STR-K685

SERVICE MANUAL

E Model

Ver. 1.2 2007.07

- STR-K685 is the tuner and the amplifier section in HT-DDW685.

This receiver incorporates Dolby* Digital and Pro Logic Surround and the DTS** Digital Surround System.

* Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.

** "DTS" and "DTS Digital Surround" are registered trademarks of DTS, Inc.

SPECIFICATIONS

Amplifier section

Models of area code SP, SP6, E51, MX, TH

Power Output[1)]

Stereo mode (rated) (6 ohms 1 kHz, THD 1%)
70 W + 70 W

Surround mode[2)] (reference)
(6 ohms 1 kHz, THD 10%)
RMS output
FRONT:100 W per channel
CENTER: 100 W
SURROUND: 100 W per channel

Surround mode[2)] (reference)
(10 ohms 100 Hz, THD 10%)
SUB WOOFER: 60 W per channel

Models of area code AR

Power Output[1)3)]

Stereo mode (rated) (6 ohms 1 kHz, THD 1%)
70 W + 70 W[1)]
65 W + 65 W[3)]

Surround mode[2)] (reference)
(6 ohms 1 kHz, THD 10%)
RMS output
FRONT:
100 W per channel[1)]
90 W per channel[3)]
CENTER:
100 W[1)]
90 W[3)]
SURROUND:
100 W per channel[1)]
90 W per channel[3)]

Surround mode[2)] (reference)
(10 ohms 100 Hz, THD 10%)
SUB WOOFER:
60 W per channel[1)]
50 W per channel[3)]

[1)]Measured under the following conditions:

Area code	Power requirements
SP, SP6, AR, TH	230 V AC, 50 Hz
E51	240 V AC, 50 Hz
MX	127 V AC, 60 Hz

[2)]Reference power output for front, center, surround speakers and sub woofer. Depending on the sound field settings and the source, there may be no sound output.

[3)]Measured under the following conditions:

Area code	Power requirements
AR	220 V AC, 50 Hz

Inputs

Analog	Sensitivity: 800 mV/ 50 kohms
Digital (Coaxial)	Impedance: 75 ohms

Tone

Gain levels	±6 dB, 1 dB step

Reproduction frequency range:
28 – 20,000 Hz

FM tuner section

Tuning range	87.5 - 108.0 MHz
Antenna	FM wire antenna
Antenna terminals	75 ohms, unbalanced

Intermediate frequency
10.7 MHz

— Continued on next page —

FM STEREO/FM-AM RECEIVER

9-887-654-03
2007G16-1

Sony Corporation
Home Audio Division
Published by Sony Techno Create Corporation

SONY

AM tuner section

Tuning range
Models of area code SP, SP6, TH
With 9-kHz tuning scale:
531 – 1,602 kHz
Models of area code E51:
With 10-kHz tuning scale:
530 – 1,610 kHz[4)]
With 9-kHz tuning scale:
531 – 1,602 kHz[4)]
Models of area code AR, MX
With 10-kHz tuning scale:
530 – 1,610 kHz
Antenna Loop antenna
Intermediate frequency
450 kHz

[4)]You can change the AM tuning scale to 9 kHz or 10 kHz. After tuning in any AM station, turn off the receiver. While holding down MOVIE, press I/⏻. All preset stations will be erased when you change the tuning scale. To reset the scale to 10 kHz (or 9 kHz), repeat the procedure.

General

Power requirements

Area code	Power requirements
SP, SP6, TH	230 – 240 V AC, 50/60 Hz
E51	120/220/240 V AC, 50/60 Hz
AR	220 – 230 V AC, 50/60 Hz
MX	127 V AC, 60 Hz

Power consumption

Area code	Power consumption
SP, SP6, E51, AR, MX, TH	190 W

Power consumption (during standby mode)
0.3 W
Dimensions (w/h/d) (Approx.)
429 × 145 × 308 mm (16 7/8 × 5 6/8 × 12 1/8 inches) including projecting parts and controls
Mass (Approx.) 7.4 kg (16 lb 9 oz)

Design and specifications are subject to change without notice.

- Abbreviation
  AR : Argentine model
  E51 : Chilean and Peruvian models
  MX : Mexican model
  SP : Singapore model
  SP6 : Singapore and Malaysia models
  TH : Thai model

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

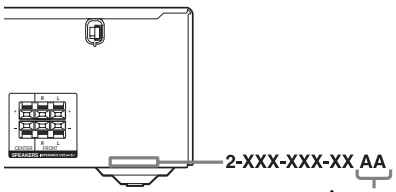
- Unleaded solder melts at a temperature about 40 °C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350 °C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscou-s (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

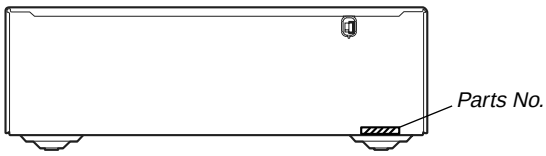
About area codes

The area code of the receiver you purchased is shown on the lower right portion of the rear panel (see the illustration below).



Any differences in operation, according to the area code, are clearly indicated in the text, for example, “Models of area code AA only”.

MODEL IDENTIFICATION
– Rear Panel –



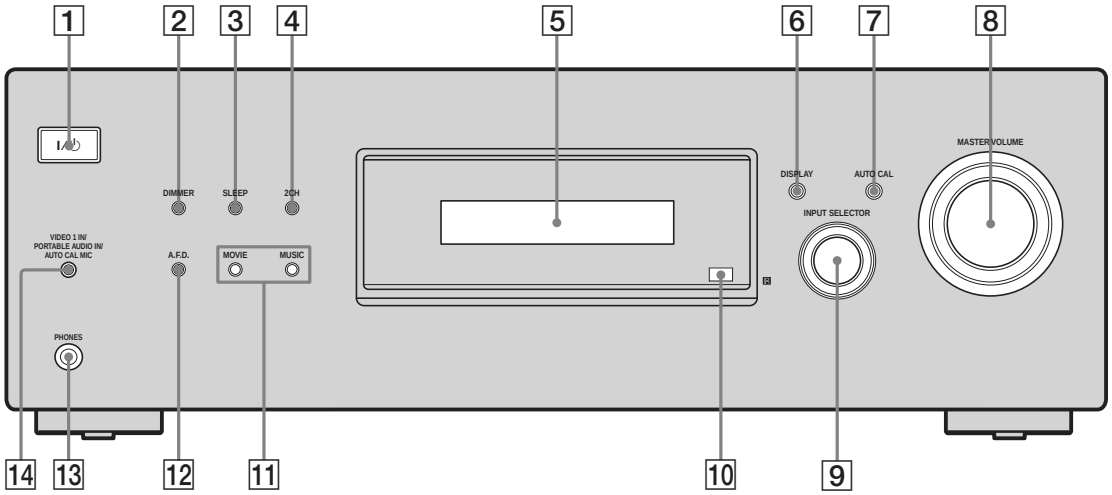
Model	Part No.
SP and SP6 models	2-896-343-0□
E51 model	2-896-343-1□
MX model	2-896-343-2□
AR model	2-896-343-3□
TH model	2-896-343-7□

TABLE OF CONTENTS

SECTION 1
GENERAL

Receiver

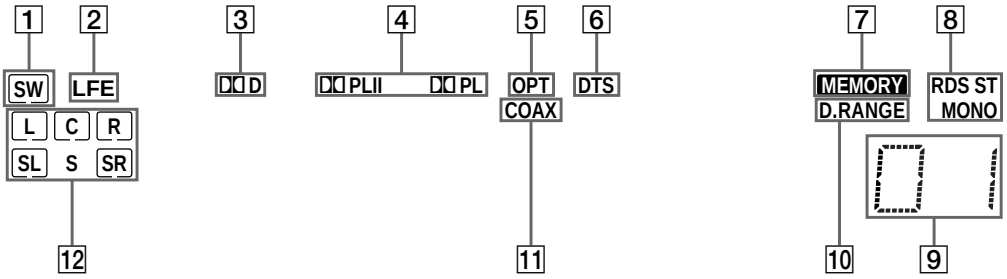
Front panel



Name	Function
1 **I/⏻ (on/standby)**	Press to turn the receiver on or off.
2 **DIMMER**	Press to adjust the brightness of the display.
3 **SLEEP**	Press to activate the Sleep Timer function and the duration which the receiver turns off automatically.
4 **2CH**	Press to select 2CH STEREO mode.
5 **Display**	The current status of the selected component or a list of selectable items appears here.
6 **DISPLAY**	Press to select information displayed on the display.
7 **AUTO CAL**	Press to activate the Auto Calibration function.

Name	Function
8 **MASTER VOLUME**	Turn to adjust the volume level of all speakers at the same time.
9 **INPUT SELECTOR**	Turn to select the input source to playback.
10 **Remote sensor**	Receives signals from remote commander.
11 **MOVIE, MUSIC**	Press to select sound fields (MOVIE, MUSIC).
12 **A.F.D.**	Press to select A.F.D. mode.
13 **PHONES jack**	Connects to a headphone.
14 **VIDEO 1 IN/ PORTABLE AUDIO IN/ AUTO CAL MIC jack**	– Connects to the supplied optimizer microphone for the Auto Calibration function. – To connect a portable audio such as MP3 player, etc..

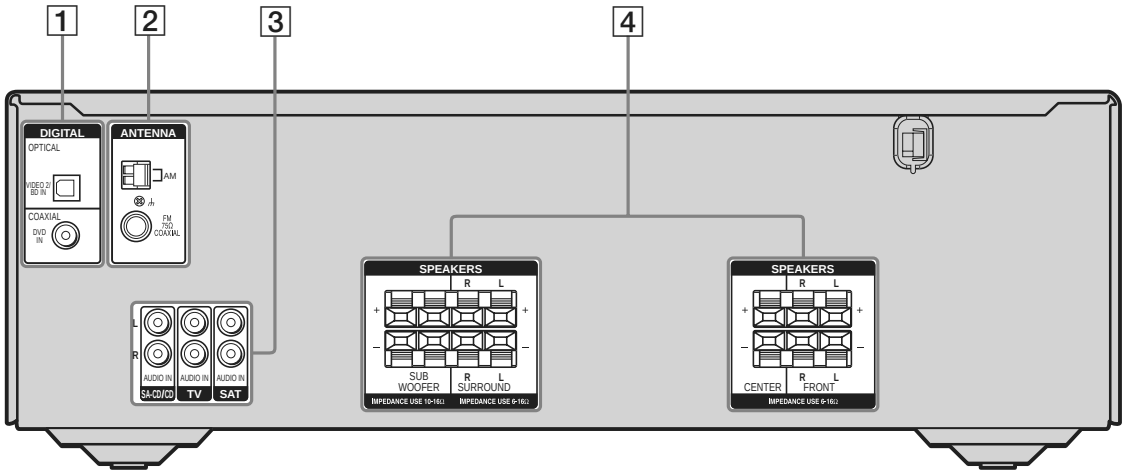
About the indicators on the display



Name	Function
1 **SW**	Lights up when audio signal is output from the SUB WOOFER jack.
2 **LFE**	Lights up when the disc being played back contains an LFE (Low Frequency Effect) channel and the LFE channel signal is actually being reproduced.
3 **D D**	Lights up when the receiver is decoding Dolby Digital signals.
4 **D PL/ D PLII**	"D PL" lights up when the receiver applies Pro Logic processing to 2 channel signals in order to output the center and surround channel signals. "D PLII" lights up when the Pro Logic II Movie/Music decoder is activated. **Note** Dolby Pro Logic and Dolby Pro Logic II decoding do not function for DTS format signals.
5 **OPT**	Lights up when VIDEO 2 input is selected. However, "UNLOCK" appears on the display if no digital signal is input through the OPTICAL jack.
6 **DTS**	Lights up when the receiver is decoding DTS signals.
7 **MEMORY**	Lights up when a memory function, such as Name Input, Preset Memory, etc., is activated.

Name	Function
8 **Tuner Indicators**	Lights up when using the receiver to tune in radio stations, etc. **Note** "RDS" appears for models of area code AEP, UK only.
9 **Preset station indicators**	Lights up when using the receiver to tune in radio stations you have preset. For details on presetting radio stations.
10 **D.RANGE**	Lights up when dynamic range compression is activated.
11 **COAX**	Lights up when DVD input is selected. However, "UNLOCK" appears on the display if no digital signal is input through the COAXIAL jack.
12 **Playback channel indicators**	The letters (L, C, R, etc.) indicate the channels being played back. The boxes around the letters vary to show how the receiver downmixes the source sound.
L	Front Left
R	Front Right
C	Center (monaural)
SL	Surround Left
SR	Surround Right
S	Surround (monaural or the surround components obtained by Pro Logic processing)
	Example: Recording format (Front/ Surround): 3/2.1 Sound Field: A.F.D. AUTO SW LFE L C R SL SR

Rear panel



1 DIGITAL INPUT section

	OPTICAL IN jack	Connects to a DVD player, etc. The COAXIAL jack provides a better quality of loud sound (page 19).
	COAXIAL IN jack	

2 ANTENNA section

	FM ANTENNA jack	Connects to the FM wire antenna supplied with this receiver (page 21).
	AM ANTENNA terminals	Connects to the AM loop antenna supplied with this receiver (page 21).

3 AUDIO INPUT section

White (L)	AUDIO IN jacks	Connects to a CD player, etc. (page 17).
Red (R)		

4 SPEAKER section

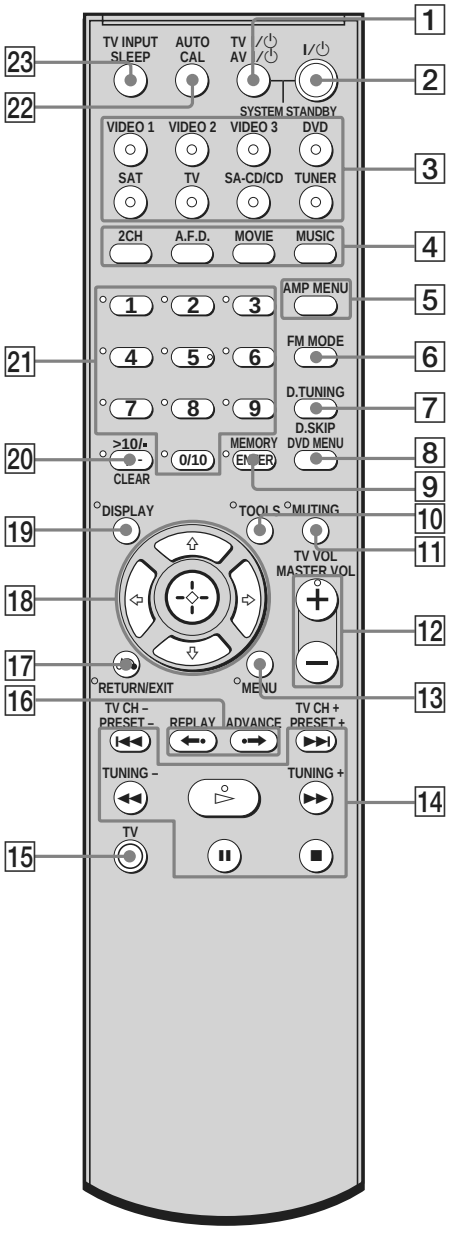
+		Connects to the speakers and sub woofer* (page 15).
–		

* The numbers of the SUB WOOFER terminals varies depending on the models.

Remote commander

You can use the supplied remote RM-AAU013 to operate the receiver and to control the Sony audio/video components that the remote is assigned to operate.

RM-AAU013



Name	Function
1 **TV I/⏻ (on/standby)**	Press TV **I**/⏻ and TV (15) at the same time to turn the TV on or off.
AV I/⏻ (on/standby)	Press to turn on or off the Sony audio/video components that the remote is assigned to operate. If you press **I**/⏻ (2) at the same time, it will turn off the receiver and other components (SYSTEM STANDBY). **Note** The function of the AV **I**/⏻ switch changes automatically each time you press the input buttons (3).
2 **I/⏻ (on/standby)**	Press to turn the receiver on or off. To turn off all components, press **I**/⏻ and AV **I**/⏻ (1) at the same time (SYSTEM STANDBY).
3 **Input buttons**	Press one of the buttons to select the component you want to use. When you press any of the input buttons, the receiver turns on. The buttons are factory assigned to control Sony components as follows.

Button	Assigned Sony component
VIDEO 1	VCR (VTR mode 3)
VIDEO 2	VCR (VTR mode 2)
VIDEO 3	Not assigned
DVD	DVD player
SAT	Satellite tuner
TV	Television
SA-CD/CD	Super Audio CD/CD player
TUNER	Built-in tuner

Name		Function
4	**2CH**	Press to select 2CH STEREO mode.
	A.F.D.	Press to select A.F.D. mode.
	MOVIE, MUSIC	Press to select sound fields (MOVIE, MUSIC).
5	**AMP MENU**	Press to display the menu of the receiver. Then, use ↑, ↓, ←, → and ⊕ to perform menu operations.
6	**FM MODE**	Press to select FM monaural or stereo reception.
7	**D.TUNING**	Press to enter direct tuning mode.
	D.SKIP	Press to skip disc of the CD player or DVD player (multi-disc changer only).
8	**DVD MENU**	Press to display the menu of the DVD player on the TV screen. Then, use ↑, ↓, ←, → and ⊕ to perform menu operations.
9	**ENTER**	Press to enter the value after selecting a channel, disc or track using the numeric buttons of the TV, VCR or satellite tuner.
	MEMORY	Press to store a station.
10	**TOOLS**	Press to display options applicable to the entire disc (e.g. disc protection), recorder (e.g. audio settings during recording), or multiple items on a list menu (e.g. erasing multiple titles). Press TOOLS and TV (15) at the same time to display options applicable to the TV.
11	**MUTING**	Press to activate muting function. Press MUTING and TV (15) at the same time to activate the TV's muting function.
12	**TV VOL +*/–**	Press TV VOL +/– and TV (15) at the same time to adjust the TV volume level.
	MASTER VOL +*/–	Press to adjust the volume level of all speakers at the same time.

Name		Function
13	**MENU**	Press to display the menus of the VCR, DVD player, Blu-ray disc player or satellite tuner on the TV screen. Press MENU and TV (15) at the same time to display the TV's menu. Then, use ↑, ↓, ←, → and ⊕ to perform menu operations.
14	**I◄◄ /►►I**	Press to skips tracks of the CD player, DVD player or Blu-ray disc player.
	◄◄/►►	Press to search tracks in the forward/backward direction of the DVD player or to fast forward/rewind of the VCR, CD player or Blu-ray disc player.
	▷*	Press to start playback of the VCR, CD player, DVD player or Blu-ray disc player.
	II	Press to pause playback or recording of the VCR, CD player, DVD player or Blu-ray disc player. (Also starts recording with components in recording standby.)
	■	Press to stop playback of the VCR, CD player, DVD player or Blu-ray disc player.
	TV CH +/–	Press TV CH +/– and TV (15) at the same time to select preset TV channels.
	PRESET +/–	Press to select preset stations or preset channels of the VCR or satellite tuner.
	TUNING +/–	Press to scan a station.
15	**TV**	Press TV and the button you want at the same time to activate the buttons with orange printing.
16	**REPLAY ←•/ ADVANCE •→**	Press to replay the previous scene or fast forward the current scene of the VCR, Blu-ray disc player or DVD player.

Name	Function
17 **RETURN/ EXIT** ↩	Press to return to the previous menu or exit the menu while the menu or on-screen guide of the VCR, DVD player, or satellite tuner is displayed on the TV screen. Press RETURN/EXIT ↩ and TV (15) at the same time to return to the previous menu or exit the TV's menu while the menu is displayed on the TV screen.
18 ⊕ ↑/↓/←/→	After pressing AMP MENU (5), DVD MENU (8), or MENU (13), press ↑, ↓, ← or → to select the settings. Then, press ⊕ to enter the selection for DVD MENU or MENU. Press ⊕ also to enter the selection of the receiver, VCR, satellite tuner, Blu-ray disc player or DVD player.
19 **DISPLAY**	Press to select the information displayed on the TV screen of the VCR, satellite tuner, CD player, Blu-ray disc player or DVD player. Press DISPLAY and TV (15) at the same time to select TV information displayed on the TV screen.
20 **-/--**	Press -/-- and TV (15) at the same time to select the channel entry mode, either one or two digits of the TV.
>10/▪	Press to select track numbers over 10 of the VCR, satellite tuner or CD player or to select channel numbers of the Digital CATV terminal.
CLEAR	Press to clear a mistake when you press the incorrect numeric buttons.

Name	Function
21 **Numeric buttons (number 5*)**	Press to preset/tune to preset stations or to select track numbers of the CD player, Blu-ray disc player or DVD player or to select channel numbers of the VCR or satellite tuner. Press 0/10 to select track number 10. Press the numeric buttons and TV (15) at the same time to select the TV channels.
22 **AUTO CAL**	Press to activate the Auto Calibration function.
23 **TV INPUT**	Press TV INPUT and TV (15) at the same time to select the input signal (TV input or video input).
SLEEP	Press to activate the Sleep Timer function and the duration which the receiver turns off automatically.

* The number 5, MASTER VOL +, TV VOL +, and ▷ buttons have tactile dots. Use the tactile dots as references when operating the receiver.

Notes

- Some functions explained in this section may not work depending on the model.
- The above explanation is intended to serve as an example only. Therefore, depending on the component, the above operation may not be possible or may operate differently than described.
- The VIDEO 3 button on the remote is not available for receiver operation.

SECTION 2
TEST MODE

SOUND FIELD CLEAR MODE

The preset sound field is cleared when this mode is activated. Use this mode before returning the product to clients upon completion of repair.

Procedure:

1. While depressing the 2CH button, press the power I/⏻ button to turn on the main power.
2. The message "S.F. CLR." appears and initialization is performed. (3 second)

SOFTWARE VERSION DISPLAY MODE

The software version is displayed.

Procedure:

1. While depressing the DIMMER and the AUTO CAL buttons simultaneously, press the power I/⏻ button to turn on the main power.
2. The model name, destination and the software version are displayed. (8 second)

KEY CHECK MODE

Button check

Procedure:

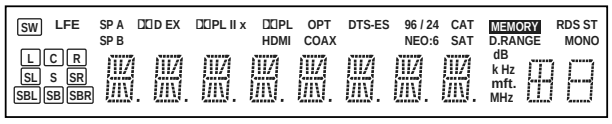
1. While depressing the MUSIC and the AUTO CAL buttons simultaneously, press the power I/⏻ button to turn on the main power.
   "REST 08" appears.
2. Every pressing of any button other than I/⏻ counts down the buttons. The buttons which are already counted once are not counted again.
3. When all buttons are pressed "REST 00" appears.

FLUORESCENT INDICATOR TUBE TEST MODE

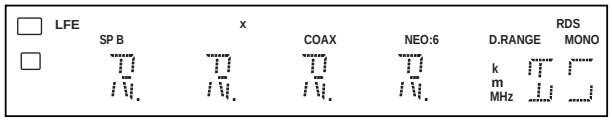
All fluorescent segments are tested. When this test is activated, all segments turn on at the same time, then each segment turns on one after another.

Procedure:

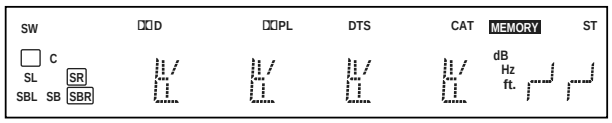
1. While depressing the SLEEP and the AUTO CAL buttons simultaneously, press the power I/⏻ button to turn on the main power.
2. All segments turn on.



3. Turn the INPUT SELECTOR dial.



4. Turn the INPUT SELECTOR dial once again.



5. Turn the INPUT SELECTOR dial once again. All segments turn off.
6. Every turning of the INPUT SELECTOR dial turns on each segment one after another in the same order.

SWAP ALL MODE

The signal will be swapped to all channels so that all speakers will have sound output.

Procedure:

1. While depressing the DIMMER and the DISPLAY buttons simultaneously, press the power I/⏻ button to turn on the main power.
2. "SWP. ALL" appears. (No change while displayed.)

SHIPMENT MODE

All preset contents are reset to the default setting.

Procedure:

1. While depressing the SLEEP and the DISPLAY buttons simultaneously, press the power I/⏻ button to turn on the main power.
2. "CLEARED" appears and switch off the set.

PROTECTOR

If an error occurs, the "Protector Display" will flash for a while and the power is turned OFF.

Procedure:

1. While depressing the MOVIE and the DISPLAY buttons simultaneously, press the power I/⏻ button to turn on the main power.
2. "PROT. EVER" appears (3 seconds) and the display returns to the "Protector Display" and the power remains ON.

AM CHANNEL STEP 9 kHz/10 kHz SELECTION MODE

Either the 9 kHz step or 10 kHz step can be selected for the AM channel step.

Procedure:

1. Set the FUNCTION to AM. Turn off the main power.
2. While depressing the MOVIE button, press the power I/⏻ button to turn on the main power.
3. Either the message "9 k STEP" or "10 kSTEP" appears. Select the desired step.

VACS CONTROL

The VACS feature of the amplifier is turned off purposely.

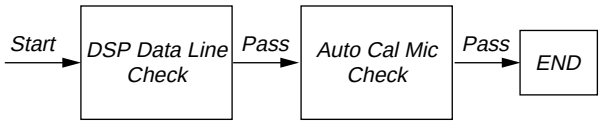
Procedure:

1. While depressing the MOVIE and the AUTO CAL buttons simultaneously, press the power I/⏻ button to turn on the main power.
2. "VACS OFF" appears. (8 second)

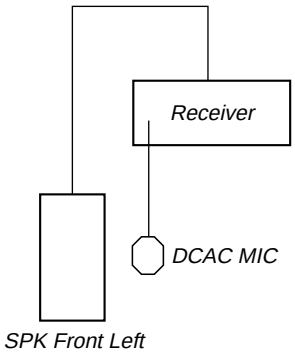
DCAC FACTORY TEST MODE

DCAC Factory Test mode have two stages:

1. DCAC DSP Data Line Checking
2. DCAC board Checking



Factory Test System Setup



1. When power off :
   Press the three buttons [MUSIC] + [DISPLAY] + [I/⏻] .
   "DCAC□FTM" appears.
   Afterward, press the [DIMMER] to start DCAC factory test mode.

1. DCAC DSP Data Line Checking

After press the [DIMMER] , DCAC Factory test mode will start, below display will show:

"DCAC□□□x" x = 1, 2, 3

If there is error happen, below display will show:

"ERR□SD0x" x = 1 → D1501 or R1530
x = 2 → D1502 problem
x = 3 → D1503 problem

2. DCAC board Checking

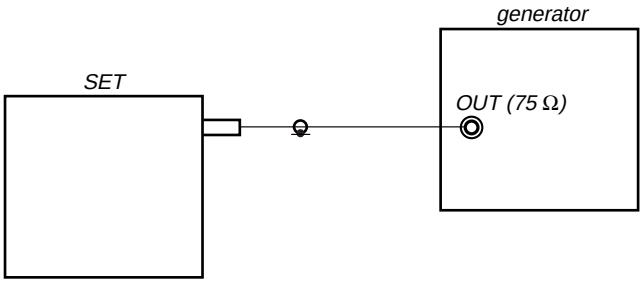
Connect front left speaker of the receiver and AUTO CAL microphone. Turn [MASTER VOLUME] jog, there will be test tone sound output from front left speaker, and the display will change accordingly.

"AD□-□xxx" xxx = 0 to 255 (depends on loudness of test tone)

SECTION 3
ELECTRICAL ADJUSTMENT

TUNER SECTION

[FM Auto Stop Check]



Procedure:

1. Turn the power on.
2. Input the following signal from Signal Generator to FM antenna input directly.

* Carrier Freq : A = 87.5 MHz, B = 98 MHz, C = 108 MHz
Deviation : 75 kHz
Modulation : 1 kHz
ANT input : 35 dBu (EMF)

Note: Please use 75 ohm “coaxial cable” to connect SG and the set. You cannot use video cable for checking.
Please use SG whose output impedance is 75 ohm.

3. Set to FM tuner function and scan the input FM signal with automatic scanning.
4. Confirm that input Frequency of A, B and C are detected and automatic scanning stops.

The stop of automatic scanning means “The station signal is received in good condition.”

SECTION 4
DIAGRAMS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For Schematic Diagrams.
Note:

- All capacitors are in μF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- % : indicates tolerance.
- △ : internal component.
- : nonflammable resistor.
- : fusible resistor.
- : panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

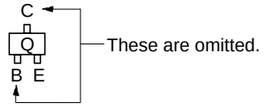
- : B+ Line.
- : B– Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  No mark : FM
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
- Circled numbers refer to waveforms.
- Signal path.
  : FM
  : ANALOG
  : DIGITAL
- Abbreviation
  AR : Argentine model
  E51 : Chilean and Peruvian models
  MX : Mexican model
  SP : Singapore model
  SP6 : Singapore and Malaysia models
  TH : Thai model

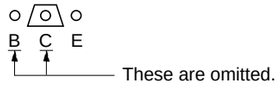
For Printed Wiring Boards.
Note:

- : parts extracted from the component side.
- ○ : Through hole.
- △ : internal component.
- : Pattern from the side which enables seeing.

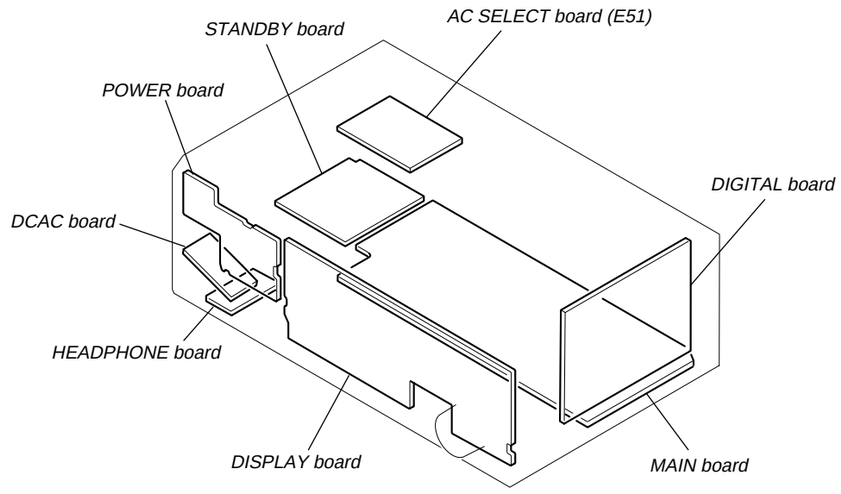
Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.

- Indication of transistor.





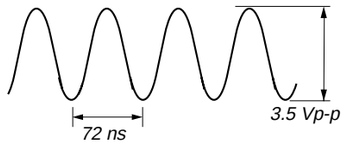
- **Circuit Boards Location**



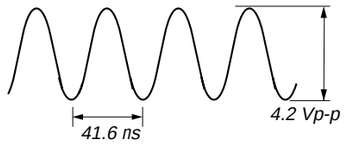
- **Waveforms**

– DIGITAL Board –

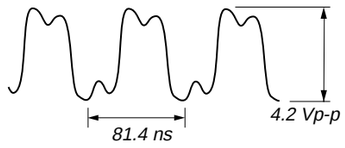
① IC1905 ⑨ (MCLK1)



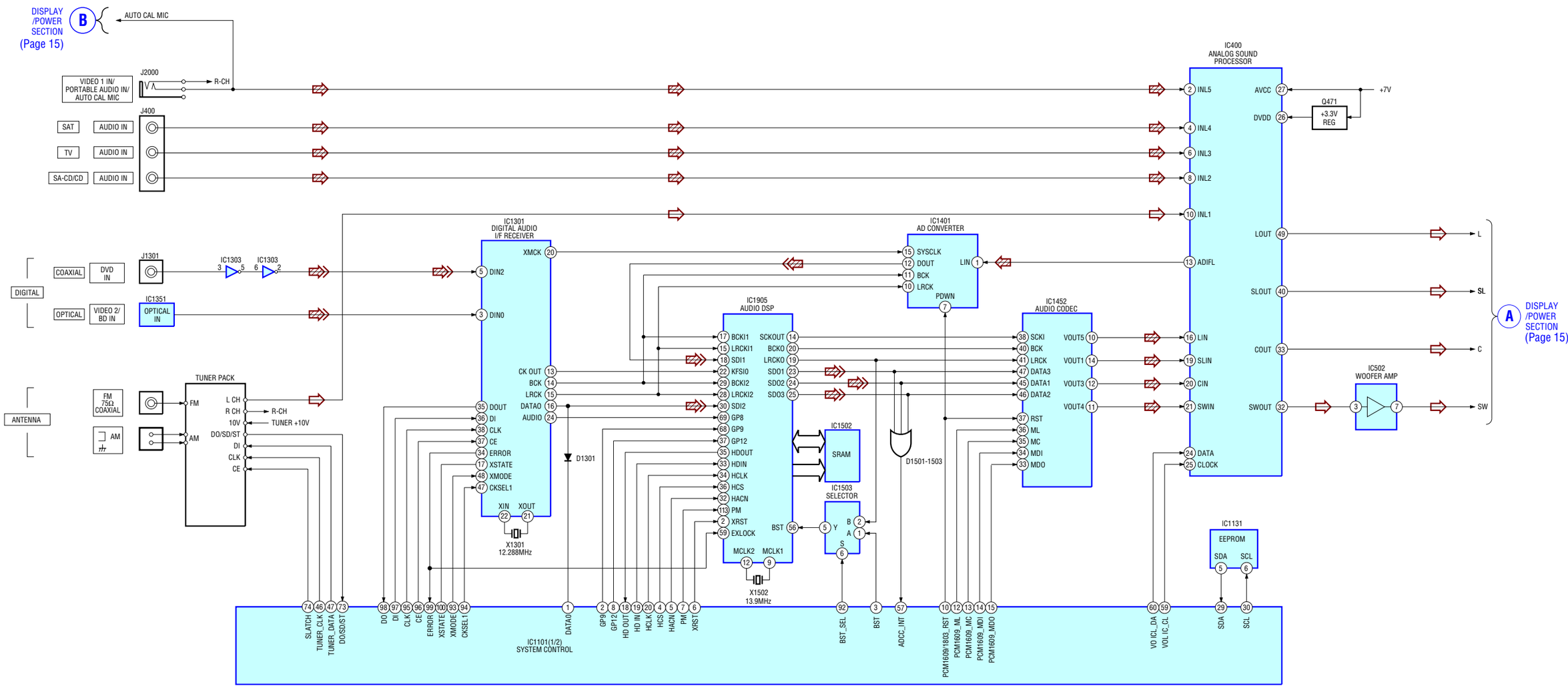
② IC1101 ㉝ (X1)



③ IC1301 ㉒ (XIN)



4-1. BLOCK DIAGRAM – MAIN SECTION –



- R-CH is omitted due to same as L-CH.
- Signal Path

: FM

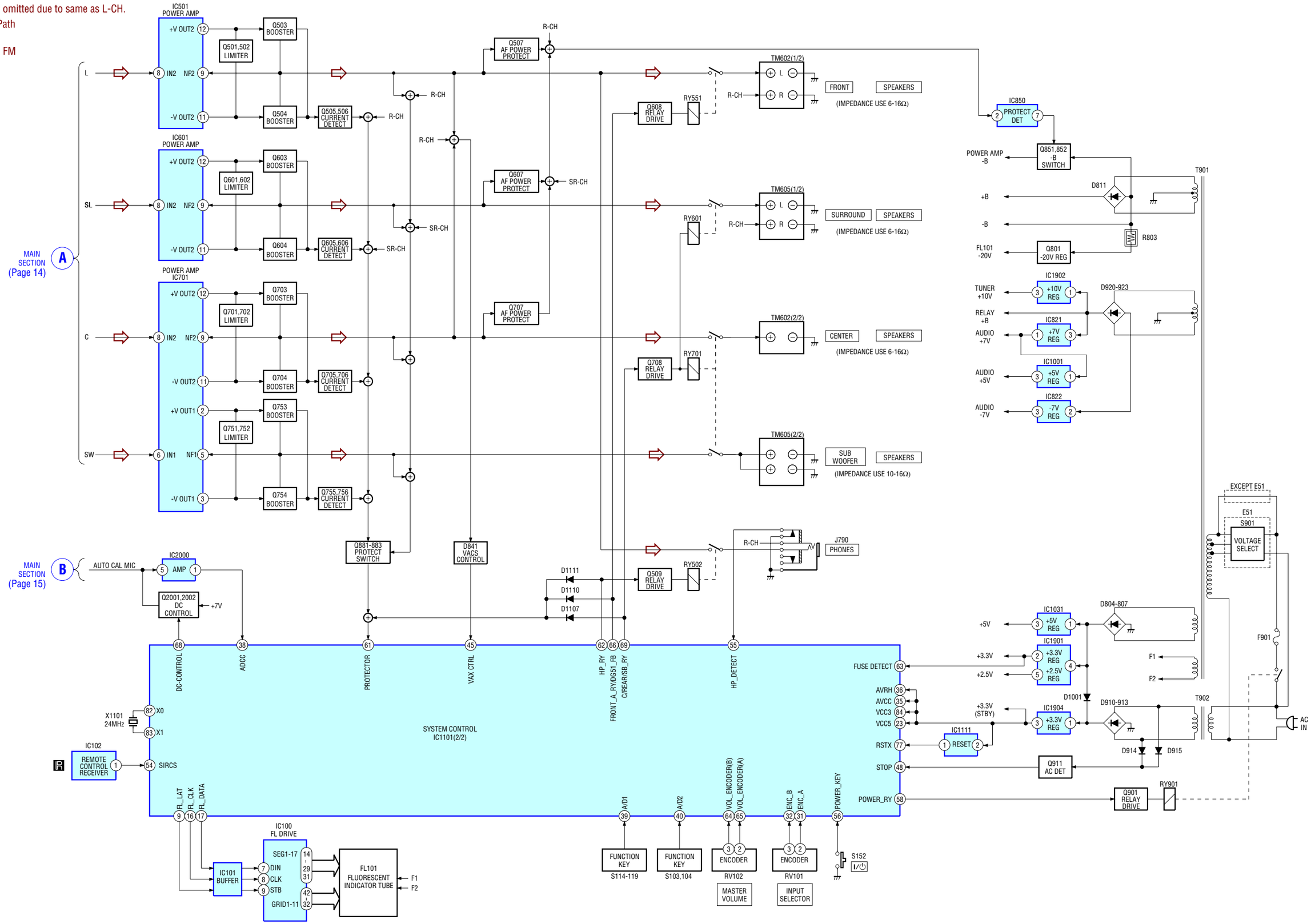
: ANALOG

: DIGITAL

4-2. BLOCK DIAGRAM – DISPLAY/POWER SECTION –

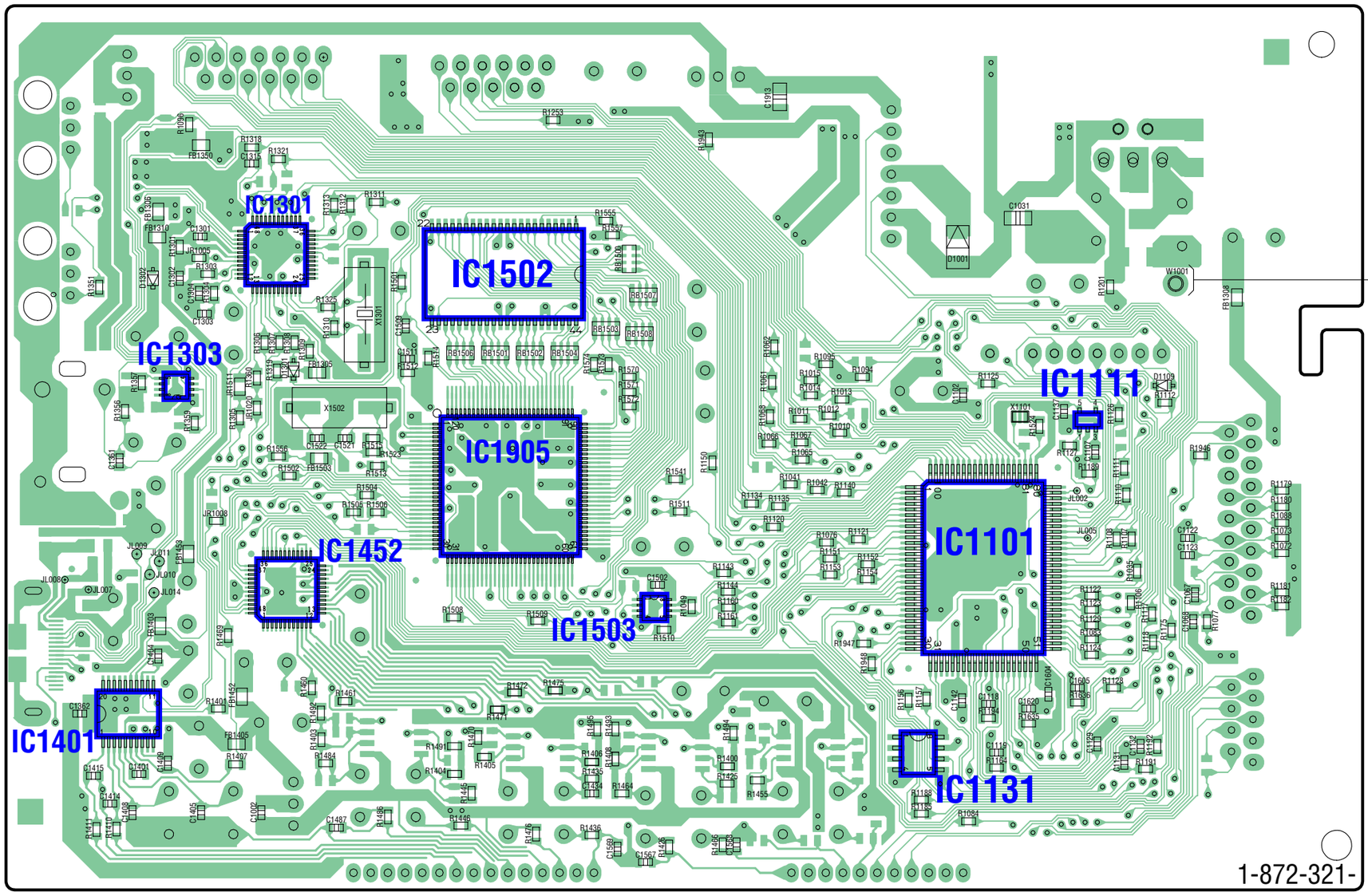
- R-CH is omitted due to same as L-CH.
- Signal Path

: FM



4-3. PRINTED WIRING BOARD – DIGITAL BOARD (SIDE A) – • See page 13 for Circuit Boards Location. **:Uses unleaded solder.**

【DIGITAL BOARD】(SIDE A)

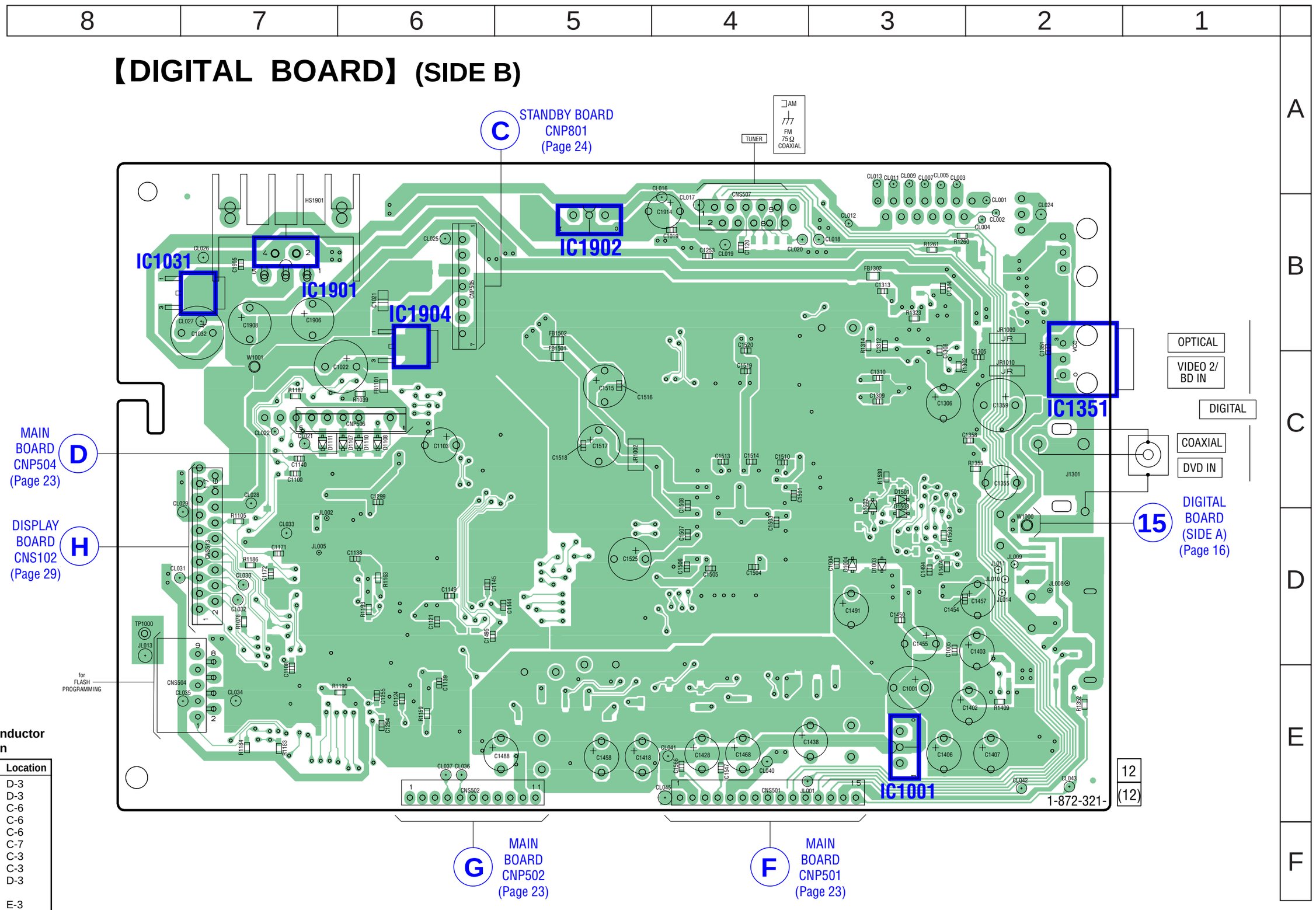


- **Semiconductor Location**

Ref. No.	Location
D1001	B-6
D1109	C-7
D1301	C-3
D1302	C-2
IC1101	D-6
IC1111	C-7
IC1131	E-6
IC1301	B-3
IC1303	C-3
IC1401	E-2
IC1452	D-3
IC1502	C-4
IC1503	D-5
IC1905	C-4

4-4. PRINTED WIRING BOARD – DIGITAL BOARD (SIDE B) – • See page 13 for Circuit Boards Location. :Uses unleaded solder.

【DIGITAL BOARD】(SIDE B)

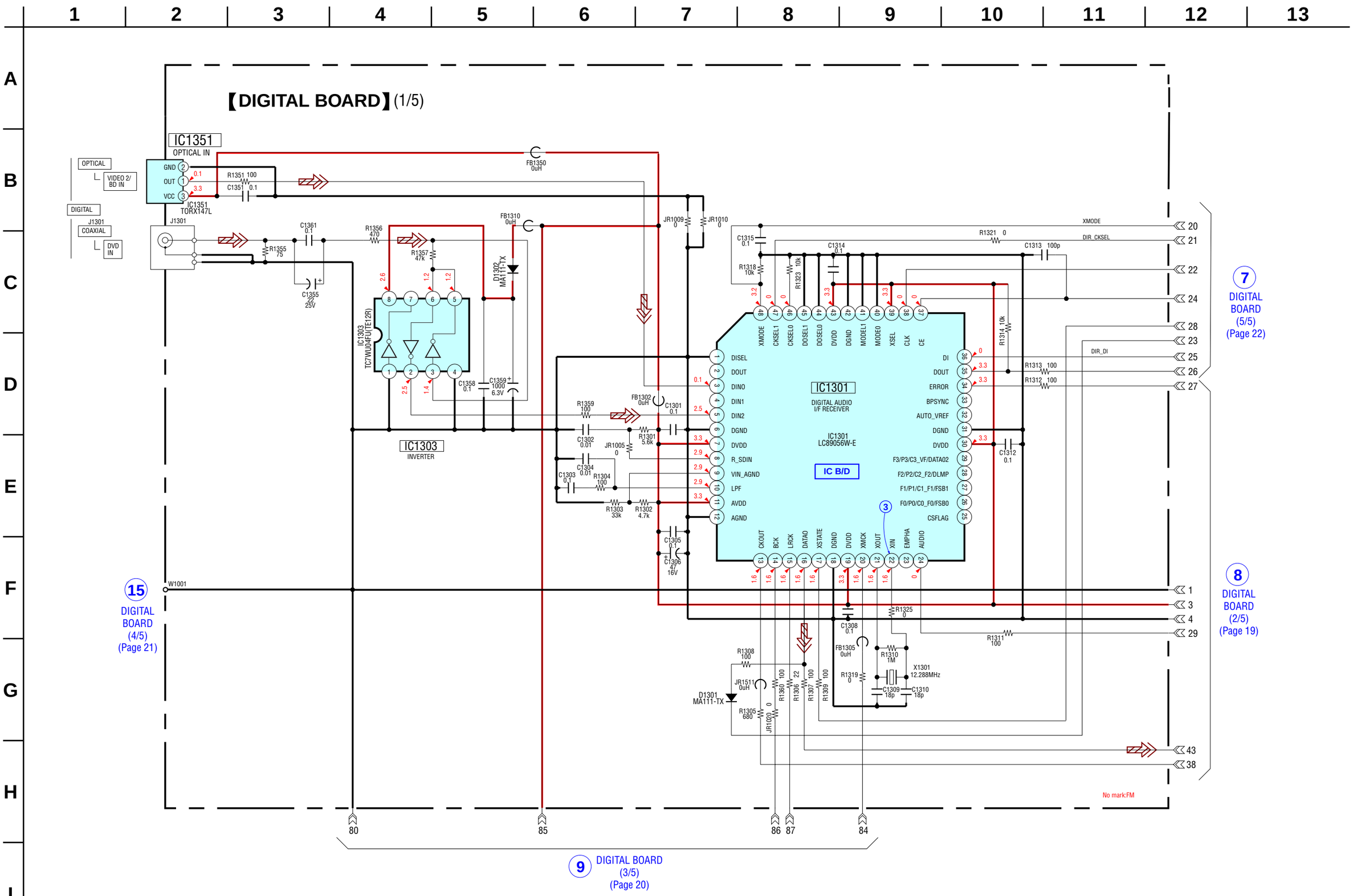


- **Semiconductor Location**

Ref. No.	Location
D1003	D-3
D1004	D-3
D1107	C-6
D1108	C-6
D1110	C-6
D1111	C-7
D1501	C-3
D1502	C-3
D1503	D-3
IC1001	E-3
IC1031	B-7
IC1351	C-2
IC1901	B-7
IC1902	B-5
IC1904	B-6

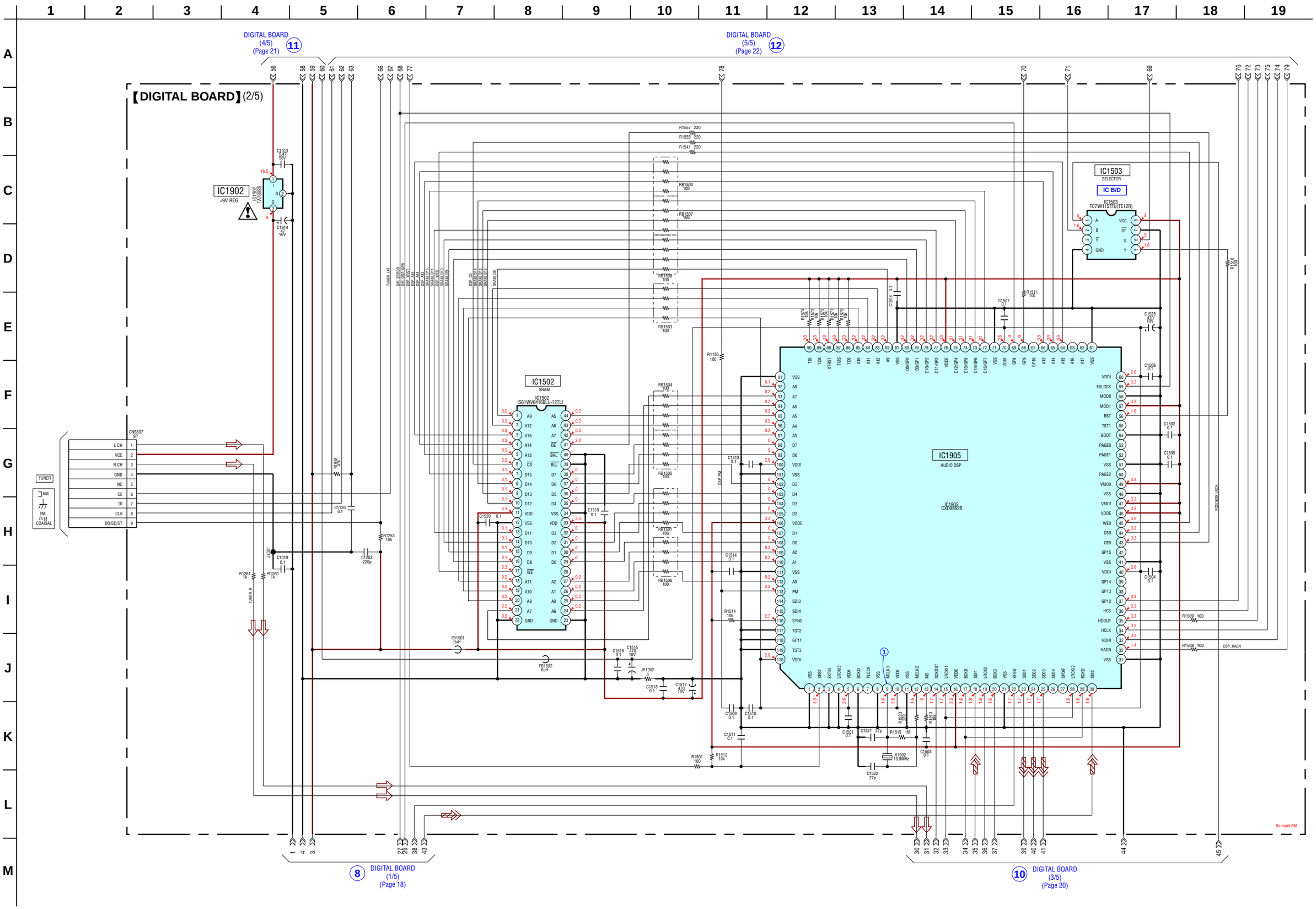
4-5. SCHEMATIC DIAGRAM – DIGITAL BOARD (1/5) –

• See page 13 for Waveform. • See page 33 for IC Block Diagram.

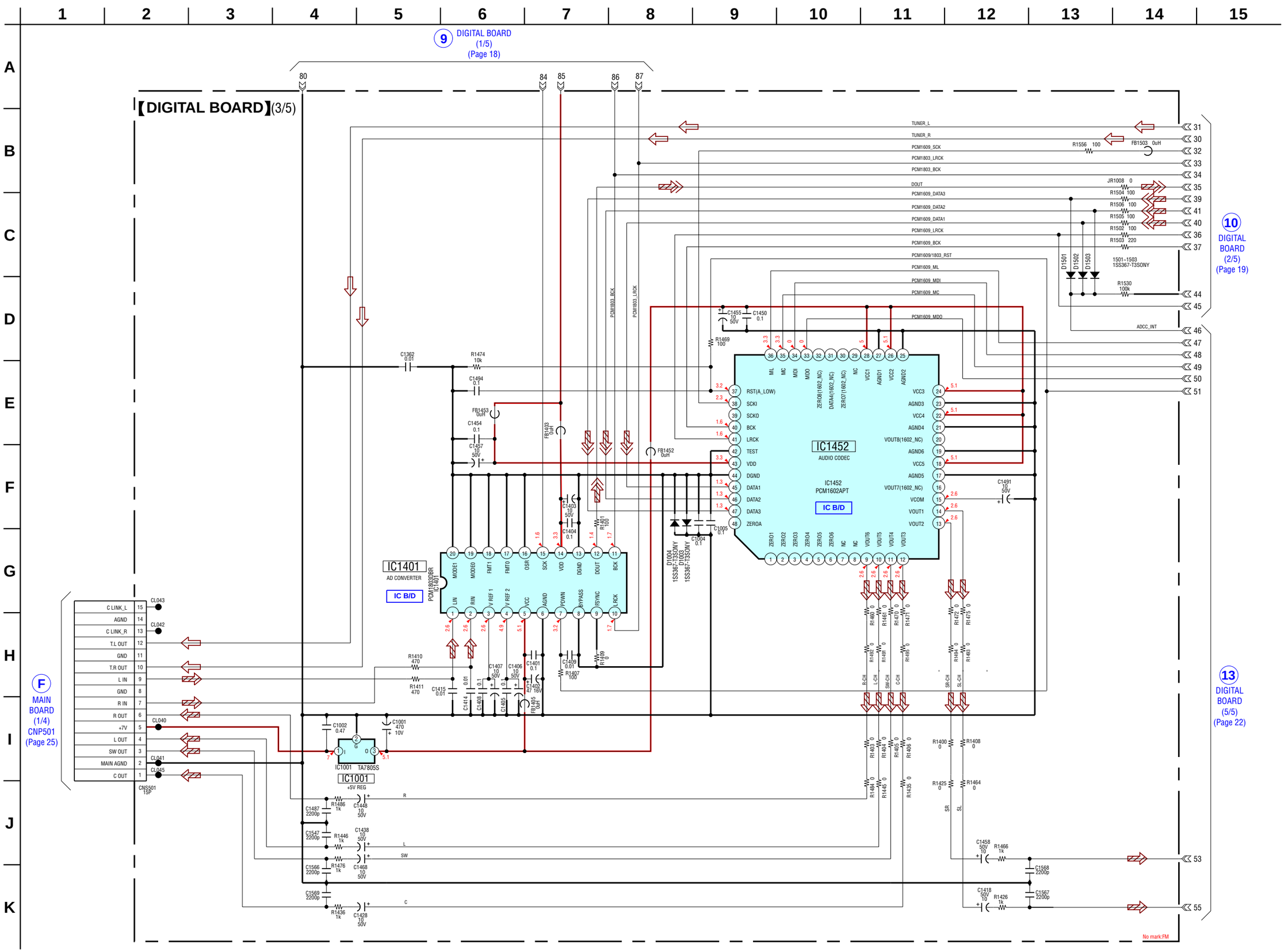


4-6. SCHEMATIC DIAGRAM – DIGITAL BOARD (2/5) –

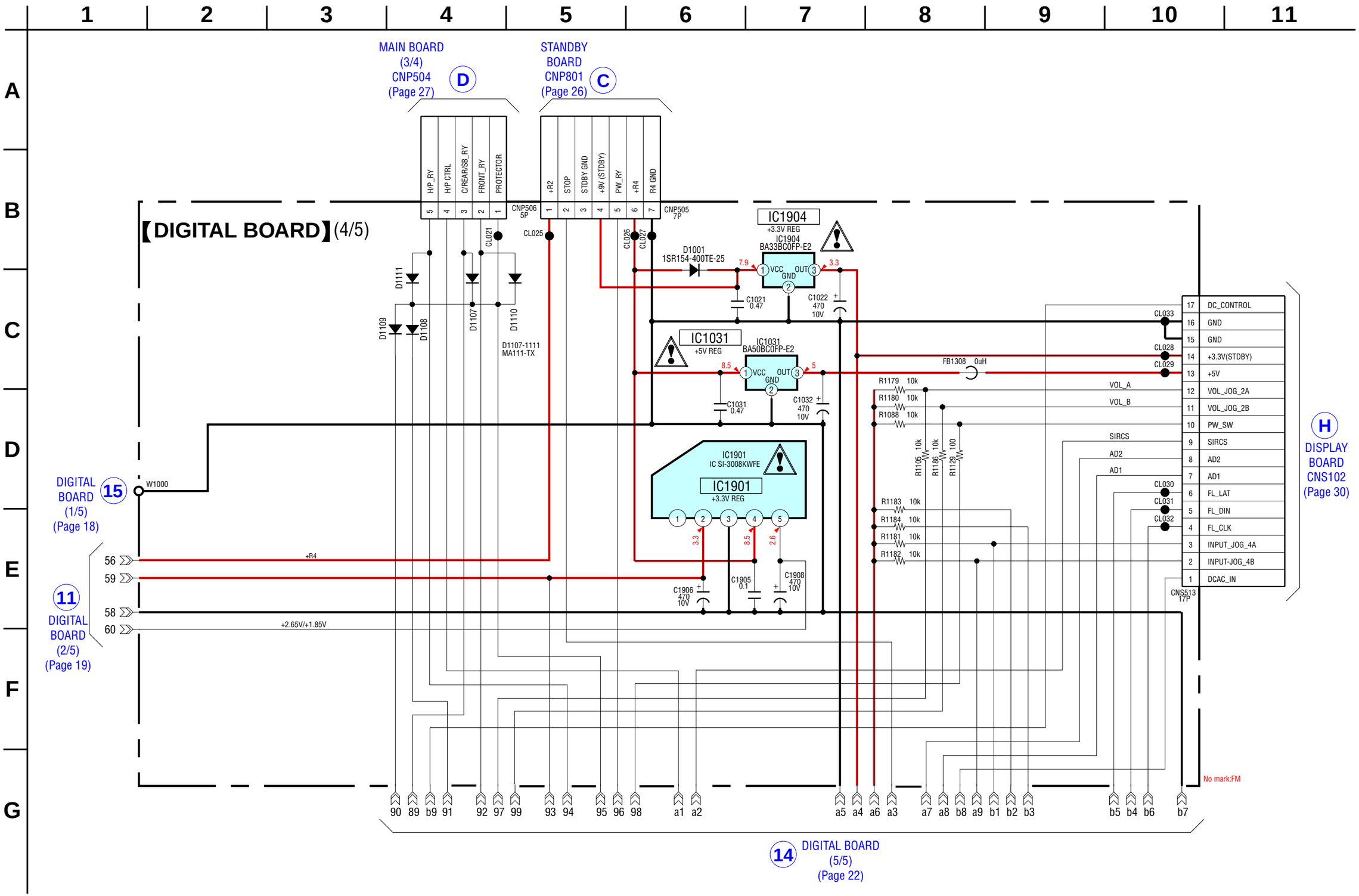
• See page 13 for Waveform. • See page 34 for IC Block Diagram.



4-7. SCHEMATIC DIAGRAM – DIGITAL BOARD (3/5) – • See page 33, 34 for IC Block Diagrams.

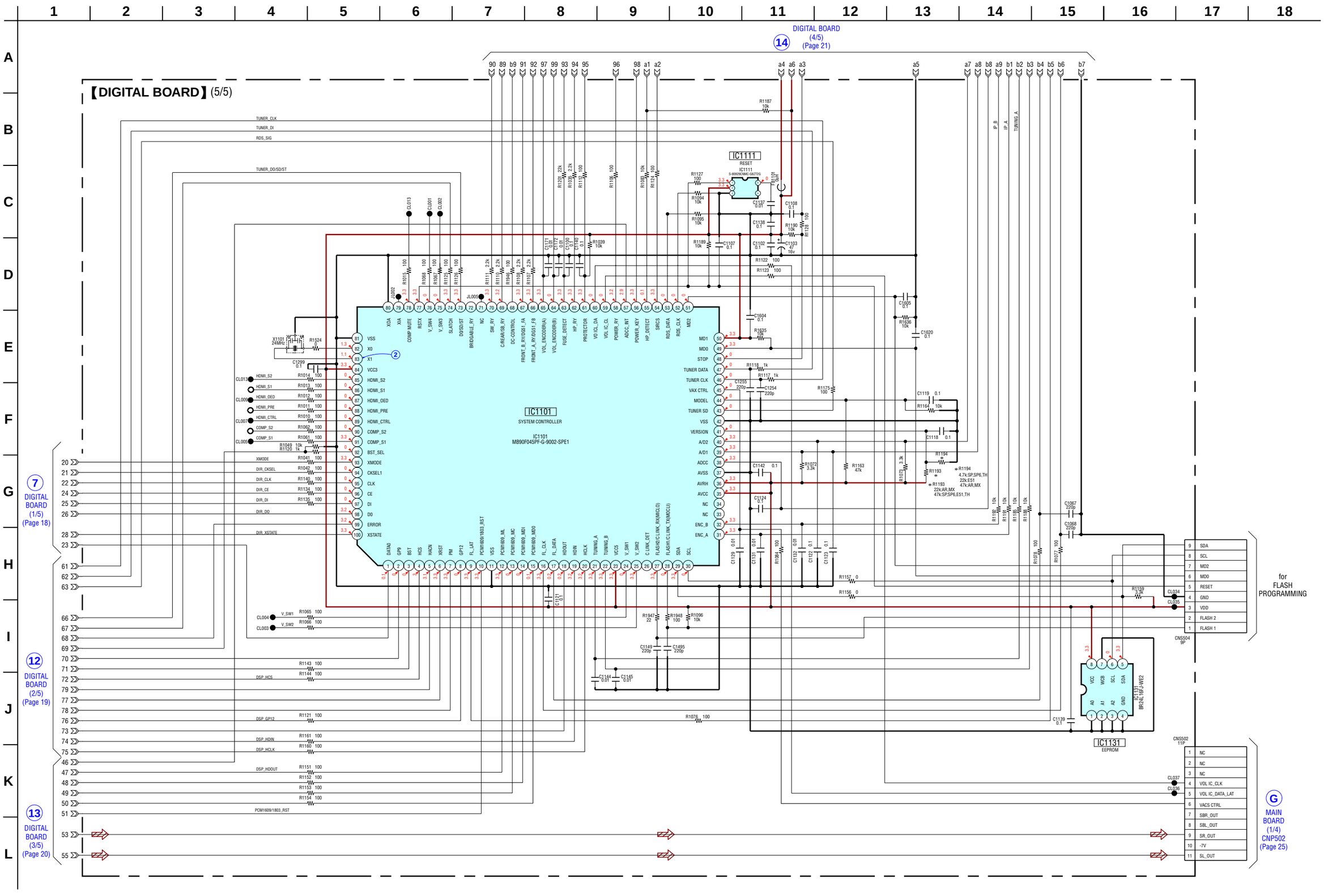


4-8. SCHEMATIC DIAGRAM – DIGITAL BOARD (4/5) –



4-9. SCHEMATIC DIAGRAM – DIGITAL BOARD (5/5) –

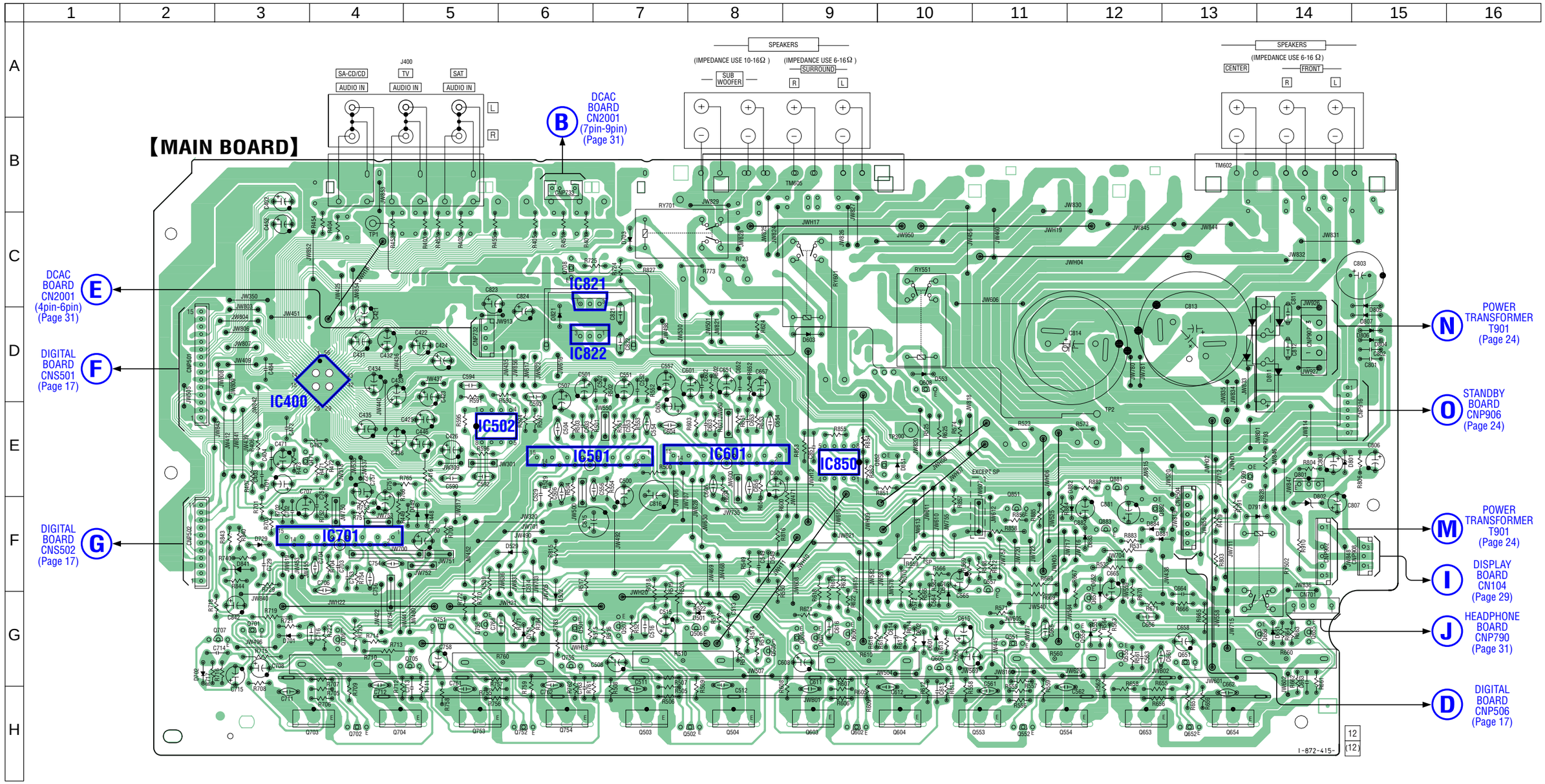
• See page 13 for Waveform. • See page 36 for IC Pin Function Description.



4-10. PRINTED WIRING BOARD – MAIN BOARD –

• See page 13 for Circuit Boards Location.

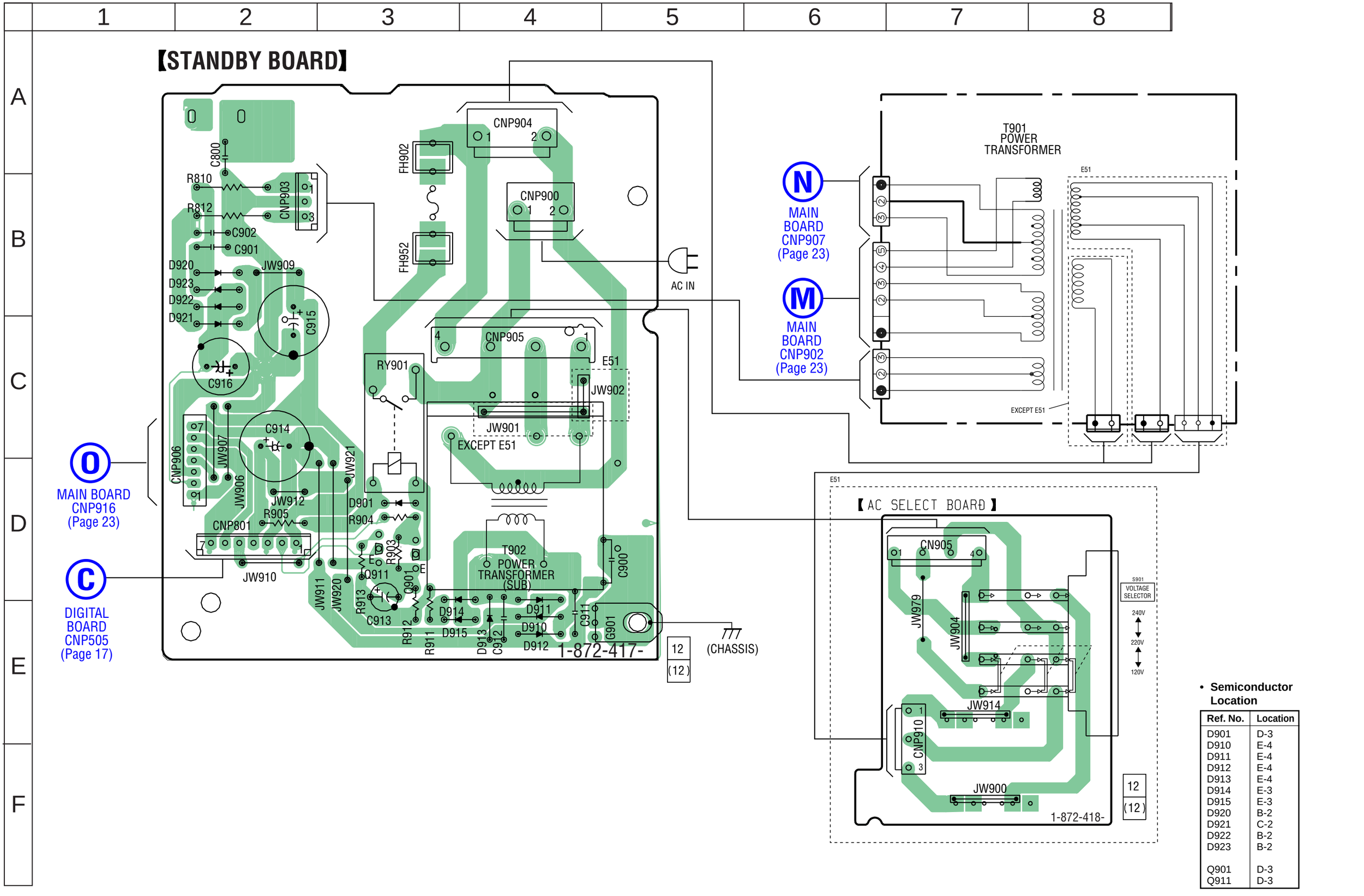
:Uses unleaded solder.



• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D448	F-5	D703	C-7	D883	F-12	Q504	H-8	Q605	G-10	Q706	G-4
D449	F-5	D729	F-3	D884	F-12	Q505	G-8	Q606	G-9	Q707	G-3
D501	G-8	D751	G-6			Q506	G-8	Q607	G-9	Q708	C-6
D502	G-6	D791	F-13	IC400	D-4	Q507	G-7	Q608	D-10	Q751	G-5
D529	F-6	D801	E-14	IC501	E-6	Q509	E-13	Q651	G-13	Q752	H-6
D549	F-8	D802	F-14	IC502	E-5	Q551	G-11	Q652	H-13	Q753	H-5
D551	G-12	D804	D-15	IC601	E-8	Q552	H-11	Q653	H-12	Q754	H-6
D552	G-10	D805	D-15	IC701	F-4	Q553	H-11	Q654	H-13	Q755	G-6
D553	D-10	D806	D-15	IC821	C-6	Q554	H-11	Q655	G-14	Q756	G-5
D601	G-10	D807	D-15	IC822	D-6	Q555	G-12	Q656	G-13	Q801	F-14
D602	G-10	D811	D-14	IC850	E-9	Q556	G-12	Q657	G-12	Q851	F-11
D603	D-9	D821	D-6			Q557	G-11	Q701	G-3	Q852	E-9
D651	G-14	D841	F-3	Q471	E-3	Q601	G-9	Q702	H-4	Q881	E-12
D652	F-12	D851	E-10	Q501	G-6	Q602	H-9	Q703	H-4	Q882	F-12
D701	G-3	D881	F-12	Q502	H-8	Q603	H-9	Q704	H-4	Q883	F-12
D702	G-2	D882	E-12	Q503	H-7	Q604	H-10	Q705	G-5		

4-11. PRINTED WIRING BOARD – STANDBY BOARD, AC SELECT BOARD (E51 only) – • See page 13 for Circuit Boards Location. :Uses unleaded solder.

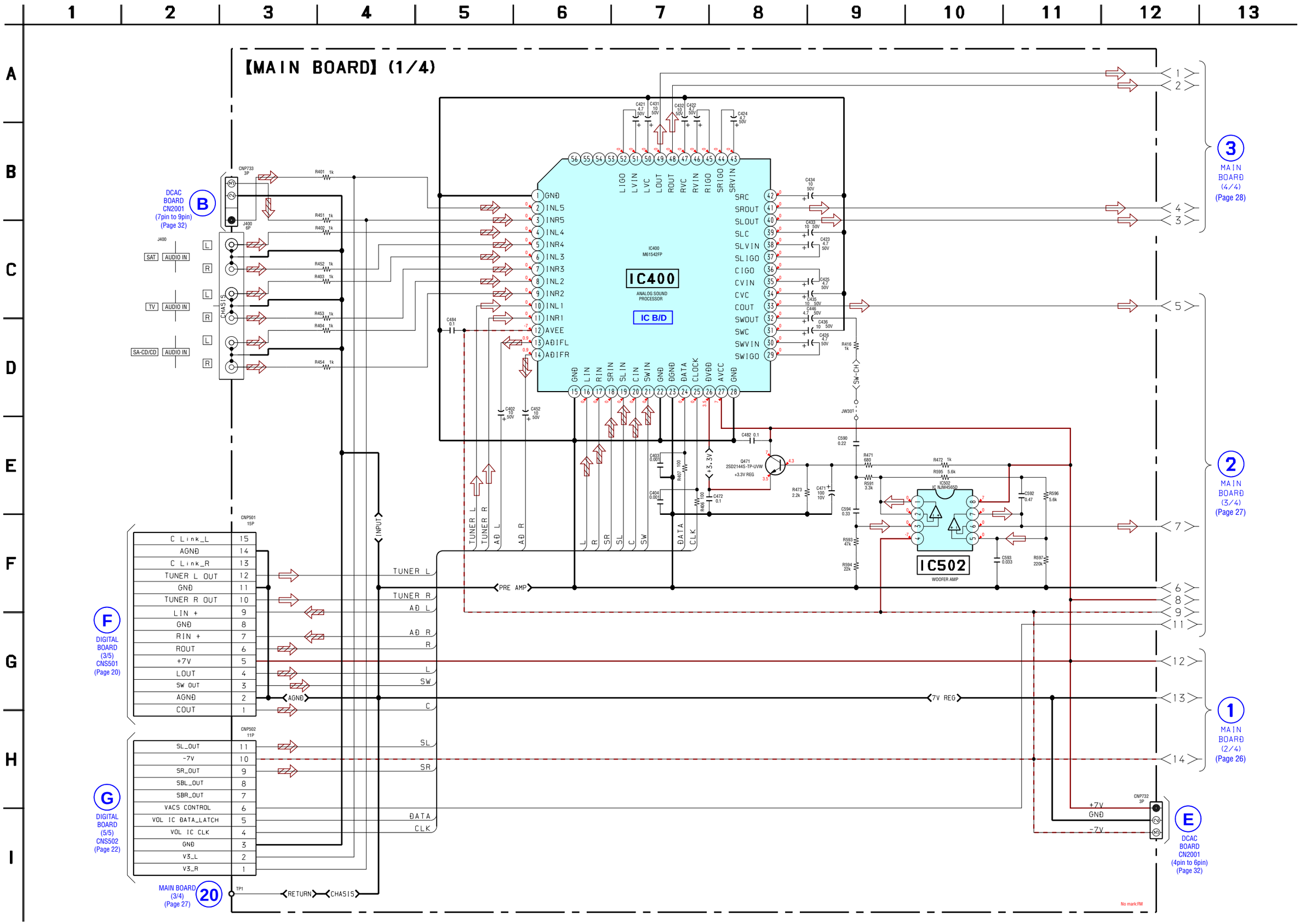


- **Semiconductor Location**

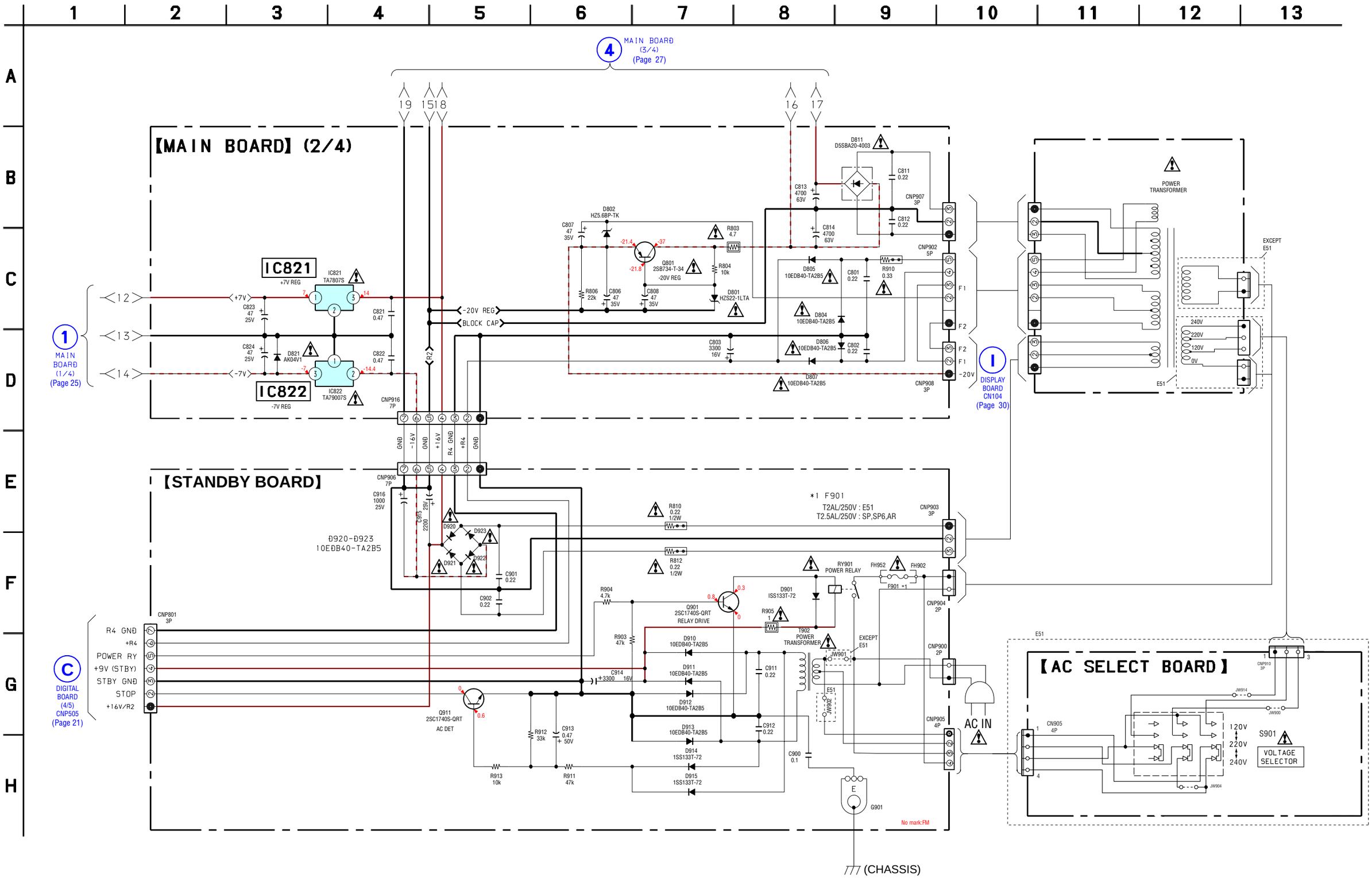
Ref. No.	Location
D901	D-3
D910	E-4
D911	E-4
D912	E-4
D913	E-4
D914	E-3
D915	E-3
D920	B-2
D921	C-2
D922	B-2
D923	B-2
Q901	D-3
Q911	D-3

4-12. SCHEMATIC DIAGRAM – MAIN BOARD (1/4) –

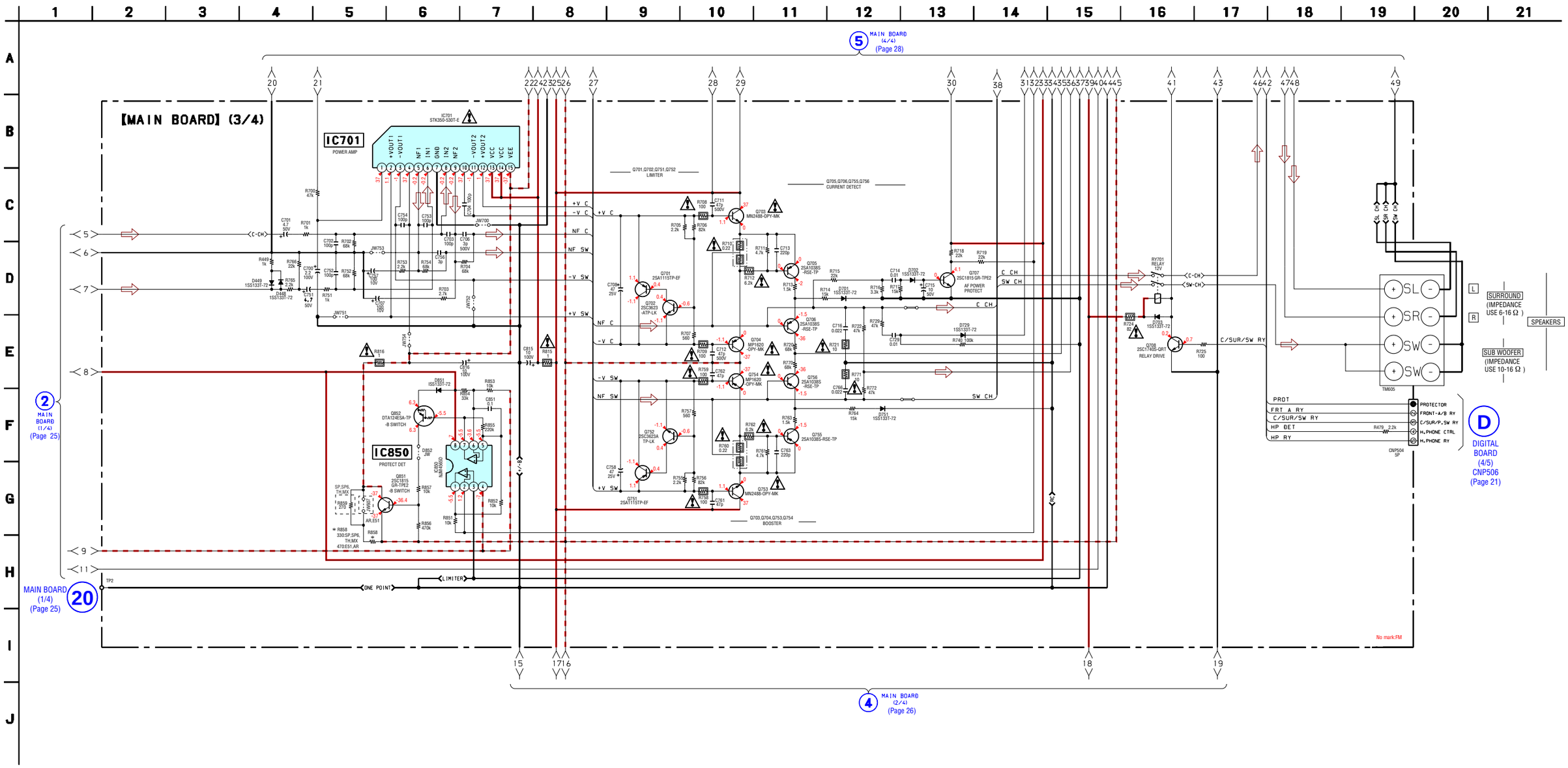
• See page 34 for IC Block Diagram.



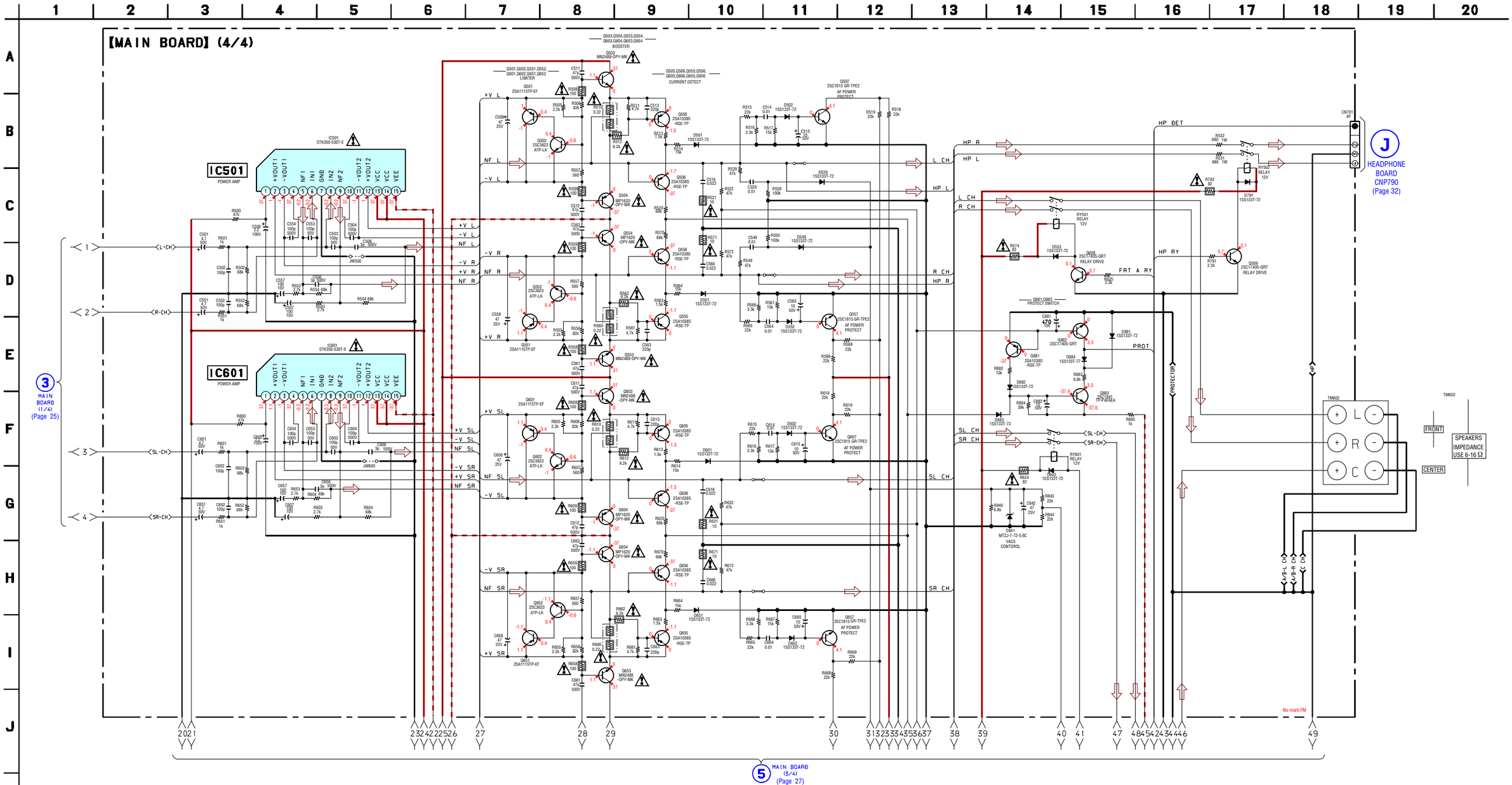
4-13. SCHEMATIC DIAGRAM – MAIN BOARD (2/4), STANDBY BOARD, AC SELECT BOARD (E51 only) –



4-14. SCHEMATIC DIAGRAM – MAIN BOARD (3/4) –



4-15. SCHEMATIC DIAGRAM – MAIN BOARD (4/4) –

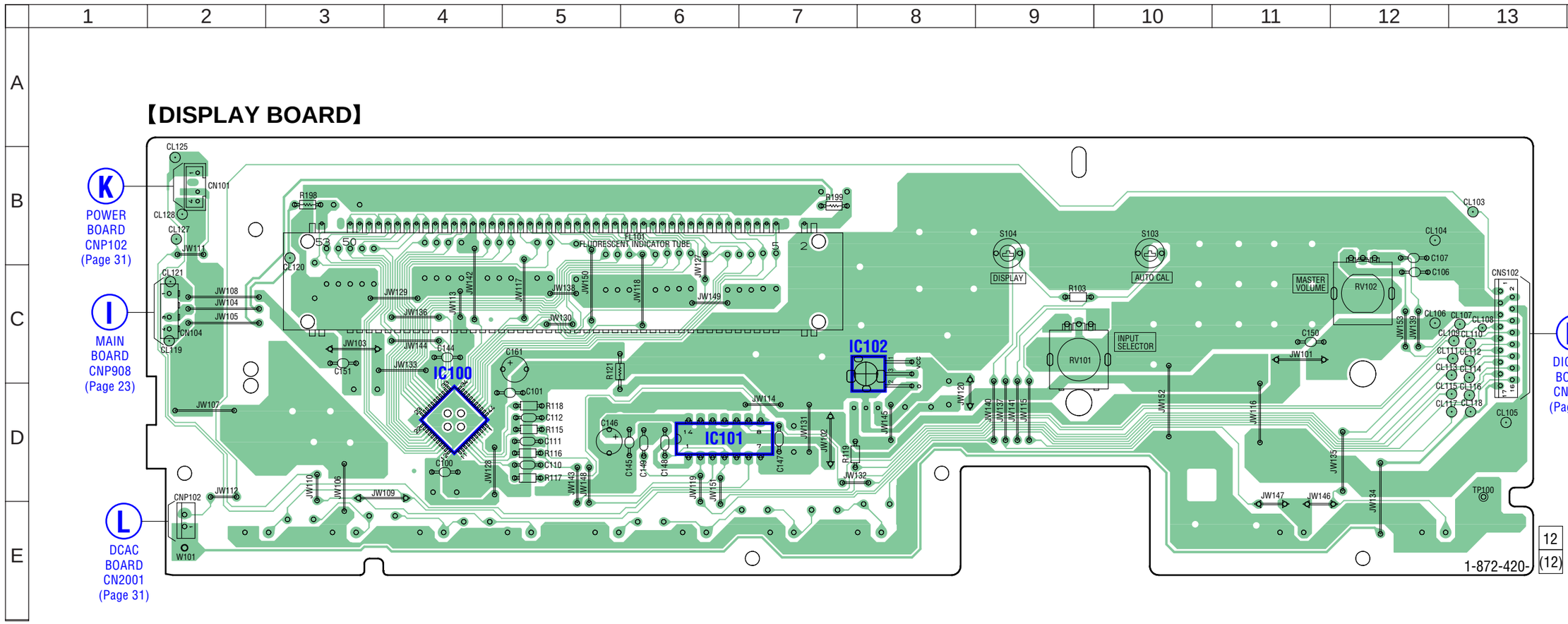


4-16. PRINTED WIRING BOARD – DISPLAY BOARD –

• See page 13 for Circuit Boards Location.

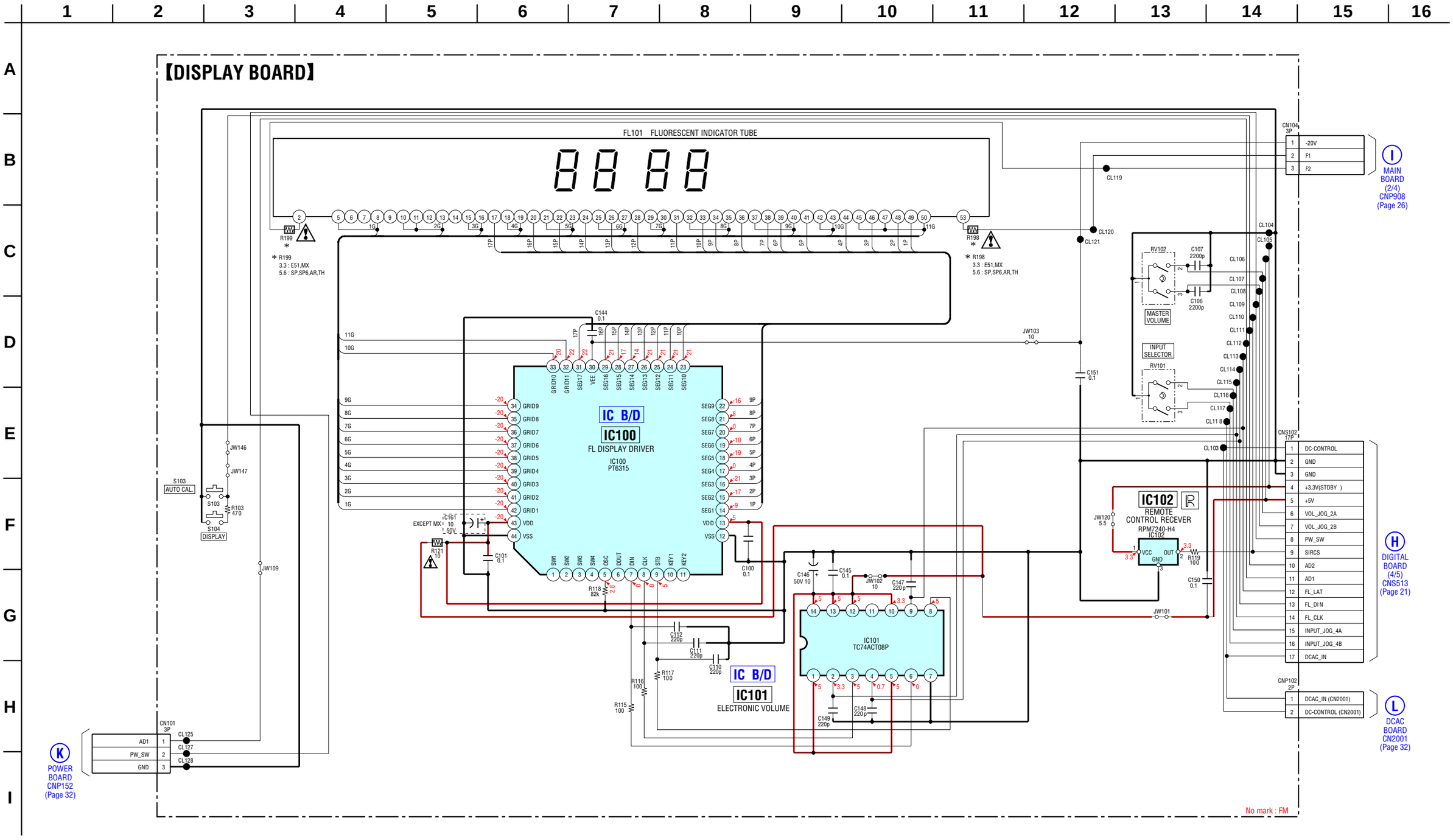
:Uses unleaded solder.

【DISPLAY BOARD】



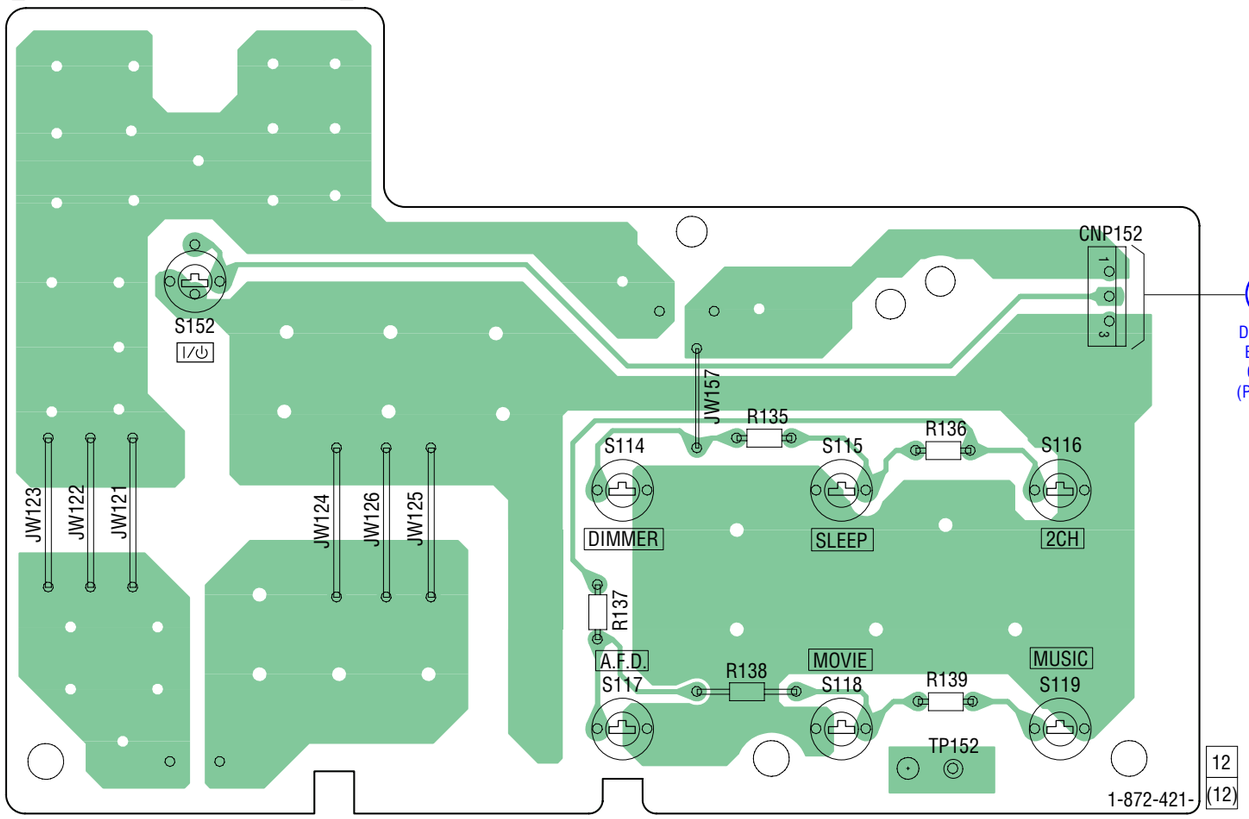
4-17. SCHEMATIC DIAGRAM – DISPLAY BOARD –

• See page 35 for IC Block Diagrams.



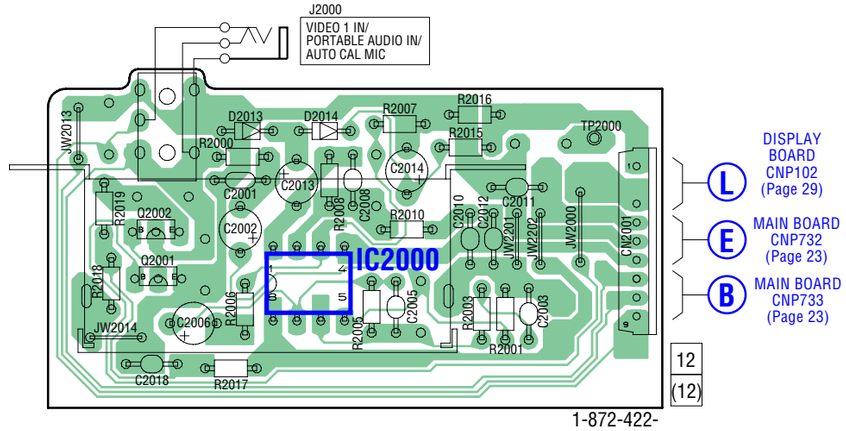
4-18. PRINTED WIRING BOARDS – POWER BOARD, DCAC BOARD, HEADPHONE BOARD – • See page 13 for Circuit Boards Location. :Uses unleaded solder.

【POWER BOARD】



K DISPLAY BOARD CN101 (Page 29)

【DCAC BOARD】

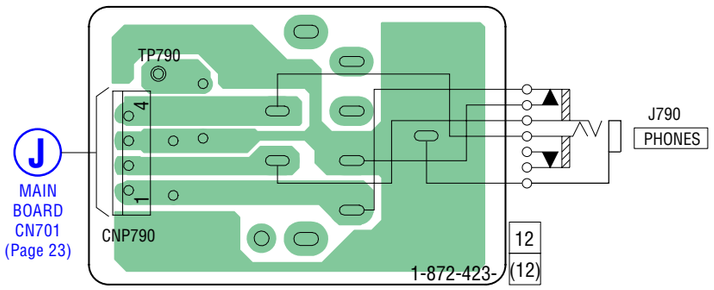


L DISPLAY BOARD CNP102 (Page 29)

E MAIN BOARD CNP732 (Page 23)

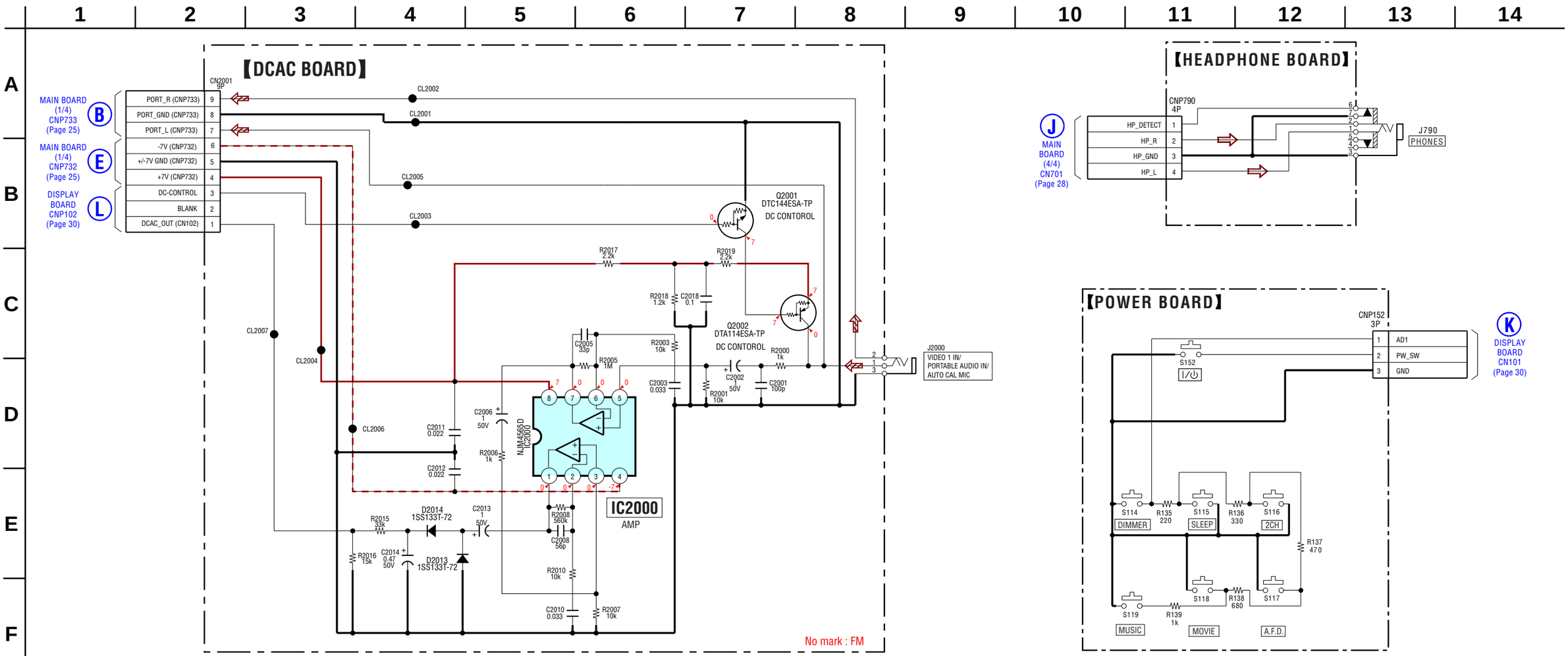
B MAIN BOARD CNP733 (Page 23)

【HEADPHONE BOARD】



J MAIN BOARD CN701 (Page 23)

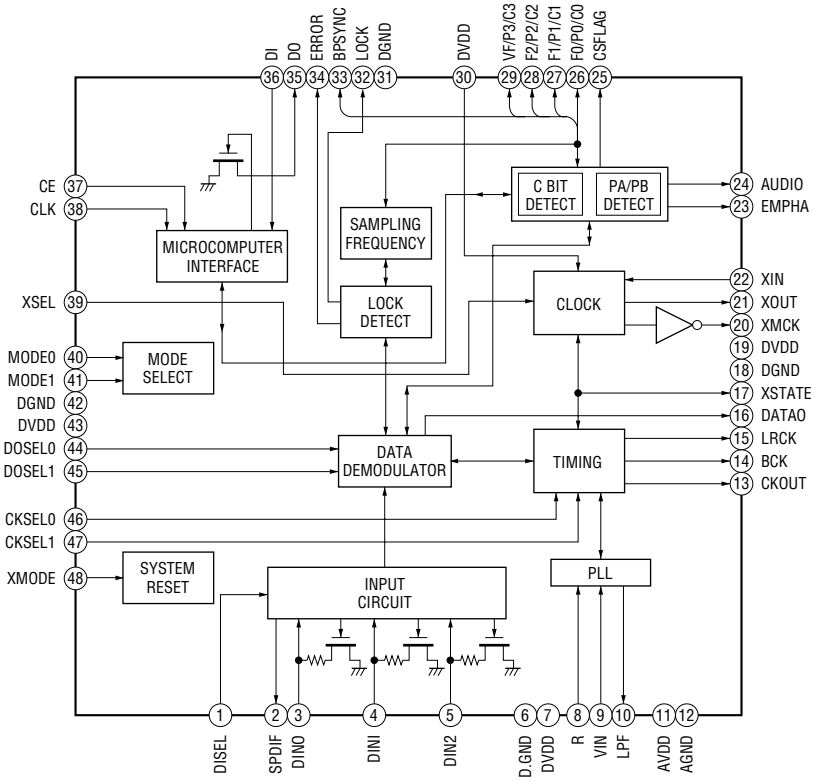
4-19. SCHEMATIC DIAGRAM – POWER BOARD, DCAC BOARD, HEADPHONE BOARD –



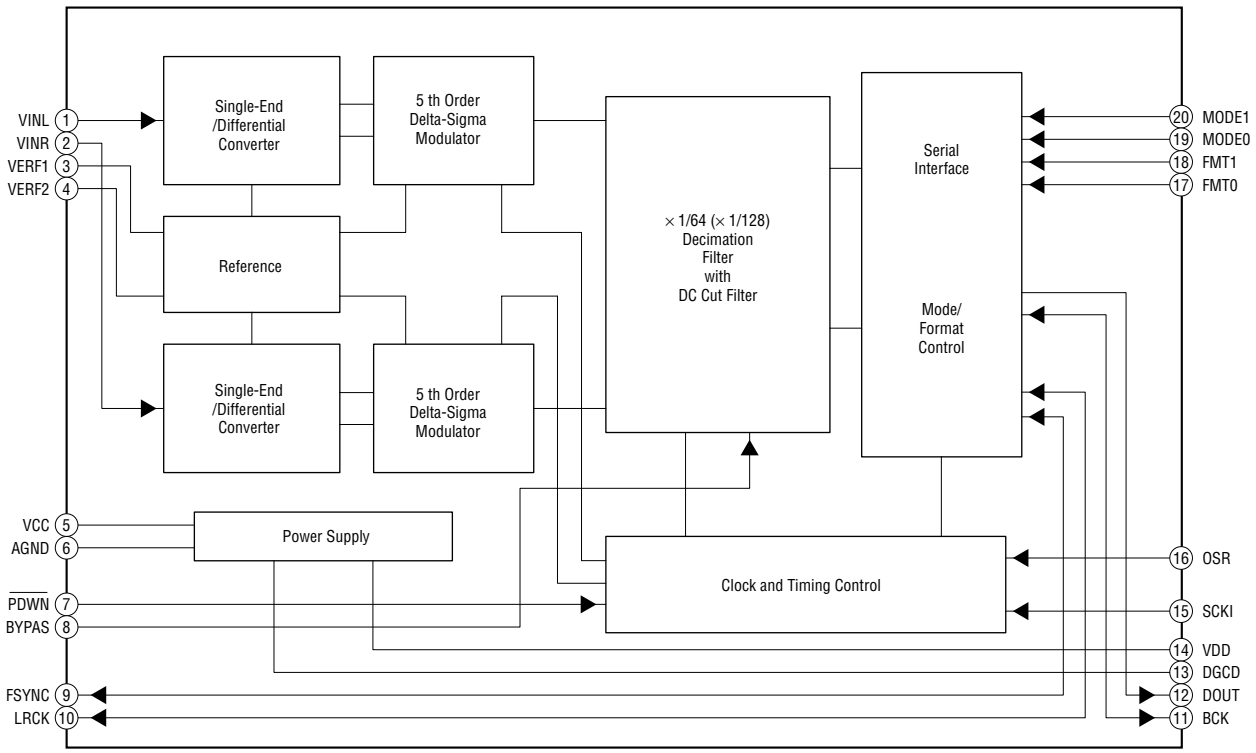
- **IC Block Diagrams**

– DIGITAL Board –

IC1301 LC89056W-E

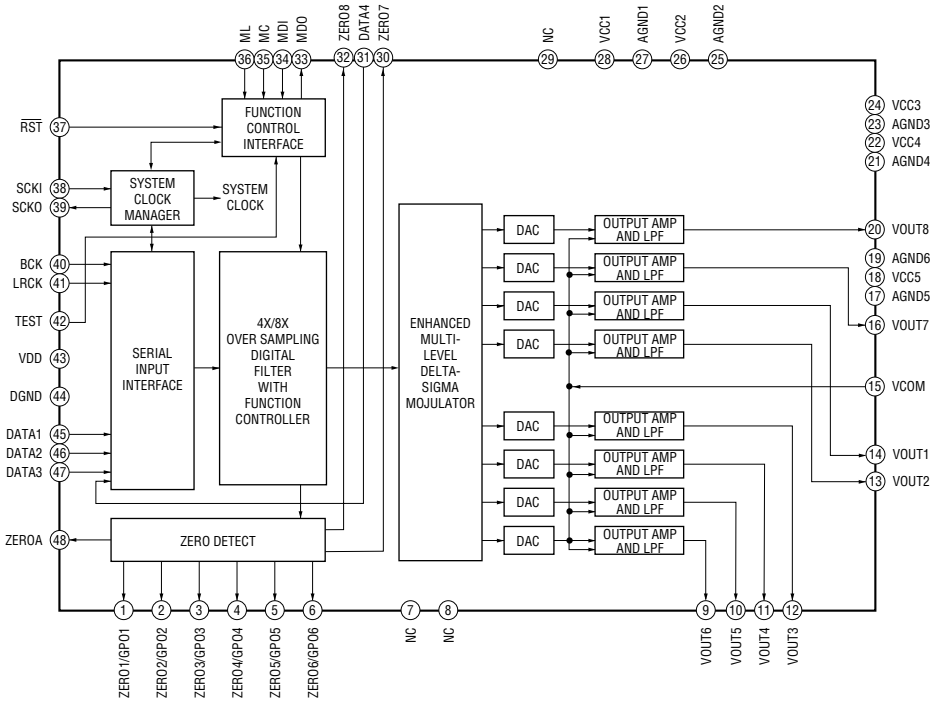


IC1401 PCM1803DBR

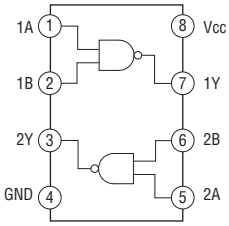


– DIGITAL Board –

IC1452 PCM1602APT

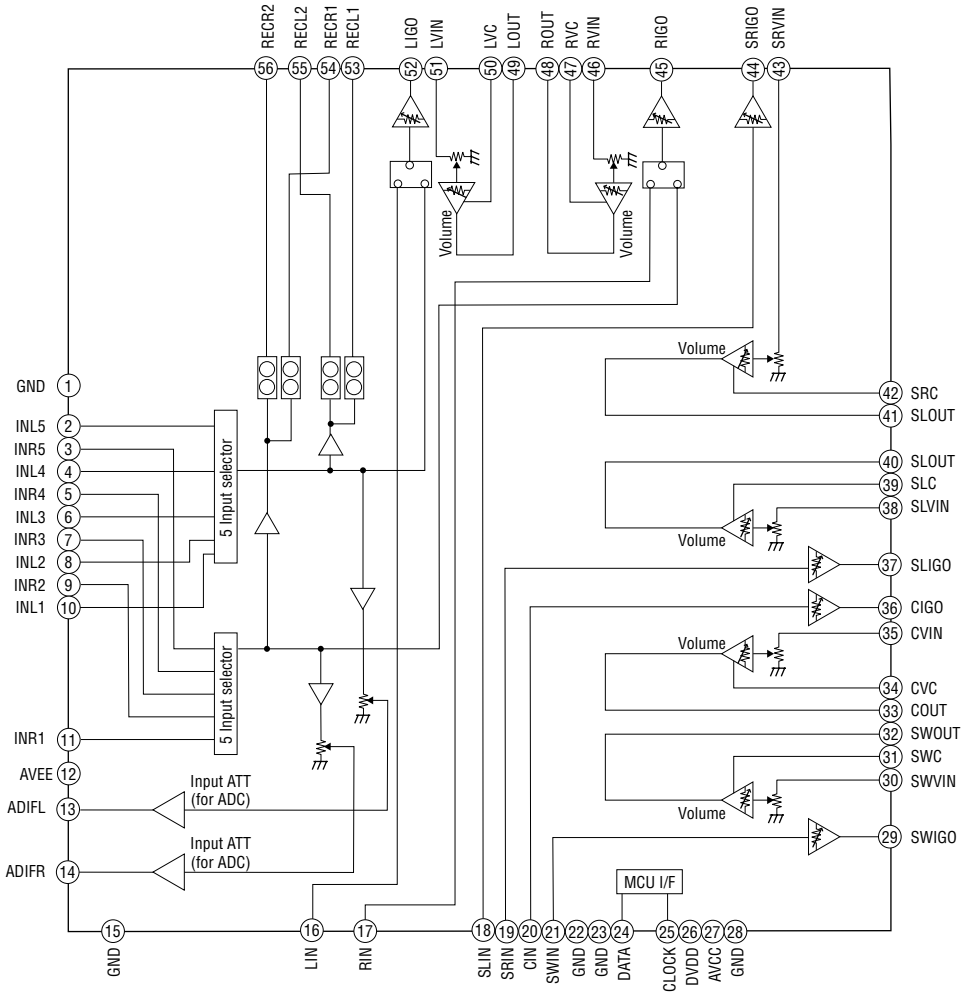


IC1503 TC7WH157FU



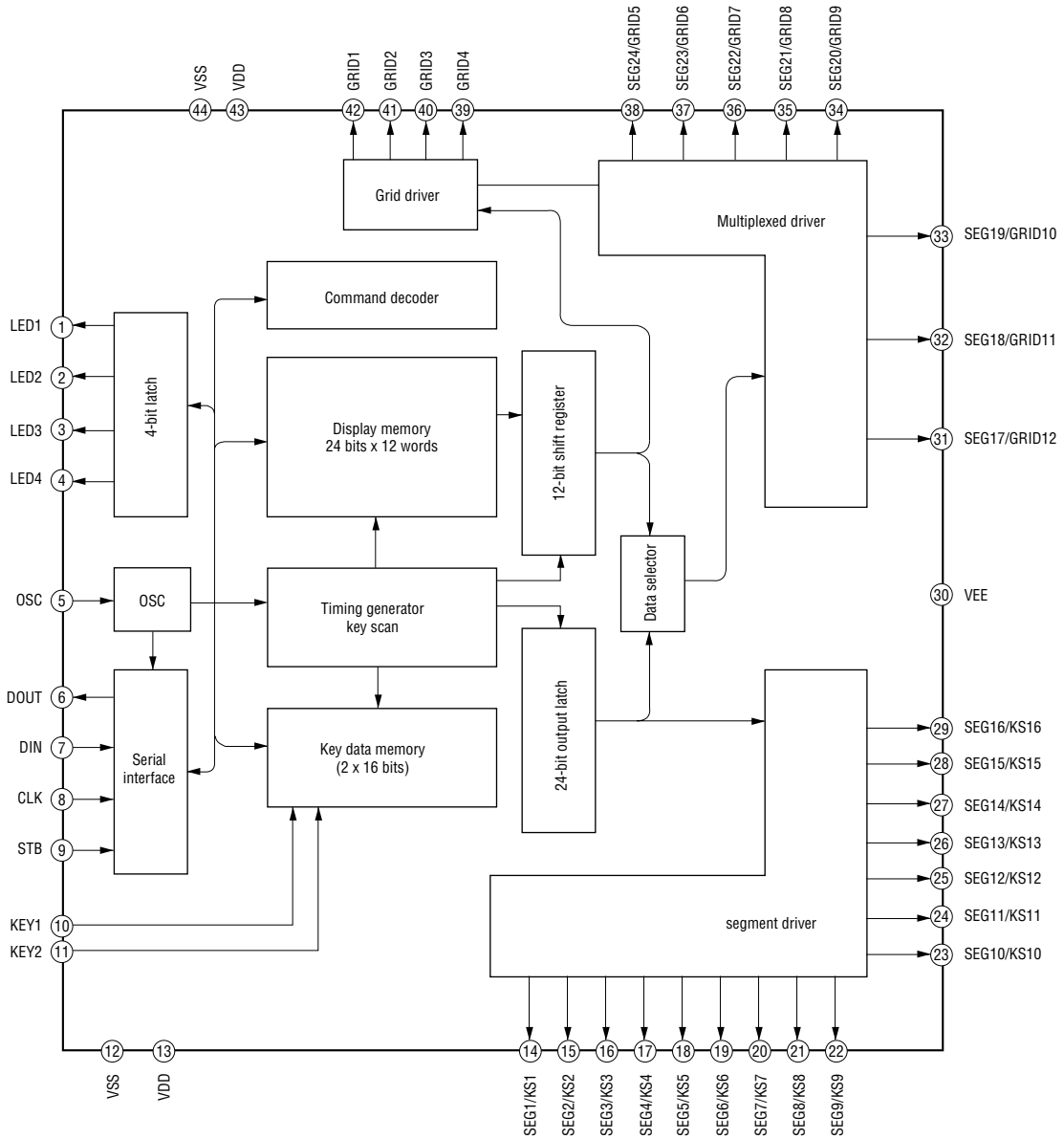
– MAIN Board –

IC400 M61542FP

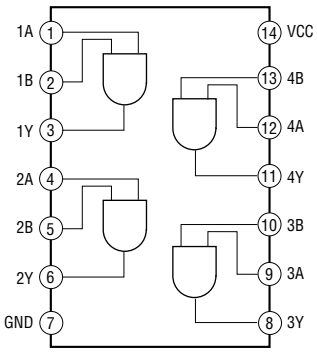


– DISPLAY Board –

IC100 PT6315



IC101 TC74ACT08P



• **IC Pin Function Description**

DIGITAL BOARD IC1101 MB90F045PF-G-9002-SPE1 (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	DATAO	I	Audio data signal input from DIR
2	GP9	I	GP9 signal input from DSP
3	BST	O	BST signal output to DSP
4	HCS	O	HCS signal output to DSP
5	HACN	I	HACN signal input from DSP
6	XRST	O	Reset signal output to DSP
7	PM	O	PM signal output to DSP
8	GP12	O	GP12 signal output to DSP
9	FL_LAT	O	FL driver latch signal output
10	PCM1609/1803_RST	O	IC reset signal output to DAC and ADC
11	VSS	—	Ground terminal
12	PCM1609_ML	O	Latch signal output to DAC
13	PCM1609_MC	O	Clock signal output to DAC
14	PCM1609_MDI	O	IC data output to DAC
15	PCM1609_MDO	I	IC data input from DAC
16	FL_CLK	O	FL driver clock signal output terminal
17	FL_DATA	O	FL driver data signal output terminal
18	HDOUT	I	HDOUT signal input from DSP
19	HDIN	O	HDIN signal output to DSP
20	HCLK	O	Clock signal output to DSP
21	TUNING_A	I	Tuning encoder input (not used)
22	TUNING_B	I	Tuning encoder input (not used)
23	VCC5	—	Power supply (+3.3V)
24	V_SW1	O	Composite video signal select 1 (Not used (Open))
25	V_SW2	O	Composite video signal select 2 (Not used (Open))
26	C LINK_DET	I	C link detect input (Not used (Open))
27	FLASH2/C LINK_RX (MICLO)	I	for FLASH programming
28	FLASH1/C LINK_TX (MDCLI)	O	for FLASH programming
29	SDA	I	EEPROM data signal input terminal
30	SCL	O	EEPROM clock signal output terminal
31	ENC_A	I	Input selector Encoder (A) signal input
32	ENC_B	I	Input selector Encoder (B) signal input
33	NC	—	Not used (Open)
34	NC	—	Not used (Open)
35	AVCC	—	Analog power supply (+3.3V)
36	AVRH	I	Analog reference voltage input (+3.3V)
37	AVSS	—	Analog ground terminal
38	ADCC	I	ADCC signal input
39	A/D1	I	Function key push signal input
40	A/D2	I	Function key push signal input
41	VERSION	I	Version setting input terminal (DESTINATION)
42	VSS	—	Ground terminal
43	TUNER SD	I	RDS signal detect input (Not used)
44	MODEL	I	MODEL select input
45	VAX CTRL	I	Vacs control input

Pin No.	Pin Name	I/O	Description
46	TUNER CLK	O	Tuner clock signal output
47	TUNER DATA	O	Tuner data signal output
48	STOP	I	AC off detect signal input
49	MD0	I	Operation mode setting input
50	MD1	I	Operation mode setting input
51	MD2	I	Operation mode setting input
52	RDS_CLK	I	RDS clock signal input (Not used (Fixed to “L”))
53	RDS_DATA	I	RDS data signal input (Not used (Fixed to “L”))
54	SIRCS	I	Data signal input from the remote control sensor
55	HP_DETECT	I	Headphone signal input
56	POWER_KEY	I	Power switch key detect signal input
57	ADCC_INT	I	ADCC interrupt input
58	POWER_RY	O	Power relay control signal output
59	VOL IC_CL	O	Volume IC clock signal output
60	VOL IC_DA	O	Volume IC data and latch signal output
61	PROTECTOR	I	Protector status detect signal input
62	HP_RY	O	Headphone relay control signal output
63	FUSE_DETECT	I	Fuse detect signal input
64	VOL_ENCODER (B)	I	Volume signal input from rotary encoder
65	VOL_ENCODER (A)	I	Volume signal input from rotary encoder
66	FRONT_RY/DG51_FB	O	Front A speaker relay control signal output
67	FRONT_B_RY/DG51_FA	O	Front B speaker control signal output
68	DC-CONTROL	O	Center speaker relay control signal output
69	C/REAR/SB_RY	O	Center, rear, surround back speaker control signal output
70	SW_RY	O	Sub woofer control signal output
71	NC	O	Not used (Open)
72	BRIDGABLE_RY	O	Bridgeable relay control output (Not used (Open))
73	DO/SD/ST	I	Frequency data signal input from the tuner
74	SLATCH	O	Latch signal output to the tuner
75	V_SW3	O	Composite video signal select 3 (Not used (Open))
76	V_SW4	O	Composite video signal select 4 (Not used (Open))
77	RSTX	I	System reset input
78	COMP MUTE	O	Composite video muting signal output (Not used (Open))
79	XIA	—	Not used (Open)
80	XOA	—	Not used (ground)
81	VSS	—	Ground terminal
82	X0	—	Connection for a crystal resonator
83	X1	—	Connection for a crystal resonator
84	VCC3	—	Power supply (+3.3V)
85	HDMI_S2	O	HDMI select 2 (Not used (Open))
86	HDMI_S1	O	HDMI select 1 (Not used (Open))
87	HDMI_OED	O	HDMI output enable (Not used (Open))
88	HDMI_PRE	O	HDMI PRE (Not used (Open))
89	HDMI_CTRL	O	HDMI board control (Not used (Open))
90	COMP_S2	O	Composite video select 2 (Not used (Open))
91	COMP_S1	O	Composite video select 1 (Not used (Open))
92	BST_SEL	O	BST signal output terminal
93	XMODE	O	Reset signal output to DIR
94	CKSEL 1	O	CKSEL control signal output to DIR

Pin No.	Pin Name	I/O	Description
95	CLK	O	Clock signal output to DIR
96	CE	O	Chip enable signal output to DIR
97	DI	O	Data signal output to DIR
98	DO	I	Data signal input from DIR
99	ERROR	I	PLL error muting signal input from DIR
100	XSTATE	I	XSTATE data signal input from DIR

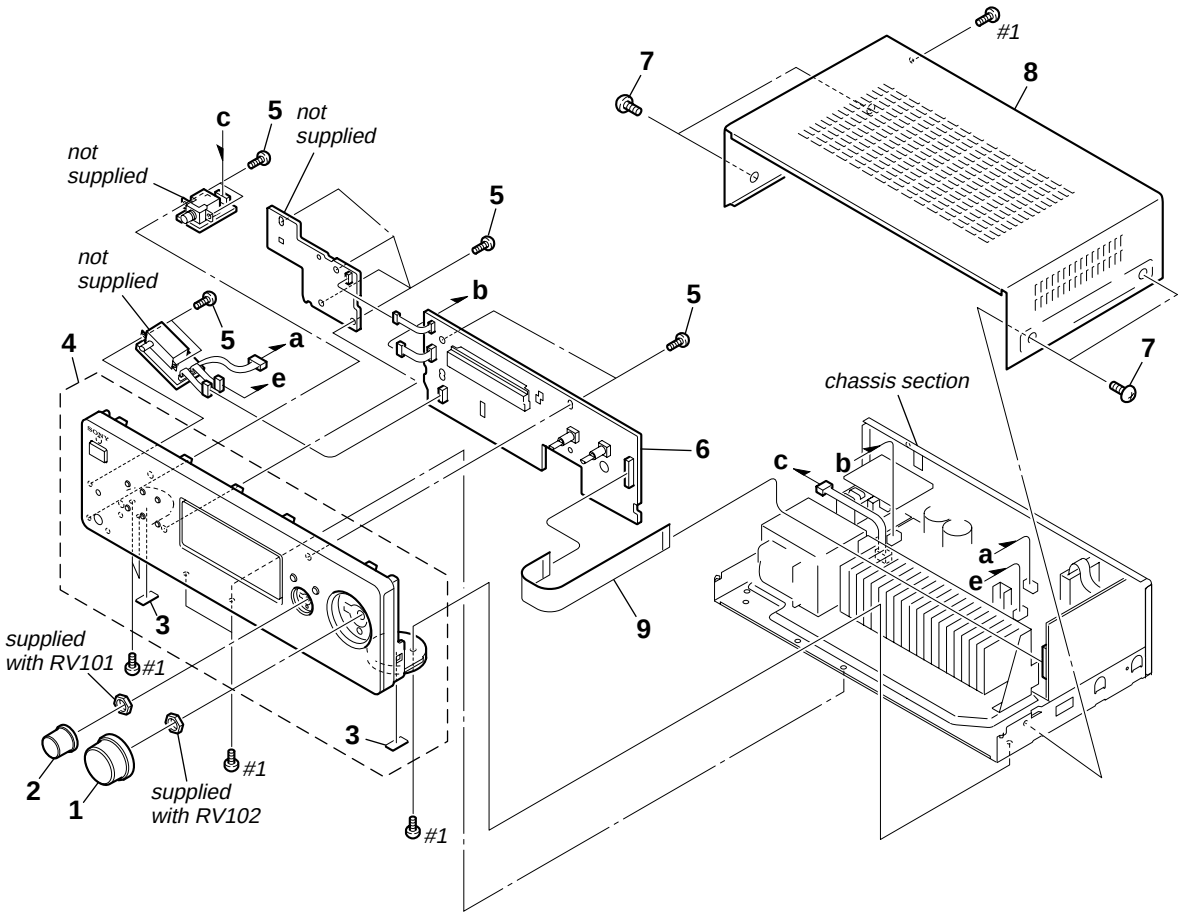
SECTION 5
EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Abbreviation
  AR : Argentine model
  E51 : Chilean and Peruvian models
  MX : Mexican model
  SP : Singapore model
  SP6 : Singapore and Malaysia models
  TH : Thai model

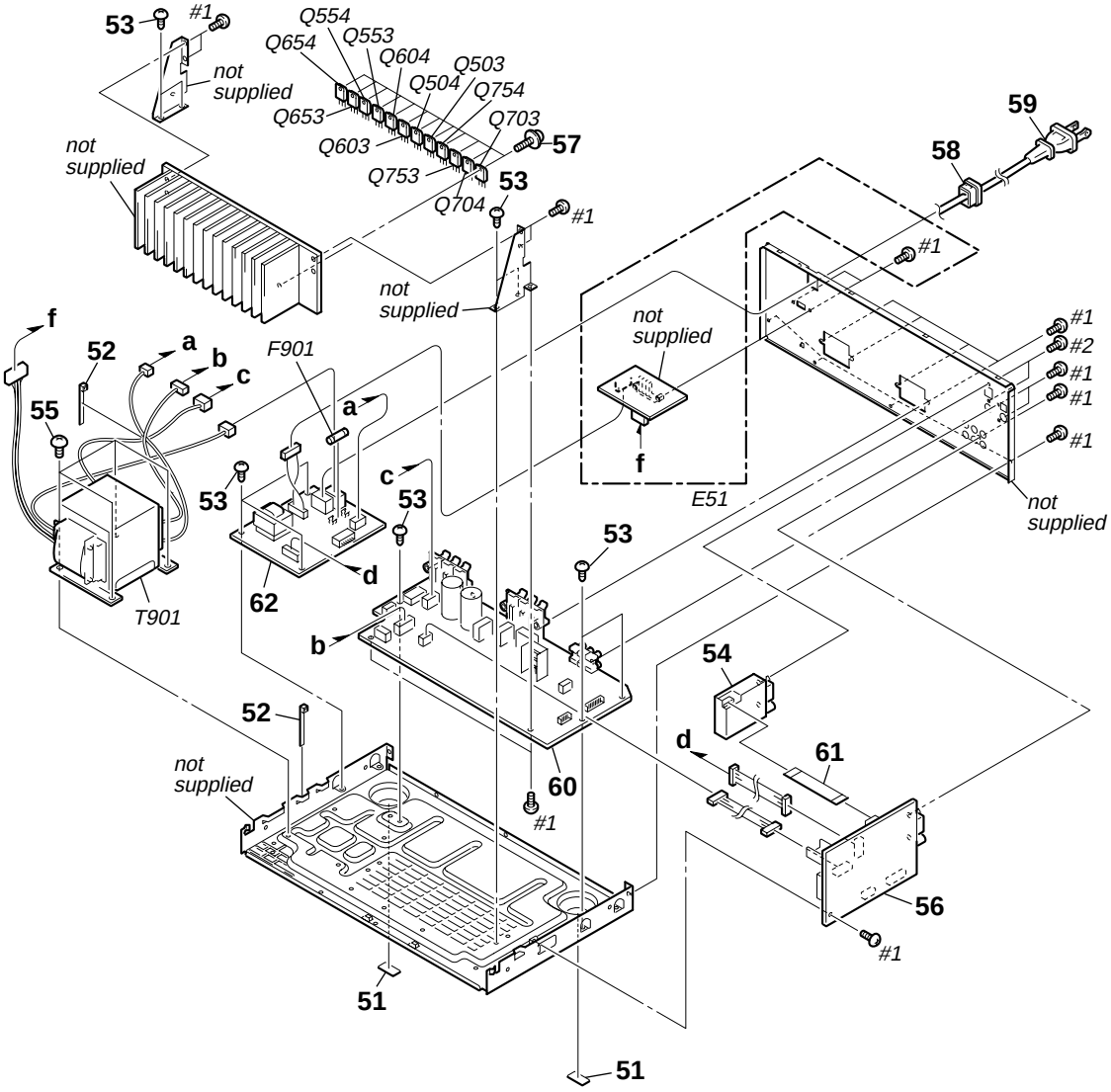
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

5-1. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
1	2-661-142-01	VOLUME KNOB (MX)	
1	2-661-142-21	VOLUME KNOB (EXCEPT MX)	
2	2-661-141-01	MENU KNOB (MX)	
2	2-661-141-21	MENU KNOB (EXCEPT MX)	
3	4-977-358-01	CUSHION	
4	X-2176-012-1	FRONT PANEL ASSY (EXCEPT MX)	
4	X-2177-368-1	FRONT PANEL ASSY (MX)	
5	3-087-053-01	+BVTP2.6 (3CR)	
6	A-1221-904-A	DISPLAY BOARD, COMPLETE (E51)	
6	A-1249-605-A	DISPLAY BOARD, COMPLETE (MX)	
6	A-1257-067-A	DISPLAY BOARD, COMPLETE (SP, SP6, AR, TH)	
7	3-363-099-02	SCREW (CASE 3 TP2) (MX)	
7	3-363-099-11	SCREW (CASE 3 TP2) (EXCEPT MX)	
8	2-662-472-01	CASE (EXCEPT MX)	
8	2-662-472-21	CASE (MX)	
9	1-829-994-11	WIRE (FLAT TYPE) (17 CORE)	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	

5-2. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
51	4-977-358-01	CUSHION	
52	3-701-748-00	CLAMP	
53	3-077-331-21	+BV3 (3-CR)	
54	1-693-728-11	TUNER (FM/AM) (E51, MX)	
54	1-693-733-11	TUNER (FM/AM) (AR)	
54	1-693-735-11	TUNER (FM/AM) (SP, SP6, TH)	
55	4-249-675-01	+BV SUMITITE S 4X6 ROUND	
56	A-1221-896-A	DIGITAL BOARD, COMPLETE (SP, SP6, TH)	
56	A-1221-905-A	DIGITAL BOARD, COMPLETE (E51)	
56	A-1221-915-A	DIGITAL BOARD, COMPLETE (AR)	
56	A-1249-608-A	DIGITAL BOARD, COMPLETE (MX)	
57	3-905-609-01	SCREW (TRANSISTOR)	
58	3-703-244-00	CORD BUSH (2104) (MX)	
58	3-703-244-21	CORD BUSH (2104) (SP, SP6, E51, AR)	
58	4-916-783-01	CORD BUSH (TH)	
⚠59	1-777-071-83	CORD, POWER (SP, SP6, E51)	
⚠59	1-783-941-12	CORD, POWER (AR)	
⚠59	1-829-627-11	CORD, POWER (MX)	
⚠59	1-834-288-11	CORD, POWER (TH)	
60	A-1221-893-A	MAIN BOARD, COMPLETE (SP, SP6, TH)	
60	A-1221-900-A	MAIN BOARD, COMPLETE (E51)	
60	A-1221-912-A	MAIN BOARD, COMPLETE (AR)	
60	A-1249-599-A	MAIN BOARD, COMPLETE (MX)	
61	1-828-953-11	WIRE (FLAT TYPE) (9 CORE)	
62	A-1221-894-A	STANDBY BOARD, COMPLETE (SP, SP6, TH)	

Ref. No.	Part No.	Description	Remark
62	A-1221-901-A	STANDBY BOARD, COMPLETE (E51)	
62	A-1221-913-A	STANDBY BOARD, COMPLETE (AR)	
62	A-1249-601-A	STANDBY BOARD, COMPLETE (MX)	
⚠F901	1-532-388-33	FUSE (T2AL/250V) (E51)	
⚠F901	1-532-464-32	FUSE (2.5A/250V) (TH)	
⚠F901	1-532-464-33	FUSE (T2.5AL/250V) (SP, SP6, AR)	
F901	1-532-504-32	FUSE (4A/250V) (MX)	
⚠Q503	6-702-390-01	IC MN2488-OPY-MK	
⚠Q504	6-702-391-01	IC MP1620-OPY-MK	
⚠Q553	6-702-390-01	IC MN2488-OPY-MK	
⚠Q554	6-702-391-01	IC MP1620-OPY-MK	
⚠Q603	6-702-390-01	IC MN2488-OPY-MK	
⚠Q604	6-702-391-01	IC MP1620-OPY-MK	
⚠Q653	6-702-390-01	IC MN2488-OPY-MK	
⚠Q654	6-702-391-01	IC MP1620-OPY-MK	
⚠Q703	6-702-390-01	IC MN2488-OPY-MK	
⚠Q704	6-702-391-01	IC MP1620-OPY-MK	
⚠Q753	6-702-390-01	IC MN2488-OPY-MK	
⚠Q754	6-702-391-01	IC MP1620-OPY-MK	
⚠T901	1-443-918-11	POWER TRANSFORMER (SP, SP6, AR, TH)	
⚠T901	1-443-919-11	POWER TRANSFORMER (E51)	
⚠T901	1-443-920-11	POWER TRANSFORMER (MX)	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
#2	7-685-862-01	SCREW +BVTT 2.6X6 (S) (MX, TH)	
#2	7-685-862-09	SCREW +BVTT 2.6X6 (S) (SP, SP6, E51, AR)	

SECTION 6
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- COILS
  uH: µH
- CAPACITORS
  uF: µF
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

- Abbreviation
  AR : Argentine model
  E51 : Chilean and Peruvian models
  MX : Mexican model
  SP : Singapore model
  SP6 : Singapore and Malaysia models
  TH : Thai model

Ref. No.	Part No.	Description			Remark
		AC SELECT BOARD (E51)			
		**********			
		< CONNECTOR >			
CN905	1-568-106-11	PIN, CONNECTOR (3.96mm PITCH) 4P			
		< CONNECTOR >			
* CNP910	1-564-687-11	PIN, CONNECTOR (3.96mm PITCH) 3P			
		< SWITCH >			
S901	1-571-437-21	SWITCH, POWER VOLTAGE CHANGE (VOLTAGE SELECTOR)			
**********					
		DCAC BOARD			
		**********			
		< CAPACITOR >			
C2001	1-162-282-31	CERAMIC	100PF	10%	50V
C2002	1-126-160-11	ELECT	1uF	20%	50V
C2003	1-127-882-31	CERAMIC	0.033uF	10%	50V
C2005	1-128-803-11	CERAMIC	33PF	5%	50V
C2006	1-126-160-11	ELECT	1uF	20%	50V
C2008	1-128-806-11	CERAMIC	56PF	5%	50V
C2010	1-127-882-31	CERAMIC	0.033uF	10%	50V
C2011	1-127-880-11	CERAMIC	0.022uF	10%	50V
C2012	1-127-880-11	CERAMIC	0.022uF	10%	50V
C2013	1-126-160-11	ELECT	1uF	20%	50V
C2014	1-124-465-00	ELECT	0.47uF	20%	50V
C2018	1-127-888-11	CERAMIC	0.1uF	10%	50V
		< DIODE >			
D2013	8-719-991-33	DIODE 1SS133T-77			
D2014	8-719-991-33	DIODE 1SS133T-77			
		< IC >			
IC2000	8-759-167-88	IC NJM4565D			
		< JACK >			
J2000	1-820-056-11	SMALL TYPE JACK (VIDEO 1 IN/PORTABLE AUDIO IN/AUTO CAL MIC)			
		< TRANSISTOR >			
Q2001	8-729-030-02	TRANSISTOR	DTC144ESA		
Q2002	8-729-029-21	TRANSISTOR	DTA114ESA-TP		

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R2000	1-247-831-91	CARBON	1K	5%	1/4W
R2001	1-249-429-11	CARBON	10K	5%	1/4W
R2003	1-249-429-11	CARBON	10K	5%	1/4W
R2005	1-247-903-00	CARBON	1M	5%	1/4W
R2006	1-247-831-91	CARBON	1K	5%	1/4W
R2007	1-249-429-11	CARBON	10K	5%	1/4W
R2008	1-247-897-11	CARBON	560K	5%	1/4W
R2010	1-249-429-11	CARBON	10K	5%	1/4W
R2015	1-249-435-11	CARBON	33K	5%	1/4W
R2016	1-249-431-11	CARBON	15K	5%	1/4W
R2017	1-249-421-11	CARBON	2.2K	5%	1/4W
R2018	1-249-418-11	CARBON	1.2K	5%	1/4W
R2019	1-249-421-11	CARBON	2.2K	5%	1/4W
**********					
	A-1221-896-A	DIGITAL BOARD, COMPLETE (SP, SP6, TH)			
	A-1221-905-A	DIGITAL BOARD, COMPLETE (E51)			
	A-1221-915-A	DIGITAL BOARD, COMPLETE (AR)			
	A-1249-608-A	DIGITAL BOARD, COMPLETE (MX)			
		**********			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3			
		< CAPACITOR >			
C1001	1-126-925-91	ELECT	470uF	20%	10V
C1002	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C1004	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1005	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1019	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1021	1-137-980-91	CERAMIC CHIP	0.47uF	10%	50V
C1022	1-135-372-31	ELECT	470uF	20%	10V
C1031	1-137-980-91	CERAMIC CHIP	0.47uF	10%	50V
C1032	1-135-372-31	ELECT	470uF	20%	10V
C1067	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C1068	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C1100	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1102	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1103	1-126-947-11	ELECT	47uF	20%	35V
C1107	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1108	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1118	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1119	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1120	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1121	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1122	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1123	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1124	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V

DIGITAL

Ref. No.	Part No.	Description			Remark
C1129	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C1131	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C1132	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C1137	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1138	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1139	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1140	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1142	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1144	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C1145	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C1149	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C1171	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C1172	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C1253	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C1254	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C1255	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C1299	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1301	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1302	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C1303	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1304	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C1305	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1306	1-126-947-11	ELECT	47uF	20%	35V
C1308	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1309	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C1310	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C1312	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1313	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C1314	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1315	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1351	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1355	1-104-662-91	ELECT	22uF	20%	25V
C1358	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1359	1-126-916-11	ELECT	1000uF	20%	6.3V
C1361	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1362	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C1401	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1402	1-126-947-11	ELECT	47uF	20%	35V
C1403	1-126-964-11	ELECT	10uF	20%	50V
C1404	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1405	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1406	1-126-964-11	ELECT	10uF	20%	50V
C1407	1-126-964-11	ELECT	10uF	20%	50V
C1408	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1409	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1414	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1415	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1418	1-126-964-11	ELECT	10uF	20%	50V
C1428	1-126-964-11	ELECT	10uF	20%	50V
C1438	1-126-964-11	ELECT	10uF	20%	50V
C1448	1-126-964-11	ELECT	10uF	20%	50V
C1450	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1454	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1455	1-126-964-11	ELECT	10uF	20%	50V
C1457	1-126-964-11	ELECT	10uF	20%	50V
C1458	1-126-964-11	ELECT	10uF	20%	50V
C1468	1-126-964-11	ELECT	10uF	20%	50V

Ref. No.	Part No.	Description			Remark
C1487	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C1491	1-126-964-11	ELECT	10uF	20%	50V
C1494	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1495	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C1501	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1502	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1503	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1504	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1505	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1506	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1507	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1508	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1509	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1510	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1511	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1513	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1514	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1515	1-126-925-91	ELECT	470uF	20%	10V
C1516	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1517	1-126-925-91	ELECT	470uF	20%	10V
C1518	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1519	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1520	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1521	1-162-920-11	CERAMIC CHIP	27PF	5%	50V
C1522	1-162-920-11	CERAMIC CHIP	27PF	5%	50V
C1525	1-126-925-91	ELECT	470uF	20%	10V
C1547	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C1566	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C1567	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C1568	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C1569	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C1604	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1605	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1620	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1905	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C1906	1-126-925-91	ELECT	470uF	20%	10V
C1908	1-126-925-91	ELECT	470uF	20%	10V
C1913	1-137-980-91	CERAMIC CHIP	0.47uF	10%	50V
C1914	1-126-947-11	ELECT	47uF	20%	35V

< CONNECTOR >

* CNP505	1-564-510-11	PLUG, CONNECTOR 7P	
CNP506	1-691-767-11	PLUG (MICRO CONNECTOR) 5P	
CNS501	1-573-829-11	CONNECTOR, BOARD TO BOARD (RECEPTACLE) 15P	
CNS502	1-573-825-11	CONNECTOR, BOARD TO BOARD (RECEPTACLE) 11P	
CNS504	1-784-731-11	CONNECTOR, FFC 9P	
CNS507	1-568-828-11	CONNECTOR, FFC 9P	
CNS513	1-784-778-11	CONNECTOR, FFC 17P	

< DIODE >

D1001	8-719-053-18	DIODE 1SR154-400TE-25
D1003	8-719-049-09	DIODE 1SS367-T3SONY
D1004	8-719-049-09	DIODE 1SS367-T3SONY
D1107	8-719-404-50	DIODE MA111-TX
D1108	8-719-404-50	DIODE MA111-TX
D1109	8-719-404-50	DIODE MA111-TX
D1110	8-719-404-50	DIODE MA111-TX

Ref. No.	Part No.	Description	Remark
D1111	8-719-404-50	DIODE MA111-TX	
D1301	8-719-404-50	DIODE MA111-TX	
D1302	8-719-404-50	DIODE MA111-TX	
D1501	8-719-049-09	DIODE 1SS367-T3SONY	
D1502	8-719-049-09	DIODE 1SS367-T3SONY	
D1503	8-719-049-09	DIODE 1SS367-T3SONY	
		< FERRITE BEAD >	
FB1101	1-400-862-11	BEAD, FERRITE	
FB1302	1-400-862-11	BEAD, FERRITE	
FB1305	1-400-862-11	BEAD, FERRITE	
FB1308	1-400-862-11	BEAD, FERRITE	
FB1310	1-400-862-11	BEAD, FERRITE	
FB1350	1-400-862-11	BEAD, FERRITE	
FB1403	1-400-862-11	BEAD, FERRITE	
FB1405	1-400-862-11	BEAD, FERRITE	
FB1452	1-400-862-11	BEAD, FERRITE	
FB1453	1-400-862-11	BEAD, FERRITE	
FB1501	1-400-862-11	BEAD, FERRITE	
FB1502	1-400-862-11	BEAD, FERRITE	
FB1503	1-400-862-11	BEAD, FERRITE	
		< IC >	
IC1001	8-759-231-53	IC TA7805S	
⚠IC1031	6-705-469-01	IC BA50BC0FP-E2	
IC1101	6-807-489-01	IC MB90F045PF-G-9002-SPE1	
IC1111	6-702-913-01	IC S-80929CNMC-G8ZT2G	
IC1131	6-705-866-01	IC BR24L16FJ-WE2	
IC1301	8-759-825-15	IC LC89056W-E	
IC1303	8-759-096-87	IC TC7WU04FU (TE12R)	
IC1351	6-600-466-01	IC TORX147L (SONY) (DIGITAL/OPTICAL/VIDEO 2,BD IN)	
IC1401	6-707-608-01	IC PCM1803DBR	
IC1452	6-708-784-01	IC PCM1602APT	
IC1502	6-709-278-01	IC IS61WV6416BLL-12TLI	
IC1503	8-759-546-74	IC TC7WH157FU (TE12R)	
⚠IC1901	6-707-168-01	IC SI-3008KWFE	
⚠IC1902	8-759-231-56	IC TA7809S	
⚠IC1904	6-705-468-01	IC BA33BC0FP-E2	
IC1905	6-707-754-01	IC CXD9862R	
		< JACK >	
J1301	1-793-446-21	JACK, PIN 1P (DIGITAL/COAXIAL/DVD IN)	
		< JUMPER RESISTOR >	
JR1002	1-211-950-11	SHORT CHIP 0	
JR1005	1-216-864-11	SHORT CHIP 0	
JR1008	1-216-864-11	SHORT CHIP 0	
JR1009	1-211-950-11	SHORT CHIP 0	
JR1010	1-211-950-11	SHORT CHIP 0	
JR1020	1-216-864-11	SHORT CHIP 0	
JR1511	1-400-862-11	BEAD, FERRITE	
		< RESISTOR >	
R1010	1-216-809-11	METAL CHIP 100 5%	1/10W
R1011	1-216-809-11	METAL CHIP 100 5%	1/10W
R1012	1-216-809-11	METAL CHIP 100 5%	1/10W
R1013	1-216-809-11	METAL CHIP 100 5%	1/10W
R1014	1-216-809-11	METAL CHIP 100 5%	1/10W
R1015	1-216-809-11	METAL CHIP 100 5%	1/10W
R1035	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R1039	1-216-833-11	METAL CHIP 10K 5%	1/10W
R1041	1-216-809-11	METAL CHIP 100 5%	1/10W
R1042	1-216-809-11	METAL CHIP 100 5%	1/10W
R1049	1-216-833-11	METAL CHIP 10K 5%	1/10W
R1061	1-216-809-11	METAL CHIP 100 5%	1/10W
R1062	1-216-809-11	METAL CHIP 100 5%	1/10W
R1065	1-216-809-11	METAL CHIP 100 5%	1/10W
R1066	1-216-809-11	METAL CHIP 100 5%	1/10W
R1067	1-216-809-11	METAL CHIP 100 5%	1/10W
R1068	1-216-809-11	METAL CHIP 100 5%	1/10W
R1072	1-216-827-11	METAL CHIP 3.3K 5%	1/10W
R1073	1-216-827-11	METAL CHIP 3.3K 5%	1/10W
R1076	1-216-809-11	METAL CHIP 100 5%	1/10W
R1077	1-216-809-11	METAL CHIP 100 5%	1/10W
R1078	1-216-809-11	METAL CHIP 100 5%	1/10W
R1083	1-216-833-11	METAL CHIP 10K 5%	1/10W
R1084	1-216-809-11	METAL CHIP 100 5%	1/10W
R1088	1-216-833-11	METAL CHIP 10K 5%	1/10W
R1094	1-216-833-11	METAL CHIP 10K 5%	1/10W
R1095	1-216-833-11	METAL CHIP 10K 5%	1/10W
R1096	1-216-833-11	METAL CHIP 10K 5%	1/10W
R1105	1-216-833-11	METAL CHIP 10K 5%	1/10W
R1106	1-216-809-11	METAL CHIP 100 5%	1/10W
R1107	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R1108	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R1110	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R1111	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R1112	1-216-809-11	METAL CHIP 100 5%	1/10W
R1114	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R1117	1-216-821-11	METAL CHIP 1K 5%	1/10W
R1118	1-216-821-11	METAL CHIP 1K 5%	1/10W
R1120	1-216-821-11	METAL CHIP 1K 5%	1/10W
R1121	1-216-809-11	METAL CHIP 100 5%	1/10W
R1122	1-216-809-11	METAL CHIP 100 5%	1/10W
R1123	1-216-809-11	METAL CHIP 100 5%	1/10W
R1124	1-216-809-11	METAL CHIP 100 5%	1/10W
R1125	1-216-809-11	METAL CHIP 100 5%	1/10W
R1126	1-216-809-11	METAL CHIP 100 5%	1/10W
R1127	1-216-809-11	METAL CHIP 100 5%	1/10W
R1128	1-216-809-11	METAL CHIP 100 5%	1/10W
R1129	1-216-809-11	METAL CHIP 100 5%	1/10W
R1134	1-216-809-11	METAL CHIP 100 5%	1/10W
R1135	1-216-809-11	METAL CHIP 100 5%	1/10W
R1140	1-216-809-11	METAL CHIP 100 5%	1/10W
R1143	1-216-809-11	METAL CHIP 100 5%	1/10W
R1144	1-216-809-11	METAL CHIP 100 5%	1/10W
R1150	1-216-809-11	METAL CHIP 100 5%	1/10W
R1151	1-216-809-11	METAL CHIP 100 5%	1/10W
R1152	1-216-809-11	METAL CHIP 100 5%	1/10W
R1153	1-216-809-11	METAL CHIP 100 5%	1/10W
R1154	1-216-809-11	METAL CHIP 100 5%	1/10W
R1156	1-216-864-11	SHORT CHIP 0	
R1157	1-216-864-11	SHORT CHIP 0	

Ref. No.	Part No.	Description			Remark
R1159	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R1160	1-216-809-11	METAL CHIP	100	5%	1/10W
R1161	1-216-809-11	METAL CHIP	100	5%	1/10W
R1163	1-216-841-11	METAL CHIP	47K	5%	1/10W
R1164	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1175	1-216-809-11	METAL CHIP	100	5%	1/10W
R1179	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1180	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1181	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1182	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1183	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1184	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1185	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1186	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1187	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1188	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1189	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1190	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1191	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1192	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1193	1-216-837-11	METAL CHIP	22K	5%	1/10W (AR, MX)
R1193	1-216-841-11	METAL CHIP	47K	5%	1/10W (SP, SP6, E51, TH)
R1194	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (SP, SP6, TH)
R1194	1-216-837-11	METAL CHIP	22K	5%	1/10W (E51)
R1194	1-216-841-11	METAL CHIP	47K	5%	1/10W (AR, MX)
R1201	1-216-837-11	METAL CHIP	22K	5%	1/10W
R1253	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1260	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1261	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1301	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R1302	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1303	1-216-839-11	METAL CHIP	33K	5%	1/10W
R1304	1-216-809-11	METAL CHIP	100	5%	1/10W
R1305	1-216-819-11	METAL CHIP	680	5%	1/10W
R1306	1-216-801-11	METAL CHIP	22	5%	1/10W
R1307	1-216-809-11	METAL CHIP	100	5%	1/10W
R1308	1-216-809-11	METAL CHIP	100	5%	1/10W
R1309	1-216-809-11	METAL CHIP	100	5%	1/10W
R1310	1-216-857-11	METAL CHIP	1M	5%	1/10W
R1311	1-216-809-11	METAL CHIP	100	5%	1/10W
R1312	1-216-809-11	METAL CHIP	100	5%	1/10W
R1313	1-216-809-11	METAL CHIP	100	5%	1/10W
R1314	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1318	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1319	1-216-864-11	SHORT CHIP	0		
R1321	1-216-864-11	SHORT CHIP	0		
R1323	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1325	1-216-864-11	SHORT CHIP	0		
R1351	1-216-809-11	METAL CHIP	100	5%	1/10W
R1355	1-218-285-11	METAL CHIP	75	5%	1/10W
R1356	1-216-817-11	METAL CHIP	470	5%	1/10W
R1357	1-216-841-11	METAL CHIP	47K	5%	1/10W
R1359	1-216-809-11	METAL CHIP	100	5%	1/10W
R1360	1-216-809-11	METAL CHIP	100	5%	1/10W
R1400	1-216-864-11	SHORT CHIP	0		
R1401	1-216-809-11	METAL CHIP	100	5%	1/10W
R1403	1-216-864-11	SHORT CHIP	0		
R1404	1-216-864-11	SHORT CHIP	0		
R1405	1-216-864-11	SHORT CHIP	0		
R1406	1-216-864-11	SHORT CHIP	0		
R1407	1-216-809-11	METAL CHIP	100	5%	1/10W
R1408	1-216-864-11	SHORT CHIP	0		
R1409	1-216-864-11	SHORT CHIP	0		
R1410	1-216-817-11	METAL CHIP	470	5%	1/10W
R1411	1-216-817-11	METAL CHIP	470	5%	1/10W
R1425	1-216-864-11	SHORT CHIP	0		
R1426	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1435	1-216-864-11	SHORT CHIP	0		
R1436	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1445	1-216-864-11	SHORT CHIP	0		
R1446	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1455	1-216-864-11	SHORT CHIP	0		
R1460	1-216-864-11	SHORT CHIP	0		
R1461	1-216-864-11	SHORT CHIP	0		
R1464	1-216-864-11	SHORT CHIP	0		
R1466	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1469	1-216-809-11	METAL CHIP	100	5%	1/10W
R1470	1-216-864-11	SHORT CHIP	0		
R1471	1-216-864-11	SHORT CHIP	0		
R1472	1-216-864-11	SHORT CHIP	0		
R1474	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1475	1-216-864-11	SHORT CHIP	0		
R1476	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1484	1-216-864-11	SHORT CHIP	0		
R1486	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1491	1-216-864-11	SHORT CHIP	0		
R1492	1-216-864-11	SHORT CHIP	0		
R1493	1-216-864-11	SHORT CHIP	0		
R1494	1-216-864-11	SHORT CHIP	0		
R1495	1-216-864-11	SHORT CHIP	0		
R1501	1-216-809-11	METAL CHIP	100	5%	1/10W
R1502	1-216-809-11	METAL CHIP	100	5%	1/10W
R1503	1-216-813-11	METAL CHIP	220	5%	1/10W
R1504	1-216-809-11	METAL CHIP	100	5%	1/10W
R1505	1-216-809-11	METAL CHIP	100	5%	1/10W
R1506	1-216-809-11	METAL CHIP	100	5%	1/10W
R1508	1-216-809-11	METAL CHIP	100	5%	1/10W
R1509	1-216-809-11	METAL CHIP	100	5%	1/10W
R1510	1-216-809-11	METAL CHIP	100	5%	1/10W
R1511	1-216-809-11	METAL CHIP	100	5%	1/10W
R1512	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1513	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1514	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1515	1-216-857-11	METAL CHIP	1M	5%	1/10W
R1523	1-216-813-11	METAL CHIP	220	5%	1/10W
R1524	1-216-864-11	SHORT CHIP	0		
R1530	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1541	1-216-813-11	METAL CHIP	220	5%	1/10W
R1555	1-216-813-11	METAL CHIP	220	5%	1/10W
R1556	1-216-809-11	METAL CHIP	100	5%	1/10W
R1557	1-216-813-11	METAL CHIP	220	5%	1/10W

Ref. No.	Part No.	Description			Remark
R1570	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1571	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1572	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1573	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1574	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1635	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1636	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1943	1-216-841-11	METAL CHIP	47K	5%	1/10W
R1946	1-216-809-11	METAL CHIP	100	5%	1/10W
R1947	1-216-801-11	METAL CHIP	22	5%	1/10W
R1948	1-216-809-11	METAL CHIP	100	5%	1/10W
		< NETWORK RESISTOR >			
RB1500	1-233-576-11	RES, CHIP NETWORK	100 (3216)		
RB1501	1-233-576-11	RES, CHIP NETWORK	100 (3216)		
RB1502	1-233-576-11	RES, CHIP NETWORK	100 (3216)		
RB1503	1-233-576-11	RES, CHIP NETWORK	100 (3216)		
RB1504	1-233-576-11	RES, CHIP NETWORK	100 (3216)		
RB1506	1-233-576-11	RES, CHIP NETWORK	100 (3216)		
RB1507	1-233-576-11	RES, CHIP NETWORK	100 (3216)		
RB1508	1-233-576-11	RES, CHIP NETWORK	100 (3216)		
		< VIBRATOR >			
X1101	1-813-448-21	PIEZOELECTRIC OSCILLATOR (24MHz)			
X1301	1-795-126-21	VIBRATOR, CRYSTAL (12.288MHz)			
X1502	1-813-276-21	QUARTZ CRYSTAL (13.9MHz)			
**********					
	A-1221-904-A	DISPLAY BOARD, COMPLETE (E51)			
	A-1249-605-A	DISPLAY BOARD, COMPLETE (MX)			
	A-1257-067-A	DISPLAY BOARD, COMPLETE (SP, SP6, AR, TH)			
		**********			
		< CAPACITOR >			
C100	1-127-888-11	CERAMIC	0.1uF	10%	50V
C101	1-127-888-11	CERAMIC	0.1uF	10%	50V
C106	1-127-868-11	CERAMIC	2200PF	10%	50V
C107	1-127-868-11	CERAMIC	2200PF	10%	50V
C110	1-162-286-31	CERAMIC	220PF	10%	50V
C111	1-162-286-31	CERAMIC	220PF	10%	50V
C112	1-162-286-31	CERAMIC	220PF	10%	50V
C144	1-127-888-11	CERAMIC	0.1uF	10%	50V
C145	1-127-888-11	CERAMIC	0.1uF	10%	50V
C146	1-126-964-11	ELECT	10uF	20%	50V
C147	1-162-286-31	CERAMIC	220PF	10%	50V
C148	1-162-286-31	CERAMIC	220PF	10%	50V
C149	1-162-286-31	CERAMIC	220PF	10%	50V
C150	1-127-888-11	CERAMIC	0.1uF	10%	50V
C151	1-127-888-11	CERAMIC	0.1uF	10%	50V
C161	1-126-964-11	ELECT	10uF	20%	50V (EXCEPT MX)
		< CONNECTOR >			
CNP102	1-564-505-11	PLUG, CONNECTOR 2P			
CNS102	1-784-778-11	CONNECTOR, FFC 17P			
		< FLUORESCENT INDICATOR TUBE >			
FL101	1-519-927-11	VACUUM FLOURESCENT DISPLAY			

Ref. No.	Part No.	Description			Remark
		< IC >			
IC100	8-759-643-83	IC uPD16315GB-3BS			
IC101	8-759-243-51	IC TC74ACT08P			
IC102	6-600-174-01	IC RPM7240-H4			
		< RESISTOR >			
R103	1-249-409-11	CARBON	220	5%	1/4W
R115	1-247-807-31	CARBON	100	5%	1/4W
R116	1-247-807-31	CARBON	100	5%	1/4W
R117	1-247-807-31	CARBON	100	5%	1/4W
R118	1-249-440-11	CARBON	82K	5%	1/4W
R119	1-247-807-31	CARBON	100	5%	1/4W
⚠R121	1-249-393-11	CARBON	10	5%	1/4W F
⚠R198	1-249-387-81	CARBON	3.3	5%	1/4W F (E51, MX)
⚠R198	1-249-390-11	CARBON	5.6	5%	1/4W F (SP, SP6, AR, TH)
⚠R199	1-249-387-81	CARBON	3.3	5%	1/4W F (E51, MX)
⚠R199	1-249-390-11	CARBON	5.6	5%	1/4W F (SP, SP6, AR, TH)
		< VARIABLE RESISTOR >			
RV101	1-418-817-21	ENCODER, ROTARY			
RV102	1-418-725-41	ENCODER, ROTARY (12 TYPE)			
		< SWITCH >			
S103	1-771-410-21	SWITCH, TACTILE (AUTO CAL)			
S104	1-771-410-21	SWITCH, TACTILE (DISPLAY)			
**********					
		HEADPHONE BOARD			
		**********			
		< CONNECTOR >			
* CNP790	1-564-507-11	PLUG, CONNECTOR 4P			
		< JACK >			
J790	1-815-314-21	JACK (PHONES)			
**********					
	A-1221-893-A	MAIN BOARD, COMPLETE (SP, SP6, TH)			
	A-1221-900-A	MAIN BOARD, COMPLETE (E51)			
	A-1221-912-A	MAIN BOARD, COMPLETE (AR)			
	A-1249-599-A	MAIN BOARD, COMPLETE (MX)			
		**********			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3			
		< CAPACITOR >			
C402	1-126-964-11	ELECT	10uF	20%	50V
C403	1-162-294-31	CERAMIC	0.001uF	10%	50V
C404	1-162-294-31	CERAMIC	0.001uF	10%	50V
C421	1-126-963-11	ELECT	4.7uF	20%	50V
C422	1-126-963-11	ELECT	4.7uF	20%	50V
C423	1-126-963-11	ELECT	4.7uF	20%	50V
C424	1-126-963-11	ELECT	4.7uF	20%	50V
C425	1-126-963-11	ELECT	4.7uF	20%	50V
C426	1-126-963-11	ELECT	4.7uF	20%	50V
C431	1-126-964-11	ELECT	10uF	20%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C432	1-126-964-11	ELECT	10uF	20%	50V
C433	1-126-964-11	ELECT	10uF	20%	50V
C434	1-126-964-11	ELECT	10uF	20%	50V
C435	1-126-964-11	ELECT	10uF	20%	50V
C436	1-126-964-11	ELECT	10uF	20%	50V
C446	1-126-963-11	ELECT	4.7uF	20%	50V
C452	1-126-964-11	ELECT	10uF	20%	50V
C471	1-104-658-91	ELECT	100uF	20%	10V
C472	1-127-888-11	CERAMIC	0.1uF	10%	50V
C482	1-127-888-11	CERAMIC	0.1uF	10%	50V
C484	1-127-888-11	CERAMIC	0.1uF	10%	50V
C500	1-128-579-11	ELECT	2.2uF	20%	100V
C501	1-126-963-11	ELECT	4.7uF	20%	50V
C502	1-128-809-11	CERAMIC	100PF	5%	50V
C503	1-128-809-11	CERAMIC	100PF	5%	50V
C504	1-101-810-00	CERAMIC	100PF	5%	500V
C506	1-107-583-11	CERAMIC	3PF	0.25PF	500V
C507	1-104-658-91	ELECT	100uF	20%	10V
C508	1-126-947-11	ELECT	47uF	20%	35V
C511	1-162-815-11	CERAMIC	47PF	5%	500V
C512	1-162-815-11	CERAMIC	47PF	5%	500V
C513	1-128-813-11	CERAMIC	220PF	5%	50V
C514	1-127-876-11	CERAMIC	0.01uF	10%	50V
C515	1-126-964-11	ELECT	10uF	20%	50V
C516	1-136-157-00	FILM	0.022uF	5%	50V
C529	1-127-876-11	CERAMIC	0.01uF	10%	50V
C549	1-127-876-11	CERAMIC	0.01uF	10%	50V
C551	1-126-963-11	ELECT	4.7uF	20%	50V
C552	1-128-809-11	CERAMIC	100PF	5%	50V
C553	1-128-809-11	CERAMIC	100PF	5%	50V
C554	1-101-810-00	CERAMIC	100PF	5%	500V
C556	1-107-583-11	CERAMIC	3PF	0.25PF	500V
C557	1-104-658-91	ELECT	100uF	20%	10V
C558	1-126-947-11	ELECT	47uF	20%	35V
C561	1-162-815-11	CERAMIC	47PF	5%	500V
C562	1-162-815-11	CERAMIC	47PF	5%	500V
C563	1-128-813-11	CERAMIC	220PF	5%	50V
C564	1-127-876-11	CERAMIC	0.01uF	10%	50V
C565	1-126-964-11	ELECT	10uF	20%	50V
C566	1-136-157-00	FILM	0.022uF	5%	50V
C590	1-137-190-91	FILM	0.22uF	5%	50V
C592	1-137-194-81	FILM	0.47uF	5%	50V
C593	1-136-159-00	FILM	0.033uF	5%	50V
C594	1-136-171-00	FILM	0.33uF	5%	50V
C600	1-128-579-11	ELECT	2.2uF	20%	100V
C601	1-126-963-11	ELECT	4.7uF	20%	50V
C602	1-128-809-11	CERAMIC	100PF	5%	50V
C603	1-128-809-11	CERAMIC	100PF	5%	50V
C604	1-101-810-00	CERAMIC	100PF	5%	500V
C606	1-107-583-11	CERAMIC	3PF	0.25PF	500V
C607	1-104-658-91	ELECT	100uF	20%	10V
C608	1-126-947-11	ELECT	47uF	20%	35V
C611	1-162-815-11	CERAMIC	47PF	5%	500V
C612	1-162-815-11	CERAMIC	47PF	5%	500V
C613	1-128-813-11	CERAMIC	220PF	5%	50V
C614	1-127-876-11	CERAMIC	0.01uF	10%	50V
C615	1-126-964-11	ELECT	10uF	20%	50V
C616	1-136-157-00	FILM	0.022uF	5%	50V
C651	1-126-963-11	ELECT	4.7uF	20%	50V
C652	1-128-809-11	CERAMIC	100PF	5%	50V
C653	1-128-809-11	CERAMIC	100PF	5%	50V
C654	1-101-810-00	CERAMIC	100PF	5%	500V
C656	1-107-583-11	CERAMIC	3PF	0.25PF	500V
C657	1-104-658-91	ELECT	100uF	20%	10V
C658	1-126-947-11	ELECT	47uF	20%	35V
C661	1-162-815-11	CERAMIC	47PF	5%	500V
C662	1-162-815-11	CERAMIC	47PF	5%	500V
C663	1-128-813-11	CERAMIC	220PF	5%	50V
C664	1-127-876-11	CERAMIC	0.01uF	10%	50V
C665	1-126-964-11	ELECT	10uF	20%	50V
C666	1-136-157-00	FILM	0.022uF	5%	50V
C700	1-128-579-11	ELECT	2.2uF	20%	100V
C701	1-126-963-11	ELECT	4.7uF	20%	50V
C702	1-128-809-11	CERAMIC	100PF	5%	50V
C703	1-128-809-11	CERAMIC	100PF	5%	50V
C704	1-101-810-00	CERAMIC	100PF	5%	500V
C706	1-107-583-11	CERAMIC	3PF	0.25PF	500V
C707	1-104-658-91	ELECT	100uF	20%	10V
C708	1-126-947-11	ELECT	47uF	20%	35V
C711	1-162-815-11	CERAMIC	47PF	5%	500V
C712	1-162-815-11	CERAMIC	47PF	5%	500V
C713	1-128-813-11	CERAMIC	220PF	5%	50V
C714	1-127-876-11	CERAMIC	0.01uF	10%	50V
C715	1-126-964-11	ELECT	10uF	20%	50V
C716	1-136-157-00	FILM	0.022uF	5%	50V
C729	1-127-876-11	CERAMIC	0.01uF	10%	50V
C751	1-126-963-11	ELECT	4.7uF	20%	50V
C752	1-128-809-11	CERAMIC	100PF	5%	50V
C753	1-128-809-11	CERAMIC	100PF	5%	50V
C754	1-101-810-00	CERAMIC	100PF	5%	500V
C756	1-107-583-11	CERAMIC	3PF	0.25PF	500V
C757	1-104-658-91	ELECT	100uF	20%	10V
C758	1-126-947-11	ELECT	47uF	20%	35V
C761	1-162-815-11	CERAMIC	47PF	5%	500V
C762	1-162-815-11	CERAMIC	47PF	5%	500V
C763	1-128-813-11	CERAMIC	220PF	5%	50V
C766	1-136-157-00	FILM	0.022uF	5%	50V
C801	1-135-798-11	CERAMIC	0.22uF		50V
C802	1-135-798-11	CERAMIC	0.22uF		50V
C803	1-126-936-11	ELECT	3300uF	20%	16V
C806	1-126-947-11	ELECT	47uF	20%	35V
C807	1-126-947-11	ELECT	47uF	20%	35V
C808	1-126-947-11	ELECT	47uF	20%	35V
C811	1-135-851-21	MYLAR	0.22uF		100V
C812	1-135-851-21	MYLAR	0.22uF		100V
C813	1-100-968-11	ELECT	4700uF	20%	63V
C814	1-100-968-11	ELECT	4700uF	20%	63V
C815	1-128-582-11	ELECT	10uF	20%	100V
C816	1-128-582-11	ELECT	10uF	20%	100V
C821	1-137-194-81	FILM	0.47uF	5%	50V
C822	1-137-194-81	FILM	0.47uF	5%	50V
C823	1-126-947-11	ELECT	47uF	20%	35V
C824	1-126-947-11	ELECT	47uF	20%	35V
C842	1-112-128-11	ELECT	47uF	20%	25V
C851	1-127-888-11	CERAMIC	0.1uF	10%	50V

Ref. No.	Part No.	Description			Remark
C881	1-126-925-91	ELECT	470uF	20%	10V
C882	1-126-964-11	ELECT	10uF	20%	50V
		< CONNECTOR >			
CNP501	1-573-847-11	CONNECTOR, BOARD TO BOARD (PLUG) 15P			
CNP502	1-573-843-11	CONNECTOR, BOARD TO BOARD (PLUG) 11P			
* CNP504	1-564-508-11	PLUG, CONNECTOR 5P			
* CNP732	1-564-506-11	PLUG, CONNECTOR 3P			
CNP733	1-779-978-11	PIN, CONNECTOR 3P			
CNP902	1-691-767-11	PLUG (MICRO CONNECTOR) 5P			
* CNP907	1-564-104-00	PIN, CONNECTOR (3.96mm PITCH) 3P			
* CNP908	1-564-506-11	PLUG, CONNECTOR 3P			
* CNP916	1-691-406-11	CONNECTOR, BOARD TO BOARD 7P			
		< DIODE >			
D448	8-719-991-33	DIODE 1SS133T-77			
D449	8-719-991-33	DIODE 1SS133T-77			
D501	8-719-991-33	DIODE 1SS133T-77			
D502	8-719-991-33	DIODE 1SS133T-77			
D529	8-719-991-33	DIODE 1SS133T-77			
D549	8-719-991-33	DIODE 1SS133T-77			
D551	8-719-991-33	DIODE 1SS133T-77			
D552	8-719-991-33	DIODE 1SS133T-77			
D553	8-719-991-33	DIODE 1SS133T-77			
D601	8-719-991-33	DIODE 1SS133T-77			
D602	8-719-991-33	DIODE 1SS133T-77			
D603	8-719-991-33	DIODE 1SS133T-77			
D651	8-719-991-33	DIODE 1SS133T-77			
D652	8-719-991-33	DIODE 1SS133T-77			
D701	8-719-991-33	DIODE 1SS133T-77			
D702	8-719-991-33	DIODE 1SS133T-77			
D703	8-719-991-33	DIODE 1SS133T-77			
D729	8-719-991-33	DIODE 1SS133T-77			
D751	8-719-991-33	DIODE 1SS133T-77			
D791	8-719-991-33	DIODE 1SS133T-77			
⚠ D801	8-719-986-50	DIODE HZS22-1LTA			
D802	8-719-068-24	DIODE HZ5.6BP-TK			
⚠ D804	6-500-522-11	DIODE 10EDB40-TA2B5			
⚠ D805	6-500-522-11	DIODE 10EDB40-TA2B5			
⚠ D806	6-500-522-11	DIODE 10EDB40-TA2B5			
⚠ D807	6-500-522-11	DIODE 10EDB40-TA2B5			
⚠ D811	8-719-081-52	DIODE D5SBA20-4003			
⚠ D821	8-719-043-76	DIODE AK04V0			
D841	8-719-921-48	DIODE MTZJ-5.6C			
D851	8-719-991-33	DIODE 1SS133T-77			
D881	8-719-991-33	DIODE 1SS133T-77			
D882	8-719-991-33	DIODE 1SS133T-77			
D883	8-719-991-33	DIODE 1SS133T-77			
D884	8-719-991-33	DIODE 1SS133T-77			
		< IC >			
IC400	6-707-169-01	IC M61542FP			
⚠ IC501	6-710-828-01	IC STK350-530T-E			
IC502	8-759-167-88	IC NJM4565D			
⚠ IC601	6-710-828-01	IC STK350-530T-E			
⚠ IC701	6-710-828-01	IC STK350-530T-E			
⚠ IC821	8-759-071-48	IC TA7807S			
⚠ IC822	8-759-071-47	IC TA79007S			
IC850	8-759-167-88	IC NJM4565D			
		< JACK >			
J400	1-774-411-11	JACK, PIN 6P (SAT/AUDIO IN,TV/AUDIO IN/SA-CD/CD/AUDIO IN)			
		< TRANSISTOR >			
Q471	8-729-922-37	TRANSISTOR 2SD2144S-UVW			
Q501	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q502	8-729-141-30	TRANSISTOR 2SC3623A-LK			
Q505	8-729-042-09	TRANSISTOR 2SA1038S-RSE-TP			
Q506	8-729-042-09	TRANSISTOR 2SA1038S-RSE-TP			
Q507	8-729-281-53	TRANSISTOR 2SC1815-GR			
Q509	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q551	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q552	8-729-141-30	TRANSISTOR 2SC3623A-LK			
Q555	8-729-042-09	TRANSISTOR 2SA1038S-RSE-TP			
Q556	8-729-042-09	TRANSISTOR 2SA1038S-RSE-TP			
Q557	8-729-281-53	TRANSISTOR 2SC1815-GR			
Q601	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q602	8-729-141-30	TRANSISTOR 2SC3623A-LK			
Q605	8-729-042-09	TRANSISTOR 2SA1038S-RSE-TP			
Q606	8-729-042-09	TRANSISTOR 2SA1038S-RSE-TP			
Q607	8-729-281-53	TRANSISTOR 2SC1815-GR			
Q608	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q651	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q652	8-729-141-30	TRANSISTOR 2SC3623A-LK			
Q655	8-729-042-09	TRANSISTOR 2SA1038S-RSE-TP			
Q656	8-729-042-09	TRANSISTOR 2SA1038S-RSE-TP			
Q657	8-729-281-53	TRANSISTOR 2SC1815-GR			
Q701	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q702	8-729-141-30	TRANSISTOR 2SC3623A-LK			
Q705	8-729-042-09	TRANSISTOR 2SA1038S-RSE-TP			
Q706	8-729-042-09	TRANSISTOR 2SA1038S-RSE-TP			
Q707	8-729-281-53	TRANSISTOR 2SC1815-GR			
Q708	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q751	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q752	8-729-141-30	TRANSISTOR 2SC3623A-LK			
Q755	8-729-042-09	TRANSISTOR 2SA1038S-RSE-TP			
Q756	8-729-042-09	TRANSISTOR 2SA1038S-RSE-TP			
⚠ Q801	8-729-140-97	TRANSISTOR 2SB734-34			
Q851	8-729-281-53	TRANSISTOR 2SC1815-GR			
Q852	8-729-029-40	TRANSISTOR DTA124ESA			
Q881	8-729-042-09	TRANSISTOR 2SA1038S-RSE-TP			
Q882	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q883	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA			
		< RESISTOR >			
R401	1-247-831-91	CARBON	1K	5%	1/4W
R402	1-247-831-91	CARBON	1K	5%	1/4W
R403	1-247-831-91	CARBON	1K	5%	1/4W
R404	1-247-831-91	CARBON	1K	5%	1/4W
R405	1-247-831-91	CARBON	1K	5%	1/4W
R406	1-247-807-31	CARBON	100	5%	1/4W
R407	1-247-807-31	CARBON	100	5%	1/4W
R416	1-247-831-91	CARBON	1K	5%	1/4W
R449	1-247-831-91	CARBON	1K	5%	1/4W

MAIN

Ref. No.	Part No.	Description			Remark
R451	1-247-831-91	CARBON	1K	5%	1/4W
R452	1-247-831-91	CARBON	1K	5%	1/4W
R453	1-247-831-91	CARBON	1K	5%	1/4W
R454	1-247-831-91	CARBON	1K	5%	1/4W
R455	1-247-831-91	CARBON	1K	5%	1/4W
R471	1-249-415-11	CARBON	680	5%	1/4W
R472	1-247-831-91	CARBON	1K	5%	1/4W
R473	1-249-421-11	CARBON	2.2K	5%	1/4W
R479	1-249-421-11	CARBON	2.2K	5%	1/4W
R500	1-247-871-91	CARBON	47K	5%	1/4W
R501	1-247-831-91	CARBON	1K	5%	1/4W
R502	1-249-439-11	CARBON	68K	5%	1/4W
R503	1-249-422-11	CARBON	2.7K	5%	1/4W
R504	1-249-439-11	CARBON	68K	5%	1/4W
R505	1-249-421-11	CARBON	2.2K	5%	1/4W
R506	1-249-440-11	CARBON	82K	5%	1/4W
R507	1-249-414-11	CARBON	560	5%	1/4W
⚠R508	1-249-405-11	CARBON	100	5%	1/4W F
⚠R509	1-249-405-11	CARBON	100	5%	1/4W F
⚠R510	1-234-182-11	ENCAPSULATED COMPONENT			
R511	1-247-847-91	CARBON	4.7K	5%	1/4W
⚠R512	1-240-855-81	CARBON	6.2K	5%	1/4W F
R513	1-249-419-11	CARBON	1.5K	5%	1/4W
R514	1-249-431-11	CARBON	15K	5%	1/4W
R515	1-247-863-91	CARBON	22K	5%	1/4W
R516	1-247-843-11	CARBON	3.3K	5%	1/4W
R517	1-249-431-11	CARBON	15K	5%	1/4W
R518	1-247-863-91	CARBON	22K	5%	1/4W
R519	1-247-863-91	CARBON	22K	5%	1/4W
R520	1-249-439-11	CARBON	68K	5%	1/4W
⚠R521	1-249-393-11	CARBON	10	5%	1/4W F
R522	1-247-871-91	CARBON	47K	5%	1/4W
R529	1-247-871-91	CARBON	47K	5%	1/4W
R531	1-215-868-00	METAL OXIDE	680	5%	1W
R532	1-215-868-00	METAL OXIDE	680	5%	1W
R539	1-247-879-91	CARBON	100K	5%	1/4W
R549	1-247-871-91	CARBON	47K	5%	1/4W
R550	1-247-879-91	CARBON	100K	5%	1/4W
R551	1-247-831-91	CARBON	1K	5%	1/4W
R552	1-249-439-11	CARBON	68K	5%	1/4W
R553	1-249-422-11	CARBON	2.7K	5%	1/4W
R554	1-249-439-11	CARBON	68K	5%	1/4W
R555	1-249-421-11	CARBON	2.2K	5%	1/4W
R556	1-249-440-11	CARBON	82K	5%	1/4W
R557	1-249-414-11	CARBON	560	5%	1/4W
⚠R558	1-249-405-11	CARBON	100	5%	1/4W
⚠R559	1-249-405-11	CARBON	100	5%	1/4W
⚠R560	1-234-182-11	ENCAPSULATED COMPONENT			
R561	1-247-847-91	CARBON	4.7K	5%	1/4W
⚠R562	1-240-855-81	CARBON	6.2K	5%	1/4W F
R563	1-249-419-11	CARBON	1.5K	5%	1/4W
R564	1-249-431-11	CARBON	15K	5%	1/4W
R565	1-247-863-91	CARBON	22K	5%	1/4W
R566	1-247-843-11	CARBON	3.3K	5%	1/4W
R567	1-249-431-11	CARBON	15K	5%	1/4W
R568	1-247-863-91	CARBON	22K	5%	1/4W
R569	1-247-863-91	CARBON	22K	5%	1/4W
R570	1-249-439-11	CARBON	68K	5%	1/4W
⚠R571	1-249-393-11	CARBON	10	5%	1/4W F
R572	1-247-871-91	CARBON	47K	5%	1/4W
⚠R574	1-249-404-00	CARBON	82	5%	1/4W F
R591	1-247-843-11	CARBON	3.3K	5%	1/4W
R593	1-247-871-91	CARBON	47K	5%	1/4W
R594	1-247-863-91	CARBON	22K	5%	1/4W
R595	1-249-426-11	CARBON	5.6K	5%	1/4W
R596	1-249-426-11	CARBON	5.6K	5%	1/4W
R597	1-247-887-00	CARBON	220K	5%	1/4W
R600	1-247-871-91	CARBON	47K	5%	1/4W
R601	1-247-831-91	CARBON	1K	5%	1/4W
R602	1-249-439-11	CARBON	68K	5%	1/4W
R603	1-249-422-11	CARBON	2.7K	5%	1/4W
R604	1-249-439-11	CARBON	68K	5%	1/4W
R605	1-249-421-11	CARBON	2.2K	5%	1/4W
R606	1-249-440-11	CARBON	82K	5%	1/4W
R607	1-249-414-11	CARBON	560	5%	1/4W
⚠R608	1-249-405-11	CARBON	100	5%	1/4W
⚠R609	1-249-405-11	CARBON	100	5%	1/4W
⚠R610	1-234-182-11	ENCAPSULATED COMPONENT			
R611	1-247-847-91	CARBON	4.7K	5%	1/4W
⚠R612	1-240-855-81	CARBON	6.2K	5%	1/4W F
R613	1-249-419-11	CARBON	1.5K	5%	1/4W
R614	1-249-431-11	CARBON	15K	5%	1/4W
R615	1-247-863-91	CARBON	22K	5%	1/4W
R616	1-247-843-11	CARBON	3.3K	5%	1/4W
R617	1-249-431-11	CARBON	15K	5%	1/4W
R618	1-247-863-91	CARBON	22K	5%	1/4W
R619	1-247-863-91	CARBON	22K	5%	1/4W
R620	1-249-439-11	CARBON	68K	5%	1/4W
⚠R621	1-249-393-11	CARBON	10	5%	1/4W F
R622	1-247-871-91	CARBON	47K	5%	1/4W
⚠R624	1-249-404-00	CARBON	82	5%	1/4W F
R625	1-249-421-11	CARBON	2.2K	5%	1/4W
R651	1-247-831-91	CARBON	1K	5%	1/4W
R652	1-249-439-11	CARBON	68K	5%	1/4W
R653	1-249-422-11	CARBON	2.7K	5%	1/4W
R654	1-249-439-11	CARBON	68K	5%	1/4W
R655	1-249-421-11	CARBON	2.2K	5%	1/4W
R656	1-249-440-11	CARBON	82K	5%	1/4W
R657	1-249-414-11	CARBON	560	5%	1/4W
⚠R658	1-249-405-11	CARBON	100	5%	1/4W
⚠R659	1-249-405-11	CARBON	100	5%	1/4W
⚠R660	1-234-182-11	ENCAPSULATED COMPONENT			
R661	1-247-847-91	CARBON	4.7K	5%	1/4W
⚠R662	1-240-855-81	CARBON	6.2K	5%	1/4W F
R663	1-249-419-11	CARBON	1.5K	5%	1/4W
R664	1-249-431-11	CARBON	15K	5%	1/4W
R665	1-247-863-91	CARBON	22K	5%	1/4W
R666	1-247-843-11	CARBON	3.3K	5%	1/4W
R667	1-249-431-11	CARBON	15K	5%	1/4W
R668	1-247-863-91	CARBON	22K	5%	1/4W
R669	1-247-863-91	CARBON	22K	5%	1/4W
R670	1-249-439-11	CARBON	68K	5%	1/4W
⚠R671	1-249-393-11	CARBON	10	5%	1/4W F
R672	1-247-871-91	CARBON	47K	5%	1/4W
R700	1-247-871-91	CARBON	47K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R701	1-247-831-91	CARBON	1K	5%	1/4W
R702	1-249-439-11	CARBON	68K	5%	1/4W
R703	1-249-422-11	CARBON	2.7K	5%	1/4W
R704	1-249-439-11	CARBON	68K	5%	1/4W
R705	1-249-421-11	CARBON	2.2K	5%	1/4W
R706	1-249-440-11	CARBON	82K	5%	1/4W
R707	1-249-414-11	CARBON	560	5%	1/4W
⚠R708	1-249-405-11	CARBON	100	5%	1/4W F
⚠R709	1-249-405-11	CARBON	100	5%	1/4W F
⚠R710	1-234-182-11	ENCAPSULATED COMPONENT			
R711	1-247-847-91	CARBON	4.7K	5%	1/4W
⚠R712	1-240-855-81	CARBON	6.2K	5%	1/4W
R713	1-249-419-11	CARBON	1.5K	5%	1/4W
R714	1-249-431-11	CARBON	15K	5%	1/4W
R715	1-247-863-91	CARBON	22K	5%	1/4W
R716	1-247-843-11	CARBON	3.3K	5%	1/4W
R717	1-249-431-11	CARBON	15K	5%	1/4W
R718	1-247-863-91	CARBON	22K	5%	1/4W
R719	1-247-863-91	CARBON	22K	5%	1/4W
R720	1-249-439-11	CARBON	68K	5%	1/4W
⚠R721	1-249-393-11	CARBON	10	5%	1/4W F
R722	1-247-871-91	CARBON	47K	5%	1/4W
⚠R724	1-249-404-00	CARBON	82	5%	1/4W F
R725	1-247-807-31	CARBON	100	5%	1/4W
R729	1-247-871-91	CARBON	47K	5%	1/4W
R740	1-247-879-91	CARBON	100K	5%	1/4W
R751	1-247-831-91	CARBON	1K	5%	1/4W
R752	1-249-439-11	CARBON	68K	5%	1/4W
R753	1-249-421-11	CARBON	2.2K	5%	1/4W
R754	1-249-439-11	CARBON	68K	5%	1/4W
R755	1-249-421-11	CARBON	2.2K	5%	1/4W
R756	1-249-440-11	CARBON	82K	5%	1/4W
R757	1-249-414-11	CARBON	560	5%	1/4W
⚠R758	1-249-405-11	CARBON	100	5%	1/4W F
⚠R759	1-249-405-11	CARBON	100	5%	1/4W F
⚠R760	1-234-182-11	ENCAPSULATED COMPONENT			
R761	1-247-847-91	CARBON	4.7K	5%	1/4W
⚠R762	1-240-855-81	CARBON	6.2K	5%	1/4W F
R763	1-249-419-11	CARBON	1.5K	5%	1/4W
R764	1-249-431-11	CARBON	15K	5%	1/4W
R765	1-249-421-11	CARBON	2.2K	5%	1/4W
R766	1-247-863-91	CARBON	22K	5%	1/4W
R770	1-249-439-11	CARBON	68K	5%	1/4W
⚠R771	1-249-393-11	CARBON	10	5%	1/4W F
R772	1-247-871-91	CARBON	47K	5%	1/4W
R791	1-249-421-11	CARBON	2.2K	5%	1/4W
⚠R793	1-249-404-00	CARBON	82	5%	1/4W F
⚠R803	1-249-389-11	CARBON	4.7	5%	1/4W F
R804	1-249-429-11	CARBON	10K	5%	1/4W
R806	1-247-863-91	CARBON	22K	5%	1/4W
⚠R815	1-249-381-11	CARBON	1	5%	1/4W F
⚠R816	1-249-381-11	CARBON	1	5%	1/4W F
R840	1-249-427-11	CARBON	6.8K	5%	1/4W
R843	1-247-863-91	CARBON	22K	5%	1/4W
R844	1-247-863-91	CARBON	22K	5%	1/4W
R851	1-249-429-11	CARBON	10K	5%	1/4W
R852	1-249-429-11	CARBON	10K	5%	1/4W
R853	1-249-429-11	CARBON	10K	5%	1/4W
R854	1-249-435-11	CARBON	33K	5%	1/4W
R855	1-247-887-00	CARBON	220K	5%	1/4W
R856	1-247-895-00	CARBON	470K	5%	1/4W
R857	1-249-429-11	CARBON	10K	5%	1/4W
R858	1-215-889-00	METAL OXIDE	330	5%	2W (SP, SP6, TH, MX)
R858	1-215-890-11	METAL OXIDE	470	5%	2W (E51, AR)
R859	1-216-453-00	METAL OXIDE	270	5%	2W (SP, SP6, TH, MX)
R882	1-249-429-11	CARBON	10K	5%	1/4W
R883	1-249-427-11	CARBON	6.8K	5%	1/4W
R884	1-249-436-11	CARBON	39K	5%	1/4W
R885	1-247-831-91	CARBON	1K	5%	1/4W
⚠R910	1-243-635-11	FUSIBLE	0.33	5%	1/2W
		< RELAY >			
RY502	1-755-421-11	RELAY			
RY551	1-755-421-11	RELAY			
RY601	1-755-421-11	RELAY			
RY701	1-755-421-11	RELAY			
		< TERMINAL >			
TM602	1-694-805-11	TERMINAL BOARD (SPEAKERS CENTER/FRONT)			
TM605	1-694-652-31	TERMINAL BOARD (SP) (SPEAKERS SUB WOOFER/SURROUND)			
**********					
		POWER BOARD			
		**********			
		< CONNECTOR >			
* CNP152	1-564-506-11	PLUG, CONNECTOR 3P			
		< RESISTOR >			
R135	1-249-409-11	CARBON	220	5%	1/4W
R136	1-249-411-11	CARBON	330	5%	1/4W
R137	1-249-413-11	CARBON	470	5%	1/4W
R138	1-249-415-11	CARBON	680	5%	1/4W
R139	1-247-831-91	CARBON	1K	5%	1/4W
		< SWITCH >			
S114	1-771-410-21	SWITCH, TACTILE (DIMMER)			
S115	1-771-410-21	SWITCH, TACTILE (SLEEP)			
S116	1-771-410-21	SWITCH, TACTILE (2CH)			
S117	1-771-410-21	SWITCH, TACTILE (A.F.D.)			
S118	1-771-410-21	SWITCH, TACTILE (MOVIE)			
S119	1-771-410-21	SWITCH, TACTILE (MUSIC)			
S152	1-771-410-21	SWITCH, TACTILE (I/⏻)			
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Ref. No.	Part No.	Description			Remark
	A-1221-894-A	STANDBY BOARD, COMPLETE (SP, SP6)			
	A-1221-901-A	STANDBY BOARD, COMPLETE (E51)			
	A-1221-913-A	STANDBY BOARD, COMPLETE (AR)			
		**********			
	1-533-217-41	HOLDER, FUSE			
		< CAPACITOR >			
C900	1-127-888-11	CERAMIC	0.1uF	10%	50V
C901	1-135-798-11	CERAMIC	0.22uF		50V
C902	1-135-798-11	CERAMIC	0.22uF		50V
C911	1-135-798-11	CERAMIC	0.22uF		50V
C912	1-135-798-11	CERAMIC	0.22uF		50V
C913	1-126-959-11	ELECT	0.47uF	20%	50V
C914	1-126-936-11	ELECT	3300uF	20%	16V
C915	1-126-943-11	ELECT	2200uF	20%	25V
C916	1-126-942-61	ELECT	1000uF	20%	25V
		< CONNECTOR >			
* CNP801	1-564-510-11	PLUG, CONNECTOR 7P			
CNP900	1-564-321-00	PIN, CONNECTOR (3.96mm PITCH) 2P			
* CNP903	1-564-506-11	PLUG, CONNECTOR 3P			
* CNP904	1-565-792-11	PIN, CONNECTOR (3.96mm PITCH) 2P			
* CNP906	1-691-408-11	CONNECTOR, BOARD TO BOARD 7P			
		< DIODE >			
D901	8-719-991-33	DIODE	1SS133T-77		
D910	6-500-522-11	DIODE	10EDB40-TA2B5		
D911	6-500-522-11	DIODE	10EDB40-TA2B5		
D912	6-500-522-11	DIODE	10EDB40-TA2B5		
D913	6-500-522-11	DIODE	10EDB40-TA2B5		
D914	8-719-991-33	DIODE	1SS133T-77		
D915	8-719-991-33	DIODE	1SS133T-77		
⚠D920	6-500-522-11	DIODE	10EDB40-TA2B5		
⚠D921	6-500-522-11	DIODE	10EDB40-TA2B5		
⚠D922	6-500-522-11	DIODE	10EDB40-TA2B5		
⚠D923	6-500-522-11	DIODE	10EDB40-TA2B5		
		< GROUND TERMINAL >			
G901	1-537-738-21	TERMINAL, GROUND			
		< TRANSISTOR >			
Q901	8-729-119-78	TRANSISTOR	2SC2785-HFE		
Q911	8-729-119-78	TRANSISTOR	2SC2785-HFE		
		< RESISTOR >			
⚠R810	1-243-634-91	FUSIBLE	0.22	5%	1/2W
⚠R812	1-243-634-91	FUSIBLE	0.22	5%	1/2W
R903	1-247-871-91	CARBON	47K	5%	1/4W
R904	1-247-847-91	CARBON	4.7K	5%	1/4W
⚠R905	1-249-381-11	CARBON	1	5%	1/4W F
R911	1-247-871-91	CARBON	47K	5%	1/4W
R912	1-249-435-11	CARBON	33K	5%	1/4W
R913	1-249-429-11	CARBON	10K	5%	1/4W
		< RELAY >			
RY901	1-755-541-11	RELAY			

Ref. No.	Part No.	Description	Remark
		< TRANSFORMER >	
⚠T902	1-443-517-11	POWER TRANSFORMER (SP, SP6, AR, TH)	
⚠T902	1-443-518-11	POWER TRANSFORMER (MX)	
⚠T902	1-443-520-11	POWER TRANSFORMER (E51)	
**********			
		MISCELLANEOUS	
		**********	
9	1-829-994-11	WIRE (FLAT TYPE) (17 CORE)	
54	1-693-728-11	TUNER (FM/AM) (E51)	
54	1-693-733-11	TUNER (FM/AM) (AR)	
54	1-693-735-11	TUNER (FM/AM) (SP, SP6)	
⚠59	1-777-071-83	CORD, POWER (SP, SP6, E51)	
⚠59	1-783-941-12	CORD, POWER (AR)	
61	1-828-953-11	WIRE (FLAT TYPE) (9 CORE)	
⚠F901	1-532-388-33	FUSE (T2AL/250V) (E51)	
⚠F901	1-532-464-33	FUSE (T2.5AL/250V) (SP, SP6, AR)	
⚠Q503	6-702-390-01	IC MN2488-OPY-MK	
⚠Q504	6-702-391-01	IC MP1620-OPY-MK	
⚠Q553	6-702-390-01	IC MN2488-OPY-MK	
⚠Q554	6-702-391-01	IC MP1620-OPY-MK	
⚠Q603	6-702-390-01	IC MN2488-OPY-MK	
⚠Q604	6-702-391-01	IC MP1620-OPY-MK	
⚠Q653	6-702-390-01	IC MN2488-OPY-MK	
⚠Q654	6-702-391-01	IC MP1620-OPY-MK	
⚠Q703	6-702-390-01	IC MN2488-OPY-MK	
⚠Q704	6-702-391-01	IC MP1620-OPY-MK	
⚠Q753	6-702-390-01	IC MN2488-OPY-MK	
⚠Q754	6-702-391-01	IC MP1620-OPY-MK	
⚠T901	1-443-918-11	POWER TRANSFORMER (SP, SP6, AR)	
⚠T901	1-443-919-11	POWER TRANSFORMER (E51)	

MEMO

REVISION HISTORY

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Ver.	Date	Description of Revision
1.0	2007.04	New
1.1	2007.06	Addition of SP6 (Singapore and Malaysia models) model
1.2	2007.07	Addition of Mexican and Thai models