CIRCUIT DIAGRAM
MODULE BOARD
SN up to 270649

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MODULE BOARD (4 VOICE)
149H180 (PCB 052H403)

MODULE BOARD (2 VOICE)
149H181 (PCB 052H403)

COMPU-TUNE
Comparator
Analog SW
IC4 HA17903PS
4051 IC20
LATCH
IC7 273
IC8 273
S/H
VCO
MIXER
VCF
1st VCA
2nd VCA
DC SUPPLY VCO
DC SUPPLY VCA
ANALOG SW
M5230L IC55
ADDRESS PROM
ENCODER
IC6 8031
IC11 ITS80141
IC12 TL081
IC1 373
2732A IC5
IR9022 IC13
MC14504B IC10
LEVEL SHIFTER
LS145 IC9
ADDRESS DECODER
IC3 LS04
VCO A1
VCO A2
VCO B1
VCO B2
VCO C1
VCO C2
VCO D1
VCO D2
IC33A 3340
IC34A EHM-S226W83S
IC36A 3340
IC37A EHM-S226W83S
RM0889 RA3A
RM0689 RA4A
RM0889 RA5A
RM0689 RA7A
MC14551 IC27
MC14551 IC45
4053 IC35A
4053 IC38A
BA662 IC41A
BA662 IC42A
IC43AB
IC48AB
IC48CD
MC14551 IC50
IC49A 3360
IC53 μPC1252H2
M5218L IC54
TP1
TP2A
TP2B
TP2C
TP2D
TP3
TP4
VCF
See attached VCF circuit diagram
CUT OFF VR8A
RESONANSE VR9A,B
VR9C,D
OUT PUT OFF SET
OUT PUT LEVEL
D/A OFF SET
MIX
M.VCA
RESO
VCF
VCA
VCA OUT M4J;23
CLK IN MC4;1
(10V) REF M4P-1;14
+15V M4P-1;13
-15V M4P-1;12
A.GND M4P-1;11
D.GND M4P-1;10
+5V M4P-1;9
VCA CONT M4J;24
NOISE IN M4J;21
VCF CONT M4J;25
VCO BEND 1 M4J;27
VCO BEND 2 M4J;26
A.GND M4J;22
RESET MC4;6
TX MC4;5
RX MC4;7
LFO IN(TO) MC4;3
LFO IN(T1) MC4;4
D.GND MC4;2
D.GND MC4;8
+15V M4P-2;20
-15V M4P-2;19
A.GND M4P-2;18
A.GND M4P-2;17
-15V M4P-2;16
-15V M4P-2;15

MC14551 (PWM)
MC14504B
CEM3340
HA17903PS
TC4053BP
IR9022
IR3109
LS145
TL064
BA662
40H373
40H273
M5218L
TC4051
TL081
40H000
LS04

IC1	:TC40H373P	IC2	:TC40H000P
IC3	:74LS04	IC4	:HA17903PS
IC5	:2732A	IC6	:P8031
IC7,8	:TC40H273P	IC9	:74LS145
IC10	:MC14504B	IC11	:ITS80141
IC12	:TL081	IC13,48AB,48CD	:IR9022
IC14-20	:HD14051BP	IC21-26,28-32	:TL064
IC27,44,45,50	:MC14551B	IC33A,33B,33C,	:CEM3340
IC34A,34B,34C, IC34D,37A,37B	:EHM-S226W83S	IC33D,36A,36B, IC36C,36D	
IC37C,37D		IC39,40,54	:M5218L
IC35A,35B,35C,	:TC4053BP	IC41A,41B,41C,	:BA662
IC35D,38A,38B, IC38C,38D		IC41D,42A,42B	
IC43A,43B,43C, IC43D,49A,49B IC49C,49D	:CEM3360	IC42C,42D IC53 IC55	:uPC 1252L
RA2	:DAP-601	RA3A,3B,3C,3D, RA5A,5B,5C,5D	:RM0889
RA4A,4B,4C,4D, RA7A,7B,7C,7D	:RM0689		
TR1,2,3	:2SA937Q or R	D1-9	:1S2473

Highest ref des :IC55,TR3,D11,C115,R88,RA14,VR11