

Arpeggiator

Enter ARP mode ----- ARP
 Toggle HOLD / Latch ----- **HOLD**

Arp directions:

UP ----- SHIFT + →
 Ping-Pong 1 ----- SHIFT + ↔
 DOWN ----- SHIFT + ←
 Ping Pong 2 ----- SHIFT + ← → + →
 Random ----- SHIFT + ← → + → + →
 Key Order ----- SHIFT + → + →
 Key Order reversed ----- SHIFT + ← + ←

Select chemistry pattern ----- COPY + keyboard key
 Clear chemistry pattern ----- COPY without keyboard key

Change octave range ----- Turn encoder

Transpose arpeggio ----- SHIFT + turn encoder

Instant modifier addon ----- Press modifier keys
 Switch to Euclidiator ----- **EUCLID**

Config menu

Enter config menu ----- Press encoder
 Navigate config menu ----- Turn encoder
 Select /enter ----- Press encoder
 Back, exit config menu ----- **BACK**

A detailed user guide can be found at tubbutec.de/brainstep

Quick start

Connecting modules

You are probably using Brainstep to control Eurorack modules. Here is a description of how to connect a VCO and filter to create a small synth voice. You could, however, also connect a synthesizer via MIDI for a first test.



Connect the PITCH output of track 1 to the pitch input of your VCO. Connect CV A output of track 1 to the cutoff control of a filter. Finally, connect the output of the VCO to the audio input of your filter and the filter output to your mixer.

Turning it on

After turning on Brainstep, it starts in Normal mode. Here, you can just play on the keyboard. Try moving the internal keyboard up and down using the ← and → buttons on the left.

You can press one or more of the four buttons on the right while playing. These add note modifiers: Accent, filter accent, portamento, and tie.

You might also notice that there is portamento when playing legato. You can change this behavior by pressing SHIFT, holding it, and pressing the PORTA button.



This quick start tutorial assumes Brainstep is reset to factory default. If you suspect somebody might have changed some settings already, here is how to reset everything: Press the encoder next to the display. You are now in the Config Menu. Navigate all the way to the right of the menu by turning the encoder until the cursor selects 'Reset'. Now press the encoder again to reset. Navigate to the SET menu and enter it by pressing the encoder. Select 'Clear Set' and press the encoder. To exit the config menu, press the BACK button (below the encoder) multiple times until you are in Normal mode (see picture above).

Your first sequence

In order to program a sequence, press and release the EDIT button to open the Pattern Editor. You can now enter a new sequence note by note. You can also add note modifiers by pressing the modifier buttons and then entering a note.

Made a mistake? Turn the encoder to navigate the sequence. Replace a note by another simply by pressing a keyboard key. You can also add or remove note modifiers by pressing their buttons.

There is a lot more you can do here: change note amounts, probabilities, copy, paste, delete, insert, change gate lengths, rotate ... All of this is explained in detail in the user guide that can be found online.

Play the sequence

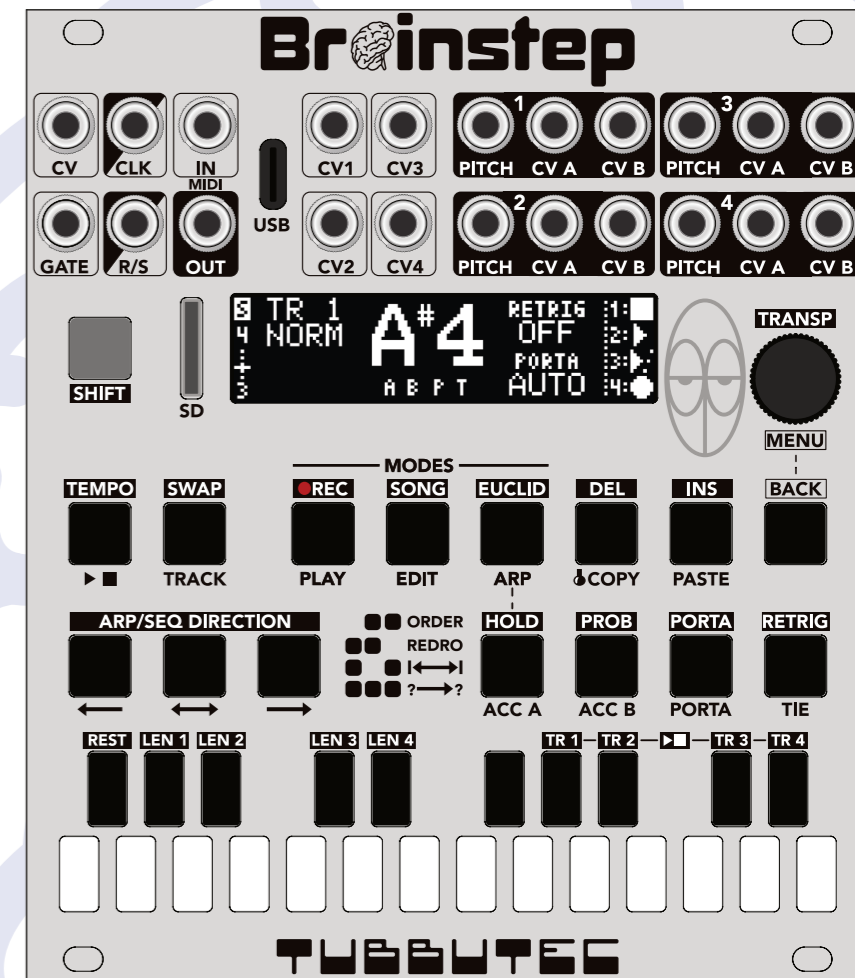
Now press the PLAY button. You can see the display now shows PLAY, but the sequence is in fact not playing. This is because Brainstep does not receive a clock yet!

Press the ▶ button to start the main clock, and the sequence will start and play in a loop.

Now press PLAY again. The sequence stops; you are now back in Normal view.

Press PLAY again. Your sequence starts playing again but waits until the start of a bar of the main clock.

If you want to change the play direction, press SHIFT and try combinations of the ←, ↔, and → buttons.



Cheat Sheet and Quick Start

LEGEND: NORMAL BUTTON PRESS **SHIFTED BUTTON PRESS**

Global functions

Start / Stop master clock	
Show Tempo	TEMPO
Modify Tempo (Internal clock only)	TEMPO + Encoder
Modify Tempo fine	TEMPO + Encoder (pressed)
Enter config menu	Press Encoder
Transpose internal keyboard	←, ↔ and →
Cycle tracks	TRACK
Switch to specific track	TRACK + TR 1, 2, 3, 4
Swap tracks	SWAP
Start / Stop specific tracks	SHIFT + TR1 , TR2 , TR3 , TR4
Accent A modifier	ACC A
Accent B modifier	ACC B
Portamento modifier	PORTA
Tie note modifier	TIE
Sequencer	PLAY
Pattern editor	EDIT
Song editor	SONG
Arpeggiator	ARP
Live recorder	REC
Quick song recording	hold PLAY, select patterns
Copy Pattern (except in EDIT mode)	COPY
Paste Pattern (except in EDIT mode)	PASTE
Clear Pattern (except in EDIT mode)	INS
Delete Pattern (except in EDIT mode)	DEL

Normal mode (Playing on keyboard)

Instant modifiers	Press Modifier buttons
Cycle portamento mode	PORTA
Toggle retrigger mode	RETRIG
Mute/Unmute drums (drum channel only)	SHIFT + keyboard keys

Sequencer mode

Start sequencer on next beat	PLAY (when sequencer is stopped)
Stop sequencer	PLAY
Instant modifiers	Press modifier buttons
Instantly switch pattern	Press keyboard keys
Sequencer directions:	
UP	SHIFT + →
Ping-Pong 1	SHIFT + ↔
DOWN	SHIFT + ←
Ping Pong 2	SHIFT + ← + →
Random	SHIFT + ← + ↔ + →
Random offset	SHIFT + ↔ + →
Random offset reversed	SHIFT + ← + ↔

Transpose sequence (non drum channels)	SHIFT + Encoder
Mute/Unmute drums (drum channel only)	SHIFT + keyboard keys

Quick song recording

Hold PLAY, select patterns using keyboard. When finished, release PLAY. New song will start once currently playing pattern is finished.

Pattern editor

Enter pattern editor	EDIT
Select pattern to edit	Hold down EDIT, select patterns
Exit pattern editor	EDIT
Move forward / backward in sequence	Turn encoder
Shift sequence forward /backward	SHIFT + Turn encoder
Modify current note	Press keyboard keys
Modify current note's modifiers	Press modifier buttons
Modify current note's length	LEN1 , LEN2 , ...
Enter rest / replace with rest	REST
Add new note	Go to end of sequence, display shows "+". Enter modifiers, length and press keyboard key to enter

Insert a new note in the middle of the sequence	INS
Delete a note	DEL
Copy a note	COPY
Paste a note	PASTE

Change A amount	ACC A + Turn encoder
Change B amount	ACC B + Turn encoder

Open probability editor	PROB'
Navigate in probability editor	Turn encoder to select SHIFT + encoder to modify Press modifier buttons to cycle

Overview screen

Access overview screen	BACK
------------------------	-------------

Song editor

Enter song editor	SONG
Move forward / backward in song	Turn encoder
Modify current pattern	Press keyboard keys
Add new pattern	Go to end of song, display shows "+". Press keyboard key to enter
Insert a new pattern in the middle of the song	INS
Delete a pattern	DEL
Copy a pattern	COPY, press key
Paste a pattern	PASTE, press key

Recording setup

Enter recording setup	REC
Select recording mode	Turn encoder
Select pattern to record into	keyboard key
Toggle recording / arp recording	ARP
Start recording	PLAY

Recording

Record notes	press keyboard keys
Clear notes	REST
Add modifiers	Press modifier buttons
Remove modifiers	SHIFT + modifier buttons