

**SCHEMATIC DIAGRAMS
MOD 'S**

H-100D

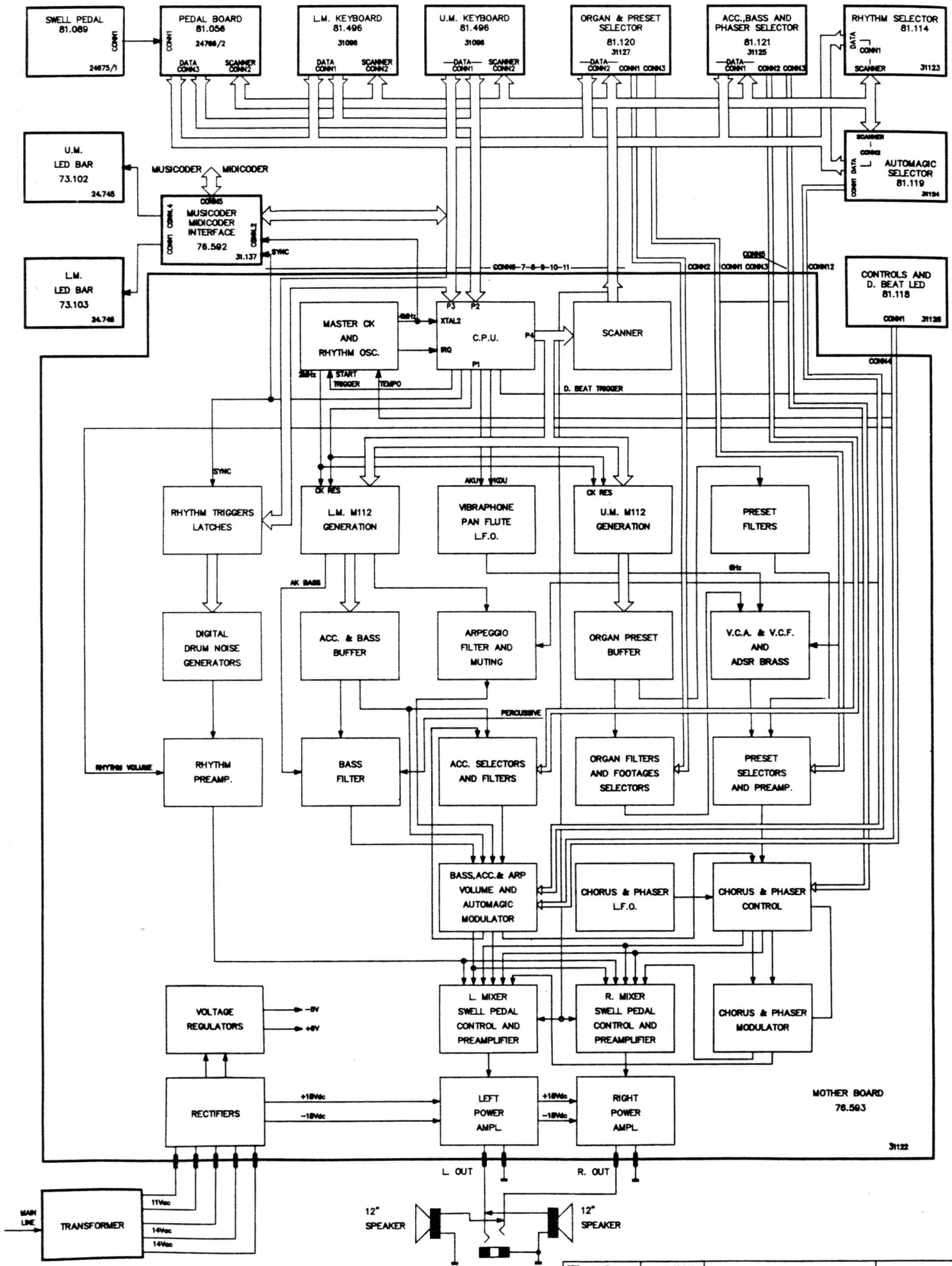
ELECTRONIC ORGANS

 **GEM**[®] A PRODUCT OF

**general
electro** 
music

COD. 27.0€2 - OCT. 85

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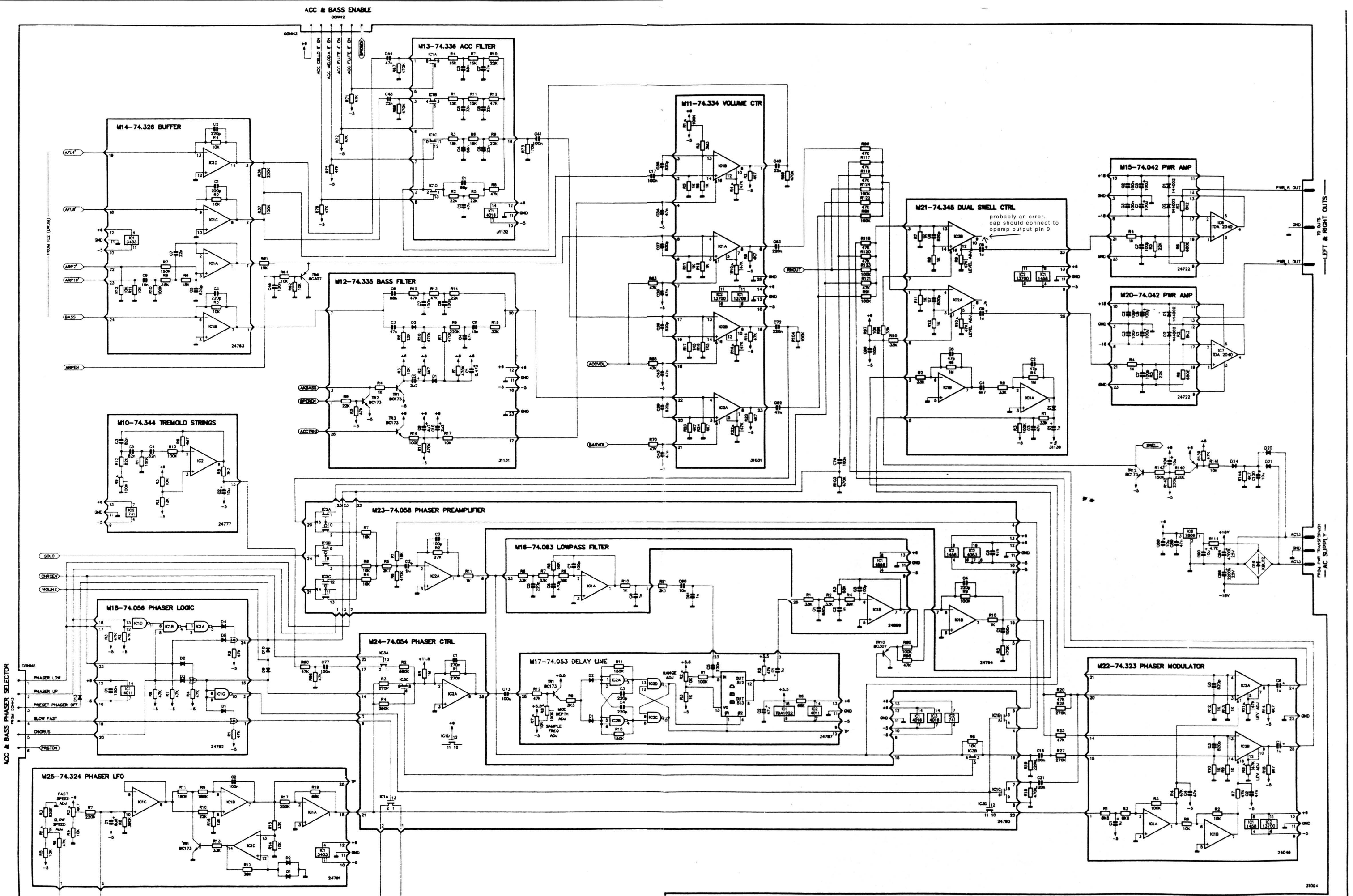


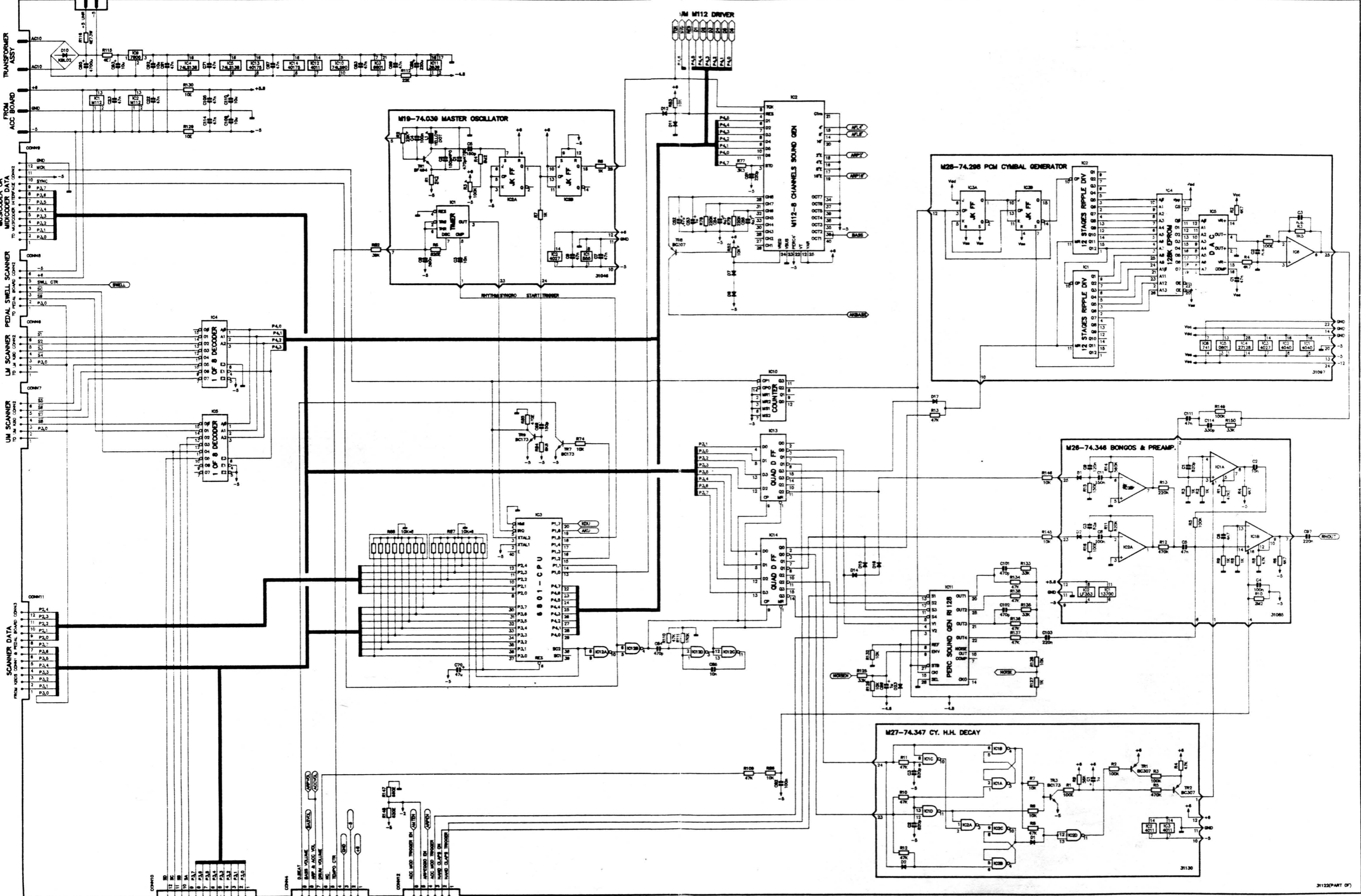
G6 ADJUSTMENTS TABLE

ADJUSTMENT TYPE	TEST POINT	TAB ON	KEYS PRESSED	OPERATION POINT	READING VALUES	NOTES	
							ALL TEST ARE MADE WITH EXPRESSION PEDAL AT MAX. VOL. AND THE POTENTIOMETERS AT MAX. POSITION
1	ORGAN PITCH	SPEAKER	---	ONE	OSCILLATOR COIL	---	USE THE STROBOTUNER
2	MASTER CLOCK TRESHOLD	---	---	---	R3 OF M19	DOUTY CICLE 50% A-5V	USE PROBE 10*1
3	SOLO M112 V. SUST.	R3(M. BRD.)	FLUTE 16'	CENTR. C (U. M.)	R49 (M. BRD.)	CONSTANT	REPEATING THE KEY ACTION THE LEVEL MUST NEVER CHANGE
4	PRESET LEVEL	" "	PRESET ON PIANO	" "	R3 OF M3	800 MVPP	REPEATING THE KEY ACTION
5	(U. M.) FLUTES LEVEL	" "	FLUTE 16'	" "	R15 OF M1	500 MVPP	
6	CHORUS FAST	TR1 BASE OF M25	FAST	---	R2 OF M25	160 MS	WAIT FOR 10SEC. UNTIL TO STEADY STATE VALUE
7	CHORUS SLOW	" " "	SLOW	---	R1 OF M25	1.6 S	" " "
8	DELAY LINE	R11 OF M1	CHORUS	---	R7 OF M17	16 US	WITH R9 OF M11 TURNED ON CLOCK WISE, THE PERIOD TIME WILL MOVE AROUND 16US
9	DELAY LINE	" "	"	---	R8 OF M17	16US - 22.5US	
10	CHORUS SLOW CONTROL	" "	SLOW	---	---	14US - 18US	
11	CHORUS FAST CONTROL	" "	FAST	---	---	15.5US - 17US	
12	RIGHT AMPLIFIER LEVEL	RIGHT SPEAKER	FLUTE 16'	CENTR. C (U. M.)	R9 OF M21	3.5 VPP	
13	LEFT AMPLIFIER LEVEL	LEFT SPEAKER	"	"	R10 OF M21	3.5 VPP	
14	CHORUS MOD. (RIGHT CH.)	RIGHT SPEAKER	FLUTE 16' ORGAN U. + CHORUS	"	R11 OF M22	4 VPP	READ THE VOLTAGE VALUE, SWITCH ON UPPER TAB AND ADJUST R8 TO HAVE THE SAME MAX VALUE READ BEFORE
15	CHORUS MOD. (LEFT CH.)	LEFT SPEAKER	"	"	R8 OF M22	4 VPP	" " "
16	ACC. & BASS M112 V. SUSTAIN	---	BASS FLUTE 8'	1ST C PEDAL BRD.	R52 (M. BRD.)	CONSTANT	REPEAT THE PEDAL KEY ACTION UNTIL TO OBTAIN A CONSTANT LEVEL
17	BASS LEVEL	LEFT SPEAKER	"	"	R22 OF M11	7 VPP	THIS TEST IS MADE WITH BASS VOL. AT MAX.
18	FLUTES ACC. LEVEL	" "	ACC. FLUTE 8'	CENTR. C (L. M.)	R16 OF M11	3.5 VPP	THIS TEST IS MADE WITH ACC. VOL. AT MAX.
19	"MELODIA" "CELLO"	" "	ACC. CELLO 8'	"	R4 OF M11	2 VPP	" " "
20	TREMOLO STRINGS	R6 ON IC2 OF M10	---	---	R9 OF M10	160 MS	
21	ARPEGGIO LEVEL	LEFT SPEAKER	ARPEGGIO TOUCH SWING	CENTR. C (L. M.)	R10 OF M11	5 VPP	REPEAT THE KEY ACTION AND MAKE THE TEST ON 1ST NOTE
22	PER. 4' LEVEL	" "	PERC. 4'	CENTR. C (U. M.)	R7 OF M7	6 VPP	REPEAT THE KEY ACTION
23	PERC. 4' OFFSET	---	"	LAST C (U. M.)	R45 (M. BRD.)	---	ADJUST OFFSET UNTIL TO CANCEL ACOUSTIC CLICK
24	BRASS ATTACK TIME	C2 ON IC3 OF M9	PRESET ON BRASS	CENTR. C (U. M.)	R6 OF M9	80 MS	
25	BRASS OFFSET		" "	LAST C (U. M.)	R11-R12(M. BRD.)	---	ADJUST OFFSET UNTIL TO CANCEL ACOUSTIC CLICK
26	"MELODIA" "CELLO" OFFSET	---	MELODIA CELLO AUTOMAGIC	---	R1 OF M11	---	ADJUST UNTIL MIN OFFSET
27	CYMBAL LEVEL	R1 SIDE IC1 OF M26	DRUM ON SWING	---	R1 OF M26	2.2 VPP	
28	VIBRAPHONE OSCILLATOR	R9 OF M8 SIDE C4	---	---	R7 OF M8	200 MS	
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G6 TABELLA TARATURE

#	TIPO DI REGOLAZIONE	PUNTO DI TEST	REGISTRI INSERITI	TASTI PREMUTI	PUNTO DI INTERVENTO	VALORI DI LETTURA	NOTE
1	INTONAZIONE ORGANO	ALTOPARLANTE	—	UNO	BOBINA OSCILLATORE	—	USARE LO STROBOTIMER
2	SOGLIA MASTER CLOCK	—	—	—	R3 DI M19	DUTY CICLE 50% 0-5V	USARE SONDA 10#1
3	V. SUSTAIN M112 "SOLO"	R3 SU PIASTRA MADRE	FLUTE 16"	DO CENTR. (U. M.)	R49 SU PIASTRA MADRE	COSTANTE	RIPETENDO L'AZIONE DEL TASTO IL LIVELLO NON DEVE CAMBIARE
4	LIVELLO "PRESET"	" . . .	PRESET ON PIANO	■ ■	R3 DI M3	800 MVPP	BATTERE IL TASTO RIPETUTAMENTE
5	" FLAUTI "U. M. "	" . . .	FLUTE 16"	■ ■	R15 DI M1	500 MVPP	
6	CHORUS VELOCE	BASE DI TR1 SU M25	FAST	—	R2 DI M25	160 MS	ATTENDERE 10 SEC. E' LENTO AD ANDARE A REGIME
7	CHORUS LENTO	" . . .	SLOW	—	R1 DI M25	1.6 S	" . . .
8	LINEA DI RITARDO	R11 DI M17	CHORUS	—	R7 DI M17	16 US	CON R8 DI M11 RUOTATO IN SENSO ORARIO. IN REALTA' IL PERIODO OSCILLERA' LEGGERMENTE ATTORNO AI 16US
9	" . . .	" . . .	"	—	R8 DI M17	10US - 22.5US	
10	VERIFICA CHORUS LENTO	" . . .	SLOW	—	—	14US - 18US	
11	VERIFICA CHORUS VELOCE	" . . .	FAST	—	—	15.5US - 17US	
12	LIVELLO AMPLIFICATORE DX.	ALTOPARLANTE DX.	FLUTE 16"	DO CENTR. (U. M.)	R9 DI M21	3.5 VPP	
13	LIVELLO AMPLIFICATORE SN.	ALTOPARLANTE SN.	FLUTE 16"	■ ■	R10 DI M21	3.5 VPP	
14	MOD. CHORUS (CANALE SN.)	ALTOPARLANTE DX.	FLUTE 16" ORGAN. U. + CHORUS	DO CENTR. (U. M.)	R11 DI M22	4 VPP	LEGGERE IL VALORE DI TENSIONE POI INSERIRE UPPER E REGOLARE R8 PER AVERE UN MAX. DI MODULAZIONE PARI AL VALORE LETTO IN PRECEDENZA
15	MOD. CHORUS (CANALE DX.)	ALTOPARLANTE SN.	■	■ ■	R8 DI M22	4 VPP	" . . .
16	V. SUSTAIN M112 ACC. & BASS	—	BASS FLUTE 8"	PRIMO DO PEDALIERA	R52 SU PIASTRA MADRE	COSTANTE	BATTERE IL TASTO RIPETUTAMENTE FINO AD OTTENERE UN LIVELLO COSTANTE
17	LIVELLO "BASSO"	ALTOPARLANTE SN.	■	■ ■	R22 DI M11	7 VPP	QUESTA PROVA VA EFFETTUATA COL VOLUME DEL BASSO AL MAX.
18	LIVELLO FLAUTI ACC.	" . . .	ACC. FLUTE 8"	DO CENTR. (L. M.)	R16 DI M11	3.5 VPP	QUESTA PROVA VA EFFETTUATA COL VOLUME DELL'ACCOMP. AL MAX.
19	"MELODIA" "CELLO"	" . . .	ACC. CELLO 8"	■ ■	R4 DI M11	2 VPP	
20	TREMOLO STRINGS	R6 LATO IC2 DI M10	—	—	R9 DI M10	160 MS	
21	LIVELLO ARPEGGIO	ALTOPARLANTE SN.	ARPEGGIO TOUCH SWING	DO CENTR. (L. M.)	R10 DI M11	5 VPP	BATTERE RIPETUTAMENTE IL TASTO ED EFFETTUARE LA PROVA SULLA PRIMA NOTA
22	LIVELLO PERC. 4"	" . . .	PERC. 4"	DO CENTR. (U. M.)	R7 DI M7	6 VPP	BATTERE RIPETUTAMENTE IL TASTO
23	OFFSET PERC. 4"	—	" . . .	ULTIMO DO (U. M.)	R45 SU PIASTRA MADRE	—	REGOLARE L'OFFSET FINO AD ELIMINARE IL CLICK
24	TEMPO DI ATTACCO BRASS	C2 LATO IC3 DI M9	PRESET ON BRASS	DO CENTR. (U. M.)	R6 DI M9	80 MS	
25	OFFSET BRASS		■	ULTIMO DO (U. M.)	R11-R12 SU PIASTRA MADRE	—	REGOLARE L'OFFSET FINO AD ELIMINARE IL CLICK
26	OFFSET "MELODIA" "CELLO"	—	MELODIA CELLO AUTOMAGIC	—	R1 DI M11	—	REGOLARE FINO AD OFFSET MINIMO
27	LIVELLO CYMBAL	R1 LATO IC1 DI M26	DRUM ON + SWING	—	R1 DI M26	2.2 VPP	
28	OSCILLATORE VIBRAPHONE	R9 LATO C4 DI M8	—	—	R7 DI M8	200 MS	
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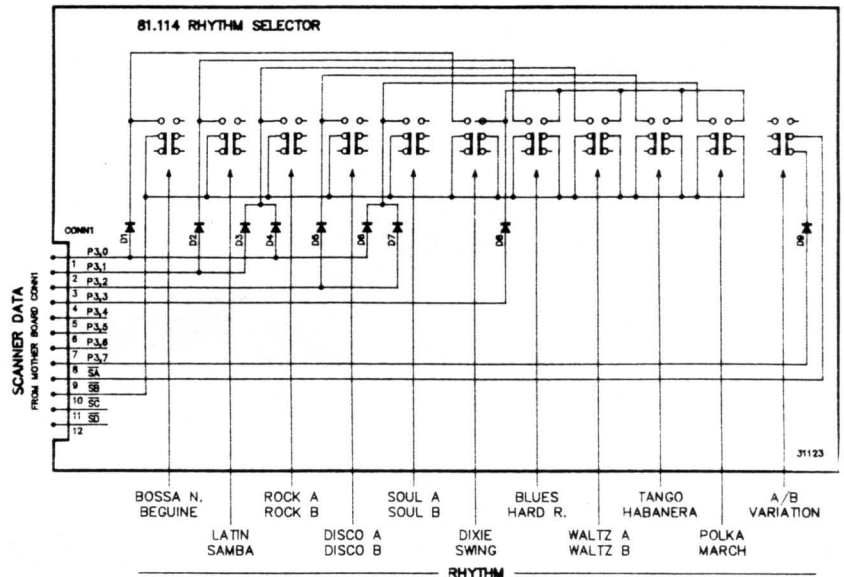
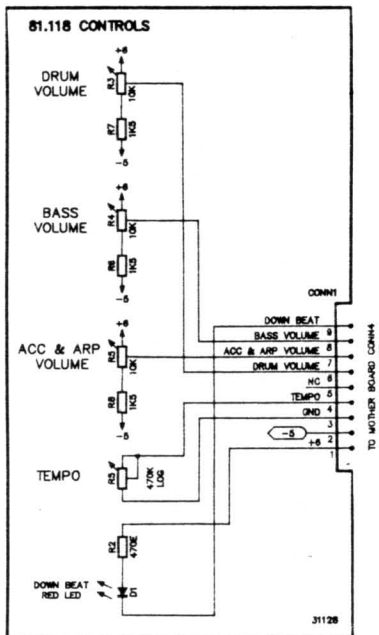
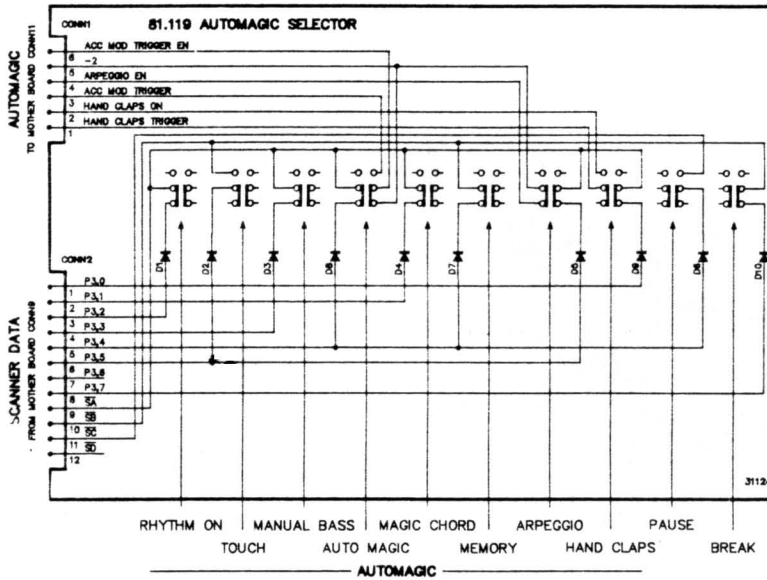
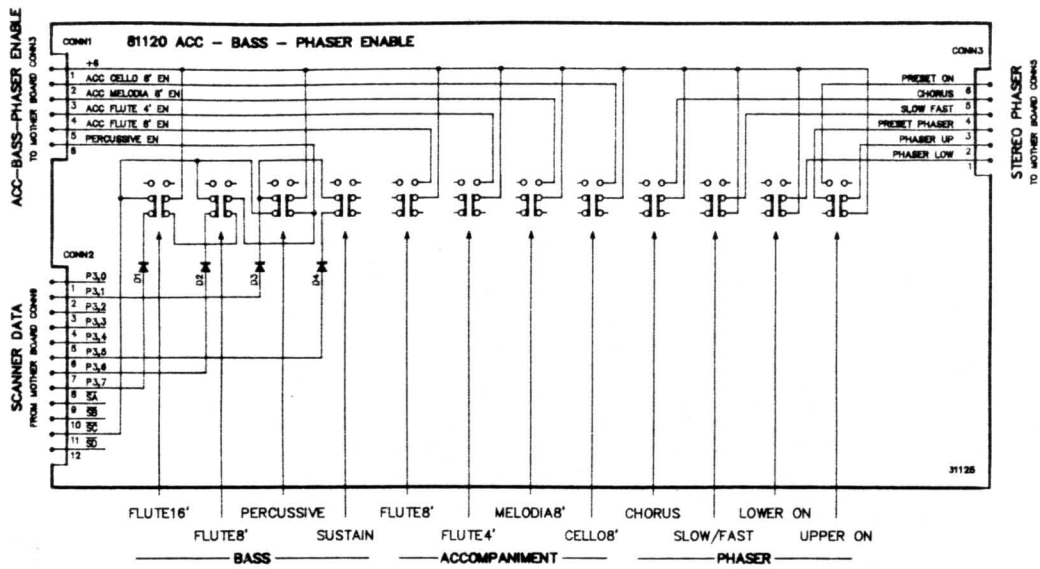
TRANSFORMER ASSY
FROM ACC BOARD
MUSICODER OR MIDICODER DATA TO MUSICODER INTERFACE BOARD
LM SCANNER PEDAL SWELL SCANNER TO PEDAL BOARD BOARD
LM SCANNER TO LM SCANNER BOARD
SCANNER DATA FROM USER BOARD PEDAL BOARD BOARD

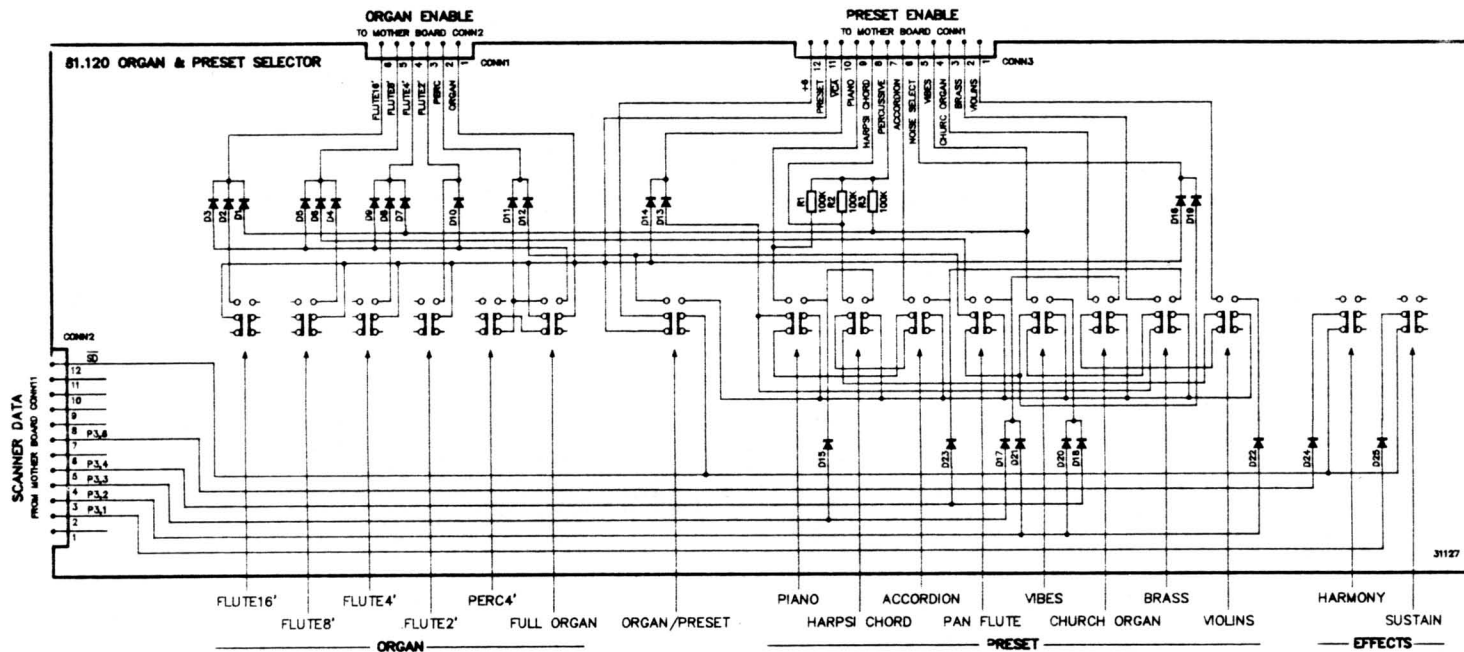
DATA & SCANNER TO RHYTHM/AUTOMATIC ACC & BASE ORIGIN PRESET SELECTORS BOARD

VOLUME CONTROLS TO CONN1

AUTOMATIC TO CONN1

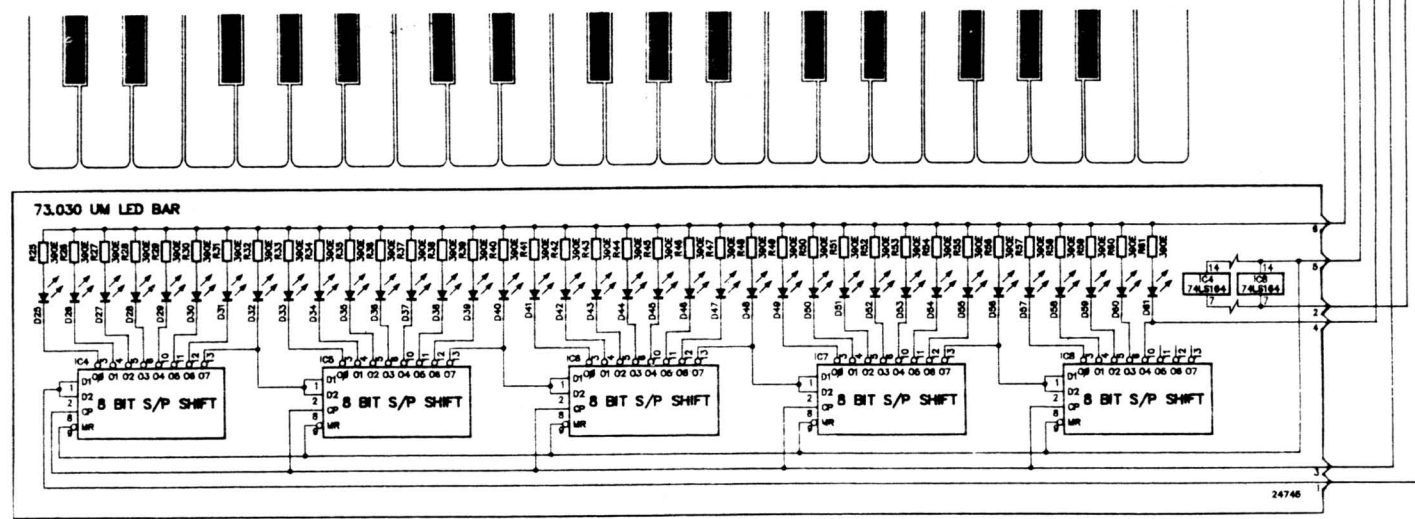
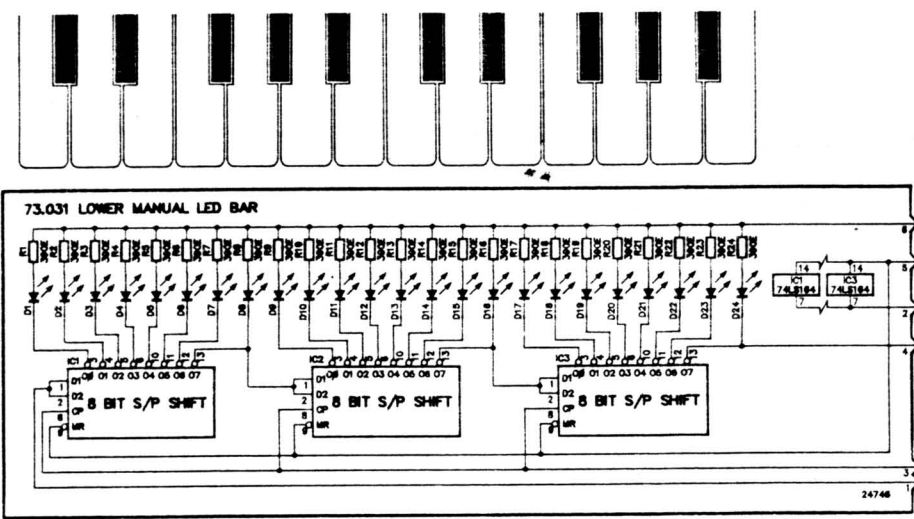
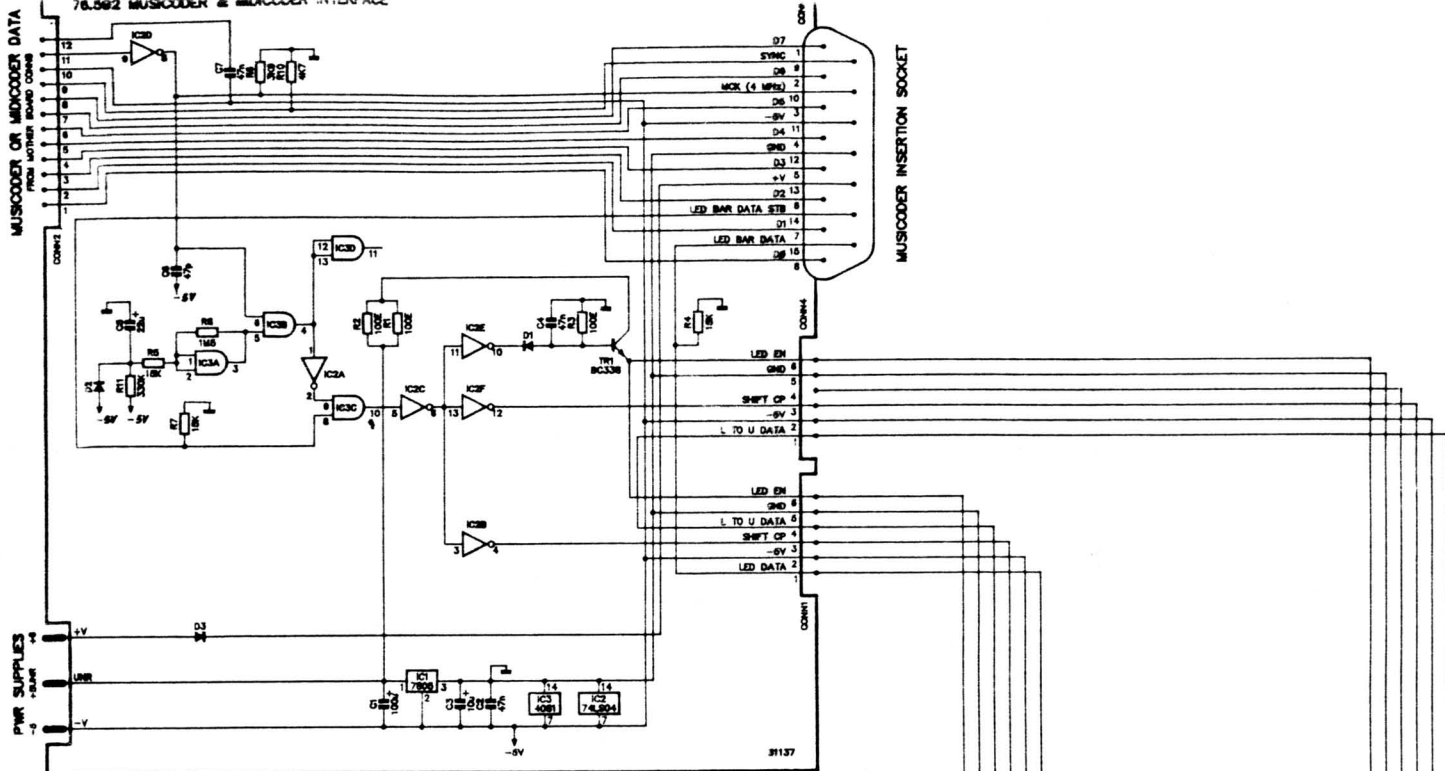




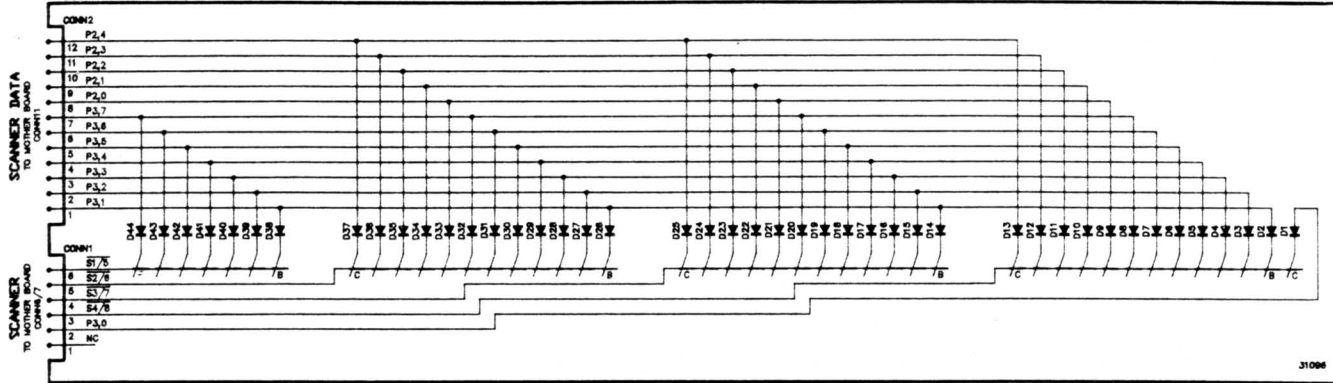


DRW	DWG # 50.232	SCHEMATIC DIAGRAM 81120
CHKD	PAGE OF	ORGAN & PRESET SELECTOR
APP.	REV : 02/10/1980	

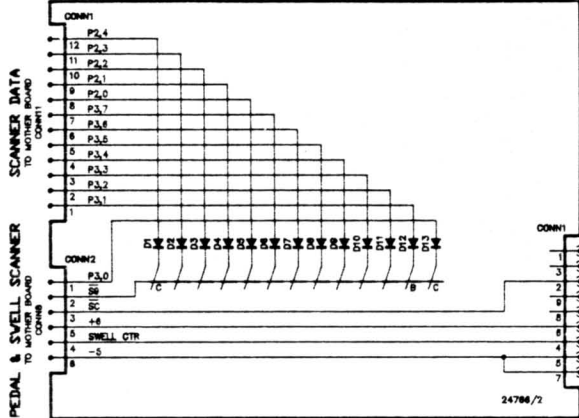
GEM



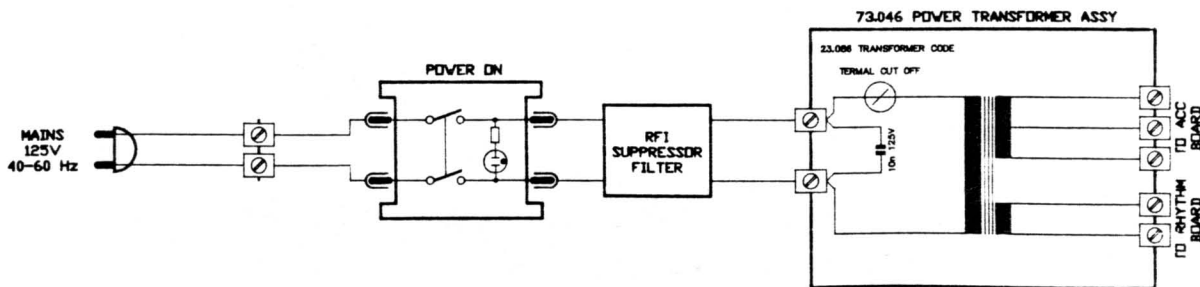
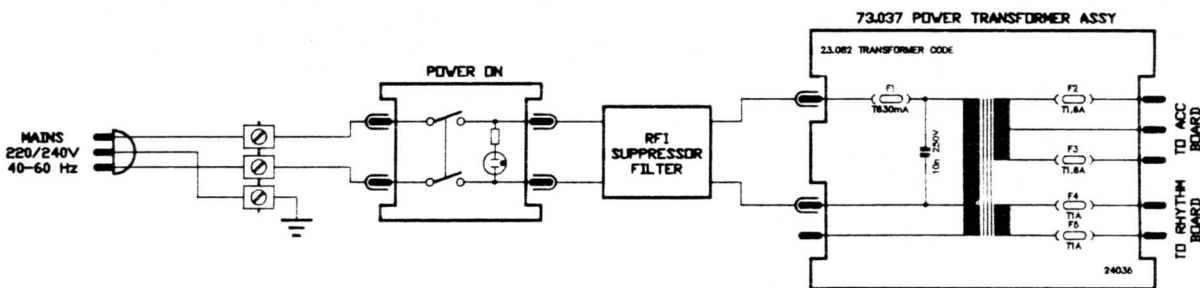
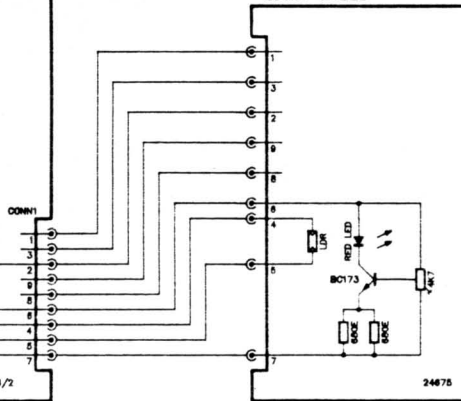
91.496 MANUAL BOARD



81.056 PEDAL BOARD



81.089 SWELL



DESCRIPTION	VERS.	CODE	DESCRIPTION	VERS.	CODE
MAINS SWITCH	125V	11.237	RHYTHM SWITCH BOARD		81.114
" "	220V	11.239	RHYTHM SWITCH ASSY		14.507
MAINS CORD ASSY	125V	73.091	AUTOMAGIC SWICTH BOARD		81.119
" "	220V	73.040	AUTOMAGIC SWICTH ASSY		14.508
POWER CORD	125V	13.289	CONTROLS BOARD		81.118
" "	220V	13.294	"TEMPO" SLIDE POT.		07.592
CORD LOCK	125V	15.028	"DRUM" SLIDE POT.		07.549
" "	220V	15.021	"BASS" SLIDE POT.		07.549
POWER TRANSFORMER ASSY	125V	73.046	"ACC." SLIDE POT.		07.549
" "	220V	73.037	"BEAT" RED LED		08.705
TRANSFORMER	125V	23.086	SAGE GREEN PUSH BUTTON CAPS		15.805
" "	220V	23.082	LAND BROWN " " "		15.806
KEYBOARD ASSY		50.007	DEEP GREEN " " "		15.807
C KEY		15.870	OXIDE RED " " "		15.808
D " "		15.871	YELLOW " " "		15.809
E " "		15.872	LIGHT BROWN " " "		15.810
F " "		15.873	OLD IVORY " " "		15.811
G " "		15.874	BLACK SLIDE POT. KNOB		15.672
A " "		15.875	SWELL PEDAL ASSY		79.053
B " "		15.876	PEDAL BOARD ASSY		72.084
LAST C " "		15.877	PEDAL CONTACT BOARD		81.056
SHARP " "		15.878	PEDAL SPRING CONTACT		16.055
RETURN SPRING FOR NATURAL KEY		16.113	HEADPHONES JACK SOCKET		14.205
" " SHARP KEY		16.114	LOUDSPEAKER		22.071
11 RUBBER CONTACT ARRAY		15.825	CABINET	WALNUT	71.088
UPPER LEFT CHEEK BLOCK	WALNUT	15.850	"	MAHOGANY	71.086
" " " "	MAHOGANY	15.822	ROLL TOP TYPE CABINET	MAHOGANY	71.087
" RIGHT " "	WALNUT	15.845	SLIDING FOR CABINET	MAHOGANY	15.864
" " " "	MAHOGANY	15.823	MUSIC STAND	WALNUT	15.865
LOWER LEFT " "	WALNUT	15.849	" "	MAHOGANY	15.738
" " " "	MAHOGANY	15.820	MUSIC RACK STRIP		15.737
" RIGHT " "	MAHOGANY	15.818	CABINET PLASTIC HANDLE		15.443
MUSICODER HOUSING	WALNUT	15.848	FRAME FULCRUM SUPPORT		15.438
" "	MAHOGANY	15.824	NAME PLATE "GEM"		18.233
KEYBOARDS SEPARATOR	G6-G6RT	17.646	6 WIRES - 30 CM FLAT CABLE		84.158
" "	G6M-G6MRT	17.648	6 WIRES - 35 CM FLAT CABLE		84.159
FRONT PANEL	G6-G6RT	17.649	6 WIRES - 40 CM FLAT CABLE		84.160
" "	G6M-G6MRT	17.650	6 WIRES - 50 CM FLAT CABLE		84.162
CONTACT BOARD		81.496	6 WIRES - 70 CM FLAT CABLE		84.166
LOWER MANUAL LED BAR	G6M-G6MRT	73.103	6 WIRES - 130 CM FLAT CABLE		84.175
UPPER " " "	G6M-G6MRT	73.102	9 WIRES - 45 CM FLAT CABLE		84.211
MUSICODER/MIDICODER INTERFACE	G6M-G6MRT	76.592	12 WIRES - 45 CM FLAT CABLE		84.261
ORGAN-PRESET-EFFECTS SWITCH BOARD		81.120	12 WIRES - 85 CM FLAT CABLE		84.969
ORGAN SWITCH ASSY		14.512	12 WIRES RHYTHM SCANNER CONTROLS FLAT CABLE		84.505
PRESET-EFFECTS " "		14.513	12 WIRES INPUT MATRIX FLAT CABLE		84.506
STEREO PHASER BASS-ACCOMPANIMENT SWITCH BOARD		81.121			
BASS SWITCH ASSY		14.510			
ACCOMPANIMENT " "		14.510			
STEREO PHASER " "		14.510			

FOR REPLACEMENTS CONCERNING PRINTED BOARD ASSY(S) REFER TO SCHEMATIC(S) FOR ASSY(S) CODE

ANY REQUEST NOT ABOVE MENTIONED PART MUST ENCOMPASS SPECIFIC DESCRIPTION INCLUDING:

1) MODEL NAME, 2) SECTION, 3) EVENTUAL MODULE CODE, 4) SCHEMATIC DIAG. REFERENCE