CIRCUIT DIAGRAM
CPU BOARD

C P U BOARD
149H179 (PCB 052H402)

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CASSETTE IN CJ ;31
CASSETTE OUT CJ ;30
MIDI OUT CJ ;34
MIDI OUT CJ ;35
T 1 CM-2; 43
T Ø CM-4;100
D.GND CM-2;44
D.GND CM-4;101
MIDI IN CJ ;33

CASSETTE INTERFACE
MIDI OUT
SERIAL DATA TRANS-MISSION
MASTER CLOCK
X1 XTAL 12MHZ
IC10 000
IC11 LS40
IC12 8031 or 8051
IC20 LS04
IC3 IR9022
IC4 082
TR2

The later PCBs having CPU P8051-318 for IC12 do not require IC26.
To enable the internal PROM, EA(pin31) of P8051 is pulled up through 10k ohms.

NOTE: P8051 without 318 must be treated as P8031

ADDRESS
ADDRESS/DATA
ADDRESS LATCH
IC17 373
IC8 000
IC18 138
IC19 138
IC28 138
IC26 2732A
IC24 5517APL
IC25 5517APL
PROM
RAM TONE
RAM WORKING
MEMORY PROTECT
ADDRESS DECODERS
WRITE
READ
BACKUP
IC9 002
IC2 4028
IC7 LS145
DECODERS
IC6 IR9022
DC SUPPLY A/D POT
M51201L IC21
IC13 ADC0803
A/D
IC14 245
IC27 245
IC23 245
IC22 245
IC17 273
M54522 IC15
M54563 IC1
IC5 4053 1/3
TR1 TR2 TR3 TR4 TR5 TR6 TR7 TR8
SW1 JIG
TP-1 TP-2 TP-3 TP-4
D1 D2
RA1 RA2 RA3 RA4 RA5
KEYBOARD DATA
SW DATA
JACK
PANEL POT DATA
KEYBOARD ADDRESS
SW ADDRESS
LED DRIVE
PULLED UP SW SCAN

CP;51 +5v
CP;45 +15v
CP;47 -15v
CP;52 RESET
CP;48 REF(+10v)
CP;49 +5v(LED)
CP;50 D.GND
CP;46 A.GND

PANEL BOARD MATRIXES
IC24 : TC5517APL or MB8416-25LP
IC25 : 5517-APL or -AP : 8416-25LP or -25P

4053
4028 40H138 74LS145
74LS04 74LS40 40H002 40H000
IR9022 082
40H245 40H273 40H373

RA1 :EXB-D08E330J **
RA2 :EXB-D08E27J **
RA3 :EXB-D08E33KJ **
RA4 :RM8-103K **
TR1 :2SA937 Q or R **
TR2 - TR8 :2SC2021 Q or R **
D1,D2 :1S2473 **

IC1 :M54563P **
IC2 :TC4028BP **
IC3,IC6 :IR9022 **
IC7 :74LS145 **
IC8,IC10 :TC40H000 **
IC9 :TC40H002 **
IC11 :74LS40 **
IC12 :P8031 **
IC13 :ADC0803 **
IC14,22,23,27 :TC40H245 **
IC15 :M54522 **
IC16 :TC40H273 **
IC17 :TC40H373 **
IC18,19,28 :TC40H138 **
IC20 :74LS04 **
IC21 :M51201L **
IC24,25 :TC5517APL **
IC26 :2732A-A **

Highest ref des : IC28,TR8,D2,C41,R55,RA5,SW1