SPECIFICATIONS

Battery: 9 V dc, battery size “006P” or equiv.  
(IEC designation 6F22)

Power Supply: Standard operating voltage: 9 V  
Minimum operating voltage: approx. 7.5 V  
Current drain: less than 2 mA (with battery)  
less than 5 mA (with external power supply)  
Continuous battery duration: more than 200 hours with a 006P dry battery  
Accepts external power supply of 24–54 V dc

Directivity: Uni-directional and omni-directional

Output Impedance: 250 ohms ± 20% (balanced)

Output Level:

<table>
<thead>
<tr>
<th>Position of the Ped Switch</th>
<th>Output Impedance</th>
<th>Effective output level **</th>
<th>Open circuit output level</th>
</tr>
</thead>
<tbody>
<tr>
<td>[0]</td>
<td>260 ohms</td>
<td>-47.8 dBm</td>
<td>0.4 mV/μbar</td>
</tr>
<tr>
<td>[-8 dB]</td>
<td>260 ohms</td>
<td>-55.8 dBm</td>
<td>0.16 mV/μbar</td>
</tr>
</tbody>
</table>

Deviation ± 2 dB

** 0 dBm = 1 mW/10 μbar, 1,000 Hz

Frequency Response: 30 Hz — 16,000 Hz

Noise Level: S/N ratio: better than 50 dB (1,000 Hz, 1 μbar)

Inherent noise: less than 24 dB SPL  
(0 dB = 2 x 10^-4 μbar)

Wind noise**: less than 44 dB SPL  
Induction noise of external magnetic field**: 5 dB SPL/mgauss

** Wind noise is the value measured by applying a wind velocity of 5.6 ft./s. from all directions to the microphone. The mean value is taken and converted to the equivalent input sound level.  
(0 dB = 2 x 10^-4 μbar)

** The external magnetic field induction noise is measured with the microphone placed in the alternating magnetic field of 50 Hz, 1 milligauss. The maximum noise value is taken and converted to the equivalent input sound level.  
(0 dB = 2 x 10^-4 μbar)

— Continued on next page —
Maximum Sound Pressure Level*: 140 dB SPL

*This is the maximum input level which produces less than 1% wave distortion at the output with 1,000 Hz, and less than 1% intermodulation distortion at the output signal with 70 Hz - 7 kHz.

Dynamic Range: Approx. 116 dB

Acceptable Preservation Temperature: -4° to 140° F (-20° to 60° C)

Proper Operating Temperature: 32° to 140° F (0° to 60° C)

Microphone Cable: Approx. 5.8 mm (⅛ inches) dia, 4-conductor shielded cable with a CANNON XLR-3-12C plug, 6 m (20 feet) long

Mounting Thread: PF ¾

Weight: 650 g (1 lb 7 oz) without cable

Dimensions:

SECTION 1
DISASSEMBLY

Cage Ass'y Removal

1. RK 2 x 4

2. RK 2 x 4

3. Cage Ass'y

Capsule Ass'y Removal

1. P2 x 12

2. Unsolder the lead wires.

3. Capsule Ass'y
Terminal Circuit Board Cover Removal

1. Push the knobs down.
2. Open the lower case ass'y

Function Switch Removal

1. Screws
2. Terminal circuit board
3. B3 x 5
4. T2 x 4
5. T2 x 4
6. Pull the lower case ass'y
7. Screw

Head Amp Circuit Board Removal

1. Dust cover
2. Dust cover holder
3. LW2
4. T2 x 4
5. Unsolder lead wires and remove the head amp circuit board.
SECTION 2
DIAGRAMS

CAUTION
The head amp board has been carefully adjusted at the factory. If some trouble occurs on it, replace the head amp board as a part. The parts on the head amp board are not individually available.

2-1. MOUNTING DIAGRAM
- Conductor Side -
Note:
- All capacitors are in μF unless otherwise noted. pF = μμF = nanoFarad.
- All resistors are in ohms, kW unless otherwise noted.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken with a 20,000-ohm-per-volt VOM.
- Voltage variations may be noted due to normal production tolerances.
- Switch positions:
  - 0: PAD
  - 1: HIGH CUT
  - 2: FUNCTION

Legend:
- Resistors are indicated by a black dot.
- Capacitors are indicated by a black dot.
- Diodes are indicated by a black dot.
- Transistors are indicated by a black dot.
- Inductors are indicated by a black dot.
- NPN transistors are indicated by a black dot.
- PNP transistors are indicated by a black dot.
- MOSFETs are indicated by a black dot.
- Diode symbols are indicated by a black dot.
- Vi = input voltage.
- Vo = output voltage.
- Vcc = power supply voltage.
- Vdd = digital supply voltage.
- Vss = ground.
- Vdd = positive rail.
- Vss = negative rail.
- Vdd = main supply voltage.
- Vss = ground.
- Vdd = digital supply voltage.
- Vss = ground.
- Vdd = positive rail.
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- Vdd = main supply voltage.
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- Vdd = digital supply voltage.
- Vss = ground.
Note:
- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
(—) = slotted head
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- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Philips (cross recess) type unless otherwise noted.
- (—) = slotted head
## SECTION 4
### ELECTRICAL PARTS LIST

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>COMPLETE CIRCUIT BOARD</strong></td>
</tr>
<tr>
<td></td>
<td>A-4518-014-A</td>
<td>Head Amp</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>SEMICONDUCTORS</strong></td>
</tr>
<tr>
<td></td>
<td>Q3, 4</td>
<td>2SC634A</td>
</tr>
<tr>
<td></td>
<td>Diodes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>D1</td>
<td>1T22A</td>
</tr>
<tr>
<td></td>
<td>D2</td>
<td>1T243M</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>CAPACITORS</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>All capacitors are in μF and electrolytic.</td>
</tr>
<tr>
<td>C8</td>
<td>1-121-990-11</td>
<td>22 16V</td>
</tr>
<tr>
<td>C9</td>
<td>1-121-403-11</td>
<td>33 16V</td>
</tr>
<tr>
<td>C10</td>
<td>1-121-990-11</td>
<td>22 16V</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>RESISTORS</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>All resistors are in ohm. kΩ = 1000Ω</td>
</tr>
<tr>
<td>R10, 11</td>
<td>1-202-032-11</td>
<td>6.8k 1/8W composition</td>
</tr>
<tr>
<td>R12</td>
<td>1-201-856-11</td>
<td>10 1/8W composition</td>
</tr>
<tr>
<td>R13</td>
<td>1-202-018-11</td>
<td>3.9k 1/8W composition</td>
</tr>
<tr>
<td>R14</td>
<td>1-201-650-11</td>
<td>1.8k 1/8W composition</td>
</tr>
<tr>
<td>R15</td>
<td>1-201-634-11</td>
<td>1k 1/8W composition</td>
</tr>
<tr>
<td>R16</td>
<td>1-202-448-11</td>
<td>510k 1/4W composition</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>SWITCHES</strong></td>
</tr>
<tr>
<td>S1, 2</td>
<td>1-516-608-00</td>
<td>Slide, PAD, HIGH CUT</td>
</tr>
<tr>
<td>S3</td>
<td>1-516-609-00</td>
<td>Rotary Slide, function</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>MISCELLANEOUS</strong></td>
</tr>
<tr>
<td>PL</td>
<td>1-518-268-00</td>
<td>Lamp, 4.5V, 40mA</td>
</tr>
<tr>
<td></td>
<td>A-4510-006-A</td>
<td>Capsule As'y</td>
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<tr>
<td></td>
<td>A-4519-001-A</td>
<td>DC-DC Converter As'y</td>
</tr>
<tr>
<td></td>
<td>1-534-943-21</td>
<td>Cable, microphone; w/connector</td>
</tr>
</tbody>
</table>

### ACCESSORIES & PACKING MATERIALS

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-110-572-00</td>
<td>Screwdriver</td>
</tr>
<tr>
<td>2-052-522-00</td>
<td>Adaptor, microphone stand</td>
</tr>
<tr>
<td>2-522-235-00</td>
<td>Bag, plastic; carrying case</td>
</tr>
<tr>
<td>2-522-237-11</td>
<td>Carton</td>
</tr>
<tr>
<td>2-599-080-21</td>
<td>Manual, instruction</td>
</tr>
<tr>
<td>3-701-628-00</td>
<td>Bag, plastic; microphone</td>
</tr>
</tbody>
</table>