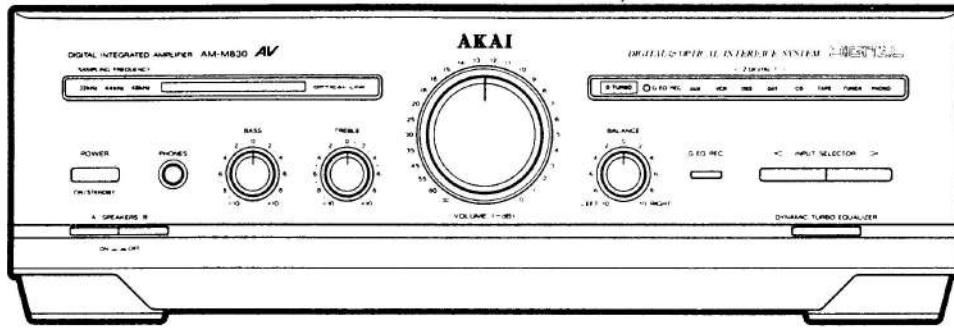


# AKAI SERVICE MANUAL



MODEL AM-M830

## DIGITAL INTEGRATED AMPLIFIER

MODEL **AM-M630**  
MODEL **AM-M830**

## SPECIFICATIONS

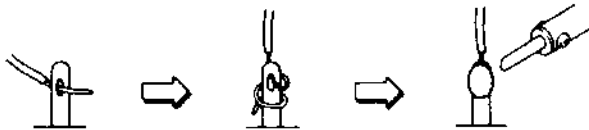
	AM-M830	AM-M630
<b>Power output</b>		
FTC .....	54 W x 2 (6 ohms, 40 Hz to 20 kHz, THD 0.5 %)	42 W x 2 (6 ohms, 40 Hz to 20 kHz, THD 0.5 %)
DIN .....	63 W x 2 (6 ohms)	50 W x 2 (6 ohms)
EIAJ .....	80 W x 2 (6 ohms)	65 W x 2 (6 ohms)
Music .....	300 W	220 W
PMPO .....	900 W	750 W
<b>Power bandwidth</b> .....	10 Hz to 50 kHz (THD 0.1 %)	10 Hz to 50 kHz (THD 0.1 %)
<b>Total harmonic distortion</b> .....	0.06 % (1 kHz)	0.06 % (1 kHz)
<b>Phono max. input level</b> .....	55 mV (1kHz)	55 mV (1 kHz)
<b>Frequency response</b> .....	10 Hz to 100 kHz (-1.5 dB, -6.0 dB)	10 Hz to 100 kHz (-1.5 dB, -6.0 dB)
<b>Tone control</b>		
Treble .....	±8.0 dB (10 kHz)	±8.0 dB (10 kHz)
Bass .....	±8.0 dB (100 Hz)	±8.0 dB (100 Hz)
<b>S / N ratio (IHF-A)</b>		
PHONO (MM) .....	73 dB	72 dB
Others .....	88 dB	87 dB
<b>Residual noise</b> .....	0.5 mV	0.5 mV
<b>Channel separation</b> .....	60 dB (1 kHz)	60 dB (1 kHz)
<b>Damping factor</b> .....	19.3	20
<b>Required speaker impedance</b>		
A or B .....	6 to 16 ohms	6 to 16 ohms
A and B .....	12 to 16 ohms	—
<b>Input sensitivity / impedance</b>		
PHONO (MM) .....	2 mV / 47 kohms	2 mV / 47 kohms
VCR, etc. ....	270 mV / 47 kohms	180 mV / 47 kohms
<b>Output level / impedance</b> .....	270 mV / 1 kohms	180 mV / 1 kohms
<b>[DAC section]</b>		
<b>Sampling frequency</b> .....	32 / 44.1 / 48 kHz	44.1 KHz
<b>Digital filter</b> .....	8 fs / 18 bit	4 fs / 16 bit
<b>D / A converter</b> .....	18 bit / 2 DAC	16 bit / 2 DAC
<b>Digital input level / impedance</b>		
OPTICAL .....	-14 to -23 dBm	-14 to -23 dBm
COAXIAL .....	0.5 Vp-p / 75 ohms	—
<b>Frequency response</b> .....	20 Hz to 20 kHz ± 0.5 dB	20 Hz to 20 kHz ± 0.5 dB
<b>Dynamic range</b> .....	95 dB	93 dB
<b>Total harmonic distortion</b> .....	0.07 % (1 kHz, 20 kHz LPF)	0.04 % (1 kHz, 20 kHz LPF)
<b>Power requirements</b> .....	AC 220 V-230 V, 50 Hz for Europe except UK AC 240 V, 50Hz for UK and Australia AC 110 / 120 / 220 / 240 V, 50 / 60 Hz convertible for other countries.	AC 220 V-230 V, 50 Hz for Europe except UK AC 240 V, 50Hz for UK and Australia AC 110 / 120 / 220 / 240 V, 50 / 60 Hz convertible for other countries.
<b>Dimensions</b> .....	360 (W) x 117 (H) x 310 (D) mm	360 (W) x 117 (H) x 310 (D) mm
<b>Weight</b> .....	6.4 kg	6.3 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.

# ★ 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:
  - 1) Wires covered with PVC tubing
  - 2) Double insulated wires
  - 3) High voltage leads
- Use specified insulating materials for hazardous live parts. Note especially:
  - 1) Insulation Tape
  - 2) PVC tubing
  - 3) Spacers (Insulating barriers)
  - 4) Insulation sheets for transistors
  - 5) 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.



6. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. 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  $\mu$ 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.

## MAKE YOUR CONTRIBUTION TO PROTECT THE ENVIRONMENT

Used batteries with the ISO symbol for recycling as well as small accumulators (rechargeable batteries), mini-batteries (cells) and starter batteries should not be thrown into the garbage can.



Please leave them at an appropriate depot. All other household batteries can be thrown out with the household waste.

# ★ INFORMATION

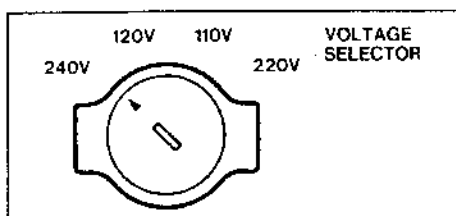
## SYMBOLS FOR PRIMARY DESTINATION

Alphabet indicates the destination of the units as listed below.

Symbols	principal Destinations
B	UK
E	Europe (except UK)
S	Australia
V	Germany
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

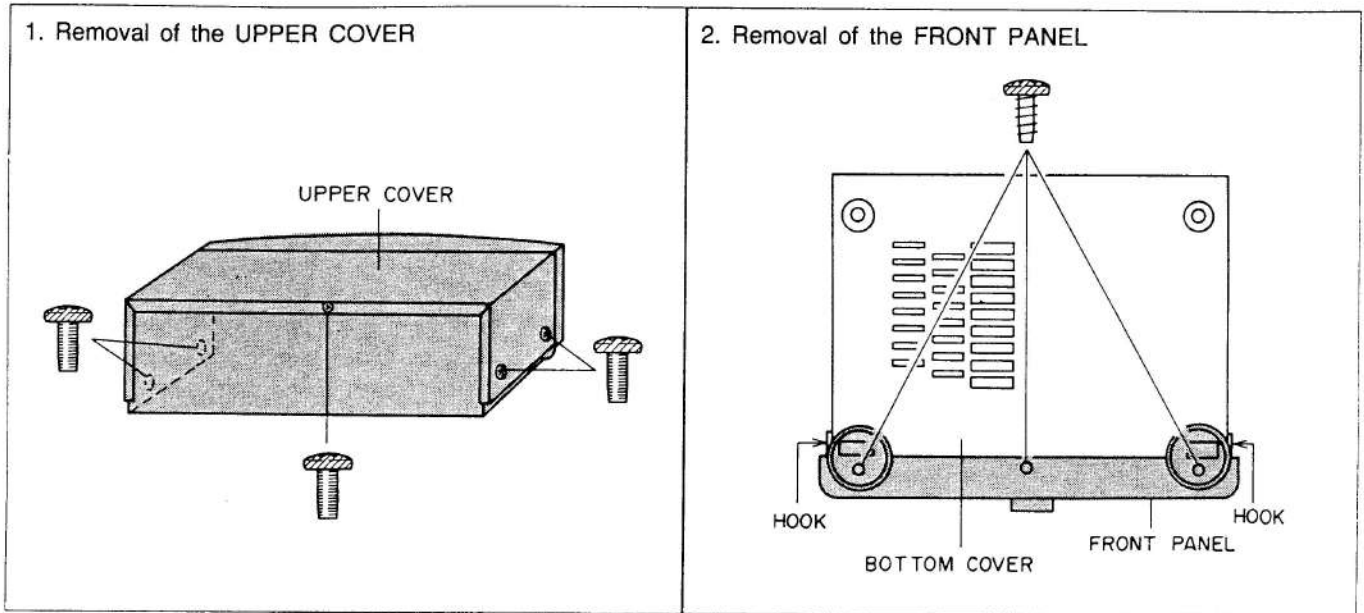
### [ABOUT THE POWER SUPPLY]

Power supply of the AM-M630/M830 is controlled by the tuner. Therefore when repair of the AM-M630/M830 is necessary, repair should be made together with the tuner. To repair the AM-M630/M830 without tuner, use the following procedure.

- 1) While pushing the G.E REC button, press the POWER button to turn the power of the AM-M630/M830 on.
- 2) To turn off the power of the AM-M630/M830, the AC power cord must be disconnected.

# 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

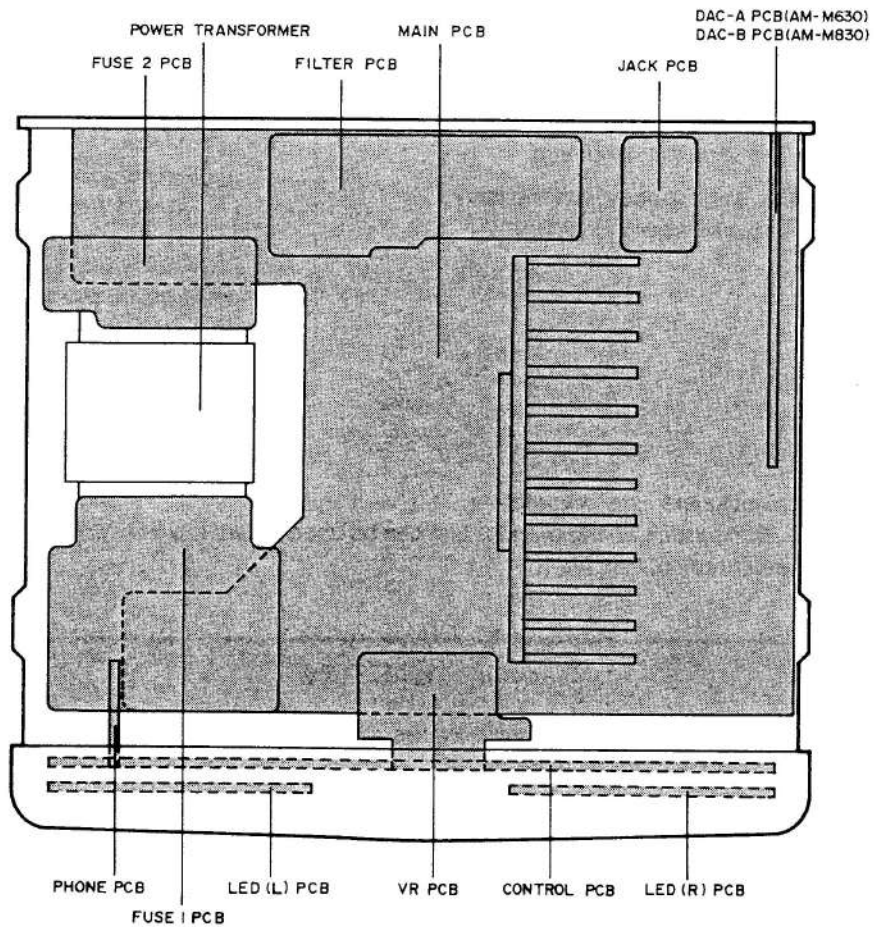


Fig. 2-1 Top view

### 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

#### 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.

b) PC Board

#### 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

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

#### AVERTISSEMENT

Δ (\*) 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-401055M	REMOCON RC-S630
2	*BT-401082J	TRANS POW A2073 BS [B,S] [AM-M630]
3	*BT-401081J	TRANS POW A2073 EV [E,V] [AM-M630]
4	*BT-401080J	TRANS POW A2073 U [U] [AM-M630]
5	*BT-401086J	TRANS POW A2074 BS [B,S] [AM-M830]
6	*BT-401085J	TRANS POW A2074 EV [E,V] [AM-M830]
7	*BT-401083J	TRANS POW A2074 U [U] [AM-M830]
8	ED-403757J	D LED SEL2913 D1,D2 AMBER
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-366684	D SILICON H 1SS136 F05
13	ED-394453J	D SILICON H 1SS92T-77 T26
14	*ED-394708J	D SILICON RBA402 200/4.0A [AM-M630]
15	*ED-384278J	D SILICON RBV602 200/6.0A [AM-M830]
16	*ED-389840J	D SILICON 1SP139-100HS F10
17	ED-394924J	D ZENER H HZS5C1
18	ED-397234J	D ZENER H HZS6A2
19	ED-346558	D ZENER H HZ12B1L [U]
20	ED-346627	D ZENER H HZ33 2
21	ED-346530	D ZENER H HZ6C3L
22	ED-346604	D ZENER H HZ7 B2
23	ED-346540	D ZENER H HZ9B1L
24	*EF-601301	FUSE SEMKO T 250V 2.00A [U]
25	*EF-623125	FUSE SEMKO T 250V 2.50A [AM-M630]
26	*EF-691007	FUSE SEMKO T 250V 3.15A [AM-M830]
27	*EF-690996	FUSE SEMKO T 250V 4.00A
28	*EF-668474	FUSE SEMKO T 250V 400MA
29	*EF-601942	FUSE SEMKO T 250V 630MA
30	*EF-258344	FUSE SEMKO T 250V 800MA
31	EI-367572	IC BA15218
32	EI-382660J	IC BA15218-DX
33	EI-373980	IC BA15218N
34	EI-400942J	IC LC6520C-4649 FX2AMP1
35	EI-401087J	IC LC78820
36	EI-393323J	IC M5218AL-771
37	EI-401056J	IC PD0029
38	EI-390594J	IC PD0052
39	EI-403229J	IC PD0060
40	*EI-358654	IC STK4152II [AM-M630]
41	*EI-366695	IC STK4172II [AM-M830]
42	EI-302233	IC TC4051BP
43	EI-332259	IC TC4052BP [AM-M830]
44	EI-200573	IC TC4053BP
45	EI-360040J1	IC TC74HCU04AP
46	EI-394518J	IC UPD6376CX
47	EI-719635	OSC CE KBR-4.19M 4.19MHZ
48	EJ-394459J	SOCKET OPTICAL GP1F32R
49	*EQ-394450J	RELAY POW DG12D1-O(M) 12V [U]
50	*ER-200746	R FUSE H ERD2FC 1/4W 1000G
51	*ER-332225	R FUSE H S10 ERD2FC 1/4W 56R0G
52	*ER-331188	R FUSE H S10 ERD2FC 1/4W 8R2J
53	ES-394512J	SW PUSH SPEA12 02-02N [AM-M830]
54	*ES-349070	SW SELECTOR YKS11-0002 02-4 [U] [SW901]
55	ES-394736J	SW TACT SOA-133HS

Ref.No.	Part No.	Description
56	ET-356336	TR DTA114ES [U]
57	ET-363953	TR DTA114TS
58	ET-369248	TR DTA114YS
59	ET-373382	TR DTA143ZS
60	ET-354365	TR DTC114YS
61	ET-373485	TR DTC123JS
62	ET-354371	TR DTC124ES
63	ET-373392	TR DTC124XS
64	ET-354364	TR DTC143TS
65	ET-373391	TR DTC143ZS
66	ET-354414	TR DTC144ES
67	ET-749377	TR 2SA1048 GR
68	ET-394555J	TR 2SA1515 Q,R
69	ET-366365	TR 2SB1185 E,F [U]
70	ET-373210	TR 2SB1187 E,F
71	ET-749375	TR 2SC2458 GR
72	ET-380685J	TR 2SD1761 E,F,G
73	ET-373025	TR 2SD1944 J1,J2,K
74	ET-401091J	TR 2SD2144S U,V,W T05
75	EV-401089J	VR ROTARY RK11K113 L=30 SP104
76	EV-401088J	VR ROTARY RK14K1230 L30 B103X2
77	EV-400827J	VR SPL RK16Y12MA B104X2

## 2. P.C BOARD

Ref.No.	Part	No.Description
1A	BA-A2068A020G	PC( #) MAIN AMP BLK AM-M630(U) [U] [AM-M630]
1B	BA-A2068A020H	PC( #) MAIN AMP BLK AM-M630(E) [E] [AM-M630]
1C	BA-A2068A020J	PC( #) MAIN AMP BLK AM-M630(V) [V] [AM-M630]
1D	BA-A2068A020K	PC( #) MAIN AMP BLK AM-M830(U) [U] [AM-M830]
1E	BA-A2068A020L	PC( #) MAIN AMP BLK AM-M830(E) [E] [AM-M830]
1F	BA-A2068A020M	PC( #) MAIN AMP BLK AM-M830(V) [V] [AM-M830]
2A	BA-A2068A040C	PC DAC-A BLK AM-M630(U) [U] [AM-M630]
2B	BA-A2068A040D	PC DAC-A BLK AM-M630(V) [V] [AM-M630]
2C	BA-A2074A040A	PC DAC-B BLK AM-M830(U) [U] [AM-M830]
2D	BA-A2074A040B	PC DAC-B BLK AM-M830(V) [V] [AM-M830]
3A	BA-A2073A030A	PC( #) CONTROL BLK AM-M630(U) [U] [AM-M630]
3B	BA-A2073A030B	PC( #) CONTROL BLK AM-M630(V) [V] [AM-M630]
3C	BA-A2073A030C	PC( #) CONTROL BLK AM-M830(U) [U] [AM-M830]
3D	BA-A2073A030D	PC( #) CONTROL BLK AM-M830(V) [V] [AM-M830]

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

- MAIN AMP P.C BOARD
- JACK P.C BOARD
- FILTER 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
- LED (L) P.C BOARD
- LED (R) P.C BOARD
- PHONE P.C BOARD

## 3. MAIN AMP P.C BOARD

Ref.No.	Part No.	Description
C115A	EC-394535J	C EC V CUT SME 332M 40.0DC [AM-M630]
C115B	EC-394534J	C EC V CUT SME 472M 50.0DC [AM-M830]
C116A	EC-394535J	C EC V CUT SME 332M 40.0DC [AM-M630]
C116B	EC-394534J	C EC V CUT SME 472M 50.0DC [AM-M830]

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-346540	D ZENER H HZ9B1L
D106	ED-346540	D ZENER H HZ9B1L
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
D122	ED-346540	D ZENER H HZ9B1L
D123A	*ED-394708J	D SILICON RBA402 200/4.0A [AM-M630]
D123B	*ED-384278J	D SILICON RBV602 200/6.0A [AM-M830]
D124	ED-346530	D ZENER H HZ6C3L
D125	ED-346540	D ZENER H HZ9B1L
F101A	*EF-623125	FUSE SEMKO T 250V 2.50A [AM-M630]
F101B	*EF-691007	FUSE SEMKO T 250V 3.15A [AM-M830]
FR1	*ER-200746	R FUSE H ERD2FC 1/4W 1000G
FR2	*ER-200746	R FUSE H ERD2FC 1/4W 1000G
FR101	*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-302233	IC TC4051BP
IC3	EI-302233	IC TC4051BP
IC4	EI-200573	IC TC4053BP
IC5	EI-200573	IC TC4053BP
IC6	EI-367572	IC BA15218
IC7	EI-367572	IC BA15218 [AM-M830]
IC8	EI-332259	IC TC4052BP [AM-M830]
IC101A	*EI-358554	IC STK4152II [AM-M630]
IC101B	*EI-366695	IC STK4172II [AM-M830]
J1A	EJ-394438J	PIN J YKC21-3050 SEALED 6P [U,E]
J1B	EJ-394437J	PIN J YKC21-3036 6P [V]
J2A	EJ-394436J	PIN J YKC21-3034 4P [AM-M630]
J2B	EJ-394437J	PIN J YKC21-3036 6P [AM-M830]
J3	EJ-394819J	SOCKET 52303-1511 15P
J4	EJ-394442J	SOCKET 52303-1211 12P
L101	EO-394520J	COIL FIX 2 *0708-1197
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-M630]
TM1B	EJ-349401	TERMINAL LEVER YKD21-0027 8P [AM-M830]
TR1	ET-401091J	TR 2SD2144S U,V,W T05
TR2	ET-401091J	TR 2SD2144S U,V,W T05
TR4	ET-369248	TR DTA114YS
TR5	ET-373392	TR DTC124XS
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-M630)

Ref.No.	Part No.	Description
D1	ED-307572	D SILICON H 1SS131
D2	ED-307572	D SILICON H 1SS131
D3	ED-397234J	D ZENER H HZS6A2
D4	ED-307572	D SILICON H 1SS131
D5	ED-307572	D SILICON H 1SS131
FL1	EH-386589J	FILTER EMI FBA04HA600AB-00 T26 [V]
FL2	EH-386589J	FILTER EMI FBA04HA600AB-00 T26 [V]
FL3	EH-386589J	FILTER EMI FBA04HA600AB-00 T26 [V]
FL4	EH-395074J	FILTER EMI FBA04HA600VB-00 T05 [V]
IC1	EI-390594J	IC PD0052
IC2	EI-401056J	IC PD0029
IC3	EI-394518J	IC UPD6376CX
IC4	EI-393323J	IC M5218AL-771
J1	EJ-394459J	SOCKET OPTICAL GP1F32R
TR1	ET-749375	TR 2SC2458 GR
TR2	ET-373392	TR DTC124XS
TR3	ET-369248	TR DTA114YS
TR4	ET-373391	TR DTC143ZS
TR5	ET-369248	TR DTA114YS
TR6	ET-373391	TR DTC143ZS
TR7	ET-394555J	TR 2SA1515 Q.R
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-373485	TR DTC123JS
TR13	ET-354414	TR DTC144ES
TR14	ET-373485	TR DTC123JS

#### 5. DAC-B P.C BOARD (AM-M830)

Ref.No.	Part No.	Description
D201	ED-307572	D SILICON H 1SS131
D301	ED-394924J	D ZENER H HZS5C1
D481	ED-307572	D SILICON H 1SS131
D482	ED-307572	D SILICON H 1SS131
FL601	EH-386589J	FILTER EMI FBA04HA600AB-00 T26 [V]
FL602	EH-386589J	FILTER EMI FBA04HA600AB-00 T26 [V]
FL603	EH-386589J	FILTER EMI FBA04HA600AB-00 T26 [V]
FL604	EH-395074J	FILTER EMI FBA04HA600VB-00 T05 [V]
IC101	EI-360040J1	IC TC74HCU04AP
IC201	EI-390594J	IC PD0052
IC301	EI-403229J	IC PD0060
IC302	EI-401087J	IC LC78820
IC401	EI-393323J	IC M5218AL-771
IC402	EI-393323J	IC M5218AL-771
J101	EJ-394459J	SOCKET OPTICAL GP1F32R
J102A	EJ-390593J	PIN J *A2076-2 3P [U]
J102B	EJ-394461J	PIN J *A2076-1 3P [V]
T101	BT-368261	TRANS PULSE TC-1027-04
TR301	ET-354414	TR DTC144ES
TR401	ET-354364	TR DTC143TS
TR402	ET-749375	TR 2SC2458 GR
TR451	ET-354364	TR DTC143TS
TR452	ET-749375	TR 2SC2458 GR
TR481	ET-354365	TR DTC114YS
TR482	ET-373382	TR DTA143ZS
TR483	ET-373392	TR DTC124XS
TR484	ET-369248	TR DTA114YS

#### 6. CONTROL P.C BOARD

Ref.No.	Part No.	Description
D181	ED-307572	D SILICON H 1SS131
D182	ED-307572	D SILICON H 1SS131
D201	ED-307572	D SILICON H 1SS131
D202	ED-307572	D SILICON H 1SS131
D203	ED-307572	D SILICON H 1SS131
D204	ED-307572	D SILICON H 1SS131
IC101	EI-373980	IC BA15218N
IC102	EI-373980	IC BA15218N
IC201	EI-400942J	IC LC6520C-4649 FX2AMP1
SW301	ES-394512J	SW PUSH SPEA12 02-02N [AM-M830]
SW302	ES-394512J	SW PUSH SPEA12 02-02N [AM-M830]
TR101	ET-401091J	TR 2SD2144S U,V,W T05
TR151	ET-401091J	TR 2SD2144S U,V,W T05
TR181	ET-354365	TR DTC114YS
TR182	ET-373392	TR DTC124XS
TR183	ET-369248	TR DTA114YS
TR201	ET-354365	TR DTC114YS
TR202	ET-354365	TR DTC114YS
TR203	ET-354365	TR DTC114YS
TR204	ET-749377	TR 2SA1048 GR
TR205	ET-363953	TR DTA114TS
TR206	ET-363953	TR DTA114TS
TR207	ET-363953	TR DTA114TS
TR208	ET-363953	TR DTA114TS
TR209	ET-749375	TR 2SC2458 GR
TR210	ET-373391	TR DTC143ZS [AM-M830]
TR211	ET-354365	TR DTC114YS
TR212	ET-354414	TR DTC144ES
TS201	ES-394736J	SW TACT SOA-133HS
TS202	ES-394736J	SW TACT SOA-133HS
TS203	ES-394736J	SW TACT SOA-133HS
TS204	ES-394736J	SW TACT SOA-133HS
TS205	ES-394736J	SW TACT SOA-133HS [AM-M830]
VR101	EV-401088J	VR ROTARY RK14K1230 L30 B103X2
VR102	EV-401088J	VR ROTARY RK14K1230 L30 B103X2
VR103	EV-401089J	VR ROTARY RK11K113 L=30 SP104
X201	EI-719635	OSC CE KBR-4.19M 4.19MHZ

#### 7. VR P.C BOARD

Ref.No.	Part No.	Description
D401	ED-366684	D SILICON H 1SS136 F05
TR401	ET-749377	TR 2SA1048 GR
TR402	ET-749377	TR 2SA1048 GR
TR403	ET-749375	TR 2SC2458 GR
TR404	ET-749375	TR 2SC2458 GR
VR401	EV-400827J	VR SPL RK16Y12MA B104X2

#### 8. LED (L) P.C BOARD

Ref.No.	Part No.	Description
D501	ED-394416J	D LED SLV-31VT3F RED
D502	ED-394416J	D LED SLV-31VT3F RED
D503	ED-394416J	D LED SLV-31VT3F RED
D504	ED-394416J	D LED SLV-31VT3F RED
D505	ED-403757J	D LED SEL2913 D1,D2 AMBER
D506	ED-403757J	D LED SEL2913 D1,D2 AMBER
D507	ED-403757J	D LED SEL2913 D1,D2 AMBER [AM-M830]
D508	ED-403757J	D LED SEL2913 D1,D2 AMBER [AM-M830]
D509	ED-403757J	D LED SEL2913 D1,D2 AMBER [AM-M830]

## 9. LED (R) P.C BOARD

Ref.No.	Part No.	Description
D601	ED-403757J	D LED SEL2913 D1,D2 AMBER [AM-M830]
D602	ED-403757J	D LED SEL2913 D1,D2 AMBER [AM-M830]
D603	ED-382365J	D LED SLR-34VC3F RED
D604	ED-403757J	D LED SEL2913 D1,D2 AMBER [AM-M830]
D605	ED-403757J	D LED SEL2913 D1,D2 AMBER [AM-M830]
D606	ED-403757J	D LED SEL2913 D1,D2 AMBER [AM-M830]
D607	ED-403757J	D LED SEL2913 D1,D2 AMBER
D608	ED-403757J	D LED SEL2913 D1,D2 AMBER
D609	ED-403757J	D LED SEL2913 D1,D2 AMBER
D610	ED-403757J	D LED SEL2913 D1,D2 AMBER
D611	ED-403757J	D LED SEL2913 D1,D2 AMBER

## 10. PHONE P.C BOARD

Ref.No.	Part No.	Description
J701A	EJ-394455J	PHONE J 3P YKB21-5006 6.3 [AM-M630]
J701B	EJ-355011	PHONE J 3P YKB21-5010 6.3 [AM-M630]
R701	ER-325843	R OMF H S15 FS 1W 391J
R751	ER-325843	R OMF H S15 FS 1W 391J

## 11. JACK P.C BOARD

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

## 12. FILTER P.C BOARD

Ref.No.	Part No.	Description
C301	*EC-320548	C CE V F 103Z 250AC [U]
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-O(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]

## 13. FUSE-1 P.C BOARD

Ref.No.	Part No.	Description
F401	*EF-690996	FUSE SEMKO T 250V 4.00A
F402	*EF-690996	FUSE SEMKO T 250V 4.00A

Ref.No.	Part No.	Description
F403	*EF-668474	FUSE SEMKO T 250V 400MA
F404	*EF-668474	FUSE SEMKO T 250V 400MA
F405	*EF-601942	FUSE SEMKO T 250V 630MA

## 14. FUSE-2 P.C BOARD

Ref.No.	Part No.	Description
F406	*EF-258344	FUSE SEMKO T 250V 800MA
F407	*EF-258344	FUSE SEMKO T 250V 800MA
F408	*EF-601301	FUSE SEMKO T 250V 2.00A

## 15. FINAL ASSEMBLY

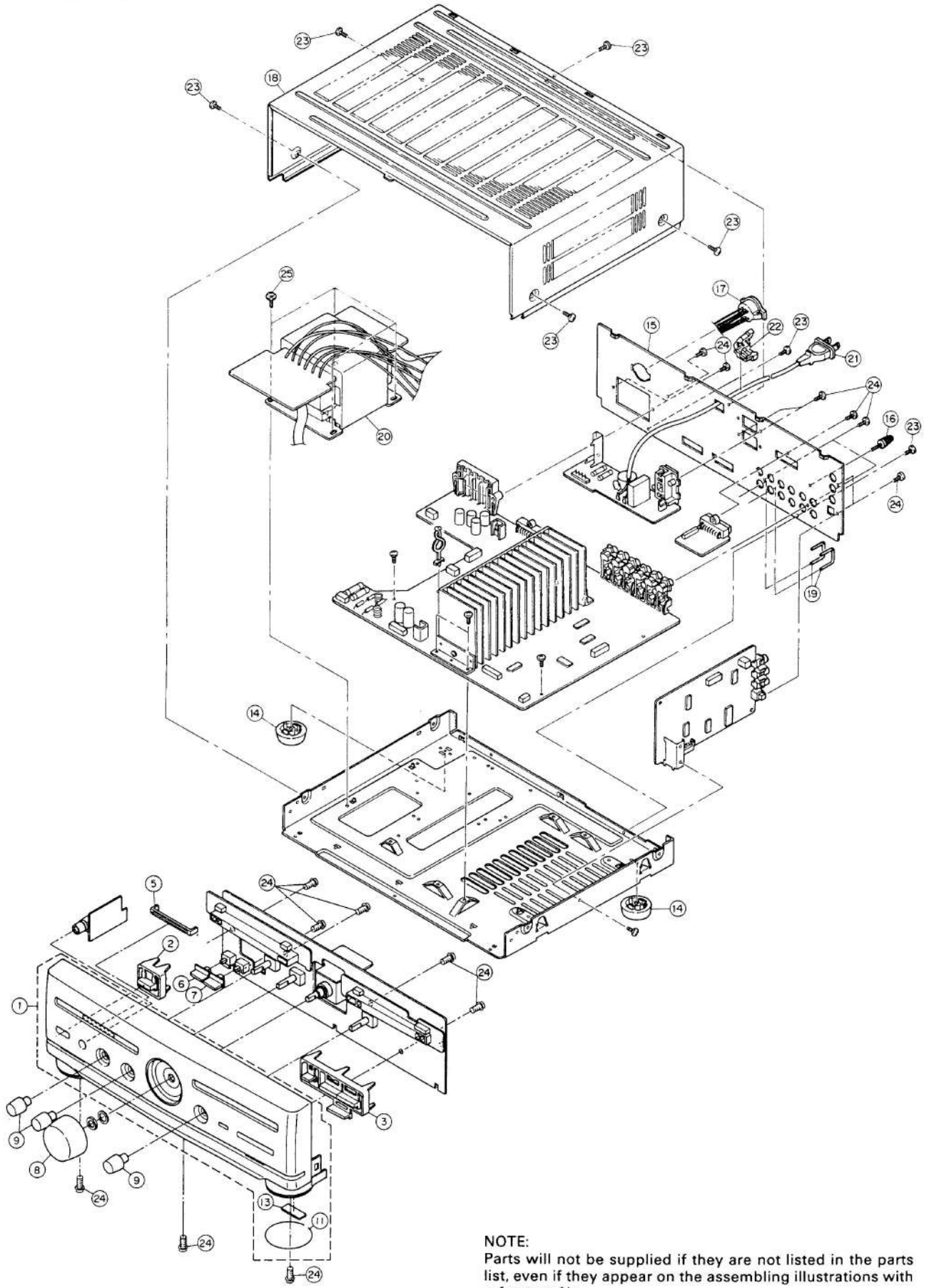
Ref.No.	Part No.	Description
1A	BD-A2073A050A	PANEL FRONT BLK AM-M630-B
1B	BD-A2073A050B	PANEL FRONT BLK AM-M630-B
2	SK-401821M	BUTTON POWER
3A	SK-401822M	BUTTON OPERATION-A [AM-M630]
3B	SK-401823M	BUTTON OPERATION-B [AM-M630]
5	SE-394119M	LENS OPTICAL
6	SK-401824M	BUTTON SP(L) [AM-M630]
7	SK-401825M	BUTTON SP(R) [AM-M630]
8	SK-401829M	KNOB VR
9	SK-401830M	KNOB TONE
11	SZ-401762M	RING FOOT
13	SA-394136M	CUSHION FOOT
14	SA-394127M1	FOOT REAR
15A	SP-401812M	PANEL REAR AM-M630(U)
15B	SP-401813M	PANEL REAR AM-M630(E)
15C	SP-401814M	PANEL REAR AM-M630(V)
15D	SP-401816M	PANEL REAR AM-M630(B)
15E	SP-401817M	PANEL REAR AM-M630(U)
15F	SP-401818M	PANEL REAR AM-M630(E)
15G	SP-401819M	PANEL REAR AM-M630(V)
15H	SP-401820M	PANEL REAR AM-M630(B)
16	EJ-394538J	TERMINAL W/S 0033-208-0-00
17	*ES-349070	SW SELECTOR YKS11-0002 02-4 [U] [SW901]
18	SP-394094M	COVER UPPER AM
19	EJ-394657J	PLUG SHORT-PIN CNT31-0074
20A	*BT-401080J	TRANS POW A2073 U [U] [AM-M630]
20B	*BT-401081J	TRANS POW A2073 EV [E,V] [AM-M630]
20C	*BT-401082J	TRANS POW A2073 BS [B,S] [AM-M630]
20D	*BT-401083J	TRANS POW A2074 U [U] [AM-M630]
20E	*BT-401085J	TRANS POW A2074 EV [E,V] [AM-M630]
20F	*BT-401086J	TRANS POW A2074 BS [B,S] [AM-M630]
21A	*EW-374894	AC CORD 2C VM-0129A,VFF U/T [U]
21B	*EW-347897	AC CORD 2 CORES VM0364,LCFL EV [E,V]
21C	*EW-346249	AC CORD 2 CORES LCFL2X0.75 B [B]
21D	*EW-347898	AC CORD 2 CORES VM-0436,LCFL S [S]
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

## 16. ACCESSARY

Ref.No.	Part No.	Description
1	AX-401055M	REMOCON RC-S630



**FINAL ASSEMBLY**



**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.

# NOTE

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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

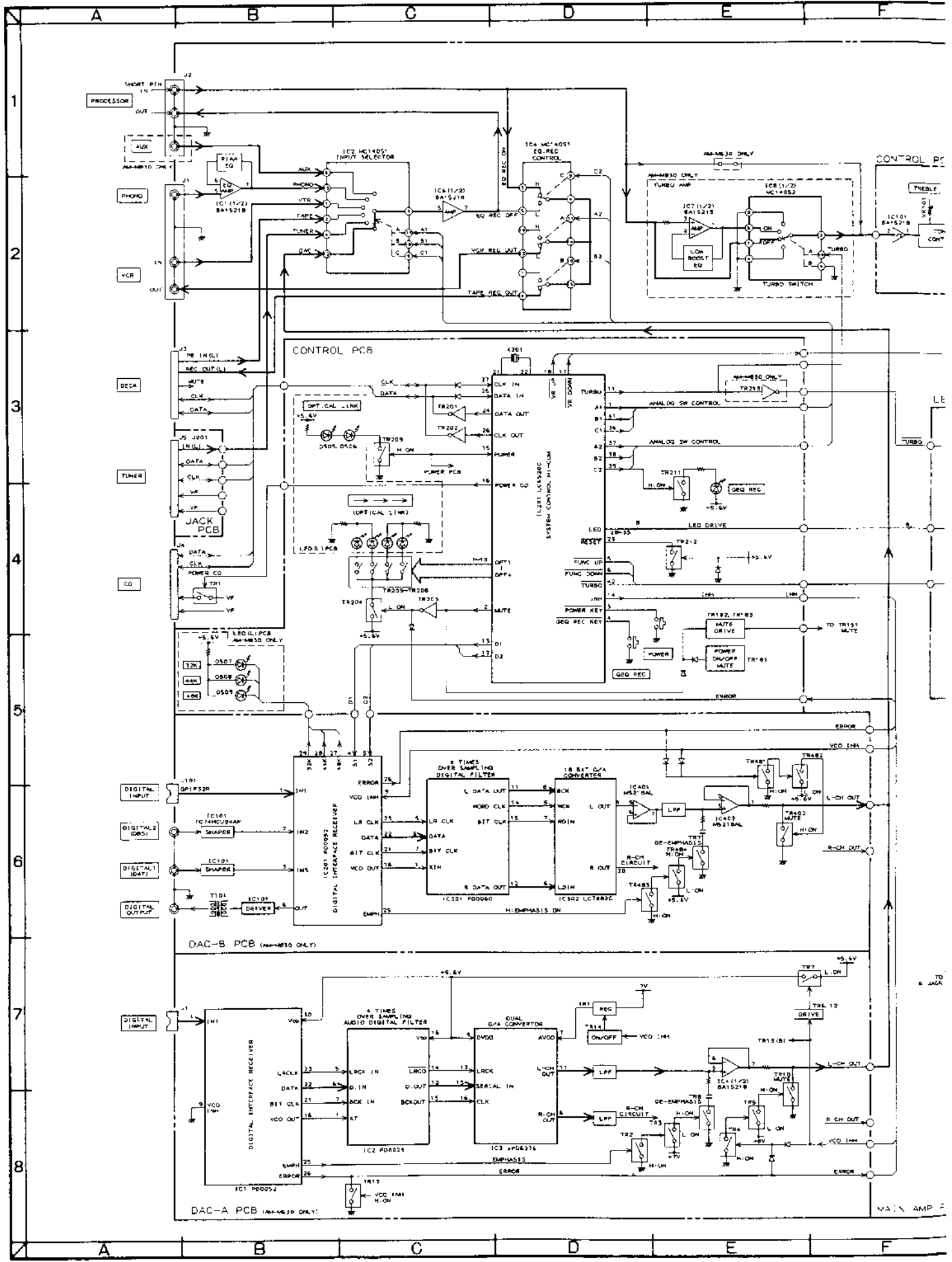
MODEL **AM-M630**

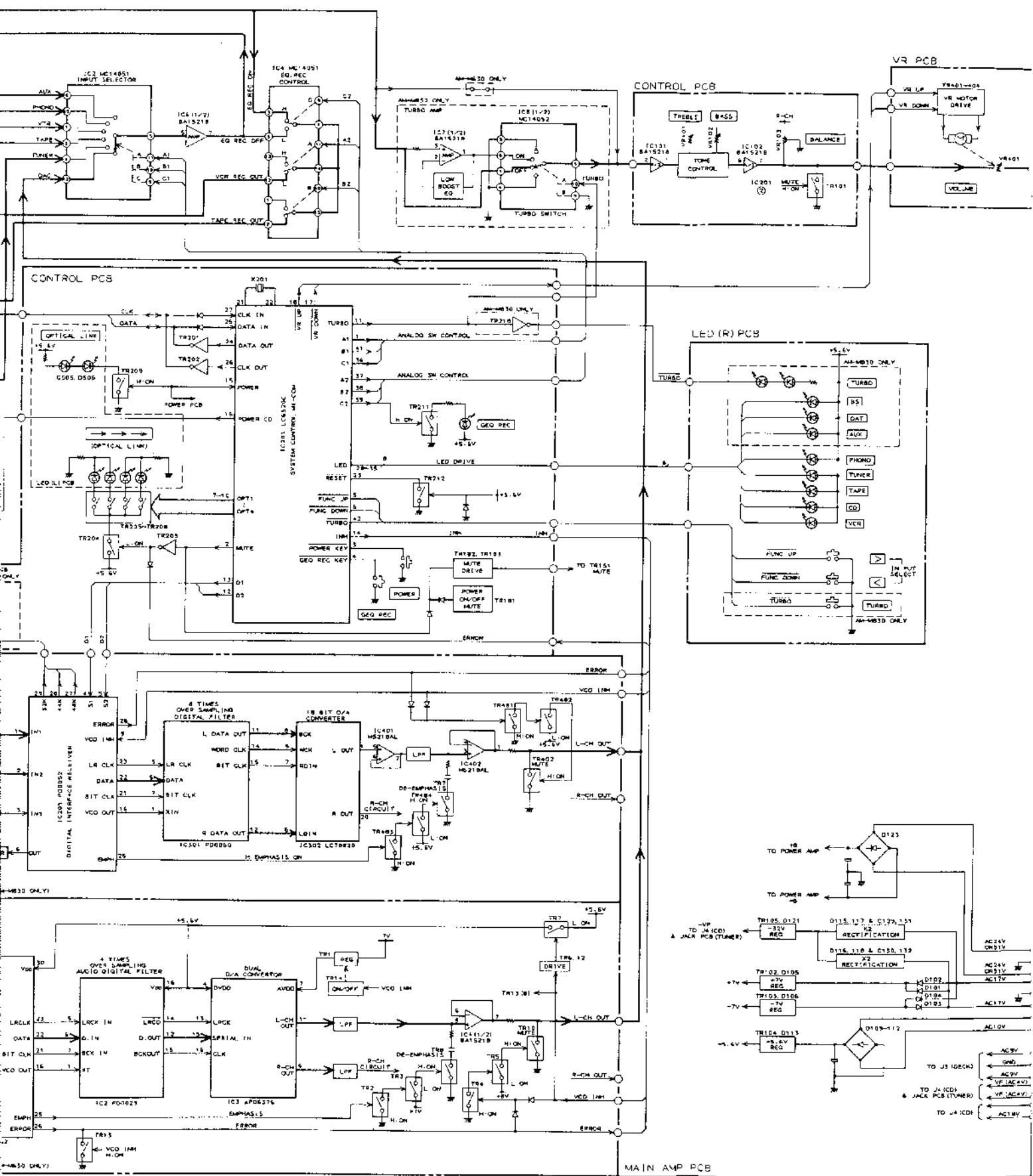
MODEL **AM-M830**

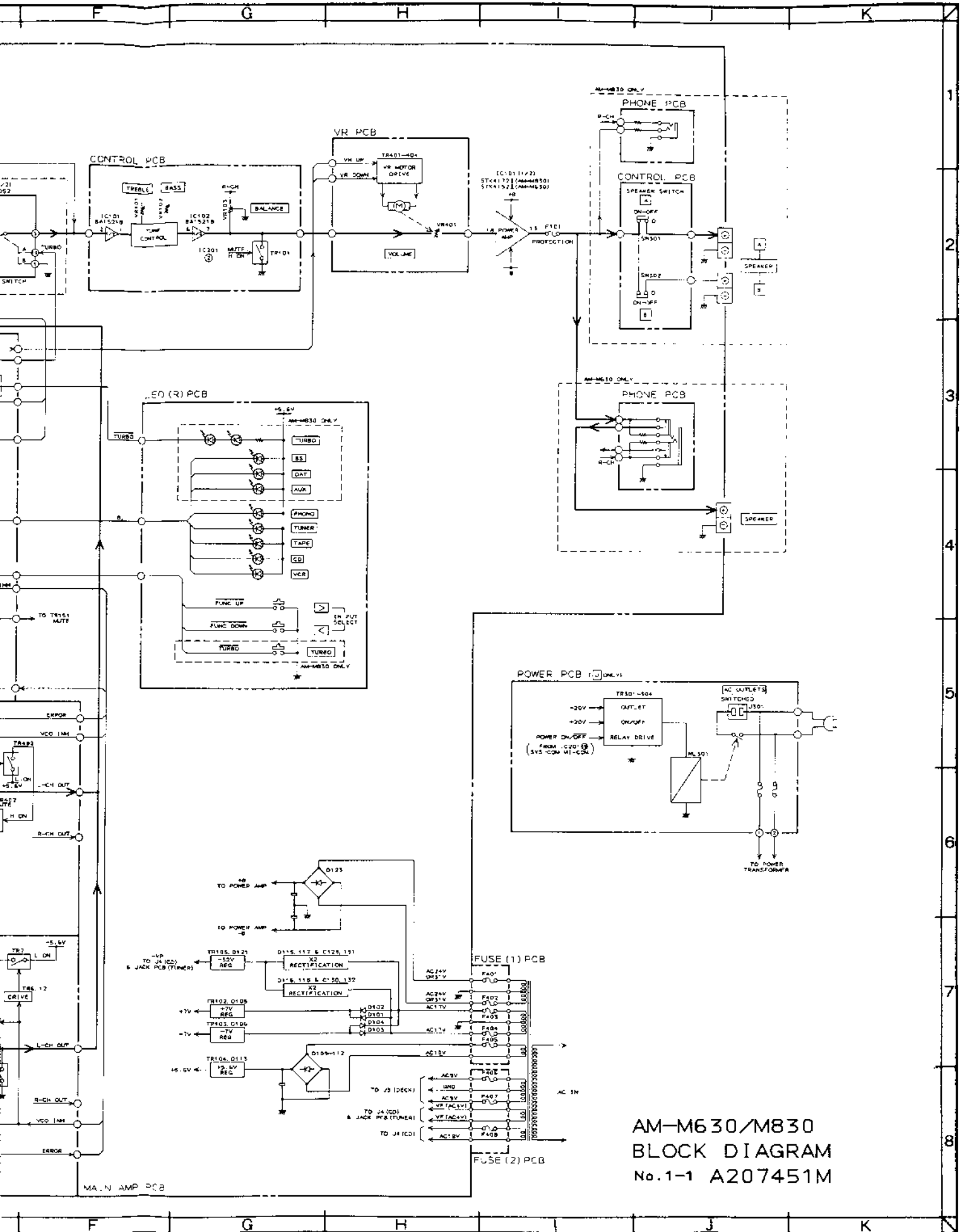
## **SCHEMATIC DIAGRAMS AND PC BOARDS**

### TABLE OF CONTENTS

1. BLOCK DIAGRAM .....	2
2. CONNECTION DIAGRAM .....	3
3. MAIN SCHEMATIC DIAGRAM .....	4
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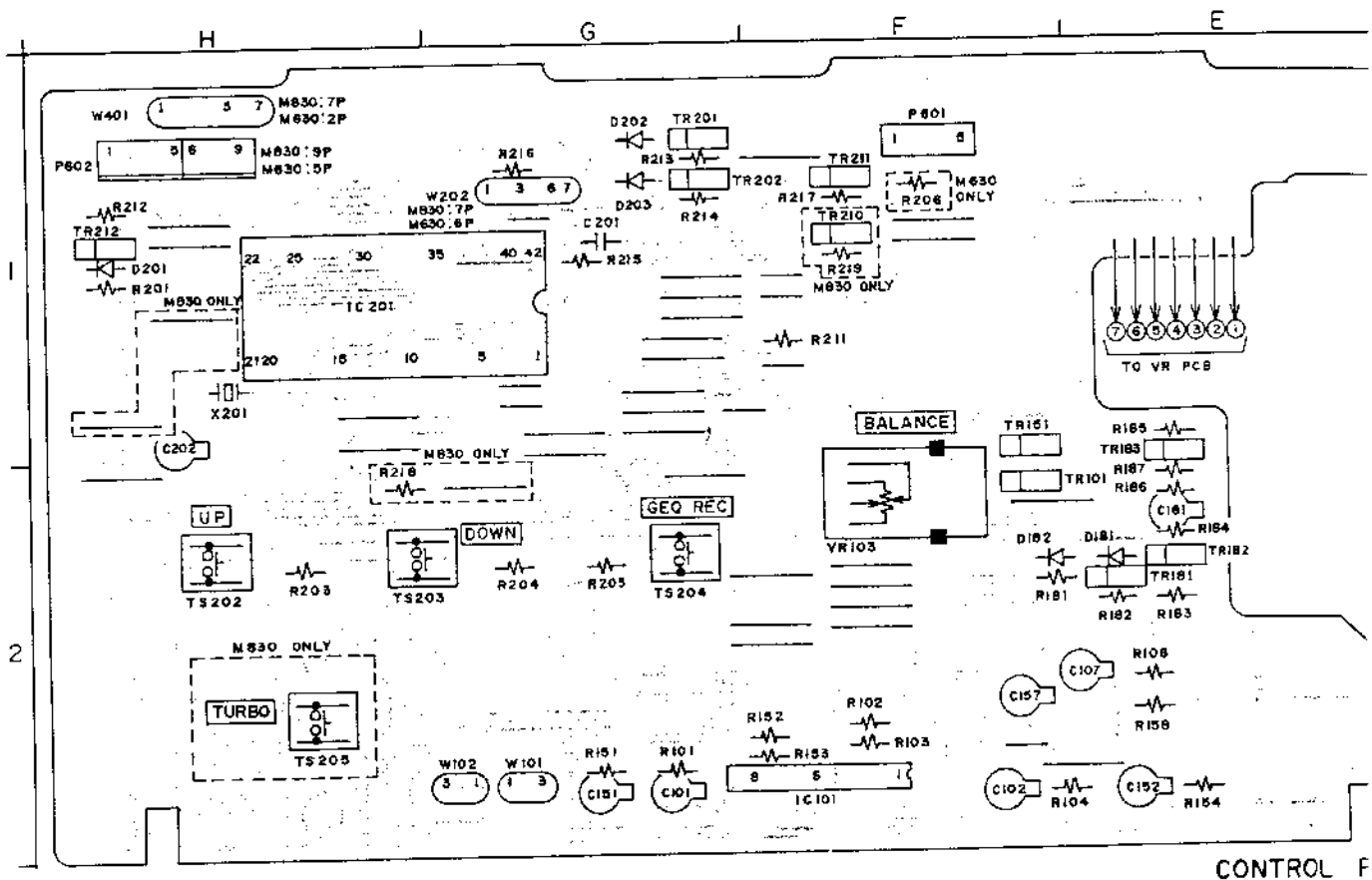






AM-M630/M830  
BLOCK DIAGRAM  
No.1-1 A207451M

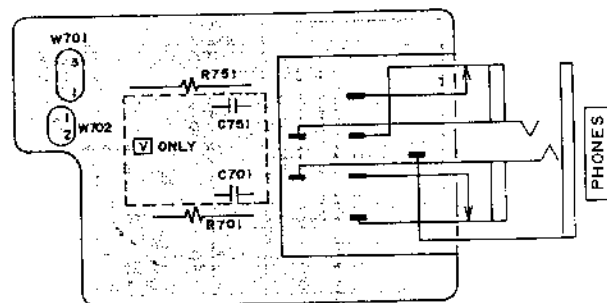
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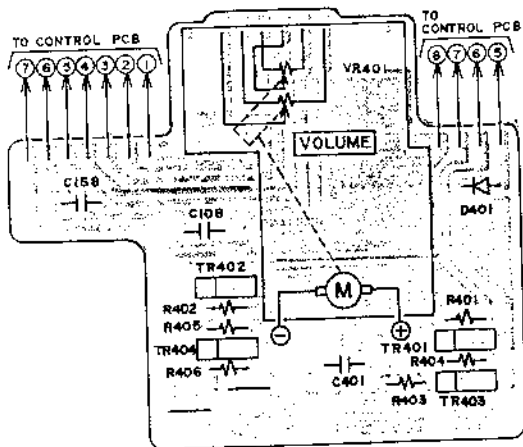
CONTROL F

PRINCIPAL PARTS LOCATION

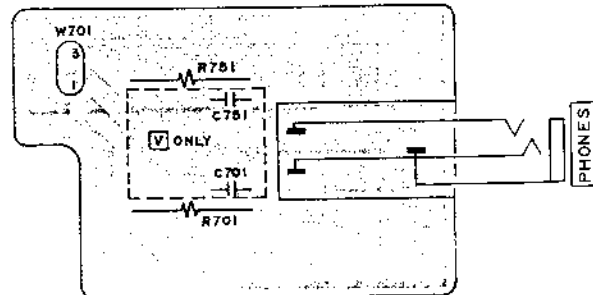
ICS	TRANSISTORS
IC101.....F2	TR101.....F2
IC102.....D,C2	TR151.....F2
IC201.....H,G1	TR181.....E2
CONNECTORS	TR182.....E2
P501.....A1	TR183.....E2
P502.....C1	TR201.....G1
P601.....F1	TR202.....G1
P602.....H1	TR203.....B1
W101.....G2	TR204.....B1
W102.....G2	TR205.....B1
W201.....D1	TR206.....B1
W202.....G1	TR207.....C1
W301.....B2	TR208.....C1
W302.....B2	TR209.....C1
W401.....H1	TR210.....F1
	TR211.....F1
	TR212.....H1



PHONE PCB A2073A502E  
(AM-M630)

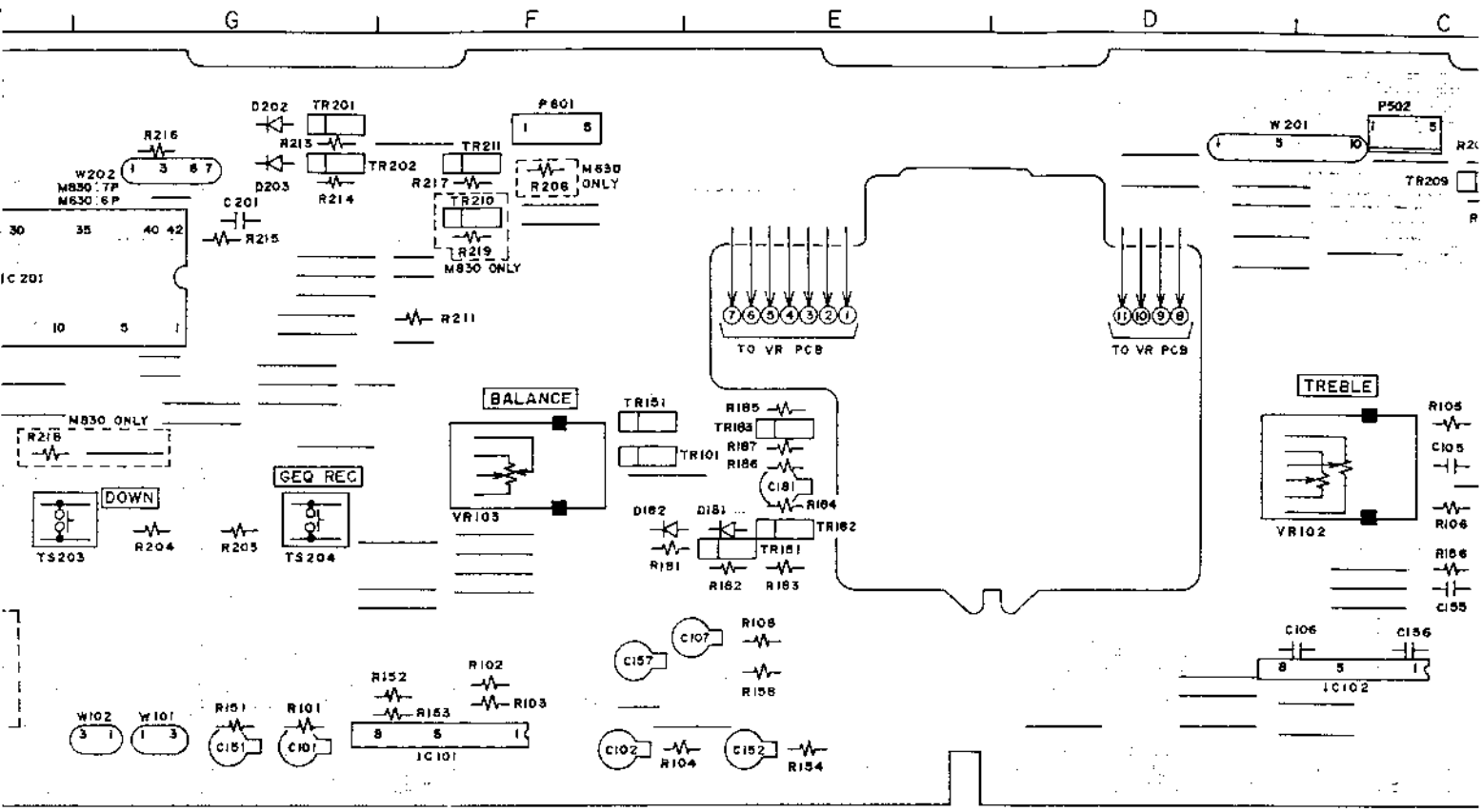


VR PCB A2073A502B



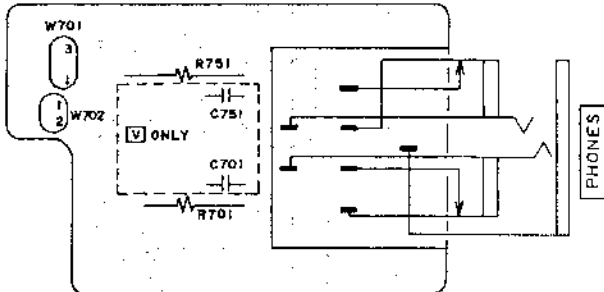
PHONE PCB A2073A502E  
(AM-M830)



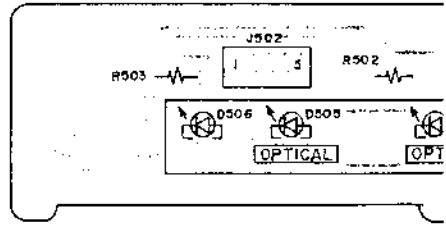


CONTROL PCB A2073A502A

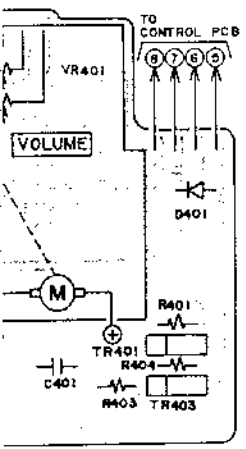
- ION
- TRANSISTORS
- TR101.....F2
  - TR151.....F2
  - TR181.....E2
  - TR182.....E2
  - TR183.....E2
  - TR201.....G1
  - TR202.....G1
  - TR203.....B1
  - TR204.....B1
  - TR205.....B1
  - TR206.....B1
  - TR207.....C1
  - TR208.....C1
  - TR209.....C1
  - TR210.....F1
  - TR211.....F1
  - TR212.....H1



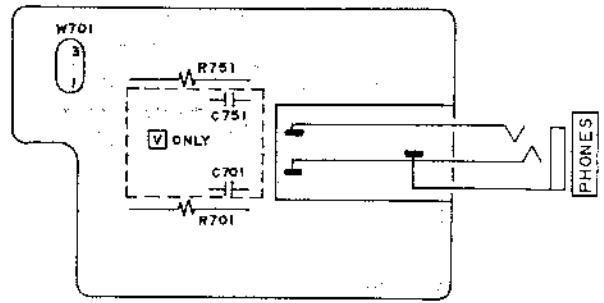
PHONE PCB A2073A502E  
(AM-M630)



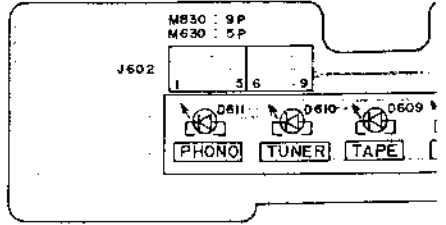
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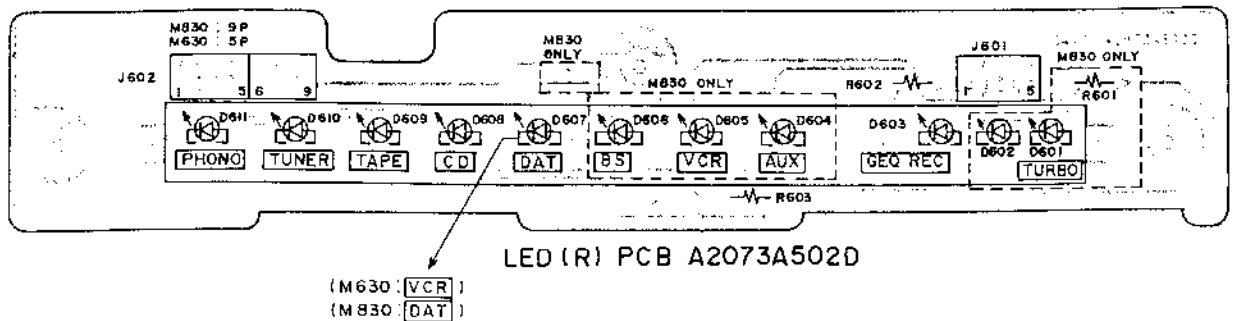
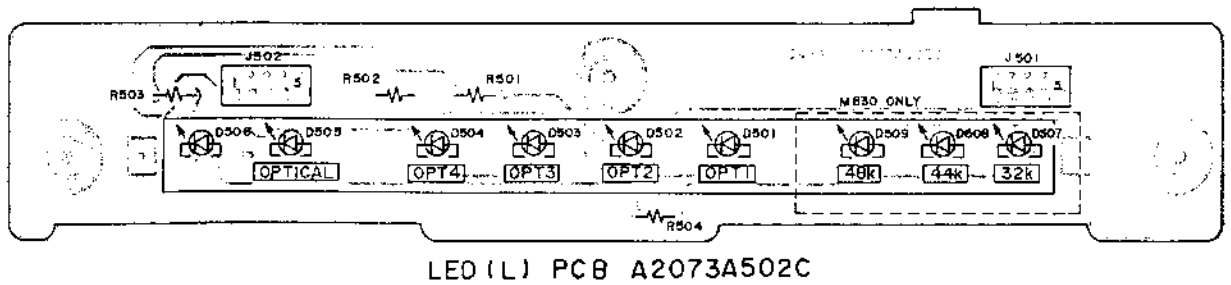
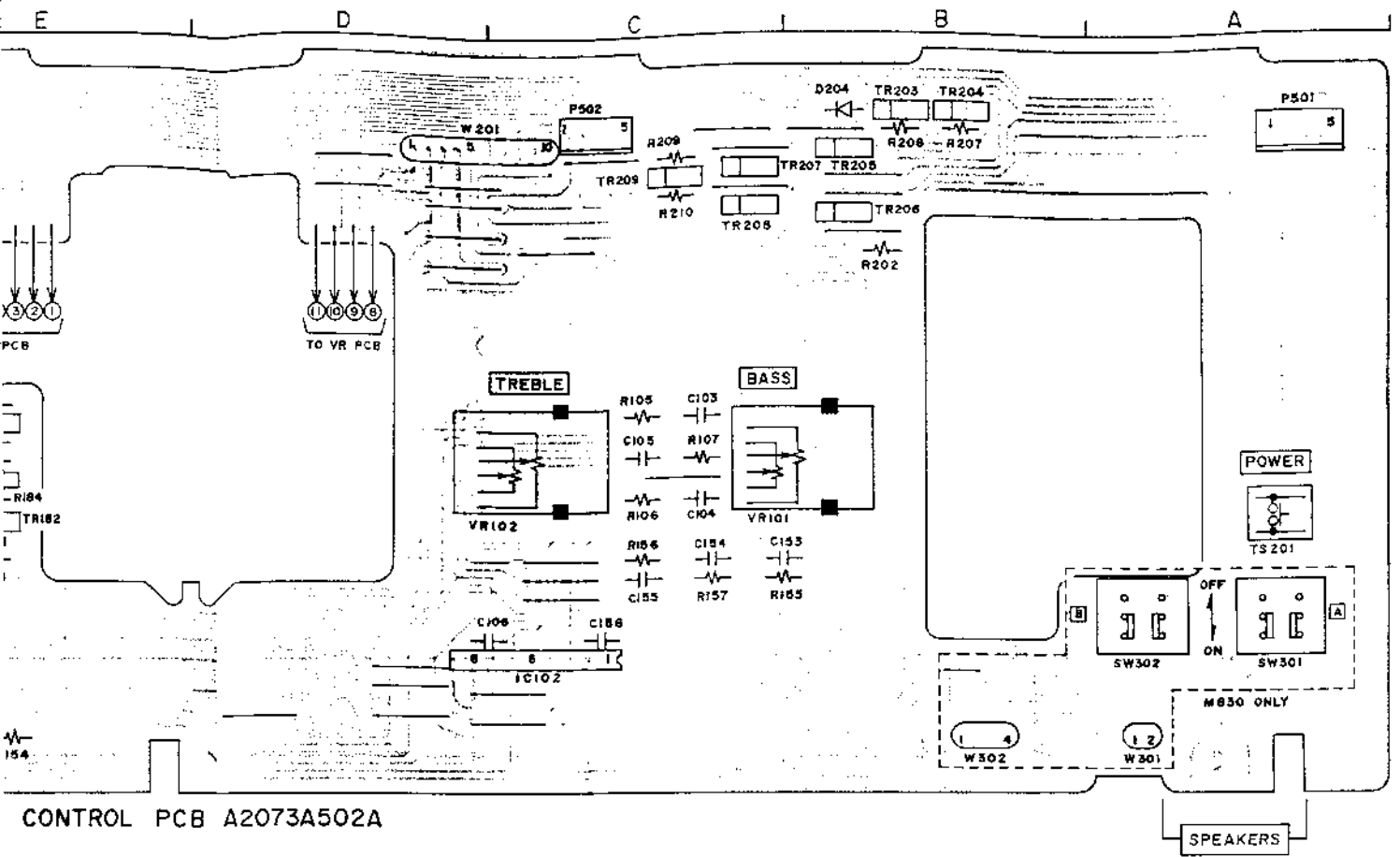
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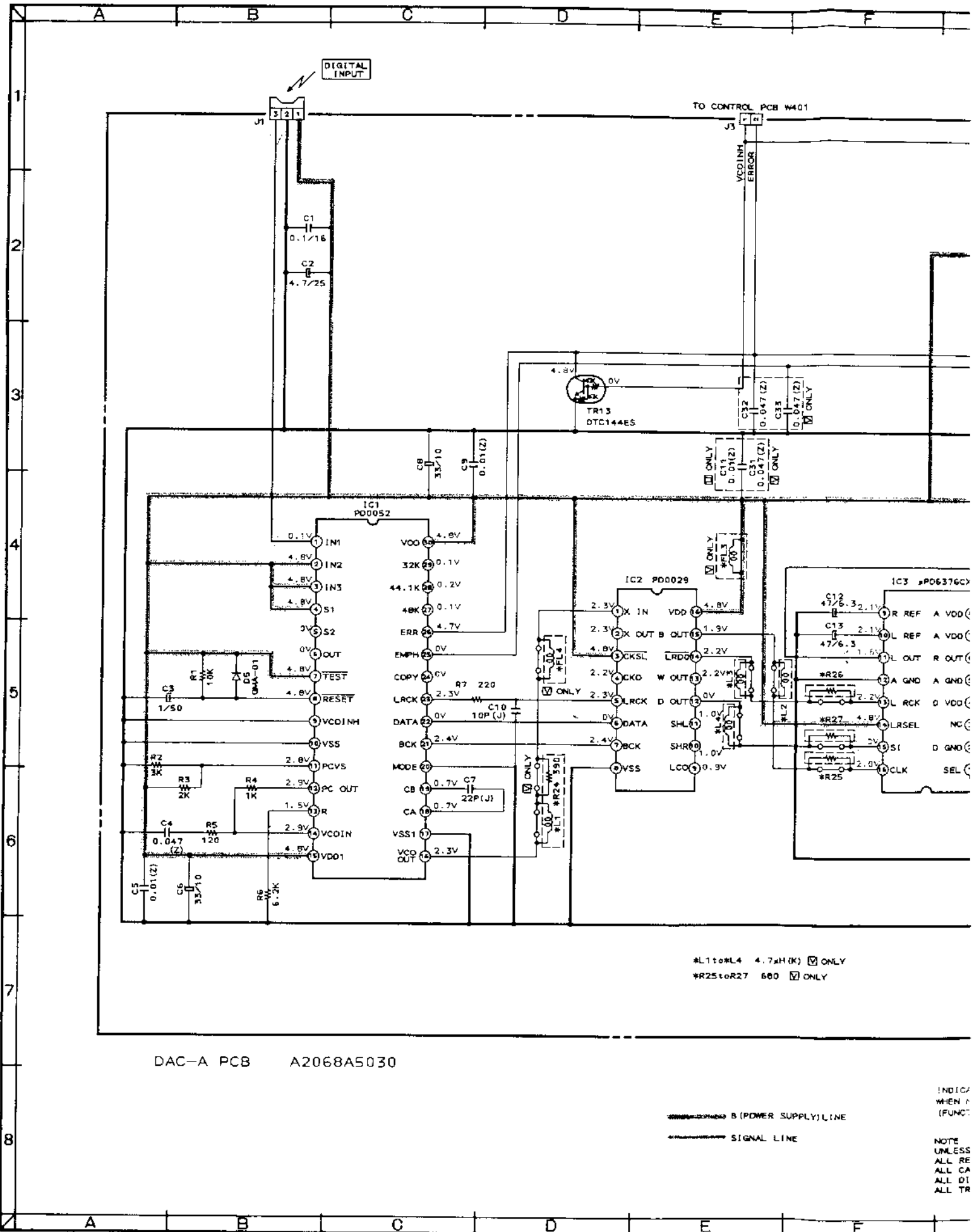


PHONE PCB A2073A502E  
(AM-M830)



(M630 : VCF  
(M830 : DAT





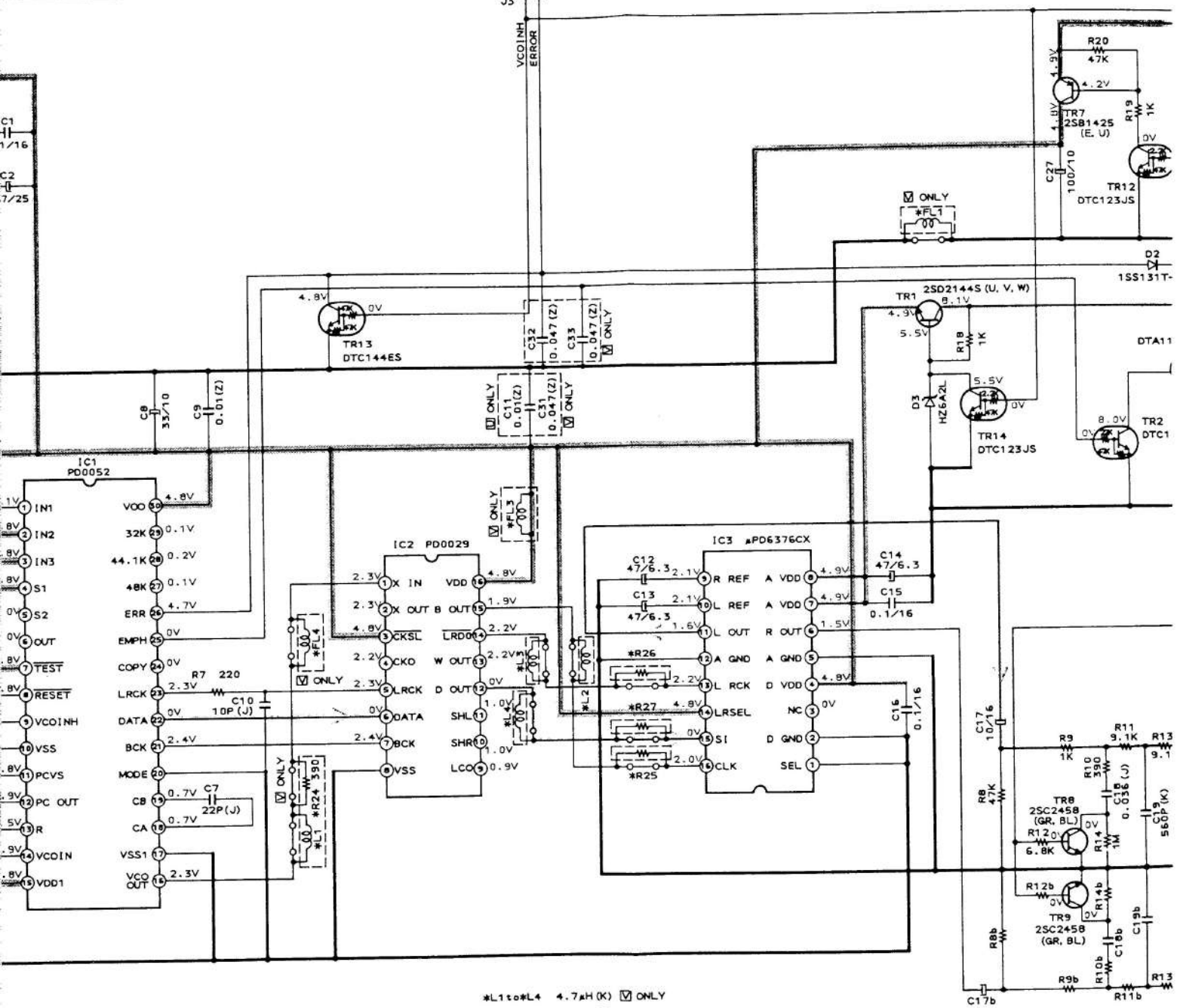
DAC-A PCB A2068A5030

R1 to R4 4.7kH(K) ONLY  
 R25 to R27 680 ONLY

INDICATED WHEN POWER SUPPLY LINE  
 (FUNCTION)  
 SIGNAL LINE  
 NOTE  
 UNLESS ALL RESISTORS  
 ALL CAPACITORS  
 ALL DIODES  
 ALL TRANSISTORS

DIGITAL INPUT

TO CONTROL PCB W401



\*L1to\*L4 4.7mH (K)  ONLY  
 \*R25toR27 580  ONLY

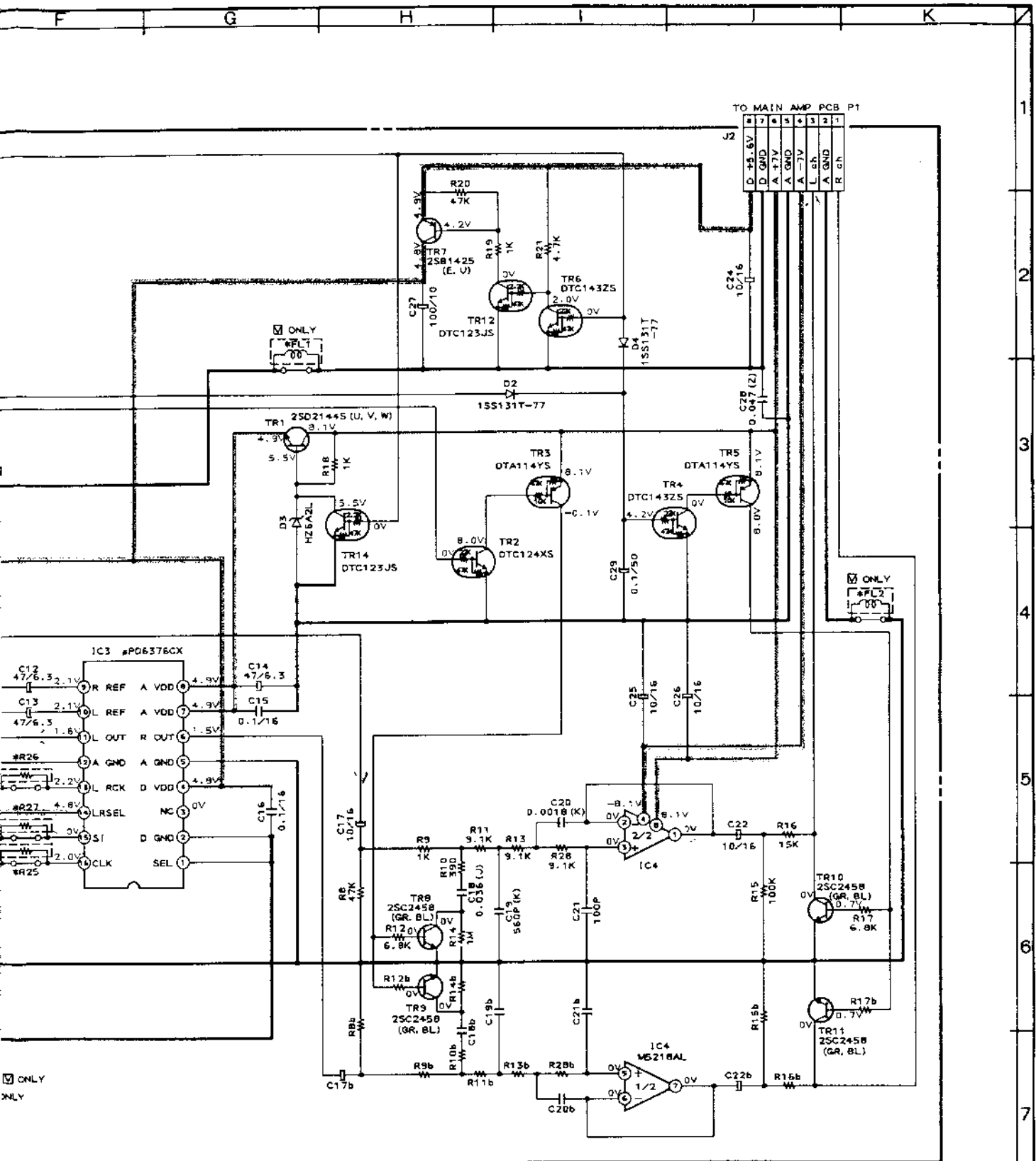
A2068A5030

----- B (POWER SUPPLY) LINE  
 \_\_\_\_\_ SIGNAL LINE

INDICATED VOLTAGES WERE MEASURED  
 WHEN NO SIGNAL WAS BEING INPUT.  
 (FUNCTION: CD MODE)

NOTE  
 UNLESS OTHERWISE SPECIFIED  
 ALL RESISTORS IN OHMS 1/8W (J)  
 ALL CAPACITORS IN pF 50WV (M)  
 ALL DIODES ARE 1SS131  
 ALL TRANSISTORS ARE 2SC2458 (GR, BL)

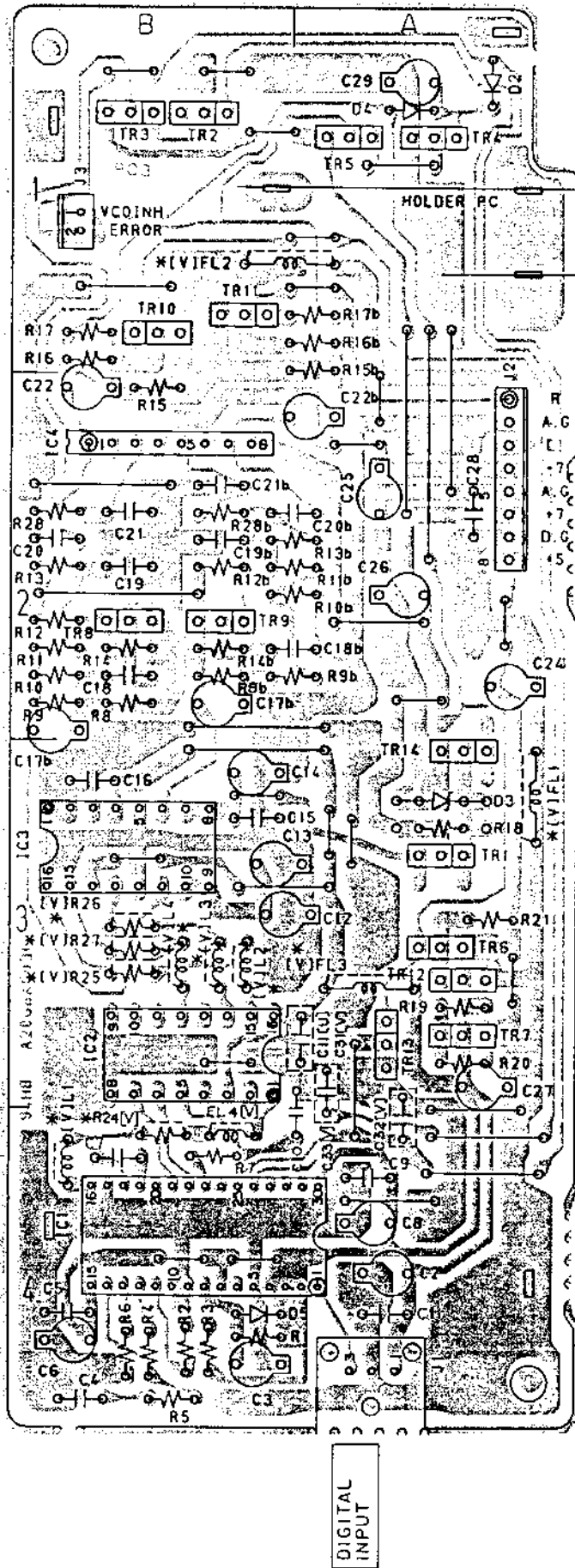
C D E F G H



INDICATED VOLTAGES WERE MEASURED  
WHEN NO SIGNAL WAS BEING INPUT.  
(FUNCTION: CD MODE)

NOTE  
UNLESS OTHERWISE SPECIFIED  
ALL RESISTORS IN OHMS 1/6W(J)  
ALL CAPACITORS IN μF 50WV(40)  
ALL DIODES ARE 1S5131  
ALL TRANSISTORS ARE 2SC245B (GR, BL)

AM-M630  
DAC-A  
SCHEMATIC DIAGRAM  
No.5-4 A207304M



DAC - A PCB A2068A5030

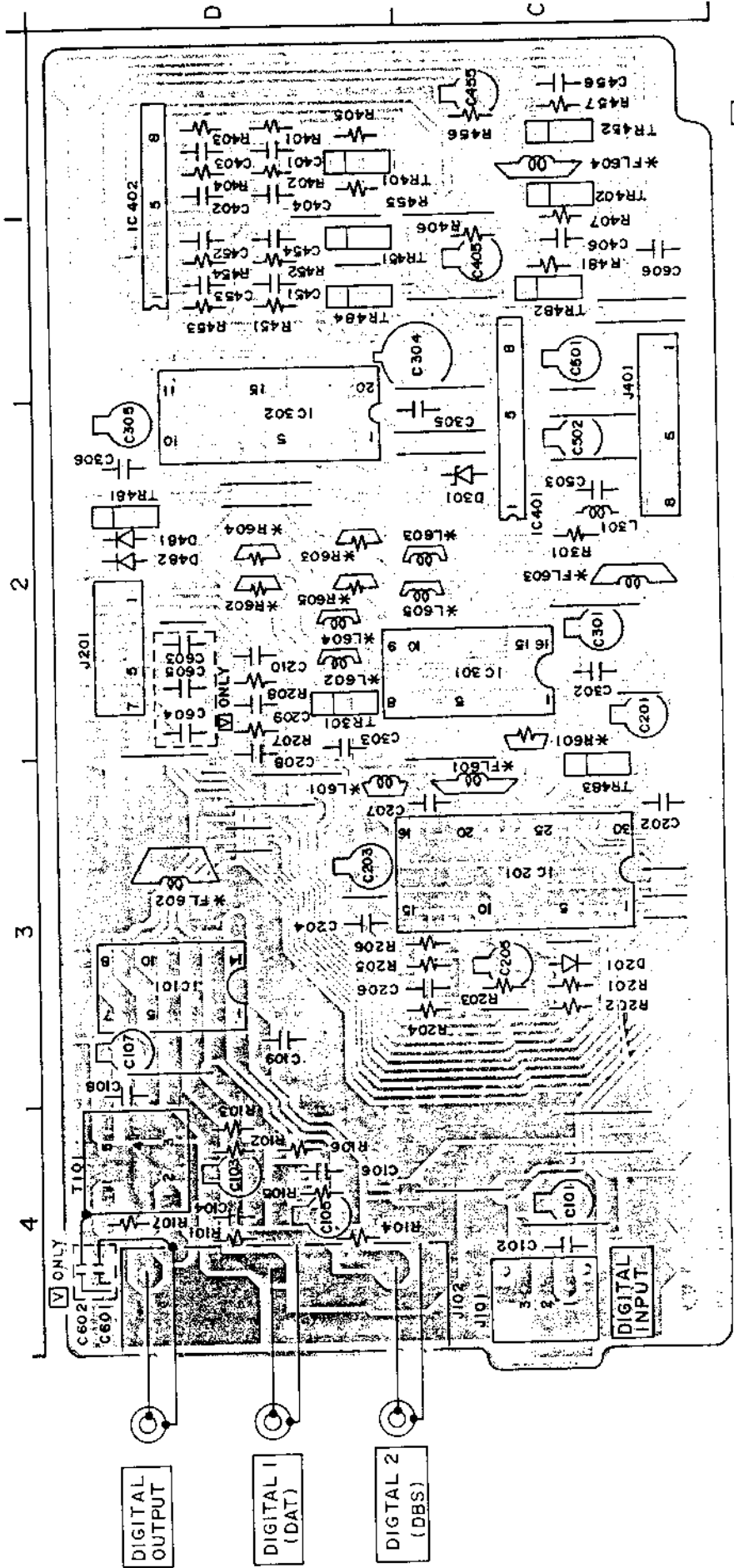
\* Indicated ---- are V model only

PRINCIPAL PARTS LOCATION

TRANSISTORS	ICS
TR1.....A3	IC1.....B4
TR2.....B1	IC2.....B3
TR3.....B1	IC3.....B3
TR4.....A1	IC4.....B2
TR5.....A1	CONNECTORS
TR6.....A3	J1.....A4
TR7.....A3	J2.....A2
TR8.....B2	J3.....B1
TR9.....B2	
TR10.....B1	
TR11.....B1	
TR12.....A3	
TR13.....A3	
TR14.....A3	

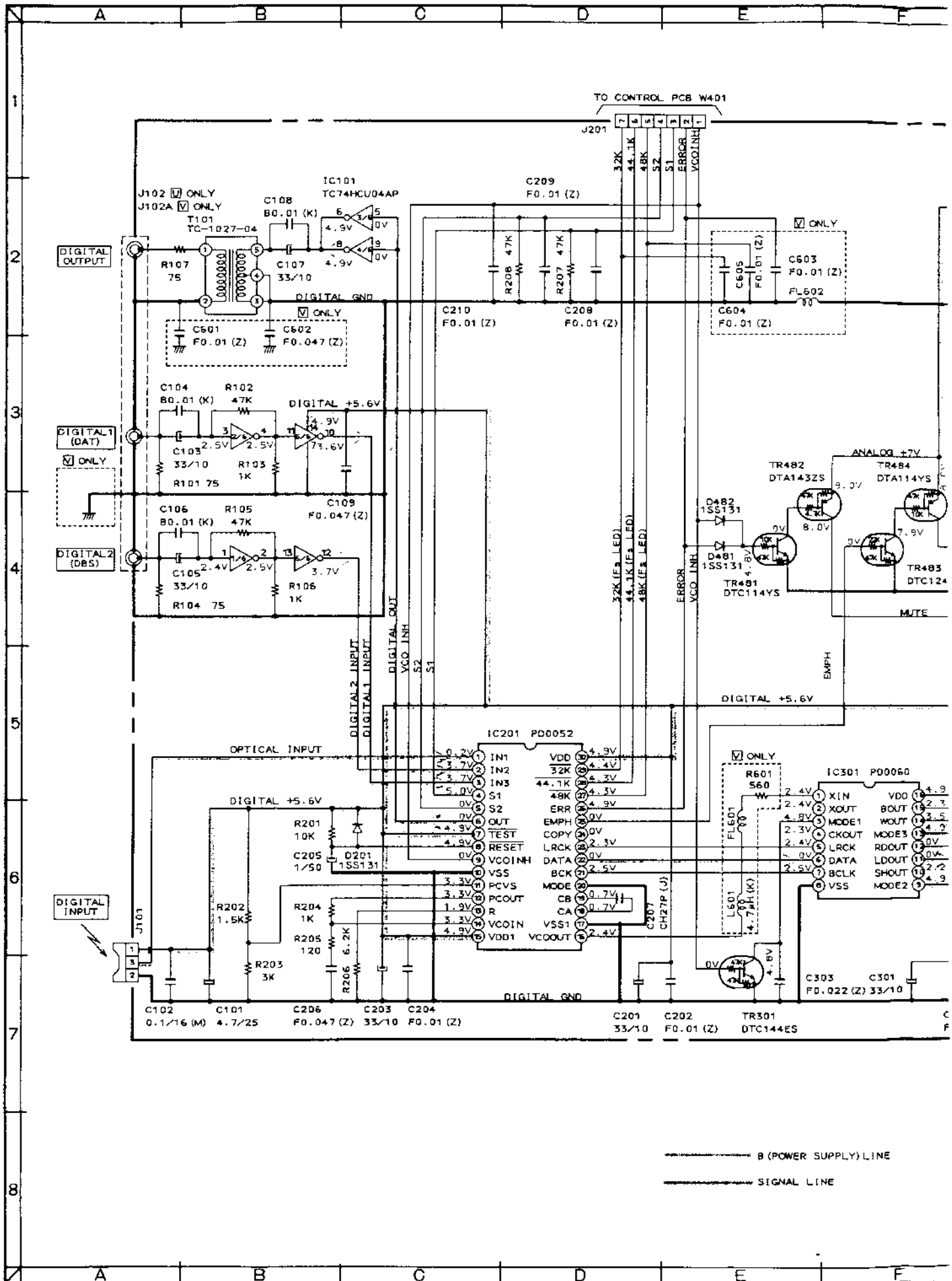
PRINCIPAL PARTS LOCATION

TRANSISTORS	
TR301.....D2	
TR401.....D1	
TR402.....C1	
TR451.....D1	
TR452.....C1	
TR481.....D2	
TR482.....C1	
TR483.....C3	
TR484.....D1	
CONNECTORS	
J101.....C4	
J102.....D4	
J201.....D2	
J401.....C2	



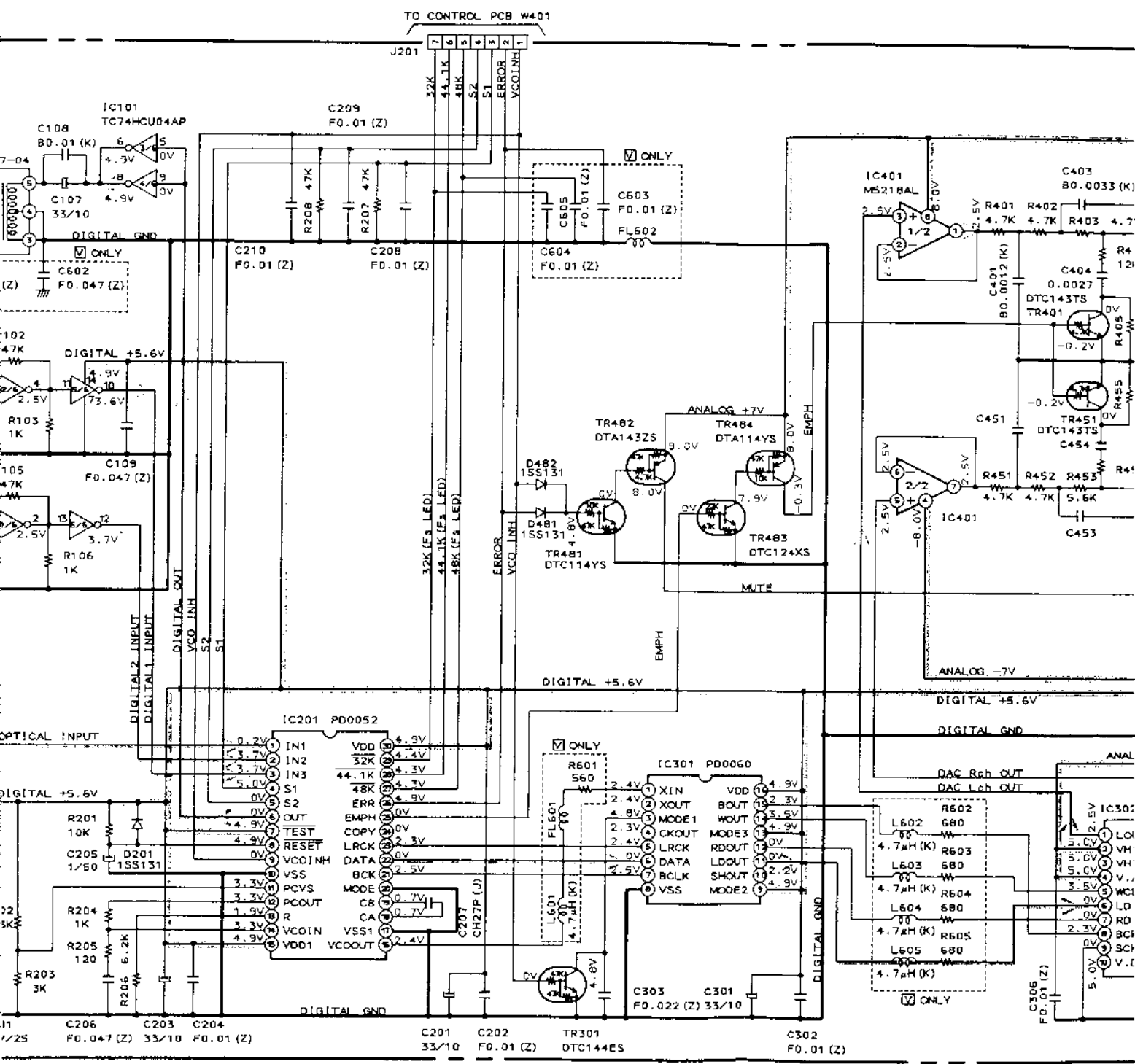
\* SHORT ALL MODELS EXCEPT V

DAC - B PCB A2074A5030



----- B (POWER SUPPLY) LINE  
 - - - - - SIGNAL LINE

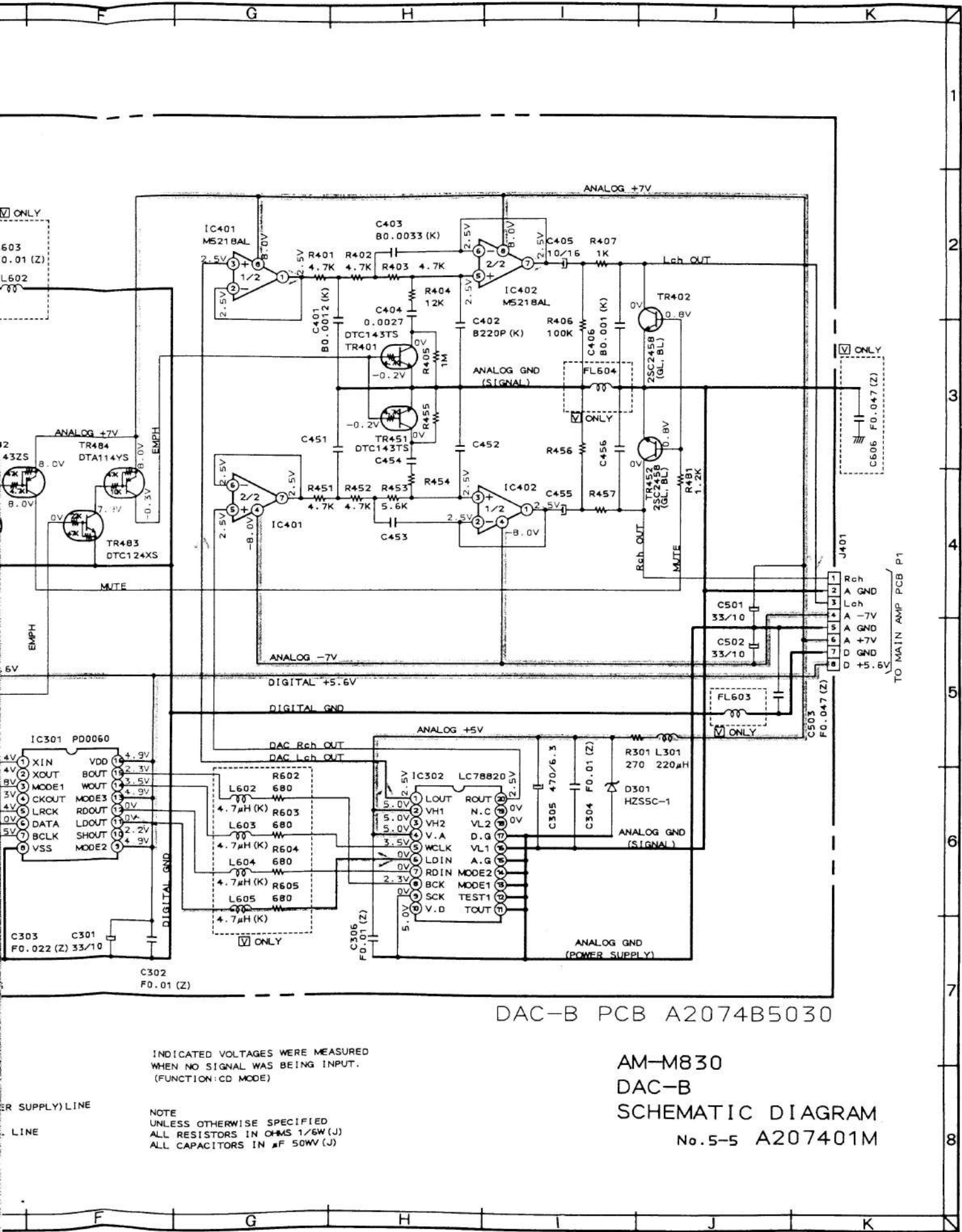




INDICATED VOLTAGES WERE MEASURED  
WHEN NO SIGNAL WAS BEING INPUT.  
(FUNCTION: CD MODE)

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

NOTE  
UNLESS OTHERWISE SPECIFIED  
ALL RESISTORS IN OHMS 1/6W(J)  
ALL CAPACITORS IN  $\mu$ F 50WV(J)



DAC-B PCB A2074B5030

INDICATED VOLTAGES WERE MEASURED  
WHEN NO SIGNAL WAS BEING INPUT.  
(FUNCTION: CD MODE)

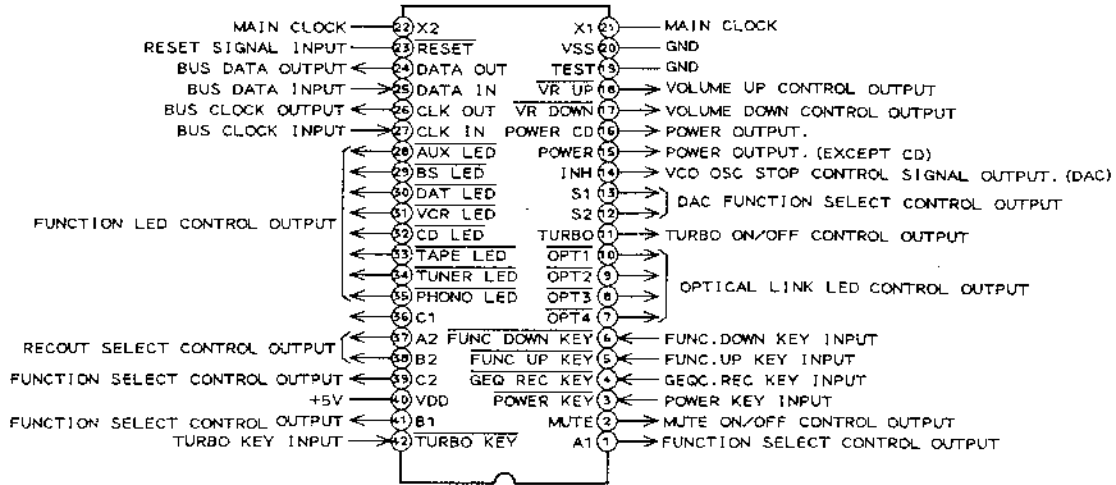
NOTE  
UNLESS OTHERWISE SPECIFIED  
ALL RESISTORS IN OHMS 1/6W (J)  
ALL CAPACITORS IN μF 50WV (J)

AM-M830  
DAC-B  
SCHEMATIC DIAGRAM  
No. 5-5 A207401M

ER SUPPLY)LINE  
LINE

1  
2  
3  
4  
5  
6  
7  
8

LC6520-4649 (MI-CON)



LC78820 (18 BIT D / A CONVERTER)

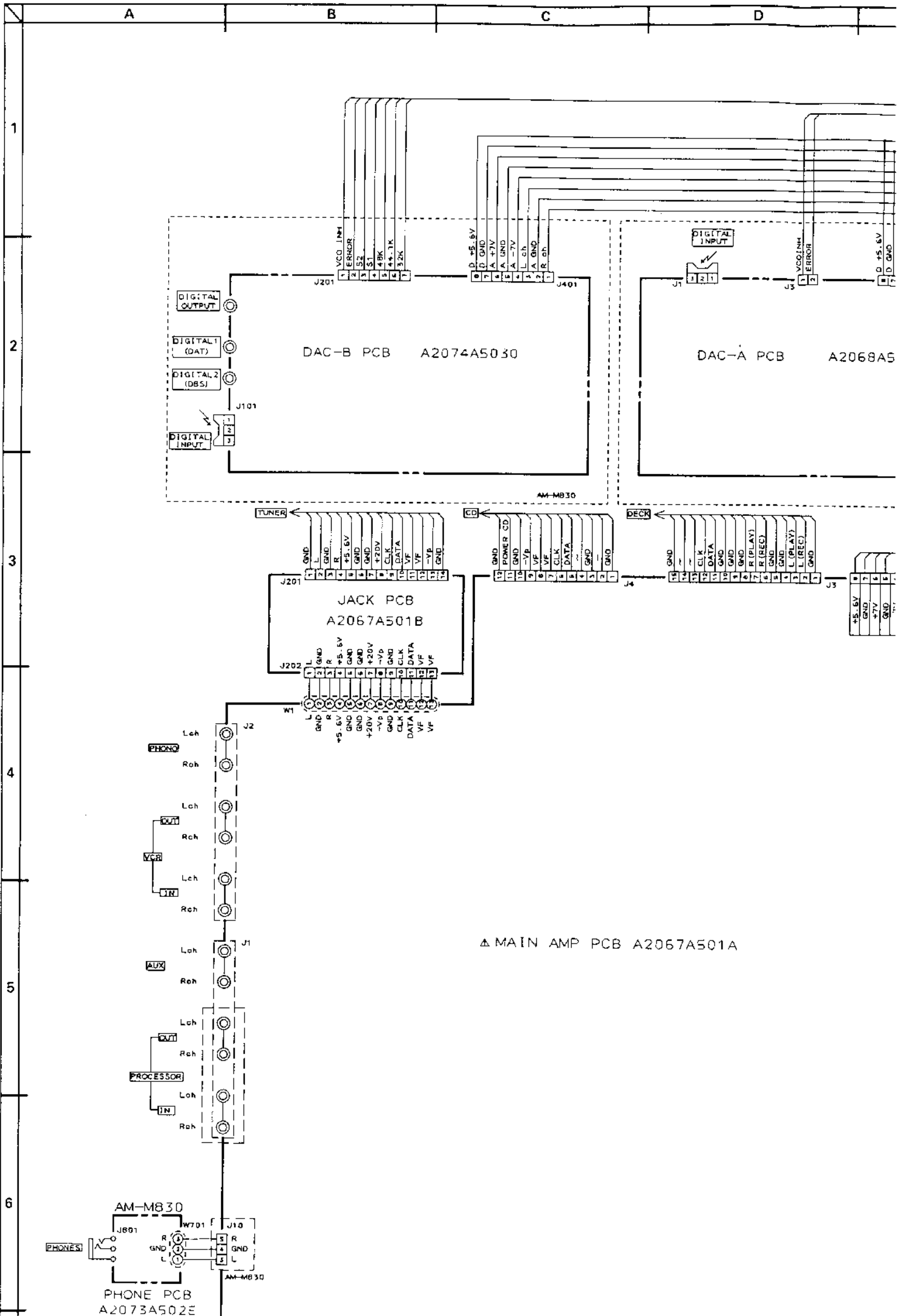
PIN NO	SYMBOL	I / O	DESCRIPTION
1	L OUT	O	L ch output
2	VH 1	I	Reference voltage "H" input 1
3	VH 2	I	Reference voltage "H" input 2 (Not used)
4	V.A	-	Analog +B (+5 V)
5	W CLK	I	Word clock input
6	LD IN	I	L ch digital audio data input (MSB first)
7	RD IN	I	R ch digital audio data input (MSB first)
8	BCK	I	Bit clock input
9	SCK	I	System clock input
10	V.D	-	Digital +B (+5V)
11	T OUT	O	Test output (normal:open)
12	TEST 1	I	Test input (normal:GND)
13	MODE 1	I	Interface select
14	MODE 2	I	Interface select
15	A.G	-	Analog GND
16	VL 1	I	Reference voltage "L" input 1 (Not used)
17	D.G	-	Digital GND
18	VL 2	I	Reference voltage "L" input 2 (Not used)
19	N.C	-	No connection (Not used)
20	R OUT	O	R ch output

PD0029 (AUDIO DIGITAL FILTER)

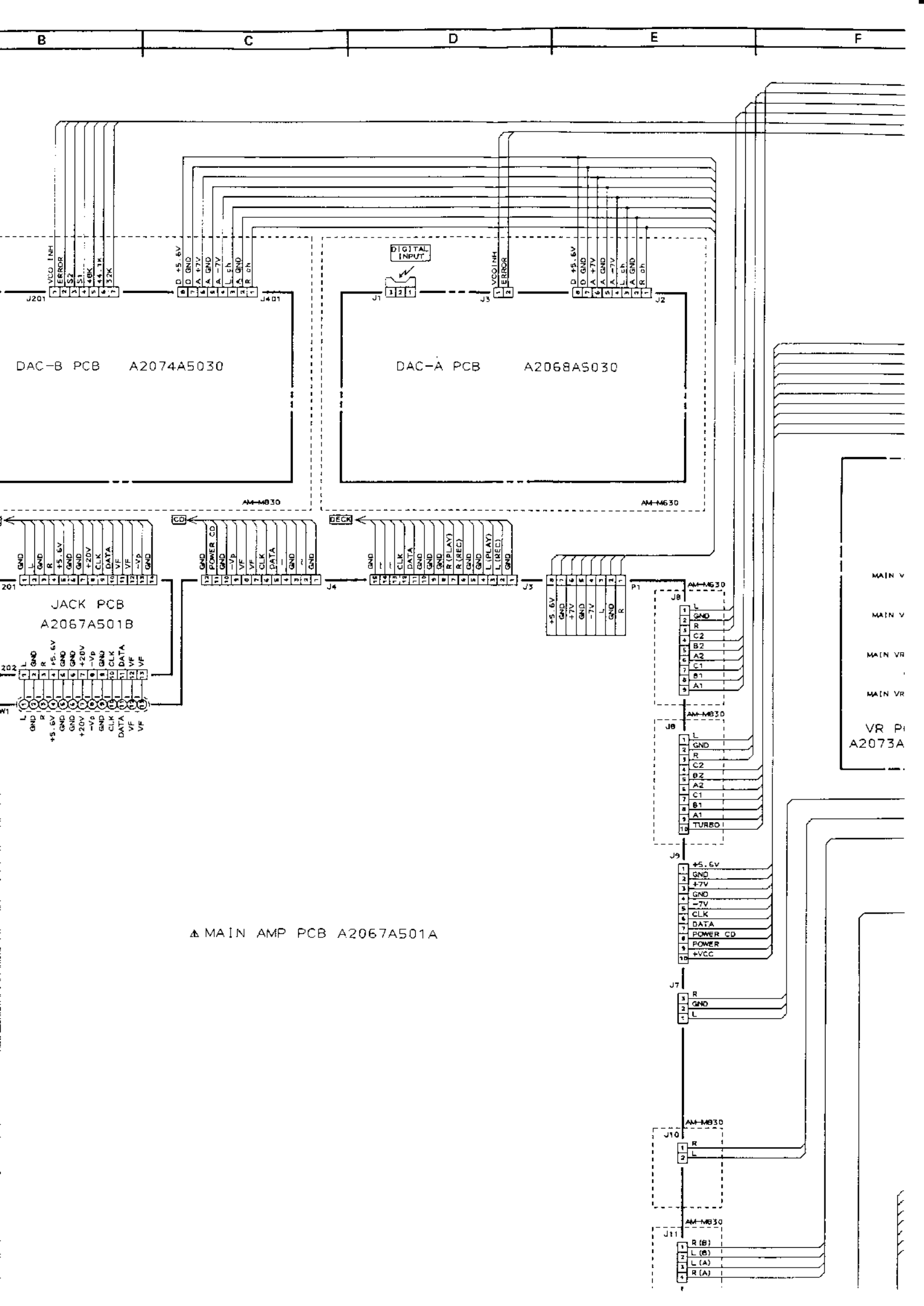
PIN NO	SYMBOL	I / O	DESCRIPTION
1	X IN	I	X'tal osc input
2	X OUT	O	X'tal osc output (Not used)
3	CKSL	I	Clock select H : 16.9344MHz L : 8.4672MHz
4	CKO	O	Clock output (Not used)
5	LRCK	I	L, R clock input
6	DATA	I	serial data input (MSB first)
7	BCLK	I	Bit clock input for input data
8	Vss	-	GND
9	LCO	O	Clock output for 2 DAC type (Not used)
10	SHR	O	R ch sample hold pulse output
11	SHL	O	L ch sample hold pulse output
12	D OUT	O	Serial data output (MSB first)
13	W OUT	O	Word clock output (Not used)
14	LR DO	O	L,R select clock output
15	B OUT	O	Bit clock output for data output
16	VDD	-	+B (+5 V)

PD0060 (AUDIO DIGITAL FILTER)

PIN NO	SYMBOL	I / O	DESCRIPTION
1	X IN	I	X'tal osc or external input
2	X OUT	O	X'tal osc output (Not used)
3	MODE 1	I	Master clock input and clock output select
4	CK OUT	O	External clock output (Not used)
5	LR CK	I	L, R clock input
6	DATA	I	Serial data input (MSB first)
7	BCLK	I	Bit clock input for input data
8	Vss	-	GND
9	MODE 2	I	H : 18bit data output L : 16bit data output
10	SHOUT	O	Sample hold pulse output (Not used)
11	LD OUT	O	L ch data output (MSB first)
12	RD OUT	O	R ch data output (MSB first)
13	MODE 3	I	H : 18 or 16 bit data output L : 20 bit data output
14	W OUT	O	Word clock output
15	B OUT	O	Bit clock output for L, R data output
16	VDD	-	+B (+5 V)



△ MAIN AMP PCB A2067A501A

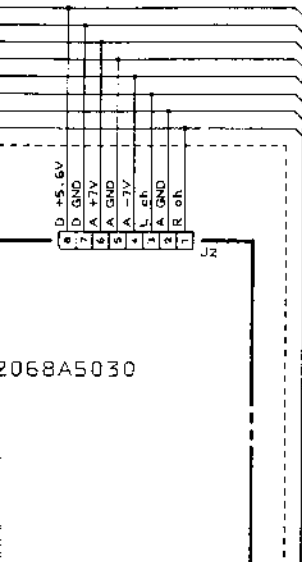


E

F

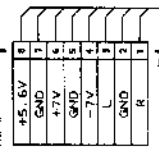
G

H



2068A5030

AM-MB30



AM-MB30

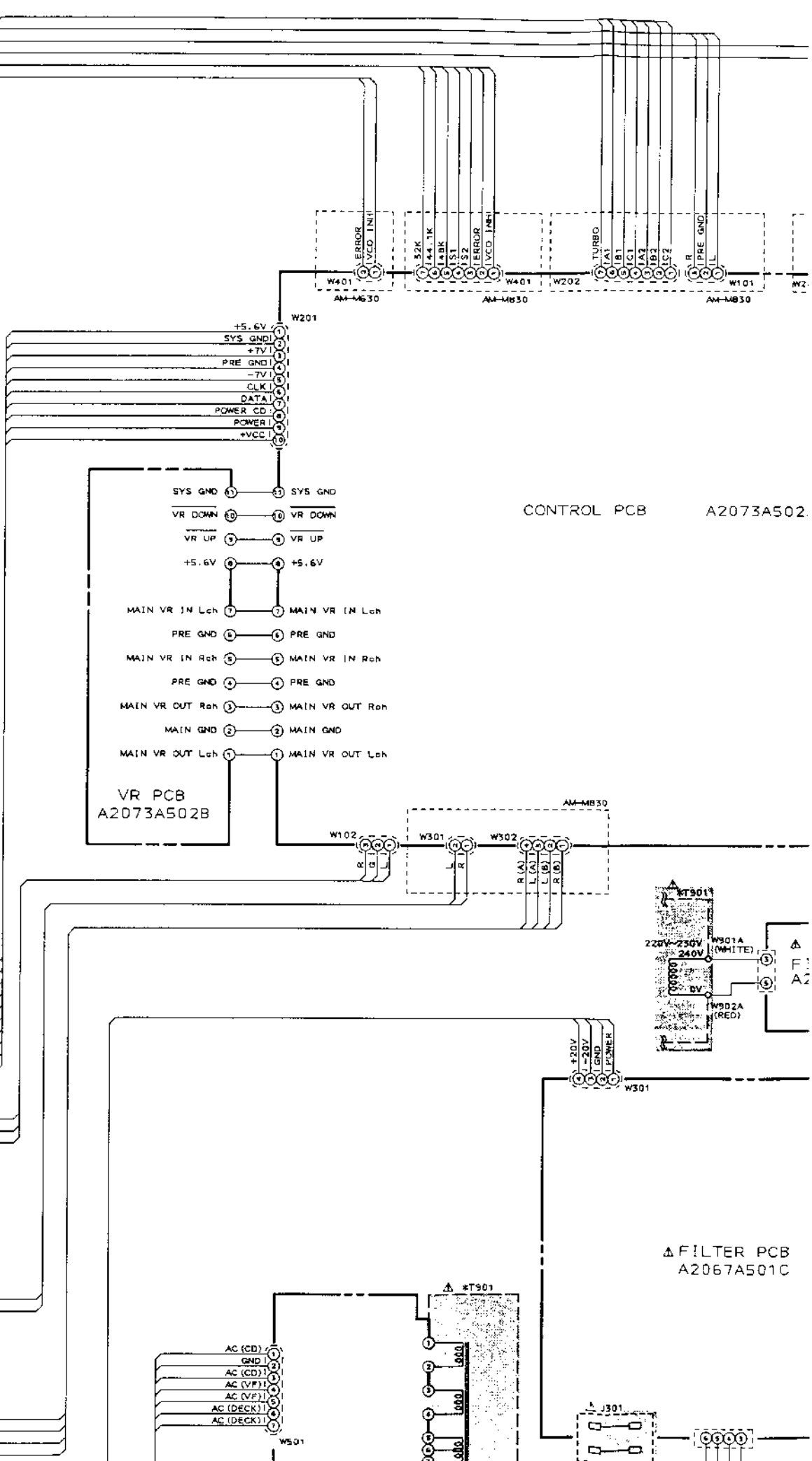
AM-MB30

AM-MB30

AM-MB30

AM-MB30

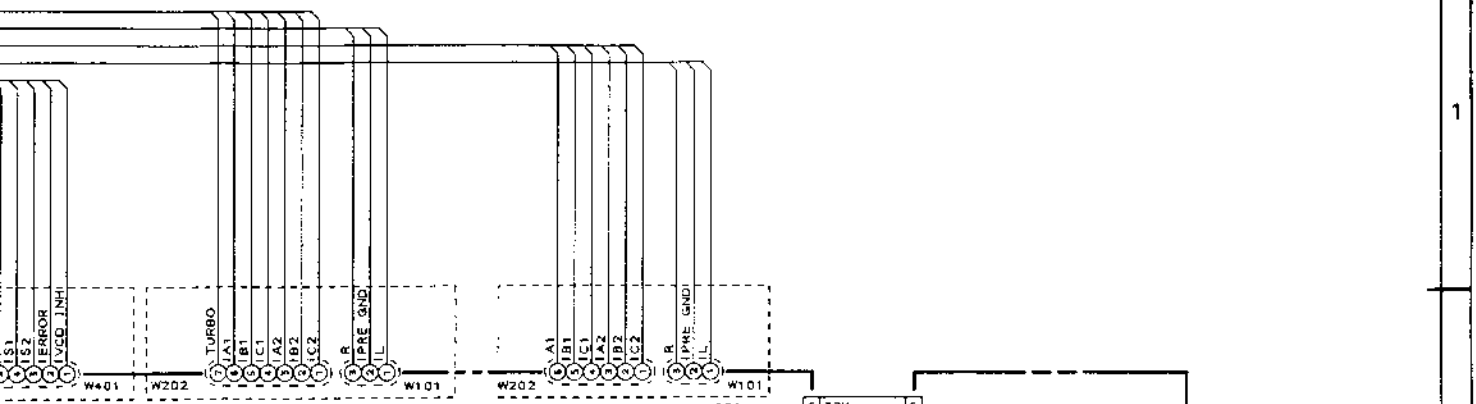
AM-MB30



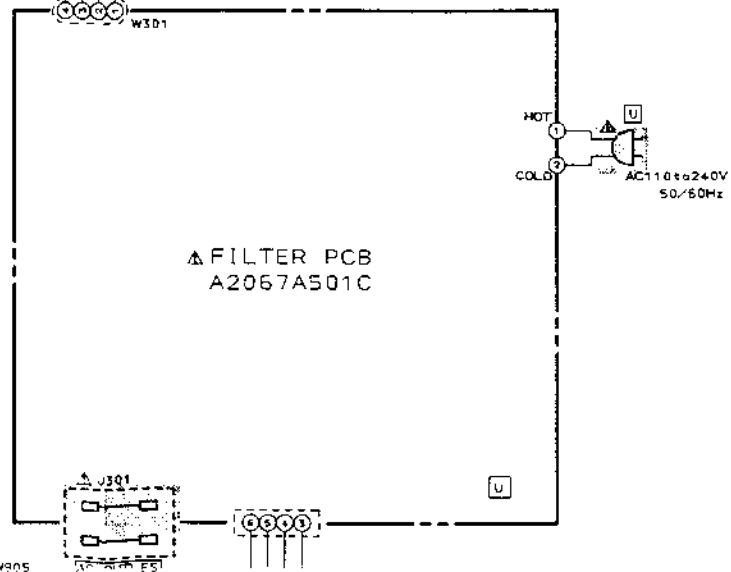
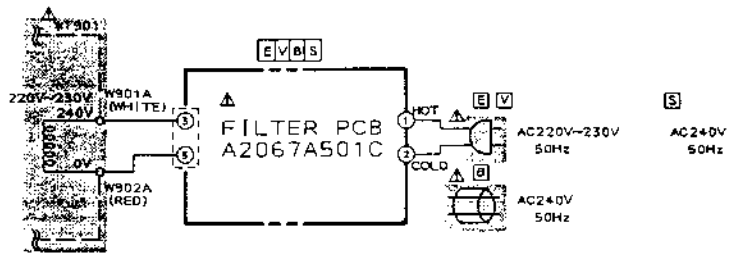
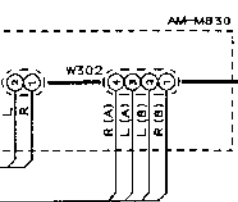
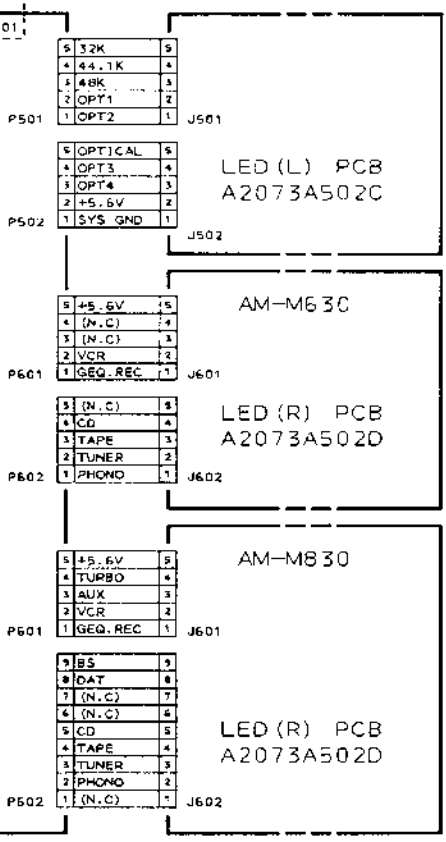
CONTROL PCB A2073A502

VR PCB A2073A502B

Δ FILTER PCB A2067A501C



CONTROL PCB A2073A502A





3

4

5

6

7

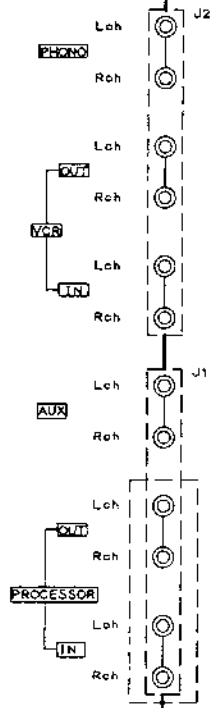
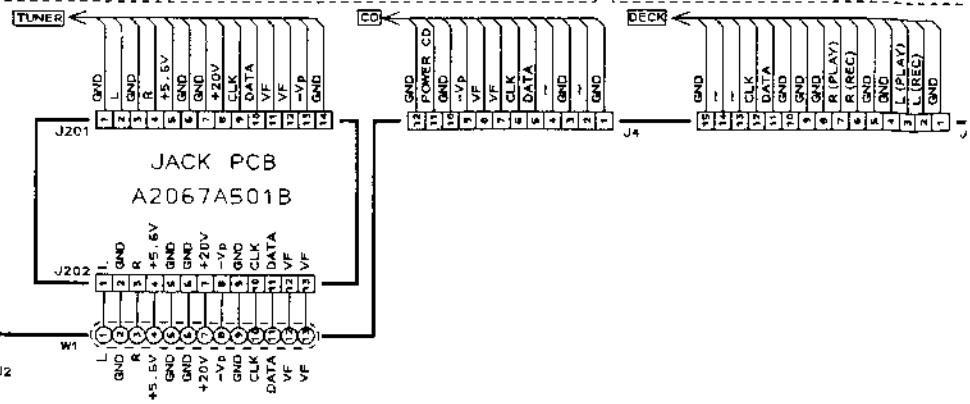
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A

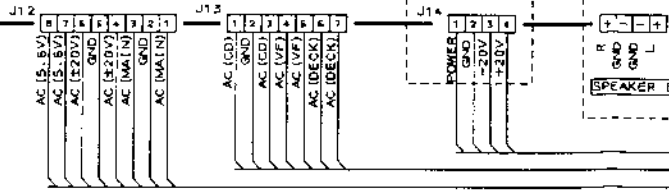
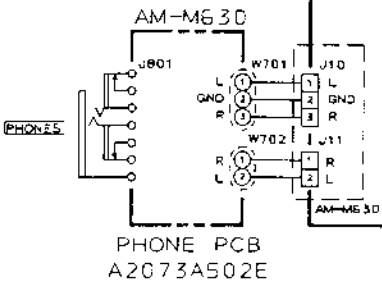
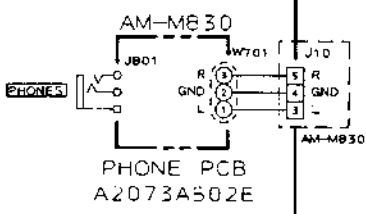
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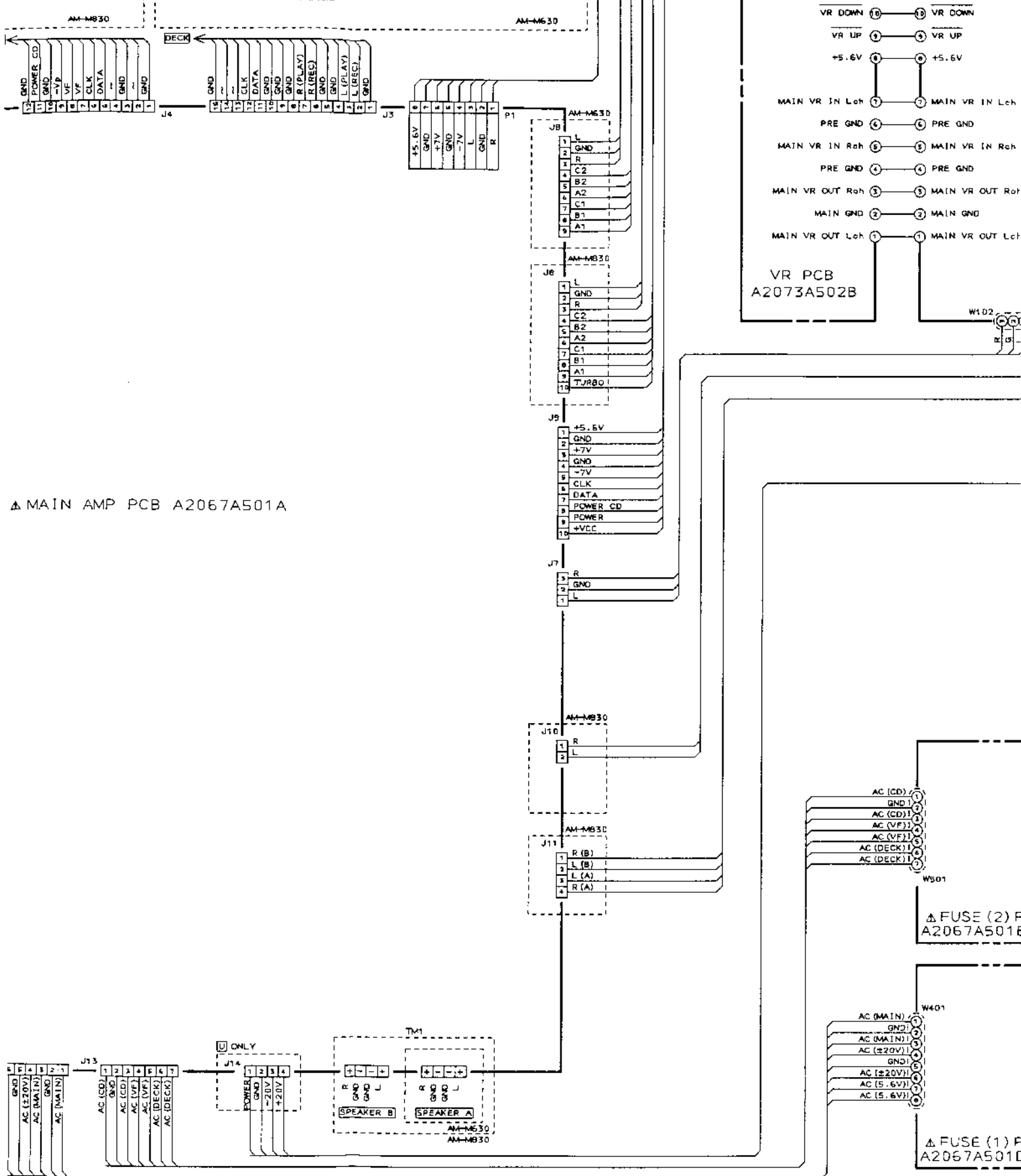
C

D



▲ MAIN AMP PCB A2067A501A





△ MAIN AMP PCB A2067A501A

VR PCB A2073A502B

△ FUSE (2) P A2067A501E

△ FUSE (1) P A2067A501D

CONTROL PCB A2073A502A

5	+2.5V	5
4	(N.C.)	4
3	(N.C.)	3
2	VCR	2
1	GEQ. REC	1

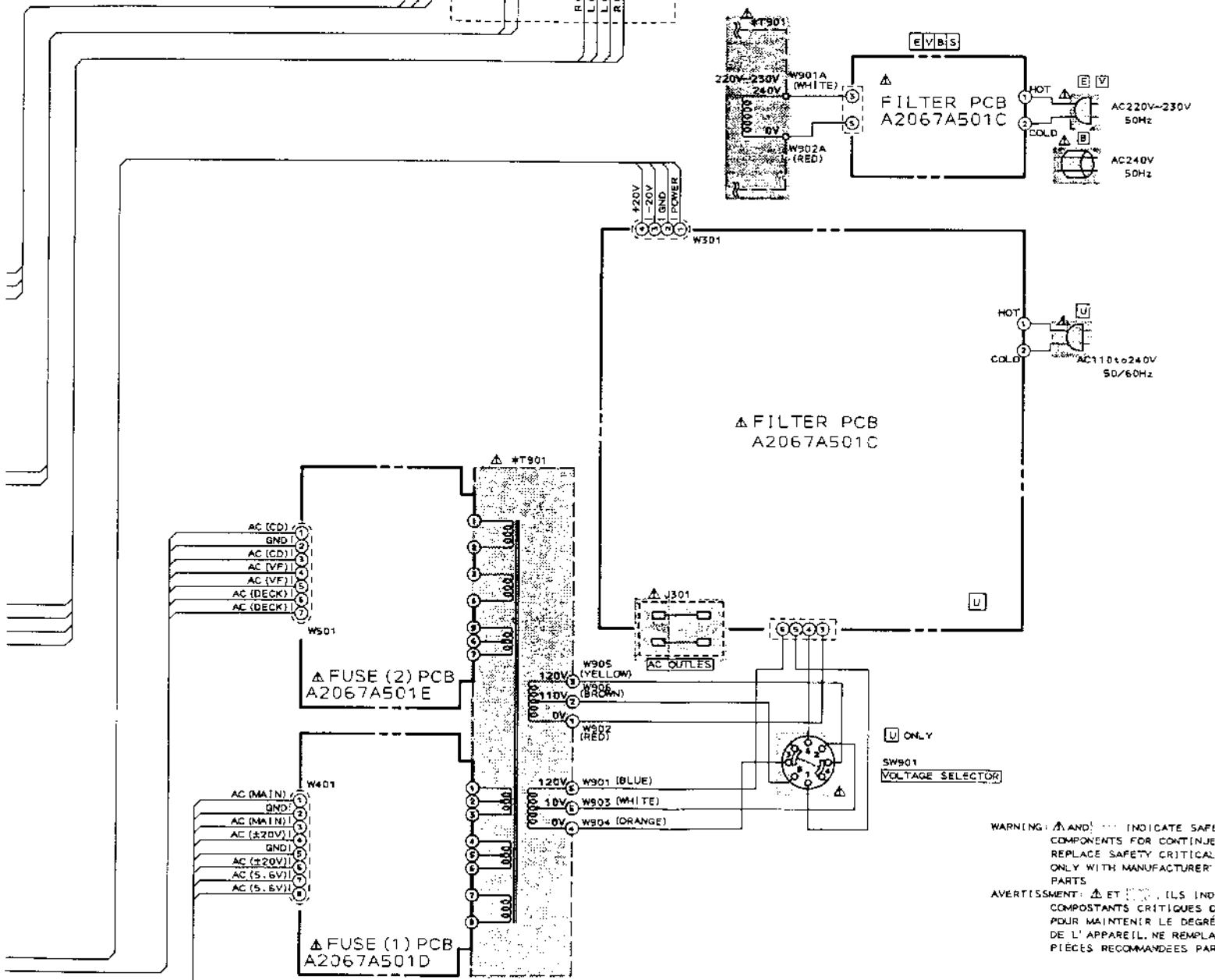
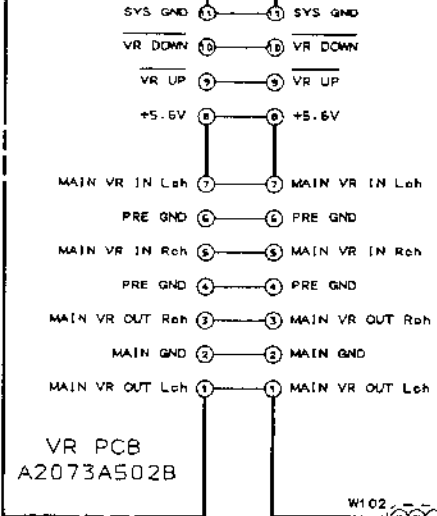
5	(N.C.)	5
4	CD	4
3	TAPE	3
2	TUNER	2
1	PHONO	1

5	+5.6V	5
4	TURBO	4
3	AUX	3
2	VCR	2
1	GEQ. REC	1

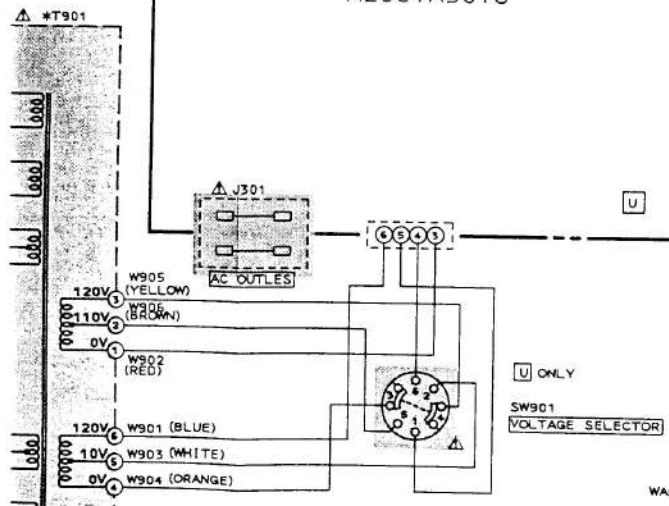
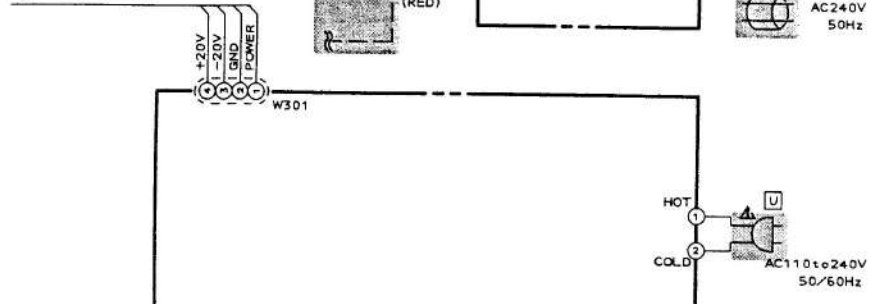
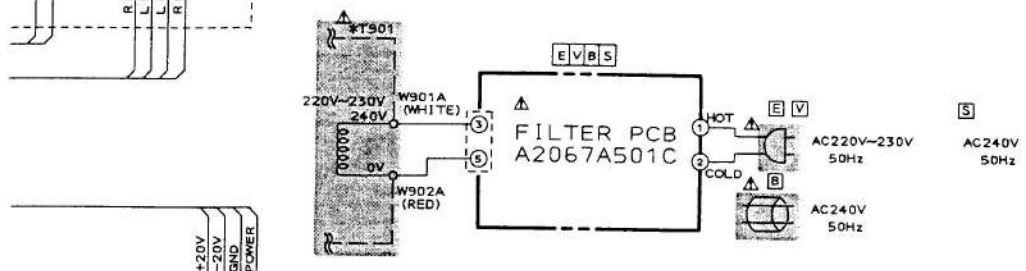
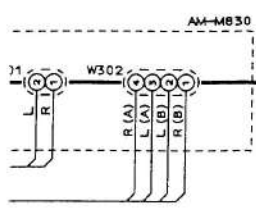
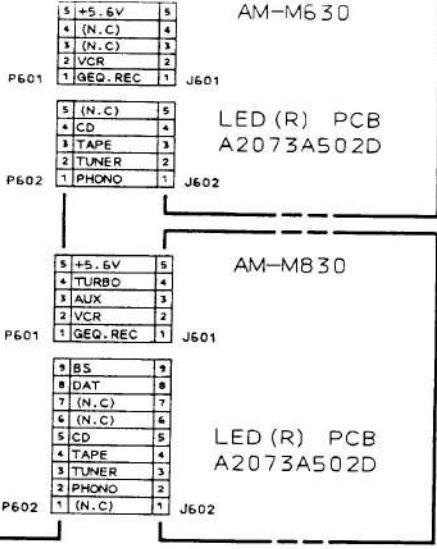
  

5	BS	5
4	DAT	4
3	(N.C.)	3
2	(N.C.)	2
1	CD	1
5	TAPE	5
4	TUNER	4
3	PHONO	3
2	(N.C.)	2
1	(N.C.)	1



WARNING: ⚠ AND ⚡ INDICATE SAFETY COMPONENTS FOR CONTINUE REPLACE SAFETY CRITICAL ONLY WITH MANUFACTURER PARTS

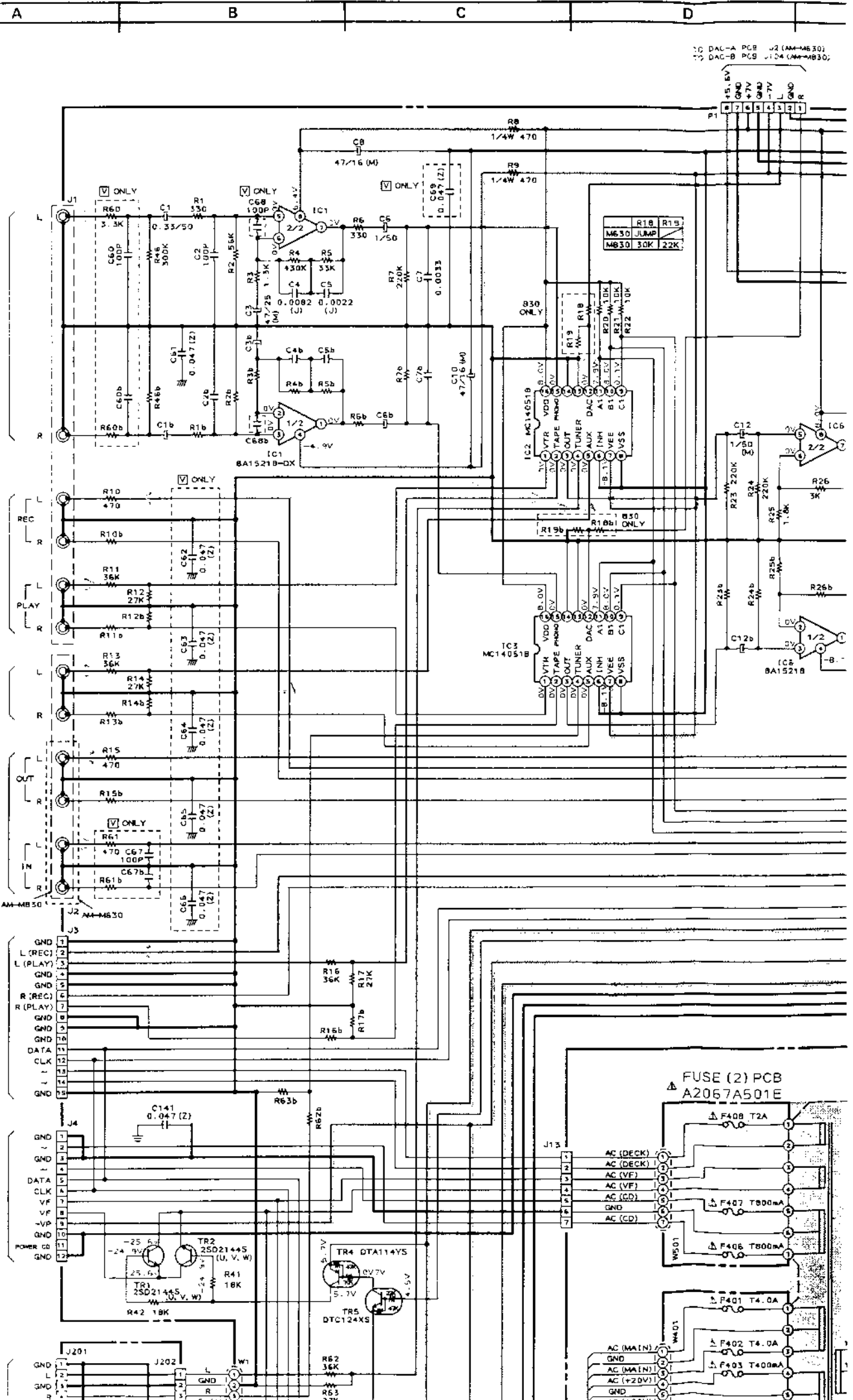
AVERTISSEMENT: ⚠ ET ⚡ ILS INDICENT COMPOSTANTS CRITIQUES C POUR MAINTENIR LE DEGRÉ DE L'APPAREIL, NE REMPLA PIÈCES RECOMMANDÉES PAR



WARNING:  $\Delta$  AND  $\square$  INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

AVERTISSEMENT:  $\Delta$  ET  $\square$  ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

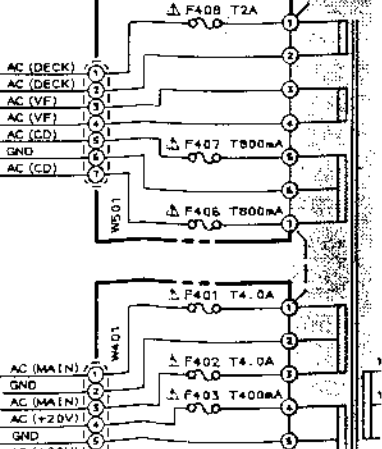
AM-M630/M830  
CONNECTION DIAGRAM  
No. 5-1 A207301M



10 DAC-A PCB J2 (AM-MB30)  
 11 DAC-B PCB J204 (AM-MB30)

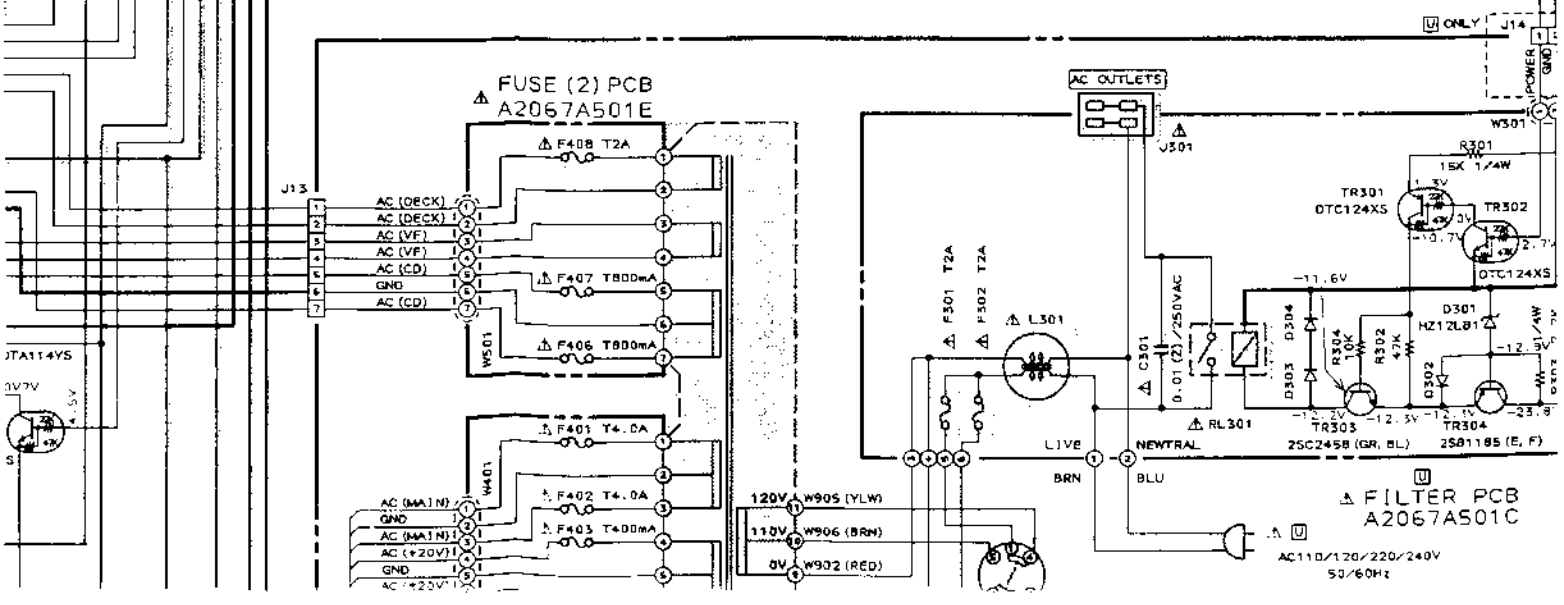
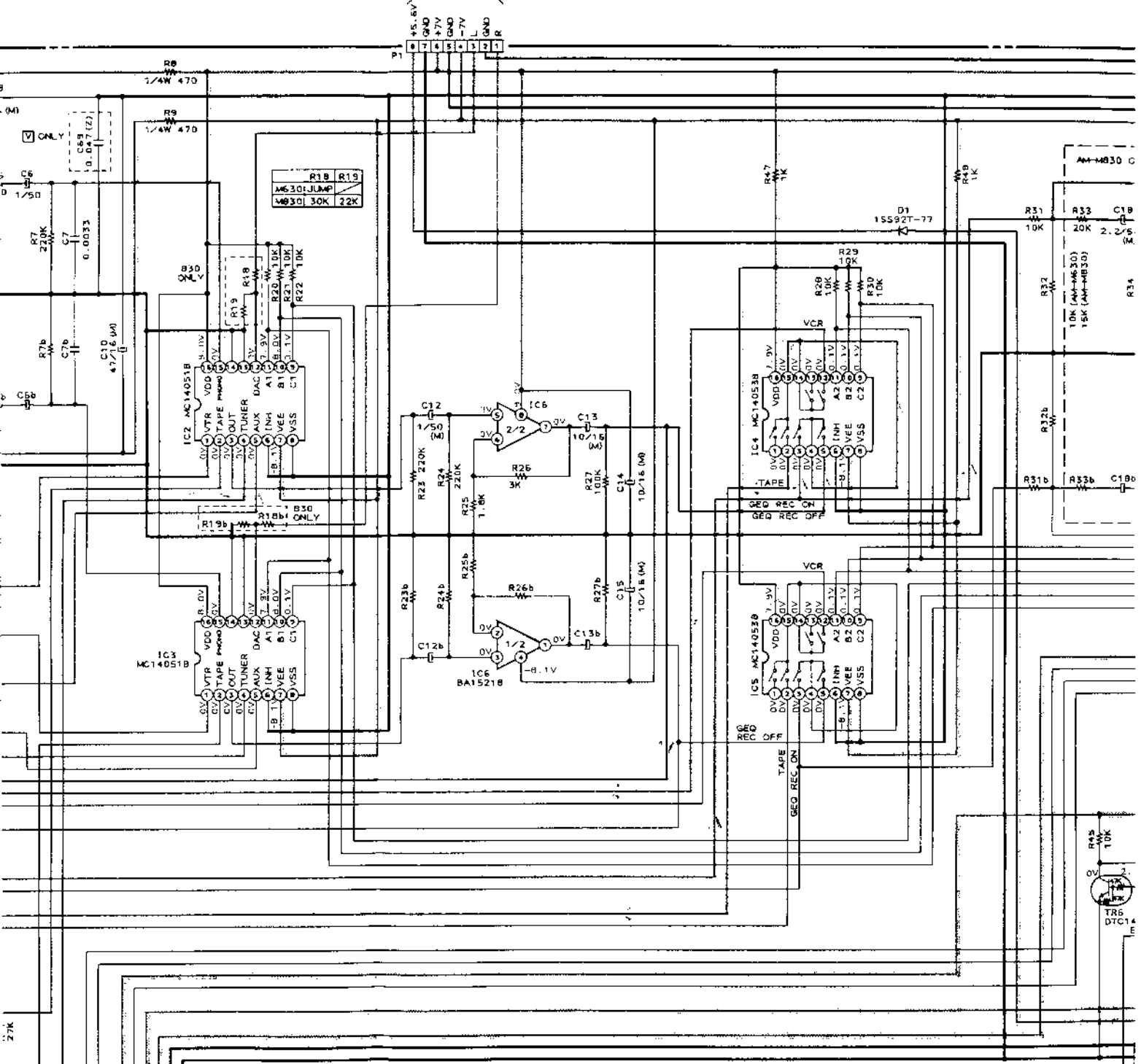
R18	R19
M630 JUMP	
M630	30K 22K

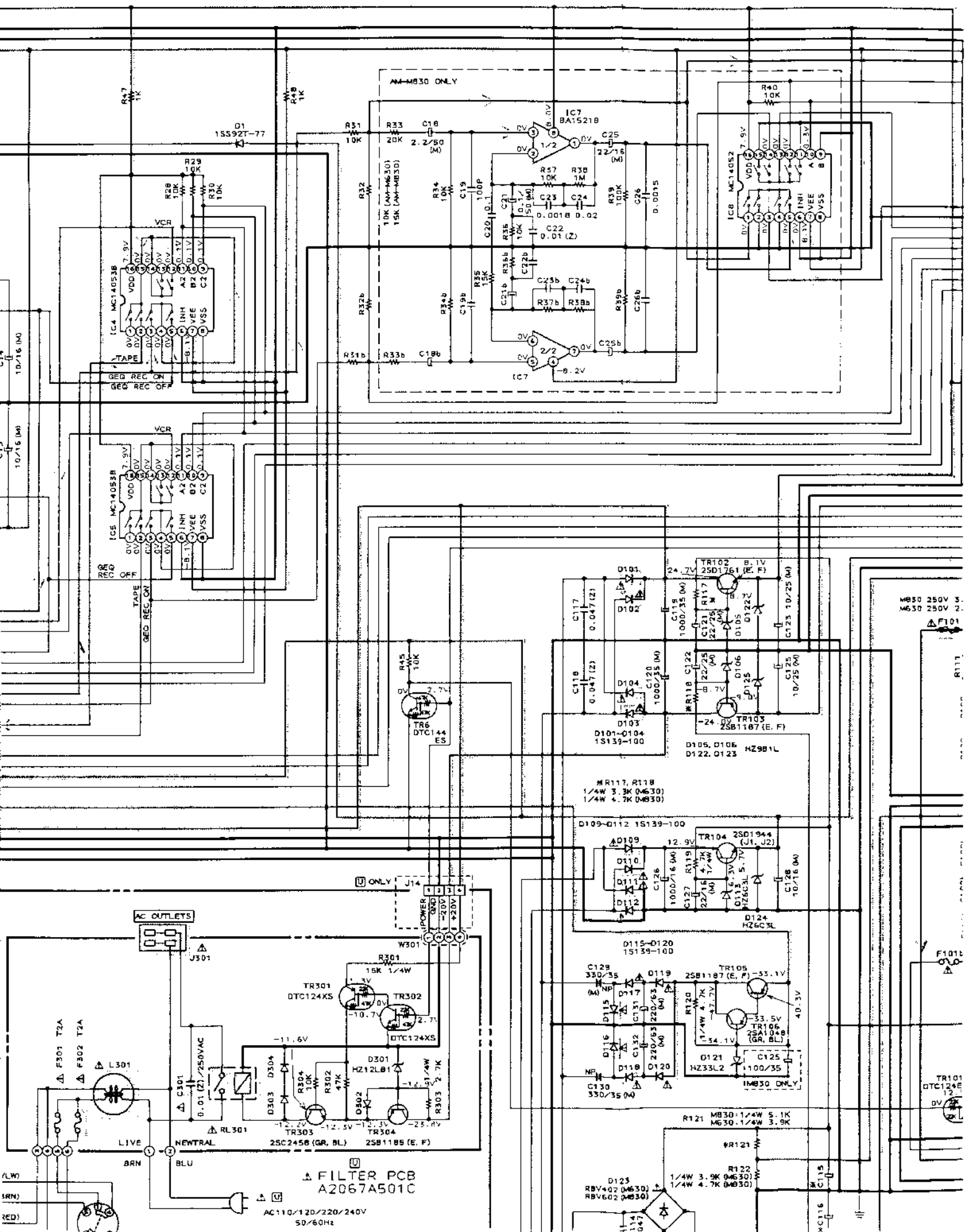
FUSE (2) PCB  
 A2067A501E

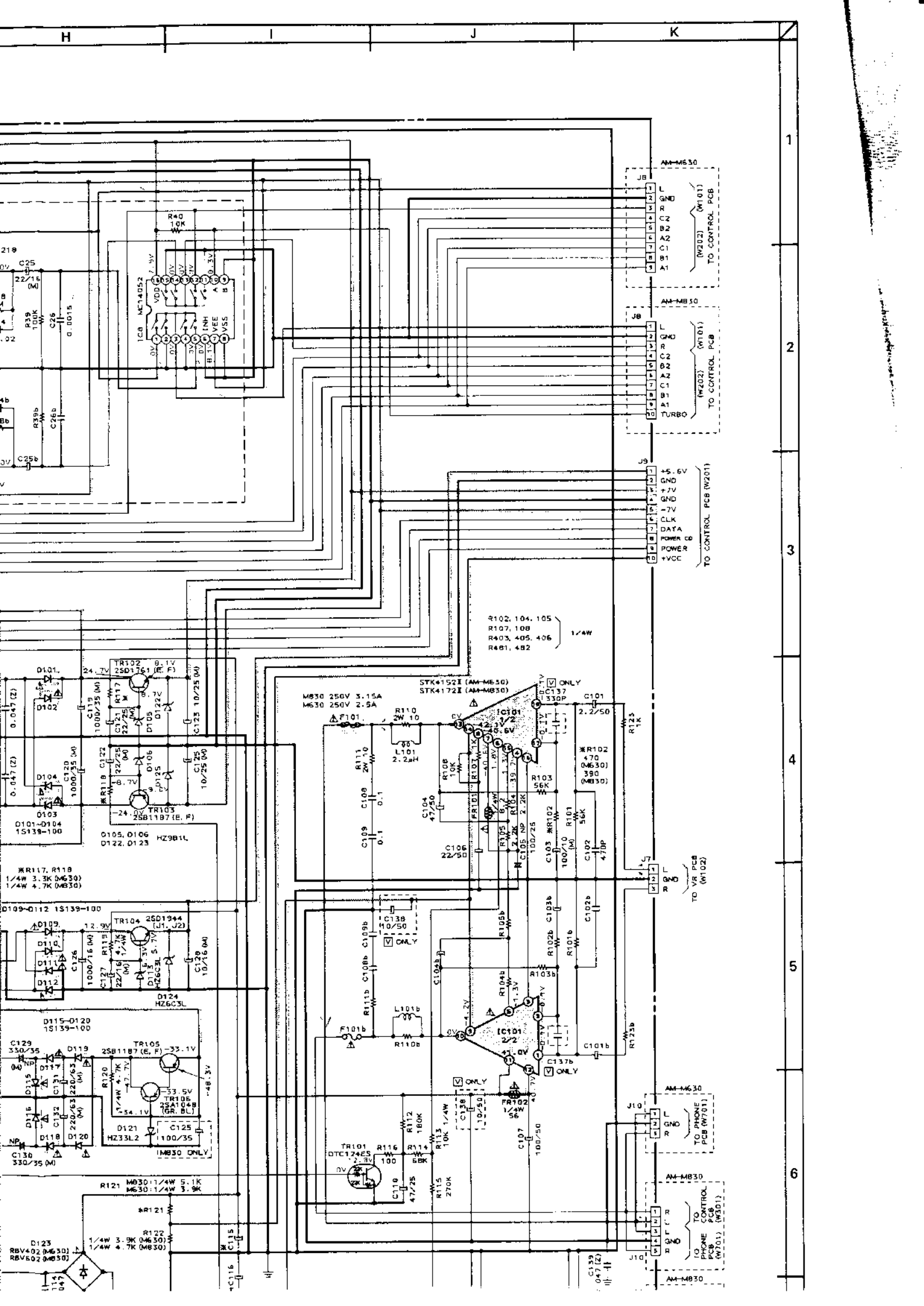


- 1 PHONO
- 2 VCR
- 3 AUX
- 4 PROCESSOR
- 5 DECK
- 6 CD

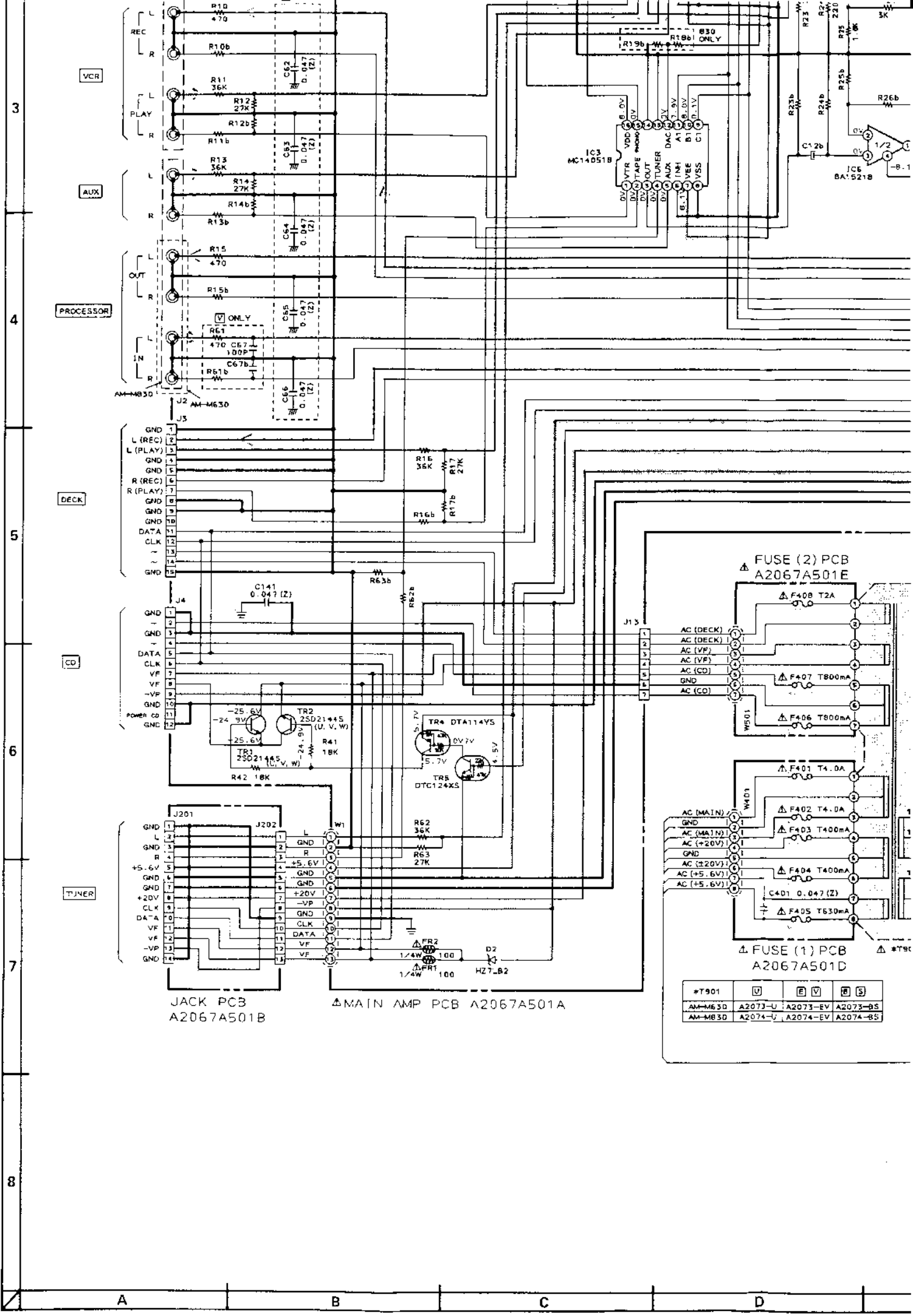
10 DAC-A PCB J2 (AM-M630)  
 11 DAC-B PCB J:04 (AM-M630)





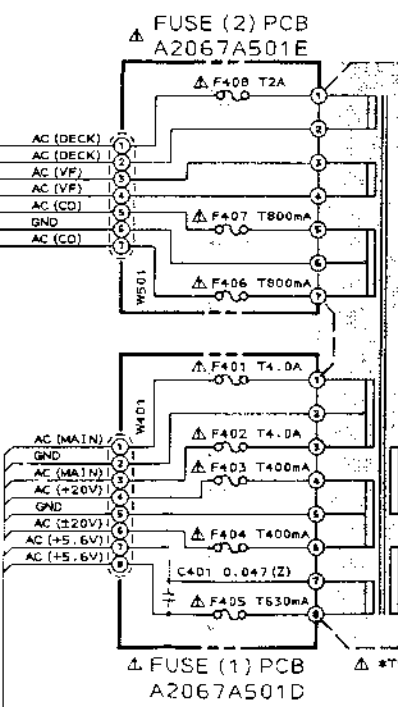




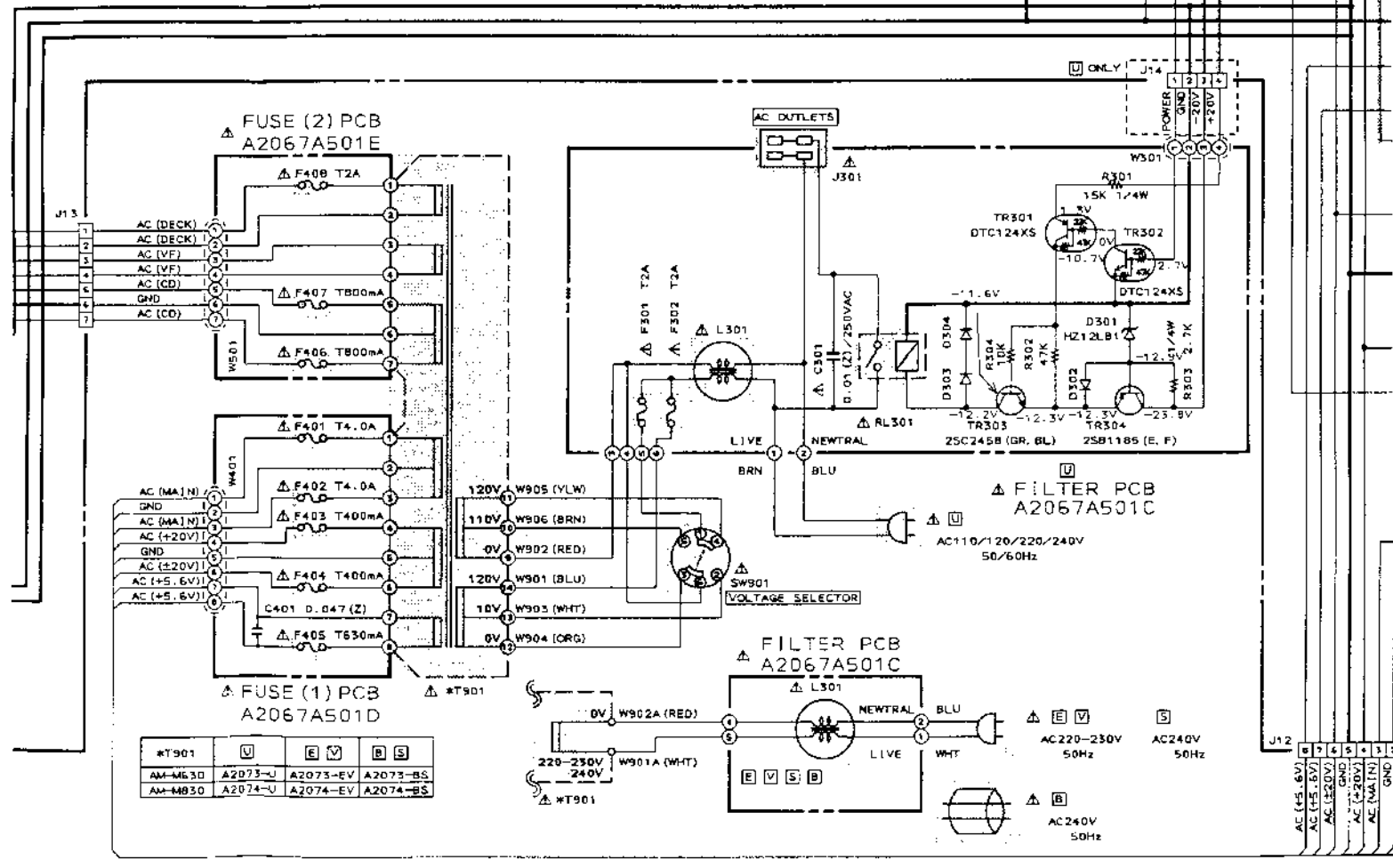
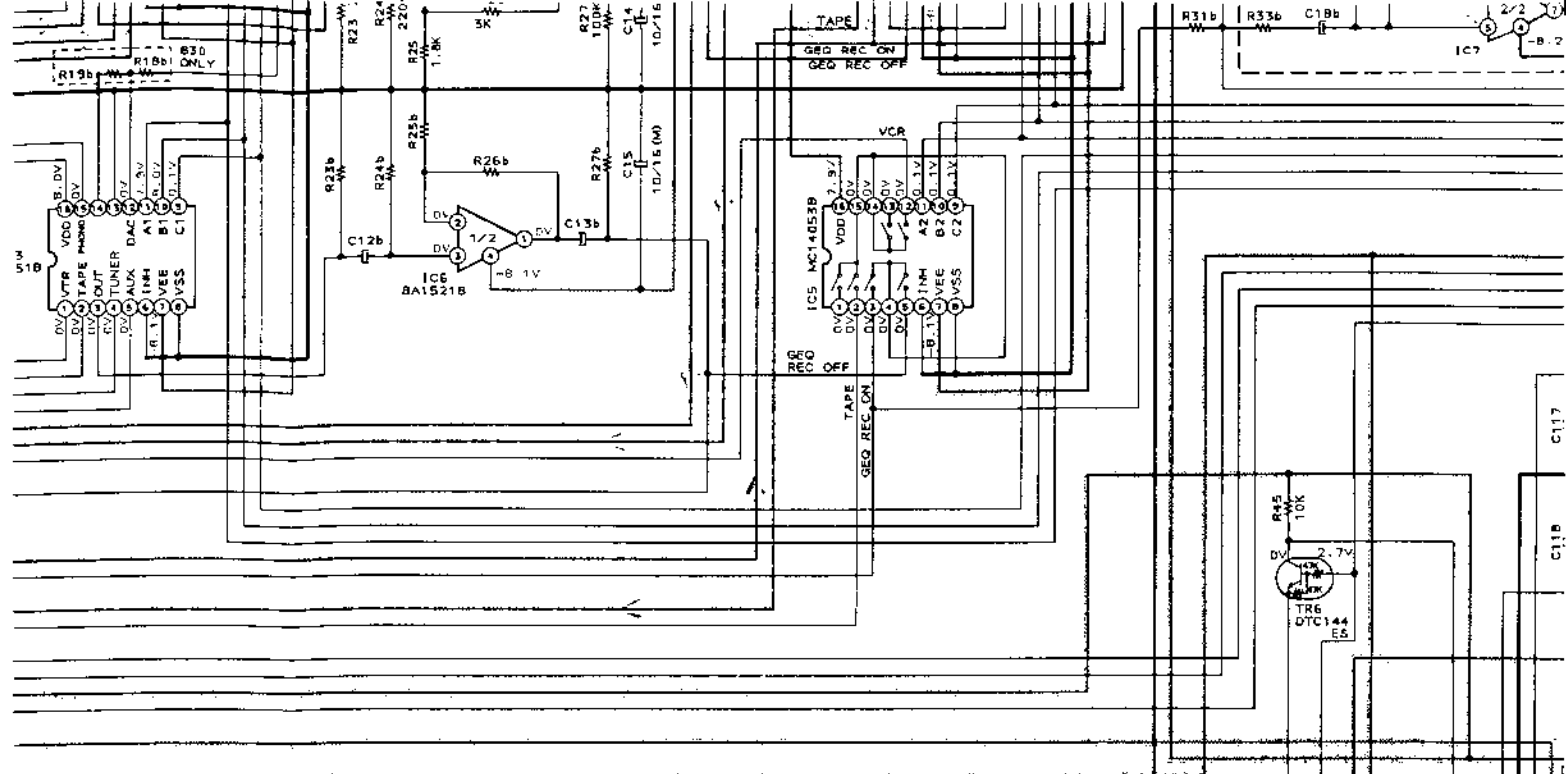


JACK PCB  
A2067A501B

MAIN AMP PCB A2067A501A



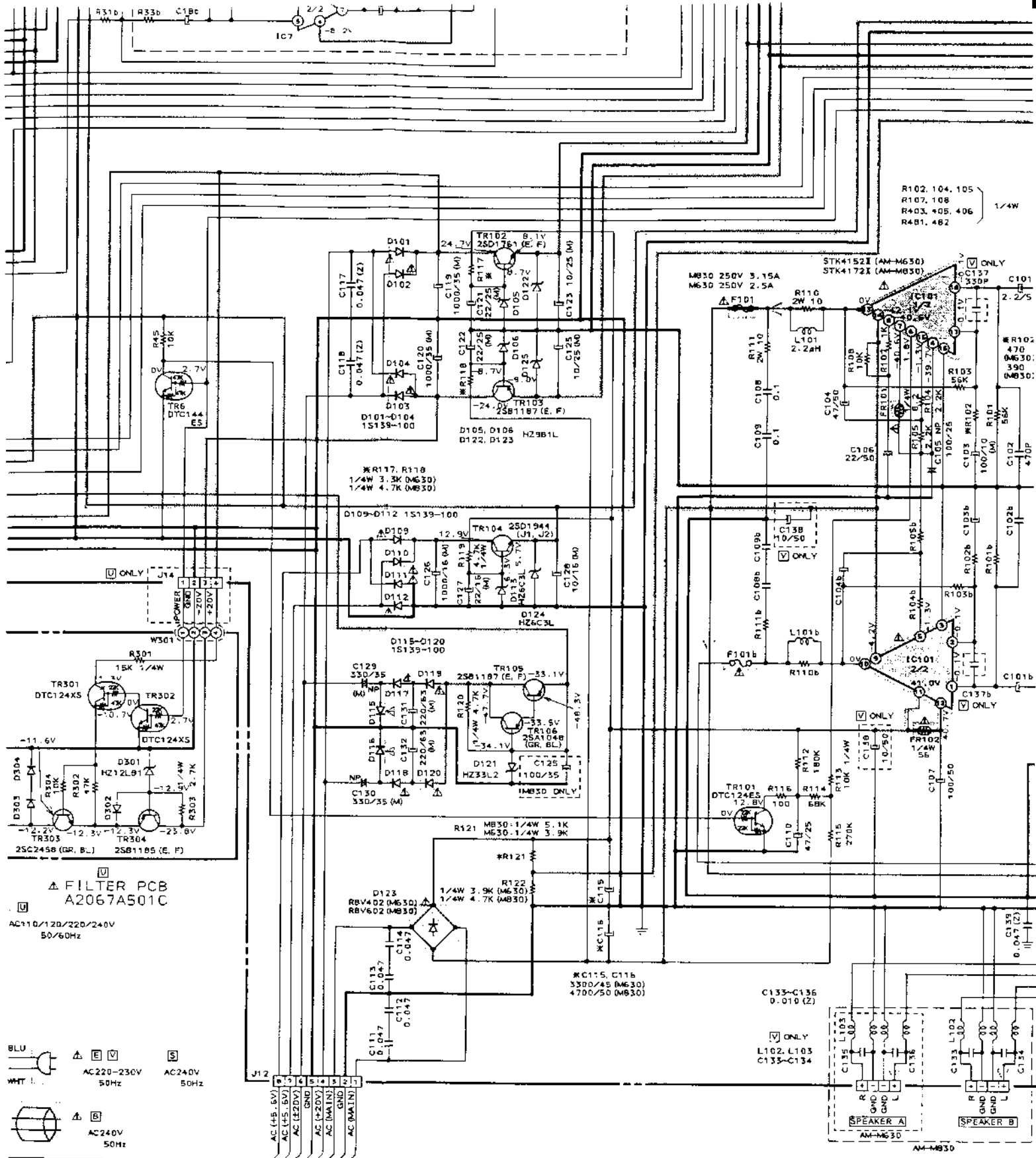
*T901	U	E	V	B	S
AM-M63D	A2073-U	A2073-EV	A2073-B	A2073-BS	
AM-MB3D	A2074-U	A2074-EV	A2074-B	A2074-BS	



\*T901

	U	E	V	B	S
AM-M630	A2073-U	A2073-EV	A2073-BS		
AM-M830	A2074-U	A2074-EV	A2074-BS		

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



BLU AC220-230V 50Hz  
 WHT AC240V 50Hz  
 AC (M) 50V  
 AC (S) 50V  
 AC (EZ) 50V  
 AC (+20V)  
 AC (MAIN)  
 AC (MAIN)

ER SUPPLY LINE  
 L LINE  
 SIGNAL LINE

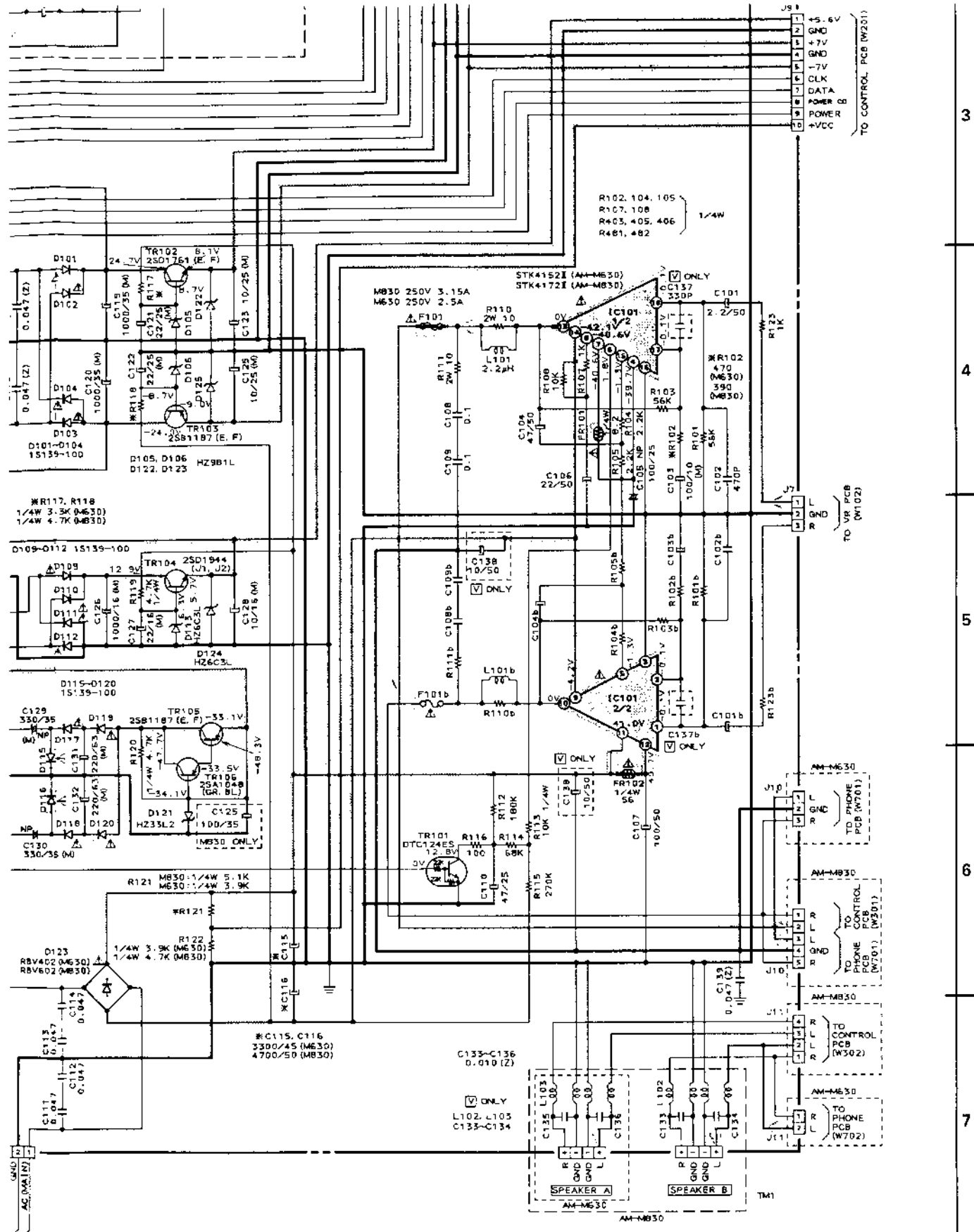
**WARNING:** AND INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.  
**AVERTISSEMENT:** ET ILS INDICENT LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES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

INDICATED VOLTAGES WERE MEASURED WHEN NO SIGNAL WAS BEING INPUT. (FUNCTION: CD MODE)

**NOTE**  
 UNLESS OTHERWISE SPECIFIED  
 ALL RESISTORS IN OHMS 1/6W (J)  
 ALL CAPACITORS IN uF 50V (M)  
 ALL DIODES ARE 1SS131

# AM-M630/M630 MAIN AMP SCHEMATIC

No. 5-2



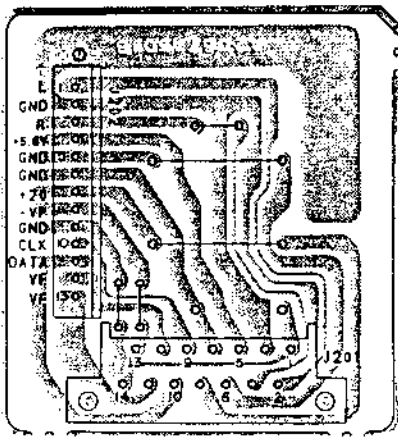
WARNING: ⚠ AND ⚡ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

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

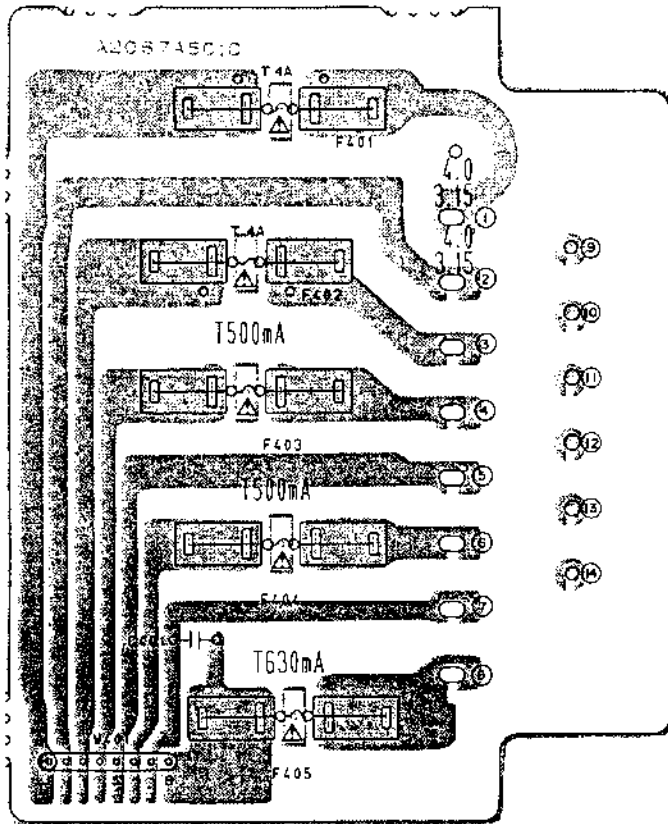
INDICATED VOLTAGES WERE MEASURED WHEN NO SIGNAL WAS BEING INPUT. (FUNCTION CD MODE)

NOTE  
UNLESS OTHERWISE SPECIFIED  
ALL RESISTORS IN OHMS 1/6W(1)  
ALL CAPACITORS IN µF 50WV(M)  
ALL DIODES ARE 1SS131

AM-M630/M830  
MAIN AMP  
SCHEMATIC DIAGRAM  
No. 5-2 A207302M



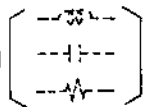
JACK PCB A2067A501B

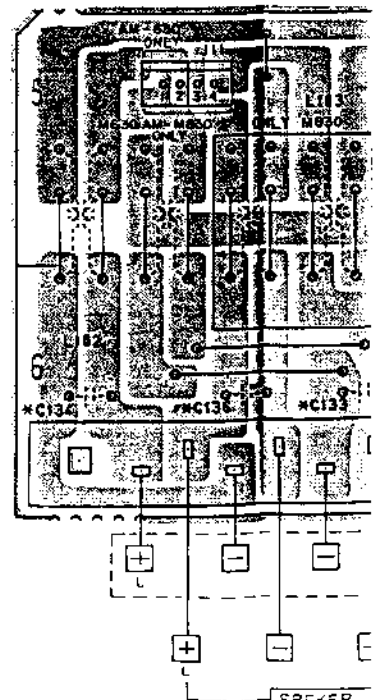
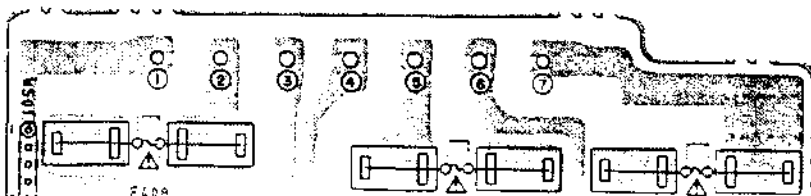


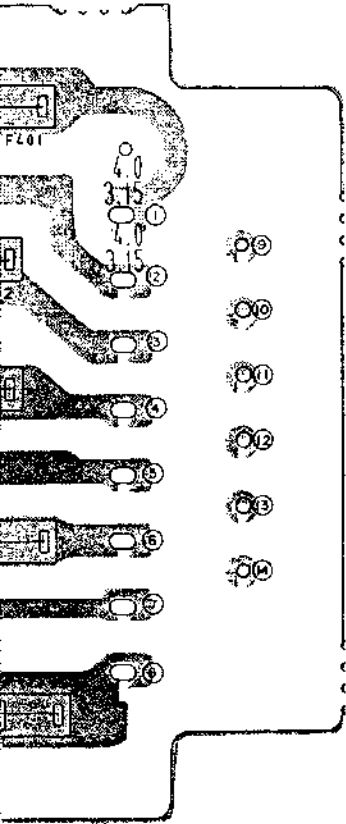
FUSE I PCB A2067A501D

PRINCIPAL PARTS LOCATION

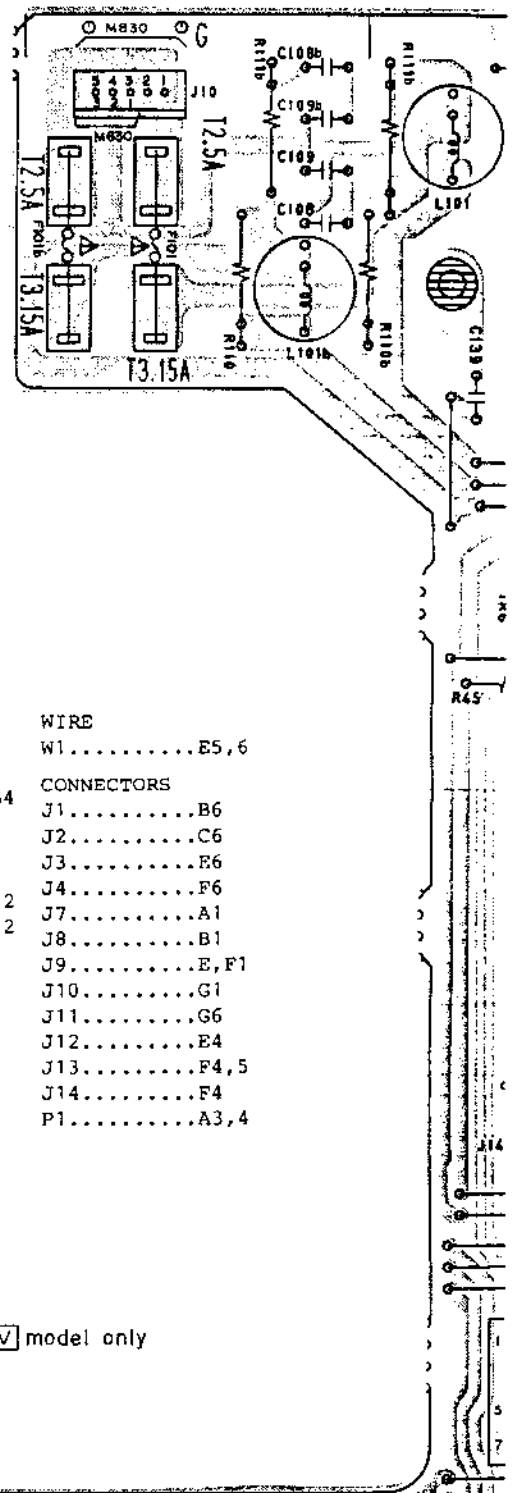
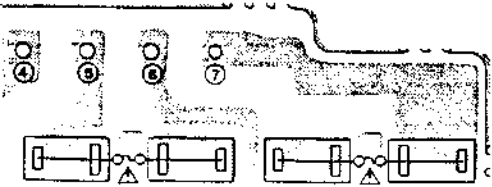
TRANSISTORS	ICS
TR1.....F6	IC1.....A
TR4.....F6	IC2.....B
TR5.....F6	IC3.....A
TR6.....F2	IC4.....B
TR101.....E3	IC5.....A
TR102.....D1	IC6.....B
TR103.....E1	IC7.....A
TR104.....D5	IC8.....B
TR105.....F6	IC101.....D
TR106.....F5	

\* Indicated  are



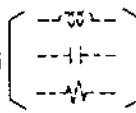


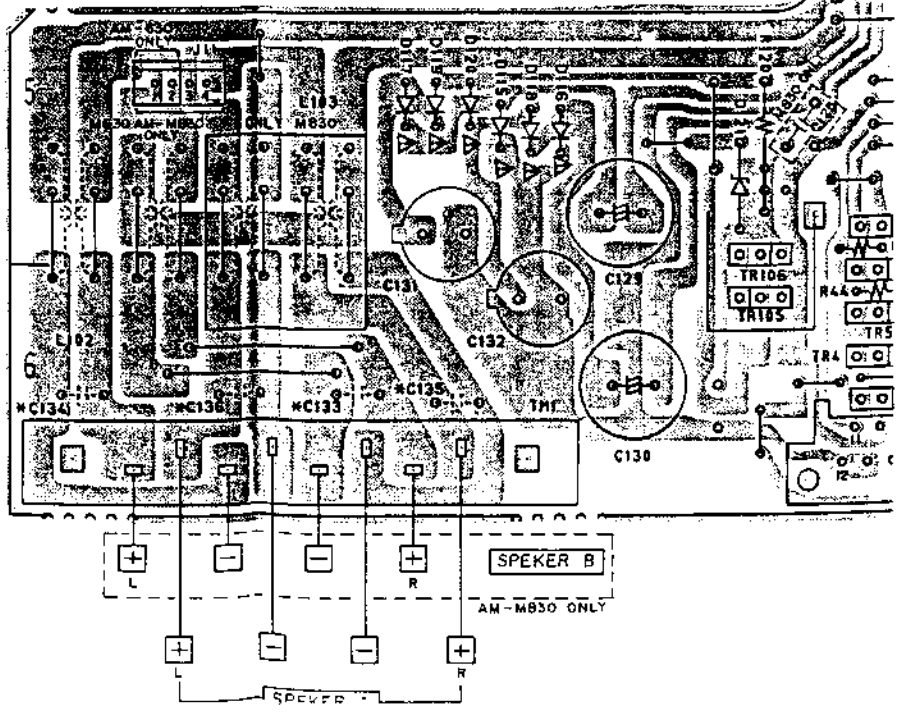
5010

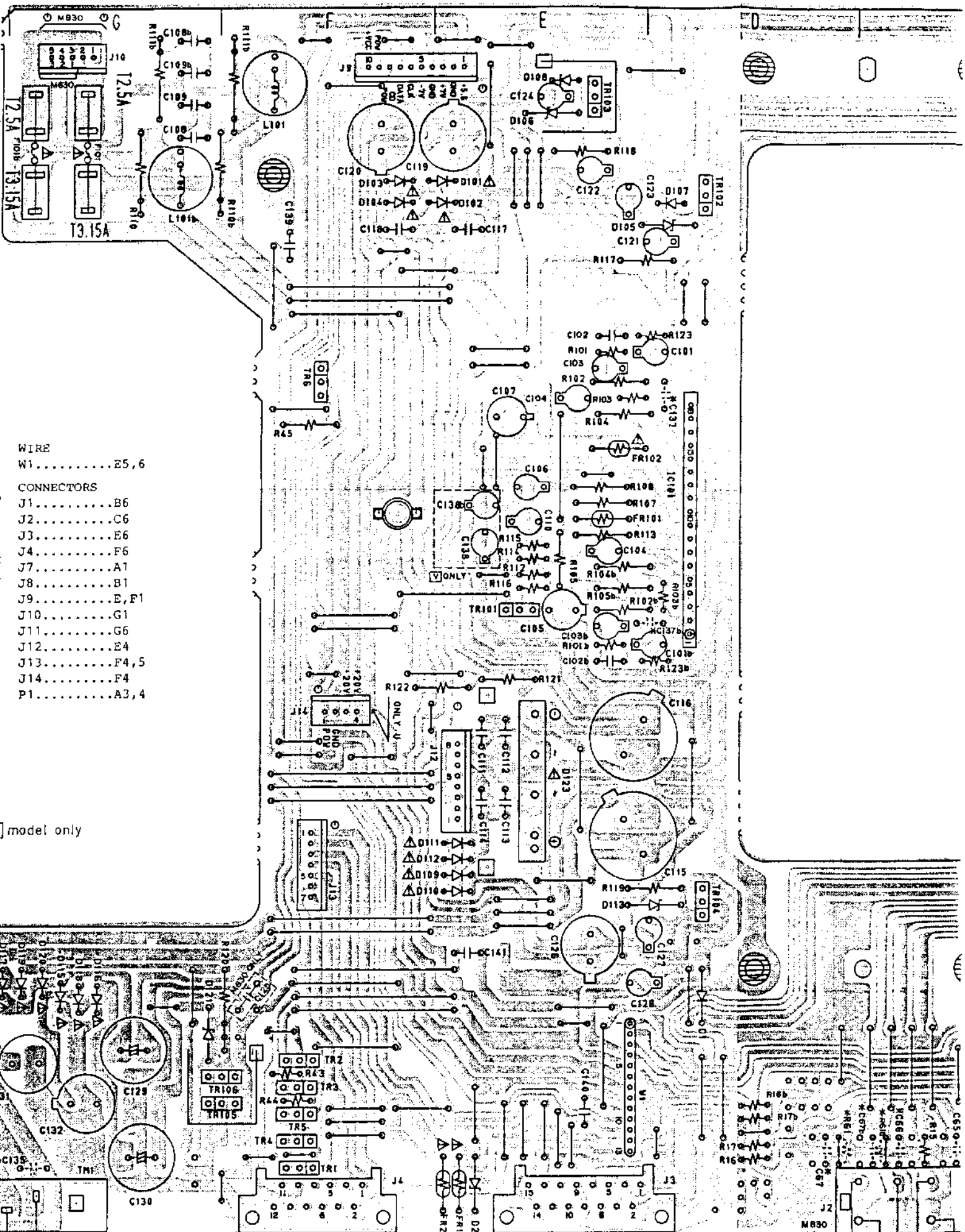


PRINCIPAL PARTS LOCATION

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

\* Indicated  are  model only

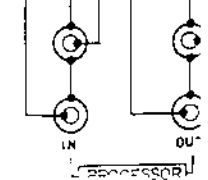


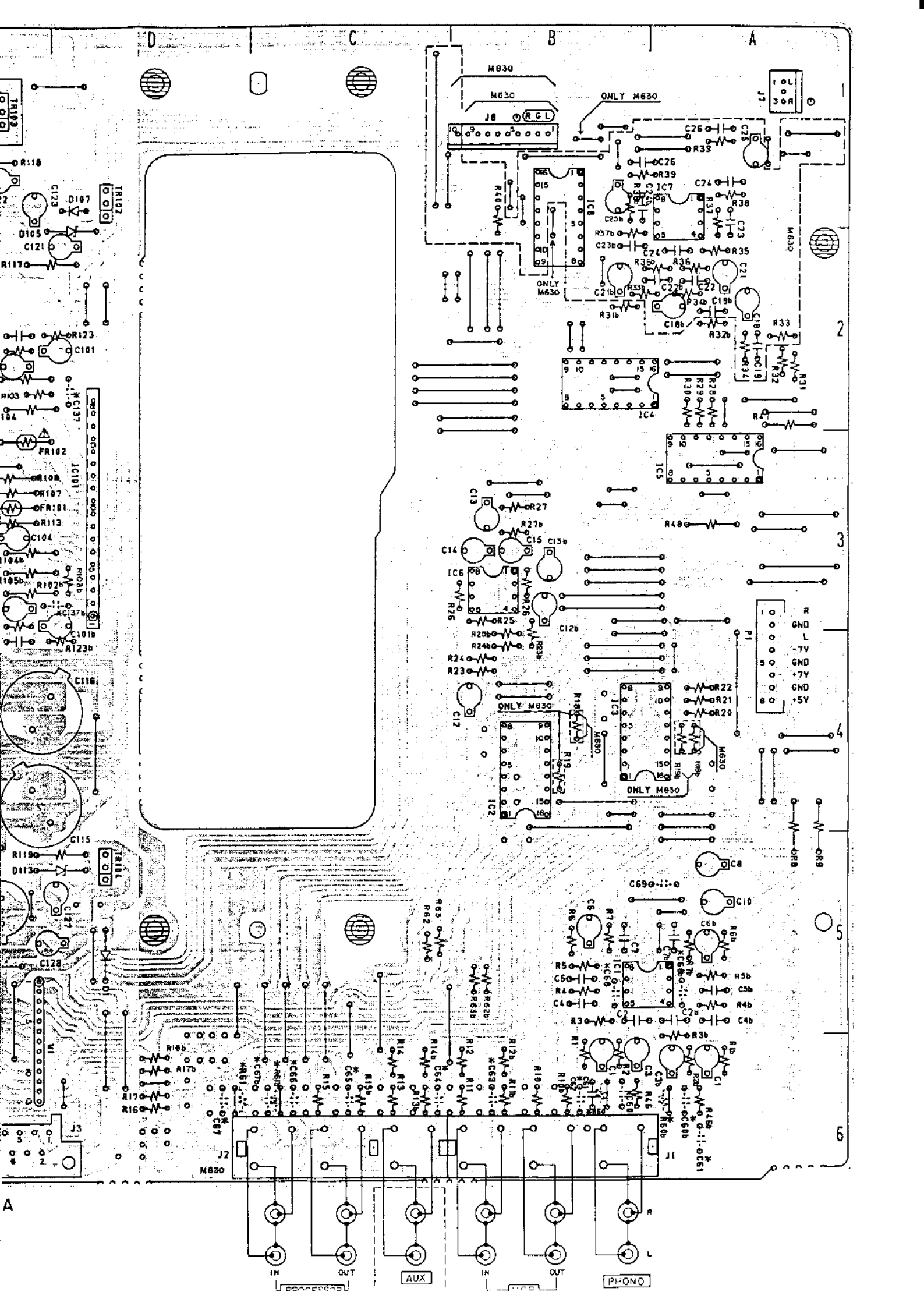


- WIRE  
 W1.....25,6
- CONNECTORS  
 J1.....B6  
 J2.....C6  
 J3.....E6  
 J4.....F6  
 J7.....A1  
 J8.....B1  
 J9.....E,F1  
 J10.....G1  
 J11.....G6  
 J12.....E4  
 J13.....F4,5  
 J14.....F4  
 P1.....A3,4

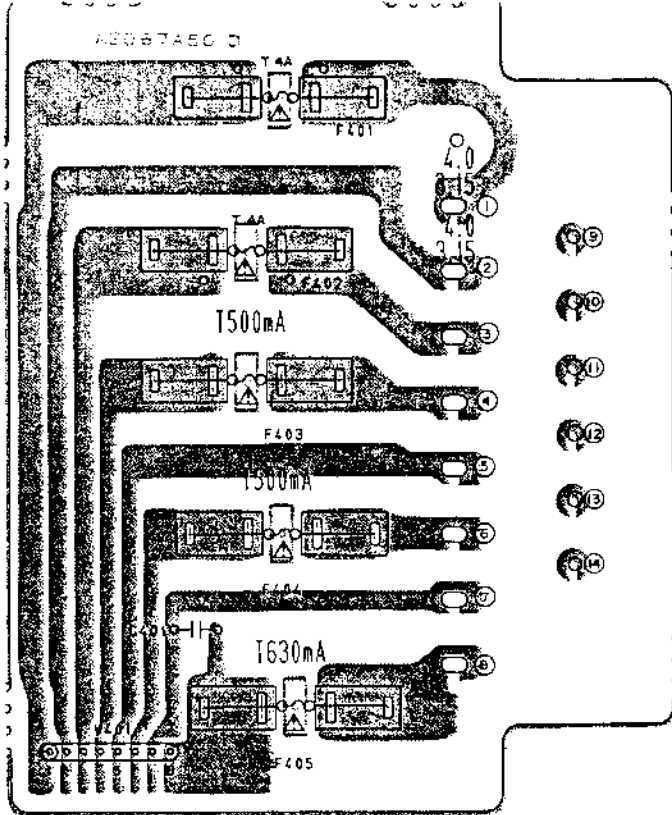
model only

MAIN AMP PCB A2067A501A

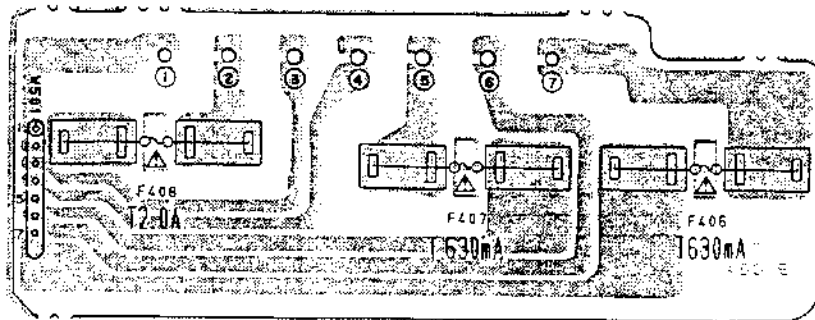






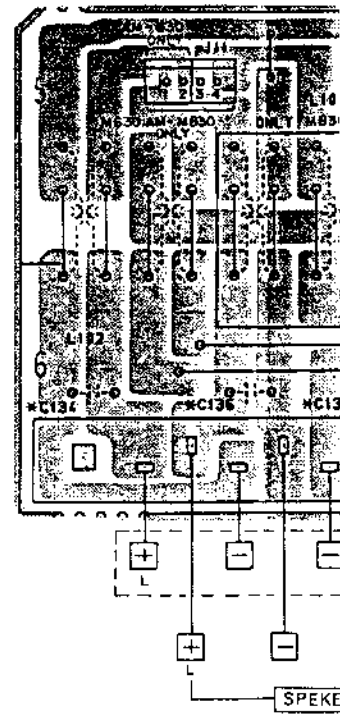
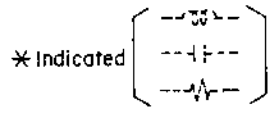


FUSE 1 PCB A2067A501D



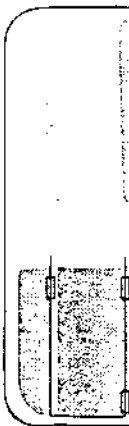
FUSE 2 PCB A2067A501E

TR4.....	F6	IC2.....
TR5.....	F6	IC3.....
TR6.....	F2	IC4.....
TR101.....	E3	IC5.....
TR102.....	D1	IC6.....
TR103.....	E1	IC7.....
TR104.....	D5	IC8.....
TR105.....	F6	IC101.....
TR106.....	F5	



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

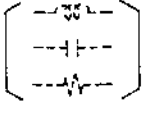

AVERTISSEMENT:  $\Delta$  IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.

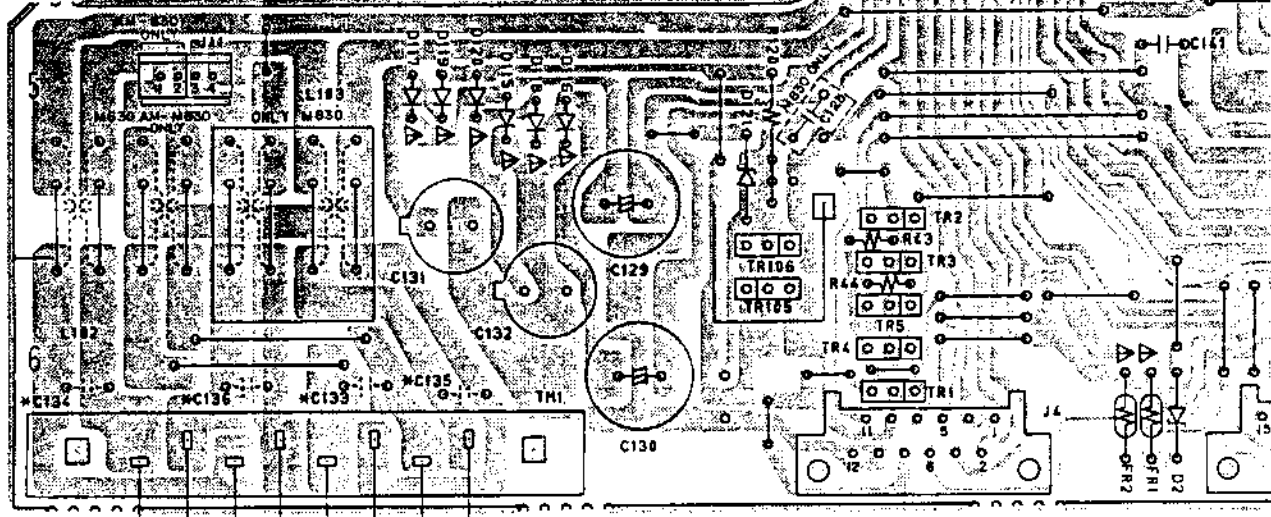


TR4.....F6  
 TR5.....F6  
 TR6.....F2  
 TR101.....E3  
 TR102.....D1  
 TR103.....E1  
 TR104.....D5  
 TR105.....F6  
 TR106.....F5

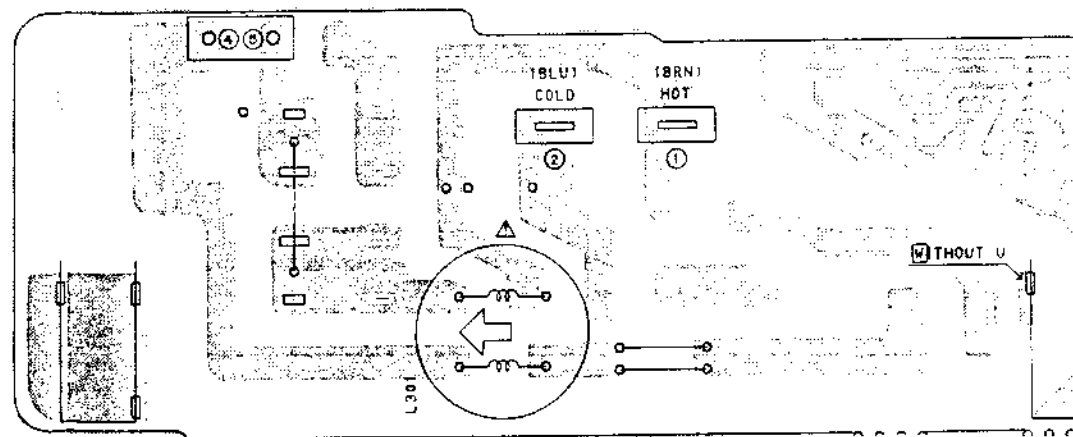
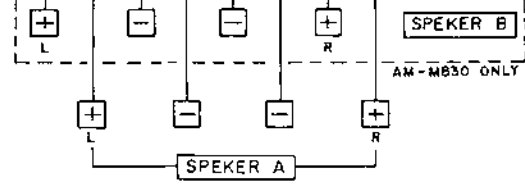
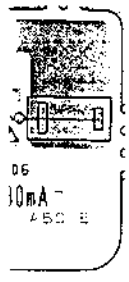
IC2.....B4  
 IC3.....A, B4  
 IC4.....B2  
 IC5.....A3  
 IC6.....B3  
 IC7.....A1, 2  
 IC8.....B1, 2  
 IC101.....D3




CONNECTORS  
 J1.....B6  
 J2.....C6  
 J3.....F6  
 J4.....F6  
 J7.....A1  
 J8.....B1  
 J9.....E, F1  
 J10.....G1  
 J11.....G6  
 J12.....E4  
 J13.....F4, 5  
 J14.....F4  
 P1.....A3, 4

\* Indicated  are  model only

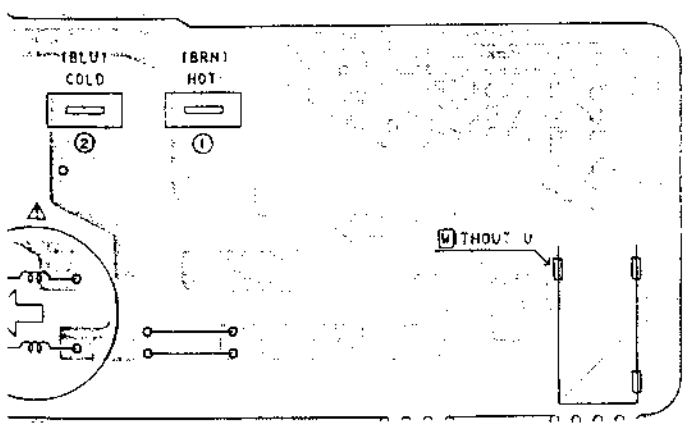
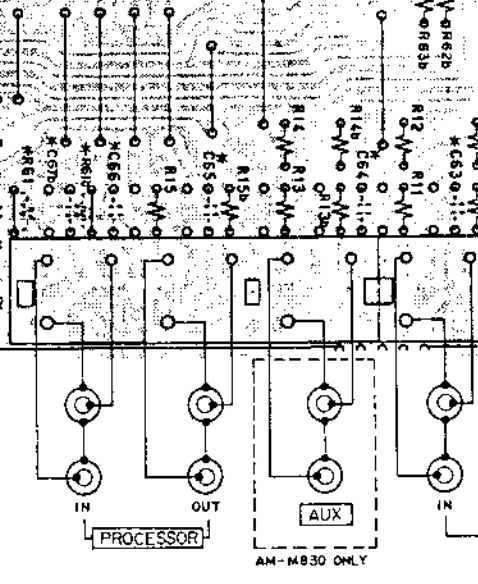
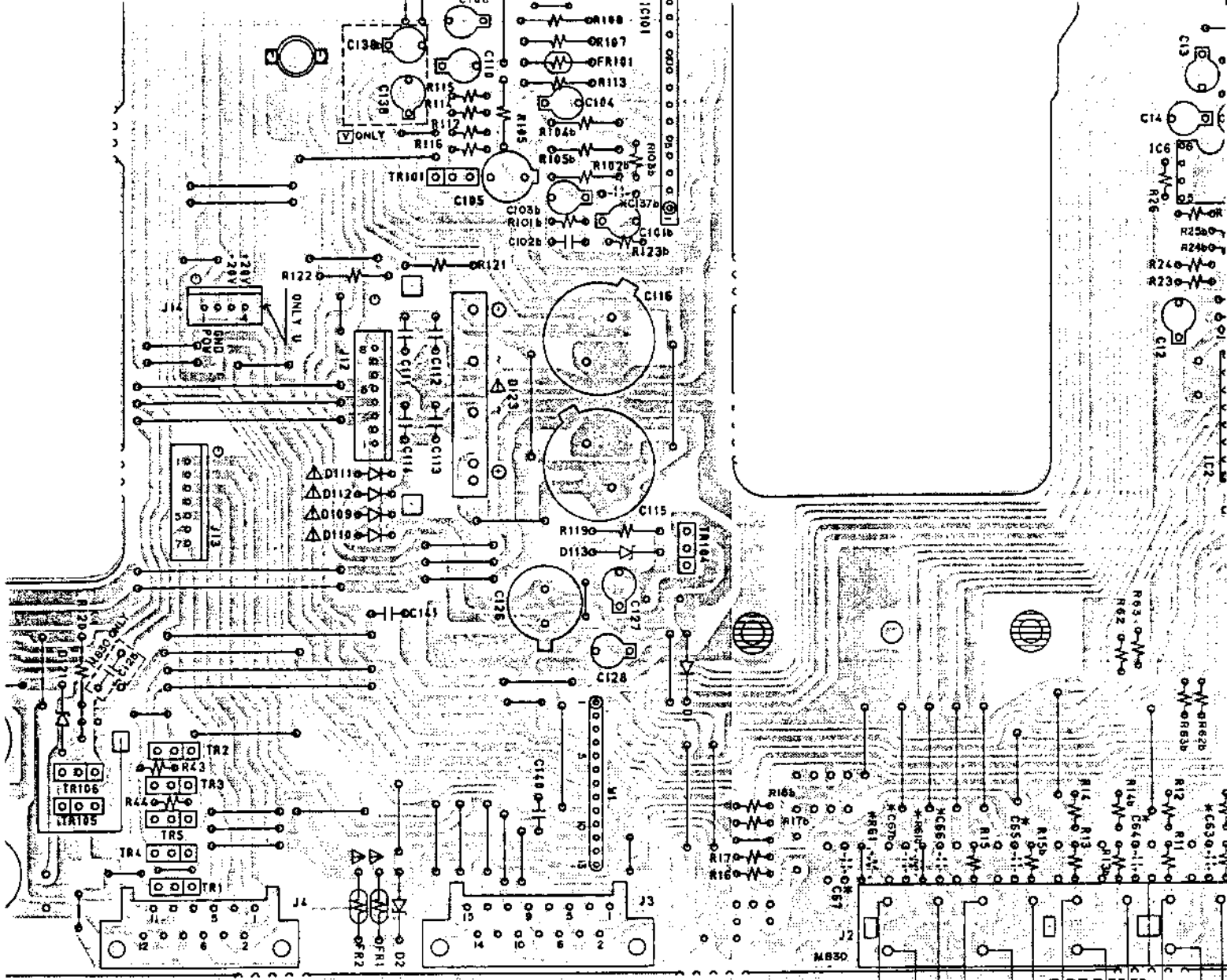


MAIN AMP PCB A206

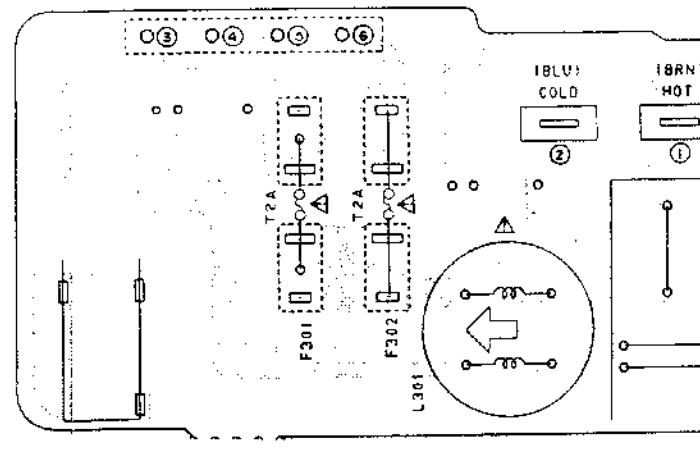


FILTER PCB A2067A50IC   

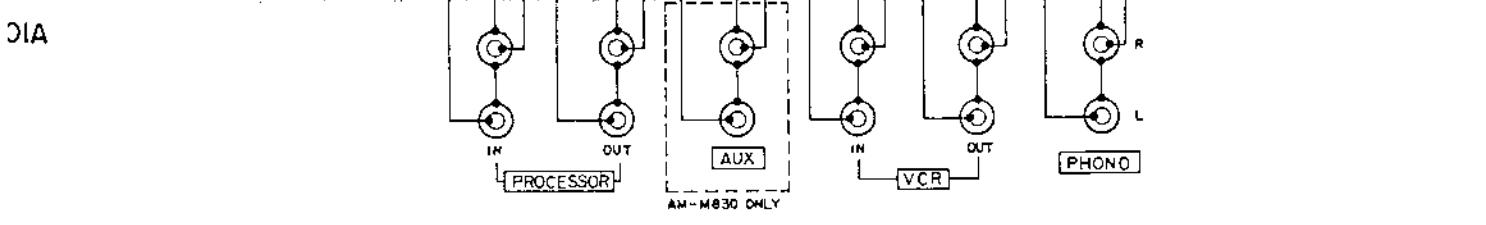
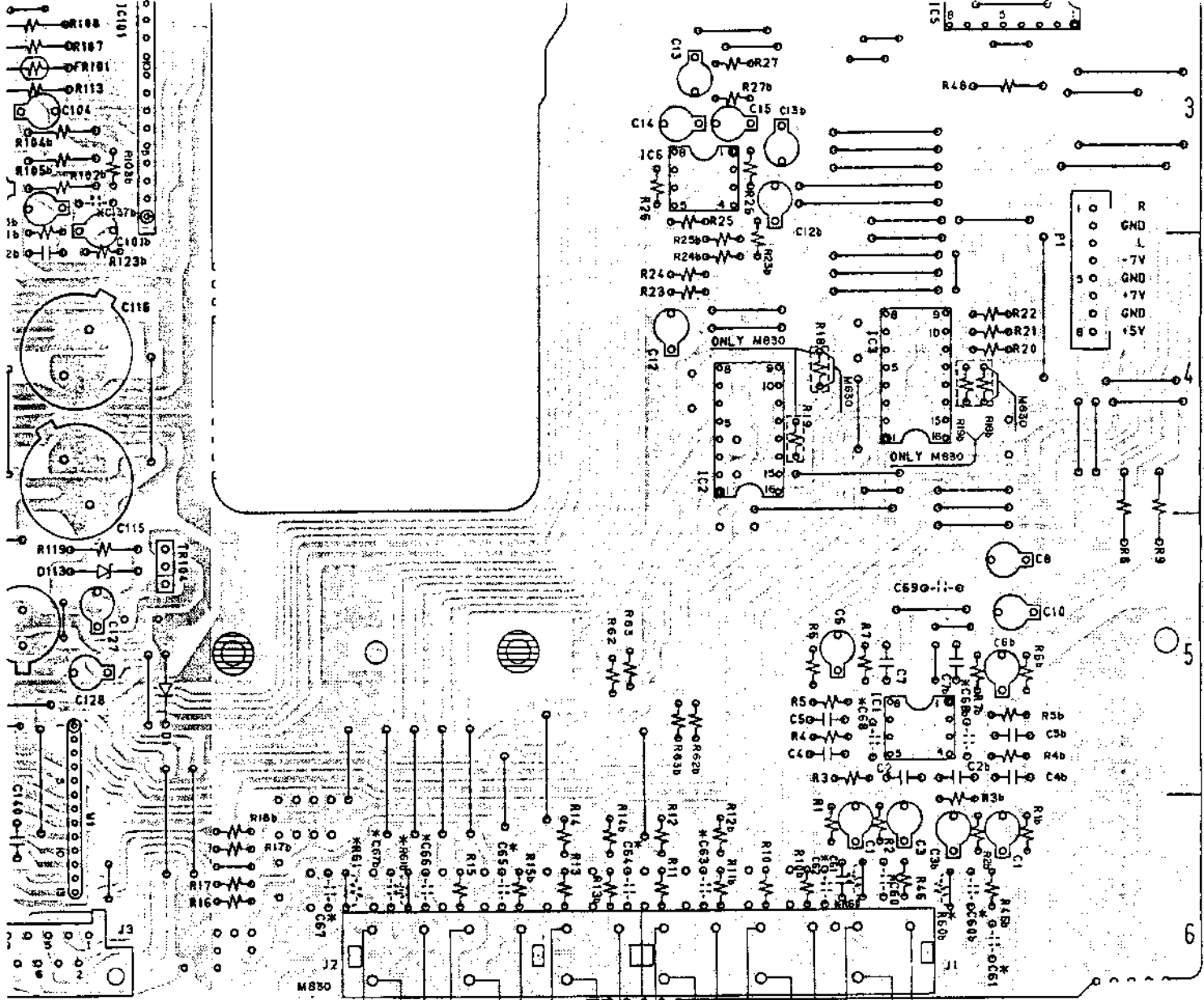
ETV  
ER'S  
NT



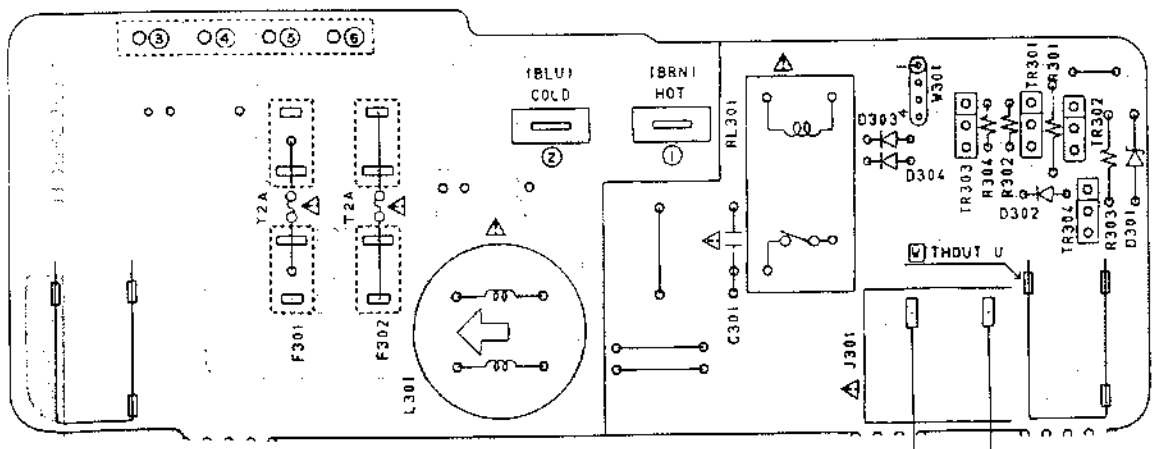
B A2067A501C [B] [E] [V] model



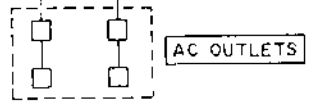
FILTER PCB A2067A501C



01A



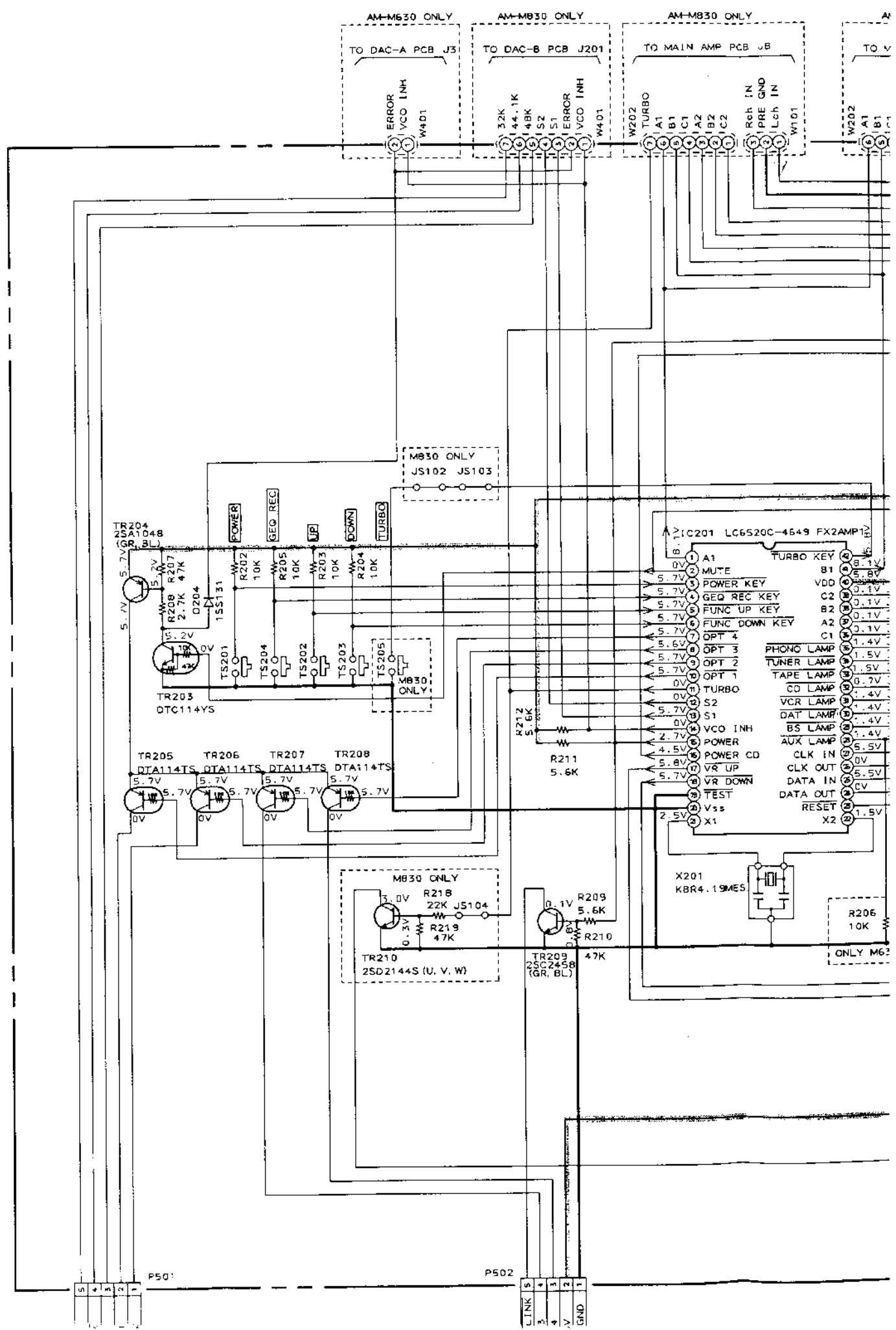
FILTER PCB A2067A50IC U model

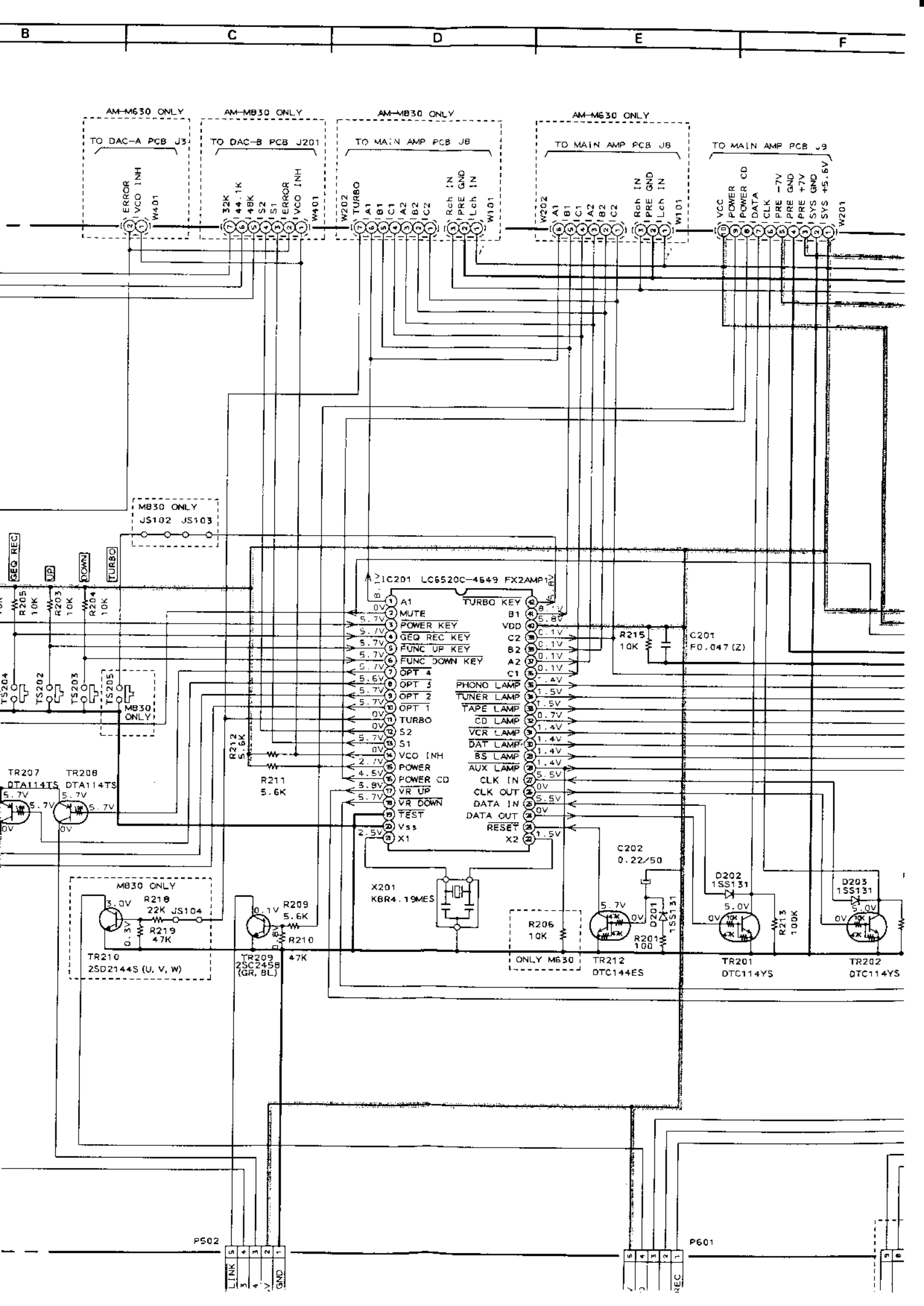


AC OUTLETS

A B C D

1  
2  
3  
4  
5  
6





B C D E F

AM-M630 ONLY AM-MB30 ONLY AM-MB30 ONLY AM-M630 ONLY

TO DAC-A PCB J3 TO DAC-B PCB J201 TO MAIN AMP PCB J8 TO MAIN AMP PCB J9

REQ REC  
R205 10K  
R203 10K  
R204 10K  
UP  
DOWN  
TURBO  
TS204  
TS202  
TS203  
TS205  
MB30 ONLY  
JS102 JS103

TR207 TR208  
DTA114TS DTA114TS  
5.7V 5.7V  
5.7V 5.7V

MB30 ONLY  
R218 22K JS104  
R219 47K  
TR210 2SD2144S (U, V, W)

R209 5.6K  
R210 47K  
TR209 2SC2458 (GR, BL)

ONLY M630  
R206 10K  
TR212 DTC144ES

D202 1SS131  
5.0V  
TR201 DTC114YS

D203 1SS131  
5.0V  
TR202 DTC114YS

P502

P601

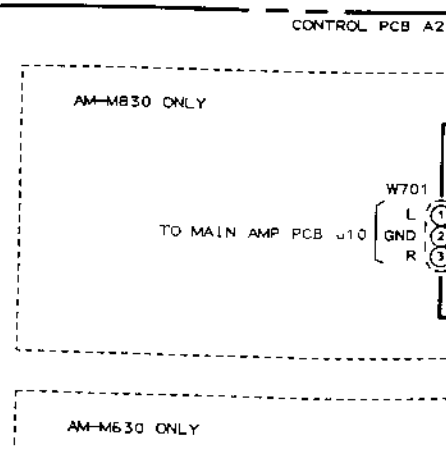
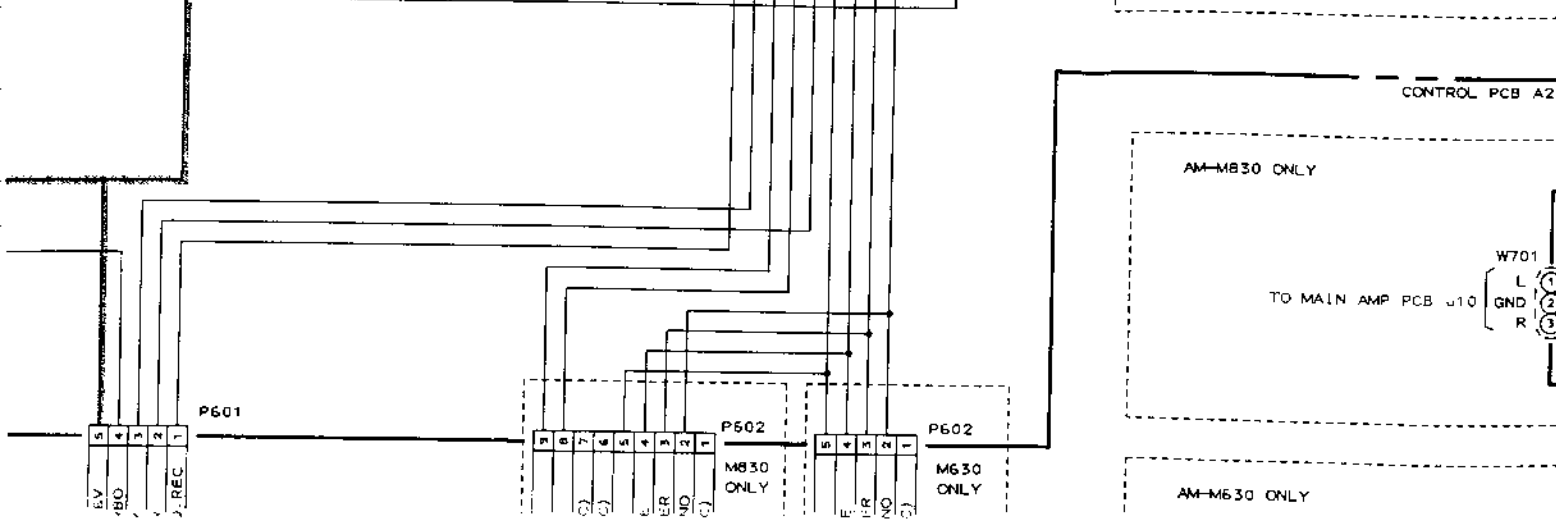
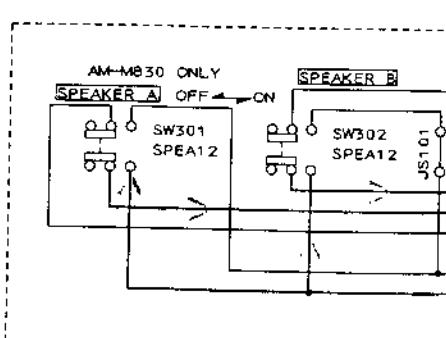
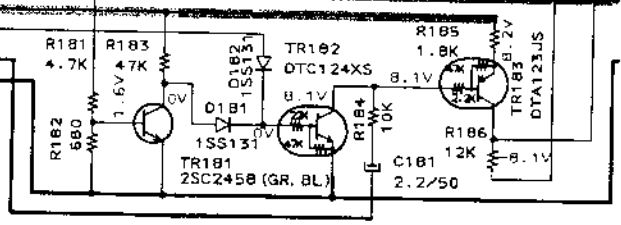
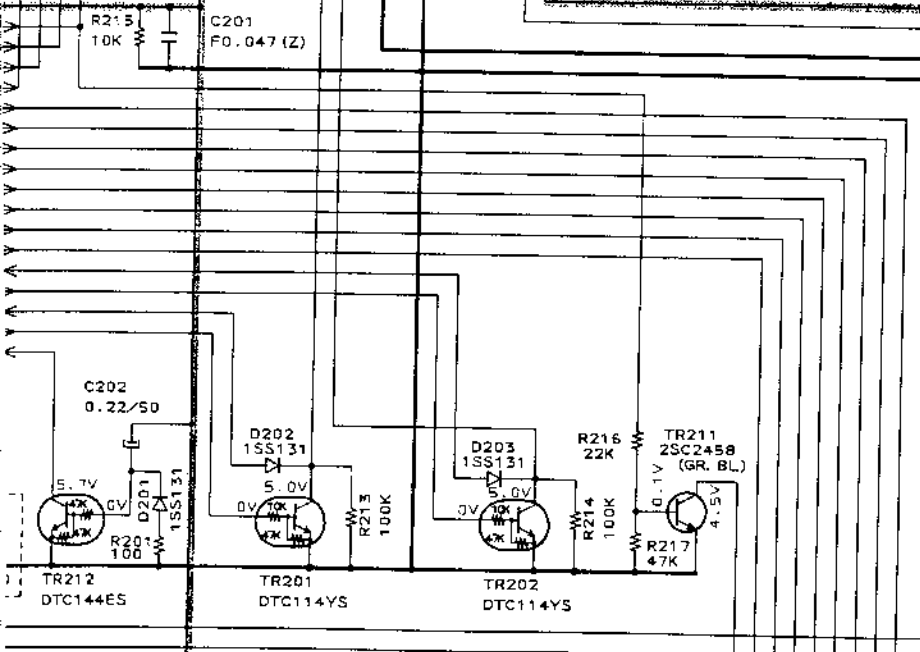
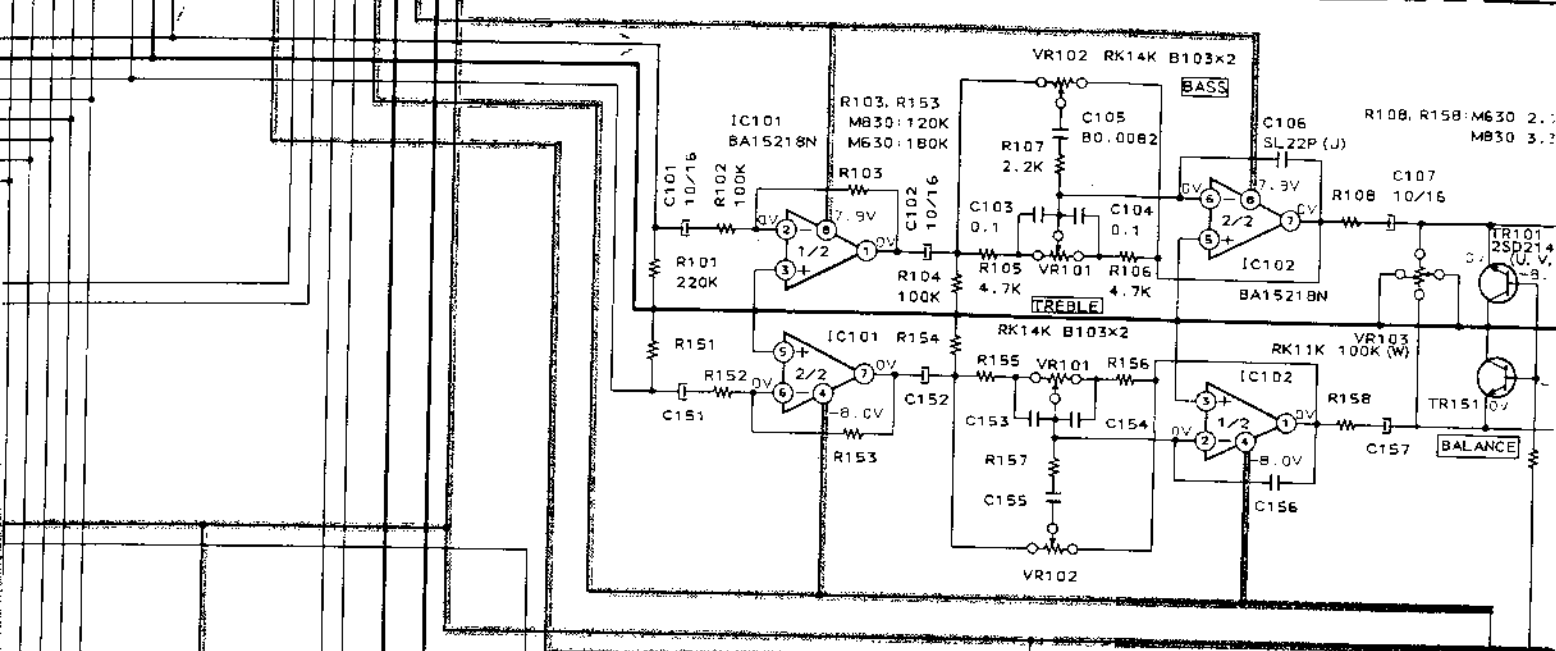
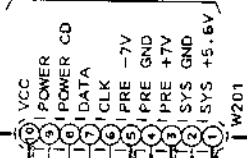
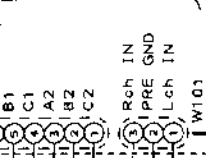
LINK 5 3 4 GND 1

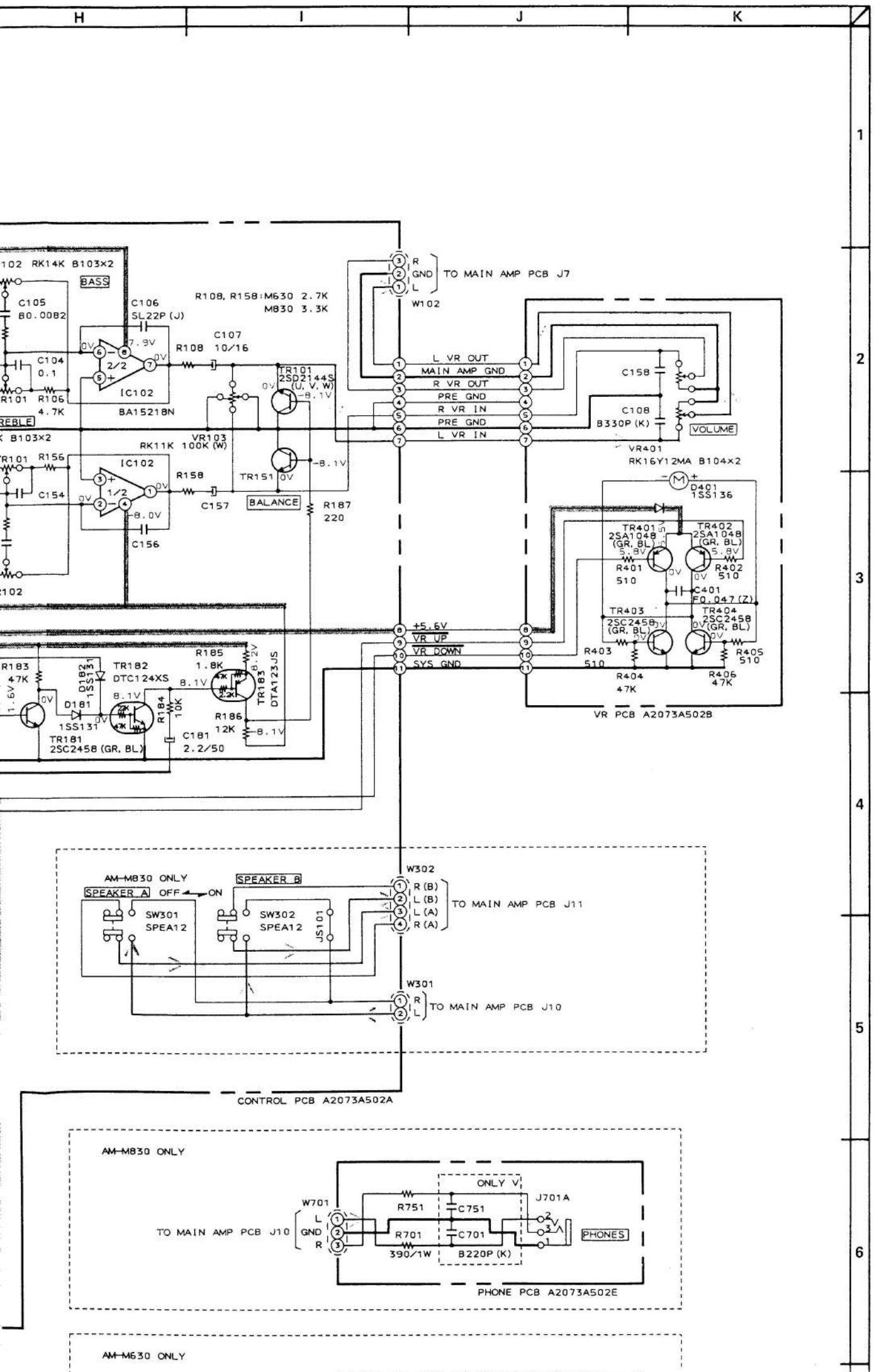
REC 1 2 3 4 5

AM-M630 ONLY

TO MAIN AMP PCB J8

TO MAIN AMP PCB J9







3

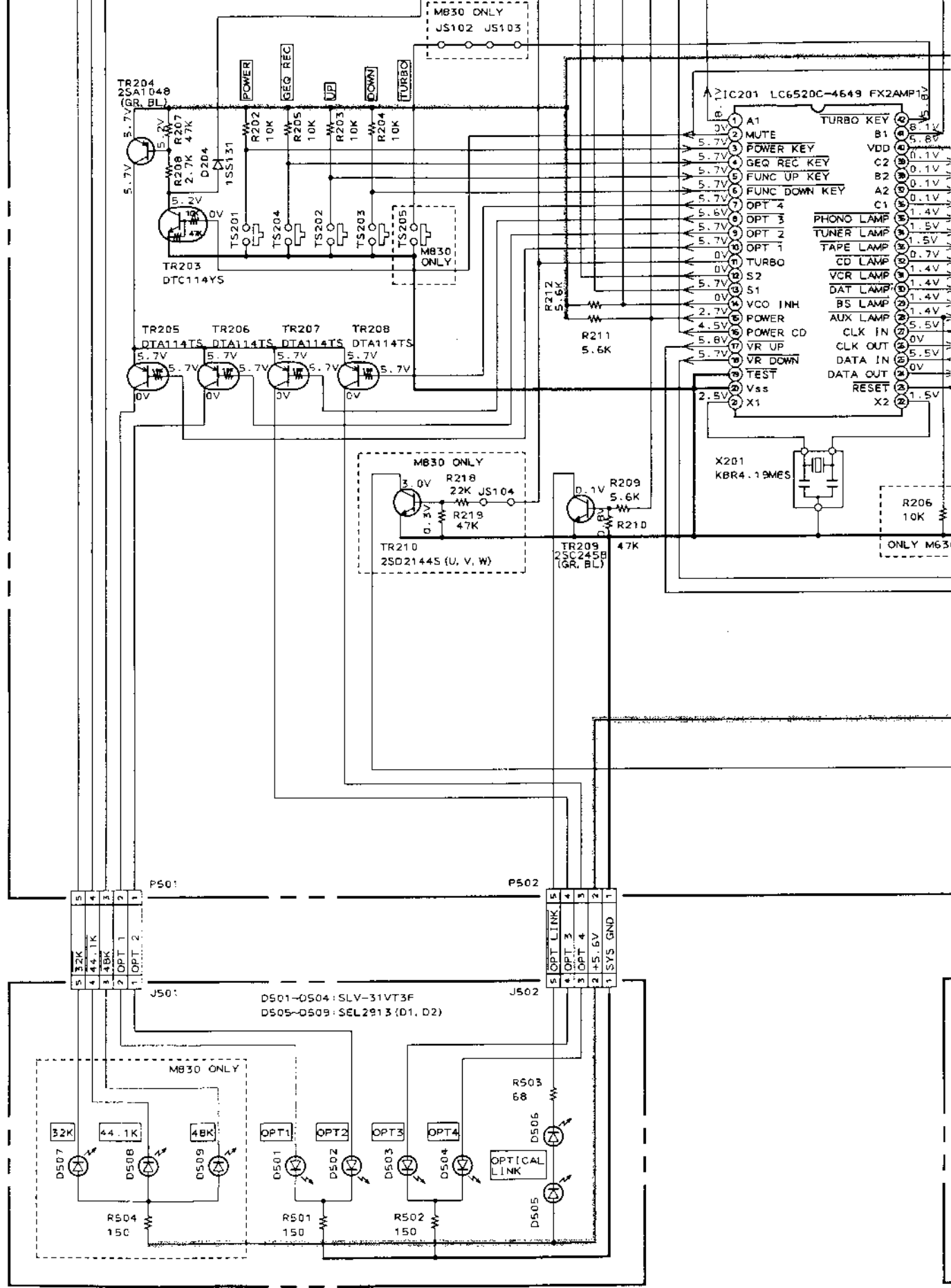
4

5

6

7

8



LED (L) PCB A2073A502C

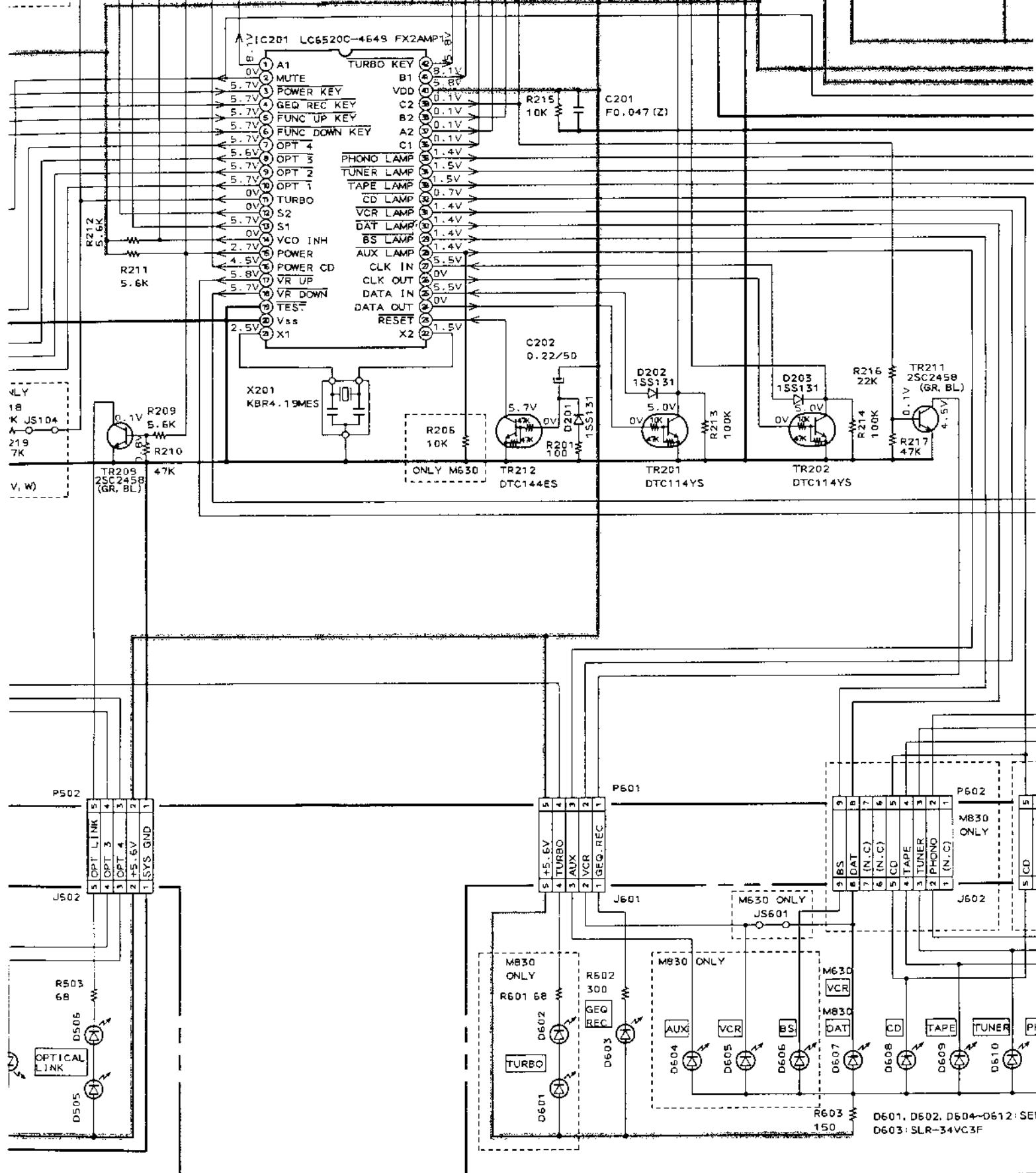
A

B

C

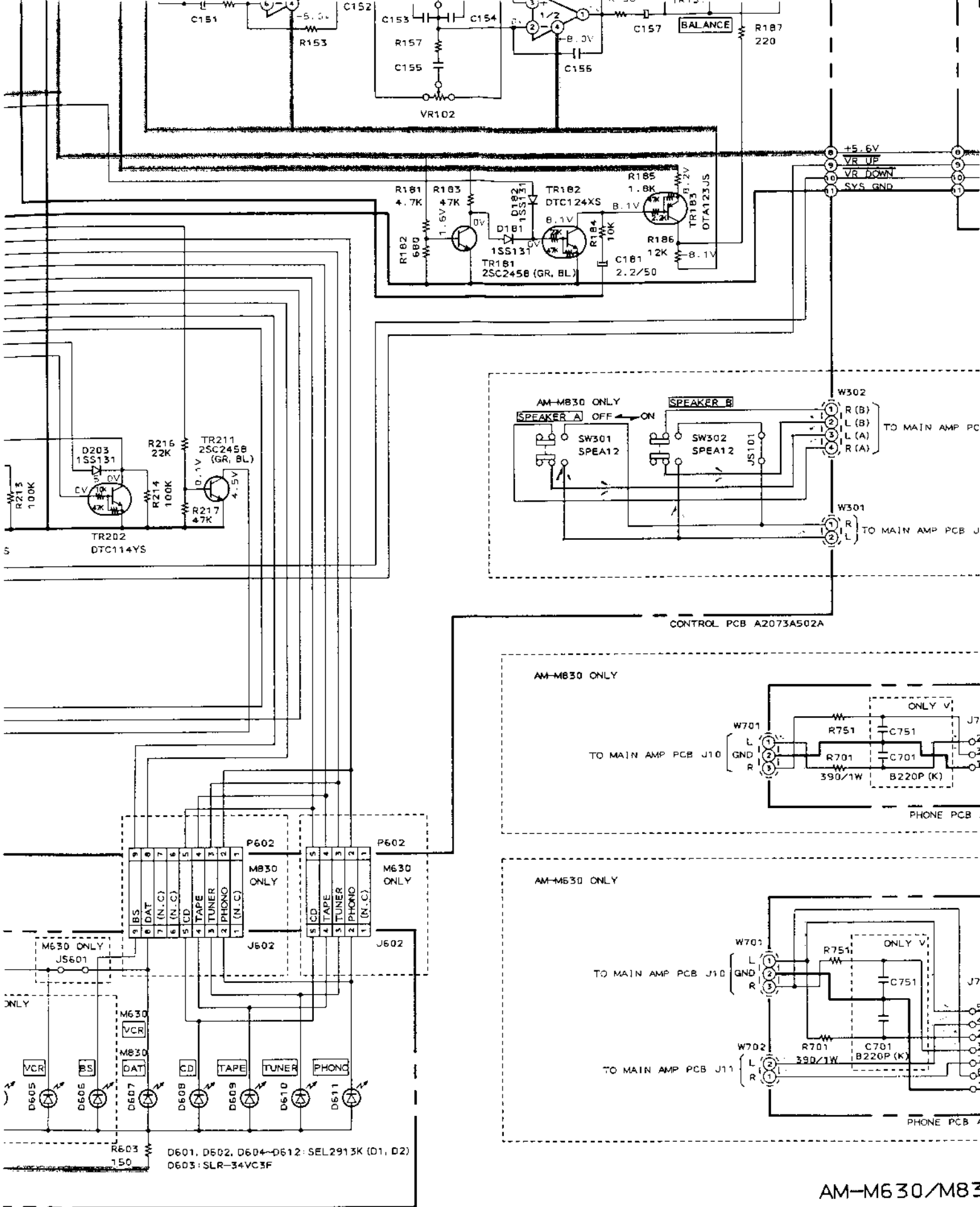
D

ONLY  
12 JS103



LED (R) PCB A2073A502

INDICATED VOLTAGES WERE MEASURED  
WHEN NO SIGNAL WAS BEING INPUT.  
(FUNCTION-CD MODE)



LED (R) PCB A2073A502D

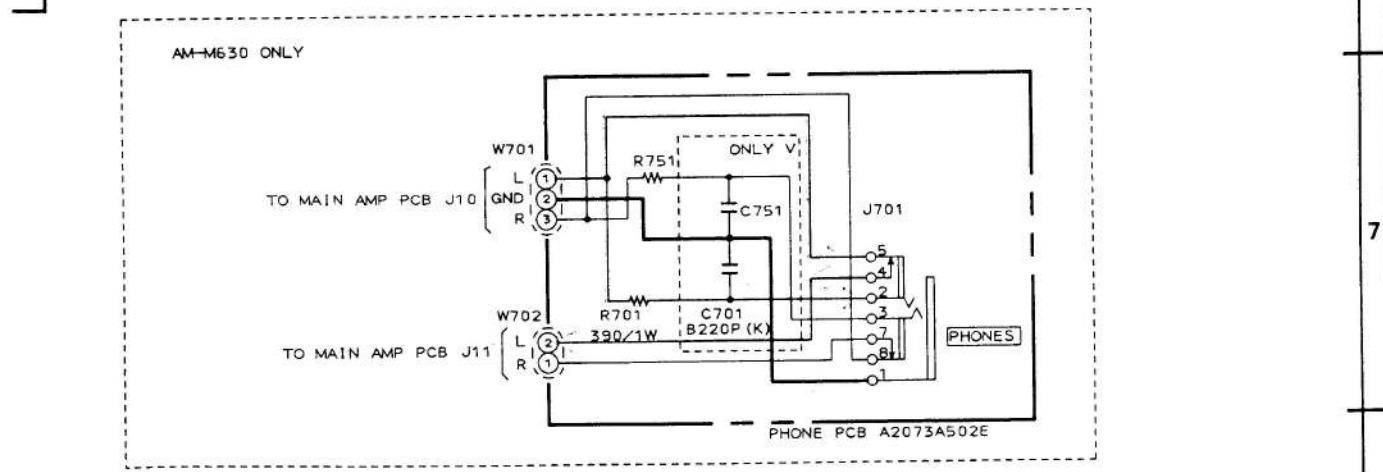
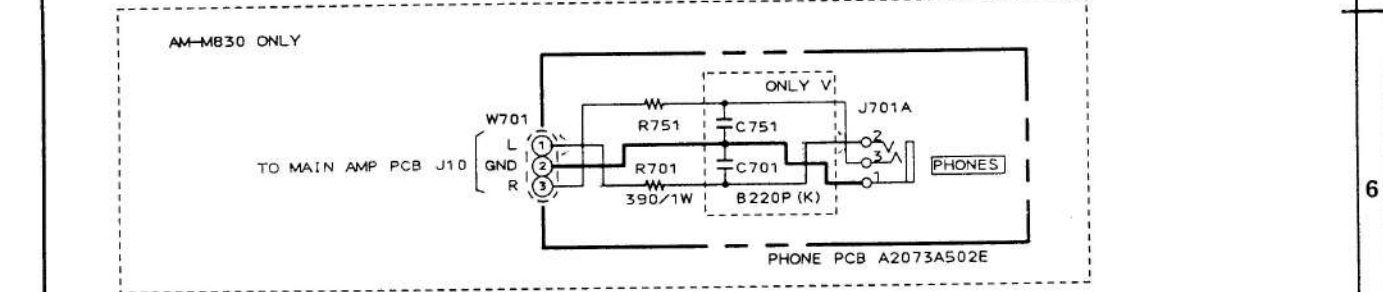
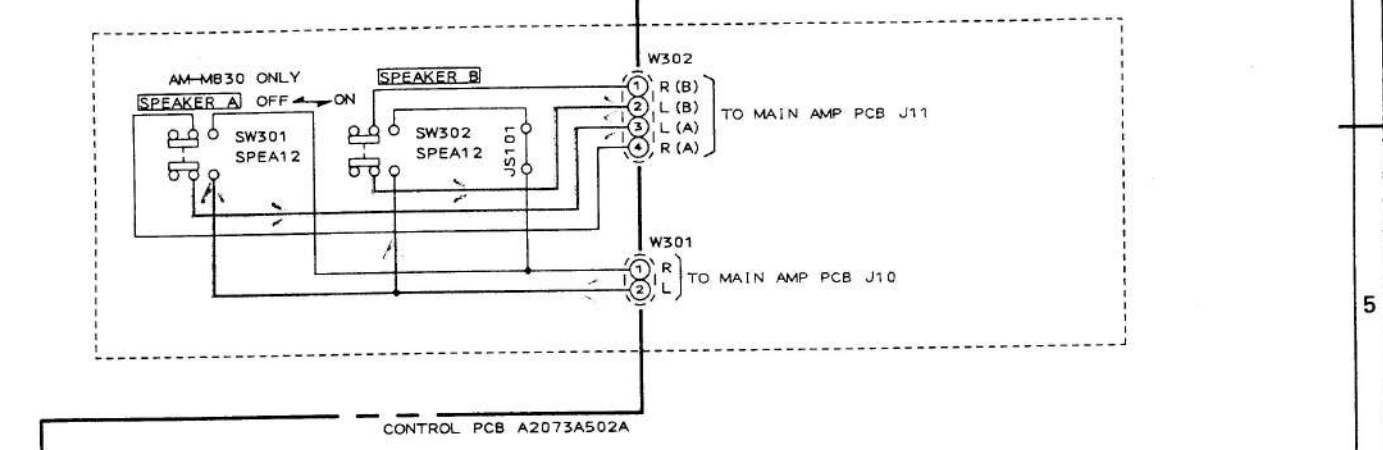
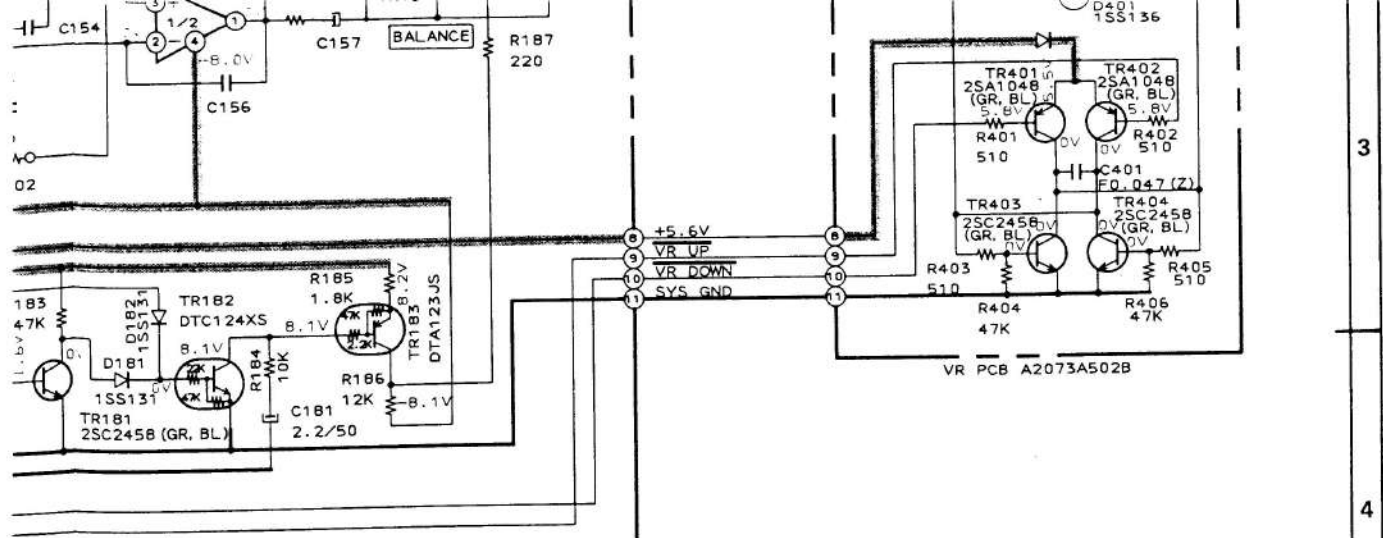
INDICATED VOLTAGES WERE MEASURED WHEN NO SIGNAL WAS BEING INPUT. (FUNCTION: CD MODE)

———— B (POWER SUPPLY) LINE

———— SIGNAL LINE

NOTE  
UNLESS OTHERWISE SPECIFIED  
ALL RESISTORS IN OHMS 1/6W(J)  
ALL CAPACITORS IN  $\mu$ F 50WV(M)

AM-M630/M830  
CONTROL PCB  
SCHEMATIC D  
No.5-3 A2



AM-M630/M830  
 CONTROL PCB  
 SCHEMATIC DIAGRAM  
 No. 5-3 A207303M

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

SUPPLY)LINE  
 INE

3  
 4  
 5  
 6  
 7  
 8

H I J K