panoramic

encompass

A Guide To Getting The Best Images

▶ Troubleshooting Images
▶ Frequently Asked Questions
▶ Software Guide

How to use this guide

NOTE: Please be sure your questions are answered or your issues resolved before attempting to take repeated exposures.

If this guide does not answer your questions, or if you have further issues, do not hesitate to call our Technical Support Team at 800-654-2027.

The next page has examples of issues that may occur with your digital images such as stretching, blurring, or other problems with the diagnostic quality. If the issue you are having is close to the example, follow the guide to the designated page for tips to remedy it.

Most of these issues can be fixed with a few clicks in the Panoramic Dental Imaging software. A more in-depth explanation of the software and its functions begins on page 14.

Do your images look like this?

All of the following images were taken on a skull phantom, your images may differ slightly.
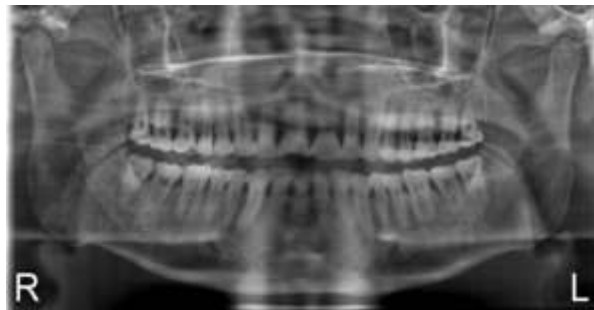

No image/Strange artifact. See page 5.

One side stretched. See page 6.

Anterior teeth compressed. See page 7.

Anterior teeth magnified. See page 8.

Very light image. See page 9.

Very dark image. See page 10.

V-shaped mandible, incisors shortened.
See page 11.

Teeth flat, no detail in maxillary roots.
See page 12.

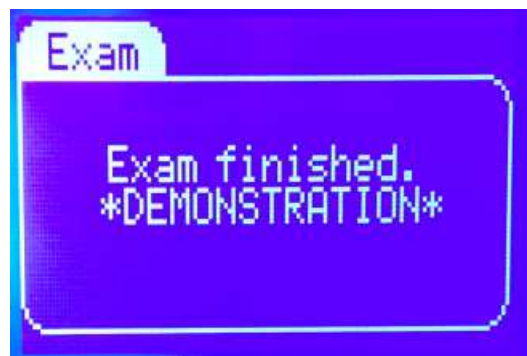White artifact. See page 13.

No Image/Strange Artifact:

This will happen when the sensor was capturing but detected no x-rays. If this occurs it was most likely caused by the machine being in Demonstration Mode. The machine will automatically enter Demonstration Mode if no kV or Patient Size is selected on the display before the exam is taken.

If the above image appears, check if the display reads "Exam finished *DEMONSTRATION*".

No kV selected.

While in Demonstration Mode, the machine will not emit radiation or sound the exposure tone. However, if you get the image above and are sure the machine was not in Demonstration Mode, or have any other questions or concerns, stop use of the machine and call our Technical Support Team at 800-654-2027.

One Side Stretched/Condyles Not Symmetrical:

This is most often caused by the patient being positioned off center, or looking to one direction. Use the positional lasers to check that the patient's midsagittal plane is centered.

Activate the lasers by pressing the laser button at the bottom of the display just above the encompass logo, highlighted to the right.

Also check that the anterior teeth are centered on the notch in the bite guide. It may help to have the patients close their eyes during the exposure to keep them from trying to follow the sensor or tube head during rotation.
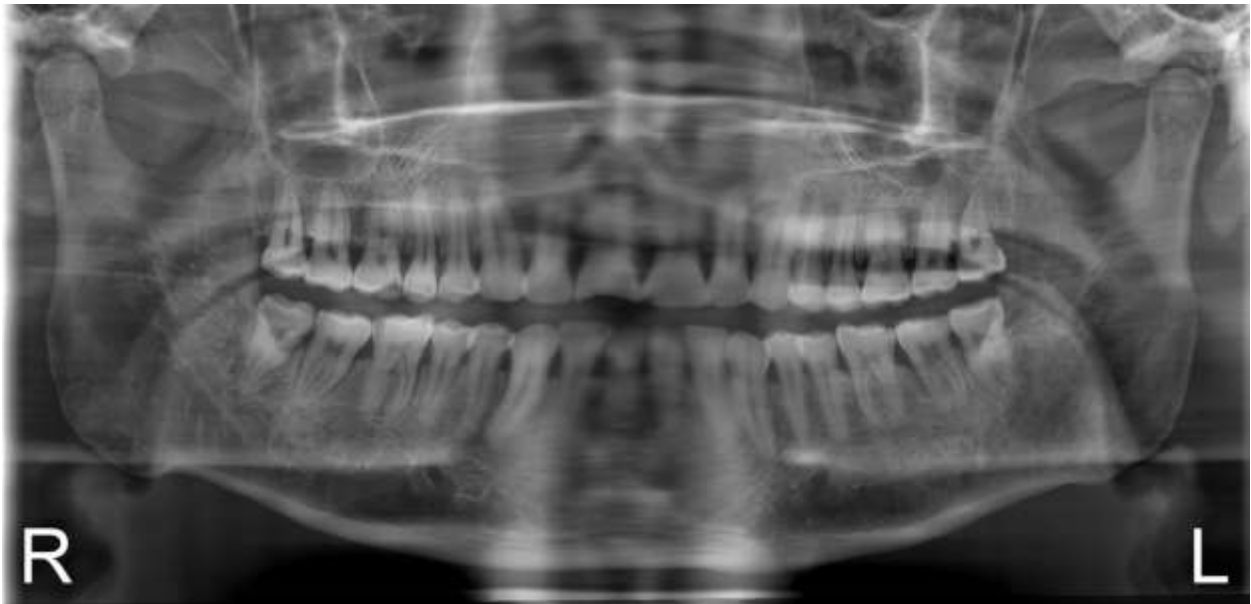
Anterior Teeth Compressed:

This is caused by the patient biting too far forward on the bite guide. The teeth are closer to the sensor and become compressed.

Be sure to check that the patient is biting on the groove of the bite guide, this will ensure they are properly positioned in the focal trough.

Anterior Teeth Magnified:

This is caused by the patient biting too far back on the bite guide. The teeth are further from the sensor and become magnified.

Be sure to check that the patient is biting on the groove of the bite guide, this will ensure they are properly positioned in the focal trough.
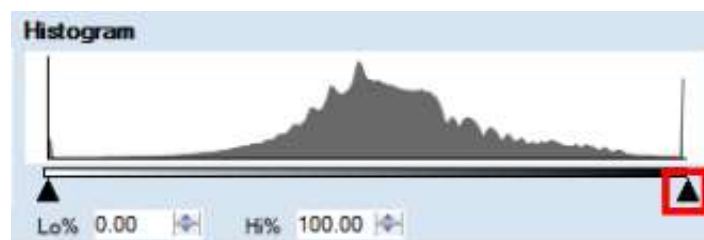
Very light image:

This is either caused by under exposure, or the brightness/contrast of the image needs to be adjusted in the acquisition software.

First, try adjusting the brightness/contrast in the software using the histogram at the top. Dragging the right arrow toward the left will darken the image:

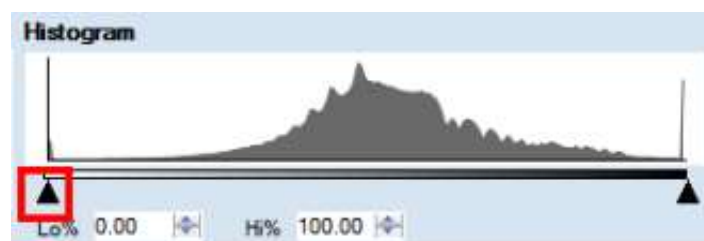A more detailed description of the software and its usage begins on page 14.

Once you've reached your desired brightness, if there is a loss of detail, the image was most likely under exposed. Take note of the kV used and the patient size, the kV may need to be increased on patients of that size in the future.

Very dark image:

This is either caused by over exposure, or the brightness/contrast of the image needs to be adjusted in the acquisition software.
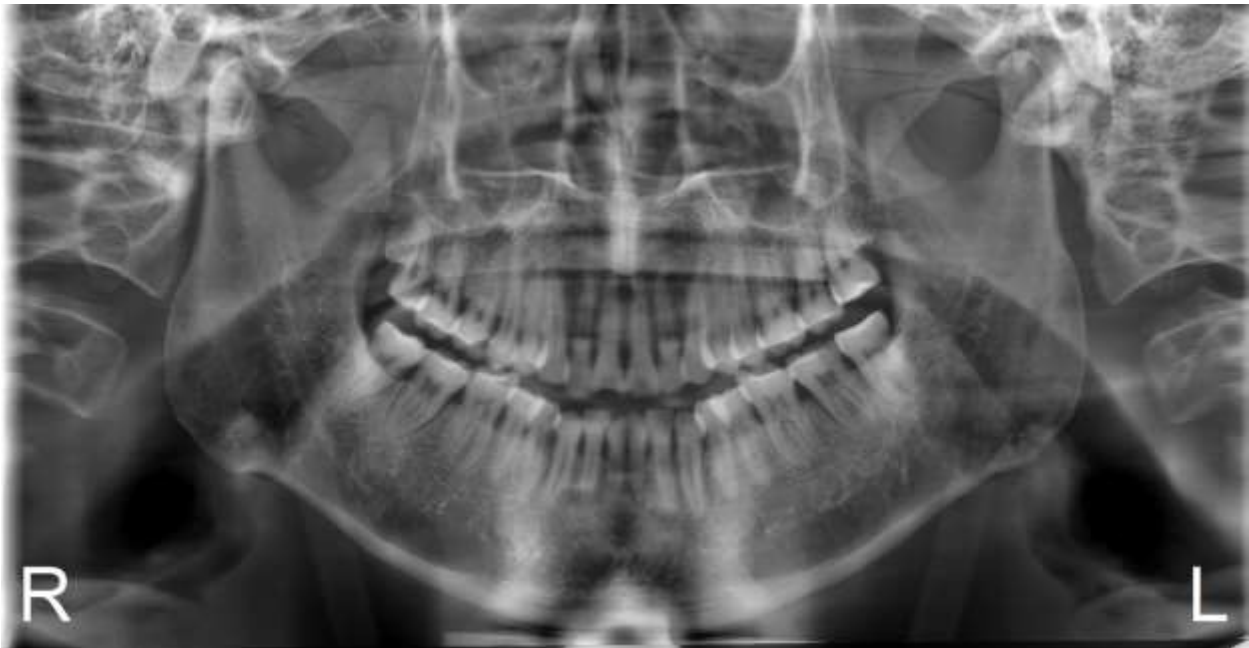
First, try adjusting the brightness/contrast in the software using the histogram at the top. Dragging the left arrow toward the right will lighten the image:
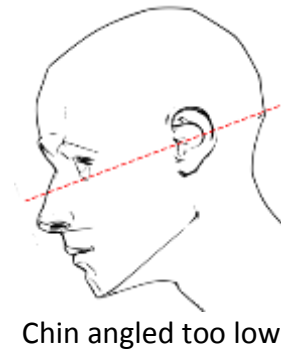

A more detailed description of the software and its usage begins on page 14.

Once you've reached your desired brightness, if there is a loss of detail, the image was most likely over exposed. Take note of the kV used and the patient size, the kV may need to be decreased on patients of that size in the future.
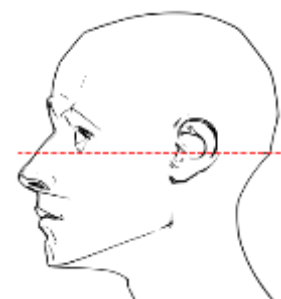
V-shaped mandible, incisors shortened:

This is caused by the chin being angled downward; the Frankfort plane is not parallel to the ground.

Chin angled too low

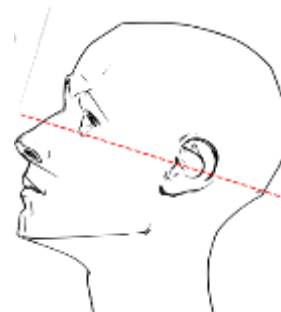Double check the positioning of the Frankfort plane with the horizontal laser.

The Frankfort plane (red line) must be parallel to the ground.

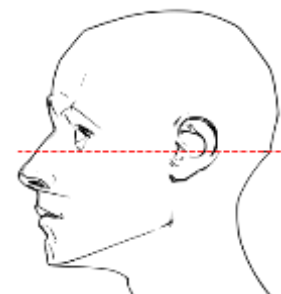## Teeth flat, no detail in maxillary roots:

This is caused by the chin being angled upward; the Frankfort plane is not parallel to the ground.

Chin angled too high

Double check the positioning of the Frankfort plane with the horizontal laser.

The Frankfort plane (red line) must be parallel to the ground.

White artifact:

This will occur any time there is a foreign object that blocks the radiation. This is most often caused by a lead apron being too high on the back of the patient's neck, or the patient did not remove all jewelry prior to the exposure.

Note: a thyroid collar should never be used during a panoramic x-ray as it would cause a similar problem.

Software User Guide

Panoramic Dental Imaging is an image acquisition software with some image processing options. It is solely meant to capture the image from the digital sensor, manipulate it to your liking and pass it along to the storage option most convenient

Although the software can save images locally or to a location of your choice, it can also interface with most image management software via a TWAIN driver that is installed along with the acquisition software.

Launching the software:

If the Panoramic Dental Imaging Software has not been bridged with an image management software, it can be launched by double-clicking the icon on the desktop

If it has been bridged with an image management software, refer to that software's manual as the process will vary. Feel free to contact our Technical Support staff if you have any questions regarding this.
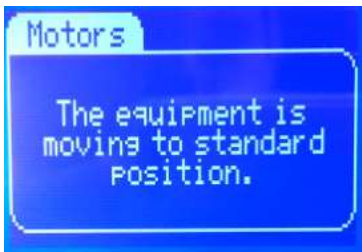
Image Acquisition:

It is recommended to allow the sensor to connect and to get the machine in standard position before positioning the patient to reduce the patient's wait time. The Encompass has a Demonstration Mode that you can use to familiarize yourself with the work flow without a patient present if needed.

After the software is launched, it will take a moment to connect to the sensor. Once connected, the System status in the upper left corner will turn green and read "Ready".

When the machine is first powered on and after each exposure, the display will return to a counter screen. Press the Select button (the circle button just below the screen) to move the machine to standard position.

Moving to standard position.

Panoramic Mode

Cephalometric Mode

If the machine is not in the desired mode, the process to switch between Panoramic and Cephalometric mode will vary depending on your machine configuration.

For machines with a single sensor, the mode is determined by which side the sensor is currently connected to. We've made a short video showing the steps required to remove the sensor and switch modes. The video is available online at http://www.pancorp.com/training-videos.html?videoId=28354174 or within the Training Videos folder inside the Digital Resources folder on the desktop of computers provided by Panoramic Corporation.

The process is also detailed in the Encompass User Manual.

For machines with two sensors, the mode is controlled by the locking knob on the Panoramic side. Press the lock so it slides in to enter cephalometric mode. Press the knob on the back so the lock slides out to enter panoramic mode.

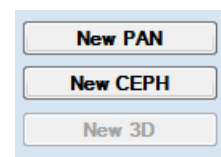Press in for ceph mode   Slide out for pan mode

Depending on the machine configuration, the sensor may need a moment to reconnect to the acquisition software.

Once the machine is in position, select the profile and patient size on the machine display. Once the Info Line at the top reads "Ready to Expose", the software will need to be set up to acquire the image.

Depending on the machine configuration, either one or both image acquisition buttons will be active on the top right of the software.

All profiles used with the machine in panoramic mode will use the New PAN button, and all profiles used in ceph mode will use the New CEPH button.

If Panoramic Dental Imaging Software has not been bridged with an image management software, a Patient information box will pop up after pressing the acquisition button. The information entered into this form will appear imprinted on the image after acquisition. Click the Start button to begin the sensor's acquisition mode.
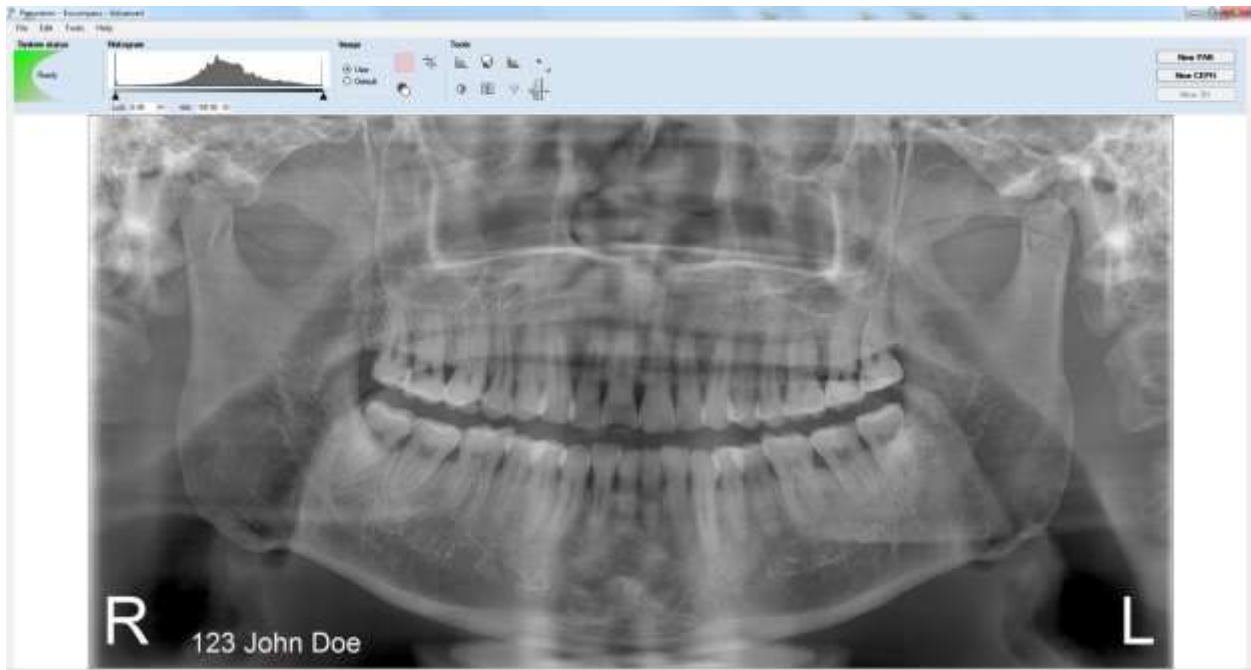
If the software has been bridged with an image management software, this box will not appear, the sensor will just begin acquiring.

When the sensor is in acquisition mode, the System status indicator at the top left of the software will turn blue, read "Acquiring…", and display a countdown. The sensor will only stay in acquisition mode for 150 seconds, during this time the exam will need to be taken.
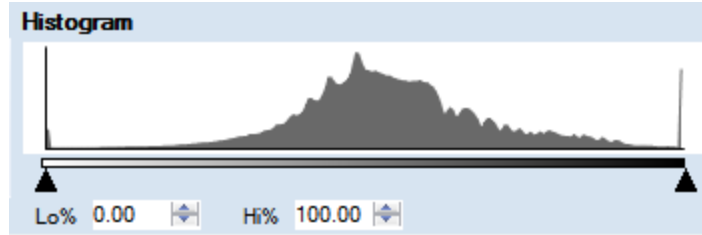
Press and hold the exposure button to acquire the image. After the acquisition, the software will process the image and display it.
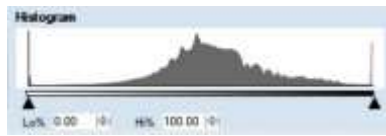

Preliminary Image Processing:

It is best to adjust the image in Panoramic Dental Imaging as close to your desired result as possible before saving, even if the image is going to be saved into an image management with its own image processing tools.
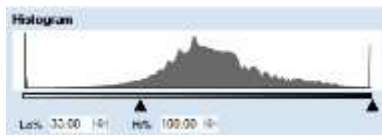
For most cases, the default image processing done by Panoramic Dental Imaging after the acquisition is sufficient. Otherwise, the most common adjustment you will need to make is to the brightness and contrast of the image. This is done via the histogram.
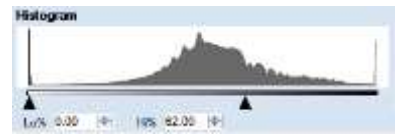
The triangles at the bottom can be dragged to change the brightness and contrast of the image. Dragging the right arrow to the left will darken the image, and dragging the left arrow to the right will lighten it. Dragging both arrows will result in a change to the overall contrast of the image.
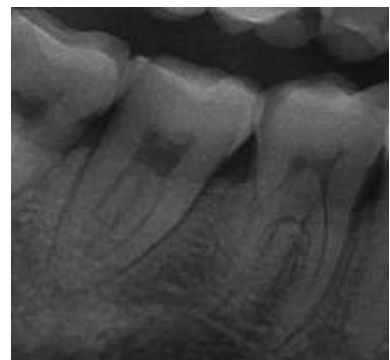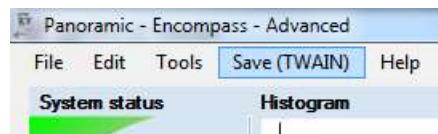

| Histogram - Default | Histogram - Lighter | Histogram - Darker |

Saving the Image:

The process for saving the image will vary depending on your work flow and network setup. Panoramic Dental Imaging can interface with most image management software suites through a TWAIN driver.

If it is launched through your imaging software, a TWAIN button will appear in the toolbar at the top. Clicking that option will simply pass the image back into the patient database.

Due to the wide range of imaging software suites available, the process for launching the acquisition software through TWAIN will vary greatly. Feel free to call our Technical Support Team at 800-654-2027 for assistance with setting up the bridge and learning how to use it.

If the acquisition software has not been bridged with an image management software, or if there are any issues with the bridge, the image can be saved locally as a picture under File > Save Image or Save Image As.