



# raditeq

## Firmware Update Installation Guide

**RadiCentre<sup>®</sup>**  
Modular Test System



**Models:**

CTR1009B - CTR1004B

[www.raditeq.com](http://www.raditeq.com)

## RadiCentre® Firmware Installation Guide

This product manual pertains to the RadiCentre® system.

Models: CTR1009B | CTR1004B | - Made by Raditeq.

Read this manual carefully before operating the product and make sure all the safety instructions are strictly followed.

For your convenience, a Quick Start Guide has been added to this product. This Quick Start Guide contains the basic start-up steps and the safety warnings.

Please keep the Quick Start Guide (and this regular manual) close at hand when you operate your new Raditeq product(s).

Please contact your local reseller if you have any questions.

## Supplier Information

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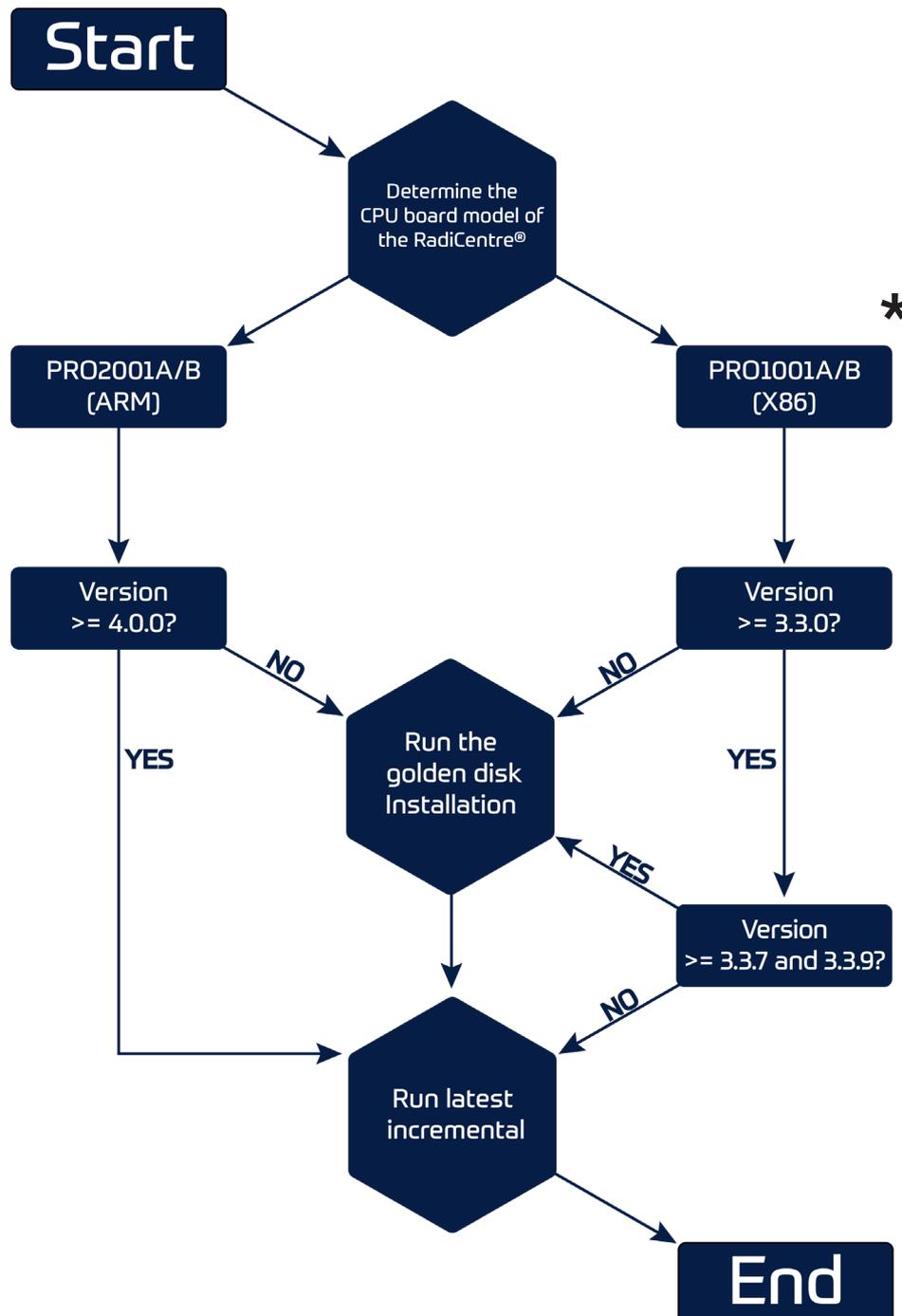
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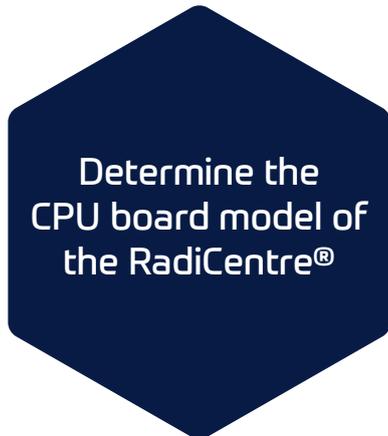
## Introduction

This installation guide helps the RadiCentre® user to install and update the RadiCentre®'s firmware. If you require assistance with the installation, please contact your local reseller. Before continuing the installation guide, first follow the flowchart below.



\* The plug-in cards model: PRO1001A/B are obsolete and don't support all latest Raditeq plug-in card products like the RadiSense 10 Field Probe. Contact your local reseller about upgrade possibilities.

## Identify CPU Card and Software



To determine what kind of CPU and software your current RadiCentre® has one needs to go to the Information screen of the RadiCentre®. The information screen can be found on the RadiCentre® touch-screen on the right side indicated with an **i** info. By pressing this button a new screen opens with information about the RadiCentre® system configuration.



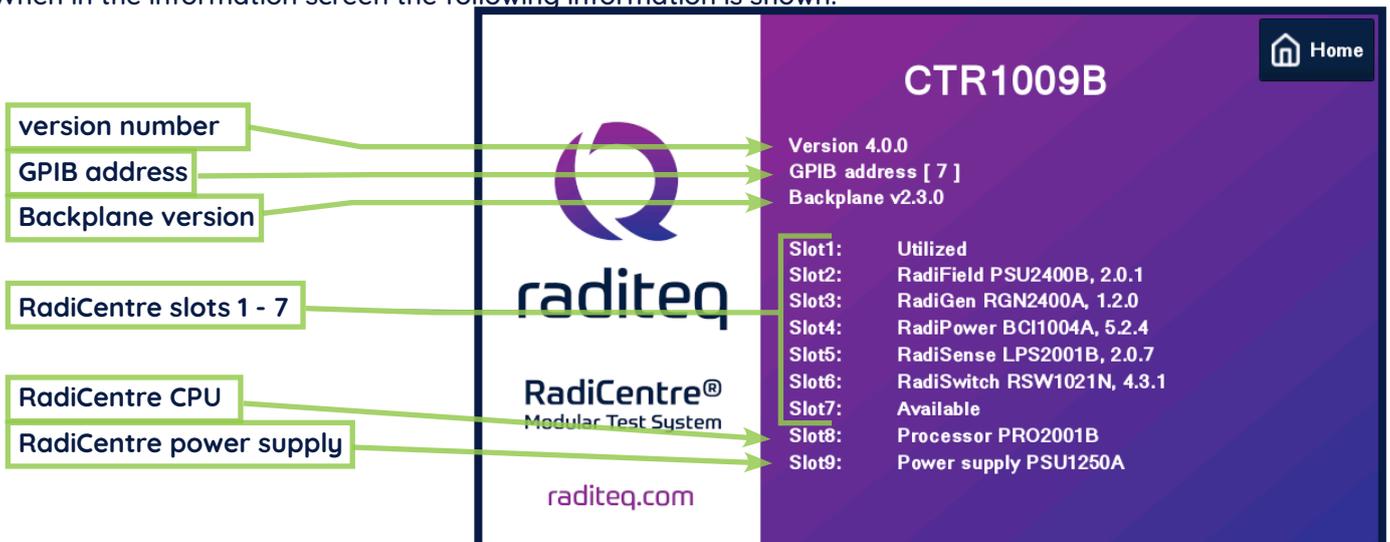
### RadiCentre® information screen.

To determine the software version, check the version number at top of the screen. (example 4.0.0)

To determine the CPU, check the Processor plug-in card which is slot 8 on the second last on the bottom of the screen.

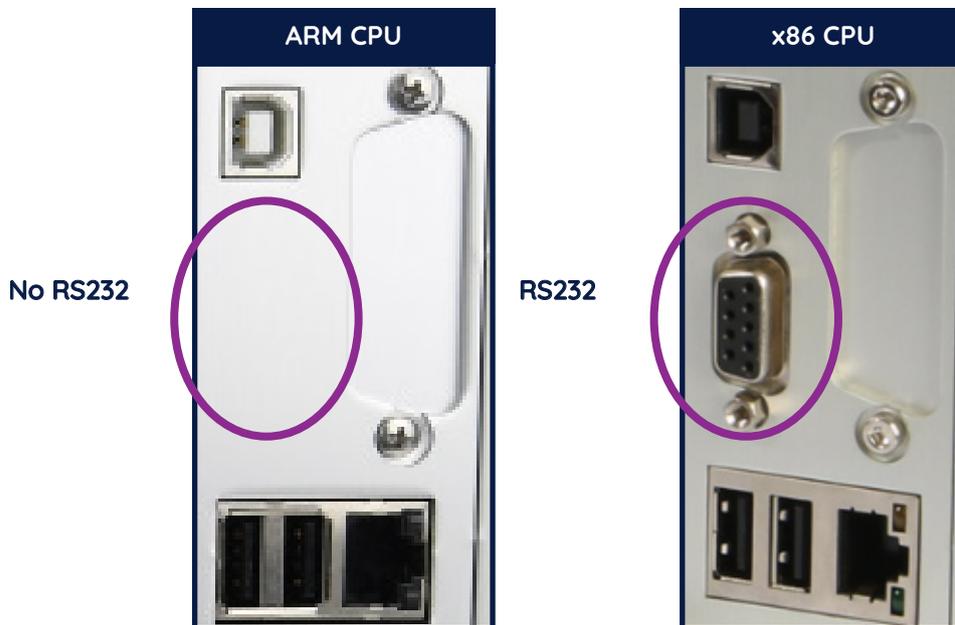
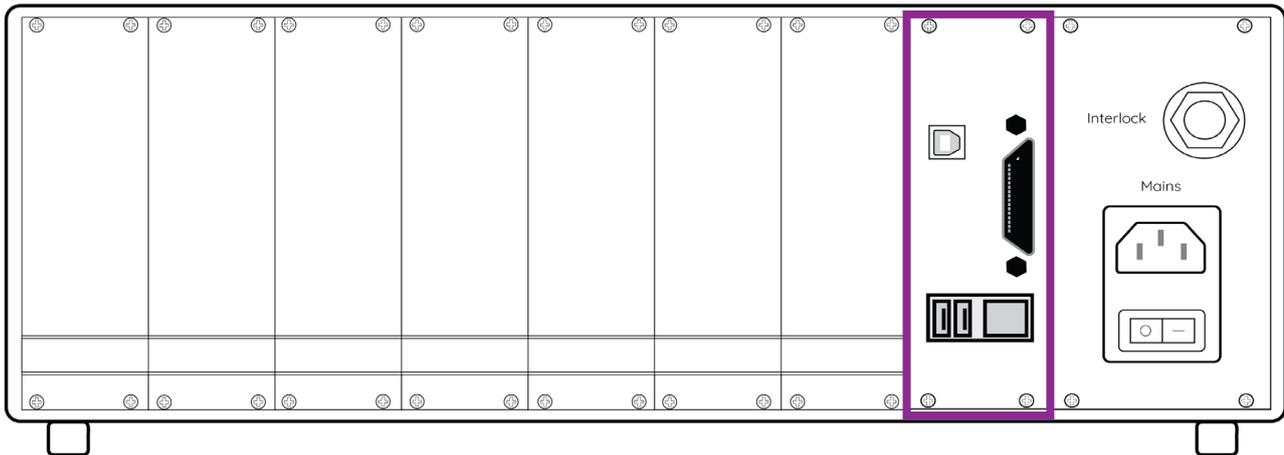
- PRO2001A/B is the ARM CPU board
- PRO1001A/B is the X86 CPU board

When in the information screen the following information is shown:



### CPU identification through hardware

On the CPU card of the RadiCentre® the CPU card type can be determined. The CPU card is located in the 8th slot of the RadiCentre®. It can be spotted by the present or missing Sub-D 9-pin RS232 serial port. The ARM board does NOT have this RS232 port and the x86 DOES have the RS232 port.



## Installing the Incremental®

Before the latest version of the RadiCentre® firmware can be installed the current firmware version need to be determined.

### ARM CPU

If the ARM CPU is used and the current version is higher than 3.3.3 one can directly install/run the latest incremental version. If it is 3.3.3 or lower the golden disk installation first needs to be ran after which the new incremental can be installed.

### x86 CPU

If the x86 CPU is present in the RadiCentre® and the version is higher than 3.3.0, 3.3.7 or 3.3.9 the golden disk installation needs to be ran first before the new incremental can be installed. When the version is between the 3.3.0 and 3.3.7 the latest incremental can directly be installed.

## Golden disk

The latest main system incremental update is called the 'golden disk'. This latest version is dependant and differs with the CPU version of the RadiCentre®.

Goldendisk X86 - Golden disk version: 3.3.0

Goldendisk ARM - Golden disk version: 3.3.3

## IMPORTANT REMARKS BEFORE GOLDEN DISK INSTALLATION

- The installation of the golden disk can result in the loss of the configuration of the RadiCentre®. Make sure that the settings of the RadiCentre® are saved, noted or memorized so that after a reset the configuration can be restored to the user's preference.
- All unrelated USB, hard drives or other memory devices need to be disconnected to prevent errors and accidental deletion of data/settings.
- If the BIOS settings [86x only] need to be changed a keyboard is needed to make changes

## Creating an incremental USB or Golden disk

To create an USB with the incremental or the golden disk. Download the latest version of the firmware from the Raditeq website -> [www.raditeq.com/softwareupdate](http://www.raditeq.com/softwareupdate).

The downloaded file should be an '.IMG' file which can be processed by an image writer.

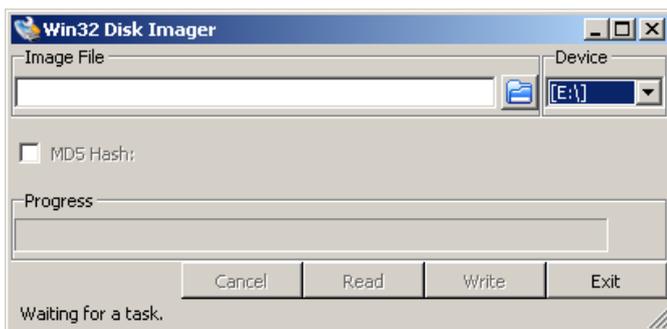
The upgrade is a two step upgrading process.

First we will use the golden disk as a starting point, then the incremental upgrade for latest version.

In this we will be needing a USB stick, with more that 2 GB space. Please be aware that this stick's content after the procedure will be erased and that all information on it will be lost.

### How to create a golden disk image on a USB stick on Windows pc

Download the program win32-image-writer from: <https://sourceforge.net/projects/win32diskimager/>  
Unzip the files to a temporary directory or on desktop and start the program.



1. Select the correct the device (USB) under the device.
2. Select the image that has just been downloaded, you are creating a new one so type in the name, e.g. the version or golden disk.
3. Press write.

The image file is now created on disk.

Next, Insert the key into the RadiCentre (turned off) and boot/start the RadiCentre. This should start the upgrade/restoration to the Golden disk version of the RadiCentre.

If the RadiCentre is normally booting then the usb stick is not detected. This can happen. To fix this an USB keyboard is needed to resolve the problem.

### Resolving when the USB key is not found

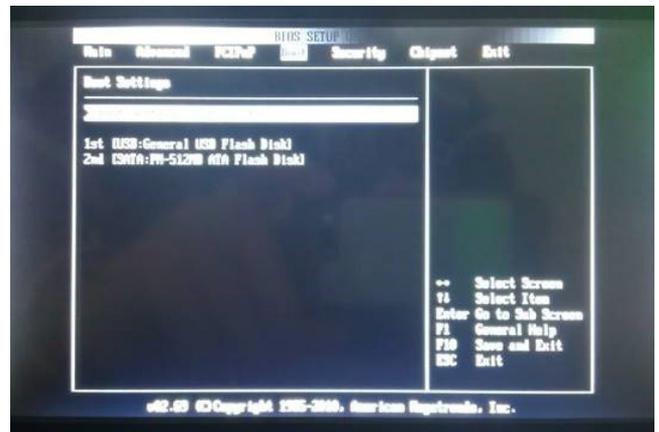
This step is only needed when the RadiCentre starts normally with the USB inserted in the RadiCentre. You need to change the boot sequence of the RadiCentre in the bios.

Take the following actions to enter the BIOS settings:

- Connect a USB keyboard to one of the two USB-A ports of the system.
- Switch on the RadiCentre
- Repeat pressing the DEL key on the keyboard for approximately 1 every second until the display shows the BIOS screen[1].



- Go to the BOOT menu
- Select 1st USB:General USB Flash Disk
- Press F10 and OK to save and exit
- The system will now boot from USB disk and install the new software.



If the USB boot disk is not present, only the 512MB SATA disk will be displayed.

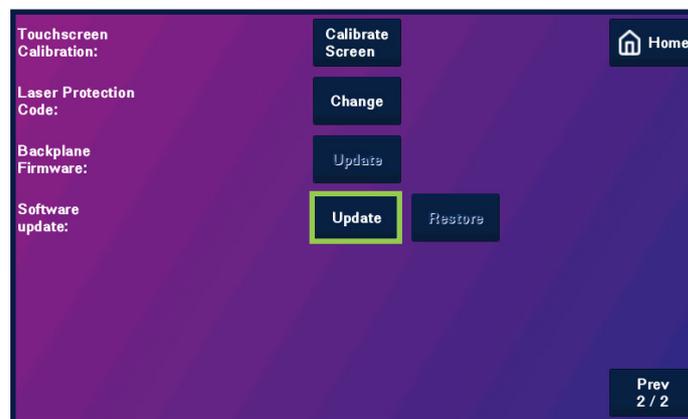
After these steps the Golden disk version is installed on the RadiCentre. The latest version of incremental can now be installed via the normal update proces stated later in this document.

## How to install/update the RadiCentre® firmware



**WARNING** make sure that during the following process you **DO NOT** turn 'OFF', unplug or restart the RadiCentre®. Only after the update has been installed the RadiCentre® can be turned 'OFF'.

1. Turn the RadiCentre® 'ON' and wait for the main screen to show.
2. Plug-in the USB with the Incremental [installer] or, if needed the golden disk, on it. The RadiCentre® will show a small box with the request if you want to update.
  - a. If you don't want to update right in that moment you can select 'NO' and later go into the configuration screen and select update



Only remove the USB incremental after the installation/update is completed. If slots can be updated they appear with white letters.

For most updates make sure that the plug-in cards are properly connected and the instrument is 'ON'. For example, The RadiSupply® and RadiSense® will not update unless the RadiSense® Probe is connected and the Laser is turned on.

3. When a product is selected a screen will appear asking for confirmation of the update. Select 'program' to start the update.



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