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CANYON ECHO

User Manual

Multi-Function Digital Delay

Welcome to the Electro-Harmonix Canyon Echo: an extremely compact digital delay pedal with up to 3 seconds of delay time. The Canyon Echo features tap-tempo—with three different tap-division options—a filter control to shape the tone of the repeats, tails mode to keep the repeats going after switching to bypass, and footswitch accessible infinite repeats.

Operating Instructions

Insert the output plug from the supplied 9VDC AC adapter into the power jack at the top of the Canyon Echo. The unit must be powered to pass signal, even in bypass. The Canyon Echo features buffered analog bypass or digital bypass depending on settings. Connect an instrument cable from your instrument to the Input jack. Connect an instrument cable between the Output jack and a suitable amplifier. Click the footswitch to engage the pedal and light the LED.
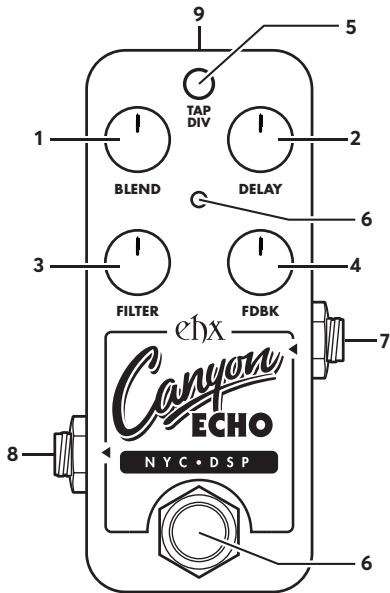
Power Supply Requirements: Voltage: 9VDC   Current: 100mA   Polarity: Center-Negative

This device comes equipped with an Electro-Harmonix 9.6DC-200 power supply. Use of the wrong adapter or a plug with the wrong polarity may damage the device and void the warranty. Do not exceed 10.5VDC on the power plug. Power supplies rated for less than 100mA may cause the device to act unreliably.

Controls & Jacks

1. BLEND Adjusts the output mix from 100% dry to 100% wet.

2. DELAY Controls the delay time, ranging from 8ms to 3s.

3. FILTER Applies an adjustable low-pass or high-pass filter to the delay line. Set FILTER to the center or noon position to disable the filters. Turn FILTER counterclockwise to place a low-pass filter on the delay effect, giving the Canyon Echo a sound similar to an analog delay. Turn FILTER clockwise to place a high-pass filter on the delay repeats, for an effect reminiscent of a tape delay. The further you turn FILTER in either direction, the more filtering is applied to the effect.

4. FDBK Controls how many repeats the Canyon Echo generates. At minimum you get one repeat. At maximum, the repeats are nearly endless. *NOTE: the filter is placed in the feedback path of the delay and filters out more signal with each repeat, limiting the maximum repeats at more extreme FILTER settings.*

5. TAP DIV Button When the delay time is set by tap-tempo, the TAP DIV button sets the tap-division:

> **Green – 1/8 Note** equal to half your tap time

> **Orange – Dotted 1/8 Note** equal to 3/4 your tap time

> **Red – 1/4 Note** equal to your tap time

6. Footswitch and Status LED The footswitch engages or bypasses the effect. The LED indicates the selected tap division. In bypass mode, the LED is off. The LED blinks at the latest tap reading when the delay time is set by tap tempo.

7. Input Jack Impedance: 2.2MΩ, Max In: +1.5 dBu

8. Output Jack Impedance: 680Ω, Max Out: +2.1 dBu

9. Power Jack Current draw: 100mA at 9.0VDC

Tap Tempo

The footswitch can be used to set the delay time. Press and release the footswitch at least twice, in time with your music, to set the tempo. The LED blinks at the tempo to confirm the delay time is set by tap-tempo. To turn off tap-tempo, simply turn the DELAY knob to reset the delay time. You can completely disable tap-tempo by following these steps:

1. Power down the Canyon Echo.

2. Press and hold the footswitch while reapplying power.

3. Continue to hold the footswitch for about two seconds, the LED will slowly blink through all three colors twice.

4. Release the footswitch; tap-tempo is now disabled.

5. Repeat this process to re-enable tap-tempo.

Tap-tempo disable is recalled through power cycles so you can set it and forget it.

Infinite Repeats

When Tails bypass mode is enabled, you can activate Infinite Repeats mode by pressing and holding the footswitch:

1. Press-and-hold the footswitch.

2. After 500ms, the LED begins flashing through all three colors. Infinite Repeats is now active.

3. You can release the footswitch. The delay repeats will continue indefinitely.

4. Tap the footswitch once to re-enter normal delay mode.

While Infinite Repeats mode is active no new signal is fed into the delay effect. The filter is taken out of the feedback path and placed instead on the delay output, so you can use it to shape the tone of your looping sound without degrading looped repeats as it does in normal delay mode. You can move the DELAY knob while Infinite Repeats mode is active to get pitch-shifted loops, like speeding up or slowing down a tape-machine.

Tails and Analog Bypass Selection

The Canyon Echo allows you to choose between two bypass modes:

Analog: the bypass signal is fully analog; the delay effect instantly mutes upon entering bypass.

Tails: the repeats of the delay effect continue to decay naturally upon entering bypass; no new audio enters the delay block; bypass is digital.

Tails bypass is selected by default from the factory. To activate Analog bypass, do the following:

1. Press and hold the TYPE push button

2. After two seconds, the LED enters Party Mode, where it rapidly cycles through the three LED colors.

3. Release the button; Analog bypass is now active.

4. Repeat this same procedure to change back to Tails bypass.

The bypass mode setting is remembered through power-cycles so you can set it and forget it.