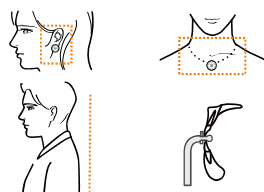


Guide for dental x-ray imaging

PANORAMIC acquisition procedure

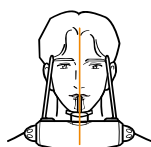
1



Preparation

- 1 Remove all metals from patient. (ex. Glasses, earring, necklace, hair clips etc.)
- 2 Patient should be standing up straight (slight step forward), with their eyes closed.
- 3 Assist with placing the upper and lower teeth into the groove of the bite block.

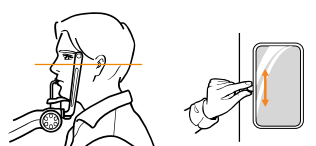
2



Sagittal plane alignment

- 1 Align the center of patient's head with mid-sagittal laser beam.
- 2 If necessary gently turn the patient's head to adjust.

3

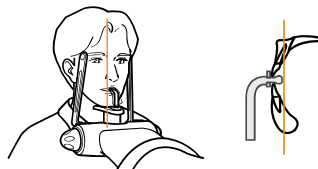


Horizontal plane alignment

- 1 Ensure the horizontal plane laser beam passes patient's Frankfurt horizontal plane.
- 2 The height of horizontal plane laser beam can be adjusted through the lever on the front of the column.

* Frankfurt horizontal plane : Horizontal plane that passes through from mid bottom of orbital socket to tragus of ear.

4



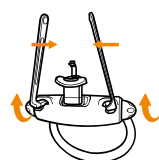
Canine laser beam alignment

- 1 Align canine beam to project at the center of patient's canine tooth.
- 2 Use the touch screen or the remote controller for the adjustment.

Canine Position



5

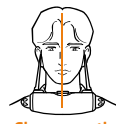


Secure positioning

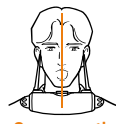
- 1 Secure patient's head on the temple supports.
 - 2 Ask the patient to press their tongue against the roof of the mouth.
 - 3 Close the eyes will help the patient remain still during the scan.
 - 4 Verify the positioning lasers are located in position.
- ※ Remove the CT headrest when taking panoramic acquisition.

TMJ acquisition procedure

SINUS acquisition procedure



Close mouth



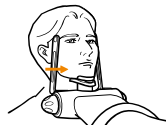
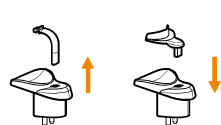
Open mouth

- Remove the chinrest and apply the temple supports, then apply TMJ guides.
- Adjust the temple supports to secure patient's head.



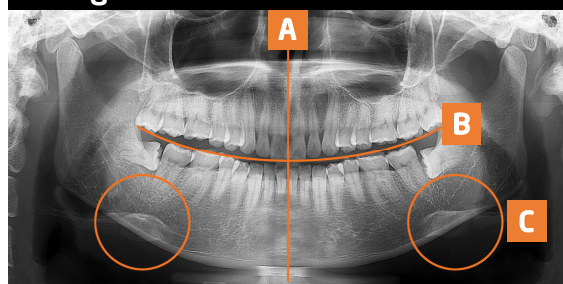
- Apply the chinrest for sinus images.
- Position the bite block in the opposite direction.
- Adjust the temple supports to secure patient's head.

Acquisition procedure for edentulous patients



- Remove the bite block.
- Apply the chinrest for edentulous patients.
- Adjust the temple supports to secure patient's head.

Image check



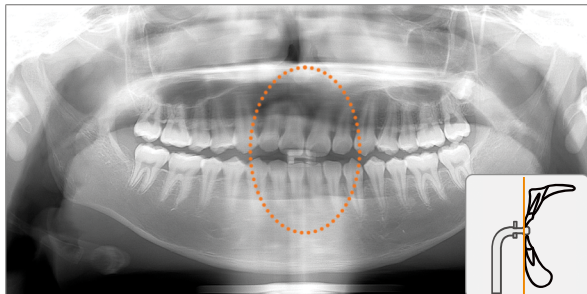
- A Ensure the chinrest matches with the position of the anterior teeth.
- B Check patient's smile line.
- C Confirm the hyoid bone is located at the same location with a same size.

Improper panoramic images

Enlarged anterior area

Cause Canine teeth placed behind the canine laser beam

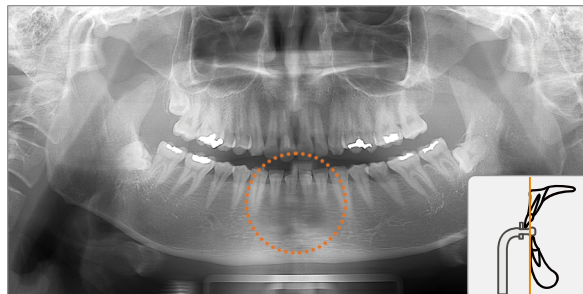
TIP Check alignment of the canine laser beam, touch the right end of the control icon on the touch panel.



Blur and enlarged lower posterior area

Cause Lower posterior area moved backwards

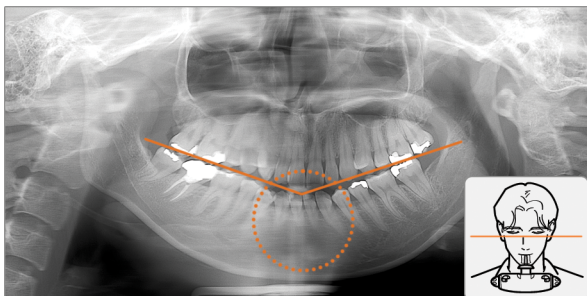
TIP Place edge of the incisors on the marked part of the bite block and check the canine laser beam.



Shortened lower posterior area

Cause Head tilted forward

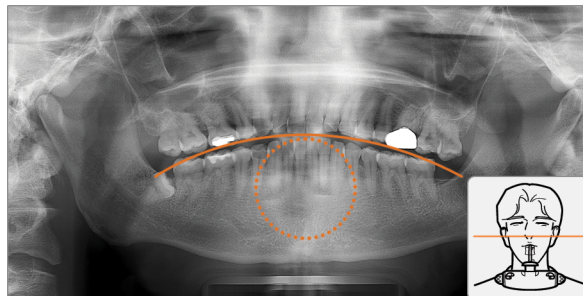
TIP Head should be parallel to the Frankfurt line.



Lengthened lower posterior area

Cause Head tilted backwards

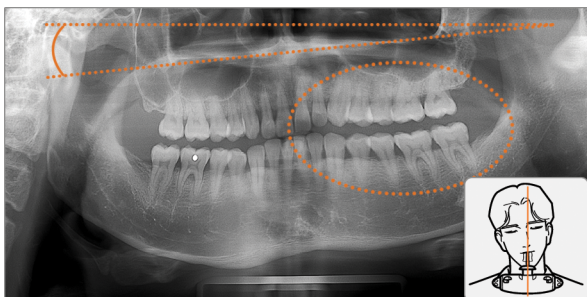
TIP Head should be parallel to the Frankfurt line.



Asymmetric TMJ and enlarged posterior area

Cause Head tilted sideways

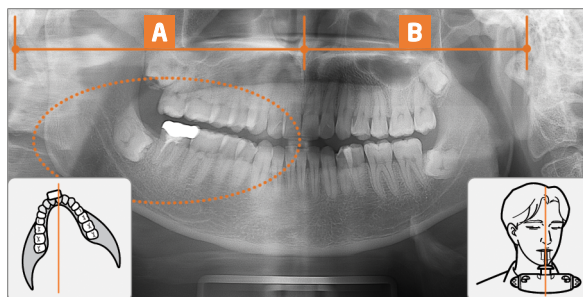
TIP Place the vertical laser beam in the middle of the face.



Enlarged anterior

Cause Arch leant to one side

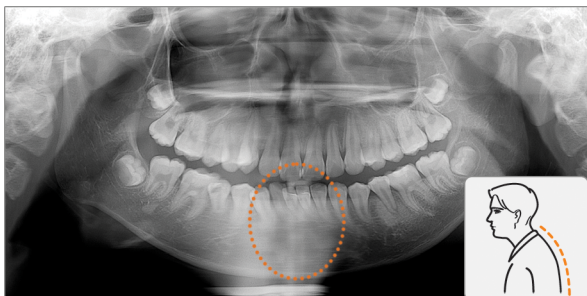
TIP Place the middle of the arch in the right position.



Blur root of lower posterior

Cause Bent neck and back

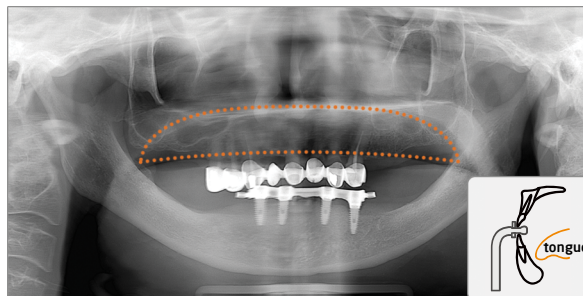
TIP Neck and back should be up straight.



Darkened upper jaw

Cause Tongue located low

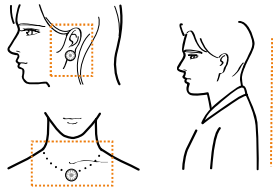
TIP Ask the patient to place the tongue on the palate.



Guide for dental x-ray imaging

CBCT acquisition procedure

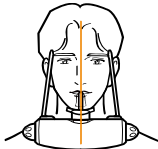
1



Preparation

- 1 Remove all metals from patient.(ex. Glasses, earring, necklace, hair clips etc.)
- 2 Patient should be standing up straight (slight step forward), with their eyes closed.

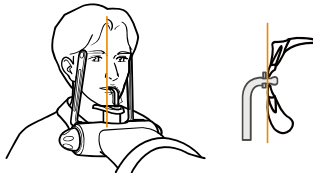
2



Sagittal plane alignment

- 1 Align the center of patient's head with mid-sagittal laser beam.
- 2 If necessary gently turn the patient's head to adjust.

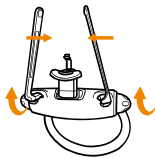
3



Anterior teeth position check

- 1 Check the patient's position using the bite block and the canine laser beam.
- 2 Ensure the canine beam is positioned in front of the anterior teeth.
- 3 If the canine beam is positioned on or behind the anterior teeth, patient should relax body and retry to bite the bite block in a correct format.

4



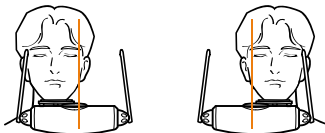
Secure positioning

- 1 Secure patient's head on the temple supports.
- 2 Close the eyes will help the patient remain still during the scan.
- 3 Verify the positioning lasers are located in position.

TMJ acquisition procedure_α (L/R)

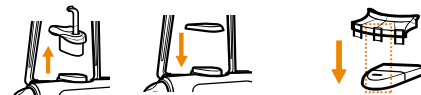


- Please attach the TMJ Chinrest on th top of the Sinus Chinrest.

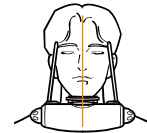


- Ensure the mid-sagittal plane beams are positioned on each corner of the eye.

TMJ acquisition procedure_{α+}



- Please attach the TMJ Chinrest on th top of the Sinus Chinrest.

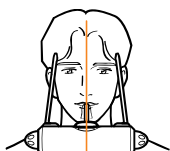


- Align the center of patient's head with mid-sagittal laser beam.

SINUS acquisition procedure

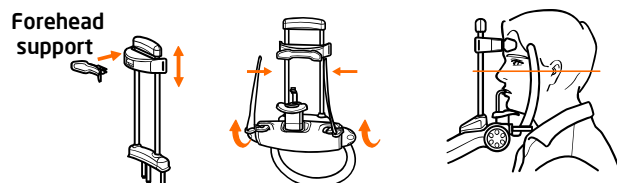


- Apply the chinrest for sinus images.



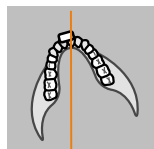
- Adjust the temple supports to secure patient's head.

Headrest_{α+}(Only CT)



- This is available only for RAYSCAN _{α+}.
- Applying Headrest allows better image quality of CBCT.
- Adjust the Forehead support up and down to reach the patient.
- Column up and down adjustment allows the forehead support to reach the patient.

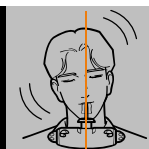
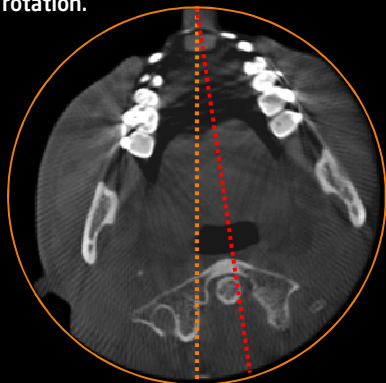
Improper CBCT images



Slanted image

Cause The arch is slanted either left or right.

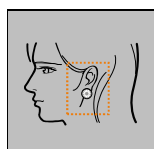
TIP Re-position the patient's arch at the center of rotation.



Shaking image

Cause Patient's moving during the rotation.

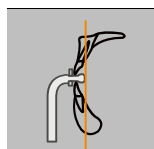
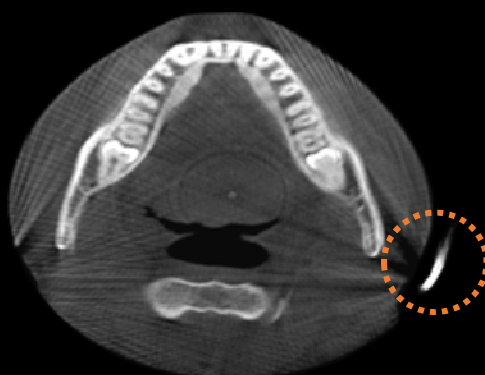
TIP Guide the patient hold still during the scanning.



Metal artifact case

Cause Metal accessory scanned.

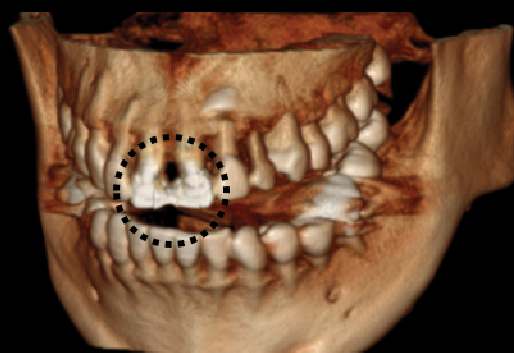
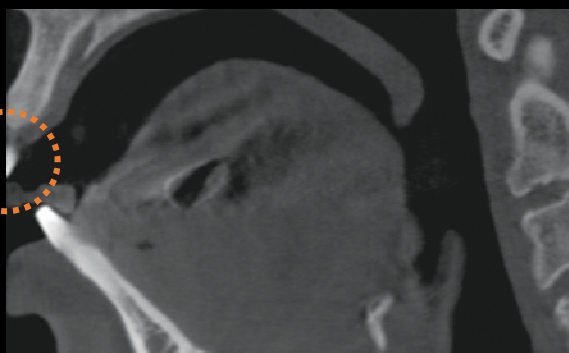
TIP Take out any metals from the patient. (ex. glasses, earrings, necklaces, and hair clips)



Incisor-cutting case

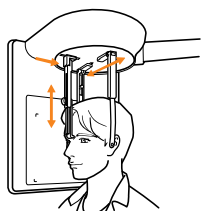
Cause Canine beam locates behind the incisors.

TIP Adjust the canine beam in front of the anterior teeth.



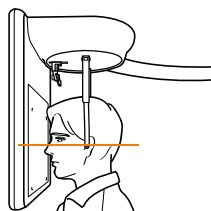
Guide for dental x-ray imaging

CEPHALOMETRY acquisition procedure (One shot)



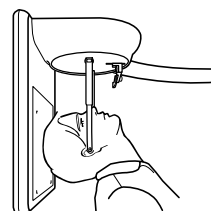
LATERAL

- Position the patient to face the front.
- Sensor should be on the left of the patient.
- Use the nasion bar and the ear rods to take images.



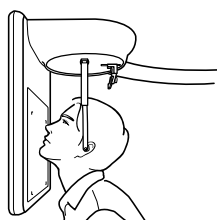
FRONTAL(PA)

- Position the patient to face the sensor.
- Take the image using the ear rods.
- Do not use the nasion bar.



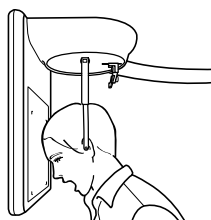
SMV

- Position the patient to face back at the sensor and to tilt the patient's head back.
- It is recommended to sit the patient while taking the image.



WATERS

- Tilt patient's head back 40 degrees.
- Ensure the patient is not leaning excessively on the sensor.



REVERS TOWNE

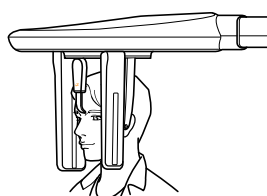
- Tilt patient's head forward 25-30 degrees and have the patient's mouth open as wide as possible.
- Ensure the patient is not leaning excessively on the sensor.



CARPUS

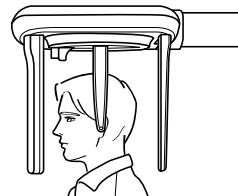
- Place the patient's wrist where it is marked on the plate for carpus images.
- Ensure the patient is not pressing on the plate excessively.

CEPHALOMETRY acquisition procedure (Scanning)



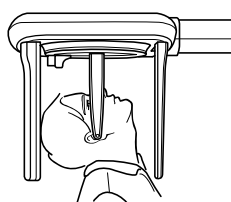
LATERAL

- Position the patient to face the front.
- Sensor should be on the left of the patient.
- Use the nasion bar and the ear rods to take images.



FRONTAL(PA)

- Position the patient to face the sensor.
- Take the image using the ear rods.
- Do not use the nasion bar.



SMV

- Position the patient to face back at the sensor and to tilt the patient's head back.
- It is recommended to sit the patient while taking the image.



CARPUS

- Place the patient's wrist where it is marked on the plate for carpus images.
- Ensure the patient is not pressing on the plate excessively.