LABO ⋆ K EFFECTS

USER MANUAL FOR THE EQ81 EQUALIZER
REPLICA OF THE NEVE 8108 EQUALIZER
IN 500 FORMAT (ISS6)

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INTRODUCTION

The EQ 81 is a replica of the equalizer section of the 34136 console section of the NEVE 8108 series
The EQ 81 equalizer forms a fully variable (parametric) four-band.
The high and low frequency bands can be switched from a peak characteristic to a shelve characteristic.
Throughout its design, the **EQ 81** was compared to the original 8108 equalizer. The differences in the values of some components between the diagram in the maintenance manual and the module itself have been considered.
A step-by-step comparison of the listening was carried out.
Various capacitor tests were carried out until a perfect sound similarity was obtained.
Particularity:
The switch (**CH**) on the **EQ 81** module allows the EQ part of the module to be inserted into the **PRE 81** preamp path after the filters and before the fader exactly as in the original 8108 channel. This function is available when using a link cable or when the modules are used with a **Labo K Effects K551X** format rack.

The **EQ 81** module can be powered in +/-16V (API 500 format) or +/-18V in a 51X or K551X format rack. Regulators on the module convert the +/-24V available on 51X and K551X format to +/-18V.

This module is compatible with API500, 51X, VPR, and K551X formats.

Optional accessories

Labo★K Effects K551X rack Rack system in K551x format with modular backplanes powered by a ribbon cable. **Pre 81 by Labo★K Effects** Replica of Neve 8108 Pream	 

FEATURES AND IMPROVEMENTS

Balanced input and output

Component values are as in the original.

Works in stand-alone mode or as an insert in a **PRE 81** preamp.
Thanks to the Channel (**CH**) button.
In insert mode, the module's input is directed towards the output, which is equivalent to an EQ Off.

Improvements

Audio switching is done by relay to avoid switching problems.

Channel insertion mode via the (**CH**) button

The balanced output of the module uses the THAT1646 circuit.

NOTE :

3 Jumpers allow the EQ to be configured according to the desired use.

See the options configuration page.

USER CONTROLS

Frequency controls: one per band, marked 30Hz - 300Hz; 200Hz - 2kHz ;
0.8 kHz -8 kHz ; 1.5 kHz - 15 kHz. Set band center frequencies.

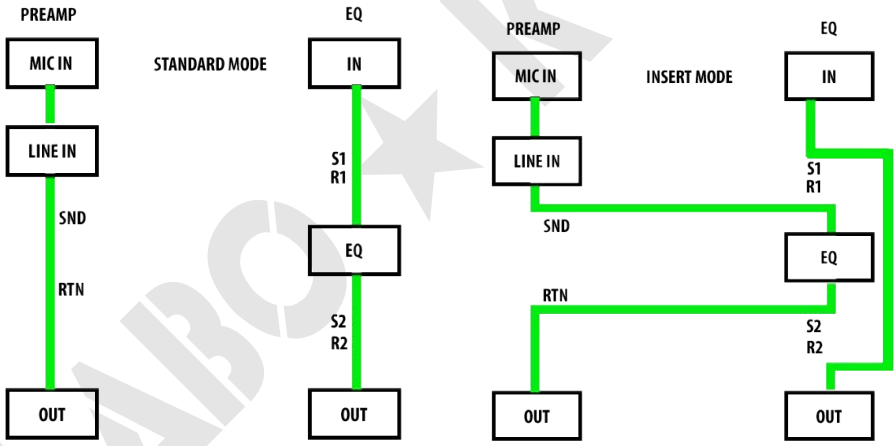
Boost/Cut controls: one per band, marked LOW, MID 1, MID 2, HIGH. Set band boost or cut over range +l8dB.

Low shape Button: When out, low band response is bell shaped. When in,lowband response is shelving.

Hi shape Button: when out, high band response is bell shaped. When in,high band response is shelving.

IN Button: when out , EQ is bypassed. When in, EQ is inserted in the signal path.

CH button: Allows the equalizer to be inserted into the audio path of a PRE81 preamplifier



OPTIONS SETTINGS

Use in stand-alone mode.

Jumpers **JP4** and **JP7** must be removed.

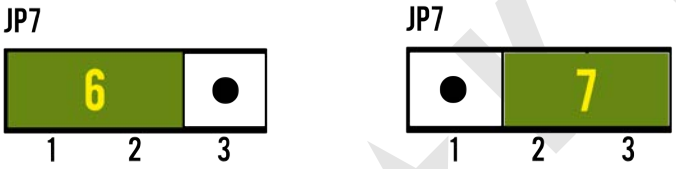
It is possible to form a Preamplifier + equalizer channel by coupling the EQ81 module with a PRE81 module.
The **CH** button on the module allows you to assign the equalisation section of the module to the preamp it is connected to. When the **CH** button is released, the module becomes stand-alone again.

Use in Channel mode.

It will be necessary to place the jumpers **JP4** from the EQ81 module.
(It will also be necessary to remove the jumper **JP1** from the PRE81 module.)

Setting of jumper **JP7**

Normally pin 7 of the backplane connector is assigned to the Receive Insertion function. However, the **PRE81** preamplifier can be configured to have separate mic and line connectors. In this case pins 7 and 9 of the backplane connector are assigned to the Line input. The Receive Insert function is therefore assigned to pin 6 of the preamplifier connector.
The jumper JP7 is used to select pin 7 or 6 for the Receive function.



Use in an API50,551X, & VPR rack.

The 2 modules will have to be connected using an Insert Link cable.

Use in a K551X rack from LABO K EFFECTS.

If the K551X 02-02 backplane is available, the use of the cable link is not necessary.

Insert Link wire

CONNECTOR DETAILS

PIN #	EQ81	
1	Chassis	Chassis
2	OUT +	Out Hi of module
3	SND	EQ section output
4	OUT –	Out Lo of module
5	PSU/Audio GND	PSU/Audio GND
6	Receive 2	EQ (PRE81) section input
7	RECEIVE	EQ (Standard) section input
8	INPUT – (+4)	Input Lo du module
9	-	-
10	INPUT + (+4)	Input Hi du module
11	Remote	Activates the Channel Function
12	+ 16V DC	+ 16V DC
13	PSU/Audio GND	PSU/Audio GND
14	–16V DC	–16V DC
15	-	-
16	NC	NC
17	+ 24V DC	+ 24V DC
18	– 24V DC	–24V DC