



iPan Installation Guide

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Safety Issues

Equipment to be Operated and Serviced by Qualified Personnel Only

The iPan system is an X-ray detector and as such is used with X-ray emitting equipment. X-ray equipment produces ionizing radiation that may be harmful if not properly regulated. It is therefore recommended that the equipment be operated by trained and qualified personnel only, in accordance with all applicable local and federal regulations.

Only trained and qualified technicians are authorized to service this equipment. iPan Power supply lines must comply with safety legislation and have ground terminals for protective earth connection. Always switch the equipment off and, if possible, disconnect it from main iPan Power supply before cleaning or disinfecting the system.

Avoid Operating Equipment in the Presence of Interfering RF Devices and Equipment

We recommend that you do not use the equipment in the presence of external electromagnetic fields, even if compliant with specifications for electromagnetic compatibility. Noise, generated by cellular phones, might interfere with the electronic circuits of the system.

Apply Recommended Procedures for Cleaning and Disinfecting the Equipment

Although there is no patient contact with the iPan system during normal usage, safe and proper operation of the iPan equipment requires that a regular schedule of preventive maintenance be followed. Refer to the appropriate sections of this document for more information.

Do Not Connect Items that are Not Part of the System

Only items specified for use with the equipment are to be connected to the system. The equipment should not be used adjacent to other equipment that is not part of the system. If, however, use with adjacent equipment is necessary, normal operation should be observed and verified in that configuration.

Installers to Ensure that the iPan System Operates Optimally

Installers must ensure that the iPan system, when installed, provides the user with the optimal use of the equipment. To verify this requirement, installers shall confirm that the iPan system is installed as described in the Installation / Service Guide and shall perform the appropriate procedures therein.

Take Appropriate Precautions during iPan Operation

Appropriate accessories, such as lead aprons, must be used, where necessary, to protect the patient and the operator from radiation.

The iPan system 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 5 feet (1.5m). Outside the patient area, the presence of approved non-medical grader equipment and Listed / Approved / Certified Information Technology Equipment (ITE) computer equipment is acceptable.

Protecting iPan Equipment from RF Interference

Although the iPan equipment 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 can be used only at a minimum distance of 5 feet (1.5m) from any part of the equipment.

Any instrumentation or equipment for professional use located near iPan must conform to Electromagnetic Compatibility regulations. Non-conforming equipment, with known poor immunity to electromagnetic fields, may not operate properly unless they are installed at a distance of at least 10 feet (3m) and supplied by a dedicated electric line.

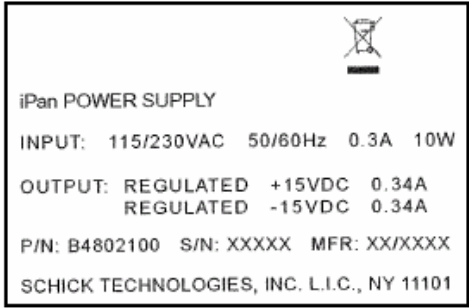
Preventive Maintenance

There are no customer-serviceable components in the iPan system. However, before operating the system, customers shall check it for any signs of physical damage or defect. If detected, contact your local distributor of Schick Technologies products for further instructions.

Label Locations


iPan Power Supply Module Label

Refer to the following figure for labels and / markings found on the iPan Power supply Module

Label	Description
 <p>iPan POWER SUPPLY</p> <p>INPUT: 115/230VAC 50/60Hz 0.3A 10W</p> <p>OUTPUT: REGULATED +15VDC 0.34A REGULATED -15VDC 0.34A</p> <p>P/N: B4802100 S/N: XXXXX MFR: XX/XXXX</p> <p>SCHICK TECHNOLOGIES, INC. L.I.C., NY 11101</p>	<p>Regulatory Markings and Manufacturer Label (located on bottom)</p>


iPan USB Interface Label

Refer to the following figure for labels and / markings found on the iPan USB Interface.

Label	Description
 <p>CONFORMS TO UL STD. 60601 - 1. CERTIFIED TO CAN.CSA C22.2 NO.601.1</p> <p>iPan USB INTERFACE</p> <p>P/N B4800140 S/N XXXXX MFR XX/XXXX</p> <p>SCHICK TECHNOLOGIES, INC. L.I.C., NY 11101</p>	<p>Regulatory Markings and Manufacturer Label (located on bottom)</p>


iPan Drum Label

Refer to the following figure for labels and / markings found on the iPan Drum Module.

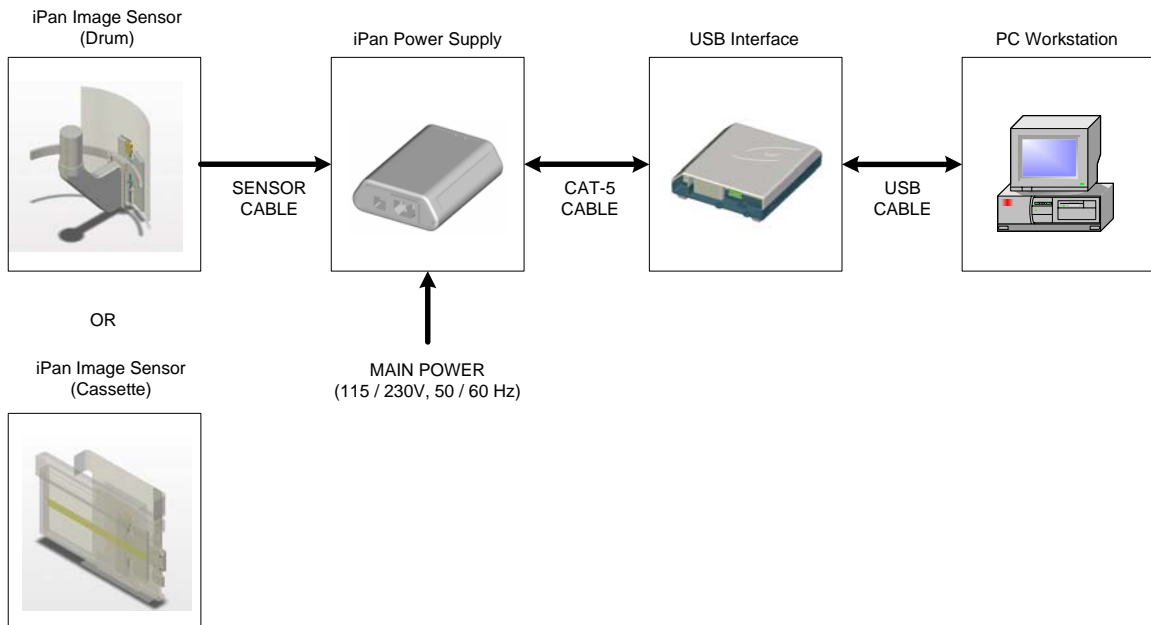
Label	Description
 <p>Conforms to UL Std. 60601-1. Certified to CAN.CSA C22.2 NO.601.1 iPan Drum Sensor Module Input: +/- 15VDC 4W P/N B4810100 MFR XX/XXXX S/N XXXXX SCHICK TECHNOLOGIES, INC. L.I.C., NY 11101</p>	Regulatory Markings and Manufacturer Label

iPan Cassette Label

Refer to the following figure for labels and / markings found on the iPan Cassette Module.

Label	Description
 <p>Conforms to UL Std. 60601-1. Certified to CAN.CSA C22.2 NO.601.1 iPan Cassette Sensor Module Input: +/- 15VDC 4W P/N B4820100 MFR XX/XXXX S/N XXXXX SCHICK TECHNOLOGIES, INC. L.I.C., NY 11101</p>	Regulatory Markings and Manufacturer Label

Functional Block Diagram



1. Introduction

1.1 Scope

The iPan panoramic X-ray system is an electronic imaging system that integrates with panoramic machines to acquire, display, store and print digital X-rays. Because of its digital format, the X-ray image can be enhanced for more detail using tools available with the software, archived for patient histories, and retrieved for tooth comparison.

1.2 Indications for Use

The iPan system, in conjunction with selected host panoramic machines, is indicated for individuals requiring extraoral dental exams.

1.3 System Description

The iPan system consists of the following hardware:

- iPan Sensor
- Codestrip
- iPan USB Interface (also referred to in text as iPan Interface)
- iPan Power Supply
- Cable Clips
- CAT-5 Cable

The iPan Sensor is made up of imaging and electronic assemblies, capable of detecting the start of panoramic motion and initiating the image acquisition process. As the panoramic X-ray source rotates in either scan direction, the Codestrip is read by the encoder to provide relative motion information to the Sensor during image acquisition. The iPan Power Supply, connected between the Sensor and the iPan USB Interface, provides the power necessary to operate the Sensor.

The iPan system requires the following software and compatible operating systems:

- CDR DICOM 3.5, CDR DICOM 3.0.1, or EagleSoft software
- Windows XP Professional or Windows 2000

1.4 About this Manual

This Installation Guide is one of two documents needed to install the iPan system completely. The Installation Guide describes the physical and mechanical steps required to retrofit your existing panoramic host machine with iPan hardware. For information on installing the iPan driver and operating the iPan system, please refer to the User Guide.

1.5 References

Table 1 provides a list of procedures and the documents where they are covered in detail. All of the procedures for installing iPan hardware may be found in your Installation Guide.

Table 1. List of Documents for Installing iPan

Procedure Can be Found In . . .	Document
Install iPan Sensor and Codestrip	This Manual
Install iPan USB Interface	This Manual
Install iPan Power Supply	This Manual
Install iPan Interface Driver	B1051601

1.6 Installations

For panoramic-specific installation procedures, by manufacturer and model, refer to the following sections.

Panoramic PC-1000, Panoura SU-10 Installation

Introduction This procedure describes the installation of the iPan system, which is identical for the Panoramic-1000 and Panoura SU-10.

Time Installation will take approximately one hour to complete.

Persons Installation can be completed by one (1) qualified service technician.

Parts

- iPan Panoramic PC-1000 and Panoura SU-10 Kit (Schick P/N B4870050), iPan Room Kit (B4800000), and CAT-5 Cable

Tools

- Phillips screwdriver #1 to install Sensor clip
- Fine-point felt pen or marker to draw guideline for Codestrip
- Hex key (3/32 in) to adjust clearance between encoder and Codestrip

Pre-Installation Tips

- Make sure your panoramic system is operating properly.
- Familiarize yourself with installation steps before performing them.
- Determine the location of your computer. This will be useful when you install the iPan USB Interface and need to run cables to it.

Procedure

Steps	See Page
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Route Sensor Cable	5
Check Sensor Cable Run	6
Prepare Codestrip	7
Install Codestrip	8
Adjust Clearance	9
Connect iPan Power Supply	10
Connect iPan USB Interface	11

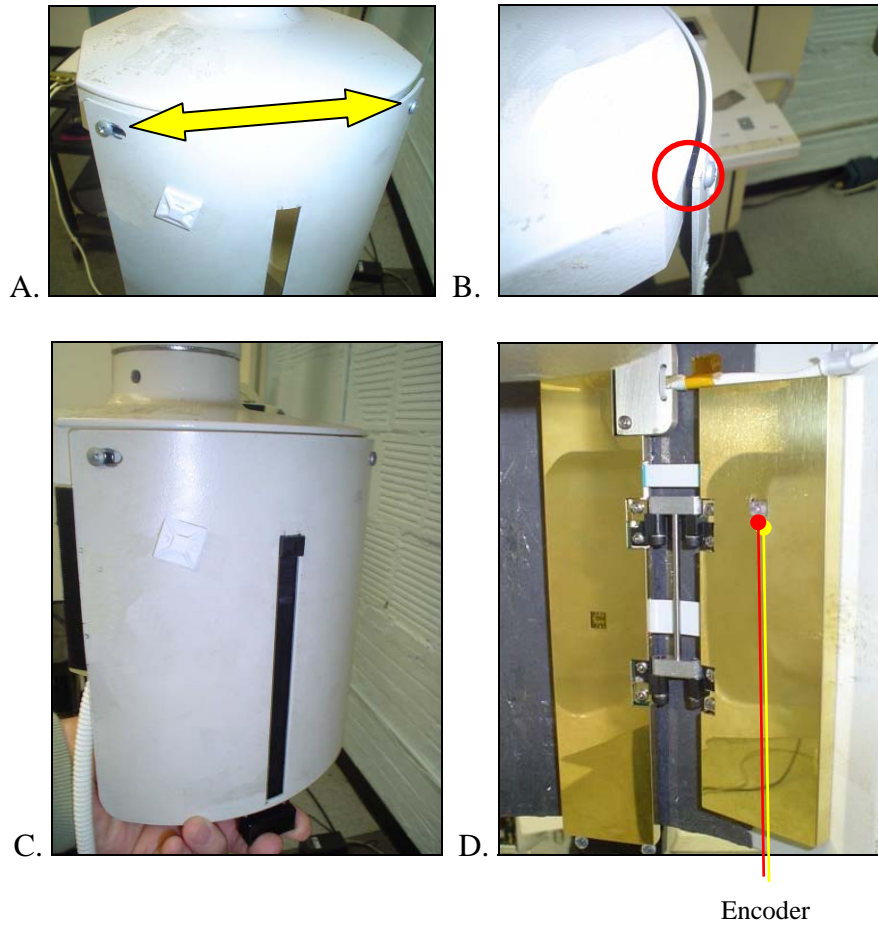
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Panoramic PC-1000, Panoura SU-10 Installation, Continued

Install Sensor Follow the steps in the table below to install the Sensor.

Step	Action
1	Remove two faceplate screws (arrow in Detail A) and add one 1/8 in spacer for each screw (example in Detail B).
2	Rotate drum away from aperture
3	Carefully slide Sensor assembly into the aperture
4	Firmly seat upper guide at top of the aperture
5	Fit lower guide to bottom of the aperture
6	Install Sensor clip at bottom of faceplate (Detail C)
7	Verify motion encoder faces drum (Detail D)
8	Secure Sensor clip using Phillips screwdriver

Picture



Continued on next page

Panoramic PC-1000, Panoura SU-10 Installation, Continued

Route Sensor Cable

Follow the steps in the table below to route the Sensor cable from the Sensor assembly to the iPan Power supply.

Step	Action
1	Secure Sensor cable inside faceplate using cable clamp.
2	Attach clamps and holders to feed cable along contours of panoramic machine.
3	Route cable along contours of panoramic machine, following the edge nearest the host machine control panel.
4	Connect cable to iPan Power supply at base of panoramic machine or other appropriate, user-specified location.

Picture



Route cable out to clear drum motion

Continued on next page

Panoramic PC-1000, Panoura SU-10 Installation, Continued

Check Sensor Cable Run

Follow the steps in the table below to check the Sensor cable run.

Step	Action
1	Turn off X-ray source and put the machine in Test mode. (To do this, refer to operating instructions provided by the host machine manufacturer.)
2	Operate the rotation arm of the panoramic machine and observe that there is enough slack in the cable for the rotation arm to move freely.
3	Verify that the Sensor cable does not kink, bind, or pull out of clips when the rotation arm is in motion.
4	Adjust cable if necessary.

Picture



Continued on next page

Panoramic PC-1000, Panoura SU-10 Installation, Continued

Prepare Codestrip

Follow the steps in the table below to prepare the panoramic machine for Codestrip installation.

Step	Action
1	Sight the encoder from the edge of the faceplate. The guideline drawn in the following steps will help you line up the center of the Codestrip with the center of the encoder.
2	Using a fine-point marker or pen, mark a point on the drum in line with the encoder.
3	Rotate the drum, marking a straight line around it. This line will be used for aligning and mounting the Codestrip.

Picture



Continued on next page

Panoramic PC-1000, Panoura SU-10 Installation, Continued

Install Codestrip

Follow the steps in the table below to install the Codestrip.

Step	Action
1	Before applying the Codestrip, clean the drum surface with a small amount of isopropyl alcohol and a lint-free wipe to ensure good adhesive contact.
2	Position the Codestrip along the guideline drawn in the preceding step.
3	Remove the protective layer from the mounting tape.
4	<i>IMPORTANT! Installing the Codestrip unevenly or without optimal contact with the faceplate may cause motion artifacts in images</i> Apply the Codestrip with the adhesive side towards the drum. Ensure there are NO kinks or bubbles when the Codestrip is applied.

Picture



Continued on next page

Panoramic PC-1000, Panoura SU-10 Installation, Continued

Adjust Clearance

Follow the steps in the table below to make clearance adjustments.

Step	Action
1	Adjust the encoder section of the Sensor assembly to approximately 1 mm from the Codestrip on the drum.
2	With the encoder positioned correctly, use the hex key (3/32 in.) to tighten the hinge links on the encoder.
3	Verify that the X-ray source is turned off.
4	Verify optical coupling (1 mm distance) between the encoder and the Codestrip throughout the entire drum rotation.
5	Operate the rotation arm of the panoramic machine to verify that the Sensor cable does not kink, bind, or pull out of clips when the arm is in motion.

Picture



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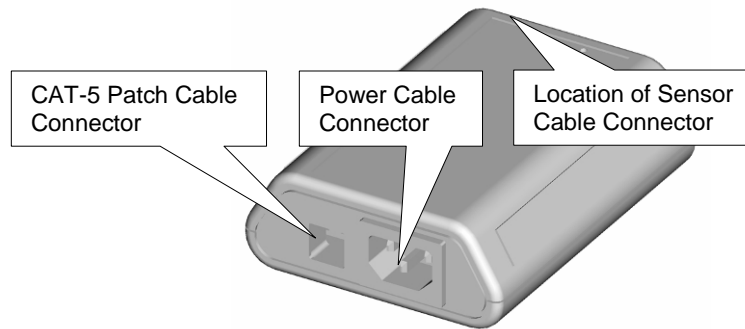
Panoramic PC-1000, Panoura SU-10 Installation, Continued

Connect iPan Power Supply

Follow the steps in the table below to connect the iPan Power supply.

Step	Action
1	Position iPan Power supply at base of panoramic machine or other appropriate, user-specified location.
2	Connect the iPan Power supply to the Sensor assembly using Sensor cable.
3	Connect the iPan Power supply to a 115-230V, 50 / 60 Hz AC power outlet using appropriate hospital-grade power cord.

Picture



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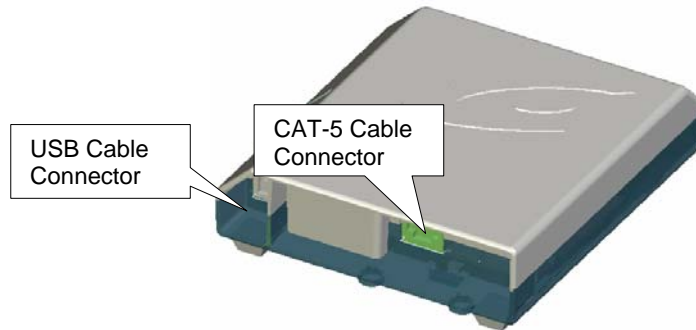
Panoramic PC-1000, Panoura SU-10 Installation, Continued

Connect iPan USB Interface

Follow the steps in the table below to connect the iPan USB Interface.

Step	Action
1	Position the iPan USB Interface at any appropriate, user-specified location, keeping the following guidelines in mind: <ul style="list-style-type: none">▪ The recommended length for the Category 5 (CAT-5) patch cable connecting the iPan Power supply to the iPan USB Interface is 50 feet or less.▪ LEDs on the iPan USB Interface can be helpful during operation and troubleshooting. Position the device so the LEDs are visible to the operator. Refer to the iPan User Guide for details on LED operation.▪ New firmware upgrades are provided by the iPan USB Interface. Refer to the iPan User Guide for additional information.
2	Connect the CAT-5 patch cable between the iPan USB Interface and the iPan Power supply.
3	Connect the USB cable between the iPan USB Interface and the PC workstation, using an available USB port.

Picture



Planmeca PM 2002 EC / CC Installation

- Introduction** This procedure describes the installation of the iPan system. For purposes of illustration, pictures of the CC model are shown.
-
- Time** Installation will take approximately one hour to complete.
-
- Persons** Installation can be completed by one (1) qualified service technician.
-
- Parts**
- iPan Planmeca PM 2002 Kit (Schick P/N B4884050), iPan Room Kit (B4800000), and CAT-5 Cable
-
- Tools**
- Hex key (0.050 in) to adjust Sensor assembly set screws
 - Hex key to remove and replace faceplate aperture screw
-
- Pre-Installation Tips**
- Make sure your panoramic system is operating properly.
 - Familiarize yourself with installation steps before performing them.
 - Determine the location of your computer. This will be useful when you install the iPan USB Interface and need to run cables to it.
-

Procedure

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Install Sensor	14
Route Sensor Cable	15
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Adjust Clearance	17
Connect iPan Power Supply	18
Connect iPan USB Interface	19

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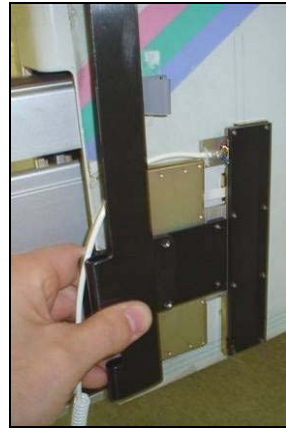
Planmeca PM 2002 EC / CC Installation, Continued

Prepare Sensor for Installation

Follow the steps in the table below to prepare for installation of the Sensor assembly.

Step	Action
1	Remove screw from upper left corner of the aperture plate.
2	Test fit the Sensor on the outside of the faceplate.
3	Verify that the active area of the Sensor aligns with the aperture when the Sensor clip section is positioned along the edge of the faceplate. If they do not, adjust clip slide as necessary.

Pictures



Continued on next page

Planmeca PM 2002 EC / CC Installation, Continued

Install Sensor Follow the steps in the table below to install the Sensor.

Step	Action
1	Insert Sensor on the inside of the faceplate.
2	Verify that the active area of the Sensor is aligned with the faceplate aperture.
3	Verify that the Sensor does not interfere with the cassette transport
4	Reinstall the hex screw removed previously from the clip section of the Sensor assembly.
5	Verify that the Sensor is secured to the faceplate.

Pictures



Continued on next page

Planmeca PM 2002 EC / CC Installation, Continued

Route Sensor Cable

Follow the steps in the table below to route the Sensor cable from the Sensor assembly to the iPan Power supply.

Step	Action
1	Secure Sensor cable inside faceplate using cable clamp.
2	Attach clamps to feed cable along contours of panoramic machine.
3	Route cable along contours of panoramic machine, following the edge nearest the host machine control panel.
4	Connect cable to iPan Power supply at base of panoramic machine or other appropriate, user-specified location.

Pictures



Continued on next page

Planmeca PM 2002 EC / CC Installation, Continued

Check Sensor Cable Run

Follow the steps in the table below to check the Sensor cable run.

Step	Action
1	Set the panoramic machine to operate in Test mode. (To do this, refer to operating instructions provided by the host machine manufacturer.)
2	Operate the rotation arm of the panoramic machine and observe that there is enough slack in the cable for the rotation arm to move freely.
3	Verify that the Sensor cable does not kink, bind, or pull out of clips when the rotation arm is in motion.
4	Adjust cable if necessary.

Picture



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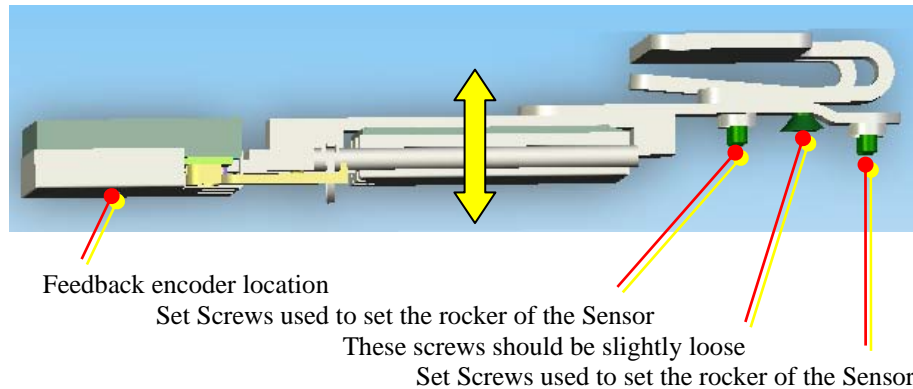
Planmeca PM 2002 EC / CC Installation, Continued

Adjust Clearance

Follow the steps in the table below to make clearance adjustments.

Step	Action
1	When the cassette is installed with the Codestrip supplied, verify that the gap between the Codestrip and the back of the image Sensor (where the encoder is located), is approximately 1 mm.
2	Use the 0.050 in. hex key to adjust the set screws, as shown in the illustration below.
3	Operate the Rotation arm of the panoramic machine to verify that the Sensor cable does not kink, bind, or pull out of clips when the arm is in motion.

Picture



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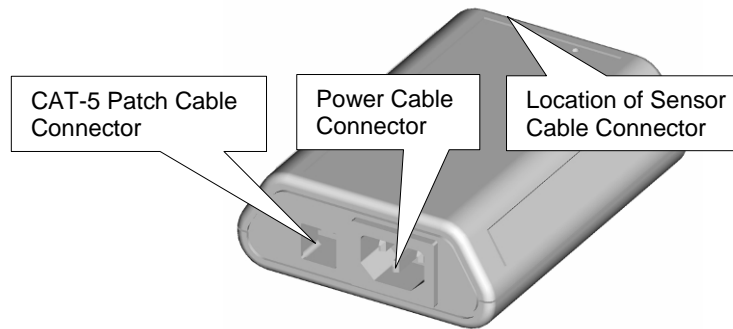
Planmeca PM 2002 EC / CC Installation, Continued

Connect iPan Power Supply

Follow the steps in the table below to connect the iPan Power supply.

Step	Action
1	Position iPan Power supply at base of panoramic machine or other appropriate, user-specified location.
2	Connect the iPan Power supply to the Sensor assembly using Sensor cable.
3	Connect the iPan Power supply to a 115-230V, 50 / 60 Hz AC power outlet using appropriate hospital-grade power cord.

Picture



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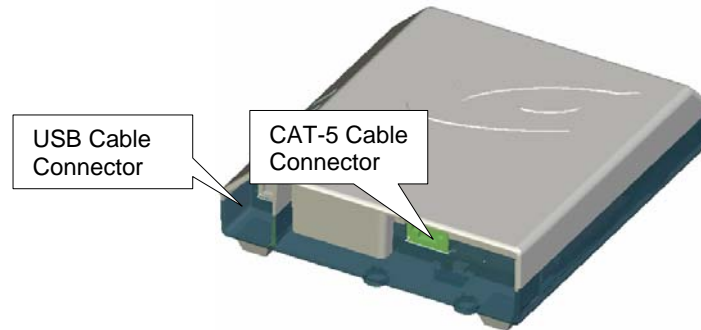
Planmeca PM 2002 EC / CC Installation, Continued

Connect iPan USB Interface

Follow the steps in the table below to connect the iPan USB Interface.

Step	Action
1	Position the iPan USB Interface at any appropriate, user-specified location, keeping the following guidelines in mind: <ul style="list-style-type: none">▪ The recommended length for the Category 5 (CAT-5) patch cable connecting the iPan Power supply to the iPan USB Interface is 50 feet or less.▪ LEDs on the iPan USB Interface can be helpful during operation and troubleshooting. Position the device so the LEDs are visible to the operator. Refer to the iPan User Guide for details on LED operation.▪ New firmware upgrades are provided by the iPan USB Interface. Refer to the iPan User Guide for additional information.
2	Connect the CAT-5 patch cable between the iPan USB Interface and the iPan Power supply.
3	Connect the USB cable between the iPan USB Interface and the PC workstation, using an available USB port.

Picture



Sirona Orthophos 3 / Plus Installation

Introduction This procedure describes the installation of the iPan system. For purposes of illustration, pictures of the Orthophos 3 model are shown.

Time Installation will take approximately one hour to complete.

Persons Installation can be completed by one (1) qualified service technician.

Parts

- iPan Orthophos Kit (Schick P/N B4886050), iPan Room Kit (B4800000), and CAT-5 Cable

Tools

- Phillips screwdriver #2 for cassette transport cover
- Hex key (0.050 in) to adjust Sensor assembly set screws
- Hex key to remove and replace aperture faceplate screws

Pre-Installation Tips

- Make sure your panoramic system is operating properly.
- Familiarize yourself with installation steps before performing them.
- Determine the location of your computer. This will be useful when you install the iPan USB Interface and need to run cables to it.

Procedure

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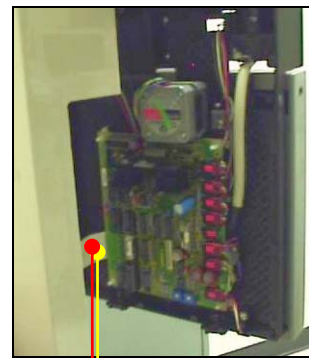
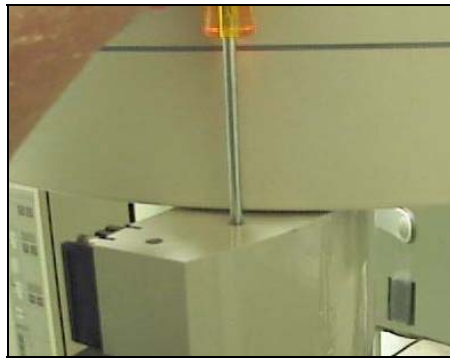
Sirona Orthophos 3 / Plus Installation, Continued

Prepare Transport Cover Removal

Follow the steps in the table below to prepare for the removal of the cassette transport cover.

Step	Action
1	De-energize the panoramic machine by unplugging it from its power source. If the machine is hardwired and cannot be unplugged, turn off the master switch on the machine.
2	Pivot cassette transport mechanism outwards to expose cover screws.
3	Using a Phillips screwdriver, remove one screw from the top of the cassette transport cover.
4	Using Phillips screwdriver, remove either one of two screws from the bottom of the cassette transport cover.
5	While holding the transport cover, remove the second bottom screw.
6	Carefully remove the cover, noting the flex cable connection between it and the circuit board on the panoramic machine.

Pictures



Flex cable

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Sirona Orthophos 3 / Plus Installation, Continued

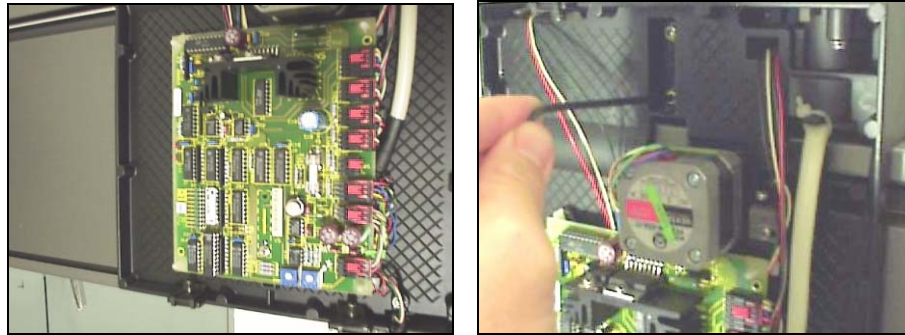
Remove Transport Cover

Follow the steps in the table below to remove the cassette transport cover.

Step	Action
1	Remove the transport cover.
2	Carefully detach the flex cable from the circuit board by disconnecting it from right-angle pins.

Note: Some Orthophos models will not exactly match the pin assembly shown below, but they will have a similarly wired connection on the board.

Pictures



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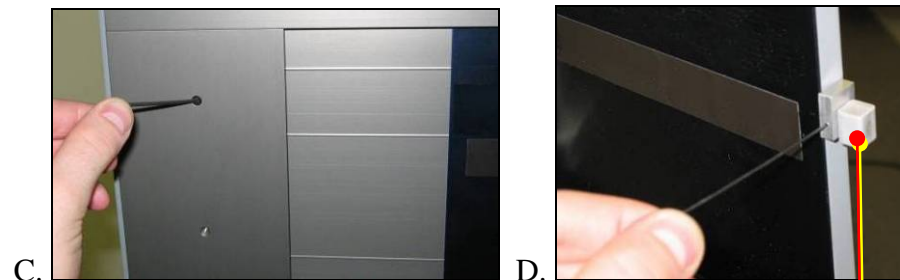
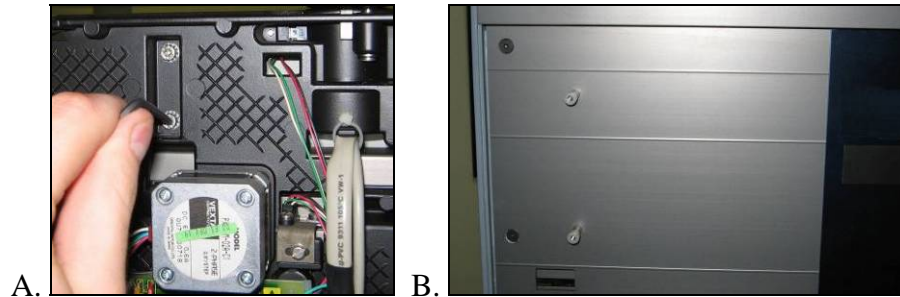
Sirona Orthophos 3 / Plus Installation, Continued

Remove Aperture Plate and Replace Interlock Assembly

Follow the steps in the table below to remove the aperture faceplate.

Step	Action
1	Using appropriate hex key, remove either one of two aperture faceplate screws from the cassette transport mechanism located above the circuit board (Detail A).
2	While holding the faceplate, remove second bottom screw.
3	Remove the aperture faceplate.
4	Remove existing interlock assembly and replace it with one provided (Details B and C)
5	Install new cassette lock using new hardware provided (Detail D).
6	Carefully slide the cassette into the film carriage.

Pictures



Cassette lock

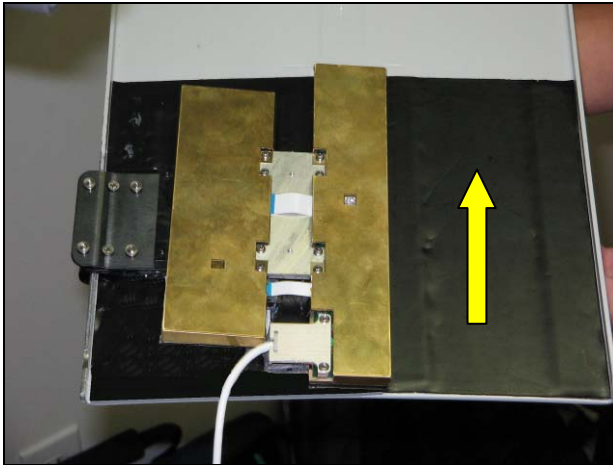
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Sirona Orthophos 3 / Plus Installation, Continued

Install Sensor Follow the steps in the table below to install the Sensor assembly.

Step	Action
1	Slide the Sensor assembly along the faceplate aperture, from the bottom of the aperture slit to the top (arrow).
2	Reinstall faceplate aperture with Sensor assembly installed.
3	Slide the Sensor clip up or down to adjust the clearance between the Sensor assembly and Codestrip.

Picture



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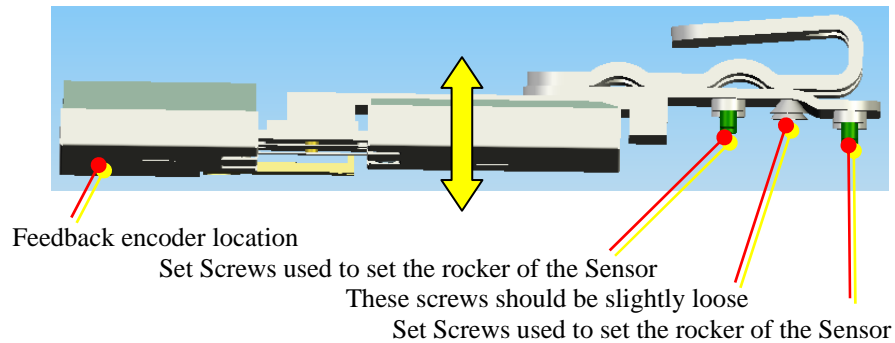
Sirona Orthophos 3 / Plus Installation, Continued

Adjust Clearance

Follow the steps in the table below to make clearance adjustments.

Step	Action
1	When the cassette is installed with the Codestrip supplied, verify that the gap between the Codestrip and the back of the image Sensor (where the encoder is located), is approximately 1 mm.
2	Use the 0.050 in. hex key to adjust the set screws, as shown in the illustration below.
3	Verify that the Sensor assembly is centered in the aperture slit.
4	Make the final adjustment to the gap between the Codestrip and the Sensor assembly. Slide cassette mechanism back-and-forth to ensure gap and no mechanical binding.

Picture



Continued on next page

Sirona Orthophos 3 / Plus Installation, Continued

Route Sensor Cable

Follow the steps in the table below to route the Sensor cable from the Sensor assembly to the iPan Power supply.

Step	Action
1	Attach clamps to feed cable along contours of panoramic machine.
2	Start routing Sensor cable to the top of the panoramic machine, leaving a small amount of slack in the cable at the top of the cassette transport to allow the cassette transport to pivot open and to expedite patient positioning.
2	Continue routing cable along contours of panoramic machine, following the edge nearest the host machine control panel.
4	Connect cable to iPan Power supply at base of panoramic machine or other appropriate, user-specified location.

Pictures



Leave slack in this cable section

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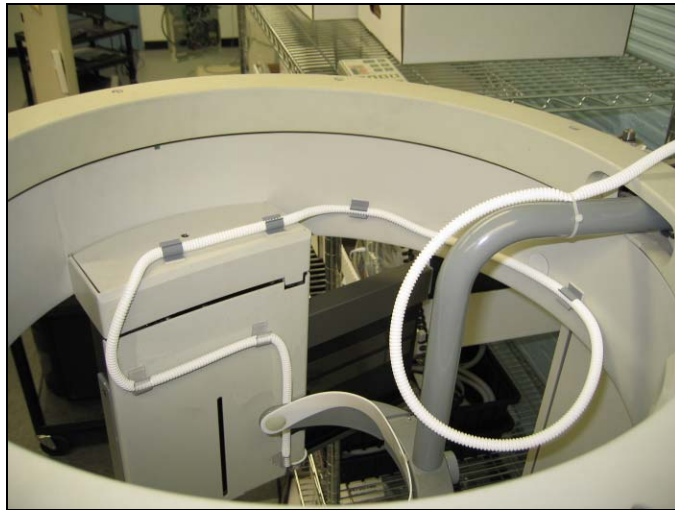
Sirona Orthophos 3 / Plus Installation, Continued

Check Sensor Cable Run

Follow the steps in the table below to check the Sensor cable run.

Step	Action
1	Set the panoramic machine to operate in Test mode. (To do this, refer to operating instructions provided by the host machine manufacturer.)
2	Operate the rotation arm of the panoramic machine and observe that there is enough slack in the cable for the rotation arm to move freely.
3	Verify that the Sensor cable does not kink, bind, or pull out of clips when the rotation arm is in motion.
4	Adjust cable if necessary.

Picture



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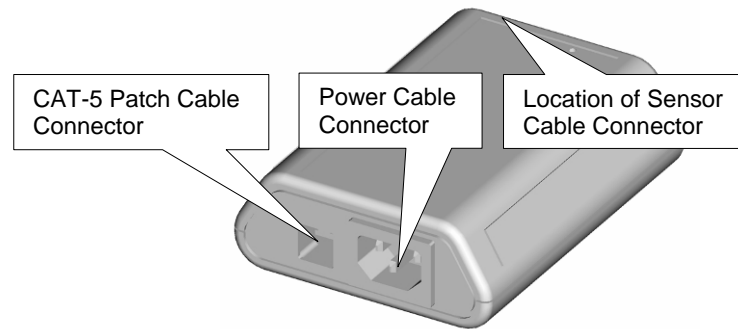
Sirona Orthophos 3 / Plus Installation, Continued

Connect iPan Power Supply

Follow the steps in the table below to connect the iPan Power supply.

Step	Action
1	Position iPan Power supply at base of panoramic machine or other appropriate, user-specified location.
2	Connect the iPan Power supply to the Sensor assembly using Sensor cable.
3	Connect the iPan Power supply to a 115-230V, 50 / 60 Hz AC power outlet using appropriate hospital-grade power cord.

Picture



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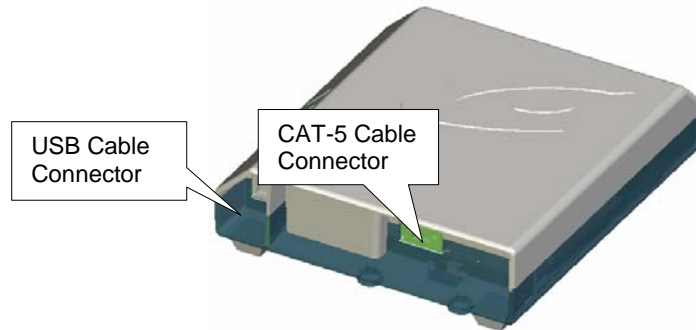
Sirona Orthophos 3 / Plus Installation, Continued

Connect iPan USB Interface

Follow the steps in the table below to connect the iPan USB Interface.

Step	Action
1	Position the iPan USB Interface at any appropriate, user-specified location, keeping the following guidelines in mind: <ul style="list-style-type: none">▪ The recommended length for the Category 5 (CAT-5) patch cable connecting the iPan Power supply to the iPan USB Interface is 50 feet or less.▪ LEDs on the iPan USB Interface can be helpful during operation and troubleshooting. Position the device so the LEDs are visible to the operator. Refer to the iPan User Guide for details on LED operation.▪ New firmware upgrades are provided by the iPan USB Interface. Refer to the iPan User Guide for additional information.
2	Connect the CAT-5 patch cable between the iPan USB Interface and the iPan Power supply.
3	Connect the USB cable between the iPan USB Interface and the PC workstation, using an available USB port.

Picture



Instrumentarium OP-100 Installation

Introduction This procedure describes the installation of the iPan system.

Time Installation will take approximately one hour to complete.

Persons Installation can be completed by one (1) qualified service technician.

Parts

- iPan Instrumentarium OP-100 Kit (Schick P/N B4882050), iPan Room Kit (B4800000), and CAT-5 Cable

Tools

- Phillips screwdriver #2 for vertical cover
- Hex key (0.050 in) for faceplate screws and vertical cover
- Long-handle Phillips screwdriver to adjust clearance between Sensor and Codestrip

Pre-Installation Tips

- Make sure your panoramic system is operating properly.
- Familiarize yourself with installation steps before performing them.
- Determine the location of your computer. This will be useful when you install the iPan USB Interface and need to run cables to it.

Procedure

Steps	See Page
Remove Faceplate and Vertical Cover	31
Attach Sensor Clip to Faceplate	32
Reinstall Faceplate	33
Install Cassette and Sensor	34
Secure Sensor and Reinstall Vertical Cover	35
Route Sensor Cable	36
Check Sensor Cable Run	37
Connect iPan Power Supply	38
Connect iPan USB Interface	39

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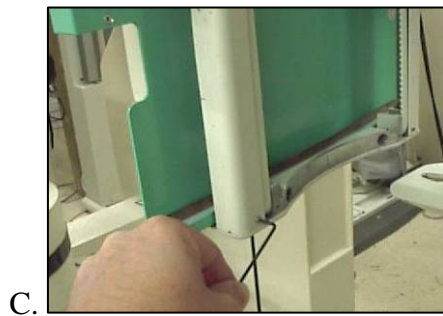
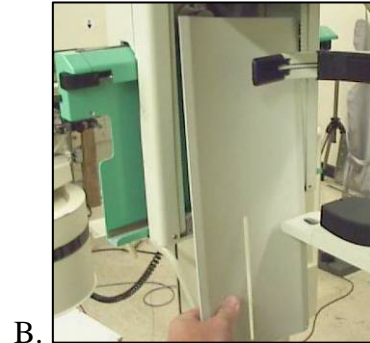
Instrumentarium OP-100 Installation, Continued

Remove Faceplate and Vertical Cover

Follow the steps in the table below to remove the film carriage faceplate.

Step	Action
1	Using hex key, remove screws on the bottom left and right of the film carriage faceplate (Detail A).
2	Remove the faceplate by gently pulling the part out and down away from the film carriage (Detail B).
3	Remove the bottom screw from the left vertical cover (Detail C).
4	Move the film carriage up by pressing the up arrow button on the control panel.
5	Using a small Phillips screwdriver, remove the top screw from the left vertical cover (Detail D).
6	Remove the left vertical cover.

Pictures



Continued on next page

Instrumentarium OP-100 Installation, Continued

Attach Sensor Clip to Faceplate

Follow the steps in the table below to attach the Sensor Clip to the aperture faceplate.

Step	Action
1	Slide the plastic sensor clip into the aperture of the faceplate, and snap it into place.

Picture



Continued on next page

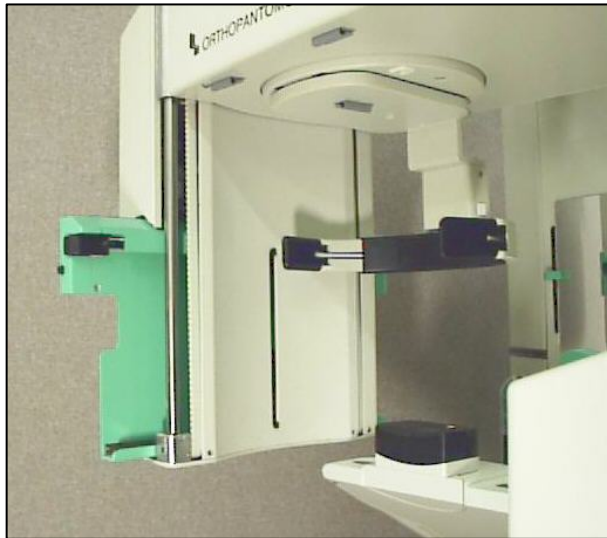
Instrumentarium OP-100 Installation, Continued

Reinstall Faceplate

Follow the steps in the table below to reinstall the faceplate.

Step	Action
1	Position the faceplate along the guides and slide it carefully over the film carriage.
2	Using a hex key, secure the faceplate by tightening screws on the bottom left and right of the faceplate.

Picture



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Instrumentarium OP-100 Installation, Continued

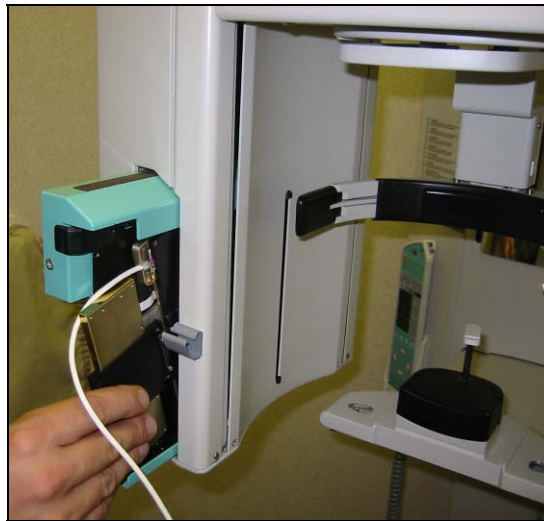
Install Cassette and Sensor

Follow the steps in the table below to install the cassette Codestrip and the Sensor assembly.

Step	Action
1	Insert the cassette into the film carriage. Ensure the interlock lever on the cassette is turned downwards (inline position).
2	Insert the Sensor assembly until its holes line up with those on the Sensor clip.
3	Check that the active areas of the sensor are aligned with the aperture

Note: After every image exposure, rotate the interlock lever and return it to its normal upright position. This motion simulates the removal and replacement of the cassette (as if you were using film).

Picture



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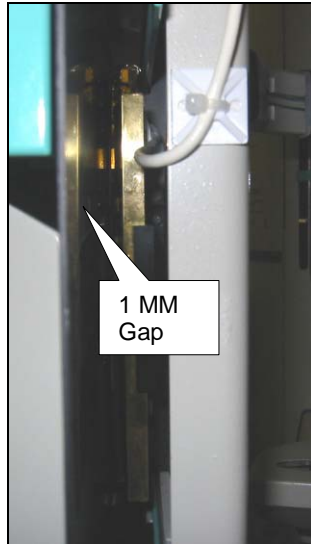
Instrumentarium OP-100 Installation, Continued

Secure Sensor and Reinstall Vertical Cover

Follow the steps in the table below to secure the Sensor and reinstall the vertical cover.

Step	Action
1	Tighten the set screws on the Sensor assembly to adjust the gap between the Sensor assembly and the Codestrip. When positioned correctly, the gap should be approximately 1 mm.
2	When the Sensor is correctly positioned, tighten it in the clip using a Phillips screwdriver
3	Reinstall the left vertical cover.

Pictures



Continued on next page

Instrumentarium OP-100 Installation, Continued

Route Sensor Cable

Follow the steps in the table below to route the Sensor cable from the Sensor assembly to the iPan Power supply.

Step	Action
1	Attach clamps to feed cable along contours of panoramic machine.
2	Start routing Sensor cable to the top of the panoramic machine, leaving a small loop in the cable at the top of the cassette transport to allow the cassette transport to pivot open and to expedite patient positioning.
2	Continue routing cable along contours of panoramic machine, following the edge nearest the host machine control panel.
4	Connect cable to iPan Power supply at base of panoramic machine or other appropriate, user-specified location.

Picture



Continued on next page

Instrumentarium OP-100 Installation, Continued

Check Sensor Cable Run

Follow the steps in the table below to check the Sensor cable run.

Step	Action
1	Turn off X-ray source and put the machine in Test mode. (To do this, refer to operating instructions provided by the host machine manufacturer.)
2	Operate the rotation arm of the panoramic machine and observe that there is enough slack in the cable for the rotation arm to move freely.
3	Observe that there is enough slack in the cable for the rotation arm to move freely.
4	Verify that the Sensor cable does not kink, bind, or pull out of clips when the rotation arm is in motion.
5	Adjust cable if necessary.

Picture



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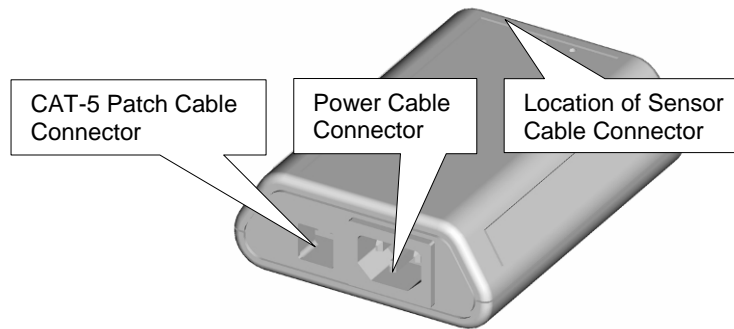
Instrumentarium OP-100 Installation, Continued

Connect iPan Power Supply

Follow the steps in the table below to connect the iPan Power supply.

Step	Action
1	Position iPan Power supply at base of panoramic machine or other appropriate, user-specified location.
2	Connect the iPan Power supply to the Sensor assembly using Sensor cable.
3	Connect the iPan Power supply to a 115-230V, 50 / 60 Hz AC power outlet using appropriate hospital-grade power cord.

Picture



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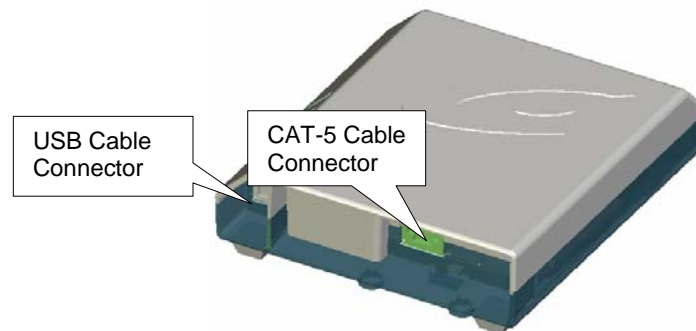
Instrumentarium OP-100 Installation, Continued

Connect iPan USB Interface

Follow the steps in the table below to connect the iPan USB Interface.

Step	Action
1	Position the iPan USB Interface at any appropriate, user-specified location, keeping the following guidelines in mind: <ul style="list-style-type: none">▪ The recommended length for the Category 5 (CAT-5) patch cable connecting the iPan Power supply to the iPan USB Interface is 50 feet or less.▪ LEDs on the iPan USB Interface can be helpful during operation and troubleshooting. Position the device so the LEDs are visible to the operator. Refer to the iPan User Guide for details on LED operation.▪ New firmware upgrades are provided by the iPan USB Interface. Refer to the iPan User Guide for additional information.
2	Connect the CAT-5 patch cable between the iPan USB Interface and the iPan Power supply.
3	Connect the USB cable between the iPan USB Interface and the PC workstation, using an available USB port.

Picture



Villa Rotograph Installation

Introduction This procedure describes the installation of the iPan system.

Time Installation will take approximately one hour to complete.

Persons Installation can be completed by one (1) qualified service technician.

Parts

- iPan Villa Rotograph Kit (Schick P/N B4860050), iPan Room Kit (B4800000), and CAT-5 Cable

Tools

- Phillips screwdriver #2 for rotation arm cover plate, Sensor clip, Codestrip assembly, and interlock lever
- Hex key (0.050 in) to secure Sensor clip
- Hex key (3/32 in) to adjust clearance between encoder and Codestrip

Pre-Installation Tips

- Make sure your panoramic system is operating properly.
- Familiarize yourself with installation steps before performing them.
- Determine the location of your computer. This will be useful when you install the iPan USB Interface and need to run cables to it.

Procedure

Steps	See Page
Remove Rotation Arm Cover Plate	41
Install Sensor	42
Install Sensor Clip	43
Install Codestrip	44
Install Interlock lever	45
Route Sensor Cable	46
Check Sensor Cable Run	47
Secure Sensor	48
Check Codestrip Alignment	49
Connect iPan Power Supply	50
Connect iPan USB Interface	51

Continued on next page

Villa Rotograph Installation, Continued

Remove Rotation Arm Cover Plate

Follow the steps in the table below to remove the rotation arm cover plate.

Step	Action
1	Using a Phillips screwdriver, remove both screws from the bottom of the rotation arm cover plate.
2	Remove the cover plate from the rotation arm.

Picture



Continued on next page

Villa Rotograph Installation, Continued

Install Sensor Follow the steps in the table below to install the Sensor assembly.

Step	Action
1	Carefully slide the Sensor assembly along the faceplate aperture until the upper guide is seated firmly at the top of the aperture slit
2	Also verify that the lower guide securely in the bottom of the aperture.

Picture



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Villa Rotograph Installation, Continued

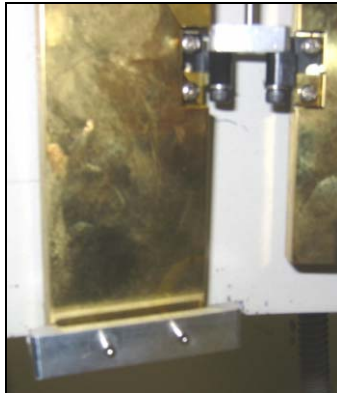
Install Sensor Clip

Follow the steps in the table below to install the Sensor clip.

Step	Action
1	Position the Sensor clip at the bottom of the aperture plate (faceplate).
2	Secure the clip in place using the hex key (0.50 in) to tighten 2 screws.

CAUTION: Light tension on the set screws is all that is needed to secure the Sensor clip. Do not apply excessive torque.

Picture



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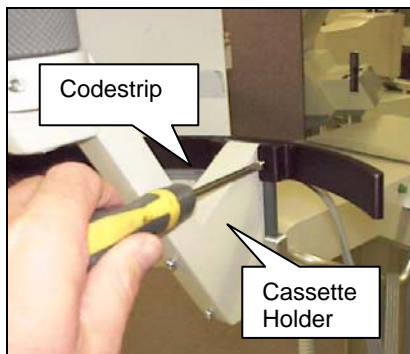
Villa Rotograph Installation, Continued

Install Codestrip

Follow the steps in the table below to install the Codestrip assembly.

Step	Action
1	Install the Codestrip assembly on the drum cassette holder by tightening screws with a Phillips screwdriver.
2	Align the Codestrip assembly with the encoder window.

Pictures



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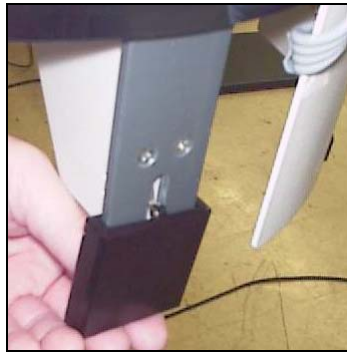
Villa Rotograph Installation, Continued

Install Interlock lever

Follow the steps in the table below to install the interlock lever.

Step	Action
1	Slide the interlock lever onto the drum cassette holder.
2	Make sure that the interlock lever fits over and depresses the interlock limit switch on the panoramic machine.
3	When the interlock lever is firmly in place, secure it to the cassette holder using a Phillips screwdriver to tighten 4 screws.

Pictures



Continued on next page

Villa Rotograph Installation, Continued

Route Sensor Cable

Follow the steps in the table below to route the Sensor cable from the Sensor assembly to the iPan Power supply.

Step	Action
1	Attach clamps to feed cable along contours of the panoramic machine.
2	Start routing Sensor cable to the top of the panoramic machine, leaving a small loop in the cable at the top of the cassette transport to pivot open and to expedite patient positioning.
3	Continue routing the cable along the contours of the panoramic machine, following the edge nearest the host machine control panel.
4	Connect cable to iPan Power supply at base of panoramic machine or other appropriate, user-specified location.

Picture



Continued on next page

Villa Rotograph Installation, Continued

Check Sensor Cable Run

Follow the steps in the table below to check the Sensor cable run.

Step	Action
1	Turn off X-ray source and put the machine in Test mode. (To do this, refer to operating instructions provided by the host machine manufacturer.)
2	Operate the rotation arm of the panoramic machine and observe that there is enough slack in the cable for the rotation arm to move freely.
3	Verify that the Sensor cable does not kink, bind, or pull out of clips when the rotation arm is in motion.
4	Adjust cable if necessary.

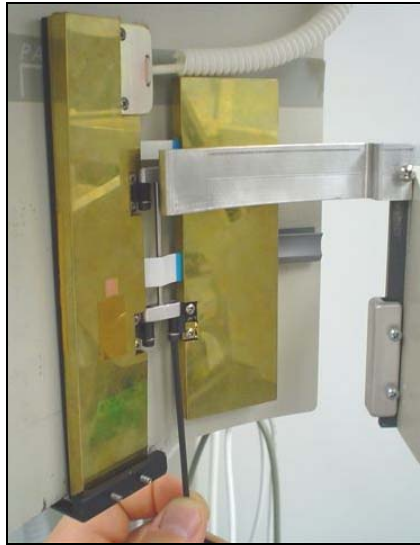
Continued on next page

Villa Rotograph Installation, Continued

Secure Sensor Follow the steps in the table below to secure the Sensor assembly.

Step	Action
1	Adjust the encoder section of the Sensor assembly to approximately 1 mm from the Codestrip on the drum cassette.
2	Use the hex key (3/32 in.) to tighten the hinge links on the encoder.

Picture



Continued on next page

Villa Rotograph Installation, Continued

Check Codestrip Alignment

Follow the steps in the table below to check the Codestrip alignment.

Step	Action
1	Check the encoder-to-Codestrip alignment. The proper distance between these two parts should be approximately 1 mm when the arm of the panoramic machine is rotated.
2	While rotating the panoramic machine arm, verify Codestrip and encoder alignment at the start and end of motion.

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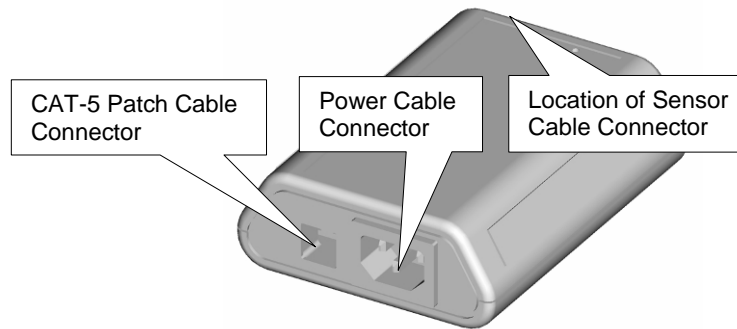
Villa Rotograph Installation, Continued

Connect iPan Power Supply

Follow the steps in the table below to connect the iPan Power supply.

Step	Action
1	Position iPan Power supply at base of panoramic machine or other appropriate, user-specified location.
2	Connect the iPan Power supply to the Sensor assembly using Sensor cable.
3	Connect the iPan Power supply to a 115-230V, 50 / 60 Hz AC power outlet using appropriate hospital-grade power cord.

Picture



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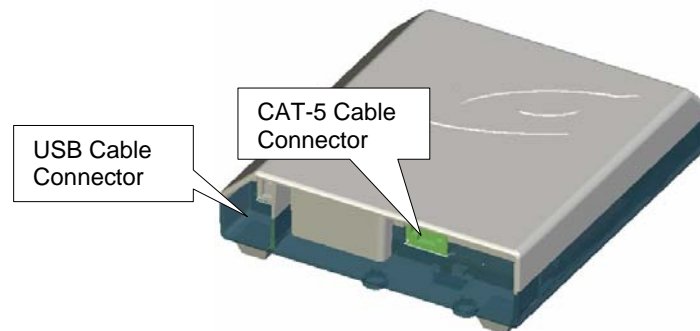
Villa Rotograph Installation, Continued

Connect iPan USB Interface

Follow the steps in the table below to connect the iPan USB Interface.

Step	Action
1	Position the iPan USB Interface at any appropriate, user-specified location, keeping the following guidelines in mind: <ul style="list-style-type: none">▪ The recommended length for the Category 5 (CAT-5) patch cable connecting the iPan Power supply to the iPan USB Interface is 50 feet or less.▪ LEDs on the iPan USB Interface can be helpful during operation and troubleshooting. Position the device so the LEDs are visible to the operator. Refer to the iPan User Guide for details on LED operation.▪ New firmware upgrades are provided by the iPan USB Interface. Refer to the iPan User Guide for additional information.
2	Connect the CAT-5 patch cable between the iPan USB Interface and the iPan Power supply.
3	Connect the USB cable between the iPan USB Interface and the PC workstation, using an available USB port.

Picture



Siemens OP-5 / OP-10 Installation

Introduction This procedure describes the installation of the iPan system. For purposes of illustration, pictures of the OP-10 are shown.

Time Installation will take approximately one hour to complete.

Persons Installation can be completed by one (1) qualified service technician.

Parts

- iPan Siemens OP-10 Kit (Schick P/N B4861050), iPan Room Kit (B4800000), and CAT-5 Cable

Tools

- Phillips screwdriver #2 for cassette holder and Codestrip assembly
- Hex key (0.050 in) to secure Sensor clip
- Hex key (3/32 in) to adjust clearance between encoder and Codestrip

Pre-Installation Tips

- Make sure your panoramic system is operating properly.
- Familiarize yourself with installation steps before performing them.
- Determine the location of your computer. This will be useful when you install the iPan USB Interface and need to run cables to it.

Procedure

Steps	See Page
Install Sensor	53
Install Sensor Clip	54
Reinstall Cassette Holder	55
Install Codestrip	56
Install Interlock Lever	57
Secure Sensor	58
Route and Check Sensor Cable Run	59
Connect iPan Power Supply	60
Connect iPan USB Interface	61

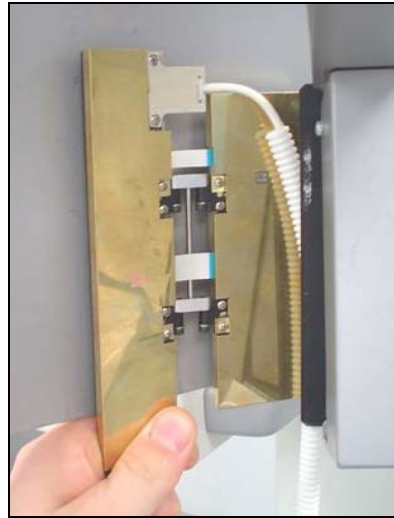
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Siemens OP-5 / OP-10 Installation, Continued

Install Sensor Follow the steps in the table below to install the Sensor assembly.

Step	Action
1	Carefully slide the Sensor assembly along the faceplate aperture until the upper guide is seated firmly at the top of the aperture slit
2	Also verify that the lower guide securely in the bottom of the aperture.

Picture



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Siemens OP-5 / OP-10 Installation, Continued

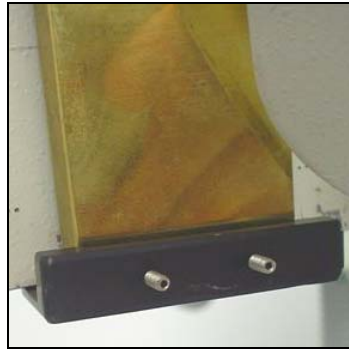
Install Sensor Clip

Follow the steps in the table below to install the Sensor clip.

Step	Action
1	Position the Sensor clip at the bottom of the aperture plate (faceplate).
2	Secure the clip in place using the hex key (0.50 in) to tighten 2 screws.

CAUTION: Light tension on the set screws is all that is needed to secure the Sensor clip. Do not apply excessive torque.

Picture



Continued on next page

Siemens OP-5 / OP-10 Installation, Continued

Reinstall Cassette Holder

Follow the steps in the table below to reinstall the Cassette Holder.

Step	Action
1	Using Phillips screwdriver, remove cassette film holder and replace with new cassette holder provided.

Pictures



Continued on next page

Siemens OP-5 / OP-10 Installation, Continued

Install Codestrip

Follow the steps in the table below to install the Codestrip assembly.

Step	Action
1	Slide the Codestrip assembly onto the cassette holder.
2	Align the Codestrip assembly with the encoder window.
3	When aligned, secure the Codestrip to the holder by tightening screws with a Phillips screwdriver.

Picture



Continued on next page

Siemens OP-5 / OP-10 Installation, Continued

Install Interlock Lever

Follow the steps in the table below to install the interlock lever.

Step	Action
1	Slide the interlock lever onto the drum cassette holder.
2	Make sure that the interlock lever fits over and depresses the interlock limit switch on the panoramic machine.
3	When the interlock lever is firmly in place, secure it to the cassette holder using a Phillips screwdriver to tighten 4 screws.

Picture



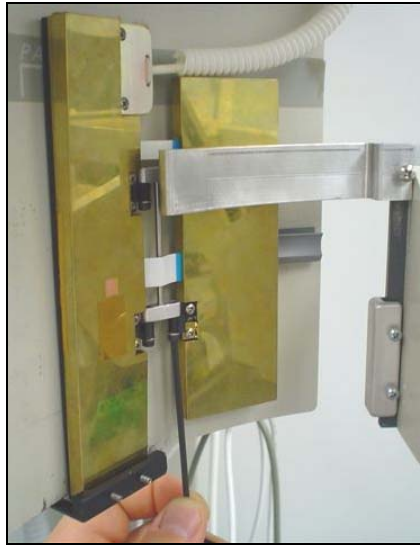
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Siemens OP-5 / OP-10 Installation, Continued

Secure Sensor Follow the steps in the table below to secure the Sensor assembly.

Step	Action
1	Adjust the encoder section of the Sensor assembly to approximately 1 mm from the Codestrip on the drum cassette.
2	Use the hex key (3/32 in.) to tighten the hinge links on the encoder.

Picture



Continued on next page

Siemens OP-5 / OP-10 Installation, Continued

Route and Check Sensor Cable Run

Follow the steps in the table below to route the Sensor cable from the Sensor assembly to the iPan Power supply.

Step	Action
1	Attach clamps to feed cable along contours of the panoramic machine.
2	Start routing Sensor cable to the top of the panoramic machine, leaving a small loop in the cable at the top of the cassette transport to pivot open and to expedite patient positioning.
3	Continue routing the cable along the contours of the panoramic machine, following the edge nearest the host machine control panel.
4	Connect cable to iPan Power supply at base of panoramic machine or other appropriate, user-specified location.

Picture



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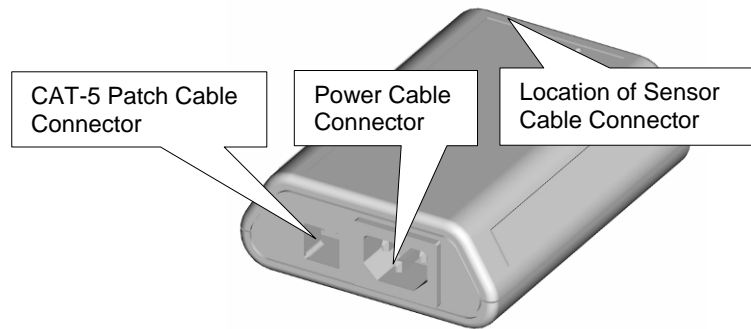
Siemens OP-5 / OP-10 Installation, Continued

Connect iPan Power Supply

Follow the steps in the table below to connect the iPan Power supply.

Step	Action
1	Position iPan Power supply at base of panoramic machine or other appropriate, user-specified location.
2	Connect the iPan Power supply to the Sensor assembly using Sensor cable.
3	Connect the iPan Power supply to a 115-230V, 50 / 60 Hz AC power outlet using appropriate hospital-grade power cord.

Picture



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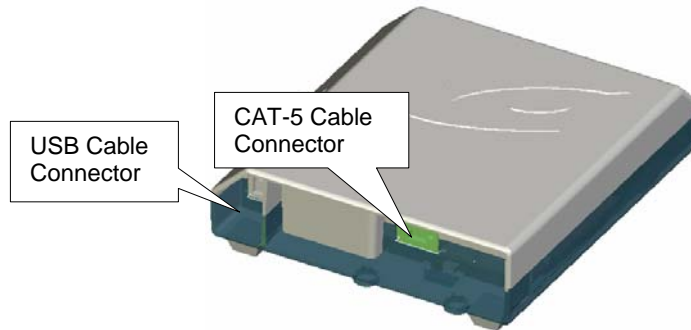
Siemens OP-5 / OP-10 Installation, Continued

Connect iPan USB Interface

Follow the steps in the table below to connect the iPan USB Interface.

Step	Action
1	Position the iPan USB Interface at any appropriate, user-specified location, keeping the following guidelines in mind: <ul style="list-style-type: none">▪ The recommended length for the Category 5 (CAT-5) patch cable connecting the iPan Power supply to the iPan USB Interface is 50 feet or less.▪ LEDs on the iPan USB Interface can be helpful during operation and troubleshooting. Position the device so the LEDs are visible to the operator. Refer to the iPan User Guide for details on LED operation.▪ New firmware upgrades are provided by the iPan USB Interface. Refer to the iPan User Guide for additional information.
2	Connect the CAT-5 patch cable between the iPan USB Interface and the iPan Power supply.
3	Connect the USB cable between the iPan USB Interface and the PC workstation, using an available USB port.

Picture



Belmont X-Caliber Installation

Introduction This procedure describes the installation of the iPan system.

Time Installation will take approximately one hour to complete.

Persons Installation can be completed by one (1) qualified service technician.

Parts

- iPan Belmont X-Caliber Kit (Schick P/N B4880050), iPan Room Kit (B4800000), and CAT-5 Cable

Tools

- Hex key (0.050 in) to adjust Sensor clearance to the Codestrip

Pre-Installation Tips

- Make sure your panoramic system is operating properly.
- Familiarize yourself with installation steps before performing them.
- Determine the location of your computer. This will be useful when you install the iPan USB Interface and need to run cables to it.

Procedure

Steps	See Page
Install Cassette Codestrip	63
Prepare Sensor for Installation	64
Install Sensor	65
Route and Check Sensor Cable Run	66
Adjust Clearance	67
Connect iPan Power Supply	68
Connect iPan USB Interface	69

Continued on next page

Belmont X-Caliber Installation, Continued

Install Cassette Codestrip

Follow the steps in the table below to slide the cassette into the carriage assembly.

Step	Action
1	Carefully slide the cassette into the cassette transport mechanism.
2	Confirm that the cassette fits snugly in the transport carriage.

Picture



Continued on next page

Belmont X-Caliber Installation, Continued

Prepare Sensor for Installation

Follow the steps in the table below to prepare the Sensor assembly for installation.

Step	Action
1	Test fit the Sensor assembly on the outside of the faceplate
2	Verify that the active area of the Sensor aligns with the aperture when the Sensor clip section is positioned along the edge of the faceplate. If they do not, adjust clip slide as necessary.

Picture



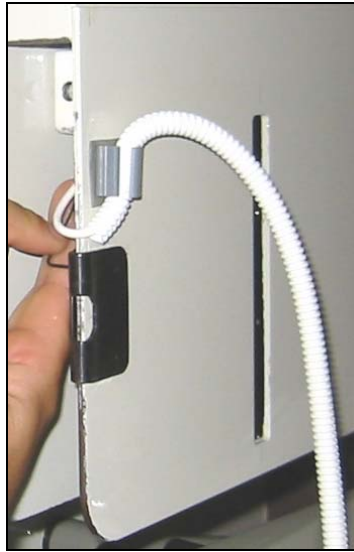
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Belmont X-Caliber Installation, Continued

Install Sensor Follow the steps in the table below to install the Sensor assembly.

Step	Action
1	Insert Sensor assembly on the inside of the faceplate.
2	Carefully slide the Sensor assembly until the clip section is snug with the faceplate.
3	Verify that the active area of the Sensor is aligned with the aperture of the faceplate.

Picture



Continued on next page

Belmont X-Caliber Installation, Continued

Route and Check Sensor Cable Run

Follow the steps in the table below to check the Sensor cable run.

Step	Action
1	Turn off X-ray source and put the machine in Test mode. (To do this, refer to operating instructions provided by the host machine manufacturer.)
2	Operate the rotation arm of the panoramic machine and observe that there is enough slack in the cable for the rotation arm to move freely.
3	Observe that there is enough slack in the cable for the rotation arm to move freely.
4	Verify that the Sensor cable does not kink, bind, or pull out of clips when the rotation arm is in motion.
5	Adjust cable if necessary.

Picture



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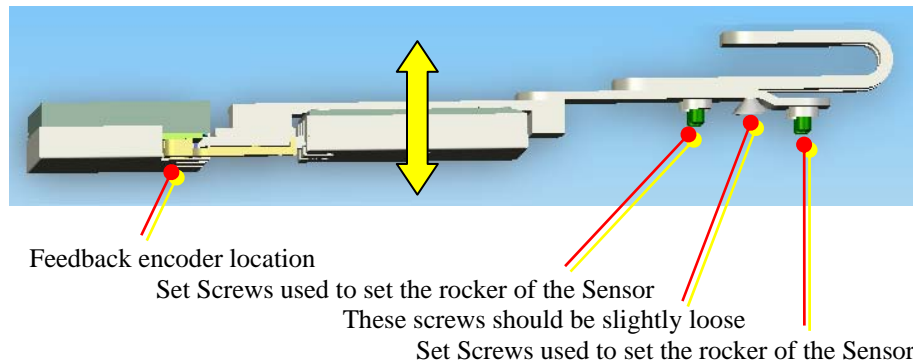
Belmont X-Caliber Installation, Continued

Adjust Clearance

Follow the steps in the table below to make clearance adjustments.

Step	Action
1	When the cassette is installed with the Codestrip supplied, verify that the gap between the Codestrip and the back of the image Sensor (where the encoder is located), is approximately 1 mm.
2	Use the 0.050 in. hex key to adjust the set screws, as shown in the illustration below.
3	Operate the Rotation arm of the panoramic machine to verify that the Sensor cable does not kink, bind, or pull out of clips when the arm is in motion.

Picture



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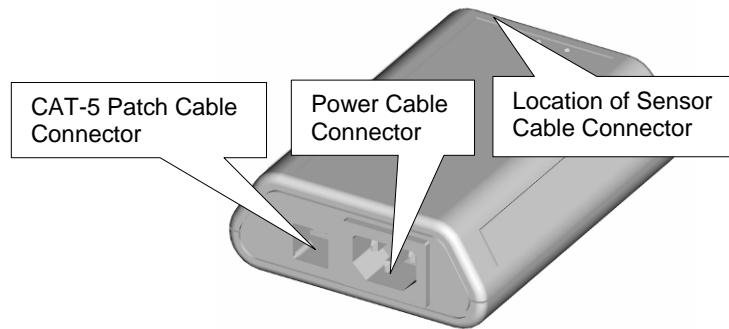
Belmont X-Caliber Installation, Continued

Connect iPan Power Supply

Follow the steps in the table below to connect the iPan Power supply.

Step	Action
1	Position iPan Power supply at base of panoramic machine or other appropriate, user-specified location.
2	Connect the iPan Power supply to the Sensor assembly using Sensor cable.
3	Connect the iPan Power supply to a 115-230V, 50 / 60 Hz AC power outlet using appropriate hospital-grade power cord.

Picture



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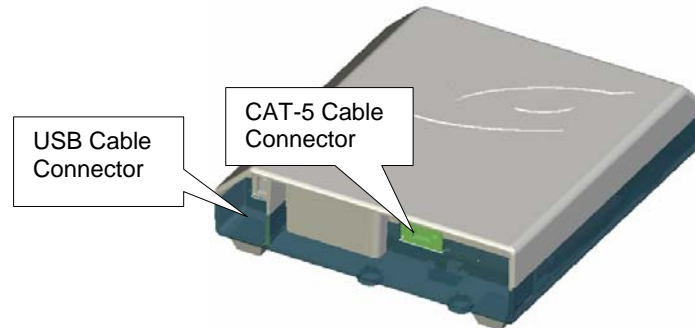
Belmont X-Caliber Installation, Continued

Connect iPan USB Interface

Follow the steps in the table below to connect the iPan USB Interface.

Step	Action
1	Position the iPan USB Interface at any appropriate, user-specified location, keeping the following guidelines in mind: <ul style="list-style-type: none">▪ The recommended length for the cable connecting the iPan Power supply to the iPan USB Interface is 30 feet.▪ LEDs on the iPan USB Interface can be helpful during operation and troubleshooting. Refer to the iPan User Guide for details on LED operation.▪ New firmware upgrades are provided by the iPan USB Interface. Refer to the iPan User Guide for additional information.
2	Connect the Category 5 (CAT-5) cable between the iPan USB Interface and the iPan Power supply.
3	Connect the USB cable between the iPan USB Interface and the PC workstation, using an available USB port.

Picture



Gendex Orthoralix 9000 Installation

Introduction This procedure describes the installation of the iPan system.

Time Installation will take approximately one hour to complete.

Persons Installation can be completed by one (1) qualified service technician.

Parts

- iPan Panoramic Gendex Orthoralix 9000 Kit (Schick P/N B4881050), iPan Room Kit (B4800000), and CAT-5 Cable

Tools

- Hex key (0.050 in) to adjust Sensor assembly set screws
- Hex key to remove and replace 4 screws that secure the cassette transport covers

Pre-Installation Tips

- Make sure your panoramic system is operating properly.
- Familiarize yourself with installation steps before performing them.
- Determine the location of your computer. This will be useful when you install the iPan USB Interface and need to run cables to it.

Procedure

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Check Sensor Cable Run	74
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Connect iPan USB Interface	77

Continued on next page

Gendex Orthoralix 9000 Installation, Continued

Prepare Sensor for Installation

Follow the steps in the table below to prepare for installation of the Sensor assembly.

Step	Action
1	Remove 4 screws that secure two plastic covers over the cassette transport.
2	After removing the screws, remove the cassette transport covers.
3	Test fit the Sensor on the outside of the faceplate.
4	Verify that the active area of the Sensor aligns with the aperture when the Sensor clip section is positioned along the edge of the faceplate. If they do not, adjust clip slide as necessary.

Pictures



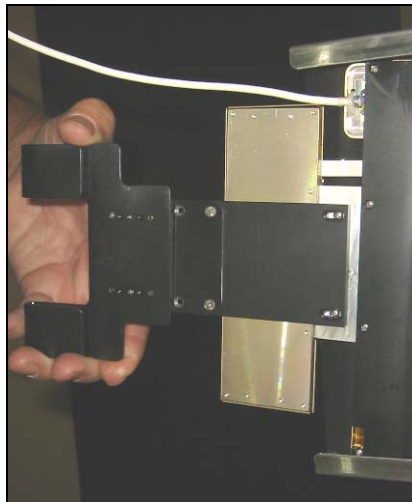
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Gendex Orthoralix 9000 Installation, Continued

Install Sensor Follow the steps in the table below to install the Sensor.

Step	Action
1	Insert Sensor on the inside of the faceplate, on the steel frame that is accessible when the plastic covers were removed.
2	Verify that the active area of the Sensor is aligned with the faceplate aperture.
3	Verify that the Sensor does not interfere with the cassette transport
4	Verify that the Sensor is secured to the faceplate.

Picture



Continued on next page

Gendex Orthoralix 9000 Installation, Continued

Route Sensor Cable

Follow the steps in the table below to route the Sensor cable from the Sensor assembly to the iPan Power supply.

Step	Action
1	Secure Sensor cable inside faceplate using cable clamp.
2	To facilitate replacement of the cassette transport covers, route the Sensor cable from the top edge of the cassette transport.
3	Attach clamps to feed cable along contours of panoramic machine.
4	Route cable along contours of panoramic machine, following the edge nearest the host machine control panel.
5	Connect cable to iPan Power supply at base of panoramic machine or other appropriate, user-specified location.
6	Replace cassette transport covers using 4 screws removed previously.

Continued on next page

Gendex Orthoralix 9000 Installation, Continued

Check Sensor Cable Run

Follow the steps in the table below to check the Sensor cable run.

Step	Action
1	Turn off X-ray source and put the machine in Test mode. (To do this, refer to operating instructions provided by the host machine manufacturer.)
2	Operate the rotation arm of the panoramic machine and observe that there is enough slack in the cable for the rotation arm to move freely.
3	Observe that there is enough slack in the cable for the rotation arm to move freely.
4	Verify that the Sensor cable does not kink, bind, or pull out of clips when the rotation arm is in motion.
5	Adjust cable if necessary.

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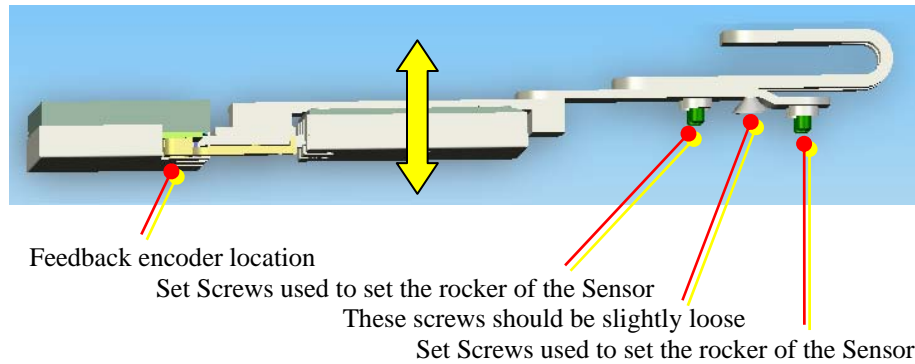
Gendex Orthoralix 9000 Installation, Continued

Adjust Clearance

Follow the steps in the table below to make clearance adjustments.

Step	Action
1	When the cassette is installed with the Codestrip supplied, verify that the gap between the Codestrip and the back of the image Sensor (where the encoder is located), is approximately 1 mm.
2	Use the 0.050 in. hex key to adjust the set screws, as shown in the illustration below.
3	Operate the Rotation arm of the panoramic machine to verify that the Sensor cable does not kink, bind, or pull out of clips when the arm is in motion.

Picture



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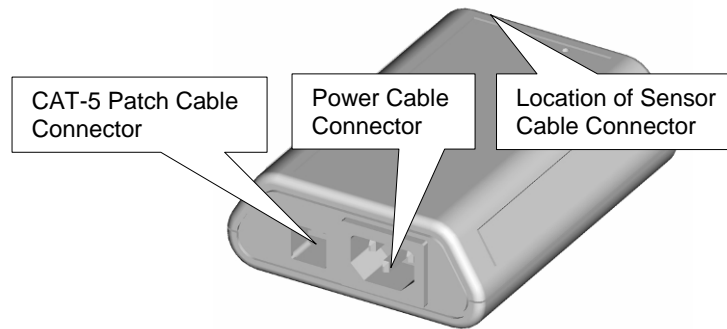
Gendex Orthoralix 9000 Installation, Continued

Connect iPan Power Supply

Follow the steps in the table below to connect the iPan Power supply.

Step	Action
1	Position iPan Power supply at base of panoramic machine or other appropriate, user-specified location.
2	Connect the iPan Power supply to the Sensor assembly using Sensor cable.
3	Connect the iPan Power supply to a 115-230V, 50 / 60 Hz AC power outlet using appropriate hospital-grade power cord.

Picture



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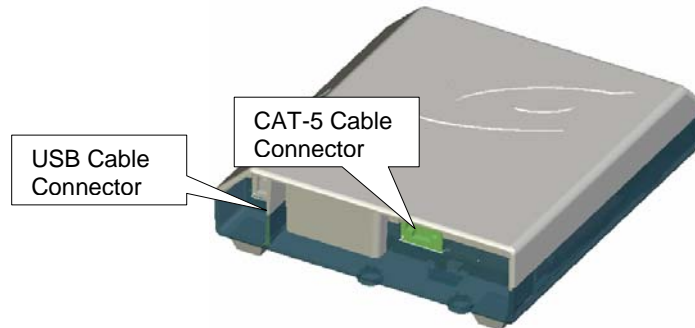
Gendex Orthoralix 9000 Installation, Continued

Connect iPan USB Interface

Follow the steps in the table below to connect the iPan USB Interface.

Step	Action
1	Position the iPan USB Interface at any appropriate, user-specified location, keeping the following guidelines in mind: <ul style="list-style-type: none">▪ The recommended length for the cable connecting the iPan Power supply to the iPan USB Interface is 30 feet.▪ LEDs on the iPan USB Interface can be helpful during operation, or troubleshooting. Refer to the iPan User Guide for details on LED operation.▪ New firmware upgrades are provided by the iPan USB Interface. Refer to the iPan User Guide for additional information.
2	Connect the Category 5 (CAT-5) cable between the iPan USB Interface and the iPan Power supply.
3	Connect the USB cable between the iPan USB Interface and the PC workstation, using an available USB port.

Picture



Soredex Cranex / BaseX Installation

- Introduction** This procedure describes the installation of the iPan system. For purposes of illustration, pictures of the Cranex are shown.
-
- Time** Installation will take approximately one hour to complete.
-
- Persons** Installation can be completed by one (1) qualified service technician.
-
- Parts**
- iPan Soredex Kit (Schick P/N B4888050), iPan Room Kit (B4800000), and CAT-5 Cable
-
- Tools**
- Hex key (0.050 in) to secure Sensor clip
-
- Pre-Installation Tips**
- Make sure your panoramic system is operating properly.
 - Familiarize yourself with installation steps before performing them.
 - Determine the location of your computer. This will be useful when you install the iPan USB Interface and need to run cables to it.
-

Procedure

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Connect iPan Power Supply	83
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Soredex Cranex / BaseX Installation, Continued

Install Cassette Codestrip

Follow the steps in the table below to slide the cassette into the carriage assembly.

Step	Action
1	Carefully slide the cassette into the cassette transport mechanism.
2	Confirm that the cassette fits snugly in the transport carriage.

Picture



Continued on next page

Soredex Cranex / BaseX Installation, Continued

Install Sensor Follow the steps in the table below to prepare and install the Sensor assembly.

Step	Action
1	Test fit the Sensor assembly on the outside of the faceplate
2	Verify that the Sensor assembly is centered in the aperture slit.

Continued on next page

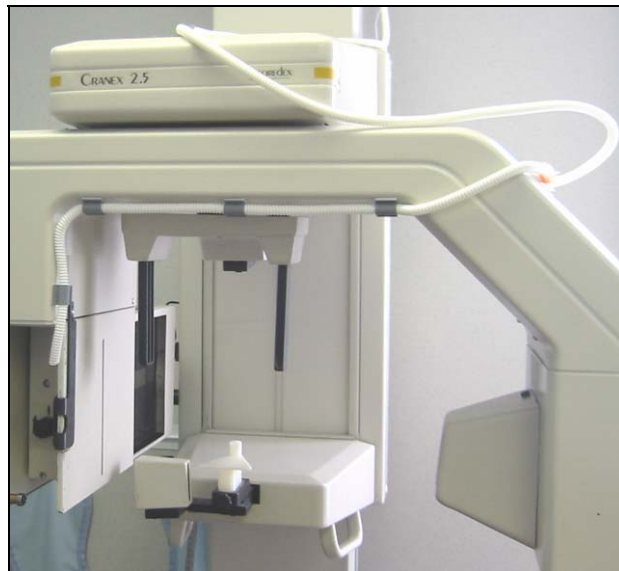
Soredex Cranex / BaseX Installation, Continued

Route and Check Sensor Cable Run

Follow the steps in the table below to check the Sensor cable run.

Step	Action
1	Turn off X-ray source and put the machine in Test mode. (To do this, refer to operating instructions provided by the host machine manufacturer.)
2	Operate the rotation arm of the panoramic machine and observe that there is enough slack in the cable for the rotation arm to move freely.
3	Verify that the Sensor cable does not kink, bind, or pull out of clips when the rotation arm is in motion.
4	Adjust cable if necessary.

Picture



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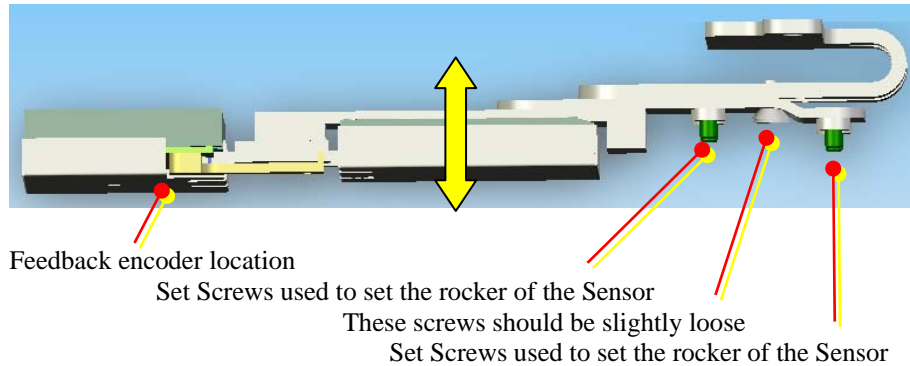
Soredex Cranex / BaseX Installation, Continued

Adjust Clearance

Follow the steps in the table below to make clearance adjustments.

Step	Action
1	When the cassette is installed with the Codestrip supplied, verify that the gap between the Codestrip and the back of the image Sensor (where the encoder is located), is approximately 1 mm.
2	Use the 0.050 in. hex key to adjust the set screws, as shown in the illustration below.
3	Verify that the Sensor assembly is centered in the aperture slit.
4	Make the final adjustment to the gap between the Codestrip and the Sensor assembly. Slide cassette mechanism back-and-forth to ensure gap and no mechanical binding.

Pictures



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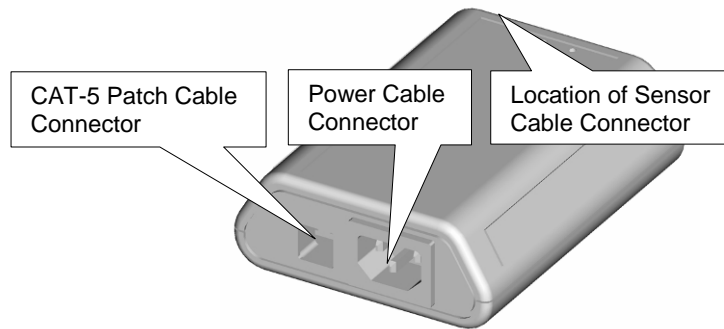
Soredex Cranex / BaseX Installation, Continued

Connect iPan Power Supply

Follow the steps in the table below to connect the iPan Power supply.

Step	Action
1	Position iPan Power supply at base of panoramic machine or other appropriate, user-specified location.
2	Connect the iPan Power supply to the Sensor assembly using Sensor cable.
3	Connect the iPan Power supply to a 115-230V, 50 / 60 Hz AC power outlet using appropriate hospital-grade power cord.

Picture



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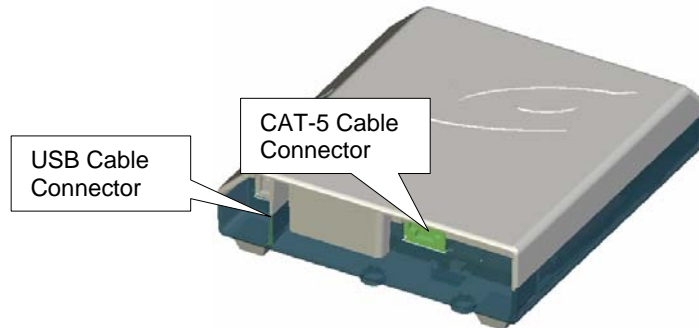
Soredex Cranex / BaseX Installation, Continued

Connect iPan USB Interface

Follow the steps in the table below to connect the iPan USB Interface.

Step	Action
1	Position the iPan USB Interface at any appropriate, user-specified location, keeping the following guidelines in mind: <ul style="list-style-type: none">▪ The recommended length for the cable connecting the iPan Power supply to the iPan USB Interface is 30 feet.▪ LEDs on the iPan USB Interface can be helpful during operation and troubleshooting. Refer to the iPan User Guide for details on LED operation.▪ New firmware upgrades are provided by the iPan USB Interface. Refer to the iPan User Guide for additional information.
2	Connect the Category 5 (CAT-5) cable between the iPan USB Interface and the iPan Power supply.
3	Connect the USB cable between the iPan USB Interface and the PC workstation, using an available USB port.

Picture



2. Cleaning

2.1 General

Observe the following precautions to perform cleaning and disinfecting procedures and to provide proper hygiene within the patient area.

- Before cleaning any part of the iPan system, refer to the manufacturer's service guide for proper turn off / power disconnection at the host panoramic machine. Also ensure that the power cable from the iPan Power supply is disconnected, and that the PC workstation is turned off.
- Use a soft, lint-free cloth when wiping exterior surfaces of the iPan equipment. For stronger action, use a neutral soap to clean coated surfaces.
- Make sure that water or other liquids do not seep into the iPan equipment, causing potential damage to internal, electrical, and mechanical components.
- Never use solvents (such as alcohol and Trichloroethylene), corrosive, or abrasive substances when cleaning.

When the surfaces that were cleaned have dried sufficiently, connect and restore power to the system, following the turn-on procedures provided in this document or in the appropriate service guide.

2.2 USB Interface

To clean the iPan USB Interface, apply a small amount of water or isopropyl alcohol (70%) to a non-abrasive, lint-free cloth. Wipe down the device, exercising care when cleaning around the connectors and contacts. After cleaning, inspect the iPan USB Interface to ensure that all surfaces are clean and free of unwanted particles.

2.3 Power Supply

To clean and disinfect the Power Supply, use a clean lint-free cloth and a small amount of alcohol. Although the iPan USB Interface is enclosed to protect its components, it is not watertight, so be sure to use only enough solution to clean the unit safely.

3. Maintenance

3.1 Visual Inspection

Like all electrical equipment, the iPan system requires not only correct use, but also visual inspection prior to operation, and routine checks at regular intervals. These precautions will help ensure that the iPan equipment operates accurately, safely, and efficiently.

There are no user-serviceable components in the iPan system. However, before operating the system, users shall check it for any signs of physical damage or defect. If detected, contact your local distributor of Schick Technologies products for further instructions.

3.2 Periodic Maintenance

Periodic maintenance is performed as needed, but at least once a month. It consists of various checks performed by the operator or by a qualified service technician.

- Check that the labels are intact, readable, and adhere well to the surfaces on which they are positioned
- Check that all of the cables that connect equipment in the iPan system are undamaged
- Check that there is no external damage to the iPan equipment which could compromise its ability to operate safely

Glossary

Glossary

Refer to the table below for terms referenced in this document.

Part	Function
Aperture	Rectangular opening on faceplate that enables the Sensor to capture image information
Cable clamp	Secures Sensor cable and sleeve to panoramic machine
Cassette transport mechanism	Mechanical assembly on the host machine that moves the film cassette.
Category 5 cable (CAT-5)	Twisted-pair Ethernet cable that connects the iPan Power supply to the iPan USB Interface
Codestrip	Encodes motion of the film transport mechanism
Drum	Film transport mechanism on host panoramic machine to which the Codestrip is affixed
Encoder	Reads the Codestrip to provide relative motion information during image acquisition
Faceplate	Straight metal plate, identified by its aperture, located outside the cassette or drum.
Flex cable	Ribbon-type cable that connects to right-angle pins on the circuit board
Guide	Secures the Sensor cable to the host panoramic machine
Hex key	Typically a right-angle-shaped tool for tightening or loosening hexagonal head screws and bolts
Interlock lever	Device that simulates cassette replacement to satisfy a safety interlock.
iPan Power supply	Connects to an appropriate 115-230V AC power outlet and provides primary voltage to the Sensor and signal isolation to / from the iPan USB Interface
iPan USB Interface	Communicates with attached computer hardware, enabling acquired images to be displayed on a computer monitor or other display system
Master switch	On / off switch on the panoramic machine
Rotation arm	Enables the X-ray source and the cassette or drum to move around the patient area and capture panoramic images
Sensor cable	Provides power and data / control information between the Sensor and the iPan Power supply

Part	Function
Sensor clip	Secures the Sensor to the cassette
USB cable	Hardware interface cable that connects the PC (type "A" USB connector) to the iPan USB Interface (type "B" USB connector)

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