

# K1 II

## **SERVICE MANUAL**

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**KAWAI**

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Kawai Musical Instrument  
Manufacturing Co., Ltd.

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### 3. SEMICONDUCTORS LIST

### 1. P.W.B. INFORMATION

Name	Code No.	Description
MI-033 (2) : All Markets	236178	MI-033 : VOLUME
MI-049 (1) : Japan, 110/200/220/ 240V Markets	236244	MI-049 : CPU, MPU, CODE ROM, TONE RAM, WORK RAM, DECODE, BUFFER, MIDI, WAVE ROM, REBERV, D/A, SYSTEM RESET, AMP, LOW PASS FILTER, LINE OUT, HOLD POWER SUPPLY
(2) : U.S.A., Canada	236245	
(3) : U.K., West Germany, Australia, Europe	236246	
MI-050 (1) : All Markets	236247	MI-050 : VELOCITY SENSOR, AMP, A/D SELECT, PRESSURE, MI-50 POWER SUPPLY

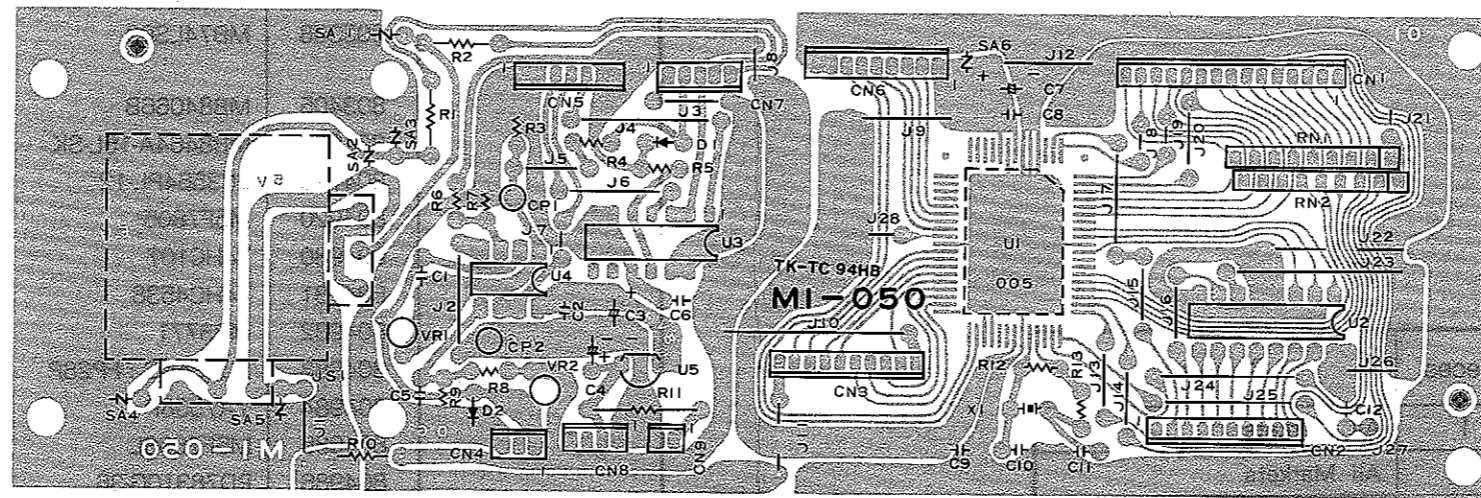
### 2. PARTS LIST

Code No.	Name	Pieces	Country
802053	MIDI Connector	1	All Markets
802369	Lithium Battery	1	All Markets
803349	AC ADAPTER PS-121 D	1	Japan
803350	AC Adapter PS-121 U	1	U.S.A., 110V Markets
803351	AC Adapter PS-121 N	1	200V Markets
803352	AC Adapter PS-121 S	1	Australia
804351	AC Adapter PS-121 G	1	U.K., 240V Markets
804504	AC Adapter PS-121 W	1	West Germany
805040	Keyboard (61keys)	1	All Markets
805772	Upper Case	1	All Markets
803363	Power Jack	1	All Markets
805123	Fuse TSC 1A 250V	1	Japan
803622	Fuse MT4 1A 250V	1	U.S.A., Canada
803628	Fuse NE SET 1A	1	Europe
805467	Power Jack	1	All Markets
917090	Upper Cover	1	All Markets

	Code No.	Name	Description	Pieces	
IC	802361	TLP552	Photo Coupler	1	
	802821	TA78L008AP	Voltage Regurator	1	
	802832	MSM74HC04	Hex Inverter	1	
	802835	MSM74HC139	Dual 2-To 4 Line Decoder	1	
	802842	MSM74HC373	Octal D-Type Latch with 3-State Output Non-Inverting	1	
	802932	MSM74HC138	Dual 2-To-8 Line Decoder	1	
	802935	MSM74HC245	Octal 3-State Bus Transceiver	1	
	803005	MSM74HC00	Quad 2-Input NAND Gate	2	
	803011	PC4556	Dual OP AMP	1	
	803394	KTG001 : FP80P	Tone Generator	1	
	803395	KTG002 : FP64P	Tone Generator	1	
	803398	MB74LS03	Quadruple 2 Input Positive-NAND Gates with Open-Collector Outputs	1	
	803405	MB84066B	Quad Bilateral Switch	1	
	804001	MB8464A-15L-SK	8 x 8Kbits SRAM	1	
	804798	LC3564PL-12	8 x 8Kbits SRAM	2	
	804920	M5F7805	Voltage Regurator	1	
	804980	74HC107	Dual J-K Flip-Flop with Clear	2	
	804981	74HC4538	Dual Monostable Multivibrator	1	
	804982	MB3771	Reset	1	
	804983	PD6355G : FP28P	D/A Convertor	2	
	804984	TA7508P	Quad OP AMP	1	
	804985	M5F7808L	Voltage Regurator	1	
	804986	PD78310G-36	Micro Processing Unit	1	
	804987	KTG003 : FP100P	Tone Generator	1	
	805043	TA75358P	Dual OP AMP	1	
	805758	K-005FP : FP64P	Key Scanner	1	
	805759	K-007FP : FP100P	Reverb Unit	1	
	805760	TC51832SP-12	8R x 32Kbits PSRAM	2	
	915210	HN62304BP			
			MASKROM : P106	8 x 512Kbits MASKROM	1
	918740	PD27C512D-20			
			EPROM : P193	8 x 64Kbits EPROM	1
	Transistor	802508	2SC3331T	SiNPN : Epitaxial Planar Type	7
804988		2SD1468SR	SiNPN : Epitaxial Planar Type	2	
Diode	800625	1SS133		2	
	802364	MA-700		4	
	802898	DSK-10B		2	
Zenor Diode	803592	HZS-4ALL		5	
Crystal Generator	803365	AT-51A8MHz		1	
	803422	AT-51B 12MHz		1	
	804995	AT-51 12.5MHz		1	

**A****B****C****D****E****F****G****H****I**

## 4. MI-050, PRINTED WIRING BOARD

**6****6****5****5****4****4****3****3****2****2****1****1****0****0**

< CN4 >		
3	2	1
		GND
TO KEYBOARD		

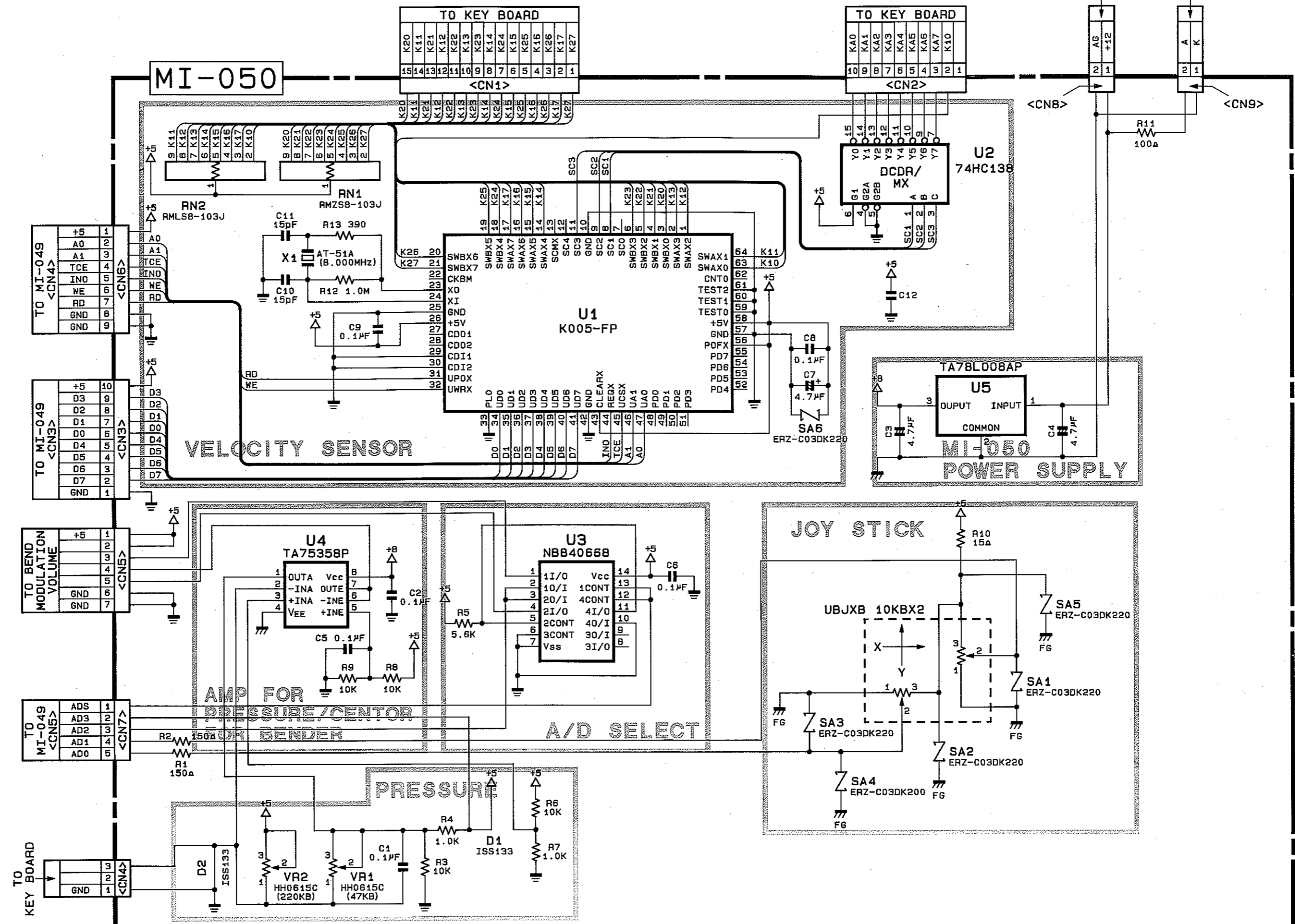
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4	3	2	1
		AG	+ 12
TO MI-049 < CN11 >			

< CN9 >	
2	1
A	K
TO LCD	

< CN3 >									
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GND	D7	D6	D5	D4	D0	D1	D2	D3	+ 5
TO MI-049 < CN3 >									

< CN2 >									
1	2	3	4	5	6	7	8	9	10
K10	KA7	KA6	KA5	KA4	KA3	KA2	KA1	KA0	
TO KEYBOARD									

5. MI-050 CIRCUIT



A

B

C

D

E

F

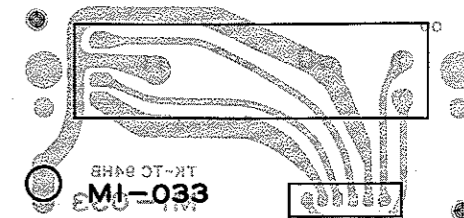
G

H

I

6. MI-033, MI-049 PRINTED WIRING BOARDS

MI-033

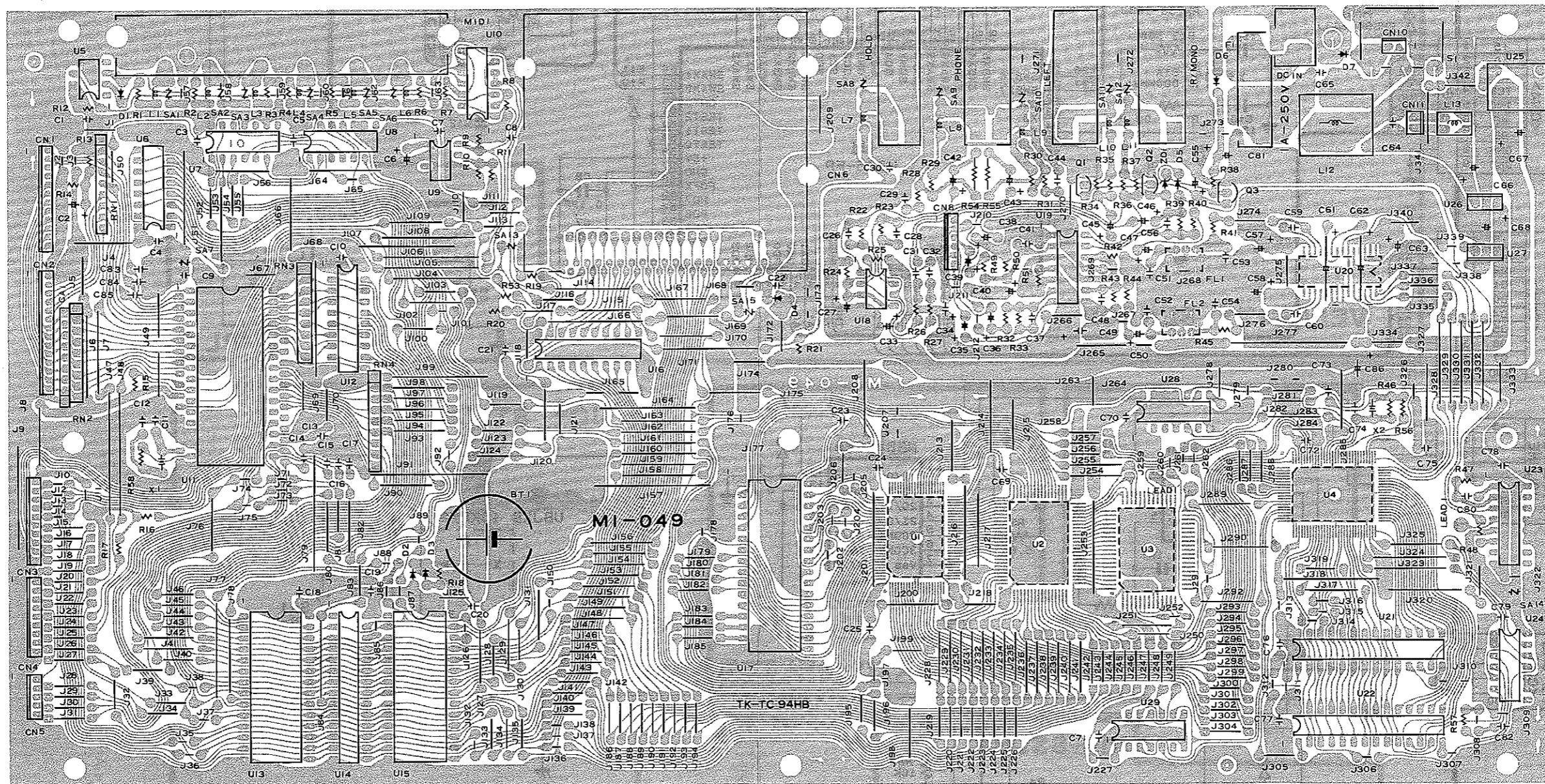


CARD SLOT																																						
A - GND	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
				Y <sub>2</sub>	RES	VE	OE	D0	D1	D2	D3	D4	D5	D6	D7	A0	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	GND	GND	GND	GND	GND	GND	GND	GND	CDET	A - GND

SW		
3	2	1
< CN10 >		

< CN1 >					
1	2	3	4	5	6
A - GND					A - GND
TO MI-049 < CN8 >					

MI-049



< CN11 >	
2	AG
1	+12
TO MI-050 < CNB >	

< CN8 >	
1	A - GND
2	A - GND
3	
4	
5	A - GND
6	
TO MI-033 < CN1 >	

6

6

5

5

4

4

3

3

2

2

1

1

0

0

PANEL SW	
PA0	1
PA1	2
PA2	3
-	4
PD7	5
PD6	6
PD5	7
PD4	8
PD3	9
PD2	10
PD1	11
PD0	12
< CN1 >	

LCD	
GND	1
+5	2
	3
RSE	4
R/W	5
ECL	6
PD0	7
PD1	8
PD2	9
PD3	10
PD4	11
PD5	12
PD6	13
PD7	14
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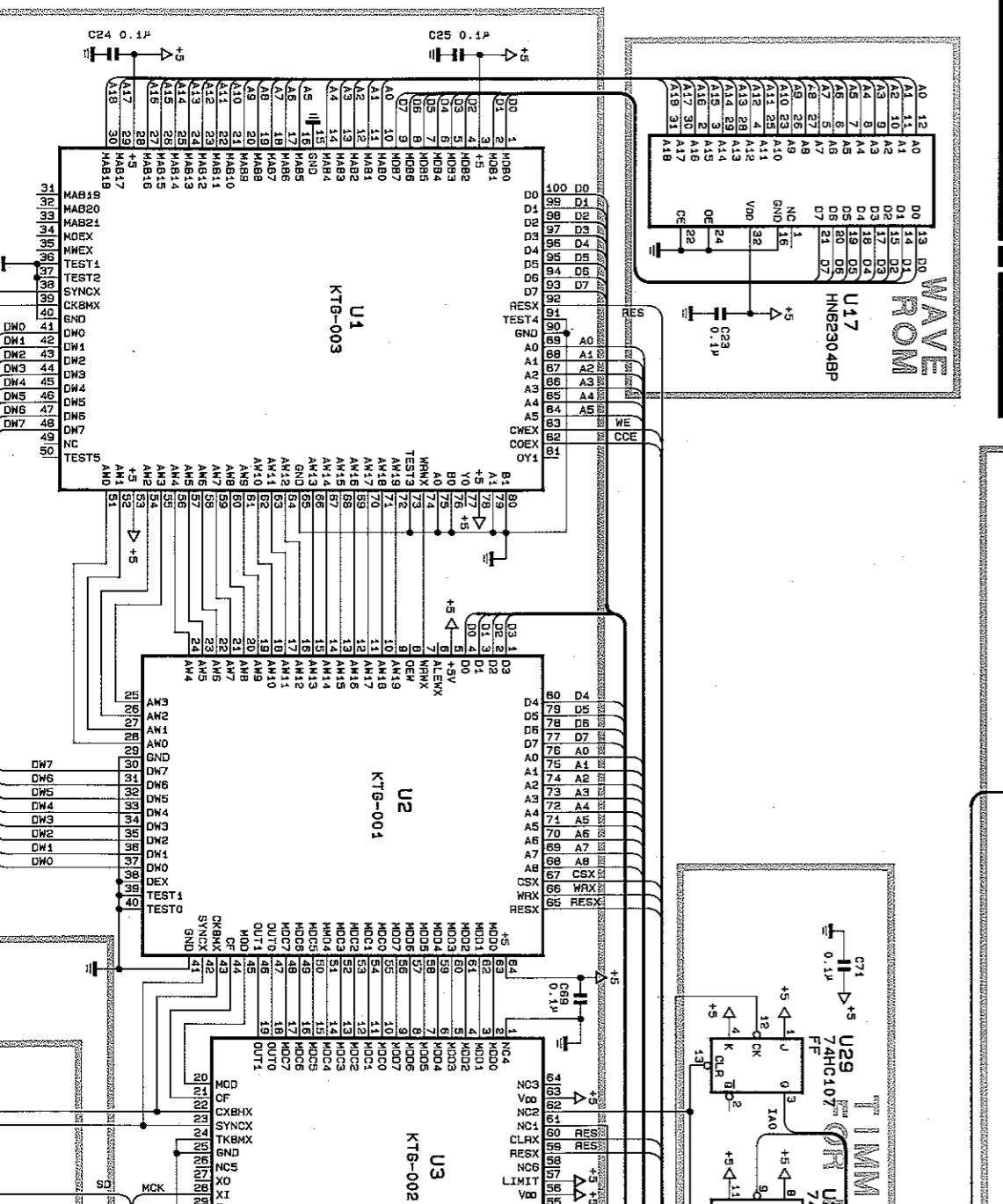
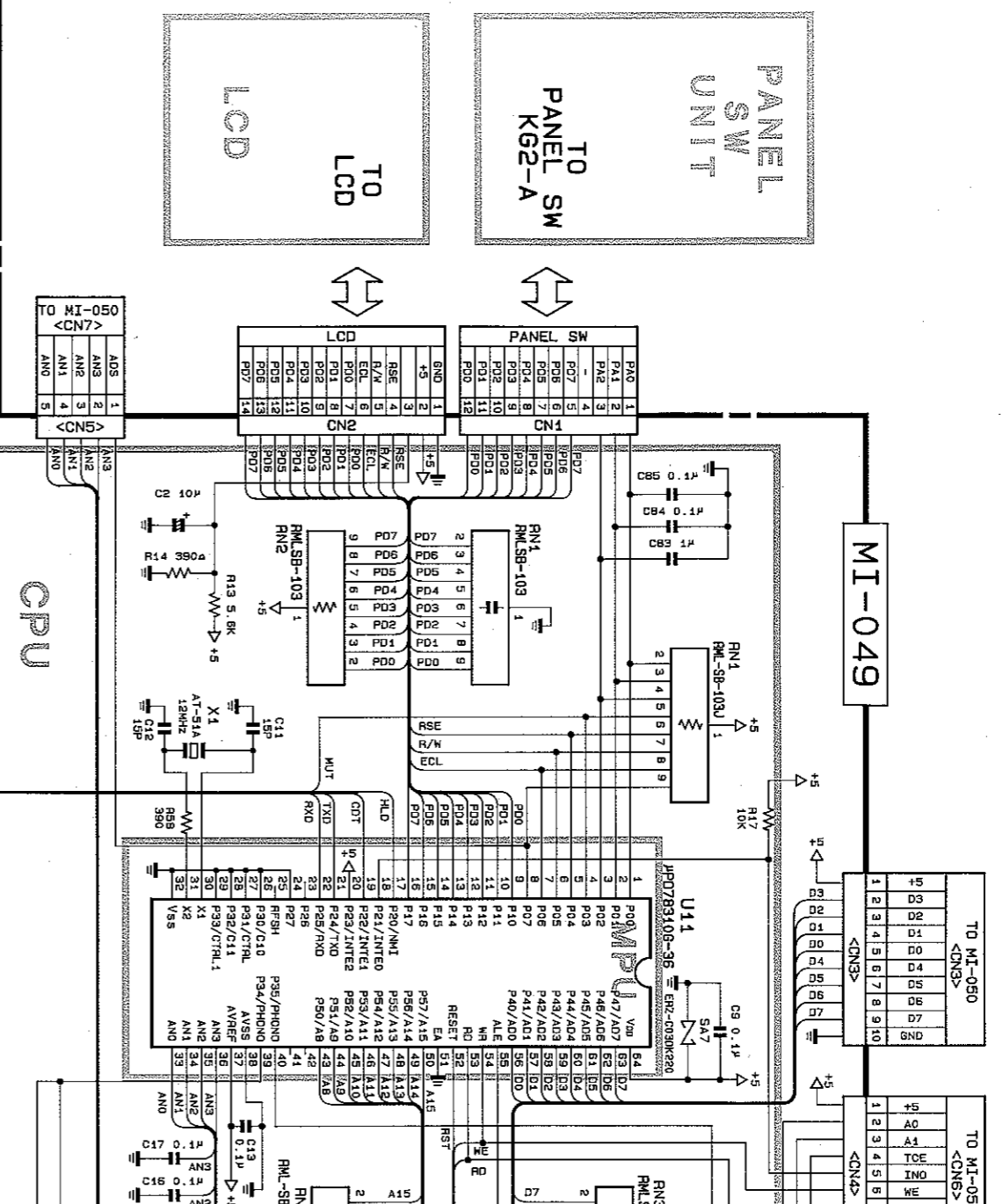
TO MI-050 < CN3 >	
+5	1
D3	2
D2	3
D1	4
D0	5
D4	6
D5	7
D6	8
D7	9
GND	10
< CN3 >	

TO MI-050 < CN6 >	
+5	1
A0	2
A1	3
TCE	4
INO	5
WE	6
RD	7
DET	8
GND	9
< CN4 >	

TO MI-050 < CN7 >	
ADS	1
AN3	2
AN2	3
AN1	4
AN0	5
< CN5 >	

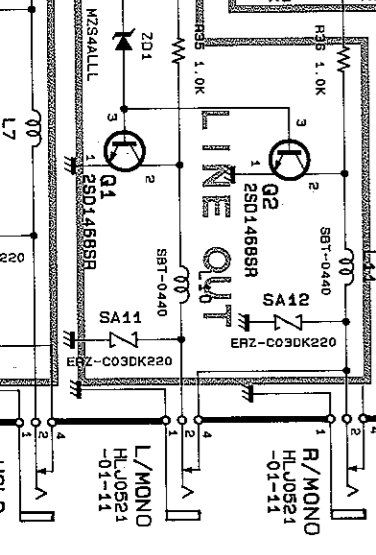
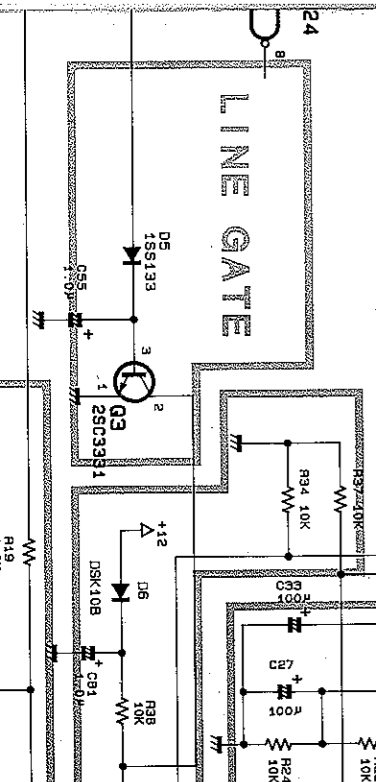
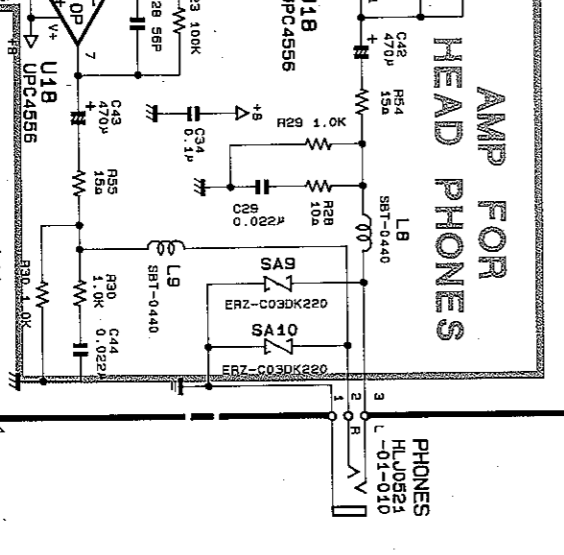
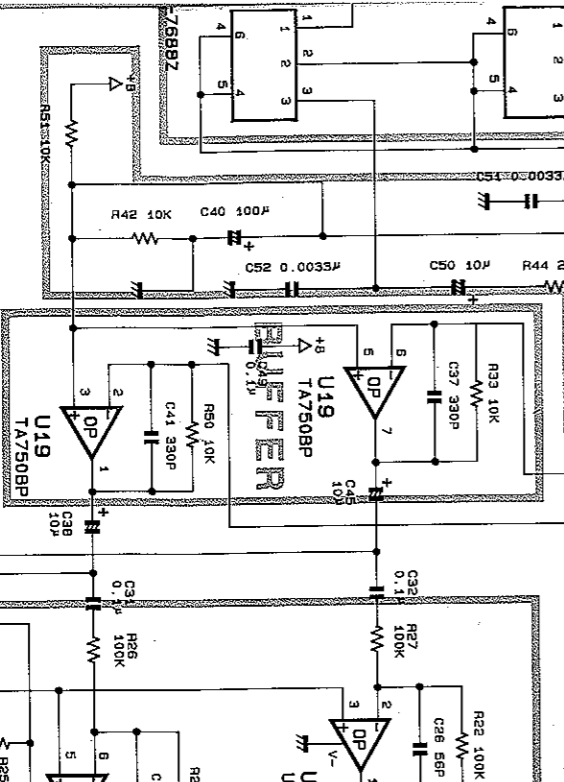
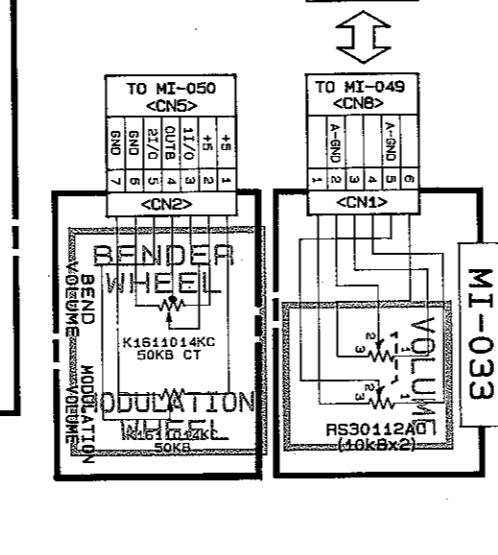
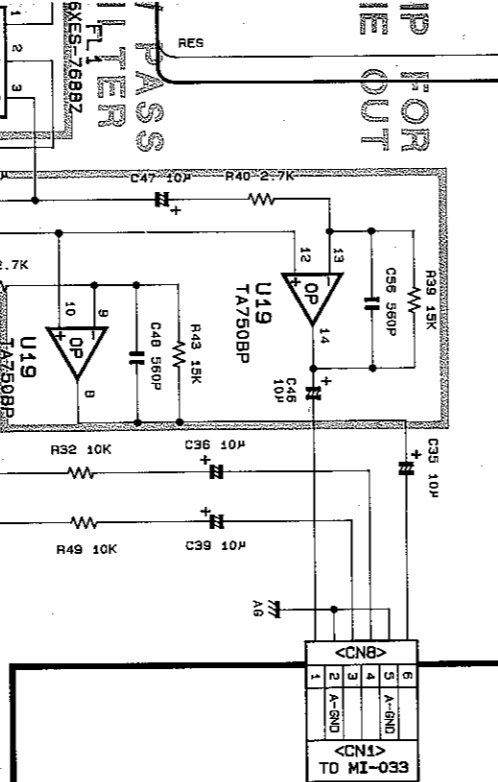
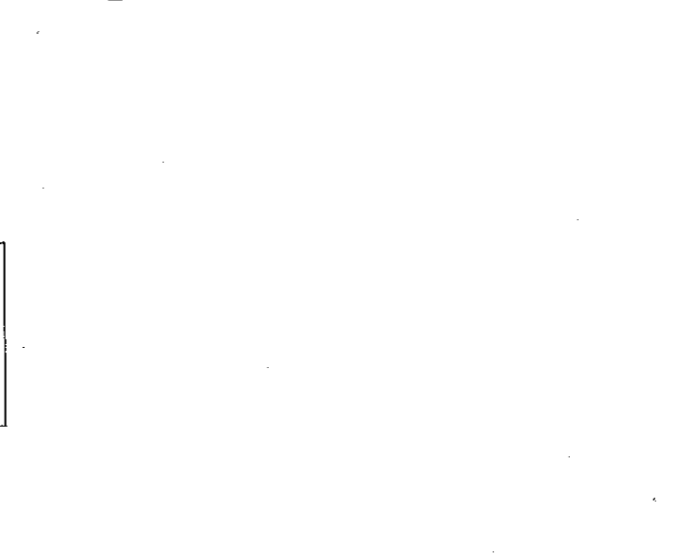
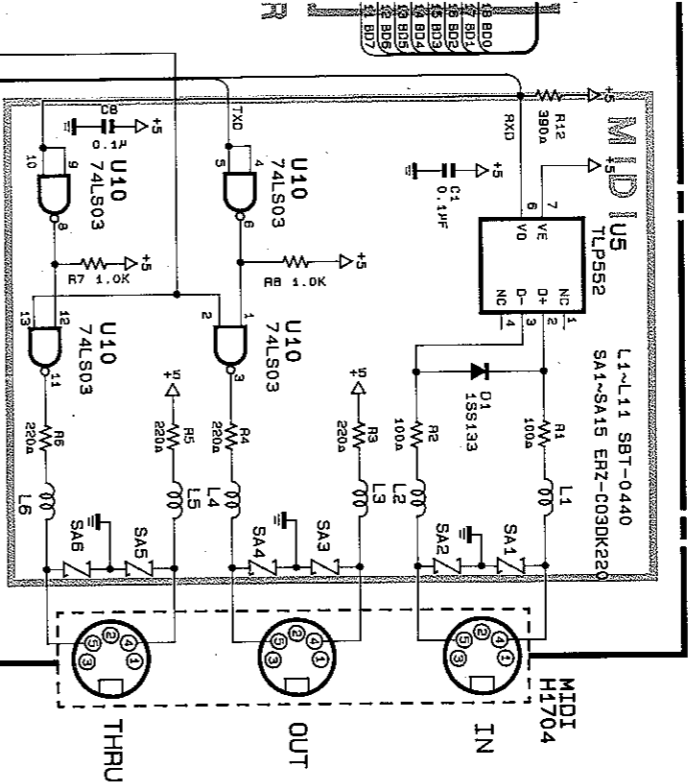
7. MI-033, MI-049 CIRCUITS

A B C









6

5

4

3

2

1

