

Delay/echo effects unit created as musical instrument for live improvisation. DSP audio delay, multiplied, divided and modulated by dedicated knobs in real time, combined with analog overdrive and filters to shape delay tone and feedback.

DELAY TIME SETTING

The echo unit provides two controls to set the delay time. They can be combined in several different ways:

Technique 1 -Quantize ON

Set the BPM knob according to the song Tempo or the half of it for songs faster than 120BPM.

Now wherever you set the BEAT knob, it will only produce musical subdivisions, faster or slower but always in synch with the song.

0.25=1/32	0.50=1/16
0.75=1/16.	1=1/8
1.25=1/8+1/32	1.50=1/8.
1.75=1/4T	2=1/4

Technique 2 -Quantize ON

If BPM is not known, or, if you want rhythms different than the ones produced with technique one, place the BEAT knob on any setting you want to start, then find by ear a good sounding delay with the BPM control.

Moving the BEAT knob between its 8 areas will produce just multiples or subdivisions in synch with the patten you have found, creating a new set of 8 nice sounding delay times.

Technique 3 -Quantize OFF

Switch off the QUANTIZE button, set BPM in the middle position and use the BEAT knob like any normal delay time control. On the left slower delays, on the right faster, with smooth transitions between different values.

For a correct use of the Benidub Digital echo:

1 - This echo must be used with a mixer or a dub preamp thru an AUX send + return channel. It can't be connected directly to a microphone, an electric guitar, a dub siren or any other instrument. In other words cannot be used in insert, as no direct sound passes thru it.

2 - Please, connect the echo output to a mono LINE input of your mixer or preamp and the echo input to an AUX send.

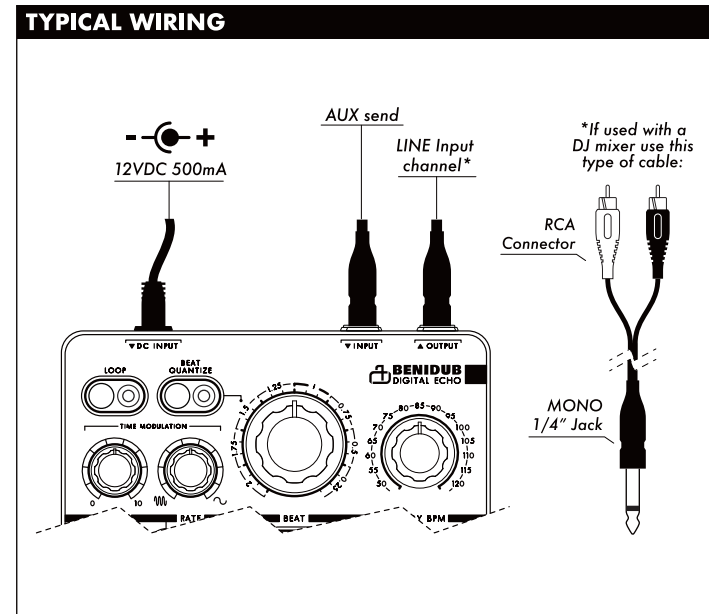
3 - If used with a DJ mixer, a MONO 1/4" Jack to 2x-RCA cable is needed.

NOTE: the 1/4" Jack must be MONO (see picture below). If the cable is STEREO the Digital Echo will only be heard on the left channel of your system.

4 - While testing your unit for the first time, please make sure that the LOOP and MUTE switches are OFF otherwise you won't hear any sound.

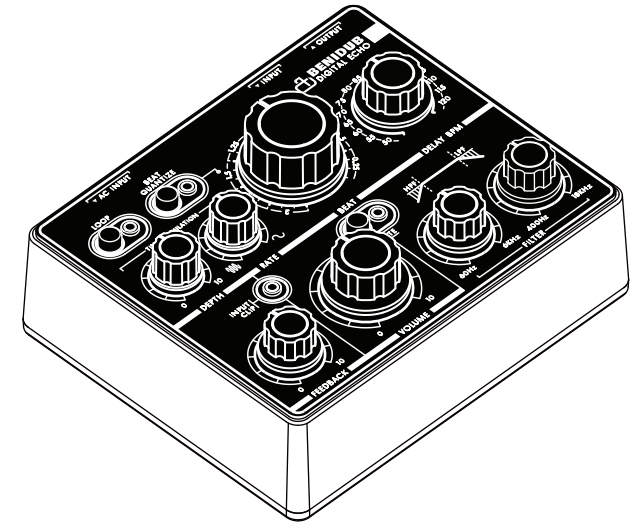
5 - The feedback (quantity of repetitions) can be set by the unit itself or by your mixing desk return channel. For doing so please close completely the FEEDBACK knob, and open the delay AUX send on your return channel. This way the return channel fader will control both VOLUME and FEEDBACK, just with one movement. The same thing can be done with almost any dub preamp on the market.

6 - Use just the provided power supply or one compatible (see specifications).



BENIDUB

DIGITAL ECHO



User manual

Designed and manufactured by

BENIDUB
MUSIC EQUIPMENT

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Technical Specifications:

Power Supply: 12VDC, center positive, 2.1mm x 5.5mm barrel type connector.

Current draw: less than 100mA

Audio input: 1/4" balanced or unbalanced MONO Jack

Audio output: 1/4" balanced or unbalanced MONO Jack

Size: 120x150x60 mm

Made in Spain



BEAT QUANTIZE:

When active, BEAT knob is divided in 8 equal steps. Musical subdivisions of the delay time can be achieved without the need of setting the knob precisely or trying to remember its original position once changed.

LOOP:

When active the unit repeats in loop the last sampled audio, independently from the feedback setting and input signal.

TIME MODULATION:

A Low Frequency Oscillator modulates the delay's sample rate, increasing or slowing down its speed. It electronically shifts up and down the BPM knob. The modulation waveform is a triangle, modulation DEPTH and RATE are under control of dedicated knobs on the front panel.

FEEDBACK:

The delay output signal is sent back to the input to create echo repetitions effect. Range is from zero (single repetition) to +12db (increasing feedback).

POWER INPUT:

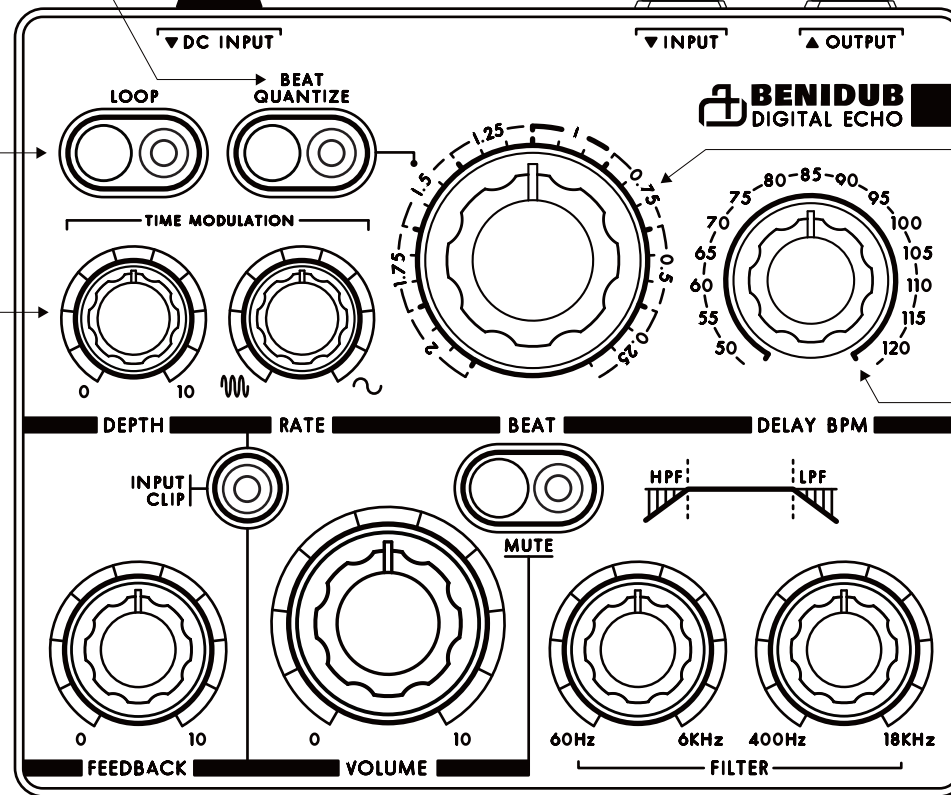
12VDC 500mA, center positive, 2.1mm x 5.5mm barrel connector.

AUDIO INPUT:

1/4" bal. or unbal. MONO Jack

AUDIO OUTPUT:

1/4" bal. or unbal. MONO Jack



BEAT:

Main delay time control. Can be continuous or divided in 8 equal steps (see QUANTIZE switch). The BEAT knob moves the reading point backward or forward over the audio sample, producing faster or slower repetitions.

DELAY BPM:

Works as fine delay time adjustment. Instead of milliseconds, Beats Per Minute have been used as time measure unit.

FILTERS:

The unit includes two analog 12dB/oct sweep frequency filters on the delay output. An High Pass Filter ranging between 60Hz and 6KHz followed by a Low Pass Filter ranging between 400Hz and 18KHz.

VOLUME/MUTE:

The unit's output volume, and audio master MUTE. More volume also increases feedback, less volume (or MUTE) decreases or cuts the feedback signal.