0 or 3.0 port on your computer.
4.4 Camera options

4.4.1 Turning the camera on or off

If the camera is off, perform any of the following actions to turn the camera ON:

- Remove the camera from its holder.
- Press and hold the camera button for about 1 second.
- Click on the camera icon at the bottom of the Sidexis window.
- Click on the Show Video button on the camera settings page.

If the camera is on, perform any of the following actions to turn the camera OFF:

- Return the camera to its holder.
- Press and hold the camera button for about 1 second.
- Press the ESCAPE key on your keyboard.
- Click on the “X” button in the video window.

4.4.2 Keyboard shortcuts

The following keyboard shortcuts are available during live video:

- Press the RETURN or ENTER key to freeze or unfreeze video.
- Press the ESCAPE key to close the video window.
- Press the CONTROL and S keys captures the last shown video image.
4.5 Protective sheaths

To place protective camera sheaths, perform the following steps:

- New camera sheath is available.

1. Holding the camera with the lens surface facing down, insert the camera into the protective hygienic sleeve. Ensure that the plastic side of the hygienic sleeve packaging is facing up.

2. Insert the camera into the hygienic sleeve until the camera head is snug inside it. Ensure that no air bubbles or wrinkles have formed between the lens surface and the protective hygienic sleeve.

3. Holding the white edge of the protective hygienic sleeve firmly, pull the top plastic cover of the sleeve towards the camera head. Pull the paper side of the sleeve, located on the underside, towards the handpiece.
4.6 Operate the camera

4.6.1 Operating SiroCam UAF Plus

- Sidexis 4 Video Modules are installed.
- Sirona UAF Plus Module is installed.
- Sidexis 4 (version 4.2 or above) is installed.

   - During Sidexis 4 startup the camera LEDs will blink three times to indicate a valid installation of the video module and to confirm that the camera is ready for normal operation.

2. Click on the “Patient” button in the phase bar and select a patient. If you do not select a patient, you will be prompted to select one before images are imported and saved in Sidexis 4.

3. Click on the SiroCam UAF Plus image in the Status bar.

SiroCam UAF Plus highlighted
4.7 Stream live images

To stream live video, perform any one of the following steps:

1. Remove the camera from its camera holder.
2. Press and hold the camera handpiece button down for about one second.
3. Click on the SiroCam UAF Plus image in Sidexis 4.

The camera will auto-focus automatically during operation. When positioning the camera, find an optimal distance from the object or image area. For example, a distance of about 4 mm may be considered optimal when focusing on a single tooth.

4.8 Display and capture still images

To capture one or more still images, perform the following steps:

- Live video is streaming inside the Sidexis window.
1. Hold the camera button down for about one-half second and then release the button.
2. Repeat the previous step to capture several still images, if needed.
4.9 Save or discard images in Sidexis 4

As still images are captured, they accumulate in a vertical column next to the video window. Depending on the Video Plugin setting for marking images, they are set initially to be saved or discarded. You can, of course, change this setting and choose which images you wish to retain and which ones to remove.

4.9.1 Saving images

To select images to be saved, perform the following steps:

- Captured still images are available.

1. If the images are already selected to be saved, meaning that they are shown with checkmarks next to them, no further action is needed. These images will be saved at the end of the current video session.

2. If the patient is registered already, any images marked to be saved will be imported and opened in the Light Box when the video window is closed. If no patient has been registered, you will be prompted to select a patient before images are imported.
4.9.2 Discarding images

To select images to be discarded, perform the following step:

- Captured still images are available.

> If the images are already selected to be discarded, meaning that they are shown with “X” marks next to them, no further action is needed. These images will not be saved at the end of the current video session.

4.9.3 Changing selections

If you wish to save one or more images and discard the rest, perform the following steps:

- Captured still images are available.

1. To change the selection of one or more images individually, click the symbol (either checkmark or “X” mark) next to the image. This will toggle the save and discard options.

2. To change the selection of all images click on the "Change All" symbol, indicated by cascading boxes at the bottom of the column.
One image selected to be saved; the others to be discarded
4.10 Video window controls

The video window controls, and the settings in Video Plugin Options, determine how images are saved or discarded at the end of the video session. There is also significant flexibility in how you may wish to manage this workflow as images are imported in Sidexis. For information about the controls, refer to the graphic and descriptive table below.

<table>
<thead>
<tr>
<th>Video Window Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Scrolls through multiple still images, one by one, from top to bottom. Arrow at top of column performs similar function, but scrolls from bottom to top.</td>
</tr>
<tr>
<td>B</td>
<td>Changes the mark for all the images in the column, toggling between save and discard.</td>
</tr>
<tr>
<td>C</td>
<td>Closes video window and discards all images whether they were marked to be saved or discarded.</td>
</tr>
<tr>
<td>D</td>
<td>Closes video window, retaining images marked to be saved and rejecting images marked to be discarded.</td>
</tr>
</tbody>
</table>
4.11 Video options

Settings are available in Sidexis 4 to provide different ways of managing the video window and saving images.

- Sidexis 4 is running.
- 1. Click on the Settings (gear) icon.
- 2. Click on the Cameras button in the structure tree.
- 3. Click on Options.

4. To close the video window automatically and to retain all images marked to be saved, ensure that the “Close video form right after camera deactivation. Save stored video images” box is checked.

5. To mark all still images automatically to be saved, ensure that the “Mark saved video images for later import” box is checked.

6. If the patient is registered already, any images marked to be saved will be imported and opened in the Light Box. If no patient has been registered, you will be prompted to select a patient before images are imported.
5 Cleaning

5.1 Handpiece

Before using the camera the first time, and before every new patient, the following protocol is recommended:

1. Remove and discard all protective hygienic barriers and / or sheaths from the camera prior to removing disposable gloves.
2. Place the camera on a tray covered by a disposable liner, or in a receptacle that can be thoroughly disinfected.
3. Remove and discard gloves.
4. Wash hands and put on a new pair of disposable gloves.
5. If the camera or cable are visibly soiled (e.g., with blood or saliva), each should be cleaned with a soapy cloth or paper towel, and then dried with a clean lint-free cloth or paper towel.
6. Thoroughly wipe the camera and cable (if applicable) with a recommended cleaning product and wait 30 seconds. Do not expose the camera cable connector to any amount of liquid.
7. After the camera has been wiped two times, remove potential chemical build-up from the camera by wiping it with a sterile lap sponge saturated with de-ionized water.
8. Use a sterile dry lap sponge to dry the camera or cable, as needed.
9. Place the camera in a clean environment, ready for next use.
10. Remove and discard gloves.

5.2 Lens surface

To clean the lens surface, moisten a soft cotton swab dipped in isopropyl alcohol. Gently wipe the lens surface end-to-end in straight lines without applying pressure; do not scrub. Allow the alcohol to evaporate from the lens surface. Repeat these steps, as needed, until the lens surface is clean.

5.3 Cleaning products

The following products have been tested successfully for compatibility with the plastic surfaces of the camera.

- Cavicide (original)
- Cavi-Wipes (original) not Cavi-Wipes1 or Cavicide Prospary
- VoloWipes
- Isopropyl alcohol (70%)
- MinutenSpray Classic
- PlastiSept.
## 6 Technical data

### 6.1 Optical

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lighting</td>
<td>LED</td>
</tr>
<tr>
<td>Lens</td>
<td>Auto-focus</td>
</tr>
<tr>
<td>Sensor technology</td>
<td>¼-inch CMOS</td>
</tr>
<tr>
<td>Resolution (pixels)</td>
<td>1296 x 796</td>
</tr>
<tr>
<td>Depth of field (mm)</td>
<td>2 to 130</td>
</tr>
<tr>
<td>Magnification</td>
<td>x250 (maximum)</td>
</tr>
<tr>
<td>Viewing angle (degrees)</td>
<td>90° to 53° + 5°</td>
</tr>
<tr>
<td>Distortion (%)</td>
<td>&lt; 10</td>
</tr>
<tr>
<td>Image area (mm)</td>
<td>&gt; 60</td>
</tr>
<tr>
<td>Speed of focus (mn)</td>
<td>&lt; 800</td>
</tr>
<tr>
<td>Spectral range (mm)</td>
<td>429 to 750</td>
</tr>
</tbody>
</table>

### 6.2 Physical

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Camera length (mm)</td>
<td>195</td>
</tr>
<tr>
<td>Camera diameter (mm)</td>
<td>26 (maximum)</td>
</tr>
<tr>
<td>Camera head diameter (mm)</td>
<td>11</td>
</tr>
<tr>
<td>Camera weight (g)</td>
<td>210 (with cable)</td>
</tr>
<tr>
<td>Cable length (m)</td>
<td>2.4 (measured from camera back sleeve to connector)</td>
</tr>
<tr>
<td>Cable connection</td>
<td>USB 2.0 or 3.0</td>
</tr>
<tr>
<td>Housing material</td>
<td>Glass fiber, reinforced plastic</td>
</tr>
<tr>
<td>Camera window material</td>
<td>Sapphire</td>
</tr>
<tr>
<td>Protection</td>
<td>Liquid-tight camera head</td>
</tr>
</tbody>
</table>

### 6.3 Electrical

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output signal</td>
<td>UVC signal via USB 2.0 or 3.0-compliant interface</td>
</tr>
<tr>
<td>Total power consumption (mv @ 5V)</td>
<td>450 mV / 1.19W (USB compliant)</td>
</tr>
<tr>
<td>Live image resolution (pixels)</td>
<td>824 x 514 with 20 fps</td>
</tr>
<tr>
<td>Resolution of saved images (pixels)</td>
<td>1296 x 796</td>
</tr>
<tr>
<td>Device driver</td>
<td>No special device drivers needed</td>
</tr>
</tbody>
</table>
6.4 Ambient

Transport and storage conditions

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature (°C)</td>
<td>-40° to +70°</td>
</tr>
<tr>
<td>Relative humidity (%)</td>
<td>10 to 95</td>
</tr>
<tr>
<td>Atmospheric pressure (hPa)</td>
<td>500 to 1060</td>
</tr>
</tbody>
</table>

Operating conditions

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature (°C)</td>
<td>+10° to +40°</td>
</tr>
<tr>
<td>Relative humidity (%)</td>
<td>30 to 50 (non-condensing)</td>
</tr>
<tr>
<td>Atmospheric pressure (hPa)</td>
<td>700 to 1060</td>
</tr>
</tbody>
</table>

Operating altitude

<table>
<thead>
<tr>
<th>Altitude (m)</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Altitude</td>
<td>Up to 2000 ASL</td>
</tr>
</tbody>
</table>

6.5 Specifications

<table>
<thead>
<tr>
<th>Standard</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAN/CSA C22.2 No.601.1-M90</td>
<td>Medical Electrical Equipment Part 1: General Requirements for Safety</td>
</tr>
<tr>
<td>EC 93/42/EEC</td>
<td>Medical Device Directive</td>
</tr>
<tr>
<td>IEC60601-1</td>
<td>Medical Electrical Equipment Part 1: General Requirements for Safety</td>
</tr>
<tr>
<td>UL60601-1</td>
<td>Medical Electrical Equipment: General Requirements for Safety</td>
</tr>
</tbody>
</table>

6.6 Electromagnetic Emissions

The UNIT is intended for operation in the electromagnetic environment specified below.

The customer or user of the UNIT should make sure that it is used in such an environment.
6.7 Electromagnetic Immunity

The UNIT is intended for operation in the electromagnetic environment specified below.

The customer or user of the UNIT should make sure that it is used in such an environment.

<table>
<thead>
<tr>
<th>Emission measurement</th>
<th>Conformity</th>
<th>Electromagnetic environment - guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF emissions according to CISPR 11</td>
<td>Group 1</td>
<td>The UNIT uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.</td>
</tr>
<tr>
<td>Harmonics according to IEC 61000-3-2</td>
<td>Class A</td>
<td>The UNIT is intended for use in all facilities, including residential areas and in any facilities connected directly to a public power supply providing electricity to buildings used for residential purposes.</td>
</tr>
<tr>
<td>Voltage fluctuations / flicker according to IEC 61000-3-3</td>
<td>coincides</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interference immunity tests</th>
<th>IEC 60601-1-2 test level</th>
<th>Compliance level</th>
<th>Electromagnetic environment – guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrostatic discharge (ESD) according to IEC 61000-4-2</td>
<td>± 6 kV contact discharge</td>
<td>± 6 kV contact discharge</td>
<td>Floors should be made of wood or concrete or finished with ceramic tiling. If the floor is covered with synthetic material, the relative humidity should be at least 30%.</td>
</tr>
<tr>
<td></td>
<td>± 8 kV air discharge</td>
<td>± 8 kV air discharge</td>
<td></td>
</tr>
<tr>
<td>Electrical fast transient/burst according to IEC 61000-4-4</td>
<td>± 1 kV for input and output lines</td>
<td>± 1 kV for input and output lines</td>
<td>The quality of the line power supply should be that of a typical commercial or hospital environment.</td>
</tr>
<tr>
<td></td>
<td>± 2 kV for power supply lines</td>
<td>± 2 kV for power supply lines</td>
<td></td>
</tr>
<tr>
<td>Surge voltages according to IEC 61000-4-5</td>
<td>± 1 kV differential mode voltage</td>
<td>± 1 kV differential mode voltage</td>
<td>The quality of the line power supply should be that of a typical commercial or hospital environment.</td>
</tr>
<tr>
<td></td>
<td>± 2 kV common mode voltage</td>
<td>± 2 kV common mode voltage</td>
<td></td>
</tr>
<tr>
<td>Voltage dips, short interruptions, and variations of the power supply according to IEC 61000-4-11</td>
<td>&lt;5% $U_T$ for ½ period (&gt;95% dip of $U_T$) 40% $U_T$ for 5 periods (60% dip of $U_T$) 70% $U_T$ for 25 periods (30% dip of $U_T$)</td>
<td>&lt;5% $U_T$ for ½ period (&gt;95% dip of $U_T$) 40% $U_T$ for 5 periods (60% dip of $U_T$) 70% $U_T$ for 25 periods (30% dip of $U_T$)</td>
<td>The quality of the line power supply should be that of a typical commercial or hospital environment. If the user of the UNIT requires it to continue functioning following interruptions of the power supply, it is recommended to have the UNIT powered by an uninterruptible power supply or a battery.</td>
</tr>
<tr>
<td></td>
<td>&lt;5% $U_T$ for 5 sec. (&gt;95% dip of $U_T$)</td>
<td>&lt;5% $U_T$ for 5 sec. (&gt;95% dip of $U_T$)</td>
<td></td>
</tr>
<tr>
<td>Magnetic field of power frequencies (50/60 Hz) according to IEC 61000-4-8</td>
<td>3 A/m</td>
<td>3 A/m</td>
<td>Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.</td>
</tr>
</tbody>
</table>

Note: $U_T$ is the AC supply voltage prior to application of the test level.
### 6.7 Electromagnetic Immunity

<table>
<thead>
<tr>
<th>Interference immunity tests</th>
<th>IEC 60601-1-2 test level</th>
<th>Compliance level</th>
<th>Electromagnetic environment – guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Portable and mobile radio equipment must not be used within the recommended working clearance from the UNIT and its cables, which is calculated based on the equation suitable for the relevant transmission frequency. Recommended working clearance:</td>
</tr>
<tr>
<td>Conducted RF interference</td>
<td>3 $V_{	ext{eff}}$</td>
<td>$3 V_{	ext{eff}}$</td>
<td>$d = [1.2] \sqrt{P}$</td>
</tr>
<tr>
<td>IEC 61000-4-6</td>
<td>150 kHz to 80 MHz</td>
<td></td>
<td>At 80 MHz to 800 MHz $d = [1.2] \sqrt{P}$</td>
</tr>
<tr>
<td>Radiated RF interference</td>
<td>3 $V_{	ext{eff}}$</td>
<td>$3 V_{	ext{eff}}$</td>
<td>$d = [2.3] \sqrt{P}$ at 800 MHz to 2.5 GHz</td>
</tr>
<tr>
<td>IEC 61000-4-3</td>
<td>80 MHz to 800 MHz</td>
<td></td>
<td>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey should be less than the compliance level in each frequency range.</td>
</tr>
<tr>
<td></td>
<td>800 MHz to 2.5 GHz</td>
<td></td>
<td>Interference is possible in the vicinity of equipment bearing the following graphic symbol.</td>
</tr>
</tbody>
</table>

1. The higher frequency range applies at 80 MHz and 800 MHz.
2. The field strengths of fixed transmitters, such as base stations of radiotelephones and mobile agricultural radio broadcast services, amateur radio stations, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. A site survey is recommended to assess the electromagnetic environment due to fixed RF transmitters. If the measured field strength in the location in which the UNIT is used exceeds the applicable RF compliance level above, the UNIT should be observed at every location to verify normal operation. If unusual performance characteristics are observed, it may be necessary to take additional measures such as reorientation or repositioning of the UNIT.
3. Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.
7 Error messages

Problems detected by the setup program during installation may cause an error message to appear. In the event a problem occurs during installation, please refer to the following table for recommended actions.

<table>
<thead>
<tr>
<th>Potential Cause</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installed version of Sidexis software is not supported</td>
<td>Please install Sidexis 4.2 or above first and repeat the installation of the Sidexis 4 Video Modules.</td>
</tr>
<tr>
<td>Video module is not installed</td>
<td>Please repeat the installation of the Sidexis 4 Video Modules.</td>
</tr>
<tr>
<td>Sidexis 4 is not installed</td>
<td>Please install Sidexis 4 first and then repeat the installation of the Sidexis 4 Video Modules.</td>
</tr>
</tbody>
</table>
8 Troubleshooting

Images appear out of focus

<table>
<thead>
<tr>
<th>Potential Cause</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protective sheath is wrinkled</td>
<td>Ensure sheath fits correctly</td>
</tr>
<tr>
<td>Camera head is dirty</td>
<td>Perform camera lens cleaning</td>
</tr>
<tr>
<td>Liquid has spilled into handpiece</td>
<td>Contact dealer for support</td>
</tr>
</tbody>
</table>

Images appear too dark

<table>
<thead>
<tr>
<th>Potential Cause</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEDs are not functioning</td>
<td>Contact dealer for support</td>
</tr>
</tbody>
</table>

No images appear

<table>
<thead>
<tr>
<th>Potential Cause</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>USB cable is incorrectly connected or is not connected</td>
<td>Ensure USB cable is connected correctly to PC workstation</td>
</tr>
</tbody>
</table>

NOTE: If the above actions do not resolve your issue, please contact a Dentsply Sirona support representative or an authorized dealer for further assistance.
## 9 Accessories and consumables

### Accessories

<table>
<thead>
<tr>
<th>Illustration</th>
<th>Designation</th>
<th>Lot size</th>
<th>Purchase order number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SiroCam UAF Plus holster</td>
<td>1 pc.</td>
<td>6679810</td>
</tr>
</tbody>
</table>

### Consumables

<table>
<thead>
<tr>
<th>Illustration</th>
<th>Designation</th>
<th>Lot size</th>
<th>Purchase order number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SiroCam UAF Plus hygienic sheaths</td>
<td>1 box (300 pcs)</td>
<td>6679802</td>
</tr>
</tbody>
</table>
We reserve the right to make any alterations which may be required due to technical improvements.