

SERVICE MANUAL

Z1

Multi Oscillator Synthesis System

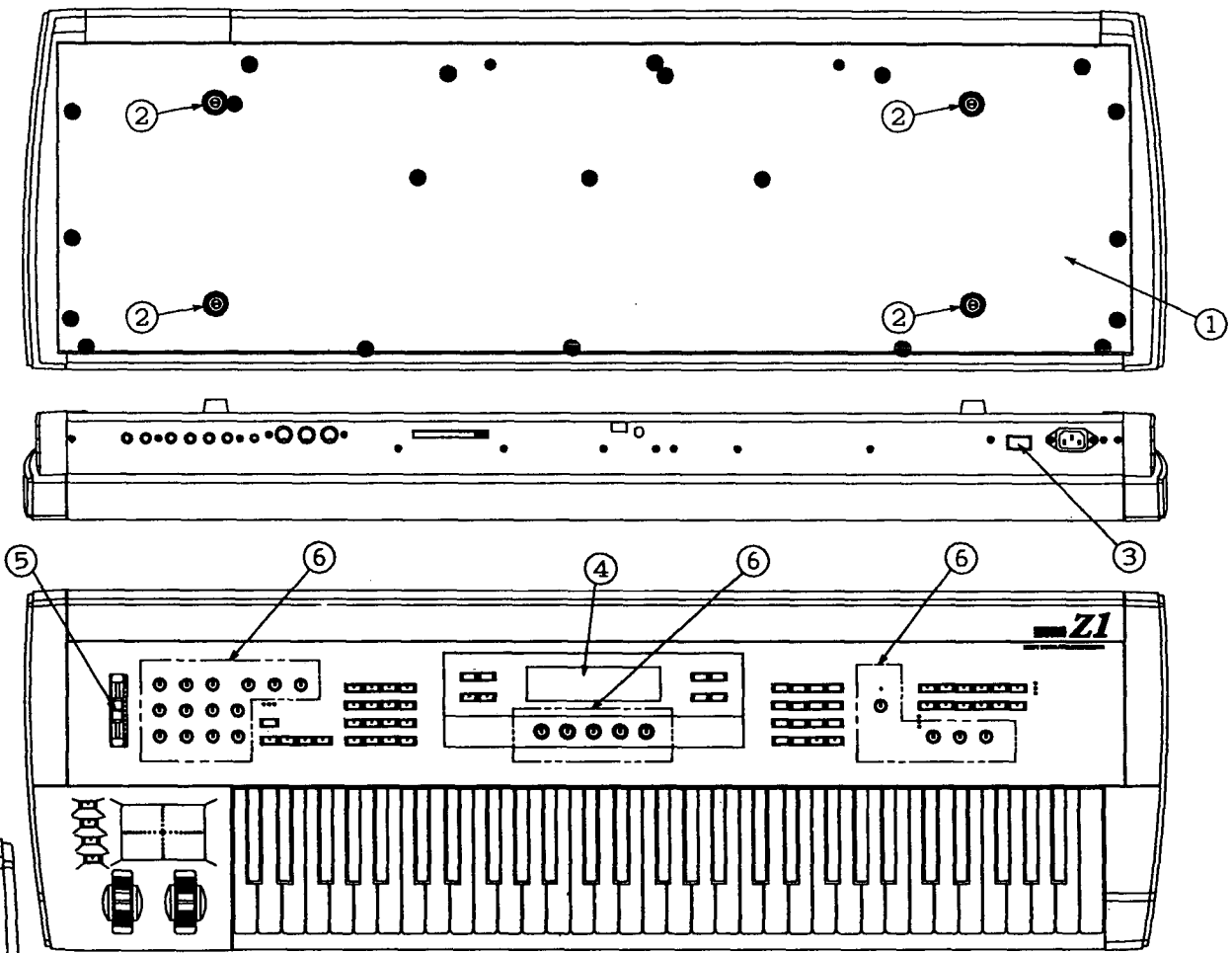
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KORG

DISASSEMBLY (1/5)

1. DISASSEMBLY

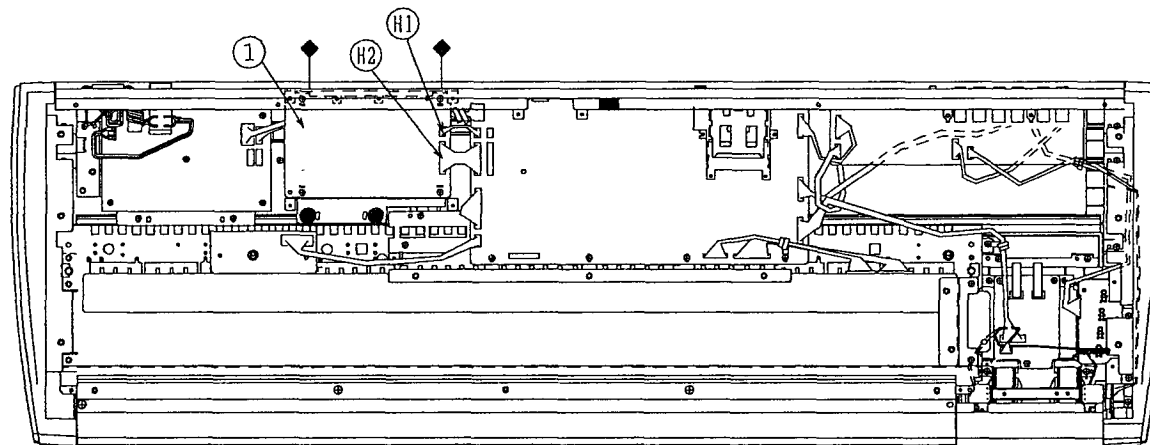


DISASSEMBLY 1

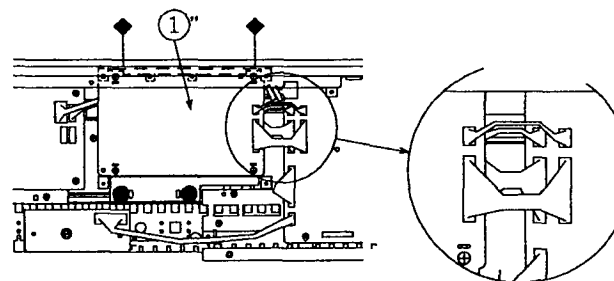
NO.	PARTCODE	PART NAME	Q'TY
1	641041232	X-311 LOWER CASE KOC-C10170	1
2	500018500	RUBBER FOOT FF-001	4
3	620024600	X-952POWER SWKNOBE40304-2	1
4	630028200	X-611 LCD WINDOW KOC-F30070	1
5	620026601	X-311-3SVR KNOBKOC-E40364-2	1
6	620032200	KNOBP422-GF	23

●	BT	B	ZMC	4XB	21
■	MARK		SCREWS		Q'TY

DISASSEMBLY (2/5)



HARNESS	
No.	HWS-
H1	2560
H2	2559

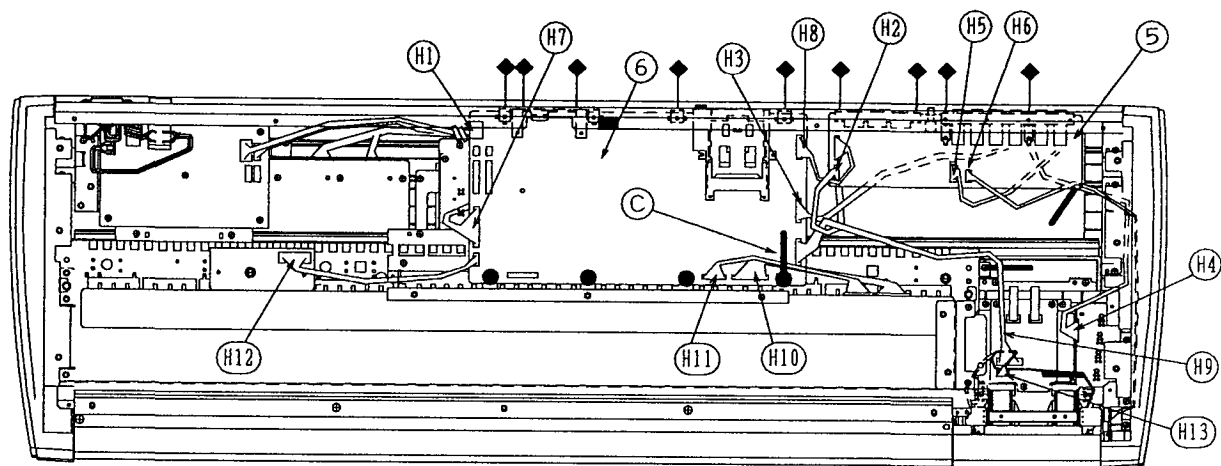
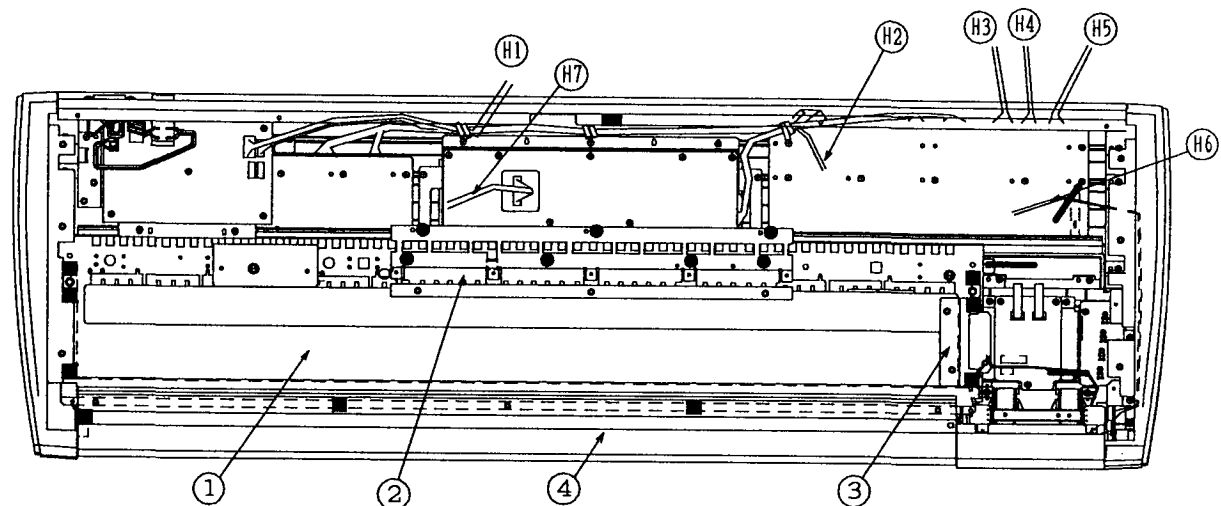


DISASSEMBLY 2

NO.	PARTCODE	PART NAME	QTY
1	001193000	PCBASSKLM-1930	1

◆	BT	B	BZMC	3X8	2
●	BT	B	ZMC	3X8	2
MARK SCREWS					QTY

DISASSEMBLY (3/5)



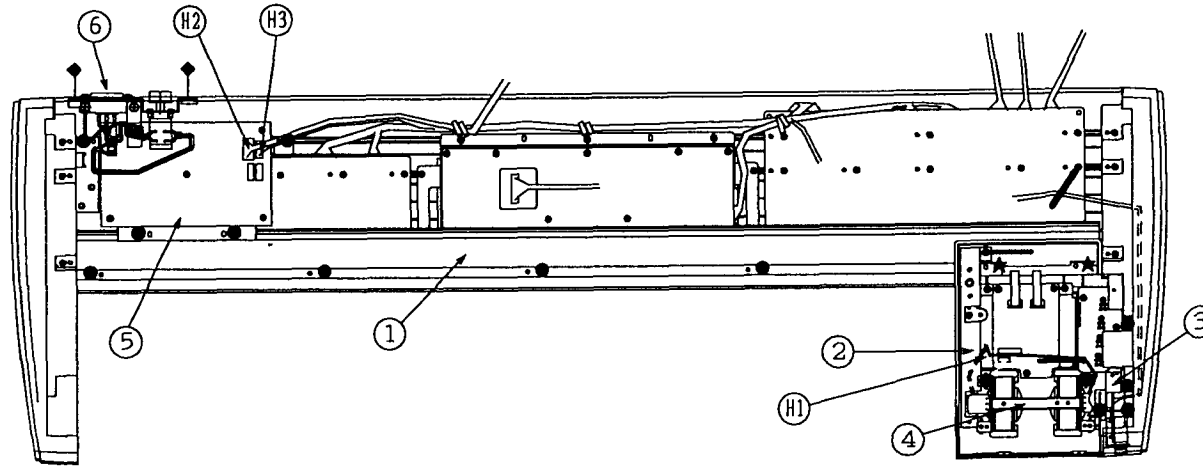
No.	HARNESS HWS-
H1	2180
H2	2181
H3	2549
H4	2555
H5	2556
H6	2557
H7	2545
H8	2548
H9	2550
H10	2544
H11	2543
H12	2542
H13	2558

◆	BT B BZMC 3X8	9
■	BT B ZMC 4X8	9
●	BT B ZMC 3X8	11
MARK	SCREWS	Q'TY

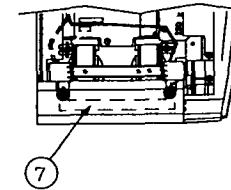
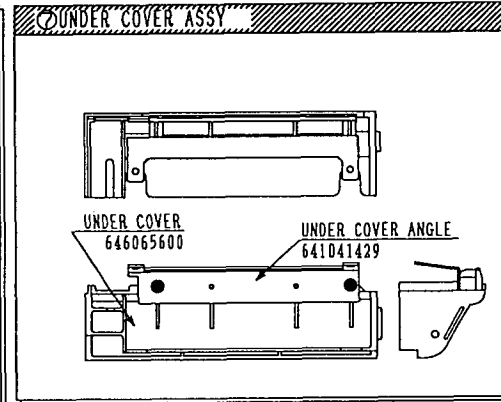
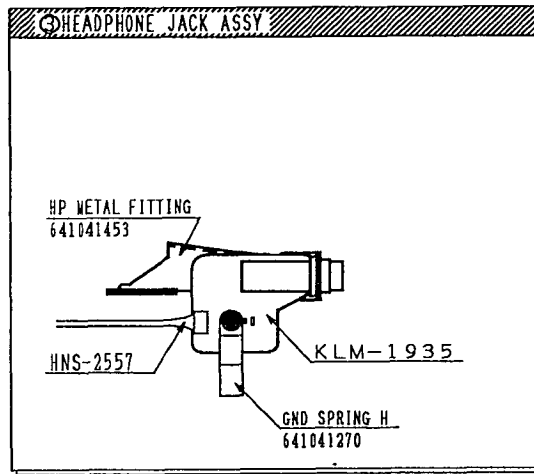
DISASSEMBLY 3

NO.	PARTCODE	PART NAME	Q'TY
1	420004800	KEYBOARD FS-61 KG2	1
2	641041240	X-311/312KBRANGLEC20299	1
3	641041229	X-311/312KB SUPPORTC30455	1
4	641041235	X-311 FRONT BAR KOC-C20295	1
5	001196500	PCBASSKLM-1965	1
6	001192900	PCBASSKLM-1929	1

DISASSEMBLY (4/5)



MARK	HARNESS
	HNS-
H1	2558
H2	2180
H3	2181

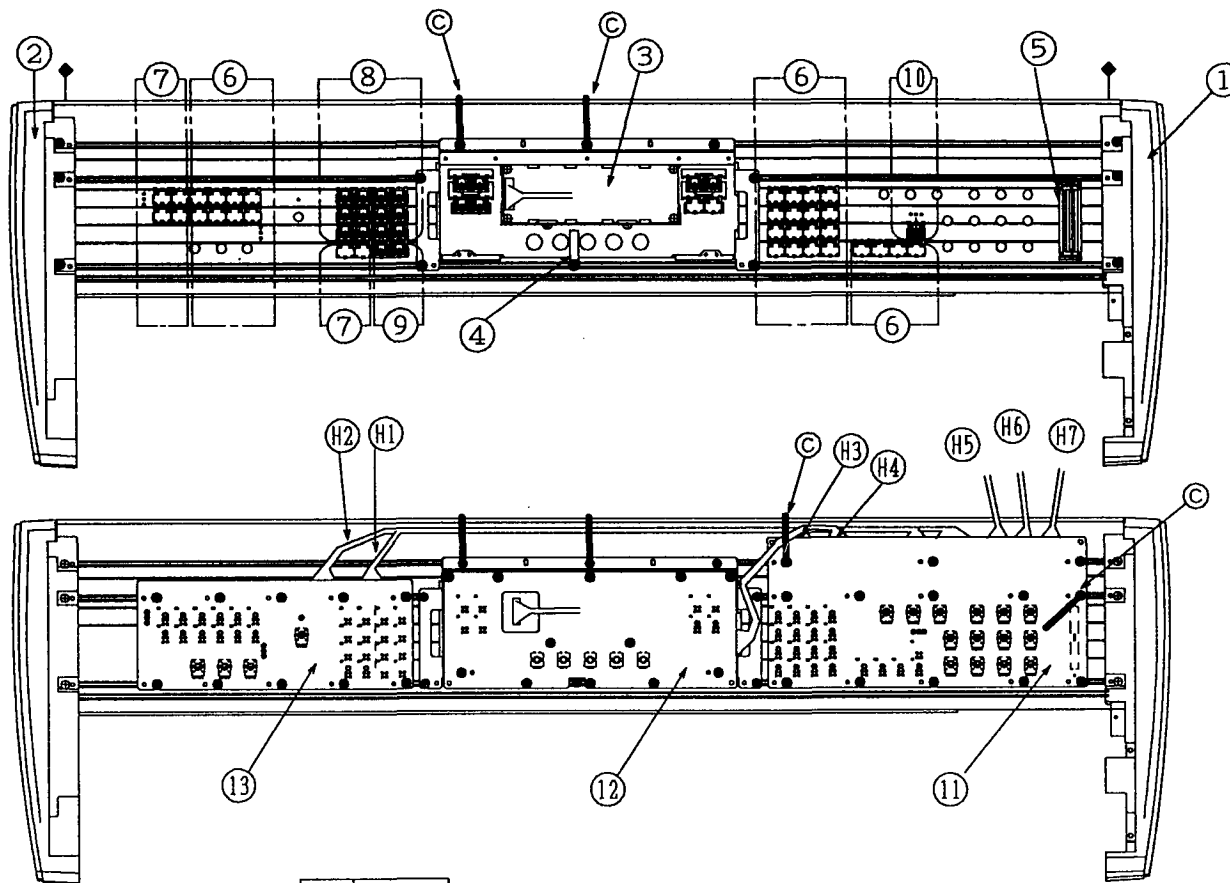


DISASSEMBLY 4

NO.	PARTCODE	PART NAME	Q'TY
1	641041243	X-311 SUPPORTRAILKOC-C20293	1
2	646065700	X-611 CONTROL PANEL E10146	1
3	-----	HEADPHONE JACK ASSY	1
4	641041251	X-495 WHEEL METAL FITTING ASSY	1
5	002187500	POWER SUPPLY UNIT KLM-1875	1
6	-----	INLET SOCKET	1
7	-----	UNDER COVER ASSY	1

◆	BT	B	BZMC	3X8	2
★	BT	B	ZMC	3X12	2
●	BT	B	ZMC	3X8	19
MARK	SCREWS				Q'TY

DISASSEMBLY (5/5)



5

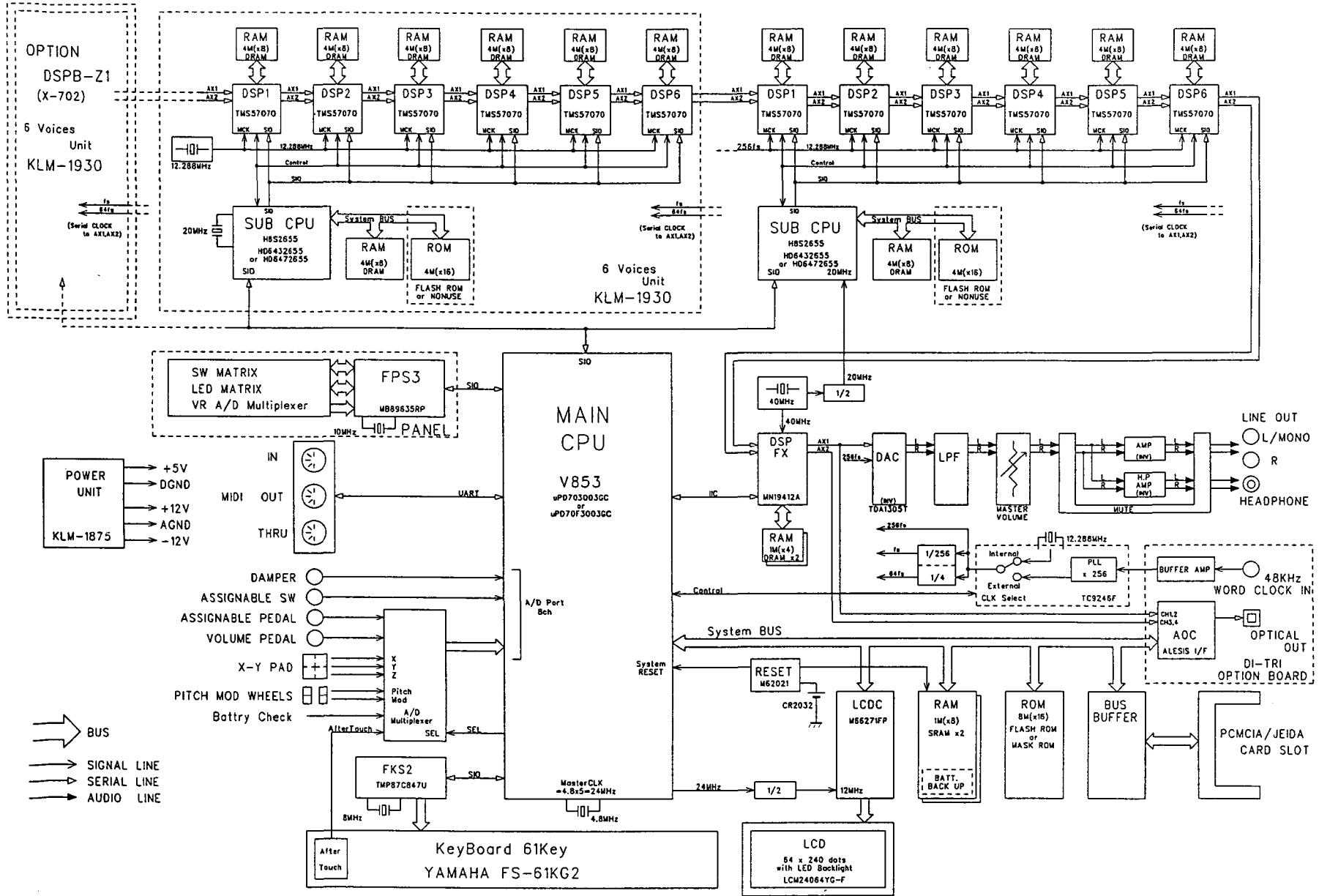
DISASSEMBLY 5

NO.	PARTCODE	PART NAME	Q'TY
1	646052800	X-311/312 SIDE PLATE L	1
2	646052801	X-311/312 SIDE PLATE R	1
3	313003600	LCD LCM24064YG-F	1
4	644007400	GND SPRING (G) KOC-C40970	1
5	646065500	X-611/613 SVR FRAME ASSY 45	1
6	620032500	X-611 4 LINKAGE KNOB A-4-GR	7
7	620032600	X-611 4 LINKAGE KNOB A-2-GR	3
8	620032800	X-611 4 LINKAGE KNOB B-4-GR	3
9	620032900	X-611 4 LINKAGE KNOB B-2-GR	1
10	620033000	X-611 4 LINKAGE KONB B-1-GR	1
11	001193400	PCBASSKLM-1934	1
12	001193200	PCBASSKLM-1932	1
13	001193300	PCBASSKLM-1933	1

No.	HARNES
H1	2554
H2	2553
H3	2552
H4	2551
H5	2549
H6	2555
H7	2556

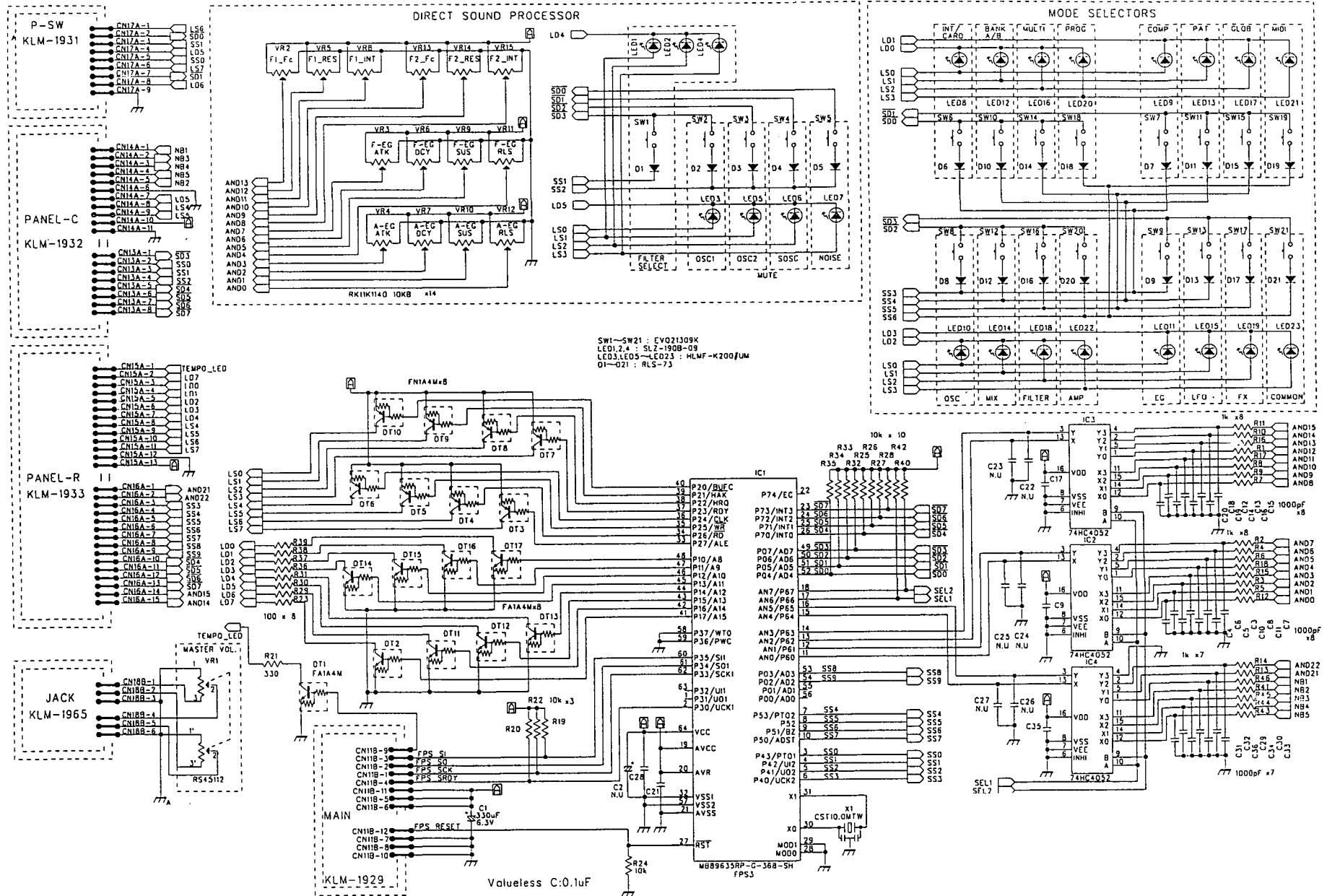
◆	BT	B	BZMC	3X8	2
●	BT	B	ZMC	3X8	49
MARK			SCREWS		Q'TY

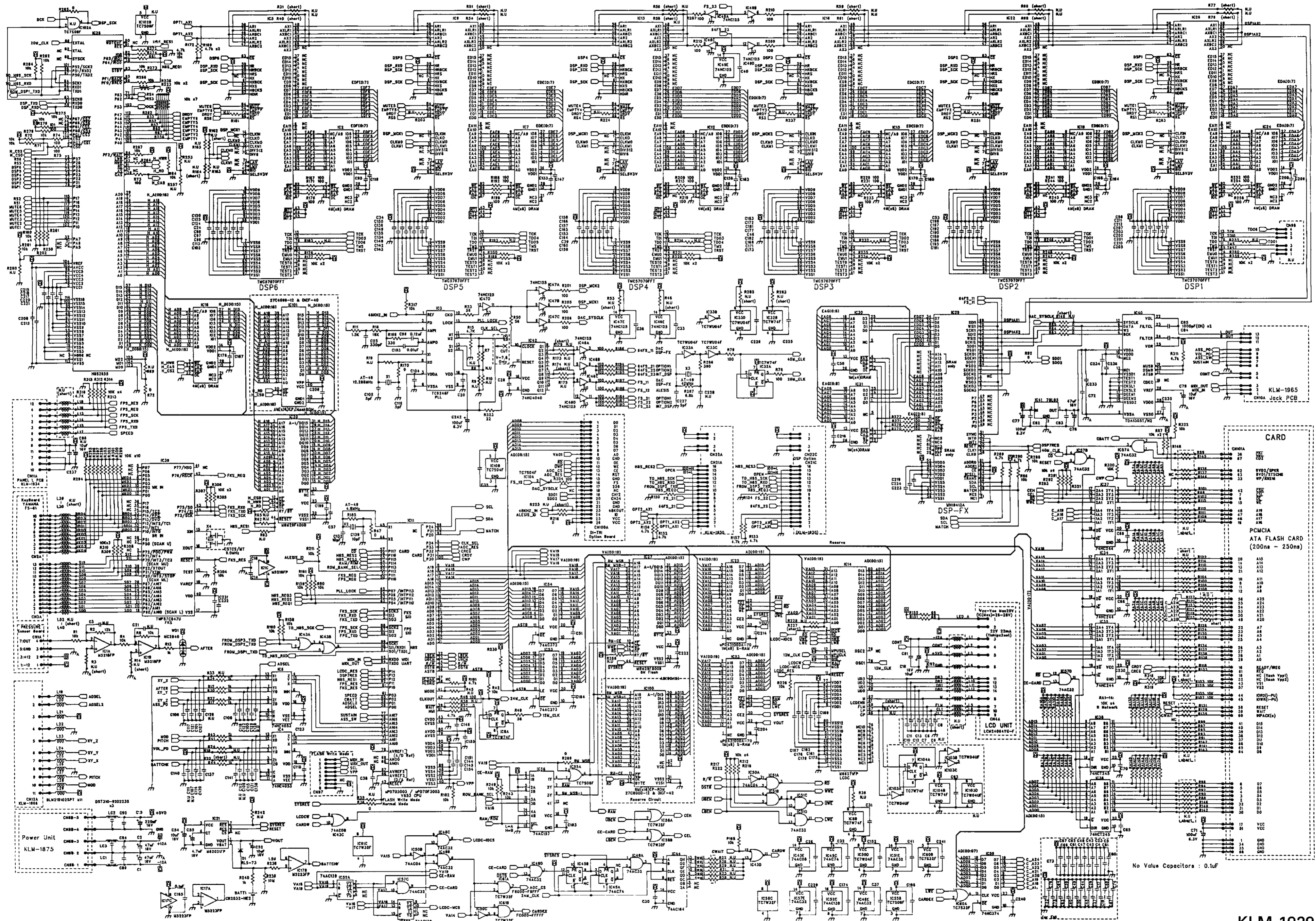
2. BLOCK DIAGRAM

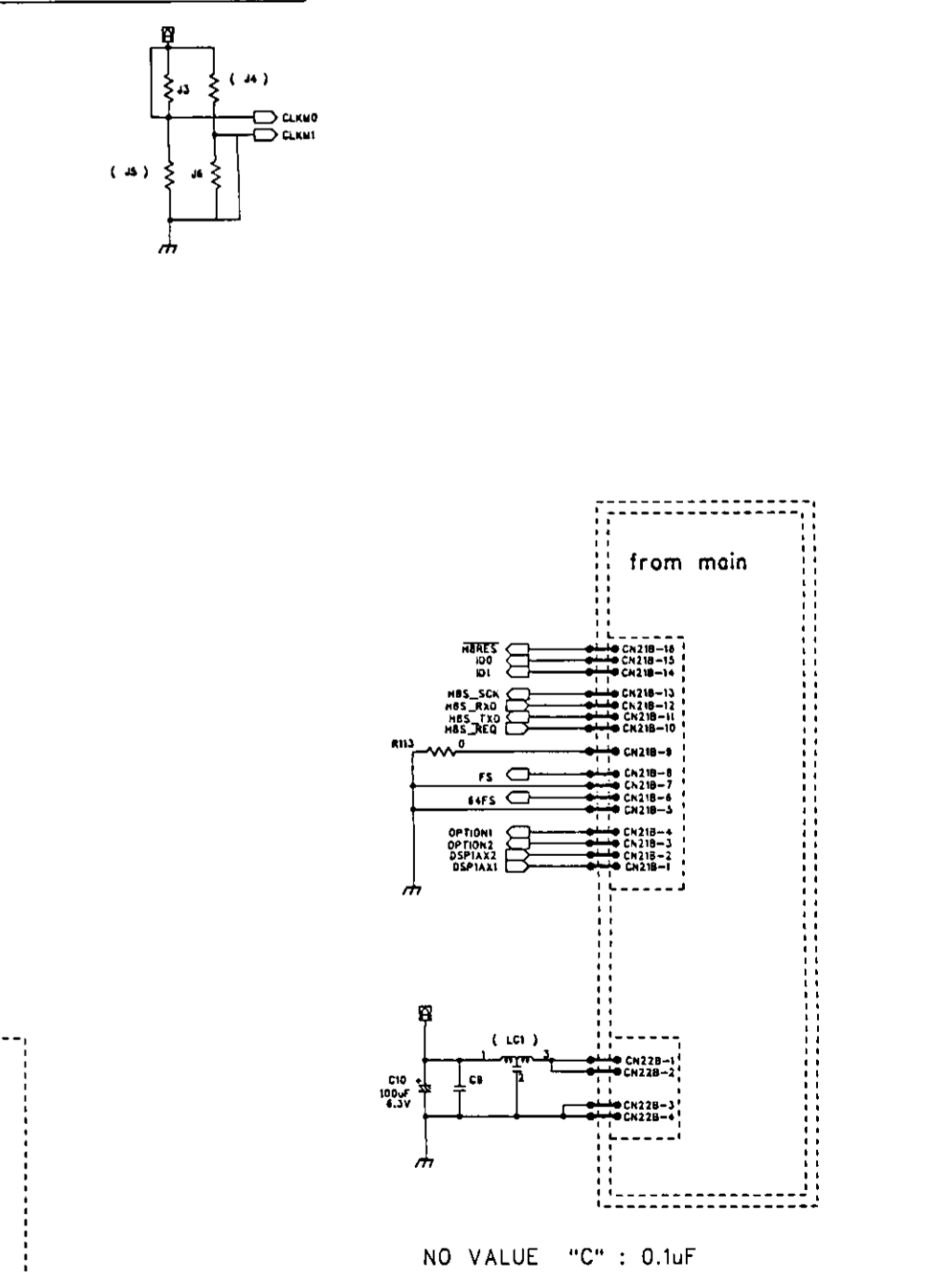
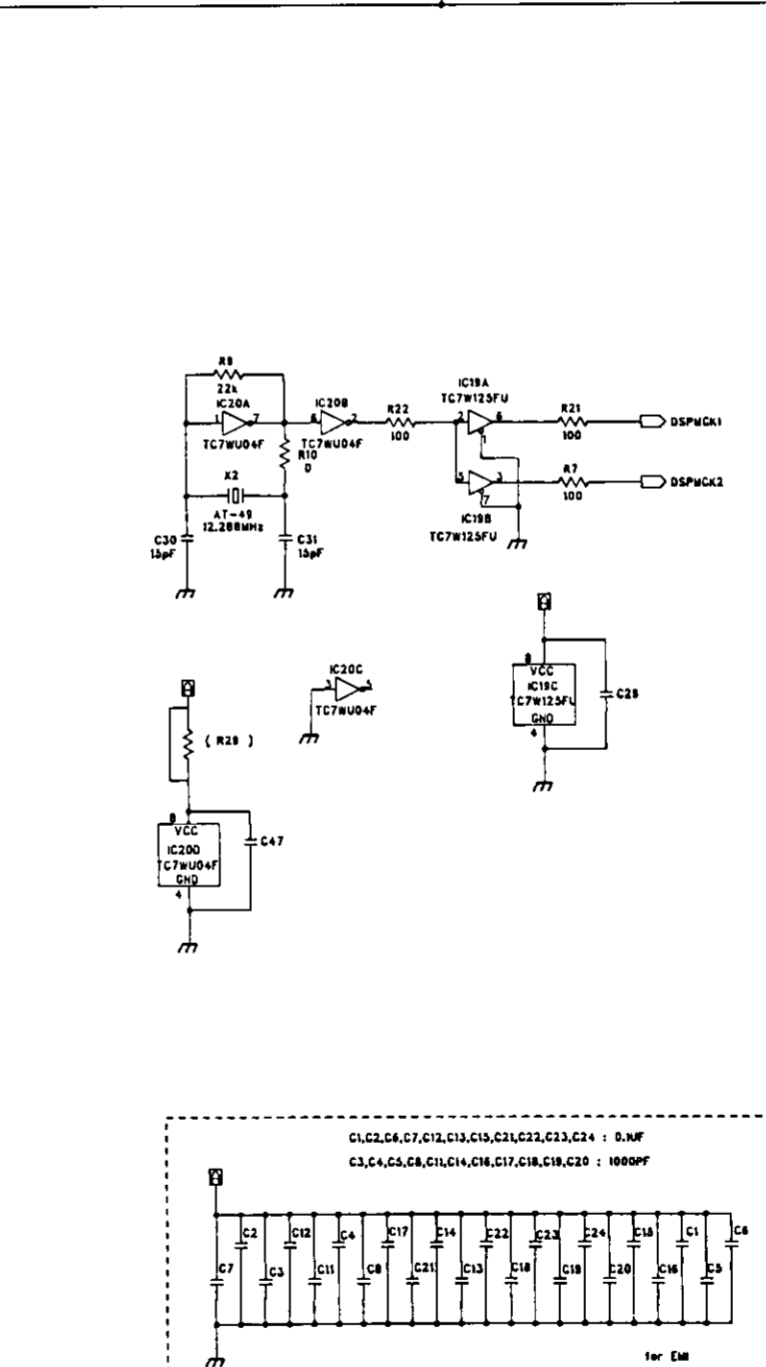
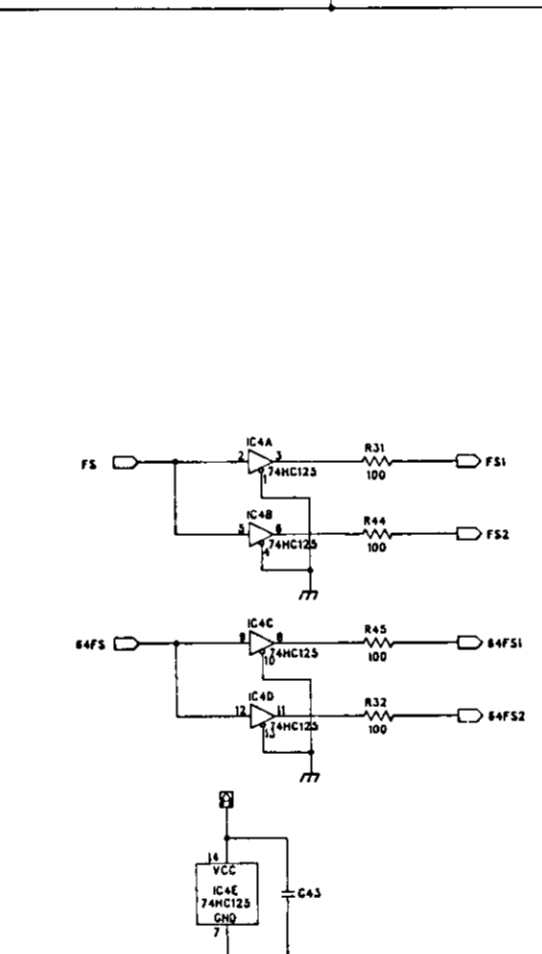
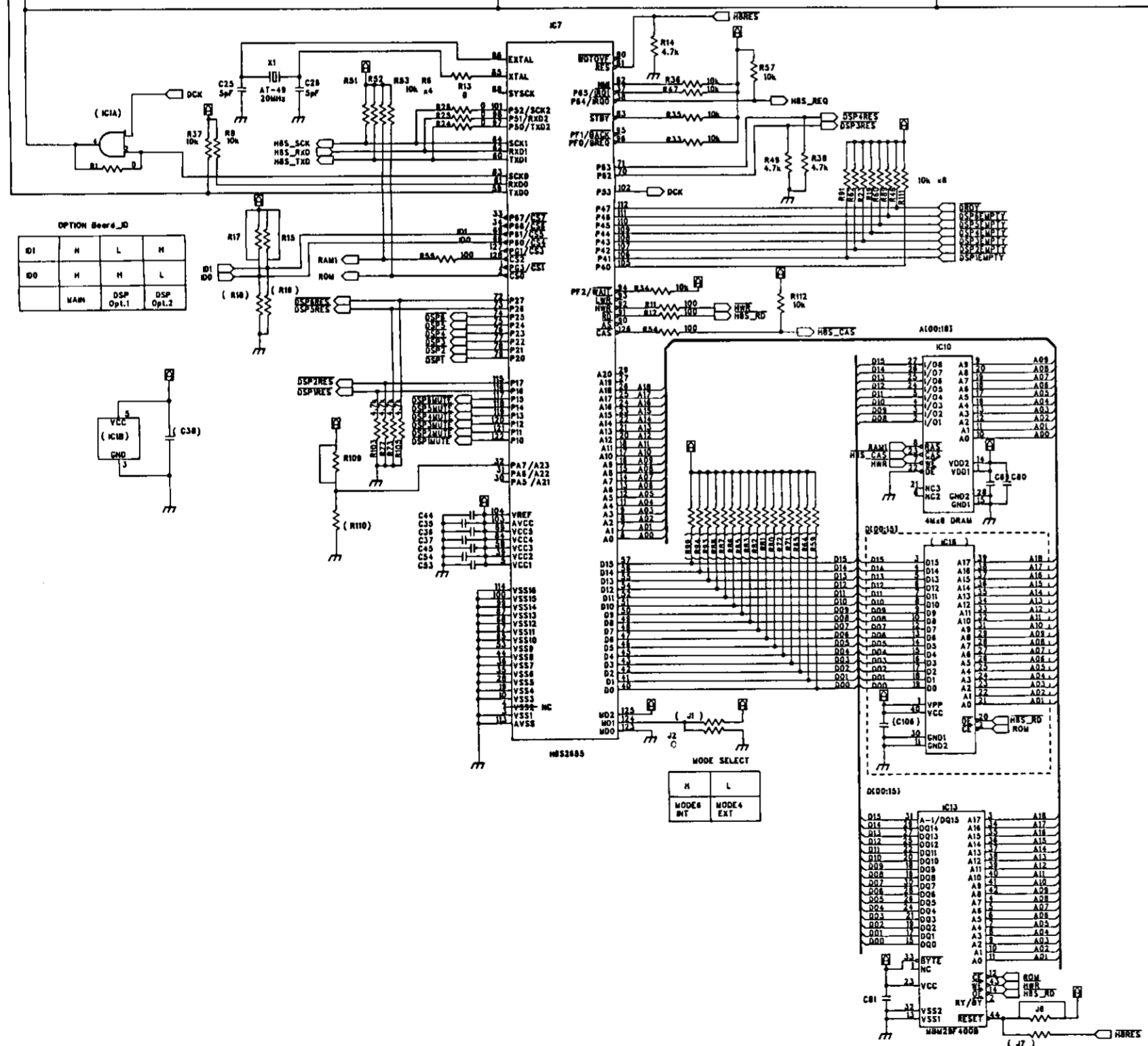
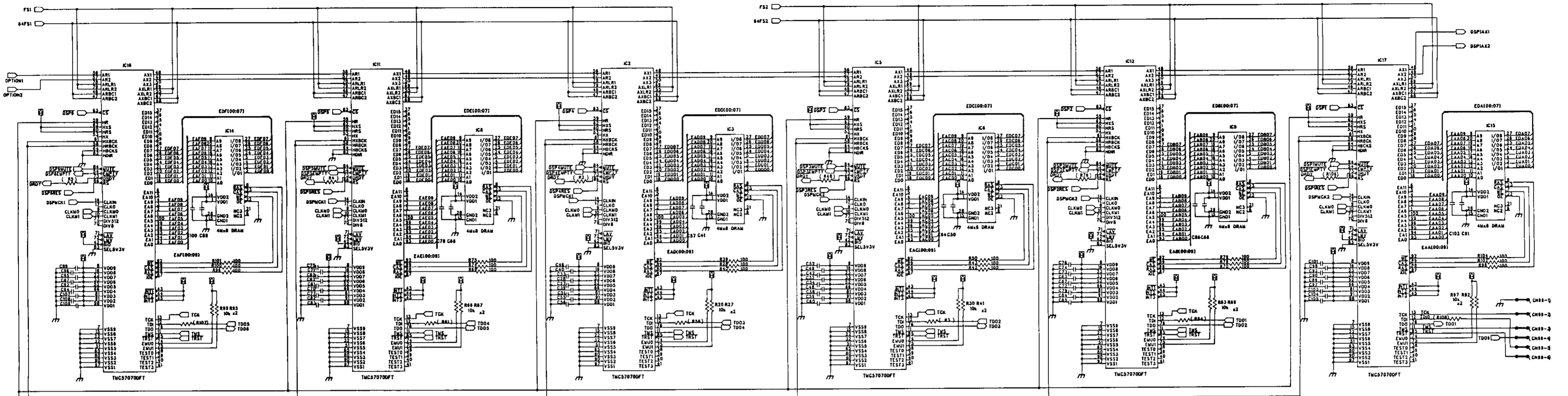


KLM-1934

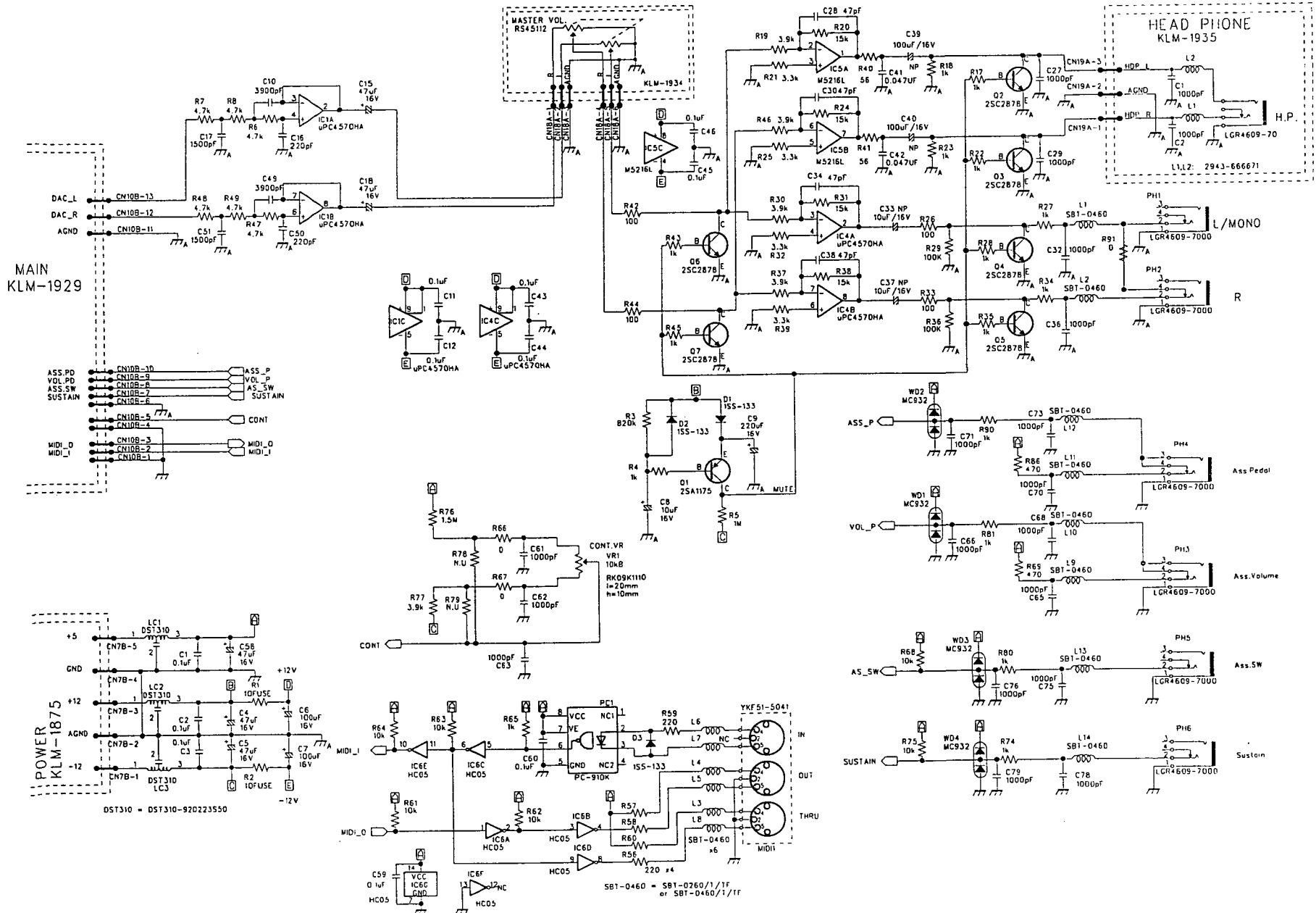
3. CIRCUIT DIAGRAMS







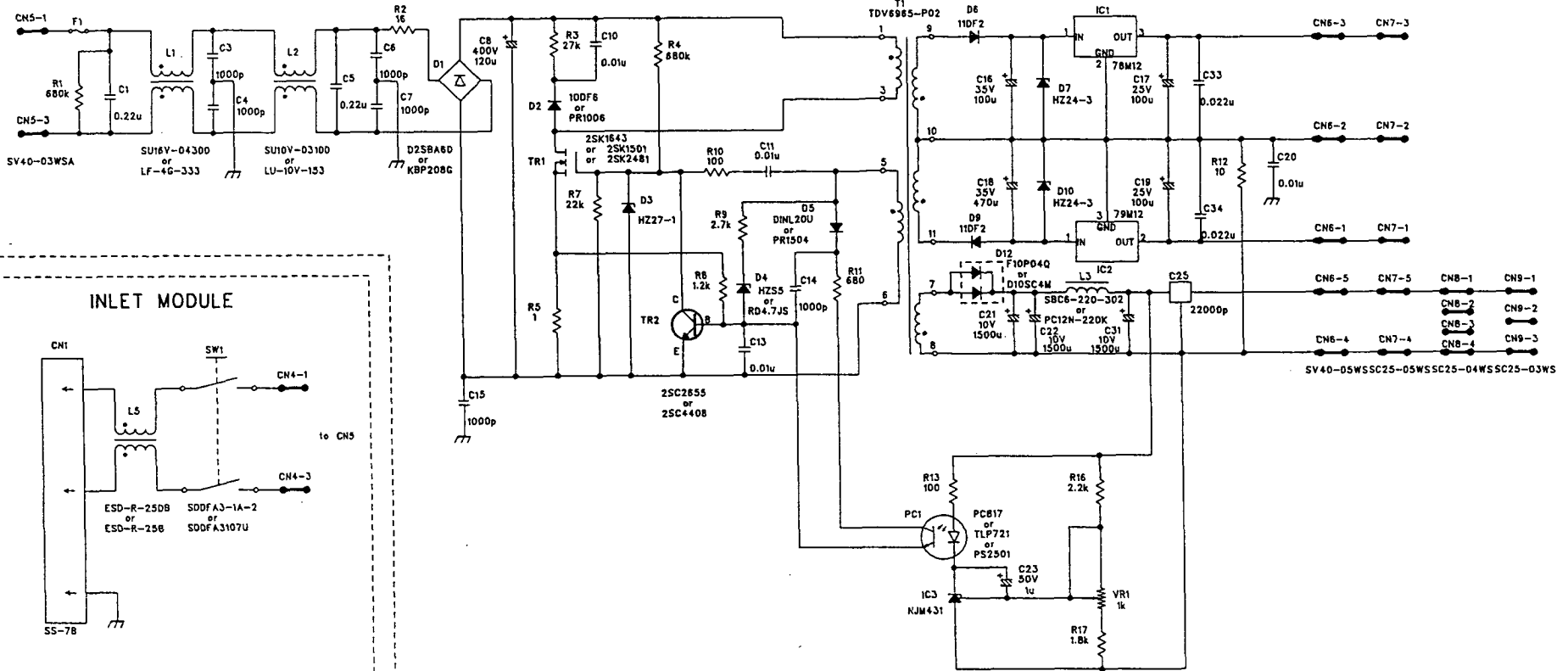
KLM-1965 KLM-1935



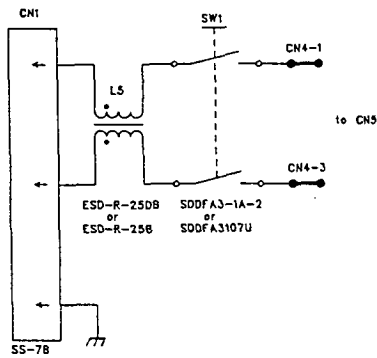
KLM-1875

KLM-1875

F1 JP,EX,CN,US :125V 2A
 GE,UK,FR,WG,SC,AU :250V 1A

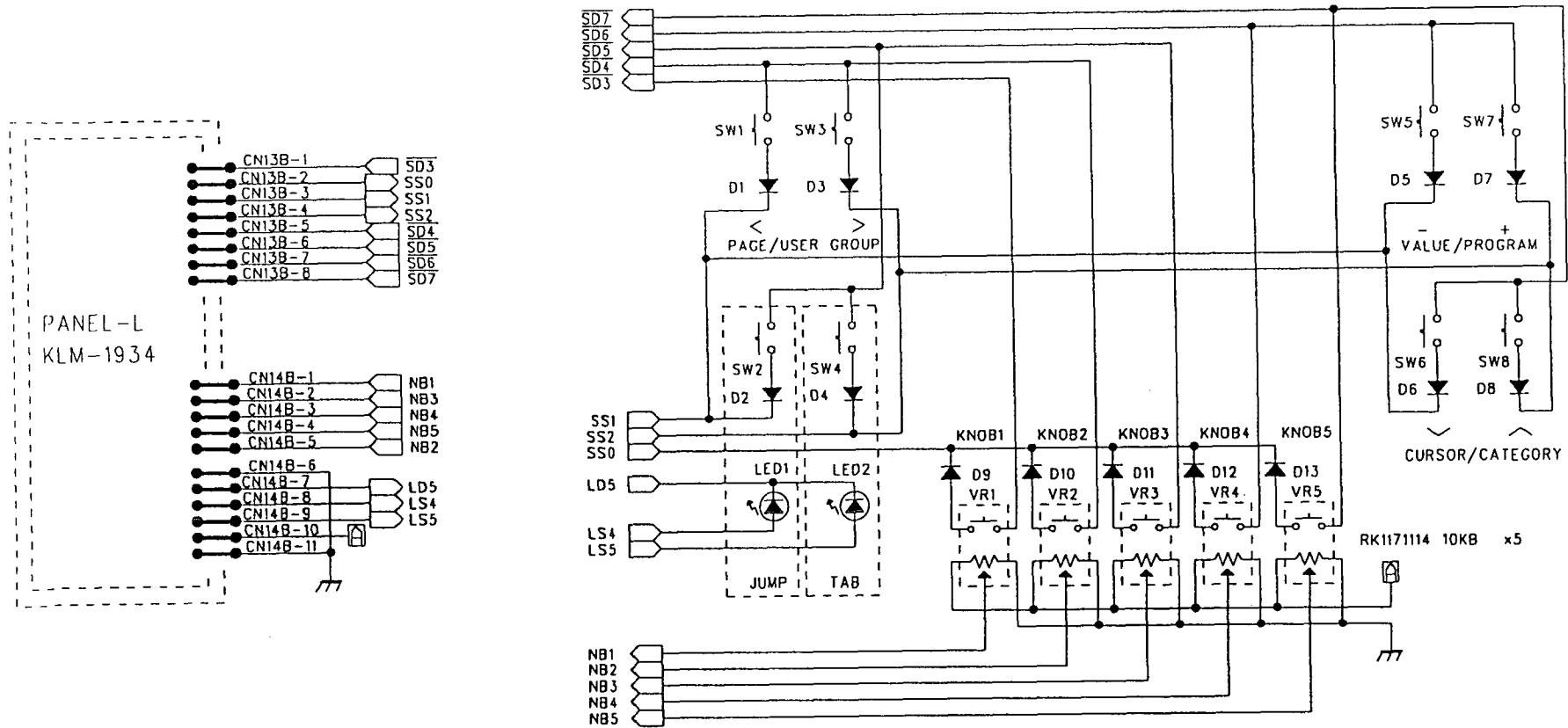


INLET MODULE



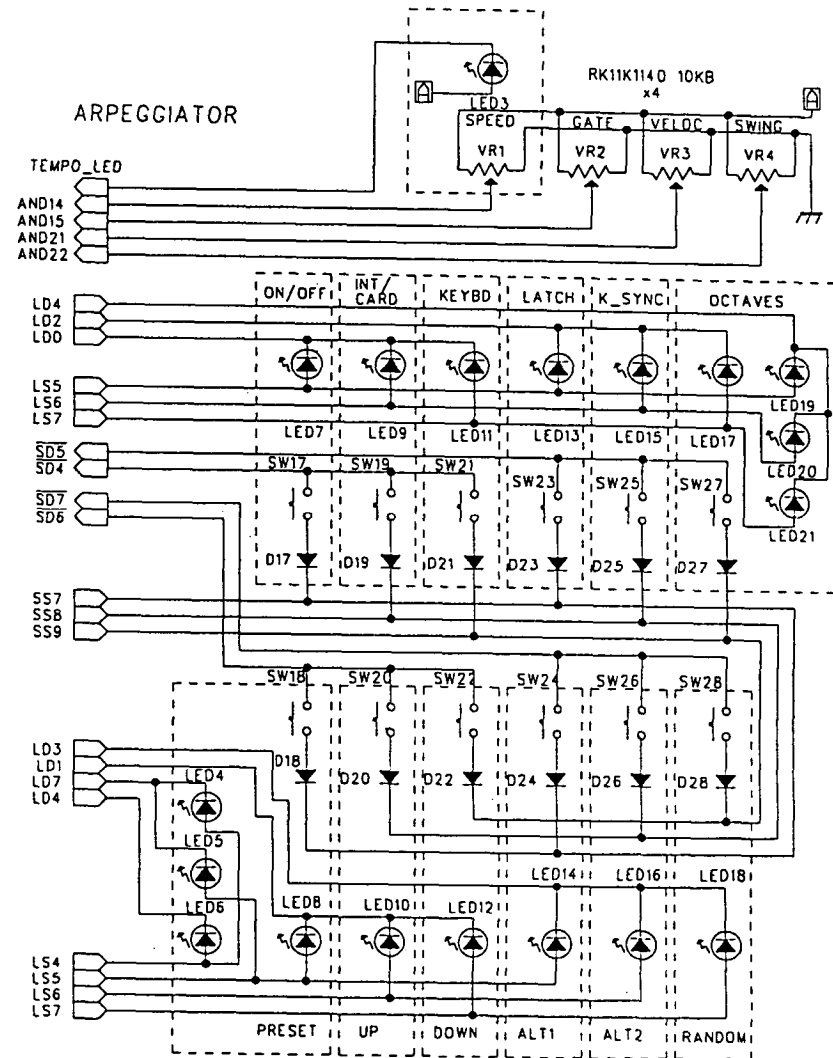
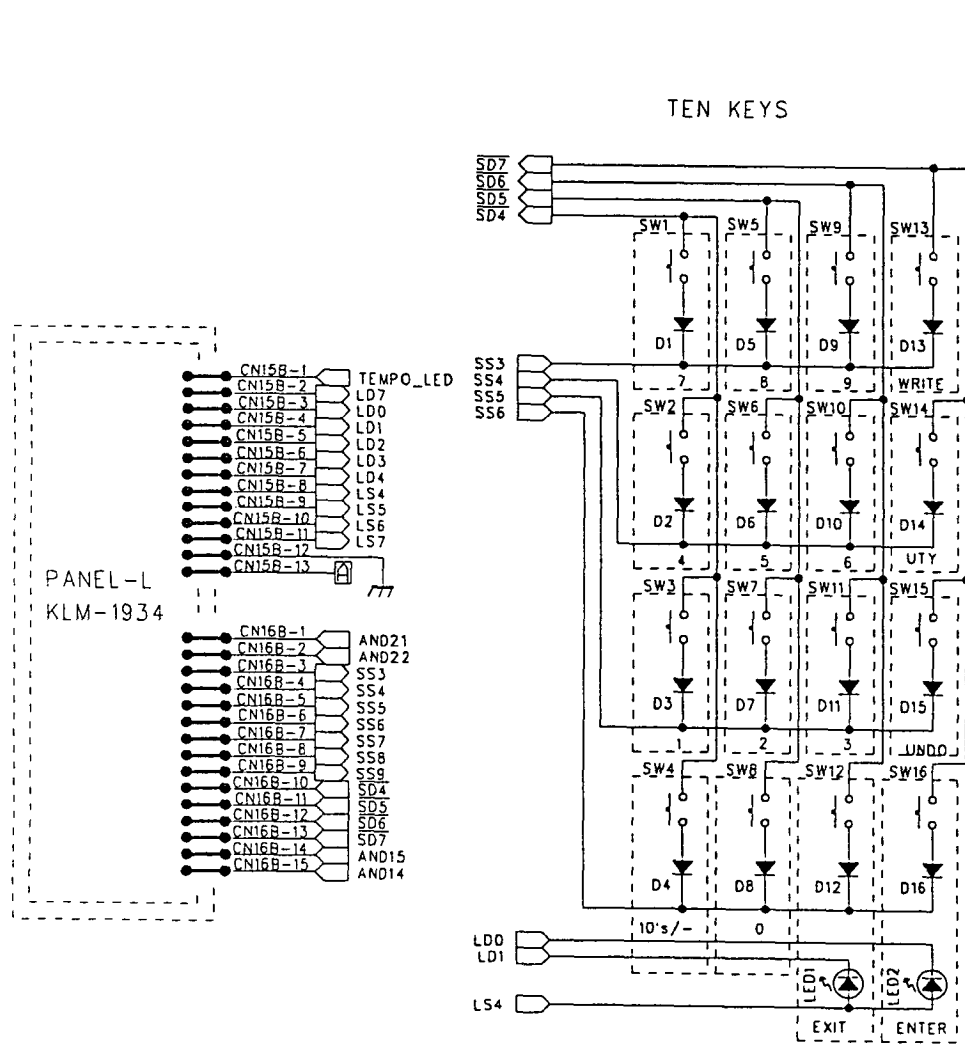
KLM-1932

KLM-1932 AROUND LCD



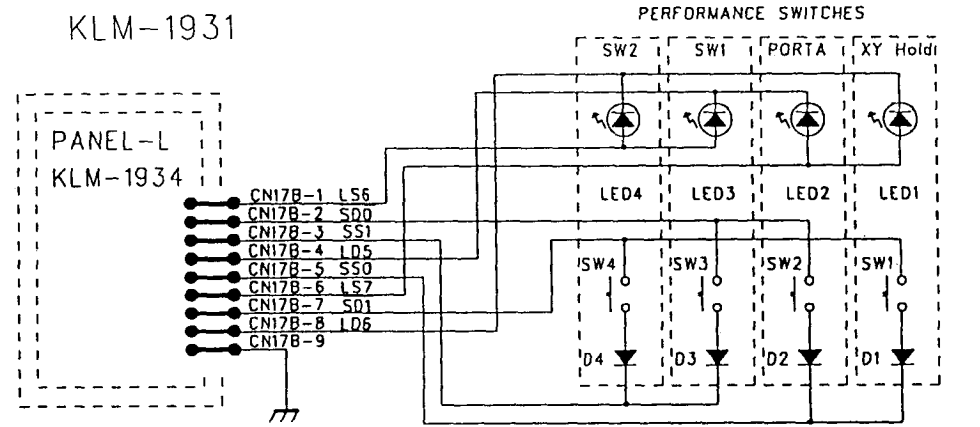
D1~D13 : 1S-2076TD
 SW1~SW8 : EVQ21309K
 LED1~LED2 : HLMF-K200#2UM

KLM-1933



D1-D28 : 1S-2076TD
 LED1,LED2,LED7-18 : HLMF-K200/2UM
 LED3-6,LED19-21 : SLZ-190B-09
 SW1-SW28 : EVQ21309K

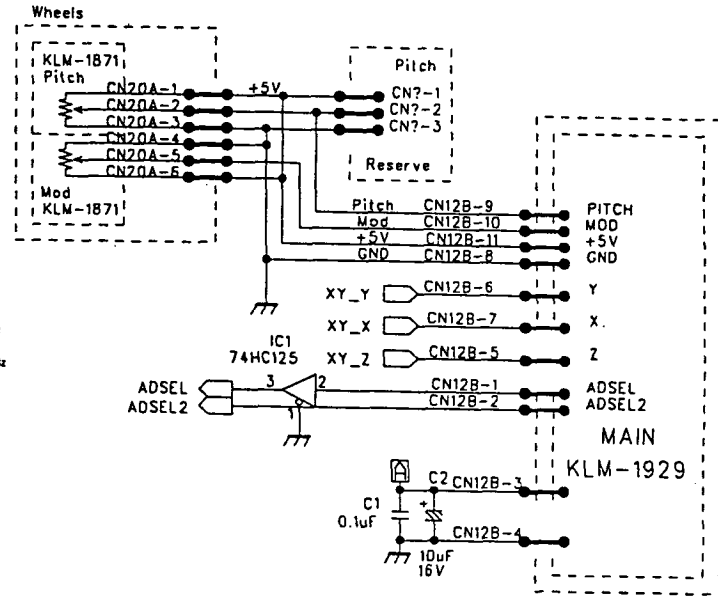
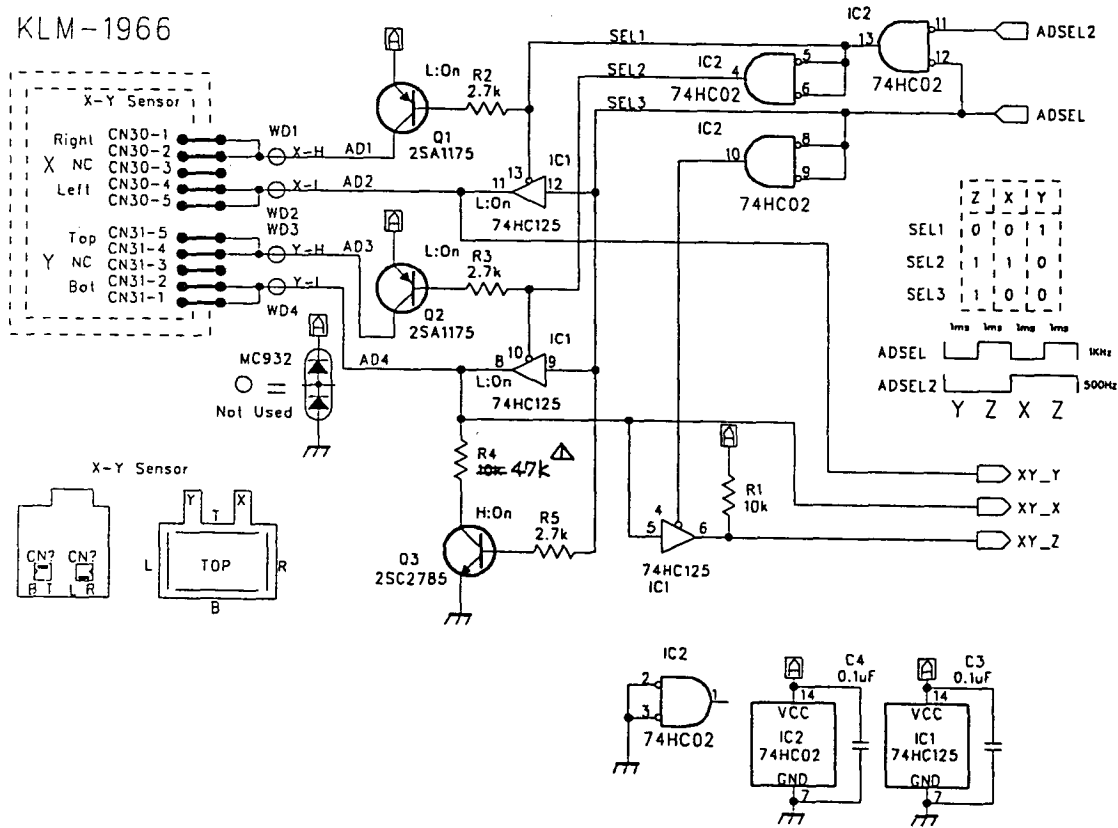
KLM-1931



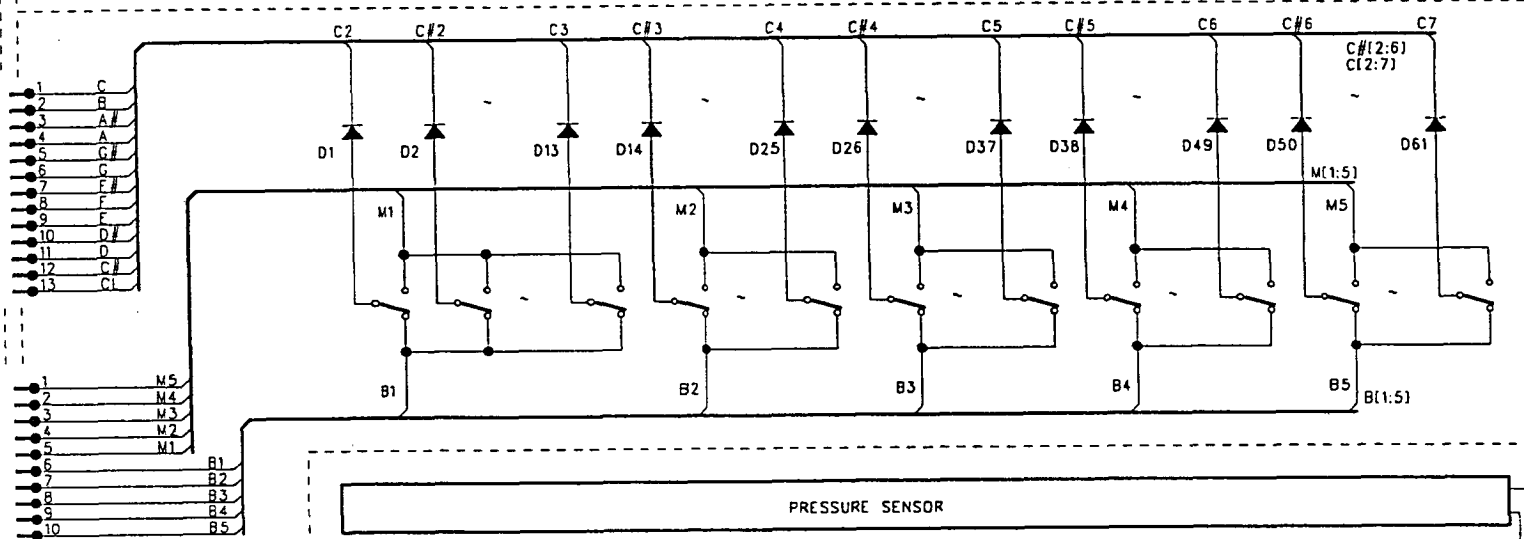
D1-D4 : 1SS-133
 SW1-SW4 : EVO21309K
 LED1-LED4 : HLMF-K200#2UM

KLM-1966

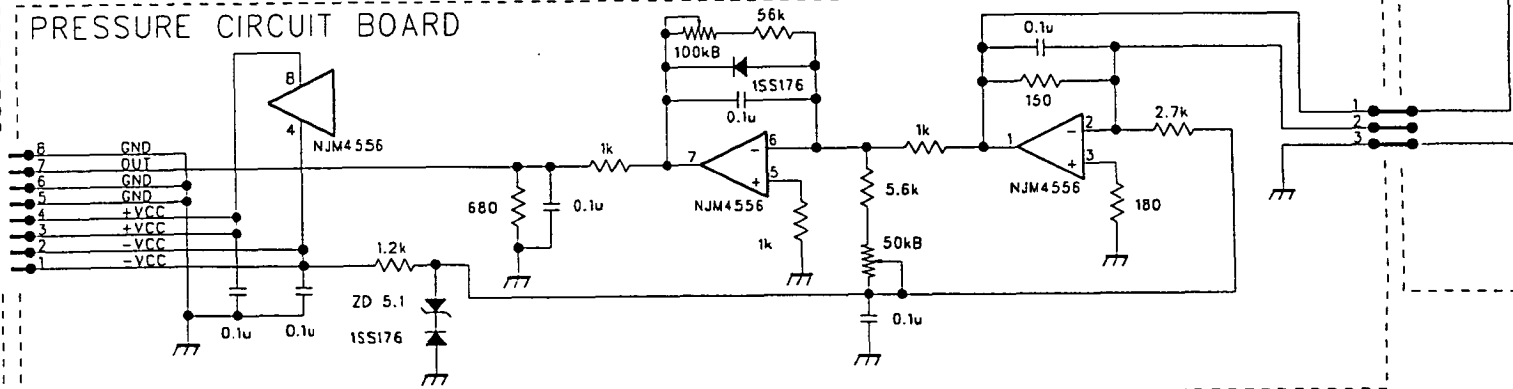
KLM-1966



KEYBOARD FS-61KG2



PRESSURE CIRCUIT BOARD



4. PARTS LIST

PART CODE	PART NAME/SPECIFICATION	P.C.BOARD	NOTE	Q'TY	MARK
001192900	PCB ASS KLM-1929	M.PART	MAIN	1	NEW
001193000	PCB ASS KLM-1930	M.PART	DSP	1	NEW
001193100	PCB ASS KLM-1931	M.PART	PANEL-SIDE	1	NEW
001193200	PCB ASS KLM-1932	M.PART	PANEL-C	1	NEW
001193300	PCB ASS KLM-1933	M.PART	PANEL-R	1	NEW
001193400	PCB ASS KLM-1934	M.PART	PANEL-L	1	NEW
001193500	PCB ASS KLM-1935	M.PART	HEADPHONE	1	NEW
001196500	PCB ASS KLM-1965	M.PART	JACK	1	NEW
001196600	PCB ASS KLM-1966	M.PART	X-Y SENSOR	1	NEW

313003600	LCD LCM24064YG-F	M.PART		1	
314010310	LED HLMP-K200#2UM	1931		4	
		1932		2	
		1933		14	
		1934		20	
314028800	LED SLZ-190B-09-T2	1933		7	
		1934		3	

320001242	IC UPC4570HA	1965	OP_AMP	6	
320001593	IC UPD703003GC-33-103-7EA	1929	CPU	1	
320002301	IC MN19412A	1929	DSP	3	
320003217	IC TMP87C847U-4458	1929	FKS-2	1	
320004159	IC HD74HC02P	1966	HC_MOS	1	
320004191	IC HD74HC125P	1966	HC_MOS	1	
320004359	IC HD74HC05P	1965	HC_MOS	1	
320004650	IC HD6432655A03F	1929	CPU	1	
		1930	CPU	1	
320006040	IC MSM538002E-F3GS-K	1929	MASK_ROM	1	
320011026	IC M52116L	1965	OP_AMP	1	
320011184	IC M66271FP	1929	LCDC	1	
320012222	IC MB89635RP-G-368-SH	1934	FPS-3	1	
320021156	IC TMS57070CFFT	1929	DSP	6	
		1930	DSP	6	
324003001	IC TC7S32F-TE85L	(SOP) 1929		1	
324003003	IC TC7S04F (TE85L)	1929		1	
324003004	IC TC7S08F(TE85L)	1929		1	
324003010	IC TC7WU04F TE12L	1929	HC_MOS	3	
		1930	HC_MOS	3	
324003041	IC TC9246F(ELP)	1929		1	NEW
324003042	IC TC7W04F(TE12L)	1929		1	NEW
324003043	IC TC7W74F(TE12L)	1929		2	NEW
324003044	IC TC7W125FU	1930		1	NEW
324003046	IC TC7W32F(TE12L)	1929		2	
324004042	IC HD74HC125FPEL	1929	HC_MOS	1	
		1930	HC_MOS	1	
324004090	IC HD74HC244FPEL	1929	HC_MOS	3	
324004116	IC HD74HC74FPEL	1929	HC_MOS	1	
324004165	IC HD74HC4040FPEL	1929	HC_MOS	1	NEW
324004167	IC HD74HC4052FPEL	1934	HC_MOS	3	
324004168	IC HD74HC4053FPEL	1929	HC_MOS	2	
324004178	IC HD74HCT245FPEL	1929		2	NEW
324004184	IC HE74AC32FPEL	1929	AC_MOS	3	NEW
324004190	IC HD74AC08FPEL	1929	AC_MOS	1	

PART CODE	PART NAME/SPECIFICATION	P.C.BOARD	NOTE	Q'TY	MARK
324004192	IC HD74AC74FPEL	1929	AC_MOS	2	
324004205	IC HD74AC139FPEL	1929	AC_MOS	1	
324004210	IC HD74AC157FPEL	1929	AC_MOS	1	
324004214	IC HD74AC164FPEL	1929	AC_MOS	1	
324004248	IC HD74AC373FPEL	1929	AC_MOS	2	
324009004	IC NJM78L05UA-TE2	1929	REGULATOR	1	
324011002	IC M5223FP-600C (8P SOP)	1929	OP_AMP	1	
324011013	IC M62021FP-600C	1929	RESET	1	
324011017	IC M5218AFP-600C	1929	OP_AMP	1	
324011022	IC MSM51008A/BFP-70L-TT4	1929	S_RAM	1	
324011029	IC MSM44800CJ-7-L2	1929	D_RAM	7	
		1930	D_RAM	7	
		1929	D_RAM	2	
324013016	IC LH64256BK-70	1929	D_RAM	2	
324038002	IC TDA1305T/N2-T	1929	DAC	2	

330001400	PHOTO COUPLER PC-910K	1965		1	
334000500	SB COIL SBT-0260 TF	1965		14	
335006000	CRYSTAL OSC. AT-49 20.00MHZ	1930		1	
335009200	CRYSTAL OSC AT-49 40.00MHZ	1929		1	
335009500	CERAMIC OSC CST10.0MTW	1934		1	
335010300	CRYSTAL AT-49 12.288MHZ	1929		1	NEW
		1930		1	NEW
		1929		1	NEW
335010400	CRYSTAL AT-49 4.8MHZ	1929		1	
335400117	CERAMIC OSC. CSTCS8.00MT-TC	1929		1	

360024100	VR RK1631110TDAA	1871-Z1		2	
362007500	VR RK09K1110BJFA-10KB	1965		1	
362009006	VR RK117111400GA 10KB	1932		5	
362009007	VR RK11K1140AJ08	1933		4	
		1934		14	
365008500	SLIDE VR RS45112AC00EA 10KBX2	1934		1	

374000200	TOUCH SW EVQ21309K-T	1931		4	
		1932		8	
		1933		28	
		1934		21	

415003400	X-611 X-Y SENSOR	M.PART		1	NEW

420004800	KEYBOARD FS-61 KG2	M.PART		1	

450003100	PHONE JACK LGR4609-7000	1935		1	
		1965		6	

464002301	FUSE 125V 2A UL	M.PART	117US	1	
		M.PART	117CN	1	
		M.PART	117EX	1	
		M.PART	100JP	1	
464062001	FUSE 250V T1.0A	M.PART	240AU	1	
		M.PART	230GE	1	
		M.PART	230FR	1	
		M.PART	230WG	1	
		M.PART	230SC	1	
		M.PART	230UK	1	
474026400	CARD CONNECTOR FCN-565P068-G	1929		1	NEW

PART CODE	PART NAME/SPECIFICATION	P.C.BOARD	NOTE	Q'TY	MARK
474026500	CARD GUIDE FCN-560A08	1929		1	NEW
480010380	DIN JACK YKF51-5041 (3P)	1965		1	NEW
500018500	RUBBER FOOT FF-001	M.PART		4	NEW
520001900	LITHIUM BATTERY CR2032-HE2	M.PART		1	NEW
600005100	AC CORD KP-610 GTBS-3 KS-31AY	M.PART	230UK	1	
600005300	AC CORD DC-480-J01	M.PART	100JP	1	
600005400	AC CORD EC-652-E03	M.PART	230SC	1	
		M.PART	230SC	1	
		M.PART	230SC	1	
		M.PART	230SC	1	
600005500	AC CORD UC-948-J01	M.PART	117EX	1	
600005700	AC CORD UC-953-J01	M.PART	117CN	1	
		M.PART	117CN	1	
600005800	AC CORD SC-111-J01	M.PART	240AU	1	
620024600	X-952 POWER SW KNOB E40304-2	M.PART		1	
620026601	X-311-3 SVR KNOB KOC-E40364-2	M.PART		2	
620032200	KNOB P422-GF	M.PART		23	NEW
620032500	X-611 4 LINKAGE KNOB A-4-GR	M.PART		7	NEW
620032600	X-611 4 LINKAGE A-2-GR	M.PART		4	NEW
620032700	X-611 4 LINKAGE KNOB A-1-GR	M.PART		4	NEW
620032800	X-611 4 LINKAGE KNOB B-4-GR	M.PART		3	NEW
620032900	X-611 4 LINKAGE KNOB B-2-GR	M.PART		4	NEW
620033000	X-611 4 LINKAGE KNOB B-1-GR	M.PART		1	NEW
630028200	X-611 LCD WINDOW KOC-F30070	M.PART		1	NEW
630029500	X-611 SHIELD SHEET A F40833	M.PART		1	NEW
630029600	X-611 SHIELD SHEET B F40834	M.PART		1	NEW
641041172	X-323 JACK PLATE 2 KOC-C40693	1965		1	
641041227	X-311/312 SIDE CHASSIS L	M.PART		1	
641041228	X-311/312 SIDE CHASSIS R	M.PART		1	
641041229	X-311/312 KB SUPPORT C30455	M.PART		1	
641041230	X-311-3 MAIN PCB METAL FITTING	M.PART		1	
641041231	X-311/312 BNC PCB METAL FITTING	M.PART		1	
641041232	X-311 LOWER CASE KOC-C10170	M.PART		1	
641041235	X-311 FRONT BAR KOC-C20295	M.PART		1	
641041237	X-311/312 PCB METAL FITTING A	M.PART		1	
641041238	X-311/2/3 PCB METAL FITTING B	M.PART		1	
641041240	X-311/312 KBR ANGLE KOC-C20299	M.PART		1	
641041243	X-311 SUPPORT RAIL KOC-C20293	M.PART		1	
641041251	X-495 WHEEL METAL FITTING ASSY	M.PART		1	
641041254	X-311/312 OPTION COVER C40995	M.PART		3	
641041270	X-311/S/312 GND SPRING (H)	M.PART		1	
641041427	X-611 LCD CHASSIS KOC-C10193	M.PART		1	NEW
641041428	X-611 SENSOR METAL FITTING	M.PART		1	NEW
641041429	X-611 UNDER COVER ANGLE C41107	M.PART		1	NEW
641041430	X-611 KB ANGLE KOC-C40884	M.PART		1	NEW
641041436	GND PLATE M1866-A KOC-C40884	1935		1	NEW
641041437	X-611 PANEL KOC-C10192	M.PART		1	NEW
641041453	X-611 PHONE JACK METAL FITTING	M.PART		1	NEW
644007300	X-410 WHEEL SPRING C40689-2	M.PART		1	

PART CODE	PART NAME/SPECIFICATION	P.C.BOARD	NOTE	Q'TY	MARK
644007400	GND SPRING (G) KOC-C40970	M.PART		1	
646052800	X-311/312 SIDE PLATE L E10116	M.PART		1	
646052801	X-311/312 SIDE PLATE R E10117	M.PART		1	
646054500	X-495 WHEEL KOC-E30094-6	M.PART		2	
646065500	X-611/613 SVR FRAME ASSY 45	M.PART		1	NEW
646065600	X-611 UNDER COVER KOC-E20179	M.PART		1	NEW
646065700	X-611 CONTROL PANEL KOC-E10146	M.PART		1	NEW

VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan
tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden
mukaisesti.

ADVARSELI

Lithiumbatteri – Eksplosionsfare ved fejlagtig handling.
Udskiftning må kun ske med batteri af samme
fabrikat og type.
Levér det brugte batteri tilbage til leverand ø ren.

ADVERSEL

Lithiumbatteri – Eksplosjonsfare.
Ved utskifting benyttes kun batteri som
anbefalt av apparatfabrikanten.
Brukt batteri returneres apparatleverand ø ren.

VARNING

Explosionsfara vid følaktigt batteribyte.
Använd samma batterityp eller en ekvivalent typ som
rekommenderas av apparattillverkaren.
Kassera använt batteri enligt fabrikantens instruktion.

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type
recommended by the equipment manufacturer
Discard used batteries according to manufacturer's
instructions.

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