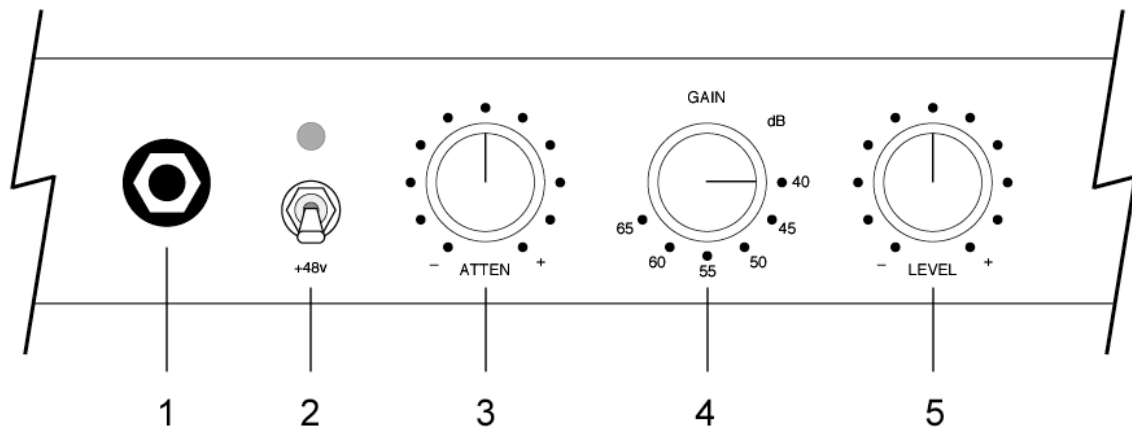


JC1272 Quick Start Guide

www.JC1272.com

JC1272 Channel Controls



1. **1/4" Instrument Input** – This unbalanced input, which is optimized for active electronics, allows the user to amplify keyboards, samplers, synth modules, and guitars directly. It also makes the JC1272 useful for 'reamping' recorded signals, making the JC1272 a processor of sorts for saturation and dynamic effect. Inserting a 1/4" plug into this jack interrupts and replaces the signal from the microphone input on the rear panel.
2. **+48v switch** – This switch activates +48vdc phantom power to pins 2 and 3 of the respective microphone input XLR on the rear panel to power condenser microphones that require this voltage to function. The LED will light when the +48v is active.
3. **ATTEN control** – this continuously variable control functions as a pad between the mic input transformer and the first active gain stage. Turning this control counter-clockwise increases the attenuation (lowering the signal), while turning it clockwise reduces the attenuation (raising the signal).
4. **GAIN control** – This stepped switch determines the amount of actual gain produced by the active stages of the JC1272.
5. **LEVEL control** – This continuously variable control acts as an output fader, varying the amount of signal passing between the two gain stages.

JC1272 Design Considerations

The JC1272 is unique among class-A, British-style preamps in that its gain structure gives it tonal and dynamic versatility well beyond that of otherwise similar devices. Because the JC1272's gain arrangement is unique, an explanation for this configuration is warranted:

For their class-A mic amplifiers Neve* devised a gain switch design that altered both the gain of the active circuits as well as a switched, passive pad network to achieve the various net gains. For the sake of creative flexibility I have chosen to split these into separate pad and gain controls.

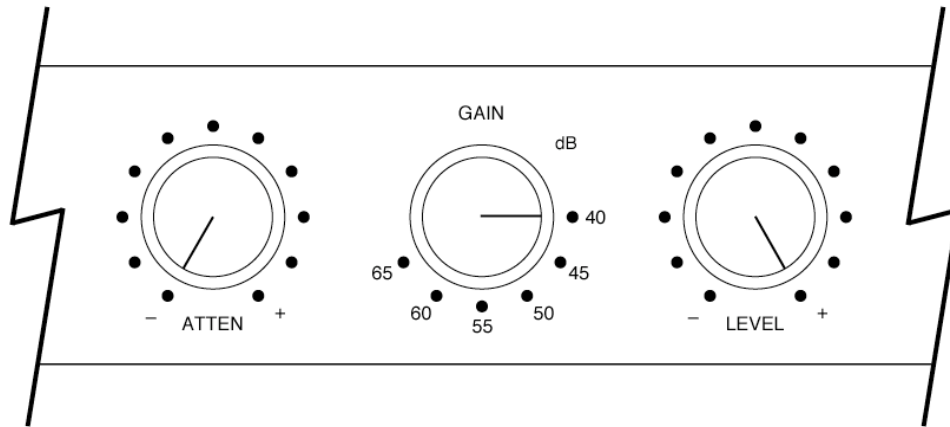
Without the pad networks, the lowest total gain of a class-A Neve* style mic amp is 40dB. Lower overall gain settings (down to 20dB on a 1073 and 10dB on a 31102, for example) are achieved by the use of the pad network between the input transformer and the first active gain stage. Therefore a 20dB setting on a 1073 or 1084 (or their clones) is really 40dB of actual gain with a -20dB pad on the front end.

In contrast, the GAIN control on the JC1272 *serves only to vary the active gain produced by the circuit*. It incorporates no pad at all. As such, the lowest available setting is the same 40dB minimum gain produced by the traditional design without the pad networks. It then increases by 5dB steps up to a maximum 65dB gain.

The ATTEN control, which *precedes* the GAIN control both on the front panel and in the circuit, provides the pad function needed for net gains below 40dB. Like the pad from the traditional gain switch design it varies the amount of attenuation between the mic input transformer and the input of the first active stage. Unlike the traditional design, however, the JC1272's ATTEN control is continuously-variable (instead of the 5dB steps of the traditional approach) for much finer control. With ATTEN wide open (fully clockwise) there is no attenuation being applied to the input signal. In the full counter clockwise position the signal is fully attenuated (no signal reaches the gain stages).

The LEVEL control acts as a fader, altering the amount of signal between the preamp stage and the output stage. With this control fully clockwise there is no attenuation between gain stages – the full signal passes. With this control fully counter clockwise there is total attenuation (no signal reaches the output stage).

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Initial Setting

Tracking large, detailed, undistorted tones:

Begin with ATTEN turned down, GAIN set to 40dB, and LEVEL wide open. This initial setting allows no input signal to reach the gain stages, selects the lowest possible active gain, and leaves the output level untouched.

Next, while monitoring your signal, begin turning ATTEN clockwise and continue until you reach your desired level. If, with ATTEN wide open, you need more gain, begin increasing the GAIN control one step at a time until the first setting where you have too much gain. *Leave the GAIN control set to the first point where you experience too much gain*, and simply turn ATTEN back down until the proper level is achieved. This will give you a big, clear, undistorted tone.

Creating more colorful tones:

For more colorful tones try backing off the input level (ATTEN control) and increase the active gain setting to compensate for the loss of level. The JC1272's ability to manipulate the gain structure in this manner is one of the things that makes it truly unique, as such settings are simply not a possibility with original Neve* channel amps or their clones. The ATTEN control not only varies the amount of signal that reaches the gain stages, it also has an effect on the character of the signal itself. Likewise, varying the active gain settings alters the tone, not just the gain, so by combining these two controls in differing ways the user can create a variety of more colorful textures.

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For even edgier tones:

For over-the-top saturated tones use either the ATTEN control to increase input level to the gain stages, or increase GAIN to drive the active stages harder (or do both), and counter this increase by backing off the LEVEL control to pull the overall signal down to one appropriate for the next device in line. With louder signals, such as cranked amps or drums, simply opening up the ATTEN control is often enough to drive the first gain stage into initial saturation.

The discrete, class-A topology of the JC1272, coupled with nature of the selected active components, creates an overload characteristic that is somewhat tube-like in that it rounds off of transients before audible hard-clipping actually occurs rather than the typical headroom-to-hard-clipping so common in modern solid state devices. As such, the tone of the JC1272 gets edgier and more 'alive' before it passes into obvious distortion. This works especially well on transient signals such as drums and loops (great for making huge drum sounds!).

Experiment and have fun!

NOTE: The JC1272's gain controls work for the DI input exactly as they do for the mic input.