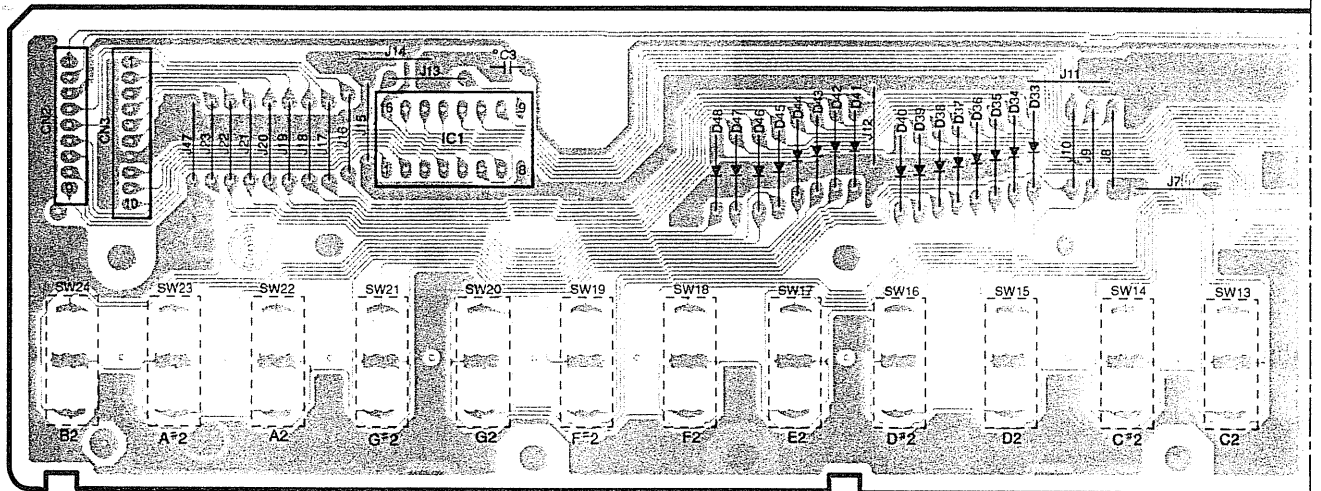
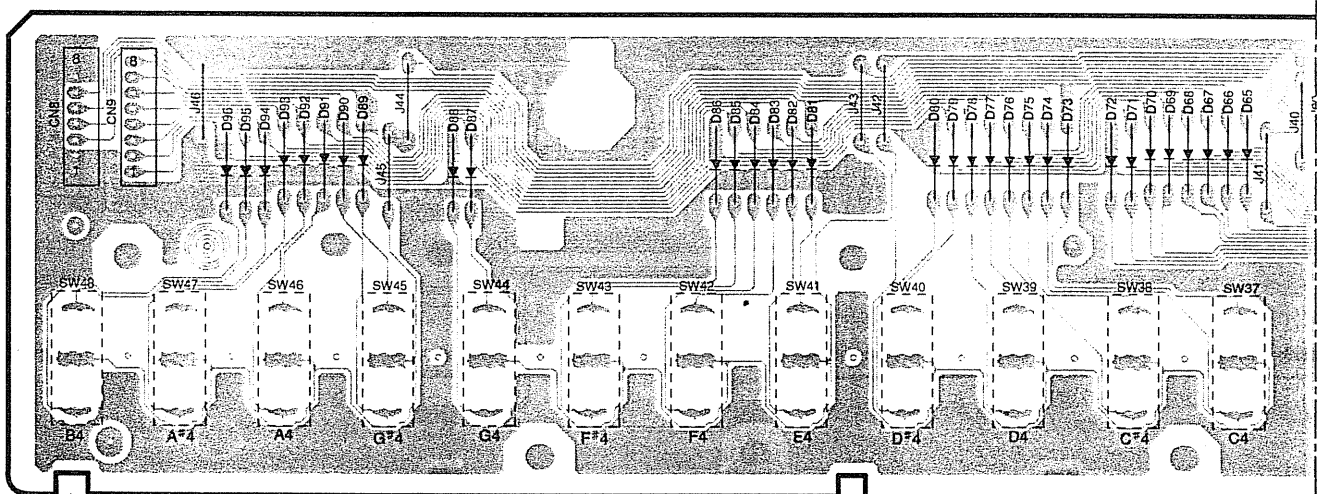


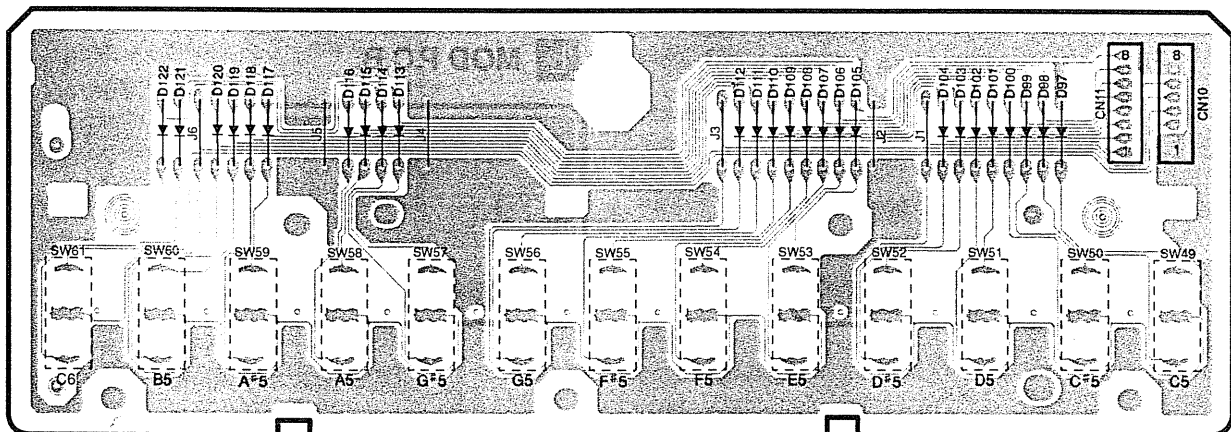
H MKB1 P.C.B.

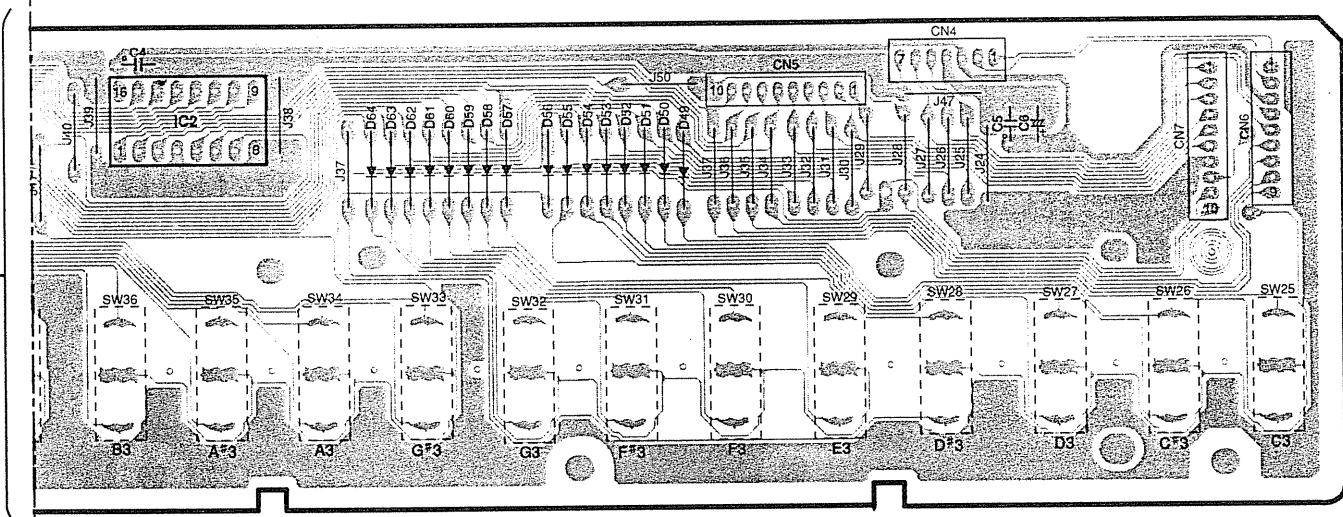
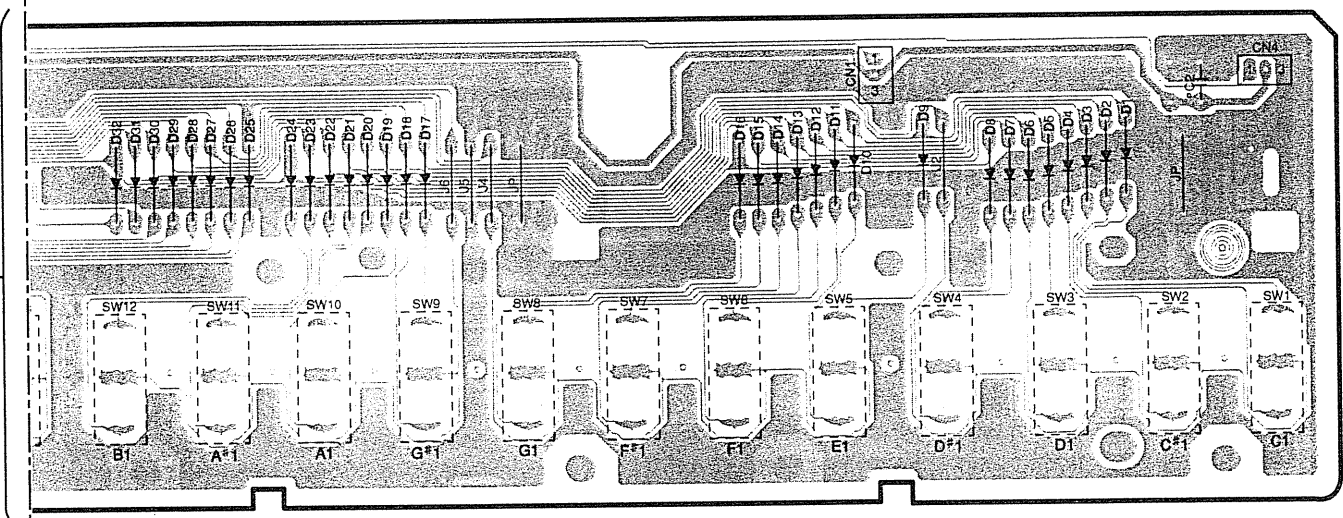


I MKB2 P.C.B.

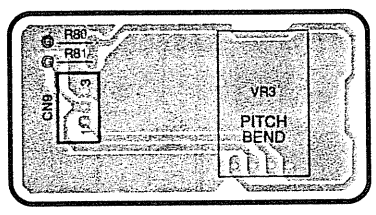


J MKB3 P.C.B.

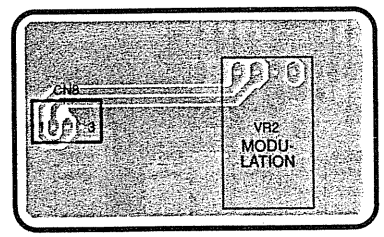




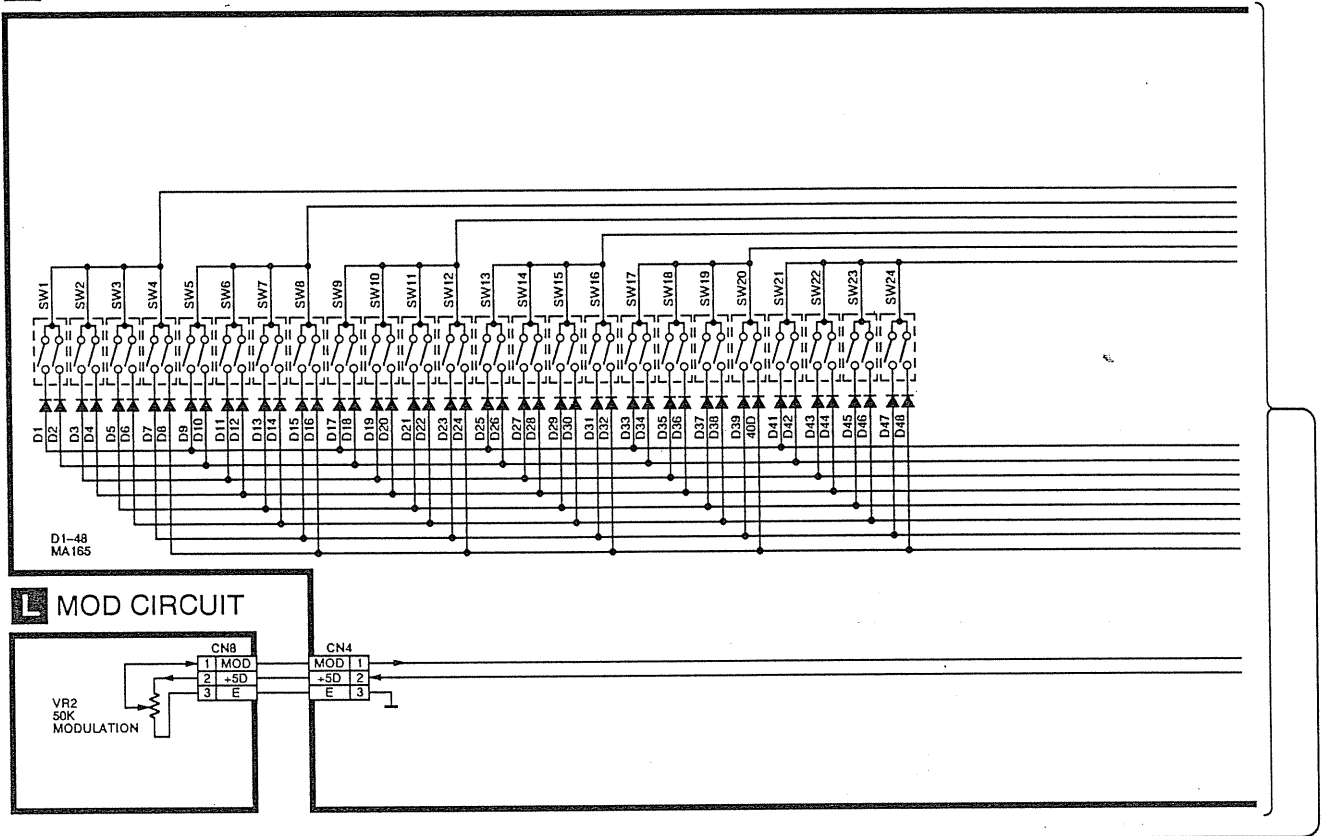
K BEND P.C.B.



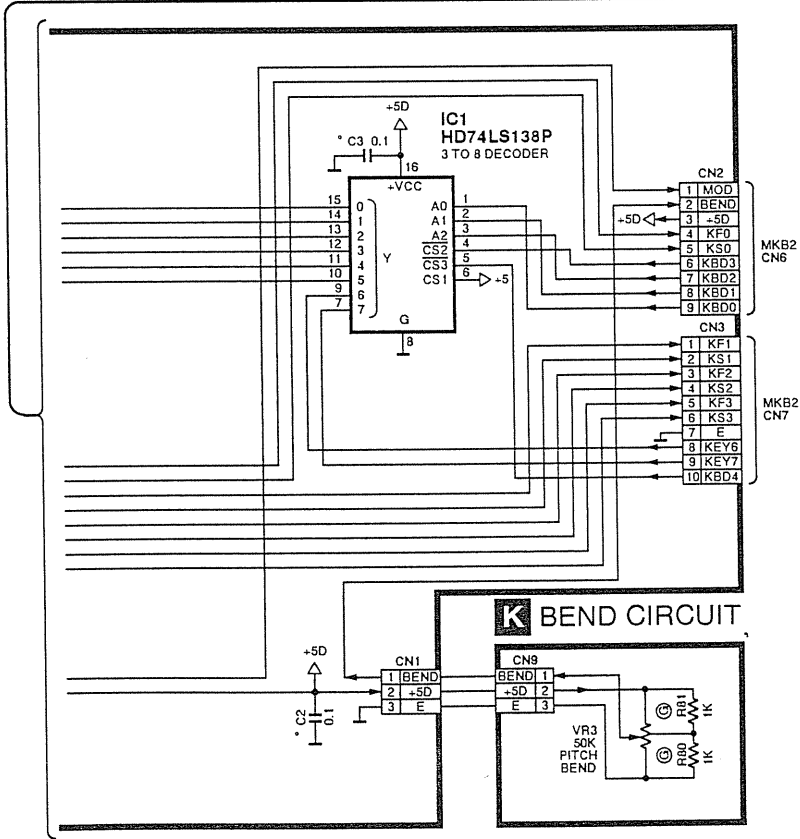
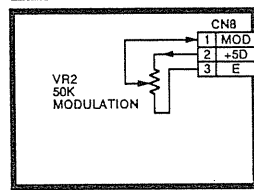
L MOD P.C.B.



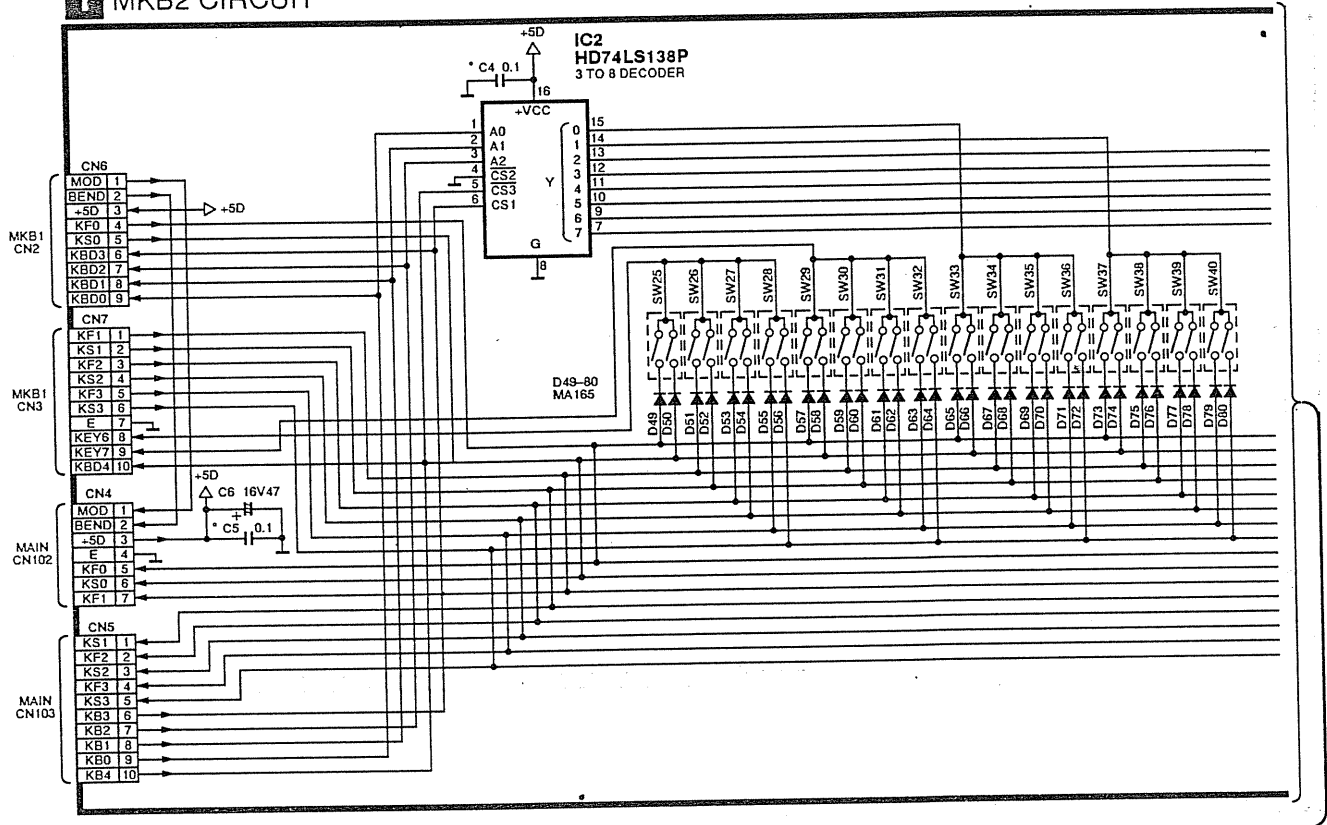
H MKB1 CIRCUIT



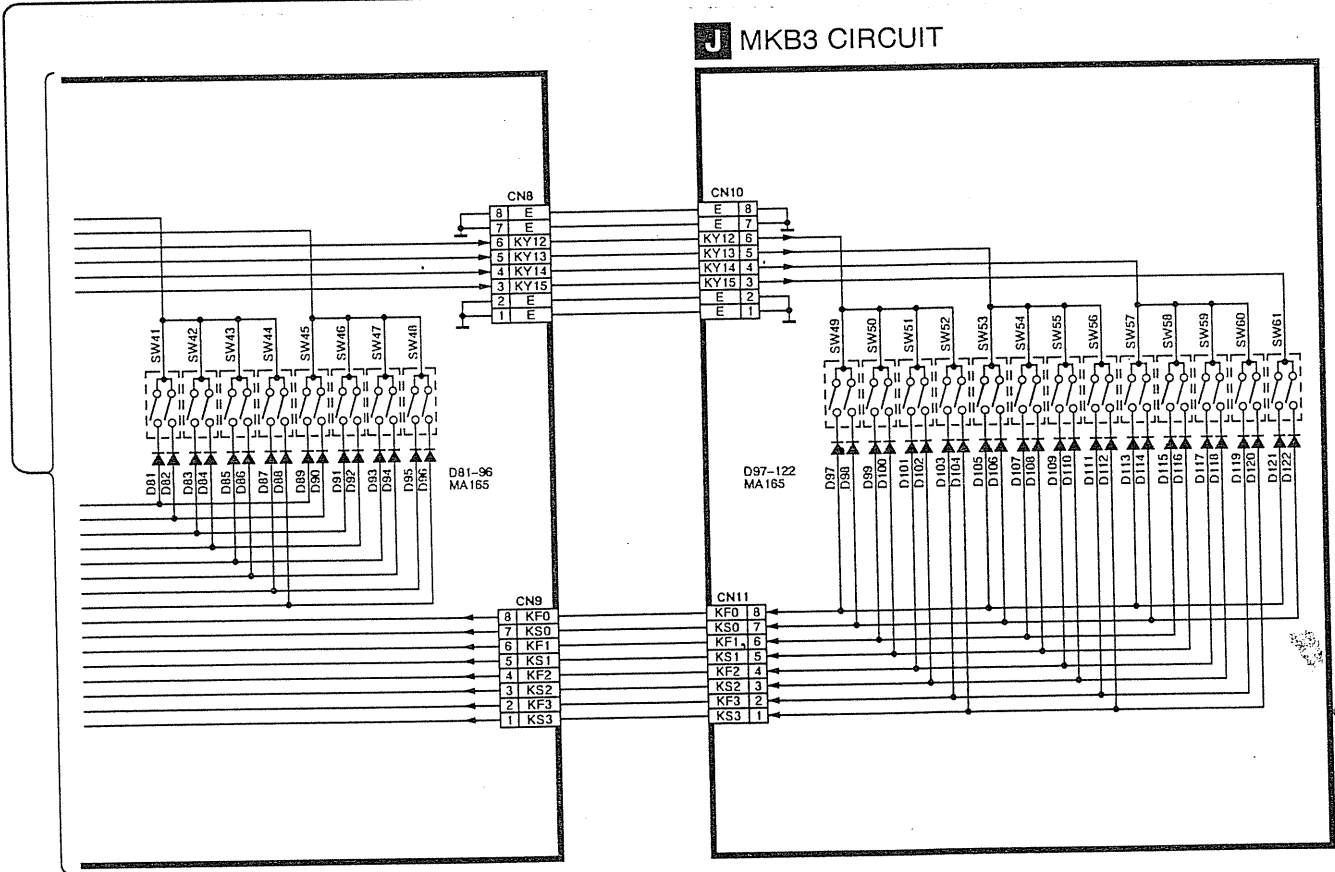
L MOD CIRCUIT



I MKB2 CIRCUIT



J MKB3 CIRCUIT



REPLACEMENT PARTS LIST.....P.C.B. and Wiring Parts

Notes:

1. The marking (RTL) indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependant on the type of assembly, and in accordance with the laws governing part and product retention.

After the end of this period, the assembly will no longer be available.

2. Important safety notice

Components identified by Δ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

3. The "S" mark is service standard parts and may differ from production parts.

4. \circ mark are new parts.

5. For part No. with area mark, check the area when placing an order.

PRINTED CIRCUIT BOARD

RTL	Area	Part No.	Description	P/S
\circ	EN MC EZ EK EW EF EA EP EH EX XL XR XS XD XT XP XW	SXPG230141	MAIN	1
\circ	M XM	SXPG230151	MAIN	1
\circ		SXPG230321	FAJ	1
\circ	EN EZ EK EW EF EA EP EH XL XR XP XW	SXPG230611	ACP	1
\circ	M MC XM	SXPG230621	ACP	1
\circ	X XS XD XT	SXPG230631	ACP	1
\circ		SXPG230221A	CPC	1
\circ		SXPG230221B	CPL	1
\circ		SXPG230211C	CPR	1
\circ		SXPG230211F	LCDCN	1
\circ		SXPG224831A	MKB1	1
\circ		SXPG224811B	MKB2	1
\circ		SXPG220011	MKB3	1
\circ		SXPG230211D	BEND	1
\circ		SXPG230221E	MOD	1
\circ		EDMMR63B0F	LCD	1

Ref. No.	Part No.	Description	P/S
IC103	TC203C220004	TONE GENERATOR LSI	1
\circ IC104	QSIGX3C24002	16M BIT WAVEFORM ROM	1
\circ IC105	QSIGX3C24001	16M BIT WAVEFORM ROM	1
IC108	M5M44265CJ6S	4M BIT DYNAMIC RAM	1
IC109	TMS57070FFT	DIGITAL SIGNAL PROCESSOR	1
IC110	TC7SU04F	INVERTER	1
IC111	M5218AFP	OPERATIONAL AMPLIFIER	1
\circ IC112	PCM69BU-T1	D/A CONVERTER	1
IC113	M5M34051FP	BUS TRANSCEIVER	1
IC114	T7WU04F	TRIPLE INVERTER	1
TRANSISTORS			
Q1	2SD601AQ	TRANSISTOR	1
Q3, 4	2SB709AR	TRANSISTOR	2
Q5	2SD601AQ	TRANSISTOR	1
Q6	2SB709AR	TRANSISTOR	1
Q7	2SD601AQ	TRANSISTOR	1
Q8	2SB952A	TRANSISTOR	1
S Q9	2SC1815GR	TRANSISTOR	1
Q10, 11	2SD601AQ	TRANSISTOR	2
Q101, 102	2SD592ARS	TRANSISTOR	2

MAIN MAIN CIRCUIT

Ref. No.	Part No.	Description	P/S
INTEGRATED CIRCUITS			
\circ IC1	MN1382RTX	RESET IC	1
\circ IC2	QVIGFKN16AX1	8M BIT FLASH ROM W/PROGRAM DISK	1
IC3	TC7W14F	INVERTER	1
\circ IC4	QVIGFKN16AX1	8M BIT FLASH ROM W/PROGRAM DISK	1
\circ IC5	QSIGX3C08003	8M BIT MASK ROM	1
IC6	TMP94C241AF	MAIN CPU	1
\circ IC7	QSIGX3C08002	8M BIT MASK ROM	1
IC8	BR93LC56RFE2	1K BIT PROGRAMMED EEP ROM	1
IC9	TC74VHC08F	QUAD 2 INPUT AND GATE	1
IC10	TC7SH08F	2 INPUT AND GATE	1
IC11	M5M44265CJ6S	4M BIT DYNAMIC RAM	1
IC12	TC74VHC138F	3 TO 8 DECODER	1
IC13	M5M44265CJ6S	4M BIT DYNAMIC RAM	1
\circ IC14	QSIGX3C16004	16M BIT RHYTHM DATA ROM	1
IC15	D72070GF3BE	IC, 8BIT MICROCONTROLLER	1
IC16	M66271FP	LCD CONTROLLER	1
IC17	BA10393F	COMPARATOR	1
IC18	TC7SU04F	INVERTER	1
\circ IC19	T74VHC74FTL	DUAL D-TYPE FLIP FLOP	1
IC20	TC7S08F	IC, CMOS LOGIC	1
IC101	M5223FPE1	OPERATIONAL AMPLIFIER	1
IC102	TC7W74F	INVERTER	1

Ref. No.	Part No.	Description	P/S
DIODES			
D2	MA110	DIODE	1
D3	MA8030L	ZENER, 2.9V	1
D4	MA110	DIODE	1
D5	MA151WK	DIODE	1
D6	MA110	DIODE	1
D7	MA8082M	ZENER, 8.2V	1
D9	MA8051L	ZENER, 5.1V	1
D10~12	MA110	DIODE	3
D13	SFPB-74	DIODE, SI	1
D14	MA110	DIODE	1
\circ D15	MA1270HTR	ZENER	1
D16, 17	MA110	DIODE	2
D18	MA2062LF	ZENER, 6.2V	1
D19	Δ MA8240MTX	ZENER, 24V	1
D20	MA110	DIODE	1
D101	MA8056	ZENER, 5.6V	1
D102	MA1062M	ZENER, 6.2V	1
D103	MA110	DIODE	1
D104	MA151WK	DIODE	1
D105	MA110	DIODE	1
D106	MA151WK	DIODE	1
D107, 109, 111	MA110	DIODE	3

Ref. No.	Part No.	Description	P/S	Ref. No.	Part No.	Description	P/S
OSCILLATORS							
X1	QSXG1A1000A	10MHz, CRYSTAL OSCILLATOR	1	R28	ERJ6GEYJ102V	1kΩ	1
X3	QSXG2F2400A	24MHz, CERAMIC OSCILLATOR	1	R30	ERJ6GEYJ472V	4.7kΩ	1
X101	QSXG1I3386A	33.868MHz, CRYSTAL OSCILLATOR	1	R31	ERJ6GEYJ101V	100Ω	1
X102	QSXG1A2500A	25MHz, QUARTZ OSCILLATOR	1	R32	ERJ6GEY0R00V	0Ω	1
X103	QSXG2F0100DA	1MHz, CERAMIC OSCILLATOR	1	R33	ERJ6GEY0R00V	0Ω	1
COMPONENT COMBINATIONS							
Z1	EXBV8V101J	100Ω×4	1	R35	ERJ6GEY0R00V	0Ω	1
Z2	EXBV8V221J	220Ω×4	1	R36	ERJ6GEYJ105V	1MΩ	1
Z3	EXBS8V472J	4.7kΩ×4	1	R38	ERJ6GEYJ470V	47Ω	1
Z4, 6~12	EXBV8V470J	47Ω×4	8	R39	ERJ6GEYJ472V	4.7kΩ	1
Z13	EXBS8V103J	10kΩ×4	1	R40	ERJ6GEY0R00V	0Ω	1
Z14~20	EXBV8V103J	10kΩ×4	7	R42	ERJ6GEYJ102V	1kΩ	1
Z21	EXBS8V102J	1kΩ×4	1	R43	ERJ6GEYJ472V	4.7kΩ	1
Z22	EXBV8V221J	220Ω×4	1	R44	ERJ6GEYJ101V	100Ω	1
Z23, 24	EXBS8V101J	100Ω×4	2	R46	ERJ6GEYJ470V	47Ω	1
Z25	EXBS8V470J	47Ω×4	1	R47	ERJ6GEYJ472V	4.7kΩ	1
Z26	EXBV8V470J	47Ω×4	1	R48	ERJ6GEYJ103V	10kΩ	1
Z27	EXBS8V470J	47Ω×4	1	R49, 50	ERJ6GEYJ472V	4.7kΩ	2
Z101	EXBS8V223J	22kΩ×4	1	R55	ERD2FCVG470T	47Ω, 1/4W, FUSE TYPE	1
Z102	EXBS8V223J	22kΩ×4	1	R56	ERJ6GEYJ101V	100Ω	1
Z103~112	EXBV8V102J	1kΩ×4	10	R57, 58	ERJ6GEYJ471V	470Ω	2
Z113~116	EXBS8V101J	100Ω×4	4	R59	ERJ6GEY0R00V	0Ω	1
Z117	EXBV8V101J	100Ω×4	1	R60	ERJ6GEYJ153V	15kΩ	1
COILS							
R86	BK2125LM152B	HIGH LOSS INDUCTOR	1	R61, 62	ERJ6GEYJ105V	1MΩ	2
L2	QLQGT1T121SA	120μH	1	R63	ERJ6GEYJ682V	6.8kΩ	1
L101~103	BK2125LM152B	HIGH LOSS INDUCTOR	3	R64	ERJ6GEYJ102V	1kΩ	1
IC PROTECTOR							
IP1	△ ICP-N10T104	IC PROTECTOR	1	R65	ERJ6GEYJ333V	33kΩ	1
RESISTORS							
JR2, 3, 8, 10, 11, 14, 102, 103, 107~109, 111, 113	ERJ6GEY0R00V	0Ω	13	R66	ERJ6GEYJ470V	47Ω	1
R1, 3, 4	ERJ6GEYJ472V	4.7kΩ	3	R67	△ ERG1SJ471E	470Ω, 1W, FLAME-PROOF	1
R5	ERJ6GEYJ103V	10kΩ	1	R68	ERJ6GEYJ471V	470Ω	1
R6	ERJ6GEYJ472V	4.7kΩ	1	R69	ERJ6GEYJ473V	47kΩ	1
R7	ERJ6GEYJ103V	10kΩ	1	R70	ERJ6GEYJ471V	470Ω	1
R8	ERJ6GEYJ102V	1kΩ	1	R71	ERJ6GEYJ683V	68kΩ	1
R9	ERJ6GEYJ104V	100kΩ	1	R72	ERJ6GEYJ470V	47Ω	1
R11	ERJ6GEYJ472V	4.7kΩ	1	R73	ERJ6GEYJ472V	4.7kΩ	1
R12	ERJ6GEYJ101V	100Ω	1	R74	ERJ6GEYJ101V	100Ω	1
R13	ERJ6GEYJ102V	1kΩ	1	R75	ERJ6GEYJ102V	1kΩ	1
R15	ERJ6GEYJ472V	4.7kΩ	1	R76~79	ERJ6GEYJ151V	150Ω	4
R16	ERJ6GEYJ101V	100Ω	1	R80, 81	ERJ6GEYJ153V	15kΩ	2
R17	ERJ6GEYJ102V	1kΩ	1	R82	ERJ6GEYJ474V	470kΩ	1
R18	ERJ6GEYJ472V	4.7kΩ	1	R83	ERJ6GEYJ221V	220Ω	1
R19	ERJ6GEYJ221V	220Ω	1	R84	ERJ6GEYJ473V	47kΩ	1
R20	ERJ6GEYJ102V	1kΩ	1	R85	ERJ6GEYJ103V	10kΩ	1
R21	ERJ6GEYJ222V	2.2kΩ	1	R87	ERJ6GEYJ470V	47Ω	1
R22	ERJ6GEYJ102V	1kΩ	1	R101~103	ERJ6GEYJ102V	1kΩ	3
R23	ERJ6GEYJ472V	4.7kΩ	1	R104	ERJ6GEY0R00V	0Ω	1
R24	ERJ6GEY0R00V	0Ω	1	R105	ERJ6GEYJ105V	1MΩ	1
R25	ERJ6GEYJ104V	100kΩ	1	R106	ERJ6GEYJ681V	680Ω	1
R26, 27	ERJ6GEYJ101V	100Ω	2	R107	ERJ6GEYJ102V	1kΩ	1
				R108, 109	ERJ6GEY0R00V	0Ω	2
				R110	ERJ6GEYJ151V	150Ω	1
				R111, 112	ERJ6GEYJ471V	470Ω	2
				R113	ERJ6GEYJ221V	220Ω	1
				R114	ERJ6GEYJ101V	100Ω	1
				R115	ERJ6GEYJ471V	470Ω	1
				R116, 117	ERJ6GEYJ472V	4.7kΩ	2
				R119	ERJ6GEYJ105V	1MΩ	1
				R120	ERJ6GEYJ471V	470Ω	1
				R122	ERJ6GEYJ470V	47Ω	1
				R123	△ ERG1SJ101	100Ω, 1W, FLAME-PROOF	1
				R124~126	ERJ6GEYJ472V	4.7kΩ	3
				R127, 128	ERJ6GEYJ562V	5.6kΩ	2
				R129	ERJ6GEYJ105V	1MΩ	1
				R130	ERJ6GEYJ472V	4.7kΩ	1
				R131	ERJ6GEYJ471V	470Ω	1
				R135	ERJ6GEYJ101V	100Ω	1

Ref. No.	Part No.	Description	P/S
CAPACITORS			
R53	ECUV1H100DCN	10pF	1
C1, 2, 4	ECUV1H104ZFX	0.1μF	3
C3	ECUV1H103KBG	0.01μF	1
C5	ECUV1H332KB	0.0033μF	1
C6	ECUV1E473KB	0.047μF	1
C7	ECUV1H104ZFX	0.1μF	1
C8	ECUV1C224KBX	0.22μF	1
C9~14	ECUV1H104ZFX	0.1μF	6
C15	ECUV1H100DCN	10pF	1
C16	ECEA1CKA100	10μF, 16V	1
C17	ECUV1H100DCN	10pF	1
C18	ECUV1H104ZFX	0.1μF	1
C19	ECUV1E473KB	0.047μF	1
C20~30	ECUV1H104ZFX	0.1μF	11
C31	EECS5R5V105	1F, 5.5V, MEMORY BACK-UP	1
C32	ECA1EM101	100μF, 25V	1
C33	ECUV1H101JG	100pF	1
C34~37	ECUV1H104ZFX	0.1μF	4
C38	ECUV1H333KBX	0.033μF	1
C39	ECUV1H223KBX	0.022μF	1
C40	ECUV1H182JX	0.0018μF	1
C41, 42	ECUV1H104ZFX	0.1μF	2
C43	ECUV1H472KBG	0.0047μF	1
C44	ECUV1H333KBX	0.033μF	1
C45	ECUV1H104ZFX	0.1μF	1
C46, 47	ECUV1H100DCN	10pF	2
C48	ECUV1H104ZFX	0.1μF	1
C49	ECEA1CKA100	10μF, 16V	1
C50	ECEA0JKA221	220μF, 6.3V	1
C51	ECUV1H104ZFX	0.1μF	1
C52	ECUV1H103KBG	0.01μF	1
C54, 55	ECUV1H104ZFX	0.1μF	2
C56	ECA0JM102	1000μF, 6.3V	1
C57	ECUV1H104ZFX	0.1μF	1
C58	ECUV1H331JG	330pF	1
C59	ECEA1VKA100	10μF, 35V	1
C60	ECUV1H101JG	100pF	1
C61	ECA1VM470	47μF, 35V	1
C62	ECEA1CKN100	10μF, 16V	1
C63, 64	ECUV1H220JCN	22pF	2
C65~67	ECUV1H104ZFX	0.1μF	3
C68	ECUV1H101JG	100pF	1
C69	ECUV1H103KBG	0.01μF	1
C70	ECQV1H224JM	0.22μF	1
C71	ECQV1H104JM	0.1μF	1
C72	ECEA1HKN010	1μF, 50V	1
C73	ECUV1H103KBG	0.01μF	1
C74~79	ECUV1H101JG	100pF	6
C80	ECUV1H221JG	220pF	1
C81	ECUV1H101JG	100pF	1
C82~90, 93~96, 101~103	ECUV1H104ZFX	0.1μF	16
C104	ECEA0JKA470	47μF, 6.3V	1
C105	ECUV1H104ZFX	0.1μF	1
C106, 107	ECUV1H030CCN	3pF	2
C109~116, 119~122	ECUV1H104ZFX	0.1μF	12
C123, 124	ECUV1H060DCN	6pF	2
C125~127	ECUV1H104ZFX	0.1μF	3
C128	ECRF1H104ZF	0.1μF	1
C129~131	ECUV1H104ZFX	0.1μF	3
C132	ECEA0JKA101	100μF, 6.3V	1
C133	ECEA1CKN100	10μF, 16V	1
C134~137	ECUV1H104ZFX	0.1μF	4
C138	ECUV1H471JG	470pF	1
C139	ECUV1H101JG	100pF	1

Ref. No.	Part No.	Description	P/S
C140	ECUV1H471JG	470pF	1
C141	ECUV1H104ZFX	0.1μF	1
C142	ECUV1H101JG	100pF	1
C143~147	ECUV1H221JG	220pF	5
C148	ECUV1H104ZFX	0.1μF	1
C149, 150	ECUV1H103KBG	0.01μF	2
C151~153, 155~57	ECUV1H104ZFX	0.1μF	6

FAJ FILTER, AMP & JACK CIRCUIT

Ref. No.	Part No.	Description	P/S
INTEGRATED CIRCUITS			
IC1	QCPL-260L	PHOTO COUPLER	1
IC2~6	M5218AL	OPERATIONAL AMPLIFIER	5
IC7	TA8233H	POWER AMPLIFIER	1

TRANSISTORS				
	Q1, 2	2SD592ARS	TRANSISTOR	2
S	Q3	2SA1015-GR	2SA933STRS (SUB. PART)	1
S	Q4	2SC1815GR	TRANSISTOR	1
S	Q5	2SA1015-GR	2SA933STRS (SUB. PART)	1
S	Q6, 7	2SC1815GR	TRANSISTOR	2
S	Q8	2SA1015-GR	2SA933STRS (SUB. PART)	1
S	Q9	2SC1815GR	TRANSISTOR	1
S	Q10	2SA1015-GR	2SA933STRS (SUB. PART)	1

DIODES				
	D1~3	MA165	DIODE	3
	D4	SVDGERA1502	RECTIFIER	1
	D5	MA165	DIODE	1
	D7, 8	SVDGERA1502	RECTIFIER	2
	D9~12	△ SVD3V20	RECTIFIER	4

TRANSFORMER				
	T1	△ QTDG003A	TRANSFORMER	1

COILS				
	L1	QLQGT3T131TA	130μH×3	1
	L2	QLQGT1B101KA	100μH	1
	L3~7	QLQGT3T131TA	130μH×3	5
	L8	QLQGT2T100SA	10μH×2	1
	L9~11	QLQGT3T131TA	130μH×3	3

JACKS				
	JK1	QJSG017AA	COMPUTER	1
○	JK2	QJSG020AA	MIDI OUT	1
○	JK3	QJSG020AA	MIDI IN	1
	JK4	QJSG010AA	EXP PEDAL	1
○	JK5	QJSG012AA	FOOT SW	1
○	JK8	QJSG012AA	AUX IN L	1
○	JK9	QJSG012AA	AUX IN R	1
○	JK10	QJSG012AA	LINEOUT L	1
○	JK11	QJSG012AA	LINEOUT R	1
	JK12	QJSG010AA	COMPUTER	1

Ref. No.	Part No.	Description	P/S	Ref. No.	Part No.	Description	P/S	
SWITCH				CAPACITORS				
S1	QSSGT010AA	SLIDE SWITCH	1	S	△	ECCD3F180JGE	18pF	1
RESISTORS				C1		ECEA0JKA101	100µF, 6.3V	1
R2	△	ERQ2CJP2R0S	2Ω, 2W, FUSE TYPE	1	C2	ECQB1H473JF	0.047µF	1
R4, 5		ERDS2TJ682	6.8kΩ	2	C3	QCBG1H104ZFA	0.1µF	1
R6		ERDS2TJ102	1kΩ	1	C4	ECCR1H221J	220pF	1
R7		ERDS2TJ330	33Ω	1	C5	QCBG1H104ZFA	0.1µF	2
R8		ERDS2TJ104	100kΩ	1	C6, 7	ECQV1H683JM	0.068µF	1
R9		ERDS2TJ680	68Ω	1	C8	ECQB1H223JF	0.022µF	1
R10		ERDS2TJ221	220Ω	1	C9	ECQV1H683JM	0.068µF	1
R11		ERDS2TJ103	10kΩ	1	C10	ECQB1H223JF	0.022µF	1
R12		ERDS2TJ224	220kΩ	1	C11	QCBG1H104ZFA	0.1µF	3
R13		ERDS2TJ103	10kΩ	1	C12~14	ECQB1H103JF	0.01µF	1
R14		ERDS2TJ102	1kΩ	1	C15	QCBG1H104ZFA	0.1µF	1
R15		ERDS2TJ224	220kΩ	1	C16	ECQB1H153JF	0.015µF	1
R17		ERDS2TJ102	1kΩ	1	C17	ECEA1HKN010	1µF, 50V	2
R19		ERDS2TJ223	22kΩ	1	C18, 19	ECQB1H103JF	0.01µF	2
R22		ERDS2TJ223	22kΩ	1	C20	QCBG1H104ZFA	0.1µF	1
R23		ERDS2TJ102	1kΩ	1	C21, 22	ECQB1H153JF	0.015µF	1
R25		ERDS2TJ104	100kΩ	1	C23	ECQV1H222KZ	0.0022µF	1
R26		ERDS2TJ103	10kΩ	1	C24	ECQV1H472KZ	0.0047µF	1
R27		ERDS2TJ823	82kΩ	1	C25	ECQV1H152KZ	0.0015µF	1
R28, 30		ERDS2TJ682	6.8kΩ	2	C26	ECQV1H152KZ	0.0015µF	1
R31		ERDS2TJ104	100kΩ	1	C27	ECQV1H472KZ	0.0047µF	1
R32		ERDS2TJ103	10kΩ	1	C28	ECQV1H152KZ	0.0015µF	1
R33		ERDS2TJ823	82kΩ	1	C29	ECEA1HKA010	1µF, 50V	1
R34		ERDS2TJ682	6.8kΩ	1	C30	ECCR1H101J	100pF	1
R35		ERDS2TJ223	22kΩ	1	C31	ECEA1HKA010	1µF, 50V	1
R36		ERDS2TJ333	33kΩ	1	C32	ECCR1H101J	100pF	1
R37		ERDS2TJ223	22kΩ	1	C33	ECA1CM102	1000µF, 16V	1
R38		ERDS2TJ333	33kΩ	1	C34	QCBG1H104ZFA	0.1µF	2
R40		ERDS2TJ682	6.8kΩ	1	C35	ECEA1HKA010	1µF, 50V	1
R41		ERDS2TJ333	33kΩ	1	C36, 37	ECA1CM221B	220µF, 16V	1
R42		ERDS2TJ333	33kΩ	1	C38	ECCR1H470J	47pF	1
R43		ERDS2TJ153	15kΩ	1	C39	ECQV1H102KZ	0.001µF	2
R45, 46		ERDS2TJ102	1kΩ	2	C40, 41	ECA1EM470	47µF, 25V	1
R47		ERDS2TJ103	10kΩ	1	C42	ECEA1CKA100	10µF, 16V	1
R48		ERDS2TJ153	15kΩ	1	C43	ECA1EM101	100µF, 25V	1
R49, 50		ERDS2TJ182	1.8kΩ	2	C44	ECEA1CKA100	10µF, 16V	1
R51		ERDS2TJ563	56kΩ	1	C45	ECA1CM221B	220µF, 16V	1
R52		ERDS2TJ154	150kΩ	1	C46	ECCR1H470J	47pF	1
R53		ERDS2TJ683	68kΩ	1	C47	ECQV1H104JM	0.1µF	1
R54~56		ERDS2TJ222	2.2kΩ	3	C48	ECEA1CKN100	10µF, 16V	1
R57		ERDS2TJ102	1kΩ	1	C49	ECA1CM221B	220µF, 16V	2
R58		ERDS2TJ103	10kΩ	1	C50, 51	ECQV1H104JM	0.1µF	2
R59		ERDS2TJ471	47Ω	1	C52, 53	ECEA1CKN100	10µF, 16V	1
R60		ERDS2TJ220	22Ω	1	C54	ECQV1H104JM	0.1µF	1
R61		ERDS2TJ154	150kΩ	1	C55	ECA1EM682E	6800µF, 25V	2
R62		ERDS2TJ471	470Ω	1	C57, 58	ECQV1H222KZ	0.0022µF	6
R63	△	ERD2FCVJ4R7	4.7Ω, 1/4W, FUSE TYPE	1	C59~64	ECEA50Y1	1µF, 50V	2
R64		ERDS2TJ563	56kΩ	1	C65, 66	ECQE1A104M6	0.1µF, 125V	1
R65		ERDS2TJ683	68kΩ	1	C67	QCBG1H104ZFA	0.1µF	6
R66		ERDS2TJ102	1kΩ	1	C68~72, 74			
R67		ERDS2TJ220	22Ω	1				
R70		ERDS2TJ102	1kΩ	1				
R71, 73, 75, 76	△	ERD25FVJ2R2	2.2Ω, 1/4W, FLAME-PROOF	4				
R78		ERG1SJ221	220Ω, 1W	1				
R79		ERDS2TJ822	8.2kΩ	1				
R80		ERG1SJ221	220Ω, 1W	1				
R81		ERDS2TJ822	8.2kΩ	1				
R82, 83		ERDS2TJ681	680Ω	2				
R84, 85	△	ERG1SJ100	10Ω, 1W, FLAME-PROOF	2				
R86, 87		ERDS2TJ103	10kΩ	2				

ACP AC POWER SUPPLY CIRCUIT

Ref. No.	Part No.	Description	P/S
LINE FILTER			
L1	△ SLTGLF3	LINE FILTER	1
JACK			
JK1	△ SJVD0203B	AC INLET	1
SWITCH			
S1	△ SSRG100A	VOLTAGE SELECTOR, EX XS XD XT	1
FUSES			
○ F1	△ XBA1C16NB100	1.6A 125V, ME MC XM	1
○ F1	△ XBA2C10TB0L	T1AL 250V, EX XS XD XT	1
○ F2	△ XBA2C05TB0L	T500mA, 250V, EX XS XD XT	1
○ F3	△ XBA2C05TB0L	T500mA, 250V, EN EK EZ XW EW EF EA EH EP XL XP XR XS XD XT	1
CAPACITORS			
C1	△ ECKCVA1472MF	4700pF, LINE CAPACITOR	1
C2	△ ECQU2A104MN	0.1μF, 250V, ACROSS-THE LINE CAPACITOR	1

CPC CONTROL PANEL CENTER CIRCUIT

Ref. No.	Part No.	Description	P/S
INTEGRATED CIRCUITS			
IC1	M37471M2196S	8 BIT MICROCOMPUTER	1
IC2, 3	HD74LS07P	HEX BUFFERS	2
IC4	M37471M2196S	8 BIT MICROCOMPUTER	1
IC5	HD74LS07P	HEX BUFFERS	1
TRANSISTORS			
Q1~10	2SA830SB	TRANSISTOR	10
DIODES			
D1~5, 9~31, 33~39, 41~63, 201~205, 209~232, 234~236, 239, 240	MA165	DIODE	92
D101~105, 109~119, 121, 122, 125~131, 133~135, 139, 304, 305, 309~314, 317~322, 325~327, 334~336	SEL4117RM	LED(RED)	49

Ref. No.	Part No.	Description	P/S
D120, 136~138, 301~303, 328, 329, 437	SEL4417GM	LED(GREEN)	10
OSCILLATORS			
X1, 2	EF0EC4004A3	4MHz, CERAMIC OSCILLATOR	2
SWITCHES			
S1~5, 9~31, 33~39, 41~63, 201~205, 209~232, 234~236, 239, 240	EVQ21507K	PUSH SWITCH	92
S401	QSRGT002AA	ENCODER SWITCH	1
RESISTORS			
R1~4	ERDS2T0	0Ω, 1/4W	4
R5, 6	ERDS2TJ101	100Ω	2
R7	ERDS2TJ103	10kΩ	1
R8	ERDS2TJ333	33kΩ	1
R9	ERDS2TJ103	10kΩ	1
R10	ERDS2T0	0Ω, 1/4W	1
R11~23	ERDS2TJ103	10kΩ	13
R24~35	ERDS2TJ680	68Ω	12
R36	ERDS2TJ472	4.7kΩ	1
R37	ERDS2TJ472	4.7kΩ	1
R38	ERDS2TJ473	47kΩ	1
R39	ERDS2TJ473	47kΩ	1
R40*	ERDS2TJ102	1kΩ	1
R41~44	ERDS2T0	0Ω, 1/4W	4
R45, 46	ERDS2TJ101	100Ω	2
R47, 48	ERDS2TJ103	10kΩ	2
R49	ERDS2TJ333	33kΩ	1
R50	ERDS2T0	0Ω, 1/4W	1
R51~63	ERDS2TJ103	10kΩ	13
R64~69	ERDS2TJ680	68Ω	6
CAPACITORS			
C1	ECEAJKA221	220μF, 6.3V	1
C2	ECEAJKA470	47μF, 6.3V	1
C3~6	QCBG1H104ZFA	0.1μF	4
C8	ECEAJKA221	220μF, 6.3V	1
C9, 10	ECBA1H102KB	0.001μF	2
C11	QCBG1H104ZFA	0.1μF	1
C12	ECEAJKA470	47μF, 6.3V	1
C13~15	QCBG1H104ZFA	0.1μF	3

CPL CONTROL PANEL LEFT CIRCUIT

Ref. No.	Part No.	Description	P/S
DIODES			
D206, 241~245, 249~254	MA165	DIODE	12
D330	SEL4417GM	LED (GREEN)	1
D333, 338	SEL4117RM	LED (RED)	2
SWITCHES			
S206, 241~245, 249~254	EVQ21507K	PUSH SWITCH	12
VARIABLE RESISTOR			
VR1	EVD07205B24G	20kΩ B, MAIN VOLUME	1
CAPACITOR			
C7	QCBG1H104ZF	0.1μF	1

CPR CONTROL PANEL RIGHT CIRCUIT

Ref. No.	Part No.	Description	P/S
DIODES			
D65~68, 73~76, 81~83, 89~92	MA165	DIODE	15
D149~159, 161, 162	SEL4417GM	LED (GREEN)	13
D163	SEL4117RM	LED (RED)	1
SWITCHES			
S65~68, 73~76, 81~83, 89~92	EVQ21507K	PUSH SWITCH	15

MKB1 MANUAL KEYBOARD 1 CIRCUIT

Ref. No.	Part No.	Description	P/S
INTEGRATED CIRCUIT			
IC1	HD74LS138P	3 TO 8 DECODER	1
DIODES			
D1~48	MA165	DIODE	48
CAPACITORS			
C2, 3	ECRF1H104ZF	0.1μF	2

MKB2 MANUAL KEYBOARD 2 CIRCUIT

Ref. No.	Part No.	Description	P/S
INTEGRATED CIRCUIT			
IC2	HD74LS138P	3 TO 8 DECODER	1
DIODES			
D49~96	MA165	DIODE	48
CAPACITORS			
C4, 5	ECRF1H104ZF	0.1μF	2
C6	ECEA1CKA470	47μF, 16V	1

MKB3 MANUAL KEYBOARD 3 CIRCUIT

Ref. No.	Part No.	Description	P/S
DIODES			
D97~122	MA165	DIODE	26

BEND PITCH BEND CIRCUIT

Ref. No.	Part No.	Description	P/S
VARIABLE RESISTOR			
VR3	QRVG16A02B54	50kΩ, B	1
RESISTORS			
R80, 81	ER0S2CKF1001	1kΩ, ±1%	2

MOD MODULATION CIRCUIT

Ref. No.	Part No.	Description	P/S
VARIABLE RESISTOR			
VR2	QRVG16A02B54	50kΩ, B	1

WIRING PARTS

Ref. No.	Part No.	Description	P/S
○ W1	QEXGVH06110D	CONNECTOR WITH WIRE	1
○ W2	QEXGSS12045B	CONNECTOR WITH WIRE	1
○ W3	QEXGSS15010B	CONNECTOR WITH WIRE	1
○ W4	QEXGSS14015B	CONNECTOR WITH WIRE	1
○ W5	QEUGS7W15BZ	FLAT CABLE	1
○ W6	QEUGS8W08BZ	FLAT CABLE	1
○ W7	QEUGS8W06BZ	FLAT CABLE	1
○ W8	QEUGSAW32BZ	FLAT CABLE	1
○ W9	QEUGS7W32BZ	FLAT CABLE	1
○ W10	QEUGS9W06BZ	FLAT CABLE	1
○ W11	QEUGSAW08BZ	FLAT CABLE	1
○ W12	△ QEXGVH03065B	CONNECTOR WITH WIRE	1
○ W13	QEXGZA34055B	CONNECTOR WITH WIRE	1
○ W14	QEUGS3W15BZ	FLAT CABLE	1
○ W15	QEUGS3W07BZ	FLAT CABLE	1

REPLACEMENT PARTS LIST.....Cabinet and Chassis Parts

Notes:

- The marking (RTL) indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependant on the type of assembly, and in accordance with the laws governing part and product retention.
After the end of this period, the assembly will no longer be available.
- mark are new parts.

- Important safety notice
Components identified by △ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
- For part No. with area mark, check the area when placing an order.
- The raw material indication for synthetic resin
In order to facilitate classification of parts of synthetic resin manufacture and to promote the recycling of natural resources, a raw material symbol for such parts is indicated in the Ref. No./Material column.

CABINET & CHASSIS PARTS

Ref. No.	Part No.	Description	P/S
POWER CORD & PLUG			
PC1	△ QJAG027AA	POWER CORD, EN EZ EW EF EA EP EH EX XS XT XP XW	1
PC1	△ QJAG025AA	POWER CORD, M MC XM	1
PC1	△ QJAG028AA	POWER CORD, EK XD	1
PC1	△ QJAG029AA	POWER CORD, XL XR	1
PC2	△ SJP5213-1	ATTACHMENT PLUG, EX XT XP	1
SWITCH			
S1	△ ESB823V	POWER SWITCH	1
SPEAKERS			
○ SP1, 2	QASG12P06A	12cm,4Ω	2
SP3, 4	QASG65PH03AK	6.5cm,8Ω	2
TRANSFORMERS			
T1	△ QTPG1M028A	POWER TRANSFORMER, M MC XM	1
T1	△ QTPG1M029B	POWER TRANSFORMER, EN EZ EK EW EF EA EP EH XL XR XP XW	1
T1	△ QTPG1M030B	POWER TRANSFORMER, XL XS XD XT	1
CABINET PARTS			
1	QYAG3004AAK	MUSIC STAND ASS'Y	1
1-1	PS QMRG7065AAK	TABLE OF ASSIC BOOK	1
2	QKWG032AA	LCD PANEL	1
3	PS QYPG1077ABK	CONTROL PANEL	1
3-1	QMFG4212AAK	SPEAKER NET	2
3-2	QMFG4213AAK	SPEAKER NET	2
4	ABS QGUG3002BB	DIAL WHEEL	1
5	QMFQ4110AAK	CUSHION	4
6	ABS QMWG9020AAK	12 KEYS	4
7	ABS QMWG9021AAK	13 KEYS	1
8	QMGG055AA	KEY GUIDE	61

Ref. No.	Part No.	Description	P/S
9	QMFG1141AA	FELT	2
10	QMWG6015CAK	RUBBER SWITCH (12PCS.ON ONE)	4
11	QMWG6014CAK	RUBBER SWITCH (13PCS.ON ONE)	1
○ 12	QYKG192EAK	BOTTOM CABINET, EN EZ EK EW EF EA EP EH EX XL XR XS XD XT XP XW	1
○ 12-1	QMRG5188AAK	CUSHION	1
12-2	QMRG7070AAK	FOOT	4
○ 12-3	QMFQ4223AAK	CUSHION	2
12-4	PS QMRG7078ABK	SOUND PORT,LEFT	1
12-5	PS QMRG7079ABK	SOUND PORT,RIGHT	1
12-6	QMRG5099AAK	CUSHION	8
12-7	QMGG041AA	SPACER	4
12-8	QMFQ4187AAK	CUSHION	2
○ 12	QYKG192FAK	BOTTOM CABINET, M MC XM	1
○ 12-1	QMRG5188AAK	CUSHION	1
12-2	QMRG7070AAK	FOOT	4
○ 12-3	QMFQ4223AAK	CUSHION	2
12-4	PS QMRG7078ABK	SOUND PORT,LEFT	1
12-5	PS QMRG7079ABK	SOUND PORT,RIGHT	1
12-6	QMRG5099AAK	CUSHION	8
12-7	QMGG041AA	SPACER	4
12-8	QMFQ4187AAK	CUSHION	2
13	QEXGRA01010Q	WIRE	1
14	△ PS SJS9334A	AC INLET COVER, M MC XM	1
14	△ PS SJS9231A	AC INLET COVER, EN EZ EK EW EF EA EP EH EX XL XR XS XD XT XP XW	1
○ 15	QMRG2049AAK	COVER, M MC XM EX XS XD XT	1
17	QLZG020A	CORE, EN M MC XM EZ EK EW EF EA EP EH XL XR XP XW	1
○ 18	QMRG5014AA	CUSHION, EN M MC XM EZ EK EW EF EA EP EH XL XR XP XW	1
19	QAUG019AA	DISK DRIVE UNIT	1
○ 20	QSCG111A	PLATE	1
21	QMFG4094AA	CUSHION	2
22	QMFQ4207AA	CUSHION	1
23	QMRG1020AA	SPACER, EN EZ EK EW EF EA EP EH EX XL XR XS XD XT XP XW	4
○ 40	QMRG5029AA	CUSHION	1
○ 41	QMRG5105AA	CUSHION, EN M MC XM EZ EK EW EF EA EP EH XL XR XP XW	2

Ref. No.	Part No.	Description	P/S	Ref. No.	Part No.	Description	P/S
41	QMRG5105AA	CUSHION, X XS XD XT	1	SCREWS			
42	△ QLZG013A	CORE, EN M MC XM EZ EK EW EF EA EP EH XL XR XP XW	1	N1	XTW3+10QFZ	SCREW	12
43	QLZG017AA	CORE, EN M MC XM EZ EK EW EF EA EP EH XL XR XP XW	2	N2	XYE3+FG10FZ	SCREW WITH WASHER	8
44	QMFG4167AAK	CUSHION	1	N3	XTW3+20Q	SCREW	16
45	QEXGZA01010B	WIRE	1	N5	XYE3+FG12	SCREW WITH WASHER	12
46	QSCG110AK	PLATE	1	N6	XTW3+12Q	SCREW	58
47	QMCG009AA	SPRING	1	N7	XYN4+F30	SCREW WITH WASHER, EN EZ EK EW EF EA EP EH X XL XR XS XD XT XP XW	4
48	QMRG5197AA	CUSHION	1	N7	XYN4+F25	SCREW WITH WASHER, M MC XM	4
49	QSCG105AK	SHIELD	1	N8	XYN3+F6	SCREW WITH WASHER	1
50	QLZG019A	CORE, EN M MC XM EZ EK EW EF EA EP EH XL XR XP XW	1	N9	QHDG052AA	SCREW WITH WASHER	6
51	QMFG4218AAK	CUSHION	1	N11	QHDG043AA	SCREW WITH WASHER	4
52	QSCG109AK	SHIELD	1	N12	XTW3+14TFZ	SCREW	2
53	QMRG5195AA	CUSHION, EN M MC XM EZ EK EW EF EA EP EH XL XR XP XW	1	N13	XTW3+20QFZ	SCREW	24
54	QMRG5196AA	CUSHION, EN M MC XM EZ EK EW EF EA EP EH XL XR XP XW	1				
55	QLZG022A	CORE, EN M MC XM EZ EK EW EF EA EP EH XL XR XP XW	1				
56	QMFG4216AAK	CUSHION	1				
57	QMFG4184AAK	CUSHION	1				
58	QMFG4217AAK	CUSHION	1				
59	QMFG4219AAK	CUSHION	1				
60	ABS QMNG0057AAK	HOLDER	1				
61	ABS SBNG4050A	WHEEL KNOB	2				
62	QMBG012AAK	SPRING	1				
63	QMFG4076AAK	CUSHION	4				
64	QGUG1385ABK	BUTTON	1				
65	QGUG1384ABK	BUTTON	1				
66	QGUG1435AAK	BUTTON	3				
67	QGUG1456AAK	BUTTON	1				
68	QGUG1456AB1K	BUTTON	1				
69	QGUG1441BAK	BUTTON	1				
70	QGUG1458AAK	BUTTON	2				
71	QGUG1457AA1K	BUTTON	1				
72	QGUG1438ABK	BUTTON	3				
73	QGUG1455AA1K	BUTTON	1				
74	QGUG1454AA1K	BUTTON	1				
75	QGUG1456AAK	BUTTON	2				
76	QGUG1420AA	BUTTON	1				
77	QGUG1442ABK	BUTTON	1				
78	QGUG1435AAK	BUTTON	2				
79	QGUG1453AA1K	BUTTON	1				
80	QGUG1457AAK	BUTTON	2				
81	QGUG1436AA2K	BUTTON	1				
82	QGUG1438ABK	BUTTON	3				
83	QGUG1455AAK	BUTTON	1				
84	QGUG1458AAK	BUTTON	3				
85	QMRG5191AA	SPACER	1				
86	QMFG4167AAK	CUSHION	2				
87	ABS QGUG1040AA	BUTTON,POWER SWITCH	1				
88	QMRG2072AAK	PLATE	1				
89	QMRG5190AAK	PLATE	2				
90	QMRG2072AAK	PLATE	1				
91	QMRG5194AAK	CUSHION	2				
92	SBNG7070B	KNOB,MAIN VOLUME	1				
93	ABS QGPG1032ABK	ORNAMENT	1				

CABINET PARTS LOCATION

