

MDR-NC500D

SERVICE MANUAL

Ver. 1.2 2008.10



*US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Chinese Model
Tourist Model*

SPECIFICATIONS

General

Type	Closed dynamic
Driver unit	40 mm, dome type (CCAWE adopted)
Power handling capacity	100 mW
Impedance	40 Ω at 1 kHz
Sensitivity	102 dB/mW
Frequency response	5 - 24,000 Hz
Total Noise Suppression Ratio ^{*1}	Approx. 20 dB ^{*2}
Power source	DC 3.7 V: Built-in lithium-ion rechargeable battery, 2 $\times$ LR6 (size AA) batteries, or AC power adaptor
Mass	Approx. 195 g (6.9 oz)

Supplied accessories

Connecting cord (0.5 m, gold plated stereo mini plug) (1)
Connecting cord (1.5 m, gold plated L type stereo mini plug) (1)
Connecting cord with battery case (1)
Carrying case (1)
Plug adaptor for in-flight use^{*3} (single/dual) (1)
Gold-plated unimatch plug adaptor
(stereo phone plug $\longleftrightarrow$ stereo mini jack) (1)
Sony LR6 (size AA) batteries (2) (US and Tourist models)
AC power adaptor (1)
Operating Instructions (1)
Product Information (1)
Startup guide (1)
Card warranty (1)

^{*1} Under the Sony measurement standard.
For details about the Total Noise Suppression
Ratio amount for each mode, refer to the
Product Information booklet.

^{*2} Equivalent to approx. 99 % reduction of energy of sound compared
with not wearing headphones
(NC MODE A).

^{*3} May not be compatible with some in-flight music services.

Design and specifications are subject to change without notice.

General charging and usage time

Charging time	Usage time ^{*1}
Approx. 3 hours ^{*2}	Approx. 15 hours ^{*3}

^{*1} At 1 kHz, 0.1 mW + 0.1 mW output

^{*2} Hours required to fully charge an empty battery

^{*3} Time stated above may vary, depending on ambient temperature or
conditions of use.

Battery life

Battery type	Approx. hours ^{*1}
Sony Alkaline	10 hours ^{*2}
LR6 (size AA) battery	

^{*1} Output at 1 kHz, 0.1 mW + 0.1 mW

^{*2} Time stated above may vary, depending on ambient temperature or
conditions of use.

Note (US and Tourist models)

Because the supplied battery was included in the package from the time of
manufacture (as a convenience to the user), it is possible that the battery
life may be somewhat depleted by the time of purchase. The actual life
of the supplied battery may be shorter than the standard time described in
this manual when using a fresh battery.

NOISE CANCELING HEADPHONES

9-889-146-03

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Audio&Video Business Group

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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.

Note

- Use the AC power adaptor supplied with this unit. Do not use any other AC power adaptor since it may cause the unit to malfunction.



CAUTION

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

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Accessories are given in the last of the electrical parts list.

- Abbreviation
CND : Canadian model
JE : Tourist model

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 COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

关于安全相关零部件的警告

原理图和零件清单中标有记号的零部件，或带有记号的虚线所表示的零部件，对于安全操作至关重要。更换时，必须依据本手册或索尼公司追加发行的手册中列明的零件号，使用索尼公司的零件进行。

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.

NOTE OF REPLACING THE IC501, IC551, IC601, IC801 AND IC802 ON THE MAIN BOARD

IC501, IC551, IC601, IC801 and IC802 on the MAIN board cannot exchange with single. When these parts on the MAIN board are damaged, exchange the entire mounted board.

NOTE OF REPLACING THE IC402 ON THE CHARGER BOARD

IC402 on the CHARGER board cannot exchange with single. When this part on the CHARGER board is damaged, exchange the entire mounted board.

Features

(US and Tourist models)

- **Digital noise canceling headphones with Sony's unique DNC Software Engine.**
Creation of a high-precision canceling signal delivers outstanding noise canceling performance.
- **AI (Artificial Intelligence) Noise Canceling function.**
Automatic selection of the optimal noise canceling mode based on intelligent analysis of environmental ambient noise.
- **Digital equalizer delivers ideal frequency response and high-quality music reproduction.**
- **High S/N ratio achieved through digital signal processing.**
- **Lightweight design creates extremely comfortable wearing fit.**
Generous use of lightweight materials such as Magnesium and A7075 aluminum alloy.
- **Pressure relieving urethane cushion in the earpad.**
The earpad structure provides comfort without stress even after extended use.
- **Built-in monitor function lets you silence the audio to listen outside.**

Features

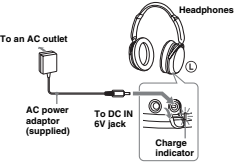
(Except US and Tourist models)

- **Digital noise canceling headphones with Sony's unique DNC Software Engine.**
Reduces approx. 99% of ambient noise by creating a high-precision canceling signal.
- **AI (Artificial Intelligence) Noise Canceling function.**
Automatic selection of the optimal noise canceling mode based on intelligent analysis of environmental ambient noise.
- **Digital equalizer delivers ideal frequency response and high-quality music reproduction.**
- **High S/N ratio achieved through digital signal processing.**
- **Lightweight design for extremely comfortable wearing.**
Generous use of lightweight materials such as Magnesium and A7075 aluminum alloy.
- **Pressure relieving urethane cushion in the earpad.**
The earpad structure provides comfort without stress even after extended use.
- **Built-in monitor function lets you silence the audio to hear externally.**

Charge the headphones

The headphones contains a rechargeable Lithium-Ion battery. Charge the battery before use.

Connect the supplied AC power adaptor to the DC IN 6V jack on the headphones and an AC outlet. The charge indicator lights up in orange and charging starts.



Charging is completed after about three hours, and the charge indicator goes out. Disconnect the AC power adaptor after the charging has finished.

When the rechargeable battery is low

When the rechargeable battery is low, short beeps sound from the unit for 8 seconds and the POWER indicator blinks slowly. When the battery level is getting lower, a long beep sounds from the unit for 2 seconds and the POWER indicator blinks quickly, and all operations are stopped. Move the POWER switch to "OFF" in this case.

Tips

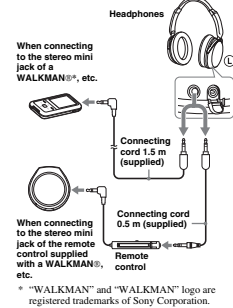
- When the battery runs out, you can supply the power to the headphones in one of the following ways:
 - Connect the headphones to the AC power adaptor by following the steps shown in "Charge the headphones."
 - You can use the headphones while charging.
 - Use the supplied connecting cord with battery case.
 - See "How to use the connecting cord with battery case" for details.

Using your AC power adaptor abroad

You can use your AC power adaptor in any country or area that uses 100 V to 240 V AC, 50/60 Hz, by connecting a plug adaptor. If the country you visit employs a different shaped socket, use the correct plug adaptor. Consult your nearest travel bureau for the type of plug adaptor needed for your trip.

Listening to music

- 1 Connect the headphones to the AV equipment.



Notes

- When connecting the cord, insert the plug into the jack until the green portion of the plug disappears.



- To disconnect the cord, pull it out by the plug, not the cord, as the inner conductors may break.

- 2 Turn on the power on the right side of the headphones. The POWER indicator lights up in blue, and a short beep sounds from the unit.



- 3 Put on the headphones. After confirming the cord on the left and the POWER switch on the right, put on the headphones. Adjust the ear pads so as to cover your ears.

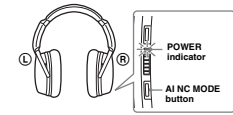


- 4 Start playing on the AV equipment connected to the headphones.

Note
Playback is not available when there is no power.

Utilizing the AI Noise Canceling

- 1 Press the AI NC MODE button. When you press the AI NC MODE button and the POWER switch is set to "ON", sounds come from the headphones to inform you that the unit has started analyzing ambient sound components (approx. 3 seconds). During analysis, sound reproduction from the unit is stopped and the POWER indicator lights in pink. When analysis is completed, the most effective noise canceling mode is set automatically, and sound reproduction from the headphones starts.



AI Noise Canceling

AI Noise Canceling is a useful function that automatically selects one of the noise canceling modes. This function provides the most effective noise canceling mode by immediately analyzing ambient sound components when the AI NC MODE button is pressed.

Tips

- When the power of the headphones is turned on, mode A is set. (See "Noise canceling mode types," for details about Mode A.)
- Press the AI NC MODE button again to reset the noise canceling mode if ambient noise has changed, such as when you move outdoors from a room.

To set the noise canceling mode manually

You can set the noise canceling mode manually (manual noise canceling).

- 1 Press and hold the AI NC MODE button for more than one second. Sounds (♪ ♪ ♪) come from the headphones to inform you that manual noise canceling is set.
- 2 Press the AI NC MODE button repeatedly to change the mode type. The POWER indicator blinks pink and a beep(s) sound(s) from the headphones. After that, the noise canceling mode is set. The number of POWER indicator blinks and the beep sounds depends on the mode selected. See "Noise canceling mode types."

Tips

- Mode A is selected when manual noise canceling is activated.
- To change from manual noise canceling to AI Noise Canceling, press and hold the AI NC MODE button for more than one second. When you hear the sounds (♪ ♪ ♪) to inform you of the change to AI Noise Canceling, press the AI NC MODE button again. Ambient analysis starts and the most effective noise canceling mode is set automatically.

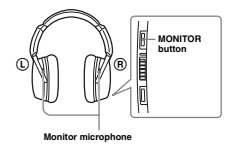
Noise canceling mode types

Mode names	Number of POWER indicator blinks (pink) and beep sounds
A	1
B	2
C	3

A: Noise mainly in an airplane is effectively reduced.
B: Noise mainly in a bus or a train is effectively reduced.
C: Noise mainly found in an office environment (PC, copier, air ventilation, etc.) is effectively reduced.

Hearing environmental sound for safety

If the MONITOR button is pressed and held while the POWER switch is set to ON, playback silences then you can hear the surrounding environment.



Note
Environmental sound might not be heard if the microphone is covered with your fingers.

When using in an airplane

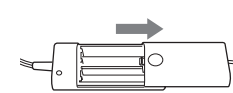
- The supplied plug adaptor can be connected to the dual or stereo mini jacks in an airplane.
- 
- Do not use the headphones when use of electronic equipment is prohibited, or when use of personal headphones for in-flight music services are prohibited.

How to use the connecting cord with the battery case

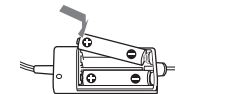
You can continue to use the unit, even when the rechargeable battery in the headphones runs out, by connecting the supplied connecting cord with battery case.

Use the connecting cord with battery case by inserting two size AA alkaline batteries.

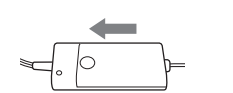
- 1 Open the lid of the battery case.



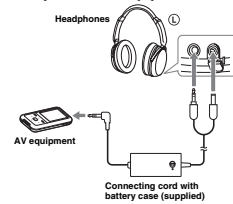
- 2 Insert two size AA alkaline batteries. Make sure of direction, matching the + marks in the case with those on the batteries.



- 3 Close the lid.



- 4 Connect the supplied connecting cord with the battery case to both the headphones and AV equipment.



Notes

- When connecting the cord, insert the plug fully into the jack so that the green sign on the metal parts cannot be seen.
- When disconnecting the cord, pull it out by holding the plug. If the cord is pulled forcibly the wire may break.

- 5 Set the POWER switch of the headphones to "OFF," and then set the POWER switch of the battery case to "ON."

The POWER indicator on the battery case lights up green.

See steps 2 to 4 of "Listening to music" for the following setting steps. After use, set the POWER switch of both the headphones and the battery case to "OFF."

Tips

- The power supply of the rechargeable battery is consumed first, unless the battery runs out.
 - If you connect and turn on the connecting cord with the battery case in advance when the rechargeable battery is low, you can use the headphones uninterrupted, even after the battery in the headphones runs out.
- Notes**
- The use of manganese batteries is not recommended, since this type of battery has an extremely short usage time.
 - The battery case supplies the power to the headphones for operation purposes only. It does not charge the internal rechargeable battery in the headphones.
 - The POWER indicator of the battery case becomes dim when the battery life is reaching the limit. Replace the battery with new ones at the time.
 - The supplied connecting cord with battery case is only for these headphones. Do not connect to other equipment.

After use

Turn off the power of the headphones.

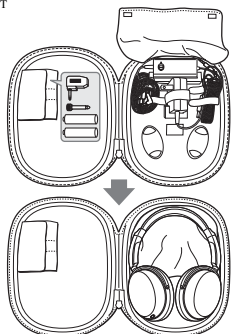
Flat Storage

The housings rotate to make them flat for easy storage in the carrying case (supplied), or in a seat pocket. Restore to their usual position before using.



Putting the headphones in the carrying case

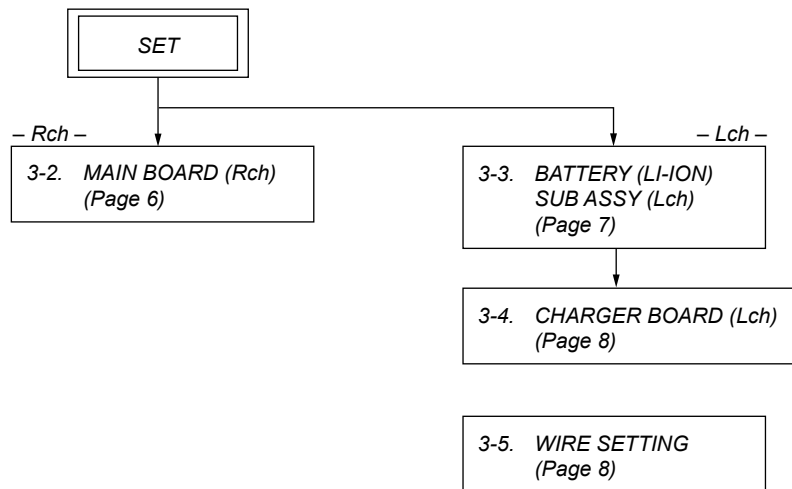
Rotate the housings to be flat before putting them in the carrying case.



SECTION 3 DISASSEMBLY

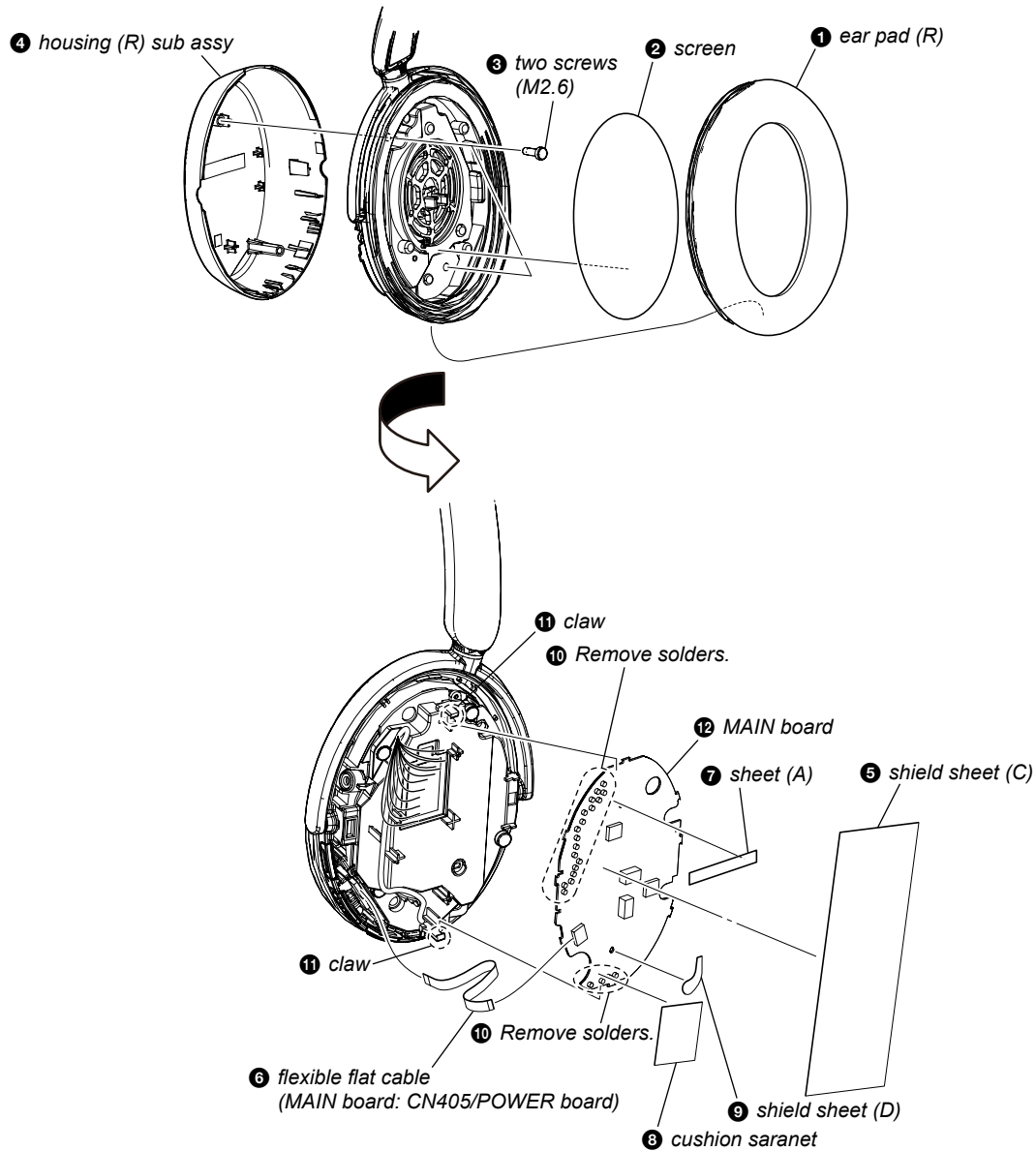
- This set can be disassembled in the order shown below.

3-1. DISASSEMBLY FLOW

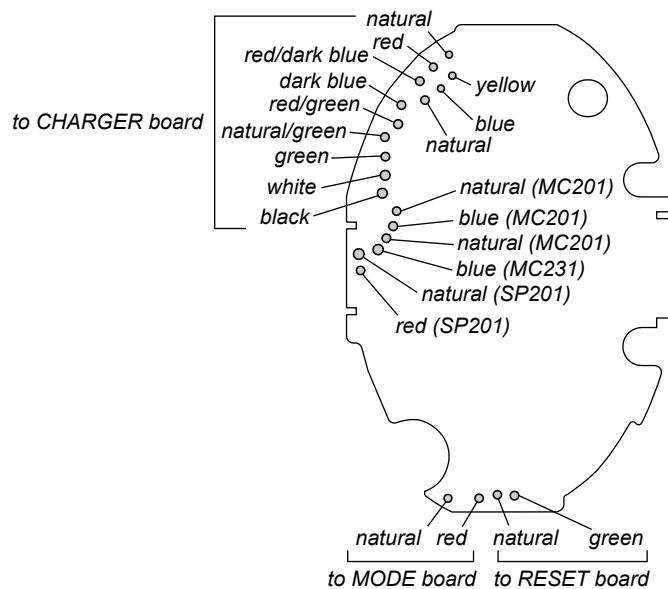


Note: Follow the disassembly procedure in the numerical order given.

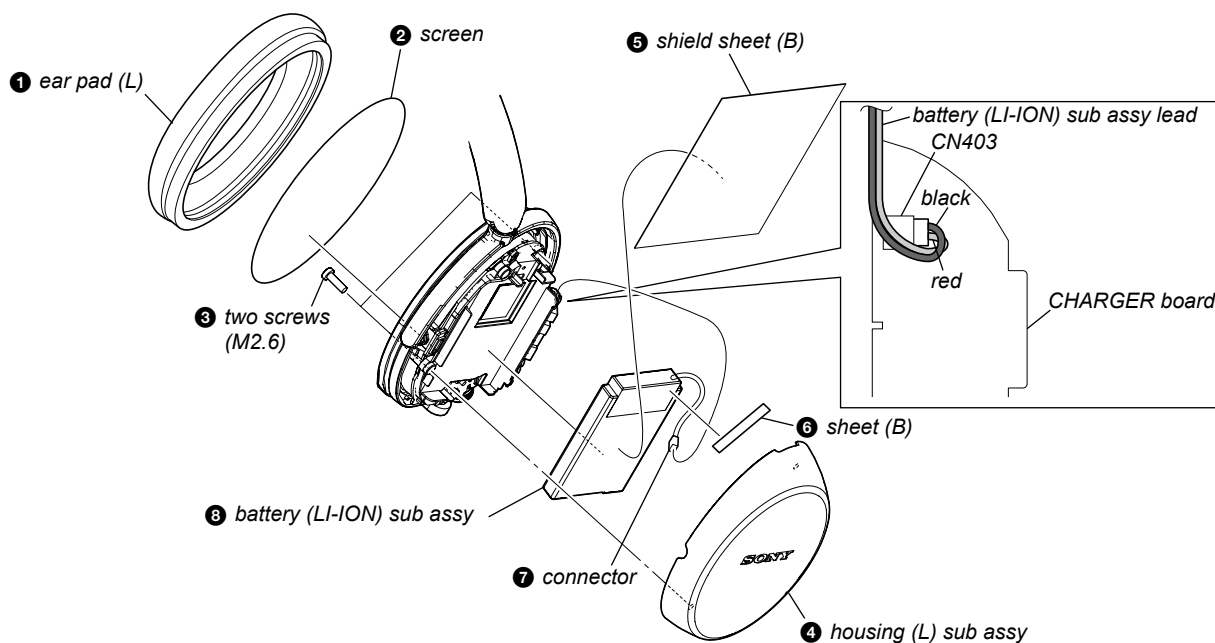
3-2. MAIN BOARD (Rch)



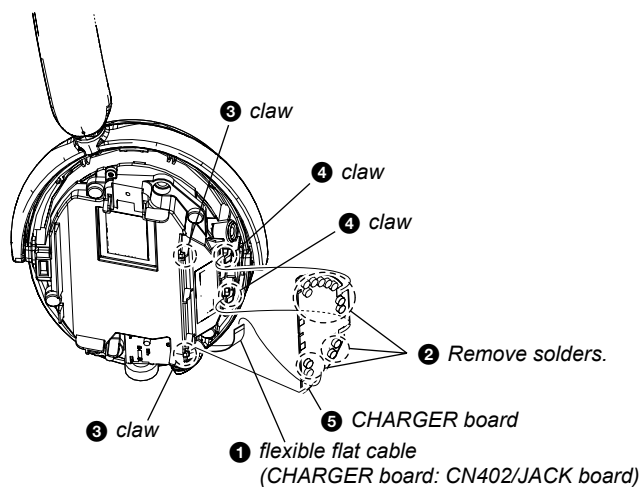
• POSITION OF LEAD WIRES (MAIN board: Side B)



3-3. BATTERY (LI-ION) SUB ASSY (Lch)

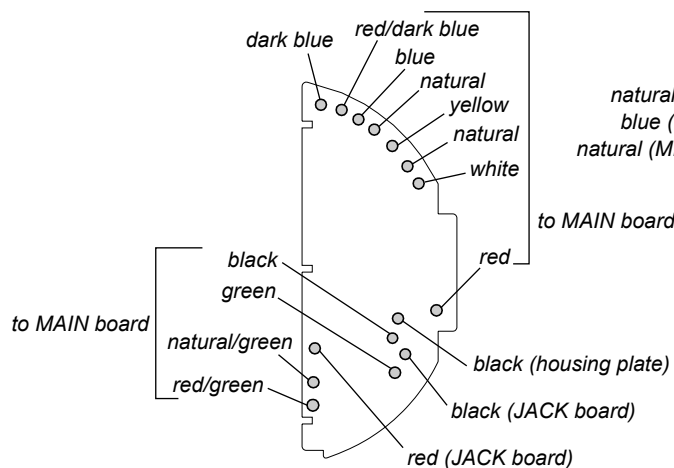


3-4. CHARGER BOARD (Lch)

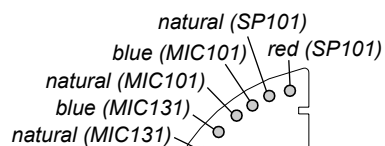


• POSITION OF LEAD WIRES (CHARGER board)

– Side A –

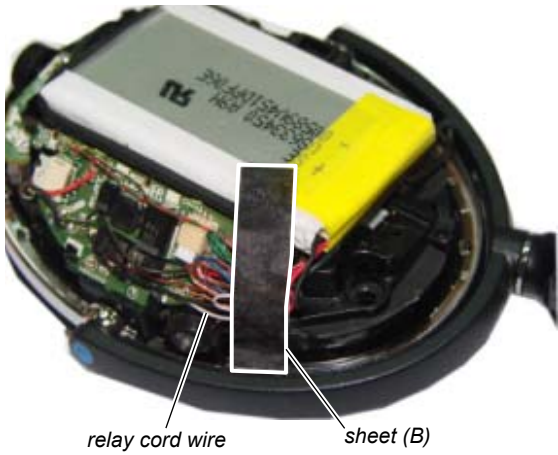
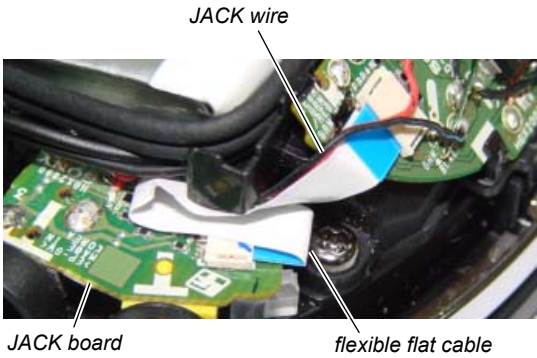
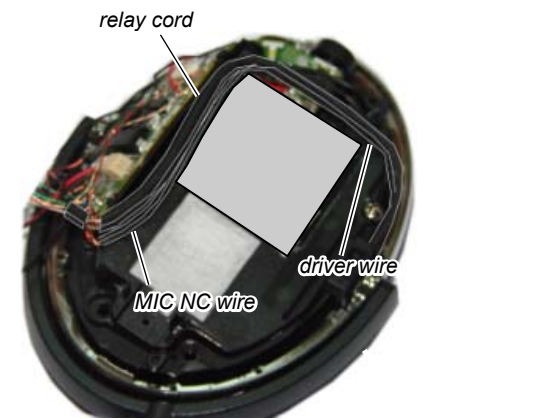


– Side B –

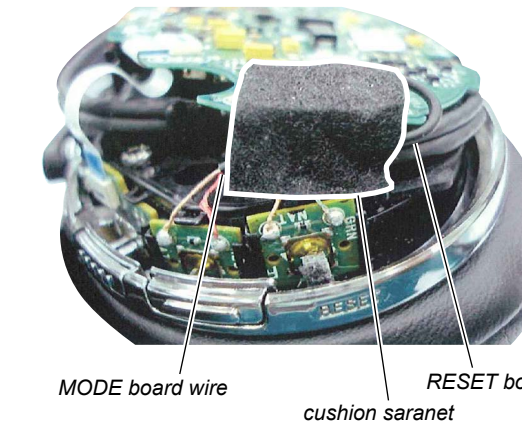
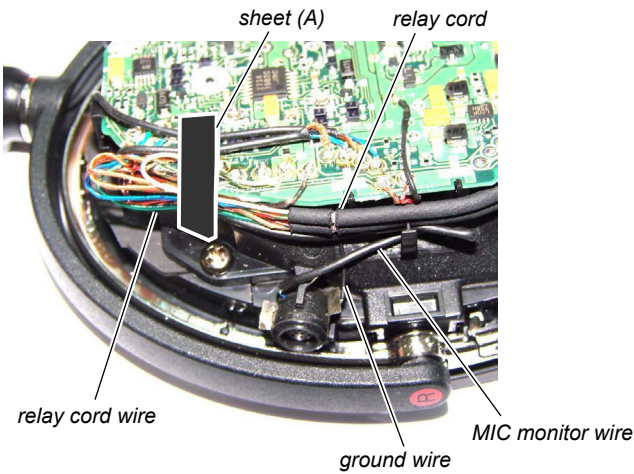


3-5. WIRE SETTING

– Lch –



– Rch –



SECTION 4 ELECTRICAL ADJUSTMENTS

NOISE CANCELING VOLUME ADJUSTMENT

Procedure:

1. Prepare the following parts.
 22 k Ω resistor (Part No.: 1-260-115-11)
 330 Ω resistor (Part No.: 1-260-093-11)
 270 Ω resistor (Part No.: 1-260-092-11)
 39 Ω resistor (Part No.: 1-260-082-11)
 100 μ F capacitor (Part No.: 1-126-933-11)
2. Remove the shield sheet (C) and sheet (A). (Refer to Fig. 1-1)
3. Remove lead wires of the TP182 (dark blue), TP183 (red/dark blue). (for CHARGER board (SP101)) (Refer to Fig. 1-2)
4. Remove lead wires of the TP282 (natural), TP283 (red). (for SP201) (Refer to Fig. 1-2)

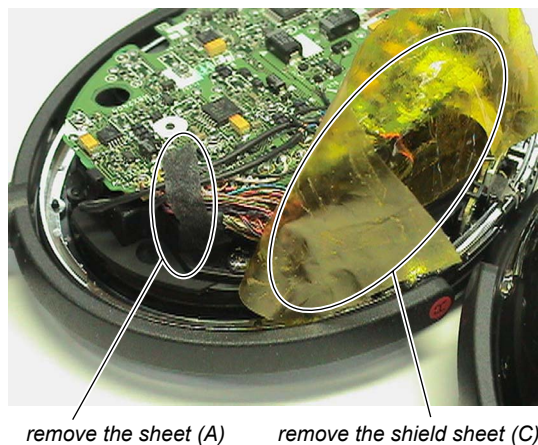


Fig. 1-1

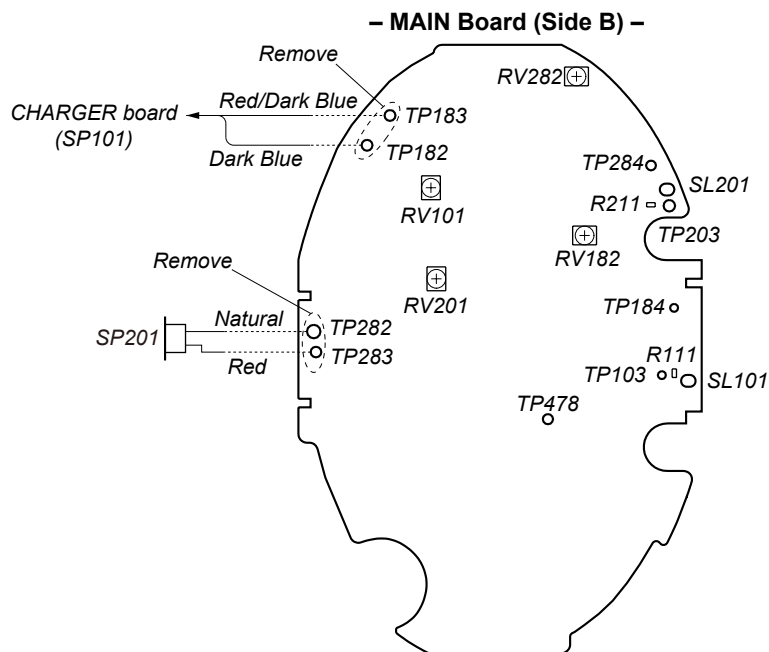
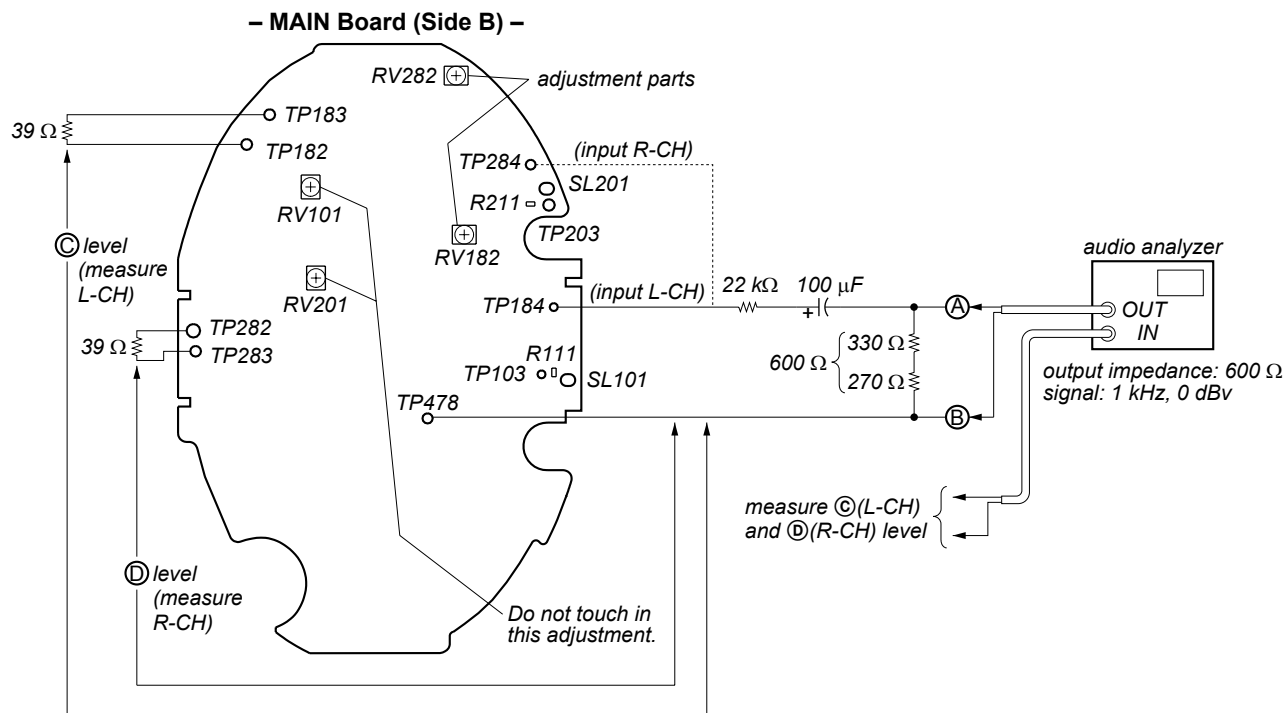


Fig. 1-2

① AMP Gain Adjustment

Connection:

1. Connect resistors ($22\text{ k}\Omega$, $330\text{ }\Omega + 270\text{ }\Omega$) and capacitor ($100\text{ }\mu\text{F}$) to the TP184, TP478. (Refer to Fig. 2)
2. Connect a resistor to ($39\text{ }\Omega$) the TP182, TP183. (Refer to Fig. 2)
3. Connect a resistor to ($39\text{ }\Omega$) the TP282, TP283. (Refer to Fig. 2)



Adjustment:

– L-CH –

1. Connect an audio analyzer (output impedance: $600\text{ }\Omega$) to ① and ② in Fig. 2.
2. Input the signal (1 kHz , 0 dBV) from the audio analyzer.
3. Adjust RV182 so that ③ level in Fig. 2 (between TP182 and TP478) is $-2.6\text{ dBV} \pm 0.1\text{ dB}$. (Refer to Fig. 3)

– R-CH –

4. Remove the one side of resistor ($22\text{ k}\Omega$) of the TP184, and connect to TP284. (Refer to Fig. 3)
5. Input the signal (1 kHz , 0 dBV) from the audio analyzer.
6. Adjust RV282 so that the ④ level in Fig. 2 (between TP238 and TP478) is $-2.6\text{ dBV} \pm 0.1\text{ dB}$. (Refer to Fig. 3)

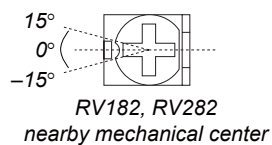


Fig. 3. Adjusted position (reference)

② Canceling Gain Adjustment

Procedure:

1. Remove the resistors ($39\ \Omega$) from TP182, TP183.
 2. Remove the resistors ($39\ \Omega$) from TP282, TP283.
 3. Connect the lead wires of CHARGER board (SP101) to the TP182 (dark blue), TP183 (red/dark blue). (Refer to Fig. 4)
 4. Connect the lead wires of SP201 to the TP282 (natural), TP283 (red). (Refer to Fig. 4)
 5. Remove the one side of resistor ($22\ \text{k}\Omega$) of TP284, and connect to TP184. (Refer to Fig. 4)
 6. The screw is closes into the hole (two places) where housing (R-CH side) is fixed. It closes it so that air should not leak. (Refer to Fig. 5)
- Note:** The problem is not in this hole even if it closes it with not the screw but clay, tape and so on. The hole is completely closed with stability so as not to do the air leak.
7. Remove the R111 ($0\ \Omega$) and R211 ($0\ \Omega$).
 8. Connect a capacitor ($100\ \mu\text{F}$) to the TP103.

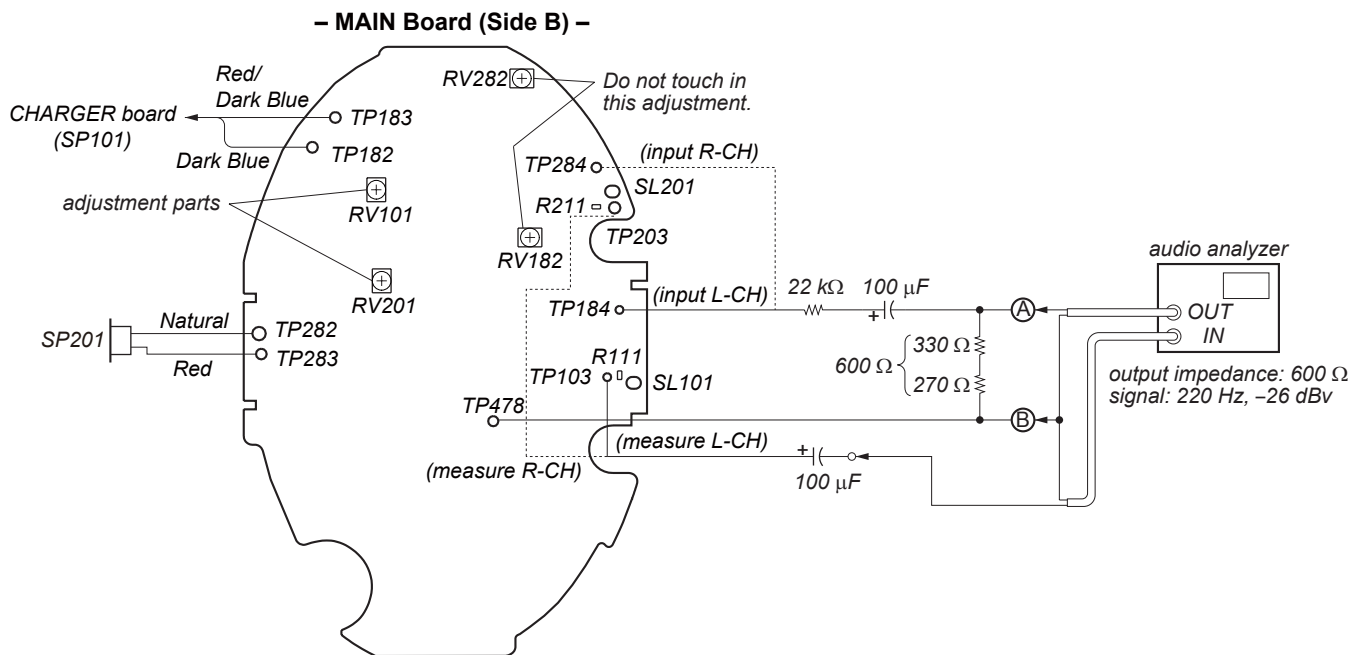
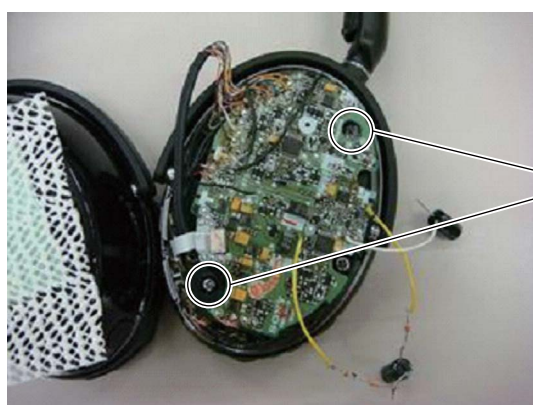


Fig. 4



hole for R-CH side housing fixation
(completely closes it with screw,
clay, tape and so on)

Fig. 5

Adjustment:

– L-CH –

1. Put the housing (L-CH side) on flat table.
2. Put a weight (500 g) on the housing. (Refer to Fig. 6)
3. Press the housing so that the flat table of ear pad is sealed. (It notes do not press very strong)
4. Input the signal (220 Hz, –25 dBv) from the audio analyzer.
5. Adjust RV101 so that the level of connected capacitor to TP103 is –14 dBv $\pm$ 0.3 dB. (Refer to Fig. 8)

– R-CH –

6. Remove the one side of resistor (22 k Ω) of the TP184, and connect to TP284.
7. Remove the one side of capacitor (100 μ F) of the TP103, and connect to TP203
8. Put the housing (R-CH side) on flat table.
9. Put a weight (500 g) on the housing. (Refer to Fig. 6)
(MAIN board is covered so that there is no short-circuit. RV201 makes it not blocked with the cover) (Refer to Fig. 7)
10. Press the housing so that the flat table of ear pad is sealed. (It notes do not press very strong)
11. Input the signal (220 Hz, –25 dBv) from the audio analyzer.
12. Adjust RV201 so that the level of connected capacitor to TP203 is –14 dBv $\pm$ 0.3 dB. (Refer to Fig. 8)

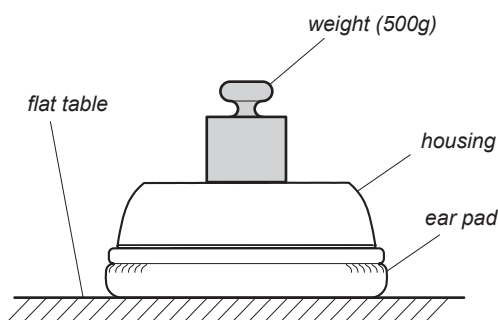


Fig. 6

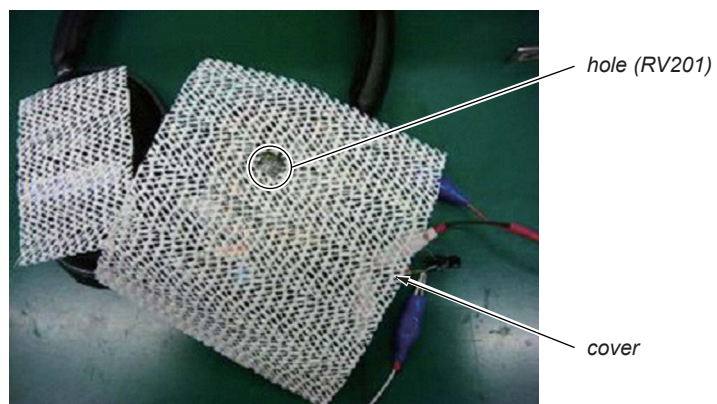


Fig. 7

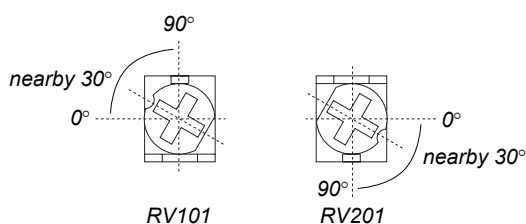


Fig. 8. Adjusted position (reference)

End of adjustment processing:

1. Remove the resistors (22 k Ω , 330 Ω + 270 Ω) and capacitor (100 μ F) from TP284, TP478.
2. Remove the capacitor (100 μ F) from TP203.
3. SL101 and SL201 are short-circuited with solders.
4. The screw (or clay, tape and so on) fixed to the hole is removed.
5. Wire setting, shield sheet (C) and sheet (A) are pasted.
(Flexible flat cable is cover. MIC is not cover) (Refer to Fig. 9)

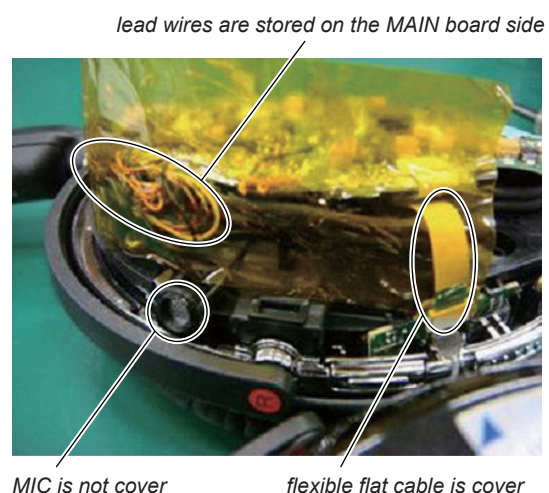
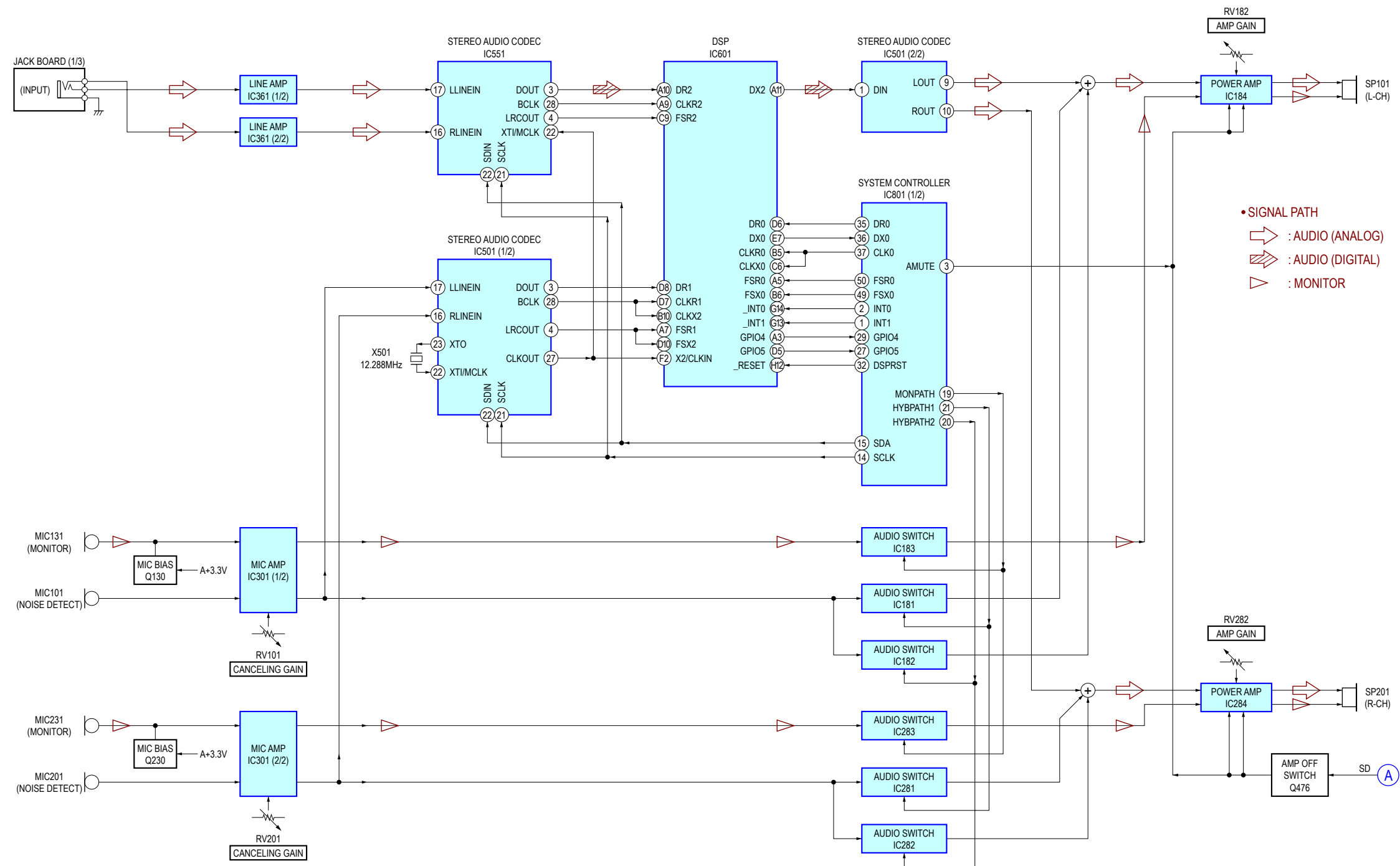


Fig. 9

SECTION 5 DIAGRAMS

5-1. BLOCK DIAGRAM - AUDIO Section -



14



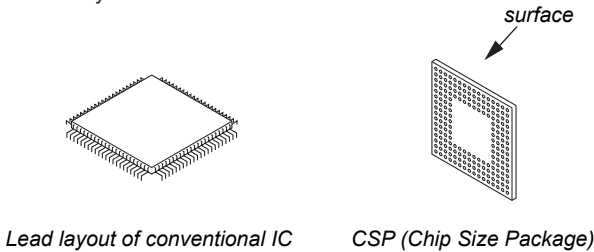
THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For Printed Wiring Boards.

- Note:
- : parts extracted from the conductor side.
 - : Pattern from the side which enables seeing.
(The other layers' patterns are not indicated.)

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

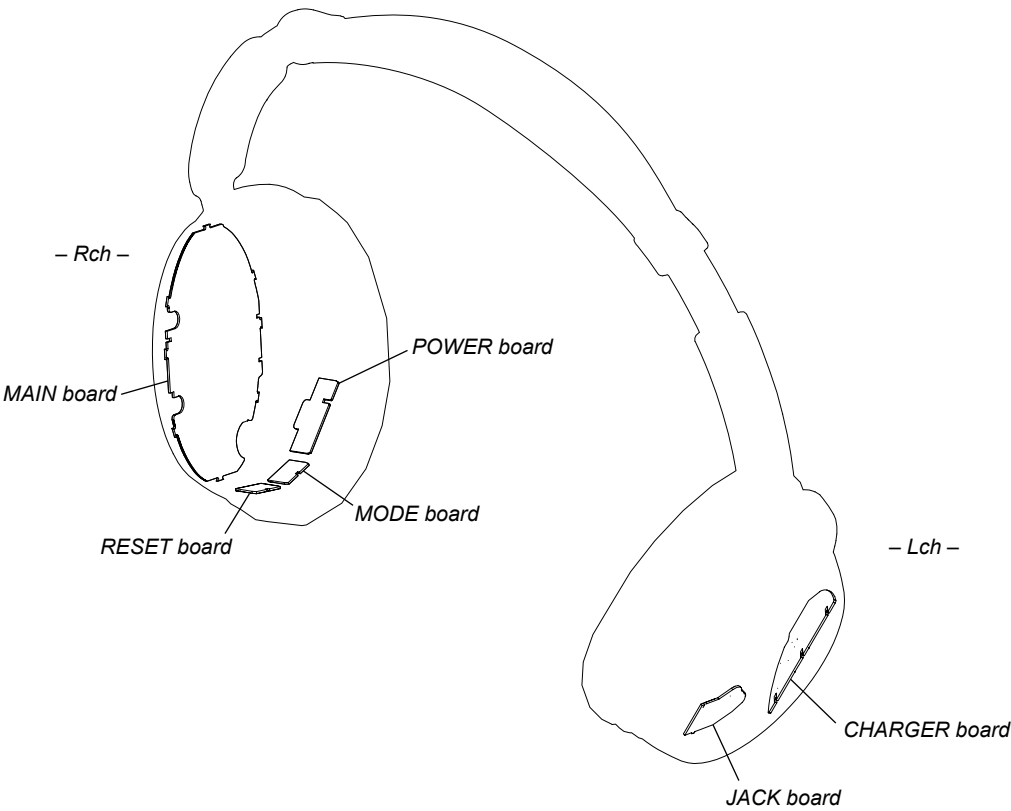
- MAIN board is multi-layer printed board. However, the patterns of intermediate-layers have not been included in diagrams.
- Lead layouts



For Schematic Diagrams.

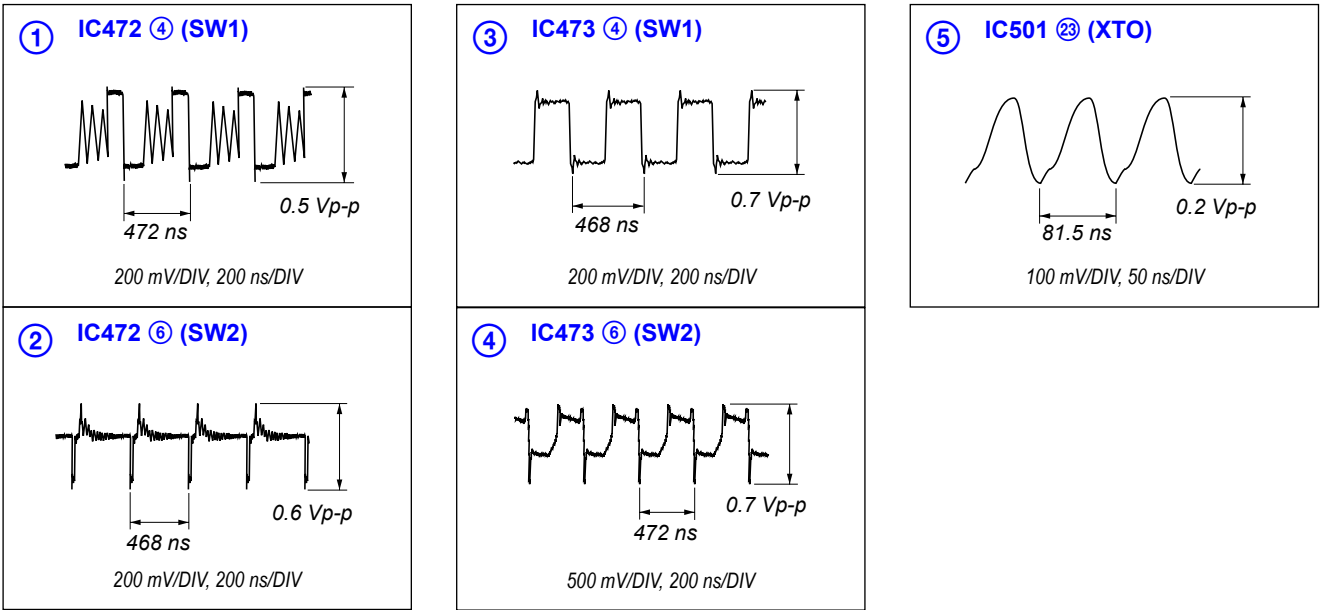
- Note:
- All capacitors are in μF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and 1/4 W or less unless otherwise specified.
 - : B+ Line.
 - : adjustment for repair.
 - Power voltage is dc 3.7 V and fed with regulated dc power supply from CN403 pin ① and pin ② on the CHARGER board.
 - Voltages and waveforms are dc with respect to ground under no-signal conditions.
no mark: POWER ON
 - Voltages are taken with VOM (Input impedance 10 M Ω).
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 (ANALOG)
⇒ : AUDIO (DIGITAL)
▷ : MONITOR
 - The voltage and waveform of CSP (chip size package) cannot be measured, because its lead layout is different from that of conventional IC.
 - Abbreviation
CND : Canadian model
JE : Tourist model

• Circuit Boards Location



• Waveforms

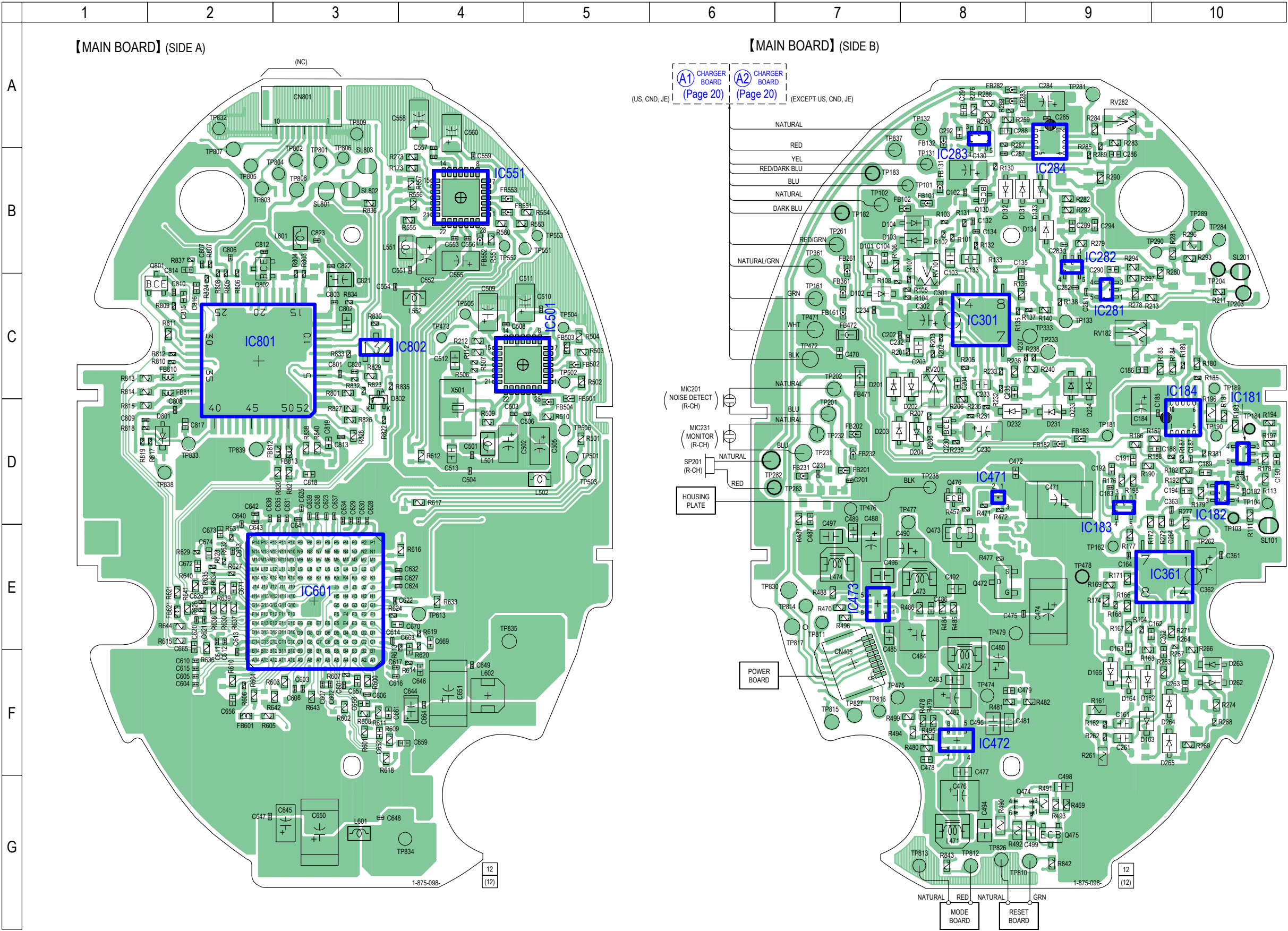
– MAIN Board –



5-3. PRINTED WIRING BOARD - MAIN Board - • See Page 15 for Circuit Boards Location. • : Uses unleaded solder.

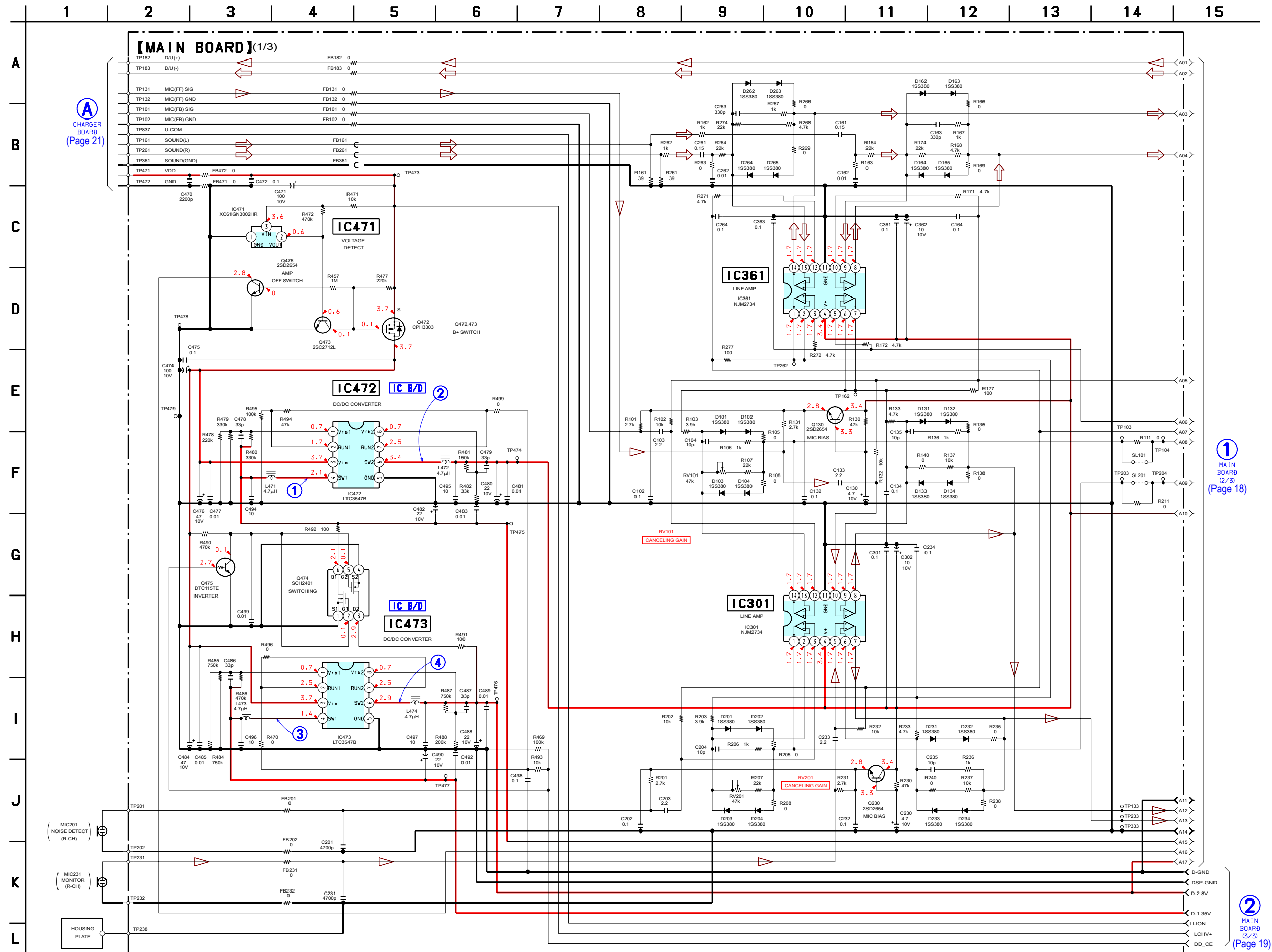
• Semiconductor Location

Ref. No.	Location
D101	B-7
D102	C-7
D103	B-8
D104	B-8
D131	B-8
D132	B-8
D133	B-9
D134	B-9
D162	F-9
D163	F-9
D164	F-9
D165	F-9
D201	C-7
D202	C-8
D203	D-7
D204	D-8
D231	D-9
D232	D-8
D233	C-9
D234	C-9
D262	F-10
D263	F-10
D264	F-10
D265	F-10
D801	D-2
D802	D-3
IC181	D-10
IC182	D-10
IC183	D-9
IC184	D-10
IC281	C-9
IC282	B-9
IC283	A-8
IC284	A-9
IC301	C-8
IC361	E-10
IC471	D-8
IC472	F-8
IC473	E-7
IC501	C-5
IC551	B-4
IC601	E-3
IC801	C-2
IC802	C-3
Q130	B-8
Q230	D-8
Q472	E-8
Q473	E-8
Q474	G-8
Q475	G-9
Q476	D-8
Q801	C-2
Q802	B-2

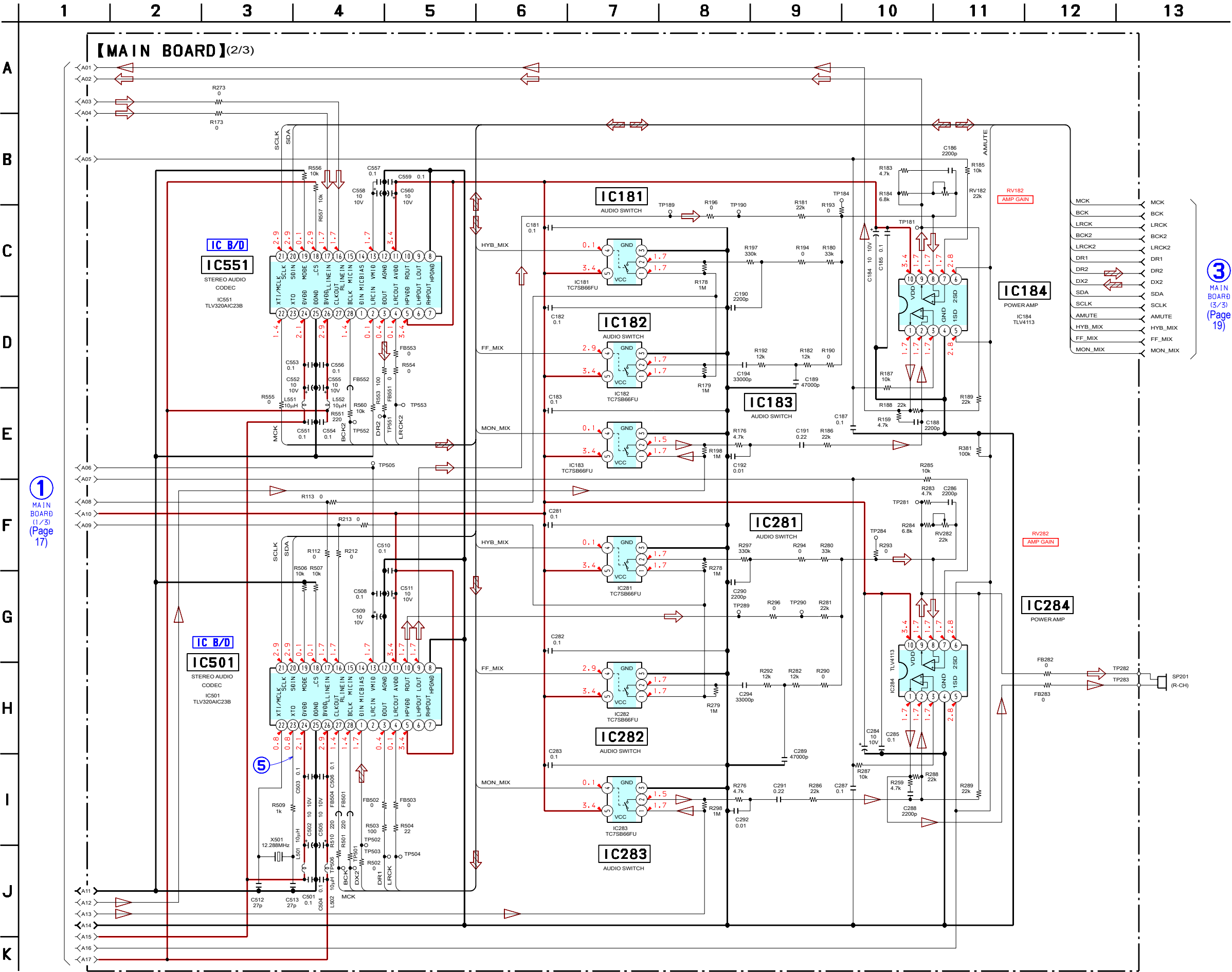


Note: IC501, IC551, IC601, IC801 and IC802 on the MAIN board cannot exchange with single. When these parts on the MAIN board are damaged, exchange the entire mounted board.

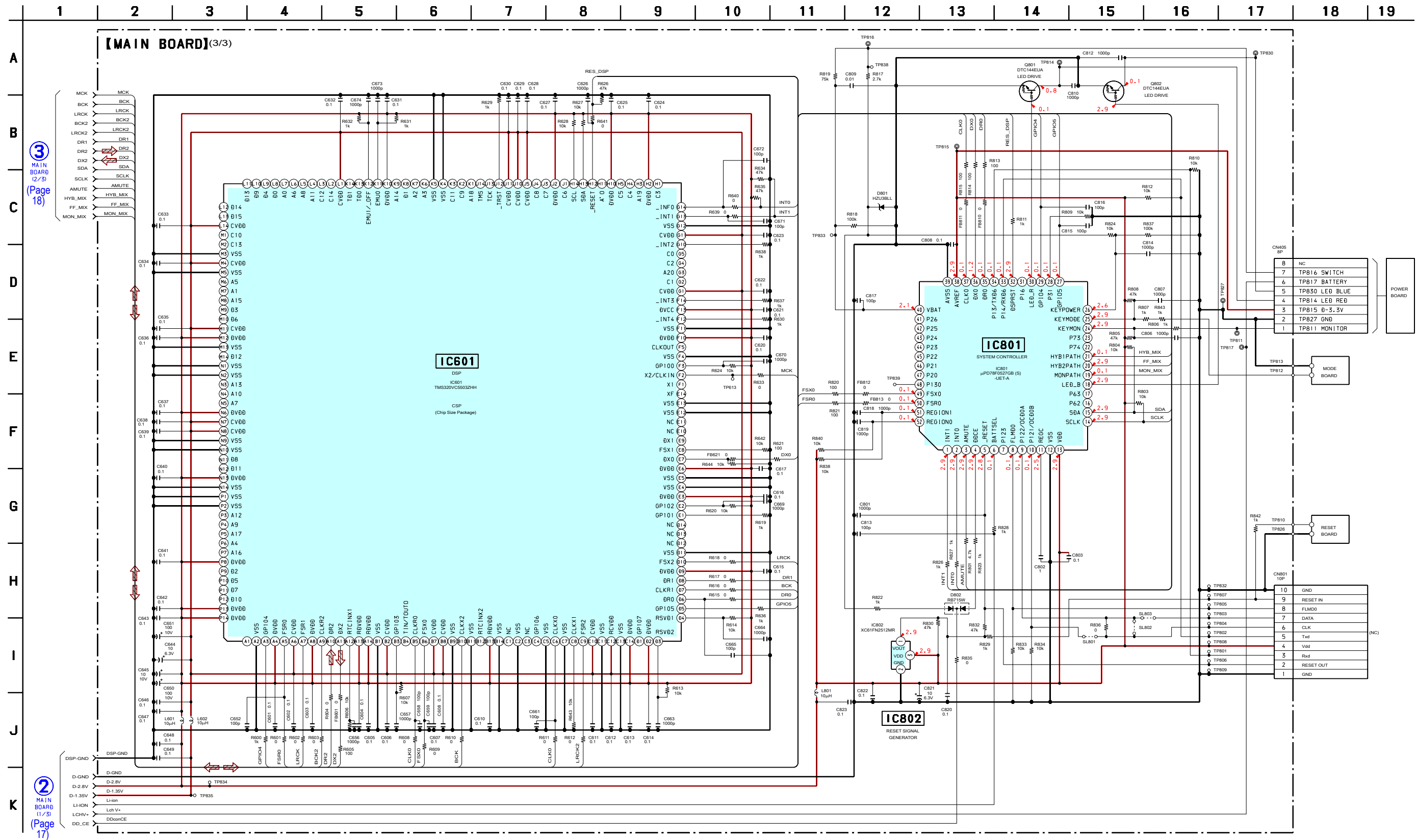
5-4. SCHEMATIC DIAGRAM - MAIN Board (1/3) - • See Page 15 for Waveforms. • See Page 22 for IC Block Diagrams.



5-5. SCHEMATIC DIAGRAM - MAIN Board (2/3) - • See Page 15 for Waveforms. • See Page 22 for IC Block Diagrams.



5-6. SCHEMATIC DIAGRAM - MAIN Board (3/3) - • See page 23 for IC Pin Function Description.



5-7. PRINTED WIRING BOARD - CHARGER Board (US, CND, JE models) -

• See Page 15 for Circuit Boards Location. •  : Uses unleaded solder.



• Semiconductor Location

Ref. No.	Location
D402	C-3
D403	D-2
IC401	C-5
IC402	E-5
IC403	C-5
IC404	B-5
IC405	C-3
Q401	C-4
Q402	C-5
Q403	D-4
Q404	D-4
Q405	C-3

Note: IC402 on the CHARGER board cannot exchange with single. When this part on the CHARGER board is damaged, exchange the entire mounted board.

5-8. PRINTED WIRING BOARD - CHARGER Board (Except US, CND, JE models) -

• See Page 15 for Circuit Boards Location. •  : Uses unleaded solder.

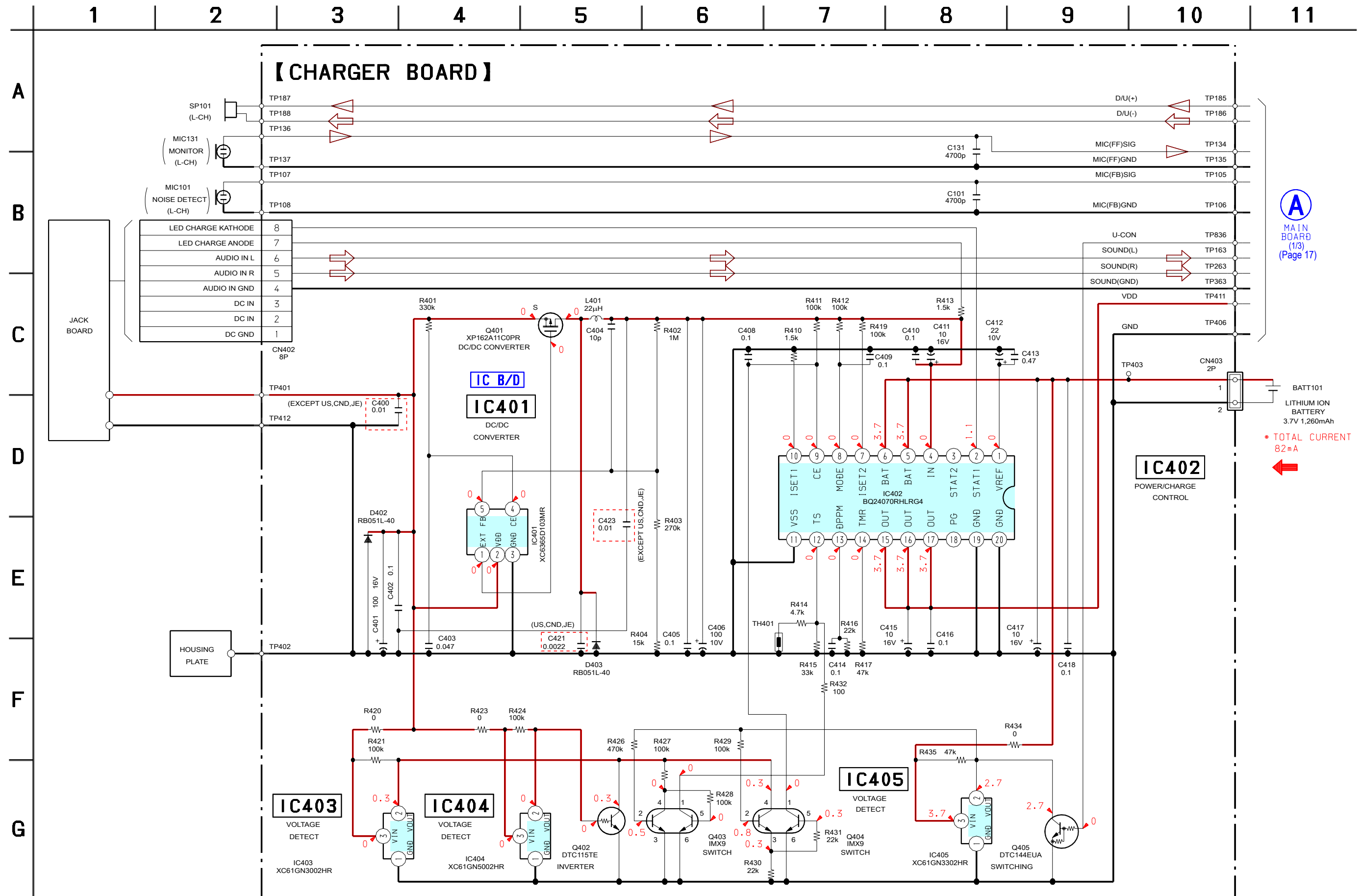


• Semiconductor Location

Ref. No.	Location
D402	C-3
D403	D-2
IC401	C-5
IC402	E-5
IC403	C-5
IC404	B-5
IC405	C-3
Q401	C-4
Q402	C-5
Q403	D-4
Q404	D-4
Q405	C-3

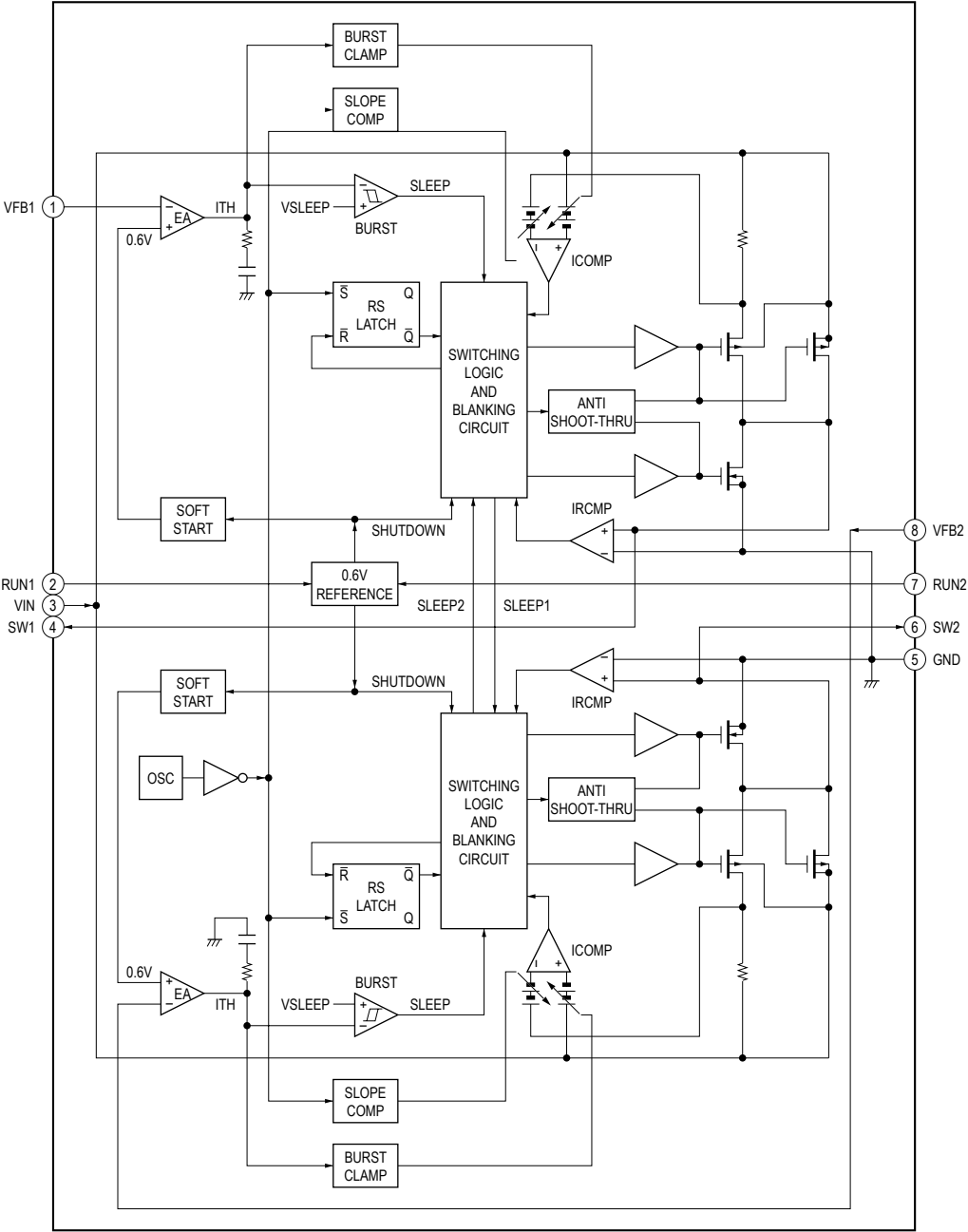
Note: IC402 on the CHARGER board cannot exchange with single. When this part on the CHARGER board is damaged, exchange the entire mounted board.

5-9. SCHEMATIC DIAGRAM - CHARGER Board - • See Page 22 for IC Block Diagrams. • See page 23 for IC Pin Function Description.

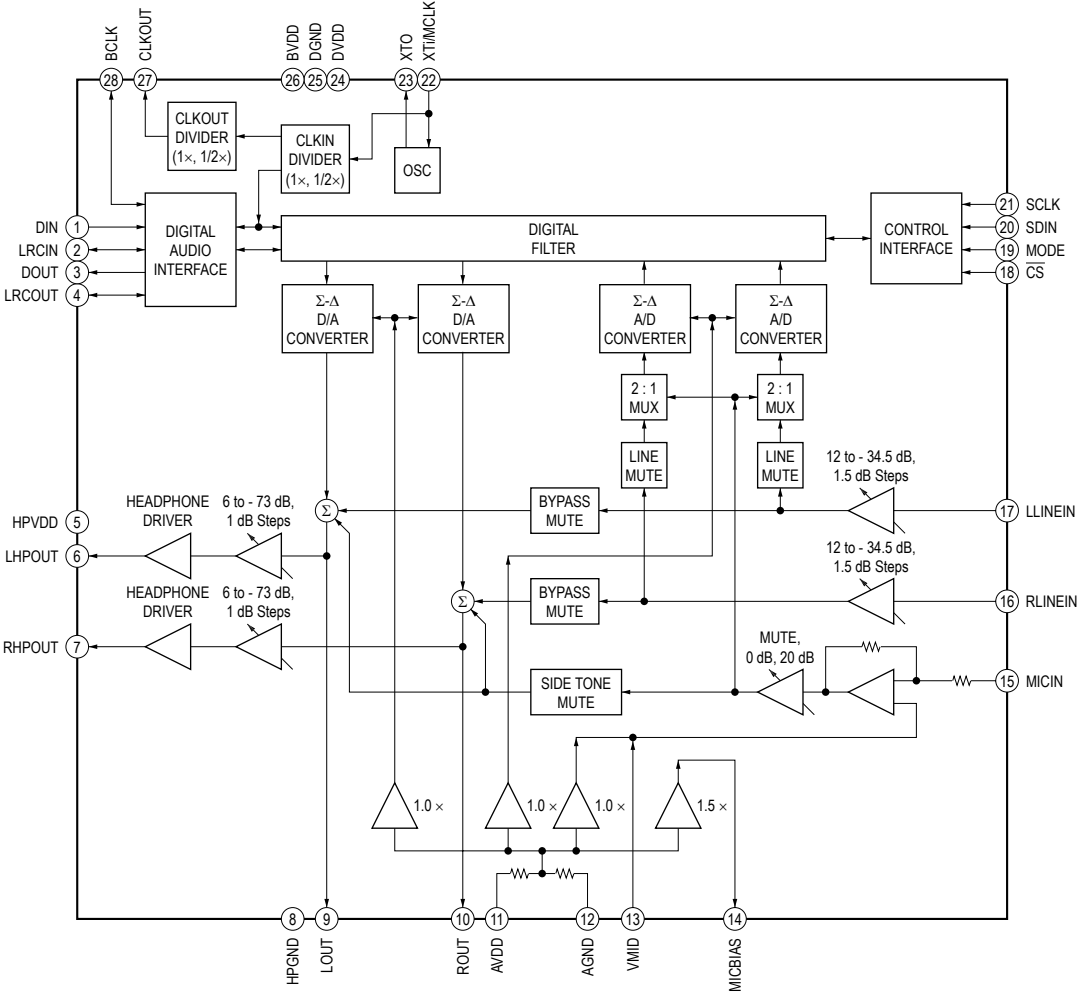


• IC Block Diagrams

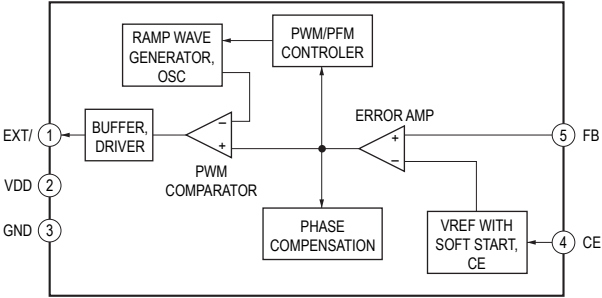
– MAIN Board –
IC472, 473 LTC3547BEDDB#TR



IC501, 551 TLV320AIC23BRHDRG4



– CHARGER Board –
IC401 XC6365D103MR



• IC Pin Function Description

MAIN BOARD IC601 TMS320VC5503ZHH (DSP)

Pin No.	Pin Name	I/O	Description
A2	VSS	-	Ground terminal
A3	GPIO4	O	Signal output to the system controller
A4	DVDD	-	Power supply terminal (+2.8V)
A5	FSR0	I	Frame sync signal input from the system controller
A6	CVDD	-	Power supply terminal (+1.35V)
A7	FSR1	I	L/R sampling clock signal input from the stereo audio codec
A8	DVDD	-	Power supply terminal (+2.8V)
A9	CLKR2	I	Bit clock signal input from the stereo audio codec
A10	DR2	I	Digital audio data input from the stereo audio codec
A11	DX2	O	Digital audio data output to the stereo audio codec
A12	RTCINX1	I	Real time clock signal input terminal Not used
A13, A14	RDVDD	-	Power supply terminal (+2.8V)
B1	VSS	-	Ground terminal
B2	CVDD	-	Power supply terminal (+1.35V)
B3	GPIO3	I/O	Not used
B4	TIN/TOUT0	I/O	Not used
B5	CLKR0	I	Serial data transfer clock signal input from the system controller
B6	FSX0	I	Frame sync signal input from the system controller
B7, B8	CVDD	-	Power supply terminal (+1.35V)
B9	VSS	-	Ground terminal
B10	CLKX2	I	Bit clock signal input from the stereo audio codec
B11	VSS	-	Ground terminal
B12	RTCINX2	I	Real time clock signal input terminal Not used
B13	RDVDD	-	Power supply terminal (+2.8V)
B14	VSS	-	Ground terminal
C1	NC	-	Not used
C2	VSS	-	Ground terminal
C3	NC	-	Not used
C4	GPIO6	I/O	Not used
C5	VSS	-	Ground terminal
C6	CLKX0	I	Serial data transfer clock signal input from the system controller
C7	VSS	-	Ground terminal
C8	CLKX1	O	Clock signal output terminal Not used
C9	FSR2	I	L/R sampling clock signal input from the stereo audio codec
C10	CVDD	-	Power supply terminal (+1.35V)
C11	VSS	-	Ground terminal
C12	RCVDD	-	Power supply terminal (+1.35V)
C13	VSS	-	Ground terminal
C14	DVDD	-	Power supply terminal (+2.8V)
D1	GPIO7	I/O	Not used
D2	DVDD	-	Power supply terminal (+2.8V)
D3, D4	RSVD2, RSVD1	-	Not used
D5	GPIO5	O	Signal output to the system controller
D6	DR0	I	Serial data input from the system controller
D7	CLKR1	I	Bit clock signal output to the stereo audio codec
D8	DR1	I	Digital audio data input from the stereo audio codec
D9	DVDD	-	Power supply terminal (+2.8V)
D10	FSX2	I	L/R sampling clock signal input from the stereo audio codec
D11	VSS	-	Ground terminal
D12 to D14	NC	-	Not used
E1, E2	GPIO1, GPIO2	I/O	Not used
E3	DVDD	-	Power supply terminal (+2.8V)

Pin No.	Pin Name	I/O	Description
E4, E5	VSS	-	Ground terminal
E6	DVDD	-	Power supply terminal (+2.8V)
E7	DX0	O	Serial data output to the system controller
E8	FSX1	O	Frame sync signal output terminal Not used
E9	DX1	O	Serial data output terminal Not used
E10, E11	NC	-	Not used
E12, E13	VSS	-	Ground terminal
E14	XF	O	External flag output terminal Not used
F1	X1	O	System clock signal output terminal Not used
F2	X2/CLKIN	I	Master clock signal input from the stereo audio codec
F3	GPIO0	I/O	Not used
F4	VSS	-	Ground terminal
F5	CLKOUT	O	DSP clock signal output terminal Not used
F10	DVDD	-	Power supply terminal (+2.8V)
F11	VSS	-	Ground terminal
F12	_INT4	I	Interrupt signal input terminal Not used
F13	DVDD	-	Power supply terminal (+2.8V)
F14	_INT3	I	Interrupt signal input terminal Not used
G1	CVDD	-	Power supply terminal (+1.35V)
G2	C1	I/O	Not used
G3	A20	I/O	Address bus terminal Not used
G4, G5	C2, C0	I/O	Not used
G10	_INT2	I	Interrupt signal input terminal Not used
G11	CVDD	-	Power supply terminal (+1.35V)
G12	VSS	-	Ground terminal
G13, G14	_INT1, _INT0	I	Interrupt signal input from the system controller
H1	C3	I/O	Not used
H2	DVDD	-	Power supply terminal (+2.8V)
H3	A19	I/O	Address bus terminal Not used
H4, H5	C4, C5	I/O	Not used
H10	DVDD	-	Power supply terminal (+2.8V)
H11	A0	I/O	Address bus terminal Not used
H12	_RESET	I	Reset signal input from the system controller "L": reset
H13	SDA	I/O	I2C data bus terminal Not used
H14	SCL	I/O	I2C clock bus terminal Not used
J1	C6	I/O	Not used
J2	DVDD	-	Power supply terminal (+2.8V)
J3, J4	C7, C8	I/O	Not used
J5, J10, J11	CVDD	-	Power supply terminal (+1.35V)
J12	_TRST	I	Test reset signal input terminal Not used
J13	TCK	I	Test clock signal input terminal Not used
J14	TMS	I	Test mode select signal input terminal Not used
K1	A18	I/O	Address bus terminal Not used
K2, K3	C9, C11	I/O	Not used
K4, K5	VSS	-	Ground terminal
K6, K7	A3, A2	I/O	Address bus terminal Not used
K8	D1	I/O	Data bus terminal Not used
K9	A14	I/O	Address bus terminal Not used
K10	DVDD	-	Power supply terminal (+2.8V)
K11, K12	EMU0, EMU1/_OFF	I/O	Emulator terminal Not used
K13	TDO	O	Test data output terminal Not used
K14	TDI	I	Test data input terminal Not used
L1	CVDD	-	Power supply terminal (+1.35V)
L2, L3	C14, C12	I/O	Not used
L4 to L7	A11, A8, A6, A0	I/O	Address bus terminal Not used

Pin No.	Pin Name	I/O	Description
L8 to L13	D0, D4, D9, D13 to D15	I/O	Data bus terminal Not used
L14	CVDD	-	Power supply terminal (+1.35V)
M1, M2	C10, C13	I/O	Not used
M3	VSS	-	Ground terminal
M4	CVDD	-	Power supply terminal (+1.35V)
M5	VSS	-	Ground terminal
M6 to M8	A5, A1, A15	I/O	Address bus terminal Not used
M9, M10	D3, D6	I/O	Data bus terminal Not used
M11	CVDD	-	Power supply terminal (+1.35V)
M12	DVDD	-	Power supply terminal (+2.8V)
M13	VSS	-	Ground terminal
M14	D12	I/O	Data bus terminal Not used
N1, N2	VSS	-	Ground terminal
N3 to N5	A13, A10, A7	I/O	Address bus terminal Not used
N6	DVDD	-	Power supply terminal (+2.8V)
N7, N8	CVDD	-	Power supply terminal (+1.35V)
N9, N10	VSS	-	Ground terminal
N11, N12	D8, D11	I/O	Data bus terminal Not used
N13	DVDD	-	Power supply terminal (+2.8V)
N14, P1, P2	VSS	-	Ground terminal
P3 to P7	A12, A9, A17, A4, A16	I/O	Address bus terminal Not used
P8	DVDD	-	Power supply terminal (+2.8V)
P9 to P12	D2, D5, D7, D10	I/O	Data bus terminal Not used
P13, P14	DVDD	-	Power supply terminal (+2.8V)

MAIN BOARD IC801 μ PD78F0527GB (S)-UET-A (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1, 2	INT1, INT0	O	Interrupt signal output to the DSP
3	AMUTE	O	Muting on/off control signal output to the power amplifier "L": muting on
4	DDCE	O	DC/DC converter on/off control signal output terminal "H": DC/DC converter on
5	_RESET	I	System reset signal input from the reset signal generator and RESET switch "L": reset For several hundreds msec. after the power supply rises, "L" is input, then it change to "H"
6	BATTSEL	O	Power supply selection signal output terminal "L": rechargeable battery, "H": external DC power supply
7	P123	O	Not used
8	FLMD0	-	Not used
9, 10	P121/OCD0A, P122/OCD0B	O	Not used
11	REGC	-	External capacitor connection terminal
12	VSS	-	Ground terminal
13	VDD	-	Power supply terminal (+2.8V)
14	SCLK	O	Serial data transfer clock signal output to the stereo audio codec
15	SDA	O	Serial data output to the stereo audio codec
16, 17	P62, P63	O	Not used
18	LED_B	O	LED drive signal output terminal for power on indicator "H": LED on
19	MONPATH	O	Monitor signal on/off control signal output terminal "H": monitor signal on
20, 21	HYB2PATH, HYB1PATH	O	Noise signal on/off control signal output terminal "H": noise signal on
22, 23	P74, P73	O	Not used
24	KEYMON	I	MONITOR switch input terminal
25	KEYMODE	I	AI NC MODE switch input terminal
26	KEYPOWER	I	POWER switch input terminal
27	GPIO5	I	Signal input from the DSP
28	P31	O	Not used
29	GPIO4	I	Signal input from the DSP
30	LED_R	O	LED drive signal output terminal for AI noise cancelling mode on indicator "H": LED on
31	P16	O	Not used
32	DSPRST	O	Reset signal output to the DSP "L": reset
33, 34	P14/RXD6, P13/TXD6	O	Not used
35	DR0	O	Serial data output to the DSP
36	DX0	I	Serial data input from the DSP
37	CLK0	O	Serial data transfer clock signal output to the DSP
38	AVREF	I	Reference voltage (+2.8V) input terminal
39	AVSS	-	Ground terminal
40	VBAT	I	Rechargeable battery power supply voltage detection signal input terminal (A/D input)
41 to 48	P26 to P20, P130	O	Not used
49	FSX0	O	Frame sync signal output to the DSP
50	FSR0	O	Frame sync signal output to the DSP
51, 52	REGION1, REGION0	I	Input terminal for destination setting

CHARGER BOARD IC402 BQ24070HLRG4 (POWER/CHARGE CONTROL)

Pin No.	Pin Name	I/O	Description
1	VREF	O	Reference voltage output terminal
2	STAT1	O	LED drive signal output terminal for charge on indicator "L": LED on
3	STAT2	O	Charge status output terminal Not used
4	IN	I	Power supply voltage input for charge from the DC/DC converter
5, 6	BATT	I/O	Power supply voltage input from the rechargeable battery and power supply voltage for charge to the rechargeable battery
7	IS2T	I	Input terminal for charge current setting "L": 100 mA, "H": 500 mA Fixed at "H" in this set at charge
8	MODE	I	Input terminal for power supply selection "L": USB power supply, "H": AC power supply Fixed at "H" in this set at charge
9	CE	I	Chip enable signal input terminal "H": charge on
10	IS2T1	I	Input terminal for charge current, precharge and charge termination setting
11	VSS	-	Ground terminal
12	TS	I	Temperature detection signal input terminal
13	DPPM	I	Input terminal for dynamic power path management setting
14	TMR	I	Timer program input terminal Not used
15 to 17	OUT	O	Power supply voltage output terminal
18	PG	O	Power good status output terminal Not used
19, 20	GND	-	Ground terminal

SECTION 6

- -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.

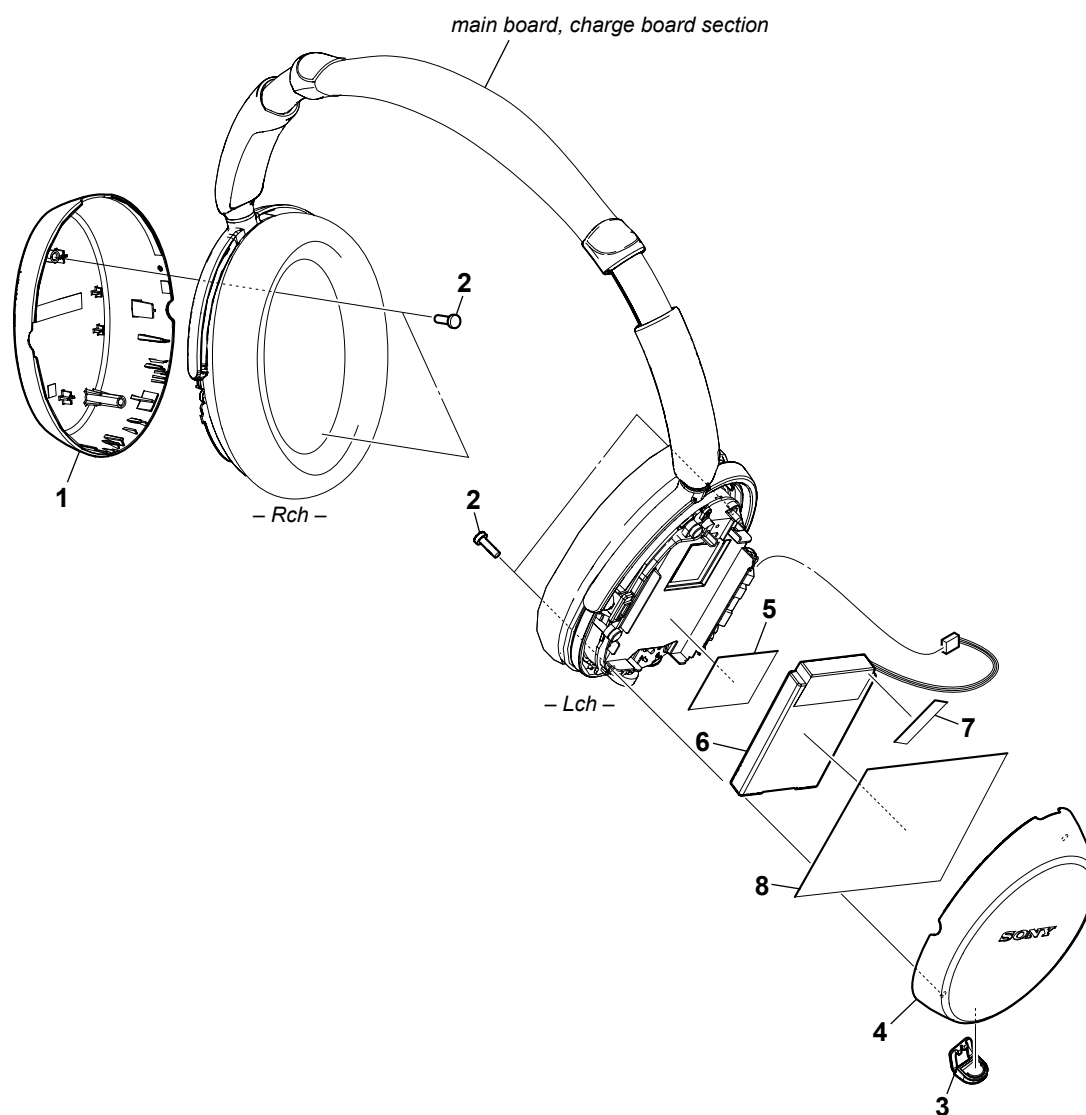
- The mechanical parts with no reference number in the exploded views are not supplied.
- Color Indication of Appearance Parts Example:
KNOB, BALANCE (WHITE) . . . (RED)

1. KNOB, BALANCE (WHITE) ... (RED)

Parts Color Cabinet's Color

- Abbreviation
 - AUS : Australian model
 - CH : Chinese model
 - CND : Canadian model
 - E18 : 100V – 240V AC area in E model
 - E92 : 120V AC area in E model
 - JE : Tourist model
 - KR : Korean model
 - TH : Thai model
 - TW : Taiwan model

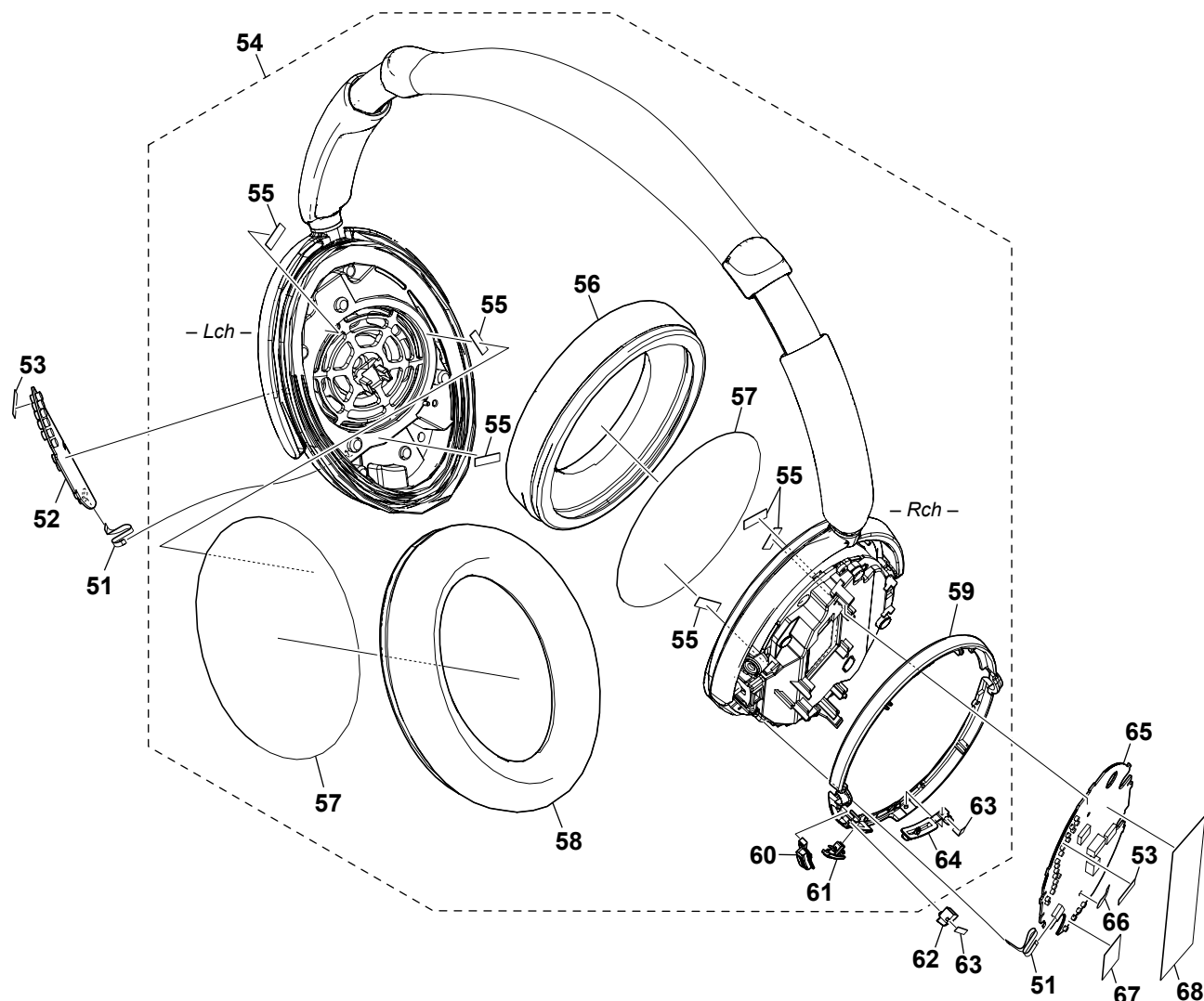
6-1. HOUSING, LITHIUM-ION BATTERY SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	X-2190-524-2	HOUSING (R) SUB ASSY		6	X-2190-559-1	BATTERY (LI-ION) SUB ASSY (US, CND)	
2	3-252-831-01	SCREW (M2.6), (+) P		6	X-2190-560-1	BATTERY (LI-ION) SUB ASSY	
3	3-275-348-01	COVER, DC JACK				(EXCEPT US, CND, JE)	
4	X-2190-523-2	HOUSING (L) SUB ASSY		7	3-287-010-01	SHEET (B)	
5	3-275-990-01	ADHESIVE, BATTERY		8	3-879-138-01	SHEET (B), SHIELD	
6	X-2190-525-1	BATTERY (LI-ION) SUB ASSY (JE)					

6-2. MAIN BOARD, CHARGER BOARD SECTION

Note: The illustration sees the set from the right (MAIN board).



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	1-834-708-11	FLEXIBLE FLAT CABLE		57	3-275-993-11	SCREEN	
52	A-1364-079-A	CHARGER BOARD, COMPLETE (US, CND, JE)		58	3-275-994-02	PAD (L), EAR	
52	A-1555-457-A	CHARGER BOARD, COMPLETE (EXCEPT US, CND, JE)		59	3-275-341-02	ORNAMENT (R)	
53	3-287-009-01	SHEET (A)		60	3-275-343-01	BUTTON, MONITOR	
54	X-2190-526-2	HEAD BAND SUB ASSY (JE)		61	3-275-342-01	KNOB, POWER	
54	X-2318-408-2	HEAD BAND SUB ASSY (US, CND, E18, E92, TW, KR, TH)		62	3-275-346-01	LIGHT GUIDE, POWER	
54	X-2318-409-2	HEAD BAND SUB ASSY (AEP, UK)		63	3-289-858-01	SHEET, COVER	
54	X-2342-451-1	HEAD BAND SUB ASSY (AUS)		64	3-275-344-01	BUTTON, MODE	
54	X-2342-452-1	HEAD BAND SUB ASSY (CH)		65	X-2318-251-1	MAIN BOARD, COMPLETE (for SERVICE)	
55	3-275-992-01	ADHESIVE, SCREEN		66	3-879-140-01	SHEET (D), SHIELD	
56	3-700-504-02	PAD (R), EAR		67	3-213-197-21	CUSHION SARANET	
				68	3-879-139-01	SHEET (C), SHIELD	

SECTION 7

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: μ F
- COILS
uH: μ H

- 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. . . : μ A. . . , uPA. . . , μ PA. . . ,
uPB. . . : μ PB. . . , uPC. . . , μ PC. . . ,
uPD. . . : μ PD. . .
- Abbreviation
AUS : Australian model
CH : Chinese model
CND : Canadian model
E18 : 100V – 240V AC area in E model
E92 : 120V AC area in E model
JE : Tourist model
KR : Korean model

TH : Thai model
TW : Taiwan model

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

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

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

原理图和零件清单中标有 $\triangle$ 记号的零部件，或带有 $\triangle$ 记号的虚线所圈示的零部件，对于维系安全至关重要。因此只能以指定号码的零部件来更换。

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	A-1364-079-A	CHARGER BOARD, COMPLETE (US, CND, JE)		IC404	6-711-834-01	IC XC61GN5002HR	
	A-1555-457-A	CHARGER BOARD, COMPLETE		IC405	6-711-838-01	IC XC61GN3302HR	
		(EXCEPT US, CND, JE)				< COIL >	

		< CAPACITOR >		L401	1-481-390-11	INDUCTOR 22uH	
C101	1-128-630-91	CERAMIC CHIP 0.0047uF 10% 6.3V				< TRANSISTOR >	
C131	1-128-630-91	CERAMIC CHIP 0.0047uF 10% 6.3V		Q401	8-729-047-90	FET XP162A11C0PR	
C400	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V		Q402	6-551-139-01	TRANSISTOR DTC115TE-TL	
		(EXCEPT US, CND, JE)		Q403	8-729-043-90	TRANSISTOR IMX9T110	
C401	1-100-814-91	TANTALUM CHIP 100uF 20% 16V		Q404	8-729-043-90	TRANSISTOR IMX9T110	
C402	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V		Q405	8-729-029-14	TRANSISTOR DTC144EUA-T106	
C403	1-100-965-91	CERAMIC CHIP 0.047uF 10% 6.3V				< RESISTOR >	
C404	1-112-197-91	CERAMIC CHIP 10PF 0.5PF 50V		R401	1-240-724-91	METAL CHIP 330K 5% 1/20W	
C405	1-112-716-11	CERAMIC CHIP 0.1uF 10% 6.3V		R402	1-218-989-11	METAL CHIP 1M 5% 1/16W	
C406	1-135-856-91	TANTALUM CHIP 100uF 20% 10V		R403	1-218-982-11	METAL CHIP 270K 5% 1/16W	
C408	1-112-716-11	CERAMIC CHIP 0.1uF 10% 6.3V		R404	1-208-711-11	METAL CHIP 15K 0.5% 1/16W	
C409	1-112-716-11	CERAMIC CHIP 0.1uF 10% 6.3V		R410	1-240-697-91	METAL CHIP 1.5K 5% 1/20W	
C410	1-112-716-11	CERAMIC CHIP 0.1uF 10% 6.3V		R411	1-240-718-91	METAL CHIP 100K 5% 1/20W	
C411	1-137-910-11	TANTALUM CHIP 10uF 20% 16V		R412	1-240-718-91	METAL CHIP 100K 5% 1/20W	
C412	1-165-897-11	TANTALUM CHIP 22uF 20% 10V		R413	1-240-697-91	METAL CHIP 1.5K 5% 1/20W	
C413	1-100-415-91	CERAMIC CHIP 0.47uF 10% 6.3V		R414	1-240-703-91	METAL CHIP 4.7K 5% 1/20W	
C414	1-112-716-11	CERAMIC CHIP 0.1uF 10% 6.3V		R415	1-240-713-91	METAL CHIP 33K 5% 1/20W	
C415	1-137-910-11	TANTALUM CHIP 10uF 20% 16V		R416	1-240-711-91	METAL CHIP 22K 5% 1/20W	
C416	1-112-716-11	CERAMIC CHIP 0.1uF 10% 6.3V		R417	1-240-714-91	METAL CHIP 47K 5% 1/20W	
C417	1-137-910-11	TANTALUM CHIP 10uF 20% 16V		R419	1-240-718-91	METAL CHIP 100K 5% 1/20W	
C418	1-112-716-11	CERAMIC CHIP 0.1uF 10% 6.3V		R420	1-694-535-91	SHORT CHIP 0	
C421	1-162-966-11	CERAMIC CHIP 0.0022uF 10% 50V	(US, CND, JE)	R421	1-240-718-91	METAL CHIP 100K 5% 1/20W	
C423	1-164-943-81	CERAMIC CHIP 0.01uF 10% 16V	(EXCEPT US, CND, JE)	R423	1-694-535-91	SHORT CHIP 0	
		< CONNECTOR >		R424	1-240-718-91	METAL CHIP 100K 5% 1/20W	
CN402	1-817-549-51	CONNECTOR, FPC 8P		R426	1-240-726-91	METAL CHIP 470K 5% 1/20W	
CN403	1-770-619-11	PIN, CONNECTOR 2P		R427	1-240-718-91	METAL CHIP 100K 5% 1/20W	
		< DIODE >		R428	1-240-718-91	METAL CHIP 100K 5% 1/20W	
D402	8-719-066-98	DIODE RB051L-40TE25		R429	1-240-718-91	METAL CHIP 100K 5% 1/20W	
D403	8-719-066-98	DIODE RB051L-40TE25		R430	1-240-711-91	METAL CHIP 22K 5% 1/20W	
		< IC >		R431	1-240-711-91	METAL CHIP 22K 5% 1/20W	
IC401	8-759-578-53	IC XC6365D103MR		R432	1-240-683-91	METAL CHIP 100 5% 1/20W	
IC402	(Not supplied)	IC BQ24070RHLRG4		R434	1-694-535-91	SHORT CHIP 0	
IC403	6-711-835-01	IC XC61GN3002HR		R435	1-240-714-91	METAL CHIP 47K 5% 1/20W	

Note: IC402 on the CHARGER board cannot exchange with single. When this part on the CHARGER board is damaged, exchange the entire mounted board.

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark			
		< THERMISTOR >											
TH401	1-810-812-21	THERMISTOR, NTC (1608)	*****				C301	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V	
							C302	1-104-851-11	TANTALUM CHIP	10uF	20%	10V	
							C361	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V	
	X-2318-251-1	MAIN BOARD, COMPLETE (for SERVICE)											
		< CAPACITOR >											
C102	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V	C474	1-135-856-91	TANTALUM CHIP	100uF	20%	10V		
C103	1-100-742-91	CERAMIC CHIP	2.2uF	20%	10V	C475	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V		
C104	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	50V	C476	1-137-934-91	TANTALUM CHIP	47uF	20%	10V		
C130	1-135-210-11	TANTALUM CHIP	4.7uF	20%	10V	C477	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V		
C132	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V	C478	1-164-862-11	CERAMIC CHIP	33PF	5%	50V		
C133	1-100-742-91	CERAMIC CHIP	2.2uF	20%	10V	C479	1-164-862-11	CERAMIC CHIP	33PF	5%	50V		
C134	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V	C480	1-165-897-11	TANTALUM CHIP	22uF	20%	10V		
C135	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	50V	C481	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V		
C161	1-131-664-91	CERAMIC CHIP	0.15uF	10%	10V	C482	1-165-897-11	TANTALUM CHIP	22uF	20%	10V		
C162	1-164-943-81	CERAMIC CHIP	0.01uF	10%	16V	C483	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V		
C163	1-112-672-81	CERAMIC CHIP	330PF	5%	50V	C484	1-137-934-91	TANTALUM CHIP	47uF	20%	10V		
C164	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V	C485	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V		
C181	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V	C486	1-164-862-11	CERAMIC CHIP	33PF	5%	50V		
C182	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V	C487	1-164-862-11	CERAMIC CHIP	33PF	5%	50V		
C183	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V	C488	1-165-897-11	TANTALUM CHIP	22uF	20%	10V		
C184	1-104-851-11	TANTALUM CHIP	10uF	20%	10V	C489	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V		
C185	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V	C490	1-165-897-11	TANTALUM CHIP	22uF	20%	10V		
C186	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V	C492	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V		
C187	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V	C494	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V		
C188	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V	C495	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V		
C189	1-119-923-11	CERAMIC CHIP	0.047uF	10%	10V	C496	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V		
C190	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V	C497	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V		
C191	1-165-887-91	CERAMIC CHIP	0.22uF	10%	6.3V	C498	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V		
C192	1-164-943-81	CERAMIC CHIP	0.01uF	10%	16V	C499	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V		
C194	1-127-772-81	CERAMIC CHIP	0.033uF	10%	10V	C501	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V		
C201	1-128-630-91	CERAMIC CHIP	0.0047uF	10%	6.3V	C502	1-104-851-11	TANTALUM CHIP	10uF	20%	10V		
C202	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V	C503	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V		
C203	1-100-742-91	CERAMIC CHIP	2.2uF	20%	10V	C504	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V		
C204	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	50V	C505	1-104-851-11	TANTALUM CHIP	10uF	20%	10V		
C230	1-135-210-11	TANTALUM CHIP	4.7uF	20%	10V	C506	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V		
C231	1-128-630-91	CERAMIC CHIP	0.0047uF	10%	6.3V	C508	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V		
C232	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V	C509	1-104-851-11	TANTALUM CHIP	10uF	20%	10V		
C233	1-100-742-91	CERAMIC CHIP	2.2uF	20%	10V	C510	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V		
C234	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V	C511	1-104-851-11	TANTALUM CHIP	10uF	20%	10V		
C235	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	50V	C512	1-162-920-11	CERAMIC CHIP	27PF	5%	50V		
C261	1-131-664-91	CERAMIC CHIP	0.15uF	10%	10V	C513	1-162-920-11	CERAMIC CHIP	27PF	5%	50V		
C262	1-164-943-81	CERAMIC CHIP	0.01uF	10%	16V	C551	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V		
C263	1-112-672-81	CERAMIC CHIP	330PF	5%	50V	C552	1-104-851-11	TANTALUM CHIP	10uF	20%	10V		
C264	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V	C553	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V		
C281	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V	C554	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V		
C282	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V	C555	1-104-851-11	TANTALUM CHIP	10uF	20%	10V		
C283	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V	C556	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V		
C284	1-104-851-11	TANTALUM CHIP	10uF	20%	10V	C557	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V		
C285	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V	C558	1-104-851-11	TANTALUM CHIP	10uF	20%	10V		
C286	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V	C559	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V		
C287	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V	C560	1-104-851-11	TANTALUM CHIP	10uF	20%	10V		
C288	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V	C601	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V		
C289	1-119-923-11	CERAMIC CHIP	0.047uF	10%	10V	C602	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V		
C290	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V	C603	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V		
C291	1-165-887-91	CERAMIC CHIP	0.22uF	10%	6.3V	C604	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V		
C292	1-164-943-81	CERAMIC CHIP	0.01uF	10%	16V	C605	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V		
C294	1-127-772-81	CERAMIC CHIP	0.033uF	10%	10V	C606	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V		

MAIN

Ref. No.	Part No.	Description					Remark	Ref. No.	Part No.	Description					Remark
C607	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			C806	1-128-627-91	CERAMIC CHIP	0.001uF	10%	16V		
C608	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			C807	1-128-627-91	CERAMIC CHIP	0.001uF	10%	16V		
C610	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			C808	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V		
C611	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			C809	1-128-632-91	CERAMIC CHIP	0.01uF	10%	6.3V		
C612	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			C810	1-128-627-91	CERAMIC CHIP	0.001uF	10%	16V		
C613	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			C812	1-128-627-91	CERAMIC CHIP	0.001uF	10%	16V		
C614	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			C813	1-128-617-91	CERAMIC CHIP	100PF	5%	25V		
C615	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			C814	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V		
C616	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			C815	1-164-874-11	CERAMIC CHIP	100PF	5%	50V		
C617	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			C816	1-164-874-11	CERAMIC CHIP	100PF	5%	50V		
C620	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			C817	1-164-874-11	CERAMIC CHIP	100PF	5%	50V		
C621	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			C818	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V		
C622	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			C819	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V		
C623	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			C820	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V		
C624	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			C821	1-117-919-11	TANTALUM CHIP	10uF	20%	6.3V		
C625	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			C822	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V		
C626	1-128-627-91	CERAMIC CHIP	0.001uF	10%	16V			C823	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V		
C627	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			< CONNECTOR >							
C628	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			CN405	1-817-549-51	CONNECTOR, FPC 8P					
C629	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			* CN801	1-817-705-51	CONNECTOR, FPC 10P					
C630	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			< DIODE >							
C631	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			D101	6-501-099-01	DIODE 1SS380TE-17					
C632	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			D102	6-501-099-01	DIODE 1SS380TE-17					
C633	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			D103	6-501-099-01	DIODE 1SS380TE-17					
C634	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			D104	6-501-099-01	DIODE 1SS380TE-17					
C635	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			D131	6-501-099-01	DIODE 1SS380TE-17					
C636	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			D132	6-501-099-01	DIODE 1SS380TE-17					
C637	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			D133	6-501-099-01	DIODE 1SS380TE-17					
C638	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			D134	6-501-099-01	DIODE 1SS380TE-17					
C639	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			D162	6-501-099-01	DIODE 1SS380TE-17					
C640	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			D163	6-501-099-01	DIODE 1SS380TE-17					
C641	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			D164	6-501-099-01	DIODE 1SS380TE-17					
C642	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			D165	6-501-099-01	DIODE 1SS380TE-17					
C643	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			D201	6-501-099-01	DIODE 1SS380TE-17					
C644	1-117-919-11	TANTALUM CHIP	10uF	20%	6.3V			D202	6-501-099-01	DIODE 1SS380TE-17					
C645	1-104-851-11	TANTALUM CHIP	10uF	20%	10V			D203	6-501-099-01	DIODE 1SS380TE-17					
C646	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			D204	6-501-099-01	DIODE 1SS380TE-17					
C647	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			D231	6-501-099-01	DIODE 1SS380TE-17					
C648	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			D232	6-501-099-01	DIODE 1SS380TE-17					
C649	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V			D233	6-501-099-01	DIODE 1SS380TE-17					
C650	1-135-856-91	TANTALUM CHIP	100uF	20%	10V			D234	6-501-099-01	DIODE 1SS380TE-17					
C651	1-135-856-91	TANTALUM CHIP	100uF	20%	10V			D262	6-501-099-01	DIODE 1SS380TE-17					
C652	1-164-874-11	CERAMIC CHIP	100PF	5%	50V			D263	6-501-099-01	DIODE 1SS380TE-17					
C656	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V			D264	6-501-099-01	DIODE 1SS380TE-17					
C657	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V			D265	6-501-099-01	DIODE 1SS380TE-17					
C658	1-164-874-11	CERAMIC CHIP	100PF	5%	50V			D801	6-502-217-01	DIODE HZU3BLTTRF-E					
C659	1-164-874-11	CERAMIC CHIP	100PF	5%	50V			D802	8-719-082-45	DIODE RB715W-TL					
C661	1-164-874-11	CERAMIC CHIP	100PF	5%	50V			< JUMPER RESISTOR/FERRITE BEAD >							
C663	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V			FB101	1-218-990-81	SHORT CHIP	0				
C664	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V			FB102	1-218-990-81	SHORT CHIP	0				
C665	1-164-874-11	CERAMIC CHIP	100PF	5%	50V			FB131	1-218-990-81	SHORT CHIP	0				
C669	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V			FB132	1-218-990-81	SHORT CHIP	0				
C670	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V			FB161	1-469-083-21	INDUCTOR, FERRITE BEAD (1005)					
C671	1-164-874-11	CERAMIC CHIP	100PF	5%	50V			FB182	1-218-990-81	SHORT CHIP	0				
C672	1-164-874-11	CERAMIC CHIP	100PF	5%	50V			FB183	1-218-990-81	SHORT CHIP	0				
C673	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V			FB201	1-218-990-81	SHORT CHIP	0				
C674	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V			FB202	1-218-990-81	SHORT CHIP	0				
C801	1-128-627-91	CERAMIC CHIP	0.001uF	10%	16V										
C802	1-165-908-11	CERAMIC CHIP	1uF	10%	10V										
C803	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V										

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
FB231	1-218-990-81	SHORT CHIP 0		Q474	6-551-938-01	FET SCH2401-TL-E	
FB232	1-218-990-81	SHORT CHIP 0		Q475	6-551-139-01	TRANSISTOR DTC115TE-TL	
FB261	1-469-083-21	INDUCTOR, FERRITE BEAD (1005)		Q476	6-551-411-01	TRANSISTOR 2SD2654TLV	
FB282	1-218-990-81	SHORT CHIP 0		Q801	8-729-029-14	TRANSISTOR DTC144EUA-T106	
FB283	1-218-990-81	SHORT CHIP 0		Q802	8-729-029-14	TRANSISTOR DTC144EUA-T106	
FB361	1-469-083-21	INDUCTOR, FERRITE BEAD (1005)		< RESISTOR >			
FB471	1-216-864-11	SHORT CHIP 0		R101	1-240-700-91	METAL CHIP 2.7K 5% 1/20W	
FB472	1-216-864-11	SHORT CHIP 0		R102	1-240-707-91	METAL CHIP 10K 5% 1/20W	
FB501	1-469-084-21	INDUCTOR, FERRITE BEAD (1005)		R103	1-240-702-91	METAL CHIP 3.9K 5% 1/20W	
FB502	1-218-990-81	SHORT CHIP 0		R105	1-694-535-91	SHORT CHIP 0	
FB503	1-218-990-81	SHORT CHIP 0		R106	1-218-953-11	METAL CHIP 1K 5% 1/16W	
FB504	1-469-084-21	INDUCTOR, FERRITE BEAD (1005)		R107	1-240-711-91	METAL CHIP 22K 5% 1/20W	
FB551	1-218-990-81	SHORT CHIP 0		R108	1-694-535-91	SHORT CHIP 0	
FB552	1-469-084-21	INDUCTOR, FERRITE BEAD (1005)		R111	1-218-990-81	SHORT CHIP 0	
FB553	1-218-990-81	SHORT CHIP 0		R112	1-218-990-81	SHORT CHIP 0	
FB601	1-218-990-81	SHORT CHIP 0		R113	1-218-990-81	SHORT CHIP 0	
FB621	1-218-990-81	SHORT CHIP 0		R130	1-240-714-91	METAL CHIP 47K 5% 1/20W	
FB810	1-218-990-81	SHORT CHIP 0		R131	1-240-700-91	METAL CHIP 2.7K 5% 1/20W	
FB811	1-218-990-81	SHORT CHIP 0		R132	1-240-707-91	METAL CHIP 10K 5% 1/20W	
FB812	1-218-990-81	SHORT CHIP 0		R133	1-240-703-91	METAL CHIP 4.7K 5% 1/20W	
FB813	1-218-990-81	SHORT CHIP 0		R135	1-694-535-91	SHORT CHIP 0	
< IC >				R136	1-218-953-11	METAL CHIP 1K 5% 1/16W	
IC181	6-703-606-01	IC TC7SB66FU (TE85R)		R137	1-240-707-91	METAL CHIP 10K 5% 1/20W	
IC182	6-703-606-01	IC TC7SB66FU (TE85R)		R138	1-694-535-91	SHORT CHIP 0	
IC183	6-703-606-01	IC TC7SB66FU (TE85R)		R140	1-218-990-81	SHORT CHIP 0	
IC184	6-711-839-01	IC TLV4113CDGQRG4		R159	1-218-961-11	METAL CHIP 4.7K 5% 1/16W	
IC281	6-703-606-01	IC TC7SB66FU (TE85R)		R161	1-216-804-11	METAL CHIP 39 5% 1/10W	
IC282	6-703-606-01	IC TC7SB66FU (TE85R)		R162	1-240-695-91	METAL CHIP 1K 5% 1/20W	
IC283	6-703-606-01	IC TC7SB66FU (TE85R)		R163	1-218-990-81	SHORT CHIP 0	
IC284	6-711-839-01	IC TLV4113CDGQRG4		R164	1-240-711-91	METAL CHIP 22K 5% 1/20W	
IC301	6-711-841-01	IC NJM2734V (TE1)		R166	1-218-990-81	SHORT CHIP 0	
IC361	6-711-841-01	IC NJM2734V (TE1)		R167	1-218-953-11	METAL CHIP 1K 5% 1/16W	
IC471	6-711-835-01	IC XC61GN3002HR		R168	1-240-703-91	METAL CHIP 4.7K 5% 1/20W	
IC472	6-712-742-01	IC LTC3547BEDDB#TR		R169	1-218-990-81	SHORT CHIP 0	
IC473	6-712-742-01	IC LTC3547BEDDB#TR		R171	1-208-699-11	METAL CHIP 4.7K 0.5% 1/16W	
IC501	(Not supplied)	IC TLV320AIC23BRHDRG4		R172	1-218-961-11	METAL CHIP 4.7K 5% 1/16W	
IC551	(Not supplied)	IC TLV320AIC23BRHDRG4		R173	1-218-990-81	SHORT CHIP 0	
IC601	(Not supplied)	IC TMS320VC5503ZHH		R174	1-218-969-11	METAL CHIP 22K 5% 1/16W	
IC801	(Not supplied)	IC uPD78F0527GB (S)-UET-A		R176	1-218-961-11	METAL CHIP 4.7K 5% 1/16W	
IC802	(Not supplied)	IC XC61FN2512MR		R177	1-218-941-81	METAL CHIP 100 5% 1/16W	
< COIL >				R178	1-218-989-11	METAL CHIP 1M 5% 1/16W	
L471	1-457-250-11	COIL, CHOKE 4.7uH		R179	1-218-989-11	METAL CHIP 1M 5% 1/16W	
L472	1-457-250-11	COIL, CHOKE 4.7uH		R180	1-218-971-11	METAL CHIP 33K 5% 1/16W	
L473	1-457-250-11	COIL, CHOKE 4.7uH		R181	1-218-969-11	METAL CHIP 22K 5% 1/16W	
L474	1-457-250-11	COIL, CHOKE 4.7uH		R182	1-218-966-11	METAL CHIP 12K 5% 1/16W	
L501	1-400-675-11	INDUCTOR 10uH		R183	1-218-961-11	METAL CHIP 4.7K 5% 1/16W	
L502	1-400-675-11	INDUCTOR 10uH		R184	1-218-963-11	METAL CHIP 6.8K 5% 1/16W	
L551	1-400-675-11	INDUCTOR 10uH		R185	1-240-707-91	METAL CHIP 10K 5% 1/20W	
L552	1-400-675-11	INDUCTOR 10uH		R186	1-218-969-11	METAL CHIP 22K 5% 1/16W	
L601	1-400-675-11	INDUCTOR 10uH		R187	1-240-707-91	METAL CHIP 10K 5% 1/20W	
L602	1-481-383-11	INDUCTOR 10uH		R188	1-240-711-91	METAL CHIP 22K 5% 1/20W	
L801	1-400-675-11	INDUCTOR 10uH		R189	1-240-711-91	METAL CHIP 22K 5% 1/20W	
< TRANSISTOR >				R190	1-218-990-81	SHORT CHIP 0	
Q130	6-551-411-01	TRANSISTOR 2SD2654TLV		R192	1-218-966-11	METAL CHIP 12K 5% 1/16W	
Q230	6-551-411-01	TRANSISTOR 2SD2654TLV		R193	1-218-990-81	SHORT CHIP 0	
Q472	8-729-047-36	FET CPH3303-TL-E		R194	1-218-990-81	SHORT CHIP 0	
Q473	8-729-200-72	TRANSISTOR 2SC2712L-TE85L		R196	1-216-864-11	SHORT CHIP 0	
				R197	1-218-983-11	METAL CHIP 330K 5% 1/16W	
				R198	1-218-989-11	METAL CHIP 1M 5% 1/16W	

Note: IC501, IC551, IC601, IC801 and IC802 on the MAIN board cannot exchange with single. When these parts on the MAIN board are damaged, exchange the entire mounted board.

MDR-NC500D

MAIN

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R201	1-240-700-91	METAL CHIP	2.7K	5%	1/20W	R478	1-208-943-11	METAL CHIP	220K	0.5%	1/16W
R202	1-240-707-91	METAL CHIP	10K	5%	1/20W	R479	1-208-947-11	METAL CHIP	330K	0.5%	1/16W
R203	1-240-702-91	METAL CHIP	3.9K	5%	1/20W	R480	1-208-947-11	METAL CHIP	330K	0.5%	1/16W
R205	1-694-535-91	SHORT CHIP	0			R481	1-208-939-11	METAL CHIP	150K	0.5%	1/16W
R206	1-218-953-11	METAL CHIP	1K	5%	1/16W	R482	1-208-923-11	METAL CHIP	33K	0.5%	1/16W
R207	1-240-711-91	METAL CHIP	22K	5%	1/20W	R484	1-208-956-81	METAL CHIP	750K	0.5%	1/16W
R208	1-694-535-91	SHORT CHIP	0			R485	1-208-956-81	METAL CHIP	750K	0.5%	1/16W
R211	1-218-990-81	SHORT CHIP	0			R486	1-218-985-11	METAL CHIP	470K	5%	1/16W
R212	1-218-990-81	SHORT CHIP	0			R487	1-208-956-81	METAL CHIP	750K	0.5%	1/16W
R213	1-218-990-81	SHORT CHIP	0			R488	1-208-942-11	METAL CHIP	200K	0.5%	1/16W
R230	1-240-714-91	METAL CHIP	47K	5%	1/20W	R490	1-216-853-11	METAL CHIP	470K	5%	1/10W
R231	1-240-700-91	METAL CHIP	2.7K	5%	1/20W	R491	1-216-809-11	METAL CHIP	100	5%	1/10W
R232	1-240-707-91	METAL CHIP	10K	5%	1/20W	R492	1-216-809-11	METAL CHIP	100	5%	1/10W
R233	1-240-703-91	METAL CHIP	4.7K	5%	1/20W	R493	1-218-965-11	METAL CHIP	10K	5%	1/16W
R235	1-694-535-91	SHORT CHIP	0			R494	1-218-973-11	METAL CHIP	47K	5%	1/16W
R236	1-218-953-11	METAL CHIP	1K	5%	1/16W	R495	1-218-977-11	METAL CHIP	100K	5%	1/16W
R237	1-240-707-91	METAL CHIP	10K	5%	1/20W	R496	1-218-990-81	SHORT CHIP	0		
R238	1-694-535-91	SHORT CHIP	0			R499	1-218-990-81	SHORT CHIP	0		
R240	1-218-990-81	SHORT CHIP	0			R501	1-218-945-11	METAL CHIP	220	5%	1/16W
R259	1-218-961-11	METAL CHIP	4.7K	5%	1/16W	R502	1-218-990-81	SHORT CHIP	0		
R261	1-216-804-11	METAL CHIP	39	5%	1/10W	R503	1-218-941-81	METAL CHIP	100	5%	1/16W
R262	1-240-695-91	METAL CHIP	1K	5%	1/20W	R504	1-218-933-11	METAL CHIP	22	5%	1/16W
R263	1-218-990-81	SHORT CHIP	0			R506	1-240-707-91	METAL CHIP	10K	5%	1/20W
R264	1-240-711-91	METAL CHIP	22K	5%	1/20W	R507	1-240-707-91	METAL CHIP	10K	5%	1/20W
R266	1-218-990-81	SHORT CHIP	0			R509	1-218-953-11	METAL CHIP	1K	5%	1/16W
R267	1-218-953-11	METAL CHIP	1K	5%	1/16W	R510	1-218-945-11	METAL CHIP	220	5%	1/16W
R268	1-240-703-91	METAL CHIP	4.7K	5%	1/20W	R551	1-218-945-11	METAL CHIP	220	5%	1/16W
R269	1-218-990-81	SHORT CHIP	0			R553	1-218-941-81	METAL CHIP	100	5%	1/16W
R271	1-208-699-11	METAL CHIP	4.7K	0.5%	1/16W	R554	1-218-990-81	SHORT CHIP	0		
R272	1-218-961-11	METAL CHIP	4.7K	5%	1/16W	R555	1-218-990-81	SHORT CHIP	0		
R273	1-218-990-81	SHORT CHIP	0			R556	1-218-965-11	METAL CHIP	10K	5%	1/16W
R274	1-218-969-11	METAL CHIP	22K	5%	1/16W	R557	1-218-965-11	METAL CHIP	10K	5%	1/16W
R276	1-218-961-11	METAL CHIP	4.7K	5%	1/16W	R560	1-218-965-11	METAL CHIP	10K	5%	1/16W
R277	1-218-941-81	METAL CHIP	100	5%	1/16W	R600	1-218-953-11	METAL CHIP	1K	5%	1/16W
R278	1-218-989-11	METAL CHIP	1M	5%	1/16W	R601	1-218-990-81	SHORT CHIP	0		
R279	1-218-989-11	METAL CHIP	1M	5%	1/16W	R602	1-218-990-81	SHORT CHIP	0		
R280	1-218-971-11	METAL CHIP	33K	5%	1/16W	R603	1-218-990-81	SHORT CHIP	0		
R281	1-218-969-11	METAL CHIP	22K	5%	1/16W	R604	1-218-990-81	SHORT CHIP	0		
R282	1-218-966-11	METAL CHIP	12K	5%	1/16W	R605	1-218-941-81	METAL CHIP	100	5%	1/16W
R283	1-218-961-11	METAL CHIP	4.7K	5%	1/16W	R606	1-240-707-91	METAL CHIP	10K	5%	1/20W
R284	1-218-963-11	METAL CHIP	6.8K	5%	1/16W	R607	1-240-707-91	METAL CHIP	10K	5%	1/20W
R285	1-240-707-91	METAL CHIP	10K	5%	1/20W	R608	1-218-990-81	SHORT CHIP	0		
R286	1-218-969-11	METAL CHIP	22K	5%	1/16W	R609	1-218-990-81	SHORT CHIP	0		
R287	1-240-707-91	METAL CHIP	10K	5%	1/20W	R610	1-218-990-81	SHORT CHIP	0		
R288	1-240-711-91	METAL CHIP	22K	5%	1/20W	R611	1-218-990-81	SHORT CHIP	0		
R289	1-240-711-91	METAL CHIP	22K	5%	1/20W	R612	1-218-990-81	SHORT CHIP	0		
R290	1-218-990-81	SHORT CHIP	0			R613	1-240-707-91	METAL CHIP	10K	5%	1/20W
R292	1-218-966-11	METAL CHIP	12K	5%	1/16W	R614	1-240-707-91	METAL CHIP	10K	5%	1/20W
R293	1-218-990-81	SHORT CHIP	0			R615	1-218-990-81	SHORT CHIP	0		
R294	1-218-990-81	SHORT CHIP	0			R616	1-218-990-81	SHORT CHIP	0		
R296	1-216-864-11	SHORT CHIP	0			R617	1-218-990-81	SHORT CHIP	0		
R297	1-218-983-11	METAL CHIP	330K	5%	1/16W	R618	1-218-990-81	SHORT CHIP	0		
R298	1-218-989-11	METAL CHIP	1M	5%	1/16W	R619	1-240-695-91	METAL CHIP	1K	5%	1/20W
R381	1-240-718-91	METAL CHIP	100K	5%	1/20W	R620	1-240-707-91	METAL CHIP	10K	5%	1/20W
R457	1-240-729-91	METAL CHIP	1M	5%	1/20W	R621	1-218-941-81	METAL CHIP	100	5%	1/16W
R469	1-218-977-11	METAL CHIP	100K	5%	1/16W	R624	1-240-707-91	METAL CHIP	10K	5%	1/20W
R470	1-218-990-81	SHORT CHIP	0			R626	1-240-714-91	METAL CHIP	47K	5%	1/20W
R471	1-240-707-91	METAL CHIP	10K	5%	1/20W	R627	1-240-707-91	METAL CHIP	10K	5%	1/20W
R472	1-240-726-91	METAL CHIP	470K	5%	1/20W	R628	1-240-707-91	METAL CHIP	10K	5%	1/20W
R477	1-240-722-91	METAL CHIP	220K	5%	1/20W	R629	1-240-695-91	METAL CHIP	1K	5%	1/20W

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description	Remark
R630	1-218-953-11	METAL CHIP	1K	5%	1/16W			< VIBRATOR >	
R631	1-240-695-91	METAL CHIP	1K	5%	1/20W				
						X501	1-795-485-21	VIBRATOR, CRYSTAL (SMD) (12.288MHz)	
R632	1-240-695-91	METAL CHIP	1K	5%	1/20W	*****			
R633	1-218-990-81	SHORT CHIP	0						
R634	1-240-714-91	METAL CHIP	47K	5%	1/20W			MISCELLANEOUS	
R635	1-240-714-91	METAL CHIP	47K	5%	1/20W			*****	
R636	1-218-953-11	METAL CHIP	1K	5%	1/16W				
						6	X-2190-525-1	BATTERY(LI-ION) SUB ASSY (JE)	
R637	1-218-953-11	METAL CHIP	1K	5%	1/16W	6	X-2190-559-1	BATTERY(LI-ION) SUB ASSY (US, CND)	
R638	1-218-953-11	METAL CHIP	1K	5%	1/16W	6	X-2190-560-1	BATTERY(LI-ION) SUB ASSY	(EXCEPT US, CND, JE)
R639	1-218-990-81	SHORT CHIP	0						
R640	1-218-990-81	SHORT CHIP	0			51	1-834-708-11	FLEXIBLE FLAT CABLE	
R641	1-218-990-81	SHORT CHIP	0			54	X-2190-526-2	HEAD BAND SUB ASSY (JE)	
R642	1-218-965-11	METAL CHIP	10K	5%	1/16W	54	X-2318-408-2	HEAD BAND SUB ASSY	
R643	1-218-965-11	METAL CHIP	10K	5%	1/16W			(US, CND, E18, E92, TW, KR, TH)	
R644	1-218-965-11	METAL CHIP	10K	5%	1/16W	54	X-2318-409-2	HEAD BAND SUB ASSY (AEP, UK)	
R801	1-218-961-11	METAL CHIP	4.7K	5%	1/16W	54	X-2342-451-1	HEAD BAND SUB ASSY (AUS)	
R803	1-240-707-91	METAL CHIP	10K	5%	1/20W	54	X-2342-452-1	HEAD BAND SUB ASSY (CH)	

R804	1-240-707-91	METAL CHIP	10K	5%	1/20W				
R805	1-240-714-91	METAL CHIP	47K	5%	1/20W			ACCESSORIES	
R806	1-240-695-91	METAL CHIP	1K	5%	1/20W			*****	
R807	1-240-695-91	METAL CHIP	1K	5%	1/20W				
R808	1-240-714-91	METAL CHIP	47K	5%	1/20W		1-477-125-23	ADAPTOR, PLUG (DUAL)	
								(Plug adaptor for in-flight use (single/dual))	
R809	1-240-707-91	METAL CHIP	10K	5%	1/20W	△	1-479-329-31	ADAPTOR, AC (AC-ES608K3) (AC power adaptor)	
R810	1-240-707-91	METAL CHIP	10K	5%	1/20W			(JE)	
R811	1-218-953-11	METAL CHIP	1K	5%	1/16W	△	1-479-331-51	ADAPTOR, AC (AC-ES608K3) (AC power adaptor)	
R812	1-240-707-91	METAL CHIP	10K	5%	1/20W			(AEP, E18)	
R813	1-218-941-81	METAL CHIP	100	5%	1/16W	△	1-479-332-51	ADAPTOR, AC (AC-ES608K3) (AC power adaptor)	
								(UK)	
R814	1-218-941-81	METAL CHIP	100	5%	1/16W	△	1-479-334-31	ADAPTOR, AC (AC-ES608K3) (AC power adaptor)	
R815	1-218-941-81	METAL CHIP	100	5%	1/16W			(KR)	
R817	1-240-700-91	METAL CHIP	2.7K	5%	1/20W				
R818	1-240-718-91	METAL CHIP	100K	5%	1/20W	△	1-480-532-11	ADAPTOR, AC (AC-MS608T) (AC power adaptor)	
R819	1-240-827-91	METAL CHIP	75K	0.5%	1/20W			(US, CND, E92, TW)	
						△	1-487-055-11	ADAPTOR, AC (AC-MS608T) (AC power adaptor)	
								(CH)	
R820	1-218-941-81	METAL CHIP	100	5%	1/16W	△	1-487-056-11	ADAPTOR, AC (AC-MS608T) (AC power adaptor)	
R821	1-218-941-81	METAL CHIP	100	5%	1/16W			(TH)	
R822	1-240-695-91	METAL CHIP	1K	5%	1/20W	△	1-487-057-11	ADAPTOR, AC (AC-MS608T) (AC power adaptor)	
R823	1-240-695-91	METAL CHIP	1K	5%	1/20W			(AUS)	
R824	1-240-707-91	METAL CHIP	10K	5%	1/20W				
							1-566-410-21	ADAPTOR, PLUG (Gold-plated unimatch plug adaptor (stereo phone plug ↔ stereo mini jack))	
R826	1-218-953-11	METAL CHIP	1K	5%	1/16W				
R827	1-218-953-11	METAL CHIP	1K	5%	1/16W				
R828	1-218-953-11	METAL CHIP	1K	5%	1/16W		1-833-783-12	CORD (WITH PLUG) (Connecting cord	
R829	1-218-953-11	METAL CHIP	1K	5%	1/16W			(0.5 m, gold plated stereo mini plug))	
R830	1-240-714-91	METAL CHIP	47K	5%	1/20W		1-833-784-12	CORD (WITH PLUG) (Connecting cord	
								(1.5 m, gold plated L type stereo mini plug))	
R832	1-240-714-91	METAL CHIP	47K	5%	1/20W		3-275-356-01	LID, BATTERY	
R833	1-240-707-91	METAL CHIP	10K	5%	1/20W			(for Connecting cord with battery case)	
R834	1-240-707-91	METAL CHIP	10K	5%	1/20W		3-275-995-01	CASE, CARRYING (including shoulder belt)	
R835	1-694-535-91	SHORT CHIP	0				3-278-744-02	MANUAL, INSTRUCTION (JAPANESE) (JE)	
R836	1-218-990-81	SHORT CHIP	0						
							3-278-744-13	MANUAL, INSTRUCTION (ENGLISH, SPANISH)	
								(US, JE)	
R837	1-240-718-91	METAL CHIP	100K	5%	1/20W		3-278-744-23	MANUAL, INSTRUCTION (ENGLISH, FRENCH)	
R838	1-218-965-11	METAL CHIP	10K	5%	1/16W			(CND, AEP, UK, E92)	
R840	1-218-965-11	METAL CHIP	10K	5%	1/16W		3-278-744-33	MANUAL, INSTRUCTION (GERMAN, SPANISH)	
R842	1-218-953-11	METAL CHIP	1K	5%	1/16W			(AEP, E92)	
R843	1-218-953-11	METAL CHIP	1K	5%	1/16W				
							3-278-744-43	MANUAL, INSTRUCTION	
								(ITALIAN, PORTUGUESE) (AEP)	
							3-278-744-51	MANUAL, INSTRUCTION (ENGLISH, KOREAN)	
								(E18, TW, KR, TH, AUS)	
RV101	1-227-830-11	RES, ADJ, CERMET 47K							
RV182	1-227-829-11	RES, ADJ, CERMET 22K							
RV201	1-227-830-11	RES, ADJ, CERMET 47K					3-278-744-61	MANUAL, INSTRUCTION	
RV282	1-227-829-11	RES, ADJ, CERMET 22K						(TRADITIONAL CHINESE, SIMPLIFIED CHINESE)	
								(E18, TW, KR, TH, AUS)	
							3-278-744-71	MANUAL, INSTRUCTION	
								(ENGLISH, SIMPLIFIED CHINESE) (CH)	

MDR-NC500D

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
	A-1364-074-A	CORD (WITH PLUG) ASSY (Connecting cord with battery case) (including battery lid) (US, CND, JE)	
	A-1555-465-A	CORD (WITH PLUG) ASSY (Connecting cord with battery case) (including battery lid) (EXCEPT US, CND, JE)	

MEMO

REVISION HISTORY

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