

Voltech

PM1000+ Firmware Upgrade

Required Software and Documentation.

- PM1000+ Download Software. (VPN 28-303)
- Flash.vlt (flash download file). (VPN 11-144)
- Ram.vlt (RAM download file). (VPN 11-143)
- Flash_language.vlt (Unicode flash download file) (VPN 11-155)
- PM1000+ Language Loader PC Software User Guide (VPN 86-735)
- Language pack files for extra languages.
- This procedure.

File and software access notes

- The PM1000+ Download software is contained in the Download Software/Installer folder of this zip file.
 - Double click setup.exe and follow the installation wizard's screen prompts.
- The *PM1000+ Language Loader PC Software (VPN 28-322) and User Guide (VPN 86-735)* and available in the Language Loader folder of this zip file. A language file can be loaded before or after the firmware upgrade process.
- The required firmware files are in the firmware folder of this zip file.
 - 'ram.vlt' (VPN 11-143).
 - 'flash_language.vlt' (VPN 11-155)
 - 'flash.vlt' (VPN 11-144)
- For PM1000+ units with a hardware revision less than 52, use 'flash.vlt'. PM1000+ units with hardware revision greater than 52 that do not require language support can also use 'flash.vlt' (VPN 11-144), but use flash_language.vlt (VPN 11-155) if you require language support.
- If 'flash_language.vlt' is loaded into a PM1000+ with hardware revision 52 or greater and there is no language pack loaded, the PM1000+ will display a red screen.
- If 'flash_language.vlt' is loaded into a PM1000+ with hardware revision lower than 52, the PM1000+ will display a blue screen. To recover, load 'flash.vlt' into the unit.
- **Note:** To check the hardware revision of the PM1000+; press the 'MENU' button and go into System Configuration → Unit Configuration menu. The hardware revision is then displayed.
- For PM1000+ users who will be utilizing language support, with hardware revision greater than 52, follow the instructions 86-735 and select the required language file from the Language Packs folder in this zip file.

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Procedure

Firmware Download Step 1:

Ensure PM1000+ is switched off.

- a) Connect a female-to-female, straight through RS232 lead (VPN 77-015) from the computer to the PM1000+.
- b) Execute the PM1000+ Firmware Download Software. The following screen will show:

The screenshot shows the 'PM1000+ Firmware Download Software' window. It features a Voltech logo in the top left. The interface is divided into several sections: 'Comms Selection' with an RS232 checkbox and a dropdown menu showing 'COM5'; 'Operating System and Flash Program File Paths' with text boxes for 'Operating System File Path Name' (containing '% C:\PM1000V2_FLASH_RAM_API\Debug\Ram.vlt') and 'Flash Program File Path Name' (containing '% C:\PM1000 Code\Debug\Flash.vlt'); 'Operating System Download Monitoring' with a 'Start' button and a progress bar; 'Flash Erase' with a yellow progress bar; and 'Flash Programming' with a pink progress bar and a 'Block in Progress' indicator showing '0 of 0'.

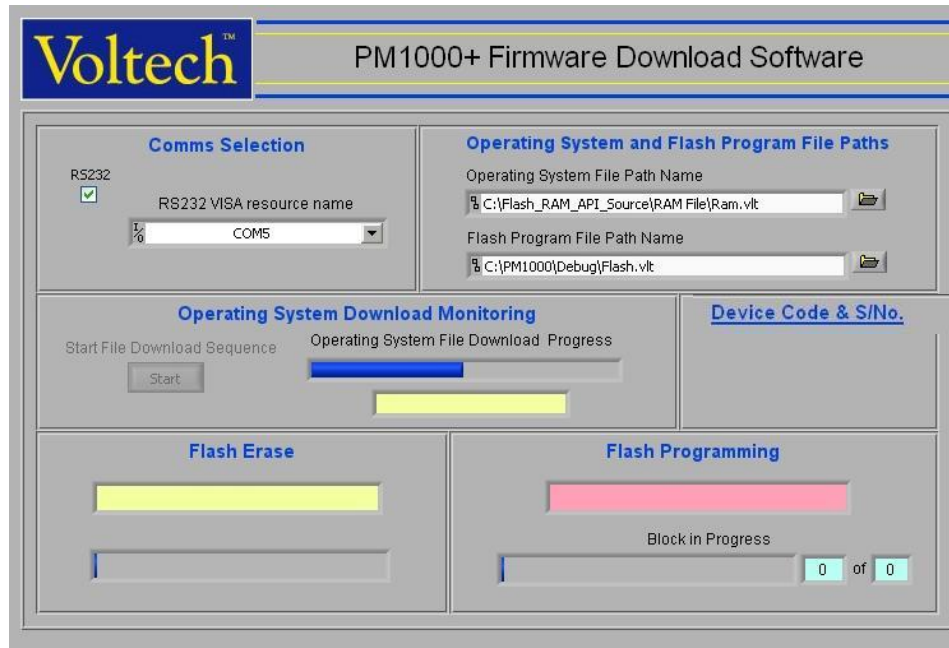
- c) Select the appropriate Comms port using the drop down RS232 resource name. Use the ports labelled ASRL?::INSTR where ? is the RS232 port number.
- d) Enter the correct Ram.vlt file path into 'Operating System File Path Name' and the Flash.vlt or Flash_language.vlt file path, as appropriate (see notes), into 'Flash Program File Path Name'.
- e) Click the 'Start' button to begin the PM1000+ search.
- f) Switch on the PM1000+.

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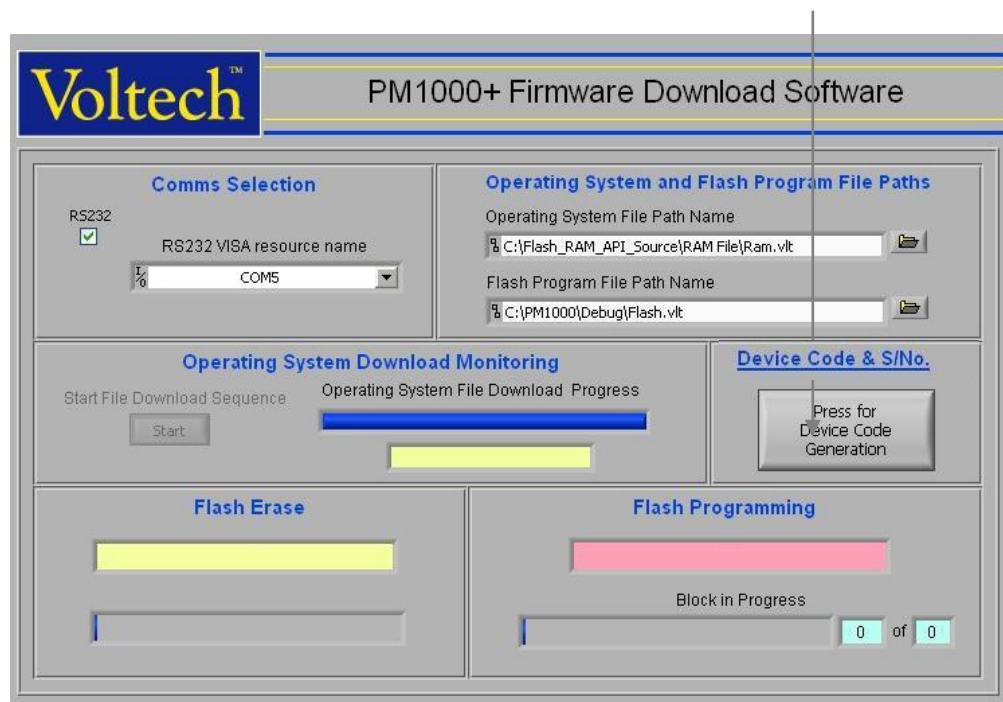
Firmware Download Step 2:

Switch on the PM1000+. The operating system code will begin downloading.



Firmware Download Step 3:

Once the operating system has downloaded a button will appear to provide you with your own unique device code.



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The device code used in conjunction with the serial number of the product is used to enable the PM1000+ firmware and various features currently in the product. The two numbers are used together to create a key code that will be sent back to the PM1000+ to enable the firmware and features.

Firmware Download Step 4:

Upon pressing the device code button a device code will be generated and the serial number of the PM1000+ will be displayed.

The screenshot shows the Voltech PM1000+ Firmware Download Software v3.10 interface. The window has a title bar with the Voltech logo and the text 'PM1000+ Firmware Download Software v3.10'. The main area is divided into several sections:

- Comms Selection:** Includes a checkbox for 'RS232' (checked) and a dropdown menu for 'RS232 VISA resource name' set to 'COM5'.
- Operating System and Flash Program File Paths:** Includes two text boxes with file paths: 'Operating System File Path Name' (C:\Flash RAM API Sourcesafe\RAM File\Ram.vlt) and 'Flash Program File Path Name' (C:\PM1000 Code\Debug\Flash.vlt).
- Operating System Download Monitoring:** Includes a 'Start File Download Sequence' button and a progress bar.
- Device Code & S/No.:** Includes a 'Device Code' field showing '874041172' and an 'S/No.' field showing '100008012345'.
- Flash Erase:** Includes a progress bar and a green LED indicator.
- Flash Programming:** Includes a progress bar and a 'Block in Progress' indicator showing '0 of 0'.

At the bottom of the 'Flash Erase' section, it says 'LED Flashing = Flash Erase Active'.

Obtaining the key code:

You need to open page <http://www.voltech.com/Service/PM1000FirmwareKeycode.asp> on the Voltech website and provide the following information:

- The device code provided by the software in to the device code text box. (Highlight and copy (CTRL C) the "Device Code" above and paste (CTRL V) into the web form).
- The serial number (S/No.) provided by the software in to the PM1000+ Serial Number text box. (Highlight and copy (CTRL C) the serial number and paste (CTRL V) into the web form).

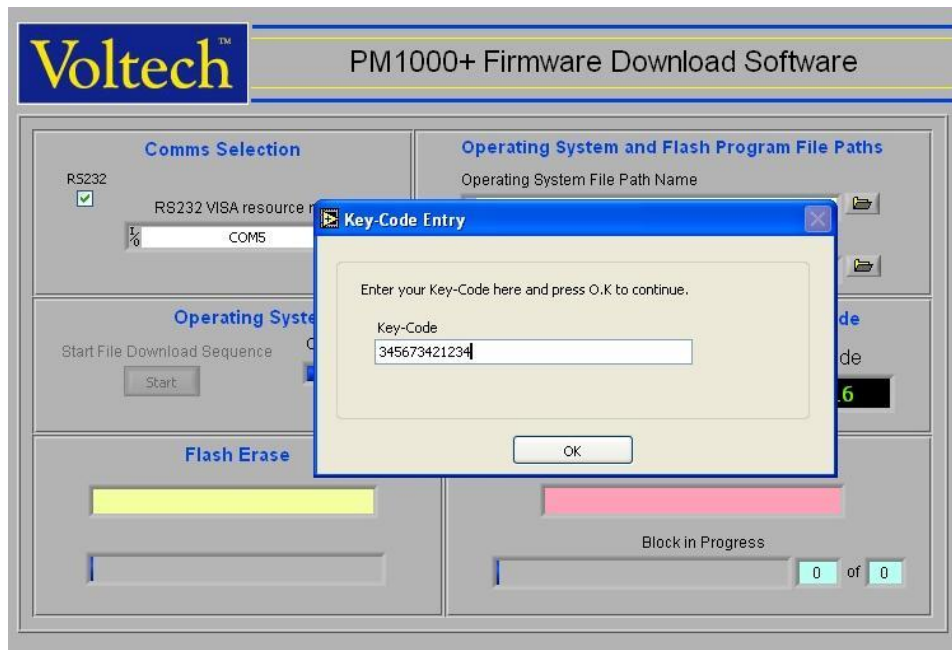
Click the "Get Key Code" button and use the key-code shown in the next stage of this process.

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Firmware Download Step 5:

Once obtained from the Voltech website, enter your key-code in the provided input box as shown below.

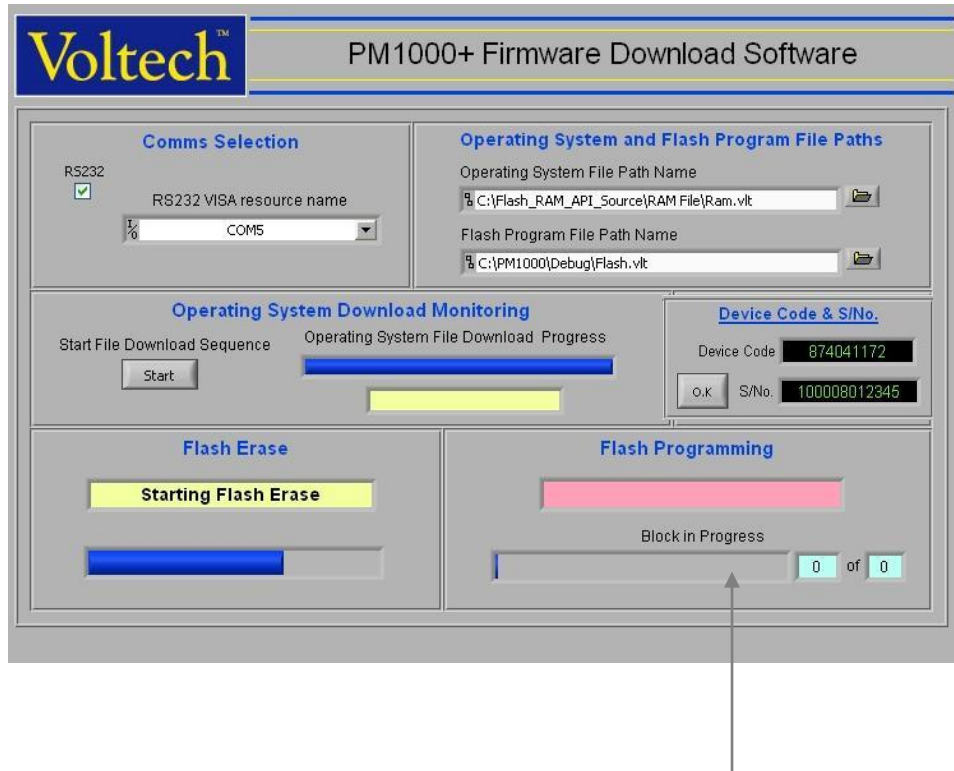


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Firmware Download Step 6:

The sequence will begin by erasing the flash memory, which takes approximately 10 seconds, followed by the new firmware being downloaded, which takes 10 to 15 minutes.



The firmware download is operated in blocks of 16k the amount of blocks to download is indicated in the “Block in Progress” section as shown above. The message box in pink displays when each block has been downloaded and depending on the firmware version there will be between 7 and 9 blocks to download.

Once the software displays “New Firmware Downloaded” in the Flash Programming pink text box. The PM1000+ will automatically boot up into the flash program that has just been downloaded.

NOTE: If the PM1000+ displays a red screen, it indicates that the user has loaded ‘flash_language.vlt’ (VPN 11-155) and there is not currently a language pack loaded. Load a language pack into the unit as detailed in step [□](#) above.

If the PM1000+ displays a blue screen, it indicates that the user has loaded “flash_language.vlt” (VPN 11-155) into a unit with hardware revision lower than 52. To recover, load ‘flash.vlt’ (VPN 11-144) into the unit.