

Pluto Sensor Instructions

Product Description

Pluto sensors are a digital intraoral sensor that features a 20- μ m pixel pitch CMOS sensor with CsI (cesium iodide) scintillator that ensures optimal resolution. The sensor has an ergonomic design with smooth edges, rounded corners, and a flexible cable for maximum patient comfort. An easy-to-use, high-speed direct USB interface enables a simple connection to a PC without needing an additional control box.

Intended Use

The Pluto sensor is designed to streamline your intraoral imaging process, delivering high-resolution images with ease and precision. Its ultra-thin design ensures comfortable placement, while its advanced CMOS technology provides excellent diagnostic images. Fully compatible with most dental practice management software.

Features

- Low dose clinical imaging
- High resolution
- Wide dynamic range
- Different sizes suitable for children’s adults and veterinary use (size #0-1-1.5 & 2)
- Direct USB connectivity

Contraindications

This device is not designed, sold, or intended for use except as indicated. The user may not replace or remove any parts of the system. Only the provided USB cable is authorized for use with the system.

Safety Precautions

WARNING

Take the necessary steps to protect yourself from radiation. For proper operator positioning, refer to the ‘Instructions for Use’ of your intraoral X-ray equipment.

WARNING

Under no circumstances should the dental professional hold the sensor by hand during X-ray exposure.

Changes or modifications not expressly approved by the party

X-Ray Protection

The rules of dental radiography still apply to digital X-ray systems. Please continue to use protection for your patients. As a clinician, clear the immediate area when exposing the sensor.

Prevention of Cross-Contamination

To help prevent cross-contamination between patients, place a new hygienic sensor barrier on the sensor for each new patient. The hygienic barrier must cover the sensor.

Sensor Barriers and Sleeves

Sensor barriers and sleeves (sensor covers) are disposable, and they must not be reused in any circumstances. Remove and dispose of the cover after each patient.

Disposal Protocols

Dispose of sensor barriers and other consumable products following the normal dental office procedure for biomedical waste.

Sensor Inspection

Always inspect the sensor and positioning devices for physical damage prior to every use. Do not use the sensor if its housing has visible damage in the form of open cracks or punch through dents.

Cleaning



Pluto sensor must be cleaned and disinfected after each patient. To clean the sensor, use 70% isopropyl alcohol.



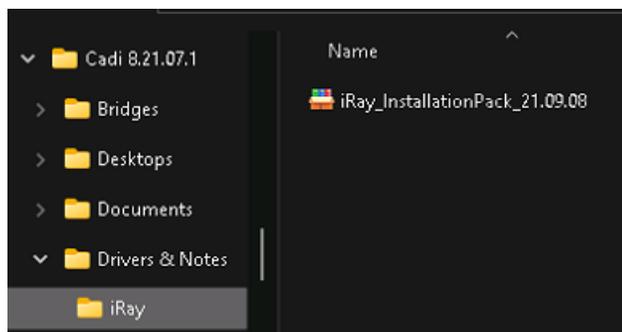
Do not submerge the Pluto sensor in any liquid at any time. Do not autoclave the sensor. Autoclave sterilizers will permanently damage the device.

Installation of PLUTO Sensor from IRay

Make sure that CADI is installed and ready to use. You must have version of **CADI 8.24.02.1**

(Images size has been modified for space purpose)

Access the CADI CD or USB key and wait for the menu to popup. If the menu doesn't show up, you can proceed. If the menu shows up, exit it.



Access the **"IRay"** folder on the CADI CD or USB (\Drivers&Notes\) and double-click on the file **"IRay_InstallationPack_XX.XX.XX.exe"** (X being version numbers).

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C:\Windows\system32\cmd.exe
*** iRay devices installationPack ***
This batch file is running with administrative privileges.
MDPath= F:\APPS\CADI\

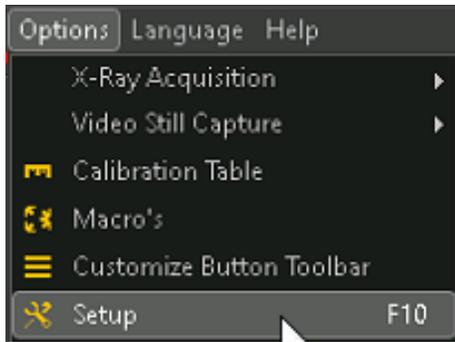
Select the device to install:
1. Install iRay device drivers
9. Exit driver installation

Press return after your selection.
selection:
  
```

- It will do a few things and bring a DOS screen (black box with white text). In that window, select **"1 Install the device drivers"**, and press **"Enter"**
- It will install some things then come back to the same screen.
- Once done click on **"9 to end driver installation"**.
- Then **"Press any key"** to exit.

At this point, you have to restart the PC so that Windows finish the installation of the drivers.

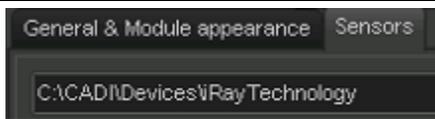
Now it is time to connect the sensor. Once connected go into **CADI** software.



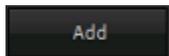
On the top menu choose **"Options"** then **"Setup"**.



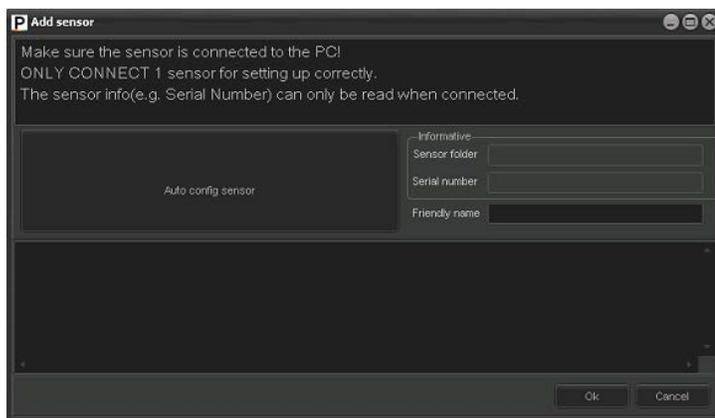
In the modules on the left, find and click on **"X-Ray iRayTechnology"**



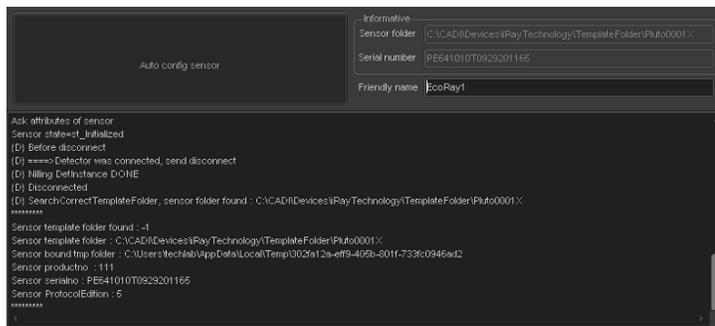
Access the **"Sensors"** tab.



On that screen, locate the **"Add"** button and click on it.



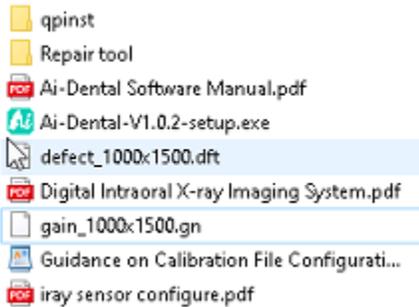
This window will show up. The big button on the left called **"Auto config sensor"** is the one that you have to press to install the sensor. Make sure the sensor is connected and click that button.



A lot of things will happen, and it will stop with the cursor waiting in the field: **"Friendly name"**. You can leave the default name or give it a name you want. Once done, click on **"OK"**. If you have more than one sensor, disconnect the one that is there, connect another one and click again on **"Auto config sensor"**. Repeat for each sensor you will use on that machine.

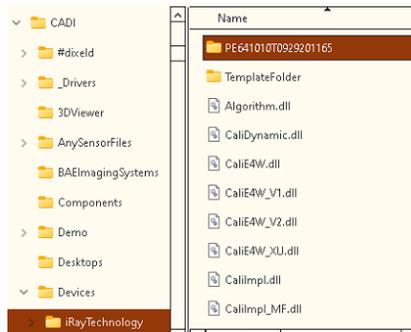
Back to the **"X-Ray iRayTechnology"** screen of **CADI**, click on **"Save Changes"** and **"Exit"**.

Now you must connect the USB key that comes with the sensor, it contains the calibration needed for the sensor. EACH sensor has its own USB key. You will have to connect each key one by one to grab the calibration and copy them to the right place. Connect the first key and follow these steps. (Repeat for all sensor key you have.)



This is what is on the USB of the sensor.

Copy only those two (2) files:
"defect_1000x1500.dft"
"gain_1000x1500.gn"



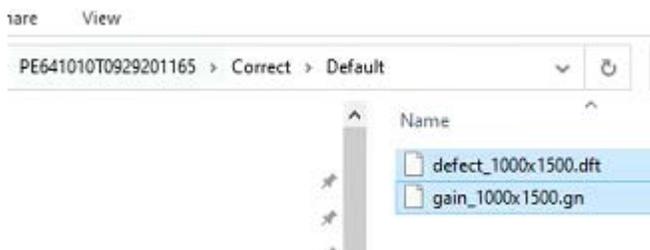
Use Windows Explorer and locate the folder:

"C:\CADI\Devices\iRayTechnology\"

Each sensor you installed should have its own directory. In this example the sensor is called: **"PE641010T0929201165"**.

Within that directory you will find files and two (2) folders; **"Correct"** and **"Others"**.

Inside the **"Correct"** folder you will see a **"Default"** folder.



You have to paste the two (2) files you have copied into that folder.

You have to do this for **EVERY** sensor that you will use on the computer.

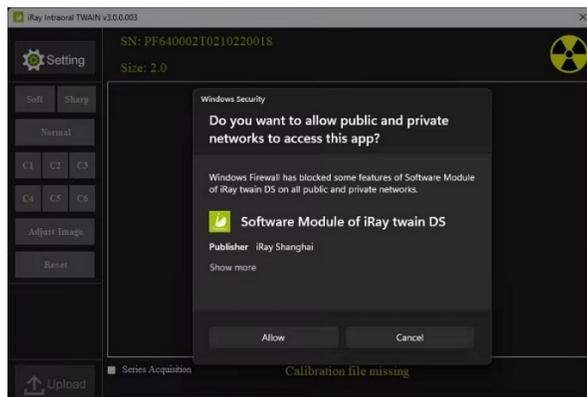
Once this is done, you are ready to use the **PLUTO** sensor from **IRay** with **CADI**.

For more assistance contact **CADI** Technical Support.

Installation of PLUTO TWAIN Sensor from IRay

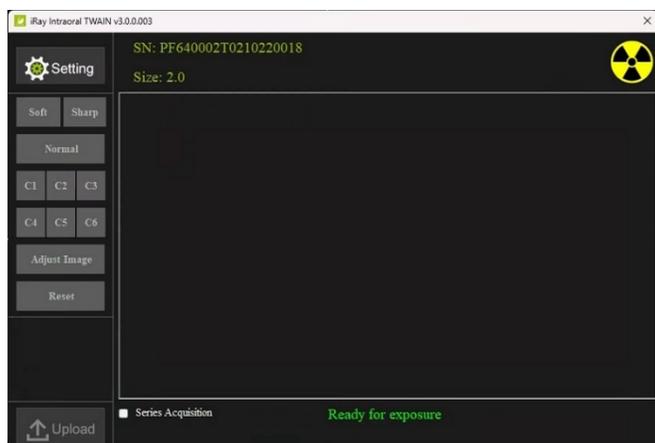
Run the installation files for the IRay TWAIN application and follow the instructions to install.

Once installed, start the TWAIN application to configure the sensors. Each sensor has to be done individually but the steps are the same. Make sure you have a sensor CONNECTED before doing the following.



When you access the application, it will ask you about the firewall.

Click on **“Allow”** to make sure the pan can communicate with the PC without interruption from the firewall.



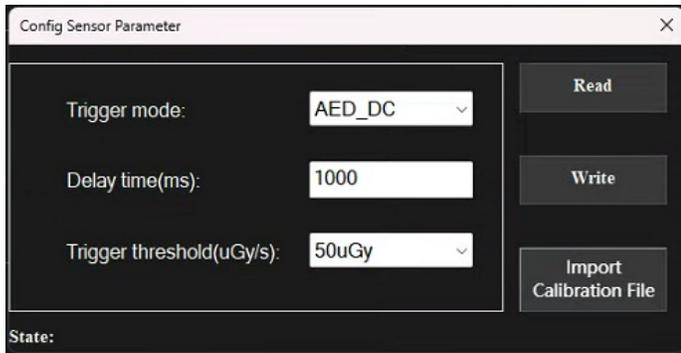
This is the interface you will see for the TWAIN application.

Click on the **“Setting”** button on top right.

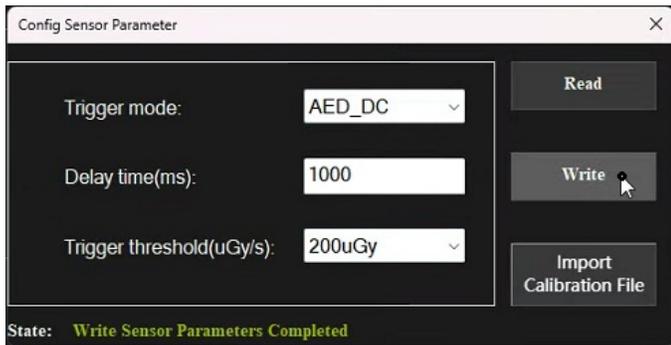


You will see the sensor window. You should see the serial number of the sensor and the size.

Click on the button **“Config”** that is on the right of the sensor SIZE.



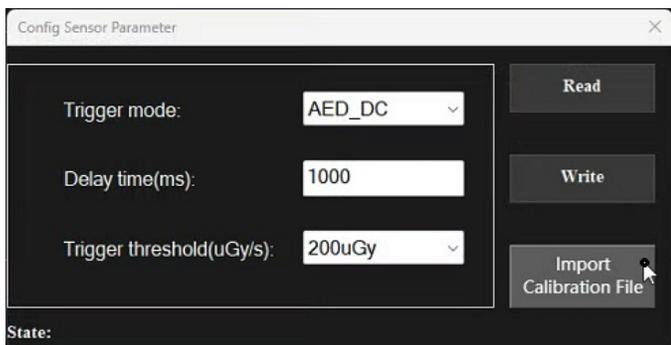
This window will show up.



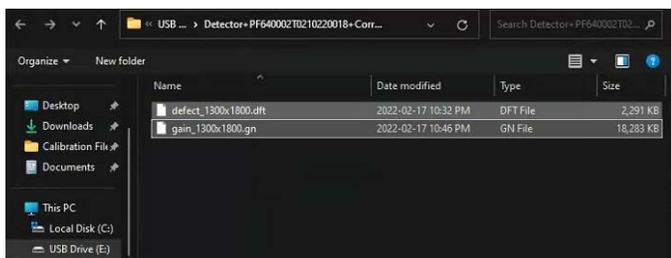
Make sure to match the information shown in THIS image. (Trigger mode should be set according to your x-ray head, either AC or DC.)

The **“Trigger threshold”** has to be set to **200** like on the image.

When they match, click on **“Write”**. This will write the information on the sensor memory.



When the last operation is done, you must now click on **“Import Calibration File”**.



In the browsing window that pops up, navigate to the USB drive that came with the sensor. (Make sure to set the file type to ALL FILES.)

Select the 2 files and click on **“Open”**.

That will activate the calibration files for this sensor.

This must be done for EVERY sensor that you want to use.

For more assistance contact **CADI** Technical Support.