Neve 8804
Fader Pack
User Manual

527 - 369
Issue 2

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Health & Safety Notice

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

- Read 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 when unused for long periods of time.

- Refer all servicing to qualified personnel only.

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5 - Block Diagrams
    8804
    Optional control with 8816 Summing Mixer
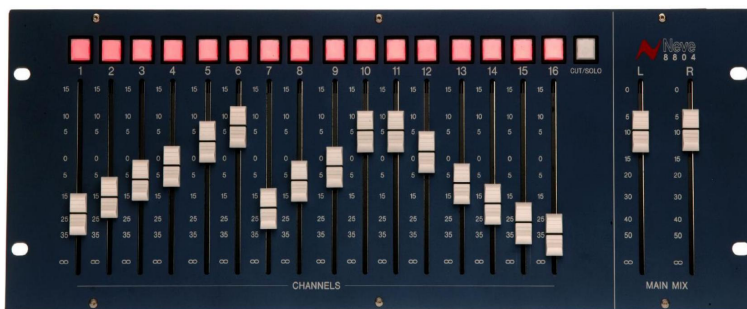
1 - Overview

The 8804 fader pack is a complementary product for the 8816 Summing Mixer (please see 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 in standalone mode, it will be necessary to change jumper settings within the 8816, see **Block Diagrams** at the end of this document..
On older 8816 models it may also be necessary to update the firmware, see **Appendix D**.
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 Outboard series.

Getting Started

- Install the Recall s/w provided on to your PC or Mac See **Appendix G** at the end of this manual.

- Connect the 8804 USB port to a PC (or Mac) using the USB cable. It should be connected directly to the computer or via a powered USB hub but **not** via a passive USB hub.

- The 8804 has no power supply, and takes it's power from the computer via USB.

- 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.

- Connect the associated 8816 to the same PC (or 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 should be:
   - a CD containing software and manuals
   - a 50 pin audio cable
   - a USB cable
   - a 50 pin D-type connector
   - 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.
   - 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.
   - For table top use, the tilt bar on the rear of the unit should be extended, supporting the unit at a convenient working angle.
   - The 8804 may be placed in custom studio furniture using the lip of the unit for support.
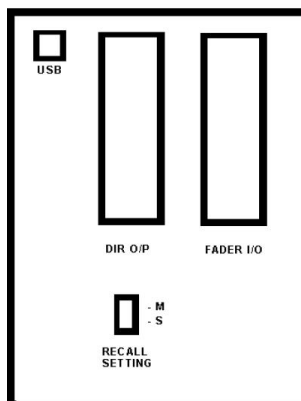
Connection
Two 50 pin D type audio connectors and one USB connector are mounted on the rear panel.

USB Port
The USB port should be connected to either a PC or a Mac. During normal operation the USB provides communication between the 8804 unit and the associated 8816 unit, plus it provides power to the 8804.
For this reason, when connecting the unit to a PC (or Mac), it must either be connected directly to an available USB port, or via a powered hub **not** via a passive hub.

It also provides a link to the PC or Mac for the recall and restore of 8804 settings, see separate manual for 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

Sixteen 100mm channel faders on the 8804 surface control levels on channels 1 - 16 with a gain range from -∞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 retasked 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 –∞dB to 0dB. With both faders at the top of their range the mix gain is unity.
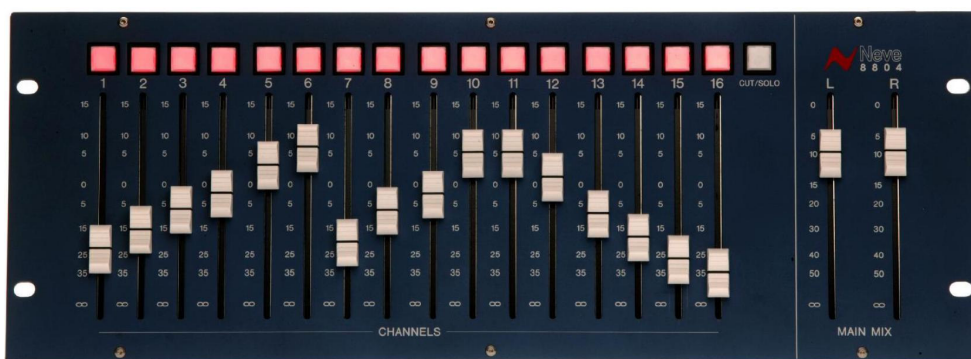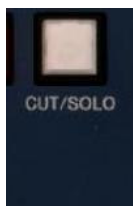

Cut/Solo Channel Switches

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.
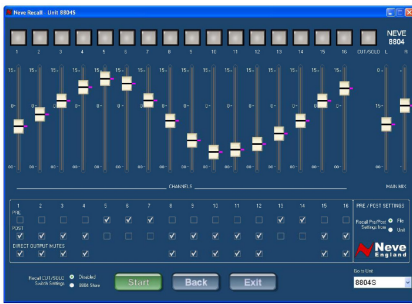The solo type is **Solo In Place,** all non-soloed channels are muted.

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 (left).

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 Recall Manual 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.
The 8816 level controls become auxiliary sends.

Recall

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 (or 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 Recall manual for this.

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

For more information on the operation of the Recall software, download the separate Recall manual from www.ams-neve.com.

4 - Appendices

A: Unit Specifications

Specifications	
Dimensions	Width 48.2 cm / 19" Height 17.6 cm / 3U Depth 3.2 cm / 1½"
Weight	2.1 kg
Level	Channels 1–16 -∞ to +15dB Mix L & R -∞ to +0dB
Frequency Response	+/- 0.2dB: 10Hz to 20kHz +/- 0.5dB: 10Hz to 40kHz
Distortion	Measurement Window: 10Hz to 80kHz Fader @ 0dB: Distortion <0.005% (20Hz to 20kHz)
Noise	Measurement Window: 10Hz to 22kHz Fader @ 0dB: Noise <90dB (20Hz to 20kHz)

B: Connector pin outs

i) Direct Output
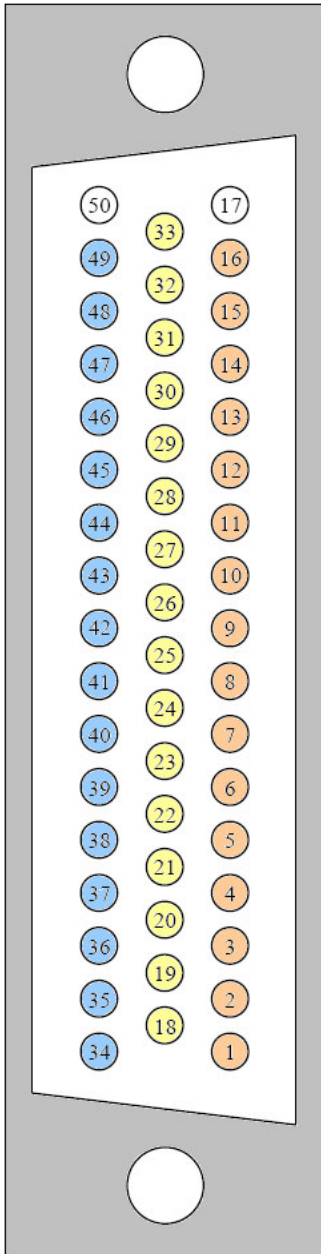
Pin Number / Cable	
1 Channel 1 Hot	26 Channel 9 Shield
2 Channel 2 Hot	27 Channel 10 Shield
3 Channel 3 Hot	28 Channel 11 Shield
4 Channel 4 Hot	29 Channel 12 Shield
5 Channel 5 Hot	30 Channel 13 Shield
6 Channel 6 Hot	31 Channel 14 Shield
7 Channel 7 Hot	32 Channel 15 Shield
8 Channel 8 Hot	33 Channel 16 Shield
9 Channel 9 Hot	34 Channel 1 Cold
10 Channel 10 Hot	35 Channel 2 Cold
11 Channel 11 Hot	36 Channel 3 Cold
12 Channel 12 Hot	37 Channel 4 Cold
13 Channel 13 Hot	38 Channel 5 Cold
14 Channel 14 Hot	39 Channel 6 Cold
15 Channel 16 Hot	40 Channel 7 Cold
16 Channel 16 Hot	41 Channel 8 Cold
17 - - - -	42 Channel 9 Cold
18 Channel 1 Shield	43 Channel 10 Cold
19 Channel 2 Shield	44 Channel 11 Cold
20 Channel 3 Shield	45 Channel 12 Cold
21 Channel 4 Shield	46 Channel 13 Cold
22 Channel 5 Shield	47 Channel 14 Cold
23 Channel 6 Shield	48 Channel 15 Cold
24 Channel 7 Shield	49 Channel 16 Cold
25 Channel 8 Shield	50 - - - -

The metal shell of the Connector should be connected to the 8804 chassis.

ii) Link between 8804 and 8816
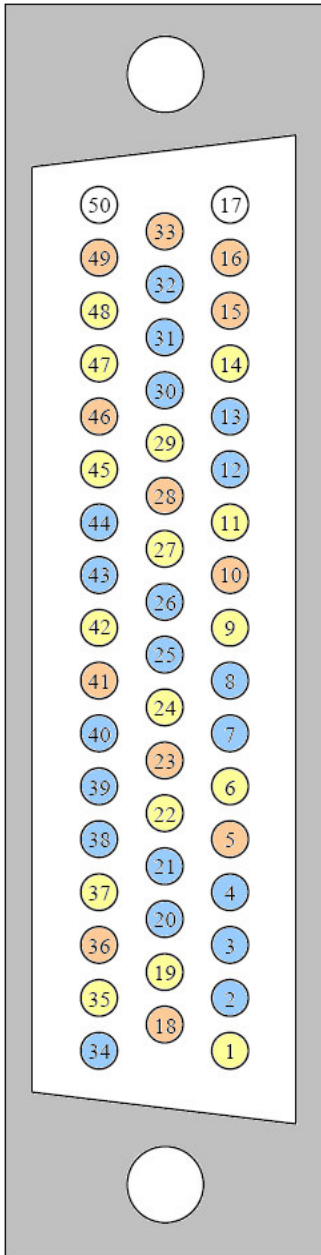
Pin Number / Cable	
1 Channel 1 In	26 Channel 11 Out
2 Channel 2 Out	27 Channel 12 In
3 Channel 3 Out	28 Channel 13-14 Gnd
4 Channel 4 Out	29 Channel 15 In
5 Channel 5-6 Gnd	30 Channel 16 Out
6 Channel 7 In	31 Mix Left Out
7 Channel 8 Out	32 Mix Right Out
8 Channel 9 Out	33 Direct Even Gnd
9 Channel 10 In	34 Channel 1 Out
10 Channel 11-12 Gnd	35 Channel 2 In
11 Channel 13 In	36 Channel 3-4 Gnd
12 Channel 14 Out	37 Channel 5 In
13 Channel 15 Out	38 Channel 6 Out
14 Channel 16 In	39 Channel 7 Out
15 Mix Left Gnd	40 Channel 8 Out
16 Mix Right Gnd	41 Channel 9-10 Gnd
17 +16v	42 Channel 11 In
18 Channel 1-2 Gnd	43 Channel 12 Out
19 Channel 3 In	44 Channel 13 Out
20 Channel 4 Out	45 Channel 14 In
21 Channel 5 Out	46 Channel 15-16 Gnd
22 Channel 6 In	47 Mix Left In
23 Channel 7-8 Gnd	48 Mix Right In
24 Channel 9 In	49 Direct Odd Gnd
25 Channel 10 Out	50 -16v

The metal shell of the Connector should be connected to the 8804 chassis.

- IN means input **to** 8804
- OUT means output **from** the 8804

C: Recall Software

For more information on installing and operating the Recall software and how to update the firmware on the 8804 unit, please see the separate Recall documentation.
This is available for download from the AMS Neve website.
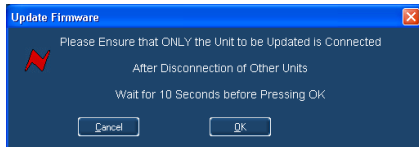
D: Firmware Upgrades

In order to get the most from your Neve unit, the latest firmware should be installed.

Upgrading your software is a simple process with on screens prompts to guide you.

- Start the **Recall** software.
- On the main screen, right-click the window title bar (Mac users select **Recall**)
- Click **Upgrade Firmware**.
- Select the file to transfer.

You will be prompted about removing other units.
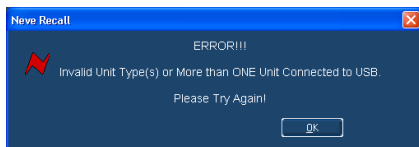
When updating units, only the unit that is being updated should be connected via USB.
All other units should have their USB disconnected. Even if you are updating two units of the same model, they should be connected individually and updated in two separate operations. If more than one unit is connected via USB when the Update is about to be performed, a screen will prompt you to disconnect the other units.
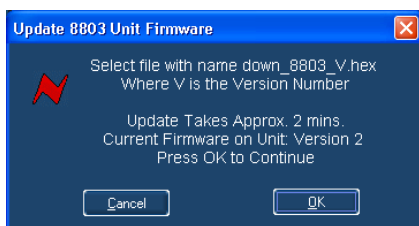
A prompt screen will confirm the software number & version you should select, and display the current version of firmware for the unit.

Click **OK**.
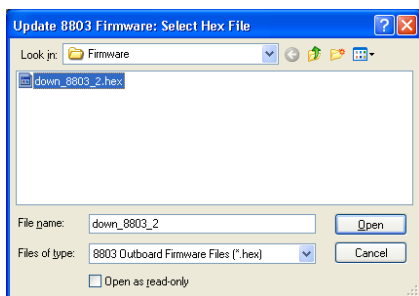
Selecting a File for Transfer
The **Open File** dialog will appear. To locate the firmware data file, browse to the location:

- PC users: C:\Program Files\Neve Recall\Firmware
- Mac users: Applications\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.
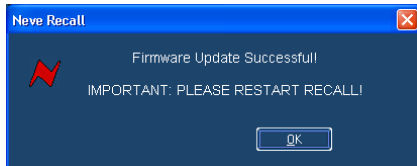A typical filename could be **down_8804_5.hex.**

Double click on the latest filename which matches your unit. If an incorrect file is selected the user will be prompted to select another file.
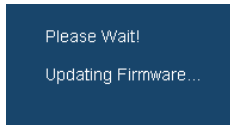
File Downloading
Once the file is selected the transfer will begin, and the Recall screen will display that the download is under way.
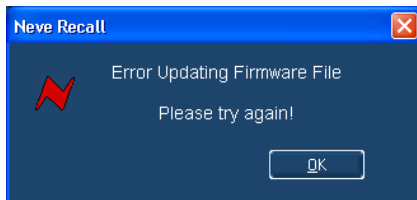
This process may take up to two minutes.

Upon completion, the message **Firmware Update Successful** will be displayed.

Click **OK** to continue.

You can continue to update other units successfully without restarting Recall, but the Recall software must be restarted once this process is finished.

If the transfer fails (for example if the USB is removed by accident or power is lost to the unit), a warning message will prompt to the user to try again.

If Recall is started with a unit that has no firmware, the user will be prompted to upgrade the firmware, as the unit cannot be used in Recall unless the firmware installation is successful.

Corrupted or Old Firmware
If the firmware is corrupted or the unit has an old version of firmware, a prompt will appear upon starting the Recall software to indicate that firmware must be updated before the user can proceed.

The process described above can then be followed to update the latest firmware.

E: Recall Software Installation

Neve Recall software allows settings from the 8804 to be stored on a PC or Mac and recalled for later use. Recall can be used for all the units in the 88 range including 8801, 8803, 8804 and 8816.

Multiple units can be stored and recalled together.
Please see the separate Recall Manual for further details.

This may be downloaded from the Neve web site at
http://www.ams-neve.com/html/downloads/index.php

Installation for PC
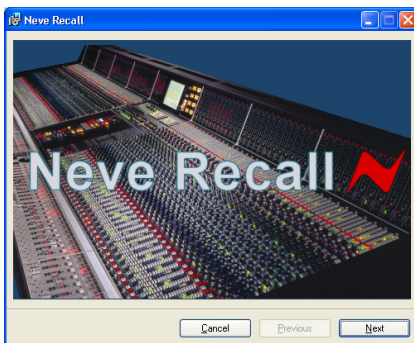
Insert the CD into the drive and the Set-up program should automatically launch.

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

The Welcome screen will launch.
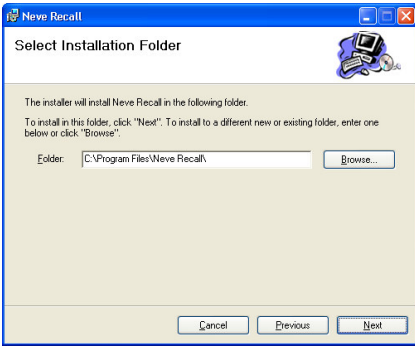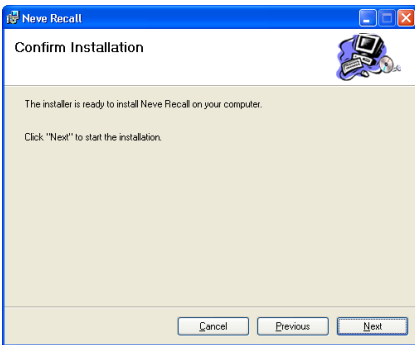
Click **Next**.
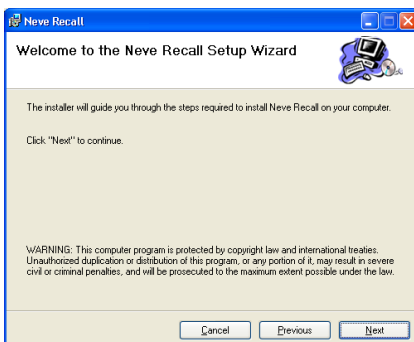
Click **Next**.
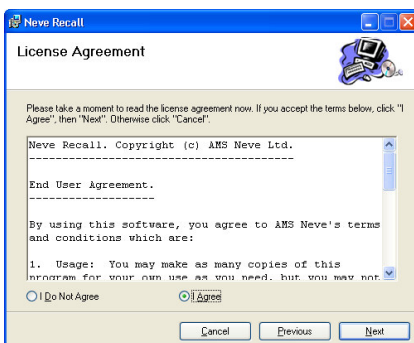
Click **I Agree**, then click **Next**.

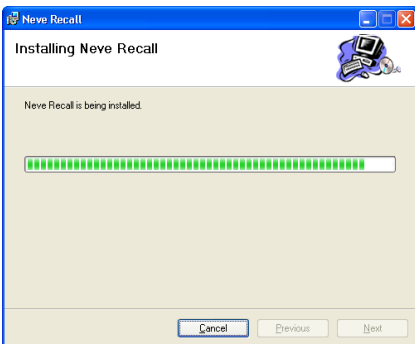If you click **I Do Not Agree**, the install procedure will terminate.

The installation programme will select a default location for files to be copied and created to.
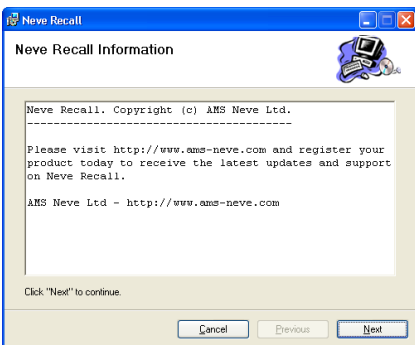
Click **Next**, or click **Browse** and then select another location.
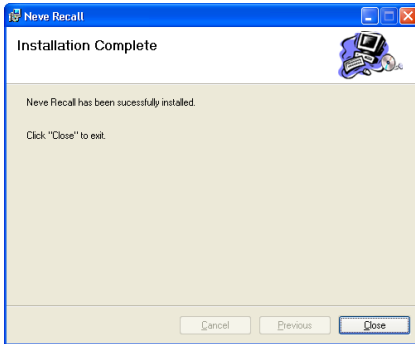
Click **Next** to start the installation.

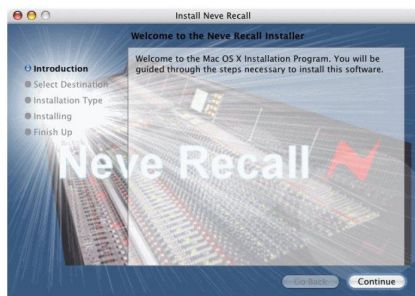The install will start and file progress will be shown.

Click **Next**.

Once the install has successfully completed, click **Close**.

The software will now be ready to use, and will be accessible from **Start Menu / Programs / Neve Recall / Neve Recall**, or from the **Recall** icon on the Desktop.

Installation for Mac

Insert the CD containing the software into the Mac, and the install programme will launch automatically.
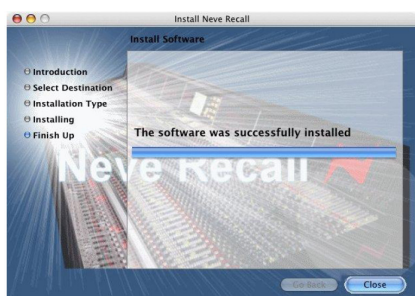
Click **Continue**.

Select the location where you wish the software to be installed to.

Click **Continue**.

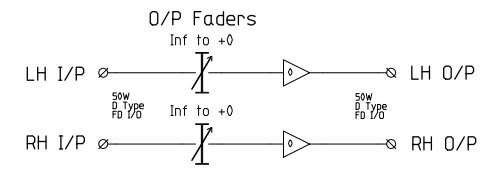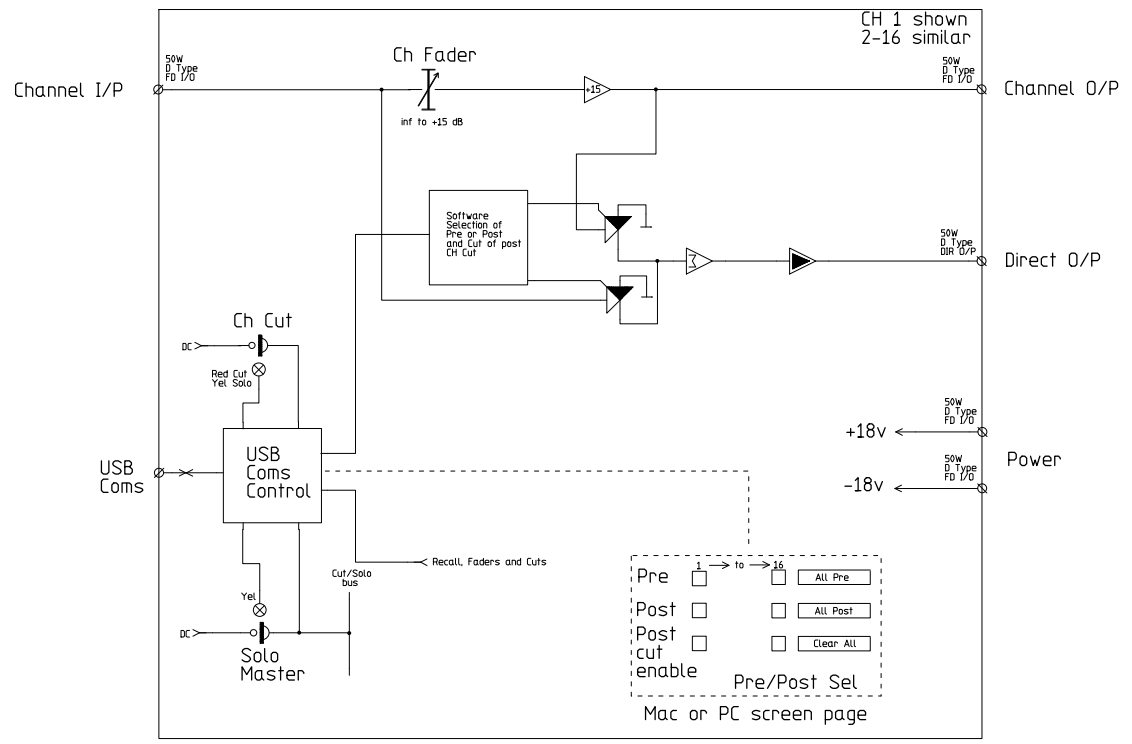Click **Upgrade**, and the software will start to install.
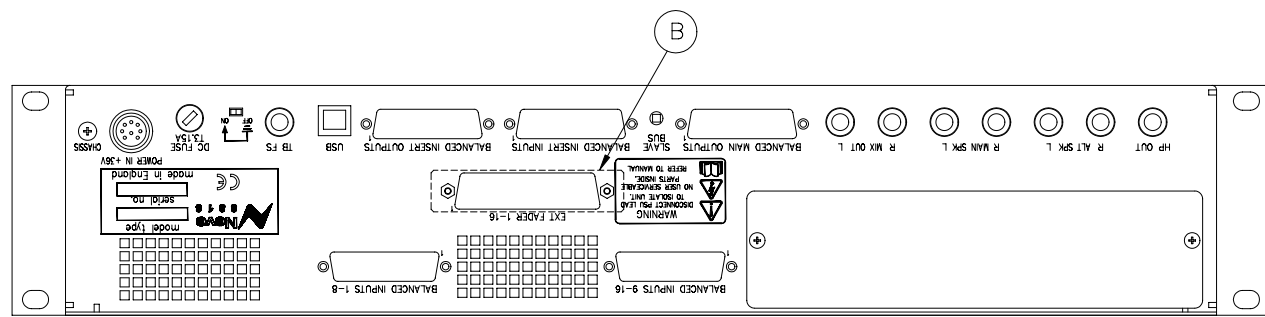
The progress bar will show the state of the installation.

Once completed, click **Close**.

The software is now ready to use.

CH 1 shown
2-16 similar
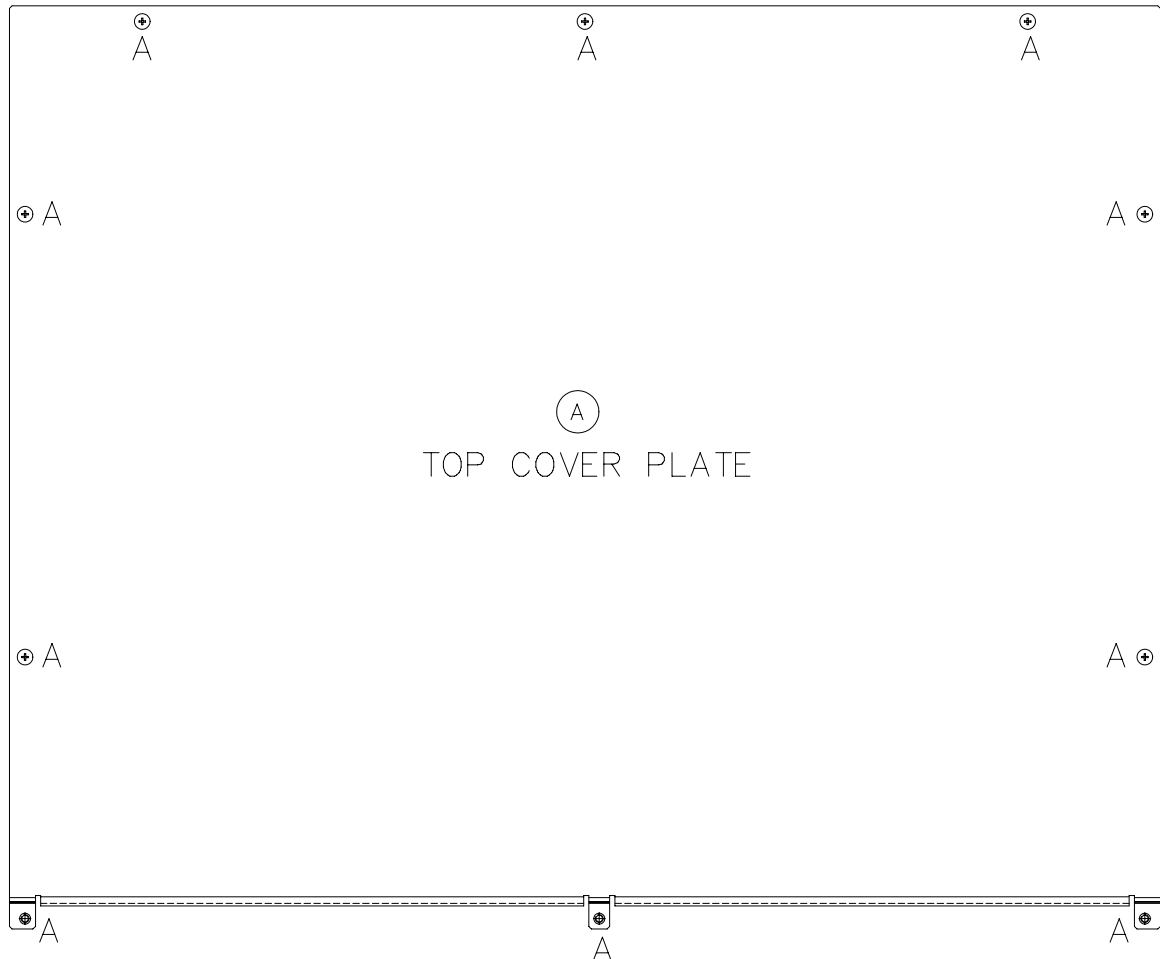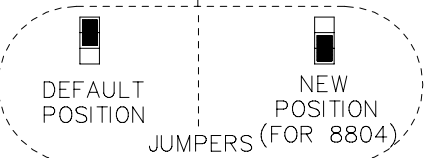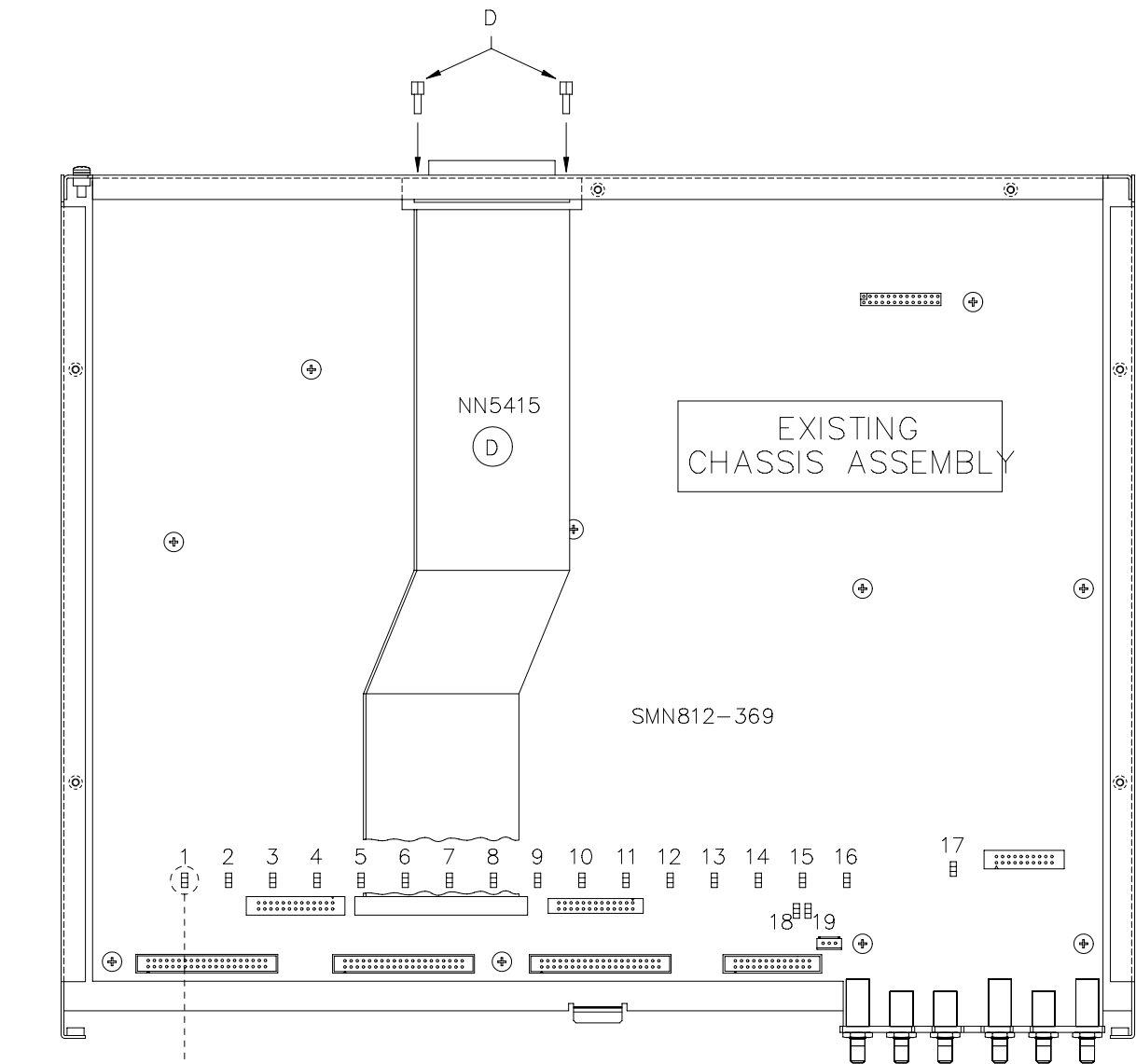
Channel I/P

50W
D Type
FD I/O

Ch Fader

+15

inf to +15 dB

50W
D Type
FD I/O

Channel O/P

Software
Selection of
Pre or Post
and Cut of post
CH Cut

50W
D Type
DIR O/P

Direct O/P

Ch Cut

DC

Red Cut
Yel Solo

USB
Coms
Control

USB
Coms

50W
D Type
FD I/O

+18v

50W
D Type
FD I/O

-18v

Power

Recall, Faders and Cuts

Yel

DC

Cut/Solo
bus

Solo
Master

Pre   1 → to → 16   All Pre

Post   All Post

Post
cut
enable   Clear All

Pre/Post Sel

Mac or PC screen page

O/P Faders
Inf to +0

LH I/P   LH O/P

50W
D Type
FD I/O

Inf to +0

50W
D Type
FD I/O

RH I/P   RH O/P

INSTALLATION PROCEDURE	TOOL REQUIRED
(A) REMOVE 10off SCREWS (MARKED A) & TOP COVER PLATE FROM THE UNIT & KEEP SAFE TO RE-USE — SEE ITEM E	
(B) REMOVE EXISTING SCREWS, NUTS, WASHERS & COVER PLATE — DISCARD OR DRILL OUT EXISTING PILLARS FROM REAR USING 6mm DIA DRILL BEING CAREFUL NOT TO BREAK THROUGH THE CHASSIS WALL FULLY	OR
(C) SWITCH EXISTING 19off JUMPERS FROM DEFAULT POSITION TO NEW POSITION AS SHOWN	
(D) FIT CABLE NN5415 TO CONNECTOR SHOWN ON MOTHERBOARD SMN812-369 & TO REAR PANEL WHERE SHOWN. SECURE USING 2off JACK POSTS SUPPLIED (MARKED D) DO NOT OVER TIGHTEN	
(E) RE-FIT TOP COVER PLATE USING EXISTING 10off SCREWS FROM ITEM A	

TOOLS YOU WILL NEED

POZI-DRIVE SCREWDRIVER

PLIERS

6mm DIA DRILL

NN5415
(D)

EXISTING
CHASSIS ASSEMBLY

SMN812-369

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
18 19

DEFAULT
POSITION

NEW
POSITION
(FOR 8804)

JUMPERS

(C)

(A)
TOP COVER PLATE

NOTE — SOME DETAIL OMMITED IN THE INTERESTS OF CLARITY

		SMW	----	17.5.06	1
		NAME	MOD. No.	DATE	ISS.