


# **SERVICE** MANUAL

*AUDIO VIDEO  
PRO LOGIC PECEIVER*

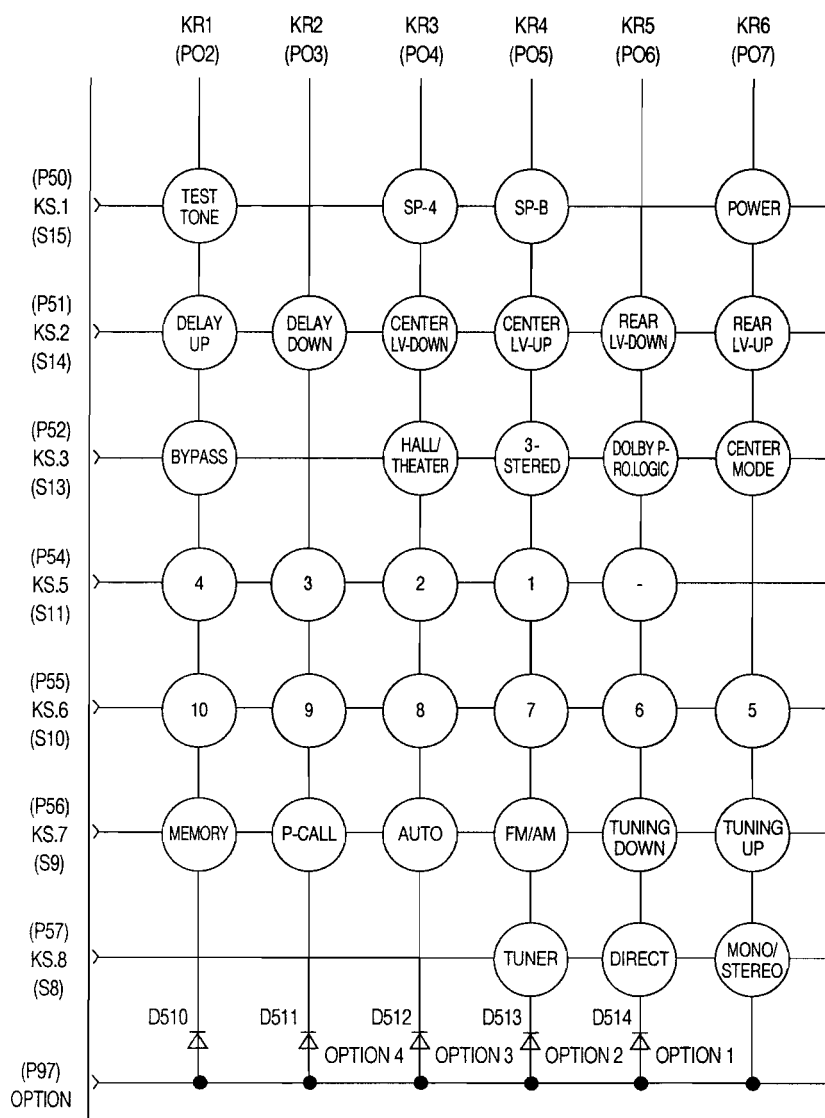
## WARNING

FOR CONTINUED SAFETY THE FOLLOWING PRECAUTIONS SHOULD BE FOLLOWED DURING SERVICING

1. MAKE SURE POWER CORD IS DISCONNECTED BEFORE REPLACING ANY PARTS.
2. REPLACE WITH THE SAME TYPE, CRITICAL PARTS WITH  MARK ON THIS DIAGRAM.
3. THE FOLLOWING TEST MUST BE IMPLEMENTED AFTER EACH REPAIR BEFORE RETURNING IT TO CUSTOMER.  
USE AN OHM-METER TO MEASURE THE D.C. RESISTANCE FROM BOTH A.C. CONDUCTORS TO ANY EXPOSED METALLIC PARTS SUCH AS A SCREW HEAD, METAL INLAYS ETC. THE RESISTANCE MEASURED TO BE 10 MEGAOHMS MINIMUM.



# KEY MATRIX



D512	PROCGIC
D513	REMOCON
D514	WELLOME

## D10DE SW

	D510	D511		STEP	
USA	0	0	FM	87.5MHz~108MHz	100kHz
			AM	520kHz~1710kHz	10kHz
EUR	1	1	FM	87.5MHz~108MHz	50kHz
			AM	522kHz~1602kHz	9kHz
AUS(호주)	0	1	FM	875MHz~128MHz	100kHz
			AM	522kHz~1602kHz	9kHz

0: NO DIODE  
1: ADD DIODE

# CPU PIN DISCRPTION

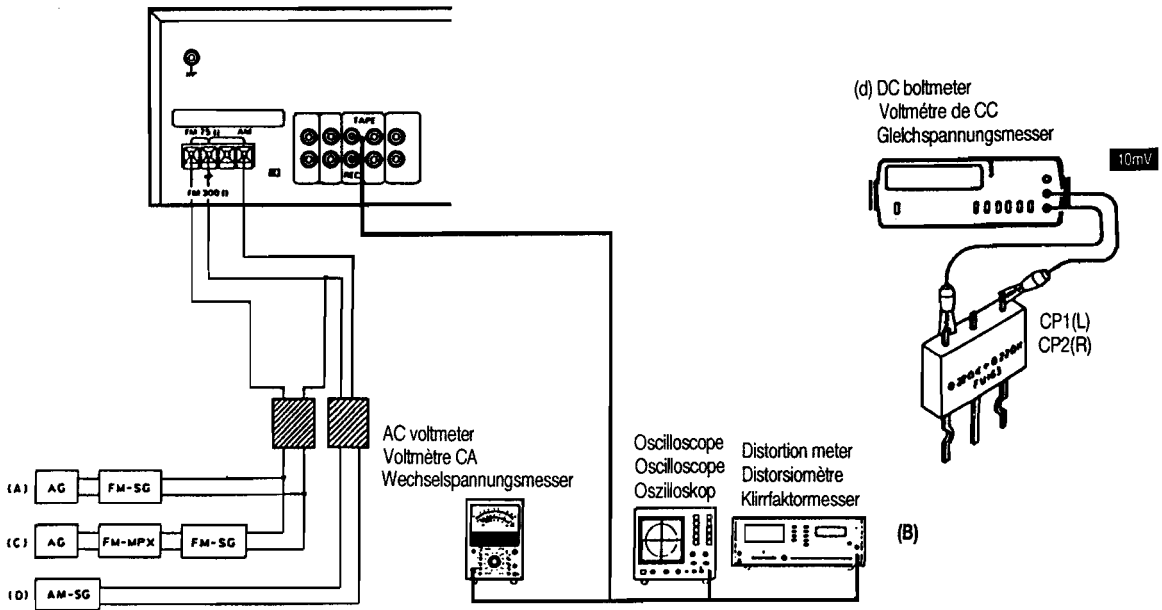
PIN NO	PIN NAME	I/O	PULL U/D	ACTIVE	PORT NAME	REMARK
1	PO4	I	--	H	KR3	KEY READ 3
2	PO5	I	--	H	KR4	KEY READ 4
3	PO6	I	--	H	KR5	KEY READ 5
4	PO7	I	--	H	KR6	KEY READ 6
5	AVss	I	--	--	AVss	A/D GND: DC GND
6	TEST	I	--	--	TEST	GND
7	X2	O	--	--	X2	OPEN
8	X1	I	--	--	X1	+5 V
9	Vss	I	--	--	Vss	SYSTEM GND.
10	OSC1	I	--	--	OSC1	SYSTEM. 4.19MHZ
11	OSC2	O	--	--	OSC2	1M REG.
12	RESET	I	--	L	RESET	SYSTEM RESET: ACTIVE "L"
13	P10	O	--	H	LIMITER	SURROUND "H"
14	P11	O	--	L	POWER LED	LED ON: "L"
15	IRQ2	I	--	L	REMOCON	ACTIVE "L"
16	P13	I	--	H/L	EN. A	
17	P14	I	--	H/L	EN. B	
18	P15	O	--	L/H	V1/V2	
19	P16	I	--	H/L	4/8 OHM	SPEAK CONTROL 4(H)/8(L)
20	P33	O	P/D GND	H	POWER RELAY	ON: "H"
21	P32	O		H	SP. A RELAY	ON: "H"
22	P31	O		H	SP. SUR RELAY	ON: "H"
23	P30	O		H	SP. B RELAY	ON: "H"
24	P47	O		L	VIDEO MUTE	VIDEO MUTE "L"
25	P46	I/O		H	DATA	SYSTEM DATA
26	P45	I/O		H	BUSY	SYSTEM BUSY
27	P44	--	--	--	NOT USED	REMAINED
28	P43	--	--	--	NOT USED	REMAINED
29	P42	--	--	--	NOT USED	REMAINED
30	P41	--	--	--	NOT USED	REMAINED
31	P40	--	--	--	NOT USED	RAMAINED
32	P50	O	P/D Vdsp	H	S15/KS1	SEG15/LEY SCAN 1
33	P51	O		H	S14/KS2	SEG14/KEY SCAN 2
34	P52	O		H	S13/KS3	SEG13/KEY SCAN 3
35	P53	O		H	S12/KS4	SEG12/KEY SCAN 4
36	P54	O		H	S11/KS5	SEG11/KEY SCAN 5
37	P55	O		H	S10/KS6	SEG10/KEY SCAN 6
38	P56	O		H	S9/KS7	SEG 9/KEY SCAN 7
39	P57	O		H	S8/SK8	SEG 8/KEY SCAN 8
40	Vdisp	I		--	Vdisp	FLT POWER SUPPLY
41	P60	O		H	S7	SEG 7
42	P61	O		H	S6	SEG 6
43	P62	O		H	S5	SEG 5
44	P63	O		H	S4	SEG 4
45	P64	O		H	S3	SEG 3
46	P65	O		H	S2	SEG 2
47	P66	O		H	S1	SEG 1
48	P67	O		H	G9	GRID 9
49	P70	O		H	G8	GRID 8
50	P71	O		H	G7	GRID 7
51	P72	O		H	G6	GRID 6
52	P73	O		H	G5	GRID 5
53	P74	O		H	G4	GRID 4

## CPU PIN DISCRIPTION

PIN NO	PIN NAME	I/O	PULL U/D	ACTIVE	PORT NAME	REMARK
54	P75	O	P/D Vdsp	H	G3	GRID 3
55	P76	O		H	G2	GRID 2
56	P77	O		H	G1	GRID 1
57	Vcc	I	-	-	Vcc	SYSTEM POWER SUPPLY: +5 V
58	P80	-	-	-	NOT USED	REMAINED
59	P81	-	-	-	NOT USED	REMAINED
60	P82	O	-	L	SURR. MUTE	MUTE: "L"
61	P83	O	-	L	TUNER MUTE	MUTE: "L"
62	P84	O	-	L	DATA MUTE	FUN. IC. DATA OUT: "L"
63	P85	O	-	L	SD CHECK	TUNED DETECT, TUNE: "L"
64	P86	O	-	L	ST CHECK	STEREO DETECT, STEREO: "L"
65	P87	O	-	H	TUNER CE	TUNER CHIP ENABLE
66	P90	O	-	H	FUNCTION CE	FUNCTION IC. CHIP ENABLE
67	P91	O	-	H	DATA	FUNCTION DATA OUT
68	P92	O	-	H	CLK	FUNCTION CLK OUT
69	P93	O	-	H	DELAY CE	LA2785/LV1010N CHIP ENABLE
70	P94	O	-	H	VR. MOTOR DOWN	VOLUME MOTOR CONTROL
71	P95	O	-	H	VR. MOTOR UP	VOLUME MOTOR CONTROL
72	P96	O	-	L	VR. LED	LED ON: "L"
73	P97	O	-	H	OPTION SCAN	OPTION DETECT
74	PA0	O	-	L	MUTE2	FRONT L/R MUTE
75	PA1	O	-	L	MUTE1	FUNCTION MUTE
76	AVcc	I	-	-	AVcc	A/D POWER SUPPLY: +5 V
77	PO0	I	-	H	PROTECT	PROTECT "H" (SYSTEM OVER LOAD)
78	PO1	I	-	L	POWER OFF	POWER BACK-UP. POWER OFF: "L"
79	PO2	I	-	H	KR1	KEY READ 1
80	PO3	I	-	H	KR2	KEY READ 2

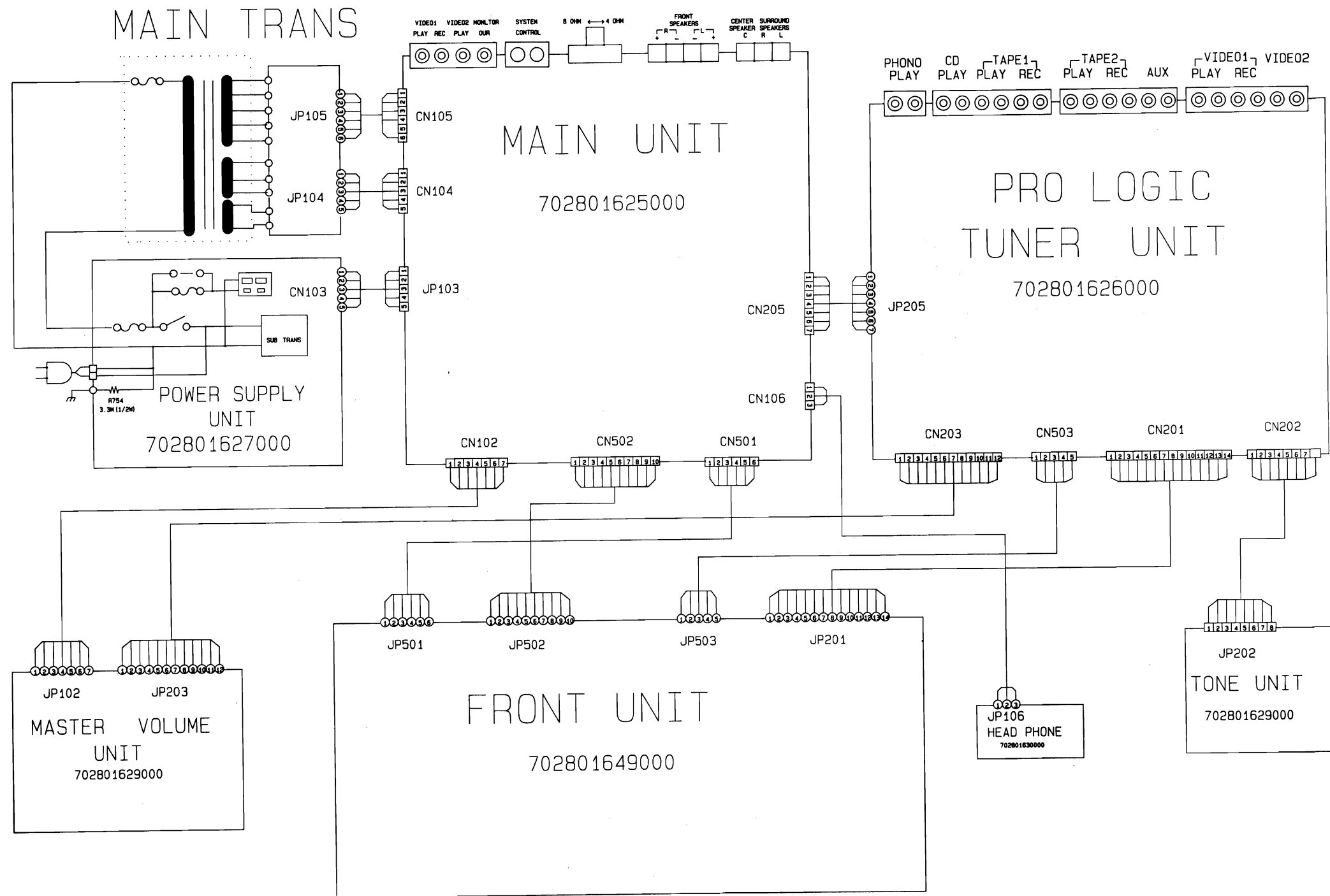
# ADJUSTMENT

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
<b>FM SECTION</b>		SELECTOR: FM					
1	DISCRIMINATOR	(A) 98.0MHz 1kHz, $\pm 75$ kHz dev. 60dB $\mu$ (ANT. input)	Connect a DC voltmeter between TP803 and TP804. (RECEIVER UNIT)	AUTO or MONO 98.0MHz	L806 (RECEIVER UNIT)	0V	(a)
2	VCO	(A) 98.0MHz 0 dev. 60dB $\mu$ (ANT. input)	Connect a frequency counter between TP805 and TP806. (RECEIVER UNIT)	AUTO 98.0MHz	VR802 (RECEIVER UNIT)	19.00kHz	(b)
3	DISTORTION (STEREO)	(C) 98.0MHz 1kHz, $\pm 68.25$ kHz dev. Selector: L or R Pilot: $\pm 6.75$ kHz dev. 60dB $\mu$ (ANT. input)	(B)	98.0MHz	IFT (W02-)	Minimum distortion. (L or R)	
4	SEPARATION (E EUR)	(C) 98.0MHz 1kHz, $\pm 40$ kHz dev. Pilot: $\pm 6$ kHz dev. Selector: L or R 60dB $\mu$ (ANT. input)	(B)	AUTO 98.0MHz	VR803 (RECEIVER UNIT)	Minimum crosstalk	
5	TUNING LEVEL	(A) 98.0MHz 0 dev. 18dB $\mu$ (ANT. input)	(B)	AUTO or MONO 98.0MHz	VR803 (RECEIVER UNIT)	Adjust VR801 and stop at the point where FLT901(TUNED) goes on.	
<b>AM SECTION</b>		SELECTOR: AM					
(1)	TUNING LEVEL	(D) 1000(999)MHz 26dB $\mu$ (ANT. input)	(B)	—	VR804 (RECEIVER UNIT)	Adjust VR804 and stop at the point where FLT901(TUNED) goes on.	
<b>AUDIO SECTION</b>							
<1>	IDLE CURRENT	—	Connect a DC voltmeter across CP1(L) CP2(R) (RECEIVER UNIT)	Volume: 0	VR101(L) VR102(R) (RECEIVER UNIT)	10mV	(d)

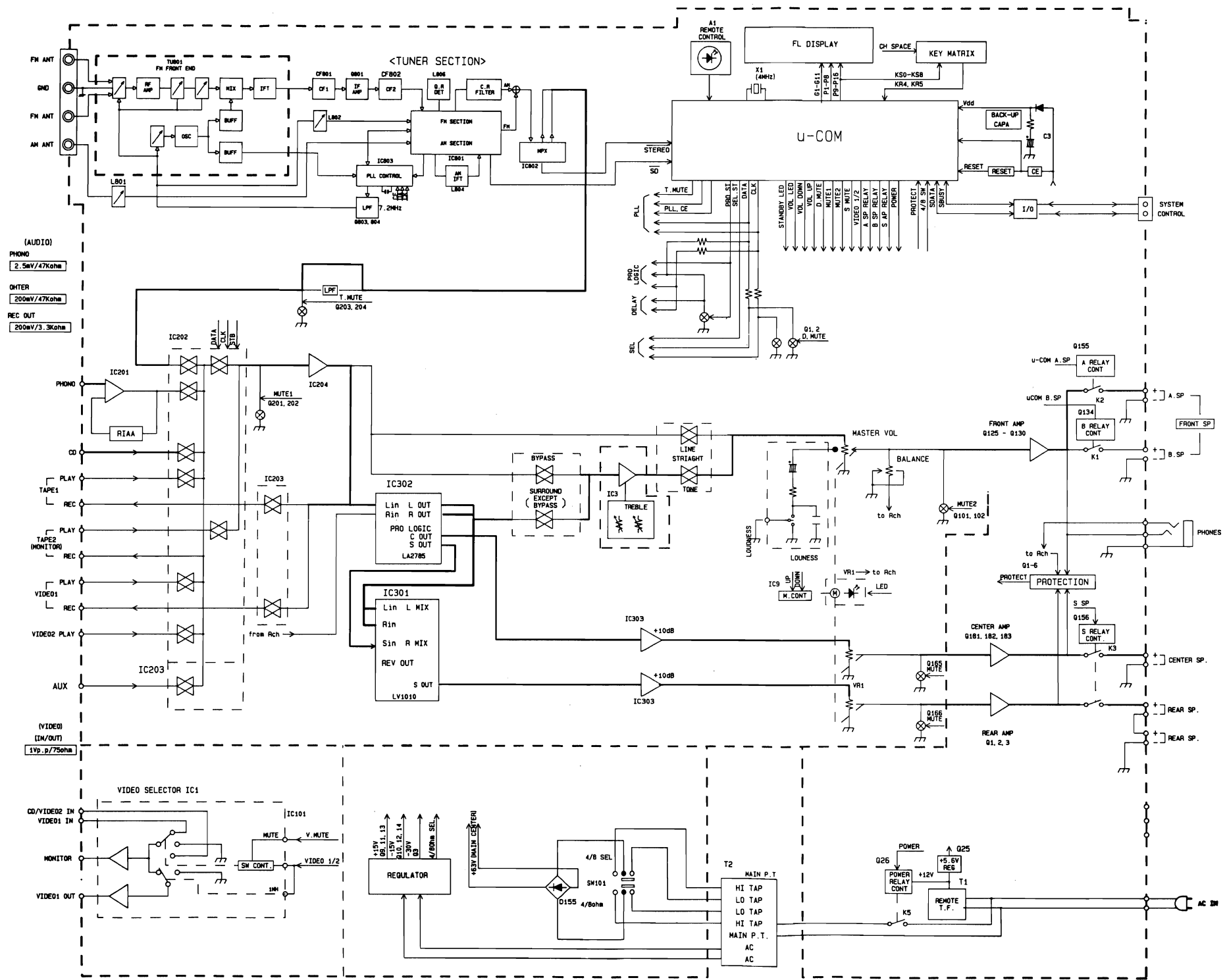




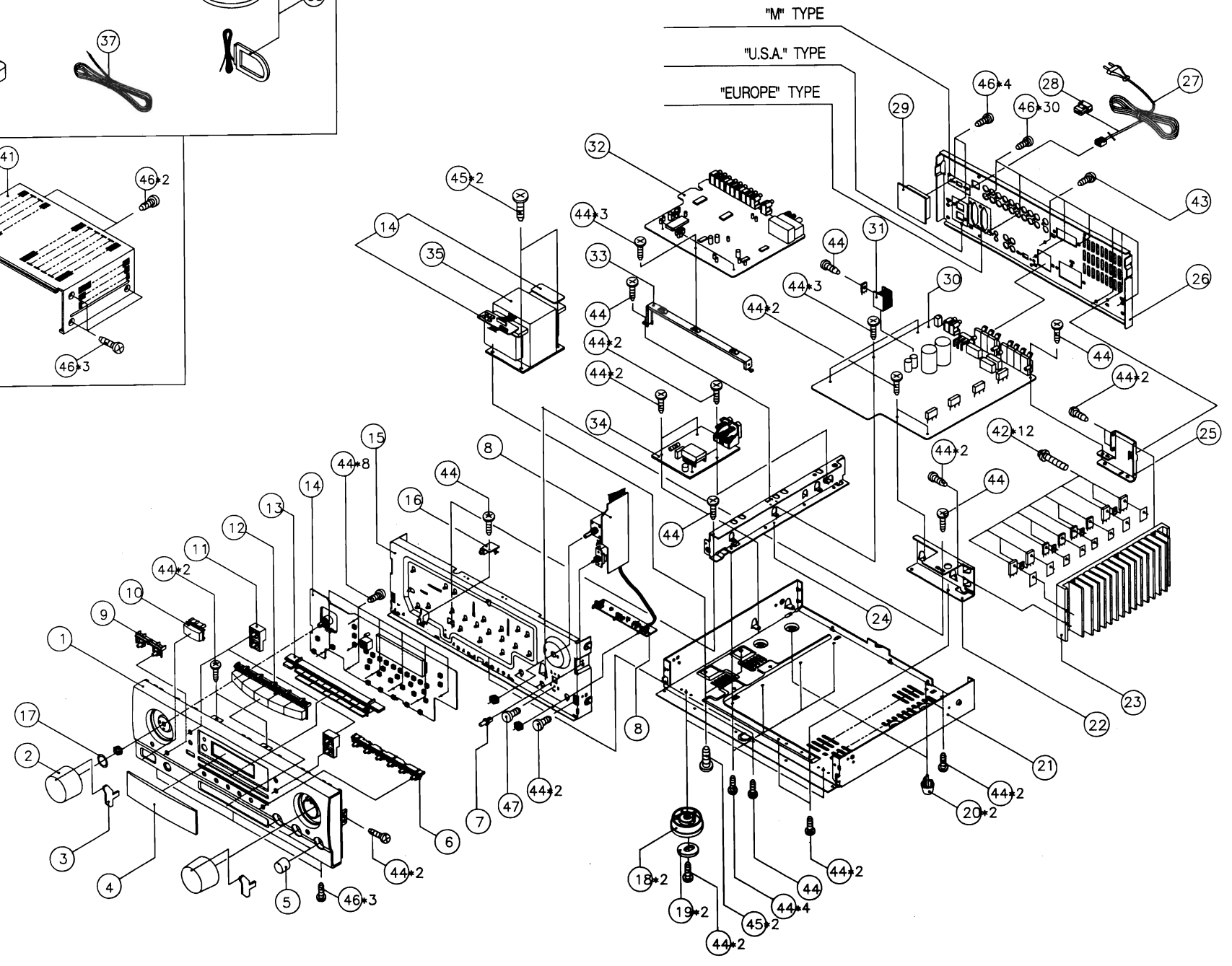
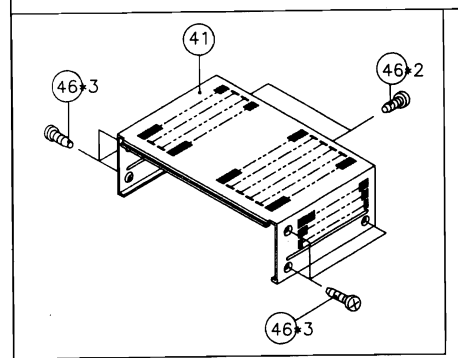
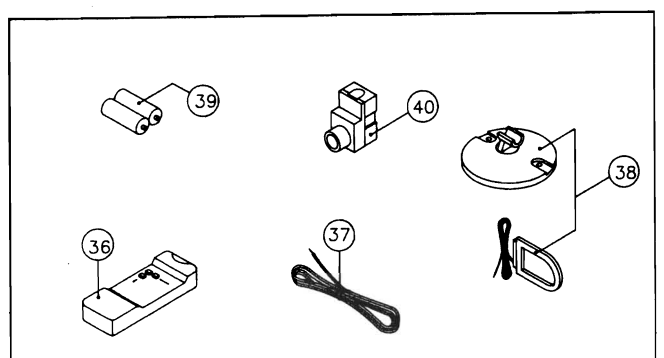
# WIRING DIAGRAM



# BLOCK DIAGRAM

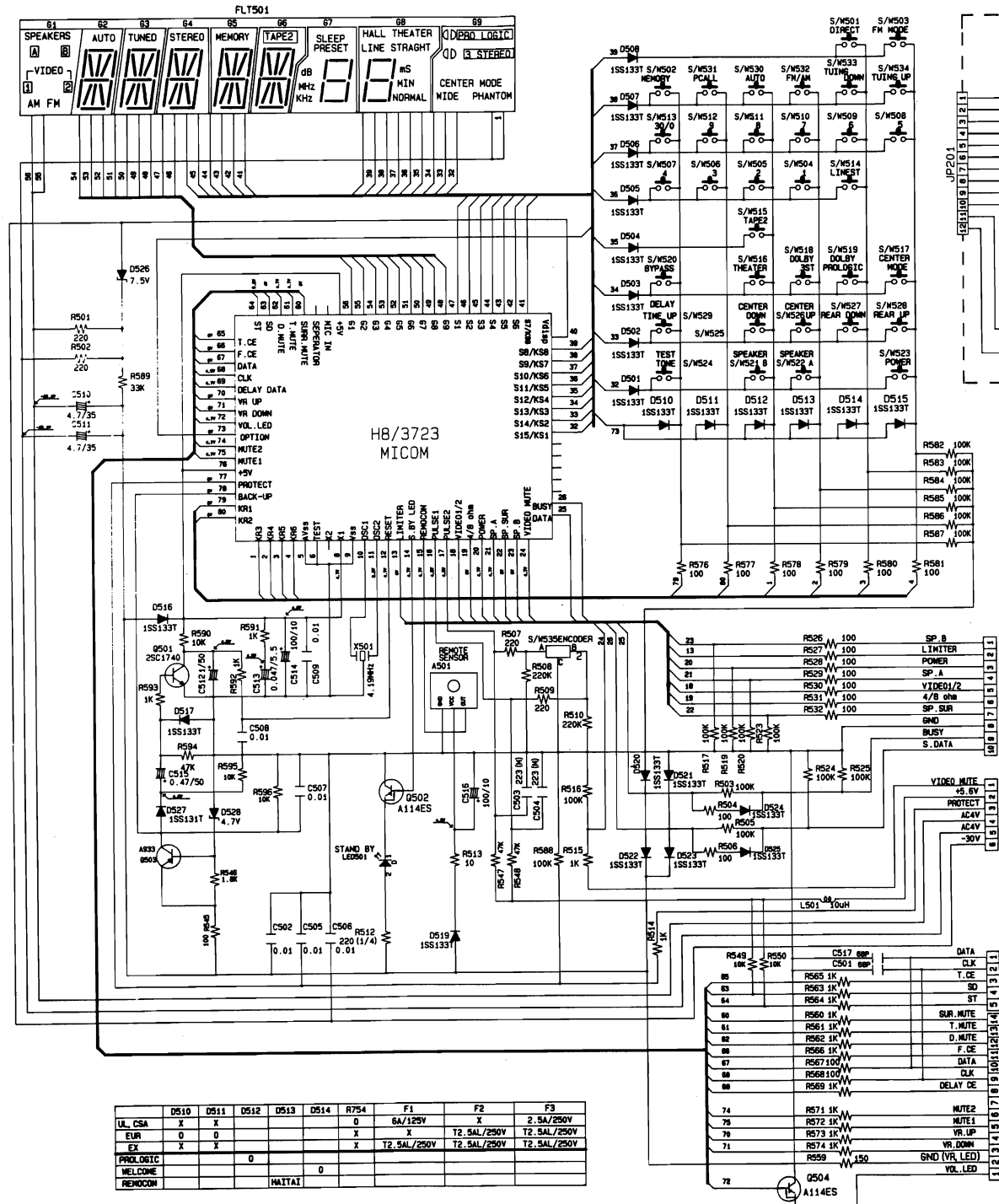


# CABINET EXPLODED VIEW

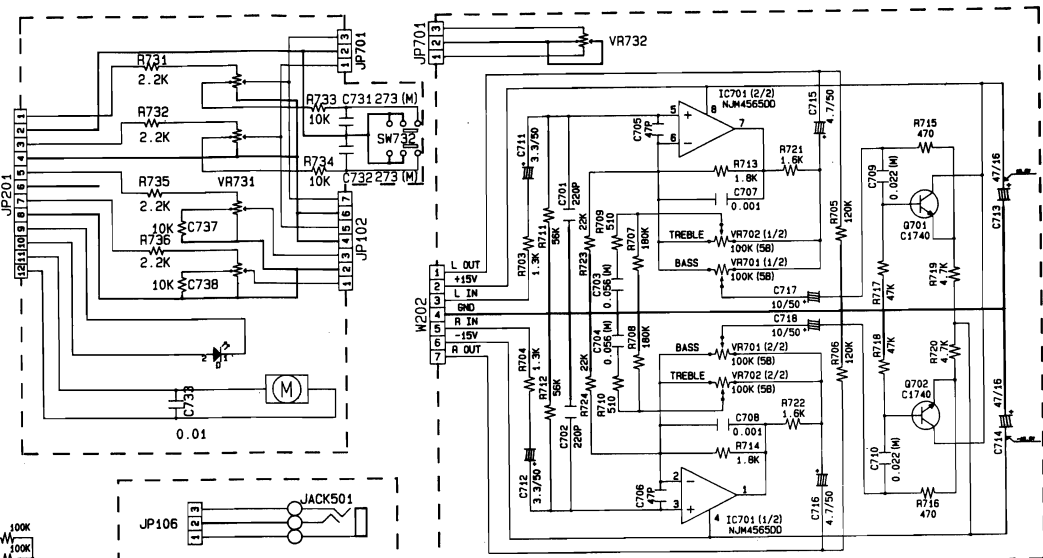


NO	PART NAME	QTY
1	PANEL FRONT	1
2	KNOB VOLUME	2
3	WINDOW KNOB/VOLUME	2
4	WINDOW DISPLAY	1
5	KNOB CONTROL	3
6	BUTTON CENTER	1
7	KNOB LOUD	1
8	PCB TONE CONTROL ASSY	1
8	BUTTON S.P.K	1
10	BUTTON POWER	1
11	BUTTON MEMORY	2
12	BUTTON FUNCTION	1
13	BUTTON PRESET	1
14	PCB FRONT ASSY	1
15	CHASSIS FRONT	1
16	PCB HEAD PHONE ASSY	1
17	SPRING KNOB	1
18	FOOT	2
19	CUSHION FOOT	2
20	FOOT KIFDD	2
21	CHASSIS MAIN	1
22	BRACKET HEATSIK "B"	1
23	HEAT SIK MAIN	1
24	BRACKET MIDDLE	1
25	BRACKET HEATSIK "A"	1
26	CHASSIS BACK	1
27	CORD AC	1
28	STOPPER CORD AC	1
29	SW SLIDE	0
30	PCB MAIN ASSY	1
31	HEAT SIK SUB	1
32	PCB TUNER ASSY	1
33	BRACKET PCB	1
34	PCB POWER ASSY	1
35	POWER TRANS	1
36	REMOCON	1
37	ANTENNA FM T	1
38	ANTENNA LOOP	1
39	BATTERY DRY	1
40	ANTENNA MODULE	0
41	CABINET TOP	1
42	SCREW +2S 3x14 YL W/S.P WASHER	12
43	SCREW TAPPING +2S 3x8 CR/WH	1
44	SCREW SPECIAL +2S 3x8 B TITE YL/WH	46
45	SCREW SPECIAL +2S 4x8 B TITE YL/WH	4
46	SCREW SPECIAL +2S 3x8 B TITE BK/WH	39
47	SCREW MACHINE +H 3x4/WH	1

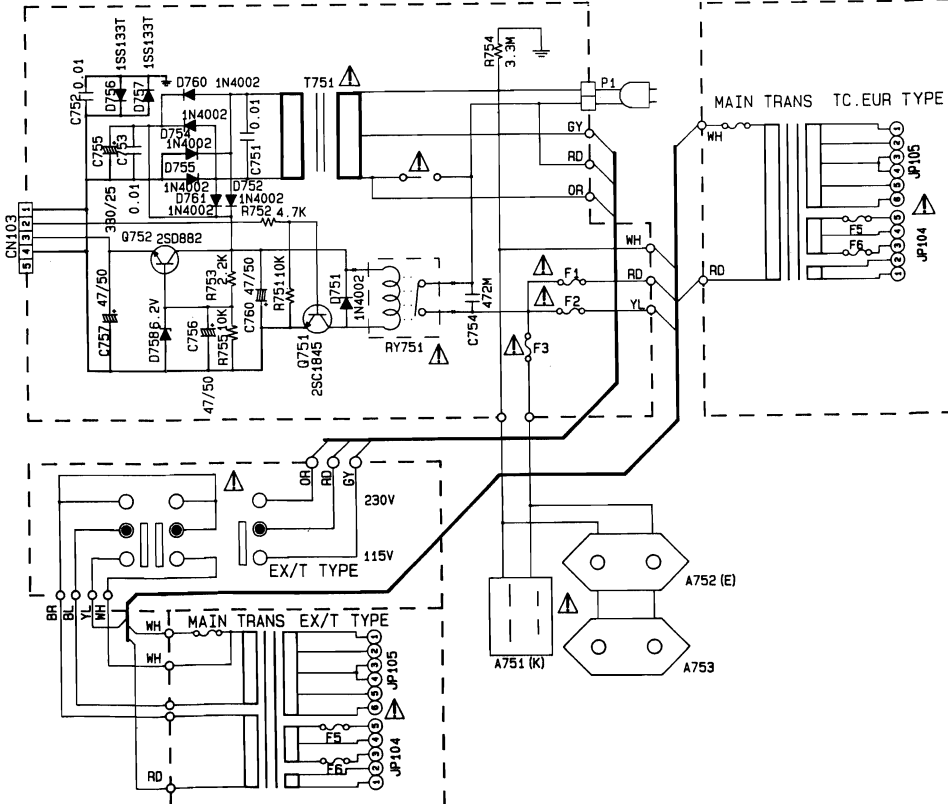
# SCHEMATIC DIAGRAM FRONT UNIT



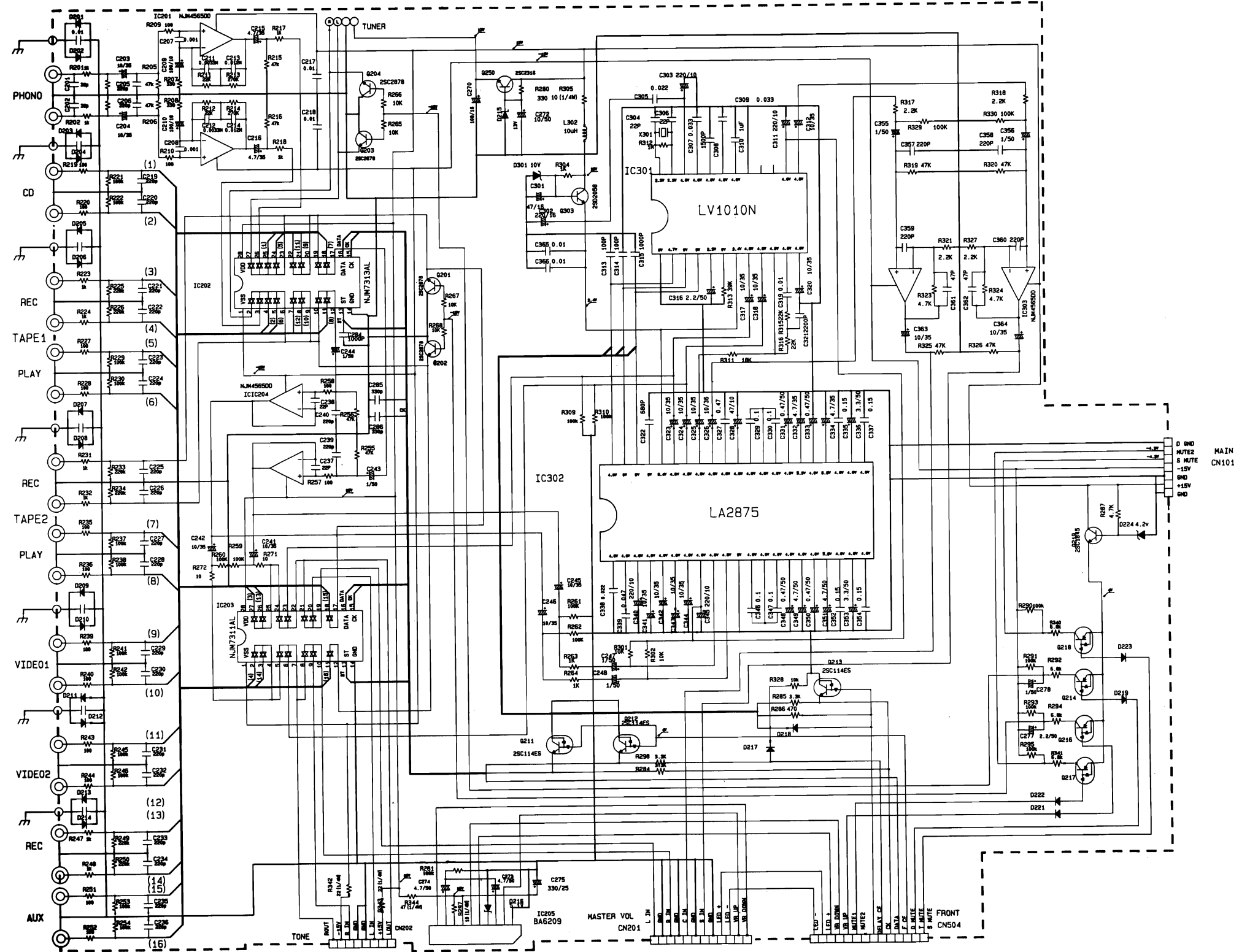
	D510	D511	D512	D513	D514	R754	F1	F2	F3
UL CSA	X	X	X				6A/125V	X	2.5A/250V
EUR	0	0			X		T2.5A/250V	T2.5A/250V	T2.5A/250V
EX	X	X			X		T2.5A/250V	T2.5A/250V	T2.5A/250V
PREL. LOGIC			0						
WELCOME									
REXCON									



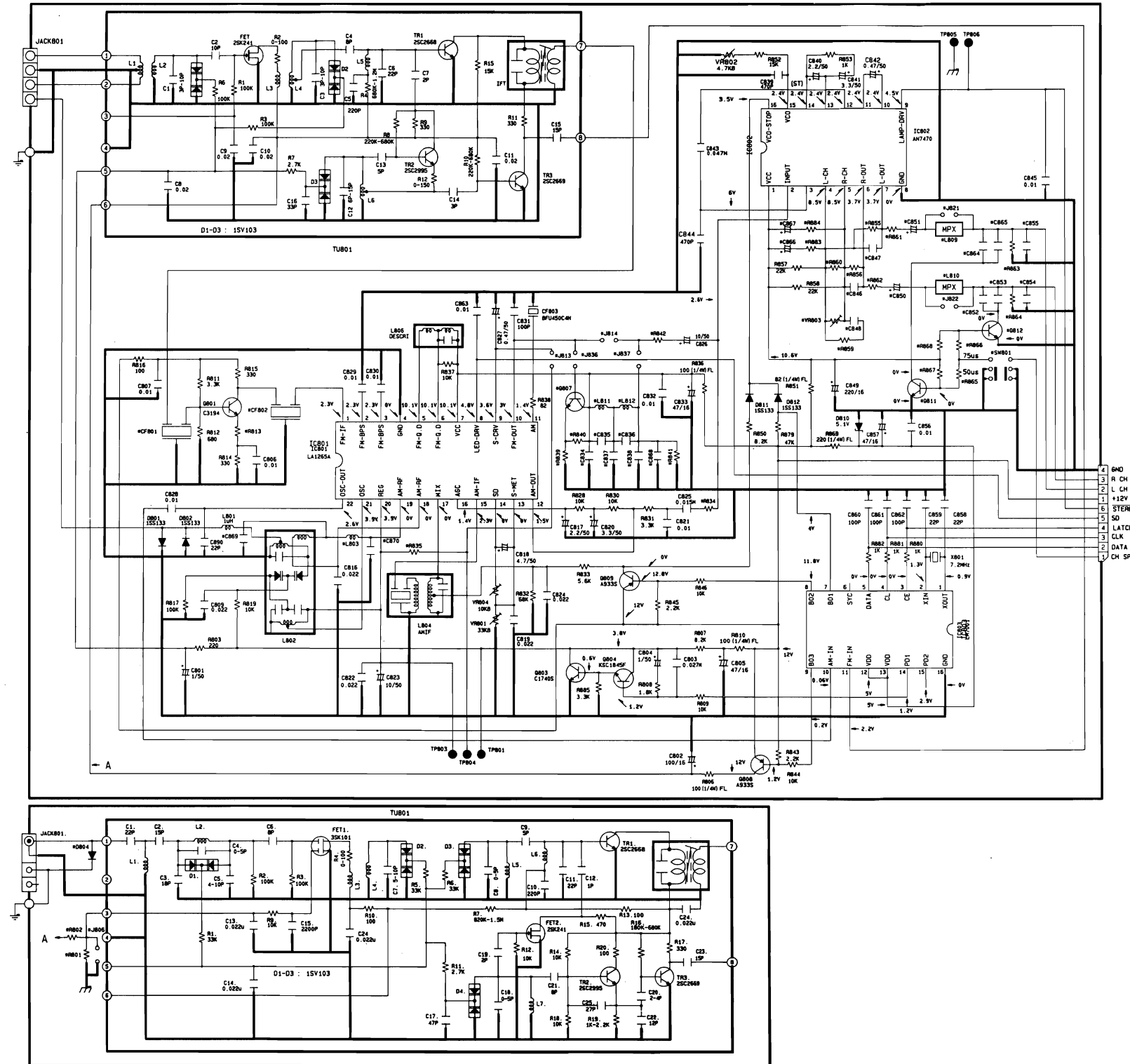
CAUTION: For continued safety, replace critical components only with manufacturer's recommended parts (refer to parts list).  $\Delta$  indicates safety critical components. To reduce the risk of electric shock, leakage current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance returned to the customer.



# SCHEMATIC DIAGRAM PRO-LOGIC UNIT



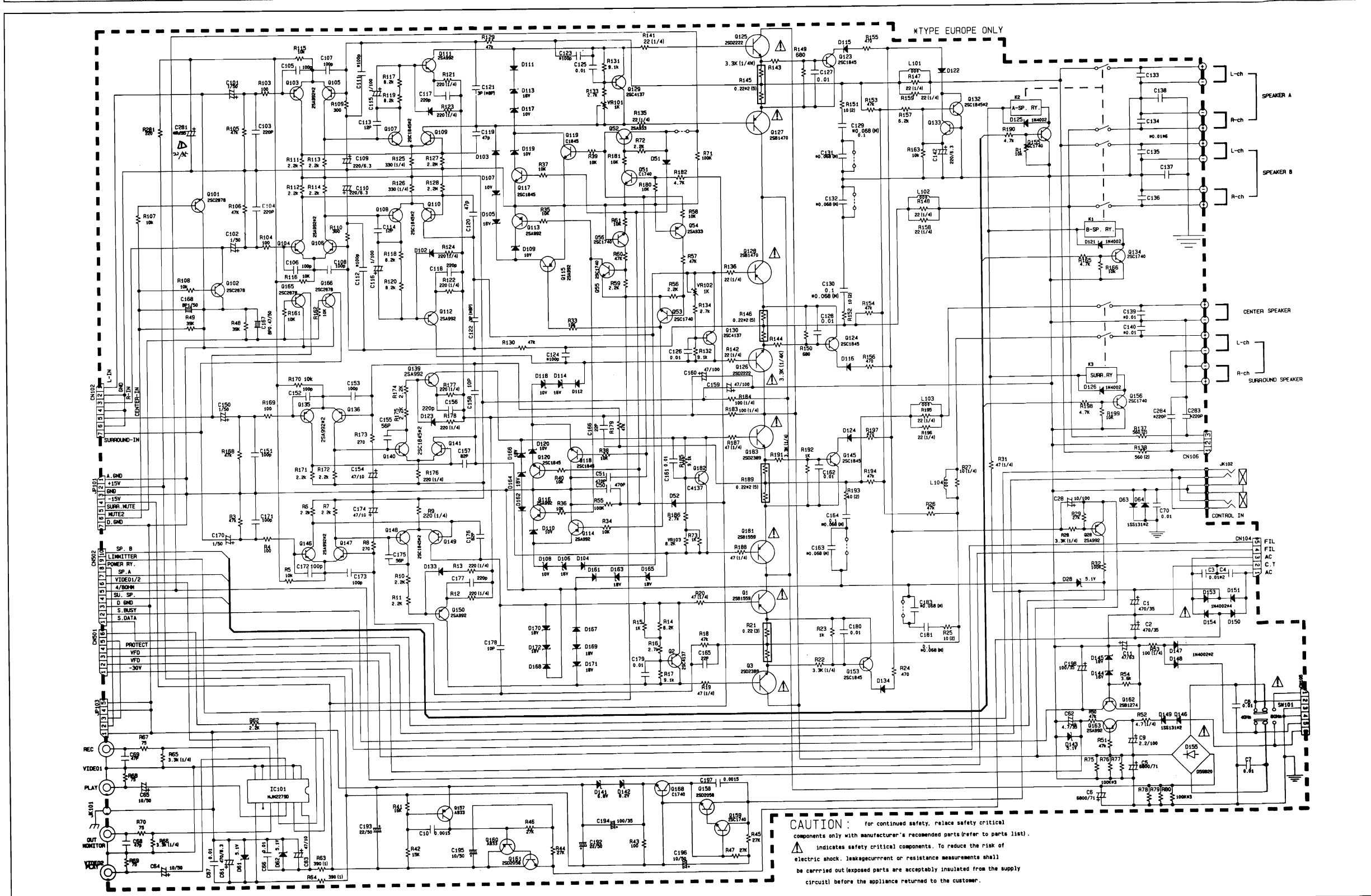
# SCHEMATIC DIAGRAM TUNER UNIT



	USA	AUS (S & T)	EUR
DB07	X	X	C17405
DB11	X	X	X
DB12	X	X	X
RB01	X	X	4.7K
RB02	X	X	10K
RB13	56	56	22
RB34	36K	36K	47K
RB35	15K	39K	39K
RB39	X	X	3.3K
RB40	X	X	2.2K
RB41	X	X	47K
RB42	39K	39K	47K
RB55	51K	51K	47K
RB56	51K	51K	47K
RB59	X	X	470
RB60	330K	330K	X
RB61	3.5K	3.5K	3.3K
RB62	3.5K	3.5K	3.3K
RB63	39K	39K	3.3K
RB64	39K	39K	3.3K
RB65	X	X	X
RB66	X	X	X
RB67	X	X	X
RB68	X	X	X
RB83	X	X	12K
RB84	X	X	12K
CB34	X	X	470P
CB35	X	X	120P
CB36	X	X	270P
CB37	X	X	1500P
CB38	X	X	1200P
CB46	150P	150P	1000P
CB47	150P	150P	1000P
CB48	X	X	220P
CB50	1/50	1/50	2.2/50
CB51	1/50	1/50	2.2/50
CB52	X	X	X
CB53	X	X	X
CB54	0.022uF	0.015uF	0.0047uF
CB55	0.022uF	0.015uF	0.0047uF
CB64	X	X	X
CB65	X	X	X
CB66	X	X	22/16
CB67	X	X	22/16
CB68	X	X	100P
CB69	X	X	6P
CB70	X	X	22P
DB04	X	X	155133T
LB02	X	X	10uH
LB09	X	X	MPX
LB10	X	X	MPX
LB11	X	X	5.6mH
LB12	X	X	6.6mH
LB06	O	O	X
JB14	O	O	X
JB21	O	O	X
JB22	O	O	X
JB35	X	X	O
JB36	X	X	O
JB37	X	X	O
VR803	X	X	220KB
SR801	X	X	X

CF801, 802 SEP 10, 7M45 SEP 10, 7M45 SEP 10, 7M45

# SCHEMATIC DIAGRAM MAIN UNIT



















# ELECTRICAL PARTS LIST

REF NO	DESCRIPTION	QTY	LC/DO	REF NO	DESCRIPTION	QTY	LC/DO
D001-39006-726	SL39PF-J	2	,858,890,870 C201,202	D330-1R070-000	1UF-Q40	1	L801
D001-47006-726	SL47PF-J	2	C361,362	D330-10070-020	10UH-Q40	1	L302
D005-10127-726	B100PF-K	9	C315,314,861,862,863,831 ,860,868,285,286	J500-0933S-005	2SA933S, 0.3W	2	Q808,809
D005-10227-726	B0.001UF-K	6	C207,208,284,313,846,847	J502-1740S-001	2SC1740SR, 0.3W	2	Q803,807
D005-12127-726	B120PF-K	1	C835	J502-1845F-000	KSC1845F, 0.5W	2	Q219,804
D005-22127-726	B220PF-K	27	C205,206,233,234,239,240 ,357,358,848,230,232,231, 229,236,235,226,225,228, 227,222,221,224,223,220, 219,204,203	J502-2316Y-002	KSC2316Y, 0.9W	1	Q250
D005-22359-426	F0.022UF-Z	6	C305,809,816,819,822,824	J502-31940-000	KTC31940, 0.6W	1	Q801
D005-27127-726	B270PF-K	1	C836	J503-13030-001	2SC2878, 0.4W	4	Q201,202,203,204
D005-47127-726	B470PF-K	2	C844,834	J600-0114E-001	DTA114ES, 0.3W	4	Q214,216,217,218
D005-68127-726	B680PF-K	1	C322	J602-0114E-001	DTC114ES, 0.3W	3	Q211,212,213
D006-10459-705	F0.1UF-Z	2	C365,366	K000-01330-026	1SS133T-77-26MM	29	D201,202,203,204,205,206 ,207,208,209,210,211,212, 213,214,217,218,219,221, 222,223,801,802,811,812, 813,804,225,226,227
D007-10388-326	Y0.01UF-M	17	C217,218,319,863,828,806 ,807,290,291,289,863 C829,856,830,845,821,832	K060-04R71-426	MTZ4.7B-0.5W	1	D224
D007-12278-326	X0.0012UF-M	1	C838	K060-05R11-426	MTZ5.1B-0.5W	2	D216,810
D007-15278-326	X0.0015UF-M	1	C837	K060-10R01-426	MTZ10B-0.5W	1	D301
D007-22278-326	X0.0022UF-M	1	C321	K060-13R01-426	MTZ13B-0.5W	1	D215
D020-12316-705	MI-0.012UF-J	2	C214,213	<b>P.C.B MANU INS ASSY(POWER)</b>			
D020-15216-705	MI-0.0015UF-J	1	C308	D004-10359-D00	F0.01UF-Z	1	C751
D020-15306-C05	ST-0.015UF-J	1	C825	D008-47208-900	FZ0.0047UF-M	1	C754
D020-22316-705	MI-0.022UF-J	1	C338	G435-00014-000	YKE31-0090	2	A752,753
D020-33216-705	MI-0.0033UF-J	2	C211,212	G680-00021-000	HR-CR7-DC12V	1	RY751
D020-33316-705	MI-0.033UF-J	2	C307,309	J503-0882Y-012	KSD882Y, 1W	1	Q752
D020-47216-705	MI-0.0047UF-J	2	C854,855	C000-01036-226	10K-J, 1	2	R751,755
D020-47316-705	MI-0.047UF-J	2	C339,843	C000-02226-226	2.2K-J, 1	1	R753
D023-10406-700	EB-0.1UF-J	4	C329,330,346,347	C000-04726-226	4.7K-J, 1	1	R752
D023-10506-700	EB-1UF-J	1	C310	D007-10388-326	Y0.01UF-M	2	C752,753
D023-15406-700	EB-0.15UF-J	4	C335,337,352,354	D040-10108-206	100UF-M	1	C757
D023-47406-700	EB-0.47UF-J	1	C327	D040-33108-405	330UF-M	1	C755
D040-R4708-705	0.47UF-M	6	C331,334,348,350,827,842	D040-47008-705	470F-M	2	C756,760
D040-01008-705	1UF-M	9	C243,244,247,248,278,355 ,356,801 C804	G645-00005-001	PI5.2-REEL	4	F2,3
D040-10008-705	10UF-M	22	C203,204,241,242,245,246 ,312,317,318,320,323,324, 326,341,823,826,342,343, 344,363,364,272	J502-1845F-000	KSC1845F, 0.5W	1	Q751
D040-10108-305	100UF-M	4	C209,210,270,802	K000-01330-026	1SS133T-77-26MM	2	D756,757
D040-2R208-705	2.2UF-M	6	C316,277,840,817,850,851	K040-40020-026	1N4002A-26MM	7	D751,752,753,754,755,761,760
D040-22008-305	22UF-M	2	C866,867	K060-06R21-426	MTZ6.2B-0.5W	1	D758
D040-22108-205	220UF-M	5	C302,303,311,340,345	<b>P.C.B MANU INS ASSY(TONE CONTROL)</b>			
D040-22108-305	220UF-M	1	C849	C452-11240-030	RK11K1160107 200KW 22.5	1	VR732
D040-3R308-705	3.3UF-M	4	C336,353,820,841	C454-12140-050	RK14K1260107-100KB*2-22.5	2	VR701,702
D040-33108-405	330UF-M	1	C275	C495-12140-070	EUZ-MM8F25B15	1	VR731
D040-4R708-705	4.7UF-M	9	C215,216,273,274,332,333 ,349,351,818	G000-11200-001	SPLUL 12*2T W	1	VR732
D040-47008-305	47UF-M	5	C301,328,805,833,857	J121-45650-001	NJM4565DD-DIP8P	1	IC701
D042-01008-705	1UF-M	1	C325	C000-01036-226	10K-J, 1	4	R733,734,737,738
				C000-01246-226	120K-J, 1	2	R705,706
				C000-01326-226	1.3K-J, 1	2	R703,704
				C000-01626-226	1.6K-J, 1	2	R721,722
				C000-01826-226	1.8K-J, 1	2	R721,722
				C000-01846-226	180K-J, 1	2	713,714
				C000-02226-226	2.2K-J, 1	4	R707,708
				C000-02236-226	22K-J, 1	2	R731,732,735,736

# ELECTRICAL PARTS LIST

REF NO	DESCRIPTION	QTY	LC/DO	REF NO	DESCRIPTION	QTY	LC/DO
J500-0992F-005	KSA992F, 0.5W	15	Q103,104,105,106,111, 112,113,116,135	J040-73130-001	NJU7313AL-SDIP28P	1	IC202
J502-1740S-001	2SC1740SR, 0.3W	6	Q136,139,150,028,146,147	J081-10100-001	LV1010N, LV1011-SUR	1	IC301
J502-1845F-000	KSC1845F, 0.5W	16	Q55,134,155,156,159,168	J081-27850-001	LA2785(PRO-LOGIC) SURROUND	1	IC302
J503-13030-001	2SC2878, 0.4W	4	Q107,108,109,110,117, 120,123,124,132	J120-70010-001	LM7001-PLL	1	IC803
K000-01310-026	1SS131T-77-26MM	20	Q133,140,141,145,148, 153,149	J121-45650-001	NJM4565DD-DIP8P	3	IC201,204,303
K040-40020-026	1N4002A-26MM	9	Q101,102,165,166	J124-12650-001	LA1265	1	IC801
K060-05R11-426	MTZ5.1B-0.5W	3	D052,101,102,103,104, 111,112,115,116,063,064	J124-74700-001	AN7470	1	IC802
K060-06R84-426	MTZJ6.8B-0.5W	1	D122,123,124,133,134, 161,162,167,168	J127-62090-001	BA6209N	1	IC205
K060-08R24-426	MTZJ8.2B-0.5W	1	D121,125,126,147,148, 150,151,153,154	J503-2058Y-014	KTD2058Y, 2W	1	Q303
K060-10R05-426	MTZJ10C-0.5W	8	D028,061,062	C000-01006-226	10-J, 1	2	R271,272
K060-16R05-426	MTZJ16C-0.5W	5	D141	C000-01016-226	100-J, 1	17	R209,210,219,220,227, 228,235,236,243,244,251, 252,248,247,255,256,816
K060-18R05-426	MTZJ18C-0.5W	9	D142	C000-01026-226	1.0K-J, 1	18	R853,880,881,882,201,202 ,217,218,223,224,231,232, 264,304,239,240,261,890
			D107,108,109,110,117, 118,119,120	C000-01036-226	10K-J, 1	15	R809,819,828,830,837,844 ,846,266,267,265,268,301, 302,283,802
			D105,106,113,114,144	C000-01046-226	100K-J, 1	14	R817,262,281,293,295,329 ,330,263,291,290,309 R310,259,260
			D145,165,166,169,170, 163,164,171,172	C000-01056-226	1.0M-J, 1	1	R312
<b>P.C.B MANU INS ASSY(TUNER)</b>				C000-01236-226	12K-J, 1	2	R883,884
C001-01006-310	10-J, 1	2	R305,297	C000-01536-226	15K-J, 1	1	R852
C001-01016-310	100-J, 1	3	R806,810,836	C000-01826-226	1.8K-J, 1	1	R808
C001-02206-310	22-J, 1	2	R342,343	C000-01836-226	18K-J, 1	1	R311
C001-02216-310	220-J, 1	1	R869	C000-02206-226	22-J, 1	1	R813
C001-04706-310	47-J, 1	1	R344	C000-02216-226	220-J, 1	1	R803
C001-08206-310	82-J, 1	1	R851	C000-02226-226	2.2K-J, 1	7	R843,845,317,318,323, 327,840
C544-10300-210	10KB-6H3P, 0.05W-100V	2	VR804,801	C000-02236-226	22K-J, 1	6	R857,858,315,316,211,212
C544-22400-210	220KB-6H3P, 0.05W-100V	1	VR803	C000-02246-226	220K-J, 1	18	R221,222,225,226,229,230 ,233,234,237,238,241,242, 245,246,249,250,253,254
C544-47200-210	4.7KB-6H3P, 0.05W-100V	1	VR802	C000-02746-226	270K-J, 1	2	R213,214
D000-06011-700	CH6PF-D	1	C869	C000-03316-226	330-J, 1	5	R814,815,207,208,280
D020-27306-C00	ST-0.027UF-J	1	C803	C000-03326-226	3.3K-J, 1	11	R811,831,885,284,285,298 ,839,861,862,863,864
D022-47106-701	ST-470PF-J	1	C839	C000-03936-226	39K-J, 1	2	R313,835
D300-5R600-000	5.6MH	1	L811	C000-04716-226	470-J, 1	2	R286,859
D300-6R800-000	6.8MH	1	L812	C000-04726-226	4.7K-J, 1	4	R287,321,324,801
D330-10070-010	10UH-Q50	1	L803	C000-04736-226	47K-J, 1	16	R879,205,206,215,216,257 ,258,319,320,325,326,834, 841,842,855,856
D940-00400-000	RBW-07V-0040	1	L802	C000-05626-226	5.6K-J, 1	1	R833
D950-00090-000	BCFAZ-009	1	L804	C000-06816-226	680-J, 1	1	R812
D951-50440-000	292MEAS-5044DLE	1	L806	C000-06826-226	6.8K-J, 1	4	R292,294,340,341
E401-50310-000	253BGGS-K5031	2	L809,810	C000-06836-226	68K-J, 1	1	R832
E430-10R70-051	SFE10.7MS3GK-A	2	CF801,802	C000-08206-226	82-J, 1	1	R838
E431-04500-000	BFU450C4N	1	CF803	C000-08226-226	8.2K-J, 1	2	R807,850
E800-7R200-003	7.2MHZ, 20PPM-CL;13.7PF	1	X801	D001-22006-706	SL22PF-J	10	C237,238,304,306,359,360
E800-8R000-001	8.00MHZ, HC49U-CL;22PF	1	X300				
E900-00011-000	FE415-G11	1	TU801				
G040-10580-000	AK1	1	JACK801				
G601-02004-400	DAERYUNG	1	JACK201				
G603-06004-602	DAERYUNG	3	JACK202,203,204				
J040-73110-001	NJU7311AL-SDIP28P	1	IC203				

# ELECTRICAL PARTS LIST

REF NO	DESCRIPTION	QTY	LC/DO	REF NO	DESCRIPTION	QTY	LC/DO
C000-04716-226	470-J, 1	2	R723,724	D040-R4708-705	0.47UF-M	7	C502,505,506,507,508,509
C000-04726-226	4.7K-J, 1	2	R715,716	D040-01008-705	1UF-M	1	C515
C000-04736-226	47K-J, 1	2	R719,720	D040-10108-206	100UF-M	1	C512
C000-05116-226	510-J, 1	2	R717,718	D040-4R708-705	4.7UF-M	2	C514,516
C000-05636-226	56K-J, 1	2	R709,710	D330-10070-020	10UH-Q40	2	C510,511
D001-47006-726	SL47PF-J	2	R711,712	G180-00027-001	SKHV10920A, 5MM	1	L501
D005-22127-726	B220PF-K	2	C705,706	J500-0933S-005	2SA9333S, 0.3W	34	SW501-534
D007-10388-326	Y0.01UF-M	1	C701,702	J502-1740S-001	2SC1740SR, 0.3W	1	Q503
D020-10216-705	MI-0.001UF-J	2	C733	J600-0114E-001	DTA114ES, 0.3W	1	Q501
D020-22316-705	MI-0.022UF-J	2	C707,708	K000-01330-026	1SS133T-77-26MM	2	Q502,504
D020-27316-705	MI-0.027UF-J	2	C709,710			23	D501,502,503,504,505, 506,507,508,516,517
D020-56316-705	IM-0.056UF-J	2	C731,732				D519,520,521,522,523, 524,525,527,512,513
D040-10008-705	10UF0M	2	C703,704				D514,510,511
D040-3R308-705	3.3UF-M	2	C717,718	K060-04R71-426	MTZ4.7B-0.5W	1	D528
D040-4R708-705	4.7UF-M	2	C711,712	K060-07R51-426	MTZ7.5B-0.5W	1	D526
D040-47008-305	47UF-M	2	C715,716				
J502-1740S-001	2SC1740SR, 0.3W	2	C713,714 Q701,702				
<b>P.C.B MANU INS ASSY(HEAD PHONE)</b>							
G402-06410-000	HTJ-06410D	1	JACK101				
<b>P.C.B MANU INS ASSY(FRONT)</b>							
C000-01056-226	1.0M-J, 1	1	R600				
D090-47390-400	H0.047F-70UA	1	C513				
E830-4R100-000	CST4.19MGW-3PIN	1	X501				
E940-00005-000	MM-001E	1	A501				
G120-52024-000	EVQ WQ5 F20 24B	1	SW535				
J020-64337-233	HD6433723D33F-QFP80P	1	IC501				
K500-05200-501	PI5-RD	1	LED501				
K530-00025-000	SVA-9MS PI1	1	FLT501				
C000-01006-226	10-J, 1	1	R513				
C000-01016-226	100-J, 1	18	R504,506,526,527,528, 529,530,531,532,545 R576,577,578,579,580, 581,567,568				
C000-01026-226	1.0K-J, 1	17	R514,560,561,562,563, 564,565,566,515,569 R571,572,573,574,591, 592,593				
C000-01036-226	10K-J, 1	5	R590,549,550,595,596				
C000-01046-226	100K-J,1	17	R505,517,518,519,520, 523,524,525,582,583,584 R585,586,587,503,588,516				
C000-01516-226	150-J, 1	1	R559				
C000-01826-226	1.8K-K, 1	1	R546				
C000-02216-226	220-J, 1	4	R501,502,507,509				
C000-02216-326	220K-J, 1	1	R512				
C000-02246-226	220K-J, 1	2	R508,510				
C000-03336-226	33K-J, 1	1	R589				
C000-04736-226	47K-J, 1	3	R547,548,594				
D001-68006-726	SL68PF-J	2	C501,517				
D007-10388-326	Y0.01UF-M						

# ELECTRICAL PARTS LIST

## HEAT SINK ASSY

REF NO	DESCRIPTION	QTY	LC/DO
J501-1559Y-117	2SB1599Y	2	Q1, 181
J502-4137V-013	2SC4137V	4	Q2,129, 130, 182
J503-2389Y-117	2SD2389Y	2	Q3, 183
J581-1470Q-016	2SB1470Q	2	Q127, 128
J583-2222Q-016	2SD2222Q	2	Q125, 126

## P.C.B MANU INS ASSY(MAIN)

C001-01016-310	100-J, 1	3	R53,183,184
C001-02206-310	22-J, 1	4	R135,136,141,142
C001-02216-310	220-J, 1	11	R009,012,013,121,122, 123,124,176,177,178, 281
C001-03316-310	330-J, 1	2	R125,126
C001-03326-310	3.3K-J, 1	5	R022,028,143,144,191
C001-04706-310	47-J, 1	5	R019,020,031,187,188
C041-01006-620	10-J, 2W	4	R025,151,152,193
C041-03916-515	390-J, 1W-F15	2	R063,064
C041-05616-515	560-J, 1W-F15	2	R137,138
C144-R2207-710	0.22*2-K	1	R021
C144-R2207-910	0.22*2-K	3	R145,146,189
C544-10201-511	1KB-6.4H3P, 0.1W-50V	2	VR101,102
D004-10359-D00	F0.01UF-Z	4	C3,4,7,8
D040-47008-C00	47UF-M	2	C159,160
D040-47108-502	470UF-M	2	
D040-68208-900	6800UF-M	2	C5,6
D330-R5000-000	0.5UH-BULK	4	L101,102,103,104
G040-40620-701	P40620701P 6P	1	SPK102
G040-40820-260	P40820260P	1	SPK101
G401-49600-000	EMUDEN	1	JK102
G602-04004-503	DAERYUNG	1	JK101
G650-50125-104	250V-T0.5A-SEMKO	2	F005,006
G680-00022-000	JW2AHN-DC24V	3	K1,2,3
J040-22790-000	NJM2279D-S	1	IC101
J501-1274R-015	2SB1274R, 20W	1	Q162
J503-2058Y-014	KTD2058Y, 2W	2	Q158,161
K047-40030-001	D5SB20-4003	1	D155
C000-01006-326	10-J, 1	1	R027
C000-01016-226	100-J, 1	5	R103,104,043,004,169
C000-01026-226	1.0K-J, 1	4	R023,192,015,073
C000-01036-226	10K-J, 1	17	R001,005,035,036,037,040, ,061,107,108,170 R115,116,161,162,163,166, ,199
C000-01046-226	100K-J, 1	2	R032,055
C000-01046-326	100K-J, 1	6	R075,076,077,078,079,080
C000-01536-226	15K-J, 1	1	R042
C000-01636-226	16K-J, 1	1	R041
C000-02206-326	22-J, 1	6	R147,148,158,159,195,196
C000-02226-226	2.2K-J, 1	14	R006,007,059,062,111,112, ,113,114 R171,172,174,175,010,011
C000-02256-226	2.2M-J, 1	2	R127,128
C000-02716-226	270-J, 1	2	R173,008

REF NO	DESCRIPTION	QTY	LC/DO
C000-02726-226	2.7K-J, 1	4	R133,134,016,186
C000-02736-226	27K-J, 1	5	R029,044,045,046,047
C000-03016-226	300-J, 1	2	R110,109
C000-03326-326	3.3K-J, 1	2	R065,066
C000-03626-226	3.6K-J, 1	1	R054
C000-03936-226	39K-J, 1	2	R048,049
C000-04716-226	470-J, 1	4	R155,156,197,024
C000-04726-226	4.7K-J, 1	3	R165,190,198
C000-04736-226	47K-J, 1	13	R003,018,026,060,105, 106,129,130,153,154 R168,179,194
C000-06226-226	6.2K-J, 1	1	R157
C000-06816-226	680-J, 1	2	R149,150
C000-07506-226	75-J, 1	4	R067,068,069,070
C000-08226-226	8.2K-J, 1	6	R117,118,119,120,014,VR103
C000-19126-226	9.1K-J, 1	4	R131,132,185,017
D000-08011-705	CH8PF-D	2	C121,122
D000-10001-705	SL10PF-D	2	C158,178
D000-12006-705	SL12PF-J	2	C113,114
D000-22006-705	SL22PF-J	2	C165,166
D000-47006-D05	SL47PF-J	2	C119,120
D000-56006-705	SL56PF-J	2	C155,175
D000-82006-D05	SL82PF-J	2	C157,176
D001-47006-726	SL47PF-J	2	C068,069
D004-10327-705	B0.01UF-K	9	C125,126,127,128,161, 162,179,180 C070
D004-15259-705	F0.0015UF-Z	1	C010
D004-22127-705	B220PF-K	4	C117,118,156,177
D005-10127-726	B100PF-K	12	C105,106,107,108,152, 153,172,173,111,112 C123,124
D005-22127-726	B220PF-K	4	C151,171,103,104
D005-47127-726	B470PF-K	1	C50
D007-10388-326	Y0.01UF-M	2	C066,067
D007-15278-326	X0.0015UF-M	1	C197
D020-10316-705	MI-0.01UF-J	8	C133,134,135,136,137, 138,139,140
D020-68316-705	MI-0.068UF-J	8	C129,130,131,132,163, 164,181,183
D040-01008-605	1UF-M	2	C115,116
D040-01008-705	1UF-M	4	C101,102,150,170
D040-10008-C05	10UF-M	1	C28
D040-10008-705	10UF-M	4	C195,196,064,065
D040-10108-505	100UF-M	2	C194,198
D040-22008-705	22UF-M	3	C192,193,281
D040-22108-205	220UF-M	3	C109,110,142
D040-47008-305	47UF-M	3	C063,154,174
D040-47008-805	47UF-M	1	C011
D040-47108-105	470UF-M	1	C61
D042-R4708-705	0.47UF-M	1	C167
D042-01008-705	1UF-M	1	C168
G645-00005-001	P15.2-REEL	4	F5,6
J500-0933S-005	2SA933S, 0.3W	3	Q157,160,056



# SPECIFICATIONS

## Audio section (U.S.A)

Rated power output at the STEREO operation

100watts per channel minimum RMS, both channels driven at 8Ω, from 40Hz to 20,000Hz with no more than 0.08% total harmonic distortions (FTC)

Power output at the Surround operation

Front (1kHz, 0.9% T.H.D. at 8Ω).....65W+65W  
Center (1kHz, 0.9% T.H.D. at 8Ω).....65W  
Rear (1kHz, 0.9% T.H.D. at 8Ω).....18W+18W

Total harmonic distortion (1 kHz, 8 Ω)..... 0.03 % at 50 W  
Signal to noise ratio (IHF A)  
PHONO (MM)..... 74 dB  
CD, TAPE, VIDEO..... 100 dB  
Input sensitivity / impedance  
PHONO (MM) ..... 2.5mV/47k Ω  
CD, TAPE, VIDEO ..... 200 mV/47k Ω  
Tone controls  
BASS ..... ± 10 dB (at 100 Hz)  
TREBLE ..... ± 10 dB (at 10KHz)  
Loudness control at- 30 dB level ..... + 9 dB (100 Hz)

## Video section

VIDEO inputs / outputs(Composite) .....1Vp-p / 75 Ω

## FM Tuner section

Tuning frequency range ..... 87.5 MHz ~ 108 MHz  
Usable sensitivity (IHF) .....13.2 dBf (1.2 μV at 75 Ω)  
50 dB quieting sensitivity  
STEREO ..... 41.2 dBf (32 μV at 75 Ω)  
Total harmonic distortion at 1 kHz  
MONO ..... 0.6%  
STEREO ..... 0.7 %  
Signal to noise ratio at 65 dBf (IHF)  
MONO ..... 75 dB  
STEREO ..... 68 dB  
Selectivity (IHF ± 400 kHz) ..... 50 dB  
Stereo separation (IHF at 1kHz) ..... 40 dB

## AM Tuner section

Tuning frequency range ..... 520kHz-1,710kHz  
Usable sensitivity ..... 12 μV / (500 μV /m)  
Total harmonic distortion ..... 0.7 %  
Signal to noise ratio ..... 48 dB  
Selectivity ..... 30dB

## General

power consumption ..... 3A  
AC outlet  
SWITCHED ..... 2: (total 100 W 1A max.)  
Dimensions ..... W: 440 mm (17-5/16")  
H: 140 mm (5-5/8")  
D: 358 mm (14-1/10")  
Weight (net) ..... 9.6 kg (21.164 lb)

## Audio section (EUROPE)

Rated power output at the STEREO operation  
2 x 100w (DIN) 0,7% THD

Power output at the Surround operation

Front 2 x 65W (IEC 8 ohm) 0,9% THD  
Center 65W (IEC 8 ohm) 0,9% THD  
Rear 18W + 18W (IEC 18 ohm) 0,9% THD

Total harmonic distortion (1 kHz, 8 Ω)..... 0.03 % at 50 W  
Signal to noise ratio (IHF A)  
PHONO (MM) ..... 74 dB  
CD, TAPE, VIDEO..... 100 dB  
Input sensitivity / impedance  
PHONO (MM) ..... 2.5mV/47k Ω  
CD, TAPE, VIDEO ..... 200 mV/47k Ω  
Tone controls  
BASS ..... ± 10 dB (at 100 Hz)  
TREBLE ..... ± 10 dB (at 10KHz)  
Loudness control at- 30 dB level ..... + 9 dB (100 Hz)

## Video section

VIDEO inputs / outputs(Composite).....1Vp-p / 75 Ω

## FM Tuner section

Tuning frequency range ..... 87.5 MHz ~ 108 MHz  
Usable sensitivity (IHF) ..... dBf (1.2 μV at 75 Ω)  
50 dB quieting sensitivity  
STEREO ..... dBf (32 μV at 75 Ω)  
Total harmonic distortion at 1 kHz  
STEREO ..... 0.7 %  
Signal to noise ratio at 65 dBf (IHF)  
MONO ..... 0.6 %  
STEREO ..... 0.7 %  
Selectivity (IHF ± 400 kHz) ..... 50 dB  
Stereo separation (IHF at 1kHz) ..... 40 dB

## AM Tuner section

Tuning frequency range ..... 522 kHz ~ 1,602 kHz  
Usable sensitivity ..... 12 μV / (500 μV /m)  
Total harmonic distortion ..... 0.7 %  
Signal to noise ratio ..... 48 dB  
Selectivity ..... 30dB

## General

power consumption ..... 310 w  
AC outlet  
SWITCHED ..... 2: (total 100 W 1A max.)  
Dimensions ..... W: 440 mm (17-5/16")  
H: 140 mm (5-5/8")  
D: 358 mm (14-1/10")  
Weight (net) ..... 9.6 kg (21.164 lb)