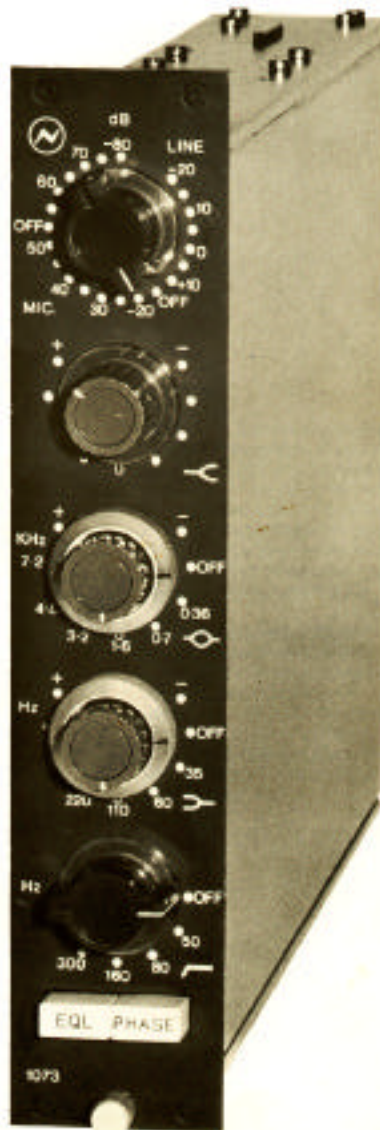




# Neve

## Channel Amplifiers



*Antenna Row*

These comprise a range of high performance input amplifiers available for use on Neve sound control consoles, which incorporate alternative arrangements of filter and frequency response curves



The thought, care and craftsmanship which goes into all Neve design is exemplified by this comprehensive Sound Control Console made to the individual requirements of Audio International Recording Ltd.



Additions are constantly being made to the range of channel amplifiers. Alternative filters and controls can be supplied to special order.

The NEVE range includes:-

Microphone amplifiers.  
Line amplifiers.  
Distribution amplifiers.  
Power amplifiers.  
Channel amplifiers.  
Special effects filters.

Equalised disc reproducer amplifiers.

Solid state switching matrices.

Limiters.

Limiter/compressors.

Remote control faders.

For further information on any of the above equipment, write to the Sales Manager.



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# Neve





# Channel Amplifiers

## MECHANICAL

The amplifiers are completely enclosed modules designed to plug into a Neve control desk or a Neve 19" rack mounting frame. Sliding covers on both sides of the module provide for easy access to the circuitry. All connections are made on a multi-way connector having gold plated contacts.

## DIMENSIONS

The front panels of modules listed below with the exception of the 1064 and 1064A measure 45 mm x 220 mm (1.75" x 8.70"). Modules should be spaced at 46 mm centres and mounted in a Neve module frame which may be mounted in a control desk or in a standard 19" rack. Up to 9 units may be mounted across a 19" rack mounting frame.

Type 1064, 1064A measure 45 mm x 305 mm (1.75" x 12").

## POWER REQUIREMENTS

24 volts D.C. at approximately 120 mA.

## CONNECTIONS

A Input 0°	} Mic	K External Fader Input.
B Input 180°		L External Fader Output.
C		P Unbalanced Output.
D		R Output 0°
E 24 volts—		S Output Centre-tap.
F Input 0°	} Line	T Output 180°
H Input 180°		U 24 volts +
J		V Chassis

**Note:** The negative side of H. T. supply is amplifier "common signal" rail and should be connected to point 'V' (module case) at one point only in the system. When a number of modules are used together, 'V' should be connected to the frame or desk in which they are mounted and the frame itself connected to one side of the supply at one point only.

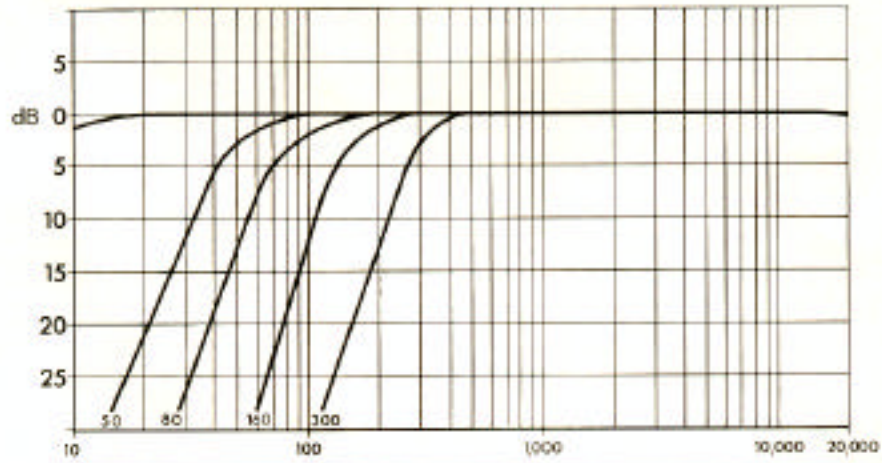
## Summary of Control Arrangements

The following modules constitute the standard range. Alternative characteristics are available to special order.

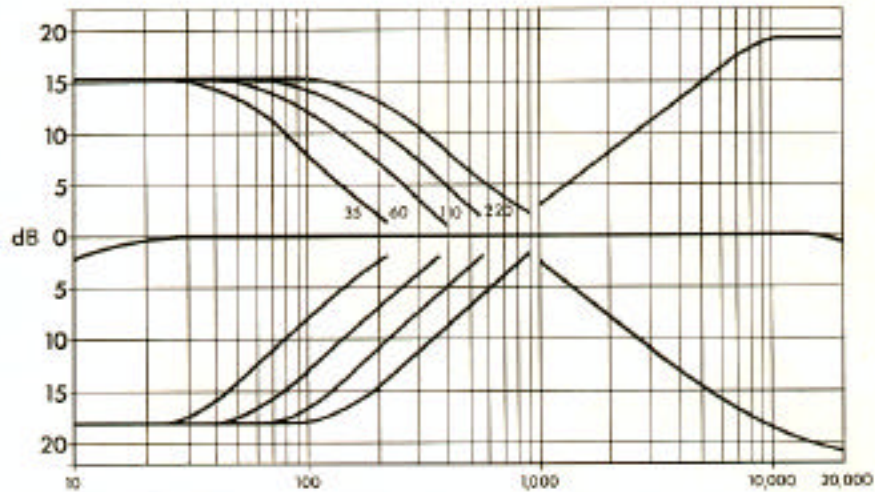
MODEL Channel Amplifier	SENSITIVITY dBm		H.F. CONTROL	PRESENCE CONTROLS Frequencies kHz	L.F. CONTROLS Frequencies Hz	HIGH PASS FILTER Frequencies Hz	OTHERS
	MIC	LINE					
1064	5dB steps		Stepped 10 kHz	Separate stepped 0.7, 1.2, 2.4, 3.6, 7.0	Separate stepped 35, 60, 100, 220	45, 70, 160, 360	EQL, IN/OUT Phase switch
	-80 -20	-20 +10					
1064A	5dB steps		Continuously variable 10 kHz	Separate continuously variable 0.7, 1.2, 2.4, 3.6, 7.0	Separate continuously variable 35, 60, 100, 220	45, 70, 160, 360	EQL, IN/OUT Phase switch
	-80 -20	-20 +10					
1073	5dB steps		Continuously variable 12 kHz	Dual continuously variable 0.35, 0.7, 1.6, 3.2, 4.8, 7.2	Dual continuously variable 35, 60, 110, 220	60, 80, 160, 300	EQL, IN/OUT Phase switch
	-80 -20	-20 +10					
1076	5dB steps		Stepped 12 kHz	Dual stepped 0.35, 0.7, 1.6, 3.2, 4.8, 7.2	Dual stepped 35, 60, 110, 220	60, 80, 160, 300	EQL, IN/OUT Phase switch
	-80 -20	-20 +10					
FILTER UNIT 2065	Unity gain ± 3dB (preset)		Low/pass filter 2, 4, 6, 8 kHz	None	None	45, 70, 160, 360	EQL, IN/OUT
CORRECTION UNIT 2074	Unity gain ± 3dB (preset)		Continuously variable 12 kHz	Dual continuously variable 0.35, 0.7, 1.6, 3.2, 4.8, 7.2	Dual continuously variable 35, 60, 110, 220	60, 80, 160, 300	EQL, IN/OUT Phase switch
CORRECTION UNIT 2076	36 dB gain ± 3dB (preset)		Continuously variable 12 kHz	Dual continuously variable 0.35, 0.7, 1.6, 3.2, 4.8, 7.2	Dual continuously variable 35, 60, 110, 220	60, 80, 160, 300	EQL, IN/OUT Phase switch

## Typical Curves 1073

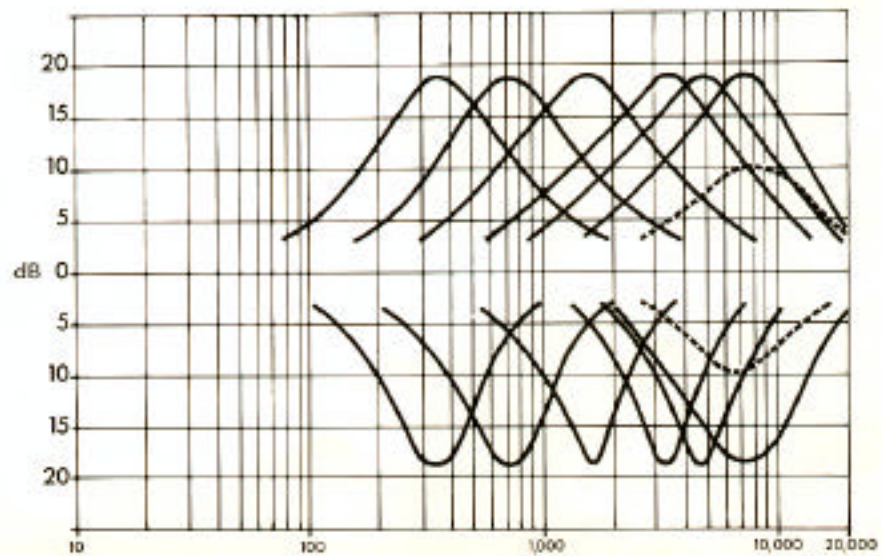
HIGH PASS FILTER



L.F. and H.F. CUT/BOOST



PRESENCE (MID-FREQUENCY) CUT/BOOST





# Channel Amplifier 1073

## FREQUENCY RESPONSE

Filter and response controls switched "out", measured from 200 ohms source into 1200 ohm microphone input at  $-60$  dB sensitivity or from 600 ohm source into 10,000 ohm line input at  $-20$  dB.

Output at 0 dBm into 600 ohms load:

$\pm 0.5$ dB	15 Hz—20 kHz
$-3$ dB	7 Hz—35 kHz

**SQUARE WAVE:** With conditions as above, a square wave of one micro-second rise time and 10 kHz repetition frequency shows ringing and overshoot not exceeding 1% of the peak amplitude, the output rise time being strictly consistent with the amplifier bandwidth.

**HIGH PASS FILTER:** 4 switched frequencies with  $-3$  dB points at 50 Hz, 80 Hz, 160 Hz and 300 Hz. Slope 18 dB/octave.

**L.F. CONTROLS:** Continuously variable to maximum of  $\pm 16$  dB. Switched maximum boost and cut frequencies: 220 Hz, 110 Hz, 60 Hz and 35 Hz. "Shelf" type curve shape.

**H.F. CONTROLS:** Continuously variable to maximum of  $\pm 16$  dB. Maximum boost and cut frequency 12 kHz. "Shelf" type curve shape.

**PRESENCE CONTROLS:** Continuously variable to maximum of  $\pm 16$  dB. Maximum boost and cut frequencies peaking at 7.2, 4.8, 3.2, 1.6, 0.7 and 0.35 kHz.

First push button—EQUALISATION IN/OUT.

Second push button—PHASE REVERSAL.

# Neve

## Channel Amplifier 1073

### Inputs

Microphone and line inputs are provided, each of which is automatically selected by the sensitivity switch. The microphone input is connected to positions between  $-80$  and  $-20$  dB and the line input to positions between  $-20$  (repeated) and  $+10$  dB.

#### MICROPHONE

Balanced, earth-free, R.F. isolated, electrostatically screened, statically wound transformer.

**SENSITIVITY:** Adjustable in 5 dB steps between  $-80$  and  $-20$  dB (Referred to 600 ohm terminating impedance) for 0 dBm output.

**INPUT IMPEDANCE:** 300 ohms or 1200 ohms selected by a switch on the module rear panel (Alternative impedances can be supplied to special order).

#### LINE

Balanced, earth-free, R.F. isolated, electrostatically screened, statically wound transformer.

**SENSITIVITY:** Adjustable in 5 dB steps between  $-20$  and  $+10$  dB (Referred to 600 ohm source, un-terminated) for 0 dBm output.

**INPUT IMPEDANCE:** 10,000 ohms line bridging from 600 ohms or lower source.

**Note:** The line input presents a bridging impedance and the microphone input can be further switched to present 300 or 1200 ohm input impedances. 300 ohms is intended for microphones having source impedances within the range 20—50 ohms and 1200 ohms for those having source impedances 100 to 300 ohms and for most condenser microphones. Alternative input impedances may be substituted to special order.

**NOISE:** Between  $-80$  and  $-40$  dB sensitivity the equivalent input noise is better than  $-125$  dBm referred to 600 ohms input impedance, terminated with 600 ohms resistance. Between  $-35$  and  $+10$  dB sensitivity the noise measured at the amplifier output does not exceed  $-83$  dBm, R.M.S. values, 20 Hz to 20 kHz bandwidth unweighted. Filters and controls in 'flat' position or switched 'out'.

### Output

The amplifier output is balanced and floating and is designed to feed a 600 ohm load. A second unbalanced output is also available.

**OUTPUT IMPEDANCE:** Balanced output: Source impedance 75 ohms to feed 600 ohm load. Reactive component  $< 20\%$  between 50 Hz and 10 kHz.

May be strapped for 150 ohm load, but this must be done internally. Source impedance 20 ohms.

**MAXIMUM OUTPUT:**  $+26$  dBm into 600 ohms or  $+20$  dBm into 150 ohms.

**DISTORTION:** Measured at  $-60$  dB sensitivity (microphone input) and  $-20$  dB sensitivity (line input):

$+20$  dBm 1 kHz  $< 0.01\%$

$+25$  dBm 1 kHz  $< 0.03\%$

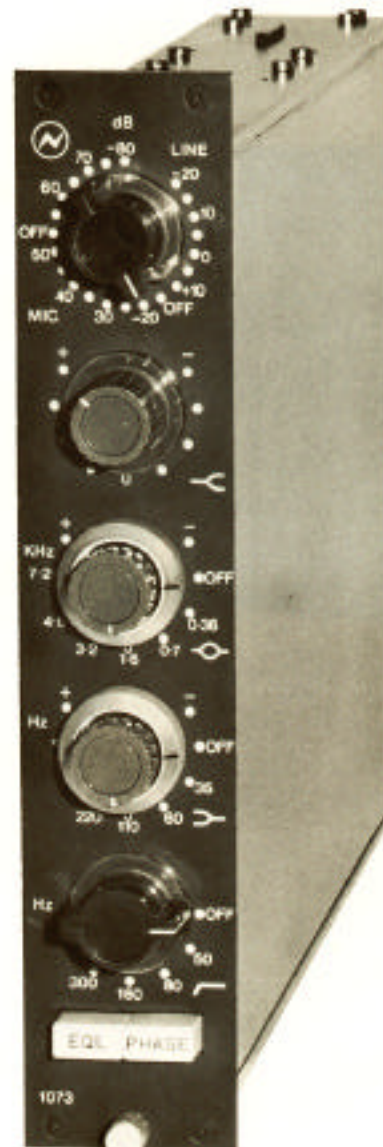


New Channel Amplifiers are designed to accept signals from microphone and line sources and raise them to 0 dBm for feeding a 600 ohms load. Low noise and distortion and generous overload performance are important features of these amplifiers.

High frequency, mid-frequency (presence) and low frequency correction controls are provided. The shapes of the curves and the frequencies have been carefully chosen to give the maximum possible flexibility in high quality recording. In addition a steep cutting high pass filter with a choice of cut-off frequencies is included.

A number of correction units having similar characteristics to the channel amplifiers are also included in this brochure.

The units described form the standard range, a much wider choice of characteristics is available on request.



In keeping with our policy of continuous development we reserve the right to change the design of any unit forming part of this specification if such a change will, in our opinion, improve the performance or produce any other advantage mutual to the customer and ourselves.