TA-SA100WR

SERVICE MANUAL

Ver. 1.3 2008.09

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model

- TA-SA100WR is the surround amplifier section in WAHT-SA1 etc.
- EZW-RT10 or EZW-T100 is necessary to check S-AIR communication.

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS for the US model

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:
With 3 ohm loads, both channels driven, from 120 - 20,000 Hz; rated 50 watts per channel minimum RMS power, with no more than 0.7 % total harmonic distortion from 250 milliwatts to rated output.

Amplifier section

US model:
Surround mode (reference) RMS output power : 143W (per channel at 3 ohms, 1 kHz, 10 % THD)

Other models:
Stereo mode (rated) 80 W + 80 W (at 3 ohms, 1 kHz, 1 % THD)
Surround mode (reference) RMS output power : 143 W (per channel at 3 ohms, 1 kHz, 10 % THD)

* *Depending on the source, there may be no sound output.*

Rated impedance: 3 - 16 Ω

General

Power requirements:	
North American and Mexican models:	120 V AC, 60 Hz
Taiwan model:	120 V AC, 50/60 Hz
Latin American model:	110 V – 240 V AC, 50/60 Hz
Korean model:	220 V AC, 60 Hz
Thai model:	220 V AC, 50/60 Hz
Other models:	220 V – 240 V AC, 50/60 Hz
Power consumption	On: 50 W
Dimensions (approx.)	85 mm × 100 mm × 330 mm (3 3/8 in × 4 in × 13 in) (w/h/d) (incl. EZW-RT10)
	85 mm × 100 mm × 345 mm (3 3/8 in × 4 in × 13 5/8 in) (w/h/d) incl. speaker cord cover and speaker cord holder
Mass (approx.)	1.7 kg (3 lb 12 oz) incl. speaker cord cover and speaker cord holder

Design and specifications are subject to change without notice.

SURROUND AMPLIFIER

9-887-986-04
2008I05-1

Sony Corporation
Audio&Video Business Group
Published by Sony Techno Create Corporation

SONY

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.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage.
Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes.). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

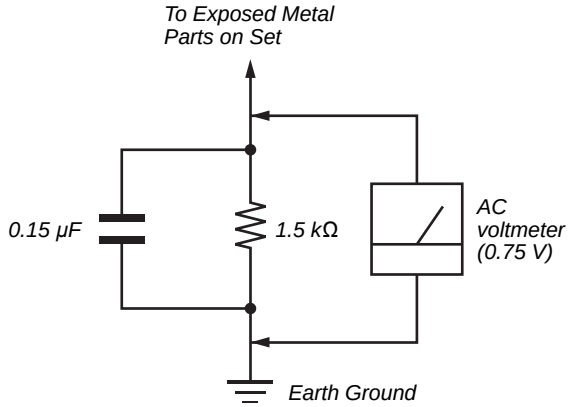

Fig. A. Using an AC voltmeter to check AC leakage.

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SAFETY-RELATED COMPONET 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.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COM- POSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1
SERVICING NOTES

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)

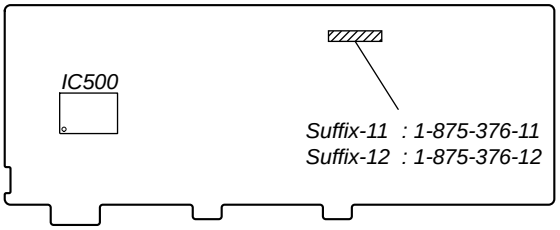
: LEAD FREE MARK

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 viscous (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.

SUFFIX-11/SUFFIX-12 DISCRIMINATION OF AMP BOARD

– AMP Board (Component Side) –



Checking the transmission status

You can check the status of sound transmission between the S-AIR main unit and surround amplifier by checking the POWER/ON LINE indicator on the surround amplifier.

POWER/ON LINE indicator	Status
Turns green	Sound transmission is established.
Flashes green	Sound transmission is not established. For details, see “Troubleshooting”.
Turns red	The surround amplifier does not output sound. For details, see “Troubleshooting”.
Turns off	The surround amplifier turns off or its protection is active. For details, see “Troubleshooting”.

Troubleshooting

Sound

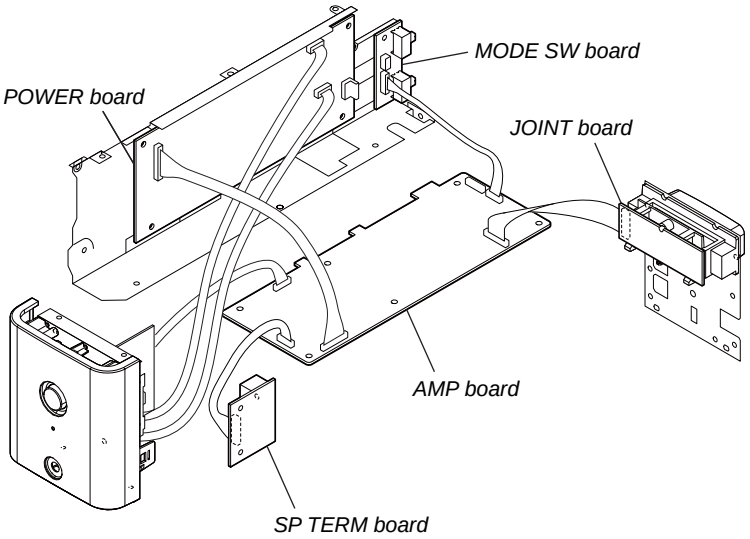
There is no sound.
Check the status of the POWER/ON LINE indicator on the surround amplifier.

– turns green
- The speaker cord is not connected securely.
- Check the speaker connections and settings.
- The volume of the S-AIR main unit is set to minimum.
- The S-AIR main unit is in mute status.
- Depending on the source or the settings of the S-AIR main unit, the effect of the speakers may be less noticeable.
- Headphones are connected.

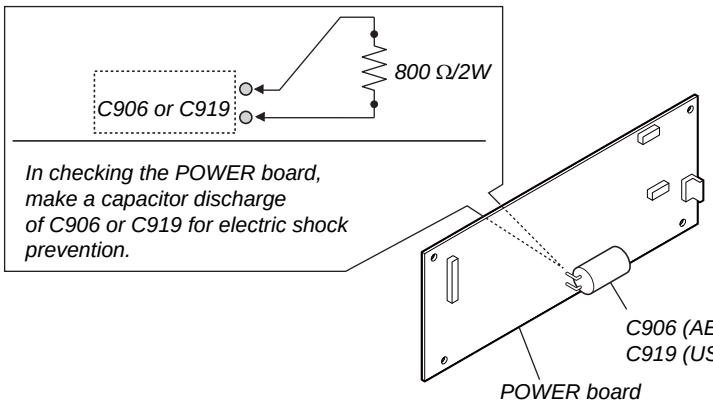
– flashes green
- The S-AIR main unit is not turned on.
- The S-AIR main unit is paired to another S-AIR product.
- The surround amplifier is paired to another S-AIR main unit.
- Confirm the IDs of the S-AIR main unit and surround amplifier.
- Pairing operation is not completed.
- Sound transmission is poor. Move the surround amplifier so that the POWER/ON LINE indicator turns green.
- Move the system away from any other wireless products.
- Stop using another wireless product.
- The wireless transceiver and/or the wireless transmitter are/is not inserted correctly.

– turns red
- Change the SURROUND SELECTOR switch (SURROUND or SURROUND BACK) of the surround amplifier to match the S-AIR main unit.

AMP BOARD SERVICE POSITON

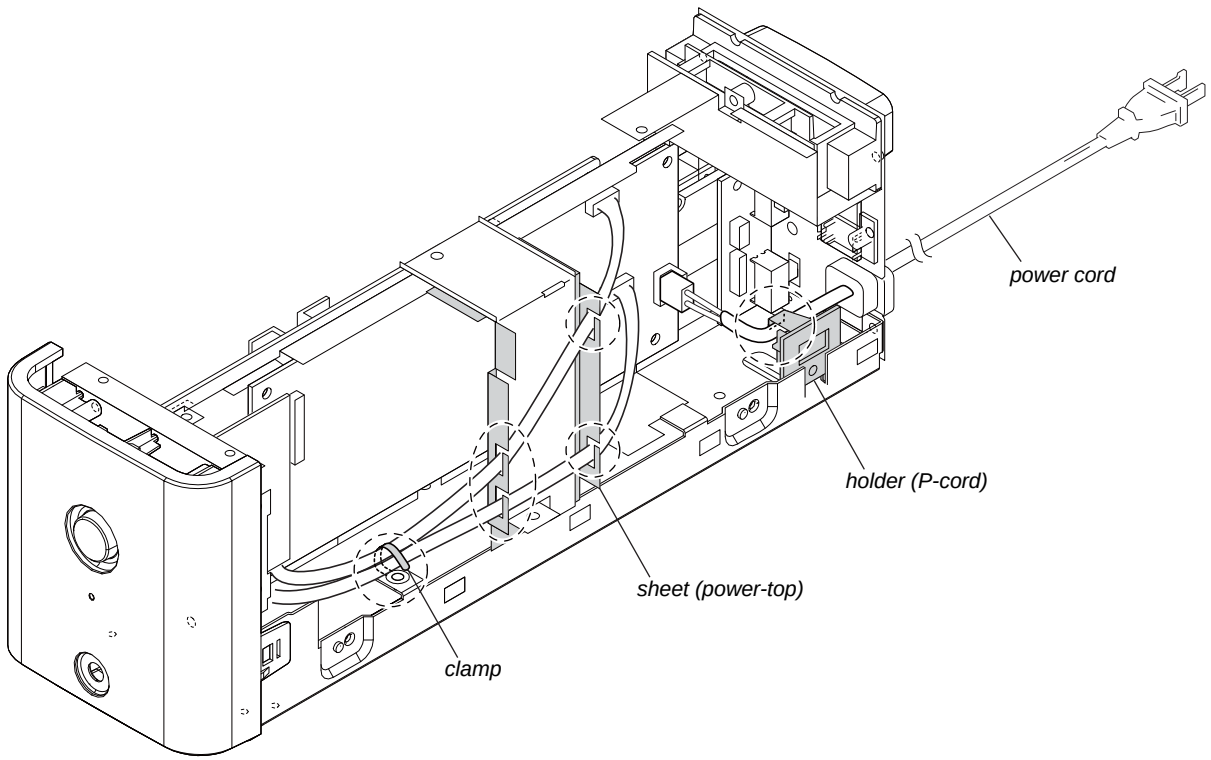


CAPACITOR DISCHARGE



- Abbreviation
  AUS : Australian model
  CND : Canadian model
  E3 : 240V AC area in E model
  E15 : Iranian model
  E32 : 110V – 240V AC area in E model
  EA : Saudi Arabia model
  KR : Korean model
  MX : Mexican model
  RU : Russian model
  SP : Singapore model
  TH : Thai model
  TW : Taiwan model

HARNESS SETTING



SECTION 2
GENERAL

This section is extracted from instruction manual.

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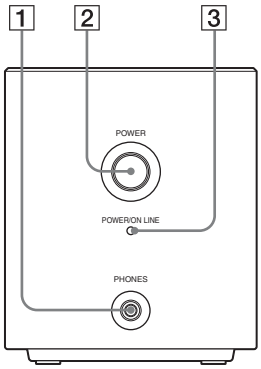
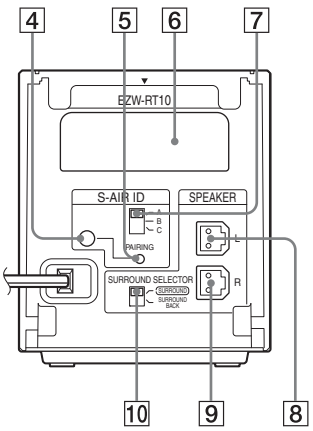
Surround amplifier

Front panel



Rear panel

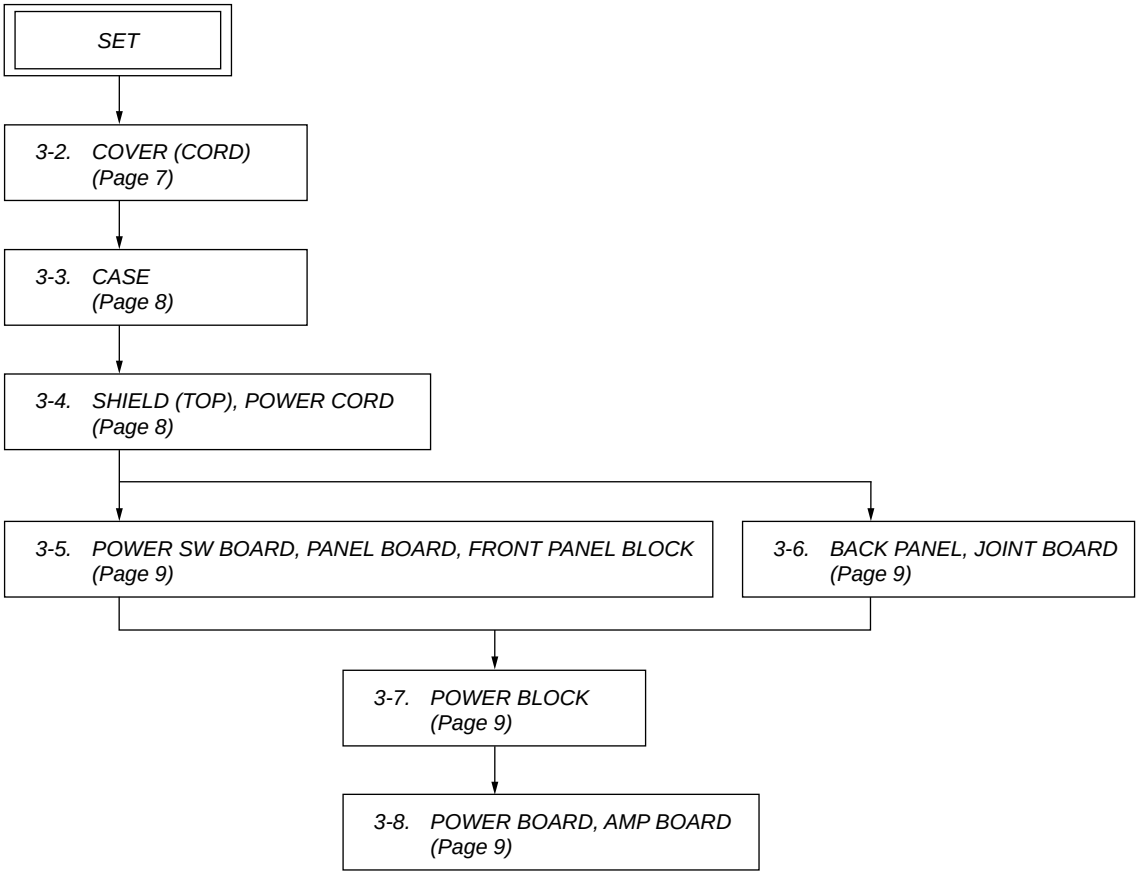


1 **PHONES jack**
2 **POWER button (ON/OFF)**
3 **POWER / ON LINE indicator**
4 **PAIRING indicator**
5 **PAIRING button**
6 **Wireless transceiver (EZW-RT10) slot**
7 **S-AIR ID switch**
8 **SPEAKER L jack**
9 **SPEAKER R jack**
10 **SURROUND SELECTOR switch**

SECTION 3
DISASSEMBLY

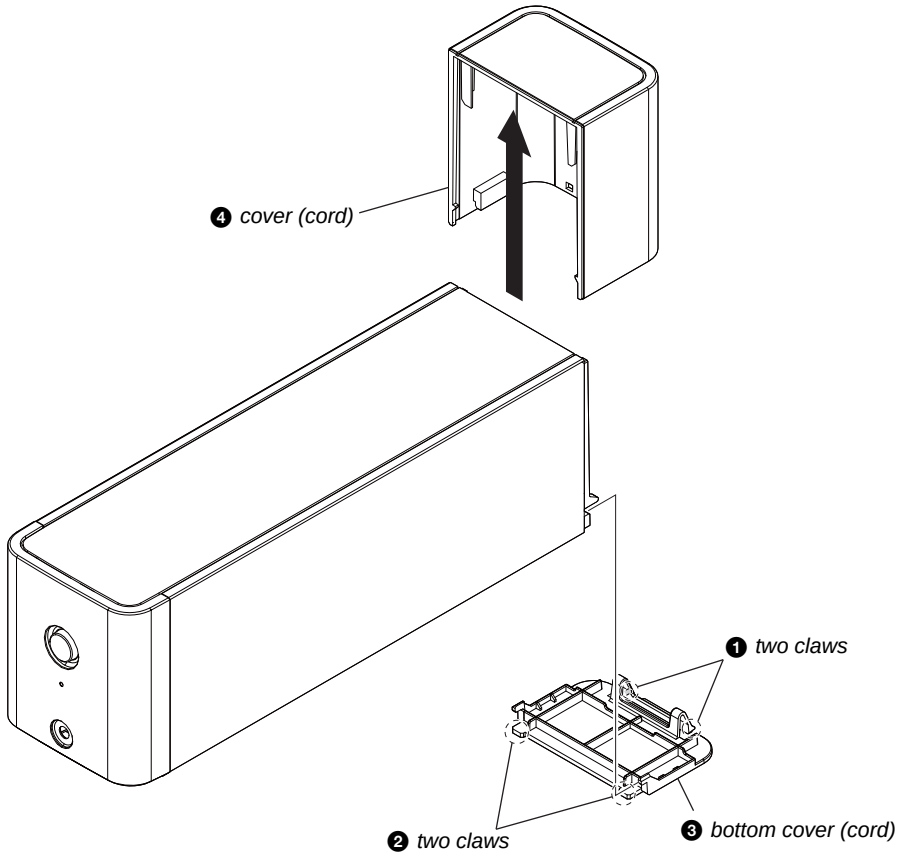
- This set can be disassembled in the order shown below.

3-1. DISASSEMBLY FLOW

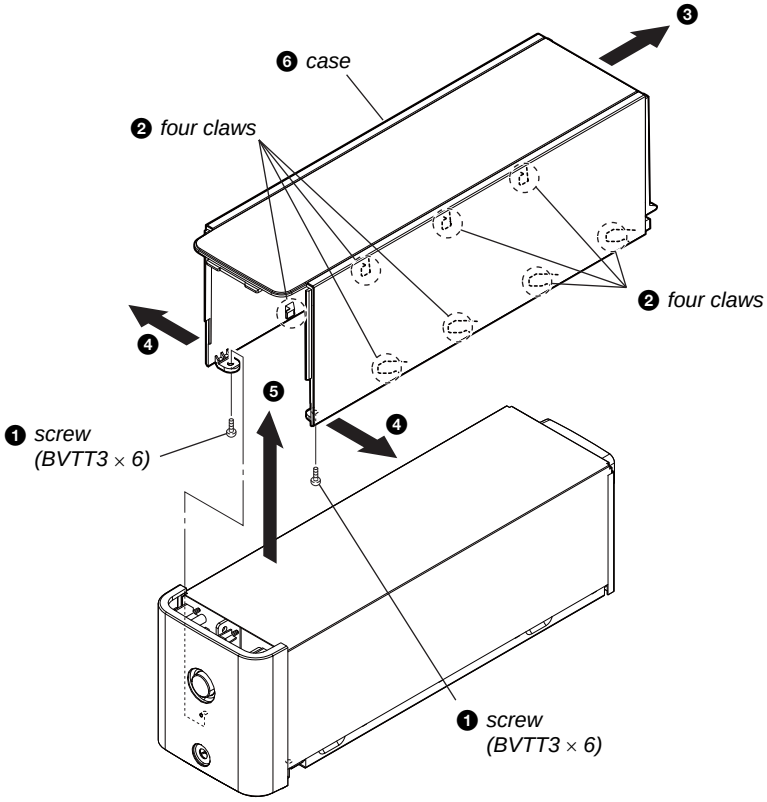


Note: Follow the disassembly procedure in the numerical order given.

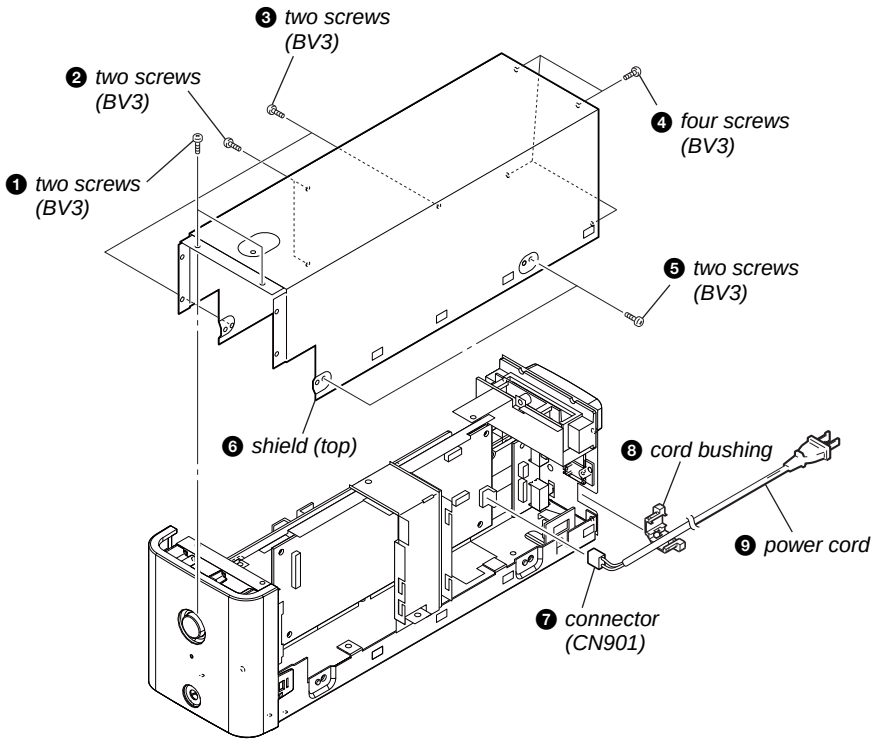
3-2. COVER (CORD)



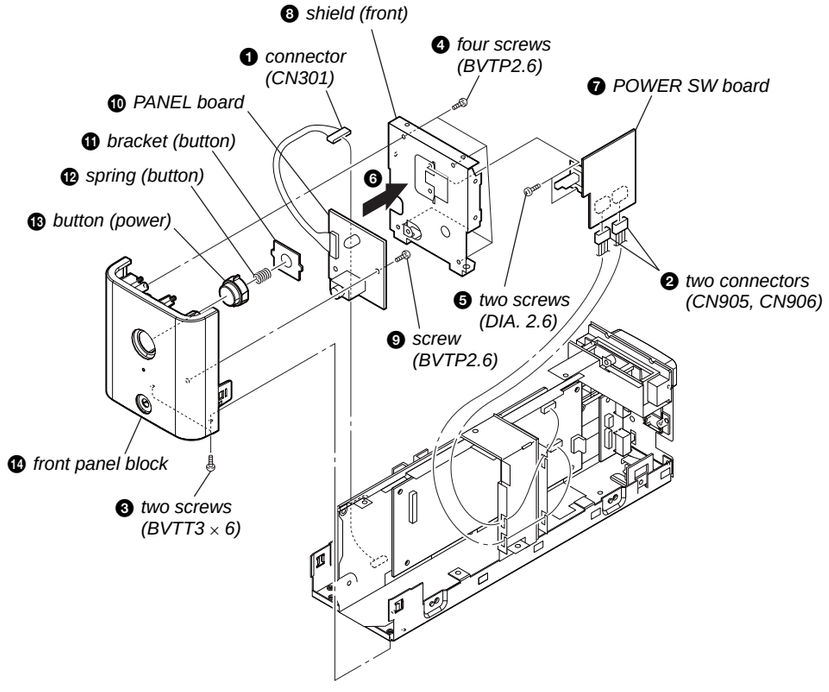
3-3. CASE



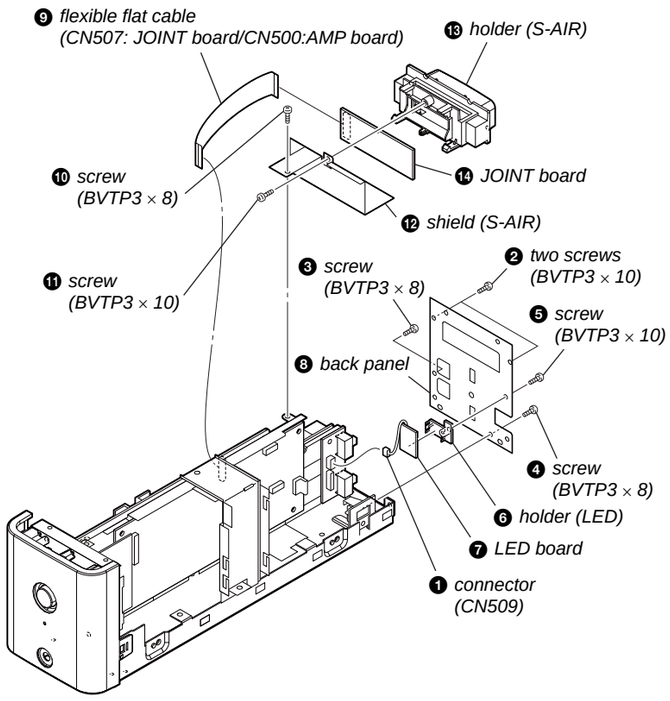
3-4. SHIELD (TOP), POWER CORD



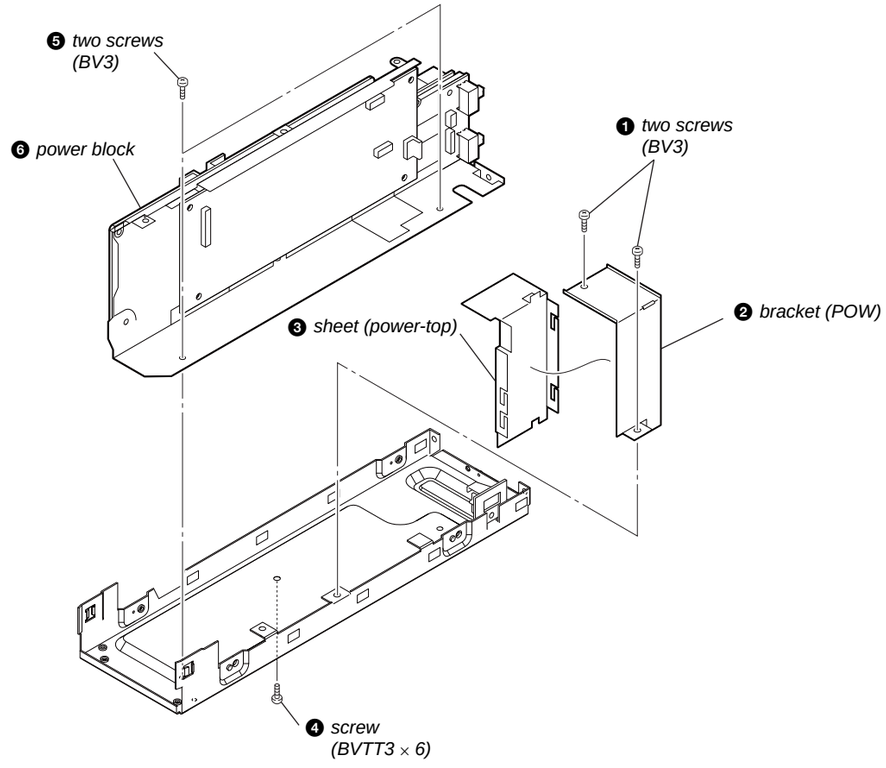
3-5. POWER SW BOARD, PANEL BOARD, FRONT PANEL BLOCK



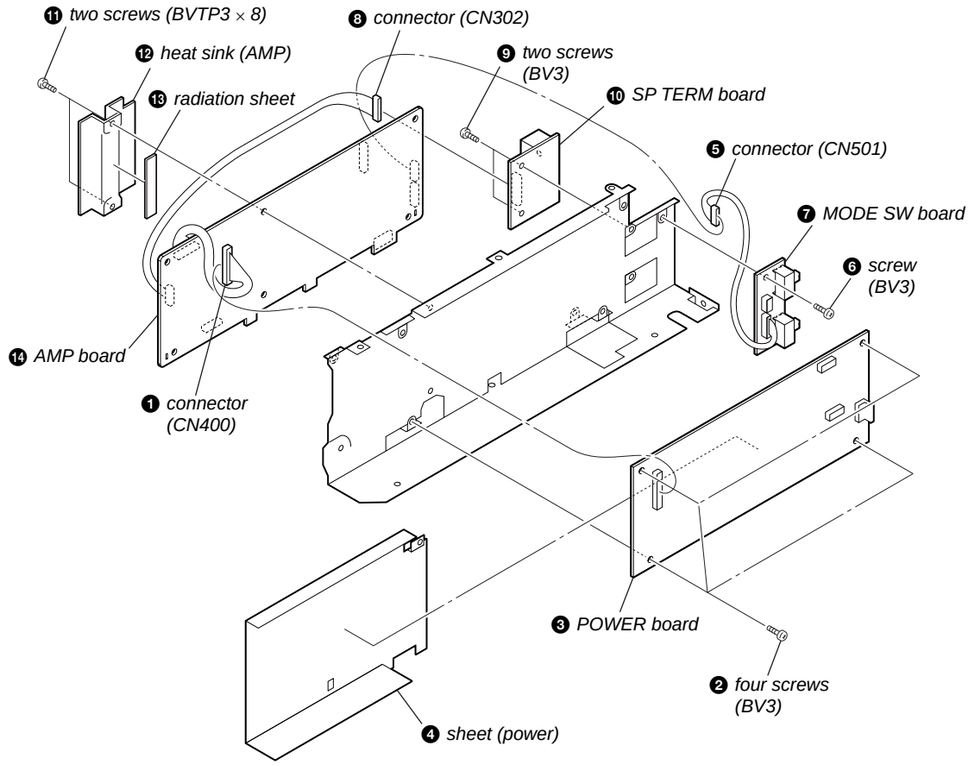
3-6. BACK PANEL, JOINT BOARD



3-7. POWER BLOCK

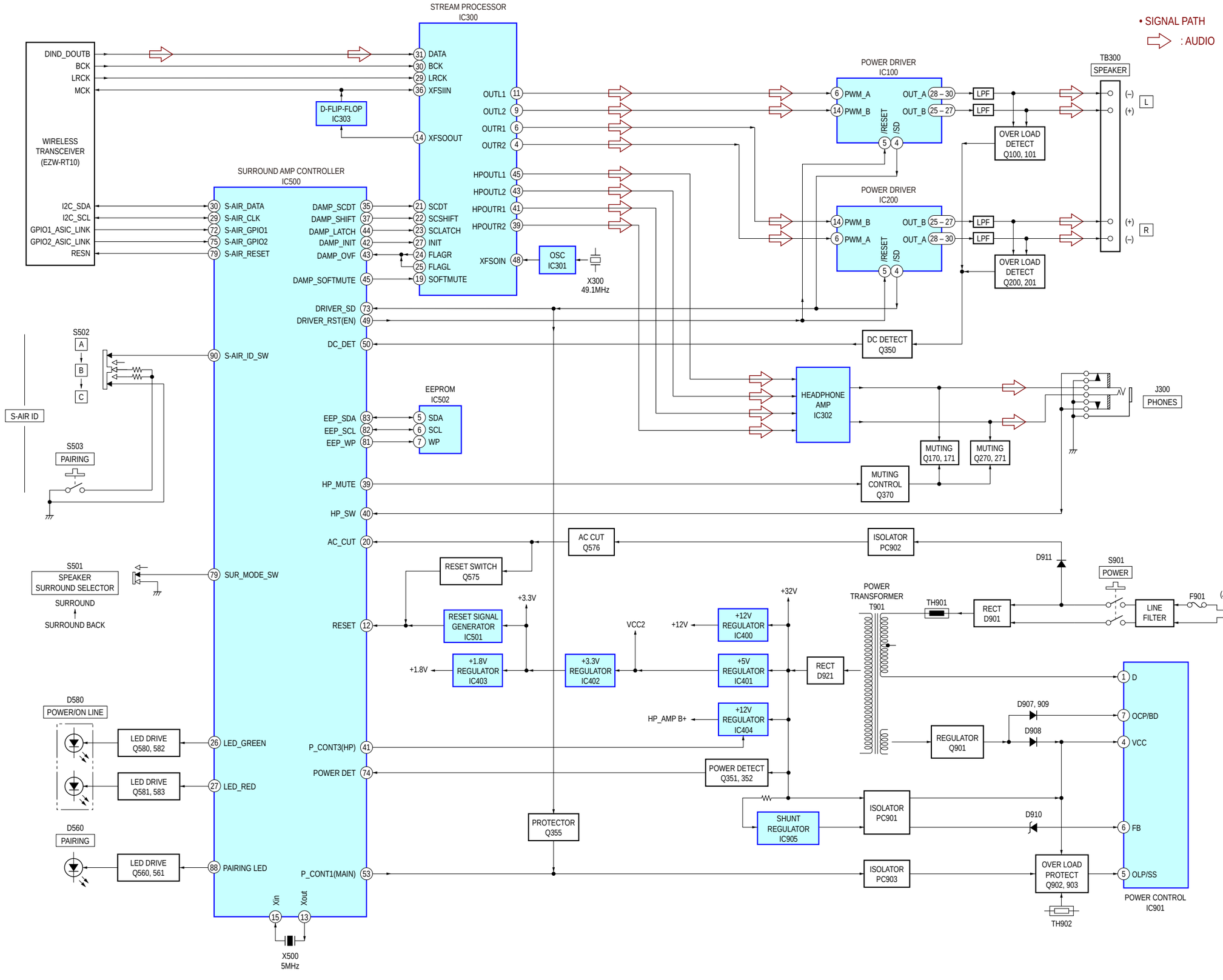


3-8. POWER BOARD, AMP BOARD



SECTION 4
DIAGRAMS

4-1. BLOCK DIAGRAM



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

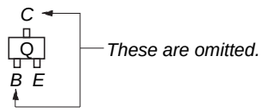
For Printed Wiring Boards.

Note:

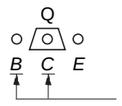
- ○——: Parts extracted from the component side.
- ——: Parts extracted from the conductor side.
- △ : internal component.
- ▭ : Pattern from the side which enables seeing. (The other layers' patterns are not indicated.)

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

- AMP board and JOINT board are multi-layer printed board. However, the patterns of intermediate layers have not been included in diagrams.
- Indication of transistor.



These are omitted.



These are omitted.

For Schematic Diagrams.

Note:

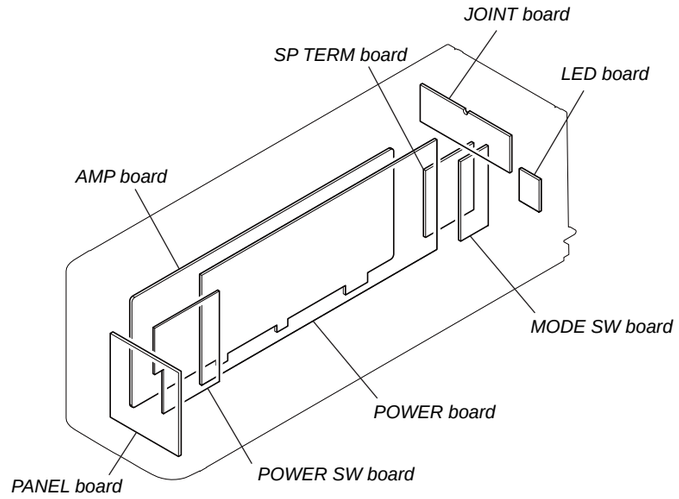
- All capacitors are in µF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- : nonflammable resistor.
- : fusible resistor.
- : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

- ▬▬ : B+ Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark: POWER ON
  * : Impossible to measure
- Voltages are taken with VOM (Input impedance 10 MΩ).
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : AUDIO
- Abbreviation

AUS	: Australian model
CND	: Canadian model
E3	: 240V AC area in E model
E15	: Iranian model
E32	: 110V – 240V AC area in E model
EA	: Saudi Arabia model
KR	: Korean model
MX	: Mexican model
RU	: Russian model
SP	: Singapore model
TH	: Thai model
TW	: Taiwan model

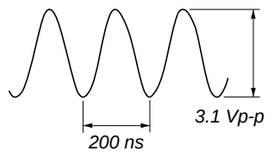
- **Circuit Boards Location**



- **Waveforms**

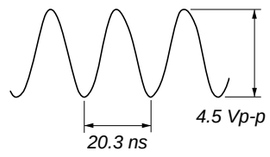
– AMP Board –

① IC500 ⑬ (Xout)



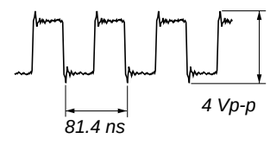
1 V/DIV, 100 ns/DIV

③ IC300 ㊽ (XFSOIN)



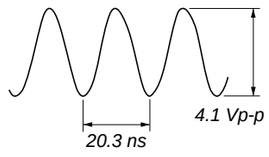
1 V/DIV, 10 ns/DIV

⑤ IC303 ⑨ (2Q)



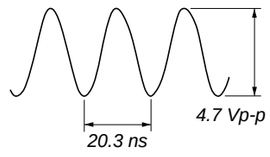
1 V/DIV, 20 ns/DIV

② IC300 ⑭ (XFSOOUT)



1 V/DIV, 10 ns/DIV

④ IC301 ① (1A)

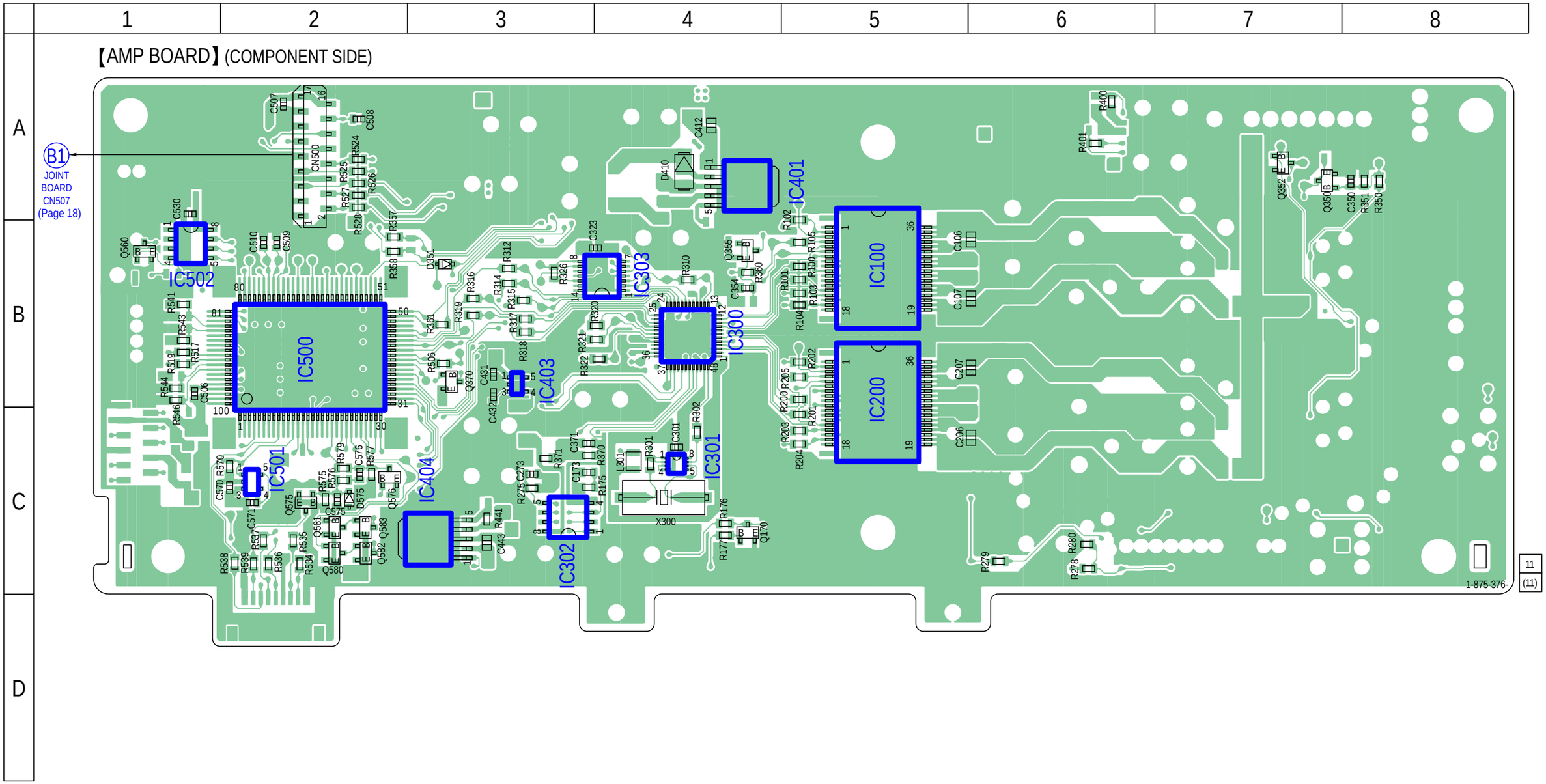


1 V/DIV, 10 ns/DIV

4-2. PRINTED WIRING BOARD - AMP Board (Component Side) (Suffix-11) -

• See page 11 for Circuit Boards Location. • : Uses unleaded solder.

【AMP BOARD】(COMPONENT SIDE)



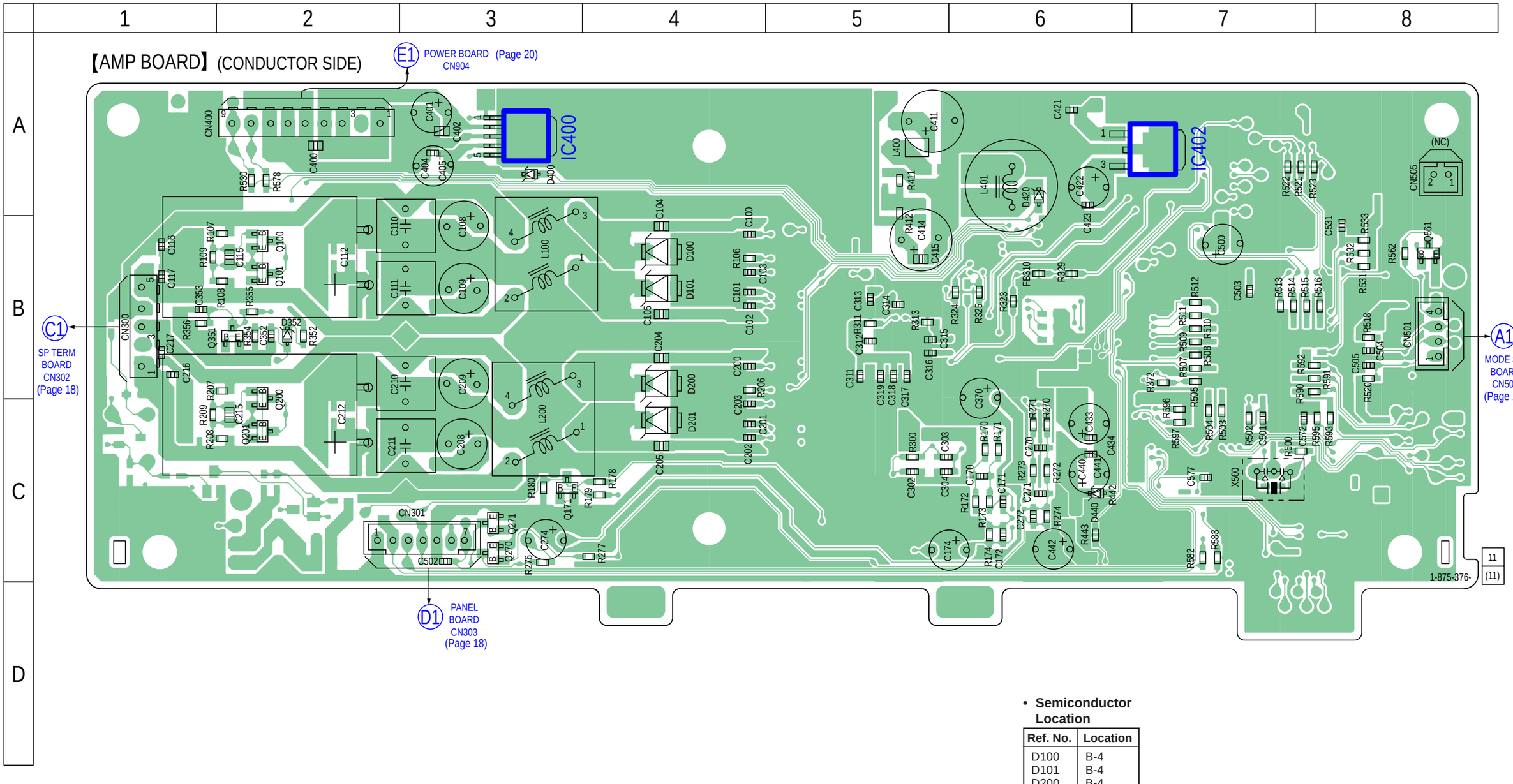
Note: Refer to “SUFFIX-11/SUFFIX-12 DISCRIMINATION OF AMP BOARD” (page 3) of the servicing notes for suffix-11 and suffix-12.

• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D351	B-3	IC502	B-1
D410	A-4		
D575	C-2	Q170	C-4
		Q350	A-7
IC100	B-5	Q352	A-7
IC200	B-5	Q355	B-4
IC300	B-4	Q370	B-3
IC301	C-4	Q560	B-1
IC302	C-3	Q575	C-2
IC303	B-4	Q576	C-2
IC401	A-4	Q580	C-2
IC403	B-3	Q581	C-2
IC404	C-3	Q582	C-2
IC500	B-2	Q583	C-2
IC501	C-2		

4-3. PRINTED WIRING BOARD - AMP Board (Conductor Side) (Suffix-11) -

• See page 11 for Circuit Boards Location. • : Uses unleaded solder.



- **Semiconductor Location**

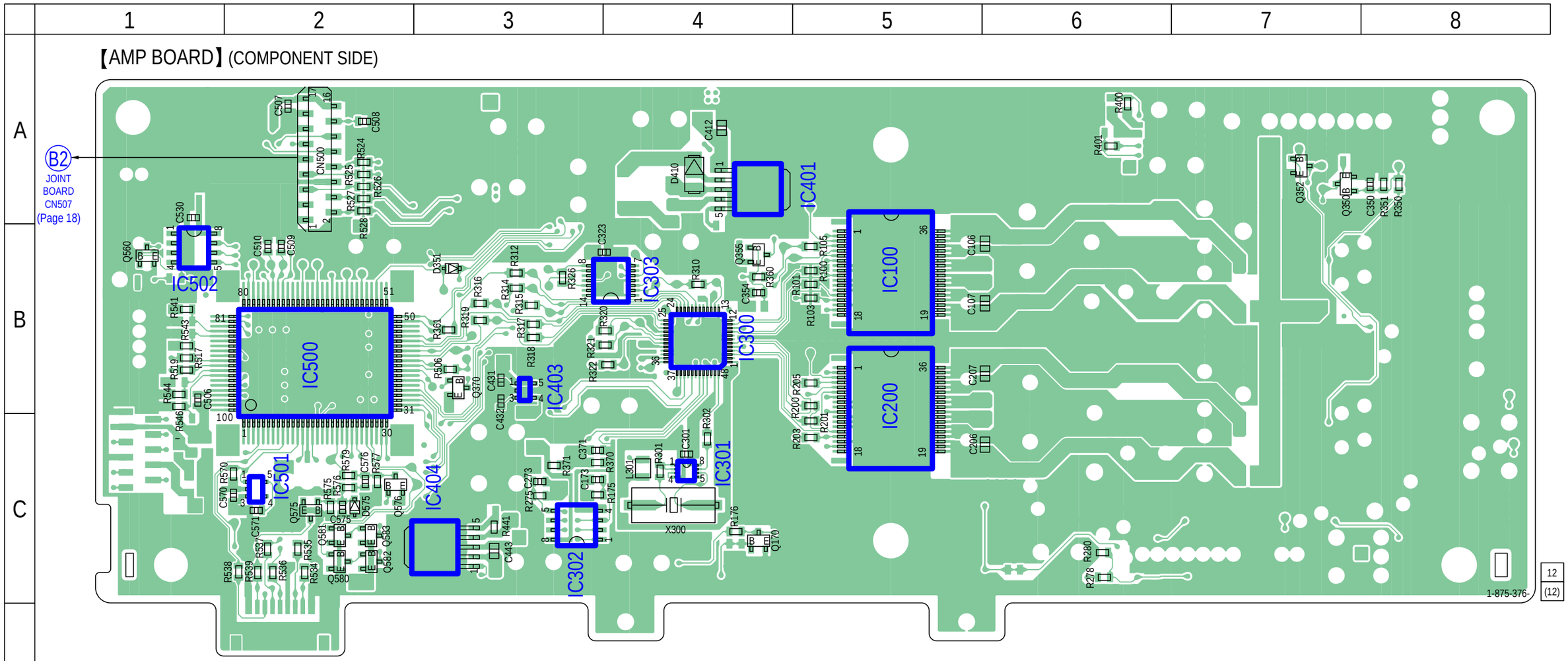
Ref. No.	Location
D100	B-4
D101	B-4
D200	B-4
D201	C-4
D352	B-2
D400	A-3
D420	A-6
D440	C-6
IC400	A-3
IC402	A-7
Q100	B-2
Q101	B-2
Q171	C-3
Q200	C-2
Q201	C-2
Q270	C-3
Q271	C-3
Q351	B-2
Q561	B-8

Note: Refer to “SUFFIX-11/SUFFIX-12 DISCRIMINATION OF AMP BOARD” (page 3) of the servicing notes for suffix-11 and suffix-12.

4-4. PRINTED WIRING BOARD - AMP Board (Component Side) (Suffix-12) -

• See page 11 for Circuit Boards Location. • : Uses unleaded solder.

【AMP BOARD】(COMPONENT SIDE)



• **Semiconductor Location**

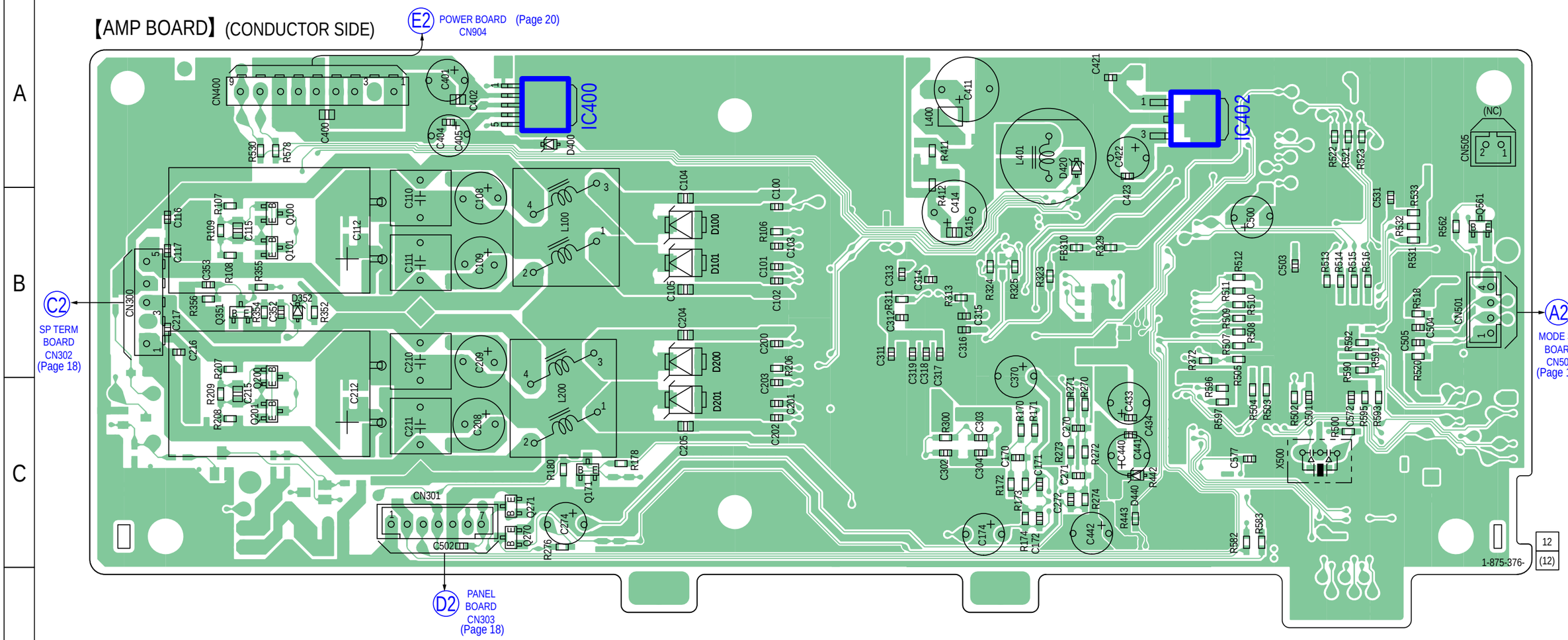
Ref. No.	Location	Ref. No.	Location
D351	B-3	IC502	B-1
D410	A-4		
D575	C-2	Q170	C-4
		Q350	A-7
IC100	B-5	Q352	A-7
IC200	B-5	Q355	B-4
IC300	B-4	Q370	B-3
IC301	C-4	Q560	B-1
IC302	C-3	Q575	C-2
IC303	B-4	Q576	C-2
IC401	A-4	Q580	C-2
IC403	B-3	Q581	C-2
IC404	C-3	Q582	C-2
IC500	B-2	Q583	C-2
IC501	C-2		

Note: Refer to “SUFFIX-11/SUFFIX-12 DISCRIMINATION OF AMP BOARD” (page 3) of the servicing notes for suffix-11 and suffix-12.

4-5. PRINTED WIRING BOARD - AMP Board (Conductor Side) (Suffix-12) -

• See page 11 for Circuit Boards Location. • : Uses unleaded solder.

【AMP BOARD】(CONDUCTOR SIDE)



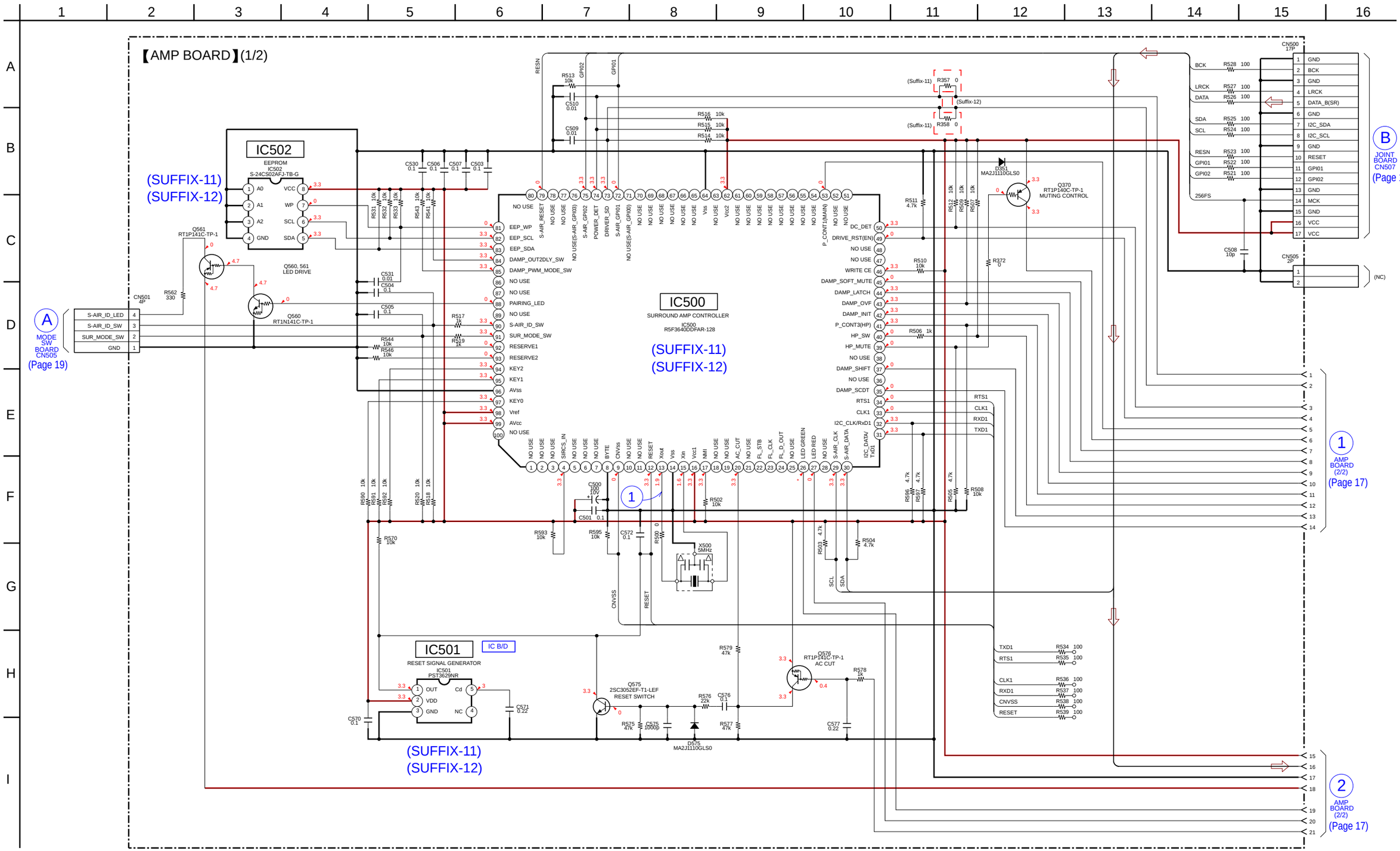
- **Semiconductor Location**

Ref. No.	Location
D100	B-4
D101	B-4
D200	B-4
D201	C-4
D352	B-2
D400	A-3
D420	A-6
D440	C-6
IC400	A-3
IC402	A-7
Q100	B-2
Q101	B-2
Q171	C-3
Q200	C-2
Q201	C-2
Q270	C-3
Q271	C-3
Q351	B-2
Q561	B-8

Note: Refer to “SUFFIX-11/SUFFIX-12 DISCRIMINATION OF AMP BOARD” (page 3) of the servicing notes for suffix-11 and suffix-12.

4-6. SCHEMATIC DIAGRAM - AMP Board (1/2) -

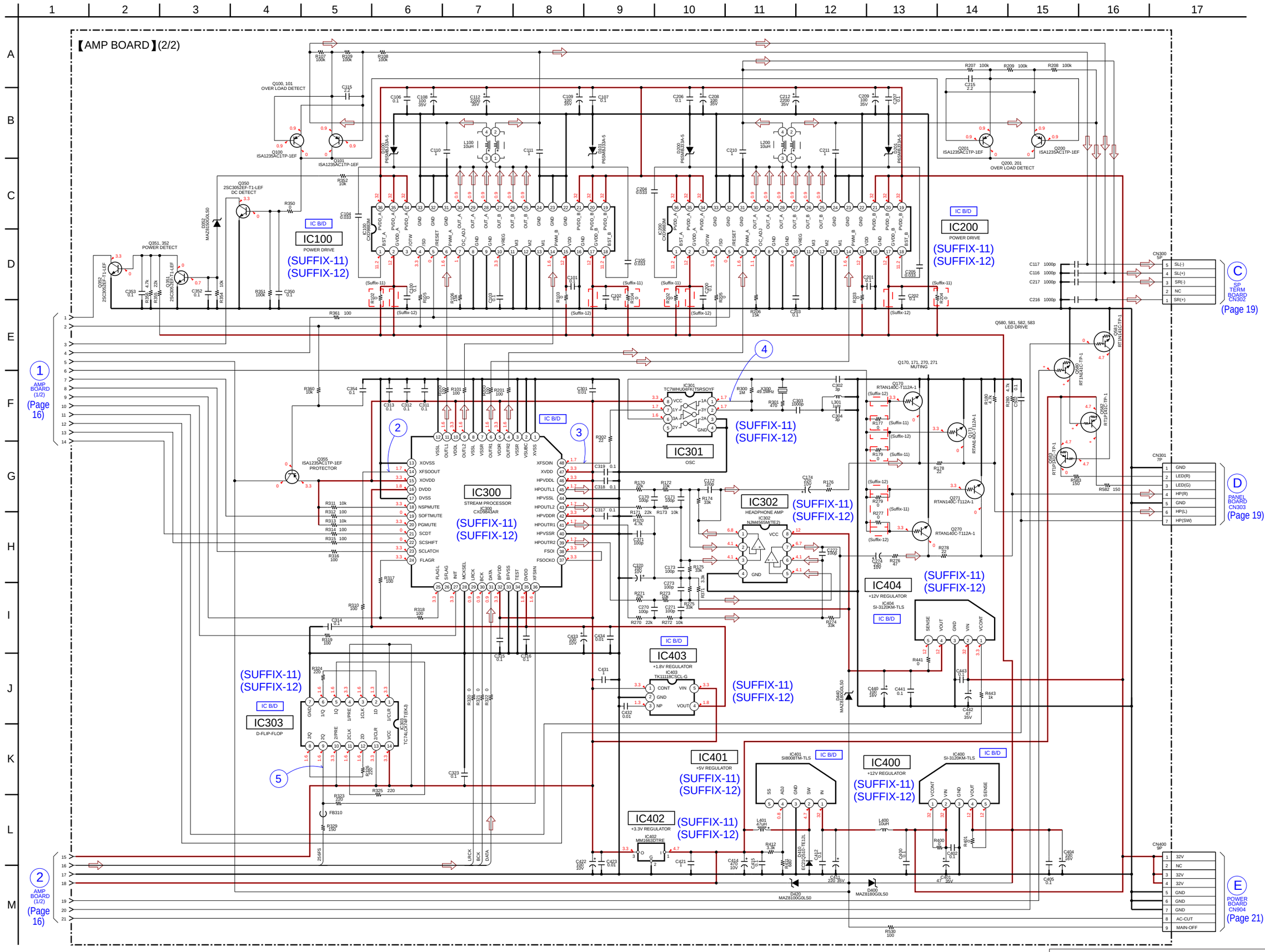
• See page 11 for waveforms. • See page 22 for IC Block Diagrams. • See page 24 for IC Pin Function Description.



Note: Refer to “SUFFIX-11/SUFFIX-12 DISCRIMINATION OF AMP BOARD” (page 3) of the servicing notes for suffix-11 and suffix-12.

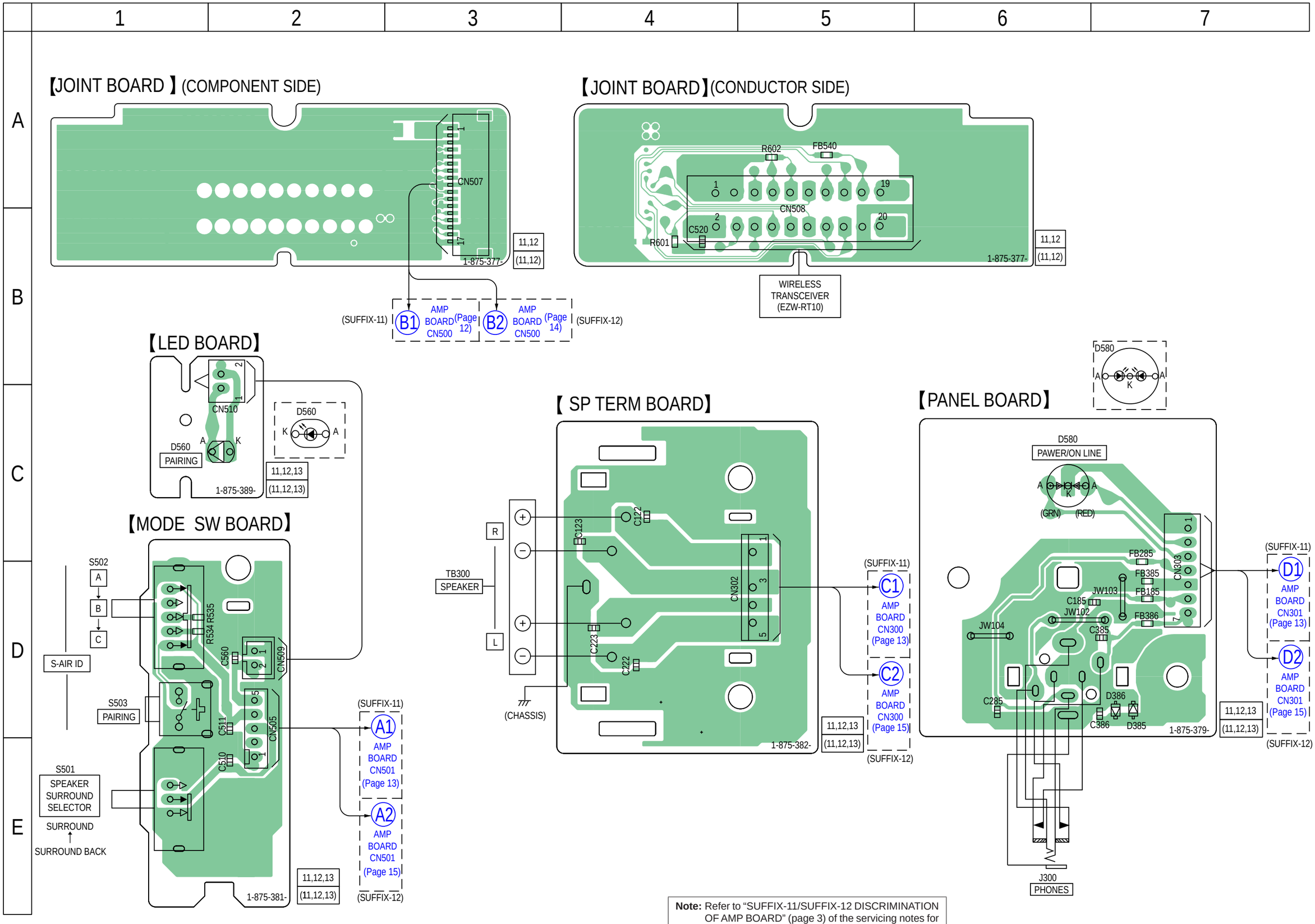
4-7. SCHEMATIC DIAGRAM - AMP Board (2/2) -

• See page 11 for waveforms. • See page 22 for IC Block Diagrams.



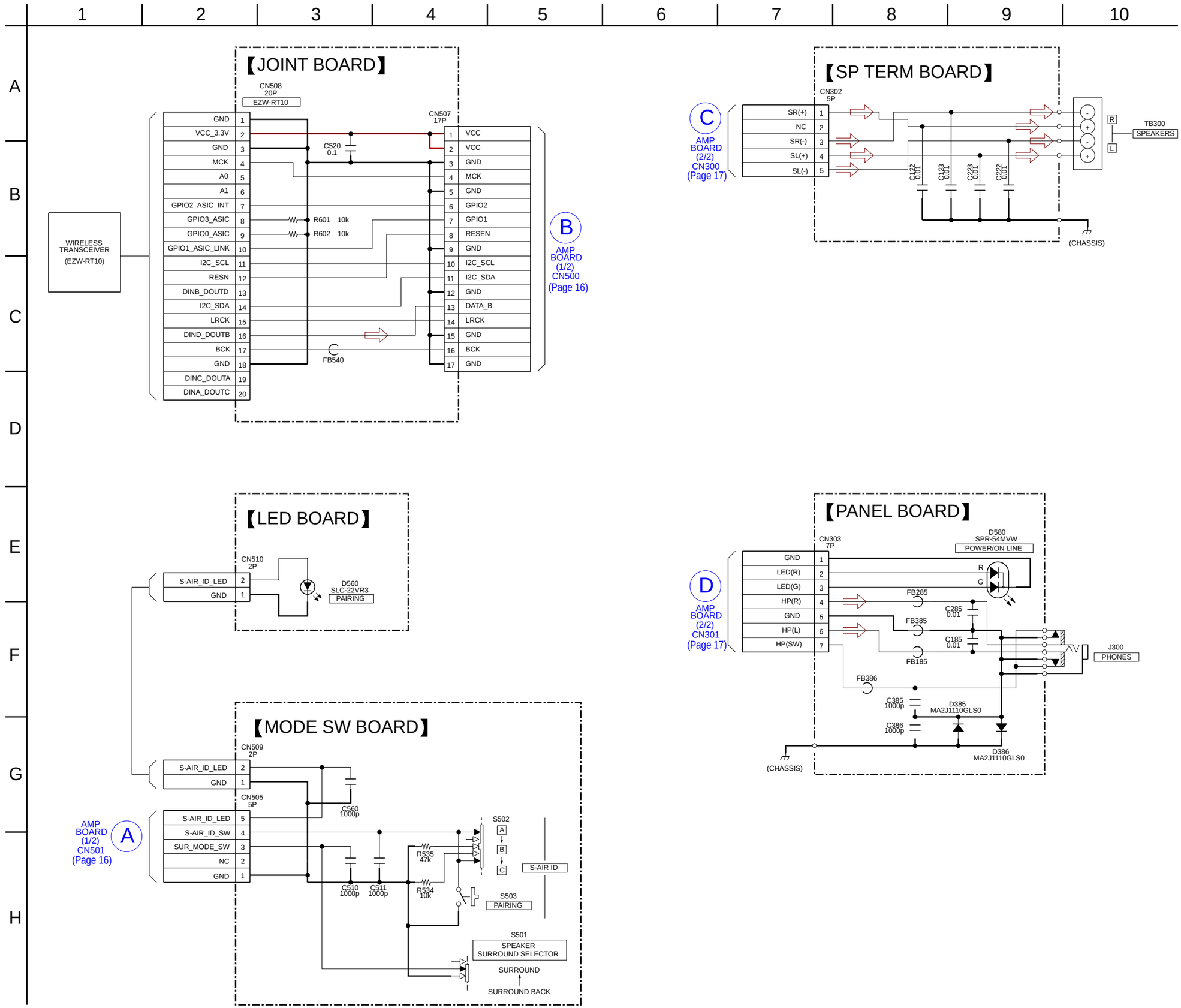
Note: Refer to "SUFFIX-11/SUFFIX-12 DISCRIMINATION OF AMP BOARD" (page 3) of the servicing notes for suffix-11 and suffix-12.

4-8. PRINTED WIRING BOARDS - PANEL Section - • See page 11 for Circuit Boards Location. • : Uses unleaded solder.



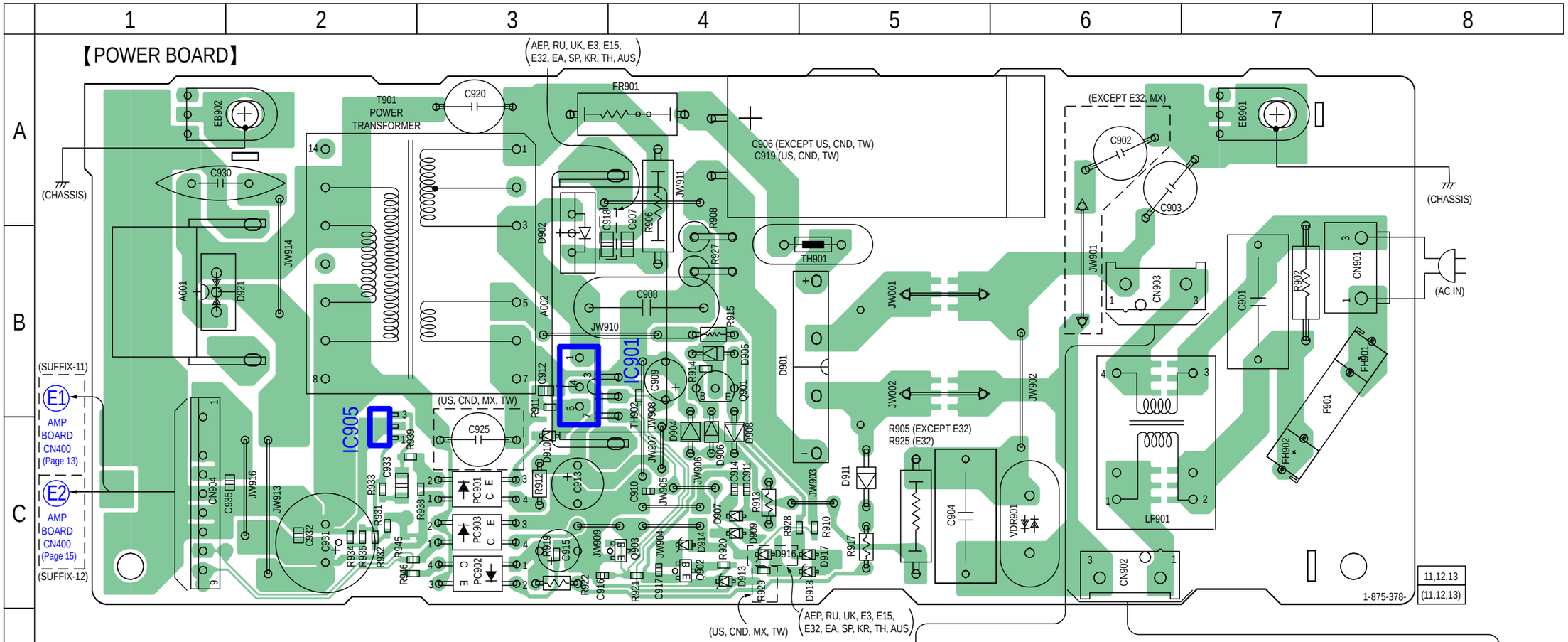
Note: Refer to “SUFFIX-11/SUFFIX-12 DISCRIMINATION OF AMP BOARD” (page 3) of the servicing notes for suffix-11 and suffix-12.

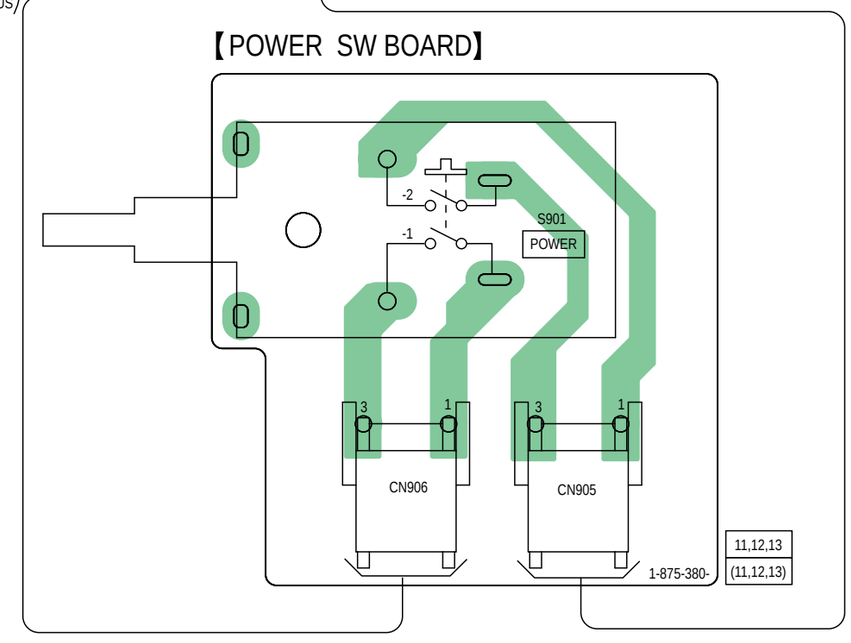
4-9. SCHEMATIC DIAGRAM - PANEL Section -



4-10. PRINTED WIRING BOARDS - POWER Section -

• See page 11 for Circuit Boards Location. • : Uses unleaded solder.





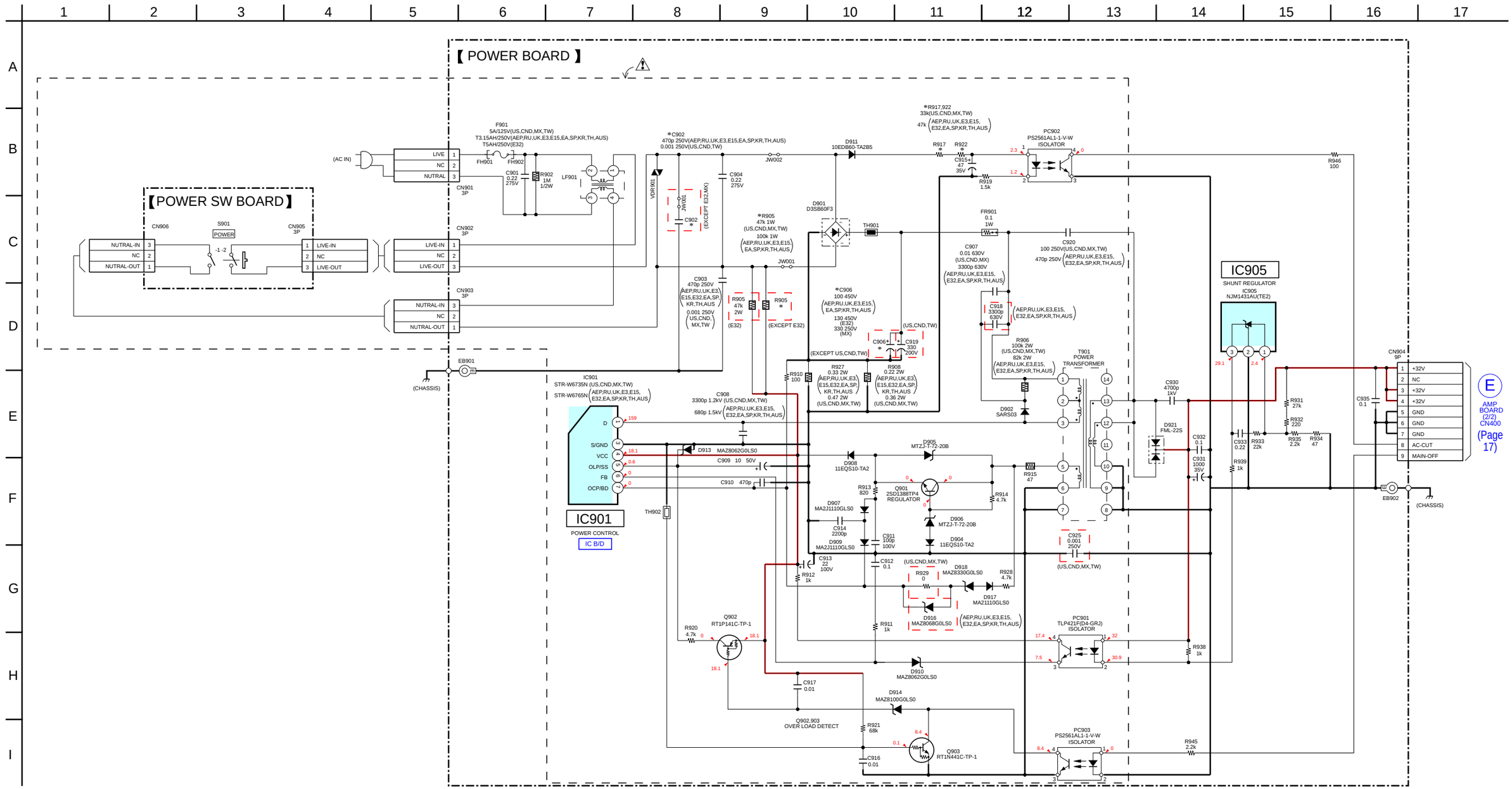
- **Semiconductor Location**

Ref. No.	Location
D901	B-5
D902	B-3
D904	C-4
D905	B-4
D906	C-4
D907	C-4
D908	C-4
D909	C-4
D910	C-3
D911	C-5
D913	C-4
D914	C-4
D916	C-4
D917	C-5
D918	C-5
D921	B-1
IC901	B-3
IC905	C-2
PC901	C-3
PC902	C-3
PC903	C-3
Q901	B-4
Q902	C-4
Q903	C-4

Note: Refer to “SUFFIX-11/SUFFIX-12 DISCRIMINATION OF AMP BOARD” (page 3) of the servicing notes for suffix-11 and suffix-12.

4-11. SCHEMATIC DIAGRAM - POWER Section -

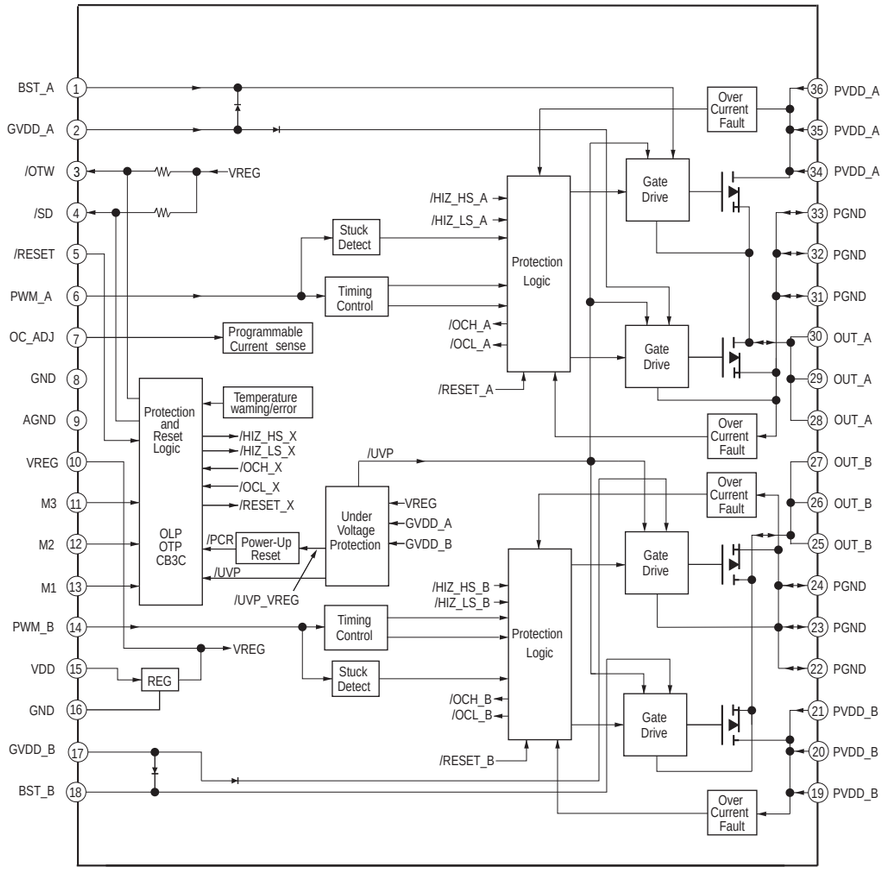
• See page 22 for IC Block Diagrams.



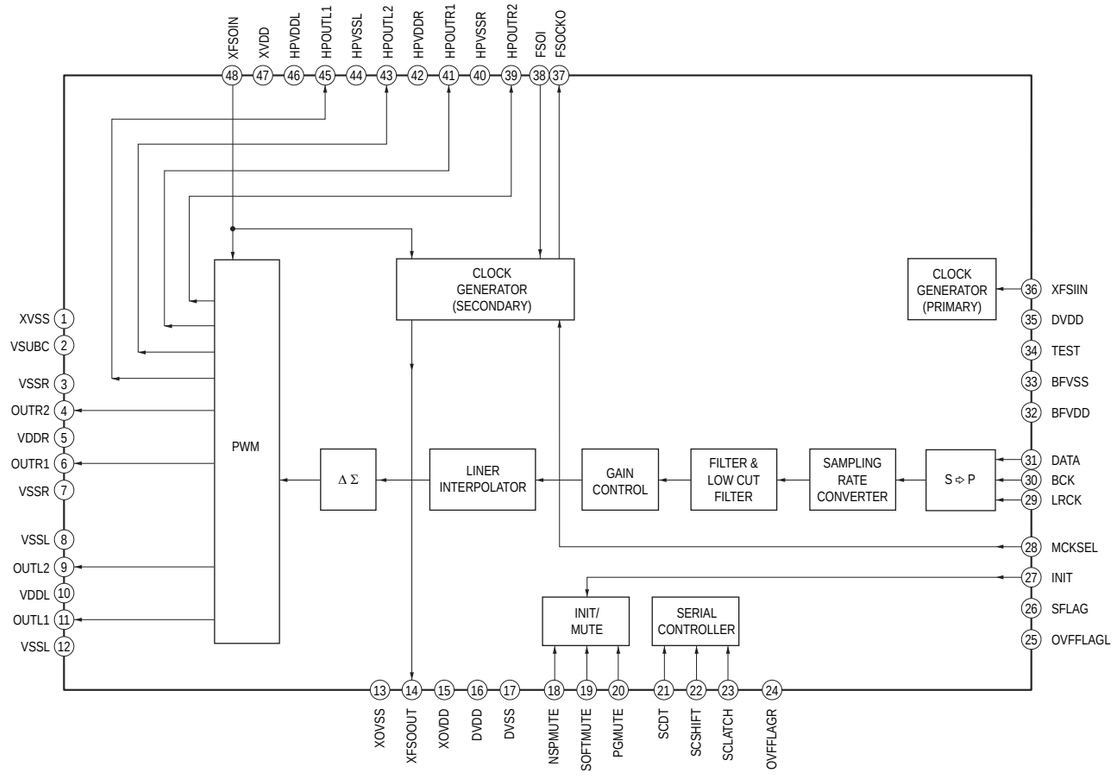
- **IC Block Diagrams**

– AMP Board –

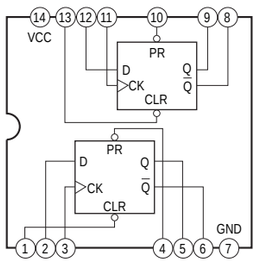
IC100, 200 CXD9883M



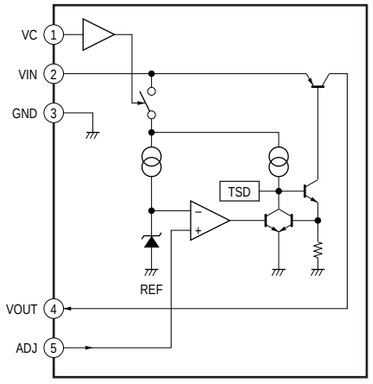
IC300 CXD9843AR



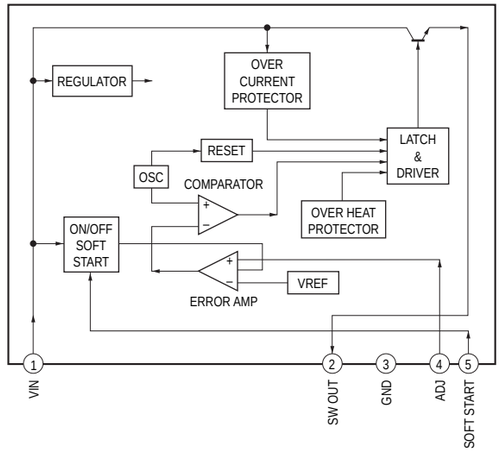
IC303 TC74LCX74FT (EKJ)



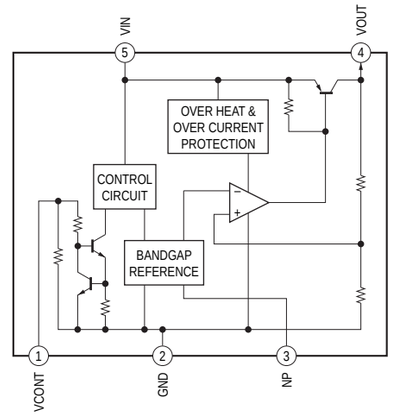
IC400, 404 SI-3120KM-TL



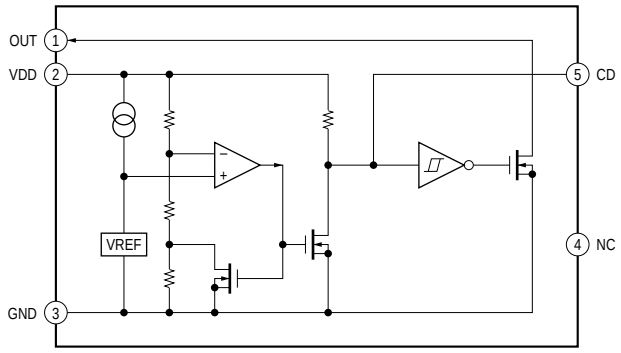
IC401 SI8008TM-TL



IC403 TK11118CSCL-G

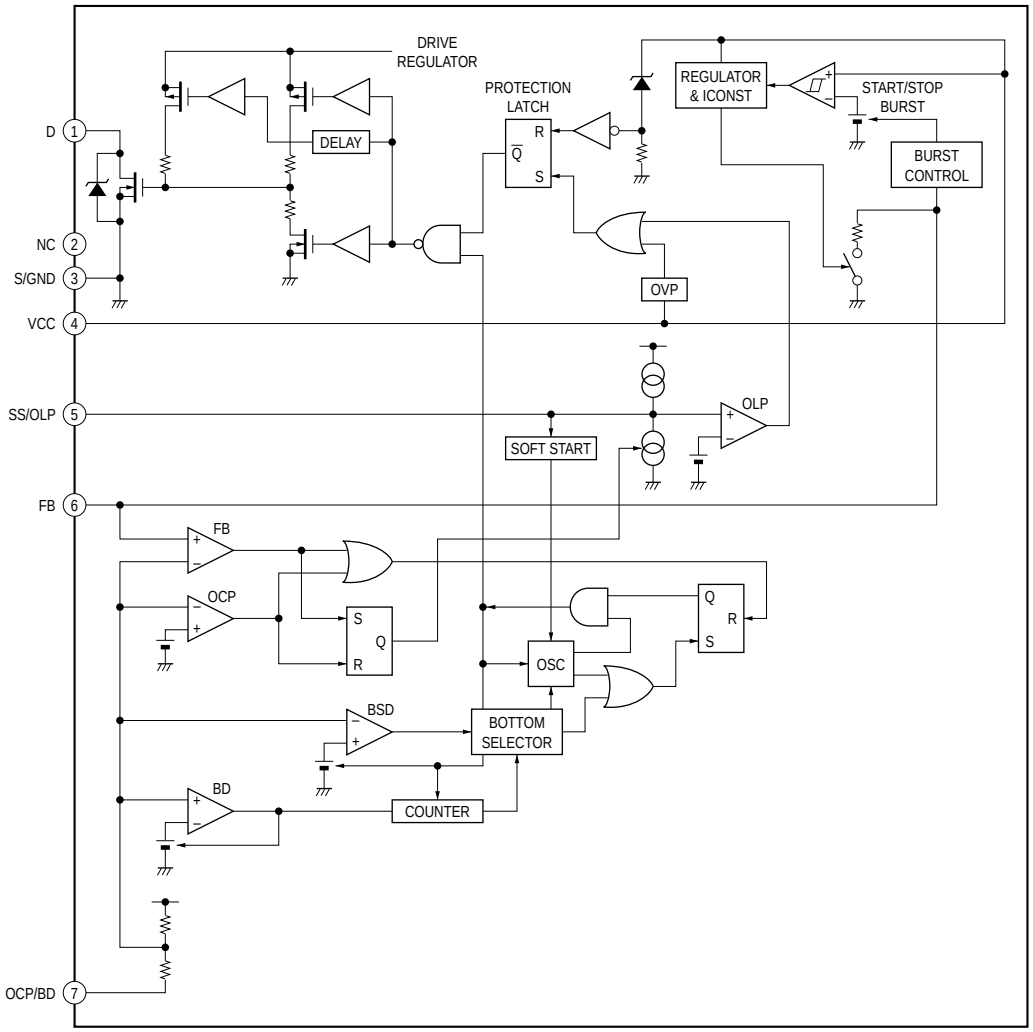


IC501 PST3629NR



– POWER Board –

IC901 STR-W6735N (US, CND, MX, TW), STR-W6765N (AEP, RU, UK, E3, E15, E32, SP, KR, TH, AUS)



- Abbreviation

AUS	: Australian model	MX	: Mexican model
CND	: Canadian model	RU	: Russian model
E3	: 240V AC area in E model	SP	: Singapore model
E15	: Iranian model	TH	: Thai model
E32	: 110V – 240V AC area in E model	TW	: Taiwan model
KR	: Korean model		

• **IC Pin Function Description**

AMP BOARD IC500 R5F3640DDFAR-128 (SURROUND AMP CONTROLLER)

Pin No.	Pin Name	I/O	Description
1 to 3	NO USE	-	Not used
4	SIRCS_IN	I	Sircs signal input terminal (for debug)
5 to 7	NO USE	-	Not used
8	BYTE	I	External data bus input terminal Fixed at "L" in this set
9	CNVss	I	Processor mode change signal input terminal "L": single chip mode
10, 11	NO USE	-	Not used
12	RESET	I	System reset signal input terminal "L": reset
13	Xout	O	Main clock output terminal (5MHz)
14	Vss	-	Ground terminal
15	Xin	I	Main clock input terminal (5MHz)
16	Vcc1	-	Power supply terminal (+3.3V)
17	NMI	I	Non-maskable interrupt signal input terminal Fixed at "H" in this set
18, 19	NO USE	-	Not used
20	AC_CUT	I	AC cut detection signal input terminal "L": AC cut
21	NO USE	-	Not used
22	FL_STB	O	Chip select signal output terminal (for debug)
23	FL_CLK	O	Serial clock signal output terminal (for debug)
24	FL_D_OUT	O	Serial data output terminal (for debug)
25	NO USE	-	Not used
26	LED_GREEN	O	LED drive signal output of the data receive status indicator "H": LED (green) on
27	LED_RED	O	LED drive signal output of the data non receive status indicator "H": LED (red) on
28	NO USE	-	Not used
29	S-AIR_CLK	I/O	S-AIR serial clock signal input/output with the EZW-RT10
30	S-AIR_DATA	I/O	S-AIR serial data input/output with the EZW-RT10
31	I2C_DATA / TxD1	I/O	IIC serial data input/output terminal (for debug)
32	I2C_CLK / RxD1	I/O	IIC serial clock signal input/output terminal (for debug)
33	CLK1	O	Clock signal output terminal for flash write
34	RTS1	O	RTS signal output terminal for flash write
35	DAMP_SCDT	O	Serial data output to the stream processor
36	NO USE	-	Not used
37	DAMP_SHIFT	O	Shift clock signal output to the stream processor
38	NO USE	-	Not used
39	HP_MUTE	O	Headphone muting on/off control signal output terminal "L": muting on
40	HP_SW	I	Headphone detection signal input terminal "H": headphone insert
41	P_CONT3 (HP)	O	Regulator on/off control signal output terminal for headphone "H": on
42	DAMP_INIT	O	Reset signal output to the stream processor "L": reset
43	DAMP_OVF	I	Overflow detection signal input from the stream processor "L": overflow
44	DAMP_LATCH	O	Latch control signal output to the stream processor
45	DAMP_SOFT_MUTE	O	Soft muting on/off control signal output to the stream processor "L": muting on
46	WRITE CE	I	Chip enable signal input terminal for flash write Fixed at "H" in this set
47, 48	NO USE	-	Not used
49	DRIVE_RST (EN)	O	Reset signal output to the power driver "L": reset
50	DC_DET	I	DC detction signal input terminal
51, 52	NO USE	-	Not used
53	P_CONT1 (MAIN)	O	Main power supply on/off control signal output terminal "L": on
54 to 61	NO USE	-	Not used
62	Vcc2	-	Power supply terminal (+3.3V)
63	NO USE	-	Not used
64	Vss	-	Ground terminal
65 to 70	NO USE	-	Not used
71	NO USE (S-AIR_ GPIO0)	-	Not used
72	S-AIR_GPIO1	I	S-AIR sync status signal input from the EZW-RT10
73	DRIVE_SD	I	Shut down signal input from the power driver "L": shut down
74	POWER_DET	I	Power detection signal input terminal
75	S-AIR_GPIO2	I	S-AIR interrupt signal input from the EZW-RT10
76	NO USE (S-AIR_ GPIO3)	-	Not used

Pin No.	Pin Name	I/O	Description
77, 78	NO USE	-	Not used
79	S-AIR_RESET	O	S-AIR reset signal output to the EZW-RT10 "L": reset
80	NO USE	-	Not used
81	EEP_WP	O	Write protect signal output to the EEPROM "H": protect
82	EEP_SCL	I/O	Serial clock signal input/output with the EEPROM
83	EEP_SDA	I/O	Serial data input/output with the EEPROM
84	DAMP_OUT2DLY_SW	I	Clock delay switch input terminal Fixed at "H" in this set
85	DAMP_PWM_MODE_SW	I	Setting terminal for the PWM mode output switch Fixed at "H" in this set
86, 87	NO USE	-	Not used
88	PAIRING_LED	O	LED drive signal output of the pairing indicator "H": LED on
89	NO USE	-	Not used
90	S-AIR_ID_SW	I	S-AIR ID select signal input terminal
91	SUR_MODE_SW	I	Surround mode select signal input terminal "L": surround, "H": surround back
92	RESERVE1	I	Destination select signal input terminal Fixed at "L" in this set
93	RESERVE2	I	Model select signal input terminal Fixed at "L" in this set
94	KEY2	I	Key2 input terminal (for debug)
95	KEY1	I	Key1 input terminal (for debug)
96	AVss	-	Ground terminal
97	KEY0	I	Key0 input terminal (for debug)
98	Vref	I	Reference voltage (+3.3V) input terminal
99	AVcc	-	Power supply terminal (+3.3V)
100	NO USE	-	Not used

SECTION 5
EXPLODED VIEWS

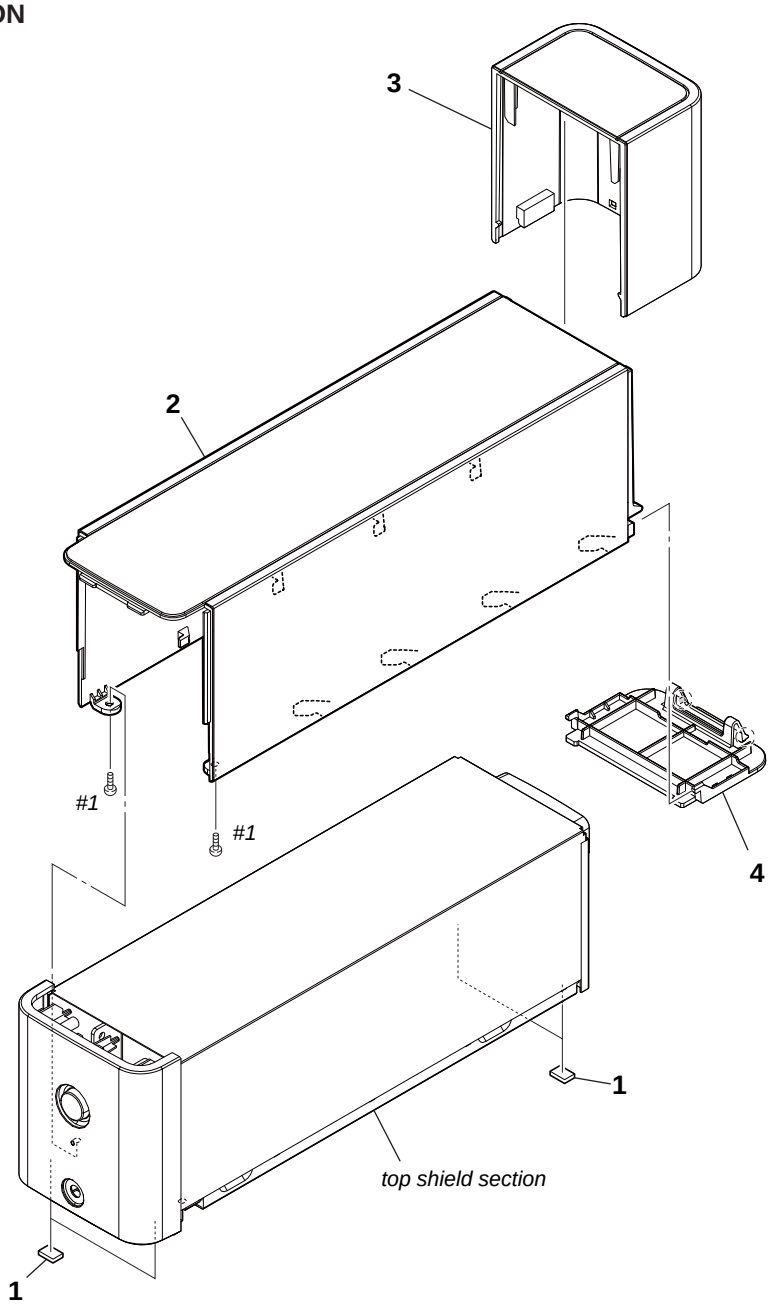
Note:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Color Indication of Appearance Parts Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ Parts Color ↑ Cabinet's Color
- Accessories are given in the last of the electrical parts list.
- Abbreviation
  AUS : Australian model
  CND : Canadian model
  E3 : 240V AC area in E model
  E15 : Iranian model
  E32 : 110V – 240V AC area in E model
  EA : Saudi Arabia model
  KR : Korean model
  MX : Mexican model
  RU : Russian model
  SP : Singapore model
  TH : Thai model
  TW : Taiwan model

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

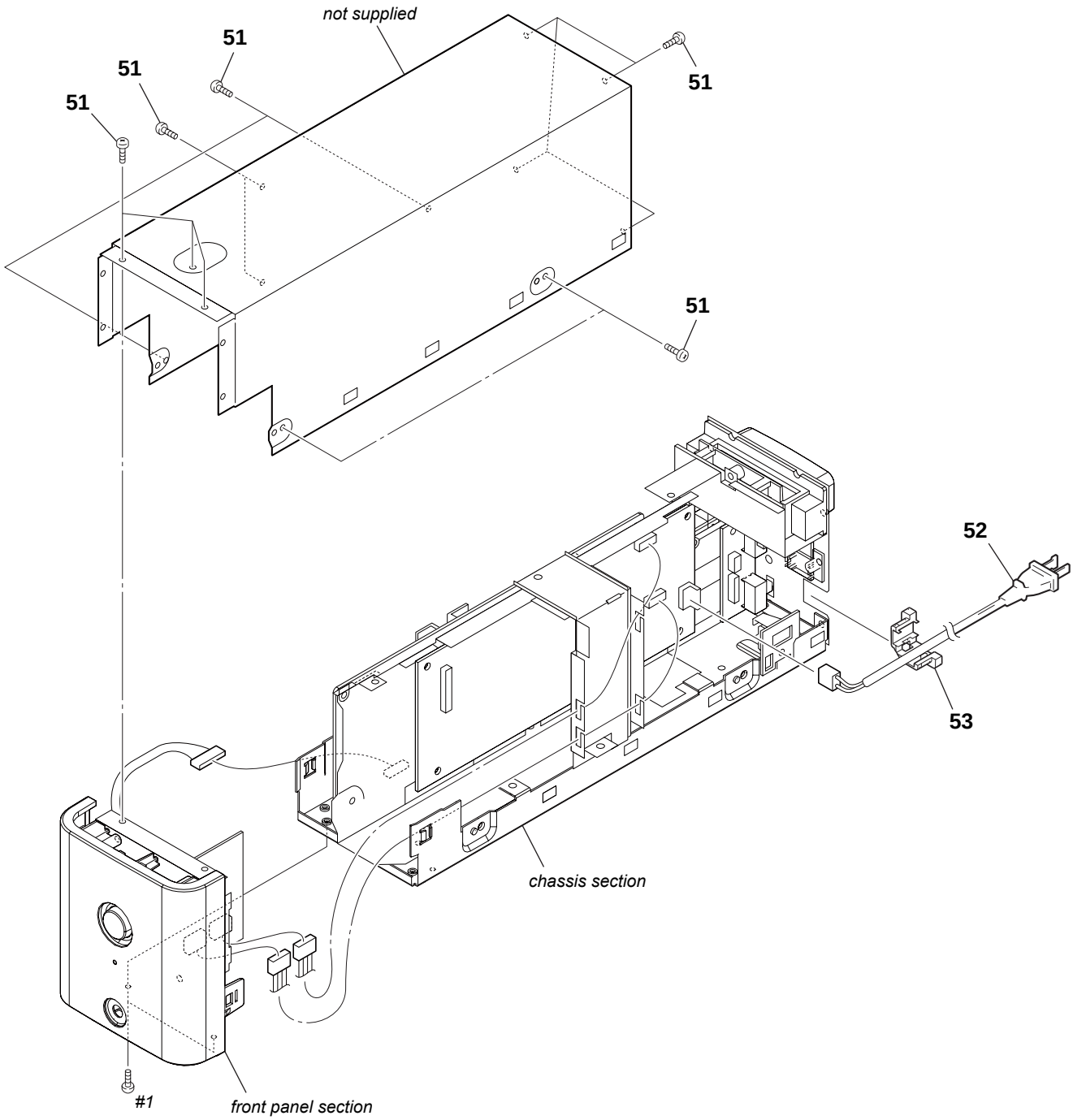
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

5-1. COVER SECTION



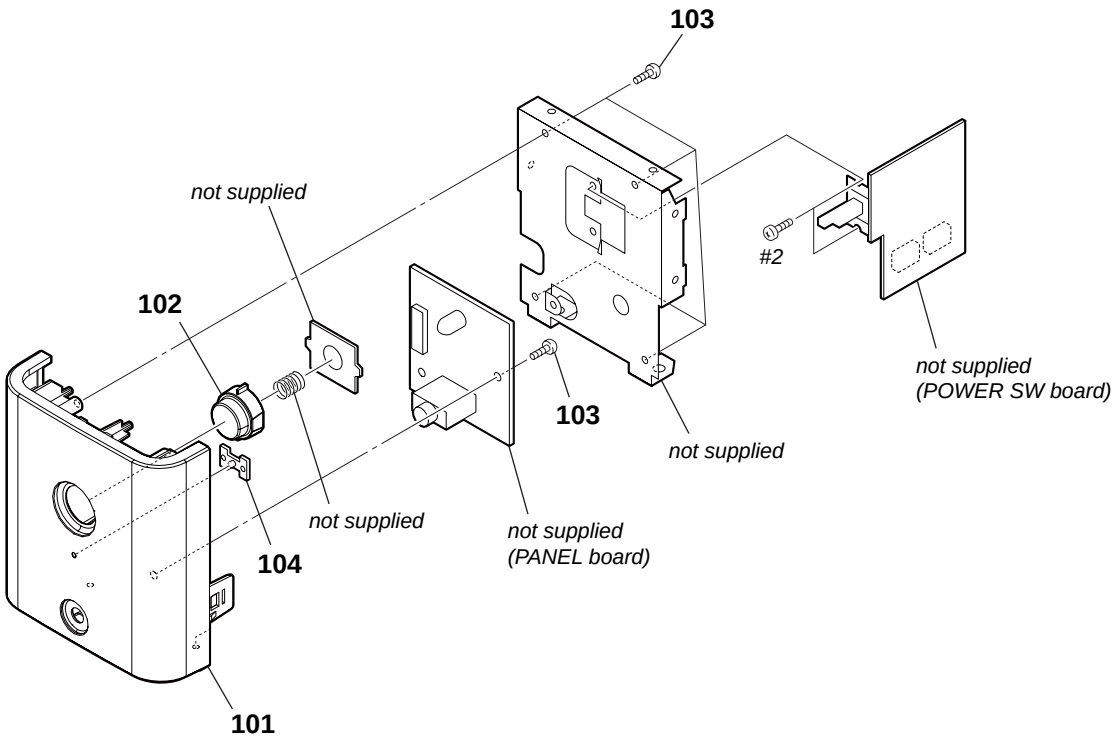
Ref. No.	Part No.	Description	Remark
1	2-895-066-11	FOOT	
2	3-277-779-01	CASE	
3	3-277-783-01	COVER (CORD) (Speaker cord cover)	
4	3-277-784-01	BOTTOM COVER (CORD) (Speaker cord holder)	
#1	7-685-871-01	SCREW +BVTT 3X6 (S)	

5-2. TOP SHEILD SECTION



Ref. No.	Part No.	Description	Remark
51	3-077-331-21	+BV3 (3-CR)	
⚠ 52	1-769-079-61	CORD, POWER (KR)	
⚠ 52	1-827-597-42	CORD, POWER (TW)	
⚠ 52	1-834-288-21	POWER-SUPPLY CORD (TH)	
⚠ 52	1-834-966-21	CORD, POWER (AEP, RU, E3, E15, E32, EA, SP)	
⚠ 52	1-834-967-21	CORD, POWER (AUS)	
⚠ 52	1-834-978-11	CORD, POWER (US, CND, MX)	
⚠ 52	1-835-078-21	CORD, POWER (UK)	
53	3-703-244-00	BUSHING (2104), CORD (EXCEPT TH)	
53	4-916-783-01	BUSHING, CORD (TH)	
#1	7-685-871-01	SCREW +BVTT 3X6 (S)	

5-3. FRONT PANEL SECTION

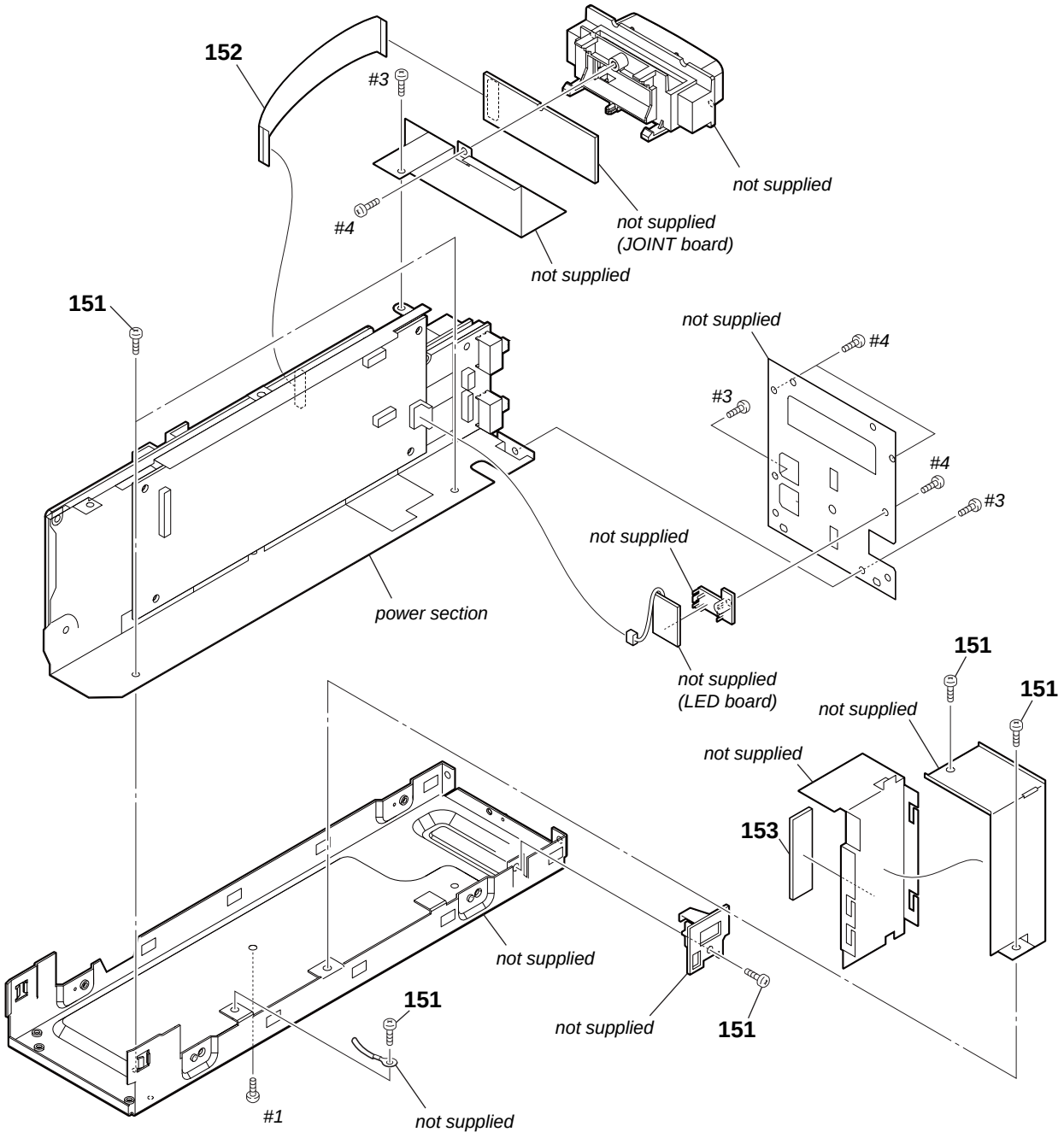


Note: The front panel (Ref.No.101) and the power indicator (Ref. No.104) are welded.
Please exchange both at the same time when you exchange the front panel or the power indicators.
Please give the welding just like the state before it exchanges it when you install the power indicator in the front panel.

Ref. No.	Part No.	Description	Remark
101	3-277-778-01	PANEL, FRONT (US, CND)	
101	3-277-778-11	PANEL, FRONT (EXCEPT US, CND)	
102	3-277-780-01	BUTTON (POWER)	
103	3-087-053-01	+BVTP2.6 (3CR)	

Ref. No.	Part No.	Description	Remark
104	2-149-422-02	INDICATOR, POWER	
#2	7-685-133-19	SCREW +P 2.6X6 TYPE 2 NON-SLIT	

5-4. CHASSIS SECTION

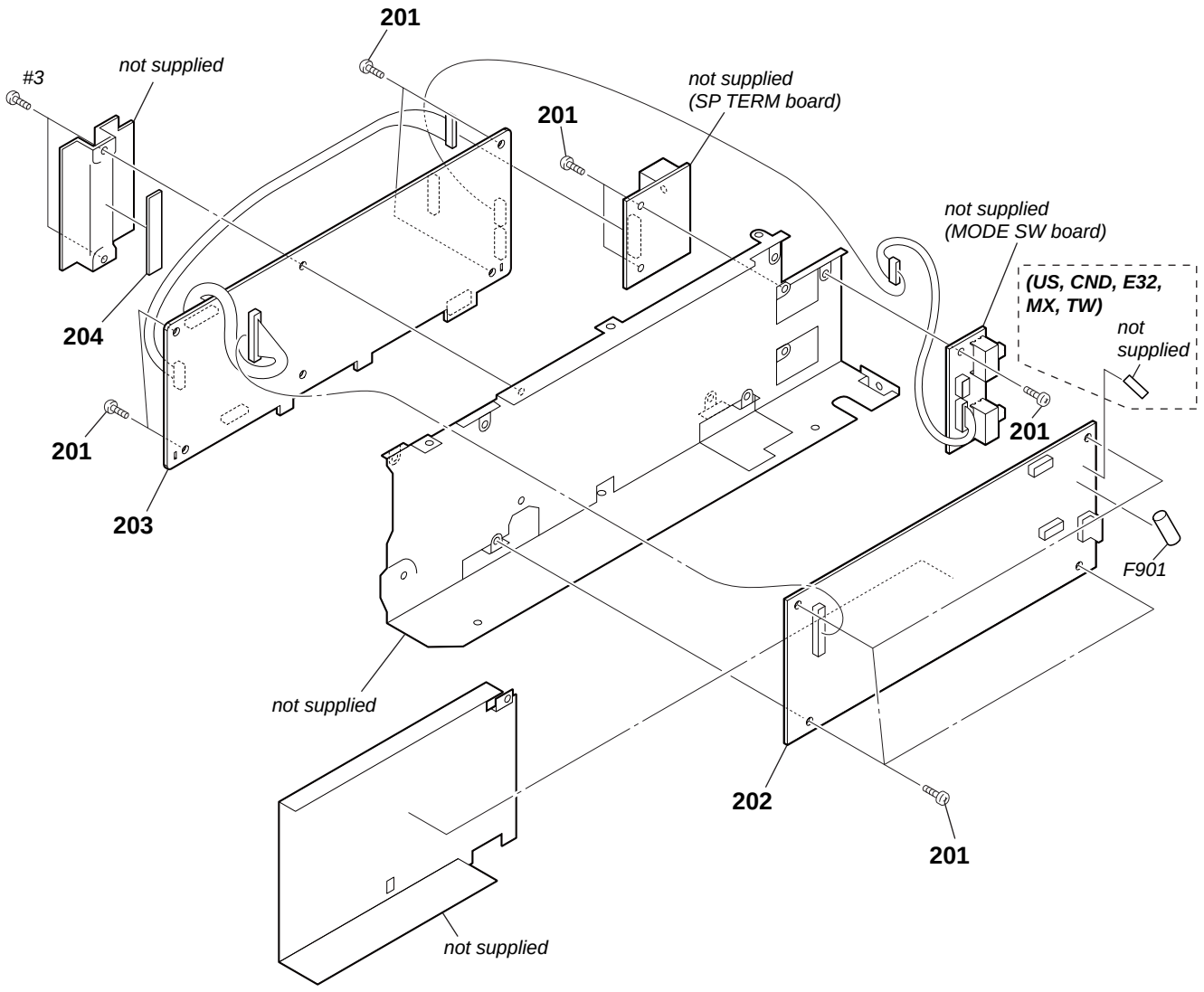


Note: If wire (flat type) is replaced, install it after bending it in the same from as that before replacement.

Ref. No.	Part No.	Description	Remark
151	3-077-331-21	+BV3 (3-CR)	
152	1-823-718-11	WIRE (FLAT TYPE) (17 CORE)	
153	4-254-954-01	SHEET (DMB), RADIATION	
#1	7-685-871-01	SCREW +BVTT 3X6 (S)	

Ref. No.	Part No.	Description	Remark
#3	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
#4	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3	

5-5. POWER SECTION



Ref. No.	Part No.	Description	Remark
201	3-077-331-21	+BV3 (3-CR)	
202	A-1433-494-A	POWER BOARD, COMPLETE (US, CND, TW)	
202	A-1433-503-A	POWER BOARD, COMPLETE (AEP, RU, UK, E3, E15, EA, SP, KR, TH, AUS)	
202	A-1433-507-A	POWER BOARD, COMPLETE (E32)	
202	A-1433-511-A	POWER BOARD, COMPLETE (MX)	
203	A-1433-491-A	AMP BOARD, COMPLETE	
204	2-597-972-21	SHEET, RADIATION (EXCEPT US)	
204	2-597-972-61	SHEET, RADIATION (US)	

Ref. No.	Part No.	Description	Remark
#3	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
⚠ F901	1-533-453-12	FUSE, GLASS TUBE (DIA. 5) (5A/125V)	(US, CND, MX, TW)
⚠ F901	1-576-230-51	FUSE (H.B.C.) (T3.15AH/250V)	(AEP, RU, UK, E3, E15, EA, SP, KR, TH, AUS)
⚠ F901	1-576-232-51	FUSE (H.B.C.) (T5AH/250V) (E32)	

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.
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- CAPACITORS
  uF: µF
- COILS
  uH: µH

- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable

- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . , uPA. . , µPA. . ,
  uPB. . : µPB. . , uPC. . , µPC. . ,
  uPD. . : µPD. .
- Abbreviation
  AUS : Australian model
  CND : Canadian model
  E3 : 240V AC area in E model
  E15 : Iranian model
  E32 : 110V – 240V AC area in E model
  EA : Saudi Arabia model
  KR : Korean model
  MX : Mexican model
  RU : Russian model
  SP : Singapore model
  TH : Thai model
  TW : Taiwan model

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.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remark
	A-1433-491-A	AMP BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C100	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C101	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C102	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C103	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C104	1-115-185-11	CERAMIC CHIP	0.033uF	10%	50V
C105	1-115-185-11	CERAMIC CHIP	0.033uF	10%	50V
C106	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C107	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C108	1-112-246-11	ELECT	100uF	20%	35V
C109	1-112-246-11	ELECT	100uF	20%	35V
C110	1-114-885-51	FILM	1uF	5%	50V
C111	1-114-885-51	FILM	1uF	5%	50V
C112	1-107-898-21	ELECT	2200uF	20%	35V
C115	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C116	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C117	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C170	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C171	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C172	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C173	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C174	1-126-923-91	ELECT	220uF	20%	10V
C200	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C201	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C202	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C203	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C204	1-115-185-11	CERAMIC CHIP	0.033uF	10%	50V
C205	1-115-185-11	CERAMIC CHIP	0.033uF	10%	50V
C206	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C207	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C208	1-112-246-11	ELECT	100uF	20%	35V
C209	1-112-246-11	ELECT	100uF	20%	35V
C210	1-114-885-51	FILM	1uF	5%	50V
C211	1-114-885-51	FILM	1uF	5%	50V
C212	1-107-898-21	ELECT	2200uF	20%	35V
C215	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C216	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V

Ref. No.	Part No.	Description			Remark
C217	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C270	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C271	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C272	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C273	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C274	1-126-923-91	ELECT	220uF	20%	10V
C301	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C302	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V
C303	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C304	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V
C311	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C312	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C313	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C314	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C315	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C316	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C317	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C318	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C319	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C323	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C350	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C352	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C353	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C354	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C370	1-104-658-91	ELECT	100uF	20%	10V
C371	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C400	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C401	1-126-947-11	ELECT	47uF	20%	35V
C402	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C404	1-126-933-11	ELECT	100uF	20%	16V
C405	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C411	1-165-741-31	ELECT	220uF	20%	35V
C412	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C414	1-135-372-31	ELECT	470uF	20%	10V
C415	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C421	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C422	1-104-658-91	ELECT	100uF	20%	10V
C423	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C431	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C432	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V

AMP

Ref. No.	Part No.	Description			Remark
C433	1-104-658-91	ELECT	100uF	20%	10V
C434	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C440	1-126-933-11	ELECT	100uF	20%	16V
C441	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C442	1-126-947-11	ELECT	47uF	20%	35V
C443	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C500	1-104-658-91	ELECT	100uF	20%	10V
C501	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C502	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C503	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C504	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C505	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C506	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C507	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C508	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C509	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C510	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C530	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C531	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C570	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C571	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C572	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C575	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C576	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C577	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
		< CONNECTOR >			
CN301	1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P			
CN500	1-784-376-51	CONNECTOR, FFC/FPC 17P			
CN501	1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P			
CN505	1-564-704-41	PIN, CONNECTOR (SMALL TYPE) 2P			
		< DIODE >			
D100	6-500-885-01	DIODE P6SMBJ33A-5			
D101	6-500-885-01	DIODE P6SMBJ33A-5			
D200	6-500-885-01	DIODE P6SMBJ33A-5			
D201	6-500-885-01	DIODE P6SMBJ33A-5			
D351	6-501-817-01	DIODE MA2J1110GLS0			
D352	6-501-774-01	DIODE MAZ8150G0LS0			
D400	6-501-780-01	DIODE MAZ8180G0LS0			
D410	8-719-084-30	DIODE EC21QS10-TE12L			
D420	6-501-758-01	DIODE MAZ8100G0LS0			
D440	6-501-780-01	DIODE MAZ8180G0LS0			
D575	6-501-817-01	DIODE MA2J1110GLS0			
		< FERRITE BEAD >			
FB310	1-400-212-22	BEAD, FERRITE (CHIP) (1608)			
		< IC >			
IC100	6-708-921-01	IC CXD9883M			
IC200	6-708-921-01	IC CXD9883M			
IC300	6-707-939-01	IC CXD9843AR			
IC301	6-709-888-01	IC TC7WHU04FK (T5RSOYF			
IC302	8-759-710-97	IC NJM4565M-D			
IC303	6-707-856-01	IC TC74LCX74FT (EKJ)			
IC400	6-712-615-01	IC SI-3120KM-TLS			
IC401	6-712-617-01	IC SI8008TM-TLS			
IC402	6-708-742-01	IC MM1663DTRE			
IC403	6-702-300-01	IC TK11118CSCL-G			

Ref. No.	Part No.	Description			Remark
IC404	6-712-615-01	IC SI-3120KM-TLS			
IC500	A-1545-410-A	IC R5F3640DDFAR-128 (for SERVICE)			
IC501	6-701-680-01	IC PST3629NR			
IC502	6-710-820-01	IC S-24CS02AFJ-TB-G			
		< COIL >			
L100	1-457-579-11	INDUCTOR	10uH		
L200	1-457-579-11	INDUCTOR	10uH		
L301	1-412-939-11	INDUCTOR	1uH		
L400	1-414-398-11	INDUCTOR	10uH		
L401	1-400-424-11	INDUCTOR	47uH		
		< TRANSISTOR >			
Q100	6-551-696-01	TRANSISTOR	ISA1235AC1TP-1EF		
Q101	6-551-696-01	TRANSISTOR	ISA1235AC1TP-1EF		
Q170	6-551-863-01	TRANSISTOR	RTAN140C-T112A-1		
Q171	6-551-863-01	TRANSISTOR	RTAN140C-T112A-1		
Q200	6-551-696-01	TRANSISTOR	ISA1235AC1TP-1EF		
Q201	6-551-696-01	TRANSISTOR	ISA1235AC1TP-1EF		
Q270	6-551-863-01	TRANSISTOR	RTAN140C-T112A-1		
Q271	6-551-863-01	TRANSISTOR	RTAN140C-T112A-1		
Q350	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF		
Q351	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF		
Q352	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF		
Q355	6-551-696-01	TRANSISTOR	ISA1235AC1TP-1EF		
Q370	8-729-038-11	TRANSISTOR	RT1P140C-TP-1		
Q560	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q561	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q575	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF		
Q576	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q580	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q581	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q582	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q583	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
		< RESISTOR >			
R100	1-216-809-11	METAL CHIP	100	5%	1/10W
R101	1-216-809-11	METAL CHIP	100	5%	1/10W
R102	1-216-864-11	SHORT CHIP	0 (SUFFIX-11)		
R103	1-216-864-11	SHORT CHIP	0		
R104	1-216-864-11	SHORT CHIP	0 (SUFFIX-11)		
R105	1-216-864-11	SHORT CHIP	0		
R106	1-216-835-11	METAL CHIP	15K	5%	1/10W
R107	1-216-845-11	METAL CHIP	100K	5%	1/10W
R108	1-216-845-11	METAL CHIP	100K	5%	1/10W
R109	1-216-845-11	METAL CHIP	100K	5%	1/10W
R170	1-216-837-11	METAL CHIP	22K	5%	1/10W
R171	1-216-837-11	METAL CHIP	22K	5%	1/10W
R172	1-216-833-11	METAL CHIP	10K	5%	1/10W
R173	1-216-833-11	METAL CHIP	10K	5%	1/10W
R174	1-216-839-11	METAL CHIP	33K	5%	1/10W
R175	1-216-839-11	METAL CHIP	33K	5%	1/10W
R176	1-216-805-11	METAL CHIP	47	5%	1/10W
R177	1-216-864-11	SHORT CHIP	0 (SUFFIX-11)		
R178	1-216-801-11	METAL CHIP	22	5%	1/10W
R179	1-216-864-11	SHORT CHIP	0 (SUFFIX-11)		
R180	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R200	1-216-809-11	METAL CHIP	100	5%	1/10W
R201	1-216-809-11	METAL CHIP	100	5%	1/10W
R203	1-216-864-11	SHORT CHIP	0		
R205	1-216-864-11	SHORT CHIP	0		

Ref. No.	Part No.	Description			Remark
R206	1-216-835-11	METAL CHIP	15K	5%	1/10W
R207	1-216-845-11	METAL CHIP	100K	5%	1/10W
R208	1-216-845-11	METAL CHIP	100K	5%	1/10W
R209	1-216-845-11	METAL CHIP	100K	5%	1/10W
R270	1-216-837-11	METAL CHIP	22K	5%	1/10W
R271	1-216-837-11	METAL CHIP	22K	5%	1/10W
R272	1-216-833-11	METAL CHIP	10K	5%	1/10W
R273	1-216-833-11	METAL CHIP	10K	5%	1/10W
R274	1-216-839-11	METAL CHIP	33K	5%	1/10W
R275	1-216-839-11	METAL CHIP	33K	5%	1/10W
R276	1-216-805-11	METAL CHIP	47	5%	1/10W
R277	1-216-864-11	SHORT CHIP	0 (SUFFIX-11)		
R278	1-216-801-11	METAL CHIP	22	5%	1/10W
R279	1-216-864-11	SHORT CHIP	0 (SUFFIX-11)		
R280	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R300	1-216-857-11	METAL CHIP	1M	5%	1/10W
R301	1-216-817-11	METAL CHIP	470	5%	1/10W
R302	1-216-801-11	METAL CHIP	22	5%	1/10W
R310	1-216-809-11	METAL CHIP	100	5%	1/10W
R311	1-216-833-11	METAL CHIP	10K	5%	1/10W
R312	1-216-809-11	METAL CHIP	100	5%	1/10W
R313	1-216-833-11	METAL CHIP	10K	5%	1/10W
R314	1-216-809-11	METAL CHIP	100	5%	1/10W
R315	1-216-809-11	METAL CHIP	100	5%	1/10W
R316	1-216-809-11	METAL CHIP	100	5%	1/10W
R317	1-216-809-11	METAL CHIP	100	5%	1/10W
R318	1-216-809-11	METAL CHIP	100	5%	1/10W
R319	1-216-809-11	METAL CHIP	100	5%	1/10W
R320	1-216-864-11	SHORT CHIP	0		
R321	1-216-864-11	SHORT CHIP	0		
R322	1-216-864-11	SHORT CHIP	0		
R323	1-216-813-11	METAL CHIP	220	5%	1/10W
R324	1-216-813-11	METAL CHIP	220	5%	1/10W
R325	1-216-813-11	METAL CHIP	220	5%	1/10W
R326	1-216-813-11	METAL CHIP	220	5%	1/10W
R329	1-216-811-11	METAL CHIP	150	5%	1/10W
R350	1-216-864-11	SHORT CHIP	0		
R351	1-216-845-11	METAL CHIP	100K	5%	1/10W
R352	1-216-833-11	METAL CHIP	10K	5%	1/10W
R354	1-216-833-11	METAL CHIP	10K	5%	1/10W
R355	1-216-837-11	METAL CHIP	22K	5%	1/10W
R356	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R357	1-216-864-11	SHORT CHIP	0 (SUFFIX-11)		
R358	1-216-864-11	SHORT CHIP	0 (SUFFIX-11)		
R360	1-216-833-11	METAL CHIP	10K	5%	1/10W
R361	1-216-809-11	METAL CHIP	100	5%	1/10W
R370	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R371	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R372	1-216-864-11	SHORT CHIP	0		
R400	1-216-864-11	SHORT CHIP	0		
R401	1-216-864-11	SHORT CHIP	0		
R411	1-216-819-11	METAL CHIP	680	5%	1/10W
R412	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R441	1-216-864-11	SHORT CHIP	0		
R443	1-216-821-11	METAL CHIP	1K	5%	1/10W
R500	1-216-864-11	SHORT CHIP	0		
R502	1-216-833-11	METAL CHIP	10K	5%	1/10W
R503	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R504	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R505	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R506	1-216-821-11	METAL CHIP	1K	5%	1/10W
R507	1-216-833-11	METAL CHIP	10K	5%	1/10W
R508	1-216-833-11	METAL CHIP	10K	5%	1/10W
R509	1-216-833-11	METAL CHIP	10K	5%	1/10W
R510	1-216-833-11	METAL CHIP	10K	5%	1/10W
R511	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R512	1-216-833-11	METAL CHIP	10K	5%	1/10W
R513	1-216-833-11	METAL CHIP	10K	5%	1/10W
R514	1-216-833-11	METAL CHIP	10K	5%	1/10W
R515	1-216-833-11	METAL CHIP	10K	5%	1/10W
R516	1-216-833-11	METAL CHIP	10K	5%	1/10W
R517	1-216-821-11	METAL CHIP	1K	5%	1/10W
R518	1-216-833-11	METAL CHIP	10K	5%	1/10W
R519	1-216-821-11	METAL CHIP	1K	5%	1/10W
R520	1-216-833-11	METAL CHIP	10K	5%	1/10W
R521	1-216-809-11	METAL CHIP	100	5%	1/10W
R522	1-216-809-11	METAL CHIP	100	5%	1/10W
R523	1-216-809-11	METAL CHIP	100	5%	1/10W
R524	1-216-809-11	METAL CHIP	100	5%	1/10W
R525	1-216-809-11	METAL CHIP	100	5%	1/10W
R526	1-216-809-11	METAL CHIP	100	5%	1/10W
R527	1-216-809-11	METAL CHIP	100	5%	1/10W
R528	1-216-809-11	METAL CHIP	100	5%	1/10W
R530	1-216-809-11	METAL CHIP	100	5%	1/10W
R531	1-216-833-11	METAL CHIP	10K	5%	1/10W
R532	1-216-833-11	METAL CHIP	10K	5%	1/10W
R533	1-216-833-11	METAL CHIP	10K	5%	1/10W
R534	1-216-809-11	METAL CHIP	100	5%	1/10W
R535	1-216-809-11	METAL CHIP	100	5%	1/10W
R536	1-216-809-11	METAL CHIP	100	5%	1/10W
R537	1-216-809-11	METAL CHIP	100	5%	1/10W
R538	1-216-809-11	METAL CHIP	100	5%	1/10W
R539	1-216-809-11	METAL CHIP	100	5%	1/10W
R541	1-216-833-11	METAL CHIP	10K	5%	1/10W
R543	1-216-833-11	METAL CHIP	10K	5%	1/10W
R544	1-216-833-11	METAL CHIP	10K	5%	1/10W
R546	1-216-833-11	METAL CHIP	10K	5%	1/10W
R562	1-216-815-11	METAL CHIP	330	5%	1/10W
R570	1-216-833-11	METAL CHIP	10K	5%	1/10W
R575	1-216-841-11	METAL CHIP	47K	5%	1/10W
R576	1-216-837-11	METAL CHIP	22K	5%	1/10W
R577	1-216-841-11	METAL CHIP	47K	5%	1/10W
R578	1-216-821-11	METAL CHIP	1K	5%	1/10W
R579	1-216-841-11	METAL CHIP	47K	5%	1/10W
R582	1-216-811-11	METAL CHIP	150	5%	1/10W
R583	1-216-811-11	METAL CHIP	150	5%	1/10W
R590	1-216-833-11	METAL CHIP	10K	5%	1/10W
R591	1-216-833-11	METAL CHIP	10K	5%	1/10W
R592	1-216-833-11	METAL CHIP	10K	5%	1/10W
R593	1-216-833-11	METAL CHIP	10K	5%	1/10W
R595	1-216-833-11	METAL CHIP	10K	5%	1/10W
R596	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R597	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
		< VIBRATOR >			
X300	1-814-108-21	VIBRATOR, CRYSTAL (49.1MHz)			
X500	1-795-058-21	VIBRATOR, CERAMIC (5MHz)			

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TA-SA100WR

Ver. 1.2

JOINT **LED** **MODE SW** **PANEL** **POWER**

Ref. No.	Part No.	Description			Remark
		JOINT BOARD			
		**********			
		< CAPACITOR >			
C520	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		< CONNECTOR >			
CN507	1-784-869-51	CONNECTOR, FFC (LIF (NON-ZIF)) 17P			
CN508	1-821-746-11	CONNECTOR, CARD EDGE 20P (EZW-RT10)			
		< FERRITE BEAD >			
FB540	1-400-040-22	BEAD, FERRITE (CHIP) (1608)			
		< RESISTOR >			
R601	1-216-833-11	METAL CHIP	10K	5%	1/10W
R602	1-216-833-11	METAL CHIP	10K	5%	1/10W
**********					
		LED BOARD			
		**********			
		< LED >			
D560	8-719-941-07	LED SLC-22VR3 (PAIRING)			
**********					
		MODE SW BOARD			
		**********			
		< CAPACITOR >			
C510	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C511	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C560	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
		< CONNECTOR >			
CN509	1-564-704-41	PIN, CONNECTOR (SMALL TYPE) 2P			
		< RESISTOR >			
R534	1-216-833-11	METAL CHIP	10K	5%	1/10W
R535	1-216-841-11	METAL CHIP	47K	5%	1/10W
		< SWITCH >			
S501	1-798-107-11	SWITCH, SLIDE (SPEAKER, SURROUND SELECTOR)			
S502	1-798-148-11	SWITCH, SLIDE (S-AIR ID, A, B, C)			
S503	1-692-431-21	SWITCH, TACTILE (S-AIR ID, PAIRING)			
**********					
		PANEL BOARD			
		**********			
		< CAPACITOR >			
C185	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C285	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C385	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C386	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
		< DIODE >			
D385	6-501-817-01	DIODE MA2J1110GLS0			
D386	6-501-817-01	DIODE MA2J1110GLS0			
D580	8-719-920-55	LED SPR-54MVW (POWER/ON LINE)			

Ref. No.	Part No.	Description			Remark
		< FERRITE BEAD >			
FB185	1-500-236-22	BEAD, FERRITE (CHIP) (1608)			
FB285	1-500-236-22	BEAD, FERRITE (CHIP) (1608)			
FB385	1-500-236-22	BEAD, FERRITE (CHIP) (1608)			
FB386	1-500-236-22	BEAD, FERRITE (CHIP) (1608)			
		< JACK >			
J300	1-819-878-51	JACK (PHONES)			
**********					
	A-1433-494-A	POWER BOARD, COMPLETE (US, CND, TW)			
	A-1433-503-A	POWER BOARD, COMPLETE (AEP, RU, UK, E3, E15, EA, SP, KR, TH, AUS)			
	A-1433-507-A	POWER BOARD, COMPLETE (E32)			
	A-1433-511-A	POWER BOARD, COMPLETE (MX)			
		**********			
	7-685-645-79	SCREW +BVTP 3X6 TYPE2 IT-3			
		< CAPACITOR >			
⚠ C901	1-165-529-11	MYLAR	0.22uF	10	275V
⚠ C902	1-112-869-51	CERAMIC	470PF	10%	250V (AEP, RU, UK, E3, E15, EA, SP, KR, TH, AUS)
⚠ C902	1-112-870-51	CERAMIC	0.001uF	20%	250V (US, CND, TW)
⚠ C903	1-112-869-51	CERAMIC	470PF	10%	250V (AEP, RU, UK, E3, E15, E32, EA, SP, KR, TH, AUS)
⚠ C903	1-112-870-51	CERAMIC	0.001uF	20%	250V (US, CND, MX, TW)
⚠ C904	1-165-529-11	MYLAR	0.22uF	10	275V
⚠ C906	1-100-923-11	ELECT	100uF	20%	450V (AEP, RU, UK, E3, E15, EA, SP, KR, TH, AUS)
⚠ C906	1-114-171-11	ELECT	330uF	20%	250V (MX)
⚠ C906	1-114-237-11	ELECT	130uF	20%	450V (E32)
⚠ C907	1-165-883-21	CERAMIC CHIP	10000PF	10%	630V (US, CND, MX, TW)
⚠ C907	1-165-886-21	CERAMIC CHIP	3300PF	10%	630V (AEP, RU, UK, E3, E15, E32, EA, SP, KR, TH, AUS)
⚠ C908	1-117-631-11	FILM	3300PF	3%	1.2KV (US, CND, MX, TW)
⚠ C908	1-125-893-11	FILM	680PF	3%	1.5KV (AEP, RU, UK, E3, E15, E32, EA, SP, KR, TH, AUS)
⚠ C909	1-107-906-91	ELECT	10uF	20%	50V
⚠ C910	1-164-315-91	CERAMIC CHIP	470PF	5%	50V
⚠ C911	1-100-152-91	CERAMIC CHIP	100PF	5%	100V
⚠ C912	1-115-339-91	CERAMIC CHIP	0.1uF	10%	50V
⚠ C913	1-107-930-91	ELECT	22uF	20%	100V
⚠ C914	1-162-966-91	CERAMIC CHIP	0.0022uF	10%	50V
⚠ C915	1-104-962-91	ELECT	47uF	20%	35V
⚠ C916	1-162-970-91	CERAMIC CHIP	0.01uF	10%	25V
⚠ C917	1-162-970-91	CERAMIC CHIP	0.01uF	10%	25V
⚠ C918	1-165-886-21	CERAMIC CHIP	3300PF	10%	630V (AEP, RU, UK, E3, E15, E32, EA, SP, KR, TH, AUS)
⚠ C919	1-100-922-11	ELECT	330uF	20%	200V (US, CND, TW)
⚠ C920	1-112-866-51	CERAMIC	100PF	10%	250V (US, CND, MX, TW)
⚠ C920	1-112-869-51	CERAMIC	470PF	10%	250V (AEP, RU, UK, E3, E15, E32, EA, SP, KR, TH, AUS)
⚠ C925	1-112-870-51	CERAMIC	0.001uF	20%	250V (US, CND, MX, TW)
C930	1-125-782-91	CERAMIC	4700PF	10%	1KV

Ref. No.	Part No.	Description				Remark
C931	1-128-959-21	ELECT	1000uF	20%	35V	
C932	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V	
C933	1-125-898-91	CERAMIC CHIP	0.22uF	10%	50V	
C935	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V	
		< CONNECTOR >				
⚠ CN901	1-564-321-11	PIN, CONNECTOR (3.96mm PITCH) 2P				
⚠ CN904	1-691-770-11	PLUG (MICRO CONNECTOR) 8P				
		< DIODE >				
⚠ D901	8-719-077-77	DIODE D3SB60F3				
⚠ D902	6-500-241-01	DIODE SARS03				
⚠ D904	8-719-200-93	DIODE 11EQS10-TA2				
⚠ D905	8-719-079-19	DIODE MTZJ-T-72-20B				
⚠ D906	8-719-079-19	DIODE MTZJ-T-72-20B				
⚠ D907	6-501-817-01	DIODE MA2J1110GLS0				
⚠ D908	8-719-200-93	DIODE 11EQS10-TA2				
⚠ D909	6-501-817-01	DIODE MA2J1110GLS0				
⚠ D910	6-501-736-01	DIODE MAZ8062G0LS0				
⚠ D911	6-500-593-41	DIODE 10EDB60-TA2B5				
⚠ D913	6-501-736-01	DIODE MAZ8062G0LS0				
⚠ D914	6-501-758-01	DIODE MAZ8100G0LS0				
⚠ D916	6-501-740-01	DIODE MAZ8068G0LS0 (AEP, RU, UK, E3, E15, E32, EA, SP, KR, TH, AUS)				
⚠ D917	6-501-817-01	DIODE MA2J1110GLS0				
⚠ D918	6-501-794-01	DIODE MAZ8330G0LS0				
D921	8-719-313-14	DIODE FML-22S				
		< FUSE HOLDER >				
⚠ FH901	1-533-217-41	FUSE HOLDER				
⚠ FH902	1-533-217-41	FUSE HOLDER				
		< FUSIBLE RESISTOR >				
⚠ FR901	1-220-886-61	FUSIBLE	0.1	10%	1W	F
		< IC >				
⚠ IC901	6-706-347-01	IC STR-W6735N (US, CND, MX, TW)				
⚠ IC901	6-706-348-01	IC STR-W6765N (AEP, RU, UK, E3, E15, E32, EA, SP, KR, TH, AUS)				
IC905	6-707-799-01	IC NJM1431AU (TE2)				
		< LINE FILTER >				
⚠ LF901	1-419-889-11	COIL, LINE FILTER (US, CND, E32, MX, TW)				
⚠ LF901	1-457-083-11	COIL, LINE FILTER (AEP, RU, UK, E3, E15, EA, SP, KR, TH, AUS)				
		< PHOTO COUPLER >				
⚠ PC901	6-600-438-01	PHOTO COUPLER TLP421F (D4-GRJ)				
⚠ PC902	6-600-276-01	PHOTO COUPLER PS2561AL1-1-V-W				
⚠ PC903	6-600-276-01	PHOTO COUPLER PS2561AL1-1-V-W				
		< TRANSISTOR >				
⚠ Q901	8-729-802-94	TRANSISTOR 2SD1388TP-4				
⚠ Q902	8-729-038-12	TRANSISTOR RT1P141C-TP-1				
⚠ Q903	8-729-038-28	TRANSISTOR RT1N441C-TP-1				
		< RESISTOR >				
⚠ R902	1-219-759-91	METAL	1M	5%	1/2W	F

Ref. No.	Part No.	Description				Remark
⚠ R905	1-215-902-51	METAL OXIDE	47K	5%	1W	F (US, CND, MX, TW)
⚠ R905	1-218-642-51	METAL OXIDE	100K	5%	1W	F (AEP, RU, UK, E3, E15, EA, SP, KR, TH, AUS)
⚠ R906	1-215-904-51	METAL OXIDE	100K	5%	2W	F (US, CND, MX, TW)
⚠ R906	1-216-468-51	METAL OXIDE	82K	5%	2W	F (AEP, RU, UK, E3, E15, E32, EA, SP, KR, TH, AUS)
⚠ R908	1-216-361-61	METAL OXIDE	0.22	5%	2W	F (US, CND, MX, TW)
⚠ R908	1-245-277-61	METAL OXIDE	0.36	5%	2W	F (AEP, RU, UK, E3, E15, E32, EA, SP, KR, TH, AUS)
⚠ R910	1-216-809-91	METAL CHIP	100	5%	1/10W	
⚠ R911	1-216-821-91	METAL CHIP	1K	5%	1/10W	
⚠ R912	1-247-831-81	CARBON	1K	5%	1/4W	
⚠ R913	1-247-829-81	CARBON	820	5%	1/4W	
⚠ R914	1-216-829-91	METAL CHIP	4.7K	5%	1/10W	
⚠ R915	1-249-401-81	CARBON	47	5%	1/4W	
⚠ R917	1-247-867-81	CARBON	33K	5%	1/4W	(US, CND, MX, TW)
⚠ R917	1-247-871-81	CARBON	47K	5%	1/4W	(AEP, RU, UK, E3, E15, E32, EA, SP, KR, TH, AUS)
⚠ R919	1-216-823-91	METAL CHIP	1.5K	5%	1/10W	
⚠ R920	1-216-829-91	METAL CHIP	4.7K	5%	1/10W	
⚠ R921	1-216-843-91	METAL CHIP	68K	5%	1/10W	
⚠ R922	1-247-867-81	CARBON	33K	5%	1/4W	(US, CND, MX, TW)
⚠ R922	1-247-871-81	CARBON	47K	5%	1/4W	(AEP, RU, UK, E3, E15, E32, EA, SP, KR, TH, AUS)
⚠ R925	1-215-902-51	METAL OXIDE	47K	5%	2W	F (E32)
⚠ R927	1-216-363-61	METAL OXIDE	0.33	5%	2W	F (US, CND, MX, TW)
⚠ R927	1-216-365-61	METAL OXIDE	0.47	5%	2W	F (AEP, RU, UK, E3, E15, E32, EA, SP, KR, TH, AUS)
⚠ R928	1-216-829-91	METAL CHIP	4.7K	5%	1/10W	
⚠ R929	1-216-864-91	SHORT CHIP	0 (US, CND, MX, TW)			
R931	1-218-726-11	METAL CHIP	27K	0.5%	1/10W	
R932	1-216-813-11	METAL CHIP	220	5%	1/10W	
R933	1-216-837-11	METAL CHIP	22K	5%	1/10W	
R934	1-216-805-11	METAL CHIP	47	5%	1/10W	
R935	1-218-700-11	METAL CHIP	2.2K	0.5%	1/10W	
R938	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R939	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R945	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
R946	1-216-809-11	METAL CHIP	100	5%	1/10W	
		< TRANSFORMER >				
⚠ T901	1-443-996-11	TRANSFORMER, CONVERTER (AEP, RU, UK, E3, E15, E32, EA, SP, KR, TH, AUS)				
⚠ T901	1-443-997-11	TRANSFORMER, CONVERTER (US, CND, MX, TW)				
		< THERMISTOR >				
⚠ TH901	1-805-799-11	THERMISTOR, NTC 8.0				
⚠ TH902	1-805-553-21	THERMISTOR, POSITIVE				
		< VARISTOR >				
⚠ VDR901	1-805-482-11	VARISTOR				

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TA-SA100WR

Ver. 1.2

POWER SW **SP TERM**

Ref. No.	Part No.	Description	Remark
		POWER SW BOARD	
		**********	
		< CONNECTOR >	
⚠ CN905	1-695-044-11	PIN, CONNECTOR (3.96mm PITCH) 2P	
⚠ CN906	1-695-044-11	PIN, CONNECTOR (3.96mm PITCH) 2P	
		< SWITCH >	
⚠ S901	1-571-433-31	SWITCH, PUSH (AC POWER) (POWER)	
**********			
		SP TERM BOARD	
		**********	
		< CAPACITOR >	
C122	1-107-443-11	CERAMIC CHIP 0.01uF 10% 50V	
C123	1-107-443-11	CERAMIC CHIP 0.01uF 10% 50V	
C222	1-107-443-11	CERAMIC CHIP 0.01uF 10% 50V	
C223	1-107-443-11	CERAMIC CHIP 0.01uF 10% 50V	
		< CONNECTOR >	
CN302	1-691-766-11	PLUG (MICRO CONNECTOR) 4P	
		< TERMINAL >	
TB300	1-780-590-11	TERMINAL BOARD (SPEAKER) 2P (SPEAKER)	
**********			
		MISCELLANEOUS	
		**********	
⚠ 52	1-769-079-61	CORD, POWER (KR)	
⚠ 52	1-827-597-42	CORD, POWER (TW)	
⚠ 52	1-834-288-11	POWER-SUPPLY CORD (TH)	
⚠ 52	1-834-966-21	CORD, POWER (AEP, RU, E3, E15, E32, EA, SP)	
⚠ 52	1-834-967-21	CORD, POWER (AUS)	
⚠ 52	1-834-978-11	CORD, POWER (US, CND, MX)	
⚠ 52	1-835-078-21	CORD, POWER (UK)	
⚠ 152	1-823-718-11	WIRE (FLAT TYPE) (17 CORE)	
⚠ F901	1-533-453-12	FUSE, GLASS TUBE (DIA. 5) (5A/125V) (US, CND, MX, TW)	
⚠ F901	1-576-230-51	FUSE (H.B.C.) (T3.15AH/250V) (AEP, RU, UK, E3, E15, EA, SP, KR, TH, AUS)	
⚠ F901	1-576-232-51	FUSE (H.B.C.) (T5AH/250V) (E32)	
**********			
		ACCESSORIES	
		**********	
⚠	1-569-008-22	ADAPTOR, CONVERSION 2P (E32)	
⚠	1-770-019-71	ADAPTOR, CONVERSION PLUG (EA)	

MEMO

REVISION HISTORY

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Ver.	Date	Description of Revision
1.0	2008.02	New
1.1	2008.04	Addition of Russian, 110V – 240V AC area in E, Iranian, Singapore, Korean, Thai, Taiwan and Australian models Change of LED, MODE SW, PANEL, POWER, POWER SW and SP TERM boards (Suffix-13) (SMR-08043)
1.2	2008.08	Addition of Saudi Arabia model
1.3	2008.09	Change of Part for C411 on AMP board (SMR-08147)