UPGRADING VIVALDI UPSAMPLER TO VIVALDI UPSAMPLER PLUS

Original Vivaldi Upsampler units (serial number starts with VUP) can be upgraded to the Plus version, fitted with the S800 Network Board (serial number starts with VPP). The upgrade involves loading new software and fitting 3 boards, it can be carried out by *dCS* distributors or dealers. A kit is available from *dCS* for a modest charge, please quote order code **KT VUP-VPP** and state the serial number of the unit to be upgraded.

Each kit contains:
- S800 / USB Interface Board.
- S800 Board.
- Network / USB Connector Board.
- 2x FFC cables.
- 1x wired cable.
- A VPP serial number label for that unit.
- A 3-way RS232 interface cable.
- Vivaldi Upsampler Plus v2.0x User Manual (this may not be available when the kit was released)

You will also need:
- VPP BOOT disc (part of your VPP dealer kit – the first one is supplied free)
- CD Player or CD Transport or a laptop.
- Ratchet screwdriver with 2.5mm & 2mm A/F hex bits, 6mm flat blade bit.
- 2.5mm A/F Allen key
- Nut spinner: 7mm A/F.

Do not use ball-ended Allen keys, as these can damage the screw heads.

Safety Warnings

Servicing must be carried out by qualified service personnel only.

Data Conversion Systems Ltd. accept no liability for any kind for loss, accident or injury resulting from service activities.

These products contain circuitry that operate at high voltages and/or currents. Removing safety covers can expose personnel to risk of electric shock or other injury.

These products contain static-sensitive devices which can be seriously damaged by incorrect handling. Observe standard anti-static precautions at all times.

Compatibility

VUP hardware is not compatible with VPP software.
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DO NOT distribute the VPP v2.00 BOOT disc, supplied with this kit – keep it safely for further upgrades.

Please – follow the instructions!

Experienced *dCS* distributors have shown a disturbing tendency to ignore upgrade instructions and miss out important steps.

If you READ these instructions and complete ALL the steps in the CORRECT SEQUENCE, the VPP unit will work correctly afterwards.

If you don't, it won't work correctly afterwards!

It really is as simple as that.

The upgrade kit has been assembled to match a particular unit. We need to keep records of which VPP units have been upgraded, so please make sure the VPP serial number label in the kit matches the unit (e.g. VUP51000 becomes VPP51000). A field upgrade does not update the electronic serial number to VPP – this can be done at dCS only.

Please do not mix up the boards from 2 or more kits, as we log the board serial numbers against each unit.

Loading VPP BOOT software

The VPP BOOT disc will change the model type from Vivaldi Upsampler to Vivaldi Upsampler Plus. The new software is not compatible with the original Network and interfaces, so load this disc only as part of an upgrade.

- Load the VPP BOOT disc into a CD Transport (or Player), making sure it is in **STOP** mode. The disc must **not** be playing.
- Connect the CD Transport's SPDIF output to the Upsampler's SPDIF input and select that input.
- <u>Alternatively</u>, you can reboot the unit by playing the VPP BOOT disc or file bit-perfect via the Upsampler's USB1 input.
- Open the Upsampler's menu and set the Settings > Sync Mode page to Audio (or Master for USB).
- Open the Upsampler's menu again and select the Information > CD Update page.
- The Upsampler will display **Please wait**, then **Please start CD** – start the Transport playing.

The Upsampler displays **Scanning**, then **OK**. The update is now in progress, the upload phase takes about **58 minutes**. The update progress will be displayed, starting from **1/192**, gradually counting up to **192/192.**

When the upload is complete, the disc will stop. The Upsampler will display **DO NOT SWITCH OFF** for the next 2 minutes while it copies the new software into active memory. When the Upsampler switches off, the software update is complete.

Problems?

- If the display does not change for more than 5 minutes or there is a power failure, switch off the unit at the rear panel switch, wait 10 seconds, then switch on and start the update again.
- If the disc skips or you accidentally advance the track, the display will freeze. Switch off the unit at the rear panel switch, wait 10 seconds, then switch on and start the update again.
- If the update fails to load, the display will report the error and the update will abort. The most likely cause is that the update CD is faulty or dirty. There is no cause to worry as the original software is backed-up inside the unit.
- Check the disc for dirt or damage. If the disc appears to be dirty, wipe it gently from the centre outwards with a dry soft cloth. If the disc is damaged, contact *dCS* for a replacement. If it appears to be OK, run the procedure again.

Opening the case

Disconnect all cables from the unit. Rest the unit on a soft anti-static surface to prevent damage to the finish. Turn the unit upside-down and remove the 8 screws and black washers indicated by red rings in the picture below.

Underneath each washer, you will find the head of a long bolt that passes right through the unit and screws into the top plate. Unscrew all 8 bolts using a flat-blade screwdriver and lift the bolts out with your fingertips or pliers.
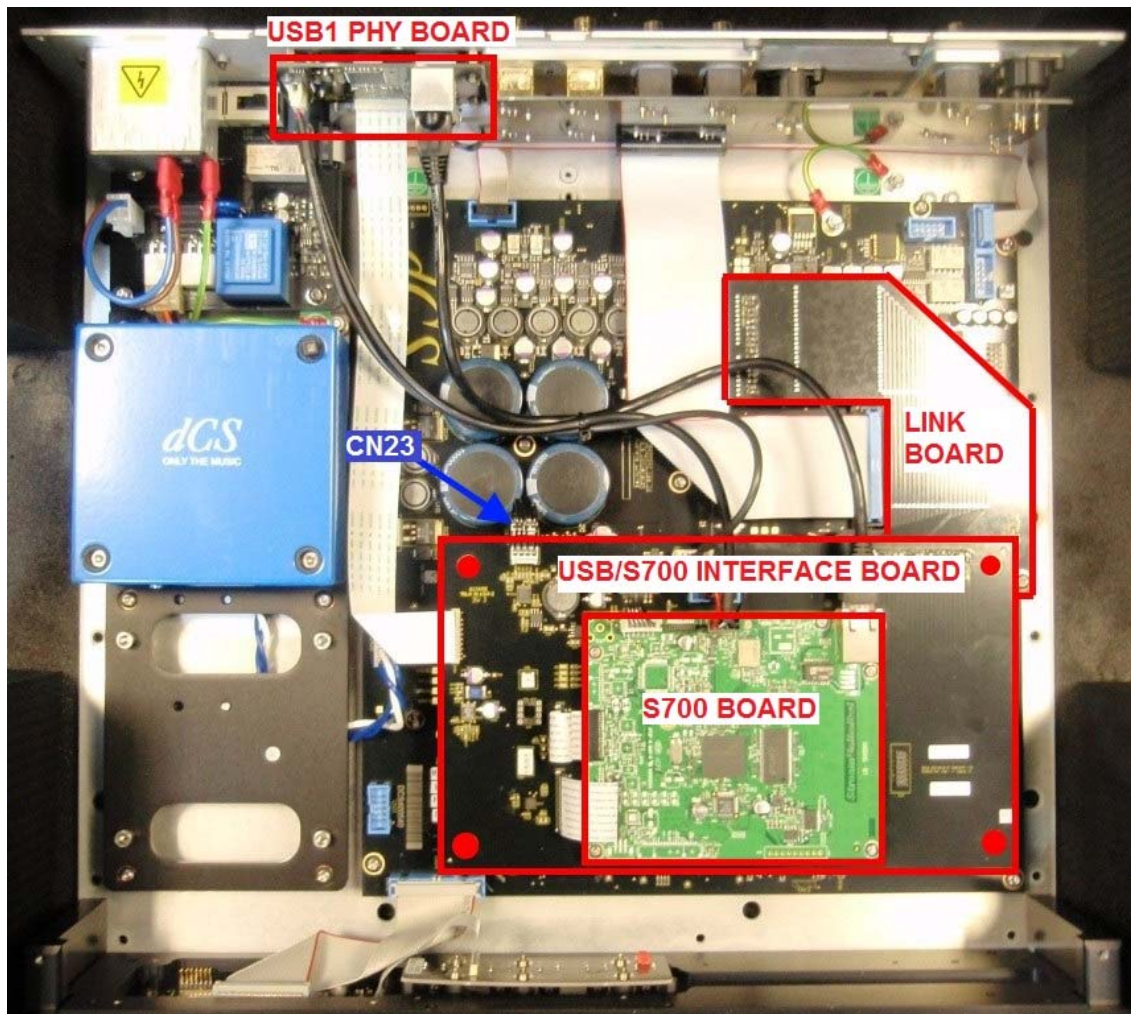
Turn the unit upright. Remove the 4 screws from the back panel, indicated by red rings in the picture below.

Slide the top cover backwards off the unit, pulling evenly from both sides. Take care not to jam the cover in the slot.
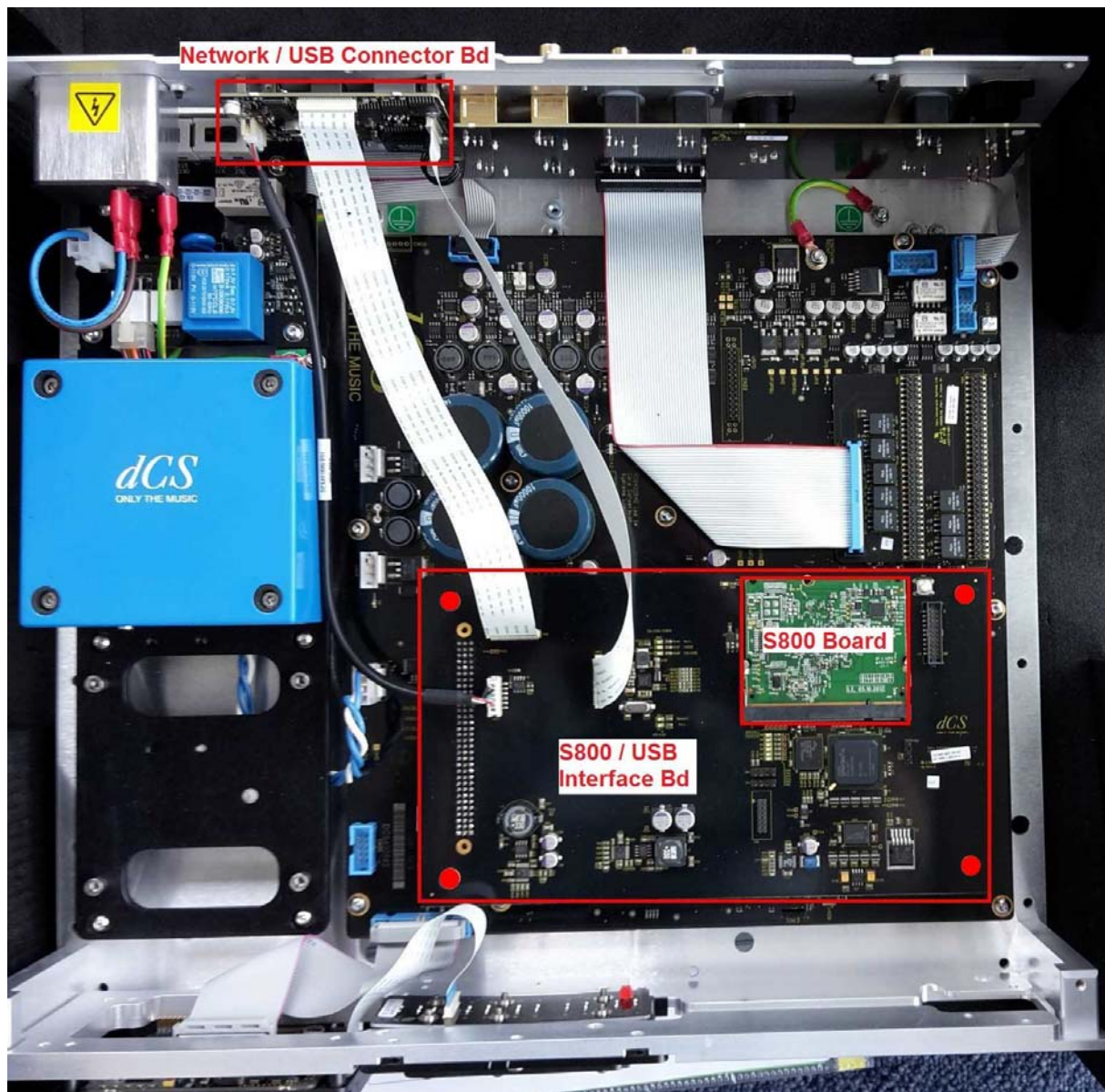
If the cover is too tight and will not move, turn the unit over and loosen the screws on the base plate. (Do not forget to tighten them again when you re-assemble the case.)
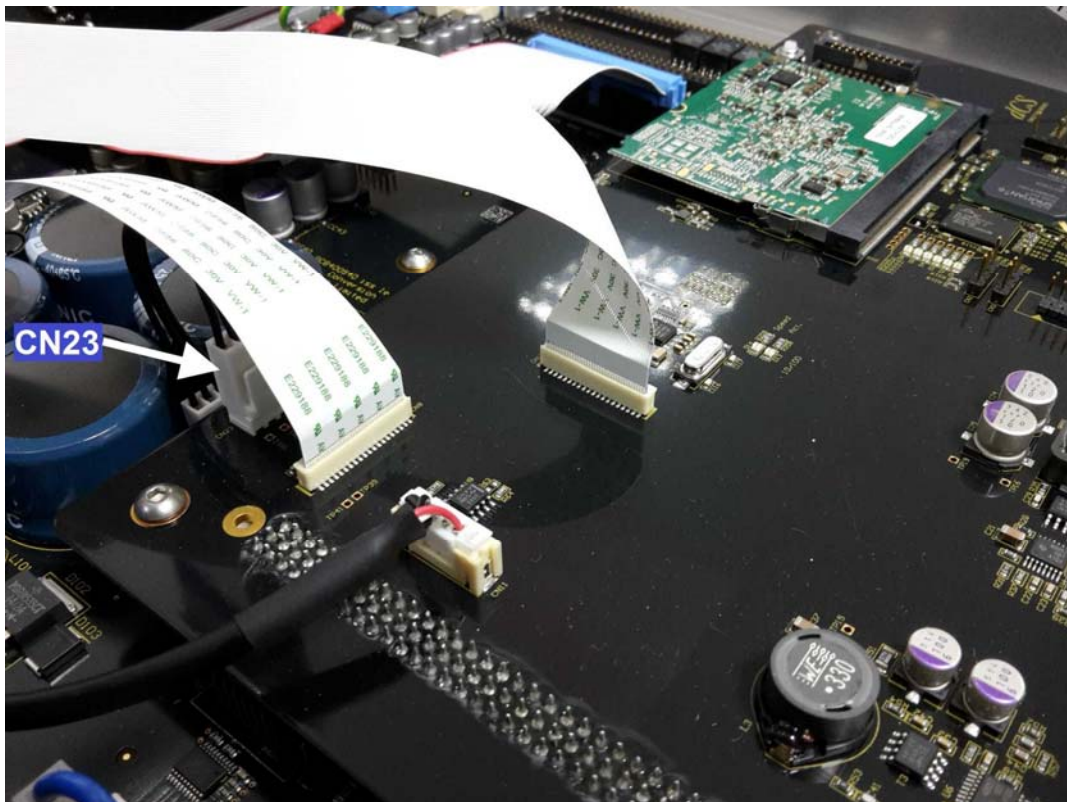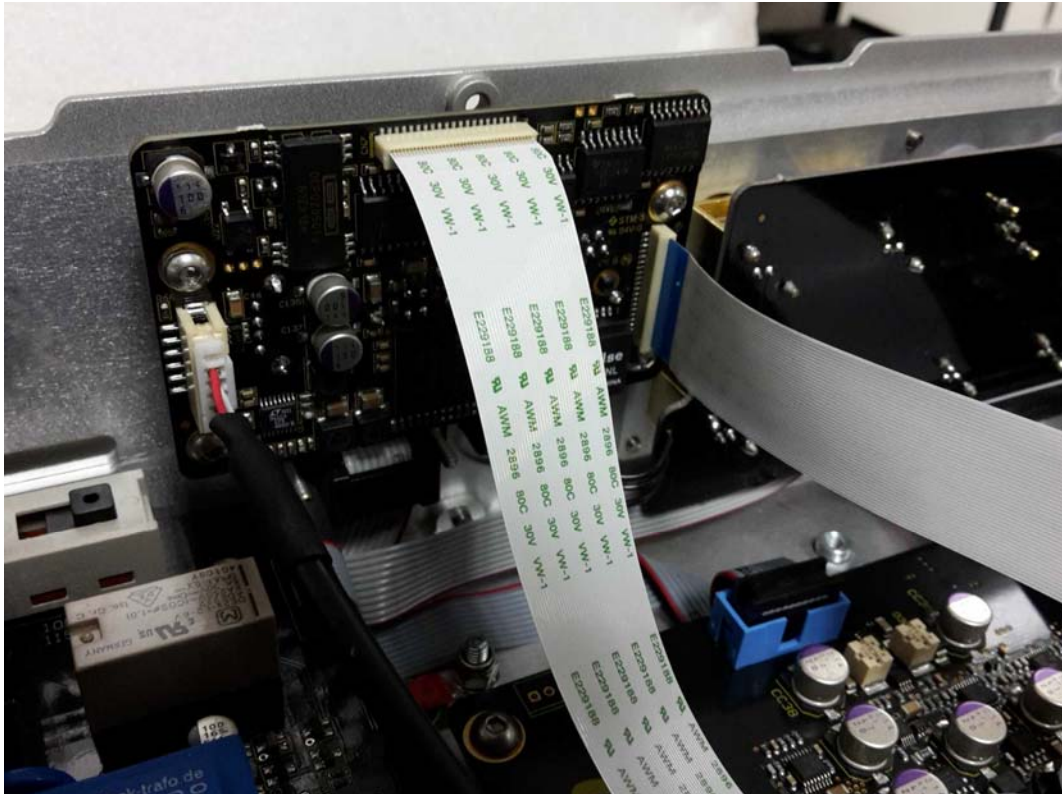
Removing the old parts

- Disconnect the 3 black cables and the white Flat Flex cable linking the USB/S700 Interface Board to USB1 PHY Board.
- Disconnect the black wireform CN23 (indicated by the blue arrow) at the USB/S700 Interface Board end only – it is re-used.
- Remove the 4 screws securing the USB/S700 Interface Board and remove the board.
- Remove the Link Board.
- Remove the four long pillars to which the USB/S700 Interface Board was fitted, replace them with four 17mm pillars.
- Remove the 4 screws securing the USB1 PHY Board to the back panel and remove it. Note that access to the screw in the lower left corner of the board is blocked by the blue mains transformer. Use an L-arm Allen key or a screwdriver with a flexible shaft to access it.

Fitting the new parts

- Fit the S800 / USB Interface Board complete with the S800 Board to the Control Board as shown. The large connector at the left side of the Interface Board should locate on the mating connector on the Control Board and push home. Secure the board to the pillars with 4 screws.
- Fit the Network / USB Connector Board to the back panel, secure it with 4 screws.
- Connect the short cable from Control Board CN23 to CN23 on the S800/USB Interface Board.

- Fit the black cable and the two white flat flex cables between the S800 / USB Interface Board and the Network / USB Connector Board as shown. Make sure that the printed sides of the flat flex cables are oriented as shown.

Updating the software

Power up the Upsampler and connect it to a network with internet access. Wait a few minutes while the network board boots up and connects to the network. Connect an iPad / iPhone to the same network and open the Vivaldi 2.0 app. Go to **Devices > Configure > Information > Version**, select **Check for Updates** and **OK**. Over the next 45 minutes, the Upsampler will download the latest software and install it – please be patient. Do not switch the unit off or disconnect it from the internet until the process is complete.

Changing the serial number label

From the inside of the unit, push the metal plate carrying the serial number and the voltage setting off the back panel with a screwdriver. If necessary, remove any blobs of glue or pieces of paper from the label position. Remove the backing paper from the new VPP serial number label (the number must match the original VPP serial number!), locate it on the panel and press it down firmly.

Updating the serial number is important. Failure to do so **WILL** cause confusion and mistakes when supporting or updating the Upsampler so **PLEASE TAKE THIS SERIOUSLY**!

Refreshing the USB Audio Class

Open the menu and go to the Settings > USB Class menu page. Select this page once to load the new USB code into the USB interface boards. Select the page again if you want to change the setting.

Before the Upsampler can be used with a Windows Vista / 7 / 8 / 10 PC, the *dCS* USB Class 2 driver 2016 must be downloaded from the internet. Go to http://www.dcsltd.co.uk/products/vivaldi-upsampler/, click the **Support** link, download the driver, unzip it and install it onto the PC. Follow the instructions provided with the driver files.

Completing the upgrade

Check that the Upsampler is operating correctly, then close the case.