DR 110 CIRCUIT DIAGRAM

CPU BOARD

approx. 16-110ms
12 clocks= ♩

STOP
START
BANK
100K
C5 R11
C6 R10
C7 R12 100K
0.47μF/50V x3

R7 100K
DAP201x4
D1A D1B D2A D2B D3A D3B D4A D4B
SHIFT BD CP SD CY OH AC CH
D5B D6B D7B D8B
IC3
HE14011BP

D5A D6A D7A D8A
DAN201x4
2.2ms

CLK 400kHz
R1 120K
0.1μF x 2
C2 C3
R2 150K

D9 R3 47K
C4 683
Q1 2SB642R
R4 100K
R5 1K
R6 10K
10ms
6V
0V
6V 5.4V
C1 100μF/6.3V

0
400ms

6V
0V
1ms

CH OH SD BD AC CY CPI CPII

R03 R00 D3 D2 D1 D0 TEST OSC1 OSC2 RESET HLT Vcc V1 V2 V3 GND CNT0 CNT1 D8 D11 D12 D15 COM1 COM4 SEG1 SEG8 SEG9 SEG32

IC1
CPU
HD44790A-44

IC2
MEMORY
μPD444C
I/O1 I/O4 A0 A9 WE CS
R10 R13 R20 R23 R30 R33 D4 D5 D6 D7
R8 100K R9 100K

18P FLAT CABLE

RUBBER CONNECTOR 343-203

CP TRIG

Some capacitances are expressed as follows:
0.001μF - 102
0.033μF - 333

LCD 9201

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
C. HIHAT																
O. HIHAT																
SNARE DRUM																
BASS DRUM																
AC/CY/HCP																

SONG	MEASURE	BANK	RHYTHM	MODE	
I	888	A	8		SONG PLAY
II		B			PATTERN PLAY
		C			SONG WRITE
		D			STEP WRITE
					TAP WRITE

VOICING BOARD

NJM4558
TEMPO CLK
VR1
C16 473
R26 220K
R34 150K
1MC
0.5Vp-p
0.5Vp-p

CY SOURCE
R11 82K
C4 332
C5 332
R12 560
R1 330K
R8 100K
C2 102
R5 100K
C1 472J
R4 100K
82K
R3
C11 472J
R7 100K
R25 120K
IC1
HD14069BP x 2
R10 100K
C12 472J
R28 100K
R27 33CK
R23 82K
C10 682
C9 682
R16 560
R24 33K
R2 100K
C3 222
C13 472J
R30 100K
R29 220K
R15 100K
R14 100K
R9 100K
R6 560
2.2ms
INT CLK
IC2

EDL4006BP
NOISE
R55 33K
R54 10K
IC3
NC,2,8,11
POWER ON
RESET
R59 47K
D8
R57 2.2M
B3 4.7μF /35V
R58 220K
C26
D7
R56 100K
13μs
R61 10K
R62 100K
C27 470P
13μs
80kHz
UD14070BP
IC4
IC1—4
B3
R60 100
C15 100μF /6.3V
Vcc
GND
ACC TRIG OUT
J1

SW1
SSS522
R97 1K
DC9V
J2
RD6.8EB2
D12
C54 10μF /16V
D13
S550GG
C55 10μF /16V
R95 1K5
Q19
R96 100K
D10
D11
VV +6V
VL +6V
VB 5.4V
1.5V x 4

B1
Q2 R37 33K R36 100K
R21 220
C8 1μF /50V
R20 470K
R19 82K
Q3
R52 33K
C25 470P
D5
R13 100
C6 47μF /6.3V
Q17
R90 4K7
R91 2K7
OH
CH
CY
Q1 R22 33K R35 100K
R17 220
R18 220K
Q4
R53 33K
C7 0.47μF/50V
D4
C23 470P
Q5 R40 33K R39 100K
C17 0.47μF/50V
R38 220
R41 10K
R42 100K
R43 1M
Q7
C22 102
C24 102
R51 100K
Q8
C43 222
R50 5K6
R48 100K
R49 10K
R88 5K6
Q6
D2
C18 1μF/50V
R44 680K
R45 33K
C21 1μF/50V
R47 33K
C30 470P
C42 470P
D6
R74 68K
R89 10K
R46 1M
C20 473
Q9

R33 2.2M
R31 220K
D1
R32 100K
R63 10K
C14 332

B2
CPI
Q16 R109 33K R102 100K
R110 220
R111 33K
R108 10K
C48 0.47μF/50V
CPI
Q15 R104 33K R103 68K
R107 220
R112 33K
C49 1μF/50V
R113 68K
D15
D16
C50 2.2μF/50V
R115 33K
D14
R114 68K
C51 223
C61 122
R128 33K
C63 122
R127 2.2M
Q24
R120 10K
C59 222
R121 33K
20KB
VR2 BALANCE
R118 160K
R119 1K
R123 470K
50KA
C58 1μF/50V
R122 220
R124 2K2
100μF/6.3V
C60
R125 100
R116 15K
Q20
1MC
VOLUME
VR4
Q22
AC
R93 100K
Q18
R100 100
R92 33K
C53 47μF/6.3V
R94 560
R117 4.7M
Q21
VR3
ACCENT
C57 0.47μF/50V
C56 0.47μF/50V
R99 100K
R98 100K
B2
R101 100
C47 47μF/6.3V
SD
Q14 R84 33K R83 100K
R106 220
R105 15K
C52 1μF/50V
D9
C32 470P
Q12
R79 100K
R72 33K
C36 222
R73 10K
C35 102
C28 682
R78 2.2M
C34 473
R71 10K
C29
R45 33K
R76 33K
C31 682
Q11
R77 120
2SC945K or 2SC1815BL
R82 100K
Q13
C37 682
R85 5K6
R81 100K
C33 332
R80 10K
BD
R68 68K
C44 223
C46 223
R67 68K
C41 333
R69 333
R87 10K
R86 15K
C45 683
C40 333
C39 333
R65 68K
R64 68K
R66 68K
C38 333
Q10
R70 470
Q23
R129 10K
C62 10μF /16V
R126 10K
(P-BUS) OUTPUT
SN up to 361000
R136 10K
J4
OPHONES
J3
100μF/6.3V
R130 10C
C64
100μF/6.3V
C65
R133 220K
R134 100K
C66 223
C68 10μF/16V
R135 10
C67 104
R131 10
R132 10
LM386N-1
Pins 1.8 NC

Unless otherwise specified:
NPN transistors are 2SC2603F
PNP transistors are 2SA1115F
Diodes are 1SS133