Mutable Instruments

Branches   User manual

INSTALLATION

Branches requires a -12V / +12V power supply (2x5 pin connector). The ribbon cable connector must be aligned so that the red stripe of the ribbon cable (-12V) is on the same side of the module's power header as the "Red stripe" marking on the board. The power consumption is 10 mA on the +12V rail and 1 mA on the -12V rail.

FC   This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CE   This device meets the requirements of the following standards: EN55032, EN55103-2, EN61000-3-2, EN61000-3-3, EN62311.

CONTROLS
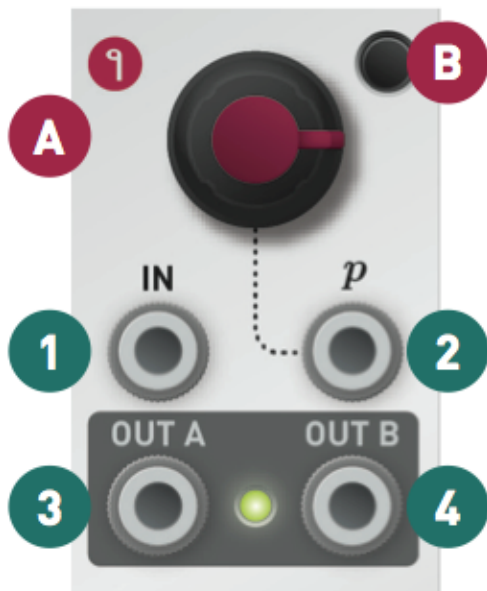
Branches consists of two identical sections called Bernoulli gates. An internal connection routes the input of section 1 to section 2 – unless a jack is connected into the input of section 2.

The Bernoulli gate

Upon receiving a trigger on its **IN** input **(1)**, the module tosses a virtual coin: if the outcome is heads, the trigger is sent to **output A (3)**; if the outcome is tails, the trigger is sent to **output B (4)**.

The **probability knob (A)** and the associated **CV input (2)** change the odds of the "heads" and "tails" outcomes. In extreme settings, the outcome is no longer random - causing the module to behave like a voltage-controlled switch.

Toggle mode

In **toggle mode**, the module associates the "heads" and "tails" outcomes to a different pair of decisions: "continue sending the trigger to the same output as before" and "send the trigger to the opposite output". As a result, when the probability knob **(A)** is set to its maximum value, the trigger will alternate between outputs A and B.

Press the **switch (B)** to enable or disable the toggle mode.

Latch mode

When the **latch mode** is enabled, an output **(3)** or **(4)** stays at +5V until the other output gets activated.

Hold the **switch (B)** for more than 1s to enable or disable the latch mode.

Toggle and Latch settings are kept in memory even if the module is powered off.

WARRANTY

This product is covered by Mutable Instruments' warranty, for one year following the date of manufacture. This warranty covers any defect in the manufacturing of this product. This warranty does not cover any damage or malfunction caused by incorrect use - such as, but not limited to, power cables connected backwards, excessive voltage levels, or exposure to extreme temperature or moisture levels.

The warranty covers replacement or repair, as decided by Mutable Instruments. Please contact our customer service (support@mutable-instruments.net) for a return authorization before sending the module. The cost of sending a module back for servicing is paid for by the customer.

Mutable Instruments encourages modding and hacking, but we will not service modified units or provide any assistance in the realization of mods.