AD0102034C2

Service Manual

Sound Processor

DOLBY SURROUND

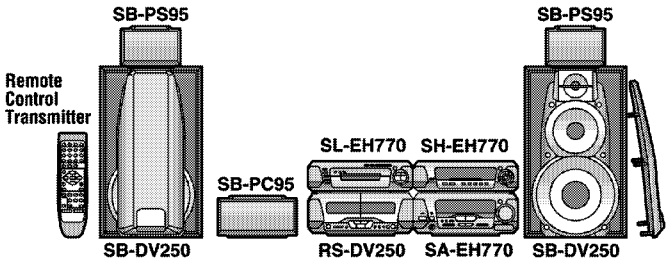
SH-EH770

Colour

(S).....Silver Type

Area

(E).....Europe.



System	SC-EH770
Sound Processor	**SH-EH770**
Tuner/Amplifier	SA-EH770
CD Changer	SL-EH770
Cassette Deck	RS-DV250
Front Speakers*	SB-DV250
Center Speaker*	SB-PC95
Surround Speakers*	SB-PS95

* : Made in Spain.

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

Specifications

EQ/SFP section

MANUAL GEQ:
5-Band EQ
Center frequency; 70 Hz, 300 Hz, 1 kHz, 3.15 kHz, 10 kHz
Level control; ± 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 kΩ
AUX (DVD); 250 mV/15 kΩ
Output level:
VCR REC OUT; 150 mV/1.5 kΩ

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.

⚠ 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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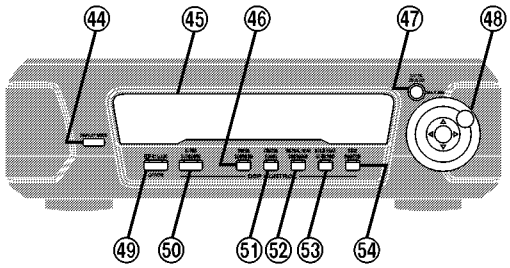
1 Note

Refer to the service manual for Model No. SA-EH770 (Order No. AD0102033C2) for information on Accessories and Packaging.

2 Location of Controls

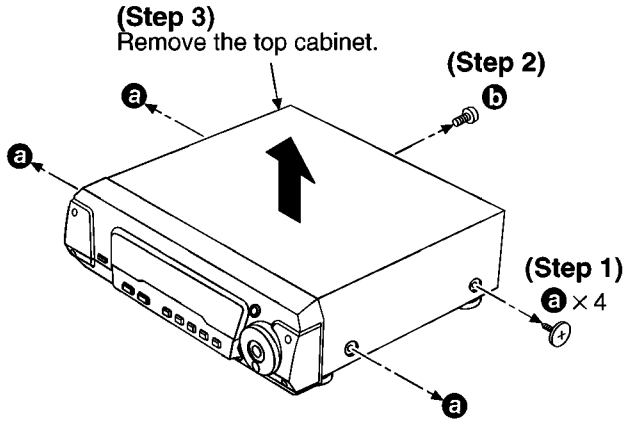


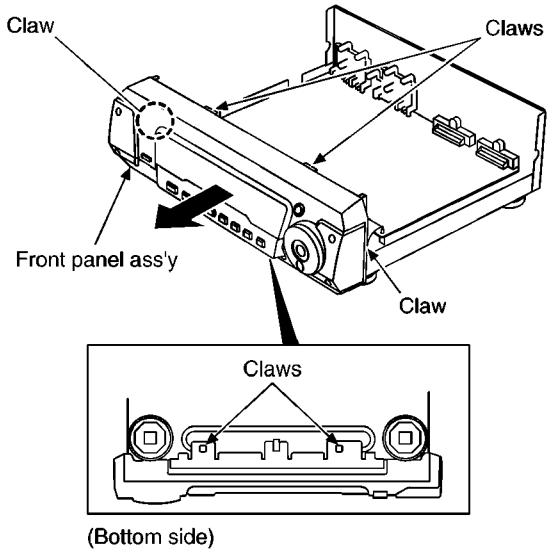
㊹ Display mode button (DISPLAY MODE)
㊺ Display
㊻ Super sound EQ button (SUPER SOUND EQ)
㊼ Super 3D AI EQ button (SUPER 3D AI EQ)
㊽ Jog control and joystick (◄, ►, ▲, ▼, MULTI JOG)
㊾ DOLBY PRO LOGIC button and indicator (□□PRO LOGIC, OFF/ON)
㊿ Super surround button and indicator (SUPER SURROUND)
51 Center focus button and indicator (CENTER FOCUS)
52 Virtual rear surround button and indicator (VIRTUAL REAR SURROUND)
53 Multi rear surround button and indicator (MULTI REAR SURROUND)
54 Seat position button and indicator (SEAT POSITION)

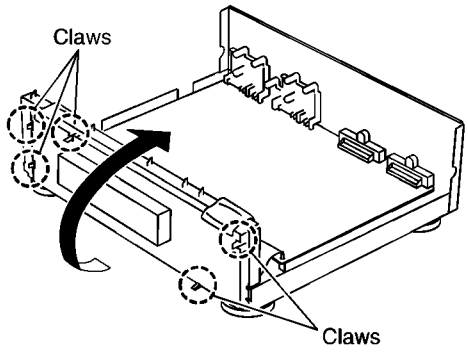
3 Operation Checks and Component Replacement Procedures

- **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.**

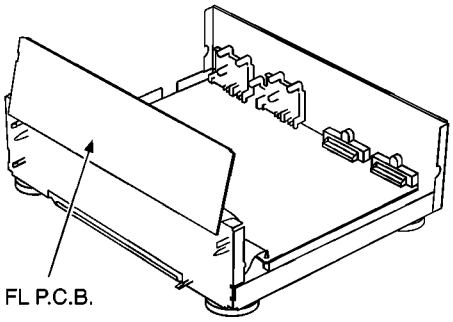
3.1. Checking for the FL P.C.B.





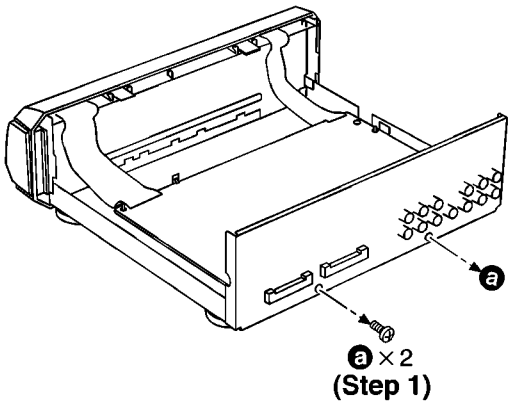


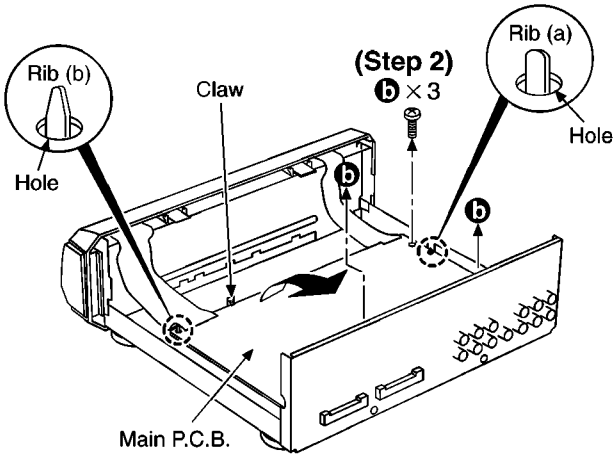
- **Check the FL P.C.B. as shown below.**



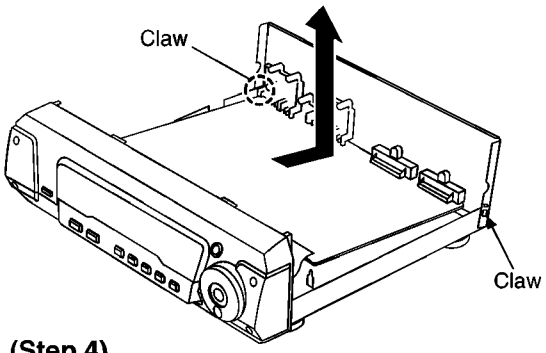
3.2. Checking for the main P.C.B.

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





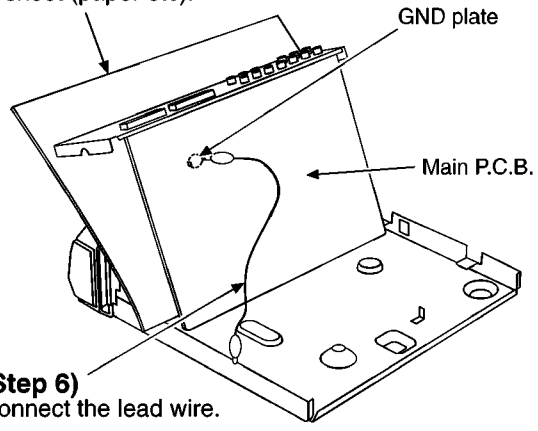
(Step 3)
Release the claw, and then lift up the main P.C.B..
(Lift up the main P.C.B. until the rib (a) and rib (b) are released from the hole of main P.C.B..)



(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.

(Step 5)
Insert the insulator sheet (paper etc).



(Step 6)
Connect the lead wire.

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.

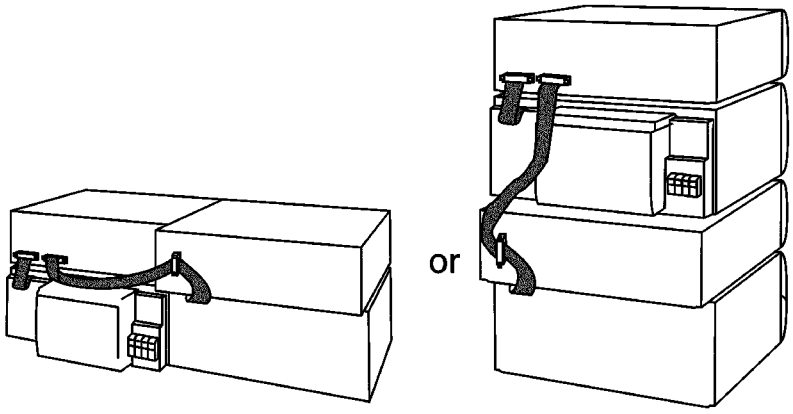


Fig. 4-1.

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 ⚠ 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

  ▬▶▬ : Positive voltage line

  ▪▪▶▪▪ : Negative voltage line

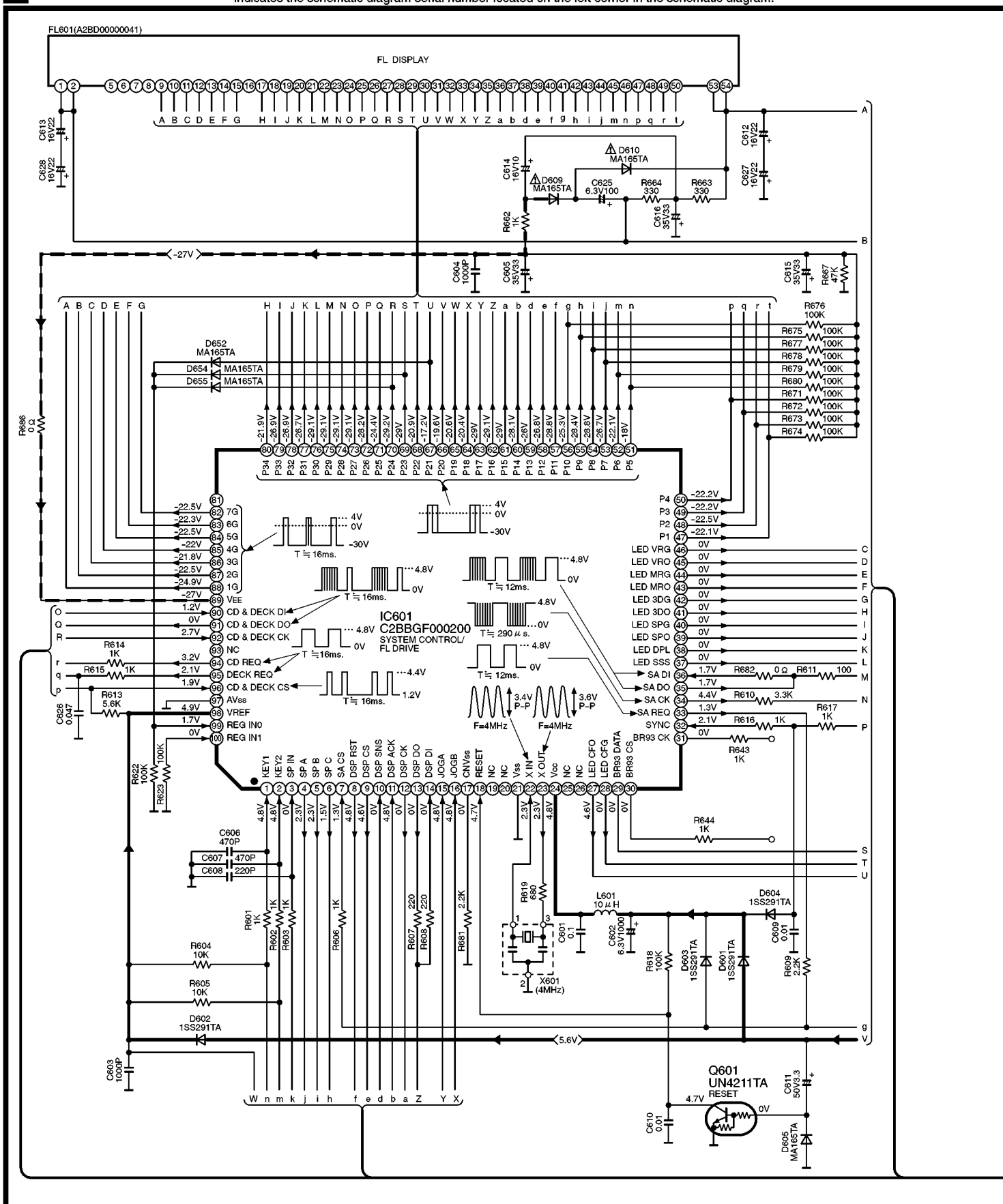
  ⇨ : CD playback signal line

6 Schematic Diagram

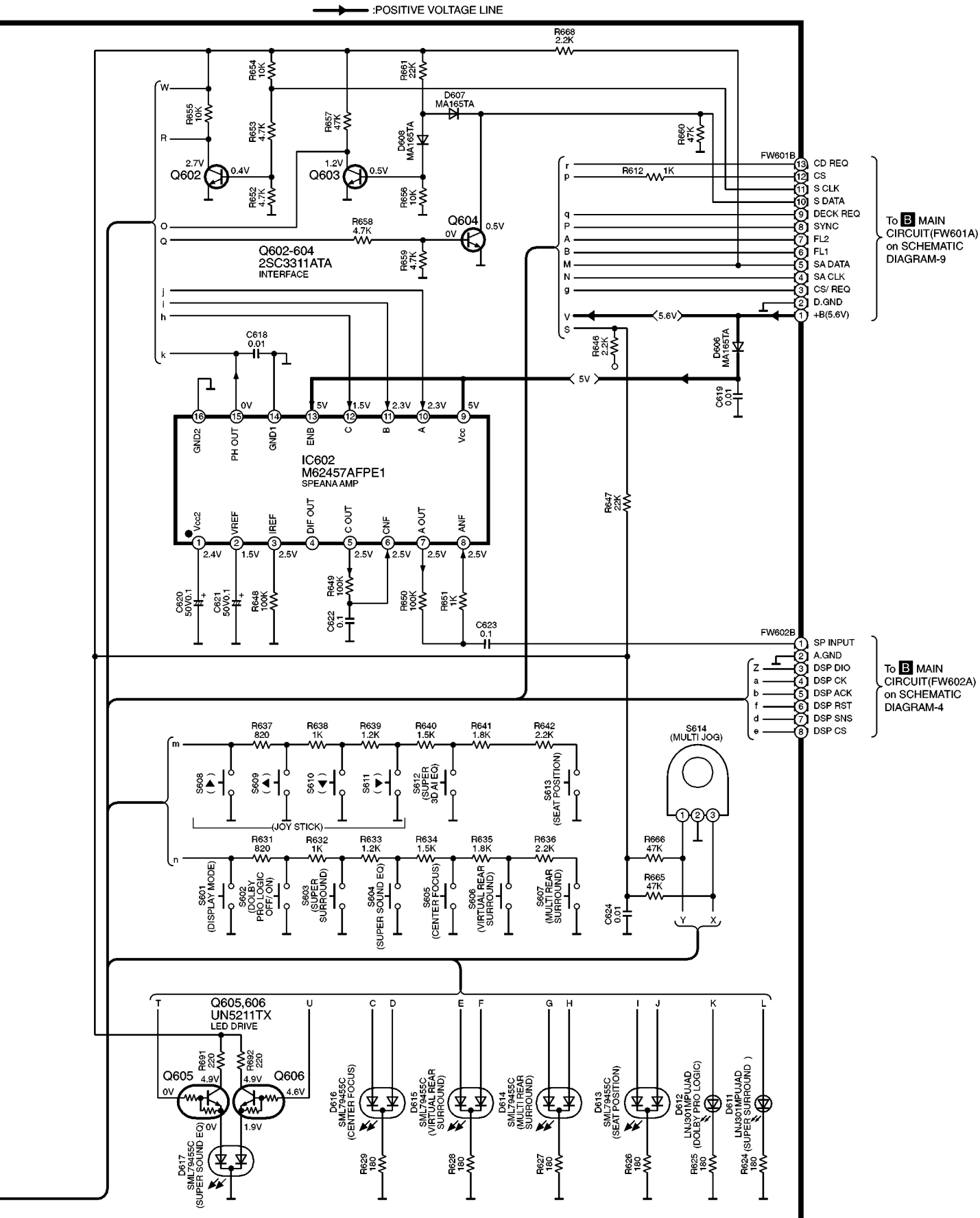
SCHEMATIC DIAGRAM-1
A FL CIRCUIT

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



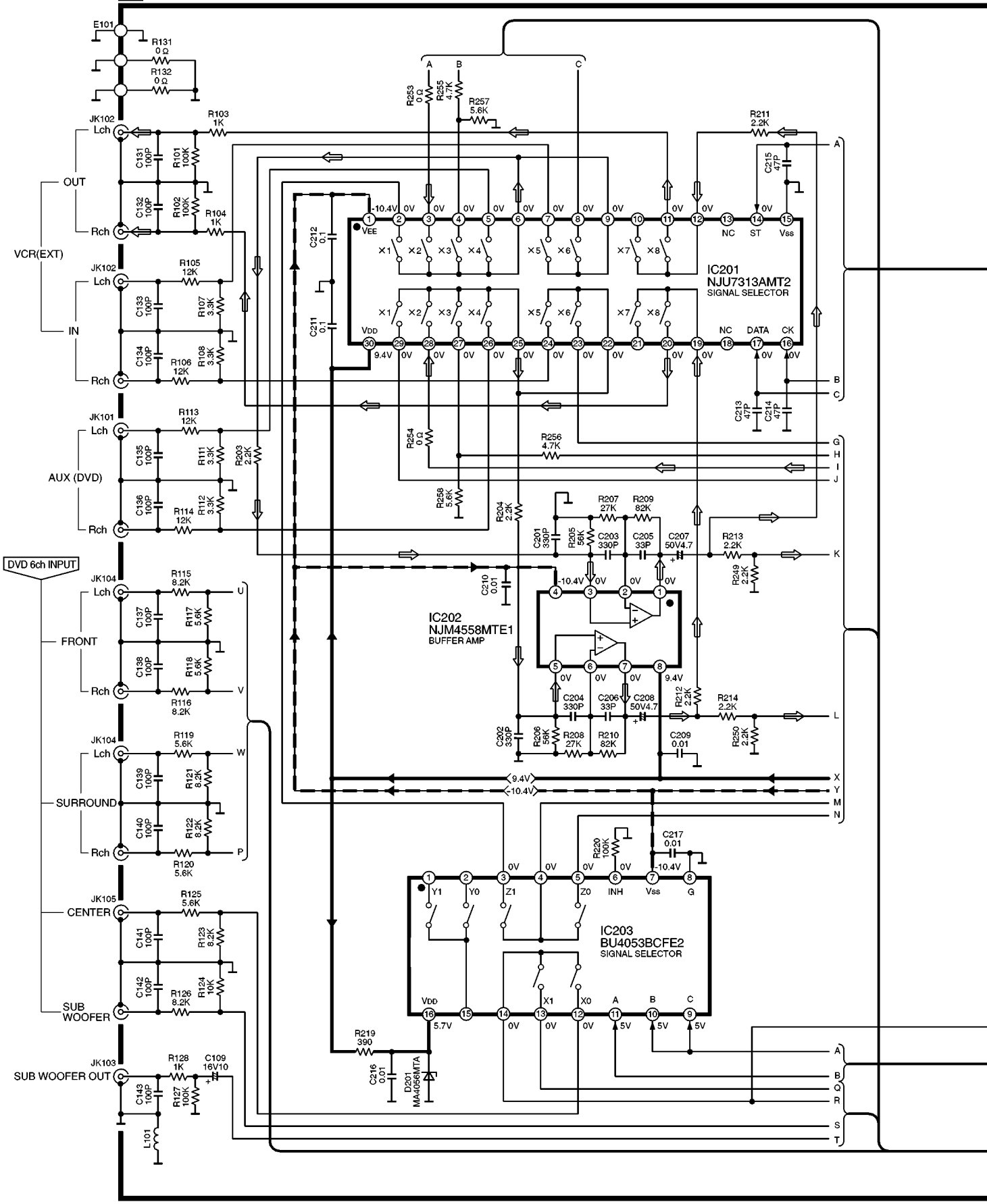
SCHEMATIC DIAGRAM-2



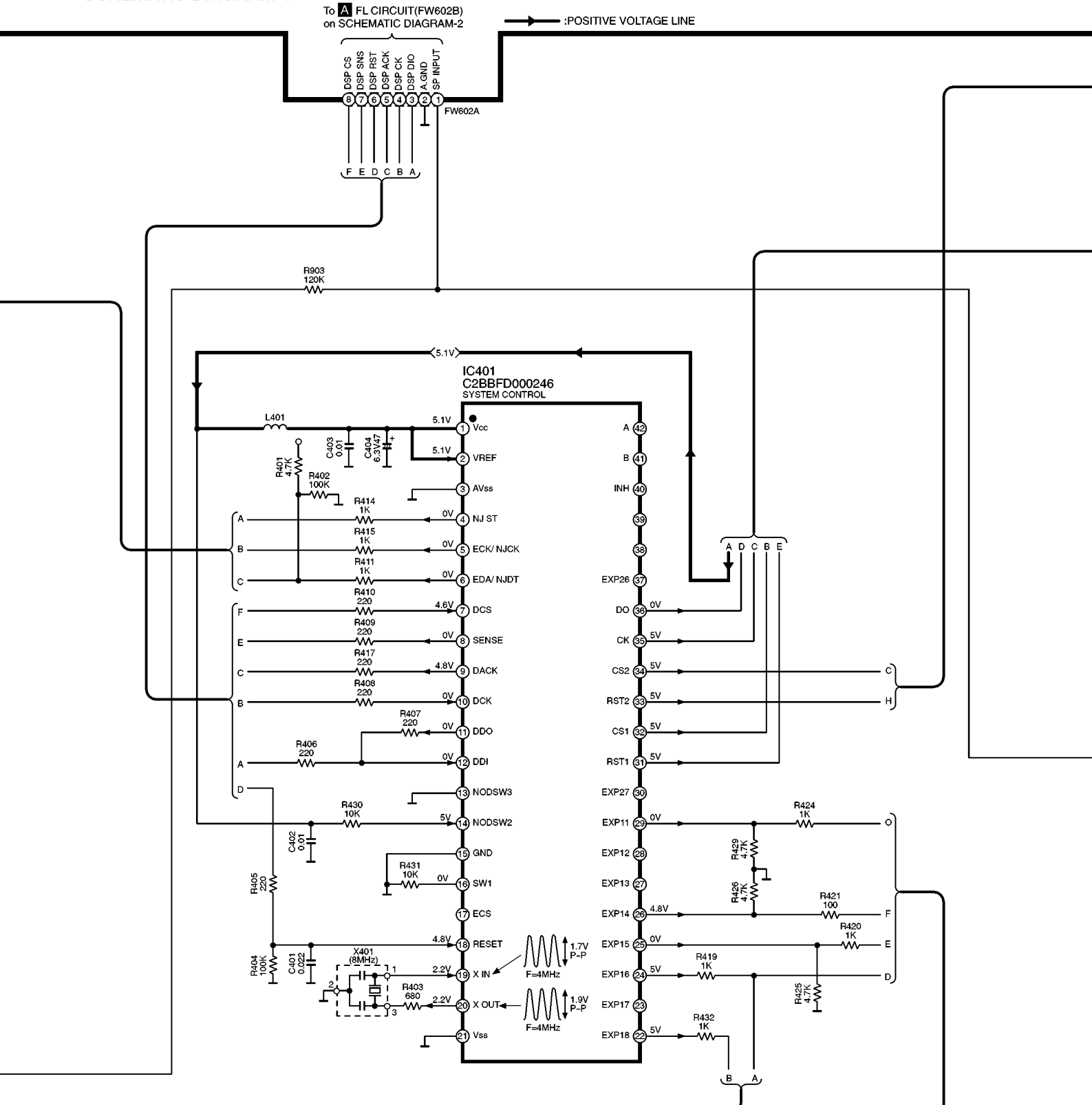
SCHEMATIC DIAGRAM-3

B MAIN CIRCUIT

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



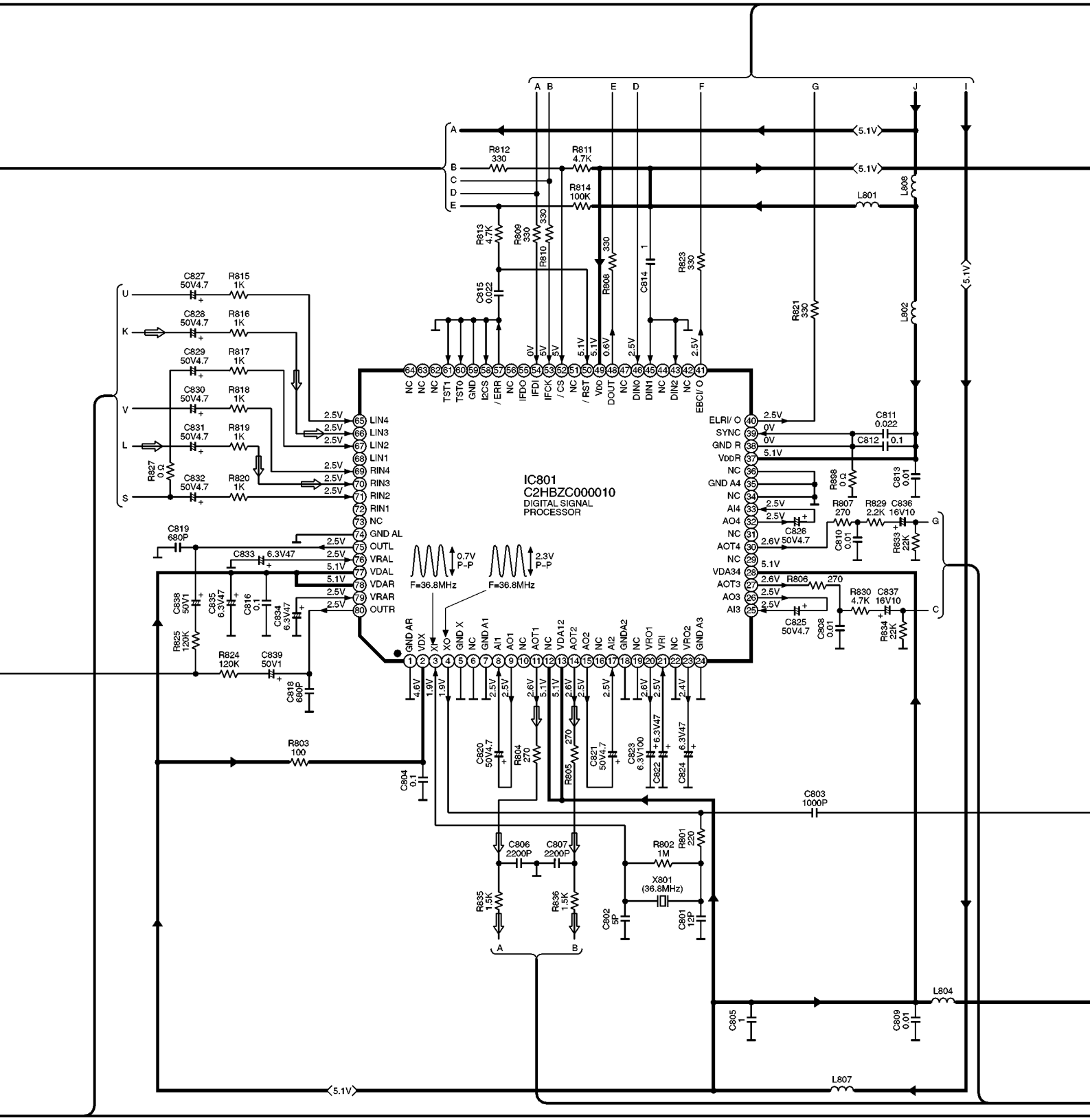
SCHEMATIC DIAGRAM-4



SCHEMATIC DIAGRAM-5

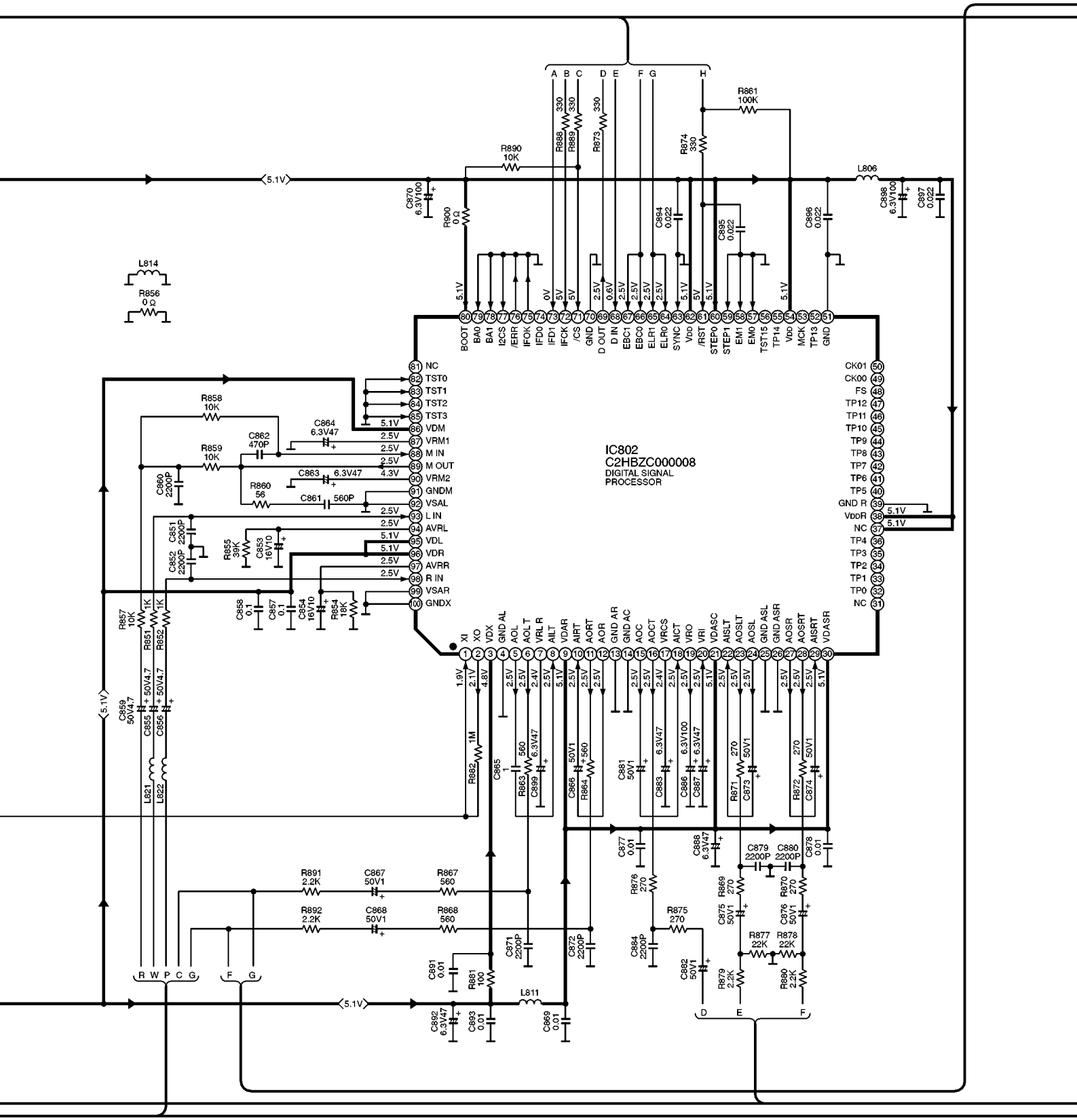
B MAIN CIRCUIT

:POSITIVE VOLTAGE LINE :CD PLAYBACK SIGNAL LINE



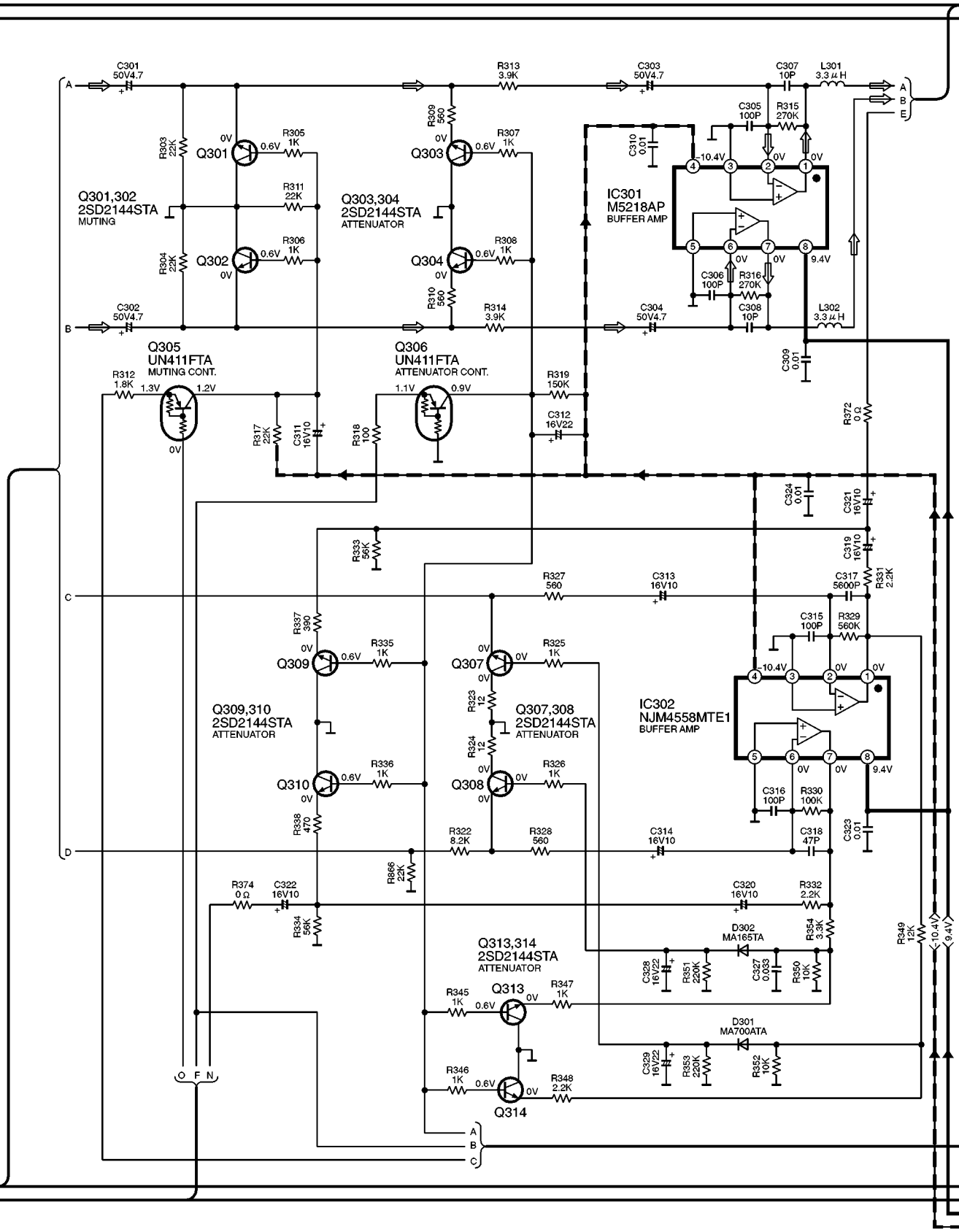
SCHEMATIC DIAGRAM-6

:POSITIVE VOLTAGE LINE



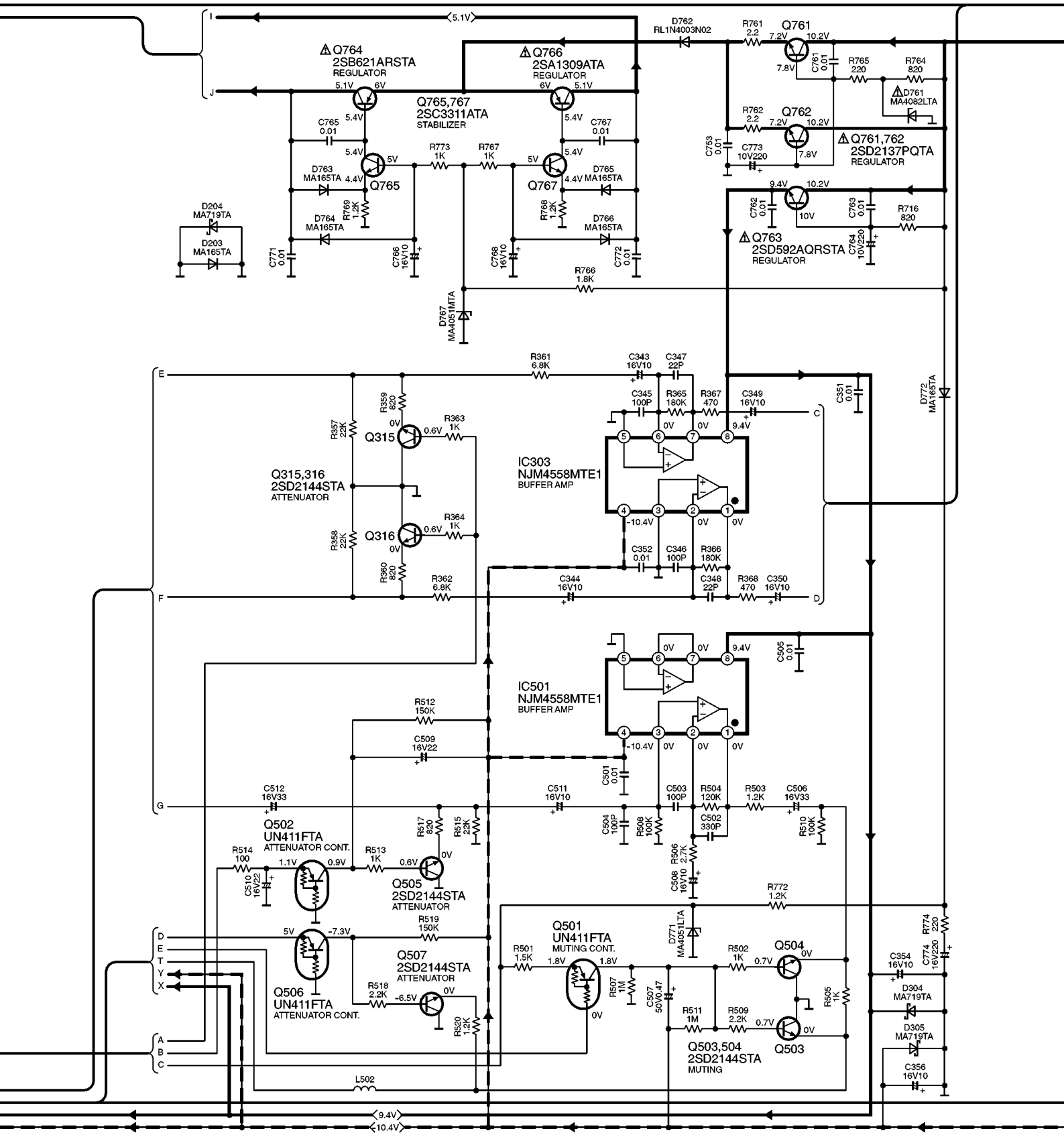
SCHEMATIC DIAGRAM-7

B MAIN CIRCUIT :POSITIVE VOLTAGE LINE :NEGATIVE VOLTAGE LINE :CD PLAYBACK SIGNAL LINE



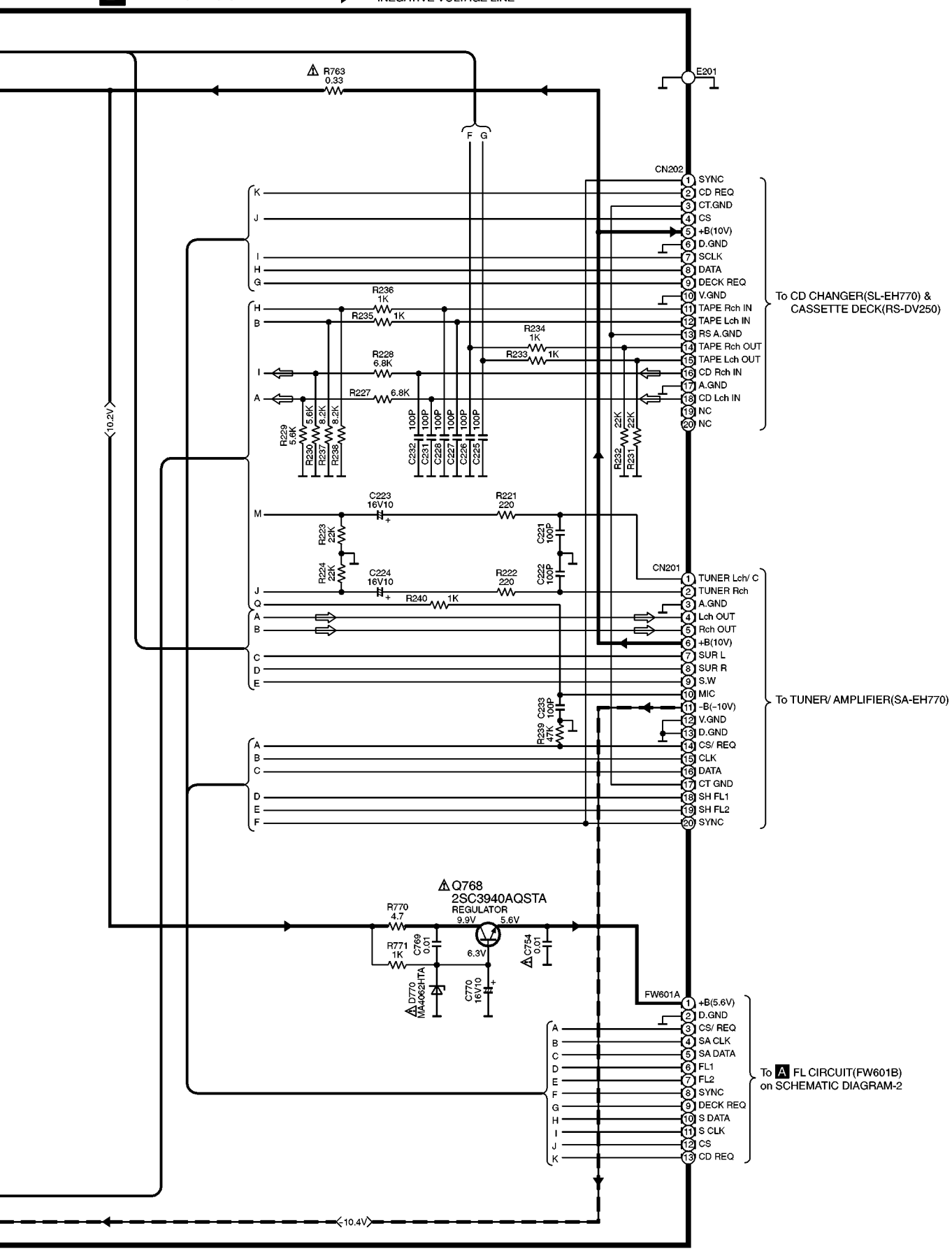
SCHEMATIC DIAGRAM-8

:POSITIVE VOLTAGE LINE :NEGATIVE VOLTAGE LINE

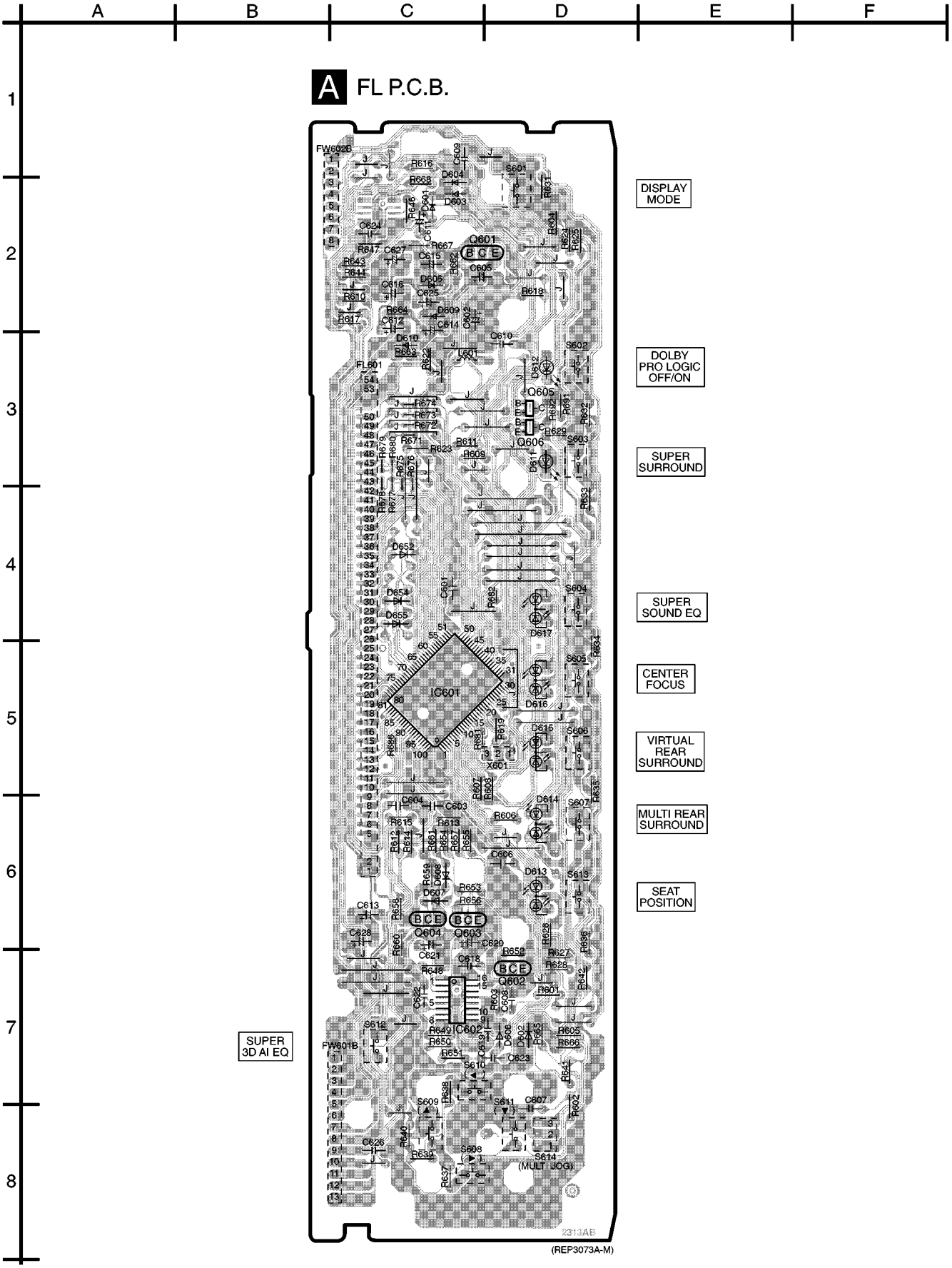


SCHEMATIC DIAGRAM-9
B MAIN CIRCUIT

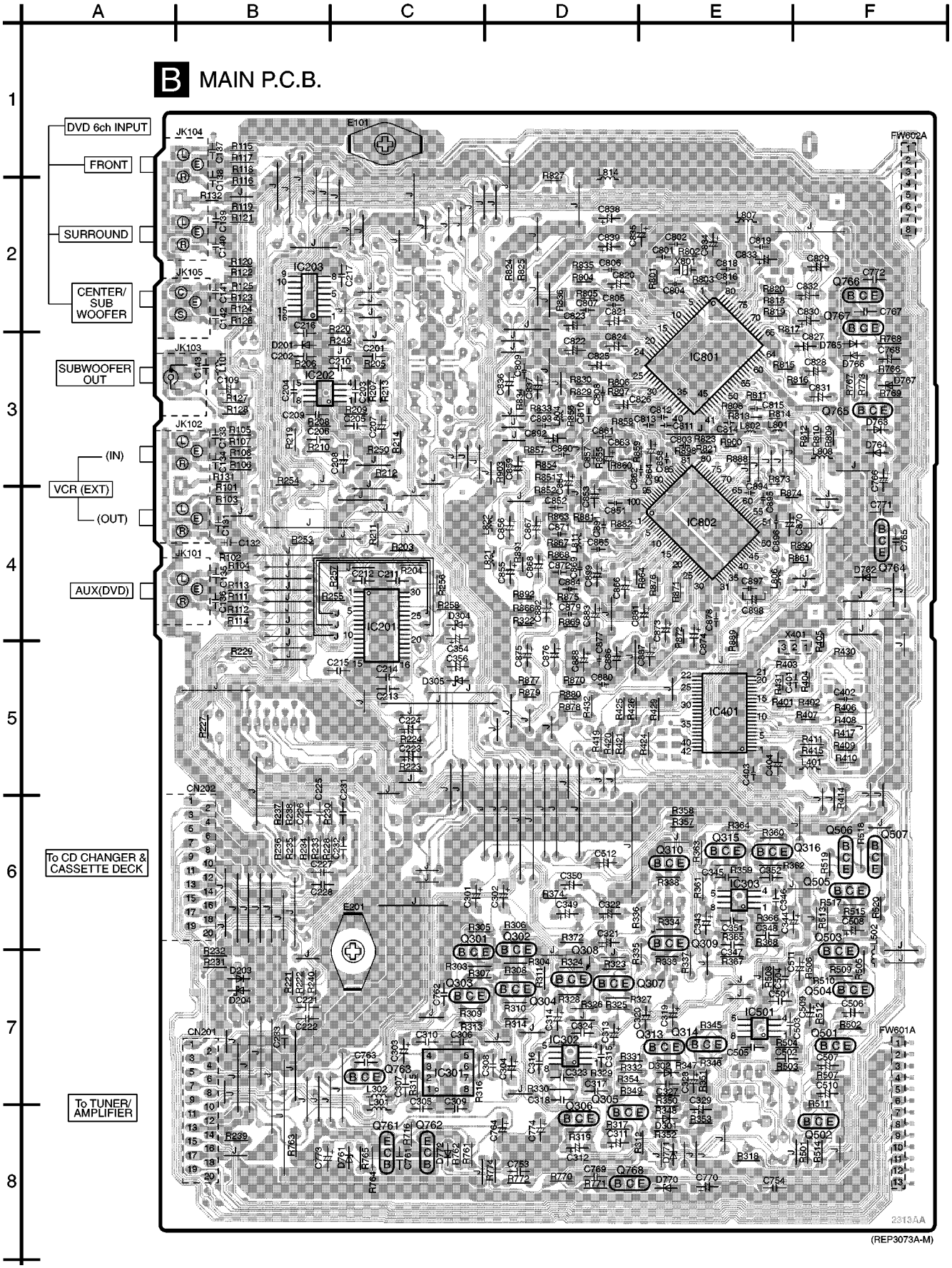
:POSITIVE VOLTAGE LINE
:NEGATIVE VOLTAGE LINE
:CD PLAYBACK SIGNAL LINE



7 Printed Circuit Board Diagram

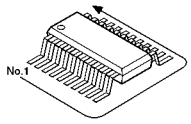


B MAIN P.C.B.



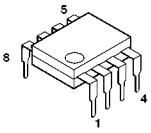
(REP3073A-M)

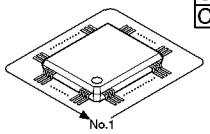
8 Type Illustration of ICs, Transistors and Diodes



BU4053BCFE2	16PIN
M62467AFPE1	16PIN
NJU7313AMT2	30PIN
C2BBFD000246	42PIN
NJM4558MTE1	8PIN

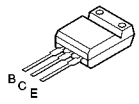
M5218AP

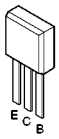




C2BBGF000200	100PIN
C2HBZC000010	80PIN
C2HBZC000008	100PIN

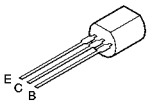
2SD2137PQTA



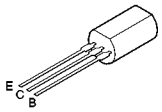


2SC3311ATA
UN4211TA
UN411FTA

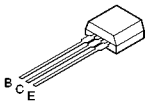
2SB621ARSTA
2SD592AQRSTA
2SA1309ATA



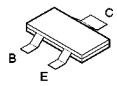
2SC3940AQSTA

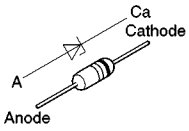


2SD2144STA



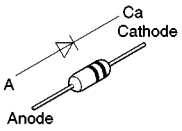
UN5211TX



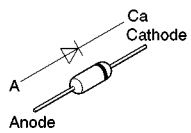


MA4051LTA
MA4062HTA
MA4082LTA
MA4051MTA
MA4056MTA

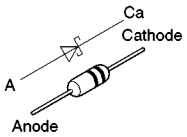
1SS291TA
MA700ATA



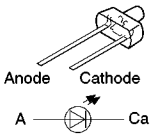
MA165TA



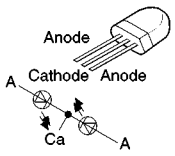
MA719TA



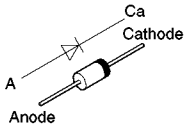
LNJ301MPUJAD



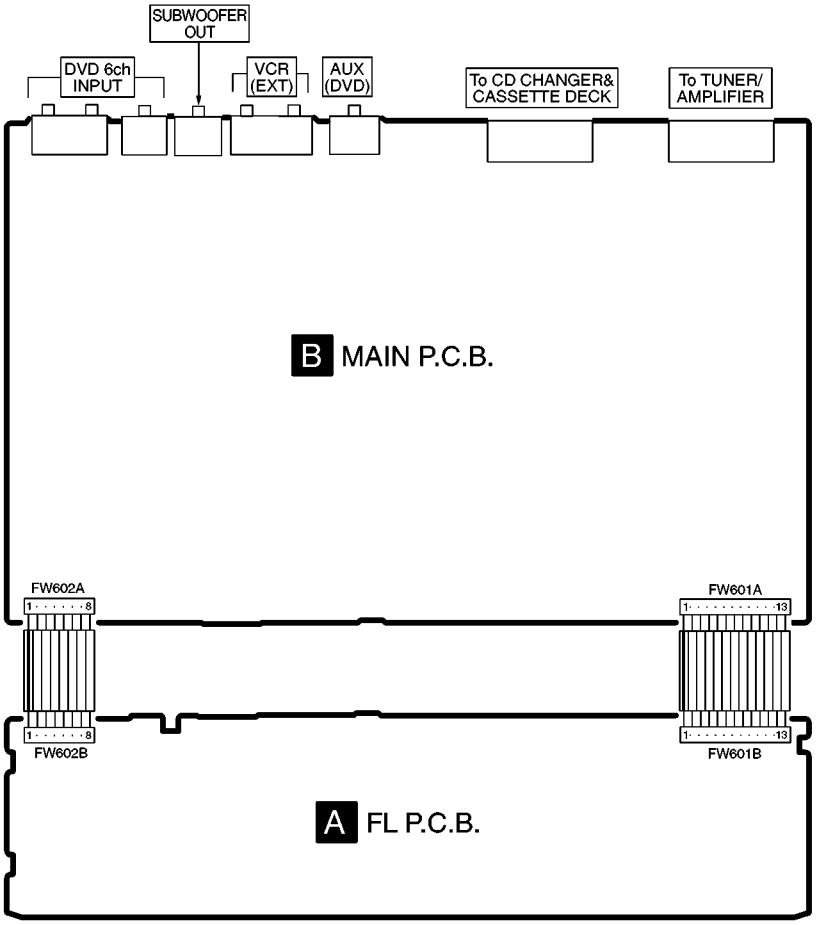
SML79455C



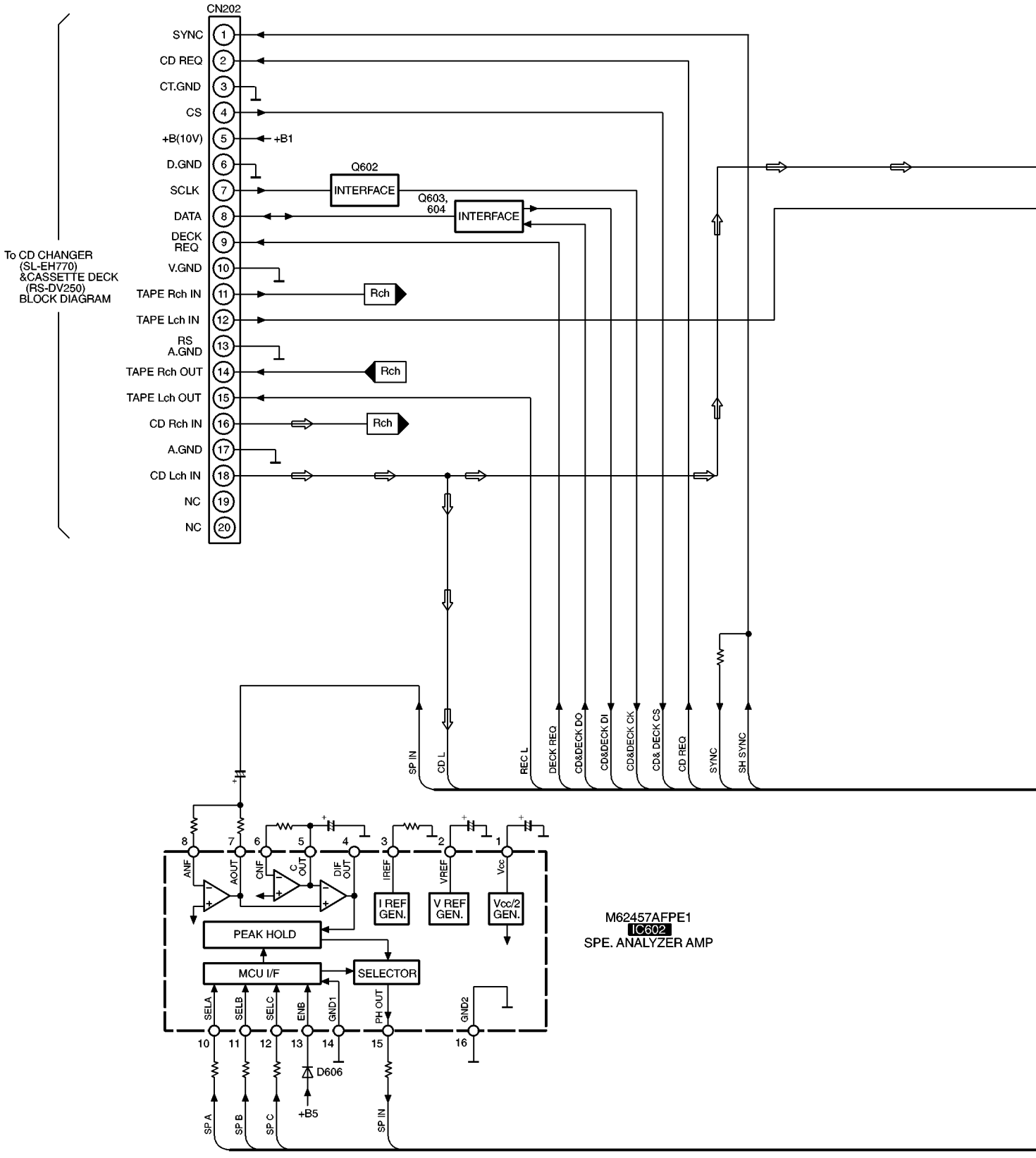
RL1N4003N02

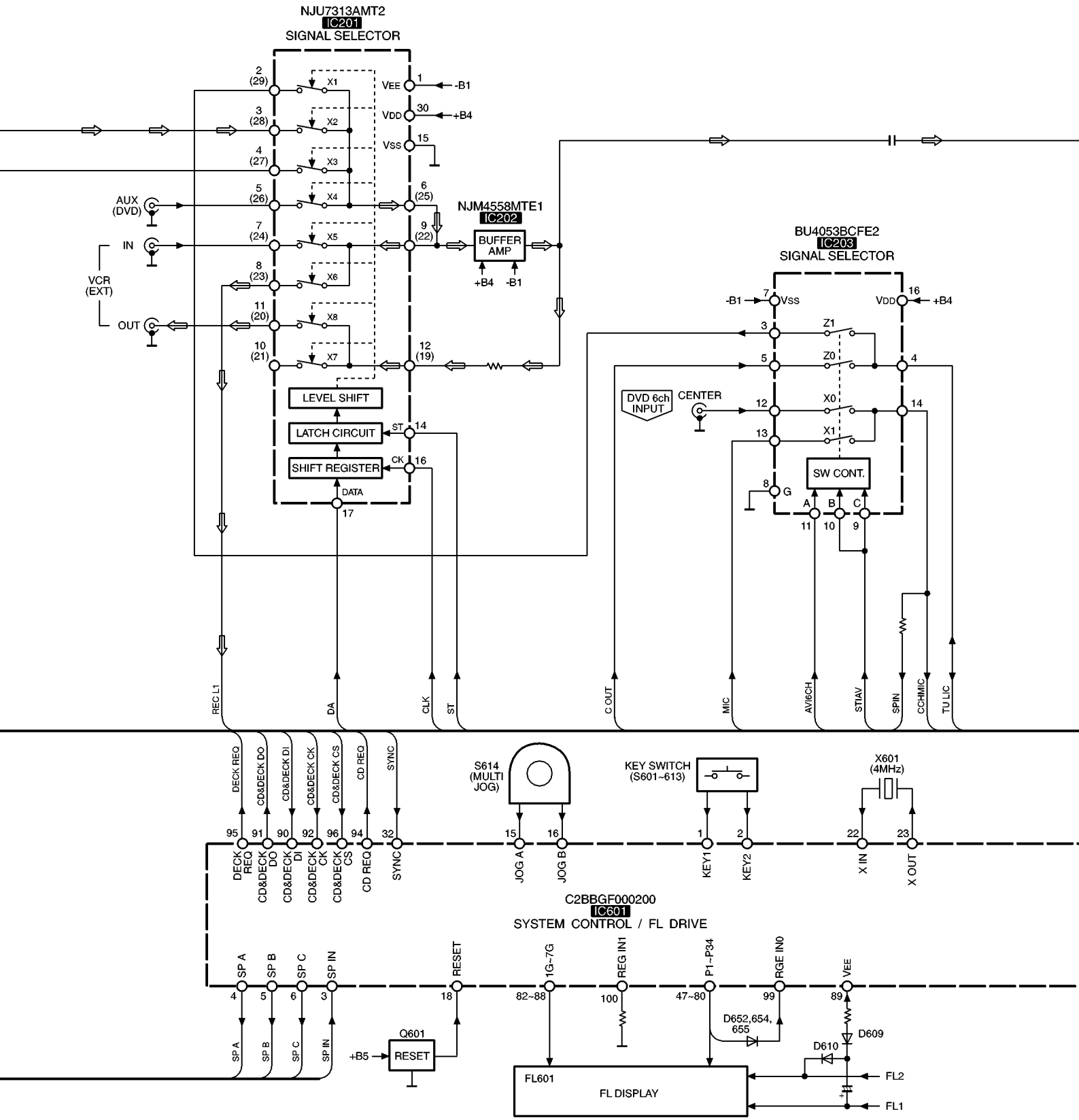


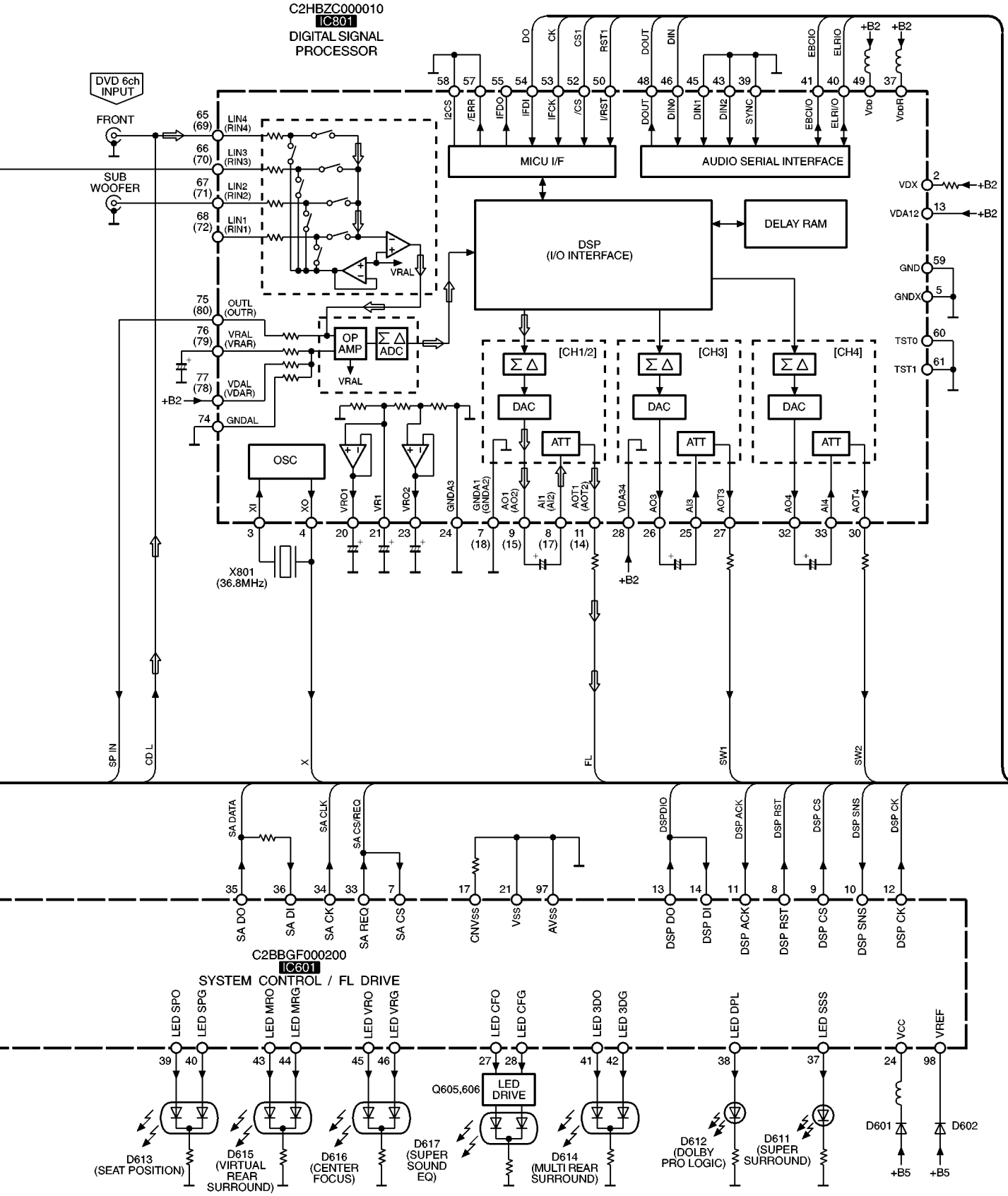
9 Wiring Connection Diagram

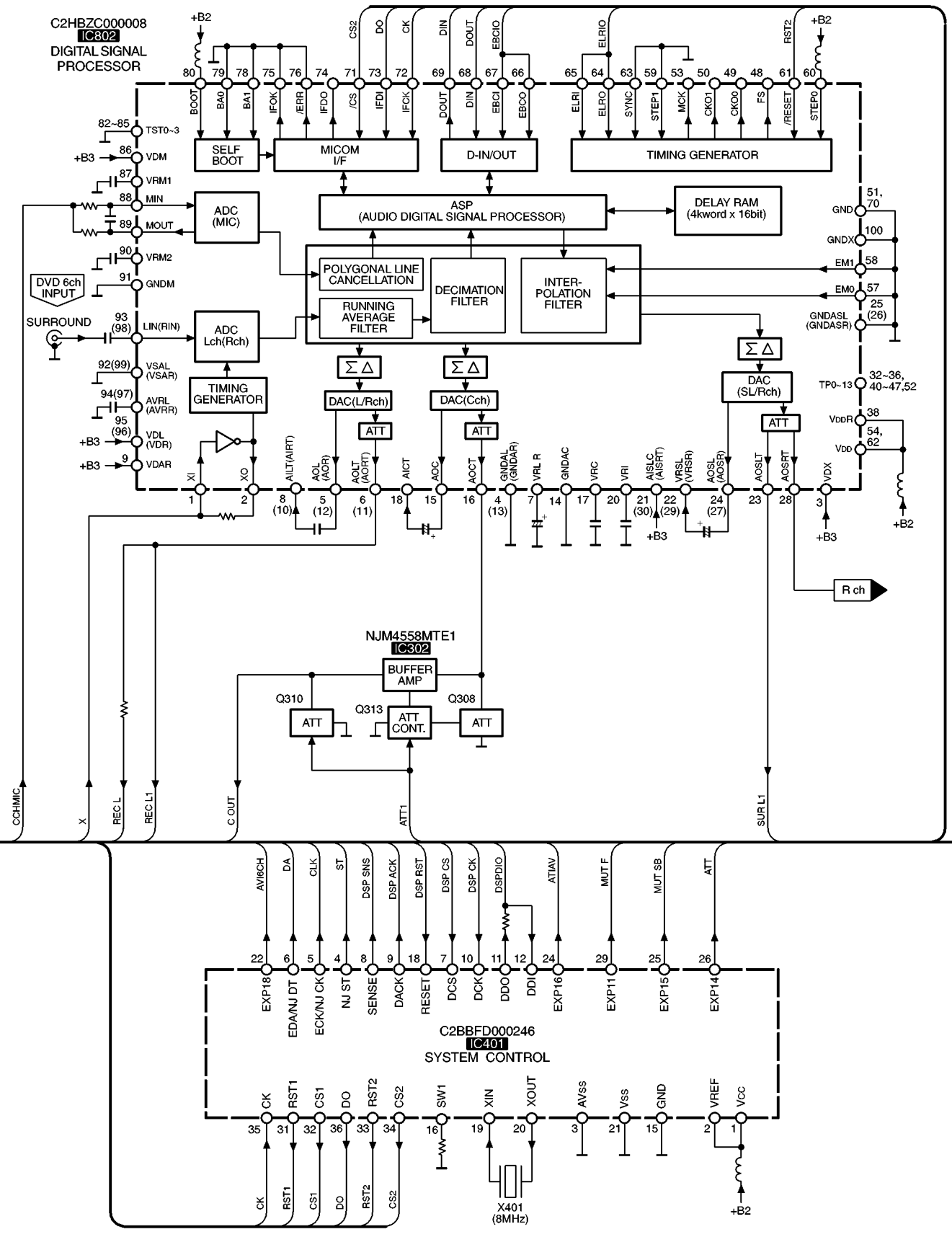


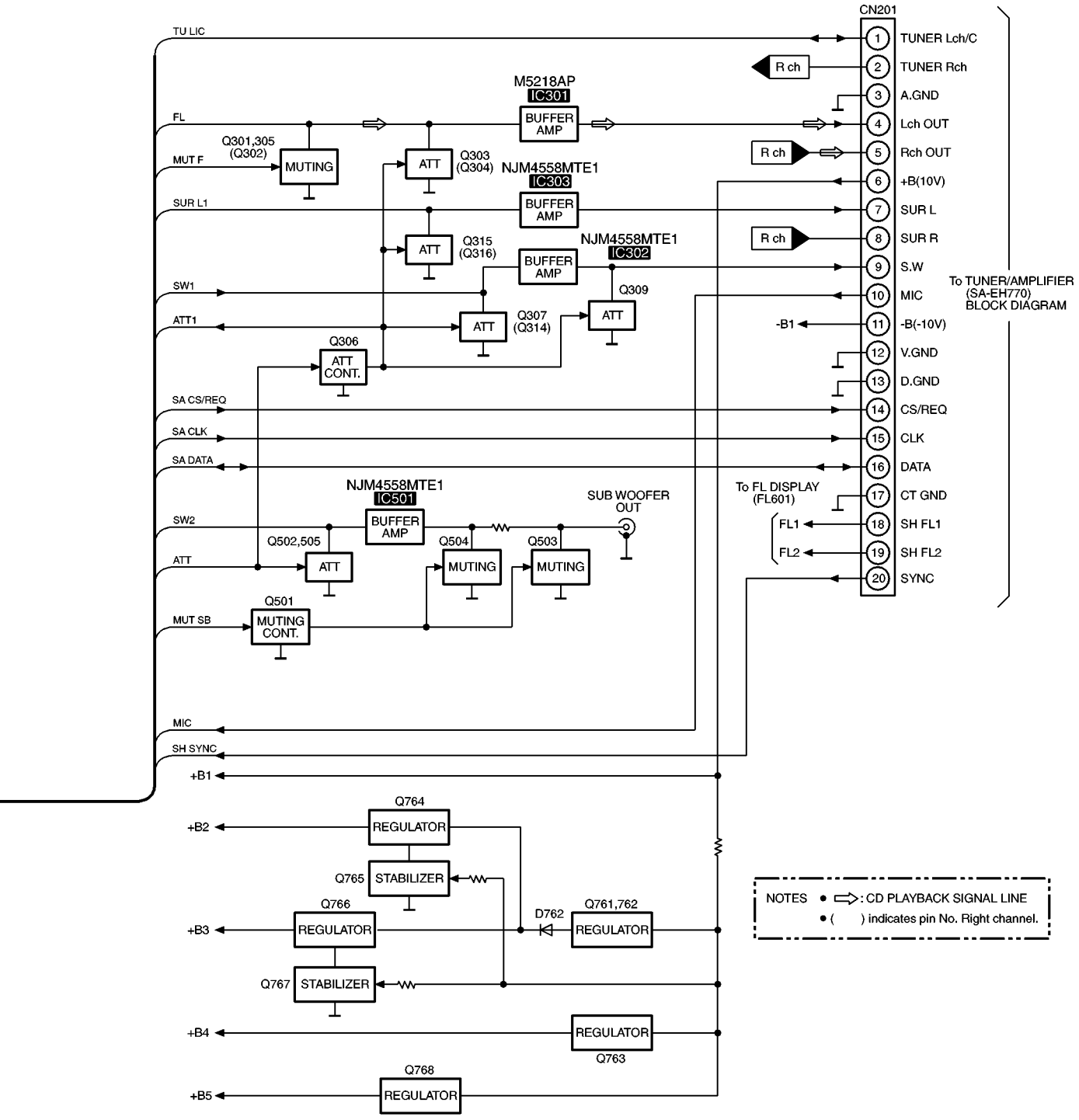
10 Block Diagram




NJU7313AMT2
IC201
SIGNAL SELECTOR
X1
X2
X3
X4
X5
X6
X7
X8
VEE
VDD
VSS
-B1
+B4
AUX (DVD)
IN
VCR (EXT)
OUT
NJM4558MTE1
IC202
BUFFER AMP
+B4
-B1
LEVEL SHIFT
LATCH CIRCUIT
SHIFT REGISTER
DATA
ST
CK
BU4053BCFE2
IC203
SIGNAL SELECTOR
Vss
VDD
Z1
Z0
X0
X1
SW CONT.
DVD 6ch INPUT
CENTER
REC L1
DA
CLK
ST
C OUT
MIC
AV6CH
STIAV
SPIN
CCHMIC
TU LIC
DECK REQ
CD&DECK DO
CD&DECK DI
CD&DECK CK
CD&DECK CS
CD REQ
SYNC
S614 (MULTI JOG)
KEY SWITCH (S601~613)
X601 (4MHz)
JOG A
JOG B
KEY1
KEY2
X IN
X OUT
C2BBGF000200
IC601
SYSTEM CONTROL / FL DRIVE
SP A
SP B
SP C
SP IN
RESET
1G~7G
REG IN1
P1~P34
RGE IN0
VEE
Q601
+B5
RESET
D652,654, 655
D609
D610
FL601
FL DISPLAY
FL2
FL1


C2HBZC000010
IC801
DIGITAL SIGNAL PROCESSOR
DVD 6ch INPUT
FRONT
SUB WOOFER
MICU I/F
AUDIO SERIAL INTERFACE
DSP (I/O INTERFACE)
DELAY RAM
OP AMP
ADC
DAC
ATT
[CH1/2]
[CH3]
[CH4]
OSC
X801 (36.8MHz)
VRAL
VDAL (VDAR)
GNDAL
OUTL (OUTR)
LIN4 (RIN4)
LIN3 (RIN3)
LIN2 (RIN2)
LIN1 (RIN1)
SP IN
CD L
X
FL
SW1
SW2
C2BBGF000200
IC601
SYSTEM CONTROL / FL DRIVE
LED DRIVE
Q605,606
D613 (SEAT POSITION)
D615 (VIRTUAL REAR SURROUND)
D616 (CENTER FOCUS)
D617 (SUPER SOUND EQ)
D614 (MULTI REAR SURROUND)
D612 (DOLBY PRO LOGIC)
D611 (SUPER SURROUND)
D601
D602
+B2
+B5


C2HBZC000008
IC802
DIGITAL SIGNAL PROCESSOR
SELF BOOT
MICOM I/F
D-IN/OUT
TIMING GENERATOR
ASP (AUDIO DIGITAL SIGNAL PROCESSOR)
DELAY RAM (4kword x 16bit)
ADC (MIC)
ADC Lch(Rch)
POLYGONAL LINE CANCELLATION
RUNNING AVERAGE FILTER
DECIMATION FILTER
INTER-POLATION FILTER
DAC(L/Rch)
DAC(Cch)
DAC (SL/Rch)
ATT
TIMING GENERATOR
DVD 6ch INPUT
SURROUND
NJM4558MTE1
IC302
BUFFER AMP
ATT CONT.
C2BBFD000246
IC401
SYSTEM CONTROL
X401 (8MHz)
R ch
+B2
+B3


CN201
TU LIC
FL
MUT F
Q301,305
(Q302)
MUTING
ATT
Q303
(Q304)
M5218AP
IC301
BUFFER
AMP
NJM4558MTE1
IC303
SUR L1
Q315
(Q316)
NJM4558MTE1
IC302
SW1
ATT1
Q307
(Q314)
Q309
Q306
ATT
CONT.
SA CS/REQ
SA CLK
SA DATA
NJM4558MTE1
IC501
SUB WOOFER
OUT
SW2
Q502,505
Q504
Q503
MUTING
ATT
Q501
MUTING
CONT.
MUT SB
MIC
SH SYNC
+B1
Q764
+B2
REGULATOR
Q765
STABILIZER
Q766
+B3
REGULATOR
D762
Q761,762
REGULATOR
Q767
STABILIZER
+B4
REGULATOR
Q763
Q768
+B5
REGULATOR
R ch
R ch
R ch
1 TUNER Lch/C
2 TUNER Rch
3 A.GND
4 Lch OUT
5 Rch OUT
6 +B(10V)
7 SUR L
8 SUR R
9 S.W
10 MIC
11 -B(-10V)
12 V.GND
13 D.GND
14 CS/REQ
15 CLK
16 DATA
17 CT GND
18 SH FL1
19 SH FL2
20 SYNC
-B1
To FL DISPLAY
(FL601)
FL1
FL2
To TUNER/AMPLIFIER
(SA-EH770)
BLOCK DIAGRAM
NOTES • : CD PLAYBACK SIGNAL LINE
• ( ) indicates pin No. Right channel.

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
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 ⚠ 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 manufacture'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, the item will continue to be available for a specific period of time. The retention period of availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.

- All parts are supplied by MESA.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1	RKM0400-1S	TOP CABINET	1	
2	RHD30007-1S	SCREW	4	
3	XTB3+8JFZ	SCREW	13	
4	RKA0105-K	RUBBER	4	
5	RKA0106-N	FOOT RING	4	
6	RYP0995-S	FRONT PANEL ASS'Y	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

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C209,10	ECBT1C103MS5	16V 0.01U	2	F1D1C103A004
C211,12	ECBT1H104KB5	50V 0.1U	2	
C213-15	ECBT1H470J5	50V 47P	3	F1D1H470A006
C216,17	ECBT1C103MS5	16V 0.01U	2	F1D1C103A004
C221,22	ECBT1H101KB5	50V 100P	2	F1D1H101A012
C223,24	ECA1CAK100XB	16V 10U	2	
C225-28	ECBT1H101KB5	50V 100P	4	F1D1H101A012
C231-33	ECBT1H101KB5	50V 100P	3	F1D1H101A012
C301-04	RCE1HKA4R7BG	50V 4.7U	4	F2A1H4R70009
C305,06	ECBT1H101KB5	50V 100P	2	F1D1H101A012
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	ECBT1H101KB5	50V 100P	2	F1D1H101A012
C317	ECBT1C562KR5	16V 5600P	1	F1D1C562A010
C318	ECBT1H470J5	50V 47P	1	F1D1H470A006
C319-22	ECA1CAK100XB	16V 10U	4	
C323,24	ECBT1C103MS5	16V 0.01U	2	F1D1C103A004
C327	ECBT1H333KB5	50V 0.033U	1	
C328,29	ECA1CAK220XB	16V 22U	2	
C343,44	ECA1CAK100XB	16V 10U	2	
C345,46	ECBT1H101KB5	50V 100P	2	F1D1H101A012
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	
C501	ECBT1C103MS5	16V 0.01U	1	F1D1C103A004
C502	ECBT1H331KB5	50V 330P	1	F1D1H331A012
C503,04	ECBT1H101KB5	50V 100P	2	F1D1H101A012
C505	ECBT1C103MS5	16V 0.01U	1	F1D1C103A004
C506	ECA1CAK330XB	16V 33U	1	
C507	RCE1HKAR47BG	50V 0.47U	1	F2A1HR47A015
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	
C602	ECA0JM102	6.3V 1000U	1	
C603,04	ECBT1H102KB5	50V 1000P	2	F1D1H102A012
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	ECEA1CKS220	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	
C624	ECBT1C103MS5	16V 0.01U	1	F1D1C103A004
C625	ECA0JAK101XB	6.3V 100U	1	
C626	ECBT1H473KB5	50V 0.047U	1	
C627,28	ECEA1CKS220	16V 22U	2	
C753,54	ECBT1C103MS5	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	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C801	ECUV1H120JCV	50V 12P	1	
C802	ECUV1H050CCV	50V 5P	1	
C803	ECUV1H102KBV	50V 1000P	1	
C804	ECUVNC104KBV	16V 0.1U	1	
C805	ECUVNJ105KBV	6.3V 1U	1	F1H0J105A002
C806,07	ECUV1H222KBV	50V 2200P	2	
C808-10	ECUVNH103KBV	50V 0.01U	3	F1H1H103A748
C811	ECUVNE223KBV	25V 0.022U	1	F1H1E223A050
C812	ECUVNC104KBV	16V 0.1U	1	
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	
C818,19	ECUV1H681KBV	50V 680P	2	
C820,21	RCE1HKA4R7BG	50V 4.7U	2	F2A1H4R70009
C822	ECA0JAK470XH	6.3V 47U	1	
C823	EEAFC0J101B	6.3V 100U	1	
C824	ECA0JAK470XH	6.3V 47U	1	
C825-32	RCE1HKA4R7BG	50V 4.7U	8	F2A1H4R70009
C833-35	ECA0JAK470XH	6.3V 47U	3	
C836,37	ECA1CAK100XB	16V 10U	2	
C838,39	ECA1HAK010XI	50V 1U	2	ECA1HAK010XB
C851,52	ECUV1H222KBV	50V 2200P	2	
C853,54	ECA1CAK100XB	16V 10U	2	
C855,56	RCE1HKA4R7BG	50V 4.7U	2	F2A1H4R70009
C857,58	ECUVNC104KBV	16V 0.1U	2	
C859	RCE1HKA4R7BG	50V 4.7U	1	F2A1H4R70009
C860	ECUV1H222KBV	50V 2200P	1	
C861	ECUV1H561KBV	50V 560P	1	F1H1H561A013
C862	ECUV1H471KBV	50V 470P	1	F1H1H471A013
C863,64	ECA0JAK470XH	6.3V 47U	2	
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	
C871,72	ECUV1H222KBV	50V 2200P	2	
C873-76	ECA1HAK010XI	50V 1U	4	ECA1HAK010XB
C877,78	ECUVNH103KBV	50V 0.01U	2	F1H1H103A748
C879,80	ECUV1H222KBV	50V 2200P	2	
C881,82	ECA1HAK010XI	50V 1U	2	ECA1HAK010XB
C883	ECA0JAK470XH	6.3V 47U	1	
C884	ECUV1H222KBV	50V 2200P	1	
C886	EEAFC0J101B	6.3V 100U	1	
C887,88	ECA0JAK470XH	6.3V 47U	2	
C891	ECUVNH103KBV	50V 0.01U	1	F1H1H103A748
C892	ECA0JAK470XH	6.3V 47U	1	
C893	ECUVNH103KBV	50V 0.01U	1	F1H1H103A748
C894-97	ECUVNE223KBV	25V 0.022U	4	F1H1E223A050
C898	EEAFC0J101B	6.3V 100U	1	
C899	ECA0JAK470XH	6.3V 47U	1	
CN201	RJT065A20	CONNECTOR(20P)	1	K1FA220B0007
CN202	RJT065K20	CONNECTOR(20P)	1	K1FA220B0006
D201	MA4056M	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	RL1N4003N02	DIODE	1	
D763-66	MA165	DIODE	4	MA2C165
D767	MA4051M	DIODE	1	MAZ40510M
D770	MA4062H	DIODE	1	MAZ40620H ⚠

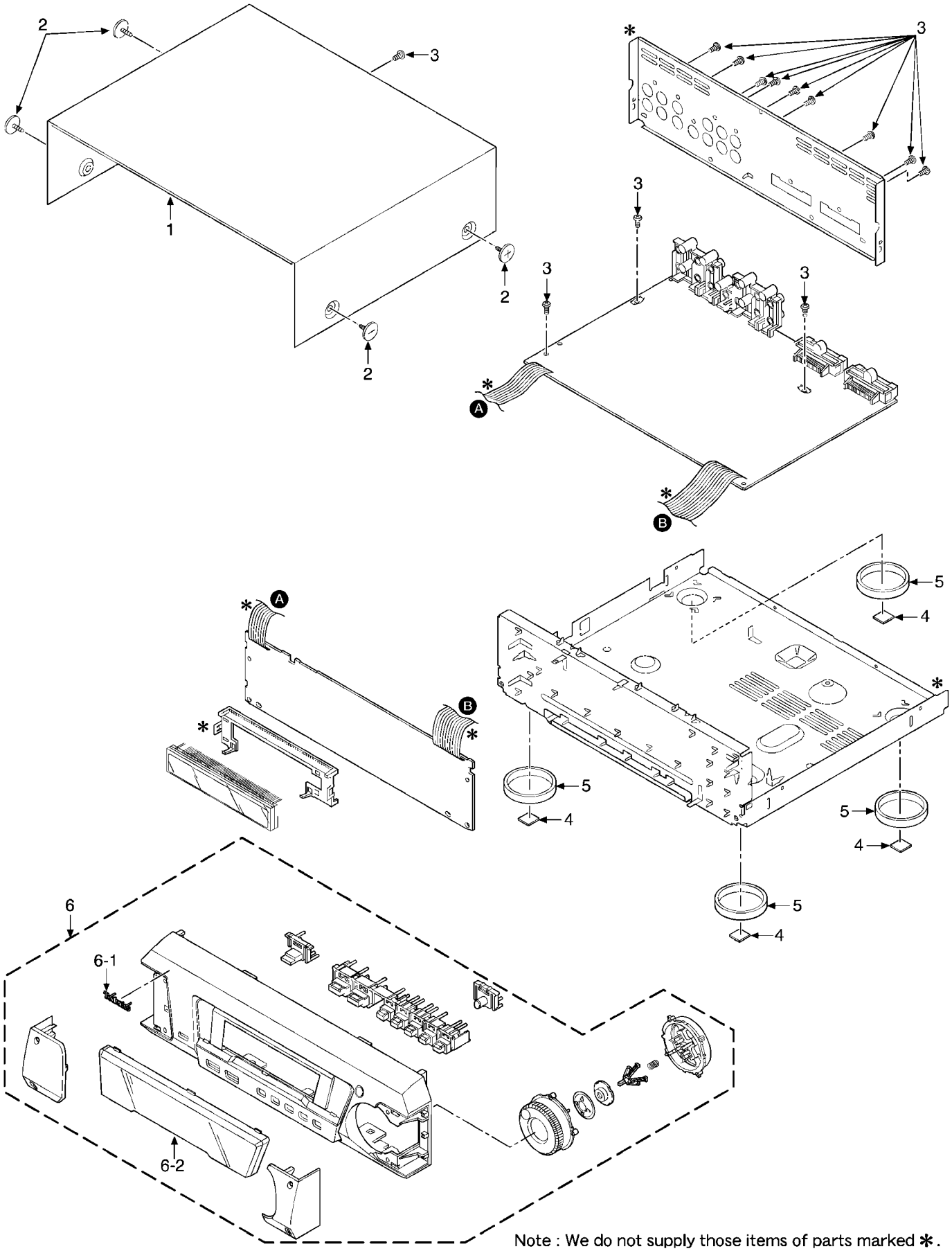
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D771	MA4051-L	DIODE	1	MAZ40510L
D772	MA165	DIODE	1	MA2C165
FL601	A2BD00000041	FL DISPLAY	1	
IC201	NJU7313AMT2	IC	1	C0JZAS000002
IC202	NJM4558MTE1	IC	1	C0ABBB000109
IC203	BU4053BCFE2	IC	1	
IC301	M5218AP	IC	1	C0AABB000055
IC302,03	NJM4558MTE1	IC	2	C0ABBB000109
IC401	C2BBFD000246	IC	1	
IC501	NJM4558MTE1	IC	1	C0ABBB000109
IC601	C2BBGF000269	IC	1	
IC602	M62457AFPE1	IC	1	C1BB00000486
IC801	C2HBZC000010	IC	1	
IC802	C2HBZC000008	IC	1	
JK101	SJF3068-7N	JACK,AUX(DVD)	1	
JK102	SJF3069-5N	JACK,VCR(EXT)OUT/IN	1	
JK103	SJFD7	JACK,SUB WOOFER OUT	1	
JK104	SJF3069-5N	JACK,FRONT/SURROUND	1	
JK105	SJF3068-10N	JACK,CENTER/SUB WOOFER	1	
L101	RLBV252AV-Y	COIL	1	J0JBC0000019
L301,02	RLQA3R3JT1-Y	COIL	2	G0C3R3JA0019
L401	RLQB100JTD-D	COIL	1	
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	RLL500050T-Y	COIL	1	G0A100G00005
L808	RLQB100JTD-D	COIL	1	
L811	RLBV102V-Y	COIL	1	J0JBC0000014
L814	RLL500050T-Y	COIL	1	G0A100G00005
L821,22	RLBV252AV-Y	COIL	2	J0JBC0000019
PCB1	REP3073A-M	MAIN P.C.B.	1	[RTL]
Q301-04	2SC3327A	TRANSISTOR	4	
Q305,06	UN411FTA	TRANSISTOR	2	UNR411F00A
Q307-10	2SC3327A	TRANSISTOR	4	
Q313-16	2SC3327A	TRANSISTOR	4	
Q501,02	UN411FTA	TRANSISTOR	2	UNR411F00A
Q503-05	2SC3327A	TRANSISTOR	3	
Q506	UN411FTA	TRANSISTOR	1	UNR411F00A
Q507	2SC3327A	TRANSISTOR	1	
Q601	UN4211	TRANSISTOR	1	UNR4211
Q602-04	2SC3311ATA	TRANSISTOR	3	2SC3311A0A
Q605,06	UN5211TX	TRANSISTOR	2	UNR521100L
Q761,62	2SD2137PQTA	TRANSISTOR	2	2SD21370PA ⚠
Q763	2SD592AR	TRANSISTOR	1	2SD0592AR ⚠
Q764	2SB621A-R	TRANSISTOR	1	2SB0621AH ⚠
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	
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	
R117-20	ERDS2FJ562	1/4W 5.6K	4	
R121-23	ERDS2FJ822	1/4W 8.2K	3	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R124	ERDS2FJ103	1/4W 10K	1	
R125	ERDS2FJ562	1/4W 5.6K	1	
R126	ERDS2FJ822	1/4W 8.2K	1	
R127	ERDS2FJ104	1/4W 100K	1	
R128	ERDS2FJ102	1/4W 1K	1	
R131,32	ERJ3GEY0R00V	CHIP JUMPER	2	
R203,04	ERDS2FJ222	1/4W 2.2K	2	
R205,06	ERDS2FJ563	1/4W 56K	2	
R207,08	ERDS2FJ273	1/4W 27K	2	
R209,10	ERDS2FJ823	1/4W 82K	2	
R211-14	ERDS2FJ222	1/4W 2.2K	4	
R219	ERDS2FJ391	1/4W 390	1	
R220	ERDS2FJ104	1/4W 100K	1	
R221,22	ERDS2FJ221	1/4W 220	2	
R223,24	ERDS2FJ223	1/4W 22K	2	
R227,28	ERDS2FJ682	1/4W 6.8K	2	
R229,30	ERDS2FJ562	1/4W 5.6K	2	
R231,32	ERDS2FJ223	1/4W 22K	2	
R233-36	ERDS2FJ102	1/4W 1K	4	
R237,38	ERDS2FJ822	1/4W 8.2K	2	
R239	ERDS2FJ473	1/4W 47K	1	
R240	ERDS2FJ102	1/4W 1K	1	
R249,50	ERDS2FJ222	1/4W 2.2K	2	
R253,54	ERDS2T0T	1/4W 0	2	
R255,56	ERDS2FJ472	1/4W 4.7K	2	
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	ERDS2FJ392	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	
R330	ERDS2FJ104	1/4W 100K	1	
R331,32	ERDS2FJ222	1/4W 2.2K	2	
R333,34	ERDS2FJ563	1/4W 56K	2	
R335,36	ERDS2FJ102	1/4W 1K	2	
R337	ERDS2FJ391	1/4W 390	1	
R338	ERDS2FJ471	1/4W 470	1	
R345-47	ERDS2FJ102	1/4W 1K	3	
R348	ERDS2FJ222	1/4W 2.2K	1	
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	
R361,62	ERDS2FJ682	1/4W 6.8K	2	
R363,64	ERDS2FJ102	1/4W 1K	2	
R365,66	ERDS2FJ184	1/4W 180K	2	
R367,68	ERDS2FJ471	1/4W 470	2	
R372	ERDS2T0T	1/4W 0	1	
R374	ERDS2T0T	1/4W 0	1	
R401	ERJ3GEYJ472V	1/16W 4.7K	1	D0GB472JA002
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	
R419,20	ERDS2FJ102	1/4W 1K	2	
R421	ERDS2FJ101	1/4W 100	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R424	ERDS2FJ102	1/4W 1K	1	
R425,26	ERDS2FJ472	1/4W 4.7K	2	
R429	ERDS2FJ472	1/4W 4.7K	1	
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	
R504	ERDS2FJ124	1/4W 120K	1	
R505	ERDS2FJ102	1/4W 1K	1	
R506	ERDS2FJ272	1/4W 2.7K	1	
R507	ERDS2FJ105	1/4W 1M	1	
R508	ERDS2FJ104	1/4W 100K	1	
R509	ERDS2FJ222	1/4W 2.2K	1	
R510	ERDS2FJ104	1/4W 100K	1	
R511	ERDS2FJ105	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	
R518	ERDS2FJ222	1/4W 2.2K	1	
R519	ERDS2FJ154	1/4W 150K	1	
R520	ERDS2FJ122	1/4W 1.2K	1	
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	
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	
R619	ERDS2FJ681	1/4W 680	1	
R622,23	ERDS2FJ104	1/4W 100K	2	
R624-29	ERDS2FJ181	1/4W 180	6	
R631	ERDS2FJ821	1/4W 820	1	
R632	ERDS2FJ102	1/4W 1K	1	
R633	ERDS2FJ122	1/4W 1.2K	1	
R634	ERDS2FJ152	1/4W 1.5K	1	
R635	ERDS2FJ182	1/4W 1.8K	1	
R636	ERDS2FJ222	1/4W 2.2K	1	
R637	ERDS2FJ821	1/4W 820	1	
R638	ERDS2FJ102	1/4W 1K	1	
R639	ERDS2FJ122	1/4W 1.2K	1	
R640	ERDS2FJ152	1/4W 1.5K	1	
R641	ERDS2FJ182	1/4W 1.8K	1	
R642	ERDS2FJ222	1/4W 2.2K	1	
R643,44	ERDS2FJ102	1/4W 1K	2	
R646	ERDS2FJ222	1/4W 2.2K	1	
R647	ERDS2FJ223	1/4W 22K	1	
R648-50	ERDS2FJ104	1/4W 100K	3	
R651	ERDS2FJ102	1/4W 1K	1	
R652,53	ERDS2FJ472	1/4W 4.7K	2	
R654-56	ERDS2FJ103	1/4W 10K	3	
R657	ERDS2FJ473	1/4W 47K	1	
R658,59	ERDS2FJ472	1/4W 4.7K	2	
R660	ERDS2FJ473	1/4W 47K	1	
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	
R668	ERDS2FJ222	1/4W 2.2K	1	
R671-80	ERJ6GEYJ104V	1/10W 100K	10	
R681	ERJ3GEYJ222V	1/16W 2.2K	1	
R682	ERJ3GEY0R00V	CHIP JUMPER	1	
R686	ERJ3GEY0R00V	CHIP JUMPER	1	
R691,92	ERDS2FJ221	1/4W 220	2	
R716	ERDS2FJ821	1/4W 820	1	
R761,62	ERDS2FJ2R2	1/4W 2.2	2	
R763	ERQ16NKWR33E	0.33	1	⚠

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R764	ERDS2FJ821	1/4W 820	1	
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	
R770	ERD2FCJ4R7	1/4W 4.7	1	
R771	ERDS2FJ102	1/4W 1K	1	
R772	ERDS2FJ122	1/4W 1.2K	1	
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	
R811	ERJ3GEYJ472V	1/16W 4.7K	1	D0GB472JA002
R812	ERJ3GEYJ331V	1/16W 330	1	
R813	ERJ3GEYJ472V	1/16W 4.7K	1	D0GB472JA002
R814	ERJ3GEYJ104Z	1/16W 100K	1	
R815-20	ERJ3GEYJ102V	1/16W 1K	6	ERJ3GEYJ102Z
R821	ERJ3GEYJ331V	1/16W 330	1	
R823	ERJ3GEYJ331V	1/16W 330	1	
R824,25	ERDS2FJ124	1/4W 120K	2	
R827	ERJ3GEY0R00V	CHIP JUMPER	1	
R829	ERJ3GEYJ222V	1/16W 2.2K	1	
R830	ERJ3GEYJ472V	1/16W 4.7K	1	D0GB472JA002
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	CHIP JUMPER	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	
R875,76	ERJ3GEYJ271V	1/16W 270	2	
R877,78	ERJ3GEYJ223V	1/16W 22K	2	D0GB223JA002
R879,80	ERJ3GEYJ222V	1/16W 2.2K	2	
R881	ERJ3GEYJ101V	1/16W 100	1	
R882	ERJ3GEYJ105V	1/16W 1M	1	
R888,89	ERJ3GEYJ331V	1/16W 330	2	
R890	ERJ3GEYJ103Z	1/16W 10K	1	
R891,92	ERJ3GEYJ222V	1/16W 2.2K	2	
R898	ERJ3GEY0R00V	CHIP JUMPER	1	
R900	ERJ3GEY0R00V	CHIP JUMPER	1	
R903	ERDS2FJ124	1/4W 120K	1	
S601-07	EVQ11G05R	SW,PUSH	7	
S608-11	EVQ11G07K	SW,PUSH	4	
S612,13	EVQ11G05R	SW,PUSH	2	
S614	ESE24SV7	SW,MULTI JOG	1	
X401	RSXY8M00D01T	OSCILLATOR	1	H2B800400005
X601	H2B400400013	OSCILLATOR	1	
X801	RSXZ36M8M01T	OSCILLATOR	1	

13 Cabinet Parts Location



Note : We do not supply those items of parts marked ✻.