

Firmware Update Procedure for SE-500HD

1. Introduction

Firmware update is performed by connecting a USB flash drive with the latest SE-500HD firmware to the [FW/UPGRADE] port which is located on the rear panel of the SE-500HD.

This firmware update procedure applies to the following product.

Product Model	SE-500HD
Product Name	HD/SD 4-Channel Digital Video Switcher

There are three firmware files in a zip file

- Firmware files x 3: SE500HD.bin/ SE500HDM.bin/ SE500HDMP.bin

This document describes how to perform a firmware update on a Windows computer.

Screen images from the Windows 10 operating system are used in this document as an example. Images used in this document may differ from the actual screens.

For details on Windows and computer operations, please refer to the instruction manual of your computer.

2. Preparation

2.1 System Requirements

A computer that meets the following requirements is necessary to perform the firmware update procedure.

Laptop	A normal laptop is needed.
USB Flash Drive	A USB 2.0 flash drive that supports the FAT or the FAT32 file system.

Operation is not guaranteed on all computers that meet the above requirements

2.2 Firmware Update Preparation

The following items are required to perform this firmware update. Please prepare these items in advance before performing the update.

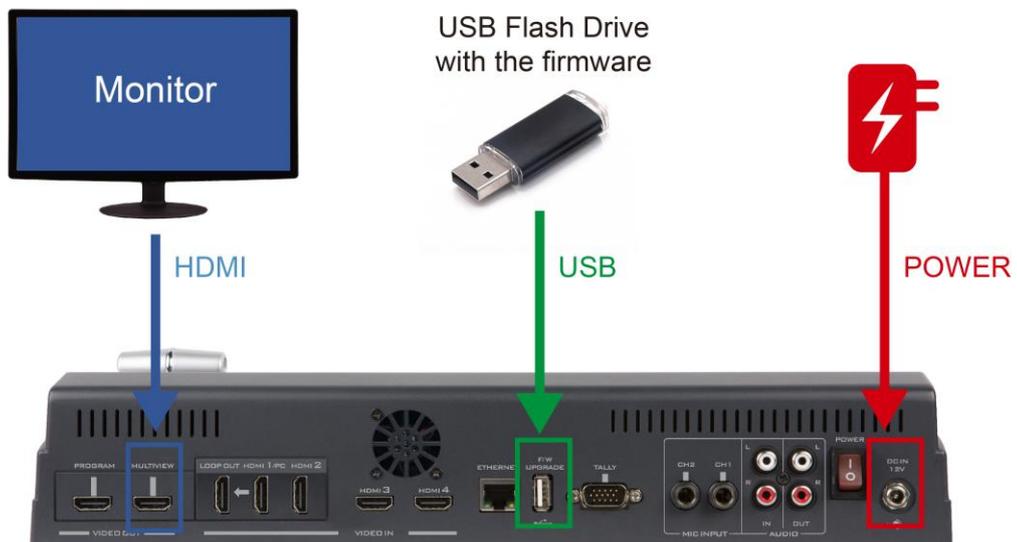
SE-500HD x 1	The SE-500HD is needed for updating the firmware.
USB 2.0 USB Flash Drive(with the FAT or the FAT32 file system) x 1	The USB flash drive for saving the firmware files and for updating the firmware.
12V Power Adapter x 1	The 12V power adapter for the SE-500HD.
Laptop x 1	The laptop is used to download and save the firmware of the SE-500HD.
Latest Firmware ● SE500HD.bin ● SE500HDM.bin ● SE500HDMP.bin	The latest downloaded firmware files. ● [SE500HD.bin] is the keyboard firmware ● [SE500HDM.bin] is the mainboard firmware for the SE-500HD MARK I. ● [SE500HDMP.bin] is the mainboard firmware for the SE-500HD MARK II. Note: The SE-500HD device will detect the MARK I and MARK II models automatically, and the proper firmware will be updated automatically for the respective model.

2.3 System Connection Diagram



SE-500HD

SE-500HD MARK II



SE-500HD

2.4 Checking the Firmware Version

2.4.1. Please connect a DC 12V power adapter to the SE-500HD.

Please connect a DC 12V power adapter to the SE-500HD.

2.4.2 Please connect an external HDMI monitor to the MULTIVIEW port which is located on the rear panel of the SE-500HD.

Please connect an external HDMI monitor to the MULTIVIEW port which is located on the rear panel of the SE-500HD.

2.4.3 Please turn on the power of the external connected monitor.

Please turn on the power of the external connected monitor.

2.4.4. Please turn on the power of the SE-500HD.

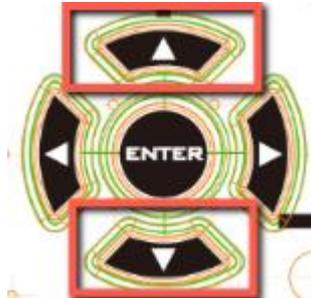
Please turn on the power of the SE-500HD.

2.4.5. Please press the [MENU] key from the control panel of the SE-500HD.

Please press the [MENU] key  from the control panel of the SE-500HD and then the menu of the SE-500HD will be shown.



2.4.6. Please press the [up/down] arrow keys to move to the [Setup] option.



2.4.7. You can see that the current firmware version (MB, KB & SP) will be shown in the [Setup] option.



2.5 Preparing the Firmware

2.5.1. Download the firmware

SE-500HD Product Page from the Datavideo website:

<https://www.datavideo.com/product/SE-500HD>

2.5.2. Unzip the firmware

Please unzip the downloaded firmware into the hard disk of your laptop and then you can see the following firmware files for the SE-500HD.

- SE500HD.bin
- SE500HDM.bin
- SE500HDMP.bin

3. Update

3.1 Updating the firmware

● Keyboard firmware

3.1.1. Please save the unzipped SE-500HD firmware files into the root directory of your USB flash drive. (SE500HD.bin/SE500HDM.bin/SE500HDMP.bin)

Please save the unzipped SE-500HD firmware files into the root directory of your USB flash drive.

3.1.2 After those firmware files are successfully copied, please remove your USB flash drive from your laptop.

After those firmware files are copied successfully, please remove the USB flash drive from your laptop.



3.1.3 Please connect your USB flash drive to the [F/W UPGRADE] port.

Please connect your USB flash drive to the [F/W UPGRADE] port which is located on the rear panel of the SE-500HD.



Insert the USB flash drive (Take MARK II as an example)

3.1.4 Please connect an HDMI monitor to the [MULTIVIEW] port of the SE-500HD.

Please connect an HDMI monitor to the [MULTIVIEW] port which is located on the rear panel of the SE-500HD.



Connect to an HDMI monitor (Take MARK II as an example)

3.1.5 Please turn on the power of the SE-500HD.

Please turn on the power of the SE-500HD.

3.1.6 Approximately after 5 seconds, the keyboard firmware will be updated, and the update status will be indicated by the LED color of the [PROGRAM] row buttons.

Approximately after 5 seconds, the keyboard firmware will be updated, and the update status will be indicated by the LED color of the [PROGRAM] row buttons.

- **The same version number is detected:** The firmware will NOT be updated, and all six buttons for the [PROGRAM] row will be illuminated red. The following diagram is the schematic diagram only.

All six buttons will be illuminated in red.



- **If a different version number is detected:** The BLK button flashes red twice and the firmware will be updated. All six program row buttons will be illuminated red while the firmware is being updated. The following diagram is the schematic diagram only.

All six buttons will be illuminated in red while the firmware is being updated.



3.1.7 As soon as the [PROGRAM] row buttons are turned off and then turned back on (red) again, the firmware update is complete.

As soon as the [PROGRAM] row buttons are turned off and then turned back on (red) again, the firmware update is complete.

3.1.8 The SE-500HD automatically reboots itself after the keyboard firmware is updated.

The SE-500HD automatically reboots itself after the keyboard firmware is updated.

● Mainboard firmware

3.1.9 The Mainboard firmware is automatically updated after Step 3.1.8 is executed and the update status will be indicated by the LED color (green) of the [PREVIEW] row buttons.

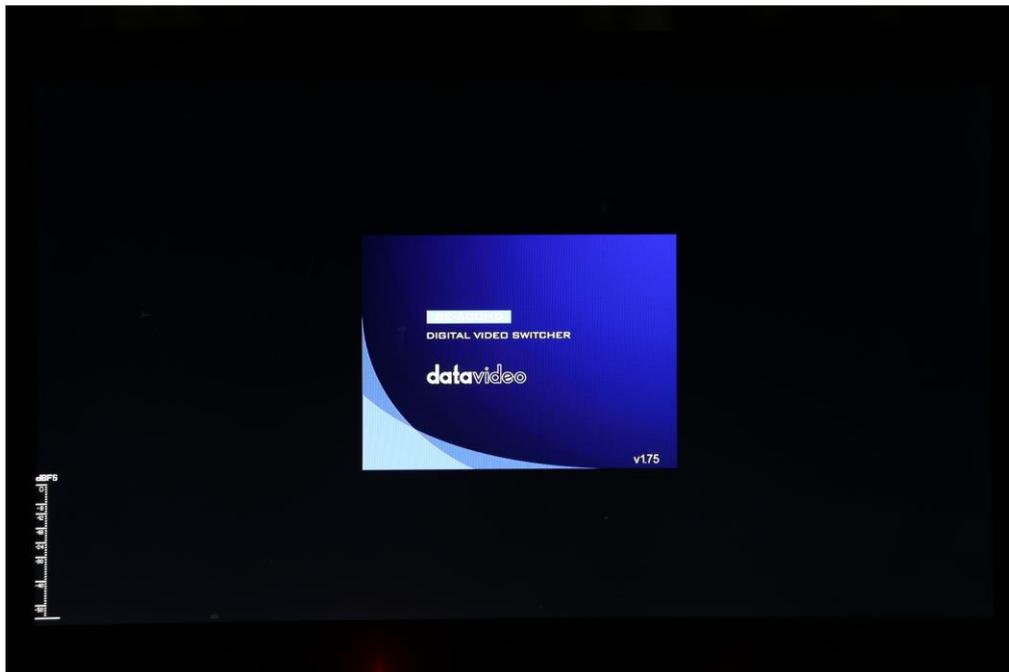
The Mainboard firmware is automatically updated after Step 3.1.8 is executed and the update status will be indicated by the LED color (green) of the [PREVIEW] row buttons. The following diagram is the schematic diagram only.

The update status will be indicated by the LED color (green) of the [PREVIEW] row buttons.



3.1.10 Approximately 5 seconds after the SE-500HD is rebooted, you will see a startup screen on the monitor with the old mainboard version displayed at the bottom right corner , for instance V1.5

Approximately 5 seconds after the SE-500HD is rebooted, you will see a startup screen on the monitor with the old mainboard version displayed at the bottom right corner, for instance V1.5.



3.1.11 At this point, the [BLK] button will start flashing green. The mainboard firmware update will start approximately 10 seconds after the mainboard finishes booting.

At this point, the [BLK] button will start flashing green. The mainboard firmware update will start approximately 10 seconds after the mainboard finishes booting.

- **If the same version number is detected:** The firmware will **NOT** be updated and all six buttons will be illuminated green. The following diagram is the schematic diagram only.

If the same firmware number is detected, the firmware will NOT be updated and all six buttons will be illuminated in green.



- **Different version number detected:** The startup screen on the monitor disappears and the firmware update will be in progress as the [PREVIEW] row buttons are turned on one at a time from left to right until all buttons are illuminated constant green after approximately ONE minute. The following diagram is the schematic diagram only.

If a different version number is detected, the update will be in progress as the [PREVIEW] row buttons are turned on one at a time from left to right until buttons are illuminated constant green after approximately ONE minute.

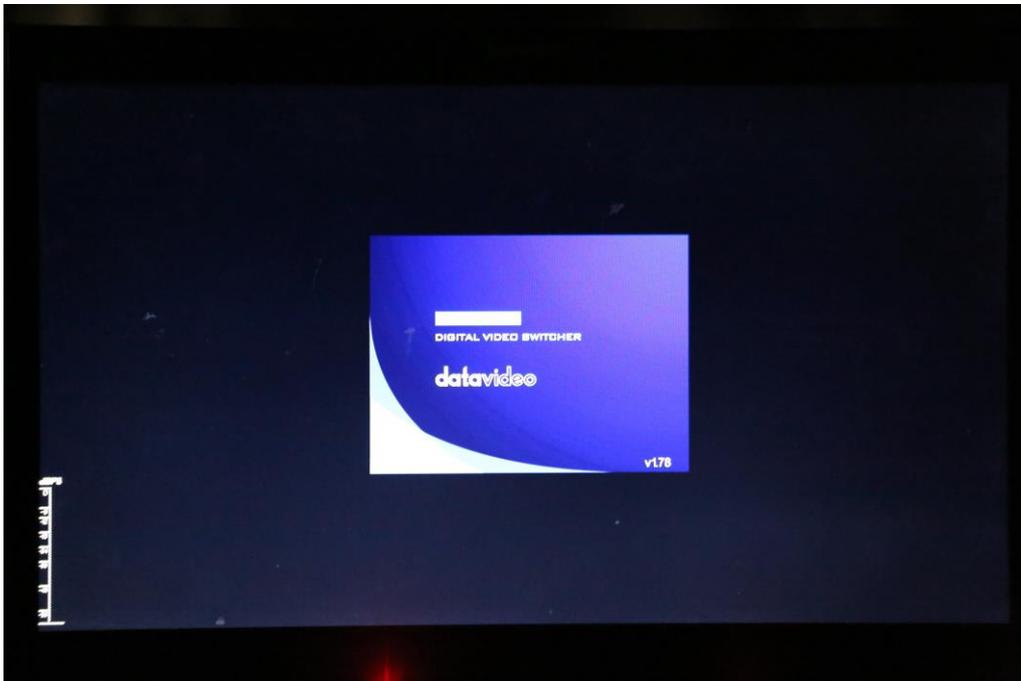


3.1.12 At this point, the firmware update is complete and the mainboard will reboot itself.

At this point, the firmware update is complete and the mainboard will reboot itself.

3.1.13 After the SE-500HD finishes booting, the new version number will be displayed at the bottom right corner of the SE-500HD startup screen, for instance V1.6.

After the SE-500HD finishes booting, the new version number will be displayed at the bottom right corner of the SE-500HD startup screen, for instance V1.6.



● OSD font Update

3.1.14 The OSD fonts will be automatically updated after Step 3.1.13 is executed and the update status will be indicated by the LED color (green) of the [PREVIEW] row buttons. The following diagram is the schematic diagram only.

The update status will be indicated by the LED color (green) of the [PREVIEW] row buttons.



3.1.15. The machine reboots itself after the mainboard is updated, and the [BLK] button will start flashing green after the reboot.

3.1.16 The OSD fonts update will start approximately 10 seconds after the mainboard finishes booting.

■ **If the same version number is detected:** The firmware will NOT be updated and all six buttons will be illuminated green. The following diagram is the schematic diagram only.

If same firmware number is detected, the firmware will NOT be updated and all six buttons will be illuminated in green.



- **Different version number detected:** The startup screen on the monitor disappears and the firmware update will be in progress as the [PREVIEW] row buttons are turned on one at a time from left to right until all buttons are illuminated constant green after approximately TWO minutes.

Different version number is detected, the update will be in progress as the [PREVIEW] row buttons are turned on one at a time from left to right until buttons are illuminated constant green after approximately ONE minute.



3.1.17 At this point, the monitor will display a four-quadrant Multiview display and this indicates that the OSD fonts update is complete.



3.1.18 The update is finished and all six buttons of the [PROGRAM] and [PREVIEW] rows are respectively illuminated constant red and green.

3.1.19 Please remove the USB flash drive and then reboot the SE-500HD.



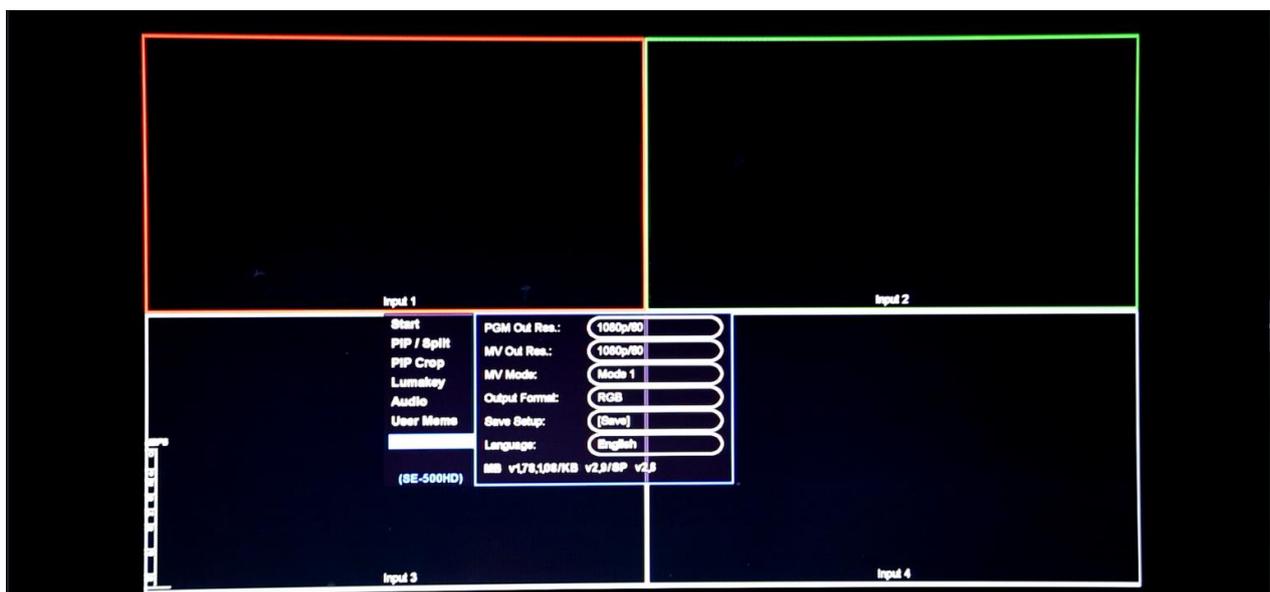
1. Remove the USB flash drive (Take MARK II as an example)

2. Reboot the SE-500HD (Take MARK II as an example)

3.1.20 After the machine finishes booting and as soon as you see the Multiview screen,

press the MENU button  to open the OSD menu to check the MB, OSD and KB versions: Use the Up/Down arrow buttons to move to the Setup option and check if the firmware is successfully updated:

MB v1.78.1.08/KB v2.9/SP v.2.6



- **Note 1:** The device will not be damaged if the USB cable or power is accidentally disconnected while the firmware is being updated; plug the USB thumb drive back in and reboot the device to continue the update process.
- **Note 2:** The USB disk drive system supports FAT / FAT32 formats.
- **Note 3:** There is no guarantee that the SE-500HD supports all USB disks. When you see all buttons of the program and preview rows are illuminated pink or greenish pink, this indicates the disk file read error. When this occurs, please try using USB thumb drives made by other manufacturers.