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Technical Note TN22

29th September 2008

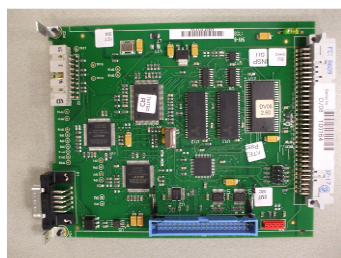
Instructions for upgrading 808 to 808.2 specification

The 808 and 808i are identical other than IA00 and IA41 cards used on the 808i to support analogue and digital audio inputs. **These instructions apply to both 808 and 808i.**

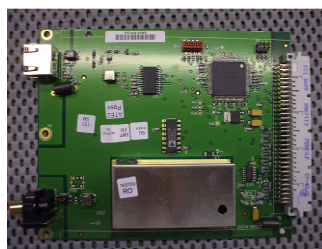
The upgrade involves fitting five new cards in place of six existing cards. Four of the cards in the upgrade kit are completely new cards with new names and Meridian stock codes. However, the fifth card is a new version of one of the existing cards; the CO00. Therefore, care should be taken to distinguish between the new card and the old one removed from the unit during the upgrade.

Contents of the upgrade kit

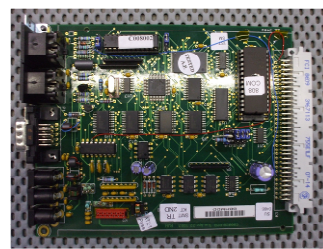
To aid identification, the stock code is shown on one of the labels on each board.



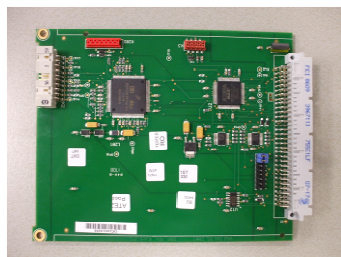
DV08 drive controller PCB
Stock-code SU0445



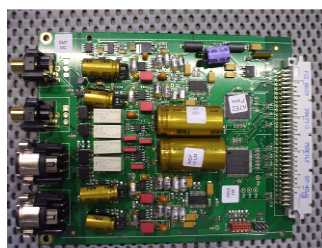
OE28 digital out PCB
Stock-code SU0434



CO00 computer PCB
Stock-code SU0466



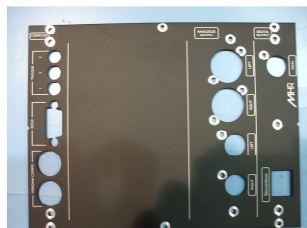
DV28 FIFO buffer PCB
Stock-code SU0433



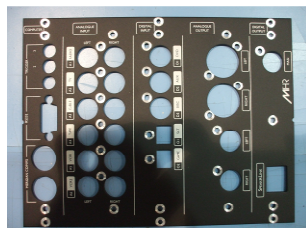
OA28 analogue out PCB
Stock-code SU0433



20-way loom



Rear panel section
808.2 version



Rear panel section
808.2i version

The kit includes back-panel sections for both 808.2 and 808.2i making it suitable for upgrading either version.



Unless otherwise indicated, all work should be carried out with the mains-power disconnected from the unit. Standard precautions concerning the handling of static-sensitive components should be taken.

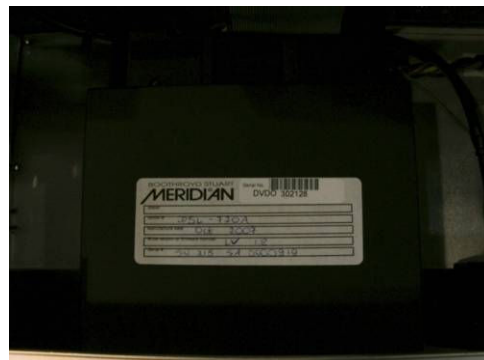
1. Establishing whether the ROM-drive requires replacement

The 808.2 and 808.2i are fitted with the “DSL720A” ROM-drive. Some examples of 808 and 808i are fitted with a different ROM-drive; the “DRL-200”. This type of ROM-drive will not function in an upgraded unit, so it must be exchanged for the “DSL720A” type. This is available from Meridian (stock code G45812). The upgrade kit does not include a ROM-drive.

- a) Use a 3mm hex-headed wrench (Allen key) to remove the four screws securing the outer-case to the chassis. There are two screws on each side of the unit. Next, remove the nine T10 Torx screws holding the inner-case lid in place. Remove the inner-case lid.
- b) The label on the casing of the ROM-drive indicates which version of ROM-drive is fitted. **If this reads “DRL-200” the drive must be replaced with a “DSL720A” version of drive.** If there is no marking, or it is unclear, the casing must be disassembled to check the version. If the unit is fitted with “DSL720A” skip to section 3 of these instructions. Otherwise, follow the steps in section 2 in order to replace the ROM-drive.



DRL-200 ROM-drive



ROM-drive information label

2. Replacing the ROM-drive (if necessary)

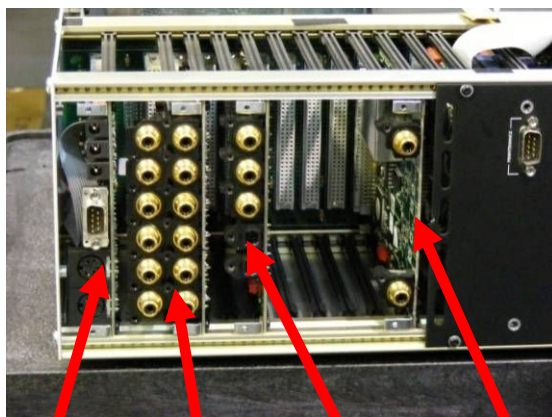
The work detailed in this section should only be carried out if it has been established that the ROM-drive requires replacing as described in section 1 of this document.

- a) There are four cross-headed screws holding the front-fascia to the main chassis; two on each side. Remove these, taking care not to damage the fascia while it is not secured to the unit. Once the screws have been removed, disconnect the loom connecting the display PCB to the unit. Place the fascia to one side for safe-keeping.
- b) Remove the two T10 Torx screws securing the blanking-plate to the front of the chassis. Remove the blanking plate
- c) Remove the four cross-headed screws securing the ROM-drive casing to the floor of the chassis. After disconnecting the wide “IDE” loom and the DC power-supply loom, remove the ROM-drive assembly from the chassis.

- d) To remove the ROM-drive from its casing, remove the six T10 Torx screws. There are three either side of the casing. Now remove the T10 Torx/M3 nut combination at each corner of the chassis. The ROM-drive is now free from its casing.
- e) Eject the disc-tray from the drive by pressing the white lever on the underside of the drive. With the tray fully extended, hold down the two catches on either side of the drive to allow the disc-tray to be removed. Remove the front-trim by releasing it over the two catches holding it in place. The front-trim must be fixed to the new drive's disc-tray. The front-trim has two raised points which must sit over the front of the tray itself. Insert the disc-tray, pushing it until a "click" is produced. A correctly-inserted tray cannot be ejected without pressing the white lever.
- f) Fit the casing to the new ROM-drive using the M3 nuts and T10 Torx screws. Replace the assembly in the chassis, ensuring that the wide "IDE" and power-supply looms are replaced firmly.
- g) Refit the fascia with the display-loom reconnected in the correct orientation. The new drive should now be given a basic test. To do this, temporarily replace the outer-case of the unit. This is done as a safety precaution. Power the unit, insert a CD and check that it plays correctly. If all is okay, disconnect the power lead and remove the outer-case once again.

3. Removing redundant cards

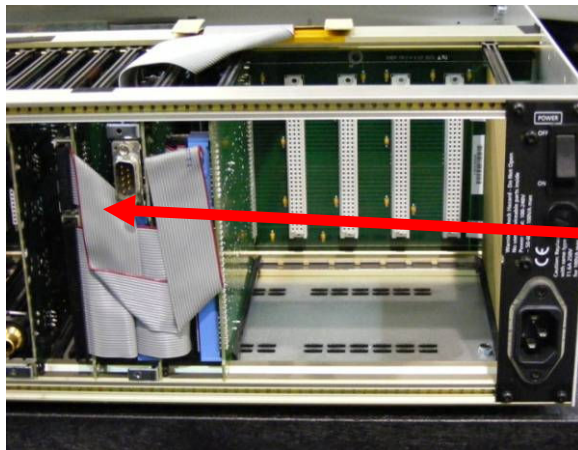
- a) Position the unit so that the rear of the chassis is accessible. Both sections of the rear-panel must be removed. To do this, remove the twelve T8 Torx screws from the top and bottom of the rear panels. Remove the 29 Torx screws securing the panels to the cards. The screws vary in type, so their original locations should be noted as they are removed.
- b) It is possible to leave the two XLR sockets connected to the panel to allow the XLR output card and the panel to be removed in one piece. The XLR output card will not be re-installed, so it can be put to one side. However, the panel should be retained for re-use.
- c) Disconnect the 12-way loom from the CO00 card and remove the card. Remove the OE21 (digital output) card. These cards will not be re-installed, so they can be put to one side. As mentioned previously, be sure to ensure that the obsolete CO00 card is not confused with the new CO00 supplied with the upgrade kit.
- d) If the unit is an 808i, it will be fitted with IA00 and IE41 cards. These two cards can be left in their current positions.



CO00 card IA00 card IE41 card OE21 card

**808i with left-hand
rear-panel and analogue
output card removed**

- e) Disconnect the two looms connecting together the cards either side of the DV02 card. Disconnect the wide “IDE” loom from the DV02 card. Remove all three cards.

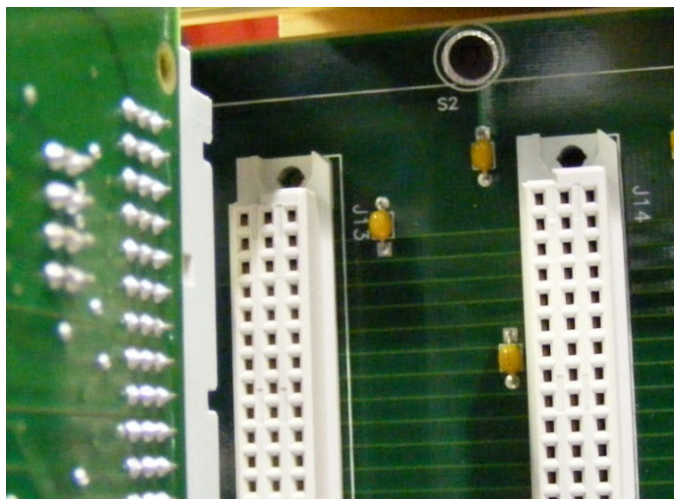


Unit with right-hand rear-panel removed

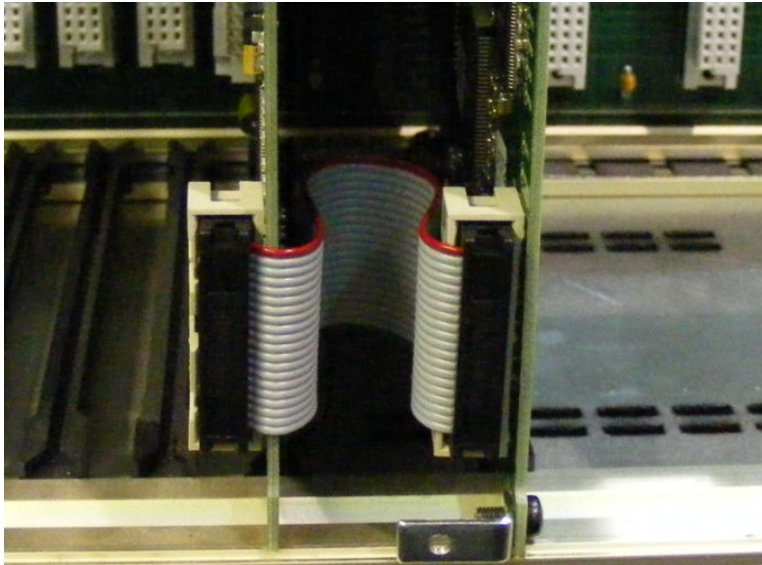
DV02 card

4. Fitting the new cards

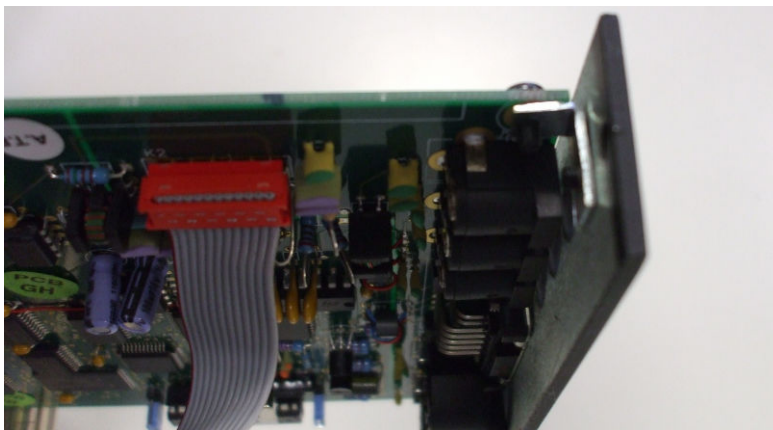
- a) Locate the socket which has “J13” printed to its right (as shown in the picture). Fit the DV08 card (SU0445) to this socket. Now, fit the wide “IDE” loom. Press the loom firmly home, ensuring that the securing hooks are positioned to hold the loom in place.



- b) Insert the DV28 card (SU0433) into socket “J12”. Connect the two cards using the 20-way loom supplied in the upgrade kit. It is important to fit this in the orientation shown here.



- c) Insert the OE28 card (SU0434) and the OA28 card (SU0432) into sockets “J11” and “J9” respectively.
- d) Insert the replacement CO00 card (SU) into the leftmost socket on the backplane and refit the 12-way loom that connects it to the display PCB. Ensure that the loom is fitted in the correct orientation as shown here.



- e) Fit the original left rear-panel and the appropriate right rear-panel supplied with the kit. Care should be taken to avoid “cross-threading” any fixings being re-used.
- f) Re-fit the inner chassis lid and outer-case to the unit.



5. Reconfiguring and testing the upgraded unit

Note: the cards included in the upgrade kit carry all the firmware used by the unit. **There is no need to carry out a firmware update** as part of the upgrade process.

- a) Once the unit is reassembled, it should be set to a Factory "Type" as explained in the user-manual. This will override any existing configuration settings, so the product must be re-configured as necessary before reinstallation.
- b) Check the functionality of the upgraded unit. Play a disc and check the following operations are carried out correctly: - *Play*, *Stop*, *Fast-forward*, *Rewind* and *Pause*. Check that left and right channels are correctly oriented and that analogue and digital outputs are both present. If possible, check that the product provides audio and comms via the RJ45 "SpeakerLink" connection. Naturally, this requires the use of a Meridian speaker equipped with RJ45 sockets.
- c) Finally, Meridian recommends that the unit is cleaned prior to being returned to the customer.