AD0203066C2

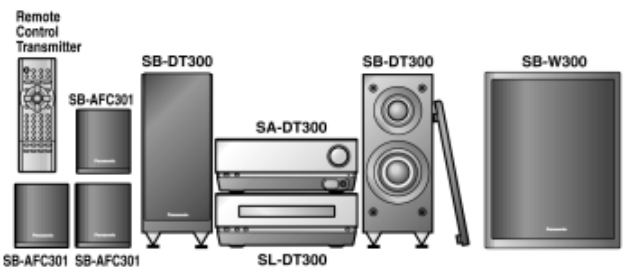
Service Manual

AV Control Receiver

SA-DT300E
SA-DT300EB
SA-DT300EG

Colour

(S).....Silver Type



System	SC-DT300
DVD/CD player	SL-DT300
AV control receiver	**SA-DT300**
Front speakers*	SB-DT300
Center speaker*	SB-AFC301
Surround speakers*	SB-AFC301
Subwoofer*	SB-W300

* : Made in Singapore.

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

Specifications

Amplifier section

Power output (For SA-DT300EB: at 240 V):	
RMS power output (THD 10 %, 6 Ω);	
FRONT (1 kHz both channels driven)	2 x 35 W
SURROUND (1 kHz both channels driven)	2 x 35 W
CENTER (1 kHz)	40 W
SUBWOOFER (100 Hz)	40 W
DIN power output (THD 1.0 %, 6 Ω);	
FRONT (1 kHz both channels driven)	2 x 28 W
SURROUND (1 kHz both channels driven)	2 x 27 W
CENTER (1 kHz)	35 W
SUBWOOFER (100 Hz)	35 W
Load impedance:	6 Ω

Pre amplifier section

Input terminal:	VCR (EXT), TV (AUX)
Output terminal:	VCR (EXT)

FM tuner section

Frequency range:	87.50 – 108.00 MHz (0.05 MHz steps)
Antenna terminal(s):	75 Ω (unbalanced)

AM tuner section

Frequency range:	522 – 1629 kHz (9 kHz steps) 520 – 1630 kHz (10 kHz steps)

Timer section

Sleep timer:	30/60/90 minutes
Wakeup timer:	5/7/9 hours

Headphone

Jack type:	3.5 mm STEREO
Load impedance:	16 - 32 Ω

General

Power supply:	
SA-DT300E, SA-DT300EG;	AC 230 V, 50 Hz
SA-DT300EB;	AC 230 – 240 V, 50 Hz
Power consumption:	80 W
Standby condition;	0.7 W
Dimensions (WxHxD):	190x73x360 mm
Mass:	4.0 kg

Notes: Specifications are subject to change without notice.
Mass and dimensions are approximate.
Total harmonic distortion is measured by the digital spectrum analyzer.

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⚠ 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.

Panasonic

1 Before Repairs

1. Turn off the power supply. Using a 10 Ω, 10 W resistor, connect both ends of power supply capacitors (C730, C750) 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 respectto supply voltage 230/240 V.

Power supply voltage	AC 230 V	AC 240 V
Consumed current 50 Hz	80 - 270 mA	75 - 265 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 SA-DT300E, SA-DT300EG
  (RJA0019-2X).....1 pc.

- AC mains lead for SA-DT300EB
  (RJA0053-3X).....1 pc.

- AM loop antenna
  (REK0063).....1 pc.

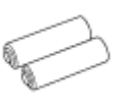
- FM indoor antenna
  (RSA0007).....1 pc.

- Video cable
  (RJL1P019B15).....1 pc.

- Speaker cables
  (REX1129).....2 pcs.

- Remote control transmitter
  (N2QAJB000049).....1 pc.

- Remote control batteries
  (R6/LR6, “AA”, UM-3).....2 pcs.
  Note: These are available on sales route.



- Antenna plug adaptor for SA-DT300EB only
  (SJP9009).....1 pc.

- RCAJ adaptor
  (VFA0151-2).....1 pc.

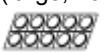
- Cleaning cloth for main unit

(RFE0088-1).....1 pc.

- Sheet of speaker-cord stickers
  (RQCA0950).....1 pc.

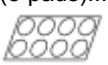
- Sheet of speaker feet*1
  (small, 25 feet).....1 pc.

- Sheet of speaker feet*1
  (large, 10 feet).....1 pc.



- Spikes*1.....4 pcs.

- Sheet of speaker pads*1
  (8 pads).....1 pc.



Note:

The accessories (indicated *1) are packed with SB-DT300.

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.

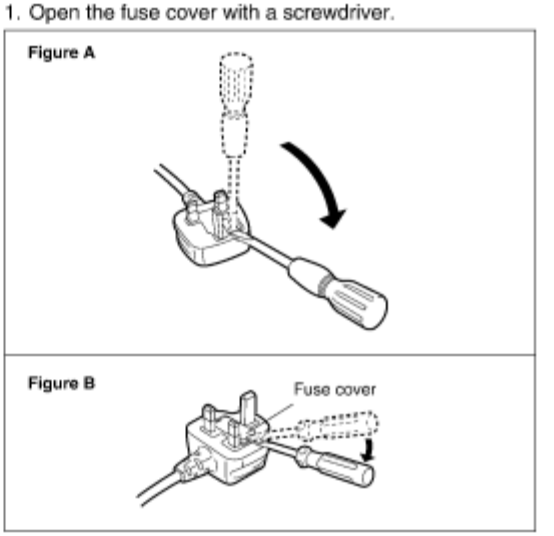
Before use

Remove the connector cover.

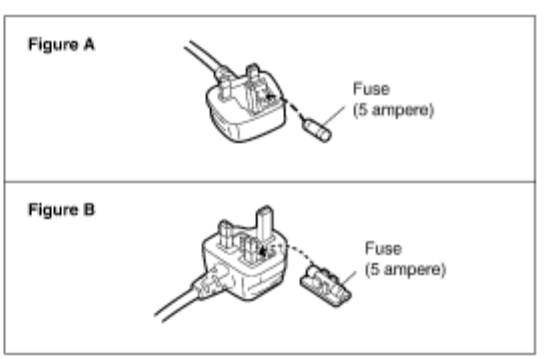
How to replace the fuse

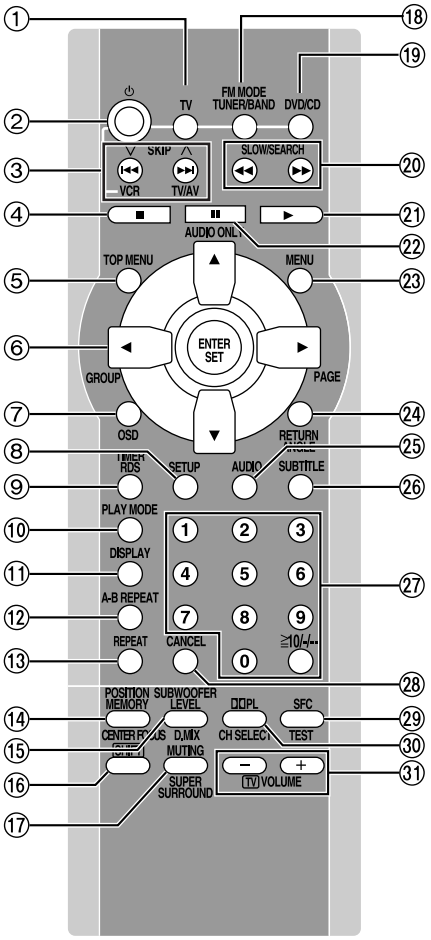
The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.
Illustrations may differ from actual AC mains plug.

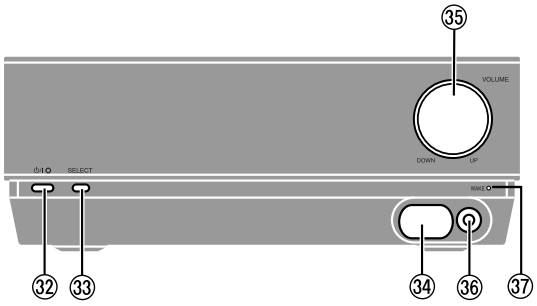
1. Open the fuse cover with a screwdriver.



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







Remote control

① **TV button [TV]**
② **Standby/on button [⏻]**
③ **Skip, Channel select, VCR, TV/AV buttons [|◀◀, ▶▶|, ∨, ∧, VCR, TV/AV]**
④ **Stop buttons [■]**
⑤ **Top menu button [TOP MENU]**
⑥ **Cursor buttons [▲, ▼, ◀, ▶]/ Enter, SET button [ENTER, SET]**
These buttons have the following functions.
[▲]:[AUDIO ONLY]
[◀]:[GROUP]
[▶]:[PAGE]
⑦ **GUI display button [OSD]**
⑧ **Setting button [SETUP]**
⑨ **RDS, Timer button [RDS, TIMER]**
⑩ **Play mode button [PLAY MODE]**
⑪ **FL display button [DISPLAY]**
⑫ **A-B Repeat button [A-B REPEAT]**
⑬ **Repeat button [REPEAT]**
⑭ **Position memory, Center focus button [POSITION MEMORY, CENTER FOCUS]**
⑮ **Subwoofer level, Down mix button [SUBWOOFER LEVEL, D.MIX]**
⑯ **Shift button [SHIFT]**

> To operate functions labeled in orange, press [SHIFT] and the corresponding button at the same time.

⑰ **Muting, Super surround button [MUTING, SUPER SURROUND]**
⑱ **Tuner/Band, FM mode button [TUNER/BAND, FM MODE]**
⑲ **DVD/CD button [DVD/CD]**
⑳ **Slow/Search buttons [◀◀, ▶▶, SLOW/SEARCH]**
㉑ **Play button [▶]**
㉒ **Pause button [❚❚]**
㉓ **Menu button [MENU]**
㉔ **Return, Angle button [RETURN, ANGLE]**
㉕ **Audio button [AUDIO]**
㉖ **Subtitle button [SUBTITLE]**
㉗ **Numbered buttons [1–9, 0, ≧10/-/--]**
㉘ **Cancel button [CANCEL]**
㉙ **Sound field control, Test button [SFC, TEST]**
㉚ **Dolby Pro Logic, Speaker channel select button [DDPL, CH SELECT]**
㉛ **Volume, TV Volume buttons [–,+ ,TV VOLUME]**

AV control receiver

㉜ **Standby/on switch [⏻/I]**
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
Standby/on indicator
When the unit is connected to the AC mains supply, this indicator lights red in standby mode and lights green when the unit is turned on.
㉝ **Select button [SELECT]**
㉞ **Remote control signal sensor**
㉟ **Volume control [VOLUME, DOWN, UP]**
㊱ **Headphone jack [🎧]**
㊲ **Wake timer indicator [WAKE]**

6 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.

6.1 To display the malfunction code

U70 DVD:
Automatically displays on the AV control receiver when a malfunction occurs. Refer to Fig. 6-1.
F61:
Automatically displays on the AV control receiver when a malfunction occurs. Refer to Fig. 6-1.

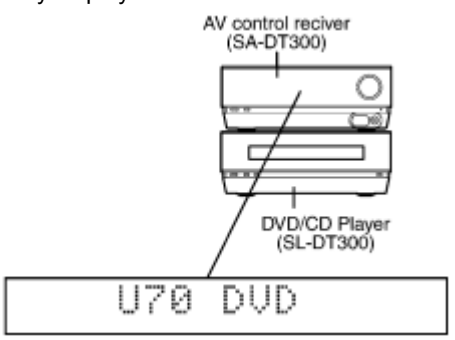


Fig. 6-1.

6.2 To return to the normal display

1. **For U70 DVD**
   - Press some operation buttons on the AV control receiver.
   - To re-display the code, switch the power off (Standby/on 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.

6.3 Display contents

6.3.1 U70 DVD

- **Problem or condition**
  A bus-line communications error has occurred as a result of the flat cable being inserted incorrectly, thus preventing the system from operating.
  - If U70 is displayed on the AV control receiver, DVD/CD player cannot be operated by remote control.

- **Correction Procedure**

1. To check for correct insertion of flat cable.
   - Insert connector until you hear a click.
   - Make sure the white side of the cable is on your right side. Refer to Fig. 6-2.

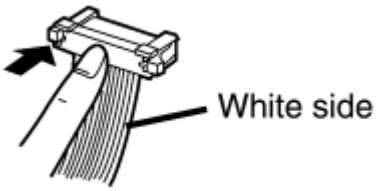


Fig. 6-2.

2. Breakage of flat cable. (Check and replace.)
3. If the problem is not corrected by items 1 and 2 above, this indicates a faulty IC.
   SA-DT300:
   IC941 (C2CBHG000095)
   SL-DT300:
   IC402 (C2BBFD000350)
   Check these ICs and replace.

6.3.2 F61

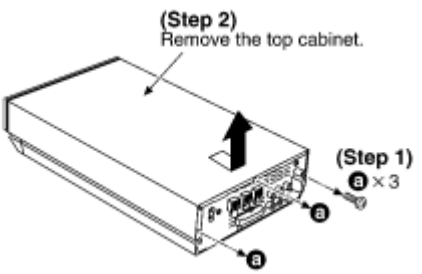
- **Problem or condition**
  When the Standby/on switch is switched on, it automatically switches back off, making it impossible to switch power on.

- **Correction procedure**
  Faulty AV control receiver (SA-DT300) power supply line or when a DC voltage is applied to speaker terminals. (Check and replace.)

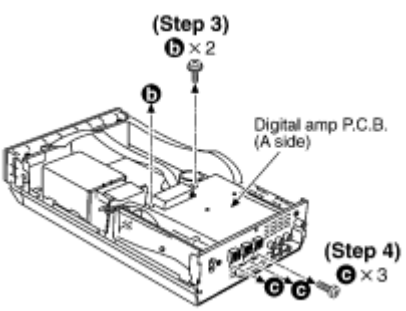
7 Operation Checks and Component Replacement Procedures

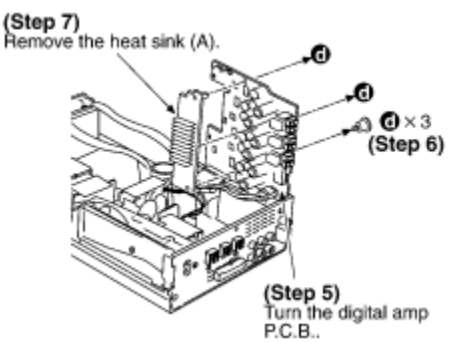
- **This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.**
- **For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.**

7.1 Checking for the digital amp P.C.B.

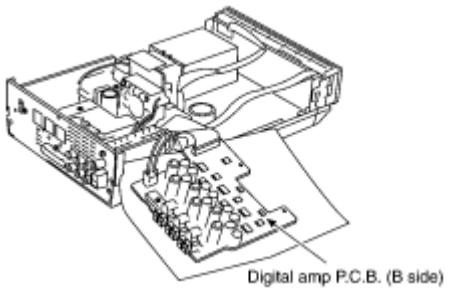


- **Check the digital amp P.C.B. (A side) as shown below.**



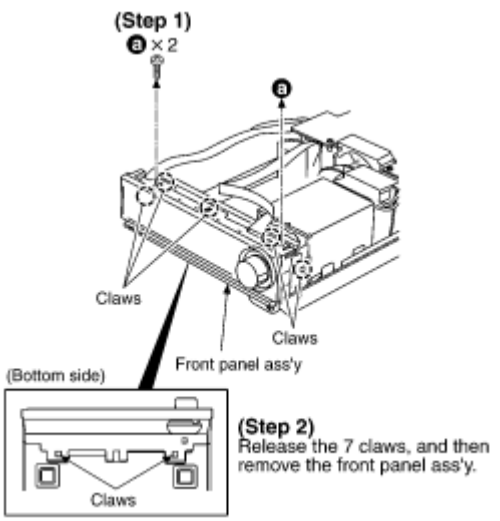


- **Check the digital amp P.C.B. (B side) as shown below.**

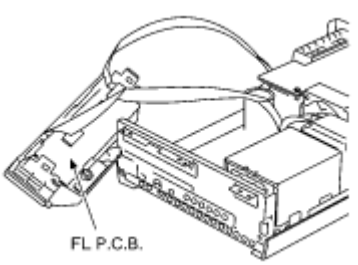


7.2 Checking for the FL P.C.B.

- Follow the **(Step 1)** , **(Step 2)** of item 7.1.

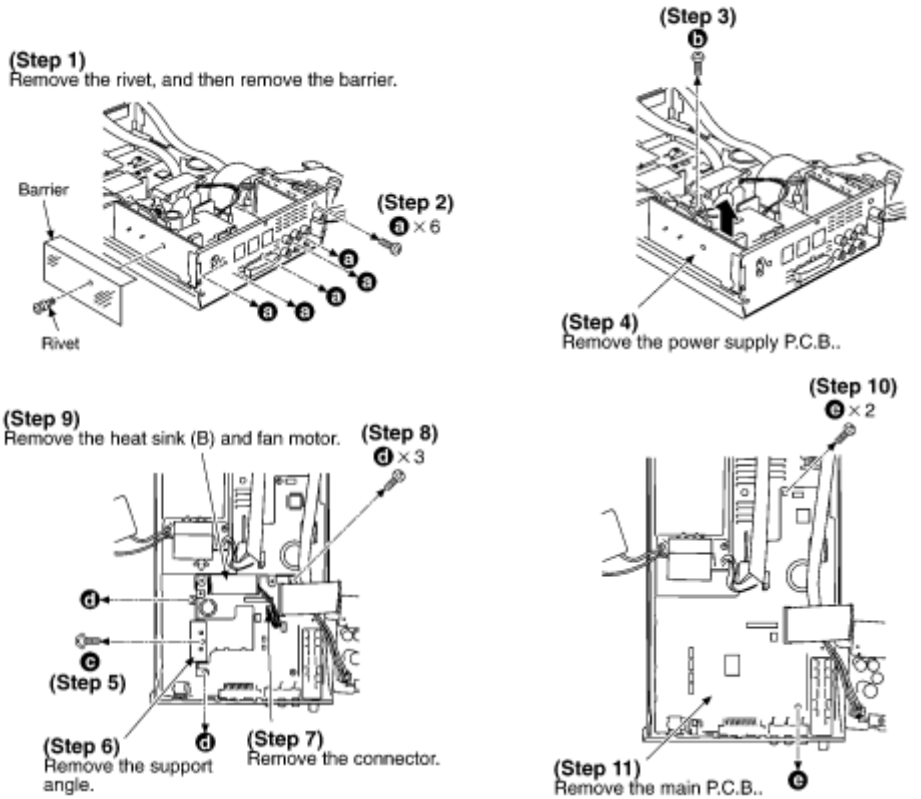


- **Check the FL P.C.B. as shown below.**

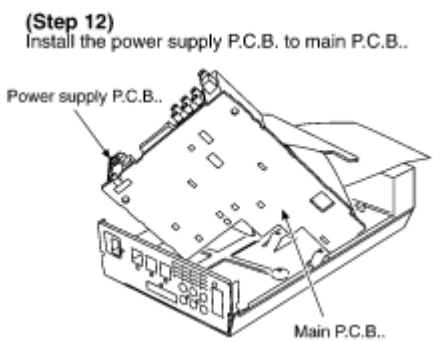


7.3 Checking for the main P.C.B.

- Follow the **(Step 1)** - **(Step 7)** of item 7.1.

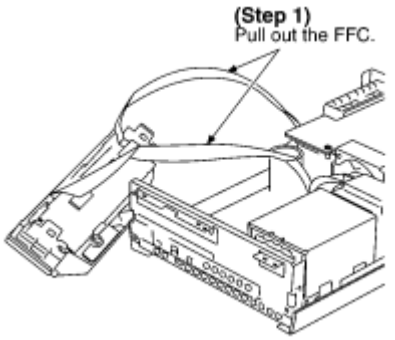


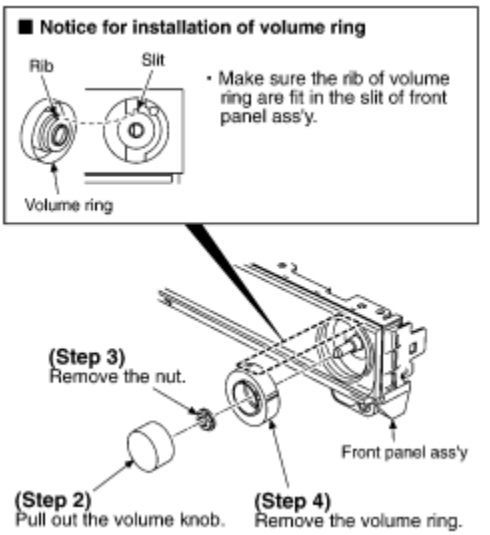
- **Check the main P.C.B. as shown below.**

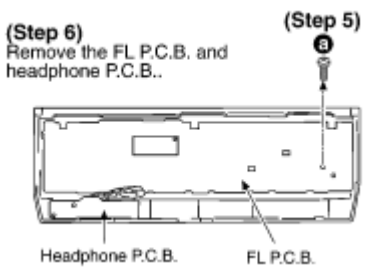


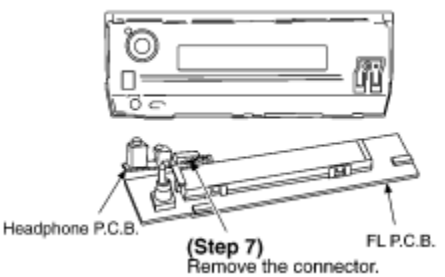
7.4 Replacement for the FL P.C.B., headphone P.C.B. and operation P.C.B.

- Follow the **(Step 1)** , **(Step 2)** of item 7.1.
- Follow the **(Step 1)** , **(Step 2)** of item 7.2.


(Step 1)
Pull out the FFC.

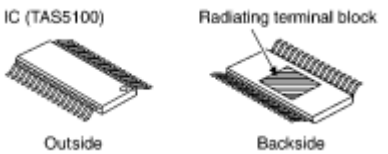

■ Notice for installation of volume ring
Rib
Slit
• Make sure the rib of volume ring are fit in the slit of front panel ass'y.
Volume ring
(Step 3)
Remove the nut.
Front panel ass'y
(Step 2)
Pull out the volume knob.
(Step 4)
Remove the volume ring.


(Step 6)
Remove the FL P.C.B. and headphone P.C.B..
(Step 5)
Headphone P.C.B.
FL P.C.B.

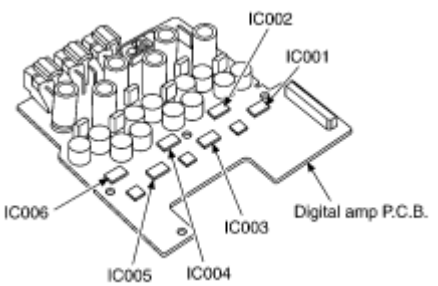

Headphone P.C.B.
(Step 7)
Remove the connector.
FL P.C.B.

8 How to replace IC (TAS5100) with reading terminal block

- IC (TAS5100) used in the digital amp P.C.B. has a radiating plate on its backside (the side in contact with the P.C.B.), the radiating terminal block having been soldered to the pattern part of the P.C.B..
  For the replacement of the IC,the following instructions should be observed.

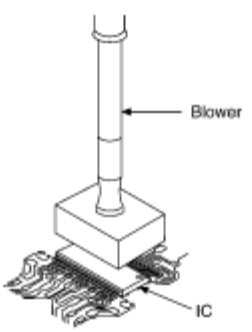


- IC001 - IC006 shown in the drawing below are ICs each equipped with a radiating terminal block.

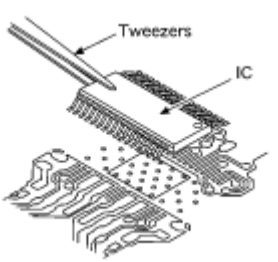


[Disassembly]

1. Use a blower and heat the IC (about 20 seconds).

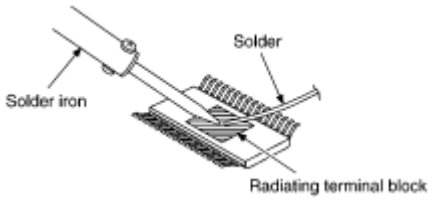


2. In about the 20 seconds, the legs of the IC begin fusing. Then remove the IC by use of a pair of tweezers.

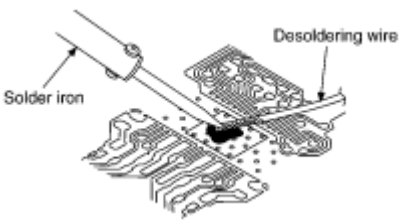


[Reassembly]

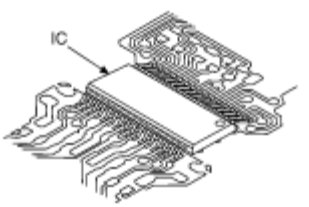
1. Put solder-paste thinly and evenly over the radiating plate on the bottom of a new IC for replacement.



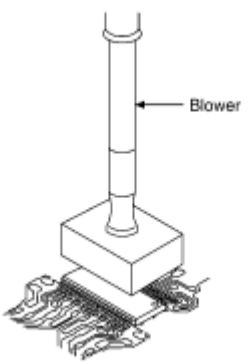
2. Clean out the former solder that has been sticking to the pattern part on the base plate.



3. Place the IC on the pattern part of the base plate.
   (Make the IC legs and pattern part meet completely.)
4. Solder the IC legs first.



5. Use the blower and heat the IC (about 20 seconds).



9 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.9-1.

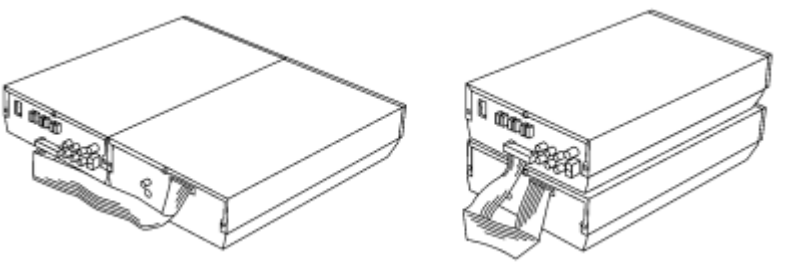


Fig. 9-1.

10 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:
Select switch (SELECT)
VR901:
Volume control VR (VOLUME)

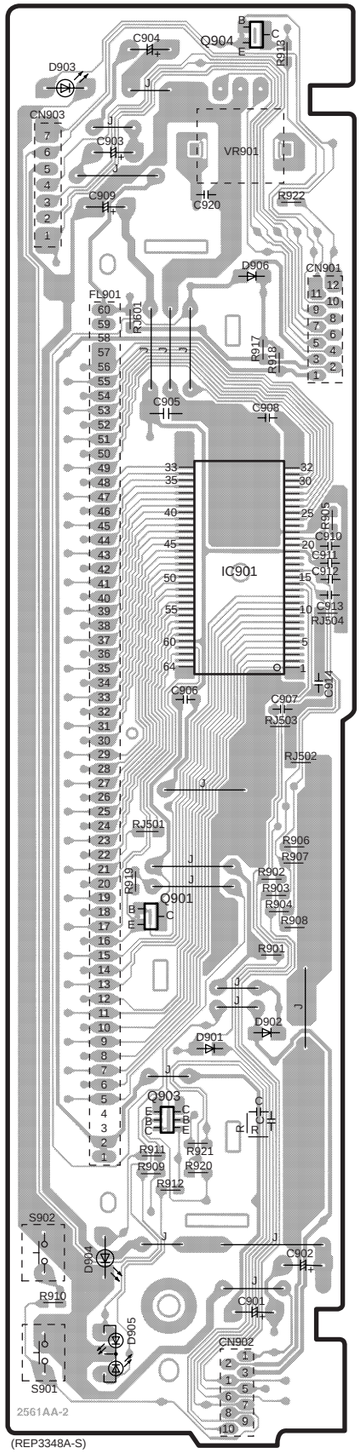
- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on theinternal impedance of the DC circuit tester.
  No mark
  : Power 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
  : AM signal line
  : AM OSC signal line
  : FM signal line
  : FM OSC 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.

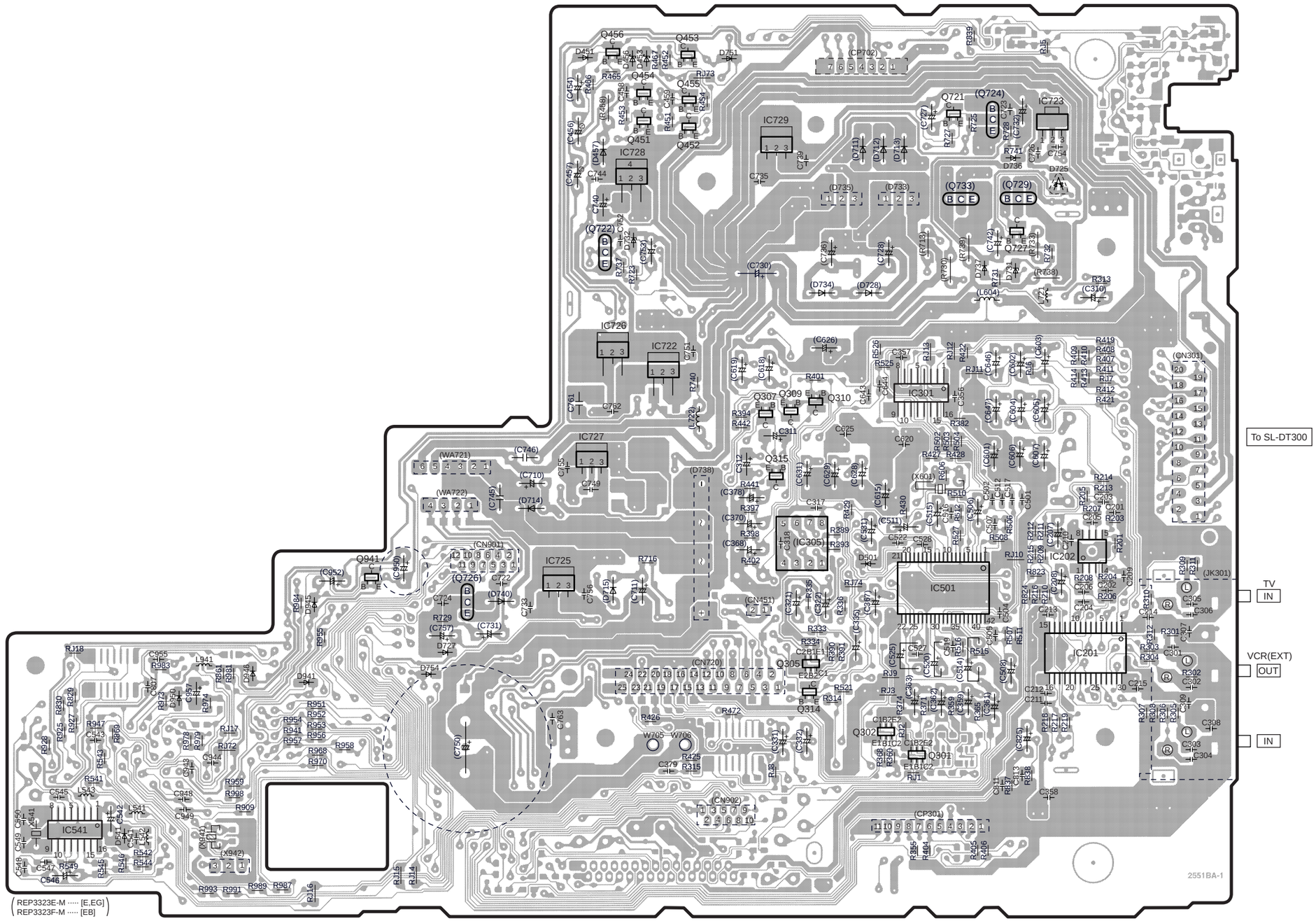
Note: This printed circuit board diagram may be modified at any time with the development of new technology.

A FL P.C.B.



(REP3348A-S)

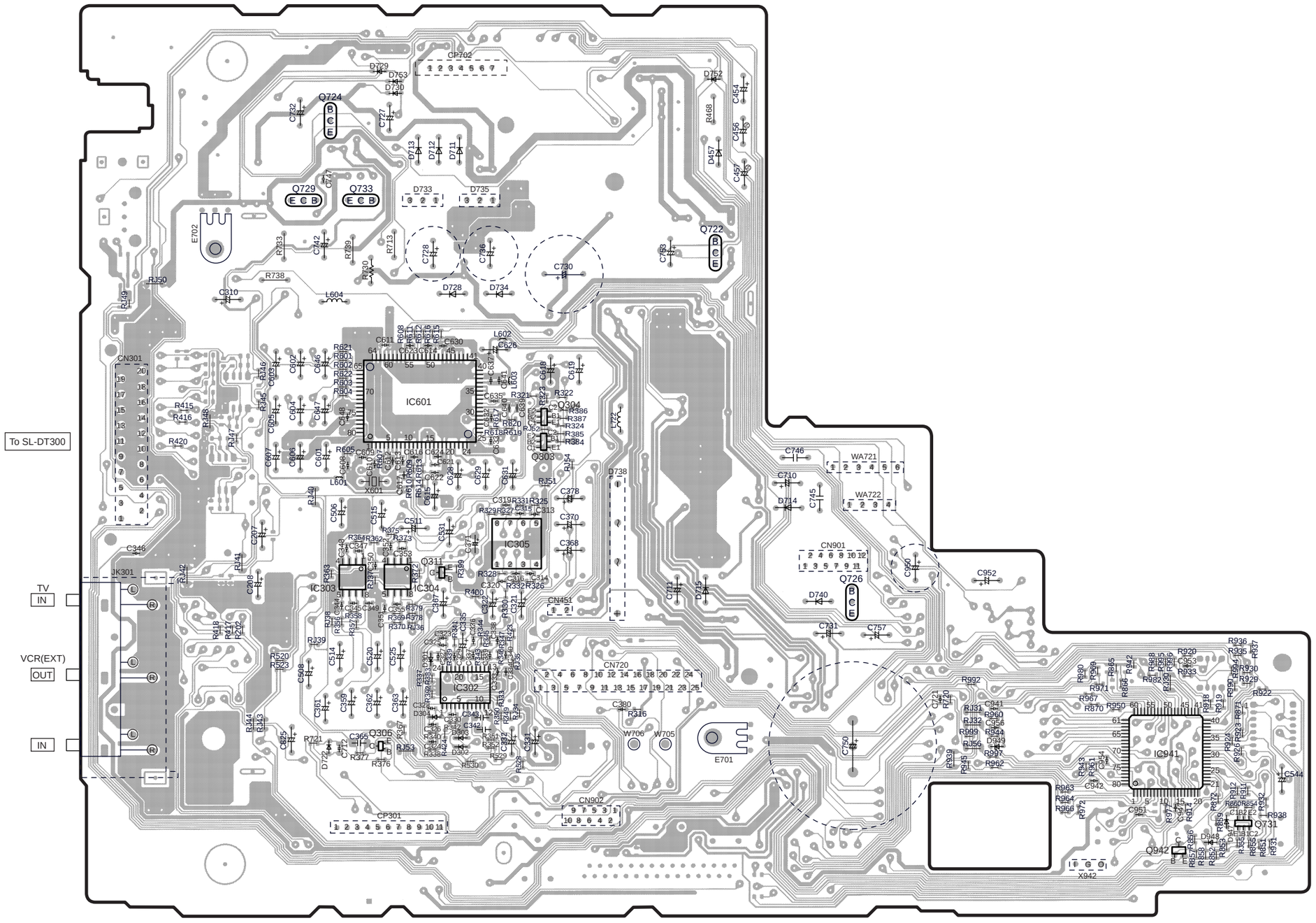
C MAIN P.C.B. (SIDE:A)



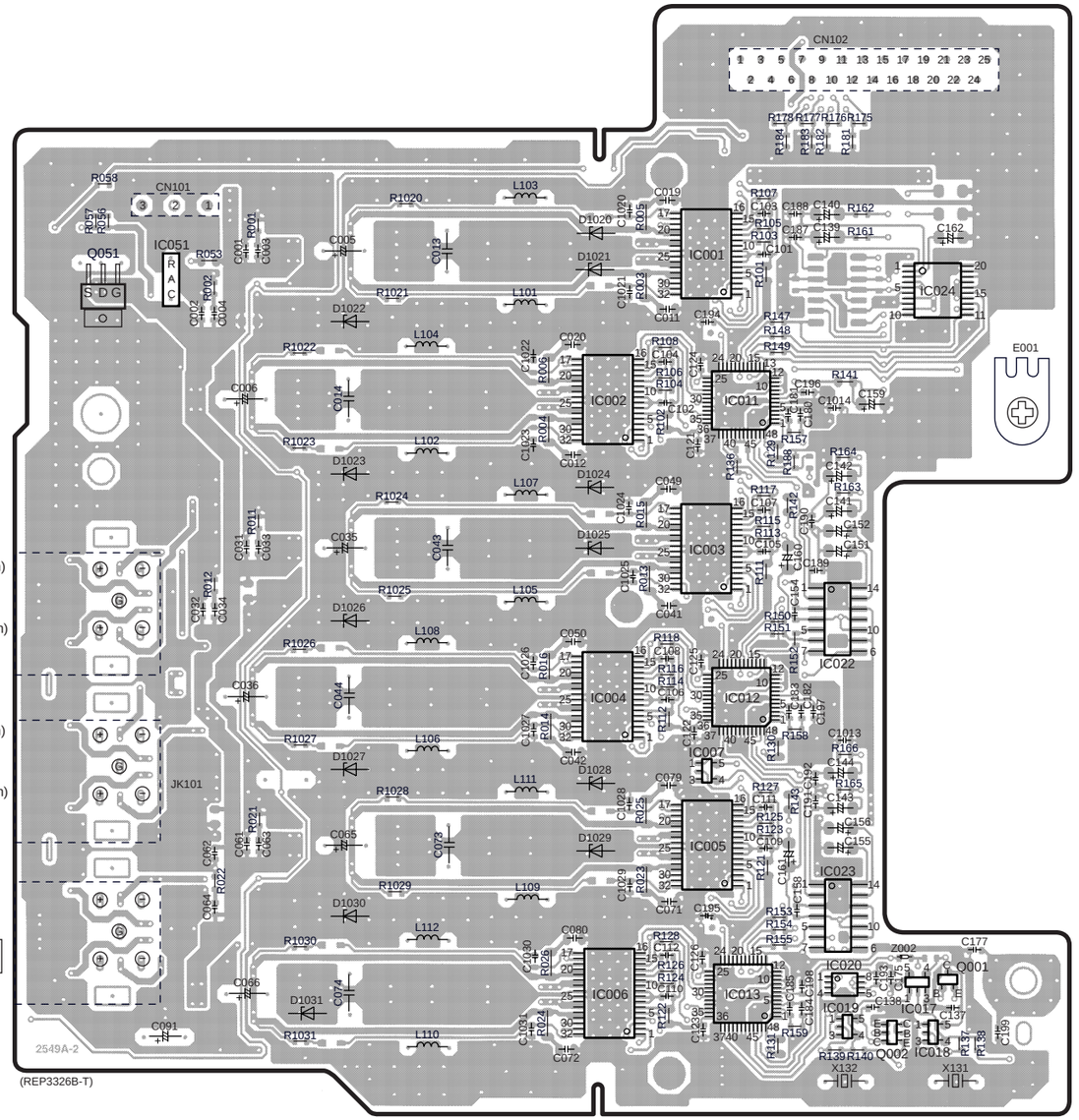
(REP3323E-M ····· [E,EG]
REP3323F-M ····· [EB])

SA-DT300(E,EB,EG) FL, MAIN(SIDE:A) P.C.B.

C MAIN P.C.B. (SIDE:B)

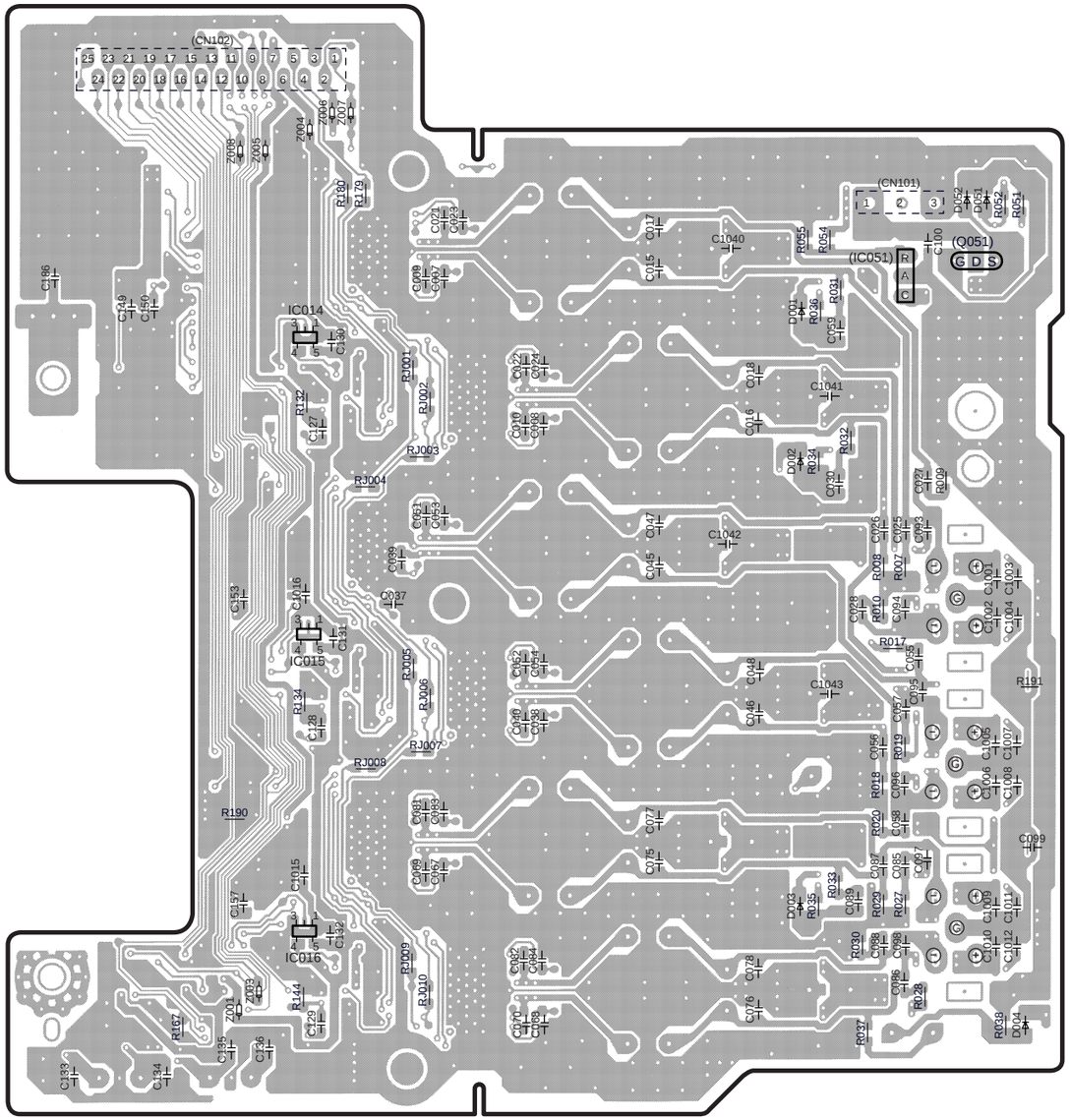


D DIGITAL AMP P.C.B. (SIDE:A)

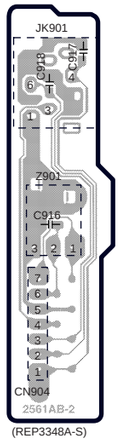


SPEAKERS
- FRONT HF/LF (L ch) (R ch)
- SURROUND (L ch) (R ch)
- CENTER
- SUB WOOFER

D DIGITAL AMP P.C.B. (SIDE:B)

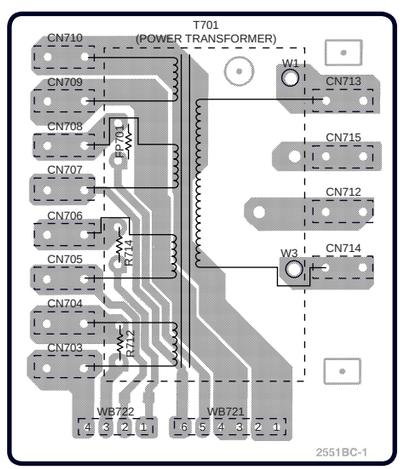


B HEADPHONE P.C.B.



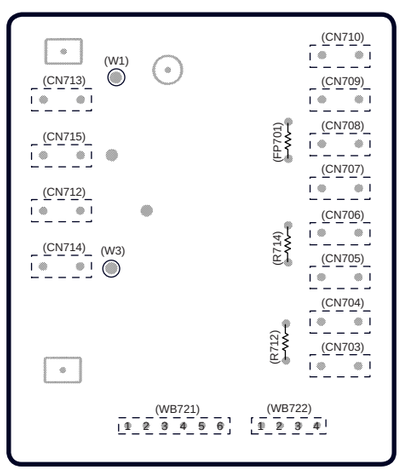
(REP3348A-S)

E POWER TRANSFORMER P.C.B. (SIDE:A)

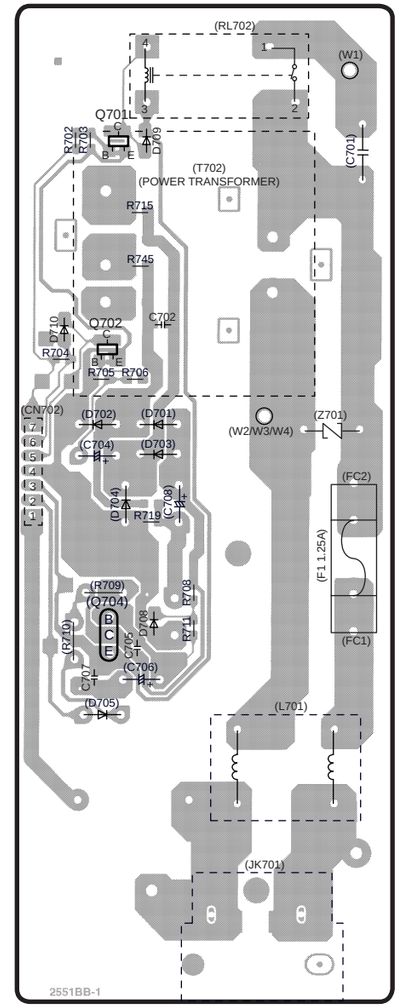


(REP3323E-M ····· [E,EG]
REP3323F-M ····· [EB])

E POWER TRANSFORMER P.C.B. (SIDE:B)

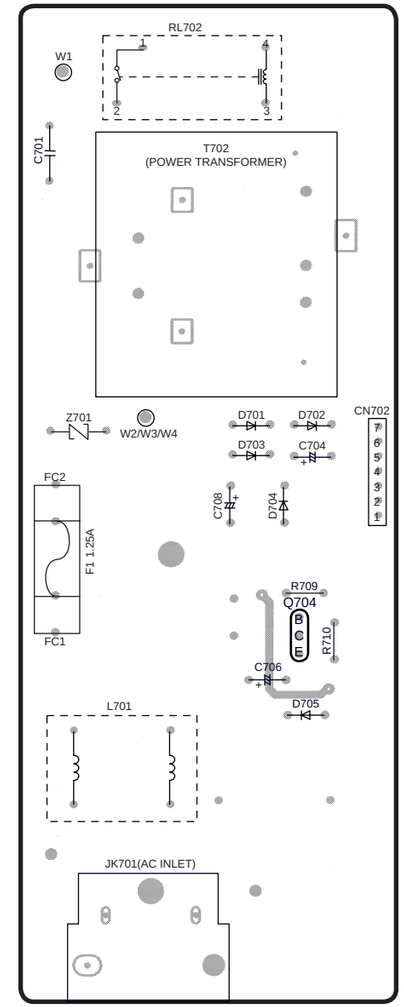


F AC IN P.C.B. (SIDE:A)

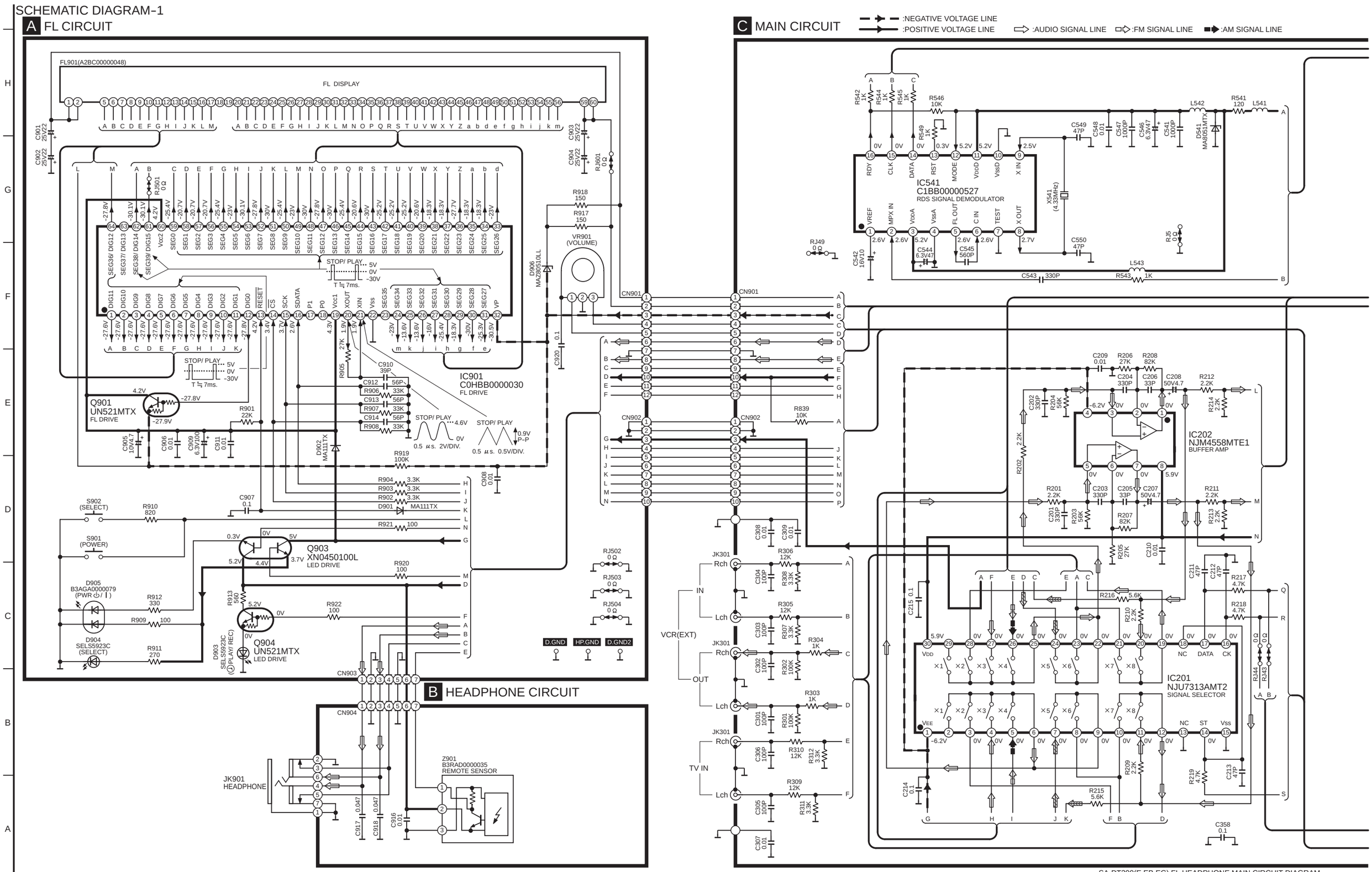


(REP3323E-M ····· [E,EG]
REP3323F-M ····· [EB])

F AC IN P.C.B. (SIDE:B)



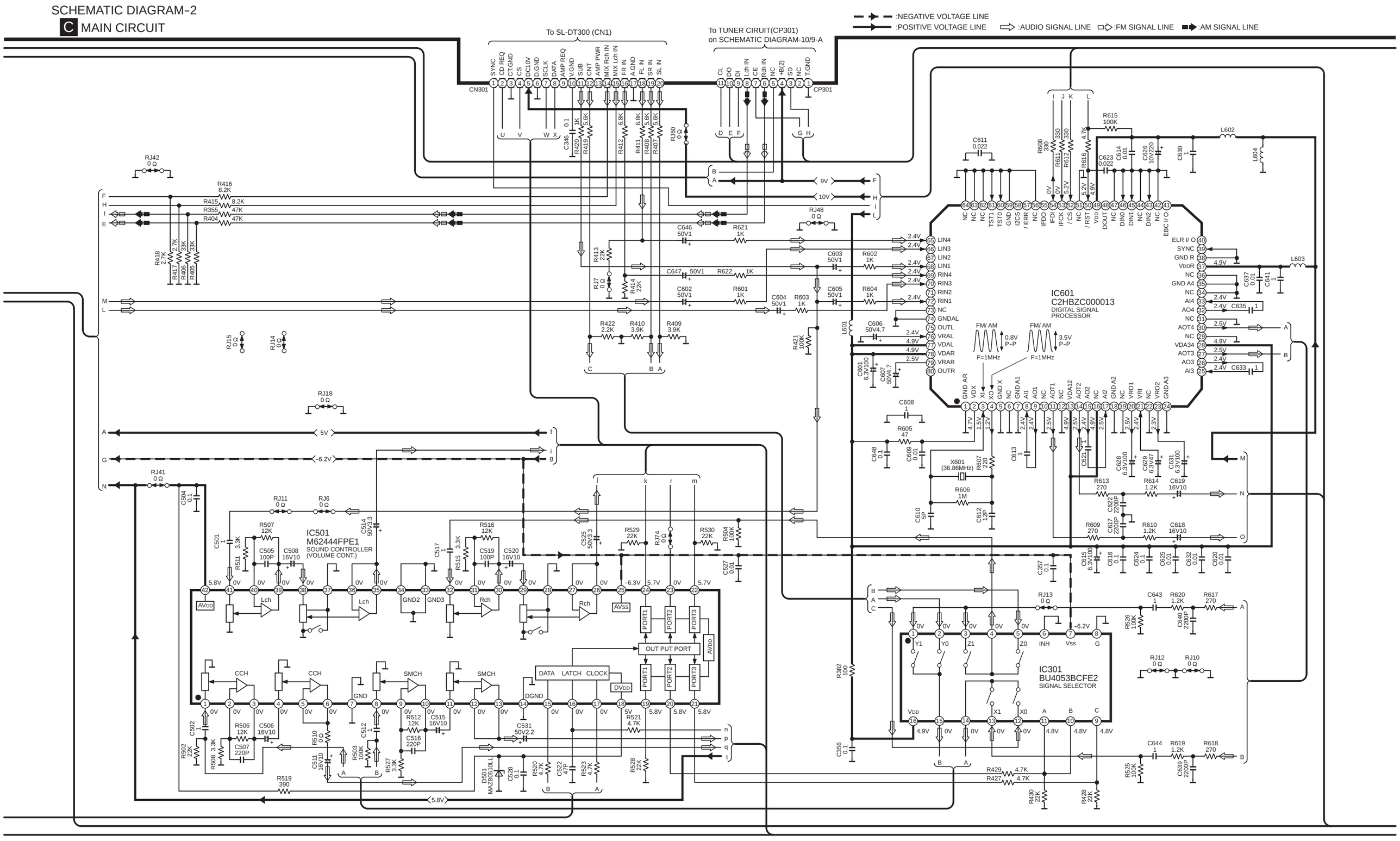
SCHEMATIC DIAGRAM–1



SA-DT300(E,EB,EG) FL,HEADPHONE,MAIN CIRCUIT DIAGRAM

SCHEMATIC DIAGRAM–2

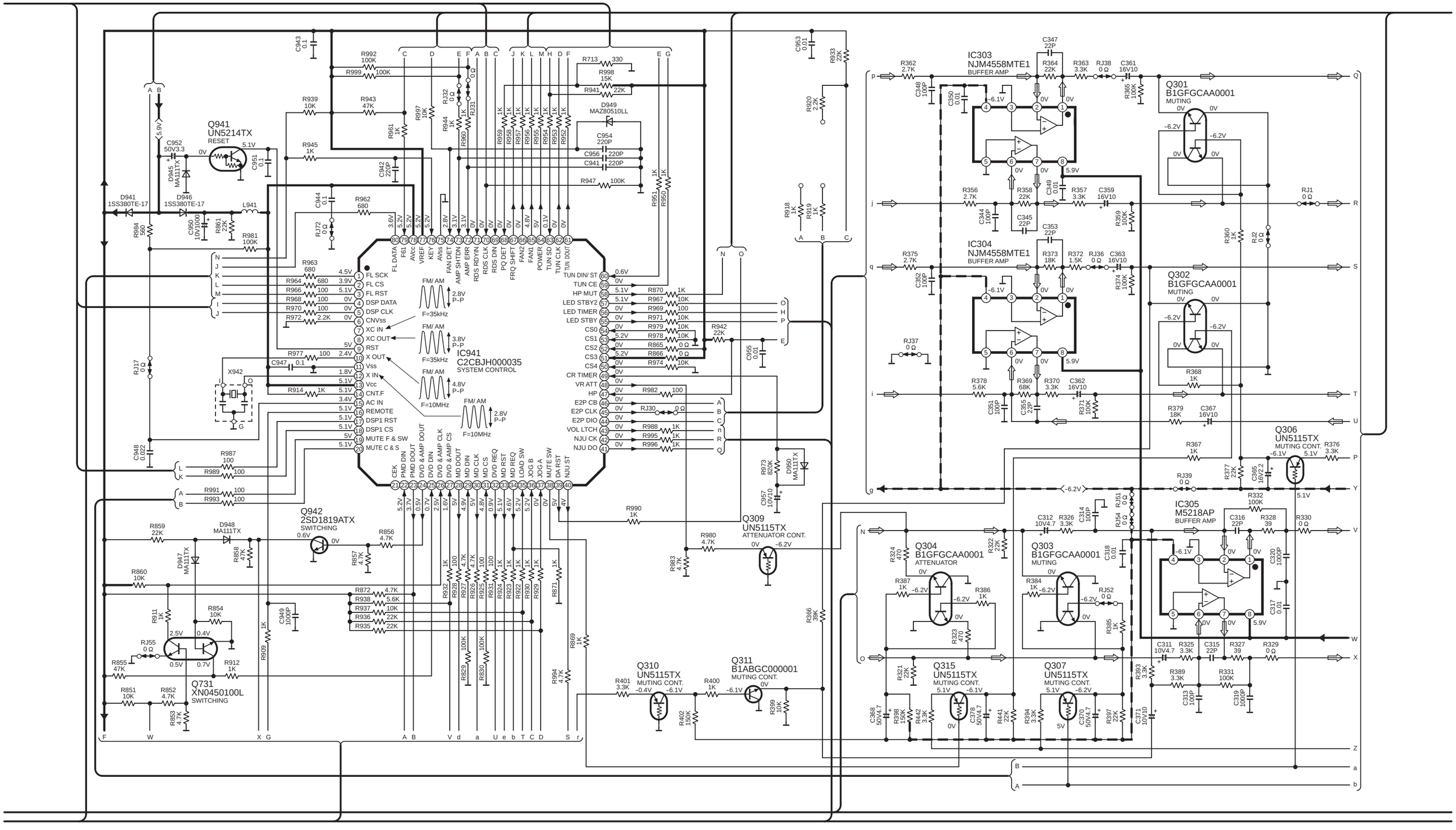
C MAIN CIRCUIT



SCHEMATIC DIAGRAM–3

C MAIN CIRCUIT

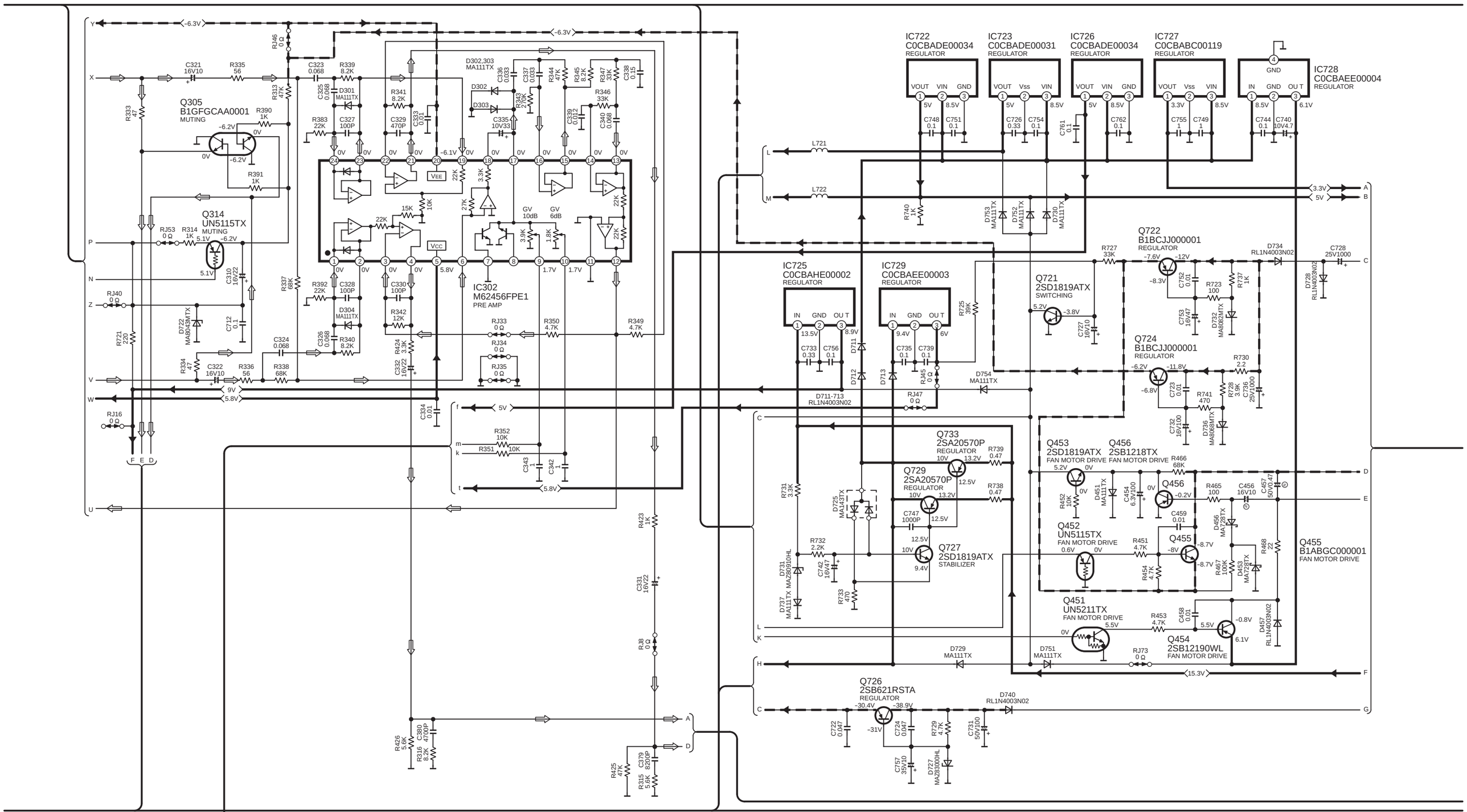
:POSITIVE VOLTAGE LINE :NEGATIVE VOLTAGE LINE :AUDIO SIGNAL LINE



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

C MAIN CIRCUIT

:POSITIVE VOLTAGE LINE :NEGATIVE VOLTAGE LINE :AUDIO SIGNAL LINE

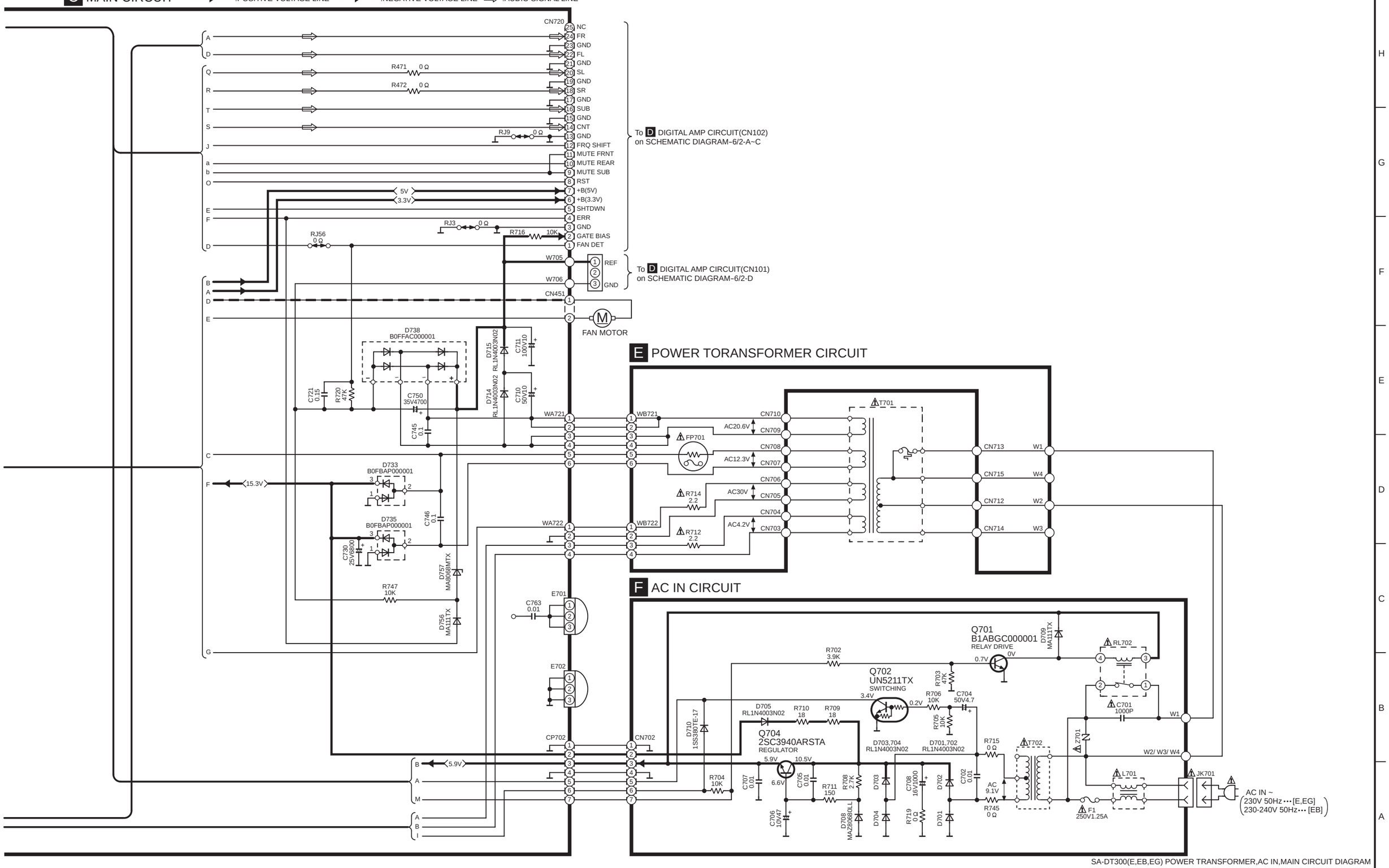


37 38 39 40 41 42 43 44 45 46 47 48

SCHEMATIC DIAGRAM–5

C MAIN CIRCUIT

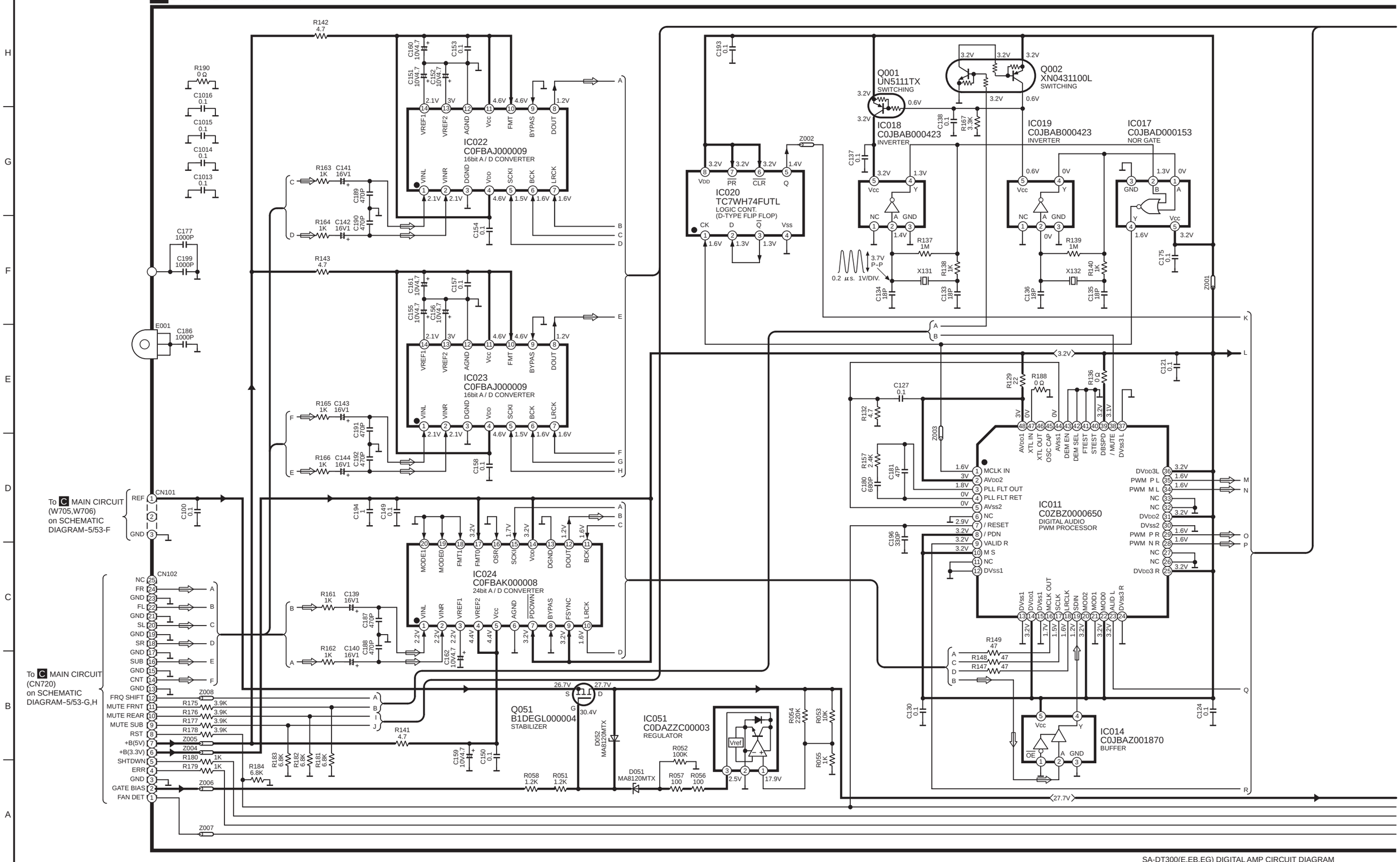
:POSITIVE VOLTAGE LINE :NEGATIVE VOLTAGE LINE :AUDIO SIGNAL LINE



SA-DT300(E,EB,EG) POWER TRANSFORMER,AC IN,MAIN CIRCUIT DIAGRAM

D DIGITAL AMP CIRCUIT

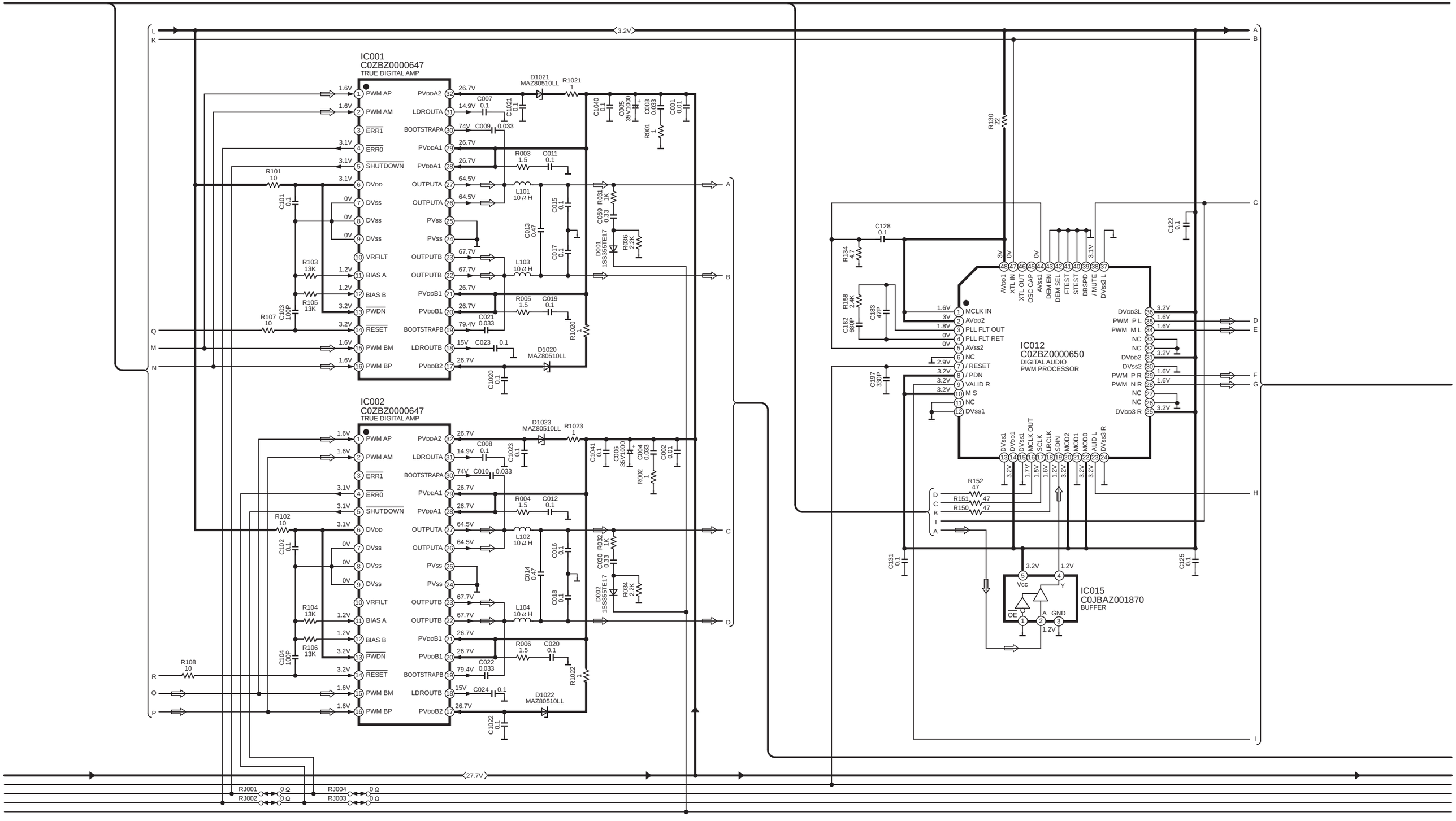
:POSITIVE VOLTAGE LINE :AUDIO SIGNAL LINE



SA-DT300(E,EB,EG) DIGITAL AMP CIRCUIT DIAGRAM

D DIGITAL AMP CIRCUIT

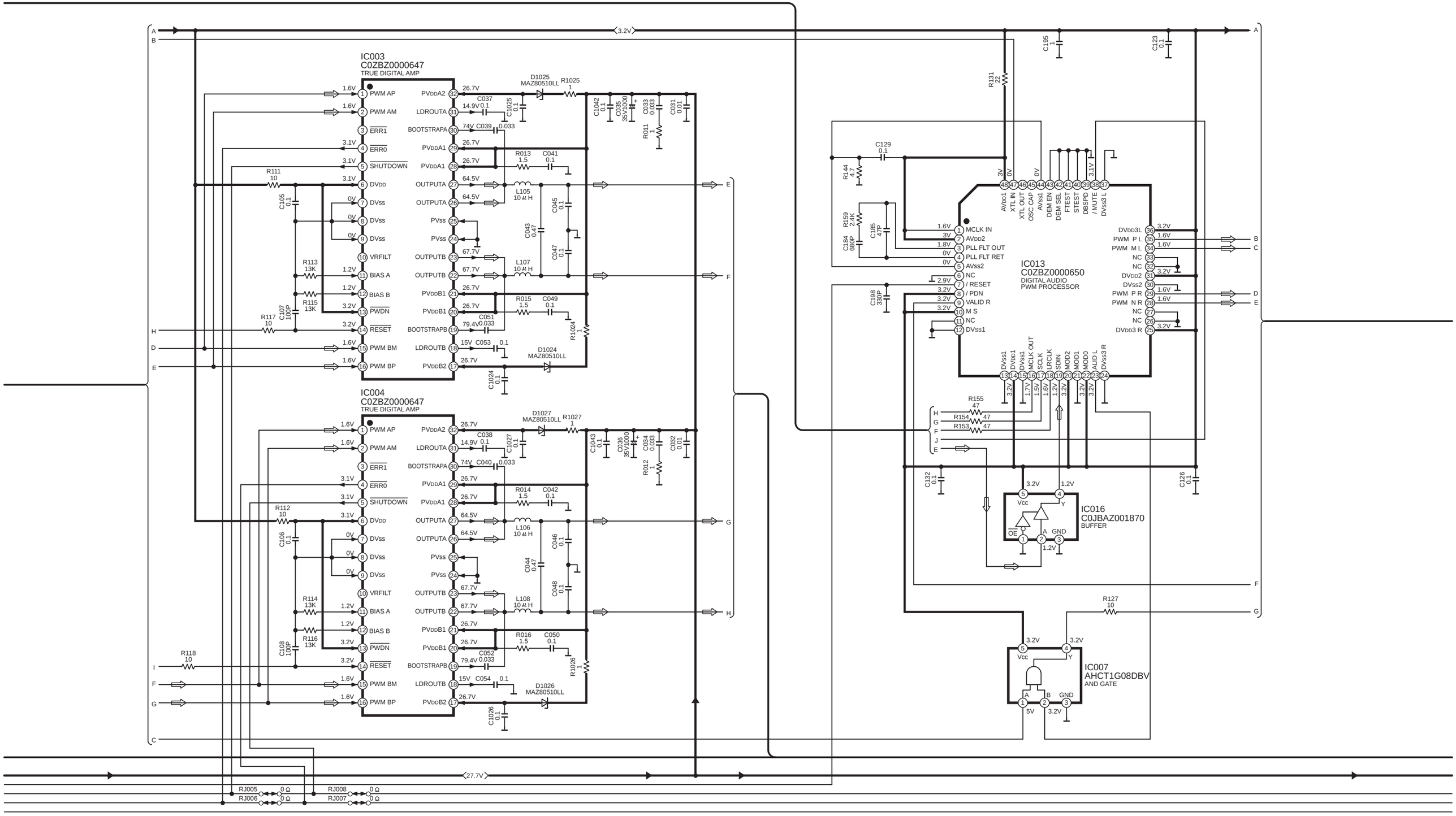
:POSITIVE VOLTAGE LINE :AUDIO SIGNAL LINE



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

D DIGITAL AMP CIRCUIT

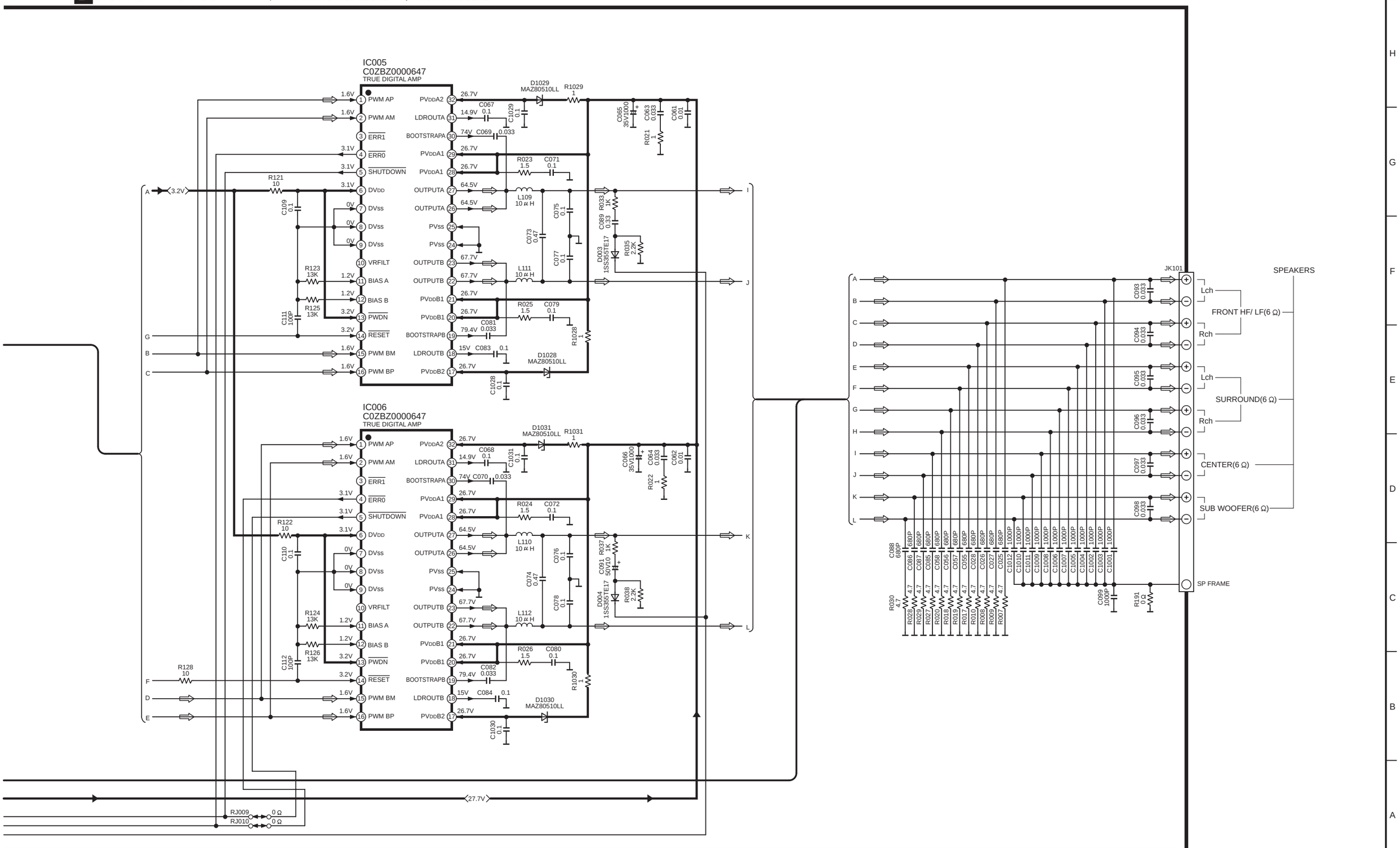
:POSITIVE VOLTAGE LINE :AUDIO SIGNAL LINE



SCHEMATIC DIAGRAM–9

D DIGITAL AMP CIRCUIT

:POSITIVE VOLTAGE LINE :AUDIO SIGNAL LINE

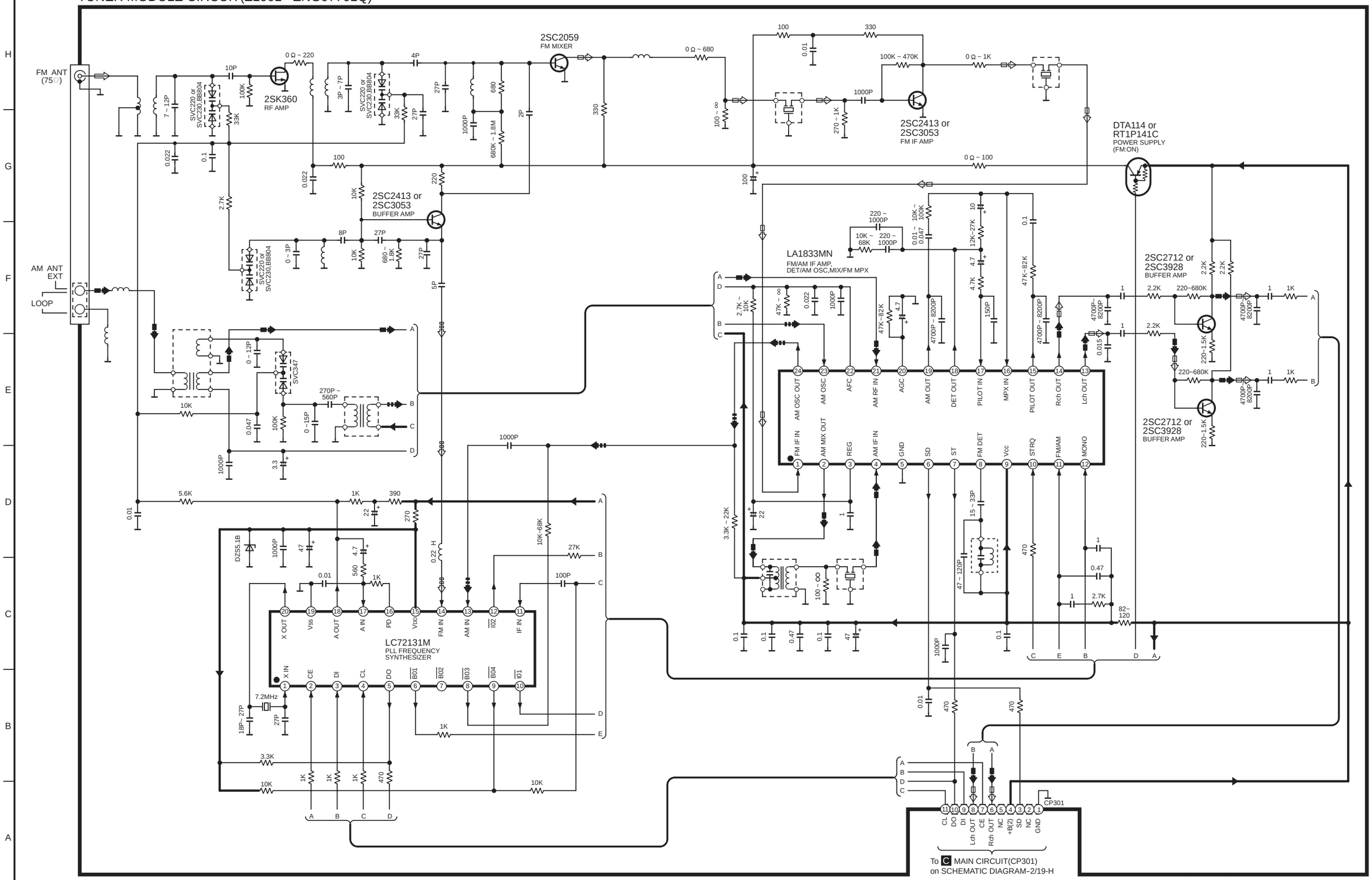


SA-DT300(E,EB,EG) DIGITAL AMP CIRCUIT DIAGRAM

SCHEMATIC DIAGRAM–10

TUNER MODULE CIRCUIT(Z1001 • ENG07701Q)

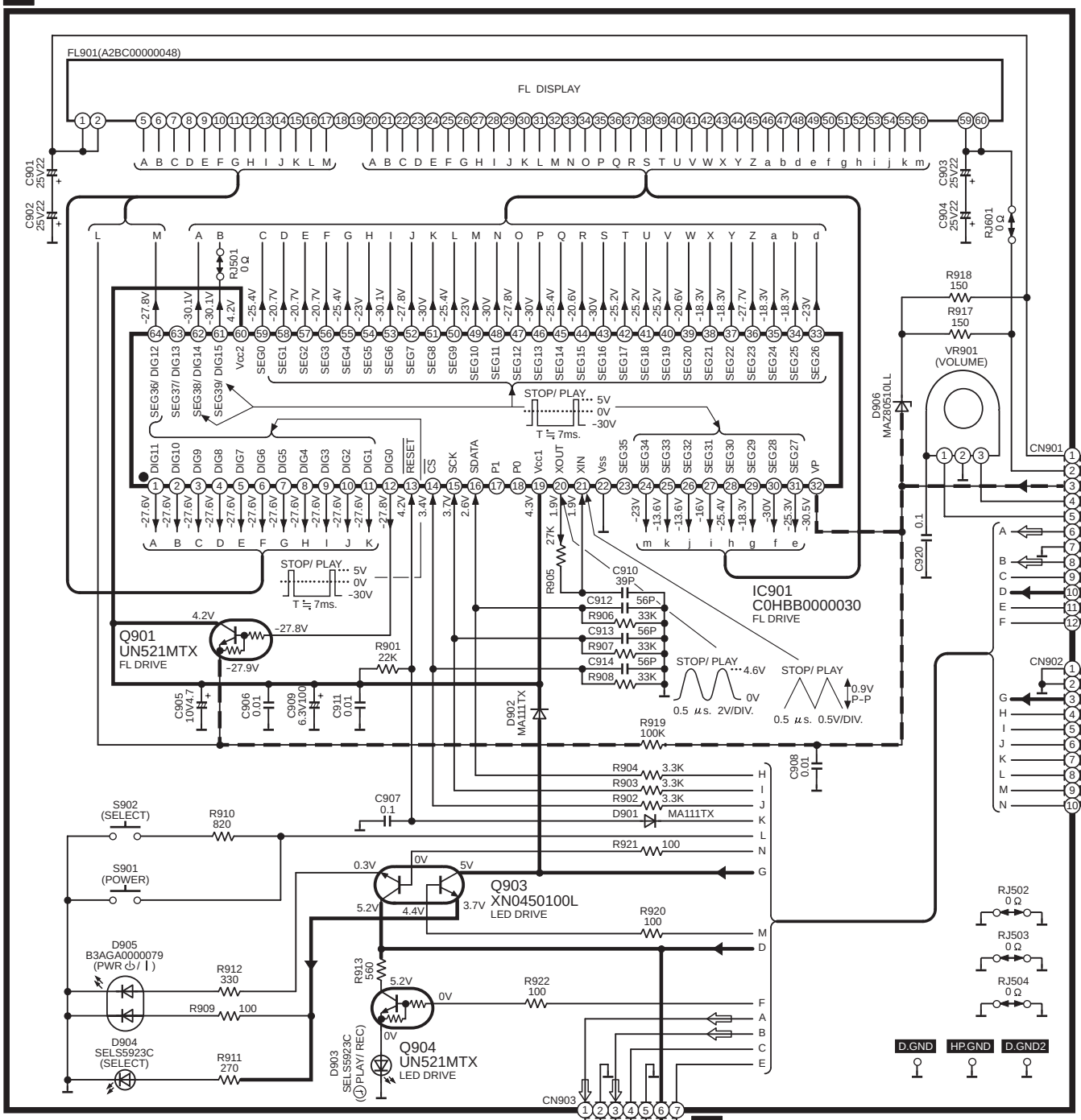
:POSITIVE VOLTAGE LINE :FM SIGNAL LINE :AM SIGNAL LINE :AM OSC SIGNAL LINE :FM OSC SIGNAL LINE



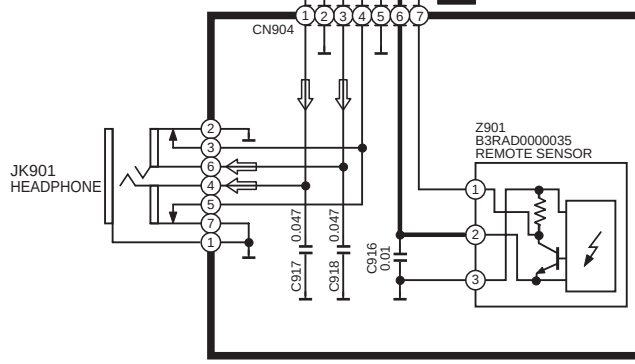
SA-DT300(E,EB,EG) TUNER MODULE CIRCUIT DIAGRAM

SCHEMATIC DIAGRAM–1

A FL CIRCUIT

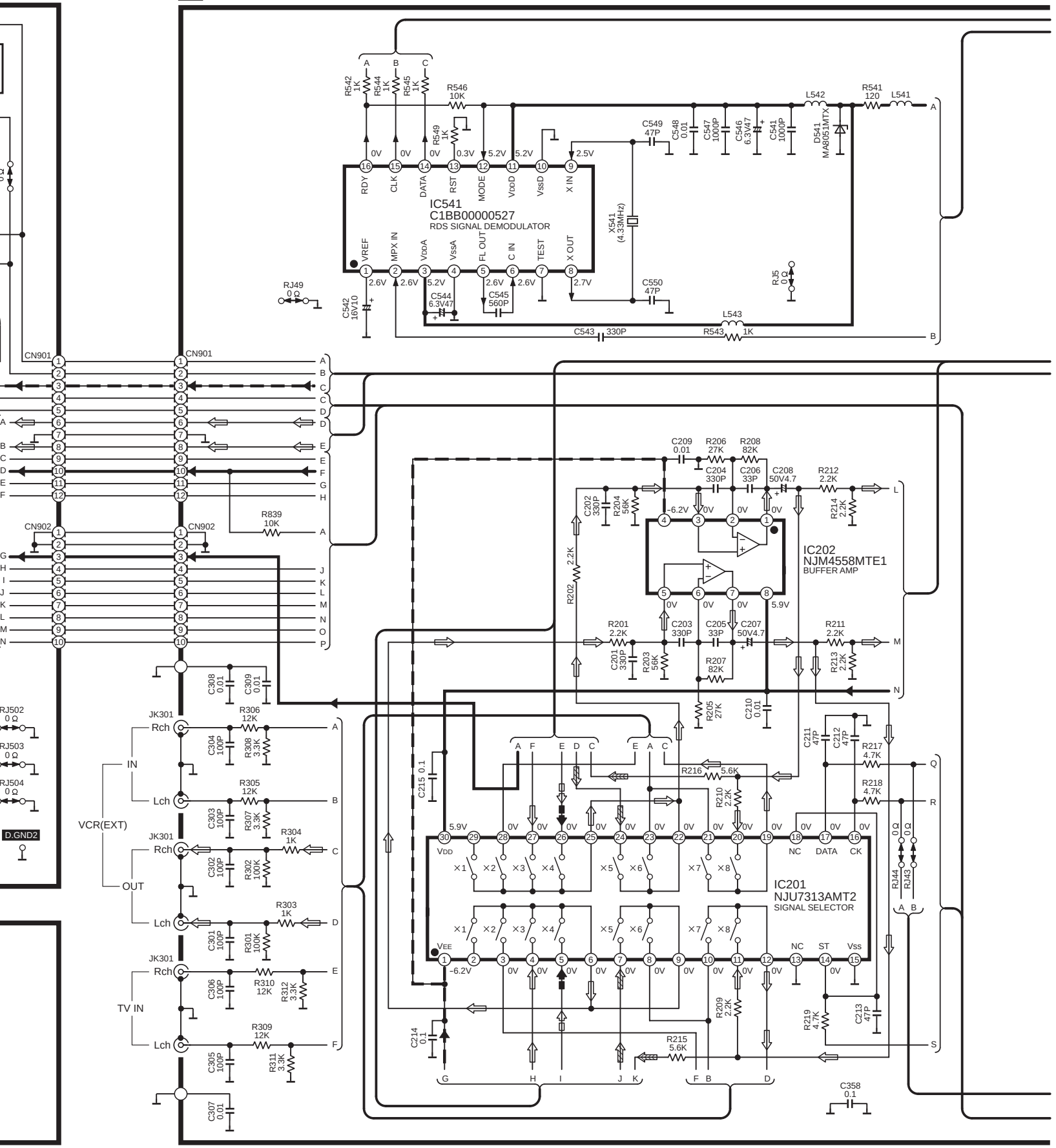


B HEADPHONE CIRCUIT



C MAIN CIRCUIT

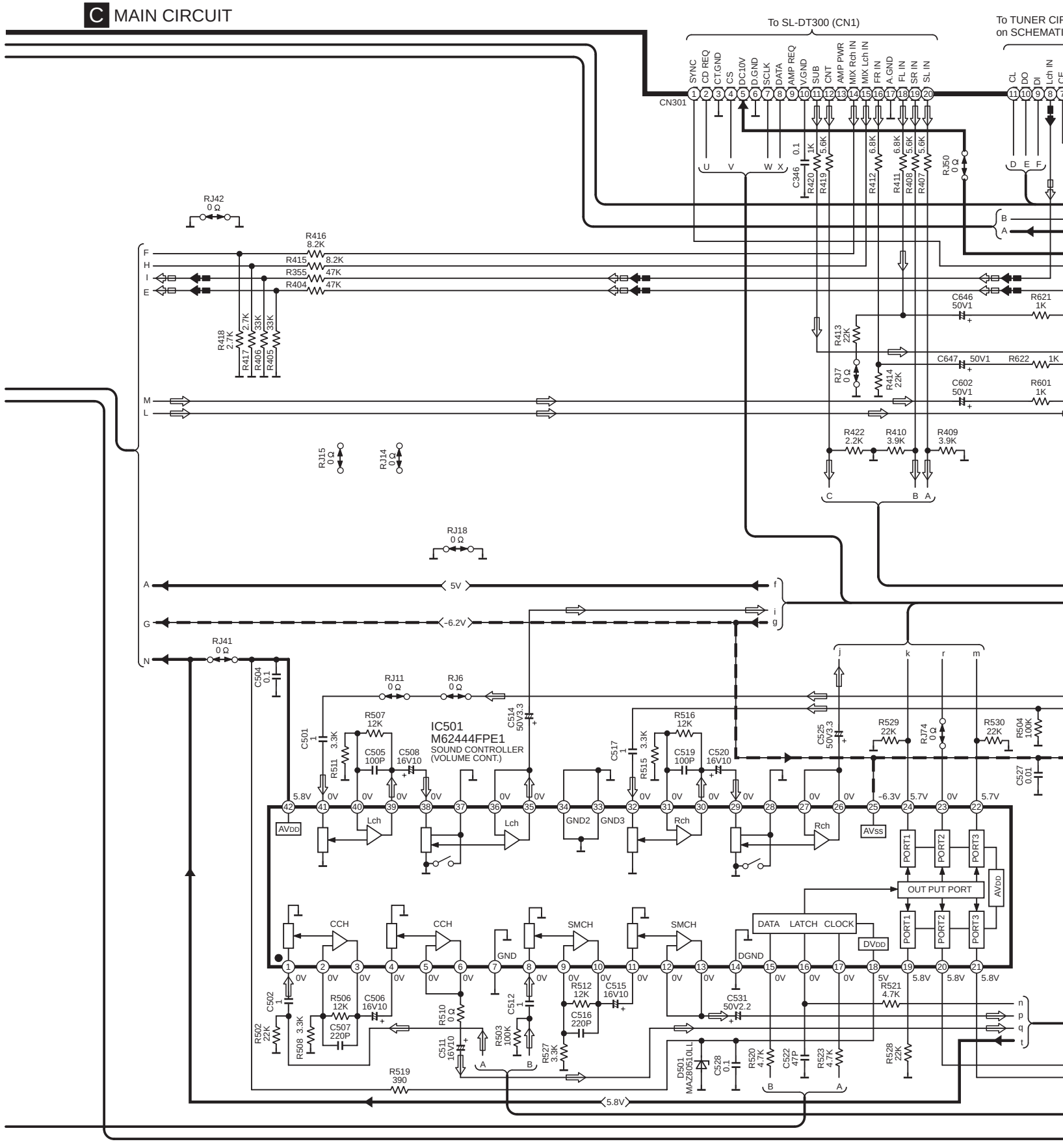
:NEGATIVE VOLTAGE LINE
:POSITIVE VOLTAGE LINE
:AUDIO SIGNAL LINE
:FM SIGNAL LINE
:AM SIGNAL LINE



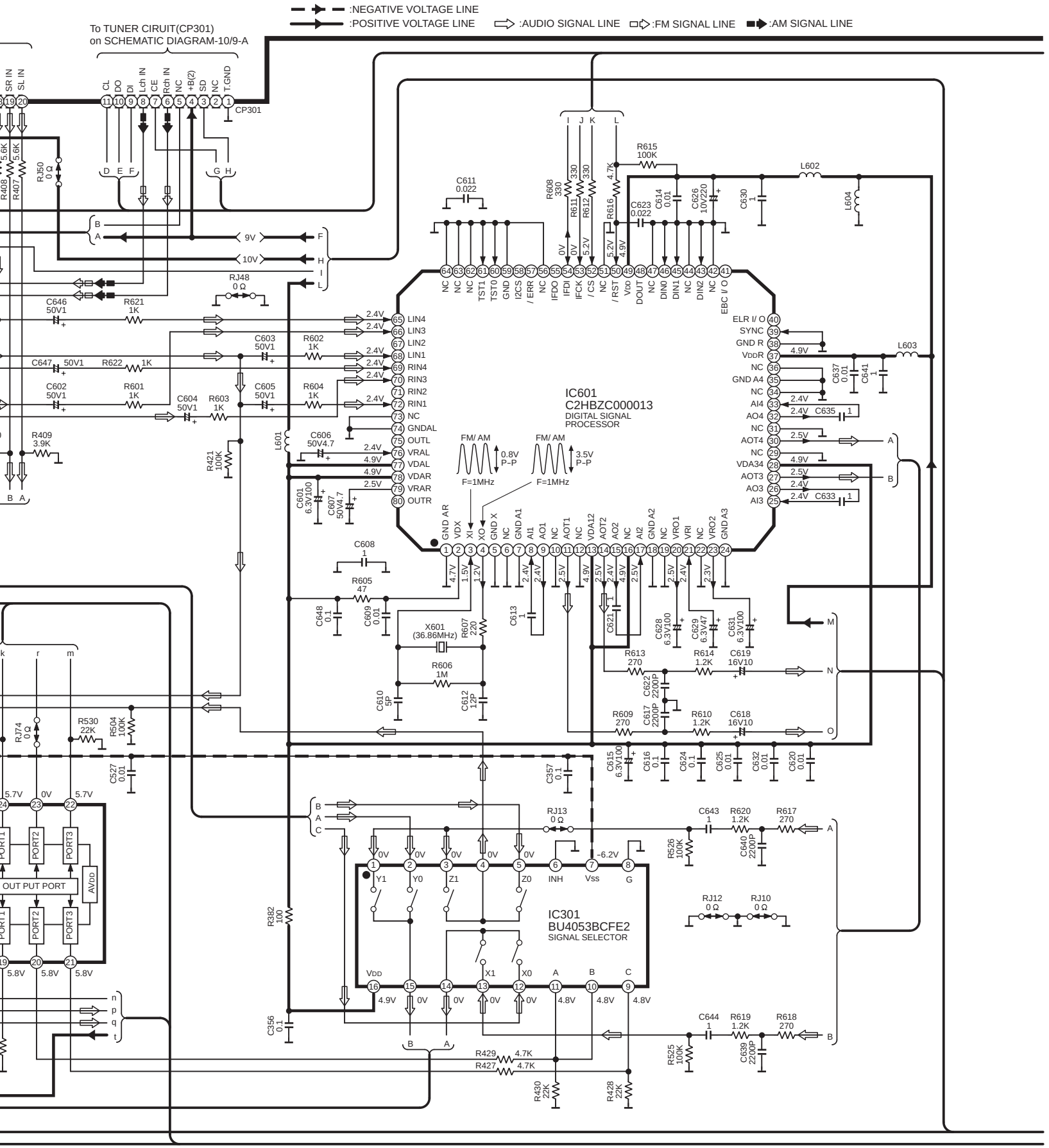
SA-DT300(E,EB,EG) FL,HEADPHONE,MAIN CIRCUIT DIAGRAM

SCHEMATIC DIAGRAM–2

C MAIN CIRCUIT



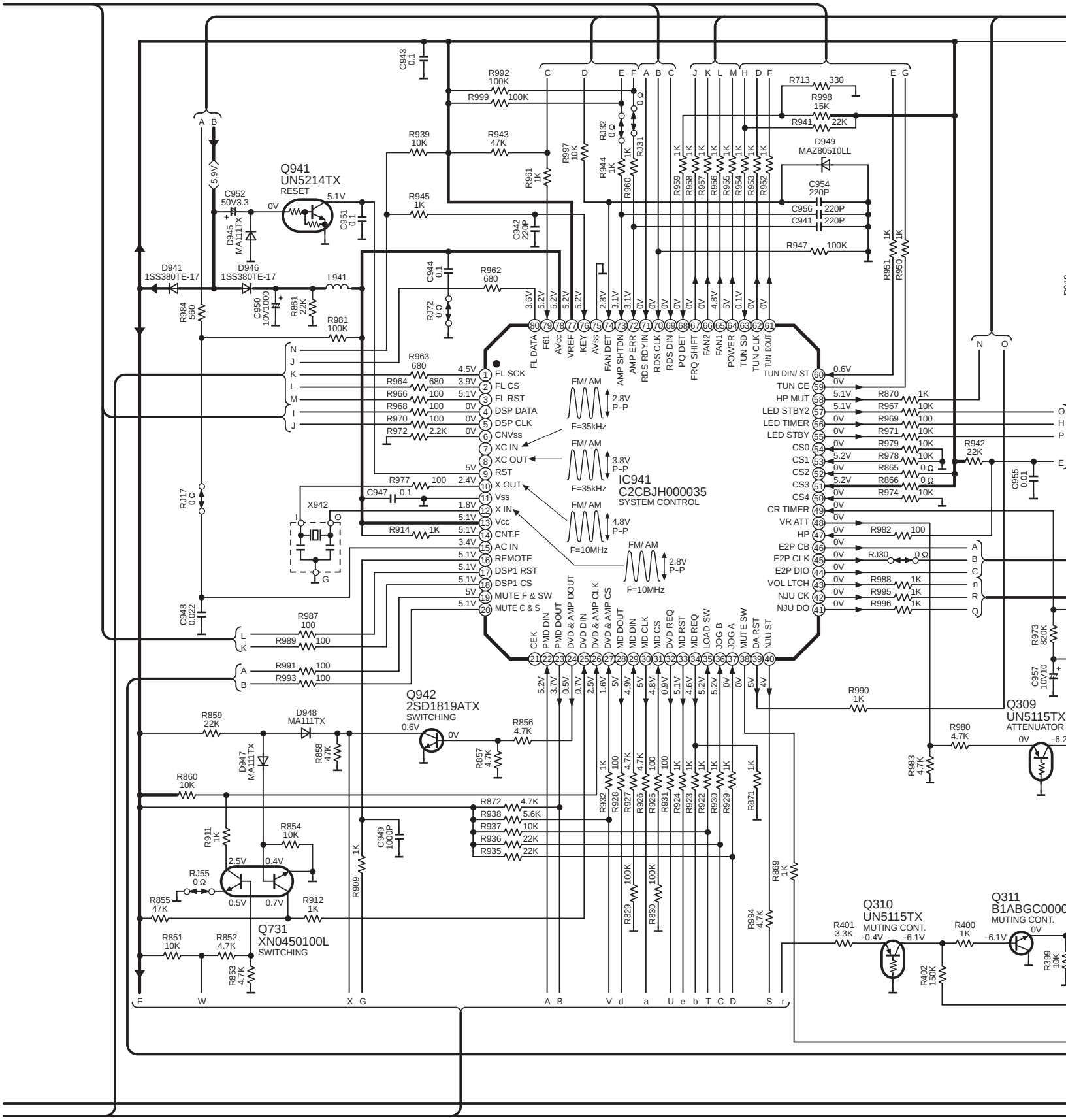
13 | 14 | 15 | 16 | 17 | 18 | 19


:NEGATIVE VOLTAGE LINE
:POSITIVE VOLTAGE LINE
:AUDIO SIGNAL LINE
:FM SIGNAL LINE
:AM SIGNAL LINE
To TUNER CIRUIT(CP301)
on SCHEMATIC DIAGRAM-10/9-A
CP301
IC601
C2HBZC000013
DIGITAL SIGNAL
PROCESSOR
IC301
BU4053BCFE2
SIGNAL SELECTOR
X601
(36.86MHz)
FM/ AM
F=1MHz
OUT PUT PORT

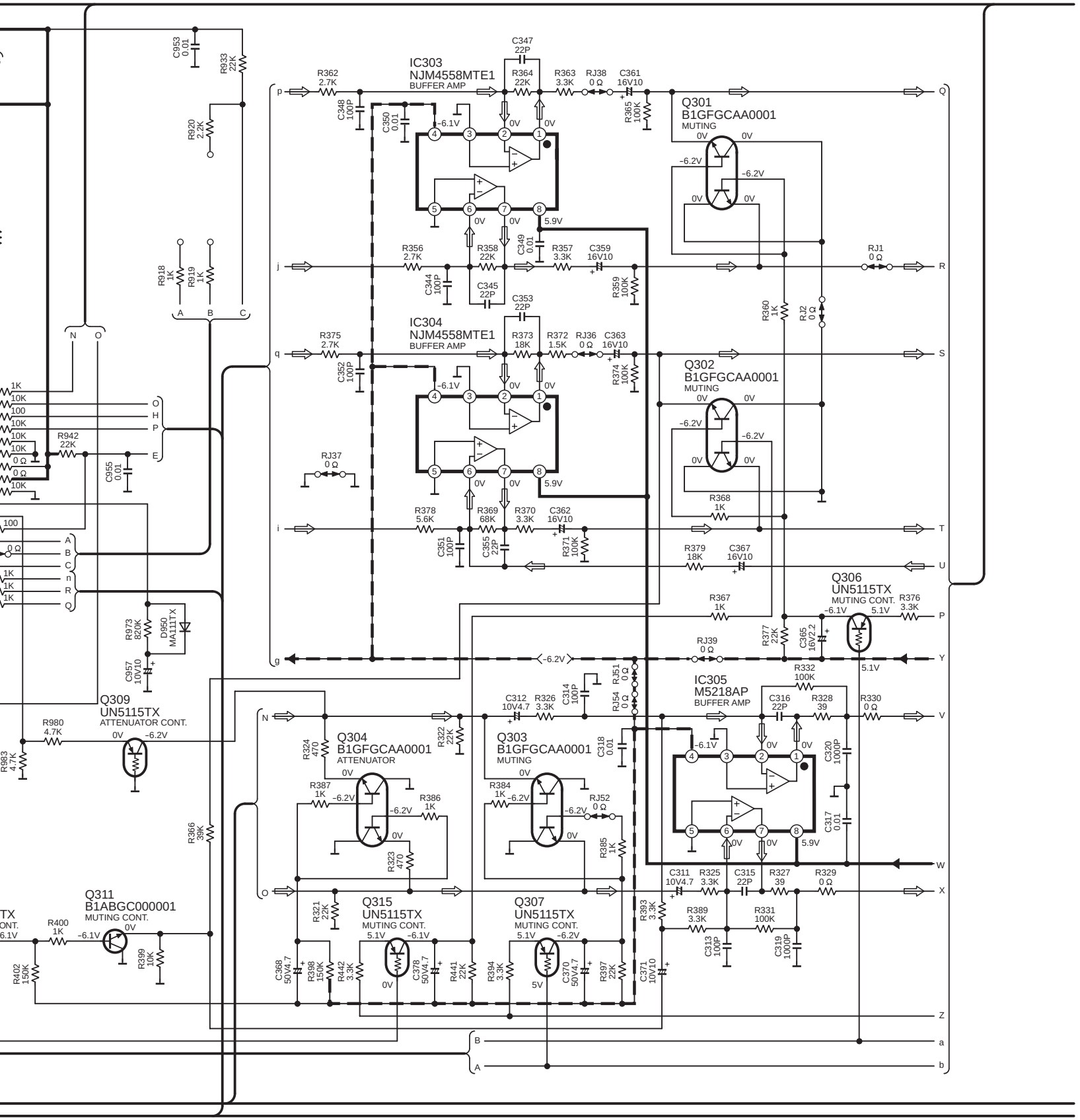
SCHEMATIC DIAGRAM–3

C MAIN CIRCUIT

:POSITIVE VOLTAGE LINE :NEGATIVE VOLTAGE LINE :AUDIO SIGNAL LINE



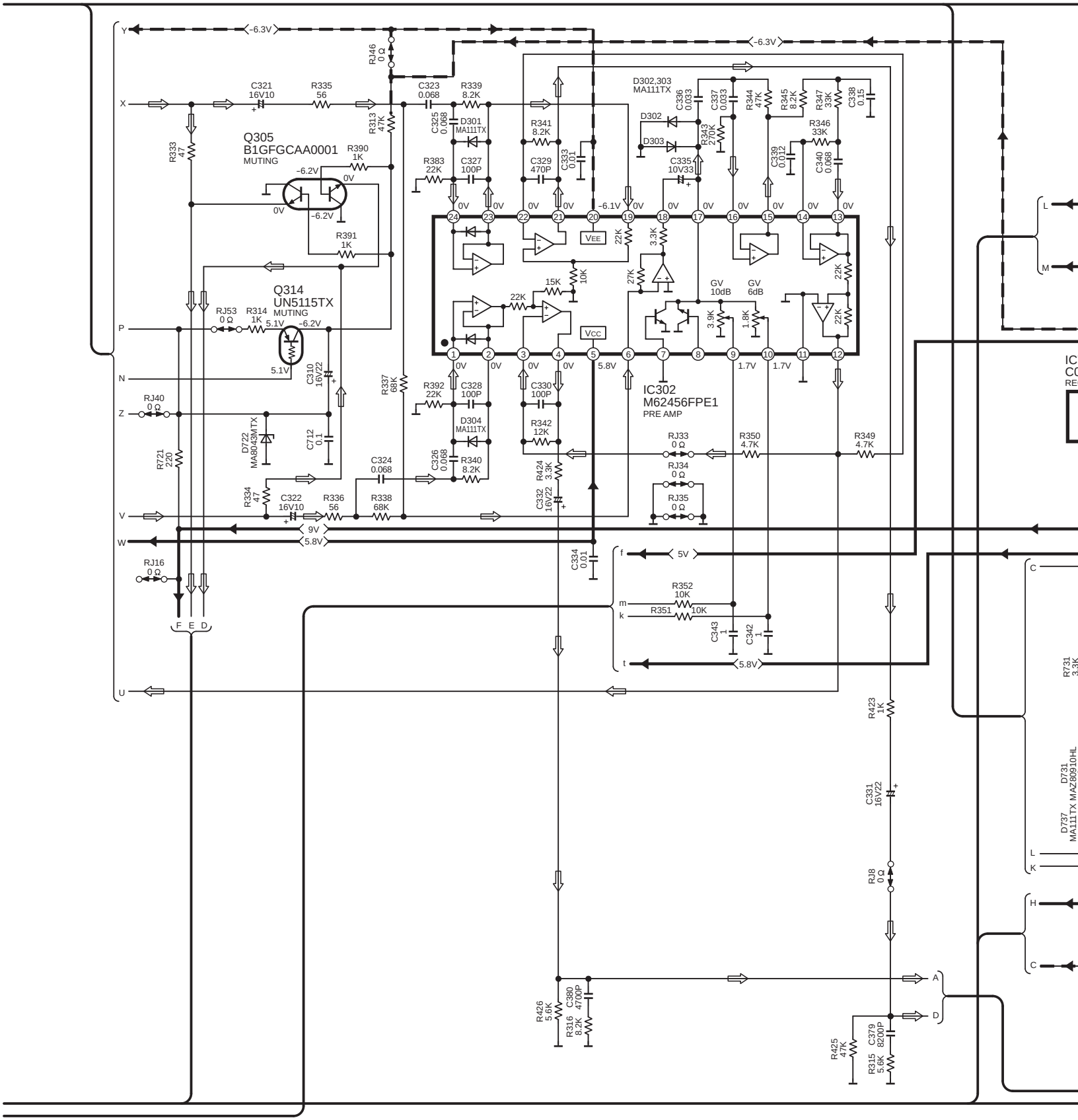
25 26 27 28 29 30 31


IC303
NJM4558MTE1
BUFFER AMP
IC304
NJM4558MTE1
BUFFER AMP
Q301
B1GFGCAA0001
MUTING
Q302
B1GFGCAA0001
MUTING
Q306
UN5115TX
MUTING CONT.
IC305
M5218AP
BUFFER AMP
Q309
UN5115TX
ATTENUATOR CONT.
Q304
B1GFGCAA0001
ATTENUATOR
Q303
B1GFGCAA0001
MUTING
Q311
B1ABGC000001
MUTING CONT.
Q315
UN5115TX
MUTING CONT.
Q307
UN5115TX
MUTING CONT.

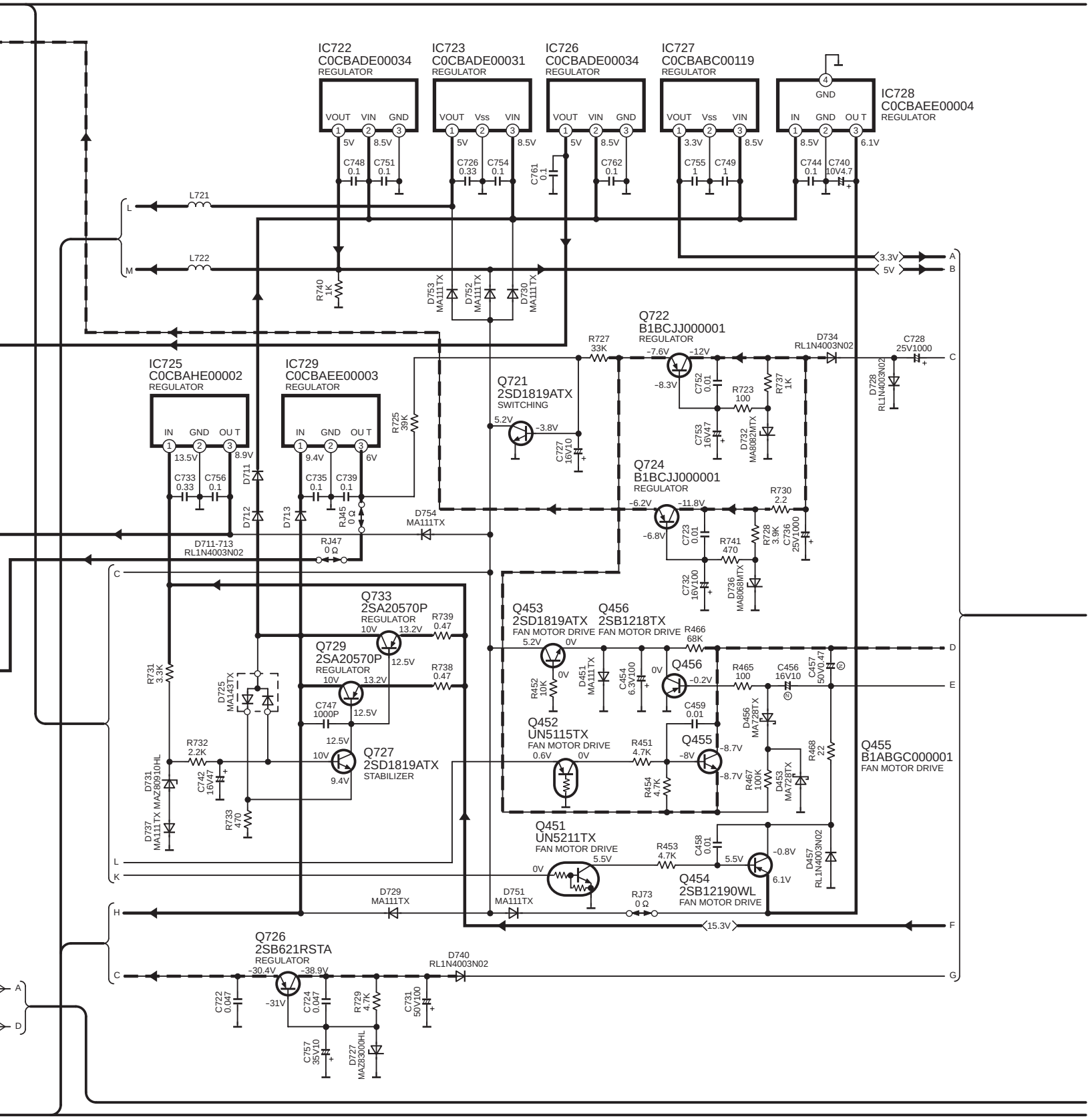
SCHEMATIC DIAGRAM–4

C MAIN CIRCUIT

:POSITIVE VOLTAGE LINE :NEGATIVE VOLTAGE LINE :AUDIO SIGNAL LINE



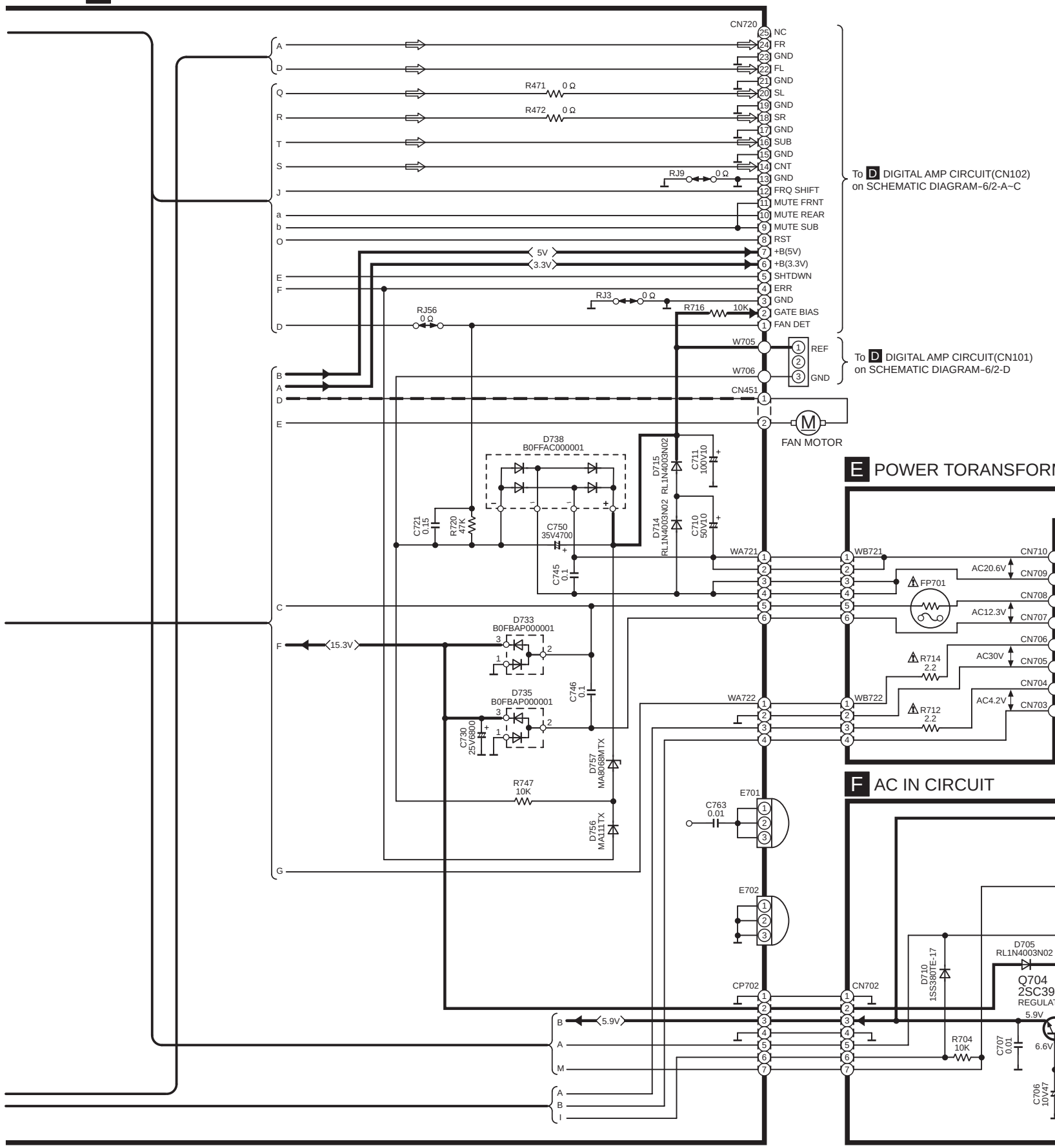
37 38 39 40 41 42 43


IC722
C0CBADE00034
REGULATOR
IC723
C0CBADE00031
REGULATOR
IC726
C0CBADE00034
REGULATOR
IC727
C0CBABC00119
REGULATOR
IC728
C0CBAEE00004
REGULATOR
IC725
C0CBAHE00002
REGULATOR
IC729
C0CBAEE00003
REGULATOR
Q722
B1BCJJ000001
REGULATOR
Q721
2SD1819ATX
SWITCHING
Q724
B1BCJJ000001
REGULATOR
Q733
2SA20570P
REGULATOR
Q729
2SA20570P
REGULATOR
Q727
2SD1819ATX
STABILIZER
Q453
2SD1819ATX
FAN MOTOR DRIVE
Q456
2SB1218TX
FAN MOTOR DRIVE
Q452
UN5115TX
FAN MOTOR DRIVE
Q455
B1ABGC000001
FAN MOTOR DRIVE
Q451
UN5211TX
FAN MOTOR DRIVE
Q454
2SB12190WL
FAN MOTOR DRIVE
Q726
2SB621RSTA
REGULATOR
L721
L722
D711-713
RL1N4003N02
D754
MA111TX
D729
MA111TX
D751
MA111TX
D740
RL1N4003N02
RJ47
0 Ω
RJ73
0 Ω
15.3V
3.3V
5V

SCHEMATIC DIAGRAM–5

C MAIN CIRCUIT

:POSITIVE VOLTAGE LINE :NEGATIVE VOLTAGE LINE :AUDIO SIGNAL LINE

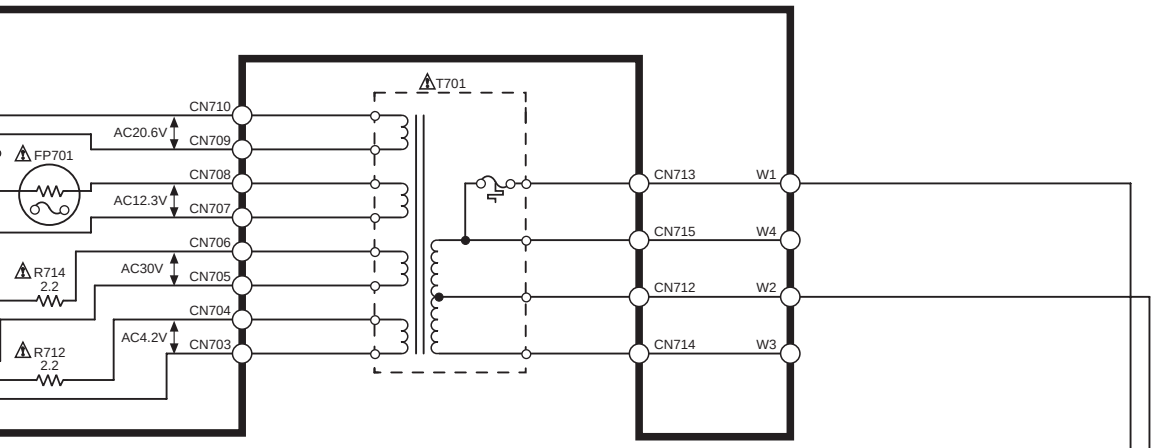


49 50 51 52 53 54 55

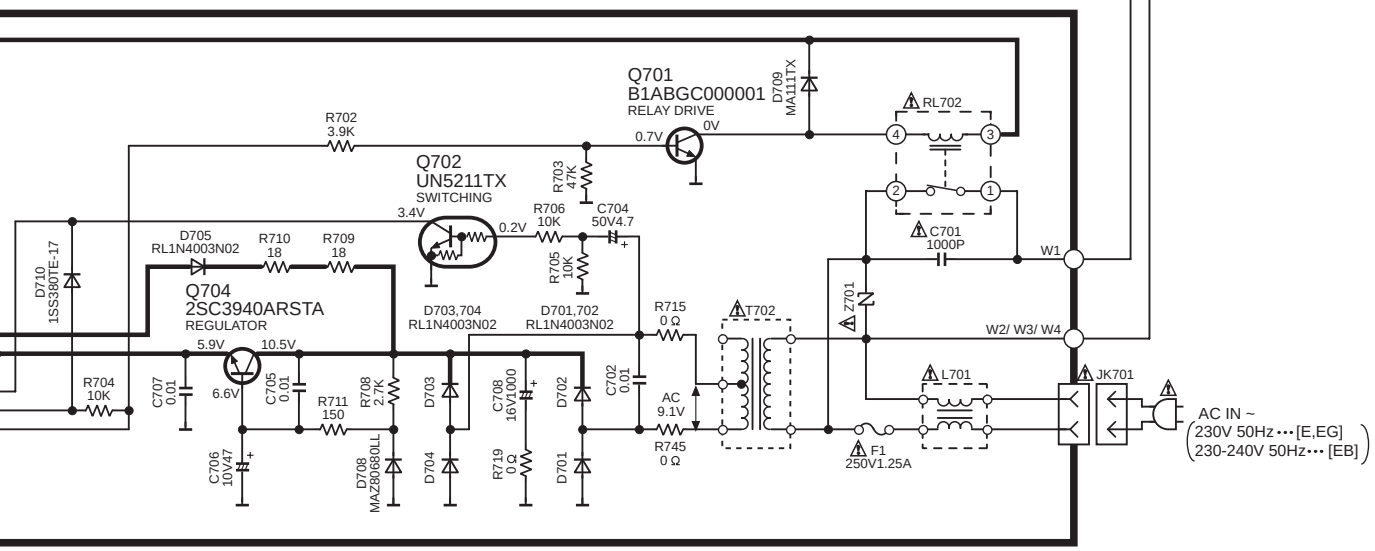
GITAL AMP CIRCUIT(CN102)
MATIC DIAGRAM–6/2-A~C

GITAL AMP CIRCUIT(CN101)
MATIC DIAGRAM–6/2-D

WER TORANSFORMER CIRCUIT



IN CIRCUIT



SA-DT300(E,EB,EG) POWER TRANSFORMER,AC IN,MAIN CIRCUIT DIAGRAM

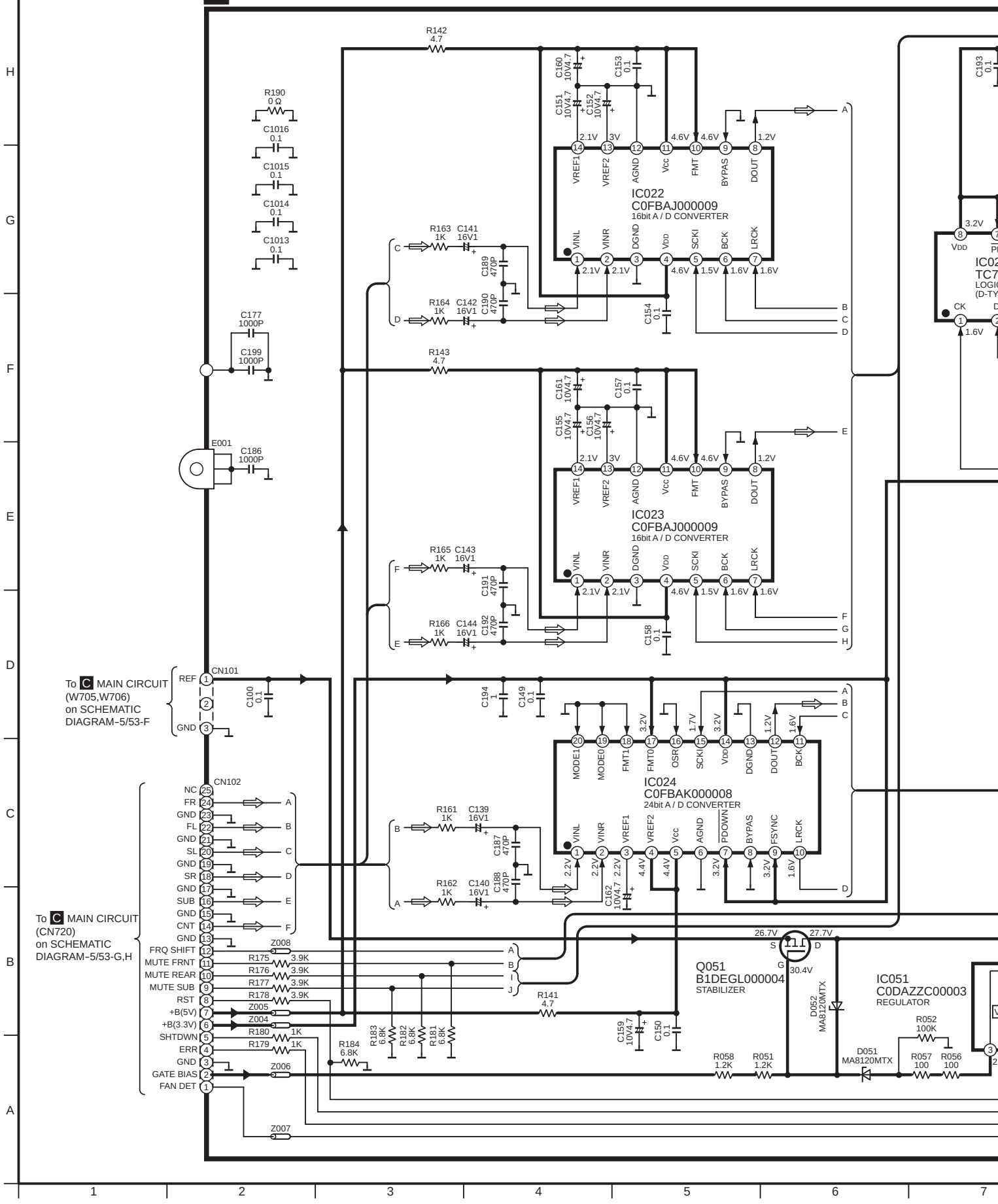
H G F E D C B A

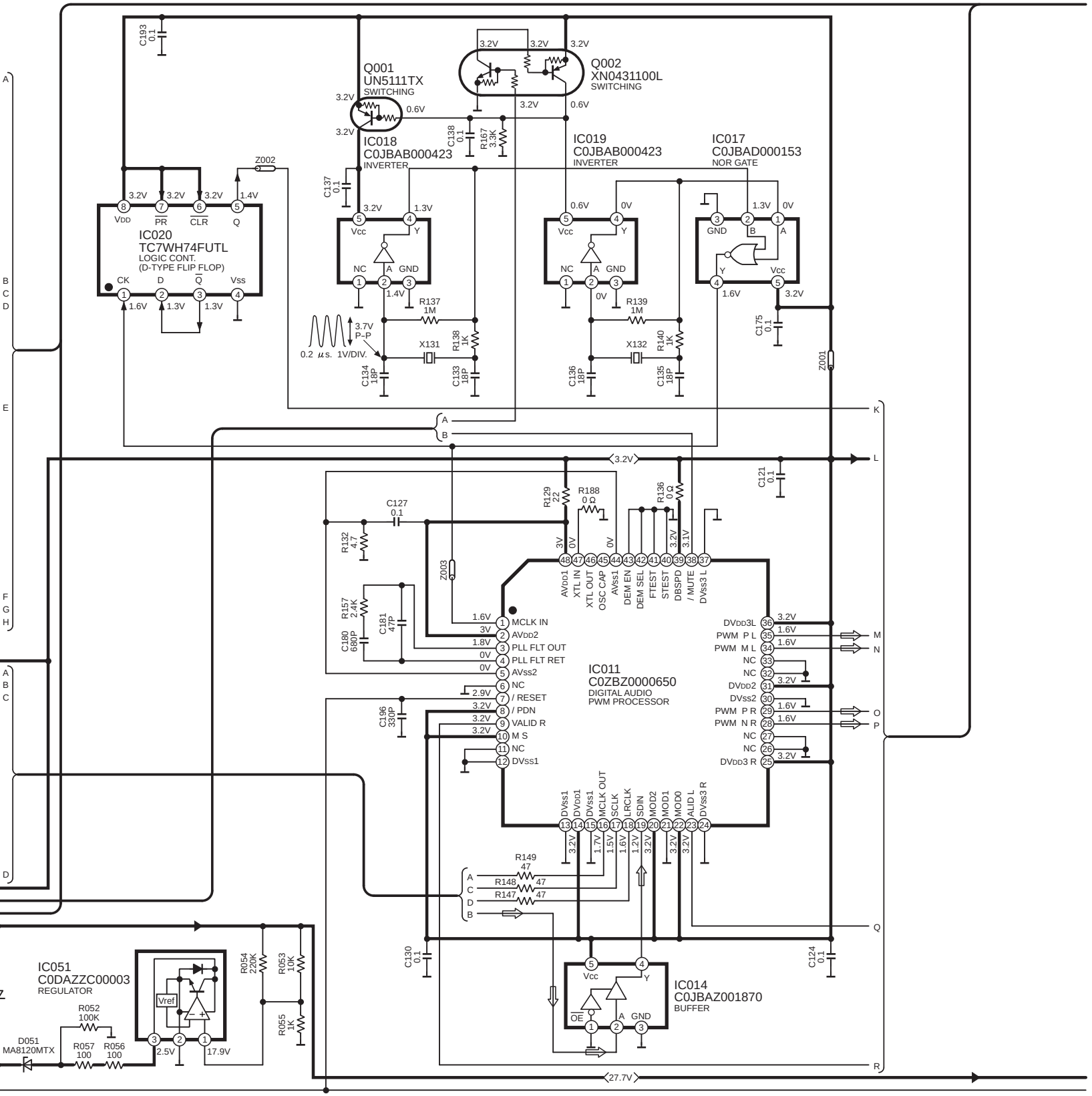
4 55 56 57 58 59 60

SCHEMATIC DIAGRAM–6

D DIGITAL AMP CIRCUIT

:POSITIVE VOLTAGE LINE :AUDIO SIGNAL LINE

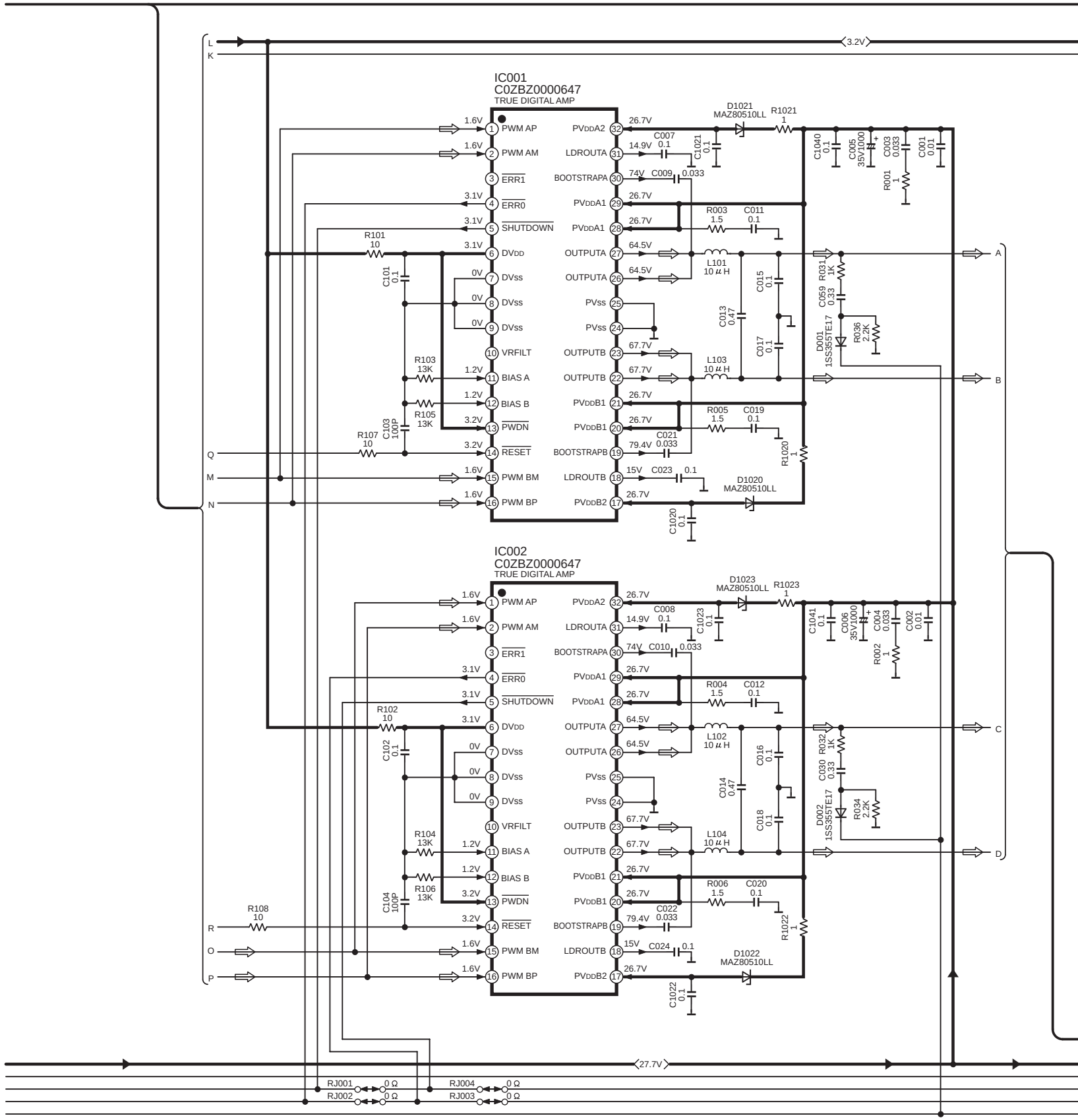



Q001
UN5111TX
SWITCHING
Q002
XN0431100L
SWITCHING
IC018
C0JBAB000423
INVERTER
IC019
C0JBAB000423
INVERTER
IC017
C0JBAD000153
NOR GATE
IC020
TC7WH74FUTL
LOGIC CONT.
(D-TYPE FLIP FLOP)
IC011
C0ZBZ0000650
DIGITAL AUDIO
PWM PROCESSOR
IC051
C0DAZZC00003
REGULATOR
IC014
C0JBAZ001870
BUFFER
D051
MA8120MTX
3.7V
P-P
0.2 μs. 1V/DIV.
27.7V

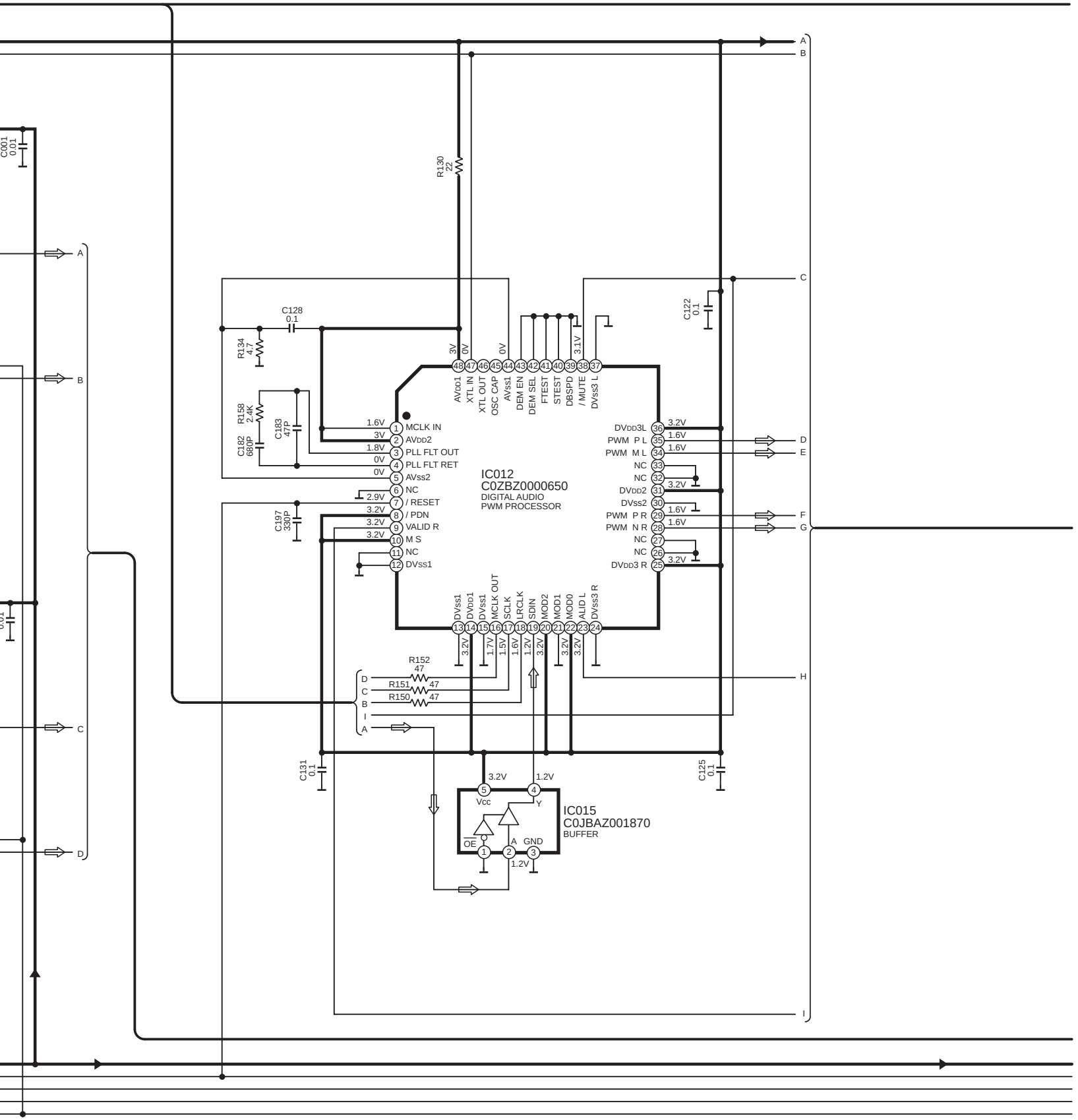
SCHEMATIC DIAGRAM–7

D DIGITAL AMP CIRCUIT

:POSITIVE VOLTAGE LINE :AUDIO SIGNAL LINE



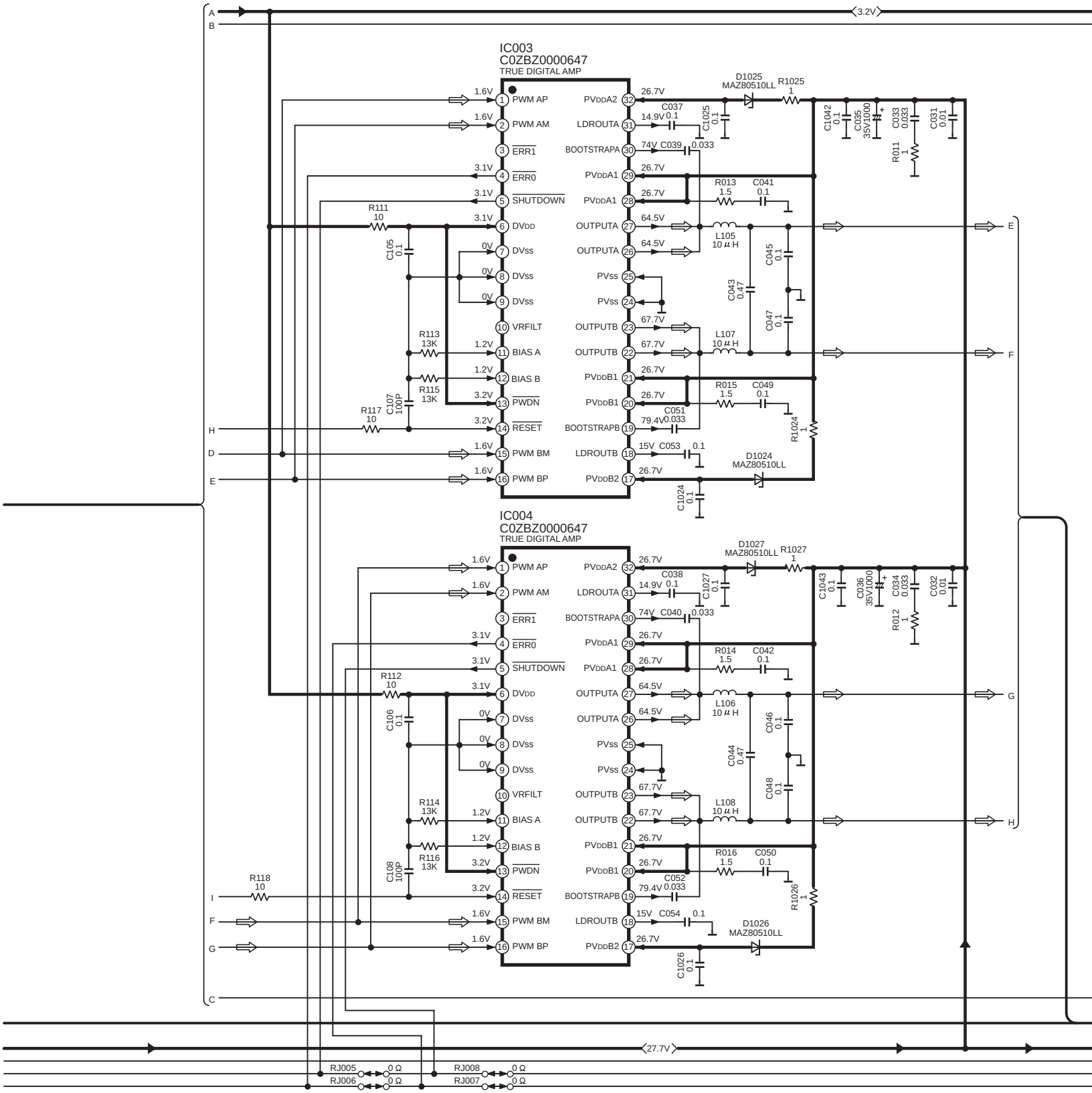
13 14 15 16 17 18 19


IC012
C0ZBZ0000650
DIGITAL AUDIO
PWM PROCESSOR
IC015
C0JBAZ001870
BUFFER
MCLK IN
AVDD2
PLL FLT OUT
PLL FLT RET
AVss2
NC
/ RESET
/ PDN
VALID R
M S
DVss1
AVDD1
XTL IN
XTL OUT
OSC CAP
AVss1
DEM EN
DEM SEL
FTEST
STEST
DBSPD
/ MUTE
DVss3 L
DVDD3L
PWM P L
PWM M L
DVDD2
DVss2
PWM P R
PWM N R
DVDD3 R
DVss1
DVDD1
MCLK OUT
SCLK
LRCLK
SDIN
MOD2
MOD1
MOD0
ALID L
DVss3 R
Vcc
Y
OE
A
GND
C001 0.01
R130 22
C128 0.1
R134 4.7
R158 2.4K
C182 680P
C183 47P
C197 330P
C122 0.1
R152 47
R151 47
R150 47
C131 0.1
C125 0.1

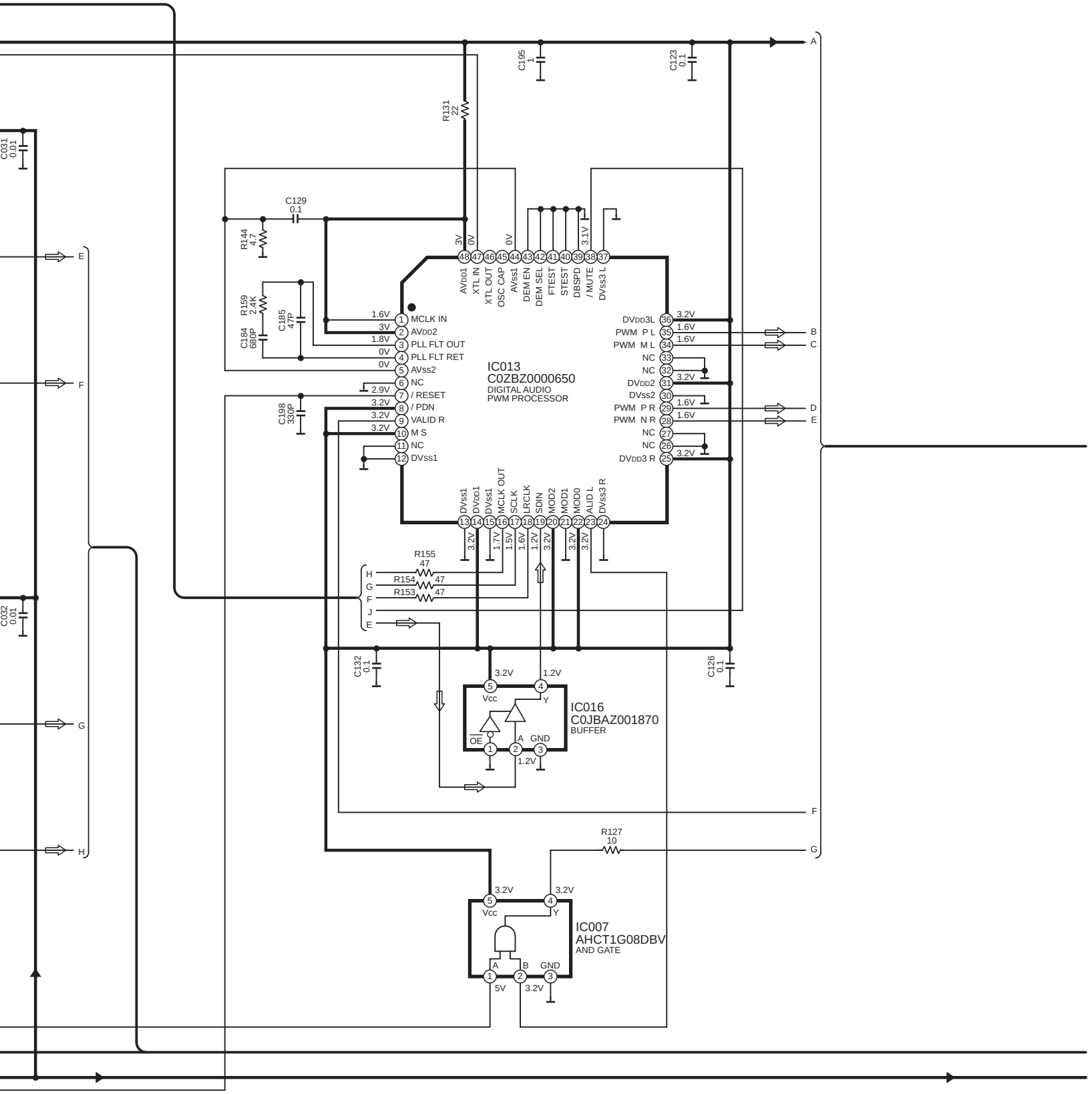
SCHEMATIC DIAGRAM–8

D DIGITAL AMP CIRCUIT

:POSITIVE VOLTAGE LINE :AUDIO SIGNAL LINE



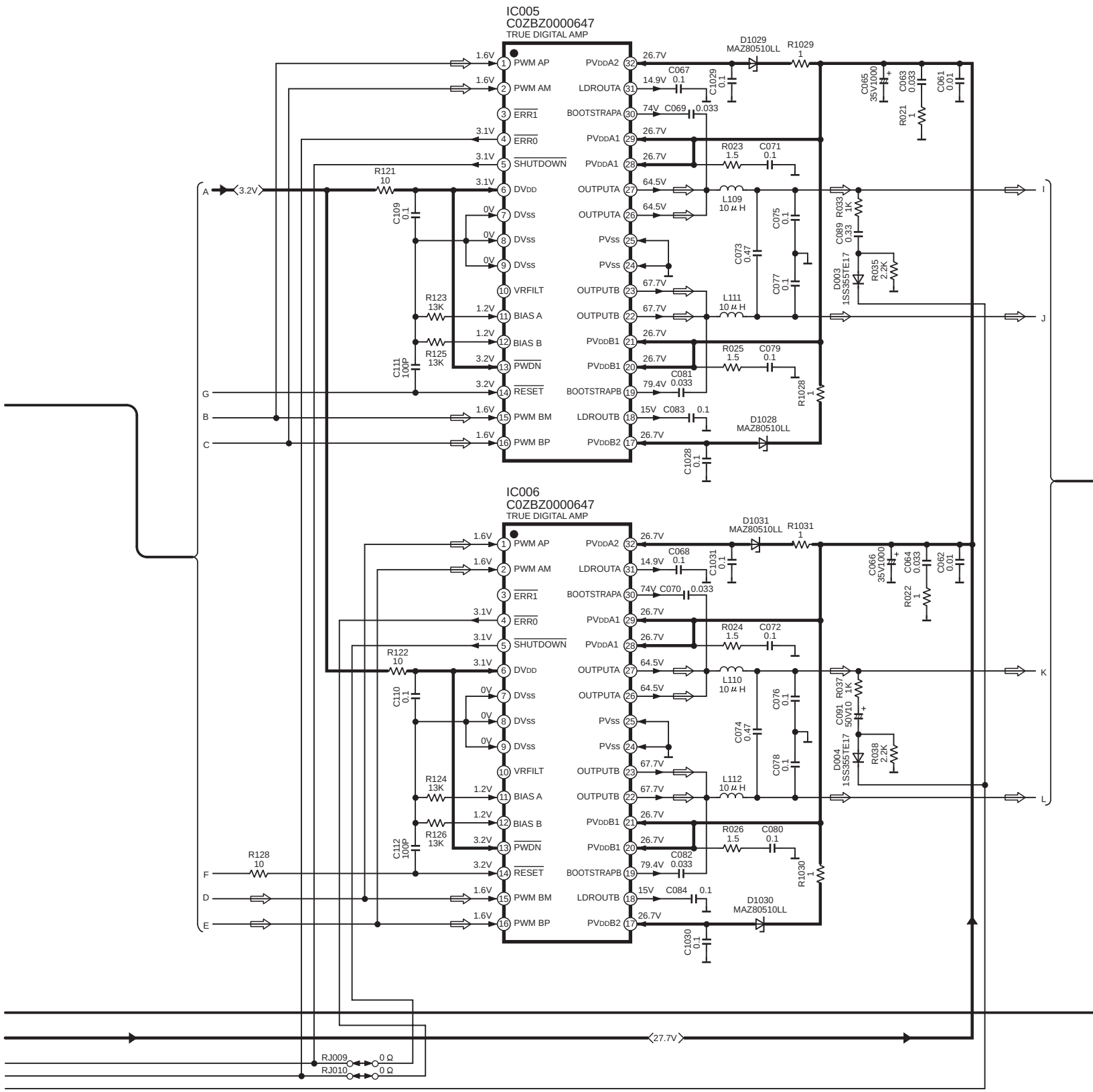
25 26 27 28 29 30 31

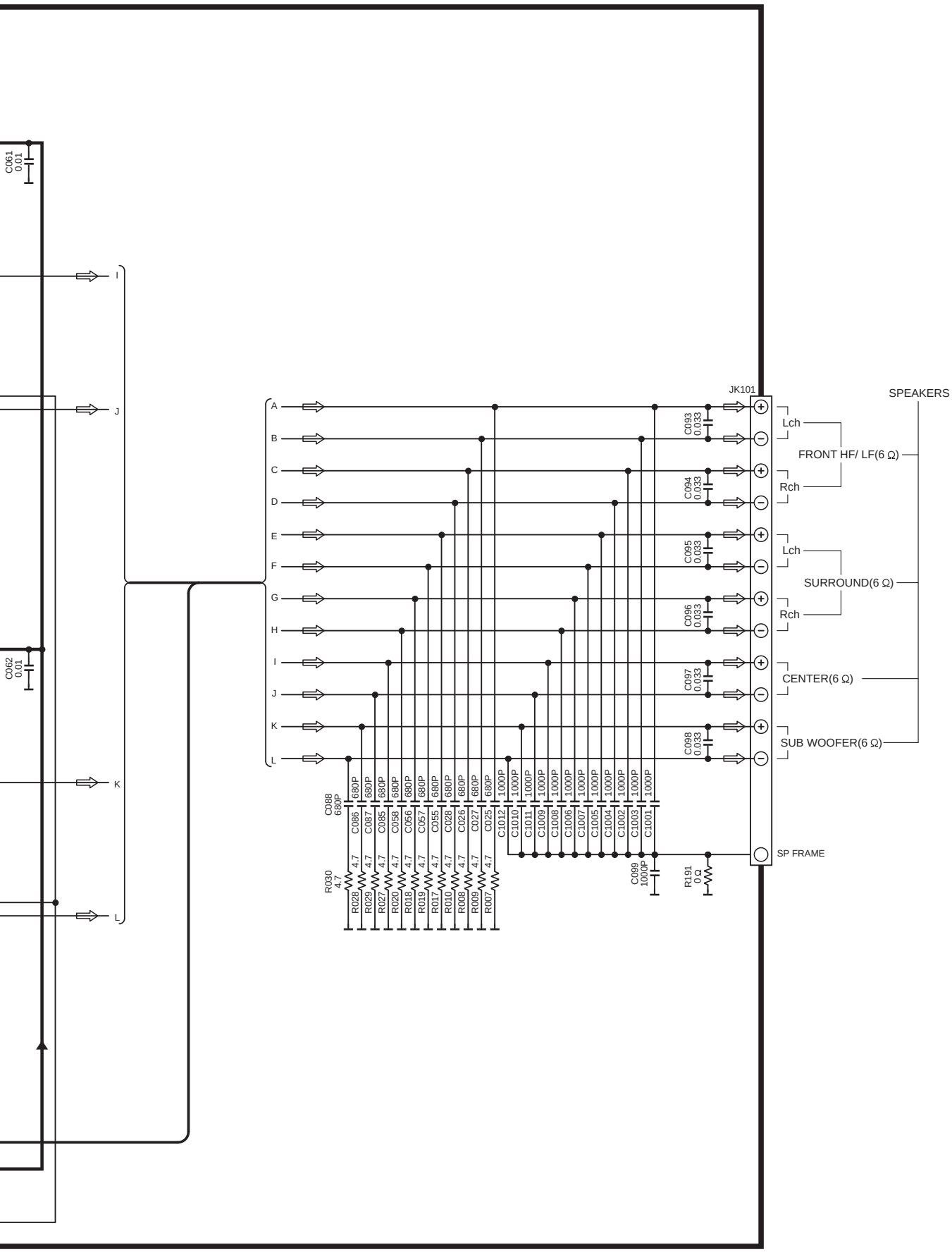

IC013
C0ZBZ0000650
DIGITAL AUDIO
PWM PROCESSOR
IC016
C0JBAZ001870
BUFFER
IC007
AHCT1G08DBV
AND GATE
MCLK IN
AVDD2
PLL FLT OUT
PLL FLT RET
AVss2
NC
/ RESET
/ PDN
VALID R
M S
DVss1
AVDD1
XTL IN
XTL OUT
OSC CAP
AVss1
DEM EN
DEM SEL
FTEST
STEST
DBSPD
/ MUTE
DVss3 L
DVDD3L
PWM P L
PWM M L
DVDD2
DVss2
PWM P R
PWM N R
DVDD3 R
DVss1
DVDD1
MCLK OUT
SCLK
LRCLK
SDIN
MOD2
MOD1
MOD0
ALID L
DVss3 R
C031 0.01
C032 0.01
C129 0.1
R144 4.7
R159 2.4K
C185 47P
C184 680P
C198 330P
R131 22
C195 1
C123 0.1
R155 47
R154 47
R153 47
C132 0.1
C126 0.1
R127 10
Vcc
OE
GND
Y
A
B

SCHEMATIC DIAGRAM–9

D DIGITAL AMP CIRCUIT

:POSITIVE VOLTAGE LINE :AUDIO SIGNAL LINE

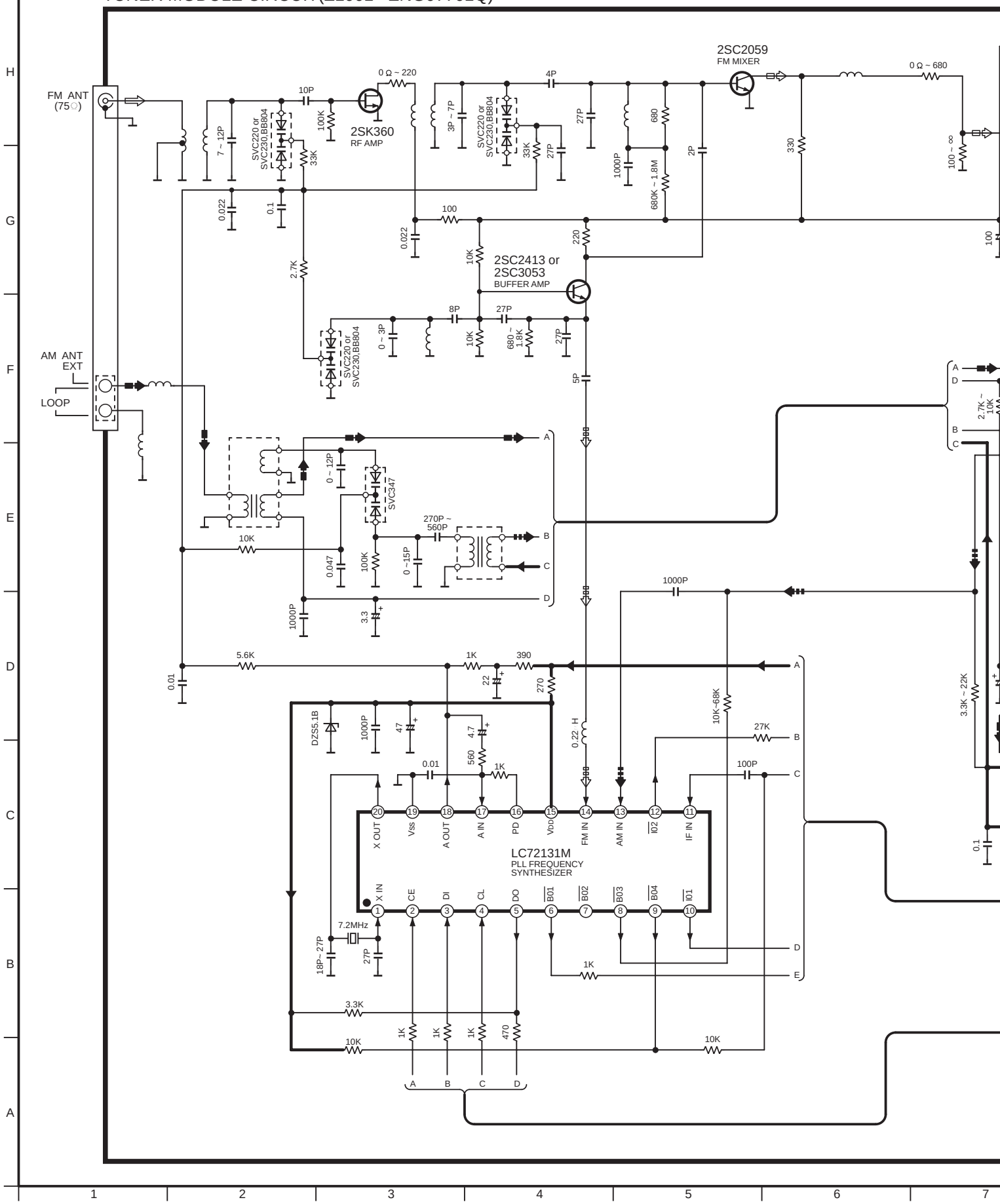


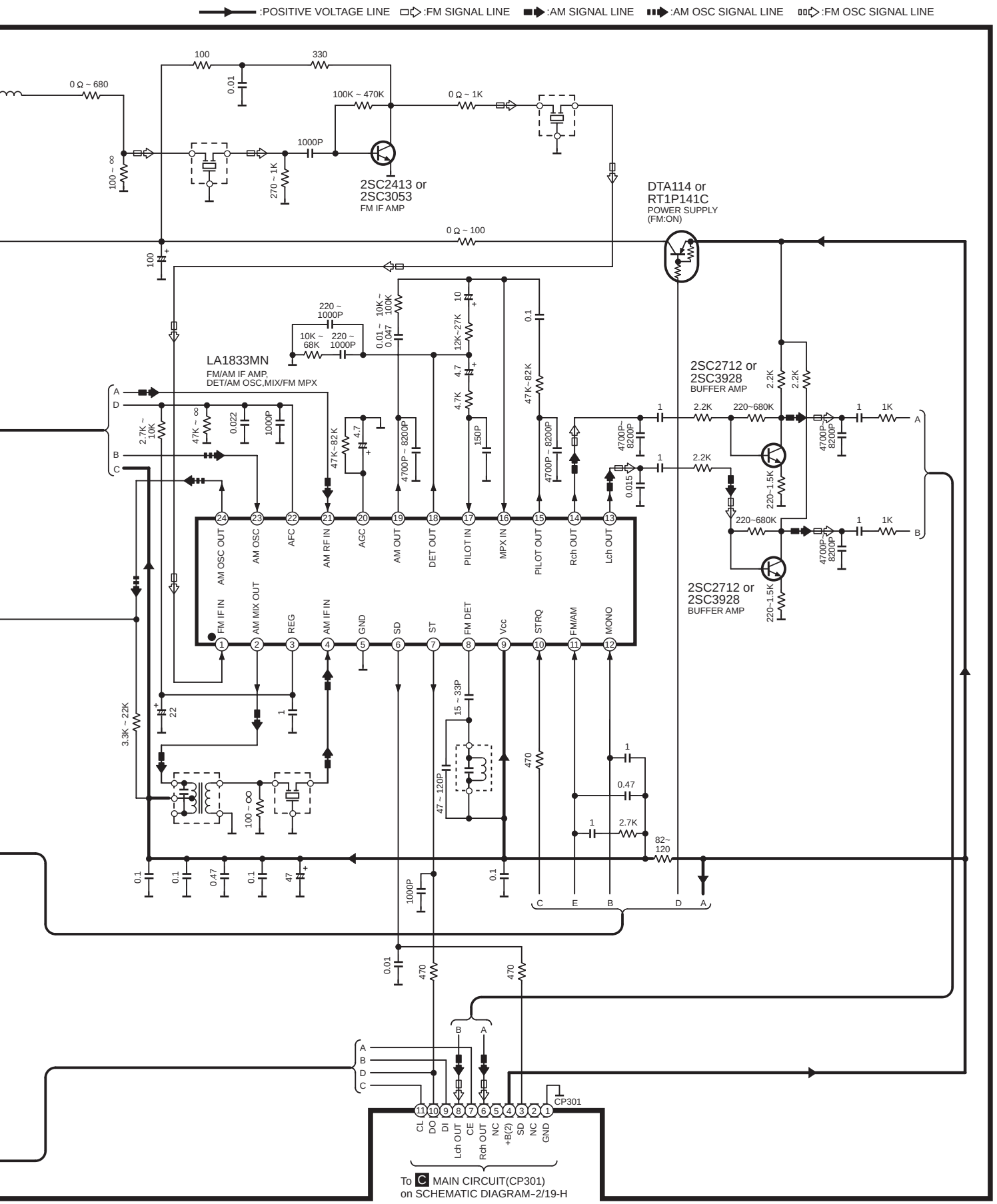


SA-DT300(E,EB,EG) DIGITAL AMP CIRCUIT DIAGRAM

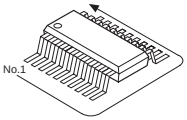
SCHEMATIC DIAGRAM–10

TUNER MODULE CIRCUIT(Z1001 • ENG07701Q)



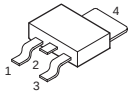


SA-DT300(E,EB,EG) TUNER MODULE CIRCUIT DIAGRAM

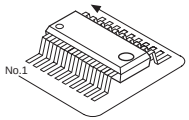


BU4053BCFE2	16PIN	M62456FPE1	24PIN
NJU7313AMT2	30PIN	C0ZBZ0000647	32PIN
C1BB00000527	16PIN	C0FBAJ000009	14PIN
NJM4558MTE1	8PIN	C0FBAK000008	20PIN
M62444F PE1	42PIN	TC7WH74FUTL	8PIN
M5218AP	8PIN		

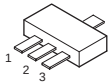
C0CBAEE00004



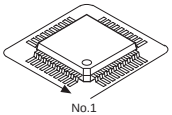
C0HBB0000030	64PIN



C0CBABC00119



C2CBHG000095	80PIN
C2HBZC000013	80PIN
C0ZBZ0000650	48PIN



C0JBAB000423
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C0JBAD000153
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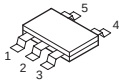
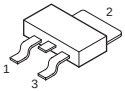
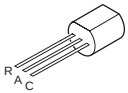


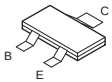


C0CBAEE00003
C0CBAHE00002
C0CBADE00034
C0CBADE00031

C0DAZZC00003

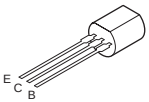


2SD1819ATX
2SB1218TX
2SB12190WL

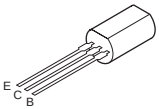


B1ABGC000001
UN521MTX
UN5211TX
UN5214TX
UN5115TX
UN5111TX

2SB621RSTA



2SC3940ARSTA



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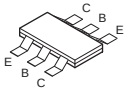
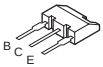
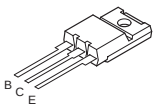
B1GFGCAA0001



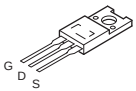
B1BCJJ000001



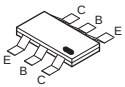
2SA20570P



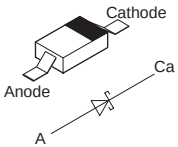
B1DEGL000004



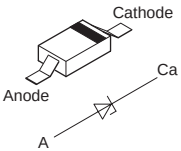
XN0431100L



MA728TX

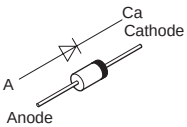


MAZ80910HL
MA8082MTX

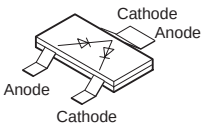


MA8068MTX
MAZ83000HL
MA8120MTX
MAZ80680LL
MA8051MTX
MA8043MTX
MAZ80510LL

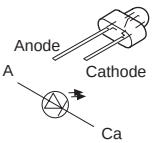
RL1N4003N02



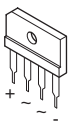
MA143TX



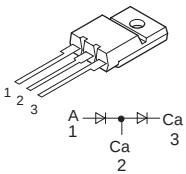
SELS5923C



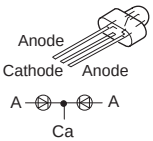
B0FFAC000001

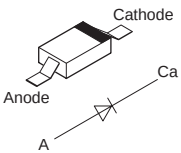


B0FBAP000001

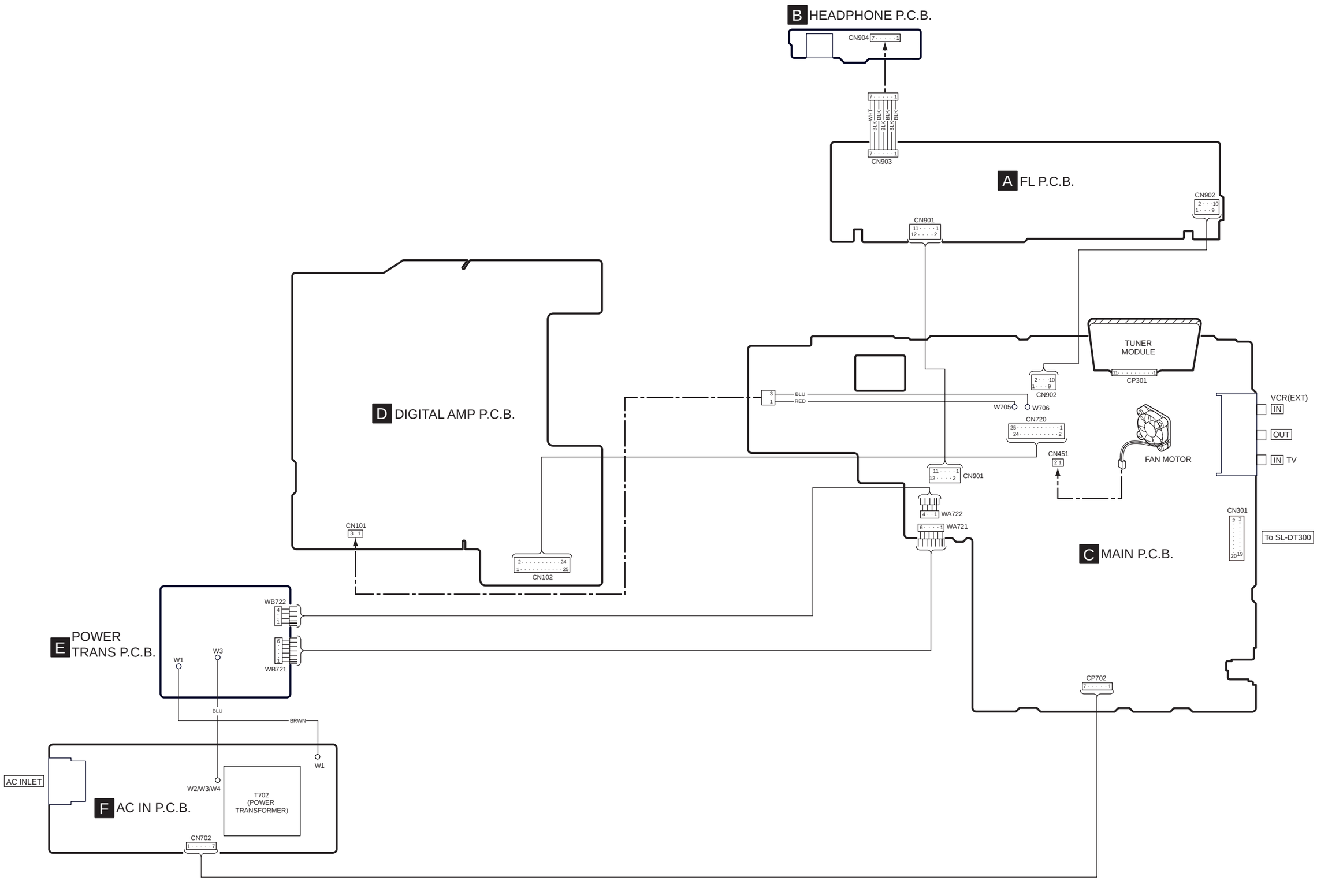


B3AGA000079





MA111TX
1SS380TE-17
1SS355TE17



NOTE:
BLK · · · Black
BLU · · · BLue
BRN · · · Brown
RED · · · Red
WHT · · · White

16 Terminal Function of ICs

16.1 IC941(C2CBHG000095): System Control

Pin No.	Terminal Name	I/O	Function
1	FL SCK	O	Clock signal output for IC901
2	FL CS	O	Chip select signal output for IC901
3	FL RST	O	Reset signal output for IC901
4	DSP DATA	O	Data signal output for DSP
5	DSP CLK	O	Clock signal output for DSP
6	CNV $_{SS}$	-	Connected to GND via resister
7	XC IN	-	Not used, open
8	XC OUT	-	Not used, open
9	RST	I	Reset signal input
10	X OUT	O	Ceramic oscillator connected (F=10 MHz)
11	V $_{SS}$	-	GND
12	X IN	I	Ceramic oscillator connected (F=10 MHz)
13	V $_{CC}$	I	Power supply terminal
14	CNT F	-	Connected to V $_{CC}$ via resister
15	AC IN	I	Power failure detect signal input
16	REMOTE	I	Remote control signal input
17	DSP1 RST	O	DSP reset signal output
18	DSP1 CS	O	DSP chip select signal output
19	MUTE F&SW	O	Muting signal output for Front speakers, Sub woofer
20	MUTE C&S	O	Muting signal output for Center, Surround speakers
21	CEK	-	Not used, open
22	PMD DIN	I	Not used
23	PMD DOUT	O	Not used
24	DVD& AMP D OUT	O	DVD communication data signal output
25	DVD D IN	I	DVD communication data signal input
26	DVD& AMP CLK	I	DVD communication clock signal input
27	DVD& AMP CS	I	DVD communication chip select signal input
28	MDDOUT	O	Not used
29	MDDIN	I	Not used, connected to GND
30	MDCLK	O	Not used
31	MDCS	I	Not used, connected to GND
32	DVD REQ	O	DVD communication request signal output

33	MDRST	-	Not used
34	MDREQ	-	Not used
35	LOAD SW	-	Not used
36	JOG B	I	Volume JOG signal B input
37	JOG A	I	Volume JOG signal A input
38	MUTE SW	O	Mute signal output for Sub woofer
39	DARST	O	Reset signal output for digital amplifier
40	NJU ST	O	Stereo signal output for IC201
41	NJU DO	O	Data signal output for IC201, IC501
42	NJU CK	O	Clock signal output for IC201, IC501
43	VOL LTCH	O	Latch signal output for IC501
44	E2P DIO	O	Not used, connected to GND
45	E2P CLK	O	Not used, connected to GND
46	E2P CE	O	Not used, connected to GND
47	HP	I	Headphone connecting detect signal input
48	VR ATT	O	Volume attenuator signal output
49	CR TIMER	I	CR timer signal input
50	CS4	I	Not used, connected to GND
51	CS3	I	Not used, connected to VREF
52	CS2	I	Not used, connected to VREF
53	CS1	I	Not used, connected to GND
54	CS0	I	Not used, connected to GND
55	LED STBY	O	LED drive signal output
56	LED TIMER	O	LED drive signal output
57	LED STBY2	O	LED drive signal output
58	HP MUT	O	Mute signal output for headphone when the power ON/OFF
59	TUN CE	O	Chip enable signal output for LC72131M
60	TUN DIN/ST	I	Data signal/stereo signal input
61	TUN DOUT	O	Data signal output for LC72131M
62	TUN CLK	O	Clock signal output for LC72131M
63	TUN SD	I	Station detect signal input
64	POWER	O	Power signal output
65	FAN1	O	Fan motor drive signal output 1
66	FAN2	O	Fan motor drive signal output 2
67	FRQ SHIFT	O	Digital amplifier oscillated frequency change signal output
68	PQ DET	-	Not used, connected to GND
69	RDS DIN	I	Data signal input from IC541
70	RDS CLK	O	Clock signal output for IC541
71	RDS RDYIN	I	Ready signal input from IC541
72	AMP ERR	I	Digital amplifier error signal input
73	AMP SHTDN	I	Digital amplifier shut down signal input
74	FAN DET	I	Input for playback signal detect
75	AV SS	-	GND
76	KEY	I	Operation key signal input
77	VREF	I	Reference voltage input
78	AV CC	I	Power supply terminal
79	F61	I	Power supply abnormal detect signal input
80	FL DATA	O	Data signal output for IC901

17 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 - marks in Remarks indicate language of operating instructions.
  : German, Italian, French
  : Swedish, Netherlands, Danish
  : English
  : Spanish, Polish, Czech
- The parenthesized indications in the Remarks columns specify the areas.
  (E): SA-DT300E
  (EB): SA-DT300EB
  (EG): SA-DT300EG
- The marking in Ref No. indicate as follow.
  *2: FL circuit
- The marking [RTL] indicates the retention time is limited for this item. After the discontinuation of this assembly in production, it will no longer be available.
- All parts are supplied by MESA.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1	XTB3+8JFZ	SCREW	15	
2	REM0106	FAN UNIT	1	
3	REZ1446	FFC	1	
4	RGK1508-K	BOTTOM COVER	1	
5	RGN2248-K	NAME PLATE	1	(EG)
5	RGN2249-K	NAME PLATE	1	(EB)
5	RGN2250-K	NAME PLATE	1	(E)
6	RGR0329B-A1A	REAR PANEL	1	
7	RHD30078	SCREW	2	
8	RKA0137-K	RUBBER	4	
9	RMA1538	FAN ANGLE	1	
10	RMC0471	ANGLE	1	
11	RMN0696	HOLDER 1	1	
12	RMN0699	HOLDER 2	1	
13	RHD20034	SCREW	1	
14	RMZ0611	BARRIER	1	
15	SHR415	BINDER	1	
16	XTB3+23J	SCREW	2	
17	XTB3+6JFZ	SCREW	2	
18	XTBS3+8JFZ1	SCREW	16	
19	XTW3+8T	SCREW	1	
21	RMZ0339	ZENNER COVER	1	
22	J0KE00000063	CORE 1	1	
23	J0KE00000064	CORE 2	1	

24	REX1130	WIRE ASS'Y	1	
25	RHD26038-K	SCREW	3	
26	RMG0585-H	RUBBER(HEAT SHINK)	6	
27	REZ1447	FFC	1	
28	REZ1448-1	FFC	1	
29	RGK1506A-S	BOTTOM ORNAMENT	1	
30	RGK1517-S	VOLUME ORNAMENT	1	
31	RGK1518-S1	PANEL ORNAMENT	1	
32	RGL0587-Q	TIME RPANEL LENS	1	
33	RGP0927-K	FRONT PANEL	1	
34	RGU2095-S	BUTTON,POWER	1	
35	RGW0389-S	KNOB,VOLUME	1	
36	RHN90001	NUT	1	
37	RKW0686-K	SENSOR COVER	1	
38	RMC0497	EARTH ANGLE	1	
39	RMN0715-1	LED CASE	1	
41	XTBS26+8J	SCREW	1	
42	REX1131	WIRE ASS'Y	1	
44	RKM0463-S	TOP COVER	1	
A1	VFA0151-2	RCAJ ADAPTOR	1	K1JZ24D00001
A2	RJL1P019B15	VIDEO CABLE	1	K2JA2A000018
A3	RSA0007	FM INDOOR ANTENNA	1	N1EAYY000002
A4	N2QAJB000049	REMOTE CONTROL	1	
A4-1	HTR028352001	BATTERY COVER	1	
A5	REX1129	SPEAKER CABLES	2	
A6	RFE0088-1	CLEANING CLOTH	1	
A7	RJA0019-2X	AC MAINS LEAD	1	⚠(E,EG)
A7	RJA0053-3X	AC MAINS LEAD	1	⚠(EB)
A8	REK0063	AM LOOP ANTENNA	1	
A9	RQCA0950	SPEAKER-CORD STICKERS	1	
A10	RQCB0169	SERVICE CENTER LIST	1	
A11	RQT6385-D	OPERATING INSTRUCTIONS	1	(EG)
A11	RQT6386-H	OPERATING INSTRUCTIONS	1	(EG)
A11	RQT6387-B	OPERATING INSTRUCTIONS	1	(E,EB)
A11	RQT6388-R	OPERATING INSTRUCTIONS	1	(E)
A12	SJP9009	ANTENNA PLUG ADAPTOR	1	K1YZ02000013 (EB)
C001,02	ECUVNH103KBV	50V 0.01U	2	F1H1H103A748
C003,04	F1H1H333A783	50V 0.033U	2	
C005,06	EEUFF1V102E	35V 1000U	2	
C007,08	F1H1H104A783	50V 0.1U	2	
C009,10	F1H1H333A783	50V 0.033U	2	
C011,12	F1J1H104A679	50V 0.1U	2	
C013,14	ECQE1474KF3	100V 0.47U	2	
C015-20	F1J1H104A679	50V 0.1U	6	
C021,22	F1H1H333A783	50V 0.033U	2	
C023,24	F1H1H104A783	50V 0.1U	2	
C025-28	ECJ1VB1H681K	35V 680P	4	
C030	F1J1H334A679	50V 0.33U	1	

C031,32	ECUVNH103KBV	50V 0.01U	2	F1H1H103A748
C033,34	F1H1H333A783	50V 0.033U	2	
C035,36	EEUFF1V102E	35V 1000U	2	
C037,38	F1H1H104A783	50V 0.1U	2	
C039,40	F1H1H333A783	50V 0.033U	2	
C041,42	F1J1H104A679	50V 0.1U	2	
C043,44	ECQE1474KF3	100V 0.47U	2	
C045-50	F1J1H104A679	50V 0.1U	6	
C051,52	F1H1H333A783	50V 0.033U	2	
C053,54	F1H1H104A783	50V 0.1U	2	
C055-58	ECJ1VB1H681K	35V 680P	4	
C059	F1J1H334A679	50V 0.33U	1	
C061,62	ECUVNH103KBV	50V 0.01U	2	F1H1H103A748
C063,64	F1H1H333A783	50V 0.033U	2	
C065,66	EEUFF1V102E	35V 1000U	2	
C067,68	F1H1H104A783	50V 0.1U	2	
C069,70	F1H1H333A783	50V 0.033U	2	
C071,72	F1J1H104A679	50V 0.1U	2	
C073,74	ECQE1474KF3	100V 0.47U	2	
C075-80	F1J1H104A679	50V 0.1U	6	
C081,82	F1H1H333A783	50V 0.033U	2	
C083,84	F1H1H104A783	50V 0.1U	2	
C085-88	ECJ1VB1H681K	35V 680P	4	
C089	F1J1H334A679	50V 0.33U	1	
C091	ECA1HAK100XB	50V 10U	1	
C093-98	F1H1H333A783	50V 0.033U	6	
C099	ECJ1VB1H102K	50V 1000P	1	
C100	F1H1H104A783	50V 0.1U	1	
C101,02	ECJ1VB1C104K	16V 0.1U	2	
C103,04	ECUV1H101JCV	50V 100P	2	F1H1H101A004
C105,06	ECJ1VB1C104K	16V 0.1U	2	
C107,08	ECUV1H101JCV	50V 100P	2	F1H1H101A004
C109,10	ECJ1VB1C104K	16V 0.1U	2	
C111,12	ECUV1H101JCV	50V 100P	2	F1H1H101A004
C121-32	ECJ1VB1C104K	16V 0.1U	12	
C133-36	ECUV1H180JCV	50V 18P	4	ECJ1VC1H180J
C137,38	ECJ1VB1C104K	16V 0.1U	2	
C139-44	ECST1CY105	16V 1U	6	
C149,50	ECJ1VB1C104K	16V 0.1U	2	
C151,52	ECST1AY475R	10V 4.7U	2	
C153,54	ECJ1VB1C104K	16V 0.1U	2	
C155,56	ECST1AY475R	10V 4.7U	2	
C157,58	ECJ1VB1C104K	16V 0.1U	2	
C159-62	ECST1AY475R	10V 4.7U	4	
C175	ECJ1VB1C104K	16V 0.1U	1	
C177	ECJ1VB1H102K	50V 1000P	1	
C180	ECJ1VB1H681K	35V 680P	1	
C181	ECUV1H470JCV	50V 47P	1	F1H1H470A736
C182	ECJ1VB1H681K	35V 680P	1	
C183	ECUV1H470JCV	50V 47P	1	F1H1H470A736
C184	ECJ1VB1H681K	35V 680P	1	
C185	ECUV1H470JCV	50V 47P	1	F1H1H470A736
C186	ECJ1VB1H102K	50V 1000P	1	
C187-92	ECUV1H471KBV	50V 470P	6	F1H1H471A013
C193	ECJ1VB1C104K	16V 0.1U	1	

C194,95	F1H1A105A028	10V 1U	2	
C196-98	ECUV1H331KBV	50V 330P	3	ECJ1VB1H331K
C199	ECJ1VB1H102K	50V 1000P	1	
C201-04	ECUV1H331KBV	50V 330P	4	ECJ1VB1H331K
C205,06	ECUV1H330JCV	50V 33P	2	ECJ1VC1H330J
C207,08	RCE1HKA4R7BG	50V 4.7U	2	F2A1H4R70009
C209,10	ECUVNH103KBV	50V 0.01U	2	F1H1H103A748
C211-13	ECUV1H470JCV	50V 47P	3	F1H1H470A736
C214,15	ECJ1VB1C104K	16V 0.1U	2	
C301-06	ECUV1H101JCV	50V 100P	6	F1H1H101A004
C307-09	ECUVNH103KBV	50V 0.01U	3	F1H1H103A748
C310	ECA1CAK220XB	16V 22U	1	
C311,12	ECST1AY475R	10V 4.7U	2	
C313,14	ECUV1H101JCV	50V 100P	2	F1H1H101A004
C315,16	ECUV1H220JCV	50V 22P	2	ECJ1VC1H220J
C317,18	ECUVNH103KBV	50V 0.01U	2	F1H1H103A748
C319,20	ECJ1VB1H102K	50V 1000P	2	
C321,22	ECA1CAK100XB	16V 10U	2	
C323-26	ECUVNC683KBV	16V 0.068U	4	F1H1C683A001
C327,28	ECUV1H101JCV	50V 100P	2	F1H1H101A004
C329	ECUV1H471KBV	50V 470P	1	F1H1H471A013
C330	ECUV1H101JCV	50V 100P	1	F1H1H101A004
C331,32	ECA1CAK220XB	16V 22U	2	
C333,34	ECUVNH103KBV	50V 0.01U	2	F1H1H103A748
C335	RCE1AKA330BG	10V 33U	1	F2A1A330A011
C336,37	F1H1H333A783	50V 0.033U	2	
C338	ECUVNA154KBV	10V 0.15U	1	F1H1A154A028
C339	ECJ1VB1H123K	50V 0.012U	1	
C340	ECUVNC683KBV	16V 0.068U	1	F1H1C683A001
C342,43	ECST1CY105	16V 1U	2	
C344	ECUV1H101JCV	50V 100P	1	F1H1H101A004
C345	ECUV1H220JCV	50V 22P	1	ECJ1VC1H220J
C346	ECJ1VB1C104K	16V 0.1U	1	
C347	ECUV1H220JCV	50V 22P	1	ECJ1VC1H220J
C348	ECUV1H101JCV	50V 100P	1	F1H1H101A004
C349,50	ECUVNH103KBV	50V 0.01U	2	F1H1H103A748
C351,52	ECUV1H101JCV	50V 100P	2	F1H1H101A004
C353	ECUV1H220JCV	50V 22P	1	ECJ1VC1H220J
C355	ECUV1H220JCV	50V 22P	1	ECJ1VC1H220J
C356-58	ECJ1VB1C104K	16V 0.1U	3	
C359	ECA1CAK100XB	16V 10U	1	
C361-63	ECA1CAK100XB	16V 10U	3	
C365	ECST1CY225R	16V 2.2U	1	
C367	ECA1CAK100XB	16V 10U	1	
C368	RCE1HKA4R7BG	50V 4.7U	1	F2A1H4R70009
C370	RCE1HKA4R7BG	50V 4.7U	1	F2A1H4R70009
C371	ECST1AY106R	10V 10U	1	
C378	RCE1HKA4R7BG	50V 4.7U	1	F2A1H4R70009
C379	ECUV1H822KBV	50V 8200P	1	ECJ1VB1H822K
C380	ECUV1H472KBV	50V 4700P	1	
C454	ECA0JAK101XB	6.3V 100U	1	
C456	ECEA1CKN100B	16V 10U	1	
C457	ECEA1HKNR47B	50V 0.47U	1	
C458,59	ECUVNH103KBV	50V 0.01U	2	F1H1H103A748
C501,02	ECUVNJ105KBV	6.3V 1U	2	F1H0J105A002

C504	ECJ1VB1C104K	16V 0.1U	1	
C505	ECUV1H101JCV	50V 100P	1	F1H1H101A004
C506	ECA1CAK100XB	16V 10U	1	
C507	ECUV1H221KBV	50V 220P	1	F1H1H2210001
C508	ECA1CAK100XB	16V 10U	1	
C511	ECA1CAK100XB	16V 10U	1	
C512	ECUVNJ105KBV	6.3V 1U	1	F1H0J105A002
C514	RCE1HKA3R3BG	50V 3.3U	1	F2A1H3R3A015
C515	ECA1CAK100XB	16V 10U	1	
C516	ECUV1H221KBV	50V 220P	1	F1H1H2210001
C517	ECUVNJ105KBV	6.3V 1U	1	F1H0J105A002
C519	ECUV1H101JCV	50V 100P	1	F1H1H101A004
C520	ECA1CAK100XB	16V 10U	1	
C522	ECUV1H470JCV	50V 47P	1	F1H1H470A736
C525	RCE1HKA3R3BG	50V 3.3U	1	F2A1H3R3A015
C527	ECUVNH103KBV	50V 0.01U	1	F1H1H103A748
C528	ECJ1VB1C104K	16V 0.1U	1	
C531	ECA1HAK2R2XB	50V 2.2U	1	
C541	ECJ1VB1H102K	50V 1000P	1	
C542	ECA1CAK100XB	16V 10U	1	
C543	ECUV1H331KBV	50V 330P	1	ECJ1VB1H331K
C544	RCE0JKA470BG	6.3V 47U	1	F2A0J470A014
C545	ECUV1H561KBV	50V 560P	1	F1H1H561A013
C546	RCE0JKA470BG	6.3V 47U	1	F2A0J470A014
C547	ECJ1VB1H102K	50V 1000P	1	
C548	ECUVNH103KBV	50V 0.01U	1	F1H1H103A748
C549,50	ECUV1H470JCV	50V 47P	2	F1H1H470A736
C601	ECA0JAK101XB	6.3V 100U	1	
C602-05	ECA1HAK010XI	50V 1U	4	
C606,07	RCE1HKA4R7BG	50V 4.7U	2	F2A1H4R70009
C608	ECUVNJ105KBV	6.3V 1U	1	F1H0J105A002
C609	ECUVNH103KBV	50V 0.01U	1	F1H1H103A748
C610	ECJ1VC1H050C	50V 5P	1	
C611	ECUVNE223KBV	25V 0.022U	1	F1H1E223A050
C612	ECJ1VC1H120J	50V 12P	1	
C613	ECUVNJ105KBV	6.3V 1U	1	F1H0J105A002
C614	ECUVNH103KBV	50V 0.01U	1	F1H1H103A748
C615	ECA0JAK101XB	6.3V 100U	1	
C616	ECJ1VB1C104K	16V 0.1U	1	
C617	ECJ1VB1H222K	35V 2200P	1	
C618,19	ECA1CAK100XB	16V 10U	2	
C620	ECUVNH103KBV	50V 0.01U	1	F1H1H103A748
C621	ECUVNJ105KBV	6.3V 1U	1	F1H0J105A002
C622	ECJ1VB1H222K	35V 2200P	1	
C623	ECUVNE223KBV	25V 0.022U	1	F1H1E223A050
C624	ECJ1VB1C104K	16V 0.1U	1	
C625	ECUVNH103KBV	50V 0.01U	1	F1H1H103A748
C626	ECA1AAK221XH	10V 220U	1	
C628	ECA0JAK101XB	6.3V 100U	1	
C629	RCE0JKA470BG	6.3V 47U	1	F2A0J470A014
C630	ECUVNJ105KBV	6.3V 1U	1	F1H0J105A002
C631	ECA0JAK101XB	6.3V 100U	1	
C632	ECUVNH103KBV	50V 0.01U	1	F1H1H103A748
C633	ECUVNJ105KBV	6.3V 1U	1	F1H0J105A002
C635	ECUVNJ105KBV	6.3V 1U	1	F1H0J105A002

C637	ECUVNH103KBV	50V 0.01U	1	F1H1H103A748
C639,40	ECJ1VB1H222K	35V 2200P	2	
C641	ECUVNJ105KBV	6.3V 1U	1	F1H0J105A002
C643,44	ECUVNJ105KBV	6.3V 1U	2	F1H0J105A002
C646,47	ECA1HAK010XI	50V 1U	2	
C648	ECJ1VB1C104K	16V 0.1U	1	
C701	ECKWRS102MBC	1000P	1	⚠
C702	ECUVNH103KBV	50V 0.01U	1	F1H1H103A748
C704	RCE1HKA4R7BG	50V 4.7U	1	F2A1H4R70009
C705	ECUVNH103KBV	50V 0.01U	1	F1H1H103A748
C706	RCE1AKA470BG	10V 47U	1	F2A1A470A011
C707	ECUVNH103KBV	50V 0.01U	1	F1H1H103A748
C708	ECA1CAM102X	16V 1000U	1	
C710	ECA1HAK100XB	50V 10U	1	
C711	ECA2AAM100XB	100V 10U	1	
C712	F1J1H104A679	50V 0.1U	1	
C721	ECUVNA154KBV	10V 0.15U	1	F1H1A154A028
C722	ECUVNC473KBV	16V 0.047U	1	F1H1C473A071
C723	ECUVNH103KBV	50V 0.01U	1	F1H1H103A748
C724	ECUVNC473KBV	16V 0.047U	1	F1H1C473A071
C726	F1J1H334A679	50V 0.33U	1	
C727	ECA1CAK100XB	16V 10U	1	
C728	ECA1EAM102XB	25V 1000U	1	
C730	ECA1EAM682XE	25V 6800U	1	
C731	ECA1HAM101XB	50V 100U	1	
C732	ECA1CAK101XB	16V 100U	1	
C733	F1J1H334A679	50V 0.33U	1	
C735	F1J1H104A679	50V 0.1U	1	
C736	ECA1EAM102XB	25V 1000U	1	
C739	F1J1H104A679	50V 0.1U	1	
C740	ECST1AY475R	10V 4.7U	1	
C742	F2A1C470A015	16V 47U	1	
C744	F1J1H104A679	50V 0.1U	1	
C745,46	ECQE1104KF3	100V 0.1U	2	
C747	ECJ1VB1H102K	50V 1000P	1	
C748	F1J1H104A679	50V 0.1U	1	
C749	ECJ3YB1E105K	25V 1U	1	
C750	ECES1VV472T	35V 4700U	1	
C751	F1J1H104A679	50V 0.1U	1	
C752	ECUVNH103KBV	50V 0.01U	1	F1H1H103A748
C753	ECA1CAK470XB	16V 47U	1	
C754	F1J1H104A679	50V 0.1U	1	
C755	ECJ3YB1E105K	25V 1U	1	
C756	F1J1H104A679	50V 0.1U	1	
C757	RCE1VKA100BG	35V 10U	1	F2A1V1000011
C761,62	F1J1H104A679	50V 0.1U	2	
C763	ECUVNH103KBV	50V 0.01U	1	F1H1H103A748
C901-04	ECA1EAK220XB	25V 22U	4	
C905	ECST1AY475R	10V 4.7U	1	
C906	ECUVNH103KBV	50V 0.01U	1	F1H1H103A748
C907	ECJ1VB1C104K	16V 0.1U	1	
C908	ECUVNH103KBV	50V 0.01U	1	F1H1H103A748
C909	EEAFC0J101B	6.3V 100U	1	
C910	ECUV1H390KCV	50V 39P	1	ECJ1VC1H390K

C911	ECUVNH103KBV	50V 0.01U	1	F1H1H103A748
C912-14	ECUV1H560KCV	50V 56P	3	ECJ1VC1H560K
C916	ECUVNH103KBV	50V 0.01U	1	F1H1H103A748
C917,18	F1H1H473A783	50V 0.047U	2	
C920	ECJ1VB1C104K	16V 0.1U	1	
C941,42	ECUV1H221KBV	50V 220P	2	F1H1H2210001
C943,44	ECJ1VB1C104K	16V 0.1U	2	
C947	ECJ1VB1C104K	16V 0.1U	1	
C948	ECUVNE223KBV	25V 0.022U	1	F1H1E223A050
C949	ECJ1VB1H102K	50V 1000P	1	
C950	ECA1AAM102XB	10V 1000U	1	
C951	ECJ1VB1C104K	16V 0.1U	1	
C952	RCE1HKA3R3BG	50V 3.3U	1	F2A1H3R3A015
C953	ECUVNH103KBV	50V 0.01U	1	F1H1H103A748
C954	ECUV1H221KBV	50V 220P	1	F1H1H2210001
C955	ECUVNH103KBV	50V 0.01U	1	F1H1H103A748
C956	ECUV1H221KBV	50V 220P	1	F1H1H2210001
C957	ECST1AY106R	10V 10U	1	
C1001-12	ECJ1VB1H102K	50V 1000P	12	
C1013-16	F1H1H104A783	50V 0.1U	4	
C1020-31	F1H1H104A783	50V 0.1U	12	
C1040-43	F1J1H104A679	50V 0.1U	4	
CN101	K1KA02A00104	CONNECTOR(3P)	1	
CN102	RJS1A6825	CONNECTOR(25P)	1	K1MN25A00006
CN301	RJT065K20	SYSTEM CONNECTOR (20P)	1	K1FA220B0006
CN451	K1KA02A00008	CONNECTOR(2P)	1	
CN702	RJU100W07	CONNECTOR(7P)	1	K1KB07A00018
CN703-10	RJS1A1101T1	CONNECTOR(1P)	8	
CN712-15	RJS1A1101T1	CONNECTOR(1P)	4	
CN720	RJS1A6825	CONNECTOR(25P)	1	K1MN25A00006
CN901	K1MN12A00047	CONNECTOR(12P)	1	
CN901*2	K1MN12B00095	CONNECTOR(12P)	1	
CN902	K1MN10A00052	CONNECTOR(10P)	1	
CN902*2	K1MN10B00088	CONNECTOR(10P)	1	
CN904	K1KA07B00051	CONNECTOR(7P)	1	
CP301	RJT100W11	CONNECTOR(11P)	1	K1KA11A00093
CP702	RJT100W07	CONNECTOR(7P)	1	K1KA07A00082
D001-04	B0ACCK000005	DIODE	4	
D051,52	MA8120M	DIODE	2	MAZ81200M
D301-04	MA2J11100L	DIODE	4	
D451	MA2J11100L	DIODE	1	
D453	MA2J11100L	DIODE	1	
D456	MA2J11100L	DIODE	1	
D457	RL1N4003N02	DIODE	1	B0AAMM000009
D501	MAZ80510LL	DIODE	1	
D541	MA8051M	DIODE	1	MAZ80510M
D701-05	RL1N4003N02	DIODE	5	B0AAMM000009
D708	MAZ80680LL	DIODE	1	
D709	MA2J11100L	DIODE	1	
D710	1SS380TE-17	DIODE	1	
D711-15	RL1N4003N02	DIODE	5	B0AAMM000009
D722	MA8043M	DIODE	1	MAZ80430M
D725	MA143TX	DIODE	1	MA3J14300L
D727	MAZ83000HL	DIODE	1	

D728	RL1N4003N02	DIODE	1	B0AAMM000009
D729,30	MA2J11100L	DIODE	2	
D731	MAZ80910HL	DIODE	1	
D732	MA8082M	DIODE	1	MAZ80820M
D733	B0FBAP000001	DIODE	1	
D734	RL1N4003N02	DIODE	1	B0AAMM000009
D735	B0FBAP000001	DIODE	1	
D736	MA8068MTX	DIODE	1	MAZ80680ML
D737	MA2J11100L	DIODE	1	
D738	B0FFAC000001	DIODE	1	
D740	RL1N4003N02	DIODE	1	B0AAMM000009
D751-54	MA2J11100L	DIODE	4	
D756	MA2J11100L	DIODE	1	
D757	MA8068MTX	DIODE	1	MAZ80680ML
D901,02	MA2J11100L	DIODE	2	
D903,04	SELS5923C	LED	2	B3ADA0000083
D905	B3AGA0000079	DIODE	1	
D906	MAZ80510LL	DIODE	1	
D941	1SS380TE-17	DIODE	1	
D945	MA2J11100L	DIODE	1	
D946	1SS380TE-17	DIODE	1	
D947,48	MA2J11100L	DIODE	2	
D949	MAZ80510LL	DIODE	1	
D950	MA2J11100L	DIODE	1	
D1020-31	MAZ80510LL	DIODE	12	
F1	K5D122BL0002	FUSE	1	⚠
FL901	A2BC00000048	FL DISPLAY	1	
FP701	K5G502AA0002	FUSE PROTECTOR	1	⚠
IC001-06	C0ZBZ0000666	IC	6	
IC007	AHCT1G08DBV	IC	1	C0JBAB000351
IC011-13	C0ZBZ0000650	IC	3	
IC014-16	C0JBAZ001870	IC	3	
IC017	C0JBAD000153	IC	1	
IC018,19	C0JBAB000423	IC	2	
IC020	C0JBAF000162	IC	1	
IC022,23	C0FBAJ000009	IC	2	
IC024	C0FBAK000008	IC	1	
IC051	C0DAZZC00003	IC	1	
IC201	NJU7313AMT2	IC	1	C0JZAS000002
IC202	NJM4558MTE1	IC	1	C0ABBB000109
IC301	BU4053BCFE2	IC	1	
IC302	M62456FPE1	IC	1	C1BB00000389
IC303,04	NJM4558MTE1	IC	2	C0ABBB000109
IC305	M5218AP	IC	1	C0AABB000055
IC501	M62444FPE1	IC	1	C1BB00000386
IC541	C1BB00000527	IC	1	
IC601	C2HBZC000013	IC	1	
IC722	C0CBADE00034	IC	1	
IC723	C0CBADE00031	IC	1	
IC725	C0CBAHE00002	IC	1	
IC726	C0CBADE00034	IC	1	
IC727	C0CBABC00119	IC	1	
IC728	C0CBAEE00004	IC	1	
IC729	C0CBAEE00003	IC	1	

IC901	C0HBB0000030	IC	1	
IC941	C2CBHG000095	IC	1	
JK101	K1FA612B0002	JK,SP TERMINAL	1	
JK301	K2HA311B0004	JK,EXT IN/OUT	1	
JK701	K2AA2B000004	JK,AC IN	1	⚠
JK901	K2HC103A0023	JK,HEADPHONE	1	
L101-12	G0A100K00003	COIL	12	
L541-43	RLBN102V-Y	COIL	3	J0JBC0000041
L601	RLBV102V-Y	COIL	1	J0JBC0000014
L602	J0JCC0000077	COIL	1	
L603	RLBV102V-Y	COIL	1	J0JBC0000014
L604	G0A200D00002	COIL	1	
L701	J0MBA0000013	COIL	1	⚠
L721	J0JBC0000023	COIL	1	
L722	RLQB100JTD-D	COIL	1	G0C100JA0030
L941	RLBV102V-Y	COIL	1	J0JBC0000014
P1	SPP740-1	PROTECTION COVER	2	
P2	RPF0139-1	PROTECTION BAG	1	
P3	RPG5942	PACKING CASE	1	
P4	RPQ1284-1	PAD	1	
P5	RPN1505-1	PAD	2	
PCB1	REP3323E-M	PCB ASS'Y	1	[RTL](E,EG)
PCB1	REP3323F-M	PCB ASS'Y	1	[RTL](EB)
PCB2	REP3326B-T	PCB ASS'Y	1	[RTL]
PCB3	REP3348A-S	PCB ASS'Y	1	[RTL]
Q001	UN5111TX	TRANSISTOR	1	UNR511100L
Q002	XN0431100L	TRANSISTOR	1	
Q051	B1DEGL000004	TRANSISTOR	1	
Q301-05	B1GFGCAA0001	TRANSISTOR	5	
Q306,07	UN5115TX	TRANSISTOR	2	UNR511500L
Q309,10	UN5115TX	TRANSISTOR	2	UNR511500L
Q311	B1ABGC000001	TRANSISTOR	1	
Q314,15	UN5115TX	TRANSISTOR	2	UNR511500L
Q451	UNR521100L	TRANSISTOR	1	
Q452	UN5115TX	TRANSISTOR	1	UNR511500L
Q453	2SD1819A0L	TRANSISTOR	1	
Q454	2SB12190WL	TRANSISTOR	1	
Q455	B1ABGC000001	TRANSISTOR	1	
Q456	2SB1218A0L	TRANSISTOR	1	
Q701	B1ABGC000001	TRANSISTOR	1	
Q702	UNR521100L	TRANSISTOR	1	
Q704	2SC3940ARSTA	TRANSISTOR	1	2SC3940AHA
Q721	2SD1819A0L	TRANSISTOR	1	
Q722	B1BCAJ000003	TRANSISTOR	1	
Q724	B1BCAJ000003	TRANSISTOR	1	
Q726	2SB621RSTA	TRANSISTOR	1	2SB06210HA
Q727	2SD1819A0L	TRANSISTOR	1	
Q729	2SA20570P	TRANSISTOR	1	
Q731	XN0450100L	TRANSISTOR	1	
Q733	2SA20570P	TRANSISTOR	1	
Q901	UN521MTX	TRANSISTOR	1	UNR521M00L
Q903	XN0450100L	TRANSISTOR	1	
Q904	UN521MTX	TRANSISTOR	1	UNR521M00L
Q941	UN5214TX	TRANSISTOR	1	UNR521400L

Q942	2SD1819A0L	TRANSISTOR	1	
R001,02	ERJ3GEYJ1R0V	1/16W 1	2	
R003-06	ERJ8GEYJ1R5V	1/8W 1.5	4	
R007-10	ERJ3GEYJ4R7V	1/16W 4.7	4	
R011,12	ERJ3GEYJ1R0V	1/16W 1	2	
R013-16	ERJ8GEYJ1R5V	1/8W 1.5	4	
R017-20	ERJ3GEYJ4R7V	1/16W 4.7	4	
R021,22	ERJ3GEYJ1R0V	1/16W 1	2	
R023-26	ERJ8GEYJ1R5V	1/8W 1.5	4	
R027-30	ERJ3GEYJ4R7V	1/16W 4.7	4	
R031-33	ERJ3GEYJ102V	1/16W 1K	3	
R034-36	ERJ3GEYJ222V	1/16W 2.2K	3	
R037	ERJ3GEYJ102V	1/16W 1K	1	
R038	ERJ3GEYJ222V	1/16W 2.2K	1	
R051	ERJ3GEYJ122V	1/16W 1.2K	1	
R052	ERJ3GEYJ104Z	1/16W 100K	1	
R053	ERJ6RBD103V	10K	1	
R054	ERJ3RED224	1/16W 220K	1	
R055	ERJ3RBD102V	1/16W 1K	1	
R056,57	ERJ3GEYJ101V	1/16W 100	2	
R058	ERJ3GEYJ122V	1/16W 1.2K	1	
R101,02	ERJ6GEYJ100V	1/10W 10	2	
R103-06	ERJ3GEYJ133V	1/16W 13K	4	
R107,08	ERJ3GEYJ100V	1/16W 10	2	
R111,12	ERJ6GEYJ100V	1/10W 10	2	
R113-16	ERJ3GEYJ133V	1/16W 13K	4	
R117,18	ERJ3GEYJ100V	1/16W 10	2	
R121,22	ERJ6GEYJ100V	1/10W 10	2	
R123-26	ERJ3GEYJ133V	1/16W 13K	4	
R127,28	ERJ3GEYJ100V	1/16W 10	2	
R129-31	ERJ6GEYJ220	1/10W 22	3	
R132	ERJ3GEYJ4R7V	1/16W 4.7	1	
R134	ERJ3GEYJ4R7V	1/16W 4.7	1	
R136	ERJ3GEY0R00V	CHIP JUMPER	1	
R137	ERJ3GEYJ105V	1/16W 1M	1	
R138	ERJ3GEYJ102V	1/16W 1K	1	
R139	ERJ3GEYJ105V	1/16W 1M	1	
R140	ERJ3GEYJ102V	1/16W 1K	1	
R141-43	ERJ6GEYJ4R7V	1/10W 4.7	3	
R144	ERJ3GEYJ4R7V	1/16W 4.7	1	
R147-55	ERJ3GEYJ470V	1/16W 47	9	
R157-59	ERJ3GEYJ242V	1/16W 2.4K	3	
R161-66	ERJ3GEYJ102V	1/16W 1K	6	
R167	ERJ3GEYJ332V	1/16W 3.3K	1	D0GB332JA002
R175-78	ERJ3GEYJ392V	1/16W 3.9K	4	
R179,80	ERJ3GEYJ102V	1/16W 1K	2	
R181-84	ERJ3GEYJ682V	1/16W 6.8K	4	D0GB682JA002
R188	ERJ3GEY0R00V	CHIP JUMPER	1	
R190,91	ERJ3GEY0R00V	CHIP JUMPER	2	
R201,02	ERJ3GEYJ222V	1/16W 2.2K	2	
R203,04	ERJ3GEYJ563V	1/16W 56K	2	
R205,06	ERJ3GEYJ273V	1/16W 27K	2	D0GB273JA002
R207,08	ERJ3GEYJ823V	1/16W 82K	2	D0GB823JA002
R209-14	ERJ3GEYJ222V	1/16W 2.2K	6	
R215,16	ERJ3GEYJ562V	1/16W 5.6K	2	D0GB562JA002

R217-19	ERJ3GEYJ472V	1/16W 4.7K	3	
R301,02	ERJ3GEYJ104Z	1/16W 100K	2	
R303,04	ERJ3GEYJ102V	1/16W 1K	2	
R305,06	ERJ3GEYJ123V	1/16W 12K	2	
R307,08	ERJ3GEYJ332V	1/16W 3.3K	2	D0GB332JA002
R309,10	ERJ3GEYJ123V	1/16W 12K	2	
R311,12	ERJ3GEYJ332V	1/16W 3.3K	2	D0GB332JA002
R313	ERJ3GEYJ473V	1/16W 47K	1	D0GB473JA002
R314	ERJ3GEYJ102V	1/16W 1K	1	
R315	ERJ3GEYJ562V	1/16W 5.6K	1	D0GB562JA002
R316	ERJ3GEYJ822V	1/16W 8.2K	1	D0GB822JA002
R321,22	ERJ3GEYJ223V	1/16W 22K	2	D0GB223JA002
R323,24	ERJ3GEYJ471V	1/16W 470	2	
R325,26	ERJ3GEYJ332V	1/16W 3.3K	2	D0GB332JA002
R327,28	ERJ3GEYJ390	1/16W 39	2	
R329,30	ERJ3GEY0R00V	CHIP JUMPER	2	
R331,32	ERJ3GEYJ104Z	1/16W 100K	2	
R333,34	ERJ3GEYJ470V	1/16W 47	2	
R335,36	ERJ3GEYJ560V	1/16W 56	2	
R337,38	ERJ3GEYJ683V	1/16W 68K	2	D0GB683JA002
R339-41	ERJ3GEYJ822V	1/16W 8.2K	3	D0GB822JA002
R342	ERJ3GEYJ123V	1/16W 12K	1	
R343	ERJ3GEYJ274V	1/16W 270K	1	
R344	ERJ3GEYJ473V	1/16W 47K	1	D0GB473JA002
R345	ERJ3GEYJ822V	1/16W 8.2K	1	D0GB822JA002
R346,47	ERJ3GEYJ333V	1/16W 33K	2	D0GB333JA002
R349	ERJ8GEYJ472V	1/8W 4.7K	1	
R350	ERJ3GEYJ472V	1/16W 4.7K	1	
R351,52	ERJ3GEYJ103Z	1/16W 10K	2	
R354	ERJ3GEY0R00V	CHIP JUMPER	1	
R355	ERJ3GEYJ473V	1/16W 47K	1	D0GB473JA002
R356	ERJ3GEYJ272V	1/16W 2.7K	1	
R357	ERJ3GEYJ332V	1/16W 3.3K	1	D0GB332JA002
R358	ERJ3GEYJ223V	1/16W 22K	1	D0GB223JA002
R359	ERJ3GEYJ104Z	1/16W 100K	1	
R360	ERJ3GEYJ102V	1/16W 1K	1	
R362	ERJ3GEYJ272V	1/16W 2.7K	1	
R363	ERJ3GEYJ332V	1/16W 3.3K	1	D0GB332JA002
R364	ERJ3GEYJ223V	1/16W 22K	1	D0GB223JA002
R365	ERJ3GEYJ104Z	1/16W 100K	1	
R366	ERJ3GEYJ393V	1/16W 39K	1	D0GB393JA002
R367,68	ERJ3GEYJ102V	1/16W 1K	2	
R369	ERJ3GEYJ683V	1/16W 68K	1	D0GB683JA002
R370	ERJ3GEYJ332V	1/16W 3.3K	1	D0GB332JA002
R371	ERJ3GEYJ104Z	1/16W 100K	1	
R372	ERJ3GEYJ152V	1/16W 1.5K	1	
R373	ERJ3GEYJ183V	1/16W 18K	1	D0GB183JA002
R374	ERJ3GEYJ104Z	1/16W 100K	1	
R375	ERJ3GEYJ272V	1/16W 2.7K	1	
R376	ERJ3GEYJ332V	1/16W 3.3K	1	D0GB332JA002
R377	ERJ3GEYJ223V	1/16W 22K	1	D0GB223JA002
R378	ERJ3GEYJ562V	1/16W 5.6K	1	D0GB562JA002
R379	ERJ3GEYJ183V	1/16W 18K	1	D0GB183JA002
R382	ERJ3GEYJ101V	1/16W 100	1	
R383	ERJ3GEYJ223V	1/16W 22K	1	D0GB223JA002

R384-87	ERJ3GEYJ102V	1/16W 1K	4	
R389	ERJ3GEYJ332V	1/16W 3.3K	1	D0GB332JA002
R390,91	ERJ3GEYJ102V	1/16W 1K	2	
R392	ERJ3GEYJ223V	1/16W 22K	1	D0GB223JA002
R393,94	ERJ3GEYJ332V	1/16W 3.3K	2	D0GB332JA002
R397	ERJ3GEYJ223V	1/16W 22K	1	D0GB223JA002
R398	ERJ3GEYJ154V	1/16W 150K	1	
R399	ERJ3GEYJ103Z	1/16W 10K	1	
R400	ERJ3GEYJ102V	1/16W 1K	1	
R401	ERJ3GEYJ332V	1/16W 3.3K	1	D0GB332JA002
R402	ERJ3GEYJ154V	1/16W 150K	1	
R404	ERJ3GEYJ473V	1/16W 47K	1	D0GB473JA002
R405,06	ERJ3GEYJ333V	1/16W 33K	2	D0GB333JA002
R407,08	ERJ3GEYJ562V	1/16W 5.6K	2	D0GB562JA002
R409,10	ERJ3GEYJ392V	1/16W 3.9K	2	
R411,12	ERJ3GEYJ682V	1/16W 6.8K	2	D0GB682JA002
R413,14	ERJ3GEYJ223V	1/16W 22K	2	D0GB223JA002
R415,16	ERJ3GEYJ822V	1/16W 8.2K	2	D0GB822JA002
R417,18	ERJ3GEYJ272V	1/16W 2.7K	2	
R419	ERJ3GEYJ562V	1/16W 5.6K	1	D0GB562JA002
R420	ERJ3GEYJ102V	1/16W 1K	1	
R421	ERJ3GEYJ104Z	1/16W 100K	1	
R422	ERJ3GEYJ222V	1/16W 2.2K	1	
R423	ERJ3GEYJ102V	1/16W 1K	1	
R424	ERJ3GEYJ332V	1/16W 3.3K	1	D0GB332JA002
R425	ERJ3GEYJ473V	1/16W 47K	1	D0GB473JA002
R426	ERJ3GEYJ562V	1/16W 5.6K	1	D0GB562JA002
R427	ERJ3GEYJ472V	1/16W 4.7K	1	
R428	ERJ3GEYJ223V	1/16W 22K	1	D0GB223JA002
R429	ERJ3GEYJ472V	1/16W 4.7K	1	
R430	ERJ3GEYJ223V	1/16W 22K	1	D0GB223JA002
R441	ERJ3GEYJ223V	1/16W 22K	1	D0GB223JA002
R442	ERJ3GEYJ332V	1/16W 3.3K	1	D0GB332JA002
R451	ERJ3GEYJ472V	1/16W 4.7K	1	
R452	ERJ3GEYJ103Z	1/16W 10K	1	
R453,54	ERJ3GEYJ472V	1/16W 4.7K	2	
R465	ERJ3GEYJ101V	1/16W 100	1	
R466	ERJ3GEYJ683V	1/16W 68K	1	D0GB683JA002
R467	ERJ3GEYJ104Z	1/16W 100K	1	
R468	ERG1SJ220	1W 22	1	
R471,72	ERJ3GEY0R00V	CHIP JUMPER	2	
R502	ERJ3GEYJ223V	1/16W 22K	1	D0GB223JA002
R503,04	ERJ3GEYJ104Z	1/16W 100K	2	
R506,07	ERJ3GEYJ123V	1/16W 12K	2	
R508	ERJ3GEYJ332V	1/16W 3.3K	1	D0GB332JA002
R510	ERJ3GEY0R00V	CHIP JUMPER	1	
R511	ERJ3GEYJ332V	1/16W 3.3K	1	D0GB332JA002
R512	ERJ3GEYJ123V	1/16W 12K	1	
R515	ERJ3GEYJ332V	1/16W 3.3K	1	D0GB332JA002
R516	ERJ3GEYJ123V	1/16W 12K	1	
R519	ERJ3GEYJ391V	1/16W 390	1	
R520,21	ERJ3GEYJ472V	1/16W 4.7K	2	
R523	ERJ3GEYJ472V	1/16W 4.7K	1	
R525,26	ERJ3GEYJ104Z	1/16W 100K	2	
R527	ERJ3GEYJ332V	1/16W 3.3K	1	D0GB332JA002

R528-30	ERJ3GEYJ223V	1/16W 22K	3	D0GB223JA002
R541	ERJ3GEYJ121V	1/16W 120	1	
R542-45	ERJ3GEYJ102V	1/16W 1K	4	
R546	ERJ3GEYJ103Z	1/16W 10K	1	
R549	ERJ3GEYJ102V	1/16W 1K	1	
R601-04	ERJ3GEYJ102V	1/16W 1K	4	
R605	ERJ3GEYJ470V	1/16W 47	1	
R606	ERJ3GEYJ105V	1/16W 1M	1	
R607	ERJ3GEYJ221V	1/16W 220	1	
R608	ERJ3GEYJ331V	1/16W 330	1	D0GB331JA002
R609	ERJ3GEYJ271V	1/16W 270	1	
R610	ERJ3GEYJ122V	1/16W 1.2K	1	
R611,12	ERJ3GEYJ331V	1/16W 330	2	D0GB331JA002
R613	ERJ3GEYJ271V	1/16W 270	1	
R614	ERJ3GEYJ122V	1/16W 1.2K	1	
R615	ERJ3GEYJ104Z	1/16W 100K	1	
R616	ERJ3GEYJ472V	1/16W 4.7K	1	
R617,18	ERJ3GEYJ271V	1/16W 270	2	
R619,20	ERJ3GEYJ122V	1/16W 1.2K	2	
R621,22	ERJ3GEYJ102V	1/16W 1K	2	
R702	ERJ3GEYJ392V	1/16W 3.9K	1	
R703	ERJ3GEYJ473V	1/16W 47K	1	D0GB473JA002
R704-06	ERJ3GEYJ103Z	1/16W 10K	3	
R708	ERJ3GEYJ272V	1/16W 2.7K	1	
R709,10	ERDS1FJ180	1/2W 18	2	
R711	ERJ3GEYJ151V	1/16W 150	1	
R712	ERQ16NKW2R2E	2.2	1	⚠
R713	D4DA53310004	RESISTOR	1	
R714	ERQ16NKW2R2E	2.2	1	⚠
R715	ERJ3GEY0R00V	CHIP JUMPER	1	
R716	ERJ3GEYJ103Z	1/16W 10K	1	
R719	ERJ3GEY0R00V	CHIP JUMPER	1	
R720	ERJ3GEYJ473V	1/16W 47K	1	D0GB473JA002
R721	ERJ3GEYJ221V	1/16W 220	1	
R723	ERJ3GEYJ101V	1/16W 100	1	
R725	ERJ3GEYJ393V	1/16W 39K	1	D0GB393JA002
R727	ERJ3GEYJ333V	1/16W 33K	1	D0GB333JA002
R728	ERJ3GEYJ392V	1/16W 3.9K	1	
R729	ERJ3GEYJ472V	1/16W 4.7K	1	
R730	ERQ16NKW2R2E	1/6W 2.2	1	
R731	ERJ3GEYJ332V	1/16W 3.3K	1	D0GB332JA002
R732	ERJ3GEYJ222V	1/16W 2.2K	1	
R733	ERDS1FJ471	1/2W 470	1	
R737	ERJ3GEYJ102V	1/16W 1K	1	
R738,39	ERX1SJR47	1W 0.47	2	
R740	ERJ3GEYJ102V	1/16W 1K	1	
R741	ERJ3GEYJ471V	1/16W 470	1	
R745	ERJ3GEY0R00V	CHIP JUMPER	1	
R747	ERJ3GEYJ103Z	1/16W 10K	1	
R829,30	ERJ3GEYJ104Z	1/16W 100K	2	
R839	ERJ3GEYJ103Z	1/16W 10K	1	
R851	ERJ3GEYJ103Z	1/16W 10K	1	
R852,53	ERJ3GEYJ472V	1/16W 4.7K	2	
R854	ERJ3GEYJ103Z	1/16W 10K	1	

R855	ERJ3GEYJ473V	1/16W 47K	1	D0GB473JA002
R856,57	ERJ3GEYJ472V	1/16W 4.7K	2	
R858	ERJ3GEYJ473V	1/16W 47K	1	D0GB473JA002
R859	ERJ3GEYJ223V	1/16W 22K	1	D0GB223JA002
R860	ERJ3GEYJ103Z	1/16W 10K	1	
R861	ERJ3GEYJ223V	1/16W 22K	1	D0GB223JA002
R865,66	ERJ3GEY0R00V	CHIP JUMPER	2	
R869-71	ERJ3GEYJ102V	1/16W 1K	3	
R872	ERJ3GEYJ472V	1/16W 4.7K	1	
R901	ERJ3GEYJ223V	1/16W 22K	1	D0GB223JA002
R902-04	ERJ3GEYJ332V	1/16W 3.3K	3	D0GB332JA002
R905	ERJ3GEYJ273V	1/16W 27K	1	D0GB273JA002
R906-08	ERJ3GEYJ333V	1/16W 33K	3	D0GB333JA002
R909*2	ERJ3GEYJ101V	1/16W 100	1	
R909	ERJ3GEYJ102V	1/16W 1K	1	
R910	ERJ3GEYJ821V	1/16W 820	1	
R911	ERJ3GEYJ102V	1/16W 1K	1	
R911*2	ERJ3GEYJ271V	1/16W 270	1	
R912	ERJ3GEYJ102V	1/16W 1K	1	
R912*2	ERJ3GEYJ331V	1/16W 330	1	D0GB331JA002
R913	MCR03PZHJ561	1/16W 560	1	
R914	ERJ3GEYJ102V	1/16W 1K	1	
R917	ERJ3GEYJ151V	1/16W 150	1	
R918	ERJ3GEYJ102V	1/16W 1K	1	
R918*2	ERJ3GEYJ151V	1/16W 150	1	
R919	ERJ3GEYJ102V	1/16W 1K	1	
R919*2	ERJ3GEYJ104Z	1/16W 100K	1	
R920*2	ERJ3GEYJ101V	1/16W 100	1	
R920	ERJ3GEYJ222V	1/16W 2.2K	1	
R921	ERJ3GEYJ101V	1/16W 100	1	
R922	ERJ3GEYJ102V	1/16W 1K	1	
R922*2	ERJ3GEYJ101V	1/16W 100	1	
R923,24	ERJ3GEYJ102V	1/16W 1K	2	
R925	ERJ3GEYJ101V	1/16W 100	1	
R926,27	ERJ3GEYJ472V	1/16W 4.7K	2	
R928	ERJ3GEYJ101V	1/16W 100	1	
R929,30	ERJ3GEYJ102V	1/16W 1K	2	
R931	ERJ3GEYJ101V	1/16W 100	1	
R932	ERJ3GEYJ102V	1/16W 1K	1	
R933	ERJ3GEYJ223V	1/16W 22K	1	D0GB223JA002
R935,36	ERJ3GEYJ223V	1/16W 22K	2	D0GB223JA002
R937	ERJ3GEYJ103Z	1/16W 10K	1	
R938	ERJ3GEYJ562V	1/16W 5.6K	1	D0GB562JA002
R939	ERJ8GEYJ103V	1/8W 10K	1	
R941,42	ERJ3GEYJ223V	1/16W 22K	2	D0GB223JA002
R943	ERJ3GEYJ473V	1/16W 47K	1	D0GB473JA002
R944,45	ERJ3GEYJ102V	1/16W 1K	2	
R947	ERJ3GEYJ104Z	1/16W 100K	1	
R950-61	ERJ3GEYJ102V	1/16W 1K	12	
R962-64	ERJ3GEYJ681V	1/16W 680	3	D0GB681JA002
R966	ERJ3GEYJ101V	1/16W 100	1	
R967	ERJ3GEYJ103Z	1/16W 10K	1	
R968-70	ERJ3GEYJ101V	1/16W 100	3	
R971	ERJ3GEYJ103Z	1/16W 10K	1	
R972	ERJ3GEYJ222V	1/16W 2.2K	1	

R973	ERJ3GEYJ824V	1/16W 820K	1	D0GB824JA002
R974	ERJ3GEYJ103Z	1/16W 10K	1	
R977	ERJ3GEYJ101V	1/16W 100	1	
R978,79	ERJ3GEYJ103Z	1/16W 10K	2	
R980	ERJ3GEYJ472V	1/16W 4.7K	1	
R981	ERJ3GEYJ104Z	1/16W 100K	1	
R982	ERJ3GEYJ101V	1/16W 100	1	
R983	ERJ3GEYJ472V	1/16W 4.7K	1	
R984	MCR03PZHJ561	1/16W 560	1	
R987	ERJ3GEYJ101V	1/16W 100	1	
R988	ERJ3GEYJ102V	1/16W 1K	1	
R989	ERJ3GEYJ101V	1/16W 100	1	
R990	ERJ3GEYJ102V	1/16W 1K	1	
R991	ERJ3GEYJ101V	1/16W 100	1	
R992	ERJ3GEYJ104Z	1/16W 100K	1	
R993	ERJ3GEYJ101V	1/16W 100	1	
R994	ERJ3GEYJ472V	1/16W 4.7K	1	
R995,96	ERJ3GEYJ102V	1/16W 1K	2	
R997	ERJ3GEYJ103Z	1/16W 10K	1	
R998	ERJ3GEYJ153V	1/16W 15K	1	
R999	ERJ3GEYJ104Z	1/16W 100K	1	
R1020-31	ERJ3GEYJ1R0V	1/16W 1	12	
RJ1-J3	ERJ3GEY0R00V	CHIP JUMPER	3	
RJ5-J7	ERJ3GEY0R00V	CHIP JUMPER	3	
RJ8	ERJ6GEY0R00V	CHIP JUMPER	1	
RJ9	ERJ8GEY0R00V	CHIP JUMPER	1	D0YFR0000002
RJ001-10	ERJ3GEY0R00V	CHIP JUMPER	10	
RJ10-16	ERJ8GEY0R00V	CHIP JUMPER	7	D0YFR0000002
RJ17,18	ERJ3GEY0R00V	CHIP JUMPER	2	
RJ30-32	ERJ8GEY0R00V	CHIP JUMPER	3	D0YFR0000002
RJ33-39	ERJ3GEY0R00V	CHIP JUMPER	7	
RJ40-42	ERJ8GEY0R00V	CHIP JUMPER	3	D0YFR0000002
RJ43,44	ERJ6GEY0R00V	CHIP JUMPER	2	
RJ45-47	ERJ3GEY0R00V	CHIP JUMPER	3	
RJ48	ERJ8GEY0R00V	CHIP JUMPER	1	D0YFR0000002
RJ49	ERJ3GEY0R00V	CHIP JUMPER	1	
RJ50	ERJ8GEY0R00V	CHIP JUMPER	1	D0YFR0000002
RJ51,52	ERJ3GEY0R00V	CHIP JUMPER	2	
RJ53	ERJ8GEY0R00V	CHIP JUMPER	1	D0YFR0000002
RJ54,55	ERJ3GEY0R00V	CHIP JUMPER	2	
RJ56	ERJ8GEY0R00V	CHIP JUMPER	1	D0YFR0000002
RJ72-74	ERJ8GEY0R00V	CHIP JUMPER	3	D0YFR0000002
RJ501-04	ERJ6GEY0R00V	CHIP JUMPER	4	
RJ601	ERJ3GEY0R00Z	CHIP JUMPER	1	
RL702	RSY0040M-0	RELAY	1	⚠
S901,02	EVQPJG05Q	SW,OPERATION	2	
T701	ETP59VVU61CA	POWER TRANSFORMER	1	⚠
T702	ETP28KBZ21JU	SUB POWER TRANSFORMER	1	⚠
VR901	EVEKC2F3024B	VR,VOLUME	1	
X131	H0H245500013	OSCILLATOR	1	
X132	H0H254500002	OSCILLATOR	1	
X541	RSXC4M33S02T	OSCILLATOR	1	H0H433400001
X601	RSXZ36M8M01T	OSCILLATOR	1	

X942	H2B100500004	OSCILLATOR	1	
Z001	J0JBC0000015	COMPONENT COMBINATIONS	1	
Z002,03	VLP0155-T	COIL	2	J0JCC0000119
Z004-08	J0JBC0000015	COMPONENT COMBINATIONS	5	
Z701	ERZV10V511CS	COMPONENT COMBINATIONS	1	⚠
Z901	B3RAD0000035	COMPONENT COMBINATIONS	1	
Z1001	ENG07701Q	TUNER PACK	1	

21 Additional Contents

21.1 Changing Point

- The suffix of product serial number is changed with adding IC942 on the main P.C.B. (SIDE: B). **This supplement service manual is for "C" or later of product.** It is "C" or later after confirming the suffix, it is changed that "Schematic Diagram", "Printed Circuit Board Diagram", "Block Diagram" and "Replacement Parts List".

Serial Nunber
GOOOCOOOOOOOO
↑
Suffix

21.2 Schematic Diagram

21.3 Printed Circuit Board Diagram

21.4 Block Diagram

21.5 Replacement Parts List

Note:

- IC942 is supplied by SPC.

Ref.No.	Change of Parts No.		Part Name & Description	Remarks
	Original	Supplement		
IC942	-----	**C3EBCG000086**	IC	ADDITION (EEPROM: SOFTWARE WRITTEN)

21.6 Note When Servicing the Unit

When the case that memorized channel which is preset to the tuner is reset is occurred, please perform the following.

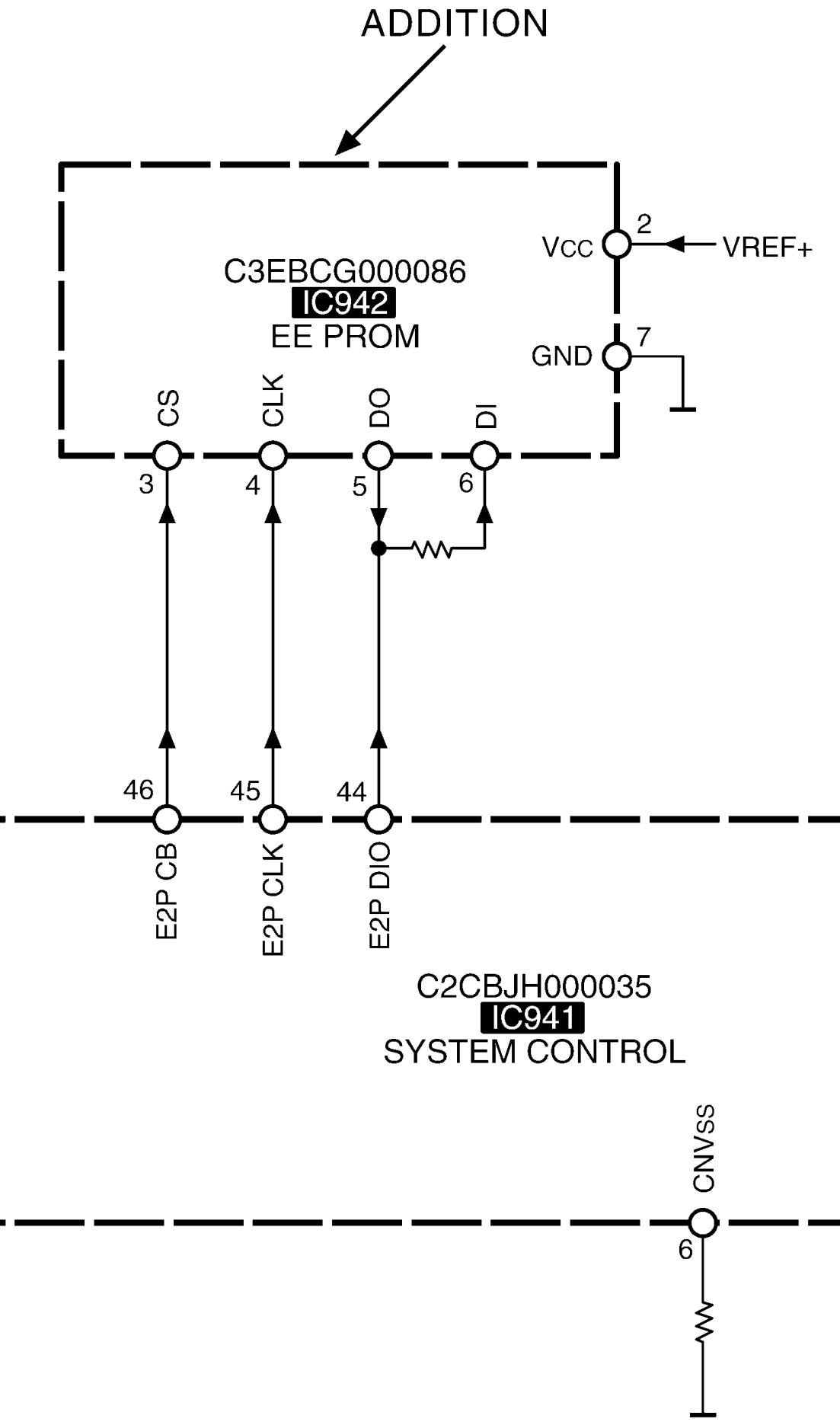
21.6.1 Add or replace IC

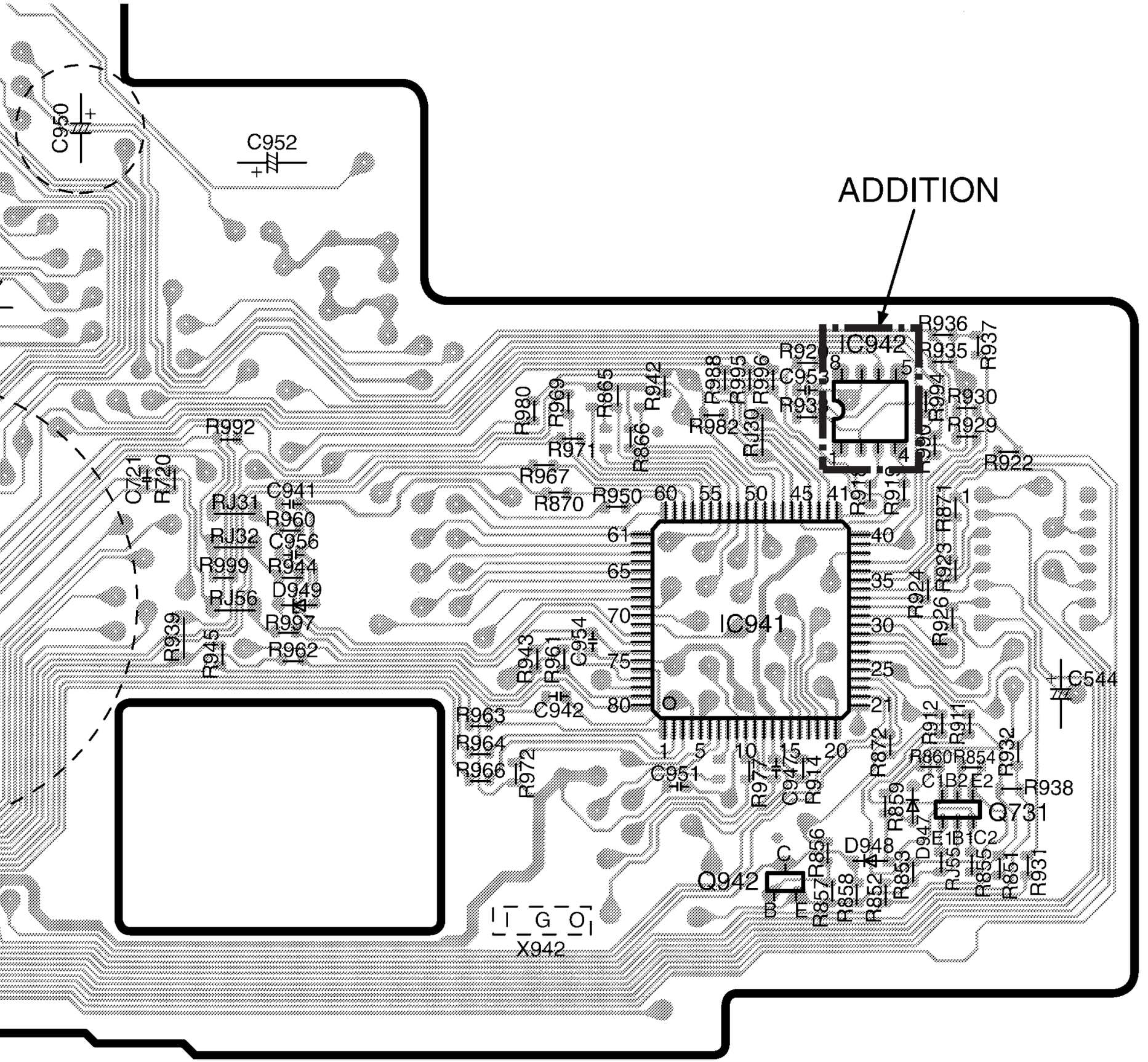
- The suffix of product serial number is "B" or before→Add IC942.
- The suffix of product serial number is "C" or later→Replace IC942.

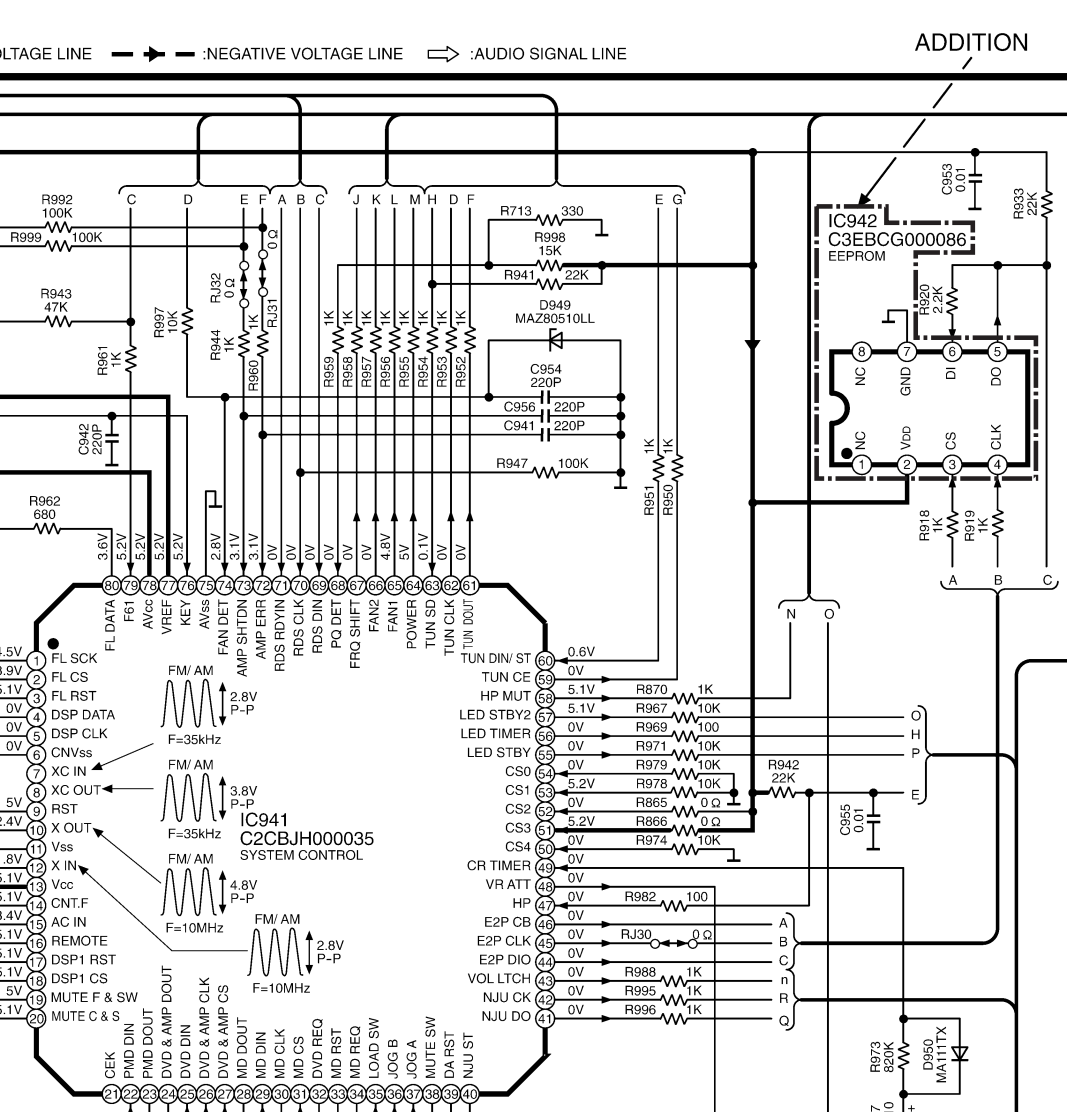
21.6.2 Software version confirmation after add or replace IC

1. While pressing "SELECT" button on the unit, press "4" and then "7" button on the remote control unit.
   Confirm that "SERVICE" is shown on the display.
2. Press " ≥10 ", "5" and "2" button on the remote control unit in turn.
   Confirm that "SA 04 693F" is shown on the display. (Confirmation of check sum)

F020300000YM / KH


ADDITION
C3EBCG000086
IC942
EE PROM
Vcc
2
VREF+
GND
7
CS
CLK
DO
DI
3
4
5
6
46
45
44
E2P CB
E2P CLK
E2P DIO
C2CBJH000035
IC941
SYSTEM CONTROL
CNVss
6


ADDITION
C950
C952
IC942
R936
R935
R937
R930
R929
R922
R994
R992
C721
R720
RJ31
C941
R960
RJ32
C956
R999
R944
D949
RJ56
R997
R962
R939
R945
R980
R969
R865
R942
R988
R995
R996
R982
RJ30
R971
R866
R967
R870
R950
R871
R923
R924
R926
IC941
R943
R961
C954
C942
R963
R964
R966
R972
C951
R977
C947
R914
R912
R911
R872
R860
R854
R932
R938
Q731
R859
D947
D948
R856
R857
R858
R852
R853
RJ35
R855
R851
R931
Q942
X942
C544


OLTAGE LINE
:NEGATIVE VOLTAGE LINE
:AUDIO SIGNAL LINE
ADDITION
IC942
C3EBCG000086
EEPROM
NC
GND
DI
DO
NC
VDD
CS
CLK
IC941
C2CBJH000035
SYSTEM CONTROL
FM/ AM
2.8V P-P
F=35kHz
3.8V P-P
F=35kHz
4.8V P-P
F=10MHz
2.8V P-P
F=10MHz
FL DATA
F61
AVcc
VREF
KEY
AVss
FAN DET
AMP SHTDN
AMP ERR
RDS RDYIN
RDS CLK
RDS DIN
PQ DET
FRQ SHIFT
FAN2
FAN1
POWER
TUN SD
TUN CLK
TUN DOUT
FL SCK
FL CS
FL RST
DSP DATA
DSP CLK
CNVss
XC IN
XC OUT
RST
X OUT
Vss
X IN
Vcc
CNT.F
AC IN
REMOTE
DSP1 RST
DSP1 CS
MUTE F & SW
MUTE C & S
CEK
PMD DIN
PMD DOUT
DVD & AMP DOUT
DVD DIN
DVD & AMP CLK
DVD & AMP CS
MD DOUT
MD DIN
MD CLK
MD CS
DVD REQ
MD RST
MD REQ
LOAD SW
JOG B
JOG A
MUTE SW
DA RST
NJU ST
TUN DIN/ ST
TUN CE
HP MUT
LED STBY2
LED TIMER
LED STBY
CS0
CS1
CS2
CS3
CS4
CR TIMER
VR ATT
HP
E2P CB
E2P CLK
E2P DIO
VOL LTCH
NJU CK
NJU DO
R992 100K
R999 100K
R943 47K
R997 10K
R961 1K
R944 1K
R960 1K
RJ32 0 Ω
RJ31 0 Ω
R959 1K
R958 1K
R957 1K
R956 1K
R955 1K
R954 1K
R953 1K
R952 1K
R713 330
R998 15K
R941 22K
D949 MAZ80510LL
C954 220P
C956 220P
C941 220P
R947 100K
R951 1K
R950 1K
C942 220P
R962 680
R870 1K
R967 10K
R969 100
R971 10K
R979 10K
R978 10K
R865 0 Ω
R866 0 Ω
R974 10K
R982 100
RJ30 0 Ω
R988 1K
R995 1K
R996 1K
R942 22K
C955 0.01
C953 0.01
R933 22K
R920 22K
R918 1K
R919 1K
R973 820K
D950 MA111TX