AKAI

MODEL AT-A2/L

SCHEMATIC DIAGRAM AND PC BOARD

TC9171

Pin No.	Symbol	Description
1	GND	GND
2	REF	Reference Frequency/Input Terminal from U0COM (TC9303N)
3	SO	Serial Data Output Terminal to U-COM (TC93031N)
4	SI	Serial Data Input Terminal from U-COM (TC-9303N)
5	CK	Clock Signal Terminal
6	STB	Strobe signal Terminal
7	A-STP	Not used
8	IF-IN	AM/FM-IF signal Input Terminal (Auto scan stop DET)
9	IN1	
10	OT1	Not used
11	OT2	
12	OT3	Control output "H"-MONO/"L"-STEREO
13	OT4	Control output "H"-LW MODE AT-A2L only
14	OT5	Control output "H"-MW MODE AT-A2L only
15	OT6	Control output "H"-FM MODE/"L"-AM MODE
16	DO2	Not used
17	DO2	Control output of Tuning Voltage
18	TEST	Not used
19	AM-IN	AM OSC Signal Input Terminal
20	GND	GND
21	FM-IN	FM OSC Signal Input Terminal
22	V_{DD}	+5V

TC9303

Pin. No.	Symbol	Description
2	K0	Key Matrix Data Input
~	~	
5	K3	
6	D0	1G
~	~	~ Digit Output
12	D7	7G
13	a	7 Segment and Dot FL drive
~	~	
19	g	
20	h	
21	–VFL	–B
22	P31	FM-AM step Frequency control
~	~	Disnation
25	P34	FM OSC Frequency control
26	P21	P22 . . . FLD "TUNED" Control Input ("H"-"TUNED")
~	~	
29	P23	
30	P12	Not used
31	MUTE	Mute Control "H": Mute – (scaning and cheng of bond)
32	TEST	Not used
33	STB	Strobe signal Terminal
34	CK	Clock signal Terminal
35	SO	Serial Data Output Terminal to PLL (TC9171)
36	SI	Serial data Input Terminal to PLL (TC9171)
37	REF	Reference Frequency Output Terminal to PLL (TC9171)
38	INT	
39	INH	
40	XT	X'tal Terminal
41	XT	
42	V_{DD}	+5V
1	GND	GND

AT-A2

CONTROL PCB A3042A5040

TUNER PCB
A3042A5010 U
A3042A5011 C,A
A3042A5012 E,S
A3042A5013 V

+B (POWER SUPPLY) LINE
FM SIGNAL LINE
AM SIGNAL LINE

POWER SW(2) PCB A3042C5030

POWER SW(2) PCB A3042C5031

POWER SW(1) PCB A3042C5020

POWER SW(1) PCB A3042C5021

AT-A2 SCHEMATIC DIAGRAM

NO. 2-1 840821A

AT-A2L

IC1 LA1231N

IC2 μPC1235C

IC3 LA1240

CONTROL PCB A3042A5040

TUNER PCB A3042A5014

POWER SW(2) PCB A3042C5031

2SC2999

2SA608K-NP, 2SC1392, 2SC536K, 2SC930, 2SC3112, 2SC3569, 2SD1012V, 2SC9878

2SK192A, 2SK241, 2SK161

2SK246

2SD1406

+B (POWER SUPPLY) LINE

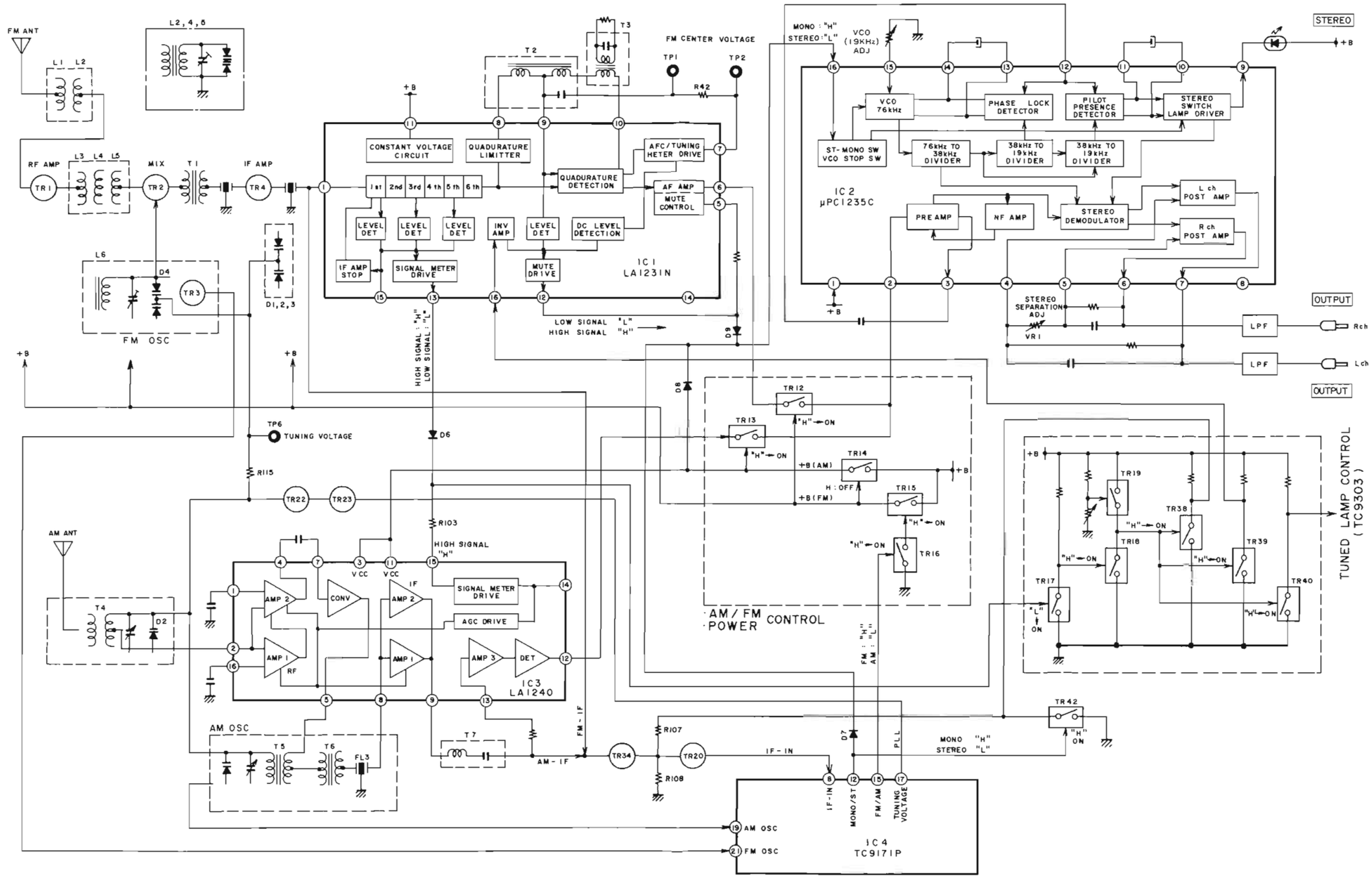
FM SIGNAL LINE

AM SIGNAL LINE

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

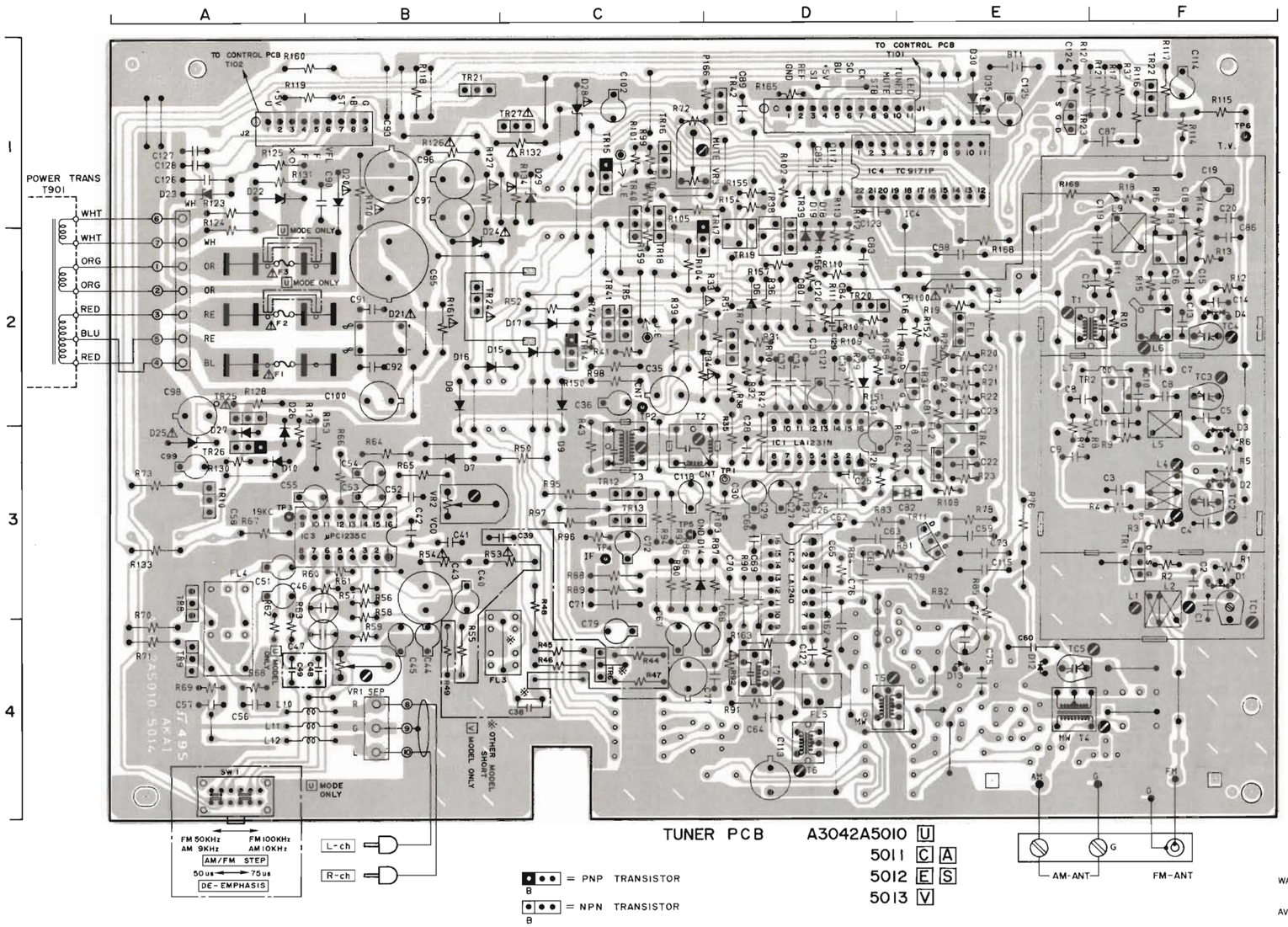
AT-A2L
SCHEMATIC DIAGRAM
NO. 2-2 840822A

AT-A2



AT-A2
BLOCK DIAGRAM
NO. 840820A (A2)

	,U	CA	EVS
F1	200mA 250V		
F2		500mA 125V	T500mA 250V
F3		250mA 125V	T160mA 250V



■ = PNP TRANSISTOR (B)

■ = NPN TRANSISTOR (B)

ADJUSTMENT POINT

L2 to L5	FM SENS (LOW)
TC1 to TC3	FM SENS (HIGH)
T1	FM STEREO DISTORTION
T2,T3	FM CENTER VOLTAGE
L6	FM OSC (LOW)
TC4	FM OSC (HIGH)
VR1	STEREO SEPARATION
VR2	VCO (19KHz) ADJ
VR3	MUTE ADJ
T4	AM SENS (LOW)
TC5	AM SENS (HIGH)
T5	AM OSC
T6,T7	AM - IF

LOCATION OF COMPORNENT

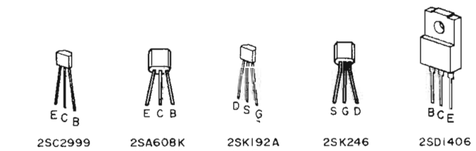
TRANSISTOR'S

TR1	F3
TR2,3	F2
TR4	E3
TR5	C2
TR6	C4
TR7	D2
TR8	A3
TR9	A4
TR10	A3
TR11	E3
TR12,13	C3
TR14	C2
TR15	C1
TR16	C1
TR17	D2
TR18	C1
TR19,20	D2
TR21	B1
TR22	F1
TR23	E1
TR24	B2
TR25	A2
TR26	A3
TR27	C1
TR34	E2
TR38,39	D2
TR40	C1
TR41	C2

IC'S

IC1	D3
IC2	B3
IC3	D3
IC4	E1

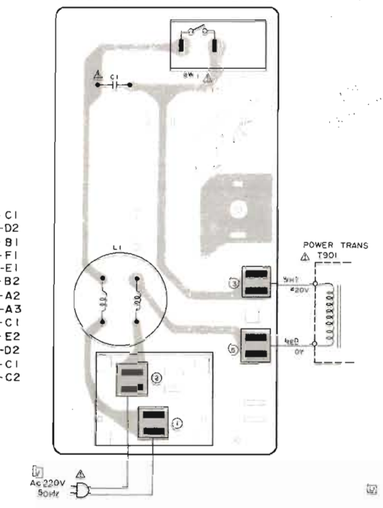
TR1	2SK241(Y)
TR2	2SC2999(C,D)
TR3,4,20	2SC930(E,F)
TR5,7,10,12,13,16,18,19,25,27,39,41,42	2SC536K-NP(E,F,G)
TR6,20,21	2SC3383(S,T)
TR8,9	2SD1012V(F,G)
TR11	2SK192A(G,R)
TR14,15	2SA1392(S,T)
TR17,26	2SA608K-NP(E,F,G)
TR23	2SK246(G,R)
TR24	2SD1406(O,Y,GR)
TR34	2SK161(Y)
TR38,40	2SC3112(A,B)



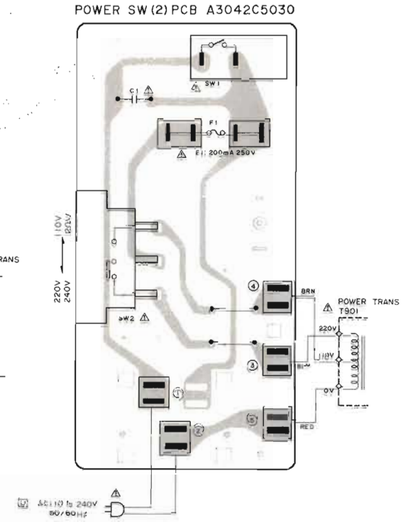
WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

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

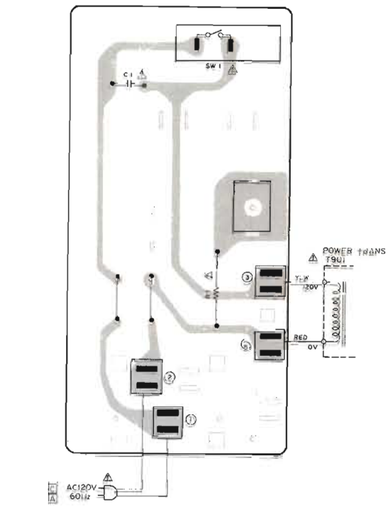
POWER SW(1) PCB A3042C5021



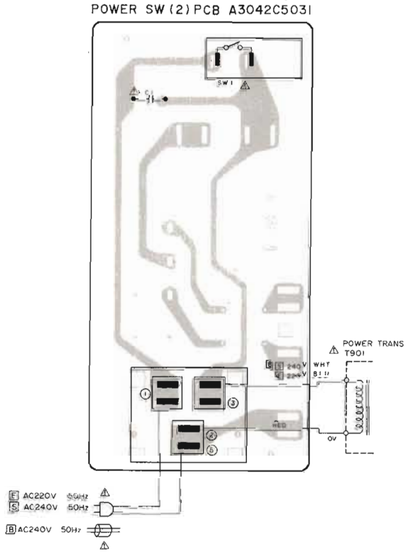
POWER SW(2) PCB A3042C5030

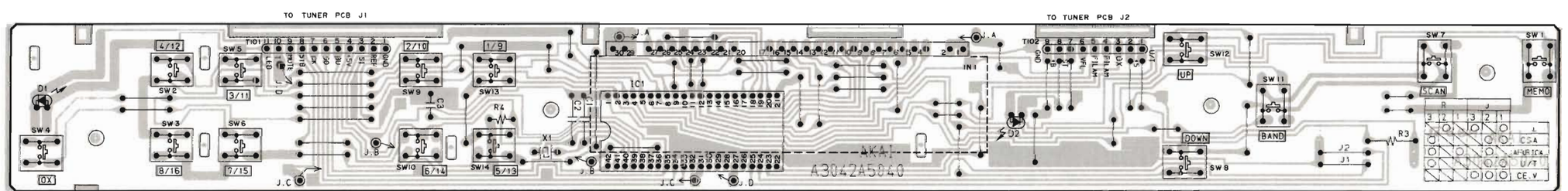


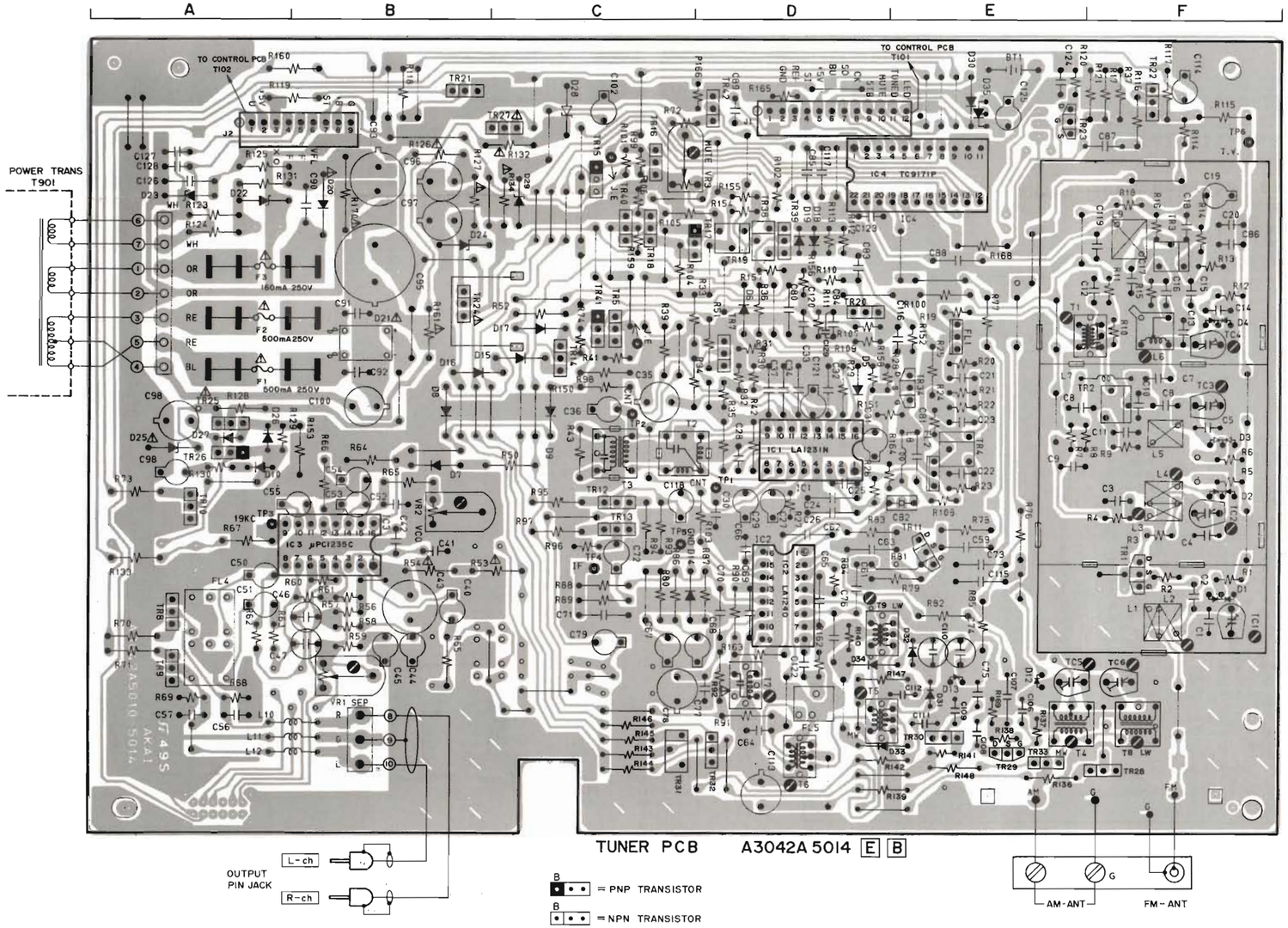
POWER SW(1) PCB A3042C5020



POWER SW(2) PCB A3042C5031







LOCATION OF COMPORNENT

TRANSISTOR

TR1	F3	TR21	B1
TR2,3	F2	TR22	F1
TR4	E3	TR23	E1
TR5	C2	TR24	B2
TR7	D2	TR25	A2
TR8	A3	TR26	A3
TR9	A4	TR27	C1
TR10	A3	TR28	F4
TR11	E3	TR29,30	E4
TR12,13	C3	TR31	C4
TR14	C2	TR32	D4
TR15	C1	TR33	E4
TR16	C1	TR34	E2
TR17	D2	TR38,39	D2
TR18	C1	TR40	C1
TR19,20	D2	TR41	C2

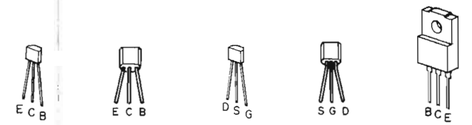
IC

IC1	D3
IC2	B3
IC3	D3
IC4	E1

ADJUSTMENT POINT

L2 to L5	FM SENS (LOW)
TC1 to TC3	FM SENS (HIGH)
T1	FM STEREO DISTORTION
T2,T3	FM CENTER VOLTAGE
L6	FM OSC (LOW)
TC4	FM OSC (HIGH)
VR1	STEREO SEPARATION
VR2	VCO (19KHz) ADJ
VR3	MUTE ADJ
T4	MW SENS (LOW)
TC5	MW SENS (HIGH)
T8	LW SENS (LOW)
TC6	LW SENS (HIGH)
T5	MW OSC
T9	LW OSC
T6,T7	AM IF

TR1	2SK241(Y)
TR2	2SC2999(C,D)
TR3,4,20	2SC930(E,F)
TR5,7,10,12,13,16,18,19 25,27,30 to 33,39,41,42	2SC536K-NP(E,F,G)
TR8,9	2SD1012V(F,G)
TR11,29	2SK192A(GR)
TR14,15	2SA1392(S,T)
TR17,26	2SA608K-NP(E,F,G)
TR20,21	2SC3383(S,T)
TR23	2SK246(G,R)
TR24	2SD1406(O,Y,GR)
TR28	2SC2878(A,B)
TR34	2SK161(Y)
TR38,40	2SC3112(A,B)



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POWER SW (2) PCB A3042C5031