

# SERVICE MANUAL

# *i30/i30HD*

*Interactive Music Workstation*

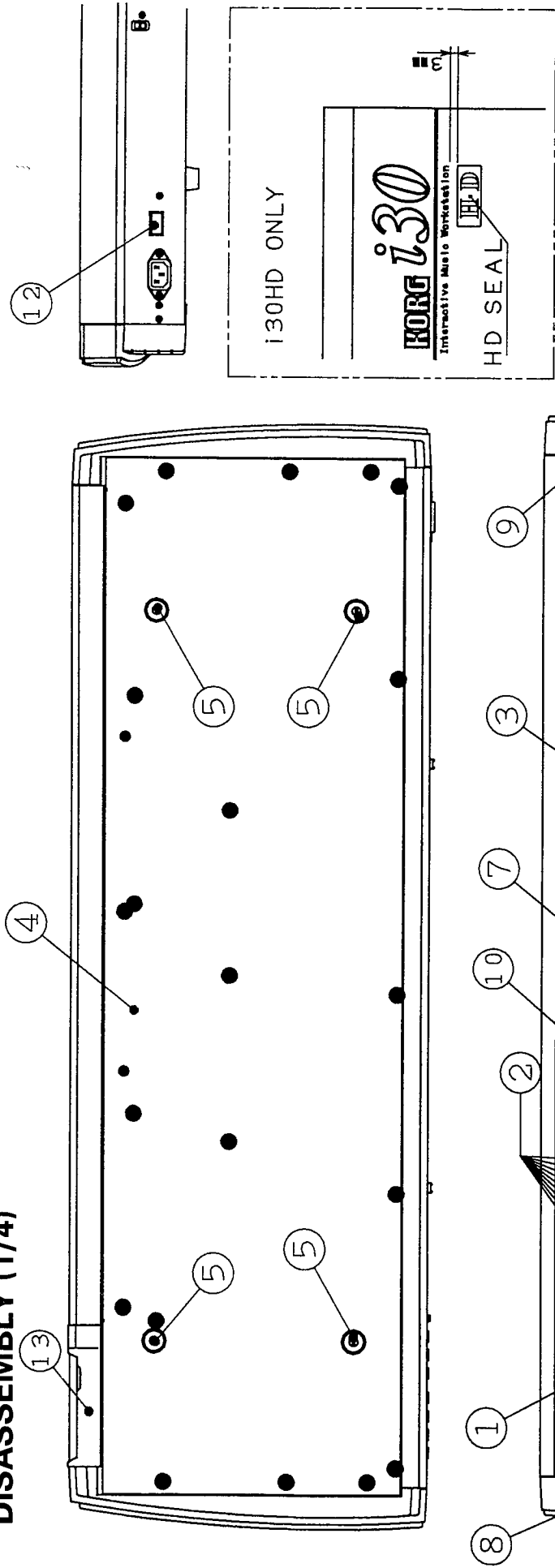
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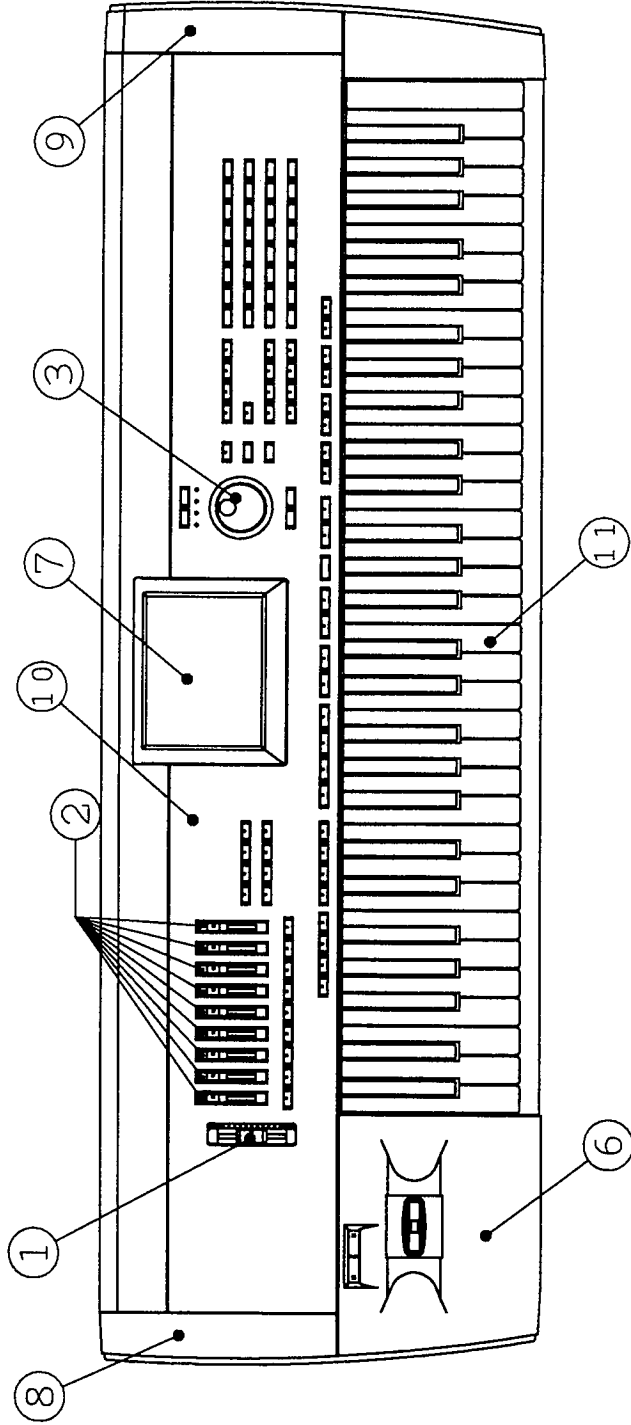
**KORG**

# 1. DISASSEMBLY

## DISASSEMBLY (1/4)

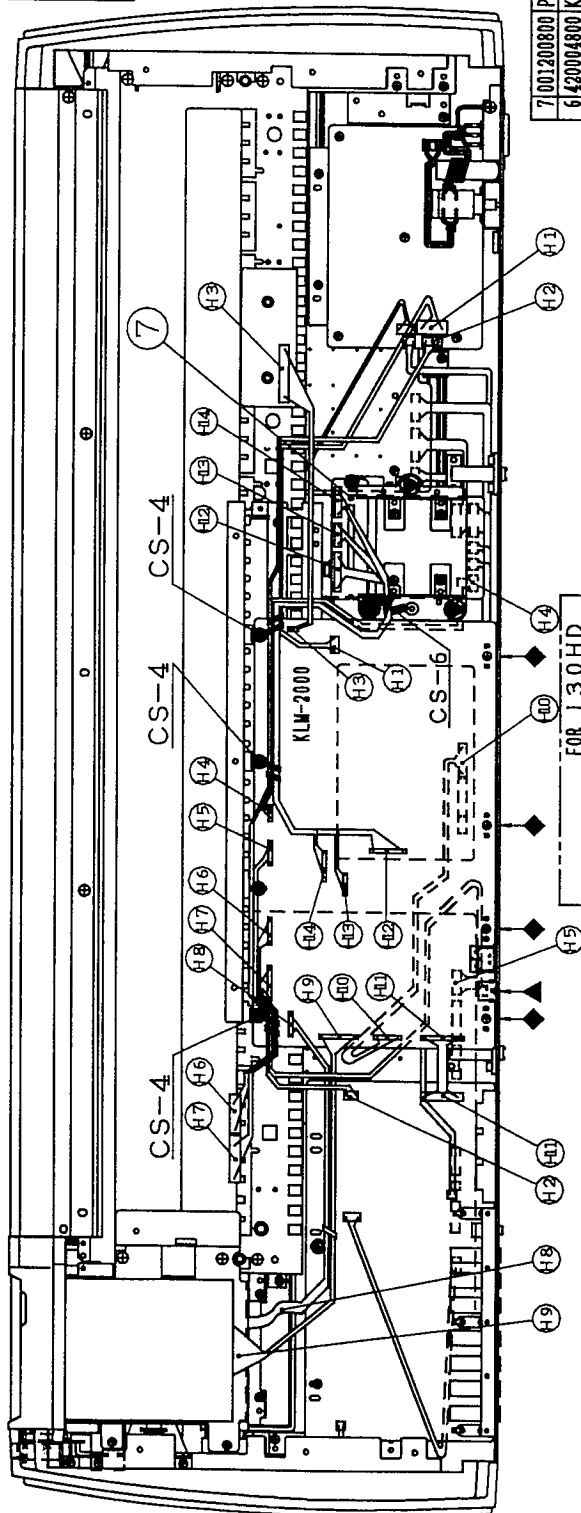
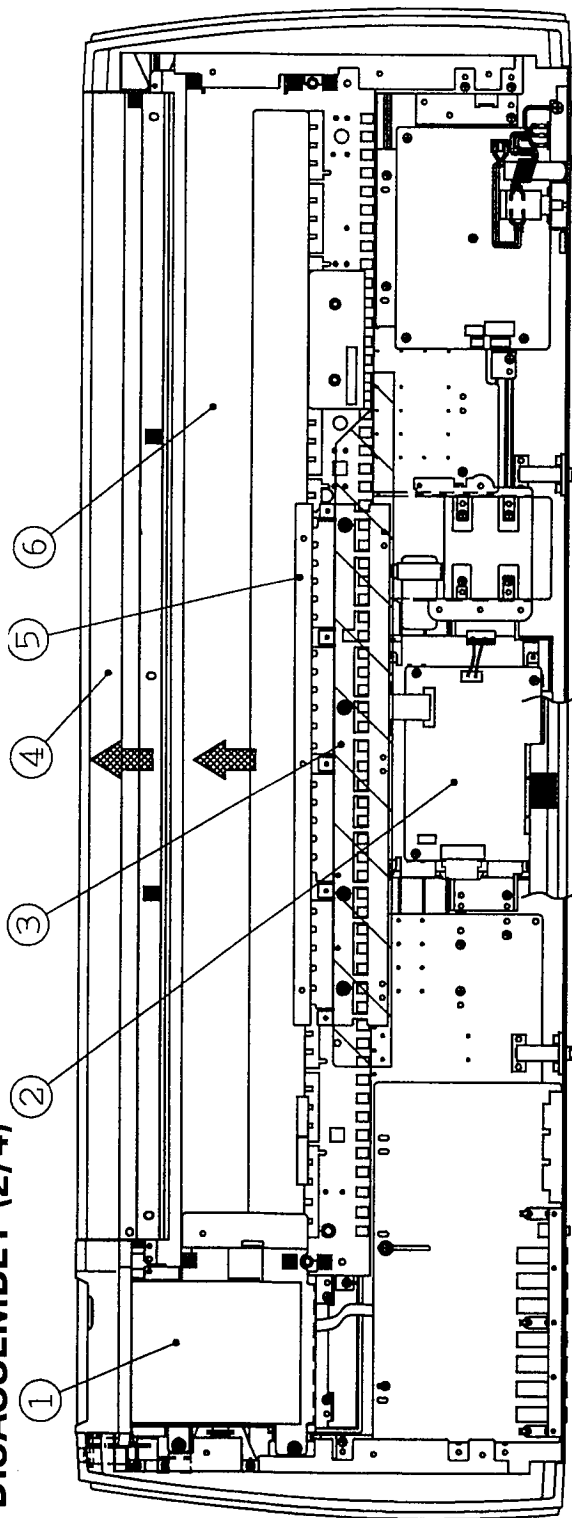


NO	PART CODE	PART NAME	Q'TY	
13	646067600	X-610 FDD COVER	1	
12	620024600	X-952 POWER SW KNOB E40304-2	1	
11	420004800	KEYBOARD FS-61 KG2	1	
10	641041456	X-610 PANEL KOC-C10196	1	
9	646067800	X-610 SIDE PANEL R	1	
8	646067700	X-610 SIDE PANEL L	1	
7	313005000	TOUCH PANEL LCD KG1-01S-5	1	
6	646066700	X-610 JS PANEL	1	
5	500018500	RUBBER FOOT FF-001	4	
4	641041232	X-311 LOWER CASE KOC-C10170	1	
3	620033500	X-610 ENCODER KNOB KOC-E40466	1	
2	620026800	X-410 SVR KNOB (GRAY) E-40239-3	9	
1	620026600	X-323 SVR KNOB KOC-E40364	1	
	NO	PART CODE	PART NAME	Q'TY



MARK	Q'TY
● BT B ZMC 4x8	21
SCREWS	

# DISASSEMBLY (2/4)



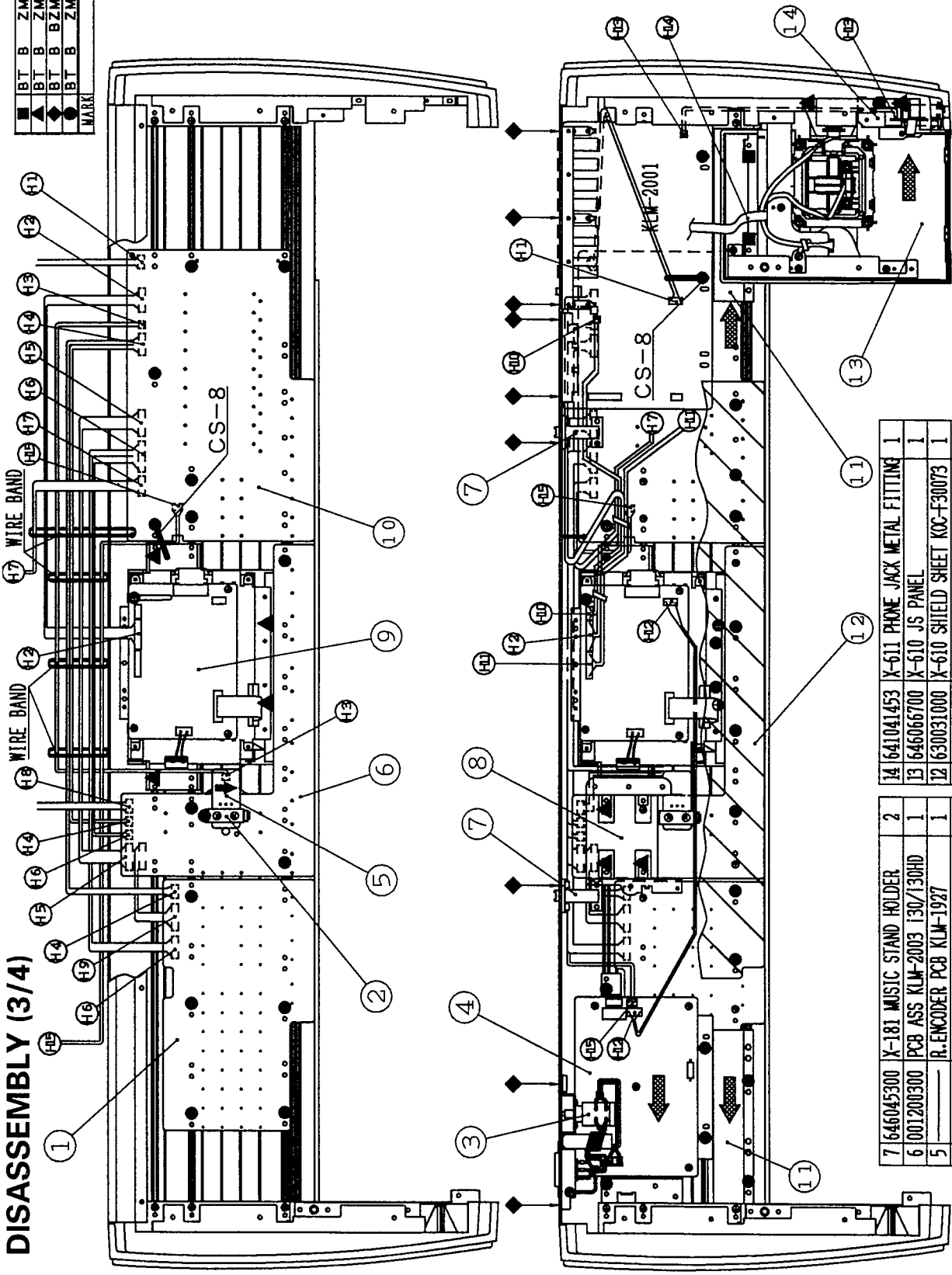
HARNESS CONNECTORS			
H1	2180	H6	2565
H2	2181	H7	2566
H3	2542	H8	2555
H4	2568	H9	2579
H5	2569	H10	2184

71001200800	PCB ASS KLM-2008	130/30HD	1
6420004800	KEYBOARD FS-61 KG2		1
5641041240	X-311/312 KBR ANGLE KOC-C20299		1
4641041426	X-311BK FRONT BAR		1
3630031000	X-610 SHIELD SHEET KOC-F30073		1
21002175500	INVERTER PCB KLM-1755		1
1435001900	3.5INCH FDD (2MODE) J00257A726P		1
NO/PART CODE		PART NAME	QTY

MARK	DESCRIPTION	QTY
X	FE FEW BZMC 4x14	3
▲	FE B BZMC 3x8	1
■	BT B ZMC 4x8	9
◆	BT B BZMC 3x8	4
◆	BT B ZMC 3x8	11 (10)
	SCREENS	QTY

# DISASSEMBLY (3/4)

■	BT B	ZMC 3x12	2
▲	BT B	ZMC 3x10	9
◆	BT B	BZMC 3x8	9
●	BT B	ZMC 3x8	34
MARK		SCREWS	QTY

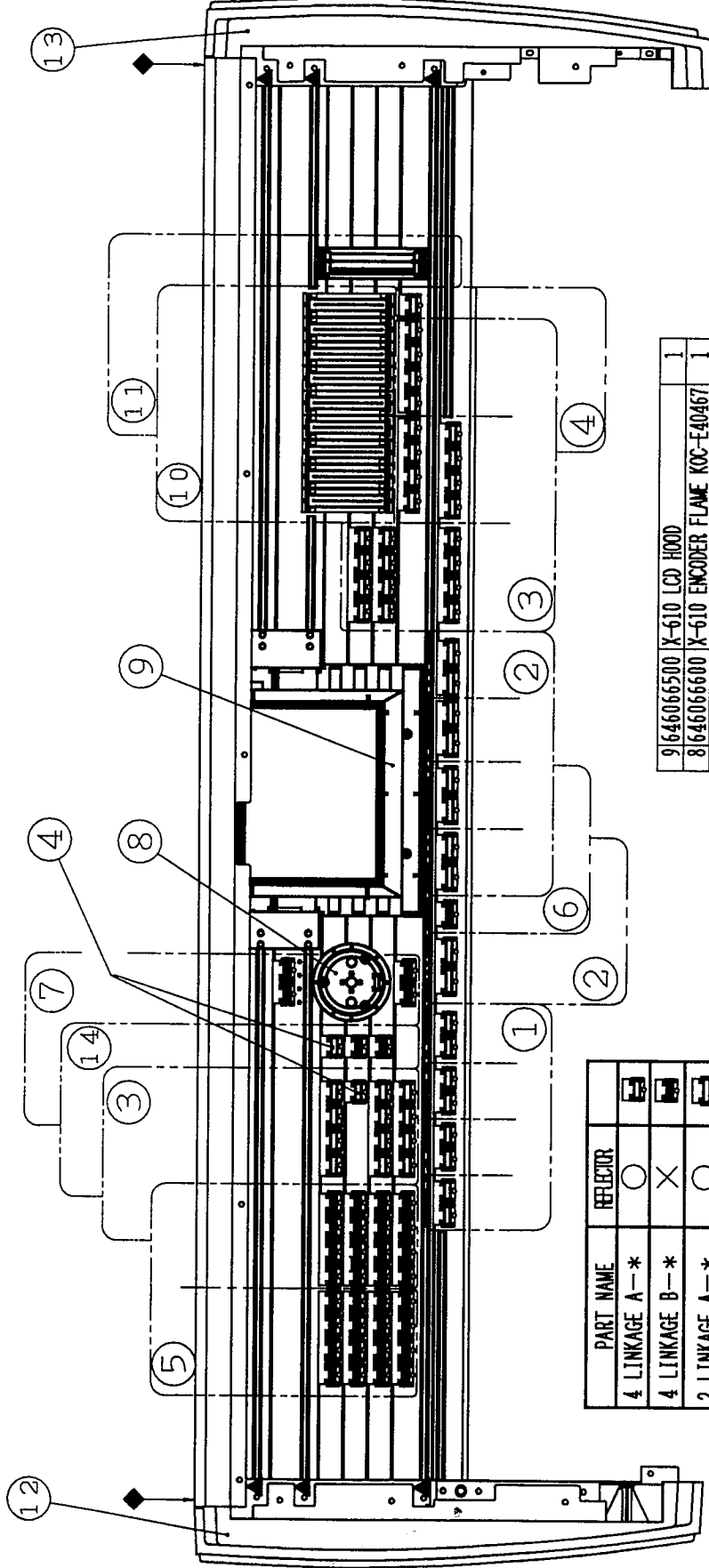


NO	PART CODE	PART NAME	QTY
7	646045300	X-181 MUSIC STAND HOLDER	2
6	001200300	PCB ASS KLM-2003 130/130HD	1
5		R-ENCODER PCB KLM-1927	1
4	002187500	POWER SUPPLY UNIT KLM-1875	1
3	*375x3110	POWER SW FOR TRINITY	1
2	641041187	X-323 ENCODER SUPPORTER CA0979	1
1	001200300	PCB ASS KLM 2004 130/130HD	1

NO	PART CODE	PART NAME	QTY
14	641041453	X-611 PHONE JACK METAL FITTING	1
13	646066700	X-610 JS PANEL	1
12	630031000	X-610 SHIELD SHEET KOC-F30073	1
11	641041455	X-610 SUPPORT RAIL R KOC-C3051	2
10	001200200	PCB ASS KLM-2002	1
9	002175500	INVERTER PCB KLM-1755	1
8	641041478	X-610 HD CHASSIS	1

HARNESS CONNECTIONS				
H1	H2	H3	H4	H5
2277	2578	2570	2574	2571
H6	H7	H8	H9	H10
2573	2569	2568	2572	2186
H11	H12	H13	H14	H15
2184	2183	2196	2555	2580

# DISASSEMBLY (4/4)



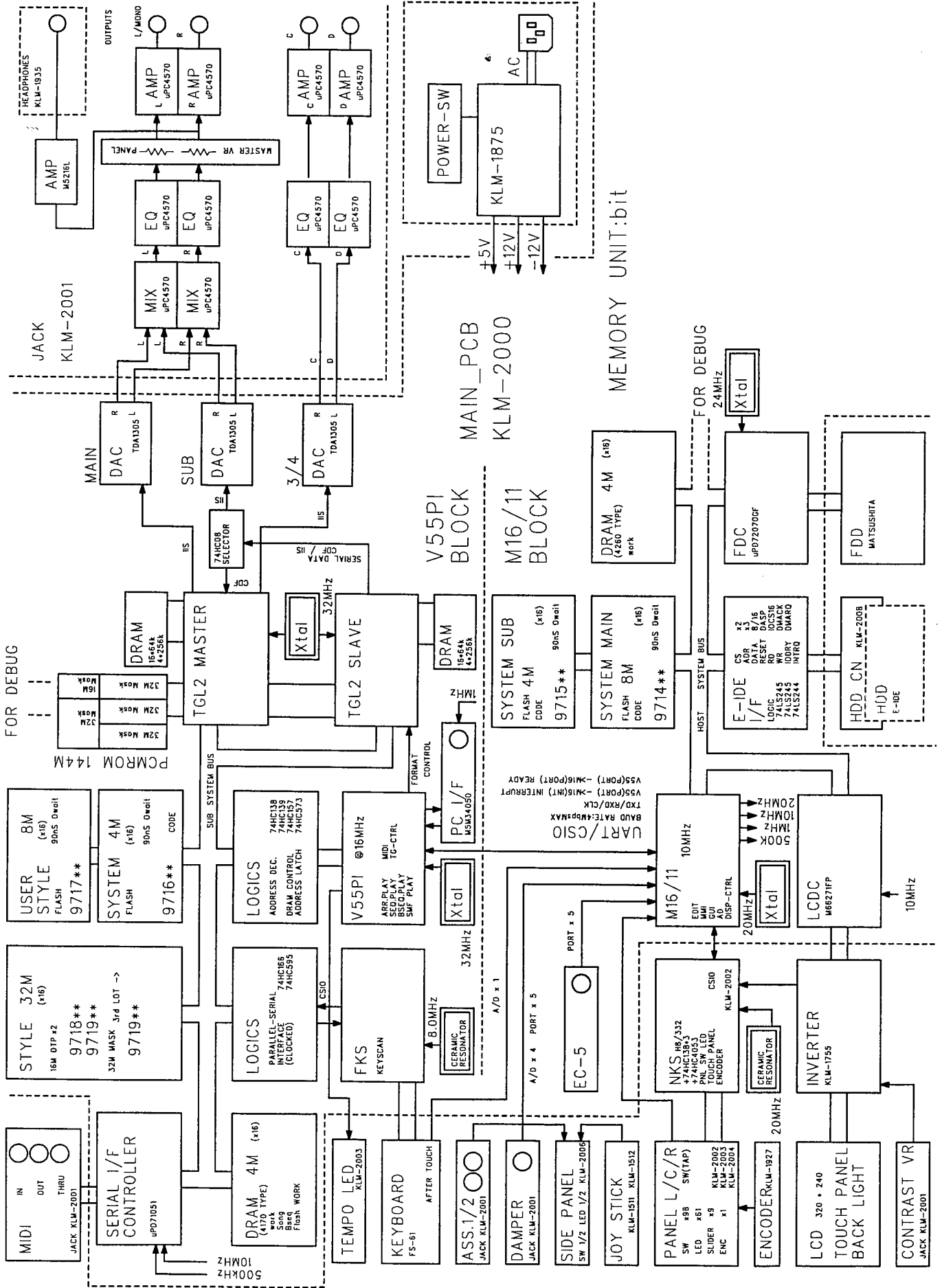
PART NAME	REFLECTOR
4 LINKAGE A--*	○
4 LINKAGE B--*	×
2 LINKAGE A--*	○
2 LINKAGE B--*	×

◆ BT B BZMC 3x8	2
▲ BT B ZMC 3x10	6
MARK SCREWS	Q'TY

9 646066500 X-610 LCD HOOD	1	
8 646066600 X-610 ENCODER FLAME KOC-E40467	1	
7 620032300 X-620 4 LINKAGE KNOB B-2-BK	2	
6 620033700 X-610 2 LINKAGE KNOB B-1-BK	1	
5 620033800 X-610 4 LINKAGE KNOB B-4-BK	8	
4 620032100 X-620 4 LINKAGE KNOB A-1-BK	3	
3 620031800 X-620 4 LINKAGE KNOB A-4-BK	9	
2 620033600 X-610 2 LINKAGE KNOB A-2-BK	5	
1 620032000 X-620 4 LINKAGE KNOB A-2-BK	4	
NO/PART CODE	PART NAME	Q'TY

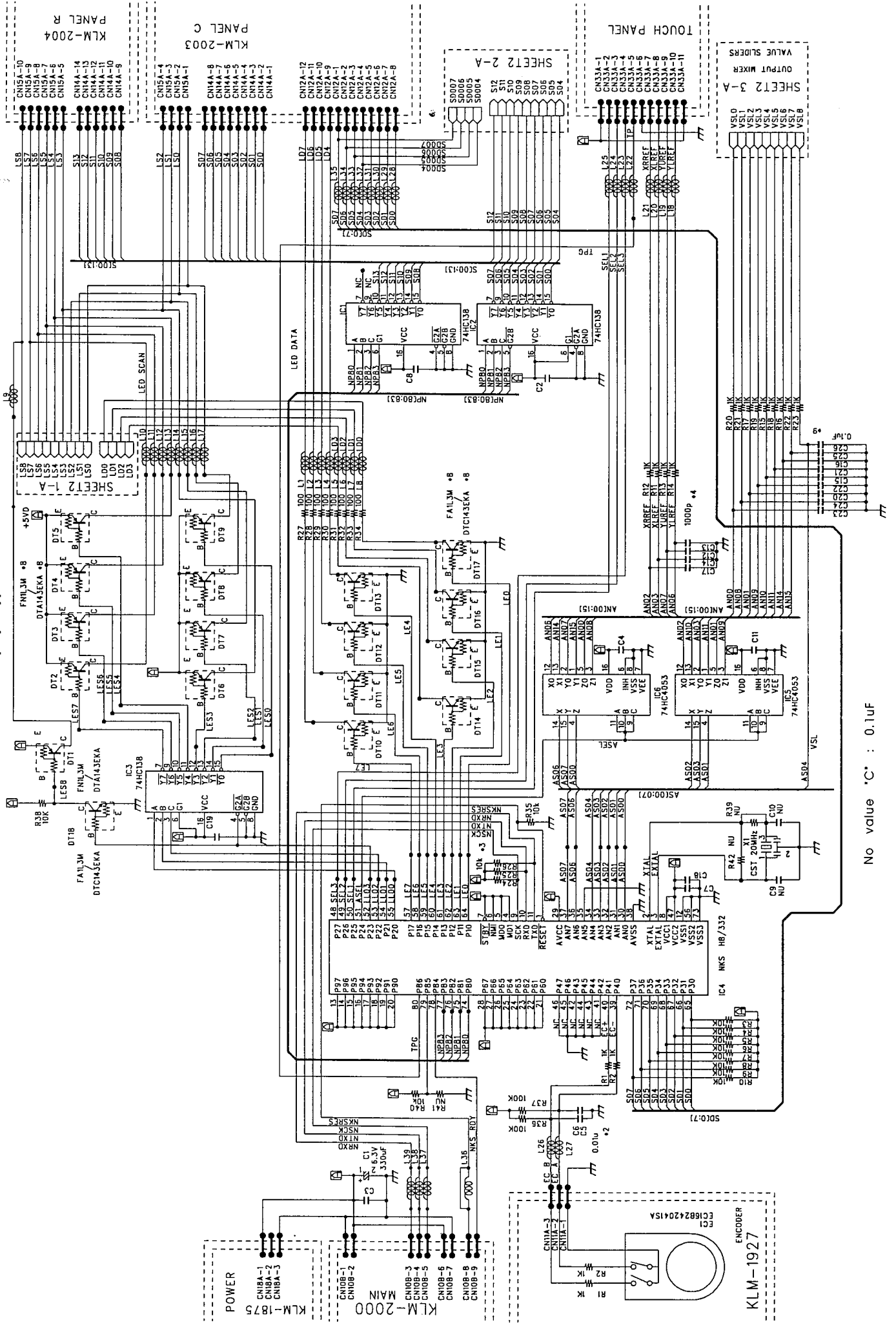
14 620032400 X-620 4 LINKAGE KNOB B-1-BK	2	
13 646067800 X-610 SIDE PANEL R	1	
12 646067700 X-610 SIDE PANEL L	1	
11 646065501 X-610 SVR FRAME ASSY45 BK H4012	1	
10 646065400 X-610/620 SVR FRAME ASSY30 H40	1	
NO/PART CODE	PART NAME	Q'TY

# 2. BLOCK DIAGRAM



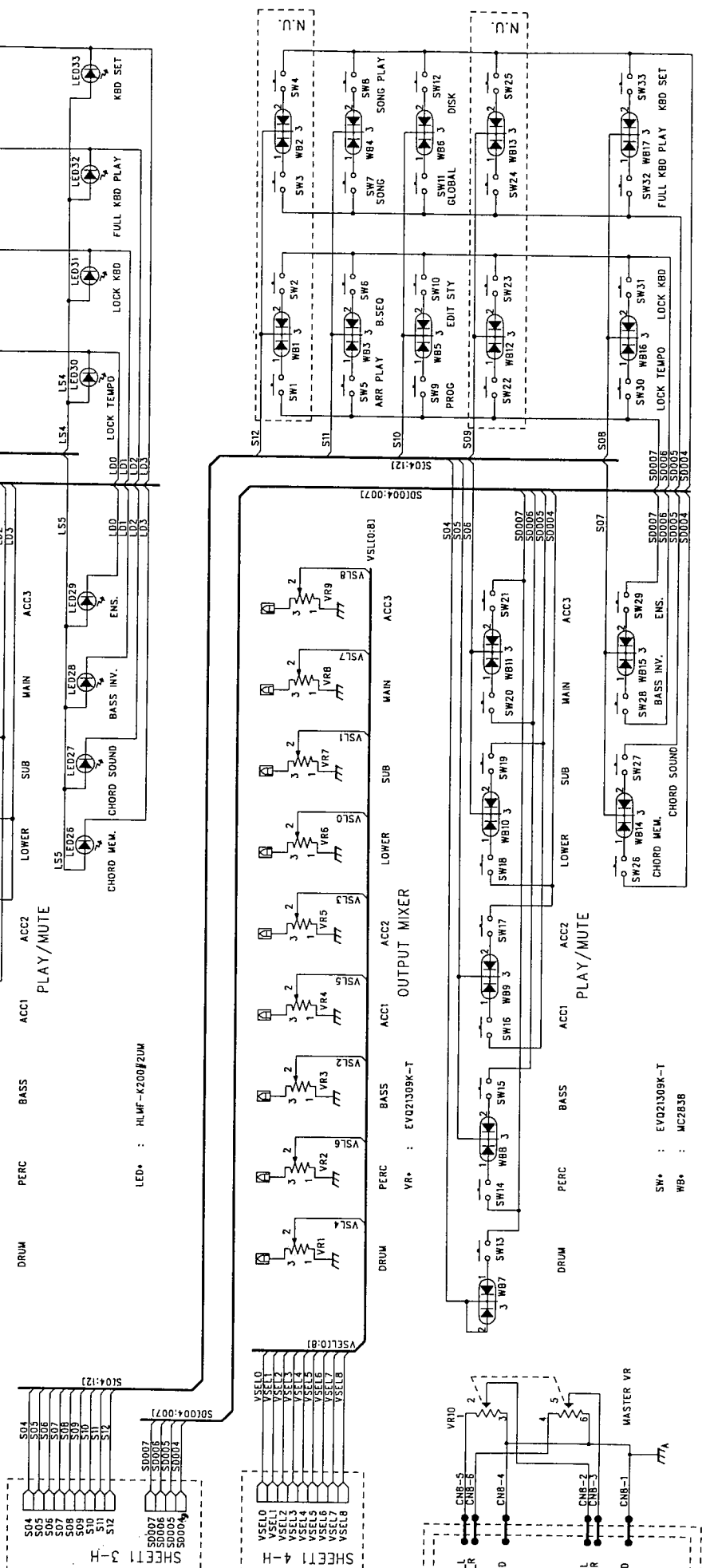
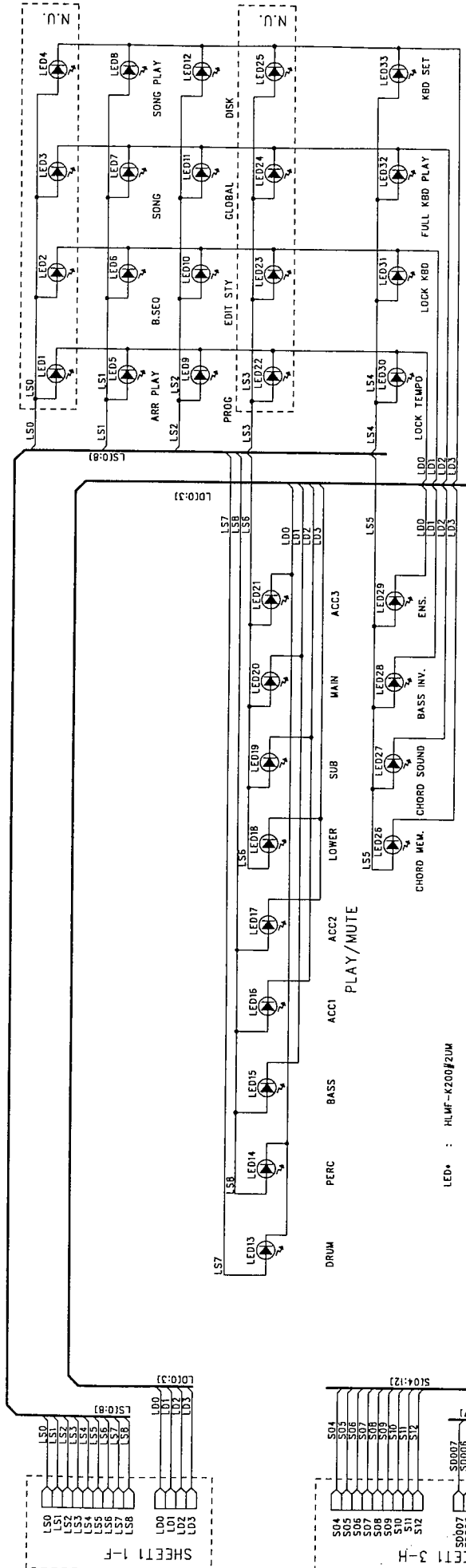


# KLM-2002(1/2)/1927

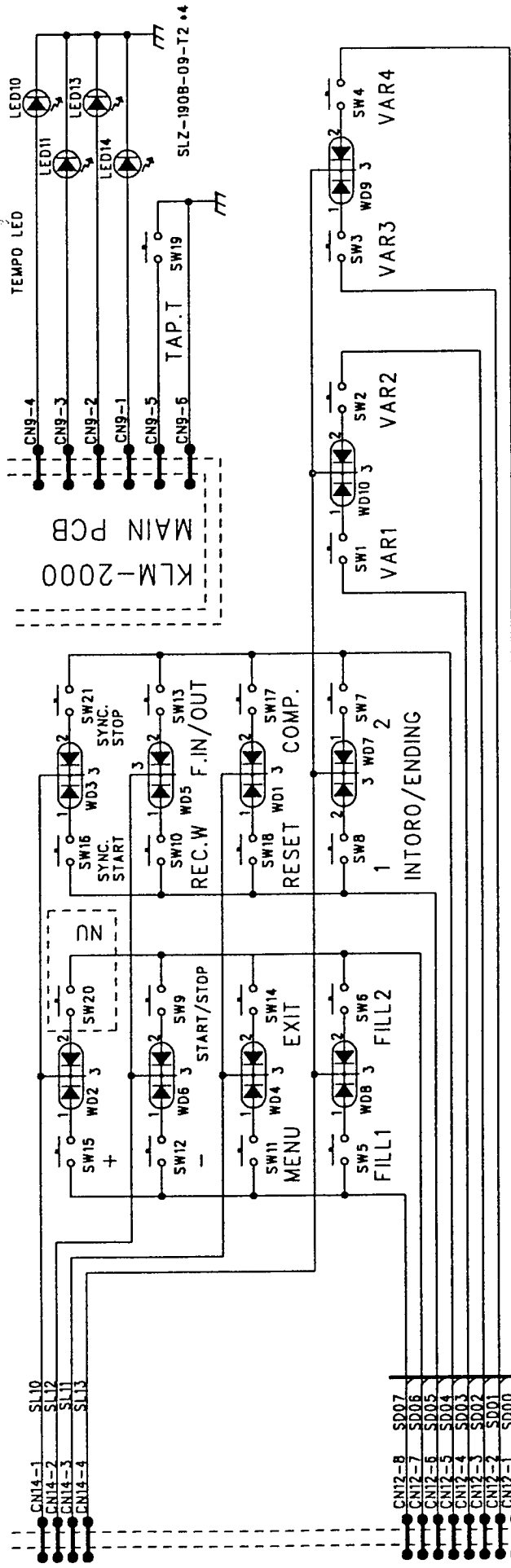




# KLM-2002(2/2)



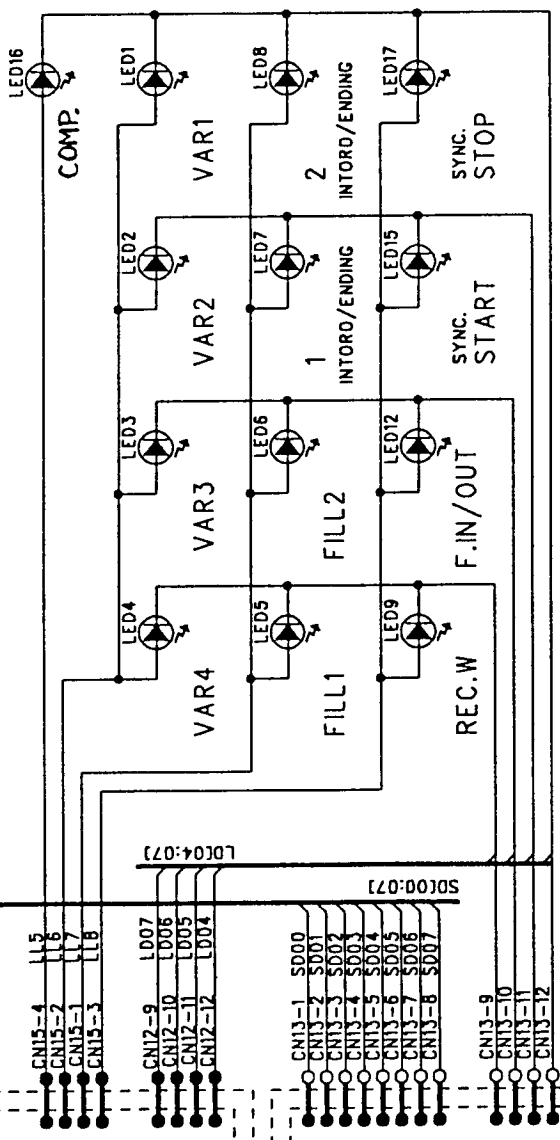
# KLM-2003



KLM-2002 PANEL L

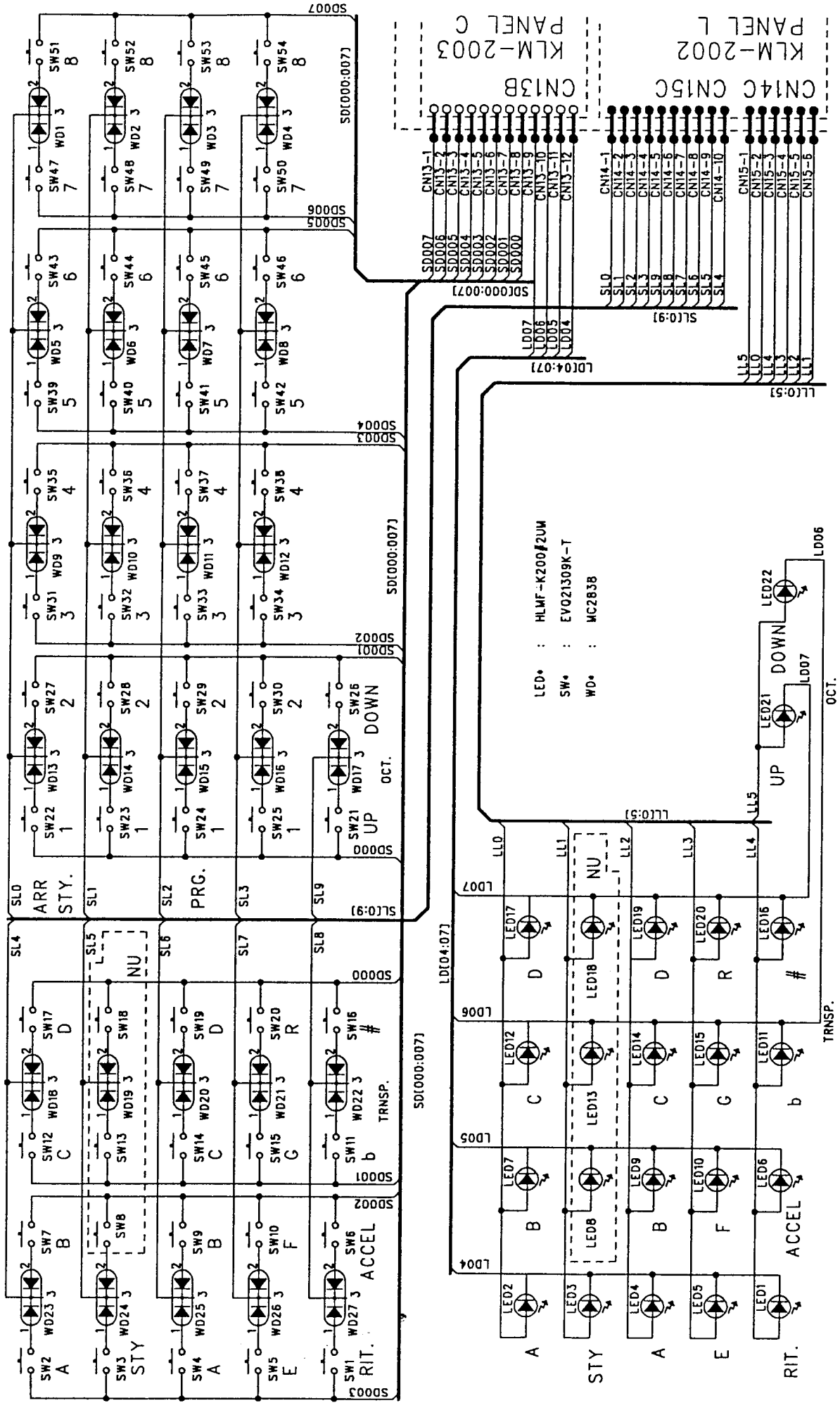
KLM-2004  
PANEL R

SW4 : EVO21309K-T  
WD : MC283B

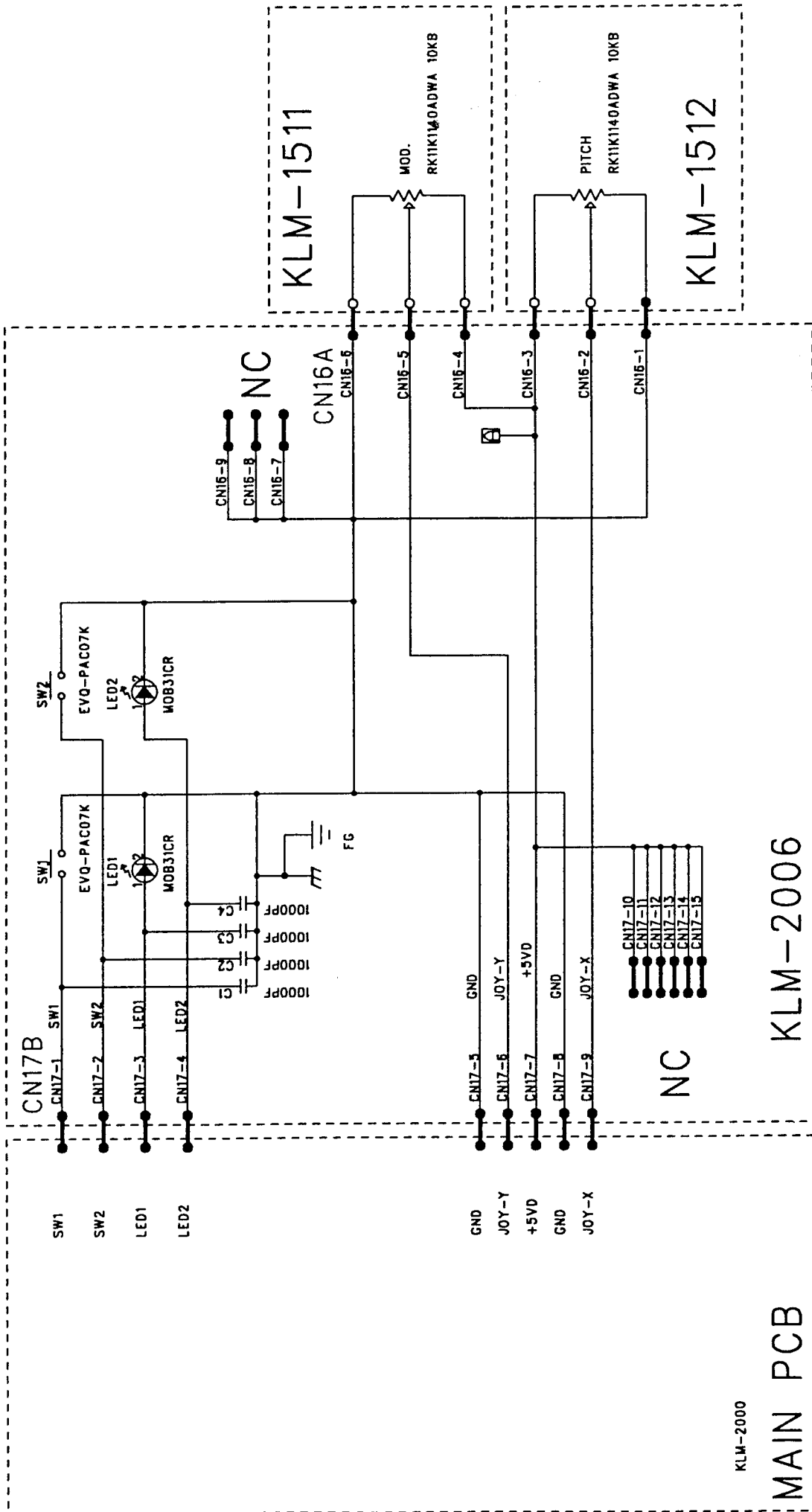


LED : HLMF-K200#2UM \*13

# KLM-2004



# KLM-2006



KLM-2000

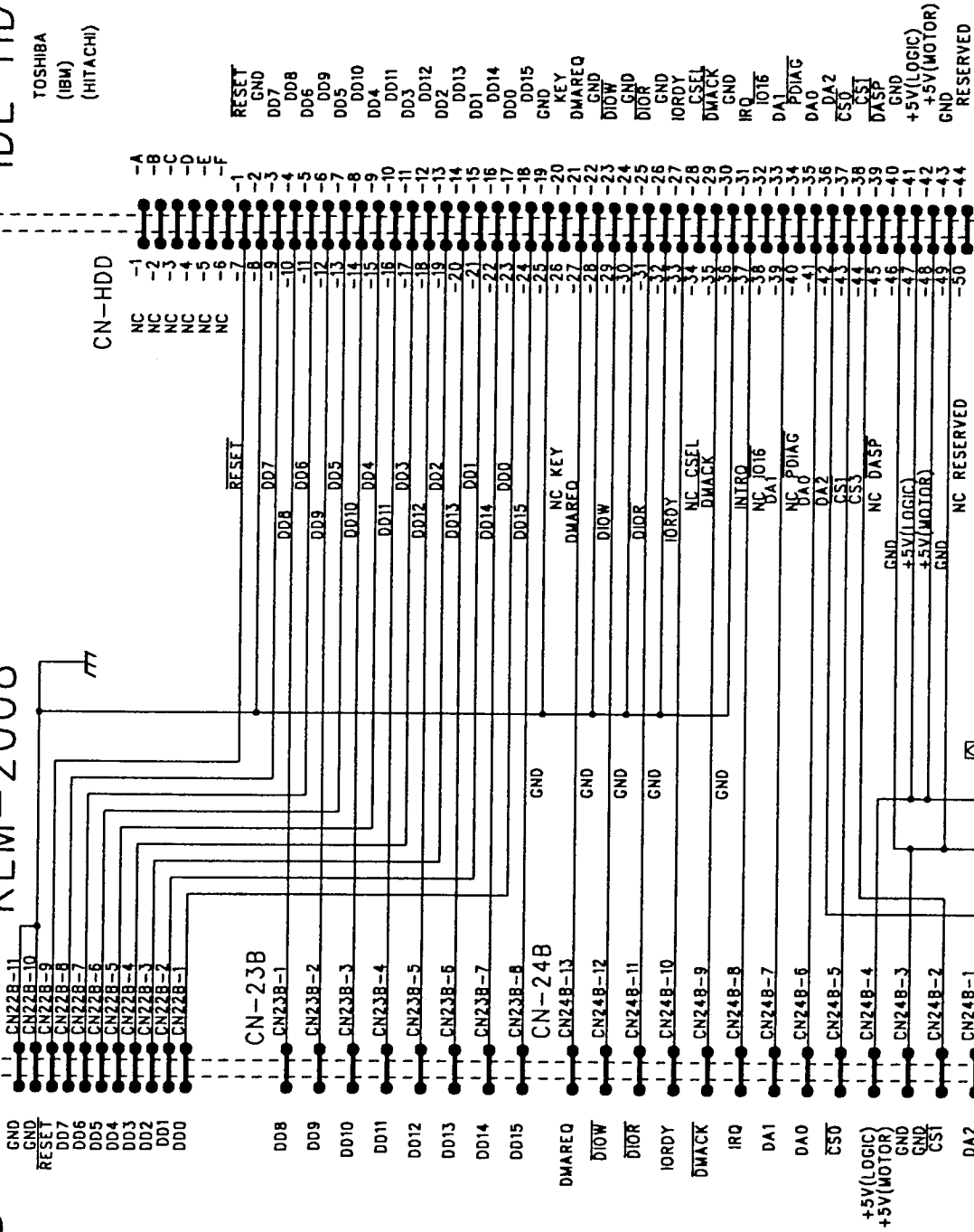
MAIN PCB

# KLM-2008

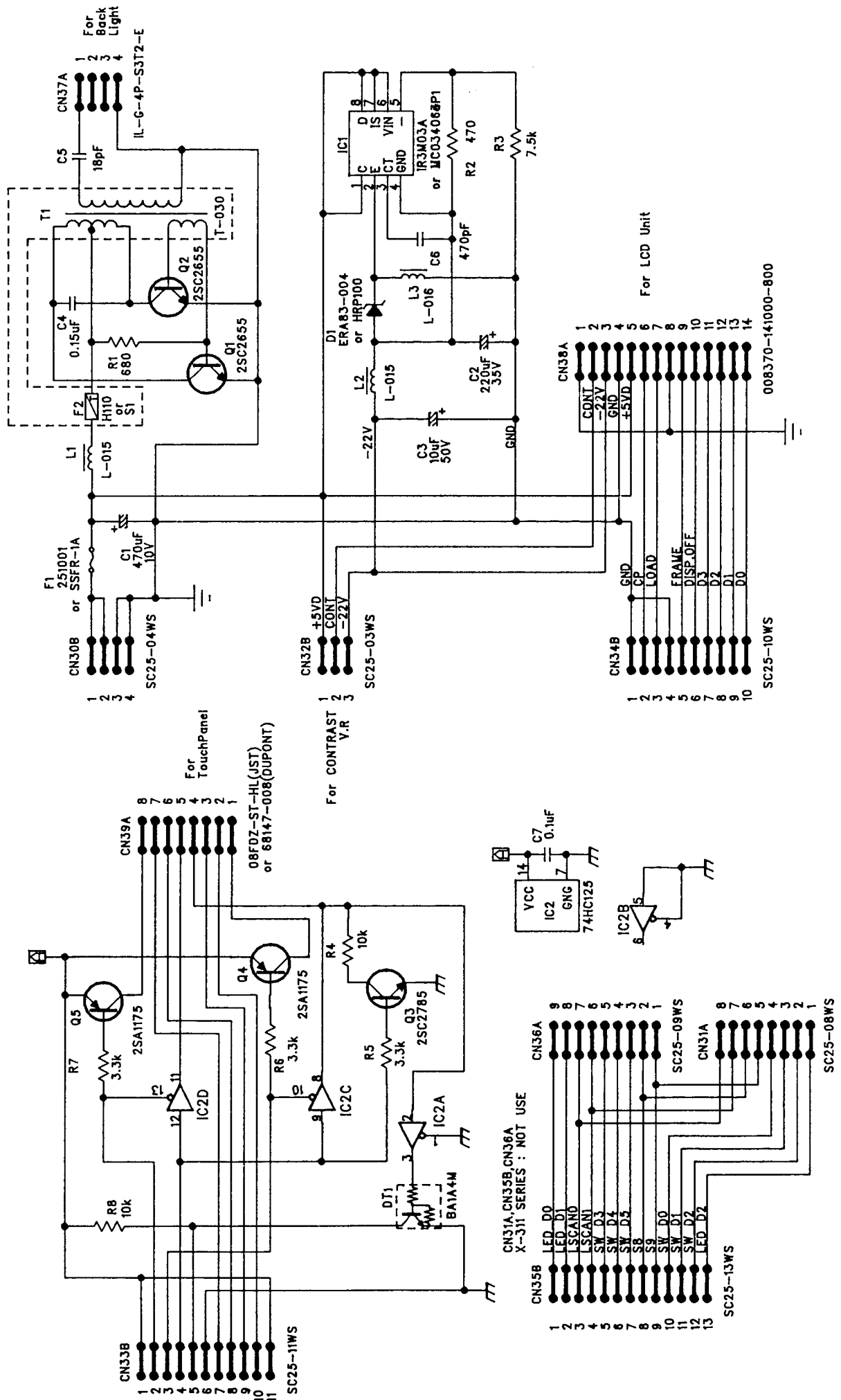
MAIN PCB  
130 KLM-2000

KLM-2008

IDE HDD  
TOSHIBA  
(IBM)  
(HITACHI)

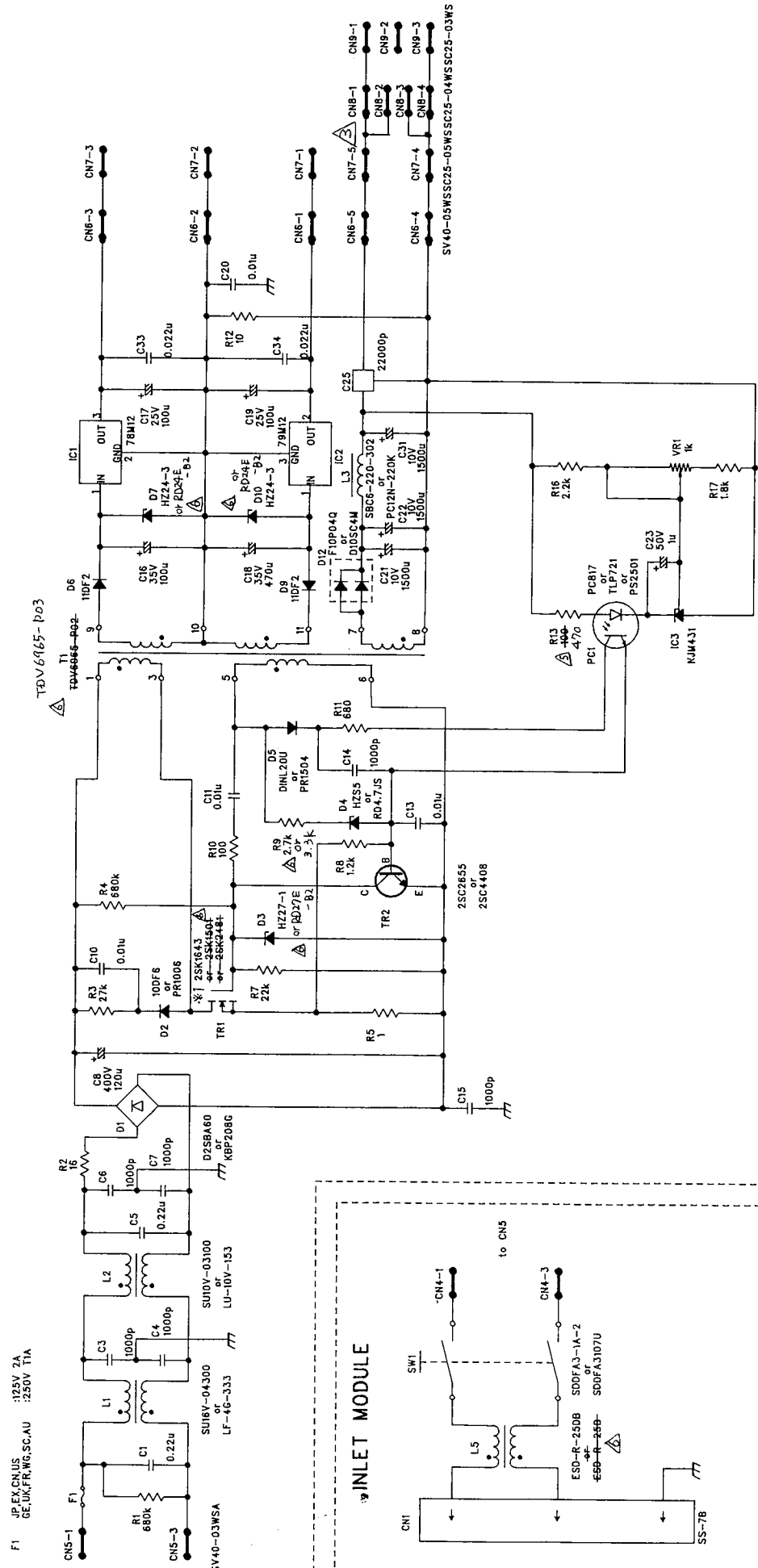


# KLM-1755

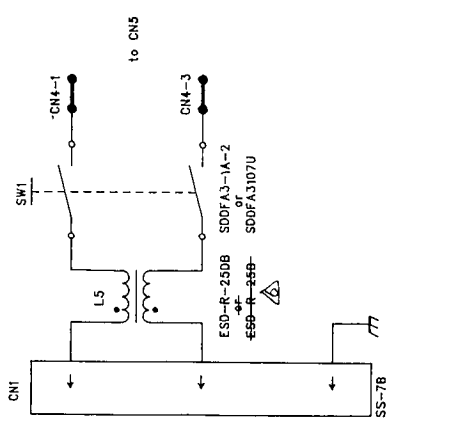


# KLM-1875

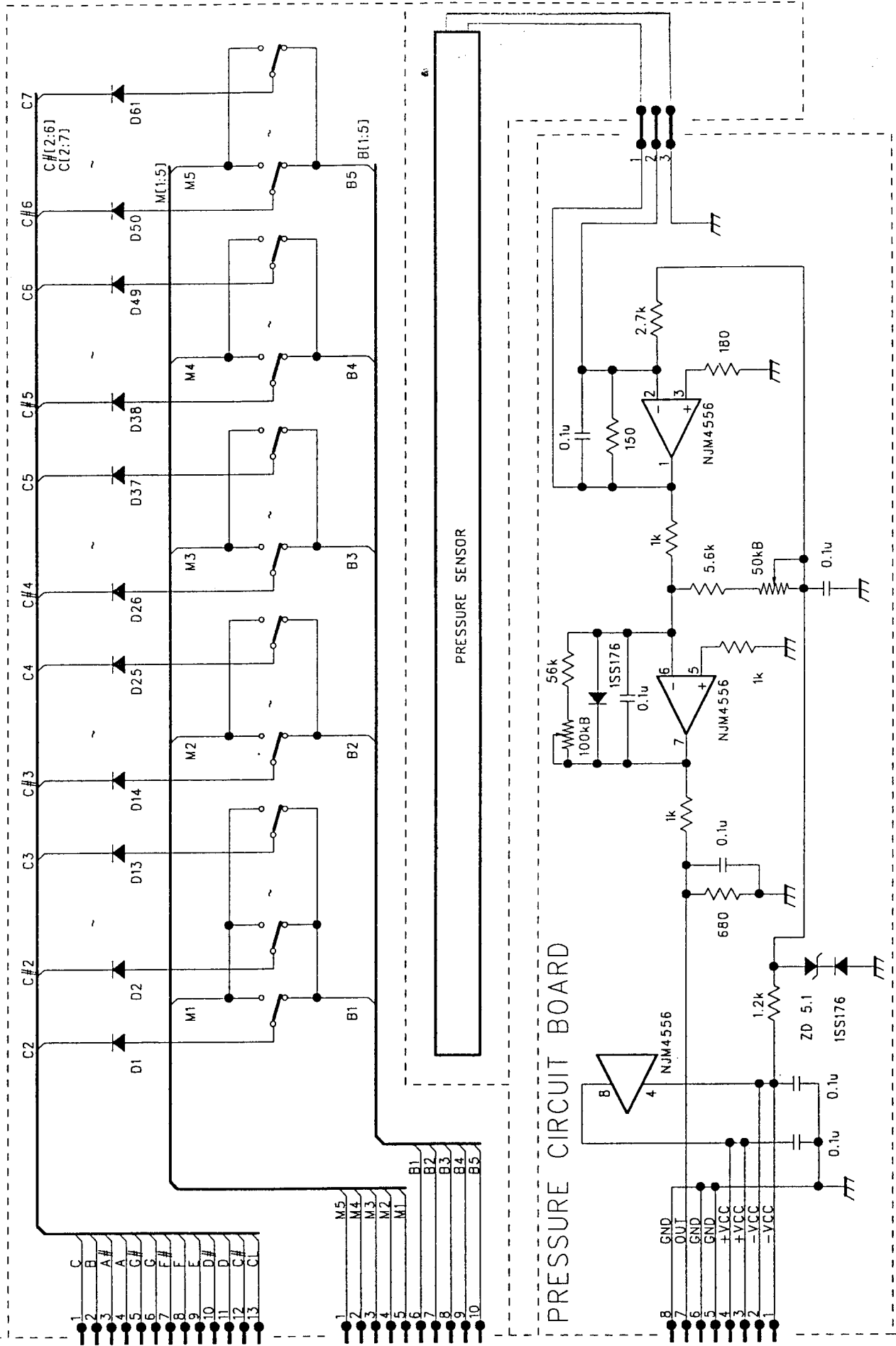
## KLM-1875



### INLET MODULE



# KEYBOARD/AFTERTOUCH PCB KEYBOARD FS-61KG2

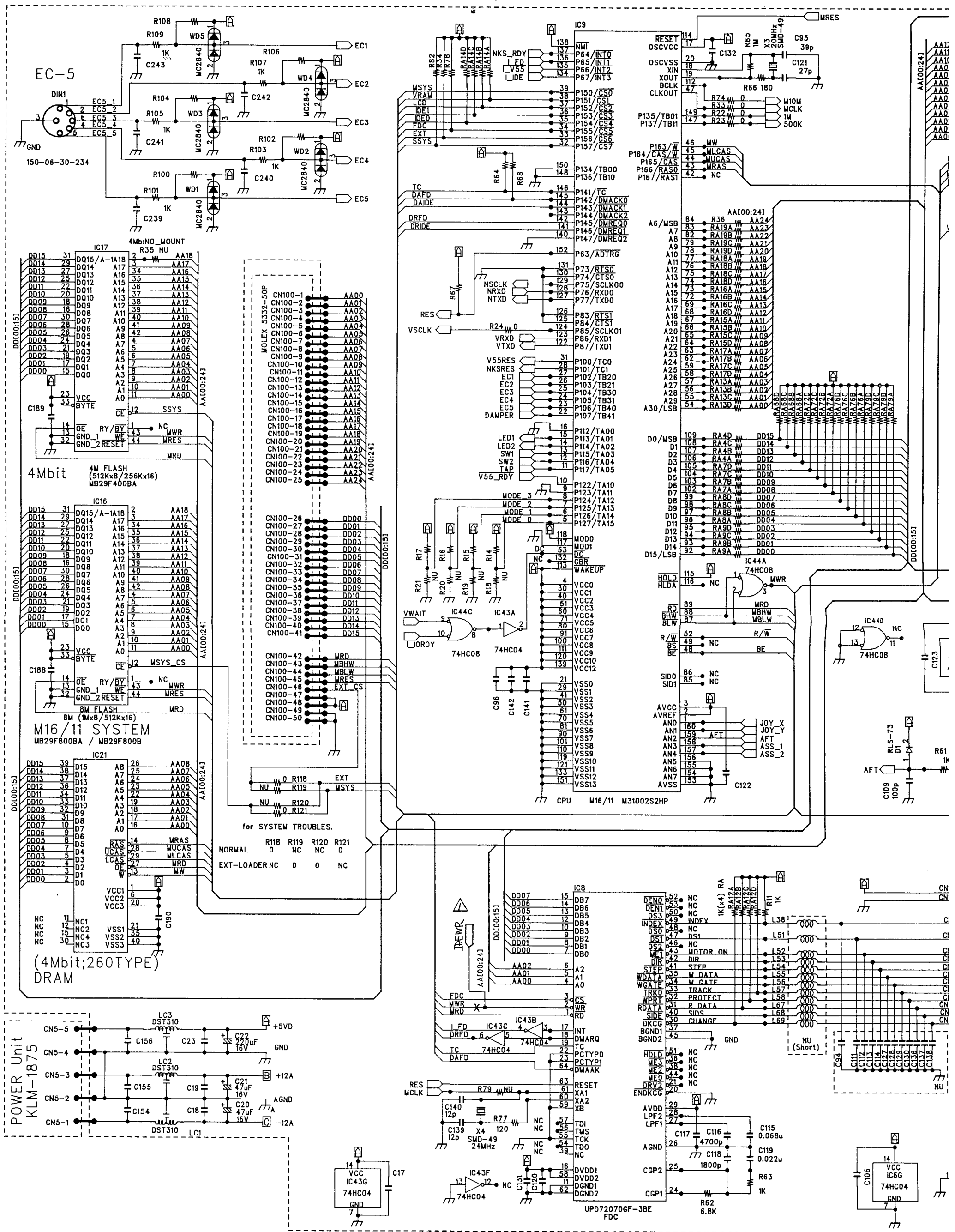




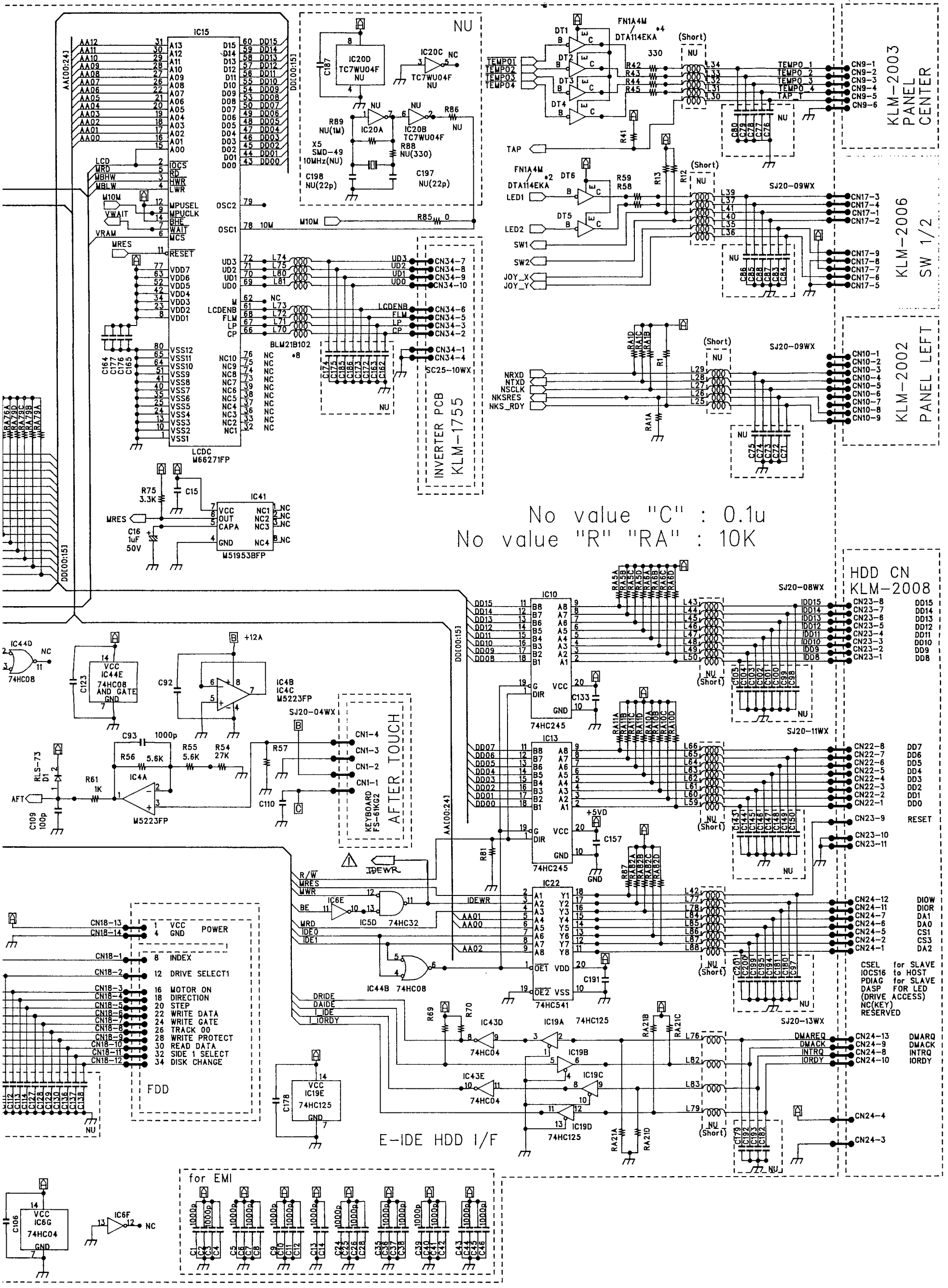
# 4. PARTS LIST

PART CODE	PART NAME/SPECIFICATION	P.C.BOARD	NOTE	QTY	MARK
001193501	PCB ASS KLM-1935	M.PART	FOR I30	1	NEW
001200000	PCB ASS KLM-2000	M.PART		1	NEW
001200100	PCB ASS KLM-2001	M.PART		1	NEW
001200200	PCB ASS KLM-2002	M.PART		1	NEW
001200300	PCB ASS KLM-2003/04	M.PART		1	NEW
001200600	PCB ASS KLM-2006	M.PART		1	NEW
001200800	PCB ASS KLM-2008	M.PART		1	NEW
002175500	INVERTER PCB KLM-1755	M.PART		1	
002187500	POWER SUPPLY UNIT KLM-1875	M.PART		1	
313005000	TOUCH PANEL LCD KGJ-01S-5	M.PART		1	
314010310	LED HLMF-K200#2UM	2002		25	
		2003		13	
		2004		19	
		2003		4	
314028800	LED SLZ-190B-09-T2	2001		9	
320001242	IC UPC4570HA	2000	OP_AMP	1	
320001529	IC UPD70433GD-16-5BB	2000	CPU	1	
320001533	IC UPD72070GF-3BE	2000	FDC	1	
320001534	IC UPD71051GB-3B4	2000	UART	1	NEW
320003217	IC TMP87C847U-4458	2000	FKS-2	1	
320004638	IC HD74HC05P	2001	HC_MOS	1	
320011026	IC HD6433332A04F	2002	NKS2.5	1	
320011184	IC M66271FP	2001	OP_AMP	1	
320011185	IC M31002S2HP	2000	CPU	1	
320012181	IC MB87A104APP-G-BND	2000	TGL2	2	
320012216	IC MBM29F400BA-90PF-FJ K	2000	FLASH_ROM	2	
320040022	IC MX23C3210MC-15 X610 ROMA	2000	WAVE_ROM	1	NEW
320040023	IC MX23C3210MC-15 X610 ROMB	2000	WAVE_ROM	1	NEW
320040024	IC MX23C3210MC-15 X610 ROMC	2000	WAVE_ROM	1	NEW
320040025	IC MC23C3210MC X610 ROMD	2000	WAVE_ROM	1	NEW
320040026	IC MX23C1610MC-15 X610 ROME	2000	WAVE_ROM	1	NEW
320040033	IC MX23C3210CP 971901	2000	STYLE_ROM	1	
324003010	IC TC7WU04F TE12L	2000	HC_MOS	1	
324004003	IC HD74HC139PFR	2000	HC_MOS	1	
324004004	IC HD74HC32FPEL	2000	HC_MOS	1	
324004005	IC HD74HC541PFR	2000	HC_MOS	1	
324004007	IC HD74HC573PFR	2000	HC_MOS	2	
324004011	IC HD74HC04FPEL	2000	HC_MOS	2	
324004012	IC HD74HC08FPEL	2000	HC_MOS	2	
324004042	IC HD74HC125FPEL	2000	HC_MOS	1	
324004050	IC HD74HC138FPEL	2000	HC_MOS	3	
324004059	IC HD74HC157FPEL	2000	HC_MOS	2	
324004067	IC HD74HC166FPEL	2000	HC_MOS	1	NEW
324004092	IC HD74HC245FPEL	2000	HC_MOS	2	
324004146	IC HD74HC595PFR	2000	HC_MOS	1	
324004168	IC HD74HC4053FPEL	2002	HC_MOS	2	
324004192	IC HD74AC74FPEL	2000	AC_MOS	1	
324005004	IC LC321664BJ-80-TLM	2000	DRAM	2	
324009004	IC NM78L05UA-TE2	2000	REGULATOR	1	
324011002	IC M5223FP-600C (8P SOP)	2000	OP_AMP	1	
324011012	IC M51953BFP-600C (SOP)	2000	RESET	1	
324011021	IC M5M34050FP-42A	2000	TRANSCIVEIVE	1	
324011030	IC M5M44260CJ-7-L2	2000	DRAM	1	
324011035	IC M5M44179CJ-7-L2	2000	DRAM	1	NEW
324012015	IC MB81C4256A-60PJ-FW-EF(TS)	2000		2	
324038002	IC TDA13057/N2-T	2000	DRAM	3	
330001400	PHOTO COUPLER PC-910K	2001	DAC	1	
334000500	SB COIL SBT-0260 TF	2001		13	
335010500	CERAMIC OSC CXT20.00MXW040	2002		1	
335400117	CERAMIC OSC CSTCS8.00MT-TC	2000		1	
335400119	CRYSTAL OSC.SMD-49 24.000MHZ	2000		1	
335400121	CRYSTAL SMD-49 20MHZ	2000		1	
335400128	CRYSTAL SMD-49 32MHZ	2000		2	
360024500	VR RK11K1140ADWA 10KB(SPECIAL)	1511		1	
		1512		1	
362007500	VR RK09K1110BJFA-10KB	2001		1	
365007800	SLIDE VR RS30111AC00NB 10KB	2002		1	
365008500	SLIDE VR RS45112AC00EA 10KBX2	2002		9	
370004500	ROTARY ENCODER EC16B242041SA	1927-130		1	
374000200	TOUCH SW EVQ21309K-T	2002		1	
		2003		25	
		2004		20	
		2006		51	
		1935-130		2	
375010900	CHIP SW EVQPAC07K	2006		2	
402002800	COIL 2943-666671	1935-130		2	
404000500	CHIP SOLID INDUCTOR BLM21B102SP	2000		15	
420004800	KEYBOARD FS-61 KG2	M.PART		1	
435001900	3.5INCH FDD(ZMODE)JU0257A726P	M.PART		1	
435002000	2.5INCH HDD MK1403MAV	M.PART		1	
450003100	PHONE JACK LGR4609-7000	1935-130		1	
		2001		7	
464002301	FUSE 125V 2A UL	M.PART		1	117US
		M.PART		1	117CN
		M.PART		1	117EX
		M.PART		1	100JP
		M.PART		1	240AU
		M.PART		1	230GE
		M.PART		1	230FR
		M.PART		1	230WG
		M.PART		1	230SC
		M.PART		1	230UK
480010380	DIN JACK YKF51-5041 (3P)	2001		1	
480010390	IC SOCKET 42P DICF-42CS-E	2000		2	
500018500	RUBBER FOOT FF-001	M.PART		4	
575016700	LED SPACER LH-3-2	2006		2	
600005100	AC CORD KP-610 GTBS-3 KS-31AY	M.PART		1	230UK
600005300	AC CORD DC-480-J01	M.PART		1	100JP
600005400	AC CORD EC-652-E03	M.PART		1	230GE
		M.PART		1	230FR
		M.PART		1	230WG
		M.PART		1	230SC
		M.PART		1	117US
		M.PART		1	117EX
		M.PART		1	240AU
600005700	AC CORD UC-953-J01	M.PART		1	
600005800	AC CORD SC-111-J01	M.PART		1	
620024600	X-952 POWER SW KNOB E40304-2	M.PART		1	
620026600	X-323 SVR KNOB KOC-E40364	M.PART		1	
620026800	X-410 SVR KNOB (GRAY) E40239-3	M.PART		9	
620031800	X-620 4 LINKAGE KNOB A-4-BK	M.PART		9	
620032000	X-620 4 LINKAGE KNOB A-2-BK	M.PART		4	
620032100	X-620 4 LINKAGE KNOB A-1-BK	M.PART		3	
620032300	X-620 4 LINKAGE KNOB B-2-BK	M.PART		2	

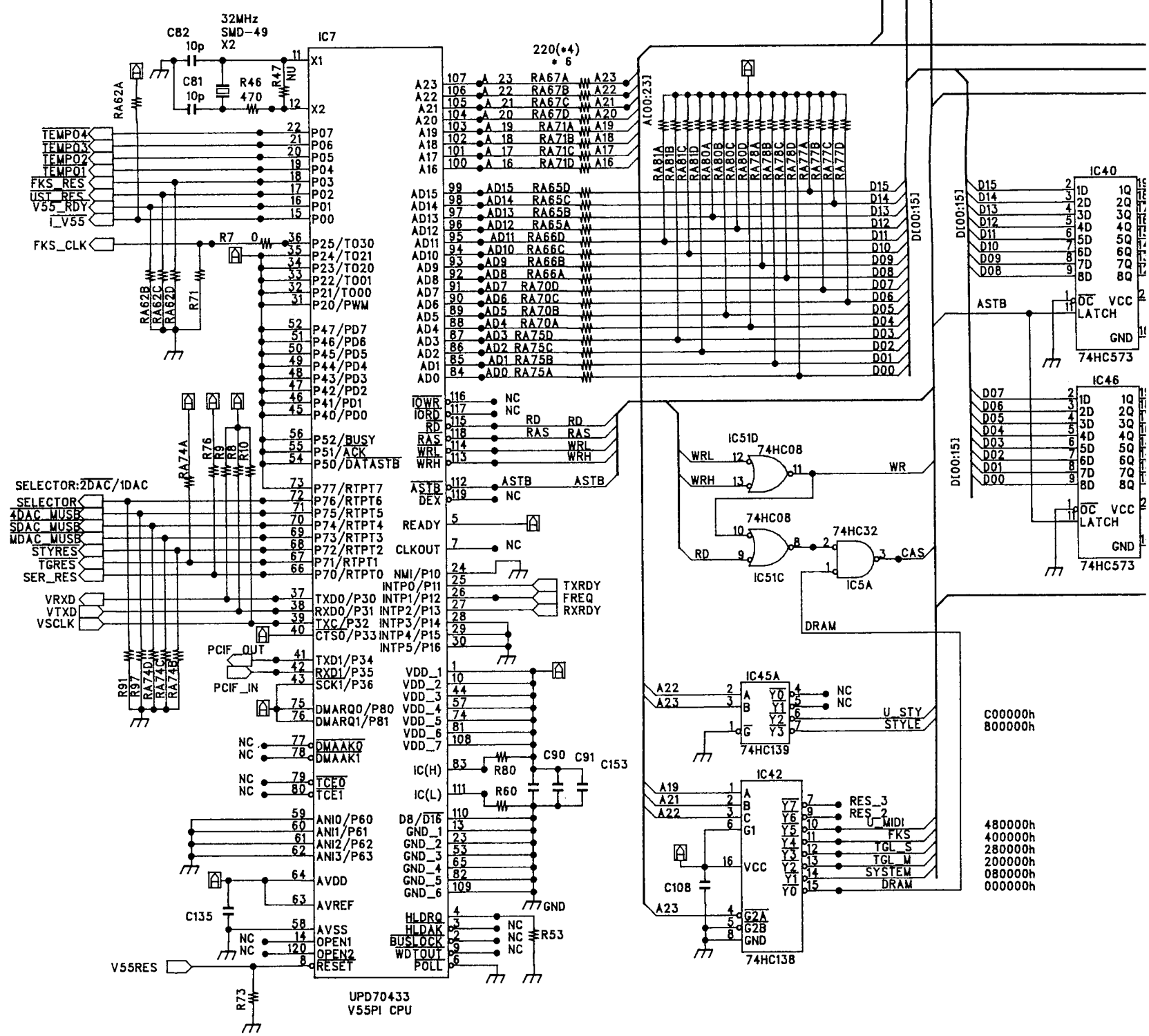
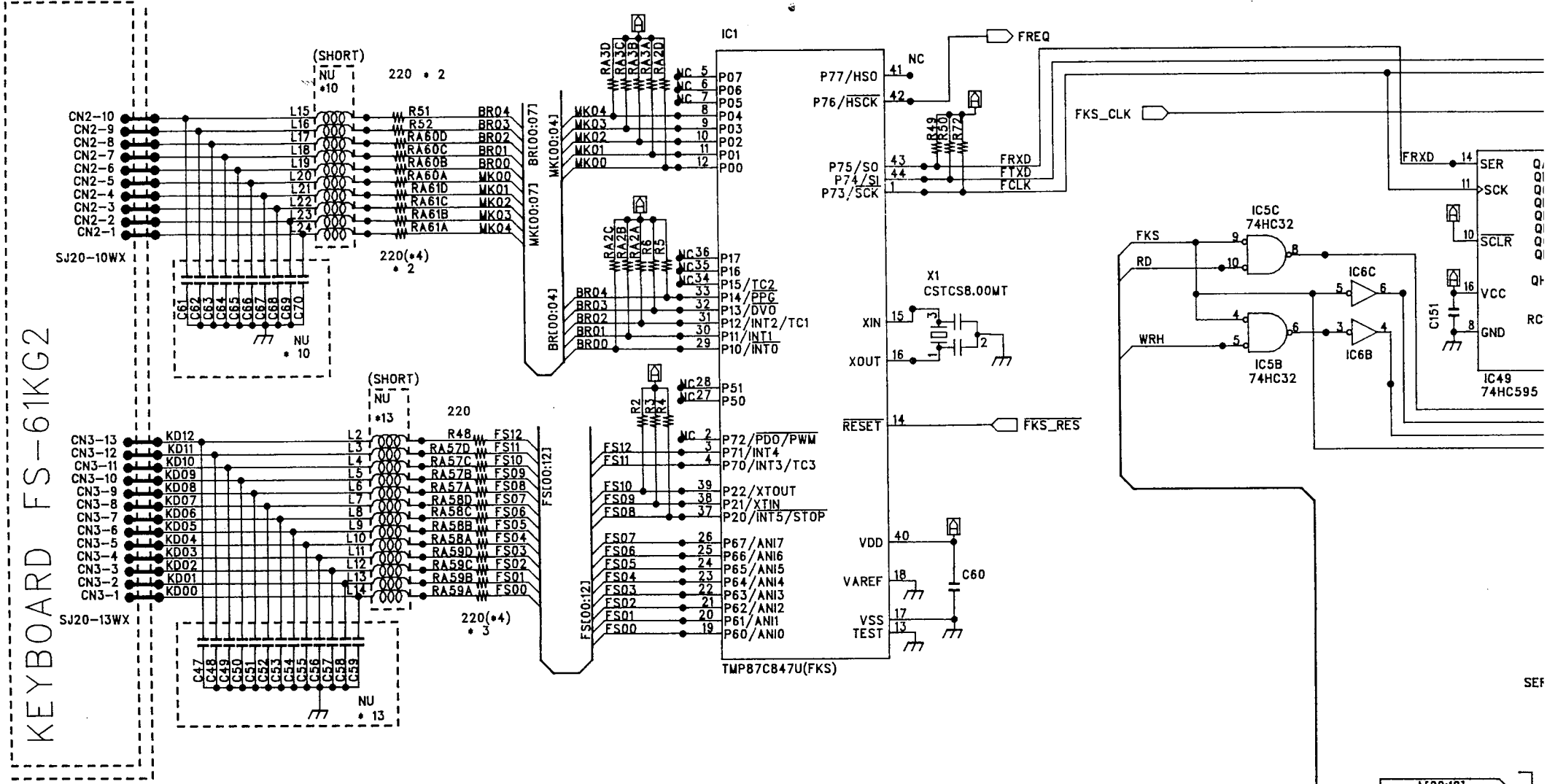
PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	QTY	MARK
620032400	X-620 4 LINKAGE KNOB B-1-BK	M.PART		2	
620033500	X-610 ENCODER KNOB KOC-E40466	M.PART		1	
620033600	X-610 2 LINKAGE KNOB A-2-BK	M.PART		5	
620033700	X-610 2 LINKAGE KNOB B-1-BK	M.PART		1	
620033800	X-610 4 LINKAGE KNOB B-4-BK	M.PART		8	
630031000	X-610 SHIELD SHEET KOC-F30073	M.PART		1	
641031900	GROUND PLATE (A) KOC-C40890	M.PART		1	
641041171	X-013 JACK PLATE	2001		1	
641041187	X-323 ENCODER SUPPORTER	M.PART		1	
641041190	X-230 BUSHING SPACER C40938	M.PART		3	
641041227	X-311/312 SIDE CHASSIS L	M.PART		1	
641041229	X-311/312 KB SUPPORT C30455	M.PART		1	
641041230	X-311-3 MAIN PCB METAL FITTING	M.PART		4	
641041232	X-311 LOWER CASE C10170	M.PART		1	
641041234	X-311/312 FDD ANGLE KOC-C20298	M.PART		1	
641041240	X-311/312 KBR ANGLE KOC-C20299	M.PART		1	
641041270	X-311/S/312 GND SPRING (H) 1935-I30	M.PART		1	
641041423	X-311/312 SIDE CHASSIS R	M.PART		1	
641041426	X-311BK FRONT BAR	M.PART		1	
641041436	GND PLATE M1866-A C40884-2	M.PART		1	
641041440	X-610 MUSIC STAND ANGLE	M.PART		1	
641041453	X-611 PHONE JACK METAL FITTING 1935-I30	M.PART		1	
641041455	X-610 SUPPORT RAIL R	M.PART		2	
641041456	X-610 PANEL KOC-C10196	M.PART		1	
641041472	X-610 LCD CHASSIS	M.PART		1	
641041477	X-610 HD ANGLE KOC-C41128	M.PART		2	
641041478	X-610 HD CHASSIS	M.PART		1	
644006200	X-011/012 WHEEL SPRING	M.PART		2	
646038900	X-011/012 JOYSTICK FRAME	M.PART		1	
646039000	X-011/012 WHEEL SUPPORT	M.PART		1	
646039100	X-011/012 JOYSTICK LEVER	M.PART		1	
646039200	X-011/012 JOYSTICK WHEEL	M.PART		1	
646039300	X-011/012 JOYSTICK COVER	M.PART		1	
646040000	X-181 MUSIC STAND HOLDER	M.PART		2	
646045300	X-311BK CONTROL KNOB ASSY	M.PART		1	
646064700	X-610/620 SVR FRAME ASSY30	M.PART		9	
646065400	X610 SVR FRAME ASSY45 BK	M.PART		1	
646066300	X-610 MUSIC STAND RECEPTOR	M.PART		1	
646066500	X-610 LCD HOOD	M.PART		1	
646066600	X-610 ENCODER FLAME	M.PART		1	
646066700	X-610 JS PANEL	M.PART		1	
646067600	X-610 FDD COVER	M.PART		1	
646067700	X-610 SIDE PANEL L	M.PART		1	
646067800	X-610 SIDE PANEL R	M.PART		1	



### /3) M16 BLOCK

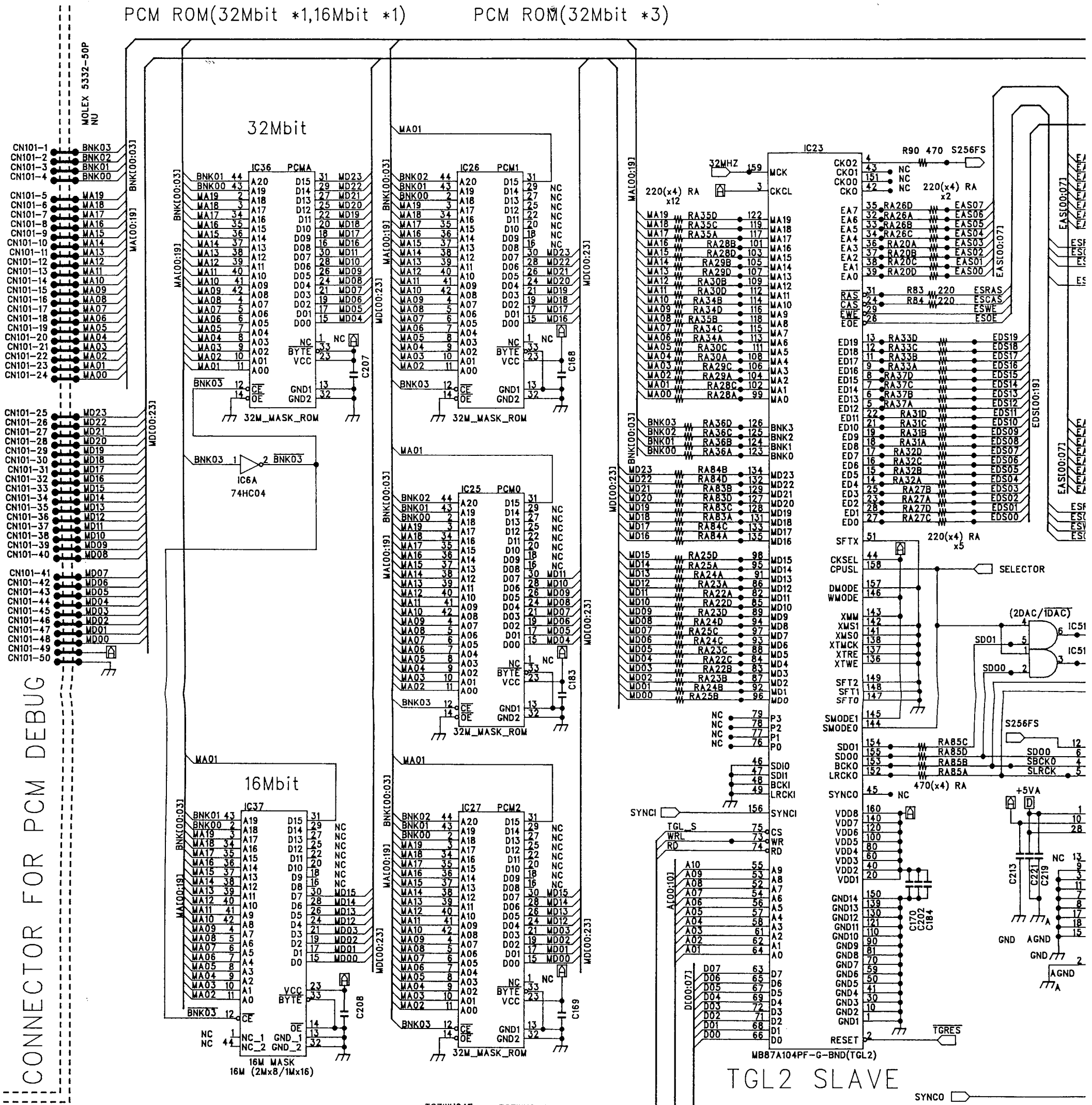


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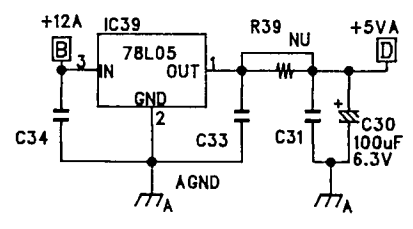
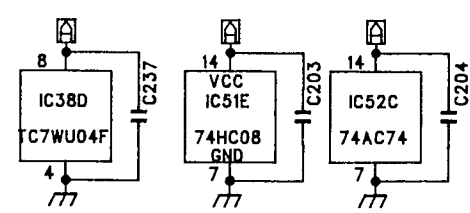
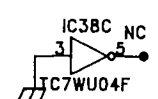
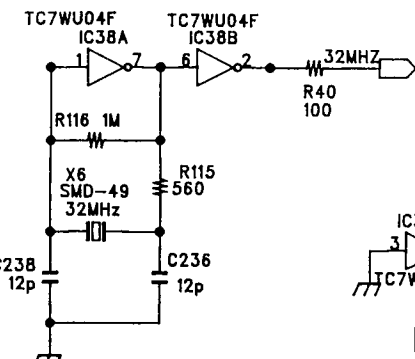




PCM ROM(32Mbit \*1,16Mbit \*1) PCM ROM(32Mbit \*3)



CONNECTOR FOR PCM DEBUG



No value "R" : 10K  
No value "C" : 0.1uF

# TGL/DAC BLOCK

