

dear synth lover,
thank you for purchasing
the SED-CSM analog SYNTHESIZER

we worked 4 years to offer a high quality
instrument who offers discrete technology
with superb sound and endless possibilities.

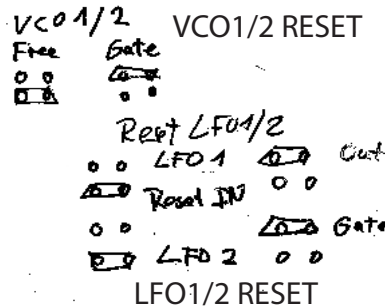
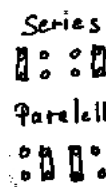
please be careful with the synth, dont touch
the back site and its trimpots, they are very
sensitive.

also take care of the right polarity in your rack,
wrong polarity will damage your synth.

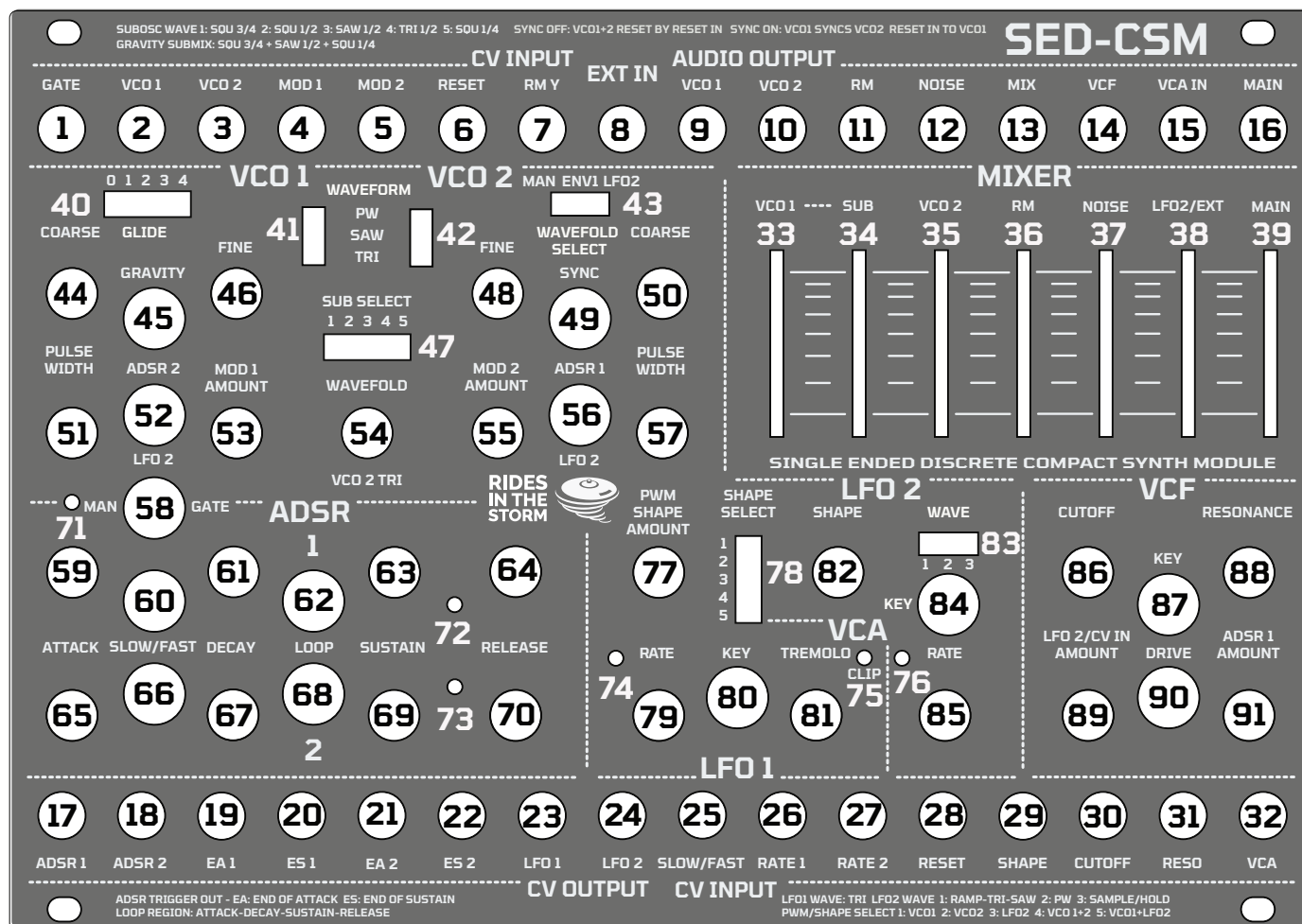
for any questions pls contact
info@rides-in-the-storm.de
you can find also tutorials at the website.
we wish you fun and let the magic flows.

jumper settings
on the back

FILTER SER/PAR



- 1: Gate In (1-10V)
- 2: CV IN VCO 1 (0-10V) normalized to VCO2/LFO1&2/ VCF
- 3: CV IN VCO 2 (0-10V)
- 4: MOD IN VCO 1 FREQ (+/-10V), goes to 53 AMOUNT
- 5: MOD IN VCO 2 FREQ (+/-10V), goes to 55 AMOUNT
- 6: RESET VCO 1/2
- 7: XOR RINGMODULATOR Y AUDIO IN
- 8: EXTERNAL AUDIO IN (Modular Level)
- 9: VCO 1 AUDIO OUT (Mod Level)
- 10: VCO 2 AUDIO OUT (Mod Level)
- 11: RM AUDIO OUT (Mo Level)
- 12: WHITE NOISE AUDIO OUT (Mod Level)
- 13: MIX AUDIO OUT (Mod Level)
- 14: VCF AUDIO OUT (Mod Level)
- 15: VCA AUDIO IN (Mod Level)
- 16: MAIN OUT (Mod Level)
- 17: ADSR 1 CV OUT (0-7,5V)
- 18: ADSR 1 CV OUT (0-7,5V)
- 19: ADSR 1 End of ATTACK TRG OUT (10V)
- 20: ADSR 1 End of DECAY TRG OUT (10V)
- 21: ADSR 1 End of ATTACK TRG OUT (10V)
- 22: ADSR 1 End of DECAY TRG OUT (10V)
- 23: LFO 1 OUT (+/-5V)
- 24: LFO 1 OUT (+/-5V)
- 25: SLOW/FAST CV IN (1V from SLOW to FAST)
- 26: LFO 1 RATE IN (1V/OCT +/-10V)
- 27: LFO 2 RATE IN (1V/OCT +/-10V)
- 28: LFO RESET IN (LFO 1/2 set via Jumper at the back)
- 29: LFO 2 SHAPE (TRI/SQU) CV IN (+/-5V)
- 30: VCF CUTOFF CV IN (+/-10V)
- 31: VCF RESONANCE CV IN (+/-10V)
- 32: VCA CV IN (0-7,5V)



- 33: LEVEL VCO 1
- 34: LEVEL SUBs
- 35: LEVEL VCO 2
- 36: LEVEL RINGMODULATOR
- 37: LEVEL NOISE
- 38: LEVEL EXTERNAL IN or LFO 2
- 39: LEVEL MAIN OUT
- 40: GLIDE (0, 1-4 times)
- 41: WAVE SWITCH VCO 1 (PW/SAW/TRI)
- 42: WAVE SWITCH VCO 2 (PW/SAW/FOLDER)
- 43: WAVEFOLD Select (MANUAL/ADSR1/LFO2)
- 44: COARSE TUNE VCO 1 (+/-4 Octaves)
- 45: GRAVITY (SQUARE 3/4 + SAW 1/2 + SQUARE 1/4), BUTTON down
- 46: FINE TUNE VCO 1 (+/- Halftones)
- 47: SUB WAVE Select (SQU 3/4, SQU 1/2, SAW 1/2, TRI 1/2, SQU 1/4)
- 48: FINE TUNE VCO 2 (+/- Halftones)
- 49: SYNC ON/OFF (VCO2 syncs VCO1m RESET to VCO 1 only)
- 50: COARSE TUNE VCO 2 (+/-4 Octaves)
- 51: PULSEWIDTH VCO 1 (Mid Position SQUARE)
- 52: SELECT MODULATION SOURCE ADSR 2/LFO 2 (BUTTON down)
- 53: MODULATION AMOUNT VCO 1 for LFO 2/ADSR 2/EXTERN
- 54: WAVEFOLD AMOUNT VCO 2 TRIANGLE (9 times folding)
- 55: MODULATION AMOUNT VCO 2 for LFO 2/ADSR 2/EXTERN
- 56: SELECT MODULATION SOURCE ADSR 1/LFO2 (BUTTON down)
- 57: PULSEWIDTH VCO 2 (Mid Position SQUARE)
- 58: MANUAL GATE BUTTON
- 59: ADSR 1 ATTACK TIME (0,15/0,5ms - 5/10s)
- 60: ADSR 1 SLOW/FAST BUTTON (slow is BUTTON down)
- 61: ADSR 1 DECAY TIME (0,3/1ms - 10/20s)
- 62: ADSR 1 LOOP (ATT-REL), BUTTON down
- 63: ADSR 1 SUSTAIN LEVEL (0-100%)
- 64: ADSR 1 RELEASE TIME (0,3/1ms - 10/20s)

- 65: ADSR 2 ATTACK TIME (0,15/0,5ms - 5/10s)
- 66: ADSR 2 SLOW/FAST BUTTON (slow is BUTTON down)
- 67: ADSR 1 DECAY TIME (0,3/1ms - 10/20s)
- 68: ADSR 1 LOOP (ATT-REL), BUTTON down
- 69: ADSR 1 SUSTAIN LEVEL (0-100%)
- 70: ADSR 1 RELEASE TIME (0,3/1ms - 10/20s)
- 71: LED INDICATOR GATE ON/OFF
- 72: LED INDICATOR ADSR 1 CV
- 73: LED INDICATOR ADSR 2 CV
- 74: LED INDICATOR LFO 1 RATE
- 75: LED INDICATOR VCA CLIPPING
- 76: LED INDICATOR LFO 2 RATE
- 77: PWM VCO1/VCO2 and SHAPE/PWM LFO2 AMOUNT
- 78: PWM DESTINATION SELECT LFO 1 to
 - 1: VCO1 2: VCO 2 3: LFO 2 4: VCO 1+2 5: VCO1+LFO 2
- 79: LFO 1 RATE (120s - 6,6 kHz)
- 80: 1V/OCT KEYTRACK LFO 1, BUTTON down
- 81: TREMOLO AMOUNT VCA (trapezoid modulation)
- 82: SHAPE LFO 2 (RAMP-TRI-SAW and PW)
- 83: LFO 2 WAVE SELECT 1: TRI 2: PW 3: S&H (no shape)
- 84: 1V/OCT KEYTRACK LFO 2, BUTTON down
- 85: LFO 1 RATE (120s - 6,6 kHz)
- 86: CUTOFF FREQUENCY LOWPASS FILTER (7Hz-20/28kHz)
- 87: 1V/OCT KEYTRACK CUTOFF FREQ, BUTTON down
- 88: RESONANCE (up to SELFOSCILLATION)
- 89: LFO 2 / VCF MOD IN (30) MODULATION AMOUNT
- 90: OVERDRIVE OF VCF CORE, BUTTON down
- 91: ADSR 1 MODULATION AMOUNT

WIDTH: 36 HPDEPTH: 25mm
POWER: +380mA/-300mA
WEIGHT: 0,68kg