ECM-011

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model

PARTS IDENTIFICATION
- Microphone capsule housing
- Battery compartment
- Power switch
- L-shaped miniplug

SPECIFICATIONS

General
Type: Electret condenser microphone (with back-electret condenser capsule)
Microphone cable: 1.5 mm (1/16 inches) dia. x 1 m (3.3 feet) long
Battery: Alkaline manganese dioxide battery IEC designation LR44 (Eveready A76 type) or equivalent
Dimensions (excl. plug): Microphone capsule housing 7 x 5.7 x 33 mm (wh/d)
Battery compartment 14.5 x 10.5 x 32.5 mm (wh/d)
Weight: Approx. 15 g (1/2 oz)
Finish: Microphone capsule housing: Silver
Battery compartment: Matt black
Supplied accessory: Sony Eveready Alkaline manganese dioxide battery A76 (1)

Maximum sound pressure input level (at 1,000 Hz, 1 % distortion): More than 110 dB SPL
Dynamic range: More than 76 dB
Environment temperatures: -20°C to +60°C (+4°F to +140°F) for storage
0°C to +60°C (+32°F to +140°F) for operation

BATTERY INSTALLATION

Install a button IEC designation LR44 (Eveready A76 type) battery (supplied) or equivalent.
1. Open the battery compartment lid.
2. Insert the battery with correct polarity as shown in the illustration.
3. Close the lid firmly.

The battery polarity is quite different from that of a conventional battery. Its button side is the minus pole, and the case side is the plus pole.

ELECTRET CONDENSER MICROPHONE
SONY®
1. DISASSEMBLY
Note: Follow the disassembly procedure in the numerical order given.

AMP BOARD REMOVAL
1. Open the battery lid.
2. K 1.4X2.5
3. P 1.4X2.5
4. amp board

MICROPHONE UNIT REMOVAL
1. Open the battery lid.
2. Loosen the screw (K 1.4X2.5).
3. Remove the ornamental cap in the alphabetical order given.

MICROPHONE UNIT INSTALLATION
1. Solder the ground terminal and lead wires.
2. Set the microphone unit to the ornamental cap.
3. Apply suitable locking compound.
4. Install the ornamental cap to the clip base.

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BATTERY LID INSTALLATION

1. Remove the screw (K 1.4X2.5)

2. Open the battery lid carefully not to slip the battery lid out of the present position.

3. Set battery lid for normal position.

4. Put battery lid into the battery holder.

5. Clearance should be kept slightly.

6. Fix upper case to lower case to remove the clearance obtained in step 2.

7. Tighten the screw (K 1.4X2.5).

2. MOUNTING DIAGRAM

- Switch

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Switch</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>power</td>
<td>OFF</td>
</tr>
</tbody>
</table>

- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal conditions with a VOM (50 kΩ/V).

Note: Voltage changes according to the rank of microphone unit.

- Voltage variations may be noted due to normal production tolerances.

- | parts extracted from the C, R mounted side. |
- | part mounted on the switch mounted side. |
- | Through hole. |
- | C, R mounted side pattern. |
3. EXPLODED VIEW AND PARTS LIST

NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

CAPACITORS:
- MF:μF, PF:μF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

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**GENERAL SECTION**

<table>
<thead>
<tr>
<th>No.</th>
<th>Part No.</th>
<th>Description</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7-627-661-27</td>
<td>SCREW, PRECISION +H 1.4X2.5</td>
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</tr>
<tr>
<td>2</td>
<td>2-537-816-01</td>
<td>COVER, BATTERY</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2-537-812-01</td>
<td>KNOB, SWITCH</td>
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</tr>
<tr>
<td>4</td>
<td>2-537-817-01</td>
<td>LID, BATTERY</td>
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<tr>
<td>5</td>
<td>7-627-451-10</td>
<td>SCREW, PRECISION +P 1.4X2.5</td>
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<td>6</td>
<td>2-537-825-01</td>
<td>SHEET, INSULATION</td>
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<td>7</td>
<td>2-537-810-01</td>
<td>TERMINAL BOARD, PLUS</td>
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<td>8</td>
<td>2-537-811-01</td>
<td>TERMINAL BOARD, MINUS</td>
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<td>9</td>
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<tr>
<td>10</td>
<td>X-2537-002-1</td>
<td>CLIP ASSY</td>
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<td>11</td>
<td>2-537-814-01</td>
<td>BASE, CLIP</td>
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<tr>
<td>12</td>
<td>*2-537-813-01</td>
<td>TERMINAL, GROUND</td>
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<td>13</td>
<td>X-2537-001-1</td>
<td>CAP ASSY, ORNAMENTAL</td>
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<tr>
<td>14</td>
<td>2-537-824-01</td>
<td>WASHER</td>
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<td>15</td>
<td>2-537-823-01</td>
<td>CLOTH, BLIND</td>
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</table>

**ELECTRICAL PARTS**

<table>
<thead>
<tr>
<th>Ref.No.</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>901</td>
<td>1-558-031-11</td>
<td>CORD, MIC (DIA.1.6)(1 CORE)</td>
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<tr>
<td>902</td>
<td>*1-616-217-11</td>
<td>PC BOARD, AMPLIFIER</td>
</tr>
<tr>
<td>903</td>
<td>8-814-189-10</td>
<td>MICROPHONE, BUILT-IN (C-10078)</td>
</tr>
<tr>
<td>C1</td>
<td>1-131-408-11</td>
<td>TANTALUM 1MF 20Ω 35V</td>
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<tr>
<td>C2</td>
<td>1-160-302-31</td>
<td>CERAMIC 2200PF 30Ω 10V</td>
</tr>
<tr>
<td>R1</td>
<td>1-247-845-00</td>
<td>CARBON 3.9K 5% 1/6W</td>
</tr>
<tr>
<td>S1</td>
<td>1-554-669-00</td>
<td>SWITCH, SLIDE</td>
</tr>
</tbody>
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**ACCESSORY & PACKING MATERIAL**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>2-533-669-01</td>
<td>LID, TRANSPARENT</td>
</tr>
<tr>
<td>2-537-818-01</td>
<td>FRAME, INNER</td>
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<tr>
<td>2-537-820-01</td>
<td>PLATE, ORNAMENTAL</td>
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<tr>
<td>2-537-821-01</td>
<td>INDIVIDUAL CARTON</td>
</tr>
<tr>
<td>2-599-264-11</td>
<td>MANUAL, INSTRUCTION</td>
</tr>
</tbody>
</table>

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Sony Corporation
SUPPLEMENT-1

File this supplement with the service manual.

Subject: Revision of schematic diagram, printed wiring board and mechanical part.

PARTS IDENTIFICATION

BATTERY COMPARTMENT
POWER SWITCH
L-SHAPED MINIPLUG
MICROPHONE CAPSULE HOUSING

BATTERY INSTALLATION

1. Open the battery compartment lid.
2. Insert the battery with correct polarity as shown in the illustration.
3. Close the lid firmly.
NOTE: Follow the disassembly in the numerical order given.

AMP BOARD REMOVAL

MICROPHONE UNIT INSTALLATION

1. Solder the ground terminal, lead wire and C3.

2. Screw +K 1.4 X 5

3. Switch knob

4. Screw +P 1.4 X 2.5

5. Battery holder

6. Amp board

7. Front case

8. Ground terminal

9. Blue lead wire

10. Green lead wire

11. Microphone unit C-1007B

12. Two lead wire should be passed the hole of microphone holder as illustrated

13. Clip

14. Two lead wire should be passed the hole of front case to the arrow direction.

15. Ornamental cap

16. Lift up a part of clip as illustrated.

17. Check two lead wire installation as illustrated.

18. Tighten the ground terminal, clip and microphone holder with screw +P 1.4 X 2.5.
PRINTED WIRING BOARD

AMP BOARD
(SWITCH MOUNTED SIDE)

- Note:
  - //: parts extracted from the component side.
  - ●: Through hole.
  - ——: Pattern on the side which is seen.

SCHEMATIC DIAGRAM

- Note:
  - All capacitors are in \( \mu F \) unless otherwise noted. \( pF \): \( \mu \mu F \)
  - 50WV or less are not indicated except for electrolytics and tantalums.
  - All resistors are in \( \Omega \) and 1/4W or less unless otherwise specified.
EXPLODED VIEWS

NOTE:
• Color indication of Appearance Parts Example:
  KNOB, BALANCE (WHITE) ...... (RED)
  ↑ Parts color    Cabinet’s color
  ↑
• 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.

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<tbody>
<tr>
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<td>X-2537-801-1</td>
<td>CAP ASSY, ORNAMENTAL (SILVER)</td>
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<td>CAP ASSY, ORNAMENTAL (BLACK)</td>
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<tr>
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<td>SCREW, PRECISION +P 1.4X2.5</td>
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<td>TERMINAL, GROUND</td>
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<td>SCREW, PRECISION +K 1.4X5</td>
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<td>1-558-713-11</td>
<td>CORD, MIC (DIA. 1.5) (1 CORE)</td>
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**ACCESSORY & PACKING MATERIAL**

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<td>2</td>
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<td>MANUAL, INSTRUCTION</td>
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General Audio Group

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