Data Bender

quickstart guide

Data Bender

time

shift clock mode

bend break corrupt freeze
(stereo) (default) (reset) (latch)

repeats

mix

cv cv cv

clock gate gate gate freeze

left bend break corrupt left

right mix repeats time right
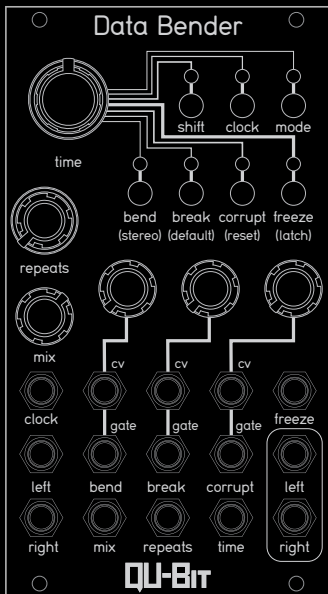
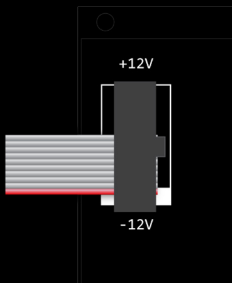QU-BIT

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Description

Harness the Sound of Failure with Data Bender.

Data Bender is a circuit bent digital audio buffer. It is inspired by the ways in which audio equipment can fail.
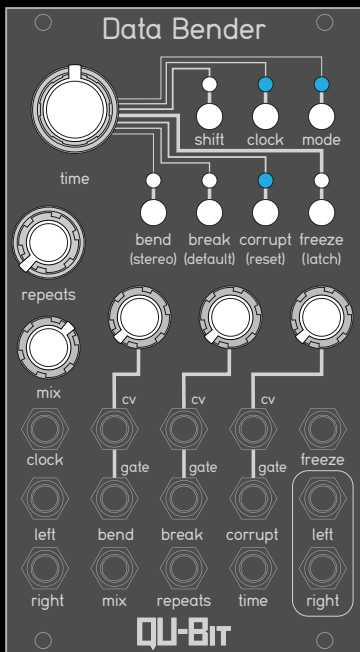
The sounds of skipping CDs, software bugs, and defective tape machine playback are all accessible. The 96kHz, 24-bit audio buffer can hold over a minute of stereo audio, providing a sonic canvas capable of infinite surprises and discovery.

Module Installation

1. Make sure there is appropriate space (14HP) and power (58mA) in your case.

2. Connect the ribbon cable to Aurora (see right) and to your power supply, matching the red stripe indicators.

3. Power up your case and ensure your modules are properly powered and operating.
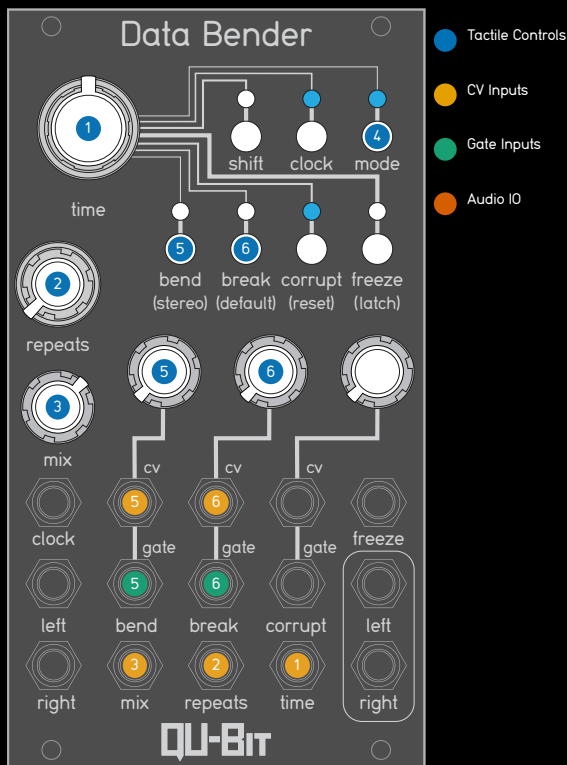

+12V

-12V

Initial Knob Positions

*These are the recommended initial knob positions, but who are we to pigeonhole you. It's your party, throw it how you want it!

Front Panel

Data Bender

- Tactile Controls
- CV Inputs
- Gate Inputs
- Audio IO

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repeats

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1 <u>Time</u>
- Sets the sample period for incoming audio to be processed.
- Time CV input. Range: -5V to 5V

2 <u>Repeats</u>
- Divides the audio buffer into smaller subsections of audio. Turn up for glitch stutters.
- Repeats CV input. Range: -5V to 5V

3 <u>Mix</u>
- Controls the balance between the live input and the audio buffer.
- Mix CV input. Range: -5V to 5V

4 <u>Mode</u>
- Swaps between Macro and Micro Mode, which changes the Bend and Break functions.

5 <u>Bend</u>
Macro
- Automated tape medium inspired manipulations.

Micro
- Playback speed/reverse control that tracks 1V/Oct.

- Bend CV input. Range: -5V to 5V
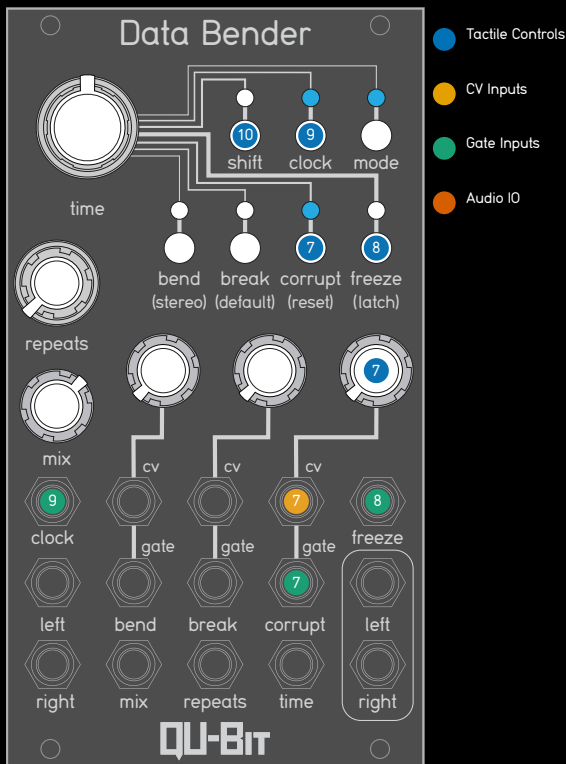
- Bend gate input. Threshold: 0.4V

6 <u>Break</u>
Macro
- Emulates malfunctioning digital audio devices.

Micro
- Button toggles between Traverse and Silence modes. **Traverse**: scans through subsections set by Reverse. **Silence**: adds silence to audio buffer.

- Break CV input. Range: -5V to 5V

- Break gate input. Threshold: 0.4V

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mode

bend
(stereo)

break
(default)

corrupt
(reset)

freeze
(latch)

cv

cv

cv

clock

left

right

bend

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break

repeats

corrupt

time

freeze

left

right

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7 Corrupt
- Interchangeable end-of-chain effect within Data Bender.
- Corrupt CV input. Range: -5V to 5V
- Corrupt gate input. Threshold: 0.4V

Corrupt Modes

● Decimate: varying bitcrush & downsampling effects.

● Dropout: audio dropouts, increasing across the knob.

● Destroy: soft saturation and hard clipping.

● DJ Filter: resonant lowpass and highpass filtering.

● Vinyl Sim: vinyl simulation, pops, filtering, coloring.

8 Freeze
- Holds the current buffer when activated, and will lock it until Freeze is deactivated.
- Freeze gate input. Threshold: 0.4V

9 Clock
- Toggles between internal (blue LED) and external (white LED) clock modes. In internal clock mode, the Time knob controls the clock rate. In external clock mode, the Time knob becomes a div/mult for the external clock rate.
- External clock input. Threshold: 0.4V

10 Shift
- Holding Shift provides access to secondary functions. See the next page for information on each Shift function.

Front Panel

Tactile Controls
CV Inputs
Gate Inputs
Audio IO

11 Audio Input Left
- Audio input for the left channel. Normals to both channels when no cable is present in Audio Input Right.
  Range: 10Vpp (AC-Coupled)

12 Audio Input Right
- Audio input for the right channel.
  Range: 10Vpp (AC-Coupled)

13 Audio Output Left
- Audio output for the left channel.
  Range: 10Vpp

14 Audio Output Right
- Audio output for the right channel.
  Range: 10Vpp

Shift Functions

Shift+Time: Glitch Windowing. Changes the windowing on the audio buffer.

Shift+Repeats: LED Dimmer. Changes the LED brightness.

Shift+Mix: Stereo Enhancement. Adjusts the stereo width of the buffer.

Shift+Bend Knob: Bend Attenuator. Attenuates the Bend CV input. Macro Mode only.

Shift+Break Knob: Break Attenuator. Attenuates the Break CV input. Both modes.

Shift+Corrupt Knob: Corrupt Attenuator. Attenuates the Corrupt CV input. Both modes.

Shift+Bend Button: Stereo Behavior. Toggles between shared and unique buffer manipulations for each channel.

Shift+Break Button: Restore Default Settings. Restores the default settings. See the manual for what settings are affected.
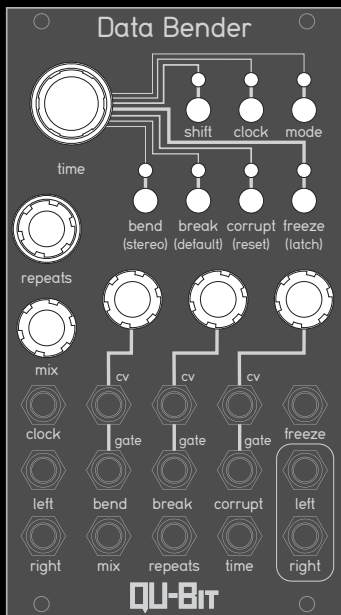
Shift+Corrupt Button: Corrupt As Buffer Reset. Toggles gate input function to act as a secondary input to reset the buffer.

Shift+Freeze: Freeze Behavior. Toggles between momentary and latching behaviors for Freeze.
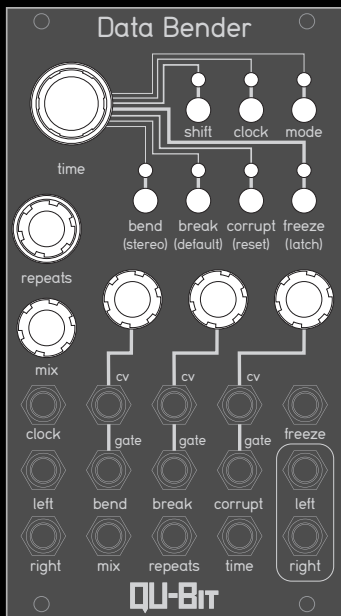
Shift+Clock: Gate Behaviors. Toggles between momentary and latching behaviors for gate inputs.

Shift+Mode: Corrupt Offerings. Toggles availability between old Corrupt effects and new Corrupt effects.
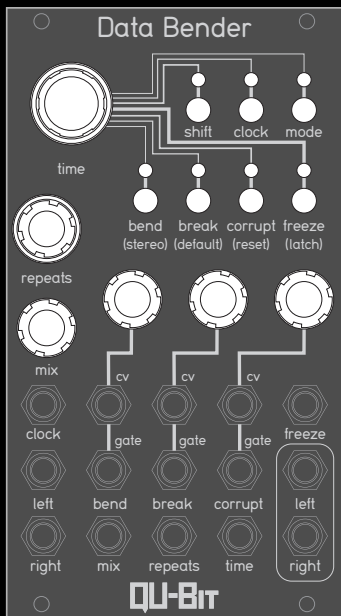
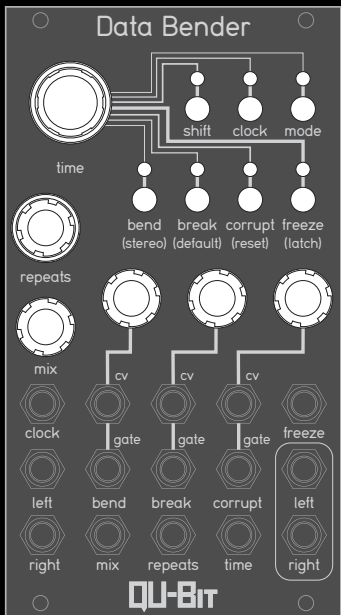# Patch:

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Harness The Sound Of Failure

Circuit Bending is an important part of electronic music history, and we hope that Data Bender inspires you to dive deeper into the sounds of noise, glitch, and failure.

Happy Patching,

The Qu-Fam

Learn More.

https://qubitelectronix.com