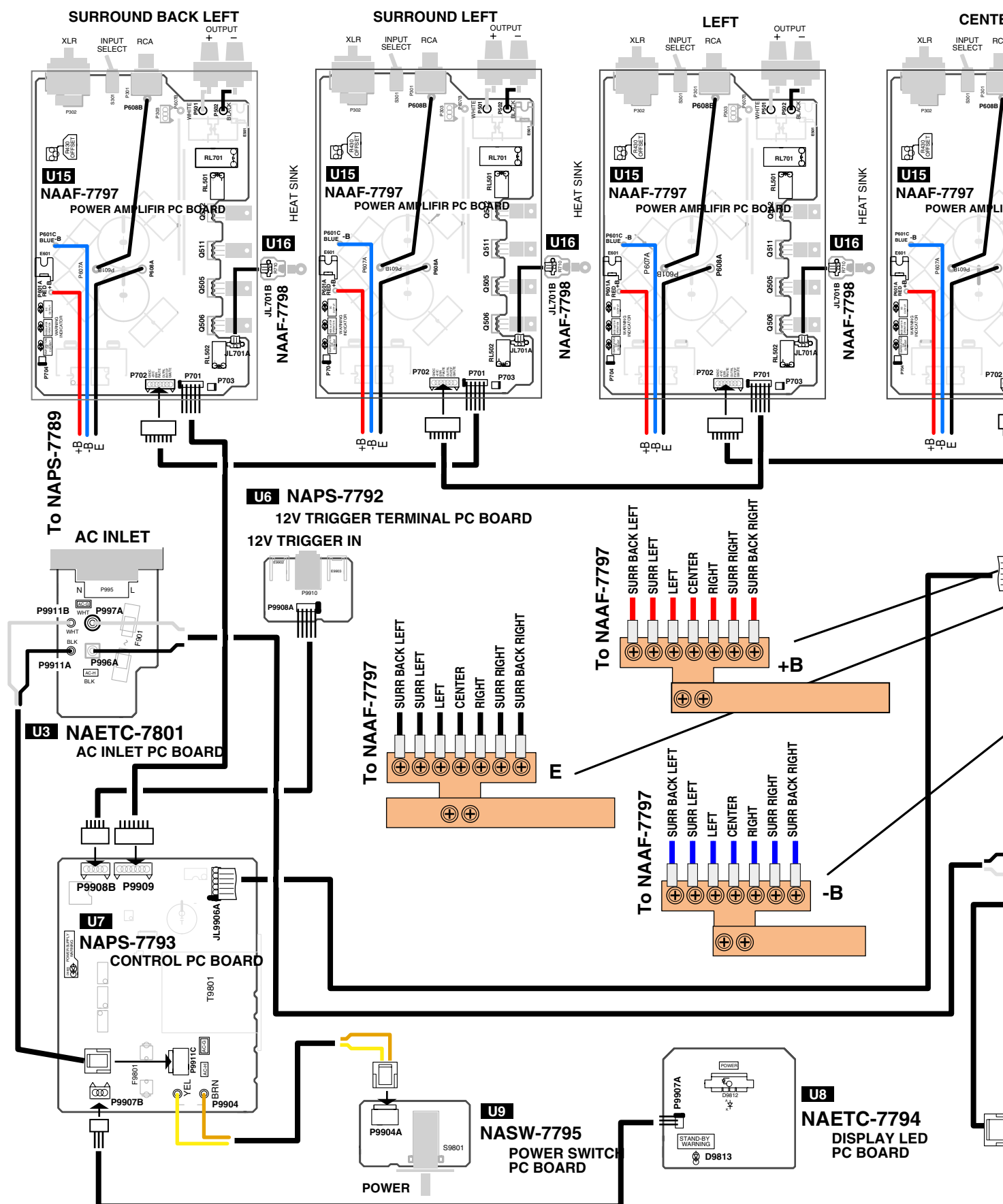


PC BOARD CONNECTION DIAGRAM



OPERATION CHECK-4

OPERATION INDICATOR IN THE UNIT-1

(RED)  D705

DC OUTPUT

D705 (DC OUTPUT)

This LED Turned on when DC voltage is detected between speaker output terminals.

Speaker output relay is turned off while having detected DC voltage. The relay will return automatically, if DC voltage output is lost.

(ORANGE)  D710

MODULATOR OPERATION

D710 (MODULATOR)

This LED shows the state of operation of an modulation circuit.

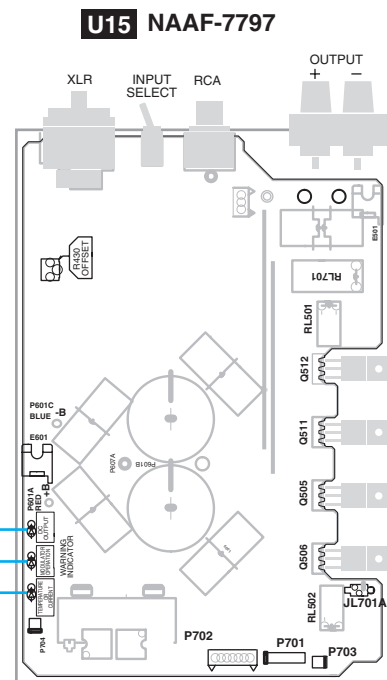
Immediately after a power supply injection, the light is switched on, and this LED will put out the light, if operation of modulation circuit is started.

(RED) Ⓚ D751

TEMPERATURE
OR
CURRENT

D751 (TEMPERATURE OR CURRENT)

This LED is turned on when an unusual temperature rise and unusual over-current of an amplifier circuit are detected.

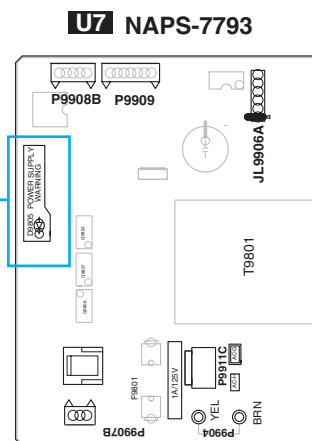


(RED) D9805

POWER SUPPLY WARNING

D9805(POWER SUPPLY WARNING)

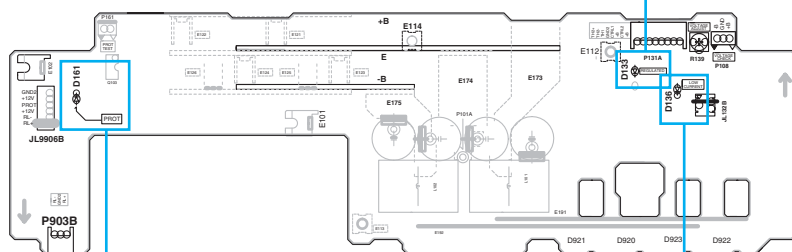
This LED is turned on when abnormalities arise in the power supply circuit.



OPERATION CHECK-5

OPERATION INDICATOR IN THE UNIT-2

U2 NAPS-7789



(RED) D133 (REGULATED)

REGULATED

This LED is turned on when the voltage of a secondary power supply output is normal. The detection circuit which is source of the drive about this LED is supervising only the voltage difference between the positive power supply of secondary voltage, and the negative power supply.

(RED)

D136

LOW
CURRENT

D136 (LOW CURRENT)

This LED is turned on when a low load measure circuit operates. When the switching power supply of this unit has very little load to a power supply, the voltage of a secondary side output rises rapidly. In such a case, a problem is avoided by lowering voltage. This circuit may operate temporarily at the time of a power supply ON.

(RED)

D161

PROT

D161 (PROT)

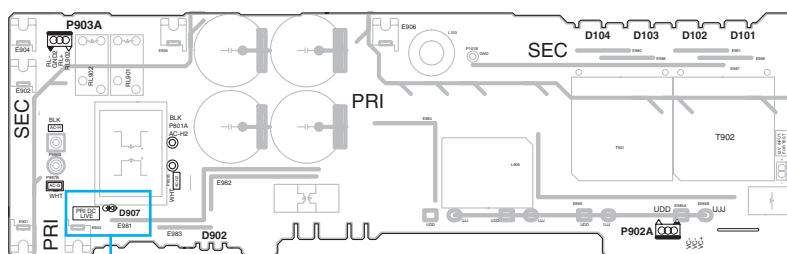
This LED is turned on when the protection circuit of a power supply operates. The protection circuit of a power supply section consists of following detection circuits.

1. Over voltage detection of a secondary DC output.
2. Thermal detection of primary power supply circuit.
3. Thermal detection of secondary power supply circuit.

This LED may be turned on only for a moment. It is because the state of a protection circuit is not held in NAPS-7789.

U1

NAPS-7788



(RED)

D907

PRI DC
LIVE

D907 (PRI DC LIVE)

This LED is turned on when the electric charge remains in the primary side capacitor. Do after discharging by resistance and checking putting out lights of this LED, when disassembling a unit.

(RED)

D851

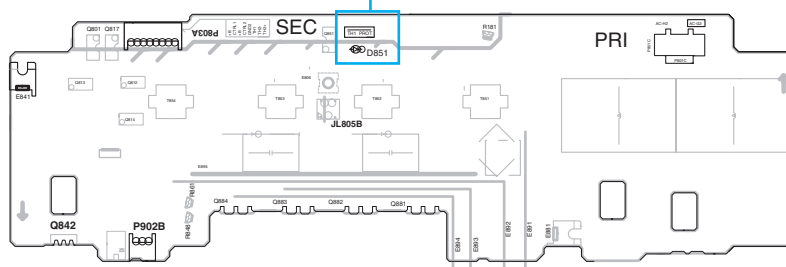
TH1 PRO

D851 (TH1 PROT)

This LED lights up at the time of the usual operation. The light is put out when the thermal protection circuit of a primary power supply section operates.

U5

NAPS-7790



OPERATION CHECK-6

CAUTION IN THE CASE OF SPEAKER OUTPUT CHECK

The power amplifier circuit of DTA-9.4 is BTL system.

Therefore, in case you check speaker output, should be careful of the following point.

1. Do not connect the minus side OUTPUT terminal, and ground of the unit (Fig-1).
2. Do not connect minus of each OUTPUT terminal. (Fig-2).
3. Cannot check with an oscilloscope between the plus side of an OUTPUT terminal, and Chassis GND. (Fig-3).

Fig-1

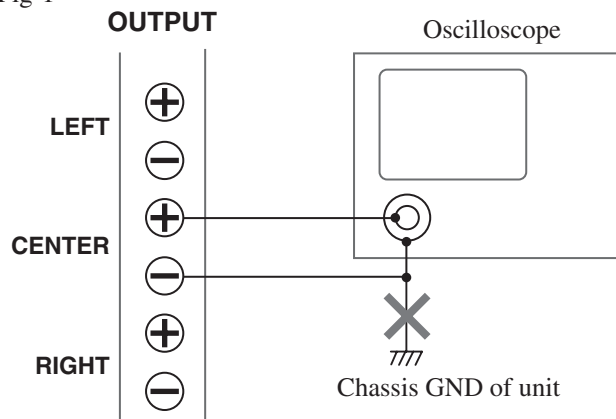


Fig-2

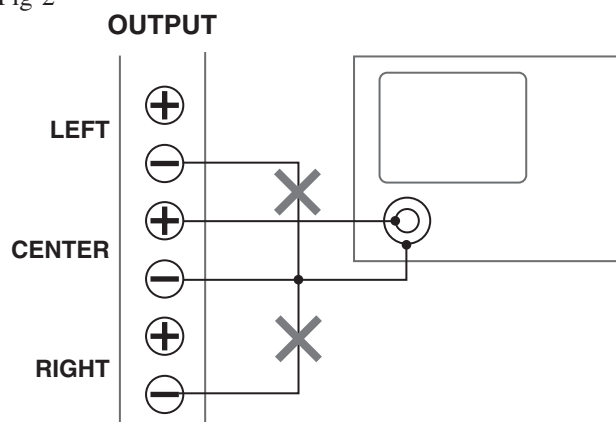
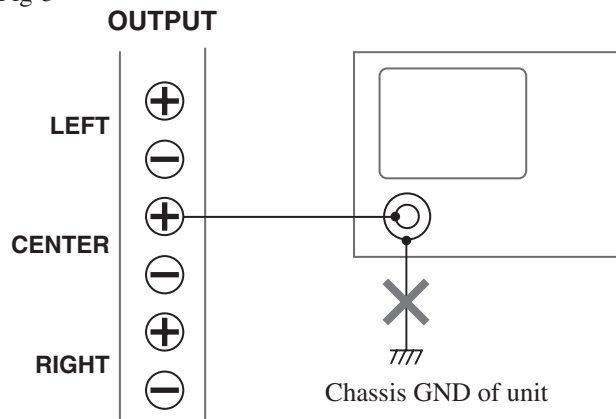


Fig-3



OPERATION CHECK-1

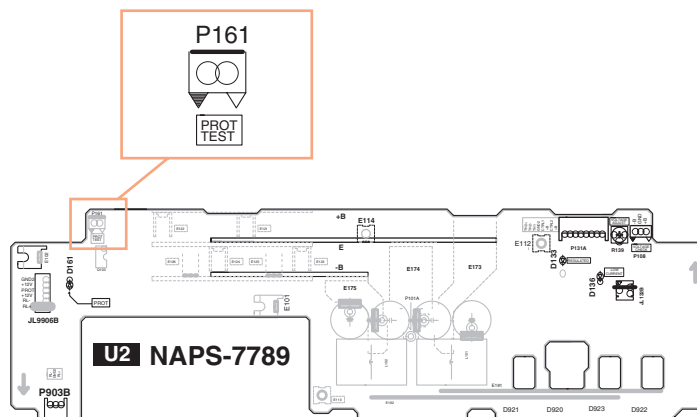
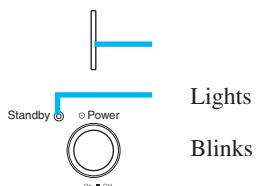
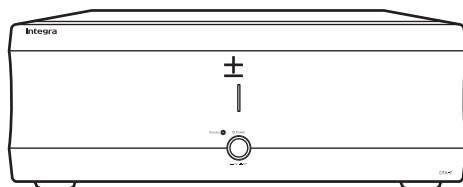
CURRENT DETECTION OF POWER SUPPLY

Notes

No load and No signal input.

How to check?

1. Connect the power supply card to a wall outlet.
2. Power On the unit.
3. Short-circuit the both ends of **P161** on NAPS-7789.
4. Check that it is as follows.

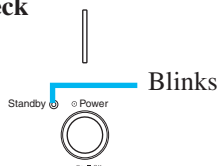


RELAYS AND INDICATORS

How to check?

2. Connect the power supply card to a wall outlet.
4. Power On the unit.
5. Immediately after power switch On.

Check



4. About 1 second after turning On a power supply.

Check

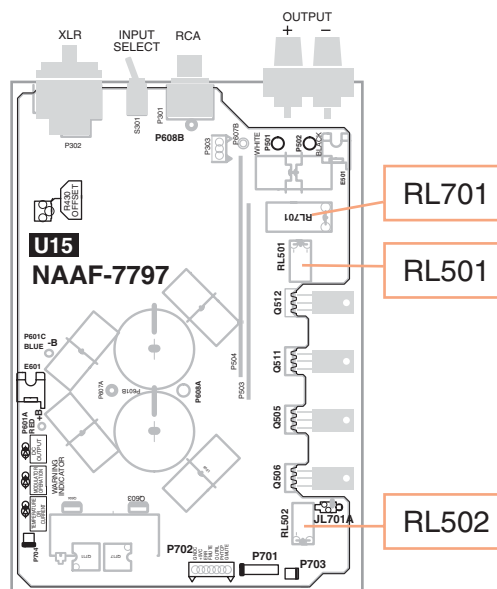
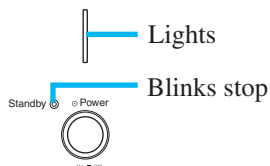
RL501 and RL502 Relays ON.

5. About 10 seconds after turning On a power supply.

Check

RL701 Relays ON.

Check



OPERATION CHECK-2

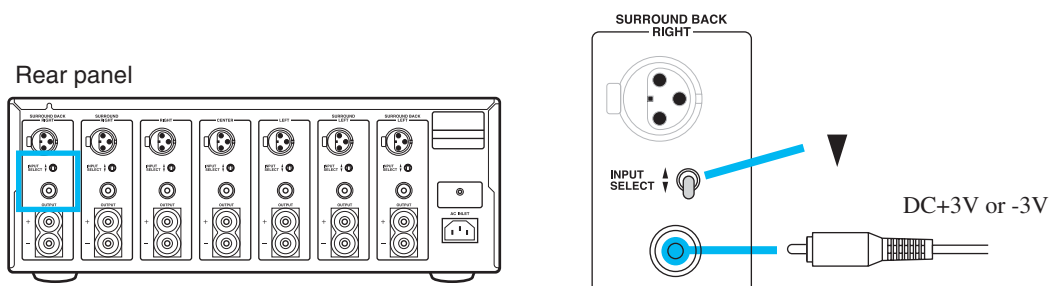
DC VOLTAGE DETECTION OF POWER AMPLIFIER CIRCUIT

Notes

No load and No signal input.

How to check?

1. Connect the power supply card to a wall outlet.
2. Power On the unit.
3. Set the INPUT SELECT switch of a rear panel to the RCA side.
4. Apply DC+3V to a RCA terminal.
5. Check that the speaker relay RL701 is turned off.
6. Apply DC+3V to a RCA terminal.
7. Check that the speaker relay RL701 is turned off.



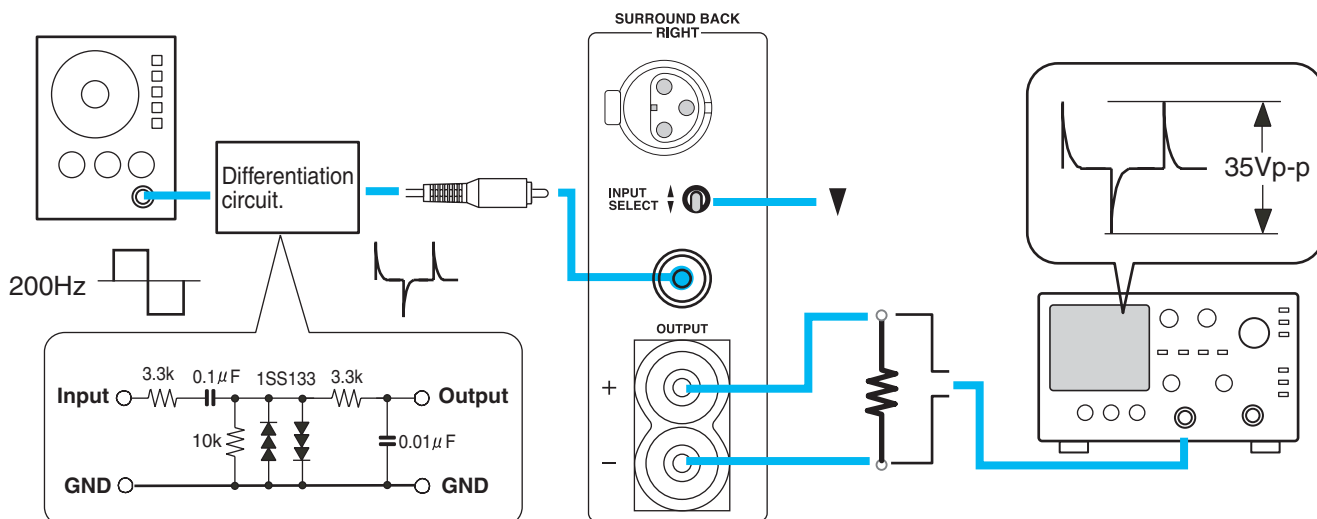
OVER CURRENT DETECTION OF POWER AMPLIFIER CIRCUIT

Notes

1. Check only one channel at a time.
2. Interrupt a input signal, immediately after a speaker relay goes out.
3. Don't change into the state where load was connected to amplifier, more than for 3 seconds.

How to check?

1. Set the output of the oscillator into the minimum level.
2. Connect the oscilloscope to the OUTPUT terminal.
3. Output a 200Hz rectangular wave from an oscillator, and input into a RCA terminal through the appointed differentiation circuit.
4. Turn on the unit.
5. Adjust the output level of oscillator so that the level of the waveform of the OUTPUT terminal become 35 Vp-p.
6. Connect 2-ohms load to the OUTPUT terminal.
7. Check that the speaker relay RL701 is not turned off .
8. Connect 0.3-ohm load to the OUTPUT terminal.
9. Check that the speaker relay RL701 is turned off immediately.



OPERATION CHECK-3

THERMAL DETECTION OF POWER AMPLIFIER CIRCUIT

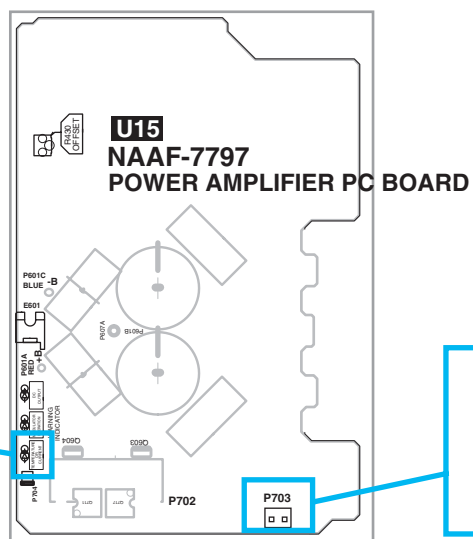
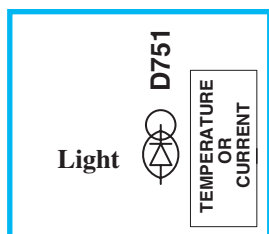
Notes

No load and No signal input.

How to check?

1. Connect the power supply card to a wall outlet.
2. Power On the unit.
3. Short-circuit the both ends of **P703** on NAAF-7797.
4. Check that it is as follows.

Check



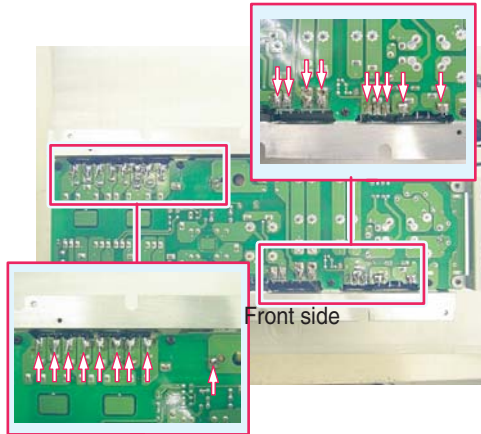
P703

Short

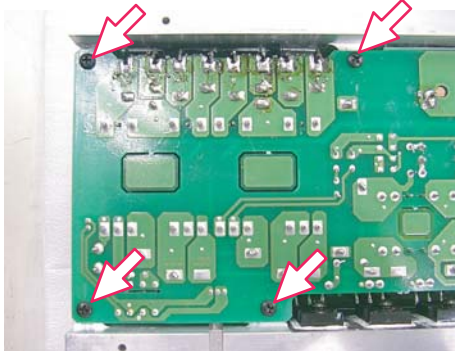
DISASSEMBLING PROCEDURES-4

DISASSEMBLING OF POWER SUPPLY UNIT

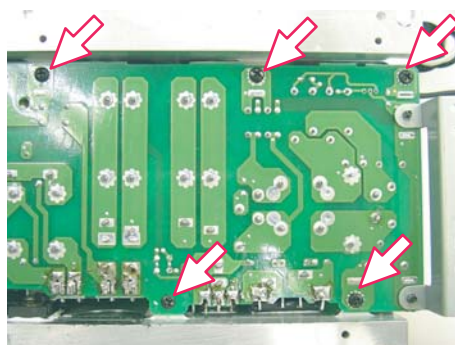
- 13** Remove 18 soldering.



- 14** Remove the four screws.



- 15** Remove the five screws.

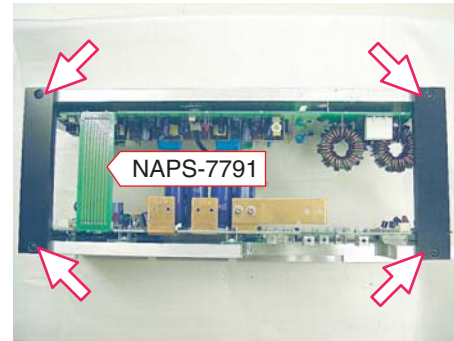


- 16** By disconnect the socket assy P801, You can remove the PCB assy NAPS-7788.



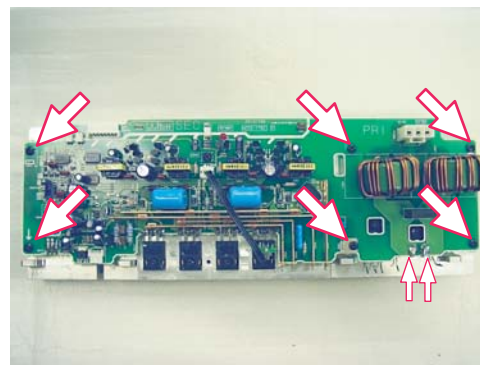
- 17** By doing the following work, You can separate NAPS-7789 and NAPS-7790.

1. Disconnect the terminal PCB assy NAPS-7791.
2. Remove the four screws.



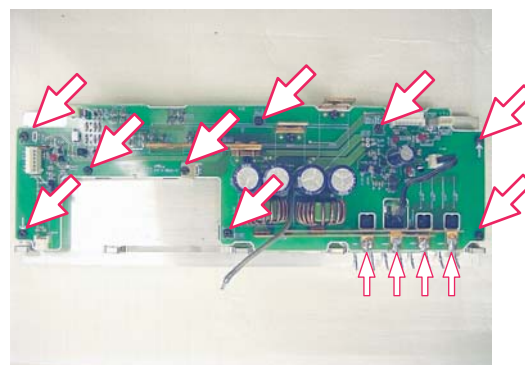
- 18** By doing the following work, You can separate NAPS-7790 and the heat sink.

1. Remove two soldering.
2. Remove the six screws.



- 19** By doing the following work, You can separate NAPS-7789 and the heat sink.

1. Remove four soldering.
2. Remove the nine screws.



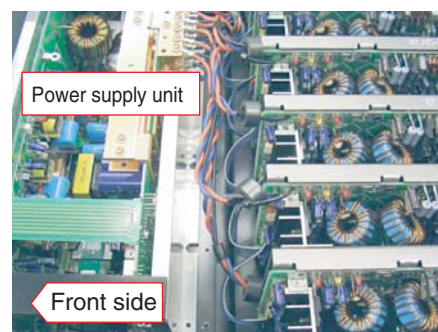
DISASSEMBLING PROCEDURES-2

REMOVE A POWERB AMP. UNIT AND A POWER SUPPLY UNIT FROM CHASSIS

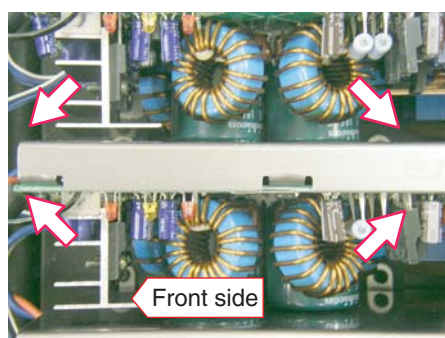
- 1 Remove the three screws.



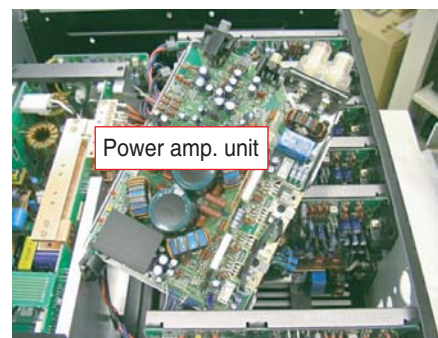
- 4 Move the power supply unit to front side.



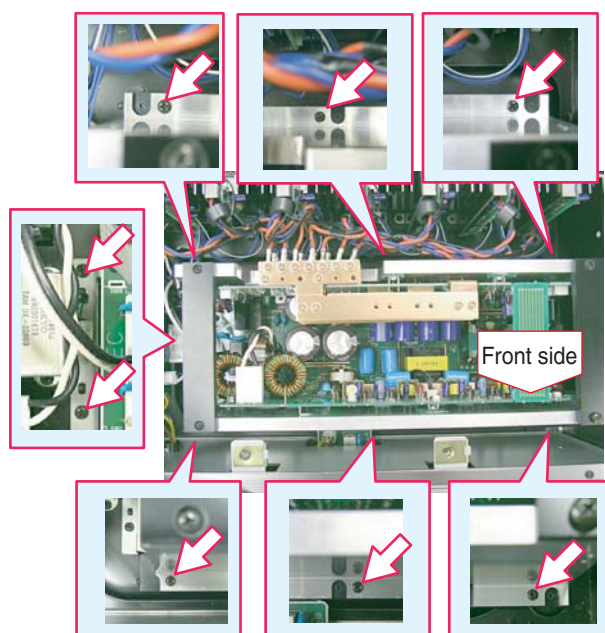
- 2 Remove the four screws.



- 5 Take out a power amp. unit from the chassis.



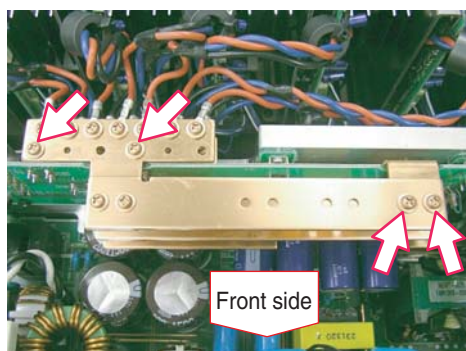
- 3 Remove the eight screws.



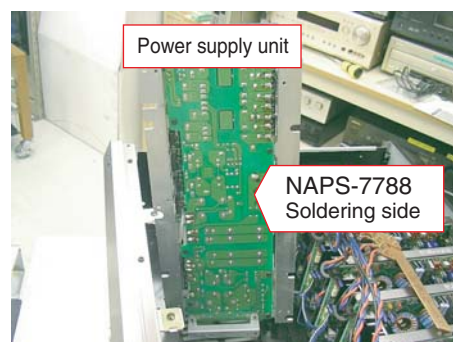
DISASSEMBLING PROCEDURES-3

REMOVE A POWERB AMP. UNIT AND A POWER SUPPLY UNIT FROM CHASSIS

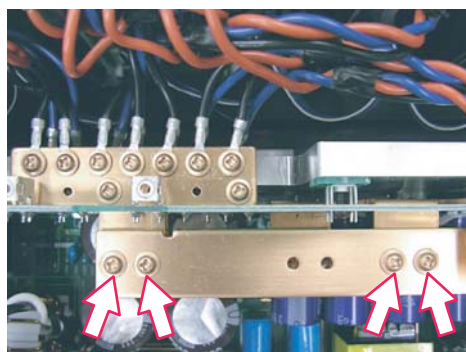
- 7 Remove the four screws.



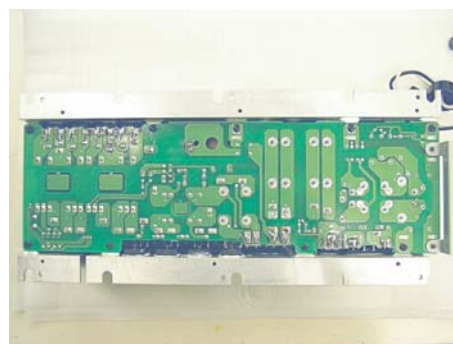
- 11 Move the power supply unit to up side.



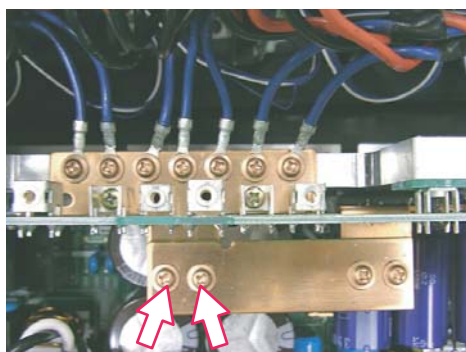
- 8 Remove the four screws.



- 12 Power supply unit



- 9 Remove the two screws.



- 10 By removing each screw of three copper plates (RETAINER), You can remove an amplifier unit completely.

