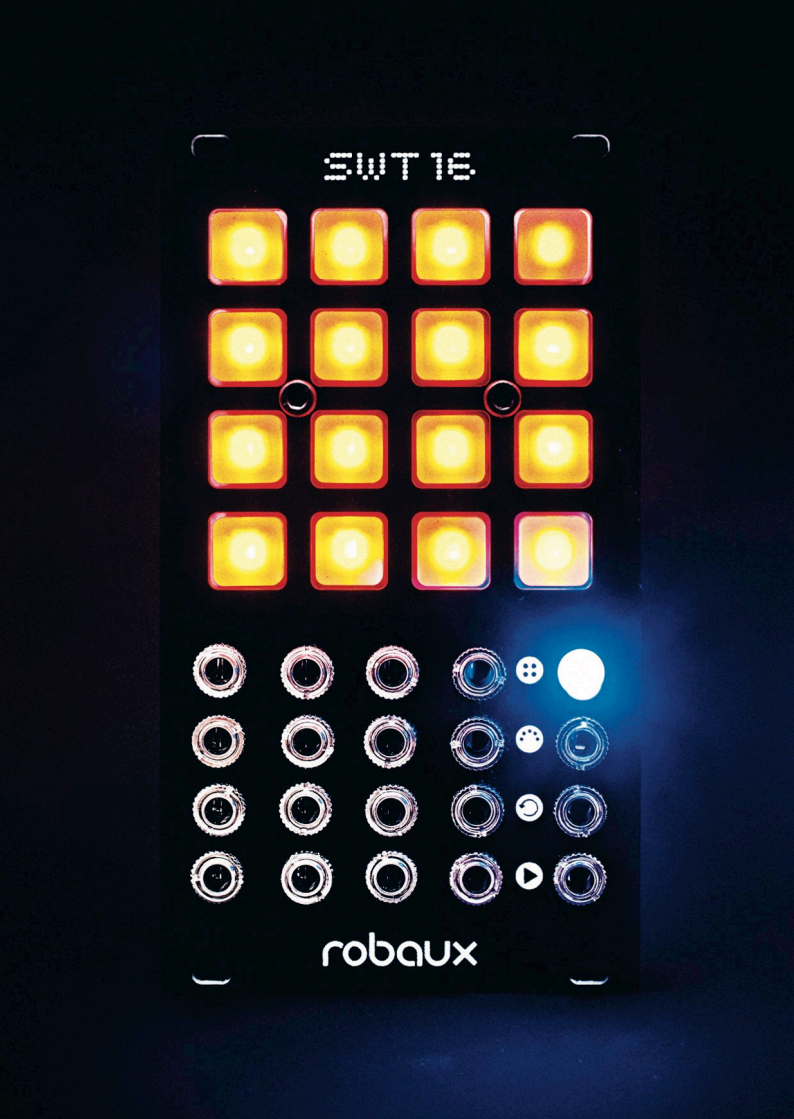

SWT16
robaux

Bring back the groove to eurorack.

About SWT16

The Robaux SWT16 is a 16-track eurorack trigger sequencer with up to 64 steps per track.

Programmable like a classic TR machine, the SWT16 can be used not only for triggering drum sounds, but also for envelopes, S‘n‘H, LFOs or Events.

The SWT16 is polymetric - each track can have a different length, from 1 to 64 steps. Even more complex rhythms succeed with the individual clock divider per track.

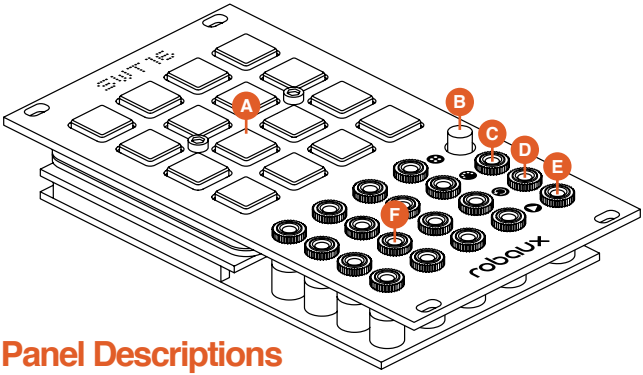
The SWT16 has an intuitive user interface. All operation is via the illuminated 4x4 keypad.

From the main screen, you can access the 16 different modes of the sequencer. The buttons adapt to the selected mode. With the back button, you can quickly return to the main screen.

Each track has an individual trigger output. Also, all triggers sent via MIDI (requires an adapter).

Installation

The SWT16 requires a -12/ +12V power supply (2x5-pin connector). The red strip of the ribbon cable (-12V side) must be oriented on the same side as the «Red Stripe» mark on the board. The module draws about 120mA from the + 12V rail.



Panel Descriptions

A 4x4 Buttons

The 4x4 buttons are the interface and display of the SWT16.

B Home Button

Via the home button, you will get back to the start screen. Also, the switch displays the current tempo on the Home Screen.

C MIDI Output

Connect a jack to din adapter to output the trigger as midi notes.

D Reset In

This trigger input is intended for a reset signal. When the trigger is hot, the sequencer reset to the first step.

E Clock In

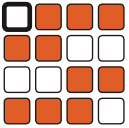
That is the clock input. The sequencer will be in sync with the external clock source provided through this input.

F Trigger Outputs

These 16 jacks output the individual trigger patterns. Each jack stands for a track, starting from the first track on the top left.

Create

In the upper row are all functions for editing patterns. Here you can program the patterns step by step, play it on the fly, generate random patterns or delete them.



Step

In step mode, you can program your trigger tracks like a classic drum computer. Select the track you want to edit by pressing one of the 16 buttons. Then you get into the step editor.

Classic Step Mode

In classic 16 step mode, the entire 4x4 keypad is used to set or clear the steps. The classic step-mode is active when a pattern consists of eight steps and two banks. You can set the step length in length mode.

Step/Bank Mode

If you don‘t use eight steps and two banks, the step/bank mode will appear. Then the screen is divided into two parts.

In the upper rows you can program up to eight steps.

In the lower rows you can switch between the maximum of eight banks. The flashing of the button shows you which bank you are currently.

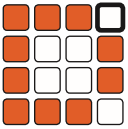
Tip: If you want to copy the steps from one bank to another, hold down the bank that you want to copy and then press the bank on which you want to copy the step data.

Tap

In Tap mode, you can program your patterns on the fly. Each of the 16 keys represents one track. Play the keys while the sequencer is running to program your pattern. The tap inputs are automatically quantized to the clock. It takes some practice in the beginning, but it's a great way to program patterns.

Random

In this mode, you can fill the sequencer memory with random patterns. Each button represents a track. Pressing a track key replaces the current track pattern with a random pattern.



Delete

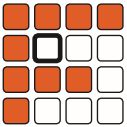
If you want to delete a track, you can clear all steps in your pattern in this mode. Each button represents a track. Press the corresponding button to delete the pattern.

Performance

In the second row, you can change the patterns temporarily. Here you can mute the patterns, make fills, invert the tracks or a combination of many functions in the Performance Mode.

Mute

In this mode, you can mute your tracks and unmute them. Each of the 16 buttons represents a trigger track that can be activated or deactivated by pressing.



Fill

In this mode, you can add continuous triggers. Each of the 16 keys represents a trigger track. Hold down the corresponding key to temporarily replace the current pattern with continuous triggers.

Invert

In this mode, you can invert the programmed triggers for each track. Each of the 16 keys represents a trigger track. Hold the corresponding button to invert the triggers.

Perform

This mode combines many modes into one. Perfect for live situations. Here you have access to four tracks at once. Each column represents one track.

The screen shows four tracks side by side. You can switch on the fourth row between tracks 1-4, 5-8, 9-12, and 13-16.

The first row mutes a track.

In the second row, you can temporarily replace the pattern with continuous triggers.

The third row activates the record mode for the respective track.

Then you have on the top row the tap-mode where you can play your patterns on the fly.

Did you miss a beat? You can delete the track in record mode from the button in the second row and then play it again on the tap button.

If you press the record button in row three again, you leave the record mode.

Track settings

In the third row, you can set the step length, step reset, gate type and clock divider for each track.

Length

In this mode, you can set the length of each track individually. Choose a track by pressing the corresponding button.

The screen is divided into two parts. On the upper rows, you can specify how many steps a bank has. On the lower rows, you can determine how many banks a pattern has.

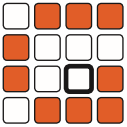
Each track has up to 64 steps. These steps are divided into eight banks that holds up to eight steps. A standard one-bar 16 steps pattern consists of eight steps and two banks. A two-bar 32 step pattern, consisting of eight steps and four banks. With eight steps and eight banks, you get a four-bar pattern. If you choose three steps and five banks, you get a 15 step pattern.

Due to the new 8x8 concept, it is possible to create the most different step lengths. However, it is not possible to choose a pattern length from a prime number.

Length Reset

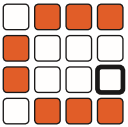
Too many polyrhythms? Activating the length reset restarts the pattern every first step of the master clock. For example, a 12-step pattern is played 5.3 times in four bars.

Each of the 16 keys represents a trigger track. To toggle the length reset, select or deselect one of them.



Gate

In this mode, you can choose to combine two or more consecutive steps into one long gate or re-trigger them at each step. Press the corresponding button to select the retrigger behavior. When it lights up, it fires again. When the light of the button is off, the triggers are combined into a gate - perfect for held sounds.



Clock

By default, each trigger track fires when it reaches a new clock signal. By setting the clock divider for each track, you can extend your patterns up to 16 steps to the master clock.

Select a track by pressing the corresponding button. Then you can adjust the division by pressing one of the 16 buttons. Knob one means that it is in sync with the master clock, button four divides the clock by four and so on.

Please note: If Length Reset is activated, the individual clock of the track will be restarted on the first step of the Master Clock.

To use a track that plays 32nd instead of a 16th note, double the master clock and set the clock divider of all tracks to two. Except the tracks that are to play 32nd notes.

Sequencer settings

In the fourth row, you can change the settings of the sequencer. Choose between internal or external Clock, set the MIDI channels, write to memory or select various functions in the Util menu.

Autoclock

In autoclock mode, you can switch between internal and external clock. Select one of the buttons in the bottom lines to switch between internal and external clock. When the buttons in the lower left corner lit up, the autoclock is enabled. If the buttons in the lower right corner lit up, Autoclock is disabled, and you need to trigger the sequencer with an external clock.

If the auto clock is activated, you can control the internal clock of the sequencer. Press button one to start and stop the sequencer. Press button two to reset the sequencer while it is playing. Button three and four are used for speed control. Decrease the clock tempo by pressing button three and increase it by pressing button four.

Notes

The triggers are also output via Midi. You can choose for each track which Midi channel should send these triggers. Select a track by pressing the corresponding button. Then you can adjust the midi channel by pressing one of the 16 buttons. So buttons three set it to channel three, buttons eight set it to channel eight and so on.

Write

There you can write all current patterns of the sequencer to the memory so that the settings are not lost when you switch off your Modular System.

Uitil

In util mode, you can enable and disable functions of the sequencer.

Disable animations
Press the button one to enable/disable the animations that will be displayed when entering a new mode.

Clock Reset
Choose on button two whether the sequencer should start again from step one, if there is no clock signal for some time.

Flip module
If you want to use your module upside down, activate flip mode by pressing button three. The jacks and buttons turned 180 degrees.

Factory Reset
You can restore the virginity by pressing the button eight - but be aware - you will lose all your funky rhythms.

Debug Mode
With debug mode, you can check if all triggers, buttons, and LEDs work. Press Button 13 and the sequencer stops. If you then press the buttons 1-16, the respective lamp lights up, and the corresponding trigger is triggered. You can also use this to turn the sequencer into a 16-trigger pad. To exit this mode, press the home button.

robaux