

Canon Digital Video Camcorder Firmware Update Procedure

VIXIA HF S20

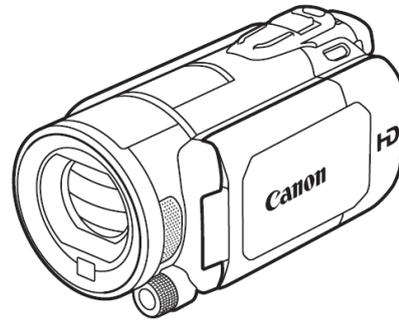
VIXIA HF S21

VIXIA HF S200

LEGRIA HF S20

LEGRIA HF S21

LEGRIA HF S200



Firmware is software installed to control the equipment. Using the firmware, the camcorder can perform many operations, such as shooting or processing the image. The following is an explanation of how to download the data for the new firmware, save it to your computer's hard disk, copy it to an SD (or SDHC) memory card, and update your camcorder to the new firmware.

Please note that, to perform this update you will need the following, in addition to a computer: a commercially available SD memory card or SDHC memory card (32 MB or more), and a commercially available SD memory card reader or an SD card slot built into the computer. Please have these items ready in advance.

Make sure you have read the precautions and procedures below carefully before updating the firmware.

IMPORTANT: Observe the following precautions when updating the firmware

- When updating the firmware, make sure to use a battery pack and power the camcorder using the supplied compact power adapter.
- Before updating the firmware, initialize the SD (or SDHC) memory card in the camcorder. When you initialize the SD (or SDHC) memory card, any data written on it will be erased, so please be sure to save a copy of any important data on your computer or somewhere other than the card, prior to initializing it.
- While updating the firmware, make absolutely sure not to turn the camcorder off or to operate its buttons or controls. Doing so could cause camcorder malfunctions.
- After the firmware update is completed, all of the camcorder settings are reset to their default values.
- After the firmware update is completed, it is not possible to revert back to a previous version.
- If the firmware update does not finish normally, or if the camcorder no longer starts normally, please contact our camera repair center.

The firmware update for the HF S20/S21/S200 is performed as follows.

Step 1: Make Preparations

Explains the equipment required for the firmware update.



Step 2: Check the firmware version on your camcorder

Explains the steps for checking the firmware version on your camcorder.



Step 3: Download the firmware and prepare the data for the update

Explains the steps for downloading the new firmware for your camcorder.



Step 4: Prepare an SD (or SDHC) memory card for the firmware update

Explains the steps for copying the new firmware you downloaded to an SD (or SDHC) memory card.

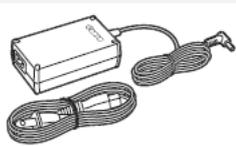


Step 5: Update the camcorder to the new firmware

Explains the steps for updating the camcorder to the new firmware.

Step 1: Make Preparations

The following items are required for this firmware update.

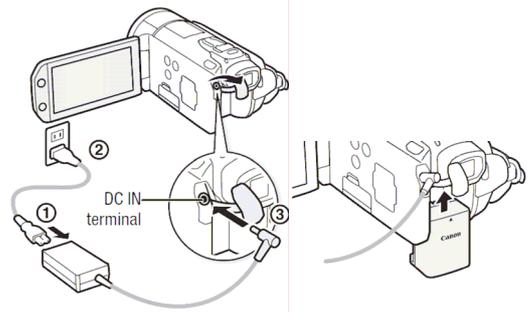
1.	Camcorder	VXIA HF S20/S21/S200, LEGRIA HF S20/S21/S200
2.	Computer	OS: Computer running either Windows or Mac OS X (*)
3.	SD memory card reader	SD memory card reader (commercially available) or a computer with an SD card slot
4.	SD Memory Card	A 32 MB or higher-capacity SD memory card or an SDHC memory card (both commercially available) * If using an SDHC memory card, the memory card reader or memory card slot on the computer (previous item) must support SDHC memory cards.
5.	Battery pack	The battery pack (BP-808) that comes with the digital camcorder. 
6.	Compact Power Adapter	The compact power adapter (CA-570) and power cord that come with the digital camcorder 

(*) OS Requirements: Windows® 7, Windows Vista™ (Service Pack 1 or 2), Windows® XP (Service Pack 3), or Mac OS X (10.4-10.6)

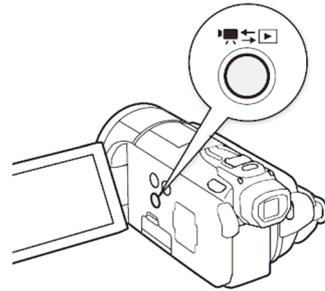
Customers who do not have items 2, 3, or 4 above are advised to contact our customer support center.

Step 2: Check the firmware version on your camcorder

1. Insert the battery pack and connect the compact power adapter to the camcorder. Connect the compact power adapter to the power outlet and turn the camcorder ON.



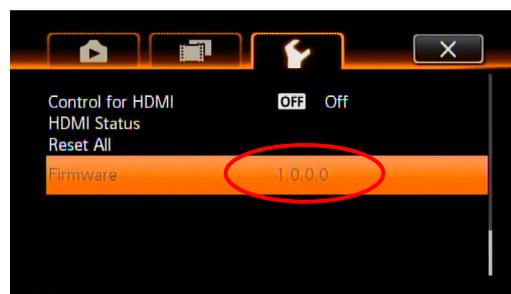
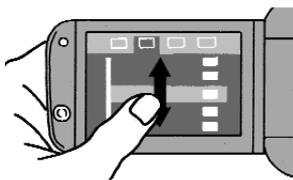
2. Press the  (Camera/Play) button and set the camcorder to playback mode.



3. Touch the icons on the camcorder's LCD screen in the following order.



4. Drag the screen down to the last row under , and then check the number displayed for the [Firmware].



5. Touch the  icon on the camcorder's LCD screen to close the menu and turn the camcorder OFF.

Step 3: Download the firmware and prepare the data for the update

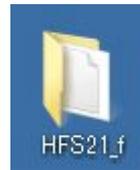
This section explains the operations to be made on your computer.
Please perform the procedure that corresponds to your computer's operating system.

For Windows (These explanations use the screens from Windows Vista.)

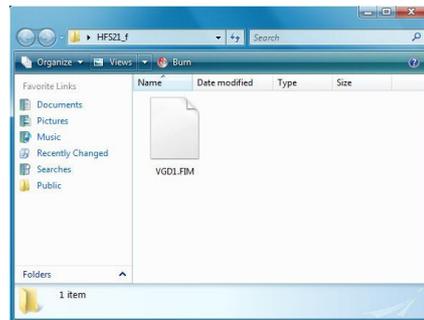
1. Click on **I agree** on the download page, and then download the file for the update, **hfs21-1010.exe**, specifying the Desktop as the destination. (Depending on the preferences set in your computer, the **.exe** part of the file name might not be displayed.)

2. Extract the contents of the **hfs21-1010.exe** file by double-clicking it.

3. When the contents are extracted, a folder named **HFS21_f** will be created.



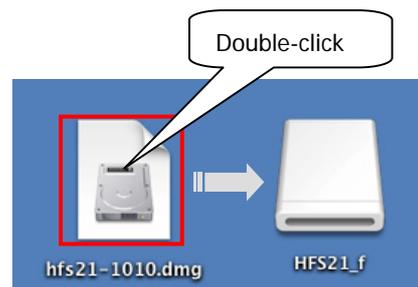
4. Open the **HFS21_f** folder created in the previous step, and confirm that it contains the firmware update data, which is a file named **VGDL.FIM**.



For Mac OS

1. Click on **I agree** on the download page, and then download the file for the update, **hfs21-1010.dmg**. (The downloaded file will be saved to the folder specified in **Preferences**.)

2. After the download is completed, an icon named **HFS21_f** will be automatically created on the Desktop. (Depending on the **Preferences** setting, the icon may not be automatically generated. In this case, double-click **hfs21-1010.dmg** saved to the folder specified in **Preferences**.)



3. Double-click the **HFS21_f** icon and confirm that it contains the firmware update data, which is a file named **VGDL.FIM**.



Step 4: Prepare an SD (or SDHC) memory card for the firmware update

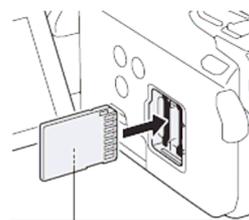
First, insert an SD (or SDHC) memory card into the camcorder and initialize it. This section will explain how to use your computer and an SD memory card writer (or an SD card slot built into your computer) to copy the new firmware to the initialized SD (or SDHC) memory card.

Caution

When you initialize the SD (or SDHC) memory card), all of the data saved on it will be erased, so please save any important data on your computer or somewhere else before initializing the card. If you perform the firmware update with data remaining on the SD (or SDHC) memory card, it could cause the camcorder to malfunction.

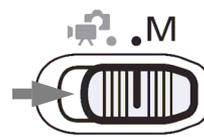
Insert an SD (or SDHC) memory card into the camcorder and initialize it.

1. Insert the SD (or SDHC) memory card into memory card slot A on the camcorder. The memory card slot A is the one closer to the lens.



Label facing the front of the camcorder.

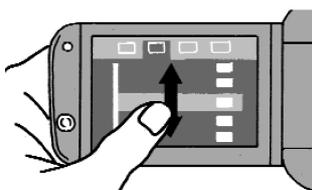
2. Set the camcorder to M (Manual mode), and then turn the power ON.



3. Touch the icons on the camcorder's LCD screen in the following order.



4. In the  tab, drag the screen down to [Initialize], and then touch it.



[HF S20/S21]

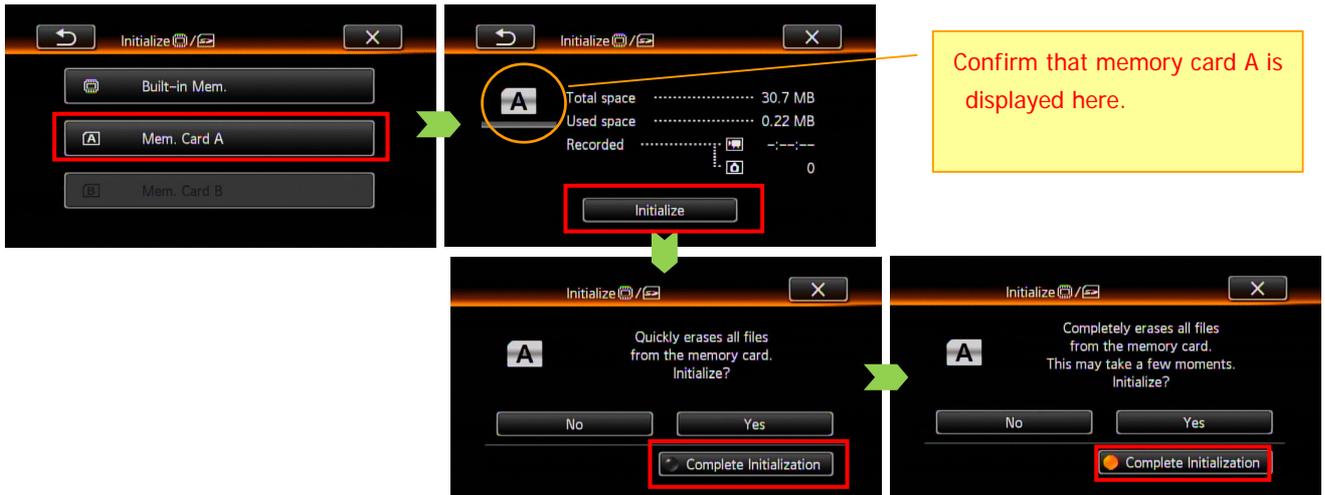


[HF S200]

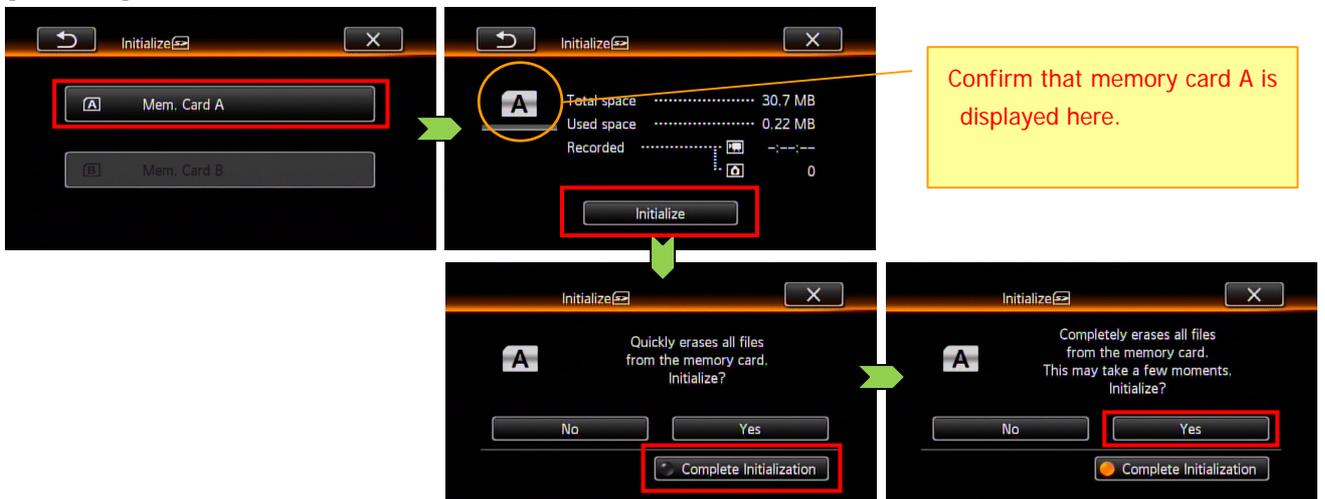


5. Touch the LCD screen in the order shown below to completely initialize the SD (or SDHC) memory card.

[HF S20/S21]

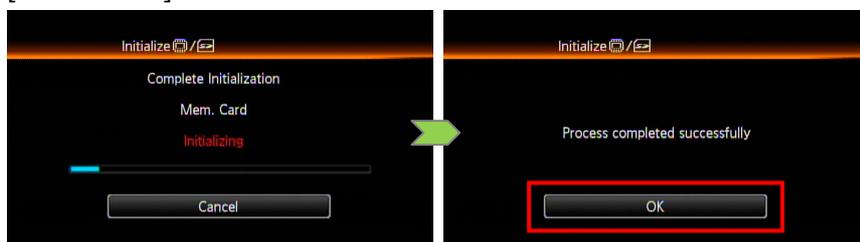


[HF S200]



6. The initialization will start, and after a short while, the process will be completed and the following screen will appear. Touch **[OK]**.

[HF S20/S21]



[HF S200]



7. Touch  to close the menu.

8. Turn the camcorder off, and then remove the SD (or SDHC) memory card from the camcorder.

Next you will use a computer to copy the firmware to the SD (or SDHC) memory card that was completely initialized in the camcorder. Please perform the procedure that corresponds to your computer's operating system (Windows or Mac OS).

For Windows (These explanations use the screens from Windows Vista.)

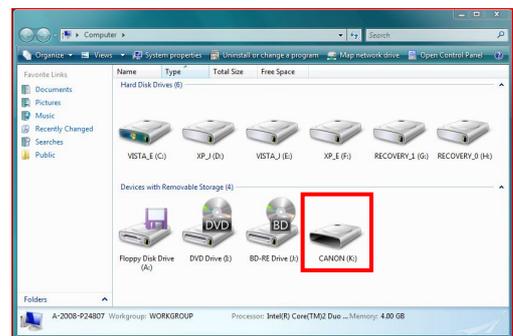
1. Insert the initialized SD (or SDHC) memory card into the SD card reader/writer (or the SD card slot on the computer).

Depending on the settings of your OS, a dialog box for either **Auto Play** or a **Removable Disk** may appear. If that happens, click the Close button [x] in the upper right-hand corner of the dialog box.

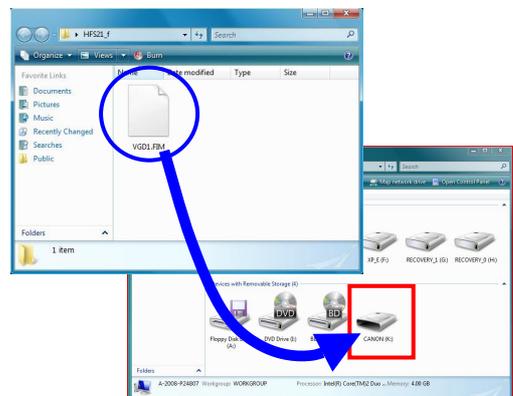


2. If you click on the **Computer** icon (or **My Computer** in Windows XP), a removable disk icon labeled **CANON** appears.

Depending on your computer, the SD (or SDHC) memory card may appear as shown below.



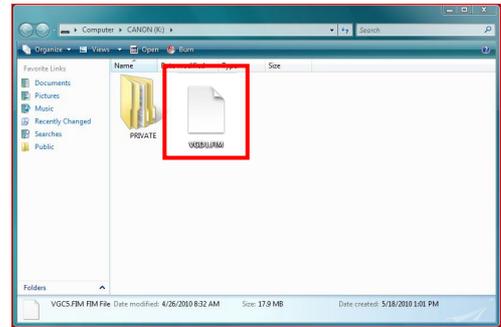
3. Drag the firmware update data **VGD1.FIM** from the **HFS21_f** folder created in Step 3-4 to the **CANON** icon.



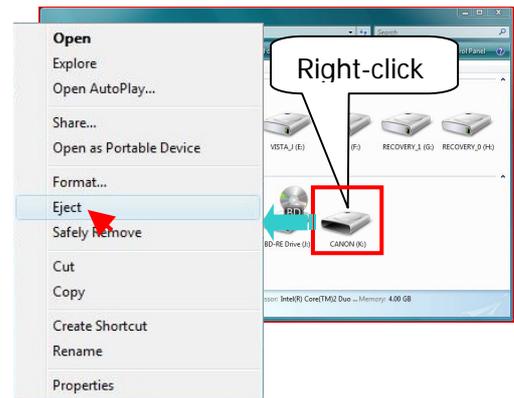
Caution

Please be sure to copy the firmware to the root directory of the SD (or the SDHC) memory card.

- After copying the data, double-click the **CANON** icon, and if the firmware update data **VGD1.FIM** is there, the copying process is completed.



- Click the Back button [] in the currently open window, right-click on the **CANON** icon, select **Eject** from the context menu, and then remove the SD (or SDHC) memory card from the card reader/writer (or from the SD card slot on the computer).



Please proceed to Step 5: Update the camcorder to the new firmware.

For Mac OS

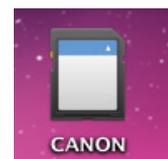
- Insert the initialized SD (or SDHC) memory card into the SD card reader/writer (or the SD card slot on the computer).

- An icon labeled **CANON** will appear on the computer's desktop.

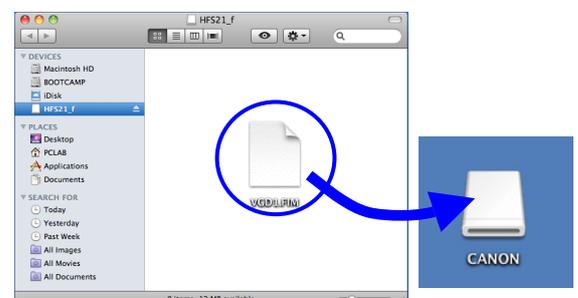
Using a card reader



Using a built-in card slot



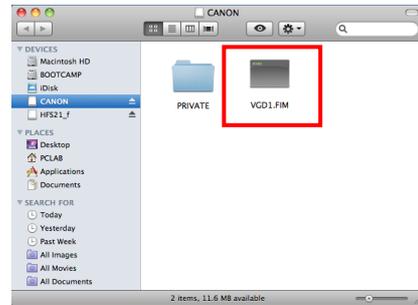
- Drag the firmware update data **VGD1.FIM** from the **HFS21_f** icon created in Step 3-3 to the **CANON** icon on the desktop.



Caution

Please be sure to copy the firmware to the root directory of the SD (or SDHC) memory card.

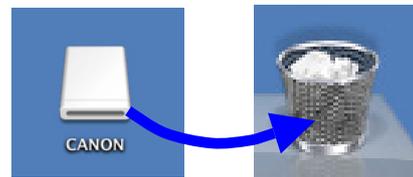
- After copying the data, double-click the **CANON** icon on the desktop. If the firmware update data **VGD1.FIM** is there, the copying process is completed.



- Click the close button [] in the upper left-hand side of the screen to close the folder.



- Drag the **CANON** icon to the **Trash** icon, and then remove the SD (or SDHC) memory card from the card reader/writer (or the SD card slot on the computer).

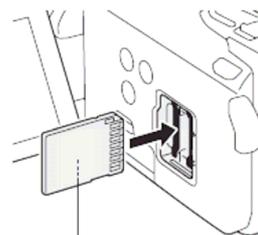


Please proceed to [Step 5: Update the camcorder to the new firmware.](#)

Step 5: Update the camcorder to the new firmware

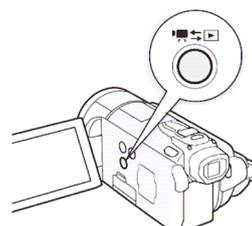
This section explains how to operate the camcorder.

- Insert the SD (or SDHC) memory card that has the firmware update data on it into the memory card slot A on the camcorder. The memory card slot A is the one closer to the lens.



Label facing the front of the camcorder.

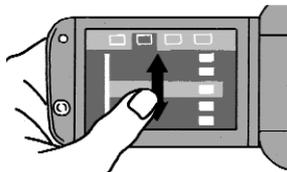
- Turn the camcorder ON.
- Press the  (Camera/Play) button and set the camcorder to playback mode.



4. Touch the icons on the camcorder's LCD screen in the following order.



5. In the  tab, drag the screen down to the very bottom so that **[Firmware]** is displayed.



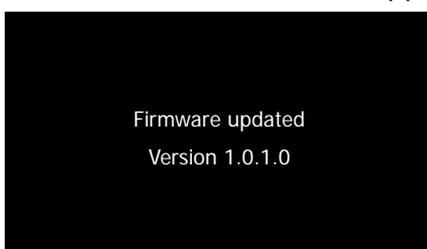
6. Touch the **[Firmware]** version number to display the firmware update confirmation screen. Touch **[OK]** to start the firmware update. After a short while, the firmware will be overwritten with the new version. (The update takes approximately 4 minutes.)



Caution

The firmware update takes approximately 4 minutes to complete. During this time, please do not turn off the camcorder or operate any of its controls. Doing so could cause camcorder malfunctions.

7. After the update ends, the camcorder will automatically restart, and a screen that shows the new firmware version will appear for about four seconds.



8. All of the settings will be reset, and the time and date screen will appear. Please set the date and time.
9. Please operate the camcorder as described in Step 2, "**Check the firmware version on your camcorder**", to confirm that the firmware version has changed.

10. Turn off the camcorder, and then remove the SD (or SDHC) memory card.

11. This completes the firmware update.

Caution

After the firmware update is completed, make sure to follow Step 4-1 to 4-7 to completely initialize the SD (or SDHC) memory card that was used to copy the firmware before using the memory card. Also, please delete the firmware you downloaded from your computer.