

# Der EMS Synthi AKS

Der legendäre Synthesizer aus der  
Hochzeit der analogen  
Klangerzeugung

Von Benjamin Heidersberger

# Electronic Music Studios Ltd.

- 1967 „Partita for unattended Computer“
  - 1969 Gegründet von
    - Peter Zinovieff (geb. 1933)
    - Tristram Cary (1925 - 2008)
    - David Cockerell
  - 1979 Bankrott
  - 1980 – 84 Datanomics („rocking hospital beds“)
  - Edward Williams
  - 1995 von Robin Wood neu gestartet
  - In Deutschland Ludwig Rehberg
- <http://www.britishpathe.com/video/computer-orchestra>
  - <http://www.namm.org/library/oral-history/david-cockerell>



# EMS Products

- 1969: VCS 3 (Audiosynthesizer)
- 1971/72: Synthi A/KS (Audiosynthesizer)
- 1971: Synthi 100 (Studiosynthesizer)
- 1971: Sequencer 256
- 1973: Synthi Hi-Fli (Gitarrensynthi)
- 1974/75: EMS Spectre (Spectron, Videosynthesizer)
- 1975: QUEG (Quadrophonic Effect Generator)
- 1976/77: Vocoder 5000/2000/1000
- Viele Prototypen, die nie auf den Markt kamen

# EMS Studio – Putney, 1970



# EMS – Some creative Ads




**EVERY NUN NEEDS  
A SYNTHI**

Electronic Music Studios (London) Limited  
49 Deodar Road London SW 15 01-874 2363  
New York 408 East 78th Street N.Y. 10021 USA

The Synthi Range by **EMS**

# EMS VCS 3 (The Putney, 1969)



- 3 Oszillatoren 
- 1 Filter/Oszillator
- 1 Noise Generator
- 1 Ringmodulator
- 1 Envelope Shaper /Oszillator
- 2 VCAs
- 2 Equalizer
- 1 Hall (Mono)
- Div. Ein- und Ausgänge (Stereo)
- 16x16 Patch Matrix
- 1969: 330 £

# EMS Synthi A/KS (The Portabella, 1971/72)



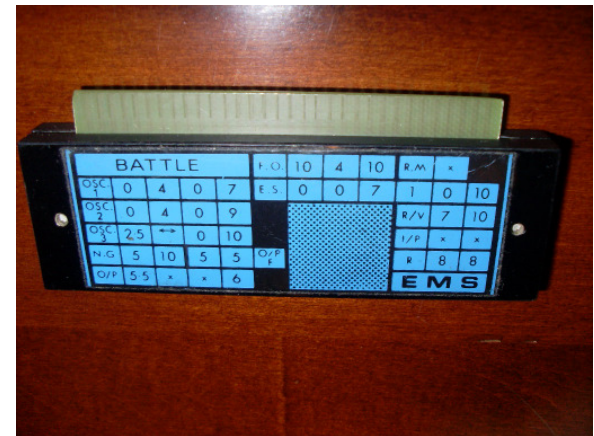
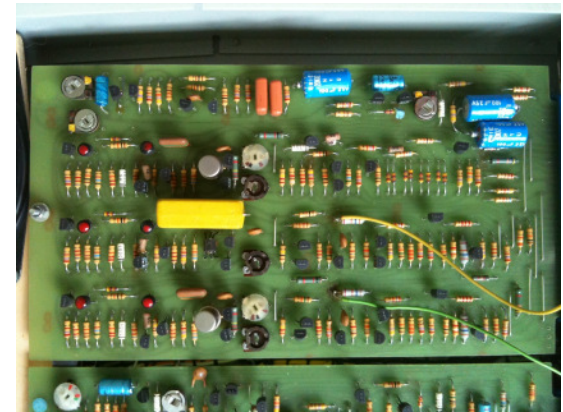
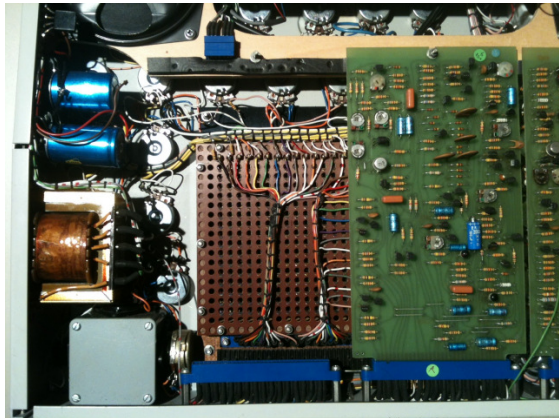
- Technik wie VCS 3
- Spartanite Case
- Keyboard anschlag-dynamisch (SN 74150 undocumented feature)
- 256 Steps Sequencer (MOS 5 +1 bit Shift Register)
- A: £ 198
- AKS: £420
- Heute € 8 -13.000
- £1,452 (1,5 – 12 Jahre Wartezeit)
- Synthi Avs als Emulation für € 350 (Rehberg)

# EMS Synthi AKS - Board A/B/C

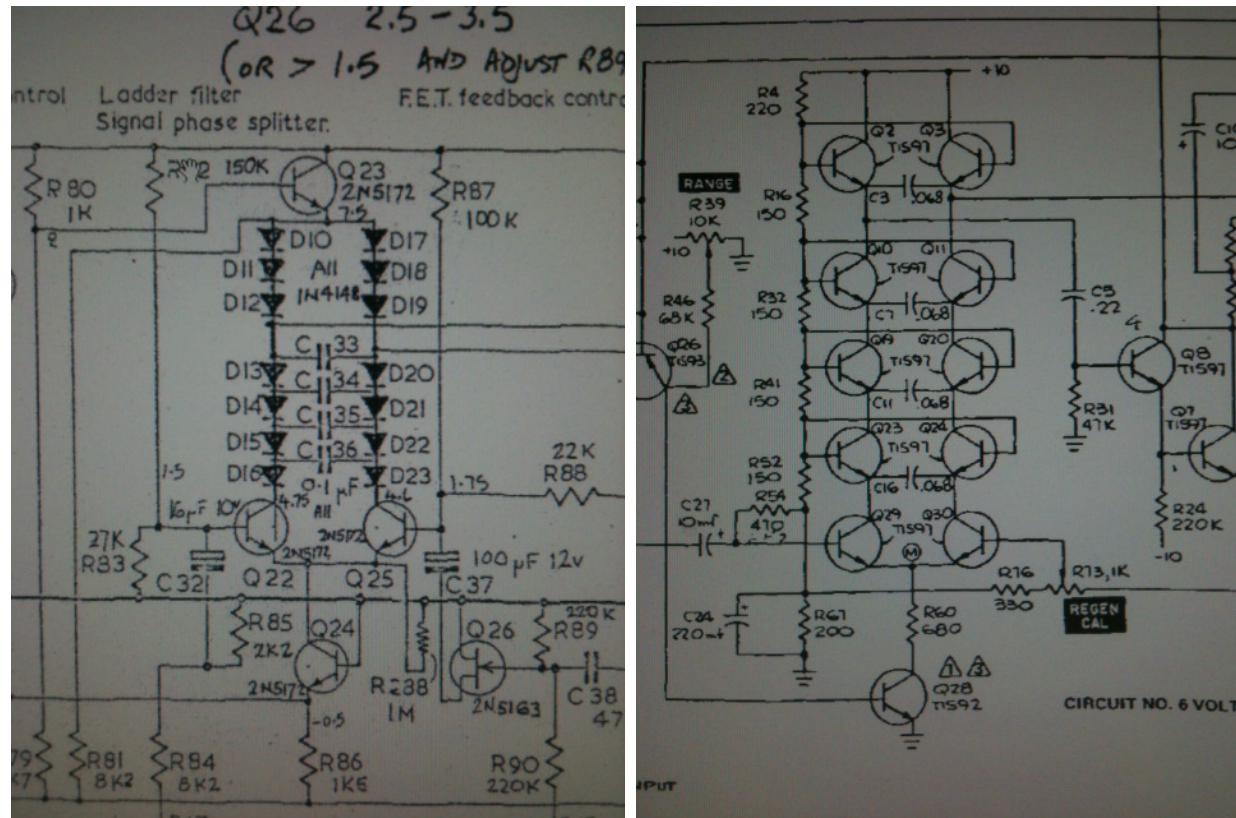




# EMS Synthesizer AKS - Details



# EMS - Filter - Moog



Analysis of the Moog Transistor Ladder and Derivative Filters by Timothy E. Stinchcombe, 25 Oct 2008

# EMS Synthesi AKS - Dopesheet

**SYNTHI Dopesheet Nr. 15** **battle prestopatch** Externe Instrumente :

**OSCILLATOR 1 VCO**  
 0 4 0 7

**OSCILLATOR 2 VCO**  
 0 4 0 9

**OSCILLATOR 3 VCO LFO**  
 3 0-10 0 9

**NOISE GENERATOR RG**  
 5 9

**OUTPUT FILTER**  
 5 5

**CHANNEL 1 -- OUTPUT -- CHANNEL 2**  
 5 left right 6 Pegel links Pegel rechts

**ENVELOPE SHAPER VCA**  
 0 0 9 0 0 9

	SIGNALS				CONTROLS								
	1 out = Ausgang	2 out = Scope	3 out = Ausgang	envelopes	A RM	reverb	filter	1 osc freq	2 decay	3 reverb	filter	1 out lev	2
out chan	1												
osc 1													
osc 2													
osc 3													
noise													
inputs	1												
filter													
trapezoid													
env signal													
ring mod													
reverb													
stick													
Sequencer													

**REVERBERATION**  
 7 10 Hall

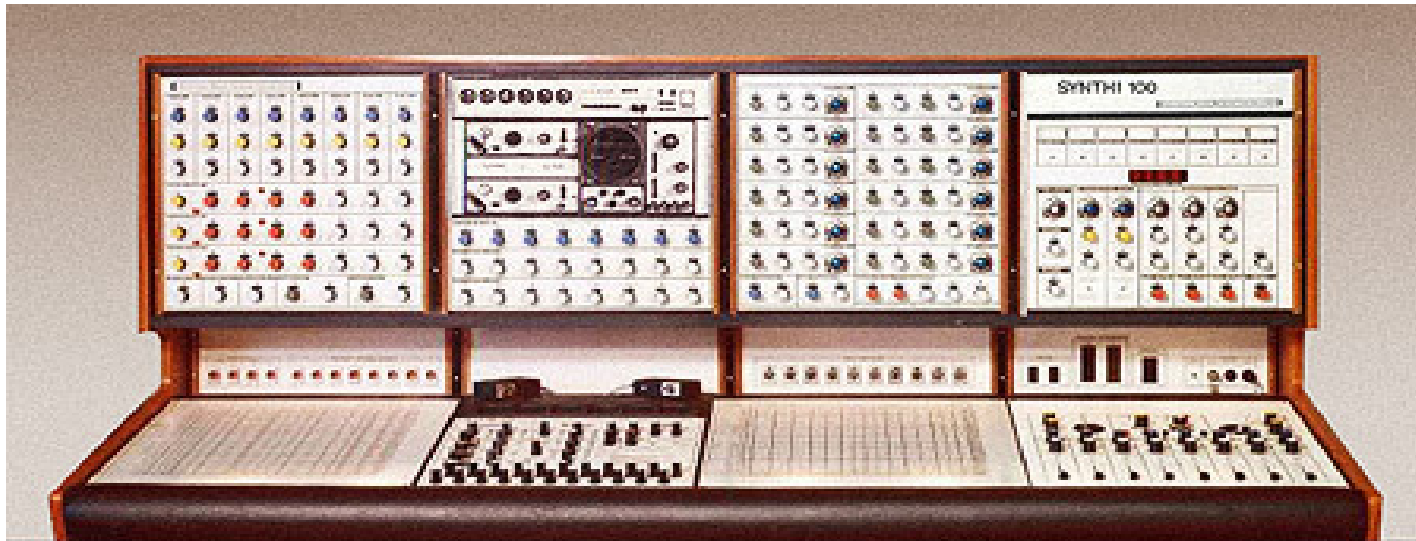
**INPUT LEVEL = Pegel**  
 (Two knobs)

**RANGE**  
 8 8 Sequencer Trigger

# Mini Moog - Front

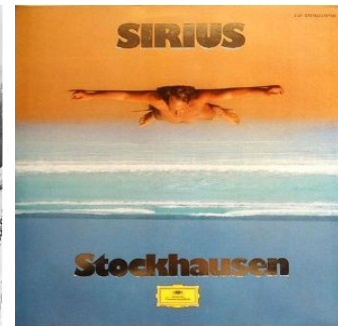
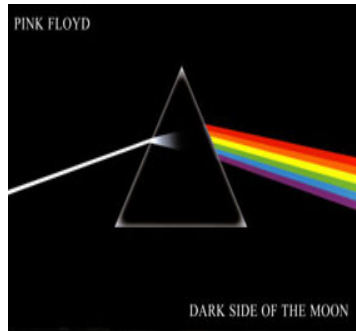


# EMS Synthi 100, 1971

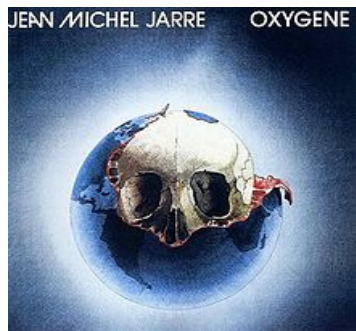


- 3 x VCS 3, bessere Technik
- PDP 8 Computer Interface (Computer Synthi)
- < 40 Stück gebaut
- Oscilloscope
- Matrix 2 x 60 x 60
- Vocoder 5000
- 3 x Sequencer 256
- WDR, BBC, Uni Osnabrück
- 6.500 £

# EMS Synthesizer Users



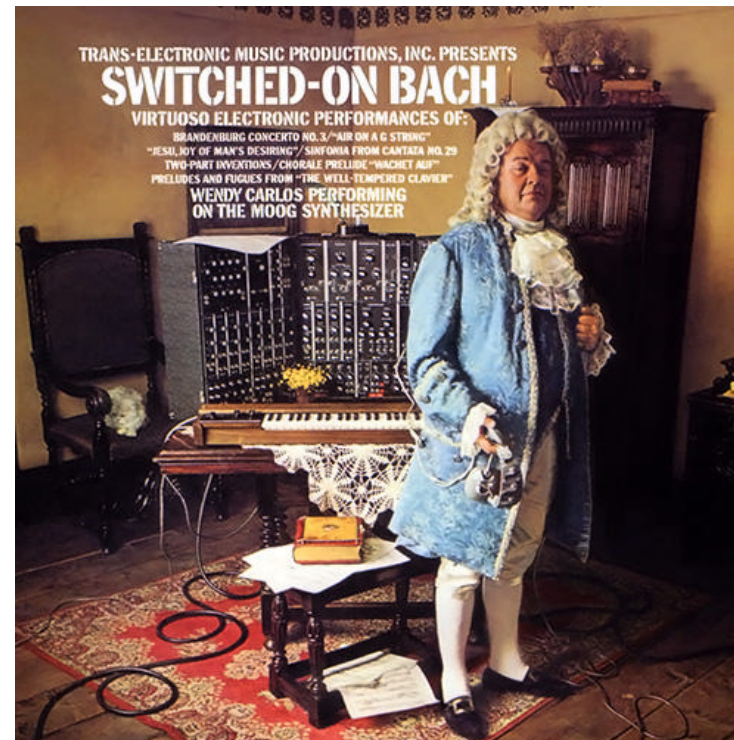
- Pink Floyd
- Robert Fripp
- King Crimson
- Brian Eno
- Klaus Schulze + Pete Namlook
- Tangerine Dream
- David Vorhaus
- Jean Michel Jarre
- Kraftwerk
- Karlheinz Stockhausen
- BBC Radiophonic Workshop
- WDR Studio für elektronische Musik



# EMS Synthesizer - Kritik

- Wendy Carlos (1968: „Switched on Bach“, 1972: „A Clockwork Orange“, 1982: „Tron“):

"The PUTNEY is a real toy. Its components are highly unstable / unpredictable and the selection made is highly gimmick orientated and does not by any stretch of the mind permit any subtle sounds & exp. to be constructed."



Studio Walter Schröder-Limmer, Wolfsburg 1980  
B.Heidersberger: Digital Analog Analog Digital (DAAD)





# Punk auf dem Jazz- und Folklorefestival, Schloss Wolfsburg, 1980



# Kontakt

- Lecture-Performance, gehalten am 15.10.2012 im Medienarchäologischen Fundus der Humboldt-Universität Berlin, Bereich Medienwissenschaften
- Von Benjamin Heidersberger
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