ORDER NO.AD0303004C2

Service Manual

Tuner/Amplifier

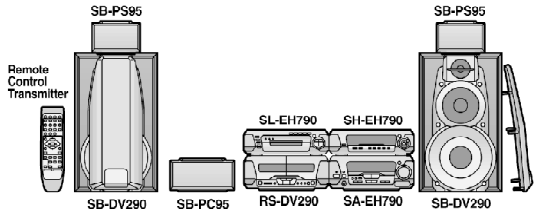
SA-EH790E / SA-EH790EB / SA-EH790EG / SA-EH790EP

Colour

(S).....Silver Type

System: SC-EH790

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



SPECIFICATIONS

Specification

■ Amplifier section

Power output (L/R both channel driven)		
Stereo Mode		
DIN	**1 kHz THD 1%/6 Ω (High)**	**2×25 W**
	100 Hz THD 1%/8 Ω (Low)	**2×45 W**
RMS	**1 kHz THD 10%/6 Ω (High)**	**2×35 W**
	100 Hz THD 10%/8 Ω (Low)	**2×65 W**
PRO LOGIC mode		
DIN	**FRONT**	
	1 kHz THD 1%/6 Ω (High)	**2×25 W**
	100 Hz THD 1%/8 Ω (Low)	**2×45 W**
	SURROUND 1 kHz THD 1%/8 Ω	**2×30 W**
	CENTER 1 kHz THD 1%/8 Ω	**60 W**
RMS	**FRONT**	
	1 kHz THD 10%/6 Ω (High)	**2×35 W**
	100 Hz THD 10%/8 Ω (Low)	**2×65 W**
	SURROUND 1 kHz THD 10%/8 Ω	**2×40 W**
	CENTER 1 kHz THD 10%/8 Ω	**80 W**
PMPO 1 kHz/High 6 Ω , Low 8 Ω ,		
CENT. 8 Ω , SURR. 8 Ω		**3000 W**
Total harmonic distortion		
Rated power at 1 kHz		**1% (6 Ω)**
Half power at 1 kHz		**0.1% (6 Ω)**
Load impedance		
FRONT (High)		**6 Ω**
FRONT (Low)		**8 Ω**
SURROUND		**8 Ω**
CENTER		**8 Ω**
DIGITAL S. WOOFER		
Center frequency		**60 Hz**
LEVEL (VOL -20 db)		**MID +3 db**
		MAX +6 db

■ FM tuner section

Frequency range	**87.50—108.00 MHz**
	(0.05 MHz steps)
Sensitivity	**1.8 μ V (IHF usable)**
S/N 26 db	**1.5 μ V**
S/N	
MONO	**70 db (75 db, IHF)**
Antenna terminal(s)	**75 Ω (unbalanced)**

■ AM tuner section

Frequency range	**522—1629 kHz (9 kHz steps)**
	520—1630 (10 kHz steps)
Sensitivity (S/N 20 db)	**500 μ V/m**

■ Timer section

Clock	**Quartz-lock type**
Function	**Play timer (1 time, daily),**
	Rec timer (1 time, daily)

	Sleep (120 min, 30 min intervals)
Setting intervals (Play/Rec)	1 minute—23 hours 59 minutes (1 min intervals)

■ General

Power supply	
(For (E) ,(EG),(EP)areas)	AC 230V 50Hz
(For (EB) area)	AC 230—240V 50Hz
Power consumption	190 W
Standby	0.5 W
Dimensions (W×H×D)	293×118.5×345 mm
Mass	5.2 kg

Nots
1.Design and specifications are subject to change without notice.
2.Dimensions and mass are approximate.
3.Total harmonic distortion is measured by the digital spectrum analyzer.

■ System/SC-EH790

Sound processor: SH-EH790, CD changer: SL-EH790, Tuner/ Amplifier: SA-EH790 , Cassette Deck: RS-DV290, Speakers: Front* (SB-DV290), Center* (SB-PC95),Surround* (SB-PS95)(*Made in MAES.)

⚠ 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

1. Before Repairs

1. Turn off the power supply. Using a 10 Ω, 10 W resistor, connect both ends of power supply capacitors (C701, C703 and C702, C704) in order to discharge the voltage.
2. Before turning the power supply on, after completion of repair, slowly apply the primary voltage by using a power supply voltage controller to make sure that the consumed current at 50 Hz in NO SIGNAL mode should be shown below with respecttosupply voltage 230/240 V.

Power supply voltage	AC 230 V	AC 240 V
Consumed current 50 Hz	100 - 350 mA	

2. Protection Circuitry

The protection circuitry may have operated if either of the following conditions is noticed:

- No sound is heard when the power is switched ON.

- Sound stops during a performance.

The functions of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are shorted, or if speaker systems with an impedance less than the indicated rated impedance of this unit are used.
If this occurs, follow the procedures outlined below.

1. Switch OFF the power.

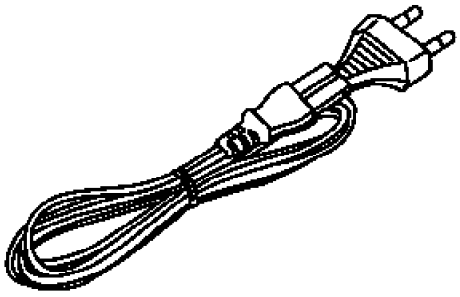
2. Determine the cause of the problem and correct it.

3. Switch ON the power once again.

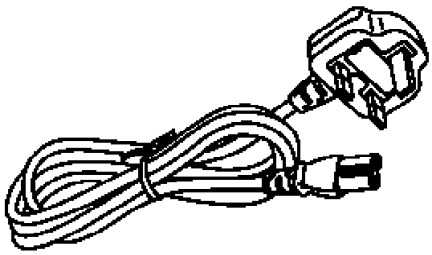
Note:
When the protection circuitry functions, the unit will not operate unless the power is first switched OFF and then ON again.

3. Accessories

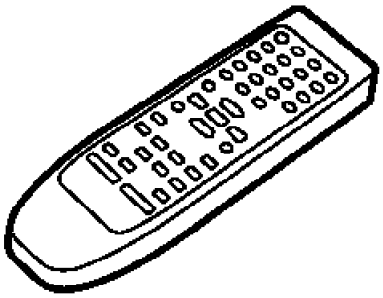
- AC mains lead for (E),(EG) and (EP) areas (RJA0019-2X).....1 pc.



- AC mains lead for (EB) area (RJA0053-3X).....1 pc.

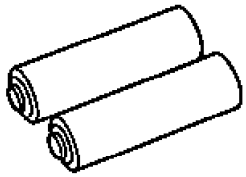


- Remote control
(EUR7702270).....1 pc.

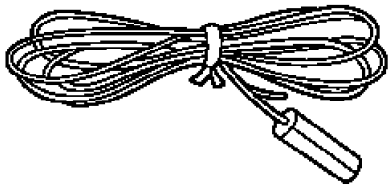


- Remote control batteries
(R6/LR6,”AA”,UM-3).....1 pc.

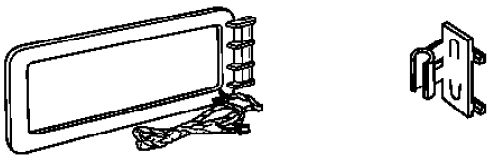
Note: These are available on sales route.



- FM indoor antenna
(RSA0007).....1 pc.

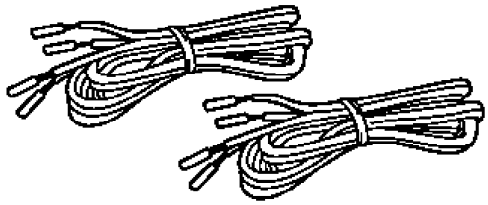


- AM loop antenna set
(RSA0022-L).....1 pc.

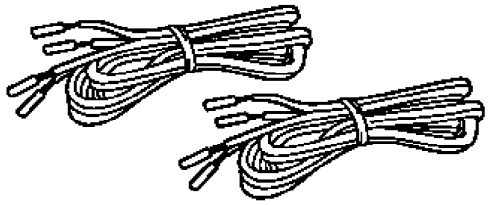


- Speaker leads

(REE1234-1).....2 pc.
(Red/Black)



(REE1233-1).....2 pc.
(Gray/Blue)



- Antenna plug adaptor for (EB) area
(SJP9009).....1 pc.

4. Caution for AC Mains Lead

(For United Kingdom)

("EB" area code model only)

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.
A 5-ampere fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.
Check for the ASTA mark ⓐ or the BSI mark ⓚ on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local dealer.

CAUTION!
IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.
THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as shown below.
If in any doubt please consult a qualified electrician.

IMPORTANT
The wires in this mains lead are coloured in accordance with the following code:
Blue: Neutral, Brown: Live.
As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black or Blue.
The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Brown or Red.

WARNING: DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL WHICH IS MARKED WITH THE LETTER E, BY THE EARTH SYMBOL ⏚ OR COLOURED GREEN OR GREEN/YELLOW.

THIS PLUG IS NOT WATERPROOF—KEEP DRY.

Before use
Remove the connector cover.

How to replace the fuse
The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.
Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.

Figure A

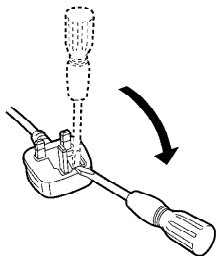
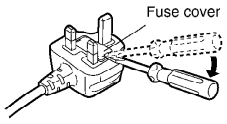


Figure B



2. Replace the fuse and close or attach the fuse cover.

Figure A

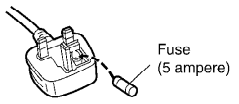
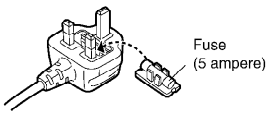


Figure B



5. Location of Controls

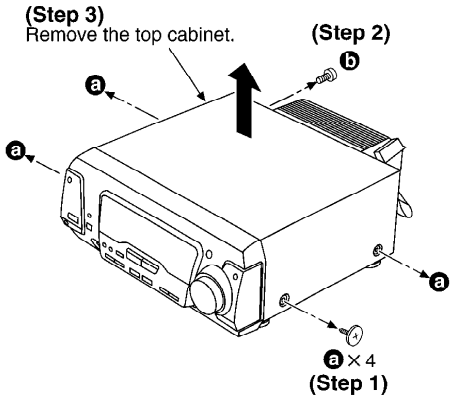
6. Operation Checks and Component Replacement / Procedures

- This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.

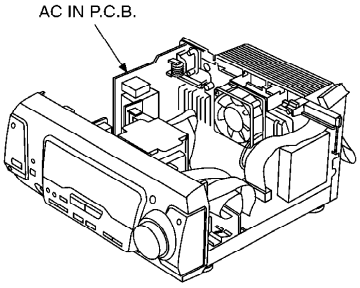
- For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are

described only when required.

6.1. Checking for the AC IN P.C.B.

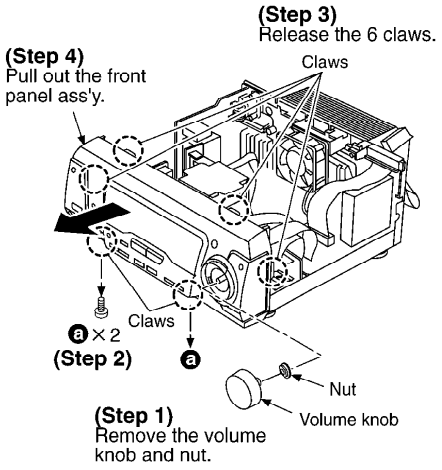


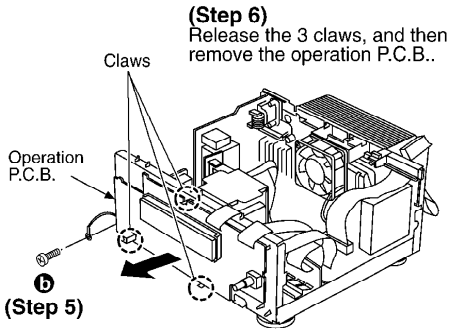
- Check the AC IN P.C.B. as shown below.



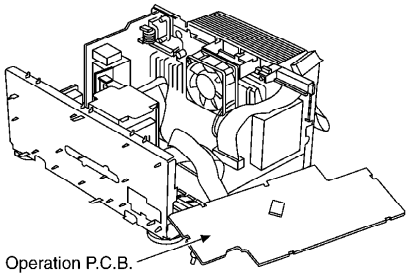
6.2. Checking for the operation P.C.B.

- Follow the (Step 1) - (Step 3) of item 6.1.



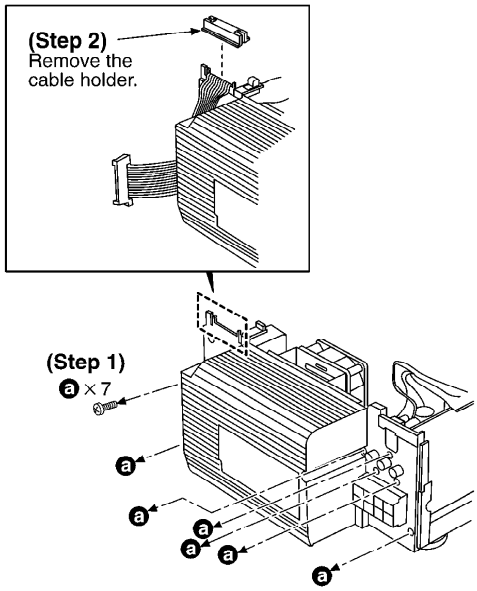


- Check the operation P.C.B. as shown below.

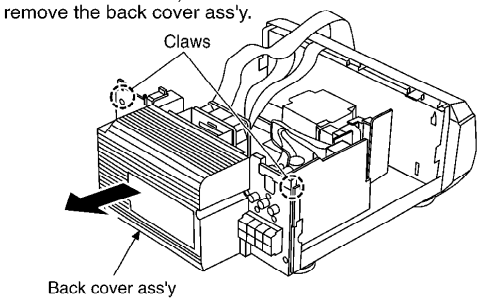


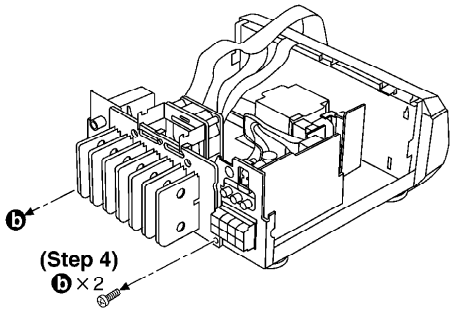
6.3. Checking for the main P.C.B.

- Follow the (Step 1) - (Step 3) of item 6.1.



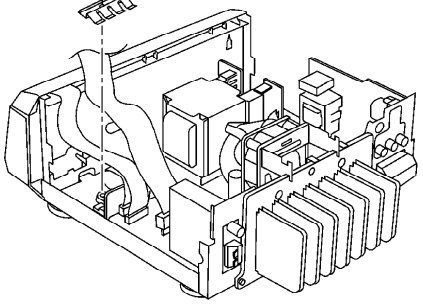
(Step 3)
Release the 2 claws, and then remove the back cover ass'y.

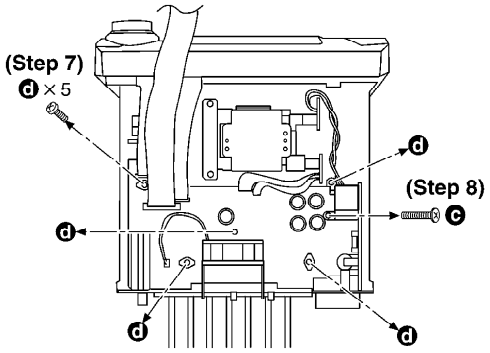


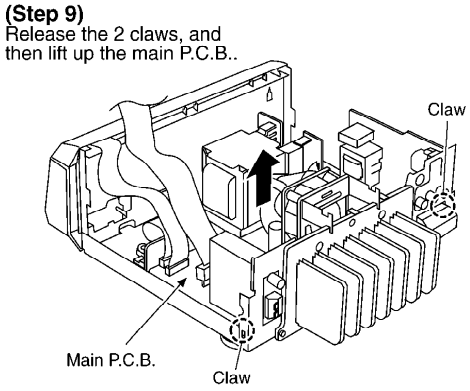


(Step 5)
ⓒ

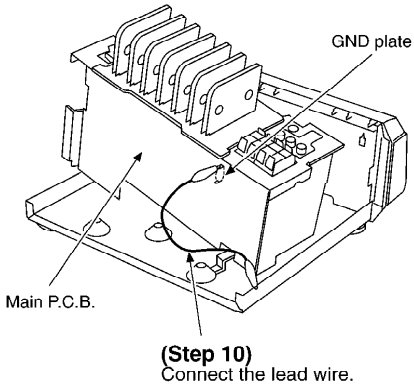
(Step 6)
Remove the transistor holder.





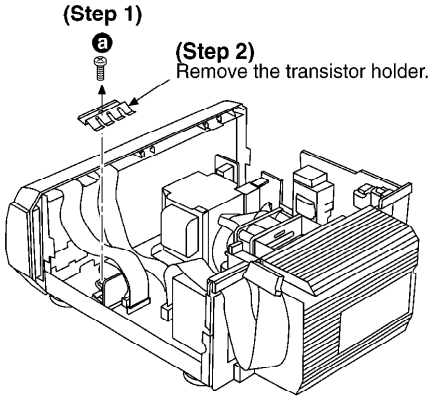


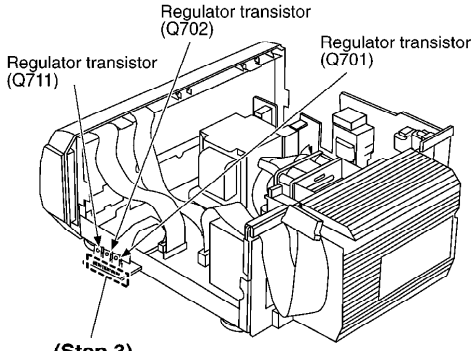
- Check the main P.C.B. as shown below.



6.4. Replacement for the regulator transistor

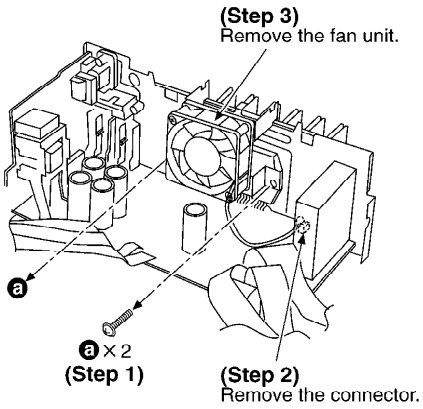
- Follow the (Step 1) - (Step 3) of item 6.1.

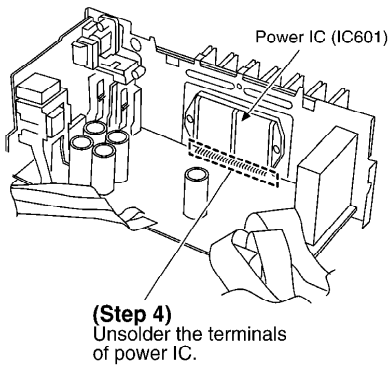




6.5. Replacement for the power IC

- Follow the (Step 1) - (Step 3) of item 6.1.
- Follow the (Step 1) - (Step 6) of item 6.2.
- Follow the (Step 1) - (Step 10) of item 6.3.



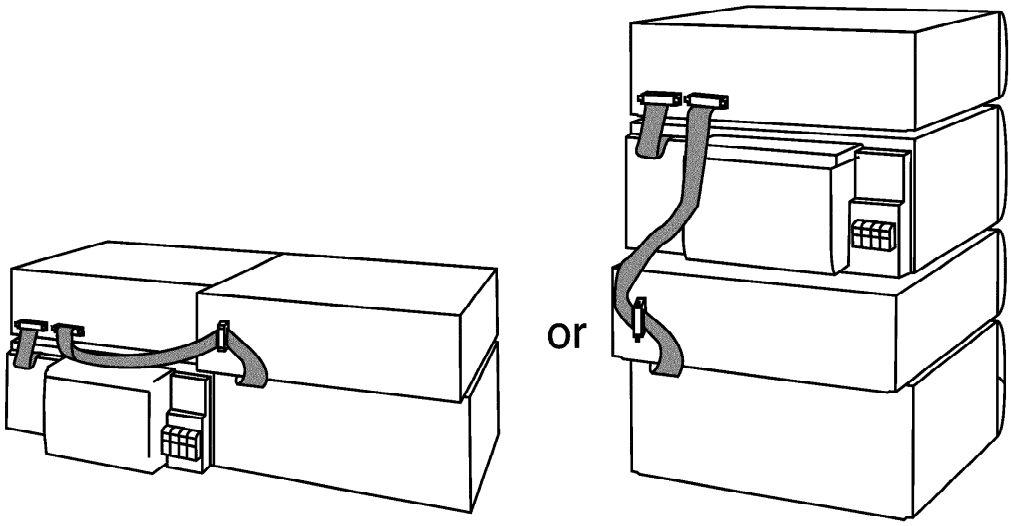


NOTE:
When mounting the power IC apply silicone conpound (RFKX0002) to the rear side of power IC.

7. To Supply Power Source

This unit is designed to operate on power supplied from system connected. / For system connection, refer to Fig. 7-1.

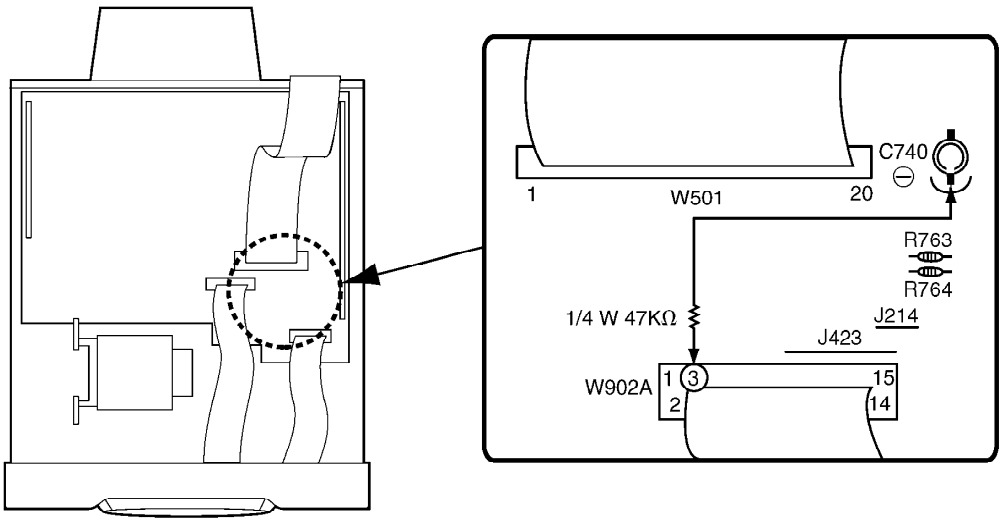
Fig. 7-1.



When the unit has to test and service alone, use the following method to supply power source.

1. **Short the section between W902A Pin 3 and C740 (-) (GND). (Refer to Fig. 7-2.)**
2. **Connect this unit to an AC power supply cord. / (This unit come to stand-by mode.)**
3. **Turn the unit ON.**

Fig. 7-2.



Notes:
Use only this method when checking the voltage etc.. / In case of checking the operations, use the system connections to supply power source.

8. Self-Diagnostic Function

This unit is equipped with a self-diagnostic function which, in the event of a malfunction,

automatically displays a code indicating the nature of the malfunction.
Use this self-diagnostic function when servicing the unit.

8.1. To display the malfunction code

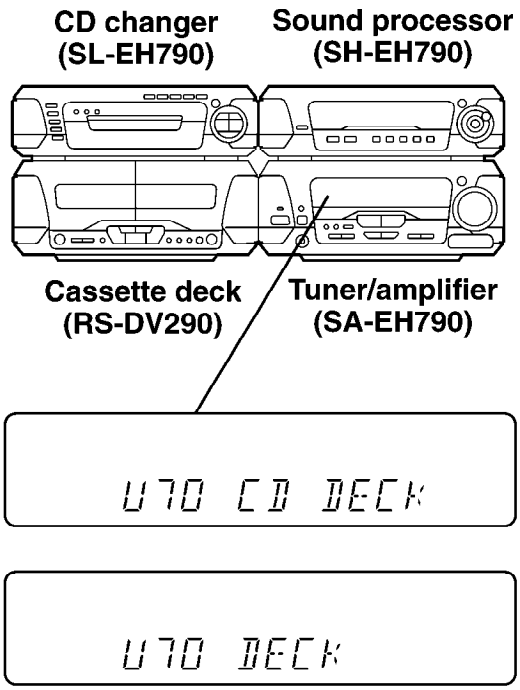
U70 CD: / U70 DECK:

Automatically displays on the tuner/amplifier when a malfunction occurs. Refer to Fig. 8-1.

F61:

Automatically displays on the tuner/amplifier when a malfunction occurs. Refer to Fig. 8-1.

Fig. 8-1.



8.2. To return to the normal display

1. For U70 CD/U70 DECK

- **Press an any operation button on the tuner/amplifier.**
- **To re-display the code, switch the power off (POWER STANDBY button), and then switch power back on again.**

2. For F61

- **If F61 is displayed, the power will automatically be switched off and the standby indicator will light up.**
- **F61 will be displayed for 3 seconds, and then the clock will be displayed.**

- To re-display the code, switch the power on. F61 will be re-displayed, and then after 3 seconds the clock will be displayed and the power will automatically switch off.

8.3. Display contents

8.3.1. U70 CD/U70 DECK / (displayed automatically)

- Problem or condition

  A bus-line communications error has occurred as a result of the flat cables being inserted incorrectly, thus preventing the system from operating.

- If U70 is displayed on the tuner/amplifier, the tape deck or CD Changer cannot be operated by remote control.

- Correction Procedure

1. To check for correct insertion of flat cables.

   - Insert each connectors until you hear a click.
   - Insert the flat cables at the back of the unit in the order indicated. Refer to Fig. 8-2.
     Make sure the white side of the cables is on your right side. Refer to Fig. 8-3.

Fig. 8-2.

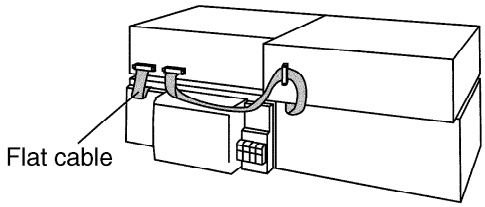
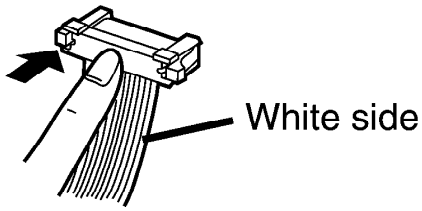


Fig. 8-3.



2. Breakage of flat cables. (Check and replace.)
3. If the problem is not corrected by items 1 and 2 above, this indicates a faulty IC.
   SA-EH790:
   IC901 (C2BBFD000404)

SL-EH790:
IC451 (C2BBGF000433)
RS-DV290:
IC701 (M38503M2406F)
Check these ICs and replace.

8.3.2. F61

- Problem or condition

When the power switch is switched on, it automatically switches back off, making it impossible to switch power on.

- Correction procedure

Faulty Tuner/Amplifier (SA-EH790) output IC (IC601). (When a DC voltage is applied to speaker terminals.)

9. Schematic Diagram Notes

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

Notes:

S901:

Power standby/on switch (⏻/I)

S902:

Clock/timer switch (CLOCK/TIMER)

S903:

Demo switch (DEMO)

S904:

Play timer/record timer switch / (PLAY/REC)

S905:

FM mode switch / (FM AUTO/MONO)

S906:

Tuning mode switch / (TUNING MODE)

S907:

Set switch (SET)

S908:

Source input switch / (INPUT SELECTOR)

S909:

6 ch discrete input switch / (6 CH DISCRETE INIPUT)

S910:

Tuning down switch (TUNING, ∨)

S911:

Tuning up switch (TUNING, ∧)

S912:

Tuner/band switch (TUNER/BAND)

S913:

Digital super woofer switch / (DIGITAL S.WOOFER)

S914:

RDS display mode PS switch / (RDS DISP MODE-PS)

S915:

RDS display mode PTY switch / (RDS DISP MODE-PTY)

VR901:

Volume control VR (VOLUME)

- 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 theinternalimpedance of the DC circuit tester.

No mark

: Power ON (FM or AM)

- 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.

- Voltage and signal line

: Positive voltage line

: Negative voltage line

: Audio signal line

: Tuner signal line

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.

10. Schematic Diagram

11. Printed Circuit Board Diagram

12. Type Illustration of ICs, Transistors and Diodes

13. Wiring Connection Diagram

14. Block Diagram

15. Terminal Function of ICs

15.1. IC901 (C2BBFD000404): / System Control/FL Drive

Pin No.	Terminal Name	I/O	Function
1	CHECK	I	Clock check signal input
2	LC72 DO	O	PLL data signal output for tuner unit (Z120)
3	LC72 CE	O	Chip enable signal output for tuner unit (Z120)
4	LC72 DI/ ST	I	IF count data/stereo detect signal input from tuner unit (Z120)
5	LC72 CK	O	Clock signal output for tuner unit (Z120)
6	ST/AV. / 6CH	O	Signal select output
7	NC	-	Not used, open
8			
9	SEL TUNER	-	Not used, open
10	SEL/ TUNER	-	Not used, connected to GND
11	AC IN	I	Power failure detect signal input
12	RESET	I	Reset signal input
13	X IN	I	Oscillator connected terminal (32.7 kHz)
14	X OUT	O	
15	V_{SS}	-	GND terminal
16	XC IN	I	Oscillator connected terminal (6 MHz)
17	XC OUT	O	
18	V_{DD} 1	I	Power supply terminal
19	KEY TU	I	Operation key signal input
20	KEY KARAOKE	I	Operation key signal input
21	SH REQ	I	Request signal input from Sound Processor
22	NC(GND)	-	Not used, connected to GND
23	VR JOGB	I	Volume control signal input
24	VR JOGA		
25	MIC DET	I	Microphone connecting detect signal input (Not used, connected to V_{DD})
26	HP SW	I	Headphone connecting detect signal input
27	RDS CLK	I	RDS clock signal input
28	RDS DATA	I	RDS data signal input
29	REMO / CON	I	Remote control signal input

Pin No.	Terminal Name	I/O	Function
30 | 37	8G | 1G	O	Grid signal output
38 | 45	P1 | P8	O	Segment signal output
46	V_{DD} 3	I	Power supply terminal
47 | 50	P9 | P12	O	Segment signal output
51	-VP	I	Power supply terminal (Negative)
52 | 71	P13 | P32	O	Segment signal output
72	V_{DD} 4	I	Power supply terminal
73 | 78	P33 | P38	O	Segment signal output
79	REGIN0	-	Not used, connected to GND
80	REGIN1		
81	STANDBY	O	LED (STANDBY) drive signal output
82	TIMER	O	LED (TIMER) drive signal output
83	S.W.LED	O	LED (DIGITAL S.WOOFER) drive signal output
84	LOUNGE	-	LED (LOUNGE) drive signal output (Not used, connected to GND)
85	CHORUS	-	LED (CHORUS) drive signal output (Not used, connected to V_{DD})
86	MUTE	O	Muting signal output
87	NC	-	Not used, open
88	POWER	O	Power control signal output
89	V_{SS} 2	-	GND terminal
90	V_{DD} 2	I	Power supply terminal
91	MUTE2	O	Muting signal output
92	NC	-	Not used, open

Pin No.	Terminal Name	I/O	Function
93	MUTE3	O	Muting signal output
94	SH CS	I/O	Chip select signal input/output for Sound Processor
95	SH DO	O	Serial communication signal to Sound Processor (Data signal output)
96	SH DI	I	Serial communication signal to Sound Processor (Data signal input)
97	SH CK	I	Serial communication signal to Sound Processor (Clock signal input)
98	E DET	I	Unusual condition detect signal input
99	CR TIMER	-	Not used, open
100	SD	I	Station detector signal input from tuner unit (Z120)

16. 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. / Whenreplacingany of components, be sure to use only manufacture's specified parts shown in the parts list.
*** The parenthesized indications in the Remarks columns specify the areas. / Parts without these indications can be used for all areas.**
*** Remote Control Ass'y: Supply period for three years from terminal of production.**
*** Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads(pF), F=Farads (F)**
*** Resistance values are in ohms, unless specified otherwise, 1K= 1,000 (OHM), 1M=1,000K (OHM)**
***The markings (RTL) indicate that the retention time is limited for these items. After the discontinuation of these assemblies in production, it will no longer be available.**

*All parts are supplied by SPC.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1	RKM0395G-2S	CABINET	1	
2	RHD30007-1S	SCREW	4	
3	XTBS3+10JFZ1	SCREW	1	
4	REX0967	SYSTEM CONNECT.ASS'Y(20P)	1	
5	RMQ1018	GASKET	1	
6	RGW0386-S	KNOB,VOLUME	1	
7	RHN90001	NUT	1	
8	RKA0106-N	FOOT RING	4	
9	RKF0606AC-K1	BACK COVER	1	
10	RKW0581-1V	FL WINDOW	1	
11	RMN0427A	CABLE HOLDER	1	
12	RYP1167-S	FRONT PANEL ASS'Y	1	
12-1	RGB0025-A	TECHNICS BADGE	1	
13	SHG1654	RUBBER	4	
14	XTB3+10JFZ	SCREW	12	
15	XTB3+8JFZ	SCREW	11	
16	XTW3+15T	SCREW	2	
17	XTBS3+8JFZ1	SCREW	2	
18	RLBT4001-N	FERRITE CORE	1	J0KD00000028
19	RMN0582	HOLDER	1	
20	XTB3+12FFZ	SCREW	1	
21	XTB3+20JFZ	SCREW	1	
22	REM0115	FAN	1	
23	RGN2394-K	NAME PLATE	1	(EB)
23	RGN2396-K	NAME PLATE	1	(EP)
24	RMN0526	FL HOLDER	1	
25	REZ1300	WIRE ASS'Y	1	
26	RMN0744	FAN SUPPORTER	1	
27	RMN0745	FAN SUPPORTER	1	
A1	EUR7702270	REMOTE CONTROLLER	1	
A1-1	UR64EC2337E	BATTERY COVER	1	
A2	REE1233-1	SPEAKER LEADS(GRAY/BLUE)	1	
A3	REE1234-1	SPEAKER LEADS(RED/BLACK)	1	
A4	SJP9009	ANTENNA PLUG ADAPTOR	1	K1YZ02000013 (EB)
A5	RJA0019-2X	AC POWER SUPPLY CORD	1	(E)(EG)(EP) ⚠
A5	RJA0053-3X	AC POWER SUPPLY CORD	1	(EB) ⚠
A6	RQCA0801	DEMO GUIDE	1	
A8	RQT6897-E	OPERATING INSTRUCTIONS	1	(E) Spanish
A8	RQT6865-D	OPERATING INSTRUCTIONS	1	(EG) Germany Italian French Netherlands Danish Swedish
A8	RQT6866-B	OPERATING INSTRUCTIONS	1	(EB)(EP) English

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
A8	RQT6867-R	OPERATING INSTRUCTIONS	1	(EP) Russian Polish Czech
A9	RSA0007	FM INDOOR ANTENNA	1	N1EAYY000002
A10	RSA0022-L	AM LOOP ANTENNA	1	
C151	ECA1CAK100XB	16V 10U	1	
C152	ECBT1H331KB3	50V 330P	1	
C153	ECBT1H102KB3	50V 1000P	1	
C154	ECBT1H561KB3	50V 560P	1	
C155	ECBT1H102KB3	50V 1000P	1	
C156,57	ECBT1H470J3	50V 47P	2	
C158,59	ECEA0JKS470	6.3V 47U	2	
C160	ECBT1H102KB3	50V 1000P	1	
C201,02	ECBT1H104KB5	50V 0.1U	2	F1D1H1040002
C371	ECA0JAK101XB	6.3V 100U	1	
C395,96	ECBT1H473KB5	50V 0.047U	2	F1D1H473A012
C509,10	ECBT1H103KB5	50V 0.01U	2	F1E1H1030001
C550	ECBT1H103KB5	50V 0.01U	1	F1E1H1030001
C551	ECA1HAK2R2XB	50V 2.2U	1	
C552	ECBT1H103KB5	50V 0.01U	1	F1E1H1030001
C554	ECA1CAM221XB	16V 220U	1	
C555	ECEA1HSN010	50V 1U	1	
C556	ECEA1CKN100	16V 10U	1	
C559	ECBT1H103KB5	50V 0.01U	1	F1E1H1030001
C601,02	ECA1CAK100XB	16V 10U	2	
C603,04	ECBT1H471KB3	50V 470P	2	
C605,06	ECBT1H102KB3	50V 1000P	2	
C607,08	ECBT1H471KB3	50V 470P	2	
C609,10	ECBT1H560J3	50V 56P	2	
C611,12	ECBT1H150JC3	50V 15P	2	
C613,14	ECBT1H470J3	50V 47P	2	
C616	ECEA1HKNR47B	50V 0.47U	1	
C617,18	ECKR2H103ZU	500V 0.01U	2	
C619-21	ECBT1H104KB5	50V 0.1U	3	F1D1H1040002
C622	RCE1AKA101BG	10V 100U	1	F2A1A1010020
C624-31	ECBT1H104KB5	50V 0.1U	8	F1D1H1040002
C632	ECBT1H473KB5	50V 0.047U	1	F1D1H473A012
C633,34	ECBT1H104KB5	50V 0.1U	2	F1D1H1040002
C635-37	ECBT1H473KB5	50V 0.047U	3	F1D1H473A012
C639-44	ECBT1H102KB3	50V 1000P	6	
C645,46	ECBT1H473KB5	50V 0.047U	2	F1D1H473A012
C647-50	ECBT1H102KB3	50V 1000P	4	
C651	ECBT1H473KB5	50V 0.047U	1	F1D1H473A012
C652	ECBT1H102KB3	50V 1000P	1	
C655,56	ECA1CAK100XB	16V 10U	2	
C659,60	ECA1CAK100XB	16V 10U	2	
C664	ECA1CAK100XB	16V 10U	1	
C701-04	ECA1VM472E	35V 4700U	4	
C705	ECBT1H103KB5	50V 0.01U	1	F1E1H1030001
C706	RCE1VKA100BG	35V 10U	1	F2A1V1000011
C707,08	ECBT1H473KB5	50V 0.047U	2	F1D1H473A012
C709	ECQV1H104JM3	50V 0.1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C710	ECBT1H473KB5	50V 0.047U	1	F1D1H473A012
C714	ECBT1H102KB3	50V 1000P	1	
C715	ECA1EAM472XE	25V 4700U	1	
C717	ECA1CAK330XB	16V 33U	1	
C718	ECA1EAM101XB	25V 100U	1	
C719,20	ECBT1H473KB5	50V 0.047U	2	F1D1H473A012
C721	RCE1AKA101BG	10V 100U	1	F2A1A1010020
C722	ECA1EAM101XB	25V 100U	1	
C723,24	ECBT1H473KB5	50V 0.047U	2	F1D1H473A012
C725	ECA1CAK470XB	16V 47U	1	
C731	ECBT1H102KB3	50V 1000P	1	
C732	ECBT1H223KB5	50V 0.022U	1	F1D1H223A012
C733	ECBT1H473KB5	50V 0.047U	1	F1D1H473A012
C734	RCE1HKA3R3BG	50V 3.3U	1	F2A1H3R3A015
C735	ECBT1H473KB5	50V 0.047U	1	F1D1H473A012
C737	ECA1HAM101XB	50V 100U	1	
C740	ECA1CAK100XB	16V 10U	1	
C741	ECQE1104KF3	100V 0.1U	1	
C753	ECKR1H103ZF5	50V 0.01U	1	F1B1H1030001
C754	ECBT1H103KB5	50V 0.01U	1	F1E1H1030001
C755	ECA1CAM102X	16V 1000U	1	
C758	ECBT1H103KB5	50V 0.01U	1	F1E1H1030001
C759	RCE1AKA470BG	10V 47U	1	F2A1A470A011
C761	ECQE1104KF3	100V 0.1U	1	
C791	ECKWRS102MBC	250V 1000P	1	⚠
C901	EEAFC0J101B	6.3V 100U	1	
C902	F2A1A102A018	10V 1000U	1	
C903,04	ECBT1H103KB5	50V 0.01U	2	F1E1H1030001
C905	ECBT1H102KB3	50V 1000P	1	
C907,08	ECBT1H471KB3	50V 470P	2	
C909	ECBT1H102KB3	50V 1000P	1	
C910	ECBT1H200JC5	50V 20P	1	F1D1H200A015
C911	ECBA1H180J5	50V 18P	1	
C912	ECBT1H104KB5	50V 0.1U	1	F1D1H1040002
C914	ECA1HAK2R2XB	50V 2.2U	1	
C915	ECBT1H103KB5	50V 0.01U	1	F1E1H1030001
C916	EEAFC0J101B	6.3V 100U	1	
C917	ECBT1H103KB5	50V 0.01U	1	F1E1H1030001
C918	ECA0JAK101XB	6.3V 100U	1	
C919,20	ECEA1HKA4R7	50V 4.7U	2	
C921	ECBT1H102KB3	50V 1000P	1	
C922	ECA1VAK330XB	35V 33U	1	
C923,24	ECBT1H104KB5	50V 0.1U	2	F1D1H1040002
C925,26	ECBT1H102KB3	50V 1000P	2	
C927,28	ECEA1HKA4R7	50V 4.7U	2	
C931	ECEA1CKN100	16V 10U	1	
CN601	RJU057W012	CONNECTOR(12P)	1	K1KB12B00033
CN602	RJU057W008	CONNECTOR(8P)	1	K1KB08B00034
CN701-13	RJS1A1101T1	CONNECTOR(1P)	13	
CN781	RJS10T5ZA	CONNECTOR(10P)	1	K1MP10A00007
CP101	RJT100W11	CONNECTOR(11P)	1	K1KA11A00093
CP601	RJT057W012-1	CONNECTOR(12P)	1	K1KA12A00160

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
CP602	RJT057W008-1	CONNECTOR(8P)	1	K1KA08A00187
D151	MA4051M	DIODE	1	MAZ40510M
D201	MAZ40560MF	DIODE	1	
D306	SELS5223C	LED	1	B3AAA0000486
D500	MA165TA5	DIODE	1	MA2C16500E
D551,52	MA165TA5	DIODE	2	MA2C16500E
D553	MA700	DIODE	1	MA2C700
D554	MA165TA5	DIODE	1	MA2C16500E
D555	MA4100M	DIODE	1	MAZ41000M
D558	MA165TA5	DIODE	1	MA2C16500E
D581-83	B0AAMM000009	DIODE	3	
D601,02	SB360L6508	DIODE	2	B0JAPG000014
D607	1SS291TA	DIODE	1	
D611	MA4051M	DIODE	1	MAZ40510M
D657-59	MA165TA5	DIODE	3	MA2C16500E
D701-04	1N5402BF	DIODE	4	
D705	B0AAMM000009	DIODE	1	
D711	B0AAMM000009	DIODE	1	
D717-20	B0AAMM000009	DIODE	4	
D721	MA4300M	DIODE	1	MAZ43000M
D723	MA4150-M	DIODE	1	MAZ41500M
D725	MA4082LTA	DIODE	1	MAZ40820LF
D730	MA4091H	DIODE	1	MAZ40910H
D737	MA4082LTA	DIODE	1	MAZ40820LF
D738-40	MA165TA5	DIODE	3	MA2C16500E
D741-44	B0AAMM000009	DIODE	4	
D745	MA4051M	DIODE	1	MAZ40510M
D746	B0AAMM000009	DIODE	1	
D747	MA4068L	DIODE	1	MAZ40680L
D751,52	1N5402BF	DIODE	2	
D753-55	B0AAMM000009	DIODE	3	
D756,57	MA700	DIODE	2	MA2C700
D758	MA165TA5	DIODE	1	MA2C16500E
D761	B0AAMM000009	DIODE	1	
D901,02	1SS291TA	DIODE	2	
D904	MA165TA5	DIODE	1	MA2C16500E
D905	1SS291TA	DIODE	1	
D906,07	MA165TA5	DIODE	2	MA2C16500E
D933,34	MA165TA5	DIODE	2	MA2C16500E
D951	LNJ301MPUJAD	LED	1	
D954	SELS5923C	LED	1	B3ADA0000083
D961	MA4075M	DIODE	1	MAZ40750M
D973	MA4030M	DIODE	1	MAZ40300M
D974	MA165TA5	DIODE	1	MA2C16500E
F1	XBA2C20TB0	FUSE,T2A	1	K5D202BL0004 ⚠
FL901	A2BB00000115	FL DISPLAY TUBE	1	
FP791,92	K5G402AA0002	FUSE PROTECTOR	2	⚠
IC151	C1BB00000527	IC	1	
IC201	C0JBAR000292	IC	1	

[illegible]	[illegible]	[illegible]	[illegible]	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
IC601	RSN311W64B	IC	1	
IC901	C2BBFD000404	IC	1	
JK551	K1KA02A00008	CONNECTOR(2P)	1	
JK601,02	K4BC04B00028	JACK,SPEAKERS	2	
JK603	K2HA103B0015	JACK,SPEAKERS	1	
JK701	K2AA2B000002	JACK,AC INLET	1	⚠
JK903	RJJ37TN02-C	JACK,HEADPHONES	1	K2HC103A0009
L151,52	ELEXT101KA9	COIL	2	
L153	G0C1R0JA0019	COIL	1	
L601-06	RLQYR73MW1-0	COIL	6	G0ZZ00001606
L701	RLQZ371	COIL	1	ELF15N035AN ⚠
L901	G0C100JA0019	COIL	1	
L902	G0C1R0JA0019	COIL	1	
P1	RPG6344	PACKING CASE(SYSTEM)	1	(E)
P1	RPG6342	PACKING CASE(SYSTEM)	1	(EG)
P1	RPG6343	PACKING CASE(SYSTEM)	1	(EB)
P1	RPG6345	PACKING CASE(SYSTEM)	1	(EP)
P2	RPQ0951	PAD(SYSTEM)	1	
P3	RPG4396	PACKING CASE(SA)	1	
P3	RPG4397	PACKING CASE(RS)	1	
P3	RPG4398	PACKING CASE(SH)	1	
P3	RPG4399	PACKING CASE(SL)	1	
P4	RPN1194	PAD(SA)	1	
P4	RPN1195-2	PAD(RS)	1	
P4	RPN1196	PAD(SH)	1	
P4	RPN1197	PAD(SL)	1	
P5	RPF0139-1	PROTECTION BAG	1	
P6	SPP740-1	SHEET	4	
PCB1	REP3337H-M	PCB ASS'Y	1	[RTL]
PCB2	REP3338A-S	PCB ASS'Y	1	[RTL](E)(EG)(EP)
PCB2	REP3338B-S	PCB ASS'Y	1	[RTL](EB)
Q503	2SC5398RSTA	TRANSISTOR	1	B1AACF000059
Q551	2SA1995RSTA	TRANSISTOR	1	B1ACDF000006
Q553	2SD2144S	TRANSISTOR	1	
Q554	2SA1995RSTA	TRANSISTOR	1	B1ACDF000006
Q555	2SD2144S	TRANSISTOR	1	
Q556	2SC5398RSTA	TRANSISTOR	1	B1AACF000059
Q557	2SA1995RSTA	TRANSISTOR	1	B1ACDF000006
Q601,02	2SC5398RSTA	TRANSISTOR	2	B1AACF000059
Q605-10	2SD2144S	TRANSISTOR	6	
Q612	UN411FTA	TRANSISTOR	1	UNR411F00A
Q701	2SD2374PQAU	TRANSISTOR	1	2SD23740J1AU
Q702	2SB1548PQAU	TRANSISTOR	1	2SB15480J1AU
Q703,04	2SD2137PQTA	TRANSISTOR	2	2SD21370PA
Q705	2SA1995RSTA	TRANSISTOR	1	B1ACDF000006
Q707	2SB1417PQTA	TRANSISTOR	1	2SB14170JA
Q708	UN4211	TRANSISTOR	1	UNR4211
Q709	2SD2144S	TRANSISTOR	1	
Q711	2SB1548PQAU	TRANSISTOR	1	2SB15480J1AU

Q712	2SB1243 Q713	TRANSISTOR	1	2SB1243001713

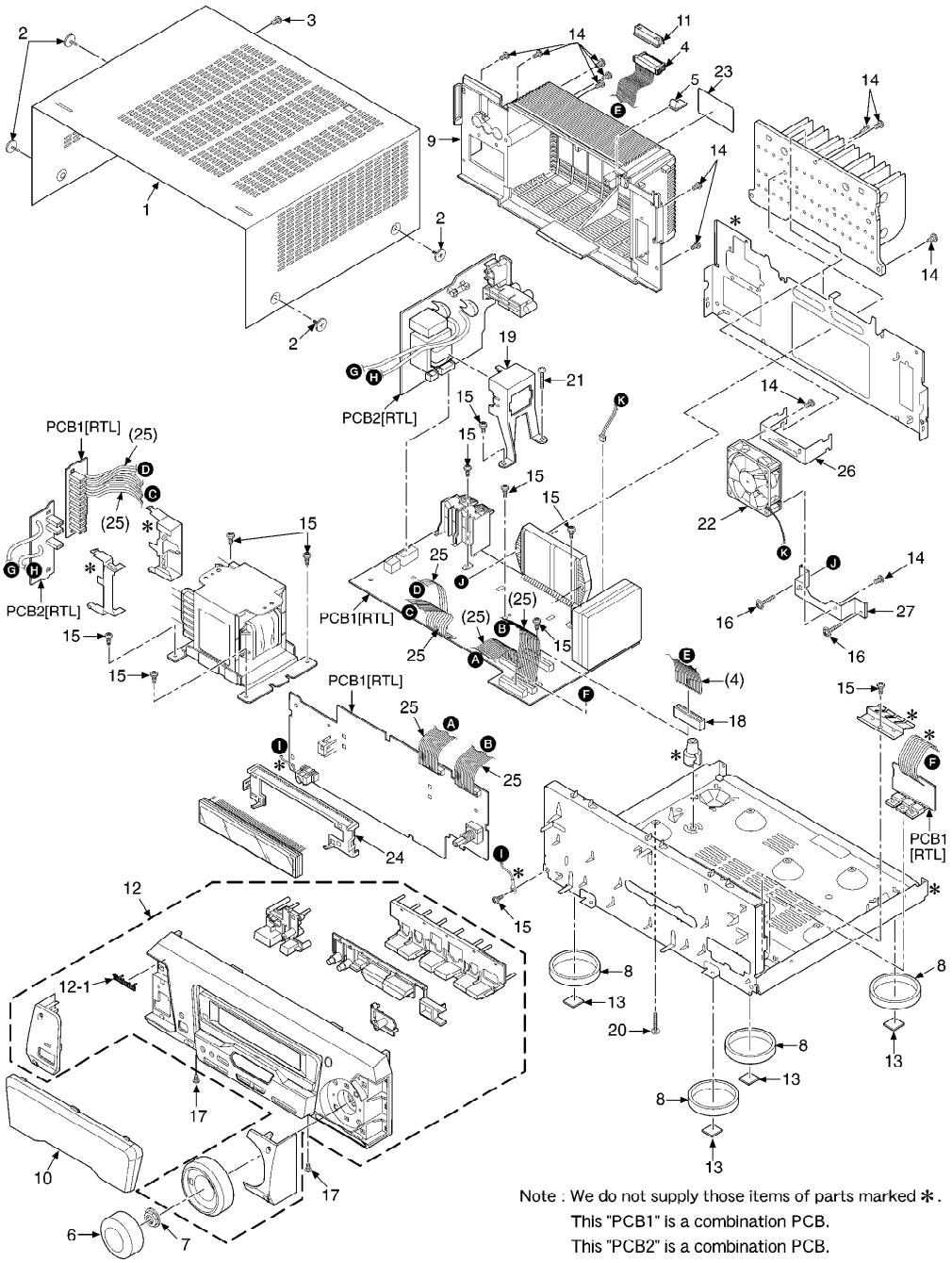
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Q723	2SC3940AQSTA	TRANSISTOR	1	2SC3940ARA
Q725	2SC5398RSTA	TRANSISTOR	1	B1AACF000059
Q726	2SC3940AQSTA	TRANSISTOR	1	2SC3940ARA
Q791	2SD2144S	TRANSISTOR	1	
Q901	UN4212TA	TRANSISTOR	1	UNR421200A
Q902	UN411FTA	TRANSISTOR	1	UNR411F00A
R151,52	ERDS2FJ102	1/4W 1K	2	
R153,54	ERDS2FJ104	1/4W 100K	2	
R155	ERDS2FJ121	1/4W 120	1	
R157,58	ERDS2FJ102	1/4W 1K	2	
R202-05	ERDS2FJ104	1/4W 100K	4	
R211	ERDS2FJ271	1/4W 270	1	
R229,30	ERDS2FJ102	1/4W 1K	2	
R509-12	ERDS2FJ470	1/4W 47	4	
R544	ERDS2FJ103	1/4W 10K	1	
R546,47	ERDS2TJ183	1/4W 18K	2	
R551	ERDS2TJ183	1/4W 18K	1	
R552	ERDS2FJ473	1/4W 47K	1	
R555	ERDS2FJ223	1/4W 22K	1	
R556	ERDS2FJ104	1/4W 100K	1	
R557	ERDS2FJ103	1/4W 10K	1	
R558	ERDS2FJ222	1/4W 2.2K	1	
R559	ERDS2FJ472	1/4W 4.7K	1	
R560,61	ERDS2FJ104	1/4W 100K	2	
R563,64	ERDS2TJ272T	1/4W 2.7K	2	
R566	ERDS2FJ683	1/4W 68K	1	
R567	ERG1SJ220	1W 22	1	
R568	ERDS2FJ101	1/4W 100	1	
R569	ERDS2FJ103	1/4W 10K	1	
R570	ERDS2TJ225	1/4W 2.2M	1	
R572	ERDS2FJ153	1/4W 15K	1	
R591	ERDS2FJ472	1/4W 4.7K	1	
R597,98	ERDS2FJ222	1/4W 2.2K	2	
R601-04	ERDS2FJ332	1/4W 3.3K	4	
R605,06	ERDS2FJ472	1/4W 4.7K	2	
R607,08	ERDS2FJ563	1/4W 56K	2	
R609,10	ERDS2FJ154	1/4W 150K	2	
R611,12	ERDS2FJ563	1/4W 56K	2	
R614,15	ERDS2FJ472	1/4W 4.7K	2	
R617,18	ERDS2FJ472	1/4W 4.7K	2	
R619,20	ERDS2TJ124	1/4W 120K	2	
R621	ERDS2FJ154	1/4W 150K	1	
R622,23	ERDS2TJ124	1/4W 120K	2	
R624	ERDS2FJ154	1/4W 150K	1	
R627	ERDS2FJ474	1/4W 470K	1	
R628	ERDS2FJ223	1/4W 22K	1	
R631,32	ERDS2TJ392	1/4W 3.9K	2	
R635	ERDS2FJ222	1/4W 2.2K	1	
R637	ERDS2FJ153	1/4W 15K	1	
R638	ERDS2FJ683	1/4W 68K	1	
R639,40	ERDS1FJ100	1/2W 10	2	
R641,42	ERDS2FJ100	1/4W 10	2	
R643,44	ERDS1FJ100	1/2W 10	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R645,46	ERDS2FJ100	1/4W 10	2	
R647	ERDS2FJ391	1/4W 390	1	
R648	ERD2FCG121	1/4W 120	1	
R649-52	ERDS1FJ100	1/2W 10	4	
R683-86	ERDS2FJ102	1/4W 1K	4	
R687,88	ERDS2FJ152	1/4W 1.5K	2	
R691	ERDS1FJ151	1/2W 150	1	
R692,93	ERDS2FJ102	1/4W 1K	2	
R694	ERDS2FJ223	1/4W 22K	1	
R695	ERDS2FJ471	1/4W 470	1	
R696	ERDS2FJ473	1/4W 47K	1	
R708	ERDS2FJ472	1/4W 4.7K	1	
R712	ERDS2FJ222	1/4W 2.2K	1	
R719	ERDS2FJ332	1/4W 3.3K	1	
R720	ERDS2TJ392	1/4W 3.9K	1	
R721	ERD2FCJ4R7	1/4W 4.7	1	
R722	ERQ16NKW2R2E	1/6W 2.2	1	
R723	ERDS2FJ562	1/4W 5.6K	1	
R724	ERDS2TJ392	1/4W 3.9K	1	
R725	ERDS2FJ100	1/4W 10	1	
R727	ERDS2TJ392	1/4W 3.9K	1	
R729	ERDS2FJ221	1/4W 220	1	
R738	ERDS2TJ392	1/4W 3.9K	1	
R739	ERDS2FJ473	1/4W 47K	1	
R749	ERDS2FJ102	1/4W 1K	1	
R763	ERDS2FJ472	1/4W 4.7K	1	
R764	ERDS2FJ331	1/4W 330	1	
R765	ERDS1FJ221	1/2W 220	1	
R767	ERG1SJ270	1W 27	1	
R768	ERDS2FJ101	1/4W 100	1	
R769	ERG1SJ270	1W 27	1	
R771	ERDS2FJ222	1/4W 2.2K	1	
R772	ERDS2FJ223	1/4W 22K	1	
R773,74	ERDS1FJ180	1/2W 18	2	
R776	ERDS2FJ103	1/4W 10K	1	
R777	ERDS2FJ102	1/4W 1K	1	
R793	ERDS2TJ1R0	1/4W 1.0	1	
R794	ERDS2FJ473	1/4W 47K	1	
R795	ERDS2TJ392	1/4W 3.9K	1	
R796,97	ERDS2FJ2R2	1/4W 2.2	2	
R798	ERQ16NKW2R2E	1/6W 2.2	1	
R901	ERDS2FJ821	1/4W 820	1	
R902	ERDS2FJ102	1/4W 1K	1	
R903	ERDS2FJ122	1/4W 1.2K	1	
R904	ERDS2FJ152	1/4W 1.5K	1	
R905	ERDS2FJ182	1/4W 1.8K	1	
R906	ERDS2FJ222	1/4W 2.2K	1	
R907	ERDS2FJ332	1/4W 3.3K	1	
R908	ERDS2FJ472	1/4W 4.7K	1	
R909	ERDS2FJ182	1/4W 1.8K	1	
R910	ERDS2FJ222	1/4W 2.2K	1	
R911	ERDS2FJ332	1/4W 3.3K	1	
R912	ERDS2FJ472	1/4W 4.7K	1	
R913	ERDS2FJ821	1/4W 820	1	

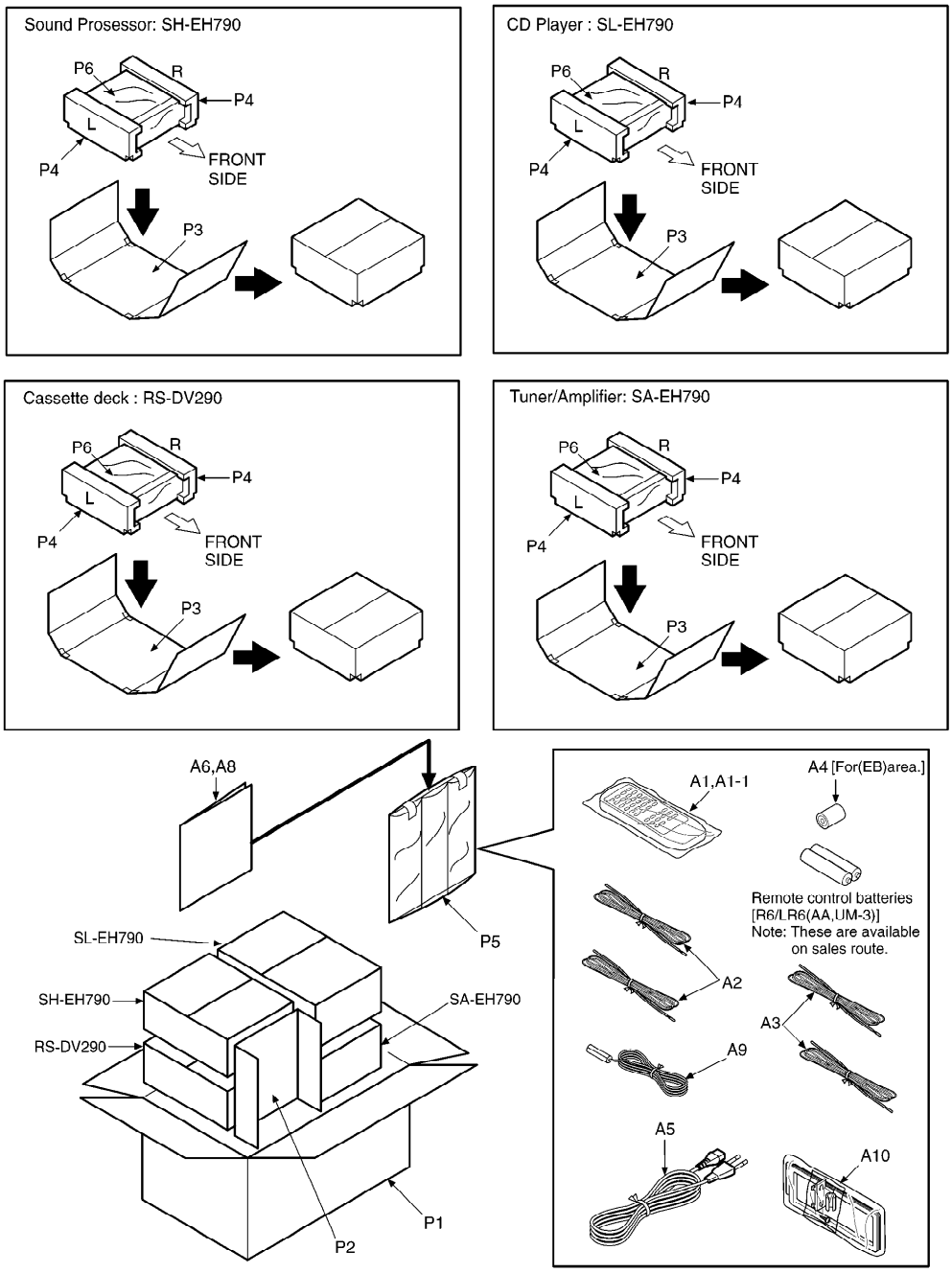
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R914	ERDS2FJ102	1/4W 1K	1	
R915	ERDS2FJ122	1/4W 1.2K	1	
R916	ERDS2FJ152	1/4W 1.5K	1	
R918	ERDS2FJ103	1/4W 10K	1	
R919	ERDS2FJ153	1/4W 15K	1	
R921,22	ERDS2FJ103	1/4W 10K	2	
R924,25	ERDS2FJ102	1/4W 1K	2	
R926	ERDS2FJ222	1/4W 2.2K	1	
R928	ERDS2FJ473	1/4W 47K	1	
R929-32	ERDS2FJ102	1/4W 1K	4	
R934-36	ERDS2FJ101	1/4W 100	3	
R937	ERDS2FJ103	1/4W 10K	1	
R939	ERDS2FJ152	1/4W 1.5K	1	
R940,41	ERDS2FJ102	1/4W 1K	2	
R942	ERDS2FJ222	1/4W 2.2K	1	
R943	ERDS2FJ101	1/4W 100	1	
R944	ERDS2FJ222	1/4W 2.2K	1	
R945	ERDS2FJ101	1/4W 100	1	
R946	ERDS2FJ102	1/4W 1K	1	
R949	ERDS2FJ472	1/4W 4.7K	1	
R950	ERDS2FJ101	1/4W 100	1	
R951	ERDS2FJ334	1/4W 330K	1	
R952	ERDS2TJ106T	1/4W 10M	1	
R953	ERDS2FJ101	1/4W 100	1	
R954	ERDS2FJ104	1/4W 100K	1	
R956-58	ERDS2FJ102	1/4W 1K	3	
R959	ERDS2FJ470	1/4W 47	1	
R960	ERDS2FJ152	1/4W 1.5K	1	
R961,62	ERDS2FJ223	1/4W 22K	2	
R965,66	ERDS2TJ392	1/4W 3.9K	2	
R969	ERDS2TJ272T	1/4W 2.7K	1	
R974	ERDS2FJ102	1/4W 1K	1	
R975	ERDS2FJ223	1/4W 22K	1	
R976	ERDS2FJ104	1/4W 100K	1	
R986	ERDS2FJ152	1/4W 1.5K	1	
R987,88	ERDS2FJ102	1/4W 1K	2	
R990	ERDS2FJ104	1/4W 100K	1	
R991	ERDS2FJ473	1/4W 47K	1	
R993,94	ERDS2FJ104	1/4W 100K	2	
R995	ERDS2FJ221	1/4W 220	1	
R996,97	ERDS2FJ151	1/4W 150	2	
R999	ERDS2FJ104	1/4W 100K	1	
RL702	K6B1AEA00003	RELAY	1	⚠
S901-15	EVQ11G05R	SW,OPERATION	15	
T701	RTP2N5B012	POWER TRANSFORMER	1	ETP76VST71SA ⚠
T702	RTP1H3E001	POWER TRANSFORMER	1	ETP28KBZ21BG ⚠
VR901	EVQVBXFK124B	V.R.,VOLUME	1	
X151	RSXC4M33S02T	OSCILLATOR	1	H0H433400001

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
X901	EF0EC6004T4	OSCILLATOR	1	EFOEC6004T4
X902	RSXD32K7S02	OSCILLATOR	1	H0A327200027
Z120	RAN0005EM-2	TUNER UNIT	1	
Z701	ENC471D5A	ZNR	1	J0LG00000008 ⚠
Z901	B3RAD0000028	REMOTE SENSOR	1	

17. Cabinet Parts Location



18. Packaging



19. Schematic Diagram for printing with letter size

K0304YH/HM

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

DSP CS DSP SNS DSP RST DSP ACK DSP CK DSP DIO A.GND SP INPUT

FW602A

IC201 NJU7313AMT2 SIGNAL SELECTOR

IC202 NJM4558MTE1 BUFFER AMP

IC203 BU4053BCFE2 SIGNAL SELECTOR

IC401 C2BBFD000246 SYSTEM CONTROL

VCR(EXT) IN

AUX (DVD)

DVD 6ch INPUT

FRONT

SURROUND

CENTER

SUB WOOFER

SUB WOOFER OUT

SH-EH790(E) MAIN CIRCUIT DIAGRAM

:POSITIVE VOLTAGE LINE :CD PLAYBACK SIGNAL LINE

IC801
C2HBZC000010
DIGITAL SIGNAL
PROCESSOR

IC802
C2HBZC000008
DIGITAL SIGNAL
PROCESSOR

X801
(36.8MHz)

F=36.8MHz 0.7V P-P

F=36.8MHz 2.3V P-P

SCHEMATIC DIAGRAM-4

B MAIN CIRCUIT

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

Q301,302 2SD2144STA MUTING

Q303,304 2SD2144STA ATTENUATOR

IC301 M5218AP BUFFER AMP

Q305 UN411FTA MUTING CONT.

Q306 UN411FTA ATTENUATOR CONT.

Q309,310 2SD2144STA ATTENUATOR

Q307,308 2SD2144STA ATTENUATOR

IC302 NJM4558MTE1 BUFFER AMP

Q313,314 2SD2144STA ATTENUATOR

Q764 2SB621ARSTA REGULATOR

Q766 2SA1309ATA REGULATOR

Q765,767 2SC3311ATA STABILIZER

Q761 Q762 2SD2137PQTA REGULATOR

Q763 2SD592AQRSTA REGULATOR

Q315,316 2SD2144STA ATTENUATOR

IC303 NJM4558MTE1 BUFFER AMP

Q502 UN411FTA ATTENUATOR CONT.

Q505 2SD2144STA ATTENUATOR

Q506 UN411FTA ATTENUATOR CONT.

Q507 2SD2144STA ATTENUATOR

Q501 UN411FTA MUTING CONT.

Q503,504 2SD2144STA MUTING

IC501 NJM4558MTE1 BUFFER AMP

25 26 27 28 29 30 31 32 33 34 35 36

SCHEMATIC DIAGRAM-5

B MAIN CIRCUIT

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

D.GND
+10V
A.GND
E201
R763 0.33
F G
CN202
1 SYNC
2 CD REQ
3 CT.GND
4 CS
5 +B(10V)
6 D.GND
7 SCLK
8 DATA
9 DECK REQ
10 V.GND
11 TAPE Rch IN
12 TAPE Lch IN
13 RS A.GND
14 TAPE Rch OUT
15 TAPE Lch OUT
16 CD Rch IN
17 A.GND
18 CD Lch IN
19 NC
20 NC
To CD CHANGER(SL-EH790) & CASSETTE DECK(RS-DV290)
R236 1K
R235 1K
R234 1K
R233 1K
R228 6.8K
R227 6.8K
R229 5.6K
R230 5.6K
R231 8.2K
R232 8.2K
C232 100P
C231 100P
C228 100P
C227 100P
C226 100P
C225 100P
CT
10.2V
C223 16V10
R221 220
R223 22K
C221 100P
R224 22K
C224 16V10
R222 220
C222 100P
R240 1K
CN201
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
To TUNER/ AMPLIFIER(SA-EH790)
C233 100P
R239 47K
Q768
2SC3940AQSTA
REGULATOR
9.9V
5.6V
6.3V
R770 4.7
R771 1K
C769 0.01
C754 0.01
D770 MA4062HTA
C770 16V10
FW601A
1 +B(5.6V)
2 D.GND
3 CS/ REQ
4 SA CLK
5 SA DATA
6 FL1
7 FL2
8 SYNC
9 DECK REQ
10 S DATA
11 S CLK
12 CS
13 CD REQ
To A FL CIRCUIT(FW601B) on SCHEMATIC DIAGRAM-1/11,12-G
-10V
10.4V

SH-EH790(E) MAIN CIRCUIT DIAGRAM

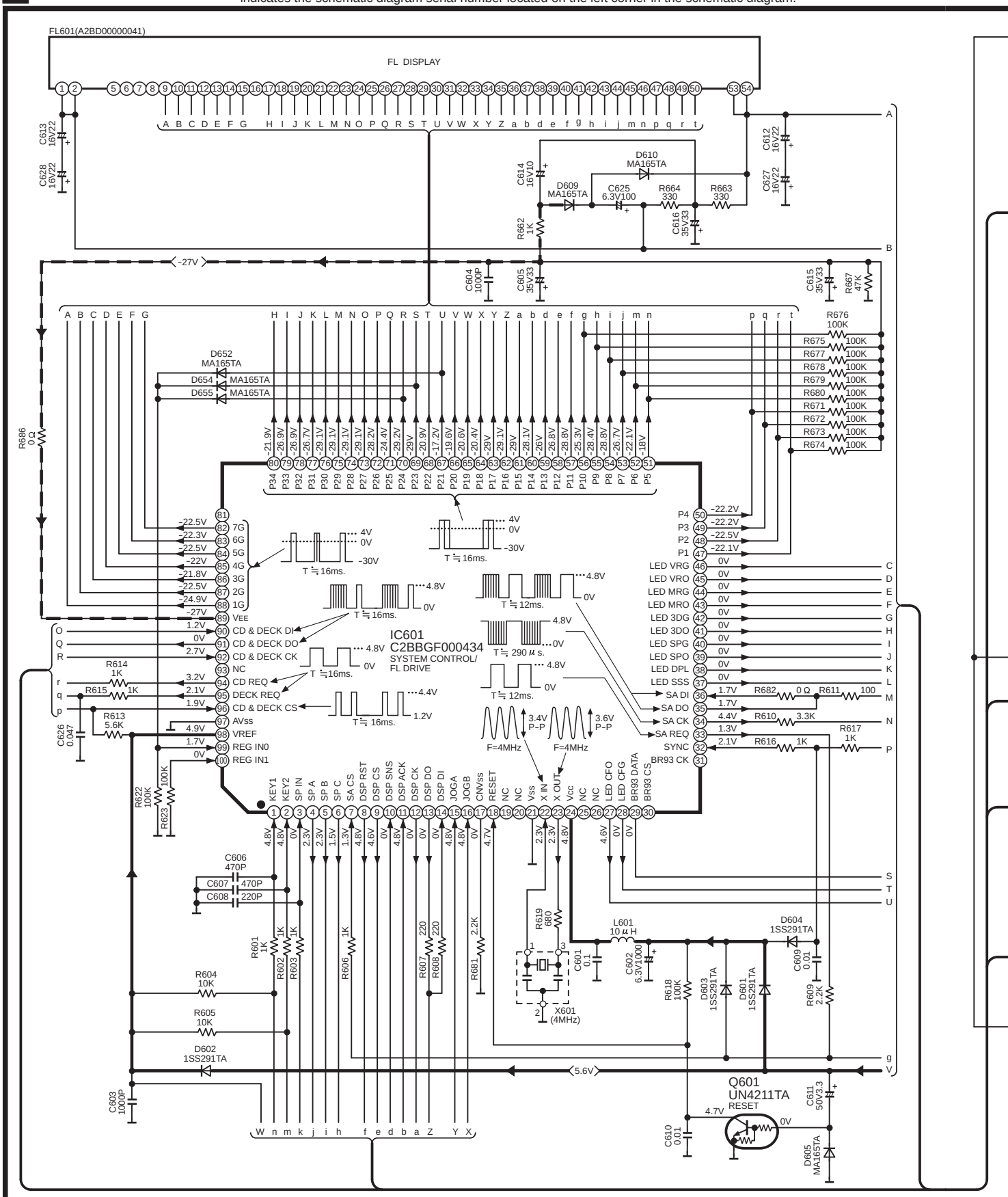
37 38 39 40 41 42 43 44 45 46 47 48

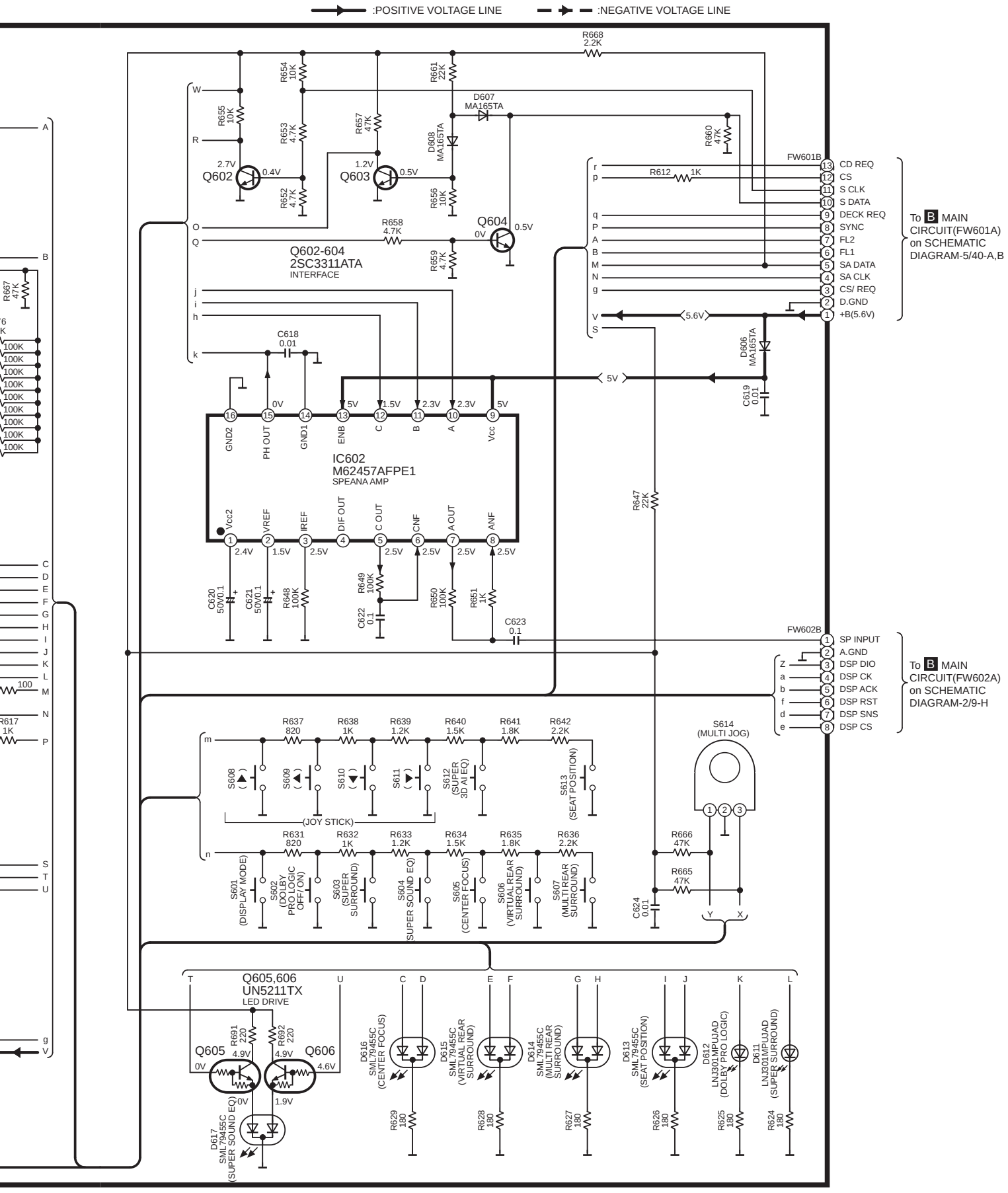
H G F E D C B A

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.



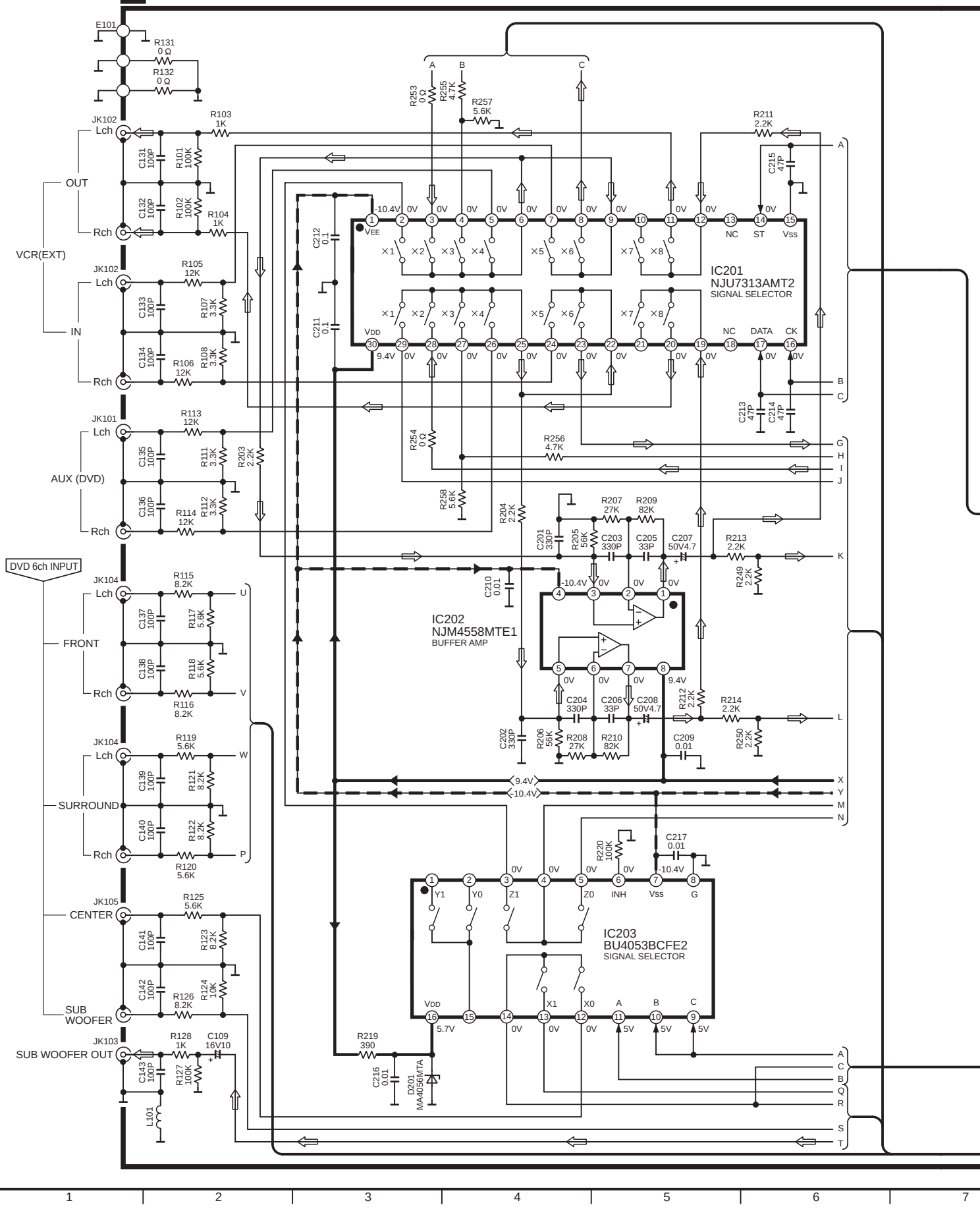


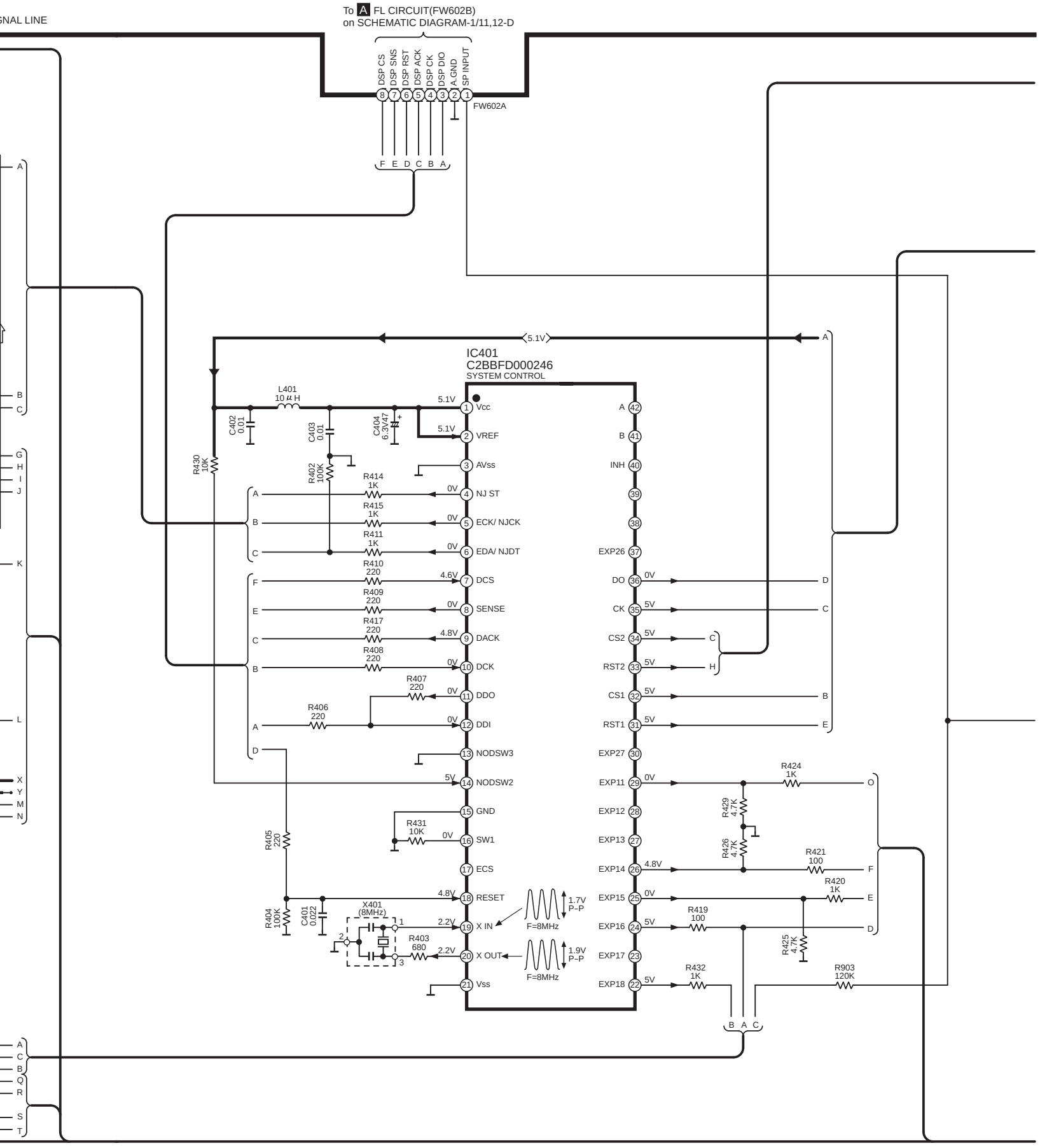
SH-EH790(E) FL CIRCUIT DIAGRAM

SCHEMATIC DIAGRAM-2

B MAIN CIRCUIT

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

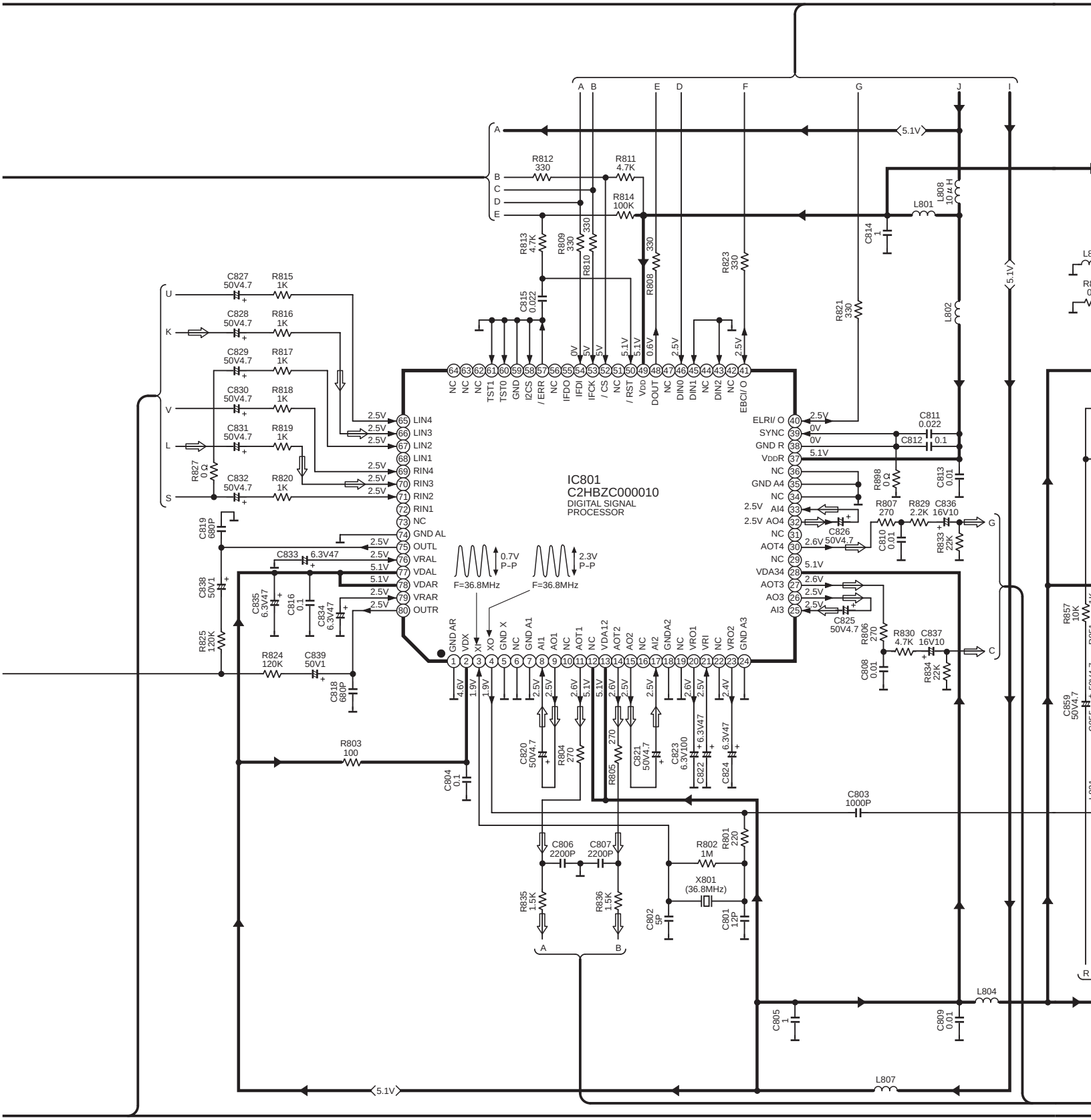


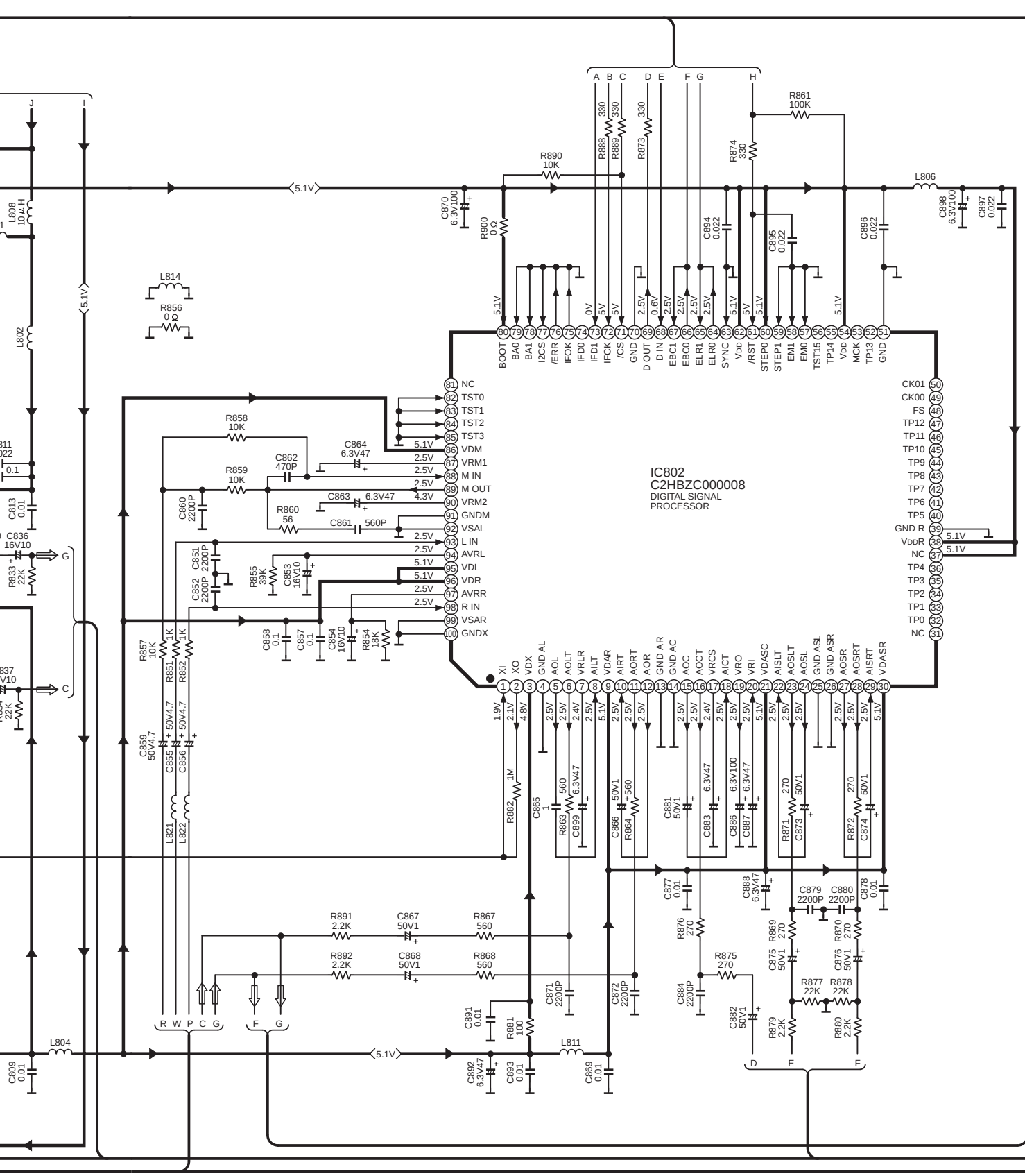

To A FL CIRCUIT(FW602B)
on SCHEMATIC DIAGRAM-1/11,12-D
DSP CS
DSP SNS
DSP RST
DSP ACK
DSP CK
DSP DIO
A.GND
SP INPUT
8 7 6 5 4 3 2 1
FW602A
F E D C B A
5.1V
IC401
C2BBFD000246
SYSTEM CONTROL
L401
10 μ H
C402 0.01
C403 0.01
C404 6.3V47
R430 10K
R402 100K
R414 1K
R415 1K
R411 1K
R410 220
R409 220
R417 220
R408 220
R407 220
R406 220
R405 220
R404 100K
C401 0.022
X401 (8MHz)
R403 680
R431 10K
1 Vcc
2 VREF
3 AVss
4 NJ ST
5 ECK/ NJCK
6 EDA/ NJDT
7 DCS
8 SENSE
9 DACK
10 DCK
11 DDO
12 DDI
13 NODSW3
14 NODSW2
15 GND
16 SW1
17 ECS
18 RESET
19 X IN
20 X OUT
21 Vss
5.1V
0V
4.6V
4.8V
2.2V
1.7V P-P
F=8MHz
1.9V P-P
F=8MHz
A 42
B 41
INH 40
39
38
EXP26 37
DO 36
CK 35
CS2 34
RST2 33
CS1 32
RST1 31
EXP27 30
EXP11 29
EXP12 28
EXP13 27
EXP14 26
EXP15 25
EXP16 24
EXP17 23
EXP18 22
5V
R424 1K
R429 4.7K
R426 4.7K
R421 100
R420 1K
R419 100
R425 4.7K
R432 1K
R903 120K
B A C

SCHEMATIC DIAGRAM-3

B MAIN CIRCUIT

:POSITIVE VOLTAGE LINE :CD PLAYBACK SIGNAL LINE

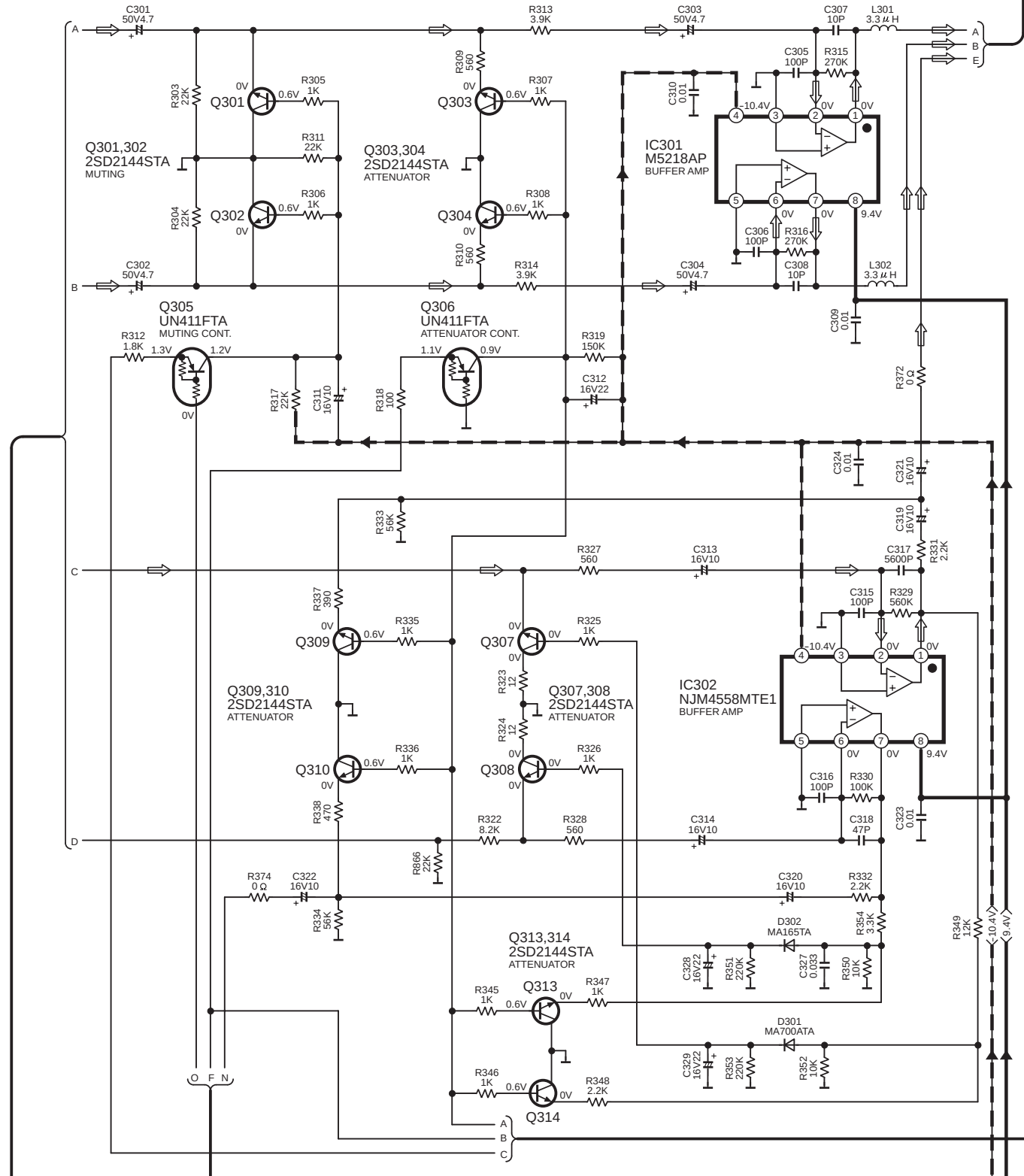


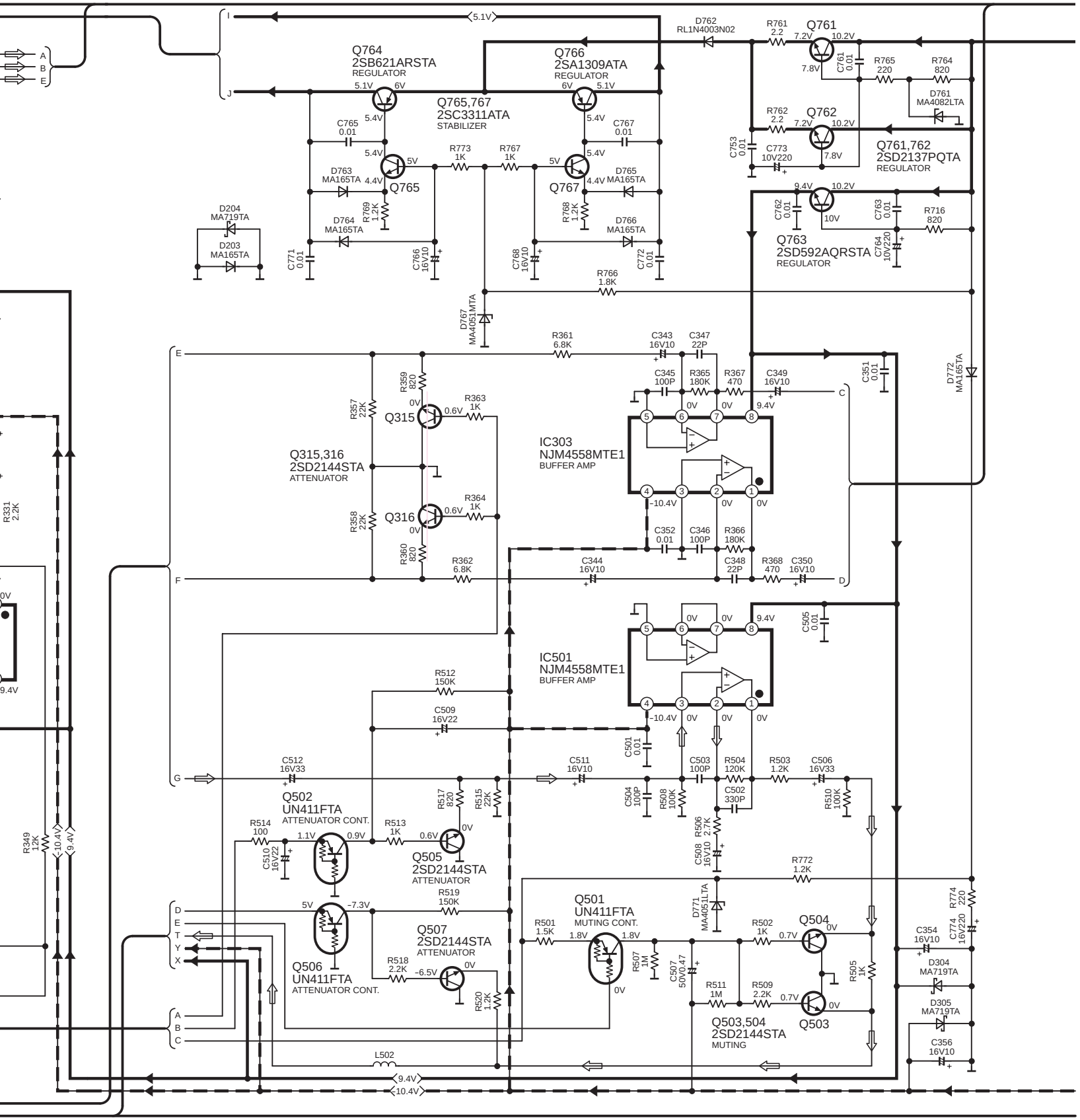

IC802
C2HBZC000008
DIGITAL SIGNAL
PROCESSOR
5.1V
L806
L814
R856
0 Ω
L802
L804
L811
R861
100K
R890
10K
R900
0 Ω
R874
330
R888
330
R889
330
R873
330
C870
6.3V100
C894
0.022
C895
0.022
C896
0.022
C898
6.3V100
C897
0.022
L808
10μH
R858
10K
R859
10K
C862
470P
C864
6.3V47
C863
6.3V47
C860
2200P
R860
56
C861
560P
C836
16V10
R833
22K
C851
2200P
C852
2200P
R855
39K
C853
16V10
C858
0.1
C857
0.1
C854
16V10
R854
18K
R857
10K
R851
1K
R852
1K
C859
50V4.7
C855
50V4.7
C856
50V4.7
L821
L822
C813
0.01
R882
1M
C865
1
R863
560
C899
6.3V47
C866
50V1
R864
560
C881
50V1
C883
6.3V47
C886
6.3V100
C887
6.3V47
R871
270
C873
50V1
R872
270
C874
50V1
C877
0.01
C888
6.3V47
C879
2200P
C880
2200P
C878
0.01
R876
270
R869
270
C875
50V1
R870
270
C876
50V1
R875
270
C884
2200P
R877
22K
R878
22K
C882
50V1
R879
2.2K
R880
2.2K
R891
2.2K
C867
50V1
R867
560
R892
2.2K
C868
50V1
R868
560
C871
2200P
C872
2200P
C891
0.01
R881
100
C892
6.3V47
C893
0.01
C869
0.01
C809
0.01
R W P C G
F G
D E F
A B C D E F G H
BOOT BA0 BA1 I2CS /ERR IFOK IFD0 IFD1 IFCK /CS GND D OUT D IN EBC1 EBC0 ELR1 ELR0 SYNC VDD /RST STEP0 STEP1 EM1 EM0 TST15 TP14 VDD MCK TP13 GND
NC TST0 TST1 TST2 TST3 VDM VRM1 M IN M OUT VRM2 GNDM VSAL L IN AVRL VDL VDR AVRR R IN VSAR GNDX
CK01 CK00 FS TP12 TP11 TP10 TP9 TP8 TP7 TP6 TP5 GND R VDDR NC TP4 TP3 TP2 TP1 TP0 NC
XI XO VDX GND AL AOL AOLT VRLR AILT VDAR AIRT AORT AOR GND AR GND AC AOC AOCT VRCS AICT VRO VRI VDASC AISLT AOSLT AOSL GND ASL GND ASR AOSR AOSRT AISRT VDASR

SCHEMATIC DIAGRAM-4

B MAIN CIRCUIT

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



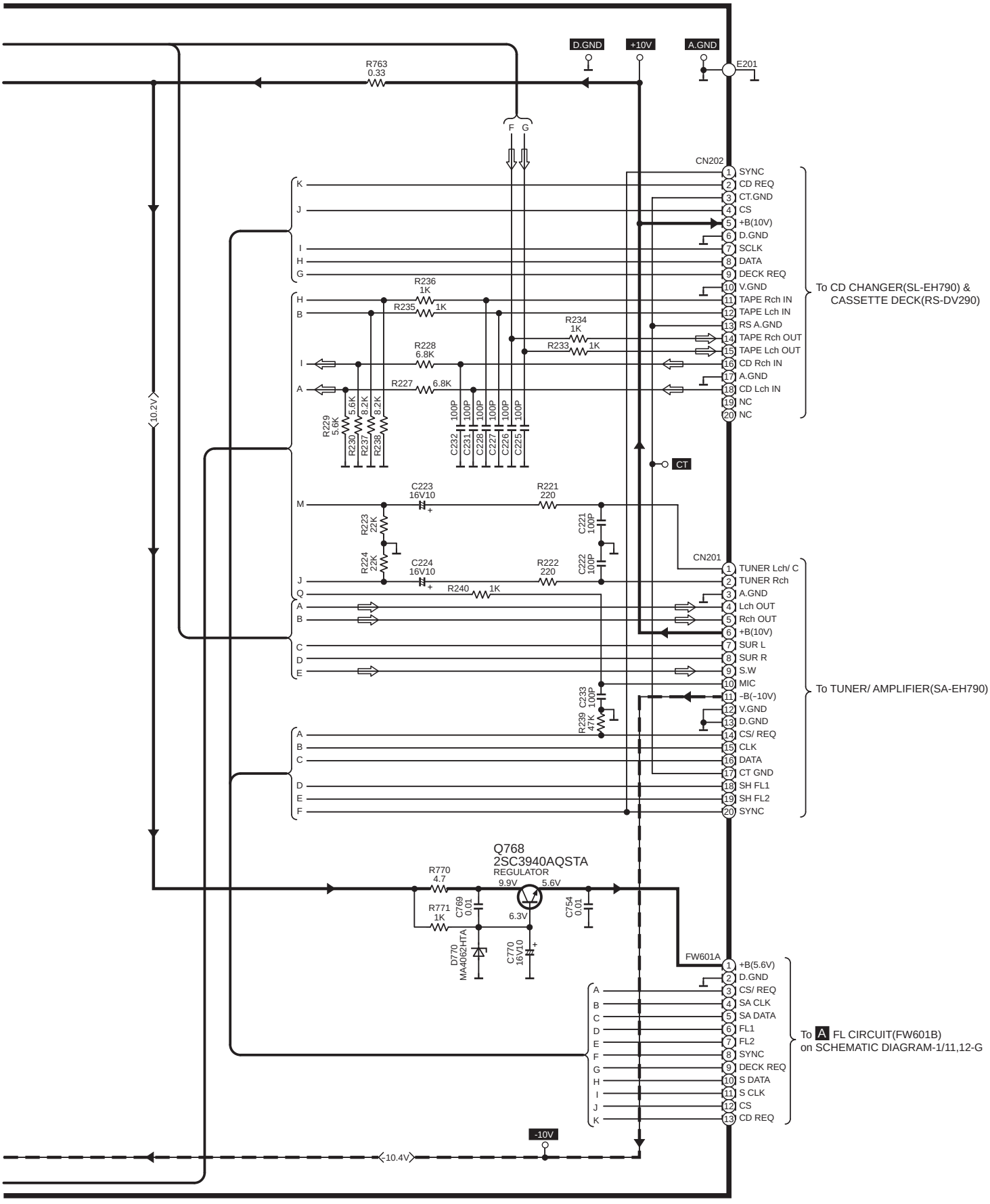


SH-EH790(E) MAIN CIRCUIT DIAGRAM

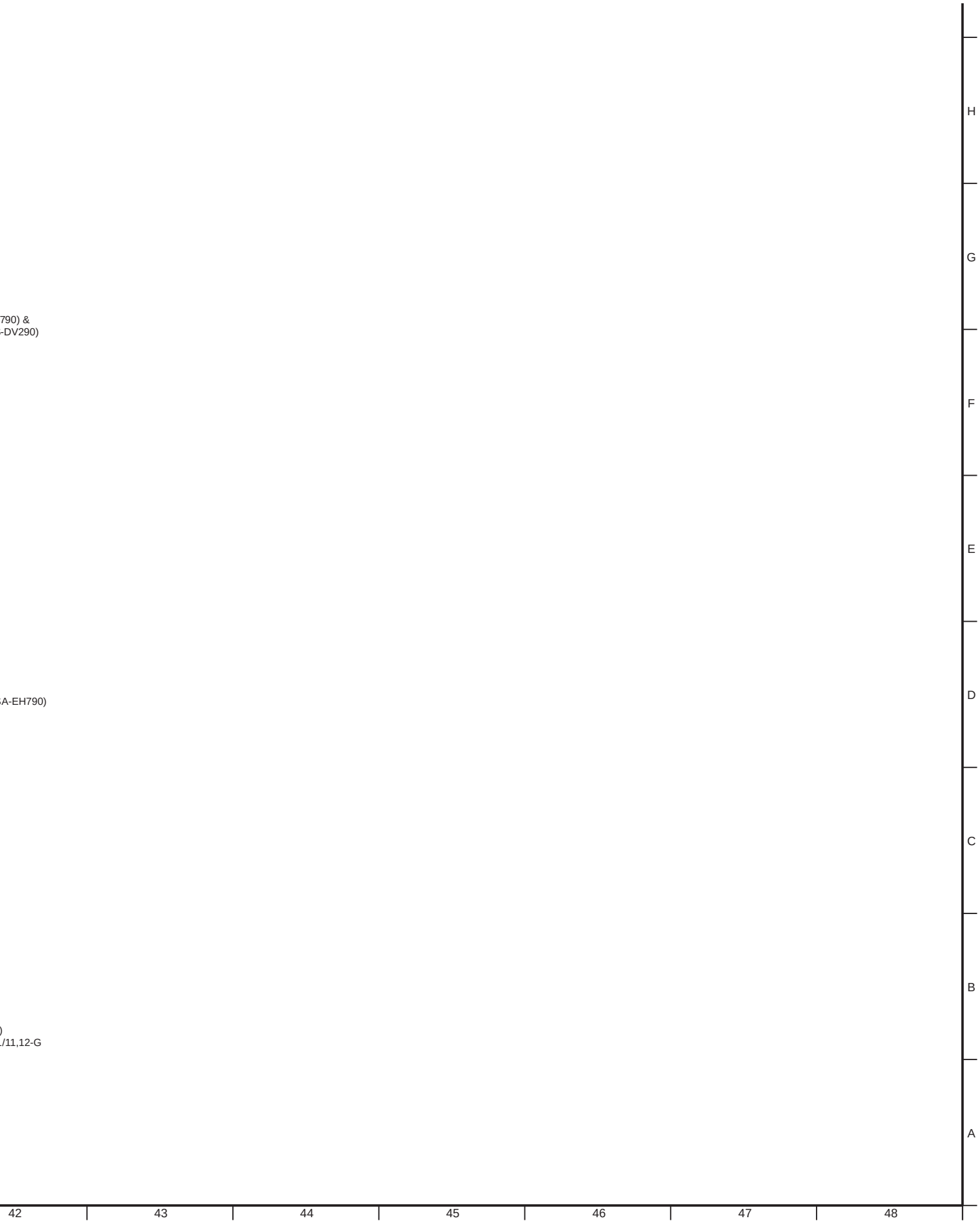
SCHEMATIC DIAGRAM-5

B MAIN CIRCUIT

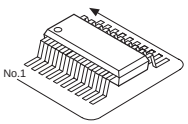
:POSITIVE VOLTAGE LINE
:NEGATIVE VOLTAGE LINE
:CD PLAYBACK SIGNAL LINE



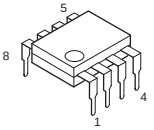
SH-EH790(E) MAIN CIRCUIT DIAGRAM


790) &
-DV290)
SA-EH790)
)
./11,12-G
H
G
F
E
D
C
B
A
42
43
44
45
46
47
48

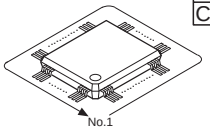
BU4053BCFE2	16PIN
M62457AFPE1	16PIN
NJU7313AMT2	30PIN
C2BBFD000246	42PIN
NJM4558MTE1	8PIN



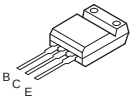
M5218AP

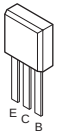


C2BBGF000434	100PIN
C2HBZC000010	80PIN
C2HBZC000008	100PIN



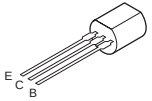
2SD2137PQTA



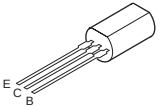


2SC3311ATA
UN4211TA
UN411FTA

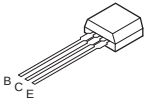
2SB621ARSTA
2SD592AQRSTA
2SA1309ATA



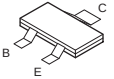
2SC3940AQSTA

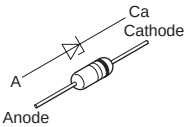


2SD2144STA



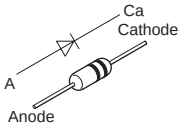
UN5211TX



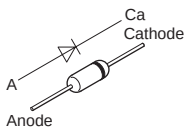


MA4051LTA
MA4062HTA
MA4082LTA
MA4051MTA
MA4056MTA

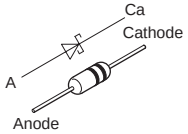
1SS291TA
MA700ATA



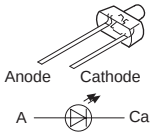
MA165TA



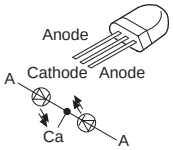
MA719TA



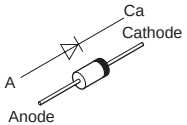
LNJ301MPUJAD

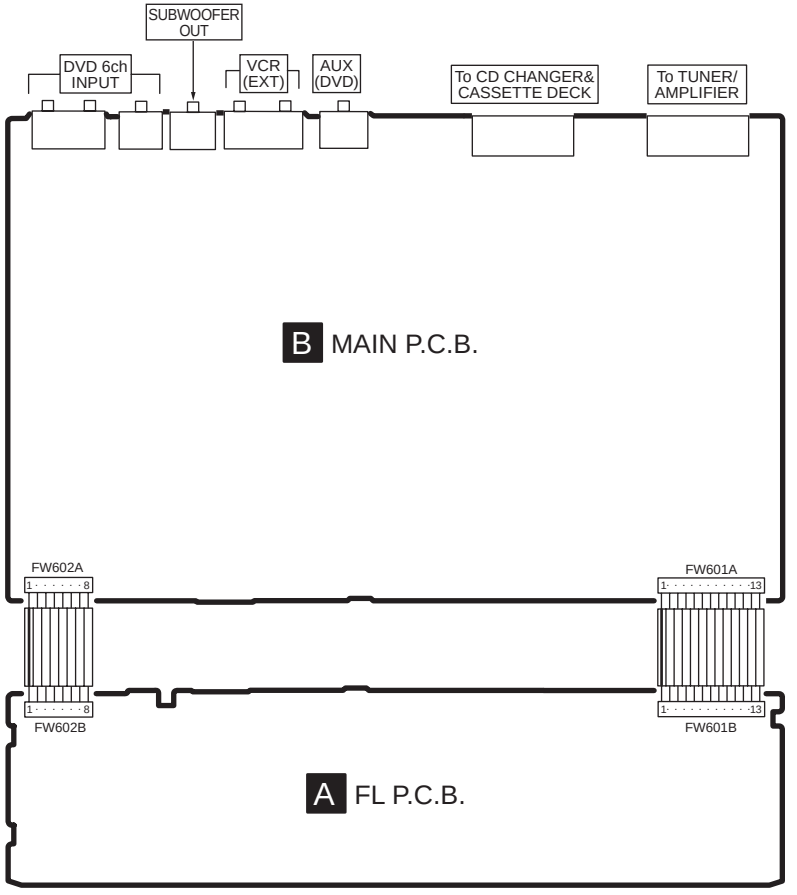


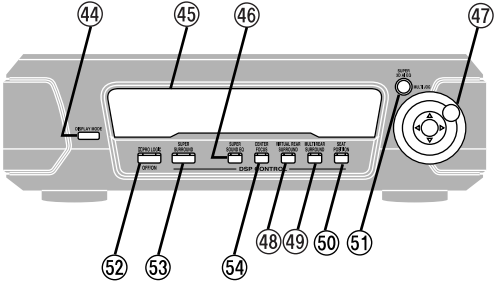
SML79455C



RL1N4003N02




SUBWOOFER OUT
DVD 6ch INPUT
VCR (EXT)
AUX (DVD)
To CD CHANGER& CASSETTE DECK
To TUNER/ AMPLIFIER
B MAIN P.C.B.
FW602A
1 · · · · · · 8
FW602B
1 · · · · · · 8
FW601A
1 · · · · · · · · · · 13
FW601B
1 · · · · · · · · · · 13
A FL P.C.B.



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

To CD CHANGER & CASSETTE DECK BLOCK DIAGRAM

CN202

SYNC 1
CD REQ 2
CT.GND 3
CS 4
+B(10V) 5 ← +B1
D.GND 6
SCLK 7 → Q602 INTERFACE
DATA 8 → Q603, 604 INTERFACE
DECK REQ 9
V.GND 10
TAPE Rch IN 11 → Rch
TAPE Lch IN 12
RS A.GND 13
TAPE Rch OUT 14 → Rch
TAPE Lch OUT 15
CD Rch IN 16 → Rch
A.GND 17
CD Lch IN 18
NC 19
NC 20

NJU7313AMT2
IC201
SIGNAL SELECTOR

AUX (DVD)
IN
VCR (EXT)
OUT
X1 X2 X3 X4 X5 X6 X8 X7
VEE 1 ← -B1
VDD 30 ← +B4
VSS 15
LEVEL SHIFT
LATCH CIRCUIT ST 14
SHIFT REGISTER CK 16
DATA 17

NJM4558MTE1
IC202
BUFFER AMP
+B4 -B1

BU4053BCFE2
IC203
SIGNAL SELECTOR
-B1 → 7 VSS
VDD 16 ← +B4
Z1 Z0 X0 X1
SW CONT.
8 G
A 11 B 10 C 9

DVD 6ch INPUT
CENTER

SPINP
REC L
DECK REQ
CD&DECK DO
CD&DECK DI
CD&DECK CK
CD& DECK CS
CD REQ
SYNC
SH SYNC
REC L1
DA
CLK
ST
C OUT
MIC
AV/6CH
ST/AV
SPINP
CCH/MIC
TU LIC

M62457AFPE1
IC602
SPE. ANALYZER AMP

ANF AOUT CNF C OUT DIF OUT IREF VREF Vcc/2
I REF GEN. V REF GEN. Vcc/2 GEN.
PEAK HOLD
MCU I/F SELECTOR
A B C ENB GND1 PH OUT Vcc GND2
10 11 12 13 14 15 9 16
D606 +B5
SP A SP B SP C SP IN

DECK REQ 95
CD&DECK DO 91
CD&DECK DI 90
CD&DECK CK 92
CD&DECK CS 96
CD REQ 94
SYNC 32

S614 (MULTI JOG)
JOG A 15
JOG B 16

KEY SWITCH (S601~613)
KEY1 1
KEY2 2

X601 (4MHz)
X IN 22
X OUT 23

C2BBGF000434
IC601
SYSTEM CONTROL / FL DRIVE

SP A 4
SP B 5
SP C 6
SP IN 3
RESET 18
1G~7G 82~88
REG IN1 100
P1~P34 47~80
REG IN0 99
VEE 89

Q601
+B5 → RESET

D652,654, 655
D609
D610
FL601
FL DISPLAY
FL2
FL1

C2HBZC000010
IC801
DIGITAL SIGNAL PROCESSOR

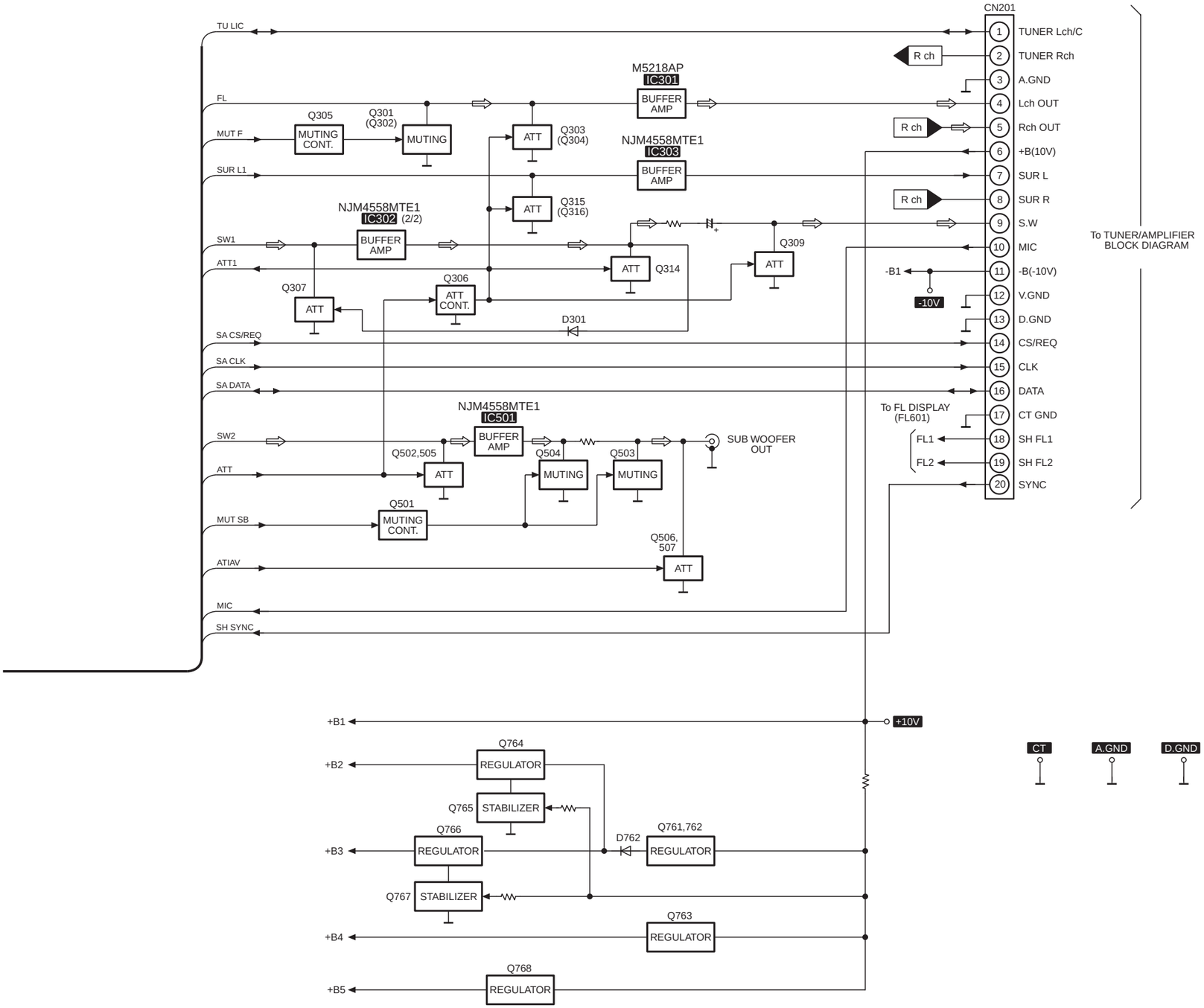
C2HBZC000008
IC802
DIGITAL SIGNAL PROCESSOR

C2BBGF000434
IC601
SYSTEM CONTROL / FL DRIVE

C2BBFD000246
IC401
SYSTEM CONTROL

NJM4558MTE1
IC302 (1/2)

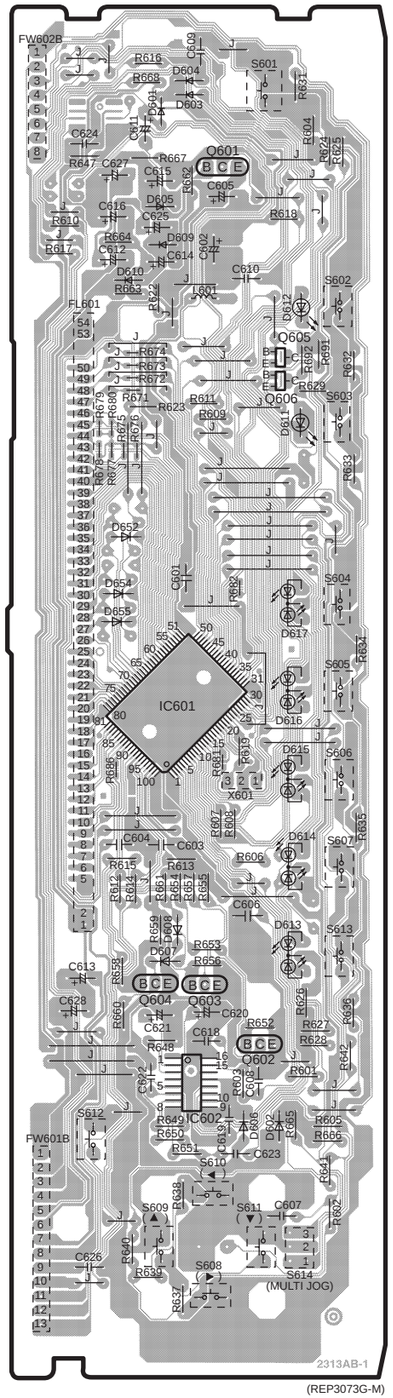
SH-EH790(E) BLOCK DIAGRAM



NOTES
- ⇨: CD PLAYBACK SIGNAL LINE
- ( ) indicates pin No. Right channel.

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

A FL P.C.B.



(REP3073G-M)

DISPLAY MODE

DOLBY PRO LOGIC OFF/ON

SUPER SURROUND

SUPER SOUND EQ

CENTER FOCUS

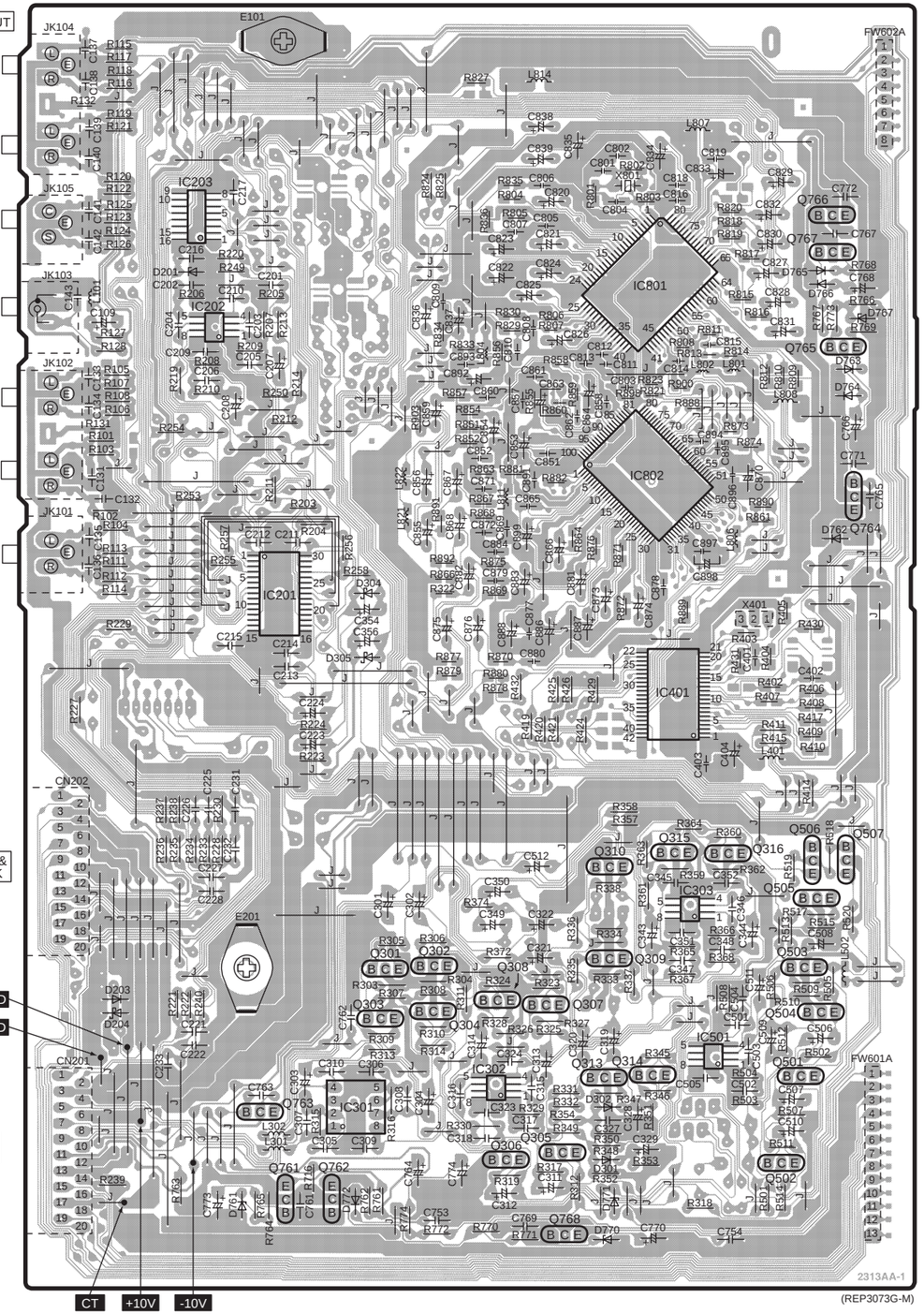
VIRTUAL REAR SURROUND

MULTI REAR SURROUND

SEAT POSITION

SUPER 3D AI EQ

B MAIN P.C.B.



(REP3073G-M)

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

FL601(A2BD00000041)
FL DISPLAY
IC601
C2BBGF000434
SYSTEM CONTROL/
FL DRIVE
IC602
M62457AFPE1
SPEANA AMP
Q601
UN4211TA
RESET
Q602-604
2SC3311ATA
INTERFACE
Q605,606
UN5211TX
LED DRIVE
X601
(4MHz)
To B MAIN CIRCUIT(FW601A) on SCHEMATIC DIAGRAM-5/40-A,B
To B MAIN CIRCUIT(FW602A) on SCHEMATIC DIAGRAM-2/9-H

SH-EH790(E) FL CIRCUIT DIAGRAM