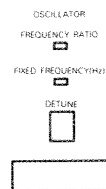
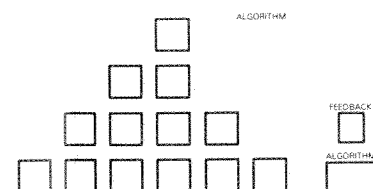
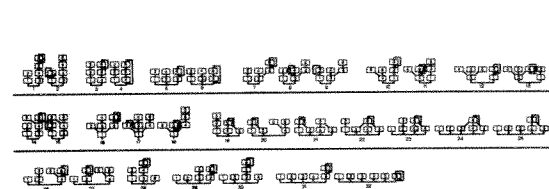
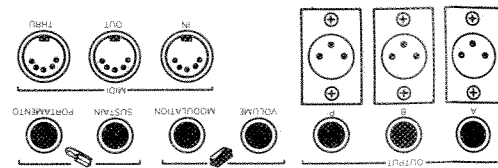


SPECIFICATIONS (仕様)

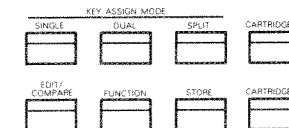
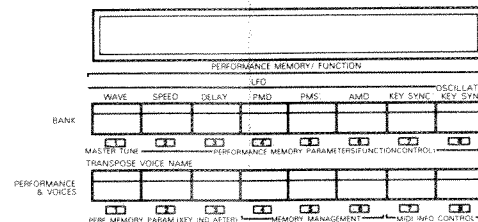
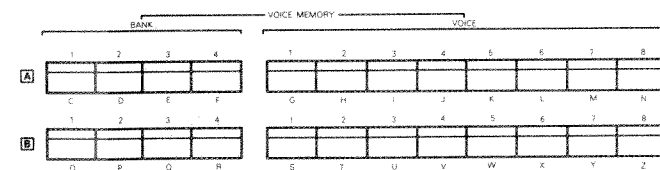
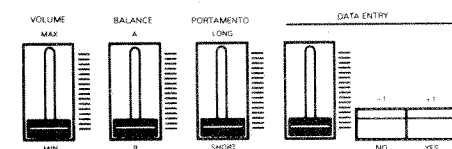
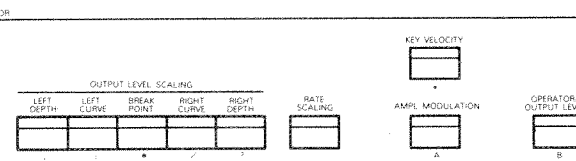
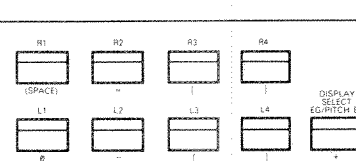
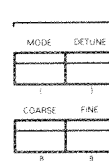
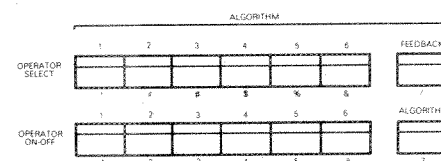
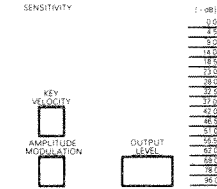
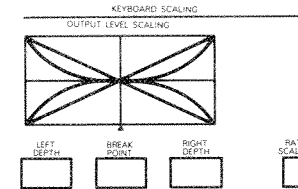
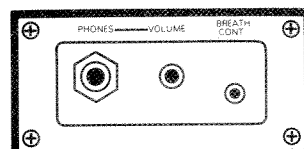
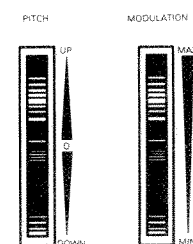
- ◆ Keyboards • 73 Keys E0 ~ E6
 - TOUCH CONTROL: KEY VELOCITY, AFTER TOUCH
- ◆ Tone Generator • FM TONE GENERATOR (6 OPERATOR x A-B)
- ◆ Maximum number of notes • POLYPHONIC : SINGLE 32/DUAL 16/SPLIT 16 + 16
 - MONOPHONIC: SINGLE 1/DUAL 1/SPLIT 1 + 1
- ◆ Internal memory • VOICE MEMORY: 4 BANK x 8 VOICE x A-B
 - PERFORMANCE MEMORY: 8 BANK x 8 PERFORMANCE
- ◆ Controllers • VOLUME: VOLUME SLIDER, BALANCE SLIDER, PHONES VOLUME
 - EFFECT CONTROLLER: PORTAMENTO TIME SLIDER, PITCH BEND WHEEL, MODULATION WHEEL
 - DATA ENTRY: DATA ENTRY SLIDER, +/- SW,
 - MEMORY & PARAMETER SELECT: EDIT PARAMETER (ALGO-RITHM, OPERATOR), VOICE MEMORY, PERFORMANCE MEMORY/FUNCTION, CARTRIDGE A-B
 - KEY ASSIGN MODE: SINGLE, DUAL, SPLIT
 - MODE SELECTOR: EDIT/COMPARE, FUNCTION, STORE
 - OTHER: OPERATOR SELECT, OPERATOR ON/OFF, DISPLAY SELECT (EG/PITCH EG)
- ◆ Display • LED GRAPHIC DISPLAY: EDIT PARAMETER = ALGORITHM, OPERATOR
 - LC DISPLAY: EDIT PARAMETER = LF0 etc/FUNCTION PARAMETER
- ◆ Connections & Interface • AUDIO OUTPUT: OUTPUT A-B-P (PHONE JACK, XLR TYPE balanced) PHONES (STEREO PHONE JACK 5 ~ 8Ω)
 - CONTROL JACK: MODULATION, VOLUME, SUSTAIN ON/OFF, PORTAMENTO ON/OFF
 - INTERFACE: MIDI IN-OUT-THRU, CARTRIDGE INSERT A-B
- ◆ Edit Parameters ◆ ALGORITHM
 - ALGORITHM, FEEDBACK◆ OPERATOR
 - OSCILLATOR: MODE, DETUNE, COARSE, FINE
 - ENVELOPE GENERATOR: EG (R1 ~ R4, L1 ~ L4), PITCH EG (R1 ~ R4, L1 ~ L4)
 - KEYBOARD SCALING: LEVEL SCALING (LEFT DEPTH, LEFT CURVE, BREAK POINT, RIGHT CURVE, RIGHT DEPTH), RATE SCALING
 - SENSITIVITY: KEY VELOCITY, AMPL. MODULATION
 - OPERATOR OUTPUT LEVEL◆ LF0
 - WAVE, SPEED, DELAY, PMD, PMS, AMD, KEY SYNC◆ OTHER
 - OSCILLATOR KEY SYNC, TRANSPOSE, VOICE NAME
- ◆ Function Parameters ◆ MASTER TUNE
 - F1: MASTER TUNE◆ PERFORMANCE MEMORY PARAMETER/FUNCTION CONTROL
 - F1: DUAL MODE DETUNE
 - F2: POLY/MONO, SOURCE SELECT
 - F3: PITCH BEND (RANGE, STEP)

- F4: PORTAMENTO (PORTAMENTO/GLISSANDO, RETAIN/FOLLOW, PEDAL ASSIGN, TIME)
 - F5: OUTPUT LEVEL ATTENUATE PROG. OUT ASSIGN, SUSTAIN PEDAL ASSIGN
 - F6: MOD. WHEEL (SENSITIVITY, ASSIGN), FOOT CONT. (SENSITIVITY, ASSIGN)
 - F7: BRTH CONT. (SENSITIVITY, ASSIGN), AFTER TOUCH (SENSITIVITY, ASSIGN)
 - F8: SPLIT POINT, KEY SHIFT, PERFORMANCE NAME
 - ◆ PERFORMANCE MEMORY PARAMETER/KEY INDIVIDUAL AFTER TOUCH
 - F9: TOTAL SENSITIVITY, DECAY RATE, RELEASE RATE
 - F10: OP1 DEPTH, OP2 DEPTH, OP3 DEPTH
 - F11: OP4 DEPTH, OP5 DEPTH, OP6 DEPTH
 - ◆ MEMORY MANAGEMENT
 - F12: COPY OP DATA (ENVELOPE DATA, OSCILLATOR DATA), SAVE TEMP OPERATOR, INITIALIZE MEMORY (INITIALIZE VOICE, INITIALIZE PERFORMANCE), RECALL EDIT BUFF
 - F13: SAVE TO CARTRIDGE (ALL VOICE A, ALL VOICE B, ALL PERFORMANCE), LOAD FROM CARTRIDGE (ALL VOICE A, ALL VOICE B, ALL PERFORMANCE), CHANGE CART FORMAT
 - F14: PROTECT MEMORY WRITE, CLEAR ALL MEMORY, CHECK BATTERY
 - ◆ MIDI INFORMATION CONTROL
 - F15: ON/OFF, SET STATUS (BASIC EVENT DATA OUTPUT, OTHER EVENT DATA OUTPUT, SYSTEM EXCLU. COMMUNICATION, OMNI MODE, PROGRAM CHANGE MODE), TRANSMIT DATA (DUMP ALL VOICE IN A, DUMP ALL VOICE IN B, DUMP ALL PERFORMANCE)
 - F16: REMOTE SEQUENCE
- ◆ Dimensions • Width: 1255mm
 - Depth: 640mm
 - Height: 225mm
 - Weight: 51 kg
 - ◆ Power Consumption AC100V, 120V, 220V, 240V 70W
 - ◆ Accessories • FOOT SW FC-4 x 2
 - FOOT CONTROLLER FC-3A x 2
 - BREATH CONTROLLER BC-1 x 1
 - MUSIC STAND
 - POWER CABLE
 - ROM VOICE MEMORY CARTRIDGE x 4
 - ROM PERFORMANCE MEMORY CARTRIDGE x 1

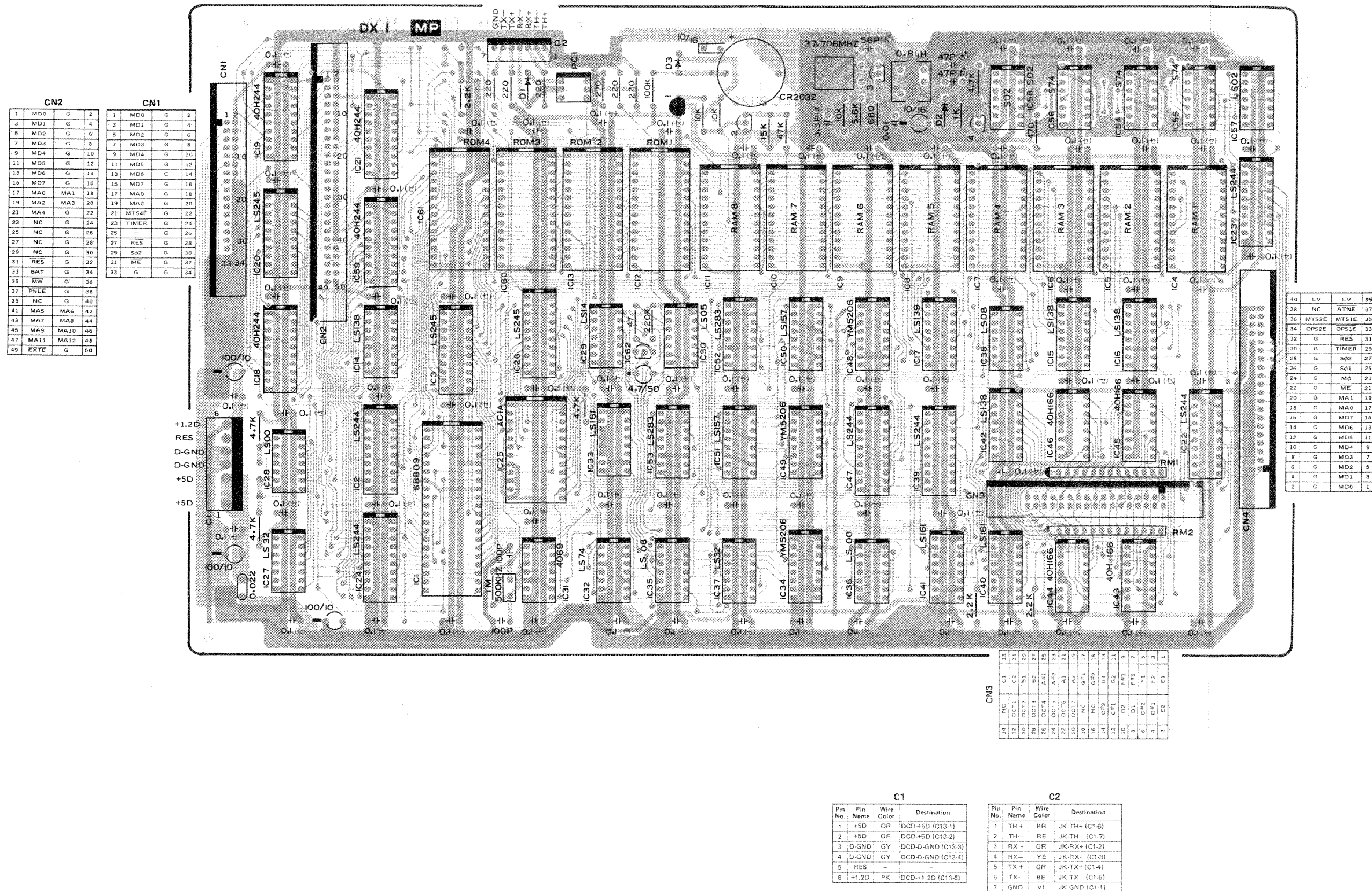
PANEL LAYOUT (パネルレイアウト)



LCN/SPRCH	ENVELOPE GENERATOR				AMPLITUDE	dB
4600					0	1
2400					4	2
1100					8	3
1000					14	4
900					20	5
750					23	6
480					38	7
400					39	8
0					77	9
240					80	10
120					86	11
100					91	12
90					95	13
100					98	14
120					101	15
240					109	16
480					118	17
900					126	18
1800					135	19
3600					144	20
7200					153	21
14400					162	22
28800					171	23
57600					180	24
115200					189	25
230400					198	26
460800					207	27
921600					216	28
1843200					225	29
3686400					234	30
7372800					243	31
14745600					252	32
29491200					261	33
58982400					270	34
117964800					279	35
235929600					288	36
471859200					297	37
943718400					306	38
1887436800					315	39
3774873600					324	40
7549747200					333	41
15099494400					342	42
30198988800					351	43
60397977600					360	44
120795955200					369	45
241591910400					378	46
483183820800					387	47
966367641600					396	48
1932735283200					405	49
3865470566400					414	50
7730941132800					423	51
15461882265600					432	52
30923764531200					441	53
61847529062400					450	54
123695058124800					459	55
247390116249600					468	56
494780232499200					477	57
989560464998400					486	58
1979120929996800					495	59
3958241859993600					504	60
7916483719987200					513	61
15832967439974400					522	62
31665934879948800					531	63
63331869759897600					540	64
126663739519795200					549	65
253327479039590400					558	66
506654958079180800					567	67
1013309916158361600					576	68
2026619832316723200					585	69
4053239664633446400					594	70
8106479329266892800					603	71
16212958658533785600					612	72
32425917317067571200					621	73
64851834634135142400					630	74
129703669268270284800					639	75
259407338536540569600					648	76
518814677073081139200					657	77
1037629354146162278400					666	78
2075258708292324556800					675	79
4150517416584649113600					684	80
8301034833169298227200					693	81
16602069666338596454400					702	82
33204139332677192908800					711	83
66408278665354385817600					720	84
132816557330708771635200					729	85
265633114661417543270400					738	86
531266229322835086540800					747	87
1062532458645670173081600					756	88
2125064917291340346163200					765	89
4250129834582680692326400					774	90
8500259669165361384652800					783	91
17000519338330722769305600					792	92
34001038676661445538611200					801	93
68002077353322891077222400					810	94
136004154706645782154444800					819	95
272008309413291564308889600					828	96
544016618826583128617779200					837	97
1088033237653166257235558400					846	98
2176066475306332514471116800					855	99
4352132950612665028942233600					864	100

[illegible]

MP CIRCUIT BOARD & WIRING



- Note)
- Circuit Board : LC91121
 - IC's
 - IC1 : HD68B09P
 - IC2, 22 ~ 24, 39, 47 : 74LS244
 - IC3, 20, 26 : 74LS245
 - IC4 ~ 11 : M5H5118P-15
 - IC14 ~ 16, 42 : 74LS138
 - IC17 : 74LS139
 - IC25 : HC68B50P
 - IC27, 37 : 74LS32
 - IC28, 36 : 74LS00
 - IC29 : 74LS14
 - IC30 : 74LS05
 - IC31 : TC4069UBP
 - IC32 : 74LS74
 - IC33, 40, 41 : 74LS161
 - IC34, 48, 49 : YM5206
 - IC35, 38 : 74LS08
 - IC43 ~ 46 : TC40H166
 - IC50, 51 : 74LS157
 - IC52, 53 : 74LS283
 - IC54 ~ 56 : 74S74
 - IC57 : 74LS02
 - IC58 : 74S02
 - IC18, 19, 21, 59 : 40H244
 - IC62 : PST518
 - Transistors
 - Tr1 : 2SA1015 (O,Y)
 - Tr2 : 2SC1815 (O,Y)
 - Tr3, 4 : 2SC752 (Y)
 - Diodes
 - D3 : 0A95
 - D1, 2 : 1SS133
 - Capacitors
 - (*) Marked : Ceramic Cap.
 - (*) Marked : Polypropylene Cap.
 - (*) Marked : Styrol Cap.
 - (Δ) Marked : Electro Magnetic Interference 0.22
 - Battery
 - Lithium Battery: CR2032
 - Oscillate Coil
 - T1 : 0.8μH
 - Photo Coupler
 - PC1 : PC900
 - Module Resistor
 - RM1, 2 : 10K x 12
 - Vibrator
 - X1 : 37.706 MHz (Crystal)
 - X2 : 500 KHz (Ceralock)

AT CIRCUIT BOARD & WIRING

C1

Pin No.	Pin Name	Wire Color	Destination
1	D-GND	S RE S	PLL-C2
2	-	-	-
3	AT	S RE	PLL-AT (C2-10)

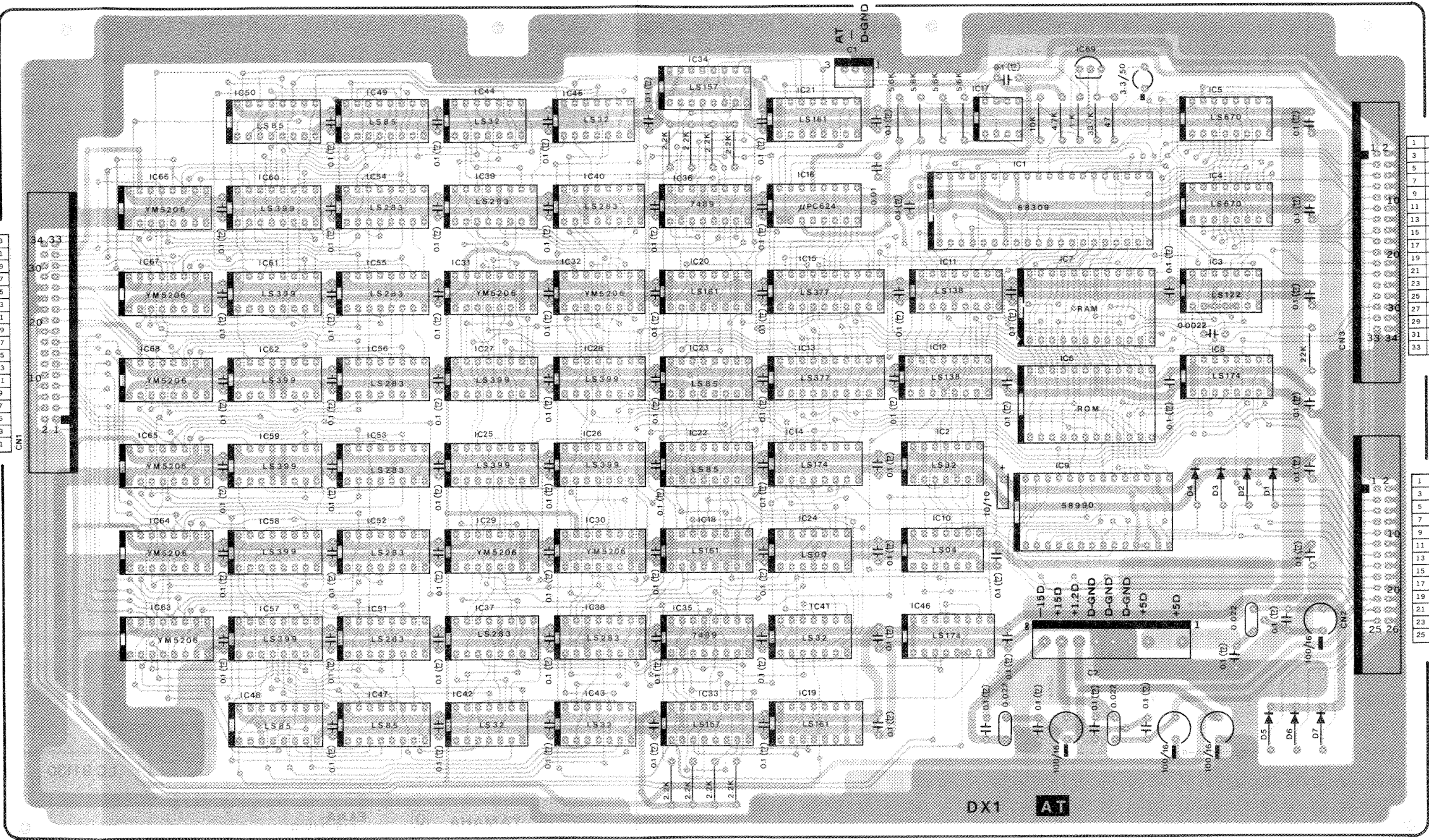
C2

Pin No.	Pin Name	Wire Color	Destination
1	+5D	OR	DCD+5D (C14-1)
2	+5D	OR	DCD+5D (C14-2)
3	D-GND	GY	DCD-D-GND (C14-3)
4	D-GND	GY	DCD-D-GND (C14-4)
5	D-GND	GY	DCD-D-GND (C14-5)
6	+1.2D	PK	DCD+1.2D (C14-6)
7	+15D	RE	DCD+15D (C14-7)
8	-15D	BE	DCD-15D (C14-8)

Note)

1. Circuit Board : LC91130
2. IC's
- IC1 : 68B09
 - IC2, 41 ~ 45 : 74LS32
 - IC3 : 74LS122
 - IC4, 5 : 74LS670
 - IC6 : 2732 (IN00640)
 - IC7 : M5M5118P
 - IC8, 14, 46 : 74LS174
 - IC9 : M58990P-1
 - IC10, 59 : 74LS04
 - IC11, 12 : 74LS138
 - IC13, 15 : 74LS377
 - IC16 : μ PC624
 - IC17 : NJM4558DV
 - IC18 ~ 21, 57, 60 : 74LS161
 - IC22, 23, 47 ~ 50 : 74LS85
 - IC24 : 74LS00
 - IC25 ~ 28 : 74LS399
 - IC29 ~ 32, 63 ~ 68 : YM5206
 - IC33, 34 : 74LS157
 - IC35, 36 : 7489
 - IC37 ~ 40, 51 ~ 56 : 74LS283
 - IC69 : PST518
 - IC58, 61 : 74LS08
 - IC62 : 74LS21
3. Diodes
- D1 ~ 7 : 1S1555
4. Capacitor
- (C) Marked : Semi-Conductive Ceramic Cap.
5. * Marked : Electro Magnetic Interference 0.022

34	KFB9	KFB8	33
32	KFB10	KOB7	31
30	KFB11	KFB6	29
28	KFB12	KFB5	27
26	G	KFB4	25
24	G	KFB3	23
22	G	KFB2	21
20	BSY	KFB1	19
18	G	G	17
16	KFA9	KFA8	15
14	KFA10	KFA7	13
12	KFA10	KFA6	11
10	KFA12	KFA5	9
8	G	KFA4	7
6	G	KFA3	5
4	G	KFA2	3
2	ASY	KFA1	1

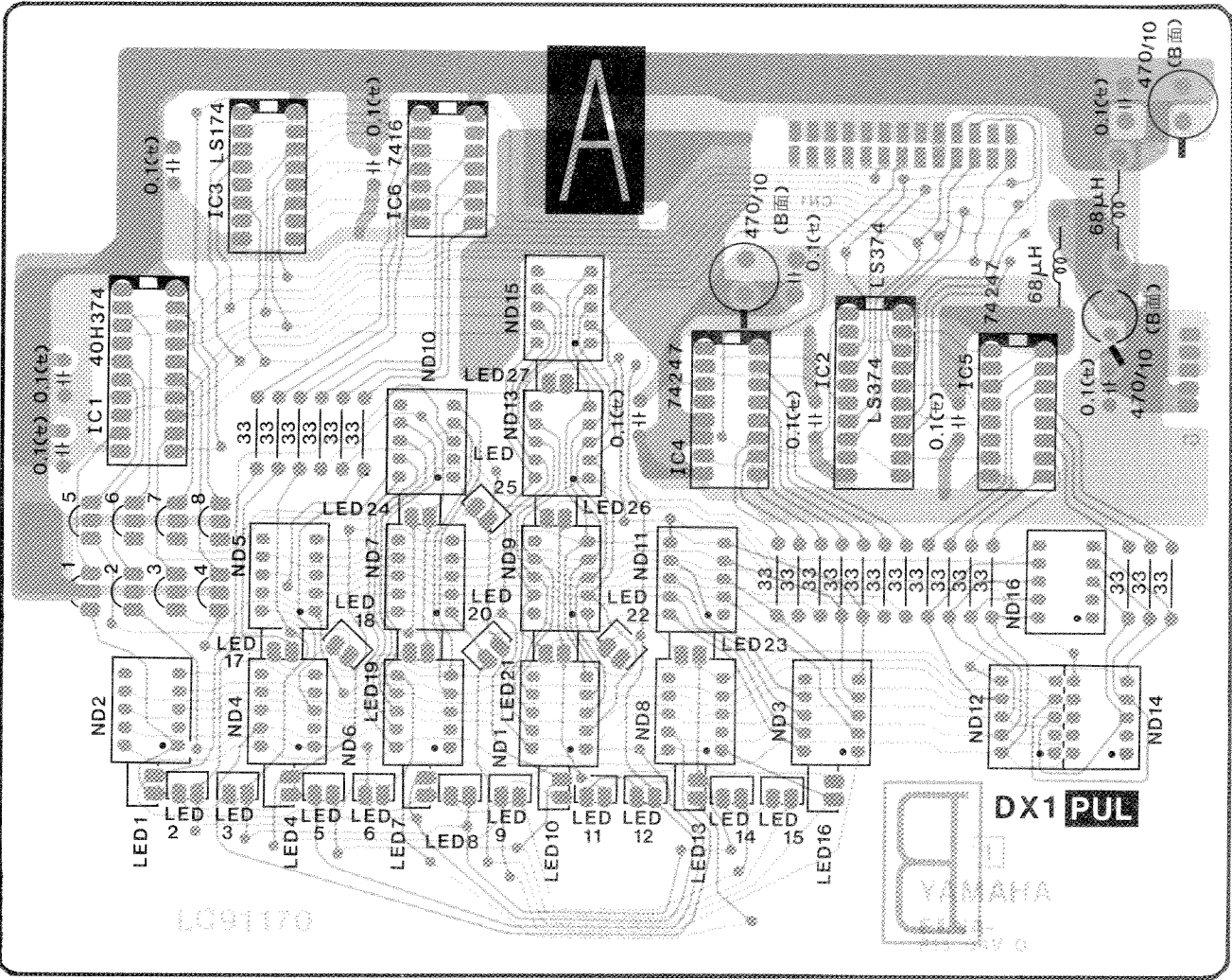


1	MD0	G	2
3	MD1	G	4
5	MD2	G	6
7	MD3	G	8
9	MD4	G	10
11	MD5	G	14
13	MD6	G	14
15	MD7	G	16
17	MA0	G	18
19	MA1	G	20
21	MTS4E	G	22
23	TIMER	G	24
25	-	G	26
27	RES	G	28
29	S02	G	30
31	ME	G	32
33	G	G	34

1	RES	G	2
3	N0	G	4
5	N1	G	6
7	N2	G	7
9	N3	G	10
11	N4	G	12
13	AMPX7	G	14
15	AMPX6	G	16
17	AMPX5	G	18
19	AMPX4	G	20
21	AMPX3	G	22
23	AMPX2	G	24
25	AMPX1	G	26

PUL ,JK / MIDI CIRCUIT BOARD & WIRING

PUL • View from the printed pattern side of the circuit board.

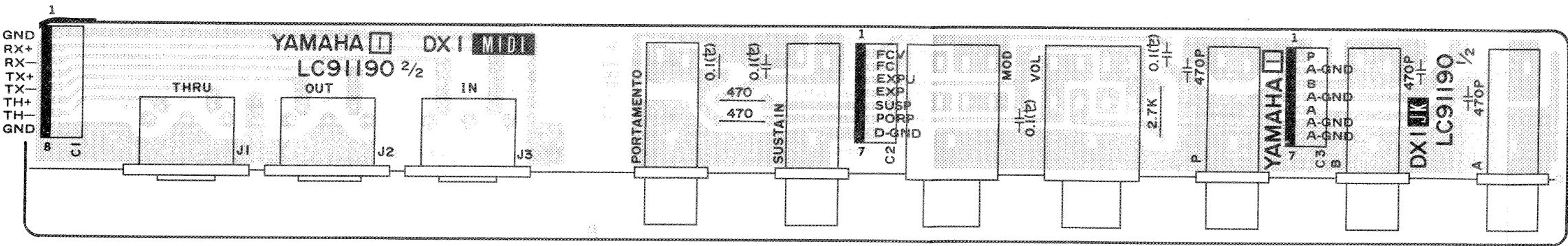


C1			
Pin No.	Pin Name	Wire Color	Destination
1	D-GND	GY	DCD-D-GND (C23-5)
2	D-GND	GY	DCD-D-GND (C23-4)
3	D-GND	GY	DCD-D-GND (C23-3)
4	+5D	OR	DCD+5D (C23-2)
5	ESD	OR	DCD+5D (C23-1)

- Note)
1. Circuit Board : LC91170
 2. IC's
IC1 : 40H374
IC2 : 74LS374
IC3 : 74LS174
IC4, 5 : 74 247
IC6 : 7416
 3. Transistors
Tr1 ~ 8 : 2SD1198 (R)

KEP-NA81220-33 △

JK / MIDI

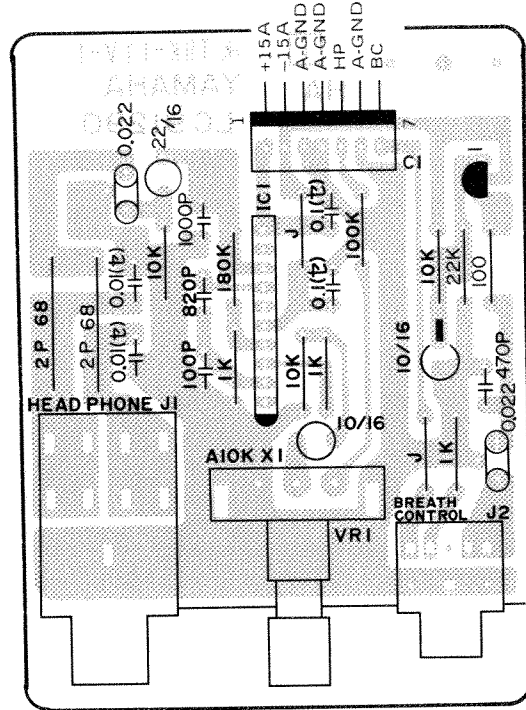


C1			
Pin No.	Pin Name	Wire Color	Destination
1	+15A	BR	DCD+15A (C19-1)
2	-15A	YE	DCD-15A (C19-3)
3	A-GND	BL	DCD-A-GND (C19-2)
4	A-GND	S YE S	PLL-A-GND (C4-4)
5	HP	S YE	PLL-PHONE (C4-5)
6	A-GND	S GY S	PLL-A-GND (C2-9)
7	BC	S GY	PLL-BC (C2-8)

- Note)
1. Circuit Board : LC91190
 2. Capacitor
0.1(♣) Marked : Semi-Conductive Ceramic Cap.

KEP-NA81222-35 △

HA



C1

Pin No.	Pin Name	Wire Color	Destination
1	GND	VI	MP-GND (C2-7)
2	RX +	OR	MP-RX+ (C2-3)
3	RX -	YE	MP-RX- (C2-4)
4	TX +	GR	MP-TX+ (C2-5)
5	TX -	BE	MP-TX- (C2-6)
6	TH +	BR	MP-TH+ (C2-1)
7	TH -	RE	MP-TH- (C2-2)
8	GND		

C2

Pin No.	Pin Name	Wire Color	Destination
1	FCV	BR	PLL-FCV (C6-1)
2	FC	RE	PLL-FC (C6-2)
3	EXPU	YE	PLL-EXPU (C6-4)
4	EXP	GR	PLL-EXP (C6-5)
5	SUSP	WH	PLL-SUSP (C6-7)
6	PORP	RE	PLL-PORP (C6-3)

C3

Pin No.	Pin Name	Wire Color	Destination
1	P	S BR	PLL-UOP (C3-1)
2	A-GND	S BR S	PLL-P-GND (C3-1)
3	B	S RE	PLL-UOB (C3-4)
4	A-GND	S RE S	PLL-A-GND (C3-3)
5	A	S OR	PLL-UOA (C3-6)
6	A-GND	S OR S	PLL-A-GND (C3-5)
7	A-GND	OR	PLL-A-GND (C6-3)

Note)

1. Circuit Board : LC91291
2. IC
IC1 : TA7220
3. Transistor
Tr1 : 2SA1015 (O,Y)
4. Capacitors
(*) Marked : Semi-Conductive Ceramic Cap.
(K) Marked : Ceramic Cap. 1000P
5. Resistor
2P68 : Metal Oxide Film Resistor
6. Volume
VR1 : Rotary Volume A10K x 2

KEP-MA81227-3Y¹ △

C11

Pin No.	Pin Name	Wire Color	Destination
1	+15D	RE	Power Supply Unit Ass'y. +15D (C1-1)
2	D-GND		
3	-15D	BE	Power Supply Unit Ass'y. -15D (C1-3)
4	+15A	BR	Power Supply Unit Ass'y. +15A (C1-5)
5	A-GND	BL	Power Supply Unit Ass'y. A-GND (C1-5)
6	-15A	YE	Power Supply Unit Ass'y. -15A (C1-5)

C12

Pin No.	Pin Name	Wire Color	Destination
1	+5D	OR	Power Supply Unit Ass'y. +5D (C2-1)
2	D-GND	GY	Power Supply Unit Ass'y. D-GND (C2-2)
3	+5D	OR	Power Supply Unit Ass'y. +5D (C2-3)
4	D-GND	GY	Power Supply Unit Ass'y. D-GND (C2-4)
5	S		
6	+1.2D	PK	Power Supply Unit Ass'y. +1.2D (C2-5)
7	D-GND		

C13

Pin No.	Pin Name	Wire Color	Destination
1	+5D	OR	MP+5D (C1-1)
2	+5D	OR	MP+5D (C1-2)
3	D-GND	GY	MP-D-GND (C1-3)
4	D-GND	GY	MP-D-GND (C1-4)
5	S		
6	+1.2D	PK	MP+1.2D (C1-6)

C14

Pin No.	Pin Name	Wire Color	Destination
1	+5D	OR	AT+5D (C2-1)
2	+5D	OR	AT+5D (C2-2)
3	D-GND	GY	AT-D-GND (C2-3)
4	D-GND	GY	AT-D-GND (C2-4)
5	D-GND	GY	AT-D-GND (C2-5)
6	+1.2D	PK	AT+1.2D (C2-6)
7	+15D	RE	AT+15D (C2-7)
8	-15D	BE	AT-15D (C2-8)

C15

Pin No.	Pin Name	Wire Color	Destination
1	+5D	OR	TG+5D (C2-1)
2	+5D	OR	TG+5D (C2-2)
3	D-GND	GY	TG-D-GND (C2-3)
4	D-GND	GY	TG-D-GND (C2-4)
5	+15A	BR	TG+15A (C2-5)
6	A-GND	BL	TG-A-GND (C2-6)
7	-15A	YE	TG-15A (C2-7)

C16

Pin No.	Pin Name	Wire Color	Destination
1	+15D		TEST POINT
2	-15D		TEST POINT
3	-15D		TEST POINT

C17

Pin No.	Pin Name	Wire Color	Destination
1	+15D	RE	PC2+15D (C1-2)
2	-15D		
3	-15D	BE	PC2-15D (C1-6)

C18

Pin No.	Pin Name	Wire Color	Destination
1	+15A	BR	PLL+15A (C1-7)
2	+15A	BR	PLL+15A (C1-8)
3	A-GND	BL	PLL-A-GND (C1-5)
4	A-GND	BL	PLL-A-GND (C1-4)
5	A-GND	BL	PLL-A-GND (C1-3)
6	-15A	YE	PLL-15A (C1-2)
7	-15A	YE	PLL-15A (C1-1)

C19

Pin No.	Pin Name	Wire Color	Destination
1	+15A	BR	HA+15A (C1-1)
2	A-GND	BL	HA-A-GND (C1-3)
3	-15A	YE	HA-15A (C1-2)

C20

Pin No.	Pin Name	Wire Color	Destination
1	+5D		TEST POINT
2	D-GND		TEST POINT
3	+15A		TEST POINT
4	A-GND		TEST POINT
5	-15A		TEST POINT

C21

Pin No.	Pin Name	Wire Color	Destination
1	+5D	OR	PLL+5D (C7-5)
2	+5D	OR	PLL+5D (C7-4)
3	D-GND	GY	PLL-D-GND (C7-3)
4	D-GND	GY	PLL-D-GND (C7-2)
5	D-GND	GY	PLL-D-GND (C7-1)

C22

Pin No.	Pin Name	Wire Color	Destination
1	+5D	OR	PLR+5D (C1-5)
2	+5D	OR	PLR+5D (C1-4)
3	D-GND	GY	PLR-D-GND (C1-3)
4	D-GND	GY	PLR-D-GND (C1-2)
5	D-GND	GY	PLR-D-GND (C1-1)

C23

Pin No.	Pin Name	Wire Color	Destination
1	+5D	OR	PUL+5D (C1-5)
2	+5D	OR	PUL+5D (C1-4)
3	D-GND	GY	PUL-D-GND (C1-3)
4	D-GND	GY	PUL-D-GND (C1-2)
5	D-GND	GY	PUL-D-GND (C1-1)

C24

Pin No.	Pin Name	Wire Color	Destination
1	+5D	OR	PUR+5D (C1-5)
2	+5D	OR	PUR+5D (C1-4)
3	D-GND	GY	PUR-D-GND (C1-3)
4	D-GND	GY	PUR-D-GND (C1-2)
5	D-GND	GY	PUR-D-GND (C1-1)

C25

Pin No.	Pin Name	Wire Color	Destination
1	+5D	OR	PC2+5D (C3-5)
2	D-GND		
3	D-GND	GY	PC2-D-GND (C3-4)

C26

Pin No.	Pin Name	Wire Color	Destination
1	VS1	BR	Power Supply Unit Ass'y. (C4-1)
2			
3	VS2	GY	Power Supply Unit Ass'y. (C4-3)

C27

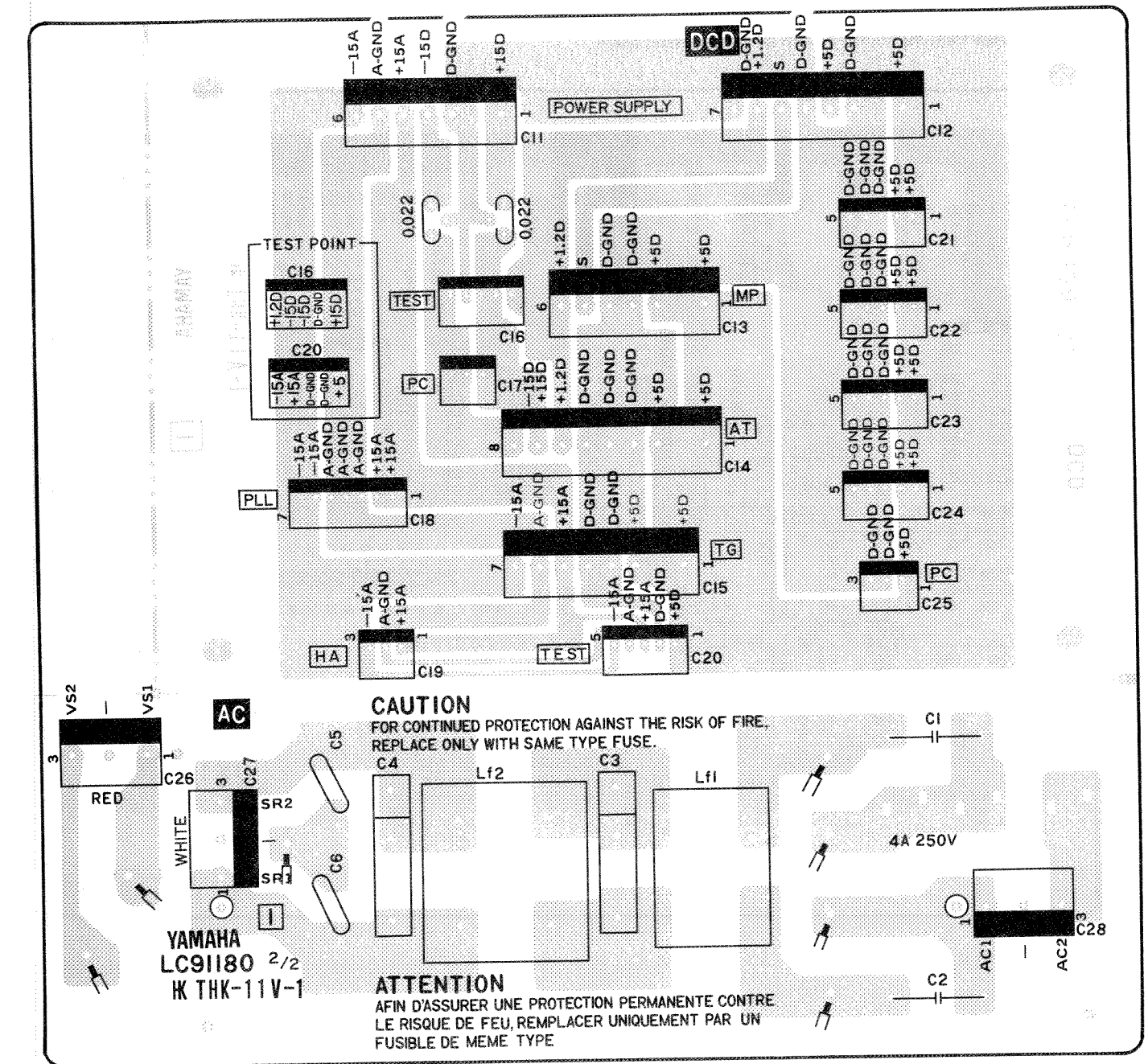
Pin No.	Pin Name	Wire Color	Destination
1	SR1	BL	Power Supply Unit Ass'y. (C3-1)
2			
3	SR2	WH	Power Supply Unit Ass'y. (C3-3)

C28

Pin No.	Pin Name	Wire Color	Destination
1	AC1	BL	AC Inlet
2			
3	AC2	WH	AC Inlet

HA,DCD/AC CIRCUIT BOARD & WIRING

DCD / AC



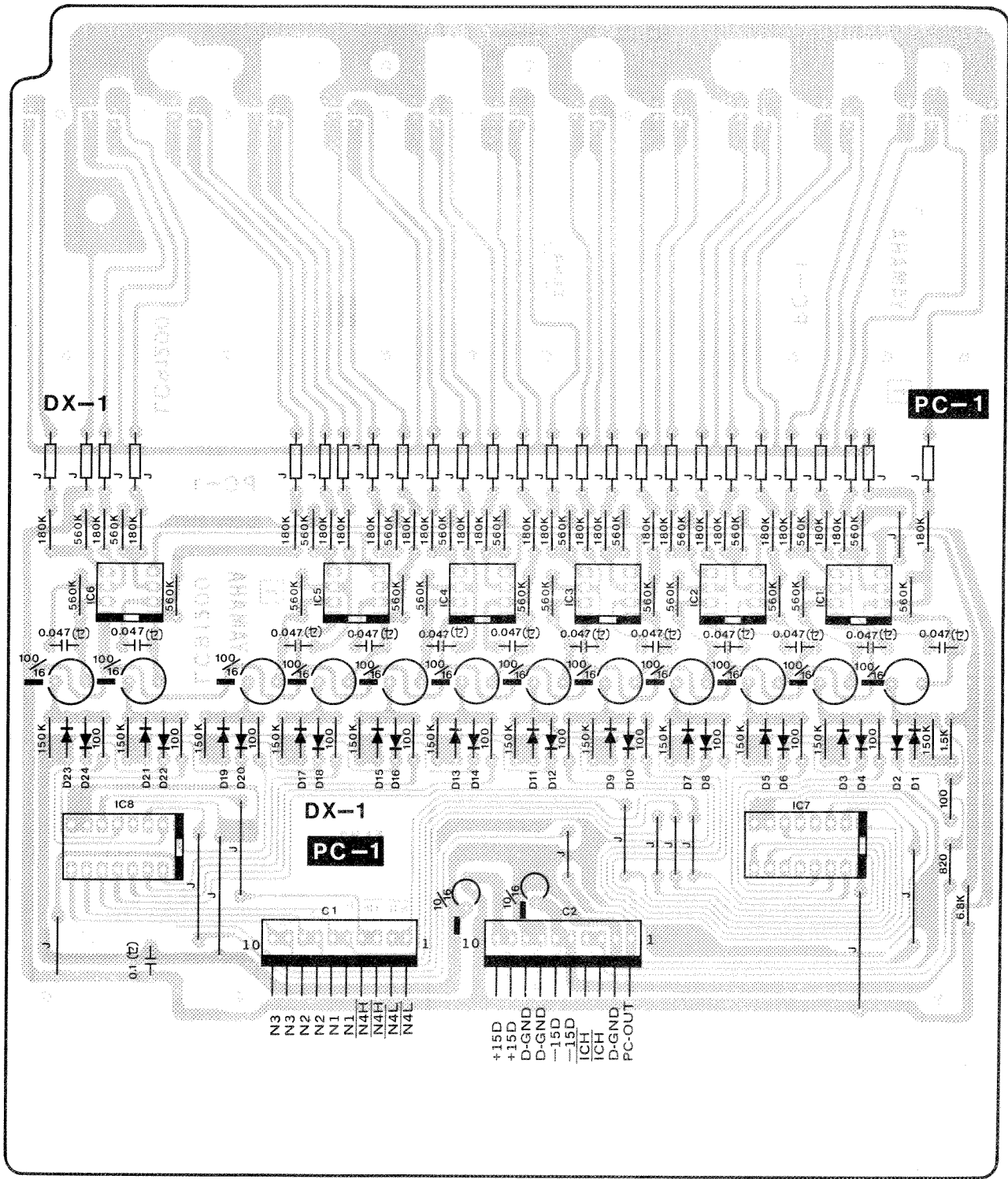
Note)

1. Circuit Board : LC91180
2. Capacitors
C1, 2 : 0.022 Spark Killer Cap.
C3, 4 : a) European Model ECQ EW type 0.047 MM Polyester Cap.
b) U.S.A., Canadian, Japanese Model ECQU type 0.047 MM Plastic Cap.
C5, 6 : Ceramic Cap. 1000P
3. Coils
Lf1 : SC-05-100 Vertical Coil
Lf2 : EE Type GP-5 Core
4. * Marked : Electro Magnetic Interference 0.022

KEP-NA81221-38 △

Model	NA Number	Fuse
Japanese	NA81221	4A 250V
U.S.A. Canadian	NA81257	4A 250V
North European	NA81258	T1.6A 250V

PC1 CIRCUIT BOARD & WIRING



PC1 (1)

C1			
Pin No.	Pin Name	Wire Color	Destination
1	N4L	YE	PC2-N4L (C2-4)
2	N4L	YE	PC1(2)-N4L (C1-1)
3	N4H	GR	PC2-N4H (C2-5)
4	N4H	GR	PC1(2)-N4H (C1-3)
5	N1	BR	PC2-N1 (C2-1)
6	N1	BR	PC1(2)-N1 (C1-5)
7	N2	RE	PC2-N2 (C2-2)
8	N2	RE	PC1(2)-N2 (C1-7)
9	N3	OR	PC2-N3 (C2-3)
10	N3	OR	PC1(2)-N3 (C1-7)

C2			
Pin No.	Pin Name	Wire Color	Destination
1	PC-OUT	BR	PC2-OCT1 (C4-1)
2	D-GND	-	-
3	ICH	VI	PC2-ICH (C1-1)
4	ICH	VI	PC1(2)-ICH (C2-3)
5	-15D	BE	PC2--15D (C1-7)
6	-15D	BE	PC1(2)--15D (C2-8)
7	D-GND	GY	PC2-D-GND (C1-5)
8	D-GND	GY	PC1(2)-D-GND (C2-7)
9	+15D	RE	PC2+15D (C1-3)
10	+15D	RE	PC1(2)+15D (C2-9)

PC1 (2)

C1			
Pin No.	Pin Name	Wire Color	Destination
1	N4L	YE	PC1(1)-N4L (C1-2)
2	N4L	YE	PC1(3)-N4L (C1-1)
3	N4H	GR	PC1(1)-N4H (C1-4)
4	N4H	GR	PC1(3)-N4H (C1-3)
5	N1	BR	PC1(1)-N1 (C1-6)
6	N1	BR	PC1(3)-N1 (C1-6)
7	N2	RE	PC1(1)-N2 (C1-8)
8	N2	RE	PC1(3)-N2 (C1-7)
9	N3	OR	PC1(1)-N3 (C1-10)
10	N3	OR	PC1(3)-N3 (C1-9)

C2			
Pin No.	Pin Name	Wire Color	Destination
1	PC-OUT	RE	PC2-OCT2 (C4-3)
2	D-GND	-	-
3	ICH	VI	PC1(1)-ICH (C2-4)
4	ICH	VI	PC1(3)-ICH (C2-3)
5	-15D	BE	PC1(1)--15D (C2-6)
6	-15D	BE	PC1(3)--15D (C2-5)
7	D-GND	GY	PC1(1)-D-GND (C2-8)
8	D-GND	GY	PC1(3)-D-GND (C2-7)
9	+15D	RE	PC1(1)+15D (C2-10)
10	+15D	RE	PC1(3)+15D (C2-9)

PC1 (3)

C1			
Pin No.	Pin Name	Wire Color	Destination
1	N4L	YE	PC1(2)-N4L (C1-2)
2	N4L	YE	PC1(4)-N4L (C1-1)
3	N4H	GR	PC1(2)-N4H (C1-4)
4	N4H	GR	PC1(4)-N4H (C1-3)
5	N1	BR	PC1(2)-N1 (C1-6)
6	N1	BR	PC1(4)-N1 (C1-5)
7	N2	RE	PC1(2)-N2 (C1-8)
8	N2	RE	PC1(4)-N2 (C1-7)
9	N3	OR	PC1(2)-N3 (C1-10)
10	N3	OR	PC1(4)-N3 (C1-9)

C2			
Pin No.	Pin Name	Wire Color	Destination
1	PC-OUT	OR	PC2-OCT3 (C4-5)
2	D-GND	-	-
3	ICH	VI	PC1(2)-ICH (C2-4)
4	ICH	VI	PC1(4)-ICH (C2-3)
5	-15D	BE	PC1(2)--15D (C2-6)
6	-15D	BE	PC1(4)--15D (C2-5)
7	D-GND	GY	PC1(2)-D-GND (C2-8)
8	D-GND	GY	PC1(4)-D-GND (C2-7)
9	+15D	RE	PC1(2)+15D (C2-10)
10	+15D	RE	PC1(4)+15D (C2-9)

PC1(4)

C1			
Pin No.	Pin Name	Wire Color	Destination
1	N4L	YE	PC1(3)-N4L (C1-2)
2	N4L	YE	PC1(5)-N4L (C1-1)
3	N4H	GR	PC1(3)-N4H (C1-4)
4	N4H	GR	PC1(5)-N4H (C1-3)
5	N1	BR	PC1(3)-N1 (C1-6)
6	N1	BR	PC1(5)-N1 (C1-5)
7	N2	RE	PC1(3)-N2 (C1-8)
8	N2	RE	PC1(5)-N2 (C1-7)
9	N3	OR	PC1(3)-N3 (C1-10)
10	N3	OR	PC1(5)-N3 (C1-9)

C2			
Pin No.	Pin Name	Wire Color	Destination
1	PC-OUT	YE	PC2-OCT4 (C4-7)
2	D-GND	-	-
3	ICH	VI	PC1(3)-ICH (C2-4)
4	ICH	VI	PC1(5)-ICH (C2-3)
5	-15D	BE	PC1(3)--15D (C2-6)
6	-15D	BE	PC1(5)--15D (C2-5)
7	D-GND	GY	PC1(3)-D-GND (C2-8)
8	D-GND	GY	PC1(5)-D-GND (C2-7)
9	+15D	RE	PC1(3)+15D (C2-10)
10	+15D	RE	PC1(5)+15D (C2-9)

PC1 (5)

C1			
Pin No.	Pin Name	Wire Color	Destination
1	N4L	YE	PC1(4)-N4L (C1-2)
2	N4L	YE	PC3-N4L (C1-10)
3	N4H	GR	PC1(4)-N4H (C1-4)
4	N4H	-	-
5	N1	BR	PC1(4)-N1 (C1-6)
6	N1	BR	PC3-N1 (C1-7)
7	N2	RE	PC1(4)-N2 (C1-8)
8	N2	RE	PC3-N2 (C1-8)
9	N3	OR	PC1(4)-N3 (C1-10)
10	N3	OR	PC3-N3 (C1-9)

C2			
Pin No.	Pin Name	Wire Color	Destination
1	PC-OUT	GR	PC2-OCT5 (C3-1)
2	D-GND	-	-
3	ICH	VI	PC1(4)-ICH (C2-4)
4	ICH	VI	PC3-ICH (C1-6)
5	-15D	BE	PC1(4)--15D (C2-6)
6	-15D	BE	PC3--15D (C1-3)
7	D-GND	GY	PC1(4)-D-GND (C2-8)
8	D-GND	GY	PC3-D-GND (C1-2)
9	+15D	RE	PC1(4)+15D (C2-10)
10	+15D	RE	PC3+15D (C1-1)

Note)

1. Circuit Board : LC91200
2. IC's
IC1 ~ 6 : NJM4558DV
IC7 ~ 8 : TC4051BP
3. Diodes
D1 ~ 24 : 1SS133
4. Capacitors
(*) Marked : Ceramic Cap.
0.1(*) Marked : Semi-Conductive
Ceramic Cap. 0.1/16V

PC2,PC3 CIRCUIT BOARD & WIRING

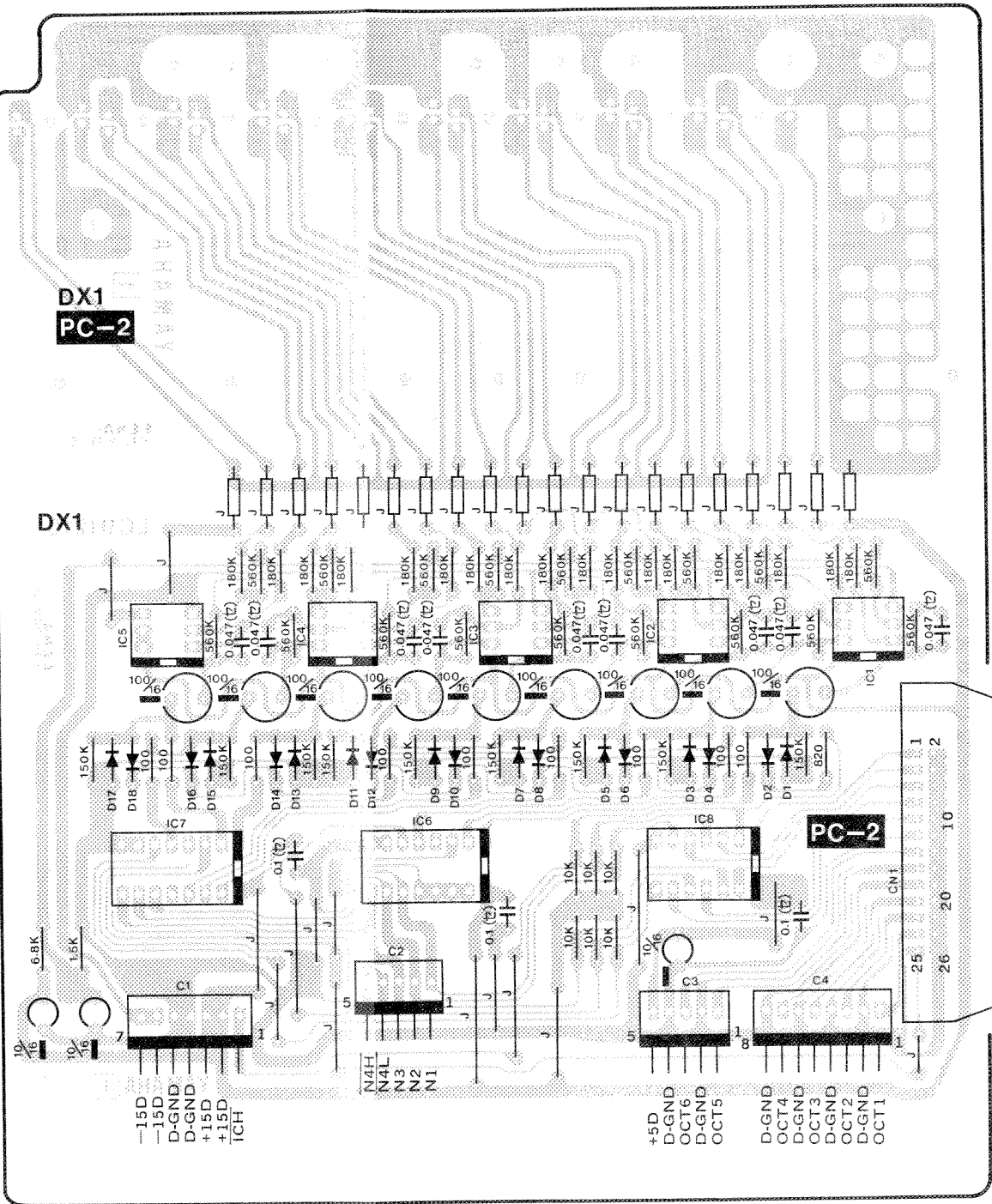
PC2

C1			
Pin No.	Pin Name	Wire Color	Destination
1	ICH	V1	PC1(1)-ICH (C2-3)
2	+15D	RE	DCD+15D (C17-1)
3	+15D	RE	PC1(1)-+15D (C2-9)
4	D-GND	-	-
5	D-GND	GY	PC1(1)-D-GND (C2-7)
6	-15D	BE	DCD-15D (C17-3)
7	-15D	BE	PC1(1)-15D (C2-5)

C2			
Pin No.	Pin Name	Wire Color	Destination
1	N1	BR	PC1(1)-N1 (C1-5)
2	N2	RE	PC1(1)-N1 (C1-7)
3	N3	OR	PC1(1)-N1 (C1-9)
4	N4L	YE	PC1(1)-N1 (C1-1)
5	N4H	GR	PC1(1)-N1 (C1-3)

C3			
Pin No.	Pin Name	Wire Color	Destination
1	OCT5	GR	PC1(5)-PCOUT (C2-1)
2	D-GND	-	-
3	OCT6	BE	PC3-OCT6 (C3-4)
4	D-GND	GY	DCD-D-GND (C25-3)
5	+5D	OR	DCD+5D (C25-1)

C4			
Pin No.	Pin Name	Wire Color	Destination
1	OCT1	BR	PC1(1)-PCOUT (C2-1)
2	D-GND	-	-
3	OCT2	RE	PC1(2)-PCOUT (C2-1)
4	D-GND	-	-
5	OCT3	OR	PC1(3)-PCOUT (C2-1)
6	D-GND	-	-
7	OCT4	YE	PC1(4)-PCOUT (C2-1)
8	D-GND	-	-

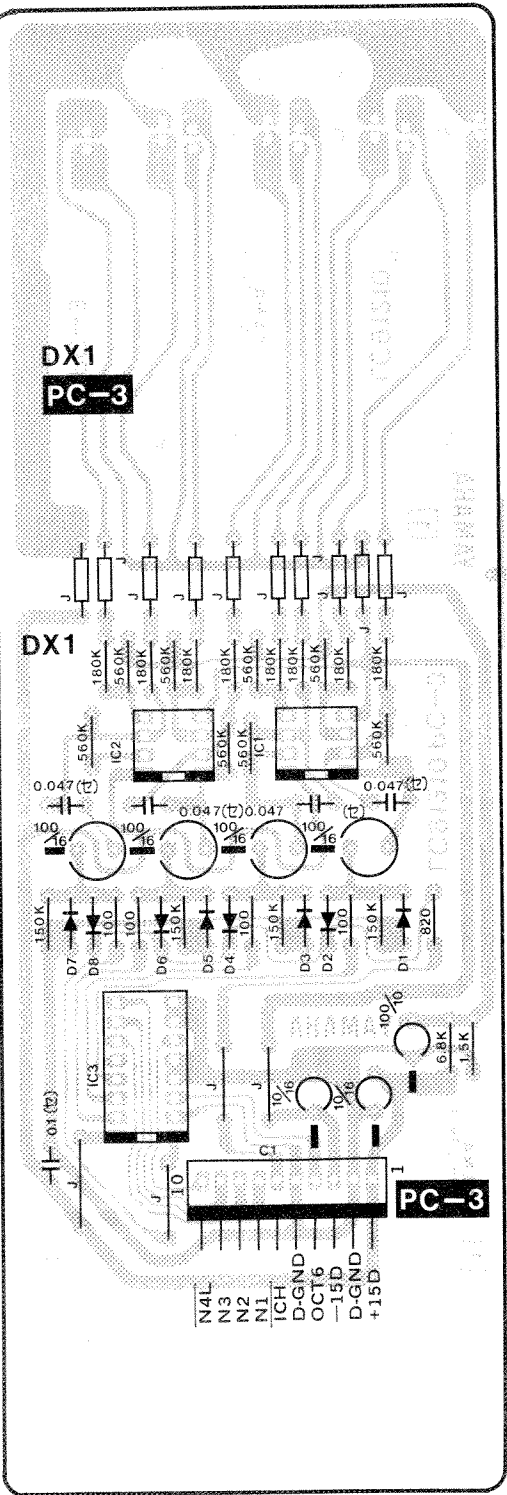


1	ICH	G	2
3	N1	G	4
5	N2	G	6
7	N3	G	8
9	N4L	G	10
11	N4H	G	12
13	OCT6	G	14
15	OCT6	G	16
17	OCT4	G	18
19	OCT3	G	20
21	OCT2	G	22
23	OCT1	G	24
25		G	26

- Note)
1. Circuit Board : LC91210
 2. IC's
IC1 ~ 5 : NJM4558DV
IC6, 7 : TC4051BP
IC8 : 7417
 3. Diodes
D1 ~ 18 : 1SS133
 4. Capacitors
(♂) Marked : Ceramic Cap.
0.1(♂) Marked : Semi-Conductive
Ceramic Cap. 0.1/16V

PC3

C1			
Pin No.	Pin Name	Wire Color	Destination
1	+15D	RE	PC1(5)-+15D (C2-10)
2	D-GND	GY	PC1(5)-D-GND (C2-8)
3	-15D	BE	PC1(5)-15D (C2-6)
4	OCT6	BE	PC2-OCT6 (C3-3)
5	D-GND	-	-
6	ICH	V1	PC1(5)-ICH (C2-4)
7	N1	BR	PC1(5)-N1 (C1-6)
8	N2	RE	PC1(5)-N2 (C1-8)
9	N3	OR	PC1(5)-N2 (C1-10)
10	N4L	YE	PC1(5)-N4L (C1-2)



- Note)
1. Circuit Board : LC91210
 2. IC'S
IC1, 2 : NJM4558DV
IC3 : TC4051BP
 3. Diodes
D1 ~ 8 : 1SS133
 4. Capacitors
(♂) Marked : Ceramic Cap.
0.1(♂) Marked : Semi-Conductive
Ceramic Cap. 0.1/16V