FILTERS - ENVELOPES - RING MODUALTORS - REVERBERATION

FILTER 1 | FILTER 2 | FILTER 3 | FILTER 4 | FILTER 5 | FILTER 6 | FILTER 7 | FILTER 8

LOW PASS / RESONATOR / OSC.

FREQUENCY (5 Hz – 25 KHz)

RESPONSE (Low pass – Osc)

LEVEL

ENVELOPE SHAPER 1

ENVELOPE SHAPER 2

ENVELOPE SHAPER 3

HOLD-ON | SINGLE CYCLE | FREE RUN | MULTI CYCLE

DELAY | ATTACK | ON | DECAY | TRAPEZOID I | TRAPEZOID II | SIGNAL LEVEL

RING MODULATOR 1 | RING MODULATOR 2 | RING MODULATOR 3

REVERBERATION 1 | REVERBERATION 2

MIX | LEVEL

PETE TOWNSHEND EMS SYNTHI 100 PATCH SHEET

PATCH NAME :

notes:

Y 1 | Y 2 | X | F M

OCTAVE FILTER BANK

BAND PASS CENTRE FREQUENCY (Hz)

63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000

INPUT AMPLIFIER LEVEL

CHANNEL 1 | CHANNEL 2 | CHANNEL 3 | CHANNEL 4 | CHANNEL 5 | CHANNEL 6 | CHANNEL 7 | CHANNEL 8

EXTERNAL TREATMENT DEVICES

1 | 2 SEND LEVEL | 3 | 4

RETURN LEVEL

1 | 2 | 3 | 4

OSCILLATORS - NOISE GENERATORS - RANDOM CONTROL VOLTAGE

OSCILLATOR 1 | OSCILLATOR 2 | OSCILLATOR 3 | OSCILLATOR 4 | OSCILLATOR 5 | OSCILLATOR 6

OSCILLATOR 7 | OSCILLATOR 8 | OSCILLATOR 9 | OSCILLATOR 10 | OSCILLATOR 11 | OSCILLATOR 12

sine | ramp | square / pulse | ramp / triang.

SHAPE | LEVEL | FREQUENCY (10Hz – 100Hz, 5 = 320 Hz)

NOISE GENERATOR 1

NOISE GENERATOR 2

COLOUR | LEVEL (Lo – High)

RANDOM CONTROL VOLTAGE GENERATOR

MEAN | VARIANCE | VOLTAGE 1 | VOLTAGE 2 | KEY

TIME BETWEEN SELECTIONS | OUTPUT RANGE

METERS - PITCH TO VOLTAGE CONVERTORS - KEYBOARD RANGE - SEQ RANGE

OUTPUT CH.1 | OUTPUT CH.2 | OUTPUT CH.3 | OUTPUT CH.4 | OUTPUT CH.5 | OUTPUT CH.6 | OUTPUT CH.7 | OUTPUT CH.8

Control Voltages

Signal Levels

SEQUENCER EVENT TIME

PITCH-VOLTAGE CONVERTOR

RANGE (1V/Oct)

ENVELOPE FOLLOWER 1

ENVELOPE FOLLOWER 2

RANGE

KEYBOARD OUTPUT RANGE

Upper Keyboard PITCH (1V/Oct)

Lower Keyboard PITCH (1V/Oct)

KEY VELOCITY

ENV CONTROL

RETRIGGER KEY RELEASE

KEY RELEASE or NEW PITCH

SEQUENCER OUTPUT RANGE

Layer 1 VOLTAGE A | Layer 2 VOLTAGE C | Layer 3 VOLTAGE E

VOLTAGE B | VOLTAGE D | VOLTAGE F

KEY 1 | KEY 2 | KEY 3 | KEY 4

SLEW LIMITER 1 | SLEW LIMITER 2 | SLEW LIMITER 3 | OPTION 1

SLEW RATE (1mS – 1 S)

Re-created by
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PETE TOWNSHEND EMS SYNTHI 100 MID SECTION

PAN OUTPUTS

CHANNELS 1 - 4 (LEFT | RIGHT) | CHANNELS 5 - 8 (LEFT | RIGHT)

INDIVIDUAL CHANNEL OUTPUTS

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8

EXTERNAL TREATMENT DEVICES

SEND TO DEVICE: 1 | 2 | 3 | 4

SEND FROM DEVICE: 1 | 2 | 3 | 4

INPUT AMPLIFIERS

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8

AUDIO SIGNAL PATCHBAY

AUDIO SIGNALS

REVERB | RING MODULATORS (1 | 2 | 3) | ENVELOPE SHAPERS (SIGNAL INPUTS | SIGNAL TRIGGERS) | FILTERS (LOW PASS | HIGH PASS) | FILTER BANK | OSCILLATORS (SYNCHRONISATION INPUTS) | OUTPUT CHANNELS | EXTERNAL TREATMENT DEVICES (SEND) | ENVELOPE FOLLOWER | PITCH TO VOLTAGE CONVERTOR | SEQUENCER CONTROL | KEYBOARD | SCOPE (Y1 | X) | GROUND

INPUT AMPLIFIERS 1–8

OUTPUT CHANNELS 1–8

EXTERNAL TREATMENT RETURNS 1–4

SEQUENCER (KEY 4 | CLOCK)

NOISE GENERATORS 1–2

OSCILLATOR 1 (Sine | Ramp)

OSCILLATOR 2 (Sine | Ramp)

OSCILLATOR 3 (Sine | Ramp)

OSCILLATOR 4 (Sine | Ramp)

OSCILLATOR 5 (Sine | Ramp)

OSCILLATOR 6 (Sine | Ramp)

OSCILLATOR 4 (Square/pulse | Triang./ramp)

OSCILLATOR 5 (Square/pulse | Triang./ramp)

OSCILLATOR 6 (Square/pulse | Triang./ramp)

OCTAVE FILTER BANK

FILTERS (Low pass) 1–4

FILTERS (High pass) 5–8

ENVELOPE SHAPERS 1–3

RING MODULATORS 1–3

REVERBERATION 1–2

GROUND

RIGHT PATCHBAY - CONTROL VOLTAGES

CONTROL VOLTAGES

REVERB MIX | ENVELOPE SHAPER 1 (KEYBOARD | DELAY | ATTACK | ON | DECAY) | ENVELOPE SHAPER 2 (KEYBOARD | DELAY | ATTACK | ON | DECAY) | ENVELOPE SHAPER 3 (KEYBOARD | DELAY | ATTACK | ON | DECAY) | FILTERS (FREQUENCY CONTROL: LOW PASS | HIGH PASS) | OSCILLATORS (FREQUENCY CONTROL) | OUTPUT CHANNELS (VOLTAGE INPUT | LEVEL CONTROL) | SLEW LIMITERS (VOLTAGE INPUT | SLEW CONTROL) | SEQUENCER (VOLTAGE INPUTS: A | C | E | B | D | F | KEY) | SCOPE (Y2 | Y1) | GROUND

INPUT AMPLIFIERS 1–8

OUTPUT CHANNELS 1–8

OSCILLATOR 10 (Square/pulse | Triang/ramp)

OSCILLATOR 11 (Square/pulse | Triang/ramp)

OSCILLATOR 12 (Square/pulse | Triang/ramp)

RANDOM GENERATORS (Key | Sine | Sine)

ENVELOPE FOLLOWERS 1–2

SLEW LIMITERS 1–3

ENVELOPE SHAPER 2 (TRAPEZOID I | TRAPEZOID II)

ENVELOPE SHAPER 2 (TRAPEZOID II | TRAPEZOID III)

ENVELOPE SHAPER 3 (TRAPEZOID I | TRAPEZOID II)

SEQUENCER LAYER 1 (Voltage A | Voltage B | Key 1)

SEQUENCER LAYER 2 (Voltage C | Voltage D | Key 2)

SEQUENCER LAYER 3 (Voltage E | Voltage F | Key 3)

SEQUENCER KEY 4

CLOCK RATE KNOB

UPPER KEYBOARD (Pitch | Velocity | Env control)

LOWER KEYBOARD (Pitch | Velocity | Env control)

LEFT JOYSTICK

RIGHT JOYSTICK

PITCH TO VOLTAGE CONVERTOR

GROUND

CONTROL PATCHBOARD

OPTION 1 | 2

INPUTS | OUTPUTS

DOUBLE KEYBOARD

**IMPORTANT NOTICE

DO NOT POWER UP

PANEL LIGHTS | MAINS (POWER | FUSE SA | SUPPLY)

CV CONTROL - SEQUENCER CONTROL - MIXER

RANGE

SEQUENCER OPERATIONAL CONTROL

STOP AT EACH EVENT | STOP AT EVENT END | REWRITE R/LP | CLEAR / RESET MEMORY

EVENT DISTRIBUTION (LAYER 3 (SYNC) | LAYER 2 (SEQ) | LAYER 1 (ARP) | KEY 4)

CLOCK RATE

ERASE EVENT | RESET | START (FORWARDS) | START (REVERSE) | STOP

OUTPUT CH. 1 | OUTPUT CH. 2 | OUTPUT CH. 3 | OUTPUT CH. 4 | OUTPUT CH. 5 | OUTPUT CH. 6 | OUTPUT CH. 7 | OUTPUT CH. 8

FILTER (Low – High)

PAN (Left – Right)

OFF

10 9 8 7 6 5 4 3 2 1 0