

RTC Upgrade and Replacement instructions



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Technical Service Bulletin

Form:

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Product:

Vantage

Summary:

This bulletin provides the procedure to upgrade and replace the Vantage RTC (60-08008).

Tools Required:

- PFLoader (backup and restore program)
- USB Debug Adapter
- Computer (Use the Vantage workstation)

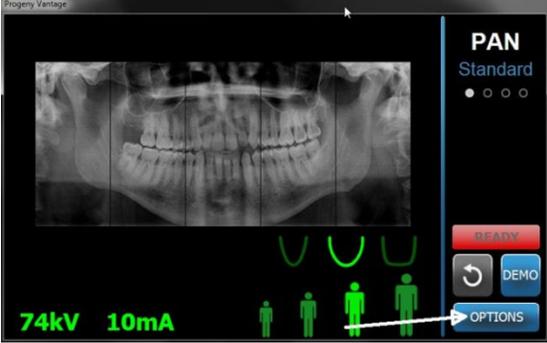
Parts Required:

RTC part # 60-08008 (required only when replacing the RTC board)

Important notes:

1. Use the Vantage workstation to carry out this procedure. This procedure requires that the network connection from the Vantage and the USB Debug adapter be connected to the same PC. *It is possible to use a different PC. However, the Ethernet port on the PC must have the same IP address as the Vantage workstation (130.24.11.113).*

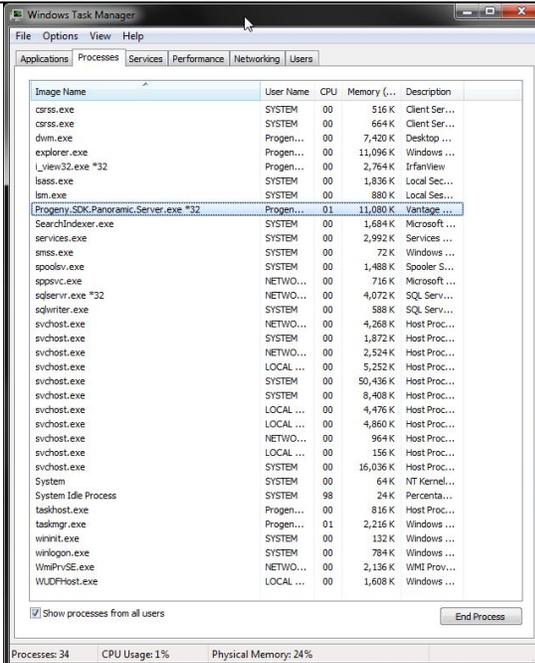
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<p>We need to understand what version of Firmware is installed on the RTC.</p>	
<p>1. On the Vantage operating panel, select "Options"</p>	 <p>The screenshot shows the Vantage operating panel interface. On the left, there is a dental X-ray image. Below the image, the text '74kV 10mA' is displayed in green. At the bottom, there are four human icons representing different patient sizes. On the right side, there is a vertical menu with 'PAN Standard' at the top, followed by a progress indicator (four dots, the first is filled). Below that are 'READY', 'DEMO', and 'OPTIONS' buttons. An arrow points to the 'OPTIONS' button.</p>
<p>2. Select "System Center"</p>	 <p>The screenshot shows the Vantage operating panel settings menu. It includes fields for 'Click:', 'Language English', and 'Audio Level:'. Below these are several buttons: 'Recall Last Image', 'Touch Calibration', 'kV and mA Properties', 'Profile Properties', 'Message Center', and 'System Center'. An arrow points to the 'System Center' button. There is also a 'CLOSE' button at the bottom right.</p>
<p>3. Scroll the screen to the Left until the "Real Time Controller" (RTC) screen is visible.</p>	 <p>The screenshot shows the Vantage operating panel displaying the 'VantageTouch Panel' screen. It features a dashed arrow pointing left, indicating the direction to scroll. The screen displays software information: 'Software: 2.0.4.2', 'Bootloader: v 2.32', and 'OS: v 6.00.06'. There is a 'CLOSE' button at the bottom.</p>
<p>4. Write down the RTC Version. You will need this later.</p>	 <p>The screenshot shows the Vantage operating panel displaying the 'Real Time Controller' screen. It features a red circle around the text 'Version: 2.9' and 'Protocol: 6'. There is a 'CLOSE' button at the bottom.</p>

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- Now we need to shut down the pan server
 - Press CTRL + ALT + Del on the Key board.
 - A window will appear that gives you the option to launch the task manager.

- Once the task manager is launched, select the "Processes" tab.

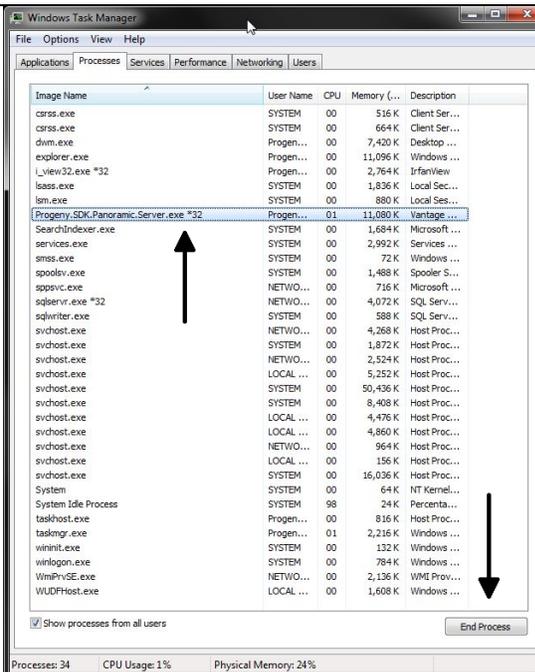


- At the bottom ensure you have "show processes from all users" selected.

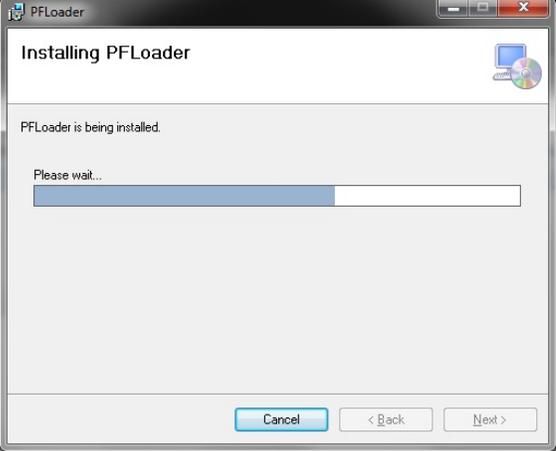
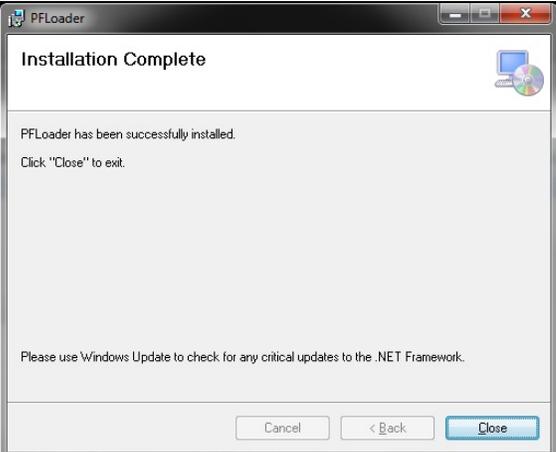
- Find and highlight "Progeny SDK Panoramic Server. exe" in the list. Select "end process"

This will stop the Pan Server and allow you to continue with the upgrade.

You may now close the Task Manager.



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9.	 <p>The screenshot shows a window titled "PFLoader" with the subtitle "Installing PFLoader". The main text says "PFLoader is being installed." Below this is a progress bar with the text "Please wait..." above it. At the bottom, there are three buttons: "Cancel", "< Back", and "Next >".</p>
10. When the installation is complete, the window shown will be displayed.	 <p>The screenshot shows a window titled "PFLoader" with the subtitle "Installation Complete". The main text says "PFLoader has been successfully installed." Below this is the instruction "Click 'Close' to exit." At the bottom, there are three buttons: "Cancel", "< Back", and "Close". A note at the bottom says "Please use Windows Update to check for any critical updates to the .NET Framework."</p>
11. Launch PFLoader by Left double clicking the icon on your desktop.	 <p>The image shows a desktop icon for "PFLoader". The icon features a graphic of a tablet and a smartphone above the text "PFLoader".</p>
12. The window shown will be displayed.	 <p>The screenshot shows the main interface of "PFLoader V1.0.1.0". On the left, there are two buttons: "RTC Controller" and "XCB Controller", with a "Load" button below them. On the right, there is a "Select File" field, a "Chip Type: C8051F310" label, an "Adapter: EC30001228F" label, and a "Status:" label. A "Save As Default" button is located at the bottom right.</p>

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13. Connect the **USB DEBUG ADAPTER** to connector J8 on the RTC.



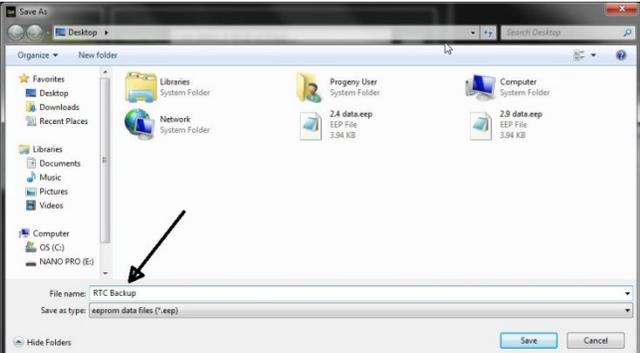
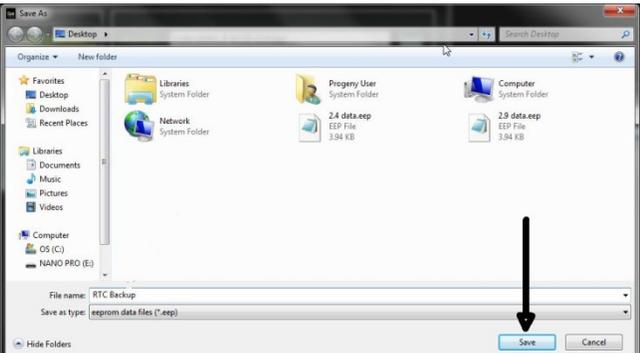
14. Connect the other end of the **USB DEBUG ADAPTER** (USB Cable) to an available USB port on the **Vantage PC**.



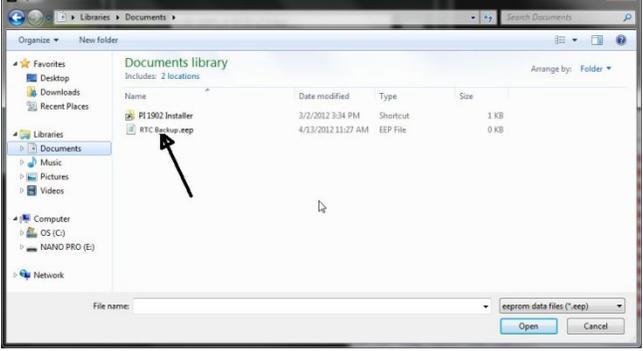
15. Select **RTC EPROM Save** within PFLoader



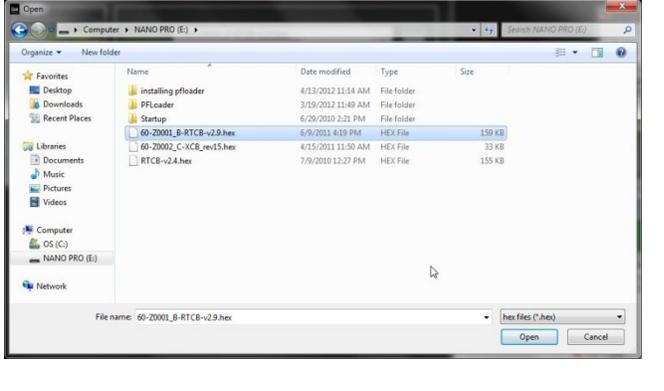
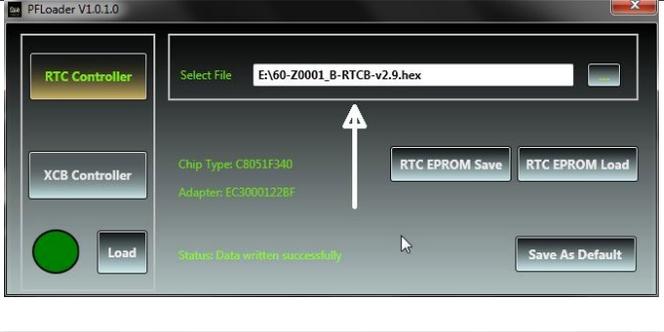
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<p>16. Select a folder to save the data file and give it a name.</p>	
<p>17. Select Save</p> <p>The backup will start</p>	
<p>18. Once the backup is complete, the window will display, “Eprom data retrieved successfully”</p>	
<p>19. We are now ready to replace the RTC.</p> <ul style="list-style-type: none">• Turn the Vantage off• Remove the old RTC (take note of the connector positions)• Replace the RTC and replace all connectors• If not already connected, plug the USB DEBUG ADAPTER back into the RTC• Turn on the Vantage	

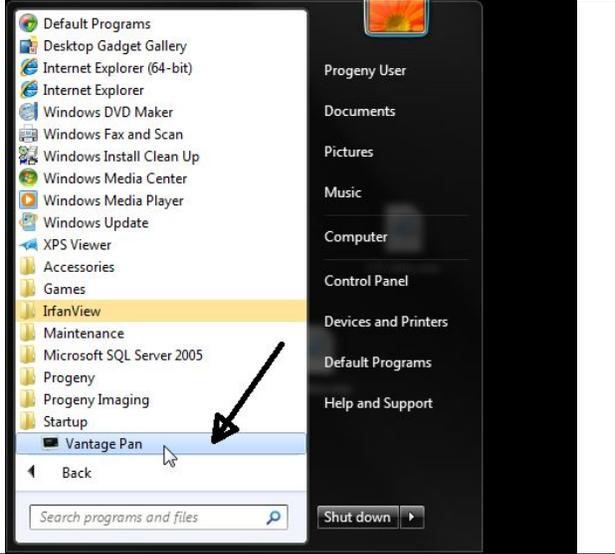
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<p>20. We will now reprogram the RTC</p> <p>21. Select "EPROM Load"</p>	
<p>22. Locate the Backup you created earlier and Select "Open"</p> <p>The backup will have the extension "eep" on it.</p>	
<p>23. The writing of the file to the RTC will begin.</p> <p>When complete, the status will indicate "Data written successfully"</p>	
<p>24. Now we will write the RTC Firmware back on to the RTC Board.</p> <p>Select "RTC Controller"</p>	

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<p>25. Select the “...” button to navigate to where the firmware is located.</p>	
<p>26. Earlier you wrote down the RTC version that was loaded on your machine. Now we need to reload that RTC version.</p> <p>Select the correct firmware for your Machine and select “Open”</p>	
<p>27. The firmware you selected will be shown in the Select File window.</p>	
<p>28. Select “Load”</p>	
<p>29. When the firmware has been written to the board successfully, the status will indicate “Firmware loaded successfully”</p>	

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<p>30. The RTC has now been successfully programmed.</p> <ul style="list-style-type: none">• Turn the Vantage off• Shut down the PFLoader Tool• Unplug the USB Debug tool from the RTC• Turn the Vantage back on.• Start the Vantage Pan Server	 A screenshot of the Windows Start menu. The 'Vantage Pan' folder is highlighted in blue, and a black arrow points to it from the right. The Start menu is open for the 'Progeny User' and shows various applications and folders. At the bottom, there is a search bar with the text 'Search programs and files' and a 'Shut down' button.
<p>31. The Vantage should now be fully functional</p>	
<p>Perform a test examination and verify proper functionality of the machine.</p>	