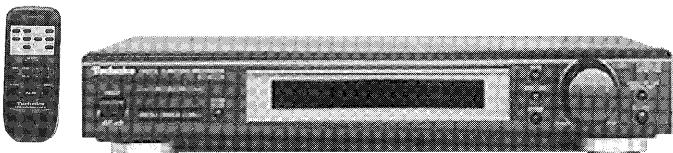


# Service Manual

Digital Surround Processor



\* Manufactured under license from Dolby Laboratories Licensing Corporation.  
 "Dolby", "AC-3", "Pro Logic" and the double-D symbol are trade marks of Dolby Laboratories.

Processor  
**SH-AC300**  
 Colour

## Area

Suffix for Model No.	Area	Colour
(GC)	Asia, Latin America, Africa and Middle Near East	(K)
(GN)	Oceania	

## ■ Specifications

### ■ AUDIO

Output voltage / Impedance

2 V ( at 0 dB ) / 1 kΩ

Input Impedance

LINE  
COAXIAL22 kΩ  
75 Ω

Frequency response

FRONT L/R, CENTER,  
SURROUND L/R (LARGE)

20 Hz - 20 kHz, ±1 dB

Delay time

AC - 3

CENTER  
SURROUND L/R0 - 5 ms  
0 - 15 ms  
15 - 30 ms

DOLBY PRO LOGIC

SURROUND L/R

Total harmonics distortion

FRONT L/R ( 1 kHz, 0 dB, PCM )

0.007%

Dynamic range

90 dB

S/N ( IHF A )

96 dB

### Load impedance

More than 10 kΩ

### ■ GENERAL

## Power supply

For GC AC 110 - 127 V / 220 - 240 V, 50 / 60 Hz  
For GN AC 230 - 240V, 50 Hz

18 W

## Power consumption

( In standby condition : 7 W )

## Dimensions (W x H x D)

430 x 69.4 x 301.4 mm

## Weight

2.6 kg

## Notes :

1. Specifications are subject to change without notice.  
Weight and dimensions are approximate.
2. Total harmonics distortion is measured by the digital spectrum analyzer.

## ■ Before Use (for GC area only)

Be sure to disconnect the mains cord before adjusting the voltage selector.  
 Use a minus(-) screwdriver to set the voltage selector (on the rear panel) to the voltage setting for the area in which the unit will be used.  
 (If the power supply in your area is 117V or 120V, set to the "110 - 127V"

position.)

Note that this unit will be seriously damaged if this setting is not made correctly. (There is no voltage selector for some countries; the correct voltage is already set.)

## ■ Contents

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### ⚠ WARNING

This service information is designed for experience repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

**Technics**®

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## ■ Operation Checks and Main Component Replacement Procedures

**" ATTENTION SERVICER "** Some chassis component may have sharp edges. Be careful when disassembling and servicing.

1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.
3. Select items from the following index when checks or replacement are required.

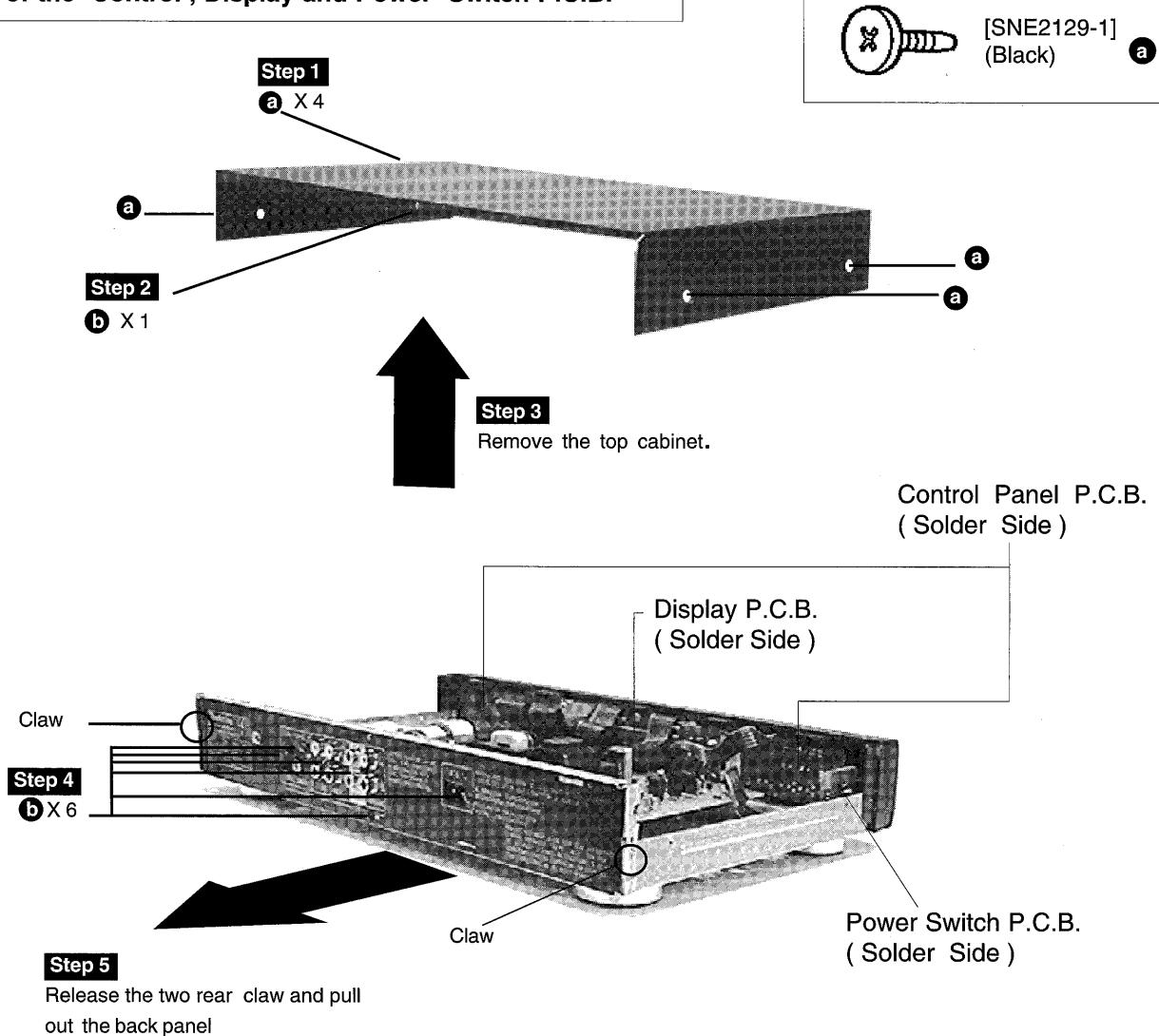
### • Contents

- Checking Procedure for each major P.C.B. ....

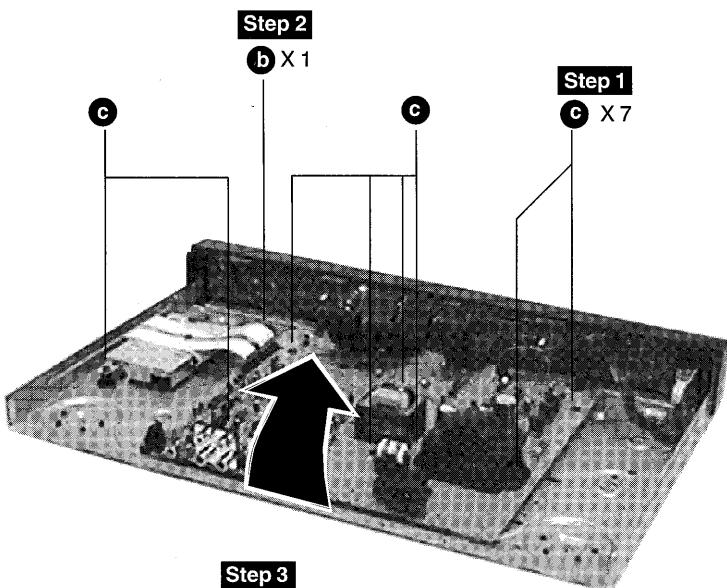
page  
2 ~ 3

### ■ Checking Procedure for Major P.C.B.

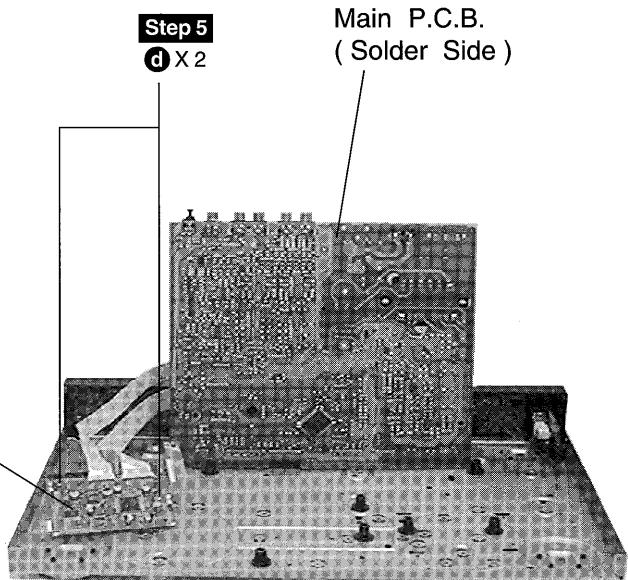
#### 1. Checking of the Control, Display and Power Switch P.C.B.



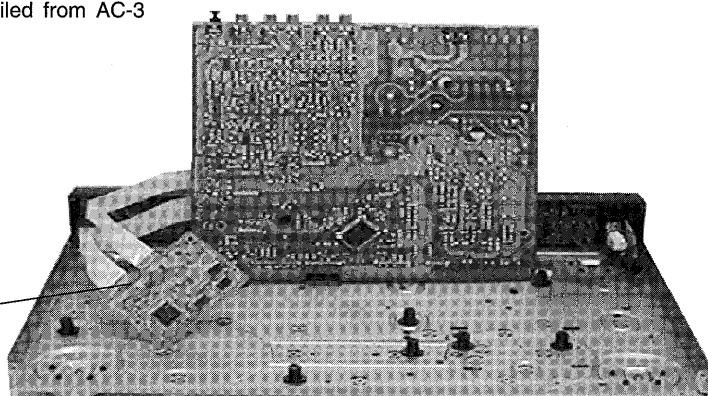
## 2. Checking of the AC-3 Module and Main P.C.B.

[XTBS3+8JFZ1]  
(Black) **b**[XTB3+20JFZ]  
(Black) **c****Step 3**

Lift over the main pcb  
following the arrow direction.

**Step 5**  
**d X 2**Main P.C.B.  
(Solder Side)**Step 6**

Remove the shiled from AC-3  
module pcb.

AC-3 Module P.C.B.  
(Solder Side)[XYN26+C6]  
**d**

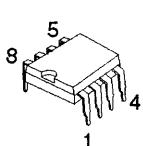
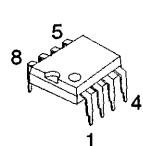
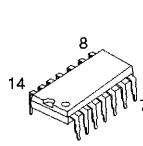
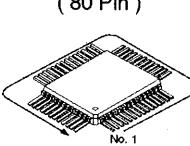
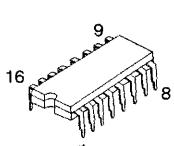
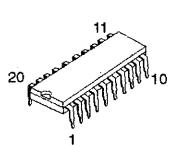
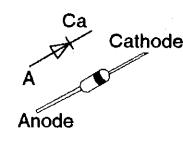
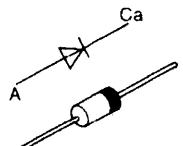
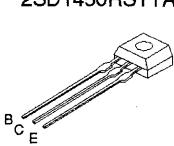
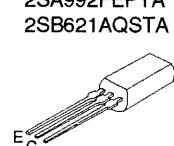
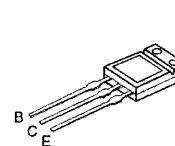
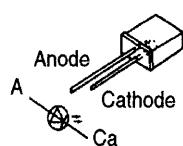
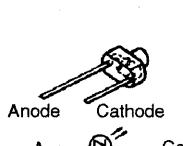
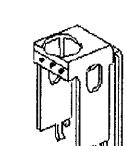
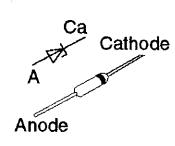
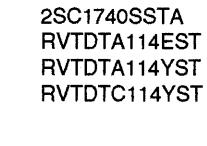
## ■ Terminal Functions Of IC's

### • IC901 (M38B53M4051F) System Microprocessor

Pin No.	Mark	I/O	Function
1	XCS	O	Chip select : XLJ93LC46
2	SK	O	Serial clock : XLJ93LC46
3	DI	O	Serial data output : XLJ93LC46
4	DO	I	Serial data input : XLJ93LC46
5~6	STB1~STB2	O	Strobe ( C/W ) : TC9212P
7~8	RA~RB	I	Rotary encoder input A~B
9	--	I	Unused to be connected to GND
10	RESET	I	Reset input
11	CK	O	Serial clock : TC9212P
12	DATA	O	Serial data output : TC9212P
13	VSS	-	GND terminal
14	XIN	--	Crystal oscillator terminal (4 MHz)
15	XOUT	--	
16	VDD/VCC	--	Power supply terminal +5V
17~18	DIGITAL1~2	O	Input selector indicator LED
19	LINE	O	LINE DIRECT indicator LED
20	STANDBY	O	Standby LED
21	POWERSW	I	Mechanical power source switch reader
22	REMOTE	I	Remote control input
23	HOLD	I	Power outage detection
24	POWER	O	Power supply relay
25~27	A4053A~C	O	Analog switch (4053) control A~C
28	VEE	--	-VP
29~30	MUTEA / S	O	Software muting
31~40	DIG10~DIG1	O	FL digit output

Pin No.	Mark	I/O	Function
41~56	SEG1~SEG16	O	FL segment signal output
57	INIT	I	Initial setting diode reading input
58	-	I	Unused, connected to Vcc via resistance
59	PDN	O	Reset / power down : CS4226
60	OVLERR	I	Overflow / error : CS4226
61	FRQ0	I	Sampling frequency : CS4226
62	FRQ1	I	Sampling frequency : CS4226
63	AC3	I	AC-3 bitstream : CS4226
64	AUDIO	I	PCM audio : CS4226
65	CCS	O	Chip select : CS4226
66	CCLK	O	Serial clock : CS4226
67	CDIN	O	Serial data input : CS4226
68	CDOUT	I	Serial data output : CS4226
69	SS	O	Chip select : DSP56009
70	SCK	O	Serial clock : DSP56009 / TC9332F
71	MOSI	O	Serial data output : DSP56009 / TC9332F
72	MISO	O	Serial data input : DSP56009
73	AVSS	-	GND for A/D converter
74	VREF	-	Reference voltage for A/D conversion
75	MRESET	O	Reset output : DSP56009
76	IFCD	O	Command / data select : TC9332F
77	TCS	O	Chip select : TC9332F
78	TRST	O	Reset output : TC9332F
79	KEY1	A/D	Key input 1
80	KEY2	A/D	Key input 2

## ■ Terminal Guide of IC's, Transistors and Diodes

UPC4570C	XLJ93LC46	AN6554F	M38B53M4051F ( 80 Pin )	TC4053BP	TC9212P
					
					
					

## ■ Schematic Diagram

(All schematic diagrams may be modified at any time with the development of new technology)

Note :

• S701	:	Power switch
• S702	:	Voltage selector switch
• S901	:	Digital 1
• S902	:	Digital 2
• S903	:	Line switch
• S904	:	RE-EQ switch
• S905	:	AC-3 switch
• S906	:	Pro-logic
• S907	:	Stereo
• S908	:	Channel select
• S909	:	Speaker select
• VR901	:	Volume control

• **Signal line**

 : +B line

 : -B line

 : Main signal line

• The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis. Accordingly, there may arise some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit.

• **Importance safety notice:**

Components identified by  mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

**Caution !**

IC, LSI and VLSI are sensitive to static electricity.

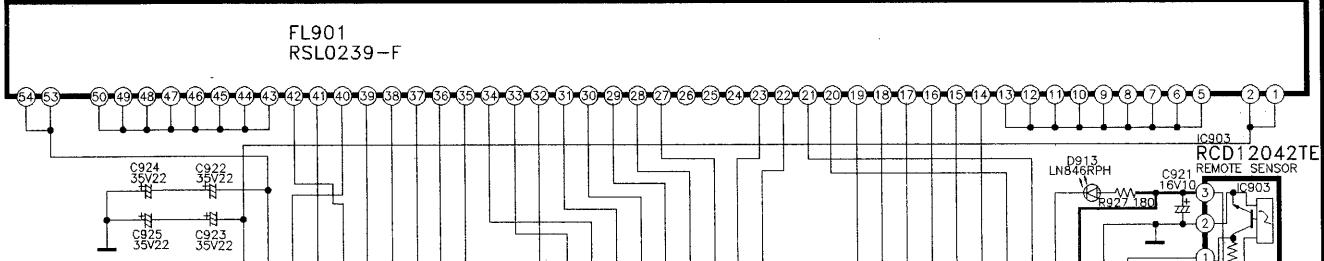
Secondary trouble can be prevented by taking care during repair.

• Cover the parts boxes made of plastics with aluminium foil.

• Ground the soldering iron.

• Do not touch the pins of IC, LSI or VLSI with fingers directly.

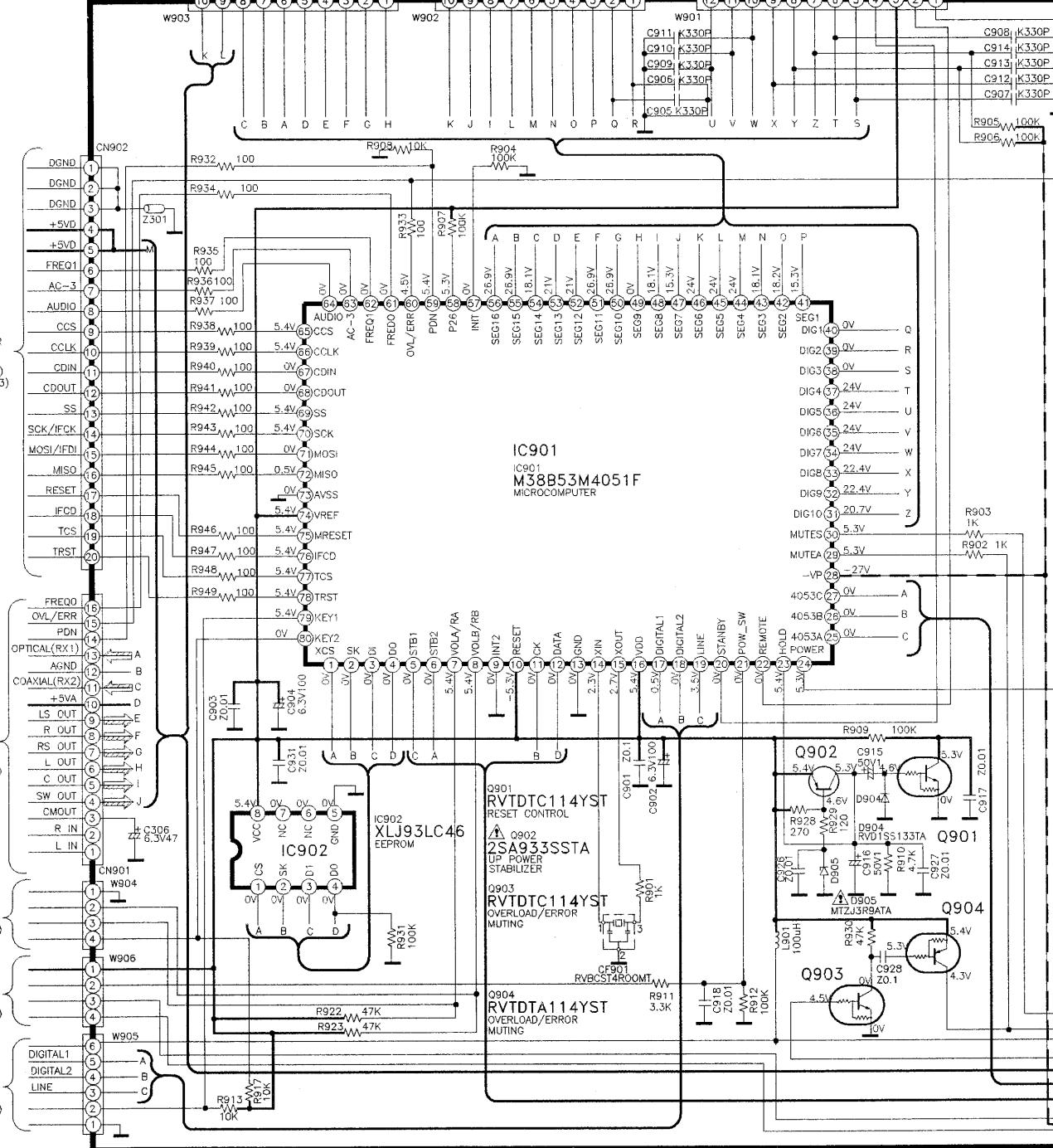
• Put a conductive mat on the work table.

**B** FL CIRCUIT  
FOR GC ONLY

**F** AC-3 DECODER MODULE CIRCUIT (CN1002) (PAGE 13)

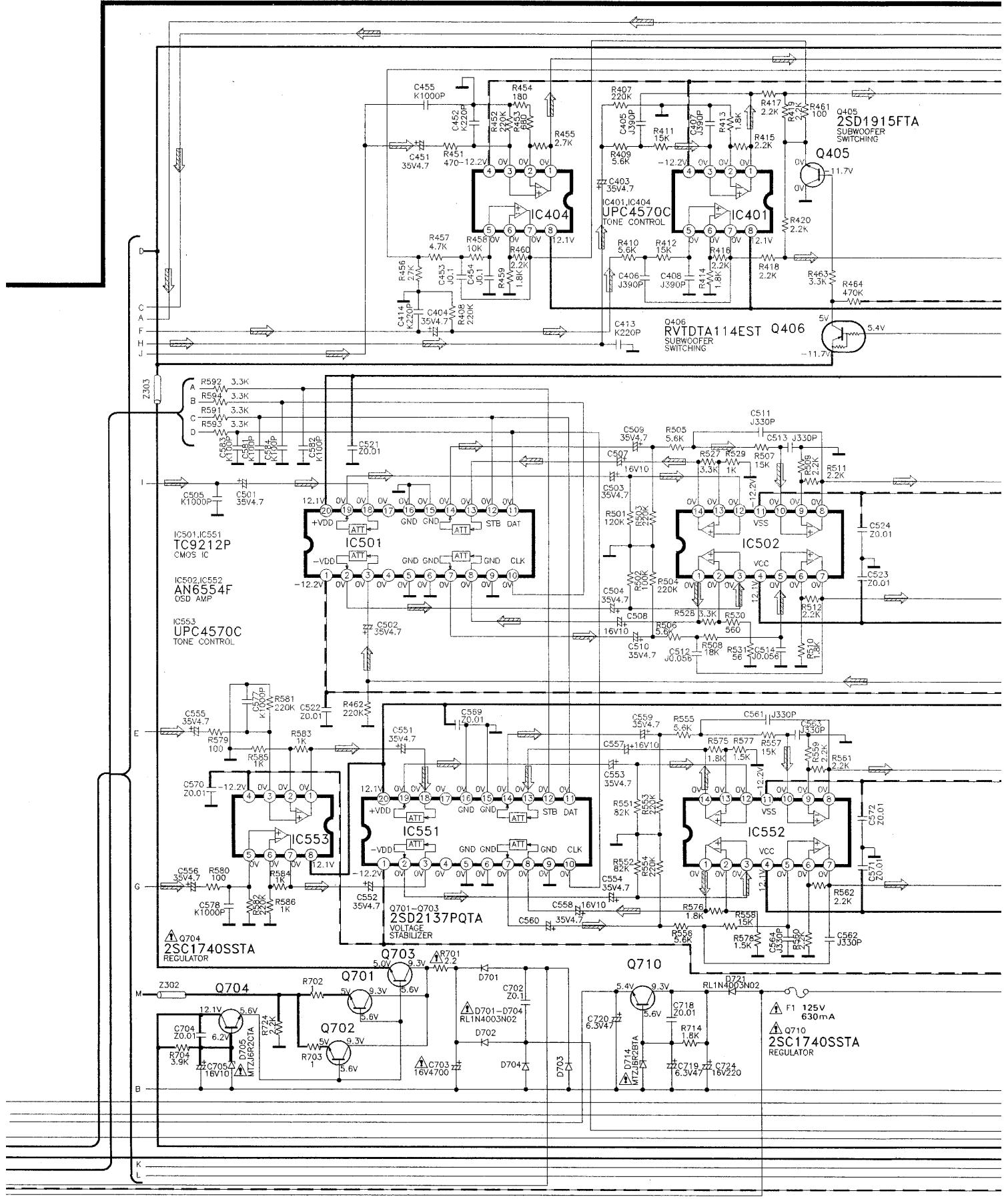
**F** AC-3 DECODER MODULE CIRCUIT (CN1001) (PAGE 13)

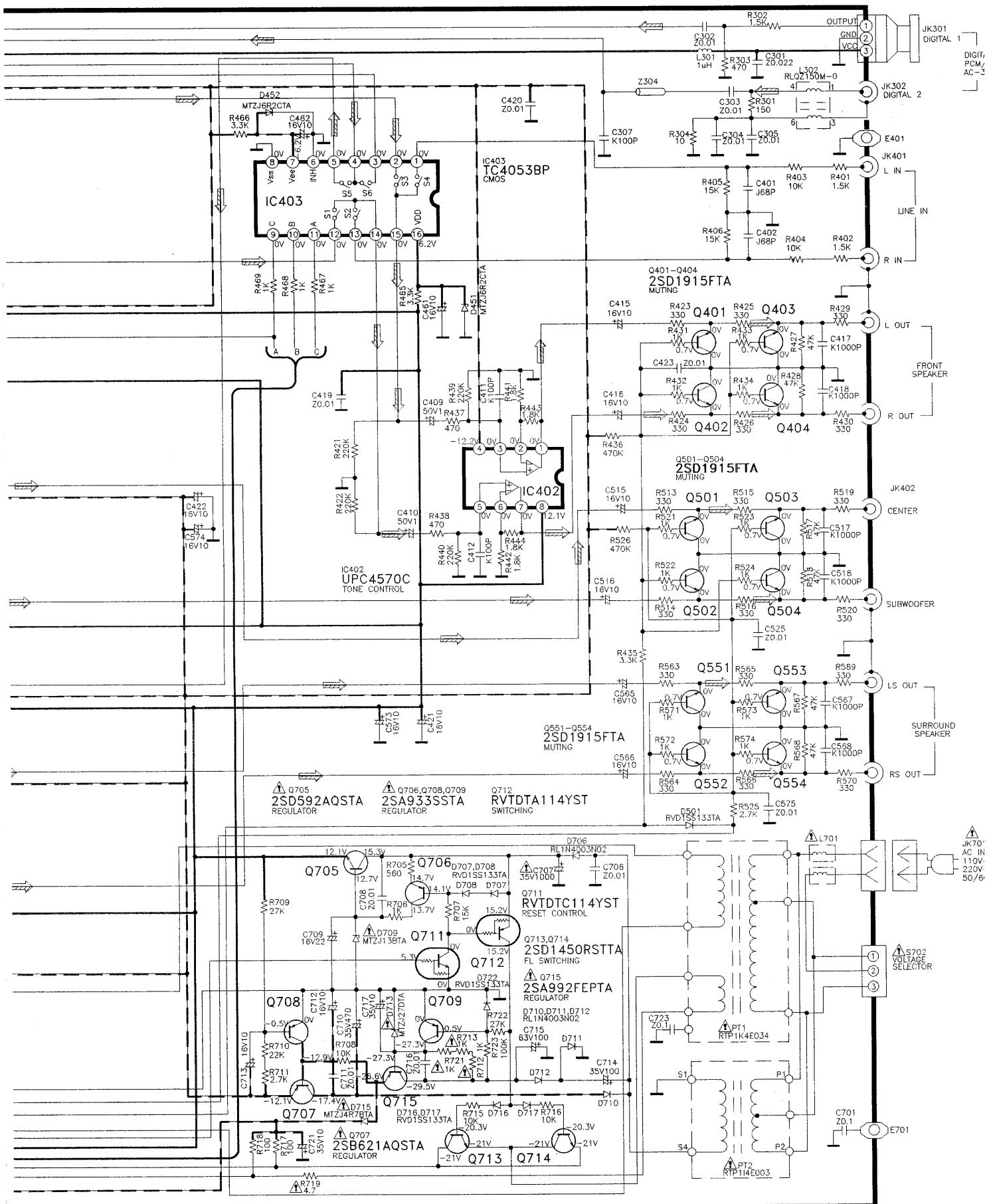
**C** TO VOLUME CONTROL CIRCUIT (W904) (PAGE 14)

**E** TO POWER SWITCH CIRCUIT (W906) (PAGE 14)

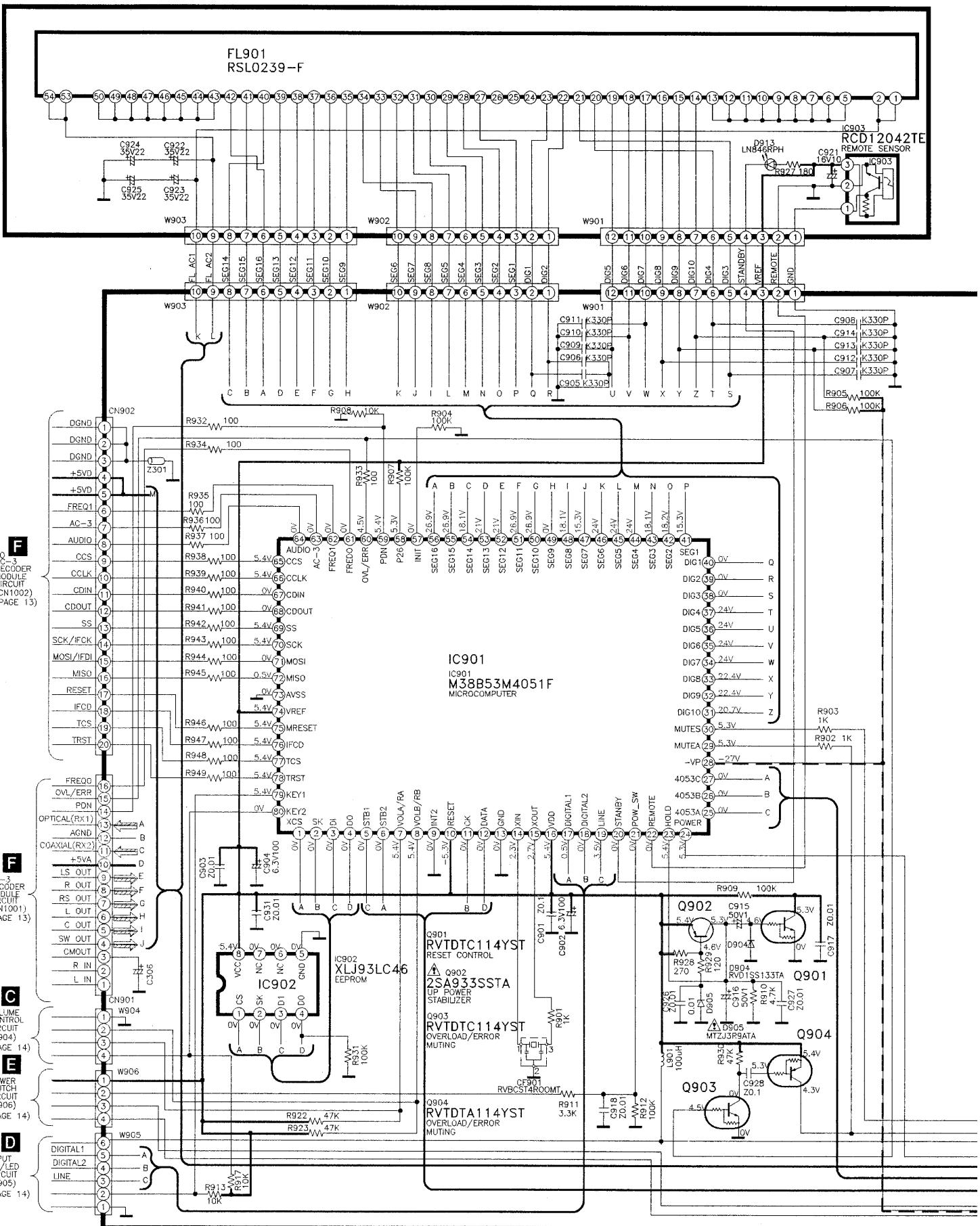
**D** TO INPUT SW/LED CIRCUIT (W905) (PAGE 14)


**A** MAIN CIRCUIT  
FOR GC ONLY

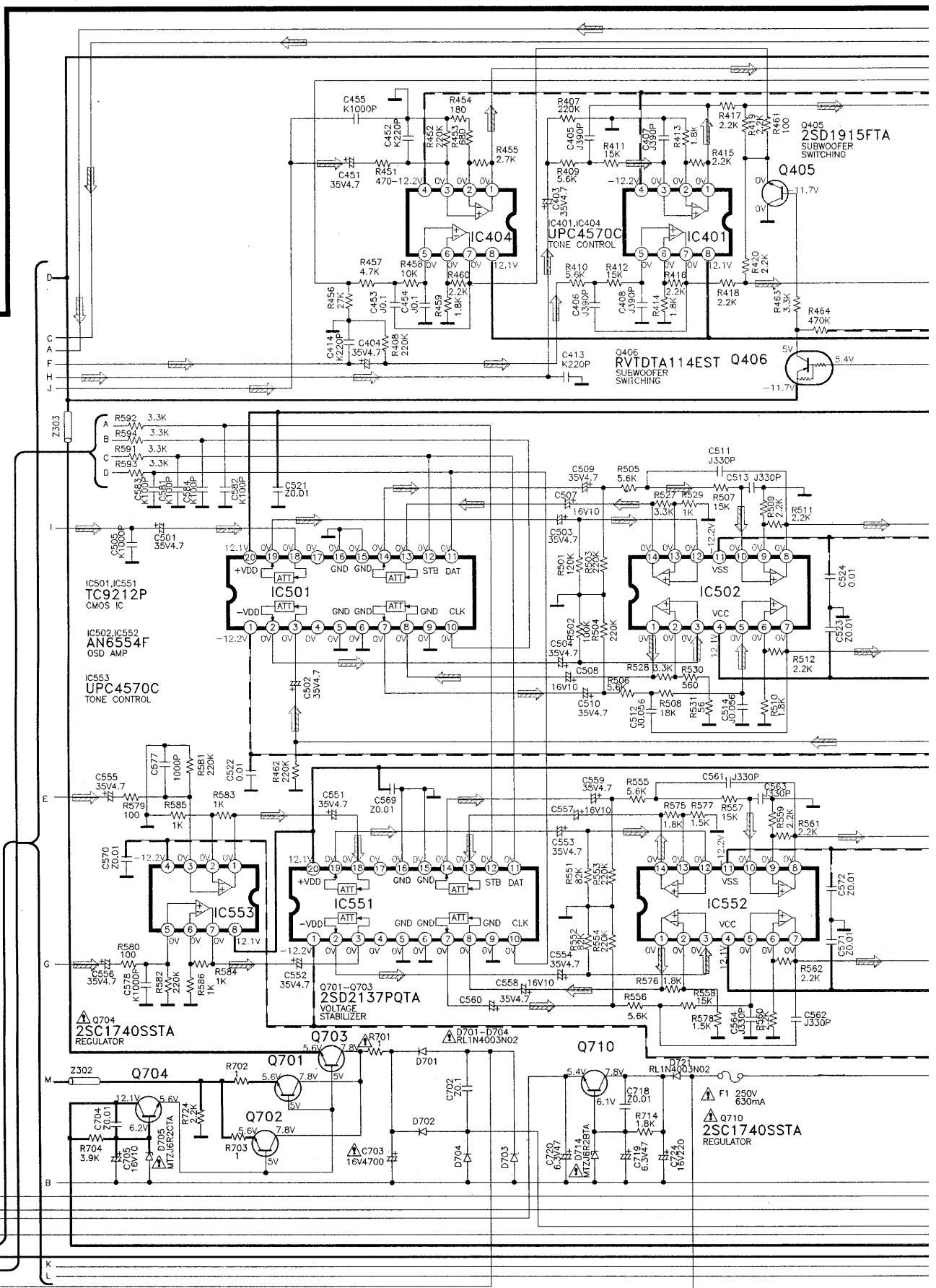


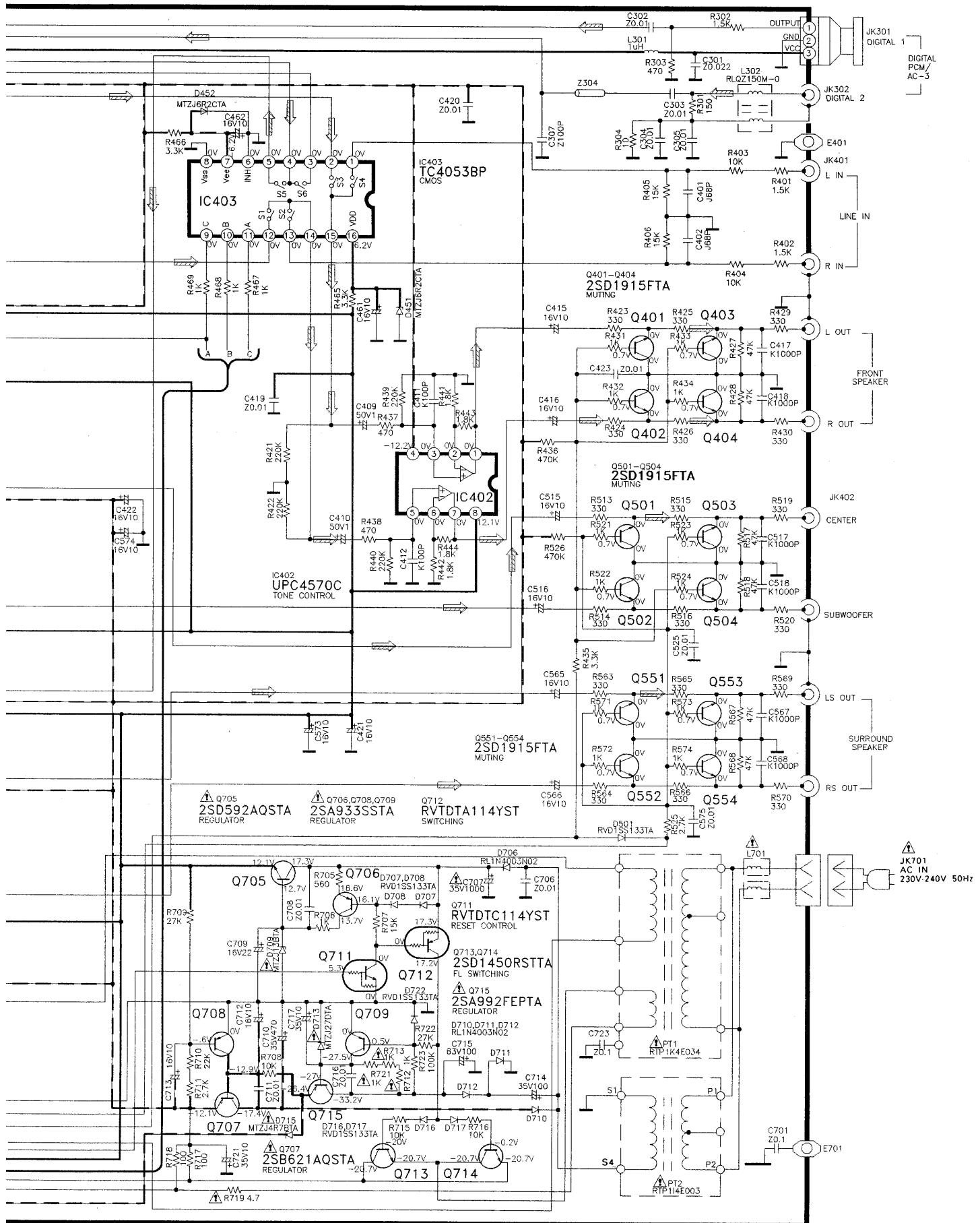


**B** FL CIRCUIT  
FOR GN ONLY

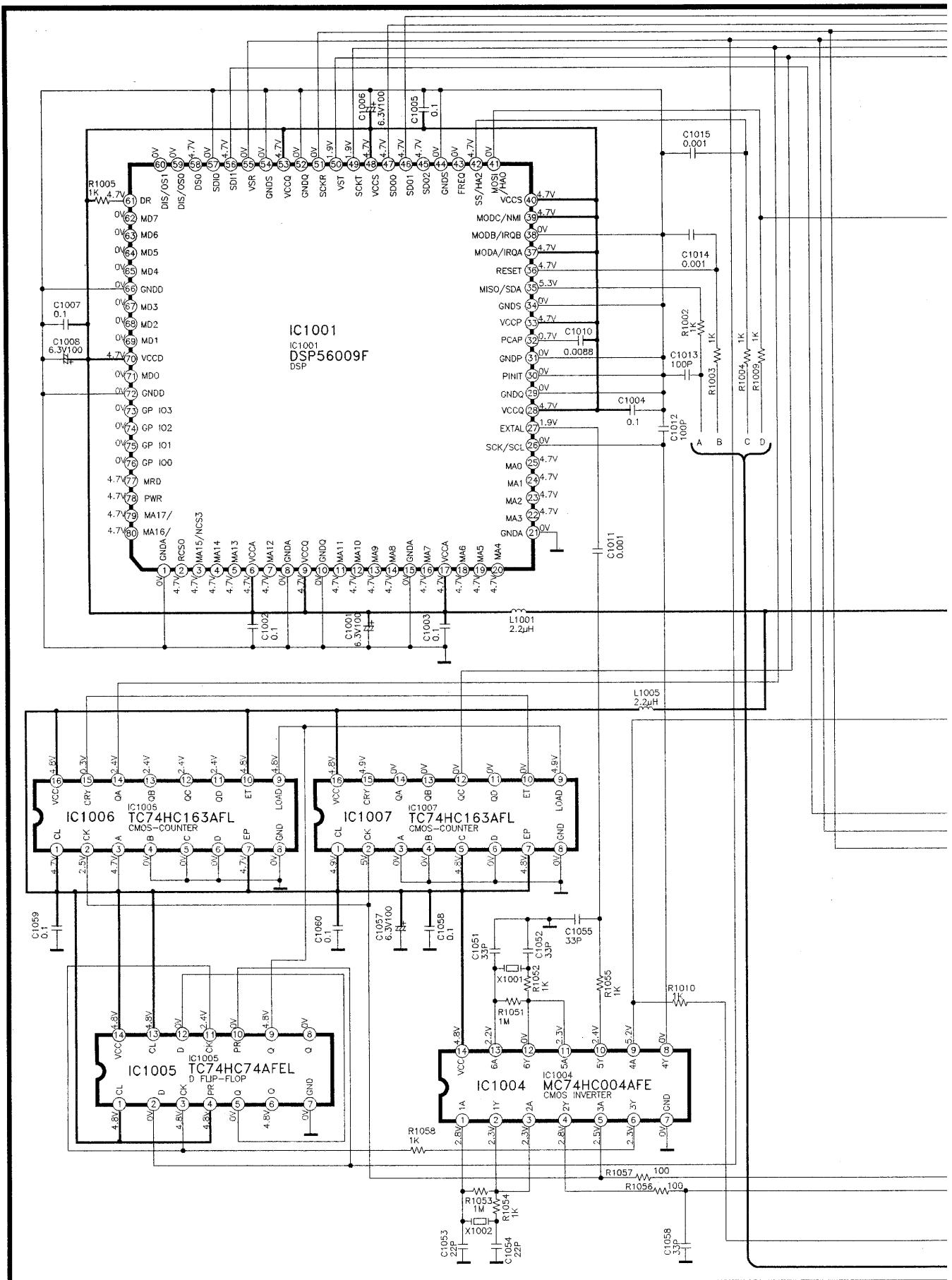


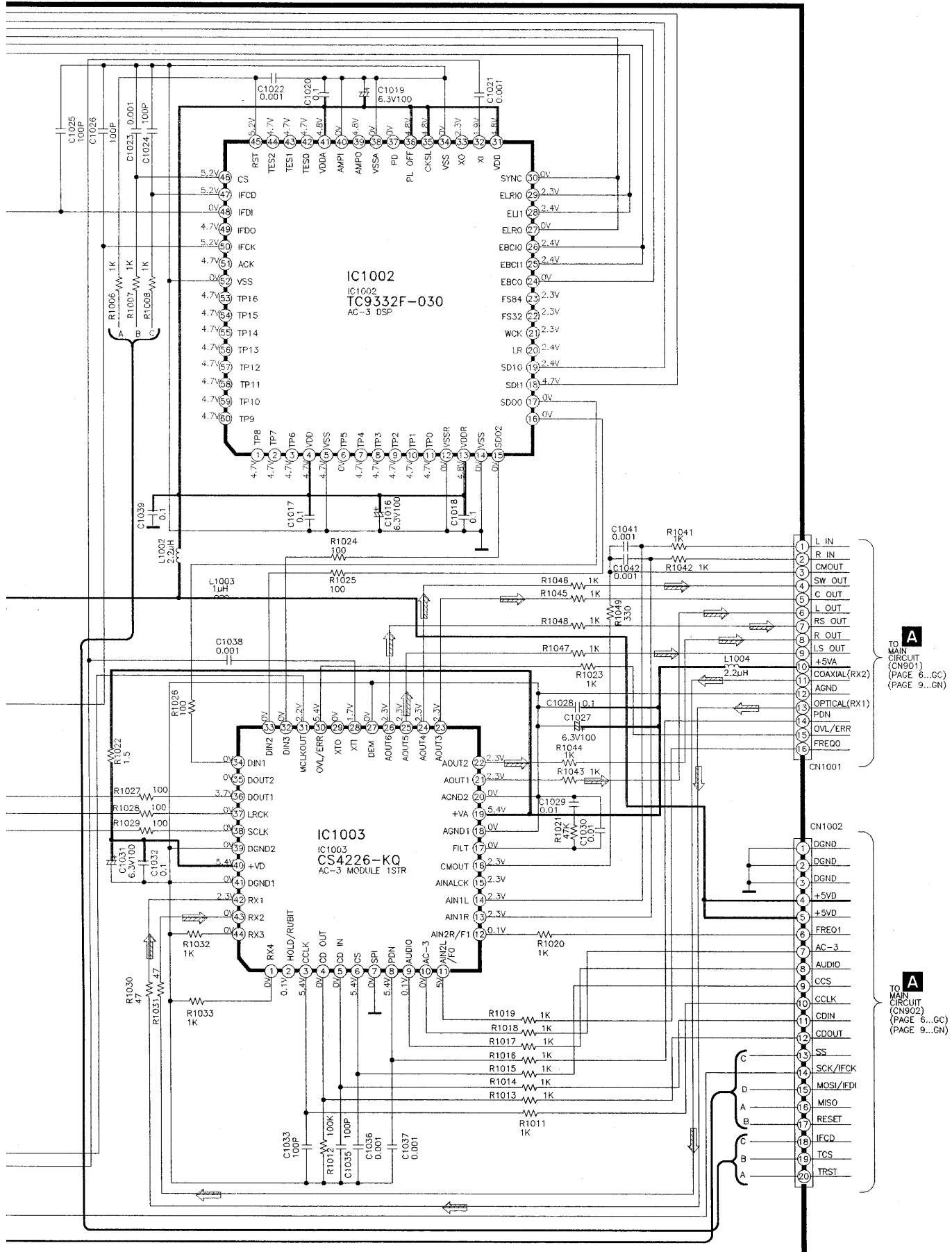
**A** MAIN CIRCUIT  
FOR GN ONLY



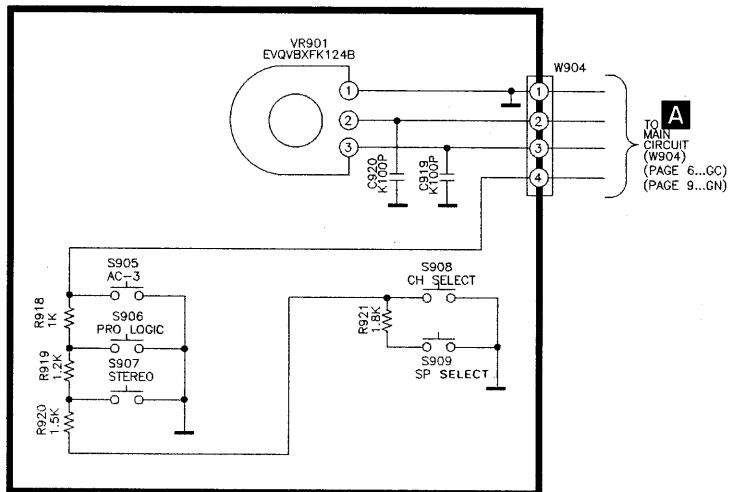


## **F** AC-3 DECODER MODULE CIRCUIT

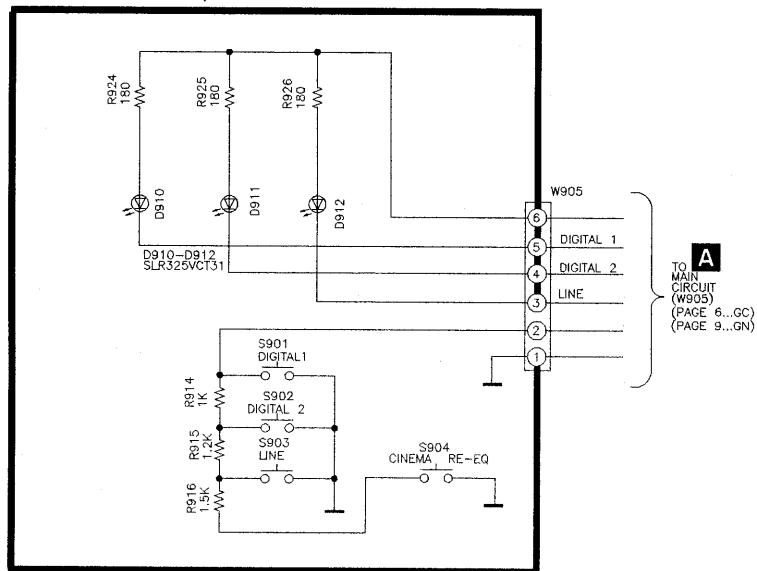




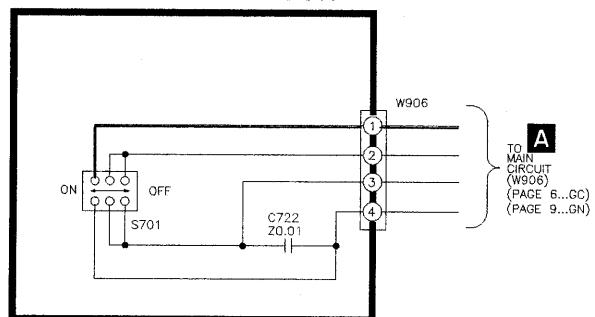
### C VOLUME CONTROL CIRCUIT



### D INPUT SW/LED CIRCUIT

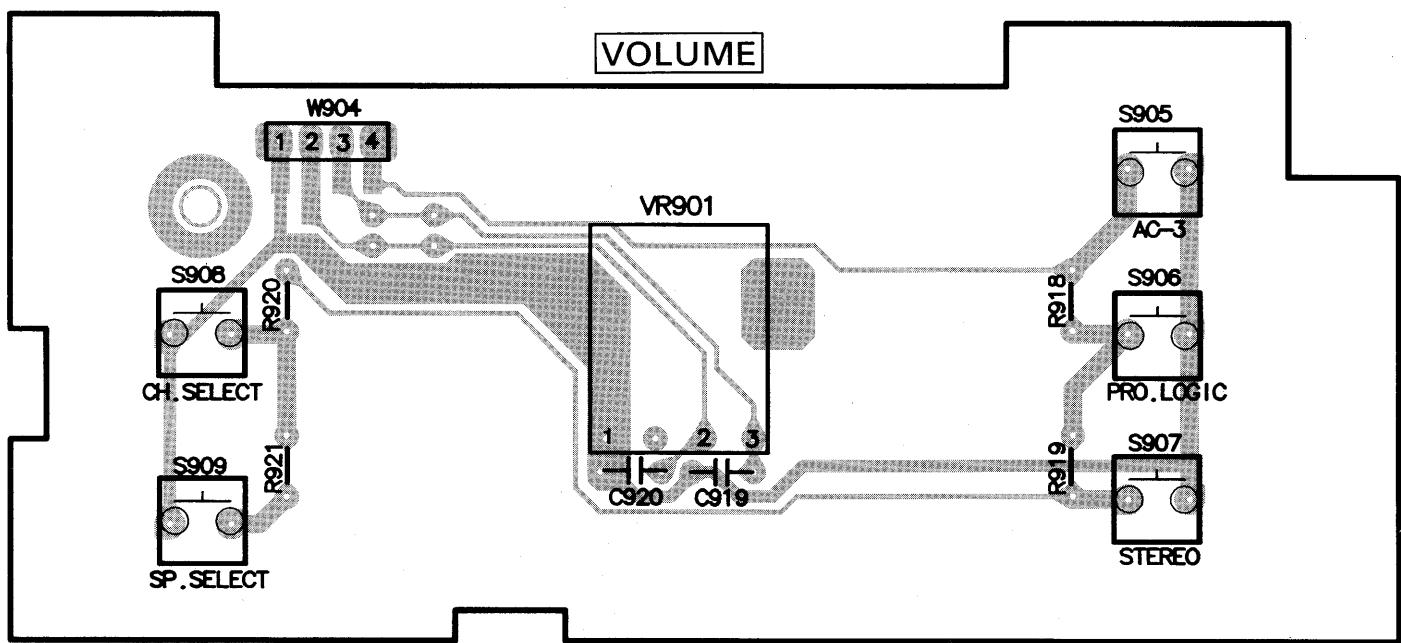


### E POWER SW CIRCUIT

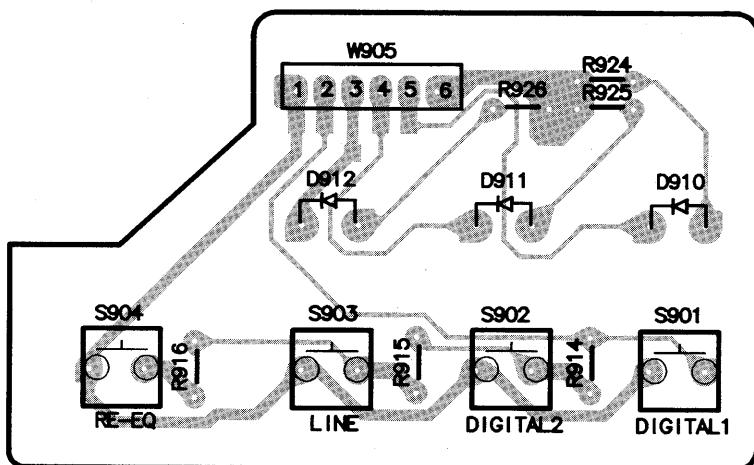


## ■ Printed Circuit Board

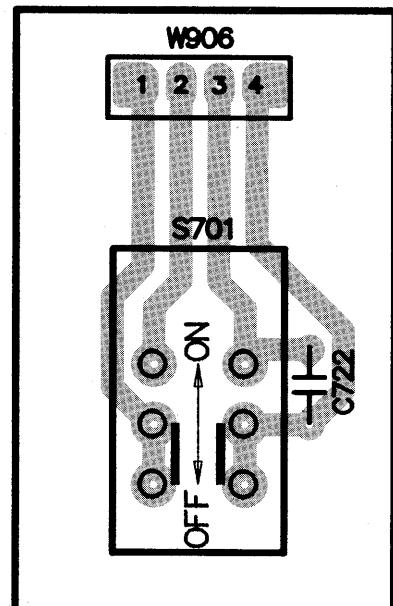
### C VOLUME P.C.B. ( REP2499B-M ) ... GN ( REP 2499C-M ) ... GC



### D INPUT SWITCH / LED P.C.B. ( REP2499B-M ) ... GN ( REP2499C-M ) ... GC

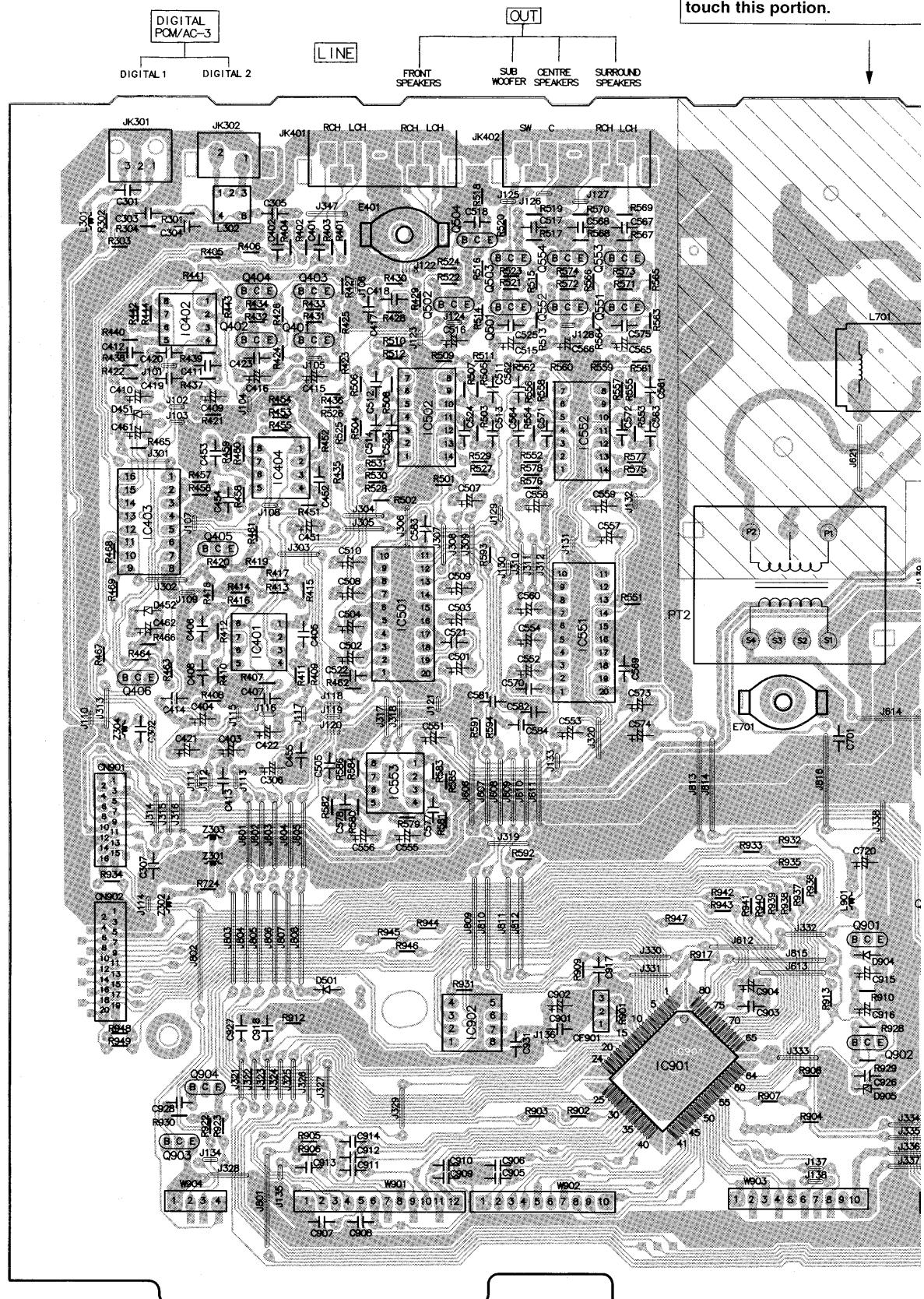


### E POWER SWITCH P.C.B. ( REP2499B-M ) ... GN ( REP2499C-M ) ... GC

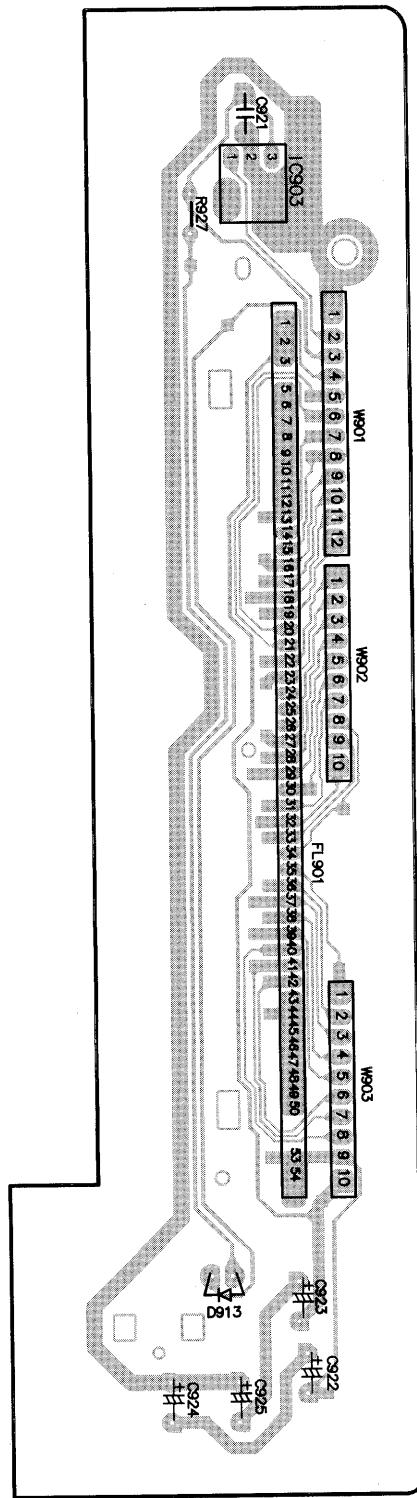
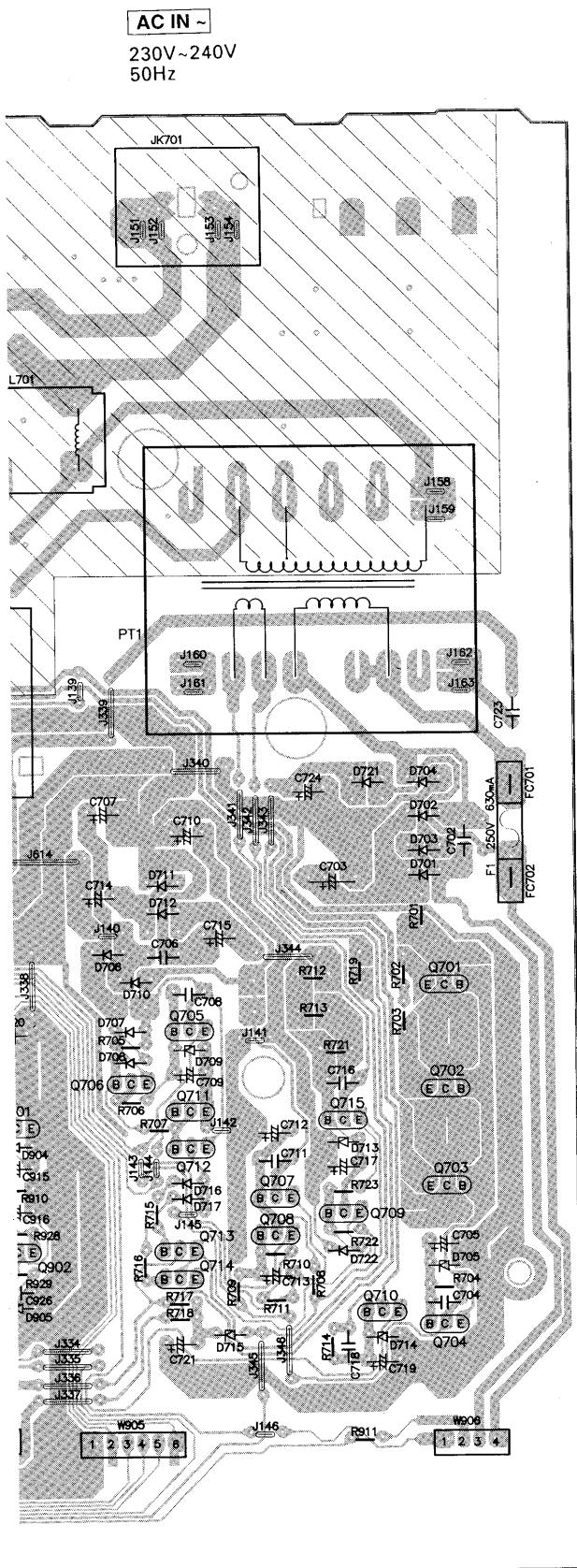


## A MAIN P.C.B ( REP2499B-M )... GN

**CAUTION**  
**RISK OF ELECTRIC SHOCK**  
**AC voltage line. Please do not**  
**touch this portion.**

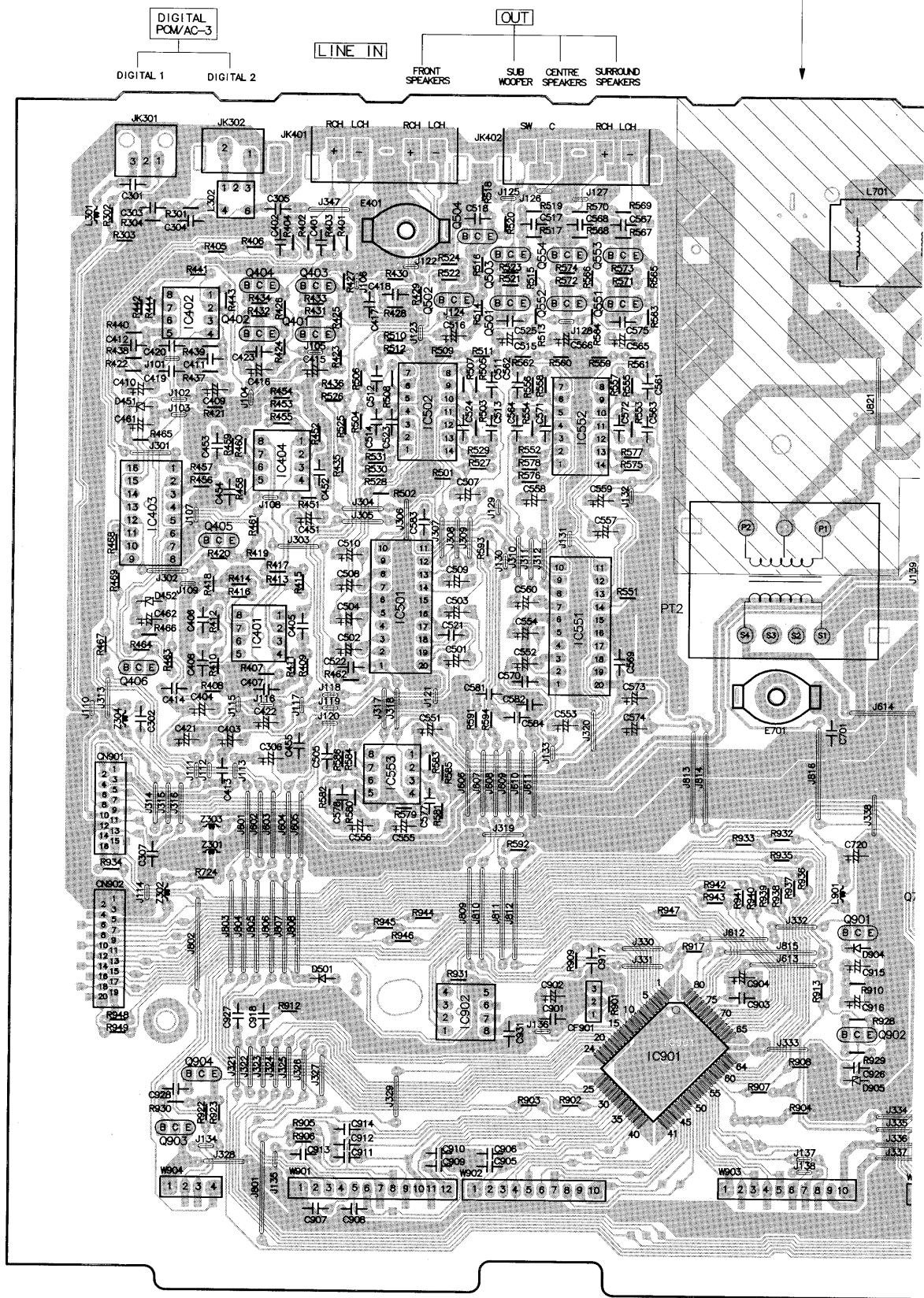


**B** FL P.C.B.  
( REP2499B-M ) ... GN

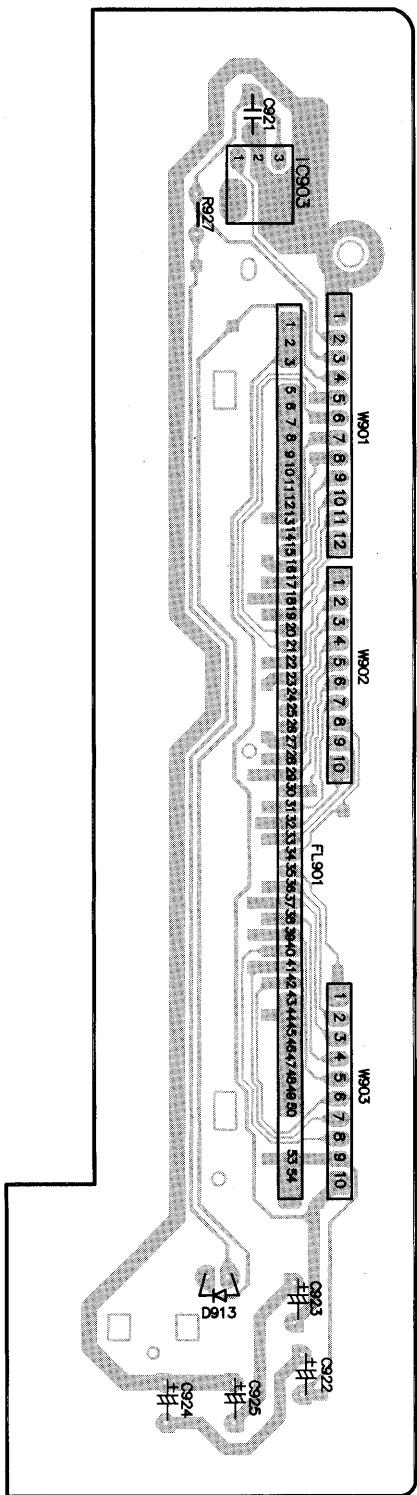
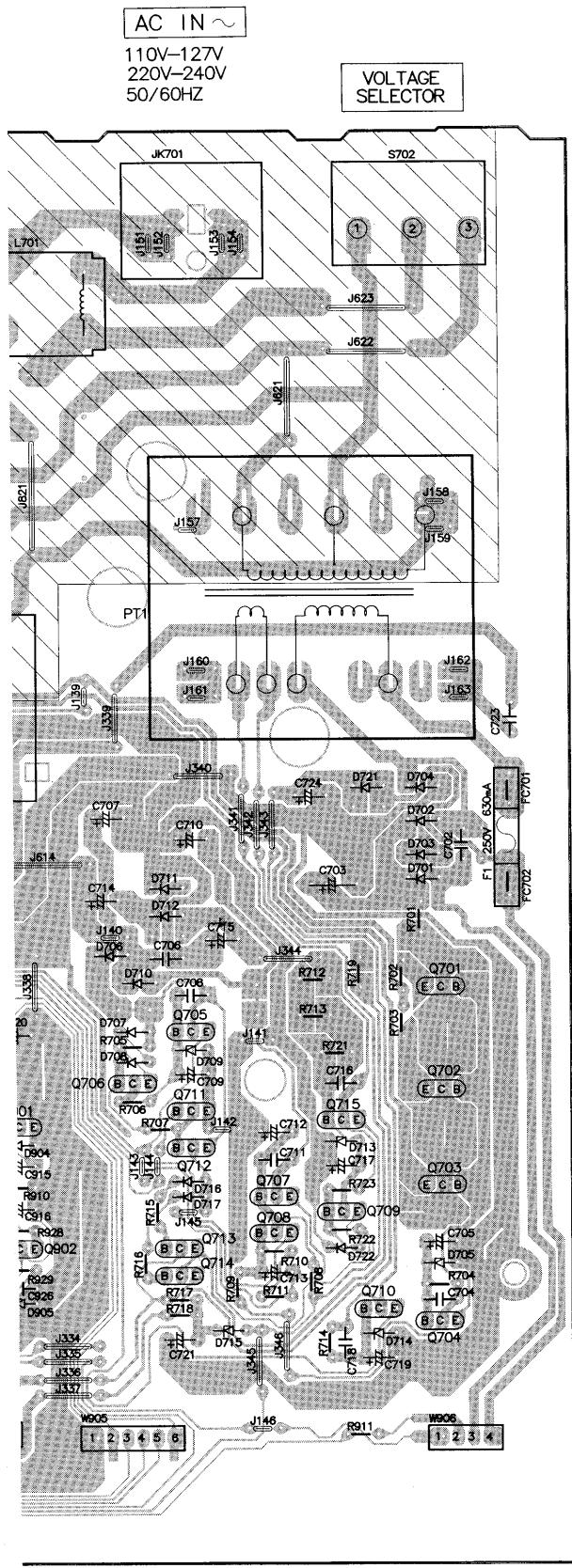


**A MAIN P.C.B ( REP2499C-M )... GC**

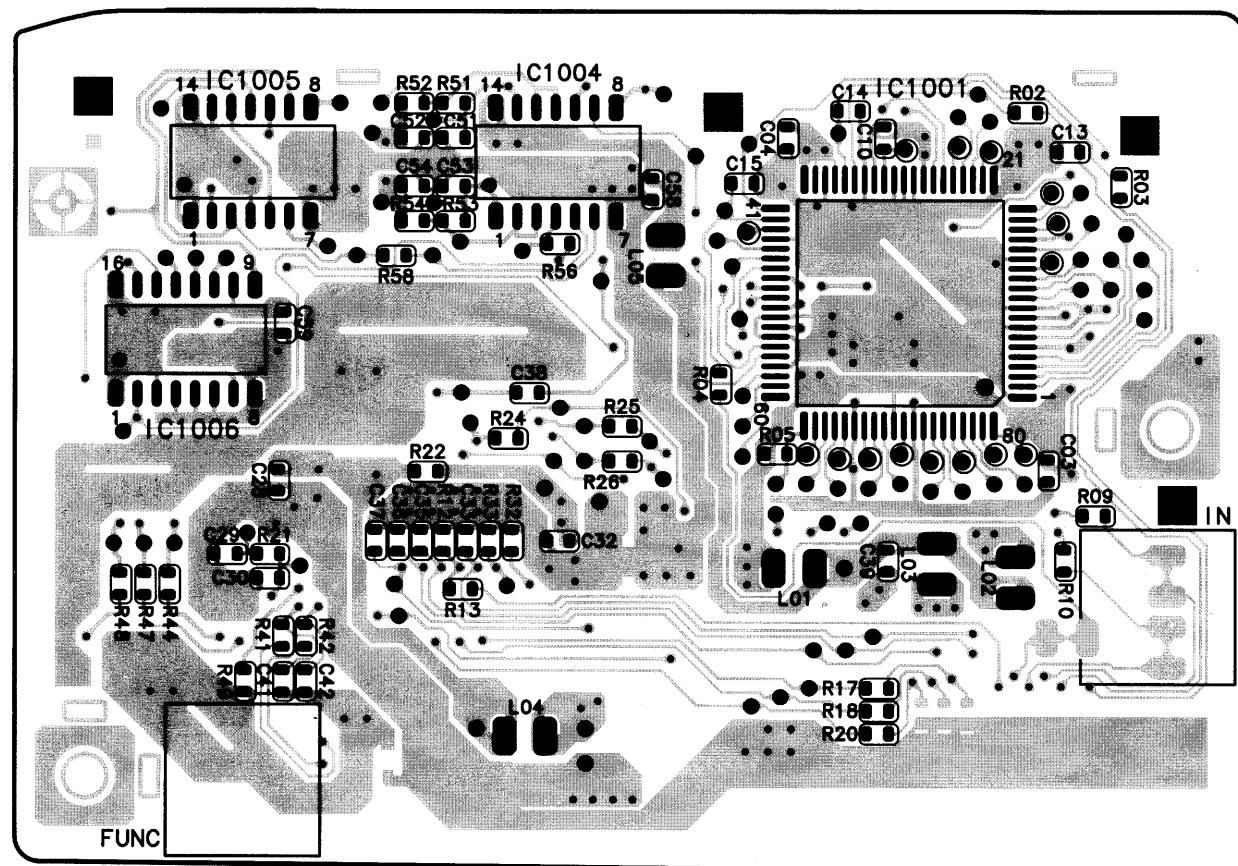
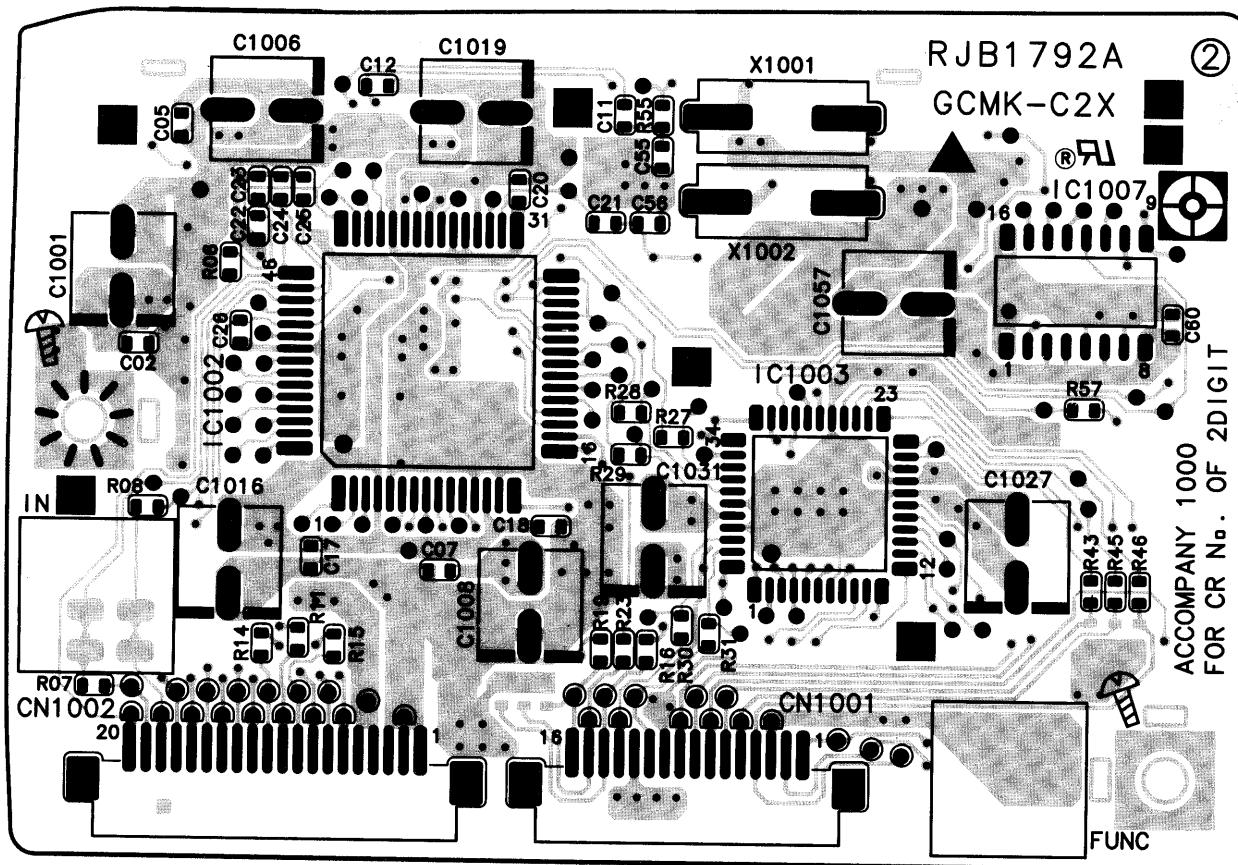
**CAUTION**  
**RISK OF ELECTRIC SHOCK**  
AC voltage line. Please do not  
touch this portion.



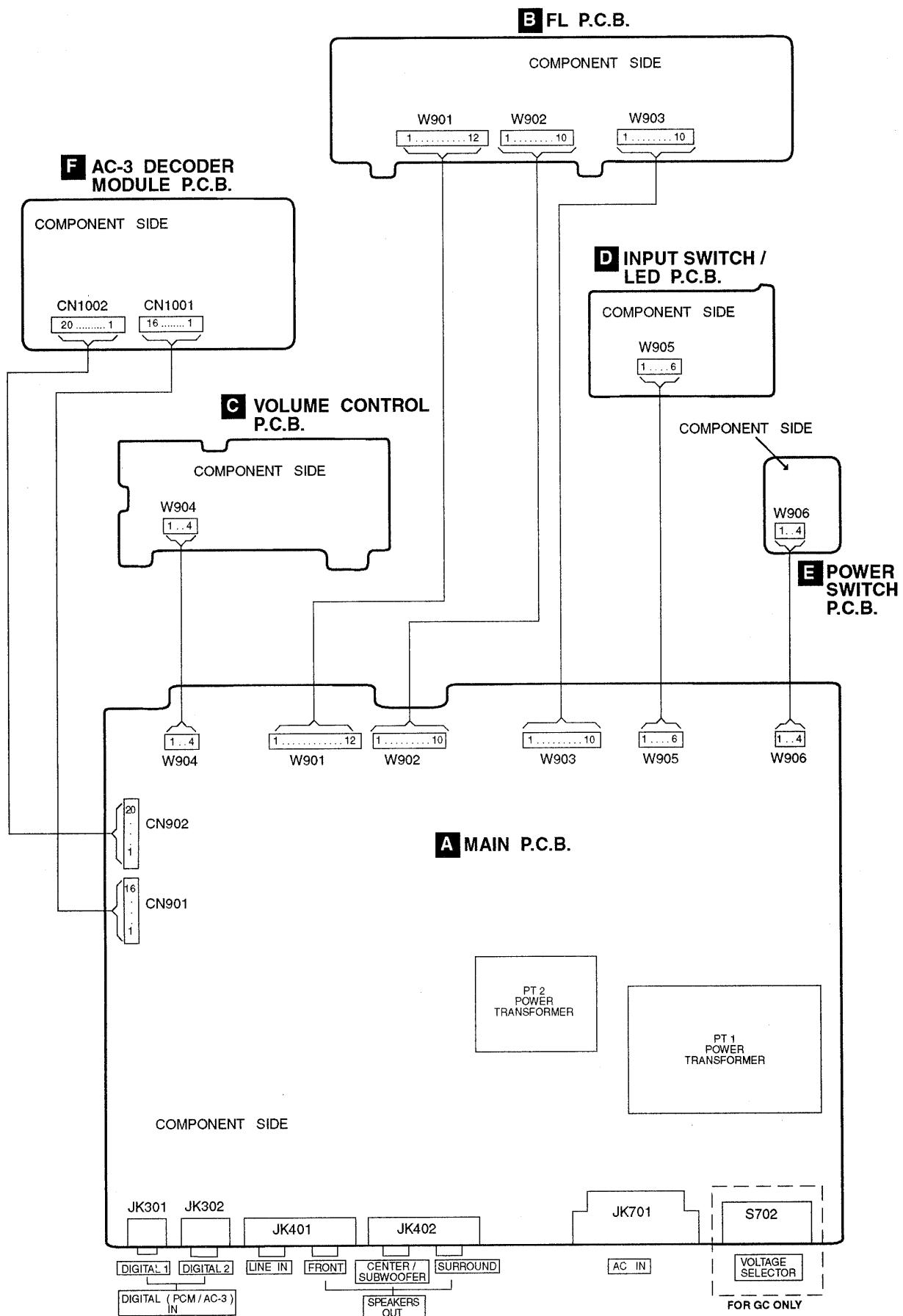
**B** FL P.C.B.  
( REP2499C-M ) ... GC



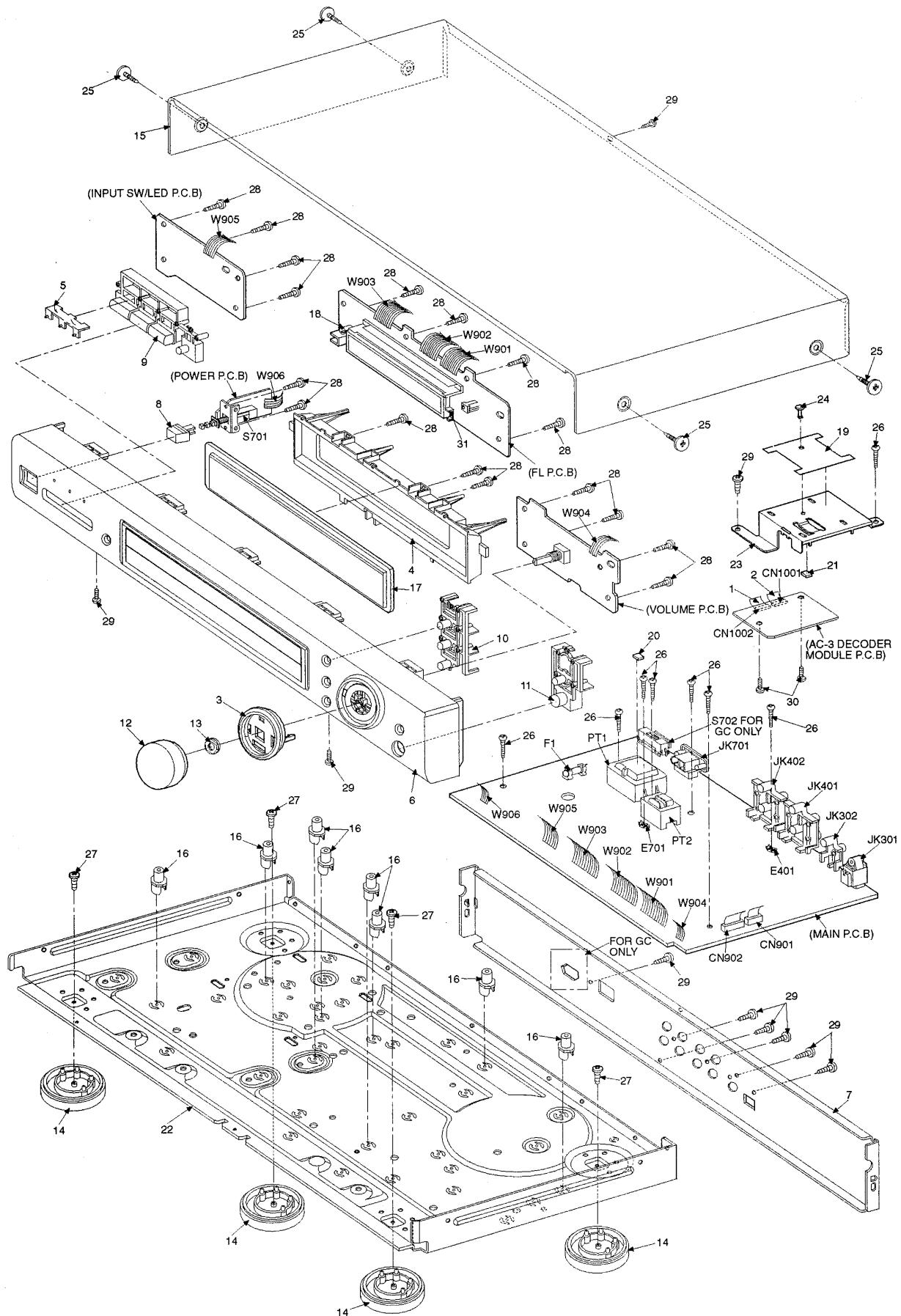
**F AC-3 DECODER MODULE P.C.B.  
( REP2500A-T )**



## ■ Wiring Connection Diagram



## ■ Cabinet Parts Location



## ■ Replacement Parts List

Notes: \* Important safety notice :

Components identified by  mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

\* The parenthesized in the Remarks columns specify the areas. (Refer to the cover page for area.)

Parts without these indication can be used for all areas.

\* The "(SF)" mark denotes the standard part.

\* [M] in Remarks column indicates parts that are supplied by MESA.

Ref No.	Part No.	Part Name & Description	Remarks	Ref No.	Part No.	Part Name & Description	Remarks	Ref No.	Part No.	Part Name & Description	Remarks	
<b>CABINET AND CHASSIS</b>												
1	REE0785-1	FFC	[M]	IC403	TC4053BP	IC, CMOS	[M]	Q713	2SD1450RSTTA	TRANSISTOR	[M]	
2	REE0786-1	FFC	[M]	IC404	UPC4570C	IC, TONE CONTROL	[M]	Q714	2SD1450RSTTA	TRANSISTOR	[M]	
3	RGK0747-N	VOLUME RING	[M]	IC501	TC9212P	IC, CMOS	[M]	Q715	2SA992FEPTA	TRANSISTOR 	[M]	
4	RFKNAC300EK	WINDOW STAGE ASS'Y	[M]	IC502	AN6554F	IC, OSD AMP	[M]	Q901	RVTDT114YST	TRANSISTOR	[M]	
5	RGL0369-Q	PANEL LIGHT	[M]	IC551	TC9212P	IC, CMOS	[M]	Q902	2SA933SSTA	TRANSISTOR 	[M]	
6	RFKGAC300EK	FRONT PANEL ASS'Y	[M]	IC552	AN6554F	IC, OSD AMP	[M]	Q903	RVTDT114YST	TRANSISTOR	[M]	
7	RGR0181D-A	REAR PANEL	[M]GC	IC553	UPC4570C	IC, TONE CONTROL	[M]	Q904	RVTDTA114YST	TRANSISTOR	[M]	
7	RGR0181E-A	REAR PANEL	[M]GN	IC901	M38B53M4051F	IC, MICOM	[M]					
8	RGU0890-K	BUTTON	[M]	IC902	XLJ93LC46	IC, EEPROM	[M]			<b>DIODES</b>		
9	RGU1541-K	BUTTON (L)	[M]	IC903	RCD12042TE	IC, REMOTE SENSOR	[M]					
10	RGU1542-K	BUTTON (C)	[M]					D451	MTZJ6R2CTA	DIODE	[M]	
11	RGU1543-K	BUTTON (R)	[M]					D452	MTZJ6R2CTA	DIODE	[M]	
12	RGW0229-K	KNOB	[M]	Q401	2SD1915FTA	TRANSISTOR	[M]	D501	RVD1SS133TA	DIODE	[M]	
13	RHN90001	M9 NUT	[M]	Q402	2SD1915FTA	TRANSISTOR	[M]	D701	RL1N4003N02	DIODE 	[M]	
14	RKA0079-A	FOOT	[M]	Q403	2SD1915FTA	TRANSISTOR	[M]	D702	RL1N4003N02	DIODE 	[M]	
15	RKM0032-K	TOP CABINET	[M]	Q404	2SD1915FTA	TRANSISTOR	[M]	D703	RL1N4003N02	DIODE 	[M]	
16	RKQ0089-J	PCB HOLDER	[M]	Q405	2SD1915FTA	TRANSISTOR	[M]	D704	RL1N4003N02	DIODE 	[M]	
17	RKW0518-Q	FL WINDOW	[M]	Q406	RVTDTA114EST	TRANSISTOR	[M]	D705	MTZJ6R2CTA	DIODE 	[M]	
18	RMN0447	LED SUPPORT	[M]	Q501	2SD1915FTA	TRANSISTOR	[M]	D706	RL1N4003N02	DIODE	[M]	
19	RMA1098	HOLDING PLATE	[M]	Q502	2SD1915FTA	TRANSISTOR	[M]	D707	RVD1SS133TA	DIODE	[M]	
20	RMG0145	TRANSFORMER RUBBER	[M]	Q503	2SD1915FTA	TRANSISTOR	[M]	D708	RVD1SS133TA	DIODE	[M]	
21	RMG0469-K	SILICON RUBBER SHEET	[M]	Q504	2SD1915FTA	TRANSISTOR	[M]	D709	MTZJ13BTA	DIODE 	[M]	
22	RMK0174-7	BOTTOM CHASSIS	[M]	Q551	2SD1915FTA	TRANSISTOR	[M]	D710	RL1N4003N02	DIODE	[M]	
23	RSC0482	SHIELD	[M]	Q552	2SD1915FTA	TRANSISTOR	[M]	D711	RL1N4003N02	DIODE	[M]	
24	SHR9112	PLASTIC RIVET	[M]	Q553	2SD1915FTA	TRANSISTOR	[M]	D712	RL1N4003N02	DIODE	[M]	
25	SNE2129-1	SCREW (CABINET)	[M]	Q554	2SD1915FTA	TRANSISTOR	[M]	D713	MTZJ27DTA	DIODE 	[M]	
26	XTB3+20JFZ	SCREW	[M]	Q701	2SD2137PQTA	TRANSISTOR	[M]	D714	MTZJ6R2BTA	DIODE 	[M]	
27	XTB3+6G	SCREW	[M]	Q702	2SD2137PQTA	TRANSISTOR	[M]	D715	MTZJ4R7BTA	DIODE 	[M]	
28	XTBS26+10J	SCREW (FRONT)	[M]	Q703	2SD2137PQTA	TRANSISTOR	[M]	D716	RVD1SS133TA	DIODE	[M]	
29	XTBS3+8JFZ1	SCREW	[M]	Q704	2SC1740SSTA	TRANSISTOR 	[M]	D717	RVD1SS133TA	DIODE	[M]	
30	XYN26+C6	SCREW	[M]	Q705	2SD592AQSTA	TRANSISTOR 	[M]	D721	RL1N4003N02	DIODE	[M]	
31	RMN0372	FL HOLDER	[M]	Q706	2SA933SSTA	TRANSISTOR 	[M]	D722	RVD1SS133TA	DIODE	[M]	
		<b>INTEGRATED CIRCUITS</b>		Q707	2SB621AQSTA	TRANSISTOR 	[M]	D904	RVD1SS133TA	DIODE	[M]	
				Q708	2SA933SSTA	TRANSISTOR 	[M]	D905	MTZJ3R9ATA	DIODE		[M]
				Q709	2SA933SSTA	TRANSISTOR 	[M]	D910	SLR325VCT31	DIODE	[M]	
				Q710	2SC1740SSTA	TRANSISTOR 	[M]	D911	SLR325VCT31	DIODE	[M]	
				Q711	RVTDT114YST	TRANSISTOR	[M]	D912	SLR325VCT31	DIODE	[M]	
				Q712	RVTDTA114YST	TRANSISTOR	[M]GC	D913	LN846RPH	DIODE	[M]	

Ref No.	Part No.	Part Name & Description	Remarks	Ref No.	Part No.	Part Name & Description	Remarks	Ref No.	Part No.	Part Name & Description	Remarks
<b>VARIABLE RESISTORS</b>											
VR901	EVQVBXFK124B	VR, VOLUME	[M]	PT2	RTP114E003	POWERTRANSFORMER 	[M]			JACKS	
<b>SWITCHES</b>											
S701	RSP2B023-A	SW, POWER 	[M]	Z301	BL02RN2R62T4	EMI BEAD CORE	[M]	JK301	T0RX178A	JK, OPTICAL MODULE	[M]
S702	ESD26700A	SW, VOLTAGE SELECTOR 	[M]GC	Z302	BL02RN2R62T4	EMI BEAD CORE	[M]	JK302	SJFD7-8	JK, RCA PIN	[M]
S901	EVQ21405R	SW, DIGITAL 1	[M]	Z303	BL02RN2R62T4	EMI BEAD CORE	[M]	JK401	SJF3069-4N	JK, LINE IN	[M]
S902	EVQ21405R	SW, DIGITAL 2	[M]	Z304	BL02RN2R62T4	EMI BEAD CORE	[M]	JK402	SJF3069-18N	JK, RCA PIN	[M]
S903	EVQ21405R	SW, LINE	[M]					JK701	SJS9236-1	JK, AC IN LET 	[M]
S904	EVQ21405R	SW, RE-EQ	[M]					<b>PACKING MATERIALS</b>			
S905	EVQ21405R	SW, AC-3	[M]								
S906	EVQ21405R	SW, PRO-LOGIC	[M]					P1	RPG3475	PACKING CASE	[M]GC
S907	EVQ21405R	SW, STEREO	[M]					P1	RPG3476	PACKING CASE	[M]GN
S908	EVQ21405R	SW, CH. SELECT	[M]					P2	RPN1058	POLYFOAM	[M]
S909	EVQ21405R	SW, SP. SELECT	[M]					P4	SPSD152	ACCESSORY BOX	[M]
<b>CONNECTORS</b>											
CN901	RJS2A3316	16P CONNECTOR	[M]	FL901	RSL0239-F	FL	[M]	<b>ACCESSORIES</b>			
CN902	RJS2A3320	20P CONNECTOR	[M]					A1	EUR644378	REMOTE CONTROL	[M]
<b>COILS &amp; TRANSFORMERS</b>											
L301	RLQZP1R0KT-Y	AXIAL COIL	[M]	F1	XBA2C06TB0	FUSE 	[M]	A1-1	UR64EC1822	R/C BATTERY COVER	[M]
L302	RLQZ150M-0	CHOKE COIL	[M]					A2	RJA0019-2K	AC CORD (SF) 	[M]GC
L701	RLQZ271M	AC LINE COIL 	[M]					A2	RJA0035-X	AC CORD 	[M]GN
L901	RLQB101KTA-Y	CHOKE COIL	[M]	FC701	EYF52BC	FUSE HOLDER	[M]	A3	RJL1P021B08	1P CORD	[M]
PT1	RTP1K4E034	POWERTRANSFORMER 	[M]	FC702	EYF52BC	FUSE HOLDER	[M]	A4	RJL2P004B08	STEREO CABLE	[M]
								A5	RFKSAC300GCK	O/I BOOK ASS'Y	[M]GC
								A5	RQT3952-B	O/I BOOK	[M]GN
								A6	SJP2281	OPTICAL CABLE	[M]
								A7	RJP1SG04-H	AC CORD ADAPTOR	[M]GC

## ■ Resistors & Capacitors

Notes : \* Important safety notice:

Components identified by  mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

\* Capacitor values are in microfarad ( $\mu$ F) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)

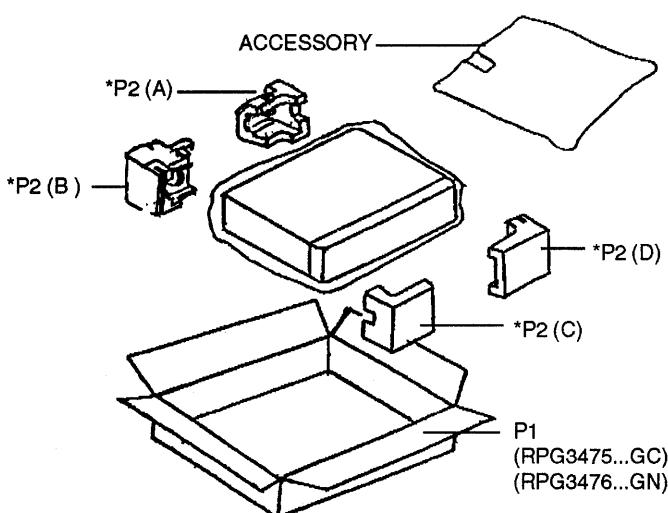
\* Resistors values are in ohms, unless specified otherwise, 1k=1,000(OHM), 1M=1,000k(OHM)

Ref No.	Part No.	Values & Remarks	Ref No.	Part No.	Values & Remarks	Ref No.	Part No.	Values & Remarks	Ref No.	Part No.	Values & Remarks
<b>RESISTORS</b>											
R301	ERDS2TJ151T	150 1/4W [M]	R404	ERDS2TJ103T	10K 1/4W [M]	R413	ERDS2TJ182T	1.8K 1/4W [M]	R422	ERDS2TJ224T	220K 1/4W [M]
R302	ERDS2TJ152T	1.5K 1/4W [M]	R405	ERDS2TJ153T	15K 1/4W [M]	R414	ERDS2TJ182T	1.8K 1/4W [M]	R423	ERDS2TJ331T	330 1/4W [M]
R303	ERDS2TJ471T	470 1/4W [M]	R406	ERDS2TJ153T	15K 1/4W [M]	R415	ERDS2TJ222T	2.2K 1/4W [M]	R424	ERDS2TJ331T	330 1/4W [M]
R304	ERDS2TJ100T	10 1/4W [M]	R407	ERDS2TJ224T	220K 1/4W [M]	R416	ERDS2TJ222T	2.2K 1/4W [M]	R425	ERDS2TJ331T	330 1/4W [M]
R401	ERDS2TJ152T	1.5K 1/4W [M]	R408	ERDS2TJ224T	220K 1/4W [M]	R417	ERDS2TJ222T	2.2K 1/4W [M]	R426	ERDS2TJ331T	330 1/4W [M]
R402	ERDS2TJ152T	1.5K 1/4W [M]	R409	ERDS2TJ562T	5.6K 1/4W [M]	R418	ERDS2TJ222T	2.2K 1/4W [M]	R427	ERDS2TJ473T	47K 1/4W [M]
R403	ERDS2TJ103T	10K 1/4W [M]	R410	ERDS2TJ562T	5.6K 1/4W [M]	R419	ERDS2TJ222T	2.2K 1/4W [M]	R428	ERDS2TJ473T	47K 1/4W [M]
R411	ERDS2TJ153T	15K 1/4W [M]	R412	ERDS2TJ153T	15K 1/4W [M]	R420	ERDS2TJ222T	2.2K 1/4W [M]	R429	ERDS2TJ331T	330 1/4W [M]
R421	ERDS2TJ224T	220K 1/4W [M]	R422	ERDS2TJ331T	330 1/4W [M]	R430	ERDS2TJ331T	330 1/4W [M]			

Ref No.	Part No.	Values & Remarks	Ref No.	Part No.	Values & Remarks	Ref No.	Part No.	Values & Remarks	Ref No.	Part No.	Values & Remarks
R431	ERDS2TJ102T	1K 1/4W [M]	R516	ERDS2TJ331T	330 1/4W [M]	R583	ERDS2TJ102T	1K 1/4W [M]	R918	ERDS2TJ102T	1K 1/4W [M]
R432	ERDS2TJ102T	1K 1/4W [M]	R517	ERDS2TJ473T	47K 1/4W [M]	R584	ERDS2TJ102T	1K 1/4W [M]	R919	ERDS2TJ122T	1.2K 1/4W [M]
R433	ERDS2TJ102T	1K 1/4W [M]	R518	ERDS2TJ473T	47K 1/4W [M]	R585	ERDS2TJ102T	1K 1/4W [M]	R920	ERDS2TJ152T	1.5K 1/4W [M]
R434	ERDS2TJ102T	1K 1/4W [M]	R519	ERDS2TJ331T	330 1/4W [M]	R586	ERDS2TJ102T	1K 1/4W [M]	R921	ERDS2TJ182T	1.8K 1/4W [M]
R435	ERDS2TJ332T	3.3K 1/4W [M]	R520	ERDS2TJ331T	330 1/4W [M]	R591	ERDS2TJ332T	3.3K 1/4W [M]	R922	ERDS2TJ473T	47K 1/4W [M]
R436	ERDS2TJ474T	470K 1/4W [M]	R521	ERDS2TJ102T	1K 1/4W [M]	R592	ERDS2TJ332T	3.3K 1/4W [M]	R923	ERDS2TJ473T	47K 1/4W [M]
R437	ERDS2TJ471T	470 1/4W [M]	R522	ERDS2TJ102T	1K 1/4W [M]	R593	ERDS2TJ332T	3.3K 1/4W [M]	R924	ERDS2TJ181T	180 1/4W [M]
R438	ERDS2TJ471T	470 1/4W [M]	R523	ERDS2TJ102T	1K 1/4W [M]	R594	ERDS2TJ332T	3.3K 1/4W [M]	R925	ERDS2TJ181T	180 1/4W [M]
R439	ERDS2TJ224T	220K 1/4W [M]	R524	ERDS2TJ102T	1K 1/4W [M]	R701	ERDS1FVJ1R0T 	1 1/2W [M]	R926	ERDS2TJ181T	180 1/4W [M]
R440	ERDS2TJ224T	220K 1/4W [M]	R525	ERDS2TJ272T	2.7K 1/4W [M]	R702	ERDS2TJ1R0T	1 1/4W [M]	R927	ERDS2TJ181T	180 1/4W [M]
R441	ERDS2TJ182T	1.8K 1/4W [M]	R526	ERDS2TJ474T	470K 1/4W [M]	R703	ERDS2TJ1R0T	1 1/4W [M]	R928	ERDS2TJ271T	270 1/4W [M]
R442	ERDS2TJ182T	1.8K 1/4W [M]	R527	ERDS2TJ332T	3.3K 1/4W [M]	R704	ERDS2TJ392T	3.9K 1/4W [M]	R929	ERDS2TJ121T	120 1/4W [M]
R443	ERDS2TJ182T	1.8K 1/4W [M]	R528	ERDS2TJ332T	3.3K 1/4W [M]	R705	ERDS2TJ561T	560 1/4W [M]	R930	ERDS2TJ473T	47K 1/4W [M]
R444	ERDS2TJ182T	1.8K 1/4W [M]	R529	ERDS2TJ102T	1K 1/4W [M]	R706	ERDS2TJ102T	1K 1/4W [M]	R931	ERDS2TJ104T	100K 1/4W [M]
R451	ERDS2TJ471T	470 1/4W [M]	R530	ERDS2TJ561T	560 1/4W [M]	R707	ERDS2TJ153T	15K 1/4W [M]	R932	ERDS2TJ101T	100 1/4W [M]
R452	ERDS2TJ224T	220K 1/4W [M]	R531	ERDS2TJ560T	56 1/4W [M]	R708	ERDS2TJ103T	10K 1/4W [M]	R933	ERDS2TJ101T	100 1/4W [M]
R453	ERDS2TJ681T	680 1/4W [M]	R551	ERDS2TJ823T	82K 1/4W [M]	R709	ERDS2TJ273T	27K 1/4W [M]	R934	ERDS2TJ101T	100 1/4W [M]
R454	ERDS2TJ181T	180 1/4W [M]	R552	ERDS2TJ823T	82K 1/4W [M]	R710	ERDS2TJ223T	22K 1/4W [M]	R935	ERDS2TJ101T	100 1/4W [M]
R455	ERDS2TJ272T	2.7K 1/4W [M]	R553	ERDS2TJ224T	220K 1/4W [M]	R711	ERDS2TJ272T	2.7K 1/4W [M]	R936	ERDS2TJ101T	100 1/4W [M]
R456	ERDS2TJ273T	27K 1/4W [M]	R554	ERDS2TJ224T	220K 1/4W [M]	R712	ERDS1FVJ102T 	1 1/2W [M]	R937	ERDS2TJ101T	100 1/4W [M]
R457	ERDS2TJ472T	4.7K 1/4W [M]	R555	ERDS2TJ562T	5.6K 1/4W [M]	R713	ERDS1FVJ102T 	1 1/2W [M]	R938	ERDS2TJ101T	100 1/4W [M]
R458	ERDS2TJ103T	10K 1/4W [M]	R556	ERDS2TJ562T	5.6K 1/4W [M]	R714	ERDS2TJ182T	1.8K 1/4W [M]	R939	ERDS2TJ101T	100 1/4W [M]
R459	ERDS2TJ182T	1.8K 1/4W [M]	R557	ERDS2TJ153T	15K 1/4W [M]	R715	ERDS2TJ103T	10K 1/4W [M]	R940	ERDS2TJ101T	100 1/4W [M]
R460	ERDS2TJ222T	2.2K 1/4W [M]	R558	ERDS2TJ153T	15K 1/4W [M]	R716	ERDS2TJ103T	10K 1/4W [M]	R941	ERDS2TJ101T	100 1/4W [M]
R461	ERDS2TJ101T	100 1/4W [M]	R559	ERDS2TJ222T	2.2K 1/4W [M]	R717	ERDS2TJ101T	100 1/4W [M]	R942	ERDS2TJ101T	100 1/4W [M]
R462	ERDS2TJ224T	220K 1/4W [M]	R560	ERDS2TJ222T	2.2K 1/4W [M]	R718	ERDS2TJ101T	100 1/4W [M]	R943	ERDS2TJ101T	100 1/4W [M]
R463	ERDS2TJ332T	3.3K 1/4W [M]	R561	ERDS2TJ222T	2.2K 1/4W [M]	R719	ERDS1FVJ4R7T 	4.7 1/2W [M]	R944	ERDS2TJ101T	100 1/4W [M]
R464	ERDS2TJ474T	470K 1/4W [M]	R562	ERDS2TJ222T	2.2K 1/4W [M]	R721	ERDS1FVJ102T 	1 1/2W [M]	R945	ERDS2TJ101T	100 1/4W [M]
R465	ERDS2TJ332T	3.3K 1/4W [M]	R563	ERDS2TJ331T	330 1/4W [M]	R722	ERDS2TJ273T	27K 1/4W [M]	R946	ERDS2TJ101T	100 1/4W [M]
R466	ERDS2TJ332T	3.3K 1/4W [M]	R564	ERDS2TJ331T	330 1/4W [M]	R723	ERDS2TJ104T	100K 1/4W [M]	R947	ERDS2TJ101T	100 1/4W [M]
R467	ERDS2TJ102T	1K 1/4W [M]	R565	ERDS2TJ331T	330 1/4W [M]	R724	ERDS2TJ222T	2.2K 1/4W [M]	R948	ERDS2TJ101T	100 1/4W [M]
R468	ERDS2TJ102T	1K 1/4W [M]	R566	ERDS2TJ331T	330 1/4W [M]	R901	ERDS2TJ102T	1K 1/4W [M]	R949	ERDS2TJ101T	100 1/4W [M]
R469	ERDS2TJ102T	1K 1/4W [M]	R567	ERDS2TJ473T	47K 1/4W [M]	R902	ERDS2TJ102T	1K 1/4W [M]			
R501	ERDS2TJ124T	120K 1/4W [M]	R568	ERDS2TJ473T	47K 1/4W [M]	R903	ERDS2TJ102T	1K 1/4W [M]			
R502	ERDS2TJ104T	100K 1/4W [M]	R569	ERDS2TJ331T	330 1/4W [M]	R904	ERDS2TJ104T	100K 1/4W [M]			
R503	ERDS2TJ224T	220K 1/4W [M]	R570	ERDS2TJ331T	330 1/4W [M]	R905	ERDS2TJ104T	100K 1/4W [M]	C301	ECBT1E223ZF5	0.022 25V [M]
R504	ERDS2TJ224T	220K 1/4W [M]	R571	ERDS2TJ102T	1K 1/4W [M]	R906	ERDS2TJ104T	100K 1/4W [M]	C302	ECBT1E103ZF5	0.01 25V [M]
R505	ERDS2TJ562T	5.6K 1/4W [M]	R572	ERDS2TJ102T	1K 1/4W [M]	R907	ERDS2TJ104T	100K 1/4W [M]	C303	ECBT1E103ZF5	0.01 25V [M]
R506	ERDS2TJ562T	5.6K 1/4W [M]	R573	ERDS2TJ102T	1K 1/4W [M]	R908	ERDS2TJ103T	10K 1/4W [M]	C304	ECBT1E103ZF5	0.01 25V [M]
R507	ERDS2TJ153T	15K 1/4W [M]	R574	ERDS2TJ102T	1K 1/4W [M]	R909	ERDS2TJ104T	100K 1/4W [M]	C305	ECBT1E103ZF5	0.01 25V [M]
R508	ERDS2TJ183T	18K 1/4W [M]	R575	ERDS2TJ182T	1.8K 1/4W [M]	R910	ERDS2TJ472T	4.7K 1/4W [M]	C306	ECEA0JKA470B	47 6.3V [M]
R509	ERDS2TJ222T	2.2K 1/4W [M]	R576	ERDS2TJ182T	1.8K 1/4W [M]	R911	ERDS2TJ332T	3.3K 1/4W [M]	C307	ECBT1H101KB5	100P 50V [M]
R510	ERDS2TJ182T	1.8K 1/4W [M]	R577	ERDS2TJ152T	1.5K 1/4W [M]	R912	ERDS2TJ104T	100K 1/4W [M]	C401	ECBT1H680J5	68P 50V [M]
R511	ERDS2TJ222T	2.2K 1/4W [M]	R578	ERDS2TJ152T	1.5K 1/4W [M]	R913	ERDS2TJ103T	10K 1/4W [M]	C402	ECBT1H680J5	68P 50V [M]
R512	ERDS2TJ222T	2.2K 1/4W [M]	R579	ERDS2TJ101T	100 1/4W [M]	R914	ERDS2TJ102T	1K 1/4W [M]	C403	ECEA1VKA4R7B	4.7 35V [M]
R513	ERDS2TJ331T	330 1/4W [M]	R580	ERDS2TJ101T	100 1/4W [M]	R915	ERDS2TJ122T	1.2K 1/4W [M]	C404	ECEA1VKA4R7B	4.7 35V [M]
R514	ERDS2TJ331T	330 1/4W [M]	R581	ERDS2TJ224T	220K 1/4W [M]	R916	ERDS2TJ152T	1.5K 1/4W [M]	C405	ECCR1H391J5	390P 50V [M]
R515	ERDS2TJ331T	330 1/4W [M]	R582	ERDS2TJ224T	220K 1/4W [M]	R917	ERDS2TJ103T	10K 1/4W [M]	C406	ECCR1H391J5	390P 50V [M]

Ref No.	Part No.	Values & Remarks	Ref No.	Part No.	Values & Remarks	Ref No.	Part No.	Values & Remarks	Ref No.	Part No.	Values & Remarks
C407	ECCR1H391J5	390P 50V [M]	C511	ECCR1H331J5	330P 50V [M]	C571	ECBT1E103ZF5	0.01 25V [M]	C722	ECBT1E103ZF5	0.01 25V [M]
C408	ECCR1H391J5	390P 50V [M]	C512	ECQV1H563JM3	0.056 50V [M]	C572	ECBT1E103ZF5	0.01 25V [M]	C723	ECBT1H104ZF5	0.1 50V [M]
C409	ECEA1HKA010B	1 50V [M]	C513	ECCR1H331J5	330P 50V [M]	C573	ECEA1CKA100B	10 16V [M]	C724	ECA1CM221B	21 16V [M]
C410	ECEA1HKA010B	1 50V [M]	C514	ECQV1H563JM3	0.056 50V [M]	C574	ECEA1CKA100B	10 16V [M]	C901	ECBT1H104ZF5	0.1 50V [M]
C411	ECBT1H101KB5	100P 50V [M]	C515	ECEA1CKA100B	10 16V [M]	C575	ECBT1E103ZF5	0.01 25V [M]	C902	ECEA0JKA101B	100 6.3V [M]
C412	ECBT1H101KB5	100P 50V [M]	C516	ECEA1CKA100B	10 16V [M]	C577	ECBT1H102KB5	1000P 50V [M]	C903	ECBT1E103ZF5	0.01 25V [M]
C413	ECBT1H221KB5	220P 50V [M]	C517	ECBT1H102KB5	1000P 50V [M]	C578	ECBT1H102KB5	1000P 50V [M]	C904	ECEA0JKA101B	100 6.3V [M]
C414	ECBT1H221KB5	220P 50V [M]	C518	ECBT1H102KB5	1000P 50V [M]	C581	ECBT1H101KB5	100P 50V [M]	C905	ECBT1H331KB5	330P 50V [M]
C415	ECEA1CKA100B	10 16V [M]	C521	ECBT1E103ZF5	0.01 25V [M]	C582	ECBT1H101KB5	100P 50V [M]	C906	ECBT1H331KB5	330P 50V [M]
C416	ECEA1CKA100B	10 16V [M]	C522	ECBT1E103ZF5	0.01 25V [M]	C583	ECBT1H101KB5	100P 50V [M]	C907	ECBT1H331KB5	330P 50V [M]
C417	ECBT1H102KB5	1000P 50V [M]	C523	ECBT1E103ZF5	0.01 25V [M]	C584	ECBT1H101KB5	100P 50V [M]	C908	ECBT1H331KB5	330P 50V [M]
C418	ECBT1H102KB5	1000P 50V [M]	C524	ECBT1E103ZF5	0.01 25V [M]	C701	ECBT1H104ZF5	0.1 50V [M]	C909	ECBT1H331KB5	330P 50V [M]
C419	ECBT1E103ZF5	0.01 25V [M]	C525	ECBT1E103ZF5	0.01 25V [M]	C702	ECBT1H104ZF5	0.1 50V [M]	C910	ECBT1H331KB5	330P 50V [M]
C420	ECBT1E103ZF5	0.01 25V [M]	C551	ECEA1VKA4R7B	4.7 35V [M]	C703	ECEA1CU472E 	4700 16V [M]	C911	ECBT1H331KB5	330P 50V [M]
C421	ECEA1CKA100B	10 16V [M]	C552	ECEA1VKA4R7B	4.7 35V [M]	C704	ECBT1E103ZF5	0.01 25V [M]	C912	ECBT1H331KB5	330P 50V [M]
C422	ECEA1CKA100B	10 16V [M]	C553	ECEA1VKA4R7B	4.7 35V [M]	C705	ECEA1CKA100B	10 16V [M]	C913	ECBT1H331KB5	330P 50V [M]
C423	ECBT1E103ZF5	0.01 25V [M]	C554	ECEA1VKA4R7B	4.7 35V [M]	C706	ECBT1E103ZF5	0.01 25V [M]	C914	ECBT1H331KB5	330P 50V [M]
C451	ECEA1VKA4R7B	4.7 35V [M]	C555	ECEA1VKA4R7B	4.7 35V [M]	C707	ECEA1VU102E 	1000 35V [M]	C915	ECEA1HKA010B	1 50V [M]
C452	ECBT1H221KB5	220P 50V [M]	C556	ECEA1VKA4R7B	4.7 35V [M]	C708	ECKR1H103ZF5	0.01 50V [M]	C916	ECEA1HKA010B	1 50V [M]
C453	ECQV1H104JM3	0.1 50V [M]	C557	ECEA1CKA100B	10 16V [M]	C709	ECEA1CKA220B	22 16V [M]	C917	ECBT1E103ZF5	0.01 25V [M]
C454	ECQV1H104JM3	0.1 50V [M]	C558	ECEA1CKA100B	10 16V [M]	C710	ECA1VM471E	470 35V [M]	C918	ECBT1E103ZF5	0.01 25V [M]
C455	ECBT1H102KB5	1000P 50V [M]	C559	ECEA1VKA4R7B	4.7 35V [M]	C711	ECKR1H103ZF5	0.01 50V [M]	C919	ECBT1H101KB5	100P 50V [M]
C461	ECEA1CKA100B	10 16V [M]	C560	ECEA1VKA4R7B	4.7 35V [M]	C712	ECEA1CKA100B	10 16V [M]	C920	ECBT1H101KB5	100P 50V [M]
C462	ECEA1CKA100B	10 16V [M]	C561	ECCR1H331J5	330P 50V [M]	C713	ECEA1CKA100B	10 16V [M]	C921	ECEA1CKA100B	10 16V [M]
C501	ECEA1VKA4R7B	4.7 35V [M]	C562	ECCR1H331J5	330P 50V [M]	C714	ECA1VM101B	100 35V [M]GC	C922	ECEA1VKA220B	22 35V [M]
C502	ECEA1VKA4R7B	4.7 35V [M]	C563	ECCR1H331J5	330P 50V [M]	C714	ECEA1VU101B	100 35V [M]GN	C923	ECEA1VKA220B	22 35V [M]
C503	ECEA1VKA4R7B	4.7 35V [M]	C564	ECCR1H331J5	330P 50V [M]	C715	ECA1JM101B	01 6.3V [M]	C924	ECEA1VKA220B	22 35V [M]
C504	ECEA1VKA4R7B	4.7 35V [M]	C565	ECEA1CKA100B	10 16V [M]	C716	ECKR1H103ZF5	0.01 50V [M]	C925	ECEA1VKA220B	22 35V [M]
C505	ECBT1H102KB5	1000P 50V [M]	C566	ECEA1CKA100B	10 16V [M]	C717	ECEA1VKA100B	10 35V [M]	C926	ECBT1E103ZF5	0.01 25V [M]
C507	ECEA1CKA100B	10 16V [M]	C567	ECBT1H102KB5	1000P 50V [M]	C718	ECBT1E103ZF5	0.01 25V [M]	C927	ECBT1E103ZF5	0.01 25V [M]
C508	ECEA1CKA100B	10 16V [M]	C568	ECBT1H102KB5	1000P 50V [M]	C719	ECEA0JKA470B	47 6.3V [M]	C928	ECBT1H104ZF5	0.1 50V [M]
C509	ECEA1VKA4R7B	4.7 35V [M]	C569	ECBT1E103ZF5	0.01 25V [M]	C720	ECEA0JKA470B	47 6.3V [M]	C931	ECBT1E103ZF5	0.01 25V [M]
C510	ECEA1VKA4R7B	4.7 35V [M]	C570	ECBT1E103ZF5	0.01 25V [M]	C721	ECEA1VKA100B	10 35V [M]			

## Packaging (Refer to page 20 for the Parts List.)



### ACCESSORY

P4 (SPSD152)	: ACCESSORY BOX
A1 (EUR644378)	: REMOTE CONTROL UNIT
A2 (RJA0019-2K ... GC)	: AC CORD
A2 (RJA0035-X ... GN)	: AC CORD
A3 (RJL1P021B08)	: 1P CORD
A4 (RJL2P004B08)	: STEREO CABLE
A5 (RFKSAC300GCK ... GC)	: O/I BOOK ASS'Y
A5 (RQT3952-B...GN)	: O/I BOOK
A6 (SJP2281)	: OPTICAL CABLE
A7 (RJP1SG04-H)	: AC CORD ADAPTOR

P2(RPN1058) —   
 \*P2 (A)  
 \*P2 (B)  
 \*P2 (C)  
 \*P2 (D)