



Neve 8804 Fader Pack User Manual

527 –369
Issue 1

!!!Please read – includes important safety instructions!!!

© 2006 AMS Neve Ltd own the copyright of all information and drawings contained in this manual which are not to be copied or reproduced by any means or disclosed in part or whole to any third party without written permission.

As part of our policy of continual product improvement, we reserve the right to alter specifications without notice but with due regard to all current legislation.

Disclaimer: The information in this manual has been carefully checked and is believed to be accurate at the time of publication. However, no responsibility is taken by us for inaccuracies, errors or omissions nor any liability assumed for any loss or damage resulting either directly or indirectly from use of the information contained within it.

Trademarks: All trademarks are the property of their respective owners and are hereby acknowledged.

AMS NEVE LTD
BILLINGTON ROAD • BURNLEY
LANCS • BB11 5UB • ENGLAND
PHONE +44 (0)1282 457011
FAX +44 (0)1282 417282
info@ams-neve.com
www.ams-neve.com

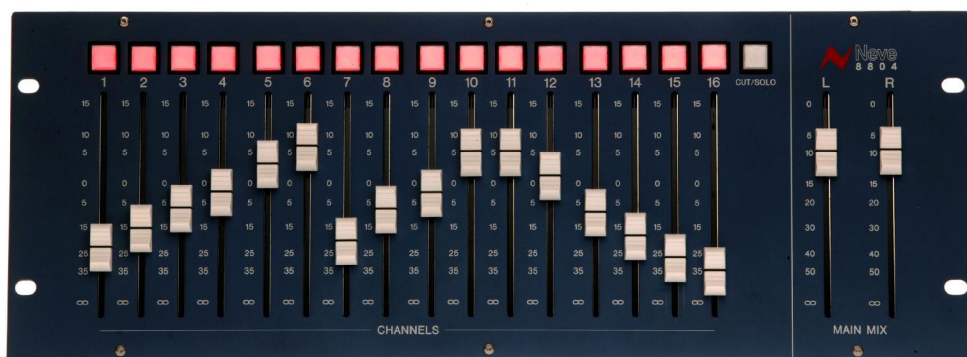
Safety Notice

For your own safety and for the protection of others please observe the following safety instructions:

- Read these instructions
- Keep these instructions
- Heed all safety warnings
- Do not use near water
- Clean only with a dry cloth
- Do not install near heat sources
- Do not block ventilation openings
- Protect the power cord
- Only use accessories specified by the manufacturer
- Unplug during storms, or when unused for long periods
- Refer all servicing to qualified personnel only

Contents

1. Overview.....	4
Getting Started	
2. The 8804 Unit.....	5
Unpacking	
Mounting	
Connections	
3. Operation.....	6
Channel Faders	
Master Faders	
Cut Solo Channel Switches	
Cut/Solo Master Switch	
Direct Outputs	
Auxiliary Send	
4. Recall Software.....	8
Setting Up	
Recall	
Appendices.....	13
Appendix A Specifications	
Appendix B Connector Pin Outs	
Appendix C Jumper Settings on the 8816	
Appendix D Software Installation	
Appendix E Firmware Updates	
Appendix F Block Diagram	



1. Overview

The 8804 fader pack is a complementary product for the 8816 Summing Mixer. Please see the separate 8816 User Manual for guidance on this product. 8816 units shipped with an 8804 fader pack will be ready for use with the 8804. When adding an 8804 to an 8816 that was previously used stand alone it will be necessary to change jumper settings within the 8816, see Appendix C. On older 8816 models it may also be necessary to update the firmware, see Appendix E. If in doubt please consult your local Neve Dealer.



8804 provides Fader level control, Direct Outputs from each channel, Mute and Solo control. With an 8804 attached, the Level control on the 8816 is re-assigned as an Auxiliary Send control.

Settings on the 8804 may be stored and recalled using the same Recall software as the 8816 and other members of the Neve 88 series.

Getting Started

1. Install the Recall s/w provided on to your PC or Mac (see Appendix D)
2. Connect the 8804 USB port to a PC or Mac using a standard USB cable. It should be connected directly to the computer or via a powered USB hub but not via a passive USB hub because the 8804 has no power supply, it is powered from the computer via USB
3. Connect the 50 pin “Fader I/O” socket on the rear of the 8804 to the 50 pin socket on the rear of the 8816 using the cable provided
4. Connect the associated 8816 to the same PC/Mac using a USB cable.

The 8804 fader pack will now control the level of signals on the 8816 channel inputs and master outputs. Mutes and Solos may be controlled from either the 8804 or the 8816 Mute/Solo switches.

2. The 8804 Unit

Unpacking

The 8804 is shipped in a purpose made protective box. Beneath the 8804 unit is a polystyrene floor, underneath this floor is a CD with s/w and manuals, a 50 pin audio cable, a USB cable, a 50 pin D-type connector and a ribbon cable for installation in the associated 8816.

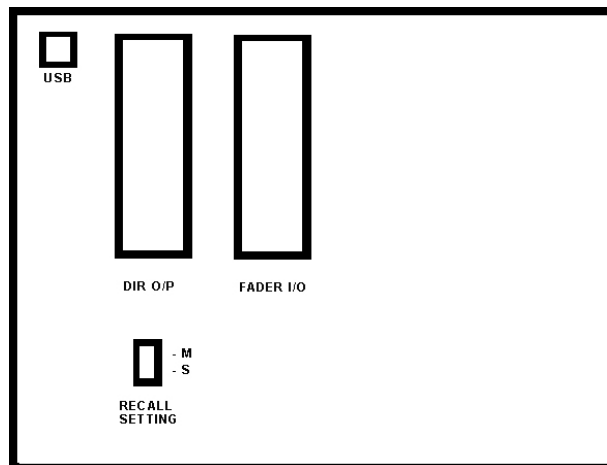
Mounting

The 8804 can be rack mounted, used on a table top or mounted in custom furniture.

1. To mount in a standard 19 inch rack the securing screws should be placed through the mounting holes using plastic washers to avoid scratching the unit surface.
2. For table top use, the tilt bar on the rear of the unit should be extended, supporting the unit at a convenient working angle.
3. The 8804 may be placed in custom studio furniture using the lip of the unit for support.

Connection

Two 50 pin D type audio connectors and one USB connector are mounted on the rear panel.



USB Port

The USB port should be connected to either a PC or a Mac. During normal operation the USB provides power to the 8804 and communication between the 8804 unit and the associated 8816 unit. It also provides a link to the PC or Mac for the recall and restore of 8804 settings, see separate section on Recall.

Direct Output Connector

The left hand 50 way D-type connector labeled DIR I/O is for direct outputs from each channel. This cable is NOT supplied but a 50 pin D-type connector is supplied with the unit for the user to wire as they require. Connections are balanced, see Appendix B for connector pin out plan.

Fader I/O

The right hand 50 way D-type connector is the analogue audio link between the 8816 and the 8804. This cable is provided with the 8804. Connect one end to the 8804, connect the other end to the 50 way D-type socket on the associated 8816 unit. See Appendix B for connector pin out plan.

3. Operation

Channel Faders

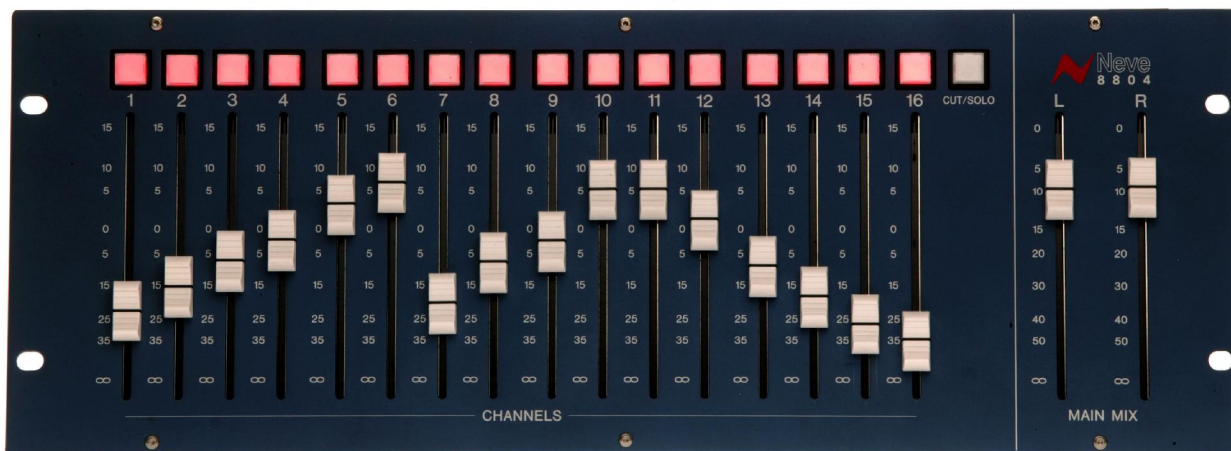
16 100mm channel faders on the 8804 surface control channel levels on channels 1 to 16 with a gain range from $-\infty$ dB to +15dB.

Having 15dB gain in hand is a useful creative tool, particularly when riding levels in the mix. Care should be taken not to overload the workstation or other recording device by using too much boost across multiple channels simultaneously.

With the 8804 fader pack attached, the 8816 rotary pots are taken out of the main circuit and re-tasked as an auxiliary send level control. The 8816 master level pot is no longer used.

Master Faders

Two master faders control the mix left and mix right output levels with a gain range from $-\infty$ dB to 0dB. With both faders at the top of their range the mix gain is unity.

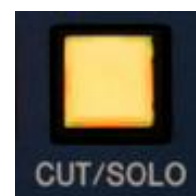


Cut/Solo Channel Switches

Cut/Solo buttons above each channel activate the Mute relays in the 8816 via the USB connection. The switches on the 8816 and on the 8804 may both be used, each will illuminate to reflect changes made from the other. In Cut mode each button mutes the associated channel. In Solo mode each button solos the associated channel. The solo type is Solo In Place, all non-soloed channels are muted.

Cut/Solo Master Switch

The Cut/Solo switch on the upper right of the 8804 sets the mode of the Cut/Solo channel switches. When the Master switch is illuminated yellow the channel buttons are in Solo mode. When the switch is unlit all channel switches are in Mute mode.

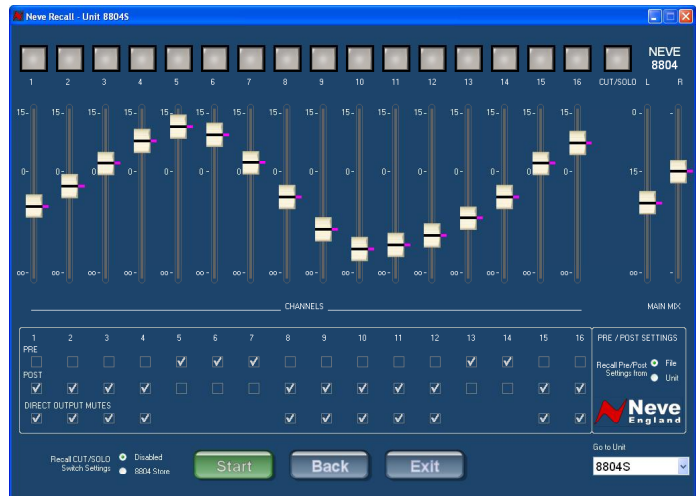


Direct Outputs

The 8804 provides balanced Direct Outputs from each of the 16 channels. These can be used for recording or as sends to effects units and processors.

The Direct Outputs can be set Pre or Post faders within the Recall software. If a channel direct output is set to post fader the user can select whether the direct output will be muted by the Cut/Solo switch.

Please see the section on Software for how to set up the Direct Outputs as Pre or Post Fader.



The Direct Output balanced circuits are on the 50 pin D type connector on the rear of the 8804. Please see Appendix B for the Direct Output wiring diagram.

Auxiliary Send

With levels controlled from the 8804 faders the rotary level control on the 8816 is available to use as an auxiliary send level control.

The output appears on Circuit 4 of Connector 3 on the 8816, please see the 8816 User Manual for connector details.



8816 level controls become auxiliary sends

4. Recall Software

Setting Up

- Connect the 8804 and 8816 units to the PC/Mac via USB cables
- Ensure that both 8804 and 8816 units have been set to the same state, M (Master) or S (Slave), using the Recall Setting switch on the back of each unit (please see the 8816 manual for an explanation of master and slave units)
- With the 8816 unit and 8804 connected to the PC/Mac, start Neve Recall.
- The CUT/SOLO switches are automatically synchronised between the two units. Therefore both units reflect the same CUT/SOLO state as each other. In the default set-up mode the 8816 becomes the control unit for mutes during Recall, this can be switched to the 8804 see the section on Mute Control later in this document.
- Note: No more than two 8804 units can be connected at any time to the PC and Recalled or synchronised with their respective 8816 units



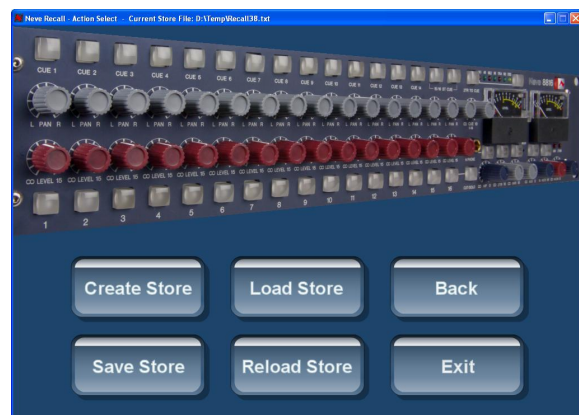
Selecting Units

- The main screen will display 8804S as shown (or 8804M depending on the Master/Slave switch setting).
- Clicking on a unit will de-select it, the de-selected unit is NOT part of the Recall and its button will turn red. By default all connected units are included in the Recall.
- After selecting or de-selecting units as required select GO to continue.



Creating and Saving Stores

- To Create a new store select “Create Store” from the Save/Load Store Screen as shown. Current settings on all selected units will be stored in a Recall file which can be named by the user and stored in any location on the PC or Mac.
- Select “Save Store” to overwrite the current store (displayed on the title bar of the Save/Load Store screen) for the units selected. This function can be used to update the Recall store file currently in use.



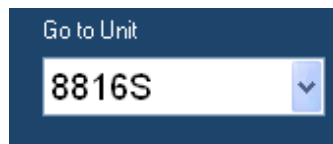
Loading a Store

- To Load a store select Load Store and select the required file from the dialog box.
- Alternatively you can select Reload Store to load the current working store file - displayed on the title bar of the Save/Load Store screen.



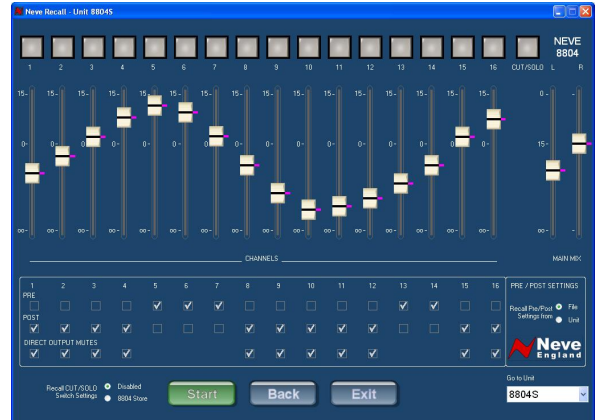
8816 Settings

- After selecting a store to recall the following screen will be displayed.
- “Back” and “Exit” buttons allow you to go back a screen or quit the software.
- By default the 8816 is the first unit of any Recall system if it is connected and selected. In this case the first unit to be shown on Recall is the 8816S.
- To Recall store settings select the Start button. The switch data is automatically sent to the unit, the rotaries are recalled manually. The purple/pink indicator next to each rotary indicates the required position to be matched. When a control is reset that control automatically disappears and the next control is enlarged as a visual aid to recall.
- Once all the controls are recalled the “Unit Reset!” is shown on screen and the user can move to the next unit using the drop-down menu in the “Go to Unit” box. Select the next unit to reset (for example 8804S or 8804M) and the screen will move onto the selected unit.



8804 Screen

- This screen shows the fader positions.
- It also shows the Pre/Post and Direct Output Mutes setting, these may form part of the 8804 Recall – please see Direct Output File/Unit.
- It also shows the cut/solo switches, these may form part of the 8816 Recall or of the 8804 Recall – please see Switch Settings.

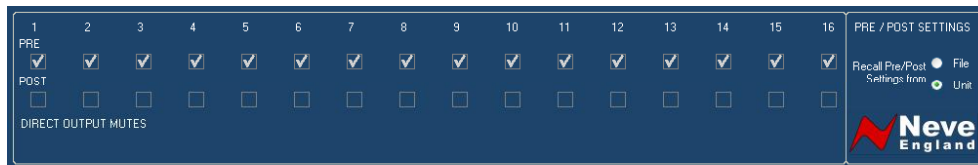


Direct Output File/Unit

- In the Pre/Post Settings box selecting “Unit” gives the option of viewing and using the current settings from the Unit, selecting “File” shows the settings stored in the File and includes them in the Recall.



- The File or Unit settings are shown on screen as selected. The values that are shown on this screen will be sent to the unit when the Recall is started. Please see the section on Direct Output Settings for detailed instructions on setting up Direct Outputs.



Switch Settings

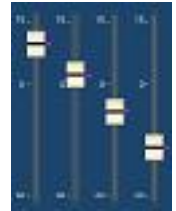


- If “Disabled” is selected NO store data is written to the switches from the 8804 Recall screen (this is the default setting when both 8804 and 8816 units are linked together).
- If “8804 Store” is selected switch data will be Recalled and the current switches on the associated 8816 will also be overwritten.
- If both 8816 and 8804 units are connected then by default this option is set to Disabled and

the 8816 is the Control unit. If the 8804 is connected on its own the Switch Settings option will be set to 8804 Store so you can set the switch data automatically without any user intervention. Alternatively if you do not want the switch data to be sent to the 8804 unit then select Disabled at any time before clicking Start.

Recalling the Faders

- To start the Recall select the “Start” button. The Pre/Post settings will be sent out if “File” was selected in “Pre/Post Settings”. The switch settings will be sent out if “8804 store” was selected. A pink indicator is shown to the right of each of the faders to show the required fader position and the faders can now be manually set to these positions.
- Once all settings are recalled the screen displays “Unit Reset!”.
- If required, switch to another unit using the drop-down menu.
- Select “Back” at any time to go back to the previous screen (Save/Load store screen) or “Exit” to quit the program.

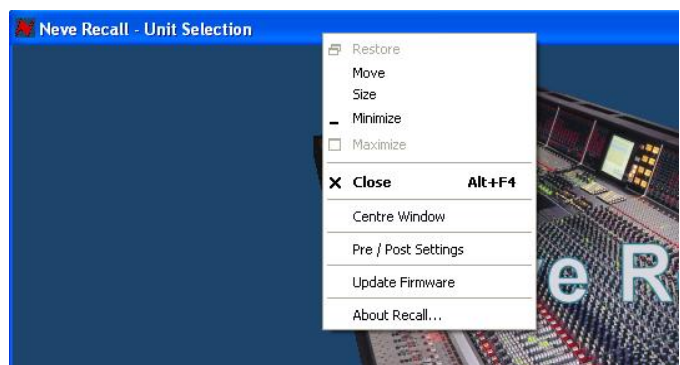


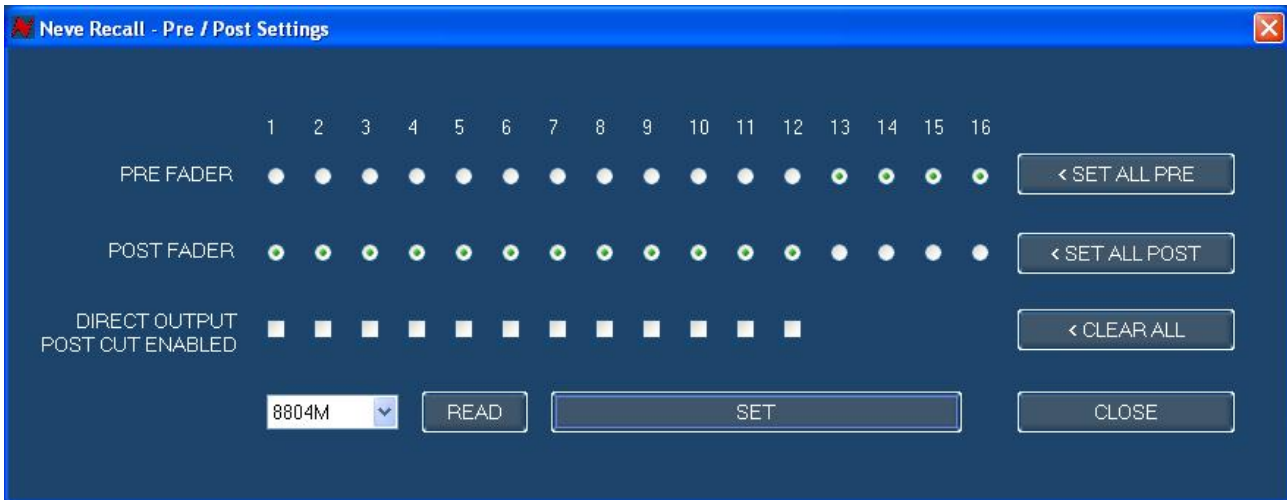
Disconnection

If any of the units are disconnected during Recall then the software will stop Recall for that unit and inform the user of the error. If the Master / Slave state of a unit is changed in mid-Recall then the recall will not be able to continue until the error is resolved. It is possible to go back to the main screen and re-select a different unit to Recall.

Direct Output Pre/Post Settings

- Direct Output settings can be changed by the user at any time while the 8804 is connected to the PC/Mac via USB.
- The Pre/Post Settings screen can be shown by right-clicking on the title bar or left-clicking with the mouse pointer on the Neve icon at the top left of the screen and selecting “Pre/Post Settings” from the drop down menu.
- Mac users click on the “Recall” menu at the top of the screen.





The Direct Outputs may be set to either “Pre Fader” level or “Post Fader” level. If set to “Post Fader” level they may also be set to “Direct Output Post Cut Enabled” also referred to as Post Mute.

Settings may be made for individual channels by clicking on the check boxes on screen. The following global commands may also be used :

- Set All Pre – sets all channels to pre-fader mode
- Set All Post – sets all channels to post-fader mode
- Clear All – clears all post-mute settings
- Read – reads the Direct Output status of the currently selected 8804 and displays this on screen
- Set – writes the currently displayed settings to the selected 8804
- Close – closes the screen without sending data to the 8804

Appendices

Appendix A Specifications

Dimensions:

- Width 48.2cm (19 inch)
- Height 17.6cm (3U)
- Depth: 3.2cm (when flat mounted)

Weight:

- 2.1kg

Level:

- Channel 1 to 16: $-\infty$ to +15 dB
- Mix Left and Right: $-\infty$ to 0 dB

Frequency response:

- +/- 0.2 dB: 10Hz to 20 kHz
- +/- 0.5 dB: 10Hz to 40 kHz

Distortion:

- Measurement Window: 10 Hz to 80 kHz
- Fader at 0 dB: distortion < 0.005% (20Hz to 20kHz)

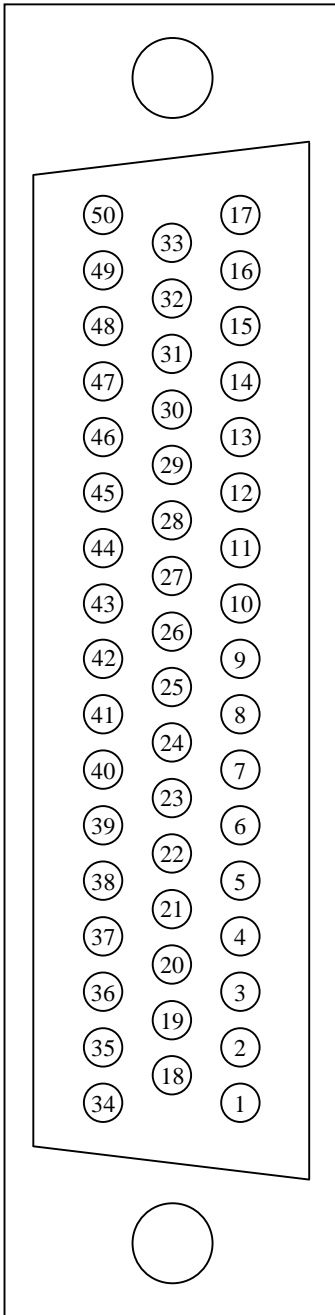
Noise:

- Measurement Window: 10 Hz to 22 kHz
- Fader at 0 dB: noise < 90dB (20Hz to 20kHz)

Appendix B

Connector pin outs

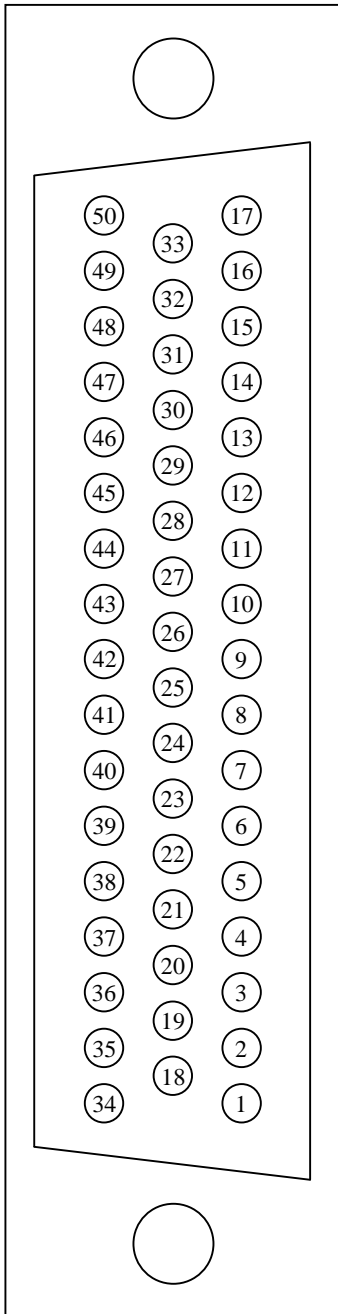
Direct output on a 50-way connector as shown below



- | | |
|----------------|-----------------|
| 1. CH1 HOT | 26. CH9 SHIELD |
| 2. CH2 HOT | 27. CH10 SHIELD |
| 3. CH3 HOT | 28. CH11 SHIELD |
| 4. CH4 HOT | 29. CH12 SHIELD |
| 5. CH5 HOT | 30. CH13 SHIELD |
| 6. CH6 HOT | 31. CH14 SHIELD |
| 7. CH7 HOT | 32. CH15 SHIELD |
| 8. CH8 HOT | 33. CH16 SHIELD |
| 9. CH9 HOT | 34. CH1 COLD |
| 10. CH10 HOT | 35. CH2 COLD |
| 11. CH11 HOT | 36. CH3 COLD |
| 12. CH12 HOT | 37. CH4 COLD |
| 13. CH13 HOT | 38. CH5 COLD |
| 14. CH14 HOT | 39. CH6 COLD |
| 15. CH15 HOT | 40. CH7 COLD |
| 16. CH16 HOT | 41. CH8 COLD |
| 17. – | 42. CH9 COLD |
| 18. CH1 SHIELD | 43. CH10 COLD |
| 19. CH2 SHIELD | 44. CH11 COLD |
| 20. CH3 SHIELD | 45. CH12 COLD |
| 21. CH4 SHIELD | 46. CH13 COLD |
| 22. CH5 SHIELD | 47. CH14 COLD |
| 23. CH6 SHIELD | 48. CH15 COLD |
| 24. CH7 SHIELD | 49. CH16 COLD |
| 25. CH8 SHIELD | 50. – |

Connector metal shell: Connected to the chassis of 8804

Link between 8804 and 8816



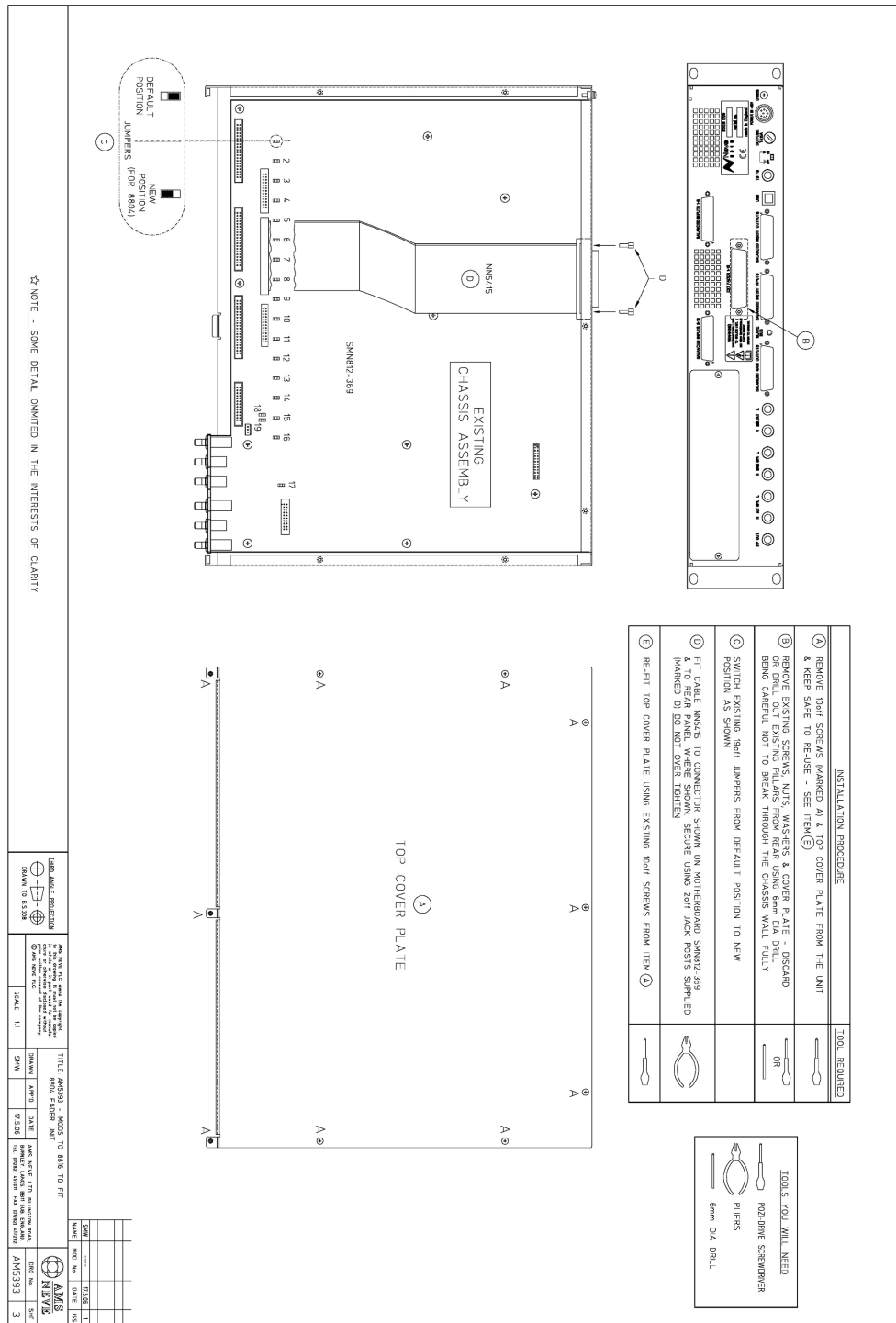
- | | |
|-------------------|---------------------|
| 1. CH1 IN | 26. CH11 OUT |
| 2. CH2 OUT | 27. CH12 IN |
| 3. CH3 OUT | 28. CH13-14 GND |
| 4. CH4 IN | 29. CH15 IN |
| 5. CH5-6 GND | 30. CH16 OUT |
| 6. CH7 IN | 31. MIX LEFT OUT |
| 7. CH8 OUT | 32. MIX RIGHT OUT |
| 8. CH9 OUT | 33. DIRECT EVEN GND |
| 9. CH10 IN | 34. CH1 OUT |
| 10. CH11-12 GND | 35. CH2 IN |
| 11. CH13 IN | 36. CH3-4 GND |
| 12. CH14 OUT | 37. CH5 IN |
| 13. CH15 OUT | 38. CH6 OUT |
| 14. CH16 IN | 39. CH7 OUT |
| 15. MIX LEFT GND | 40. CH8 IN |
| 16. MIX RIGHT GND | 41. CH9-10 GND |
| 17. +16V | 42. CH11 IN |
| 18. CH1-2 GND | 43. CH12 OUT |
| 19. CH3 IN | 44. CH13 OUT |
| 20. CH4 OUT | 45. CH14 IN |
| 21. CH5 OUT | 46. CH15-16 GND |
| 22. CH6 IN | 47. MIX LEFT IN |
| 23. CH7-8 GND | 48. MIX RIGHT IN |
| 24. CH9 IN | 49. DIRECT ODD GND |
| 25. CH10 OUT | 50. -16V |

Connector metal shell: Connected to the chassis of 8804

IN means input of 8804
 OUT means output of 8804

Appendix C 8816 Jumper Settings and Cable

NOTE: Internal jumper settings must be changed to enable the optional fader pack to take control of the main mix level and to allow the 8816 level control to become an auxiliary send control.



Please consult your Neve dealer if you require additional information or assistance.

Appendix D Recall Software Installation

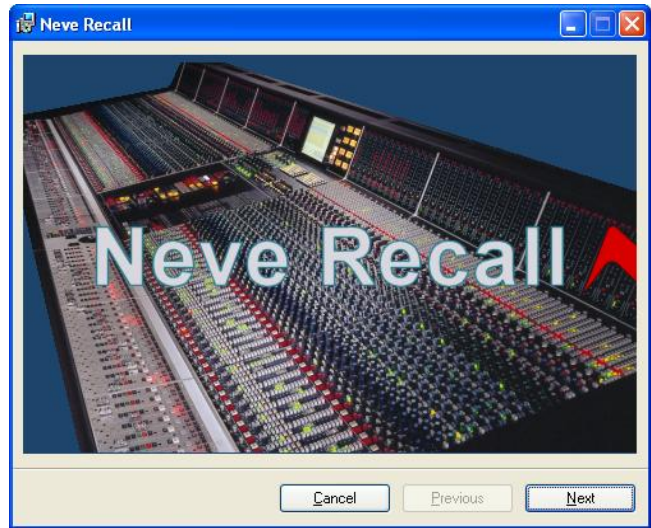
Installation Procedure on the PC

The following procedure is used to install the software package onto the PC.

Insert the CD into the drive, the Set-up program will automatically launch.

If the application fails to launch automatically on CD insertion, then go to the CD Drive in Windows Explorer and select the NeveRecall.msi file or the setup.exe file, double-click the file to launch the Set-up program manually.

Please follow the on-screen instructions to install Neve Recall onto your PC.

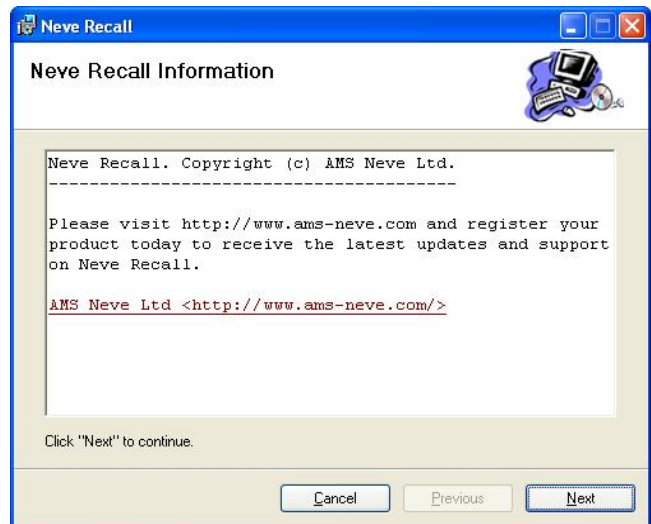


Installation Procedure on the Mac

Insert the CD in the CD drive and follow the on screen instructions.

Registration

During Install you will be asked to register with AMS Neve. This is important since it will enable AMS Neve to supply you with software upgrades as they become available.



Appendix E Firmware Upgrades

In order to get the most from your Neve Unit the latest firmware should be downloaded. Upgrading your software is a simple process with on screens prompts to guide you.

The process is detailed below:

- Run the “Recall” programme on your PC or Mac
- Go to the first screen to select units
- Place the mouse pointer on the bar at the top of the screen and click the right mouse button (select “Recall” menu for Mac users)
- From the drop down menu click on “Upgrade Firmware”



Multiple Units

If you have more than one Neve unit plugged into your computer a message will ask you to unplug the devices which are not being downloaded to. The program will not allow you to proceed until you only have one Neve unit connected. You may cancel the operation at this point by selecting “Cancel”. Note that if you need to download to two units you will have to connect them one at a time.



Selecting a File for Download

If you have one device connected you will be prompted to continue to download or to quit.

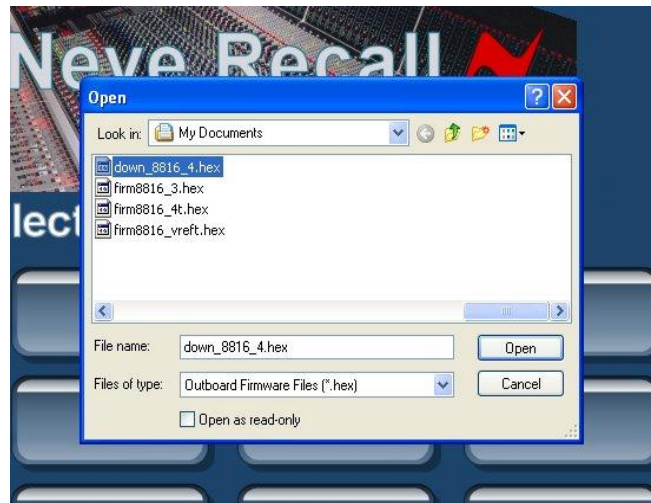


If you have decided to continue with the download the dialog box above will appear. It should be set to the path c:\Program Files\Neve Recall Firmware

The file names follow the format “down_88XY_V.hex” where XY are the last two digits of the 88 unit name (e.g. 16 for 8816) and V is the software version number - the higher the number the more recent the software. A typical filename could be **down_8804_5.hex**

Double click on the latest filename which matches your unit.

If you choose the wrong file for your unit a prompt will tell you that you have selected the wrong file. The above procedure is then repeated to select the correct file.



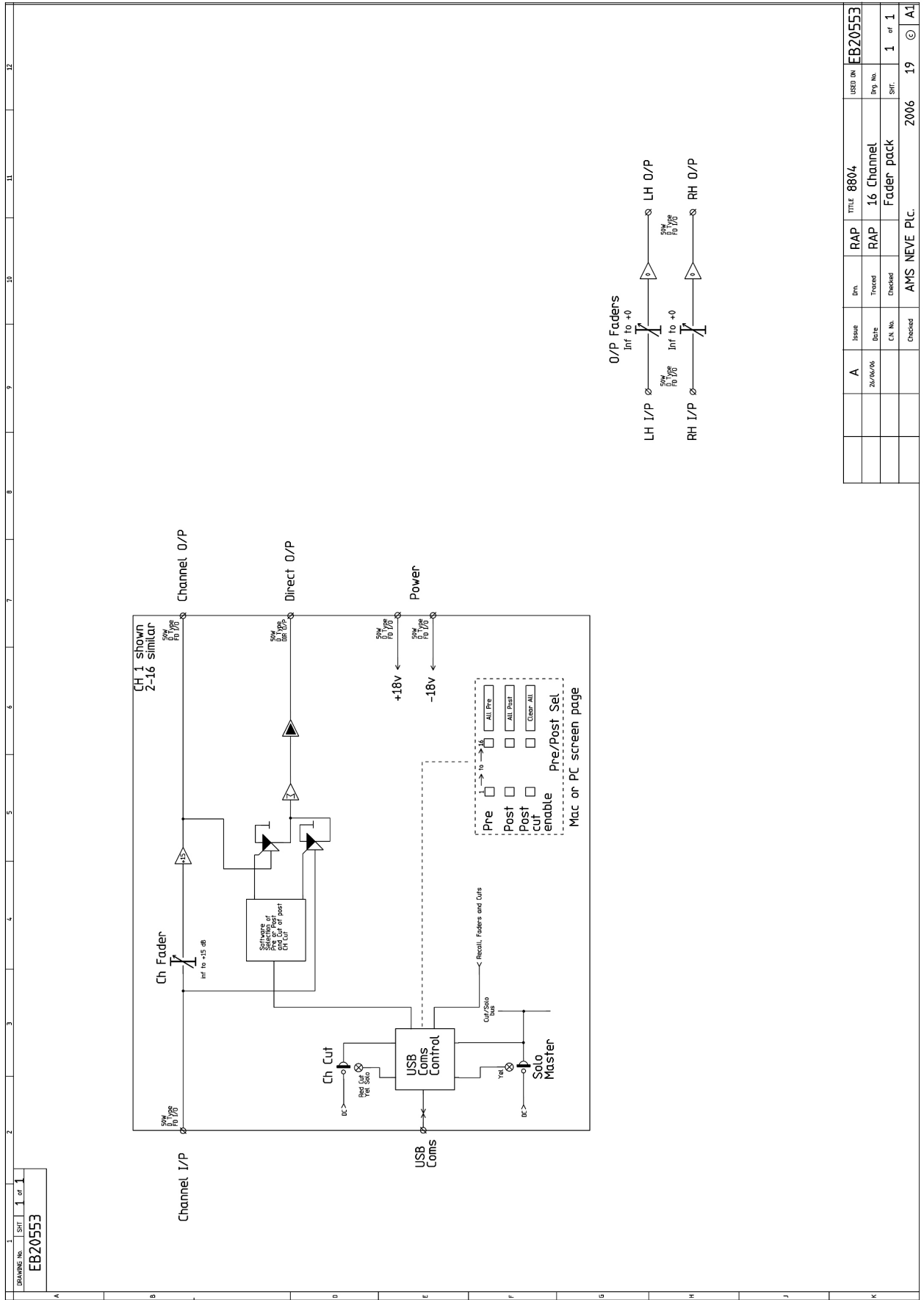
File Downloading

Once the file is selected the download will begin. A prompt will appear warning that download is under way. Note: this process takes up to two minutes.

At the end of the download a dialogue box will appear stating “Firmware Download Successful”. Click on “OK” to continue.

If the download is not successful for any reason a dialogue box will appear stating “Error!!! Error Downloading Firmware File! Please Try Again!” Click on “OK” to continue. The program will automatically ask you to download the firmware again when it is next run or the unit is next plugged in.

Appendix E Block Diagram



DRWING NO.	REV.	DATE	ISSUE	INT.	RAP	TITLE	USED ON
EB20553	1	20/06/06	A		RAP	16 Channel Fader pack	EB20553
							Eng. No.
							1
							of 1
							SRF.
							2006
							19
							©
							AI