

SERVICE MANUAL

CONCERT-26/36/ 46/56/56M

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KORG

1. SPECIFICATIONS

C-26

Keyboard	: 88keys(A0-C8)
Voices	: Piano, Electric Piano, Harpsichord, Vibes, Organ, Strings
Polyphony	: 16 notes
Effects	: Advanced Surround(Room, Hall)
Keyboard Mode	: Single, Layer, Split (MIDI Multi)
Controls	: Volume, Power, Key Transpose, Pitch
Pedal Controls	: Damper, Soft/Sostenuto
Connections	: HEADPHONES, AUX IN(L/R), AUX OUT(L,R), MIDI IN/OUT
Main Amplifier	: 30W x 2
Speakers	: 6in. x 2, (16cm x 2)
Power Supply	: AC, Local Voltage
Color and Gain	: Black Walnut
Dimensions	: 54in.(W) x 18in.(D) x 32in.(H) (1382 x 456.5 x 818.5mm)
Weight	: 1bs. (48.8kg)
Standard Accessories	: Key Cover, Music Stand

C-36

Keyboard	: 88keys(A0-C8)
Voices	: Piano, Electric Piano, Harpsichord, Vibes, Organ, Strings
Polyphony	: 16 notes
Effects	: Advanced Surround(Room, Hall), Chorus, Bright, Soft
Recorder	: Maximum 3,400 notes, Tempo, Metronome, Track1, Track2, Repeat, Record, Start/Stop, Reset(with Bounce Function)
Keyboard Mode	: Single, Layer, Split (MIDI Multi)
Controls	: Volume, Power, Key Transpose, Pitch, Touch, Traditional Classical Music Tuning
Pedal Controls	: Damper, Soft, Sostenuto
Connections	: HEADPHONES, AUX IN(L/R), AUX OUT(L,R), MIDI IN/OUT/THRU
Main Amplifier	: 40W x 2
Speakers	: 6in. x 2, 2in. x 2 (16cm x 2, 2.5cm x 2)
Power Supply	: AC, Local Voltage
Color and Gain	: Black Walnut
Dimensions	: 54in.(W) x 18in.(D) x 32in.(H) (1382 x 456.5 x 818.5mm)
Weight	: 117lbs. (53.2kg)
Standard Accessories	: Key Cover, Music Stand

C-46

Keyboard : 88keys(A0-C8)

Voices : Piano1, Piano2, Electric Piano1, Electric Piano2, Harpsichord, Vibes, Bass/Guitar/Drums, Organ1, Organ2, Strings

Polyphony : 16 notes

Effects : Advanced Surround(Room, Stage, Hall, Echo), Tremolo, Chorus, Bright, Soft

Recorder : Maximum 3,400 notes, Tempo, Metronome, Track1, Track2, Repeat, Record, Start/Stop, Reset(with Bounce Function)

Keyboard Mode : Single, Layer, Split (MIDI Multi)

Controls : Volume, Power, Key Transpose, Pitch, Touch, Traditional Classical Music Tuning

Pedal Controls : Damper, Soft, Sostenuato

Connections : HEADPHONES, AUX IN(L/R), AUX OUT(L,R), MIDI IN/OUT/THRU

Main Amplifier : 40W x 2

Speakers : 6in. x 2, 2in. x 2 (16cm x 2, 2.5cm x 2)

Power Supply : AC, Local Voltage

Color and Gain : Black Walnut

Dimensions : 54in.(W) x 18in.(D) x 33in.(H) (1382 x 456.5 x 838.5mm)

Weight : 126lbs. (56.1kg)

Standard Accessories : Key Cover, Music Stand

C-56/56M

Keyboard : 88keys(A0-C8)

Voices : Piano1, Piano2, Electric Piano1, Electric Piano2, Harpsichord, Vibes, Bass/Guitar/Drums, Organ1, Organ2, Strings

Polyphony : 16 notes

Effects : Advanced Surround(Room, Stage, Hall, Echo), Tremolo, Chorus, Bright, Soft

Recorder : Maximum 3,400 notes, Tempo, Metronome, Track1, Track2, Repeat, Record, Start/Stop, Reset(with Bounce Function)

Keyboard Mode : Single, Layer, Split (MIDI Multi)

Controls : Volume, Power, Key Transpose, Pitch, Touch, Traditional Classical Music Tuning

Pedal Controls : Damper, Soft, Sostenuato

Connections : HEADPHONES, AUX IN(L/R), AUX OUT(L,R), MIDI IN/OUT/THRU

Main Amplifier : 40W x 2

Speakers : 6in. x 2, 2in. x 2 (16cm x 2, 2.5cm x 2)

Power Supply : AC, Local Voltage

Color and Gain : Black Walnut

Dimensions : 54in.(W) x 18in.(D) x 33in.(H) (1382 x 456.5 x 838.5mm)

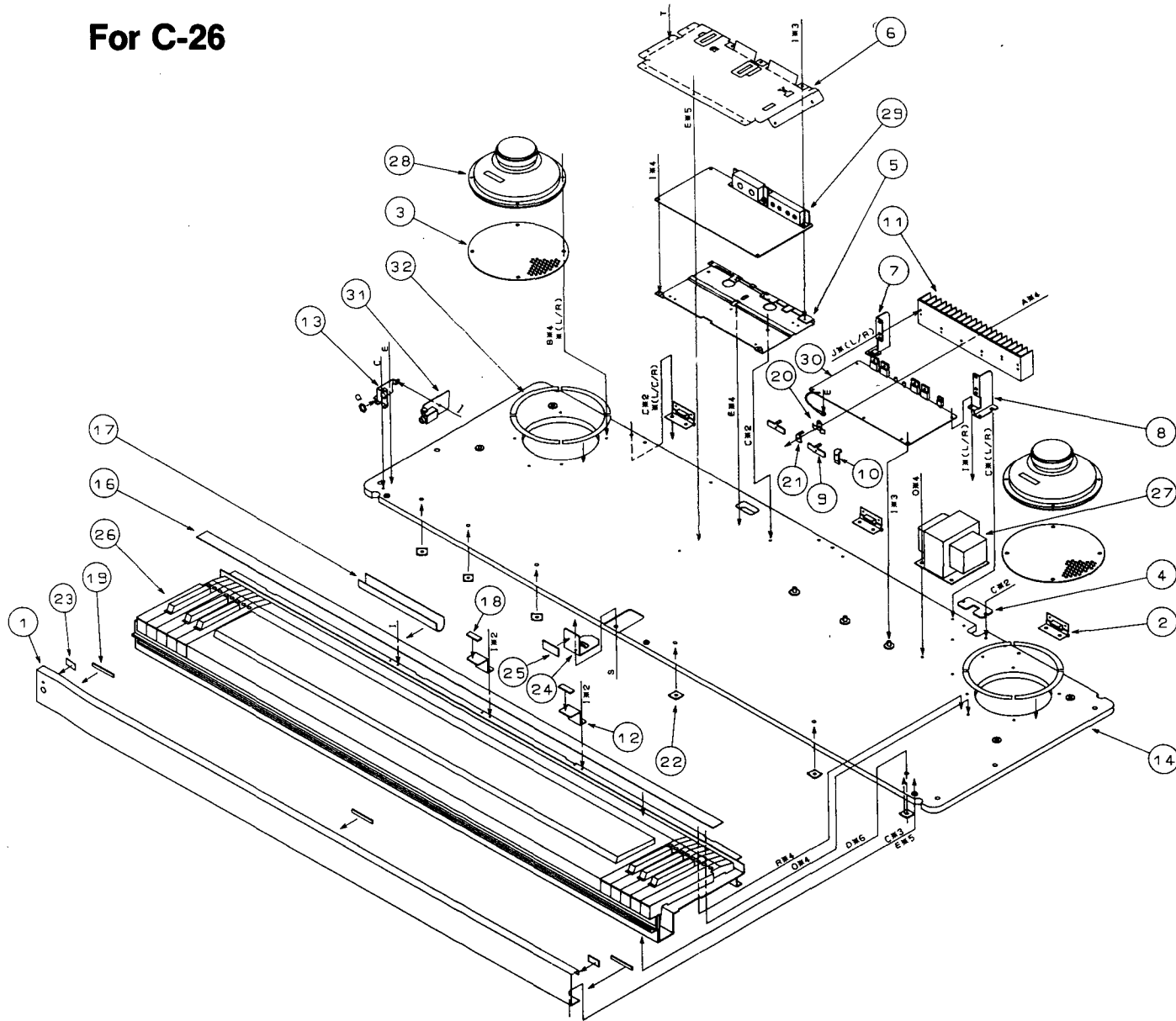
Weight : 126lbs. (56.1kg)

Standard Accessories : Key Cover, Music Stand

NOTE : Design and specifications are subject to change without prior notice.

2. STRUCTURAL DIAGRAM

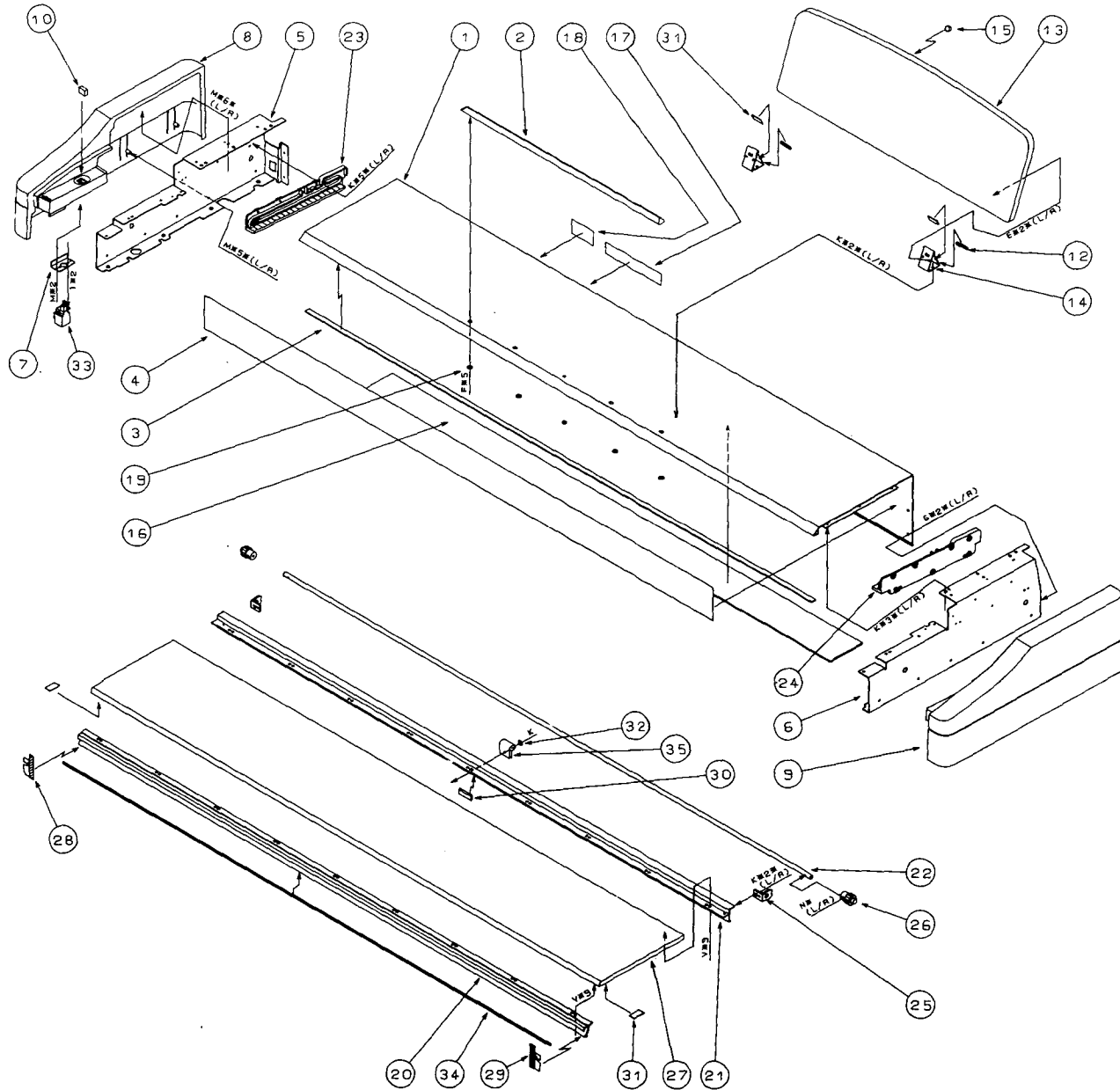
For C-26



PART NO	SCREWS	PART CODE
A	FE B ZMC 3X14	705030314
B	FE B ZMC 4X22	705030422
C	FE FEW BZMC 4X14	707060414
D	FE WSE1 BZMC 5X25	790061525
E	TP1 B BZMC 3X10	715060310
I	CT B ZMC 3X8	715230308
J	CT B ZMC 4X10	715230410
O	NLFE FEW BZMC 4X14	707160414
Q	VN BZMC 12	773061200
R	TP1 B BZMC 3.5X12	715063512
S	FE FEW BZMC 4X18	707060418
T	TP1 FEW ZMC 3X14	717030314

PART NO	PART NAME	PART CODE
1	X-122W FRONT BAR KOC-C10118	641032800
2	X-122 HINGE 2	641026204
3	SPEAKER NET (LARGE)	630013900
4	X-921 BUSHING PLATE	641016600
5	X-120 SHIELD CHASSIS (SMALL)	641030200
6	X-120 SHIELD SHEET (SMALL)	580031300
7	X-122 HEAT SINK ANGLE L	641026210
8	X-122 HEAT SINK ANGLE R	641026211
9	X-122 L TYPE ANGLE (LARGE)	641026900
10	X-122 L TYPE ANGLE (SMALL)	641026901
11	X-122 HEAT SINK 1	641026209
12	X-120 PANEL SUPPORT	641030400
13	X-122 PHONE JACK CHASSIS	641027800
14	X-120S BOTTOM PLATE KOC-D10051	645015700
18	FELT FOR KEYBOARD (LARGE)	550009901
17	CUSHION (2)	500011702
18	X-120 STOPPER FELT	550014900
19	X-921 SPACER FOR FRONT BAR	500017600
20	X-120 HOLDER SPRING V3	641031500
21	X-120 SPRING STOPPER 3	641031400
22	X-120 STOPPER PLATE	641031300
23	CUSHION R (FOR FRONT BAR)	500011801
24	X-122 FRONT BAR SPACER	641032100
25	X-120 FRONT BAR RUBBER T=3mm	500019300
28	KEYBOARD AE11-88	420004600
27	POWER TRANSFORMER TC-044A	400013400
28	SPEAKER FF166-0846 16cm	410003600
29	MAIN P.C.BOARD KLM-1546	001154601
30	POWER SUPPLY P.C.BOARD KLM-1568	001156802
31	HEADPHONE P.C.BOARD KLM-1569	001156901
32	SPONGE TAPE LS3	-----

For C-26

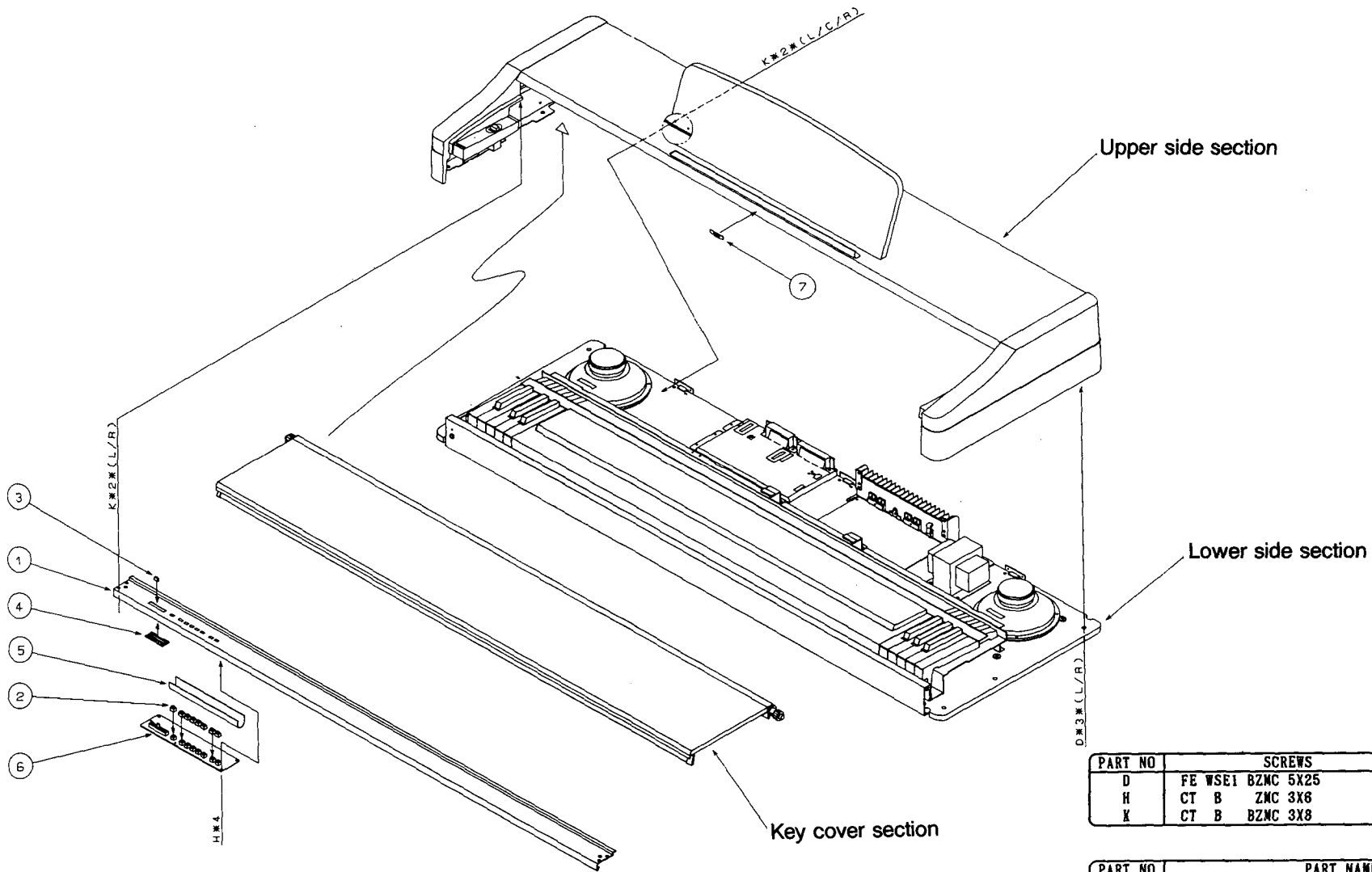


PART NO	SCREWS	PART CODE
E	TP1 B BZMC 3X10	715060310
F	TP2G FEW BZMC 3X6	
G	TP2G FEW BZMC 3X8	727060308
I	CT B ZMC 3X8	715230308
K	CT B BZMC 3X8	715260308
M	PLAX B BZMC 3X8	745060308
N	NLFE F BZMC 3X10	701160310
V	TP1 B BZMC 3.5X8	715063508

PART NO	PART NAME	PART CODE
1	X-220 TOP PLATE 4 ASSEMBLY	641035100
2	X-921 MUSIC STOPPER A	646036600
3	KEY COVER FELT KOC-F40541	-----
4	SLIT MASK KOC-F40546	-----
5	X-122 SIDE CHASSIS L	641026205
6	X-122 SIDE CHASSIS R	641026206
7	X-526/527 METAL FITTING OF SW	640082500
8	X-122 SIDE PLATE L	646041100
9	X-122 SIDE PLATE R	646041101
10	X-825W POWER SW KNOB BLK	820021600
12	X-921 HINGE CAP	629010907
13	X-220 MUSIC PLATE KOC-D20075	645016500
13	X-122W MUSIC PLATE KOC-D20074(FOR 100JP)	645015900
14	X-921 MUSIC STAND HINGE	641014900
15	RUBBER STOPPER 3	500014200
16	SHEET KOC-E40327	-----
17	SERVICE MAN CAUTION 3	-----
18	NAME SEAL	-----
19	WASHER	-----
20	X-122W KC PANEL A35W KOC-C30382	641032400
21	X-122W KC PANEL B35W KOC-C30383	641032300
22	X-922/923 SHAFT	641016500
23	X-121 RACK 1 L	646041200
24	X-121 RACK 1 R	646041201
25	SHAFT COLLAR	646041500
26	X-922 GEAR	646035900
27	X-122W KEY COVER KOC-D10052	645016100
28	KEY COVER FELT L KOC-F40565-1	-----
29	KEY COVER FELT R KOC-F40565-2	-----
30	PANEL CUSHION KOC-40543	-----
31	X-122W PANEL CUSHION 2 KOC-F40576	500019500
32	WM BZMC 4	780060400
33	POWER SW SDDGA1103A TV-5	375010400
34	PANEL CUSHION KOC-F40495	-----
35	X-122W BELT KOC-E40329	540019500

For C-26

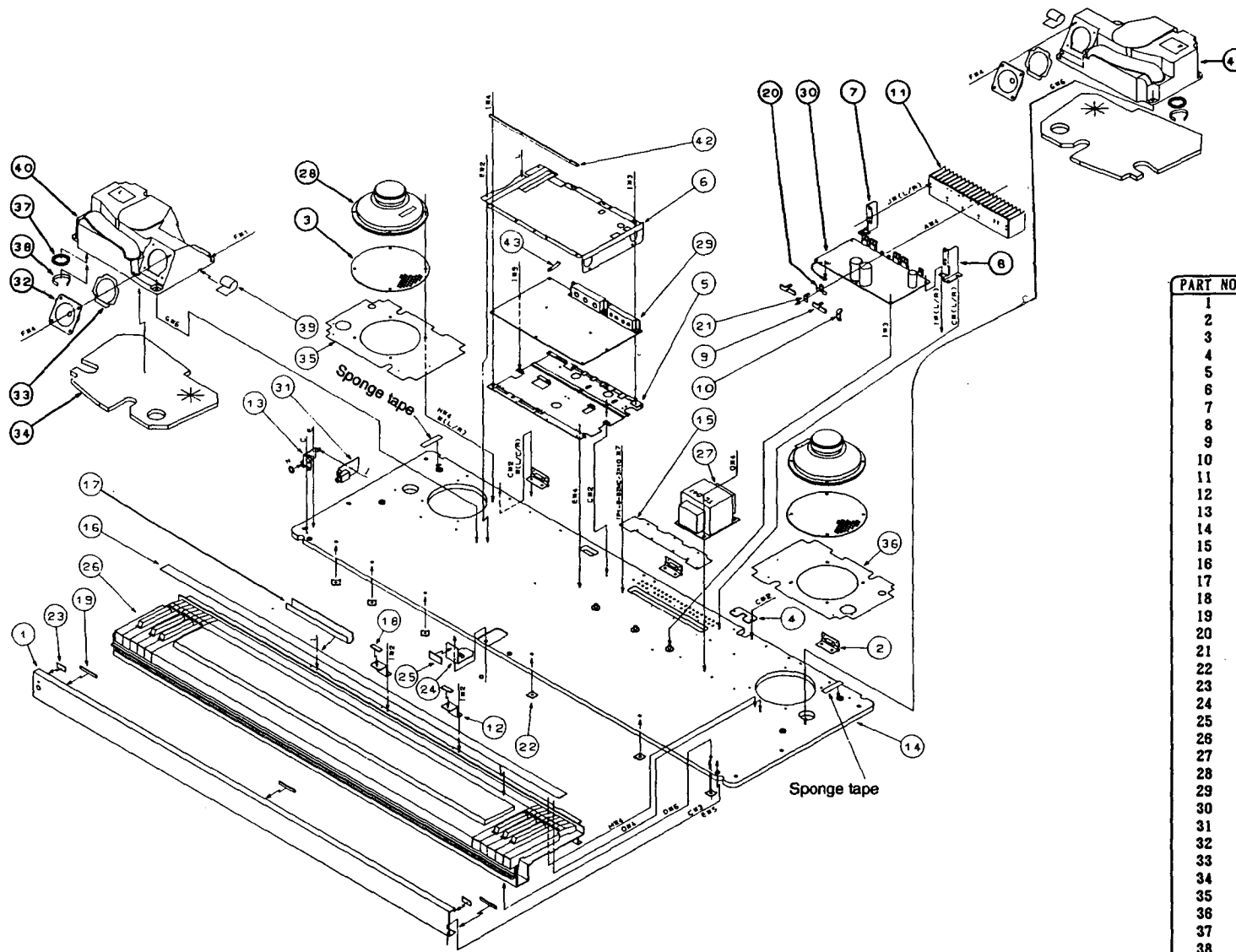
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PART NO	SCREWS	PART CODE
D	FE WSE1 BZNC 5X25	790061525
H	CT B ZNC 3X8	715230306
K	CT B BZNC 3X8	715260308

PART NO	PART NAME	PART CODE
1	X-220 FRONT PANEL KOC-20226	641035200
2	X-921 TACT SW KNOB NO.1	620022300
3	SLIDE VR KNOB	820022500
4	SLIDE VR ESCUSHION 30 NO.1	646041400
5	CUSHION (2)	500011702
6	PANEL P.C.BOARD KLM-1547	001154701
7	KORG LOGOTYPE PLATE	841036000

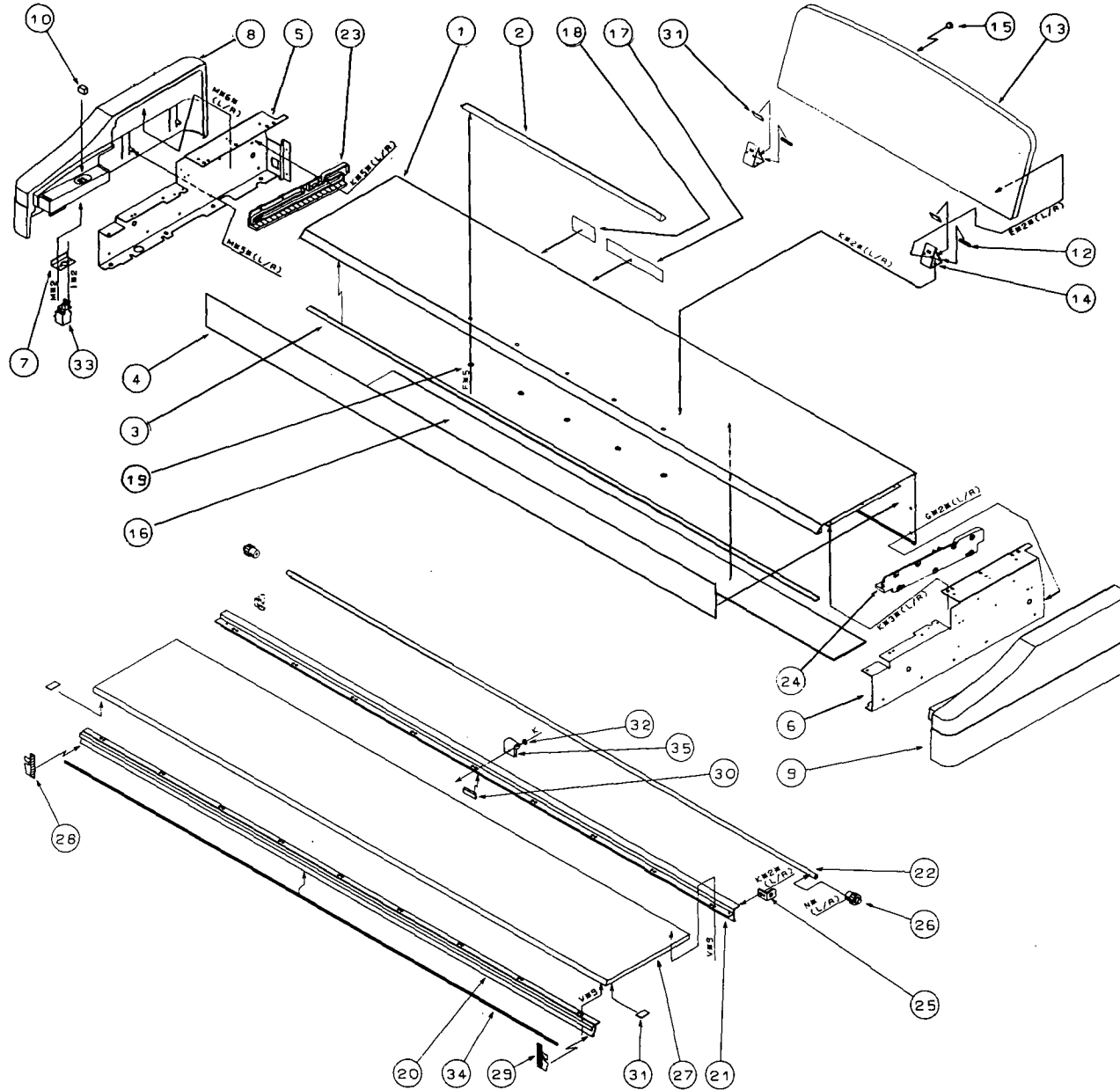
For C-36



PART NO	SCREWS	PART CODE
A	FE B ZNC 3X14	705030314
B	FE FEV BZNC 4X18	707060418
C	FE FEV BZNC 4X14	707060414
D	FE WSE1 BZNC 5X25	790081525
E	TP1 B BZNC 3X10	715080310
F	PLAX B BZNC 4X12	745080412
G	FE WSE1 ZNC 4X18	790030418
H	FE WSE1 ZNC 4X25	790030425
I	CT B ZNC 3X8	715230308
J	CT B ZNC 4X10	715230410
L	TP1 FEV ZNC 3X14	717030314
M	TP1 B BZNC 3.5X12	715063512
N	VN BZNC 12	773061200
O	NLFE FEV BZNC 4X14	707160414

PART NO	PART NAME	PART CODE
1	X-122W FRONT BAR KOC-C10118	641032800
2	X-122 HINGE 2	641026204
3	SPEAKER NET (LARGE) KOC-C40669	640086300
4	X-921 BUSHING PLATE	641016600
5	X-122 SHIELD CHASSIS (LARGE)	641026200
6	X-122 SHIELD SHEET (LARGE)	580031200
7	X-122 HEAT SINK ANGLE L	641026210
8	X-122 HEAT SINK ANGLE R	641026211
9	X-122 L TYPE ANGLE (LARGE)	641026900
10	X-122 L TYPE ANGLE (SMALL)	641026901
11	X-221/222 HEAT SINK 3	560007400
12	X-120 PANEL SUPPORT	641030400
13	X-122 PHONE JACK CHASSIS	641027800
14	X-221 BOTTOM PLATE ASSEMBLY	645016300
15	X-921 RADIATION COVER KOC-C40830	641016700
16	FELT FOR KEYBOARD (LARGE)	550009901
17	CUSHION (2)	500011702
18	X-120 STOPPER FELT	550014900
19	X-921 SPACER FOR FRONT BAR	500017600
20	X-120 HOLDER SPRING V3	641031500
21	X-120 SPRING STOPPER 3	641031400
22	X-120 STOPPER PLATE	641031300
23	CUSHION R (FOR FRONT BAR)	500011801
24	X-122 FRONT BAR SPACER	641032100
25	X-120 FRONT BAR RUBBER T=3mm	500019300
26	KEYBOARD AE11-88	420004600
27	POWER TRANSFORMER TC-047	400013600
28	SPEAKER FF166-945E 16cm	410003900
29	MAIN P.C. BOARD KLM-1653	001165300
30	POWER SUPPLY P.C. BOARD KLM-1643	001164300
31	PHONE JACK P.C. BOARD KLM-1589	001158901
32	SPEAKER FT50-L5	410003300
33	X-221 TWEETER PAKING KOC-F40592	500020100
34	X-221 SILENCE FORM KOC-F30055	500019800
35	X-221 GASKET 2 L KOC-F30054-1	500020200
36	X-221 GASKET 2 R	500020201
37	X-221 PACKING 2 KOC-F40595	500020000
38	PACKING FOR DUCT	550015600
39	CORD PACKING 2	550015500
40	X-221 SPEAKER BOX L ASSEMBLY	646043300
41	X-221 SPEAKER BOX 2 R ASSEMBLY	646043301
42	X-122 SHIELD ANGLE	641033300
43	GROUND SPRING (A)	640084900

For C-36

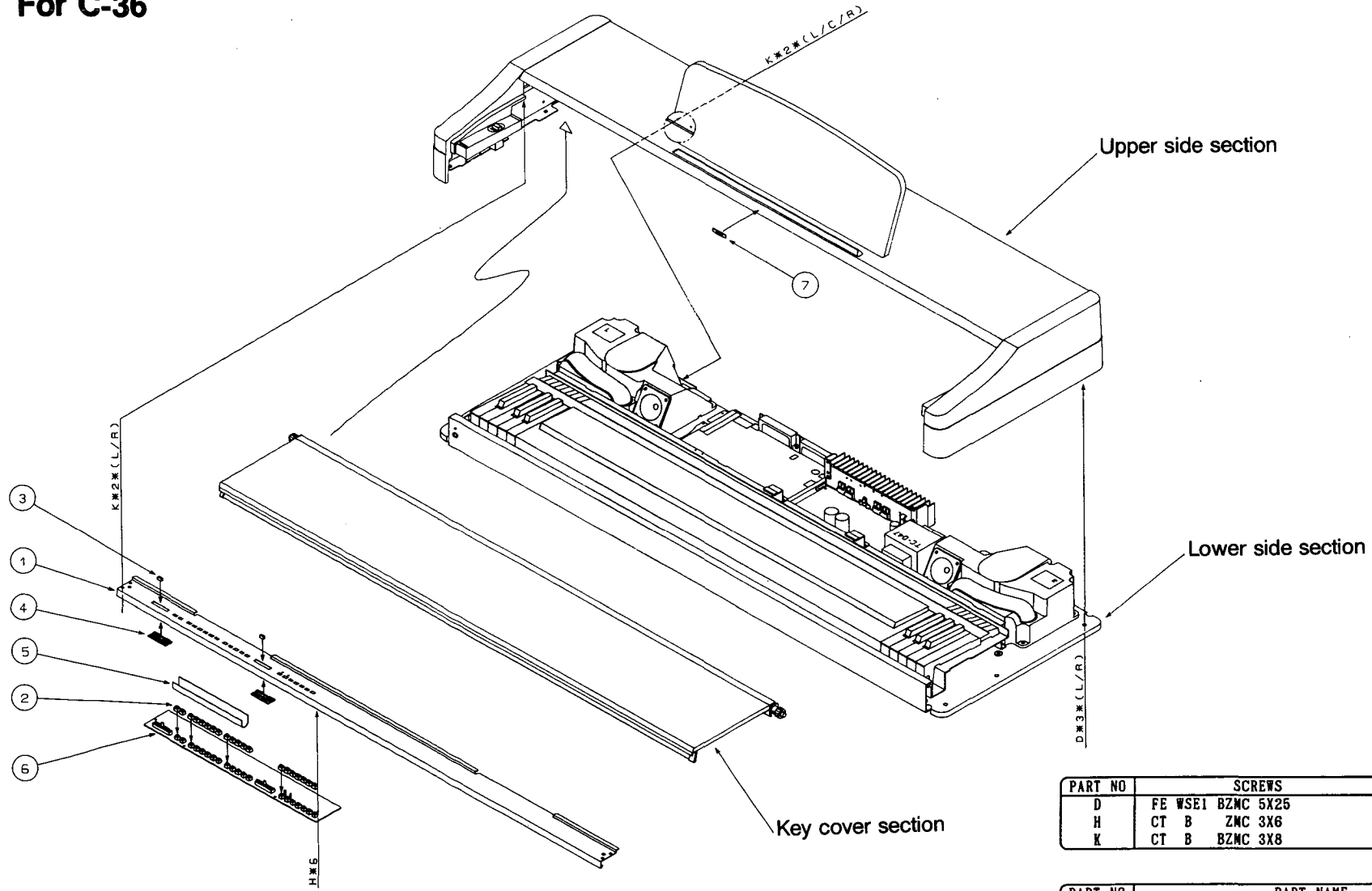


PART NO	SCREWS	PART CODE
E	TP1 B BZNC 3X10	715060310
F	TP2G FEW BZNC 3X6	727060306
G	TP2G FEW BZNC 3X8	727060308
I	CT B ZNC 3X8	715230308
K	CT B BZNC 3X8	715260308
M	PLAX B BZNC 3X8	745060308
N	NLFE F BZNC 3X10	701160310
V	TP1 B BZNC 3.5X8	715063508

PART NO	PART NAME	PART CODE
1	X-221 TOP PLATE ASSEMBLY	641034900
2	X-921 MUSIC STOPPER A	646036600
3	KEY COVER FELT KOC-F40541	-----
4	SLIT MASK KOC-F40546	-----
5	X-122 SIDE CHASSIS L	641026205
8	X-122 SIDE CHASSIS R	641026208
7	X-526/527 METAL FITTING OF SW	640082500
8	X-122 SIDE PLATE L	646041100
9	X-122 SIDE PLATE R	646041101
10	X-825M POWER SW KNOB BLK	620021600
12	X-921 HINGE CAP	629010907
13	X-220 MUSIC PLATE KOC-D20075	645016500
13	X-122W MUSIC PLATE KOC-D20074(FOR 100JP)	645015900
14	X-921 MUSIC STAND HINGE	641014900
15	RUBBER STOPPER 3	500014200
16	VIBRATION CONTROL SHEET	-----
17	SERVICE MAN CAUTION 3	-----
18	NAME SEAL	-----
19	WASHER	-----
20	X-122W KC PANEL A35W KOC-C30382	641032400
21	X-122W KC PANEL B35W KOC-C30383	641032300
22	X-922/923 SHAFT	641016500
23	X-121 RACK 1 L	646041200
24	X-121 RACK 1 R	646041201
25	SHAFT COLLAR	646041500
26	X-922 GEAR	646035900
27	X-122W KEY COVER KOC-D10052	645016100
28	KEY COVER FELT L KOC-F40565-1	-----
29	KEY COVER FELT R KOC-F40565-2	-----
30	PANEL FELT KOC-F40543	-----
31	X-122W PANEL CUSHION 2 KOC-F40578	500019500
32	WM BZNC 4	780060400
33	POWER SW SDDCA1103A TV-5	375010400
34	PANEL CUSHION KOC-F40495	-----
35	X-122W BELT KOC-E40329	540019500

For C-36

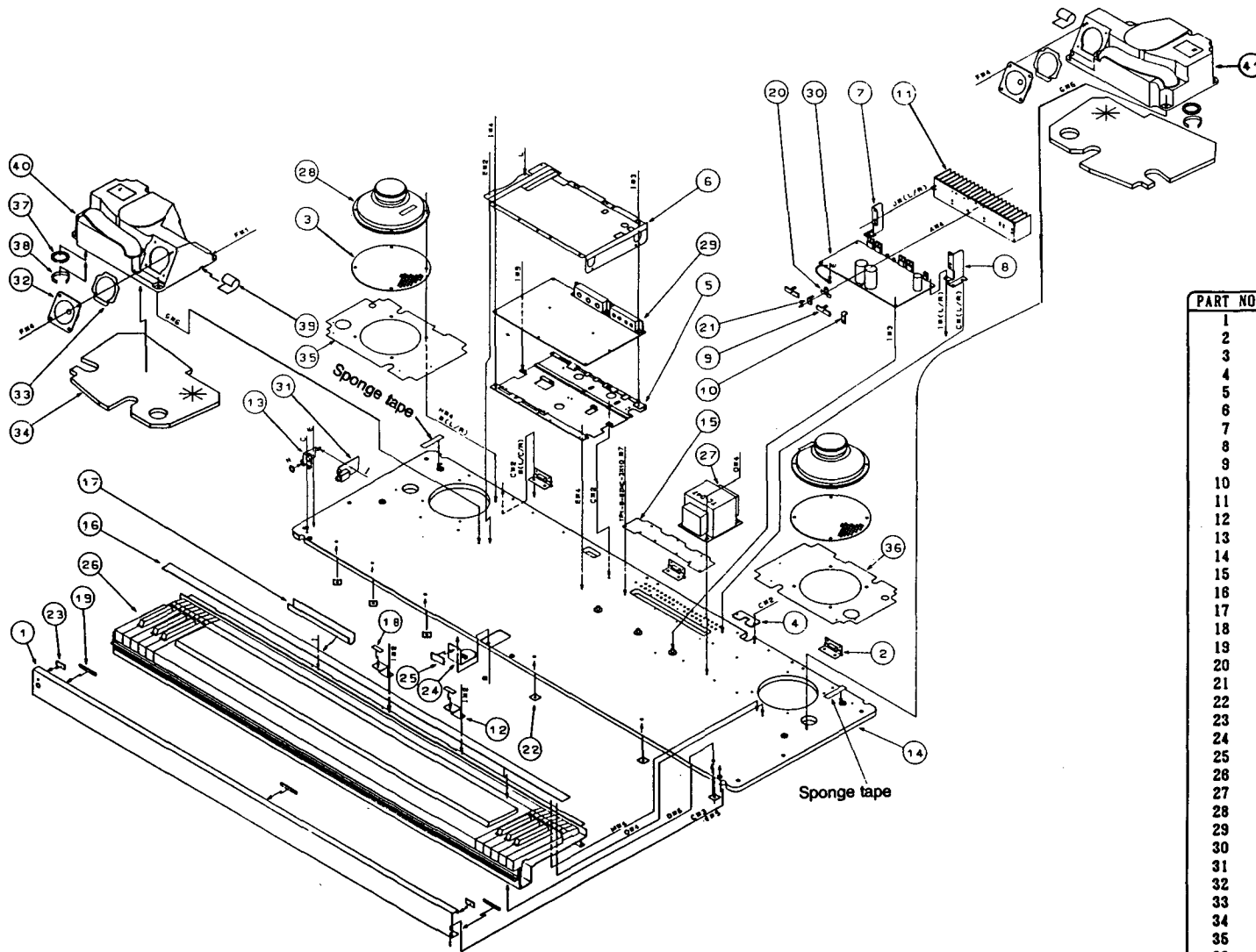
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PART NO	SCREWS	PART CODE
D	FE WSE1 BZNC 5X25	790061525
H	CT B ZNC 3X6	715230306
K	CT B BZNC 3X8	715260308

PART NO	PART NAME	PART CODE
1	X-221 FRONT PANEL KOC-C20267	641035000
2	X-921 TACT SW KNOB NO.1	620022300
3	SLIDE VR KNOB	620022500
4	SLIDE VR ESCUSHION 30 NO.1	646041400
5	CUSHION (2)	500011702
6	PANEL P.C. BOARD KLM-1566	001156600
7	KORG LOGOTYPE PLATE	641036000

For C-46

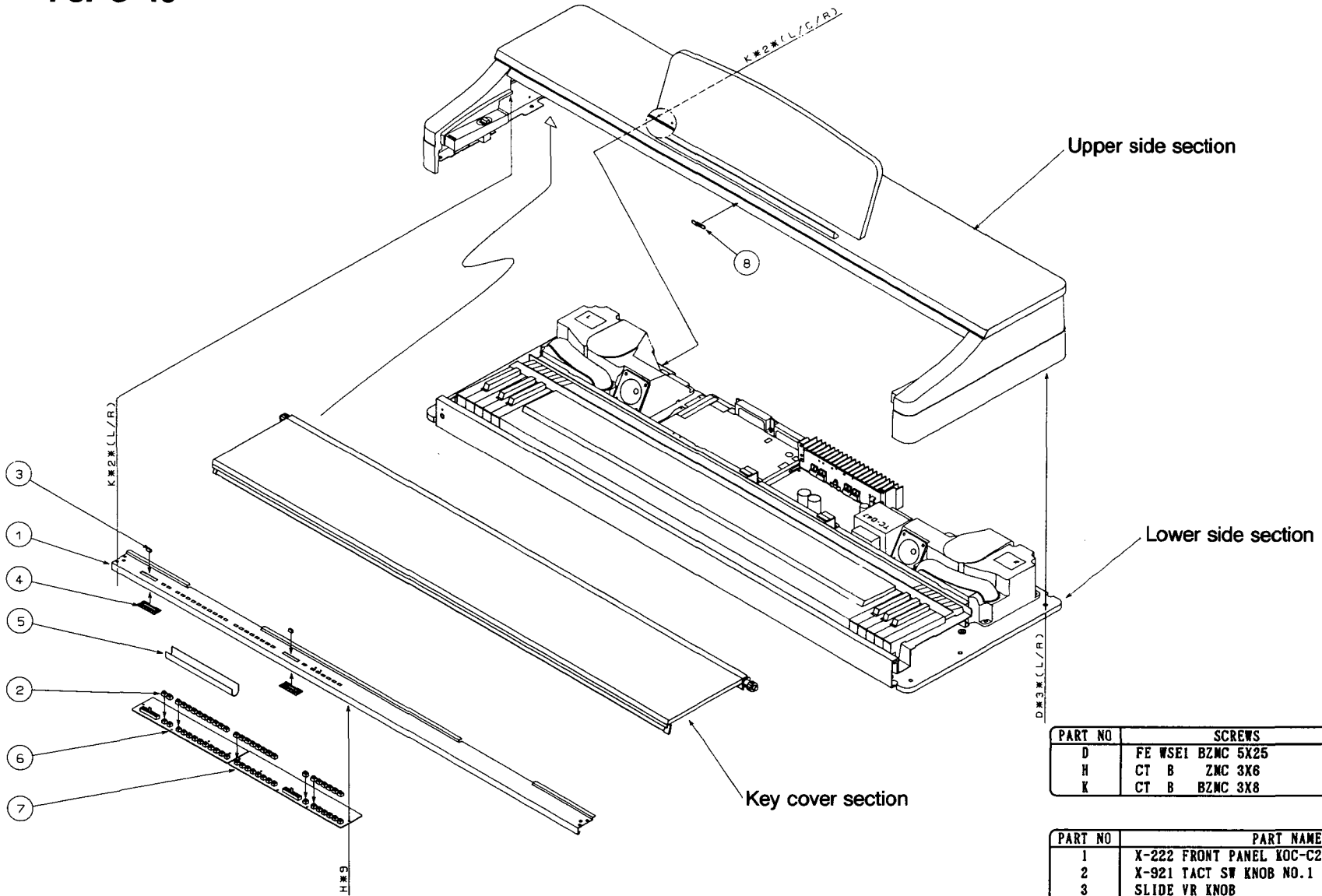


PART NO	SCREWS	PART CODE
A	FE B ZMC 3X14	705030314
B	FE FEW BZMC 4X18	707060418
C	FE FEW BZMC 4X14	707060414
D	FE WSE1 BZMC 5X25	790081525
E	TP1 B BZMC 3X10	715060310
F	PLAX B BZMC 4X12	745080412
G	FE WSE1 ZMC 4X18	790030418
H	FE WSE1 ZMC 4X25	790030425
I	CT B ZMC 3X8	715230308
J	CT B ZMC 4X10	715230410
L	TP1 FEW ZMC 3X14	717030314
N	TP1 B BZMC 3.5X12	715063512
N	VN BZMC 12	773061200
O	NLFE FEW BZMC 4X14	707160414

PART NO	PART NAME	PART CODE
1	X-122W FRONT BAR KOC-C10118	641032800
2	X-122 HINGE 2	641026204
3	SPEAKER NET (LARGE) KOC-C40669	640086300
4	X-921 BUSHING PLATE	641016800
5	X-122 SHIELD CHASSIS (LARGE)	641026200
6	X-122 SHIELD SHEET (LARGE)	580031200
7	X-122 HEAT SINK ANGLE L	641026210
8	X-122 HEAT SINK ANGLE R	641026211
9	X-122 L TYPE ANGLE (LARGE)	641026900
10	X-122 L TYPE ANGLE (SMALL)	641026901
11	X-221/222 HEAT SINK 3	560007400
12	X-120 PANEL SUPPORT	641030400
13	X-122 PHONE JACK CHASSIS	641027800
14	X-221 BOTTOM PLATE ASSEMBLY	645016300
15	X-921 RADIATION COVER KOC-C40830	641016700
16	FELT FOR KEYBOARD (LARGE)	550009901
17	CUSHION (2)	500011702
18	X-120 STOPPER FELT	550014900
19	X-921 SPACER FOR FRONT BAR	500017600
20	X-120 HOLDER SPRING V3	641031500
21	X-120 SPRING STOPPER 3	641031400
22	X-120 STOPPER PLATE	641031300
23	CUSHION R (FOR FRONT BAR)	500011801
24	X-122 FRONT BAR SPACER	641032100
25	X-120 FRONT BAR RUBBER T=3mm	500019300
26	KEYBOARD AE11-88	420004600
27	POWER TRANSFORMER TC-047	400013600
28	SPEAKER FF166-945E 18cm	410003900
29	MAIN P.C. BOARD KLM-1653	001165301
30	POWER SUPPLY P.C. BOARD KLM-1643	001164300
31	PHONE JACK P.C. BOARD KLM-1569	001156901
32	SPEAKER FT50-L5	410003300
33	X-221 TWEETER PAKING KOC-F40592	500020100
34	X-221 SILENCE FORM KOC-F30055	500019800
35	X-221 GASKET 2 L KOC-F30054-1	500020200
36	X-221 GASKET 2 R	500020201
37	X-221 PACKING 2 KOC-F40595	500020000
38	X-221 PACKING FOR DUCT F40600	550015600
39	X-221 CORD PACKING 2 KOC-F40599	550015500
40	X-221 SPEAKER BOX2 L ASSEMBLY	646043300
41	X-221 SPEAKER BOX2 R ASSEMBLY	646043301

For C-46

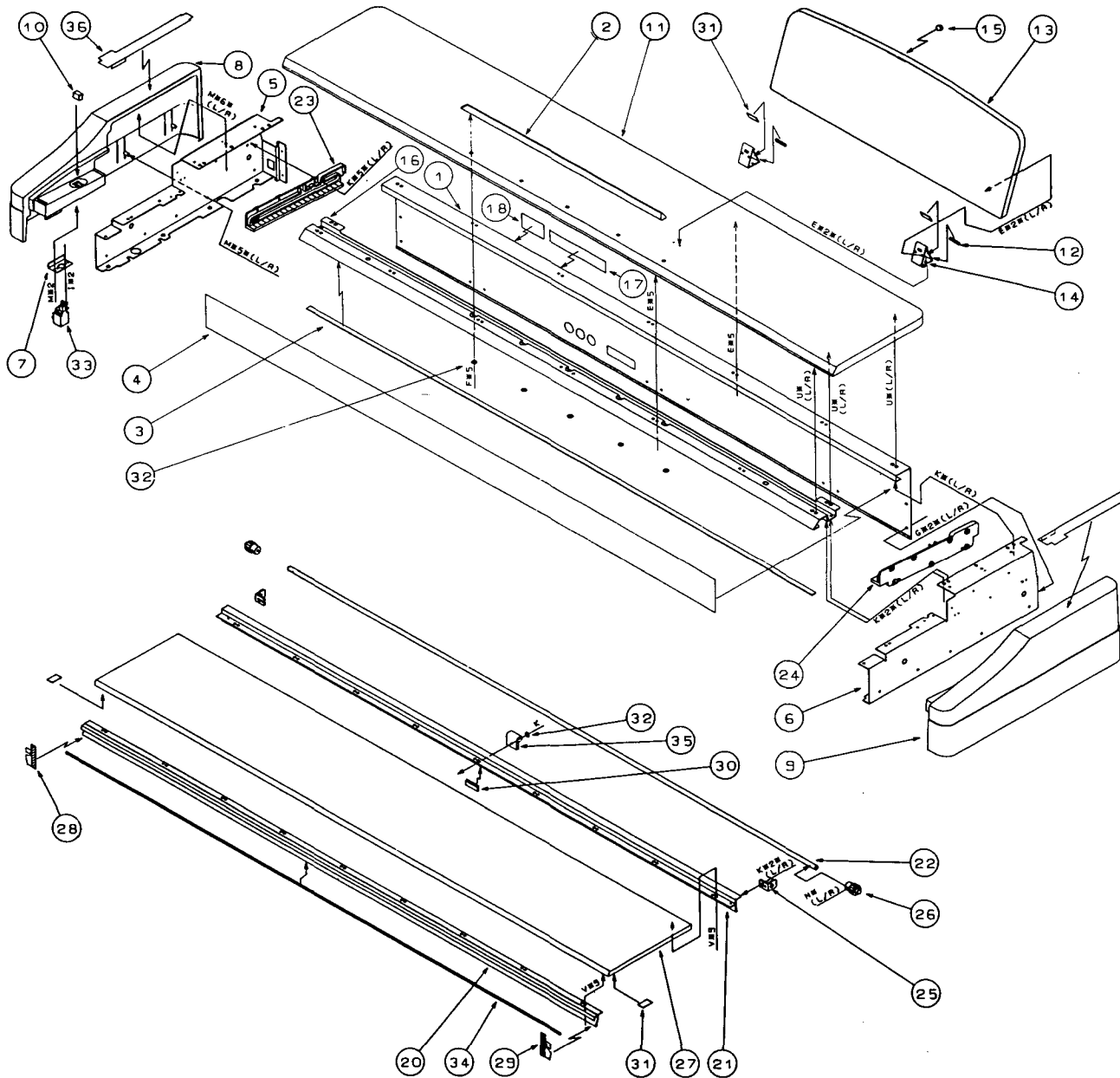
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PART NO	SCREWS	PART CODE
D	FE WSE1 BZMC 5X25	790061525
H	CT B ZMC 3X6	715230306
K	CT B BZMC 3X8	715260308

PART NO	PART NAME	PART CODE
1	X-222 FRONT PANEL KOC-C20264	841035500
2	X-921 TACT SW KNOB NO.1	620022300
3	SLIDE VR KNOB	620022500
4	SLIDE VR ESCUSHION 30 NO.1	646041400
5	CUSHION (2)	500011702
6	PANEL P.C. BOARD KLM-1640	001164000
7	PANEL P.C. BOARD KLM-1641	001164000
8	KORG LOGOTYPE PLATE	841036000

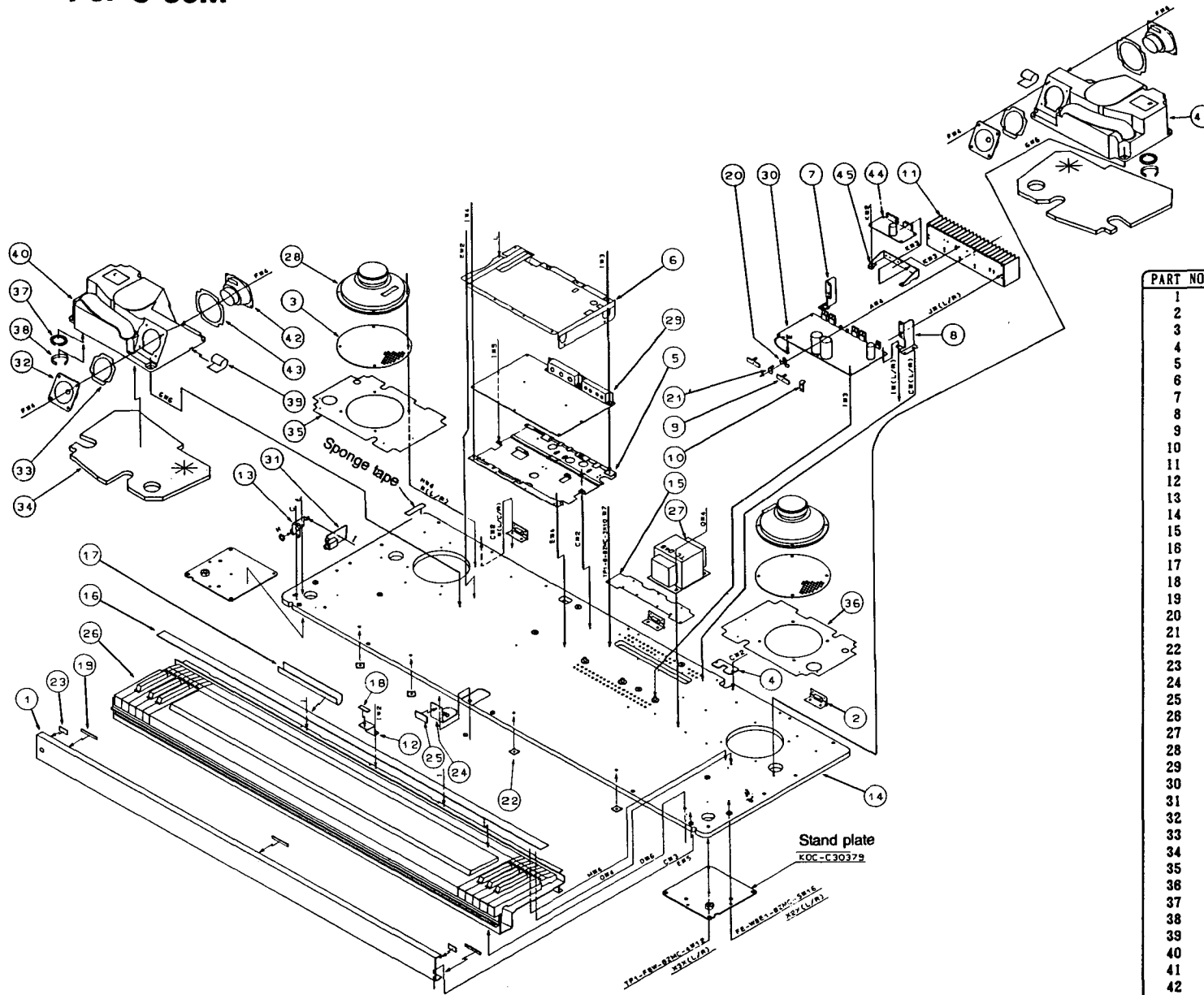
For C-46



PART NO	SCREWS	PART CODE
E	TP1 B BZNC 3X10	715060310
F	PLAX B BZNC 3X10	745060310
G	TP2G FEW BZNC 3X8	727060308
I	CT B ZNC 3X8	715230308
K	CT B BZNC 3X8	715260308
M	PLAX B BZNC 3X8	745060308
N	NLFE F ZNC 3X10	701130310
U	TP1 FEW ZNC 4X12	717030412
V	TP1 B BZNC 3.5X8	715063508

PART NO	PART NAME	PART CODE
1	X-222 REAR PANEL 2 ASSEMBLY	641035300
2	X-921 MUSIC STOPPER A	646036600
3	KEY COVER FELT KOC-F40541	-----
4	SLIT MASK KOC-F40546	-----
5	X-122 SIDE CHASSIS L	641026205
6	X-122 SIDE CHASSIS R	641026206
7	X-526/527 METAL FITTING OF SW	640082500
8	X-122 SIDE PLATE L	646041100
9	X-122 SIDE PLATE R	646041101
10	X-825M POWER SW KNOB BLK	620021600
11	X-122W TOP PLATE KOC-D10053	645016000
12	X-921 HINGE CAP	629010907
13	X-220 MUSIC PLATE KOC-D20075	645016500
13	X-122W MUSIC PLATE KOC-D20074(FOR 100JP)	645015900
14	X-921 MUSIC STAND HINGE	641014900
15	RUBBER STOPPER 3	500014200
16	X-222 GRILL ASSEMBLY KOC-H30039-1	641036200
17	SERVICE MAN CAUTION 3	-----
18	NAME SEAL KOC-F40598	-----
20	X-122W KC PANEL A35W KOC-C30382	641032400
21	X-122W KC PANEL B35W KOC-C30383	641032300
22	X-922/923 SHAFT	641016500
23	X-121 RACK 1 L	646041200
24	X-121 RACK 1 R	646041201
25	SHAFT COLLAR	646041500
26	X-922 GEAR	646035900
27	X-122W KEY COVER KOC-D10052	645016100
28	KEY COVER FELT L KOC-F40565-1	-----
29	KEY COVER FELT R KOC-F40565-2	-----
30	PANEL FELT KOC-F40543	-----
31	X-122W PANEL CUSHION 2 KOC-F40576	500019500
32	WM BZNC 4	780060400
33	POWER SW SDDGA1103A TV-5	375010400
34	PANEL CUSHION KOC-F40495	-----
35	X-122W BELT KOC-E40329	540019500
36	X-122W TOP PLATE CUSHION	500019400

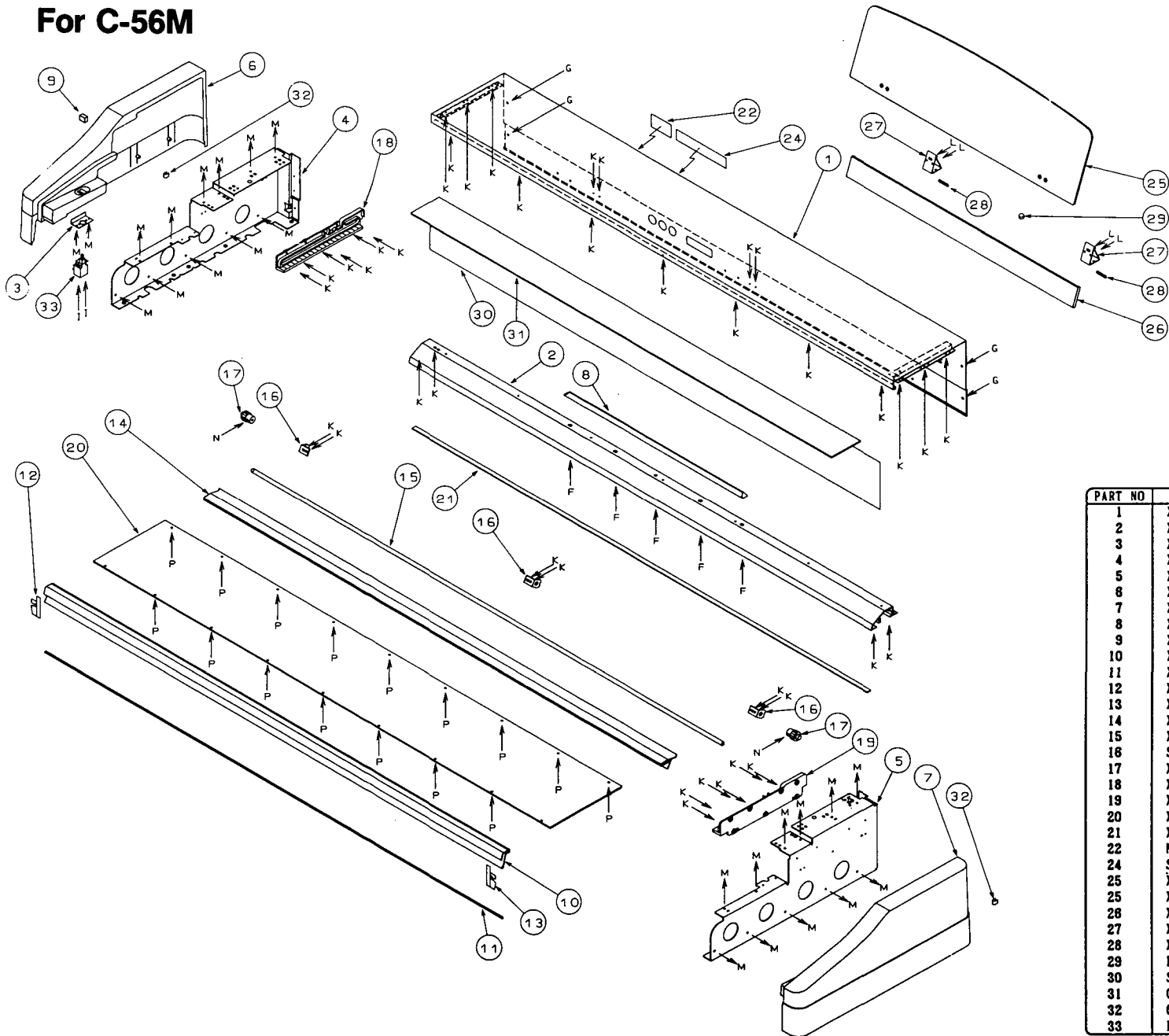
For C-56M



PART NO	SCREWS			PART CODE
A	FE	B	ZNC 3X14	705030314
B	FE	FEW	BZNC 4X18	707060418
C	FE	FEW	BZNC 4X14	707060414
D	FE	WSE1	BZNC 5X25	790061525
E	TP1	B	BZNC 3X10	715060310
F	PLAX	B	BZNC 4X12	745060412
G	FE	WSE1	ZNC 4X18	790030418
H	FE	WSE1	ZNC 4X25	790030425
I	CT	B	ZNC 3X8	715230308
J	CT	B	ZNC 4X10	715230410
K	CT	B	ZNC 3X10	715230310
L	TP1	FEW	ZNC 3X14	717030314
M	TP1	B	BZNC 3.5X12	715063512
N	VN	BZNC	12	773061200
O	NLFE	FEW	BZNC 4X14	707160414

PART NO	PART NAME	PART CODE
1	X-921 FRONT BAR	641014800
2	X-122 HINGE 2	641026204
3	SPEAKER NET (LARGE) KOC-C40669	640086300
4	X-921 BUSHING PLATE	641018600
5	SHIELD CHASSIS (LARGE) 2	641035900
6	X-122 SHIELD SHEET (LARGE)	580031200
7	X-122 HEAT SINK ANGLE L	641026210
8	X-122 HEAT SINK ANGLE R	641026211
9	X-122 L TYPE ANGLE (LARGE)	641026900
10	X-122 L TYPE ANGLE (SMALL)	641026901
11	X-223/224 HEAT SINK 4 KOC-C30401	560007500
12	X-120 PANEL SUPPORT	641030400
13	X-122 PHONE JACK CHASSIS	641027800
14	X-233 BOTTOM PLATE 2 ASSEMBLY	645016400
15	X-921 RADIATION COVER KOC-C40830	641016700
16	FELT FOR KEYBOARD (LARGE)	550009901
17	CUSHION (2)	500011702
18	X-120 STOPPER FELT	550014900
19	X-921 SPACER FOR FRONT BAR	500017600
20	X-120 HOLDER SPRING V3	641031500
21	X-120 SPRING STOPPER 3	641031400
22	X-120 STOPPER PLATE	641031300
23	CUSHION R (FOR FRONT BAR)	500011801
24	X-122 FRONT BAR SPACER	641032100
25	X-120 FRONT BAR RUBBER T=3mm	500019300
26	KEYBOARD AE11-88	420004600
27	POWER TRANSFORMER TC-048	400013700
28	SPEAKER FF168-945E 16cm	410003900
29	MAIN P.C. BOARD KLM-1653	001165302
30	POWER SUPPLY P.C. BOARD KLM-1643	001164301
31	PHONE JACK P.C. BOARD KLM-1569	001156900
32	SPEAKER FT50-L5	410003300
33	X-221 TWEETER PAKING KOC-F40592	500020100
34	X-221 SILENCE FORM KOC-F30055	500019800
35	X-221 GASKET 2 L KOC-F30054-1	500020200
36	X-221 GASKET 2 R	500020201
37	X-221 PACKING 2 KOC-F40595	500020000
38	X-221 PACKING FOR DUCT F40600	550015600
39	X-221 CORD PACKING 2 KOC-F40599	550015500
40	X-223 SPEAKER BOX 1 L ASSEMBLY	646043200
41	X-223 SPEAKER BOX 1 R ASSEMBLY	646043201
42	SPEAKER FF77-0244 8cm	410004000
43	X-223 SPEAKER PACKING KOC-F40591	500019900
44	SUB AMP P.C. BOARD KLM-1644	001164400
45	X-223 HS CHASSIS KOC-C40900	641035800

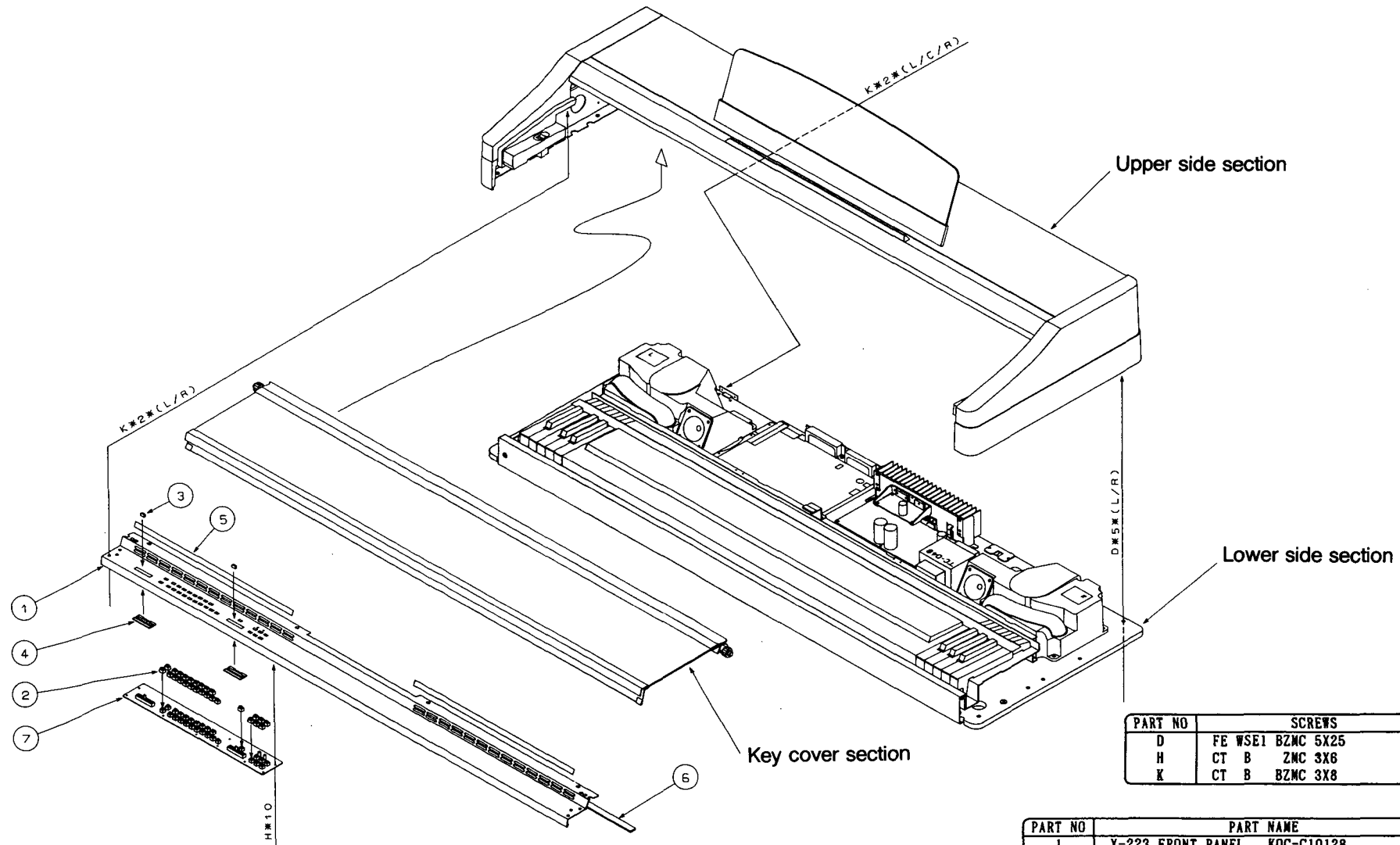
For C-56M



PART NO	SCREWS	PART CODE
F	TP2G FEW ZNC 3X6	727030308
G	TP2G FEW BZNC 3X8	727060308
I	CT B ZNC 3X8	715230308
K	CT B BZNC 3X8	715280308
L	PLAX B BZNC 3X8	745060308
M	PLAX B BZNC 3X8	745060308
N	NLFE F ZNC 3X10	701130310
P	PT B BZNC 2.6X5	715362605

PART NO	PART NAME	PART CODE
1	X-233 BOTTOM PLATE 2 ASSEMBLY	645016400
2	X-123/124 FRONT GRILL	641028700
3	X-526/527 METAL FITTING OF SW	640082500
4	X-123 SIDE CHASSIS L	640099900
5	X-123 SIDE CHASSIS R	640099901
6	X-123/124 SIDE PLATE L	646041900
7	X-123/124 SIDE PLATE R	646041901
8	X-921 MUSIC STOPPER A	646036600
9	X-825M POWER SW KNOB BLK	620021600
10	X-123/124 KEY COVER PANEL A	641028701
11	X-922 CUSHION	500018100
12	X-123 KC FELT L	550015200
13	X-123 KC FELT R	550015201
14	X-123/124 KEY COVER PANEL B	641028702
15	X-922/923 SHAFT	641016500
16	SHAFT COLLAR	646041500
17	X-922 GEAR	646035900
18	X-123 RACK 2 L	646042300
19	X-123 RACK 2 R	646042301
20	X-922 KEY COVER	630012800
21	X-120 KC FELT	550015000
22	NAME SEAL KOC-F40598	-----
24	SERVICE MAN CAUTION 3	-----
25	X-123 MUSIC STAND PLATE E30159(FOR 100JP)	630017400
25	X-123 MUSIC STAND PLATE E30160	630018000
28	X-921 MUSIC STAND	646035700
27	X-921 MUSIC STAND HINGE	641014900
28	X-921 HINGE CAP	629010907
29	RUBBER STOPPER 3	500014200
30	SLIT MASK KOC-F40598	-----
31	CUSHION SHEET KOC-E40327	-----
32	CUSHION MASK KOC-F40567	-----
33	POWER SW SDDG1103A TV-5	375010400

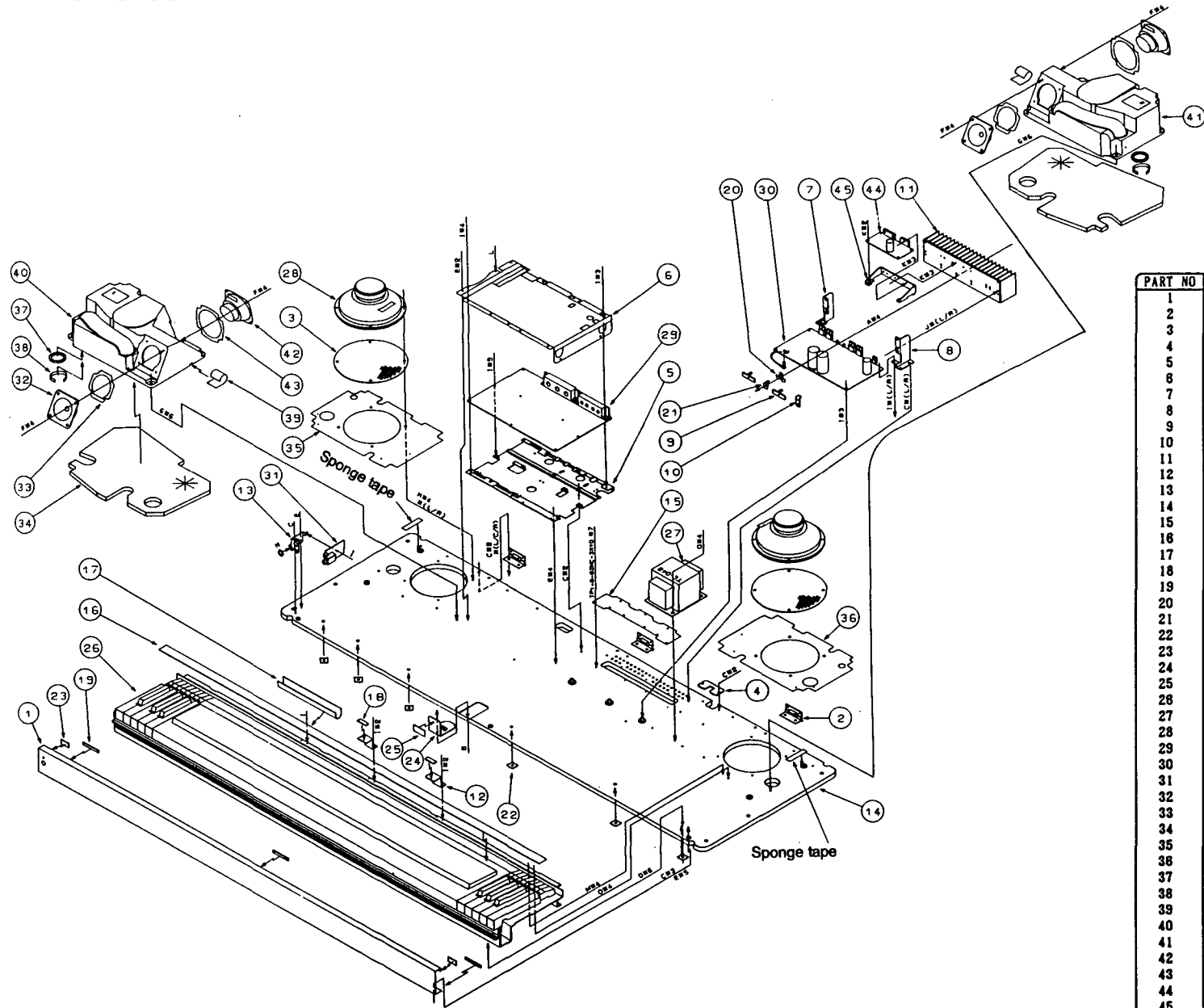
For C-56M



PART NO	SCREWS	PART CODE
D	FE WSE1 BZMC 5X25	790061525
H	CT B ZMC 3X6	715230308
K	CT B BZMC 3X8	715260308

PART NO	PART NAME	PART CODE
1	X-223 FRONT PANEL KOC-C10128	641036400
2	X-921 TACT SW KNOB NO.1	620022300
3	SLIDE VR KNOB	620022500
4	SLIDE VR ESCUSHION 30 NO.1	646041400
5	FRONT MASK KOC-F40550	-----
6	CUSHION SHEET KOC-E40327	-----
7	PANEL P.C.BOARD KLM-1567	001156700

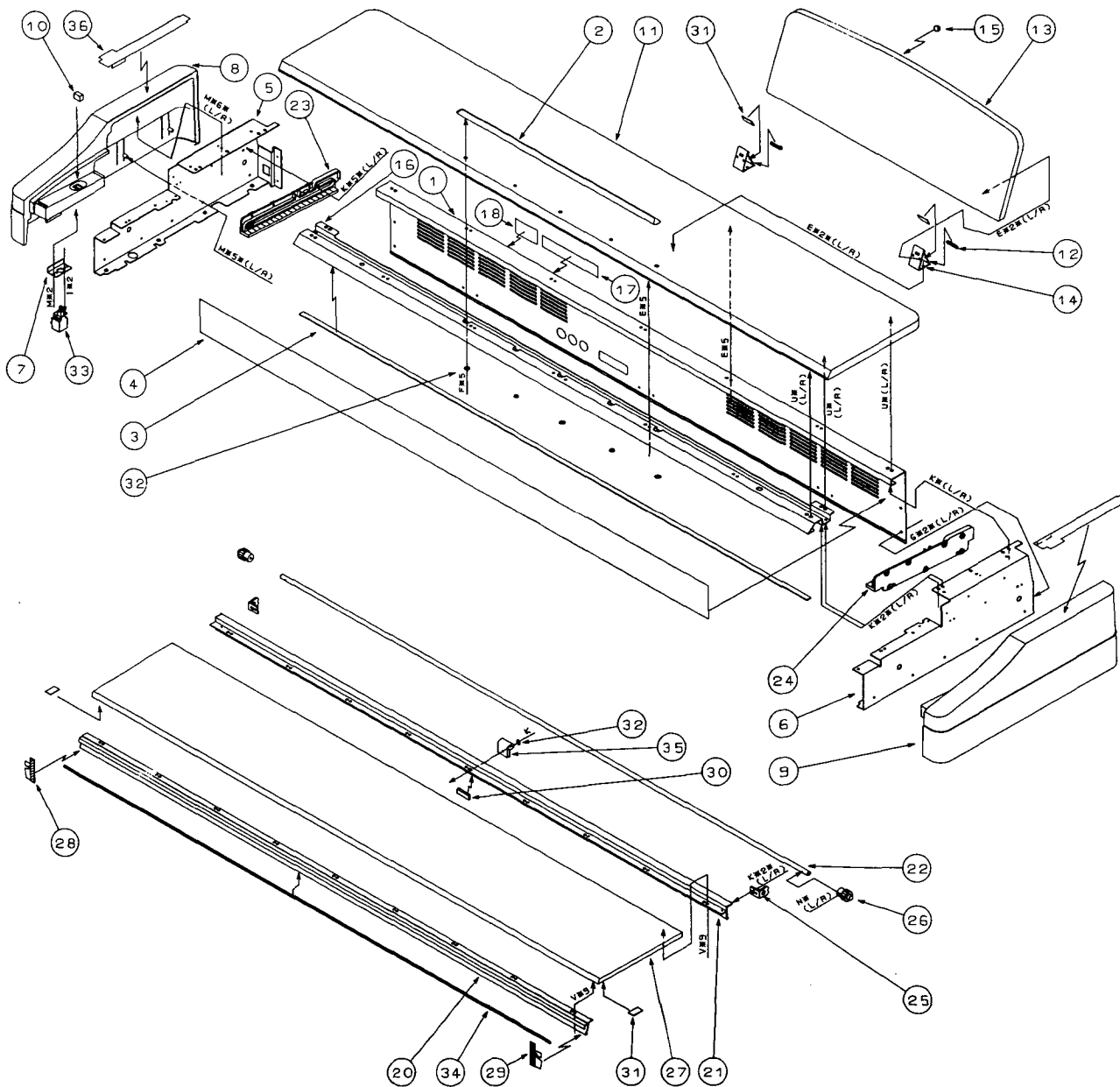
For C-56



PART NO	SCREWS	PART CODE
A	FE B ZMC 3X14	705030314
B	FE FEW BZMC 4X18	707080418
C	FE FEW BZMC 4X14	707080414
D	FE WSE1 BZMC 5X25	790081525
E	TP1 B BZMC 3X10	715080310
F	PLAX B BZMC 4X12	745080412
G	FE WSE1 ZMC 4X18	790030418
H	FE WSE1 ZMC 4X25	790030425
I	CT B ZMC 3X8	715230308
J	CT B ZMC 4X10	715230410
K	CT B ZMC 3X10	715230310
L	TP1 FEW ZMC 3X14	717030314
M	TP1 B BZMC 3.5X12	715083512
N	VN BZMC 12	773081200
O	NL FE FEW BZMC 4X14	707180414

PART NO	PART NAME	PART CODE
1	X-224 FRONT BAR 2W KOC-C10125	641036500
2	X-122 HINGE 2	641028204
3	SPEAKER NET (LARGE) KOC-C40669	640086300
4	X-921 BUSHING PLATE	641018600
5	X-122 SHIELD CHASSIS (LARGE)	641026200
6	X-122 SHIELD SHEET (LARGE)	580031200
7	X-122 HEAT SINK ANGLE L	641026210
8	X-122 HEAT SINK ANGLE R	641026211
9	X-122 L TYPE ANGLE (LARGE)	641026900
10	X-122 L TYPE ANGLE (SMALL)	641026901
11	X-223/224 HEAT SINK 4 KOC-C30401	560007500
12	X-120 PANEL SUPPORT	641030400
13	X-122 PHONE JACK CHASSIS	641027800
14	X-221 BOTTON PLATE 2S ASSEMBLY	645016300
15	X-921 RADIATION COVER KOC-C40830	641016700
16	FELT FOR KEYBOARD (LARGE)	550009901
17	CUSHION (2)	500011702
18	X-120 STOPPER FELT	550014900
19	X-921 SPACER FOR FRONT BAR	500017600
20	X-120 HOLDER SPRING V3	641031500
21	X-120 SPRING STOPPER 3	641031400
22	X-120 STOPPER PLATE	641031300
23	CUSHION R (FOR FRONT BAR)	500011801
24	X-122 FRONT BAR SPACER C40893	641032100
25	X-120 FRONT BAR RUBBER T=3mm	500019300
26	KEYBOARD AE11-88	420004600
27	POWER TRANSFORMER TC-048	400013700
28	SPEAKER FF168-945E 16cm	410003900
29	MAIN P.C. BOARD KLM-1853	001185302
30	POWER SUPPLY P.C. BOARD KLM-1843	001184302
31	PHONE JACK P.C. BOARD KLM-1569	001156901
32	SPEAKER FT50-L5	410003300
33	X-221 TWEETER PAKING KOC-F40592	500020100
34	X-221 SILENCE FORM KOC-F30055	500019800
35	X-221 GASKET 2 L KOC-F30054-1	500020200
36	X-221 GASKET 2 R	500020201
37	X-221 PACKING 2 KOC-F40595	500020000
38	X-221 CUSHION FOR DUCT F40800	550015600
39	X-221 CORD PACKING 2 KOC-F40599	550015500
40	X-223 SPEAKER BOX 1 L ASSEMBLY	846043200
41	X-223 SPEAKER BOX 1 R ASSEMBLY	846043201
42	SPEAKER FF77-0244 8cm	410004000
43	X-223 SPEAKER PACKING KOC-F40591	500019900
44	SUB AMP P.C. BOARD KLM-1844	001184400
45	X-223 HS CHASSIS KOC-C40900	641035800

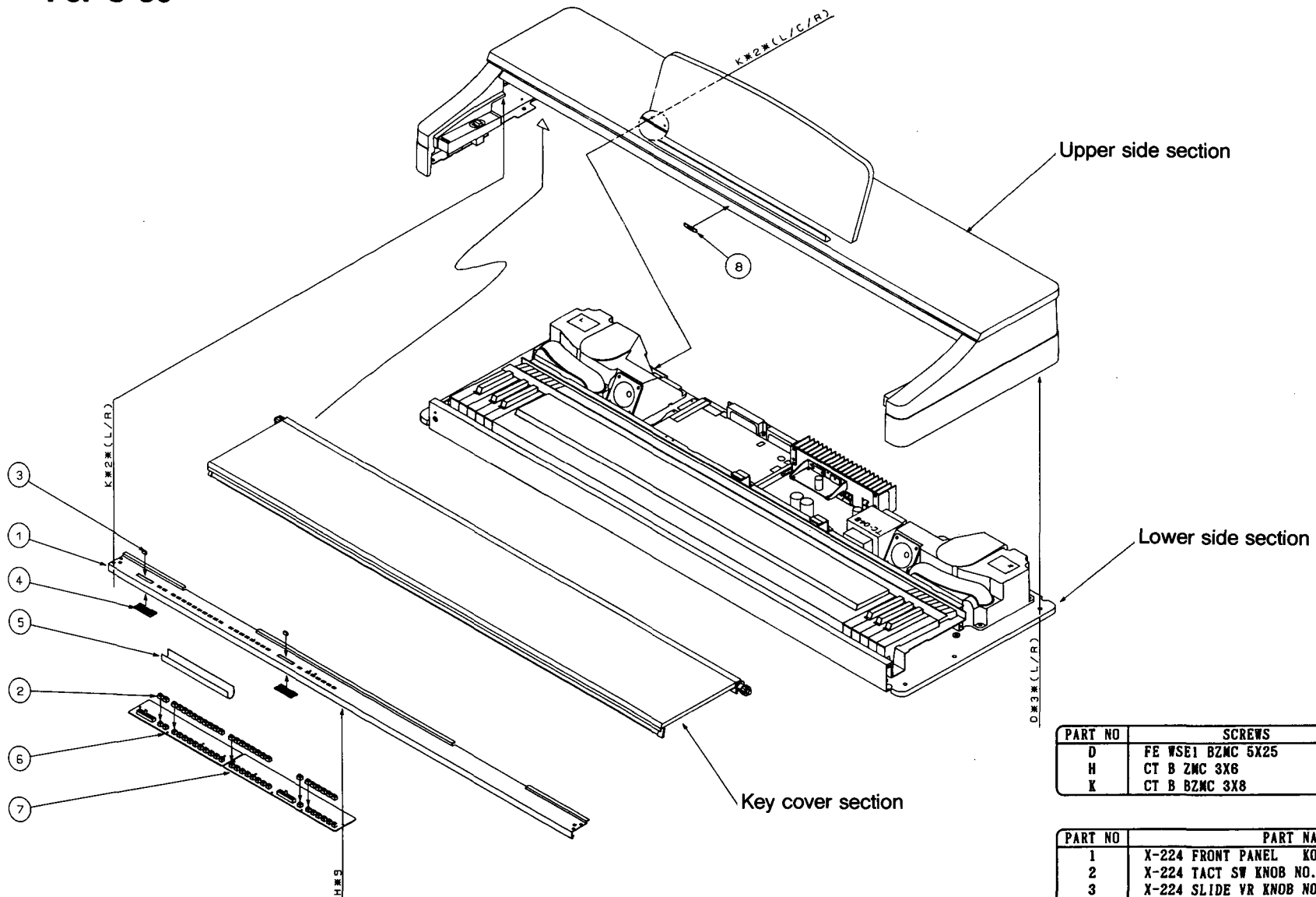
For C-56



PART NO	SCREWS	PART CODE
E	TP1 B BZMC 3X10	715060310
F	PLAX B BZMC 3X10	745060310
G	TP2G FEW BZMC 3X8	727060308
I	CT B ZMC 3X8	715230308
K	CT B BZMC 3X8	715260308
M	PLAX B BZMC 3X8	745060308
N	NLFE F BZMC 3X10	701160310
U	TP1 FEW BZMC 4X12	717060412
V	TP1 B BZMC 3.5X8	715063508

PART NO	PART NAME	PART CODE
1	X-224 REAR PANEL 3 ASSEMBLY	641035400
2	X-224 MUSIC STOPPER B E30174	646043600
3	KEY COVER FELT KOC-F40541	-----
4	SLIT MASK KOC-F40596	-----
5	X-122 SIDE CHASSIS L	641026205
6	X-122 SIDE CHASSIS R	641026206
7	X-526/527 METAL FITTING OF SW	640082500
8	X-224 SIDE PLATE 2L KOC-E10076	646043700
9	X-224 SIDE PLATE 2R KOC-E10077	646043701
10	X-224 POWER SW KNOB NO.3 E40264-3	620025100
11	X-224 TOP PLATE 2 KOC-D10059	645016600
12	X-921 HINGE CAP	629010907
13	X-224 MUSIC STAND PLATE 2 D20076	645016800
13	X-224 MUSIC STAND PLATE 2 D20077	645016900
14	X-921 MUSIC STAND HINGE	641014900
15	RUBBER STOPPER 3	500014200
16	X-224 GRILL 2 KOC-C10124	641036300
17	SERVICE MAN CAUTION 3	-----
18	NAME SEAL KOC-F40598	-----
20	X-224 KC PANEL(A)56 KOC-C30403	641036800
21	X-224 KC PANEL(B)56 KOC-C30404	641036900
22	X-922/923 SHAFT	641016500
23	X-121 RACK 1 L	646041200
24	X-121 RACK 1 R	646041201
25	SHAFT COLLAR	646041500
26	X-922 GEAR KOC-E40281	646035900
27	X-224 KEY COVER 2 KOC-D10061	645016700
28	KEY COVER FELT L KOC-F40565-1	-----
29	KEY COVER FELT R KOC-F40565-2	-----
30	PANEL FELT KOC-F40543	-----
31	X-122W PANEL CUSHION 2 KOC-F40576	500019500
32	WM BZMC 4	780060400
33	POWER SW SDDGA1103A TV-5	375010400
34	PANEL CUSHION KOC-F40495	-----
35	X-122W BELT KOC-E40329	540019500
36	X-122W TOP PLATE CUSHION	500019400

For C-56



PART NO	SCREWS	PART CODE
D	FE WSE1 BZMC 5X25	790061525
H	CT B ZMC 3X6	715230306
K	CT B BZMC 3X8	715260308

PART NO	PART NAME	PART CODE
1	X-224 FRONT PANEL KOC-C20268	641036700
2	X-224 TACT SW KNOB NO.3 E40286-3	620025200
3	X-224 SLIDE VR KNOB NO.2 E40287-2	620025300
4	X-224 SVR ESCUSHION 30 NO.2	646043800
5	CUSHION (2)	500011702
6	PANEL P.C. BOARD KLM-1640	001164000
7	PANEL P.C. BOARD KLM-1641	001164000
8	KORG LOGOTYPE PLATE C40901	641036000

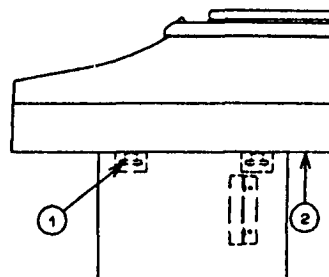
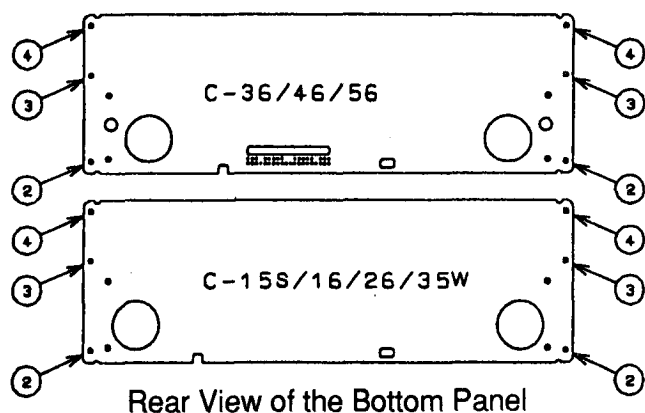
C-15S/16/26/35W/36/46/56

Opening the Top Panel Assy's while it is setting on the stand.

Note: The side view is for C-35W/46/56, however, the procedure is the same.

1. Loosen the 4 knob bolts ①, and slide the piano backward about 50 mm. Remove the screws ② (on the right and left) which secure the bottom and side panels.

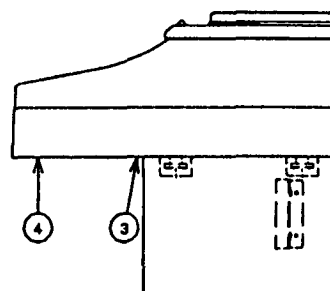
Note; 6 screws ②, ③ and ④ securing the bottom and side panels. See the figure below.



Note; The screws ②, ③ and ④ securing the bottom and side panels are;
FE WSE1 BZMC 5 × 25.
The knob bolt ① is;
KT-B2 M6 × 25.

2. Return the piano to its original position, and tighten the knob bolts. Remove the screws ③ and ④ securing the bottom and side panels.

The top panel Ass'y is now open with the stand set-up.



Securing the Side and Top Panel Ass'y with the Ass'y open (An example).

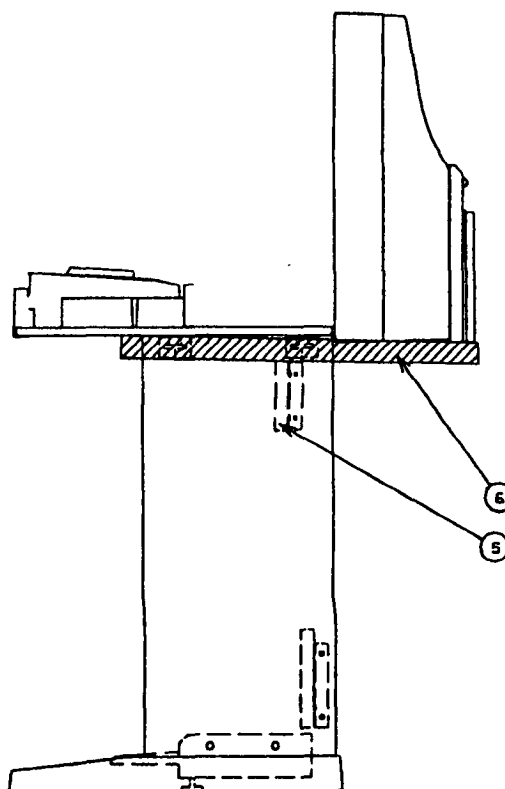
Set the support ⑥ located between the bottom plate and the stand slide plate ⑤ (dimensions: 30 mm × 30 mm × 500 mm) in one position in the center of the stand and secure it as shown in the figure on the right.

Note: The stand differs according to the model types, however, the procedure is the same.

Note: Be careful not to scratch the wood on the piano and the stand slide plate.

Note: The Ass'y should be secured with the key cover open (the key cover is inside the piano).

Note: The Ass'y should always be secured with the knob bolts tightened.

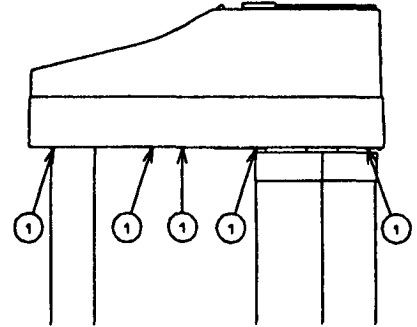
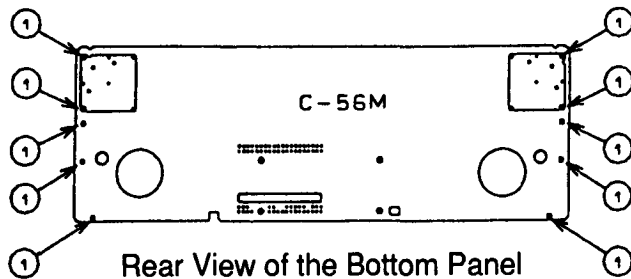


C-56M

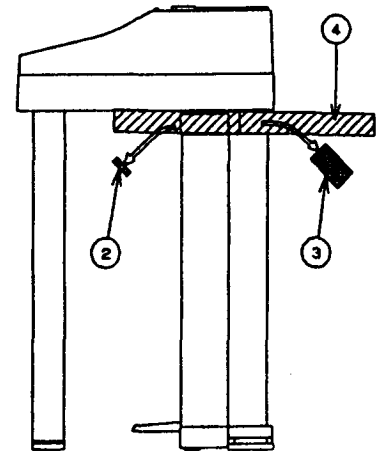
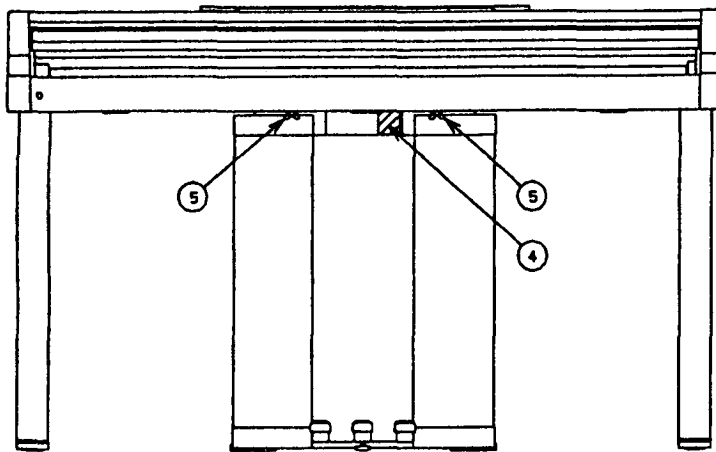
Opening the Top Panel Assy's while it is setting on the stand.

Remove the 10 screws ① which secure the bottom and the side panels.

Note: The screws ① securing the bottom and side panels are; FE WSE1 BZMC 5 × 25.



The Top Panel Ass'y is now open with the stand set-up.



Securing the Side Panel Ass'y with the Ass'y Open (an example).

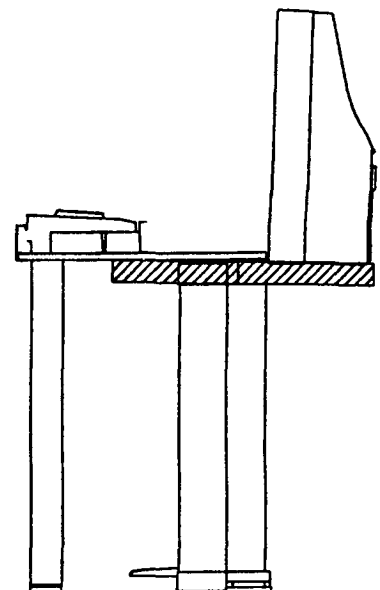
Remove the box net F② and the boxnet R③ from the box stand.

Set the support ④ (dimensions; 35 mm × 35 mm × 500 mm), located between the bottom panel and the box stand, so that it is in the position shown in the figure above, and secure it as shown in the figure on the right.

Note; Be careful not to scratch the wood on the rear surface of the piano or the box stand.

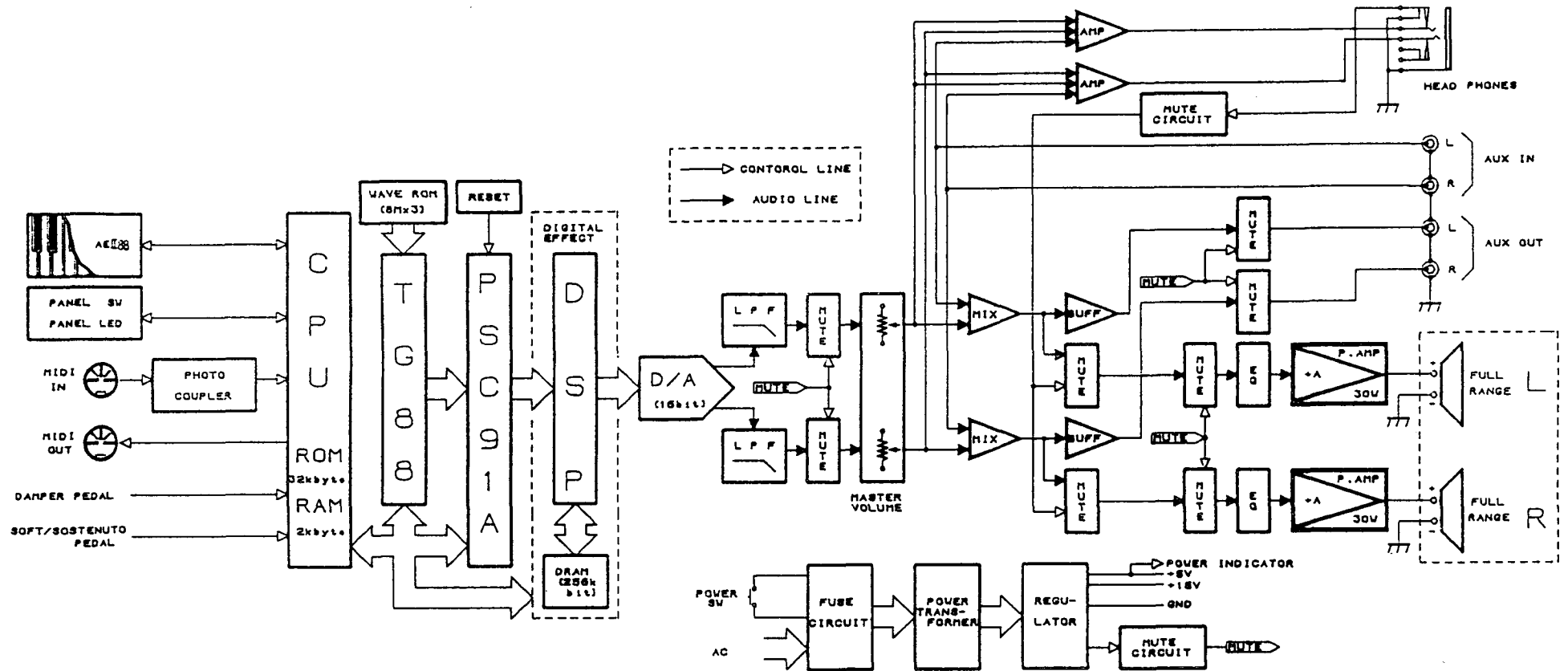
Note; The Ass'y should be secured with the key cover open (the key cover is inside the piano).

Note; The Ass'y's should always be secured with the 4 wing-bolts ⑤ tightened.

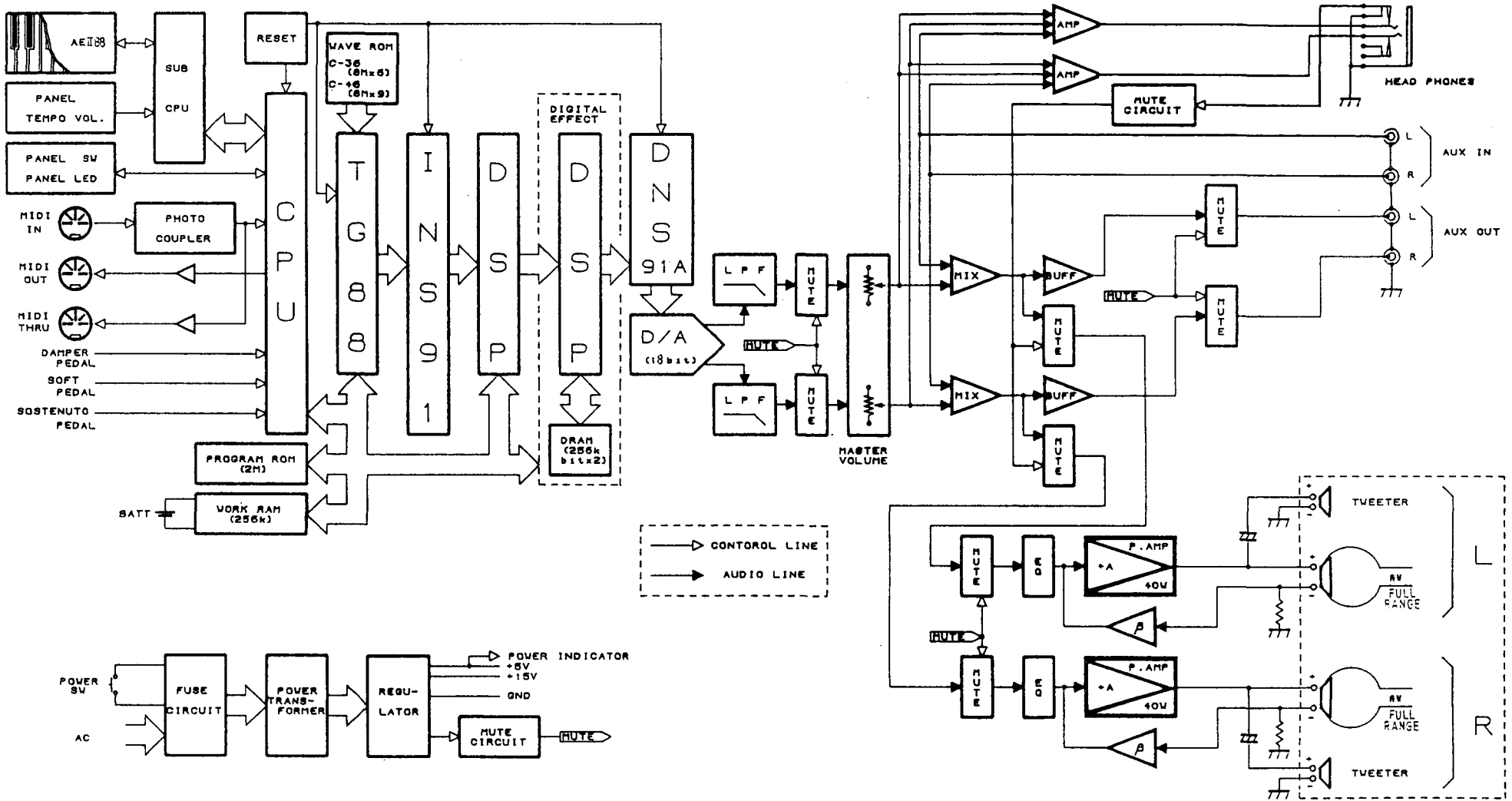


3. BLOCK DIAGRAM

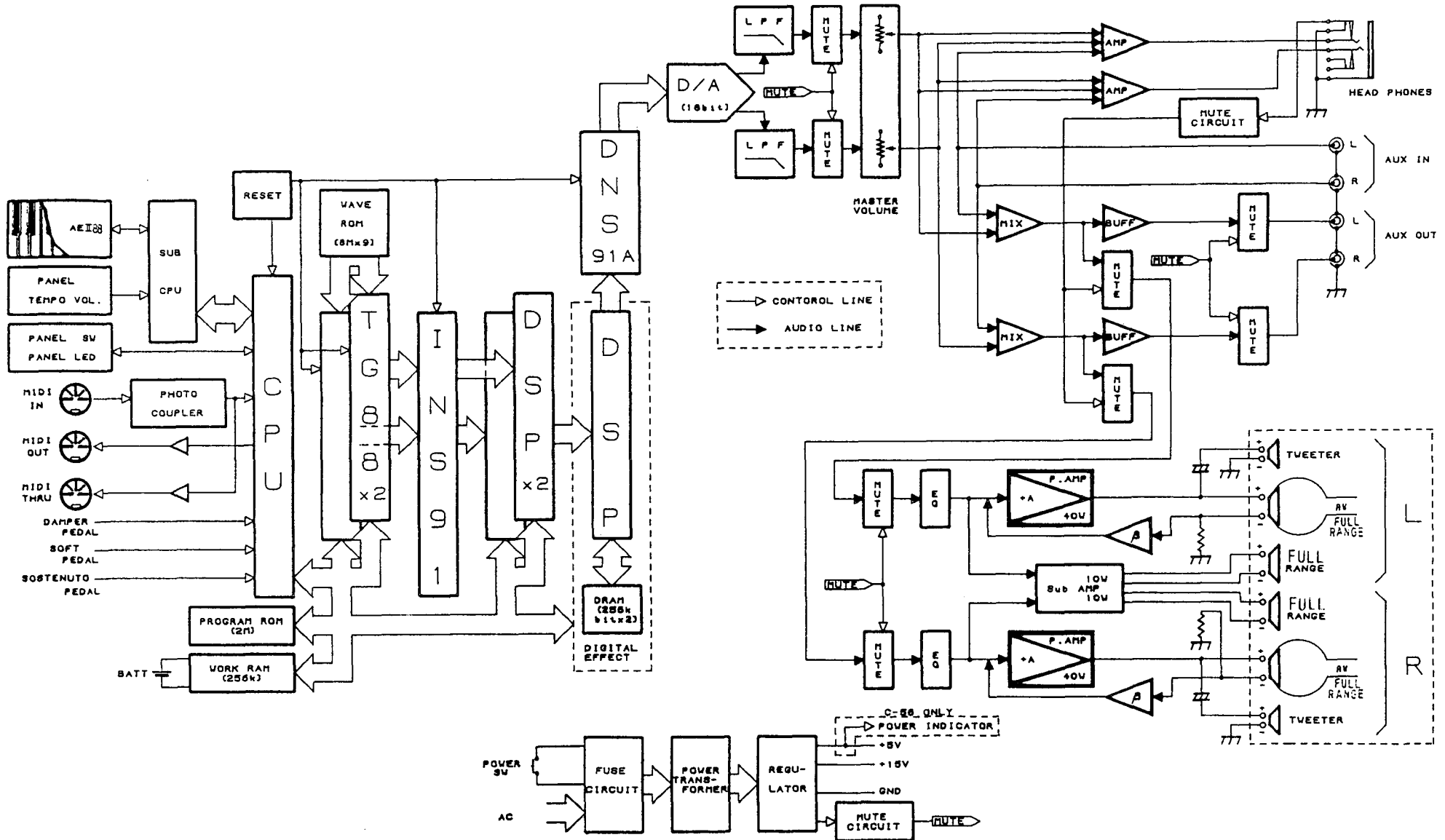
21



For C-26

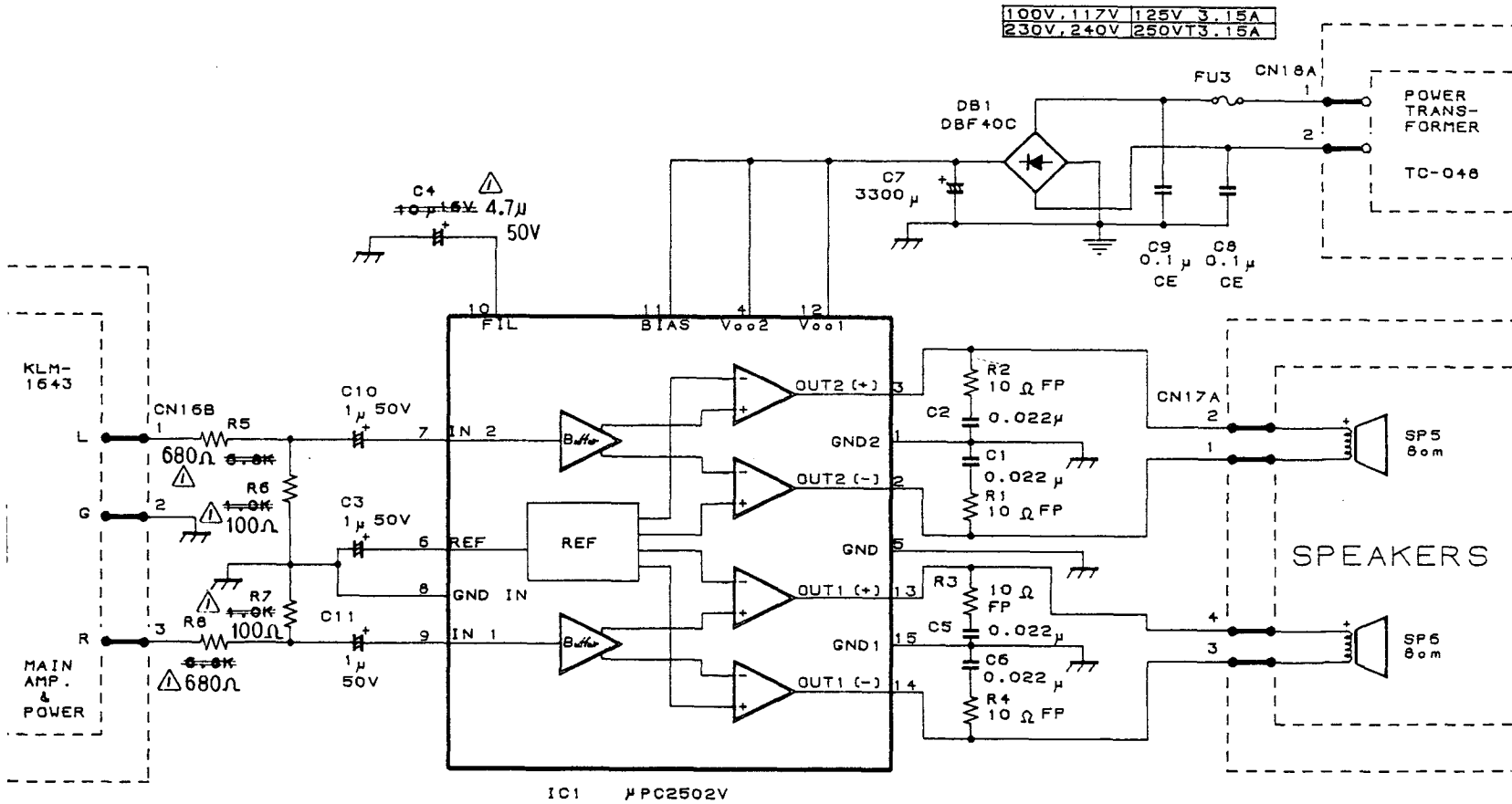


For C-36/46



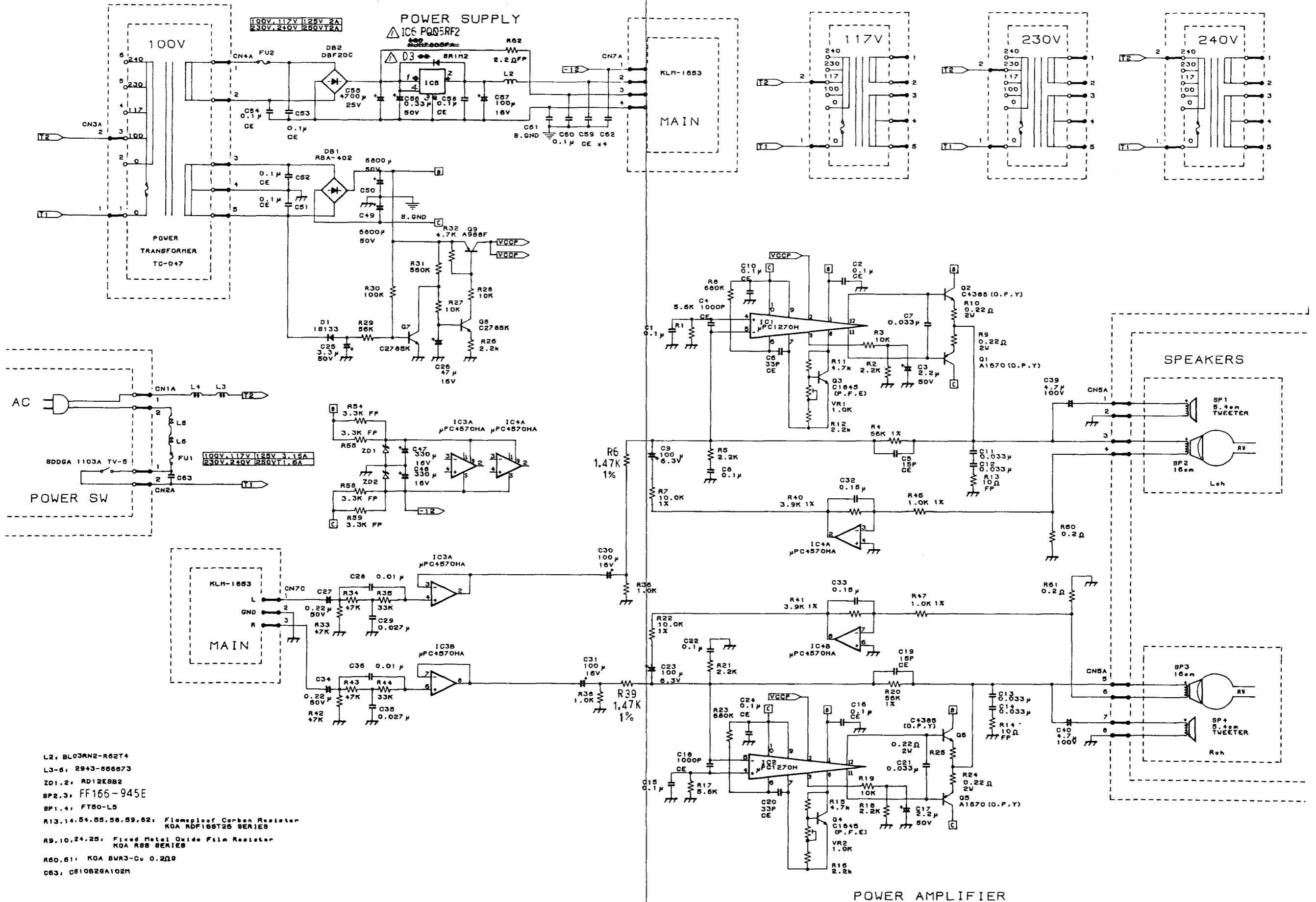
For C-56/56M

4. CIRCUIT DIAGRAM



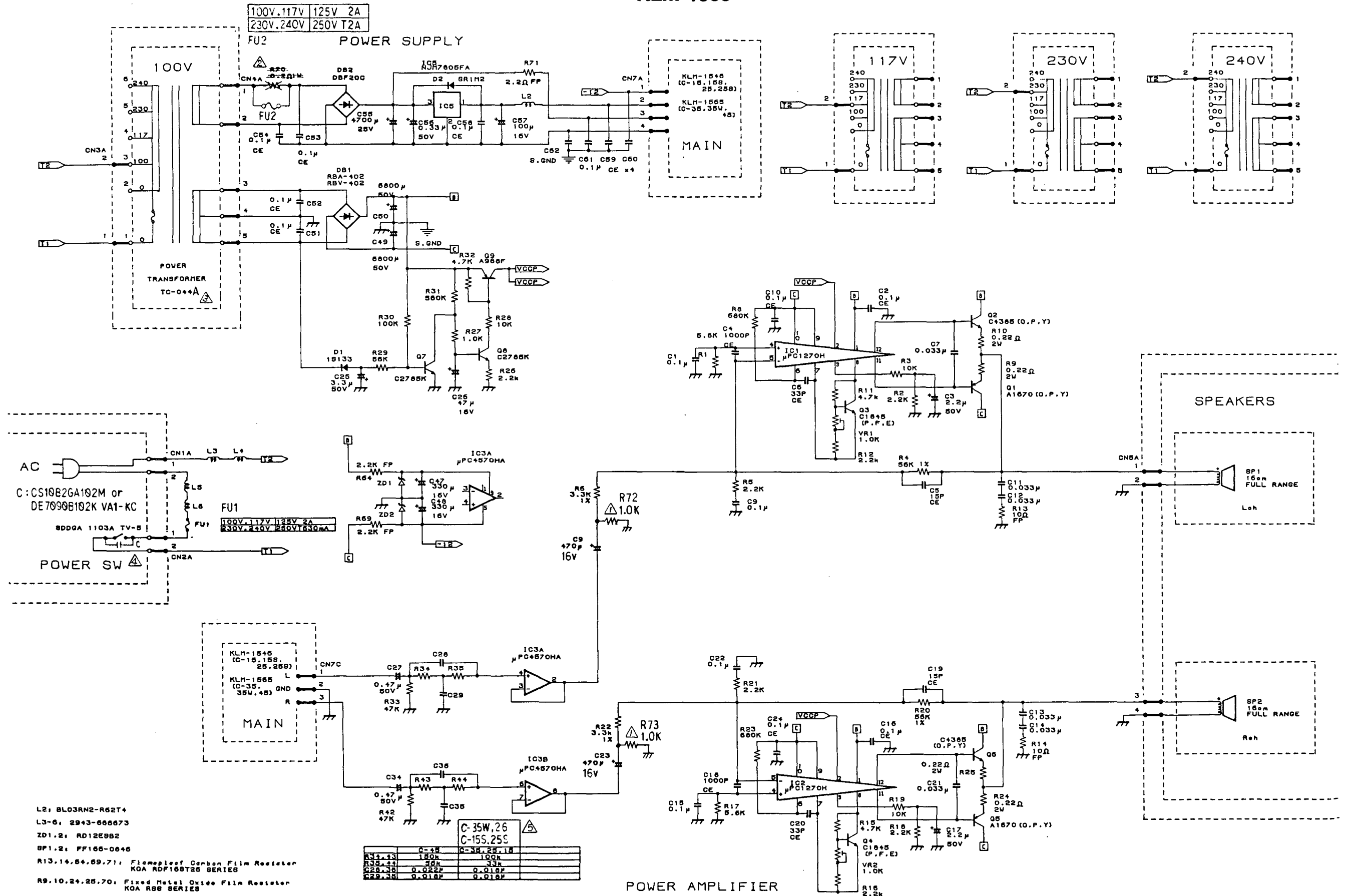
KLM-1644 for C-56/56M

KLM-1643 for C-36/46

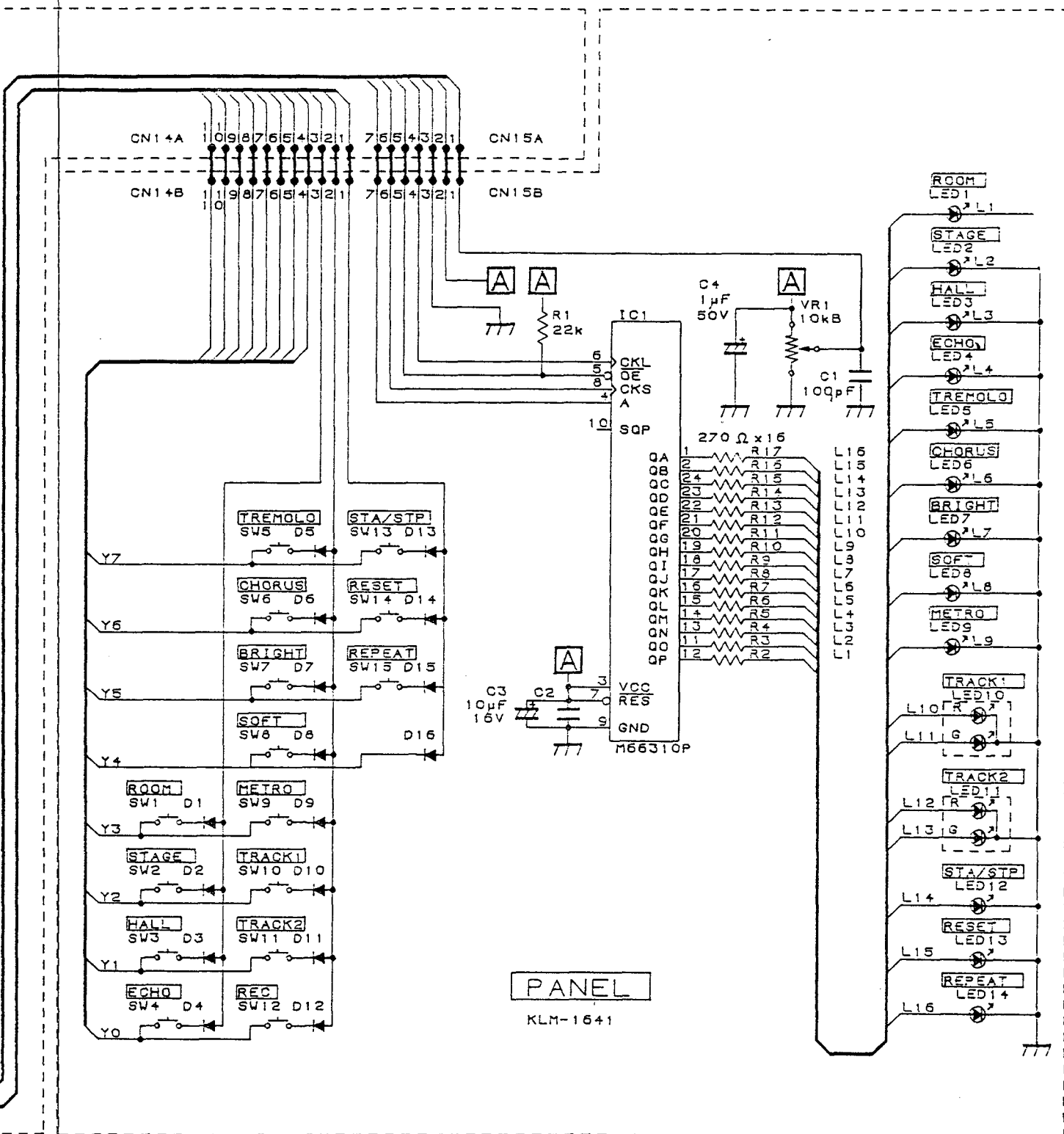
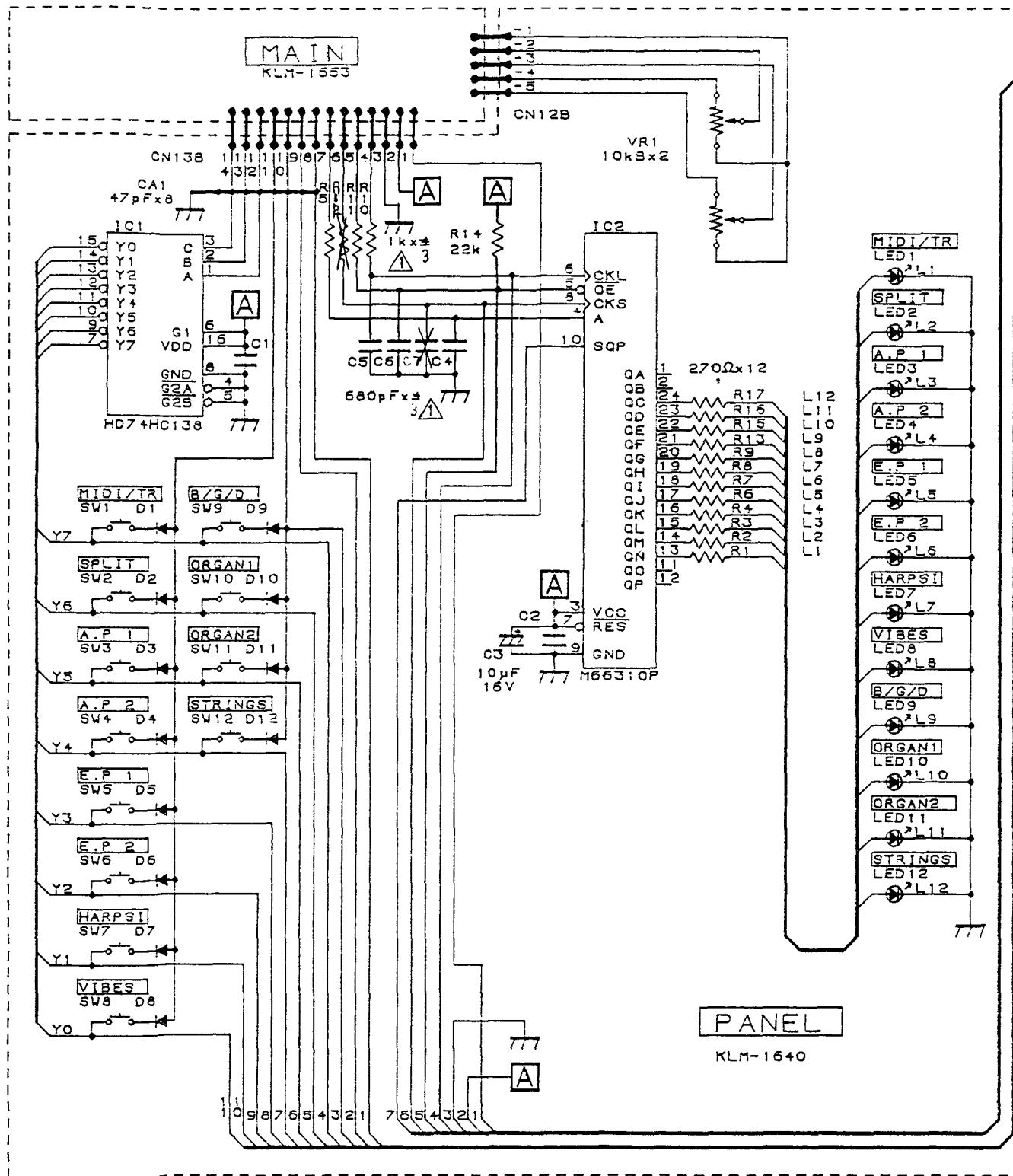


- L2: BL03RN2-R62T4
- L3-6: 2943-666673
- ZD1,2: AD128B2
- 8P2,3: FF166-945E
- 8P1,4: FT50-L5
- R13,14,54,55,56,59,62: Flameproof Carbon Resistor KOA RDF168T25 SERIES
- R9,10,24,25: Fixed Metal Oxide Film Resistor KOA R88 SERIES
- R60,61: KOA BUR3-Cu 0.2Ω
- C63: C610B20A102M

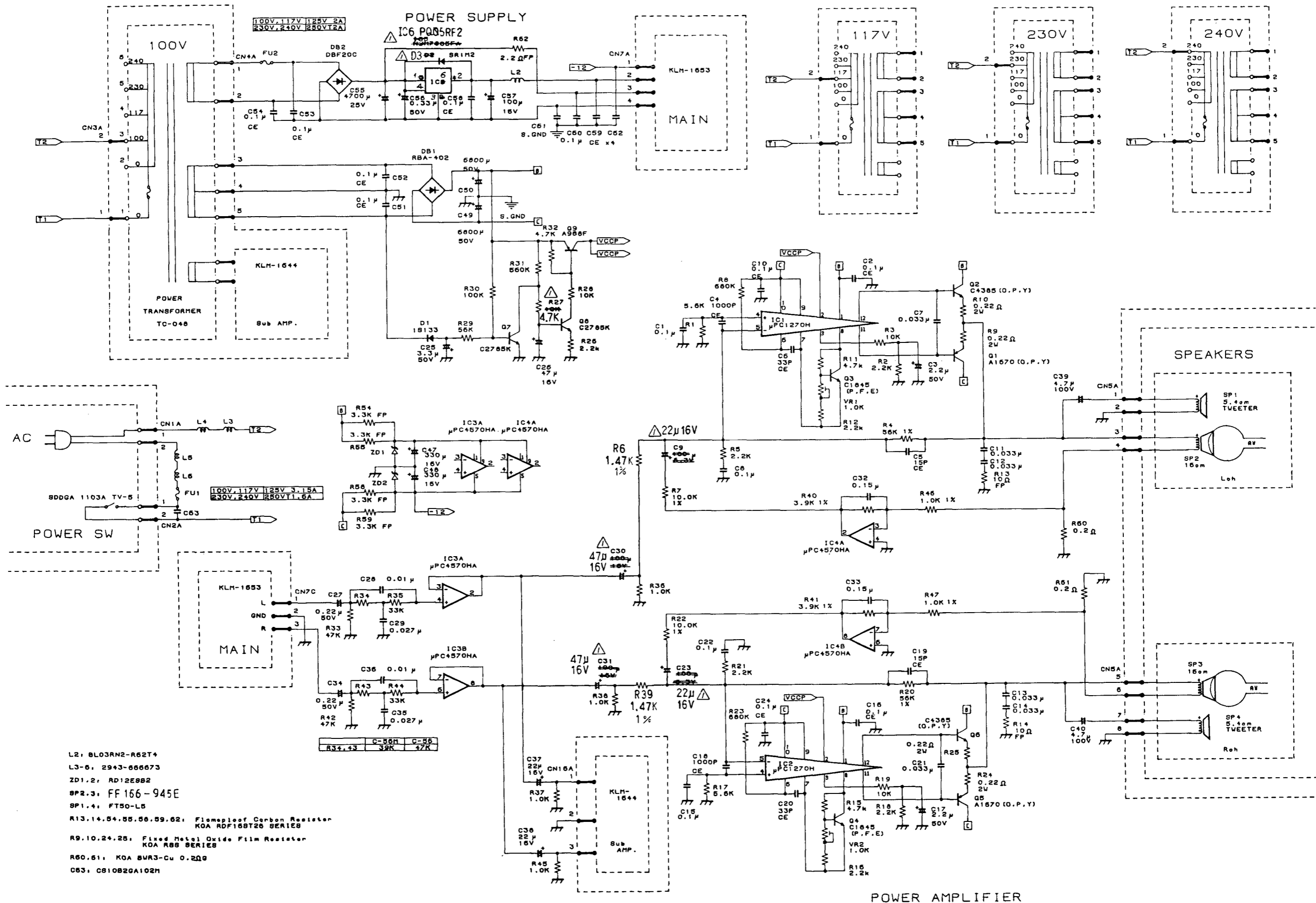
KLM-1568



KLM-1640/1641 for C-46/56

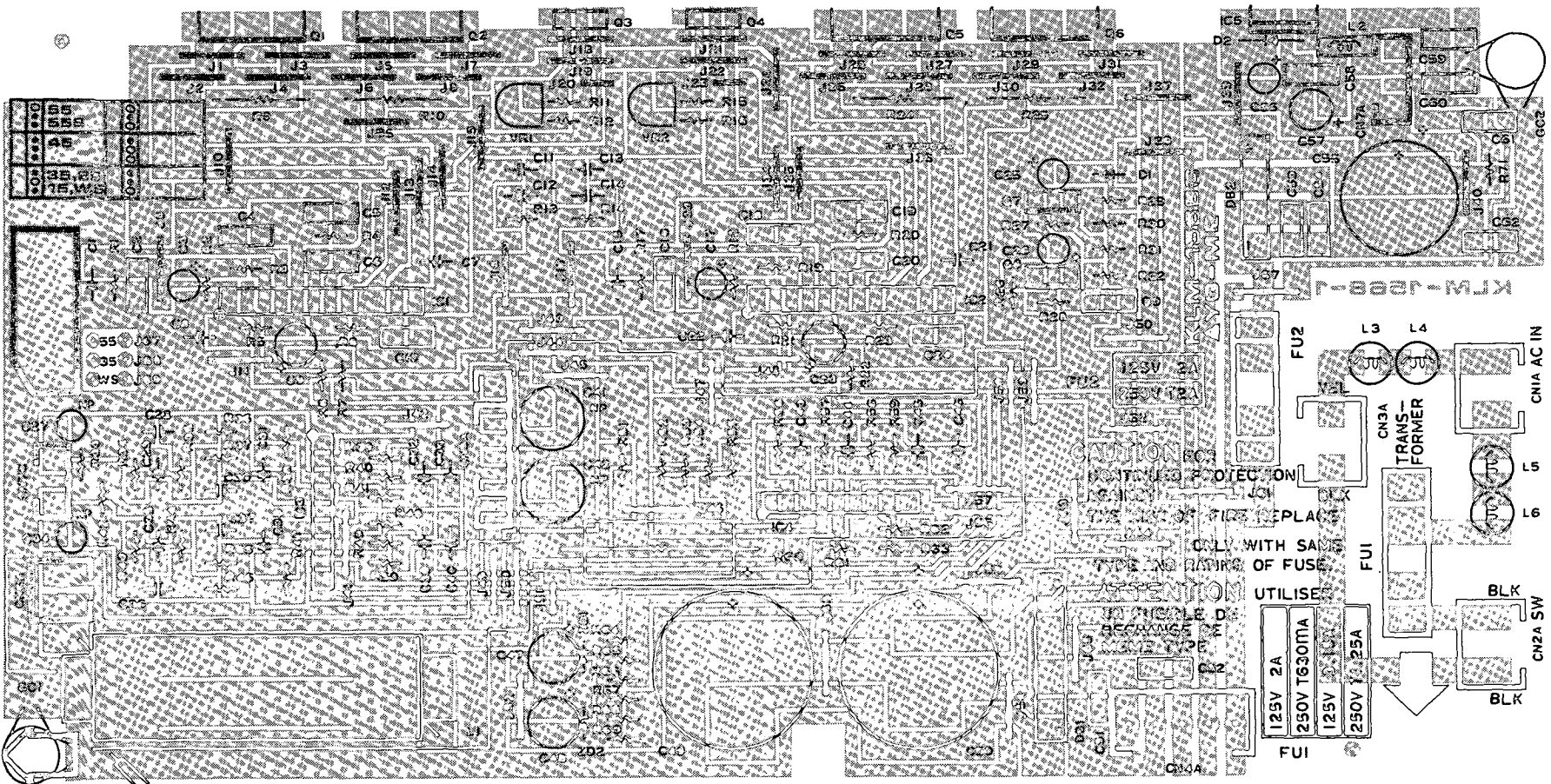


KLM-1643 for C-56/56M

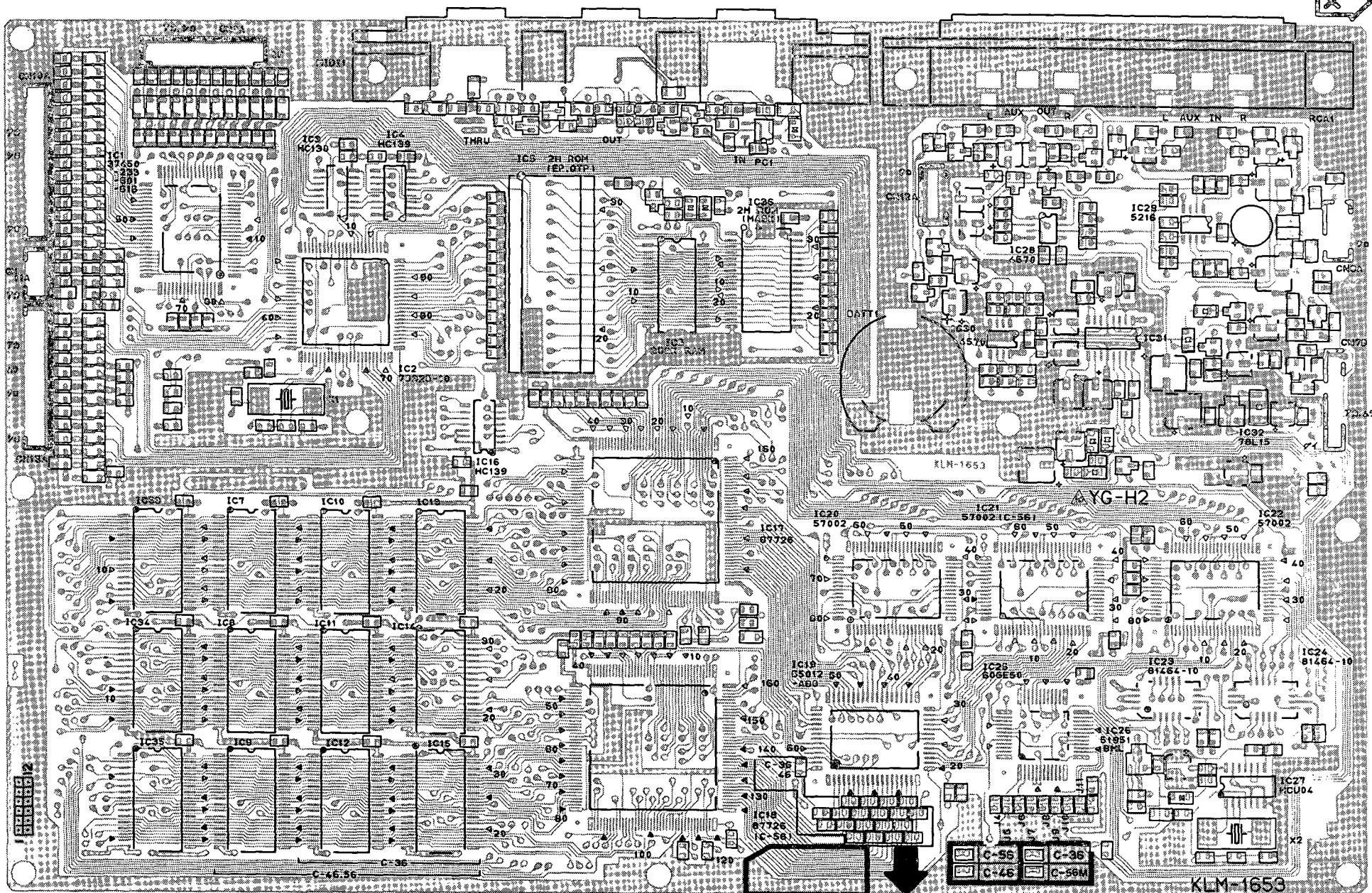


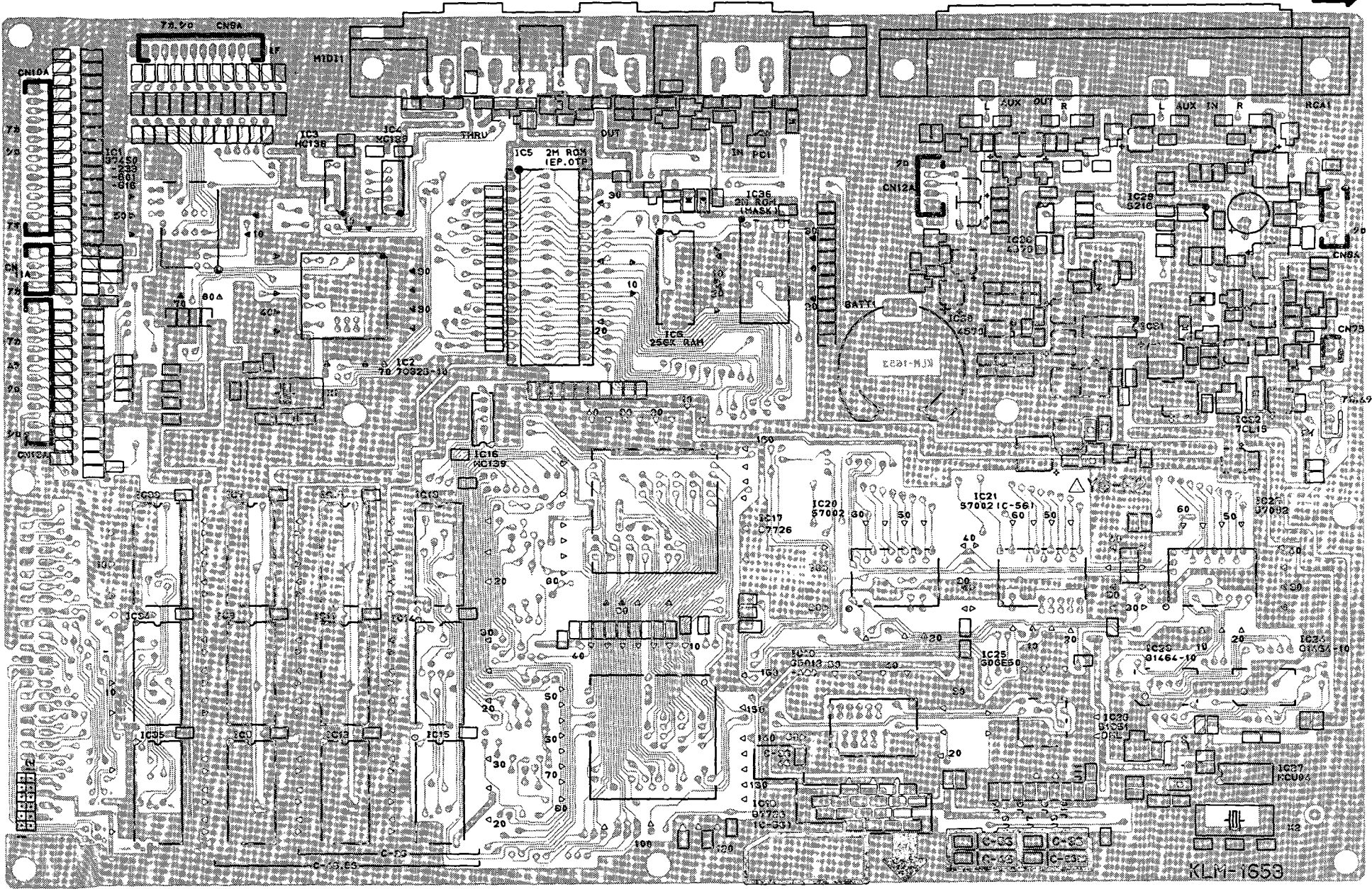
5. P.C. BOARD

KLM-1568C



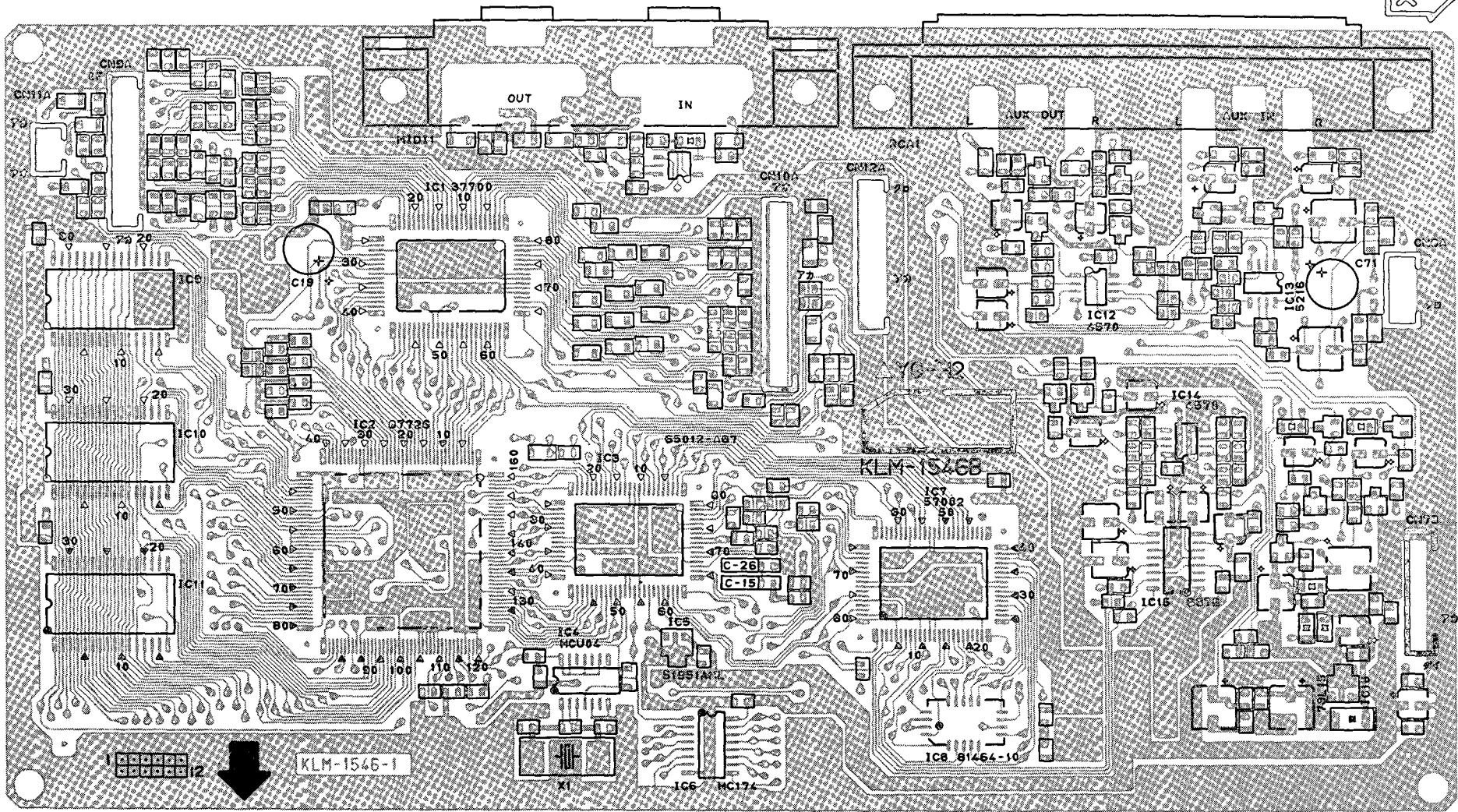
KLM-1653 (Component Side)



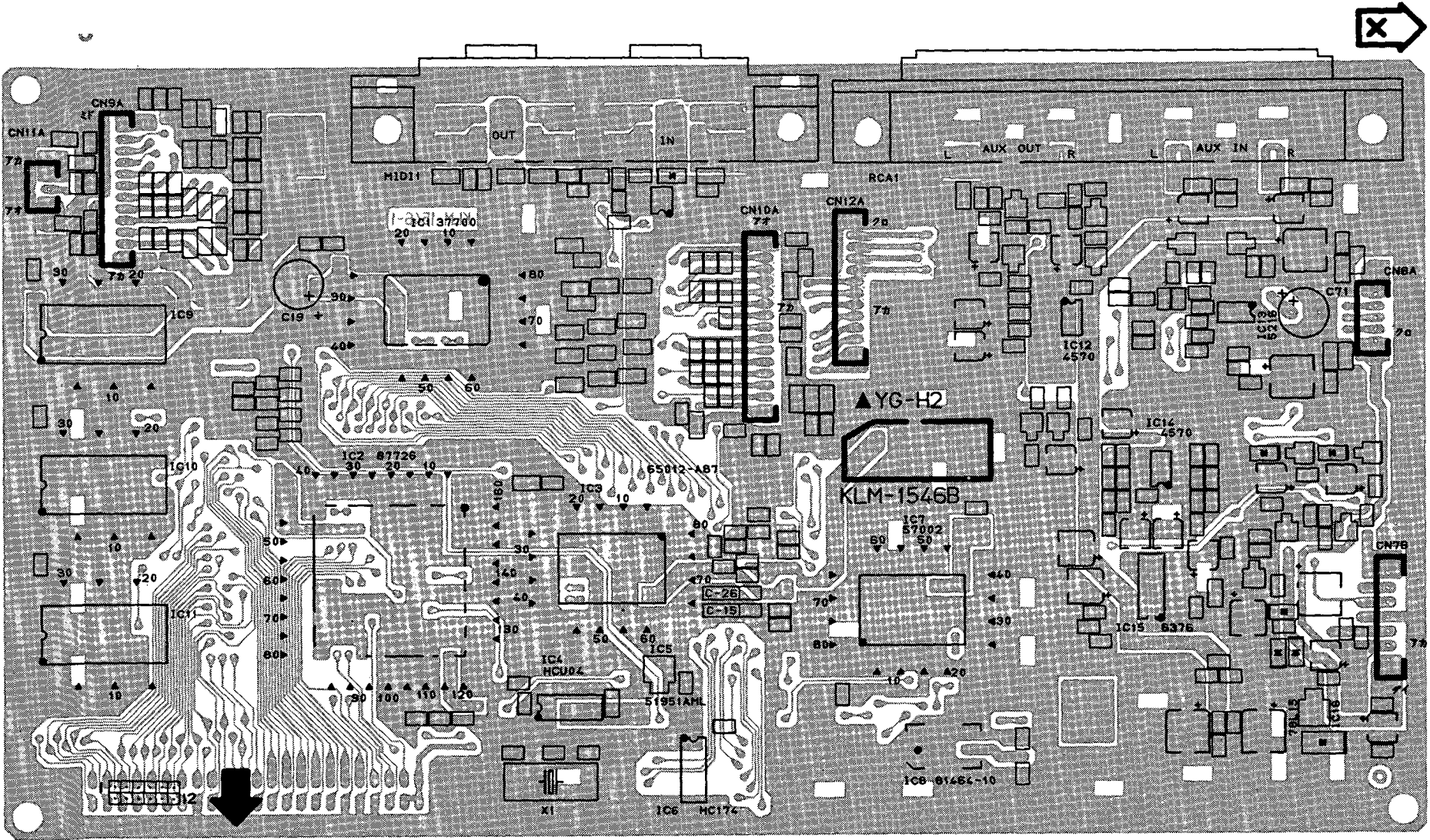


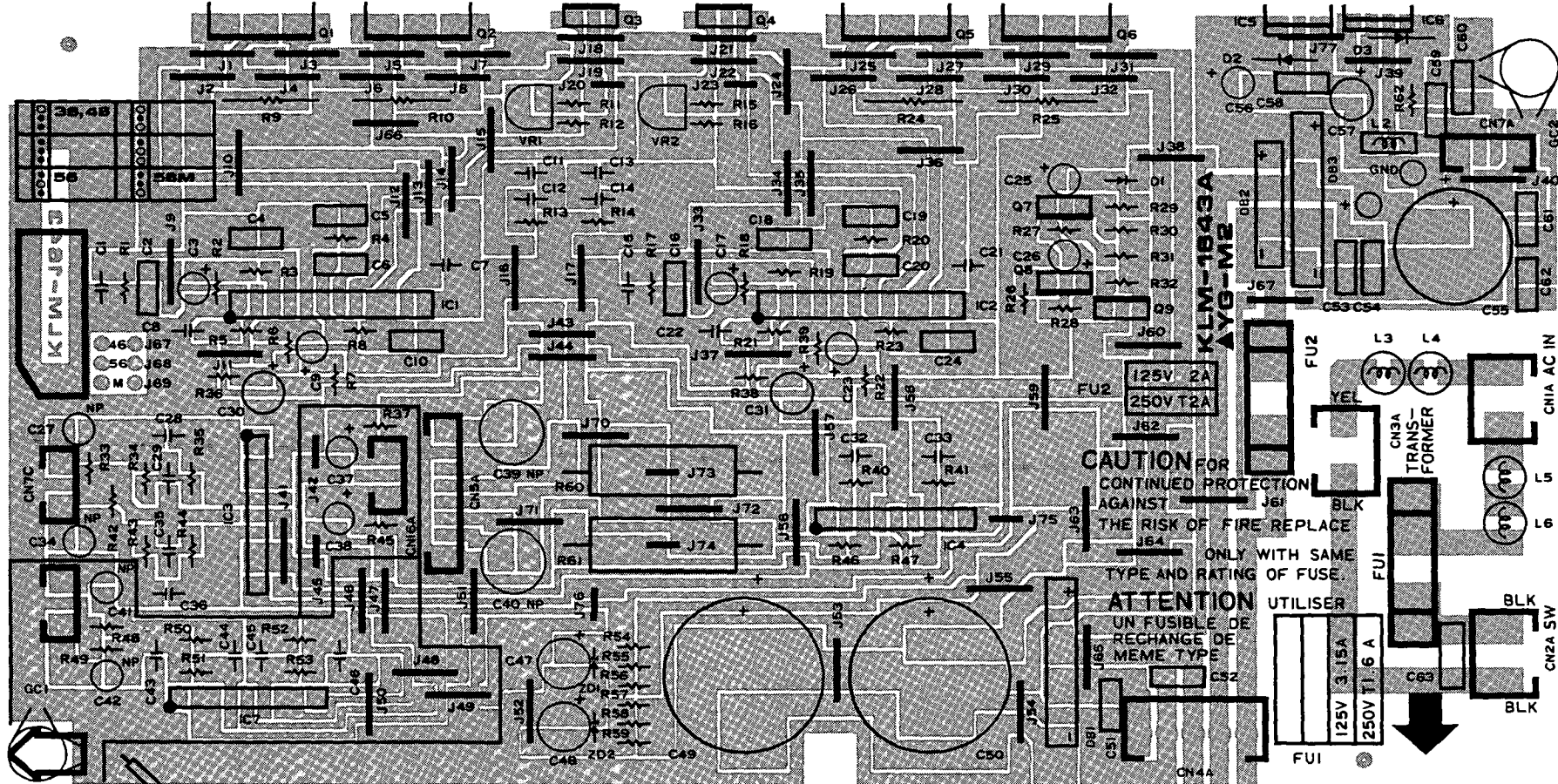
KLM-1653 (Non-component Side)

KLM-1653

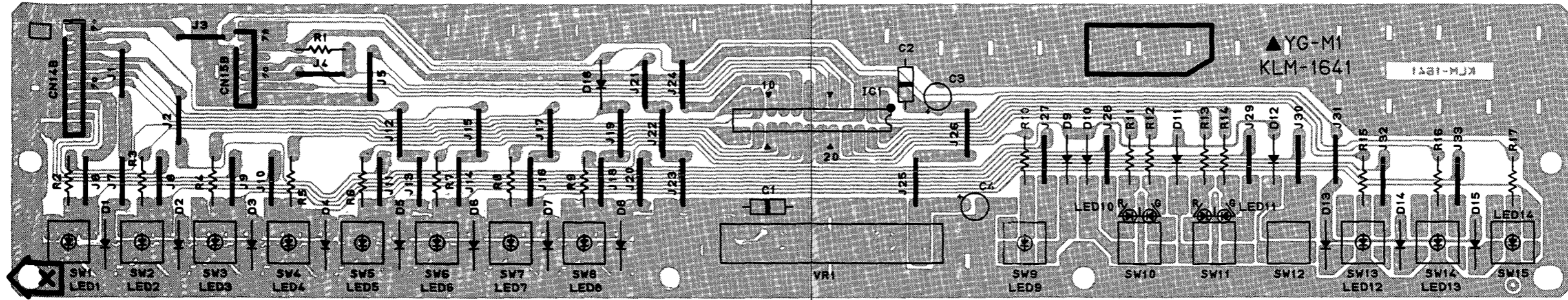


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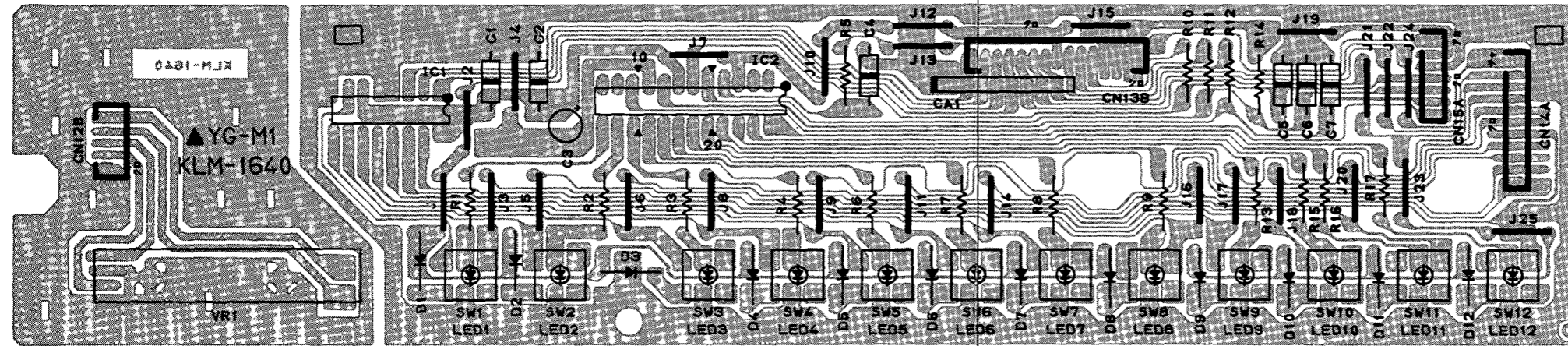




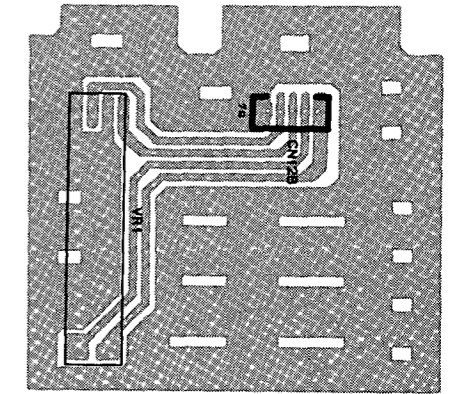
KLM-1641



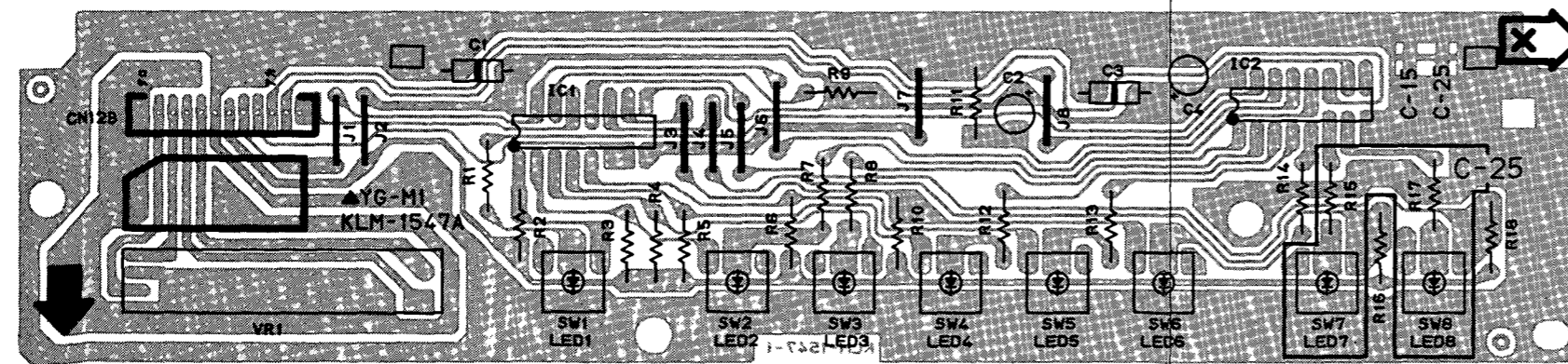
KLM-1640 (1/2)



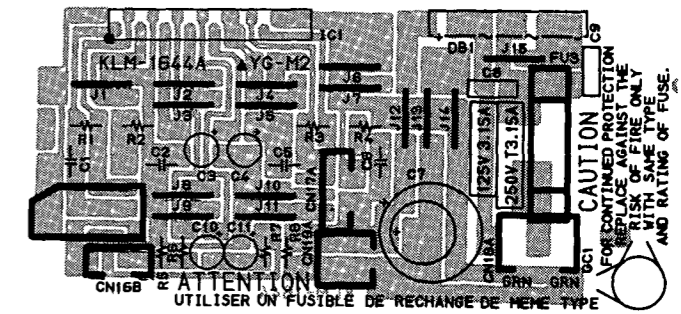
KLM-1640 (2/2)



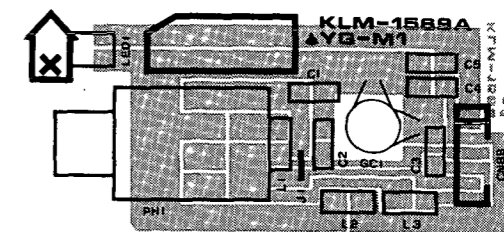
KLM-1547A



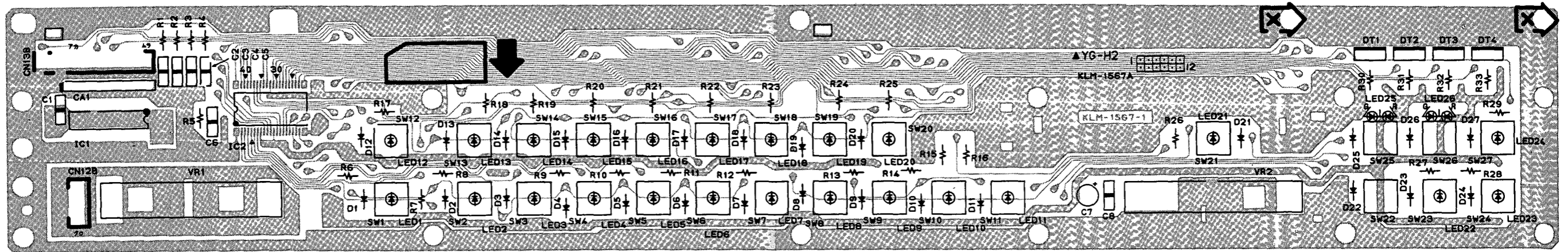
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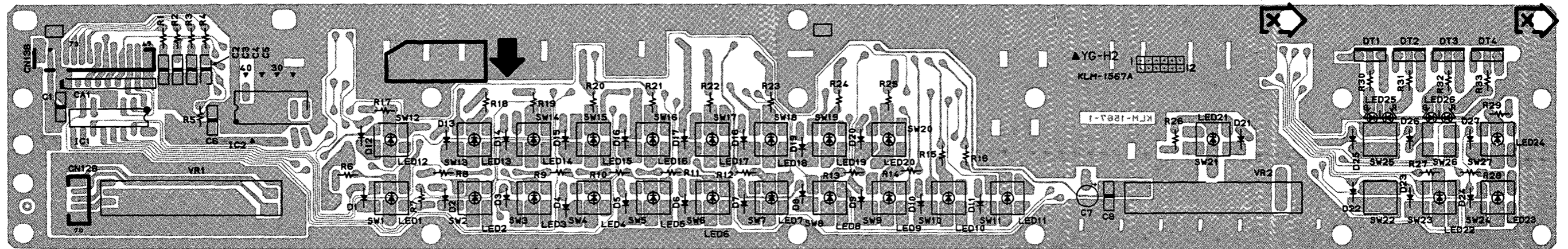
KLM-1569A



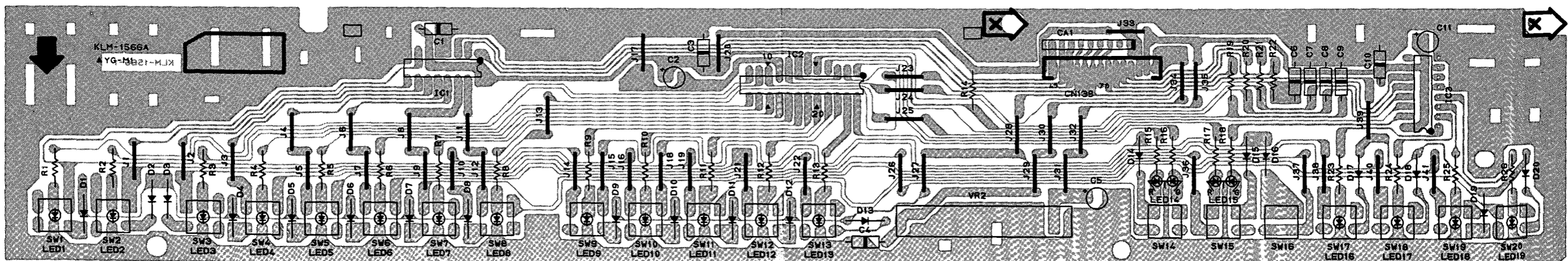
KLM-1567A (Component Side)



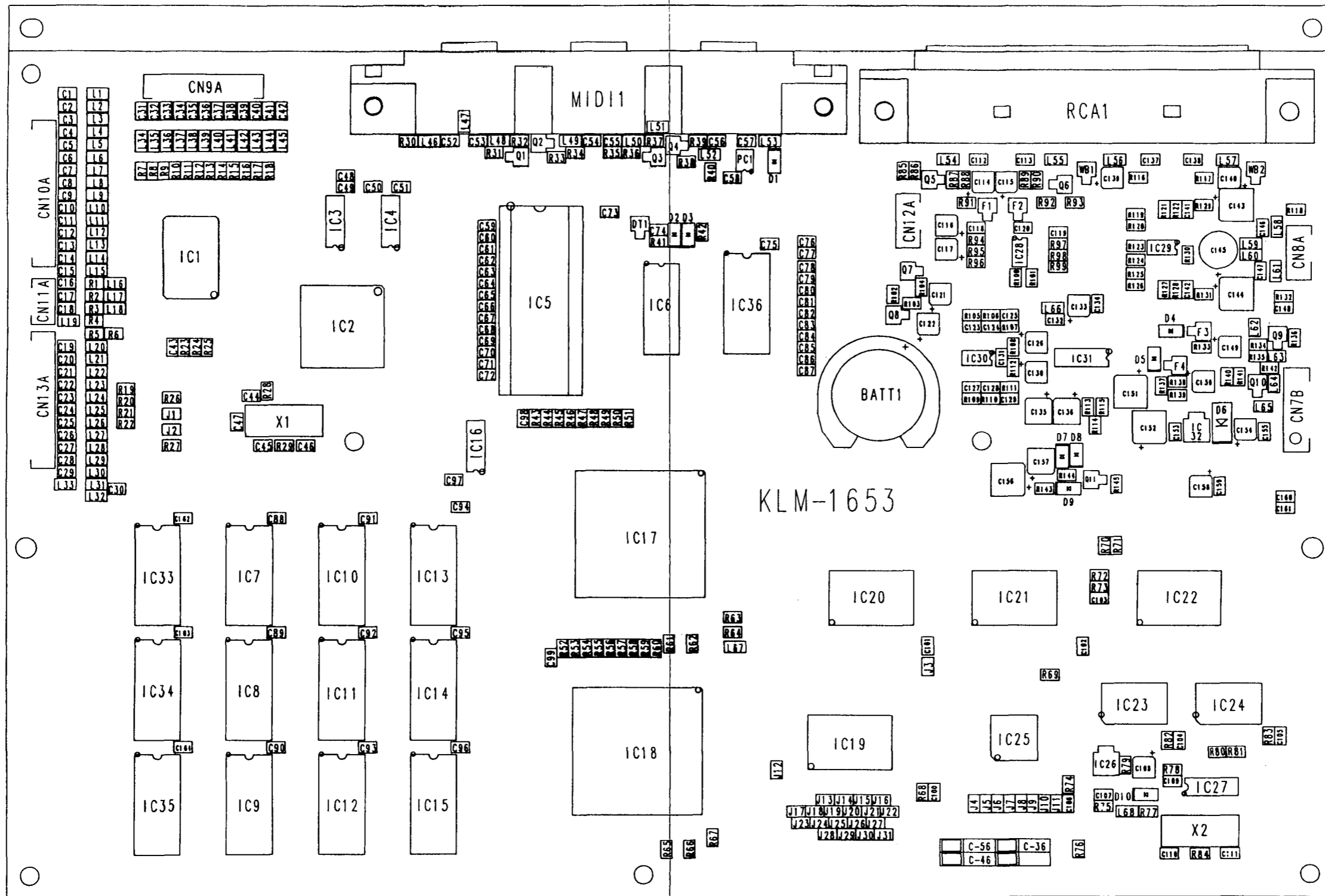
KLM-1567A (Non-component Side)



KLM-1566A



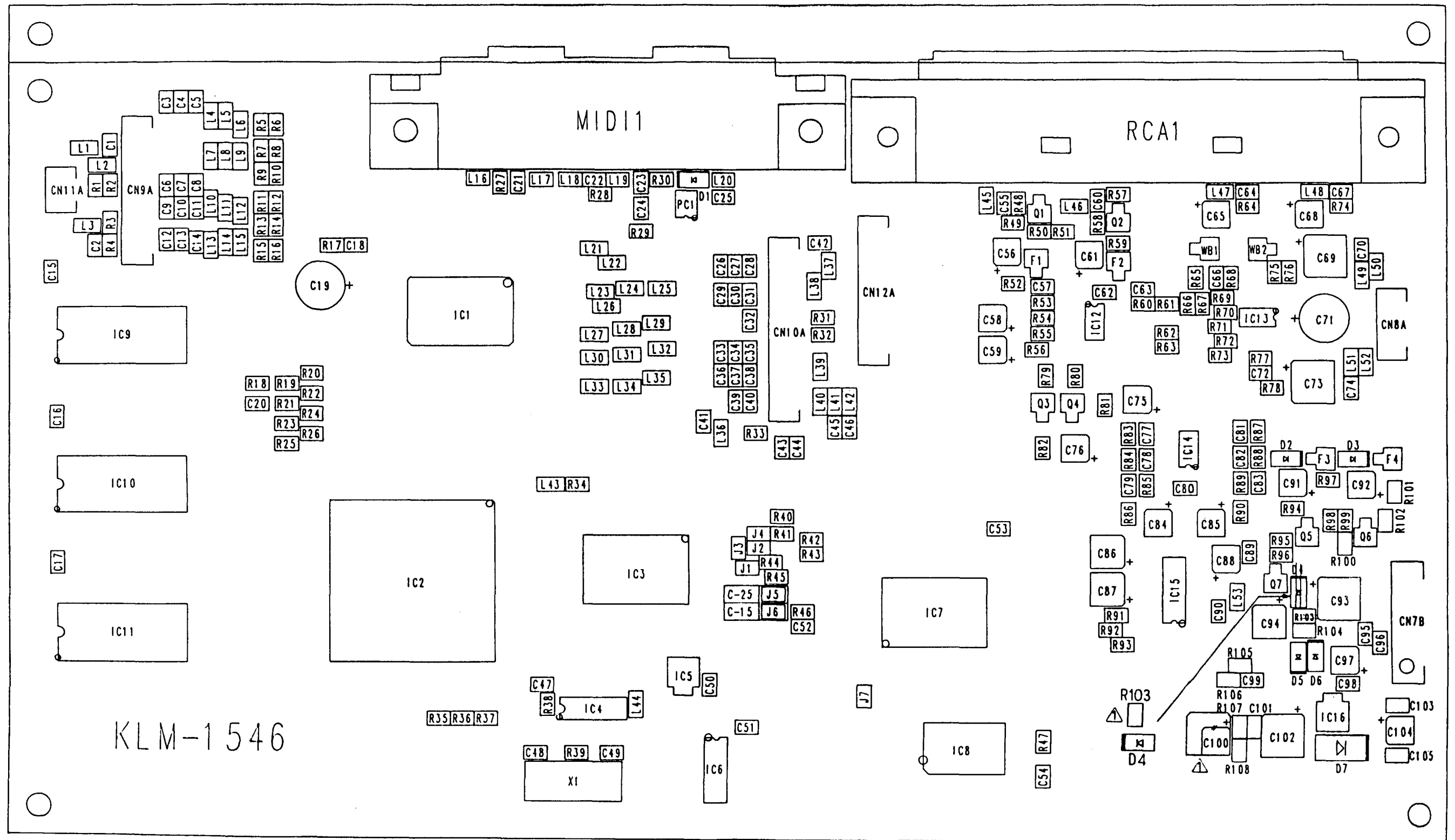
KLM-1653



KLM-1653

For C-36/46/56/56M

KLM-1546



For C-26

6. DIAGNOSTIC TEST

DIAGNOSTIC TEST for C-26

0. «Start-up of Test Mode»

Connect a MIDI cable with the MIDI IN/OUT, power on the system while holding down both the MIDI/TRANPOSE and PIANO switches and the test mode will start.

Once the test mode has started, an LED on the panel goes on and off in the following sequence:

MIDI/TRANPOSE, PIANO, E.PIANO, HARPSI, VIBES, ORGAN

The operating switches on the test mode are as follows:

MIDI/TRANPOSE: Moves from the test mode to the normal mode.

ORGAN: Returns to the last check.

PIANO: Proceeds to the next check.

1. «Internal check»

Once the test mode has started up correctly, the following checks are made automatically:

1) MAIN ROM WRITE/READ CHECK

If an error is found in this check, the PIANO LED goes on and off. Check the SYSTEM ROM (IC5).

2) WAVE ROM READ CHECK

If an error is found in this check, the MIDI/TRANPOSE LED and the LED which relates to each IC go on and off.

IC NO.	IC9	IC11
LED NAME	PIANO	E.PIANO

3) MIDI IN/OUT CHECK

A loop test for the MIDI IN/OUT is made in this check.

If an error is found, the E.PIANO LED goes on and off.

4) TG VOICE CHECK

If a voice error in the IC17 is found, the HARPSI LED goes on and off.

2. «Checks of Panel Switch»

1) PANEL SWITCH ALL OFF CHECK

If the internal check has been completed normally, the test automatically moves to this check.

At this time, remove the MIDI cable connected to the MIDI IN/OUT.

Make sure that the LEDs of all the switches on the panel are unlit.

If any switch is set to ON, an LED for the switch lights up and the test mode stops.

2) PANEL SWITCH ON/OFF CHECK

If the PANEL SWITCH ALL OFF CHECK has been completed normally, the test moves to this check automatically.

In this check step, successively press the switches whose LEDs go on and off to check their operations.

Make sure that the MIDI/TRANPOSE LED goes on and off, then press the MIDI/TRANPOSE SW. And an LED for the next switch will go on and off.

The sequence of the switches to be checked is as follows:

MIDI/TRANPOSE, PIANO, E.PIANO, HARPSI, VIBES, ORGAN, ROOM, HALL

Once the HALL switch check has been completed, the test proceeds to the next check automatically.

3. «Pedal Check»

This check is made in a status that the stand pedal is connected to the product.

If this check is not required, press the PIANO switch to proceed to the next check.

1) PEDAL ALL OFF CHECK

This check is used to make sure that all the pedals are in the OFF status.

If any switch is in the ON status, an LED lights up and then the test mode stops.

The pedals correspond to the following LEDs:

SOFT/SOSTENUTE=PIANO, DAMPER=E.PIANO

2) PEDAL ON/OFF CHECK

If the PEDAL ALL OFF CHECK is over, the LEDs for the PIANO and E.PIANO go on and off.

When a pedal corresponding to the LED is operated, the LED changes from the 'going on and off' to 'lighting' status. If you set the pedal to OFF, make sure that the LED goes out.

If two pedals are in the ON status simultaneously, a related LED lights up and then the test mode stops.

4. «KEYBOARD check»

When the test moves to the KEYBOARD check, the PIANO LED will light up.

Press all the keys with moderate strength one by one from the highest KEY (C8).

The error messages in this check are as follows:

- 1) If the key stress is unfit, the VIBES LED lights up and a warning sound is issued.
- 2) If a key with a lower tone than that of the key to be checked is pressed, the PIANO LED lights up and a warning sound is issued.
- 3) If a key with a higher tone than that of the key to be checked is pressed, the ORGAN LED lights up and a warning sound is issued.

Unless the check is made correctly, the test can never proceed to the next key check. Once all the keys have been checked, the test moves to the DSP check automatically.

5. <<DSP check>>

If the test moves to the DSP check, the E.PIANO LED lights up.

- * In this check, because of too large test waveform output, be sure to start the check after inserting a plug for muting into the headphone jack to prevent any sound from being produced through the speakers.

This check is for the test waveform of DSP (IC22).

The check is made by connecting an oscilloscope with the AUX OUT L/R.

- 1) If you press the A0 key, a test waveform for the IC22 is output from the AUX OUT L.
- 2) If you press the B0 key, a test waveform for the IC22 is output from the AUX OUT R.
- 3) If you press the C1 key, a test waveform is output from the AUX OUT L/R alternatively.

This check is made for the D_RAM of DSP.

If any abnormal condition is found in the check, examine the IC for each related item and then its peripheral circuit.

If the check is over normally, press the PIANO switch to proceed to the next check.

6. <<TG check>>

When the test moves to the TG check, the HARPSI LED lights up.

- * In this check, because of a too large test waveform output, be sure to start the check after inserting a plug for muting into the headphone jack to prevent any sound from being produced through the speakers.

In addition, if a test waveform from the headphone is checked, set the master volume at 0 once and then make this check.

The check is made by connecting an oscilloscope with the AUX OUT L/R.

- 1) If you press the A0 key, make sure that a test waveform with the lower 4 bits of IC17 boosted by the DSP is output from the AUX OUT L. This waveform includes many noises because it is generated from being boosted by the DSP. However, this is not a trouble except that the waveform is distorted extremely.

- 2) If you press the B0 key, make sure that a test waveform for the IC17 (440Hz SIN wave/2.3Vp-p) is output from the AUX OUT L.
- 3) If you press the C1 key, make sure that a test waveform for the IC17 (440Hz SIN wave/2.3Vp-p) is output from the AUX OUT R.
- 4) If you press the D1 key, make sure that a test waveform for the IC17 (440Hz SIN wave/10.8Vp-p) is output from the PHONES L.
- 5) If you press the E1 key, make sure that a test waveform for the IC17 (440Hz SIN wave/10.8Vp-p) is output from the PHONES R.

If an abnormal condition is found in the check, examine the IC17 and then its peripheral circuit.

If the TG check is over, press the PIANO switch to proceed to the next check.

7. «AUX IN check»

If the test moves to the AUX IN check, the VIBES LED lights up.

The check is made by connecting an oscilloscope with the AUX OUT L/R. Connect the oscillator to the AUX IN L/R on the rear panel.

- 1) Input a SIN wave of 1KHz/0.6Vp-p to the AUX IN L on the rear panel.

At this time, make sure that the waveform which is output to the AUX OUT L is a SIN wave of 1KHz/1.2Vp-p.

- 2) Input a SIN wave of 1KHz/0.6Vp-p to the AUX IN R on the rear panel.

At this time, make sure that the waveform which is output to the AUX OUT R is a SIN wave of 1KHz/1.2Vp-p.

If the check is over, press the PIANO switch to proceed to the next check.

8. «Residual Noise»

If the test moves to the residual noise check, the ORGAN LED lights up.

The check is made by connecting a noise meter with the AUX OUT L/R and PHONE.

- 1) Make sure that the residual noise of AUX OUT L is -82dBm or less.
- 2) Make sure that the residual noise of AUX OUT R is -82dBm or less.
- 3) Make sure that the residual noise of PHONES L is -70dBm or less.
- 4) Make sure that the residual noise of PHONES R is -70dBm or less.

If the check is over, press the PIANO switch to proceed to the next check.

9. 《Speaker Check》

If the test moves to the speaker check, the ROOM LED lights up.

- 1) Press the A0 key to make sure that the sound is heard through the middle-pass speaker L.
- 2) Press the B0 key to make sure that the sound is heard through the middle-pass speaker R.

If the check is over, press the PIANO switch to move from the test mode to the normal mode.

DIAGNOSTIC TEST for C-36

0. «Start-up of Test Mode»

Connect a MIDI cable with the MIDI IN/OUT, power on the system while holding down both the MIDI/TRANPOSE and SPLIT switches and the test mode will start.

Once the test mode has started, an LED on the panel goes on and off in the following sequence:

MIDI/TRANPOSE, SPLIT, PIANO, E.PIANO, HARPSI, VIBES, ORGAN, STRINGS, ROOM, HALL, CHORUS, BRIGHT, SOFT, TRACK1(R), TRACK1(G), TRACK2(R), TRACK2(G), START/STOP, RESET, REPEAT, METRONOME

The operating switches on the test mode are as follows:

MIDI/TRANPOSE: Moves from the test mode to the normal mode.

STRINGS: Returns to the last check.

PIANO: Proceeds to the next check.

1. «Internal check»

Once the test mode has started up correctly, the following checks are made automatically:

1) MAIN ROM WRITE/READ CHECK

If an error is found in this check, the PIANO LED goes on and off. Check the SYSTEM ROM (IC5).

2) WAVE ROM READ CHECK

If an error is found in this check, the MIDI/TRANPOSE LED and the LED which relates to each IC go on and off.

IC NO.	IC13	IC15	IC10	IC12
LED NAME	PIANO	E.PIANO	HARPSI	VIBES

3) MIDI IN/OUT CHECK

A loop test for the MIDI IN/OUT is made in this check.

If an error is found, the E.PIANO LED goes on and off.

4) TG VOICE CHECK

If a voice error in the IC17 is found, the HARPSI LED goes on and off.

5) KSP CHECK

If an error is found in this check, the VIBES LED goes on and off.
Examine both the IC1 (M37450M4) and IC2 (UPD70325GJ-10-5BG).

2. «Checks of Panel Switch & TEMPO VOLUME»

1) PANEL SWITCH ALL OFF CHECK

If the internal check has been completed normally, the test automatically moves to this check.

At this time, remove the MIDI cable connected to the MIDI IN/OUT.

Make sure that the LEDs of all the switches on the panel are unlit.

If any switch is set to ON, an LED for the switch lights up and the test mode stops.

2) PANEL SWITCH ON/OFF & TEMPO VOLUME CHECK

If the PANEL SWITCH ALL OFF CHECK has been completed normally, the test moves to this check automatically.

In this check step, successively press the switches whose LEDs go on and off to check their operations.

Make sure that the MIDI/TRANPOSE LED goes on and off, then press the MIDI/TRANPOSE SW. And an LED for the next switch will go on and off.

The sequence of the switches to be checked is as follows:

MIDI/TRANPOSE, SPLIT, PIANO, E.PIANO, HARPSI, VIBES, ORGAN, STRINGS, ROOM, HALL, CHORUS, BRIGHT, SOFT

If the SOFT switch check is over, a green LED for the TRACK1 goes on and off automatically. Then, the test moves to the TEMPO VOLUME check.

In this check step, you can make the check with a bar-graph which is constructed with the LEDs for the MIDI/TRNSPOSE, SPLIT, E.PIANO, HARPSI, VIBES, ORGAN, and STRINGS.

Make sure that eight LEDs light up with the TEMPO VOLUME set to FAST and that they go out with it set to SLOW.

If the TEMPO VOLUME check is over and then you press the TRACK1 switch, make sure that a green LED for the TRACK2 goes on and off.

If you press the TRACK2 switch, make sure that a red LEDs for the TRACK1 and TRACK2 go on and off.

The sequence of the switches to be checked is as follows:

TRACK1, TRACK2, RECORD, START/STOP, RESET, REPEAT, METRONOME

Once the METRONOME switch check has been completed, the test proceeds to the next check automatically.

3. «Pedal Check»

This check is made in a status that the stand pedal is connected to the product.

If this check is not required, press the PIANO switch to proceed to the next check.

1) PEDAL ALL OFF CHECK

This check is used to make sure that all the pedals are in the OFF status.

If any switch is in the ON status, an LED lights up and then the test mode stops.

The pedals correspond to the following LEDs:

SOFT=ROOM, SOSTENUTE=HALL, DAMPER=CHORUS

2) PEDAL ON/OFF CHECK

If the PEDAL ALL OFF CHECK is over, the LEDs for the ROOM, HALL and CHORUS go on and off.

When a pedal corresponding to the LED is operated, the LED changes from the 'going on and off' to 'lighting' status. If you set the pedal to OFF, make sure that the LED goes out.

If two pedals or more are in the ON status simultaneously, a related LED lights up and then the test mode stops.

4. «KEYBOARD check»

When the test moves to the KEYBOARD check, the PIANO LED will light up.

Press all the keys with moderate strength one by one from the highest KEY (C8).

The error messages in this check are as follows:

- 1) If the key stress is unfit, the VIBES LED lights up and a warning sound is issued.
- 2) If a key with a lower tone than that of the key to be checked is pressed, the PIANO LED lights up and a warning sound is issued.
- 3) If a key with a higher tone than that of the key to be checked is pressed, the STRINGS LED lights up and a warning sound is issued.

Unless the check is made correctly, the test can never proceed to the next key check. Once all the keys have been checked, the test moves to the DSP check automatically.

5. «DSP check»

If the test moves to the DSP check, the E.PIANO LED lights up.

- * In this check, because of too large test waveform output, be sure to start the check after inserting a plug for muting into the headphone jack to prevent any sound from being produced through the speakers.

This check is for the test waveform of DSP (IC20, 22).

The check is made by connecting an oscilloscope with the AUX OUT L/R.

- 1) If you press the A0 key, a test waveform for the IC22 is output from the AUX OUT L.
- 2) If you press the B0 key, a test waveform for the IC22 is output from the AUX OUT R.
- 3) If you press the C1 key, a test waveform is output from the AUX OUT L/R alternatively.

This check is made for the D_RAM of DSP.

- 4) If you press the D1 key, a test waveform for the IC20 is output from the AUX OUT L. (S00)

- 5) If you press the E1 key, a test waveform for the IC20 is output from the AUX OUT R. (S00)
- 6) If you press the F1 key, a test waveform for the IC20 is output from the AUX OUT L. (S01)
- 7) If you press the G1 key, a test waveform for the IC20 is output from the AUX OUT R. (S01)

If any abnormal condition is found in the check, examine the IC for each related item and then its peripheral circuit.

If the check is over normally, press the PIANO switch to proceed to the next check.

6. 《TG check》

When the test moves to the TG check, the HARPSI LED lights up.

- * In this check, because of a too large test waveform output, be sure to start the check after inserting a plug for muting into the headphone jack to prevent any sound from being produced through the speakers.

In addition, if a test waveform from the headphone is checked, set the master volume at 0 once and then make this check.

The check is made by connecting an oscilloscope with the AUX OUT L/R.

- 1) If you press the A0 key, make sure that a test waveform with the lower 4 bits of IC17 boosted by the DSP is output from the AUX OUT L. This waveform includes many noises because it is generated from being boosted by the DSP.

However, this is not a trouble except that the waveform is distorted extremely.

- 2) If you press the B0 key, make sure that a test waveform for the IC17 (440Hz SIN wave/2.3Vp-p) is output from the AUX OUT L.
- 3) If you press the C1 key, make sure that a test waveform for the IC17 (440Hz SIN wave/2.3Vp-p) is output from the AUX OUT R.
- 4) If you press the D1 key, make sure that a test waveform for the IC17 (440Hz SIN wave/10.8Vp-p) is output from the PHONES L.
- 5) If you press the E1 key, make sure that a test waveform for the IC17 (440Hz SIN wave/10.8Vp-p) is output from the PHONES R.

If an abnormal condition is found in the check, examine the IC17 and then its peripheral circuit.

If the TG check is over, press the PIANO switch to proceed to the next check.

7. «AUX IN check»

If the test moves to the AUX IN check, the VIBES LED lights up.

The check is made by connecting an oscilloscope with the AUX OUT L/R. Connect the oscillator to the AUX IN L/R on the rear panel.

1) Input a SIN wave of 1KHz/0.6Vp-p to the AUX IN L on the rear panel.

At this time, make sure that the waveform which is output to the AUX OUT L is a SIN wave of 1KHz/1.2Vp-p.

2) Input a SIN wave of 1KHz/0.6Vp-p to the AUX IN R on the rear panel.

At this time, make sure that the waveform which is output to the AUX OUT R is a SIN wave of 1KHz/1.2Vp-p.

If the check is over, press the PIANO switch to proceed to the next check.

8. «Residual Noise»

If the test moves to the residual noise check, the ORGAN LED lights up.

The check is made by connecting a noise meter with the AUX OUT L/R and PHONE.

1) Make sure that the residual noise of AUX OUT L is -82dB or less.

2) Make sure that the residual noise of AUX OUT R is -82dB or less.

3) Make sure that the residual noise of PHONES L is -70dB or less.

4) Make sure that the residual noise of PHONES R is -70dB or less.

If the check is over, press the PIANO switch to proceed to the next check.

9. «Speaker Check»

If the test moves to the speaker check, the STRINGS LED lights up.

- 1) Press the A0 key to make sure that the sound is heard through the middle-pass speaker L.
- 2) Press the B0 key to make sure that the sound is heard through the middle-pass speaker R.
- 3) Press the C1 key to make sure that the sound is heard through the high-pass speaker L.
- 4) Press the D1 key to make sure that the sound is heard through the high-pass speaker R.

If the check is over, press the PIANO switch to move from the test mode to the normal mode.

DIAGNOSTIC TEST for C-46

0. «Start-up of Test Mode»

Connect a MIDI cable with the MIDI IN/OUT, power on the system while holding down both the MIDI/TRANPOSE and SPLIT switches and the test mode will start.

Once the test mode has started, an LED on the panel goes on and off in the following sequence:

MIDI/TRANPOSE, SPILIT, PIANO1, PIANOII, E.PIANO1, E.PIANOII, HARPSI, VIBES, B/G/D, ORGANI, ORGANII, STRINGS, ROOM, STAGE, HALL, ECHO, TREMOLO, CHORUS, BRIGHT, SOFT, METRONOME, TRACK1(R), TRACK1(G), TRACK2(R), TRACK2(G), START/STOP, RESET, REPEAT

The operating switches on the test mode are as follows:

MIDI/TRANPOSE: Moves from the test mode to the normal mode.

STRINGS: Returns to the last check.

PIANO1: Proceeds to the next check.

1. «Internal check»

Once the test mode has started up correctly, the following checks are made automatically:

1) MAIN ROM WRITE/READ CHECK

If an error is found in this check, the PIANO1 LED goes on and off. Check the SYSTEM ROM (IC5).

2) WAVE ROM READ CHECK

If an error is found in this check, the MIDI/TRANPOSE LED and the LED which relates to each IC go on and off.

IC NO.	IC13	IC15	IC10	IC12	IC7	IC9
LED NAME	PIANO1	PIANOII	E.PIANO1	E.PIANOII	HARPSI	VIBES

3) MIDI IN/OUT CHECK

A loop test for the MIDI IN/OUT is made in this check.

If an error is found, the PIANOII LED goes on and off.

4) TG VOICE CHECK

If a voice error in the IC17 is found, the E.PIANO I LED goes on and off.

5) KSP CHECK

If an error is found in this check, the E.PIANO II LED goes on and off. Examine both the IC1 (M37450M4) and IC2 (UPD70325GJ-10-5BG).

2. «Checks of Panel Switch & TEMPO VOLUME»

1) PANEL SWITCH ALL OFF CHECK

If the internal check has been completed normally, the test automatically moves to this check.

At this time, remove the MIDI cable connected to the MIDI IN/OUT.

Make sure that the LEDs of all the switches on the panel are unlit.

If any switch is set to ON, an LED for the switch lights up and the test mode stops.

2) PANEL SWITCH ON/OFF & TEMPO VOLUME CHECK

If the PANEL SWITCH ALL OFF CHECK has been completed normally, the test moves to this check automatically.

In this check step, successively press the switches whose LEDs go on and off to check their operations.

Make sure that the MIDI/TRANSPOSE LED goes on and off, then press the MIDI/TRANSPOSE SW. And an LED for the next switch will go on and off.

The sequence of the switches to be checked is as follows:

MIDI/TRANSPOSE, SPLIT, PIANO I, PIANO II, E.PIANO I, E.PIANO II, HARPSI, VIBES, B/G/D, ORGAN I, ORGAN II, STRINGS, ROOM, STAGE, HALL, ECHO, TREMOLO, CHORUS, BRIGHT, SOFT

If the SOFT switch check is over, an LED for the METRONOME goes on and off automatically. Then, the test moves to the TEMPO VOLUME check.

In this check step, you can make the check with a bar-graph which is constructed with the LEDs for the ROOM, STAGE, HALL, ECHO, TREMOLO, CHORUS, BRIGHT and SOFT.

Make sure that eight LEDs light up with the TEMPO VOLUME set to FAST and that they go out with it set to SLOW.

If the TEMPO VOLUME check is over and then you press the METRONOME switch, make sure that a green LED for the TRACK1 goes on and off.

If you press the TRACK1 switch, make sure that a green LED for the TRACK2 goes on and off.

The sequence of the switches to be checked is as follows:

METRONOME, TRACK1, TRACK2, REPEAT, RECORD, START/STOP, RESET

Once the RESET switch check has been completed, the test proceeds to the next check automatically.

3. «Pedal Check»

This check is made in a status that the stand pedal is connected to the product.

If this check is not required, press the PIANO I switch to proceed to the next check.

1) PEDAL ALL OFF CHECK

This check is used to make sure that all the pedals are in the OFF status.

If any switch is in the ON status, an LED lights up and then the test mode stops.

The pedals correspond to the following LEDs:

SOFT=PIANO I, SOSTENUTE=PIANO II, DAMPER=E.PIANO I

2) PEDAL ON/OFF CHECK

If the PEDAL ALL OFF CHECK is over, the LEDs for the PIANO I, PIANO II and E.PIANO I go on and off.

When a pedal corresponding to the LED is operated, the LED changes from the 'going on and off' to 'lighting' status. If you set the pedal to OFF, make sure that the LED goes out.

If two pedals or more are in the ON status simultaneously, a related LED lights up and then the test mode stops.

4. «KEYBOARD check»

When the test moves to the KEYBOARD check, the PIANO I LED will light up.

Press all the keys with moderate strength one by one from the highest KEY (C8).

The error messages in this check are as follows:

- 1) If the key stress is unfit, the VIBES LED lights up and a warning sound is issued.
- 2) If a key with a lower tone than that of the key to be checked is pressed, the PIANO I LED lights up and a warning sound is issued.
- 3) If a key with a higher tone than that of the key to be checked is pressed, the STRINGS LED lights up and a warning sound is issued.

Unless the check is made correctly, the test can never proceed to the next key check. Once all the keys have been checked, the test moves to the DSP check automatically.

5. «DSP check»

If the test moves to the DSP check, the PIANO II LED lights up.

* In this check, because of too large test waveform output, be sure to start the check after inserting a plug for muting into the headphone jack to prevent any sound from being produced through the speakers.

This check is for the test waveform of DSP (IC20, 21, 22).

The check is made by connecting an oscilloscope with the AUX OUT L/R.

- 1) If you press the A0 key, a test waveform for the IC22 is output from the AUX OUT L.
- 2) If you press the B0 key, a test waveform for the IC22 is output from the AUX OUT R.
- 3) If you press the C1 key, a test waveform is output from the AUX OUT L/R alternatively.

This check is made for the D_RAM of DSP.

- 4) If you press the D1 key, a test waveform for the IC21 is output from the AUX OUT L. (S00)

- 5) If you press the E1 key, a test waveform for the IC21 is output from the AUX OUT R. (S00)
- 6) If you press the F1 key, a test waveform for the IC21 is output from the AUX OUT L. (S01)
- 7) If you press the G1 key, a test waveform for the IC21 is output from the AUX OUT R. (S01)

If any abnormal condition is found in the check, examine the IC for each related item and then its peripheral circuit.

If the check is over normally, press the PIANO1 switch to proceed to the next check.

6. 《TG check》

When the test moves to the TG check, the E.PIANO1 LED lights up.

- * In this check, because of a too large test waveform output, be sure to start the check after inserting a plug for muting into the headphone jack to prevent any sound from being produced through the speakers.

In addition, if a test waveform from the headphone is checked, set the master volume at 0 once and then make this check.

The check is made by connecting an oscilloscope with the AUX OUT L/R.

- 1) If you press the A0 key, make sure that a test waveform with the lower 4 bits of IC17 boosted by the DSP is output from the AUX OUT L. This waveform includes many noises because it is generated from being boosted by the DSP.

However, this is not a trouble except that the waveform is distorted extremely.

- 2) If you press the B0 key, make sure that a test waveform for the IC17 (440Hz SIN wave/2.3Vp-p) is output from the AUX OUT L.
- 3) If you press the C1 key, make sure that a test waveform for the IC17 (440Hz SIN wave/2.3Vp-p) is output from the AUX OUT R.
- 4) If you press the D1 key, make sure that a test waveform for the IC17 (440Hz SIN wave/10.8Vp-p) is output from the PHONES L.
- 5) If you press the E1 key, make sure that a test waveform for the IC17 (440Hz SIN wave/10.8Vp-p) is output from the PHONES R.

If an abnormal condition is found in the check, examine the IC17 and then its peripheral circuit.

If the TG check is over, press the PIANO I switch to proceed to the next check.

7. «AUX IN check»

If the test moves to the AUX IN check, the E.PIANO II LED lights up.

The check is made by connecting an oscilloscope with the AUX OUT L/R. Connect the oscillator to the AUX IN L/R on the rear panel.

1) Input a SIN wave of 1KHz/0.6p-p to the AUX IN L on the rear panel.

At this time, make sure that the waveform which is output to the AUX OUT L is a SIN wave of 1KHz/1.2V.

2) Input a SIN wave of 1KHz/0.6p-p to the AUX IN R on the rear panel.

At this time, make sure that the waveform which is output to the AUX OUT R is a SIN wave of 1KHz/1.2Vp-p.

If the check is over, press the PIANO I switch to proceed to the next check.

8. «Residual Noise»

If the test moves to the residual noise check, the HARPSI LED lights up.

The check is made by connecting a noise meter with the AUX OUT L/R and PHONE.

1) Make sure that the residual noise of AUX OUT L is -82dBm or less.

2) Make sure that the residual noise of AUX OUT R is -82dBm or less.

3) Make sure that the residual noise of PHONES L is -70dBm or less.

4) Make sure that the residual noise of PHONES R is -70dBm or less.

If the check is over, press the PIANO I switch to proceed to the next check.

9. 《Speaker Check》

If the test moves to the speaker check, the VIBES LED lights up.

- 1) Press the A0 key to make sure that the sound is heard through the middle-pass speaker L.
- 2) Press the B0 key to make sure that the sound is heard through the middle-pass speaker R.
- 3) Press the C1 key to make sure that the sound is heard through the high-pass speaker L.
- 4) Press the D1 key to make sure that the sound is heard through the high-pass speaker R.

If the check is over, press the PIANO1 switch to move from the test mode to the normal mode.

DIAGNOSTIC TEST for C-56

0. «Start-up of Test Mode»

Connect a MIDI cable with the MIDI IN/OUT, power on the system while holding down both the MIDI/TRANPOSE and SPLIT switches and the test mode will start.

Once the test mode has started, an LED on the panel goes on and off in the following sequence:

MIDI/TRANPOSE, SPILIT, PIANO I, PIANO II, E.PIANO I, E.PIANO II, HARPSI, VIBES, B/G/D, ORGAN I, ORGAN II, STRINGS, ROOM, STAGE, HALL, ECHO, TREMOLO, CHORUS, BRIGHT, SOFT, METRONOME, TRACK1(R), TRACK1(G), START/STOP, TRACK2(R), TRACK2(G), RESET, REPEAT

The operating switches on the test mode are as follows:

MIDI/TRANPOSE: Moves from the test mode to the normal mode.

STRINGS: Returns to the last check.

PIANO I: Proceeds to the next check.

1. «Internal check»

Once the test mode has started up correctly, the following checks are made automatically:

1) MAIN ROM WRITE/READ CHECK

If an error is found in this check, the PIANO I LED goes on and off. Check the SYSTEM ROM (IC5).

2) WAVE ROM READ CHECK

If an error is found in this check, the MIDI/TRANPOSE LED and the LED which relates to each IC go on and off.

IC NO.	IC13	IC15	IC10	IC12	IC7	IC9
LED NAME	PIANO I	PIANO II	E.PIANO I	E.PIANO II	HARPSI	VIBES

3) MIDI IN/OUT CHECK

A loop test for the MIDI IN/OUT is made in this check.

If an error is found, the PIANOII LED goes on and off.

4) TG VOICE CHECK

If a voice error in the IC17 is found, the E.PIANOI LED goes on and off.

If a voice error in the IC18 is found, the E.PIANOII LED goes on and off.

5) KSP CHECK

If an error is found in this check, the HARPSI LED goes on and off.
Examine both the IC1 (M37450M4) and IC2 (UPD70325GJ-10-5BG).

2. «Checks of Panel Switch & TEMPO VOLUME»

1) PANEL SWITCH ALL OFF CHECK

If the internal check has been completed normally, the test automatically moves to this check.

At this time, remove the MIDI cable connected to the MIDI IN/OUT.

Make sure that the LEDs of all the switches on the panel are unlit.

If any switch is set to ON, an LED for the switch lights up and the test mode stops.

2) PANEL SWITCH ON/OFF & TEMPO VOLUME CHECK

If the PANEL SWITCH ALL OFF CHECK has been completed normally, the test moves to this check automatically.

In this check step, successively press the switches whose LEDs go on and off to check their operations.

Make sure that the MIDI/TRANPOSE LED goes on and off, then press the MIDI/TRANPOSE SW. And an LED for the next switch will go on and off.

The sequence of the switches to be checked is as follows:

MIDI/TRANPOSE, SPLIT, PIANOI, PIANOII, E.PIANOI, E.PIANOII, HARPSI,
VIBES, B/G/D, ORGANI, ORGANII, STRINGS, ROOM, STAGE, HALL, ECHO,
TREMLO, CHORUS, BRIGHT, SOFT

If the SOFT switch check is over, an LED for the METRONOME goes on and off automatically. Then, the test moves to the TEMPO VOLUME check.

In this check step, you can make the check with a bar-graph which is constructed with the LEDs for the ROOM, STAGE, HALL, ECHO, TREMOLO, CHORUS, BRIGHT and SOFT.

Make sure that eight LEDs light up with the TEMPO VOLUME set to FAST and that they go out with it set to SLOW.

If the TEMPO VOLUME check is over and then you press the METRONOME switch, make sure that a green LED for the TRACK1 goes on and off.

If you press the TRACK1 switch, make sure that a green LED for the TRACK2 goes on and off.

The sequence of the switches to be checked is as follows:

METRONOME, TRACK1, TRACK2, REPEAT, RECORD, START/STOP, RESET

Once the RESET switch check has been completed, the test proceeds to the next check automatically.

3. «Pedal Check»

This check is made in a status that the stand pedal is connected to the product.

If this check is not required, press the PIANO I switch to proceed to the next check.

1) PEDAL ALL OFF CHECK

This check is used to make sure that all the pedals are in the OFF status.

If any switch is in the ON status, an LED lights up and then the test mode stops.

The pedals correspond to the following LEDs:

SOFT=PIANO I, SOSTENUTE=PIANO II, DAMPER=E.PIANO I

2) PEDAL ON/OFF CHECK

If the PEDAL ALL OFF CHECK is over, the LEDs for the PIANO I, PIANO II and E.PIANO I go on and off.

When a pedal corresponding to the LED is operated, the LED changes from the 'going on and off' to 'lighting' status. If you set the pedal to OFF, make sure that the LED goes out.

If two pedals or more are in the ON status simultaneously, a related LED lights up and then the test mode stops.

4. <<KEYBOARD check>>

When the test moves to the KEYBOARD check, the PIANO I LED will light up.

Press all the keys with moderate strength one by one from the highest KEY (C8).

The error messages in this check are as follows:

- 1) If the key stress is unfit, the VIBES LED lights up and a warning sound is issued.
- 2) If a key with a lower tone than that of the key to be checked is pressed, the PIANO I LED lights up and a warning sound is issued.
- 3) If a key with a higher tone than that of the key to be checked is pressed, the STRINGS LED lights up and a warning sound is issued.

Unless the check is made correctly, the test can never proceed to the next key check. Once all the keys have been checked, the test moves to the DSP check automatically.

5. <<DSP check>>

If the test moves to the DSP check, the PIANO II LED lights up.

- * In this check, because of too large test waveform output, be sure to start the check after inserting a plug for muting into the headphone jack to prevent any sound from being produced through the speakers.

This check is for the test waveform of DSP (IC20, 21, 22).

The check is made by connecting an oscilloscope with the AUX OUT L/R.

- 1) If you press the A0 key, a test waveform for the IC22 is output from the AUX OUT L.
- 2) If you press the B0 key, a test waveform for the IC22 is output from the AUX OUT R.
- 3) If you press the C1 key, a test waveform is output from the AUX OUT L/R alternatively.

This check is made for the D_RAM of DSP.

- 4) If you press the D1 key, a test waveform for the IC20 is output from the AUX OUT L. (S00)
- 5) If you press the E1 key, a test waveform for the IC20 is output from the AUX OUT R. (S00)
- 6) If you press the F1 key, a test waveform for the IC20 is output from the AUX OUT L. (S01)
- 7) If you press the G1 key, a test waveform for the IC20 is output from the AUX OUT R. (S01)
- 8) If you press the A1 key, a test waveform for the IC21 is output from the AUX OUT L. (S00)
- 9) If you press the B1 key, a test waveform for the IC21 is output from the AUX OUT R. (S00)

If any abnormal condition is found in the check, examine the IC for each related item and then its peripheral circuit.

If the check is over normally, press the PIANO1 switch to proceed to the next check.

6. <TG check>

When the test moves to the TG check, the E.PIANO1 LED lights up.

- * In this check, because of a too large test waveform output, be sure to start the check after inserting a plug for muting into the headphone jack to prevent any sound from being produced through the speakers.

In addition, if a test waveform from the headphone is checked, set the master volume at 0 once and then make this check.

The check is made by connecting an oscilloscope with the AUX OUT L/R.

- 1) If you press the A0 key, make sure that a test waveform with the lower 4 bits of IC17 boosted by the DSP is output from the AUX OUT L. This waveform includes many noises because it is generated from being boosted by the DSP.

However, this is not a trouble except that the waveform is distorted extremely.

- 2) If you press the B0 key, make sure that a test waveform with the lower 4 bits of IC18 boosted by the DSP is output from the AUX OUT L. This waveform includes many noises because it is generated from being boosted by the DSP.

However, it is not a trouble except that the waveform is distorted extremely.

- 3) If you press the C1 key, make sure that a test waveform for the IC17 (440Hz SIN wave/2.3Vp-p) is output from the AUX OUT L.
- 4) If you press the D1 key, make sure that a test waveform for the IC18 (440Hz SIN wave/2.3Vp-p) is output from the AUX OUT R.
- 5) If you press the E1 key, make sure that a test waveform for the IC17 (440Hz SIN wave/2.3Vp-p) is output from the AUX OUT L and that for the IC18 (880Hz SIN wave/2.3Vp-p) is output from the AUX OUT R.
- 6) If you press the F1 key, make sure that a test waveform for the IC17 (440Hz SIN wave/2.3Vp-p) is output from the AUX OUT L and that for the IC18 (880Hz SIN wave/2.3Vp-p) is output from the AUX OUT R.
- 7) If you press the G1 key, make sure that a test waveform for the IC17 (440Hz SIN wave/10.8Vp-p) is output from the PHONES L.
- 8) If you press the A1 key, make sure that a test waveform for the IC18 (440Hz SIN wave/10.8Vp-p) is output from the PHONES R.

If an abnormal condition is found in the check, examine the IC17 and IC18 and then their peripheral circuits.

If the TG check is over, press the PIANO1 switch to proceed to the next check.

7. «AUX IN check»

If the test moves to the AUX IN check, the E.PIANOII LED lights up.

The check is made by connecting an oscilloscope with the AUX OUT L/R. Connect the oscillator to the AUX IN L/R on the rear panel.

1) Input a SIN wave of 1KHz/0.6p-p to the AUX IN L on the rear panel.

At this time, make sure that the waveform which is output to the AUX OUT L is a SIN wave of 1KHz/1.2V.

2) Input a SIN wave of 1KHz/0.6p-p to the AUX IN R on the rear panel.

At this time, make sure that the waveform which is output to the AUX OUT R is a SIN wave of 1KHz/1.2Vp-p.

If the check is over, press the PIANO I switch to proceed to the next check.

8. «Residual Noise»

If the test moves to the residual noise check, the HARPSI LED lights up.

The check is made by connecting a noise meter with the AUX OUT L/R and PHONE.

1) Make sure that the residual noise of AUX OUT L is -82dBm or less.

2) Make sure that the residual noise of AUX OUT R is -82dBm or less.

3) Make sure that the residual noise of PHONES L is -70dBm or less.

4) Make sure that the residual noise of PHONES R is -70dBm or less.

If the check is over, press the PIANO I switch to proceed to the next check.

9. «Speaker Check»

If the test moves to the speaker check, the VIBES LED lights up.

- 1) Press the A0 key to make sure that the sound is heard through the middle-pass speaker L.
- 2) Press the B0 key to make sure that the sound is heard through the middle-pass speaker R.
- 3) Press the C1 key to make sure that the sound is heard through the high-pass speaker L.
- 4) Press the D1 key to make sure that the sound is heard through the high-pass speaker R.
- 5) Press the E1 key to make sure that the sound is heard through the low-pass speaker L.
- 6) Press the F1 key to make sure that the sound is heard through the low-pass speaker R.

If the check is over, press the PIANO1 switch to move from the test mode to the normal mode.

DIAGNOSTIC TEST for C-56M

0. «Start-up of Test Mode»

Connect a MIDI cable with the MIDI IN/OUT, power on the system while holding down both the MIDI/TRANSPOSE and SPLIT switches and the test mode will start.

Once the test mode has started, an LED on the panel goes on and off in the following sequence:

SPLIT, MIDI/TRANSPOSE, PIANO I, ROOM, PIANO II, STAGE, E.PIANO I, HALL, E.PIANO II, ECHO, HARPSI, TREMOLO, VIBES, CHORUS, B/G/D, BRIGHT, ORGAN I, SOFT, ORGAN II, STRINGS, METRONOME, TRACK1(R), TRACK1(G), START/STOP, TRACK2(R), TRACK2(G), RESET, REPEAT

The operating switches on the test mode are as follows:

MIDI/TRANSPOSE: Moves from the test mode to the normal mode.

STRINGS: Returns to the last check.

PIANO I: Proceeds to the next check.

1. «Internal check»

Once the test mode has started up correctly, the following checks are made automatically:

1) MAIN ROM WRITE/READ CHECK

If an error is found in this check, the PIANO I LED goes on and off. Check the SYSTEM ROM (IC5).

2) WAVE ROM READ CHECK

If an error is found in this check, the MIDI/TRANSPOSE LED and the LED which relates to each IC go on and off.

IC NO.	IC13	IC15	IC10	IC12	IC7	IC9
LED NAME	PIANO I	PIANO II	E.PIANO I	E.PIANO II	HARPSI	VIBES

3) MIDI IN/OUT CHECK

A loop test for the MIDI IN/OUT is made in this check.

If an error is found, the PIANOII LED goes on and off.

4) TG VOICE CHECK

If a voice error in the IC17 is found, the E.PIANOI LED goes on and off.

If a voice error in the IC18 is found, the E.PIANOII LED goes on and off.

5) KSP CHECK

If an error is found in this check, the HARPSI LED goes on and off.
Examine both the IC1 (M37450M4) and IC2 (UPD70325GJ-10-5BG).

2. <<Checks of Panel Switch & TEMPO VOLUME>>

1) PANEL SWITCH ALL OFF CHECK

If the internal check has been completed normally, the test automatically moves to this check.

At this time, remove the MIDI cable connected to the MIDI IN/OUT.

Make sure that the LEDs of all the switches on the panel are unlit.

If any switch is set to ON, an LED for the switch lights up and the test mode stops.

2) PANEL SWITCH ON/OFF & TEMPO VOLUME CHECK

If the PANEL SWITCH ALL OFF CHECK has been completed normally, the test moves to this check automatically.

In this check step, successively press the switches whose LEDs go on and off to check their operations.

Make sure that the MIDI/TRANPOSE LED goes on and off, then press the MIDI/TRANPOSE SW. And an LED for the next switch will go on and off.

The sequence of the switches to be checked is as follows:

MIDI/TRANPOSE, ROOM, STAGE, HALL, ECHO, TREMOLO, CHORUS, BRIGHT, SOFT, SPLIT, PIANO I, PIANO II, E.PIANO I, E.PIANO II, HARPSI, VIBES, B/G/D, ORGAN I, ORGAN II, STRINGS

If the STRINGS switch check is over, an LED for the METRONOME goes on and off automatically. Then, the test moves to the TEMPO VOLUME check.

In this check step, you can make the check with a bar-graph which is constructed with the LEDs for the ROOM, STAGE, HALL, ECHO, TREMOLO, CHORUS, BRIGHT and SOFT.

Make sure that eight LEDs light up with the TEMPO VOLUME set to FAST and that they go out with it set to SLOW.

If the TEMPO VOLUME check is over and then you press the METRONOME switch, make sure that a green LED for the TRACK1 goes on and off.

If you press the TRACK1 switch, make sure that a green LED for the TRACK2 goes on and off.

The sequence of the switches to be checked is as follows:

METRONOME, TRACK1, TRACK2, REPEAT, RECORD, START/STOP, RESET

Once the RESET switch check has been completed, the test proceeds to the next check automatically.

3. «Pedal Check»

This check is made in a status that the stand pedal is connected to the product.

If this check is not required, press the PIANO I switch to proceed to the next check.

1) PEDAL ALL OFF CHECK

This check is used to make sure that all the pedals are in the OFF status.

If any switch is in the ON status, an LED lights up and then the test mode stops.

The pedals correspond to the following LEDs:

SOFT=ROOM, SOSTENUTE=STAGE, DAMPER=HALL

2) PEDAL ON/OFF CHECK

If the PEDAL ALL OFF CHECK is over, the LEDs for the ROOM, STAGE and HALL go on and off.

When a pedal corresponding to the LED is operated, the LED changes from the 'going on and off' to 'lighting' status. If you set the pedal to OFF, make sure that the LED goes out.

If two pedals or more are in the ON status simultaneously, a related LED lights up and then the test mode stops.

4. <<KEYBOARD check>>

When the test moves to the KEYBOARD check, the ROOM LED will light up.

Press all the keys with moderate strength one by one from the highest KEY (C8).

The error messages in this check are as follows:

- 1) If the key stress is unfit, the VIBES LED lights up and a warning sound is issued.
- 2) If a key with a lower tone than that of the key to be checked is pressed, the PIANO LED lights up and a warning sound is issued.
- 3) If a key with a higher tone than that of the key to be checked is pressed, the STRINGS LED lights up and a warning sound is issued.

Unless the check is made correctly, the test can never proceed to the next key check. Once all the keys have been checked, the test moves to the DSP check automatically.

5. <<DSP check>>

If the test moves to the DSP check, the STAGE LED lights up.

- * In this check, because of too large test waveform output, be sure to start the check after inserting a plug for muting into the headphone jack to prevent any sound from being produced through the speakers.

This check is for the test waveform of DSP (IC20, 21, 22).

The check is made by connecting an oscilloscope with the AUX OUT L/R.

- 1) If you press the A0 key, a test waveform for the IC22 is output from the AUX OUT L.
- 2) If you press the B0 key, a test waveform for the IC22 is output from the AUX OUT R.
- 3) If you press the C1 key, a test waveform is output from the AUX OUT L/R alternatively.

This check is made for the D_RAM of DSP.

- 4) If you press the D1 key, a test waveform for the IC20 is output from the AUX OUT L. (S00)
- 5) If you press the E1 key, a test waveform for the IC20 is output from the AUX OUT R. (S00)
- 6) If you press the F1 key, a test waveform for the IC20 is output from the AUX OUT L. (S01)
- 7) If you press the G1 key, a test waveform for the IC20 is output from the AUX OUT R. (S01)
- 8) If you press the A1 key, a test waveform for the IC21 is output from the AUX OUT L. (S00)
- 9) If you press the B1 key, a test waveform for the IC21 is output from the AUX OUT R. (S00)

If any abnormal condition is found in the check, examine the IC for each related item and then its peripheral circuit.

If the check is over normally, press the PIANO1 switch to proceed to the next check.

6. <<TG check>>

When the test moves to the TG check, the HALL LED lights up.

- * In this check, because of a too large test waveform output, be sure to start the check after inserting a plug for muting into the headphone jack to prevent any sound from being produced through the speakers.

In addition, if a test waveform from the headphone is checked, set the master volume at 0 once and then make this check.

The check is made by connecting an oscilloscope with the AUX OUT L/R.

- 1) If you press the A0 key, make sure that a test waveform with the lower 4 bits of IC17 boosted by the DSP is output from the AUX OUT L. This waveform includes many noises because it is generated from being boosted by the DSP.

However, this is not a trouble except that the waveform is distorted extremely.

- 2) If you press the B0 key, make sure that a test waveform with the lower 4 bits of IC18 boosted by the DSP is output from the AUX OUT L. This waveform includes many noises because it is generated from being boosted by the DSP.

However, it is not a trouble except that the waveform is distorted extremely.

- 3) If you press the C1 key, make sure that a test waveform for the IC17 (440Hz SIN wave/2.3Vp-p) is output from the AUX OUT L.
- 4) If you press the D1 key, make sure that a test waveform for the IC18 (440Hz SIN wave/2.3Vp-p) is output from the AUX OUT R.
- 5) If you press the E1 key, make sure that a test waveform for the IC17 (440Hz SIN wave/2.3Vp-p) is output from the AUX OUT L and that for the IC18 (880Hz SIN wave/2.3Vp-p) is output from the AUX OUT R.
- 6) If you press the F1 key, make sure that a test waveform for the IC17 (440Hz SIN wave/2.3Vp-p) is output from the AUX OUT L and that for the IC18 (880Hz SIN wave/2.3Vp-p) is output from the AUX OUT R.
- 7) If you press the G1 key, make sure that a test waveform for the IC17 (440Hz SIN wave/10.8Vp-p) is output from the PHONES L.
- 8) If you press the A1 key, make sure that a test waveform for the IC18 (440Hz SIN wave/10.8Vp-p) is output from the PHONES R.

If an abnormal condition is found in the check, examine the IC17 and IC18 and then their peripheral circuits.

If the TG check is over, press the PIANO1 switch to proceed to the next check.

7. <<AUX IN check>>

If the test moves to the AUX IN check, the ECHO LED lights up.

The check is made by connecting an oscilloscope with the AUX OUT L/R. Connect the oscillator to the AUX IN L/R on the rear panel.

1) Input a SIN wave of 1KHz/0.6p-p to the AUX IN L on the rear panel.

At this time, make sure that the waveform which is output to the AUX OUT L is a SIN wave of 1KHz/1.2V.

2) Input a SIN wave of 1KHz/0.6p-p to the AUX IN R on the rear panel.

At this time, make sure that the waveform which is output to the AUX OUT R is a SIN wave of 1KHz/1.2Vp-p.

If the check is over, press the PIANO switch to proceed to the next check.

8. <<Residual Noise>>

If the test moves to the residual noise check, the TREMOLO LED lights up.

The check is made by connecting a noise meter with the AUX OUT L/R and PHONE.

1) Make sure that the residual noise of AUX OUT L is -82dBm or less.

2) Make sure that the residual noise of AUX OUT R is -82dBm or less.

3) Make sure that the residual noise of PHONES L is -70dBm or less.

4) Make sure that the residual noise of PHONES R is -70dBm or less.

If the check is over, press the PIANO switch to proceed to the next check.

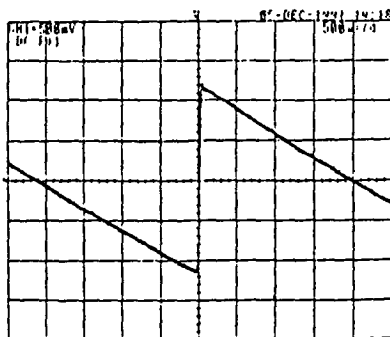
9. «Speaker Check»

If the test moves to the speaker check, the CHORUS LED lights up.

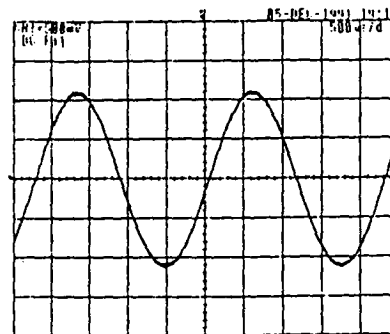
- 1) Press the A0 key to make sure that the sound is heard through the middle-pass speaker L.
- 2) Press the B0 key to make sure that the sound is heard through the middle-pass speaker R.
- 3) Press the C1 key to make sure that the sound is heard through the high-pass speaker L.
- 4) Press the D1 key to make sure that the sound is heard through the high-pass speaker R.
- 5) Press the E1 key to make sure that the sound is heard through the low-pass speaker L.
- 6) Press the F1 key to make sure that the sound is heard through the low-pass speaker R.

If the check is over, press the PIANO switch to move from the test mode to the normal mode.

DSP & TG TEST WAVEFORM



DSP test waveform



TG test waveform

7. HARDWARE SPECIFICATIONS

*** MAIN ICs FOR C-26 ***

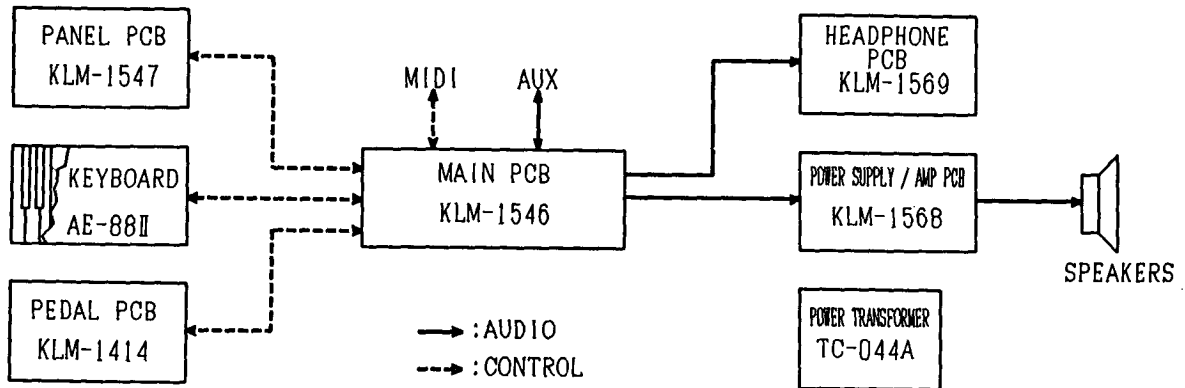
CPU : M37700M4A-219FP
 TG88 : MB87726PF..... Tone Generator
 PSC91A : μ PD65012GF-A87-3B9.... Parallel to Serial Converter
 DSP : TMS57002PH..... Digital Signal Processor
 DAC : μ PD6376GS-E2..... Digital to Analog Converter
 WAVE ROM : μ PD27C8001 EGW-382
 -383
 -384

*** MAIN ICs FOR C-36/46/56/56M ***

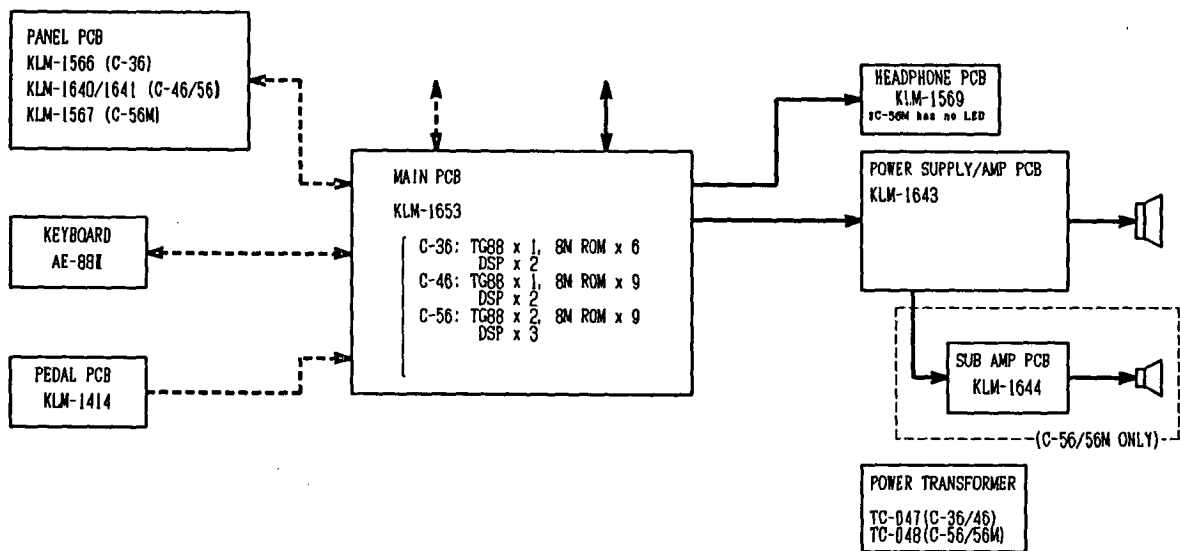
MAIN CPU : UPD70325GJ-10(V25)
 SUB CPU : M37450M4-616FP(KSP3)... Key Scan Processor
 (or 601FP,233FP)
 TG88 : MB87726FP..... Tone Generator
 INS91 : UPD65012GF-A88..... TG-DSP Interface
 DNS91 : MB606E50..... Digital Noise Shaper
 DSP : TMS57002PH..... Digital Signal Processor
 DAC : UPD63200..... Digital to Analog Converter
 WAVE ROM : UPD23C8001EGW-371~376
 LH5381E0~E2 (or LH538DHO~H2)

Product Name	WAVE ROM
C-36	UPD23C8001EGW-371~376(8M x 6)
C-46/56/56M	UPD23C8001EGW-371~376(8M x 6) LH5381E0~E2(8M x 3) (or LH538DHO~H2(8M x 3))

HARDWARE SPECIFICATIONS FOR C-26



HARDWARE SPECIFICATIONS FOR C-36/46/56/56M

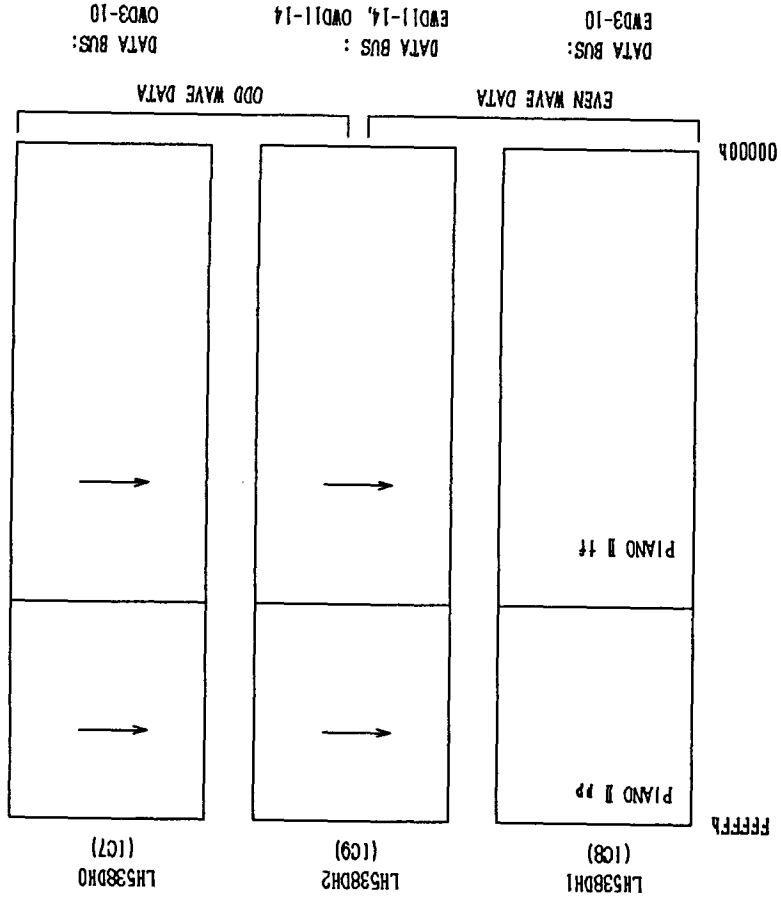


P.C. BOARD IDENTIFICATION LIST (C-26/36/46/56M/56)

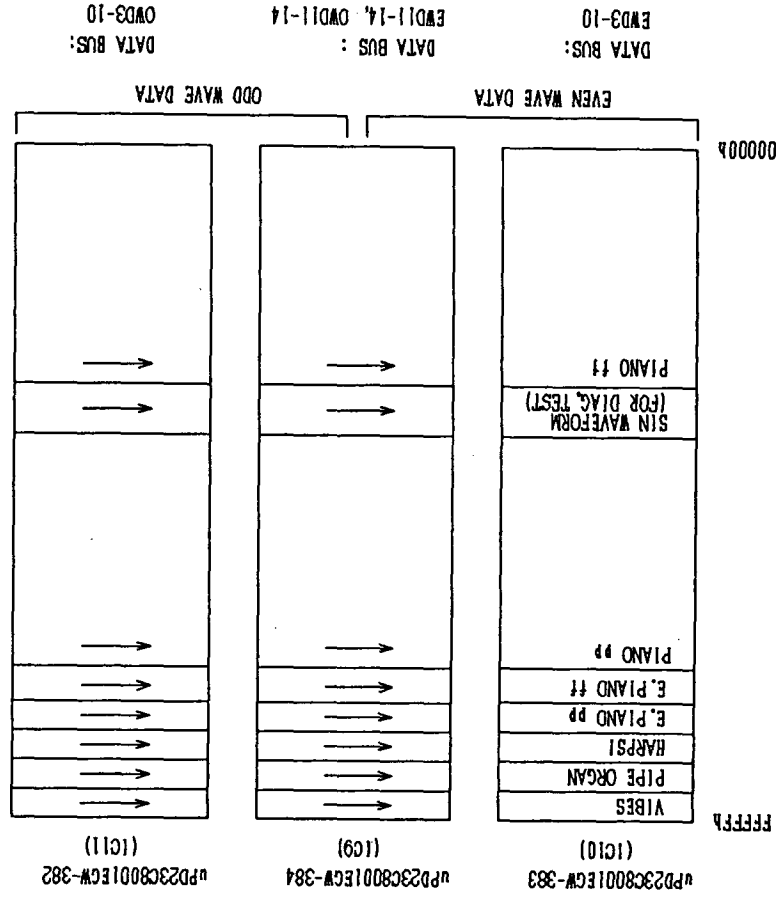
PRODUCTS	MAIN PCB	PANEL PCB	HEADPHONE PCB	POWER SUPPLY / AMP PCB
C-26	KLM-1546 (001154601) TG : TG88 x 1 WAVE_ROM : UPD23C8001 x 3 (EGW-382~384) DAC : UPD6376GS-E2 DSP : TMS57002PH x 1 [for C-25]	KLM-1547 (001154701) SW : 8 PCS. (with LED) [for C-25]	KLM-1569 (001156901) LED: HLMP-1600-010 [for C-35W]	KLM-1568 (001156802) NO AST CIRCUIT HEAT SINK 1 [for C-25]
C-36	KLM-1653-36 (001165300) TG : TG88 x 1 WAVE_ROM : UPD23C8001 x 6 (EGW-371~376) DAC : UPD63200GS-E2 DSP : TMS57002PH x 2	KLM-1566 (001156600) SW : 17 PCS. (with LED) : 3 PCS. [for C-35]	KLM-1569 (001156901) LED: HLMP-1600-010 [for C-35W]	KLM-1643-36/46 (001164300) NO AST CIRCUIT HEAT SINK 3
C-46	KLM-1653-46 (001165301) TG : TG88 x 1 WAVE_ROM : UPD23C8001 x 6 (EGW-371~376) LH5381E x 3 (E0~E2) DAC : UPD63200GS-E2 DSP : TMS57002PH x 2	KLM-1640/1641 (001164000) SW : 24 PCS. (with LED) : 3 PCS.	KLM-1569 (001156901) LED: HLMP-1600-010 [for C-35W]	KLM-1643-36/46 (001164300) NO AST CIRCUIT HEAT SINK 3
C-56M	KLM-1653-53/56M (00165302) TG : TG88 x 2 WAVE_ROM : UPD23C8001 x 6 (EGW-371~376) LH5381E x 3 (E0~E2) DAC : UPD63200GS-E2 DSP : TSM57002PH x 3	KLM-1567 (001156700) SW : 24 PCS. (with LED) : 3 PCS. [for C-55]	KLM-1569 (001156900) LED: NO MOUNTED	KLM-1643-56M (001164301) AST CIRCUIT HEAT SINK 4 --- SUB AMP PCB ----- KLM-1644 (001164400)
C-56	KLM-1653-56/56M (001165302) TG : TG88 x 2 WAVE_ROM : UPD23C8001 x 6 (EGW-371~376) LH5381E x 3 (E0~E2) DAC : UPD63200GS-E2 DSP : TSM57002PH x 3	KLM-1640/1641 (001164000) SW : 24 PCS. (with LED) : 3 PCS.	KLM-1569 (001156901) LED: HLMP-1600-010 [for C-35W]	KLM-1643-56 (001164302) AST CIRCUIT HEAT SINK 4 --- SUB AMP PCB ----- KLM-1644 (001164400)

※ TG88 : MB87726 WAVE_ROM : UPD23C8001EGW (8M), LH5381E (8M) () : PART CODE

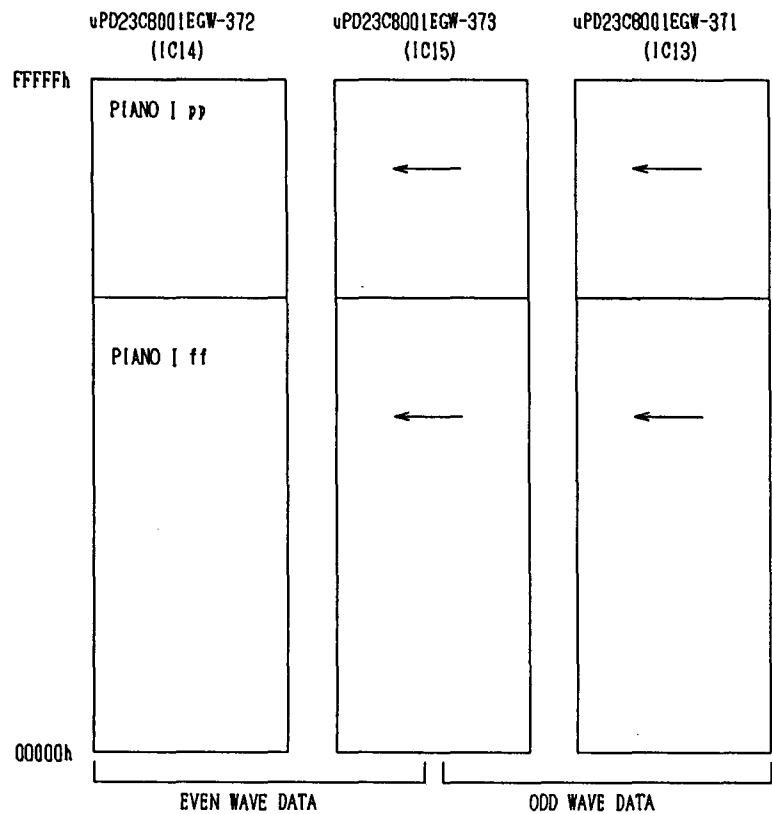
WAVE_ROM MEMORY MAP (FOR C-45/46/55/56/56M)



WAVE_ROM MEMORY MAP (FOR C-15/25/26)



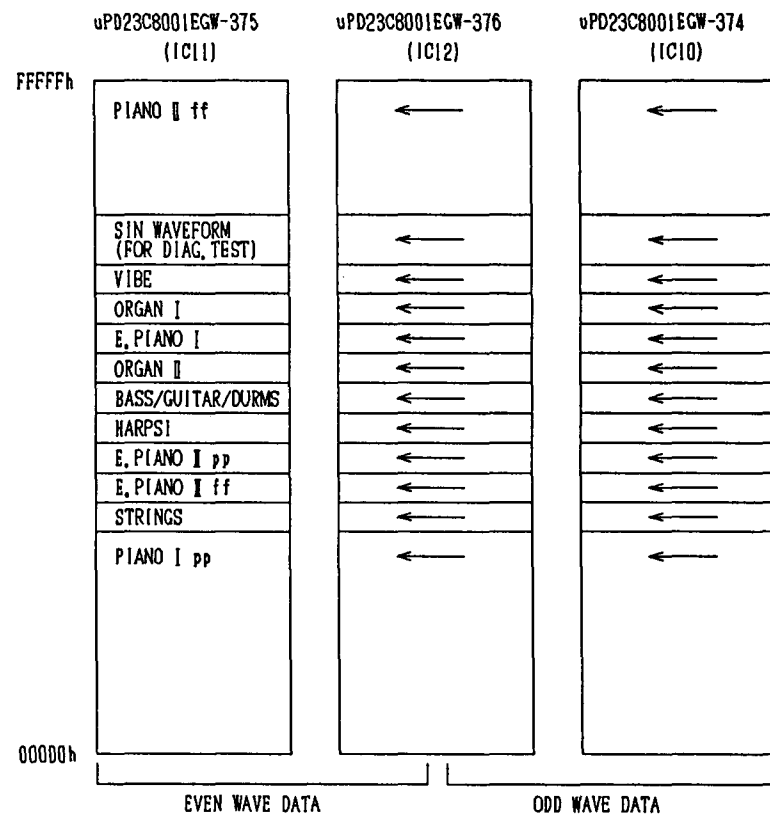
WAVE_ROM MEMORY MAP (FOR C-35/45/46/55/56/56M)



DATA BUS:
EWD3-10

DATA BUS :
EWD11-14, OWD11-14

DATA BUS:
OWD3-10



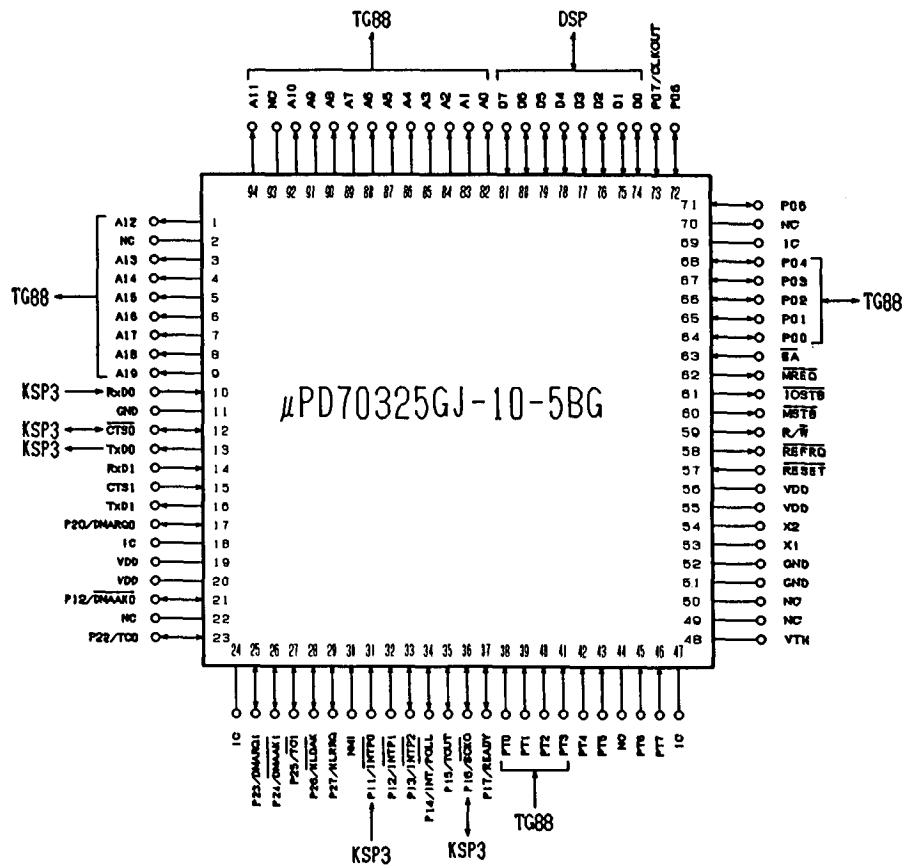
DATA BUS:
EWD3-10

DATA BUS :
EWD11-14, OWD11-14

DATA BUS:
OWD3-10

8. REFERENCE DATA

CPU (μ PD70325) PIN ASSIGNMENT



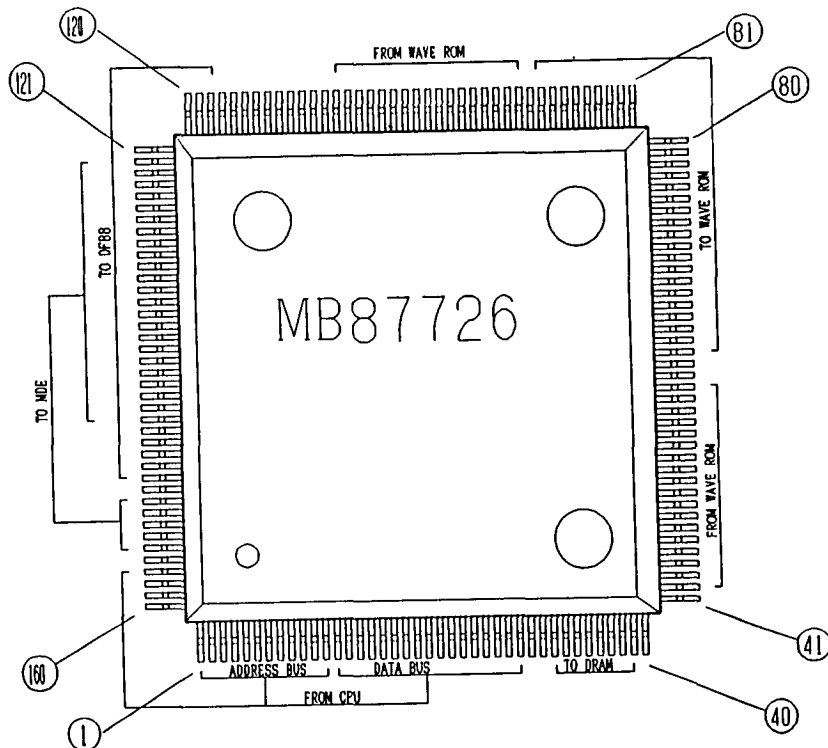
CPU (μ PD70325) PIN FUNCTION

MARK	I/O	FUNCTION	MARK	I/O	FUNCTION
P00-P06	I/O	I/O port for SW SCAN	RXD1	I	Serial data input for
P07	I/O	I/O port (NC)	CTS0	I/O	CTS input
NMI	I	Non maskable interrupt request	CTS1	I	CST input
INTPO	I	Interrupt request	TXD0	O	Serial data output
P12	I	MODE	TXD1	O	Serial data output
P13	I	MODE	SCKO	O	Serial clock output
P14	O	Output port for MUTE	X1,X2	---	System clock terminal
P15	O	Output port for sub CPU	RESET	I	Reset signal input
P16	O	Output port for	REFRQ	O	Refresh pulse output
P17	I/O	I/O port (NC)	R/W	O	Read/Write strobe
P20-27	I/O	I/O port for	MSTB	O	Memory strobe
PT0-PT7	I	Input port	VTH	I	Reference voltage input
IOSTB	O	I/O strobe	VDD	---	Power supply (+)
MREQ	O	Memory request	GND	---	Ground
D0-D7	I/O	8_bit data bus	IC	---	Internal connector
A0-A19	O	20_bit address bus	EA	---	External memory access
RXD0	I	Serial data input for			

TG88 (MB87726FP)

The TG88 is a tone generator IC. The sound source of TG88 should be connected with an external wave memory IC. In addition, the total voice of this IC is regarded as 32 voices. However, in case of the C-series, the total voice is 16 voices, since 2 oscillators are cross-fade to be 1 voice. In case of the C-56/56M, its total voice becomes 32 voices since two TG88s are available.

TG88 (MB87726FP) PIN ASSIGNMENT



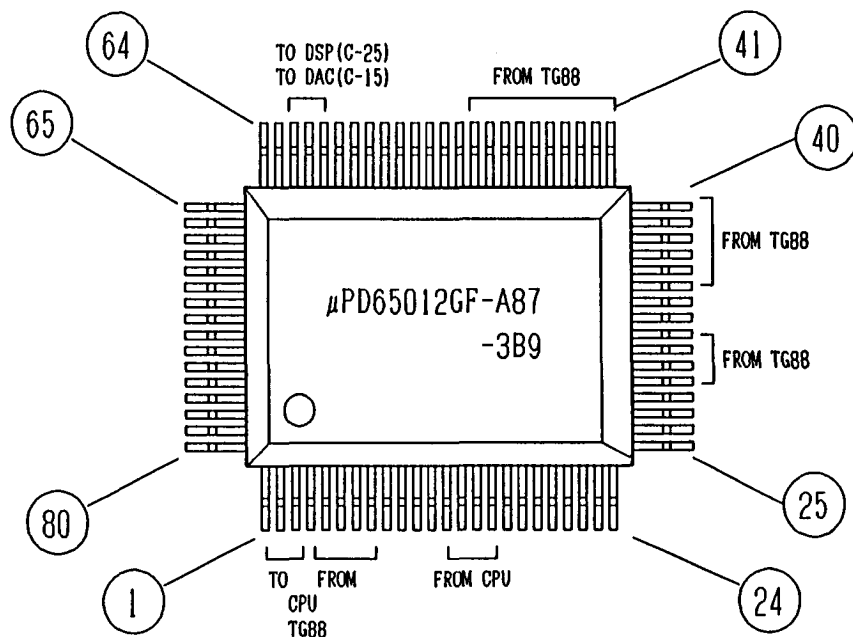
TG88 (MB87726FP) PIN FUNCTION

PIN NAME	I/O	FUNCTION
VDD	-	+5V
VSS	-	GND
SMODE	I	Sub TG Mode (H:Sub TG L:Master TG)
FMODE	I	Sampling Rate Switch (H:48KHz L:30KHz)
XRESET	I	Low Active Initial Clear
CLK	I	Master Clock
XCRO	O	System Counter Reset for Sub TG Chip
XCRI	I	System Counter Reset from Master TG Chip
TEST0-3	I	Test Mode Selector
XCS1	I	Chip Select
XWR1	I	Write Pulse Input from CPU
XRD1	I	Read Pulse Input from CPU
A0-9	I	Address Input from CPU
D0-7	I/O	Data Input from CPU
D8-15	I/O	Data Input for 16bit Data Bus
DMODE	I	CPU I/F Data Bus Syze Select (L:8bit H:16bit)
EWDO-15	I	Even-address Wave Data In (from Wave ROM)
OWDO-15	I	Odd-address Wave Data In (from Wave ROM)
WAO-19	O	Address Bus for Wave ROM or RAM
WBO-3	O	Bank Number Out for Wave ROM (16 Banks)
ODO-19	O	Voice Data Out for External Filters or MDE
VNO-4	O	Voice Number Out
RASO-3	O	for D-RAM
CASO-3	O	for D-RAM
OWEO-3	O	Write Enable for MDE
OWEF	O	Write Enable for New Filter Chip (MB87727)

PSC91A (μ PD65012GF-A87-3B9)

The PSC91A is a CPU interface IC to link between the CPU - TG88 and the CPU - DSP, respectively. In addition, this IC converts the 20-bit parallel data of TG88 into the 16-bit serial data of DAC (μ PD6376) or DSP (TMS57002PH).

PSC91A (μ PD65012GF-A87-3B9) PIN ASSIGNMENT



μ PD65012GF-A87-3B9 (PSC91A) I/O FUNCTION

Pin No	I/O	MARK	Pin No	I/O	MARK	Pin No	I/O	MARK	Pin No	I/O	MARK
1	0	D07	21	-	NC	41	I	TD10	61	I	BCLK
2	0	D06	22	0	TGCS	42	I	TD11	62	0	P0
3	0	D05	23	0	XWR	43	I	TD12	63	0	P1
4	I	D4	24	0	XRD	44	I	TD13	64	0	P2
5	I	D3	25	0	EXCS	45	I	TD14	65	0	P3
6	I	D2	26	I	LEO	46	I	TD15	66	0	P4
7	I	D1	27	I	LE1	47	I	TD16	67	I	P5
8	I	D0	28	I	TD0	48	I	TD17	68	I	P6
9	0	DPCS	29	I	TD1	49	I	TD18	69	I	P7
10	-	VDD	30	I	TD2	50	I	TD19	70	I	SFT1
11	-	GND	31	I	TD3	51	0	RESO	71	-	GND
12	-	GND	32	-	GND	52	-	GND	72	-	VDD
13	I	A12	33	-	GND	53	-	GND	73	-	VDD
14	I	A13	34	-	VDD	54	I	MCKI	74	I	SFT0
15	I	A14	35	I	TD4	55	-	VDD	75	I	TES0
16	I	A15	36	I	TD5	56	-	NC	76	I	TES1
17	I	RXW	37	I	TD6	57	I	XRES	77	0	MS0
18	I	E	38	I	TD7	58	0	MUTE	78	I	MSI
19	-	NC	39	I	TD8	59	0	SDO	79	0	INVO
20	0	CLKO	40	I	TD9	60	0	LRCK	80	I	INVI

PSC91A PIN FUNCTION

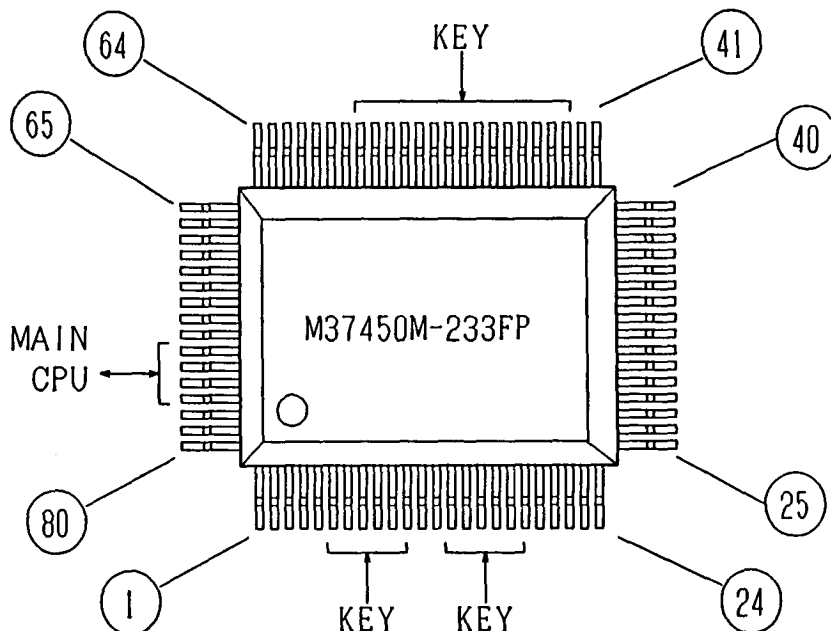
MARK I/O FUNCTION

D (IN) :DATA IN . FROM TG88
LEO-1 (IN) :LATCH ENABLE . FROM TG88
SDO (OUT) :16bit SERIAL DATA OUT . TO μ PD6376 & DSP(TI)
BCLK (OUT) :bit CLOCK FOR PCM DATA SERIAL OUT . TO μ PD6376 & DSP(TI)
LRCK (OUT) :L/R CLOCK FOR PCM DATA SERIAL OUT . TO μ PD6376 & DSP(TI)
XRES (IN) :SYSTEM RESET . FROM M51951AML
RESO (OUT) :RESET OUT . TO CPU
MUTE (OUT) :MUTE OUT . FOR ANALOG
MCKI (IN) :MASTER CLOCK IN (32MHz)
CLKO (OUT) :CLOCK OUT (16MHz) . TO CPU
TESO (IN) :TEST MODE SELECT . GND
TES1 (IN) :TEST CLOCK IN . GND(4MHz)
E (IN) :ENABLE IN . FROM CPU
R/XW (IN) :R/W IN . FROM CPU
XRD (OUT) :READ PULSE OUT . TO TG88
XWR (OUT) :WRITE PULSE OUT . TO TG88
A12-A15 (IN) :ADDRESS IN . FROM CPU
TGCS (OUT) :CHIP SELECT TO TG88
EXCS (OUT) :NOT USED
DPCS (OUT) :CHIP SELECT TO DSP
INVI (IN) :PANEL SW CONTROL SIG IN . FROM CPU
INVO (OUT) :PANEL SW CONTROL SIG OUT . TO CPU
MSI (IN) :MIDI SERIAL IN . FROM CPU
MSO (OUT) :MIDI SERIAL OUT
SFTO-1 (IN) :SHIFT CONTROL IN
P5-7 (IN) :PORT IN
DO-4 (IN) :DATA BUS
PO-4 (OUT) :PORT OUT
DO5-07 (OUT) :DATA BUS

KSP3 (M37450M4-616FP, 601FP or 233FP)

The KSP3 is an IC to read both keyboard data and tempo volume data and output them to the CPU.

KSP3 (M37450M4-616FP, 601FP or 233FP) PIN ASSIGNMENT

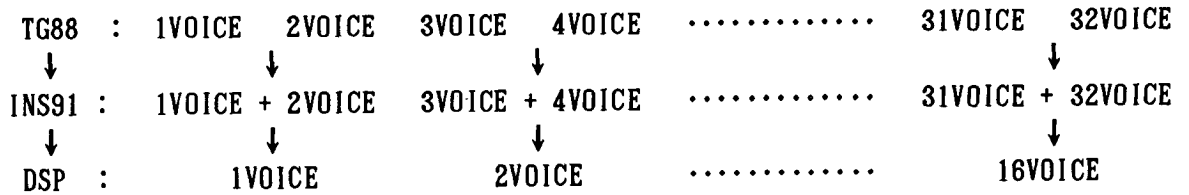


M37450M4-601FP PIN FUNCTION

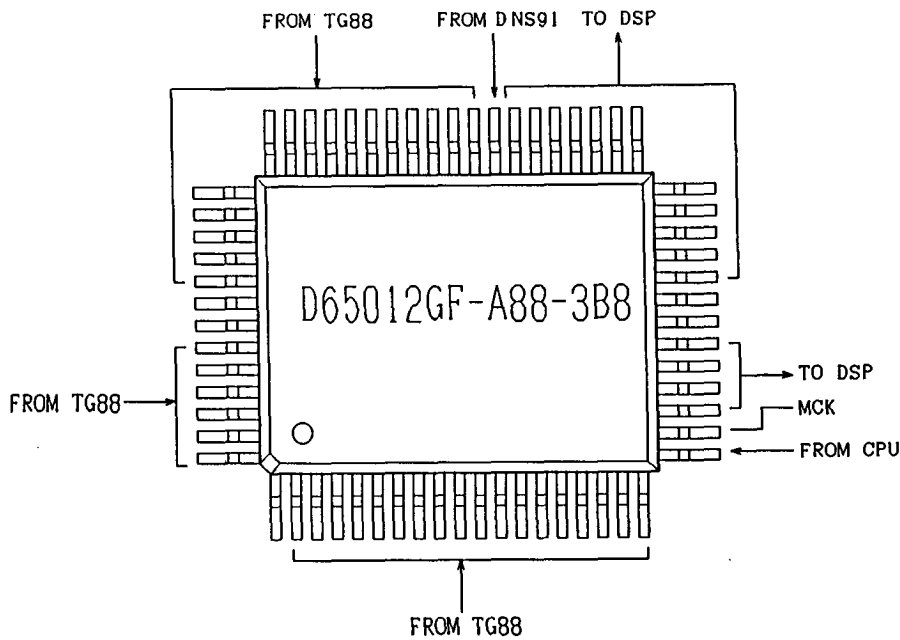
PIN MARK	PIN NAME	I/O	PIN MARK	PIN NAME	I/O
VCC, VSS	POWER SUPPLY	-	P50~P57	I/O PORT 5	I/O
CNVSS	CNVSS	I	P60~P67	I/O PORT 6	I/O
RESET	RESET IN	I	VREF	REFERENCE VOLT.	I
XIN	CLOCK IN	I	ADVREF	A-D REF. VOLTAGE	I
XOUT	CLOCK OUT	O	DAVREF	D-A REF. VOLTAGE	I
Φ	TIMMING OUT	O	AVSS	ANALOG VSS	-
SYNC	SYNC. SIGNAL OUT	O	AVCC	ANALOG VCC	-
R/W	READ/WRITE STATUS OUT	O	D-A1	ANALOG OUT	O
P00~P07	I/O PORT 0	I/O	D-A2		O
P10~P17	I/O PORT 1	I/O	RD	READ SIG. OUT	O
P20~P27	I/O PORT 2	I/O	WR	WRITE SIG. OUT	O
P30~P37	I/O PORT 3	I/O	RESETOUT	RESET SIG. OUT	O
P40~P42	I/O PORT 4	I	RXD	SERIAL DATA IN	I
			TXD	SERIAL DATA OUT	O

INS91 (μ PD65012GF-A88)

The INS91, which is a CPU interface IC of TG88 and DSP, converts 32-voice data from the TG88 into 16-voice data, and outputs it to the DSP as (8-bit x 3) data. In addition, this IC has two lines of such functions, which enables one TG88 and two DSPs to be connected together with.



INS91 (μ PD65012GF-A88) PIN ASSIGNMENT



INS91 (μ PD65012GF-A88) PIN FUNCTION

MARK	PIN NO	I/O	FUNCTION
IA	41~56, 59~62	I	Data input from TG88
IB	63, 64, 2~19	I	Data input from TG88
OA	32~39	O	Data output to DSP
OB	22~25, 28~31	O	Data output to DSP
MCK	21	I	Master clock input (16MHz)
LRIN	40	I	L/R clock input from DNS91
XRES	20	I	System reset input from CPU

CHECKPOINTS FOR THE INS91

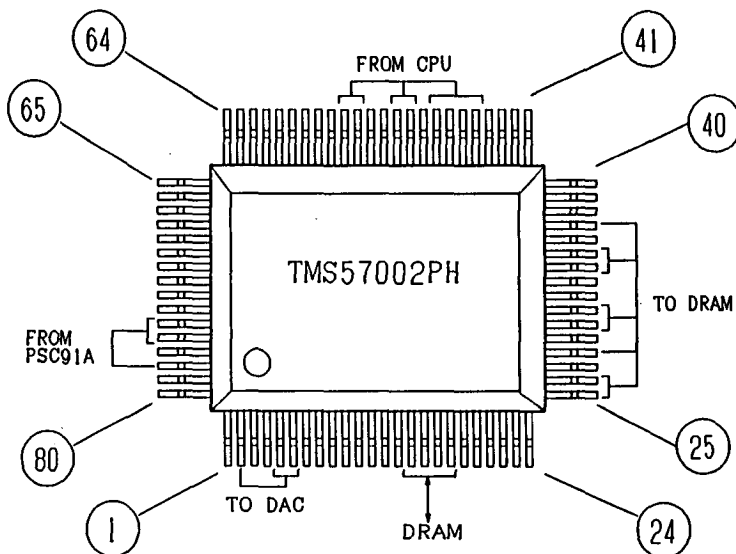
1. Is the power source (GND, +5V) normal ?
--Check the power supply board for its trouble or board pattern.
2. Is the XRES terminal in an "H" level ?
--Check the reset IC for its trouble or board pattern.
3. Is the master clock (MCLK) input ?
--Check the crystal OSC and DNS91 for their troubles or board patterns.
4. Is the LR clock input to the LRIN terminal ?
--Check the DNS91 for its trouble or board pattern.
5. Is data from the TG88 (IA19 to 0, IB19 to 0) input to the INS91 ?
--Check the TG88 for its trouble or board pattern.
6. Is data output from the data-out (OA7 to 0, OB7 to 0) of the INS91 ?
--Check the INS91 for its trouble or board pattern.

If the above checks are normal, the INS91 is also regarded as normal.

DSP (TMS57002PH)

The DSP is a digital filter/effect IC. The C-56/56M uses two DSPs for the digital filter. For the connection, output from one DSP is input to a serial port of the other DSP, and then output to the DSP for effect as mixed voice-data.

DSP (TMS57002PH) PIN ASSIGNMENT



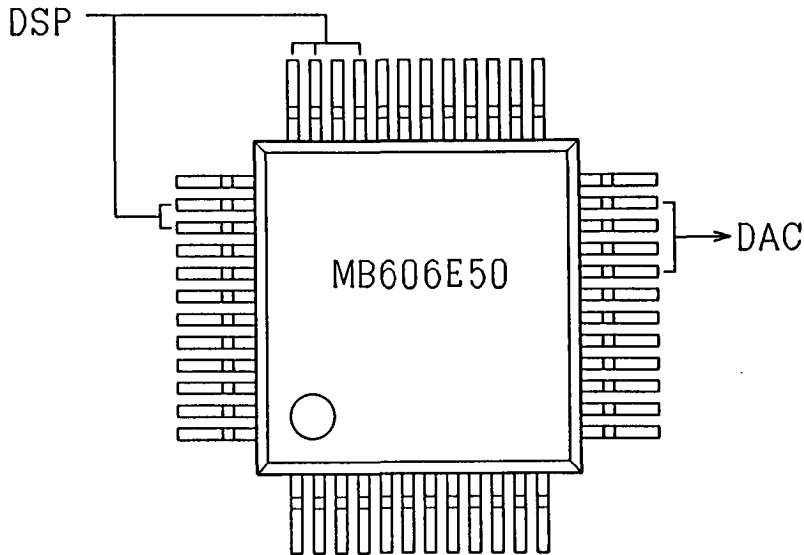
PIN FUNCTION FOR DSP (TMS57002PH)

PIN NO	MARK	I/O	FUNCTION	PIN NO	MARK	I/O	FUNCTION
1	SYPOL	I	Edge select for SYNC.signal 0 : ↓, 1 : ↑	40	TEST2	I	Test
2	BCKO	I	Bit_clock for serial data	41	EA8	O	Address Bus
3			no used	42	EA9	O	Address Bus (MSB)
4			no used	43			no used
5	LRCKO	I	L/R clock for serial data	44			no used
6	S00	O	Serial data output0	45	D0	I	Parallel port (LSB)
7	S01	O	Serial data output1	46	D1	I	Parallel port
8	CAS	O	Column address strobe	47	D2	I	Parallel port
9	RAS	O	Row address strobe	48	D3	I	Parallel port
10	CLKSEL	I	Clock frequency select 0 : 512fs, 1 : 256fs	49			no used
11	CLKIN	I	Master clock input	50	D4	I	Parallel port
12	VSS	---	Power supply	51	D5	I	Parallel port
13	VSS	---	Power supply	52	VCC	---	Power supply
14	WE	O	Write enable	53	VCC	---	Power supply
15	ED7	I/O	Data Bus (MSB)	54	D6	I	Parallel port
16	ED6	I/O	Data Bus	55	D7	I	Parallel port
17	ED5	I/O	Data Bus	56	PC0	O	Program counter0
18	ED4	I/O	Data Bus	57	BIO	I	BIO control
19	ED3	I/O	Data Bus	58	OVFA	O	ALU overflow flag
20	ED2	I/O	Data Bus	59	OVFM	O	MAC overflow flag
21			no used	60	RS	I	Reset
22			no used	61			no used
23	ED1	I/O	Data Bus	62			no used
24	EDO	I/O	Data Bus (LSB)	63	EMPTY	O	Buffer empty
25	EA0	O	Address Bus (LSB)	64	MUTE	I	Mute
26	EA1	O	Address Bus	65	CS	I	Chip select
27			no used	66	WR	I	Write enable
28	EA2	O	Address Bus	67	PLOAD	I	Program load
29			no used	68			no used
30	EA3	O	Address Bus	69	CLOAD	I	Coefficient load
31	EA4	O	Address Bus	70	STRB	I	Data strobe
32	VSS	---	Power supply	71			no used
33	VCC	---	Power supply	72	VCC	---	Power supply
34	EA5	O	Address Bus	73	VSS	---	Power supply
35	EA6	O	Address Bus	74			no used
36			no used	75	BCKI	I	Bit clock input
37	EA7	O	Address Bus	76	LRCKI	I	L/R clock input
38	TEST0	I	Test	77			no used
39	TEST1	I	Test	78	SIO	I	Serial data input0
				79	SI1	I	Serial data input1
				80	SYNC	I	Synchronizing signal

DNS91 (MB606E50)

The DNS91 is a digital noise shaper IC. This IC cuts off the noises which occurs when voice data is D/A converted.

DNS91 (MB606E50) PIN ASSIGNMENT



DNS91 (MB606E50) PIN I/O

PIN NO	MARK	I/O	PIN NO	MARK	I/O
1	NC	---	25	NC	---
2	NC	---	26	NC	---
3	NC	---	27	FS0	I
4	TEST0	I	28	FS1	I
5	TEST1	I	29	NC	---
6	VSS	---	30	CKB1	O
7	NC	---	31	VSS	---
8	NC	---	32	CKB0	O
9	NC	---	33	SD1	I
10	NC	---	34	LRB1	O
11	NC	---	35	LRB0	O
12	NC	---	36	LRCK1	I
13	CKBSEL	I	37	BCKB1	O
14	DASEL	I	38	BCKB0	O
15	BSELO	I	39	BCKI	I
16	BSEL1	I	40	VN4	I
17	MASTER	I	41	MCLK	I
18	VSS	---	42	VSS	---
19	VDD	---	43	VDD	---
20	BCKO	O	44	XRES	I
21	LSO	O	45	NC	---
22	RSO	O	46	NC	---
23	WDCKO	O	47	NC	---
24	MUTE	O	48	NC	---

INPUT TERMINALS

SDI : Serial data input
BCKI : Bit_clock input
LRCKI : L/R_clock input
VN4 : L/R_clock input from master
MCK : Master clock input
XRES : System reset
FS1 : Master clock frequency select
FS0 : Master clock frequency select
DASEL : DAC select
BSEL1 : Bus select
BSEL2 : Bus select
MASTER : Master/Slave select for L/R clock
CKBSEL : Dividing select for master clock to DSP
TEST1 : Mute test mode select
TEST2 : Mute test mode select

OUTPUT TERMINALS

RSO : Rch serial data output
LSO : Lch serial data output
BCKO : Bit_clock output
WDCKO : Word_clock output
BCKBO : Bit_clock output0 for DSP
BCKO1 : Bit_clock output1 for DSP
LRBO : L/R_clock output0 for DSP
LRB1 : L/R_clock output1 for DSP
CKBO : Master clock output0 for DSP
CKB1 : Master clock output1 for DSP
MUTE : Mute output

CHECKPOINTS FOR THE DNS91

Function ;

The DNS91 is an IC to be used in the C-36/46/56/56M, and has two functions. The one function serves to convert the L/R signal output of DSP (TMS57002) for effect into a sampling rate enlarged up to 8 times ($31.25\text{KHz} \times 8 = 250\text{KHz}$), make a noise shaping processing, and then send it to the D/A converter. The other function is used to receive a VN4 pulse of the TG88 (MB87726) (this pulse is synchronized with a sampling frequency of 31.25KHz) and then output signals (LRBO, 1, BCKBO, 1) to synchronize the DSP, TG88 and INS91.

Check-point in the noise shaping part ;

If this IC includes a poor noise shaping, the following symptoms are shown ;

1. No sound is heard.
2. Only the large noises are issued.

The check-points at this time are as follows :

1. Are the master clock and reset signal input to the DNS91 ?
2. Is the power source of the DNS91 (GND, +5V) normal?
3. Are respective clocks output from the terminals BCKO and WDCO of the DNS91 ?
4. Is a signal from the DSP input to the DNS91 ? (Is serial data input to the SDI terminal every time a key is played ?)

If the above checks are normal but no serial data is output from the D/A converter output terminal (LSO, RSO) of the DNS91, or if some data is output from the D/A converter output terminal (LSO, RSO) in a condition that no serial data is input from the DSP to SDI terminal, it is thought that a trouble has occurred in the noise shaping part of the DNS91.

Check-point in the synchronous signal part ;

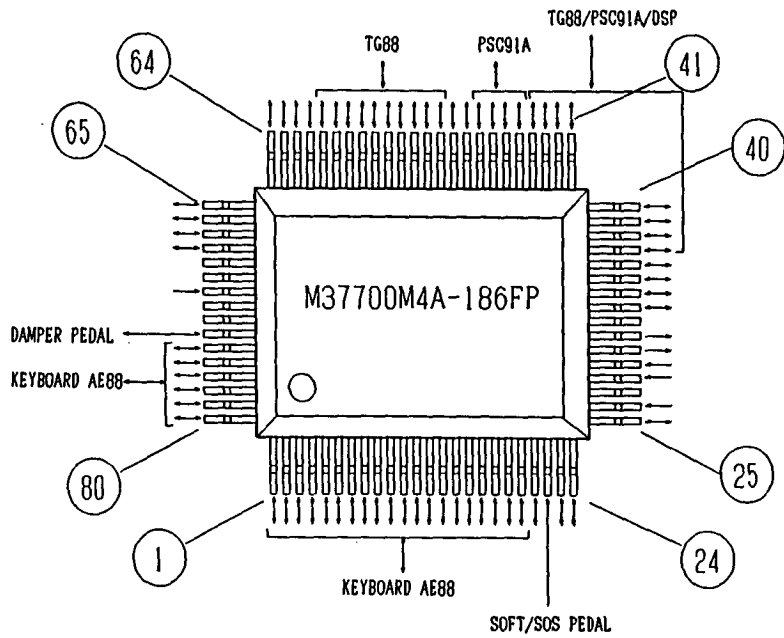
Also if the synchronous signal part is poor, the same symptom as in the noise shaping part is given. The check-points at this time are as follows ;

1. Are both a master clock and a reset signal input to the DNS91 ?
2. Is a VN4 signal (pulse signal of 31.25KHz) from the TG88 (MB87726) input to the DNS91 ?
3. Is a pulse signal output from the synchronous signal terminal of the DNS91 ?

LRBO, 1 ... 31.25KHz
BCKO, 1 ... 2MHz
CKOUT ... 8MHz

If the above checks are normal, the synchronous signal part of the DNS91 is also regarded as normal.

CPU (M37700M4-186PF) PIN ASSIGNMENT

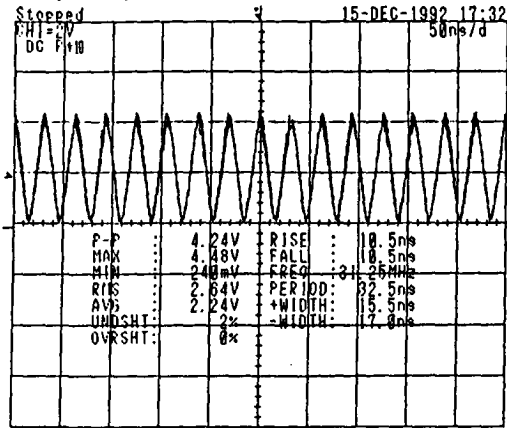


CPU (M37700M4-186PF) PIN FUNCTION

PIN MARK	PIN NAME	I/O	PIN MARK	PIN NAME	I/O
VCC, VSS	POWER SUPPLY	---	P00-P07	I/O PORT P0	I/O
CNVSS	CNVSS	I	P10-P17	I/O PORT P1	I/O
RESET	RESET IN	I	P20-P27	I/O PORT P2	I/O
XIN	CLOCK IN	I	P30-P37	I/O PORT P3	I/O
XOUT	CLOCK OUT	O	P40-P47	I/O PORT P4	I/O
E	ENABLE OUT	O	P50-P57	I/O PORT P5	I/O
BYTE		I	P60-P67	I/O PORT P6	I/O
AVCC, AVSS	ANALOG VCC	---	P70-P77	I/O PORT P7	I/O
	ANALOG VSS	---	P80-P87	I/O PORT P8	I/O
VREF	REFERENCE VOLT.	I			

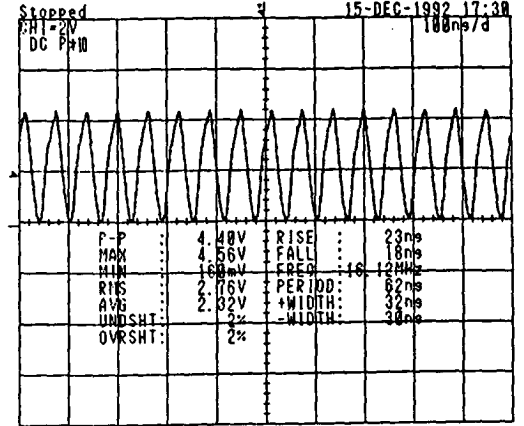
CHECKPOINTS

MB87726 (TG88)



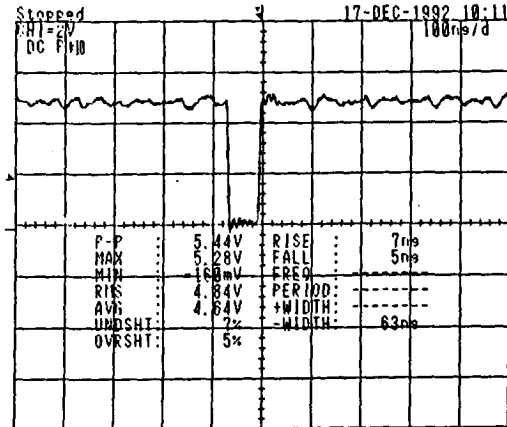
CLK 32MHz (111pin)

MB87726 (TG88)



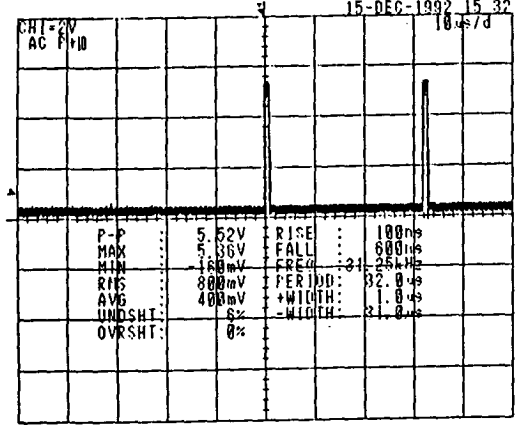
CLKO 16MHz (113pin)

MB87726 (TG88)



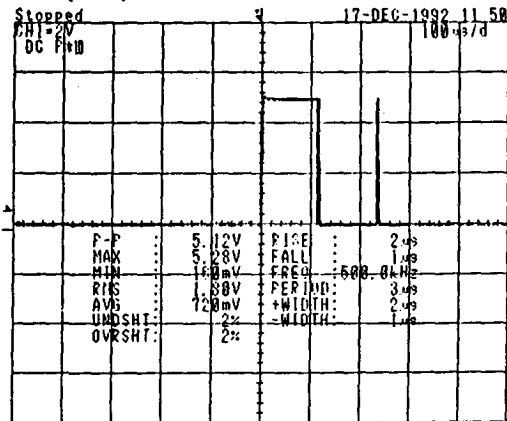
XCRO (116pin)

MB87726 (TG88)



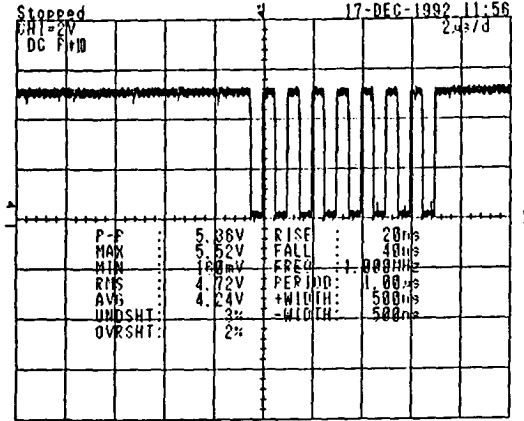
ODO~OD19

M37450M4 (KSP)



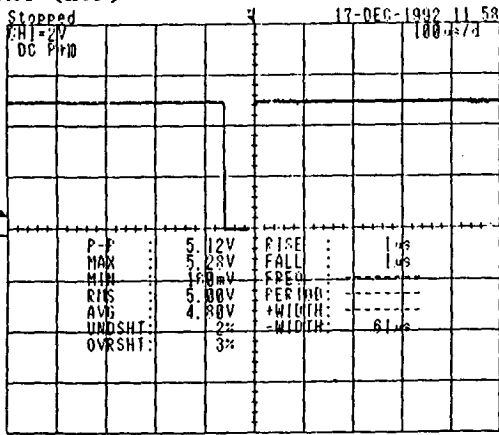
TxD (76pin)

M37450M4 (KSP)



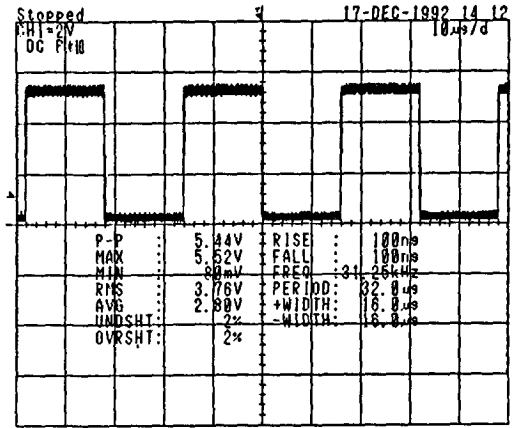
SCLK (75pin)

M37450M4 (KSP)



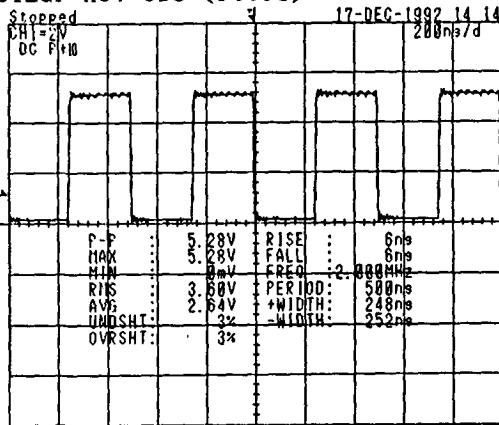
SRDY (74pin)

UPD65012GF-A87-3B9 (PSC91)



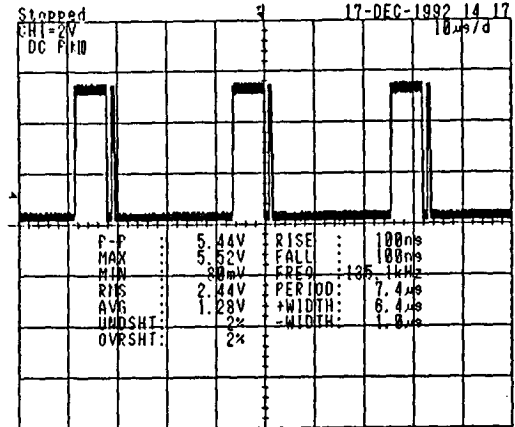
LRCK (60pin)

UPD65012GF-A87-3B9 (PSC91)



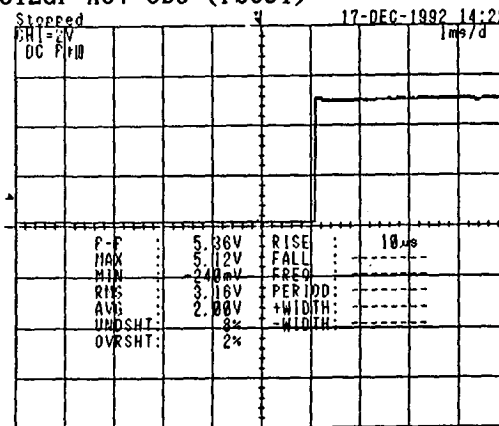
BCLK (61pin)

UPD65012GF-A87-3B9 (PSC91)



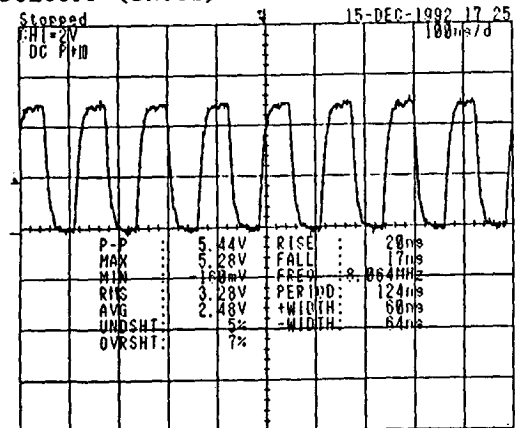
SDD (59pin)

UPD65012GF-A87-3B9 (PSC91)



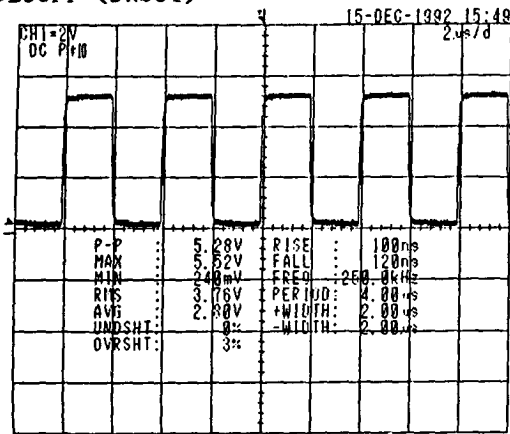
RES1 (51pin)

MB606E50PF (DNS91)



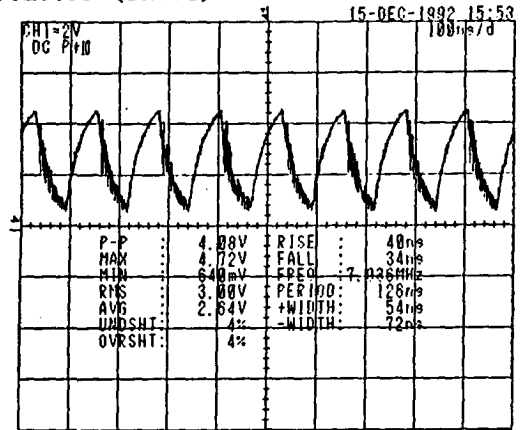
CKBO 8MHz (32pin)

MB606E50PF (DNS91)



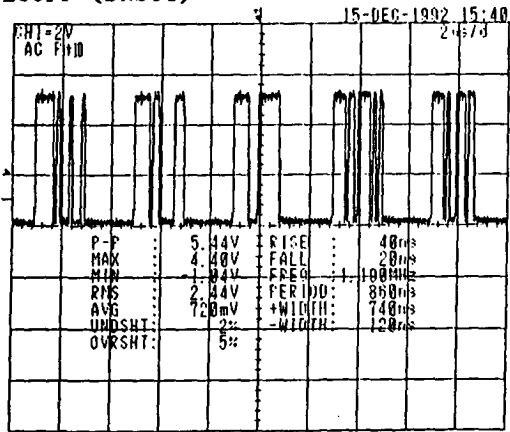
BCKO (20pin)

MB606E50PF (DNS91)



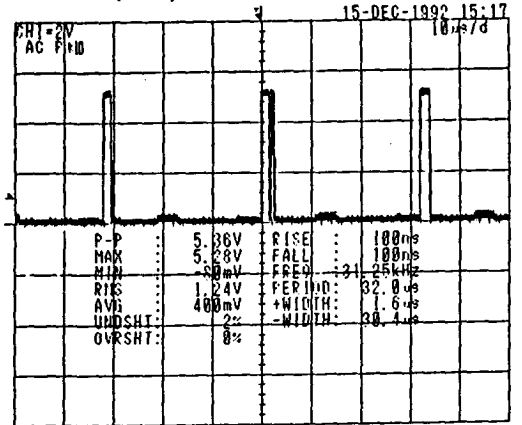
WDCKO (23pin)

MB606E50PF (DNS91)



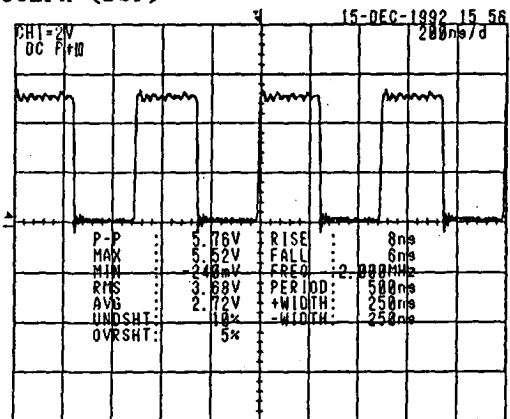
**SPEAKER TEST WAVEFORM
LSO, RSO (21pin, 22pin)**

TSM57002PH (DSP)



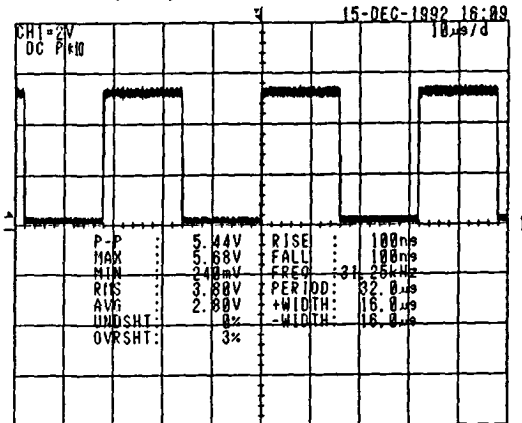
**DSP TEST WAVEFORM
S00, S01 (6pin, 7pin)**

TMS57002PH (DSP)



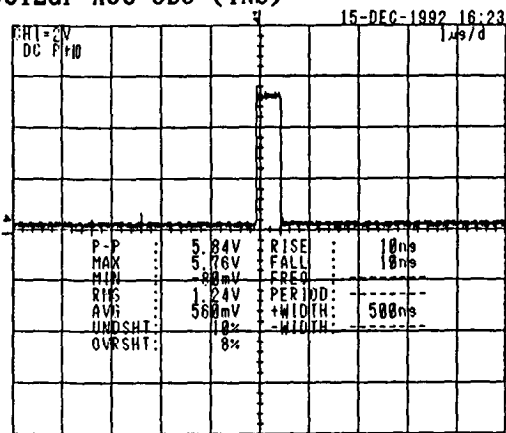
BCKO (2pin)

TMS57002PH (DSP)



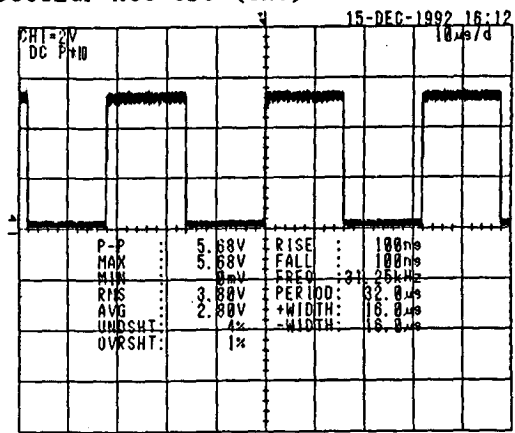
LRCKO (5pin)

UPD65012GF-A88-3B8 (INS)



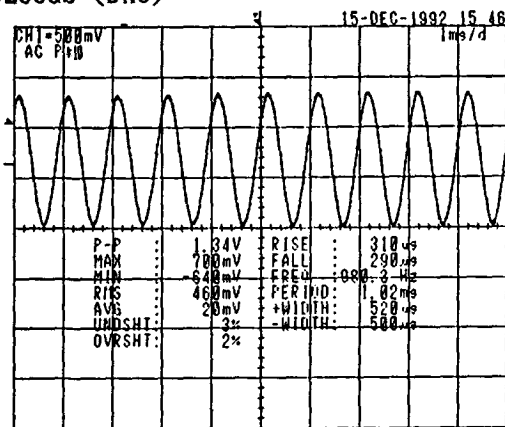
TG TEST WAVEFORM
0A0~0A7, 0B0~0B7

UPD65012GF-A88-3B8 (INS)



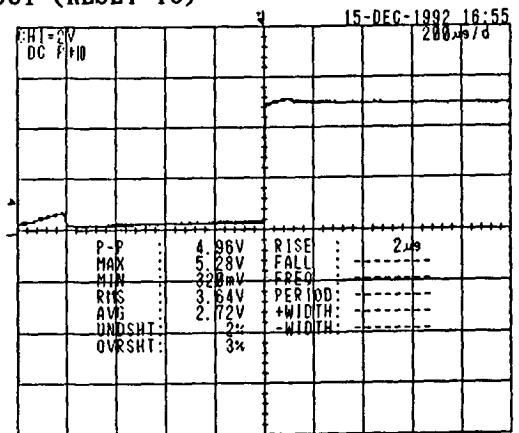
LRIN (40pin)

UPD63200GS (DAC)



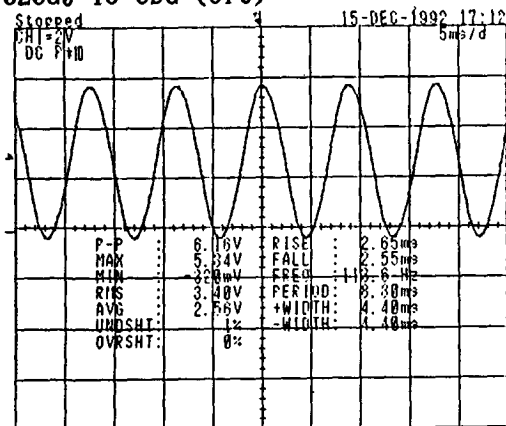
SPEAKER TEST WAVEFORM
LOUT, ROUT (11pin, 6pin)

M51951 (RESET IC)



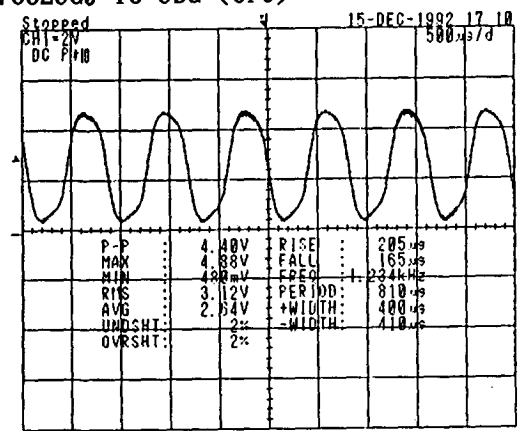
RES (3pin)

UPD70325GJ-10-5BG (CPU)



X1 (53pin)

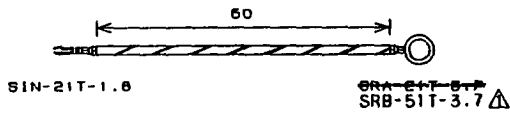
UPD70325GJ-10-5BG (CPU)



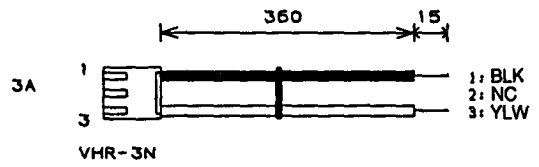
X2 (54pin)

FOR HARNESSES

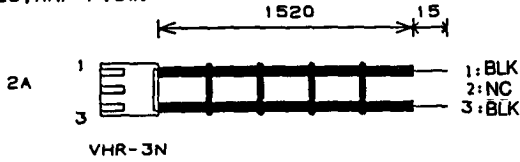
HNS-1643
(ALL; GND LINE OF AMP.)
#Q-219



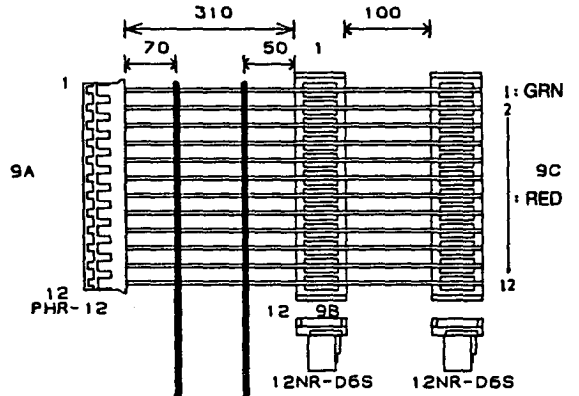
HNS-1601
(C-26; AMP-TR)



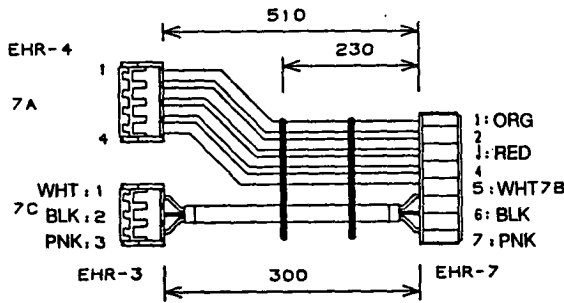
HNS-1635
(C-26; AMP-P. SV)



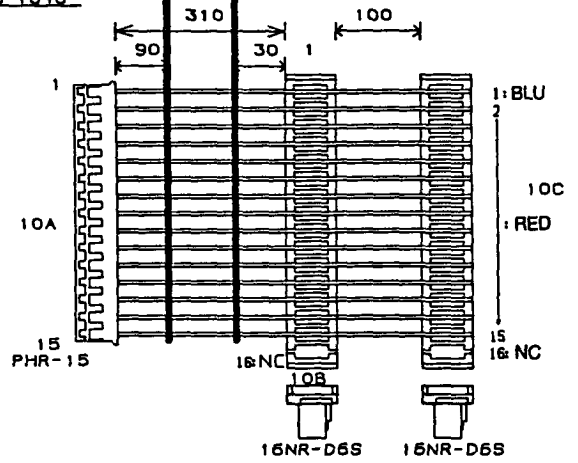
HNS-1642
(C-26/36/46/56; MAIN-KEY)



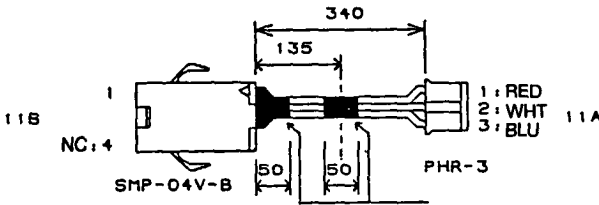
HNS-1636
(C-26; AMP-MAIN)



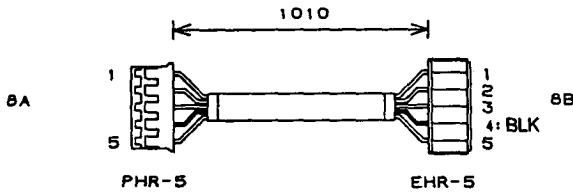
HNS-1643



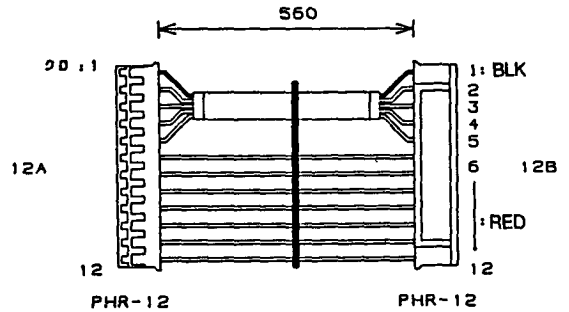
HNS-1638
(C-26; MAIN-PED (Upper))



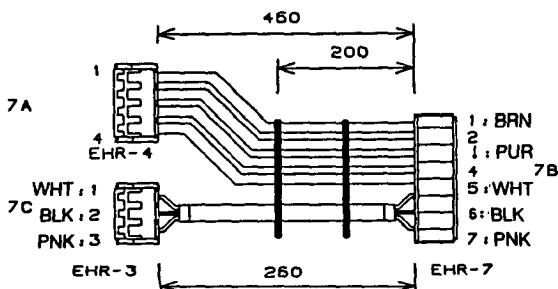
HNS-1639
(ALL; MAIN-HP)



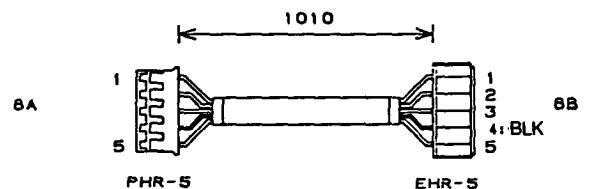
HNS-1640
(C-26; MAIN-PAN)



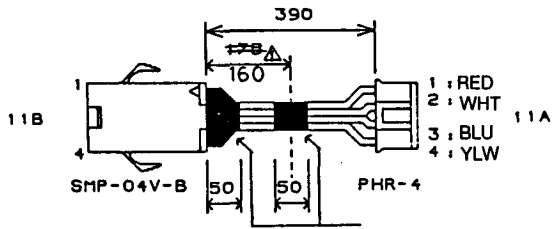
HNS-1655
(C-36/46/56H/56; AMP-MAIN)



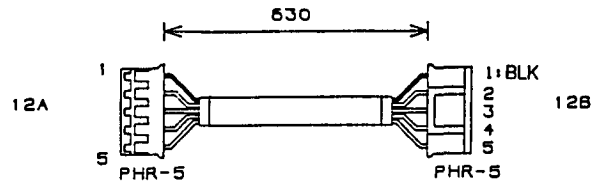
HNS-1639
(ALL; MAIN-HP)



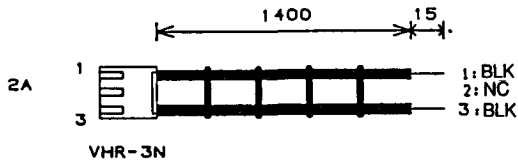
HNS-1740
(C-36/46/56M/56; MAIN-PED (Upper))



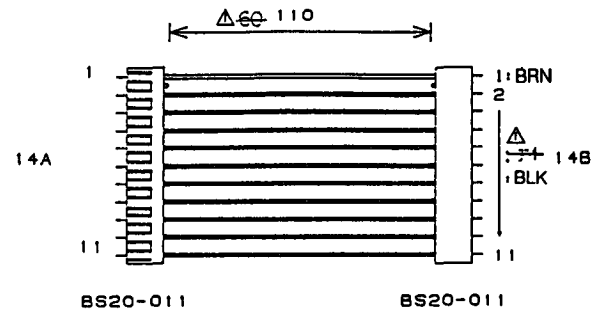
HNS-1860
(C-46/56; MAIN-VOL)



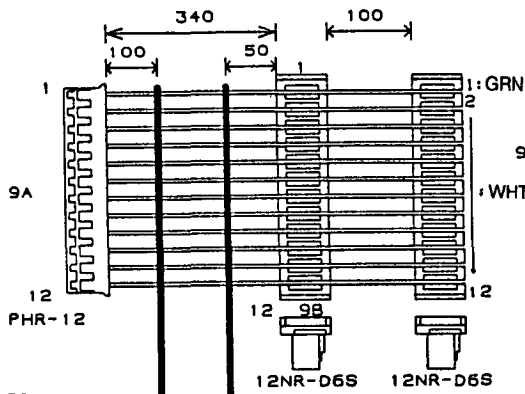
HNS-1850
(C-36/46/56M/56; AMP-P. SW)



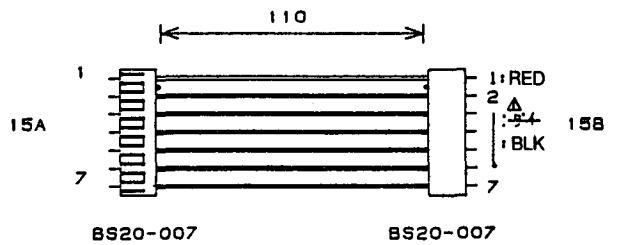
HNS-1862
(C-46/56; PAN1-PAN2)



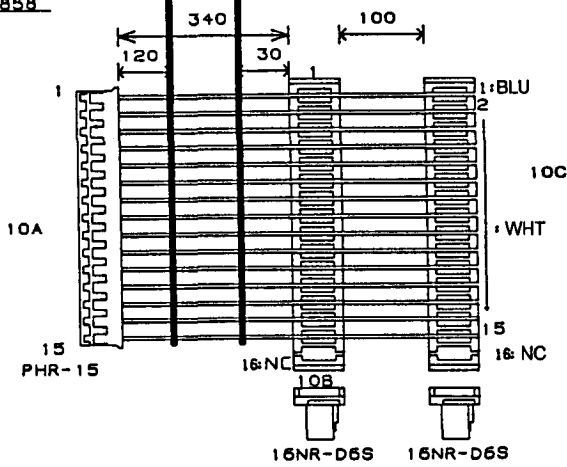
HNS-1857
(C-56M; MAIN-KEY)



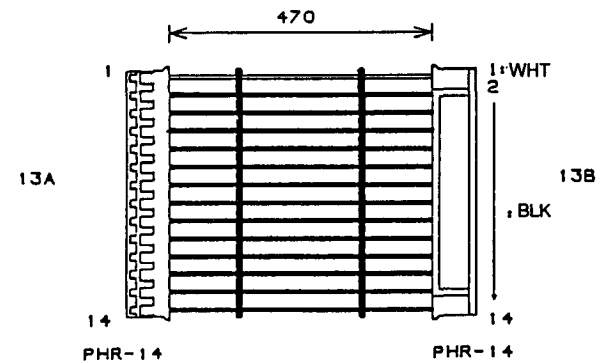
HNS-1863
(C-46/56; PAN1-PAN2)



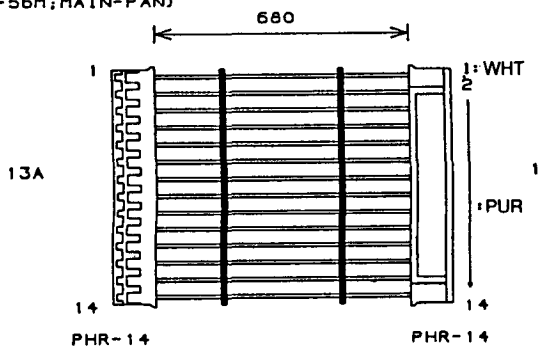
HNS-1858



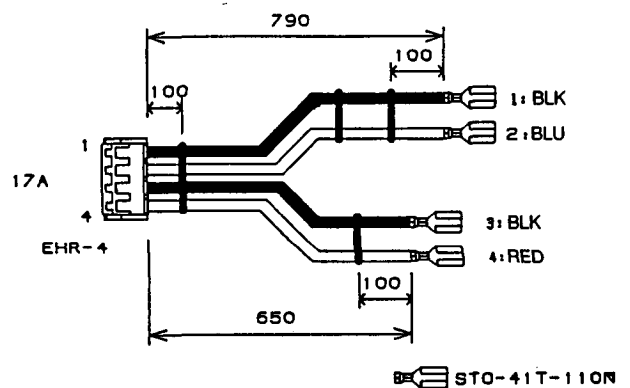
HNS-1861
(C-46/56; MAIN-PAN1)



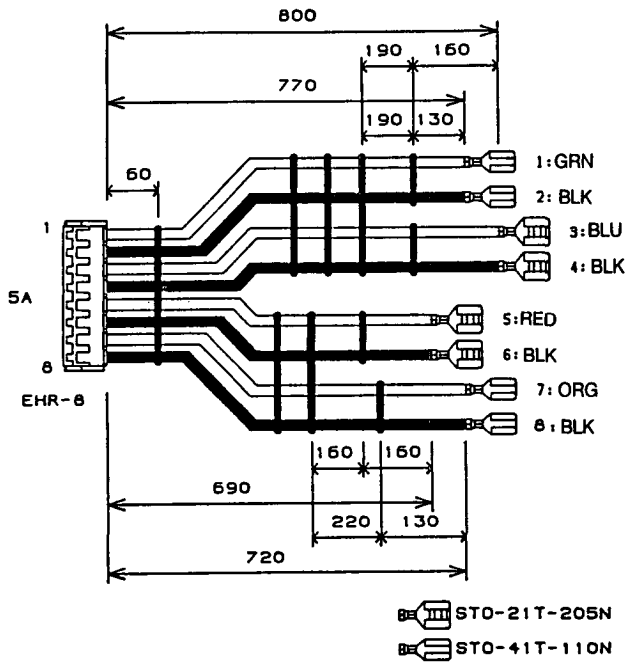
HNS-1862
(C-56M; MAIN-PAN)



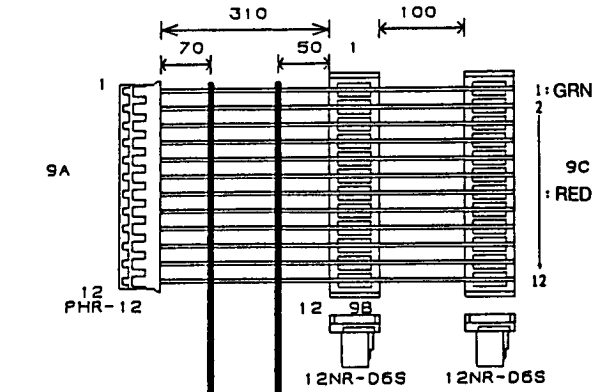
HNS-1854
(C-56M/56; S. AMP-SQ)



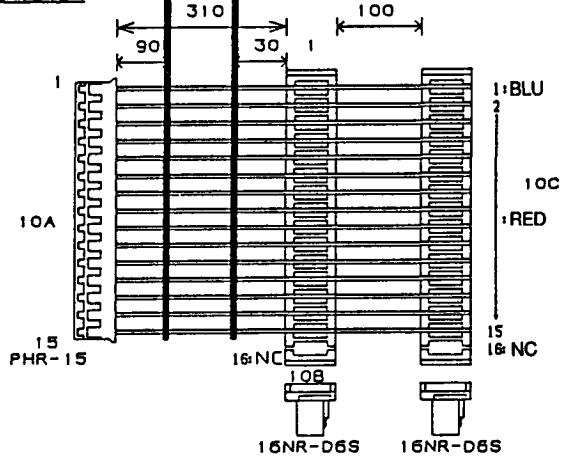
HNS-1853
(C-36/46/56M/56; AMP-SP/TT)



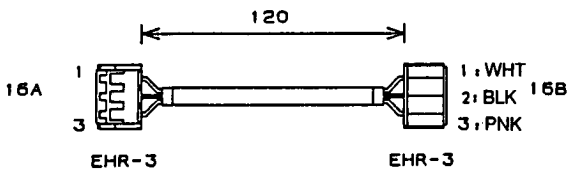
HNS-1642
(C-26/36/46/56; MAIN-KEY)



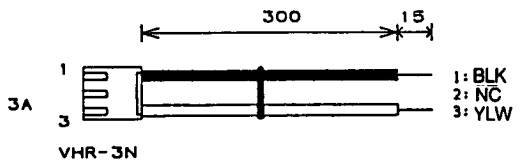
HNS-1643



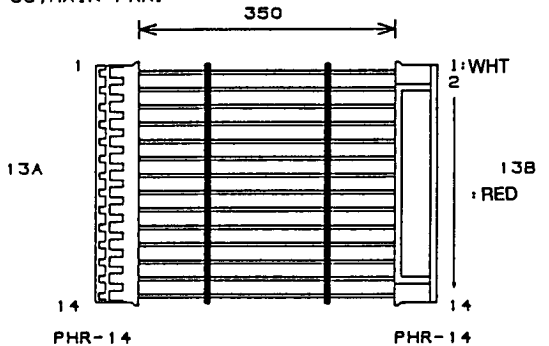
HNS-1852
(C-56M/56; AMP-S. AMP)



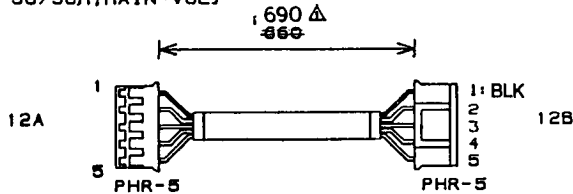
HNS-1851
(C-36/46/56M/56; AMP-TR)



HNS-1742
(C-36; MAIN-PAN)

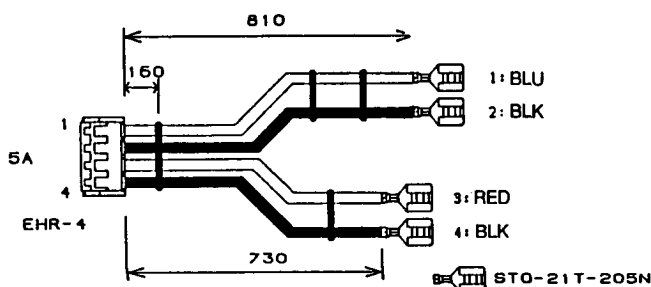


HNS-1881
(C-36/56M; MAIN-VOL)



✱ Each harness should be surely connected to each connector in accordance with identification letter.

HNS-1757
(C-26; AMP-SP)



For C-26

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
001154601	P. C. BOARD KLM-1546	M. PART	MAIN	1
001154701	P. C. BOARD KLM-1547-25/25S/26	M. PART	PANEL	1
001156802	P. C. BOARD KLM-1568-15/15S/25/	M. PART	P. SUPPLY/AMP	1
001156901	P. C. BOARD KLM-1569-35W/26/36/	M. PART	HEADPHONE	1
300002100	TR 2SA1670	1568		2
302003700	TR 2SC4385	1568		2
304000070	TR 2SA812-T1 (N5-7)	1546		1
304000090	TR 2SA988-T	1568		1
304020020	TR 2SC2785 T K	1568		2
304020230	TR 2SC3661-TA/TB(3K)	1546		6
304020260	TR 2SC1845-T ALL	1568		2
304060070	FET 2SK433-T12-C	1546		2
304060120	FET 2SJ125-T12-C	1546		2
310011300	BRIDGE DIODE DBF-20C	1568		1
310011900	BRIDGE DIODE RBA-402	1568		1
312011700	LED HLMP-1600-010	1569		1
314001300	DIODE 1SS-133 T-77	1568		1
314001400	DIODE RLS-73 TE-11	1546		6
314024700	ZENER DIODE RD12ESB2-T1	1568		2
314025700	DIODE SR1M-2 TP-B	1568		1
314026100	DIODE RLR4001TE-21	1546		1
315000500	DOUBLE DIODE MC-2840-T12-1	1546		2
320001180	IC UPC1270H	1568	POWER AMP	2
320001242	IC UPC4570HA	1568	OP_AMP	1
320001300	IC UPD65012GF-A87-3B9	1546	PSC91A	1
320004217	IC HD74HC166P	1547	HC_MOS	1
320009057	IC NJM-7805FA	1568	REGULATOR	1
320011146	IC M66312P	1547	LED DRIVER	1
320011160	IC M37700M4A-XXXFP	1546	CPU	1
320012084	IC MB87726PF-G-LBND	1546	TG88	1
320021142	IC TMS57002PH	1546	DSP	1
324001006	IC UPD74HC04GS-E2 (SOP)	1546	HC_MOS	1
324001015	IC UPC4570G2-E2 (SOP)	1546	OP_AMP	2
324001023	IC UPD6376GS-E2	1546	DAC	1
324001061	IC UPD23C8001EAGW-314-E2	1546	WAVE_ROM	1
324001062	IC UPD23C8001EAGW-315-E2	1546	WAVE_ROM	1
324001063	IC UPD23C8001EAGW-316-E2	1546	WAVE_ROM	1
324004069	IC HD74HC174FPER	1546	HC_MOS	1
324009014	IC NJM78L15UA-TE1	1546	REGULATOR	1
324011004	IC M5216FP-600C-TP3	1546	OP_AMP	1
324011016	IC M51951ANL-600C	1546	RESET	1
324012001	IC MB81464-10PD-G-BB-RS2-EF	1546	D_RAM	1
334000800	PHOTO COUPLER PC-400	1546		1

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
335400030	CRYSTAL OSC MA-505(32MHZ)TE2412L	1546		1
350002210	SEMI FIXED VR RH0615C 13 1K	1568		2
365008000	SLIDE VR RS30112AC00JB 10KBX2	1547		1
375010400	POWER SW SDDGA1103A TV-5	M. PART		1
375010600	TACT SW SKHJTQ001A	1547		8
400013400	POWER TRANSFORMER TC-044A	M. PART		1
402004600	COIL 2943-866673	1568		4
		1569		3
404000100	FERRITE BEAD BLO3RN2-R62T4-F	1568		1
404000110	COIL BLM32A06PT	1546		53
410003600	SPEAKER FF166-0846 16cm	M. PART		2
420004600	KEYBOARD AE11-88	M. PART		1
454005600	PHONE JACK YKB21-5006	1569		1
454006000	2P DIN JACK JXT0692-01-010	1546		1
454006500	PIN JACK JPJ0730-01-500 (4P)	1546		1
464002300	FUSE 125V 2A S82	M. PART	117US	2
			117CN	2
			117EX	2
			100JP	2
464061801	FUSE 250V T630MA	M. PART	220GE	1
			240GE	1
			240AU	1
			240AF	1
			230GE	1
			230FR	1
			230SE	1
			230WG	1
			230SC	1
			240UK	1
464062301	FUSE 250V T2.0A	M. PART	220GE	1
			240GE	1
			240AU	1
			240AF	1
			230GE	1
			230FR	1
			230SE	1
			230WG	1
			230SC	1
			240UK	1

9. PARTS LIST

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
471050201	CONNECTOR TOP B2P3-VH	1568		3
471050500	CONNECTOR TOP B5P-VH	1568		1
471060300	CONNECTOR TOP B3B-EH	1568		1
471060400	CONNECTOR TOP B4B-EH	1568		2
471060500	CONNECTOR TOP B5B-EH	1569		1
471060700	CONNECTOR TOP B7B-EH	1546		1
471070300	CONNECTOR TOP B3B-PH	1546		1
471070500	CONNECTOR TOP B5B-PH	1546		1
471071200	CONNECTOR TOP B12B-PH	1547		1
		1546		2
471071500	CONNECTOR TOP B15B-PH	1546		1

475001635	HARNESS HNS-1635	M.PART		1
475001636	HARNESS HNS-1636	M.PART		1
475001638	HARNESS HNS-1638	M.PART		1
475001639	HARNESS HNS-1639	M.PART		1
475001640	HARNESS HNS-1640	M.PART		1
475001642	HARNESS HNS-1642	M.PART		1
475001643	HARNESS HNS-1643	M.PART		1
475001757	HARNESS HNS-1757	M.PART		1
475001801	HARNESS HNS-1801	M.PART		1
475001843	HARNESS HNS-1843	1568		1

500011702	CUSHION (2) KOC-F40391	M.PART		2
500011801	CUSHION R (FOR FRONT BAR)	M.PART		2
500014200	RUBBER STOPPER 3	M.PART		1
500017600	X-921 SPACER FOR FRONT BAR	M.PART		3
500019300	X-120 FRONT BAR RUBBER T=3mm	M.PART		1
500019500	X-122W PANEL CUSHION 2	M.PART		4

515002300	FUSE HOLDER S-N5057 #01	1568		4

525000100	DATA LINE FILTER ESO-R-250-B	M.PART		1

540007200	WIRE BAND PLT-1M	M.PART		9
540008600	SPIRAL CLIP CS-8	M.PART		2
540008601	SPIRAL CLIP CS-6	M.PART		15
540017500	SPIRAL CLIP CP-1S	M.PART		2
540019500	X-122W BELT KOC-E40329	M.PART		1

550009901	FELT FOR KEYBOARD (LARGE)	M.PART		1
550014900	X-120 STOPPER FELT	M.PART		2
550015400	CUSHION KOC-F40567	M.PART		2

580031300	X-120 SHIELD SHEET (SMALL)	M.PART		1

600004200	AC CORD HP-11J/DCB-10	M.PART	100JP	1

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY	
600004500	AC CORD DAP-100/DCB-10	M.PART		240AU	1
600004600	AC CORD DEP-101/DCB-10	M.PART		220GE	1
				240GE	1
				240AF	1
				230GE	1
				230FR	1
				230SE	1
				230WG	1
				230SC	1
				240UK	1
600005000	AC CORD DP-201/DCB-10	M.PART		117US	1
				117CN	1
				117EX	1

620021600	X-825M POWER SW KNOB BLK	M.PART			1
620022300	X-921 TACT SW KNOB NO.1	M.PART			8
620022500	SLIDE VR KNOB	M.PART			1

629010907	X-921 HINGE CAP	M.PART			2

630013900	SPEAKER NET (LARGE)	M.PART			2

640082500	X-526/527 METAL FITTING OF SW	M.PART			1

640084600	GROUNDING CONTACT	1568			1
		1569			1

641014900	X-921 MUSIC STAND HINGE	M.PART			2

641016500	X-922/923 SHAFT	M.PART			1

641016800	X-921 BUSHING PLATE	M.PART			1

641026204	X-122 HINGE 2	M.PART			3

641026205	X-122 SIDE CHASSIS L	M.PART			1
641026206	X-122 SIDE CHASSIS R	M.PART			1

641026209	X-122 HEAT SINK 1	M.PART			1

641026210	X-122 HEAT SINK ANGLE L	M.PART			1
641026211	X-122 HEAT SINK ANGLE R	M.PART			1

641026900	X-122 L TYPE ANGLE (LARGE)	M.PART			2
641026901	X-122 L TYPE ANGLE (SMALL)	M.PART			1

641027800	X-122 PHONE JACK CHASSIS	M.PART			1

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
641030200	X-120 SHIELD CHASSIS (SMALL)	M.PART		1
641030400	X-120 PANEL SUPPORT	M.PART		2
641031300	X-120 STOPPER PLATE	M.PART		6
641031400	X-120 SPRING STOPPER 3	M.PART		1
641031500	X-120 HOLDER SPRING V3	M.PART		1
641032100	X-122 FRONT BAR SPACER	M.PART		1
641032300	X-122W KC PANEL B35W	M.PART		1
641032400	X-122W KC PANEL A35W	M.PART		1
641032800	X-122W FRONT BAR W	M.PART		1
641035100	X-220 TOP PLATE 4 ASSEMBLY	M.PART		1
641035200	X-220 FRONT PANEL KOC-20226	M.PART		1
641036000	KORG LOGOTYPE PLATE	M.PART		1
645015700	X-120S BOTTOM PLATE S	M.PART		1
645015900	X-122W MUSIC PLATE KOC-D20074	M.PART	100JP	1
645016100	X-122W KEY COVER D10052	M.PART		1
645016500	X-220 MUSIC PLATE KOC-D20075	M.PART	220GE 240GE 240AU 240AF 230GE 230FR 230SE 230WG 230SC 117US 117CN 117EX 240UK	1 1 1 1 1 1 1 1 1 1 1 1 1
646035900	X-922 GEAR	M.PART		2
646036600	X-921 MUSIC STOPPER A	M.PART		1

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
646041100	X-122 SIDE PLATE L	M.PART		1
646041101	X-122 SIDE PLATE R	M.PART		1
646041200	X-121 RACK 1 L	M.PART		1
646041201	X-121 RACK 1 R	M.PART		1
646041400	SLIDE VR ESCUSHION 30 NO.1	M.PART		1
646041500	SHAFT COLLAR	M.PART		2

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PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
001156600	P.C. BOARD KLM-1566	M.PART	PANEL	1
001156901	P.C. BOARD KLM-1569-35W/26/36/	M.PART	HEADPHONE	1
001164300	P.C. BOARD KLM-1643-36/46	M.PART	P.SUPPLY/AMP	1
001165300	P.C. BOARD KLM-1653-36	M.PART	MAIN	1

300002100	TR 2SA1670	1643		2
302003700	TR 2SC4385	1643		2
304000070	TR 2SA812-T1 (M5-7)	1653		1
304000090	TR 2SA988-T	1643		1
304020020	TR 2SC2785 T K	1643		2
304020150	TR 2SC1623-T1B (L7)	1653		4
304020230	TR 2SC3681-TA/TB(3K)	1653		6
304020260	TR 2SC1845-T ALL	1643		2
304030130	TR FA1A4M-T1B	1653		1
304060070	FET 2SK433-T12-C	1653		2
304060120	FET 2SJ125-T12-C	1653		2

310011300	BRIDGE DIODE DBF-20C	1643		1
310011900	BRIDGE DIODE RBA-402	1643		1

312010900	LED GL3ED8	1566		2
312011700	LED HLMP-1600-010	1569		1
314000300	DIODE 1S-2473 T-77	1566		20
314001300	DIODE 1SS-133 T-77	1643		1
314001400	DIODE RLS-73 TE-11	1653		9
314024700	ZENER DIODE RD12ESB2-T1	1643		2
314025700	DIODE SR1M-2 TP-B	1643		1
314026100	DIODE RLR4001TE-21	1653		1
315000500	DOUBLE DIODE MC-2840-T12-1	1653		2

320001180	IC UPC1270H	1643	POWER AMP	2
320001242	IC UPC4570HA	1643	OP_AMP	2
320001294	IC UPD27C2001C-12/15	1653	EP_ROM	1
320001297	IC UPD63200GS	1653	DAC	1
320001310	IC UPD65012GF-A88-3B8	1653	INS91	1
320001350	IC UPD70325GJ-10-5BG (94P QFP)	1653	CPU	1
320004108	IC HD74HC138P	1566	HC_MOS	1
320011146	IC M66312P	1566	LED DRIVER	1
320011151	IC M66310P	1566	LED DRIVER	1
320011152	IC M37450M4-616FP	1653	KSP	1
320012084	IC MB87726PF-G-LBND	1653	TG88	1
320012124	IC MB606E50PF-G-BND (QFP 48)	1653	DNS91	1
320013036	IC PQ05RF2	1643	REGULATOR	1
320021142	IC TMS57002PH	1653	DSP	2
324001006	IC UPD74HC04GS-E2 (SOP)	1653	HC_MOS	1
324001015	IC UPC4570G2-E2 (SOP)	1653	OP_AMP	2
324001037	IC UPD43258AGU-10/12L-E2	1653	S_RAM	1

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
324001055	IC UPD23C8001EAGW-308-E2 (SOP)	1653	WAVE_ROM	1
324001056	IC UPD23C8001EAGW-309-E2 (SOP)	1653	WAVE_ROM	1
324001057	IC UPD23C8001EAGW-310-E2 (SOP)	1653	WAVE_ROM	1
324001058	IC UPD23C8001EAGW-311-E2 (SOP)	1653	WAVE_ROM	1
324001059	IC UPD23C8001EAGW-312-E2 (SOP)	1653	WAVE_ROM	1
324001060	IC UPD23C8001EAGW-313-E2 (SOP)	1653	WAVE_ROM	1
324004003	IC HD74HC139FPER	1653	HC_MOS	2
324004050	IC HD74HC138FPER	1653	HC_MOS	1
324009014	IC NJM78L15UA-TE1	1653	REGULATOR	1
324011004	IC M5216FP-800C-TP3	1653	OP_AMP	1
324011007	IC M51951BML-600C	1653	RESET	1
324012001	IC MB81464-10PD-G-BB-RS2-EF	1653	D_RAM	2

334000600	PHOTO COUPLER PC-410K-TP	1653		1

335400030	CRYSTAL OSC MA-505(32MHZ)TE2412L	1653		1
335400040	CRYSTAL OSC MA-505(20MHZ)TE2412L	1653		1

350002210	SEMI FIXED VR RH0615C 13 1K	1643		2
365007800	SLIDE VR RS30111AC00NB 10KB	1566		1
365008000	SLIDE VR RS30112AC00JB 10KBX2	1566		1

375010000	TACT SW SKHJAC003A	1566		3
375010400	POWER SW SDDG1103A TV-5	M.PART		1
375010600	TACT SW SKHJTQ001A	1566		17

400013600	POWER TRANSFORMER TC-047	M.PART		1

402004600	COIL 2943-666673	1569		3
		1643		4
404000100	FERRITE BEAD BLO3RN2-R62T4-F	1643		1
404000110	COIL BLM32A06PT	1653		68

410003300	SPEAKER FT50-L5	M.PART		2
410003900	SPEAKER FF166-945E 16cm	M.PART		2

420004600	KEYBOARD AE11-88	M.PART		1

454005600	PHONE JACK YKB21-5008	1569		1
454006500	PIN JACK JPJ0730-01-500 (4P)	1653		1
454007700	DIN JACK VF64730 (3P)	1653		1

464002300	FUSE 125V 2A SB2	M.PART	117US	1
			117CN	1
			117EX	1
			100JP	1

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
464002500	FUSE 125V 3.15A SB3.15	M.PART	117US 117CN 117EX 100JP	1 1 1 1
464062201	FUSE 250V T1.6A	M.PART	220GE 240GE 240AU 240AF 230GE 230FR 230SE 230WG 230SC 240UK	1 1 1 1 1 1 1 1 1 1
464062301	FUSE 250V T2.0A	M.PART	220GE 240GE 240AU 240AF 230GE 230FR 230SE 230WG 230SC 240UK	1 1 1 1 1 1 1 1 1 1
471050201	CONNECTOR TOP B2P3-VH	1643		3
471050500	CONNECTOR TOP B5P-VH	1643		1
471060300	CONNECTOR TOP B3B-EH	1643		1
471080400	CONNECTOR TOP B4B-EH	1643		1
471060500	CONNECTOR TOP B5B-EH	1569		1
471060700	CONNECTOR TOP B7B-EH	1653		1
471060800	CONNECTOR TOP B8B-EH	1643		1
471070400	CONNECTOR TOP B4B-PH	1653		1
471070500	CONNECTOR TOP B5B-PH	1566 1653		1 2
471071200	CONNECTOR TOP B12B-PH	1653		1
471071400	CONNECTOR TOP B14B-PH	1566 1653		1 1
471071500	CONNECTOR TOP B15B-PH	1653		1
475001639	HARNESS HNS-1639	M.PART		1
475001642	HARNESS HNS-1642	M.PART		1
475001643	HARNESS HNS-1643	M.PART		1
475001740	HARNESS HNS-1740	M.PART		1
475001742	HARNESS HNS-1742	M.PART		1
475001843	HARNESS HNS-1843	1643		1
475001850	HARNESS HNS-1850	M.PART		1

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
475001851	HARNESS HNS-1851	M.PART		1
475001853	HARNESS HNS-1853	M.PART		1
475001855	HARNESS HNS-1855	M.PART		1
475001881	HARNESS HNS-1881	M.PART		1
480001324	IC SOCKET 32P DICF-32CS-E	1653		1
500011702	CUSHION (2) KOC-40391	M.PART		2
500011801	CUSHION R (FOR FRONT BAR)	M.PART		2
500014200	RUBBER STOPPER 3 KOC-F40452	M.PART		1
500017600	X-921 SPACER FOR FRONT BAR	M.PART		3
500019300	X-120 FRONT BAR RUBBER T=3mm	M.PART		1
500019500	X-122W PANEL CUSHION 2 KOC-F40576	M.PART		4
500019800	X-221 SILENCE FORM KOC-F30055	M.PART		2
500020000	X-122 PACKING 2 KOC-F40595	M.PART		2
500020100	X-221 TWEETER PAKING KOC-F40592	M.PART		2
500020200	X-221 GASKET 2 L KOC-F30054-1	M.PART		1
500020201	X-221 GASKET 2 R	M.PART		1
515002300	FUSE HOLDER S-N5057 #01	1643		4
520001700	LITHIUM BATTERY CR2032VPX	1653		1
525000100	DATA LINE FILTER ESD-R-250-B	M.PART		1
525000900	DATA LINE FILTER 044S-800502	M.PART		2
540007200	WIRE BAND PLT-1M	M.PART		6
540008600	SPIRAL CLIP CS-8	M.PART		2
540008601	SPIRAL CLIP CS-6	M.PART		15
540017500	SPIRAL CLIP CP-1S	1566		2
540019500	X-122W BELT KOC-E40329	M.PART		1
550009901	FELT FOR KEYBOARD (LARGE)	M.PART		1
550014900	X-120 STOPPER FELT	M.PART		2
550015400	CUSHION	M.PART		2
550015500	X-221 CORD PACKING 2 KOC-F40599	M.PART		2
550015600	X-221 CUSHION FOR DUCT F40600	M.PART		2
560007400	X-221/222 HEAT SINK 3	M.PART		1
575014900	LED SPACER LS-15-10.2 L=10.2MM	1566		2
580031200	X-122 SHIELD SHEET (LARGE)	M.PART		1
600004200	AC CORD HP-11J/DCB-10	M.PART	100JP	1
600004500	AC CORD DAP-100/DCB-10	M.PART	240AU	1
600004600	AC CORD DEP-101/DCB-10	M.PART	220GE	1

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
600004600	AC CORD DEP-101/DCB-10	M.PART	240GE	1
			240AF	1
			230GE	1
			230FR	1
			230SE	1
			230WG	1
			230SC	1
			240UK	1
600005000	AC CORD DP-201/DCB-10	M.PART	117US	1
			117CN	1
			117EX	1
620021600	X-825M POWER SW KNOB BLK	M.PART		1
620022300	X-921 TACT SW KNOB NO.1	M.PART		20
620022500	SLIDE VR KNOB	M.PART		2
629010907	X-921 HINGE CAP	M.PART		2
640082500	X-526/527 METAL FITTING OF SW	M.PART		1
640084600	GROUNDING CONTACT	1569 M.PART		1
640084900	GROUND SPRING (A)	M.PART		1
640086300	SPEAKER NET (LARGE) KOC-C40689	M.PART		2
641014900	X-921 MUSIC STAND HINGE	M.PART		2
641016500	X-922/923 SHAFT	M.PART		1
641016600	X-921 BUSHING PLATE	M.PART		1
641016700	X-921 RADIATION COVER	M.PART		1
641026200	X-122 SHIELD CHASSIS (LARGE)	M.PART		1
641026204	X-122 HINGE 2	M.PART		3
641026205	X-122 SIDE CHASSIS L	M.PART		1
641026206	X-122 SIDE CHASSIS R	M.PART		1
641026210	X-122 HEAT SINK ANGLE L	M.PART		1
641026211	X-122 HEAT SINK ANGLE R	M.PART		1
641026900	X-122 L TYPE ANGLE (LARGE)	M.PART		2
641026901	X-122 L TYPE ANGLE (SMALL)	M.PART		1

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
641027800	X-122 PHONE JACK CHASSIS	M.PART		1
641030400	X-120 PANEL SUPPORT	M.PART		2
641031300	X-120 STOPPER PLATE	M.PART		6
641031400	X-120 SPRING STOPPER 3	M.PART		1
641031500	X-120 HOLDER SPRING V3	M.PART		1
641032100	X-122 FRONT BAR SPACER	M.PART		1
641032300	X-122W KC PANEL B35W KOC-C30383	M.PART		1
641032400	X-122W KC PANEL A35W KOC-C30382	M.PART		1
641032800	X-122W FRONT BAR KOC-C10118	M.PART		1
641033300	X-122 SHIELD ANGLE	M.PART		1
641034900	X-221 TOP PLATE ASSEMBLY	M.PART		1
641035000	X-221 FRONT PANEL KOC-C20267	M.PART		1
641038000	KORG LOGOTYPE PLATE	M.PART		1
645015900	X-122W MUSIC PLATE KOC-D20074	M.PART	100JP	1
645016100	X-122W KEY COVER KOC-D10052	M.PART		1
645016300	X-221 BOTTOM PLATE ASSEMBLY	M.PART		1
645016500	X-220 MUSIC PLATE KOC-D20075	M.PART	220GE 240GE 240AU 240AF 230GE 230FR 230SE 230WG 230SC 117US 117CN 117EX 240UK	1 1 1 1 1 1 1 1 1 1 1 1 1
646035900	X-922 GEAR	M.PART		2

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PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
646036600	X-921 MUSIC STOPPER A	M.PART		1
646041100	X-122 SIDE PLATE L	M.PART		1
646041101	X-122 SIDE PLATE R	M.PART		1
646041200	X-121 RACK 1 L	M.PART		1
646041201	X-121 RACK 1 R	M.PART		1
646041400	SLIDE VR ESCUSHION 30 NO.1	M.PART		2
646041500	SHAFT COLLAR	M.PART		2
646043300	X-221 SPEAKER BOX 2 L ASSEMBLY	M.PART		1
646043301	X-221 SPEAKER BOX 2 R ASSEMBLY	M.PART		1
649007400	BATTERY HOLDER	1653		1

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
001156901	P.C. BOARD KLM-1569-35W/26/36	M.PART	HEADPHONE	1
001164000	P.C. BOARD KLM-1640/1641	M.PART	PANEL	1
001164300	P.C. BOARD KLM-1643-36/46	M.PART	P.SUPPLY/AMP	1
001165301	P.C. BOARD KLM-1653-46	M.PART	MAIN	1
300002100	TR 2SA1670	1643		2
302003700	TR 2SC4385	1643		2
304000070	TR 2SA812-T1 (M5-7)	1653		1
304000090	TR 2SA988-T	1643		1
304020020	TR 2SC2785 T K	1643		2
304020150	TR 2SC1623-T1B (L7)	1653		4
304020230	TR 2SC3661-TA/TB(3K)	1653		6
304020260	TR 2SC1845-T ALL	1643		2
304030130	TR FA1A4M-T1B	1653		1
304060070	FET 2SK433-T12-C	1653		2
304060120	FET 2SJ125-T12-C	1653		2
310011300	BRIDGE DIODE DBF-20C	1643		1
310011900	BRIDGE DIODE RBA-402	1643		1
312010900	LED GL3ED8	1641		2
312011700	LED HLMP-1600-010	1569		1
314000300	DIODE 1S-2473 T-77	1640		13
		1641		16
314001300	DIODE 1SS-133 T-77	1643		1
314001400	DIODE RLS-73 TE-11	1653		9
314024700	ZENER DIODE RD12ESB2-T1	1643		2
314025700	DIODE SR1M-2 TP-B	1643		1
314026100	DIODE RLR4001TE-21	1653		1
315000500	DOUBLE DIODE MC-2840-T12-1	1653		2
320001180	IC UPC1270H	1643	POWER AMP	2
320001242	IC UPC4570HA	1643	OP_AMP	2
320001294	IC UPD27C2001C-12/15	1653	EP_ROM	1
320001297	IC UPD63200GS	1653	DAC	1
320001310	IC UPD65012GF-A88-3B8	1653	INS91	1
320001350	IC UPD70325GJ-10-5BG (94P QFP)	1653	CPU	1
320004108	IC HD74HC138P	1640	HC_MOS	1
320011151	IC M66310P	1640	LED DRIVER	1
		1641	LED DRIVER	1
320011152	IC M37450M4-616FP	1653	KSP	1
320012084	IC MB87726PF-G-LBND	1653	TG88	1
320012124	IC MB606E50PF-G-BND (QFP 48)	1653	DNS91	1
320013036	IC PQ05RF2	1643	REGULATOR	1
320021142	IC TMS57002PH	1653	DSP	2
324001006	IC UPD74HC04GS-E2 (SOP)	1653	HC_MOS	1
324001015	IC UPC4570G2-E2 (SOP)	1653	OP_AMP	2

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
324001037	IC UPD43256AGU-10/12L-E2	1653	S_RAM	1
324001055	IC UPD23C8001EAGW-308-E2 (SOP)	1653	WAVE_ROM	1
324001056	IC UPD23C8001EAGW-309-E2 (SOP)	1653	WAVE_ROM	1
324001057	IC UPD23C8001EAGW-310-E2 (SOP)	1653	WAVE_ROM	1
324001058	IC UPD23C8001EAGW-311-E2 (SOP)	1653	WAVE_ROM	1
324001059	IC UPD23C8001EAGW-312-E2 (SOP)	1653	WAVE_ROM	1
324001060	IC UPD23C8001EAGW-313-E2 (SOP)	1653	WAVE_ROM	1
324004003	IC HD74HC139FPER	1653	HC_MOS	2
324004050	IC HD74HC138FPER	1653	HC_MOS	1
324009014	IC NJM78L15UA-TE1	1653	REGULATOR	1
324011004	IC M5216FP-600C-TP3	1653	OP_AMP	1
324011007	IC M51951BML-600C	1653	RESET	1
324012001	IC MB81464-10PD-G-BB-RS2-EF	1653	D_RAM	2
324013008	IC LH538DH0	1653	WAVE_ROM	1
324013009	IC LH538DH1	1653	WAVE_ROM	1
324013010	IC LH538DH2	1653	WAVE_ROM	1

334000600	PHOTO COUPLER PC-410K-TP	1653		1

335400030	CRYSTAL OSC MA-505(32MHZ)TE2412L	1653		1
335400040	CRYSTAL OSC MA-505(20MHZ)TE2412L	1653		1

350002210	SEMI FIXED VR RH0615C 13 1K	1643		2
365007800	SLIDE VR RS30111AC00NB 10KB	1641		1
365008000	SLIDE VR RS30112AC00JB 10KBX2	1640		1

375010000	TACT SW SKHJAC003A	1641		3
375010400	POWER SW SDDGA1103A TV-5	M.PART		1
375010600	TACT SW SKHJTQ001A	1640		12
		1641		12

400013600	POWER TRANSFORMER TC-047	M.PART		1

402004600	COIL 2943-666673	1569		3
		1643		4
404000100	FERRITE BEAD BLO3RN2-R62T4-F	1643		1
404000110	COIL BLM32A06PT	1653		68

410003300	SPEAKER FT50-L5	M.PART		2
410003900	SPEAKER FF166-945E 16cm	M.PART		2

420004600	KEYBOARD AE111-88	M.PART		1

454005600	PHONE JACK YKB21-5006	1569		1
454006500	PIN JACK JPJ0730-01-500 (4P)	1653		1
454007700	DIN JACK VF64730 (3P)	1653		1

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
464002300	FUSE 125V 2A SB2	M.PART	117US	1
			117CN	1
			117EX	1
			100JP	1
464002500	FUSE 125V 3.15A SB3.15	M.PART	117US	1
			117CN	1
			117EX	1
			100JP	1
464062201	FUSE 250V T1.6A	M.PART	220GE	1
			240GE	1
			240AU	1
			240AF	1
			230GE	1
			230FR	1
			230SE	1
			230WG	1
			230SC	1
			240UK	1
464062301	FUSE 250V T2.0A	M.PART	220GE	1
			240GE	1
			240AU	1
			240AF	1
			230GE	1
			230FR	1
			230SE	1
			230WG	1
			230SC	1
			240UK	1

471050201	CONNECTOR TOP B2P3-VH	1643		3
471050500	CONNECTOR TOP B5P-VH	1643		1
471060300	CONNECTOR TOP B3B-EH	1643		1
471060400	CONNECTOR TOP B4B-EH	1643		1
471060500	CONNECTOR TOP B5B-EH	1569		1
471060700	CONNECTOR TOP B7B-EH	1653		1
471060800	CONNECTOR TOP B8B-EH	1643		1
471070400	CONNECTOR TOP B4B-PH	1653		1
471070500	CONNECTOR TOP B5B-PH	1640		1
		1653		2
471071200	CONNECTOR TOP B12B-PH	1653		1
471071400	CONNECTOR TOP B14B-PH	1640		1
		1653		1
471071500	CONNECTOR TOP B15B-PH	1653		1

475001639	HARNESS HNS-1639	M.PART		1
475001642	HARNESS HNS-1642	M.PART		1
475001643	HARNESS HNS-1643	M.PART		1

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
475001740	HARNESS HNS-1740	M.PART		1
475001843	HARNESS HNS-1843	1643		1
475001850	HARNESS HNS-1850	M.PART		1
475001851	HARNESS HNS-1851	M.PART		1
475001853	HARNESS HNS-1853	M.PART		1
475001855	HARNESS HNS-1855	M.PART		1
475001860	HARNESS HNS-1860	M.PART		1
475001861	HARNESS HNS-1861	M.PART		1
475001862	HARNESS HNS-1862 (BOARD IN)	1640		1
475001863	HARNESS HNS-1863 (BOARD IN)	1640		1

480001324	IC SOCKET 32P DICF-32CS-E	1653		1

500011702	CUSHION (2)	M.PART		2
500011801	CUSHION R (FOR FRONT BAR)	M.PART		2
500014200	RUBBER STOPPER 3	M.PART		1
500017600	X-921 SPACER FOR FRONT BAR	M.PART		3
500019300	X-120 FRONT BAR RUBBER T=3mm	M.PART		1
500019400	X-122W TOP PLATE CUSHION	M.PART		2
500019500	X-122W PANEL CUSHION 2 KOC-F40576	M.PART		4
500019800	X-221 SILENCE FORM KOC-F30055	M.PART		2
500020000	X-221 PACKING 2 KOC-F40595	M.PART		2
500020100	X-221 TWEETER PAKING KOC-F40592	M.PART		2
500020200	X-221 GASKET 2 L KOC-F30054-1	M.PART		1
500020201	X-221 GASKET 2 R	M.PART		1

515002300	FUSE HOLDER S-N5057 #01	1643		4

520001700	LITHIUM BATTERY CR2032VPX	1653		1

525000100	DATA LINE FILTER ESD-R-25D-B	M.PART		1
525000900	DATA LINE FILTER 0445-800502	M.PART		2

540007200	WIRE BAND PLT-1M	M.PART		6
540008600	SPIRAL CLIP CS-8	M.PART		2
540008601	SPIRAL CLIP CS-6	M.PART		15
540017500	SPIRAL CLIP CP-1S	1640		2
		1641		1
540019500	X-122W BELT KOC-E40329	M.PART		1

550009901	FELT FOR KEYBOARD (LARGE)	M.PART		1
550014900	X-120 STOPPER FELT	M.PART		2
550015400	CUSHION	M.PART		2
550015500	X-221 CORD PACKING 2 KOC-F40599	M.PART		2
550015600	X-221 CUSHION FOR DUCT F40600	M.PART		2

560007400	X-221/222 HEAT SINK 3	M.PART		1

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
575014900	LED SPACER LS-15-10.2 L=10.2MM	1641		2

580031200	X-122 SHIELD SHEET (LARGE)	M.PART		1

600004200	AC CORD HP-11J/DCB-10	M.PART	100JP	1
600004500	AC CORD DAP-100/DCB-10	M.PART	240AU	1
600004600	AC CORD DEP-101/DCB-10	M.PART	220GE	1
			240GE	1
			240AF	1
			230GE	1
			230FR	1
			230SE	1
			230WG	1
			230SC	1
			240UK	1
600005000	AC CORD DP-201/DCB-10	M.PART	117US	1
			117CN	1
			117EX	1

620021600	X-825M POWER SW KNOB BLK	M.PART		1
620022300	X-921 TACT SW KNOB NO.1	M.PART		27
620022500	SLIDE VR KNOB	M.PART		2

629010907	X-921 HINGE CAP	M.PART		2

640082500	X-528/527 METAL FITTING OF SW	M.PART		1

640084600	GROUNDING CONTACT	1569		1
		1643		1

640086300	SPEAKER NET (LARGE) KOC-C40669	M.PART		2

641014900	X-921 MUSIC STAND HINGE	M.PART		2

641016500	X-922/923 SHAFT	M.PART		1

641016600	X-921 BUSHING PLATE	M.PART		1

641016700	X-921 RADIATION COVER KOC-C40830	M.PART		1

641026200	X-122 SHIELD CHASSIS (LARGE)	M.PART		1

641026204	X-122 HINGE 2	M.PART		3

641026205	X-122 SIDE CHASSIS L	M.PART		1
641026206	X-122 SIDE CHASSIS R	M.PART		1

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
641026210	X-122 HEAT SINK ANGLE L	M.PART		1
641026211	X-122 HEAT SINK ANGLE R	M.PART		1
641026900	X-122 L TYPE ANGLE (LARGE)	M.PART		2
641026901	X-122 L TYPE ANGLE (SMALL)	M.PART		1
641027800	X-122 PHONE JACK CHASSIS	M.PART		1
641030400	X-120 PANEL SUPPORT	M.PART		2
641031300	X-120 STOPPER PLATE	M.PART		6
641031400	X-120 SPRING STOPPER 3	M.PART		1
641031500	X-120 HOLDER SPRING V3	M.PART		1
641032100	X-122 FRONT BAR SPACER	M.PART		1
641032300	X-122W KC PANEL B35W KOC-C30383	M.PART		1
641032400	X-122W KC PANEL A35W KOC-C30382	M.PART		1
641032800	X-122W FRONT BAR KOC-C10118	M.PART		1
641035300	X-222 REAR PANEL 2 ASSEMBLY	M.PART		1
641035500	X-222 FRONT PANEL KOC-C20264	M.PART		1
641036000	KORG LOGOTYPE PLATE	M.PART		1
641036200	X-222 GRILL ASSEMBLY KOC-H30039-1	M.PART		1
645015900	X-122W MUSIC PLATE KOC-D20074	M.PART		1
645016000	X-122W TOP PLATE KOC-D10053	M.PART	100JP	1
645016100	X-122W KEY COVER KOC-D10052	M.PART		1
645016300	X-221 BOTTOM PLATE ASSEMBLY	M.PART		1
645016500	X-220 MUSIC PLATE KOC-D20075	M.PART	220GE 240GE 240AU 240AF 230GE 230FR 230SE	1 1 1 1 1 1 1

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
645016500	X-220 MUSIC PLATE KOC-D20075	M.PART	230WG 230SC 117US 117CN 117EX 240UK	1 1 1 1 1 1
646035900	X-922 GEAR	M.PART		2
646036600	X-921 MUSIC STOPPER A	M.PART		1
646041100	X-122 SIDE PLATE L	M.PART		1
646041101	X-122 SIDE PLATE R	M.PART		1
646041200	X-121 RACK 1 L	M.PART		1
646041201	X-121 RACK 1 R	M.PART		1
646041400	SLIDE VR ESCUSHION 30 NO.1	M.PART		2
646041500	SHAFT COLLAR	M.PART		2
646043300	X-221 SPEAKER BOX 2 L ASSEMBLY	M.PART		1
646043301	X-221 SPEAKER BOX 2 R ASSEMBLY	M.PART		1
649007400	BATTERY HOLDER	1653		1

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PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
001156901	P.C.BOARD KLM-1569-35W/26/36/	M.PART	HEADPHONE	1
001164000	P.C.BOARD KLM-1640/1641	M.PART	PANEL	1
001164302	P.C.BOARD KLM-1643-56	M.PART	P.SUPPLY/AMP	1
001164400	P.C.BOARD KLM-1644	M.PART	SUB AMP	1
001165302	P.C.BOARD KLM-1653-56/56M	M.PART	MAIN	1

300002100	TR 2SA1670	1643		2
302003700	TR 2SC4385	1643		2
304000070	TR 2SA812-T1 (M5-7)	1653		1
304000090	TR 2SA988-T	1643		1
304020020	TR 2SC2785 T K	1643		1
304020150	TR 2SC1623-T1B (L7)	1653		4
304020230	TR 2SC3661-TA/TB(3K)	1653		6
304020260	TR 2SC1845-T ALL	1643		2
304030130	TR FA1A4M-T1B	1653		1
304060070	FET 2SK433-T12-C	1653		2
304060120	FET 2SJ125-T12-C	1653		2

310011300	BRIDGE DIODE DBF-20C	1643		1
310011400	BRIDGE DIODE DBF-40C	1644		1
310011900	BRIDGE DIODE RBA-402	1643		1

312010900	LED GL3ED8	1641		2
312011700	LED HLMP-1600-010	1569		1
314000300	DIODE 1S-2473 T-77	1640		13
		1641		16
314001300	DIODE 1SS-133 T-77	1643		1
314001400	DIODE RLS-73 TE-11	1653		9
314024700	ZENER DIODE RD12ESB2-T1	1643		2
314025700	DIODE SR1M-2 TP-B	1643		1
314026100	DIODE RLR4001TE-21	1653		1
315000500	DOUBLE DIODE MC-2840-T12-1	1653		2

320001180	IC UPC1270H	1643	POWER AMP	2
320001242	IC UPC4570HA	1643	OP_AMP	2
320001294	IC UPD27C2001C-12/15	1653	EP_ROM	1
320001297	IC UPD63200GS	1653	DAC	1
320001310	IC UPD65012GF-A88-3B8	1653	INS91	1
320001323	IC UPC2502V	1640	POWER AMP	1
320001350	IC UPD70325GJ-10-5BG (94P QFP)	1653	CPU	1
320004108	IC HD74HC138P	1640	HC_MOS	1
320011151	IC M66310P	1640	LED DRIVER	1
		1641	LED DRIVER	1
320011152	IC M37450M4-616FP	1653	KSP	1
320012084	IC MB87726PF-G-LBND	1653	TG88	2
320012124	IC MB606E50PF-G-BND (QFP 48)	1653	DNS91	1
320013036	IC PQ05RF2	1643	REGULATOR	1

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
320021142	IC TMS57002PH	1653	DSP	3
324001006	IC UPD74HC004GS-E2 (SOP)	1653	HC_MOS	1
324001015	IC UPC4570G2-E2 (SOP)	1653	OP_AMP	2
324001037	IC UPD43256AGU-10/12L-E2	1653	S_RAM	1
324001038	IC UPD23C8001EGW-371-E2 (SOP)	1653	WAVE_ROM	1
324001039	IC UPD23C8001EGW-372-E2 (SOP)	1653	WAVE_ROM	1
324001040	IC UPD23C8001EGW-373-E2 (SOP)	1653	WAVE_ROM	1
324001041	IC UPD23C8001EGW-374-E2 (SOP)	1653	WAVE_ROM	1
324001042	IC UPD23C8001EGW-375-E2 (SOP)	1653	WAVE_ROM	1
324001043	IC UPD23C8001EGW-376-E2 (SOP)	1653	WAVE_ROM	1
324004003	IC HD74HC139FPER	1653	HC_MOS	2
324004050	IC HD74HC138FPER	1653	HC_MOS	1
324009014	IC NJM78L15UA-TE1	1653	REGULATOR	1
324011004	IC M5216FP-600C-TP3	1653	OP_AMP	1
324011007	IC M51951BML-600C	1653	RESET	1
324012001	IC MB81464-10PD-G-BB-RS2-EF	1653	D_RAM	2
324013008	IC LH538DHO	1653	WAVE_ROM	1
324013009	IC LH538DH1	1653	WAVE_ROM	1
324013010	IC LH538DH2	1653	WAVE_ROM	1

334000600	PHOTO COUPLER PC-410K-TP	1653		1

335400030	CRYSTAL OSC MA-505(32MHZ)TE2412L	1653		1
335400040	CRYSTAL OSC MA-505(20MHZ)TE2412L	1653		1

350002210	SEMI FIXED VR RH0815C 13 1K	1643		2
365007800	SLIDE VR RS30111AC00NB 10KB	1641		1
365008000	SLIDE VR RS30112AC00JB 10KBX2	1640		1

375010000	TACT SW SKHJAC003A	1641		3
375010400	POWER SW SDDGA1103A TV-5	M.PART		1
375010600	TACT SW SKHJTQ001A	1640		12
		1641		12

400013700	POWER TRANSFORMER TC-048	M.PART		1

402004600	COIL 2943-866673	1569		3
		1643		4
404000100	FERRITE BEAD BL03RN2-R62T4-F	1643		1
404000110	COIL BLM32A06PT	1653		68

410003300	SPEAKER FT50-L5	M.PART		2
410003900	SPEAKER FF166-945E 16cm	M.PART		2
410004000	SPEAKER FF77-0244 8cm	M.PART		2

420004600	KEYBOARD AE11-88	M.PART		1

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
454005600	PHONE JACK YKB21-5006	1569		1
454006500	PIN JACK JPJO730-01-500 (4P)	1653		1
454007700	DIN JACK VF64730 (3P)	1653		1

464002300	FUSE 125V 2A SB2	M.PART	117US	1
			117CN	1
			117EX	1
			100JP	1
464002500	FUSE 125V 3.15A SB3.15	M.PART	117US	2
			117CN	2
			117EX	2
			100JP	2
464062201	FUSE 250V T1.6A	M.PART	220GE	1
			240GE	1
			240AU	1
			240AF	1
			230GE	1
			230FR	1
			230SE	1
			230WG	1
			230SC	1
			240UK	1
464062301	FUSE 250V T2.0A	M.PART	220GE	1
			240GE	1
			240AU	1
			240AF	1
			230GE	1
			230FR	1
			230SE	1
			230WG	1
			230SC	1
			240UK	1
464062501	FUSE 250V T3.15A	M.PART	220GE	1
			240GE	1
			240AU	1
			240AF	1
			230GE	1
			230FR	1
			230SE	1
			230WG	1
			230SC	1
			240UK	1

471050201	CONNECTOR TOP B2P3-VH	1643		3
		1644		1
471050500	CONNECTOR TOP B5P-VH	1643		1
471060300	CONNECTOR TOP B3B-EH	1643		2

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
471060300	CONNECTOR TOP B3B-EH	1644		1
471060400	CONNECTOR TOP B4B-EH	1643		1
		1644		1
471060500	CONNECTOR TOP B5B-EH	1569		1
471060700	CONNECTOR TOP B7B-EH	1653		1
471060800	CONNECTOR TOP B8B-EH	1643		1
471070400	CONNECTOR TOP B4B-PH	1653		1
471070500	CONNECTOR TOP B5B-PH	1640		1
		1653		2
471071200	CONNECTOR TOP B12B-PH	1653		1
471071400	CONNECTOR TOP B14B-PH	1640		1
		1653		1
471071500	CONNECTOR TOP B15B-PH	1653		1

475001639	HARNESS HNS-1639	M.PART		1
475001642	HARNESS HNS-1642	M.PART		1
475001643	HARNESS HNS-1643	M.PART		1
475001740	HARNESS HNS-1740	M.PART		1
475001843	HARNESS HNS-1843	1643		1
475001850	HARNESS HNS-1850	M.PART		1
475001851	HARNESS HNS-1851	M.PART		1
475001852	HARNESS HNS-1852	M.PART		1
475001853	HARNESS HNS-1853	M.PART		1
475001854	HARNESS HNS-1854	M.PART		1
475001855	HARNESS HNS-1855	M.PART		1
475001860	HARNESS HNS-1860	M.PART		1
475001861	HARNESS HNS-1861	M.PART		1
475001862	HARNESS HNS-1862 (BOARD IN)	1640		1
475001863	HARNESS HNS-1863 (BOARD IN)	1640		1

480001324	IC SOCKET 32P DICF-32CS-E	1653		1

500011702	CUSHION (2)	M.PART		2
500011801	CUSHION R (FOR FRONT BAR)	M.PART		2
500014200	RUBBER STOPPER 3	M.PART		1
500017600	X-921 SPACER FOR FRONT BAR	M.PART		3
500019300	X-120 FRONT BAR RUBBER T=3mm	M.PART		1
500019400	X-122W TOP PLATE CUSHION	M.PART		2
500019500	X-122W PANEL CUSHION 2 KOC-F40576	M.PART		4
500019800	X-221 SILENCE FORM KOC-F30055	M.PART		2
500019900	X-223 SPEAKER PACKING KOC-F40591	M.PART		2
500020000	X-221 PACKING 2 KOC-F40595	M.PART		2
500020100	X-221 TWEETER PACKING KOC-F40592	M.PART		2
500020200	X-221 GASKET 2 L KOC-F30054-1	M.PART		1
500020201	X-221 GASKET 2 R	M.PART		1

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
515002300	FUSE HOLDER S-N5057 #01	1643		4
		1644		2
520001700	LITHIUM BATTERY CR2032VPX	1653		1
525000100	DATA LINE FILTER ESD-R-25D-B	M.PART		1
525000900	DATA LINE FILTER 044S-800502	M.PART		2
540007200	WIRE BAND PLT-1M	M.PART		6
540008600	SPIRAL CLIP CS-8	M.PART		2
540008601	SPIRAL CLIP CS-6	M.PART		15
540017500	SPIRAL CLIP CP-1S	1640		2
		1641		1
540019500	X-122W BELT KOC-E40329	M.PART		1
550009901	FELT FOR KEYBOARD (LARGE)	M.PART		1
550014900	X-120 STOPPER FELT	M.PART		2
550015400	CUSHION	M.PART		2
550015500	X-221 CORD PACKING 2 KOC-F40599	M.PART		2
550015600	X-221 CUSHION FOR DUCT F40600	M.PART		2
560007500	X-223/224 HEAT SINK 4 KOC-C30401	M.PART		1
575014900	LED SPACER LS-15-10.2 L=10.2MM	1641		2
580031200	X-122 SHIELD SHEET (LARGE)	M.PART		1
600004200	AC CORD HP-11J/DCB-10	M.PART	100JP	1
600004500	AC CORD DAP-100/DCB-10	M.PART	240AU	1
600004600	AC CORD DEP-101/DCB-10	M.PART	220GE	1
			240GE	1
			240AF	1
			230GE	1
			230FR	1
			230SE	1
			230WG	1
			230SC	1
			240UK	1
600005000	AC CORD DP-201/DCB-10	M.PART	117US	1
			117CN	1
			117EX	1
620025100	X-224 POWER SW KNOB NO.3	M.PART		1
620025200	X-224 TACT SW KNOB NO.3	M.PART		27
620025300	X-224 SLIDE VR KNOB NO.2	M.PART		2
629010907	X-921 HINGE CAP	M.PART		2

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
640082500	X-526/527 METAL FITTING OF SW	M.PART		1
640084600	GROUNDING CONTACT	1569		1
		1643		1
		1644		1
640086300	SPEAKER NET (LARGE) KOC-C40669	M.PART		2
641014900	X-921 MUSIC STAND HINGE	M.PART		2
641016500	X-922/923 SHAFT	M.PART		1
641016600	X-921 BUSHING PLATE	M.PART		1
641016700	X-921 RADIATION COVER KOC-C40830	M.PART		1
641026200	X-122 SHIELD CHASSIS (LARGE)	M.PART		1
641026204	X-122 HINGE 2	M.PART		3
641026205	X-122 SIDE CHASSIS L	M.PART		1
641026206	X-122 SIDE CHASSIS R	M.PART		1
641026210	X-122 HEAT SINK ANGLE L	M.PART		1
641026211	X-122 HEAT SINK ANGLE R	M.PART		1
641026900	X-122 L TYPE ANGLE (LARGE)	M.PART		2
641026901	X-122 L TYPE ANGLE (SMALL)	M.PART		2
641027800	X-122 PHONE JACK CHASSIS	M.PART		1
641030400	X-120 PANEL SUPPORT	M.PART		2
641031300	X-120 STOPPER PLATE	M.PART		6
641031400	X-120 SPRING STOPPER 3	M.PART		1
641031500	X-120 HOLDER SPRING V3	M.PART		1
641032100	X-122 FRONT BAR SPACER	M.PART		1
641035400	X-224 REAR PANEL 3 ASSEMBLY	M.PART		1
641035800	X-223 HS CHASSIS KOC-C40900	M.PART		1
641036000	KORG LOGOTYPE PLATE C40901	M.PART		1
641036300	X-224 GRILL 2 KOC-C10124	M.PART		1

For C-56M

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
641036500	X-224 FRONT BAR 2W C10125	M.PART		1
641036700	X-224 FRONT PANEL C20288	M.PART		1
641036800	X-224 KC PANEL (A)56 C30403	M.PART		1
641036900	X-224 KC PANEL (B)56 C30404	M.PART		1
645016300	X-221 BOTTOM PLATE ASSEMBLY	M.PART		1
645016800	X-224 TOP PLATE 2 D10059	M.PART		1
645016700	X-224 KEY COVER 2 D10061	M.PART		1
645016800	X-224 MUSIC STAND PLATE 2 D20076	M.PART	100JP	1
645016900	X-224 MUSIC STAND PLATE 2 D20077	M.PART	220GE	1
			240GE	1
			240AU	1
			240AF	1
			230GE	1
			230FR	1
			230SE	1
			230WG	1
			230SC	1
			117US	1
			117CN	1
			117EX	1
			240UK	1
646035900	X-922 GEAR	M.PART		2
646041200	X-121 RACK 1 L	M.PART		1
646041201	X-121 RACK 1 R	M.PART		1
646041400	SLIDE VR ESCUSHION 30 NO.1	M.PART		2
646041500	SHAFT COLLAR	M.PART		2
646043200	X-223 SPEAKER BOX 1 L ASSEMBLY	M.PART		1
646043201	X-223 SPEAKER BOX 1 R ASSEMBLY	M.PART		1
646043600	X-224 MUSIC STOPPER B E30174	M.PART		1
646043700	X-224 SIDE PLATE 2 L E10076	M.PART		1
646043701	X-224 SIDE PLATE 2 R E10077	M.PART		1
646043800	X-224 SLIDE VR ESCUSHION 30 NO.2	M.PART		2
649007400	BATTERY HOLDER	1653		1

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
001156700	P.C. BOARD KLM-1587	M.PART	PANEL	1
001156900	P.C. BOARD KLM-1569-35/45/55/	M.PART	HEADPHONE	1
001164301	P.C. BOARD KLM-1643-56M	M.PART	P.SUPPLY/AMP	1
001164400	P.C. BOARD KLM-1644	M.PART	SUB AMP	1
001165302	P.C. BOARD KLM-1653-56/56M	M.PART	MAIN	1
300002100	TR 2SA1870	1643		2
302003700	TR 2SC4385	1643		2
304000070	TR 2SA812-T1 (M5-7)	1653		1
304000090	TR 2SA988-T	1643		1
304020020	TR 2SC2785 T K	1643		2
304020110	TR BN1A4M-T	1567		4
304020150	TR 2SC1823-T1B (L7)	1653		4
304020230	TR 2SC3681-TA/TB(3K)	1653		6
304020260	TR 2SC1845-T ALL	1643		2
304030130	TR FA1A4M-T1B	1653		1
304060070	FET 2SK433-T12-C	1653		2
304060120	FET 2SJ125-T12-C	1653		2
310011300	BRIDGE DIODE DBF-20C	1643		1
310011400	BRIDGE DIODE DBF-40C	1644		1
310011900	BRIDGE DIODE RBA-402	1643		1
312010900	LED GL3ED8	1567		2
314001300	DIODE 1SS-133 T-77	1567		27
		1643		1
314001400	DIODE RLS-73 TE-11	1653		9
314024700	ZENER DIODE RD12ESB2-T1	1643		2
314025700	DIODE SR1M-2 TP-B	1643		1
314026100	DIODE RLR4001TE-21	1653		1
315000500	DOUBLE DIODE MC-2840-T12-1	1653		2
320001180	IC UPC1270H	1643	POWER AMP	2
320001242	IC UPC4570HA	1643	OP_AMP	2
320001294	IC UPD27C2001C-12/15	1653	EP_ROM	1
320001297	IC UPD63200GS	1653	DAC	1
320001310	IC UPD65012GF-A88-3B8	1653	INS91	1
320001323	IC UPC2502V	1644	POWER AMP	1
320001350	IC UPD70325GJ-10-5BG (94P QFP)	1653	CPU	1
320004108	IC HD74HC138P	1567	HC_MOS	1
320011123	IC M66313FP (SOP)	1567	LED DRIVER	1
320011152	IC M37450M4-818FP	1653	KSP	1
320012084	IC MB87726PF-G-LBND	1653	TG88	2
320012124	IC MB606E50PF-G-BND (QFP 48)	1653	DNS91	1
320013038	IC PQ05RF2	1643	REGULATOR	1
320021142	IC TMS57002PH	1653	DSP	3
324001006	IC UPD74HCU04GS-E2 (SOP)	1653	HC_MOS	1

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
324001015	IC UPC4570G2-E2 (SOP)	1653	OP_AMP	2
324001037	IC UPD43256AGU-10/12L-E2	1653	S_RAM	1
324001038	IC UPD23C8001EGW-371-E2 (SOP)	1653	WAVE_ROM	1
324001039	IC UPD23C8001EGW-372-E2 (SOP)	1653	WAVE_ROM	1
324001040	IC UPD23C8001EGW-373-E2 (SOP)	1653	WAVE_ROM	1
324001041	IC UPD23C8001EGW-374-E2 (SOP)	1653	WAVE_ROM	1
324001042	IC UPD23C8001EGW-375-E2 (SOP)	1653	WAVE_ROM	1
324001043	IC UPD23C8001EGW-376-E2 (SOP)	1653	WAVE_ROM	1
324004003	IC HD74HC139FPER	1653	HC_MOS	2
324004050	IC HD74HC138FPER	1653	HC_MOS	1
324009014	IC NJM78L15UA-TE1	1653	REGULATOR	1
324011004	IC W5216FP-600C-TP3	1653	OP_AMP	1
324011007	IC W51951BWL-600C	1653	RESET	1
324012001	IC MB81464-10PD-G-BB-RS2-EF	1653	D_RAM	2
324013008	IC LH538DH0	1653	WAVE_ROM	1
324013009	IC LH538DH1	1653	WAVE_ROM	1
324013010	IC LH538DH2	1653	WAVE_ROM	1

334000600	PHOTO COUPLER PC-410K-TP	1653		1

335400030	CRYSTAL OSC MA-505(32MHZ)TE2412L	1653		1
335400040	CRYSTAL OSC MA-505(20MHZ)TE2412L	1653		1

350002210	SEMI FIXED VR RH0615C 13 1K	1643		2
365007800	SLIDE VR RS30111ACOONB 10KB	1567		1
365008000	SLIDE VR RS30112ACOOJB 10KBX2	1567		1

375010000	TACT SW SKHJACO03A	1567		3
375010400	POWER SW SDDGA1103A TV-5	M.PART		1
375010600	TACT SW SKHJTQ001A	1567		24

400013700	POWER TRANSFORMER TC-048	M.PART		1

402004600	COIL 2943-666673	1569		3
		1643		4
404000100	FERRITE BEAD BLO3RN2-R62T4-F	1643		1
404000110	COIL BLM32A06PT	1653		68

410003300	SPEAKER FT50-L5	M.PART		2
410003900	SPEAKER FF166-945E 16cm	M.PART		2
410004000	SPEAKER FF77-0244 8cm	M.PART		2

420004600	KEYBOARD AE11-88	M.PART		1

454005600	PHONE JACK YKB21-5006	1569		1
454006500	PIN JACK JPJQ730-01-500 (4P)	1653		1
454007700	DIN JACK VF64730 (3P)	1653		1

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
464002300	FUSE 125V 2A SB2	M.PART	117US 117CN 117EX 100JP	1 1 1 1
464002500	FUSE 125V 3.15A SB3.15	M.PART	117US 117CN 117EX 100JP	2 2 2 2
464062201	FUSE 250V T1.6A	M.PART	220GE 240GE 240AU 240AF 230GE 230FR 230SE 230WG 230SC 240UK	1 1 1 1 1 1 1 1 1 1
464062301	FUSE 250V T2.0A	M.PART	220GE 240GE 240AU 240AF 230GE 230FR 230SE 230WG 230SC 240UK	1 1 1 1 1 1 1 1 1 1
464062501	FUSE 250V T3.15A	M.PART	220GE 240GE 240AU 240AF 230GE 230FR 230SE 230WG 230SC 240UK	1 1 1 1 1 1 1 1 1 1

471050201	CONNECTOR TOP B2P3-VH	1643 1644		3 1
471050500	CONNECTOR TOP B5P-VH	1643		1
471060300	CONNECTOR TOP B3B-EH	1643 1644		2 1
471060400	CONNECTOR TOP B4B-EH	1643 1644		1 1
471060500	CONNECTOR TOP B5B-EH	1569		1

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
471060700	CONNECTOR TOP B7B-EH	1653		1
471060800	CONNECTOR TOP B8B-EH	1643		1
471070400	CONNECTOR TOP B4B-PH	1653		1
471070500	CONNECTOR TOP B5B-PH	1567		1
		1653		2
471071200	CONNECTOR TOP B12B-PH	1653		1
471071400	CONNECTOR TOP B14B-PH	1567		1
		1653		1
471071500	CONNECTOR TOP B15B-PH	1653		1

475001639	HARNESS HNS-1639	M.PART		1
475001740	HARNESS HNS-1740	M.PART		1
475001843	HARNESS HNS-1843	1643		1
475001850	HARNESS HNS-1850	M.PART		1
475001851	HARNESS HNS-1851	M.PART		1
475001852	HARNESS HNS-1852	M.PART		1
475001853	HARNESS HNS-1853	M.PART		1
475001854	HARNESS HNS-1854	M.PART		1
475001855	HARNESS HNS-1855	M.PART		1
475001857	HARNESS HNS-1857	M.PART		1
475001858	HARNESS HNS-1858	M.PART		1
475001881	HARNESS HNS-1881	M.PART		1
475001882	HARNESS HNS-1882	M.PART		1

480001324	IC SOCKET 32P DICF-32CS-E	1653		1

500011702	CUSHION (2)	M.PART		3
500011801	CUSHION R (FOR FRONT BAR)	M.PART		2
500014200	RUBBER STOPPER 3	M.PART		1
500016100	X-922 CUSHION	M.PART		1
500017600	X-921 SPACER FOR FRONT BAR	M.PART		3
500019300	X-120 FRONT BAR RUBBER T=3mm	M.PART		1
500019800	X-221 SILENCE FORM KOC-F30055	M.PART		2
500019900	X-223 SPEAKER PACKING KOC-F40591	M.PART		2
500020000	X-221 PACKING 2 KOC-F40595	M.PART		2
500020100	X-221 TWEETER PAKING KOC-F40592	M.PART		2
500020200	X-221 GASKET 2 L KOC-F30054-1	M.PART		1
500020201	X-221 GASKET 2 R	M.PART		1

515002300	FUSE HOLDER S-N5057 #01	1643		4
		1644		2

520001700	LITHIUM BATTERY CR2032VPX	1653		1

525000100	DATA LINE FILTER ESD-R-25D-B	M.PART		1
525000900	DATA LINE FILTER 044S-800502	M.PART		2

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
540007200	WIRE BAND PLT-1M	M.PART		4
540008600	SPIRAL CLIP CS-8	M.PART		2
540008601	SPIRAL CLIP CS-6	M.PART		14
540017500	SPIRAL CLIP CP-1S	1567		2

550009901	FELT FOR KEYBOARD (LARGE)	M.PART		1
550014900	X-120 STOPPER FELT	M.PART		1
550015000	X-120 KC FELT	M.PART		1
550015200	X-123 KC FELT L	M.PART		1
550015201	X-123 KC FELT R	M.PART		1
550015500	X-221 CORD PACKING 2 KOC-F40599	M.PART		2
550015600	X-221 CUSHION FOR DUCT F40600	M.PART		2

560007500	X-223/224 HEAT SINK 4 KOC-C30401	M.PART		1

575014900	LED SPACER LS-15-10.2 L=10.2MM	1567		2

580031200	X-122 SHIELD SHEET (LARGE)	M.PART		1

600004200	AC CORD HP-11J/DCB-10	M.PART	100JP	1
600004500	AC CORD DAP-100/DCB-10	M.PART	240AU	1
600004600	AC CORD DEP-101/DCB-10	M.PART	220GE	1
			240GE	1
			240AF	1
			230GE	1
			230FR	1
			230SE	1
			230WG	1
			230SC	1
			240UK	1
600005000	AC CORD DP-201/DCB-10	M.PART	117US	1
			117CN	1
			117EX	1

620021600	X-825M POWER SW KNOB BLK	M.PART		1
620022300	X-921 TACT SW KNOB NO.1	M.PART		27
620022500	SLIDE VR KNOB	M.PART		2

629010907	X-921 HINGE CAP	M.PART		2

630012800	X-922 KEY COVER	M.PART		1

630017400	X-123 MUSIC STAND PLATE (G)	M.PART	100JP	1
630018000	X-123 MUSIC STAND PLATE (G)	M.PART	220GE	1
			240GE	1
			240AU	1
			240AF	1

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
630018000	X-123 MUSIC STAND PLATE (G)	M.PART	230GE	1
			230FR	1
			230SE	1
			230WG	1
			230SC	1
			117US	1
			117CN	1
			117EX	1
			240UK	1
640082500	X-526/527 METAL FITTING OF SW	M.PART		1
640084600	GROUNDING CONTACT	1589		1
		1643		1
		1644		1
640086300	SPEAKER NET (LARGE) KOC-C40669	M.PART		2
640099900	X-123 SIDE CHASSIS L	M.PART		1
640099901	X-123 SIDE CHASSIS R	M.PART		1
641014800	X-921 FRONT BAR	M.PART		1
641014900	X-921 MUSIC STAND HINGE	M.PART		2
641016500	X-922/923 SHAFT	M.PART		1
641016600	X-921 BUSHING PLATE	M.PART		1
641016700	X-921 RADIATION COVER KOC-C40830	M.PART		1
641026204	X-122 HINGE 2	M.PART		3
641026210	X-122 HEAT SINK ANGLE L	M.PART		1
641026211	X-122 HEAT SINK ANGLE R	M.PART		1
641026700	X-123/124 FRONT GRILL	M.PART		1
641026701	X-123/124 KEY COVER PANEL A	M.PART		1
641026702	X-123/124 KEY COVER PANEL B	M.PART		1
641026800	X-122 STAND PLATE (F)	M.PART		2
641026900	X-122 L TYPE ANGLE (LARGE)	M.PART		2
641026901	X-122 L TYPE ANGLE (SMALL)	M.PART		2
641027800	X-122 PHONE JACK CHASSIS	M.PART		1

PART CODE	PART NAME/SPECIFICATION	P.C. BOARD	NOTE	Q'TY
641030400	X-120 PANEL SUPPORT	M.PART		1
641031300	X-120 STOPPER PLATE	M.PART		4
641031400	X-120 SPRING STOPPER 3	M.PART		1
641031500	X-120 HOLDER SPRING V3	M.PART		1
641032100	X-122 FRONT BAR SPACER	M.PART		1
641035800	X-223 HS CHASSIS KOC-C40900	M.PART		1
641035900	SHIELD CHASSIS (LARGE) 2	M.PART		1
641036100	X-233 TOP PLATE 3 ASSEMBLY	M.PART		1
641036400	X-223 FRONT PANEL KOC-C10128	M.PART		1
645016400	X-233 BOTTOM PLATE 2 ASSEMBLY	M.PART		1
646035700	X-921 MUSIC STAND	M.PART		1
646035900	X-922 GEAR	M.PART		2
646036600	X-921 MUSIC STOPPER A	M.PART		1
646041400	SLIDE VR ESCUSHION 30 NO.1	M.PART		2
646041500	SHAFT COLLAR	M.PART		3
646041900	X-123/124 SIDE PLATE L	M.PART		1
646041901	X-123/124 SIDE PLATE R	M.PART		1
646042300	X-123 RACK 2 L	M.PART		1
646042301	X-123 RACK 2 R	M.PART		1
646043200	X-223 SPEAKER BOX 1 L ASSEMBLY	M.PART		1
646043201	X-223 SPEAKER BOX 1 R ASSEMBLY	M.PART		1
649007400	BATTERY HOLDER	1653		1

VAROITUS

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

ADVARSEL!

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.

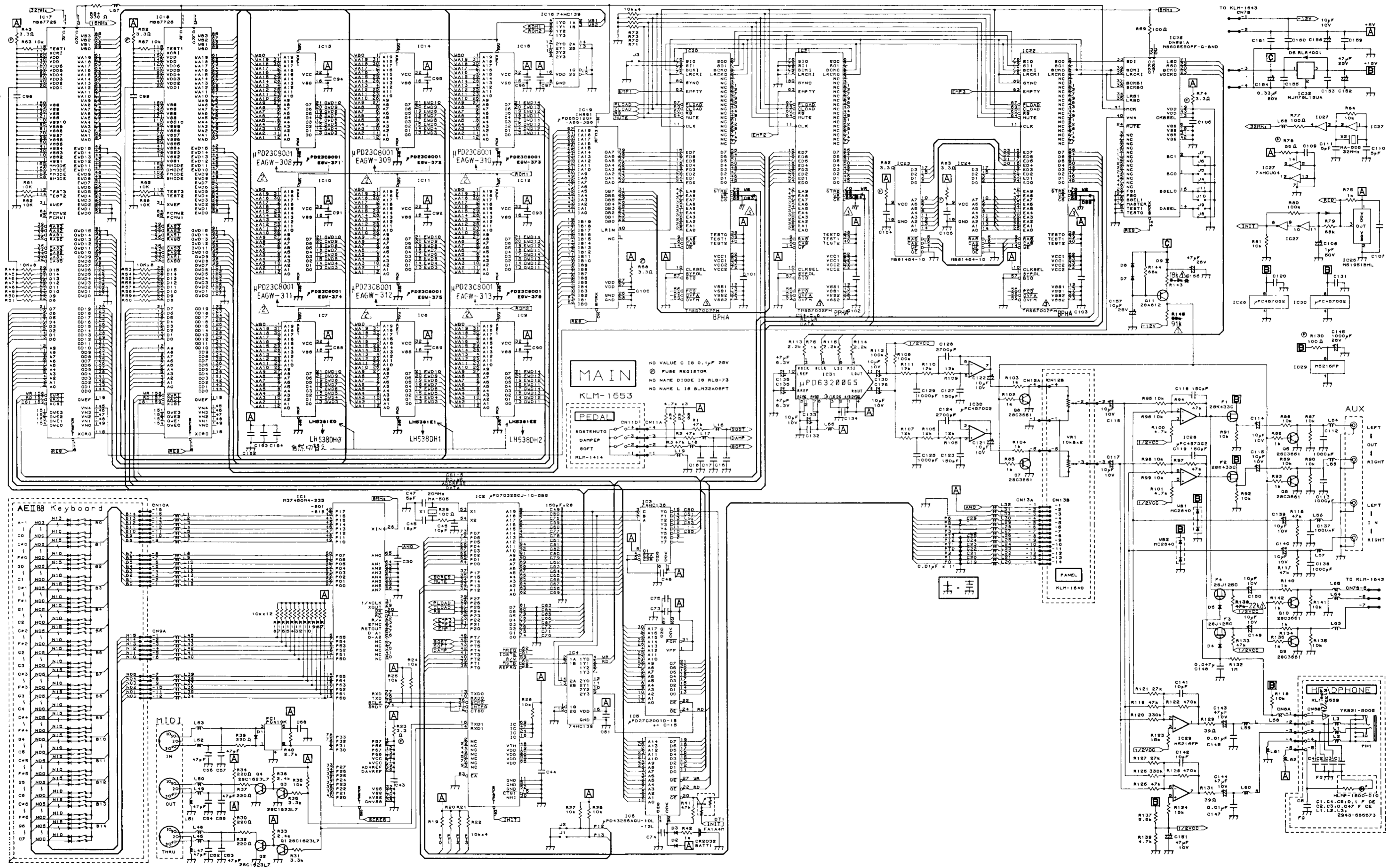
WARNING

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

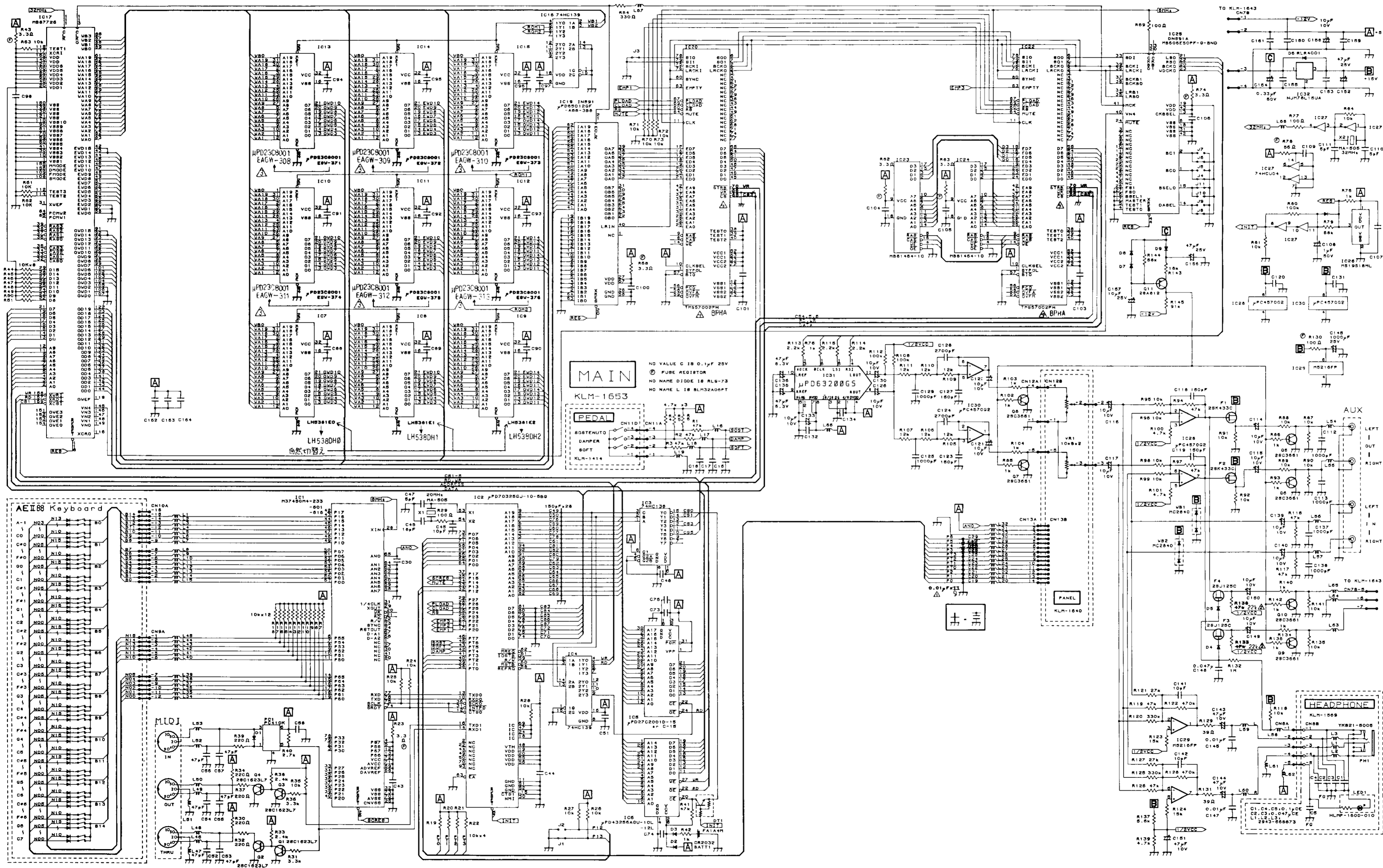
CAUTION

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.

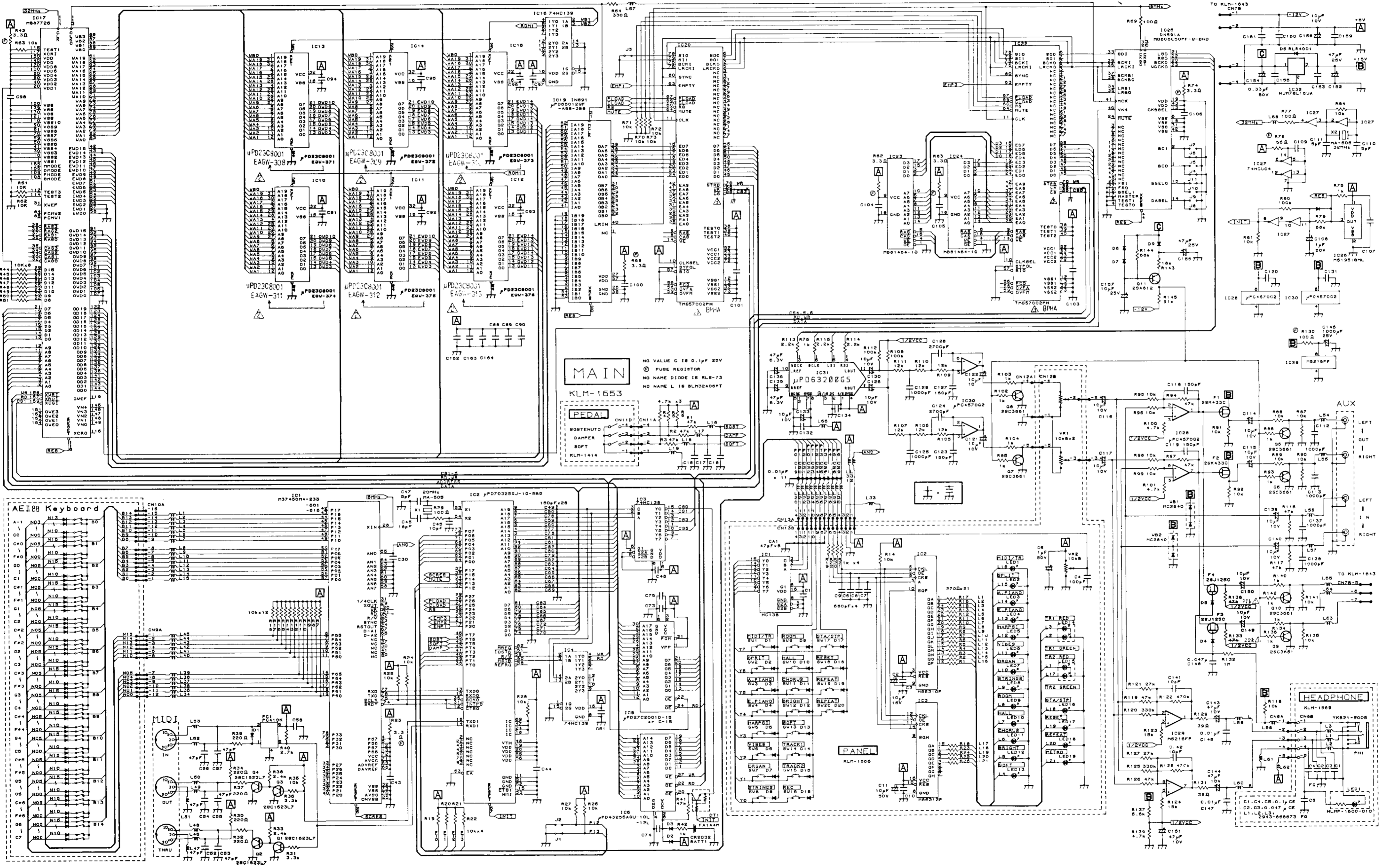
KLM-1653/1569/1414 for C-56



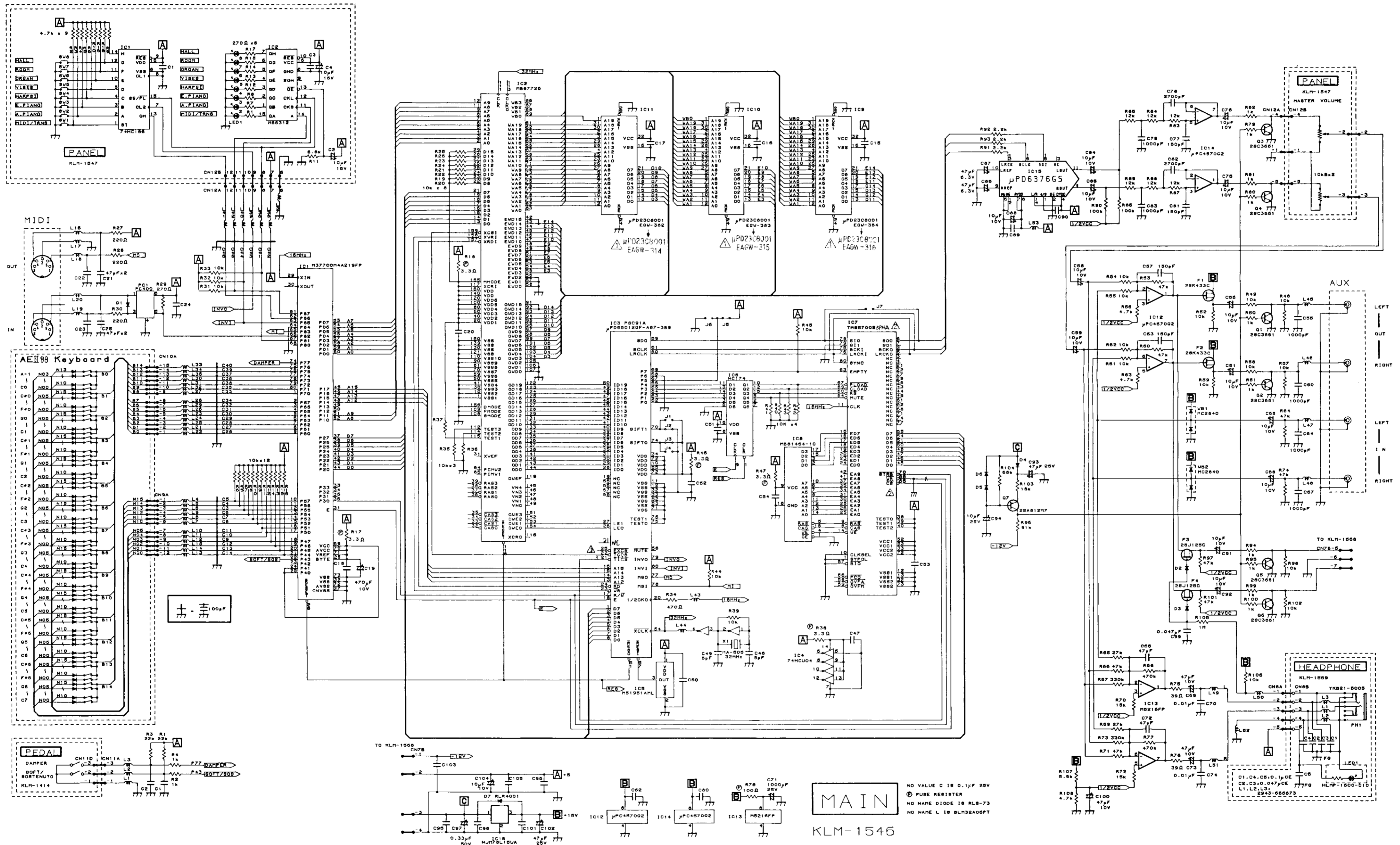
KLM-1653/1569/1414 for C-46



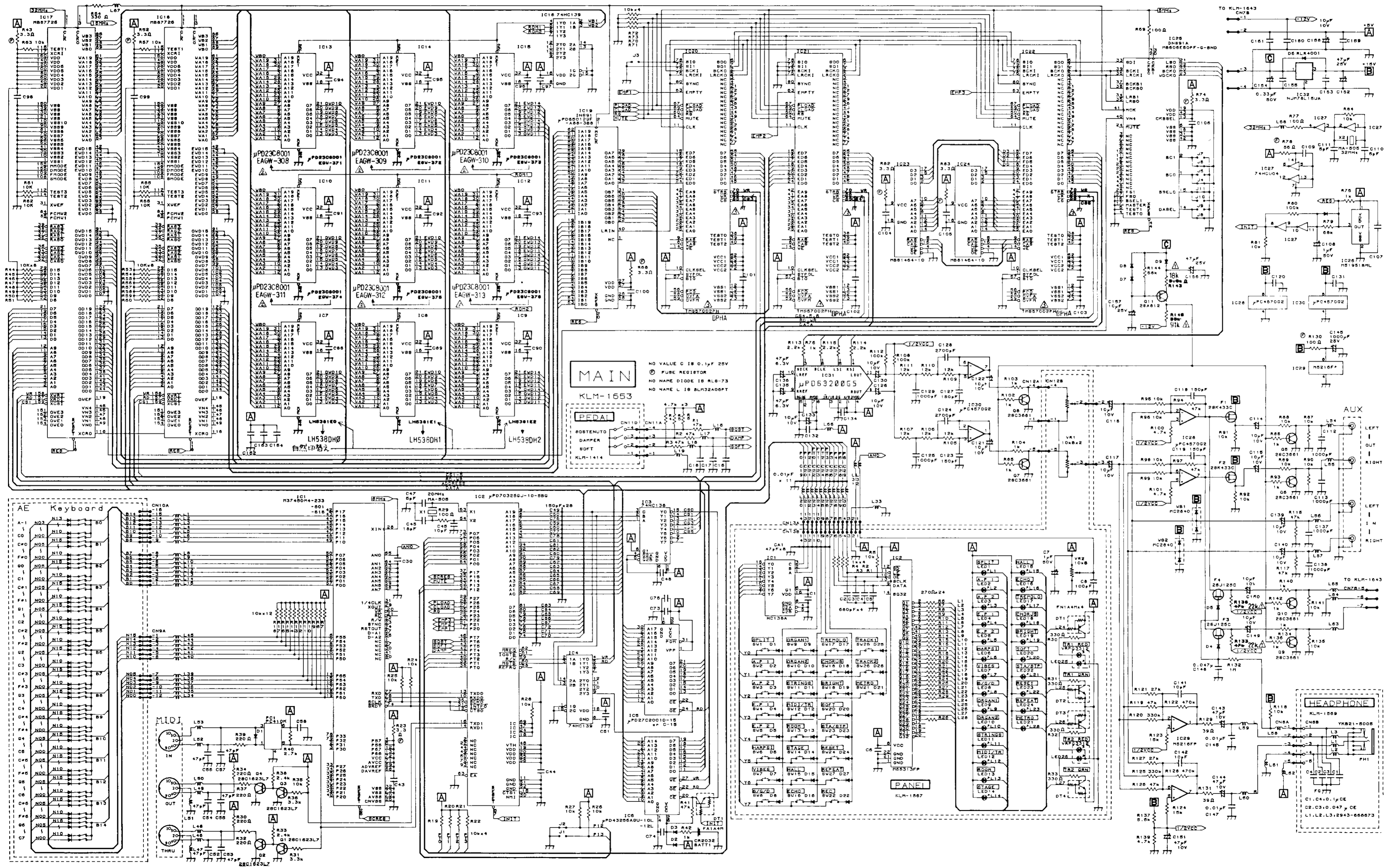
KLM-1553/1566/1569/1414 for C-36



KLM-1546/1547/1569/1414 for C-26



KLM-1653/1567/1569/1414 for C-56M



KORG

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