



Neve 8803 Dual EQ User Manual

**527 - 370
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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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.

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7 – Block Diagrams 8803

1 – Introduction



The 8803 is a Dual Equaliser in a 1U rack mounting box.

Each of the two independent audio paths features high and low pass filters and four bands of EQ.

8803 settings may be stored and recalled via USB using the Recall software.

Up to sixteen 88 series units may be connected to a Recall system simultaneously in any combination.

When connecting to a PC (or a Mac), it should either be connected directly via USB or via a powered USB hub, **not** a passive hub.

2 - Front Panel Controls



On/Off

The Neve Logo Switch on the right hand side of the unit switches the unit on and off.

Input Section



Input trim

Sets the level of the input signal.

The trim range is from -20dB to $+20\text{dB}$ and can encompass signals from sources referenced to $+4\text{dBu}$ or to -10dBV .

Signal led (yellow)

When lit indicates that a signal is present at the unit input. The trigger level is -30dBu .

Clip led (red)

When lit indicates that the signal is at 25dBu and there is danger of clipping occurring.

The signal level is monitored at three stages:

- Input pre-trim;
- Input post-trim;
- Output.

The LED is triggered by any one of these levels reaching 25dBu .

Filter Section



High Pass Filter

The high pass filter has a 12dB per octave (20dB per decade) slope and a frequency range from 30Hz to 300Hz .

It is switched into circuit by pressing the **Hi Pass** frequency control. The associated led will light.

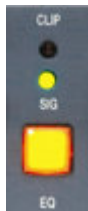
Low Pass Filter

The low pass filter has a 12dB per octave (20dB per decade) slope and a frequency range from 1.5kHz to 18kHz .

It is switched into circuit by pressing the **Lo Pass** frequency control. The associated led will light.

3 - EQ Section

EQ Switch



The square EQ switch beneath the input leds activates the EQ section.

When lit, all four bands of EQ are in circuit.
When un-lit all four bands of EQ are bypassed.

This switch does not bypass the filters.

Low Frequency Band



The **LF Gain** control sets the cut or boost for the low frequency band of EQ with a range of +/-18dB.

Pressing the **LF Gain** control switches the Low Frequency EQ band between **Bell** and **Shelving** modes.
A led lights to indicate when **Shelving** is selected.

The **LF Hz** control sets the low frequency between 33Hz and 440Hz.
When the LF EQ band is set to **Bell**, pressing the **LF Hz** control switches the band between **Low** and **High Q**.

A led lights to indicate the selection of High Q.
Low Q is 0.7 and High Q is 1.8.

When the LF EQ band is set to **Shelving** mode, pressing the **LF Hz** control switches between **Standard** shelving mode and **Resonant** shelving mode.
A led lights to indicate the selection of Resonant shelving.

In **Standard** mode the selected frequency will be the +/- 3dB point.

In **Resonant** mode, when boosting a slight extra lift occurs in frequencies around the selected frequency, when cutting a slight extra dip occurs around the selected frequency.
This has the effect of emphasising the selected frequency.

Low Mid Frequency Band

The **Lo Mid Gain** control sets the cut or boost for the low medium frequency band of EQ with a range of +/-18dB.

The **LMF Hz** control sets the low medium frequency between 120Hz and 2kHz.

The **Lo Mid Q** control adjusts the Q continuously variable between 0.3 and 7.

High Mid Frequency Band

The **Hi Mid Gain** control sets the cut or boost for the high medium frequency band of EQ with a range of +/-18dB.

The **HMF Hz** control sets the high medium frequency between 800Hz and 9kHz.

The **Hi Mid Q** control adjusts the Q continuously variable between 0.3 and 7.

High Frequency Band

The **HF Gain** control sets the cut or boost for the low frequency band of EQ with a range of +/-18dB.

Pressing the **HF Gain** control switches the High Frequency EQ band between **Bell** and **Shelving** modes. A led lights to indicate when **Shelving** is selected.

The **HF Hz** control sets the high frequency between 1.5kHz and 18kHz.

When the HF EQ band is set to **Bell**, pressing the **HF Hz** control switches the band between **Low** and **High Q**. A led lights to indicate the selection of High Q. Low Q is 0.7 and High Q is 1.8.

When the HF EQ band is set to **Shelving** mode, pressing the **HF Hz** control switches between **Standard** shelving mode and **Resonant** shelving mode.

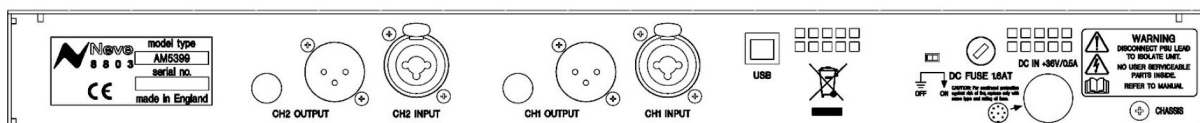
A led lights to indicate the selection of Resonant shelving.

In **Standard** mode the selected frequency will be the +/- 3dB point. In **Resonant** mode, when boosting a slight extra lift occurs in frequencies around the selected frequency, when cutting a slight extra dip occurs around the selected frequency.

This has the effect of emphasising the selected frequency.



4 - Rear Panel



USB

The USB socket is a Type B connector used to connect the 8803 to a PC or Mac for Recall store and recall of unit settings.

Audio Connections

Audio Inputs

The input combo socket for each channel accepts input signals from either male XLR or male 1/4" jack connectors. Connection can be balanced or unbalanced on jack and XLR.

Audio Outputs

Separate male XLR socket and female 1/4" jack socket for each channel provide simultaneous output to female XLR and male jack connectors. Connection can be balanced or unbalanced on jack and XLR.

Electrical Connections

Technical Earth Switch

The grounding of the unit can be set to two different points:

- The mains earth from the power supply, or
- The studio technical earth via the **Chassis** screw on the back of the unit.

With the switch in the **Off** position the chassis of the unit is connected to the mains earth via the power supply.

With the switch in the **On** position the chassis of the unit should be connected to the studio technical earth using the **Chassis** screw on the back of the unit.

For safety reasons the chassis is NOT disconnected from the main Earth but is connected through a filter (a 10 Ohms resistor in parallel with a 680nF capacitor).

!!!WARNING!!!

Connections to the technical earth and changes to the unit grounding should only be carried out by qualified personnel.

Fuse

The removable fuse holder houses a 1.6 AT fuse

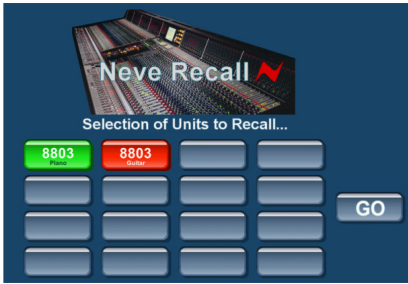
Power DIN socket

The 8 pin DIN socket should only be used to connect the power supply provided with the 8803 unit.

PLEASE NOTE: for technical reasons the orientation of the socket is the opposite way up to normal. The "top" of the DIN connector will therefore be underneath. It is not possible to connect the plug the wrong way up.

| Unit Specifications | |
|------------------------------|---|
| Audio Specifications: | |
| Max Output Level | +26 dBu |
| Frequency Response | +/- 0.3 dB 10Hz - 20kHz +/- 0.5 dB 10Hz - 35 kHz |
| Distortion | <0.006 <i>(10Hz to 20kHz using window of 10hZ - 80kHz)</i> |
| Noise | <80dB 20hz - 20kHz <i>(Using measurement window of 10hZ - 22kHz)</i> |
| Input Impedance | >20k Ohms |
| Output Impedance | 50 Ohms |
| Dimensions: | |
| Width | 48.2cm / 19 inches |
| Height | 4.4cm / 1¾ inches |
| Depth | 24cm / 9½ inches (without power socket plugged in) |
| Weight | 2.5kg / 5½ lbs |

5 - Recall Software



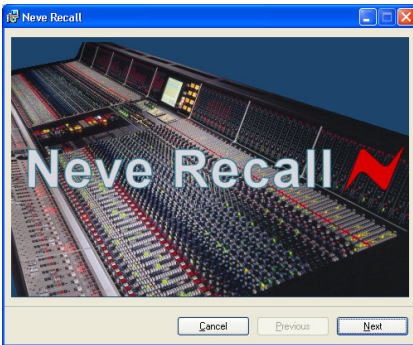
Neve Recall software allows settings from the 8803 to be stored on a PC or Mac and recalled for later use. Recall can be used for all the units in the 88 range including 8801, 8802, 8803, 8804 and 8816.

Multiple units can be stored and recalled together, up to a total of 16 units. When connecting via a USB hub, a powered hub must be used, **not** a passive one.

Please see the 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

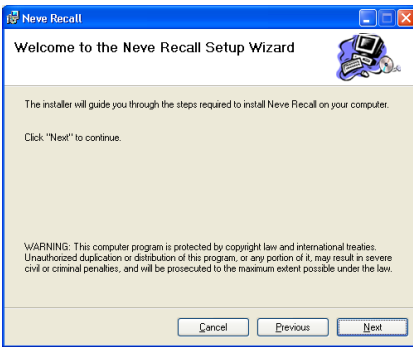


Insert the CD into the drive and the Set-up program should automatically launch.

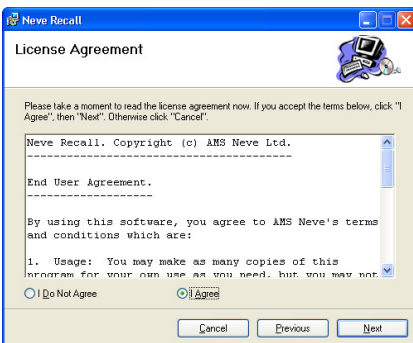
If the application fails to launch automatically on CD insertion, then go to the CD Drive in Windows Explorer and double-click the **NeveRecall.msi** file or the **setup.exe** file the file to launch the Setup program manually.

The Welcome screen will launch.

Click **Next**.

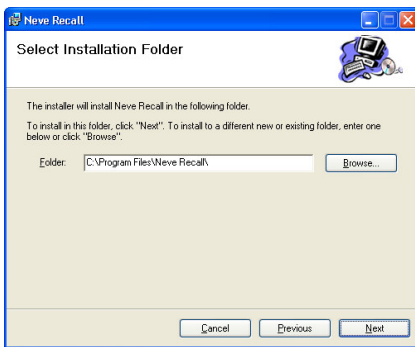


Click **Next**.



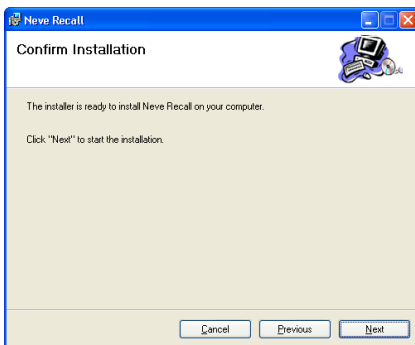
Click **I Agree**, then click **Next**.

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

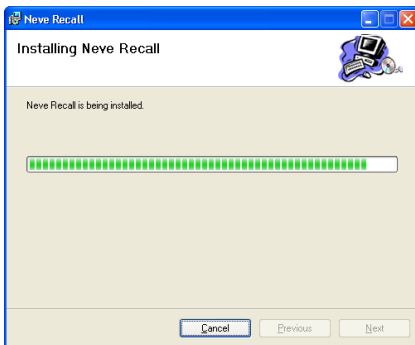


The installation programme will select a default location for files to be copied and created to.

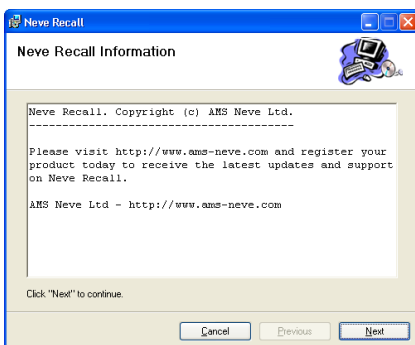
Click **Next**, or click **Browse** and then select another location.



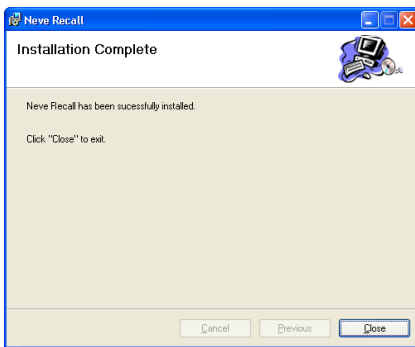
Click **Next** to start the installation.



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**.

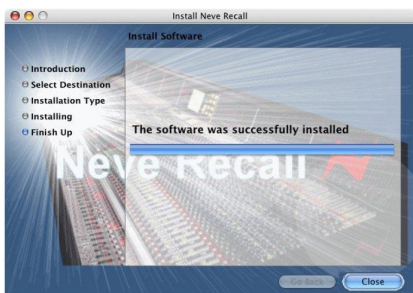


Select the location where you wish the software to be installed to.

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.

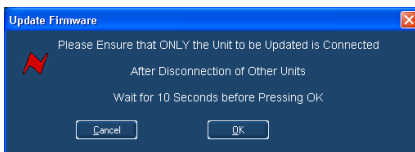
6 - Firmware Upgrades

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

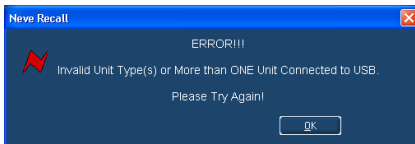
Upgrading your software is a simple process with on screens prompts to guide you.



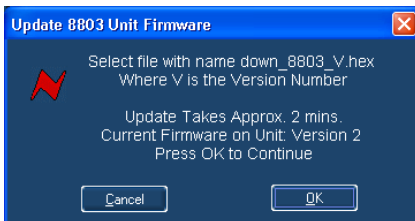
- Start the **Recall** software.
- On the main screen, right-click the window title bar (Mac users select **Recall**)
- Click **Upgrade Firmware**.
- Select the file to transfer.



You will be prompted about removing other units.



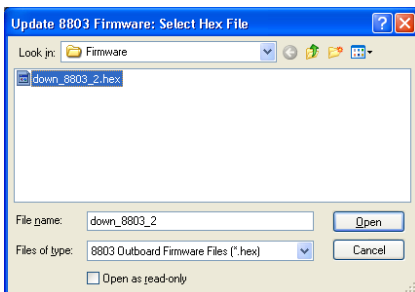
When updating units, only the unit that is being updated should be connected via USB. All other units should have their USB disconnected. Even if you are updating two units of the same model, they should be connected individually and updated in two separate operations. If more than one unit is connected 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 current version of firmware, plus the software you should select 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:

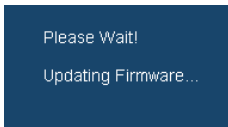
- PC users: C:\Program Files\Neve Recall\Firmware
- Mac users: Applications\Neve Recall\Firmware

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**.

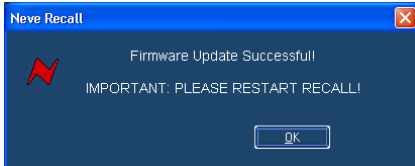
Double click on the latest filename which matches your unit. If an incorrect file is selected the user will be prompted to select another file.

File Downloading



Once the file is selected the transfer will begin, and the Recall screen will display that the download is under way.

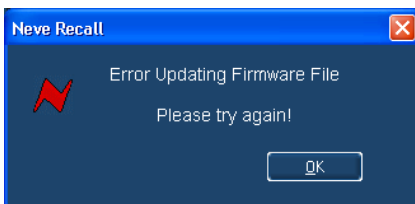
This process may take up to two minutes.



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.



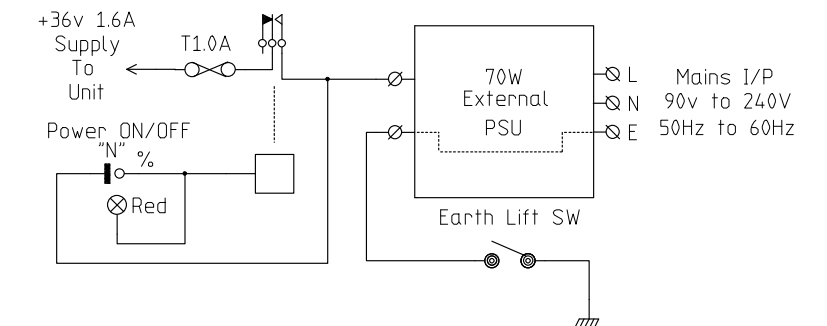
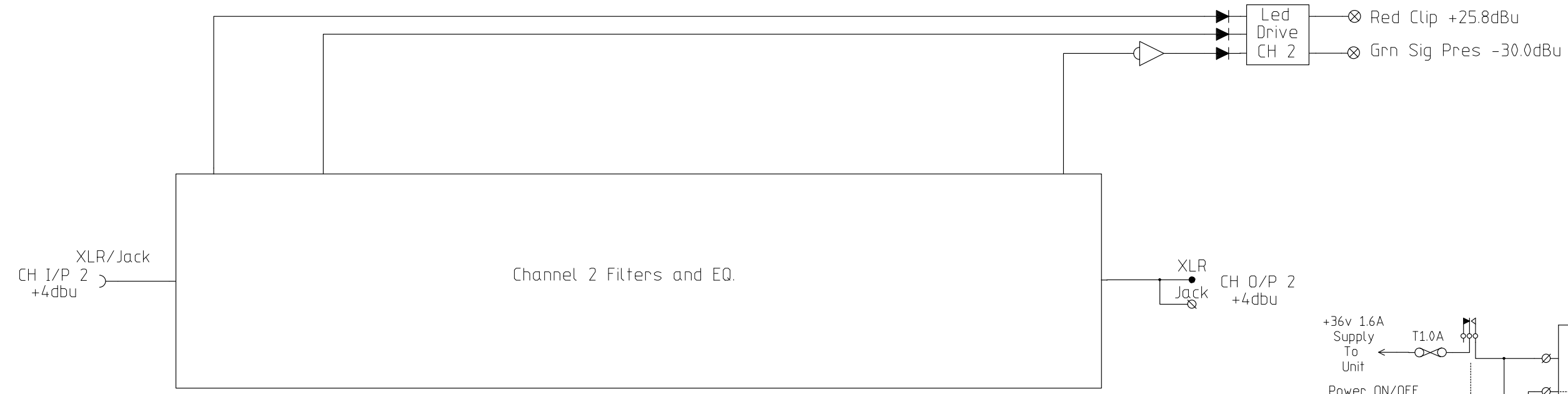
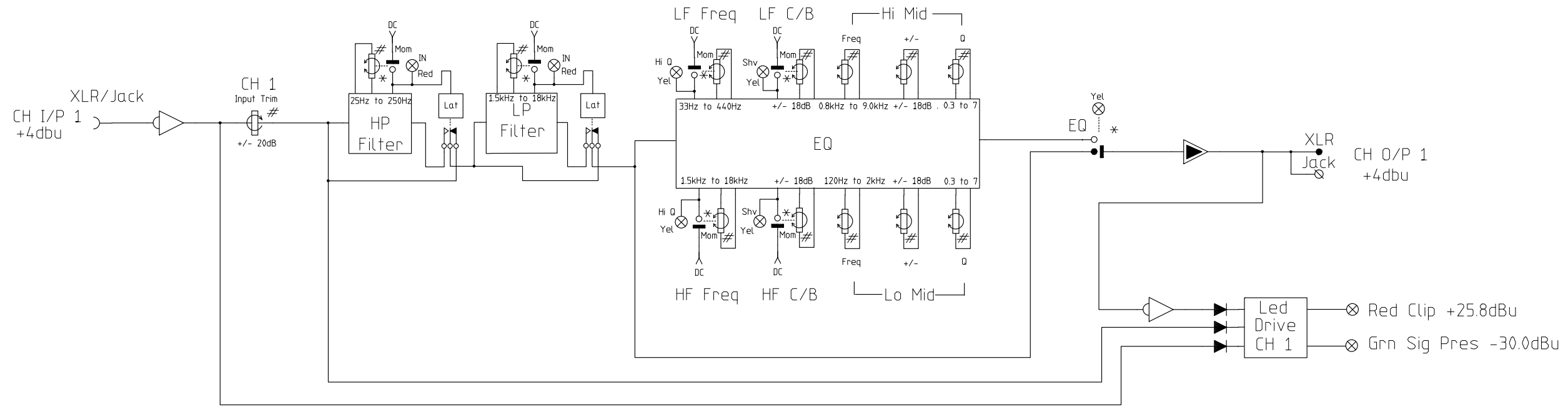
If the transfer fails (for example if the USB is removed by accident or power is lost to the unit), a warning message will prompt to the user to try again.

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.



- Notes:
1. All I/P's and O/P's marked +4dbu are electronically Balanced.
 2. Controls marked with a # can be recalled.
 3. Controls marked with a * can be reset.
 4. All switches are Momentary except where marked a %.
 5. Switching is achieved electronically with latching relays, FET's or gates.

| | | | | | | | |
|--|---------|----------|---------|--------------|--------------|---------|---------|
| | B | Issue | Drn. | RAP | TITLE 8803 | USED ON | |
| | 10/5/06 | Date | Traced | RAP | Dual Channel | Dr. No. | EB20552 |
| | | C.N. No. | Checked | | Equaliser | SHT. | 1 of 1 |
| | | Checked | | AMS NEVE LTD | | 20 06 © | A1 |