Fire CR Calibration Guide

This reference guide will guide you through the steps to complete the calibration for the Fire CR.
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Getting Started:

1. Click on the Opal Icon on the Desktop. **Figure 1**
2. Once you Login you will receive a "calibrate first" pop up message box. **Figure 2**
3. Click Ok.
4. Login using username and password. **Figure 3**
   a. Username – siteadmin
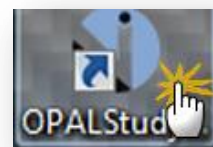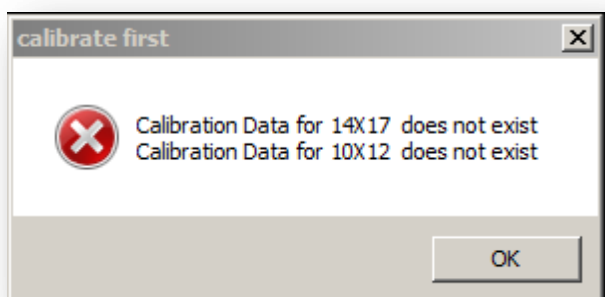   b. Password – 123456789
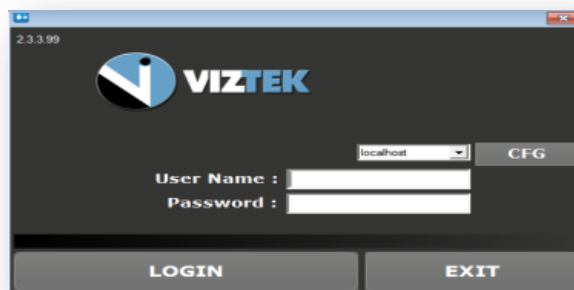

Figure 1

Figure 2

Figure 3

5. Select a *Test* study from the study list, left clicking one time. **Figure 4**
6. Left click, *Add New Image* button, which opens the Acquire screen. **Figure 5**

Create New Study

Add New Image
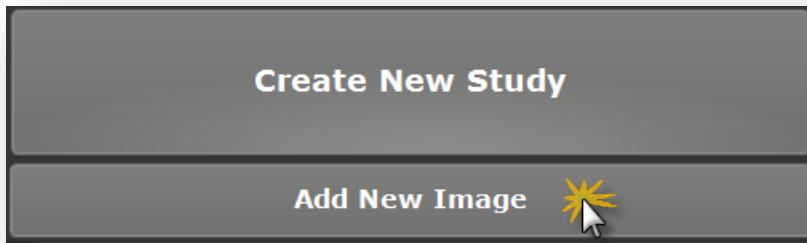
<p align="center">Figure 4</p>
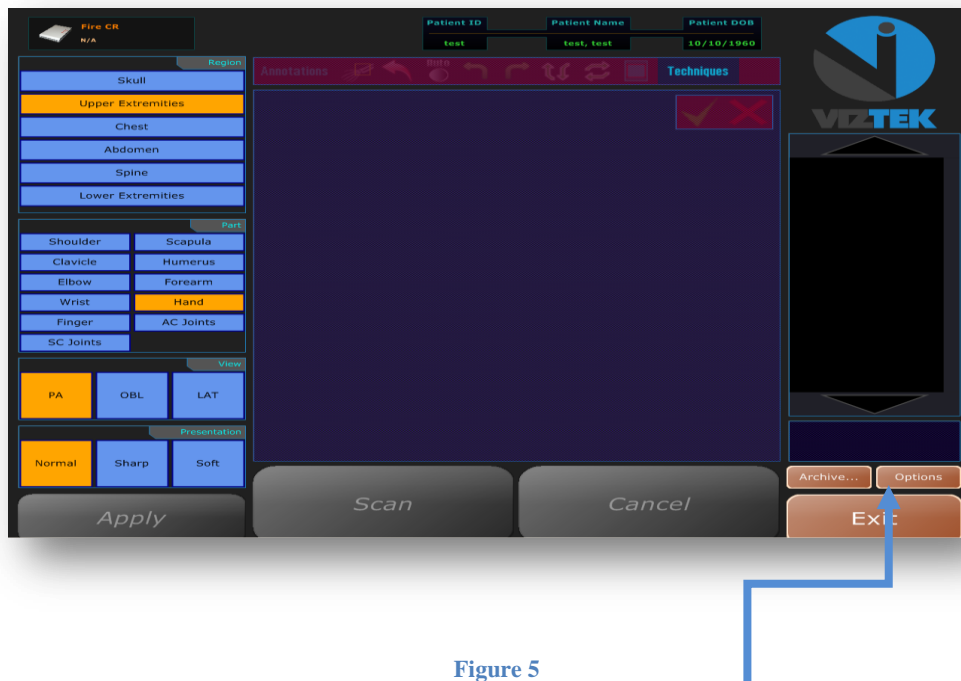

<p align="center">Figure 5</p>

7. Select the *Options* button in the lower right hand corner to open the Configuration screen. **Figure 5**
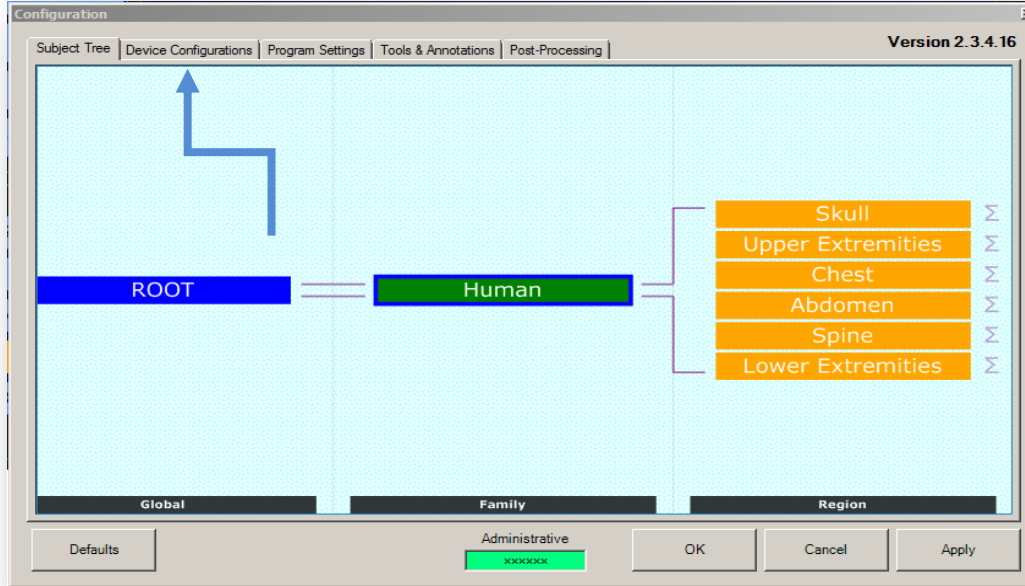
Figure 6

8. In the configuration window select the *Device Configuration* tab. *Figure 6*
9. Select DEFAULT on the left to activate the Acquisition Device section. *Figure 7*
10. Using the scroll bar to find *Calibration Status BAD*. *Figure 7*
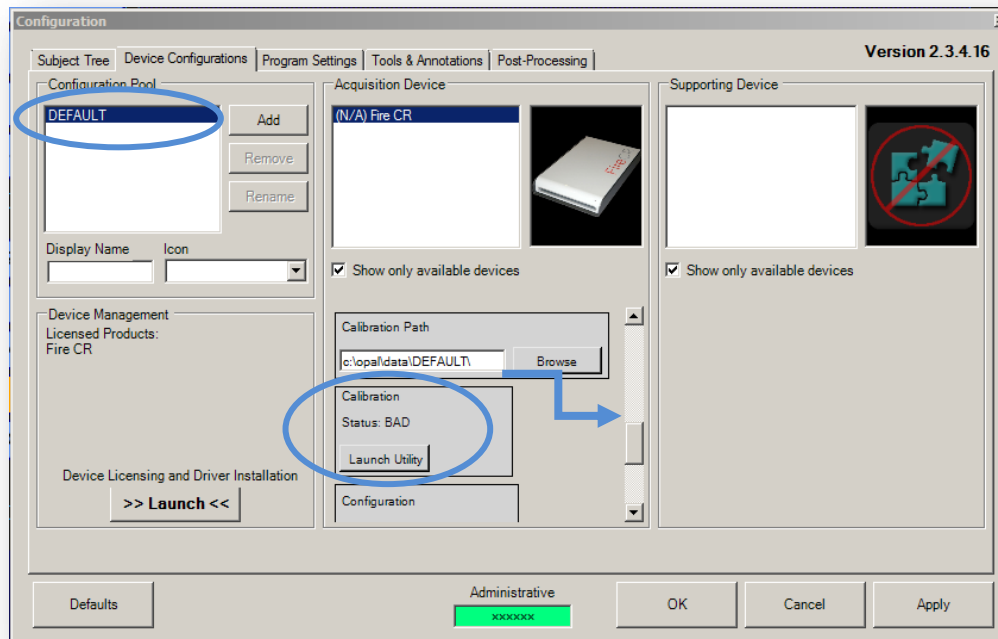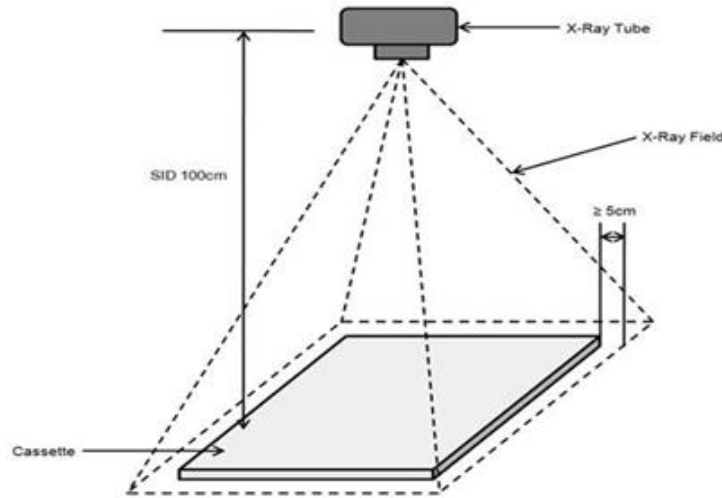11. Left click Launch Utility to open/start the Calibration.

Figure 7

Customer Support   **1.800.366.5343 –** *support@viztek.net*

Calibration Geometry

Figure 1.2. Calibration Geometry

CAUTION

X-ray radiation field must cover whole area of the cassette.

Scan Low Dose	Scan Low Dose		Create the second calibration image file.
Scan Mid Dose	Scan Mid Dose		Create the third calibration image file.
Scan High Dose	Scan High Dose		Create the fourth calibration image file.
Calibration !	Calibration		Create calibration data file.
Exit	Exit		Close IP Calibration window.
cassette ⊙ 14"x17" ⦿ 10"x12"	Cassette Selection		Select IP size for calibration.
Accept	Accept		Accept calibration image file. Accept button is displayed to accept calibration image file which value is out of range.
Reject	Reject		Reject calibration image file. Reject button is displayed to reject calibration image file which value is out of range.
Help	Help		Open Calibration Manual. if PDF reader program is not installed, The PDF reader setup program request message is popup..

Fire CR Calibration Steps

The steps below will guide you in the calibration process. Each step, once completed will enable the next button until the calibration is completed. Start with the 14"x17" cassette then repeat these steps for the 10"x12" cassette.

Step 1: Auto Alignment

› Perform Auto Alignment function prior to starting the calibration, this finds the optimal Laser beam position. *Figure 8*
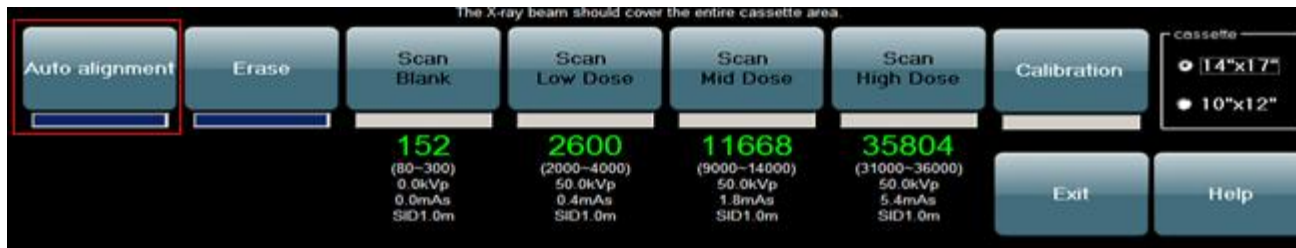

Figure 8

Step 2: Erase

› Insert the cassette into the scanner.
› Left click on Erase; this erases the cassette prior to calibration. *Figure 9*
› Remove cassette.

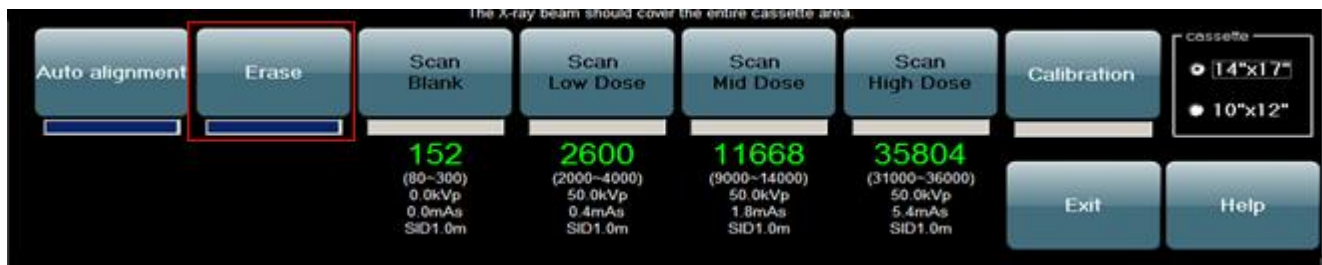**Figure 9**

Step 3: Scan Blank

- › The *Scan Blank* button is enabled after performing Step 2.
- › Re-Insert the cassette into the scanner (which was just erased).
- › Left click *Scan Blank* to acquire the first calibration image. *Figure 10*
  - ▪ Mean intensity value of the blank image will display in green if this is an acceptable range and you may continue.
  - ▪ If the mean intensity is in red another image must be acquired.
  - ▪ To lower the man intensity value of the blank image, Repeat step 2.

Figure 10

Step 4: Scan Low Dose

- › Remove cassette to expose the cassette to X-ray using the following:
  - 50 kVp
  - 0.4 mAs
  - 1.0 SID
- › Insert cassette into the scanner.
- › Left click *Scan Low Dose*. *Figure 11*
  - ▪ Mean intensity value of the blank image will display in green if this is an acceptable range and you may continue.
  - ▪ If the mean intensity is in red another image must be acquired.
  - ▪ To increase the mean intensity- increase the x-ray dose.
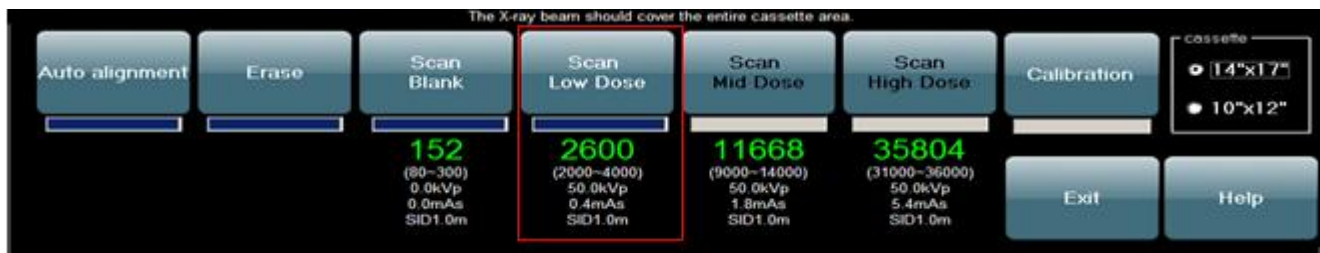 - ▪ To decrease the mean intensity – decrease the x-ray dose.

Figure 11

Step 5: Scan Mid Dose

› Remove cassette to expose the cassette to X-ray using the following:
  50 kVp
  1.8 mAs
  1.0 SID
› Insert cassette into the scanner.
› Left click *Scan Mid Dose. Figure 12*
  ▪ Mean intensity value of the blank image will display in green if this is an acceptable range and you may continue.
  ▪ If the mean intensity is in red another image must be acquired.
  ▪ To increase the mean intensity- increase the x-ray dose.
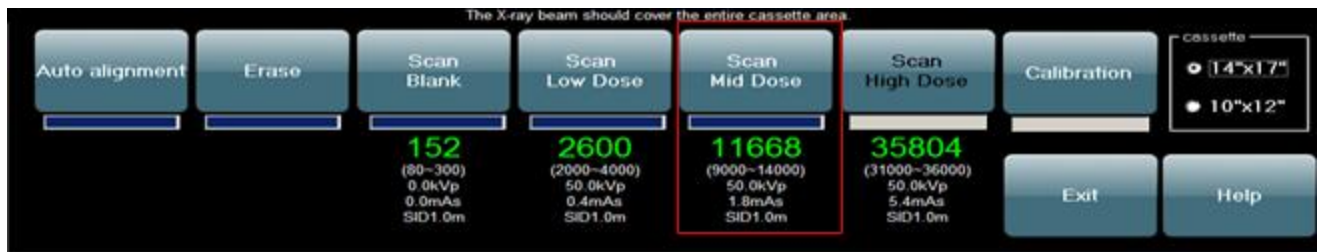 ▪ To decrease the mean intensity – decrease the x-ray dose.

Figure 12

Step 5: Scan High Dose

› Remove cassette to expose the cassette to X-ray using the following:
  50 kVp
  5.4 mAs
  1.0 SID
› Insert cassette into the scanner.
› Left click *Scan High Dose. Figure 13*
  ▪ Mean intensity value of the blank image will display in green if this is an acceptable range and you may continue.
  ▪ If the mean intensity is in red another image must be acquired.
  ▪ To increase the mean intensity- increase the x-ray dose.
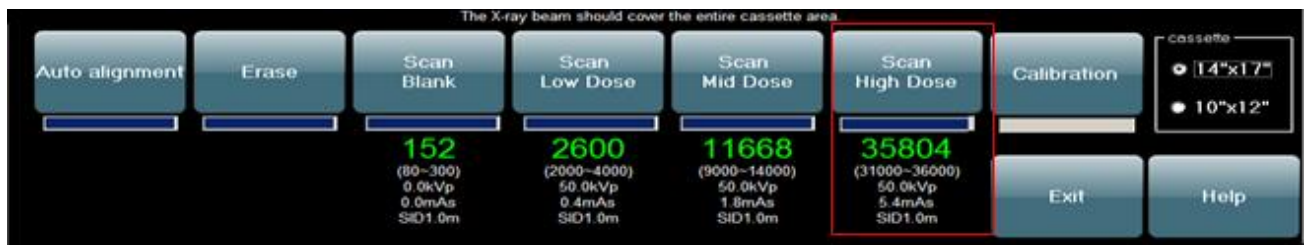 ▪ To decrease the mean intensity – decrease the x-ray dose.

Figure 13

Step 6: Calibration

› Click the Calibration button to generate calibration data. *Figure 14*
› Data is saved in the local program folder.
› Once this is complete the calibration window will close automatically.

Figure 14

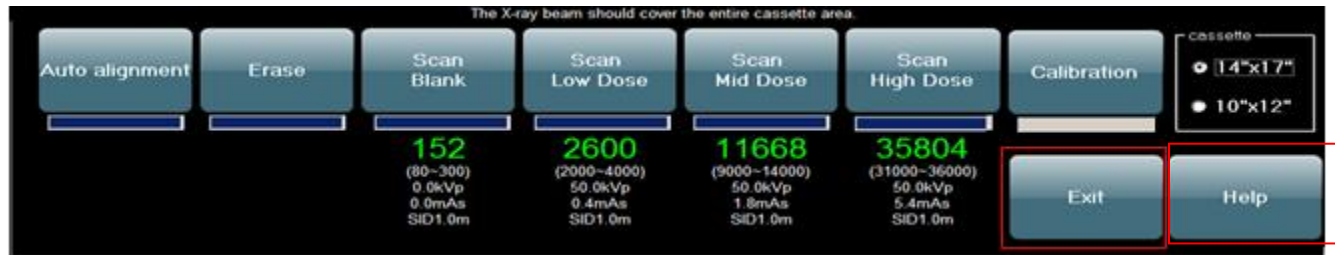## Repeat these steps for the 10"x 12" cassette

Figure 15

The Exit button can be used at any time to exit out of the calibration process and the Help button will display the calibration documentation if needed. *Figure 15*

NOTE

Following the calibration process, two sets of four images used for calibration and two calibration files are generated in local program folder.

CAUTION

FireCR is running only after generation of calibration file.