

OP-XY full guide
1.0.9

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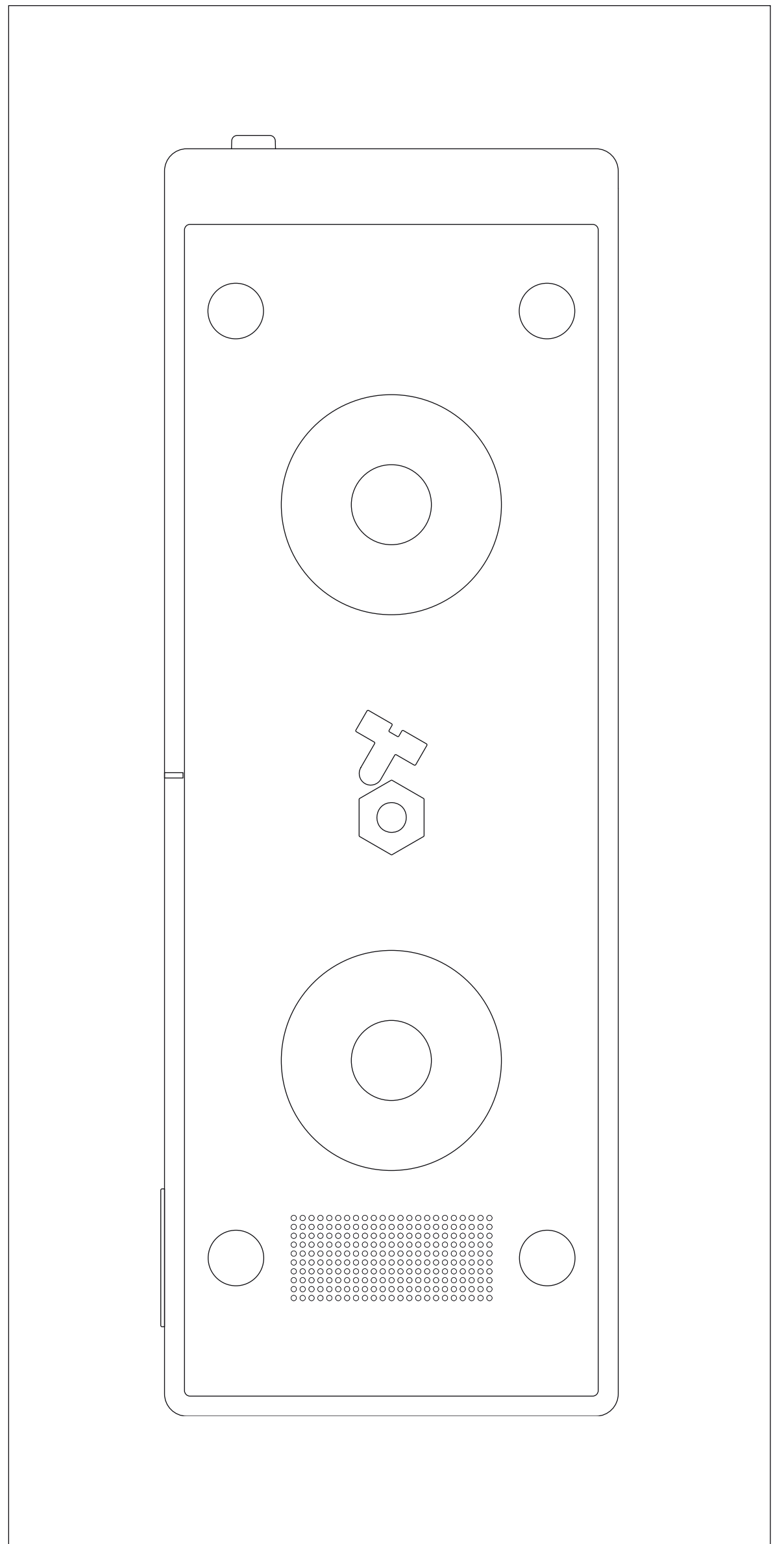
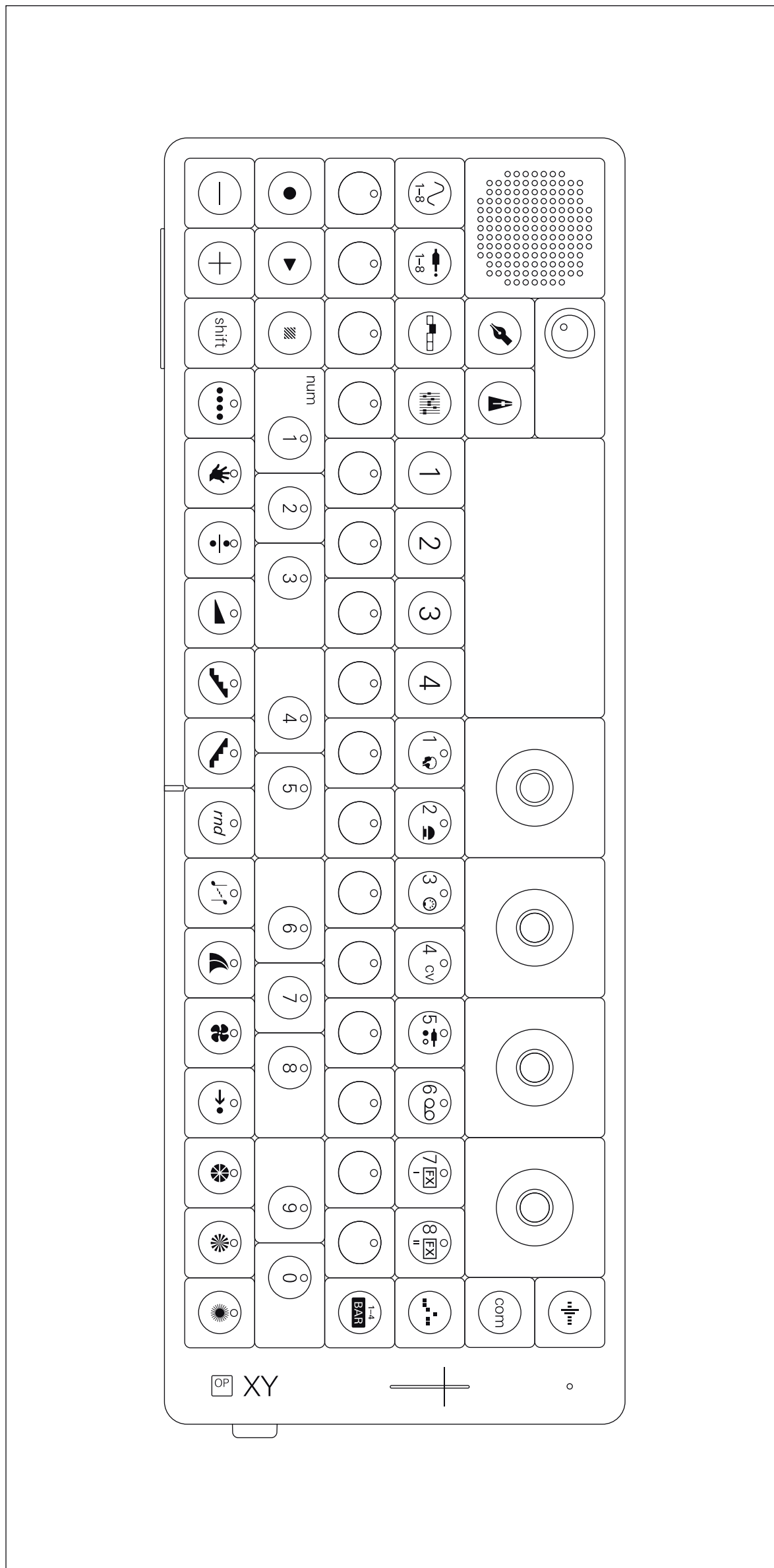
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1. hardware overview



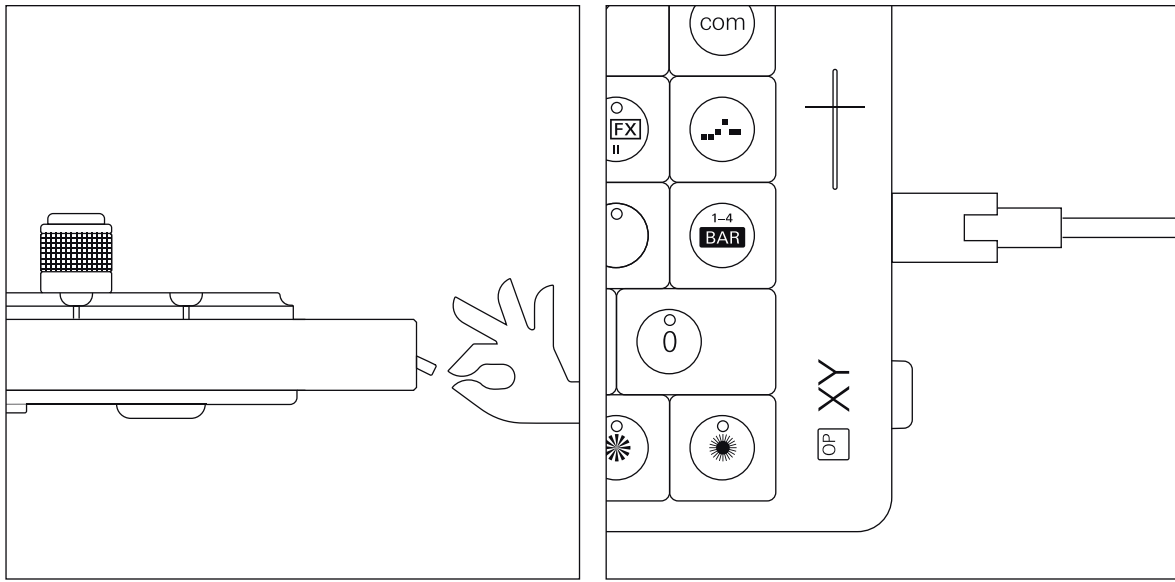
OP-XY is a precision tool, made in black anodized aluminium, with encoders in a fading gray scale of dark gray, mid gray, light gray and white. the backlit low profile keyboard is tactile, durable and responsive.

the display is a custom made color lcd, mounted directly onto the keyboard. the soft velcro rings on the bottom side mean the unit can be safely attached to a surface, case or stand.

highlights

- 64-step sequencer
- 24-voice polyphony
- 1920 PPQN
- parameter locks
- step components
- stereo signal path
- midi over bluetooth ble
- powerful sequencer workflow
- 16 programmable tracks
- unique synth engines
- built-in effects
- drum and synth sampler
- usb audio/midi host and device

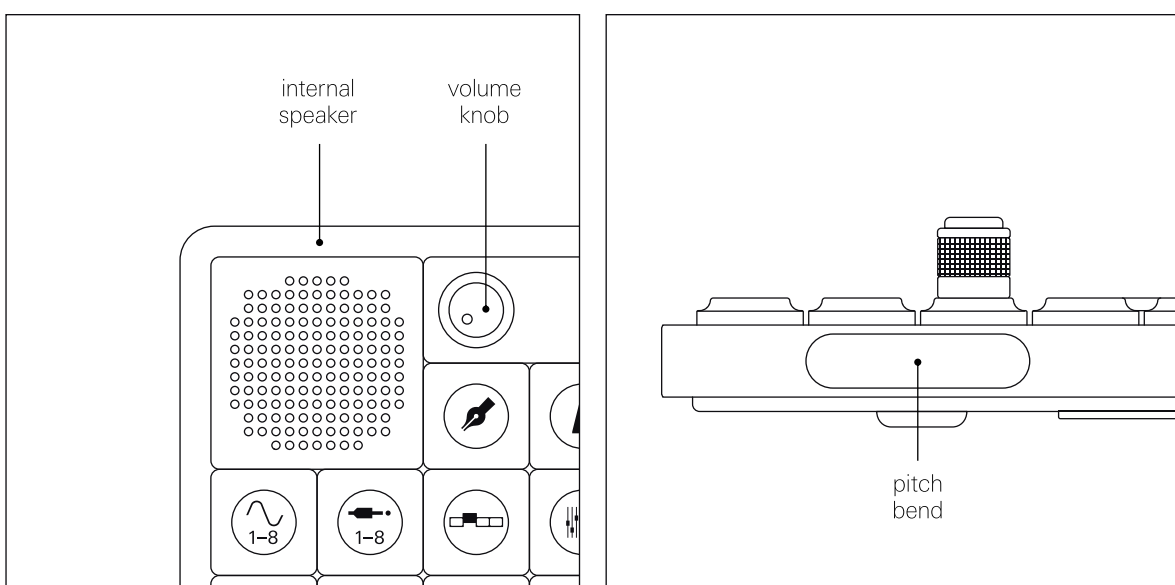
1.1 power on and charging



to power on your unit, flip the power switch located on the right side of the device to the up position. the display will show the logo and the current installed firmware version, you then arrive at the last selected track. to power off, flip the switch to the down position. data is stored automatically, so you don't have to worry about saving. the next time you power on your OP-XY, everything will still be there, exactly as you left it.

OP-XY is charged through the usb-c port located on the right side of the unit. the first thing you should do is connect it to a computer or a usb charger. keep it connected until the battery is fully charged, indicated by the level meter. to check battery go to system settings. to keep the battery healthy, the unit should be charged at least every 6 months.

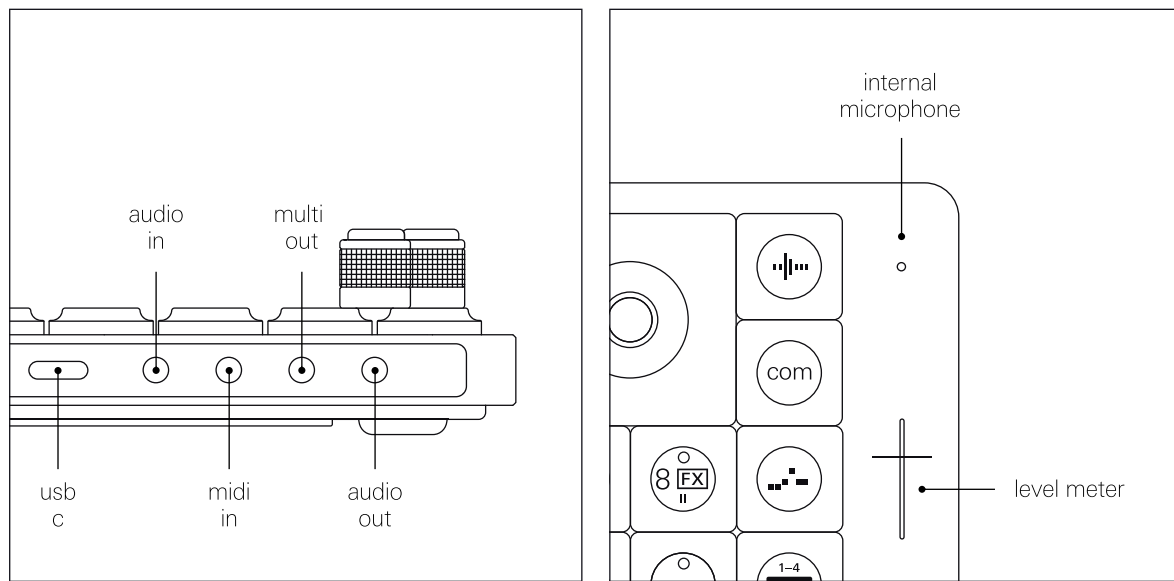
1.2 speaker, volume and pitchbend



on the top right you can find the built-in microphone and the level meter.

on the bottom left side of the device you will find the pitchbend. it is pressure sensitive and will bend down when pressed on the left side or up on the right.

1.3 inputs and outputs, internal mic and level meter



on the right side of the OP-XY you will find the 3.5 mm audio output jack, used to connect headphones or speakers. next, the multi out.

the multi out jack allows you to switch between six output options. these include midi, cv + gate, sync8, sync16, sync24 and audio.

then midi in, to control your OP-XY with other midi devices, followed by the 3.5 mm audio input jack to record line level audio straight into OP-XY.

the top left holds the internal speaker and the main volume knob.

1.4 technical specifications

- 3.5 mm stereo line-out with headset mic support
- 3.5 mm multi-out
- 3.5 mm midi in
- 3.5 mm stereo line-in
- usb type-c audio/midi host & device
- bluetooth LE midi
- 16-hour rechargeable battery
- 480 x 220 IPS TFT display
- 8 GB user storage

1.5 electrical characteristics

audio output:
level: 8 dBu, 2 Vrms
snr: 124 dBA

audio input:
level: 8 dBu, 2 Vrms
snr : 98 dBA
impedance: 13 kOhm
analog gain: 0-31 dB

multi output:

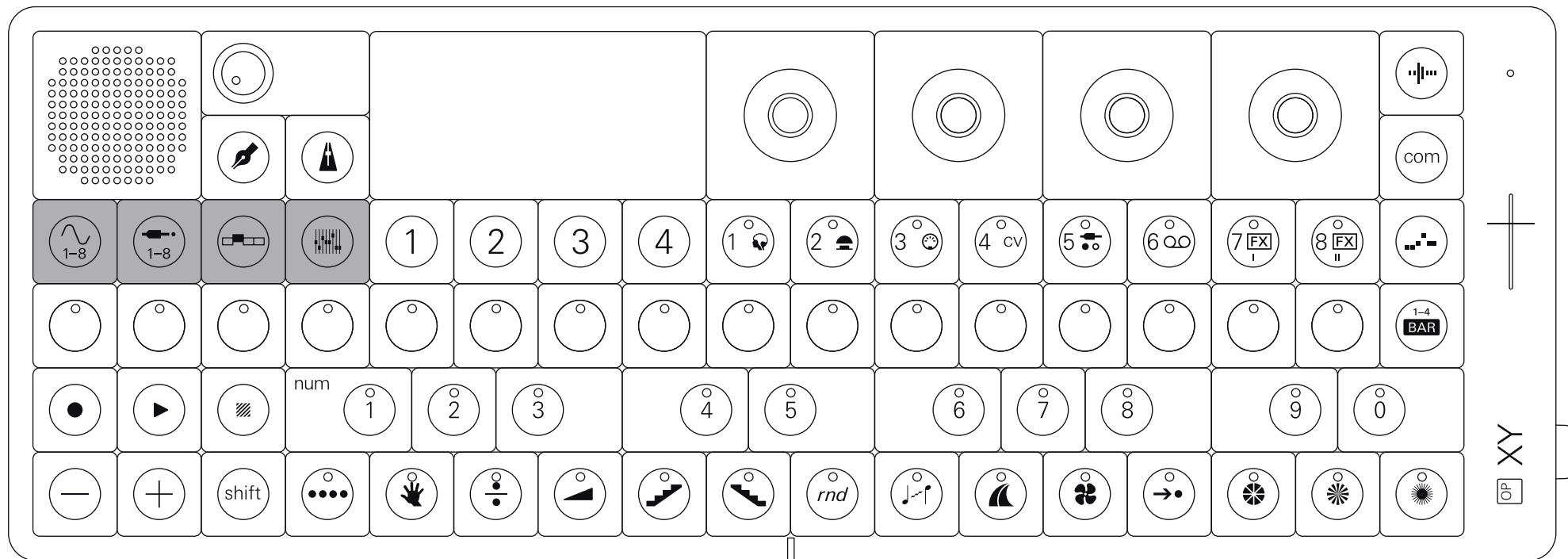
- audio output level: 2 dBu, 1 Vrms
- cv range: ± 5 V
- sync/gate level: 5.2 V

2. layout

the core workflow of OP–XY is based around step sequencing, a way of working. you sequence tracks, one by one, to build the layers of a song. the four main modes: instrument, auxiliary, arrange and mix are where you'll spend the most time. press instrument to access the drum and synth tracks.

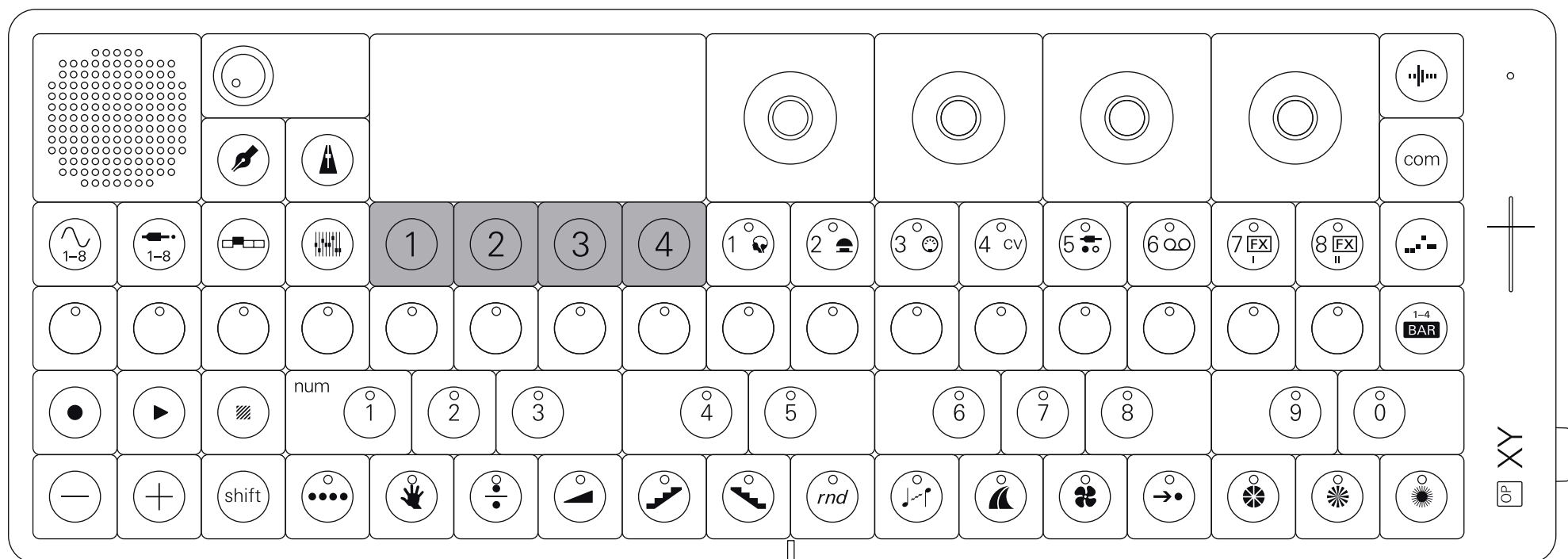
beneath the encoders you will find the 8 track buttons, press these to select which track to edit. press a note and following this, press a button on the step sequencer. keep layering and arranging as you like and press mixer to adjust track levels and eq of your mix. it's as simple as that to build your songs on OP–XY.

2.1 main modes



OP–XY features four main modes; instrument, auxiliary, arrange and mix. the modes are where you compose, transpose, build and mix your song.

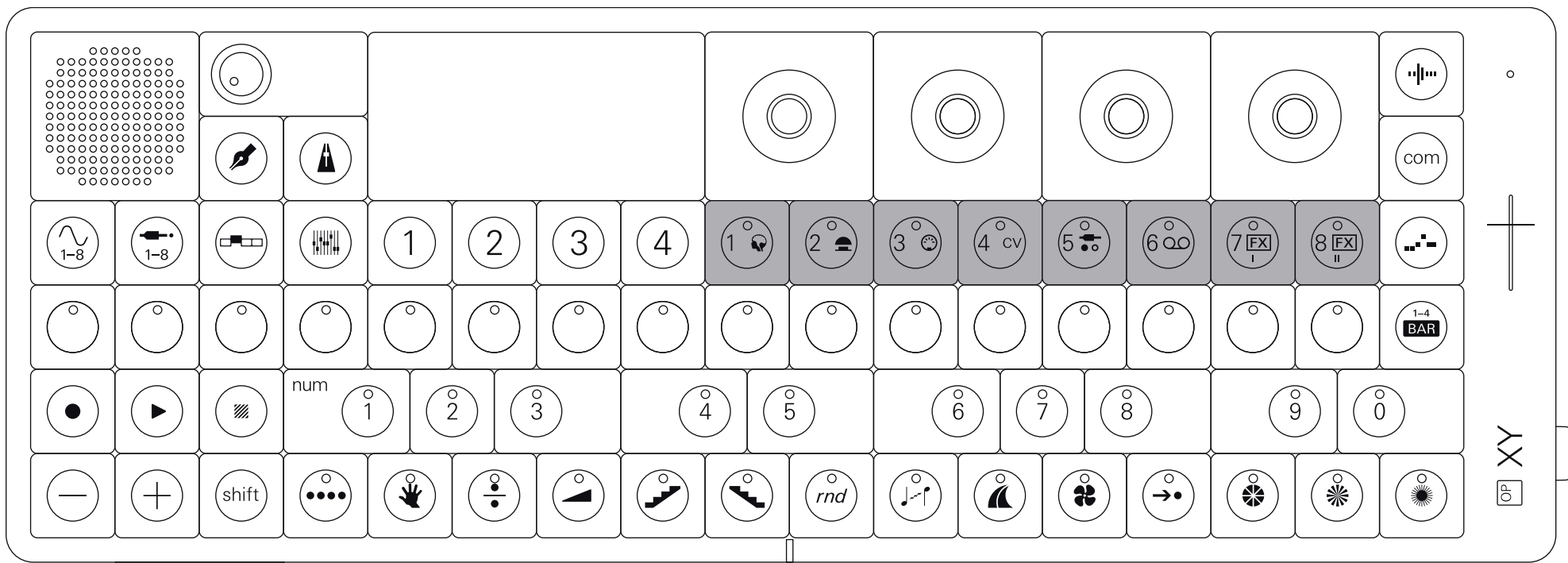
2.2 modules



each main mode with the exception of arrange features four sub modes called modules. these allow you to edit the various parameters within the selected track using the four encoders.

switch between the available modules using the four buttons underneath the screen. in some instances a screen may have extra parameters that can be accessed by holding shift.

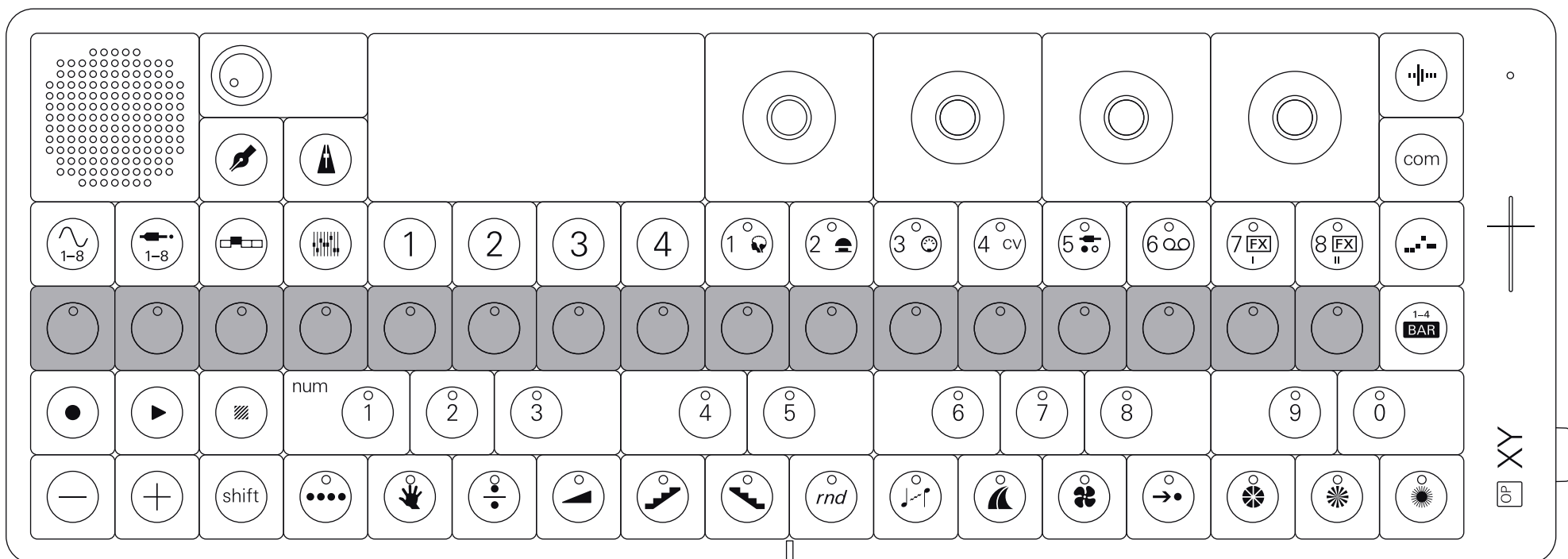
2.3 tracks



labelled 1-8, the track buttons allow you to control and edit the 8 instrument and 8 auxiliary tracks.

press a track button to enter that track. peep a white or red light? that's the current, selected track.

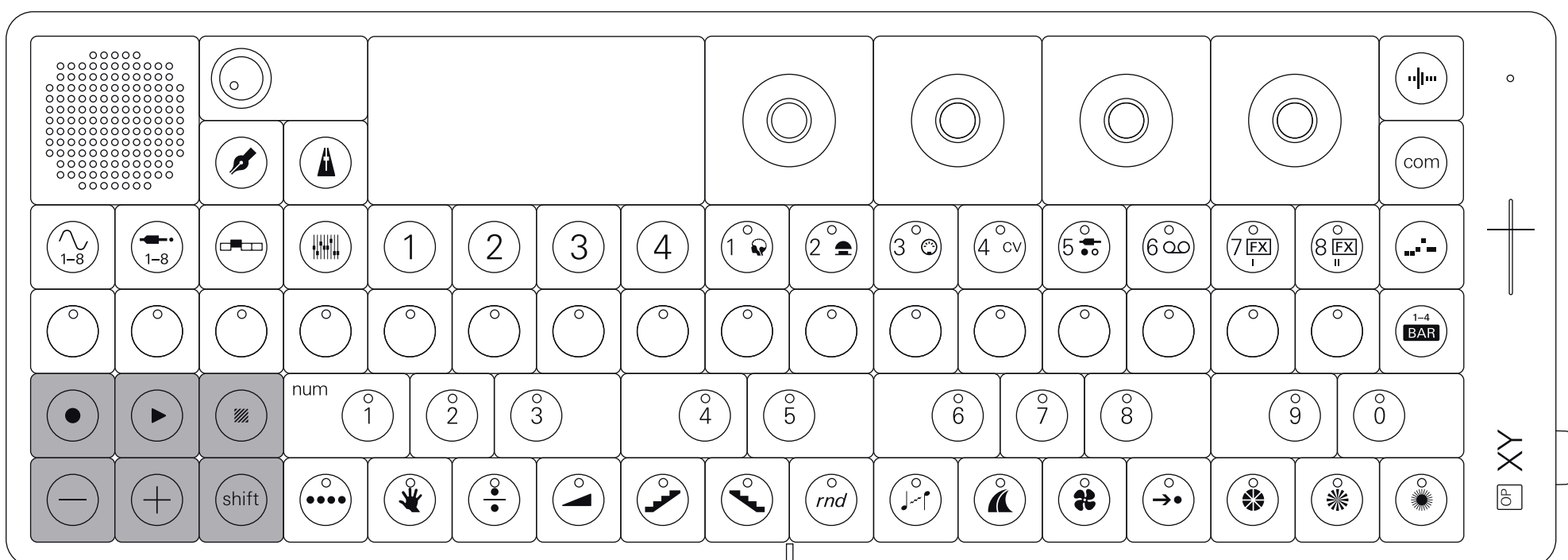
2.4 sequencer



running across the middle of OP-XY is the step sequencer. this is the heart of the device.

it is where you can program a sound into the musical grid and is the launchpad for creating music within OP-XY.

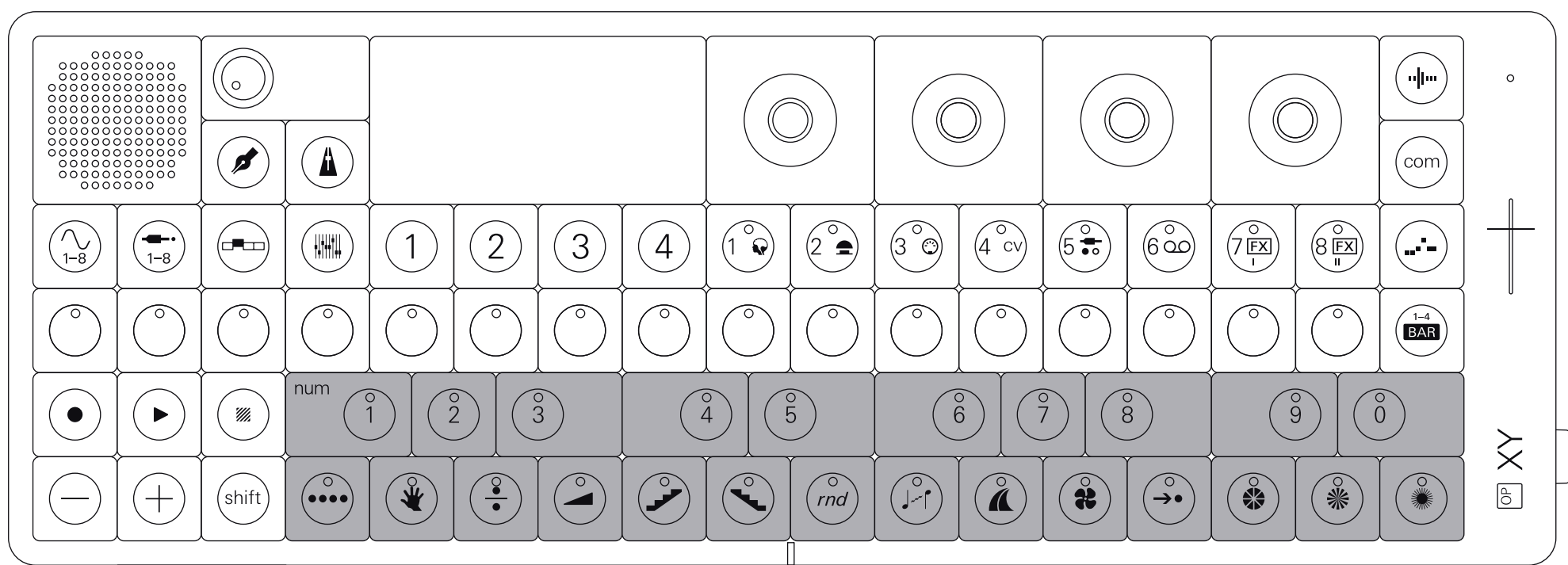
2.5 transport controls



on the bottom left corner of OP-XY you can find the transport controls.

this is where you control record, play, stop, change octaves and access shift functions.

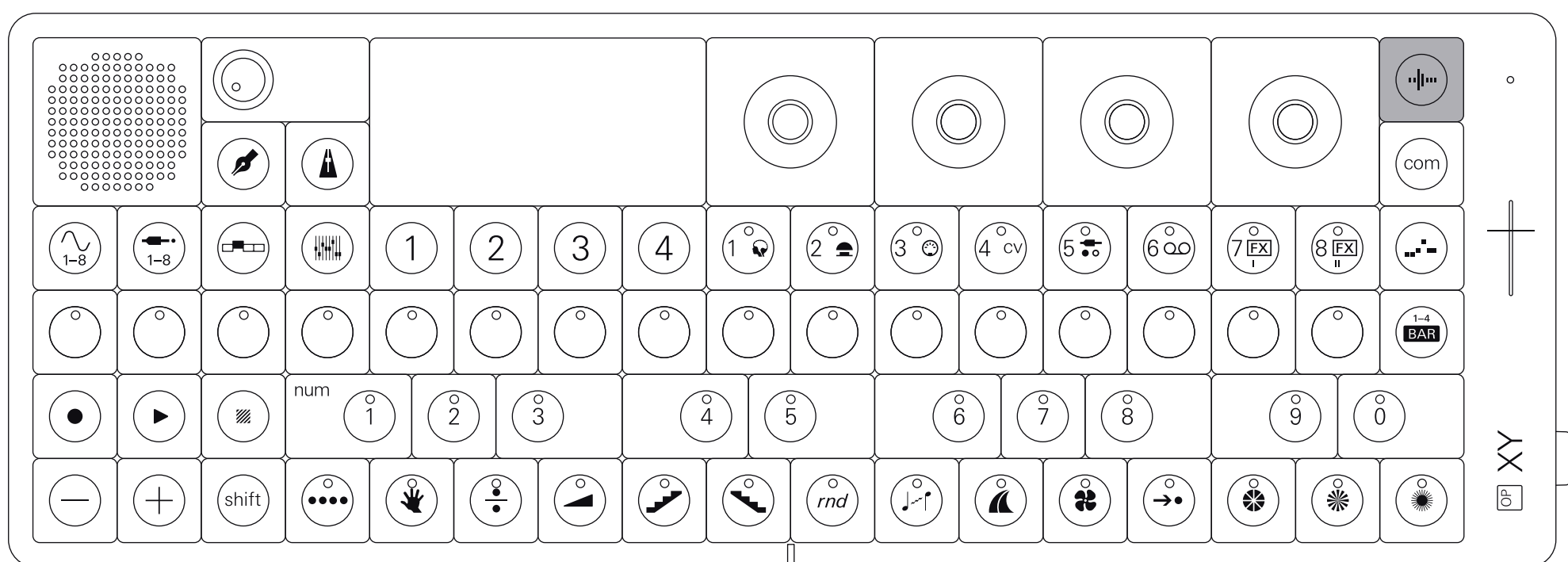
2.6 keyboard



OP-XY features a two octave keyboard, perfect for playing, composing and sequencing. beneath the sequencer, and to the right of the transport buttons, you will find the keyboard.

within the OP-XY and throughout this manual sharps (black keys) are referred to as accidentals and non-sharps (white keys) as naturals. this is to prevent confusion with the color of the buttons all being the same.

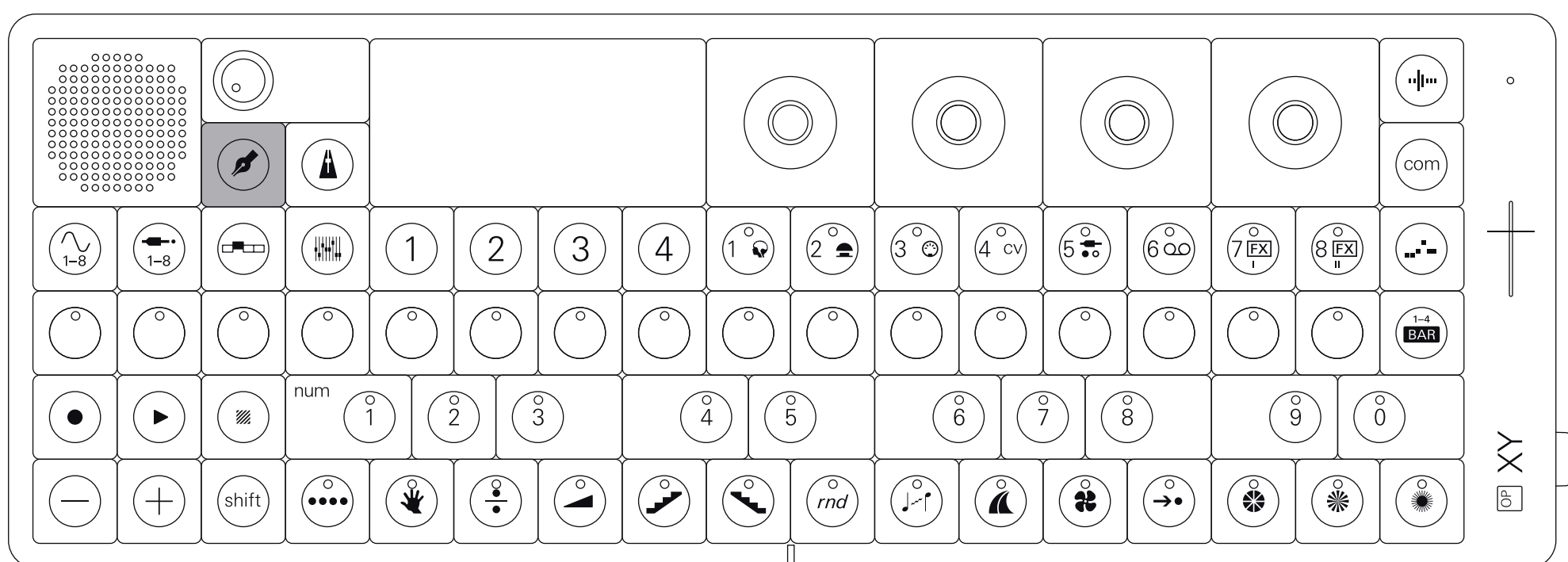
2.7 sample



in the top right corner of the device you will find the sample button.

sampling is a fantastic way of introducing new sounds to your OP-XY and composing with them. you can sample from any input, including the built-in microphone.

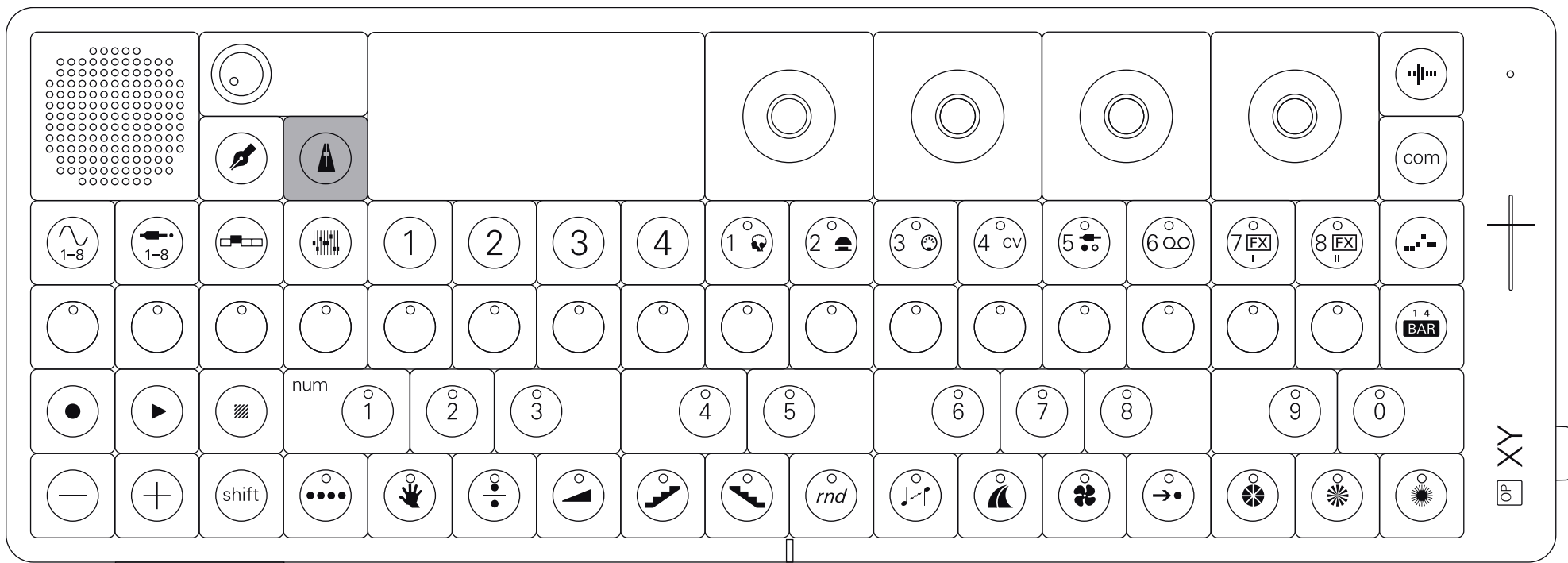
2.8 projects



OP-XY can store thousands of projects.

press the projects button to edit and create projects.

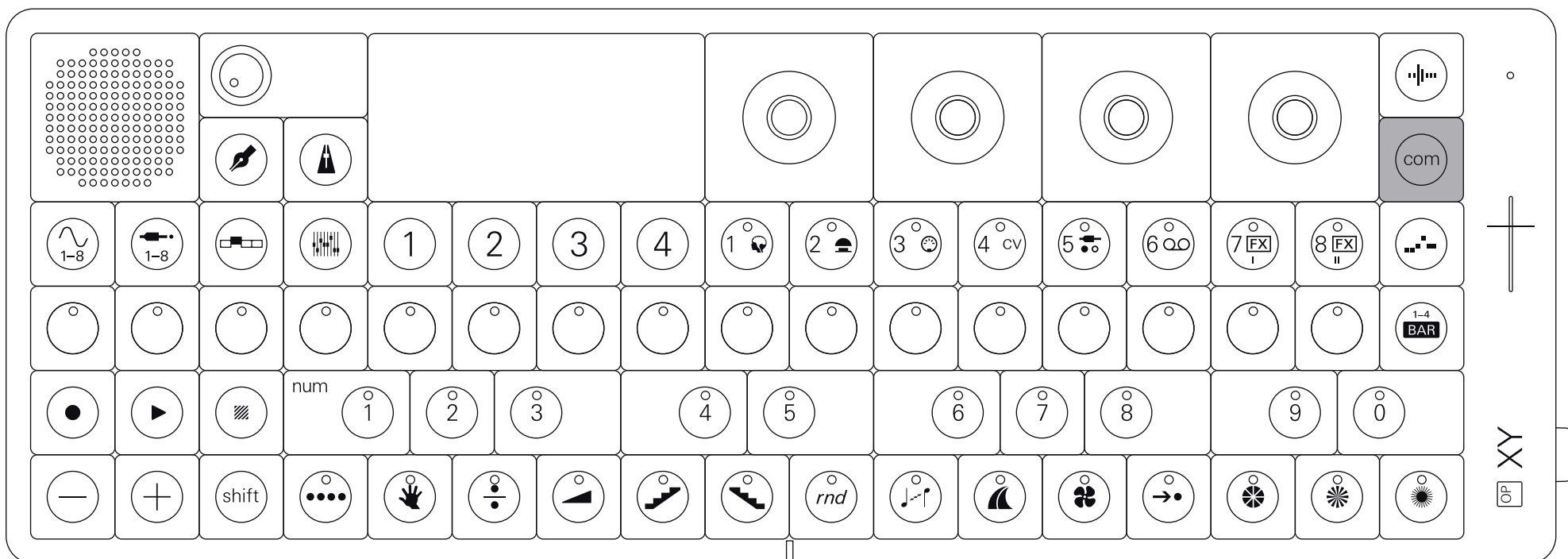
2.9 tempo



next to projects you will find tempo.

use tempo to speed up or slow down your song, add swing and turn the metronome on or off.

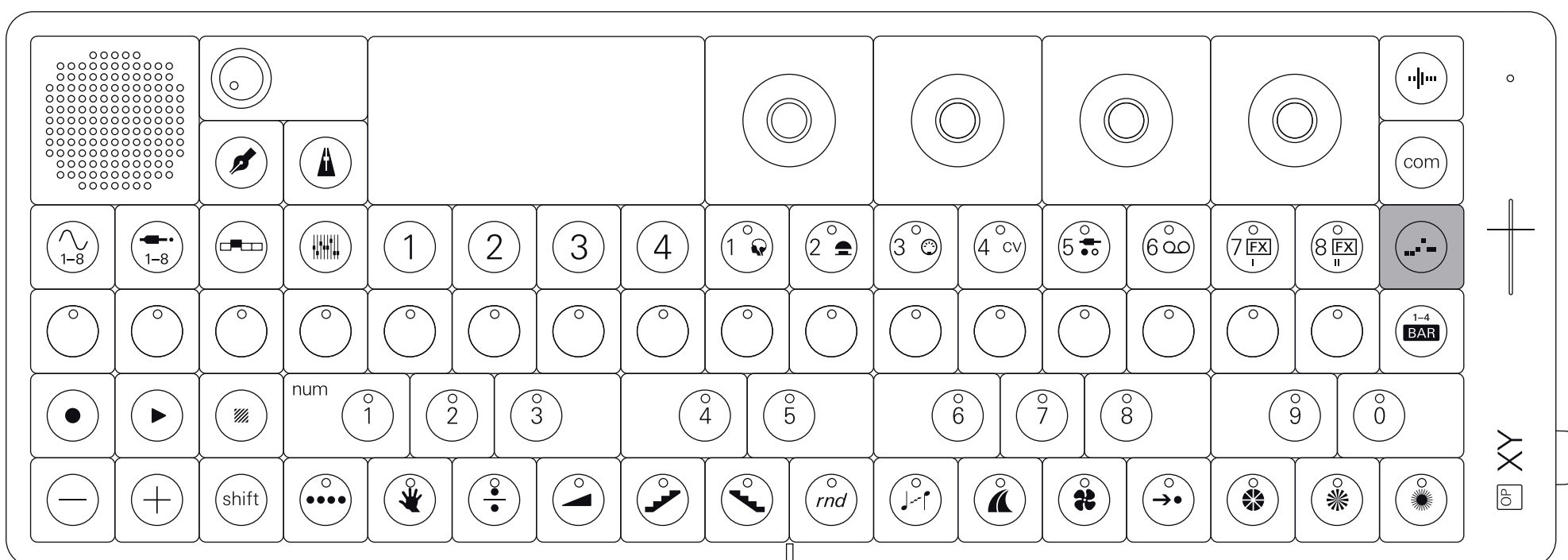
2.10 com



to the far right under sample you will find com.

com is where you control system settings, connect to other devices (wireless or wired) and select your outputs.

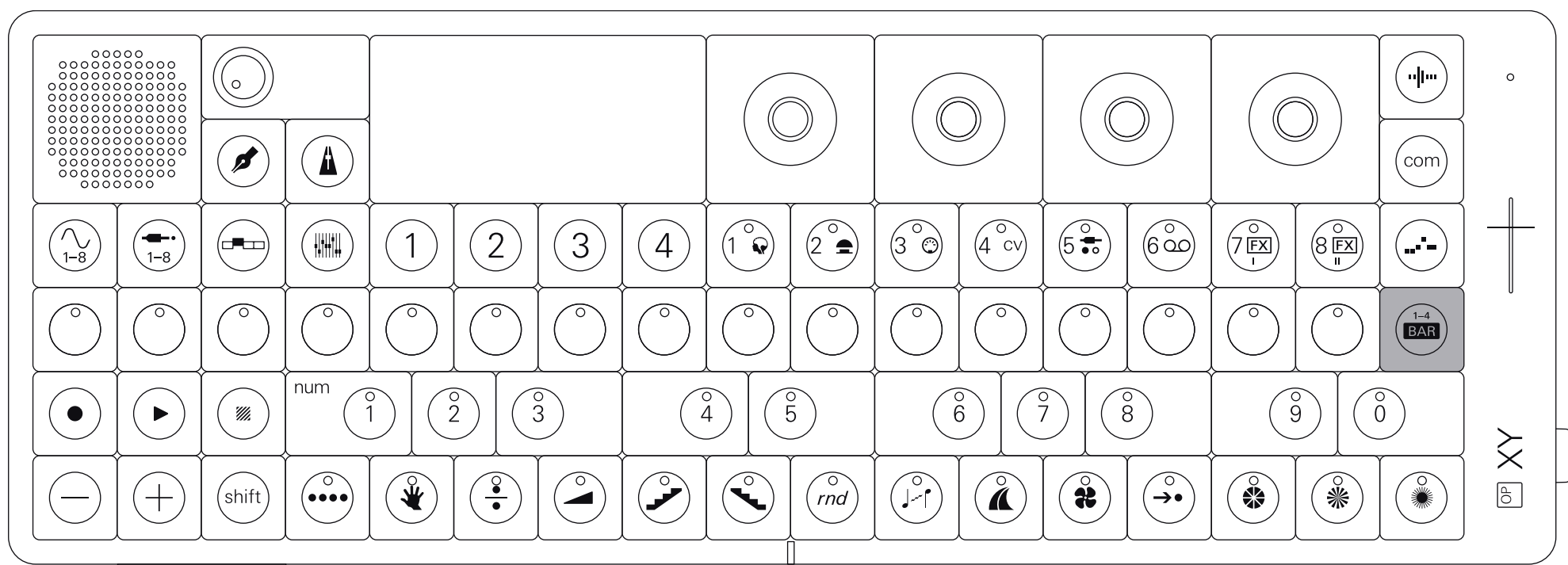
2.11 players



under com you can find players.

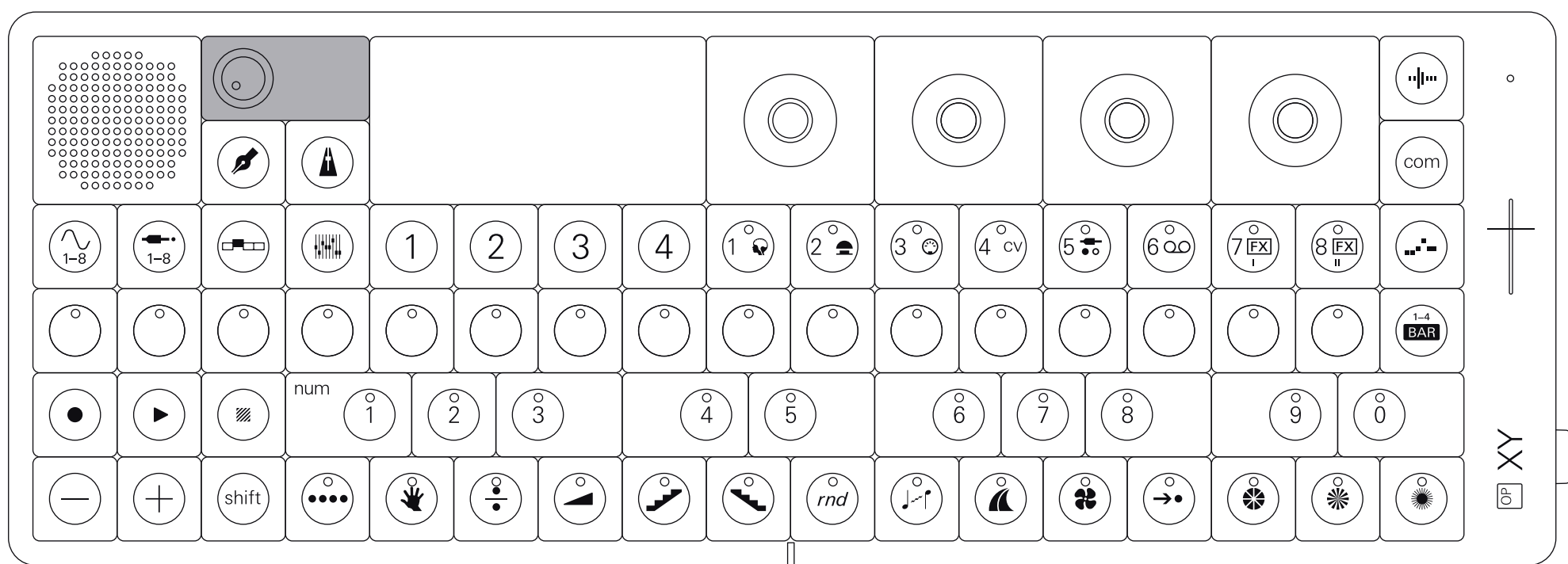
players use the notes in your sequence to trigger creative note effects such as arpeggios and chords.

2.12 bar



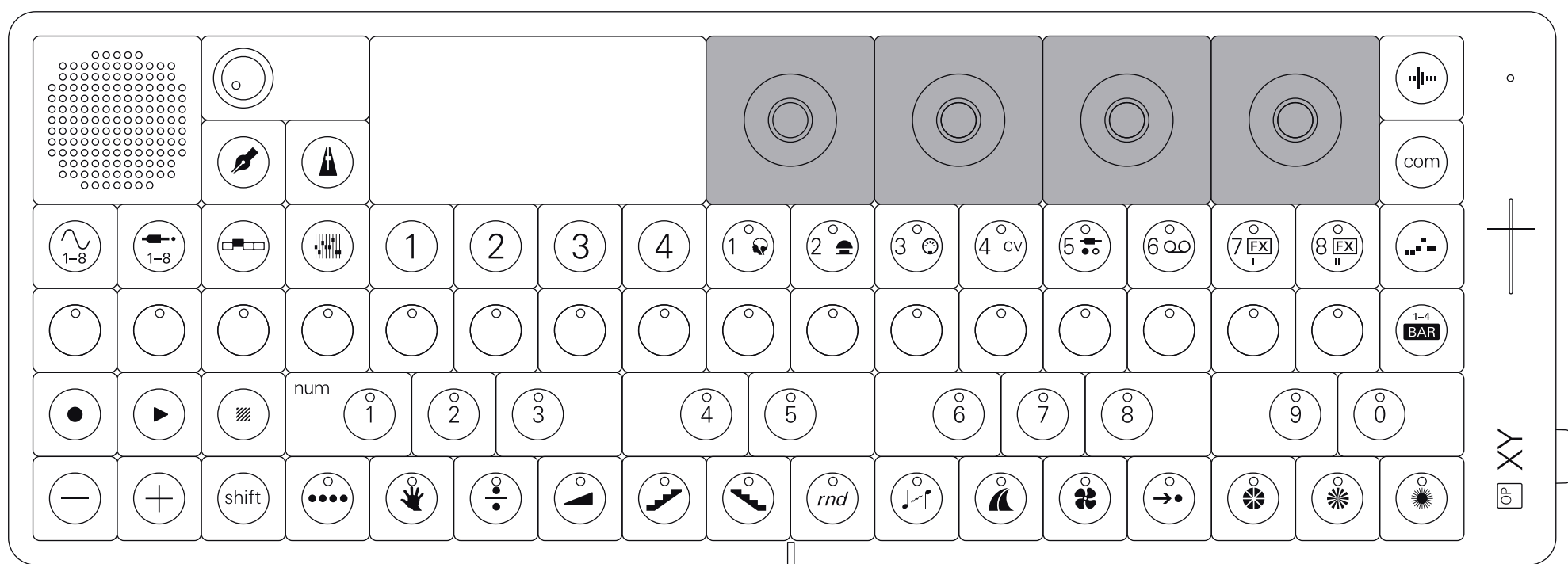
to the far right of the sequencer and below players is bar. bar allows you to extend your sequence and change sequence parameters such as quantisation.

2.13 volume



in the top left, beside the speaker is the volume control. rotate it to adjust the sound to your liking.

2.14 encoders



above the track buttons are the four encoders.

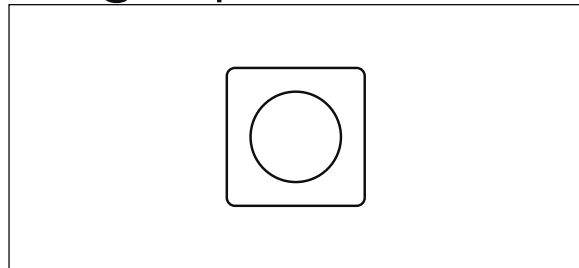
the encoders are colored dark gray, mid gray, light gray and white. use them to adjust parameters throughout the device.

3. guide conventions

throughout this guide we will follow some conventions, allowing you to better understand the buttons, combos and presses.

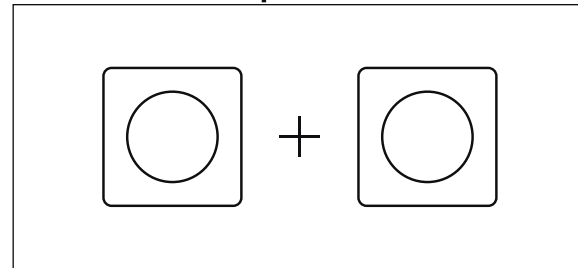
below you can find an index of these conventions for your reference.

single press



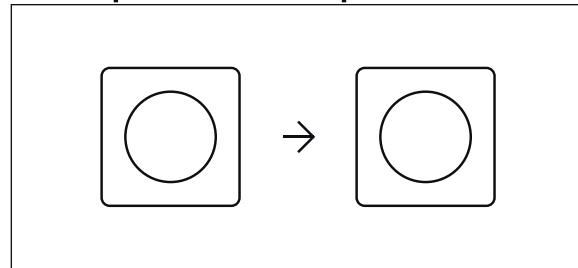
press and release one key at the time.

combo press



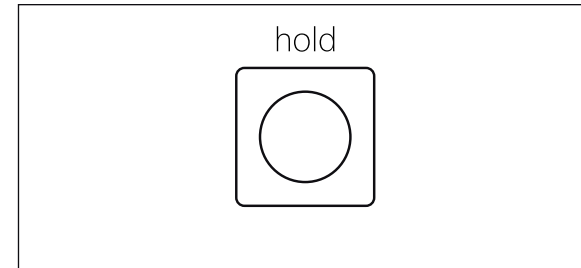
hold one key and press the second key.

sequence press



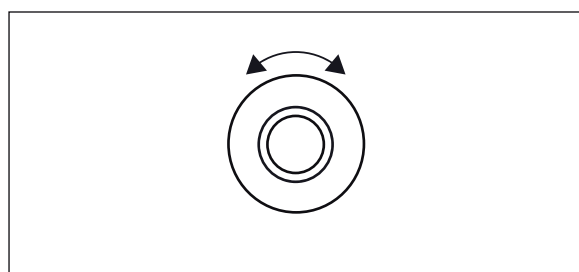
press one key, then another.

hold button



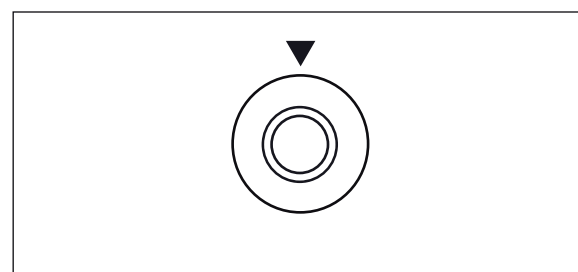
press and hold a button.

rotate encoder



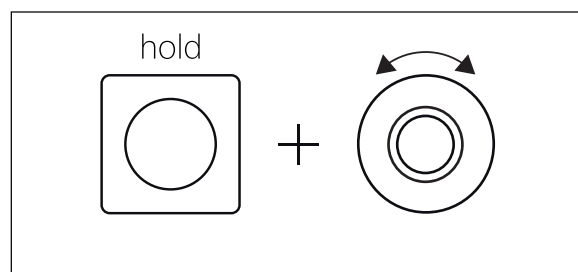
rotate the encoder.

click encoder



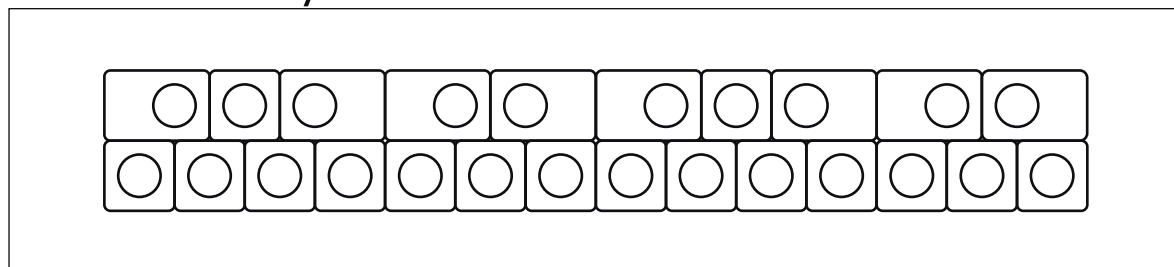
click the encoder.

hold + rotate



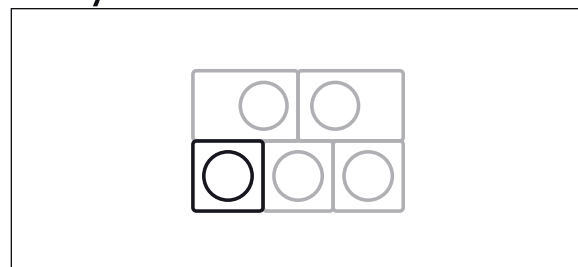
press and hold the button and rotate the encoder.

whole keyboard



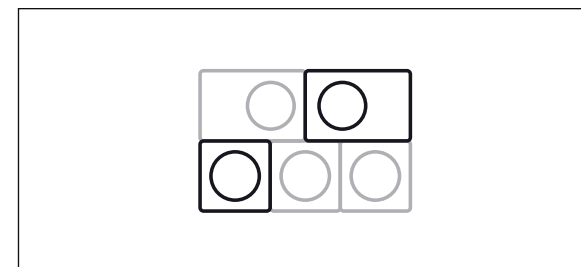
in some instances we may show the whole, this is to provide context for a series of buttons, rather than prompting you to play the keyboard itself

keyboard



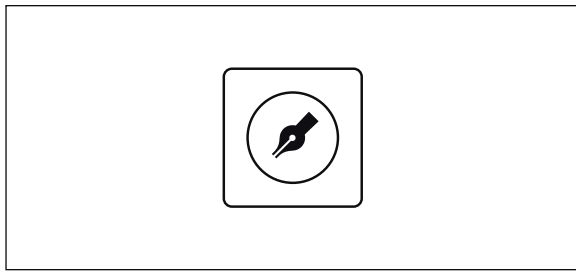
play notes on the keyboard.

chord



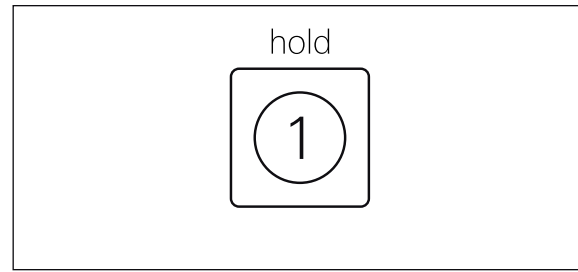
play multiple notes on the musical keyboard to make a chord.

4. get started making your first project on OP-XY

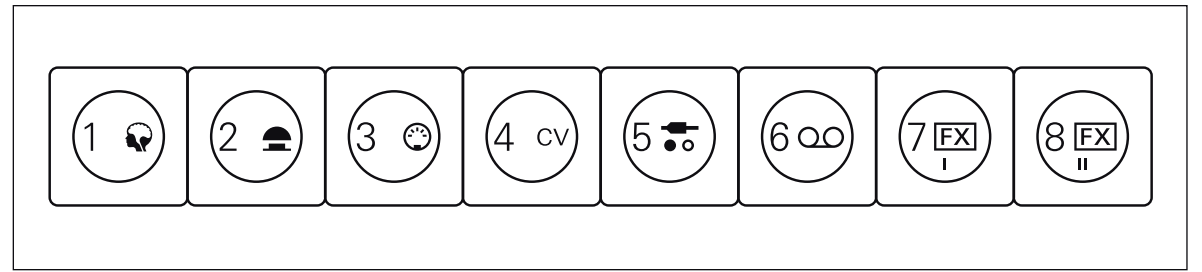


to get started making a song, first create a new project.

press project to open the project view.

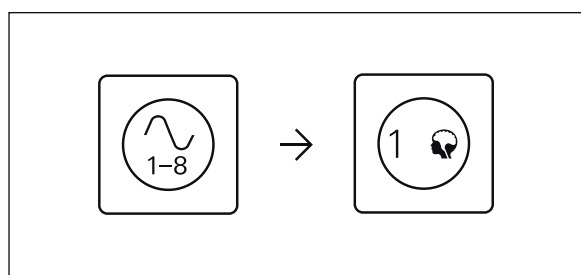


once in the project view, press and hold M1 to create a new project.

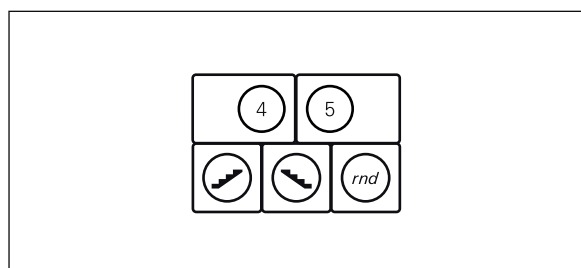


by default, instrument tracks 1 and 2 will have drums, 3 will have a bass, 4 a pluck, 5 a lead, 6 a soft pluck, 7 some strings and 8 a pad.

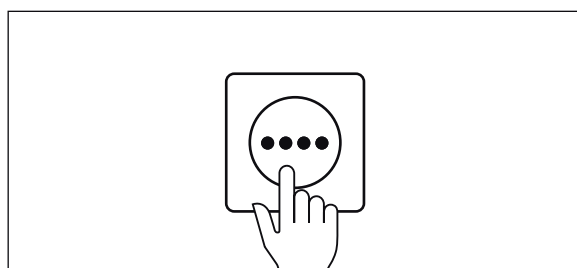
4.1 sequencing a drum beat



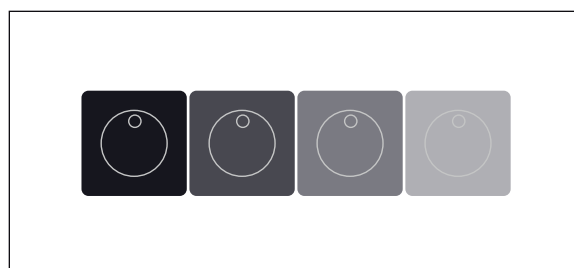
lets start by sequencing some drums. press instrument to make sure you are in instrument mode, then select track 1.



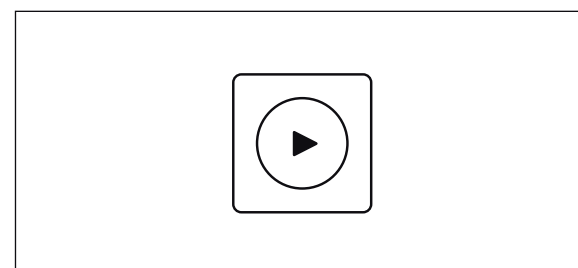
the musical keyboard will now have 24 different drum sounds. one on each key.



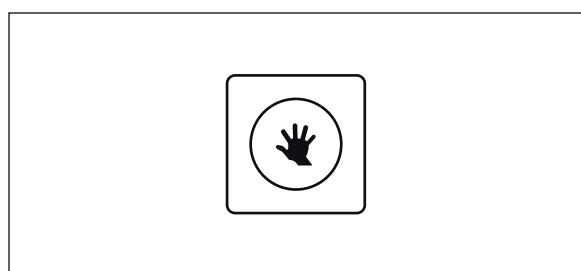
press the lowest 'f' key to select and start sequencing the kick drum. OP-XY will always remember the last pressed key.



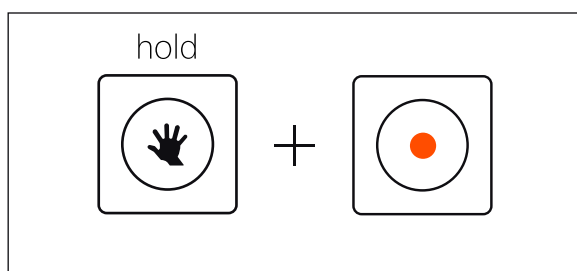
press the first, fifth, ninth and thirteenth sequencer buttons to record a four on the floor sequence with the kick drum.



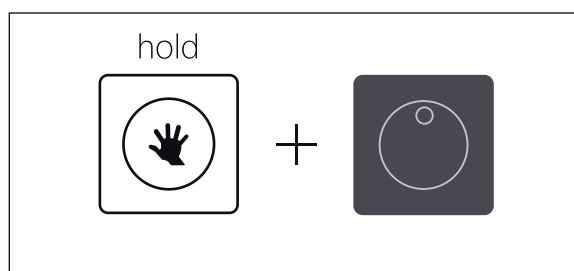
now press play to hear what you have just sequenced. press stop when you have heard enough.



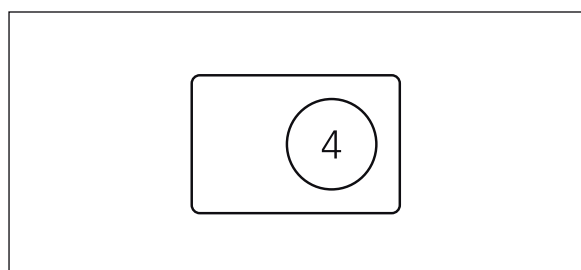
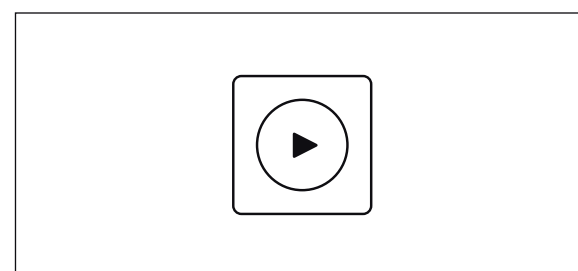
press the 'g' key adjacent to the kick drum to select a snare.



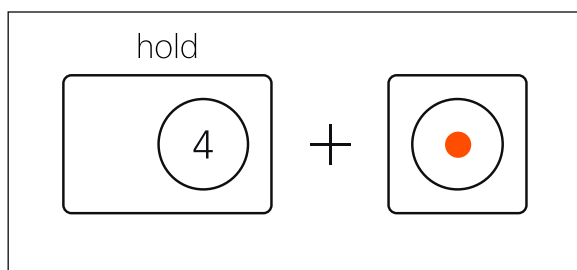
we are going to place it on the fifth and thirteenth step, but as you have a kick drum already recorded to those steps hold the snare drum key down and press the record button. this will show you only the steps with the snare drum recorded, which are none so you should see an empty sequence.



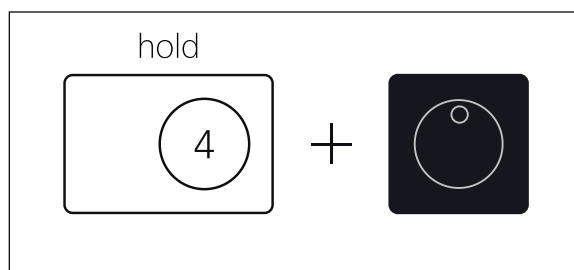
while continuing to hold down the snare drum press on the fifth and thirteenth steps. this will form a backbeat. let go when you are done.



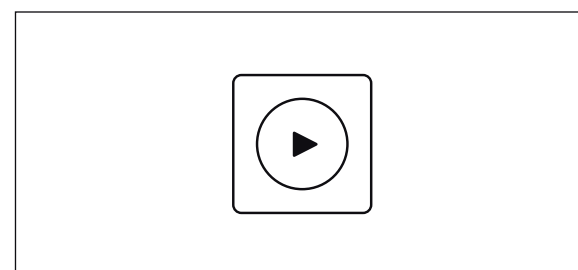
now lets add a hi-hat. press the 'c#' key to hear and select a hi-hat.



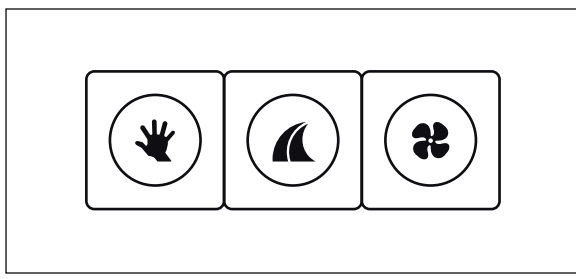
once again, as we have our kick and snare recorded but only want to view the hi-hat pattern, hold down the hi-hat key and then press record to view only it's sequence.



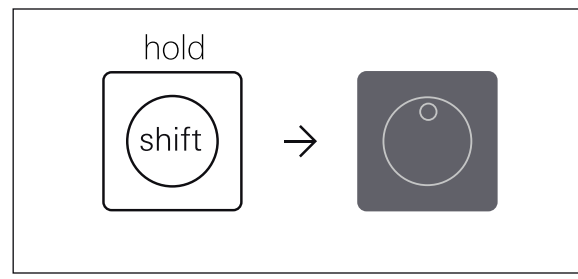
while continuing to hold down the hi-hat press every other step. let go when you are done.



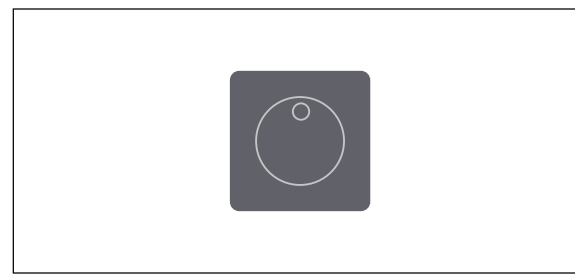
now press play to hear the kick, snare and hi-hat pattern.



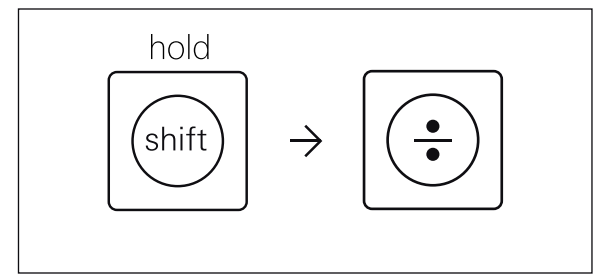
now that we have a simple drum beat, let's spice it up with some step components.



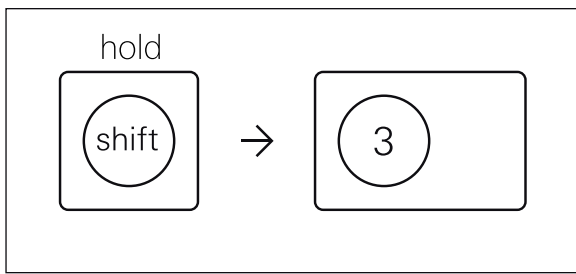
press and hold the shift then press the seventh step (which should now be lit up, as the hi-hat has been recorded to it).



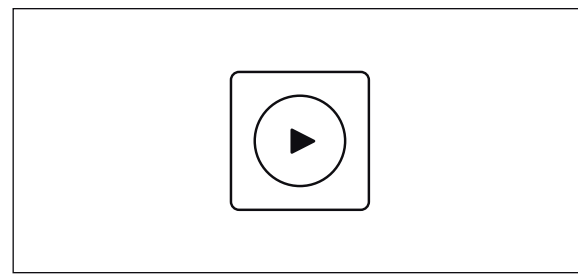
it will start to blink, letting you know that it has been selected.



continue to hold shift and then press the lowest 'a' key. this is the natural key that represents the multiply step component. you should see a text box on the screen with the name multiply. multiply will take a step and divide it into multiple shorter steps, creating a ratchet effect.

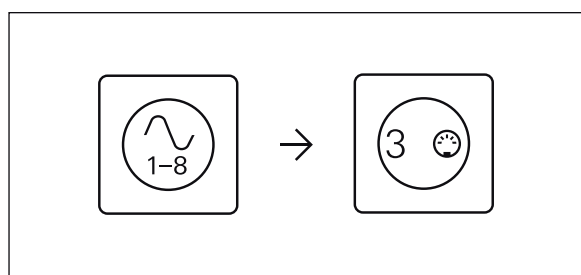


continue to hold shift then press the accidental key labelled '3' (a#). this will change the text on screen to say "divide into 3 trigs" meaning that the one hi-hat step will be split into three shorter ones.

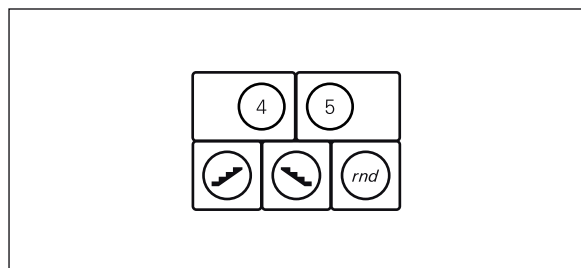


now you can finally let go of shift and press play to hear your finished drum beat.

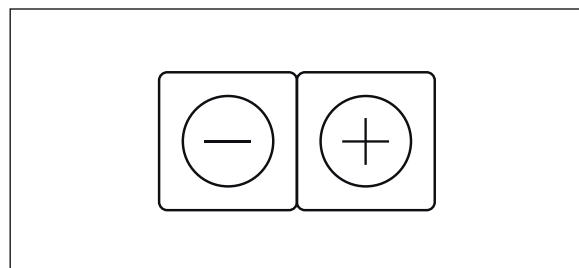
4.2 recording a bassline



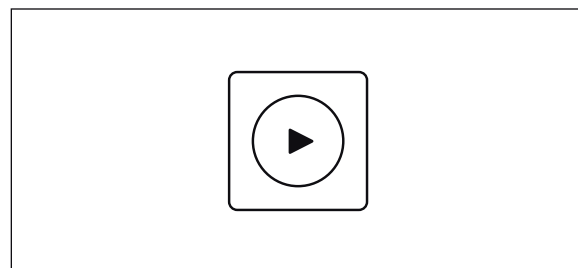
now lets add a bassline.
press instrument to make sure you are in instrument mode, then select track 3.



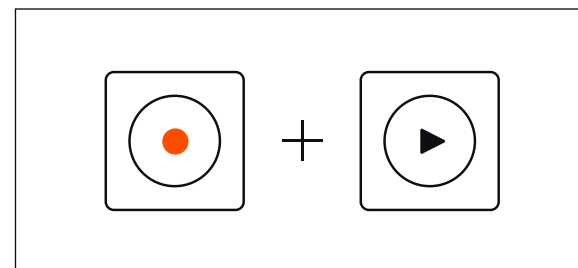
the musical keyboard will now play the 24 different notes.



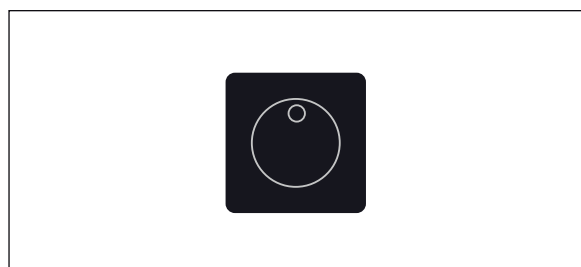
try playing some notes on the keyboard. you can use the (-) and (+) buttons to change octaves.



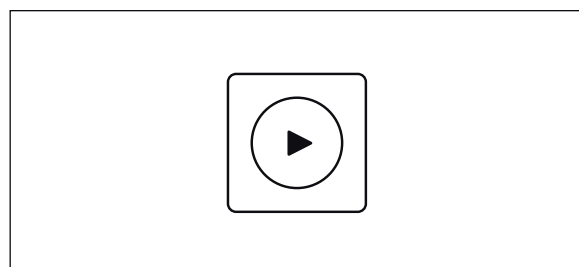
press play to hear your beat and practice playing a bassline over it.



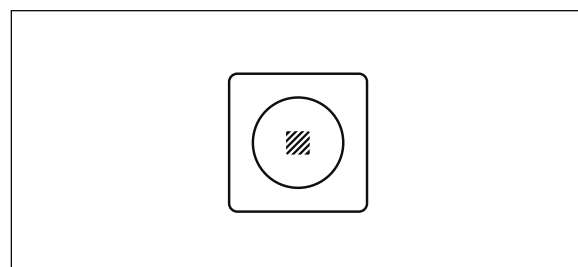
once you have something you are happy with you can try recording it in. press record and play to arm the track for recording.



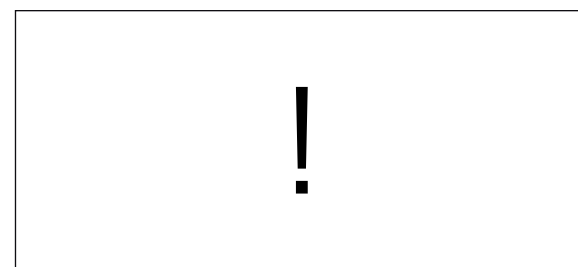
the first sequencer button will start to flash red, letting you know the sequencer is armed to record.



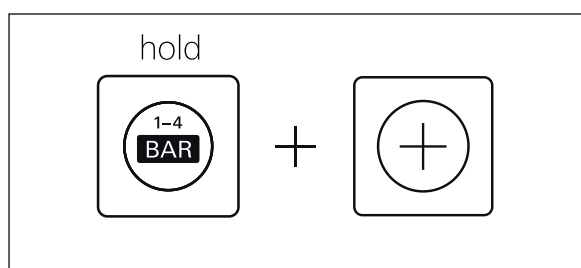
play the first note of your bassline to instantly start recording it and the following notes. or alternatively, press play to start recording without playing a note.



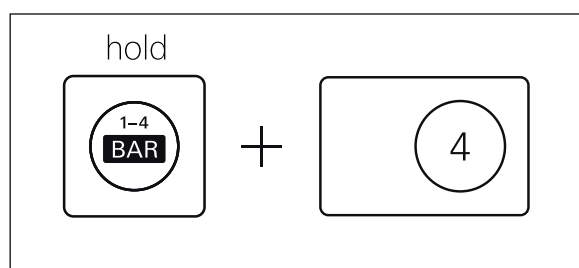
once you are done recording press stop.



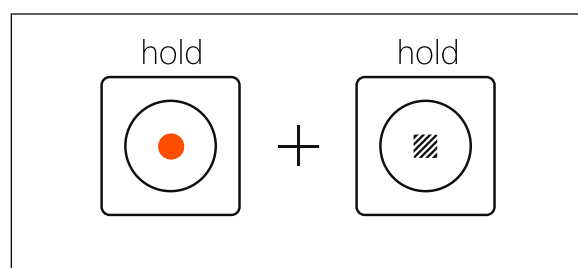
you may notice that your bassline is longer than the pattern it has been recorded to, causing you to play over yourself.



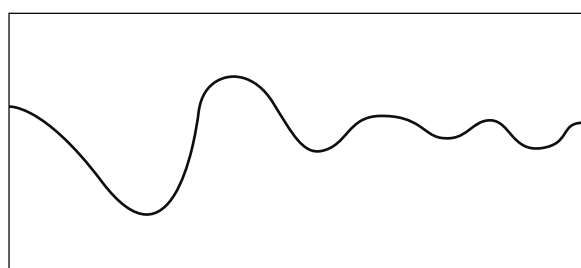
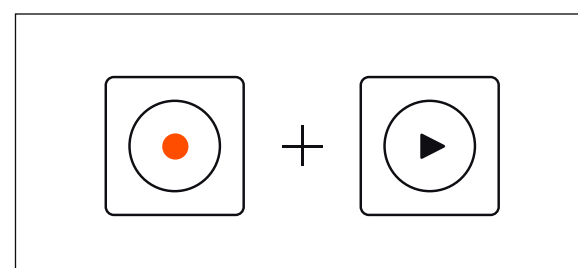
to extend your pattern hold bar and press (+) to add another bar. you can add up to three extra bars, totalling four bars in total.



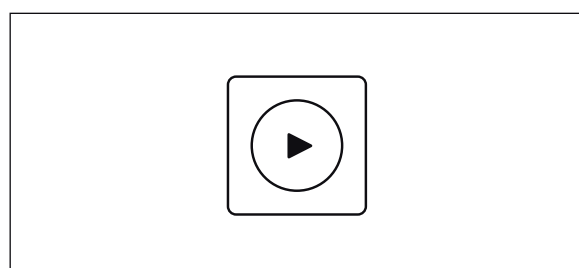
if you want an even longer pattern, you can hold bar and use the accidentals to increase the track scale, this will multiply the length of each step giving you a longer pattern.



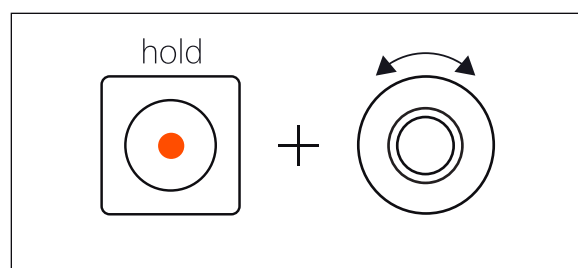
to delete the current recorded sequence on a track and start over just hold record and stop until the sequencer row fills up red. you should then see an empty sequence.



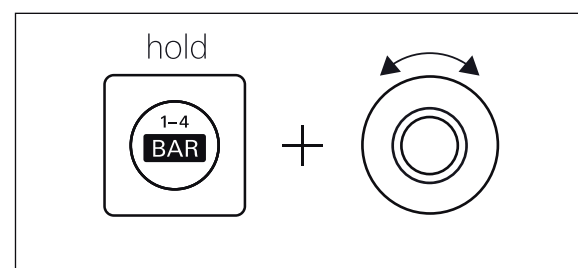
as a bonus, lets record some automation on the bassline.



play your sequence.

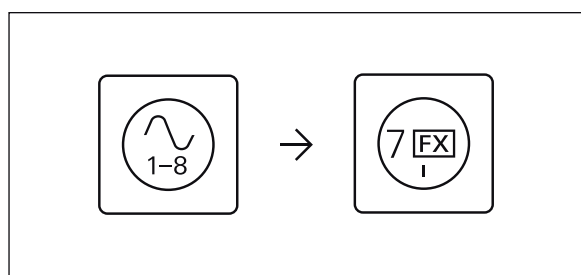


while playing, hold record and turn one of the encoders. this will record that movement.

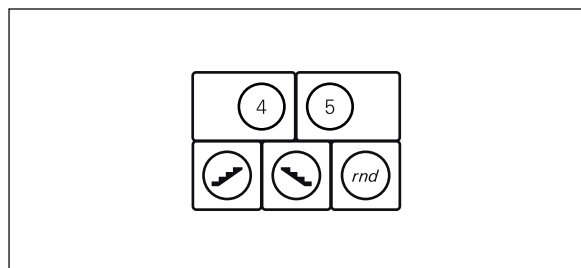


you may notice that this movement is stepped. to smooth it out hold bar and rotate the white encoder.

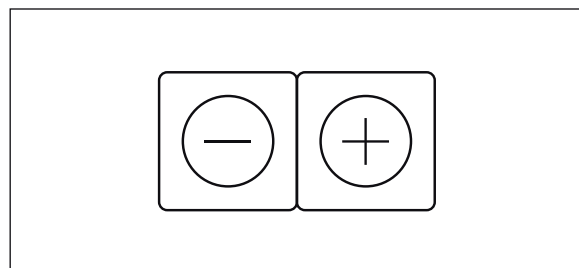
4.3 adding chords



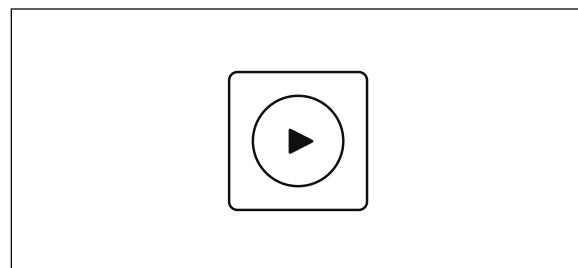
time to add some chords.
press instrument to make sure you are in instrument mode, then select track 7.



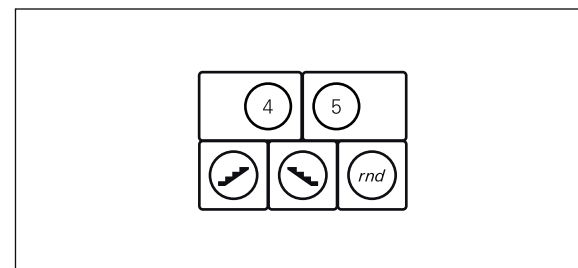
the musical keyboard will play the 24 different notes.



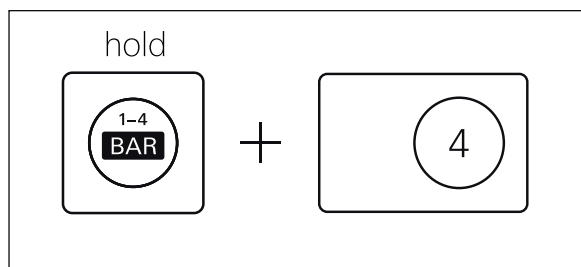
try playing some notes on the keyboard. you can use the (-) and (+) buttons to change octaves.



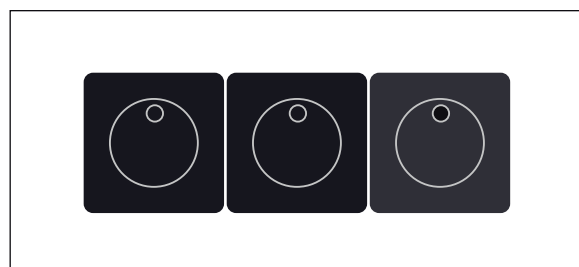
press play to hear your beat and practice playing some chords over it.



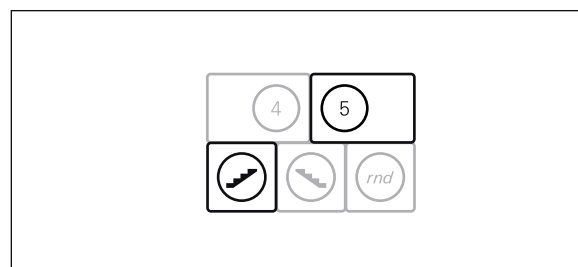
take note of where you want the chords to play and how long your sequence might need to be, counting the first beats in your head.



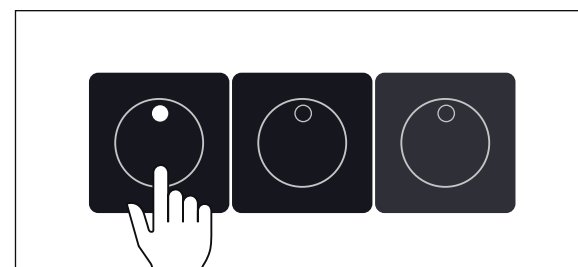
now we are going to increase the track scale so that each step represents four steps and every four steps is one bar. to do so, hold bar and press the accidental key labelled '4' (the c# key).



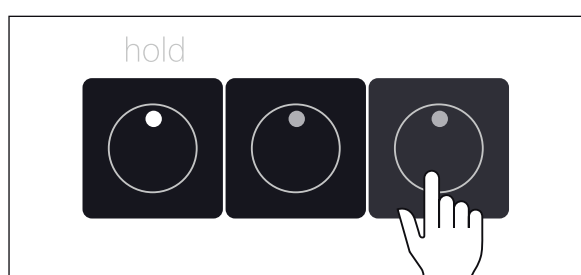
now press play and take note of how each step blinks four times rather than once. you can practice your chords, once again making note of what steps they play on.



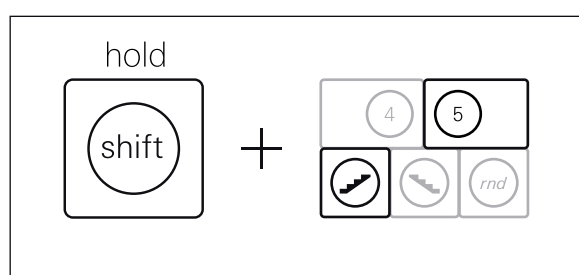
now, lets sequence the chords to those steps. play the chord on the musical keyboard and hold the notes down.



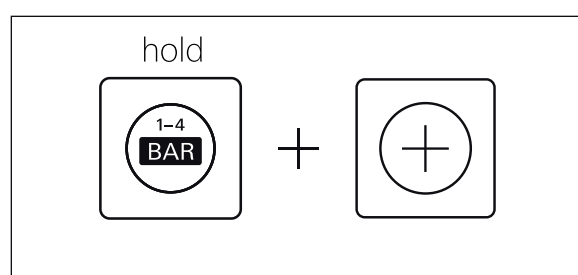
you may notice that your bassline is longer than the pattern it has been recorded to, causing you to play over yourself.



if you want to have the chord hold across multiple steps, just hold the step with that chord down and then press whatever step you want it to be held until.

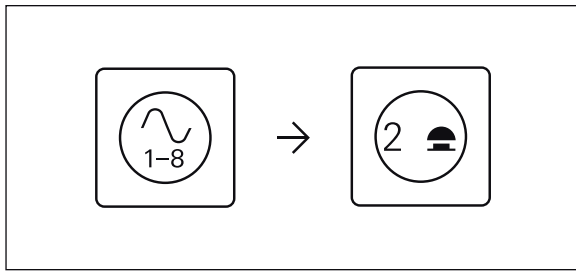


continue holding chords and sequencing them in, extending them as needed.

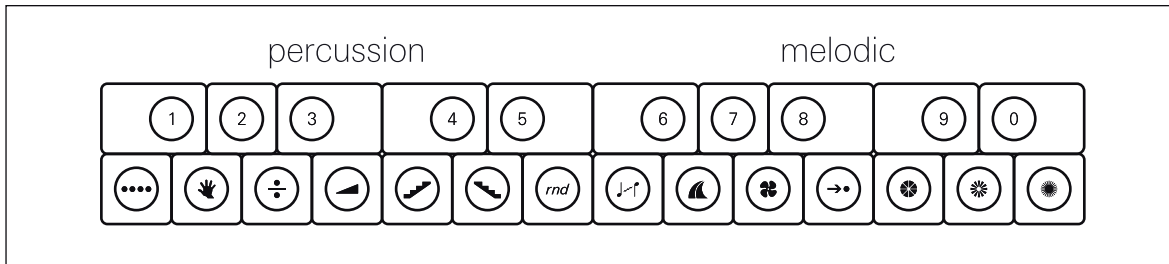


if you need a longer sequence you can add another bar by holding bar and pressing (+).

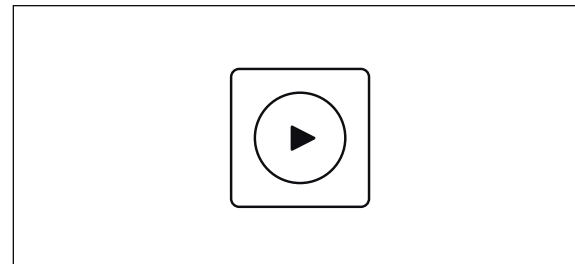
4.4 adding punch-in FX™



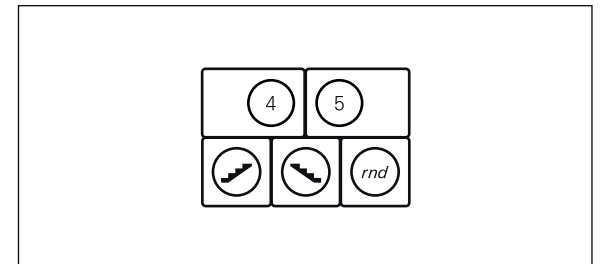
now let's perform the song with some punch-in FX™. press auxiliary to go to auxiliary mode then press track 2 to open the punch-in FX™ track.



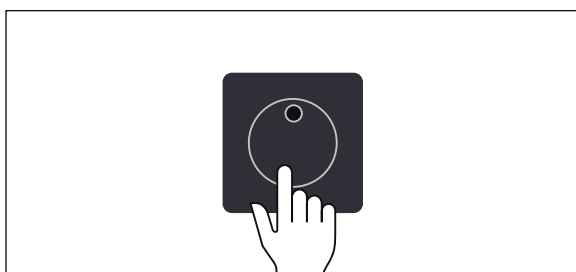
the musical keyboard will now be split into two sections; the first octave will control percussion tracks and the second octave will control melodic tracks.



press play to start your song.

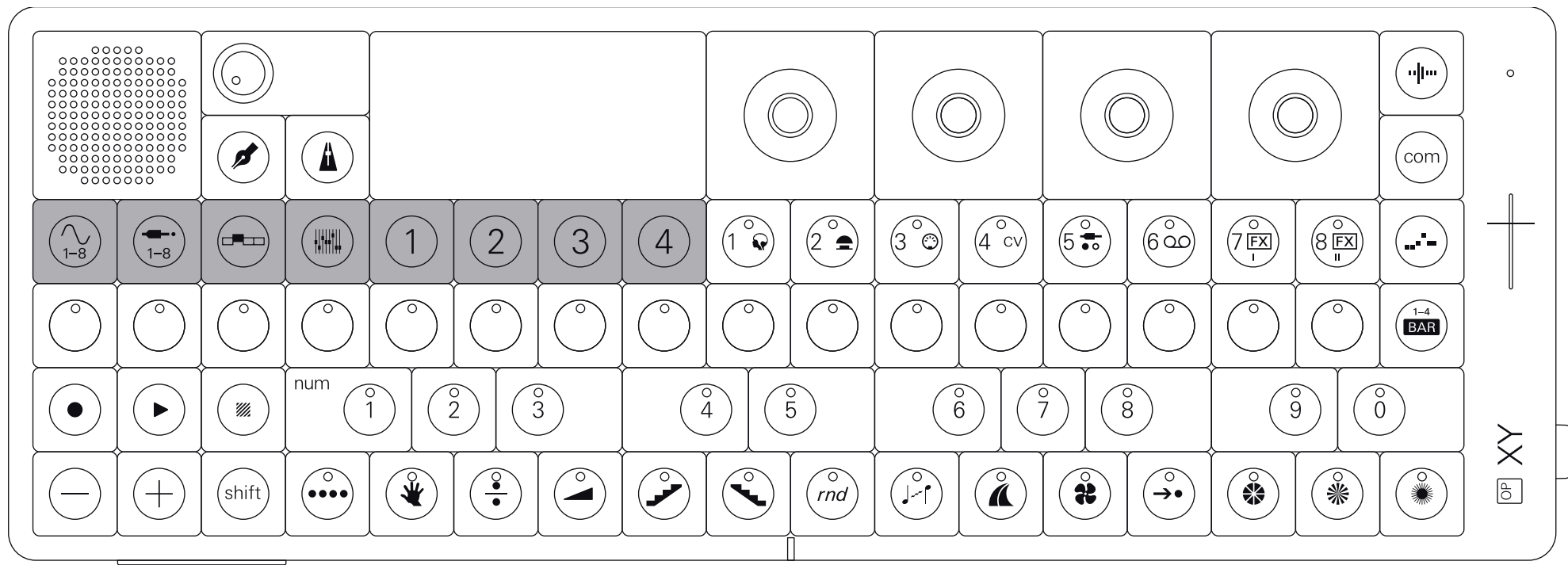


then press and hold notes on the musical keyboard. each note will have a different punch in effect. they can be combined for greater effect.



you can, as with any other track, sequence the punch-in FX™ with all the same techniques used already.

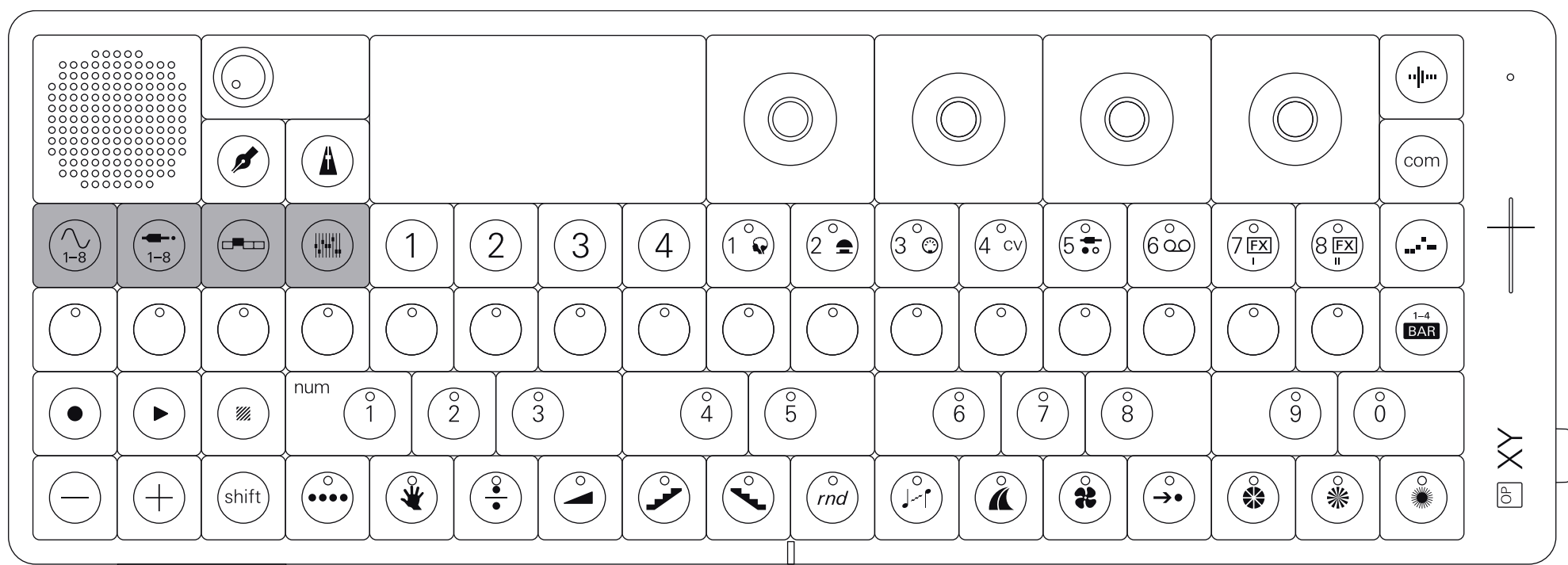
5. main modes and modules



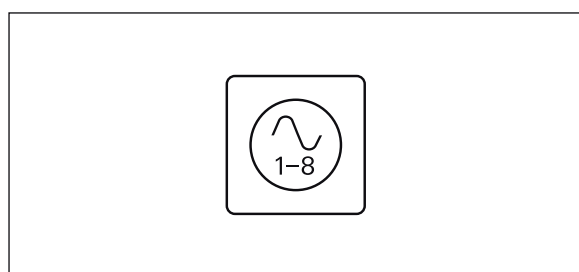
the four main modes: instrument, auxiliary, arrange and mix are where you'll spend the most time.

each mode represents a different section of the device. think of them as the different 'lifecycles' of a track: instrument is where you compose, auxiliary is where you transpose, arrange is where you start building and mix is just for that, mixing

5.1 main modes

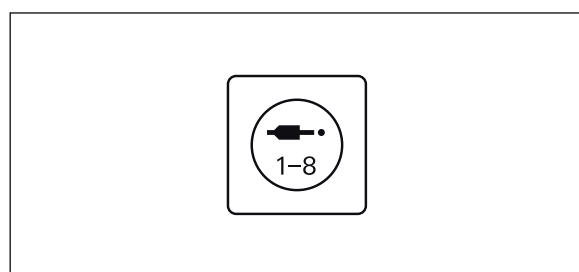


instrument



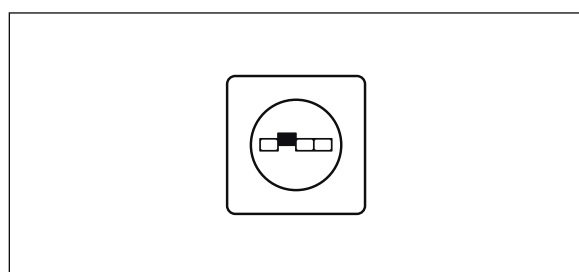
in instrument mode, the 8 track buttons allow you to control and edit the 8 instrument tracks available in the OP-XY.

auxiliary



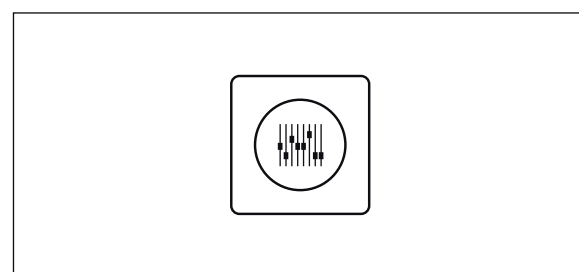
in auxiliary mode, the 8 track buttons allow you to intelligently transpose your tracks, edit the send effects, external inputs and outputs, as well as play and sequence punch-in FX™.

arrange



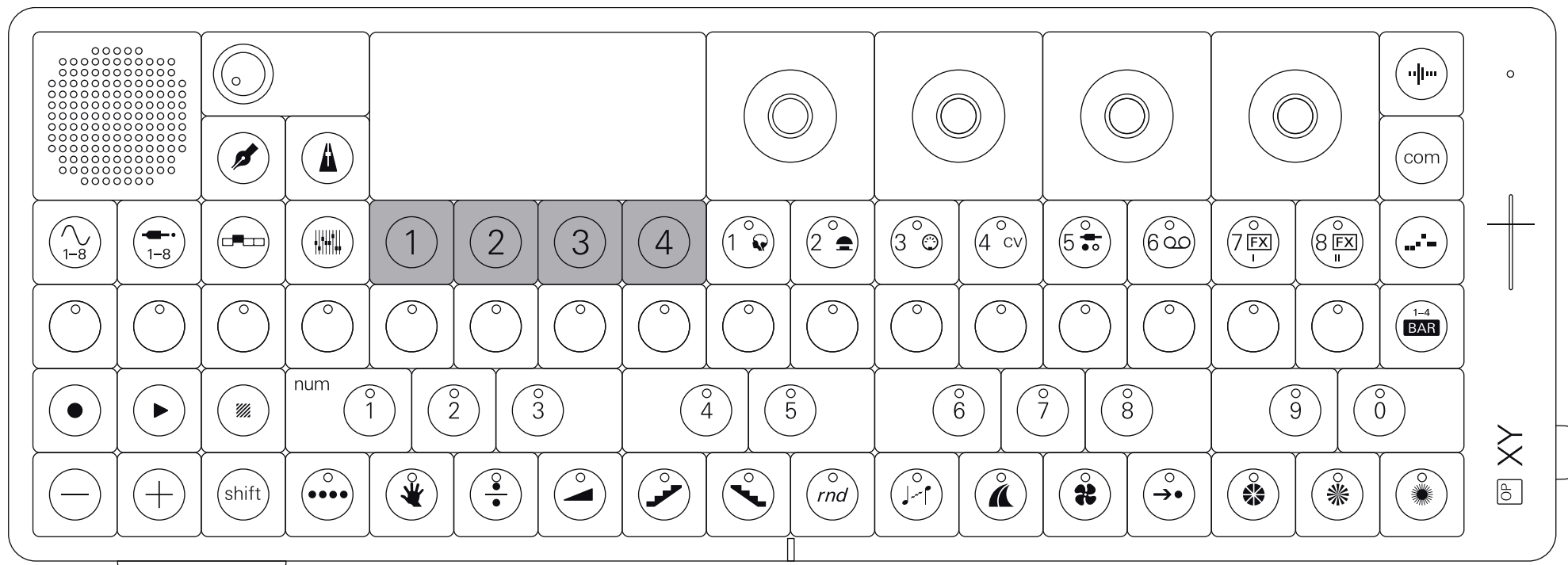
in arrange mode, you build your song by chaining scenes which are made up of patterns from your 8 tracks.

mix



in mixer mode, you control levels and panning for each of the tracks as well as the main eq and master compressor.

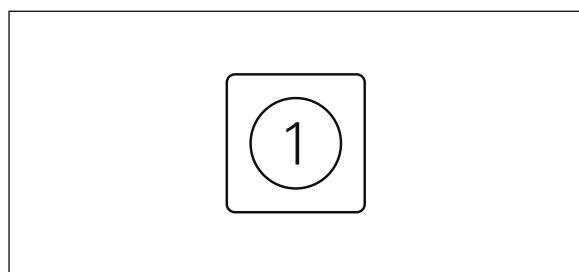
5.2 modules



each main mode with the exception of arrange, features four sub modes called modules, these allow you to edit the various parameters within the selected track using the four encoders.

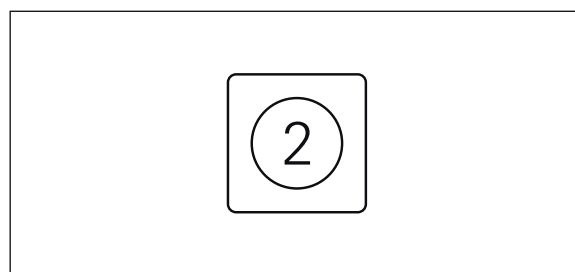
switch between the available modules using the four buttons underneath the screen. in some instances a screen may have extra parameters that can be accessed by holding shift.

M1



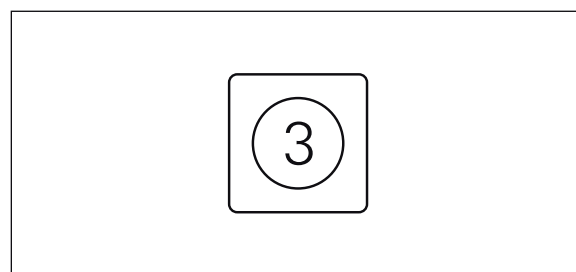
the button labelled (1) is referred to as M1.

M2



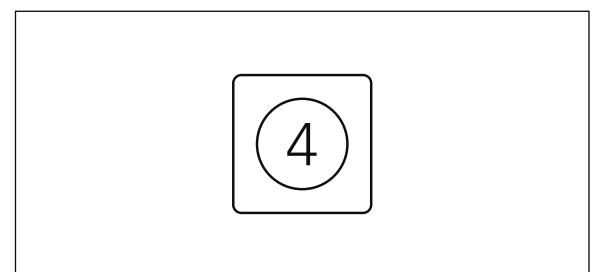
the button labelled (2) is referred to as M2.

M3



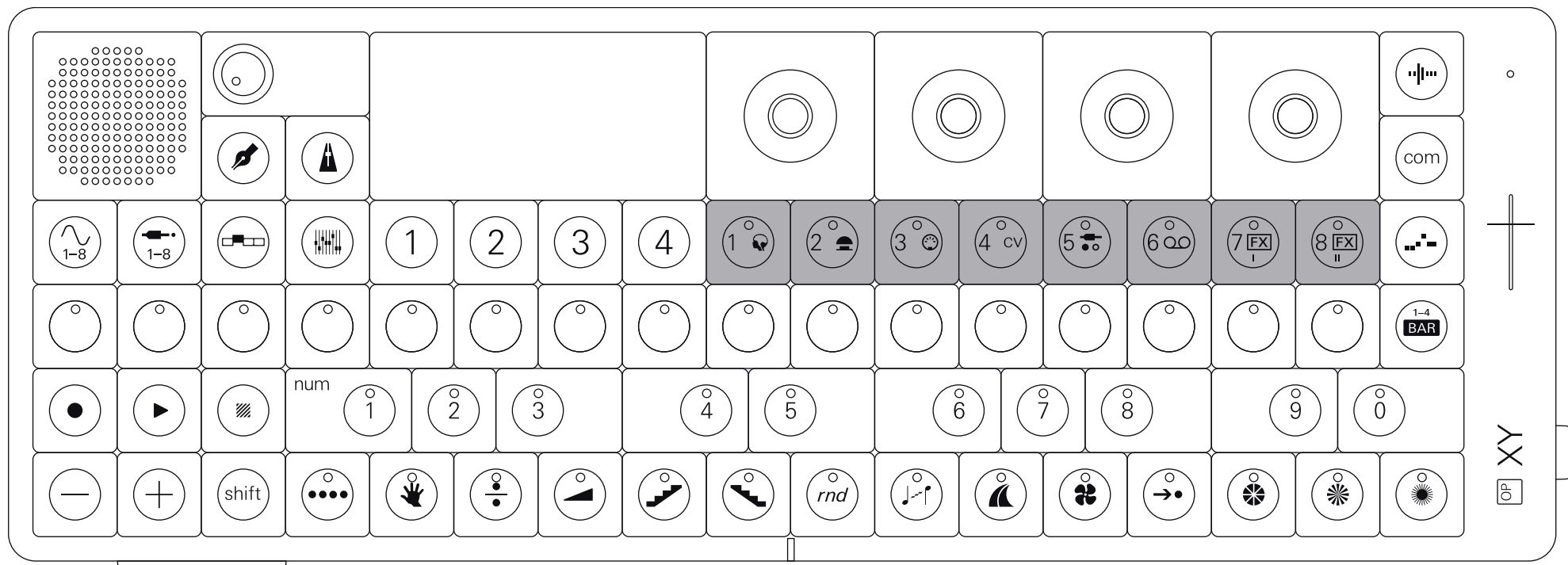
the button labelled (3) is referred to as M3.

M4



the button labelled (4) is referred to as M4.

6. track buttons

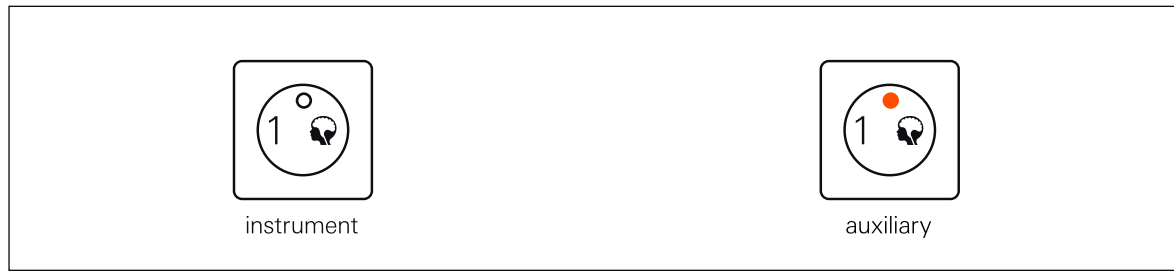


OP-XY's sequence-able tracks are divided into instruments and auxiliary tracks.

you can select the track you wish to sequence, edit, arrange or mix by pressing one of the track buttons, found underneath the encoders.

6.1 using the track buttons

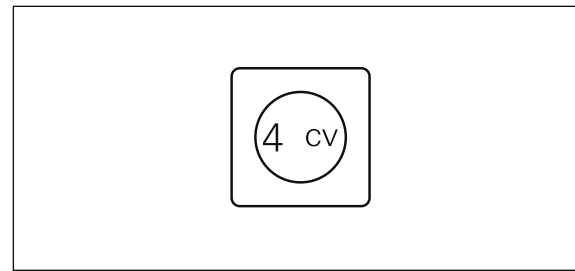
active track



the active track is the track that you are currently sequencing, editing or arranging. the active track will light up in white if it is an instrument track, or red if it is an auxiliary track.

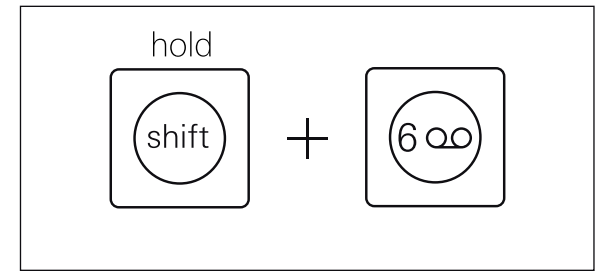
the numbered labels on each track button represent the 8 instrument tracks and the icons represent the 8 auxiliary tracks.

switching track



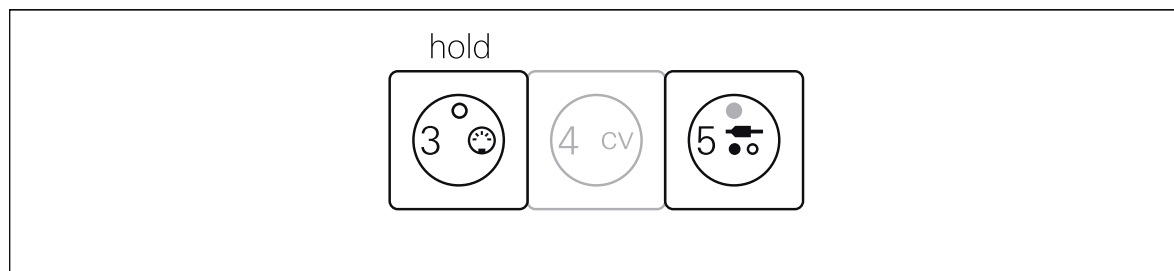
press any track button to switch sequencing, editing or arranging to that track.

presets



hold shift and press any track button to select a preset for that track. you can of course create your own presets.

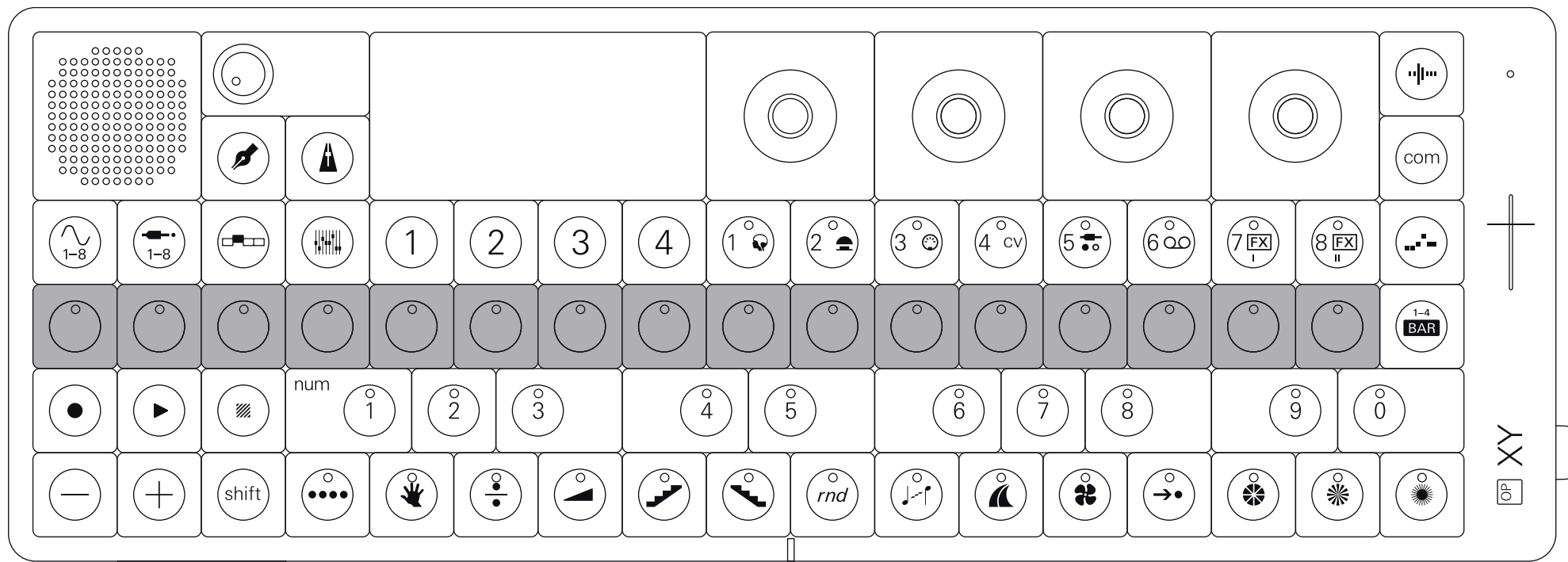
6.2 linking tracks



to link up to four tracks, just hold down one track button and press the tracks you would like to link it to.

the track you are holding down will then control all linked tracks. linked tracks can still be played separately from the primary track, as long as you are in the linked tracks, not the primary track.

7. sequencer

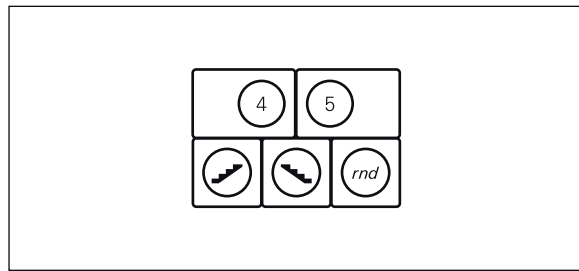


running across the length of the device is the step sequencer.

it is the heart of the OP-XY and represents the musical grid that sounds and notes are recorded to.

7.1 step sequencing

select note



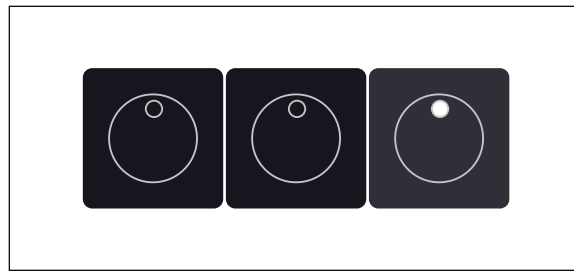
press a note or sound on the musical keyboard.

recall



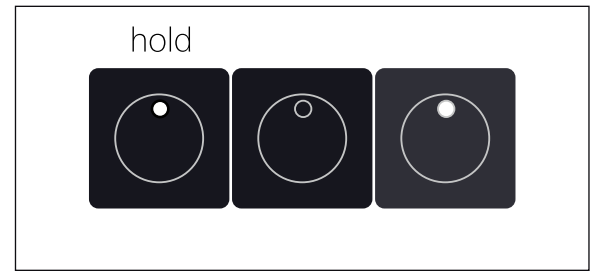
whenever you play a note or sound, OP-XY will remember that note. when you next press a step it will record the last played note.

sequence note



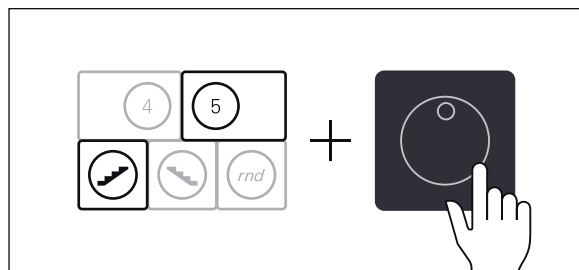
you can then press a step on the sequencer. the step will light up letting you know a note has been recorded to it.

check note

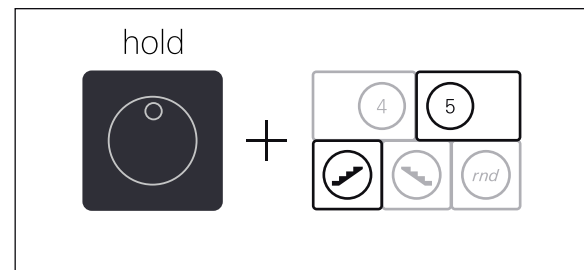


you can check the note recorded to a step by holding it down. the note or notes recorded to that step will then light up.

sequence chords

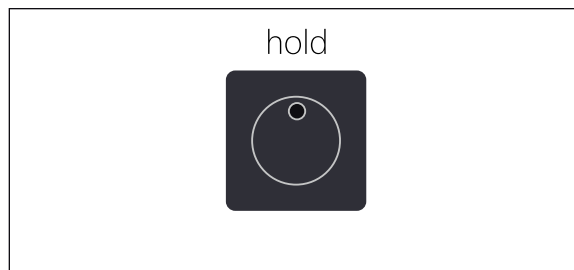


to step record multiple notes or chords, hold the notes or chord down then press the step you wish to record to on the sequencer.



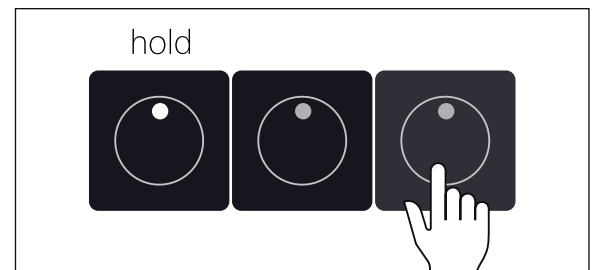
alternatively, hold a step down and play the notes you wish to record to that step.

edit step



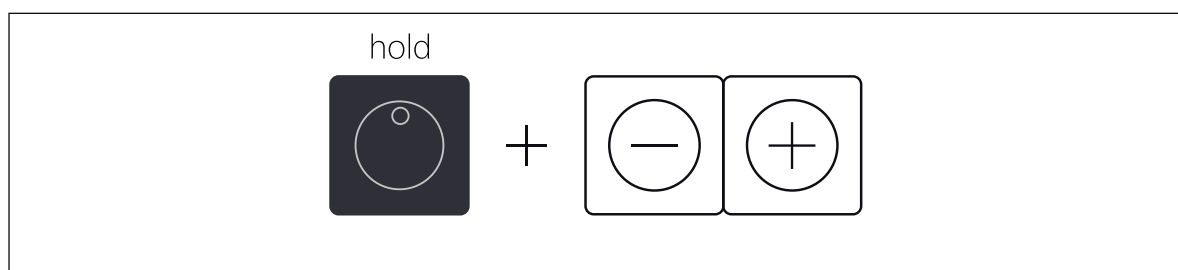
to add or remove a note or sound from a step, hold it down and then press that note to add or remove it.

extend note



extend the length of a note or chord by holding a step and pressing another step. the location of the second step pressed will determine the length of the note.

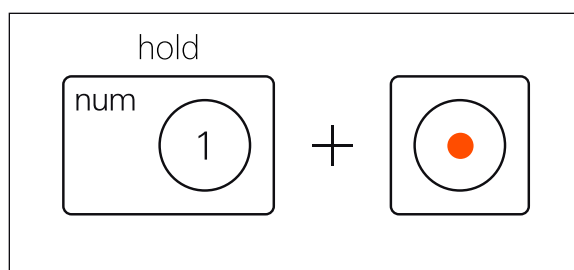
nudge step



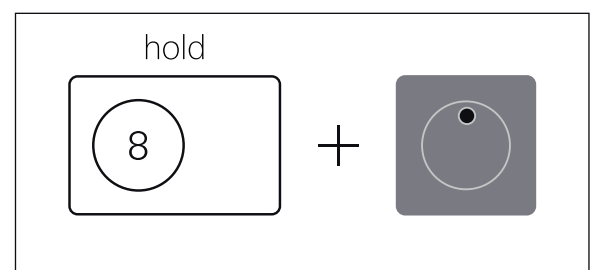
you can nudge steps by holding the step down then pressing (-) or (+).

this will allow you to break from the musical grid. notes can only be nudged when quantisation is set to 0. learn more about quantisation below.

sequence one sound only

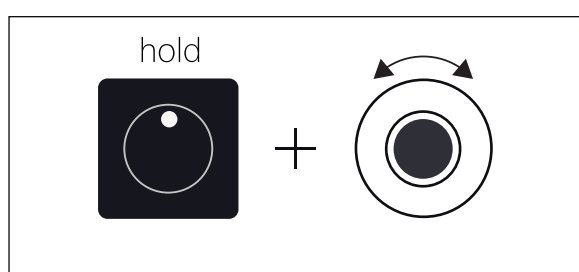


to view and sequence only one sound or note, hold the sound on the keyboard then tap record. this will then show you only the steps that note or sound has been recorded to. perfect for drum sequencing!



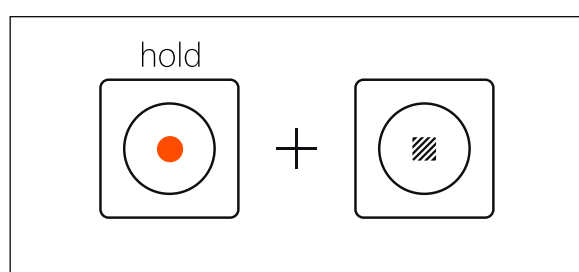
alternatively, you can hold a note down and then press the step sequencer to go directly into recording and viewing just that note.

parameter lock



hold a step then rotate a knob to record a parameter 'lock' to that step. this will then set that parameter to the recorded value when playing back that step. all four modules can be locked but players cannot.

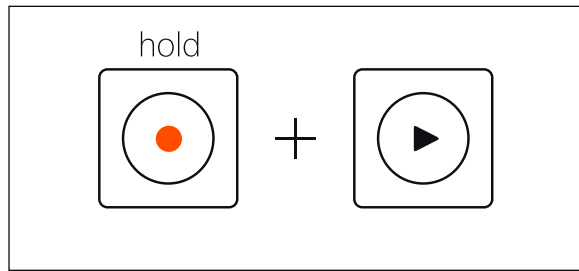
clear



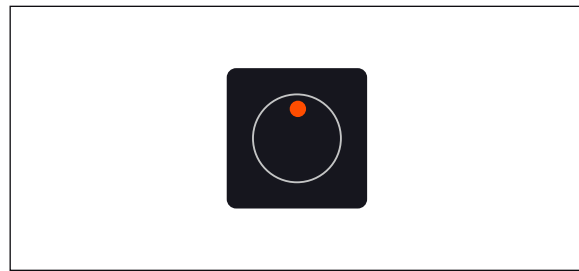
to clear everything you have recorded on the current track just hold record and stop until the red leds fill the sequencer.

7.2 live recording

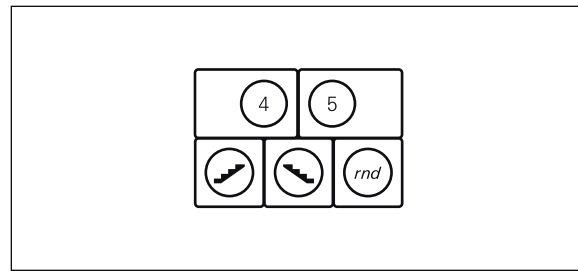
live recording



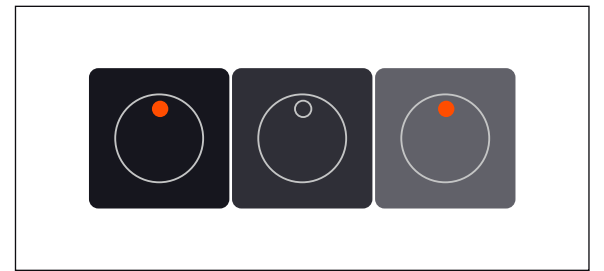
you can record steps to your patterns in a variety of ways. to live play notes, hold record and press play.



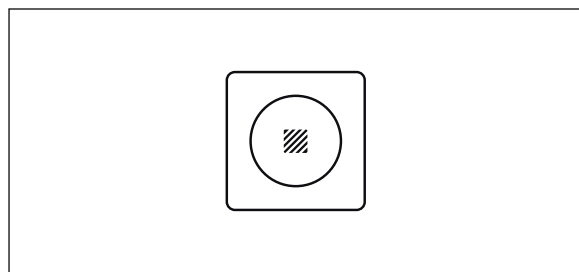
the step 1 key will flash red indicating it is waiting for you to start playing.



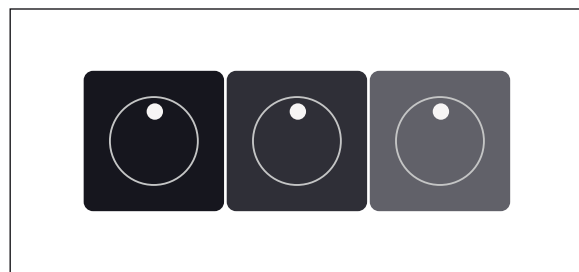
begin playing on the keyboard and the sequencer will start and record notes as you play them.



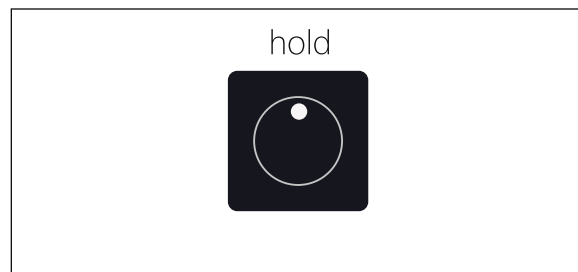
steps in the sequencer row will turn red to indicate there is a note recorded on that step.



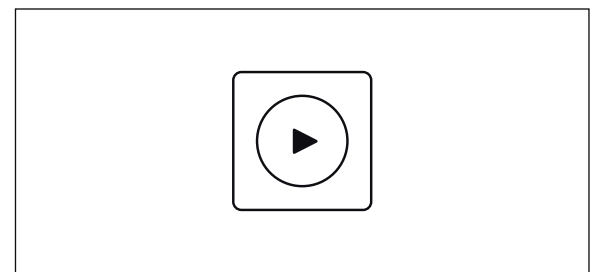
press stop.



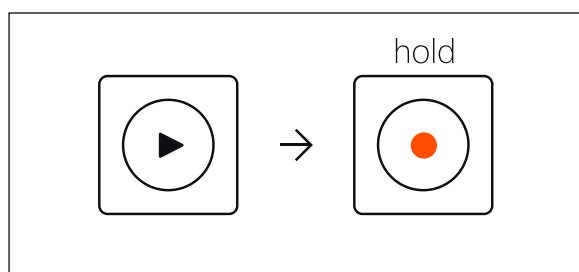
steps with notes will now be white.



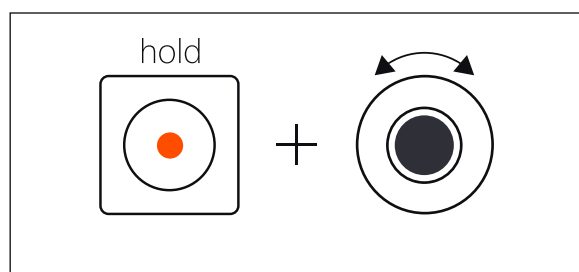
press and hold a step to see what has been recorded to that step. while holding, you may add or remove notes from the step by playing them on the keyboard.



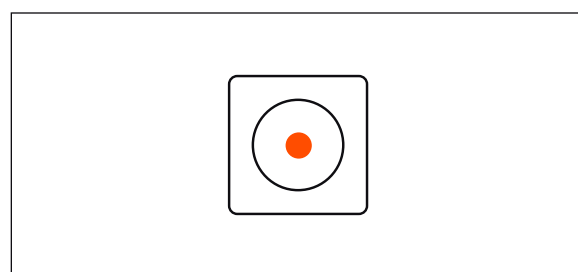
press play to listen to your song.



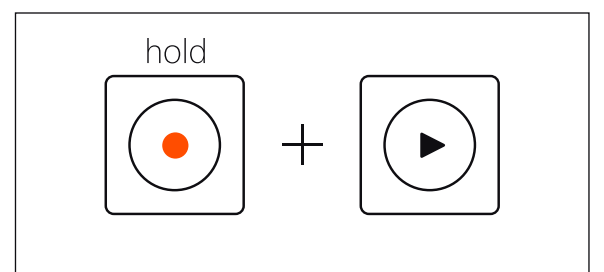
while your song plays, hold the record key and you can live record notes into your pattern.



while playing, holding record and rotating a knob will automate that parameter and record the motion into the sequencer. by default this automation will not be smooth, as it records automation per step. to smooth, hold bar and rotate the white knob.



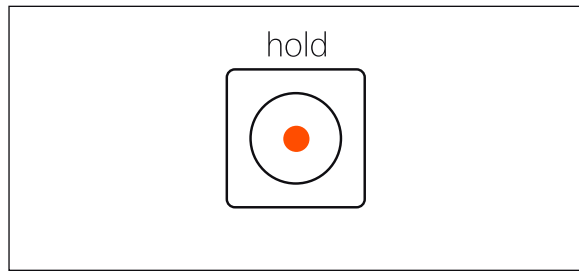
release the record key to continue listening to your song.



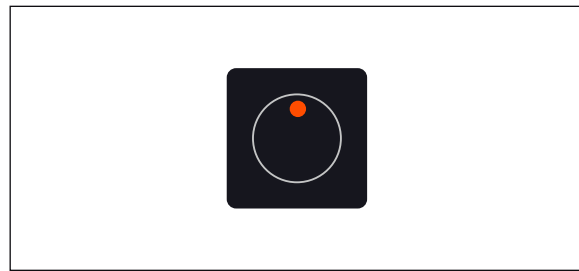
to remain in record mode while your song is playing, hold record and press play to lock recording mode.

7.3 step recording

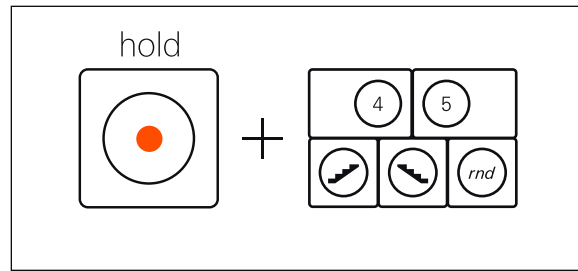
step recording



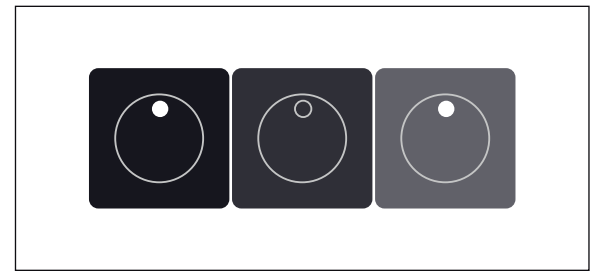
you can quickly record a sequence without running the sequencer. to step record, while paused hold record.



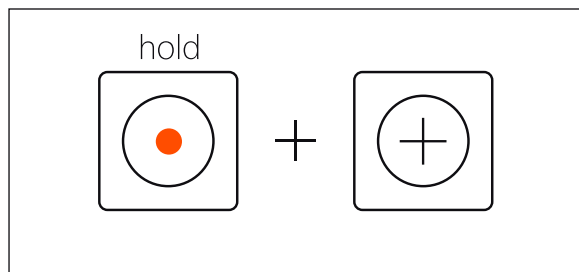
the step 1 key lights up red indicating it is waiting for you to start playing.



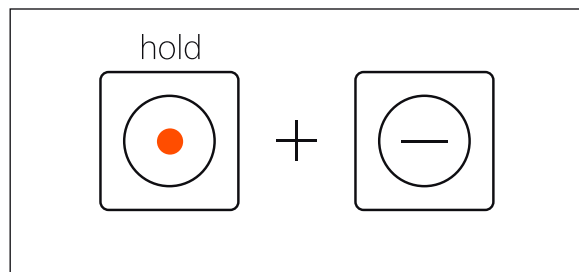
keep holding record and begin playing on the keyboard. the notes will fill the sequencer.



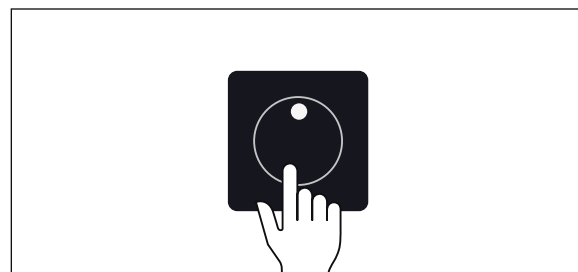
steps in the sequencer row will turn white to indicate there is a note recorded on that step.



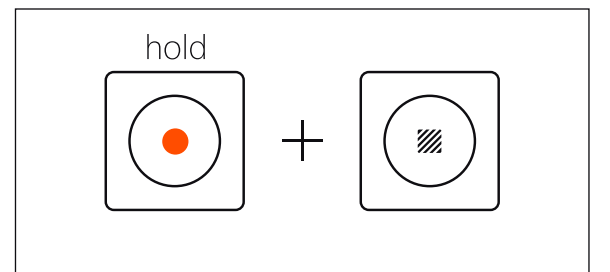
if you want to skip a step, while holding record just press the (+) button. the red led will move forwards to reflect the new record position.



to go back a step, while holding record press the (-) button. the red led will move backwards to reflect the new record position, and if a sound has been recorded to the previous step, it will play and it's key will light up, ready for you to edit it.



if you made a mistake and want to remove a step completely, just tap it to remove it from the recording.



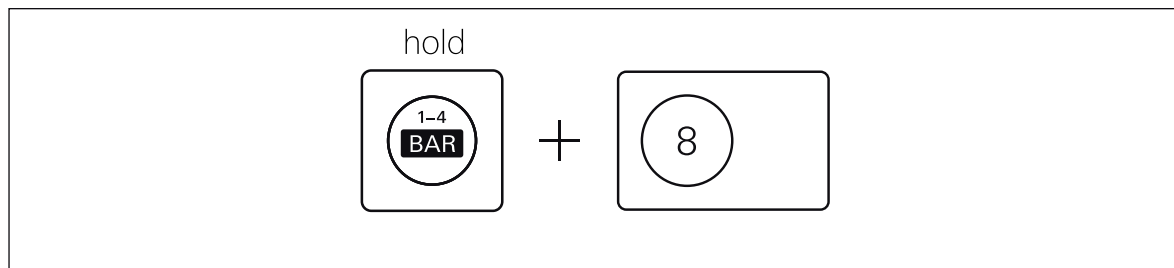
to clear everything you have recorded on the current track just hold record and stop until the red leds fill the sequencer.

7.4 extending your sequence with bar

bar

on the far right of the sequencer you will find bar. bar is the gateway to longer and more complex sequences and allows you to extend your sequences, apply quantisation, lengthen notes, apply grooves and smooth automation.

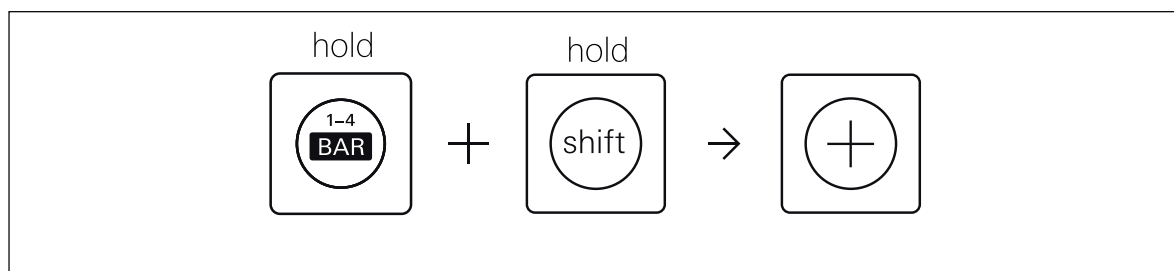
track scale



hold bar and press an accidental key to change the track scale. track scale determines the amount of time taken up by one step. this can be set per track independently.

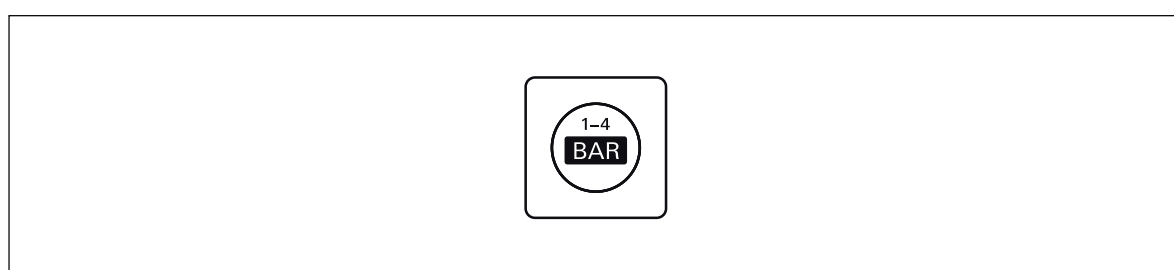
available track scales include:
1, 2, 3, 4, 6, 8, 16, 1/2

duplicate bar



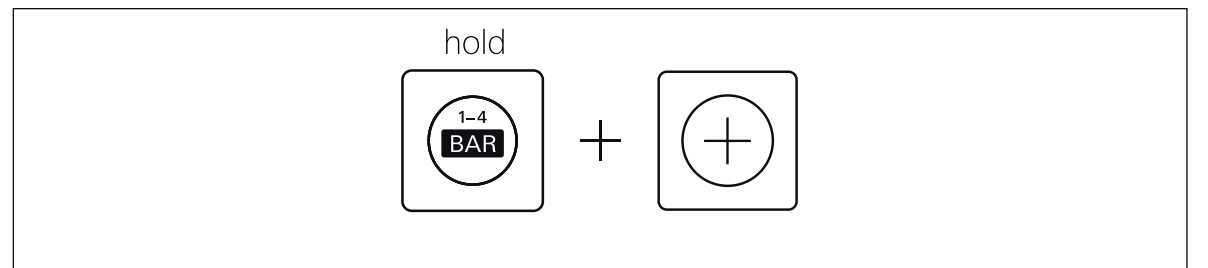
holding bar and shift, then pressing (+) will duplicate the current bar. for two bar phrases the first will copy to the third and the second to the fourth.

switch bar



press or tap bar to switch between bars. if you switch bars while playing or recording it will stay on the selected bar, allowing you to sequence just that bar without interruption.

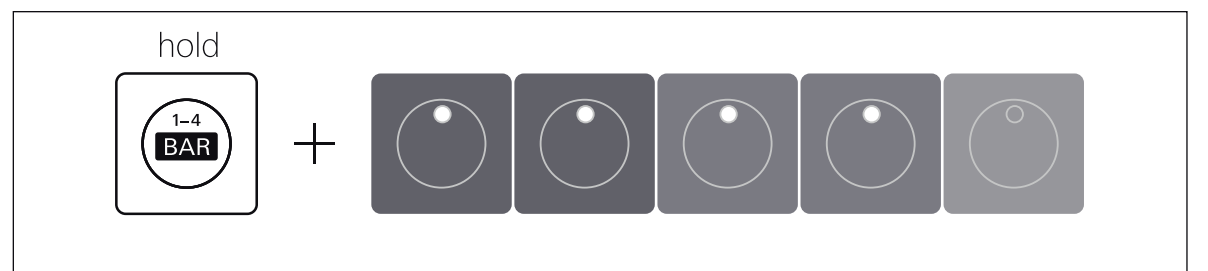
add bars



hold bar and press (+) to add bars. remove a bar by pressing (-). bars allow you to increase the number of steps available for sequencing.

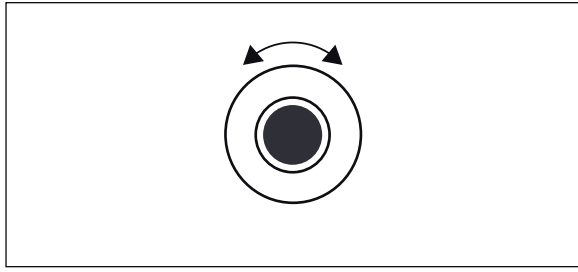
a maximum of four bars can be used. this in combination with the track scale allows for a maximum pattern length of 64 bars, or 1024 1/16th notes spread across four 'bars'.

sequence length



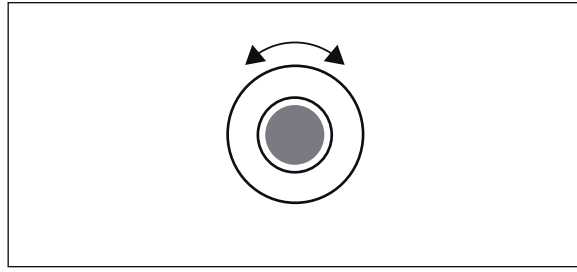
holding bar and pressing the step sequencer allows you to select the number of steps in a pattern. when sequencing patterns with multiple bars this will alter the length of the final bar, all others will be the full length.

quantisation



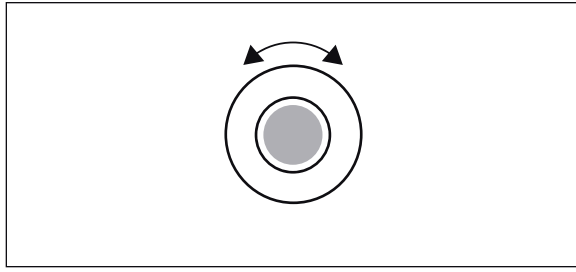
rotate the dark gray knob to adjust track quantization. this will adjust the timing of whatever you live record into the current track. with quantization set to 100 you cannot nudge notes.

length



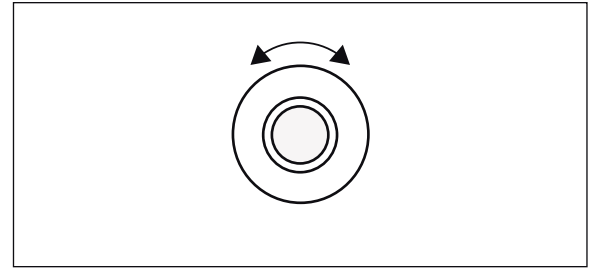
rotate the mid gray knob to adjust the length of step sequenced notes. this does not apply to live recorded or extended notes.

groove



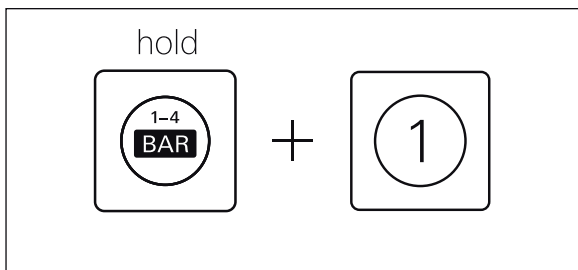
rotate the light gray knob to adjust the groove applied to the current track, this will overwrite the swing value in tempo. you can select the groove style in the [tempo screen](#).

shape



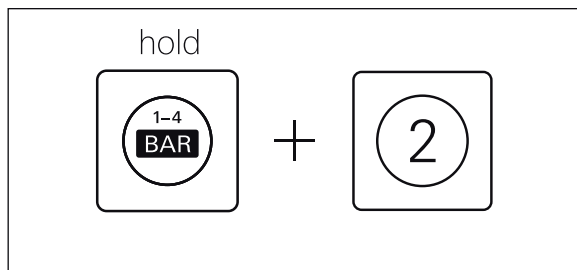
rotate the white knob to adjust the smoothing between parameter locks. by default parameter locks and recorded automation will have no smoothing.

clear notes



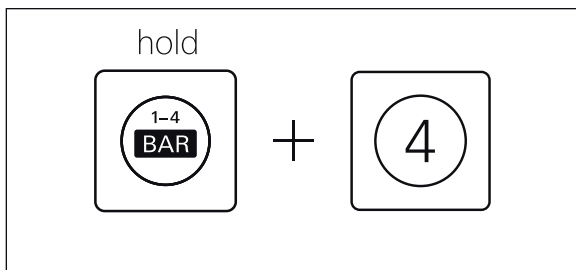
while holding bar, press M1 to clear notes. this will delete the notes but not the parameter locks.

clear params



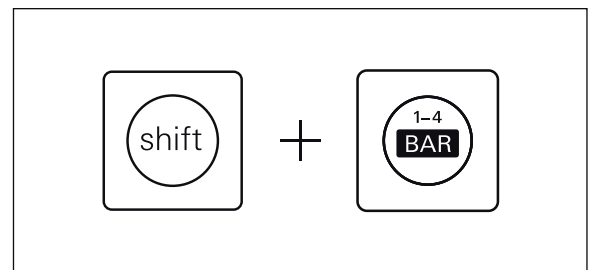
while holding bar, press M2 to clear parameter locks. this will delete the parameter locks but not the notes.

clear all



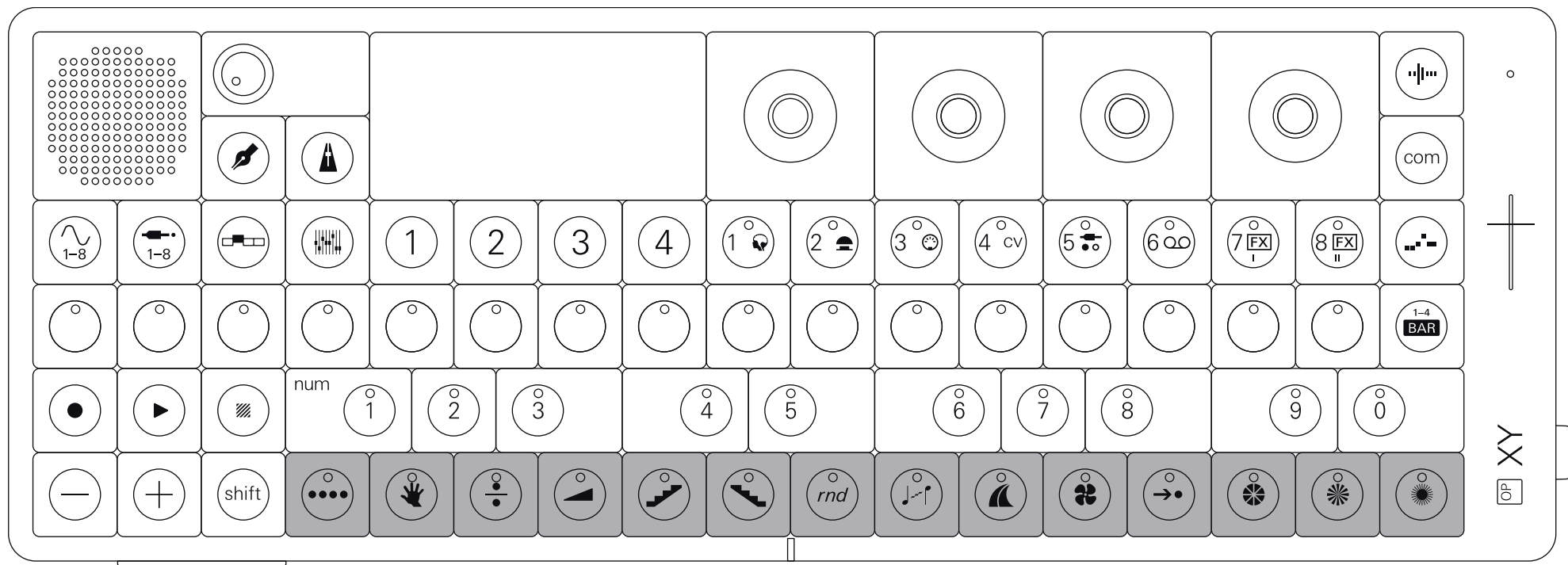
while holding bar, press M4 to clear all notes and parameter locks from the pattern.

lock bar on screen



press shift and bar in combination to keep the bar button held down for you, this will keep the bar page on screen until you press bar again.

8. step components



OP–XY features a powerful sequencing tool called step components.

step components allow for rapid variations to be applied to specific steps and are an amazing way to expand the capabilities of the sequencer.

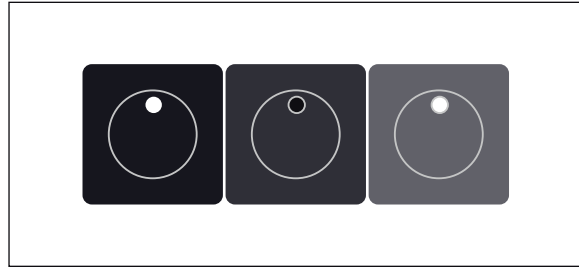
8.1 what are step components?

step components are variations that can be added to any step on the sequencer and can alter everything from randomizing pitch to bending, skipping or even multiplying steps.

mastering step components can take you from an idle songwriter to a professional. realize your most fleeting ideas into full tracks in just a few seconds.

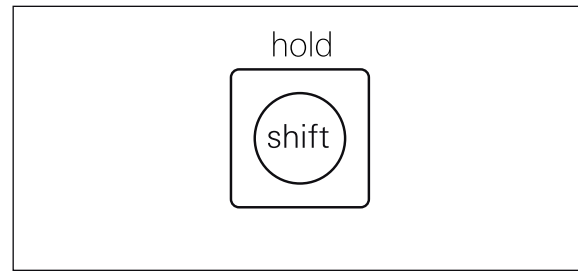
8.2 adding step components to a sequence

make a sequence



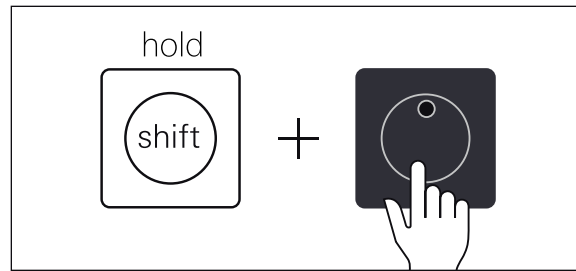
start off by programming a basic sequence on any track.

hold shift



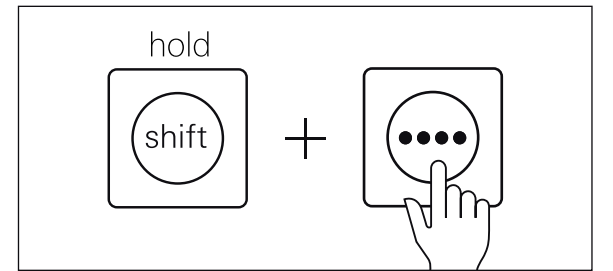
hold shift. this will dim the steps with notes recorded to them, telling you that no step components are added to those steps.

select steps



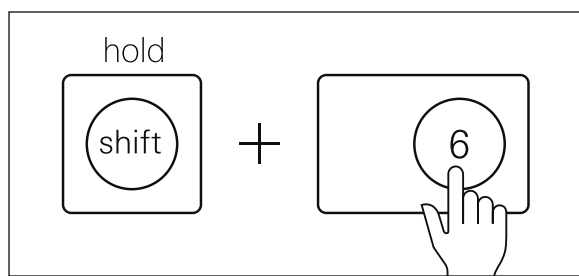
while continuing to hold shift, select the steps you wish to add step components to. they will flash to let you know they have been selected.

choose natural



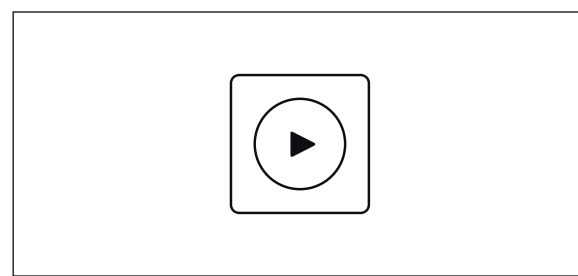
continue holding shift and then choose one of the natural keys. each natural key has a different step component, represented by the icon printed on its face.

modify



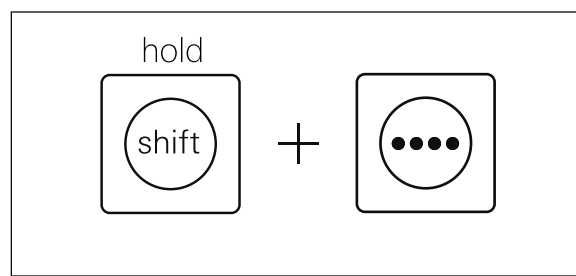
once you have selected a step component, continue to hold shift and then use the accidental keys to choose the value for that step component. each step component uses the accidentals differently. you can see exactly what they modify on the screen.

play

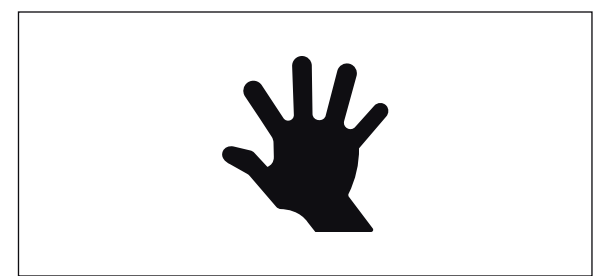


let go of shift. now that you have added a step component, press play and you can hear it applied to the selected steps

remove step component

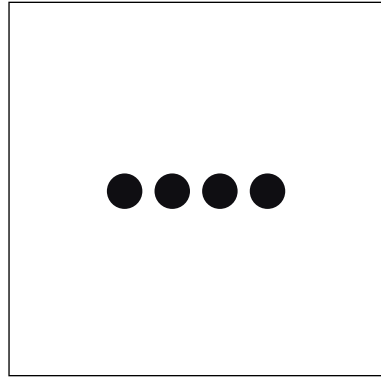


should you wish to remove a step component, just hold shift, select the steps again and press the natural key for the step component applied.



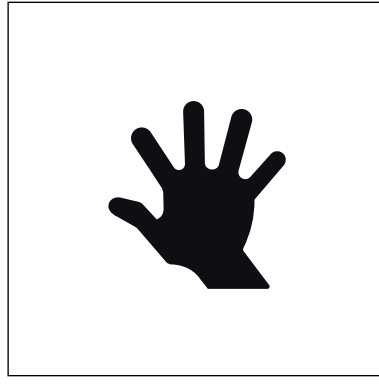
each step can have any combination of all 14 step components applied, so experiment with combining them and see what you can create.

8.3 what step components are there?



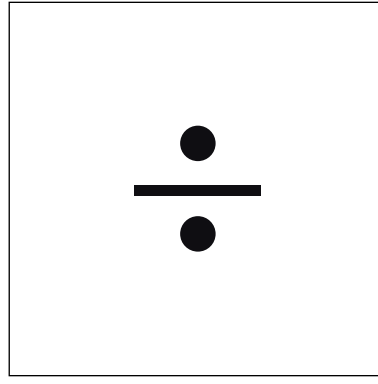
pulse

pulse repeats a step a defined number of times without progressing the sequence. use the accidentals to select the number of pulses.



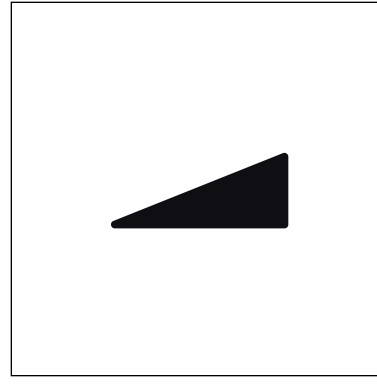
hold

hold will hold a step a defined number of steps without progressing the sequence. use the accidentals to select the number of steps to hold.



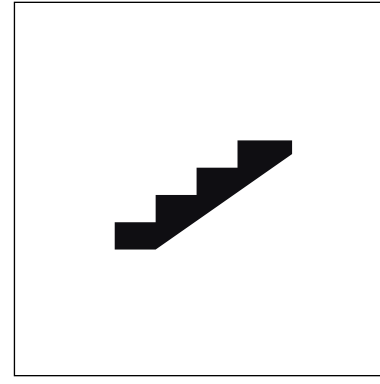
multiply

multiply will multiply the number of triggers in a step, creating a ratchet effect, perfect for hi-hats. use the accidentals to select the number of trigs.



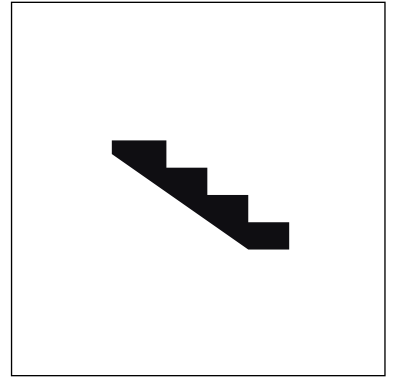
velocity

velocity allows you to set the velocity on a step to a defined value. use the accidentals to set the velocity value.



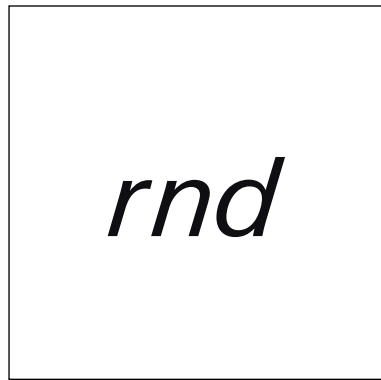
ramp up

ramp up alters the note of the selected step by following a ramp in the current scale. each time the step is triggered, the note increments up the ramp. use the accidentals to select the interval.



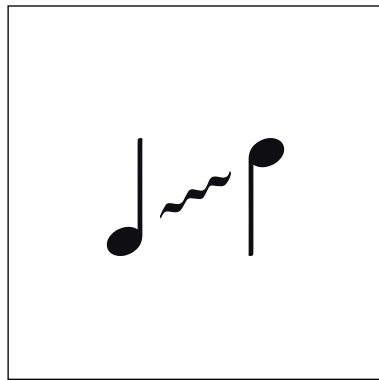
ramp down

ramp down alters the note of the selected step by following a ramp in the current scale. each time the step is triggered, the note increments down the ramp. use the accidentals to select the interval.



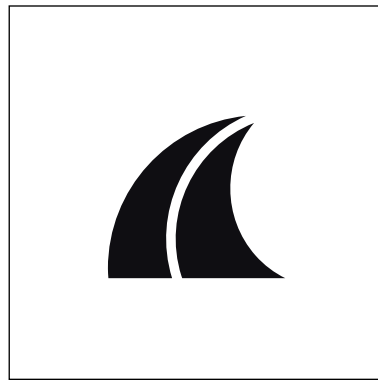
random

random will randomize the notes on the selected steps inside of the current scale. use the accidentals to set the range of possible notes.



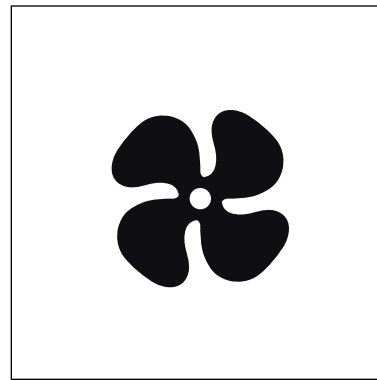
portamento

portamento will apply portamento to and from the selected step. use the accidentals to select the amount of portamento.



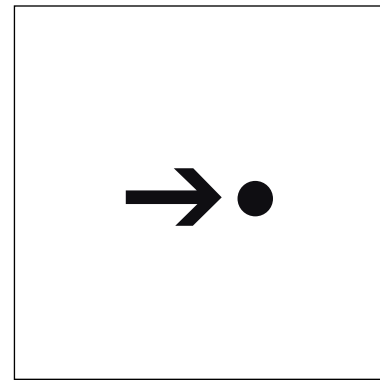
bend

bend will apply a pitch bend to the selected steps, different bend patterns can be found on the accidentals so try them out for some cool pitch effects.



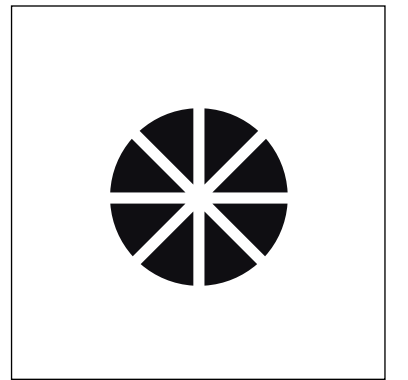
tonality

tonality allows you to transpose the selected step by a fixed interval. use the accidentals to set the transposition interval.



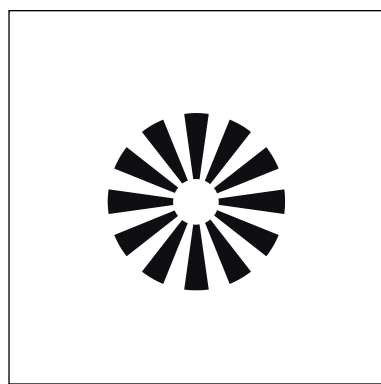
jump

use jump to usurp steps and skip to a chosen step. use the accidentals to select which step to jump to.



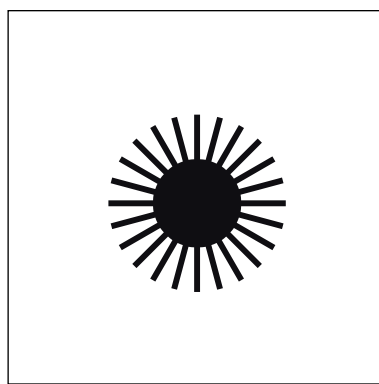
skip parameter lock

skip parameter lock allows you to play a parameter lock on a step every defined number of repetitions, perfect for having automation on only one out of every few repetitions.



skip step component

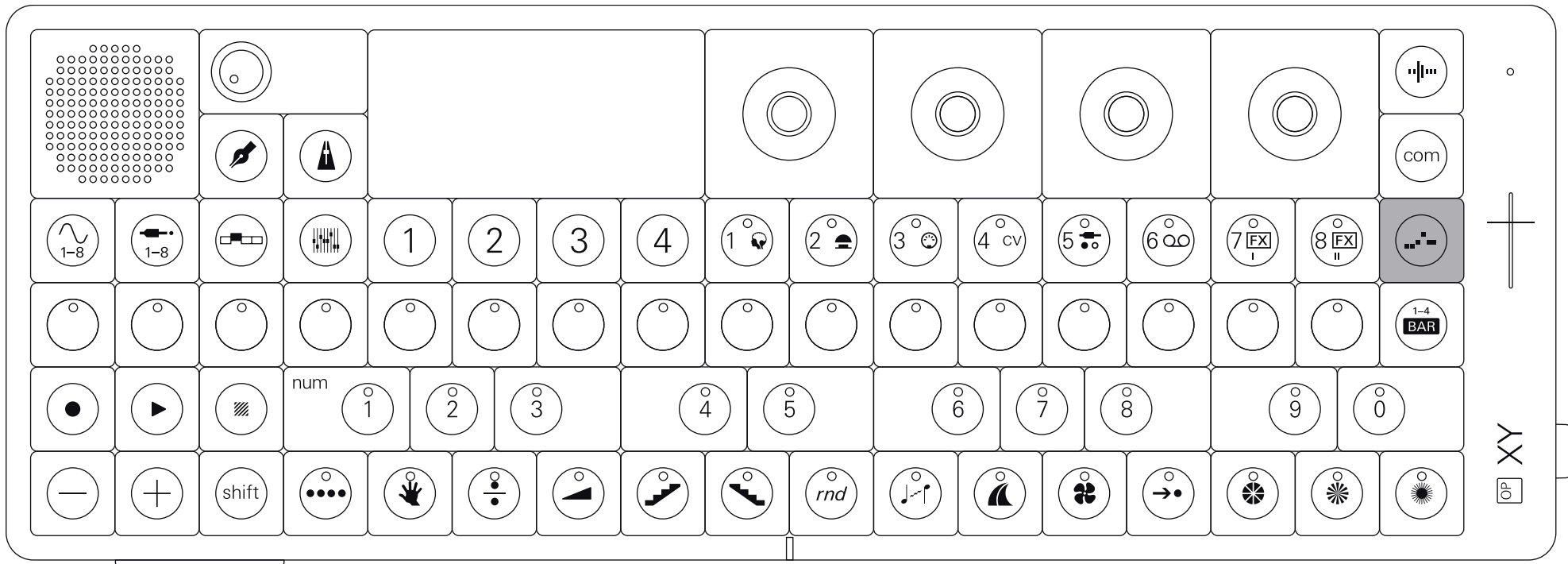
skip step component allows you to play only one out of every defined number of repetitions. use the accidentals to select the number of repetitions.



skip trigger

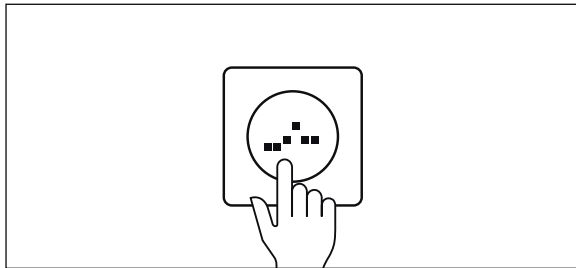
skip trigger allows you to play only one in every defined number of repetitions. this is perfect for adding variations to your sequence every few repetitions.

9. players

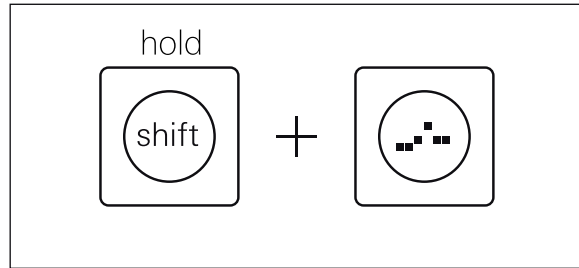


on each track, a player can be added.
players create player-style variations on existing
sequences such as arpeggios and chords triggers.

add a player to a track



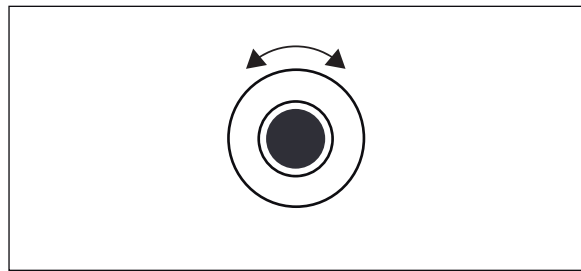
in any instrument or
auxiliary track press player
to open the player, then
press it again to enable it.



hold shift and press player
to change the player style.

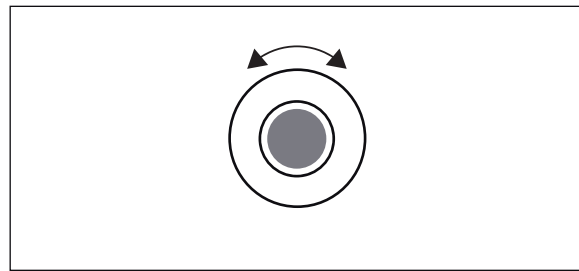
9.1 arpeggio

speed



rotate the dark gray knob to adjust the speed of the arpeggio.

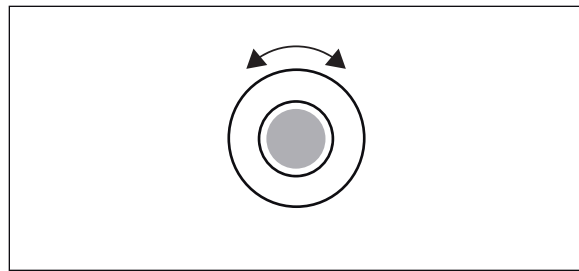
pattern



rotate the mid gray knob to adjust the pattern style.

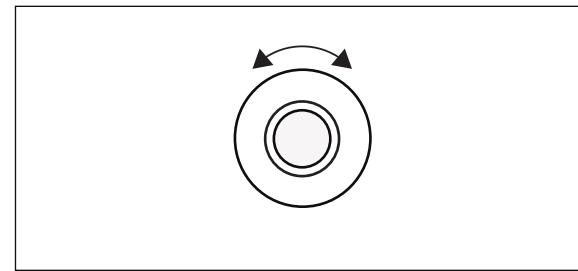
patterns include:
up
down
up/down
up/repeat/down
random
play order

range



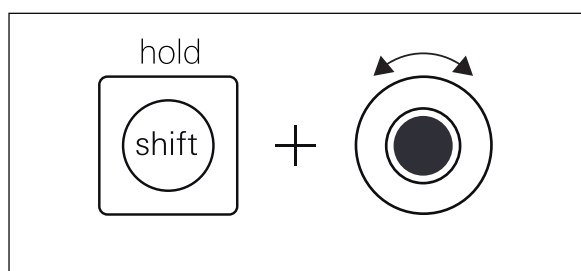
rotate the light gray knob to change the range of the arpeggio. this allows you to arpeggiate across multiple octaves.

hold



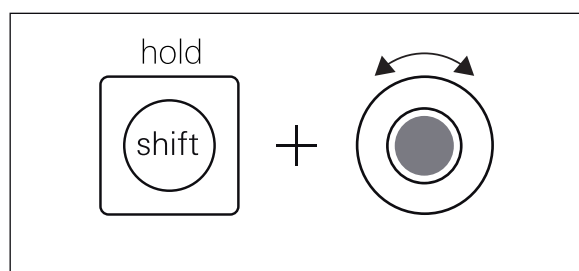
rotate the white knob to enable and disable hold, this will hold the arpeggio without you having to keep the notes held.

note length



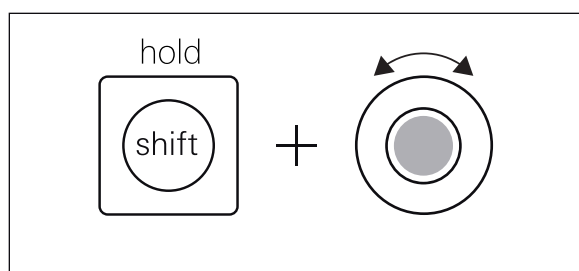
hold shift and rotate the dark gray knob to adjust the note length.

style



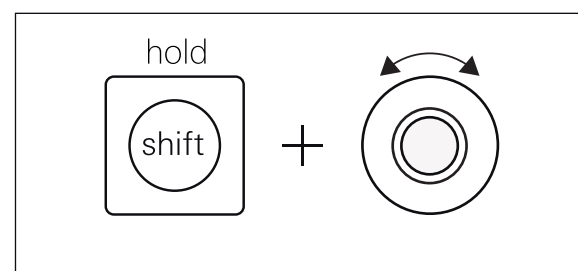
hold shift and rotate the mid gray knob to change the arpeggio style, this will change the order in which the notes are played back.

glide



hold shift and rotate the light gray knob to adjust the glide between notes.

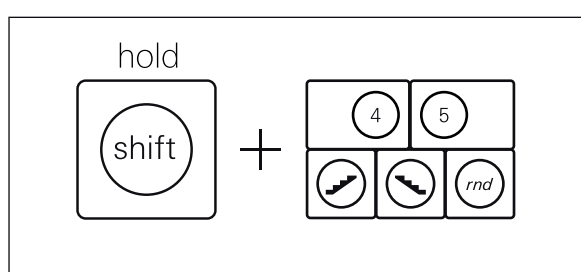
stereo



hold shift and rotate the white knob to adjust the stereo amount, this will pan each note by a specified amount.

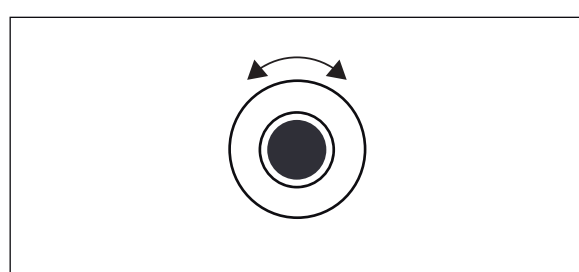
9.2 maestro

record notes



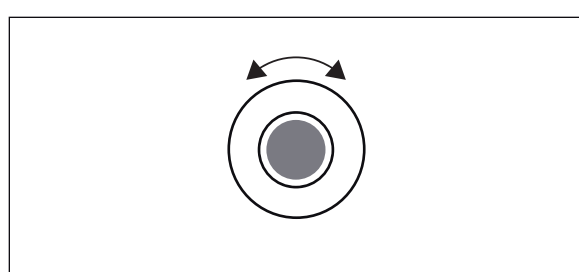
hold shift and play notes on the musical keyboard to record them to maestro. maestro will then play them back whenever you press a key, transposing the notes up or down. use maestro to record and play chords.

roll



rotate the dark gray knob to adjust the roll of the notes, this will strum the notes faster or slower.

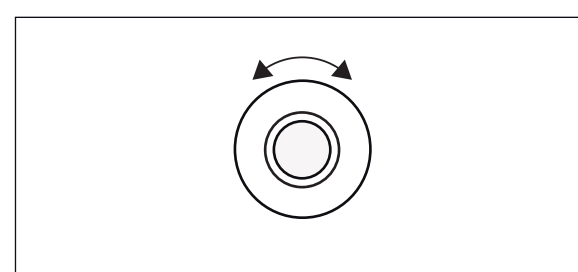
pattern



rotate the mid gray knob to adjust the pattern style.

patterns include:
up
down
up/down
random

hold

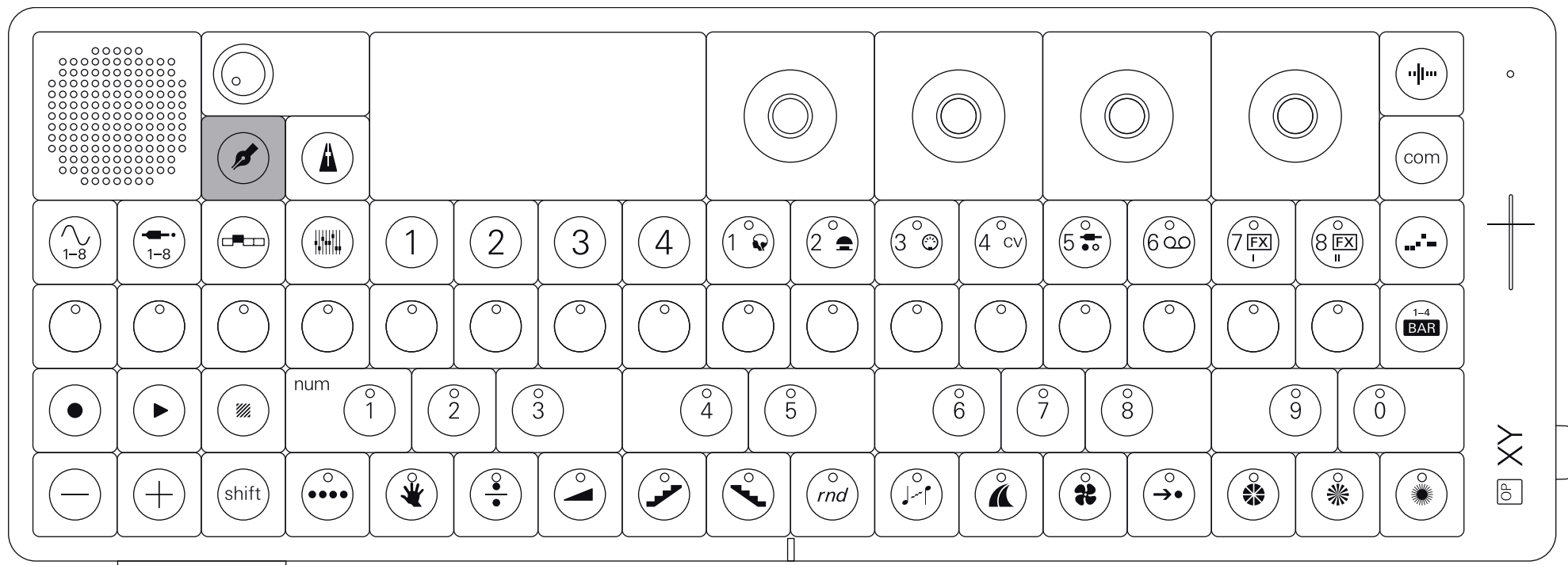


rotate the white knob to enable and disable hold, this will hold the maestro chord without you having to keep the note held.

9.3 hold

hold will hold whatever notes you play, until the next note is played. great for basses, perfect for chords. enable it and play some notes to have them hold. to turn off all notes, either press stop or disable it by pressing the player button.

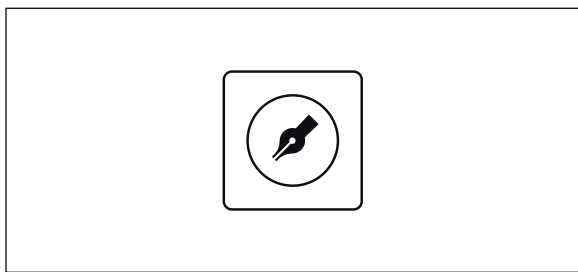
10. project



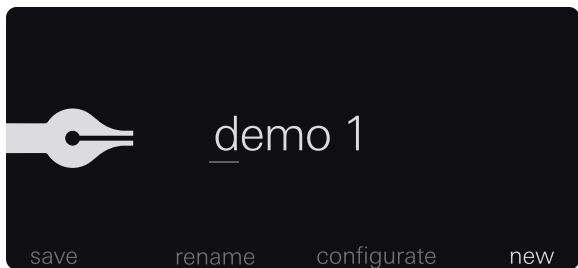
use projects to create full tracks or even just musical sketches.

OP-XY can store thousands of projects. each project has a history folder that allows you to go back in time and hear past versions of your project.

enter project view

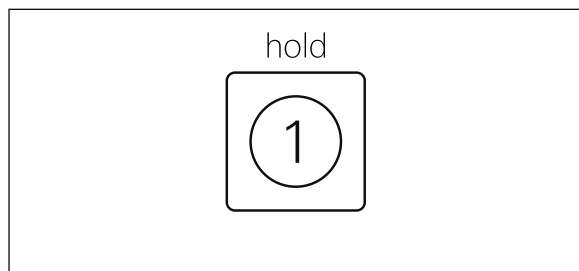


press project to enter the project view.



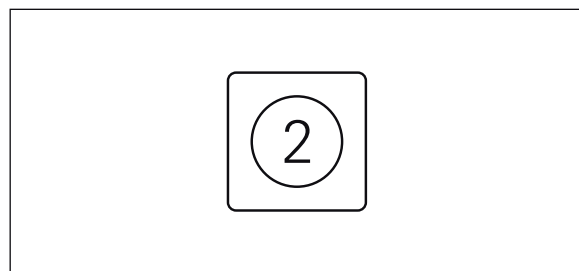
10.1 rename, save, create and configure

new



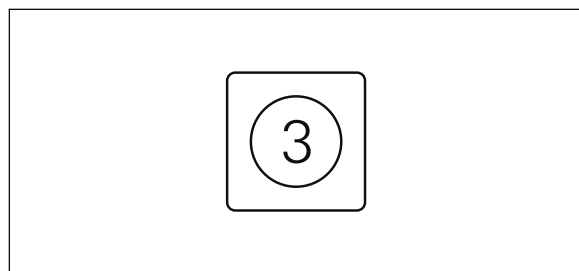
hold M1 to create a new project, this will automatically save your project, as long as you have auto save enabled in the project or system settings.

save



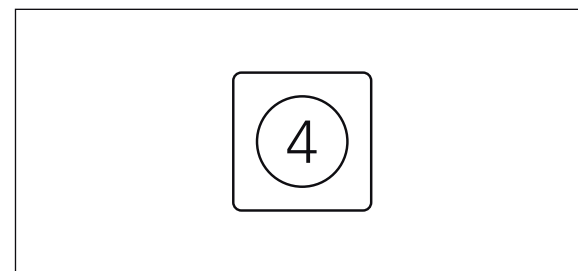
press M2 to save your project and create a version in the version folder. by default OP-XY will auto save, however you can disable this in project and [system settings](#) to only manually save instead.

rename



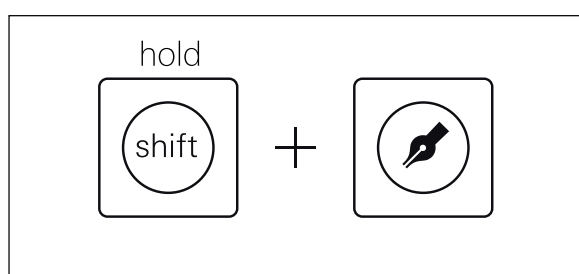
press M3 to rename your project. you can then use the dark gray encoder to select the character, mid gray to edit it and then use the module keys to confirm, navigate, cancel or delete.

configure



press M4 to configure your project's settings. these are separate from the system settings and allow you to configure everything from time signatures to midi channels.

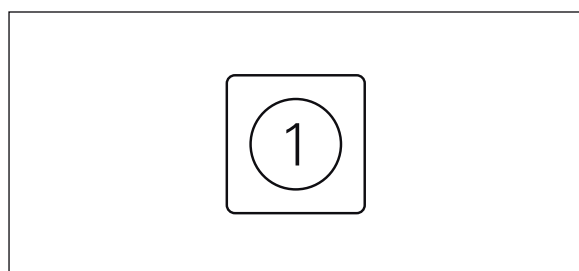
10.2 projects folder



hold shift and press project to open the projects folder.

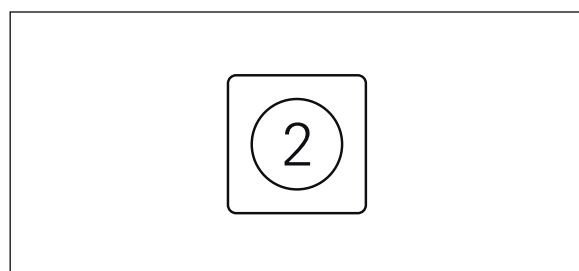


load



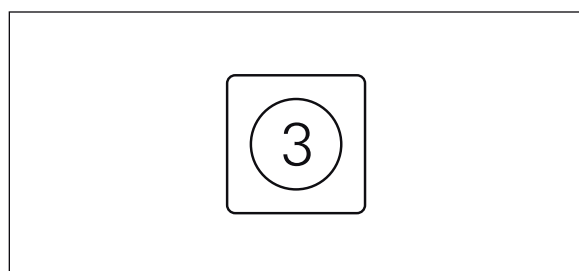
press M1 to load the selected project

history



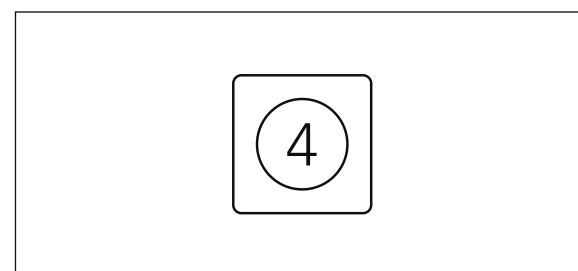
press M2 to view the history of the selected project. as you work on your project and press save, each save and auto save will be stored in the history folder so you can go back in time and hear old versions of your project.

duplicate



press M2 to duplicate your project. this will duplicate all patterns, scenes, tracks and everything else held in the project.

delete



press M4 to delete the selected project.

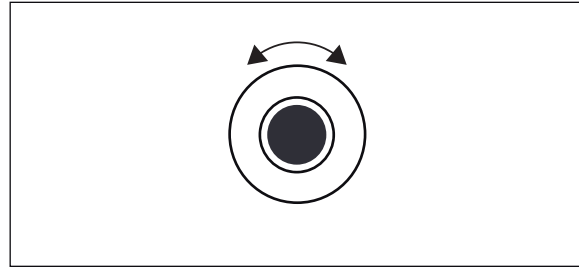
10.3 project settings

config



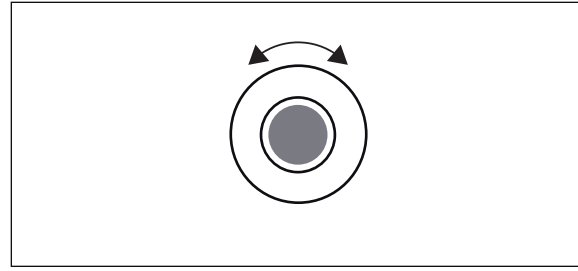
entering the config page under the project view will take you to the project settings.

type



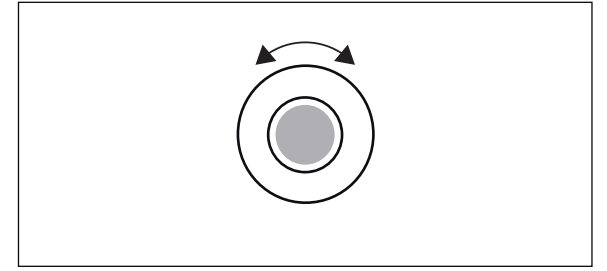
rotate the dark gray knob to select between general, tempo, voices and midi project settings.

setting



rotate the mid gray knob to choose the setting you wish to edit.

value



rotate the light gray or white knob to adjust the value on the selected setting.

general

the general settings page in project settings allows you to transpose every note in your project, including drums.

perfect for matching the key of you track on OP-XY with something else.

tempo

the tempo settings page in project settings allows you to edit the time signature between

3/4, 4/4, 5/4, 6/8, 7/8 and 12/8 as well as view and edit the groove type.

voices

the voices settings page in project settings allows you to assign voices to specific tracks.

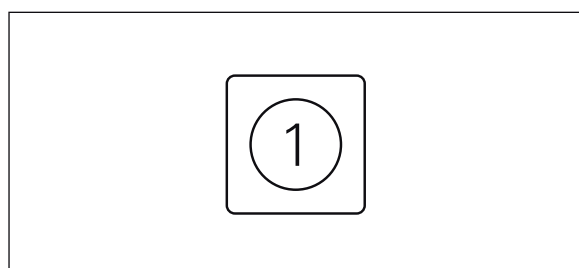
OP-XY has 24 voices of polyphony and by default automatically assigns voices but you can give tracks specific voice priority by assigning the voices on a track.

midi

the midi settings page in project settings allows you to set the midi channel on each of the 16 tracks.

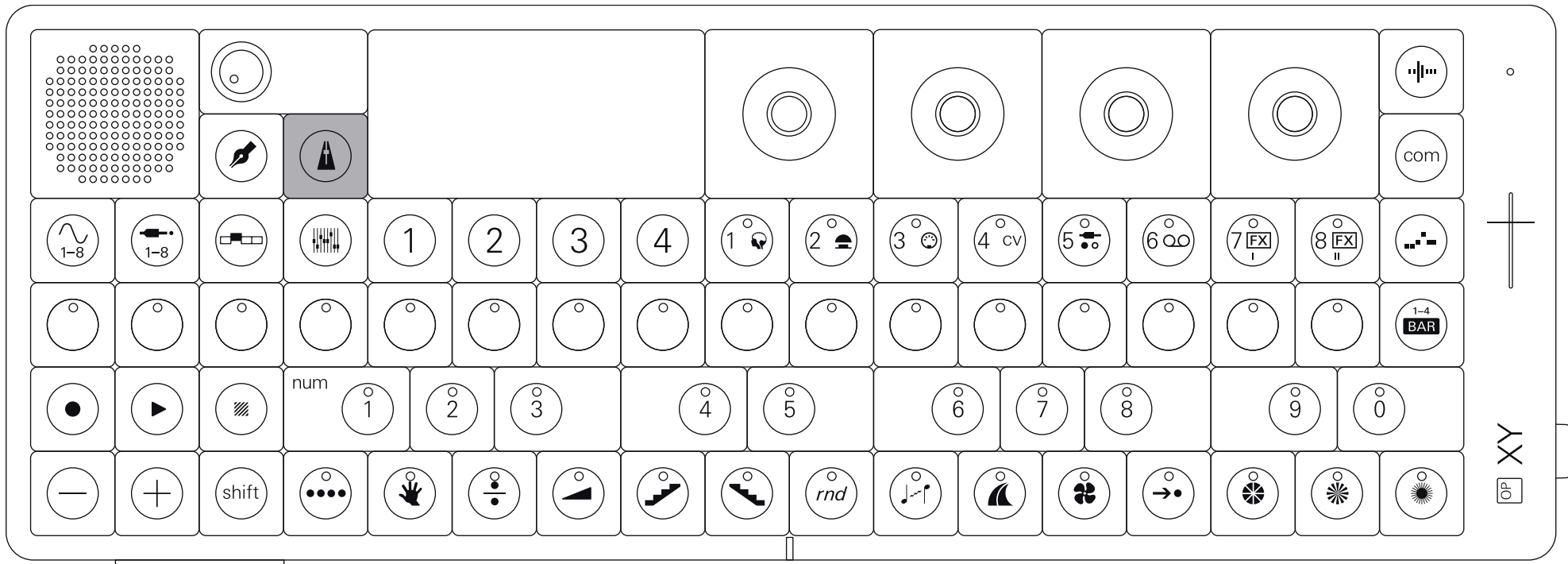
perfect for connecting external midi devices and sequencing them with OP-XY.

exit



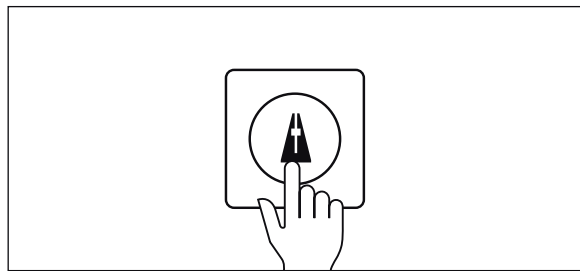
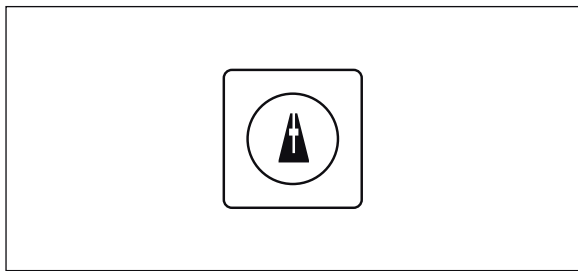
press M1 to exit project settings.

11. tempo

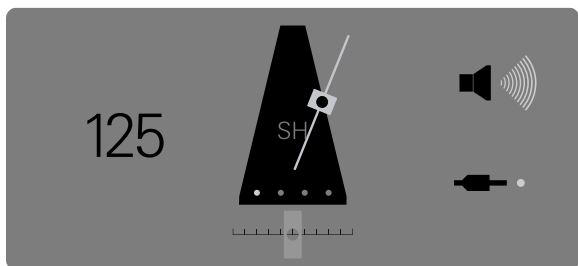


use tempo to adjust tempo, swing and metronome.

enter tempo

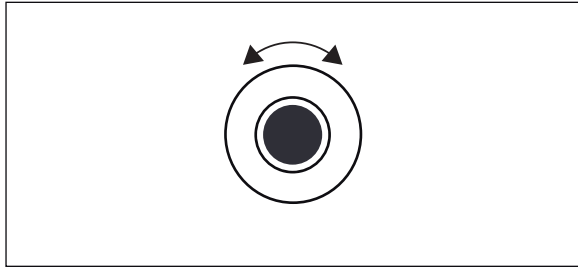


in any screen on the device, tap tempo repeatedly to tap the tempo. press tempo to view the tempo screen.



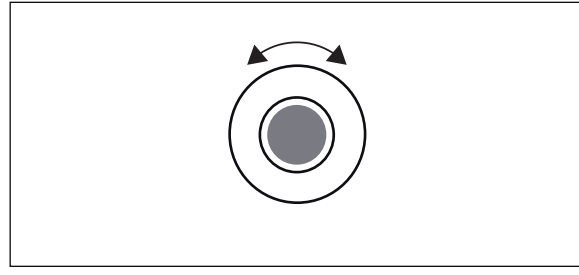
11.1 edit tempo

tempo



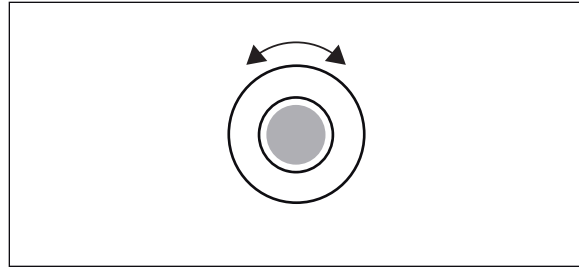
rotate the dark gray knob to adjust the tempo of your song.

groove type



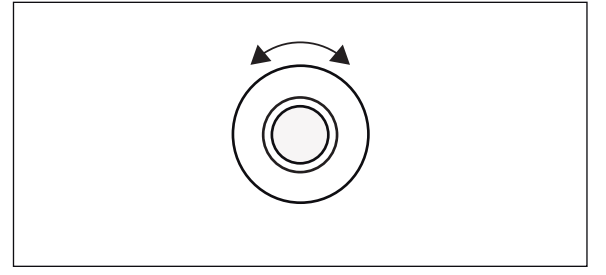
rotate the mid gray knob to adjust the groove style.

groove amount



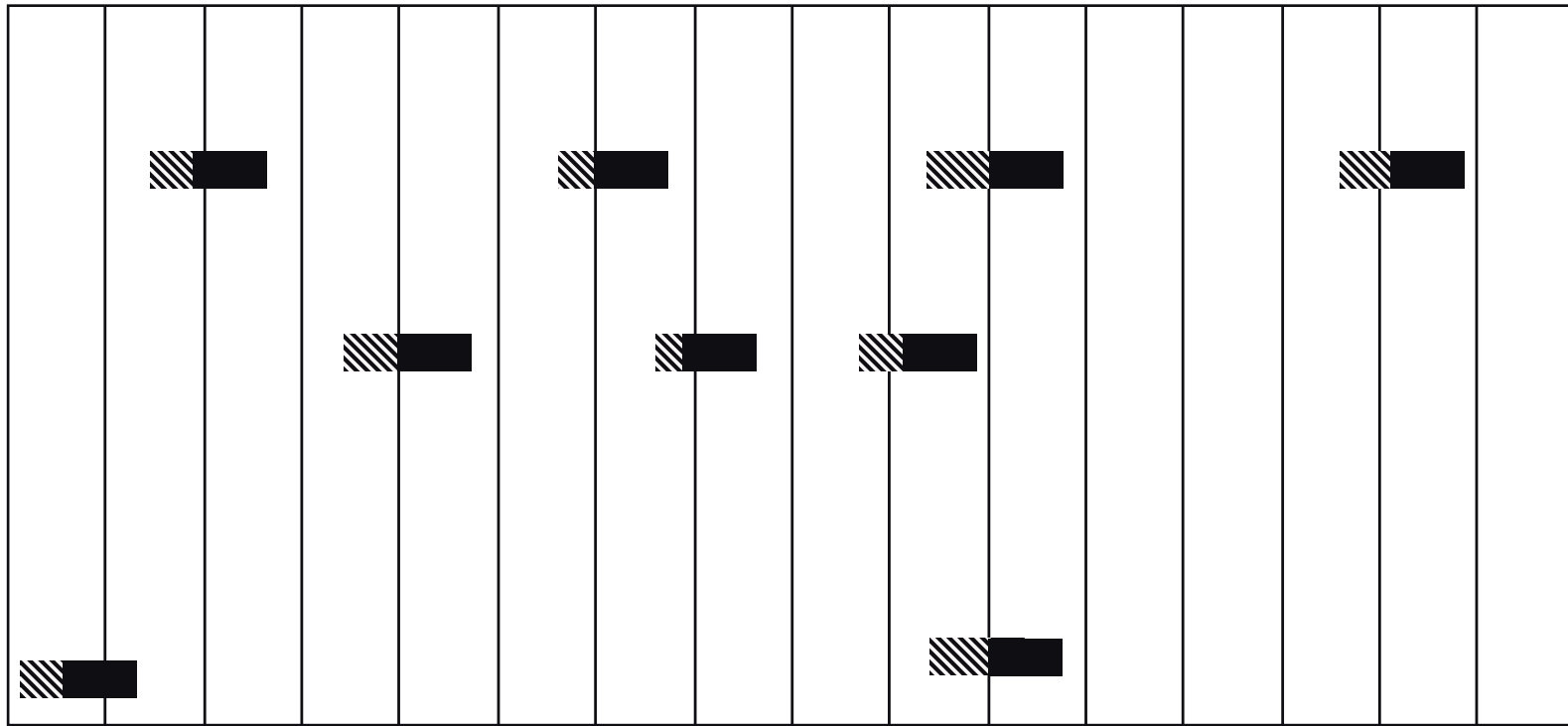
rotate the light gray knob clockwise past the center line to adjust the amount of groove.

metronome



rotate the white knob to adjust the volume of the metronome. click it to enable and disable it.

11.2 what are grooves?



grooves allow you to change feel of your sequences, adding swing and shuffle to notes. grooves change the timing of notes recorded in the sequencer, as well as the velocity of those notes.

grooves apply a slight randomisation to both the timing and velocity of notes to make the swing sound more human.

shuffle

your bread and butter groove, use shuffle to add the perfect swing to your beat.

half shuffle

a margarine equivalent of shuffle, half shuffle offers a diet friendly alternative to shuffle.

danish

chill out, have a beer, sit on the grass, let your beat get a little more danish.

bombora

let the waves flow, pushing your beat up against the sea floor, breaking up your twos and fours.

wobbly

woah, what the hell did i just press?! oh wait, thats the wobbly groove. use it mess up your beat and get far too funky.

gaussian

durch planmässiges tattonieren you can create awesome music, awesome maths too.

accents

emphasise the most important beats with accents.

island nod

careful of your neck when you use this one, you may find yourself using it excessively.

disfunk

disfunk combines disco and funk, turn it up to get funky or turn it down to get groovy.

roll over

slow things down then roll over, tuck yourself into bed and make some sweet hiphop beats.

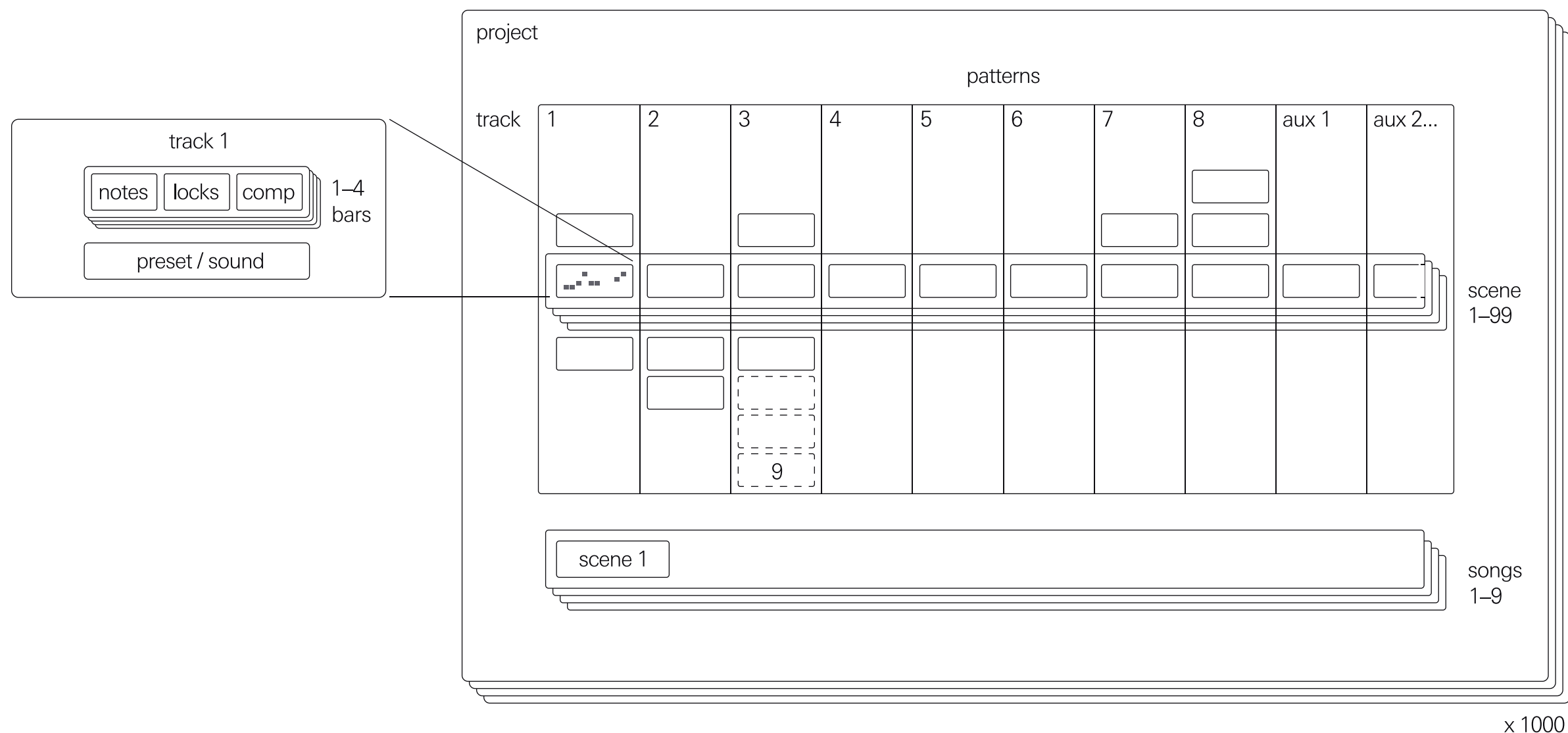
prophetic

nobody knows quite where this one came from, but it sounded cool so we kept it.

12. workflow

there are many workflows for music creation on OP–XY. this chapter will cover some best practices to get the most out of your OP–XY.

project overview



12.1 patterns, scenes, songs and projects

each track (both instrument and auxiliary) holds up to nine patterns. a pattern is an arrangement of notes or sounds.

the arrangement of patterns on every track is saved as a scene. there are 99 available scene with each scene storing the pattern on each track as well as the track volumes and mutes.

scenes can then be composed into songs. songs are arrangements of scenes. OP–XY can store 9 songs. scenes are as long as their longest pattern.

projects are where you create patterns, scenes and songs. projects can be quick musical ideas or full songs. OP–XY can store thousands of projects.

12.2 creating a song

to create a song, start by sequencing the various tracks.

use arrange to create new patterns or copy and modify existing patterns.

switch between the scenes and compose patterns into the sections of your song.

once you have a few scenes you are happy with, you can start to arrange these into a song. open the song mode and sequence the scenes into a full song.

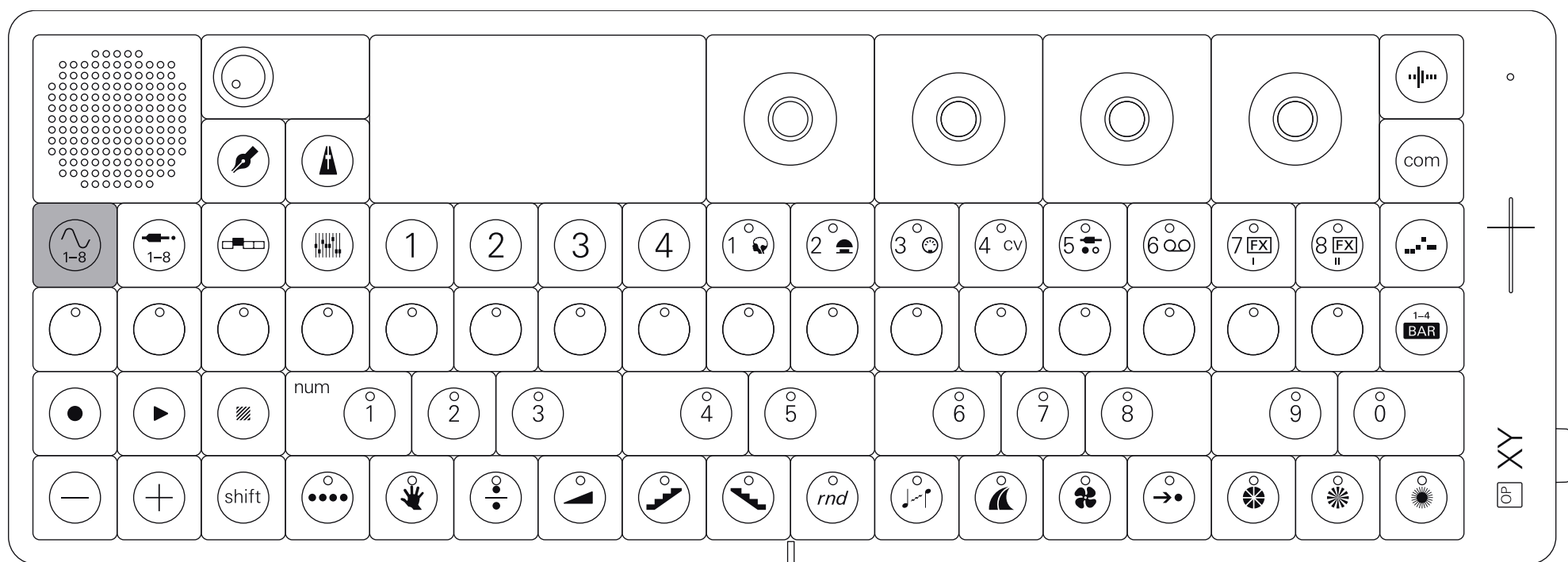
12.3 the importance of saving

as OP–XY does not autosave, it is important that once you are happy with your project that you press the save button.

in case you forget to save, OP–XY has a special backup folder within the projects folder. use it only when absolutely necessary.

saving regularly is not only good practice but also allows you to “turn back time” and listen to older versions of your project within the history folder.

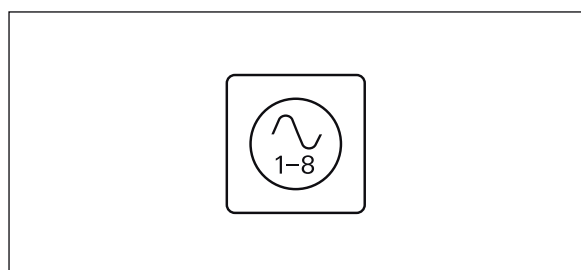
14. instrument



instrument mode holds 8 instrument tracks. an instrument can either be a sampler or a built-in synth engine, each with its own characteristics.

select a track by pressing the 1-8 keys, to change the instrument assigned to a track, press shift and M1. to select a sample pack or synth engine or to change the preset on that track, hold shift and press the track button you wish to replace.

enter instrument mode

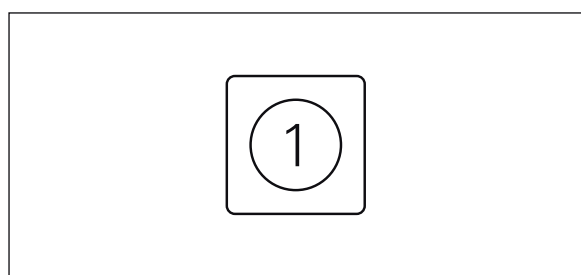


press instrument to open instrument mode.

14.1 engine

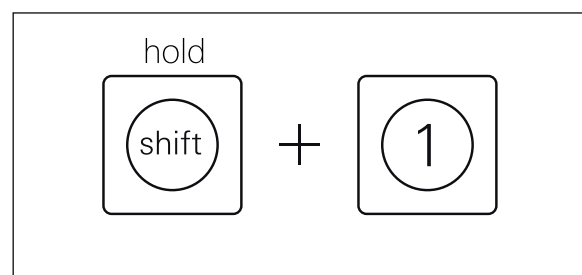
the engine is where sound is generated, the source of audio, noise or any musical tones.

engine



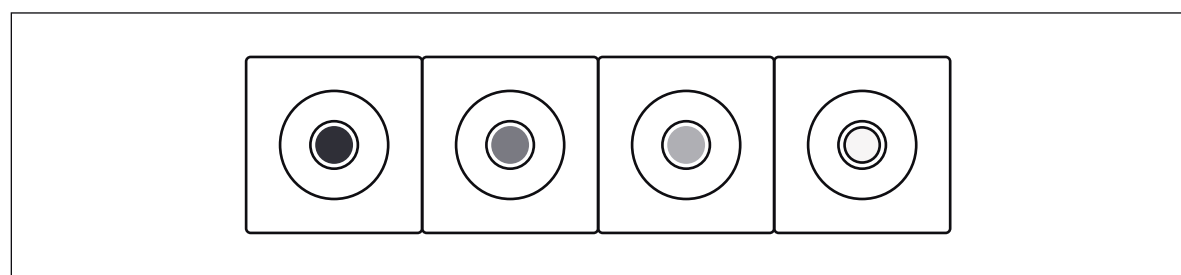
M1 is where you will find the synth, drum or sampler.

change engine



hold shift and press M1 to select the engine on the current track

edit



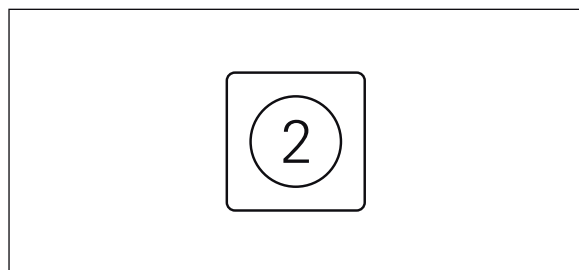
when in M1, the encoders will control the various synth engine, sampler or drum parameters

a full list of what the parameters control can be found in the [engine chapter](#).

14.2 envelopes

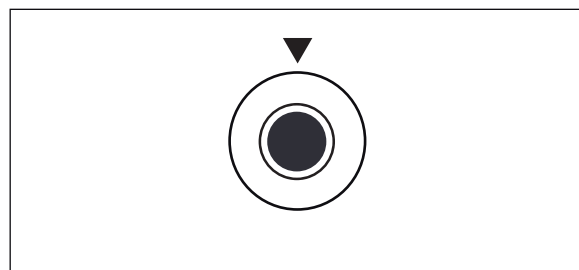
the envelopes allow you to shape your sound, how it fades in, sustains and fades out.

envelopes



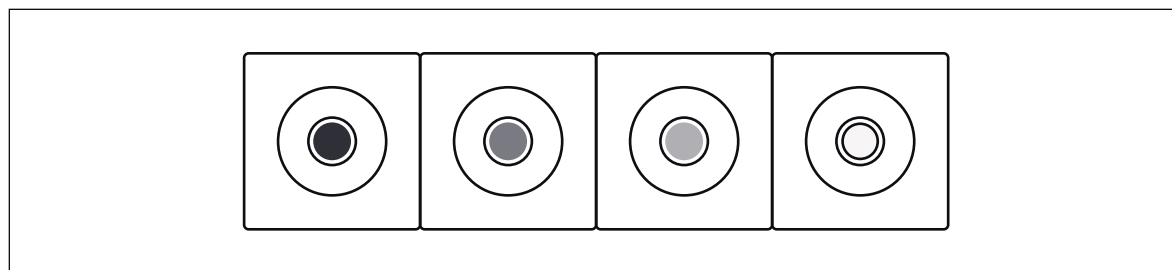
M2 holds the envelopes. OP-XY features two envelopes per track, one amplitude envelope and one filter envelope.

switch envelopes



click on an encoder to switch between amplitude and filter envelopes. this applies to both drum and synth type tracks.

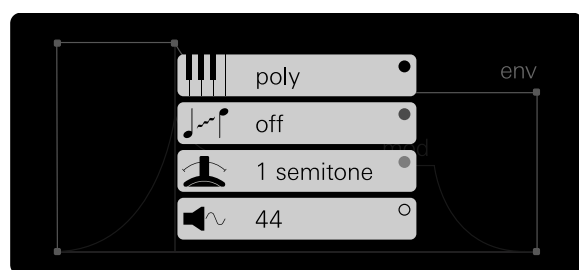
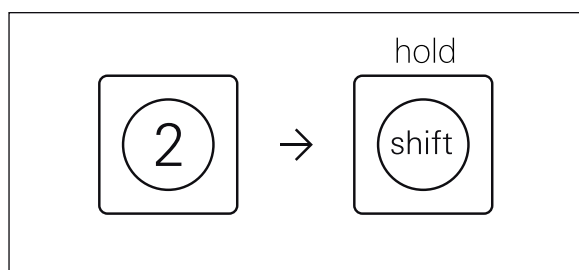
edit envelopes



while in the envelopes page, rotate the encoders to adjust the following:

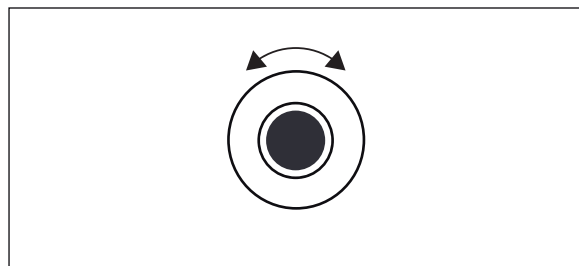
- dark gray - attack
- mid gray - decay
- light gray - sustain
- white - release

play mode



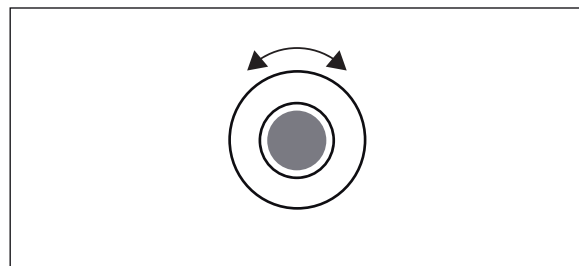
hold shift while in M2 to modify the play mode.

play mode



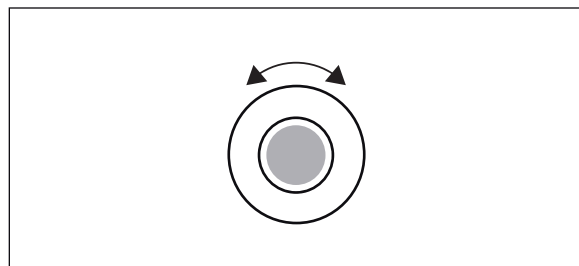
rotate the dark gray knob to select between poly, mono, legato and unison. this changes both how the notes play and how many you can play at the same time.

portamento



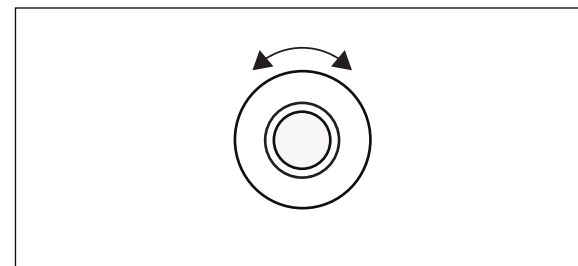
rotate the mid gray knob to adjust portamento amount, this is the time it takes to glide between notes.

bend range



rotate the light grey knob to adjust the bend range, this is the pitch range of the pitch bend.

preset volume

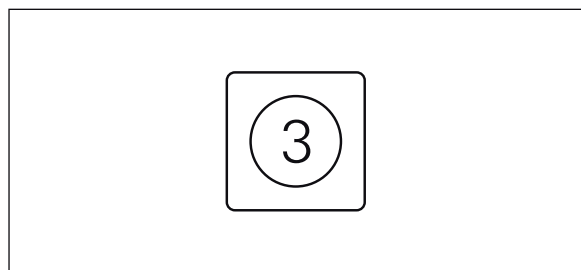


rotate the white knob to adjust the preset volume, this is separate from the track volume and allows you to ensure your presets have a consistent volume.

14.3 filter

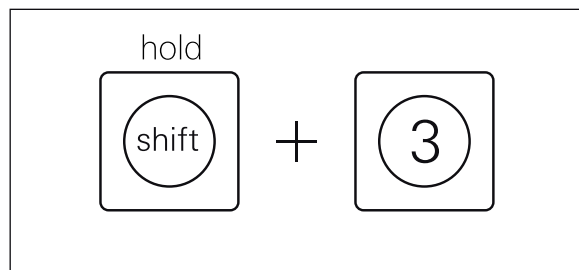
the filter allows you to remove frequencies and make others more pronounced.

filter



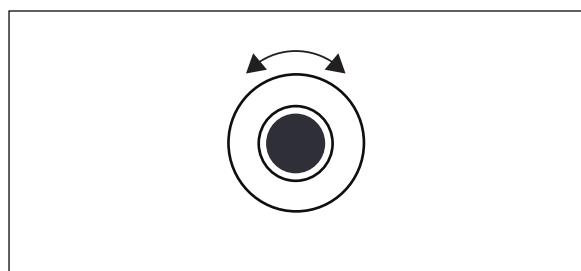
M3 is where you can find the filter. OP-XY features a range of different filters to choose from which will each impart a unique sound on your instrument.

change filter



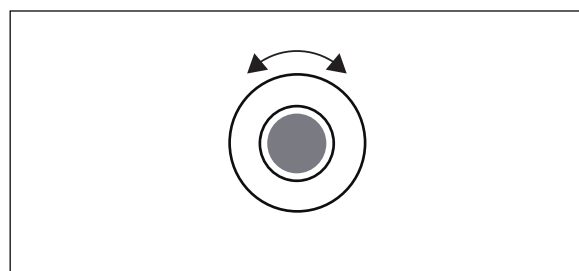
holding shift and pressing M3 will allow you to change the filter type. OP-XY features several filters, each with their own character.

cutoff



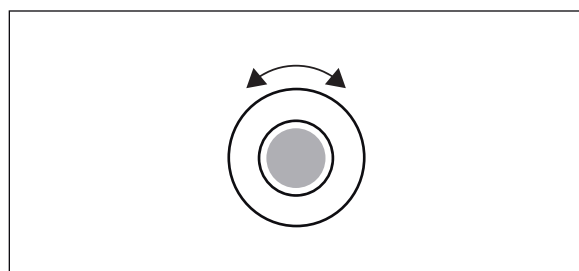
rotating the dark gray knob will adjust the filter cutoff. this is the frequency before or after which the filter will take effect.

resonance



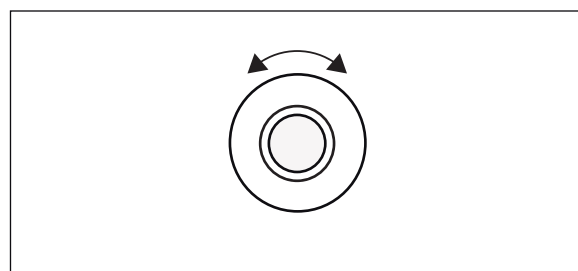
rotating the mid gray knob will adjust the resonance, this is a volume boost at the cutoff frequency and can be used to accentuate the effect of the filter.

envelope amount



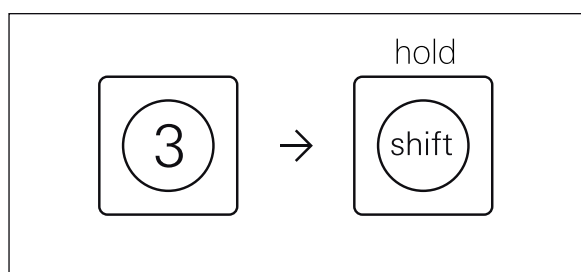
rotating the light gray knob will adjust the envelope amount, this is how much the filter envelope on M2 will move the filter.

key tracking

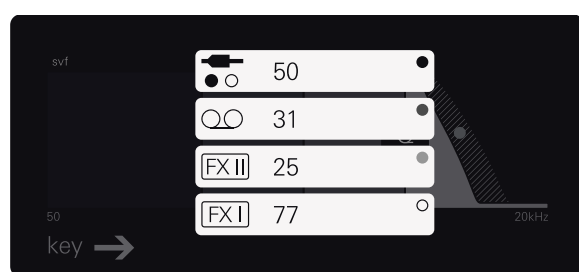


rotating the white knob will adjust the key tracking on the filter, opening or closing the filter depending on the pitch of the note played.

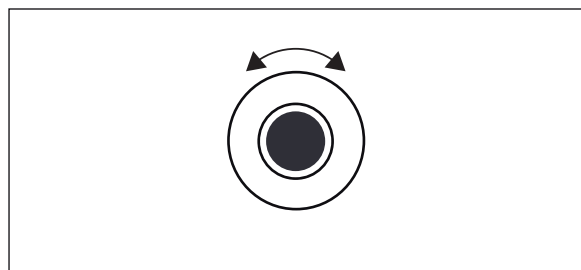
track send



hold shift while in M3 to modify the play mode.

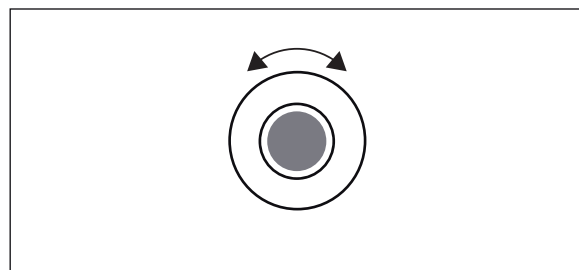


aux out



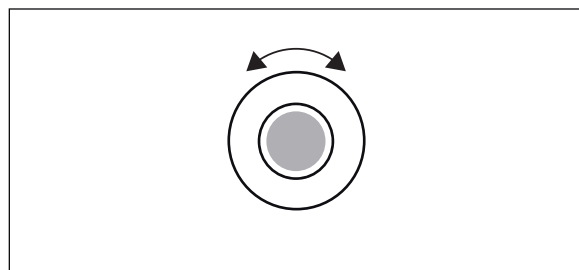
rotate the dark gray knob increase the aux out send.

tape



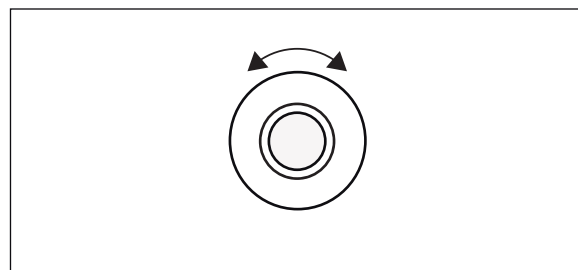
rotate the mid gray knob to increase the tape send.

fx i



rotate the light gray knob to increase the fx i send.

fx ii

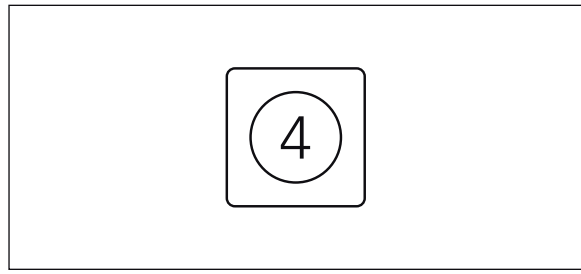


rotate the white knob to increase the fx ii send.

14.4 lfo

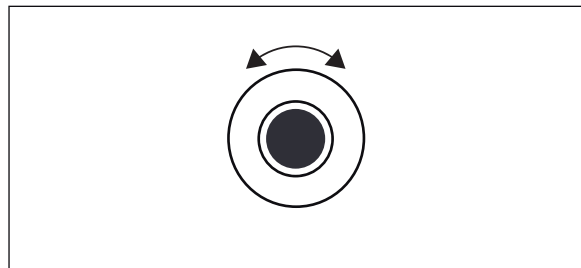
lfos allow you to make more complex sounds through the process of modulation.

lfo



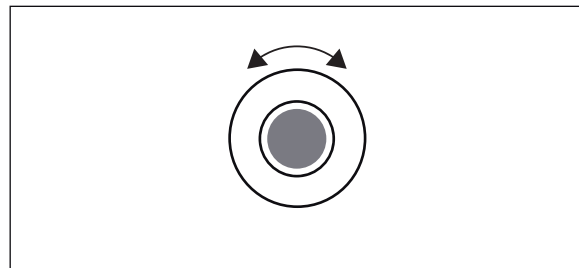
M4 holds the lfo. lfos allow you to add hands-free modulation to your tracks. you can choose from several lfos which will each impart a different effect on the desired track.

source/rate



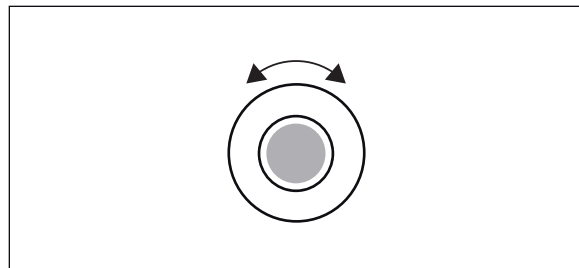
rotating the dark gray knob will adjust the source or rate of the lfo. clicking it in some lfos will adjust the shape.

amount



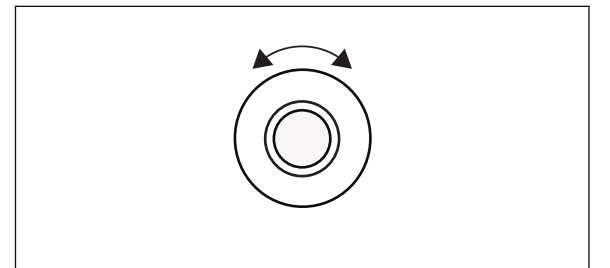
rotating the mid gray knob will adjust the amount that the lfo affects the destination parameter.

destination



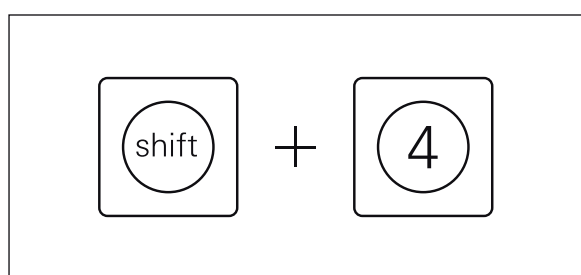
rotating the light gray knob will select the destination on the track, this is the module that you wish to assign the lfo to.

parameter



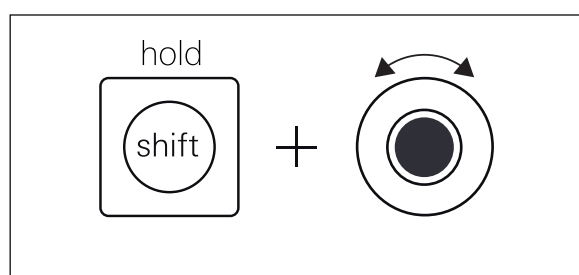
rotating or pressing down the white knob will select the parameter you wish to modulate, this is the encoder on the destination module that you wish to modulate.

change lfo



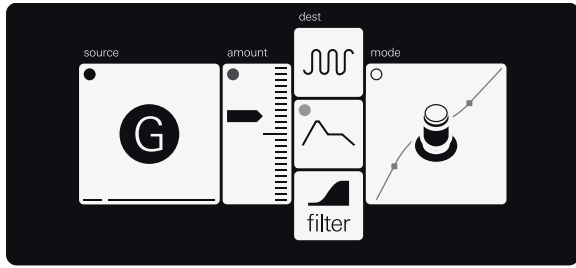
press shift and M4 in combination to change the lfo type. there are four lfo types available on OP-XY: element, random, tremolo and value.

sub functions



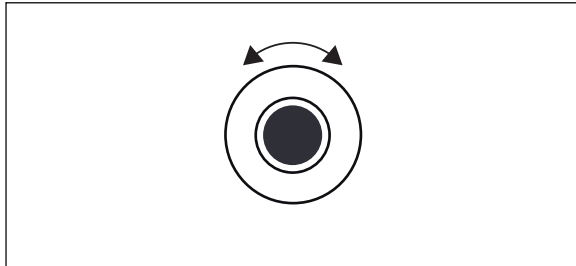
some lfos feature sub functions—you can edit these by clicking the encoders or alternatively holding shift and rotating the encoders.

element



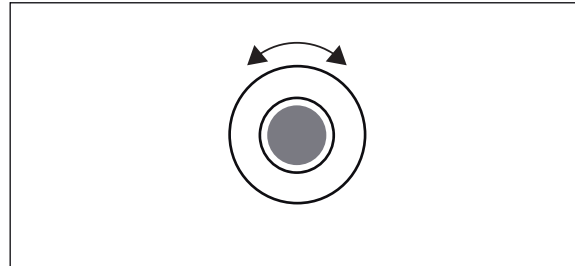
element uses the built-in gyroscope and microphone, as well as the envelope and a combination of all three to use as a modulation source.

source



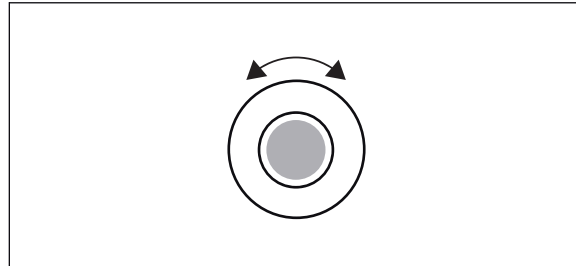
rotating the dark gray knob will adjust the source of the element lfo. available sources are:
gyroscope
built-in microphone
amp envelope
sum (all of those combined)

amount



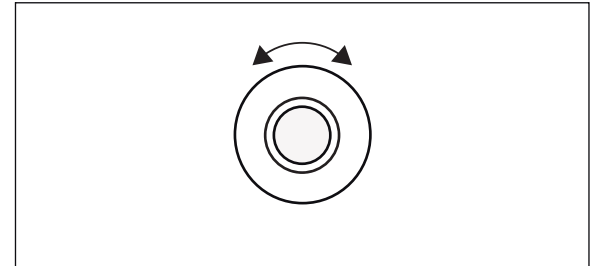
rotating the mid gray knob will adjust the amount that the lfo affects the destination parameter.

destination



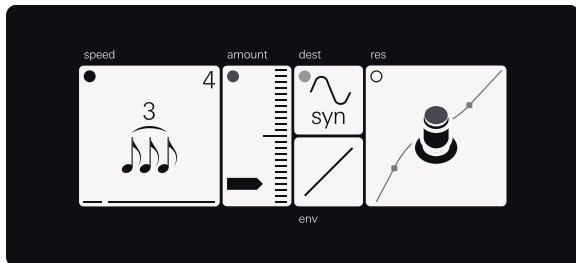
rotating the light gray knob will select the destination on the track, this is the module that you wish to assign the lfo to.

parameter



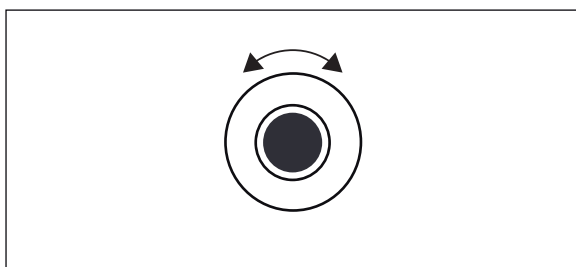
rotating or pressing down the white knob will select the parameter you wish to modulate, this is the encoder on the destination module that you wish to modulate.

random



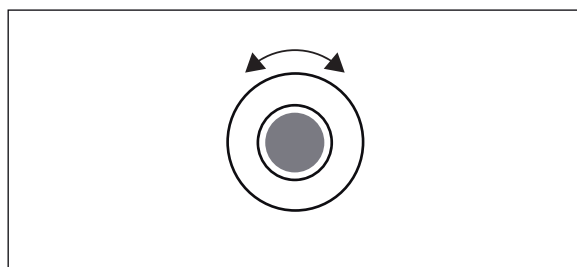
random uses a random value generator as a modulation source.

speed



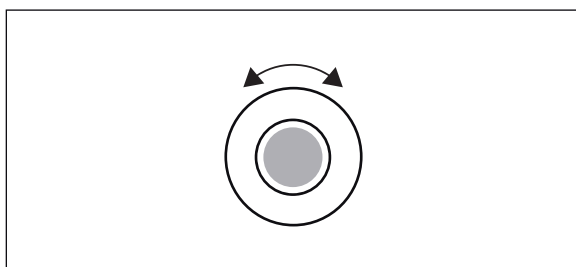
rotating the dark gray knob will adjust the speed of the random lfo. turning it anti-clockwise will allow you to tempo sync the speed and rotating it clockwise until the dial is shown will allow a continuous speed change.

amount



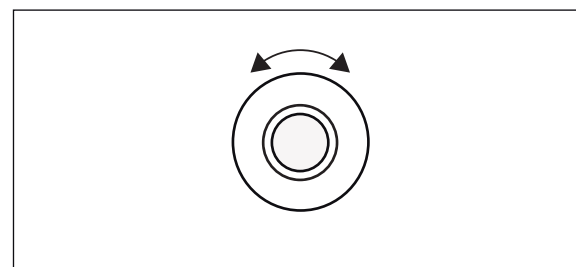
rotating the mid gray knob will adjust the amount that the lfo affects the destination parameter.

destination



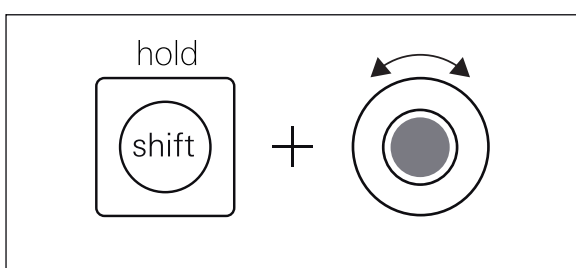
rotating the light gray knob will select the destination on the track, this is the module that you wish to assign the lfo to. each module has a regular and 'free' destination, when set to the free destination, the value does not reset when a key is pressed, instead continuously modulating the parameter.

parameter



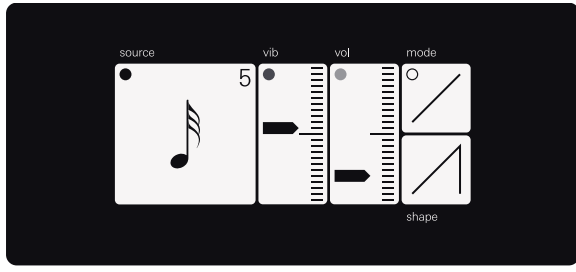
rotating or pressing down the white knob will select the parameter you wish to modulate, this is the encoder on the destination module that you wish to modulate.

envelope



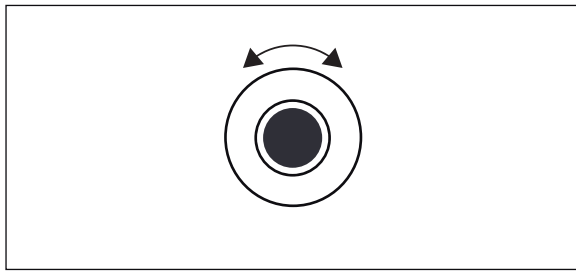
holding shift while rotating the mid gray knob will adjust the envelope of the random lfo, allowing you to slowly fade the modulation in or out.

tremolo



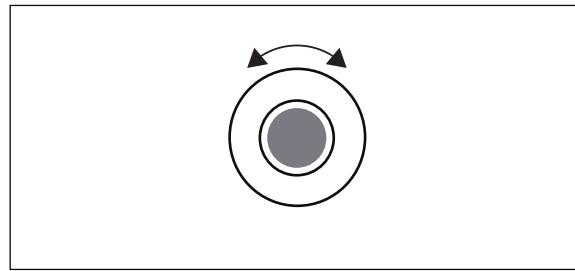
tremolo is great for adding subtle or dramatic variations to the volume and pitch of a track.

speed



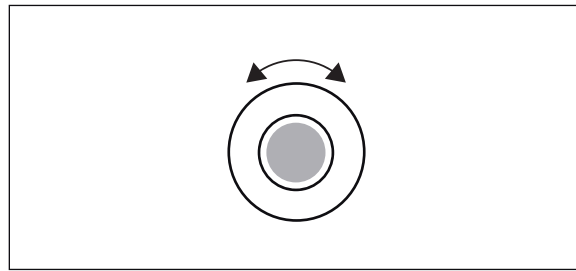
rotating the dark gray knob will adjust the speed of the tremolo lfo. turning it anti-clockwise will allow you to tempo sync the speed and rotating it clockwise until the dial is shown will allow a continuous speed change.

amount



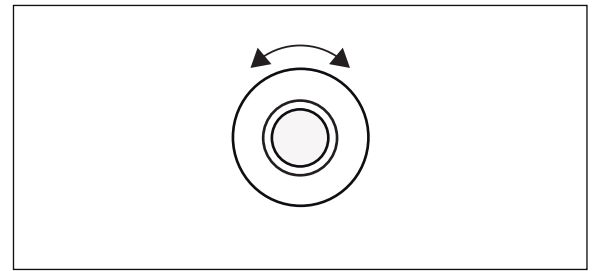
rotating the mid gray knob will adjust the amount that the lfo affects the vibrato. this modulates the pitch of the sound.

destination



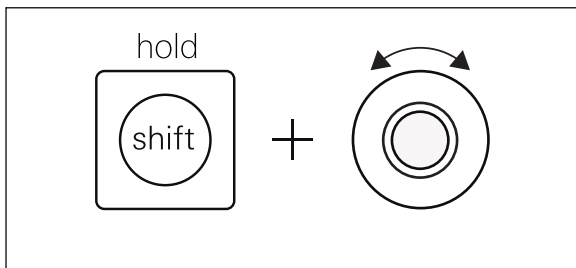
rotating the light gray knob will adjust the amount that the lfo affects the volume. this modulates the volume of the sound, creating a tremolo effect.

envelope



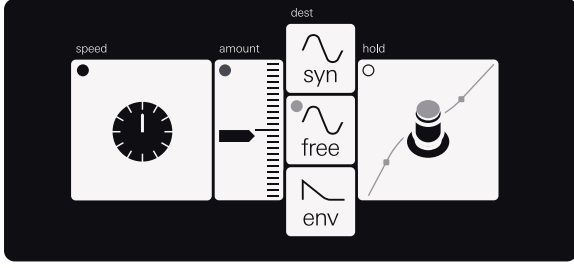
rotating the white knob will adjust the envelope of the tremolo lfo, allowing you to slowly fade the modulation in or out.

shape



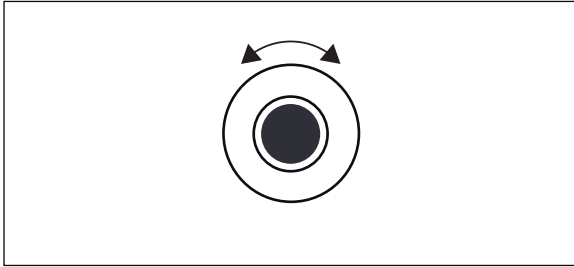
holding shift while rotating the white knob or pressing it down will change the shape of the tremolo.

value



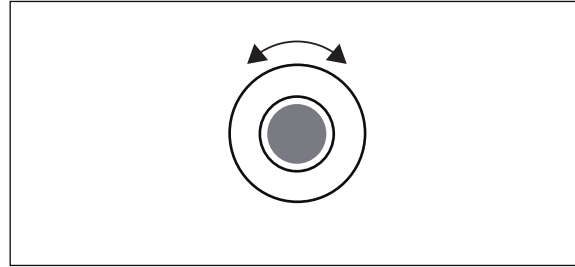
value uses a continuous or triggered low frequency oscillator to modulate a chosen parameter.

speed



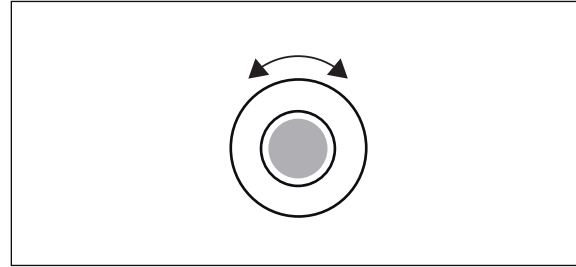
rotating the dark gray knob will adjust the speed of the value lfo. turning it anti-clockwise will allow you to tempo sync the speed and rotating it clockwise until the dial is shown will allow a continuous speed change.

amount



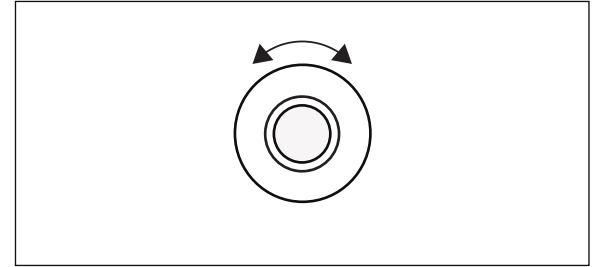
rotating the mid gray knob will adjust the amount that the lfo affects the destination parameter.

destination



rotating the light gray knob will select the destination on the track, this is the module that you wish to assign the lfo to. each module has a regular and 'free' destination, when set to the free destination, the value does not reset when a key is pressed, instead continuously modulating the parameter.

parameter

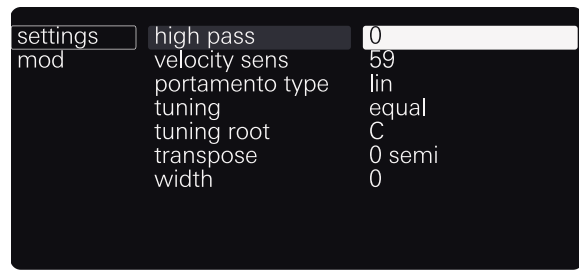
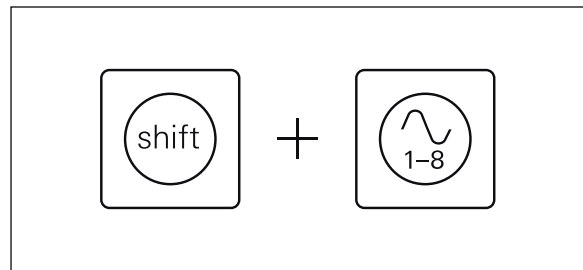


rotating or pressing down the white knob will select the parameter you wish to modulate, this is the encoder on the destination module that you wish to modulate.

14.5 preset settings

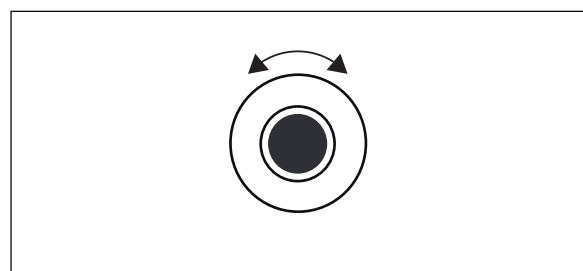
preset settings allow you to adjust everything from tuning to modulation targets. use the color coded encoders to adjust the various settings.

once you are happy with your settings press any of the module buttons (M1-M4) or the instrument button to return to the the instrument pages.



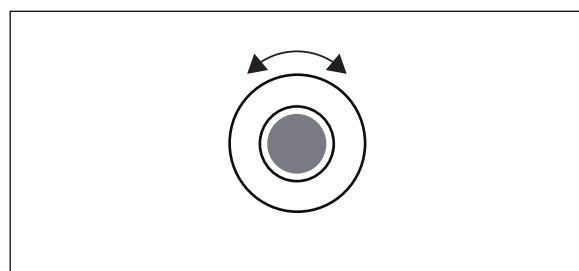
press shift and instrument to enter the preset settings.

settings/mod



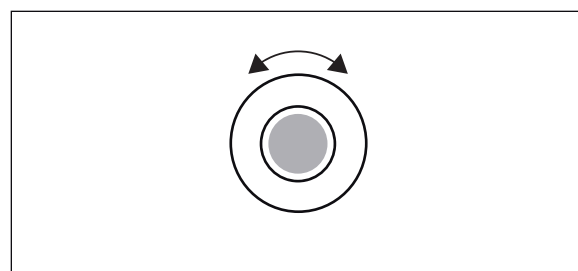
rotate the dark gray knob to select between settings and modulation.

setting



rotate the mid gray knob to select the setting you wish to edit

value



rotate the light gray or white knob to edit the value on the selected setting.

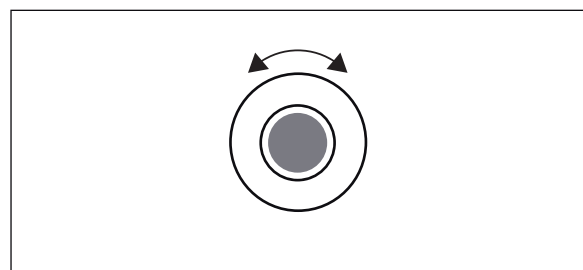
settings

the settings tab holds settings for tuning, allowing for microtonal adjustments and transposition, you can create up to 11 user tunings, where you can set the pitch of each note. here you can also add a basic high pass to the track for filtering out low frequencies, control velocity sensitivity, adjust the style of portamento and increase the width of your preset, spreading the sound.

mod

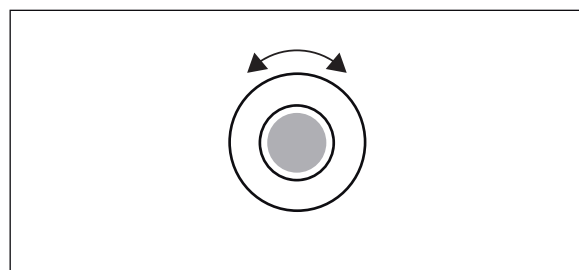
in the mod settings you can change the routing of the modwheel, aftertouch, pitchbend and velocity to control various synth parameters.

tuning



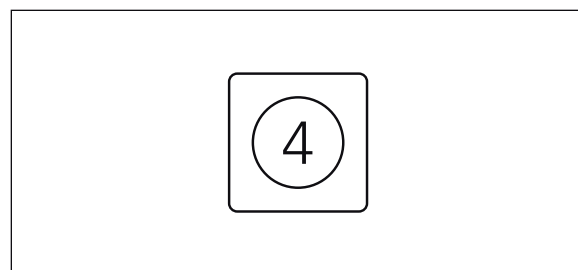
to create your own tuning, open the preset settings then go to settings, then tuning.

select tuning



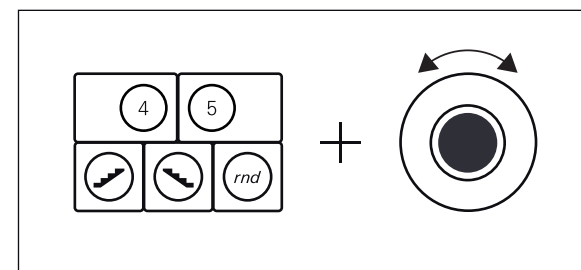
use the light gray knob to select one of the user tuning slots.

edit



press M4 to edit the user tuning slot.

set notes

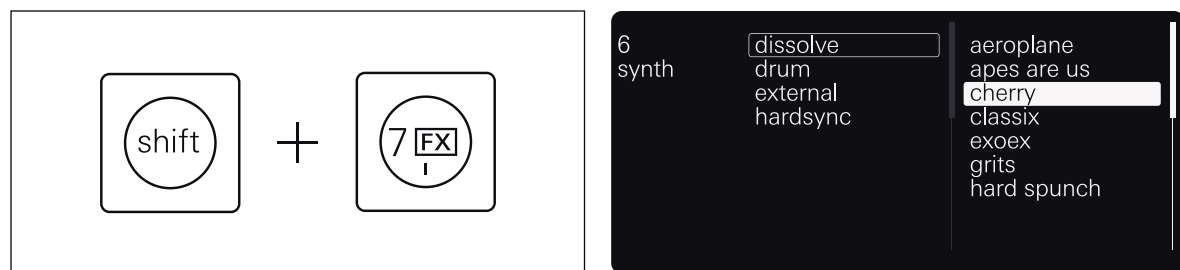


select the note you wish to edit by playing it on the musical keyboard and then rotate the dark gray knob to adjust the tuning in cents and the mid gray knob to adjust the tuning in micro-cents.

14.6 view and create presets

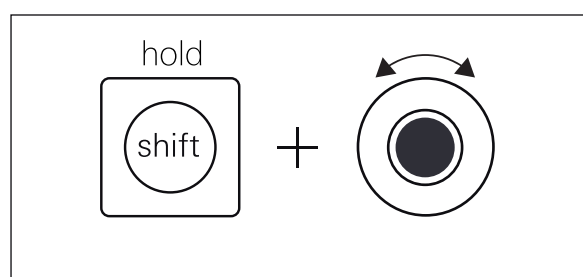
OP-XY comes with presets for every engine and category of sound. these allow you to quickly get up and running with the sound you want.

you can of course create your own presets to lend the device a unique and personal sound.



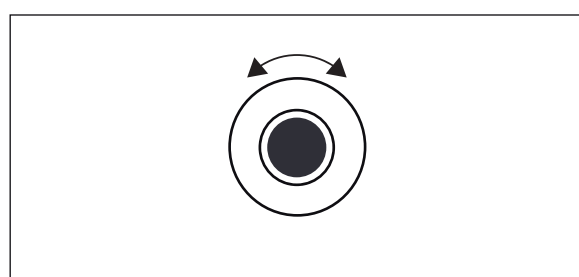
press shift and any track button while in instrument mode to view and change the preset on that track.

category/engine



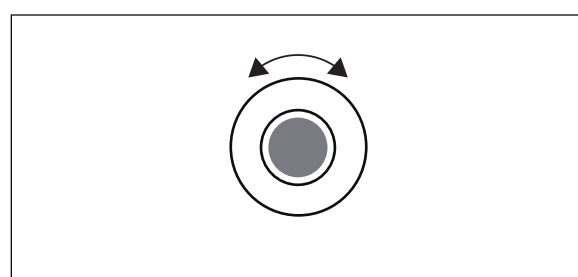
hold shift and rotate the dark gray knob to switch between category view and engine view.

type



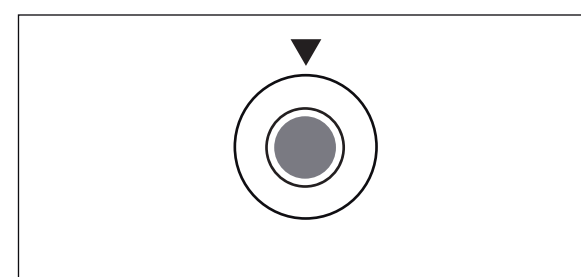
rotate the dark gray knob to select the category or engine you wish to choose from.

preset



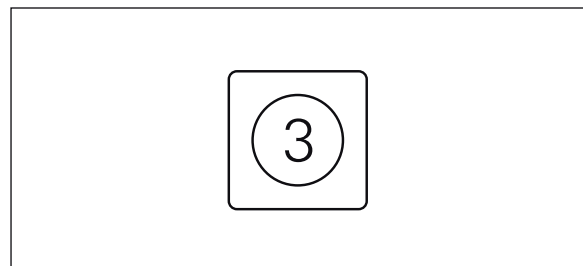
rotate the mid gray, light grey or white knob to select the preset within that category.

select



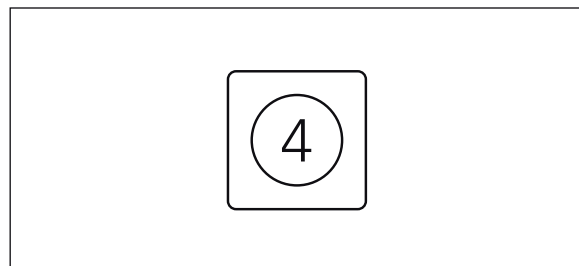
click any encoder to select the preset.

rename preset



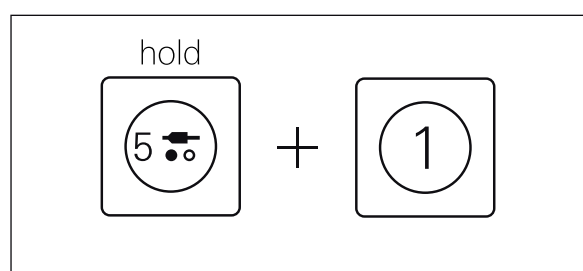
select a user preset and press M3 to rename it. use the dark grey knob to select a character and the other knobs to edit it. confirm with M1, next character with M2, cancel with M3 and delete with M4.

delete preset



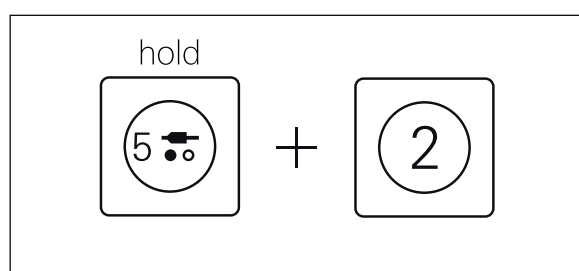
select a user preset and press M4 to delete it.

scramble



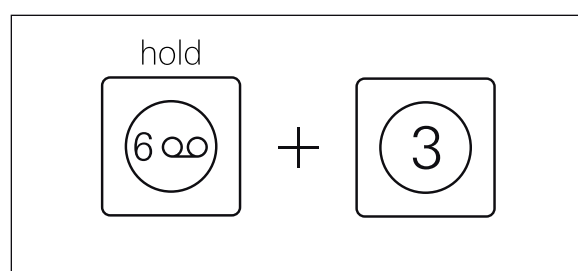
if you want to mess up a sound, or flick through some random sounds then hold a track button and press M1 to scramble that track.

copy preset



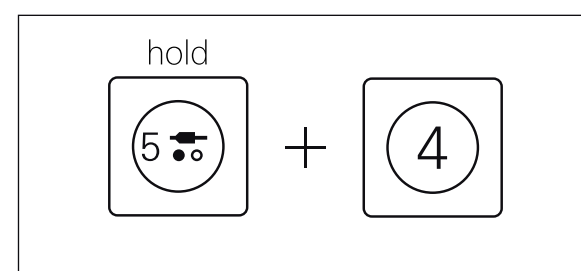
to copy a sound from one track to another, hold the track button you wish to copy, then press M2 to copy it.

paste preset



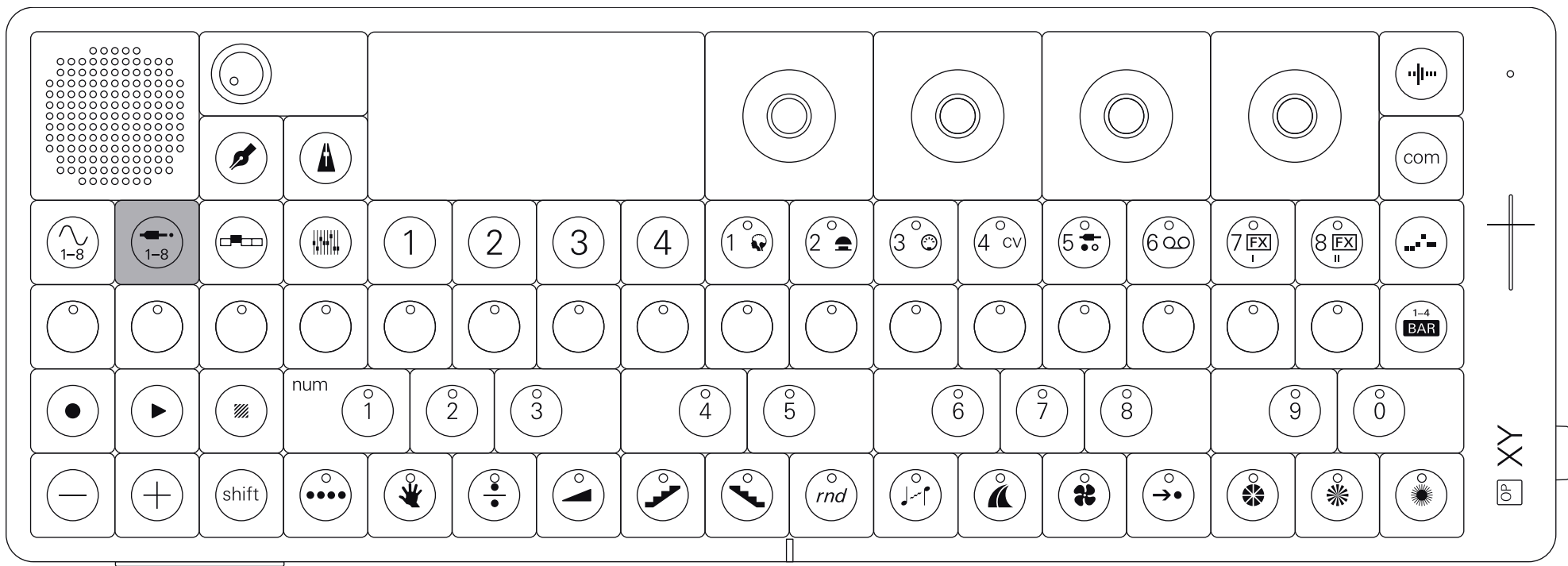
to paste a sound from one track to another, hold the track button for the track you wish to paste to and press M3 to paste it into that track.

save preset



once you have a sound that you are happy with, you can save it as a preset by holding the track button for that track then pressing M4 to save it.

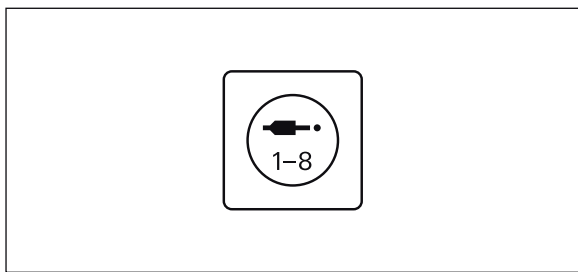
15. auxiliary



auxiliary mode holds 8 aux tracks ranging from midi effects to audio effects, as well as FX sends and punch in FX.

use the auxiliary tracks to vary OP-XY's built-in sounds, or even to control and send to external ones.

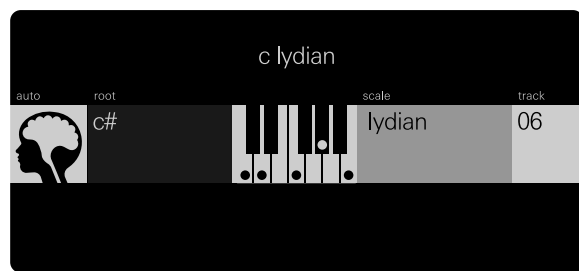
enter auxiliary mode



press auxiliary to open auxiliary mode.

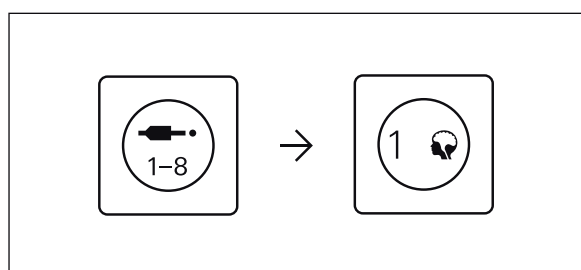
15.1 brain

brain introduction

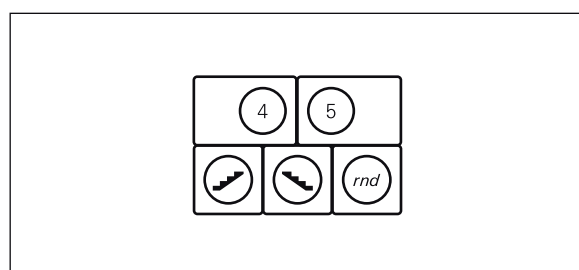


brain is an intelligent way of transposing your whole song or even just one track. brain will listen and figure out the key signature of your song, or even just the tracks you have selected.

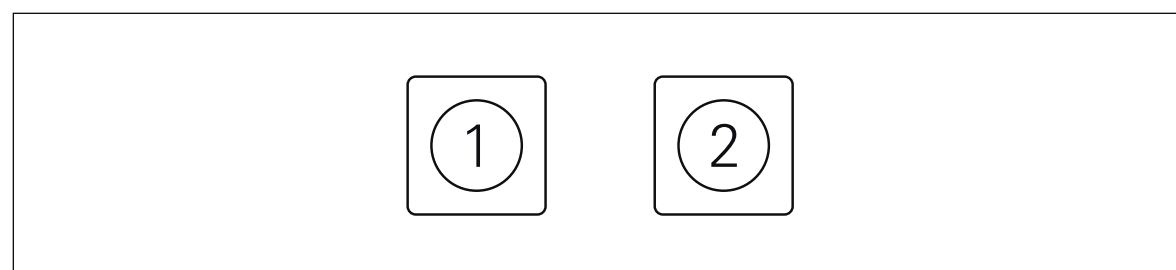
brain track



within the auxiliary tracks, track number 1 is the brain track.

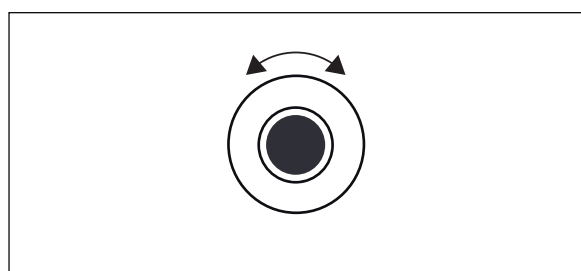


here, you can use the musical keyboard to transpose whatever tracks you have routed into the brain.



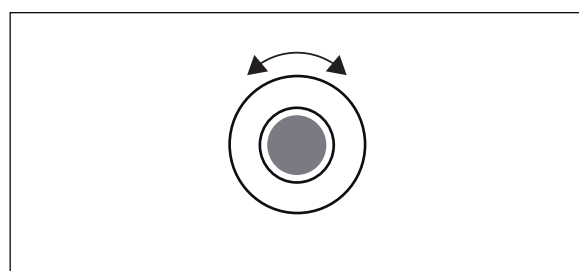
M1 holds the brain, where you can view and edit the scale of the song, and M2 is where you can route tracks through the brain.

manual/auto



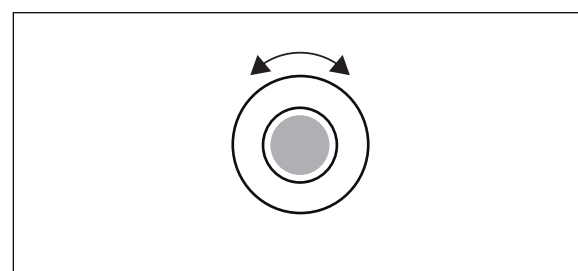
when in brain, rotate the dark gray knob to switch between manual key input or automatic key detection. manual allows you to select a different key to the one automatically detected by the device, making the transposition more accurate.

key



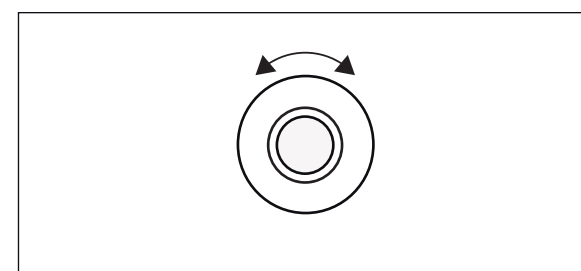
rotate the mid gray knob to select the key of your song.

scale



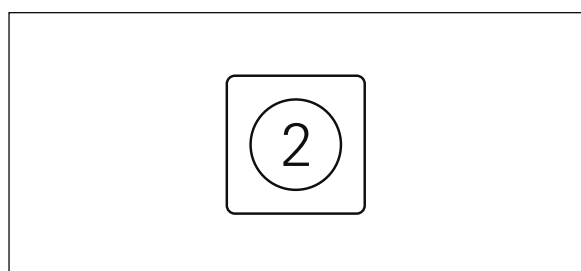
rotate the light gray knob to select the scale of your song.

link

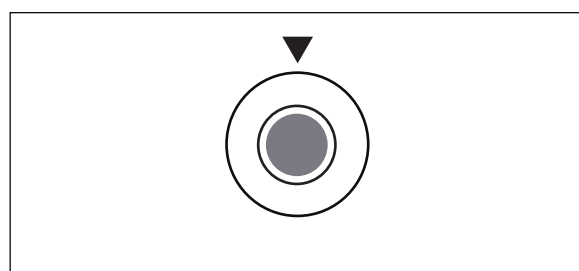


rotate the white knob to link any of the instrument tracks to the brain track, this allows you to riff over your song, while transposing it live.

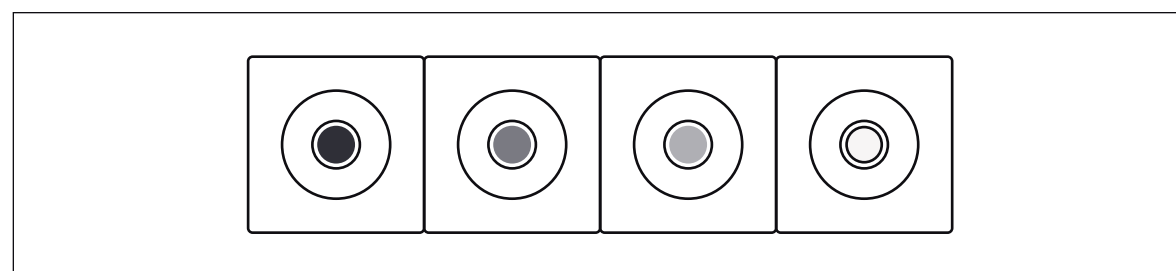
routing



press M2 to view the routing module.



click any encoder to switch between instrument tracks 1-4 and 5-8.

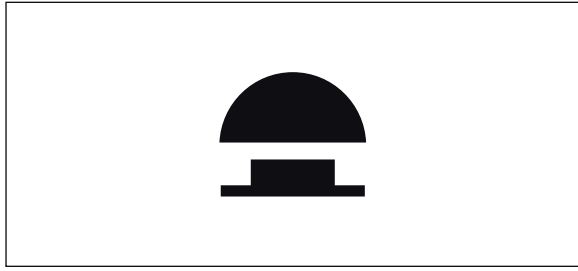


rotate the encoders to add or remove a track from the brain's routing, routed tracks will be transposed.

tracks that have not been routed will not be transposed. only routed tracks will affect the automatic key detection.

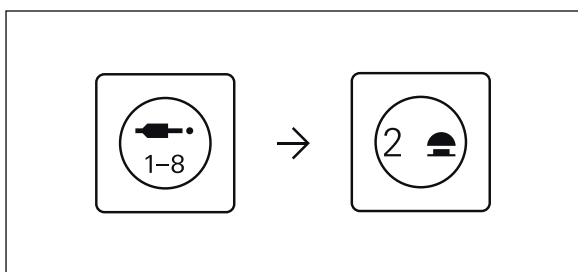
15.2 punch-in FX™

punch-in FX™ introduction

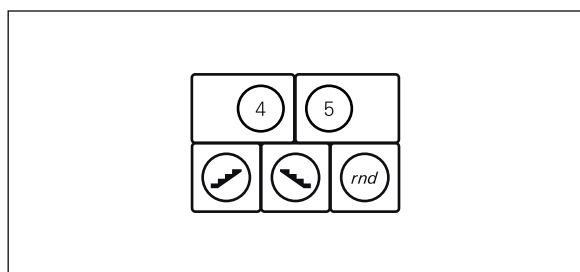


punch-in FX™ are a great way to quickly add variations to your song. use them while producing a track to get ideas then quickly record them in or perform them live to add powerful variations to your beat.

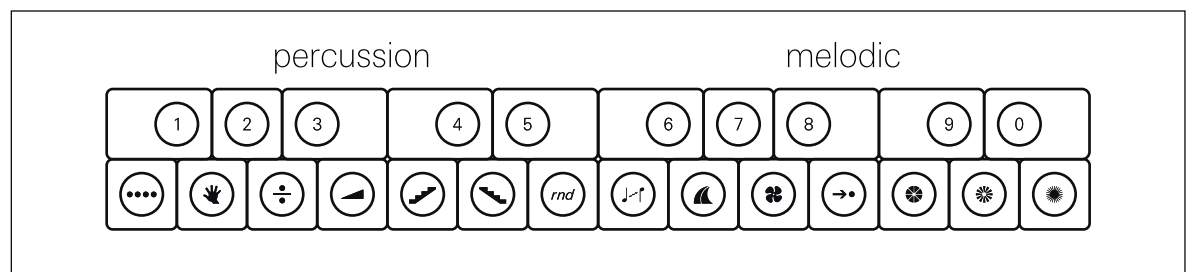
punch-in FX™ track



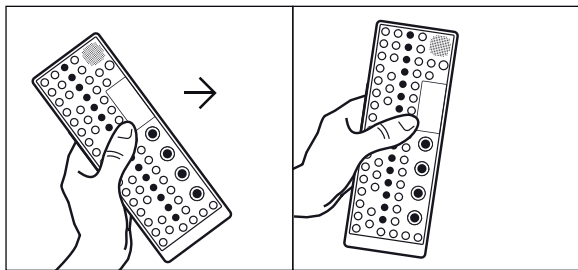
within the auxiliary tracks, track number 2 is the punch-in FX™ track.



here, you can use the musical keyboard to play, record and perform with the punch-in FX™.

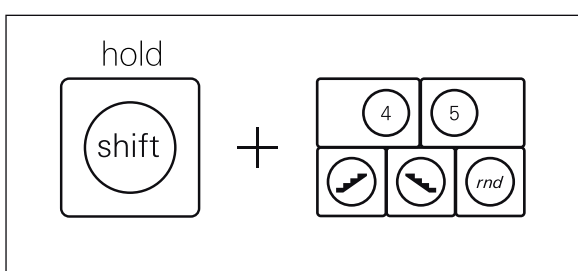


the lower octave adds punch-in FX™ to any percussion tracks, and the higher octave adds punch-in FX™ to melodic tracks.

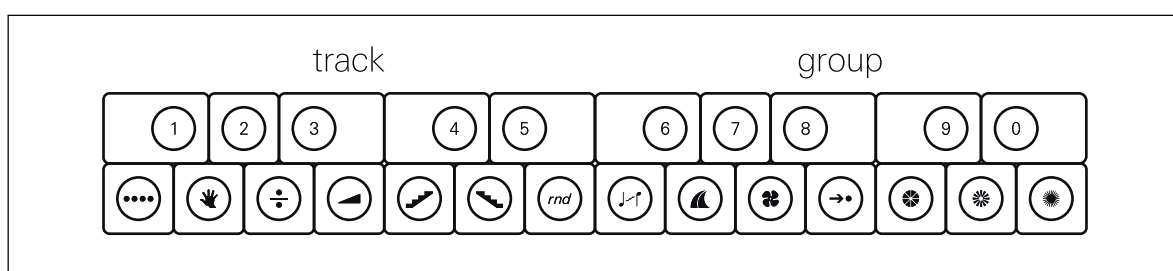


some punch-in FX™ will also make use of the accelerometer and pitchbend to add modulation or alter their behavior, try moving the device or pressing on the pitchbend while using the punch-in fx

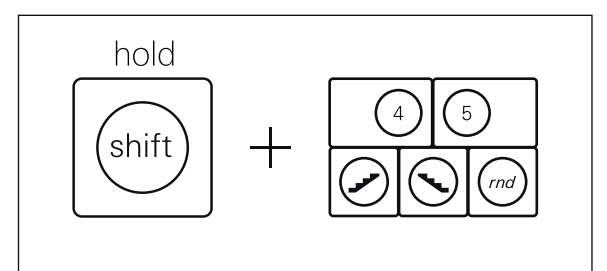
per track punch-in FX™



while in any instrument track, press and hold shift then press any of the keyboard keys to apply punch-in FX™.



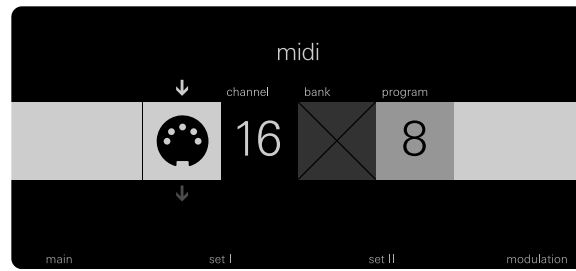
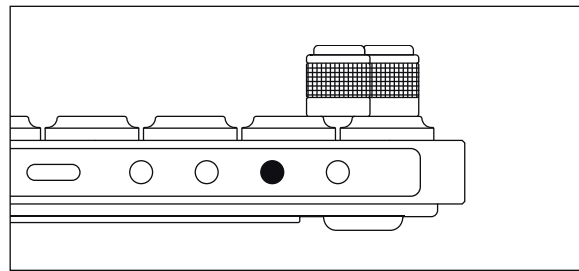
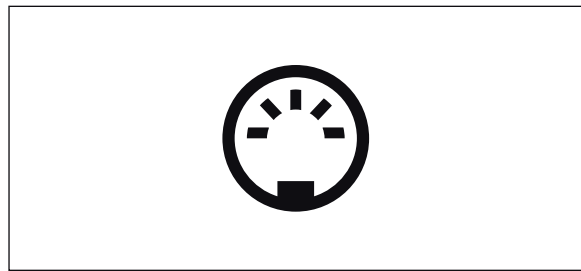
the low octave controls the individual track whereas the high octave modulates all tracks within that group (percussion or melodic).



you can record track specific punch-in FX™ by starting a recording then holding shift and playing them on the keyboard. punch-in FX™ will record to the punch-in FX™ track in auxiliary.

15.3 external midi

external midi introduction

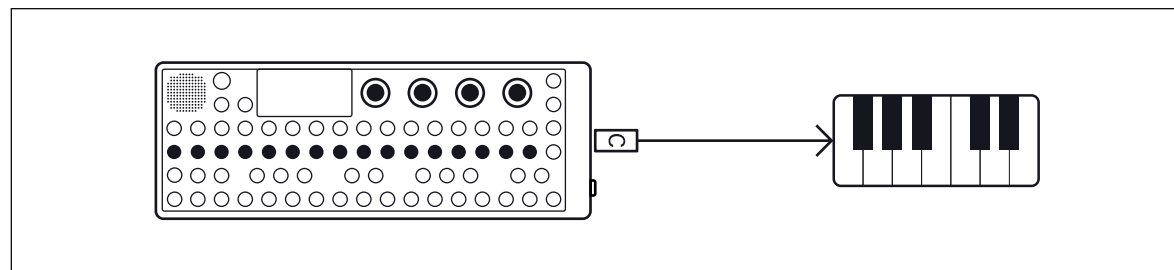
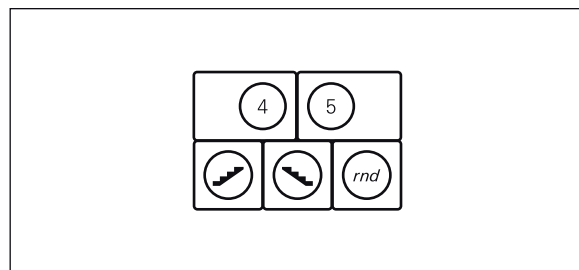
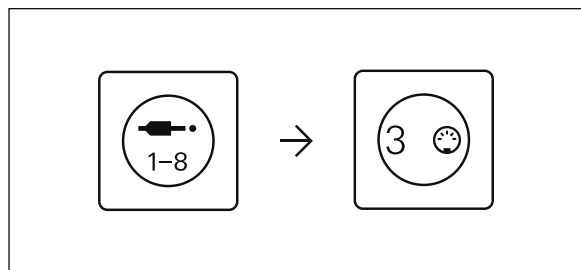


connecting other gear to OP-XY is a fantastic way to open up new musical possibilities, or even just add a couple of extra sounds. the external midi track allows you to control those external devices.

to connect and control external midi devices, you can use the usb-c port or the multi-out jack.

learn more about setting up the multi-out in the [multi-out chapter](#).

external midi track

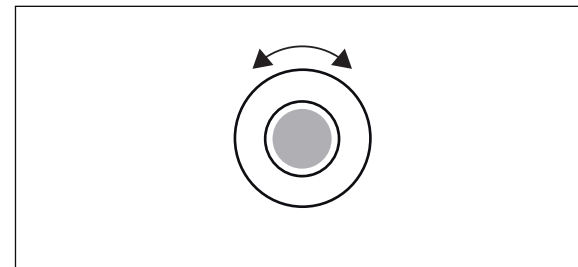
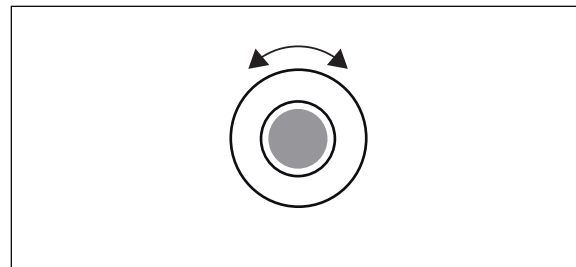
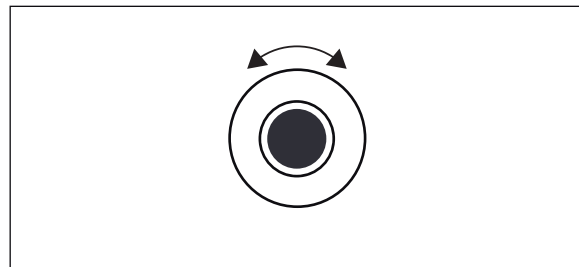
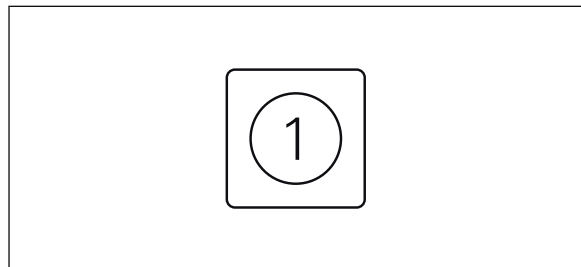


within the auxiliary tracks, track number 3 is the external midi track.

here you can use the musical keyboard to play notes on external midi devices, as well as sequence those notes on the sequencer.

in the external midi track you can control which midi channel, bank and program you want to control as well as offering 8 midi ccs that can be edited, sequenced and recorded.

channel, bank and program



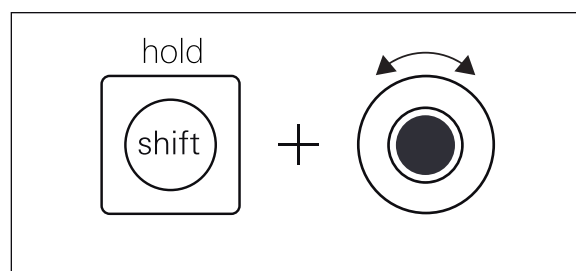
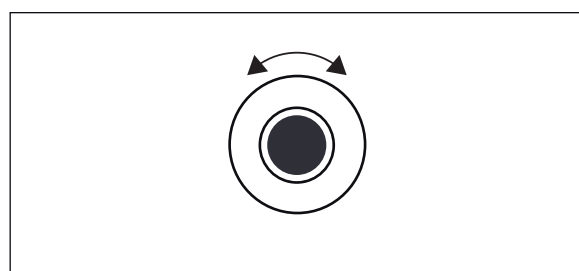
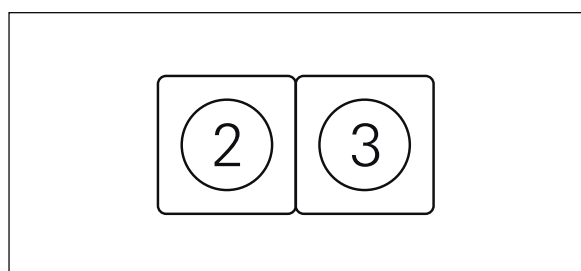
within M1 you will find the controls for channel, bank and program. in a typical midi set up, each device listens to a different channel. some devices may use banks and programs to select a particular sound.

rotate the dark gray knob to select midi channel.

rotate the mid gray knob to select the bank.

rotate the light gray knob to select a program.

midi CCs

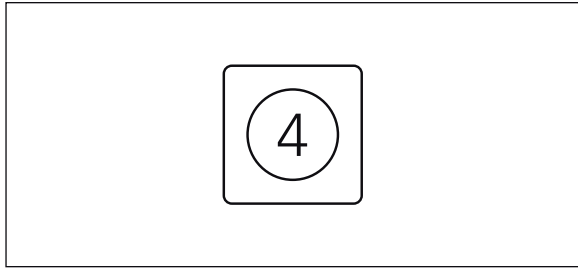


within M2 and M3 you will find the midi ccs.

rotate each of the encoders to edit the available ccs.

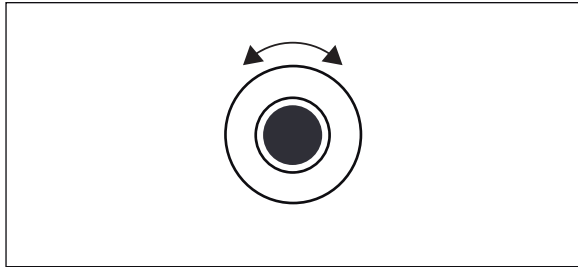
hold shift and rotate the encoders to turn on or select the cc message.

lfo



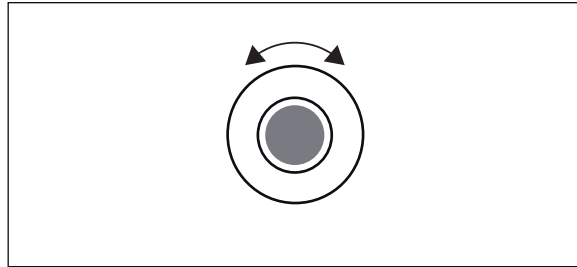
M4 is where you can find the lfo. use it to modulate parameters within the external midi track.

speed



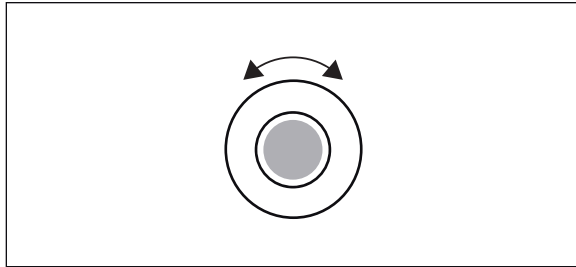
rotating the dark gray knob will adjust the speed of the lfo.

amount



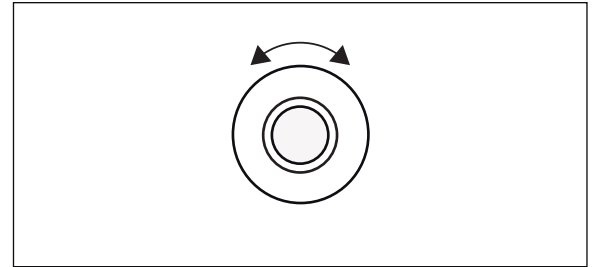
rotating the mid gray knob will adjust the amount that the lfo affects the destination parameter.

destination



rotating the light gray knob will select the destination on the track, this is the module that you wish to assign the lfo to.

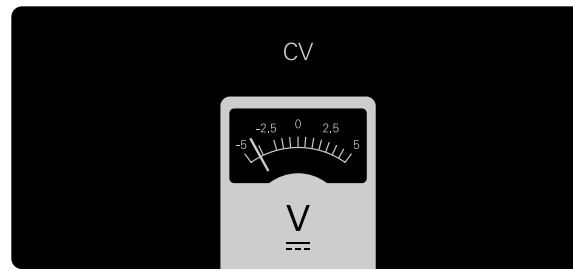
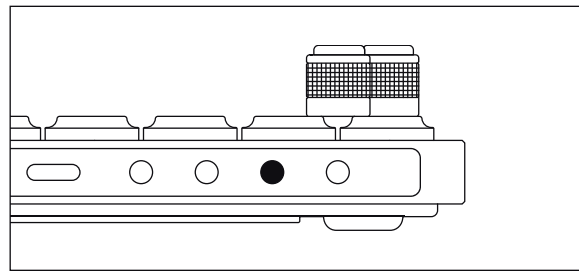
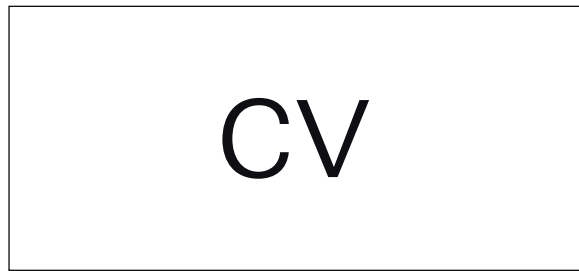
parameter



rotating the white knob will select the parameter you wish to modulate, this is the encoder on the destination module that you wish to modulate.

15.4 external cv

external cv introduction

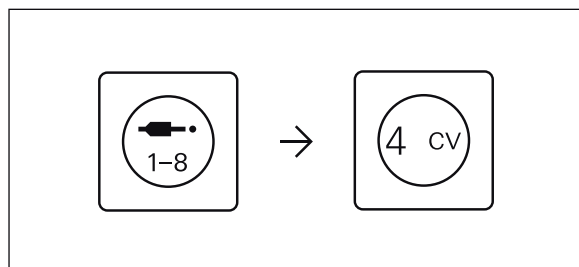


modular and vintage synths use a control voltage signal to determine the pitch of a note.

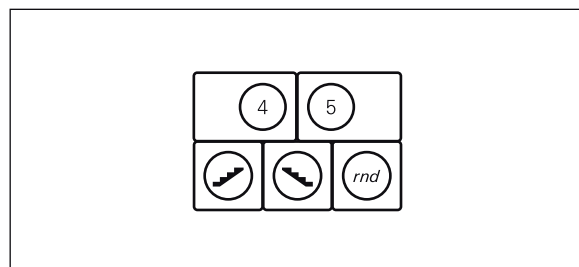
to connect and control cv devices, you can use the multi-out jack. cv is output on the tip (left channel) and gate on the ring (right channel).

learn more about setting up the multi-out in the [multi-out chapter](#).

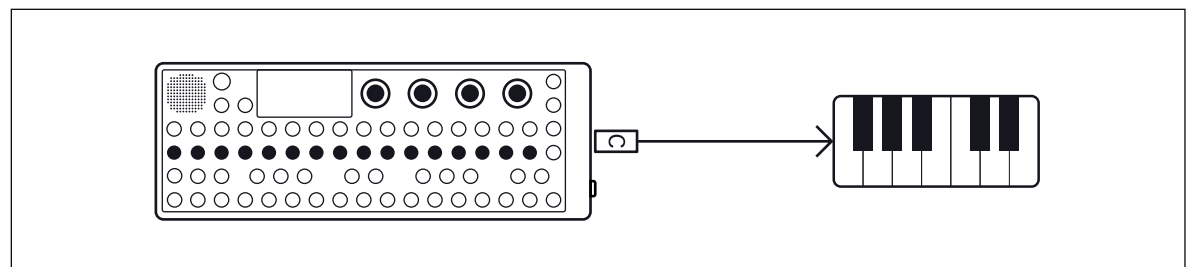
external cv track



within the auxiliary tracks, track number 4 is the external cv track.



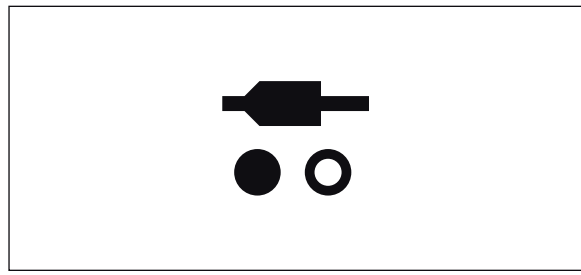
here you can use the musical keyboard to play notes on the connected cv device, as well as sequence those notes on the sequencer.



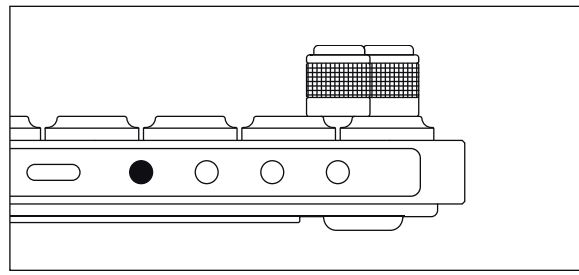
in the external cv track, control voltage is sent through the connected cable.

15.5 external audio

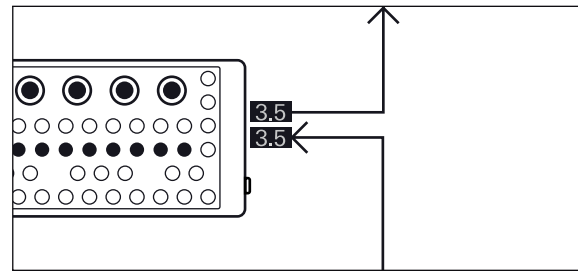
introduction



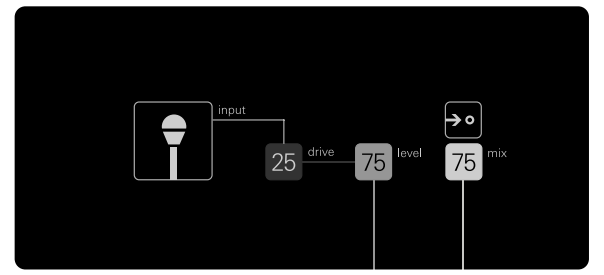
sending and receiving audio is a core part of any music workflow. use the external audio track to manage audio in and out of OP–XY



inputting audio on OP–XY is as simple as plugging a 3.5mm jack into the audio input.

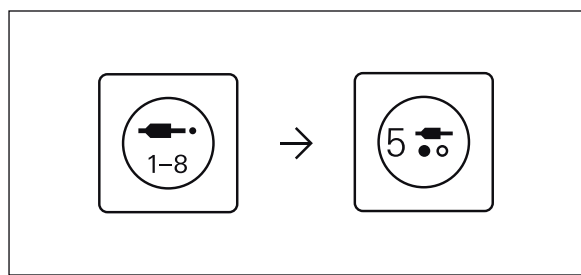


to send auxiliary audio out of OP–XY, you will need to set the multi-out to output audio and plug in a 3.5mm cable.

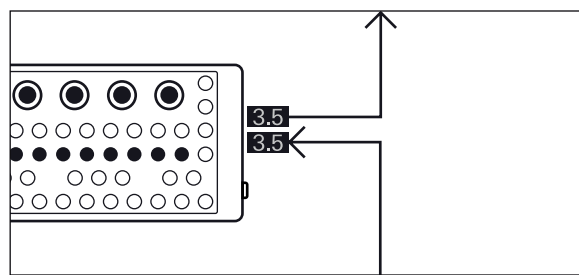


learn more about setting up the multi-out in the [multi-out chapter](#).

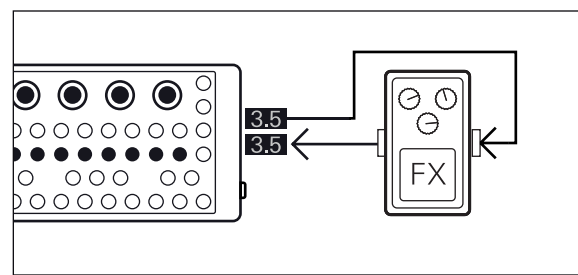
external audio track



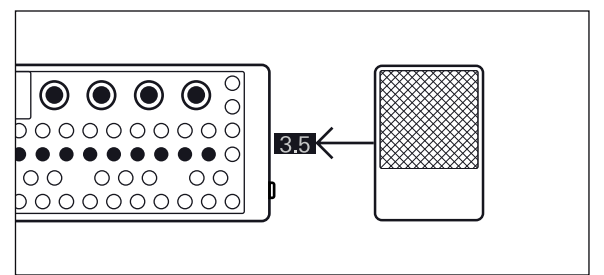
within the auxiliary tracks, track number 5 is the external audio track.



here you can route audio into and out of OP–XY.

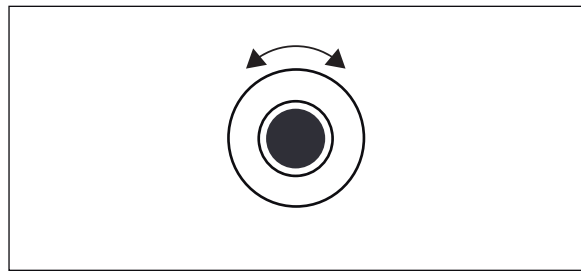


use the aux out from the multi-out jack to send to fx pedals and then the audio in to route it back into OP–XY.



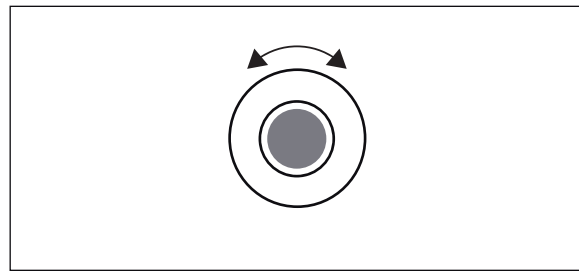
use the line input to connect a microphone and send vocals, trumpets or any other sounds into your OP–XY.

input



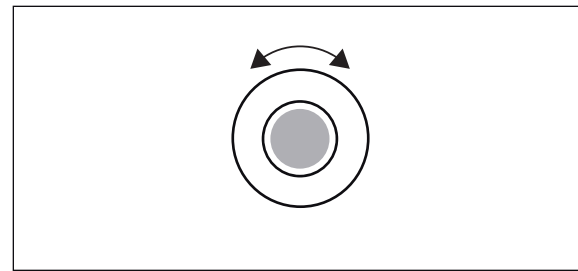
rotate the dark gray knob to select the input into the external audio track. you can select from: mic, headset, audio input, usb audio and main output.

drive



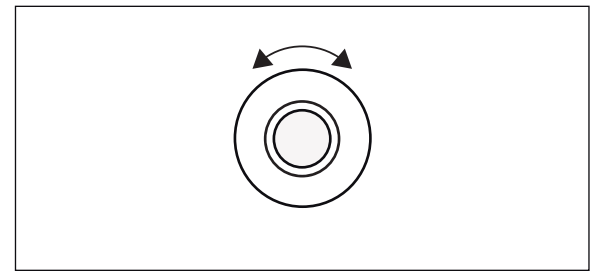
rotate the mid gray encoder to adjust the drive (gain) of the audio input. this only applies to analog inputs and uses the built in preamps in OP–XY.

level



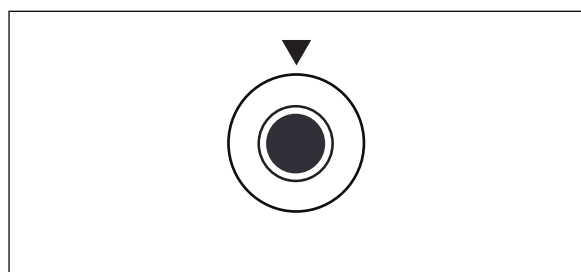
rotate the light gray encoder to adjust the level of the audio input, this is the volume in the master mix from whatever input you have selected.

mix



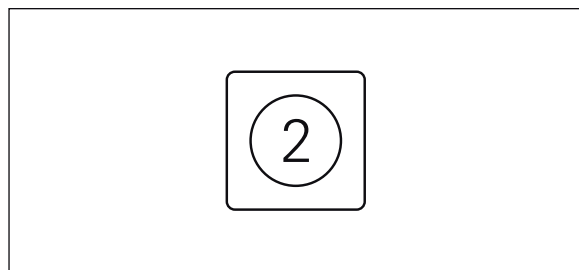
rotate the white encoder to adjust the mix into the main output. this will take whatever tracks you route through the external audio track and feed them into the main mix.

activate input

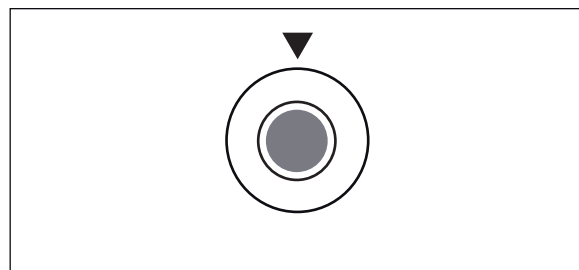


click down the dark gray knob to activate the selected audio input.

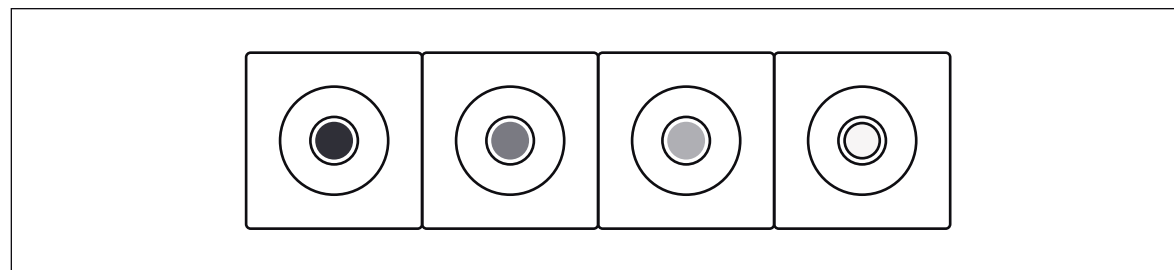
routing



press M2 to view the routing module. this is where you can send instrument tracks through the external audio output on the multi-out jack.



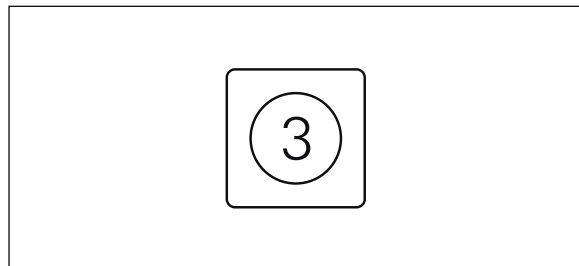
click any encoder to switch between instrument tracks 1-4 and 5-8.



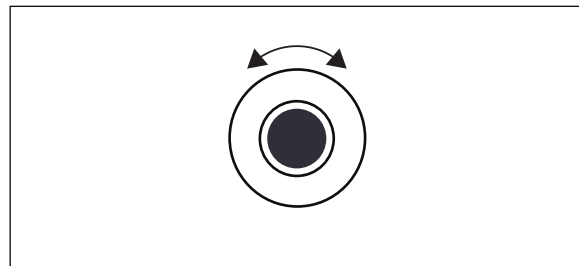
rotate the encoders to add or remove a track from the aux audio routing, only routed tracks will run out of the aux output.

you can set the amount of audio coming into the external audio track from each track which can be totally different to the main mix.

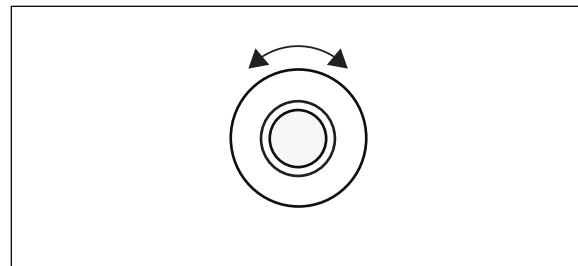
filter



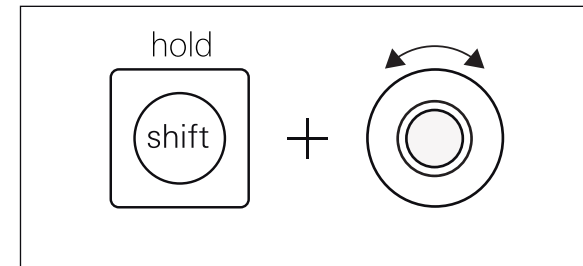
press M3 to edit the filter. the external audio track features a high-pass/low-pass filter.



rotate the dark gray knob to edit the high-pass cut-off frequency.

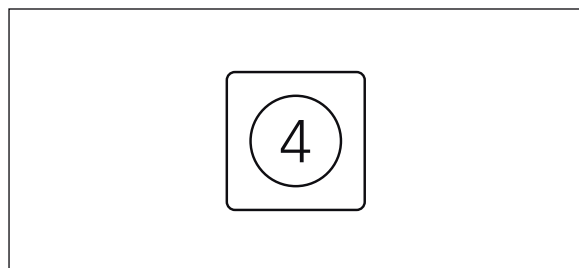


rotate the white knob to adjust the low-pass cutoff frequency.



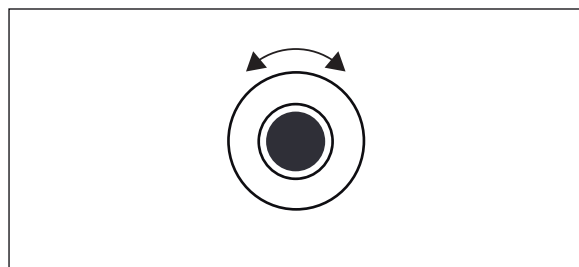
hold shift and rotate the mid gray knob to adjust tape send level or rotate the light gray and white encoders to control the fx send levels.

lfo



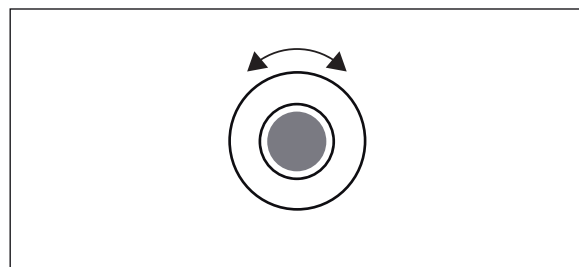
M4 is where you can find the lfo. use it to modulate parameters within the external audio track.

speed



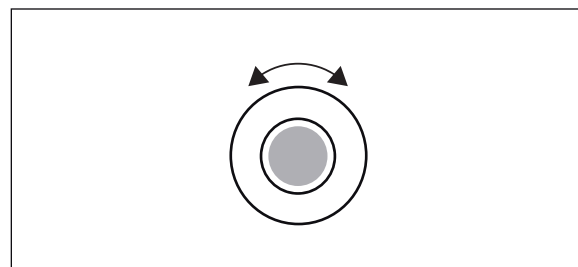
rotating the dark gray knob will adjust the speed of the lfo.

amount



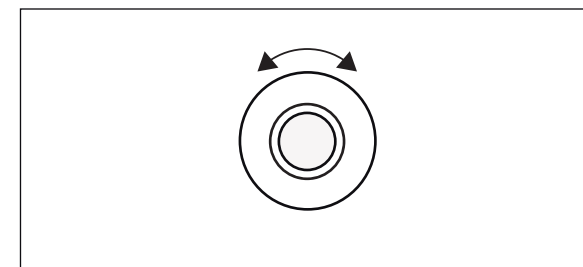
rotating the mid gray knob will adjust the amount that the lfo affects the destination parameter.

destination



rotating the light gray knob will select the destination on the track, this is the module that you wish to assign the lfo to.

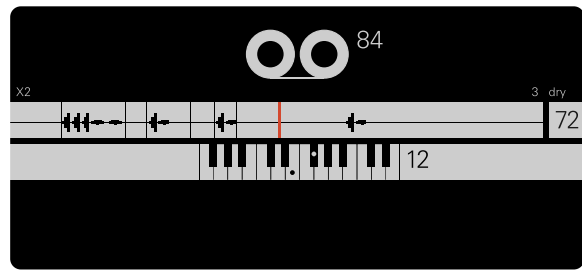
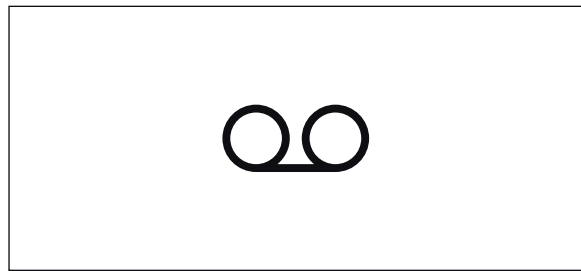
parameter



rotating the white knob will select the parameter you wish to modulate, this is the encoder on the destination module that you wish to modulate.

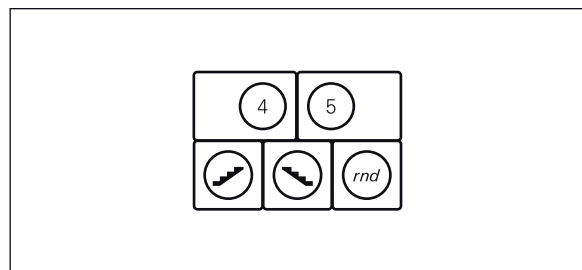
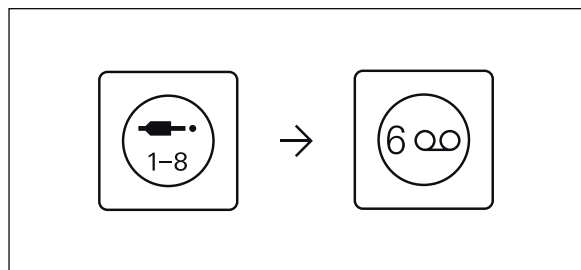
15.6 tape

tape introduction



tape is where you can pick out and rearrange audio playing within the device and can produce some awesome glitchy effects.

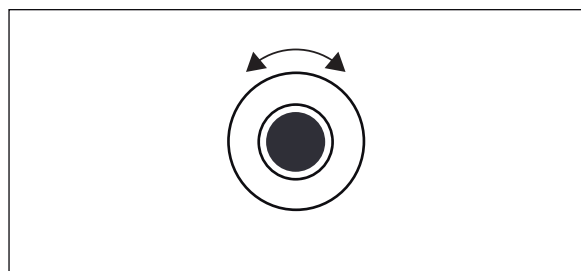
tape track



within the auxiliary tracks, track number 6 is the tape track.

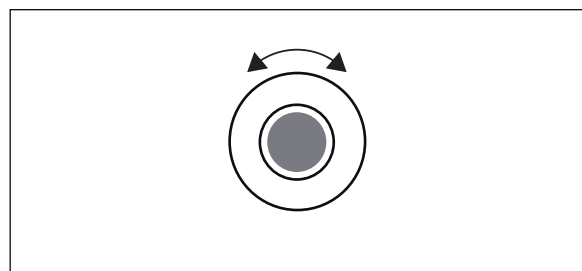
here, you can use the musical keyboard to play clips from any tracks routed into the tape.

pitch



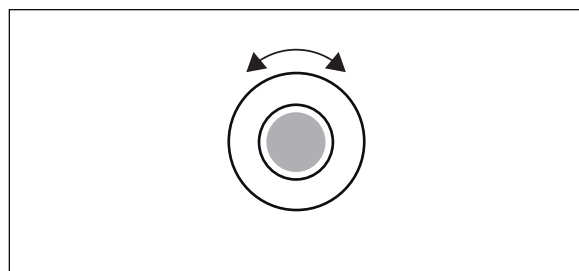
when in tape, rotate the dark gray knob to adjust the pitch of the tape, this can create some crazy sounds and creative effects.

speed



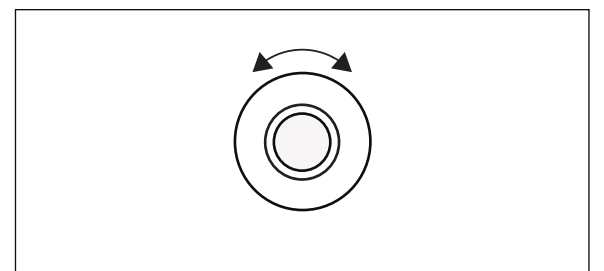
rotate the mid gray knob to adjust the speed of the tape, this is a more gentle and precise way of adjusting how fast it plays back.

length



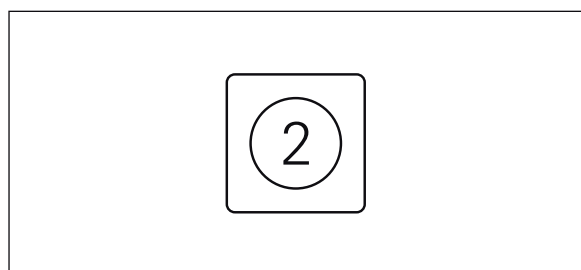
rotate the light gray knob to change the length of the loop made on the tape.

mix

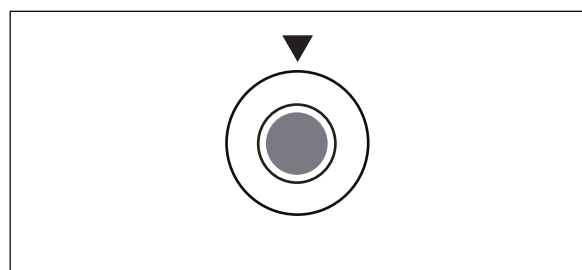


rotate the white knob to adjust the mix of tape and original audio.

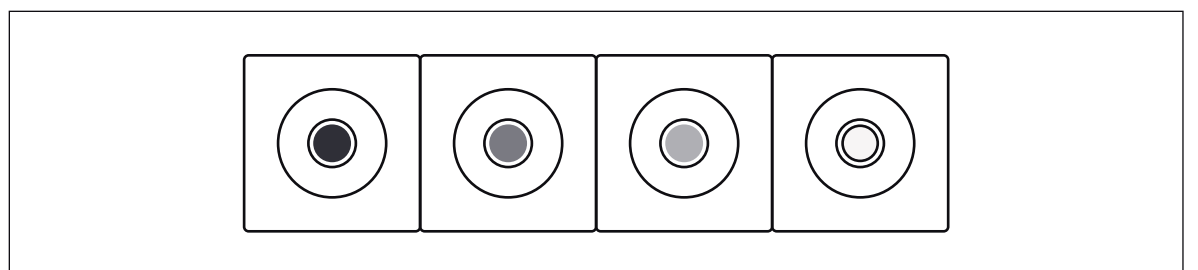
routing



press M2 to view the routing module.



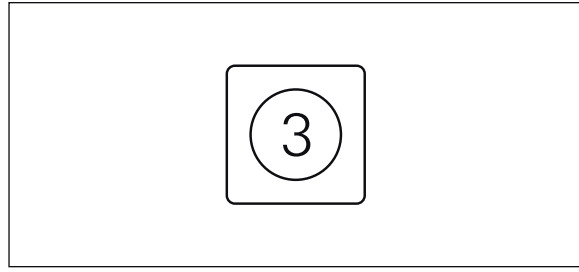
click any encoder to switch between instrument tracks 1-4 and 5-8.



rotate the encoders to add or remove a track from the tape's routing, only routed tracks will run through the tape.

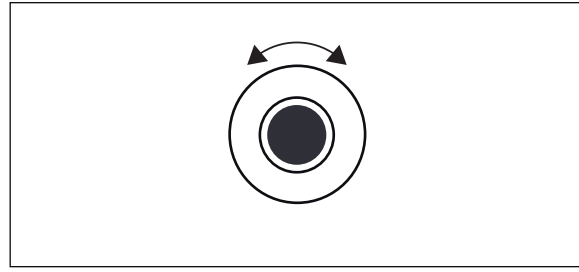
you can set the amount of audio coming into the tape from each track which can be totally different to the main mix.

filter

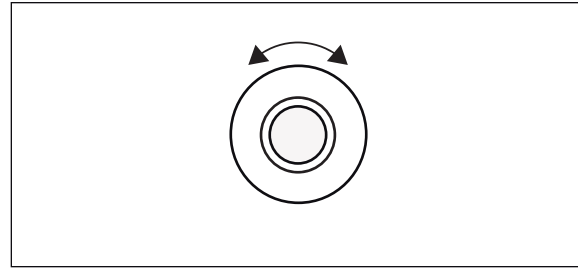


press M3 to edit the filter.

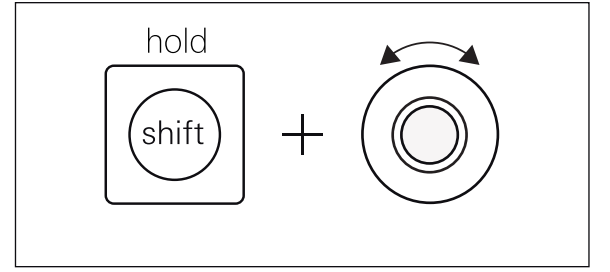
the tape track features a high-pass/low-pass filter.



rotate the dark gray knob to edit the high-pass cutoff frequency.

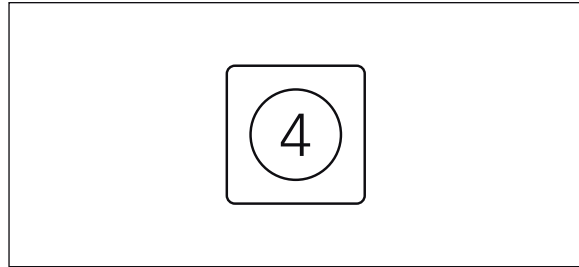


rotate the white knob to adjust the low-pass cutoff frequency.



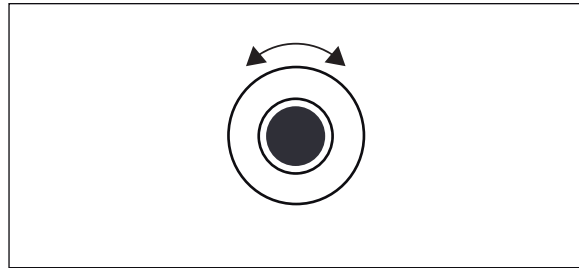
hold shift and rotate the light gray and white knobs to control the fx send levels.

lfo



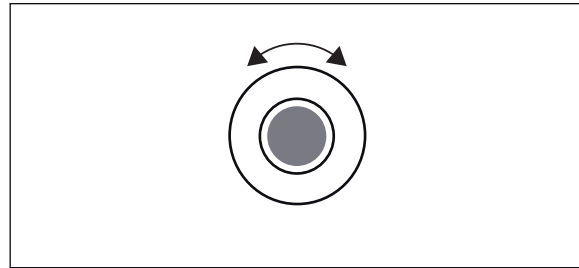
M4 is where you can find the lfo. use it to modulate parameters within the tape to get even crazier.

speed



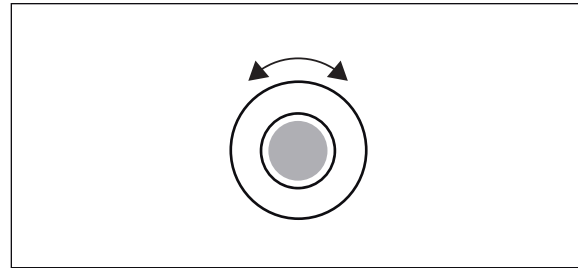
rotating the dark gray knob will adjust the speed of the lfo.

amount



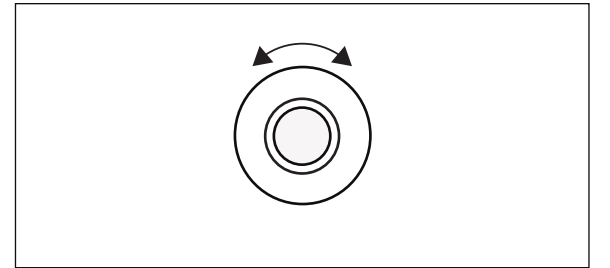
rotating the mid gray knob will adjust the amount that the lfo affects the destination parameter.

destination



rotating the light gray knob will select the destination on the track, this is the module that you wish to assign the lfo to.

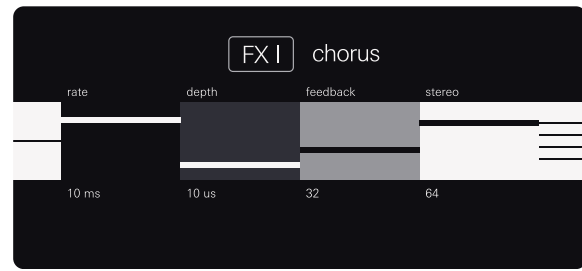
parameter



rotating the white knob will select the parameter you wish to modulate, this is the encoder on the destination module that you wish to modulate.

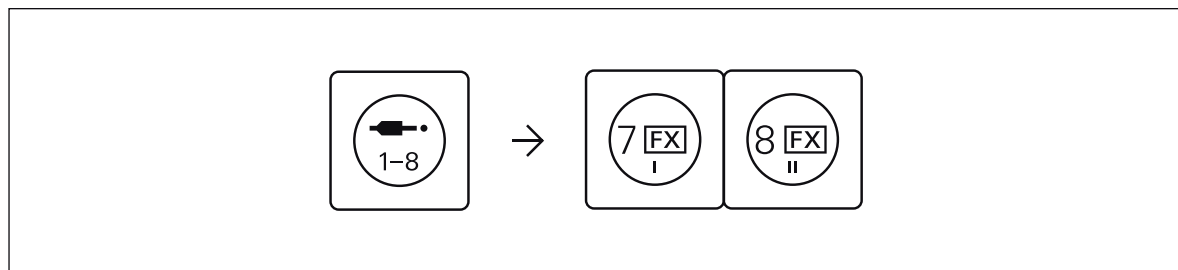
15.7 FX I and FX II

FX introduction

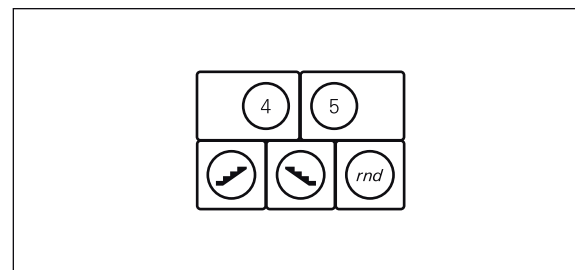


FX I and II hold the two fx sends within OP-XY. you can send any track that FX I and II and you can even send FX I to FX II.

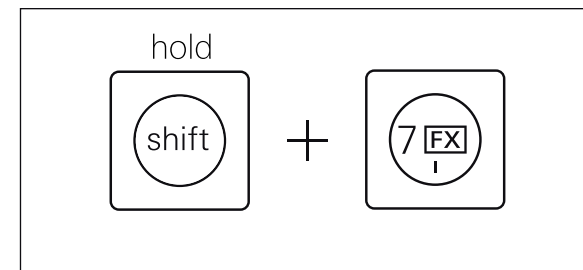
FX tracks



within the auxiliary tracks, tracks number 7 and 8 are the FX tracks.

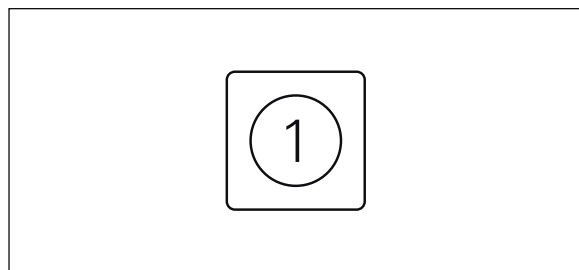


here, the musical keyboard will allow you to play whatever the last selected instrument track was. this allows you to preview the effect on whatever sound you are currently editing.



hold shift and press FX I or FX II to change the FX on the chosen slot. you can then use the encoders to select the FX.

fx engine

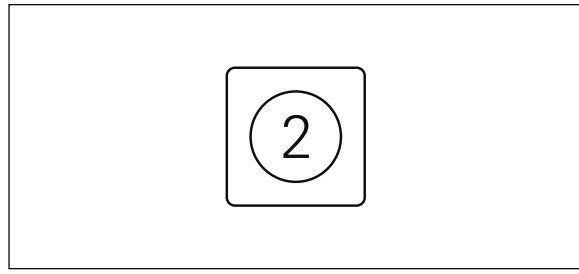


press M1 to view and edit the parameters for the currently selected FX engine.

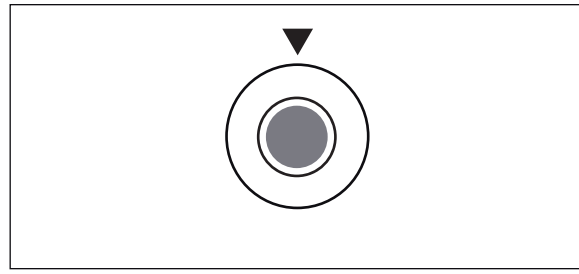


you can learn more about the available FX and their parameters in the [FX chapter](#).

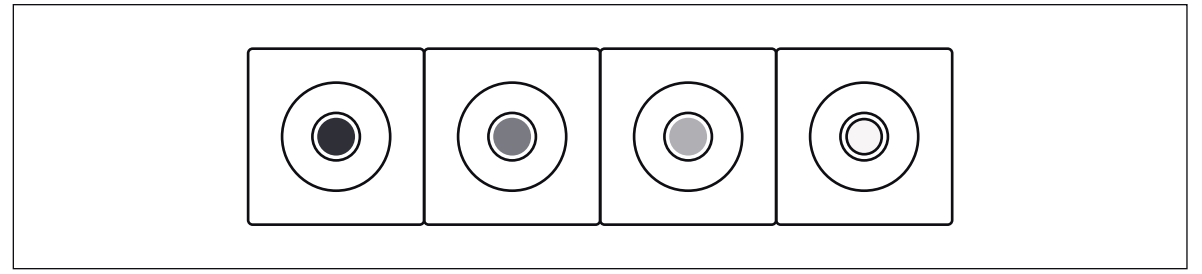
routing



press M2 to view the routing module.

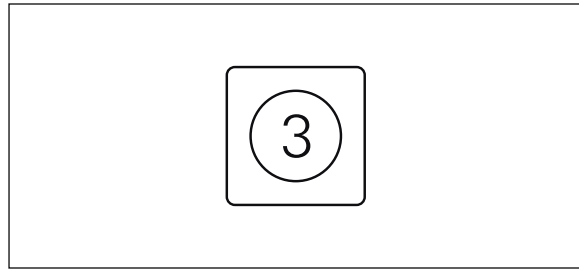


click any encoder to switch between instrument tracks 1-4 and 5-8.



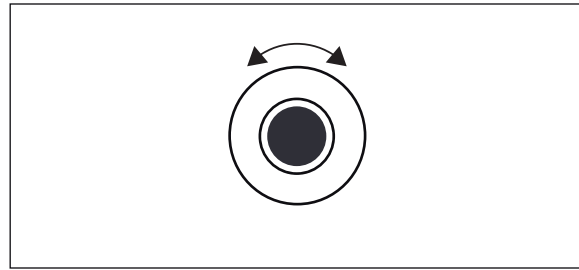
rotate the encoders to add or remove a track from the FX's routing, only routed tracks will run through the FX.

filter

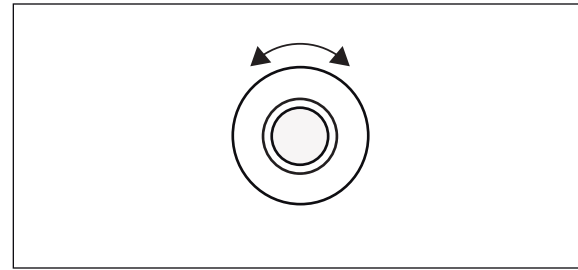


press M3 to edit the filter.

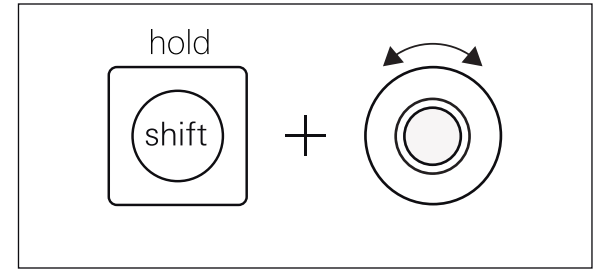
the tape track features a high-pass/low-pass filter.



rotate the dark gray knob to edit the high-pass cutoff frequency.

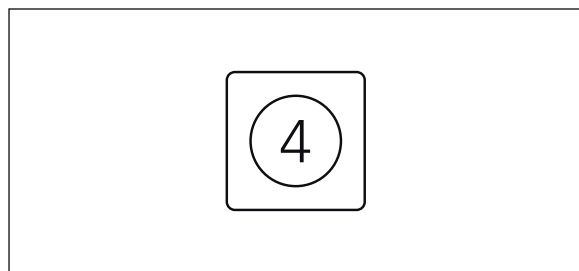


rotate the white knob to adjust the low-pass cutoff frequency.



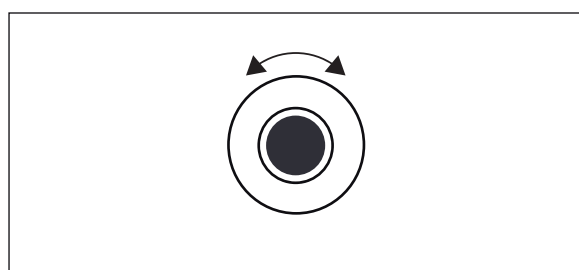
when in FX I, hold shift and rotate the white knob to control the send level to FX II from FX I.

lfo



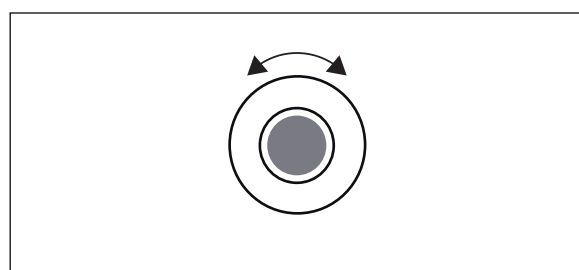
M4 is where you can find the lfo. use it to modulate parameters within the FX to add interesting modulations.

speed



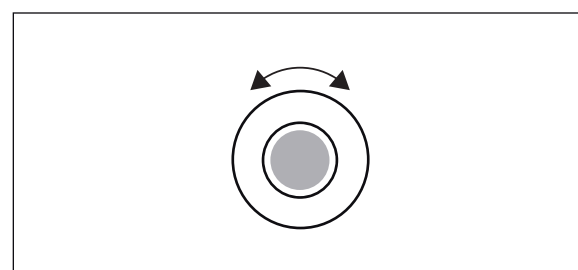
rotating the dark gray knob will adjust the speed of the lfo.

amount



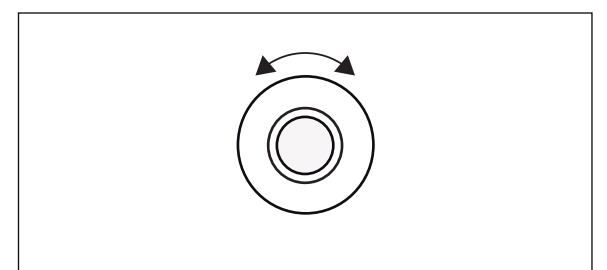
rotating the mid gray encoder will adjust the amount that the lfo affects the destination parameter.

destination



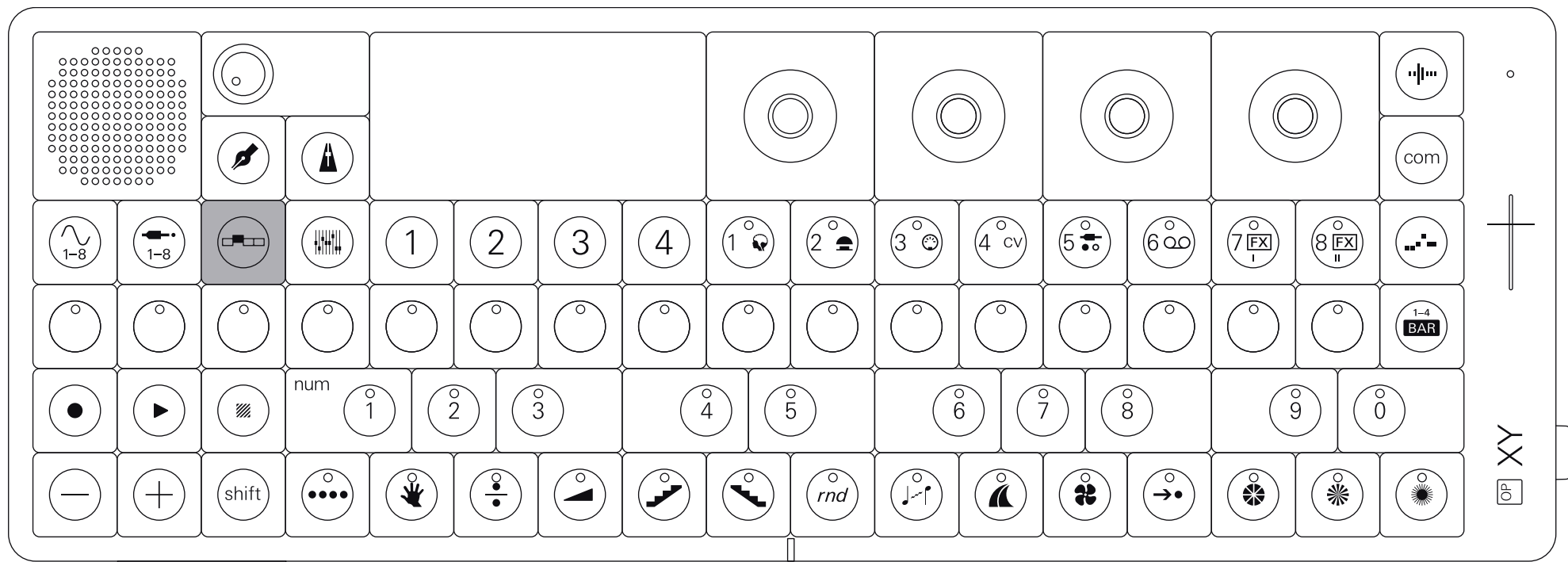
rotating the light gray encoder will select the destination on the track, this is the module that you wish to assign the lfo to.

parameter



rotating the white knob will select the parameter you wish to modulate, this is the encoder on the destination module that you wish to modulate.

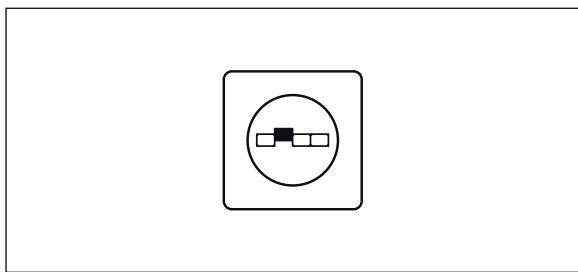
16. arrange



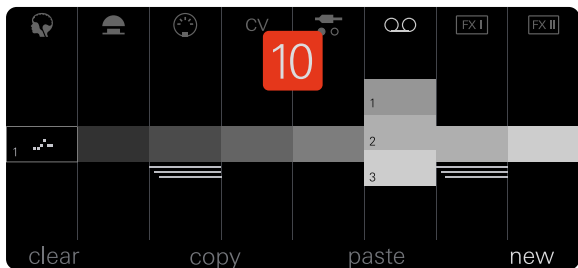
arrange mode is where you can create new patterns, move between them and arrange them into songs.

arrange is an incredibly powerful and fun part of OP-XY and can be used both when creating a song, and performing it.

enter arrange mode

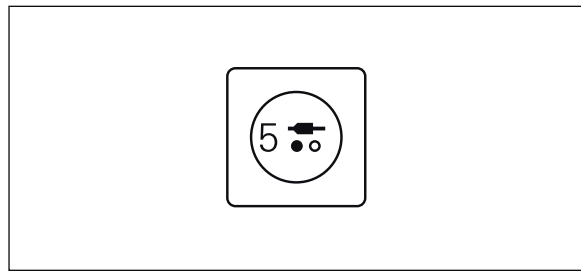


press arrange to open arrange mode.

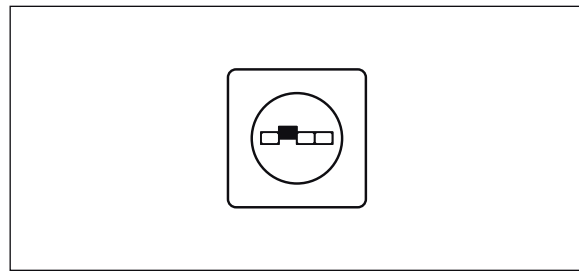


16.1 switching tracks and patterns

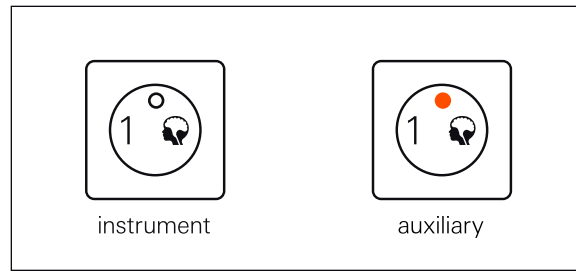
switching tracks



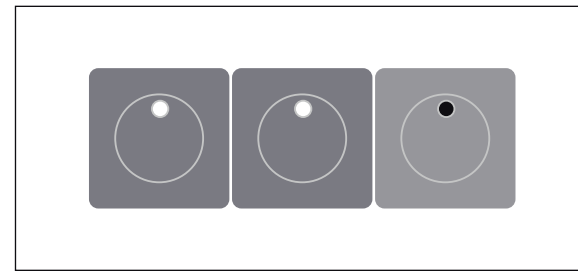
press the track button corresponding to the track you wish to edit and arrange.



press arrange while in arrange mode to switch between instrument and auxiliary tracks. you can create and edit patterns for both instrument and auxiliary tracks.

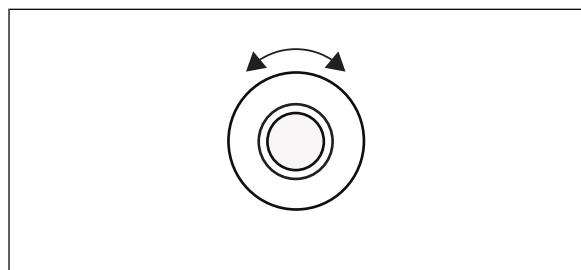


just as in any other mode, instrument tracks will light up in white and auxiliary in red, allowing you to quickly identify what tracks you are editing and arranging.

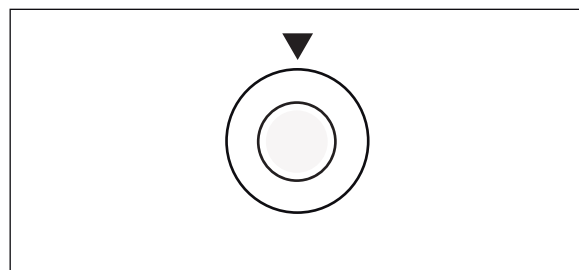


you'll notice that when you are in a chosen track the sequencer will light up with the sequence recorded to that track and pattern.

navigating patterns



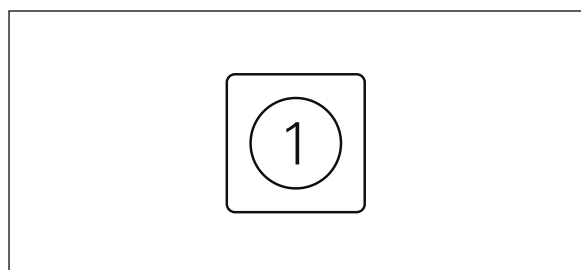
rotate the white knob to move between existing patterns in the selected track.



click the white knob to mute the selected track.

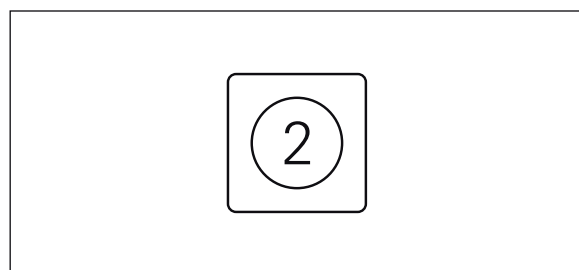
16.2 edit controls

new



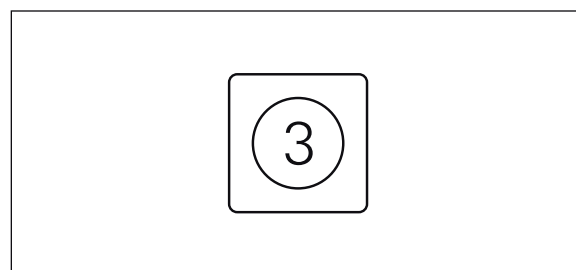
press M1 while in arrange to create a new pattern on the currently selected track (lit in white or red). a track can hold a maximum of 9 patterns.

copy



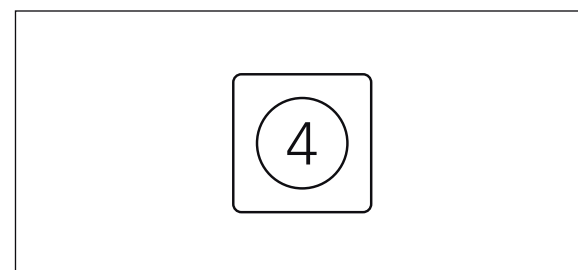
press M2 to copy the currently selected pattern, engine and all other parameters. this can then be pasted within the same track to quickly add variations on an existing pattern, or to another track to create more complex arrangements with multiple instrument changes per track.

paste



press M3 to paste a copied pattern, when pasting from one track to another the entire instrument will paste on that new pattern, including the engine and all parameters.

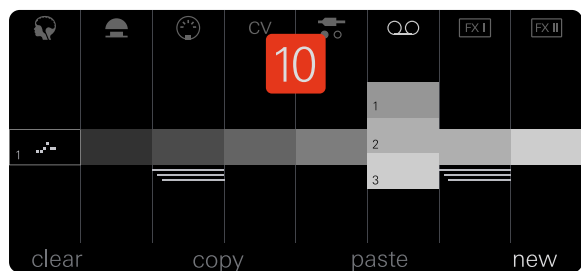
clear



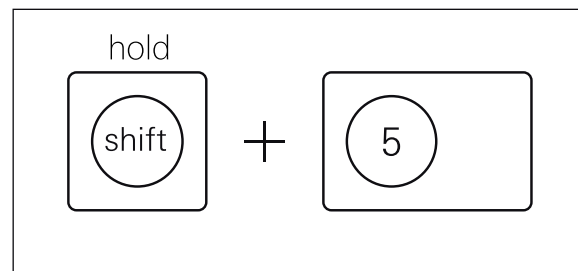
press M4 to remove a pattern from a track.

16.3 scenes and song mode

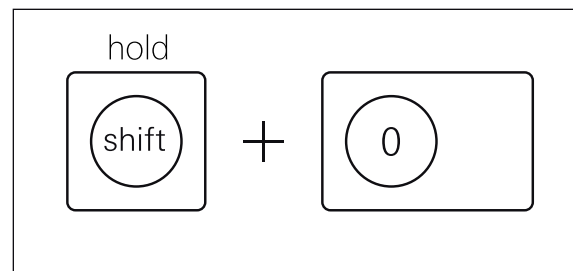
scenes



arrange mode allows you to group patterns into 99 distinct scenes. each scene remembers the pattern arrangement as well as the mix settings. scenes are as long as their longest pattern.

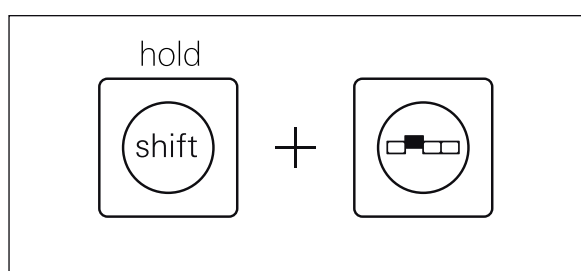


hold shift and press the accidental keys to select a scene. each accidental is numbered and thus corresponds to a different scene number.

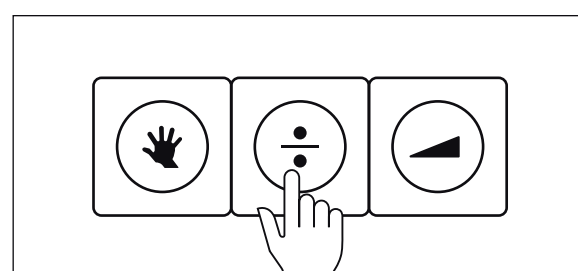


the final accidental (d#) is your gateway to scenes 10-99. press it, then enter the number you wish to navigate to using the other accidental keys.

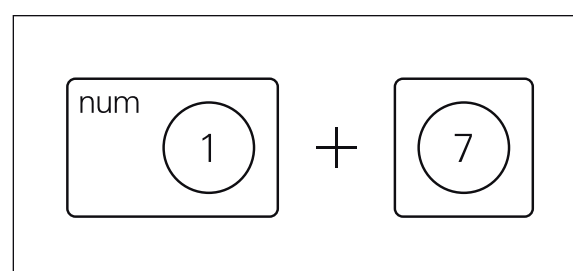
song mode



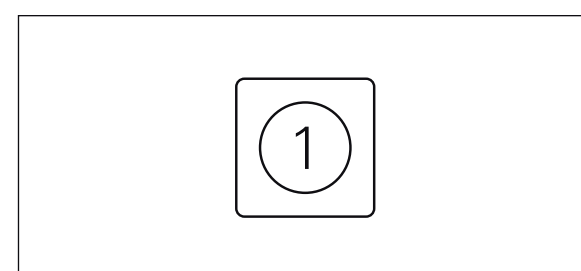
while holding shift in arrange, press arrange to enter song mode and edit the song.



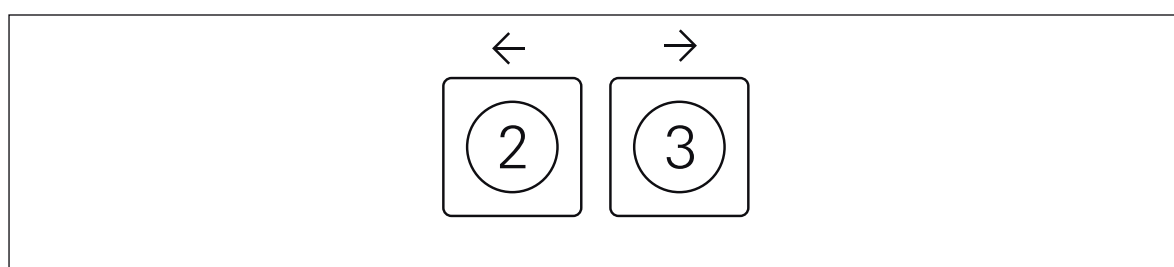
when prompted, press any natural key to create a song.



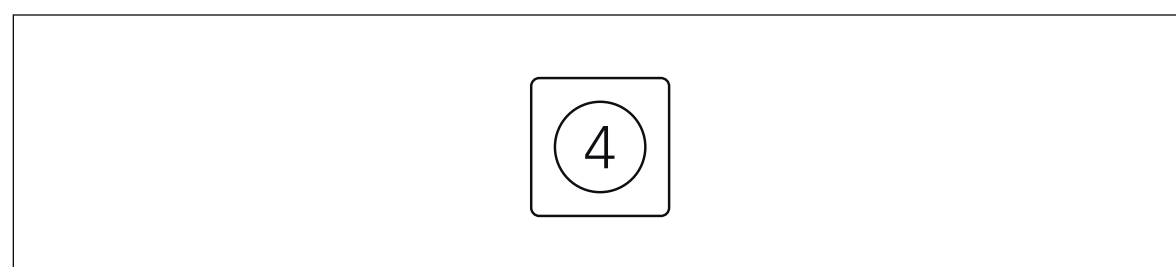
press the accidentals to select the scenes you'd like to sequence in your song. think of it like entering a phone number.



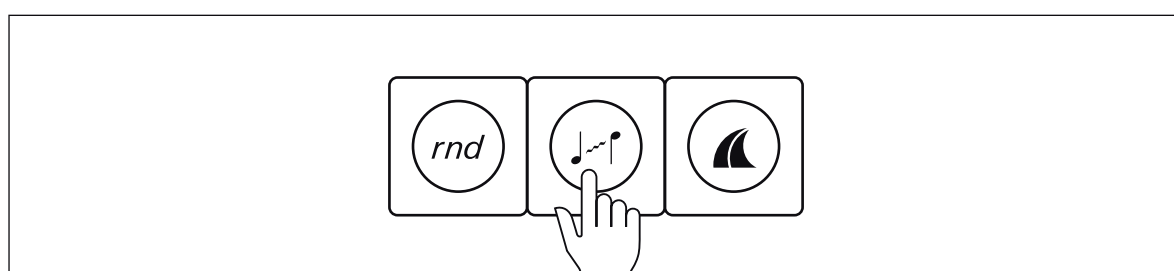
press M1 to clear all scenes from your song order to start fresh with the arrangement. this won't delete the scenes outright, just remove them from the song's playback.



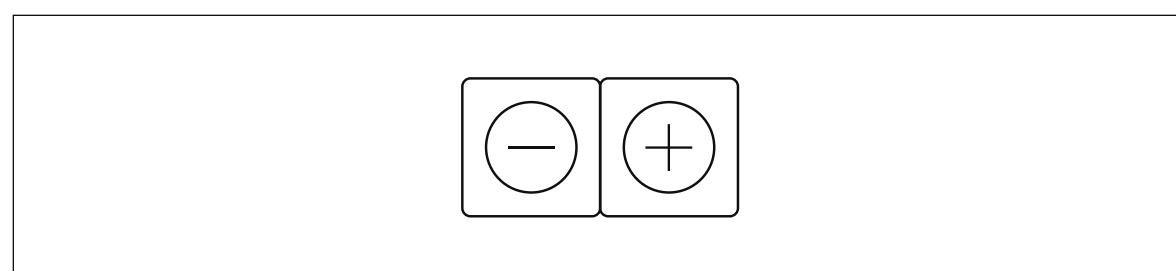
you can use M2 and M3 to navigate between the recorded scenes in your song, this allows you to insert scenes between others as well as delete scenes from your song.



press M4 to delete a scene from the song. this won't delete the scene outright, just remove it from the song's playback.

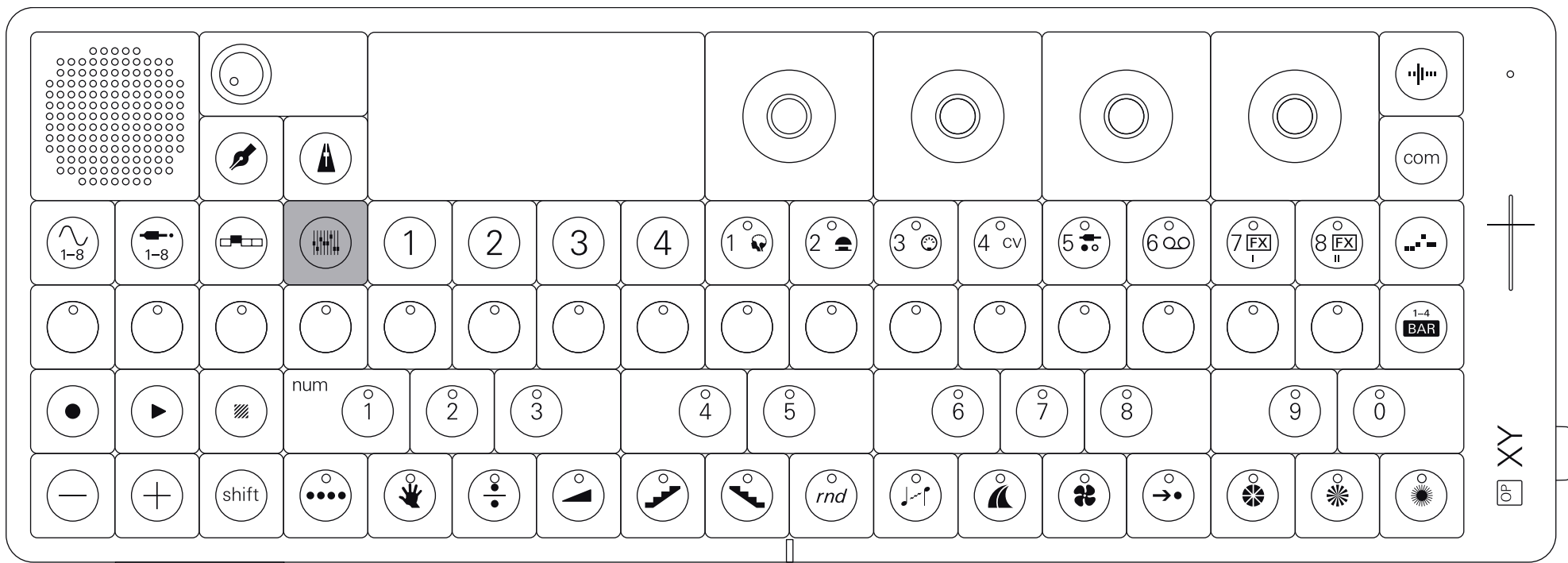


press the naturals to select a different song. you can arrange up to 10 songs per project.



use (-) and (+) to cue up a future scene and jump forwards in your song.

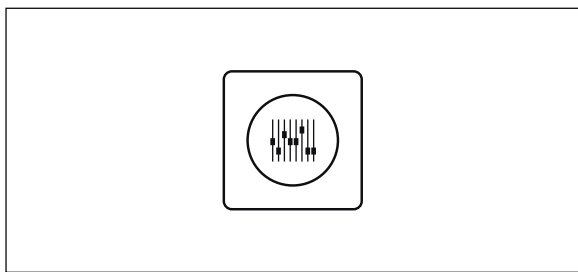
17. mix



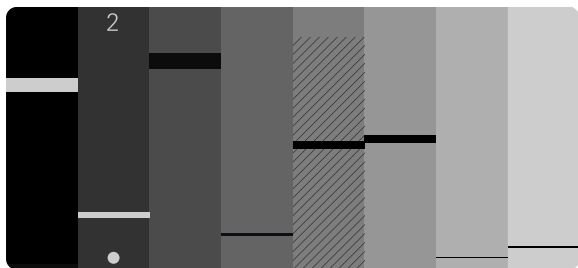
mix allows you to create the perfect balance in your song. use it to control levels, pan, eq, compression and fx sends.

a good mix can make or break a song and subtle changes can make a big difference so try things out and see what sticks!

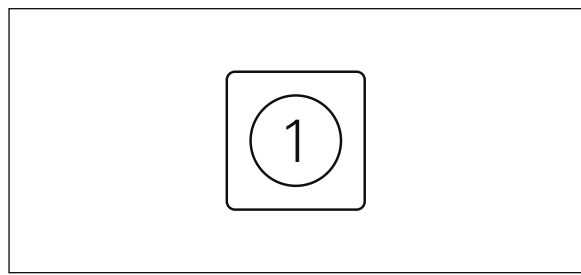
enter mix mode



press mix to open mix mode.

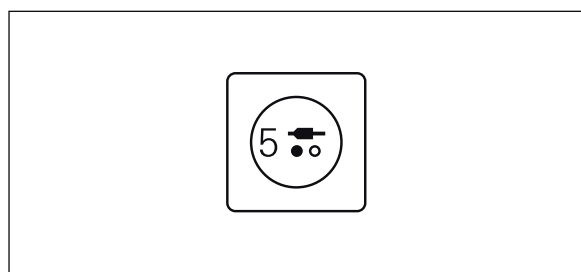


17.1 levels, pans and sends

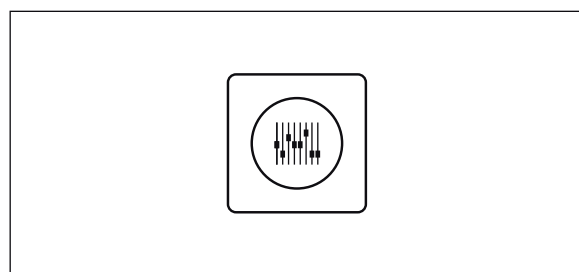


press M1 to view and edit the levels, pans and sends for each track.

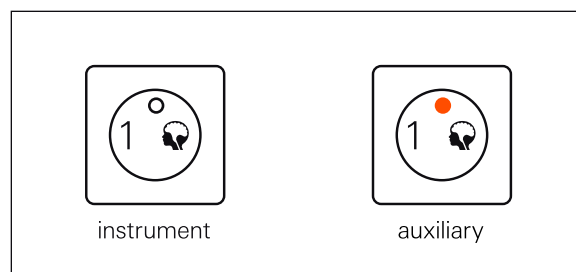
switching tracks



press the track button corresponding to the track you wish to mix.

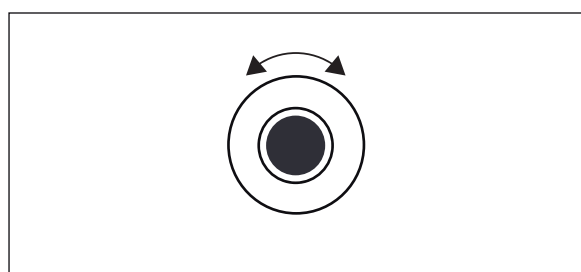


press mix while in mix mode to switch between instrument and auxiliary tracks. you can mix both instrument and auxiliary tracks.



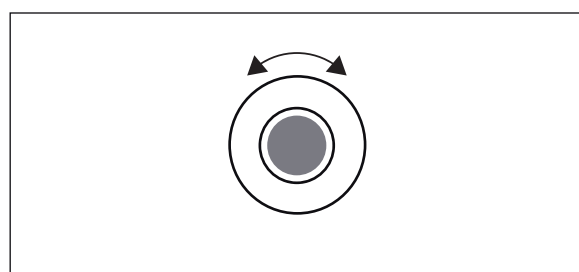
just as in any other mode, instrument tracks will light up in white and auxiliary in red, allowing you to quickly identify what tracks you are mixing.

FX I send



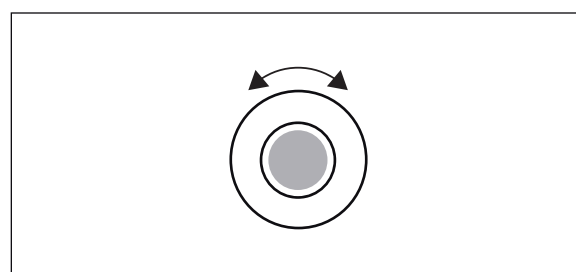
rotate the dark gray encoder to adjust the FX I send for the chosen track.

FX II send



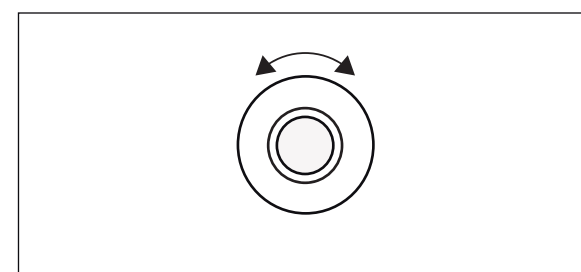
rotate the mid gray encoder to adjust the FX II send for the chosen track.

pan



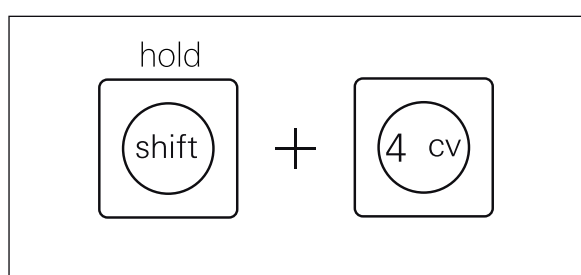
rotate the light gray encoder to adjust pan for the chosen track. press down on the encoder to reset the pan to center.

level



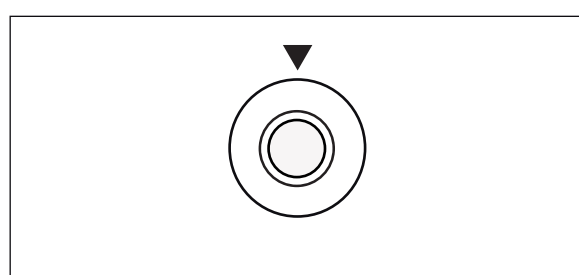
rotate the white encoder to adjust the level for the chosen track.

mute tracks



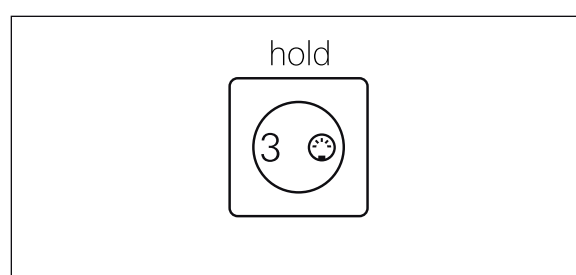
hold shift and press a track button to mute or unmute it. while holding shift, unmuted tracks will light up in white (for instrument) or red (for auxiliary) and muted tracks will be unlit. mutes affect notes and not audio.

mute track



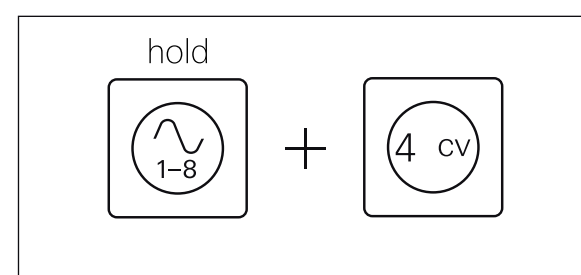
to mute the track you are currently editing you can alternatively press down the white encoder.

solo tracks



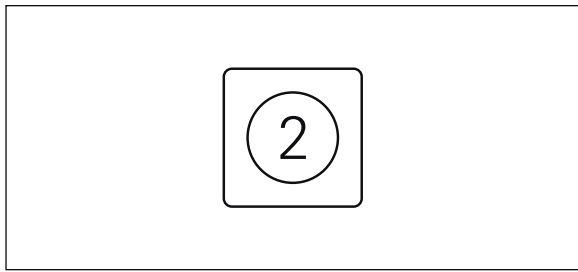
hold one, or multiple, track buttons while in mix to solo those tracks.

mute shortcut



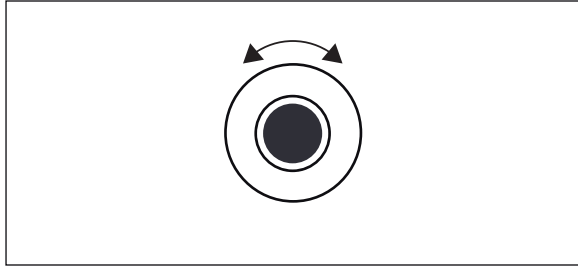
hold instrument or auxiliary and press a track button to quickly mute or unmute a track. if you hold instrument you will be able to mute instrument tracks, or auxiliary to mute auxiliary tracks.

17.2 eq



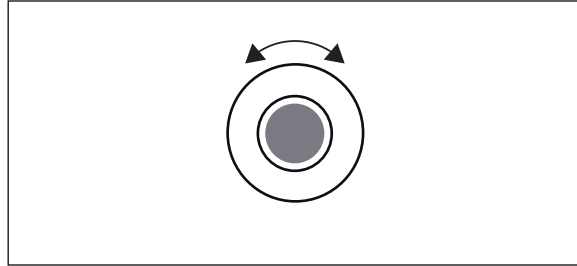
press M2 to adjust the master eq.

low



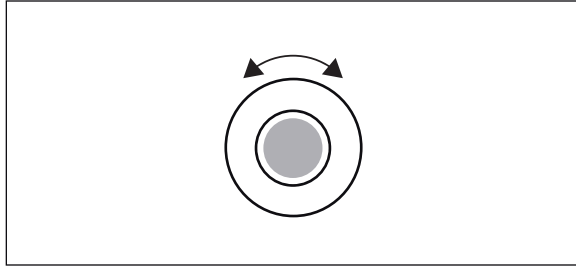
rotate the dark gray encoder to add or remove low frequencies. this is great for making basses more pronounced or taming bass that is too loud.

mid



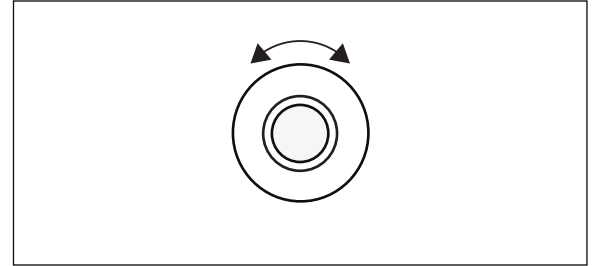
rotate the mid gray encoder to add or remove midrange frequencies.

high



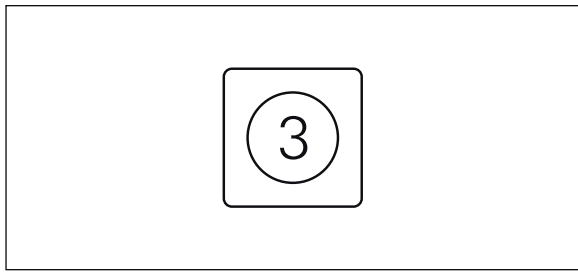
rotate the light gray encoder to add or remove high frequencies. use it to brighten or darken your sound.

blend



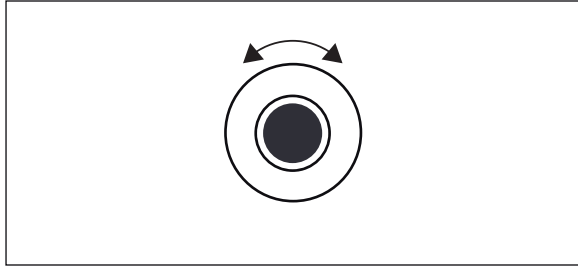
rotate the white encoder to blend between two eq settings. at lower settings the eq will always be neutral and at higher settings it will accentuate only the selected frequencies. this is perfect for performances where you want to quickly accentuate certain frequencies or do quick sweeps.

17.3 saturator



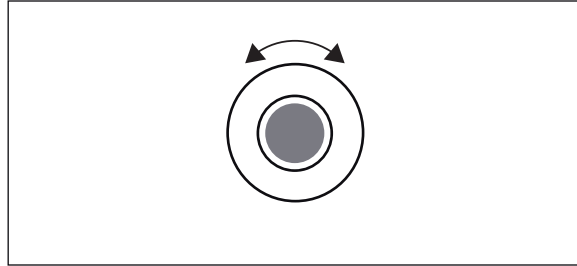
press M3 to adjust the master saturator.

gain



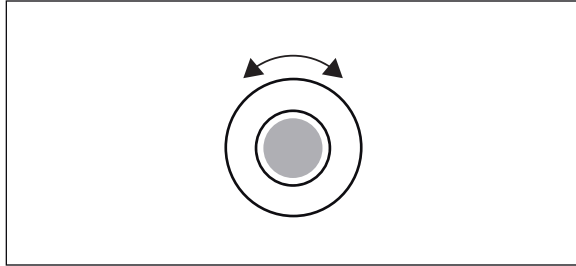
rotate the dark gray knob to adjust the gain into the saturator.

clip



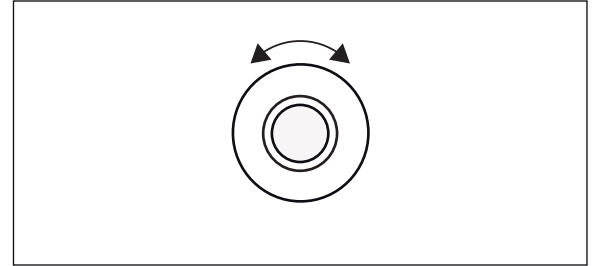
rotate the mid gray knob to adjust the clipping amount in the saturator, this will cut off loud dynamics.

tone



rotate the light gray knob to adjust the tone of the saturator, filtering high or low frequencies.

mix



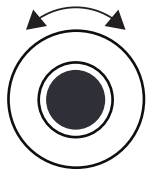
rotate the white knob to adjust the mix, how much you hear the saturator in the master mix.

17.4 master



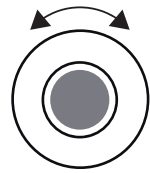
press M4 to adjust the master parameters in your project.

percussion



rotate the dark gray encoder to adjust the percussion group level. any percussive engines such as the drum sampler will automatically route through the percussion group.

melodic



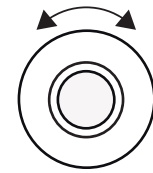
rotate the mid gray encoder to adjust the melodic group level. any melodic engines such as the synth engines and sampler will automatically route through the melodic group.

compressor



rotate the light gray encoder to add compression to the master bus. subtle compression can even out your mix by quietening loud sounds and boosting quiet ones. extreme compression can squash your whole mix and build a heavier, hard hitting sound.

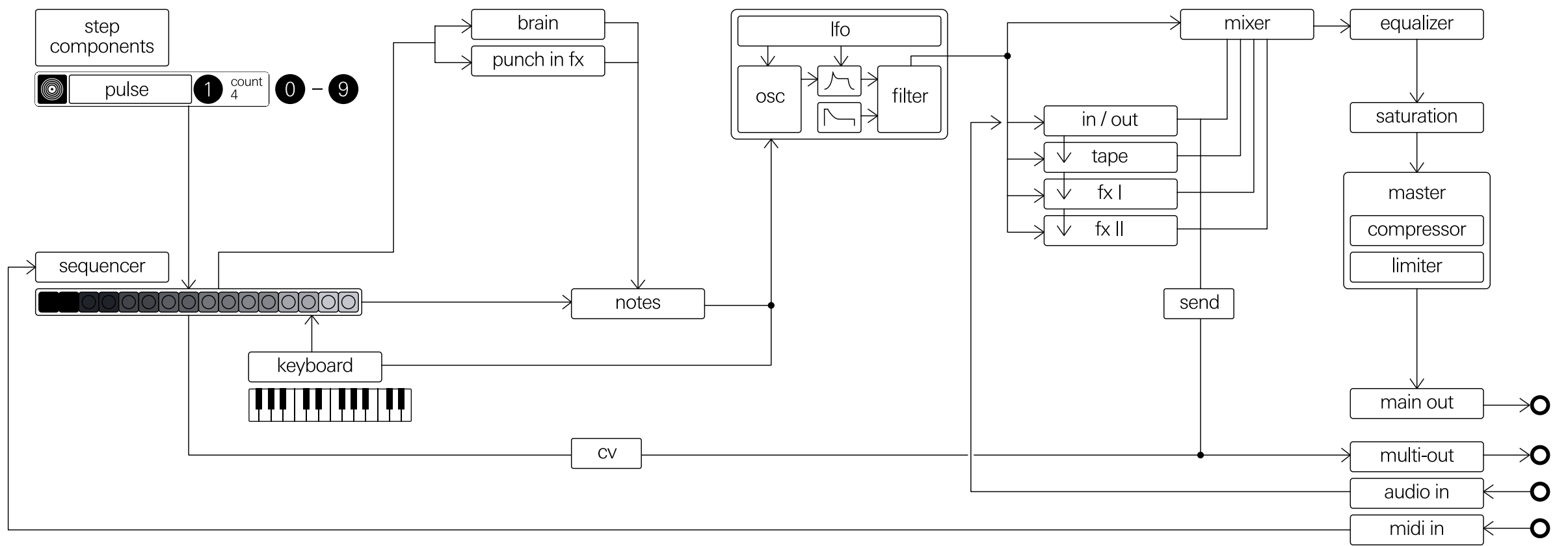
master level



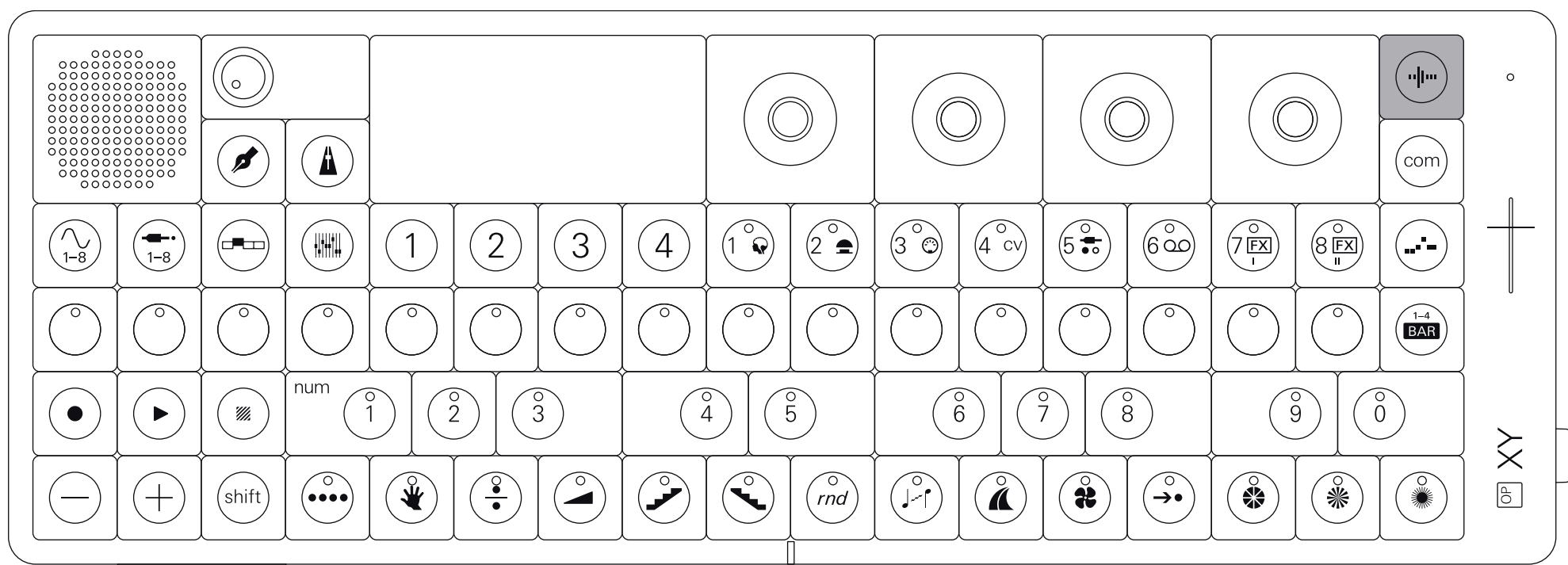
rotate the white encoder to boost the master level going into the output limiter.

17.5 signal flow diagram

note trig / signal path



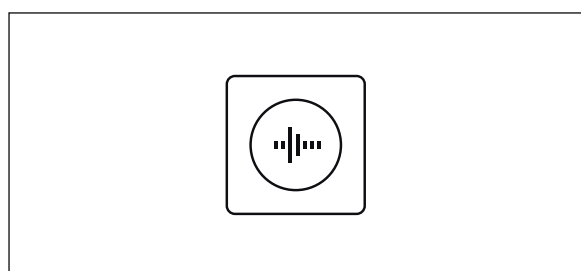
18. sample



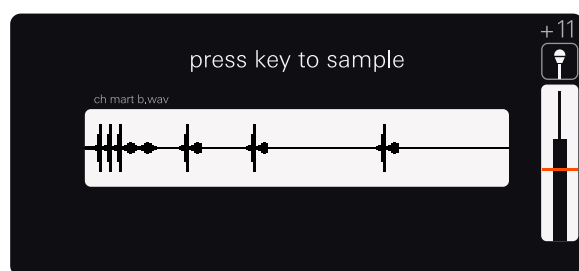
sampling is an amazing way to get new sounds into your OP-XY.

use the sample button to quickly record a sample or to record a new sample to an existing sampler track.

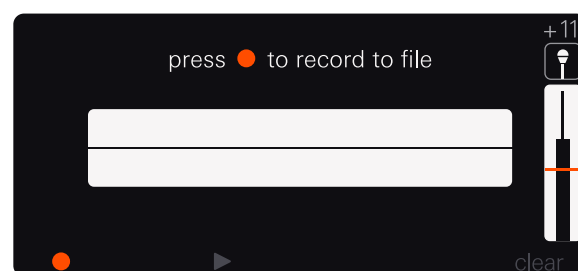
enter sample



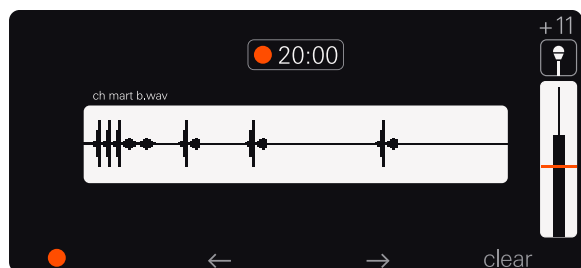
press sample while in any screen on the device to immediately sample something.



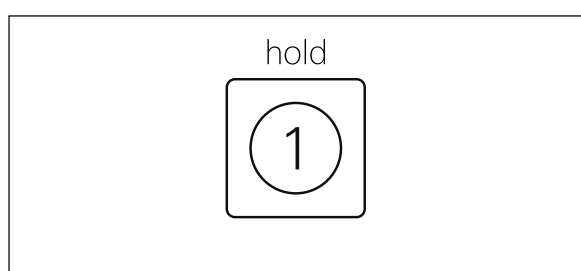
if you are already in a sample track the sample button will take you directly to the sample record page for the relevant sampler engine.



if you are not already in a sample track, the sample button will allow you to quickly record a sample and save it to the sample folder for use later.

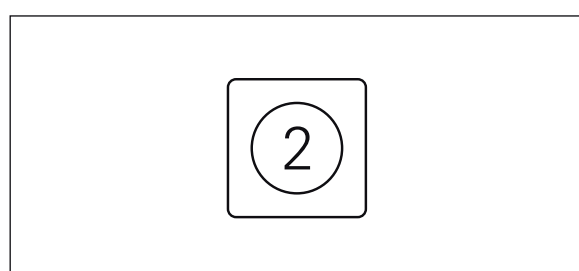


record



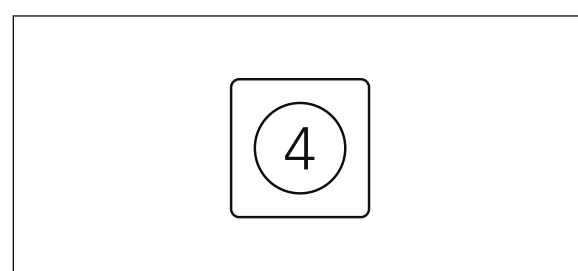
hold M1 to start recording a sample. sampling will only commence once the input source crosses the sampling threshold.

play



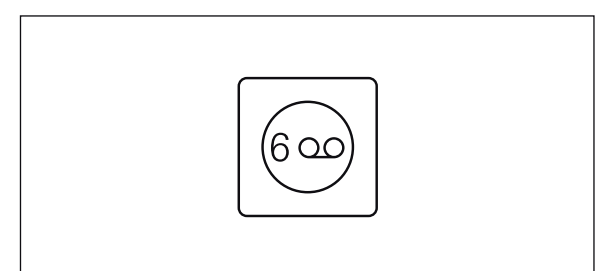
press M2 to listen to the recorded sample.

delete



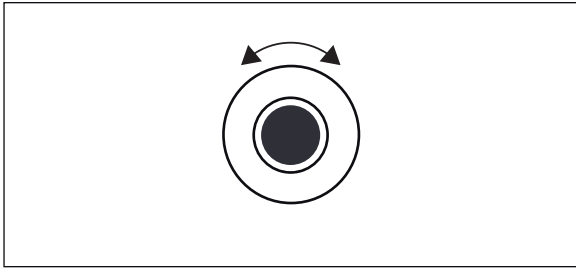
press M4 to delete the recorded sample, preventing it saving to the sample folder.

exit



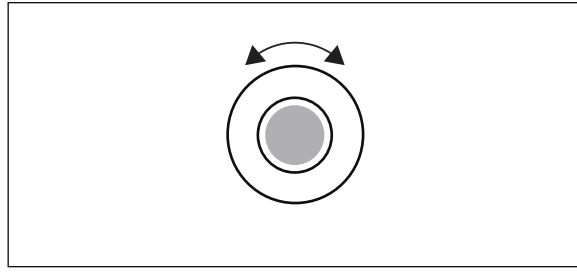
press the currently highlighted track button to exit sample mode.

source



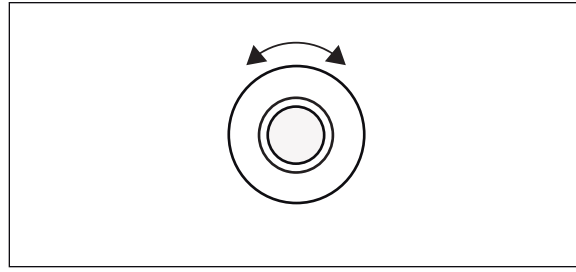
rotate the dark grey knob to select the input source for sampling.

gain



rotate the light grey knob to adjust the gain of the audio being recorded. you can see a live preview of the level on the vu meter.

threshold

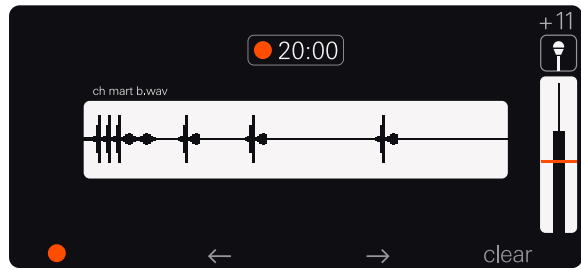


rotate the white knob to adjust the sample record threshold. this is the level after which the sampler will begin recording.

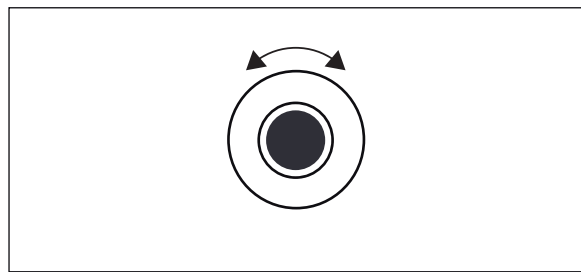
18.1 one shot synth sampler

the one shot sampler allows you to quickly record a sample and get an idea down.

sampling screen

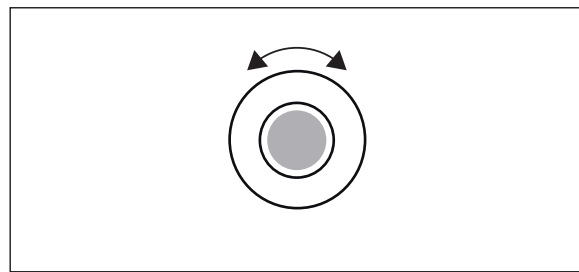


source



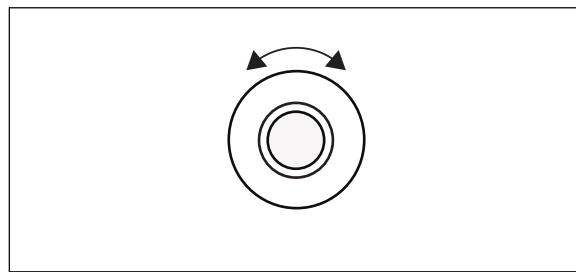
rotate the dark grey knob to select the input source for sampling.

gain



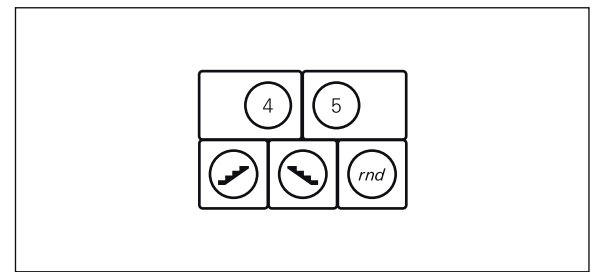
rotate the light grey knob to adjust the gain of the audio being recorded. you can see a live preview of the level on the vu meter.

threshold



rotate the white knob to adjust the sample record threshold. this is the level after which the sampler will begin recording.

start sampling

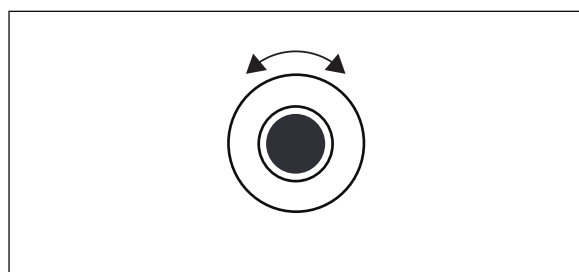


press any key to start sampling. the key you select will be the note that the sampler tunes the sample to.

editing screen

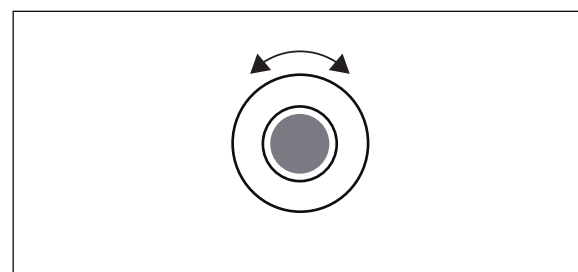


sample start



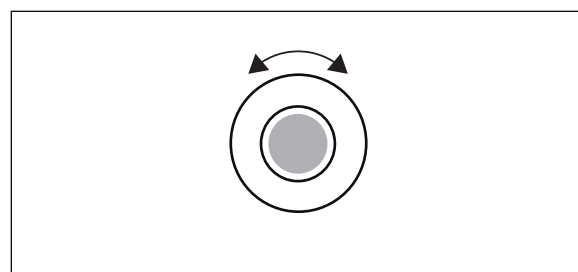
rotate the dark grey knob to adjust the sample start point. you can click the knob down to make a finer adjustment.

loop start



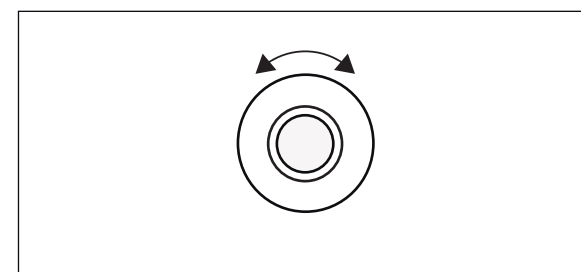
rotate the mid grey knob to adjust the loop start point. set it to the end of the sample to have no loop. you can click the knob down to make a finer adjustment.

loop end



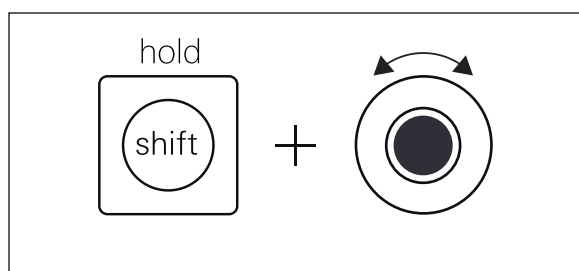
rotate the light grey knob to adjust the loop end point. you can click the knob down to make a finer adjustment.

sample end



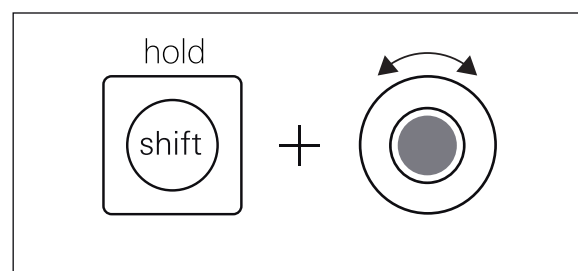
rotate the white knob to adjust the sample end point. you can click the knob down to make a finer adjustment.

sample direction



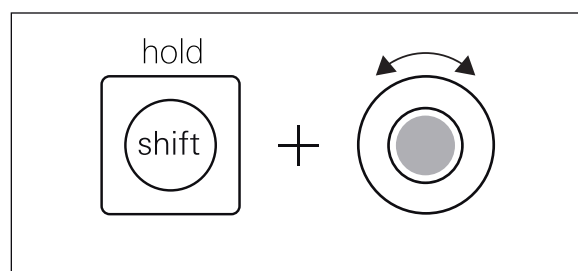
hold shift and rotate the dark grey knob to select the sample playback direction between forwards and backwards.

tune



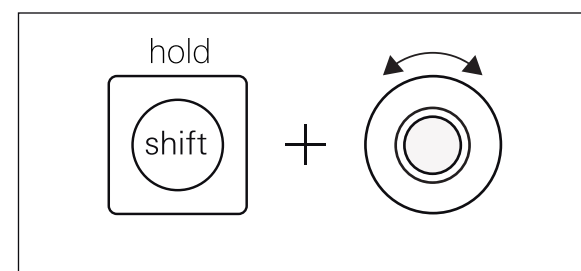
hold shift and rotate the mid grey knob to adjust the tuning of the sample.

loop crossfade



hold shift and rotate the light grey knob to adjust the loop crossfade amount, use this to create smooth pads.

sample gain

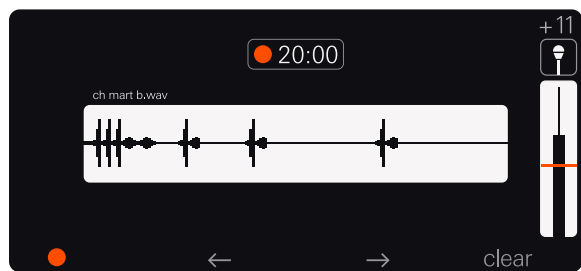


hold shift and rotate the white knob to adjust the sample gain.

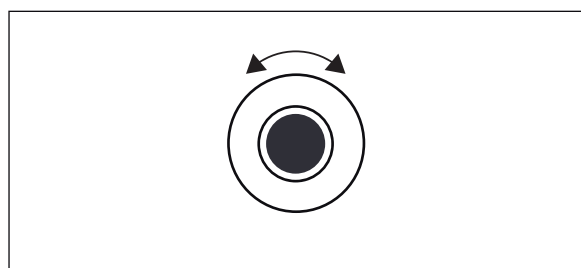
18.2 drum sampler

the drum sampler allows you to trigger 24 different one shot samples across the musical keyboard. perfect for drums but also great for triggering other sounds.

sampling screen

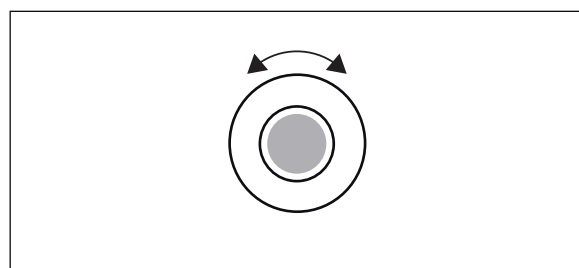


source



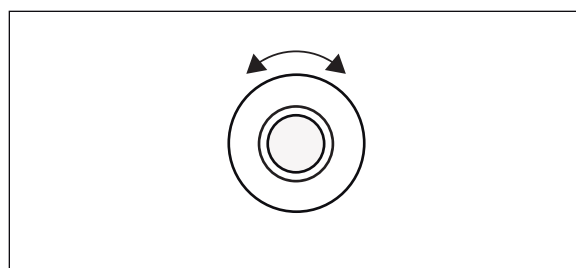
rotate the dark grey knob to select the input source for sampling.

gain



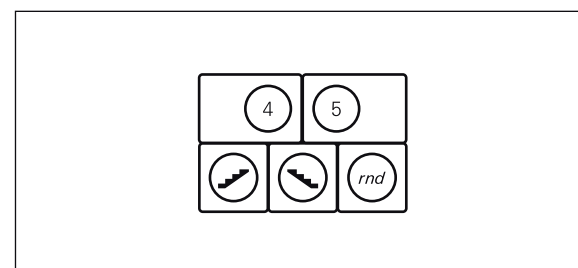
rotate the light grey knob to adjust the gain of the audio being recorded. you can see a live preview of the level on the vu meter.

threshold



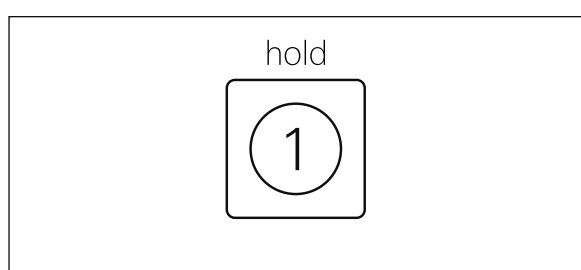
rotate the white knob to adjust the sample record threshold. this is the level after which the sampler will begin recording.

key select



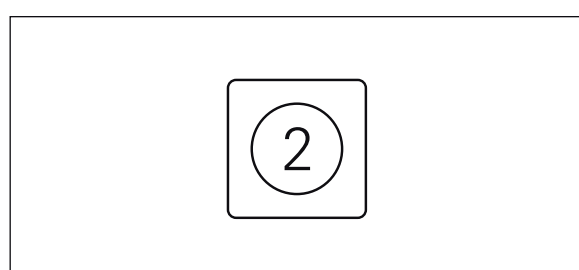
press a key to select it, it will light up and you can then record a sample to it.

record sample



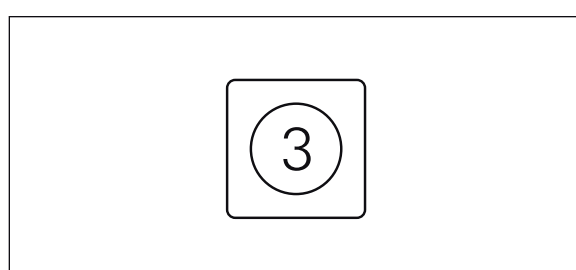
hold M1 to record a sample to the selected key. recorded samples will automatically save to the user sample folder on the device.

previous sample



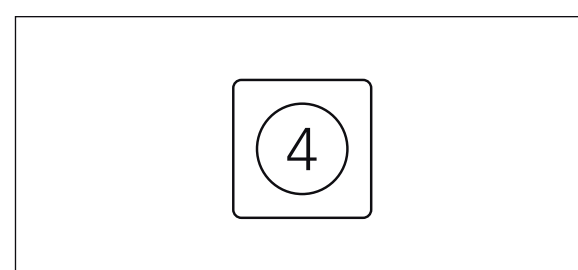
press M2 to move to the previous recorded key and sample. this will only move you through keys that have samples recorded to them.

next sample



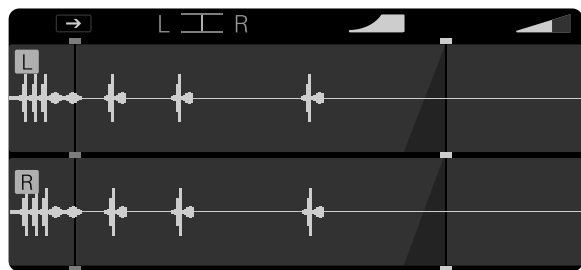
press M3 to move to the next recorded key and sample. this will only move you through keys that have samples recorded to them.

clear

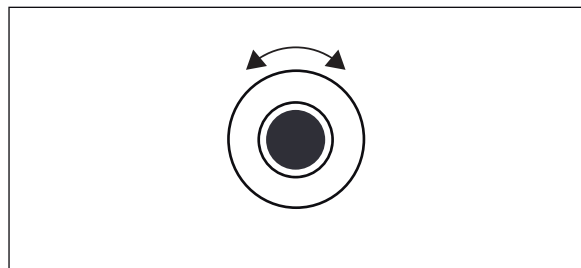


press M4 to clear a sample from a key. all recorded samples will be automatically saved to the user sample folder so clear will only remove the assignment, not delete the sample outright.

editing screen

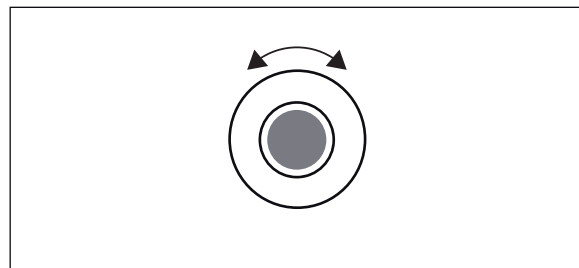


tune



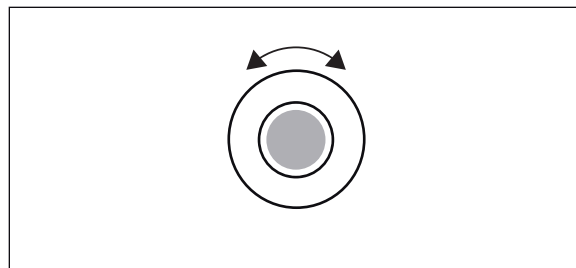
rotate the dark grey knob to adjust the tuning of the selected key and sample.

sample start



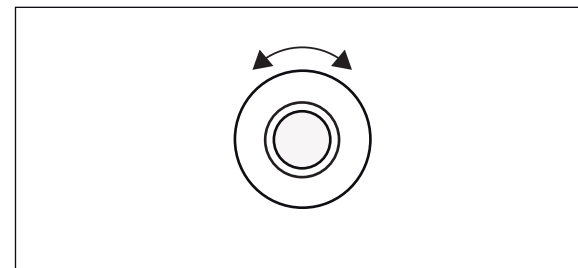
rotate the mid grey knob to adjust the sample start point. you can click the knob down to make a finer adjustment.

sample end



rotate the light grey knob to adjust the sample end point. you can click the knob down to make a finer adjustment.

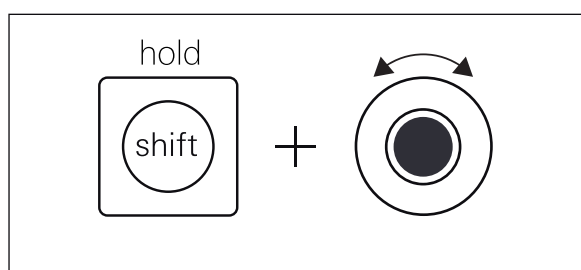
play mode



rotate the white knob to adjust the sample playback style, here you can select from:

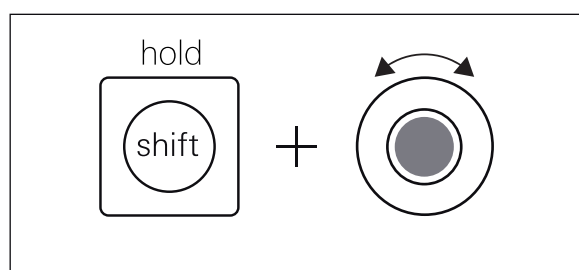
key (play while held)
oneshot (play whole sample)
mute group (choke when another sample plays)
loop (loop at sample end)

sample direction



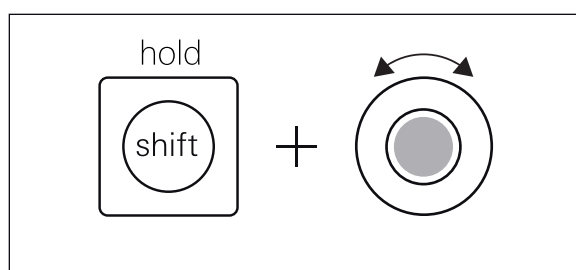
hold shift and rotate the dark grey knob to select the sample playback direction between forwards and backwards.

pan



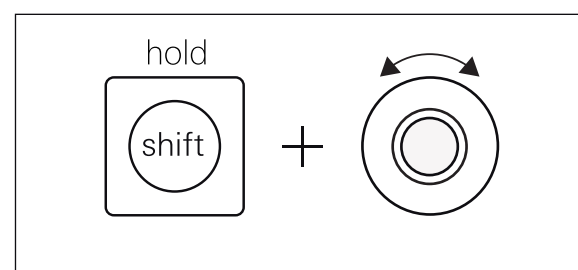
hold shift and rotate the mid grey knob to adjust the panning of the sample.

sample fade



hold shift and rotate the light grey knob to adjust the sample start fade.

sample gain

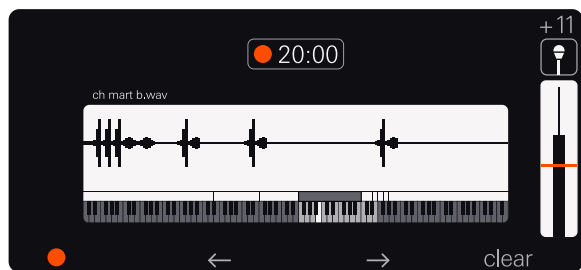


hold shift and rotate the white knob to adjust the sample gain.

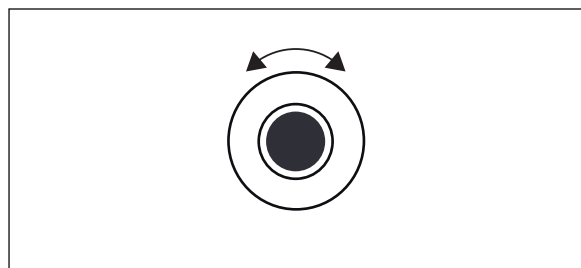
18.3 multisampler

the multisampler allows you to record more complex and accurate samples of your instruments.

sampling screen

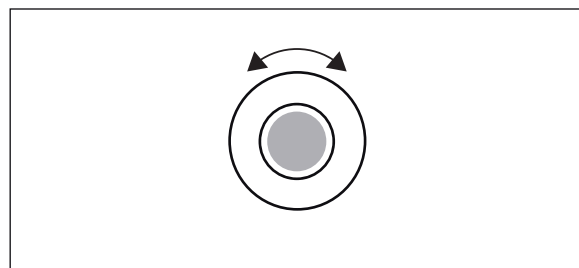


source



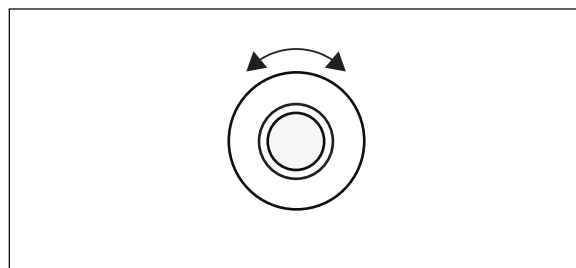
rotate the dark grey knob to select the input source for sampling.

gain



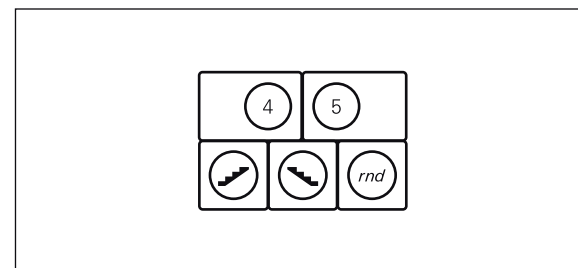
rotate the light grey knob to adjust the gain of the audio being recorded. you can see a live preview of the level on the vu meter.

threshold



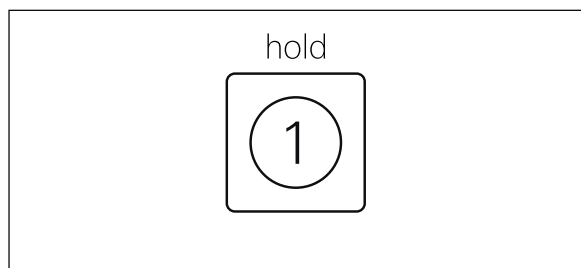
rotate the white knob to adjust the sample record threshold. this is the level after which the sampler will begin recording.

key select



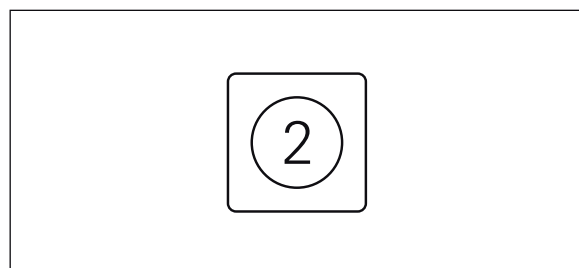
press a key to select it, it will light up and you can then record a sample to it. as you select keys from left to right OP-XY will automatically create zones for those samples. the multisampler fills down so as you add samples it will fill the gaps by pitching those samples down.

record sample



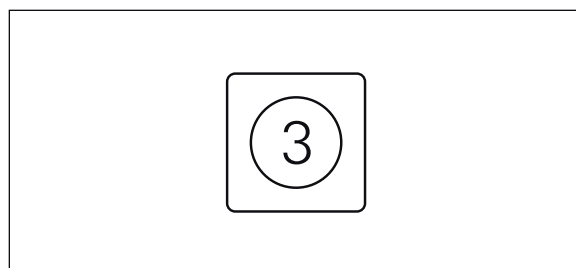
hold M1 to record a sample to the selected key. recorded samples will automatically save to the user sample folder on the device.

previous sample



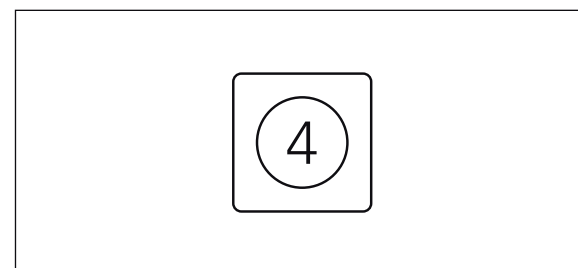
press M2 to move to the previous recorded key and sample. this will only move you through keys that have samples recorded to them.

next sample



press M3 to move to the next recorded key and sample. this will only move you through keys that have samples recorded to them.

clear



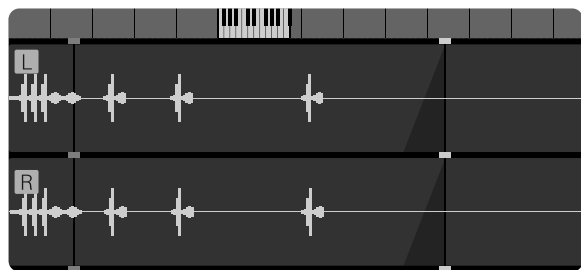
press M4 to clear a sample from a key. all recorded samples will be automatically saved to the user sample folder so clear will only remove the assignment, not delete the sample outright.

max zones

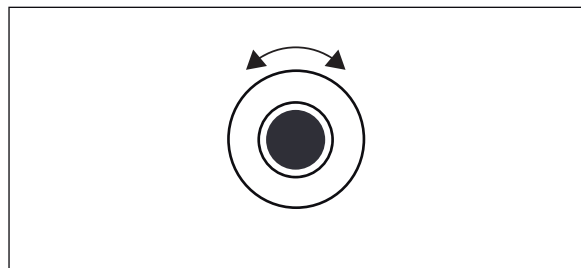


the multisampler holds a maximum of 24 zones. enough for around 3 samples per octave.

editing screen

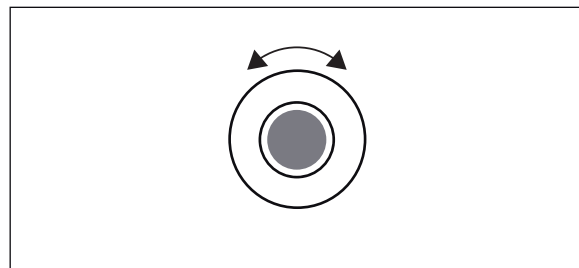


sample start



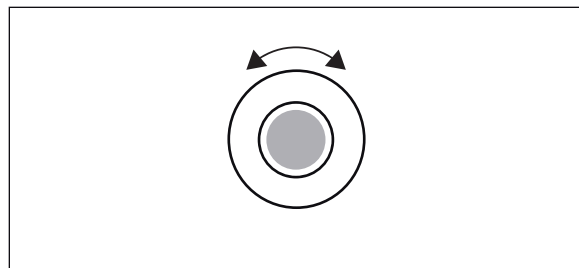
rotate the dark grey knob to adjust the sample start point. you can click the knob down to make a finer adjustment.

loop start



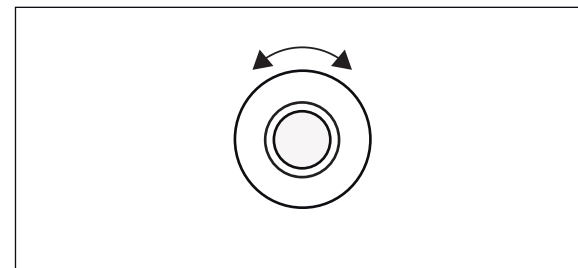
rotate the mid grey knob to adjust the loop start point. set it to the end of the sample to have no loop. you can click the knob down to make a finer adjustment.

loop end



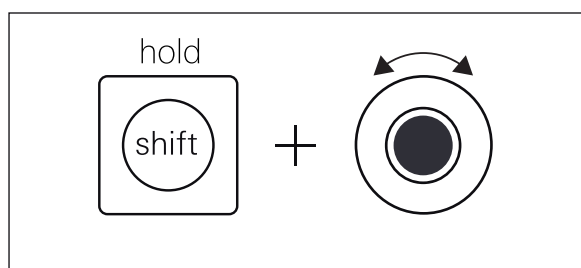
rotate the light grey knob to adjust the loop end point. you can click the knob down to make a finer adjustment.

sample end



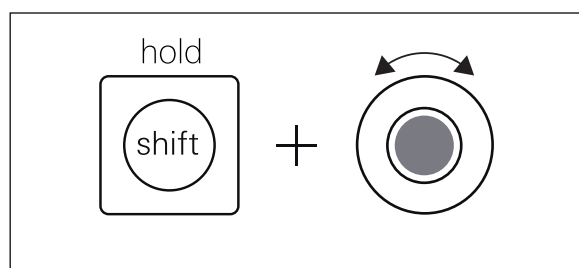
rotate the white knob to adjust the sample end point. you can click the knob down to make a finer adjustment.

sample direction



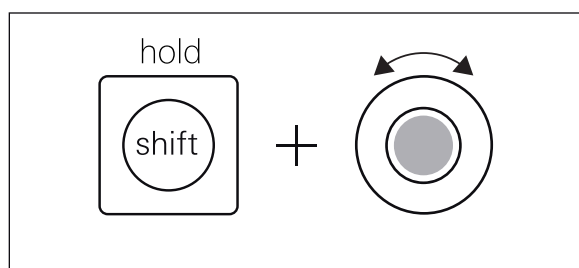
hold shift and rotate the dark grey knob to select the sample playback direction between forwards and backwards.

tune



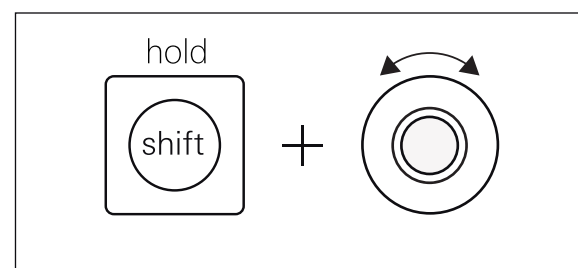
hold shift and rotate the mid grey knob to adjust the tuning of the sample.

loop crossfade



hold shift and rotate the light grey knob to adjust the loop crossfade amount, use this to create smooth pads.

sample gain

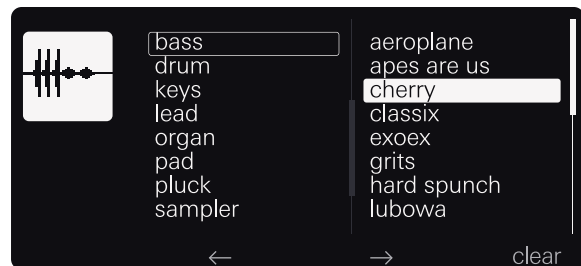


hold shift and rotate the white knob to adjust the sample gain.

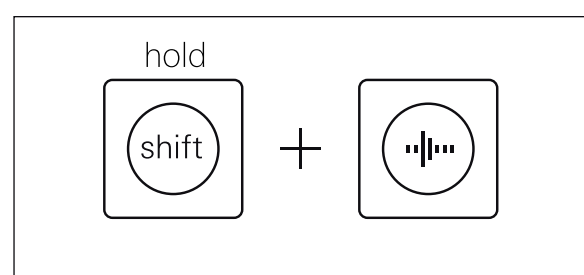
18.4 sample folder

OP-XY stores all of your samples in the sample folder. you can use the sample folder to load any sample into any of the samplers.

think of the sample folder as a place to hold all of your favourite samples. you can pick out whichever one you like, whenever you need it and use it in your project.

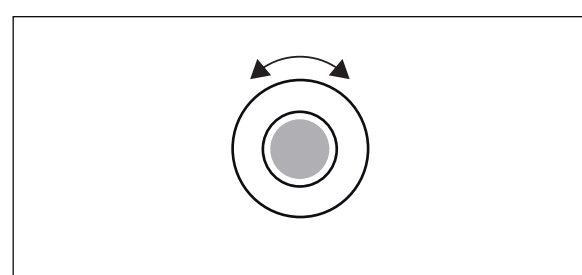


open sample folder



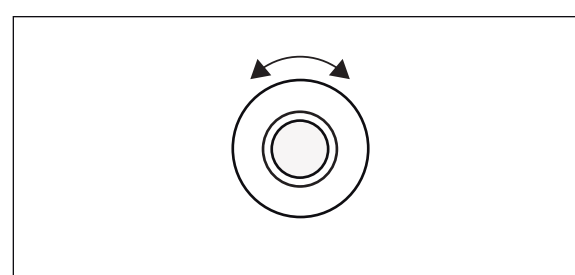
hold shift and press sample to open the sample folder.

type



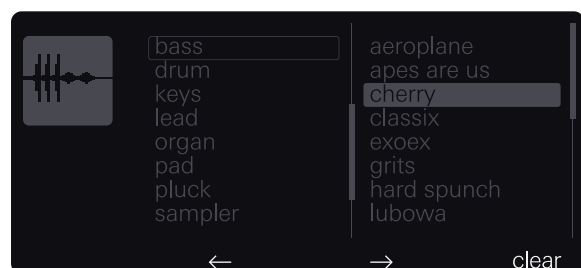
rotate the dark grey knob to select the sample type, you can create a new type in the mtp mode by creating and naming a folder in the samples folder.

sample select



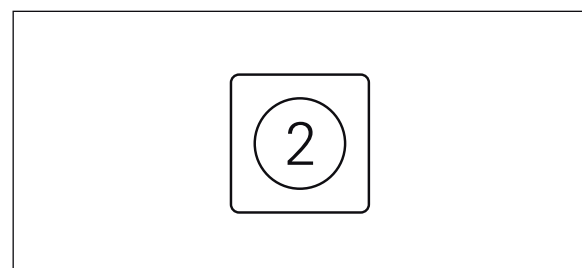
rotate the mid grey, light grey or white knobs to select a sample.

arrows and clear



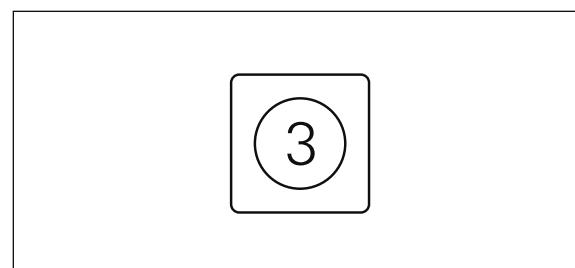
in the drum sampler and multisampler you will see some additional controls on screen.

previous sample



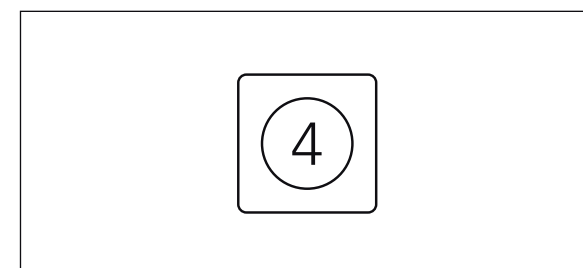
press M2 to move to the previous recorded key and sample. this will only move you through keys that have samples recorded to them.

next sample



press M3 to move to the next recorded key and sample. this will only move you through keys that have samples recorded to them.

clear



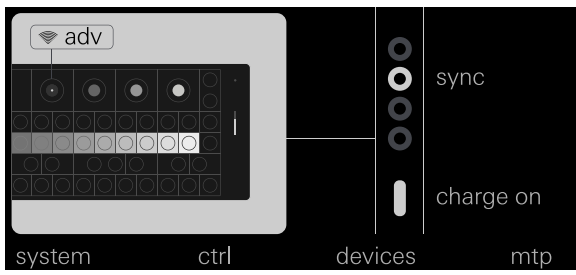
press M4 to clear a sample from a key. all recorded samples will be automatically saved to the user sample folder so clear will only remove the assignment, not delete the sample outright.

delete a sample

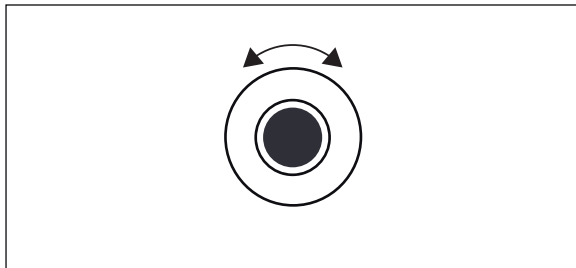


to delete a sample from the device permanently you will have to connect the device to a computer and use mtp to delete the file off the device.

19.1 setting the multi-out port and bluetooth midi

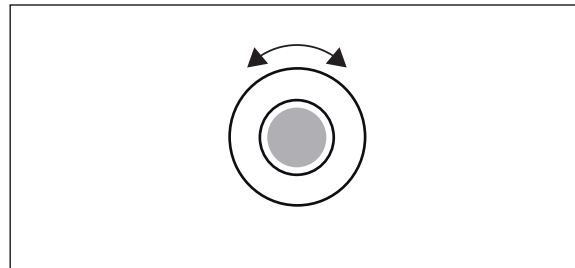


bluetooth midi



rotate or click the dark gray knob to advertise OP-XY on bluetooth midi. this allows you to connect it as a device to another device (host).

multi-out



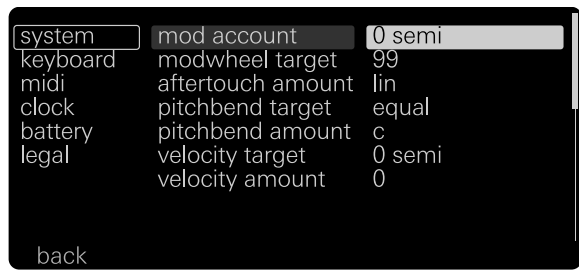
rotate the light gray knob to edit the output of the multi-out port. you can choose between:

- midi
- cv/gate
- sync8
- sync16
- sync24
- audio

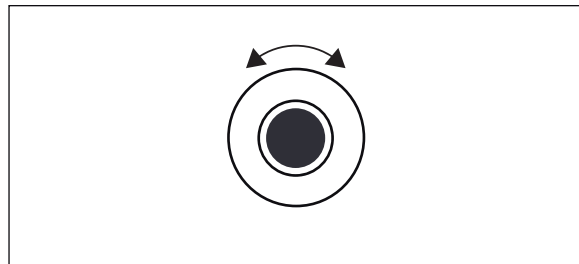
multi-out cannot be changed while plugged in.

19.2 system settings

system settings allow you to adjust everything from screen brightness to keyboard velocity and midi preferences.

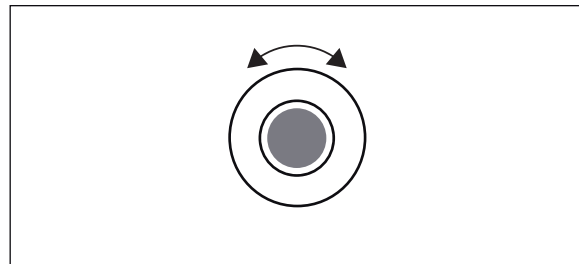


section



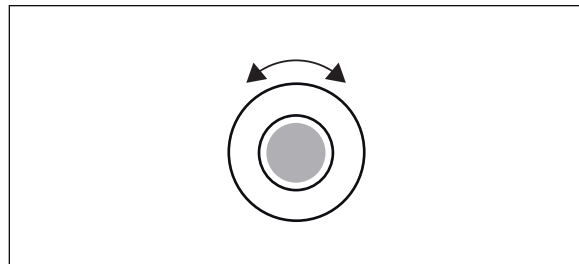
rotate the dark gray knob to select the section of the device you wish to edit.

setting



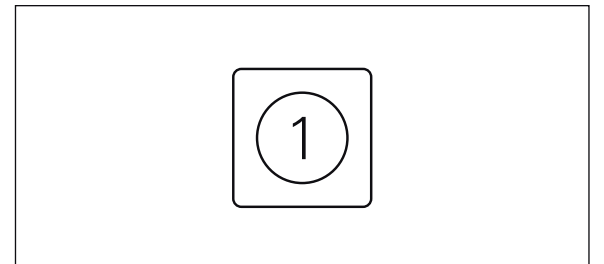
rotate the mid gray knob to select the setting you wish to edit.

value



rotate the light gray knob to adjust the value of the selected setting. the white knob can also be used.

exit



press M1 to exit the system settings and return to com.

system

the system settings page in system settings allows you to adjust screen brightness, led brightness, country and power off type (instant or delayed, to prevent accidental power-offs while performing or composing).

keyboard

the keyboard settings page in system settings allows you to adjust the velocity response of the built-in keyboard, as well as detune the keys by both notes and cents, for microtonal scales.

midi

the midi settings page in system settings allows you to set how midi clock, notes and other midi messages are sent and received, as well as selecting the active track channel (the active track is the one currently selected) and midi echo.

clock

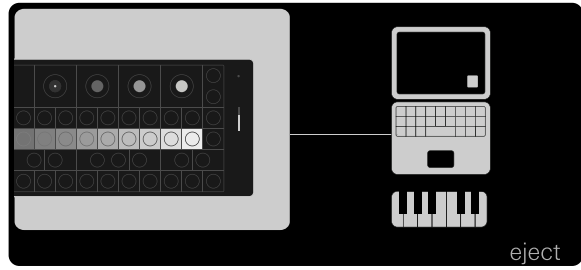
the clock settings page in system settings allows you to set the clock of the device, this will update the date and time of any snapshots, autosaves, versions and everything else in the device.

battery

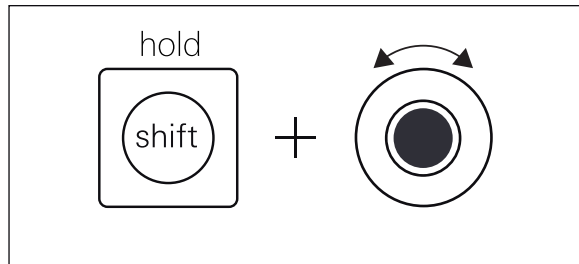
the battery settings page in system settings allows you to view the current battery level and input current limit.

19.3 midi controller mode

midi controller mode allows you to use OP–XY as a generic midi controller for any device, such as a computer.

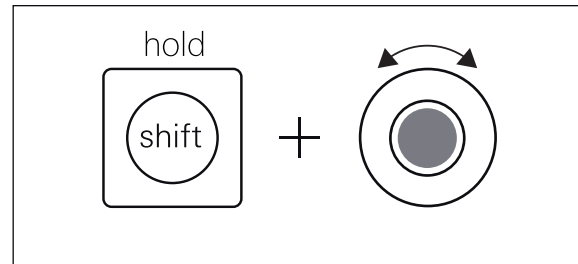


channel



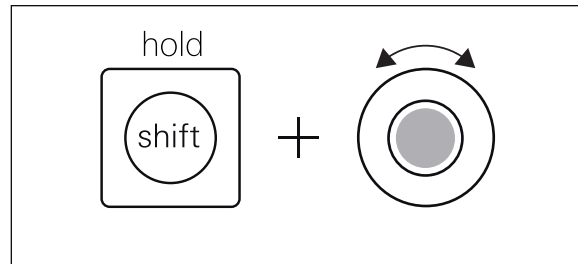
hold shift and rotate the dark gray knob to adjust the midi channel OP–XY outputs while in control mode.

knobs



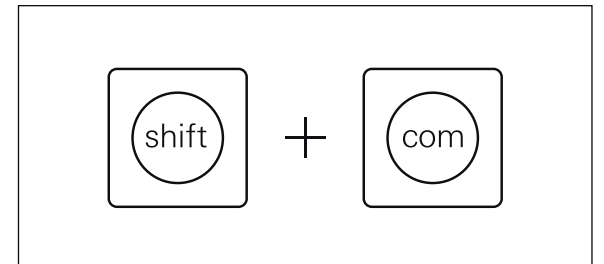
hold shift and rotate the mid gray knob to change the knob behavior between absolute and relative. absolute behaves as a knob going from 0–127, whereas relative sends the difference from the last knob position.

octave



hold shift and rotate the mid gray knob to enable or disable the (-) and (+) octave buttons.

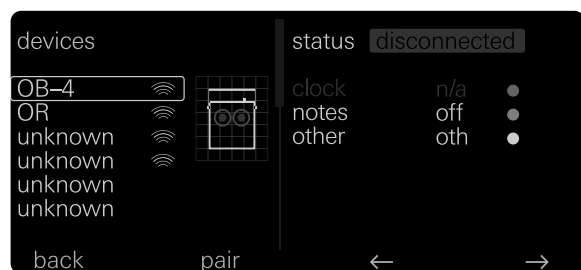
exit



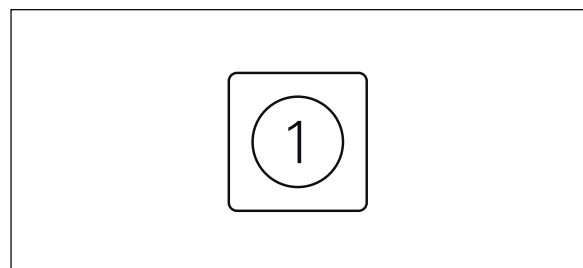
hold shift and press com to exit midi controller mode and return to com.

19.4 devices

devices allows you to view and edit the connected midi devices, enabling and disabling various inputs and outputs from and to those devices.

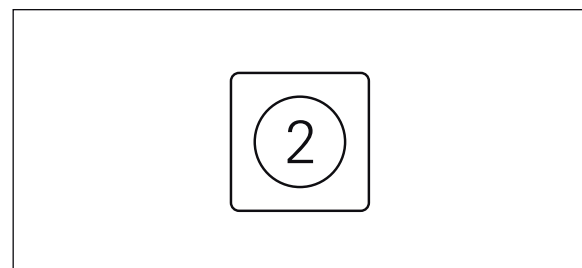


back



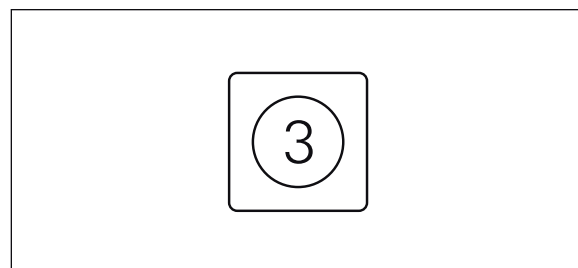
press M1 to exit devices and return to com.

forget



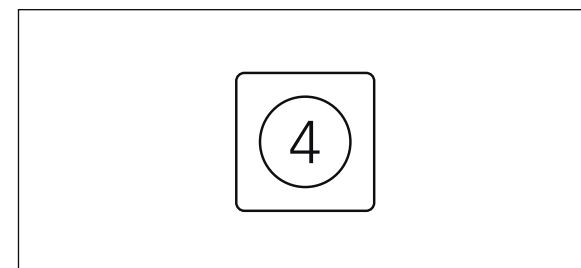
press M2 to forget the currently selected device. this will remove it from your list of devices.

page 1



press M3 to view and edit page 1 of the midi device settings. these settings include how clock, notes and other are sent and received.

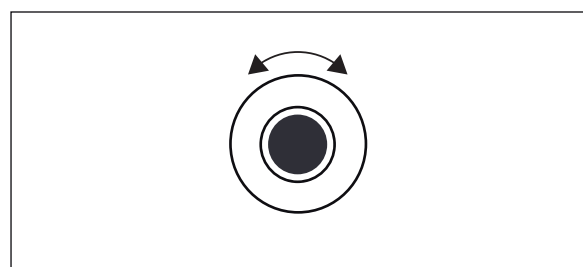
page 2



press M4 to view and edit page 2 of the midi device settings. these settings include whether timestamp and velocity are sent or not.

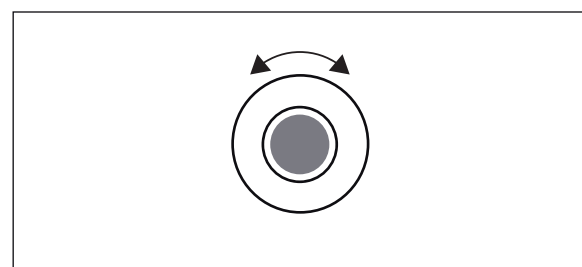
page 1

device



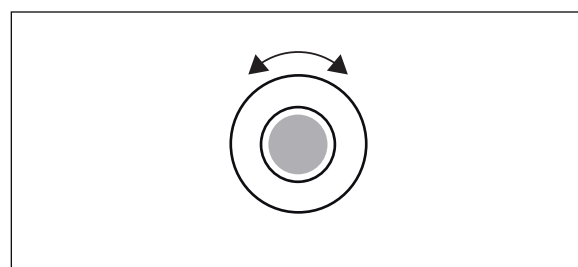
rotate the dark gray knob to select a device to edit.

clock



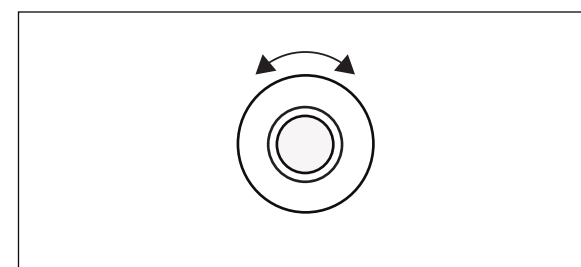
rotate the mid gray knob to edit how clock is sent and received.

notes



rotate the light gray knob to edit how notes are sent and received.

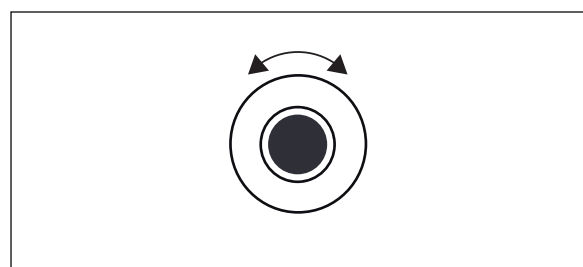
other



rotate the white knob to edit how other midi parameters are sent and received. other mostly refers to midi CCs.

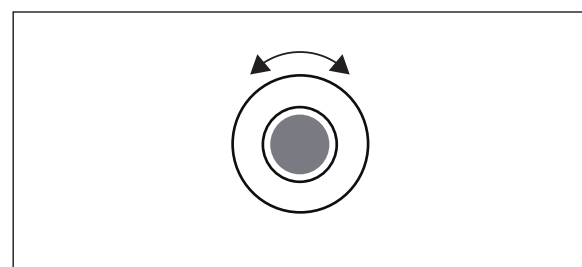
page 2

device



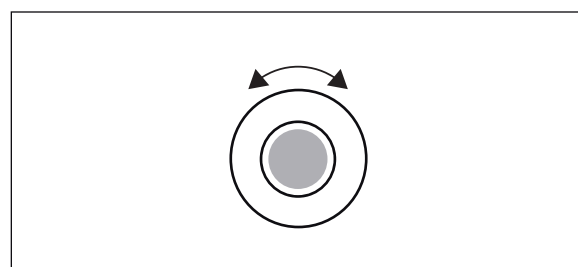
rotate the dark gray knob to select a device to edit.

timestamp



rotate the mid gray knob to select whether timestamp is sent or not.

velocity

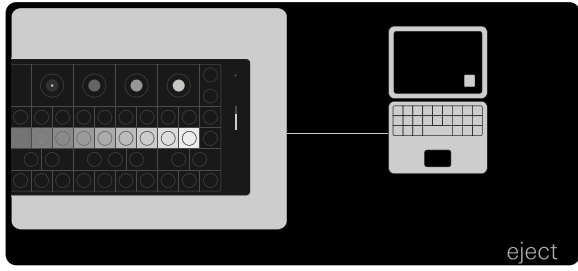


rotate the light gray knob to select whether velocity is sent or not.

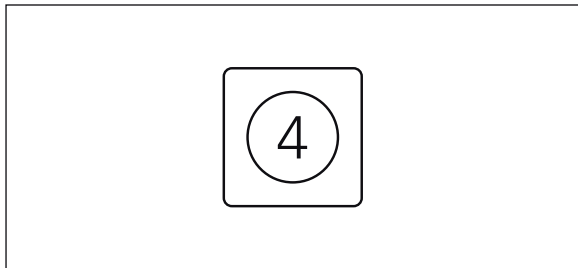
19.5 mtp

mtp is where you can connect to a computer to add samples, presets and projects. you will need to connect your OP–XY to a computer before you can enter mtp mode.

mtp refers to 'media transfer protocol' and is a super fast way to transfer files between devices. when using a mac you will need to download the [fieldkit app](#).



eject

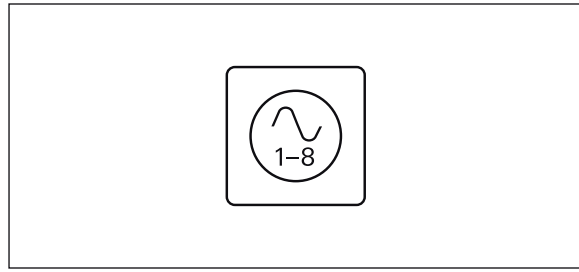


press M4 to eject OP–XY from your computer.

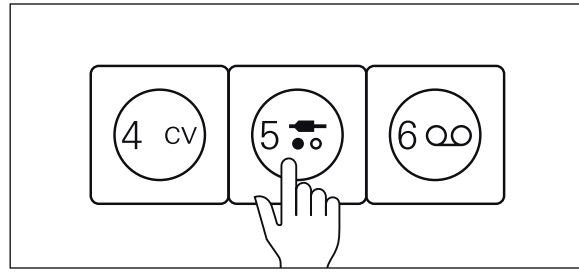
20. synth engines

OP-X_Y features 8 synth engines. each synth engine has a unique sound, expanding the sonic palette of the device.

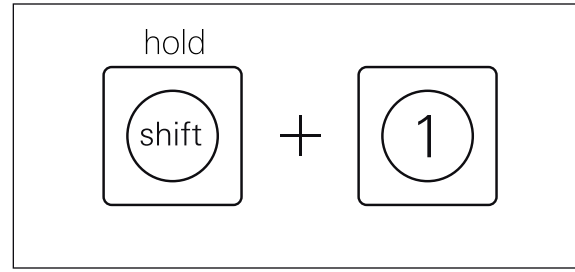
change engine



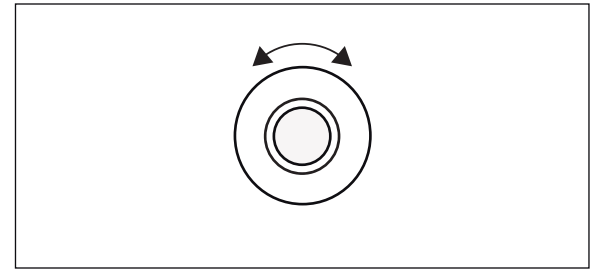
first enter instrument mode to view and edit the instrument tracks.



select the instrument track you wish to edit.



hold shift and press M1 to select the synth engine on that track.

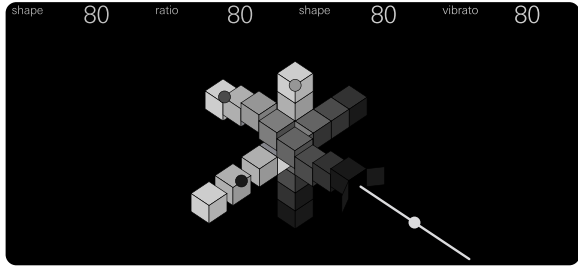


you can then use the white knob to scroll through the list and select an engine. click the encoder or press M1 to confirm your selection.

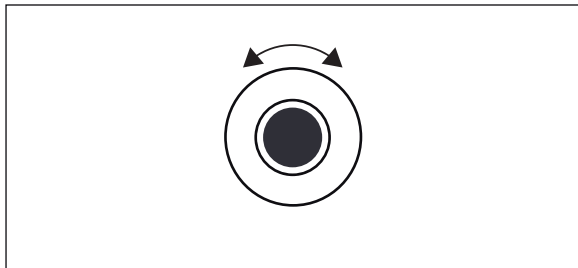
20.1 axis

axis is an fm synth engine tailored for creating lush string sounds.

axis screen

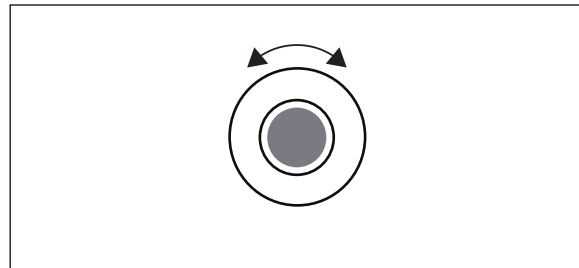


tone



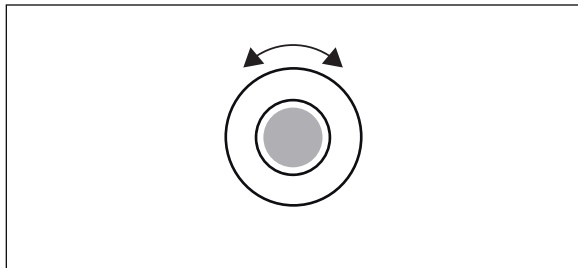
rotate the dark gray knob to adjust the tone of the sound. tone allows you to make the sound brighter or darker.

ratio



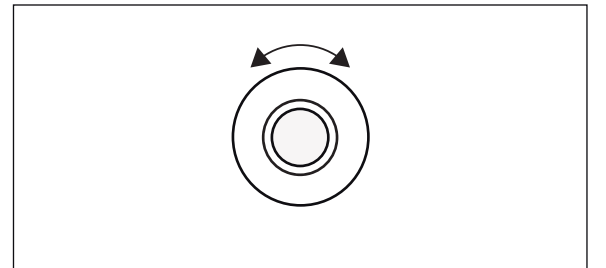
rotate the mid gray knob to adjust the ratio of the sound. this is the pitch of one of the oscillators and goes from a detune (from 0-50) to ascending fifths (from 51-100).

shape



rotate the light gray knob to adjust the wave shape of the oscillators.

tremolo

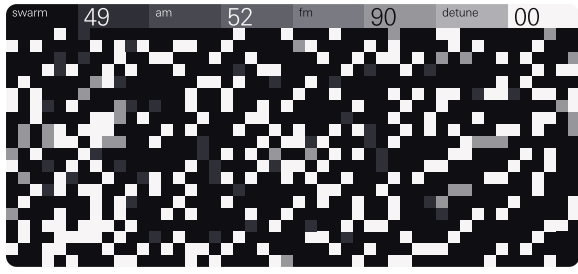


rotate the white knob to adjust the speed and amount of tremolo. tremolo oscillates the volume of the sound.

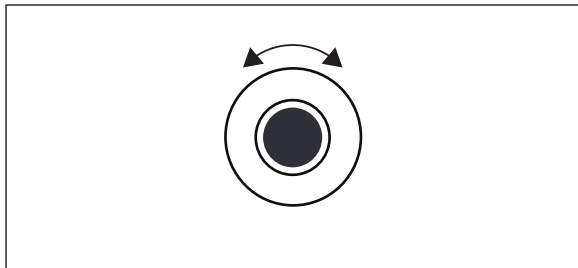
20.2 dissolve

dissolve is a tonal noise synth engine, perfect for ambient pads and bright, noisy leads.

dissolve screen

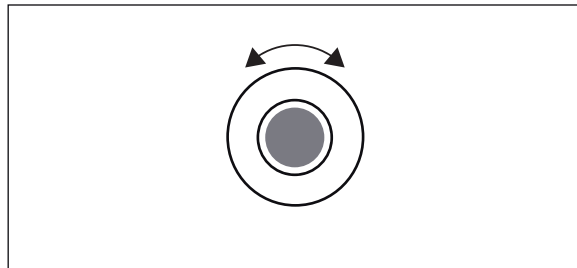


swarm



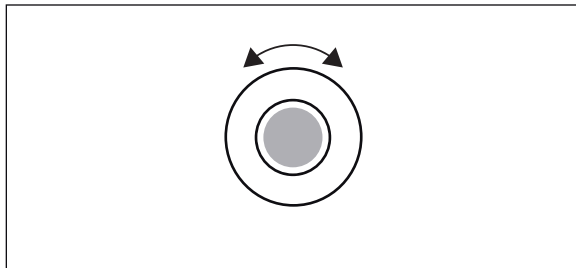
rotate the dark gray knob to adjust swarm. swarm modulates the oscillators with noise.

am



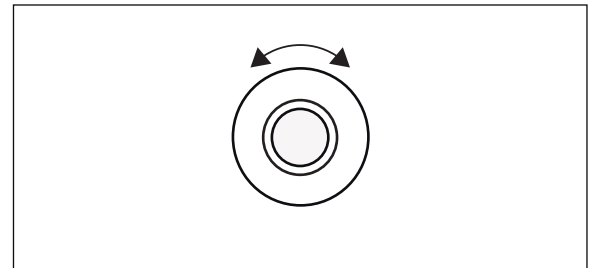
rotate the mid gray knob to adjust am. this modulates the amplitude of the sound, adding grit

fm



rotate the light gray knob to adjust fm. this modulates the frequency and adds tonality to the sound.

detune

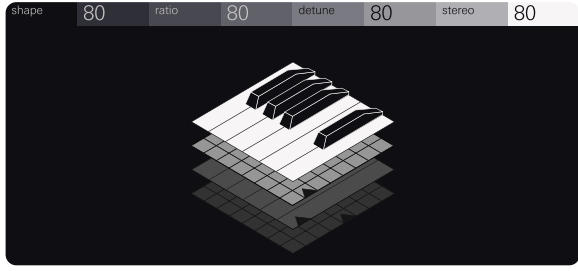


rotate the white knob to adjust the detune of the oscillators. this changes the pitch of each oscillator subtly to create a richer sound.

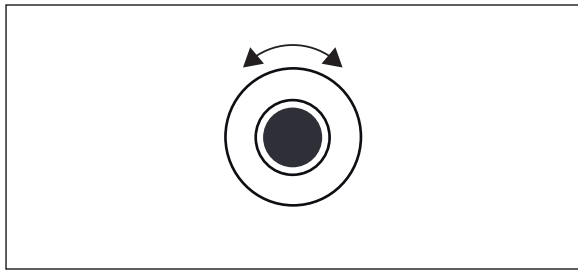
20.3 epiano

epiano is an electronic piano emulation and can create plucky epiano sounds, powerful leads and thick basses.

epiano screen

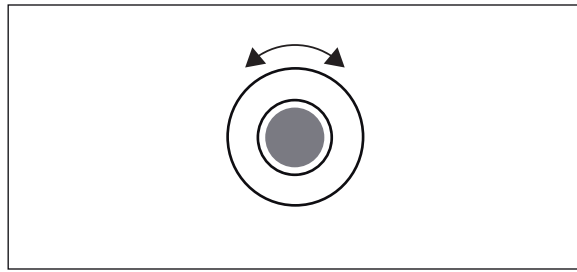


tone



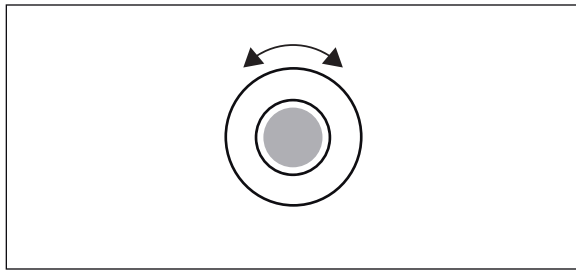
rotate the dark gray knob to adjust the tone of the sound. tone allows you to make the sound brighter or darker.

texture



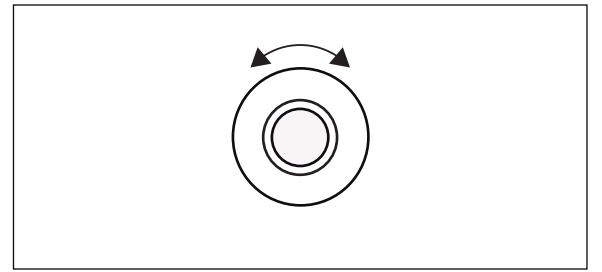
rotate the mid gray knob to adjust texture. texture brings grit to the sound.

punch



rotate the light gray knob to adjust punch. punch adds even more movement to your sound.

tine



rotate the white knob to adjust tine. tine adds high frequencies to the start of your sound, emulating the sound of the tine within an electronic piano.

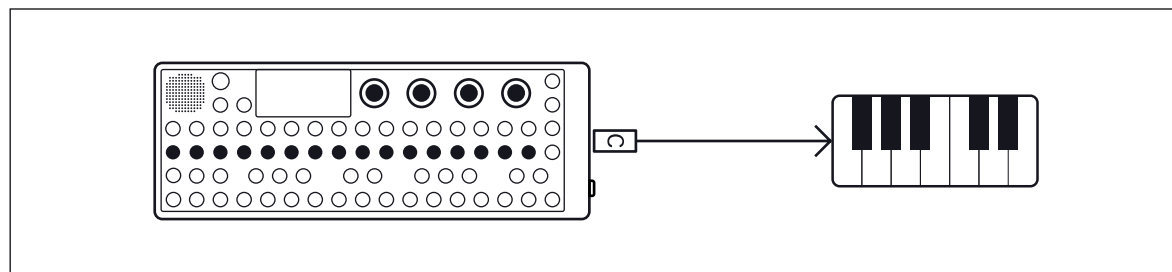
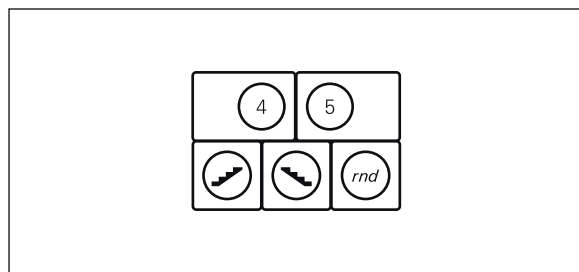
20.4 external

external allows you to turn an instrument track into a midi sequencing track for an external midi device.

external screen



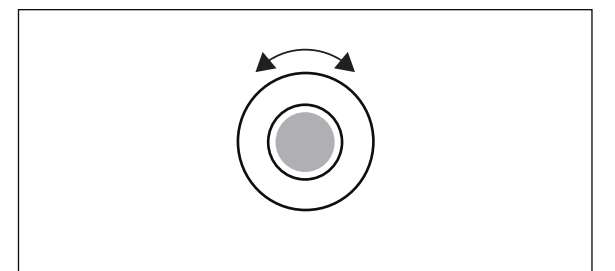
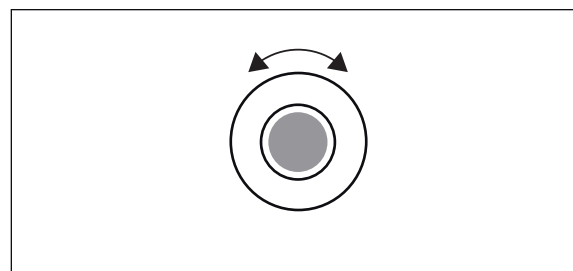
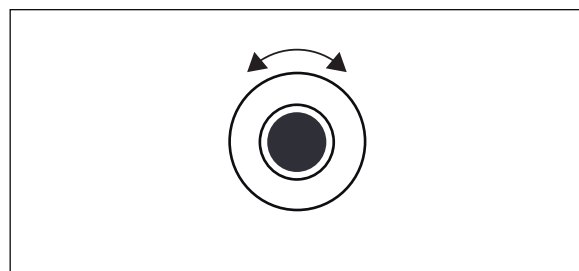
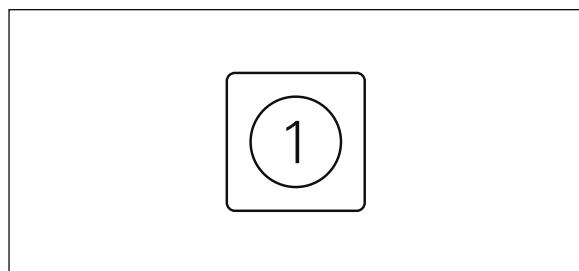
external midi track



here you can use the musical keyboard to play notes on external midi devices, as well as sequence those notes on the sequencer.

when setting an instrument track to an external midi track you can control which midi channel, bank and program you want to control as well as offering 8 midi CCs that can be edited, sequenced and recorded.

channel, bank and program



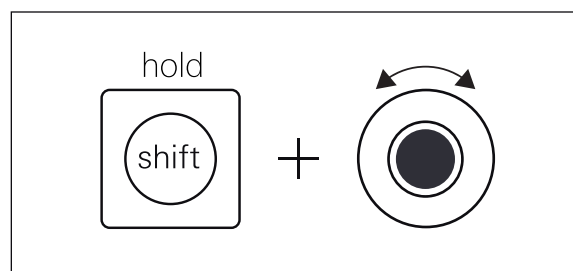
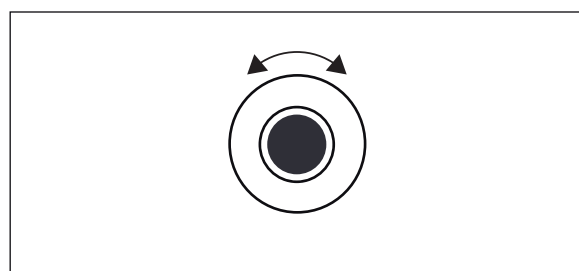
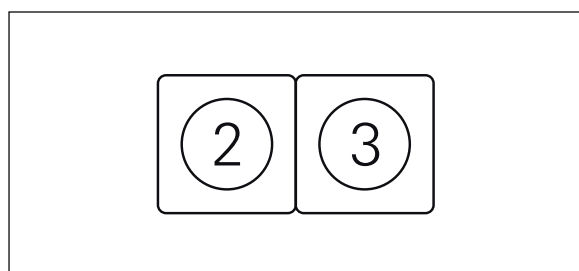
within M1 you will find the controls for channel, bank and program. in a typical midi set up, each device listens to a different channel. some devices may use banks and programs to select a particular sound.

rotate the dark gray encoder to select midi channel.

rotate the mid gray encoder to select the bank.

rotate the light gray encoder to select a program.

midi CCs



within M2, M3 you will find the midi CCs.

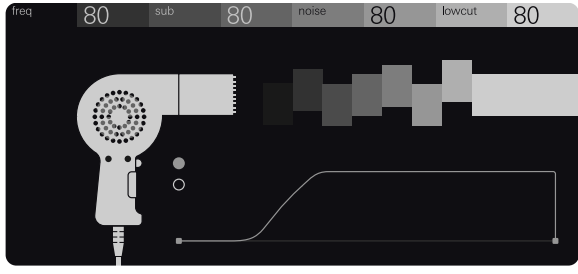
rotate each of the encoders to edit the available CCs.

hold shift and rotate the encoders to turn on or select the CC message.

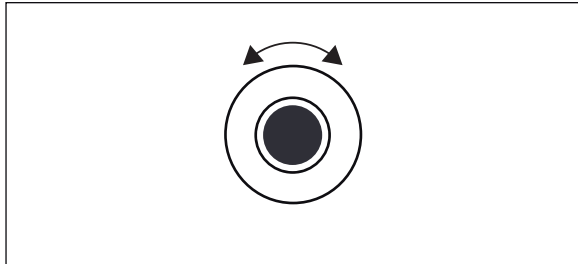
20.5 hardsync

hardsync is perfect for stabs, jabs and solid basses.

hardsync screen

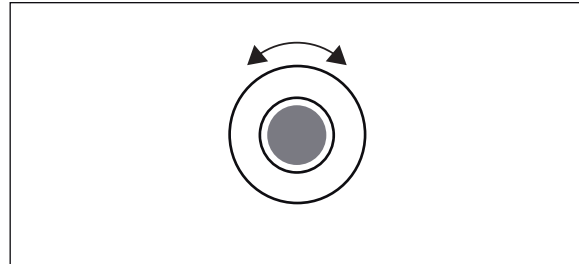


freq



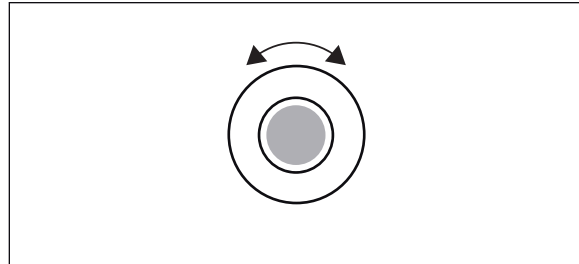
rotate the dark gray knob to adjust the frequency. this adjusts the tone, shifting the harmonics.

sub



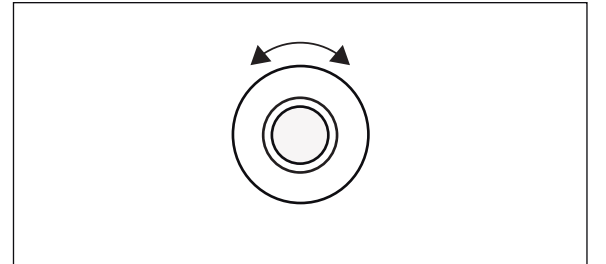
rotate the mid gray knob to add a sub bass to the sound. perfect for thickening pads or doubling down your bass.

noise



rotate the light gray knob to add noise, this is great for brightening the sound.

lowcut



rotate the white knob to filter out low frequencies.

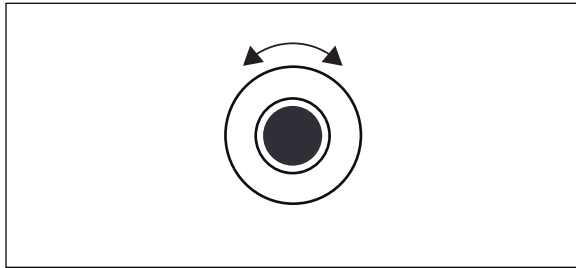
20.6 organ

channel your inner bach with the organ. organ can create a wide range of amazing organ sounds from transistor to church with the twist of a knob.

organ screen

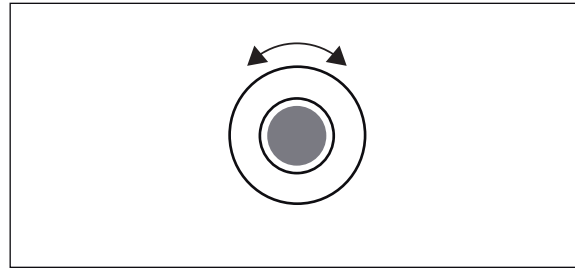


type



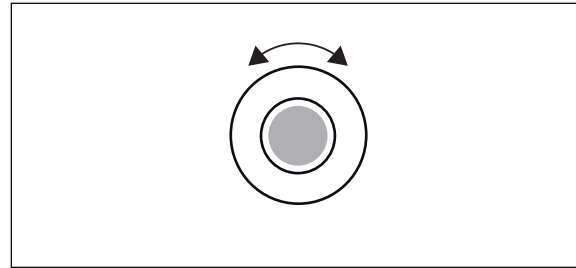
rotate the dark gray knob to switch between different organ types.

bass



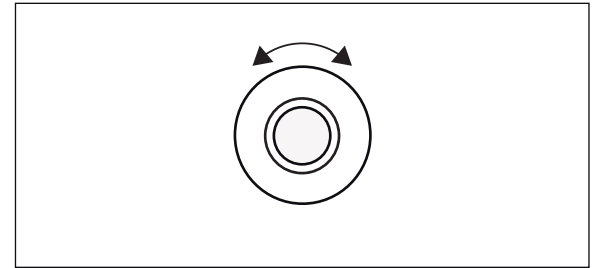
rotate the mid gray knob to add or remove bass, thickening your sound.

tremolo amount



rotate the light gray knob to adjust the amount of tremolo. the tremolo modulates the volume of the organ.

tremolo speed

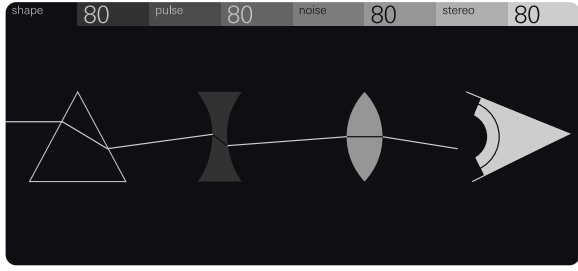


rotate the white knob to adjust the speed of the tremolo. turn it down to create slow swells or turn it up to create dizzying pads.

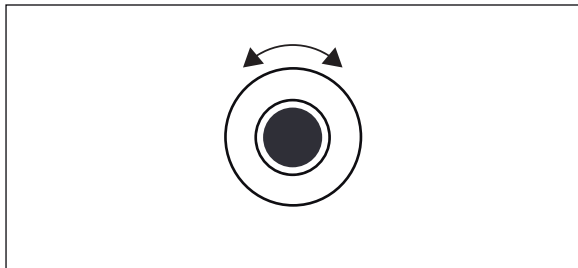
20.7 prism

bend light with the prism. perfect for bread and butter basses, synth leads and everything in between.

prism screen

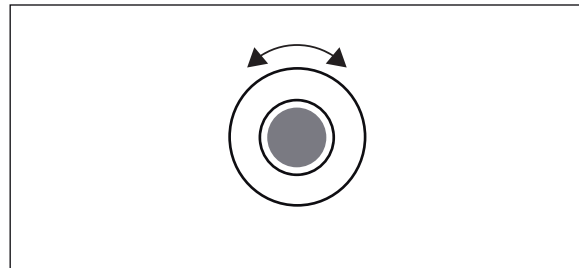


shape



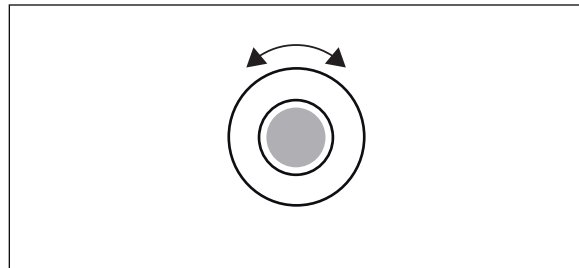
rotate the dark gray knob to adjust the shape of the oscillators.

ratio



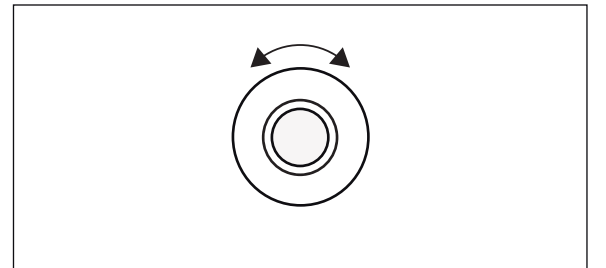
rotate the mid gray knob to adjust the ratio between the oscillators.

detune



rotate the light gray knob to adjust the amount of detune, this is a subtle shift in pitch between oscillators.

stereo

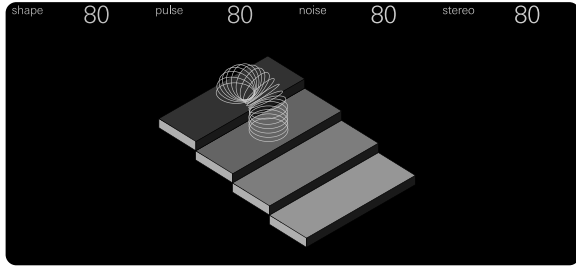


rotate the white knob to adjust the stereo spread of the oscillators.

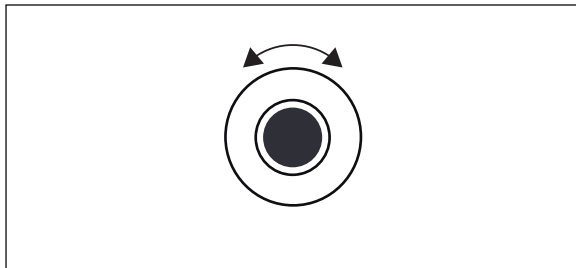
20.8 simple

simple allows you to quickly craft basic patches, great for leads and plucks.

simple screen

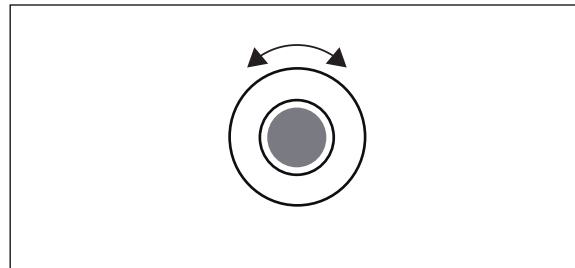


shape



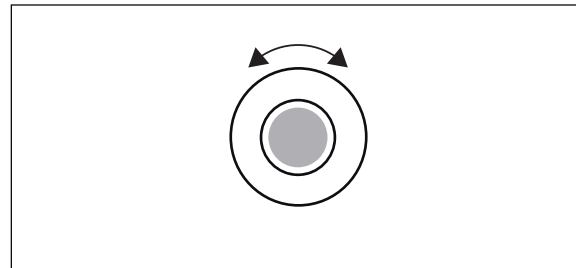
rotate the dark gray knob to adjust the shape of the oscillator.

pw



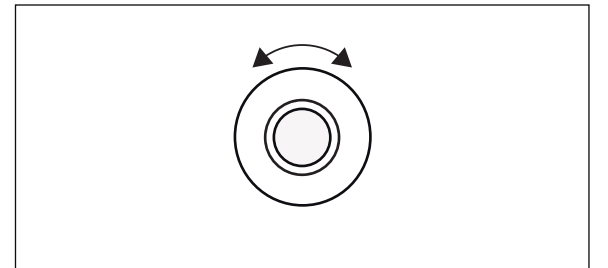
rotate the mid gray knob to adjust the pulse width of the oscillator.

noise



rotate the light gray knob to add or remove noise. this can help create buzzy leads or soft pads.

stereo

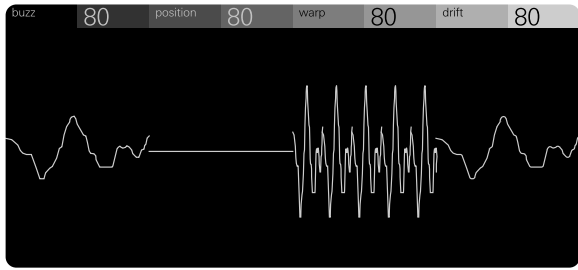


rotate the white knob to adjust the stereo spread of the oscillators.

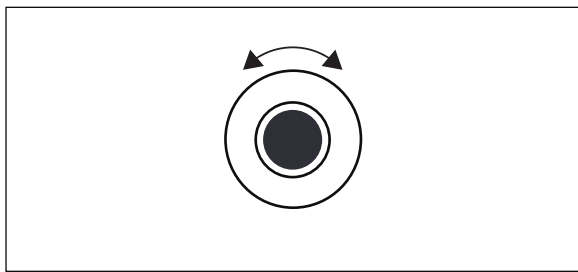
20.9 wavetable

wavetables are waveforms arranged one after the other in a look up table, this allows you to smoothly transition between a range of predefined oscillator shapes.

wavetable screen

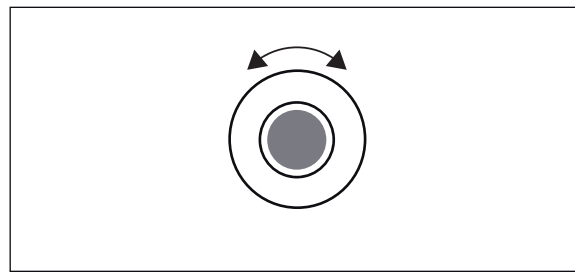


table



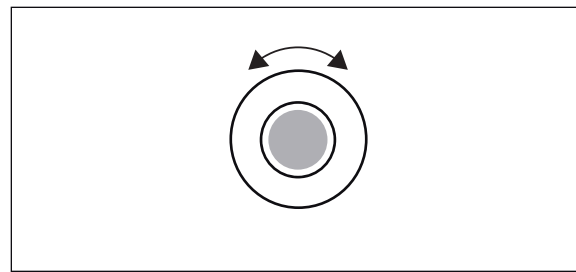
rotate the dark gray knob to select the wavetable. wavetable comes with 9 different wavetables.

position



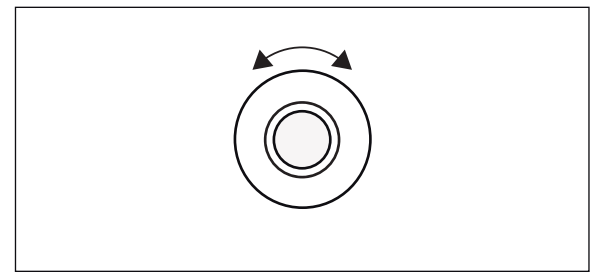
rotate the mid gray knob to adjust the position in the wavetable.

warp



rotate the light gray knob to warp the shape of the waveform.

drift

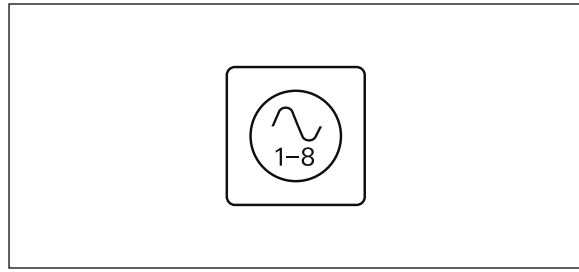


rotate the white knob to adjust the drift of the wavetable. this will make the warping drift from the note frequency to create inharmonic textures.

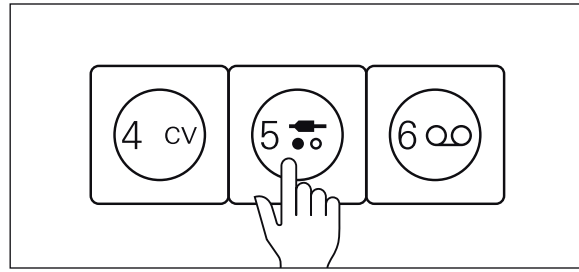
21. fx

OP–XY features 6 built-in send fx that can be assigned to two fx tracks.

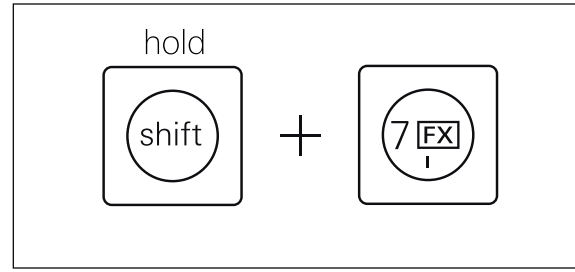
change fx



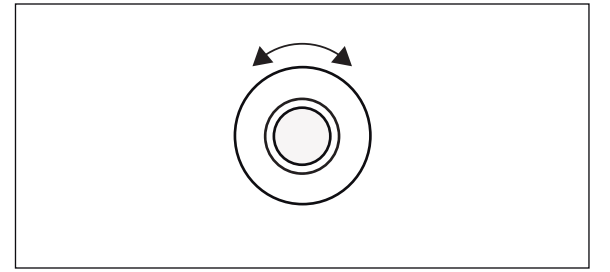
first enter auxiliary mode to view and edit the instrument tracks.



select the fx i or fx ii track.



hold shift and fx i or fx ii to select the fx on that track.

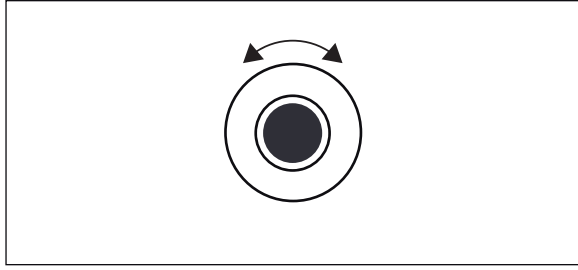


you can then use the white knob to scroll through the list and select an fx. click the encoder or press M1 to confirm your selection.

21.1 chorus

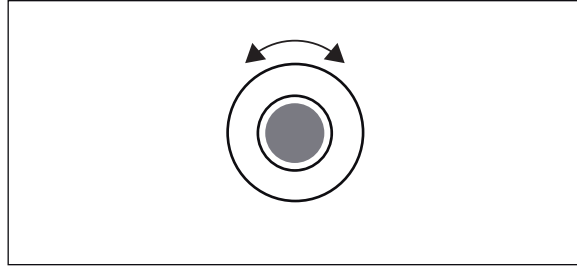
chorus duplicates the sound running through it and shifts the pitch and timing very slightly, or very dramatically. this can be used to create a wider sound.

rate



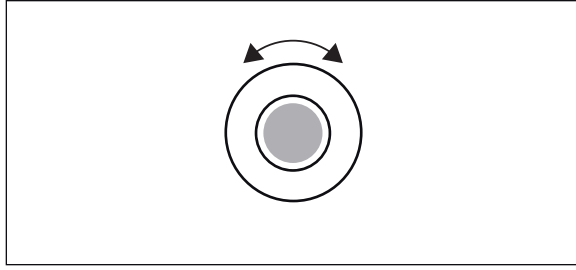
rotate the dark gray knob to adjust the rate of the chorus, this is how fast pitch of the sound running through it is modulated.

depth



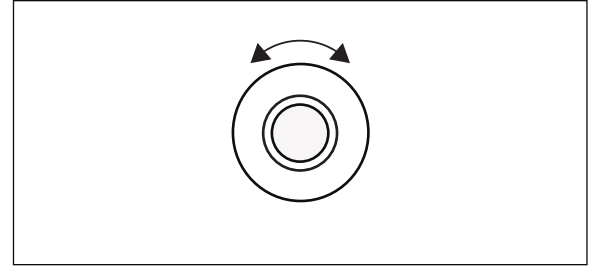
rotate the mid gray knob to adjust the depth of the effect and thus how much the pitch of the incoming signal is modulated

feedback



rotate the light gray knob to adjust how much the chorus feeds back into itself, this can be used to create a pitch modulated delay at higher feedback amounts.

stereo

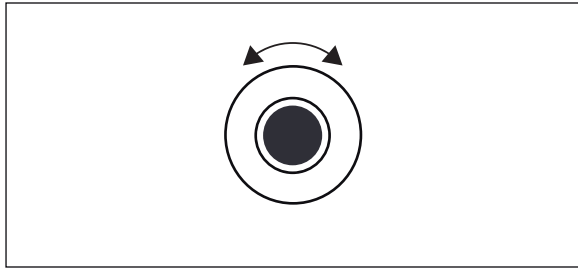


rotate the white knob to adjust the stereo width of the chorus, spreading the sound.

21.2 delay

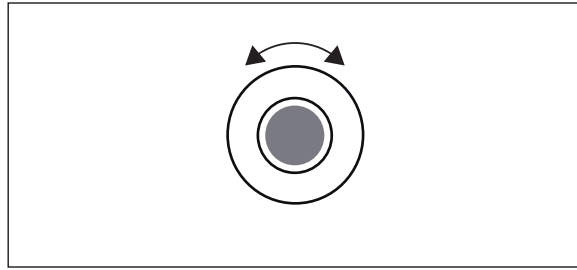
delay repeats the incoming signal creating an echo.

size



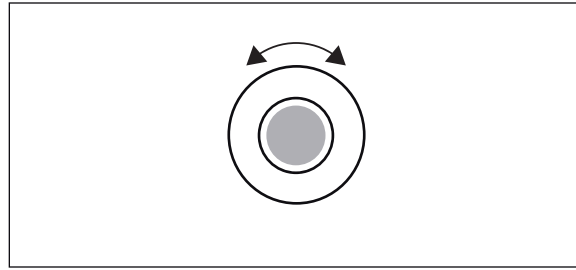
rotate the dark gray knob to adjust the spacing between repeats. there are 8 options ranging from micro to insane.

fine



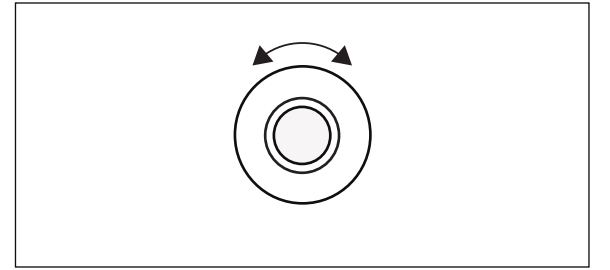
rotate the mid gray knob to fine tune the distance between repeats.

amount



rotate the light gray knob to adjust how much the delay feeds back into itself, extending the delay and thus the number of repeats.

dry

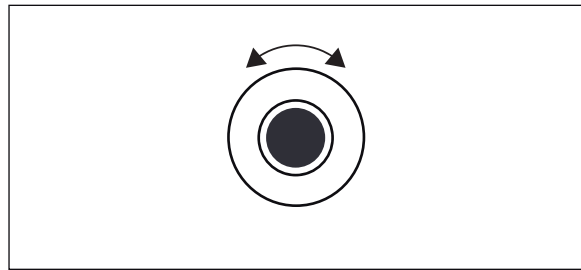


rotate the white knob to adjust the amount of the dry signal with respect to the delay. setting dry to 0 will result in only the repeats with none of the initial sound.

21.3 distortion

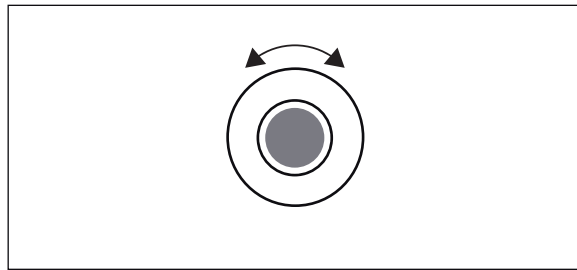
distortion breaks down whatever sound comes through it.
use it to add fuzz or completely destroy a sound.

drive



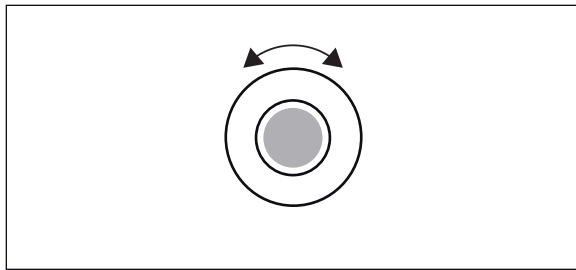
rotate the dark gray knob to adjust the drive, this is the volume of the audio going into the distortion.

clip



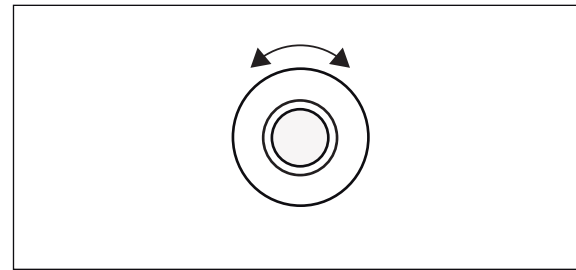
rotate the mid gray knob to adjust the clipping amount.

low cut



rotate the light gray knob to adjust amount of bass frequencies going into the distortion.

high cut

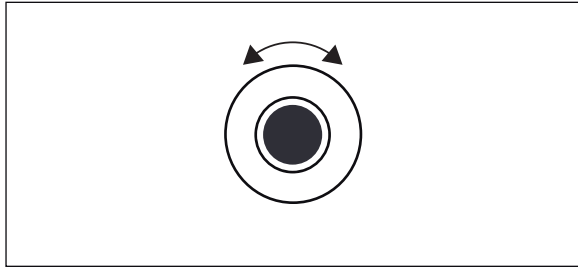


rotate the white knob to adjust the amount of high frequencies going into the distortion.

21.4 lofi

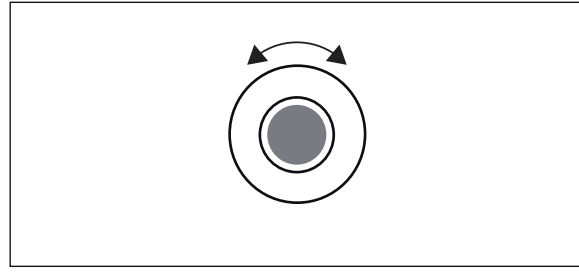
use lofi to bitcrush your sounds. it's perfect for lofi music, of course, but also just to add grit to a sound.

rate



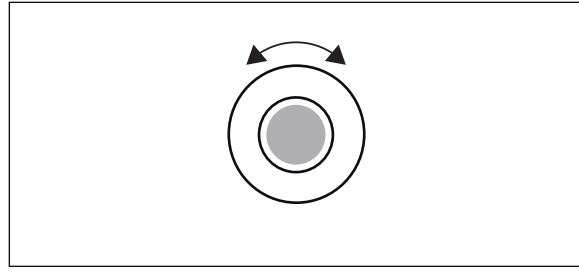
rotate the dark gray knob to adjust the sample rate of the lofi fx.

bits



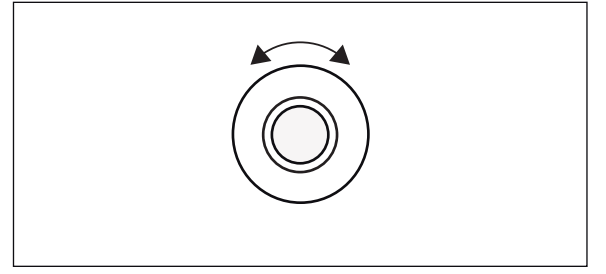
rotate the mid gray knob to adjust the bitrate of the lofi fx.

quality



rotate the light gray knob to adjust the quality of the lofi.

drift

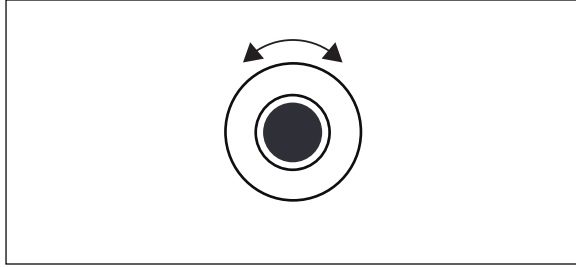


rotate the white knob to adjust the stereo spread of the audio.

21.5 phaser

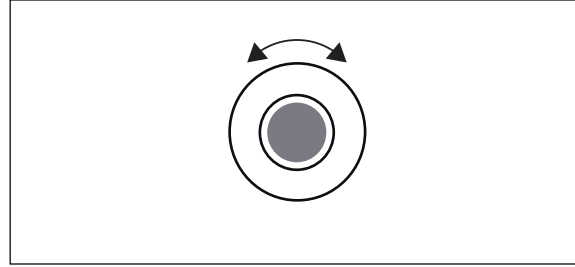
phasers comb through your sound with filters, then mix them back with the original audio, cancelling out whatever is out of phase. OP-XY features a 12-pole phaser, that's 12 notches on the comb.

frequency



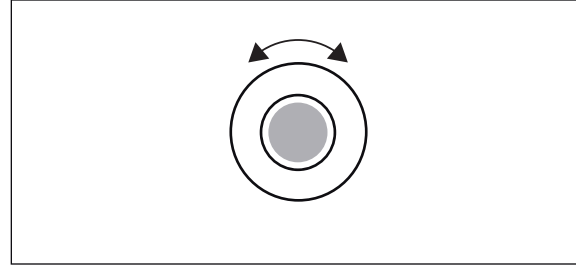
rotate the dark gray knob to adjust the center frequency of the phaser. this is the frequency around which the phaser moves.

depth



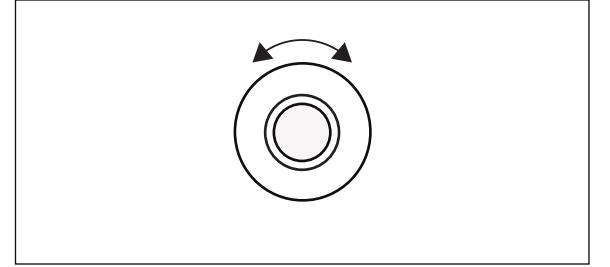
rotate the mid gray knob to adjust the depth of the phaser, the higher the depth the more it moves.

rate



rotate the light gray knob to adjust the rate of the phaser, turn it up to go faster, or down to slow it right down.

feedback

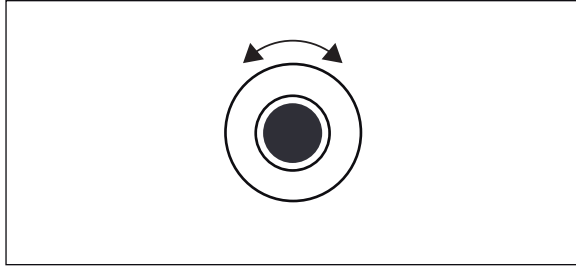


rotate the white knob to adjust the feedback of the phaser, this changes how much of the signal out of the phaser feeds back into it. turn it up and hear it sing.

21.6 reverb

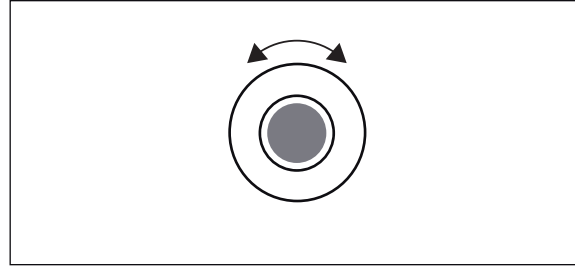
reverb can take your sound from a closet to a cathedral. you can use it creatively to emphasise a sound, or strategically to smooth out your mix.

size



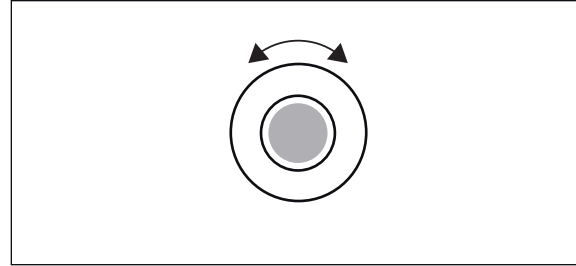
rotate the dark gray knob to adjust the size of the reverb from a room to a cathedral.

modulation



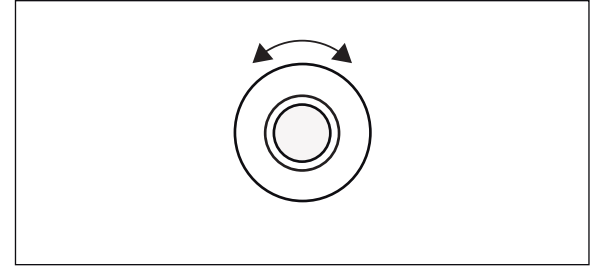
rotate the mid gray knob to adjust the modulation of the reverb, this will add a swelling chorus effect.

tone



rotate the light gray knob to adjust the tone of the reverb, filtering out high or low frequencies.

dry

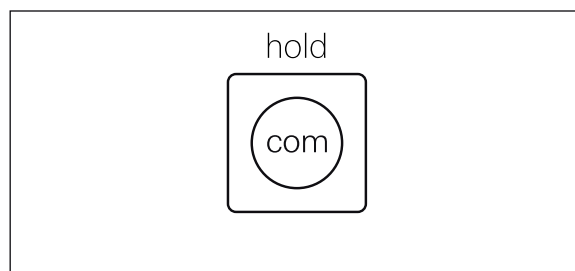
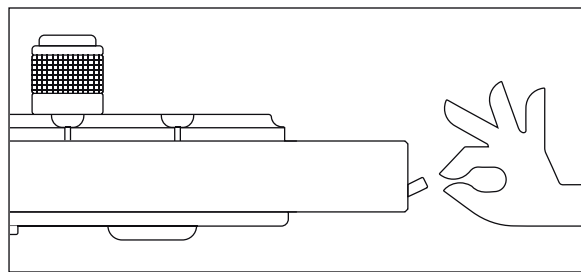


rotate the white knob to adjust the mix of dry signal through the reverb. this is a seamless control between insert and send.

24. te boot

te boot is where firmware updates, function tests and factory resets take place.

accessing te boot



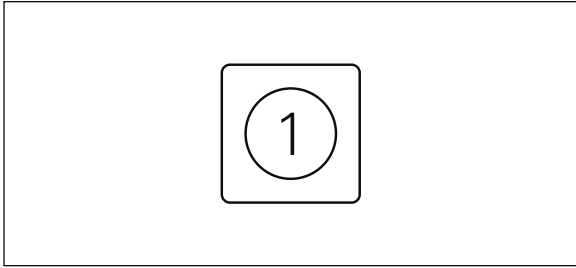
first power your OP-XY off.

while powering on, hold com.

you will now be placed into te boot. the screen will show three options:

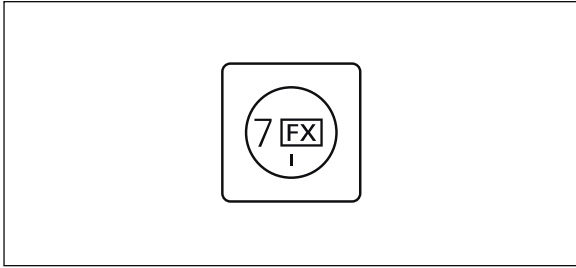
1. upload firmware
7. factory reset
8. system menu

24.1 firmware update



1. access te-boot
2. press track button 7
3. connect OP-XY to your computer with a usb cable. the OP-XY will appear as a removable disk on your computer
4. copy the firmware file to the removable disk
5. eject the removable disk
6. the update will now start. wait for the update to finish and follow the on-screen instructions.

24.2 factory reset

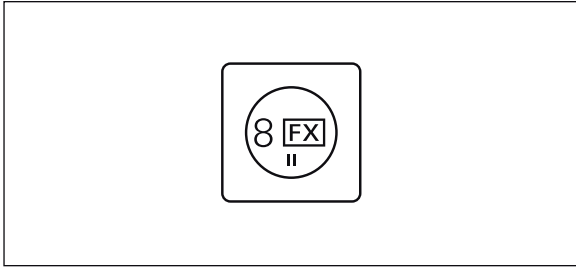


1. access te-boot
2. press track button 7
3. follow the on-screen instructions

note: all user content will be removed. if you wish to backup your data, you can do so by following the ["how to backup your projects"](#) chapter.

factory reset allows you to erase all user settings and content, as well as recreate the original file structure and restore the unit to factory default.

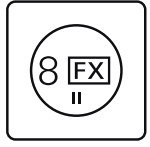
24.3 function test



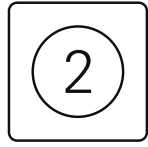
1. access te-boot
2. press track button 8
3. follow the on-screen instructions

note: if you press any buttons and they still show up red then please contact our customer support.

24.4 reset volume potentiometer calibration

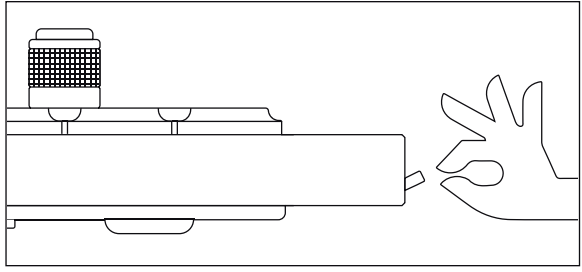


1. access te-boot
2. press track button 8
3. follow the on-screen instructions



press the M2 or track 2 button to select "reset volume pot calibration". when done you will be taken back to te boot.

24.5 exiting te boot



if you wish to exit te boot,
simply power your device
off and then on again.

25. credits

our special thanks go to the following individuals.

testers

5starnomad
alvaro villalobos
cuckoo
dimi3
matt donald
mathew williams
michael hellqvist
sean hellfritch
nick martin
pierre blanc
tom lagerman
virtual flannel

content

rephazer <<https://www.rephazer.com>>
red pipe studios
alexi delano
benjamin mull
christian olsson
samples from mars
nosaj thing
cengiz
daito manabe

