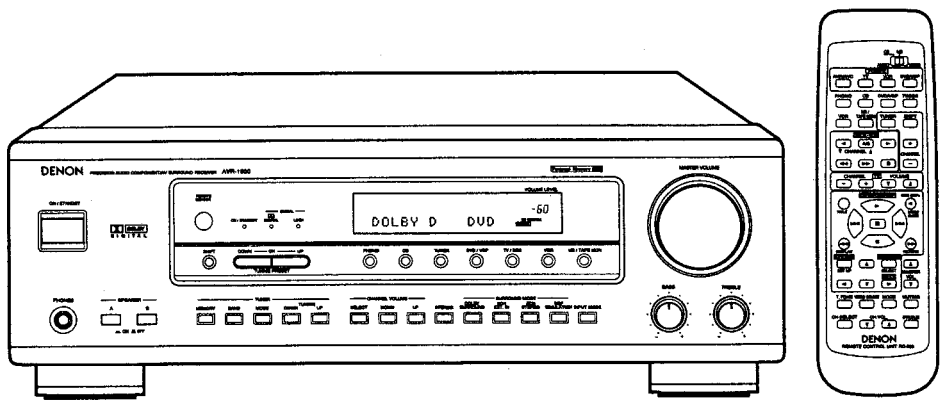
DENON

Hi-Fi AV Surround Receiver

SERVICE MANUAL

MODEL AVR-1600/1600RD

AV SURROUND RECEIVER



— TABLE OF CONTENTS —

● **Some illustrations using in this service manual are slightly different from the actual set.**

NIPPON COLUMBIA CO., LTD.

SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is defective.

SPECIFICATIONS

AUDIO SECTION

(Power Amplifier)

Rated output:

Front:	60 W + 60 W	(8 Ω/ohms, 20 Hz ~ 20 kHz with 0.08 % T.H.D.)
	80 W + 80 W	(6 Ω/ohms, EIAJ for Asia model)
Center:	60 W	(8 Ω/ohms, 20 Hz ~ 20 kHz with 0.08 % T.H.D.)
	80 W	(6 Ω/ohms, EIAJ for Asia model)
Surround:	60 W + 60 W	(8 Ω/ohms, 20 Hz ~ 20 kHz with 0.08 % T.H.D.)
	80 W + 80 W	(6 Ω/ohms, EIAJ for Asia model)

Output terminals:

Front: A or B 6 to 16 Ω/ohms (U.S.A./Canada), 8 to 16 Ω/ohms (Europe/U.K./Asia)
A + B 12 to 16 Ω/ohms (U.S.A./Canada), 16 Ω/ohms or more (Europe/U.K./Asia)
Center/Surround: 6 to 16 Ω/ohms (U.S.A./Canada), 8 to 16 Ω/ohms (Europe/U.K./Asia)

(Analog)

LINE input-PRE OUT

Input sensitivity/input impedance:	200 mV/47 kΩ/kohms
Frequency response:	10 Hz ~ 50 kHz: +1, –3 dB
S/N ratio:	92 dB (IHF-A weighted)
Total harmonic distortion:	0.05 % (20 Hz ~ 20 kHz)
Rated output:	1.2 V

PHONO input-REC OUT

Input sensitivity/input impedance:	2.5 mV/47 kΩ/kohms
RIAA deviation:	±1 dB (20 Hz ~ 20 kHz)
S/N ratio:	74 dB (IHF-A weighted, with 5 mV input)
Total harmonic distortion:	0.03 % (1 kHz, 3 V)
Rated output/Maximum output:	150 mV/7 V

VIDEO SECTION

(Standard Video Jacks)

Input/output level and impedance:	1 V p-p, 75 Ω/ohms
Frequency response:	5 Hz ~ 10MHz +1, –3 dB

TUNER SECTION

	[FM] (Note: µV at 75 Ω/ohms, 0 dBf = 1 × 10^{-15} W)	**[AM]**
Receiving range:	87.50 MHz ~ 107.90 MHz	520 kHz ~ 1710 kHz
Usable sensitivity:	1.0 µV (11.2 dBf)	18 µV
50 dB quieting sensitivity:	MONO 1.6 µV (15.3 dBf)	
	STEREO 23 µV (38.5 dBf)	
S/N ratio:	MONO 80 dB (IHF-A weighted)	
	STEREO 75 dB (IHF-A weighted)	
Total harmonic distortion:	MONO 0.2 % (1 kHz)	
	STEREO 0.4 % (1 kHz)	

GENERAL

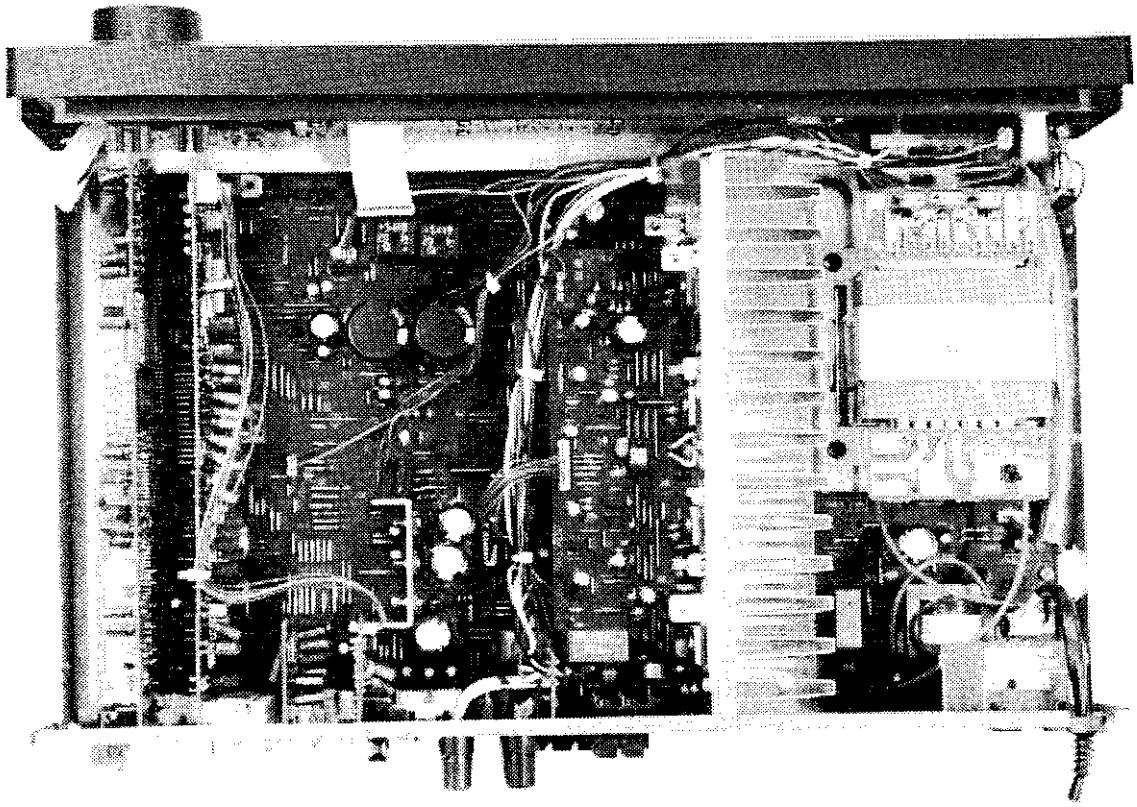
Power supply:	AC115/230 V, 50/60 Hz (Asia model) AC230 V, 50 Hz (Europe & U.K. models) AC120 V, 60 Hz (U.S.A. & Canada models)
Power consumption:	3.0 A (U.S.A. & Canada models), 180 W (Europe & U.K. & Asia models)
Maximum external dimensions:	434 (W) × 144 (H) × 315 (D) mm (17-3/32″ × 5-43/64″ × 12-13/32″)
Weight:	7.0 kg (lbs)

REMOTE CONTROL UNIT (RC-859)

Batteries:	R6P/AA Type (two batteries)
External dimensions:	54 (W) × 172 (H) × 27.2 (D) mm (2-1/8″ × 6-49/64″ × 1-5/64″)
Weight:	100 g (Approx. 6 oz) (including batteries)

WIRE ARRANGEMENT

In case of wires require unclasping or loosening to move the location, to perform adjustment or part replacement, be sure to rearrange them neatly to restore properly in the same location as they were originally placed, or causing to produce a noise may occasionally occur.

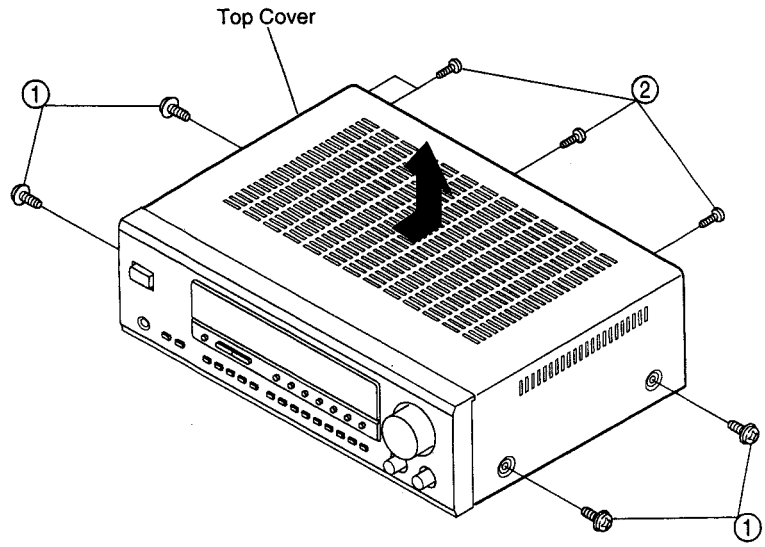


DISASSEMBLY

(Follow the procedure below in reverse order when reassembling)

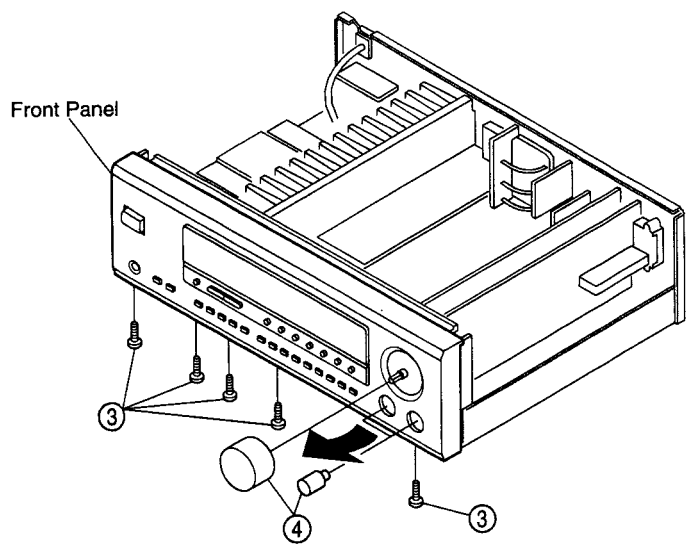
1. Top Cover

Remove 4 screws ① on both sides and 4 screws ② on the rear to detach the Top Cover as shown in the arrow direction.



2. Front Panel

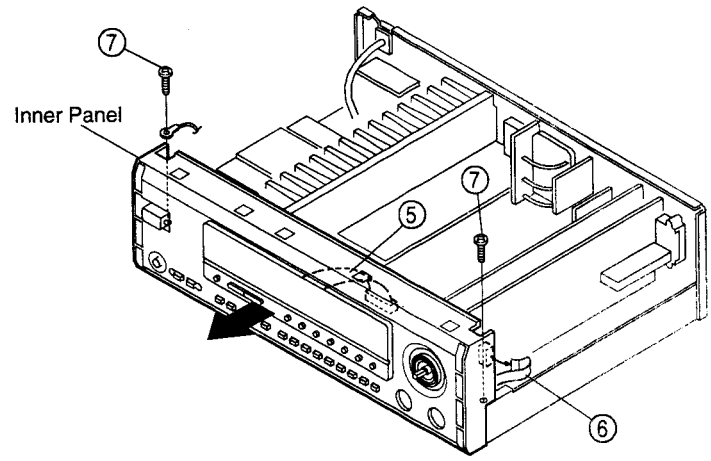
Remove 5 screws ③ from the bottom edge of the Front Panel and pull out 3 Knobs ④, then detach the Front Panel as shown in the arrow direction.



3. Inner Panel

(1) Disconnect 2 FFCs ⑤ and ⑥.

(2) Detach the Inner Panel in the arrow direction after removing 2 screws ⑦.

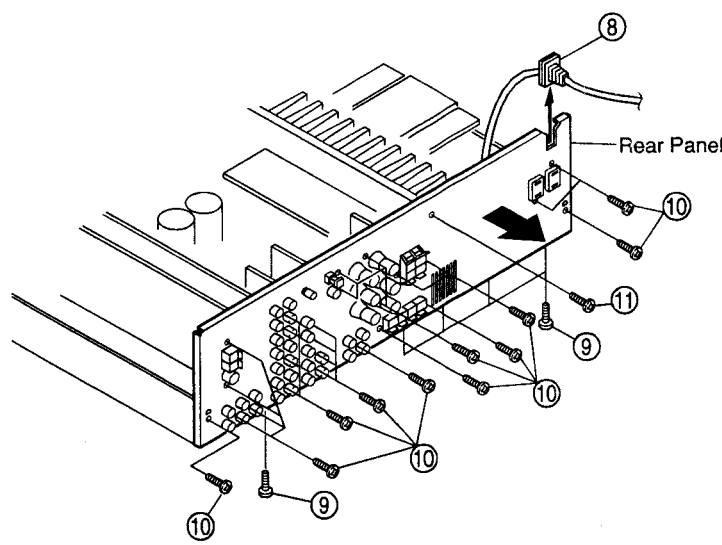


4. Rear Panel

(1) Pull out the Cord Bush ⑧.

(2) Remove 5 screws ⑨ from the bottom edge and 25 screws ⑩ from the rear.

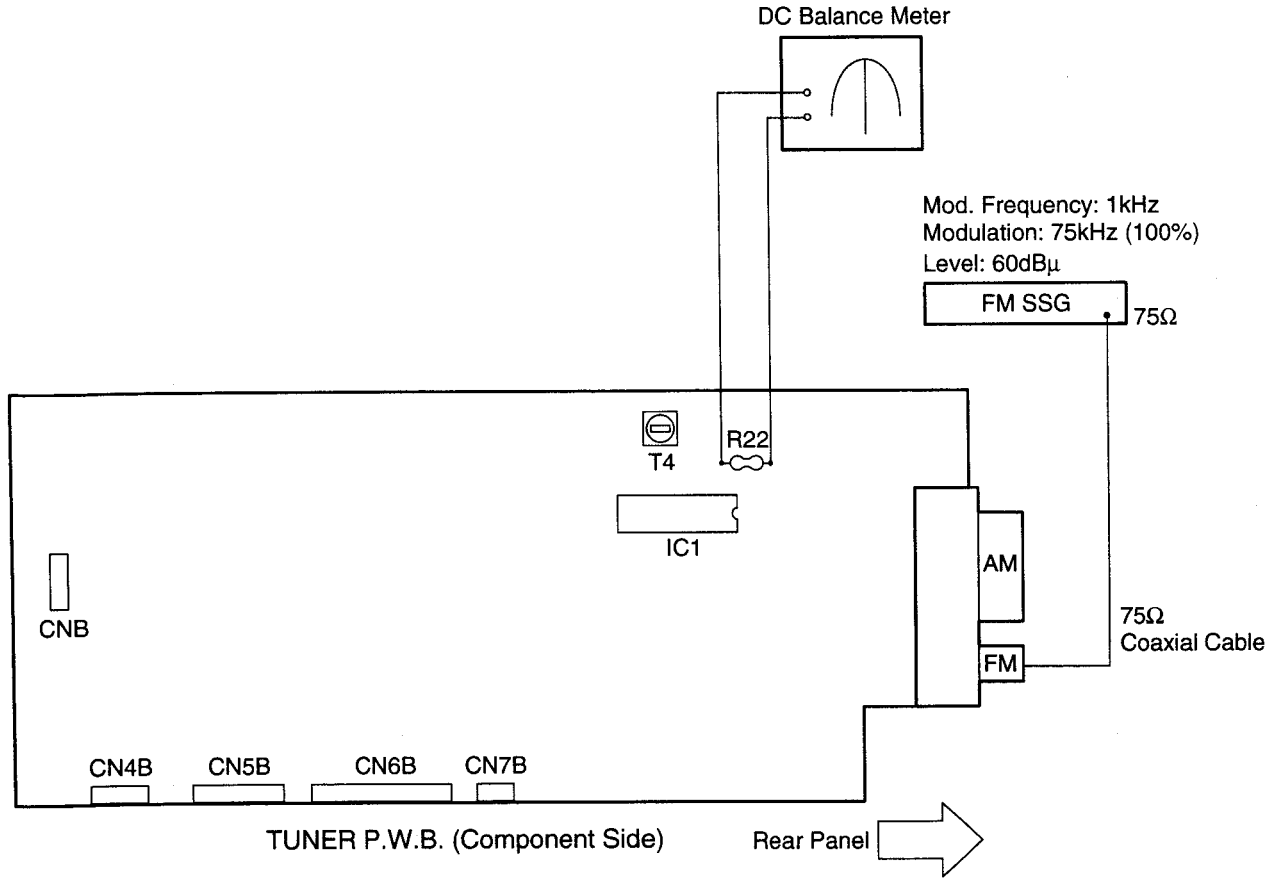
(3) Detach the Rear Panel in the arrow direction after removing 1 screw ⑪.



ADJUSTMENT

1. TUNER ADJUSTMENT (Band Button: FM, MONO/AUTO Button: AUTO)

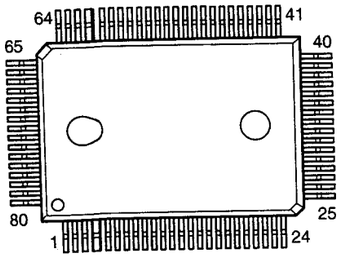
Step	Alignment Item	Tuning Frequency Setting	Input					Output		Adjust		Remaks
			Type	Frequency	Input Level	Modulation	Coupling	Type	Connect to	Points	Adjust to	
1	FM DC Balance	98 MHz	FM SSG	98 MHz	60 dBμ	1 kHz 75 kHz DEV	FM Antenna Terminal	DC Balance Meter	R22	T4	0±30mV	Mono. Modulation

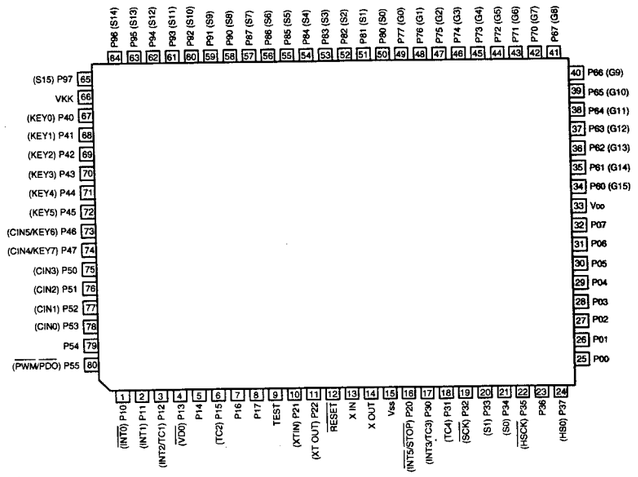


SEMICONDUCTORS

● IC's

TMP87CS71AF (IC801)





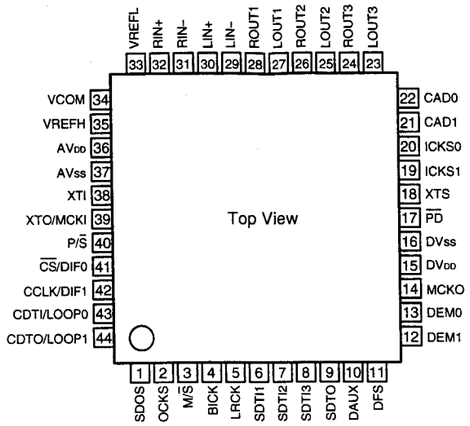
TMP87CS71AF (IC801) Terminal Function

Pin No.	Name	Symbol	I/O	Typ	OP	Det	Res	Ini	ST-BY	Function
1	P10/INT 0	PROTECT	I	—	—	E&L	Z	—	—	Protection detect input, H: Detected
2	P11/INT 1	POWER	O	C	—	—	Z	L	L	Power control output, L: On
3	P12/INT 2	RDS START	I	—	—	Ed	Z	—	—	RDS data input (LC7074)
4	P13/DVO	STEREO/MONO	O	C	—	—	Z	L	L	Stereo/Mono control signal, L: Stereo receive
5	P14	PLL-STB	O	C	—	—	Z	L	L	LC72131M control output
6	P15/TC2	DIN B	O	C	—	—	Z	L	L	Digital input control signal (TC74HC151)
7	P16	DIN C	O	C	—	—	Z	L	L	Digital input control signal (TC74HC151)
8	P17	TUNED SIGNAL	I	—	—	Lv	Z	—	—	Tuning detection
9	TEST	TEST	I	—	GND	S	—	—	—	Connect to GND
10	P21/XT IN	STEREO SIGNAL	I	—	Eu	Lv	Z	—	—	Stereo detection, L: Stereo receive
11	P22/XTO	PHONES	I	—	Eu	Lv	Z	—	—	Headphone insertion detect, H: Insertion detect
12	RESET	RESET	I	—	Eu	Lv	L	—	—	Reset input
13	XIN	XIN	I	—	—	—	—	—	—	X'tal oscillation input (4MHz)
14	XOUT	XOUT	O	—	—	—	—	—	—	X'tal oscillation output (4MHz)
15	Vss	Vss	I	—	GND	—	—	—	—	Connect to GND
16	P20/INT5	STOP	I	—	Eu	Lv	Z	—	—	Power-down detection, L: Power-down
17	P30/INT3	REMOCON	I	—	Eu	E&L	Z	—	—	Remote control signal input
18	P31/TC4	Not used	O	N	—	—	Z	L	L	Fixed to L-out
19	P32/SCK	RDS CLK	I	—	—	S	Z	—	—	RDS clock input (LC7074)
20	P33/SI	RDS DATA	I	—	—	S	Z	—	—	RDS data input (LC7074)
21	P34/SO	RDS RESET	O	N	Eu	—	Z	H	H	RDS reset output (LC7074)
22	P35/HSCK	DSP RES	O	N	Eu	—	Z	H	H	DSP/CODEC control terminal (ZR38601, AK4526)
23	P36	DSP DATA	O	N	S	—	Z	H	H	DSP/CODEC control terminal (ZR38601, AK4526)
24	P37/HSO	DSP CLK	O	N	S	—	Z	H	H	DSP/CODEC control terminal (ZR38601, AK4526)
25	P00	FR GAIN	O	C	—	—	Z	H	H	Front CH gain switching signal
26	P01	FL RES	O	C	—	S	Z	L	L	FL display control output (LC75721)
27	P02	FL PLL DATA	O	C	—	S	Z	H	H	FL display and PLL control output (LC75721, LC72131M)
28	P03	FL PLL CLK	O	C	—	S	Z	H	H	FL display and PLL control output (LC75721, LC72131M)
29	P04	FUNC STB	O	C	—	—	Z	L	L	Function control output (TC9273F, TC9164AF)
30	P05	FUNC CLK	O	C	—	S	Z	L	L	Function control output (TC9273F, TC9164AF)
31	P06	FUNC DATA	O	C	—	S	Z	L	L	Function control output (TC9273F, TC9164AF)
32	P07	96k CONT	O	C	—	—	Z	L	L	Stereo 96kHz mode switching terminal, H: Mode on
33	VDD	VDD	I	—	—	—	—	—	—	Connect to +5V
34	P60	E VOL CE2	O	P	Id	—	L	L	L	E. volume control output (LC7536R), Center/S Woofer/Surround ch
35	P61	E VOL CE1	O	P	Id	—	L	L	L	E. volume control output (LC7536R), Front L/R ch
36	P62	E VOL CLK	O	P	Id	—	L	H	L	E. volume control output (LC7536R)
37	P63	E VOL DATA	O	P	Id	—	L	H	L	E. volume control output (LC7536R)
38	P64	96K DET	I	—	Id	—	L	L	L	96kHz detect input, H: Detected (to ZR38601/GPIO1)
39	P65	ERR MUTE	O	P	Id	—	L	H	H	Muting control for CODEC pop noise, H: Mute & power-on
40	P66	Not used	O	P	Id	—	L	L	L	Fixed to L-out
41	P67	Not used	O	P	Id	—	L	L	L	Fixed to L-out
42	P70	TUNER MUTE	O	P	Id	—	H	H	H	Tuner mute output, H: Mute
43	P71	Not used	O	P	Id	—	L	L	L	Fixed to L-out
44	P72	FL CE	O	P	Id	—	L	H	H	FL display control output (LC75721)
45	P73	STANDBY LED	O	P	Id	—	L	H	H	Standby LED driving output, H: Light
46	P74	AC-3 LED	O	P	Id	—	L	L	L	AC-3 LED driving output, H: Light
47	P75	LOCK LED	O	P	Id	—	L	L	L	Lock LED driving output, H: Light
48	P76	Not used	O	P	Id	—	L	L	L	Fixed to L-out
49	P77	VOL MUTE	O	P	Id	—	L	L	L	Master volume muting control, L: Mute
50	P80	SW MUTE	O	P	Id	—	L	H	L	Sub-woofer output muting control, L: Mute
51	P81	Not used	O	P	Id	—	L	L	L	Fixed to L-out
52	P82	SP F	O	P	Id	—	L	H	L	Front speaker relay control output, L: Mute
53	P83	SP C	O	P	Id	—	L	L	L	Center speaker relay control output, L: Mute
54	P84	SP S	O	P	Id	—	L	L	L	Surround speaker relay control output, L: Mute
55	P85	Not used	O	P	Id	—	L	L	L	Fixed to L-out
56	P86	Not used	O	P	Id	—	L	L	L	Fixed to L-out
57	P87	Not used	O	P	Id	—	L	L	L	Fixed to L-out
58	P90	Not used	O	P	Id	—	L	L	L	Fixed to L-out
59	P91	ZORANSS	O	P	Id	—	L	L	L	DSP control terminal (ZR38601)
60	P92	Not used	O	P	Id	—	L	L	L	Fixed to L-out
61	P93	Not used	O	P	Id	—	L	L	L	Fixed to L-out
62	P94	ERR	I	—	Id	—	L	L	L	DIR ERR detect input, H: ERR (to ZR38601/GPIO0)
63	P95	DTS	I	—	Id	—	L	L	L	DTS stream detect input, H: Detected (to ZR38601/GPIO5)
64	P96	CSI	I	—	Id	—	L	—	—	Digital signal select terminal, H: PCM (to ZR38601/GPIO3)
65	P97	Not used	O	P	Id	—	L	L	L	Fixed to L-out
66	VKK	VKK	I	—	—	—	—	—	—	Connect to GND
67	P40/KEY0	A	O	N	Eu	—	Z	L	L	Video input control, H: Selected
68	P41/KEY1	B	O	N	Eu	—	Z	L	L	Video input control, H: Selected
69	P42/KEY2	C	O	N	Eu	—	Z	L	L	Video input control, H: Selected
70	P43/KEY3	M VOL SEL B	I	—	Eu	Lv	Z	—	—	Master volume setting input (rotary encoder)
71	P44/KEY4	M VOL SEL A	I	—	Eu	Lv	Z	—	—	Master volume setting input (rotary encoder)
72	P45/KEY5	PO SW	I	—	Eu	Lv	Z	—	—	Power SW for USA and Japan versions
73	P46/CIN5	MODE	I	—	Eu	Lv	Z	—	—	Destination select
74	P47/CIN4	RDS SEL	I	—	Eu	Lv	Z	—	—	RDS on/off setting, H: On
75	P50/CIN3	KEY4	I	—	Eu	Lv	Z	—	—	Button input 4
76	P51/CIN2	KEY3	I	—	Eu	Lv	Z	—	—	Button input 3
77	P52/CIN1	KEY2	I	—	Eu	Lv	Z	—	—	Button input 2
78	P53/CIN0	KEY1	I	—	Eu	Lv	Z	—	—	Button input 1
79	P54	Not used	O	N	Eu	—	L	L	L	Fixed to L-out
80	P55/PWW	SO	I	—	Eu	Lv	Z	—	—	DSP control terminal (ZR38601)

NOTE:

Pin No. : Terminal number of microcomputer.
Port Name : The name entered in the data sheet of microcomputer.
Symbol : Symbolized interface function.
I/O : Input or out of part.
"I" = Input port
"O" = Output port
Type : Composition of port in case of output port.
"C" = CMOS output
"N" = NMOS open drain output
"P" = PMOS open drain output
Op : Pull up/Pull down selection information.
"Iu" = Inner microcomputer pull up
"Id" = Inner microcomputer pull down
"Eu"= External microcomputer pull up
"Ed"= External microcomputer pull down
Det : Indicates judging state of input port. Level detection is "LV"; Edge detection is "Ed"; Detection by both shifting is "E&L"; Serial data detection is "S" (Serial data output is also "S").
Res : State at reset.
"H" = Outputs High Level at reset
"L" = Outputs Low Level at reset
"Z" = Becomes High impedance mode at reset
Ini : Initial output state.
Function : Function and logical level explanation of signals to be interface.

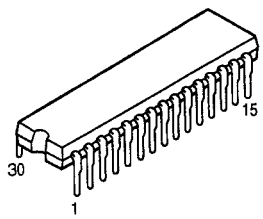
AK4526A (IC240)

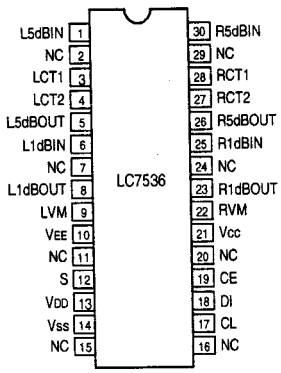


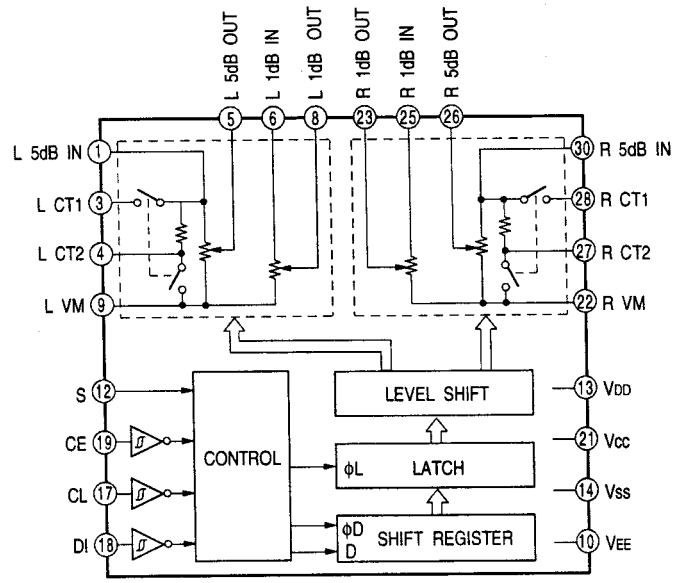
AK4526A Terminal Function

Pin No.	Name	I/O	Function
1	SDOS	I	SDTO Source select pin. "L": Internal ADC output, "H": DAUX input ORed with serial control register if P/S = "L".
2	OCKS	I	MCKO Clock frequency select pin. "L": MCLK, "H": MCLK/2, ORed with serial control register if P/S = "L".
3	M/S	I	Audio data master/slave mode select pin. "L": Slave mode, "H": Master mode.
4	BICK	I/O	Audio serial data clock pin.
5	LRCK	I/O	Input/Output channel clock pin.
6	SDTI1	I	DAC1 Audio serial data input pin.
7	SDTI2	I	DAC2 Audio serial data input pin.
8	SDTI3	I	DAC3 Audio serial data input pin.
9	SDTO	O	Audio serial data output pin.
10	DAUX	I	AUX Audio serial data input pin.
11	DFS	I	Double speed sampling mode pin. "L": Normal speed, "H": Double speed, the ADC is powered down. ORed with serial control register if P/S = "L".
12	DEM1	I	De-emphasis pin ORed with serial control register is P/S = "L".
13	DEM0	I	De-emphasis pin. ORed with serial control register if P/S = "L".
14	MCKO	O	Master clock output pin.
15	DVDD	—	Digital power supply pin.
16	DVss	—	Digital ground pin.
17	PD	I	Power-Down & reset pin. When "L", the AK4526A is powered-down and the control registers are reset to default state. If the state of P/S, M/S CAD0-1 changes, then the AK4526A must be reset by PD.
18	XTS	I	X'tal oscillator Select/Test mode pin. "H": X'tal oscillator selected, "L": External clock source selected.
19	ICKS1	I	Input clock select 1 pin.
20	ICKS0	I	Input clock select 0 pin.
21	CAD1	I	Chip address pin. Used during the serial control mode.
22	CAD0	I	Chip address pin. Used during the serial control mode.
23	LOUT3	O	Lch #3 analog output pin.
24	ROUT3	O	Rch #3 analog output pin.
25	LOUT2	O	Lch #2 analog output pin.
26	ROUT2	O	Rch #2 analog output pin.
27	LOUT1	O	Lch #1 analog output pin.
28	ROUT1	O	Rch #1 analog output pin.
29	LIN–	I	Lch Analog negative input pin.
30	LIN+	I	Lch analog positive input pin.
31	RIN–	I	Rch analog negative input pin.
32	RIN+	I	Rch analog positive input pin.
33	VREFL	I	Negative voltage reference input pin, AVss.
34	VCOM	O	Common voltage output pin, AVDD/2. Large external capacitor is used to reduce power-supply noise.
35	VREFH	I	Positive voltage reference input pin, AVDD.
36	AVDD	—	Analog power supply pin.
37	AVSS	—	Analog ground pin.
38	XTI	I	X'tal input pin.
39	XTO	O	X'tal output pin if XTS = "H".
	MCKI	I	External Master clock input pin if XTS = "L".
40	P/S	I	Parallel/Serial select pin. "L": Serial control mode, "H": Parallel control mode.
41	DIF0	I	Audio data interface format pin in parallel mode.
	CS	I	Chip select pin in serial mode.
42	DIF1	I	Audio data interface format pin in parallel mode.
	CCLK	I	Control data clock pin in serial mode.
43	LOOP0	I	Loopback mode pin in parallel mode. Enables digital loop-back from ADC to 3 DACs.
	CDTI	I	Control data input pin in serial mode.
44	LOOP1	I	Loopback mode pin in parallel mode. Enable all 3 DAC channels to be input from SDTI1.
	CDTO	O	Control data output pin in serial mode.

LC7536 (IC301 ~ 303)



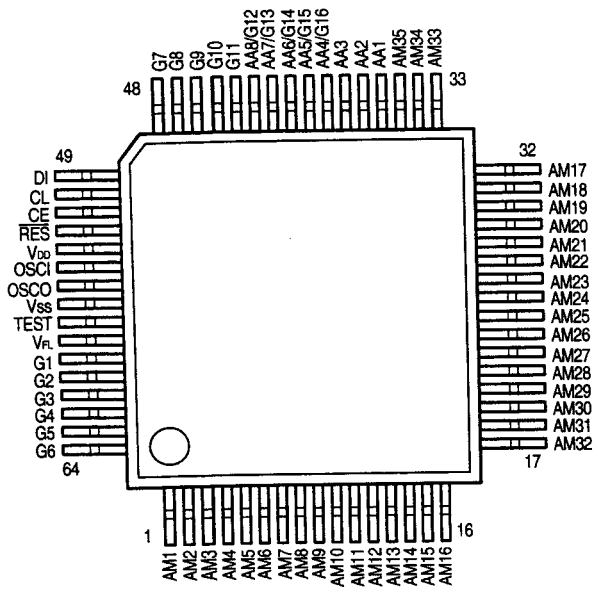




LC7536 Terminal Function

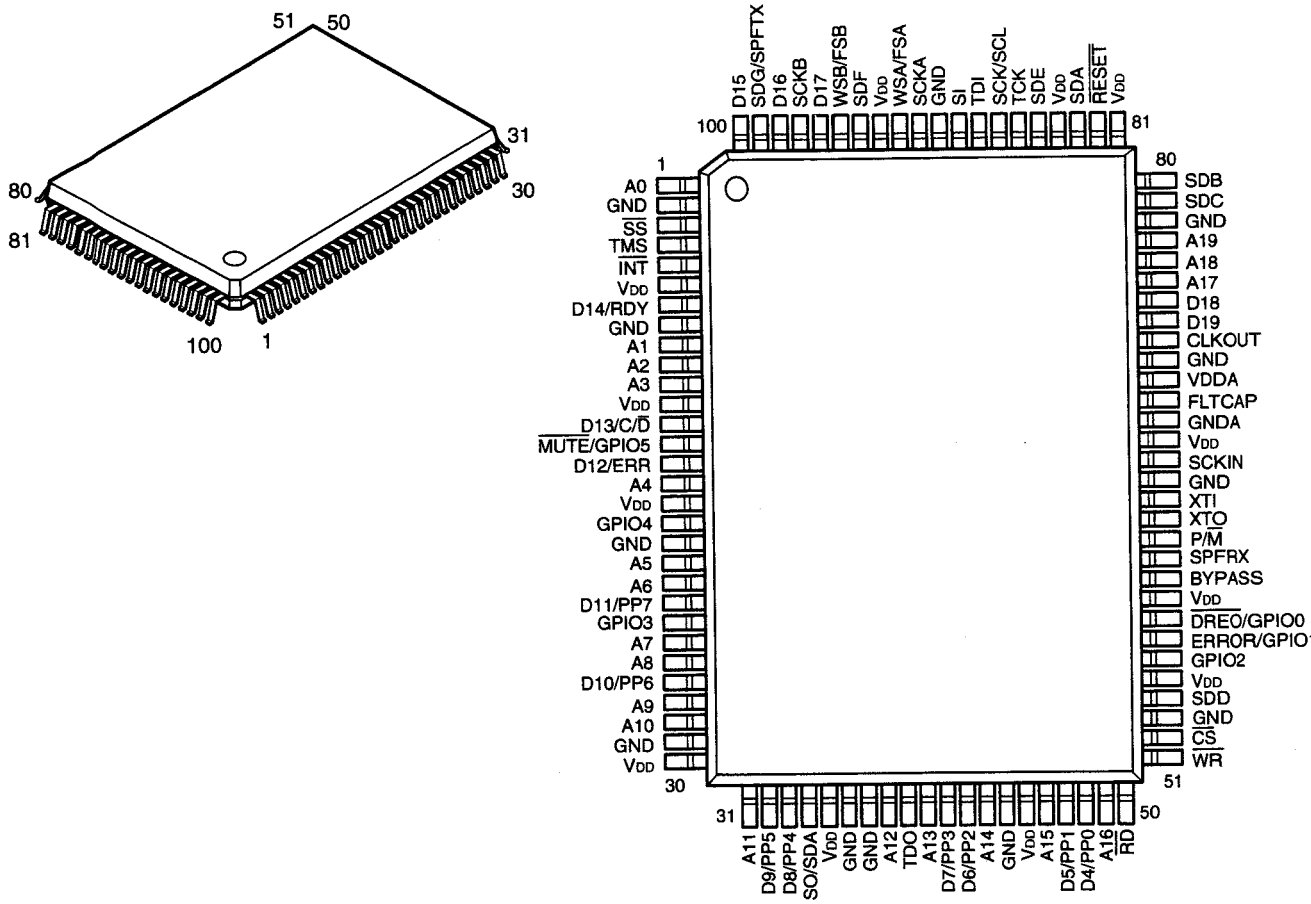
Pin No.	Symbol	I/O	Function
1	L 5dB IN	I	Input terminal for 5dB step attenuator, it should be driven with low impedance path.
2	NC	–	No connection.
3	L CT1	I	For loudness control, connect a capacitor between CT1 and 5dB IN with high frequency compensation, and also connect a capacitor between CT2 and Vm with low frequency compensation.
4	L CT2		
5	L 5dBOUT	O	Output terminal for 5dB step attenuator with approx. 1Mohm load impedance.
6	L 1dBIN	I	Input terminal for 1dB step attenuator, it should be driven with low impedance.
7	NC	–	No connection.
8	L 1dBOUT	O	Output terminal for 1dB step attenuator with approx. 47kohm ~ 1Mohm load impedance.
9	L VM		Common terminal for volume control.
10	VEE	I	Connect to power supply.
11	NC	–	No connection.
12	S		Selection terminal for address code during data format.
13	VDD	I	Connect to power supply (Pay attention to the rising time so that Vcc does rise up faster than VDD when the power turns).
14	Vss	I	Connect to power supply.
15	NC	–	No connection.
16	NC	–	No connection.
17	CL	I	Input terminal for controlling LC7536 serial data with 0 ~ 5V amplitude.
18	DI		
19	CE		
20	NC	–	No connection.
21	Vcc	I	Connect power supply (Pay attention to the rising time so that Vcc does not rise up faster than VDD when the power turns).
22	R VM		Common terminal for volume control.
23	R 1dBOUT	O	Output terminal for 1dB step attenuator with approx. 47kohm ~ 1Mohm load impedance.
24	NC	–	No connection.
25	R 1dBIN	I	Input terminal for 1dB step attenuator, it should be driven with low impedance.
26	R 5dBOUT	O	Output terminal for 5dB step attenuator with approx. 1Mohm load impedance.
27	R CT2	I	For loudness control, connect a capacitor between CT1 and 5dBIN with high frequency compensation, and also connect a capacitor between CT2 and Vm with low frequency compensation.
28	R CT1		
29	NC	–	No connection.
30	R 5dBIN	I	Input terminal for 5dB step attenuator, it should be driven with low impedance path.

LC75721E (IC701)

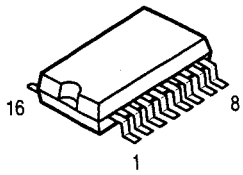


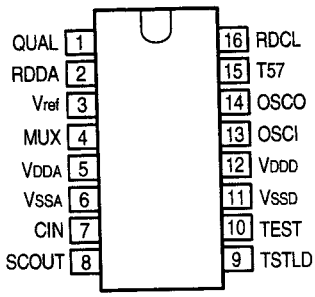
Symbol	Function
VDD	Power terminal +5V
Vss	Power terminal GND
VFL	Power terminal FL drive
DI CL CE	Serial data transfer terminal DI: Data CL: Clock CE: Chip enable
OSCI OSCO	External CR connecting terminal
RES	System reset terminal
AM1~AM35 AA1~AA3	Anode output terminal
AA4/G16 AA5/G15 AA6/G14 AA7/G13 AA8/G12	Anode/Grid output terminal
G1~G11	Grid output terminal
TEST	LSI test terminal

ZR38601 (IC221)



SAA6579T (IC091)

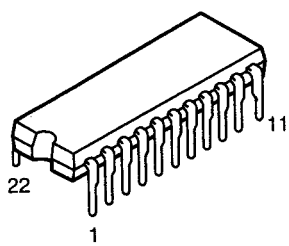


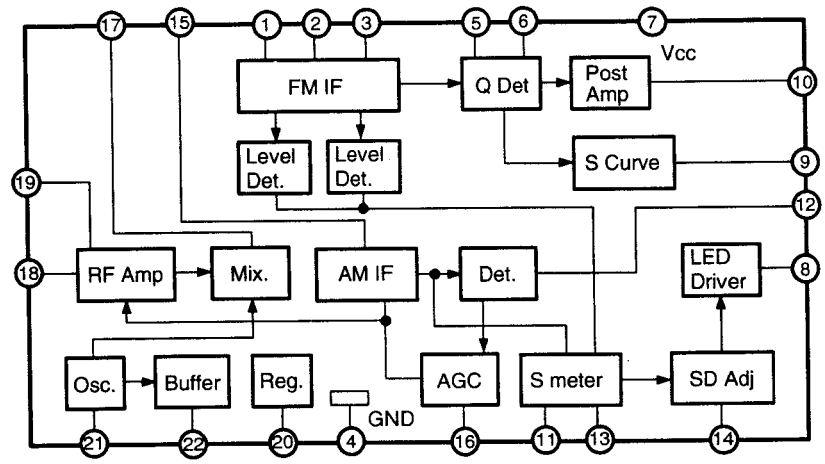


SAA6579T Terminal Function

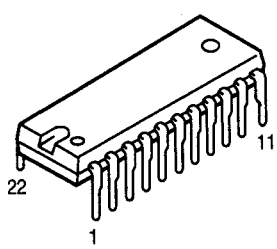
Pin No.	Symbol	Function
1	QUAL	Quality indication output.
2	RDDA	RDS data output.
3	Vref	Reference voltage output (0.5 VDDA).
4	MUX	Multiplex signal input.
5	VDDA	+5V supply voltage for analog part.
6	VSSA	Ground for analog part (0V).
7	CIN	Subcarrier input to comparator.
8	SCOUT	Subcarrier output of reconstruction filter.
9	MODE	Oscillation mode/test control input.
10	TEST	Test enable input.
11	VSSD	Ground for digital part (0V).
12	VDDD	+5V supply voltage for digital part.
13	OSCI	Oscillator input.
14	OSCO	Oscillator output.
15	T57	57 kHz clock signal output.
16	RDCL	RDS clock output.

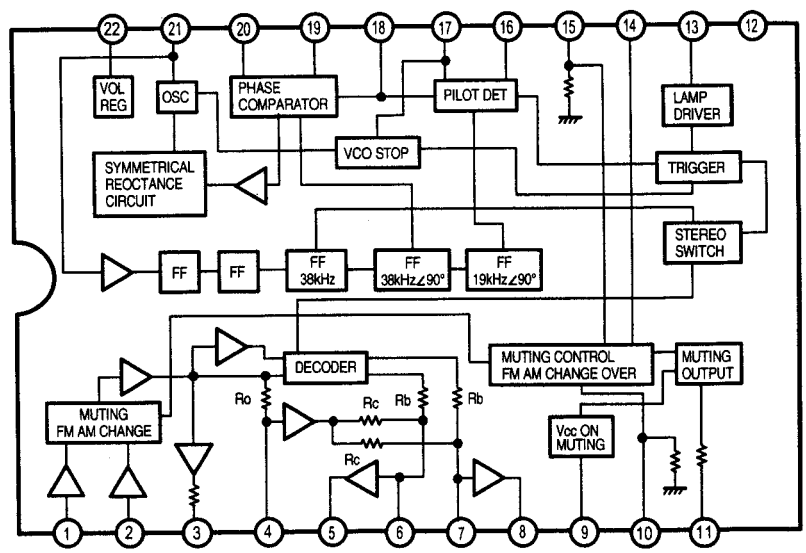
LA1265 (S) (IC001)



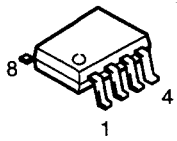


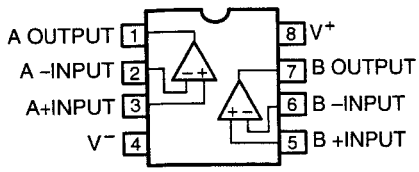
LA3401 (IC002)



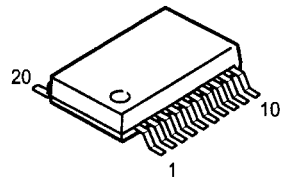


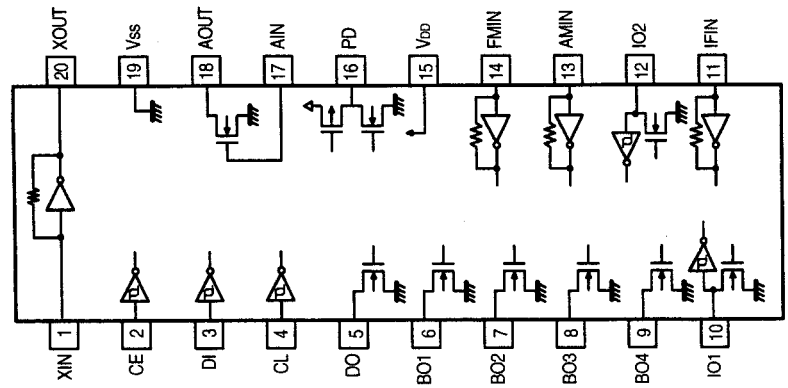
BA4558F
(IC101, 151~154)
BA15218F
(IC241~244, 304~309, 451, 752)



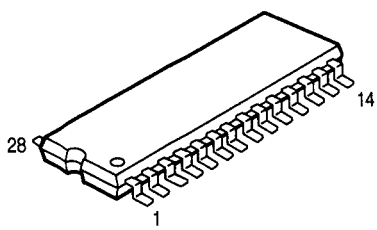


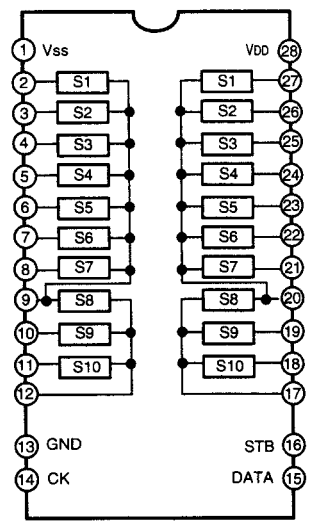
LC72131M (IC003)





TC9273F-007 (IC102)

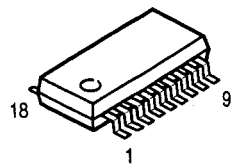


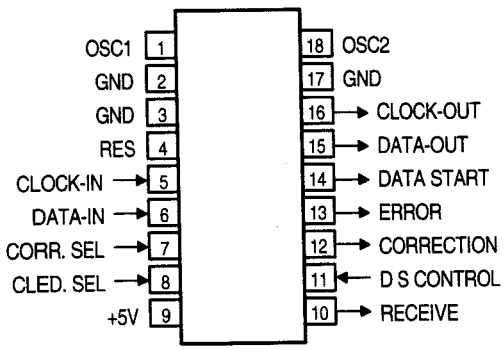


TC9273F Terminal Function

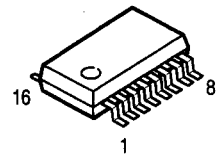
Pin No.	Symbol	Name	Function	Note
1	Vss	-Power Terminal	Dual Power Use: VDD = 8.0~17V Single Power Use: VDD = 8.0~18V	——
13	GND	Digital Ground	GND = 0V Vss = GND = 0V	
28	VDD	+Power Terminal	Vss = -8.0~17V	
2~12	S1~11	I/O Terminal	Input terminal of analog switch.	——
17~27				
14	CK	Clock Input	Clock input for data transfer.	Low level BorderInput Terminal
15	DATA	Data Input	Serial input for switch setting.	
16	STB	Strobe Input	Strobe input for data writing.	

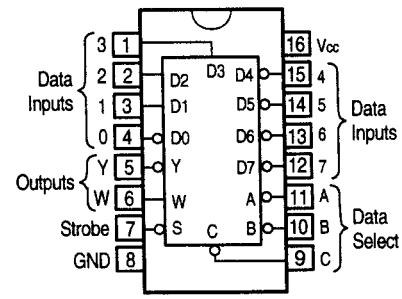
LC7074M (IC092)



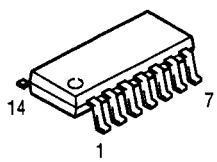


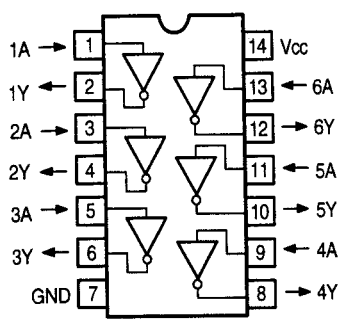
TC74HC151AF (IC204)



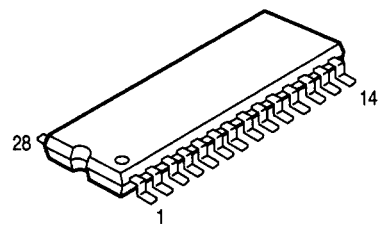


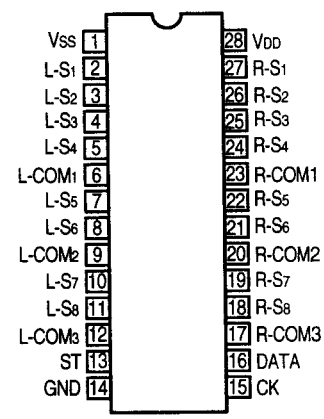
TC74HCU04AF (IC202)
TC74HCT04AF (IC223, 224)

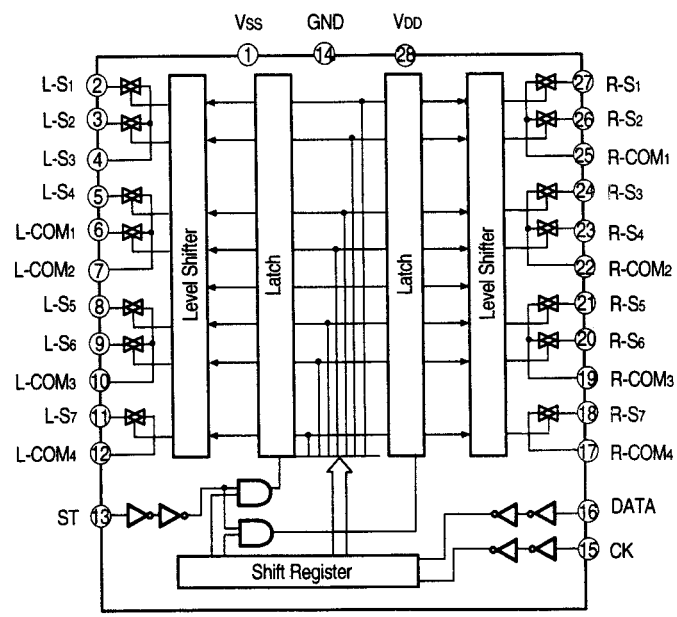




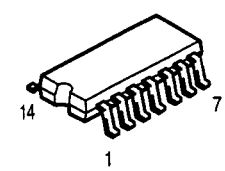
TC9164AF (IC951)

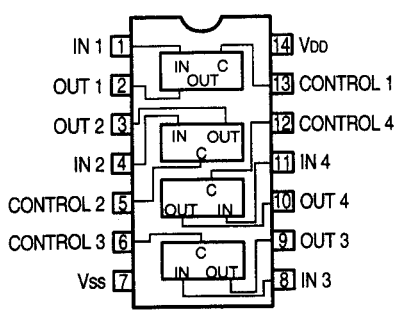




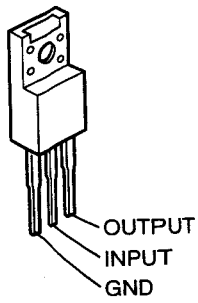


BU4066BCF (IC751)

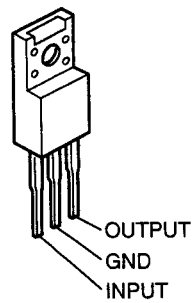




KIA7912PI (IC805)

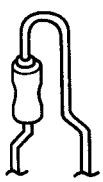


BA033T (IC222)
KIA7812PI (IC804)
KIA7805PI (IC802)
KIA7806PI (IC803)
KIA7809PI (IC004)



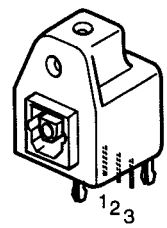
● IC PROTECTOR

1A (ICP901, 902)

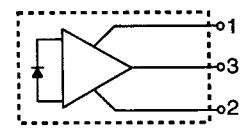


● OPTICAL

INPUT GP1F37R (IC201)

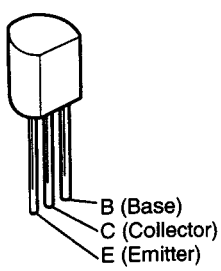


1. Vcc
2. GND
3. Vout

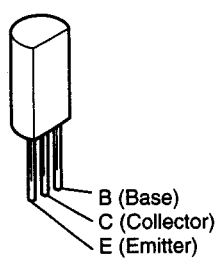


● TRANSISTORS

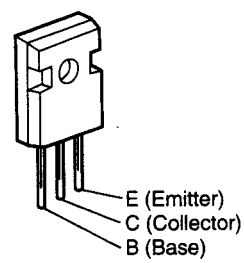
2SA970 (BL)
2SA988 (E/F)
2SC1815 (GR)
2SC1841 (E/F)
2SC2878 (A/B)



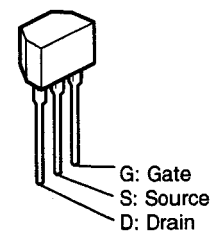
2SB647A (C)
2SD667A (C)



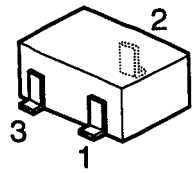
2SA1633 (E/F)
2SC4278 (E/F)



2SK161

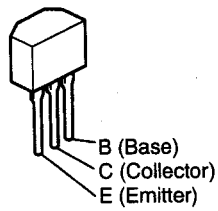


2SB709A
2SD601A



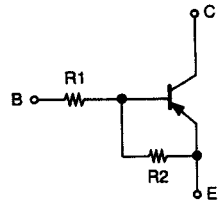
1: Emitter
2: Base
3: Collector

DTA114ES
DTA114TS
DTC144TS
DTC323TS



DTA114ES
DTA114TS

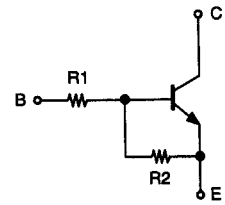
PNP Type



	R1	R2
DTA114ES	10 kohm	10 kohm
DTA114TS	10 kohm	—

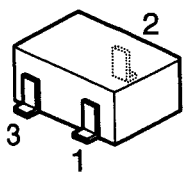
DTC144TS
DTC323TS

NPN Type



	R1	R2
DTC144TS	47 kohm	—
DTC323TS	2.2 kohm	—

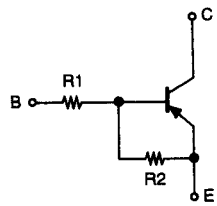
UN2111
UN2113
UN211L
UN2211
UN2213



1: GND/Emitter
2: Out/Collector
3: In/Base

UN2111
UN2113
UN211L

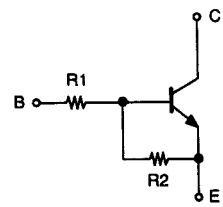
PNP Type



	R1	R2
UN2111	10 kohm	10 kohm
UN2113	47 kohm	47 kohm
UN211L	4.7 kohm	4.7 kohm

UN2211
UN2213

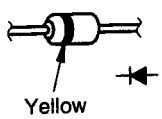
NPN Type



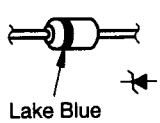
	R1	R2
UN2211	10 kohm	10 kohm
UN2213	47 kohm	47 kohm

● DIODES

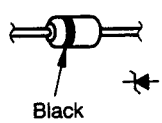
1SS133



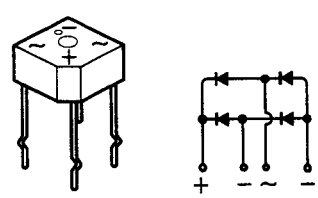
HZS6C-2
HZS33-2



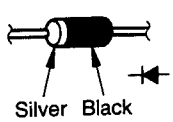
MTZJ3.3A
MTZJ7.5A
MTZJ9.1A



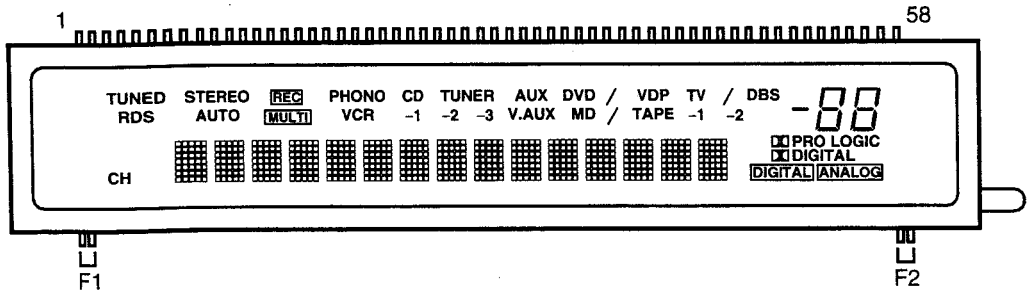
S4VB20

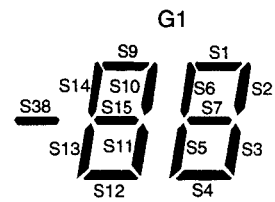


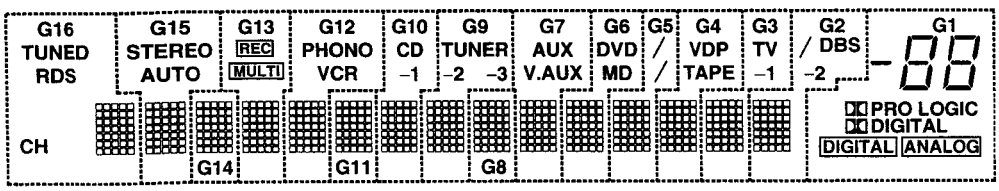
1N4001



FL DISPLAY CM1690C (FL701)







G2~G16

S1	S2	S3	S4	S5
S6	S7	S8	S9	S10
S11	S12	S13	S14	S15
S16	S17	S18	S19	S20
S21	S22	S23	S24	S25
S26	S27	S28	S29	S30
S31	S32	S33	S34	S35

Pin Assignment

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CONNECTION	F1	F1	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18
PIN NO.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CONNECTION	S19	S20	S21	S22	S23	S24	S25	S26	S27	S28	S29	S30	S31	S32	S33	S34	S35	S36	S37	S38
PIN NO.	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58		
CONNECTION	G16	G15	G14	G13	G12	G11	G10	G9	G8	G7	G6	G5	G4	G3	G2	G1	F2	F2		

F1,F2 : Filament
G1~G16 : Grid
S1~S38 : Anode

Anode & Grid Assignment

	G1	G2~G16		G1	G2~G16		G1	G2~G16		G1	G2~G16
S1	S1	S1	S10	S10	S10	S19	—	S19	S28	—	S28
S2	S2	S2	S11	S11	S11	S20	—	S20	S29	—	S29
S3	S3	S3	S12	S12	S12	S21	—	S21	S30	—	S30
S4	S4	S4	S13	S13	S13	S22	—	S22	S31	—	S31
S5	S5	S5	S14	S14	S14	S23	—	S23	S32	—	S32
S6	S6	S6	S15	S15	S15	S24	—	S24	S33	—	S33
S7	S7	S7	S16	—	S16	S25	—	S25	S34	—	S34
S8		S8	S17	DIGITAL	S17	S26	—	S26	S35	—	S35
S9	S9	S9	S18	PRO LOGIC	S18	S27	—	S27			

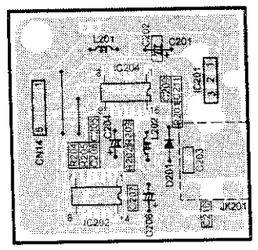
	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12	G13	G14	G15	G16
S36	DIGITAL	/	TV	VDP	/(DVD)	DVD	AUX	—	TUNER	CD	—	PHONO	REC	—	STEREO	TUNED
S37	ANALOG	-2	-1	TAPE	/(MD)	MD	V.MAX	—	-2	-1	—	VCR	MULTI	—	AUTO	RDS
S38	S38	DBS	—	—	—	—	—	—	-3	—	—	—	—	—	—	CH

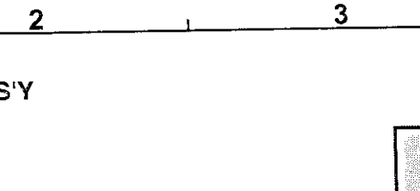
PRINTED WIRING BOARDS

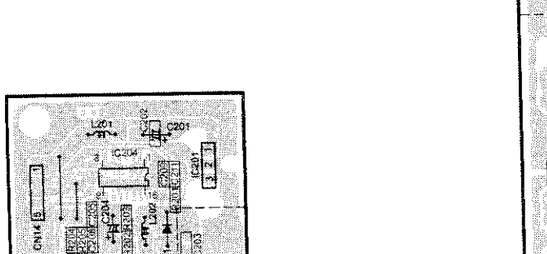
1 2 3 4 5 6 7 8

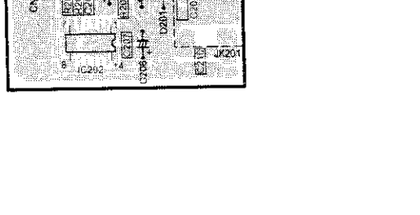
A B C D E

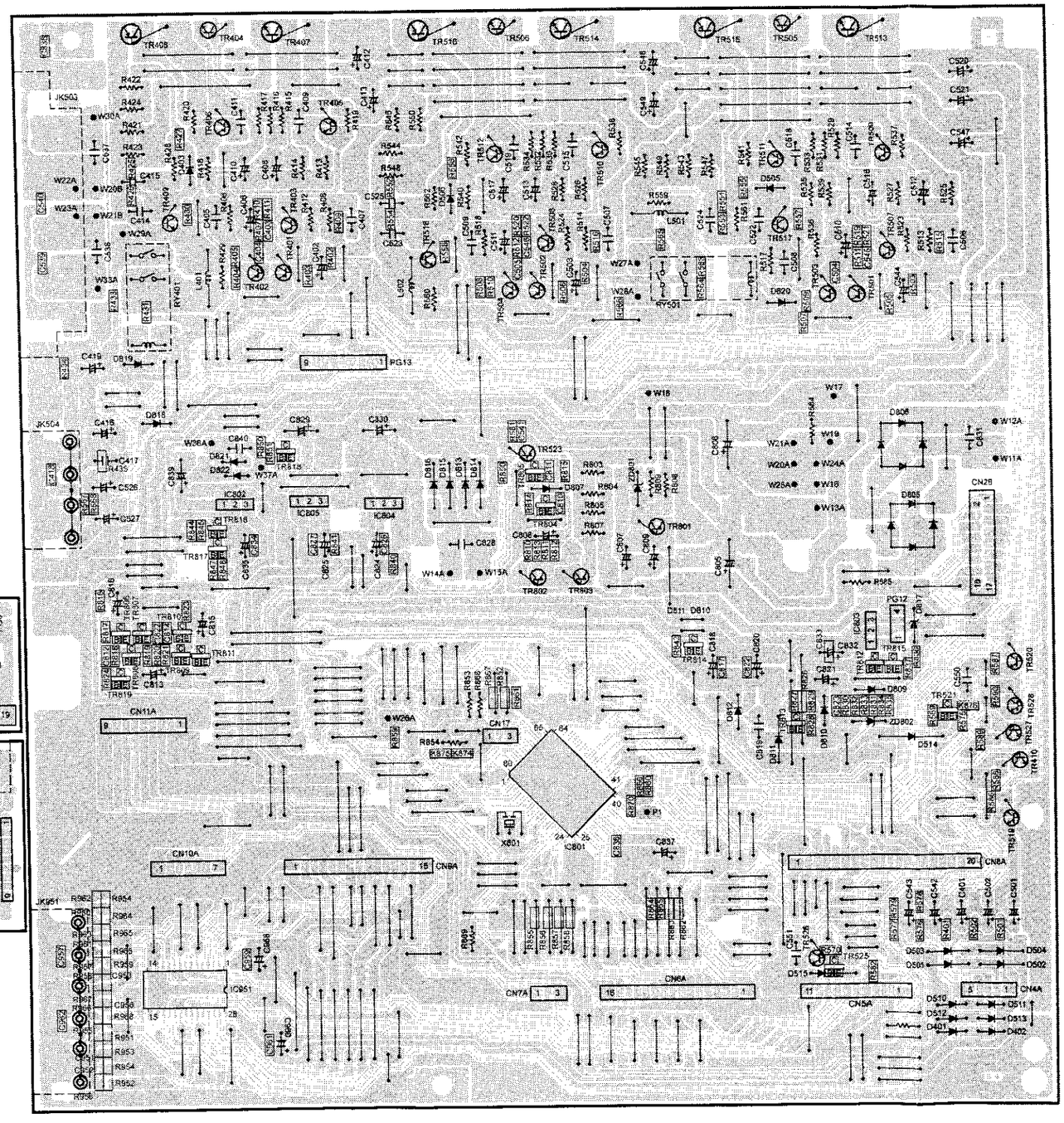
MAIN P.W.B. UNIT ASS'Y



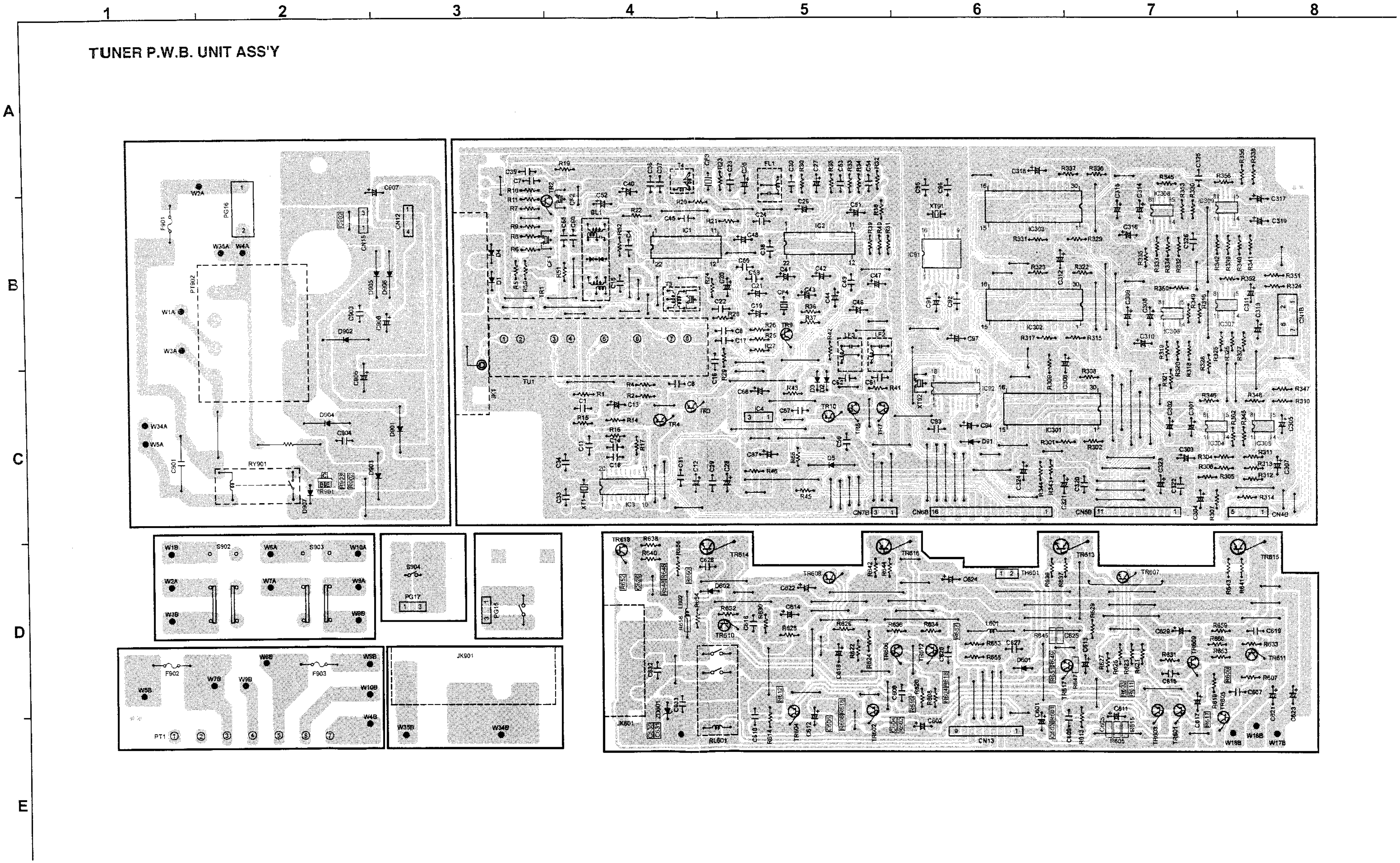








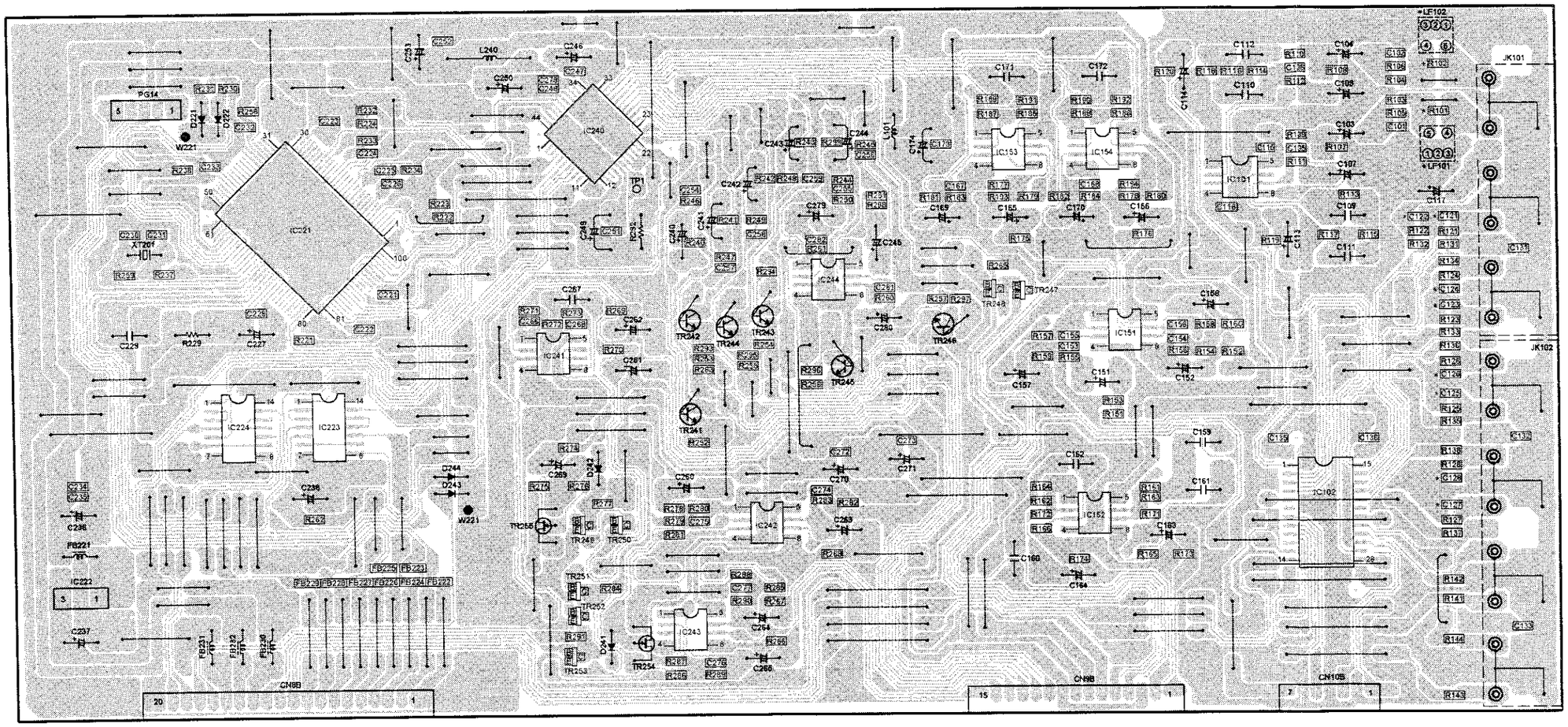
TUNER P.W.B. UNIT ASS'Y



1 2 3 4 5 6 7 8

A B C D E

DSP P.W.B. UNIT ASS'Y



1 2 3 4 5 6 7 8

A

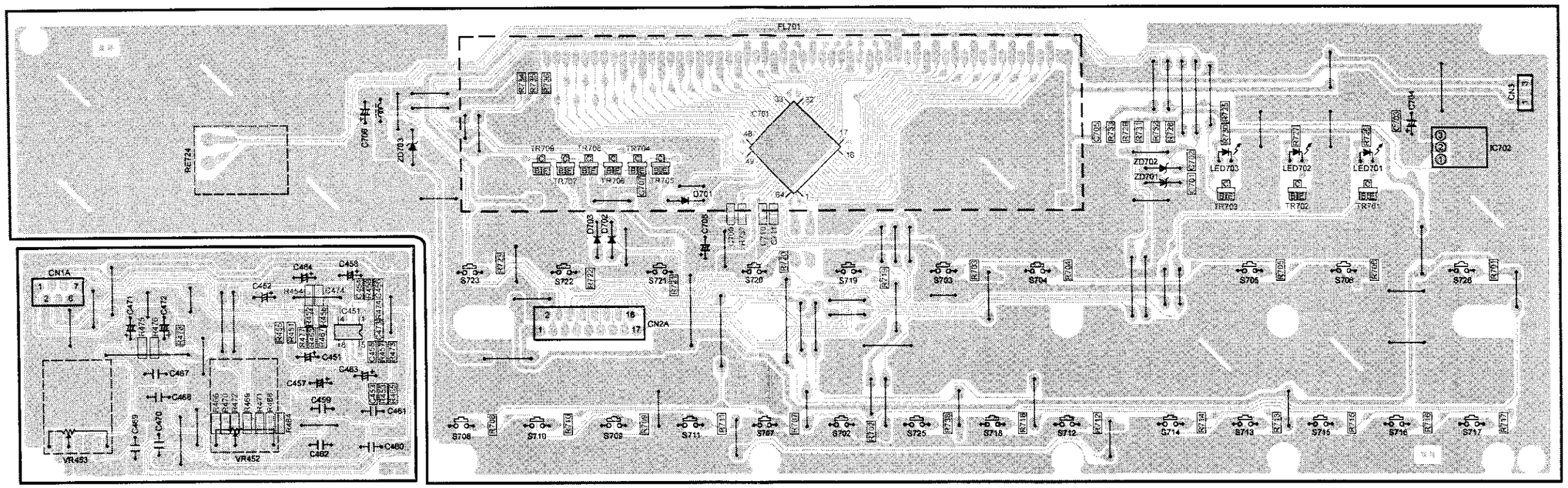
B

C

D

E

FL P.W.B. UNIT ASS'Y



NOTE FOR PARTS LIST

- Part indicated with the mark "⊙" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
- When ordering of part, clearly indicate "1" and "I" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.
- Not including Carbon Film ±5%, 1/4W Type in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)

WARNING:
Parts marked with this symbol ⚠ ▒▒ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

● Resistors

Ex.: RN (Type) 14K (Shape and performance) 2E (Power) 182 (Resistance) G (Allowable error) FR (Others)

RD : Carbon RC : Composition RS : Metal oxide film RW : Winding RN : Metal film RK : Metal mixture	2B : 1/8W 2E : 1/4W 2H : 1/2W 3A : 1W 3D : 2W 3F : 3W 3H : 5W	F : ±1% G : ±2% J : ±5% K : ±10% M : ±20%	P : Pulse-resistant type NL : Low noise type NB : Non-burning type FR : Fuse-resistor F : Lead wire forming

*** Resistance**

1 8 2 ⇒ 1800 ohm = 1.8 kohm
2 ← Indicates number of zeros after effective number.
1 8 ← 2-digit effective number.

• Units: ohm

1 R 2 ⇒ 1.2 ohm
2 ← 1-digit effective number.
1 R ← 2-digit effective number, decimal point indicated by R.

• Units: ohm

● Capacitors

Ex.: CE (Type) 04W (Shape and performance) 1H (Dielectric strength) 2R2 (Capacity) M (Allowable error) BP (Others)

CE : Aluminum foil electrolytic CA : Aluminum solid electrolytic CS : Tantalum electrolytic CQ : Film CK : Ceramic CC : Ceramic CP : Oil CM : Mica CF : Metallized CH : Metallized	0J : 6.3V 1A : 10V 1C : 16V 1E : 25V 1V : 35V 1H : 50V 2A : 100V 2B : 125V 2C : 160V 2D : 200V 2E : 250V 2H : 500V 2J : 630V	F : ±1% G : ±2% J : ±5% K : ±10% M : ±20% Z : +80% −20% P : +100% −0% C : ±0.25pF D : ±0.5pF = : Others	HS : High stability type BP : Non-polar type HR : Ripple-resistant type DL : For change and discharge HF : For assuring high frequency U : UL part C : CSA part W : UL-CSA type F : Lead wire forming

*** Capacity (electrolyte only)**

2 2 2 ⇒ 2200μF
2 ← Indicates number of zeros after effective number.
2 2 ← 2-digit effective number.

• Units: μF.

2 R 2 ⇒ 2.2μF
2 ← 1-digit effective number.
2 R ← 2-digit effective number, decimal point indicated by R.

• Units: μF.

*** Capacity (except electrolyte)**

2 2 2 ⇒ 2200pF=0.0022μF
2 ← (More than 2) Indicates number of zeros after effective number.
2 2 ← 2-digit effective number.

• Units: μF.

2 2 1 ⇒ 220pF
1 ← (0 or 1) Indicates number of zeros after effective number.
2 2 ← 2-digit effective number.

• Units: pF.

• When the dielectric strength is indicated in AC, "AC" is included after the dieelectric strength value.

PARTS LIST OF P.W.B. UNIT

MAIN P.W.B. UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC201	269 0172 003	Optical digital input (GP1F37R)	
IC202	9LC K077 81R	IC TC74HCU04AF	
IC204	262 2213 901	IC TC74HC151AF	
IC751	262 1875 007	IC BU4066BCF	
IC752	9LC K150 81R	IC BA15218F	
IC801	9LC K321 12	IC TMP87CS71AF	
IC802	9LC P024 11	IC KIA7805PI	
IC803	9LC P024 12	IC KIA7806PI	
IC804	9LC P024 16	IC KIA7812PI	
IC805	9LC P055 42	IC KIA7912PI	
IC951	9LC K320 21R	IC TC9164AF	
TR401,402	271 0094 016	Transistor 2SA970(BL)	
TR403	273 0235 020	Transistor 2SC1841(F/E)	
TR404	273 0198 028	Transistor 2SC1815(GR)	
TR405	274 0060 007	Transistor 2SD667A(C)	
TR406	272 0053 005	Transistor 2SB647A(C)	
TR409	273 0235 020	Transistor 2SC1841(F/E)	
TR410	273 0253 015	Transistor 2SC2878(A/B)	
TR501~504	271 0094 016	Transistor 2SA970(BL)	
TR505,506	273 0198 028	Transistor 2SC1815(GR)	
TR507,508	273 0235 020	Transistor 2SC1841(F/E)	
TR509,510	274 0060 007	Transistor 2SD667A(C)	
TR511,512	272 0053 005	Transistor 2SB647A(C)	
TR517,518	273 0235 020	Transistor 2SC1841(F/E)	
TR519,520	273 0253 015	Transistor 2SC2878(A/B)	
TR521	269 0132 904	Transistor UN2111	
TR523	271 0131 021	Transistor 2SA988(F/E)	
TR525	269 0132 904	Transistor UN2111	
TR526~528	273 0253 015	Transistor 2SC2878(A/B)	
TR801	272 0053 005	Transistor 2SB647(C)	
TR802,803	269 0132 904	Transistor 2SA988(F/E)	
TR804	274 0163 904	Transistor 2SD601A	
TR805	272 0125 904	Transistor 2SB709A	
TR806~809	274 0163 904	Transistor 2SD601A	
TR810	272 0125 904	Transistor 2SB709A	
TR811	274 0163 904	Transistor 2SD601A	
TR812	9LC A011 31R	Transistor UN211L	
TR813	274 0163 904	Transistor 2SD601A	
TR814	269 0132 904	Transistor UN2111	
TR815~819	274 0163 904	Transistor 2SD601A	
D201	9L2 3989 21T	Diode 1SS133	
D202,203	9LC C000 03R	Diode 1SS355	
D401~403	9L2 3989 21T	Diode 1SS133	

Ref. No.	Part No.	Part Name	Remarks
D501~506	9L2 3989 21T	Diode 1SS133	
D510~516	9L2 3989 21T	Diode 1SS133	
D751,752	9L2 3989 21T	Diode 1SS133	
D805,806	276 0305 001	Diode S4VB20	
D807	9L2 3989 21T	Diode 1SS133	
D809,810	9L2 3989 21T	Diode 1SS133	
D811	9L2 3980 62T	Diode 1N4001	
D812	9L2 3989 21T	Diode 1SS133	
D813~816	9L2 3980 62T	Diode 1N4001	
D818~820	9L2 3989 21T	Diode 1SS133	
D821,822	9L2 3980 62T	Diode 1N4001	
D507~509	276 0463 914	Zener diode HZS6C-2	
ZD752	276 0463 914	Zener diode HZS6C-2	
ZD801	276 0484 919	Zener diode HZS33-2	
ZD802	276 0634 905	Zener diode MTZJ3.3A	
D817	276 0644 911	Zener diode MTZJ7.5A	
⚠ICP901	9LF N002 57M	Protector 1A	
⚠ICP902	9LF N002 57M	Protector 1A	
RESISTORS GROUP			
R129,130		Carbon chip 1Mohm 1/32W	RMC73M-1F105JR
R139,140		Carbon Chip 470ohm 1/32W	RMC73M-1F471JR
R201		Carbon chip 4.7kohm 1/32W	RMC73M-1F472JR
R202		Carbon chip 75ohm 1/32W	RMC73M-1F750JR
R203		Carbon Chip 100ohm 1/32W	RMC73M-1F101JR
R204		Carbon chip 2.2kohm 1/32W	RMC73M-1F222JR
R205		Carbon chip 47kohm 1/32W	RMC73M-1F473JR
R401		Carbon chip 4.7kohm 1/32W	RMC73M-1F472JR
R402		Carbon chip 27kohm 1/32W	RMC73M-1F273JR
R403		Carbon Chip 220ohm 1/32W	RMC73M-1F221JR
R404		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R405		Carbon chip 470kohm 1/32W	RMC73M-1F474JR
R406		Carbon film 33kohm 1/16W	RD14S1J333JB
R407		Carbon chip 33kohm 1/32W	RMC73M-1F333JR
⚠R408	9LA T037 01R	Fusible 1.5kohm 1/4W(FR)	RN45B2E152JB-FR
R409		Carbon Chip 330ohm 1/32W	RMC73M-1F331JR
R410		Carbon chip 1.6kohm 1/32W	RMC73M-1F162JR
R411		Carbon chip 47kohm 1/32W	RMC73M-1F473JR
⚠R412	9LA T037 02R	Fusible 47ohm 1/4W(FR)	RN45B2E470JB-FR
R413,414	9LA T011 29R	Metal oxide 5.6kohm 1W	RE562J0001ST
R415		Carbon film 30kohm 1/16W	RD14S1J303JB
R416		Carbon film 1.2kohm 1/16W	RD14S1J122JB
R417		Carbon film 1.3kohm 1/16W	RD14S1J132JB

Ref. No.	Part No.	Part Name	Remarks
R418	9LA T012 57R	Carbon film 330ohm 1/4W (NB)	RDF25S331JT
R419,420	9LA T011 91R	Metal film 1ohm 1/4W(NB)	RNF2E010FT
R421~424	9LA T010 12R	Metal oxide 0.22ohm 1W	RER22J0001NT
R425		Carbon chip 20kohm 1/32W	RMC73M-1F203JR
R426		Carbon chip 100kohm 1/32W	RMC73M-1F104JR
R427		Carbon chip 270kohm 1/32W	RMC73M-1F274JR
R428	9LA T010 56R	Metal oxide 10ohm 1W	RE100J0001ST
R429	9LA T012 17R	Carbon film 10ohm 1/4W (NB)	RDF25S100JT
R430		Carbon chip 22kohm 1/32W	RMC73M-1F223JR
R431		Carbon chip 20kohm 1/32W	RMC73M-1F203JR
R433		Carbon chip 8.2kohm 1/32W	RMC73M-1F822JR
R434		Carbon chip 750ohm 1/32W	RMC73M-1F751JR
R435		Carbon chip 100kohm 1/32W	RMC73M-1F104JR
R436		Carbon film 1.8kohm 1/16W	RD14S1J182JB
R501,502		Carbon chip 4.7kohm 1/32W	RMC73M-1F472JR
R503,504		Carbon chip 27kohm 1/32W	RMC73M-1F273JR
R505		Carbon Chip 220ohm 1/32W	RMC73M-1F221JR
R506		Carbon Chip 220ohm 1/32W	RMC73M-1F221JR
R507,508		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R509,510		Carbon chip 470kohm 1/32W	RMC73M-1F474JR
R511,512		Carbon chip 33kohm 1/32W	RMC73M-1F333JR
⚠ R513,514	9LA T037 01R	Fusible 1.5kohm 1/4W(FR)	RN45B2E152JB-FR
R515,516		Carbon Chip 330ohm 1/32W	RMC73M-1F331JR
R517,518		Carbon film 33kohm 1/16W	RD14S1J333JB
R519,520		Carbon chip 1.6kohm 1/32W	RMC73M-1F162JR
R521,522		Carbon chip 47kohm 1/32W	RMC73M-1F473JR
⚠ R523,524	9LA T037 02R	Fusible 47ohm 1/4W(FR)	RN45B2E470JB-FR
R525~528	9LA T011 29R	Metal oxide 5.6kohm 1W	RE562J0001ST
R529,530		Carbon film 30kohm 1/16W	RD14S1J303JB
R531,532		Carbon film 1.2kohm 1/16W	RD14S1J122JB
R533,534		Carbon film 1.3kohm 1/16W	RD14S1J132JB
R535	9LA T012 08R	Carbon film 4.7ohm 1/4W (NB)	RDF25S4R7JT
⚠ R536	9LA T037 03R	Fusible 4.7ohm 1/4W(FR)	RN45B2E4R7JB-FR
R537,538	9LA T011 91R	Metal film 1ohm 1/4W(NB)	RNF2E010FT
R539,540	9LA T012 57R	Carbon film 330ohm 1/4W (NB)	RDF25S331JT
R541,542	9LA T011 91R	Metal film 1ohm 1/4W(NB)	RNF2E010FT
R543~550	9LA T010 12R	Metal oxide 0.22ohm 1W	RER22J0001NT
R551,552		Carbon chip 20kohm 1/32W	RMC73M-1F203JR
R553,554		Carbon chip 100kohm 1/32W	RMC73M-1F104JR
R555,556		Carbon chip 270kohm 1/32W	RMC73M-1F274JR
R557,558		Carbon chip 22kohm 1/32W	RMC73M-1F223JR
R559,560	9LA T012 17R	Carbon film 10ohm 1/4W (NB)	RDF25S100JT
R561,562	9LA T010 56R	Metal oxide 10ohm 1W	RE100J0001ST
R563,564		Carbon chip 20kohm 1/32W	RMC73M-1F203JR
R565,566		Carbon chip 8.2kohm 1/32W	RMC73M-1F822JR
R567,578		Carbon chip 750ohm 1/32W	RMC73M-1F751JR
R569,570		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R571,572	9LA T038 01R	Metal oxide 470ohm 2W	RE471J0002ST
R573		Carbon film 2.2kohm 1/16W	RD14S1J222JB
R575		Carbon chip 100kohm 1/32W	RMC73M-1F104JR
R576,577		Carbon chip 4.7kohm 1/32W	RMC73M-1F472JR

Ref. No.	Part No.	Part Name	Remarks
R578,579		Carbon chip 27kohm 1/32W	RMC73M-1F273JR
R580		Carbon chip 13kohm 1/32W	RMC73M-1F133JR
R581,582		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R583		Carbon film 10kohm 1/16W	RD14S1J103JB
R584,585		Carbon film 15kohm 1/16W	RD14S1J153JB
R586~590		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R591,592		Carbon film 1.8kohm 1/16W	RD14S1J182JB
R751~573		Carbon chip 75ohm 1/32W	RMC73M-1F750JR
R754		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R756		Carbon chip 8.2kohm 1/32W	RMC73M-1F822JR
R757		Carbon film 330ohm 1/16W	RD14S1J331JB
R758		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R761		Carbon chip 75ohm 1/32W	RMC73M-1F750JR
R764		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R765		Carbon chip 22kohm 1/32W	RMC73M-1F223JR
R766		Carbon chip 75ohm 1/32W	RMC73M-1F750JR
R767		Carbon chip 22kohm 1/32W	RMC73M-1F223JR
R803~806	9LA T010 12R	Metal oxide 0.22ohm 1W	RER22J0001NT
R807		Carbon film 1kohm 1/16W	RD14S1J102JB
⚠ R808	9LA T011 74R	Fusible 68ohm 1/4W(FR)	RN14B2E680JB-FR
R809		Carbon film 3.9kohm 1/16W	RD14S1J392JB
R810		Carbon chip 560kohm 1/32W	RMC73M-1F564JR
R811		Carbon chip 22kohm 1/32W	RMC73M-1F223JR
R812		Carbon chip 560kohm 1/32W	RMC73M-1F564JR
R813		Carbon chip 3.6kohm 1/32W	RMC73M-1F362JR
R814		Carbon Chip 120ohm 1/32W	RMC73M-1F121JR
R815		Carbon chip 2.7kohm 1/32W	RMC73M-1F272JR
R816		Carbon chip 390kohm 1/32W	RMC73M-1F394JR
R817		Carbon Chip 47ohm 1/32W	RMC73M-1F470JR
R818		Carbon chip 4.7kohm 1/32W	RMC73M-1F472JR
R819		Carbon Chip 47ohm 1/32W	RMC73M-1F470JR
R820		Carbon chip 1kohm 1/32W	RMC73M-1F102JR
R821		Carbon Chip 4.7ohm 1/32W	RMC73M-1F4R7JR
R822		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R823		Carbon chip 47kohm 1/32W	RMC73M-1F473JR
R824		Carbon chip 33kohm 1/32W	RMC73M-1F333JR
R825		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R826		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R827		Carbon chip 220kohm 1/32W	RMC73M-1F224JR
R828		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R829,830		Carbon chip 4.7kohm 1/32W	RMC73M-1F472JR
R831		Carbon chip 1kohm 1/32W	RMC73M-1F102JR
R832		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R833		Carbon chip 1kohm 1/32W	RMC73M-1F102JR
R834		Carbon chip 1kohm 1/32W	RMC73M-1F102JR
R835		Carbon chip 4.7kohm 1/32W	RMC73M-1F472JR
R836		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R837		Carbon chip 20kohm 1/32W	RMC73M-1F203JR
R840		Carbon chip 1.8kohm 1/32W	RMC73M-1F182JR
R841		Carbon chip 2.2kohm 1/32W	RMC73M-1F222JR

Ref. No.	Part No.	Part Name	Remarks
R842		Carbon chip 47kohm 1/32W	RMC73M-1F473JR
R844		Carbon chip 4.7kohm 1/32W	RMC73M-1F472JR
R845		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R847		Carbon chip 4.7kohm 1/32W	RMC73M-1F472JR
R848		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R850		Carbon chip 4.7kohm 1/32W	RMC73M-1F472JR
R851,852		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R853		Carbon film 10kohm 1/16W	RD14S1J103JB
			Asia model only
R854		Carbon film 20kohm 1/16W	RD14S1J203JB
			Asia model only
R855,856		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R857,858		Carbon chip 2.2kohm 1/32W	RMC73M-1F222JR
R859~867		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R868		Carbon film 10kohm 1/16W	RD14S1J103JB
			U.S.A./Canada
			models only
R869		Carbon film 20kohm 1/16W	RD14S1J203JB
			Asia model only
R955,956		Carbon Chip 100ohm 1/32W	RMC73M-1F101JR
R957		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R958		Carbon chip 24kohm 1/32W	RMC73M-1F243JR
R959		Carbon Chip 100ohm 1/32W	RMC73M-1F101JR
R960,961		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R962,963		Carbon chip 24kohm 1/32W	RMC73M-1F243JR
R964,965		Carbon Chip 100ohm 1/32W	RMC73M-1F101JR
R968		Carbon Chip 100ohm 1/32W	RMC73M-1F101JR
CAPACITORS GROUP			
C129,130		Ceramic chip 56pF/50V	CK73MSL1H560JR
			Europe/U.K. models only
C134		Ceramic chip 0.01μF/50V	CK73MF1H103ZR
			Europe/U.K. models only
C201		Electrolytic 47μF/25V	CE04W1E470MB
C202		Ceramic chip 0.1μF/25V	CK73MF1E104ZR
C204		Electrolytic 33μF/35V	CE04W1V330MB
C205		Ceramic chip 0.01μF/50V	CK73MF1H103ZR
C206		Electrolytic 10μF/50V	CE04W1H100MB
C207		Ceramic chip 0.01μF/50V	CK73MF1H103ZR
C208		Ceramic chip 22pF/50V	CK73MSL1H220JR
C209~211		Ceramic chip 0.01μF/50V	CK73MF1H103ZR
C401		Electrolytic 22μF/50V	CE04W1H220MB
C402		Electrolytic 10μF/50V	CE04W1H100MB
C403		Ceramic chip 100pF/50V	CK73MSL1H101JR
C404		Ceramic chip 33pF/50V	CK73MSL1H330JR
C405	9L0 2478 42R	Ceramic 30pF/500V	CC45SL2H330JB
C406		Electrolytic 47μF/50V	CE04W1H470MB
C407		Mylar film 1000pF/50V	CQ92M1H102KB
C408		Electrolytic 47μF/50V	CE04W1H470MB

Ref. No.	Part No.	Part Name	Remarks
C409	9L0 2478 54R	Ceramic 100pF/500V	CC45SL2H101JB
C410		Electrolytic 10μF/100V	CE04W2A100MB
C411	9L0 2478 54R	Ceramic 100pF/500V	CC45SL2H101JB
C414		Mylar film 0.01μF/50V	CQ92M1H103KB
C415		Mylar film 0.1μF/50V	CQ92M1H104KB
C416		Electrolytic 47μF/25V	CE04W1E470MB
C418		Ceramic chip 0.01μF/50V	CK73MF1H103ZR
C419		Electrolytic 47μF/25V	CE04W1E470MB
C501,502		Electrolytic 22μF/50V	CE04W1H220MB
C503		Electrolytic 10μF/50V	CE04W1H100MB
C504,505		Ceramic chip 33pF/50V	CK73MSL1H330JR
C506,507		Mylar film 1000pF/50V	CQ92M1H102KB
C508,509	9L0 2478 42R	Ceramic 30pF/500V	CC45SL2H330JB
C510~513		Electrolytic 47μF/50V	CE04W1H470MB
C514,515	9L0 2478 54R	Ceramic 100pF/500V	CC45SL2H101JB
C516,517		Electrolytic 10μF/100V	CE04W2A100MB
C518,519	9L0 2478 54R	Ceramic 100pF/500V	CC45SL2H101JB
C522,523		Mylar film 0.01μF/50V	CQ92M1H103KB
C524,525		Mylar film 0.1μF/50V	CQ92M1H104KB
C526,527		Electrolytic 47μF/25V	CE04W1E470MB
C528-532		Ceramic chip 0.01μF/50V	CK73MF1H103ZR
C533-535		Mylar film 0.033μF/50V	CQ92M1H333KB
C536		Ceramic chip 0.01μF/50V	CK73MF1H103ZR
C537,538		Mylar film 0.033μF/50V	CQ92M1H333KB
C539~541		Ceramic chip 0.01μF/50V	CK73MF1H103ZR
C542,543		Electrolytic 22μF/50V	CE04W1H220MB
C544		Electrolytic 10μF/50V	CE04W1H100MB
C545,546		Ceramic chip 100pF/50V	CK73MSL1H101JR
C547		Electrolytic 470μF/63V	CE04W1J471MF
C550		Electrolytic 1μF/50V(BP)	CE04W1H1R0MB(BP)
C552		Electrolytic 10μF/50V	CE04W1H100MB
C751~753		Electrolytic 100μF/10V	CE04W1A101MB
C754		Ceramic chip 0.01μF/50V	CK73MF1H103ZR
C755,756		Electrolytic 10μF/50V	CE04W1H100MB
C758		Electrolytic 22μF/50V	CE04W1H220MB
C759,760		Electrolytic 100μF/10V	CE04W1A101MB
C761		Electrolytic 22μF/50V	CE04W1H220MB
C762,763		Electrolytic 4.7μF/50V	CE04W1H4R7MB
C805,806	9LA L009 42Q	Electrolytic 8200μF/56V	CE04W1_822M
C807		Electrolytic 1μF/50V	CE04W1H010MB
C808		Electrolytic 10μF/50V	CE04W1H100MB
C809		Electrolytic 1μF/50V	CE04W1H010MB
C810~812		Ceramic chip 0.1μF/25V	CK73MF1E104ZR
C813		Electrolytic 47μF/25V	CE04W1E470MB
C814		Ceramic chip 0.1μF/25V	CK73MF1E104ZR
C815		Electrolytic 330μF/6.3V	CE04W0J331MB
C816		Electrolytic 47μF/25V	CE04W1E470MB
C817		Ceramic chip 0.01μF/50V	CK73MF1H103ZR
C818		Electrolytic 220μF/6.3V	CE04W0J221MB

Ref. No.	Part No.	Part Name	Remarks
C819		Mylar film 0.12μF/50V	CQ92M1H124KB
C820	9L0 8000 88Q	Electrolytic 3300μF/6.3V	CE04W0J332MF
C821		Electrolytic 4.7μF/50V	CE04W1H4R7MB
C822,823		Ceramic chip 0.01μF/50V	CK73MF1H103ZR
C824,825		Electrolytic 10μF/50V	CE04W1H100MB
C826,827		Ceramic chip 0.01μF/50V	CK73MF1H103ZR
C828		Mylar film 0.1μF/100V	CQ92M2A104KB
C829,830	9L0 2539 34Q	Electrolytic 2200μF/35V	CE04W1F222MF
C831	9LA N005 91R	Mylar film 0.1μF/100V	CQ92M2A104KB
C832		Electrolytic 10μF/50V	CE04W1H100MB
C833,834		Ceramic chip 0.01μF/50V	CK73MF1H103ZR
C835		Electrolytic 10μF/50V	CE04W1H100MB
C836		Ceramic chip 0.01μF/50V	CK73MF1H103ZR
C837		Electrolytic 100μF/10V(SRA)	CE04W1A101MB(SRA)
C839	9LA L004 79Q	Electrolytic 3300μF/16V	CE04W1C332MF
C840		Ceramic 0.01μF/50V	CK45F1H103ZB
C908		Mylar film 0.1μF/50V	CQ92M1H104KB
C951~956		Ceramic chip 330pF/50V	CK73MSL1H331JR
C957		Ceramic chip 0.1μF/25V	CK73MF1E104ZR
C958		Electrolytic 4.7μF/50V(SRA)	CE04W1H4R7MB(SRA)
C960		Electrolytic 4.7μF/50V	CE04W1H4R7MB
C962,963		Ceramic chip 0.1μF/25V	CK73MF1E104ZR

OTHER PARTS GROUP			Q'ty
E007~010	9L2 7292 52R	Fuse holder	4
JK103	9LE R002 28	2P US pin jack	1
JK201	9LE R002 44	1P US pin jack(orange)	1
JK501	9L2 6950 13	Headphone jack	1
JK502	9LE R006 11	6P screw terminal	1
JK503	9LE U000 03	4P SP terminal	1
JK504	9LE R002 24	4P US pin jack	1
JK751	9LE R002 34	3P US pin jack(yellow)	1
JK752	9LE R002 27	2P US pin jack(yellow)	1
JK951	9LE R002 23	6P US pin jack	1
L201	9L2 1229 38R	Coil 4.7μH	1
L202	9L2 1229 34R	Coil 2.2μH	1
L401	9L2 2273 63	Audio trap coil	1
L501,502	9L2 2273 63	Audio trap coil	2
RY401	9L2 6413 21	Relay(OSA-SS-224DM3)	1
RY501	9L2 6413 21	Relay(OSA-SS-224DM3)	1
S501	9LF E001 81	Speaker switch	1
X801	399 9018 003	Ceramic resonator CST4.00MGW	1
CN2B	9LE D007 83	17P FFC connector	1
CN4A	9LE Y000 73	5P pin header	1

Ref. No.	Part No.	Part Name	Remarks	Q'ty
CN5A	9LE Y000 79	11P pin header		1
CN6A	9LE Y000 85	16P pin header		1
CN7A	9LE Y000 71	3P pin header		1
CN8A	9LE Y000 89	20P pin header		1
CN9A	9LE Y000 84	15P pin header		1
CN10A	9LE Y000 75	7P pin header		1
CN11A	9LE Y000 77	9P pin header		1
CN11B	9LE Y000 97	9P socket		1
CN14	9LE F069 59	5P KR-DA connector cord		1
CN17	9LE F069 79	3P KR-DA connector cord	U.S.A./Canada models only	1
PG3	9L2 6752 82	3P PH pin post(L)		1
PG12	9L2 9590 53	4P PH pin post		1
PG13	9L2 9590 58	9P PH pin post		1
FB201	9LB Z014 21	Beads inductor		1
FB801	9LB Z014 23R	Beads inductor	Except Europe/ U.K. models	1
	9LJ T094 61	Main P.W.B. Ass'y	U.S.A./Canada models	
	9LJ T094 62	Main P.W.B. Ass'y	Europe model	
	9LJ T094 63	Main P.W.B. Ass'y	U.K. model	
	9LJ T094 64	Main P.W.B. Ass'y	Asia model	

TUNER P.W.B. UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC1	263 0891 001	IC LA1265S	
IC2	263 0439 007	IC LA3401	
IC3	9LC K098 31R	IC LC72131M	
IC91	9LC K044 51	IC SAA6579	Europe/U.K. models only
IC92	9LC K044 71R	IC LC7074M	Europe/U.K. models only
IC301~303	262 2214 007	IC LC7536	
IC304~309	263 0615 902	IC BA15218F	
TR1	9LC F011 21R	Transistor 2SK161(Y)	Europe/U.K. models only
TR2	9LC F023 21R	Transistor KTC3197	
TR3,4	269 0046 003	Transistor DTA114ES	
TR7,8	269 0072 909	Transistor DTC323TS	
TR9	269 0079 902	Transistor DTC144TS	
TR10	269 0080 904	Transistor DTA114TS	
TR601~604	271 0094 016	Transistor 2SA970(BL)	
TR605,606	273 0235 020	Transistor 2SC1841(E/F)	
TR607,608	273 0198 028	Transistor 2SC1815(GR)	
TR609,610	274 0060 007	Transistor 2SD667A(C)	
TR611,612	272 0053 005	Transistor 2SB647A(C)	
TR613,614	273 0430 003	Transistor 2SC4278(E)	
TR615,616	271 0276 009	Transistor 2SA1633(E)	
TR617,618	273 0235 020	Transistor 2SC1841(E/F)	
TR901	274 0163 904	Transistor 2SD601A	
D1~4	9L2 3989 21T	Diode 1SS133	
D5	9L2 3980 62T	Diode 1N4001	
D91	9L2 3989 21T	Diode 1SS133	Europe/U.K. models only
D601,602	9L2 3989 21T	Diode 1SS133	
D901~906	9L2 3980 62T	Diode 1N4001	
D907	9L2 3989 21T	Diode 1SS133	
ZD601	276 0463 914	Zener diode HZS6C-2	
TH601	9LC J001 51	Thermister	
RESISTORS GROUP			
R1		Carbon film 1kohm 1/16W	RD14S1J102JB
R2		Carbon film 5.6kohm 1/16W	RD14S1J562JB Europe/U.K. models only
R4		Carbon film 10kohm 1/16W	RD14S1J103JB Europe/U.K. models only
R5		Carbon film 390ohm 1/16W	RD14S1J391JB Europe/U.K. models only
R5		Carbon film 1kohm 1/16W	RD14S1J102JB Except Europe/U.K. models

Ref. No.	Part No.	Part Name	Remarks
R6		Carbon film 330ohm 1/16W	RD14S1J331JB Europe/U.K. models only
R7		Carbon film 4.7kohm 1/16W	RD14S1J472JB
R8		Carbon film 330ohm 1/16W	RD14S1J331JB
R9		Carbon film 220ohm 1/16W	RD14S1J221JB
R10		Carbon film 1.8kohm 1/16W	RD14S1J182JB
R11		Carbon film 330ohm 1/16W	RD14S1J331JB
R14	9LA T012 44R	Carbon film 100ohm 1/4W (NB)	RDF25S101JT
R15		Carbon film 5.6kohm 1/16W	RD14S1J562JB
R16		Carbon film 2.2kohm 1/16W	RD14S1J222JB
R17		Carbon film 1kohm 1/16W	RD14S1J102JB
R19	9LA T012 44R	Carbon film 100ohm 1/4W (NB)	RDF25S101JT
R20		Carbon film 15kohm 1/16W	RD14S1J153JB
R21		Carbon film 120ohm 1/16W	RD14S1J121JB
R22		Carbon film 18kohm 1/16W	RD14S1J183JB U.S.A./Canada models only
R22		Carbon film 39kohm 1/16W	RD14S1J393JB Except U.S.A./ Canada models
R23		Carbon film 1.2kohm 1/16W	RD14S1J122JB Europe/U.K. models only
R24		Carbon film 6.8kohm 1/16W	RD14S1J682JB
R25,26		Carbon film 10kohm 1/16W	RD14S1J103JB
R27		Carbon film 3.3kohm 1/16W	RD14S1J332JB
R28		Carbon film 11kohm 1/16W	RD14S1J113JB
R29		Carbon film 68kohm 1/16W	RD14S1J683JB
R30,31		Carbon film 62kohm 1/16W	RD14S1J623JB
R32		Carbon film 150kohm 1/16W	RD14S1J154JB Europe/U.K. models only
R32		Carbon film 100kohm 1/16W	RD14S1J104JB Except Europe/U.K. models
R33,34		Carbon film 180kohm 1/16W	RD14S1J184JB Europe/U.K. models only
R33,34		Carbon film 120kohm 1/16W	RD14S1J124JB Except Europe/U.K. models
R35		Carbon film 150kohm 1/16W	RD14S1J154JB Europe/U.K. models only
R35		Carbon film 100kohm 1/16W	RD14S1J104JB Except Europe/U.K. models
R36		Carbon film 3.3kohm 1/16W	RD14S1J332JB
R37		Carbon film 10kohm 1/16W	RD14S1J103JB
R38		Carbon film 100kohm 1/16W	RD14S1J104JB
R39,40		Carbon film 1.8kohm 1/16W	RD14S1J182JB
R41,42		Carbon film 4.7kohm 1/16W	RD14S1J472JB Europe/U.K. models only
R41,42		Carbon film 6.8kohm 1/16W	RD14S1J682JB Except Europe/U.K. models
R43		Carbon film 18kohm 1/16W	RD14S1J183JB
R45		Carbon film 10kohm 1/16W	RD14S1J103JB
R46		Carbon film 5.6kohm 1/16W	RD14S1J562JB

Ref. No.	Part No.	Part Name	Remarks
R50		Carbon film 100ohm 1/16W	RD14S1J101JB
			Except Europe/
			U.K. models
R51		Carbon film 3.3kohm 1/16W	RD14S1J332JB
R52		Carbon film 100kohm 1/16W	RD14S1J104JB
R301		Carbon film 47kohm 1/16W	RD14S1J473JB
R302		Carbon film 220kohm 1/16W	RD14S1J224JB
R303		Carbon film 47kohm 1/16W	RD14S1J473JB
R304		Carbon film 100kohm 1/16W	RD14S1J104JB
R305		Carbon film 10kohm 1/16W	RD14S1J103JB
R306		Carbon film 750ohm 1/16W	RD14S1J751JB
R307		Carbon film 100kohm 1/16W	RD14S1J104JB
R308,309		Carbon film 47kohm 1/16W	RD14S1J473JB
R310		Carbon film 220kohm 1/16W	RD14S1J224JB
R311		Carbon film 100kohm 1/16W	RD14S1J104JB
R312		Carbon film 4.7kohm 1/16W	RD14S1J472JB
R313		Carbon film 430ohm 1/16W	RD14S1J431JB
R314		Carbon film 100ohm 1/16W	RD14S1J101JB
R315		Carbon film 47kohm 1/16W	RD14S1J473JB
R316		Carbon film 220kohm 1/16W	RD14S1J224JB
R317		Carbon film 47kohm 1/16W	RD14S1J473JB
R318		Carbon film 100kohm 1/16W	RD14S1J104JB
R319		Carbon film 4.7kohm 1/16W	RD14S1J472JB
R320		Carbon film 430ohm 1/16W	RD14S1J431JB
R321		Carbon film 100ohm 1/16W	RD14S1J101JB
R322		Carbon film 47kohm 1/16W	RD14S1J473JB
R323		Carbon film 47kohm 1/16W	RD14S1J473JB
R324		Carbon film 220kohm 1/16W	RD14S1J224JB
R325		Carbon film 4.7kohm 1/16W	RD14S1J472JB
R326		Carbon film 430ohm 1/16W	RD14S1J431JB
R327		Carbon film 100kohm 1/16W	RD14S1J104JB
R328		Carbon film 100ohm 1/16W	RD14S1J101JB
R329		Carbon film 47kohm 1/16W	RD14S1J473JB
R330		Carbon film 220kohm 1/16W	RD14S1J224JB
R331		Carbon film 47kohm 1/16W	RD14S1J473JB
R332		Carbon film 100kohm 1/16W	RD14S1J104JB
R333,334		Carbon film 1kohm 1/16W	RD14S1J102JB
R335		Carbon film 100ohm 1/16W	RD14S1J101JB
R336,337		Carbon film 47kohm 1/16W	RD14S1J473JB
R338		Carbon film 220kohm 1/16W	RD14S1J224JB
R339,340		Carbon film 1kohm 1/16W	RD14S1J102JB
R341		Carbon film 100kohm 1/16W	RD14S1J104JB
R342		Carbon film 100ohm 1/16W	RD14S1J101JB
R343		Carbon film 4.7kohm 1/16W	RD14S1J472JB
R344		Carbon film 3.3kohm 1/16W	RD14S1J332JB
R601,602		Carbon chip 220ohm 1/32W	RMC73M-1F221JR
R603,604		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R605,606		Carbon chip 33kohm 1/32W	RMC73M-1F333JR
⚠ R607,608	9LA T037 01R	Fusible 1.5kohm 1/4W(FR)	RN14B2E152JB-FR
R609,610		Carbon chip 330ohm 1/32W	RMC73M-1F331JR
R611,612		Carbon chip 470kohm 1/32W	RMC73M-1F474JR
R613,614		Carbon film 33kohm 1/16W	RD14S1J333JB
R615,616		Carbon chip 1.6kohm 1/32W	RMC73M-1F162JR
R617,618		Carbon chip 47kohm 1/32W	RMC73M-1F473JR
⚠ R619,620	9LA T037 02R	Fusible 47ohm 1/4W(FR)	RN45B2E470JB-FR
R621,622		Carbon film 1.3kohm 1/16W	RD14S1J132JB
R623,624		Carbon film 1.2kohm 1/16W	RD14S1J122JB
R625,626		Carbon film 30kohm 1/16W	RD14S1J303JB
R627~630	9LA T011 29R	Metal oxide 5.6kohm 1W	RE562J0001ST
R631~634	9LA T011 91R	Metal film 1ohm 1/4W(NB)	RNF2E010FT
R635,636	9LA T012 57R	Carbon film 330ohm 1/4W (NB)	RDF25S331JT
R637~644	9LA T010 12R	Metal oxide 0.22ohm 1W	RER22J0001NT
R645,646		Carbon chip 20kohm 1/32W	RMC73M-1F203JR
R647,648		Carbon chip 100kohm 1/32W	RMC73M-1F104JR
R649,650		Carbon chip 270kohm 1/32W	RMC73M-1F274JR
R651,652		Carbon chip 22kohm 1/32W	RMC73M-1F223JR
R653,654	9LA T012 17R	Carbon film 10ohm 1/4W (NB)	RDF25S100JT
R655,656	9LA T010 56R	Metal oxide 10ohm 1W	RE100J0001ST
R657,658		Carbon chip 20kohm 1/32W	RMC73M-1F203JR
⚠ R659,660	9LA T037 03R	Fusible 4.7ohm 1/4W(FR)	RN45B2E4R7JB-FR
R661,662		Carbon film 1.8kohm 1/16W	RD14S1J182JB
R901		Carbon film 2.7Mohm 1/2W	2.7M(1/2W)
			U.S.A./Canada
			models only
R902		Carbon chip 4.7kohm 1/32W	RMC73M-1F472JR
R903		Carbon chip 10kohm 1/32W	RMC73M-1F103JR

CAPACITORS GROUP

C1		Ceramic 0.01μF/16V	CK45B1C103MB
C4		Ceramic 12pF/50V	CK45SL1H120JB
C6		Electrolytic 220μF/16V	CE04W1C221MB
			Europe/U.K. models only
C7		Ceramic 0.01μF/16V	CK45B1C103MB
C8		Ceramic 100pF/50V	CK45SL1H101JB
C11		Electrolytic 1μF/50V(BP)	CE04W1H010MB-BP
C12		Electrolytic 1μF/50V	CE04W1H010MB
C13		Electrolytic 47μF/25V	CE04W1E470MB
C15		Ceramic 0.01μF/16V	CK45B1C103MB
C16,17		Ceramic 100pF/50V	CK45SL1H101JB
C18		Ceramic 0.01μF/16V	CK45B1C103MB
C19		Electrolytic 0.47μF/50V	CE04W1HR47MB
C20		Electrolytic 1μF/50V	CE04W1H010MB
C21		Electrolytic 10μF/50V	CE04W1H100MB
C22		Ceramic 0.022μF/50V	CK45F1H223ZB
C23		Ceramic 100pF/50V	CK45SL1H101JB
			Except Europe/
			U.K. models
C24		Mylar film 0.056μF/50V	CQ92M1H563KB
C25		Electrolytic 22μF/50V	CE04W1H220MB
C26		Electrolytic 22μF/50V	CE04W1H220MB
			Europe/U.K. models only

Ref. No.	Part No.	Part Name	Remarks
C27		Electrolytic 22μF/50V	CE04W1H220MB
C28		Electrolytic 220μF/6.3V	CE04W0J221MB
C29		Ceramic 0.01μF/16V	CK45B1C103MB
C30		Ceramic 560pF/50V	CK45B1H561KB
			Europe/U.K. models only
C31		Ceramic 0.01μF/16V	CK45B1C103MB
C33,34		Ceramic 15pF/50V	CK45CH1H150JB
C36,37		Ceramic 0.01μF/16V	CK45B1C103MB
C38		Mylar film 0.047μF/50V	CQ92M1H473KB
C39		Ceramic 0.01μF/16V	CK45B1C103MB
C40		Electrolytic 1μF/50V	CE04W1H010MB
C41		Electrolytic 47μF/25V	CE04W1E470MB
C42		Electrolytic 1μF/50V	CE04W1H010MB
C43		Electrolytic 0.22μF/50V(SRA)	CE04W1HR22MB-SRA
C44		Electrolytic 1μF/50V	CE04W1H010MB
C45		Ceramic 0.01μF/16V	CK45B1C103MB
C46,47		Electrolytic 2.2μF/50V	CE04W1H2R2MB
C48		Electrolytic 1μF/50V	CE04W1H010MB
C49		Ceramic 0.01μF/16V	CK45B1C103MB
C51		Electrolytic 2.2μF/50V	CE04W1H2R2MB
C52		Electrolytic 10μF/50V	CE04W1H100MB
C53,54		Ceramic 330pF/50V	CK45B1H331KB
			Europe/U.K. models only
C53,54		Ceramic 680pF/50V	CK45B1H681KB
			Except Europe/
			U.K. models
C55		Ceramic 120pF/50V	CK45SL1H121JB
			Europe/U.K. models only
C56,57		Ceramic 0.01μF/16V	CK45B1C103MB
C59,60		Ceramic 0.01μF/16V	CK45B1C103MB
C61,62		Ceramic 4700pF/25V	CK45B1E472MB
			Europe/U.K. models only
C65		Ceramic 0.01μF/16V	CK45B1C103MB
C87		Electrolytic 10μF/50V	CE04W1H100MB
C91		Electrolytic 2.2μF/50V	CE04W1H2R2MB
			Europe/U.K. models only
C92		Ceramic 560pF/50V	CK45B1H561KB
			Europe/U.K. models only
C93		Ceramic 0.01μF/16V	CK45B1C103MB
			Europe/U.K. models only
C94		Electrolytic 10μF/50V	CE04W1H100MB
			Europe/U.K. models only
C95,96		Ceramic 27pF/50V	CK45CH1H270JB
			Europe/U.K. models only
C97		Electrolytic 10μF/50V	CE04W1H100MB
			Europe/U.K. models only
C301~319		Electrolytic 10μF/50V	CE04W1H100MB
C321		Electrolytic 4.7μF/50V	CE04W1H4R7MB
C323		Electrolytic 4.7μF/50V	CE04W1H4R7MB
C328~330		Electrolytic 22μF/50V	CE04W1H220MB

Ref. No.	Part No.	Part Name	Remarks
C601,602		Electrolytic 10μF/50V	CE04W1H100MB
C603,604		Ceramic chip 100pF/50V	CK73MSL1H101JR
C605,606		Ceramic chip 33pF/50V	CK73MSL1H330JR
C607,608		Mylar film 1000pF/50V	CQ92M1H102KB
C609,610	9L0 2478 42R	Ceramic 33pF/500V	CC45SL2H330JB
C611~614		Electrolytic 47μF/50V	CE04W1H470MB
C615,616	9L0 2478 54R	Ceramic 100pF/500V	CC45SL2H101JB
C617,618	9L0 8000 21R	Electrolytic 10μF/100V	CE04W2A100MB
C619,620	9L0 2478 54R	Ceramic 100pF/500V	CC45SL2H101JB
C625,626		Ceramic chip 0.01μF/50V	CK73MF1H103ZR
C627,628		Mylar film 0.1μF/50V	CQ92M1H104KB
C629		Electrolytic 470μF/63V	CE04W1J471MB
C630,631		Ceramic chip 0.01μF/50V	CK73MF1H103ZR
C632,633		Mylar film 0.033μF/50V	CQ92M1H333KB
C901	9LA N001 31S	Ceramic 0.01 μF/250V(AC)	0.01UF 250V PA103-C
C902		Ceramic chip 0.01μF/50V	CK73MF1H103ZR
			Except U.S.A./
			Canada models
C903,904		Ceramic 0.01μF/50V	CK45F1H103ZB
C905	9LA L004 76Q	Electrolytic 2200μF/25V	CE04W1E222M
C906,907		Electrolytic 1μF/50V	CE04W1H010MB

OTHER PARTS GROUP				Q'ty
CN1B	9LE D007 72	7P FFC connector		1
CN4B	9LE Y000 93	5P socket		1
CN5B	9LE Y000 99	11P socket		1
CN6B	9LE Y001 05	16P socket		1
CN7B	9LE Y000 91	3P socket		1
CN12	9LE F069 19	4P KR-DA connector cord		1
CN13	9LE F069 39	9P KR-DA connector cord		1
CN15	9LE F06879	3P KR-DA connector cord	Except U.S.A./ Canada models	1
CF1	9L2 1349 92	Ceramic filter SFE10.7MA-8	Except Europe/ U.K. models	1
CF1,2	9LB N001 01	Ceramic filter SFT10.7MS2-A	Europe/U.K. models only	2
CF2	9LB N001 11	Ceramic filter SFT10.7MS2G-A	Except Europe/ U.K. models	1
CF3	9LB P005 01	Ceramic filter BFU450C4N		1
CF4	9LB P004 91	Ceramic filter CMU2-456A1		1
E001,002	9L2 7292 52R	Fuse holder	U.S.A./Canada models only	2
E003,004	9L2 7292 52R	Fuse holder		2
E005,006	9L2 7292 52R	Fuse holder	Asia model only	2
PG15	9L2 9590 52	3P PH pin post		1
PG16	9L2 6742 84	2P-4S VH pin post		1

DSP P.W.B. UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks	Q'ty
⚠PT902	9LB T005 31	Sub power trans E3	U.S.A./Canada models	1
⚠PT902	9LB T005 32	Sub power trans E2	Europe/ U.K. models	1
⚠PT902	9LB T005 33	Sub power trans E1	Asia model	1
JK1	9LE U000 11	Ant. terminal		1
JK601	9LE U000 86	4P SP terminal		1
⚠JK901	9LE Y004 91	AC outlet	U.S.A./Canada models only	1
L601,602	9L2 2273 63	Audio trap coil		1
LF1	9L2 1363 13	Low pass filter (FB-7SG)	Europe/U.K. models only	1
LF2,3	9L2 1363 14	Low pass filter (19kHz)	Europe/U.K. models only	2
RL601	9L2 6413 21	Relay (OSA-SS-224DM3)		1
RY901	9L2 6405 76	Relay (SDT-SS-112DM)		1
S1	9L2 6225 21	Slide switch	Asia model only	1
⚠S901	9LF E003 61	Power switch	Except U.S.A./ Canada models	1
⚠S902,903	9LF G000 11	Voltage selector	Asia model only	2
⚠S904	9LF E002 01	Power switch	U.S.A./Canada models only	1
BL1	9LB H005 31	AM RF block		1
T3	9LB J002 51	AM IFT		1
T4	9LB S000 71	FM DET trans.		1
TU1	9LH H000 31	Tuner pack	Except Europe/ U.K. models	1
TU1	9L2 4286 51	Tuner pack	Europe/U.K. models only	1
XT1	9L2 1701 32R	Crystal 7.2MHz		1
XT91	9L2 1701 33R	Crystal 4.332MHz	Europe/U.K. models only	1
XT92	9L2 7920 71R	Ceramic resonator CST4.0MGM	Europe/U.K. models only	1
#501	9LM F001 73	Insulatoin sheet		4
	9LJ T094 51	Tuner P.W.B. Ass'y	U.S.A./ Canada models	
	9LJ T094 52	Tuner P.W.B. Ass'y	Europe model	
	9LJ T094 53	Tuner P.W.B. Ass'y	U.K. model	
	9LJ T094 54	Tuner P.W.B. Ass'y	Asia model	

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC101	263 0672 903	IC BA4558F	
IC102	9LC K320 31	IC TC9273F-007	
IC151~154	9L2 3883 01R	IC BA4558F	
IC221	262 2663 001	IC ZR38601	
IC222	263 1048 002	IC BA033T	
IC223,224	262 1421 901	IC TC74HCT04AF	
IC240	9LC K320 41	IC AK4526	
IC241~243	9LC K150 81R	IC BA15218F	
IC244	9L2 3883 01R	IC BA4558F	
TR241~246	273 0253 015	Transistor 2SC2878(A/B)	
TR247	269 0132 904	Transistor UN2111	
TR248	269 0138 908	Transistor UN2213	
TR249	269 0134 902	Transistor UN2113	
TR250	269 0138 908	Transistor UN2213	
TR251	269 0134 902	Transistor UN2113	
TR252,253	269 0138 908	Transistor UN2213	
TR254,255	9L2 3240 85T	Transistor 2SK105(H)	
D151	276 0643 983	Zener diode MTZJ5.1B	
D221,222	9L2 3989 21T	Diode 1SS133	
D241~244	9L2 3989 21T	Diode 1SS133	
RESISTORS GROUP			
R101,102		Carbon chip 4.7kohm 1/32W	RMC73M-1F472JR Europe/U.K. models only
R103,104		Carbon chip 390ohm 1/32W	RMC73M-1F391JR
R105,106		Carbon chip 68kohm 1/32W	RMC73M-1F683JR
R107,108		Carbon chip 150kohm 1/32W	RMC73M-1F154JR
R109,110		Carbon chip 47ohm 1/32W	RMC73M-1F470JR
R111,112		Carbon chip 750ohm 1/32W	RMC73M-1F751JR
R113,114		Carbon chip 560kohm 1/32W	RMC73M-1F564JR
R115,116		Carbon chip 47kohm 1/32W	RMC73M-1F473JR
R117,118		Carbon chip 22ohm 1/32W	RMC73M-1F220JR
R119,120		Carbon chip 470kohm 1/32W	RMC73M-1F474JR
R121~128		Carbon chip 1Mohm 1/32W	RMC73M-1F105JR
R131~138		Carbon chip 470ohm 1/32W	RMC73M-1F471JR
R141~144		Carbon chip 470ohm 1/32W	RMC73M-1F471JR
R151,152		Carbon chip 100ohm 1/32W	RMC73M-1F101JR
R153,154		Carbon chip 100kohm 1/32W	RMC73M-1F104JR
R155,156		Carbon chip 100kohm 1/32W	RMC73M-1F104JR
R157,158		Carbon chip 100ohm 1/32W	RMC73M-1F101JR
R159,160		Carbon chip 100kohm 1/32W	RMC73M-1F104JR
R161~166		Carbon chip 13kohm 1/32W	RMC73M-1F133JR
R167		Carbon chip 820ohm 1/32W	RMC73M-1F821JR
R171,172		Carbon chip 100ohm 1/32W	RMC73M-1F101JR
R173,174		Carbon chip 100kohm 1/32W	RMC73M-1F104JR
R175,176		Carbon chip 100ohm 1/32W	RMC73M-1F101JR
R177,178		Carbon chip 10kohm 1/32W	RMC73M-1F103JR

Ref. No.	Part No.	Part Name	Remarks
R179,180		Carbon chip 2.4kohm 1/32W	RMC73M-1F242JR
R181~184		Carbon chip 4.7kohm 1/32W	RMC73M-1F472JR
R185~188		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R189~192		Carbon chip 300ohm 1/32W	RMC73M-1F301JR
R221~224		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R229	9LA T012 28T	Metal film 27ohm 1/4W(NB)	RN14S2E270JR(NB)
R230,231		Carbon chip 1.5kohm 1/32W	RMC73M-1F152JR
R232		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R233,234		Carbon chip 1.5kohm 1/32W	RMC73M-1F152JR
R237		Carbon chip 1kohm 1/32W	RMC73M-1F102JR
R238		Carbon chip 1.5kohm 1/32W	RMC73M-1F152JR
R240~245		Carbon chip 27kohm 1/32W	RMC73M-1F273JR
R246~249		Carbon chip 220ohm 1/32W	RMC73M-1F221JR
R250,251		Carbon chip 4.7kohm 1/32W	RMC73M-1F472JR
R252~257		Carbon chip 1kohm 1/32W	RMC73M-1F102JR
R258		Carbon chip 1.5kohm 1/32W	RMC73M-1F152JR
R260,261		Carbon chip 9.1kohm 1/32W	RMC73M-1F912JR
R263		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R265		Carbon chip 47kohm 1/32W	RMC73M-1F473JR
R266~268		Carbon chip 100kohm 1/32W	RMC73M-1F104JR
R269,270		Carbon chip 47kohm 1/32W	RMC73M-1F473JR
R271		Carbon chip 27kohm 1/32W	RMC73M-1F273JR
R272,273		Carbon chip 24kohm 1/32W	RMC73M-1F243JR
R274		Carbon chip 100ohm 1/32W	RMC73M-1F101JR
R275		Carbon chip 100kohm 1/32W	RMC73M-1F104JR
R277		Carbon chip 47kohm 1/32W	RMC73M-1F473JR
R278		Carbon chip 3.6kohm 1/32W	RMC73M-1F362JR
R279		Carbon chip 13kohm 1/32W	RMC73M-1F133JR
R280		Carbon chip 18kohm 1/32W	RMC73M-1F183JR
R282		Carbon chip 4.7kohm 1/32W	RMC73M-1F472JR
R283		Carbon chip 6.8kohm 1/32W	RMC73M-1F682JR
R284		Carbon chip 47kohm 1/32W	RMC73M-1F473JR
R285,286		Carbon chip 3.6kohm 1/32W	RMC73M-1F362JR
R287~290		Carbon chip 4.7kohm 1/32W	RMC73M-1F472JR
R291		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
⚠R292	9LA T037 03T	Fuse resistor 4.7ohm 1/4W	RN45B2E4R7JB-FR
R293~297		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R298,299		Carbon chip 220ohm 1/32W	RMC73M-1F221JR
CAPACITORS GROUP			
C101,102		Ceramic chip 220pF/50V	CK73MSL1H221JR
C103,104		Electrolytic 10μF/50V	CE04W1H100MB(SSL)
C105,106		Ceramic chip 100pF/50V	CK73MSL1H101JR
C107,108		Electrolytic 33μF/35V	CE04W1V330MB(SSL)
C109,110		Mylar film 5600pF/50V	CQ92M1H562KB
C111,112		Mylar film 1500pF/50V	CQ92M1H152KB
C113,114		Electrolytic 2.2μF/50V	CE04W1H2R2MB(SSL)
C115,116		Ceramic chip 0.01μF/50V	CK73MF1H103ZR
C117		Electrolytic 1μF/50V	CE04W1H010MB(SSL)
C121~128		Ceramic chip 56pF/50V	CK73MSL1H560JR Europe/U.K. models only
C131~133		Ceramic chip 0.1μF/25V	CK73MF1E104ZR

Ref. No.	Part No.	Part Name	Remarks
C135,136		Ceramic chip 0.022μF/50V	CK73MF1H223ZR
C137		Ceramic chip 0.01μF/50V	CK73MF1H103ZR Except Europe/U.K. models
C151,152		Electrolytic 10μF/50V	CE04W1H100MB(SSL)
C157,158		Electrolytic 10μF/50V	CE04W1H100MB(SSL)
C159~162		Mylar film 0.22μF/50V	CQ92M1H224KB
C163,164		Electrolytic 10μF/50V	CE04W1H100MB(SSL)
C165,166		Electrolytic 22μF/50V	CE04W1H220MB(SSL)
C167,168		Ceramic chip 0.1μF/25V	CK73MF1E104ZR
C169,170		Electrolytic 47μF/25V	CE04W1E470MB(SSL)
C171,172		Mylar film 1500pF/50V	CQ92M1H152KB
C173		Ceramic chip 0.1μF/25V	CK73MF1E104ZR
C174		Electrolytic 47μF/25V	CE04W1E470MB(SSL)
C221~226		Ceramic chip 0.1μF/25V	CK73MF1E104ZR
C227		Electrolytic 47μF/25V	CE04W1E470MB(SSL)
C228		Ceramic chip 0.1μF/25V	CK73MF1E104ZR
C229		Mylar film 0.047μF/50V	CQ92M1H473KB
C230,231		Ceramic chip 18pF/50V	CK73MCH1H180JR
C232,233		Ceramic chip 0.1μF/25V	CK73MF1E104ZR
C234,235		Ceramic chip 0.01μF/50V	CK73MF1H103ZR
C236		Electrolytic 10μF/50V	CE04W1H100MB(SSL)
C237		Electrolytic 1μF/50V	CE04W1H010MB(SSL)
C238		Ceramic chip 0.1μF/25V	CK73MF1E104ZR Except Europe/U.K. models
C240~245		Electrolytic 10μF/50V	CE04W1H100MB(SSL)
C246		Electrolytic 47μF/25V	CE04W1E470MB(SSL)
C247,248		Ceramic chip 0.1μF/25V	CK73MF1E104ZR
C249		Electrolytic 10μF/50V	CE04W1H100MB(SSL)
C250		Electrolytic 47μF/25V	CE04W1E470MB(SSL)
C251,252		Ceramic chip 0.1μF/25V	CK73MF1E104ZR
C253		Electrolytic 47μF/25V	CE04W1E470MB(SSL)
C254~259		Ceramic chip 0.027μF/25V	CK73MB1E273KR
C260~265		Electrolytic 10μF/50V	CE04W1H100MB(SSL)
C267		Mylar film 0.12μF/50V	CQ92M1H124KB
C268		Ceramic chip 0.056μF/16V	CK73MB1C563KR
C269		Electrolytic 10μF/50V	CE04W1H100MB(SSL)
C270,271		Electrolytic 1μF/50V	CE04W1H010MB(SSL)
C274~277		Ceramic chip 100pF/50V	CK73MSL1H101JR
C278		Ceramic chip 0.1μF/25V	CK73MF1E104ZR
C279,280		Electrolytic 10μF/50V	CE04W1H100MB(SSL)

FL P.W.B. UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks	Q'ty
OTHER PARTS GROUP				
FB221	9LB Z014 21	Beads inductor	BL02RN1-R62	1
FB222~229	9LB M002 88R	Beads inductor	BLM11B471SBPT	8
FB230~232	9LB Z014 21	Beads inductor	BL02RN1-R62	3
FB233	9LB Z014 23R	Beads inductor	Except Europe/ U.K. models	1
JK101	9LE R002 23	6P US pin jack		1
JK102	9LE R002 22	8P US pin jack		1
L101	9L2 1229 52R	Coil LAL 470K		1
L240	9L2 1222 48M	Coil LA 470K		1
LF101,102	9LB J002 11	Low pass filter	Europe/U.K. models only	2
XT201	9LB P010 71	Crystal 12.288MHz		1
CN8B	9LE Y001 09	20P socket		1
CN9B	9LE Y001 04	15P socket		1
CN10B	9LE Y000 95	7P socket		1
PG14	9L2 9590 54	5P PH pin post		1
	9LJ T094 31	DSP P.W.B. Ass'y	U.S.A./Canada models	
	9LJ T094 32	DSP P.W.B. Ass'y	Europe model	
	9LJ T094 33	DSP P.W.B. Ass'y	U.K. model	
	9LJ T094 34	DSP P.W.B. Ass'y	Asia model	

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC451	9LC K014 51R	IC BA15218F	
IC701	9LC K320 51	IC LC75721E	
IC702	9LC W002 02	IC PIC28043	
TR701~703	269 0136 900	Transistor UN2211	
TR704	269 0134 902	Transistor UN2113	
TR705	269 0138 908	Transistor UN2213	
TR706	269 0134 902	Transistor UN2113	
TR707	269 0138 908	Transistor UN2213	
TR708	269 0134 902	Transistor UN2113	
TR709	269 0138 908	Transistor UN2213	
D701~703	9L2 3989 21T	Diode 1SS133	
ZD703	9L2 3481 61M	Zener diode MTZJ9.1A	
LED701~703	9LC H015 01	LED SLR56VC3F	
FL701	9LD D003 01	FL tube	
RESISTORS GROUP			
R451,452		Carbon chip 8.2kohm 1/32W	RMC73M-1F822JR
R453,454		Carbon chip 62kohm 1/32W	RMC73M-1F623JR
R455,456		Carbon chip 15kohm 1/32W	RMC73M-1F153JR
R457,458		Carbon chip 62kohm 1/32W	RMC73M-1F623JR
R463,464		Carbon chip 1.2kohm 1/32W	RMC73M-1F122JR
R465,465		Carbon chip 220ohm 1/32W	RMC73M-1F221JR
R467,468		Carbon chip 11kohm 1/32W	RMC73M-1F113JR
R469,470		Carbon chip 1.8kohm 1/32W	RMC73M-1F182JR
R471,472		Carbon Chip 6.8ohm 1/32W	RMC73M-1F6R8JR
R473,474		Carbon Chip 200ohm 1/32W	RMC73M-1F201JR
R475,476		Carbon chip 39ohm 1/32W	RMC73M-1F390JR
R477,478		Carbon chip 100ohm 1/32W	RMC73M-1F101JR
R701		Carbon chip 1kohm 1/32W	RMC73M-1F102JR
R702		Carbon Chip 200ohm 1/32W	RMC73M-1F201JR
R703		Carbon Chip 300ohm 1/32W	RMC73M-1F301JR
R704		Carbon Chip 510ohm 1/32W	RMC73M-1F511JR
R705		Carbon chip 1kohm 1/32W	RMC73M-1F102JR
R706		Carbon chip 3kohm 1/32W	RMC73M-1F302JR
R707		Carbon chip 1kohm 1/32W	RMC73M-1F102JR
R708		Carbon Chip 200ohm 1/32W	RMC73M-1F201JR
R709		Carbon Chip 300ohm 1/32W	RMC73M-1F301JR
R710		Carbon Chip 510ohm 1/32W	RMC73M-1F511JR
R711		Carbon chip 1kohm 1/32W	RMC73M-1F102JR
R712		Carbon chip 3kohm 1/32W	RMC73M-1F302JR
R713		Carbon chip 1kohm 1/32W	RMC73M-1F102JR
R714		Carbon Chip 200ohm 1/32W	RMC73M-1F201JR
R715		Carbon Chip 300ohm 1/32W	RMC73M-1F301JR
R716		Carbon Chip 510ohm 1/32W	RMC73M-1F511JR
R717		Carbon chip 1kohm 1/32W	RMC73M-1F102JR
R718		Carbon chip 3kohm 1/32W	RMC73M-1F302JR
R719		Carbon chip 1kohm 1/32W	RMC73M-1F102JR
R720		Carbon Chip 200ohm 1/32W	RMC73M-1F201JR
R721		Carbon Chip 300ohm 1/32W	RMC73M-1F301JR
R722		Carbon Chip 510ohm 1/32W	RMC73M-1F511JR
R723		Carbon chip 1kohm 1/32W	RMC73M-1F102JR
R724		Carbon film 33ohm 1/16W	RD14S1J330JR
R725		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R726,727		Carbon chip 680ohm 1/32W	RMC73M-1F681JR
R728,729		Carbon chip 47kohm 1/32W	RMC73M-1F473JR
R730		Carbon chip 390ohm 1/32W	RMC73M-1F391JR
R731,732		Carbon chip 100ohm 1/32W	RMC73M-1F101JR
R733		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R734~736		Carbon chip 47kohm 1/32W	RMC73M-1F473JR
R737		Carbon chip 10kohm 1/32W	RMC73M-1F103JR
R738		Carbon chip 3kohm 1/32W	RMC73M-1F302JR
VR452	9LA Y006 82	Variable resistor 30kohm	
VR453	9LA Y006 81	Variable resistor 10kohm	
CAPACITORS GROUP			
C451,452		Electrolytic 10µF/50V	CE04W1H100MB(SSL)
C453~456		Ceramic chip 100pF/50V	CK73MSL1H101JR
C457,458		Electrolytic 47µF/25V	CE04W1E470MB(SSL)
C459,460		Mylar film 2200pF/50V	CQ92M1H222KB
C461,462		Mylar film 0.18µF/50V	CQ92M1H184KB
C463,464		Electrolytic 1µF/50V	CE04W1H010MB(SSL)
C467,468		Mylar film 0.012µF/50V	CQ92M1H123KB
C469,470		Mylar film 0.056µF/50V	CQ92M1H563KB
C471,472		Electrolytic 0.33µF/50V	CE04W1HR33MB(SRA)
C473,474		Ceramic chip 0.022µF/50V	CK73MF1H223ZR
C701~703		Ceramic chip 0.01µF/50V	CK73MF1H103ZR
C704		Electrolytic 100µF/10V	CE04W1A101MB(SSL)
C705		Ceramic chip 0.1µF/25V	CK73MF1E104ZR
C706		Electrolytic 100µF/50V	CE04W1H101MB(SSL)
C707		Ceramic chip 0.01µF/50V	CK73MF1H103ZR
C708	9L0 8000 64R	Electrolytic 330µF/6.3V	CE04W0J331MB(SSL)
C709		Ceramic chip 30pF/50V	CK73MSL1H300JR
C710		Ceramic chip 1000pF/50V	CK73MB1H102KR

Ref. No.	Part No.	Part Name	Remarks	Q'ty
OTHER PARTS GROUP				
FB701	9LB Z014 21	Beads inductor	BL02RN1-R62	1
S702~723	9LF E002 21R	Tact switch		22
S725,726	9LF E002 21R	Tact switch		2
RE724	9LF H001 51	Encoder		1
CN1A	9LE D008 02	7P FFC connector (L)		1
CN2A	9LE D003 22	17P FFC connector		1
CN3	9LE F068 99	2(3)P KR-DA connector cord		1
	9LJ T094 41	FL P.W.B. Ass'y	U.S.A./Canada models	
	9LJ T094 42	FL P.W.B. Ass'y	Europe model	
	9LJ T094 43	FL P.W.B. Ass'y	U.K. model	
	9LJ T094 44	FL P.W.B. Ass'y	Asia model	

EXPLODED VIEW

WARNING:
Parts marked with this symbol ⚠ ▭ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

U.K.model only (EC plug)

Europe &U.K. model only

Asia model

PARTS LIST OF EXPLODED VIEW

Ref. No.	Part No.	Part Name	Remarks	Q'ty
1	Note	Main P.W.B. Ass'y		1
1-1		Main P.W.B. unit		
1-2		Digital in P.W.B. unit		
1-3		SP jack P.W.B. unit		
1-4		Video P.W.B. unit		
1-5		SW. H/P P.W.B. unit		
1-6		Power trans(2)P.W.B. unit		
1-7		Protect P.W.B. unit		
2	Note	DSP P.W.B. Ass'y		1
2-1		DSP P.W.B. unit		
3	Note	Tuner P.W.B. Ass'y		1
3-1		Tuner P.W.B. unit		
3-2		Surround P.W.B. unit		
3-3		Power supply P.W.B. unit		
3-4		Power trans(1)P.W.B. unit		
3-5		AC outlet P.W.B. unit	U.S.A./Canada models only	
3-6		Power SW.(2) P.W.B. unit	U.S.A./Canada models only	
3-7		Power SW.(1) P.W.B. unit	Except U.S.A./ Canada models	
3-8		Voltage selector SW. P.W.B. unit	Asia model only	
4	Note	FL P.W.B. Ass'y		1
4-1		FL P.W.B. unit		
4-2		Tone P.W.B. unit		
5	Note	Front panel		1
6	9LP H066 71	Inner panel	Black model	1
6	9LP H066 72	Inner panel	Gold model	1
7	9LP H066 81	Clear panel		1
8	9LP C036 31	Function button	Black model	1
8	9LP C036 32	Function button	Gold model	1
9	9LP C036 41	Surround button	Black model	1
9	9LP C036 42	Surround button	Gold model	1
10	9LP C017 81	Power button	Black model	1
10	9LP C017 82	Power button	Gold model	1
11	9LP C017 91	Speaker button	Black model	2
11	9LP C017 92	Speaker button	Gold model	2
12	9LP C036 51	Vol. knob	Black model	1
12	9LP C036 52	Vol. knob	Gold model	1
13	9LP C017 41	Bass knob	Black model	2
13	9LP C017 42	Bass knob	Gold model	2
14	9LQ A004 82	Bottom chassis		1
15	9LM B004 01	Heat sink		1
16	9LM L002 51	Mini P.W.B. post		4
17	9LM L004 31	P.W.B. support(L)		3
18	Note	Rear plate		1
19	9LN X039 61	Phono earth terminal		1
20	9LQ J002 11	Foot		4
21	9LM S002 11	Felt		4
22	9LQ A014 41	Top cover	Black model	1
22	9LQ A004 99	Top cover	Gold model	1
★ 23	9L3 9737 31	Bar lok tie		Note
24	9LN A083 11	P.W.B. bracket(A)		2
25	9LN A083 21	P.W.B. bracket(B)		1
⚠ 27	Note	Power trans		1
⚠ 28	Note	AC cord		1
29	9LE K002 34	7P FFC cable(L=90)	W25	1
30	9LE K001 03	17P FFC cable(L=60)	W26	1
31	9LM F001 73	Insulation sheet		10
32	273 0430 003	Transistor 2SC4278(E)	TR407,513,514, 613,614	5
33	271 0276 009	Transistor 2SA1633(E)	TR408,515,516, 615,616	5
⚠ 34	Note	Fuse	F901	1
⚠★ 35	Note	Fuse	F902	1
⚠★ 36	Note	Fuse	F903	1
⚠★ 37	Note	Fuse	F904	1
⚠★ 38	Note	Fuse	F905	1
⚠ 39	9LE P000 62	EC plug	U.K. model only	1
40	9LN A206 22	P.W.B. protector	Except U.S.A./ Canada models	1
★ 41	9LM L003 41	Push rivet	Except U.S.A./ Canada models	6
★ 42	9L4 9485 11	Fuse caution label	U.S.A./Canada models only	1
★ 43	9L4 9303 12	Number sheet		1
★ 44	9LQ T008 82	Preset label	Asia model only	1
★ 45	9L4 9313 07	Origin label		1

SCREWS & NUTS

101	9L8 6914 10	Screw 3×10 BT bind		33
102	9L8 6994 08	Screw 3×8 BT bind B		3
103	9L8 6994 10	Screw 3×10 BT bind B		Note
104	9L8 6994 14	Screw 3×14 BT bind B		7
105	9L8 6794 08	Screw 3×8 DT bind B		4
106	9L8 6794 06	Screw 3×6 DT bind B		9
107	9L8 6796 06	Screw 4×6 DT bind B		8
108	9LM K002 46	Nut M9×0.75		3
109	9LM K003 21	Nut M12×1		1
110	9L8 6993 08	Screw 2.6×8 BT bind B	Asia model only	4

PACKING & ACCESSORIES (Not included EXPLODED VIEW.)

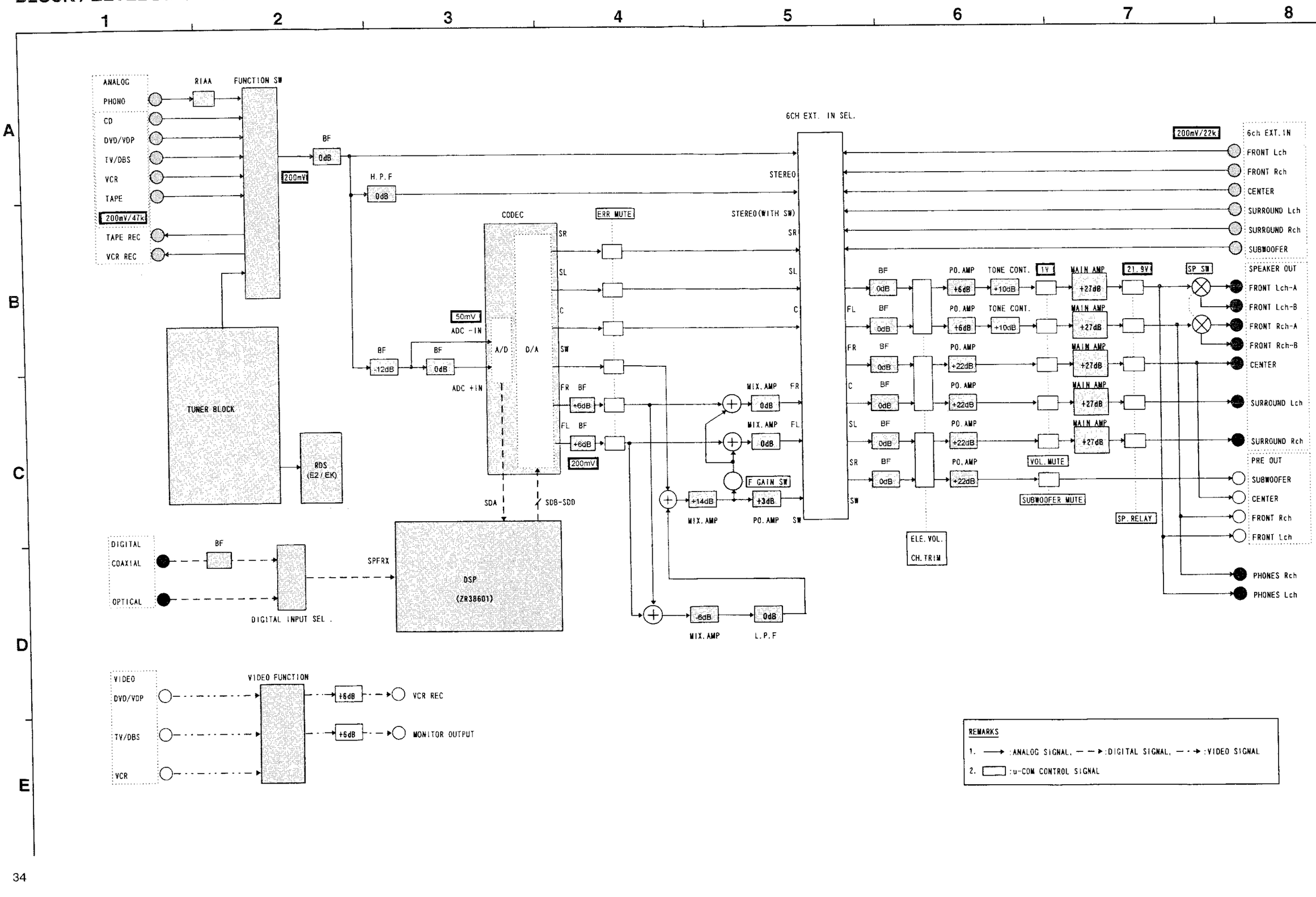
201	Note	Pory sack	for accessories	1
202	9L2 7593 41	AM loop antenna		1
203	9LE F021 33	FM antenna connector		1
204	9LE Y002 81	Edison plug adapter	Asia model only	1
205	Note	Instruction manual		1
206	9LH L011 61	Remocon(RC-859)		1
207	Note	Carton box		1
208	9LS P056 31	Cushion		2

ADDENDUM PARTS LIST

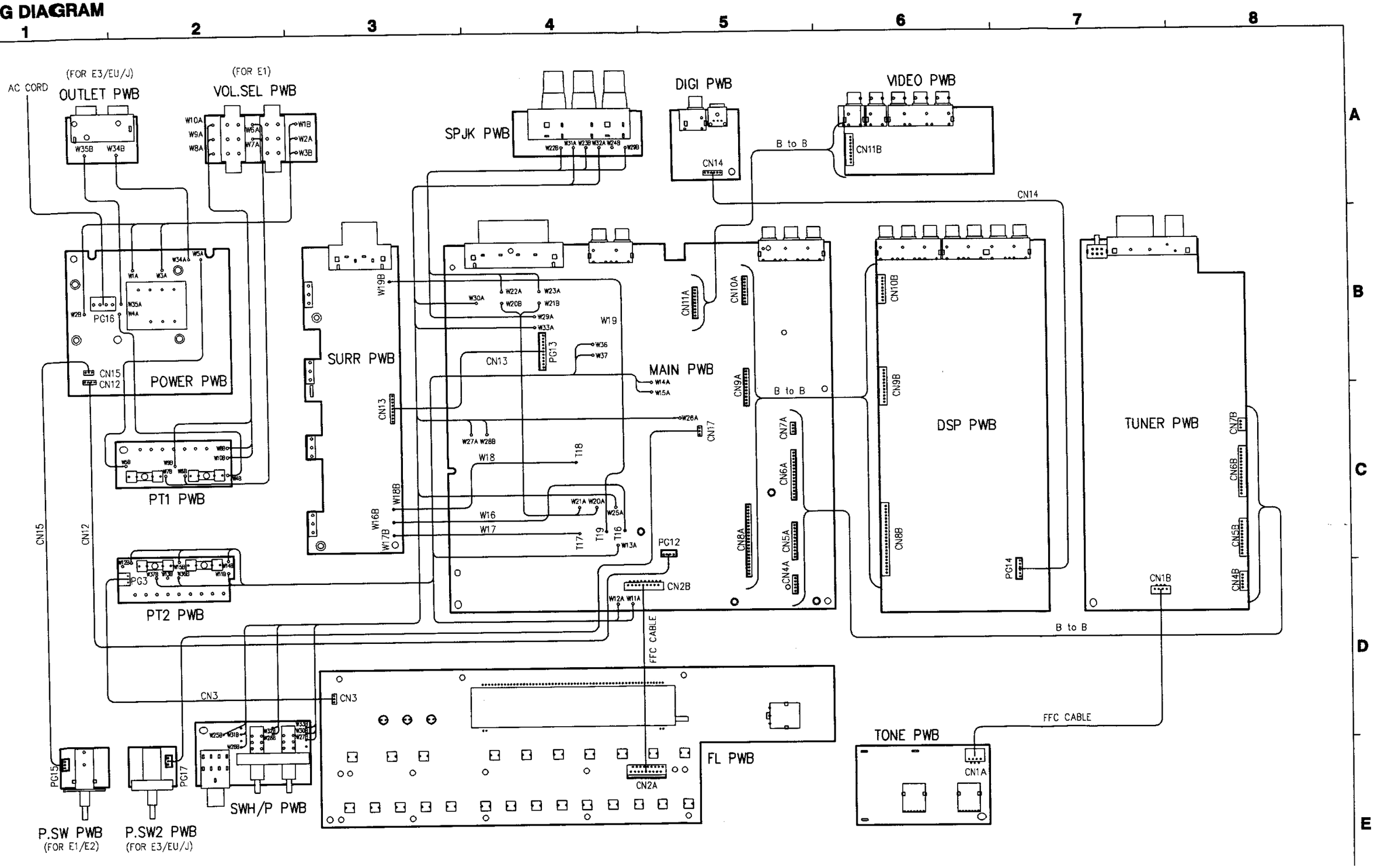
PARTS LIST OF EXPLODED VIEW

Ref. No.	Part Name	U.S.A./Canada		Europe		U.K.		Asia	
		Part No.	Q'ty	Part No.	Q'ty	Part No.	Q'ty	Part No.	Q'ty
1	Main P.W.B. Ass'y	9LJ T094 61		9LJ T094 62		9LJ T094 63		9LJ T094 64	
2	DSP P.W.B. Ass'y	9LJ T094 31		9LJ T094 32		9LJ T094 33		9LJ T094 34	
3	Tuner P.W.B. Ass'y	9LJ T094 51		9LJ T094 52		9LJ T094 53		9LJ T094 54	
4	FL P.W.B. Ass'y	9LJ T094 41		9LJ T094 42		9LJ T094 43		9LJ T094 44	
5	Front panel(Black)	9LP H066 61		9LP H066 62		9LP H066 62		9LP H066 67	
5	Front panel(Gold)	—		9LP H066 64		—		9LP H066 66	
18	Rear plate	9LQ A014 51		9LQ A014 52		9LQ A014 52		9LQ A014 53	
23	Bar lok tie	9L3 9737 31	8	9L3 9737 31	8	9L3 9737 31	8	9L3 9737 31	9
⚠ 27	Power trans	9LB T013 51		9LB T013 52		9LB T013 52		9LB T013 53	
⚠ 28	AC cord	9LE V007 01		9LE V005 86		9LE V005 86		9LE V005 86	
⚠ 34	Fuse 5A 125V (F901)	9LF N002 33		—		—		—	
⚠ 35	Fuse 5A 125V (F902)	9LF N002 33		—		—		—	
⚠ 35	Fuse T1.6A (F902)	—		9LF N002 28		9LF N002 28		—	
⚠ 35	Fuse T5A (F902)	—		—		—		9LF N002 23	
⚠ 36	Fuse T2.5A (F903)	—		—		—		9LF N002 22	
⚠ 37	Fuse 1.6A 250V (F904)	9LF N002 34		—		—		—	
⚠ 37	Fuse T1A (F904)	—		9LF N002 24		9LF N002 24		9LF N002 24	
⚠ 38	Fuse 1.6A 250V (F905)	9LF N002 34		—		—		—	
⚠ 38	Fuse T1A (F905)	—		9LF N002 24		9LF N002 24		9LF N002 24	
SCREWS & NUTS									
103	Screw 3x10 BT bind B	9L8 6994 10	33	9L8 6994 10	31	9L8 6994 10	31	9L8 6994 10	31
PACKING & ACCESSORIES (Not included EXPLODED VIEW.)									
201	Pory sack	9L3 6402 14W		9L3 6402 14W		9L3 6402 13W		9L3 6402 14W	
202	Instruction manual	9LQ R291 31		9LQ R291 32		9LQ R291 32		9LQ R291 33	
207	Carton box	9LS G090 41		9LS G090 42		9LS G090 42		9LS G090 43	

BLOCK / LEVEL DIAGRAM



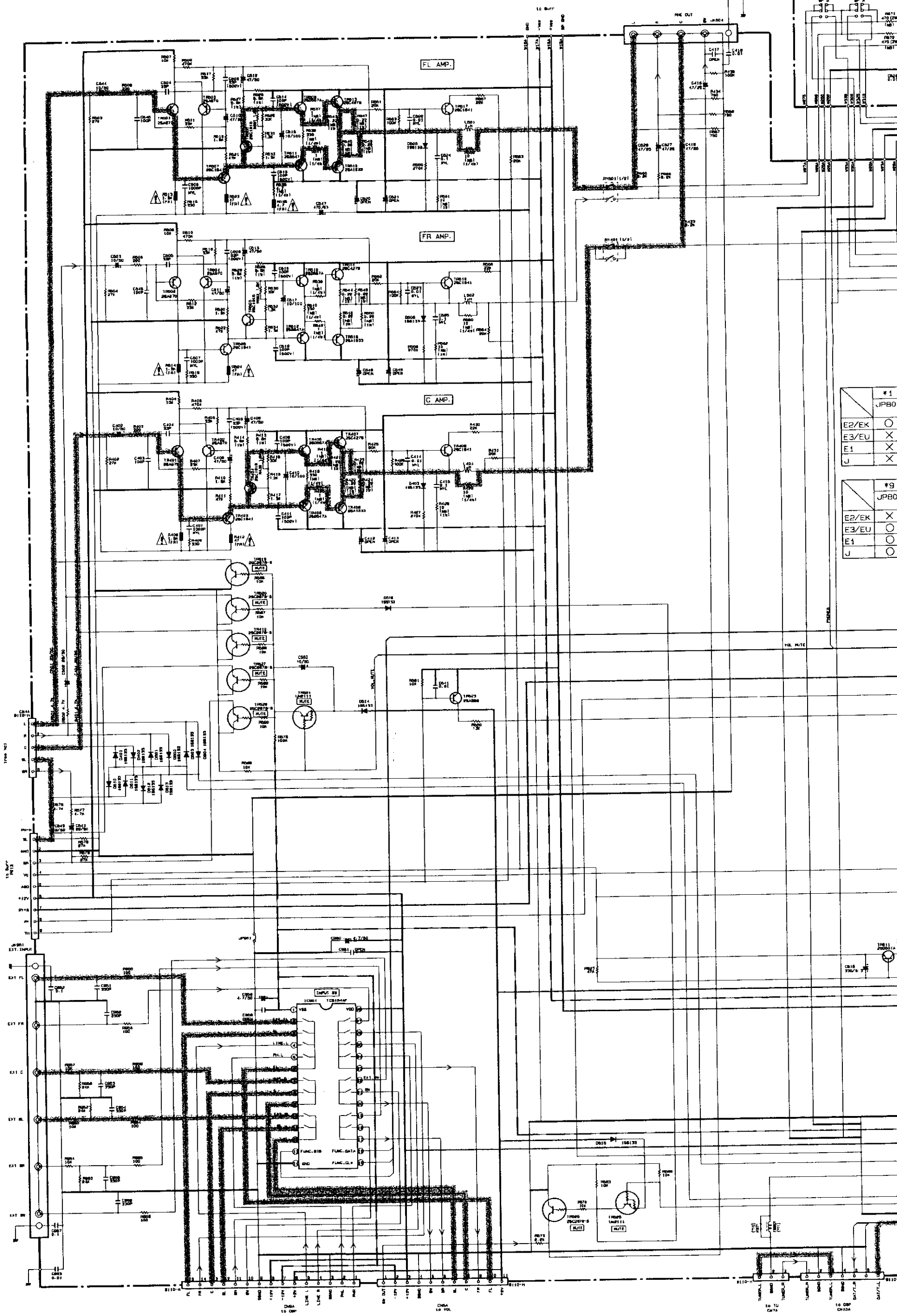
WIRING DIAGRAM



NOTE:

SCHEMATIC DIAGRAMS (1/6)

1 2 3 4 5 6



	*1 JP801	*2 JP802	*3 R853	*4 R854	*5 R868	*6 R869	*7 CN17 PG17	*8 S904
E2/EK	○	○	JP	×	×	×	×	×
E3/EU	×	×	×	JP	○	×	○	○
E1	×	○	10K	20K	×	○	×	×
J	×	×	10K	2K	○	×	○	○

	*9 JP803	*10 K871	*11 FB801
E2/EK	×	○	—
E3/EU	○	—	○
E1	○	—	○
J	○	○	—

SYSTEM MICON

NOTICE
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING:
Parts marked with this symbol ⚠ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is defective.

WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

SCHE

*2	*3	*4	*5	*6	*7	*8
R802	R853	R854	R868	R869	CN17 PG17	S904
○	JP	×	×	×	×	×
×	×	JP	○	×	○	○
○	10K	20K	×	○	×	×
×	10K	2K	○	×	○	○

*10	*11					
C871	FB801					
○	—					
—	○					
—	○					
○	—					

SYSTEM MICON

NOTICE
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING:
Parts marked with this symbol ⚠ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

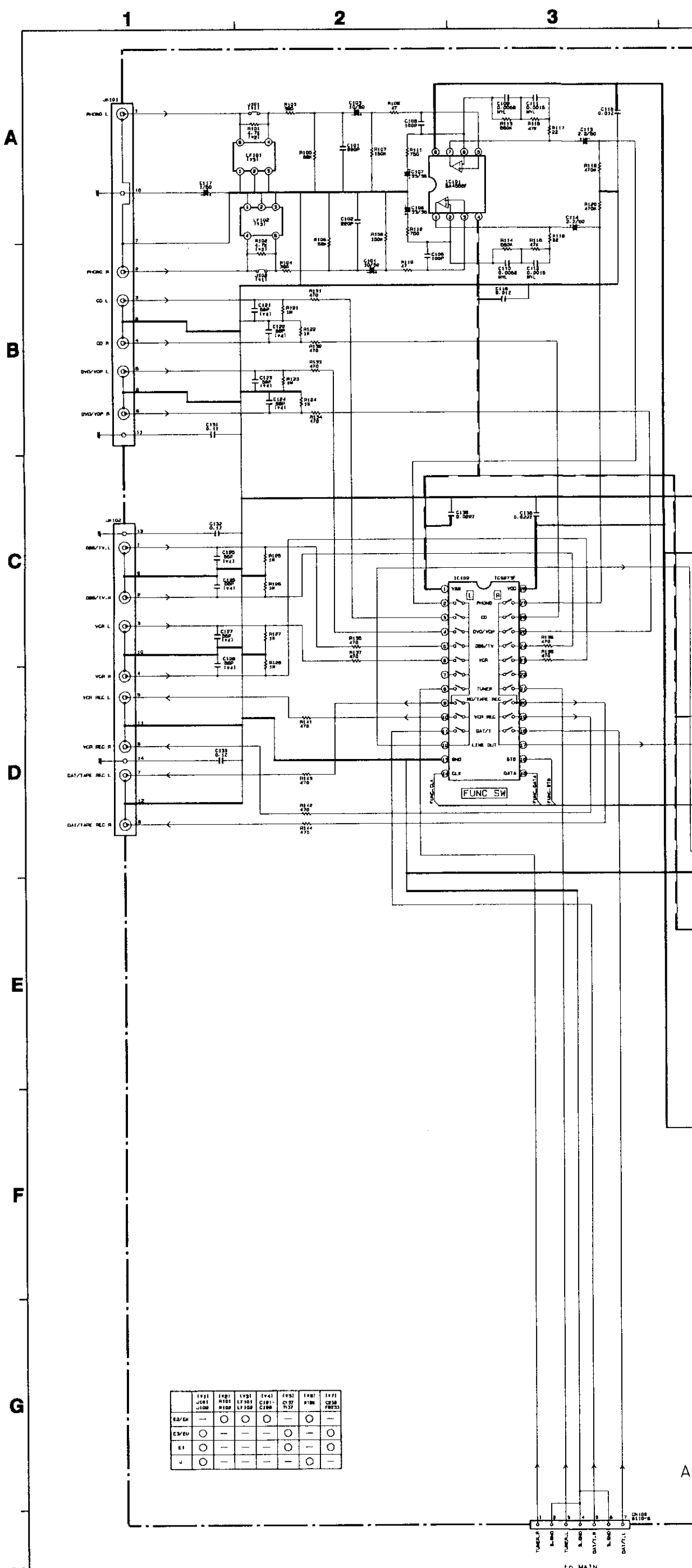
CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is defective.

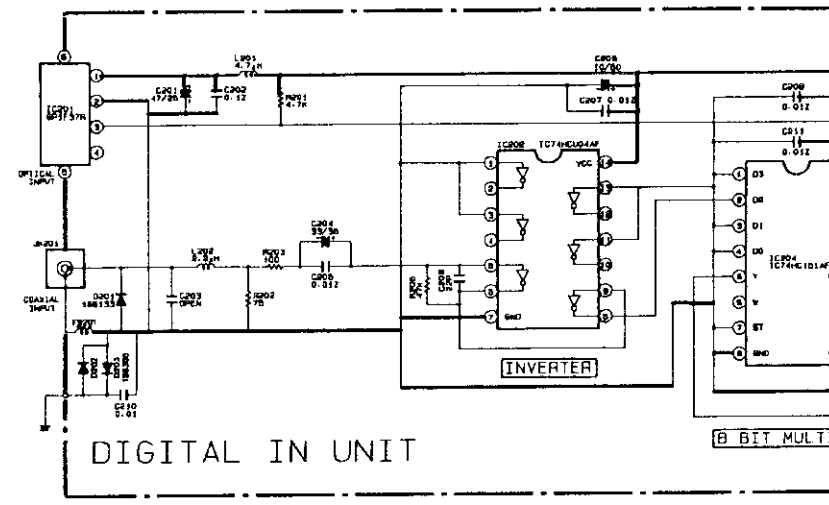
WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

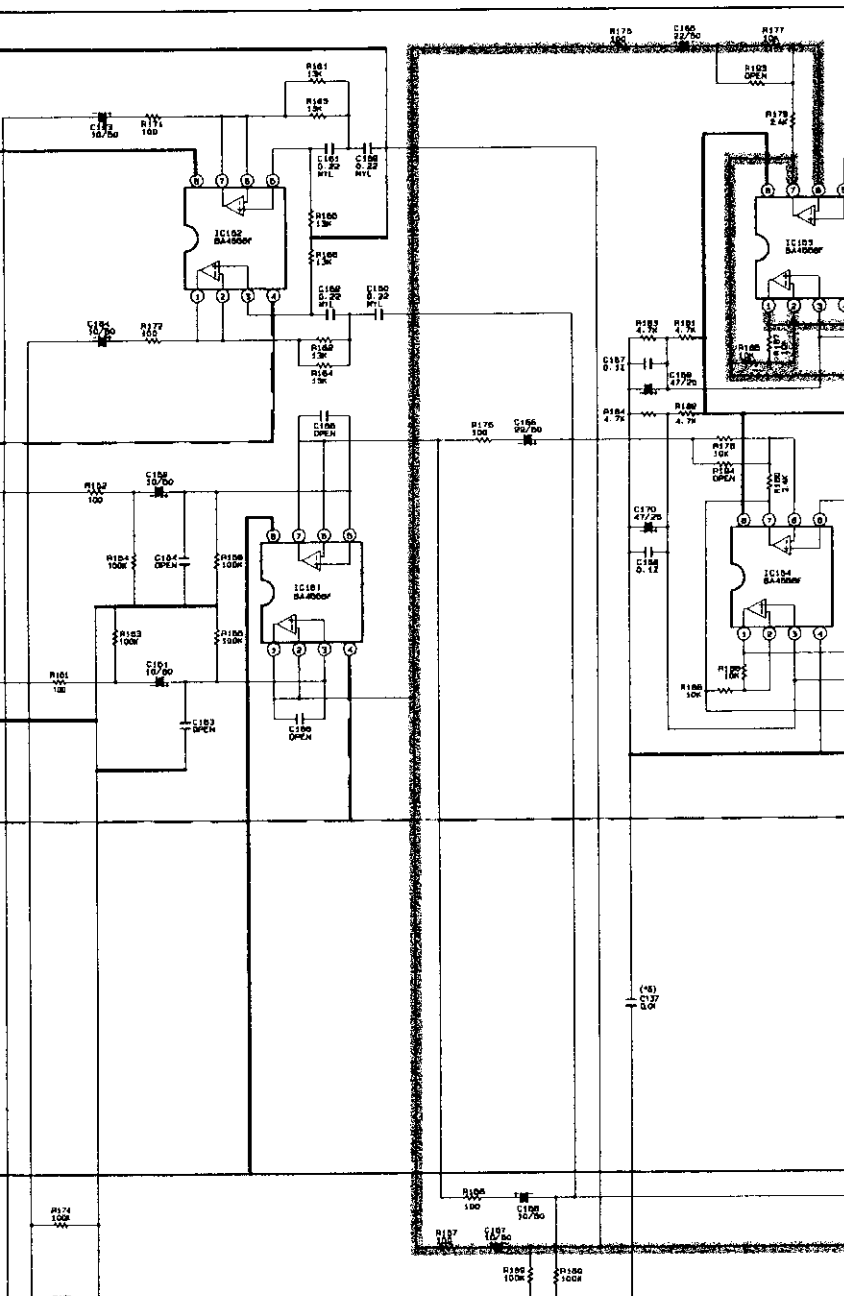
+B LINE
-B LINE
SIGNAL LINE

SCHEMATIC DIAGRAMS (1/6)
MAIN UNIT

SCHEMATIC DIAGRAMS (2/6)







	(1g) J101 J102	(2g) R101 R102	(3g) LF101 LF102	(4g) C101~ C108	(5g) C137 T137	(6g) R186	(7g) C238 FB233
E2/EK	—	O	O	O	—	O	—
E3/EU	O	—	—	—	O	—	O
E1	O	—	—	—	O	—	O
J	O	—	—	—	—	O	—

AUDIO INPUT/DSP UNIT

NOTICE
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING:
Parts marked with this symbol ⚠ have criti
Use ONLY replacement parts recommended by

CAUTION:
Before returning the unit to the customer, mak
leakage current check or (2) a line to chassis
current exceeds 0.5 milliamps, or if the resista
of the power cord is less than 460 kohms, the

WARNING:
DO NOT return the unit to the customer until
corrected.

4 5 6 7 8 9

DIGITAL IN UNIT

INVERTER

8 BIT MULTIPLEXER

Digital Audio Processor

CODEC

INPUT/DSP UNIT

to MAIN

CE VALUES IN OHM, k=1,000 OHM M=1,000,000 OHM
NCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
E AND CURRENT ARE MEASURED AT NO SIGNAL INPUT

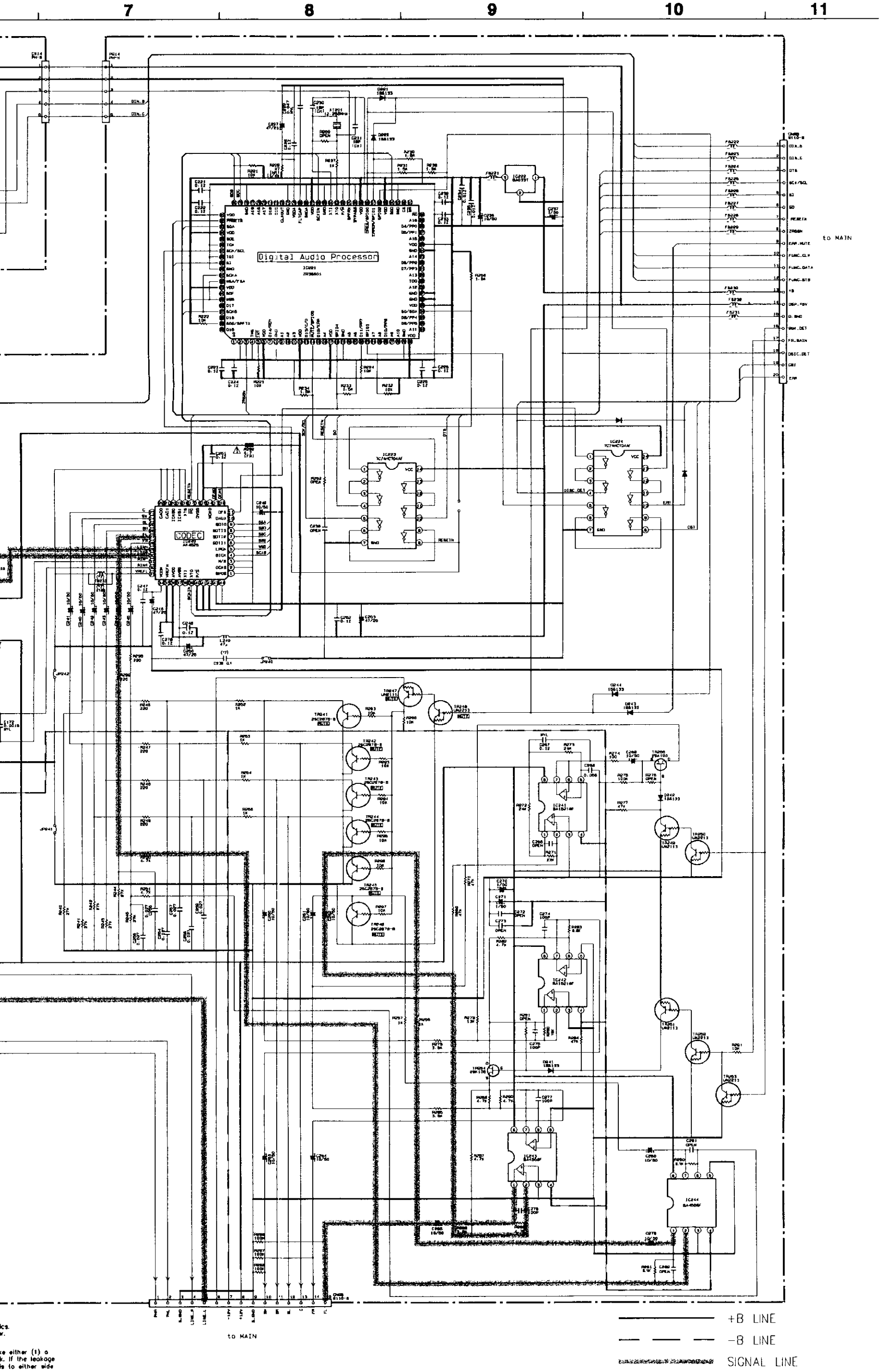
PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR

WARNING:
Parts marked with this symbol ⚠ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is defective.

WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

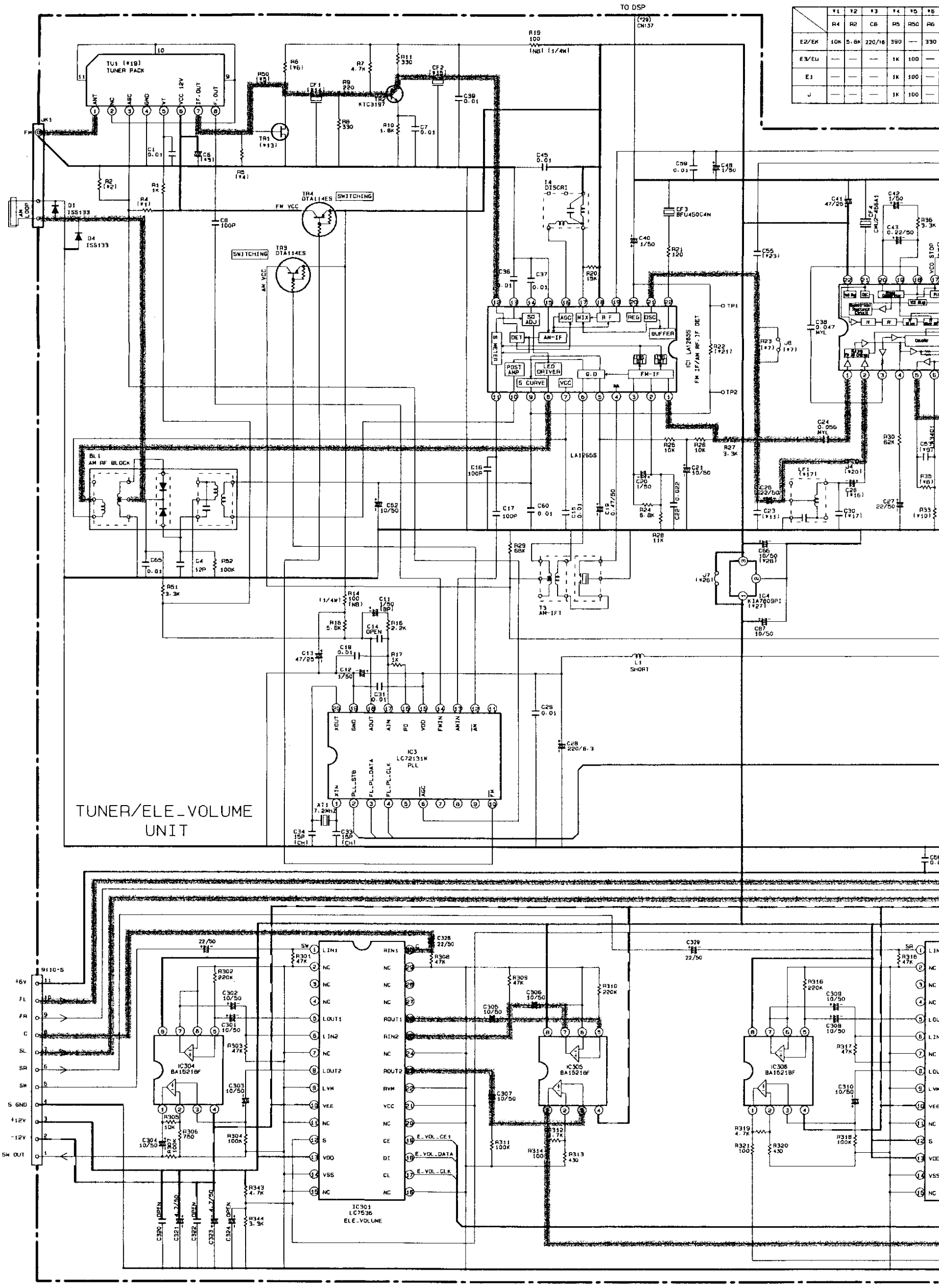
SCHEMATIC DIAGRAM
DSP UNIT



SCHEMATIC DIAGRAMS (2/6)
DSP UNIT

SCHEMATIC DIAGRAMS (3/6)

1 2 3 4 5



	*1	*2	*3	*4	*5	*6
	R4	R2	C6	R5	R50	R6
E2/EK	10K	5.6K	220/16	390	—	330
E3/EU	—	—	—	1K	100	—
E1	—	—	—	1K	100	—
J	—	—	—	1K	100	—

NOTICE

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

	*1	*2	*3	*4	*5	*6	*7	*8	*9	*10	*11	*12	*13	*14	*15	*16	*17	*18	*19	*20	*21	*22	*23	*25	*26	*27	*28	*29
	R4	R2	CB	R5	R50	R6	R23	R32 R35	C53 C54	R33 R34	C29	R41 R42	TR1	CF1	CF2	C26	LF1 C301560P1	LF2 LF3	TU1	J4.5.6	R22	C61 C62	C56	S1	J7	IC4	C66	CN137
E2/EK	10K	5.6K	220/16	390	—	330	1.2K	150K	330P	180K	—	4.7K	2SK161	SFE10.7 MS2-A	SFT10.7 MS2-A	22/50	○	○	4-TUNE	——	39K	0.0047	120P	—	○	—	—	—
E3/EU	—	—	—	1K	100	—	J8	100K	680P	120K	100P	6.8K	——	SFE10.7 MA-B	SFE10.7 MS2G-A	——	—	—	3-TUNE	JUMPER	18K	——	—	—	○	—	—	○
E1	—	—	—	1K	100	—	J8	100K	680P	120K	100P	6.8K	——	SFE10.7 MA-B	SFE10.7 MS2G-A	——	—	—	3-TUNE	JUMPER	39K	——	—	○	○	—	—	○
J	—	—	—	1K	100	—	J8	150K	680P	180K	100P	6.8K	——	SFE10.7 MA-B	SFE10.7 MS2G-A	——	—	—	3-TUNE	JUMPER	18K	——	—	—	—	○	○	—

TO DSP (*29) CN137

to MAIN

TUNERIR | S GND | TUNERIL — 9110-S

SWITCHING

ST/MONO

IC1 LA1265S FM IF/AM RF IF DET

IC2 LA3401

IC91 SAA6579

IC92 LC7074M

XT92 CST4.0MGM

MUTE

SWITCHING

STEREO

TUNED

TU_MUTE

IC4 K1A7809PI (*27)

IC306 BA15218F

IC307 BA15218F

IC308 BA15218F

IC309 BA15218F

IC302 LC7536 ELE_VOLUME

IC303 LC7536 ELE_VOLUME

E_VOL_CE1 | E_VOL_DATA | E_VOL_CLK

E_VOL_CE2 | E_VOL_DATA | E_VOL_CLK

L1 SHORT

D5 1N4001

D2 1SS133 | D3 1SS133

D91 1SS133

TICE

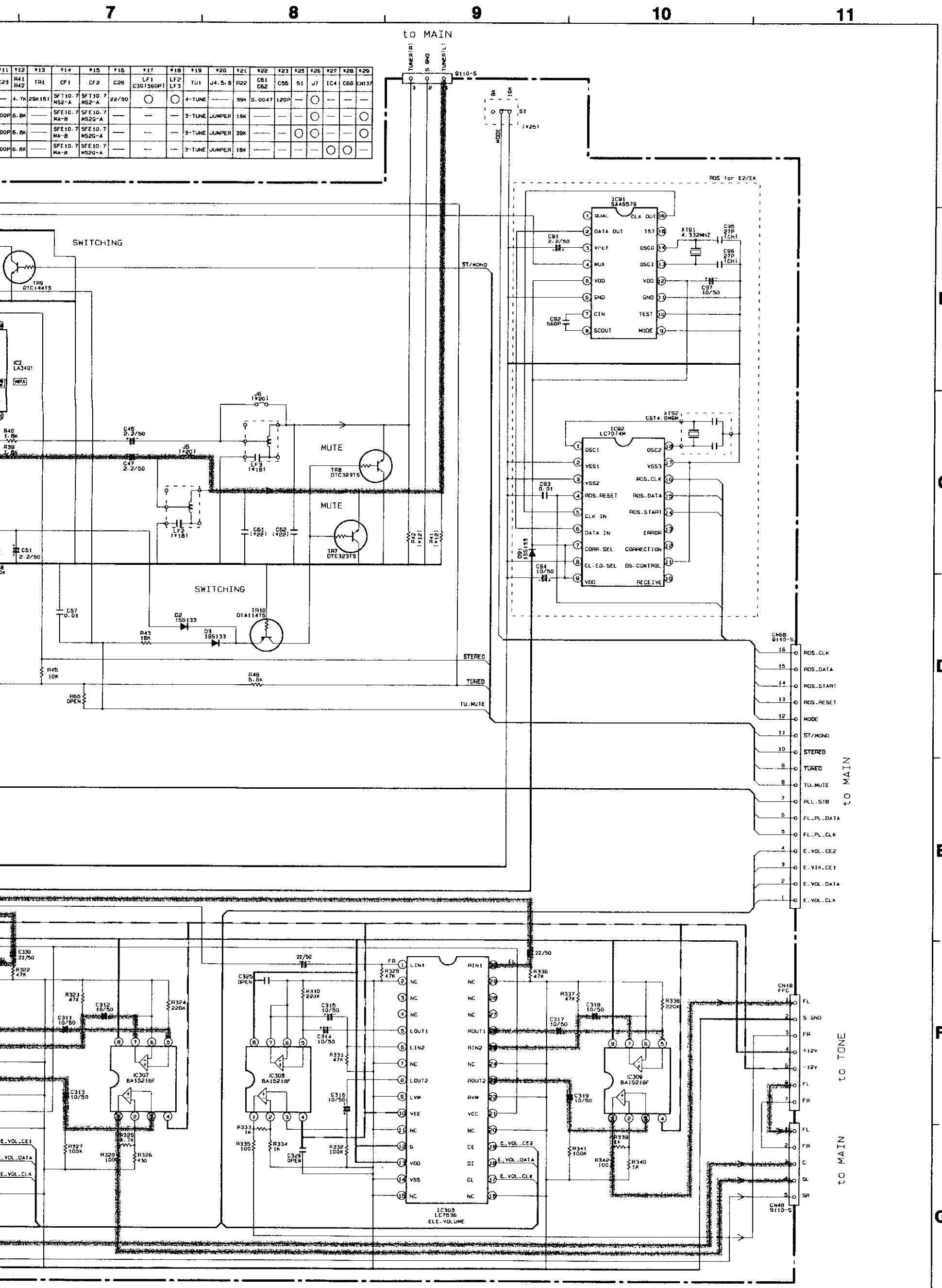
RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
H VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT
DITION.
UIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR
CE.

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is detective.

WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

SCHE



RNING:
s marked with this symbol ⚠ ▨ have critical characteristics.
ONLY replacement parts recommended by the manufacturer.

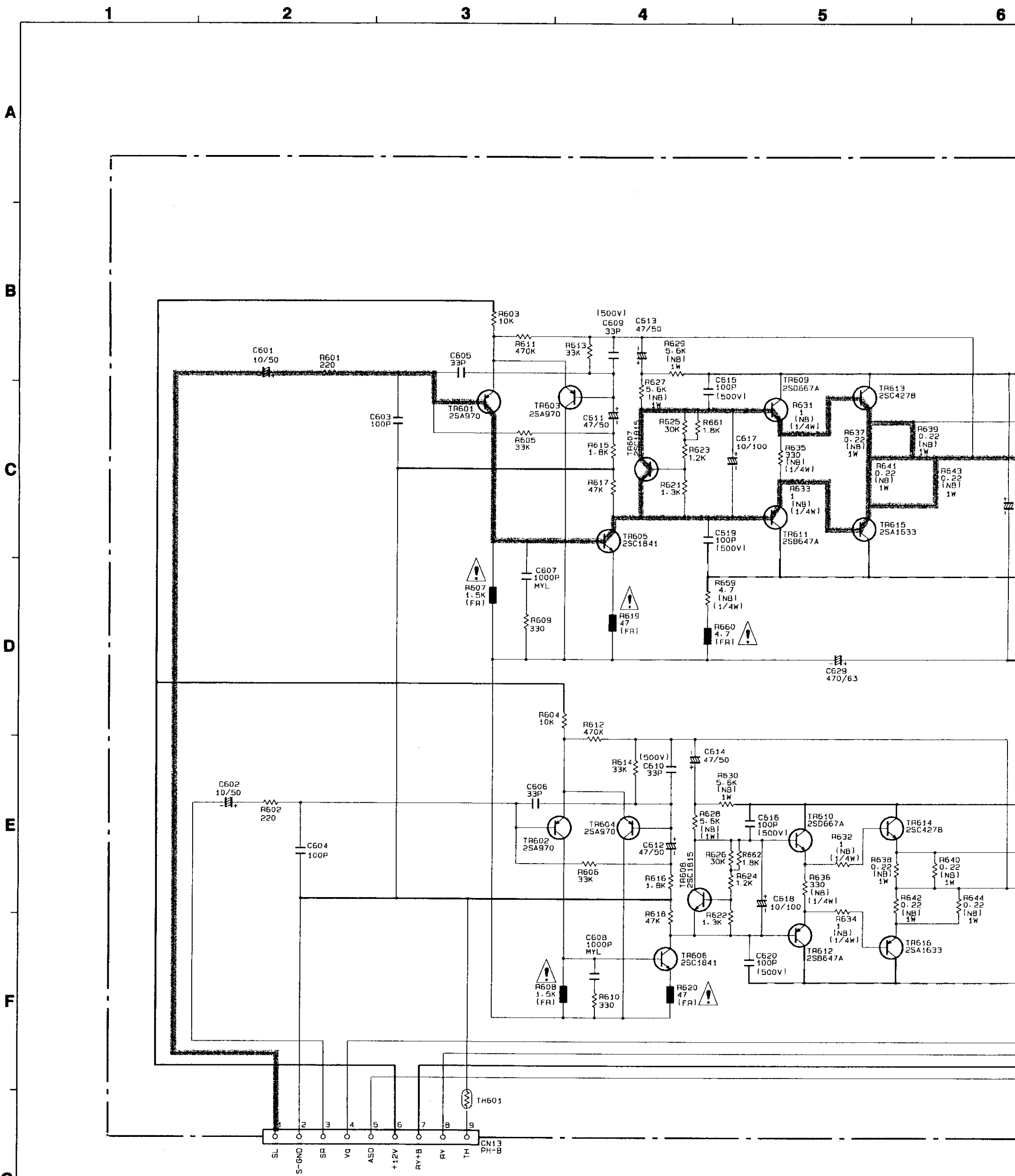
UTION:
re returning the unit to the customer, make sure you make either (1) a age current check or (2) a line to chassis resistance check. If the leakage ent exceeds 0.5 milliamps, or if the resistance from chassis to either side he power cord is less than 460 kohms, the unit is detective.

RNING:
NOT return the unit to the customer until the problem is located and ected.

+B LINE
−B LINE
SIGNAL LINE

SCHEMATIC DIAGRAMS (3/6)
TUNER / VOLUME UNIT

SCHEMATIC DIAGRAMS (4/6)

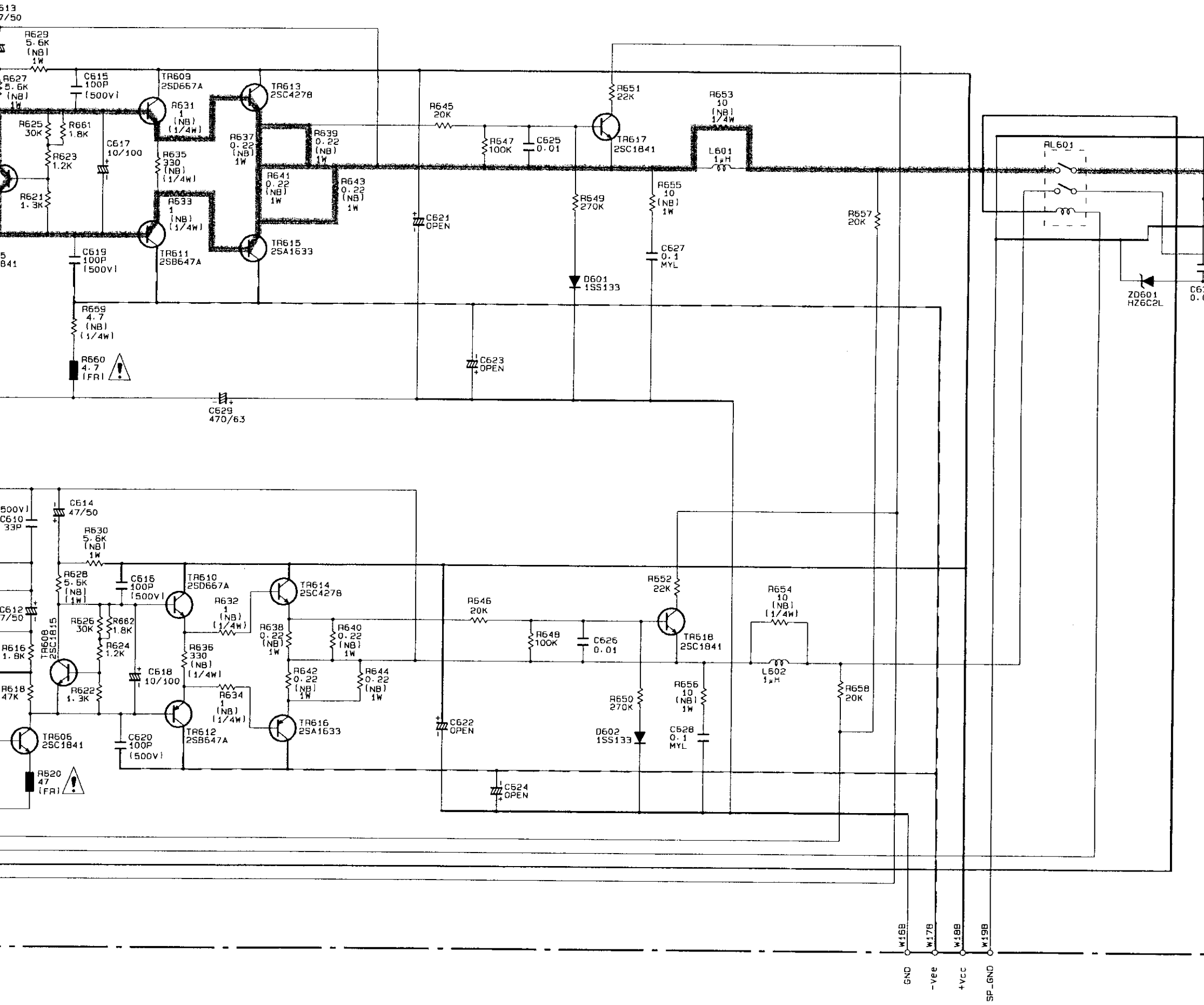


NOTICE

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

4 5 6 7 8 9

SURROUND MAIN AMP UNIT



NOTICE

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING:

Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:

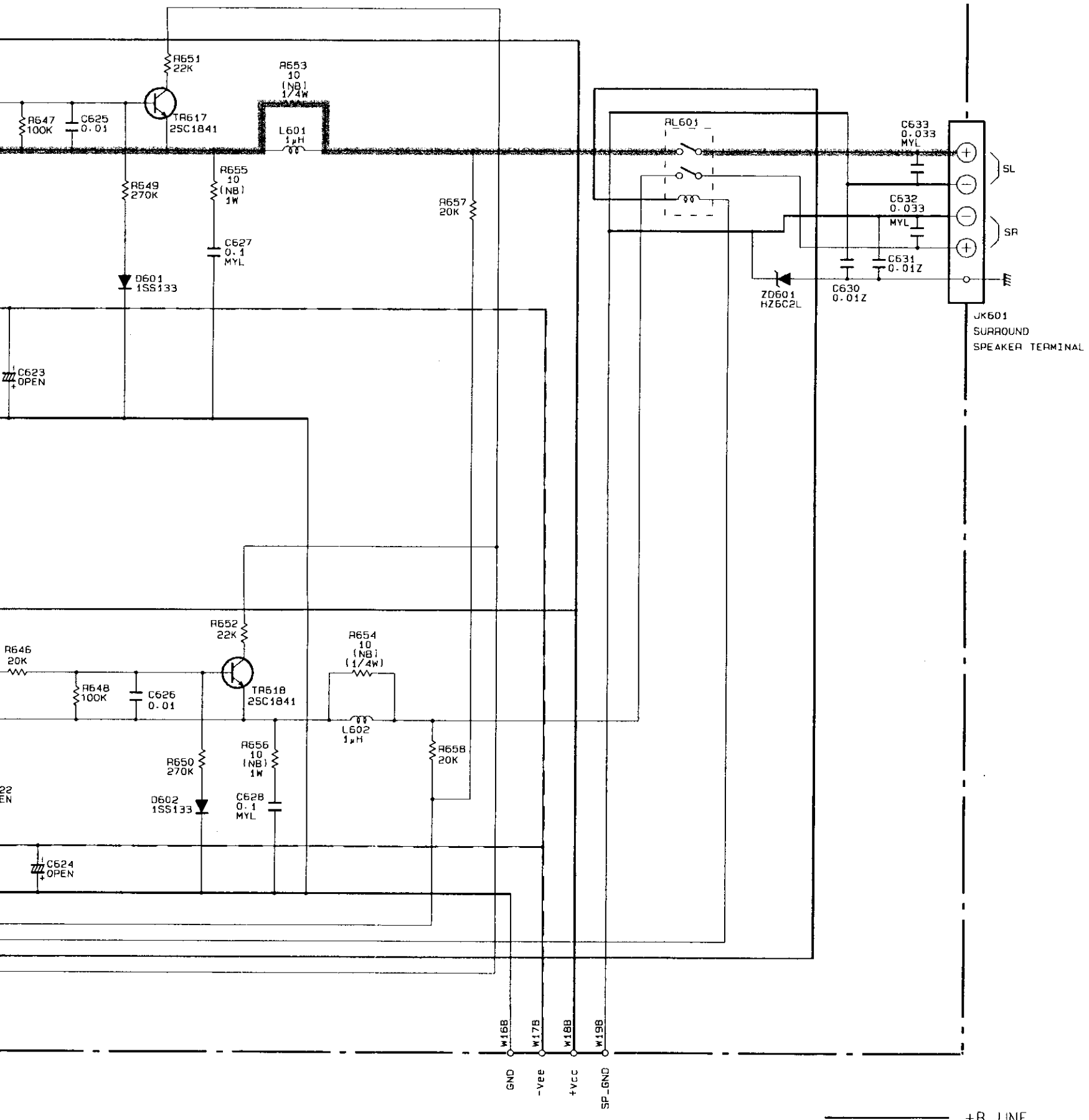
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is detective.

WARNING:

DO NOT return the unit to the customer until the problem is located and corrected.

7 8 9 10 11

SURROUND MAIN AMP UNIT



+B LINE

-B LINE

SIGNAL LINE

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

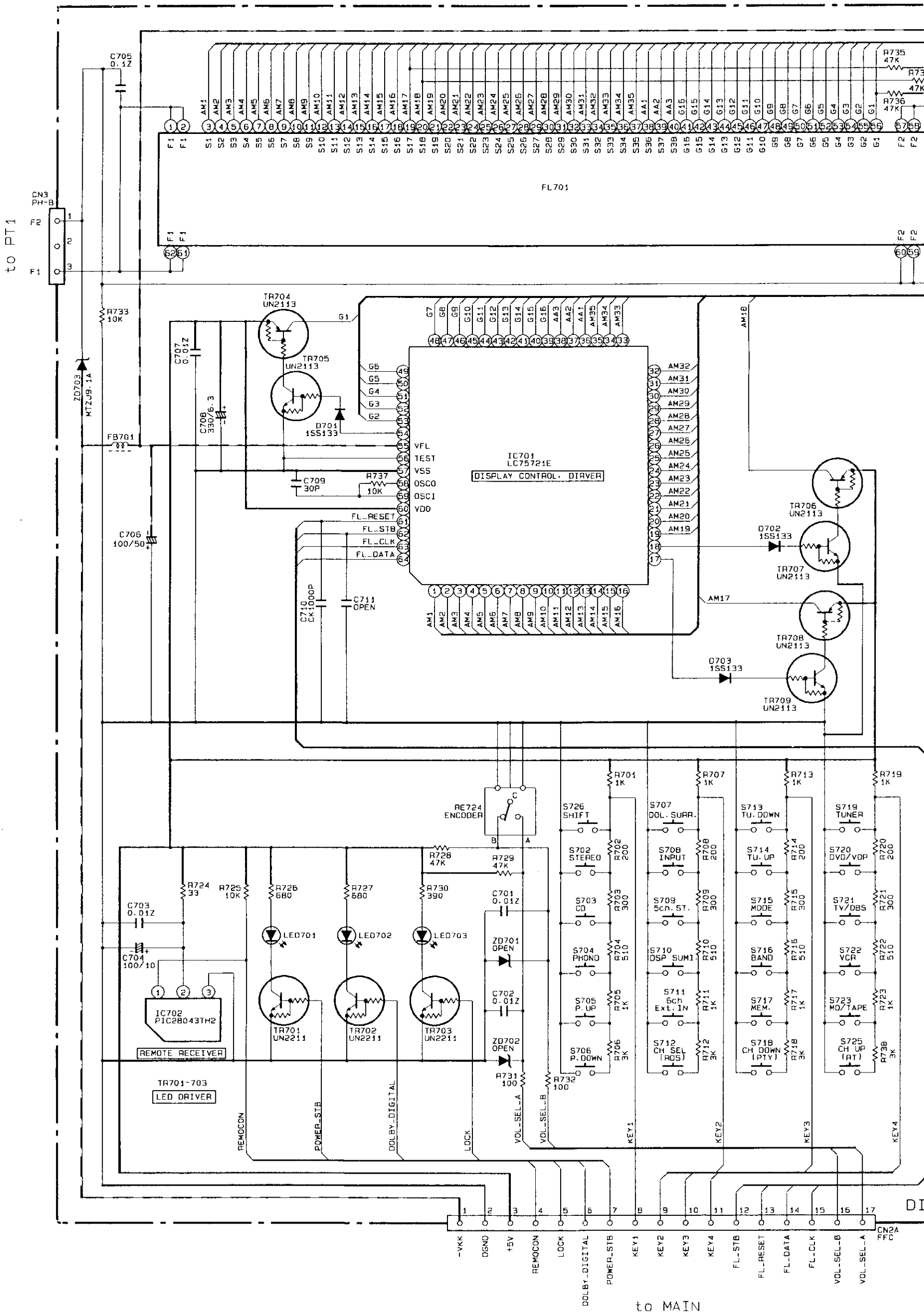
CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is detective.

WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

SCHEMATIC DIAGRAMS (4/6)
SURROUND UNIT

SCHEMATIC DIAGRAMS (5/6)

1 2 3 4 5



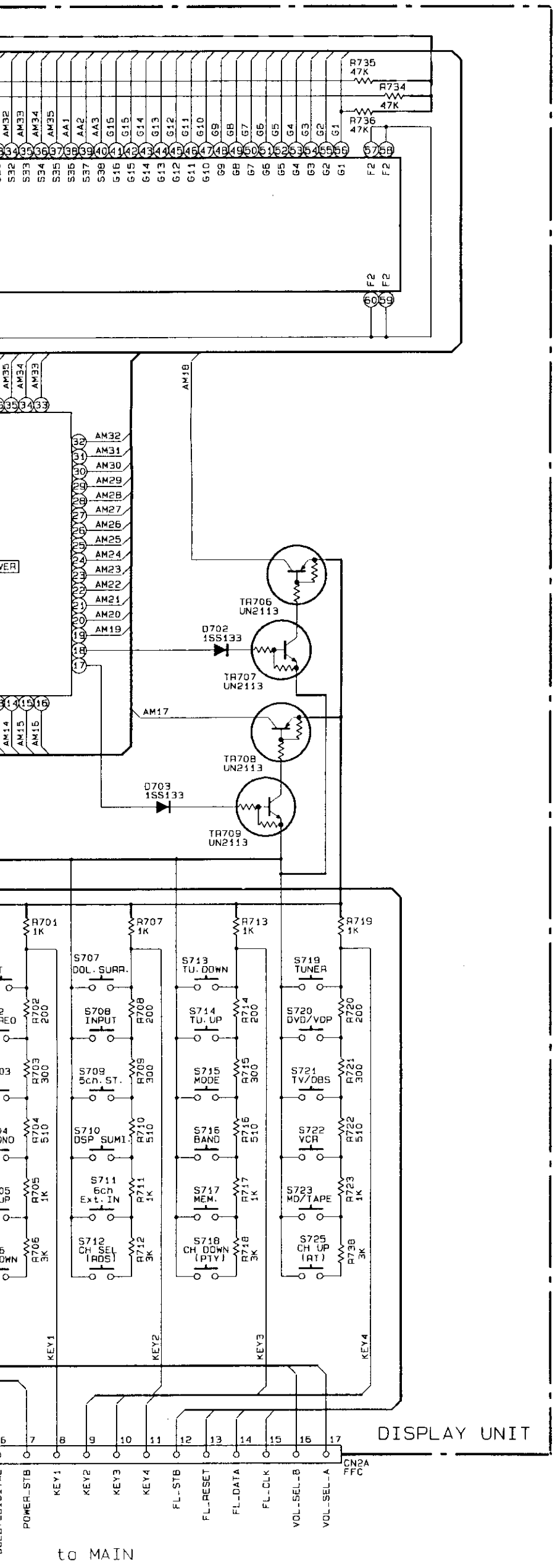
NOTICE

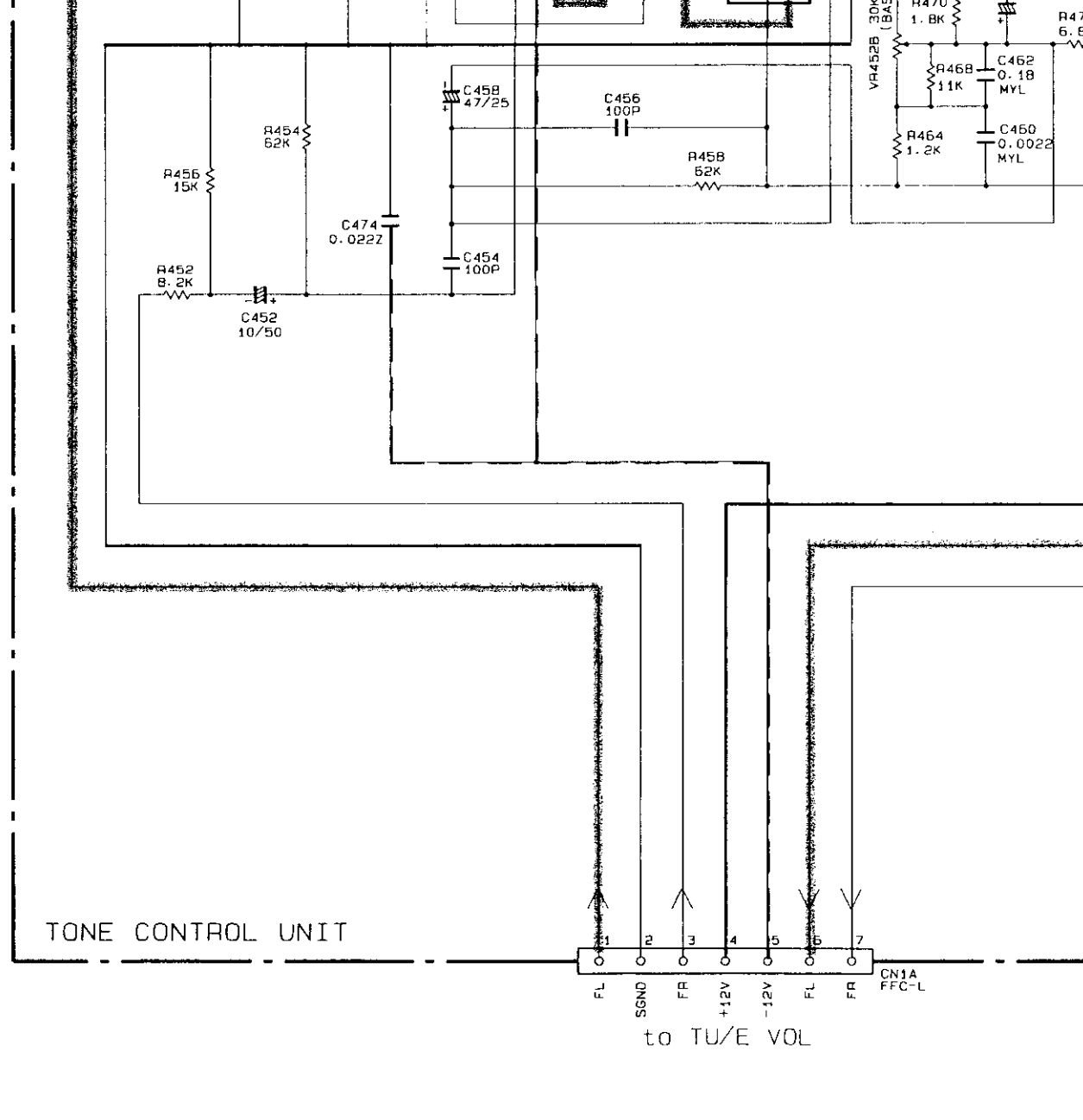
ALL RESISTANCE VAL

ALL CAPACITANCE V

EACH VOLTAGE AND CONDITION.

CIRCUIT AND PARTS NOTICE.





NOTICE

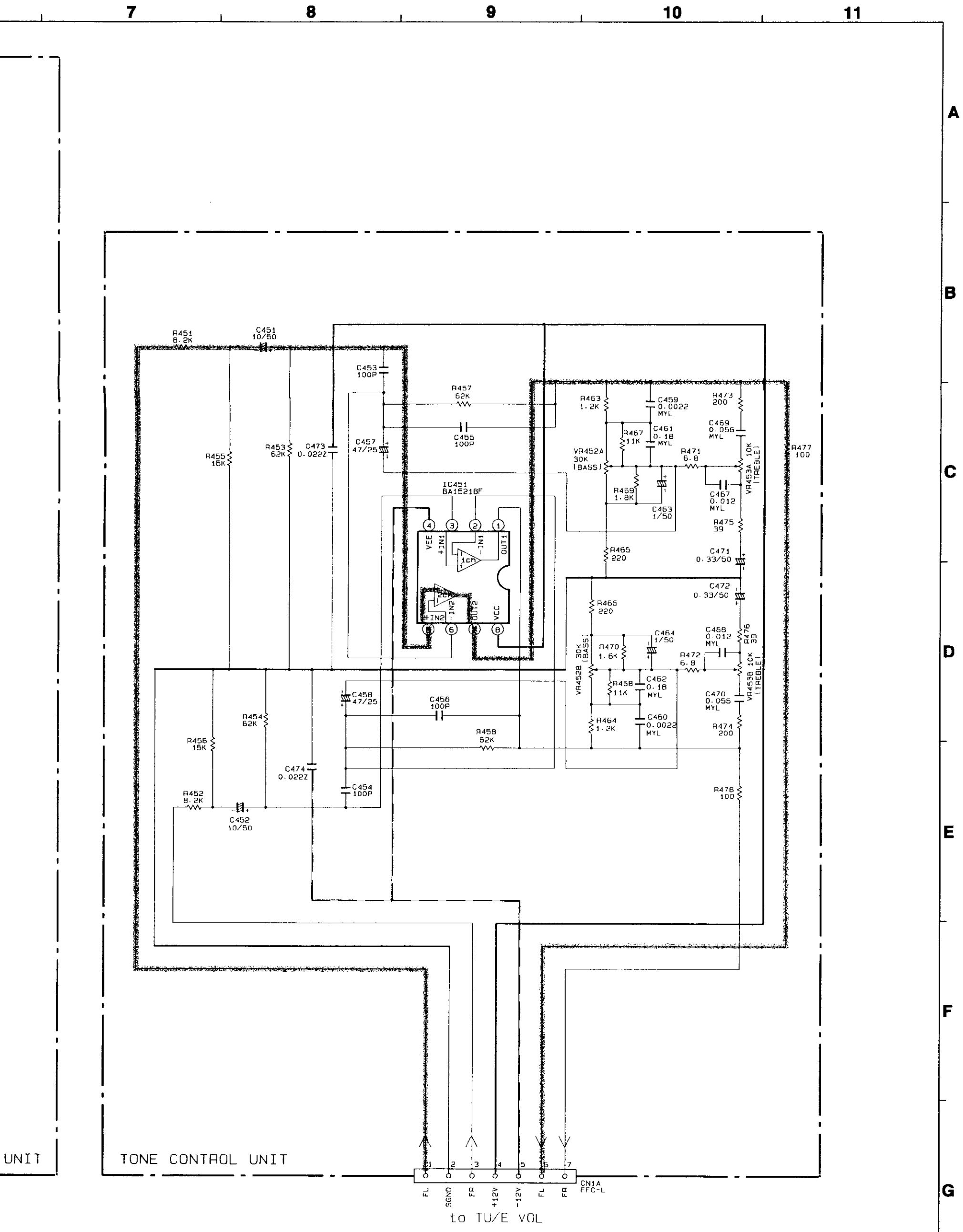
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING:
Parts marked with this symbol ⚠ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is detective.

WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

SCHE



k=1,000 OHM M=1,000,000 OHM
RO FARAD. P=MICRO--MICRO FARAD
E MEASURED AT NO SIGNAL INPUT

T TO CHANGE WITHOUT PRIOR

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

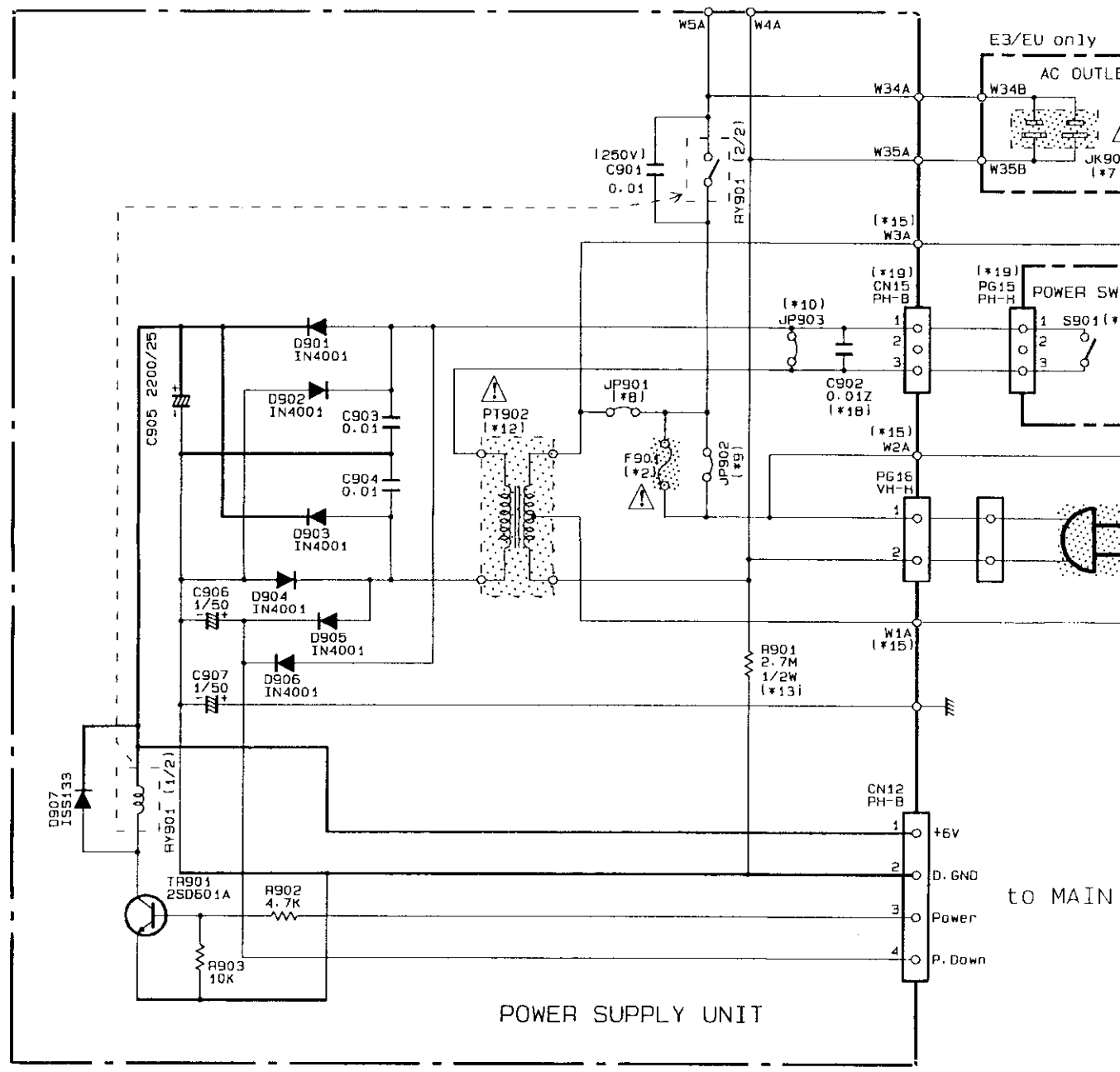
CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is detective.

WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

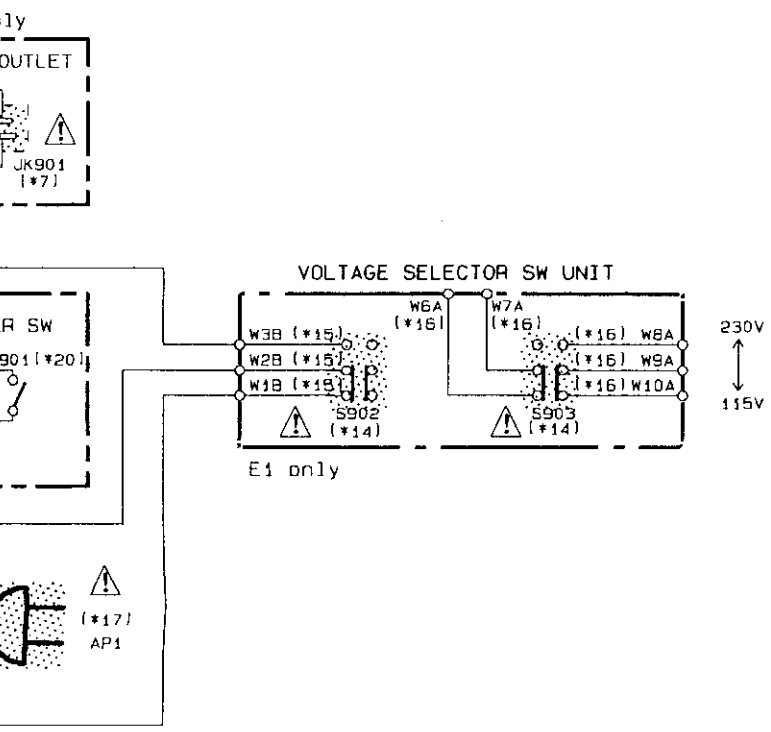
+B LINE
-B LINE
SIGNAL LINE

SCHEMATIC DIAGRAMS (5/6)
FL / TONE UNIT

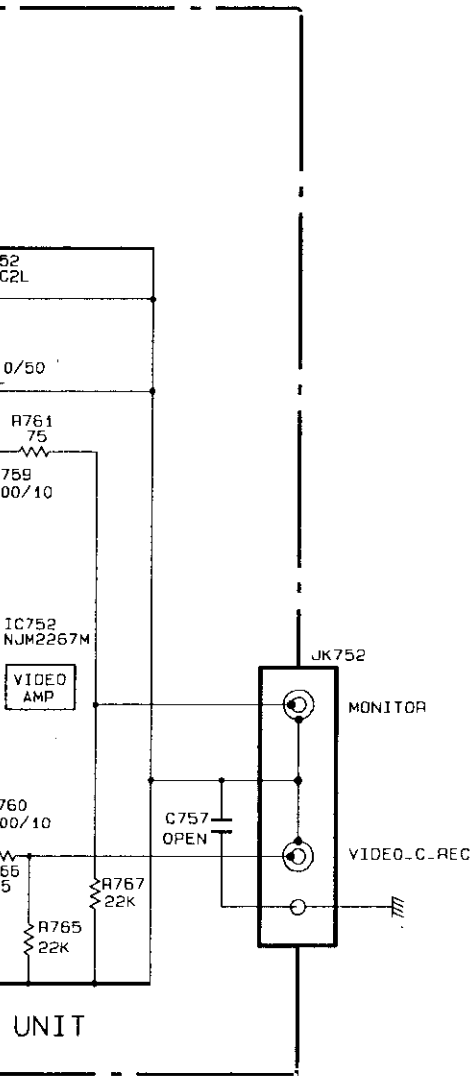
SCHEMATIC DIAGRAM (6/6)

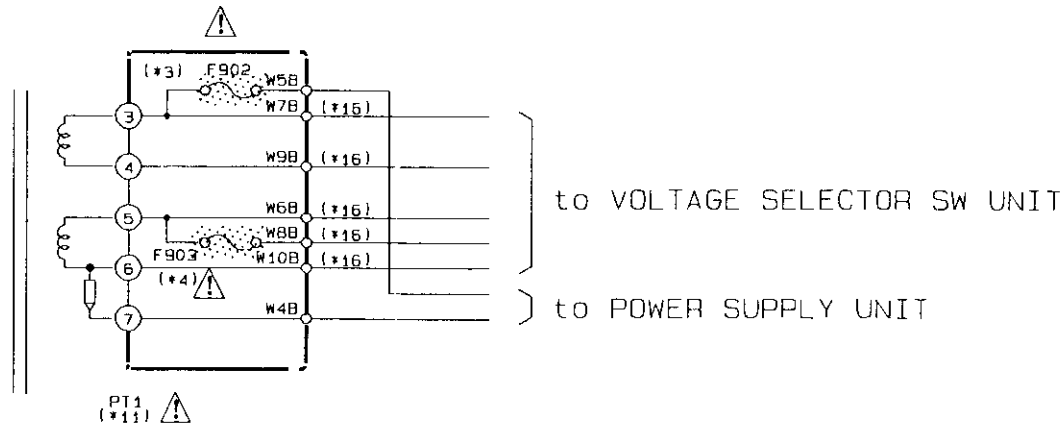


	(*1) C129, C130, C134	(*2) F901	(*3) F902	(* F9
E3/EU	—	5A125V	5A125V	—
E2/EK	○	—	T1.6A	—
E1	—	—	T5A	T2.
E1-C	—	—	T2.5A	—
J	—	5A125V	5A125V	—



	(*1) C129, C130, C134	(*2) F901	(*3) F902	(*4) F903	(*5) F904	(*6) F905	(*7) JK901	(*8) JP901	(*9) JP902	(*10) JP903	(*11) PT1	(*12) PT902	(*13) R901	(*14) S902, 903	(*15) W1~W3	(*16) W6~W10	
E3/EU	—	5A125V	5A125V	—	1.6A250V	1.6A250V	○	○	—	○	BT01351	BT00531	○	—	—	—	EV
E2/EK	○	—	T1.6A	—	T1A	T1A	—	○	○	—	BT01352	BT00532	—	—	—	—	EV
E1	—	—	T5A	T2.5A	T1A	T1A	—	—	○	—	BT01353	BT00533	—	○	○	○	EV
E1-C	—	—	T2.5A	—	T1A	T1A	—	○	○	—	BT01352	BT00532	—	—	—	—	EV
J	—	5A125V	5A125V	—	1.6A250V	1.6A250V	○	○	—	○	BT01354	BT00534	—	—	—	—	EV





NOTICE

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING:

Parts marked with this symbol ⚠ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

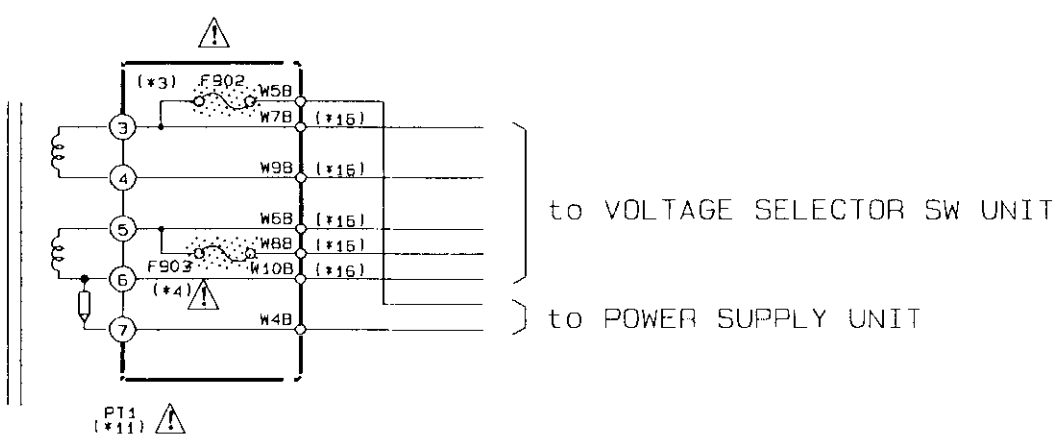
CAUTION:

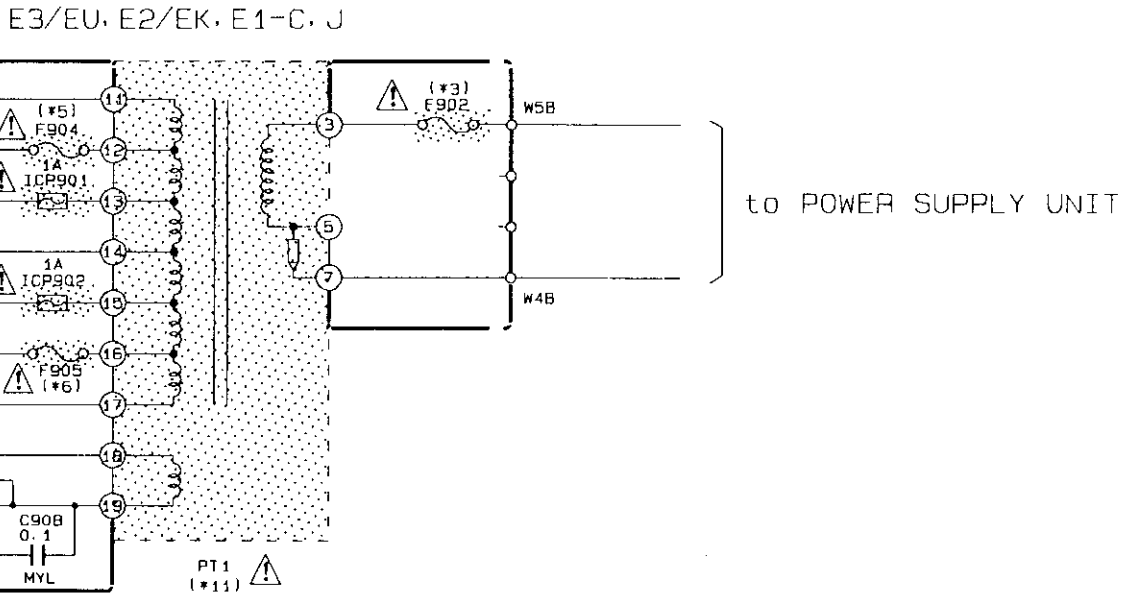
Before returning the unit to the customer, make sure you make either (1) leakage current check or (2) a line to chassis resistance check. If the le current exceeds 0.5 milliamps, or if the resistance from chassis to either of the power cord is less than 460 kohms, the unit is detective.

WARNING:

DO NOT return the unit to the customer until the problem is located and corrected.

(*5) F904	(*6) F905	(*7) JK901	(*8) JP901	(*9) JP902	(*10) JP903	(*11) PT1	(*12) PT902	(*13) R901	(*14) S902, 903	(*15) W1~W3	(*16) W6~W10	(*17) AP1	(*18) C902	(*19) PG15 CN15	(*20) S901
1.6A250V	1.6A250V	○	○	—	○	BT01351	BT00531	○	—	—	—	EV00701	—	—	—
T1A	T1A	—	○	○	—	BT01352	BT00532	—	—	—	—	EV00586	○	○	○
T1A	T1A	—	—	○	—	BT01353	BT00533	—	○	○	○	EV00586	○	○	○
T1A	T1A	—	○	○	—	BT01352	BT00532	—	—	—	—	EV00586	○	○	○
1.6A250V	1.6A250V	○	○	—	○	BT01354	BT00534	—	—	—	—	EV00582	—	—	—





+B LINE
−B LINE
SIGNAL LINE

E3/EU, E2/EK, E1-C, J

CE

RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT
TION.
IT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR
E.

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is detective.

WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

SCHEMATIC DIAGRAMS (6/6)
P. SUPPLY / VIDEO UNIT