

Planmeca Dixi3



USER'S MANUAL

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The manufacturer, assembler, and importer are responsible for the safety, reliability and performance of the unit only if:

- installation, calibration, modification and repairs are carried out by qualified authorized personnel
- electrical installations are carried out according to the appropriate requirements such as IEC364
- equipment is used according to the operating instructions.

Planmeca pursues a policy of continual product development. Although every effort is made to produce up-to-date product documentation this publication should not be regarded as an infallible guide to current specifications. We reserve the right to make changes without prior notice.

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1 INTRODUCTION

The Planmeca Dixi3 digital intra X-ray system is for use with intra-oral X-ray units. This manual describes how to use the system. Please read this manual carefully before using the system. Refer also to the intra-oral X-ray unit's user's manual.

NOTE *The Planmeca Intra X-ray or Prostyle Intra X-ray and Dimaxis software have separate user's manuals, which should be used in conjunction with this manual.*

CAUTION *Handle the Dixi3 digital Intra X-ray system according to the instructions given in this manual. Do not to drop the sensor or pull strongly the sensor cable. Never cut, nick or sharply bend the sensor cable. Always advise the patient not to bite the sensor or cable. The Planmeca limited warranty does not cover damage which is due to misuse, e.g. dropping the sensor, neglect, or any cause other than ordinary application.*

CAUTION *Do not let the sensor cable run along the floor. Protect the cable from rolling over it with a chair or walking over it.*

CAUTION *Do not store or use the Planmeca Sensor near (3m or 10 ft) an electrosurgical knife.*



WARNING

Do not connect or disconnect the sensor while the interface electronics is switched on. Do not touch the connector pins.

NOTE *EMC requirements have to be considered, and the equipment must be installed and put into service according to the specific EMC information provided in the accompanying documents.*

NOTE *Portable and mobile RF communications equipment can affect Planmeca Proline EC X-ray unit.*

1.1 Symbols



Type BF equipment (Standard IEC 878).



The use of accessory equipment not complying with the equivalent requirements of this equipment may lead to a reduced level of safety of the resulting system. Consideration relating to the choice shall include:

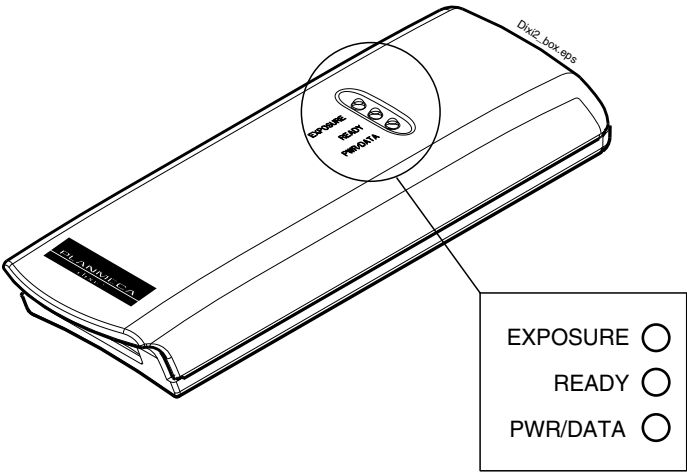
- use of the accessory in the Patient Vicinity
- evidence that the safety certification of the accessory has been performed in accordance to appropriate IEC60601 and/or IEC60601-1-1 harmonized national standard.









Dixi3 digital intra X-ray is supplied with the UL Recognition mark.


2 USING THE DIXI3 SYSTEM


2.1 Dixi3 control box




DIXI3 control box indicator lights

EXPOSURE READY PWR/DATA	DIXI3 STATUS
	The Dixi3 system is off.
	The Dixi3 system is on. The Dimaxis program communicates with the Dixi3 system.
	The Dixi3 system is preparing for the exposure. <i>Waiting for ready</i> message is shown on the computer screen.
	The Dixi3 system and the Dimaxis program are ready for the exposure, i.e. the <i>Waiting for exposure</i> message is shown on the computer screen.
	The exposure is taken.
	The image data is transferred from the sensor to the PC.

 Indicator light is OFF.

 Indicator light is ON.

 Indicator light is flashing.

PWR/DATA

The PWR/DATA indicator light is on when the Dixi3 system is on. Power to the Dixi3 system is supplied either from the computer's PCI image interface PCB (Dixi3 with PCI interface) or from the power supply of the USB interface box (Dixi3 with USB interface) or from the Planmeca Ethernet interface box.

The PWR/DATA indicator light is flashing when the Dixi3 system is communicating with Dimaxis program (PC).

NOTE *Do not disconnect the Dixi3 control box when the PWR/DATA indicator light is on.*

NOTE FOR DIXI3 WITH USB INTERFACE/ETHERNET INTERFACE

The power to the Dixi3 control box is supplied via USB interface box or via Ethernet interface box (Dixi3 with Planmeca Ethernet interface) from external power supply. If PWR/DATA indicator light on the Dixi3 control box is not ON, check that the power supply is connected.

READY

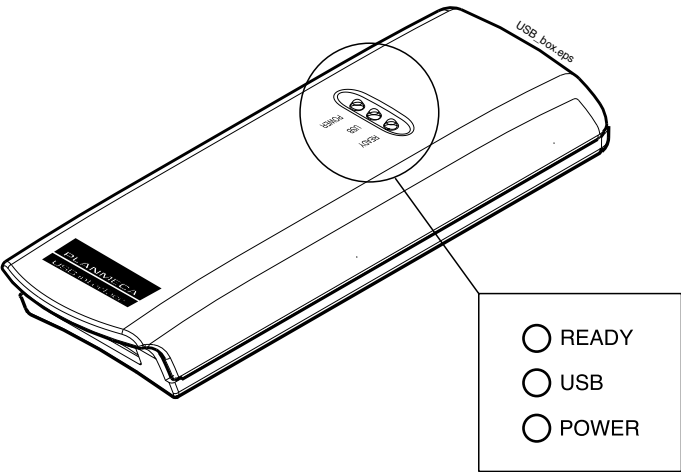
The READY indicator light will come on when the Dimaxis program is ready for the exposure, i.e. the *Waiting for exposure* message is on the computer screen.

NOTE *The exposure can only be taken when the ready indicator light on the Dixi3 control box is on, not when the indicator light is flashing.*

EXPOSURE

The EXPOSURE indicator light will come on briefly when you take an exposure.

2.2 USB interface box (Dixi3 with USB interface)



USB interface box indicator lights

POWER	USB	READY	USB INTERFACE BOX STATUS
			The USB interface box is off.
			The USB interface box is on. Power to the USB interface box is supplied from the computer's USB interface PCB.
			The USB interface box is detected by the operating system and the driver for this interface is loaded.
			The Dixi3 system and the Dimaxis program are ready for the exposure, i.e. the <i>Waiting for exposure</i> message is shown on the computer screen.
			The image data is transferred from the Dixi3 system to the PC.

- Indicator light is OFF.
- Indicator light is ON.
- Indicator light is flashing.

POWER

The POWER indicator light is on when the USB interface box is on. Power to the USB interface box is supplied from the computer's USB interface PCB.

USB

The USB indicator light will come on when the driver is loaded.

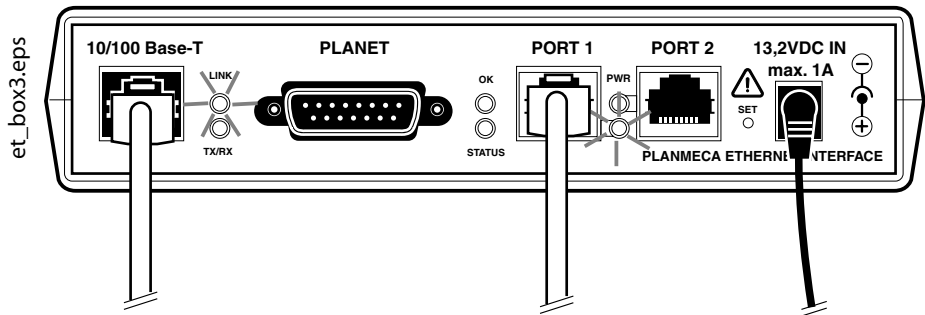
The USB indicator light is briefly flashing when the image data is transferred from the sensor to the PC.

READY

The READY indicator light will come on when the Dimaxis program is ready for the exposure, i.e. the *Waiting for exposure* message is on the computer screen.

NOTE *The exposure can only be taken when the READY indicator light is on. It is recommended to position the USB interface box so that it can be seen when pressing the X-ray unit's exposure button.*

2.3 Planmeca Ethernet interface box (Dixi3 with Planmeca Ethernet interface)



Planmeca Ethernet interface box indicator lights

LED	PLANMECA ETHERNET INTERFACE BOX
Link	Planmeca Ethernet interface box is connected to the hub/switch or to the computer when the <i>Link</i> light is on.
TX/RX	Data is transferred/received when the light is flashing.
OK	Planmeca Ethernet interface box is attached to the power supply and works in normal mode when the <i>OK</i> light is on. The <i>OK</i> light blinks slowly if the factory settings are selected. The <i>OK</i> light blinks fast when a problem has occurred in the system.
Status	Exposure is being taken with the Dixi3 digital intra X-ray system when the <i>Status</i> light is on.
PWR	Planmeca Ethernet interface box is connected to Dixi3 when the <i>PWR</i> light is on.

2.4 Taking an exposure (Planmeca intra-oral X-ray and Dimaxis software)

Preparing an intraoral exposure

NOTE *Detailed instructions for using the Planmeca Intra or Prostyle Intra X-ray and Dimaxis software are given in their user's manuals, which should be used in conjunction with this manual.*

Select the desired CCD-sensor and connect it to the Dixi3 control box. Prepare the X-ray unit according to its user's manual. Select the exposure parameters according to the instructions given in section 2.5 "Exposure values for Dixi3 sensors" on page 17.

NOTE *It is recommended to use the sensor holder, see section 3 "SENSOR HOLDERS" on page 19. Select the correct sensor holder according to the exposure.*

Slide the plastic cover on the sensor.

Taking an intraoral exposure

Start Dimaxis.

Select the patient as described in the Dimaxis user's manual in section 2.2 "Selecting Patient" on page 6.

Click the *Intraoral Exposure* button located on the upper toolbar.



Intraoral Exposure

If you have selected Dimaxis 3.3.0 and you enable the *Always Ready for Exposure* feature in the *Intraoral* window in the **Local and User Specific Settings** window, the Dixi images can be taken without clicking the exposure icon in Dimaxis. In this case, as always, the images can only be taken if the "Ready" LED is on in the Dixi control box. The images will not automatically be part of the studies if *Dixi Always On* is used. Refer to section 9.2.3 "Intraoral" on page 125 in the Dimaxis user's manual.

You can determine if you want to use studies in intraoral exposures. Refer to section 9.1.8 "Study" on page 118 in the Dimaxis user's manual.

The **Select a Study** window appears. You can either open a new study or continue with a partially filled study. Select the desired study and click **OK**.

Date	Time	Study Type	Status	Comment
14.8.2000	14:57	Pan & ceph	2/2	
30.11.1998	9:10	Adult full mouth series	14/14	201098
		Adult full mouth series	NEW	
		Adult full mouth series, vert	NEW	
		Check out	NEW	
		Paediatric 10 image series	NEW	
		Paediatric 6 image series	NEW	
		Pan & ceph	NEW	
		Preschool paediatric	NEW	

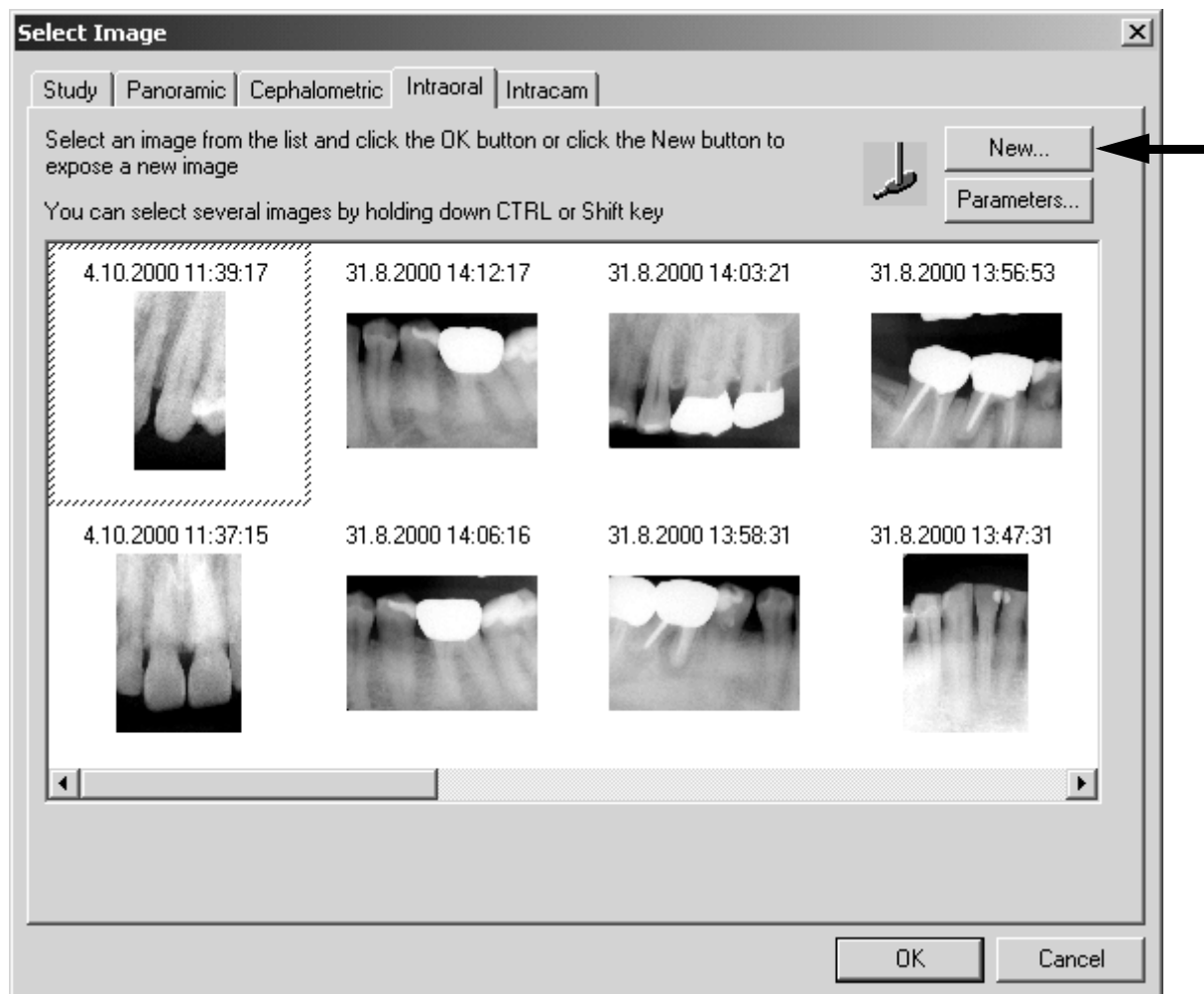
1 2 3 4 5 6 7
14 13 12 11 10 9 8

OK
No Template
Cancel

NOTE To take an intraoral exposure without using a study template, click the **No Template** button in the **Select a Study** window.

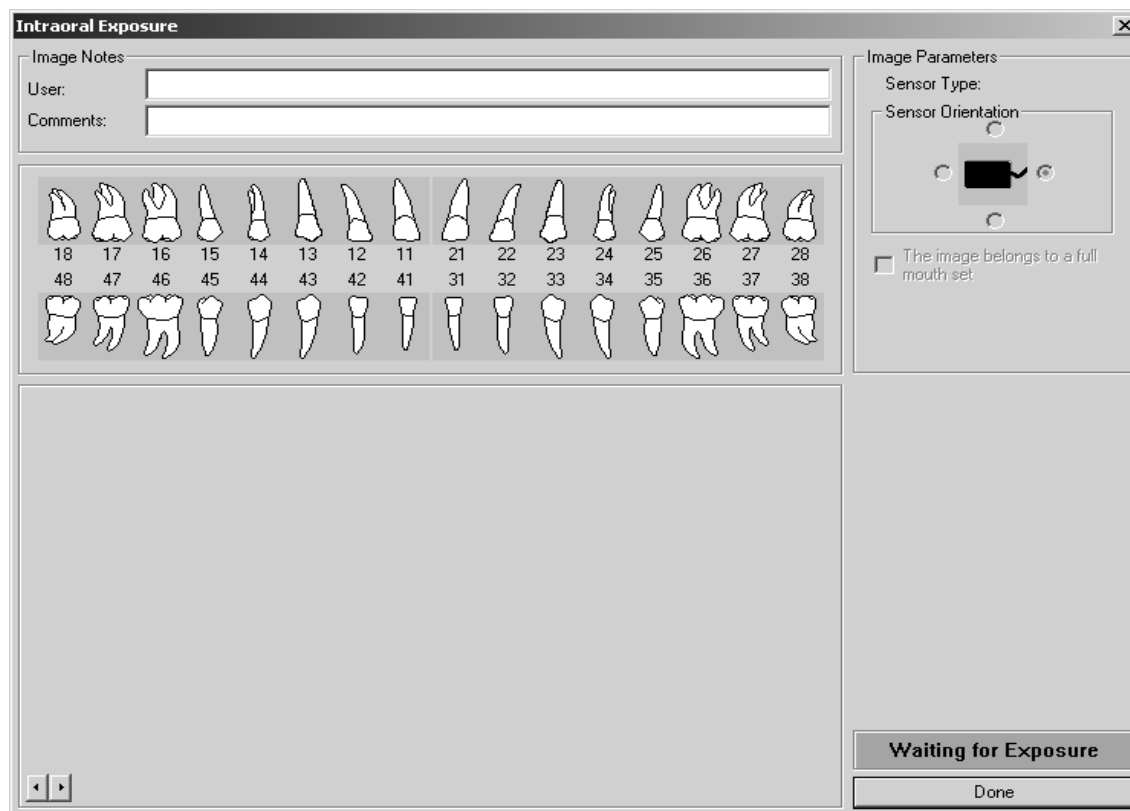
You can also take a **single** intraoral exposure without using a study template by selecting the *Intraoral* tab in the **Select Image** window and clicking the *New* button.

It is possible to take a single intraoral exposure without using a study template also by inactivating the option *Use studies in intraoral exposures* in the **Global Settings** window (see section 9.1.8 “Study” on page 118 in the Dimaxis user’s manual).



If you expose a new image by choosing the type of exposure from the pulldown menu or by clicking the specific icon on the upper toolbar, and if you have selected the option *Image Navigator* as a default image selection method in the **Global Settings** window (see section 9.1.2 “Image” on page 112 in the Dimaxis user’s manual), the **Image Navigator** window will be opened after taking the exposure.

The ***Intraoral Exposure*** window appears. When the X-ray is in the ready state the message *Waiting for Exposure* appears in the lower right corner of the window. Prepare the patient for the exposure and select the exposure parameters.

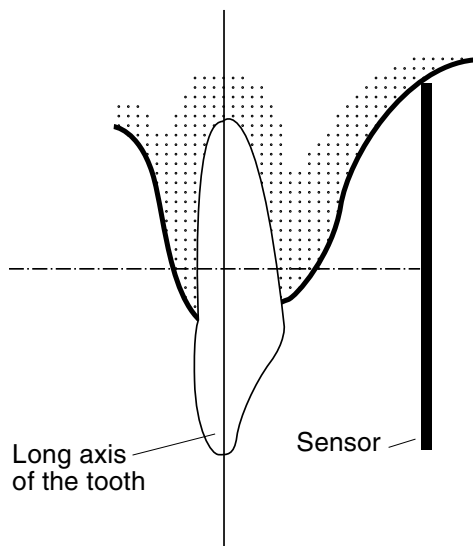


Patient positioning

Ask the patient to sit down. Place a protective lead apron over the patient's chest.

Positioning the sensor

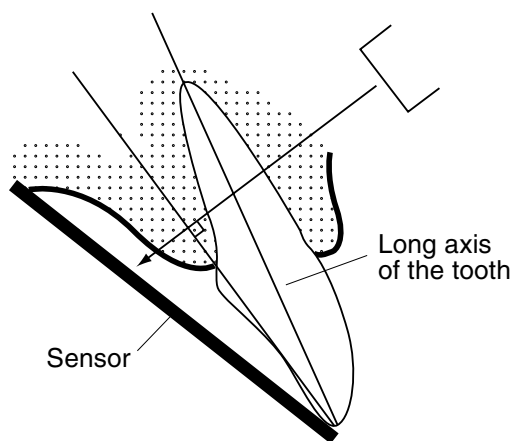
Paralleling technique (recommended)



The sensor is placed to a sensor holder which is used to align the sensor parallel to the long axis of the tooth.

Use a long cone for the paralleling technique.

Bisecting angle technique (optional)



The patient holds the sensor in place with his finger. The X-ray beam is directed perpendicularly towards an imaginary line which bisects the angle between the film plane and the long axis of the tooth.

The use of the plastic cover is not necessary because the sensor can be sterilized with liquid. The sterilization must be done after each patient.

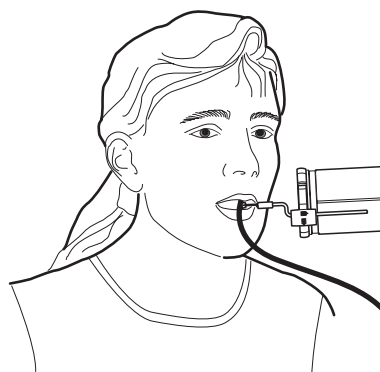
NOTE *Be very careful not to put excessive pressure on the face of the sensor. Do not place a clamp on the sensor. Do not take occlusal exposures with the sensor, and advise the user not to bite the sensor.*

NOTE *Never clamp the sensor package or cable with a hemostat or an unmodified "Snap-a-ray" holder.*

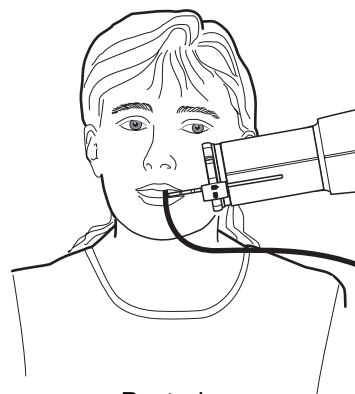
Make sure that the Dixi3 system is ready for the exposure and communicates with Dimaxis (refer to section 2.1

“Dixi3 control box” on page 3 and 2.2 “USB interface box (Dixi3 with USB interface)” on page 5.

Place the sensor into the patient’s mouth according to the figures below.



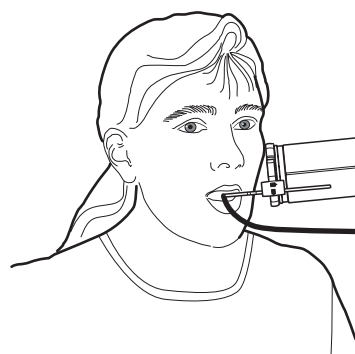
Bitewing



Posterior



Mandibular anterior



Endodontic

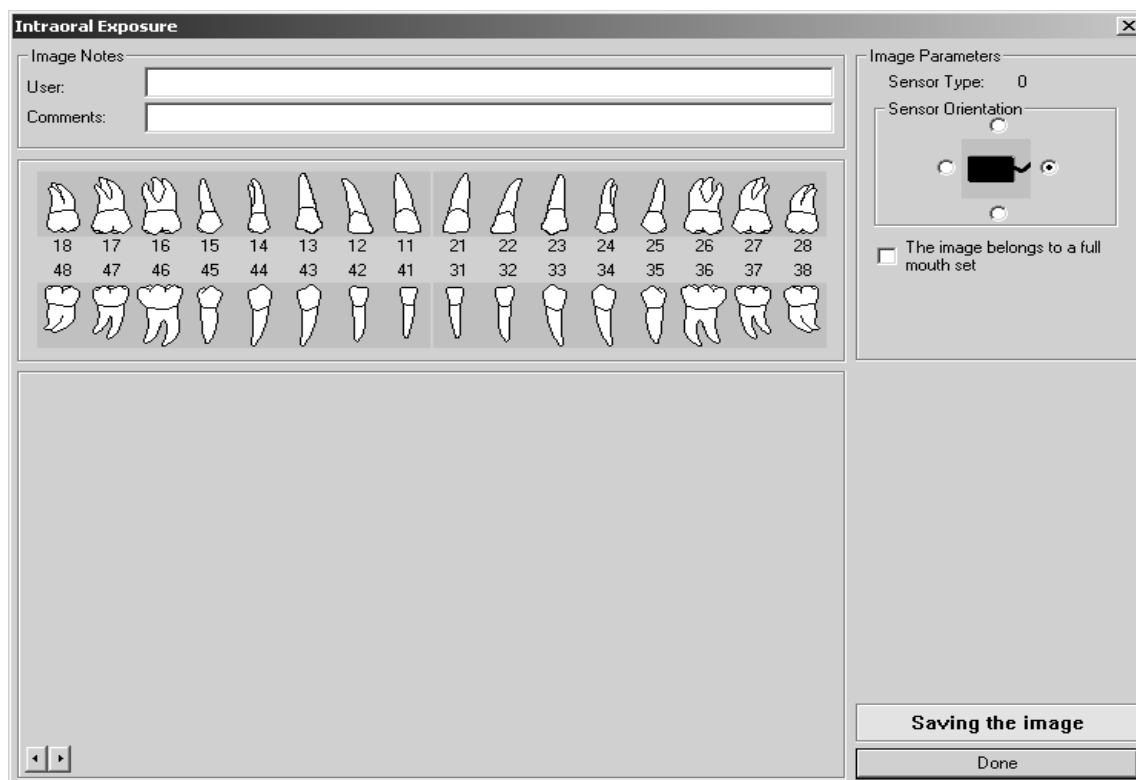


Maxillary anterior

Position the X-ray unit’s tube head so that the X-ray beam hits the sensor. In some cases the sensor holder and the sensor can be attached to the tube head so that the beam hits the sensor automatically.

You can now take the exposure.

After the exposure the message *Saving the image* appears in the lower right corner of the window indicating that the image is **automatically stored in the database**.



When using a study template the *Waiting for Exposure* message appears again and the next exposure can be taken.



Tooth number of the leftmost tooth

Offset to the middle of the leftmost tooth on the image

Select the option *The image belongs to a full mouth set* if the image is a part of an intraoral image series that is taken during one day and contains all the teeth of the patient.

When using a study template the **Intraoral Exposure** window shows the previous image during the exposure procedure so that the user sees if the image has to be taken a second time. It is possible to change the following parameters of the previous image: sensor orientation and offset to the middle of the leftmost tooth (patient's rightmost) on the image. The offset is utilized in the **Image Navigator**, refer to section 4.4 "Image Navigator" on page 30 in the Dimaxis user's manual.

NOTE *If you have continued with an old, partially filled study, the parameters of the image taken in the previous exposure procedure cannot be changed in this window.*

After the required image(s) have been taken, click *Done*. The image is shown on the screen. ***Note that only the accepted images will be stored in the database.***

If you used a study template, the ***Study*** window appears. You can stop the exposure procedure before all images have been taken and complete the study later.

2.5 Exposure values for Dixi3 sensors

Select the digital imaging mode of the unit or adjust the exposure time according to the table.

NOTE *In the digital imaging mode the highest time value that can be selected is 0.80 seconds.*

Exposure values for Dixi3 sensors with 20 cm (8") cones

TIME	0.01s	0.02s	0.03s	0.04s	0.05s	0.06s	0.08s	0.10s	0.12s	0.16s	0.20s	0.25s	0.32s	0.40s	0.50s	0.64s	0.80s
70 kV/ child		I	P	M	maxilla												
	I	P	M		mandible												
66 kV/ child			I	P	M	maxilla											
		I	P	M		mandible											
63 kV/ child				I	P	M	maxilla										
			I	P	M		mandible										
60 kV/ child					I	P	M	maxilla									
				I	P	M		mandible									
57 kV/ child						I	P	M	maxilla								
					I	P	M		mandible								
55 kV/ child							I	P	M	maxilla							
						I	P	M		mandible							
52 kV/ child								I	P	M	maxilla						
							I	P	M		mandible						
50 kV/ child									I	P	M	maxilla					
								I	P	M		mandible					
70 kV/ adult				I	P	M	maxilla										
			I	P	M		mandible										
66 kV/ adult					I	P	M	maxilla									
				I	P	M		mandible									
63 kV/ adult						I	P	M	maxilla								
					I	P	M		mandible								
60 kV/ adult							I	P	M	maxilla							
						I	P	M		mandible							
57 kV/ adult								I	P	M	maxilla						
							I	P	M		mandible						
55 kV/ adult									I	P	M	maxilla					
								I	P	M		mandible					
52 kV/ adult										I	P	M	maxilla				
									I	P	M		mandible				
50 kV/ adult											I	P	M	maxilla			
										I	P	M		mandible			

I INCISORS
P PREMOLARS AND CANINES
M MOLARS

Exposure values for Dixi3 sensors with 30 cm (12") cones

TIME	0.01s	0.02s	0.03s	0.04s	0.05s	0.06s	0.08s	0.10s	0.12s	0.16s	0.20s	0.25s	0.32s	0.40s	0.50s	0.64s	0.80s
70 kV/ child					I	P	M	maxilla									
				I	P	M		mandible									
66 kV/ child						I	P	M	maxilla								
					I	P	M		mandible								
63 kV/ child							I	P	M	maxilla							
						I	P	M		mandible							
60 kV/ child								I	P	M	maxilla						
							I	P	M		mandible						
57 kV/ child									I	P	M	maxilla					
								I	P	M		mandible					
55 kV/ child										I	P	M	maxilla				
									I	P	M		mandible				
52 kV/ child											I	P	M	maxilla			
										I	P	M		mandible			
50 kV/ child												I	P	M	maxilla		
											I	P	M		mandible		
70 kV/ adult							I	P	M	maxilla							
						I	P	M		mandible							
66 kV/ adult								I	P	M	maxilla						
							I	P	M		mandible						
63 kV/ adult									I	P	M	maxilla					
								I	P	M		mandible					
60 kV/ adult										I	P	M	maxilla				
									I	P	M		mandible				
57 kV/ adult											I	P	M	maxilla			
										I	P	M		mandible			
55 kV/ adult												I	P	M	maxilla		
											I	P	M		mandible		
52 kV/ adult									maxilla				I	P	M		
									mandible			I	P	M			
50 kV/ adult										maxilla				I	P	M	
										mandible			I	P	M		

I INCISORS
P PREMOLARS AND CANINES
M MOLARS

3 SENSOR HOLDERS

These instructions describe how to use the Planmeca sensor holders. The sensor holders provide an easy way to position the sensor for different anatomical and diagnostic needs. Please read these instructions thoroughly before using the sensors.

NOTE *Patent pending.*

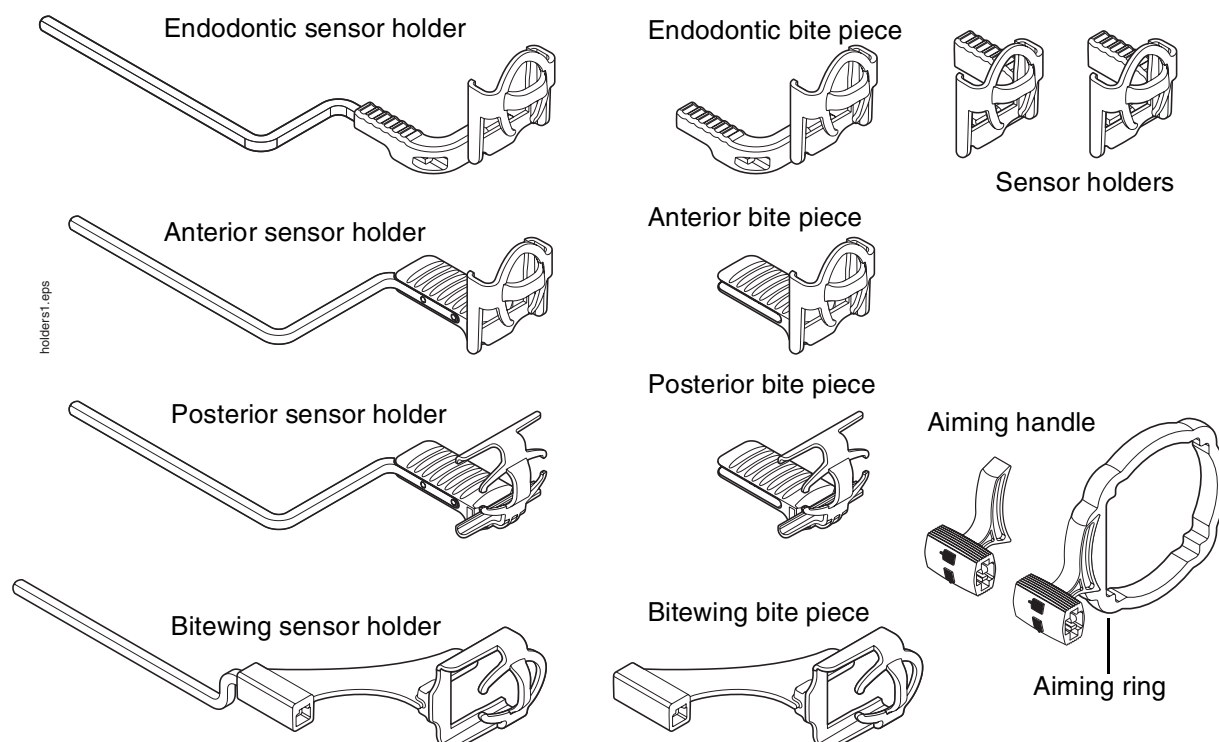
NOTE *Planmeca sensor holder is only compatible with Planmeca sensor.*

3.1 Sensor holder kit

Below is listed the contents of the Sensor holder kit according to the sensor type (B1 or B2).

PART	PCS	ORDER CODE
Sensor holder kit B1	1	10009880
Sensor holder kit B2	1	10009881

Both kits contain following parts:



A sample set of sensor holder cover sheaths (10008601) is included in the sensor holder kit.

Contact your Planmeca dealer for further information.

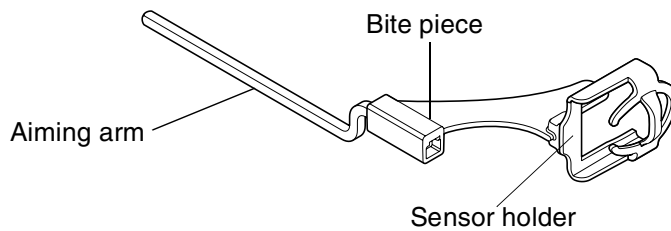
3.2 Planmeca sensor holders

NOTE *Planmeca sensor holders are available for type B1 and B2 sensors.*

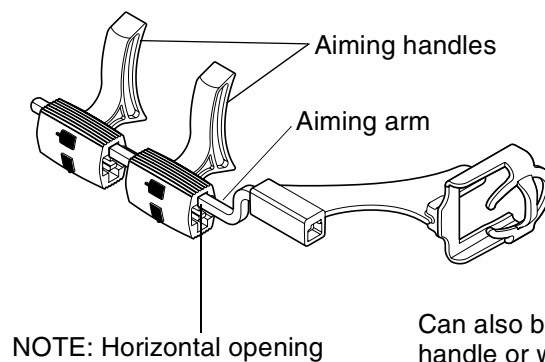
Bitewing sensor holder

The same bitewing sensor holder can be used for left- and right-hand side.

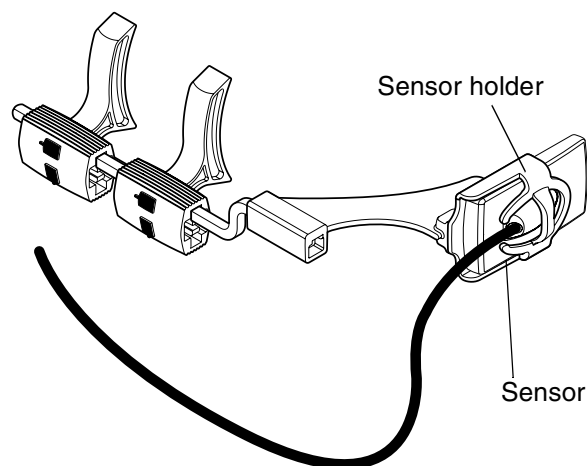
Insert the removable aiming arm to the bite piece.



Attach the aiming handles to the aiming arm.



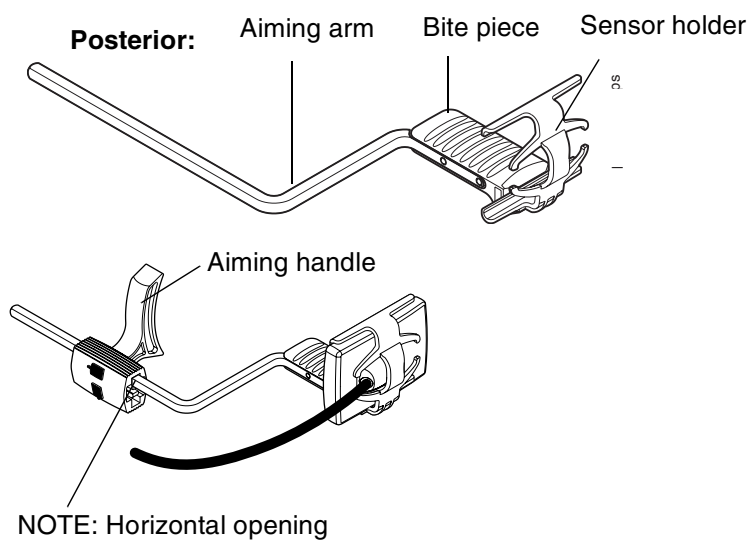
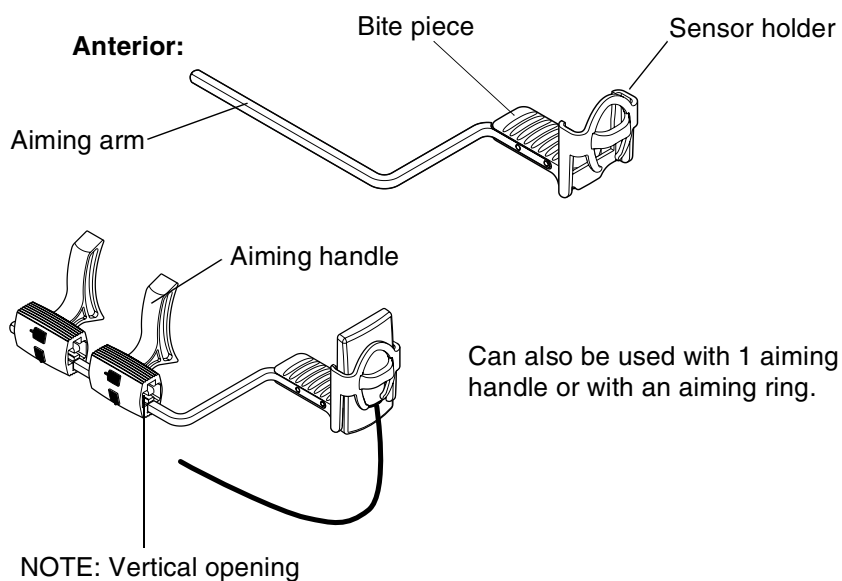
Attach next the sensor to the sensor holder.



Periapical (anterior/posterior) sensor holder

The aiming arm for both anterior and posterior bite piece is the same. Use the vertical sensor holder for the anterior images and the horizontal sensor holder for the posterior images.

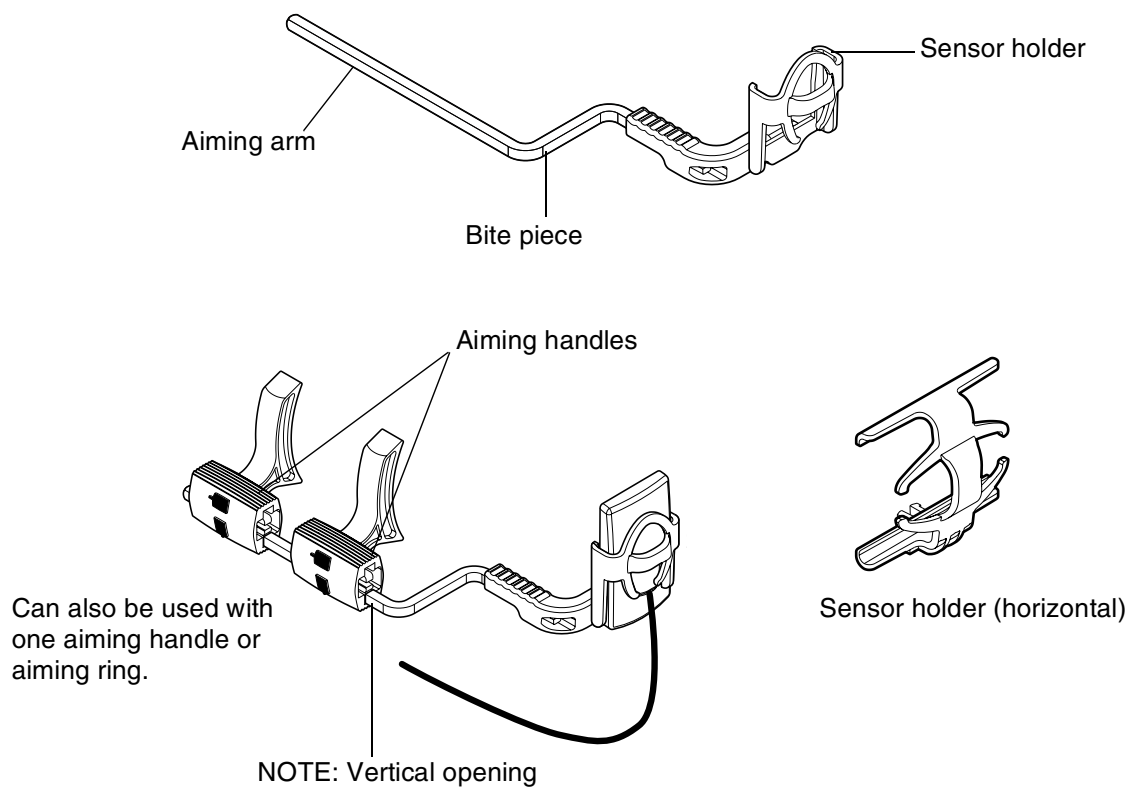
See chapter “Bitewing sensor holder” on page 20 for more detailed information on how to attach the parts together.



Endodontic sensor holder

You can attach both horizontal and vertical sensor holders to the endodontic bite block.

See chapter “Bitewing sensor holder” on page 20 for more detailed information on how to attach the parts together.



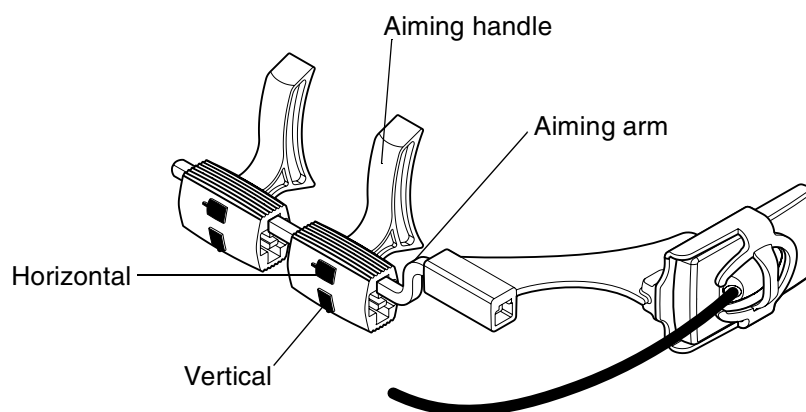
3.3 Using the sensor holders

After attaching the bite assembly to the Planmeca sensor holder you are able to perform an exposure according to the instructions below. Refer to Planmeca intraoral x-ray unit's user's manual, e.g. Planmeca Intra for more information.

The following pictures show how to use the sensor holder with bitewing bite piece assembly. However, the instructions are also valid for periapical and endodontic bite piece assemblies.

1. Select first the target area and projection.
2. Select the bite piece for the exposure:
 - anterior-periapical
 - posterior-periapical
 - bitewing
 - endodontic
3. Insert the arm to the aiming handles.

Remember to attach the arm to the right opening on the aiming handle. If the sensor is on horizontal direction use the horizontal opening for the arm to ensure the correct sensor positioning. If you use the vertical direction the arm goes to the vertical opening.



4. Attach the sensor to the sensor holder. Support both the sensor and the sensor holder with your fingers when attaching the sensor.

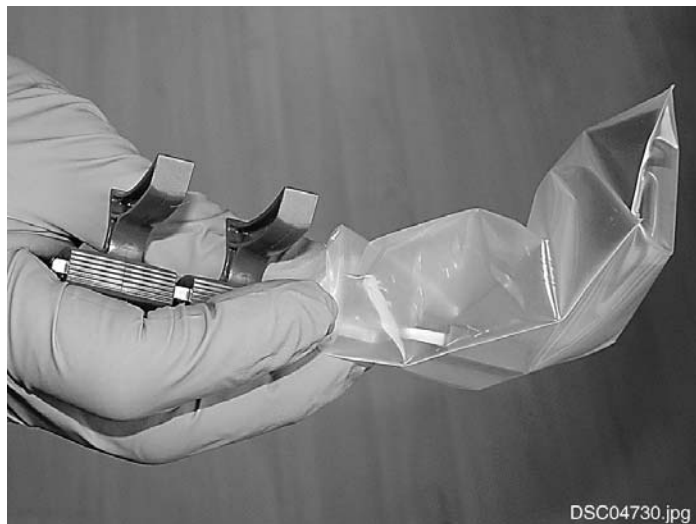


Protect the sensor with a sensor sheath before or after attaching the sensor to the bite piece. There are two possible procedures to protect the sensor:

- Loose fitted cover sheath (default) (code 10007916)

Attach the sensor to the sensor holder assembly and protect the assembly with the sheath.

Protect the whole sensor holder assembly with the loose-fitted cover sheath.



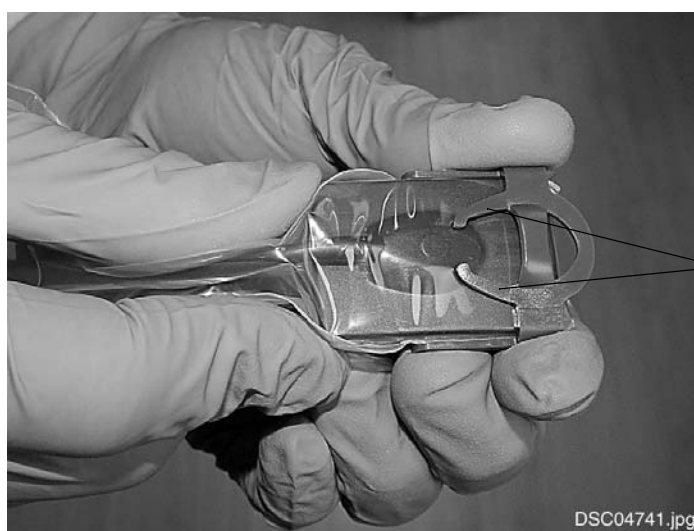
- Tight-fitted cover sheath (size B1 10006636 or size B2 10006635)

The sensor is first protected with the sheath and carefully attached to the sensor holder without the sensor holder support damaging the cover sheath.

Protect the sensor with tight-fitted cover sheath.



Make sure the cover sheath sits tight on the sensor holder. Insert the protected sensor carefully to the sensor holder. Make also sure that the sensor holder support does not punch the cover sheath.



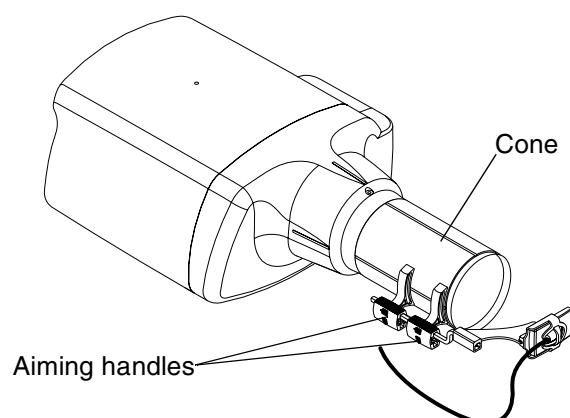
Sensor holder support

You can also attach the sensor to the vertical sensor holder by snapping it to the holder according to the two pictures below.

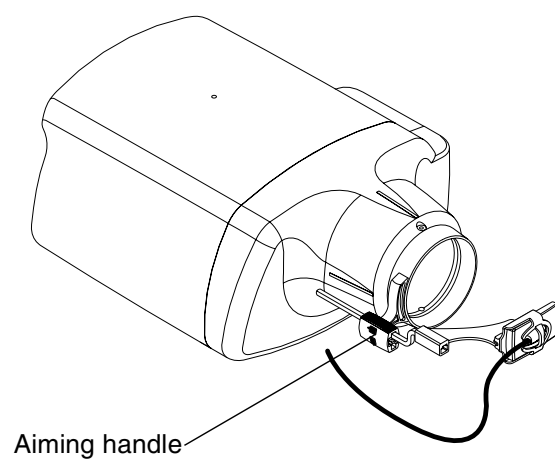


5. There are three different possibilities to use the Planmeca sensor holder in conjunction with the Planmeca Intra:

- With the long cone and two aiming handles:

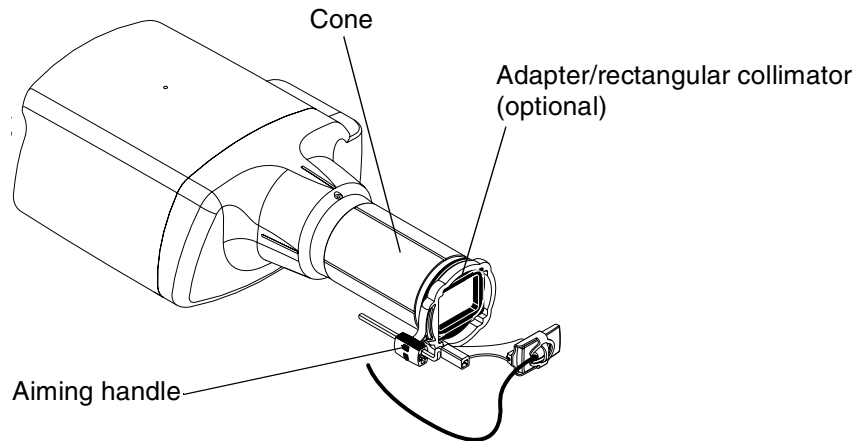


- Without the long cone and with one aiming handle:

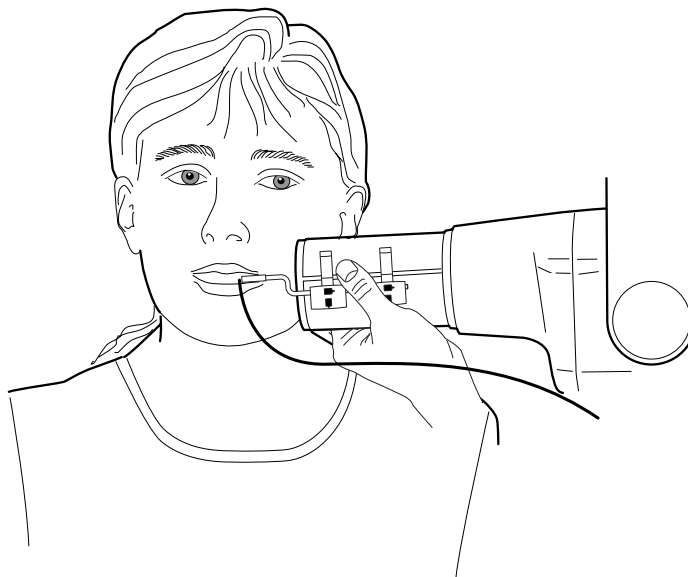


- With the long cone, one aiming handle and optional adapter (rectangular collimator, order code 6001021):

Attach the aiming ring to an adapter. The adapter enables an exposure without holding the sensor holder. The adapter is not included in the Planmeca sensor holder kit. Contact your Planmeca dealer for more information.

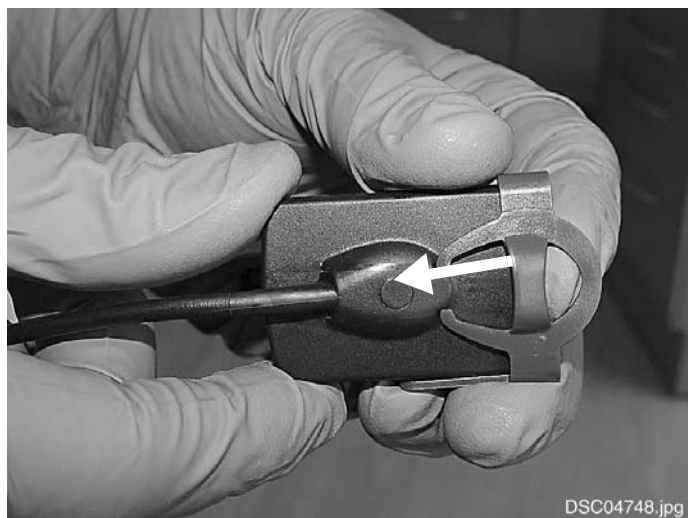


6. Place the sensor with holder to the patient's mouth. Adjust the target angle.



7. After the exposure remove the sensor from the patient's mouth. Remove also the sensor from the bite piece (see picture below).

Hold the sensor with your thumb and middle finger. Press on top of the sensor to remove it from the sensor holder. Assist with your other hand to prevent the sensor falling.



NOTE Do not remove the sensor by pulling the sensor cable.



4 CLEANING

NOTE *Before cleaning the system, always check that the X-ray unit and the Dixi3 system are off (Dixi3 control box PWR/DATA indicator led is off).*

Surfaces

The surfaces can be cleaned with a soft cloth damped in a mild cleaning solution.

Stronger agents can be used for disinfecting the surfaces. We recommend Dürr System-hygiene FD 322 or respective disinfecting solution.

Sensors

The Planmeca Dixi3 sensors allow enhanced infection control in the surgery.

The sensors can be immersed in disinfectant liquid due to the hermetically sealed sensor casing.

NOTE *Use always appropriate instruments for cleaning the sensors.*

Wipe up the sensor surface with a soft cloth damped into a disinfectant solution. The sensors can be soaked in a disinfection solution as long as there are no nicks in the cable.

The recommendable disinfectant solutions are Dürr System Hygiene FD 322 or FD 333 or similar product. The immersion time with the Dürr disinfectants is 2 minutes.

If more effective disinfection or cold sterilization is preferred for cleaning, the recommended solution is the high level disinfectant Johnson&Johnson Cidex Opa at a minimum temperature of 20° C with an immersion time of at least 12 minutes for a reuse period not to exceed 14 days.

NOTE *Follow carefully the manufacturer's recommendations on immersion time and recommended disinfectant liquids.*

Do not leave the sensor in the disinfection solution overnight. The sensor cable connector should not be soaked.

CAUTION *The sensors cannot be sterilized in autoclave or UV oven.*

Sensor holders

The sensor holders can be autoclaved up to 134°C (273 F). The sensor holders stand up also to routine disinfection with Dürr System Hygiene FD 322 or FD 333 or with a similar product.

Planmeca Ethernet Interface

The unit can be cleaned with a soft cloth damped in a mild cleaning solution.

NOTE *Do not disinfect the unit.*

CAUTION *Switch off the unit before cleaning.*

5 DISPOSAL OF THE DIXI3 SYSTEM

In order to reduce the environmental load over the product's entire lifecycle, PLANMECA's products are designed to be as safe as possible to manufacture, use and dispose of.

Parts which can be recycled should always be taken to the appropriate processing centres, after hazardous waste has been removed. Disposal of obsolete systems is the responsibility of the waste possessor.

All parts and components containing hazardous materials must be disposed of in accordance with waste legislation and instructions issued by the environmental authorities. The risks involved and the necessary precautions must be taken into account when handling waste products.

Disposal of Dixi3 system

X = action, (X) = action in cases where processing is available

Part	Main materials for disposal	Recyclable material	Waste disposal site	Hazardous waste (separate collection)
Frame and covers - metal	Aluminium, stainless steel	X X		
- plastic	PUR, EP, ABS, PE, PP	X	X	
Component boards		(X)		
Cables	Copper	X		
Packing	Cardboard, paper	X X		
Sensors	Return the sensors to Planmecca.			
Other parts			X	

NOTE *If the component boards can not be recycled handle them as electronic scrap, i.e. according to the local legislation.*

6 TECHNICAL SPECIFICATIONS

Sensor

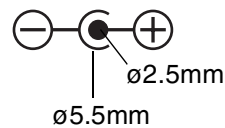
Sensor type	CCD with scintillator
Sensor dimensions:	
Size 1	overall 24.3 x 41.8 mm (0.96 x 1.65 in.) active area 19.5 x 35 mm (0.76 x 1.38 in.) view delay < 5 sec.
Size 2	overall 30.8 x 44.3 mm (1.21 x 1.74 in.) active area 26 x 37 mm (1.02 x 1.46 in.) view delay < 8 sec.
Resolution	13 lp/mm, normal resolution 26 lp/mm, enhanced resolution
Pixel size	38 µm, normal resolution 19 µm, enhanced resolution
Cable length	0.9 m (35.4 in.) or 2.0 m (78.7 in.)

Control box

Dimensions	175 x 54 x 27 mm (6.89 x 2.13 x 1.06 in.)
Power supply	from PC through serial cable
Cable to PC	max. 15 m (50 ft) RJ45 (8 pole)

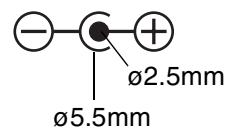
USB adapter

USB 2.0 compliant	
USB Interface box dimensions	175 x 54 x 27 mm (6.89 x 2.13 x 1.06 in.)
USB cable	max. 5m USB cable
Power supply	Type: Mascot 9920/12/3617 Input voltage 100-240 VAC (50-60 Hz) Output voltage 12VDC...13.2VDC +-5% Max. output current > 1A Insulation voltage Primary-secondary 4000 VAC / 5640 VDC
Plug	



Planmeca Ethernet interface

Ethernet interface box dimensions	198 x 178 x 36 mm (7.80 x 7.00 x 1.42 in.)
Ethernet cable	RJ45 cable, max. 100 m (328 ft.)
Power supply	Type: Mascot 9920/12/3617
	Input voltage 100-240 VAC (50-60 Hz)
	Output voltage 12VDC...13.2VDC +-5%
	Max. output current > 1A
	Insulation voltage
	Primary-secondary 4000 VAC / 5640 VDC
	Plug



PCI interface PCB

Short PCI board

Electrical and radiation safety according to the guidelines of IEC 60101-1, UL 187, UL 2601 and FDA 21 CFR.

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