

Upgrading Firmware via USB

Upgrading firmware is a two stage process. The firmware file is first copied onto the /firmware folder on the micro SD card. The required version is then chosen via the front panel interface, and the upgrade initiated.

Your APA is capable of storing multiple versions of firmware on its internal micro SD card. We recommend, for "good housekeeping" not to keep multiple copies on your USB flash drive, at least not in the /firmware folder that the amplifier will look for. This will prevent incorrect or old firmware versions being accidentally copied to the amplifier.

The USB utility is available through the main menu but **ONLY IF THE AMPLIFIER IS IN STANDBY.**

To leave the screen and metering active in standby, *start with the amp in standby* and then hold the MENU button and briefly press Power/Home. Another press of Power/Home will clear this. (This mode is useful for checking presets or setting mains current limits before powering the amplifier up fully)

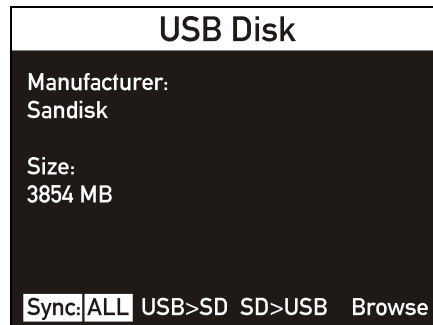
This is a safety feature so firmware updates and preset syncing cannot be enabled during a performance. Press MENU and find the UPDATES SUB MENU and press ENTER. Select the USB Disk Tools option, and press ENTER.

Main Menu	Updates Sub Menu
> SECURITY SUB MENU (locking front panel operations)	
> UPDATES SUB MENU (firmware and presets, USB sync)	> USB Disk Tools (sync data, browse etc.)
	> Firmware Picker (change unit firmware)

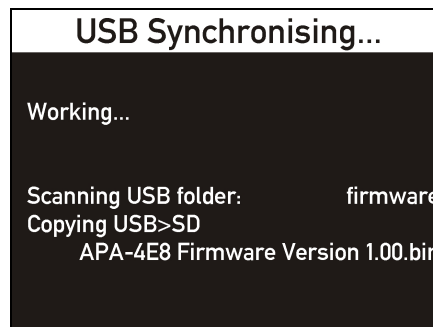
Remember, if the amplifier is still fully powered up, you will see this message:

USB Disk
For safety, USB disk tools are not available whilst the APA is running.
Please switch APA to standby and try again.

Assuming the amplifier is in standby, it will now enable the USB port and try to detect any connected flash drive. This may take a few seconds so please be patient! Once detected, some details of the drive will be displayed and the options available will be shown:

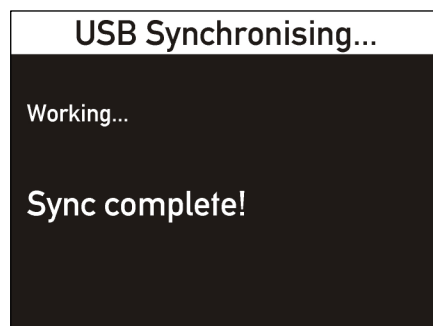


To copy the firmware from the USB stick onto the amplifier's SD card, use the encoder to highlight the USB>SD option, and press ENTER. Any files in the /firmware folder on the USB flash drive that are not already in the corresponding folder on the SD card (with the file extension ".bin") will be copied, and the progress will be shown:



As mentioned earlier, it is good practice to ensure that only the latest firmware version exists in the USB /firmware folder, otherwise the SD card may eventually contain multiple copies of firmware.

Once finished, the display will show:



Now that the firmware has been copied to your APA's SD card, it can be used to finish upgrading the amplifier. Press MENU to drop back to the UPDATES SUB MENU and navigate to:

Updates Sub Menu
> USB Disk Tools (sync data, browse etc.)
> Firmware Picker (change unit firmware)

...and press ENTER. You will now see a list of all the firmware versions stored in the /firmware folder on the amplifier's SD card.

Firmware Picker
> Unit firmware APA-4E8 Version 1-00.bin
> Unit firmware APA-4E8 Version 1-04.bin
> Unit firmware APA-4E8 Version 1-07.bin

Use the BACK and NEXT keys to choose the latest version and press ENTER to start the process. The current settings will be backed up first, followed by an integrity check on the file, and then it will overwrite the current firmware with the new version.

Firmware progress
Firmware change progress:
Saving current state... done!
APA-4E8 Version 1-04.bin
Loading file from SD Card... done!
Verifying firmware image... success!
Reflashing, unit will reboot...
Please Wait

The amplifier will switch off for a few seconds and the POWER key LED will alternately flash green/red as the update progresses. When complete the amplifier will power up again if it was previously on, otherwise it will reboot to standby.

PLEASE DO NOT TURN OFF THE AMPLIFIER DURING THE UPDATE PROCEDURE.