1073 & 1084

Channel Amplifiers

User Guide
Issue 5.2





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Introduction

These 45 series modules are the same as the original designs, and contain all of the original components

1073 Channel Amplifiers

These very popular sounding mic pres are considered by many to capture the very essence of the Neve sound. In manufacture since the early 1970s, the Class A design offers 3 bands of EQ with one fixed high frequency and a high pass filter.

1084 Channel Amplifiers

Based on the same technology as the 1073s, the 1084s again deliver the unique sound and quality of Neve. However, the 1084s offer additional features, including 3 switchable EQ bands with cut and boost, a high Q for presence and low pass/high pass filters.

High Pass Filter (resistor modification)

Important Note

The high pass filter in both the 1073 & 1084 modules is a passive design and as such must be correctly terminated to achieve a maximally flat response.

In order to achieve this there is a 5k1 resistor fitted inside the module on the back connector between pin E (0v) and pin K (fader send) see diagram below:



▶ In situations where the **fader connection is not used** (most Neve 45 series consoles except the original BCM10's) then the resistor remains in place.

▶ In situations where the **fader connection is used** (BCM10's and AMS Neve 1073/1084 racks) then the 5k1 resistor should be disconnected and replaced with a fader or potentiometer whose value is 4k7 / 5k ohms.

In the new 2016 BCM10, the 5k1 resistor value needs to be changed, please contact AMS Neve for the appropriate resistor value.

Failure to do so will result in incorrect levels and uneven frequency response.

Installation

▶ The 1073s and 1084s are available as stand-alone modules, or in a choice of two housings.

▶ The 3U rack houses two modules mounted horizontally in a 19" rack-mounting unit.

▶ The 5U rack houses eight modules mounted vertically in a 19" rack-mounting unit.

▶ Both have rear panels with XLRs for transformer balanced I/O.

▶ The 3U rack rear panel has a fused voltage selector IEC mains input connector. The 5U rack has a free standing AC supply with a fused, voltage selector IEC mains input connector and connects to the rack via a connector and a 1.5 meter cable.

▶ Modules of any combination can be fitted into a rack unit

Additional Information

Rack Mount Instructions

▶ Elevated Operating Ambient- If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer.

▶ Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.

▶ Mechanical Loading - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.

▶ Circuit Overloading - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

▶ **Reliable Earthing - Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).**

Recommended Tma = 50 deg C

Mains Voltage Adjustment

▶ Switch off unit,
▶ Remove fuse.
▶ Turn inner barrel with screwdriver or coin until correct voltage figure is under the white arrow on the housing.
▶ Replace fuse.

Dimensions

Stand-alone Modules	Width mm (inches)	Height mm (inches)	Depth mm (inches)	Approx. Weight kg (lbs)
1073 Module	45 (1.8)	222 (8.75)	254 (10)	2.5 (5.5)
1084 module	45 (1.8)	222 (8.75)	254 (10)	2.5 (5.5)

19" Rack Mounting	U	Depth mm (inches)	Height mm (inches)	Approx. Weight kg (lbs)
2 Module Version	3	405 (16)	133 (5.25	11 (24.2)*
8 Module Version	5	405 (16)	222 (8.75)	30 (66)*

*Fully populated rack

Power Requirements

Rack Units	3U	5U
Rated Volt age	100- 230V AC	100- 230V AC
Rated Frequency	50- 60 Hz	50- 60Hz
Rated Cur rent	0.5A Max	0.8A Max
Primary Protection Fuse:		
Operating Voltage	100- 230V AC	100- 230V AC
Fuse Rating and Type	T0.5A H 250V 20mm x 5mm CERAMIC	T1A H 250V 20mm x 5mm CE RAMIC
Location	IEC Mains connector	**IEC Mains connector**
Secondary Protection Fuse:		
Output Voltage		24V DC
Fuse Rating and Type		T2.0A L 250V 20mm x 5mm GLASS
Location		**F1**
Output Voltage		48V DC
Fuse Rating and Type		T 250mA L 250V 20mm x 5mm GLASS
Location		**F2**

Modules	Power
1073 Module	106mA ±10mA at 24V DC. Negative Earth
1084 Module	106mA ±10mA at 24V DC. Negative Earth

Mains Supply (rack units)

▶ The 3U rack has a fused, voltage selector IEC mains input connector.

▶ The 5U rack has a free standing AC supply with a fused, voltage selector IEC mains input connector and connects to the rack via a connector and a 1.5 meter cable.

▶ The mains switch on the rear panel of the 3U rack unit is non-illuminating.

▶ The CH (chassis) and 0V are linked internally.

DC Power Supply Indicators (rack units)

▶ The red LED on the front panel of both 3U and 5U rack units indicates +24V power healthy when illuminated.

▶ The green LED on the front panel of both 3U and 5U rack units indicates +48V power healthy when illuminated.

Phantom Power

Phantom power can be supplied to each module by pressing the phantom power switch on the front panel of the 3U or 5U rack. The LED in the switch will illuminate confirming that phantom power is supplied.

Output Level Control

▶ Each channel has an independent Output Level Control. The control is post-input, post-EQ and pre-output. This control can reduce the level at the output.

▶ When the Output Control is fully clockwise the output gain is unity. The output is 20dB down with the control in the mid-position.

Modules In Transit

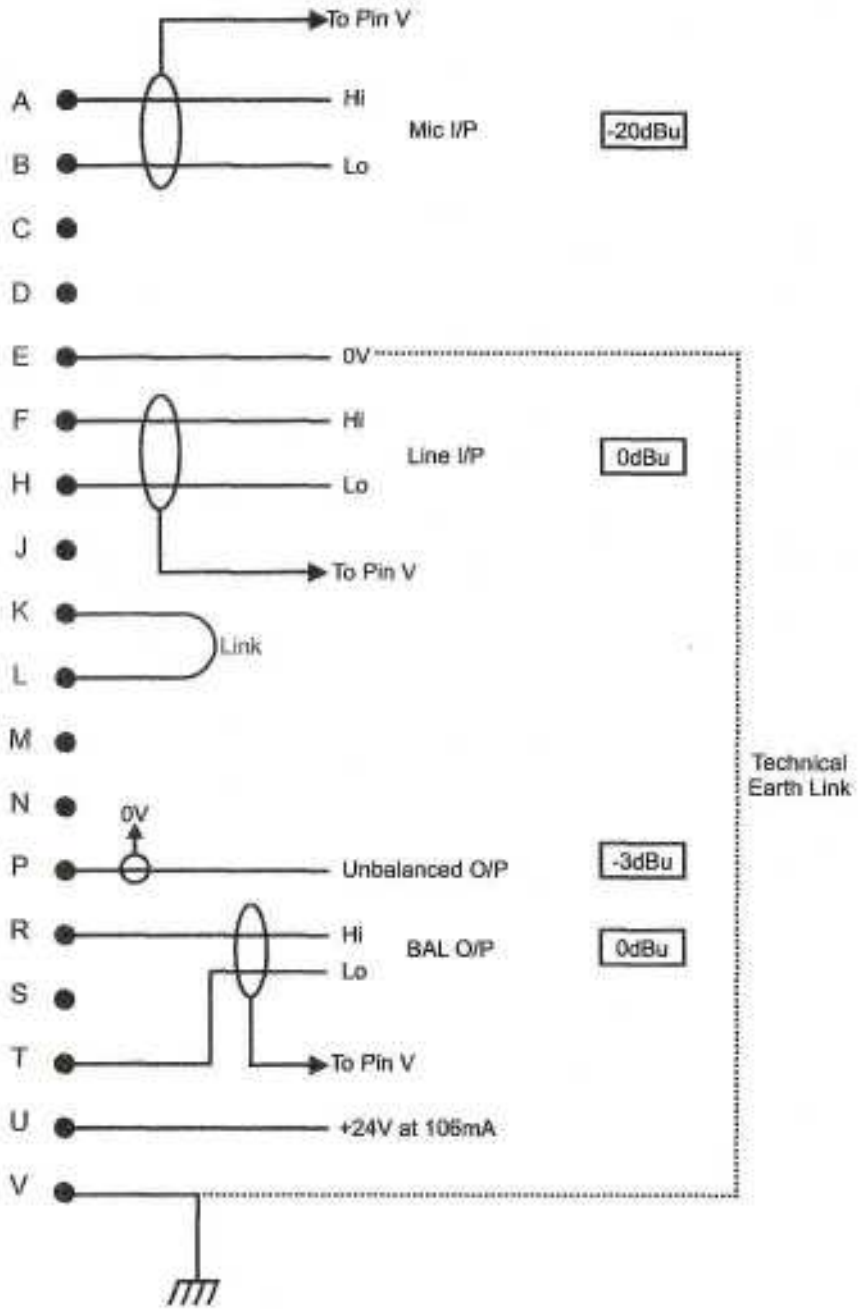
Please note that the designs of the AMS Neve classic modules and racks are to the original Neve specifications and are not designed to withstand transit.

▶ Should you wish to move the rack from one location to another (for example shipping to another studio location or returning the rack to a repair centre for servicing), please remove all installed modules from the rack and package the rack and each module separately in packaging suitable to withstand the intended transit.

▶ If modules are installed in a rack while in transit, damage to the internal edge connectors may occur.

Connector Details

Standalone 1073 & 1084
Module Wiring to 18 way Free Plug





1073 Module

- ▶ High Frequency: Smooth +/-16dB fixed frequency shelving at 12kHz.
- ▶ Low Frequency: Smooth +/-16dB shelving with selectable frequencies of 35Hz, 60Hz, 110Hz & 220Hz.
- ▶ Mid Frequency: Smooth +/-18dB peaking, fixed 'Q' with, selectable centre frequencies of 0.36kHz, 0.7kHz, 1.6kHz, 3.2kHz, 4.8kHz & 7.2kHz.
- ▶ High Pass Filter: 18dB per octave slope, switchable between 50Hz, 80Hz, 160Hz & 300Hz.
- ▶ EQL Button: Switches the equaliser in or out of circuit.
- ▶ Phase Button: Gives 180° Phase change at Balanced Output.





1084 Module

- ▶ High Frequency: Smooth + /-16dB shelving with selectable frequencies of 0kHz, 12kHz and 16kHz.
- ▶ Low Frequency: Smooth +/-16dB shelving with selectable frequencies of 35Hz,60Hz, 110Hz & 220Hz.
- ▶ Mid Frequency: Smooth +/-12dB or +/-18dB peaking with switchable 'High Q',selectable centre frequencies of 0.36kHz, 0.7kHz, 1.6kHz, 3.2kHz, 4.8kHz & 7.2kHz.
- ▶ High Pass Filter: 18dB per octave slope, switchable between 45Hz, 70Hz, 160Hz & 360Hz.
- ▶ Low Pass Filter: 18dB per octave slope, switchable between 6kHz, 8kHz, 10kHz,14kHz, & 18kHz.
- ▶ EQL Button: Switches the equaliser in or out of circuit.
- ▶ Phase Button: Gives 180° Phase change at Balanced Output.

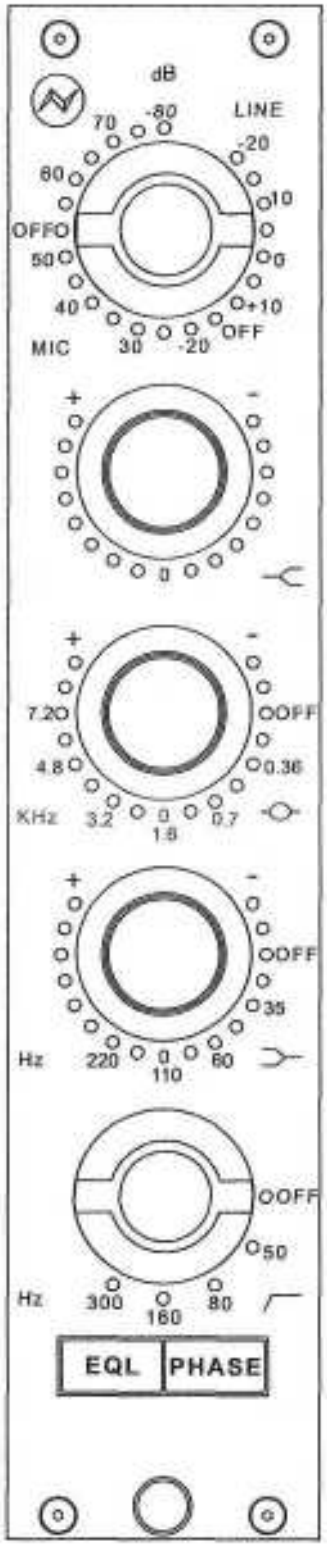


Specifications

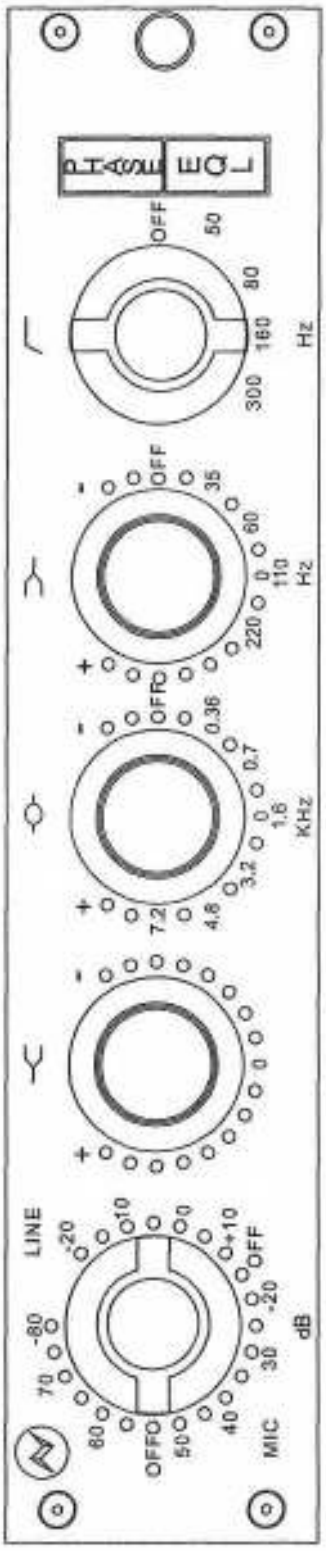
1073 and 1084 Modules

- Microphone Input: Input Impedance 300Ω or 1200Ω, gain +80db to +20dB in 5dB steps.
- Line Input: Input Impedance 10,000Ω bridging, gain +20dB to -10dB in5dB steps. Both inputs are transformer balanced and earth free.
- Output: Maximum output is >+26dBu into 600Ω. Output impedance is 75Ω @1kHz. Output is transformer balanced and earth free.
- Distortion: Not more than 0.07% from 50Hz to 10kHz at +20dBu output (80kHz bandwidth) into 600Ω.
- Frequency Response: +/-0.5dB 20Hz to 20kHz, -3dB at 40kHz Eq Out.
- Noise: Not more than -83dBu at all Line gain settings Eq In/Out (22Hz to 22kHz bandwidth), EIN better than -125dBu @ 60dB gain.

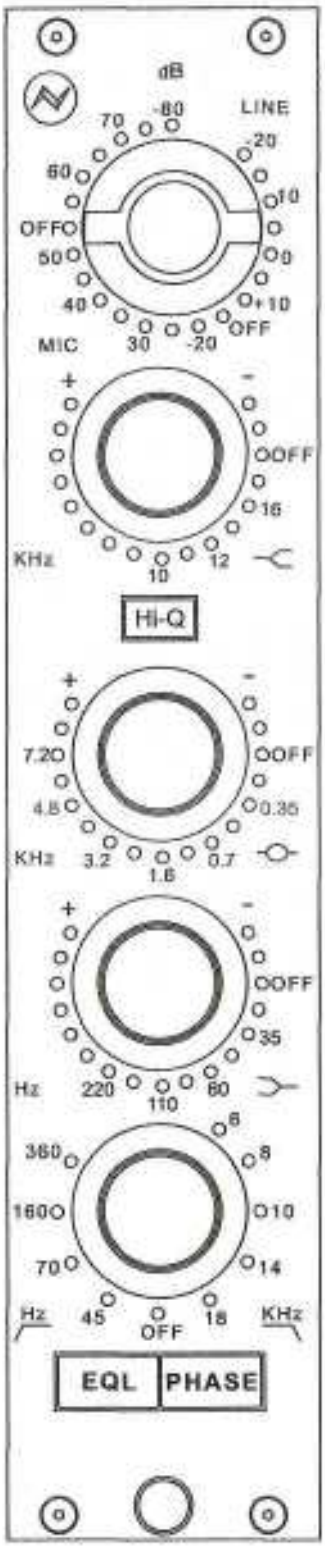
Recall Sheets 1073 - Vertical Module



1073 - Horizontal Module



1084 - Vertical Module



1084 - Horizontal Module

