Minipatch

A simple manual to guide you through the functions of this patchable pocket synthesizer.

Power Input

Connect Power here. 6V to 12V DC is recommended.

Oscillator

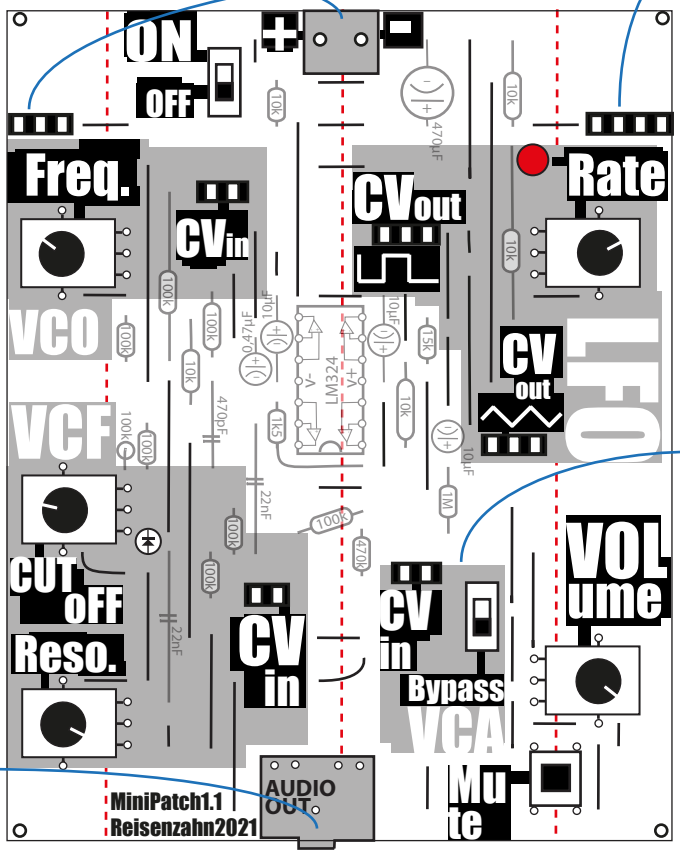
The knob sets the Frequency of the Oscillator. Incoming Control Voltage effects the Pulsewidth.

Filter

The cutoff frequency can be set by the knob or the incoming Control Voltage. The Reso-Knob sets the amount of Resonance.

Audio Output

3,5mm jack mono output.



GROUND Sockets

These Sockets are for parking patch cables or connecting several synth only.

LFO

The knob sets the frequency of the oscillator. The LED flashes in the same rate. This LFO provides square wave and triangle wave.

VCA

The audio output level followes the incoming control voltage.

Volume

The knob sets the Level of the Audio Output.

Mute

Interrupts the Audio Signal wile Button is pressed.

How to start

Are power cables connected? Turn the volume-knob counter clockwise to the left, Connect audio out to the input of your mixer/speaker/Interface. Use the power switch to turn on the synth.Then turn the volume up carefully.

Patching:
Use wire jumpers to connect any CVout socket (LFO) to any CVin socket (VCO, VCF, VCA).
Never use the GROUND Sockets for patching!!!
Important Note the VCA section: The switch should be on BYPASS if there is nothing patched to CVin.

Have Fun!

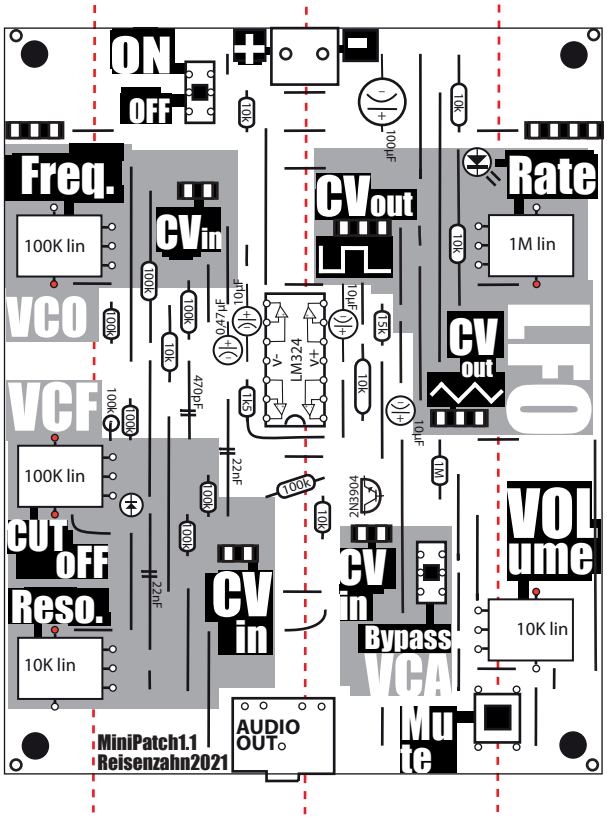
questions?
info@reinhardreisenzahn.com

MiniPatchSynth, Bauteile und ideale Reihenfolge

Menge	Bauteil	Wert/Detail
½	Euro Lochrasterplatte, 160x100mm	2,54mm Raster
ca. 1m	Draht, blank	0,6mm
1	Widerstand 1/4 Watt 5%	1M
8	Widerstand 1/4 Watt 5%	100k
1	Widerstand 1/4 Watt 5%	15k
6	Widerstand 1/4 Watt 5%	10k
1	Widerstand 1/4 Watt 5%	1k5
1	High Speed Diode	1N4148
2	Capacitor Ceramic	22nF
1	Capacitor Ceramic	470pF
2	Schalter, DPDT Thru Hole	
1	Taster, SPST 6x6x6mm	
1	3,5mm Audio Klinke, weiblich	
1	IC-Sockel, DIP	14 Pins
1	Transistor, N Channel JFET	2n3904
1	LED	LED
	Buchsenleisten (1x 4pin / 3x3pin / 3x2pin)	
1	Elektrolytkondensator	100uF
3	Elektrolytkondensator	10uF
1	Elektrolytkondensator	0,47uF
2	Drehregler / Potentiometer, linear	10k
2	Drehregler / Potentiometer, linear	100k
1	Drehregler / Potentiometer, linear	1M
1	Anschlußblock	2pin
4	Distanzstangen	M3
4	Schrauben	M3
4	Beilagscheiben, Nylon	
1	Batterieanschluss f. 9V Block	
1	Batterie	9V
1	Quad Low Power Op Amp	LM324
5	Patchkabel kurz	
1	Patchkabel lang	

Mini-Patch Synth: Bill of material and best mounting order

Quantity	Component	Value/Info
½	Euro Circuit Board, Solder Strip 160x100mm	2,54mm grid
1 Meter	Copper wire (without insulation)	0.6mm
1	Resistor 1/4 Watt 5%	1M
8	Resistor 1/4 Watt 5%	100k
1	Resistor 1/4 Watt 5%	15k
6	Resistor 1/4 Watt 5%	10k
1	Resistor 1/4 Watt 5%	1k5
1	High Speed Diode	1N4148
2	Capacitor Ceramic	22nF
1	Capacitor Ceramic	470pF
2	switches DPDT Thru Hole	
1	push button, SPST tactile, 6x6x6mm	
1	3,5mm Audio Jack female	
1	IC-Socket DIP, 14Pin	
1	Transistor NPN	2n3904
1	LED	LED
1	4pin strip	
3	3pin strip	
3	2pin strip	
1	Capacitor Electrolytic, radial 16V	100uF
3	Capacitor Electrolytic, radial 16V	10uF
1	Capacitor Electrolytic, radial 16V	0,47uF
2	Linear Potentiometer 20% 9mm Carbon POT	10k
2	Linear Potentiometer 20% 9mm Carbon POT	100k
1	Linear Potentiometer 20% 9mm Carbon POT	1M
1	Terminal Block, 2 Pin 5,08mm	
4	Distance Pins, 15mm, M3	
4	Screws M3	
4	Washers, Nylon, M3	
1	Battery Snap, 9V	
1	Battery, 9V	
1	Quad Low Power Op Amp	LM324
5	Male Jumper cable short	
1	Male Jumper cable long	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CVout
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1M lin
VCO
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VCF
100K lin
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Reso.
10K lin
CV in
CV in
Bypass
VCA
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AUDIO OUT
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Reisenzahn2021
LM324
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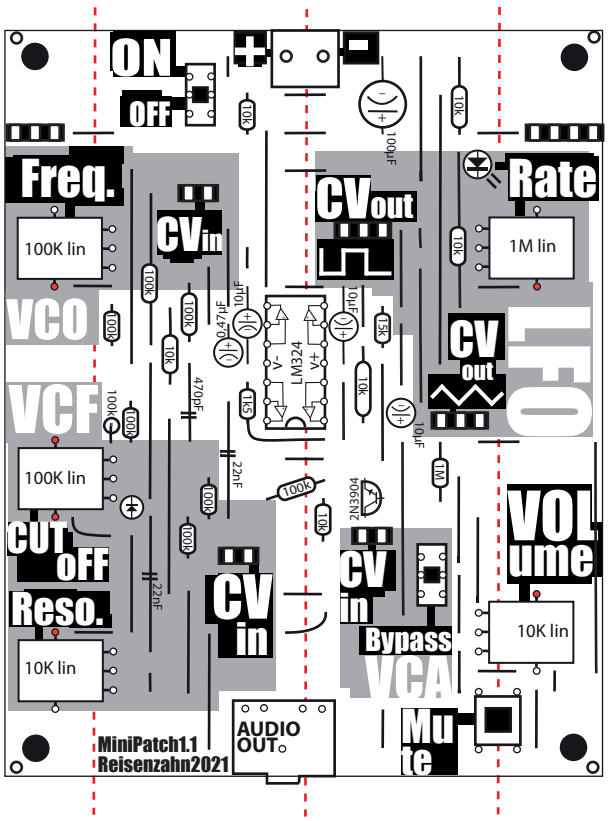
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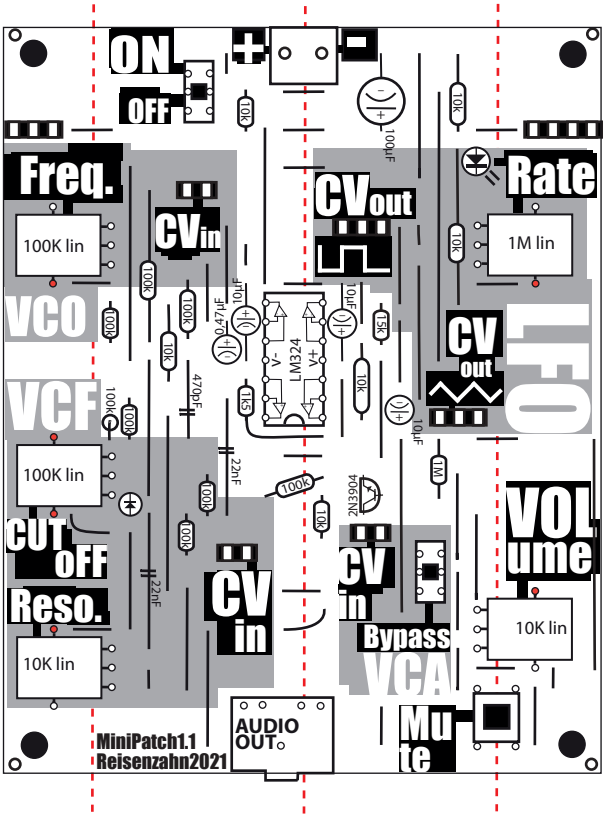
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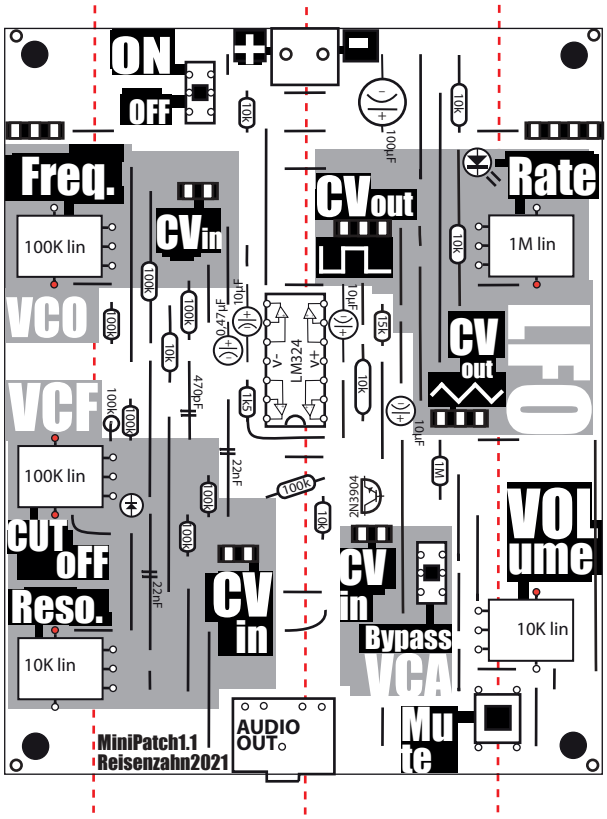
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