Service Manual

CD Stereo System

SA-CH64M

Colour

Area

Suffix for Model No.  Area  Colour

(P)  U.S.A.  (K)

(PC)  Canada

• MASH is a trademark of NTT.

TAPE SECTION : AR-2 MECHANISM SERIES
CD SECTION : RAE0113Z TRAVERSE DECK SERIES

Specifications

■ Amplifier Section
Rated minimum sine wave FTC power output
95 Hz~20 kHz both channels driven
0.9% total harmonic distortion
1 kHz continuous power output, both channels driven 1% total harmonic distortion (DIN POWER)
Total harmonic distortion
Half power at 1 kHz
Input sensitivity
AUX
250mV (IHIF '68)
Input impedance
AUX
22kΩ
V. Bass (Vol. level at -30dB)
63Hz, +6dB

■ FM Tuner Section
Frequency range
87.9 — 107.9MHz
Sensitivity
23.3dBf (4.0mV, IHIF '58)
Total harmonic distortion
MONO
0.3%
STEREO
0.5%
S/N ratio
65dB
Image rejection at 96.1 MHz
35dB
Stereo separation at 1 kHz
35dB
Antenna terminal(s)
75Ω (unbalanced)

■ CD Section
Sampling frequency
44.1kHz
Decoding
16 bit linear
Beam source / wave length
Semiconductor laser / 780 nm
Number of channels
Stereo
S/N ratio
CD UNIT OUT
95 dB (JIS.A)
SP OUT
85 dB (JIS.A)
Wow and flutter
Below measurable limit
Digital filter
8 fs
D/A converter
MASH (1 bit DAC)

■ AM Tuner Section
Frequency range
520 — 1710kHz
Sensitivity (S/N 20 dB)
500µV/m
Image rejection at 1000 kHz
40dB

■ Cassette Deck Section
Track system
4 track, 2 channels
Heads
Record/playback
Permalloy head
Erasure
Double gap ferrite head
Motor
DC servo motor
Recording system
AC bias 100 kHz
Erasing system
AC erase
Tape speed
4.8cm/sec. (1 1/2 ips)
Frequency response (EIAJ) at PHONES OUT
NORMAL
35Hz — 14kHz
S/N ratio
50dB (A weighted)
Wow and flutter
0.18% (WRMS)
Fast forward and rewind time
Approx. 120 seconds with C-60 cassette tape

■ General
Power consumption
120W
10W (Power standby)
Power supply
AC 120V, 60Hz
Dimensions (W x H x D)
270 x 347 x 424mm
(10 1/4" x 13 3/4" x 16 1/4")
Weight
10.3kg (22.7lb.)

Notes:
1. Specifications are subject to change without notice.
   Weight and dimensions are approximate.
2. Total harmonic distortion is measured by the digital spectrum analyzer.
## Terminal Guide of ICs, Transistors and Diodes

<table>
<thead>
<tr>
<th>AN8389SE1</th>
<th>AN8355BE1 (2BP) BU2000F-E2 (16P) BU4052BCF-E2 (16P) LA1832A (24P) LC7218 (24P) BH3854AFS-E2 (32P)</th>
<th>BA7755A</th>
<th>M38197MA131F(100P) MN662741RPA (80P) UPD78043A042 (80P)</th>
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<tbody>
<tr>
<td>BA6247N</td>
<td>M5218AP</td>
<td>0N2180RLC</td>
<td>RSN35H1</td>
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<tr>
<td>BA4558FDXE2</td>
<td>2SB621RTA 2SB621ARITA 2SC2001KTA 2SA1534AQRTA</td>
<td>2SK301QTA</td>
<td>2SD1302STA 2SJ40CDTA</td>
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<td>2SG1185E 2SD1762E</td>
<td>2SD203YETA</td>
<td>2SC2784FTA BA1L4ZTA BA1F4MTA 2SC3311AQST</td>
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<td>2SC2785FETA 2SC2786MTA 2SD1002HTA 2SC2785FTA 2SC2787FLITA 2SC2787LTA</td>
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<td>2SK544F-AC</td>
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<td>RVTDTA143XST</td>
<td>RVTDTDC143TST 2SA933SSTA RVTDTA114EST</td>
<td>2SB1320AQR TA</td>
<td>RVD1SS133TA 1SS291TA MA165TA 1SS254TA MA167TA MA4330LTA</td>
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<td>LNJ301MPUJAD</td>
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<td>MTJZ12BTA MTJZ13ATA MTJZ15CTA MTJZ5R6CTA MTJZ6R8ATA MTJZ6R8BTA MTJZ6R1BTA</td>
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<tr>
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<td>RSQG1S53V</td>
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<td></td>
</tr>
<tr>
<td>LN66S</td>
<td>BR3433S</td>
<td>PT480F</td>
<td>PT4810F</td>
</tr>
</tbody>
</table>
- Signal line -

- B line
  - Playback signal line
  - AM signal line

- B line
  - Record signal line
  - AM OSC signal line

FM/AM signal line
  - CD signal line
  - FM OSC signal line

Main signal line
  - FM signal line
  - Aux signal line

- The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis.
  Accordingly, there may arise some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit.

- No mark: Playback < > Tape Recording 
  ( ): CD ( ) AM < > FM

- Importance safety notice:
  Components identified by □ 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 manufacturer's specified parts shown in the parts list.

Caution !
IC, LSI and VLSI are sensitive to static electricity.
Secondary trouble can be prevented by taking care during repair.
- Cover the parts boxes made of plastics with aluminium foil.
- Ground the soldering iron.

- ADDITIONAL FUSE CAUTION
  Caution: Replace fusible resistor with the same type
  R596, R599
  RSFM340KT-L
  fusible resistor

- CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE F1 2.5A 125V FUSE.
  RISK OF FIRE-REPLACE FUSE AS MARKED.

- FUSE CAUTION
  [Symbol] These symbols located near the fuse indicates that the fuse used is a fast operating type. For continued protection against fire hazard, replace with the same type fuse. For fuse rating, refer to the marking adjacent to the symbol.
  [Symbol] Ce symbole indique que le fusible utilisé est à rapide. Pour une protection permanente, n'utiliser que des fusibles de même type. Ce dernier est indiqué là où le présent symbole est apposé.