

# **Dentrix**

# **ImageRAY*i***

## **User's Guide**



727 E. Utah Valley Dr. Ste. 500  
American Fork, UT 84003  
Tel. (801) 763-9300 • Fax (801) 763-9336  
Customer Support (800) DENTRIX • Sales Information (800) DENTRIX  
[www.dentrix.com](http://www.dentrix.com)

A  HENRY SCHEIN® COMPANY

---

SEPTEMBER 2004

## **COPYRIGHT**

© 2004 Dentrix Dental Systems, Inc. All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language in any form by any means without the prior written permission of Dentrix Dental Systems, Inc.

## **SOFTWARE LICENSE NOTICE**

Your license agreement with Dentrix Dental Systems, Inc., which is included with the product, specifies the permitted and prohibited uses of the product. Any unauthorized duplication or use of DENTRIX Image in whole or in part, in print, or in any other storage and retrieval system is forbidden.

## **LICENSES AND TRADEMARKS**

DENTRIX Image and the DENTRIX logo are registered trademarks of Dentrix Dental Systems, Inc.; Henry Schein and the Schein logo are registered trademarks of Henry Schein, Inc.; Microsoft, Windows, Windows 2000, Windows XP Professional, Excel, and Word are trademarks of Microsoft Corporation; HP LaserJet is a registered trademark of Hewlett-Packard Company.

## **DENTRIX Image AND MICROSOFT WINDOWS**

DENTRIX and DENTRIX Image operate in a graphical environment called Windows, created by Microsoft Corporation. Microsoft Windows gives a standard look and feel to DENTRIX Image and all other Windows applications. To run DENTRIX Image and Microsoft Windows, you need to first license and install Microsoft Windows.

## **DENTRIX Image AND Dentrix ImageRAYi**

Dentrix ImageRAYi is utilized with DENTRIX Image, an image management product created by Dentrix Dental Systems, Inc.. To use Dentrix ImageRAYi, you need a licensed version of DENTRIX Image.

---

# ***Introduction***

Dentrix Dental Systems, Inc. is excited to introduce the Dentrix ImageRAY*i*. The ImageRAY*i* uses the latest, cutting-edge CCD technology, a CsI scintillator which allows for optimum acquisition at minimal radiation exposure. Using an electronic sensor, a sharp and clear digital image can be captured that will appear on your computer screen within seconds! This is an excellent alternative to x-ray film. ImageRAY*i* is compatible with virtually all x-ray tubes and utilizes up to 90% less radiation compared to D-speed film. For optimum results, Dentrix Dental Systems strongly recommends the usage of an x-ray source with an extremely accurate electronic timer. This will greatly enhance consistency in the acquired radiograph. In addition, a DC x-ray source will normally provide better image quality than most AC x-ray sources. The x-ray source should be between 60 and 70 kVp, with the smallest possible focal point and a low mA setting. Older style x-ray sources such as 90 kVp “dial” timer settings may work, but are not optimal.

ImageRAY*i* is available in sizes 1, 2, and 2BW. The 2BW ImageRAY*i* boasts one of the tallest bitewing shots available. A universal size 2 is also available and offers the best compromise between bitewings and positioning comfort. ImageRAY*i* gives you the ease of portability, utilizing the new ImageRAY*i* Control Box which allows for quick and simple swapping of various ImageRAY*i* sensors.

The ImageRAY*i* sensor continues the Dentrix Dental Systems tradition of the highest available quality allowing seamless integration with DENTRIX Image and ViperSoft.

---

# System Requirements

*NOTE: Microsoft Windows and DENTRIX 10.0 or higher must be installed before you install DENTRIX Image. If you have not installed either of these previously, do so now.*

*NOTE: For complete system recommendations and requirements, please request our current “System Requirements” and “Networking Guide” documents. These documents are available by calling 1-800-DENTRIX (336-8749) or by visiting our website at [www.dentrrix.com](http://www.dentrrix.com).*

---

## ImageRAY*i* Sensor Installation

*NOTE: Do not plug the sensor(s) or the USB Control Box into the computer until instructed to do so.*

### 1. Verify DENTRIX Image Installation

Verify functional installation of DENTRIX Image 4.0 with ImageRAY*i* drivers on each computer where ImageRAY*i* will be utilized.

*NOTE: The ImageRAY*i* comes with an updated version of Image 4.0 and should be installed regardless of previous installations of Image 4.0.*

### 2. Verify Package Materials

- ImageRAY 4.0. with ImageRAY*i* Integration CD-ROM
- ImageRAY*i* Sensor (Size 1, 2, or 2BW)
- ImageRAY*i* USB Controller Box
- USB Cable
- ImageRAY*i* X-ray Sheaths
- XCP Sensor Holder Kit
- ImageRAY*i* User’s Guide

*NOTE: If items are missing, please contact Technical Support at 1-800-DENTRIX for additional information.*

### 3. Insert CD-ROM

Insert the DENTRIX Image 4.0 CD (included with the ImageRAY*i* kit) into the CD-ROM drive. If your CD-ROM is equipped with AutoStart technology, the Install Startup screen will appear within a few seconds. Click the Other Installs option and proceed to step 7.

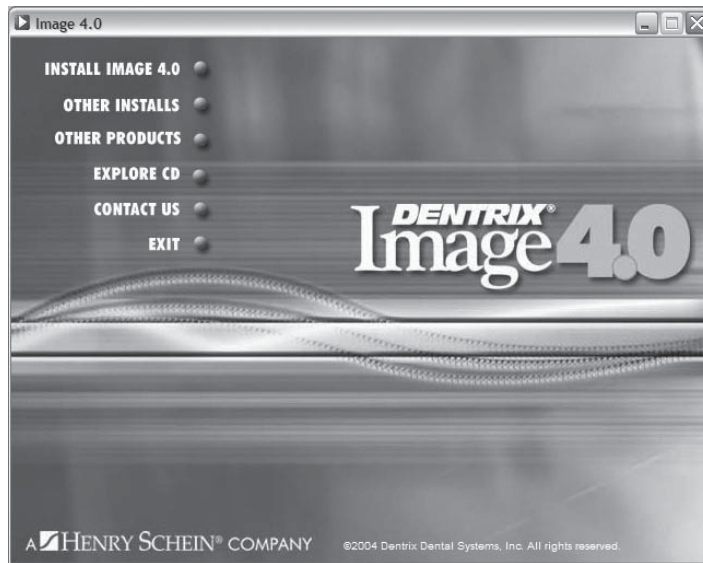
### 4. Choose Start | Run

Click the Windows Start button and choose Run. The Run dialog box will appear.

---

## 5. Type D:\Launch.exe in the Command Line (Optional)

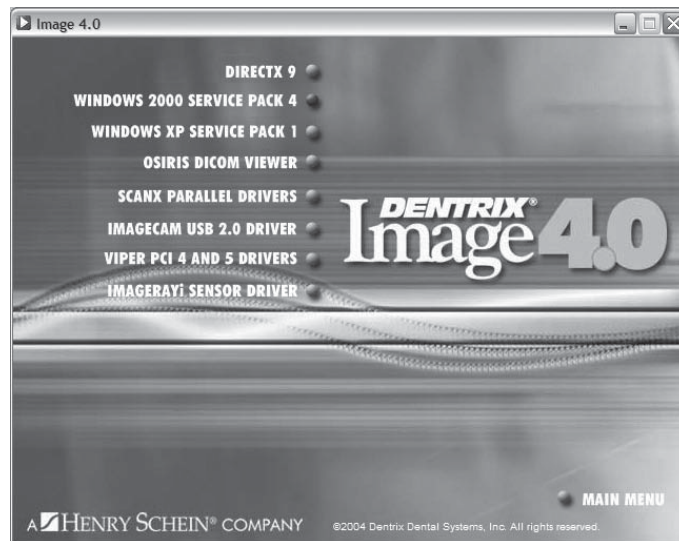
Type D:\Launch on the command line. (D: represents the drive letter used for the CD-ROM drive.) Click OK. The Installation Setup screen will appear for several seconds, followed by a Welcome screen.



*Image 4.0 Welcome Screen. Select Other Installs.*

## 6. Select Other Installs

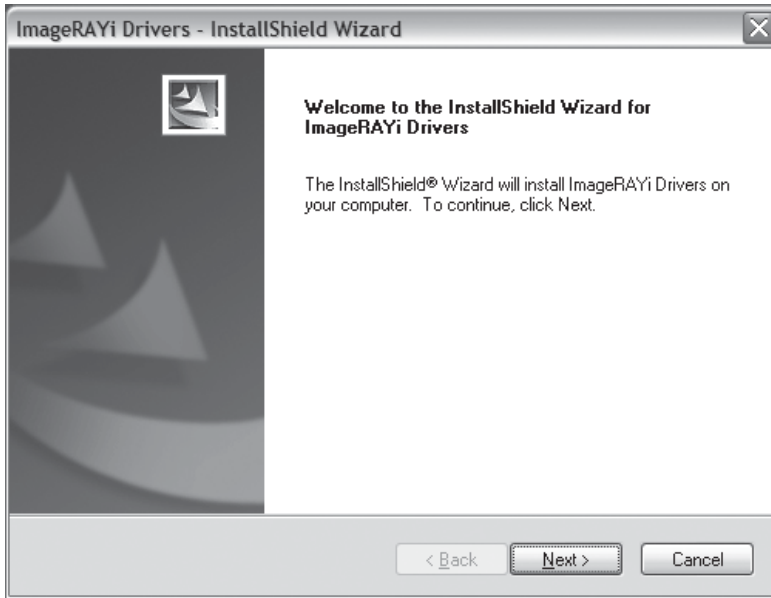
Connect the ImageRAYi Sensor to the ImageRAYi USB Controller Box. Connect the USB Cable to the USB Controller Box. **DO NOT CONNECT** the USB Controller box to the computer until instructed to do so.



*Other Installs Screen. Select ImageRAYi Sensor Driver to Continue.*

## 7. Select ImageRAY*i* Sensor Driver

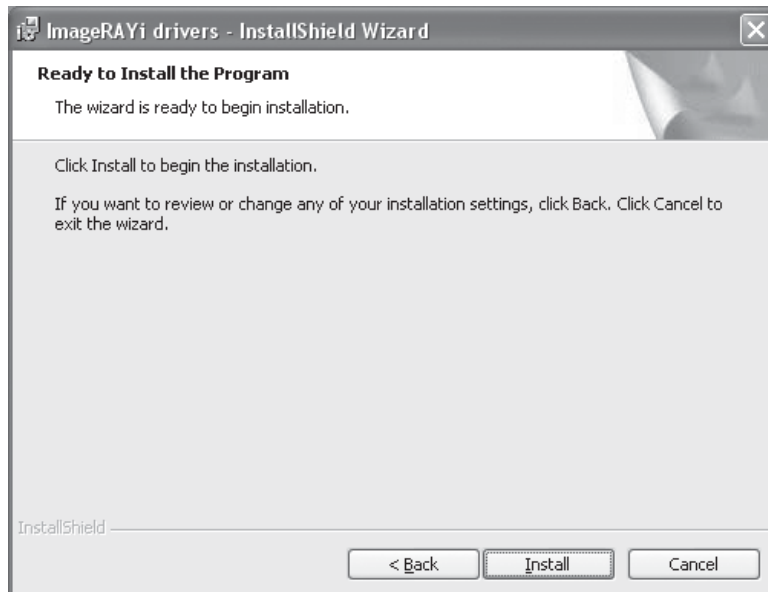
Select the ImageRAY*i* Sensor Driver option. The InstallShield Wizard will appear.



*InstallShield Wizard Drivers Screen. Select Next to Continue.*

## 8. Select Next

Select Next to continue the installation. The Ready to Install screen will appear.



*Select the Install Button.*

---

## 9. Select Install

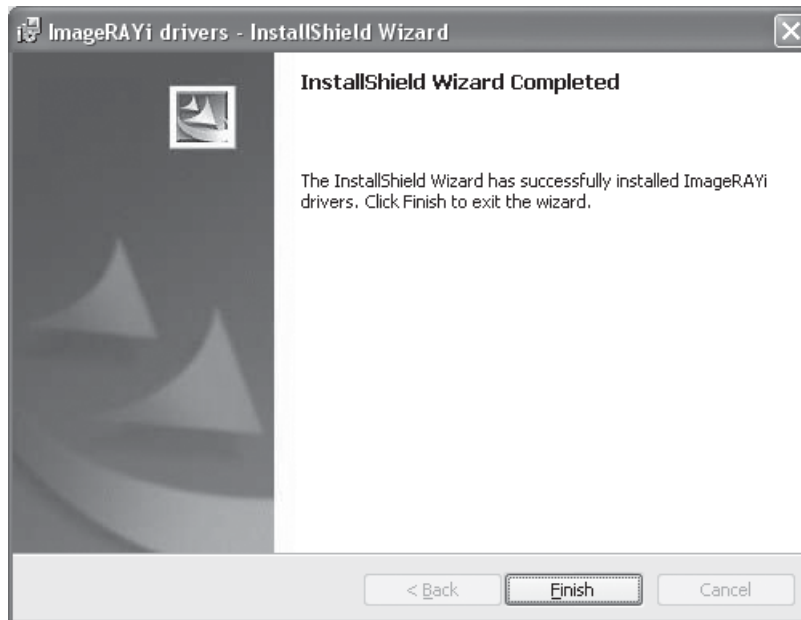
Select the Install button to continue the installation.



*Select Continue Anyway to continue the installation*

## 10. Select Continue Anyway

Select Continue Anyway to the Hardware/Installation screen to continue the installation.



*Select Finish to complete the installation.*

### 11. Select Finish

Select Finish to complete the driver installation.

### 12. Assemble the ImageRAY*i* Sensor

Connect the ImageRAY*i* Sensor to the ImageRAY*i* USB Controller Box. Connect the USB Cable to the USB Controller Box.

### 13. Connect the USB Controller Box to the Computer

Using the provided USB Cable, connect the ImageRAY*i* USB Controller Box to a USB port on the computer. The Found New Hardware Wizard will appear.



*Found New Hardware Wizard. Select Next to Continue*

### 14. Click Next

Leave the option “Install the software automatically (Recommended)” selected, then click Next. The Hardware Installation screen will appear.

---





*Select Continue Anyway to continue the installation.*

## 15. Select Continue Anyway

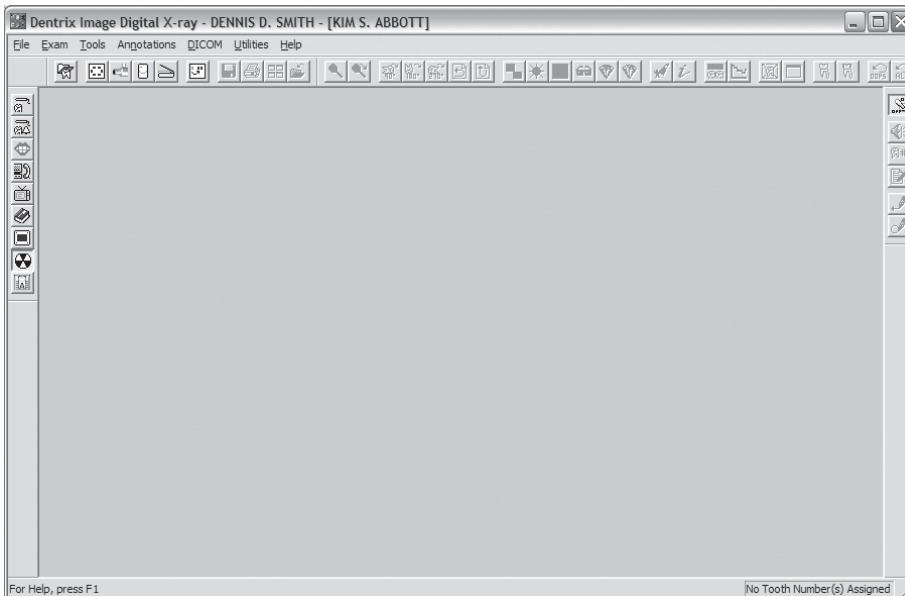
Select Continue Anyway to continue the Hardware Installation process.



*Select Finish to continue.*

## 16. Select Finish

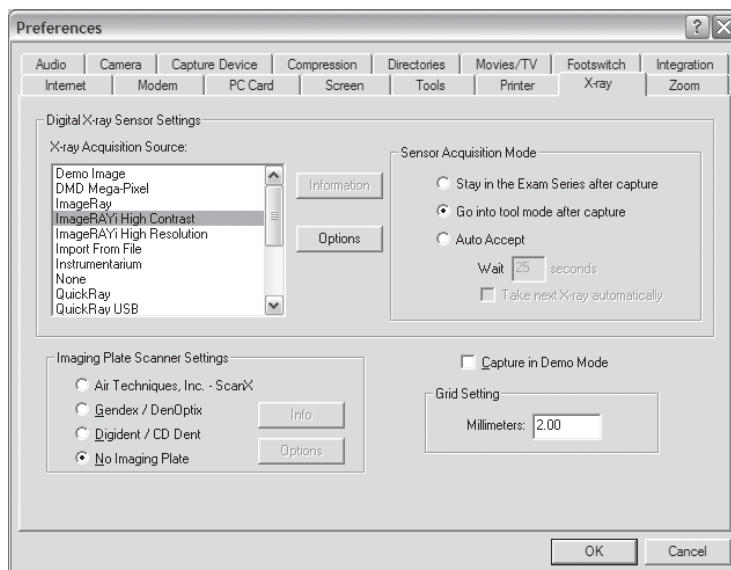
Click Finish to complete the driver installation. The LED Light on the USB Control Box will be either flashing if no sensor is connected or solid if a sensor is connected to indicate it has been installed correctly.



*Open Image to any available module.*

## 17. Open Image

Select a patient in the DENTRIX Chart. Open Image to any available module, the Digital X-ray module is shown above.



*Select ImageRAYi High Contrast or ImageRAYi High Resolution as the X-ray Acquisition Source.*

## 18. Select Utilities | Preferences | X-ray

Click the Utilities button and choose Preferences. Select the X-ray tab. The Digital X-ray Sensor Settings dialog box will appear.

*NOTE: If Capture in Demo Mode is selected on this screen, demo images will be automatically imported everytime the ImageRAYi is used in the Acquire X-ray or Acquire Series.*

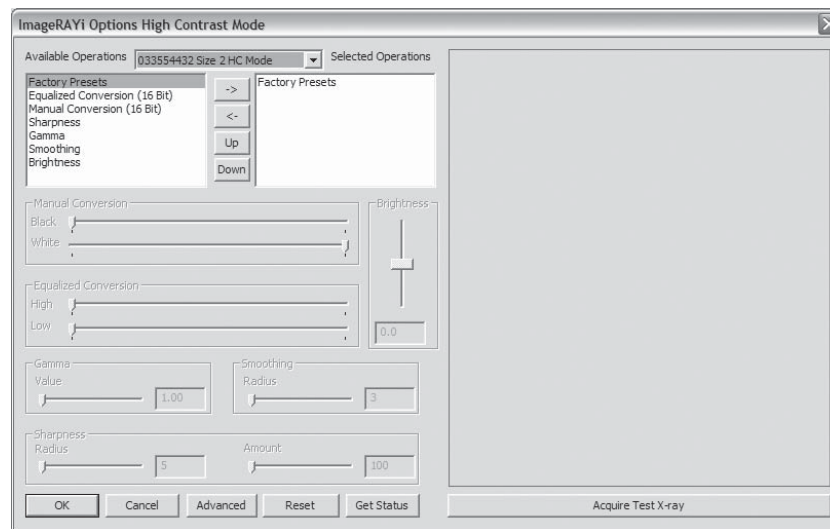
## 19. Select ImageRAYi High Contrast or ImageRAYi High Resolution as X-ray Acquisition Source

In the box under X-ray Acquisition Source, select ImageRAYi High Contrast to run the sensor in high contrast mode or select ImageRAYi High Resolution to run the sensor in high resolution mode.

- **High Contrast** - Creates a smoother, higher contrast image by gathering every a select group of pixels and binning them together. This process removes much of the inherent “shot noise” which naturally occurs with all forms of digital radiography. This image will be 1/4 the size of a High Resolution radiograph.
- **High Resolution** - Creates a high resolution radiograph utilizing every available pixel for that particular image. This radiograph will provide more “shot noise” but will result in the actual pixel map from the sensor. This image will be four times larger than a High Contrast radiograph.

## 20. Select Options

Select Options to configure advanced options for this acquisition type.

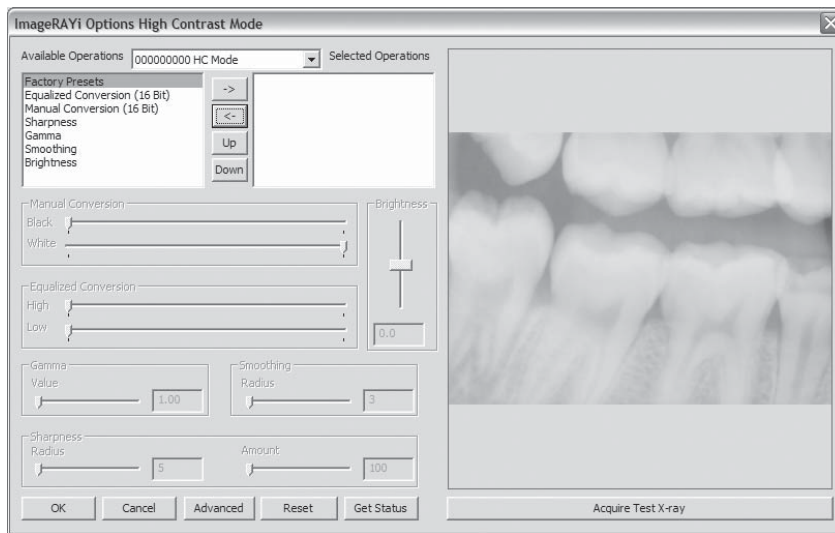


*ImageRAYi Options Screen without acquired image.*

*NOTE: If no sensor is connected to the Control Box a dialog box will appear requesting that the sensor size be selected. The available options are 1, 2, or 2BW.*

## 21. Select Acquire Test X-ray

With a sensor attached to the computer, select Acquire Test X-ray. This will allow the direct acquisition of an image into the ImageRAY*i* options screen.

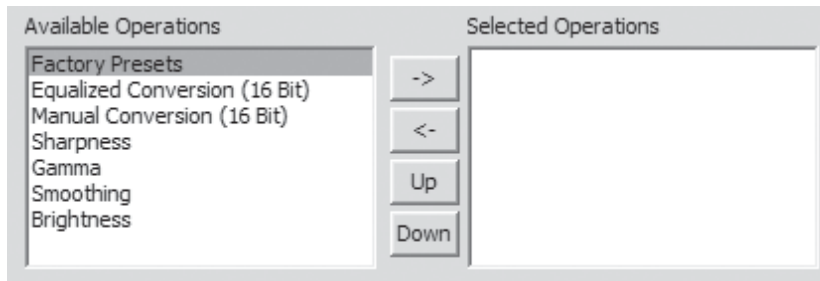


*ImageRAY*i* Options Screen with acquired image*

*NOTE: Images acquired with this method are not saved. This is to be used to optimize the settings between the ImageRAY*i* and the various x-ray sources.*

## 22. Acquire ImageRAY*i* X-ray

Acquire x-ray into the ImageRAY*i* Options screen by placing the ImageRAY*i* sensor in the mouth and applying x-radiation. The image will appear in the dialog box.



*Apply the desired Available Operations by moving/removing from the right side.*

## 23. Apply Desired Operations

Choose the desired operations for installation by selecting the operation under Available Operations then clicking on the arrow pointing to the right. Remove objects from the Selected Operations dialog box by selecting the operation and clicking the arrow pointing to the left. Arrange the order of objects in the Selected Operations screen by selecting the desired operation and clicking Up or Down.

This will affect the order in which the selected Operation(s) are applied. Definitions of Available Options are as follows:

- **Factory Presets**—Default presets to provide an overall diagnostic radiograph from the majority of x-ray sources. Factory Preset will be applied by default, however this can be turned off. The current factory presets are a combination of Equalized Conversion (16 bit), Gamma Correction, Sharpening (High Contrast Images) and/or Smoothing (High Resolution Image).
- **Equalized Conversion (16 bit)**—Converts 16 bit data to 8 Bit displayable image by automatically calculating the black and white points on the image. Linearly converts the gray scale portions of the image. This conversion will attempt to create a balanced image regardless of x-ray source settings. Linearly lists the number of pixels in the image. This can be used to bring out the detail in dark areas of an image. Select this option then dynamically make the changes to the High and Low values. This conversion method may make it more difficult to see overexposed or underexposed images because the software will attempt to make a true black value as well as a true white value.
- **Manual Conversion (16 bit)**—Allows users to manually adjust black and white points. Manually adjust the amount of whites and or blacks that will be viewed in the viewable 8 Bits on the monitor. Select this option then manually make the adjustments to the White and Black toolbar. This conversion method will not automatically compensate for x-ray source settings. Underexposed images will appear white and overexposed images will appear black.
- **Sharpness**—Opposite of spot remover, Sharpen will increase the perceived resolution of the image. It will also increase any noise within the image. It is common to use sharpness filters on High Contrast images.
- **Gamma**—Use the Gamma Correction dialog to change the brightness of image pixels, primarily in the mid-range of intensities. Black and white pixels remain unchanged, while pixels that originally have a mid-range brightness value will be changed the most. Higher gamma values make the image appear brighter and lower gamma values make the image appear darker.
- **Smoothing**—Manipulates the active image by applying a smoothing filter. Each pixel in the image is blurred based on neighborhood pixels. Smoothing is commonly used on High Resolution images
- **Brightness**—Use the Brightness dialog to increase or decrease the brightness of all pixels in the image.

*NOTE: When images are captured with the ImageRAYi, the original 16 bit image is stored in addition to the new image. All changes made in the above step will be dynamically applied to the image, however the original 16 bit image will remain unchanged and stored.*

#### 24. Select OK

Select OK to close the ImageRAYi Options screen.

#### 25. Select OK

Follow each of these steps in every room where the ImageRAYi will be used

---

## 26. Repeat Steps On Each Workstation

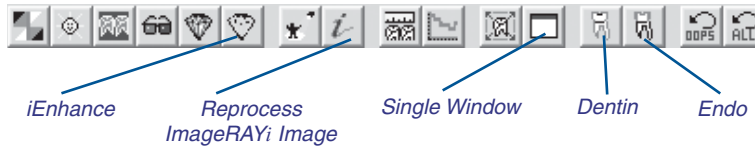
Follow each of these steps in every room where the ImageRAY*i* will be used.

*NOTE: For additional information on how to use the DENTRIX Image software, please refer to the Image User's Guide which accompanied the Image software.*

---

## ImageRAY*i* Software Enhancements

In addition to the “Smart Buttons” already programmed into Image 4.0, additional options have been added specific to the ImageRAY*i* sensor. Four additional buttons have been placed on the toolbar for ease of use and are as follows:



In addition, a Reprocess ImageRAY*i* Image tool has been added. The customization and usage of these tools is described below.

---

### Dentin/Endo Filter

Two customizable icons are available to apply filters to the image after acquisition. Although the computer monitor is only able to display 256 shades of grey, these two buttons can be tuned to display different portions of the 65,535 shades of grey available with the ImageRAY*i* image.

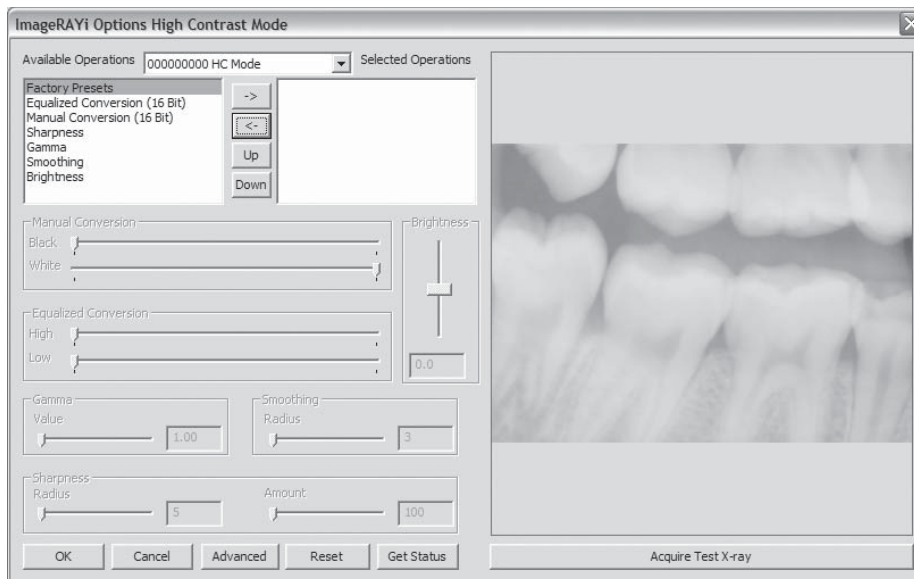
#### Customizing the Dentin/Endo Filters

##### 1. Open an ImageRAY*i* Image

Open the Digital X-ray Module, then capture or open an ImageRAY*i* image

*NOTE: This functionality is only available with ImageRAY*i* images.*

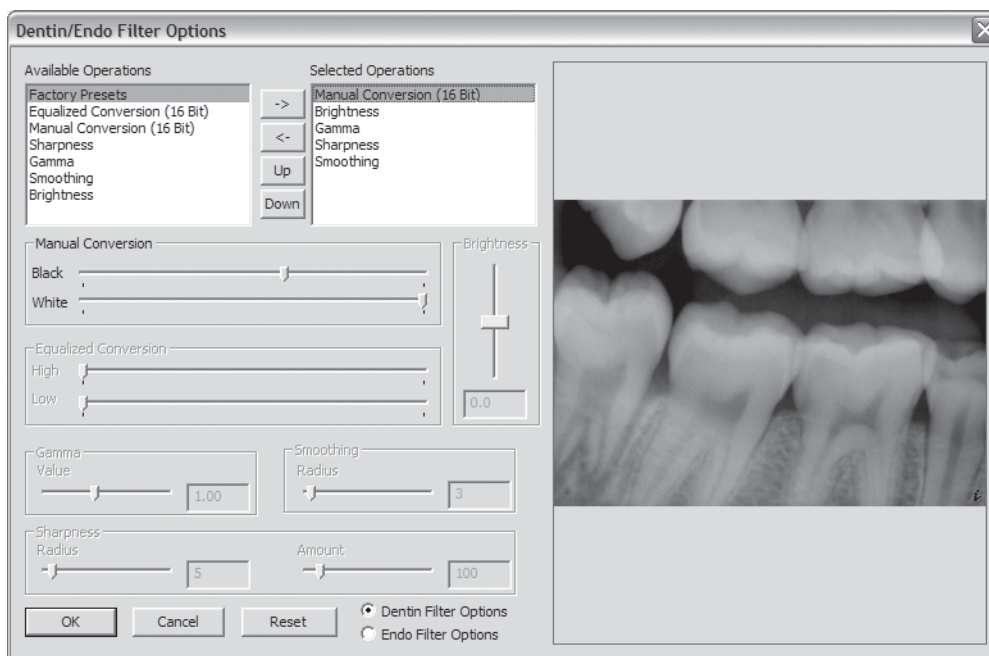
---



*Utilities | Preferences | Tools Screen. Select Dentin/Endo Options .*

## 2. Open Preferences | Tools

Select Utilities | Preferences | Tools to modify the preferences.



*Dentin/Endo Options Screen.*

### 3. Select Dentin/Endo Filter Options

Select the Dentin/Endo Filter Options to modify the filter options.

*NOTE: If there is no ImageRAYi image selected and no ImageRAYi sensor connected to this computer, an error message will appear stating that no preview is available. These filters apply ONLY to the ImageRAYi images.*

### 4. Select Dentin or Endo

Select either Dentin or Endo radio button to make changes to that specific filter. This should be done prior to making any additional changes.

### 5. Select Desired Filter Operation

Choose the desired Filter operation. The available options are:

- **Factory Presets**—Default presets to provide an overall diagnostic radiograph from the majority of x-ray sources. Factory Preset will be applied by default, however this can be turned off. The current factory presets are a combination of Equalized Conversion (16 bit), Gamma Correction, Sharpening (High Contrast Images) and/or Smoothing (High Resolution Image).
  - **Equalized Conversion (16 bit)**—Converts 16 bit data to 8 Bit displayable image by automatically calculating the black and white points on the image. Linearly converts the gray scale portions of the image. This conversion will attempt to create a balanced image regardless of x-ray source settings. Linearly lists the number of pixels in the image. This can be used to bring out the detail in dark areas of an image. Select this option then dynamically make the changes to the High and Low values. This conversion method may make it more difficult to see overexposed or underexposed images because the software will attempt to make a true black value as well as a true white value.
  - **Manual Conversion (16 bit)**—Allows users to manually adjust black and white points. Manually adjust the amount of whites and or blacks that will be viewed in the viewable 8 Bits on the monitor. Select this option then manually make the adjustments to the White and Black toolbar. This conversion method will not automatically compensate for x-ray source settings. Underexposed images will appear white and overexposed images will appear black.
  - **Sharpness**—Opposite of spot remover, Sharpen will increase the perceived resolution of the image. It will also increase any noise within the image. It is common to use sharpness filters on High Contrast images.
  - **Gamma**—Use the Gamma Correction dialog to change the brightness of image pixels, primarily in the mid-range of intensities. Black and white pixels remain unchanged, while pixels that originally have a mid-range brightness value will be changed the most. Higher gamma values make the image appear brighter and lower gamma values make the image appear darker.
  - **Smoothing**—Manipulates the active image by applying a smoothing filter. Each pixel in the image is blurred based on neighborhood pixels. Smoothing is commonly used on High Resolution images
-



- **Brightness**—Use the Brightness dialog to increase or decrease the brightness of all pixels in the image.

#### 6. Select OK

Select the OK button to save the changes.

*NOTE: If you select Apply Changes, the other filter can also be modified without opening the Dentin/Endo Filter Options screen again.*

#### 7. Select OK

Select OK to the Preferences Screen to close Preferences.

#### 8. Repeat Steps On Each Workstation

These icons are customizable for each workstation. Repeat this process on each workstation.

### **Using the Dentin Filter**

#### 1. View ImageRAYi Image

Open or capture an ImageRAYi radiograph.

#### 2. Select the Dentin Tool



Select the Dentin Tool from the toolbar or select Tools | Dentin Filter to apply the filter.

#### 3. Select the Dentin Tool Again

To turn off the Dentin Tool Filter options, select the Dentin Tool again.

### **Using the Endo Filter**

#### 1. View ImageRAYi Image

Open or capture an ImageRAYi radiograph.

#### 2. Select the Endo Tool



Select the Endo Tool from the toolbar or select Tools | Endo Filter to apply the filter.

#### 3. Select the Endo Tool Again

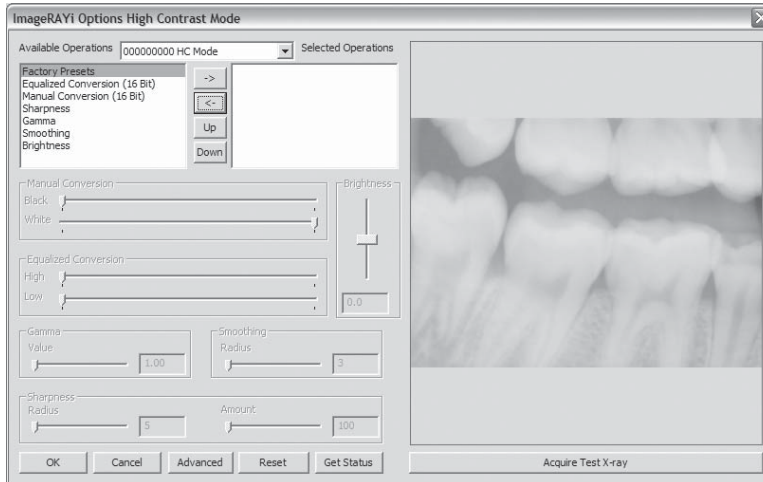
To turn off the Endo Tool Filter options, select the Endo Tool again.

## ***iEnhance Tool***

The iEnhance Tool is a pattern enhancement tool created to function with the 16 bit information given by the ImageRAY*i*. This customizable filter will enhance the specific patterns within an ImageRAY*i* image utilizing proprietary image optimization software.

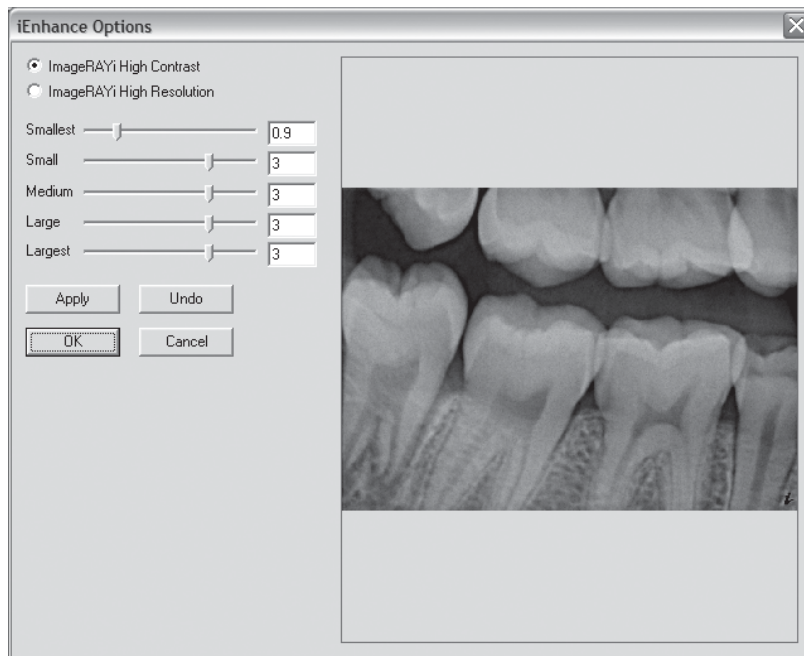
### ***Customizing the Dentin/Endo Filters***

1. **Open Image 4.0**  
Open the Image 4.0 software to any available module.



*Utilities | Preferences | Tools Screen. Select iEnhance Options .*

2. **Open Preferences | Tools**  
Select Utilities | Preferences | Tools to modify the preferences.



*iEnhance Options Screen.*

### 3. Select iEnhance Options

Select the iEnhance Options to modify the filter options.

*NOTE: If there is no ImageRAYi installed, an error message will appear stating that a preview image is not available. These filters apply ONLY to the ImageRAYi images.*

### 4. Select ImageRAYi High Contrast/High Resolution

Select either ImageRAYi High Contrast or ImageRAYi High Resolution.

### 5. Select Desired iEnhance Levels

Choose the desired filter operations. The available options are:

- Smallest—locates the smallest particles based on the total size of the entire radiograph. The selected particles (pattern) on the radiograph will be enhanced, without enhancing noise. The typical range for this setting will be between 0.9 and 1.0.
- Small—locates the small particles based on the total size of the entire radiograph. The selected particles (pattern) on the radiograph will be enhanced, without enhancing noise. The typical range for this setting will be between 2.5 and 3.5.
- Medium—locates the medium particles based on the total size of the entire radiograph. The selected particles (pattern) on the radiograph will be enhanced, without enhancing noise. The typical range for this setting will be between 2.5 and 3.5.

- Large—locates the large particles based on the total size of the entire radiograph. The selected particles (pattern) on the radiograph will be enhanced, without enhancing noise. The typical range for this setting will be between 2.5 and 3.5.
- Largest—locates the largest particles based on the total size of the entire radiograph. The selected particles (pattern) on the radiograph will be enhanced, without enhancing noise. The typical range for this setting will be between 2.5 and 3.5.

*NOTE: iEnhance will typically work better than sharpen/soften filters and other type filters due to the capability of enhancing selected particles (pixels) in a radiograph rather than the entire radiograph.*

## 6. Select OK or Apply Changes

Select the OK or Apply Changes to save the changes.

*NOTE: If you select Apply Changes, the other filter can also be modified without opening the Dentin/Endo Filter Options screen again.*

## 7. Repeat Steps On Each Workstation

These icons are customizable for each workstation. Repeat this process on each workstation.

### **Using the iEnhance Filter**

#### 1. View ImageRAY*i* Image

Open or Capture an ImageRAY*i* radiograph.

#### 2. Select the iEnhance Tool



Select the iEnhance Tool from the toolbar or select Tools | iEnhance to apply the filter.

#### 3. Select the iEnhance Tool Again (Optional)

Selecting the iEnhance Tool Filter again, will apply iEnhance settings once more.

#### 4. Select Undo or Undo All

To turn off the iEnhance Tool Filter, select the Oops or Oops All button.

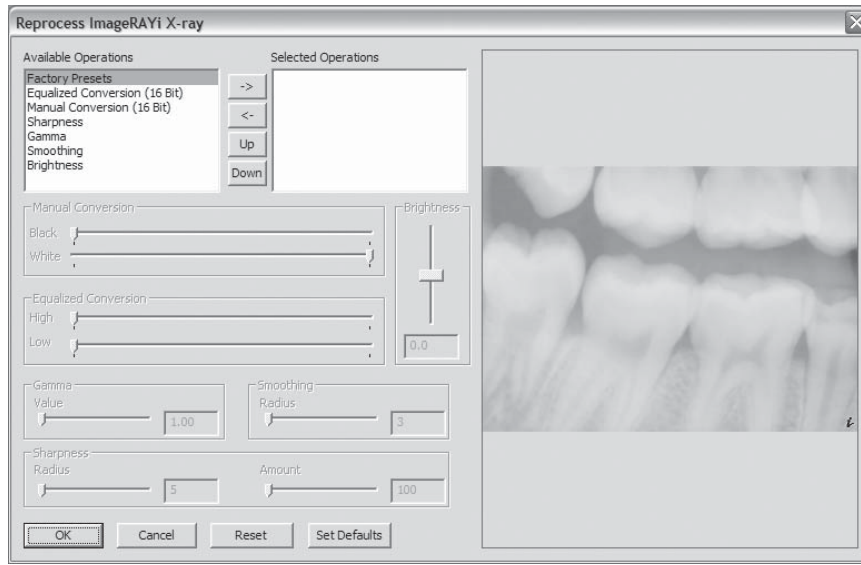
---

## Reprocess ImageRAYi Image

All ImageRAYi images are stored with 16 bits worth of information, however computer monitors are only capable of displaying 8 Bits worth of the gray scaled image. If an image is unsatisfactory, ImageRAYi images have the ability to reprocess the image using the original 16 bit data.


### 1. View ImageRAYi Image

Acquire or View an acquired ImageRAYi image in the Digital X-ray module of Image.



*Reprocess ImageRAYi Image Screen.*

### 2. Select Reprocess ImageRAYi Image

 Select the Reprocess ImageRAYi tool from the toolbar or select Tools | ImageRAYi Image

### 3. Select Desired Filter Operation

Choose the desired Filter operation. The available options are:

- **Factory Presets**—Default presets to provide an overall diagnostic radiograph from the majority of x-ray sources. Factory Preset will be applied by default, however this can be turned off. The current factory presets are a combination of Equalized Conversion (16 bit), Gamma Correction, Sharpening (High Contrast Images) and/or Smoothing (High Resolution Image).
- **Equalized Conversion (16 bit)**—Converts 16 bit data to 8 Bit displayable image by automatically calculating the black and white points on the image. Linearly converts the gray scale portions of the image. This conversion will attempt to create a balanced image regardless of x-ray source settings.

Linearly lists the number of pixels in the image. This can be used to bring out the detail in dark areas of an image. Select this option then dynamically make the changes to the High and Low values. This conversion method may make it more difficult to see overexposed or underexposed images because the software will attempt to make a true black value as well as a true white value.

- **Manual Conversion (16 bit)**—Allows users to manually adjust black and white points. Manually adjust the amount of whites and or blacks that will be viewed in the viewable 8 Bits on the monitor. Select this option then manually make the adjustments to the White and Black toolbar. This conversion method will not automatically compensate for x-ray source settings. Underexposed images will appear white and overexposed images will appear black.
- **Sharpness**—Opposite of spot remover, Sharpen will increase the perceived resolution of the image. It will also increase any noise within the image. It is common to use sharpness filters on High Contrast images.
- **Gamma**—Use the Gamma Correction dialog to change the brightness of image pixels, primarily in the mid-range of intensities. Black and white pixels remain unchanged, while pixels that originally have a mid-range brightness value will be changed the most. Higher gamma values make the image appear brighter and lower gamma values make the image appear darker.
- **Smoothing**—Manipulates the active image by applying a smoothing filter. Each pixel in the image is blurred based on neighborhood pixels. Smoothing is commonly used on High Resolution images
- **Brightness**—Use the Brightness dialog to increase or decrease the brightness of all pixels in the image.

#### 4. Select OK, Set Defaults, or Apply Changes

Select the OK button or Apply Changes to apply the changes without changing the default settings. Choose Set Defaults to apply the adjustments made to each future radiograph when Tools | Reprocess ImageRAY*i* Image is selected from the current computer.

---

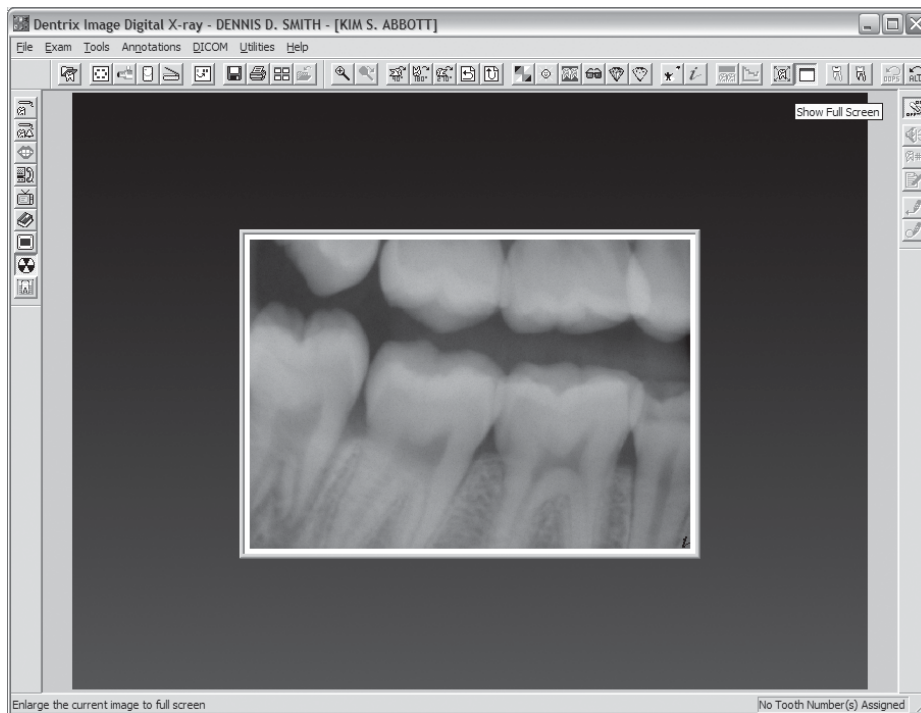
## **Single Window View**

Image maximizes all images to the full viewable screen area by default. With digital radiographs, however, viewing these images in a slightly smaller format occasionally makes specific details more evident. As an enhancement with ImageRAY*i*, a toolbar button has been created to make this transition simple. To use this tool, do the following:

#### 1. View X-ray

Open or capture a radiograph.

---



*Single Window View Tool applied in the x-ray Module*

## 2. Select the Single Window View Tool

Select the Single Window View Tool from the toolbar or select Tools | Windowed View (Single) to apply the tool.

## 3. Select the Single Window View Tool Again

To turn off the Single Window View Tool filter options, select the Single Window View Tool again.

---

# **ImageRAYi Cautions**

## **Sensor Handling**

- The ImageRAYi sensor is a delicate electronic device. Use caution when handling.
  - Static can damage the sensor.
  - Avoid excessive pressure on the face of the sensor.
  - Occlusal radiographs should not be taken with the ImageRAYi.
-

- Do not tamper with the ImageRAY*i* or any portion thereof.
- Do not apply impacts to any portion of the ImageRAY*i*.
- Do not autoclave the ImageRAY*i*.
- Use a 2.4% - 3.0% Glutaraldehyde disinfectant solution such as either Procide or Cidex to clean the ImageRAY*i* digital x-ray sensor. Follow the disinfectant manufacturer's detailed instructions and precautions for disinfectant use. Procide and Cidex detailed precaution and use instructions from manufacturer are available upon request. Procide and Cidex are registered Trademarks. Store the sensor in a protective box when not in use.
- Do not apply unnecessary pressure to the cable of the ImageRAY*i*.
- Do not put unnecessary strain on the sensor cable.

---

## **ImageRAY*i* Accessories**

### **Holders**

There are multiple holders that have been designed to work with the ImageRAY*i*. Please determine which holders will best satisfy the needs of your practice and order additional sets of these as needed.

### **Contamination Barriers**

Both plastic sheaths and latex covers are available for hygiene and safety.

*TIP: The sheath has no effect on the quality of the digital x-ray. Because of this, many offices prefer placing the plastic sheath over the x-ray sensor, then placing the latex cover over the sensor and plastic sheath. This can make sensor more comfortable for the patient.*

*CAUTION: Use of a latex sheath over the ImageRAY*i* digital x-ray sensor may cause allergic reactions on some patients. Detailed Medical Alert information is available from the FDA regarding the use of such Latex products.*

---

## **Features and Specifications**

### **ImageRAY*i* Size 1 Sensor**

- Active Area: 20.1 mm x 30.1 mm
  - External Area: 25.1 mm x 39.6 mm
-



- High Performance Csl Scintillator
- Carbon Based Enclosure

### **ImageRAYi Size 2 Sensor**

- Active Area: 25.6 mm x 36.1 mm
- External Area: 30.5 mm x 42.5 mm
- High Performance Csl Scintillator
- Carbon Based Enclosure

### **ImageRAYi Size 2BW Sensor**

- Active Area: 27.5 mm x 36.1 mm
- External Area: 32.5mm x 42.5mm
- High Performance Csl Scintillator
- Carbon Based Enclosure

### **ImageRAYi USB Controller Box**

- AutoID Technology automatically recognizes sensor type/size
  - 16 bit gray scale conversion providing better than 13 Bit gray scale accuracy
  - USB 2.0 and USB 1.1 compatible with autoswitching control.
  - To meet safety approvals, this device must be connected to an IEC60-950 revision 2003 personal computer.
-