

Firmware Update Guide

This manual explains how to update the firmware of the following machine:

- Multifunctional Printer: SP 320SN/320SFN/325SNw/325SFNw
- Printer: SP 320DN/325DNw

You can download the firmware update package from our Web site.

❖ About the firmware package

The firmware packages on our Web site are each designed to be used for a specific model, and cannot be used for any other model.

Confirm the model of your machine, and download the appropriate firmware package for your model.

❖ Disclaimer

To the maximum extent permitted by applicable laws, in no event will the manufacturer be liable for any damages whatsoever arising out of failures of this software, losses of documents or data, or the use or non-use of this software and operation manuals provided with it.

Before Updating the Firmware

This section explains the operating environment for updating the firmware.

❖ Compatible Operating Systems

Your computer must be running one of the following operating systems: Windows Vista/7/8/8.1/10/Server 2003/Server 2003 R2/Server 2008/Server 2008 R2/Server 2012/Server 2012 R2, or OS X 10.7 or later.

❖ Backing up the machine's settings

After the firmware update, the machine's settings may return to their factory defaults.

Before you reconnect the machine for the update, we recommend that you back up the machine's settings by accessing the machine using a Web browser from a computer connected via a network.

Also, you can print out lists of scan and fax destinations or a configuration page using a Web browser or the machine's control panel. For details, see the manuals provided with the machine.

❖ Connection

Connect your computer and the machine through a network or directly by USB.

CAUTION:

- We recommend that you update the firmware via USB. If you update the firmware over the network, the machine may receive data over the network such as a print job during the updates, which can interfere with the update process.
- If you are updating the firmware via USB, the printer driver for USB connection must be installed on your computer beforehand. However, if you are updating via a network, no printer driver is necessary.
- Make sure your computer is securely connected to the machine with the USB or network cable that you will be using for the firmware update.
- Disconnect any other cables that are not necessary for the firmware update, such as a telephone cable, from the machine.
- Make sure that your computer does not enter standby or hibernation mode during the update process. Following is a procedure for configuring this setting based on Windows 7 as an example:
 1. On the **[Start]** menu, click **[Control Panel]**.
 2. Click **[System and Security]**.
 3. Click **[Power Options]**.
 4. Click **[Change plan settings]** on the right side of the item currently selected in **[preferred plans]**.
 5. Select **[Never]** for **[Turn off the display:]** and **[Put the computer to sleep:]**.
 6. Click **[Save changes]**.

Updating the Firmware

This section explains the procedure for updating the firmware.

Follow the procedure carefully.

CAUTION:

- Do not operate the machine using the control panel, access the machine using Web Image Monitor, perform fax transmissions, printing, or TWAIN scanning during the update process.
- The update may take a while to complete. Do not turn off the power during the update.
- Never disconnect the cable you are using for the updates during the update process.

Important

- When using a computer running on a Windows operating system, you must have an account that has Manage Printers permission. Log on as an Administrators group member to acquire this permission.
- Be sure to print the configuration page both before and after the update. Comparing pre- and post-update configuration pages allows you to check whether or not the update was successful.
- The screens shown in the following procedure are examples based on Windows 7, unless otherwise stated.

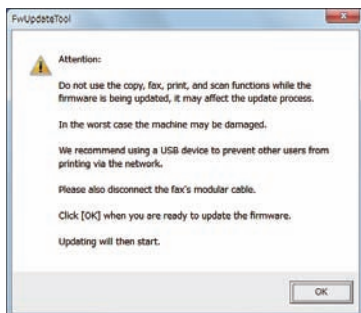
1 Connect your computer securely to the machine with the USB or network cable that you will be using for the firmware update. Disconnect any other non-essential cables.

2 Print the configuration page.

For details about printing the configuration page with SP 320SN/320SFN/325SNw/325SFNw, see User's Guide. To print the configuration page with SP 320DN/325DNw, turn the machine on while pressing the **[Start]** key for 13 seconds, and then release the **[Start]** key. Note the current firmware version (shown under "Firmware Version" on the configuration page).

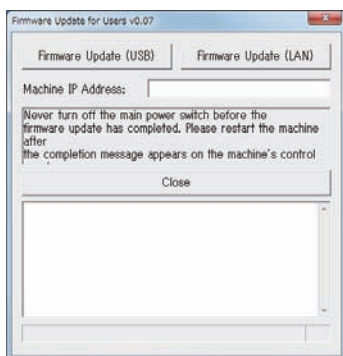
3 Double-click the **[FwUpdateTool.exe]** (Windows) or **[Firmware Update Tool]** (OS X) icon to launch the firmware update tool.

A dialog box with cautionary statements appears.



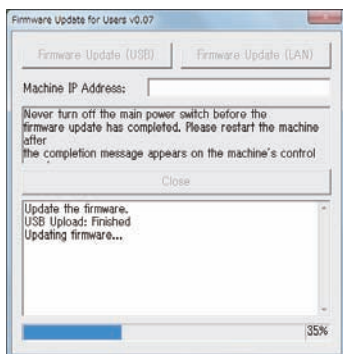
4 Read the cautionary statements carefully, and then click **[OK]**.

The firmware update tool opens.



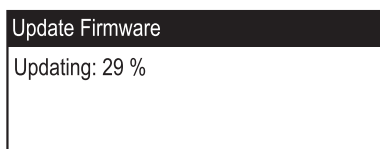
Do not close the update tool unless you are instructed to do so.

- 5 For a USB connection, click [Firmware Update (USB)] (Windows) or [F/W Update (USB)] (OS X). For a network connection, enter the machine's IP address in [Machine IP Address] (Windows) or [Machine IP] (OS X), and then click [Firmware Update (LAN)] (Windows) or [F/W Update (NET)] (OS X).
- 6 Check the firmware update tool window for messages and the update's current percentage of completion.



❖ **SP 320SN/320SFN/325SNw/325SFNw**

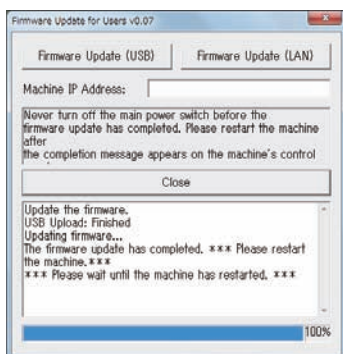
The update progress also appears on the machine's control panel.



❖ **SP 320DN/325DNw**

The Alert indicator starts flashing.

- 7 Wait until the update completion message appears in the firmware update tool window.

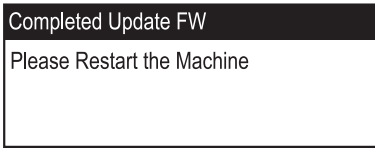


Click [Close] to close the update tool.

❖ **SP 320SN/320SFN/325SNw/325SFNw**

Also check that the update completion message appears on the machine's control panel.

The machine restarts following a firmware update.



❖ **SP 320DN/325DNw**

The Alert indicator starts flashing.

8 Wait until the machine restarts.

The machine performs initialization after restarting.

❖ **SP 320SN/320SFN/325SNw/325SFNw**

"Please wait..." appears on the machine's control panel.

Wait until "Ready" appears on the machine's control panel.

❖ **SP 320DN/325DNw**

All indicators flash twice, and then the power indicator lights up.

If "Ready" does not appear after one minute, or if the power indicator does not light up, the update is not complete. In this case, see page 6 "If initialization does not end following a firmware update".

9 Print the configuration page again.

Confirm that the firmware has been updated by checking its version (shown under "Firmware Version" on the configuration page).

10 Reconnect the cables as they were before the update.

Note

- In addition to printing a configuration page, you can check the machine's firmware version by accessing the machine using a Web browser. For details, see User's Guide.

Troubleshooting

This section explains solutions to common update-related problems.

If initialization does not end following a firmware update

If “Ready” does not appear after one minute, or if the power indicator does not light up, the update is not complete.

In this case, you will see the following screen or indication on the machine’s control panel.

❖ SP 320SN/320SFN/325SNw/325SFNw



❖ SP 320DN/325DNw

All indicators start flashing.

If this happens, read page 1 “Before Updating the Firmware” carefully again, and then use the following procedure to recover from the failure and complete the update.

★ Important

- To be recovered following a failed update, the machine must be connected to a computer by USB.
- When using a computer running on a Windows operating system, you must have an account that has Manage Printers permission. Log on as an Administrator group member to acquire this permission.

- 1** If the update was done over a network connection, disconnect the network cable and then connect the machine to the computer directly with a USB cable.
- 2** After confirming that “ Initializing” has been shown on the machine’s control panel for more than one minute or that all the indicators are flashing, restart the firmware update tool.
- 3** The subsequent operations are the same as Steps 4 to 10 on page 2 “Updating the Firmware”.

Firmware Update Tool Messages

The following table lists the firmware update tool messages that can appear during a firmware update, and explains the likely causes of those messages and what action to take when they appear.

Messages are alphabetically ordered.

Message	Causes	Solutions
Connecting...	Your computer is searching the network for the machine.	Wait a while until the machine is found.
The downloaded file is damaged. \nUsing the copy, fax, print, and scan functions while updating the firmware may damage the file.	The [Firmware Update (USB)] (Windows)/[F/W Update(USB)] (OS X) or [Firmware Update (LAN)] (Windows)/[F/W Update(NET)] (OS X) button was clicked while the machine was faxing, printing, scanning, or copying.	Wait for the current job to finish, disconnect any unnecessary cables from the machine, and then try again.
	The firmware file is damaged.	Download the firmware package from our Web site again.
The firmware update has completed. *** Please restart the machine.***	The [Firmware Update (USB)] (Windows)/[F/W Update(USB)] (OS X) or [Firmware Update (LAN)] (Windows)/[F/W Update(NET)] (OS X) button was clicked when the update process was already finished.	The update has already successfully finished. Wait until the machine restarts.
Machine is busy.	The machine is being operated through the control panel.	Cancel any operations being performed through the control panel. Put the machine into standby mode, and then perform the update again.
	• There is an unsent fax in the machine's memory. • There is a received fax waiting to be printed.	• Send or delete the unsent fax, and then try again. • Print the received fax, and then try again.
	The [Firmware Update (USB)] (Windows)/[F/W Update(USB)] (OS X) or [Firmware Update (LAN)] (Windows)/[F/W Update(NET)] (OS X) button was clicked when the update was already in progress.	Clicking the [Firmware Update (USB)] (Windows)/[F/W Update(USB)] (OS X) or [Firmware Update (LAN)] (Windows)/[F/W Update(NET)] (OS X) button during the update process does not interfere with any ongoing update. Ignore this error message and complete the update using the procedure shown in this manual.

Message	Causes	Solutions
The machine is not ready.	The USB cable is not connected.	Make sure the USB connection between the machine and computer is secure. If this message persists, try another USB cable.
	The USB printer driver is not installed in your computer.	Install the USB printer driver in your computer.
	The machine is turned off or an error has occurred.	Turn the machine's power off, wait a moment, and then turn it back on again. Then perform the update again. If this message reappears after you turn the power back on, see the manuals provided with the machine.
	The IP address specified for either the machine or your computer is invalid.	Check that both IP addresses are valid.
	The machine is not connected to the network properly.	Check that the machine is properly connected to the network.
The connection with the machine has been broken. ***Please check the machine's control panel to see if updating the firmware has already completed. If the firmware update has completed then restart the machine.***	The firmware update tool is no longer able to acquire update progress from the machine because the connection between the machine and computer has been terminated.	Disconnecting the machine from the computer should not interrupt any ongoing update. Check the machine's control panel to see if the update has completed.
LAN Upload: Finished	The firmware has been transferred to the machine successfully.	Follow the instructions in this manual to complete the update.
LAN Upload: Failed	The network cable was disconnected immediately after the [Firmware Update (LAN)] (Windows)/ [F/W Update (NET)] (OS X) button was clicked.	Turn the machine's power off, wait a moment, and then turn it back on again. Disconnect any unnecessary cables from the machine, and then try again.
USB Upload: Finished	The firmware has been transferred to the machine successfully.	Follow the instructions in this manual to complete the update.
USB Upload: Failed	The USB cable was disconnected immediately after the [Firmware Update (USB)] (Windows) or [F/W Update (USB)] button was clicked.	Turn the machine's power off, wait a moment, and then turn it back on again. Disconnect any unnecessary cables from the machine, and then try again.
The models are not the same.	The machine you were trying to update was not the correct model for the firmware you have downloaded from our Web site.	The firmware packages on our Web site are each designed to be used for a specific model, and cannot be used for any other model. Confirm the model of your machine, and download the appropriate firmware package for your model.

Control Panel Display Messages (SP 320SN/320SFN/325SNw/325SFNw)

The following table lists the control panel display messages that can appear if an error occurred during a firmware update, and explains the likely causes of those messages and what action to take when they appear.

Message	Likely cause	Solution
Initializing	If this message remains on the control panel display for more than one minute following a firmware update, a power failure or similar interruption prevented the update from completing.	See page 6 “If initialization does not end following a firmware update”, and use the procedure there to recover from the failure and complete the update. If the recovery fails and the indicators continue to flash alternately, contact your sales or service representative.

Control Panel Indicator Patterns (SP 320DN/325DNw)

The indicators of the control panel show the machine’s status during and after firmware updates. If an update fails or does not complete normally, refer to the following table to resolve the problem.

Indicator pattern	Likely cause	Solution
All indicators start flashing simultaneously.	If all indicators start flashing simultaneously after the machine restarts following a firmware update, the update did not complete due to a power failure or similar interruption.	See page 6 “If initialization does not end following a firmware update”, and use the procedure there to recover from the failure and complete the update. If the recovery fails and all indicators start flashing simultaneously again, contact your sales or service representative.

Trademarks

Microsoft®, Windows®, and Windows Vista® are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

OS X is a trademark of Apple Inc., registered in the U.S. and other countries.

Other product names used herein are for identification purposes only and might be trademarks of their respective companies. We disclaim any and all rights to those marks.

The proper names of the Windows operating systems are as follows:

The product names of Windows Vista are as follows:

- Microsoft® Windows Vista® Ultimate
- Microsoft® Windows Vista® Business
- Microsoft® Windows Vista® Home Premium
- Microsoft® Windows Vista® Home Basic
- Microsoft® Windows Vista® Enterprise

The product names of Windows 7 are as follows:

- Microsoft® Windows® 7 Home Premium
- Microsoft® Windows® 7 Home Basic
- Microsoft® Windows® 7 Professional
- Microsoft® Windows® 7 Ultimate
- Microsoft® Windows® 7 Enterprise

The product names of Windows 8 are as follows:

- Microsoft® Windows® 8
- Microsoft® Windows® 8 Pro
- Microsoft® Windows® 8 Enterprise

The product names of Windows 8.1 are as follows:

- Microsoft® Windows® 8.1
- Microsoft® Windows® 8.1 Pro
- Microsoft® Windows® 8.1 Enterprise

The product names of Windows 10 are as follows:

- Microsoft® Windows® 10 Home
- Microsoft® Windows® 10 Pro
- Microsoft® Windows® 10 Enterprise
- Microsoft® Windows® 10 Enterprise Education

The product names of Windows Server 2003 are as follows:

- Microsoft® Windows Server® 2003 Standard Edition
- Microsoft® Windows Server® 2003 Standard X64 Edition
- Microsoft® Windows Server® 2003 Enterprise Edition
- Microsoft® Windows Server® 2003 Enterprise X64 Edition

The product names of Windows Server 2003 R2 are as follows:

- Microsoft® Windows Server® 2003 R2 Standard Edition
- Microsoft® Windows Server® 2003 R2 Standard X64 Edition
- Microsoft® Windows Server® 2003 R2 Enterprise Edition
- Microsoft® Windows Server® 2003 R2 Enterprise X64 Edition

The product names of Windows Server 2008 are as follows:

- Microsoft® Windows Server® 2008 Standard Edition
- Microsoft® Windows Server® 2008 Standard Edition without Hyper-V
- Microsoft® Windows Server® 2008 Enterprise Edition
- Microsoft® Windows Server® 2008 Enterprise Edition without Hyper-V

The product names of Windows Server 2008 R2 are as follows:

- Microsoft® Windows Server® 2008 R2 Standard Edition
- Microsoft® Windows Server® 2008 R2 Enterprise Edition

The product names of Windows Server 2012 are as follows:

- Microsoft® Windows Server® 2012 Standard Edition
- Microsoft® Windows Server® 2012 Essentials Edition
- Microsoft® Windows Server® 2012 Foundation Edition

The product names of Windows Server 2012 R2 are as follows:

- Microsoft® Windows Server® 2012 R2 Standard Edition
- Microsoft® Windows Server® 2012 R2 Essentials Edition
- Microsoft® Windows Server® 2012 R2 Foundation Edition

 Note

- Some of the operating systems whose names appear in the trademark listing above may not be compatible for the use with this machine.