

# Service Manual

**COMPACT**  
**disc**  
**DIGITAL AUDIO**

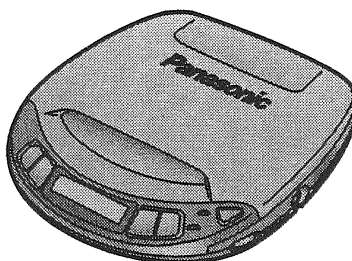
**MASH\***  
multi-stage noise shaping

\* MASH is a trademark of NTT.

Portable CD Player  
**SL-S202**

**Colour**  
(H) ..... Gray Type

**Areas**  
(P) ..... U.S.A.



## Traverse Deck: RAE0144Z Mechanism Series

### Specifications

#### Audio

**No. of channels:** 2 channels (left and right, stereo)  
**Frequency response:** 20 to 20,000 Hz (+0.5 dB to -1.5 dB)  
**Output voltage:** 0.6 V (50 kΩ)  
diameter 3.5 stereo mini jack  
**S/N:** more than 94 dB  
(Anti-shock memory OFF)  
**Wow and flutter:** Below measurable limit  
**DA converter:** 1 bit, MASH \*  
**Headphones output level:** max.9 mW+9 mW/16 Ω (adjustable)  
stereo mini jack diameter 3.5

#### Pickup

**Light source:** Semiconductor laser  
**Wavelength:** 780 nm

#### General

**Operational temperature range:** 0-40 degree (32-104 fahrenheit)  
**Rechargeable temperature range:** 5-40 degree (41-104 fahrenheit)  
**Power supply:** DC 4.5 V

**Power consumption:** Anti-shock memory OFF/ON  
**AC adaptor:** 4.3 W / 4.5 W  
**Battery (DC 3V):** 0.6 W / 0.7 W  
**When recharging:** 2.4 W

#### Playing time

(When used in hold mode, at 25 degree (77 fahrenheit) temperature and on flat and stable surface.)

**Battery used:** Anti-shock memory OFF/ON  
**Panasonic Alkaline dry cell batteries (LR6, 2pcs.):**  
Approx. 10 h / 8.5 h

**Optional Rechargeable batteries (P-3GAVA/2B):**  
Approx. 5.5 h / 5.0 h

The play time may be less depending on the operating conditions.

#### Recharging time:

**P-3GAVA/2B;** Approx. 5 h  
**SH-CDB8D;** Approx. 3 h

#### Dimensions (W × H × D):

128 × 28.0 × 144 mm  
(5<sup>1</sup>/<sub>16</sub>" / 1<sup>3</sup>/<sub>32</sub>" / 5<sup>11</sup>/<sub>16</sub>" )

#### Weight:

265 g (9.4 ounce) with batteries  
220 g (7.8 ounce) without batteries

**Note:** Specifications are subject to change without notice.  
Weight and dimensions are approximate.

#### ⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

**Panasonic®**

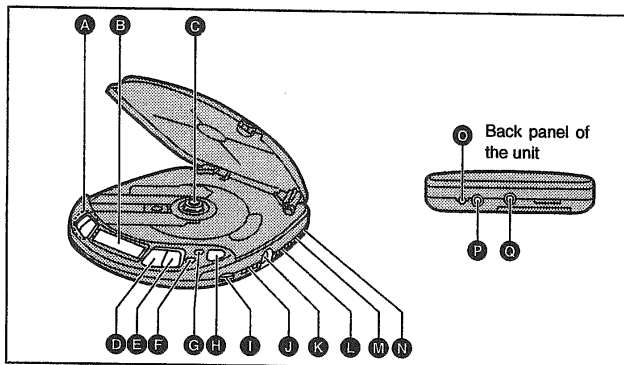
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and distribution is a violation of law.

## ■ Precaution of Laser Diode

**CAUTION:** This unit utilizes a class 1 laser. Invisible laser radiation is emitted from the optical pickup lens when the unit is turned on :

1. Do not look directly into the pickup lens.
2. Do not use optical instruments to look at the pickup lens.
3. Do not adjust the preset variable resistor on the optical pickup.
4. Do not disassemble the optical pickup unit.
5. If the optical pickup is replaced, use the manufactures specified replacement pickup only.
6. Use of control or adjustments or performance of procedures other than those specified herin may result in hazardous radiation exposure.

## ■ Location of Controls



- |  |   |
|--|---|
| <b>A</b> Skip/search buttons<br>( $\ll$ , $\gg$ • SKIP • SEARCH) | <b>J</b> XBS selector (XBS)                               |
| <b>B</b> Display   | <b>K</b> Headphones jack ( $\phi$ )                       |
| <b>C</b> CD release button (PUSH)                                | <b>L</b> Play mode selector<br>(RESUME, NORMAL, RANDOM)   |
| <b>D</b> Play/pause button ( $\triangleright \parallel$ )        | <b>M</b> Hold switch (HOLD)                               |
| <b>E</b> Stop/power off button<br>( $\blacksquare$ , POWER OFF)  | <b>N</b> Anti-shock switch<br>(ANTI-SHOCK)                |
| <b>F</b> Memory/recall button<br>(MEMORY/RECALL)                 | <b>O</b> Out jack (OUT)                                   |
| <b>G</b> Repeat button (REPEAT)                                  | <b>P</b> DC in jack<br>( $\diamond \diamond$ DC IN 4.5 V) |
| <b>H</b> Open button (OPEN)                                      | <b>Q</b> Hole for car insulator mount-<br>ing screw       |
| <b>I</b> Headphones volume control<br>(VOLUME)                   |   |

## ■ Accessories

AC adaptor (RFEA415C-S) ..... 1pc. Stereo headphones (RFEV705P-KS) ..... 1pc.

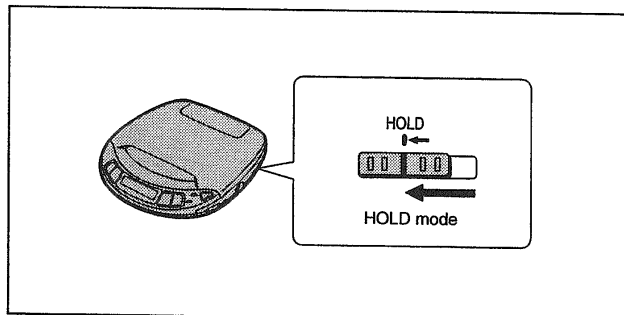
## ■ Schematic Diagram

(This schematic diagram may be modified at any time with the development of new technology.)

### Notes:

- S201: Laser ON/OFF switch in "OFF" position.  
(It turns "ON" with disc holder closed.)
- S202: Rest detector in "OFF" position.  
(It turns "ON" when optical pickup comes to innermost periphery.)
- S301: Memory/recall (MEMORY/RECALL) switch.
- S302: Repeat (REPEAT) switch.
- S303, 304: Skip/search ( $\ll$  • SKIP/ • SEARCH  $\gg$ ) switches.  
(S303:  $\ll$ , S304:  $\gg$ )
- S305: Stop/power off ( $\blacksquare$ /POWER OFF) switch.
- S306: Play/pause ( $\triangleright \parallel$ ) switch.
- S307: Play mode selector (MODE) in "RANDOM" position.  
(RANDOM $\leftrightarrow$ NORMAL $\leftrightarrow$ RESUME)
- S308: Hold (HOLD) switch in "ON" position.
- S501: Anti-shock (ANTI-SHOCK) switch in "OFF" position.
- S701: XBS Selector (XBS) switch in "OFF" position.
- VR11: Power supply voltage adjustment VR.
- VR701-1, VR701-2: Volume control VR.

## ■ HOLD Function



This function causes the unit to ignore short, accidental button presses. (The disc lid can still be opened and closed.)

**The HOLD function prevents the following:**

- Powering on the unit accidentally (which can cause the batteries to go dead).
- Play being cut off unexpectedly in the middle of a selection.

**To use the HOLD function**  
Set HOLD to the HOLD position.

### "hold" indication

When the unit is in hold status, pressing any button (other than the OPEN button) causes the indication "hold" to appear on the display.

### When the unit is powered off

The "hold" indication appears only when  $\triangleright \parallel$  button is pressed.

### Before operating the buttons

Be sure to move HOLD to release the unit from the hold mode.

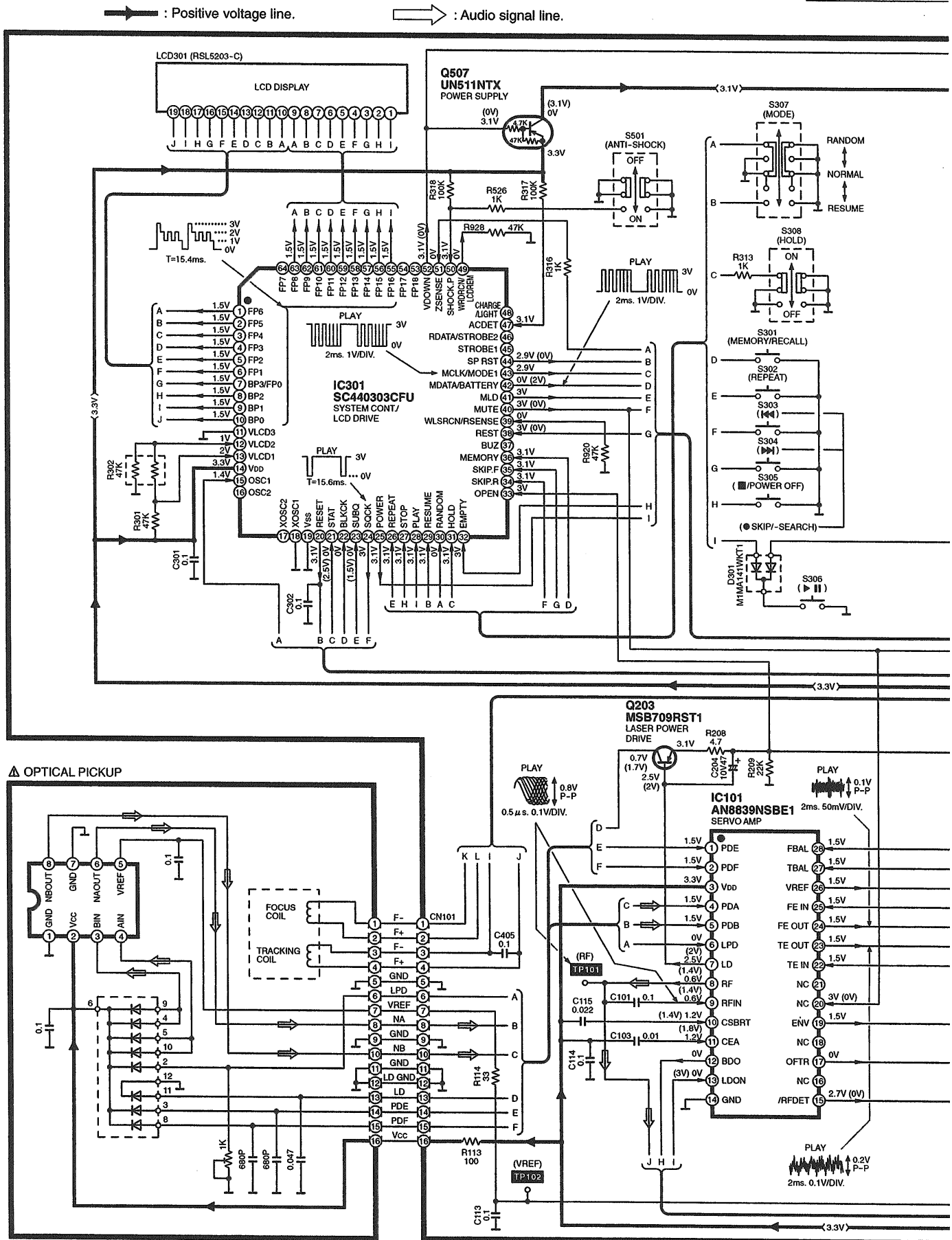
- The voltage value and waveforms are the reference voltage of this measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of GND terminal (DC IN Jack). Accordingly, there may arise some errors in the voltage values and waveforms depending upon the internal impedance of the tester or measuring unit.
- The parenthesized is the voltage for test disc (1kHz, L+R, 0 dB) in play mode, and the other, for no disc in stop mode.
- AC adaptor is used for power supply.
- Signal line

$\longrightarrow$  : Positive voltage line.

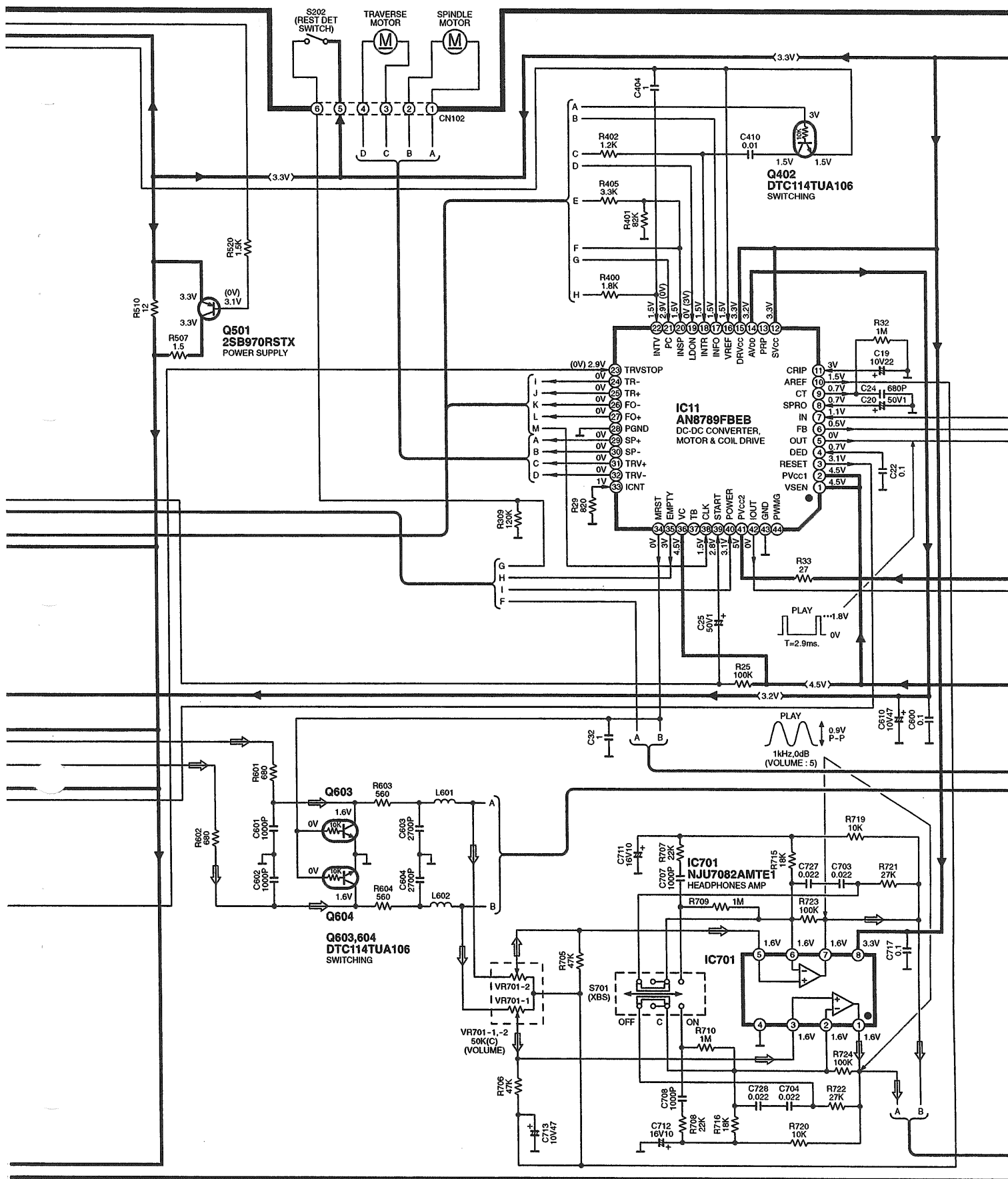
$\longrightarrow$  : Audio signal line.

### Important safety notice:

Components identified by  $\Delta$  mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacture's specified parts shown in the parts list.

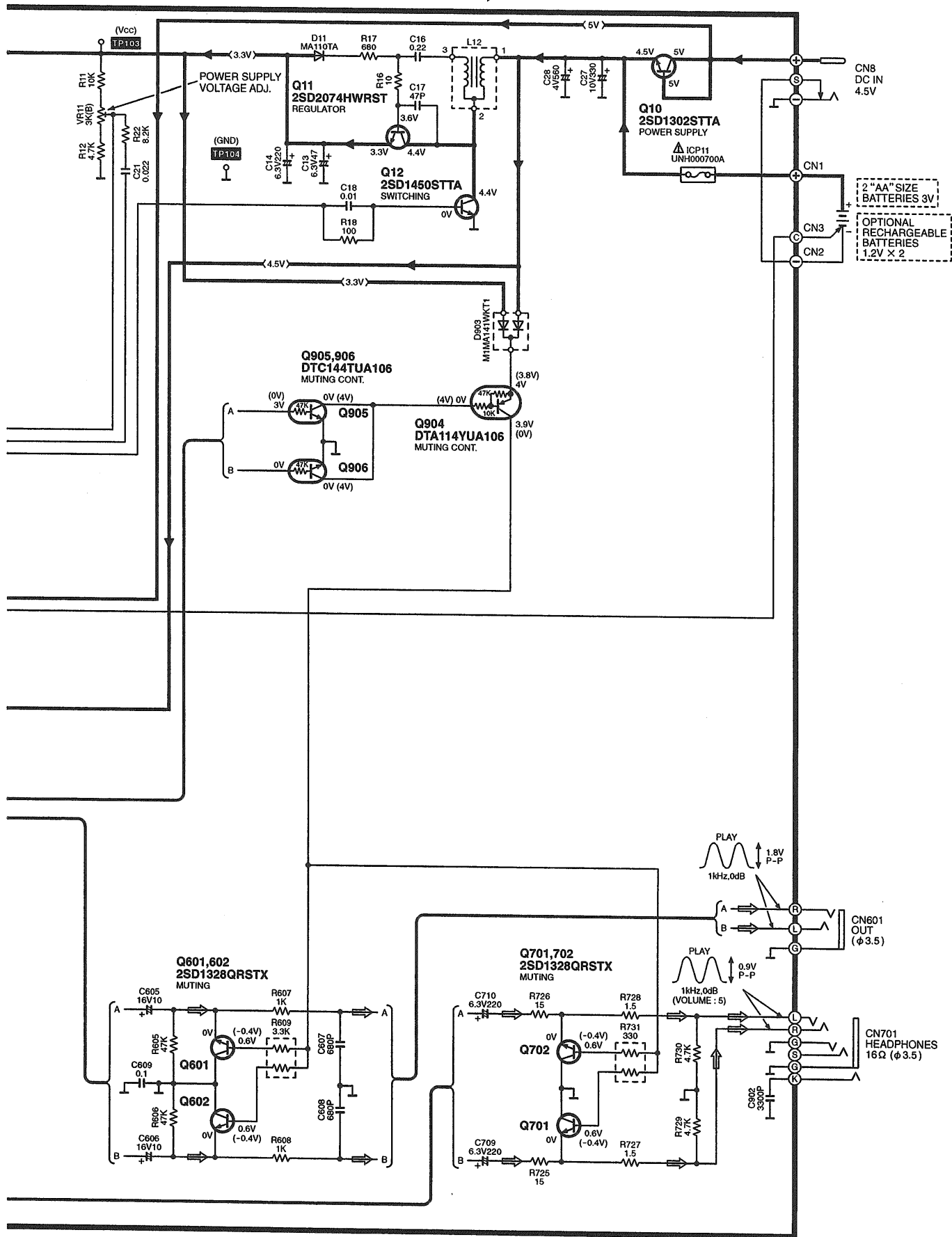







➡ : Positive voltage line.

➡ : Audio signal line.



## ■ Replacement Parts List

Ref.No.	Part No.	Part Name & Description	Pcs.	Remarks
CABINET PARTS				
1	RKK0102-K1	BATTERY COVER	1	
ACCESSORIES				
A1 	RFEA415C-S	AC ADAPTOR	1	
A2	RFEV705P-KS	STEREO HEADPHONES	1	
A3	RQT4990-P	OPERATING INSTRUCTIONS	1	<IA>

The "<IA>" mark in Remarks indicates language of operating instructions.

<IA>: English