

Service Manual

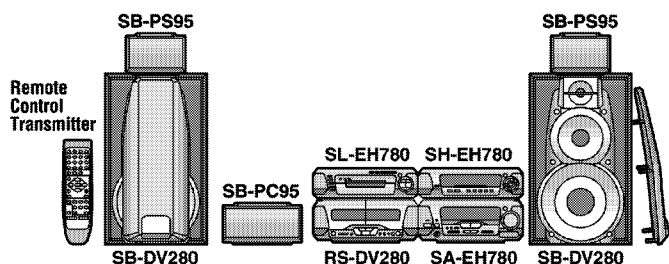
Sound Processor



SH-EH780E

Colour

(N).....Gold Type



Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.

System	SC-EH780
Sound Processor	SH-EH780
Tuner/Amplifier	SA-EH780
CD Changer	SL-EH780
Cassette Deck	RS-DV280
Front Speakers*	SB-DV280
Center Speaker*	SB-PC95
Surround Speakers*	SB-PS95

* : Made in Spain.

Specifications

EQ/SFP section

MANUAL GEQ:

5-Band EQ

Center frequency; 70 Hz, 300 Hz, 1 kHz, 3.15 kHz, 10 kHz
Level control; $\pm 2, 4, 6$ dB

EQ SPACE mode:

4 modes; HEAVY, CLEAR, SOFT, HALL

Super 3D AI EQ:

3 modes; AI EQ, SUPER 3D AI 1, SUPER 3D AI 2

Pre-amplifier section

Input sensitivity/impedance:

VCR (EXT); 250 mV/15 k Ω
AUX (DVD); 250 mV/15 k Ω

Output level:

VCR REC OUT; 150 mV/1.5 k Ω

DOLBY PRO LOGIC section

PRO LOGIC mode:

SURROUND

CENTER mode:

NORMAL

DELAY TIME:

20 ms (Fixed)

AV SURROUND section

AV surround mode: SUPER SURROUND (MUSIC, MOVIE)

DSP CONTROL section

DSP control mode: SUPER SOUND EQ,
CENTER FOCUS, MULTI REAR SURROUND,
SEAT POSITION, VIRTUAL REAR SURROUND

Spectrum analyzer section

Display mode: NORMAL, PEAKHOLD, AURORA

General

Dimensions (W×H×D): 293×89×270 mm

Mass: 1.5 kg

Notes: Specifications are subject to change without notice.
Mass and dimensions are approximate.

Manufactured under license from Dolby Laboratories.

"Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.

⚠ WARNING

This service information is designed for experienced 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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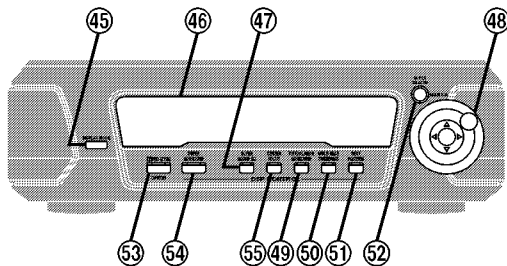
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1 Note

Refer to the service manual for Model No. SA-EH780 (Order No. AD0202025C2) for information on Accessories and Packaging.

2 Location of Controls

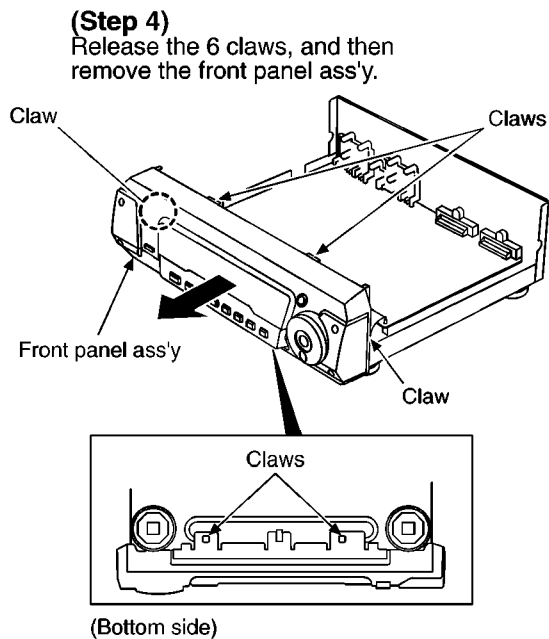
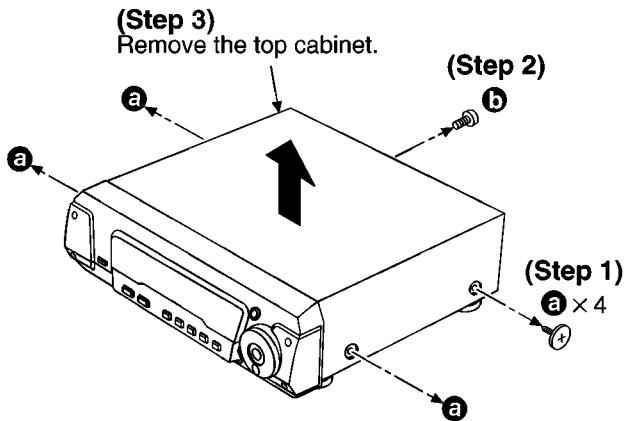


- ④⑤ Display mode button (DISPLAY MODE)
- ④⑥ Display
- ④⑦ Super sound EQ button (SUPER SOUND EQ)
- ④⑧ Jog control and joystick (◀, ▶, ▲, ▼, MULTI JOG)
- ④⑨ Virtual rear surround button and indicator (VIRTUAL REAR SURROUND)
- ⑤⑩ Multi rear surround button and indicator (MULTI REAR SURROUND)
- ⑤⑪ Seat position button and indicator (SEAT POSITION)
- ⑤⑫ Super 3D AI EQ button (SUPER 3D AI EQ)
- ⑤⑬ DOLBY PRO LOGIC button and indicator (DOLBY PRO LOGIC, OFF/ON)
- ⑤⑭ Super surround button and indicator (SUPER SURROUND)
- ⑤⑮ Center focus button and indicator (CENTER FOCUS)

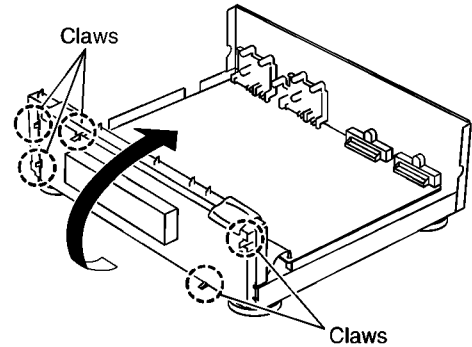
3 Operation Checks and Component Replacement Procedures

- This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
- For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.

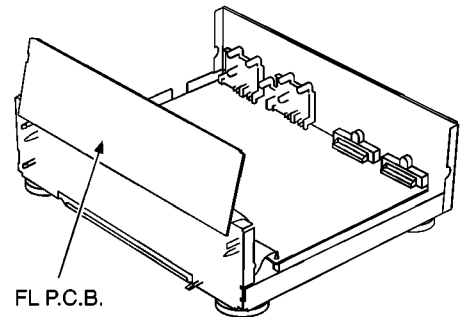
3.1. Checking for the FL P.C.B.



- (Step 5)
Release the 5 claws, and then remove the FL P.C.B..

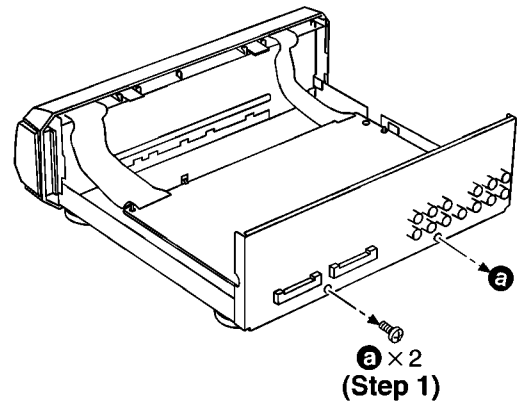


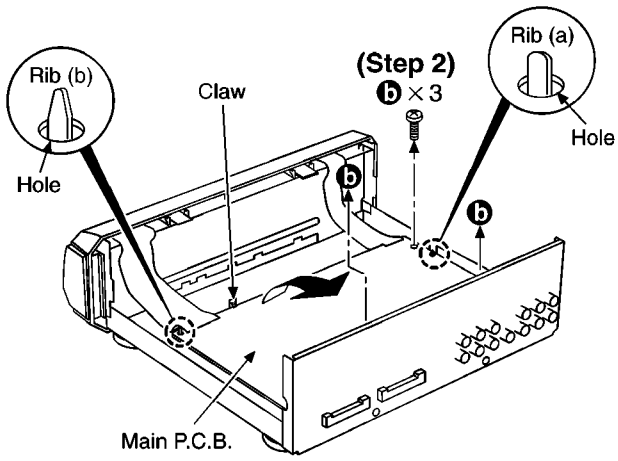
- Check the FL P.C.B. as shown below.



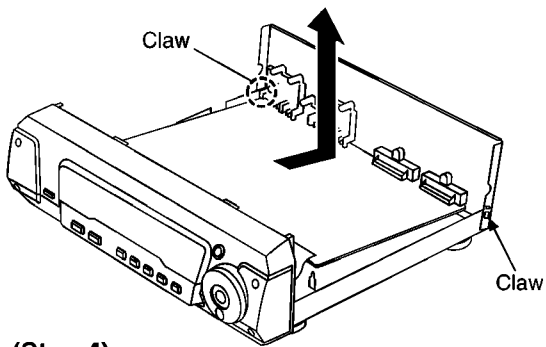
3.2. Checking for the main P.C.B.

- Follow the (Step 1) - (Step 3) of item 3.1.



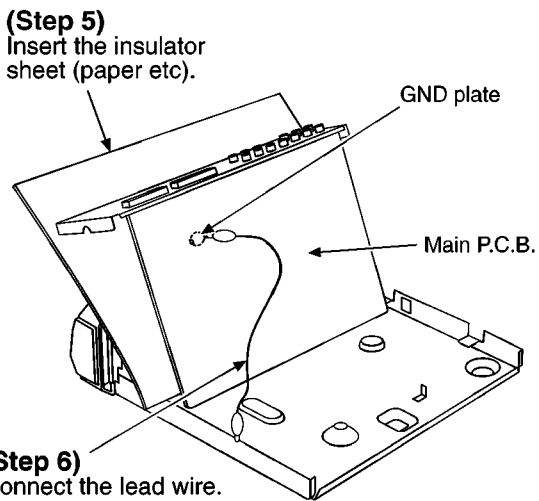


(Step 3)
Release the claw, and then lift up the main P.C.B..
(Lift up the main P.C.B. until the rib (a) and rib (b) are released from the hole of main P.C.B..)



(Step 4)
Release the 2 claws, and then remove the main P.C.B. in the direction of arrow.

• Check the main P.C.B. as shown below.



4 To Supply Power Source

This unit is designed to operate on power supplied from system connected.

When a component requires service, use the system connections to supply power source.

For system connections, refer to Fig. 4-1.

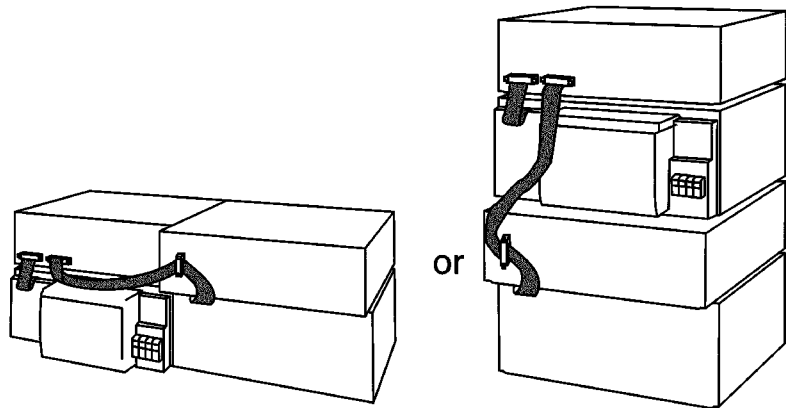


Fig. 4-1.

5 Schematic Diagram Notes

- This schematic diagram may be modified at any time with the development of new technology.

Notes:

S601:	Display mode switch (DISPLAY MODE)
S602:	DOLBY PRO LOGIC switch (PRO LOGIC, OFF/ON)
S603:	Super surround switch (SUPER SURROUND)
S604:	Super sound EQ switch (SUPER SOUND EQ)
S605:	Center focus switch (CENTER FOCUS)
S606:	Virtual rear surround switch (VIRTUAL REAR SURROUND)
S607:	Multi rear surround switch (MULTI REAR SURROUND)
S608:	Joy stick switch (►)
S609:	Joy stick switch (▲)
S610:	Joy stick switch (◀)
S611:	Joy stick switch (▼)
S612:	Super 3D AI EQ switch (SUPER 3D AI EQ)
S613:	Seat position switch (SEAT POSITION)
S614:	Joy control switch (MULTI JOG)

- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.

No mark : Power on

- Important safety notice:

Components identified by \triangle 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 supply part number is described alone in the replacement parts list.

• Caution!

IC and LSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.

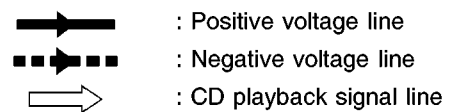
Cover the parts boxes made of plastics with aluminum foil.

Ground the soldering iron.

Put a conductive mat on the work table.

Do not touch the legs of IC or LSI with the fingers directly.

- Voltage and signal line



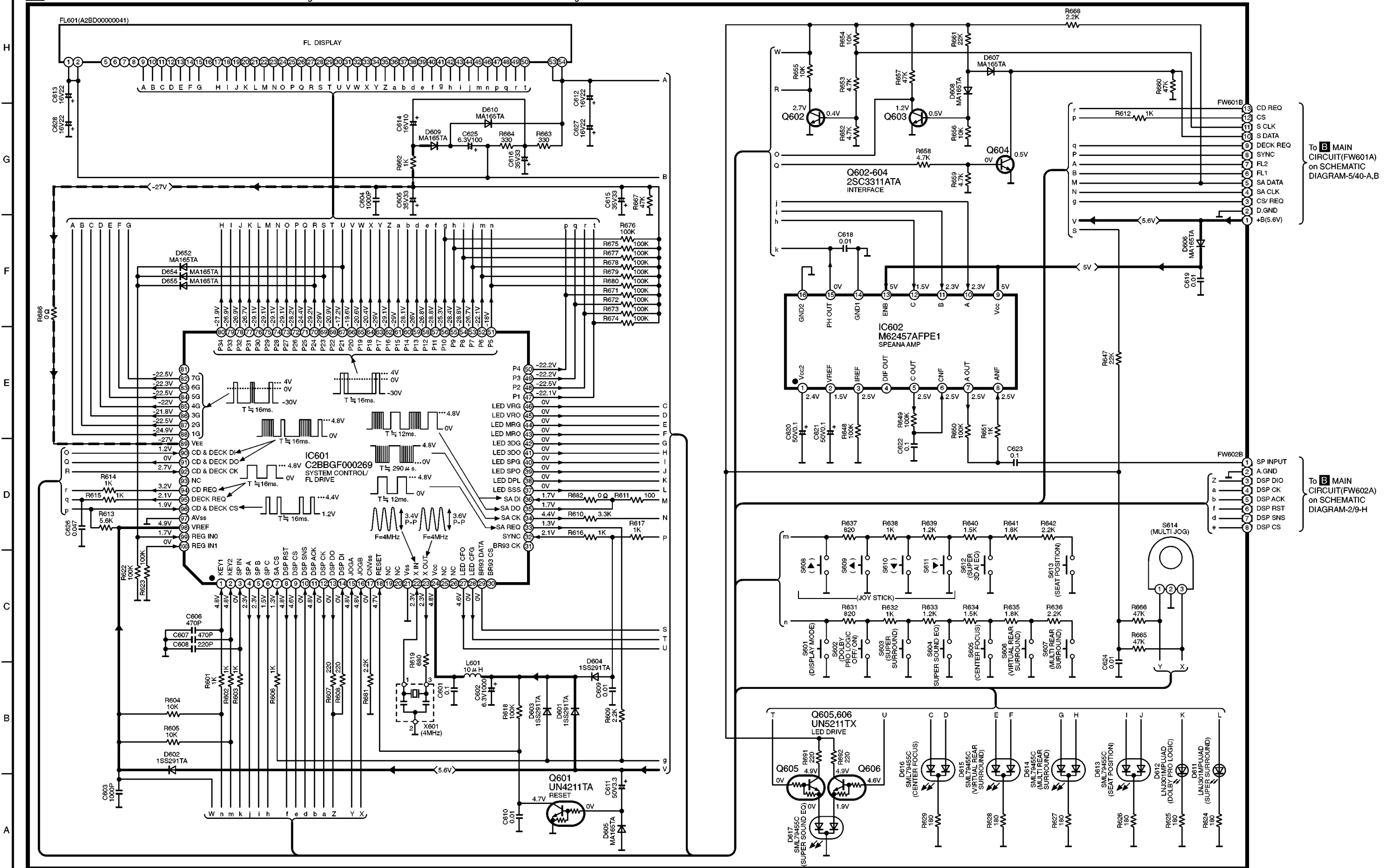
6 Schematic Diagram

SCHEMATIC DIAGRAM-1

A FL CIRCUIT

NOTE:
The number which noted at the connectors on the schematic diagram as "SCHEMATIC DIAGRAM-1" or "SCHEMATIC DIAGRAM-2" indicates the schematic diagram serial number located on the left corner in the schematic diagram.

→ : POSITIVE VOLTAGE LINE
- - - - - : NEGATIVE VOLTAGE LINE

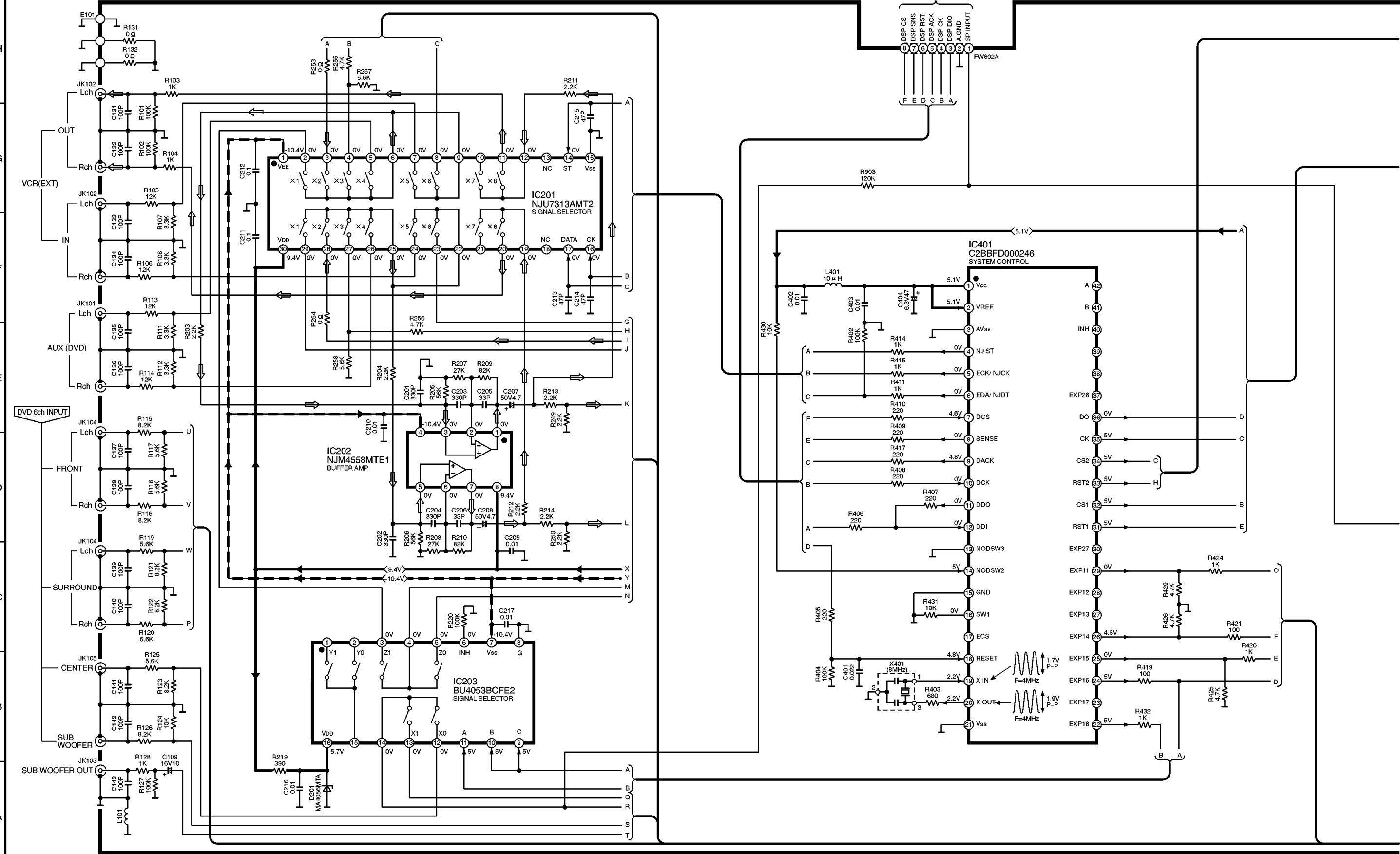


SH-EH780(E) FL CIRCUIT DIAGRAM

SCHEMATIC DIAGRAM-2

B MAIN CIRCUIT

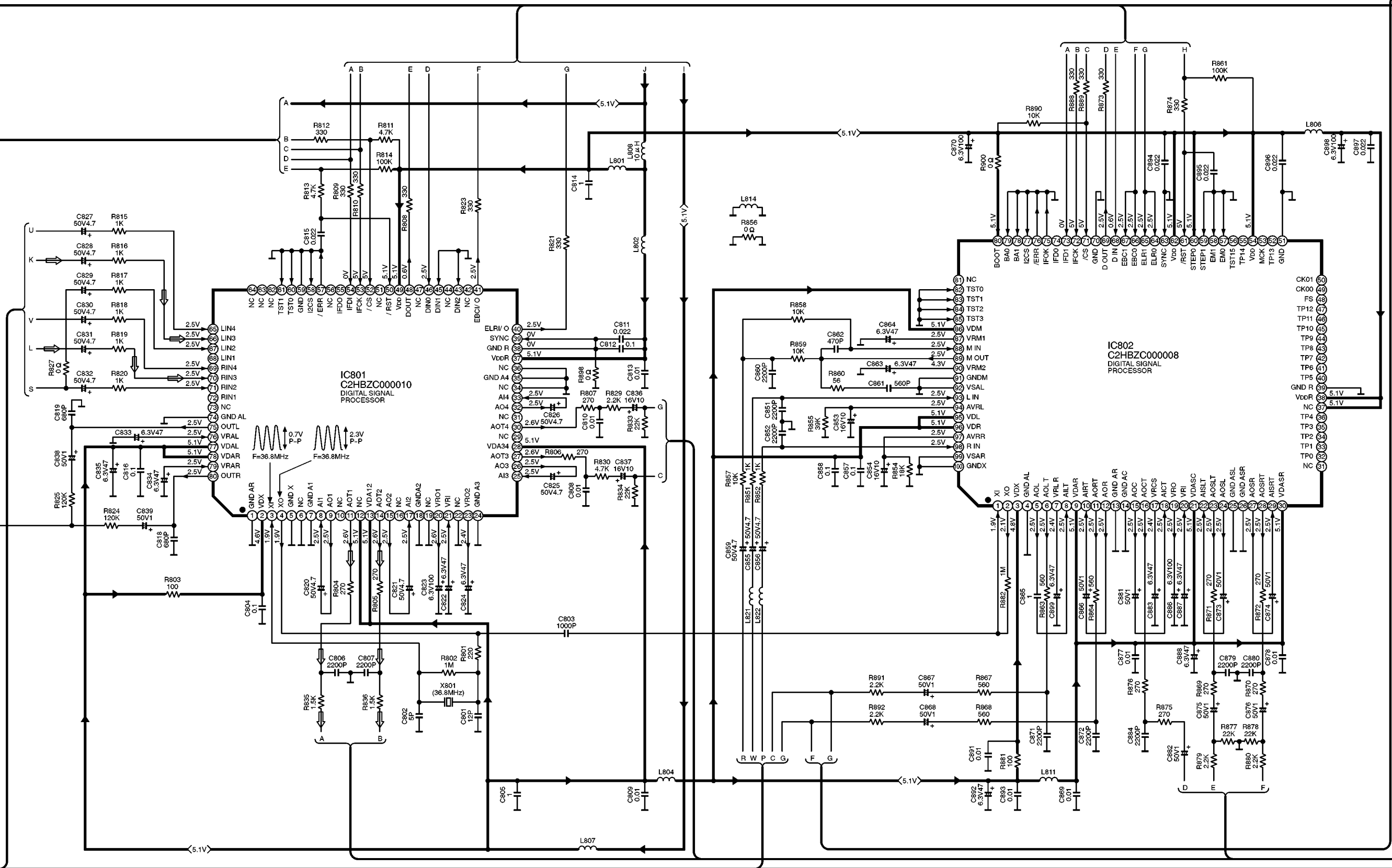
→ : POSITIVE VOLTAGE LINE → : NEGATIVE VOLTAGE LINE ⇨ : CD PLAYBACK SIGNAL LINE



To A FL CIRCUIT(FW602B) on SCHEMATIC DIAGRAM-1/11,12-D

SCHEMATIC DIAGRAM-3
B MAIN CIRCUIT

→ : POSITIVE VOLTAGE LINE ⇨ : CD PLAYBACK SIGNAL LINE



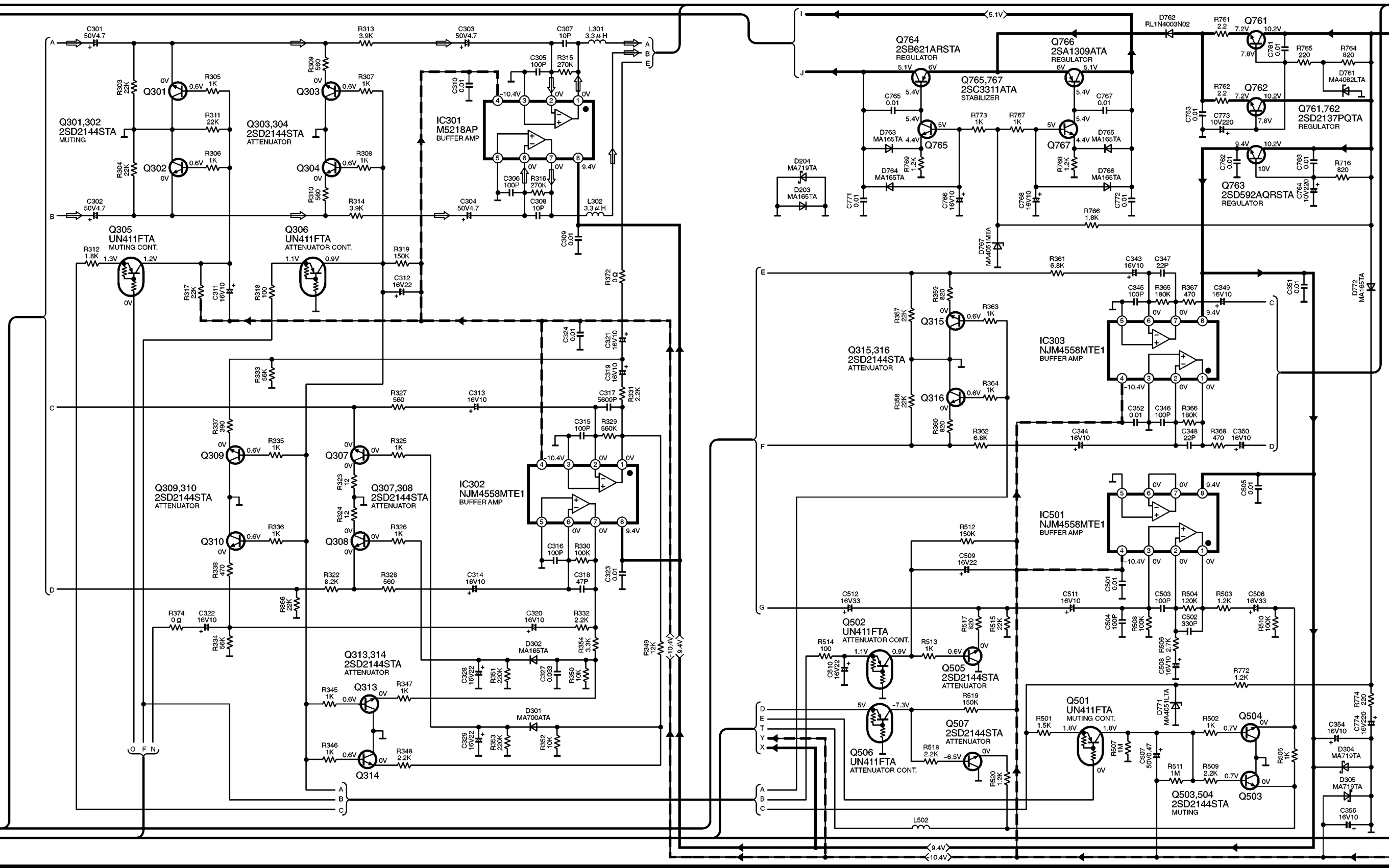
SH-EH780(E) MAIN CIRCUIT DIAGRAM

13 14 15 16 17 18 19 20 21 22 23 24

SCHEMATIC DIAGRAM-4

B MAIN CIRCUIT

→ : POSITIVE VOLTAGE LINE - - - : NEGATIVE VOLTAGE LINE ⇨ : CD PLAYBACK SIGNAL LINE



SH-EH780(E) MAIN CIRCUIT DIAGRAM

25

26

27

28

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32

33

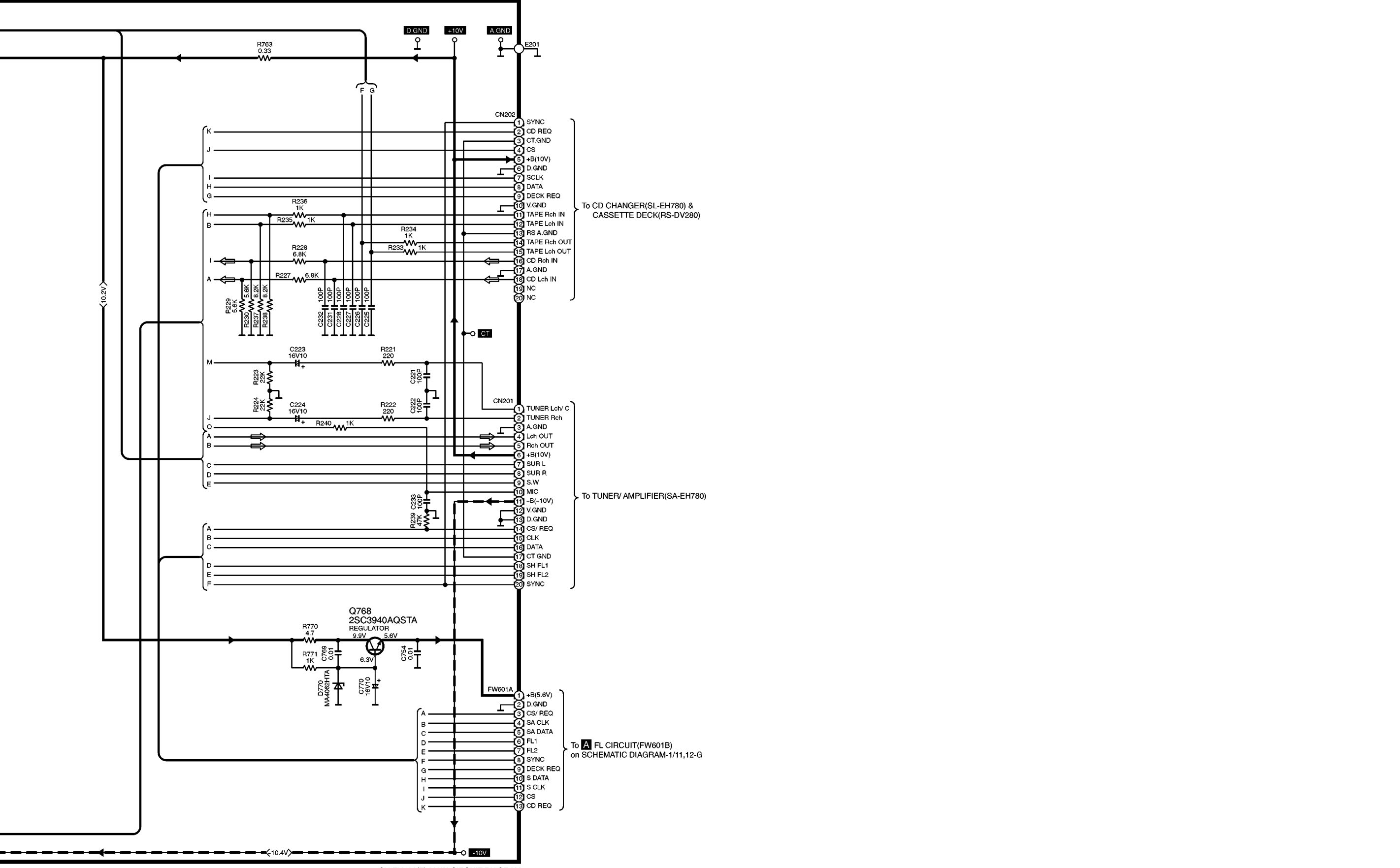
34

35

36

SCHEMATIC DIAGRAM-5
B MAIN CIRCUIT

→ : POSITIVE VOLTAGE LINE ⇨ : CD PLAYBACK SIGNAL LINE
- - - : NEGATIVE VOLTAGE LINE

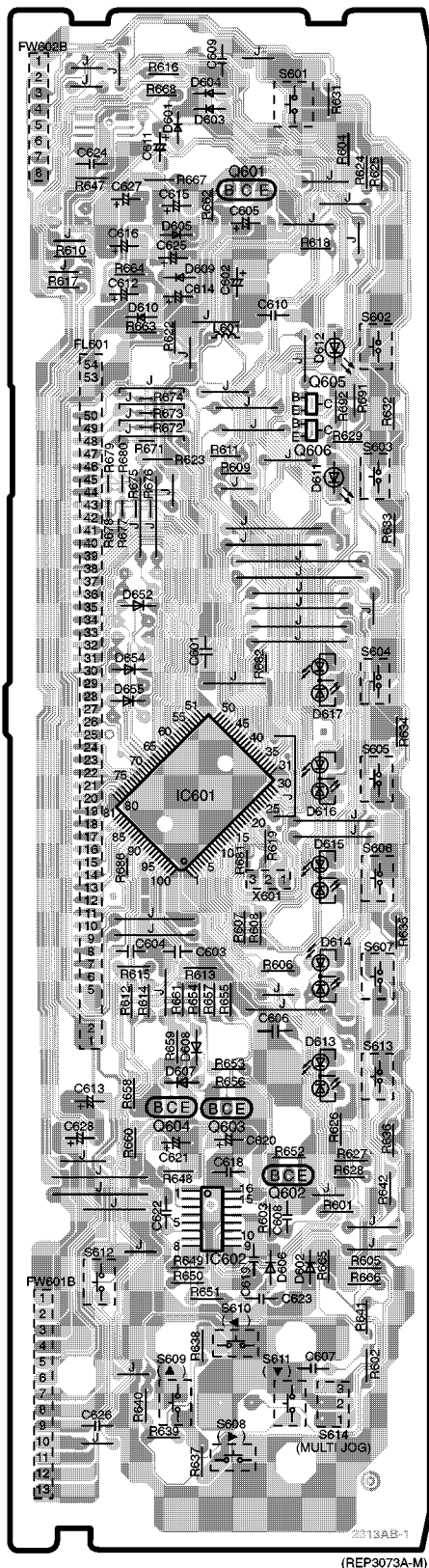


SH-EH780(E) MAIN CIRCUIT DIAGRAM

7 Printed Circuit Board Diagram

Note: This printed circuit board diagram may be modified at any time with the development of new technology.

A FL P.C.B.



DISPLAY MODE

DOLBY PRO LOGIC OFF/ON

SUPER SURROUND

SUPER SOUND EQ

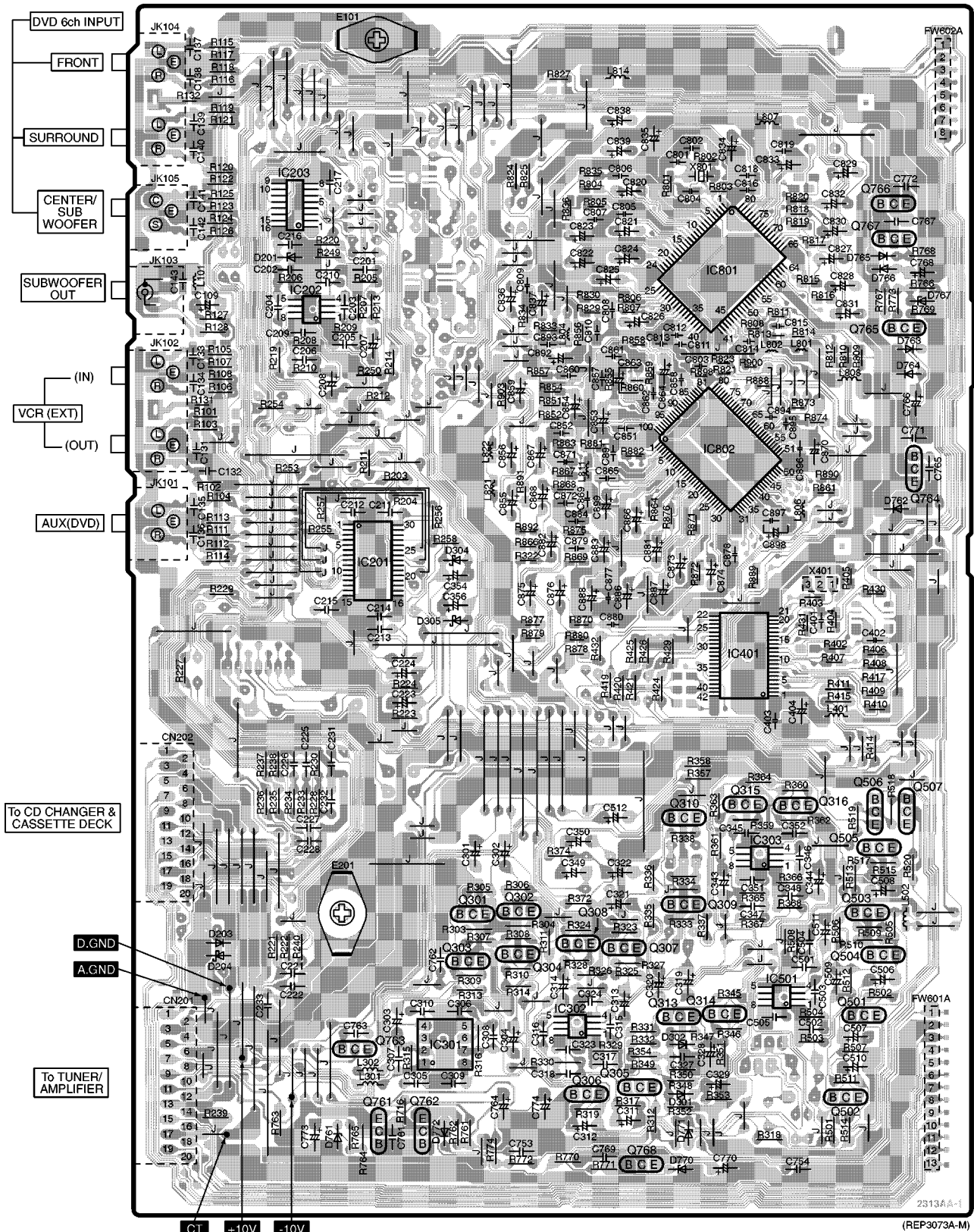
CENTER FOCUS

VIRTUAL REAR SURROUND

MULTI REAR SURROUND

SEAT POSITION

B MAIN P.C.B.



DVD 6ch INPUT

FRONT

SURROUND

CENTER/SUB WOOFER

SUBWOOFER OUT

VCR (EXT) (IN)

VCR (EXT) (OUT)

AUX(DVD)

To CD CHANGER & CASSETTE DECK

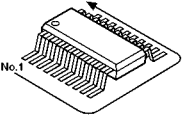
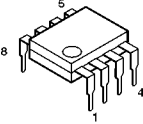
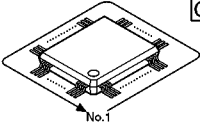
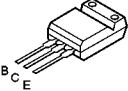

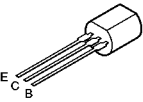
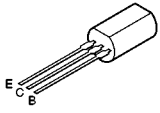
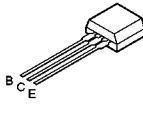
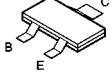
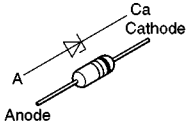
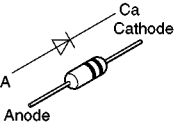
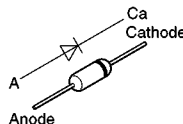
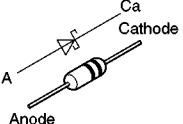
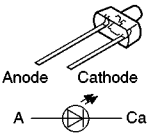
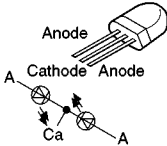
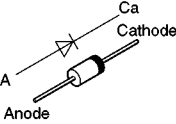
D.GND

A.GND

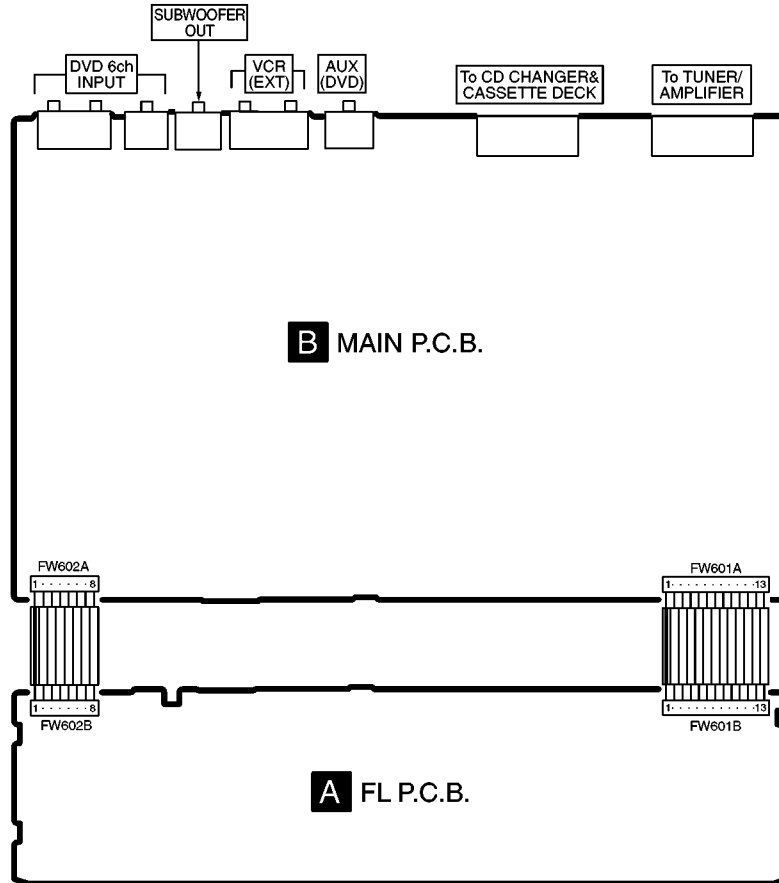
To TUNER/AMPLIFIER

CT -10V -10V

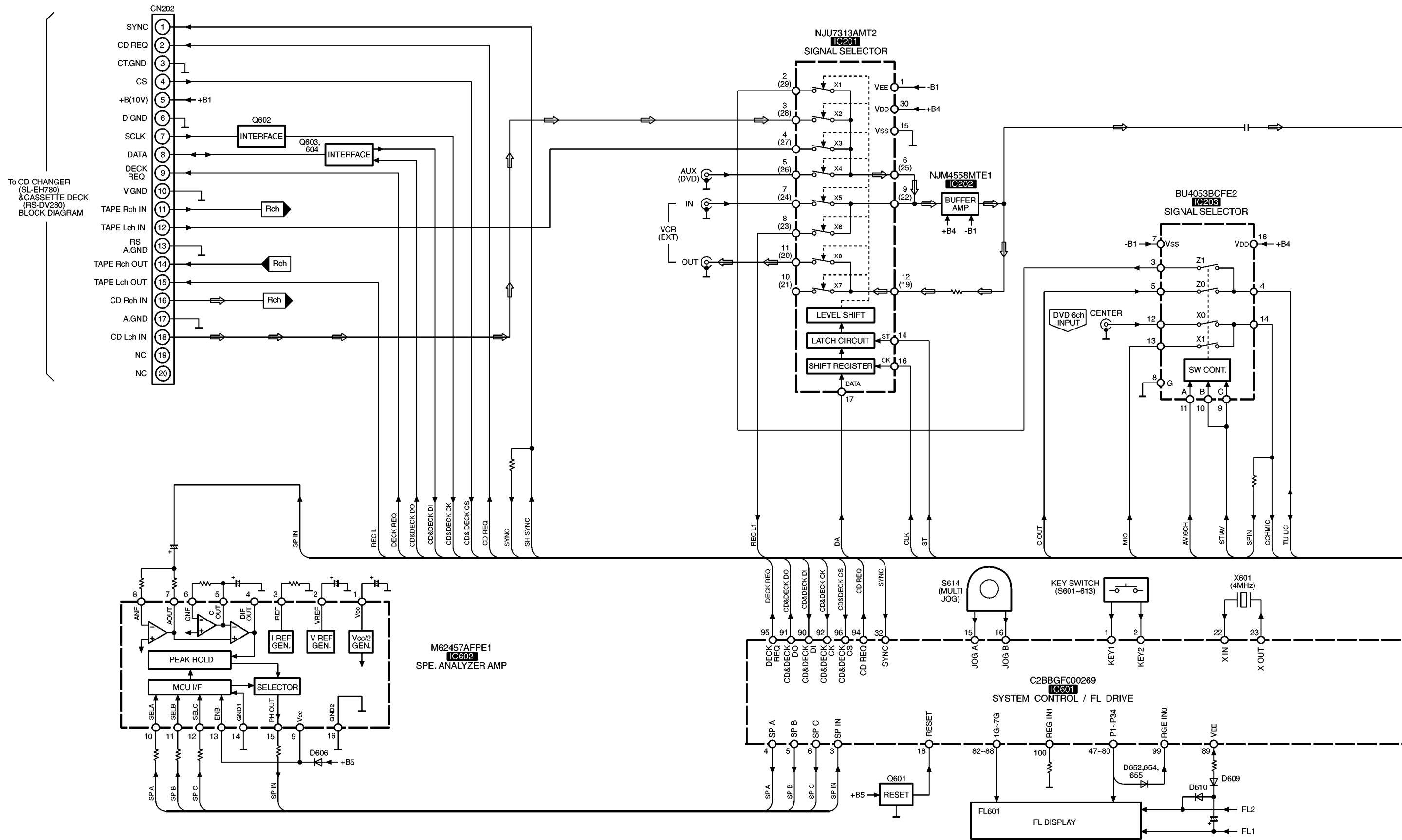
8 Type Illustration of ICs, Transistors and Diodes

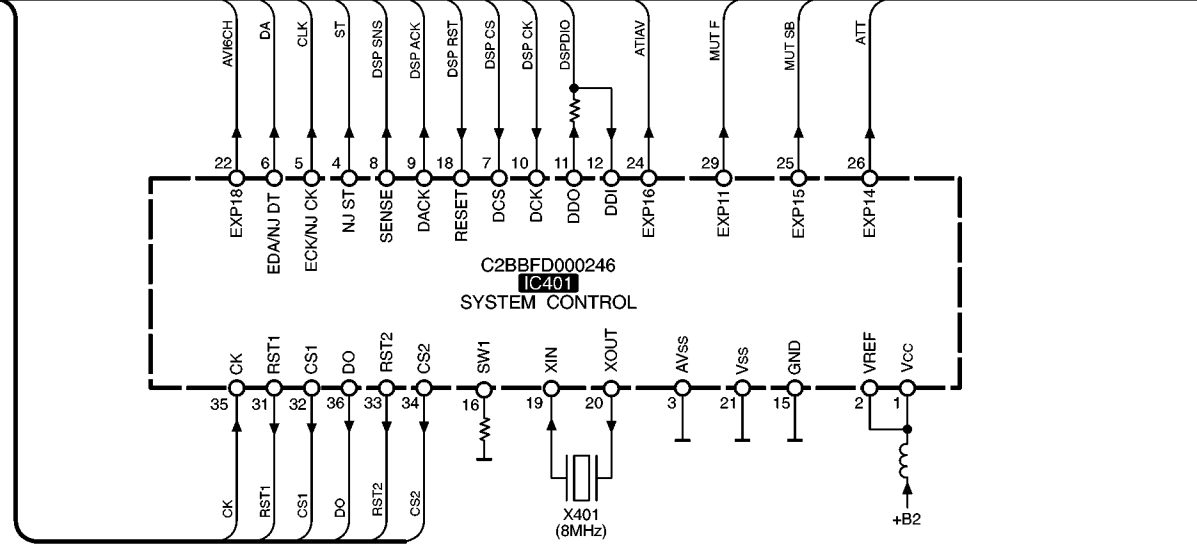
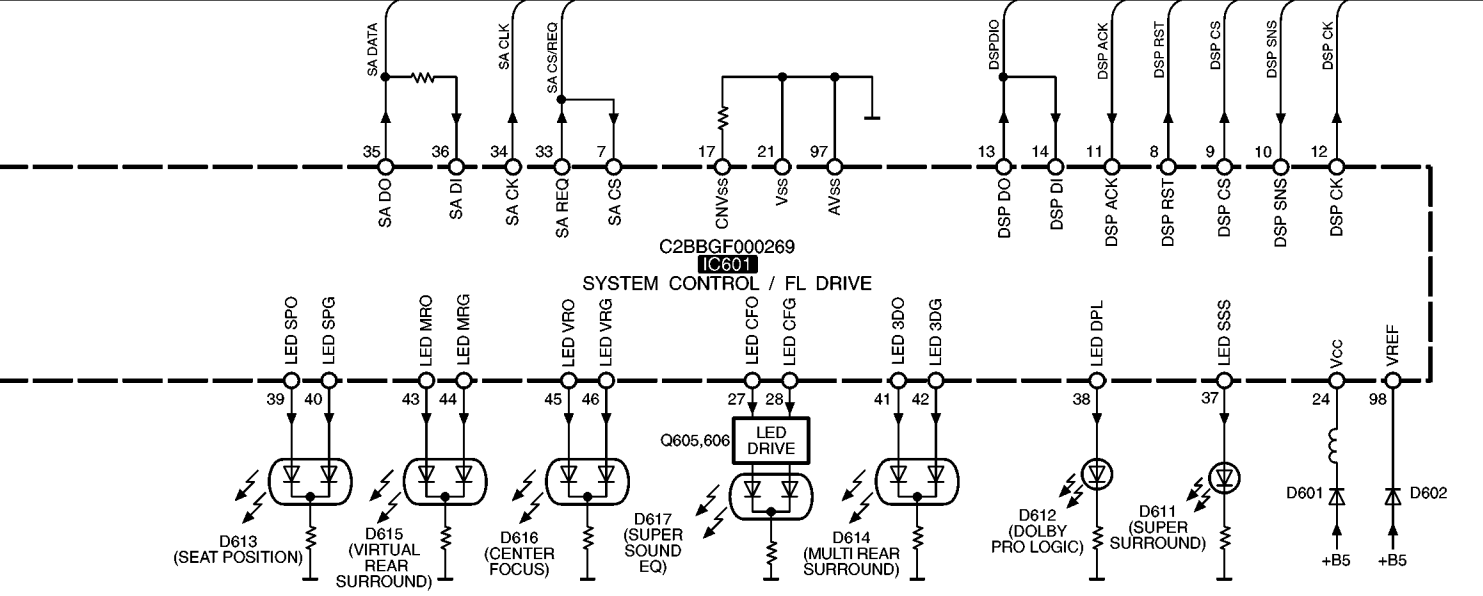
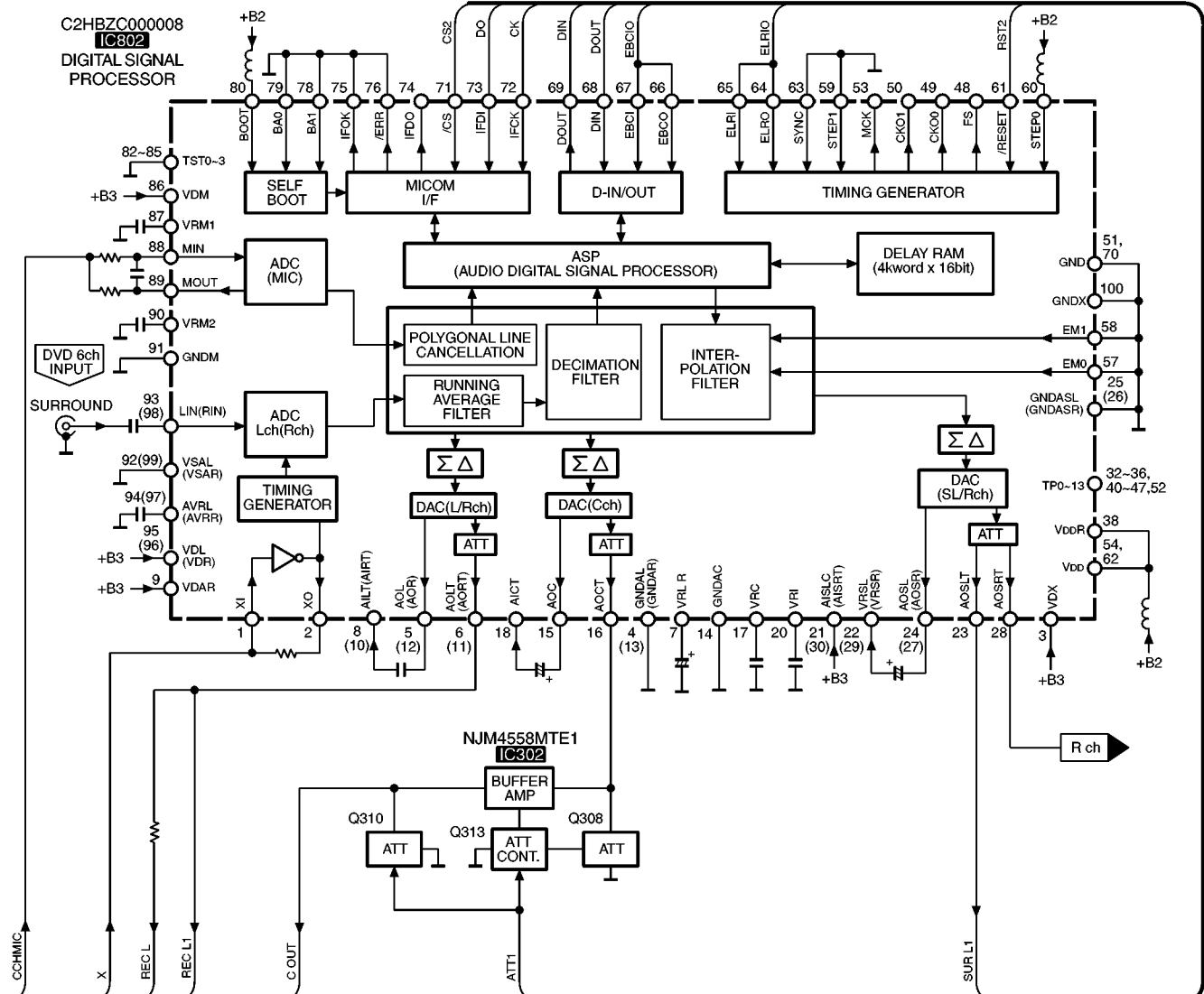
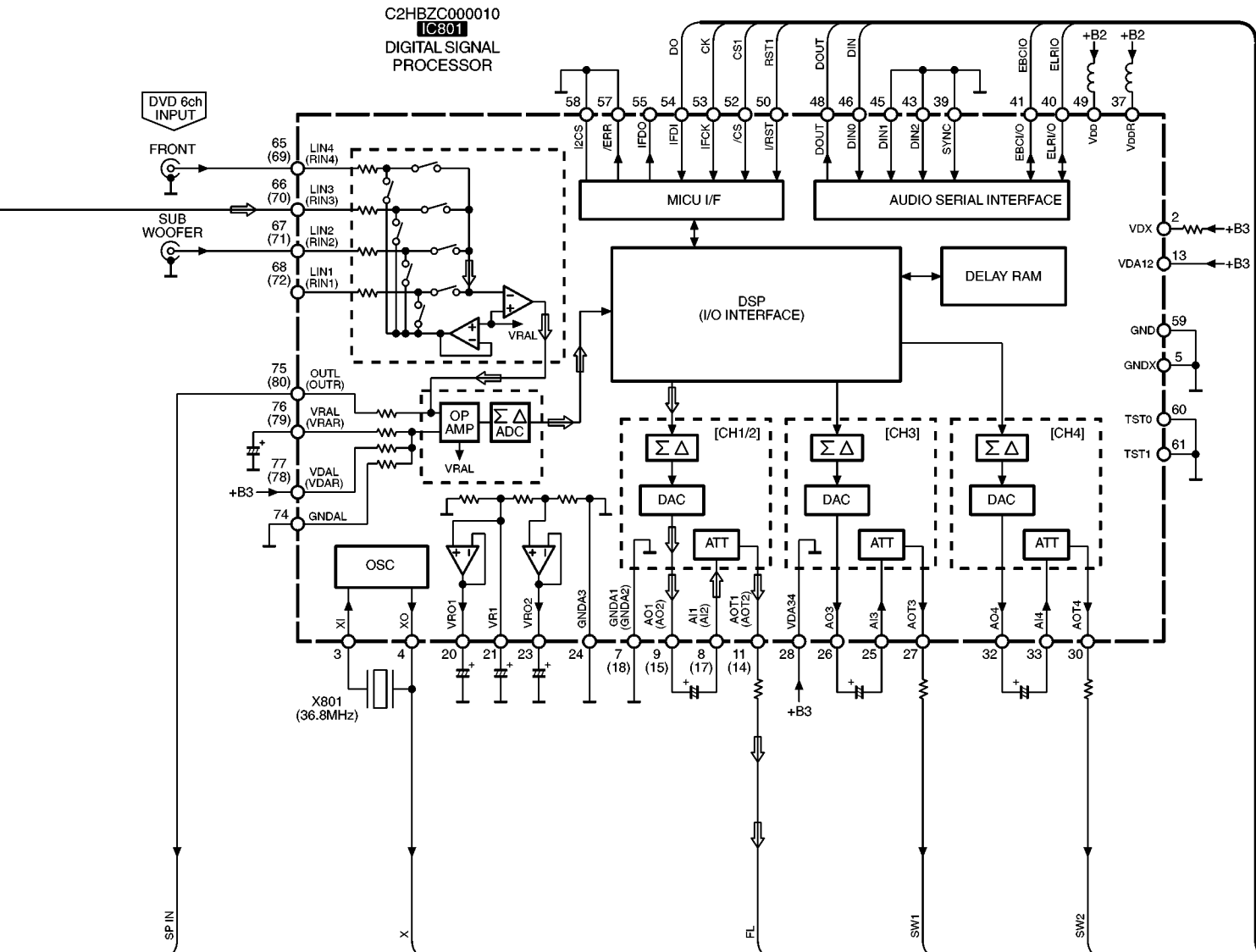
 <table border="1" data-bbox="347 208 587 331"> <tr><td>BU4053BCFE2</td><td>16PIN</td></tr> <tr><td>M62457AFPE1</td><td>16PIN</td></tr> <tr><td>NJU7313AMT2</td><td>30PIN</td></tr> <tr><td>C2BBFD000246</td><td>42PIN</td></tr> <tr><td>NJM4558MTE1</td><td>8PIN</td></tr> </table>	BU4053BCFE2	16PIN	M62457AFPE1	16PIN	NJU7313AMT2	30PIN	C2BBFD000246	42PIN	NJM4558MTE1	8PIN	<p>M5218AP</p> 	<table border="1" data-bbox="1023 208 1270 286"> <tr><td>C2BBGF000269</td><td>100PIN</td></tr> <tr><td>C2HBZC000010</td><td>80PIN</td></tr> <tr><td>C2HBZC000008</td><td>100PIN</td></tr> </table> 		C2BBGF000269	100PIN	C2HBZC000010	80PIN	C2HBZC000008	100PIN	<p>2SD2137PQTA</p> 
BU4053BCFE2	16PIN																			
M62457AFPE1	16PIN																			
NJU7313AMT2	30PIN																			
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C2BBGF000269	100PIN																			
C2HBZC000010	80PIN																			
C2HBZC000008	100PIN																			
 <p>2SC3311ATA UN4211TA UN411FTA</p>	<p>2SB621ARSTA 2SD592AQRSTA 2SA1309ATA</p> 	<p>2SC3940AQSTA</p> 	<p>2SD2144STA</p> 	<p>UN5211TX</p> 																
 <p>MA4051LTA MA4062HTA MA4082LTA MA4051MTA MA4056MTA</p>	<p>1SS291TA MA700ATA</p> 	<p>MA165TA</p> 	<p>MA719TA</p> 	<p>LNJ301MPUJAD</p> 																
<p>SML79455C</p> 	<p>RL1N4003N02</p> 																			

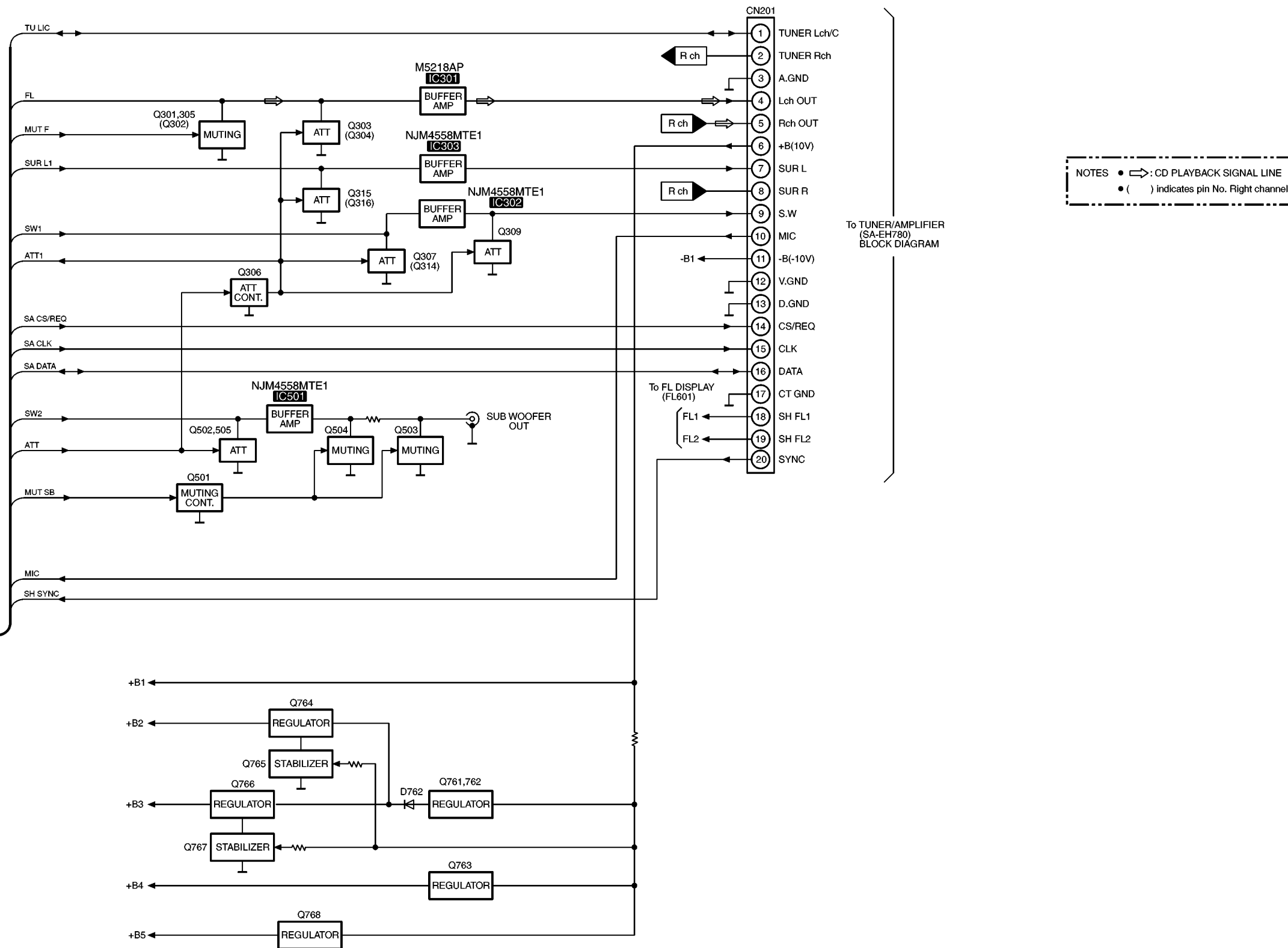
9 Wiring Connection Diagram



10 Block Diagram







11 Terminal Function of ICs

11.1. IC601 (C2BBGF000269): System Control/FL Drive

Pin No.	Terminal Name	I/O	Function
1	KEY1	I	Operation key signal input
2	KEY2	I	Operation key signal input
3	SP IN	I	A/D signal input from IC602
4	SP A	O	Band select signal output for IC602
5	SP B	O	Band select signal output for IC602
6	SP C	O	Band select signal output for IC602
7	SA CS	I	Chip select signal input
8	DSP RST	O	Reset signal output for IC401
9	DSP CS	O	Chip select signal output for IC401
10	DSP SNS	I	Sense signal input from IC401
11	DSP ACK	I	Acknowledge signal input from IC401
12	DSP CK	O	Clock signal output for IC401
13	DSP DO	O	Data signal output for IC401
14	DSP DI	I	Data signal input from IC401
15	JOG A	I	JOG A signal input
16	JOG B	I	JOG B signal input
17	CNV _{SS}	-	GND terminal
18	RESET	I	System reset signal input
19	NC	-	Not used, open
20	NC	-	Not used, open
21	V _{SS}	-	GND terminal
22	X IN	I	Oscillator connected terminal (F=4 MHz)
23	X OUT	O	
24	V _{CC}	I	Power supply terminal
25	NC	-	Not used, open
26	NC	-	Not used, open
27	LED CFO	O	ORANGE LED (SUPER SOUND EQ) signal output
28	LED CFG	O	GREEN LED (SUPER SOUND EQ) signal output
29	BR93 DATA	-	Not used, connected to GND via resistor
30	BR93 CS	-	Not used, connected to GND via resistor
31	BR93 CK	-	Not used, connected to GND via resistor
32	SYNC	I	Power failure detect signal input
33	SA REQ	O	Request signal output for Tuner/Amplifier
34	SA CK	O	Serial communication signal to Tuner/Amplifier (Clock signal output)
35	SA DO	O	Serial communication signal to Tuner/Amplifier (Data signal output)
36	SA DI	I	Serial communication signal to Tuner/Amplifier (Data signal input)
37	LED SSS	O	LED (SUPER SURROUND) signal output
38	LED DPL	O	LED (DOLBY PRO LOGIC) signal output
39	LED SPO	O	ORANGE LED (SEAT POSITION) signal output
40	LED SPG	O	GREEN LED (SEAT POSITION) signal output
41	LED 3DO	O	ORANGE LED (MULTI REAR SURROUND) signal output
42	LED 3DG	O	GREEN LED (MULTI REAR SURROUND) signal output
43	LED MRO	O	ORANGE LED (VIRTUAL REAR SURROUND) signal output
44	LED MRG	O	GREEN LED (VIRTUAL REAR SURROUND) signal output
45	LED VRO	O	ORANGE LED (CENTER FOCUS) signal output
46	LED VRG	O	GREEN LED (CENTER FOCUS) signal output
47 80	P1 P34	O	FL segment signal output
81	NC	-	Not used, open

Pin No.	Terminal Name	I/O	Function
82 88	7G 1G	O	FL grid signal output
89	V _{EE}	I	Power supply terminal (Negative)
90	CD&DECK DI	I	Data signal input (CD and Deck mechanism)
91	CD&DECK DO	O	Data signal output (CD and Deck mechanism)
92	CD&DECK CK	I	Clock signal input (CD and Deck mechanism)
93	NC	-	Not used, open
94	CD REQ	O	Serial data request signal output for CD
95	DECK REQ	O	Serial data request signal output for Deck mechanism
96	CD&DECK CS	I	Chip select signal input (CD and Deck mechanism)
97	AV _{SS}	-	GND terminal
98	VREF	I	Reference voltage input
99	REGIN0	I	Destination select signal input
100	REGIN1	I	Destination select signal input

12 Replacement Parts List

Notes:

- Important safety notice:

Components identified by Δ 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 marking [RTL] indicates that retention time is limited for this item. After the discontinuation of this assembly in production, it will no longer be available.
- All parts are supplied by MESA.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1	RKM0400-1S	CABINET	1	
2	RHD30007-1S	SCREW	4	
3	XTB3+8JFZ	SCREW	13	
4	RKA0105-K	RUBBER	4	
5	RKA0106-N	FOOT RING	4	
6	RYP1097-N	FRONT PANEL UNIT	1	
6-1	RGB0025-A	TECHNICS BADGE	1	
6-2	RKW0576A-1V	FL WINDOW	1	
C109	ECA1CAK100XB	16V 10U	1	
C131-43	ECUV1H101KCV	50V 100P	13	F1H1H101A720
C201-04	ECBT1H331KB5	50V 330P	4	F1D1H331A012
C205,06	ECBT1H330J5	50V 33P	2	F1D1H330A006
C207,08	RCE1HKA4R7BG	50V 4.7U	2	F2A1H4R70009
C209,10	ECBT1C103MS5	16V 0.01U	2	F1D1C103A004
C211,12	ECBT1H104KB5	50V 0.1U	2	F1D1H1040002
C213-15	ECBA1H470J5	50V 47P	3	ECBT1H470J3
C216,17	ECBT1C103MS5	16V 0.01U	2	F1D1C103A004
C221,22	ECBA1H101KB5	50V 100P	2	
C223,24	ECA1CAK100XB	16V 10U	2	
C225-28	ECBA1H101KB5	50V 100P	4	
C231-33	ECBA1H101KB5	50V 100P	3	
C301-04	RCE1HKA4R7BG	50V 4.7U	4	F2A1H4R70009
C305,06	ECBA1H101KB5	50V 100P	2	
C307,08	ECBT1H100JC5	50V 10P	2	F1D1H100A015
C309,10	ECBT1C103MS5	16V 0.01U	2	F1D1C103A004
C311	ECA1CAK100XB	16V 10U	1	
C312	ECA1CAK220XB	16V 22U	1	
C313,14	ECA1CAK100XB	16V 10U	2	
C315,16	ECBA1H101KB5	50V 100P	2	
C317	ECBT1C562KR5	16V 5600P	1	F1D1C562A010
C318	ECBA1H470J5	50V 47P	1	ECBT1H470J3
C319-22	ECA1CAK100XB	16V 10U	4	
C323,24	ECBT1C103MS5	16V 0.01U	2	F1D1C103A004
C327	ECBT1H333KB5	50V 0.033U	1	F1D1H333A012
C328,29	ECA1CAK220XB	16V 22U	2	
C343,44	ECA1CAK100XB	16V 10U	2	
C345,46	ECBA1H101KB5	50V 100P	2	
C347,48	ECBT1H220J5	50V 22P	2	F1D1H220A006
C349,50	ECA1CAK100XB	16V 10U	2	
C351,52	ECBT1C103MS5	16V 0.01U	2	F1D1C103A004
C354	ECA1CAK100XB	16V 10U	1	
C356	ECA1CAK100XB	16V 10U	1	
C401	ECUVNE223KBV	25V 0.022U	1	F1H1E223A050
C402,03	ECUVNH103KBV	50V 0.01U	2	F1H1H103A748
C404	ECA0JAK470XH	6.3V 47U	1	ECA0JAK470XB
C501	ECBT1C103MS5	16V 0.01U	1	F1D1C103A004
C502	ECBT1H331KB5	50V 330P	1	F1D1H331A012
C503,04	ECBA1H101KB5	50V 100P	2	
C505	ECBT1C103MS5	16V 0.01U	1	F1D1C103A004
C506	ECA1CAK330XB	16V 33U	1	
C507	RCE1HKA4R7BG	50V 0.47U	1	F2A1HR47A015

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C508	ECA1CAK100XB	16V 10U	1	
C509,10	ECA1CAK220XB	16V 22U	2	
C511	ECA1CAK100XB	16V 10U	1	
C512	ECA1CAK330XB	16V 33U	1	
C601	ECBT1H104KB5	50V 0.1U	1	F1D1H1040002
C602	ECA0JML02	6.3V 1000U	1	ECEA0JUL02B
C603,04	ECBA1H102KB5	50V 1000P	2	
C605	ECA1VAK330XB	35V 33U	1	
C606,07	ECBT1H471KB5	50V 470P	2	F1D1H471A012
C608	ECBT1H221KB5	50V 220P	1	F1D1H221A012
C609,10	ECBT1C103MS5	16V 0.01U	2	F1D1C103A004
C611	ECA1HAK3R3XB	50V 3.3U	1	
C612,13	F2A1C220A034	16V 22U	2	
C614	ECA1CAK100XB	16V 10U	1	
C615	ECA1VAK330XB	35V 33U	1	
C616	ECEA1VKS330Q	35V 33U	1	
C618,19	ECBT1C103MS5	16V 0.01U	2	F1D1C103A004
C620,21	ECA1HAK0R1XB	50V 0.1U	2	
C622,23	ECBT1H104KB5	50V 0.1U	2	F1D1H1040002
C624	ECBT1C103MS5	16V 0.01U	1	F1D1C103A004
C625	ECA0JAK101XB	6.3V 100U	1	
C626	ECBT1H473KB5	50V 0.047U	1	F1D1H473A012
C627,28	F2A1C220A034	16V 22U	2	
C753,54	ECBT1C103MS5	16V 0.01U	2	F1D1C103A004
C761-63	ECBT1C103MS5	16V 0.01U	3	F1D1C103A004
C764	ECA1AAK221XH	10V 220U	1	
C765	ECBT1C103MS5	16V 0.01U	1	F1D1C103A004
C766	ECA1CAK100XB	16V 10U	1	
C767	ECBT1C103MS5	16V 0.01U	1	F1D1C103A004
C768	ECA1CAK100XB	16V 10U	1	
C769	ECBT1C103MS5	16V 0.01U	1	F1D1C103A004
C770	ECA1CAK100XB	16V 10U	1	
C771,72	ECBT1C103MS5	16V 0.01U	2	F1D1C103A004
C773	ECA1AAK221XH	10V 220U	1	
C774	ECA1CAM221XB	16V 220U	1	
C801	ECUV1H120JCV	50V 12P	1	ECJ1VC1H120J
C802	ECUV1H050CCV	50V 5P	1	
C803	ECUV1H102KBV	50V 1000P	1	ECJ1VB1H102K
C804	ECUVNC104KBV	16V 0.1U	1	ECJ1VB1C104K
C805	ECUVNJ105KBV	6.3V 1U	1	F1H0J105A002
C806,07	ECUV1H222KBV	50V 2200P	2	ECJ1VB1H222K
C808-10	ECUVNH103KBV	50V 0.01U	3	F1H1H103A748
C811	ECUVNE223KBV	25V 0.022U	1	F1H1E223A050
C812	ECUVNC104KBV	16V 0.1U	1	ECJ1VB1C104K
C813	ECUVNH103KBV	50V 0.01U	1	F1H1H103A748
C814	ECUVNJ105KBV	6.3V 1U	1	F1H0J105A002
C815	ECUVNE223KBV	25V 0.022U	1	F1H1E223A050
C816	ECUVNC104KBV	16V 0.1U	1	ECJ1VB1C104K
C818,19	ECJ1VB1H681K	35V 680P	2	
C820,21	RCE1HKA4R7BG	50V 4.7U	2	F2A1H4R70009
C822	ECA0JAK470XH	6.3V 47U	1	ECA0JAK470XB
C823	EEAFC0J101B	6.3V 100U	1	
C824	ECA0JAK470XH	6.3V 47U	1	ECA0JAK470XB
C825-32	RCE1HKA4R7BG	50V 4.7U	8	F2A1H4R70009
C833-35	ECA0JAK470XH	6.3V 47U	3	ECA0JAK470XB
C836,37	ECA1CAK100XB	16V 10U	2	
C838,39	ECA1HAK010XI	50V 1U	2	ECA1HAK010XB
C851,52	ECUV1H222KBV	50V 2200P	2	ECJ1VB1H222K
C853,54	ECA1CAK100XB	16V 10U	2	
C855,56	RCE1HKA4R7BG	50V 4.7U	2	F2A1H4R70009
C857,58	ECUVNC104KBV	16V 0.1U	2	ECJ1VB1C104K
C859	RCE1HKA4R7BG	50V 4.7U	1	F2A1H4R70009
C860	ECUV1H222KBV	50V 2200P	1	ECJ1VB1H222K
C861	ECUV1H561KBV	50V 560P	1	F1H1H561A013
C862	ECUV1H471KBV	50V 470P	1	F1H1H471A013
C863,64	ECA0JAK470XH	6.3V 47U	2	ECA0JAK470XB
C865	ECUVNJ105KBV	6.3V 1U	1	F1H0J105A002
C866-68	ECA1HAK010XI	50V 1U	3	ECA1HAK010XB
C869	ECUVNH103KBV	50V 0.01U	1	F1H1H103A748
C870	EEAFC0J101B	6.3V 100U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C871,72	ECUV1H222KBV	50V 2200P	2	ECJ1VB1H222K
C873-76	ECA1HAK010XI	50V 1U	4	ECA1HAK010XB
C877,78	ECUVNH103KBV	50V 0.01U	2	FLH1H103A748
C879,80	ECUV1H222KBV	50V 2200P	2	ECJ1VB1H222K
C881,82	ECA1HAK010XI	50V 1U	2	ECA1HAK010XB
C883	ECA0JAK470XH	6.3V 47U	1	ECA0JAK470XB
C884	ECUV1H222KBV	50V 2200P	1	ECJ1VB1H222K
C886	EEAFC0J101B	6.3V 100U	1	
C887,88	ECA0JAK470XH	6.3V 47U	2	ECA0JAK470XB
C891	ECUVNH103KBV	50V 0.01U	1	FLH1H103A748
C892	ECA0JAK470XH	6.3V 47U	1	ECA0JAK470XB
C893	ECUVNH103KBV	50V 0.01U	1	FLH1H103A748
C894-97	ECUVNE223KBV	25V 0.022U	4	FLH1E223A050
C898	EEAFC0J101B	6.3V 100U	1	
C899	ECA0JAK470XH	6.3V 47U	1	ECA0JAK470XB
CN201	RJT065A20	CONNECTOR (20P)	1	K1FA220B0007
CN202	RJT065K20	CONNECTOR (20P)	1	K1FA220B0006
D201	MA4056-M	DIODE	1	MAZ40560M
D203	MA165	DIODE	1	MA2C165
D204	MA719TA	DIODE	1	MA2C71900A
D301	MA700	DIODE	1	MA2C700
D302	MA165	DIODE	1	MA2C165
D304,05	MA719TA	DIODE	2	MA2C71900A
D601-04	1SS291TA	DIODE	4	
D605-10	MA165	DIODE	6	MA2C165
D611,12	LNJ301MPUJAD	LED	2	
D613-17	SML79455C	LED	5	
D652	MA165	DIODE	1	MA2C165
D654,55	MA165	DIODE	2	MA2C165
D761	MA4082LTA	DIODE	1	MAZ40820LF
D762	RLN4003N02	DIODE	1	B0AAMM000009
D763-66	MA165	DIODE	4	MA2C165
D767	MA4051M	DIODE	1	MAZ40510M
D770	MA4062H	DIODE	1	MAZ40620H
D771	MA4051-L	DIODE	1	MAZ40510L
D772	MA165	DIODE	1	MA2C165
FL601	A2BD00000041	FL	1	
IC201	NJU7313AMT2	IC	1	C0JZAS000002
IC202	NJM4558MTE1	IC	1	C0ABBB000109
IC203	BU4053BCFE2	IC	1	
IC301	M5218AP	IC	1	C0AABB000055
IC302,03	NJM4558MTE1	IC	2	C0ABBB000109
IC401	C2BBFD000246	IC	1	
IC501	NJM4558MTE1	IC	1	C0ABBB000109
IC601	C2BBGF000269	IC	1	
IC602	M62457AFPE1	IC	1	C1LEB00000486
IC801	C2HBZC000010	IC	1	
IC802	C2HBZC000008	IC	1	
JK101	SJF3068-7N	JK, AUX (DVD)	1	K2HA102B0046
JK102	SJF3069-5N	JK, VCR (EXT) IN/OUT	1	K2HA204B0083
JK103	SJFD7	JK, SUB WOOFER OUT	1	K4EK01B00002
JK104	SJF3069-5N	JK, FRONT, SURROUND SP.	1	K2HA204B0083
JK105	SJF3068-10N	JK, CENTER, SUB WOOFER	1	K2HA102B0043
L101	RLBV252AV-Y	COIL	1	J0JBC0000019
L301,02	RLQA3R3JT1-Y	COIL	2	G0C3R3JA0019
L401	RLQB100JTD-D	COIL	1	G0C100JA0030
L502	RLBV252AV-Y	COIL	1	J0JBC0000019
L601	RLQA100JT1-Y	COIL	1	G0C100JA0019
L801	RLBV601AV-Y	COIL	1	J0JCC0000077
L802	RLBV102V-Y	COIL	1	J0JBC0000014
L804	RLBV102V-Y	COIL	1	J0JBC0000014
L806	RLBV102V-Y	COIL	1	J0JBC0000014
L807	G0A200D00002	COIL	1	△
L808	RLQB100JTD-D	COIL	1	G0C100JA0030
L811	RLBV102V-Y	COIL	1	J0JBC0000014

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
L814	G0A200D00002	COIL	1	△
L821,22	RLBV252AV-Y	COIL	2	J0JBC0000019
PCB1	REP3073A-M	PCB ASS'Y	1	[RTL]
Q301-04	2SD2144S	TRANSISTOR	4	B1AAGC000006
Q305,06	UN411FTA	TRANSISTOR	2	UNR411F00A
Q307-10	2SD2144S	TRANSISTOR	4	B1AAGC000006
Q313-16	2SD2144S	TRANSISTOR	4	B1AAGC000006
Q501,02	UN411FTA	TRANSISTOR	2	UNR411F00A
Q503-05	2SD2144S	TRANSISTOR	3	B1AAGC000006
Q506	UN411FTA	TRANSISTOR	1	UNR411F00A
Q507	2SD2144S	TRANSISTOR	1	B1AAGC000006
Q601	UN4211	TRANSISTOR	1	UNR4211
Q602-04	2SC3311ATA	TRANSISTOR	3	2SC3311A0A
Q605,06	UN5211TX	TRANSISTOR	2	UNR521100L
Q761,62	2SD2137PQTA	TRANSISTOR	2	2SD21370PA
Q763	2SD0592AWA	TRANSISTOR	1	
Q764	2SB0621AHA	TRANSISTOR	1	
Q765	2SC3311ATA	TRANSISTOR	1	2SC3311A0A
Q766	2SA1309ATA	TRANSISTOR	1	2SA1309AWA
Q767	2SC3311ATA	TRANSISTOR	1	2SC3311A0A
Q768	2SC3940AQSTA	TRANSISTOR	1	2SC3940ARA
R101,02	ERDS2FJ104	1/4W 100K	2	ERDS2TJ104T
R103,04	ERDS2FJ102	1/4W 1K	2	
R105,06	ERDS2FJ123	1/4W 12K	2	
R107,08	ERDS2FJ332	1/4W 3.3K	2	
R111,12	ERDS2FJ332	1/4W 3.3K	2	
R113,14	ERDS2FJ123	1/4W 12K	2	
R115,16	ERDS2FJ822	1/4W 8.2K	2	ERDS2TJ822T
R117-20	ERDS2FJ562	1/4W 5.6K	4	
R121-23	ERDS2FJ822	1/4W 8.2K	3	ERDS2TJ822T
R124	ERDS2FJ103	1/4W 10K	1	
R125	ERDS2FJ562	1/4W 5.6K	1	
R126	ERDS2FJ822	1/4W 8.2K	1	ERDS2TJ822T
R127	ERDS2FJ104	1/4W 100K	1	ERDS2TJ104T
R128	ERDS2FJ102	1/4W 1K	1	
R131,32	ERJ3GEY0R00V	1/16W 0	2	
R203,04	ERDS2FJ222	1/4W 2.2K	2	ERDS2TJ222T
R205,06	ERDS2FJ563	1/4W 56K	2	ERDS2TJ563T
R207,08	ERDS2FJ273	1/4W 27K	2	
R209,10	ERDS2TJ823T	1/4W 82K	2	
R211-14	ERDS2FJ222	1/4W 2.2K	4	ERDS2TJ222T
R219	ERDS2FJ391	1/4W 390	1	ERDS2TJ391T
R220	ERDS2FJ104	1/4W 100K	1	ERDS2TJ104T
R221,22	ERDS2FJ221	1/4W 220	2	
R223,24	ERDS2FJ223	1/4W 22K	2	
R227,28	ERDS2TJ682T	1/4W 6.8K	2	
R229,30	ERDS2FJ562	1/4W 5.6K	2	
R233-36	ERDS2FJ102	1/4W 1K	4	
R237,38	ERDS2FJ822	1/4W 8.2K	2	ERDS2TJ822T
R239	ERDS2FJ473	1/4W 47K	1	ERDS2TJ473T
R240	ERDS2FJ102	1/4W 1K	1	
R249,50	ERDS2FJ222	1/4W 2.2K	2	ERDS2TJ222T
R253,54	ERDS2T0T	1/4W 0	2	
R255,56	ERDS2FJ472	1/4W 4.7K	2	ERDS2TJ472T
R257,58	ERDS2FJ562	1/4W 5.6K	2	
R303,04	ERDS2FJ223	1/4W 22K	2	
R305-08	ERDS2FJ102	1/4W 1K	4	
R309,10	ERDS2FJ561	1/4W 560	2	
R311	ERDS2FJ223	1/4W 22K	1	
R312	ERDS2FJ182	1/4W 1.8K	1	
R313,14	ERDS2TJ392T	1/4W 3.9K	2	
R315,16	ERDS2FJ274	1/4W 270K	2	
R317	ERDS2FJ223	1/4W 22K	1	
R318	ERDS2FJ101	1/4W 100	1	
R319	ERDS2FJ154	1/4W 150K	1	
R322	ERJ3GEYJ822V	1/16W 8.2K	1	D0GB822JA002
R323,24	ERDS2FJ120	1/4W 12	2	
R325,26	ERDS2FJ102	1/4W 1K	2	
R327,28	ERDS2FJ561	1/4W 560	2	
R329	ERDS2FJ564	1/4W 560K	1	ERDS2TJ564T

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R330	ERDS2FJ104	1/4W 100K	1	ERDS2TJ104T
R331,32	ERDS2FJ222	1/4W 2.2K	2	ERDS2TJ222T
R333,34	ERDS2FJ563	1/4W 56K	2	ERDS2TJ563T
R335,36	ERDS2FJ102	1/4W 1K	2	
R337	ERDS2FJ391	1/4W 390	1	ERDS2TJ391T
R338	ERDS2FJ471	1/4W 470	1	
R345-47	ERDS2FJ102	1/4W 1K	3	
R348	ERDS2FJ222	1/4W 2.2K	1	ERDS2TJ222T
R349	ERDS2FJ123	1/4W 12K	1	
R350	ERDS2FJ103	1/4W 10K	1	
R351	ERDS2FJ224	1/4W 220K	1	
R352	ERDS2FJ103	1/4W 10K	1	
R353	ERDS2FJ224	1/4W 220K	1	
R354	ERDS2FJ332	1/4W 3.3K	1	
R357,58	ERDS2FJ223	1/4W 22K	2	
R359,60	ERDS2FJ821	1/4W 820	2	ERDS2TJ821T
R361,62	ERDS2TJ682T	1/4W 6.8K	2	
R363,64	ERDS2FJ102	1/4W 1K	2	
R365,66	ERDS2TJ184T	1/4W 180K	2	
R367,68	ERDS2FJ471	1/4W 470	2	
R372	ERDS2T0T	1/4W 0	1	
R374	ERDS2T0T	1/4W 0	1	
R402	ERJ3GEYJ104Z	1/16W 100K	1	
R403	ERJ3GEYJ681V	1/16W 680	1	D0GB681JA002
R404	ERJ3GEYJ104Z	1/16W 100K	1	
R405-10	ERJ3GEYJ221V	1/16W 220	6	
R411	ERDS2FJ102	1/4W 1K	1	
R414,15	ERDS2FJ102	1/4W 1K	2	
R417	ERJ3GEYJ221V	1/16W 220	1	
R419	ERDS2FJ101	1/4W 100	1	
R420	ERDS2FJ102	1/4W 1K	1	
R421	ERDS2FJ101	1/4W 100	1	
R424	ERDS2FJ102	1/4W 1K	1	
R425,26	ERDS2FJ472	1/4W 4.7K	2	ERDS2TJ472T
R429	ERDS2FJ472	1/4W 4.7K	1	ERDS2TJ472T
R430,31	ERJ3GEYJ103Z	1/16W 10K	2	
R432	ERDS2FJ102	1/4W 1K	1	
R501	ERDS2FJ152	1/4W 1.5K	1	
R502	ERDS2FJ102	1/4W 1K	1	
R503	ERDS2FJ122	1/4W 1.2K	1	ERDS2TJ122T
R504	ERDS2TJ124	1/4W 120K	1	
R505	ERDS2FJ102	1/4W 1K	1	
R506	ERDS2TJ272T	1/4W 2.7K	1	
R507	ERDS2TJ105T	1/4W 1M	1	
R508	ERDS2FJ104	1/4W 100K	1	ERDS2TJ104T
R509	ERDS2FJ222	1/4W 2.2K	1	ERDS2TJ222T
R510	ERDS2FJ104	1/4W 100K	1	ERDS2TJ104T
R511	ERDS2TJ105T	1/4W 1M	1	
R512	ERDS2FJ154	1/4W 150K	1	
R513	ERDS2FJ102	1/4W 1K	1	
R514	ERDS2FJ101	1/4W 100	1	
R515	ERDS2FJ223	1/4W 22K	1	
R517	ERDS2FJ821	1/4W 820	1	ERDS2TJ821T
R518	ERDS2FJ222	1/4W 2.2K	1	ERDS2TJ222T
R519	ERDS2FJ154	1/4W 150K	1	
R520	ERDS2FJ122	1/4W 1.2K	1	ERDS2TJ122T
R601-03	ERDS2FJ102	1/4W 1K	3	
R604,05	ERDS2FJ103	1/4W 10K	2	
R606	ERDS2FJ102	1/4W 1K	1	
R607,08	ERDS2FJ221	1/4W 220	2	
R609	ERDS2FJ222	1/4W 2.2K	1	ERDS2TJ222T
R610	ERDS2FJ332	1/4W 3.3K	1	
R611	ERDS2FJ101	1/4W 100	1	
R612	ERDS2FJ102	1/4W 1K	1	
R613	ERDS2FJ562	1/4W 5.6K	1	
R614-17	ERDS2FJ102	1/4W 1K	4	
R618	ERDS2FJ104	1/4W 100K	1	ERDS2TJ104T
R619	ERDS2FJ681	1/4W 680	1	ERDS2TJ681T
R622,23	ERDS2FJ104	1/4W 100K	2	ERDS2TJ104T
R624-29	ERDS2TJ181	1/4W 180	6	
R631	ERDS2FJ821	1/4W 820	1	ERDS2TJ821T
R632	ERDS2FJ102	1/4W 1K	1	
R633	ERDS2FJ122	1/4W 1.2K	1	ERDS2TJ122T

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R634	ERDS2FJ152	1/4W 1.5K	1	
R635	ERDS2FJ182	1/4W 1.8K	1	
R636	ERDS2FJ222	1/4W 2.2K	1	ERDS2TJ222T
R637	ERDS2FJ821	1/4W 820	1	ERDS2TJ821T
R638	ERDS2FJ102	1/4W 1K	1	
R639	ERDS2FJ122	1/4W 1.2K	1	ERDS2TJ122T
R640	ERDS2FJ152	1/4W 1.5K	1	
R641	ERDS2FJ182	1/4W 1.8K	1	
R642	ERDS2FJ222	1/4W 2.2K	1	ERDS2TJ222T
R647	ERDS2FJ223	1/4W 22K	1	
R648-50	ERDS2FJ104	1/4W 100K	3	ERDS2TJ104T
R651	ERDS2FJ102	1/4W 1K	1	
R652,53	ERDS2FJ472	1/4W 4.7K	2	ERDS2TJ472T
R654-56	ERDS2FJ103	1/4W 10K	3	
R657	ERDS2FJ473	1/4W 47K	1	ERDS2TJ473T
R658,59	ERDS2FJ472	1/4W 4.7K	2	ERDS2TJ472T
R660	ERDS2FJ473	1/4W 47K	1	ERDS2TJ473T
R661	ERDS2FJ223	1/4W 22K	1	
R662	ERDS2FJ102	1/4W 1K	1	
R663,64	ERDS2FJ331	1/4W 330	2	
R665-67	ERDS2FJ473	1/4W 47K	3	ERDS2TJ473T
R668	ERDS2FJ222	1/4W 2.2K	1	ERDS2TJ222T
R671-80	ERJ6GEYJ104V	1/8W 100K	10	
R681	ERJ3GEYJ222V	1/16W 2.2K	1	
R682	ERJ3GEY0R00V	1/16W 0	1	
R686	ERJ3GEY0R00V	1/16W 0	1	
R691,92	ERDS2FJ221	1/4W 220	2	
R716	ERDS2FJ821	1/4W 820	1	ERDS2TJ821T
R761,62	ERDS2FJ2R2	1/4W 2.2	2	ERDS2TJ2R2T
R763	ERQ16NKWR33E	0.33	1	
R764	ERDS2FJ821	1/4W 820	1	ERDS2TJ821T
R765	ERDS2FJ221	1/4W 220	1	
R766	ERDS2FJ182	1/4W 1.8K	1	
R767	ERDS2FJ102	1/4W 1K	1	
R768,69	ERDS2FJ122	1/4W 1.2K	2	ERDS2TJ122T
R770	ERD2FCVJ4R7	1/4W 4.7	1	ERD2FCVJ4R7T
R771	ERDS2FJ102	1/4W 1K	1	
R772	ERDS2FJ122	1/4W 1.2K	1	ERDS2TJ122T
R773	ERDS2FJ102	1/4W 1K	1	
R774	ERDS2FJ221	1/4W 220	1	
R801	ERJ3GEYJ221V	1/16W 220	1	
R802	ERJ3GEYJ105V	1/16W 1M	1	
R803	ERJ3GEYJ101V	1/16W 100	1	
R804-07	ERJ3GEYJ271V	1/16W 270	4	
R808-10	ERJ3GEYJ331V	1/16W 330	3	D0GB331JA002
R811	ERJ3GEYJ472V	1/16W 4.7K	1	
R812	ERJ3GEYJ331V	1/16W 330	1	D0GB331JA002
R813	ERJ3GEYJ472V	1/16W 4.7K	1	
R814	ERJ3GEYJ104Z	1/16W 100K	1	
R815-20	ERJ3GEYJ102V	1/16W 1K	6	ERJ3GEYJ102Z
R821	ERJ3GEYJ331V	1/16W 330	1	D0GB331JA002
R823	ERJ3GEYJ331V	1/16W 330	1	D0GB331JA002
R824,25	ERDS2TJ124	1/4W 120K	2	
R827	ERJ3GEY0R00V	1/16W 0	1	
R829	ERJ3GEYJ222V	1/16W 2.2K	1	
R830	ERJ3GEYJ472V	1/16W 4.7K	1	
R833,34	ERJ3GEYJ223V	1/16W 22K	2	D0GB223JA002
R835,36	ERJ3GEYJ152V	1/16W 1.5K	2	
R851,52	ERJ3GEYJ102V	1/16W 1K	2	ERJ3GEYJ102Z
R854	ERJ3GEYJ183V	1/16W 18K	1	D0GB183JA002
R855	ERJ3GEYJ393V	1/16W 39K	1	D0GB393JA002
R856	ERJ3GEY0R00V	1/16W 0	1	
R857-59	ERJ3GEYJ103Z	1/16W 10K	3	
R860	ERJ3GEYJ560V	1/16W 56	1	
R861	ERJ3GEYJ104Z	1/16W 100K	1	
R863,64	MCR03PZHJ561	1/16W 560	2	ERJ3GEYJ561V
R866	ERJ3GEYJ223V	1/16W 22K	1	D0GB223JA002
R867,68	MCR03PZHJ561	1/16W 560	2	ERJ3GEYJ561V
R869-72	ERJ3GEYJ271V	1/16W 270	4	
R873,74	ERJ3GEYJ331V	1/16W 330	2	D0GB331JA002
R875,76	ERJ3GEYJ271V	1/16W 270	2	
R877,78	ERJ3GEYJ223V	1/16W 22K	2	D0GB223JA002
R879,80	ERJ3GEYJ222V	1/16W 2.2K	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R881	ERJ3GEYJ101V	1/16W 100	1	
R882	ERJ3GEYJ105V	1/16W 1M	1	
R888,89	ERJ3GEYJ331V	1/16W 330	2	D0GB331JA002
R890	ERJ3GEYJ103Z	1/16W 10K	1	
R891,92	ERJ3GEYJ222V	1/16W 2.2K	2	
R898	ERJ3GEY0R00V	1/16W 0	1	
R900	ERJ3GEY0R00V	1/16W 0	1	
R903	ERDS2TJ124	1/4W 120K	1	
S601-07	EVQ11G05R	SW,OPERATION	7	
S608-11	EVQ11G07K	SW,OPERATION	4	
S612,13	EVQ11G05R	SW,OPERATION	2	
S614	ESE24SV7	SW,MULTI JOG	1	
X401	RSXY8M00D01T	OSCILLATOR	1	H2B800400005
X601	H2B400400013	OSCILLATOR	1	
X801	RSXZ36M8M01T	OSCILLATOR	1	

13 Cabinet Parts Location

