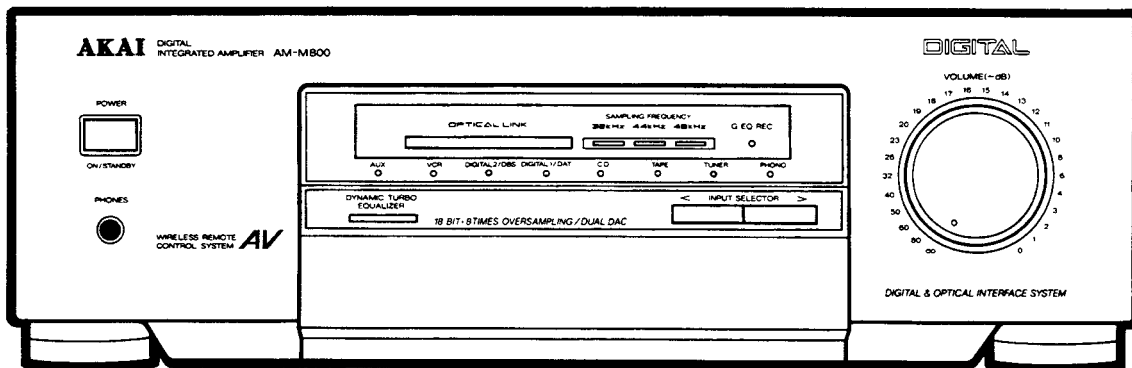
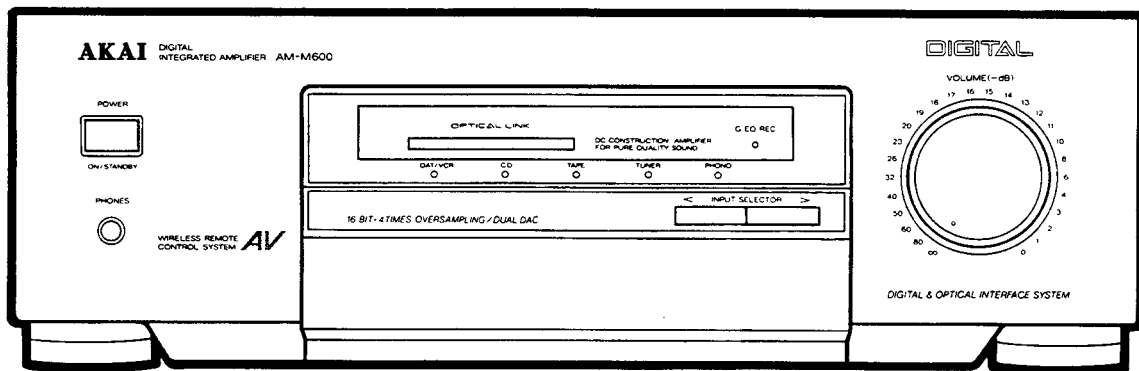


# AKAI SERVICE MANUAL



**MODEL AM-M800**

**DIGITAL INTEGRATED AMPLIFIER**

**MODEL AM-M600**

**MODEL AM-M800**

# ★ SAFETY INSTRUCTIONS

## PRECAUTIONS DURING SERVICING

- Parts identified by the ⚠️ (\*) symbol are critical for safety. Replace only with parts number specified.
- In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation. These must also be replaced only with specified replacements.  
Examples: RF converters, tuner units, antenna selector switches, RF cables, noise blocking capacitors, noise blocking filters, etc.
- Use specified internal wiring. Note especially:
  - Wires covered with PVC tubing
  - Double insulated wires
  - High voltage leads
- Use specified insulating materials for hazardous live parts. Note especially:
  - Insulation Tape
  - PVC tubing
  - Spacers (Insulating Barriers)
  - Insulation sheets for transistors
  - Plastic screws for fixing microswitch (especially in turntable)
- When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.

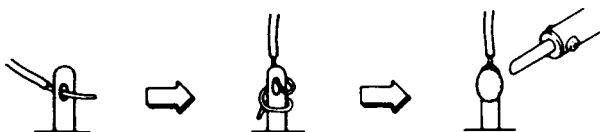
- Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).
- Check that replaced wires do not contact sharp edged or pointed parts.
- Also check areas surrounding repaired locations.
- Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

## SAFETY CHECK AFTER SERVICING

After servicing, make measurements of leakage-current or resistance in order to determine that exposed parts are acceptably insulated from the supply circuit.

The leakage-current measurement should be done between accessible metal parts (such as chassis, ground terminal, microphone jacks, signal-input/output connectors, etc.) and the earth ground through a resistor of 1500 ohms paralleled with a 0.15  $\mu\text{F}$  capacitor, under the unit's normal working conditions. The leakage-current should be less than 0.5 mA rms AC.

The resistance measurement should be done between accessible exposed metal parts and power cord plug prongs with the power switch (if included) "ON". The resistance should be more than 2.2 Mohms.



## ★ INFORMATION

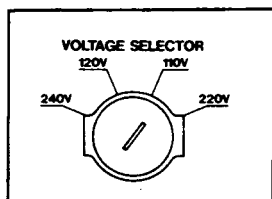
### SYMBOLS FOR PRIMARY DESTINATION

Alphabet indicates the destination of the units as listed below.

Symbols	Principal Destinations
B	UK
E	Europe (except UK)
S	Australia
V	W. Germany only
U	Universal Area
Y*	Custom version

### VOLTAGE CONVERSION (U Model only)

Before connecting the power cord, set the VOLTAGE SELECTOR located on the rear panel so that the correct voltage for your area is indicated.



### PRECAUTION BEFORE/AFTER REPAIRING THE UNIT

[ ABOUT THE POWER SUPPLY ]

Power supply of the AM-M600/M800 is controlled by the tuner. Therefore when repair of the AM-M600/M800 is necessary, repair should be made together with the tuner.

To repair the AM-M600/M800 without tuner, use the following procedure.

- While pushing the G.E REC button, press the POWER button to turn the power of the AM-M600/M800 on.
- To turn off the power of the AM-M600/M800, the AC power cord must be disconnected.

# ★ SPECIFICATIONS

## MODEL AM-M600

<b>Power output</b>	
FTC .....	33 W × 2 (6 ohms, 40 Hz to 20 kHz, THD 0.2 %)
DIN .....	42 W × 2 (6 ohms)
EIAJ .....	57 W × 2 (6 ohms)
Music .....	190 W
PMPO .....	430 W
Power bandwidth .....	10 Hz to 50 kHz (THD 0.1 %)
Total harmonic distortion ..	0.06 % (1 kHz)
Phono max. input level .....	50 mV (1kHz)
Frequency response .....	10 Hz to 100 kHz (+1.5 dB, -6.0 dB)
<b>Tone control</b>	
Treble .....	± 8.0 dB (10 kHz)
Bass .....	± 8.0 dB (100 Hz)
<b>S/N ratio (IHF-A)</b>	
PHONO (MM) .....	72 dB
Others .....	87 dB
Residual noise .....	0.5 mV
Channel separation .....	60 dB (1 kHz)
Damping factor .....	20
<b>Required speaker impedance</b>	
A or B .....	6 to 16 ohms
<b>Input sensitivity / impedance</b>	
PHONO (MM) .....	4 mV / 47 kohms
VCR, etc. ....	300 mV / 47 kohms
Output level / impedance ..	300 mV / 1 kohms
<b>[ DAC section ]</b>	
Sampling frequency .....	44.1 kHz
Digital filter .....	4 fs / 16 bit
D/A convertor .....	18 bit / 2 DAC
<b>Digital input level</b>	
OPTICAL .....	-14 to -23 dBm
Frequency response .....	20 Hz to 20 kHz ± 0.5 dB
Dynamic range .....	93 dB
Total harmonic distortion ..	0.04 % (1 kHz, 20 kHz LPF)
Power requirements .....	AC 220 V, 50 Hz for Europe except UK AC 240 V, 50 Hz for UK and Australia AC 110 / 120 / 220 / 240 V, 50 / 60 Hz convertible for other countries.
Dimensions .....	360 (W) × 117 (H) × 310 (D) mm
Weight .....	6.3 kg
<b>Standard accessories</b>	
Remote control unit (RC-S600) .....	1
Batteries .....	2
Operator's manual .....	1

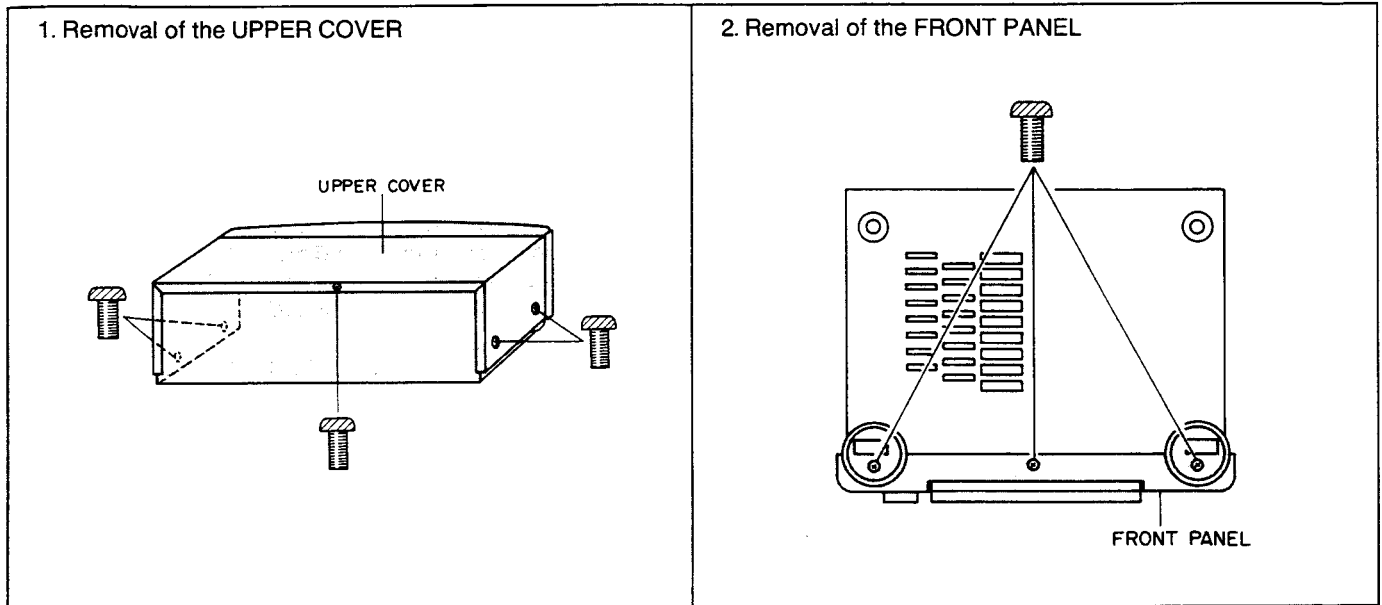
## MODEL AM-M800

<b>Power output</b>	
FTC .....	54 W × 2 (6 ohms, 40 Hz to 20 kHz, THD 0.2 %)
DIN .....	63 W × 2 (6 ohms)
EIAJ .....	73 W × 2 (6 ohms)
Music .....	280 W
PMPO .....	670 W
Power bandwidth .....	10 Hz to 50 kHz (THD 0.1 %)
Total harmonic distortion ..	0.06 % (1 kHz)
Phono max. input level .....	50 mV (1kHz)
Frequency response .....	10 Hz to 100 kHz (+1.5 dB, -6.0 dB)
<b>Tone control</b>	
Treble .....	± 8.0 dB (10 kHz)
Bass .....	± 8.0 dB (100 Hz)
<b>S/N ratio (IHF-A)</b>	
PHONO (MM) .....	73 dB
Others .....	88 dB
Residual noise .....	0.5 mV
Channel separation .....	60 dB (1 kHz)
Damping factor .....	19.3
<b>Required speaker impedance</b>	
A or B .....	6 to 16 ohms
A and B .....	12 to 16 ohms
<b>Input sensitivity / impedance</b>	
PHONO (MM) .....	4 mV / 47 kohms
VCR, etc. ....	300 mV / 47 kohms
Output level / impedance ..	300 mV / 1 kohms
<b>[ DAC section ]</b>	
Sampling frequency .....	32 / 44.1 / 48 kHz
Digital filter .....	8 fs / 18 bit
D/A convertor .....	18 bit / 2 DAC
<b>Digital input level / impedance</b>	
OPTICAL .....	-14 to -23 dBm
COAXIAL .....	0.5 Vp-p / 75 ohms
Frequency response .....	20 Hz to 20 kHz ± 0.5 dB
Dynamic range .....	95 dB
Total harmonic distortion ..	0.008 % (1 kHz, 20 kHz LPF)
Power requirements .....	AC 220 V, 50 Hz for Europe except UK AC 240 V, 50 Hz for UK and Australia AC 110 / 120 / 220 / 240 V, 50 / 60 Hz convertible for other countries.
Dimensions .....	360 (W) × 117 (H) × 310 (D) mm
Weight .....	6.4 kg
<b>Standard accessories</b>	
Remote control unit (RC-S600) .....	1
Batteries .....	2
Operator's manual .....	1

\* For improvement purposes, specifications and design are subject to change without notice.

# I. DISASSEMBLY

In case of trouble, etc., necessitating dismantling, please dismantle in the order shown in the illustrations.  
Reassemble in reverse order.



# II. PRINCIPAL PARTS LOCATION

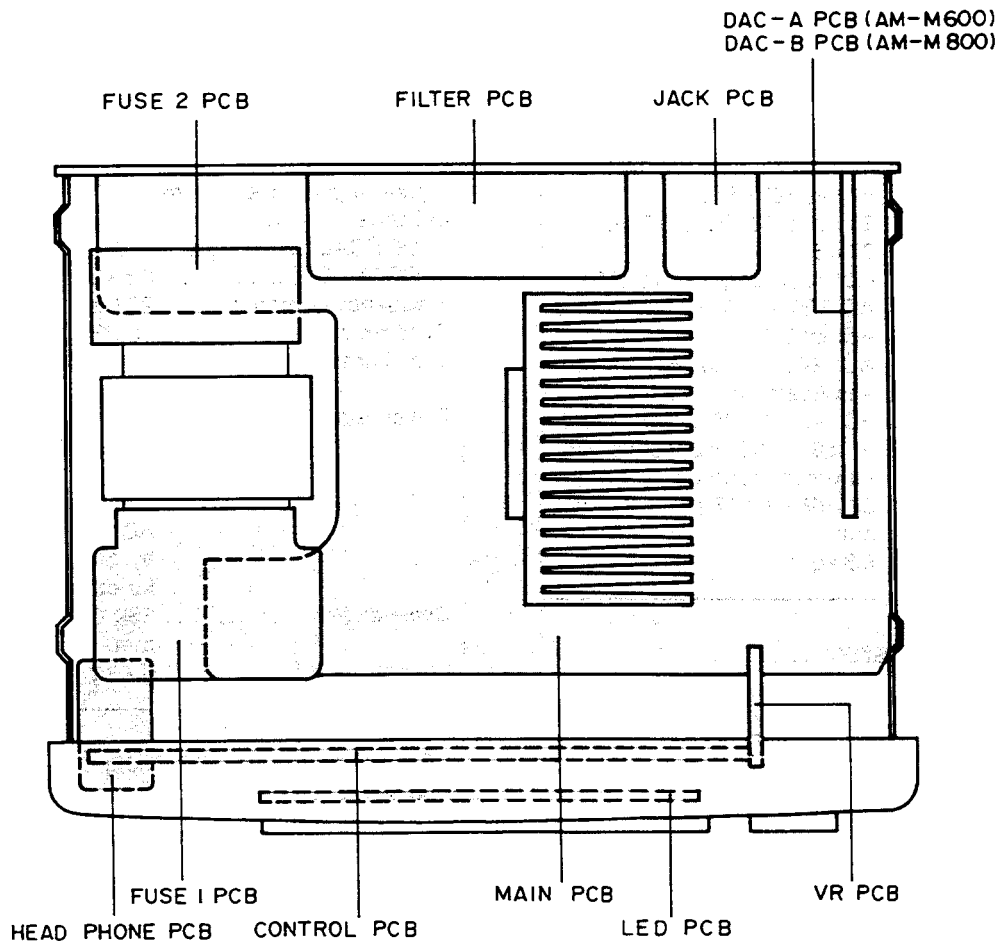


Fig. 2-1 Top view

### III. PARTS LIST

#### ATTENTION

1. When placing an order for parts, be sure to list Part No., Model No. and the description of each part. Otherwise, the non-delivery of the part or the delivery of a wrong part may result.
2. Please make sure that Part No. is correct when ordering. If not, a part different from the one you ordered may be delivered.
3. Since the parts shown in Parts List of Preliminary Service Manual may have been the subject of changes, please use this Parts List for all future reference.

#### HOW TO USE THIS PARTS LIST

1. This Parts List lists those parts which are considered necessary for repairs. Other common parts, such as resistors and capacitors, are listed in the "Common List for Service Parts" from which these parts should be selected and stocked.
2. The Recommended Spare Parts List shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.
4. How to read the Parts List.

a) Mechanism Block

b) PC Board

#### 2. HEAD BASE BLOCK

Ref.No.	Part No.	Description
1	BH-T2023A320A	HEAD BASE BLOCK
2	HP-H2206A010A	HEAD R/P PR4-8FU C
3	ZS-477876	PAN20×03STL CMT
4	ZS-536488	BID20×08STL CMT
5	ZG-402895	SP CS ANGLE ADJUST

SP (Service Parts) Classification

This number corresponds with the individual parts index number in that figure.

#### 6. MAIN PC BOARD

Ref.No.	Part No.	Description
IC1	EI-324536	IC HD14049BP
IC2	EI-336801	IC MB8841-564M
C1A	EC-338399	C MMY V 223M 250AC [U,E,B,S]
C1B	EC-350949	C MMY V 223M 250DC [J]
C1C	EC-338397	C MMY V 223M 125AC [C,A]
X1	EI-318384	OSC X'TAL NC-18C

Symbols for primary destination

[A]: AAL (U.S.A) [S]: SAA (Australia)  
 [B]: BEAB (England) [U]: U/T (Universa Area)  
 [C]: CSA (Canada)  
 [E]: CEE (Europe) [V]: VDE (W. Germany)  
 [J]: JPN (Japan) [Y]: Custom Version

SP (Service Parts) Classification

These reference symbols correspond with component symbols in the Schematic Diagrams.

The available PC Board Blocks are listed separately.

5. When Part No. is known, Parts Index at end of Parts List can be used to locate where that part is shown in Parts List by its Reference No. listed at right of Part No.

#### WARNING

△ (\*) INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS.

#### AVERTISSEMENT

△ (\*) IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.

## 1. RECOMMENDED SPARE PARTS

We suggest you to stock the following Recommended Spare Part items listed below since they can cover most of the routine service.

Ref.No.	Part No.	Description
1	AX-394557M	REMOCON RC-S600
2	*BT-394528J	TRANS POW A2067(B) [AM-M800]
3	*BT-394527J	TRANS POW A2067(E) [AM-M800]
4	*BT-394526J	TRANS POW A2067(U) [AM-M800]
5	*BT-394524J	TRANS POW A2068(B) [AM-M600]
6	*BT-394523J	TRANS POW A2068(E) [AM-M600]
7	*BT-394522J	TRANS POW A2068(U) [AM-M600]
8	ED-394509J	D LED GL3HY43 ORANGE
9	ED-382365J	D LED SLR-34VC3F RED
10	ED-394416J	D LED SLV-31VT3F RED
11	ED-307572	D SILICON H 1SS131
12	ED-394453J	D SILICON H 1SS92T-77 T26
13	ED-394708J	D SILICON RBA402 200/4.0A [AM-M600]
14	ED-384278J	D SILICON RBV602 200/6.0A [AM-M800]
15	*ED-389840J	D SILICON 1SR139-100HS F10
16	ED-346627	D ZENER H HZ33 2
17	ED-331617	D ZENER H HZ6 A3
18	ED-346530	D ZENER H HZ6C3L
19	ED-346604	D ZENER H HZ7 B2
20	ED-346535	D ZENER H HZ7C2L
21	*EF-601301	FUSE SEMKO T 250V 2.00A [U]
22	*EF-691007	FUSE SEMKO T 250V 3.15A [AM-M600]
23	*EF-690996	FUSE SEMKO T 250V 4.00A [AM-M800]
24	*EF-593706	FUSE SEMKO T 250V 500MA
25	*EF-601942	FUSE SEMKO T 250V 630MA
26	EI-390595J	IC AD1860N
27	EI-367572	IC BA15218
28	EI-382660J	IC BA15218-DX
29	EI-394932J	IC LC6520C-4406 FXAMP2
30	EI-394508J	IC MC14051B
31	EI-361133	IC MC14053B
32	EI-393324J	IC M5218AL
33	EI-392838J	IC PD0050
34	EI-390594J	IC PD0052
35	EI-381024J	IC SM5807EP
36	*EI-358554	IC STK4152II [AM-M600]
37	*EI-366695	IC STK4172II [AM-M800]
38	EI-332259	IC TC4052BP [AM-M800]
39	EI-360040J1	IC TC74HCU04AP
40	EI-394518J	IC UPD6376CX
41	EI-719635	OSC CE KBR-4.19M 4.19MHZ
42	EQ-394450J	RELAY POW DG12D1-O(M) 12V [U]
43	*ER-200746	R FUSE H ERD2FC 1/4W 1000G
44	*ER-332225	R FUSE H S10 ERD2FC 1/4W 56R0G
45	*ER-331188	R FUSE H S10 ERD2FC 1/4W 8R2J
46	ES-394512J	SW PUSH SPEA12 02-02N [AM-M800]
47	*ES-349070	SW SELECTOR YKS11-0002 02-4 [U]
48	ES-394493J	SW TACT SOA-123HS [FUNC.DOWN]
49	ES-394513J	SW TACT SOA-143HS
50	ET-356336	TR DTA114ES
51	ET-363953	TR DTA114TS
52	ET-353897	TR DTC114ES
53	ET-354371	TR DTC124ES
54	ET-370311	TR DTC143XS [AM-M800]

Ref.No.	Part No.	Description
55	ET-354414	TR DTC144ES
56	ET-368249	TR DTD114TS
57	ET-749377	TR 2SA1048 GR
58	ET-353899	TR 2SA1317 S,T,U
59	ET-394600J	TR 2SA684 Q,R T05
60	ET-366365	TR 2SB1185 E,F [U]
61	ET-373210	TR 2SB1187 E,F
62	ET-749375	TR 2SC2458 GR
63	ET-338410	TR 2SC2878 A,B
64	ET-397160J	TR 2SC3330 R,S,T,U,V
65	ET-378524J	TR 2SC3383 S,T,U
66	ET-380685J	TR 2SD1761 E,F,G
67	ET-373025	TR 2SD1944 J1,J2,K
68	EV-394517J	VR ROTARY RK11K113 SPCL W104
69	EV-394515J	VR ROTARY RK14K1230 B103X2
70	EV-394458J	VR SPL RK16Y12MA A104X2

## 2. P.C BOARD

Ref.No.	Part No.	Description
1	BA-A2068A020A	PC( #) MAIN AMP BLK AM-M600(U) [U] [AM-M600]
2	BA-A2068A020C	PC( #) MAIN AMP BLK AM-M600(V) [E,V,B] [AM-M600]
3	BA-A2068A020D	PC( #) MAIN AMP BLK AM-M800(U) [U] [AM-M800]
4	BA-A2068A020F	PC( #) MAIN AMP BLK AM-M800(V) [E,V,B] [AM-M800]
5	BA-A2068A040B	PC DAC-A BLK AM-M600(V) [AM-M600]
6	BA-A2067A040B	PC DAC-B BLK AM-M800(V) [AM-M800]
7	BA-A2068A030B	PC( #) CONTROL BLK AM-M600(V) [AM-M600]
8	BA-A2068A030D	PC( #) CONTROL BLK AM-M800(V) [AM-M800]

PC ( #) MAIN AMP BLK CONSISTS OF FOLLOWING P.C BOARD.

- MAIN AMP P.C BOARD
- CONNECTOR P.C BOARD
- POWER P.C BOARD
- FUSE-1 P.C BOARD
- FUSE-2 P.C BOARD

PC ( #) CONTROL BLK CONSISTS OF FOLLOWING P.C BOARD.

- CONTROL P.C BOARD
- VR P.C BOARD
- PHONE P.C BOARD
- LED P.C BOARD

**3. MAIN AMP P.C BOARD**

Ref.No.	Part No.	Description
D1	ED-394453J	D SILICON H 1SS92T-77 T26
D2	ED-346604	D ZENER H HZ7 B2
D101	*ED-389840J	D SILICON 1SR139-100HS F10
D102	*ED-389840J	D SILICON 1SR139-100HS F10
D103	*ED-389840J	D SILICON 1SR139-100HS F10
D104	*ED-389840J	D SILICON 1SR139-100HS F10
D105	ED-346535	D ZENER H HZ7C2L
D106	ED-346535	D ZENER H HZ7C2L
D107	ED-307572	D SILICON H 1SS131
D108	ED-307572	D SILICON H 1SS131
D109	*ED-389840J	D SILICON 1SR139-100HS F10
D110	*ED-389840J	D SILICON 1SR139-100HS F10
D111	*ED-389840J	D SILICON 1SR139-100HS F10
D112	*ED-389840J	D SILICON 1SR139-100HS F10
D113	ED-346530	D ZENER H HZ6C3L
D115	*ED-389840J	D SILICON 1SR139-100HS F10
D116	*ED-389840J	D SILICON 1SR139-100HS F10
D117	*ED-389840J	D SILICON 1SR139-100HS F10
D118	*ED-389840J	D SILICON 1SR139-100HS F10
D119	*ED-389840J	D SILICON 1SR139-100HS F10
D120	*ED-389840J	D SILICON 1SR139-100HS F10
D121	ED-346627	D ZENER H HZ33 2
D123A	ED-394708J	D SILICON RBA402 200/4.0A [AM-M600]
D123B	ED-384278J	D SILICON RBV602 200/6.0A [AM-M800]
F101A	*EF-623125	FUSE SEMKO T 250V 2.50A [AM-M600]
F101B	*EF-691007	FUSE SEMKO T 250V 3.15A [AM-M800]
FR1	*ER-200746	R FUSE H ERD2FC 1/4W 1000G
FR2	*ER-200746	R FUSE H ERD2FC 1/4W 1000G
ER101	*ER-331188	R FUSE H S10 ERD2FC 1/4W 8R2J
FR102	*ER-332225	R FUSE H S10 ERD2FC 1/4W 56R0G
IC1	EI-382660J	IC BA15218-DX
IC2	EI-394508J	IC MC14051B
IC3	EI-394508J	IC MC14051B
IC4	EI-361133	IC MC14053B
IC5	EI-361133	IC MC14053B
IC6	EI-367572	IC BA15218
IC7	EI-367572	IC BA15218 [AM-M800]
IC8	EI-332259	IC TC4052BP [AM-M800]
IC101A	*EI-358554	IC STK4152II [AM-M600]
IC101B	*EI-366695	IC STK4172II [AM-M800]
J1A	EJ-394438J	PIN J YKC21-3050 SEALED 6P [E,U]
J1B	EJ-394437J	PIN J YKC21-3036 6P [V]
J2A	EJ-394436J	PIN J YKC21-3034 4P [AM-M600]
J2B	EJ-394437J	PIN J YKC21-3036 6P [AM-M800]
J3	EJ-390597J	SOCKET 52303-1511 15P
J4	EJ-394442J	SOCKET 52303-1211 12P
R110	ER-333023	R OMF H S20 FS 2W 100J
R111	ER-333023	R OMF H S20 FS 2W 100J
TM1A	EJ-349417	TERMINAL LEVER YKD21-0026 4P [AM-M600]
TM1B	EJ-349401	TERMINAL LEVER YKD21-0027 8P [AM-M800]
TR1	ET-368249	TR DTD114TS
TR4	ET-356336	TR DTA114ES
TR5	ET-354371	TR DTC124ES
TR6	ET-354371	TR DTC124ES
TR101	ET-354371	TR DTC124ES
TR102	ET-380685J	TR 2SD1761 E,F,G
TR103	ET-373210	TR 2SB1187 E,F
TR104	ET-373025	TR 2SD1944 J1,J2,K
TR105	ET-373210	TR 2SB1187 E,F
TR106	ET-749377	TR 2SA1048 GR

**4. DAC-A P.C BOARD (AM-M600)**

Ref.No.	Part No.	Description
D1	ED-307572	D SILICON H 1SS131
D2	ED-307572	D SILICON H 1SS131
D3	ED-331617	D ZENER H HZ6 A3
D4	ED-307572	D SILICON H 1SS131
D5	ED-307572	D SILICON H 1SS131
FL1	EH-386589J	FILTER EMI FBA04HA600AB-00 T26
FL2	EH-386589J	FILTER EMI FBA04HA600AB-00 T26
FL3	EH-386589J	FILTER EMI FBA04HA600AB-00 T26
FL4	EH-395074J	FILTER EMI FBA04HA600VB-00 T05
IC1	EI-390594J	IC PD0052
IC2	EI-381024J	IC SM5807EP
IC3	EI-394518J	IC UPD6376CX
IC4	EI-393324J	IC M5218AL
J1	EJ-394459J	SOCKET OPTICAL GP1F32R
TR1	ET-378524J	TR 2SC3383 S,T,U
TR2	ET-354414	TR DTC144ES
TR3	ET-356336	TR DTA114ES
TR4	ET-354414	TR DTC144ES
TR5	ET-356336	TR DTA114ES
TR6	ET-354414	TR DTC144ES
TR7	ET-394600J	TR 2SA684 Q,R T05
TR8	ET-749375	TR 2SC2458 GR
TR9	ET-749375	TR 2SC2458 GR
TR10	ET-749375	TR 2SC2458 GR
TR11	ET-749375	TR 2SC2458 GR
TR12	ET-354414	TR DTC144ES
TR13	ET-354414	TR DTC144ES
TR14	ET-749375	TR 2SC2458 GR

**5. DAC-B P.C BOARD (AM-M800)**

Ref.No.	Part No.	Description
D1	ED-307572	D SILICON H 1SS131
D2	ED-307572	D SILICON H 1SS131
D3	ED-307572	D SILICON H 1SS131
FL1	EH-395074J	FILTER EMI FBA04HA600VB-00 T05
FL2	EH-386589J	FILTER EMI FBA04HA600AB-00 T26
FL3	EH-386589J	FILTER EMI FBA04HA600AB-00 T26
FL4	EH-395074J	FILTER EMI FBA04HA600VB-00 T05
IC1	IC TC74HCU04AP	IC TC74HCU04AP
IC2	EI-390594J	IC PD0052
IC3	EI-392838J	IC PD0050
IC4	EI-390595J	IC AD1860N
IC5	EI-390595J	IC AD1860N
IC6	EI-393324J	IC M5218AL
J1	EJ-394459J	SOCKET OPTICAL GP1F32R
J4	EJ-394461J	PIN J *A2076-1 3P
J5	EJ-390593J	PIN J *A2076-2 3P
T1	BT-368261	TRANS PULSE TC-1027-04
TR1	ET-354414	TR DTC144ES
TR2	ET-354414	TR DTC144ES
TR3	ET-356336	TR DTA114ES
TR4	ET-354414	TR DTC144ES
TR5	ET-356336	TR DTA114ES
TR6	ET-749375	TR 2SC2458 GR
TR7	ET-749375	TR 2SC2458 GR
TR8	ET-749375	TR 2SC2458 GR
TR9	ET-749375	TR 2SC2458 GR

**6. CONTROL P.C BOARD**

Ref.No.	Part No.	Description
D501	ED-307572	D SILICON H 1SS131
D502	ED-307572	D SILICON H 1SS131
D504	ED-307572	D SILICON H 1SS131
D505	ED-307572	D SILICON H 1SS131
D506	ED-307572	D SILICON H 1SS131
D507	ED-307572	D SILICON H 1SS131
D508	ED-394509J	D LED GL3HY43 ORANGE

Ref.No.	Part No.	Description
D509	ED-394509J	D LED GL3HY43 ORANGE
D510	ED-394509J	D LED GL3HY43 ORANGE
D511	ED-394416J	D LED SLV-31VT3F RED
D512	ED-394416J	D LED SLV-31VT3F RED
D513	ED-394416J	D LED SLV-31VT3F RED
D514	ED-394416J	D LED SLV-31VT3F RED
D515	ED-382365J	D LED SLR-34VC3F RED
D516	ED-394509J	D LED GL3HY43 ORANGE [AM-M800]
D517	ED-394509J	D LED GL3HY43 ORANGE [AM-M800]
D518	ED-394509J	D LED GL3HY43 ORANGE [AM-M800]
IC501	EI-367572	IC BA15218
IC502	EI-367572	IC BA15218
IC503	EI-394932J	IC LC6520C-4406 FXAMP2
SW501	ES-394512J	SW PUSH SPEA12 02-02N [AM-M800]
SW502	ES-394512J	SW PUSH SPEA12 02-02N [AM-M800]
TR501	ET-353897	TR DTC114ES
TR502	ET-354371	TR DTC124ES
TR503	ET-356336	TR DTA114ES
TR504	ET-353897	TR DTC114ES
TR505	ET-353897	TR DTC114ES
TR506	ET-353897	TR DTC114ES
TR507	ET-363953	TR DTA114TS
TR508	ET-363953	TR DTA114TS
TR509	ET-363953	TR DTA114TS
TR510	ET-363953	TR DTA114TS
TR511	ET-354414	TR DTC144ES
TR512	ET-749377	TR 2SA1048 GR
TR513	ET-749375	TR 2SC2458 GR
TR514	ET-370311	TR DTC143XS [AM-M800]
TR515	ET-338410	TR 2SC2878 A,B
TS501	ES-394513J	SW TACT SOA-143HS
TS502	ES-394513J	SW TACT SOA-143HS
VR501	EV-394515J	VR ROTARY RK14K1230 B103X2
VR502	EV-394515J	VR ROTARY RK14K1230 B103X2
VR503	EV-394517J	VR ROTARY RK11K113 SPCL W104
X501	EI-719635	OSC CE KBR-4.19M 4.19MHZ

**7. VR P.C BOARD**

Ref.No.	Part No.	Description
D601	ED-394453J	D SILICON H 1SS92T-77 T26
TR601	ET-353899	TR 2SA1317 S,T,U
TR602	ET-353899	TR 2SA1317 S,T,U
TR603	ET-397160J	TR 2SC3330 R,S,T,U,V
TR604	ET-397160J	TR 2SC3330 R,S,T,U,V
VR601	EV-394458J	VR SPL RK16Y12MA A104X2

**8. CONNECTOR P.C BOARD**

Ref.No.	Part No.	Description
J201	EJ-394445J	SOCKET 52303-1411 14P

**9. PHONE P.C BOARD**

Ref.No.	Part No.	Description
J801A	EJ-394455J	PHONE J 3P YKB21-5006 6.3 [AM-M600]
J801B	EJ-355011	PHONE J 3P YKB21-5010 6.3 [AM-M800]
R801	ER-325843	R OMF H S15 FS 1W 391J

### 10. LED P.C BOARD

Ref.No.	Part No.	Description
D701	ED-394509J	D LED GL3HY43 ORANGE
D702	ED-394509J	D LED GL3HY43 ORANGE
D703	ED-394509J	D LED GL3HY43 ORANGE
D704	ED-394509J	D LED GL3HY43 ORANGE
D705	ED-394509J	D LED GL3HY43 ORANGE
D706	ED-394509J	D LED GL3HY43 ORANGE [AM-M800]
D707	ED-394509J	D LED GL3HY43 ORANGE [AM-M800]
D708	ED-394509J	D LED GL3HY43 ORANGE [AM-M800]
D709	ED-394509J	D LED GL3HY43 ORANGE [AM-M800]
D710	ED-394509J	D LED GL3HY43 ORANGE [AM-M800]
D711	ED-394509J	D LED GL3HY43 ORANGE [AM-M800]
TS701	ES-394493J	SW TACT SOA-123HS [FUNC.DOWN]
TS702	ES-394493J	SW TACT SOA-123HS [FUNC.UP]
TS703	ES-394493J	SW TACT SOA-123HS [AM-M800,TURBO]

### 11. POWER P.C BOARD

Ref.No.	Part No.	Description
D301	ED-346558	D ZENER H HZ12B1L [U]
D302	ED-307572	D SILICON H 1SS131 [U]
D303	ED-307572	D SILICON H 1SS131 [U]
D304	ED-307572	D SILICON H 1SS131 [U]
F301	*EF-601301	FUSE SEMKO T 250V 2.00A [U]
F302	*EF-601301	FUSE SEMKO T 250V 2.00A [U]
J301	*EJ-384277J	SOCKET OUTLET M7037 2P [U]
L301	*EO-338409	COIL LF FKOB160MH02 250UH
RL301	EQ-394450J	RELAY POW DG12D1-Q(M) 12V [U]
TR301	ET-356336	TR DTA114ES [U]
TR302	ET-354371	TR DTC124ES [U]
TR303	ET-749375	TR 2SC2458 GR [U]
TR304	ET-366365	TR 2SB1185 E,F [U]

### 12. FUSE-1 P.C BOARD

Ref.No.	Part No.	Description
F401A	*EF-691007	FUSE SEMKO T 250V 3.15A [AM-M600]
F401B	*EF-690996	FUSE SEMKO T 250V 4.00A [AM-M800]
F402A	*EF-691007	FUSE SEMKO T 250V 3.15A [AM-M600]
F402B	*EF-690996	FUSE SEMKO T 250V 4.00A [AM-M800]
F403	*EF-593706	FUSE SEMKO T 250V 500MA
F404	*EF-593706	FUSE SEMKO T 250V 500MA
F405	*EF-601942	FUSE SEMKO T 250V 630MA

### 13. FUSE-2 P.C BOARD

Ref.No.	Part No.	Description
F406	*EF-601942	FUSE SEMKO T 250V 630MA
F407	*EF-601942	FUSE SEMKO T 250V 630MA
F408	*EF-601301	FUSE SEMKO T 250V 2.00A

### 14. FINAL ASSEMBLY

Ref.No.	Part No.	Description
1A	BD-A2068A050A	PANEL FRONT BLK AM-M600-B
1B	BD-A2068A050B	PANEL FRONT BLK AM-M800-B
2	SK-394133M	BUTTON POW
3	SK-394100M	BUTTON INPUT
4	SK-394101M	BUTTON DYNAMIC [AM-M800]
5	SE-395118M	PLATE MASK [AM-M800]
6	SE-394119M	LENS OPTICAL
7	SK-394132M	BUTTON SP [AM-M800]
8	SK-394097M	KNOB VR
9	SK-394131M	KNOB TONE
10	SZ-394137M	DOOR
11	SE-394190M	PLATE FOOT
12	ZW-394496J	CANOE CLIP NO.74
13	SA-394136M	CUSHION FOOT
14	SA-394127M	FOOT REAR
15A	SP-394107M	PANEL REAR AM-M600(U)
15B	SP-394106M	PANEL REAR AM-M600(E)
15C	SP-395832M	PANEL REAR AM-M600(V)
15D	SP-394368M	PANEL REAR AM-M600(B)
15E	SP-394109M	PANEL REAR AM-M800(U)
15F	SP-394108M	PANEL REAR AM-M800(E)
15G	SP-395833M	PANEL REAR AM-M800(V)
15H	SP-394369M	PANEL REAR AM-M800(B)
16	EJ-394538J	TERMINAL W/S 0033-208-0-00
17	*ES-349070	SW SELECTOR YKS11-0002 02-4 [U]
18	SC-394094M	COVER UPPER AM
19	EJ-394657J	PLUG SHORT-PIN CNT31-0074
20A	*BT-394522J	TRANS POW A2068(U) [AM-M600]
20B	*BT-394523J	TRANS POW A2068(E) [AM-M600]
20C	*BT-394524J	TRANS POW A2068(B) [AM-M600]
20D	*BT-394526J	TRANS POW A2067(U) [AM-M800]
20E	*BT-394527J	TRANS POW A2067(E) [AM-M800]
20F	*BT-394528J	TRANS POW A2067(B) [AM-M800]
21A	*EW-374894	AC CORD 2C VM-0129A,VFF U/T
21B	*EW-347897	AC CORD 2 CORES VM0364,LCFL EV
21C	*EW-346249	AC CORD 2 CORES LCFL2X0.75 B
22	*EZ-371605	BUSH CORD 2271
23	ZS-387983J	ST BID30X08STL BNI EARTH LOCK
24	ZS-331182	BT BID30X08STL BNI
25	ZS-346742	ST BID40X08STL CMT CUP

#### NOTE:

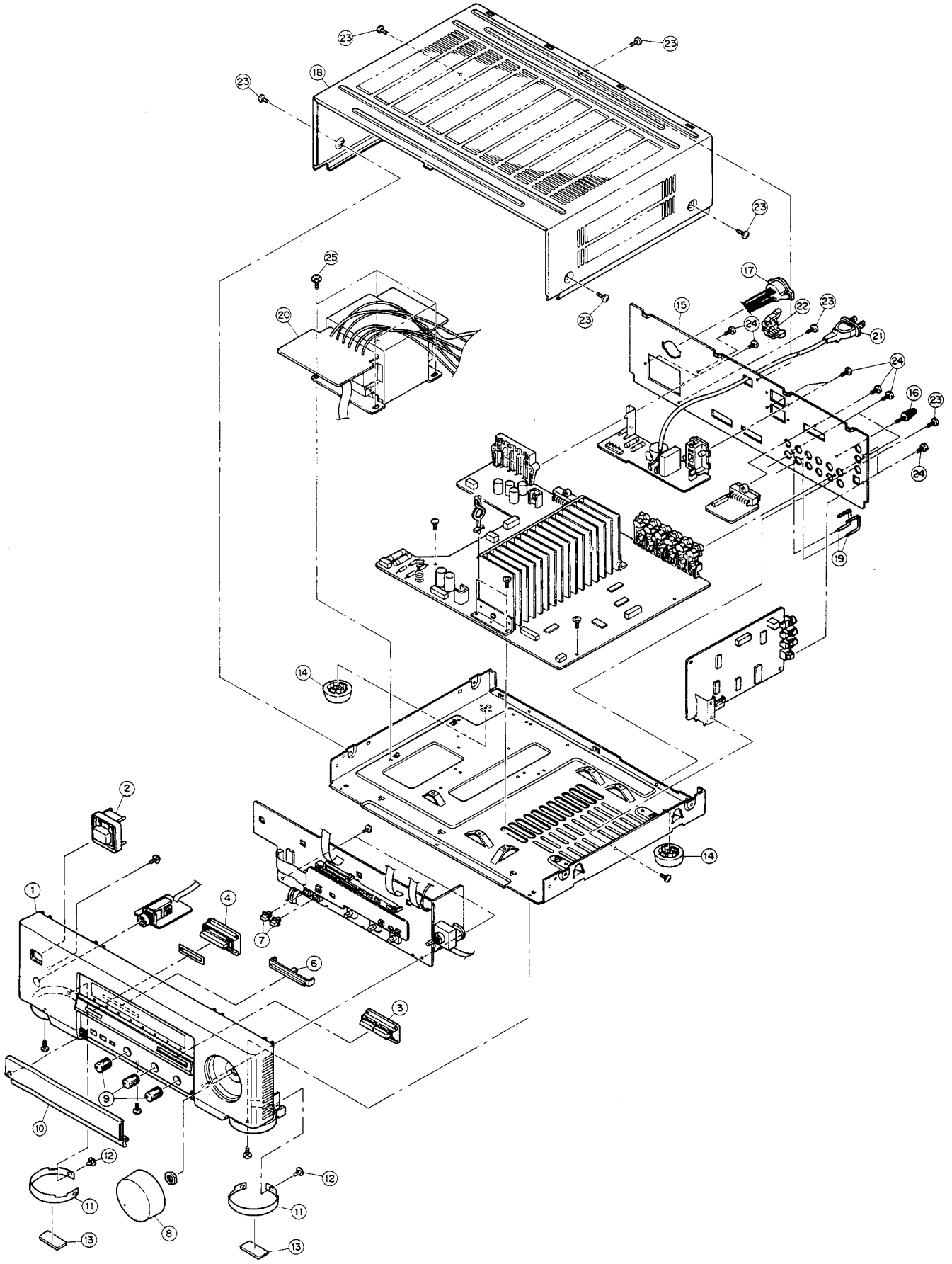
Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

### 15. ACCESSARY

Ref.No.	Part No.	Description
1	AX-394557M	REMOCON RC-S600



**FINAL ASSEMBLY**



PARTS LIST

# MEMO

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## ABBREVIATIONS (AMPLIFIER)

ABBREVIATION	EXPLANATION
A	Analog
AC	Alternating Current
AMP	AMPlifier
CD	Compact Disc
COM	COMmon
D	Digital
D/A	Digital to Analog
DAC	Digital to Analog Converter
DAT	Digital Audio Tape recorder
DC	Direct Current
GND	GrouND
L	Left
LED	Light Emitting Diode
MC	Moving Coil
MM	Moving Magnet
PCB	Printed Circuit Board
R	Right
REG	REGulator
REC	RECORD
TR	TRansistor
SW	SWitch
V.AMP	Voltage AMPlifier
V.DISC	Video DISC
VR	Variable Resistance
VTR	Video Tape Recorder

# AKAI

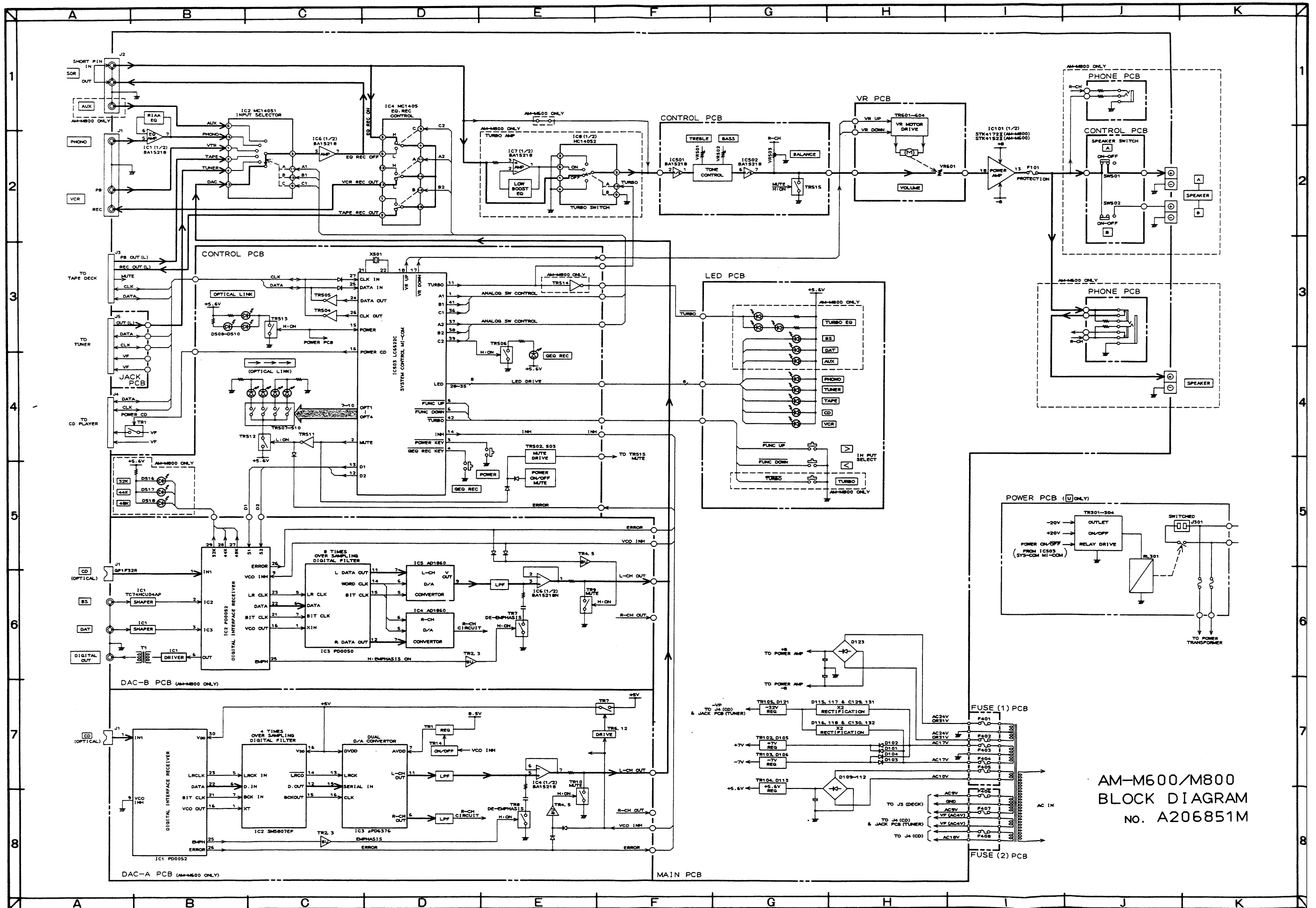
MODEL **AM-M600**

MODEL **AM-M800**

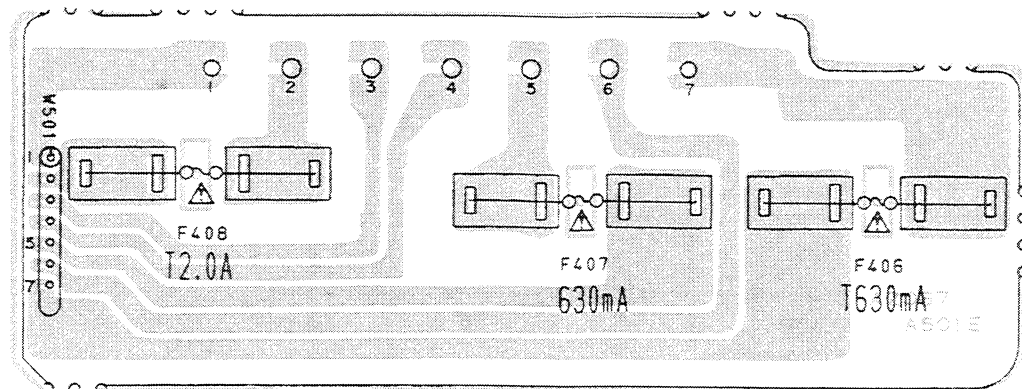
## **SCHEMATIC DIAGRAMS AND PC BOARDS**

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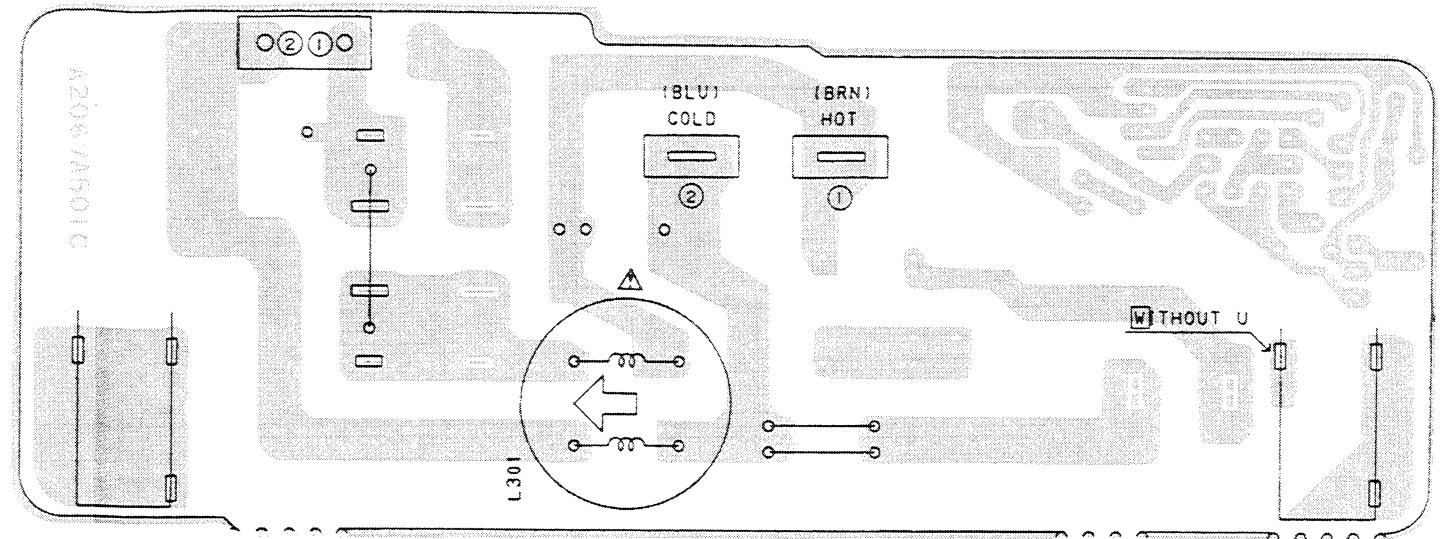
1. BLOCK DIAGRAM .....	3
2. FUSE 1 AND OTHER PC BOARDS .....	4
3. CONNECTION DIAGRAM .....	5
4. MAIN SCHEMATIC DIAGRAM .....	6
5. MAIN AND JACK PC BOARDS .....	7
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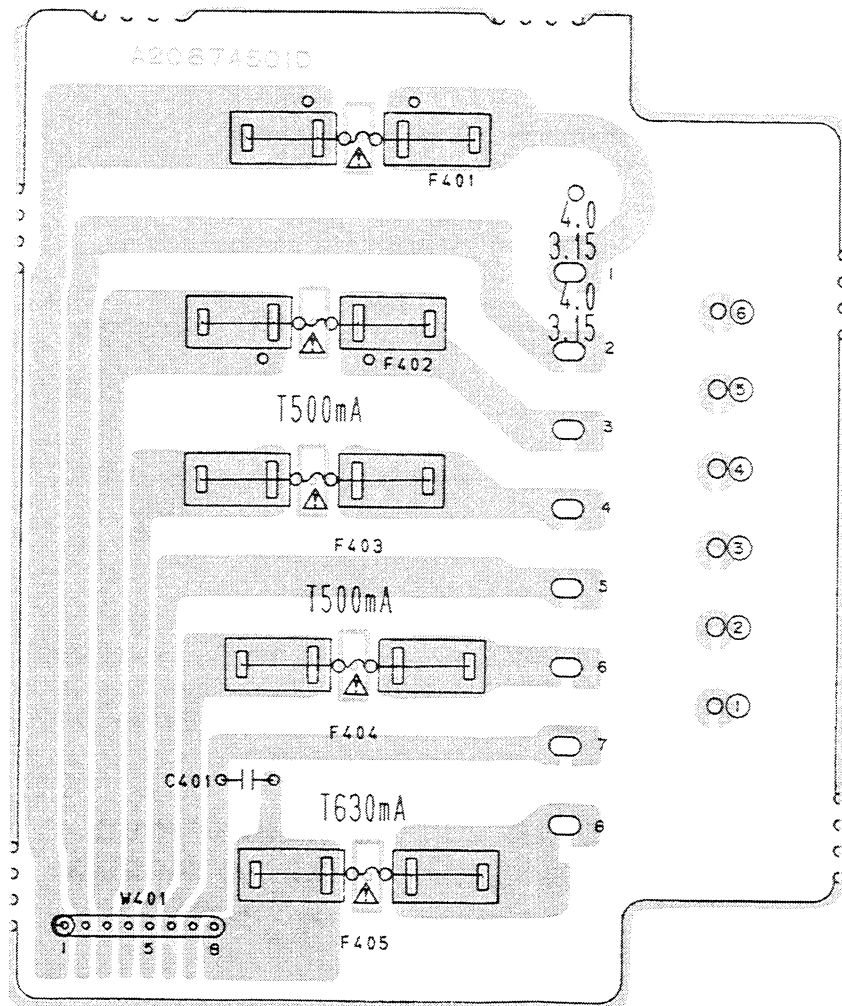
AM-M600/M800  
BLOCK DIAGRAM  
NO. A206851M



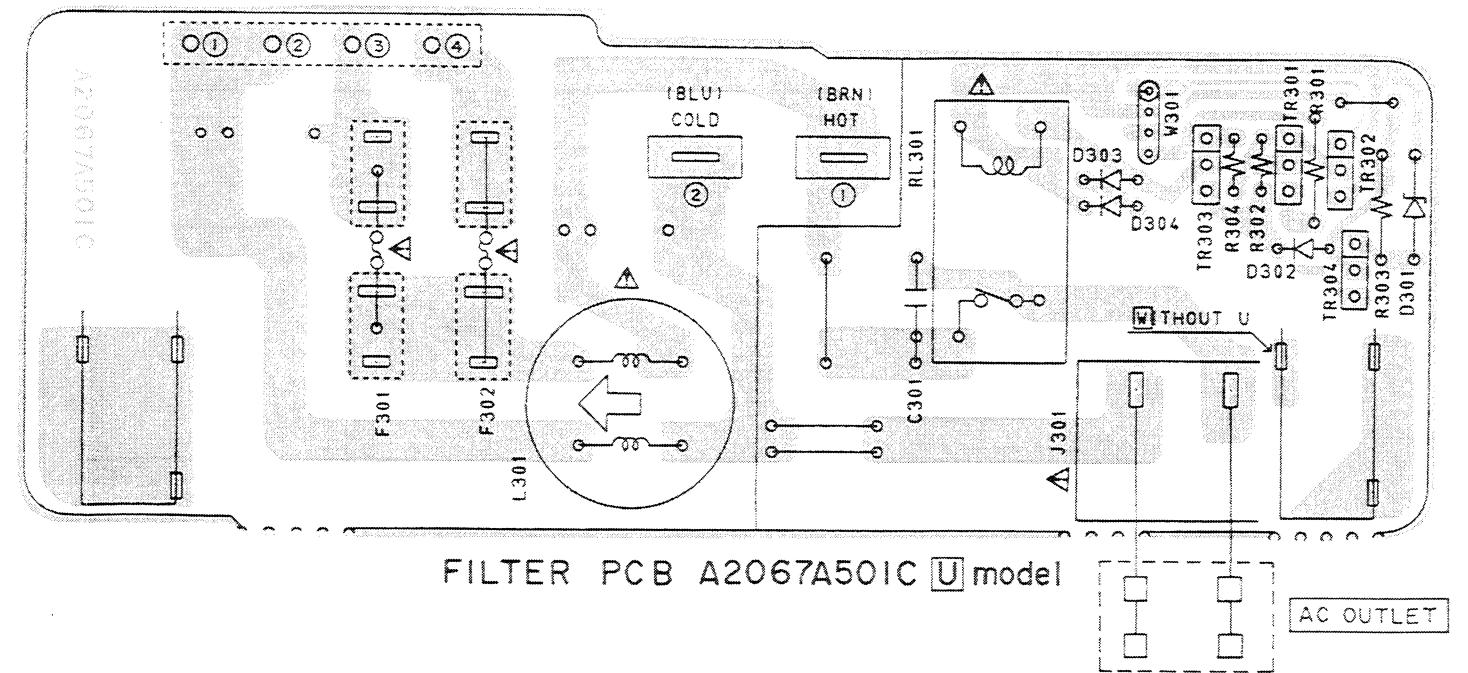
FUSE 2 PCB A2067A501E



FILTER PCB A2067A501C **B E V** model

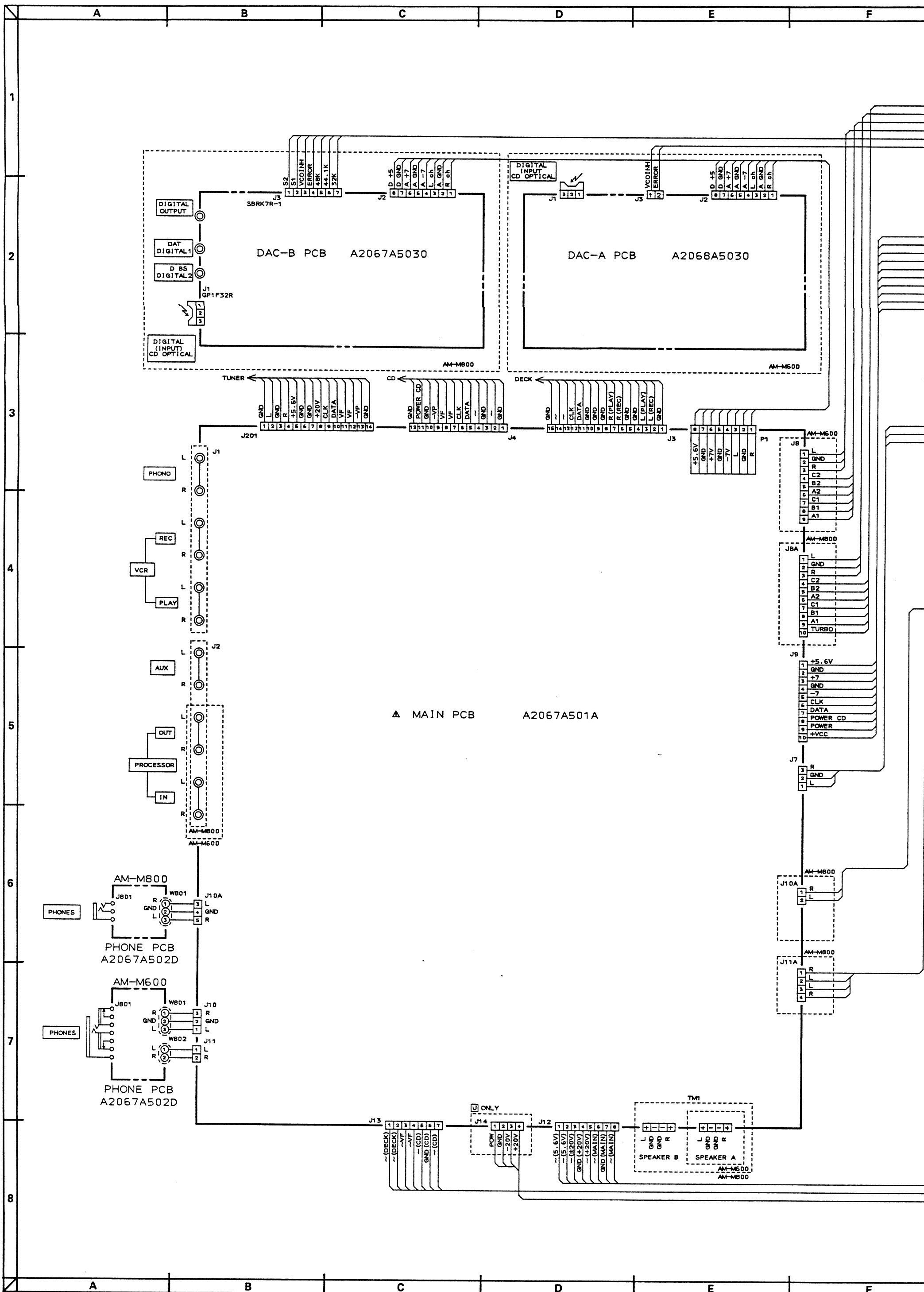


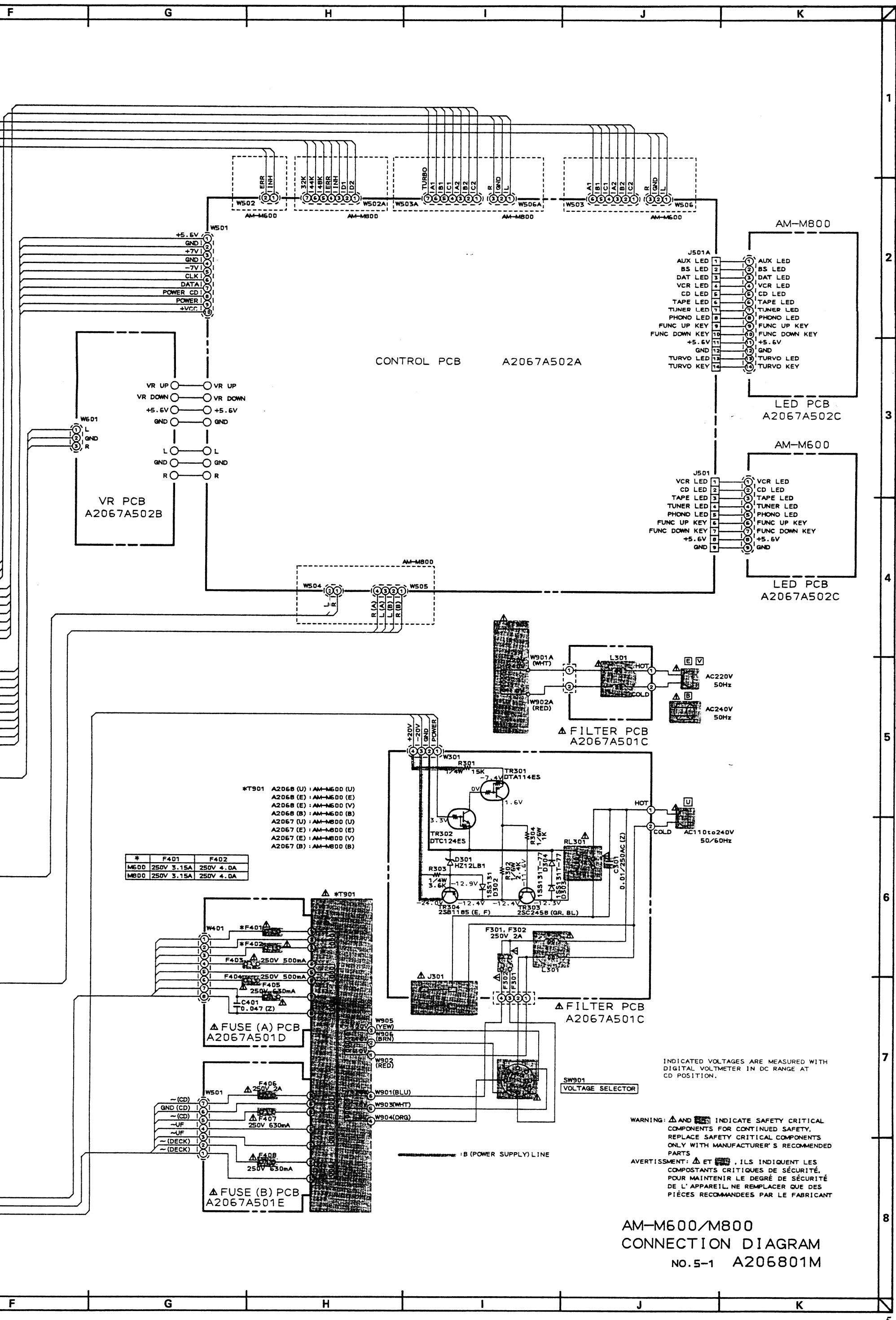
FUSE 1 PCB A2067A501D



FILTER PCB A2067A501C **U** model

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.  
 AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.





*	F401	F402
M600	250V 3.15A	250V 4.0A
M800	250V 3.15A	250V 4.0A

- \*T901 A2068 (U) : AM-M600 (U)
- A2068 (E) : AM-M600 (E)
- A2068 (V) : AM-M600 (V)
- A2068 (B) : AM-M600 (B)
- A2067 (U) : AM-M800 (U)
- A2067 (E) : AM-M800 (E)
- A2067 (V) : AM-M800 (V)
- A2067 (B) : AM-M800 (B)

INDICATED VOLTAGES ARE MEASURED WITH DIGITAL VOLTMETER IN DC RANGE AT CD POSITION.

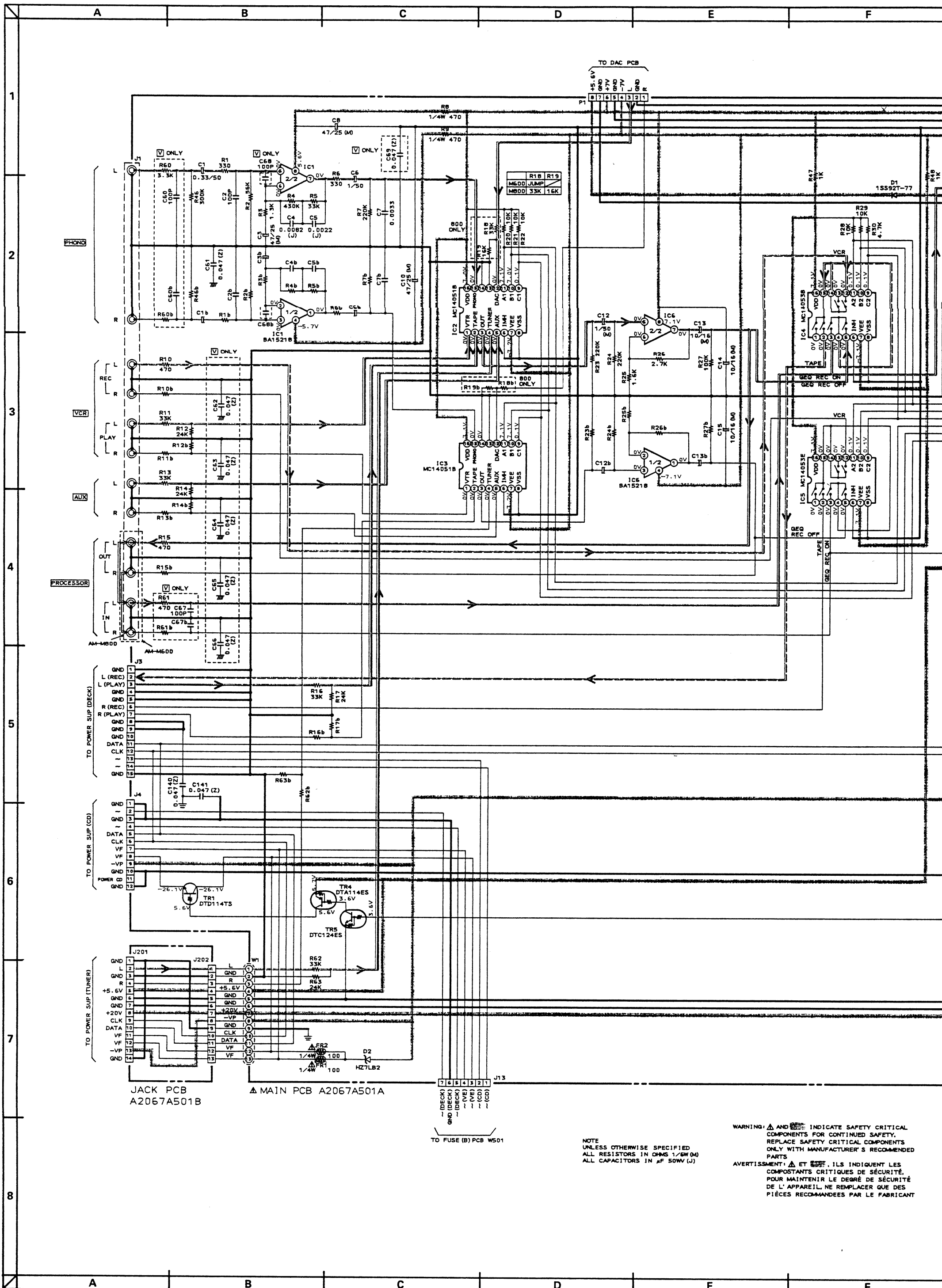
WARNING: **⚠** AND **⚡** INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: **⚠** ET **⚡** ILS INDIQUENT LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

AM-M600/M800  
CONNECTION DIAGRAM  
NO.5-1 A206801M

1  
2  
3  
4  
5  
6  
7  
8





JACK PCB  
A2067A501B

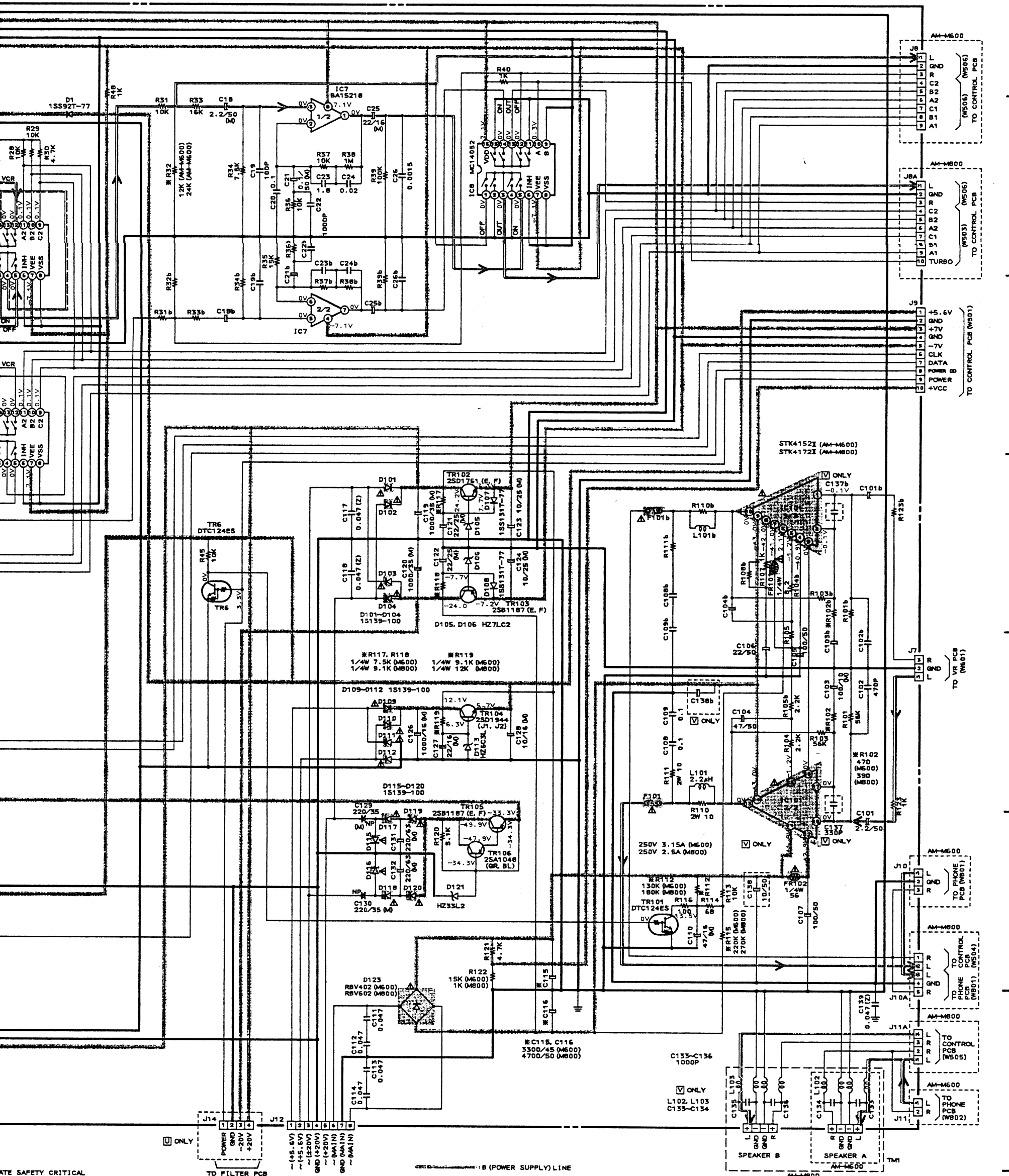
▲ MAIN PCB A2067A501A

TO FUSE (B) PCB W501

NOTE  
UNLESS OTHERWISE SPECIFIED  
ALL RESISTORS IN OHMS 1/6W (M)  
ALL CAPACITORS IN μF 50WV (J)

WARNING: ⚠ AND ⚡ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.  
AVERTISSEMENT: ⚠ ET ⚡ ILS INDIQUENT LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

352



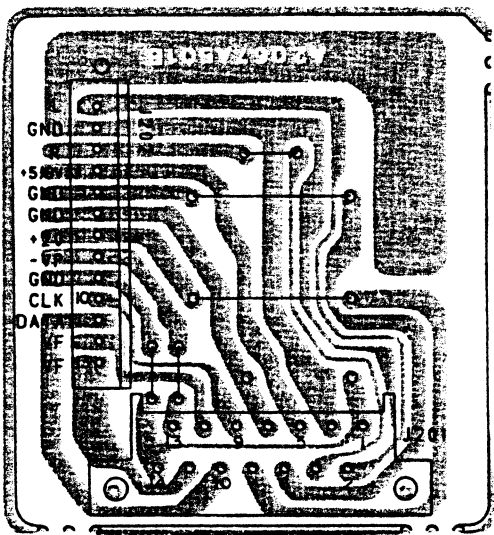
NOTE: SAFETY CRITICAL COMPONENTS ARE INDICATED BY A TRIANGLE. CONTINUED SAFETY. CRITICAL COMPONENTS MUST BE REPLACED BY THE MANUFACTURER'S RECOMMENDED PARTS. LES COMPOSANTS CRITIQUES DE SÉCURITÉ SONT INDICUÉS PAR UN TRIANGLE. ILS DOIVENT ÊTRE REMPLACÉS PAR LE FABRICANT.

— (POWER SUPPLY) LINE  
 — SIGNAL LINE  
 - - - REC SIGNAL LINE

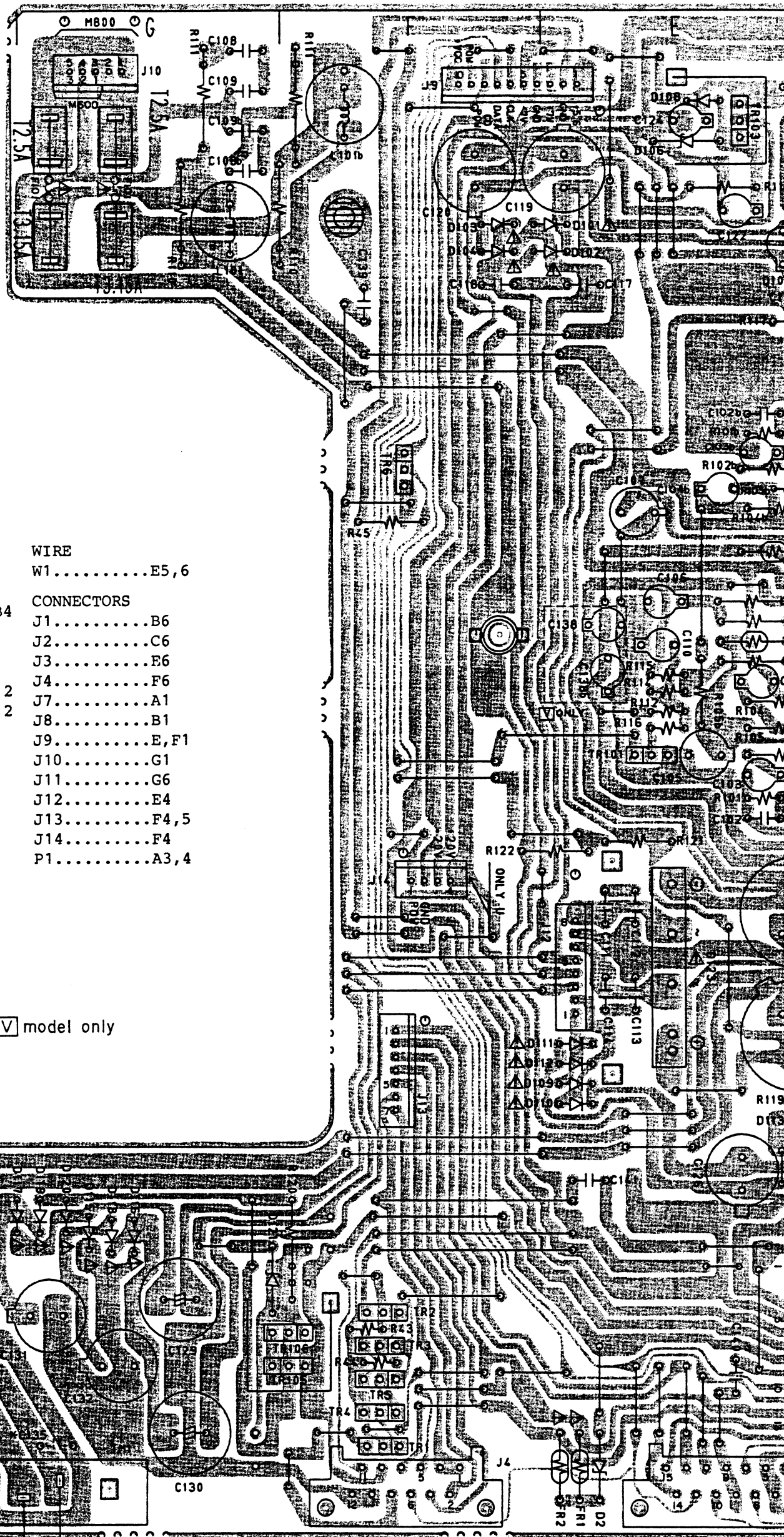
INDICATED VOLTAGES ARE MEASURED WITH DIGITAL VOLTMETER IN DC RANGE AT CD POSITION.

AM-M600/M800  
 MAIN  
 SCHEMATIC DIAGRAM  
 NO. 5-2 A206802M

1  
 2  
 3  
 4  
 5  
 6  
 7  
 8

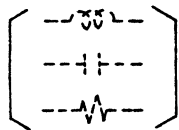


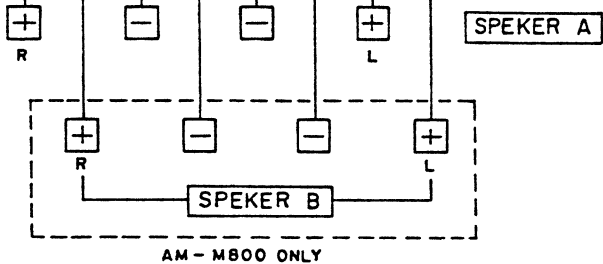
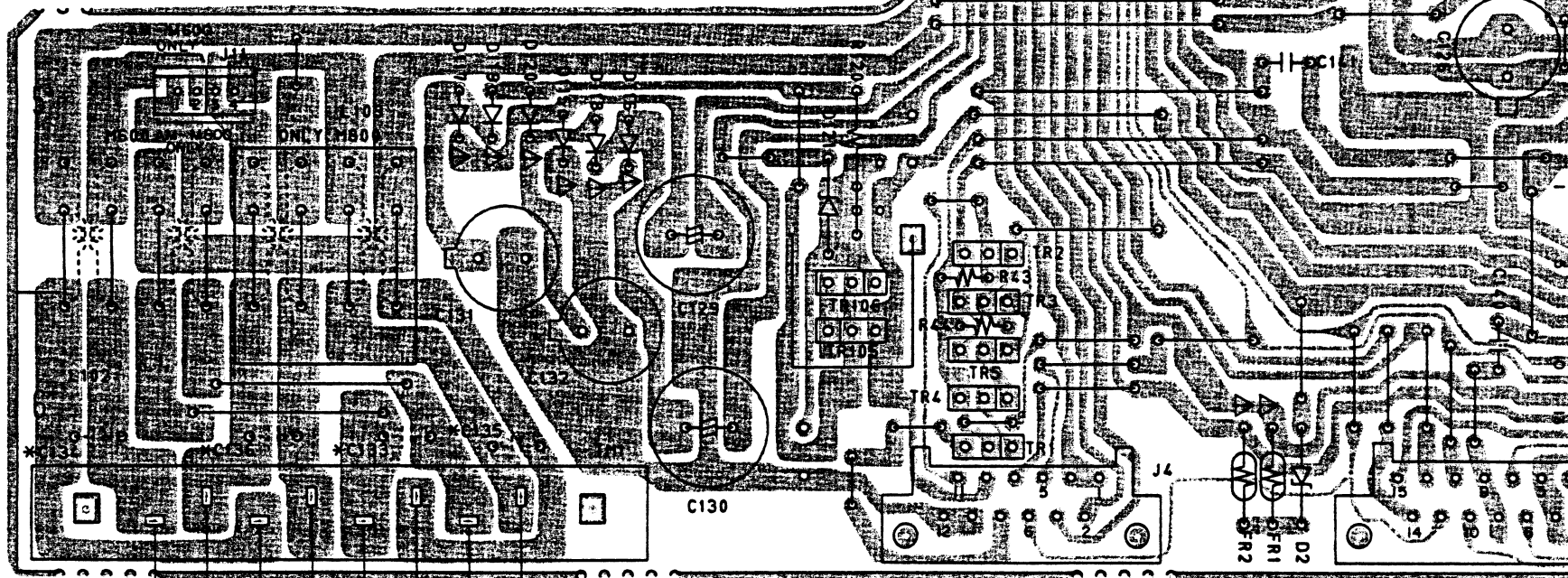
JACK PCB A2067A501B



PRINCIPAL PARTS LOCATION


TRANSISTORS	ICS	WIRE
TR1.....F6	IC1.....A5	W1.....E5, 6
TR4.....F6	IC2.....B4	CONNECTORS
TR5.....F6	IC3.....A, B4	J1.....B6
TR6.....F2	IC4.....B2	J2.....C6
TR101.....E3	IC5.....A3	J3.....E6
TR102.....D1	IC6.....B3	J4.....F6
TR103.....E1	IC7.....A1, 2	J7.....A1
TR104.....D5	IC8.....B1, 2	J8.....B1
TR105.....F6	IC101.....D3	J9.....E, F1
TR106.....F5		J10.....G1
		J11.....G6
		J12.....E4
		J13.....F4, 5
		J14.....F4
		P1.....A3, 4


\* Indicated  are  model only

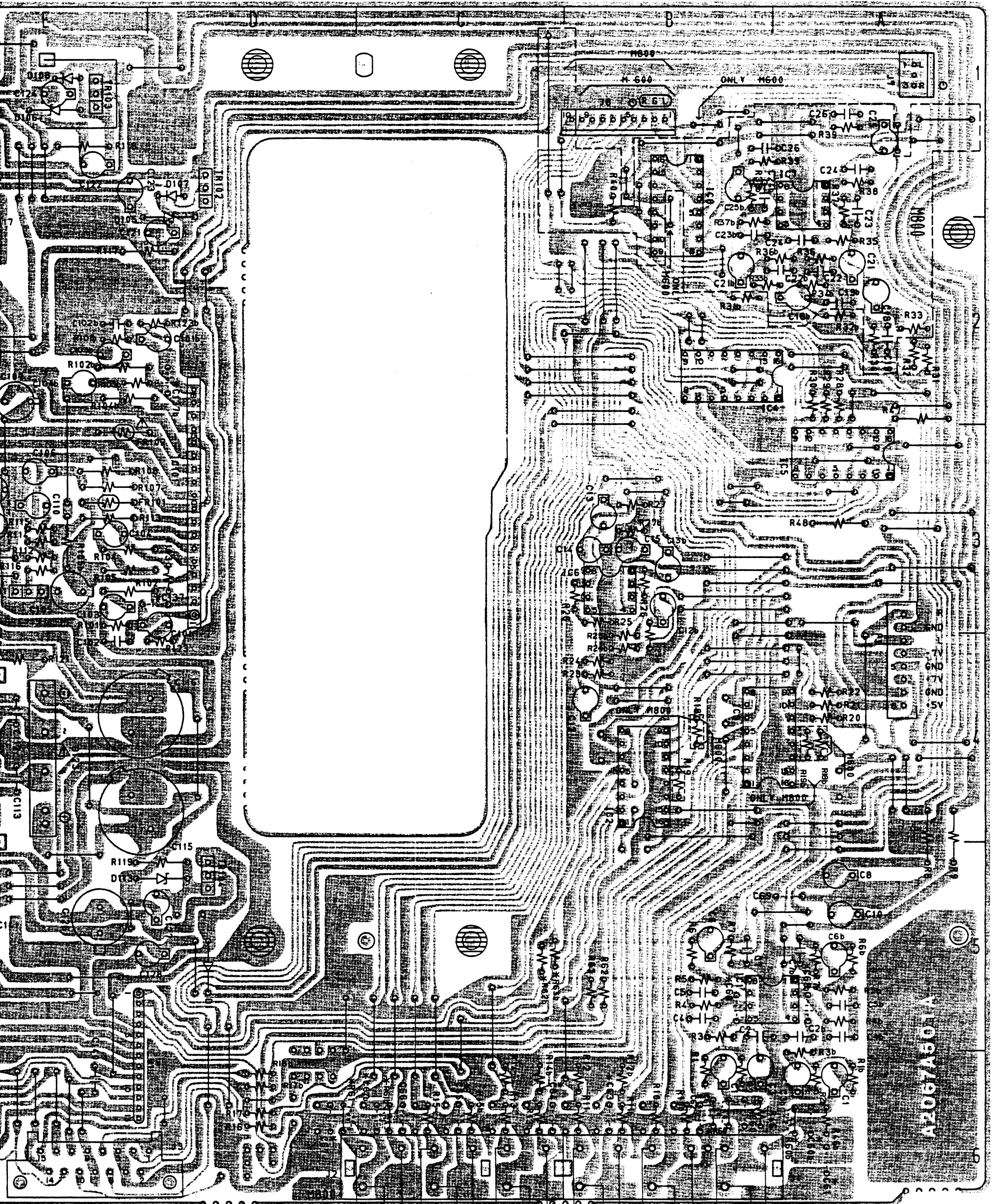


AM - M800 ONLY

MAIN PCB A2067A501A

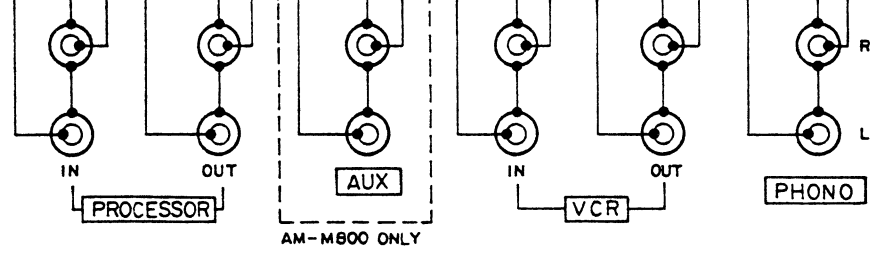
WARNING:  INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

AVERTISSEMENT:  IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.

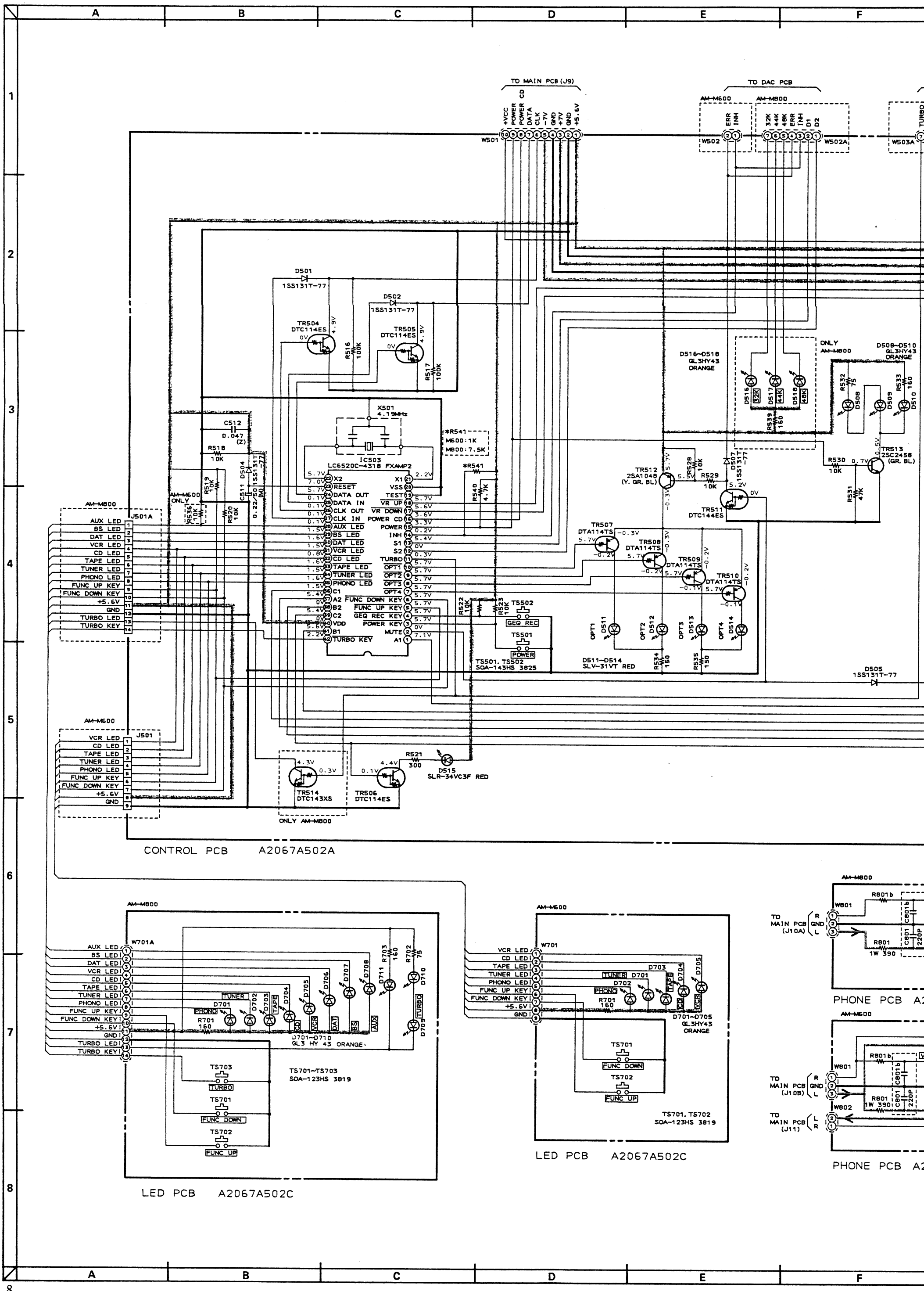


A2067A501A

SAFETY.  
FACTURER'S  
TE.  
BRICANT



A2067A501A



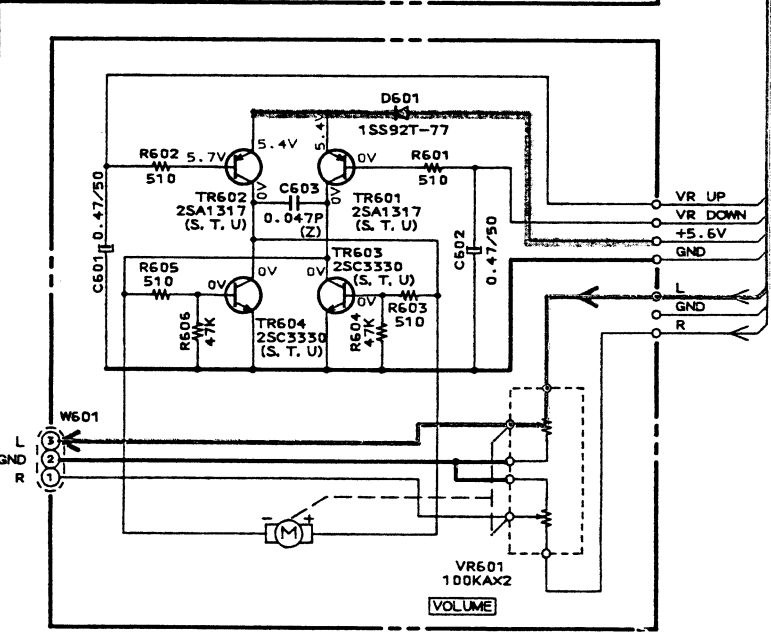
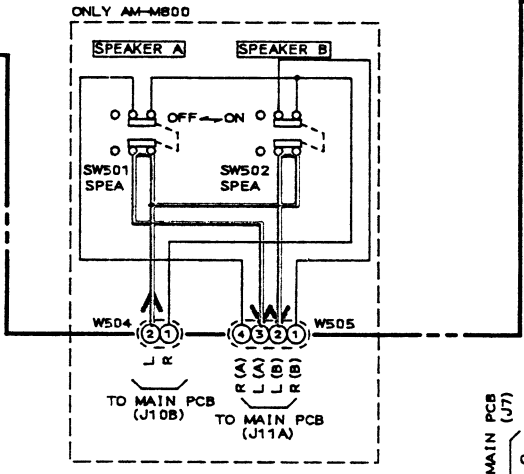
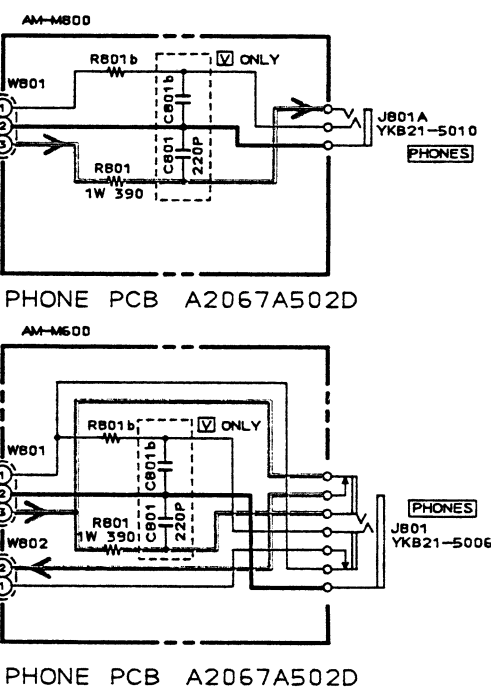
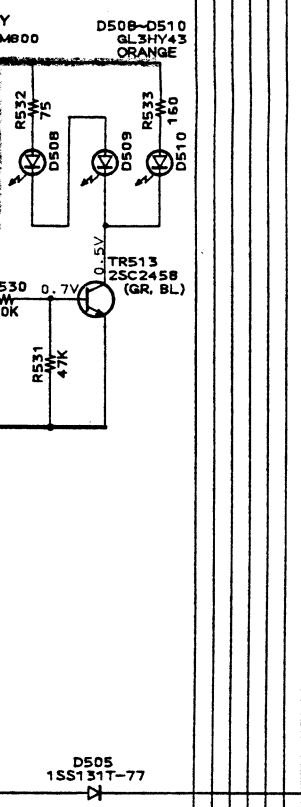
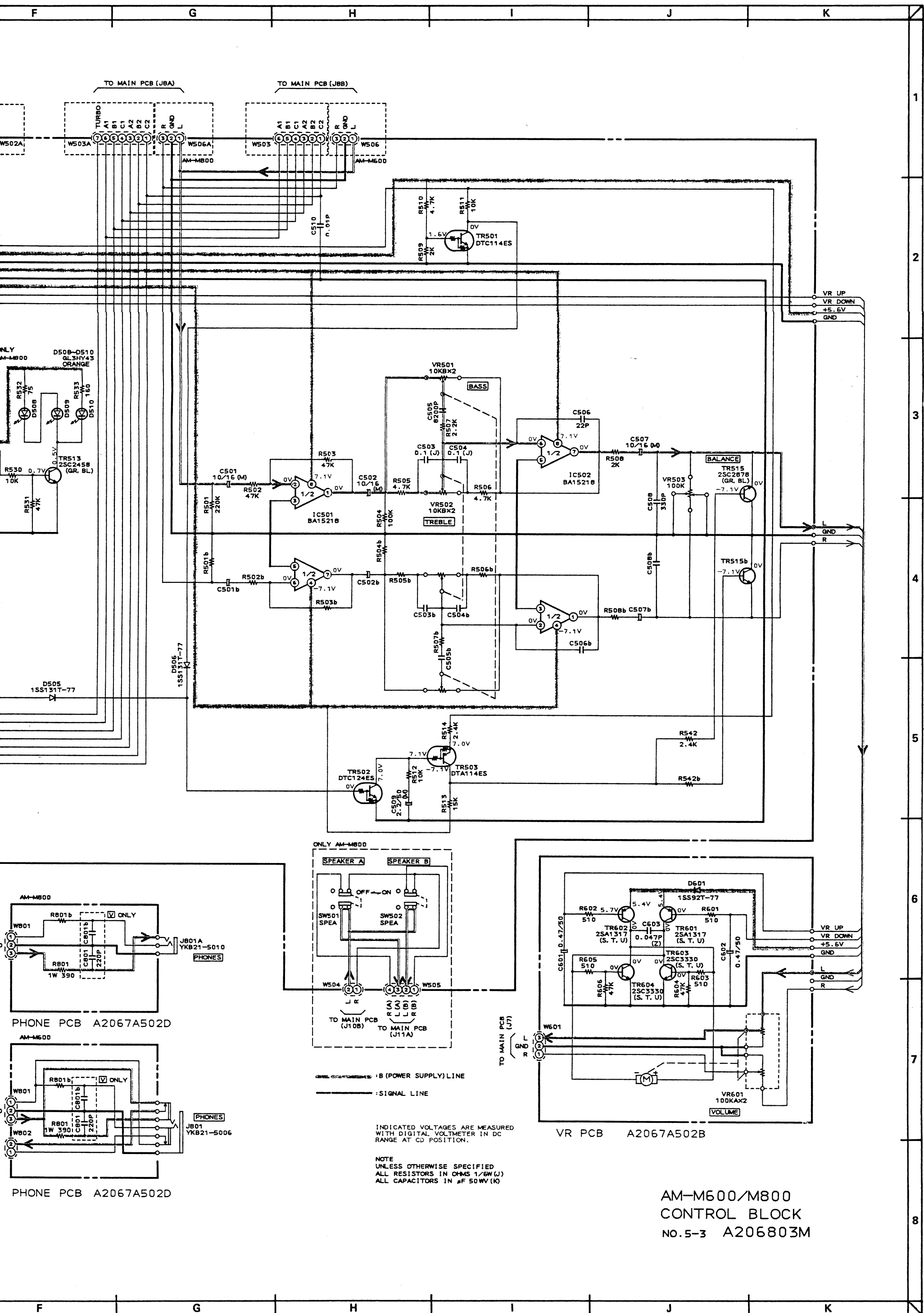
CONTROL PCB A2067A502A

LED PCB A2067A502C

LED PCB A2067A502C

PHONE PCB A2067A502B

PHONE PCB A2067A502B

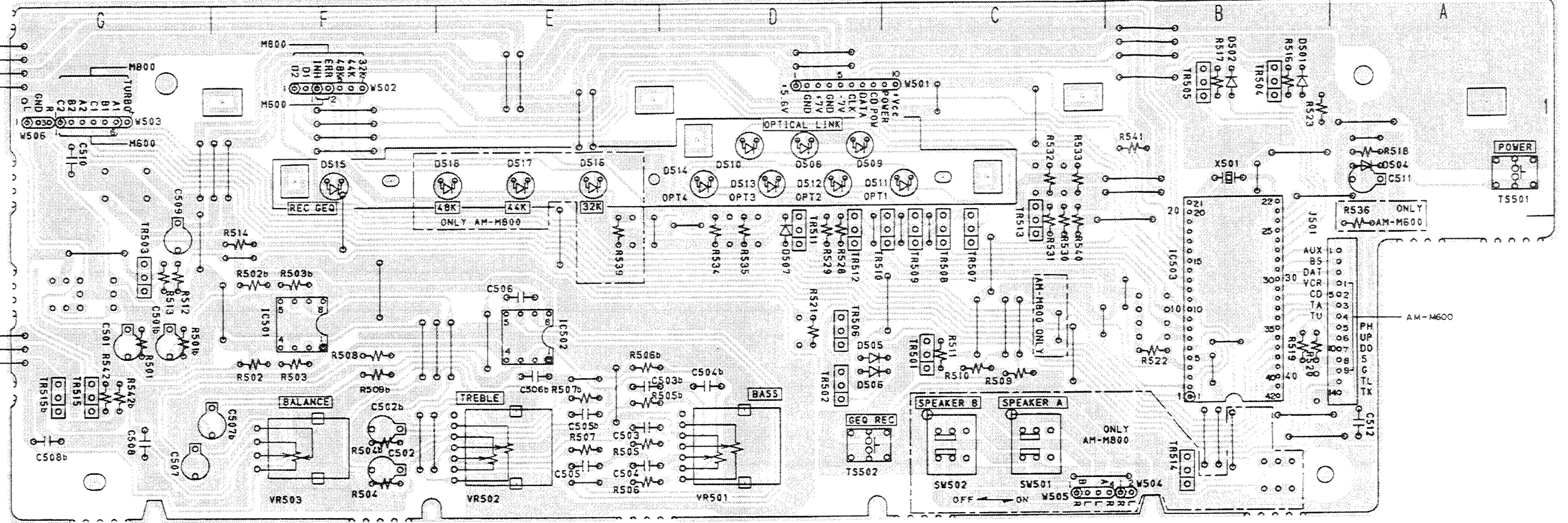
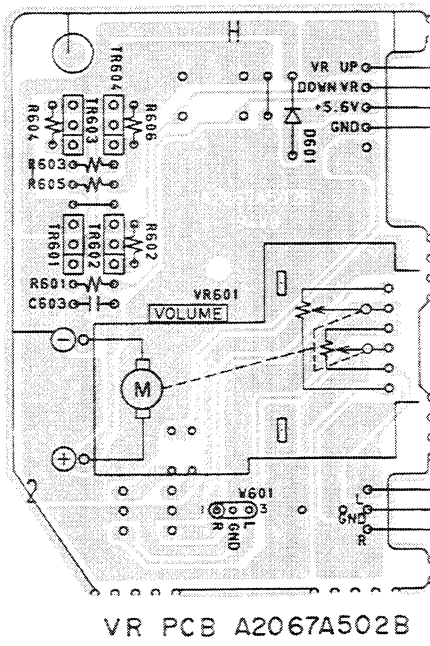


--- (POWER SUPPLY) LINE  
 ——— SIGNAL LINE

INDICATED VOLTAGES ARE MEASURED WITH DIGITAL VOLTMETER IN DC RANGE AT CD POSITION.

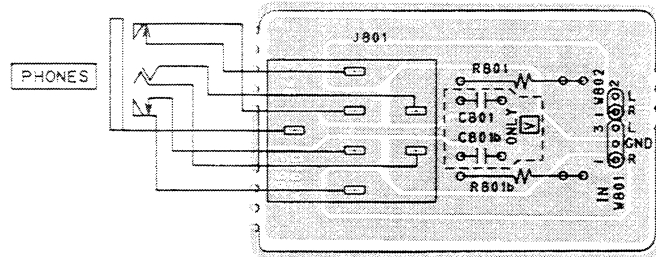
NOTE  
 UNLESS OTHERWISE SPECIFIED  
 ALL RESISTORS IN OHMS (Ω) (K) (M)  
 ALL CAPACITORS IN μF (50WV (K))

AM-M600/M800  
 CONTROL BLOCK  
 No. 5-3 A206803M

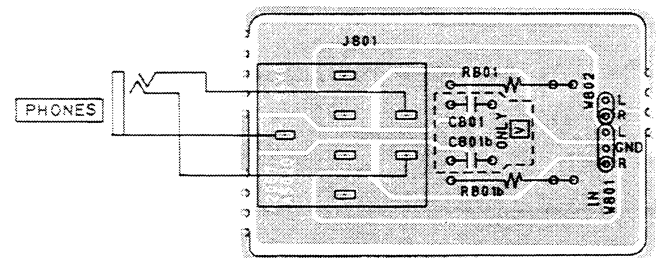


PRINCIPAL PARTS LOCATION

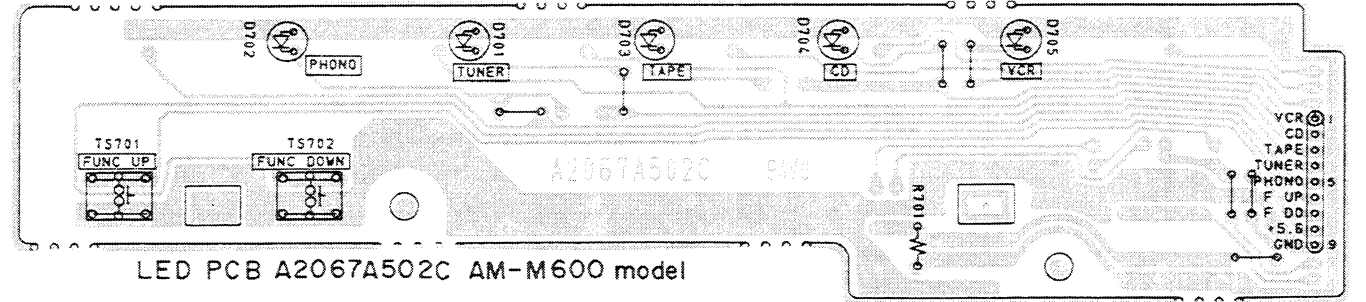
ICs		TRANSISTORS	
IC501.....	F2	TR501.....	C2
IC502.....	E2	TR502.....	D2
IC503.....	B2	TR503.....	G2
CONNECTOR		TRANSISTORS	
J501.....	A2	TR504.....	B1
		TR505.....	B1
		TR506.....	D2
WIRES		TRANSISTORS	
W501.....	C, D1	TR507.....	C1
W502.....	F1	TR508.....	C1
W503.....	G1	TR510.....	C1
W504.....	B2	TR511.....	D1
W505.....	C2	TR512.....	D1
W506.....	G2	TR513.....	C1
		TR514.....	B2
		TR515.....	G2
		TR515b.....	G2



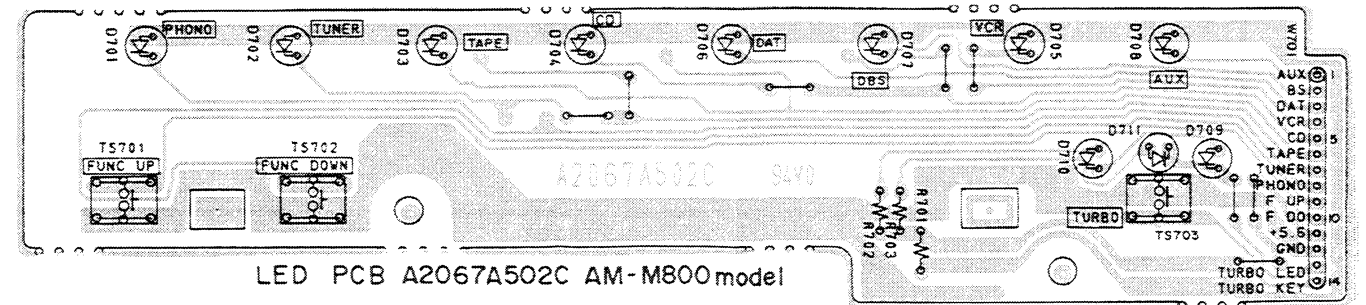
PHONE PCB A2067A502D  
AM-M600 model



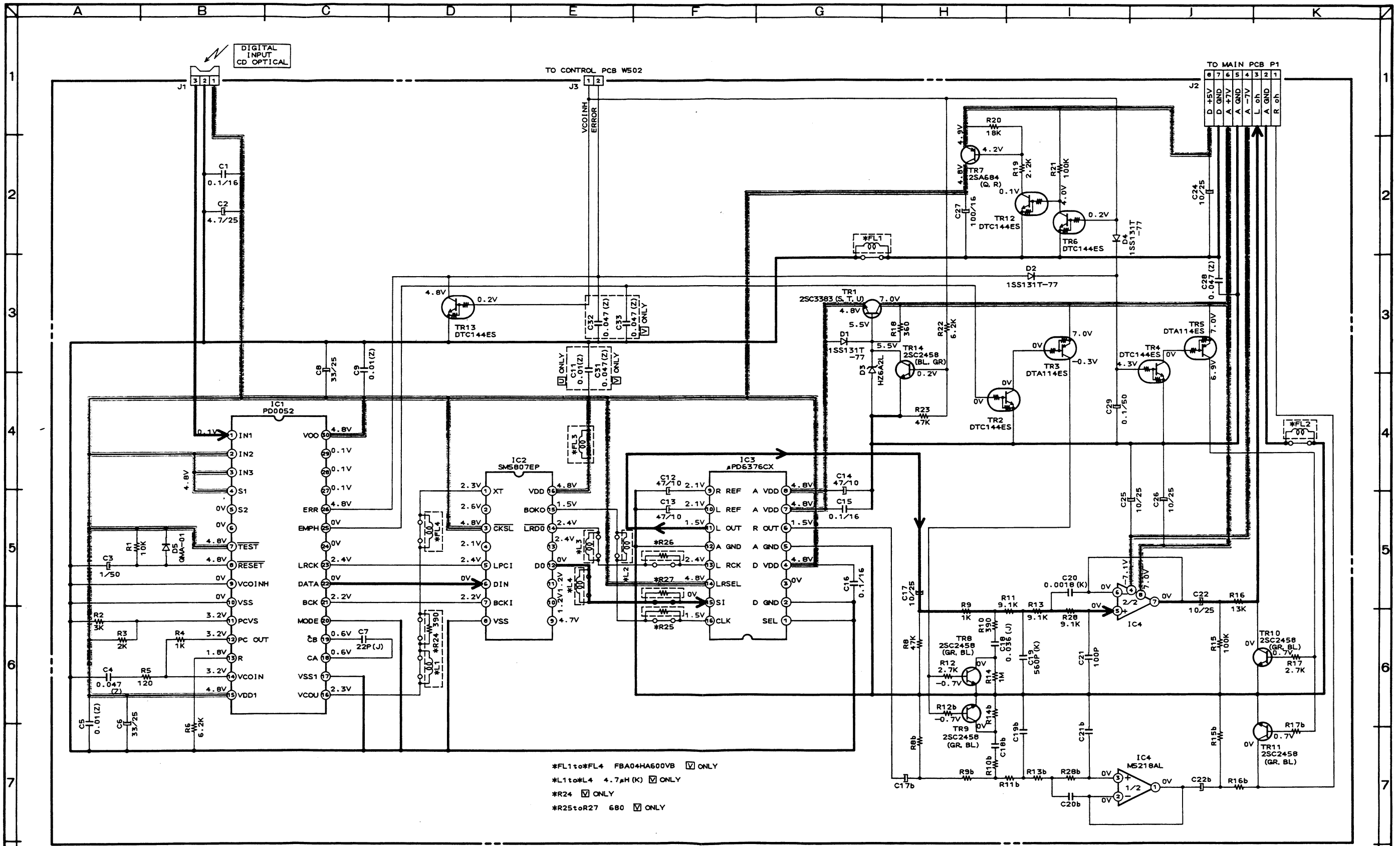
PHONE PCB A2067A502D  
AM-M800 model



LED PCB A2067A502C AM-M600 model



LED PCB A2067A502C AM-M800 model



DAC-A PCB A2068A5030

\*FL1to\*FL4 FBA04HA600VB  ONLY  
 \*L1to\*L4 4.7µH (K)  ONLY  
 \*R24  ONLY  
 \*R25toR27 680  ONLY

— :B (POWER SUPPLY) LINE  
 — :SIGNAL LINE

NOTE  
 UNLESS OTHERWISE SPECIFIED  
 ALL RESISTORS IN OHMS 1/5W (J)  
 ALL CAPACITORS IN µF 50WV (M)

AM-M600  
 DAC-A  
 SCHEMATIC DIAGRAM  
 NO.5-4 A206804M



PRINCIPAL PARTS LOCATION

TRANSISTORS

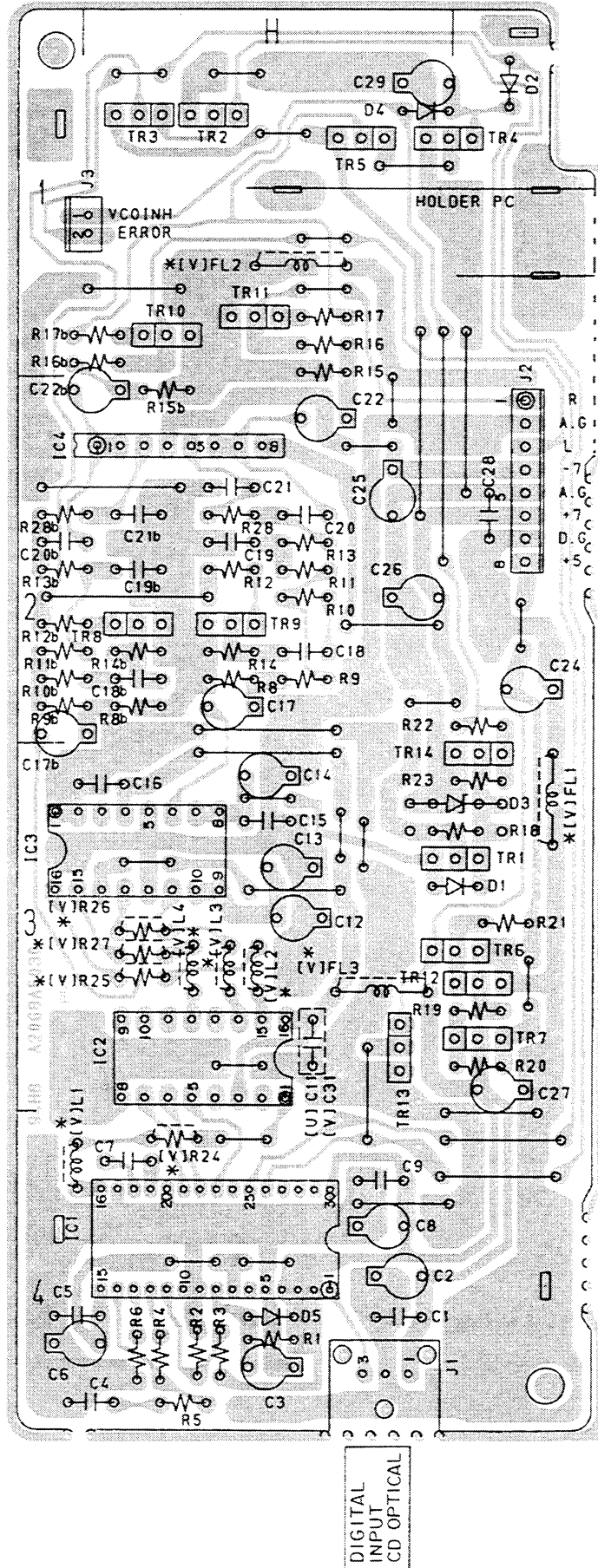
- TR1.....A3
- TR2.....B1
- TR3.....B1
- TR4.....A1
- TR5.....A1
- TR6.....A3
- TR7.....A3
- TR8.....B2
- TR9.....B2
- TR10.....B1
- TR11.....B1
- TR12.....A3
- TR13.....A3
- TR14.....A3

ICS

- IC1.....B4
- IC2.....B3
- IC3.....B3
- IC4.....B2

CONNECTORS

- J1.....A4
- J2.....A2
- J3.....B1



DAC - A PCB A2068A5030

\* Indicated ---are U model only

PRINCIPAL PARTS LOCATION

TRANSISTORS

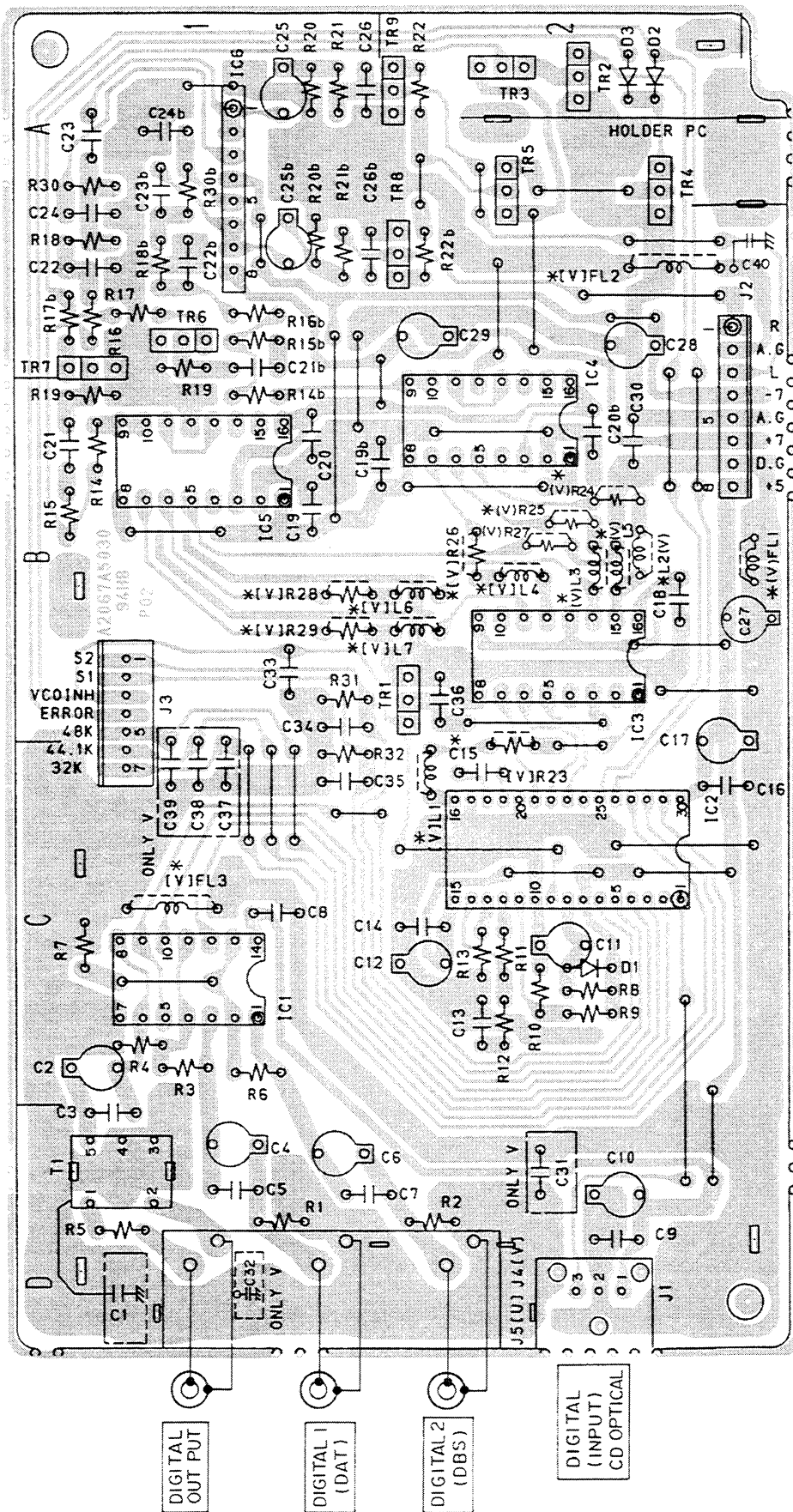
- TR1.....B2
- TR2.....A3
- TR3.....A3
- TR4.....A2
- TR5.....A2
- TR6.....A1
- TR7.....A1
- TR8.....A2
- TR9.....A2

ICS

- IC1.....C1
- IC2.....C2
- IC3.....B2
- IC4.....B2
- IC5.....B1
- IC6.....A1

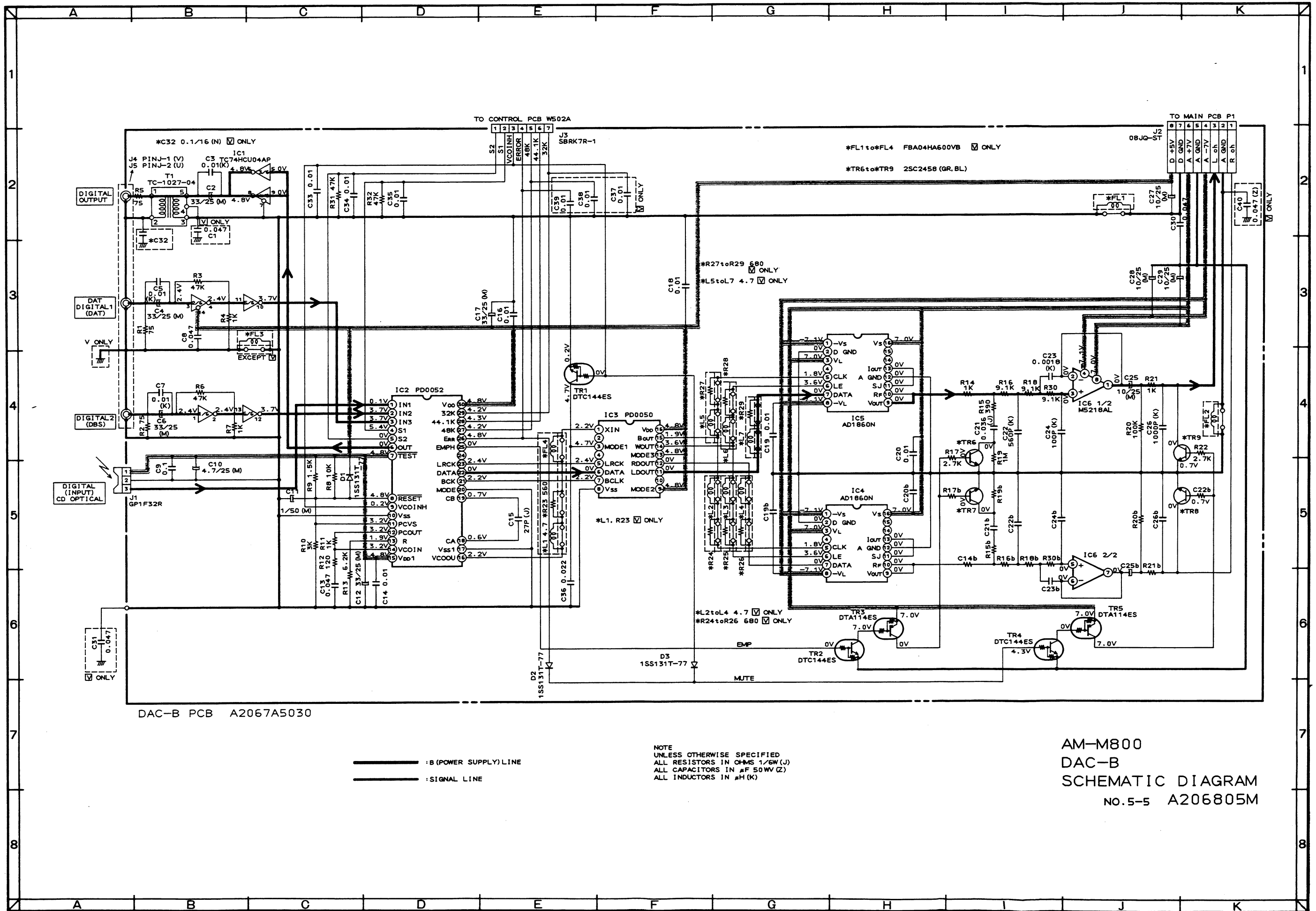
CONNECTORS

- J1.....D2
- J2.....A,B2
- J3.....B,C1
- J4.....D1,2
- J5.....D1,2



DAC - B PCB A2067A5030M1

\* Indicated----- are □ model only



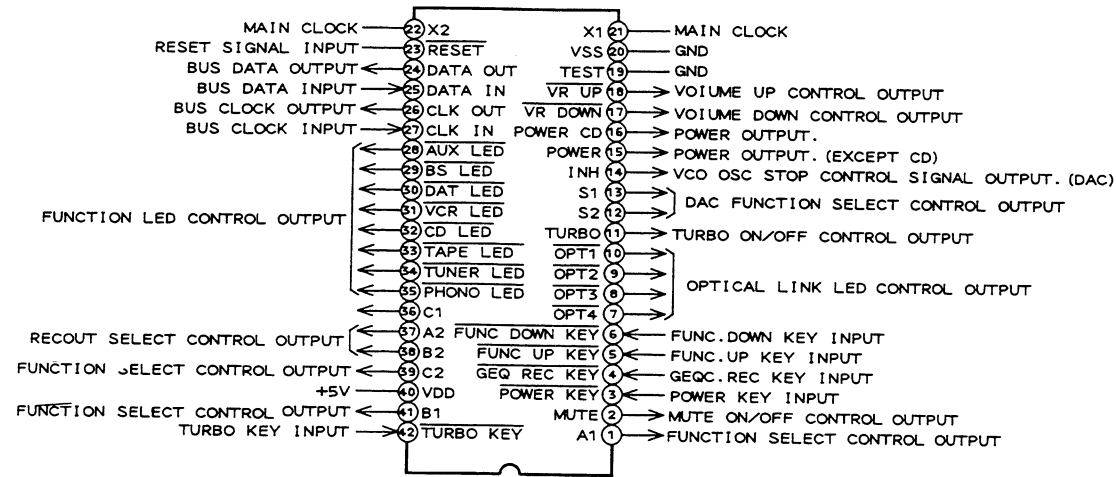
DAC-B PCB A2067A5030

——— :B (POWER SUPPLY) LINE  
 ——— :SIGNAL LINE

NOTE  
 UNLESS OTHERWISE SPECIFIED  
 ALL RESISTORS IN OHMS 1/6W(J)  
 ALL CAPACITORS IN pF 50WV(Z)  
 ALL INDUCTORS IN μH(K)

AM-M800  
 DAC-B  
 SCHEMATIC DIAGRAM  
 NO.5-5 A206805M

LC6520-4318 (MI-CON)



PD0050 (Over Sampling Digital Filter)

PIN NO	SYMBOL	I/O	FUNCTION
1	X IN	I	X'tal OSC Input
2	X OUT	O	X'tal OSC Input
3	MODE 1	I	H: 16.9344 MHz L: 8.4672 MHz
4	CK OUT	O	MODE 1 (H): 16.9344 MHz Clock out. MODE 1 (L): 8.4672 MHz Clock out
5	LRCK	I	LRCK Input
6	DATA	I	Serial DATA Input
7	BCLK	I	BCK Input
8	VSS	-	-B (OV)
9	MODE 2	I	H: 18 bit DATA Output L: 16 bit DATA Output
10	SH OUT	O	Sampling Hold Pulse out
11	LD OUT	O	DATA OUT (Lch)
12	RD OUT	O	DATA OUT (Rch)
13	MODE 3	I	MODE 3 (H): MODE 3 (L): 20 bit DATA out
14	W OUT	O	Word Clock out
15	B OUT	O	LD OUT, RD OUT
16	VDD	-	+B (+5V)

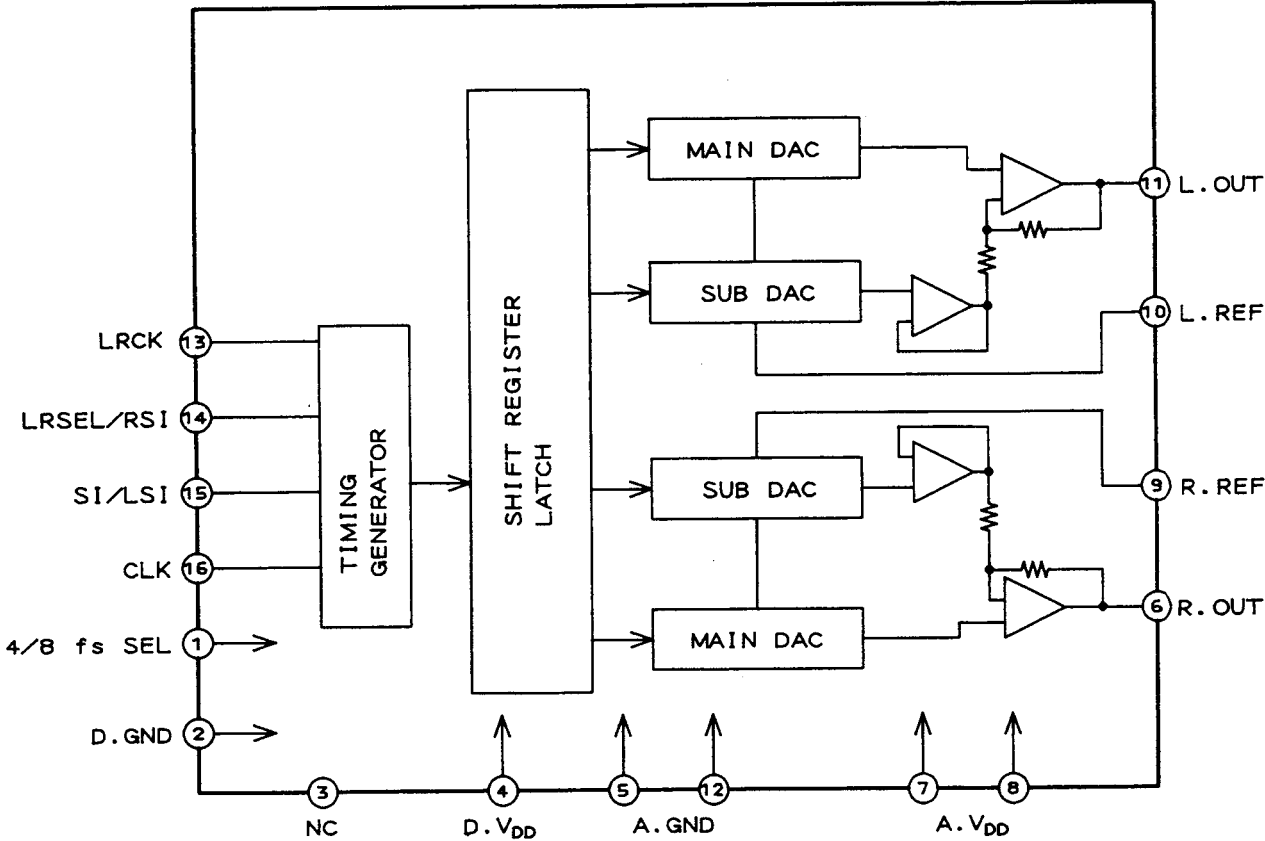
PD0052 (Digital Audio Interface Receiver)

PIN NO.	SYMBOL	I/O	DESCRIPTION
1	IN 1	I	Digital Audio Interface signal input.
2	IN 2	I	
3	IN 3	I	
4	S 1	I	Input select 1.
5	S 2	I	Input select 2.
6	OUT	O	Data output.
7	TEST	I	TEST MODE input.
8	RESET	I	Power "ON" Reset input.
9	VCOINH	I	VCO OSC Stop Control signal input.
10	VSS	-	GND
11	PCVS	I	External Resistor Connection Terminal for VCO.
12	PC OUT	O	Phase comperator output.
13	R	-	External Resistor Connection Terminal for VCO.
14	VCO IN	I	Control voltage input.
15	VDD 1	-	+B (+5 V)
16	VCO OUT	O	VCO Output (384 fs)
17	VSS 1	-	GND
18	CA	-	External Capacitor Connection Terminal for VCO.
19	CB	-	
20	MODE	-	GND
21	BCK	O	Bit clock output.
22	DATA	O	Data output.
23	LRCK	O	Data output. (H=L ch, L=R ch)
24	COPY	O	Copy inhibit information output.
25	EMPH	O	H: EMPHASIS
26	ERR	O	H: Parity Error, L= NO ERROR
27	48 K	O	Sampling Frequency data output. L=active
28	44.1 K	O	
29	32 K	O	
30	VDD	-	+B (+5 V)

SM5807EP (4fs Over Sampling Digital Filter)

PIN NO.	SYMBOL	I/O	DESCRIPTION
1	XT	I	X'tal OSC input.
2	X $\bar{T}$	O	X'tal OSC output.
3	CKSL	I	H: 16.9344 MHz L: 8.4672 MHz
4	CKO	O	Clock output.
5	LRCI	I	Clock input.
6	D IN	I	Serial data input.
7	B CKI	I	Bit clock input.
8	VSS	-	GND
9	SCSL	I	H: 192 fs L: 196 fs
10	DGR	O	R ch signal output.
11	DGL	O	L ch signal output.
12	D OUT	O	Serial data output.
13	WDCO	O	Control clock output. (352.8 kHz)
14	LRCO	O	Control clock output. (176.4 kHz)
15	BCKO	O	Bit clock output.
16	VDD	-	+B (+5 V)

μPD6376CX (16 Bit D/A Converter)



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