ECM-33P

E Model

USA Model

ELECTRET CONDENSER MICROPHONE

SPECIFICATIONS

Type: Electret Condenser Microphone

Battery: EVEREADY No. 206 dry battery, No. E-126 mercury battery or equivalent

Power supply: Normal operating voltage, 9 V DC
Minimum operating voltage, 7.5 V DC
Current drain; less than 0.5 mA (with battery)
less than 5 mA (with external power supply)
Battery life; Approx. 500 hours with EVEREADY No. E-206
Approx. 1000 hours with EVEREADY No. E-126
Accepts external power supply of 24~54 V DC

Frequency response: 20~20000 Hz

Output level:

Position of the pad switch	Output impedance	Effective output level (dBm) *1	Open circuit voltage (dB) *2
0	250 Ω	-53.8	-74 (0.2 mV)
-8	250 Ω	-61.8	-82 (0.08 mV)

(Deviation ±2 dB)
*1 0 dBm = 1 mW/10 μ bar, 1000 Hz
*2 0 dB = 1 V/μ bar, 1000 Hz

Directivity: Uni-directional

Output impedance: 250 Ω ±20 % at 1000 Hz, balanced

Noise level: S/N ratio more than 46 dB (1000 Hz, 1 μ bar)
Inherent noise less than 28 dB SPL (0 dB = 2x10⁻⁴ μ bar)
Wind noise *A, less than 45 dB SPL (with wind screen)
less than 65 dB SPL (without wind screen)
Induction noise of external magnetic field *B less than 5 dB SPL/m gauss

*A Wind noise is the value measured by applying a wind velocity of 6.6 ft/second from all directions to the microphone.
The mean value is taken and converted to the equivalent input sound level.

*B The external magnetic field induction noise is measured with the microphone placed in the alternating magnetic field of 50 Hz, 1 m gauss. The maximum noise value is taken and then converted to the equivalent input sound level.

Maximum sound pressure input level: Approx. 132 dB SPL (40~20000 Hz)
Approx. 134 dB SPL (100~20000 Hz)

Dynamic range: Approx. 106 dB

Capsule: Electret condenser capsule

FET: Sony conjuction FET

Microphone cable: 0.205" dia., 20 ft (6.1 m)
2-conductor cable with a CANNON XLR-3-11C plug

Dimensions: 1.06" dia. x 6.94"
(27 mm dia. x 177 mm)

Weight: 6.5 oz (without cable and battery)
(180 g)

Environmental conditions for preservation temperature: -4° F~140° F (-20° C~60° C)

Environmental conditions for proper operation temperature: 32° F~122° F (0° C~50° C)

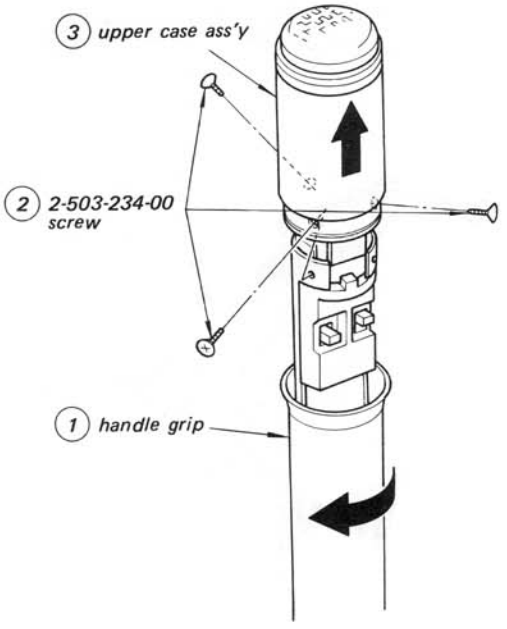
Supplied accessories: Wind screen
Microphone holder (NS 5/8")
carrying case
Microphone cable

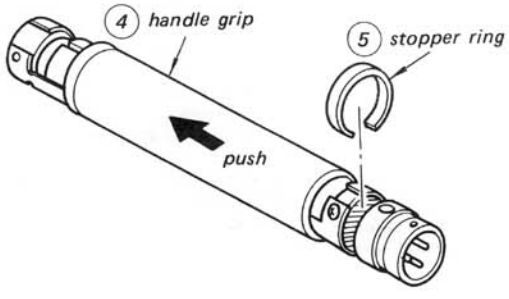
SONY®

SERVICE MANUAL

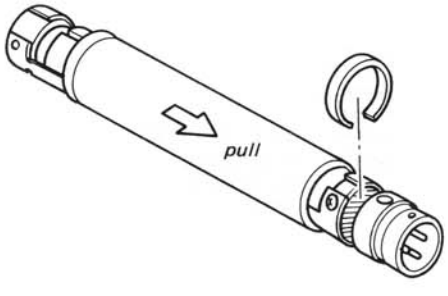
1. DISASSEMBLY AND REPLACEMENT

1-A. HANDLE GRIP REMOVAL



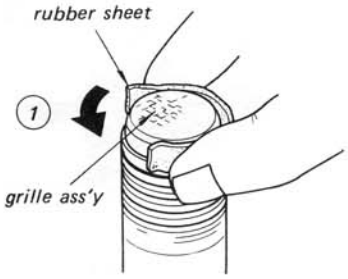


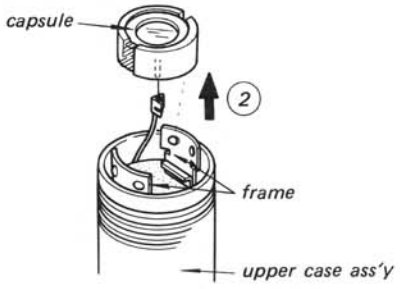
Note: When remove the handle grip, do not touch diaphragm of capsule.



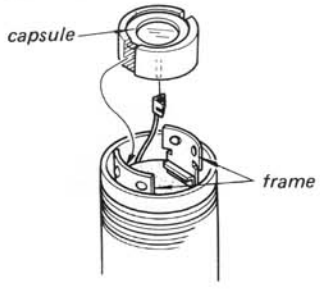
(6) *Remove the handle grip as shown by arrow.*

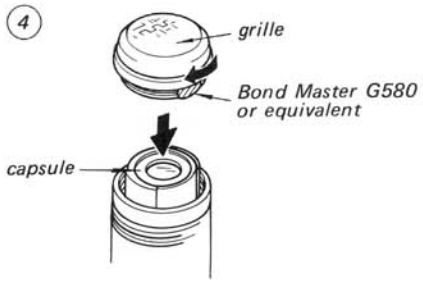
1-B CAPSULE REPLACEMENT





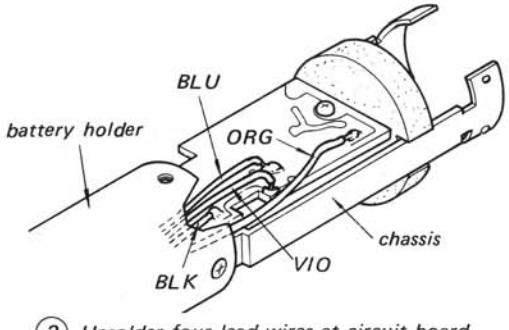
(3) *Fix the capsule as illustrated.*



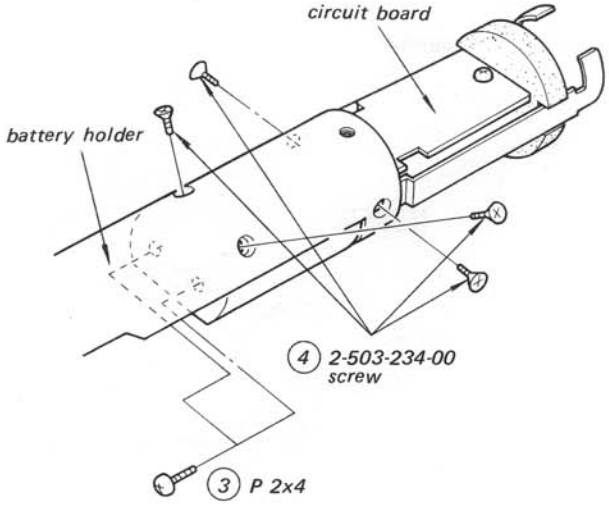


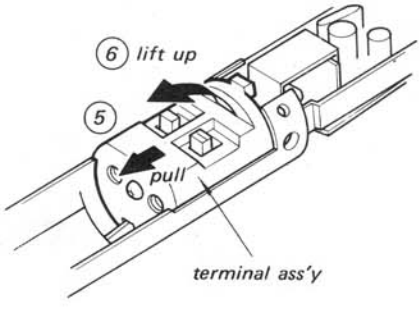
1-C CIRCUIT BOARD REMOVAL

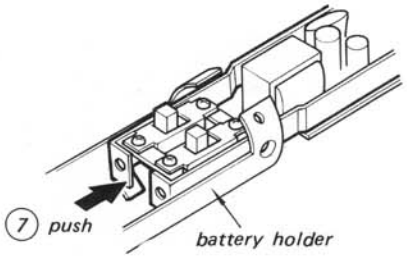
(1) *Remove the handle grip and capsule.*



(2) *Unsolder four lead wires at circuit board.*

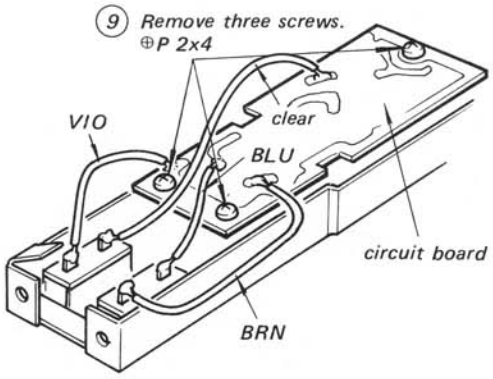






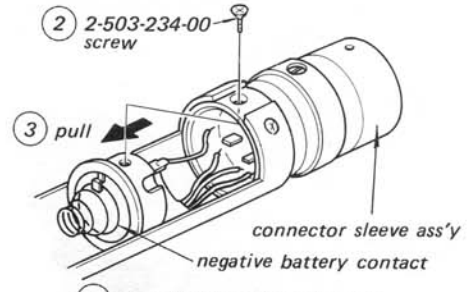
8 Unsolder four lead wires at circuit board

9 Remove three screws. ⊕P 2x4

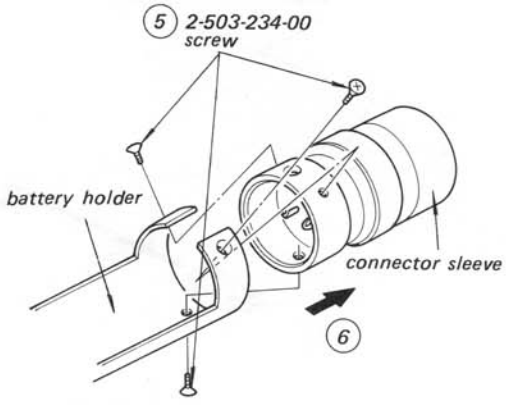


1-D CONNECTOR SLEEVE REMOVAL

1 Remove the microphone grip referring to handle grip removal.

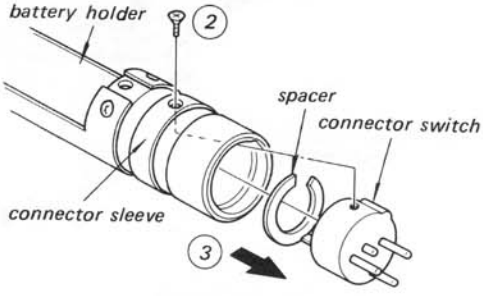


4 Unsolder four lead wires at negative battery contact.



1-E CONNECTOR SWITCH REPLACEMENT

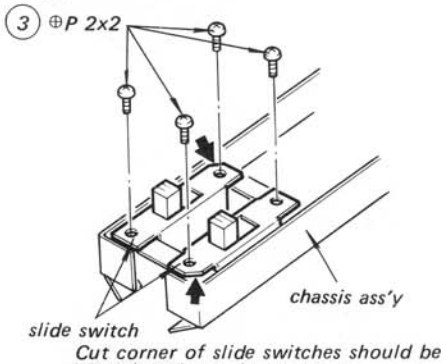
1 Unsolder three lead wires referring to connector sleeve removal.



1-F SWITCH REPLACEMENT

1 Remove the chassis referring to circuit board replacement.

2 Unsolder the lead wires.

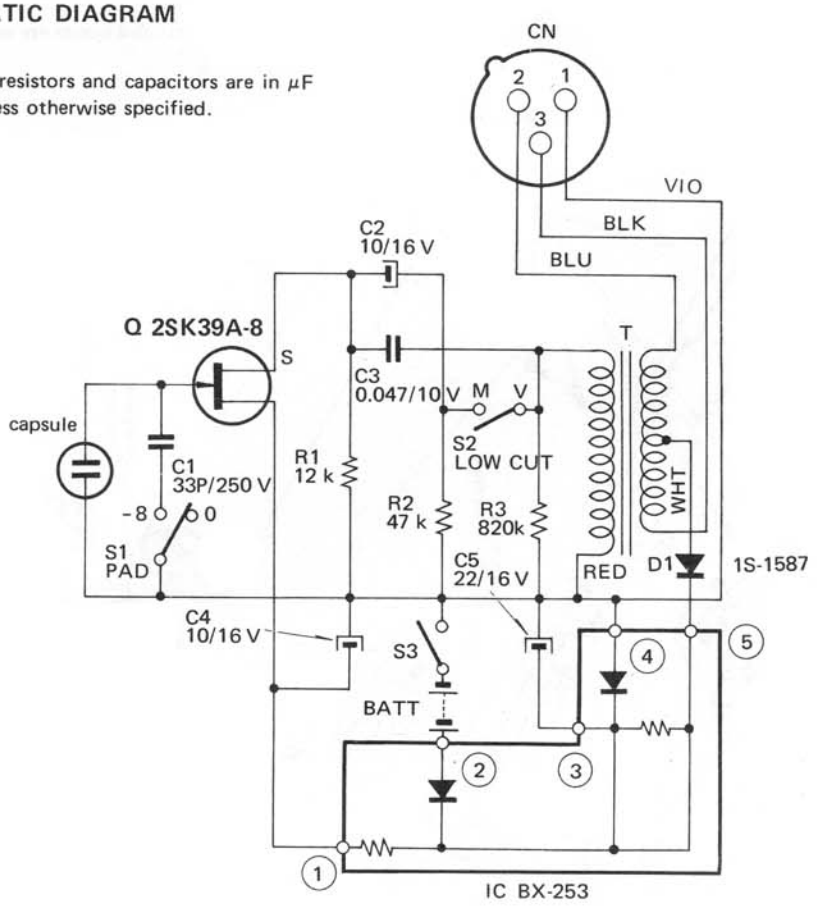


Cut corner of slide switches should be placed as shown by arrow.

2. DIAGRAMS

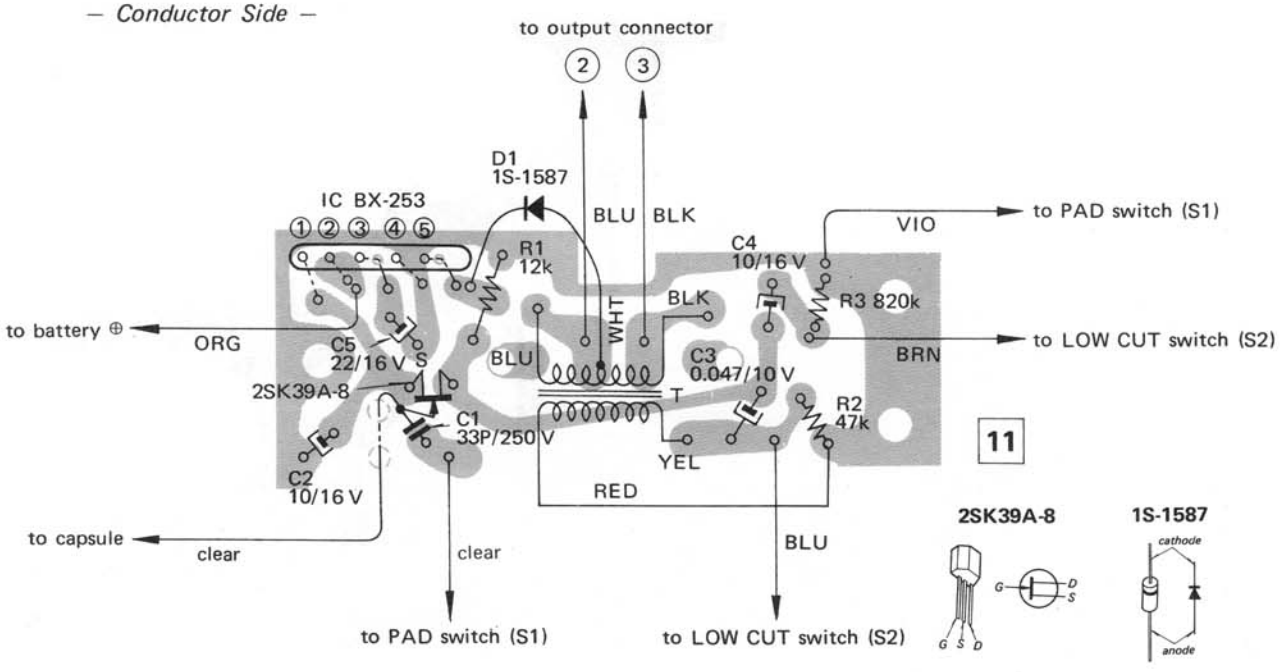
2-A. SCHEMATIC DIAGRAM

Note: All resistors and capacitors are in μF unless otherwise specified.



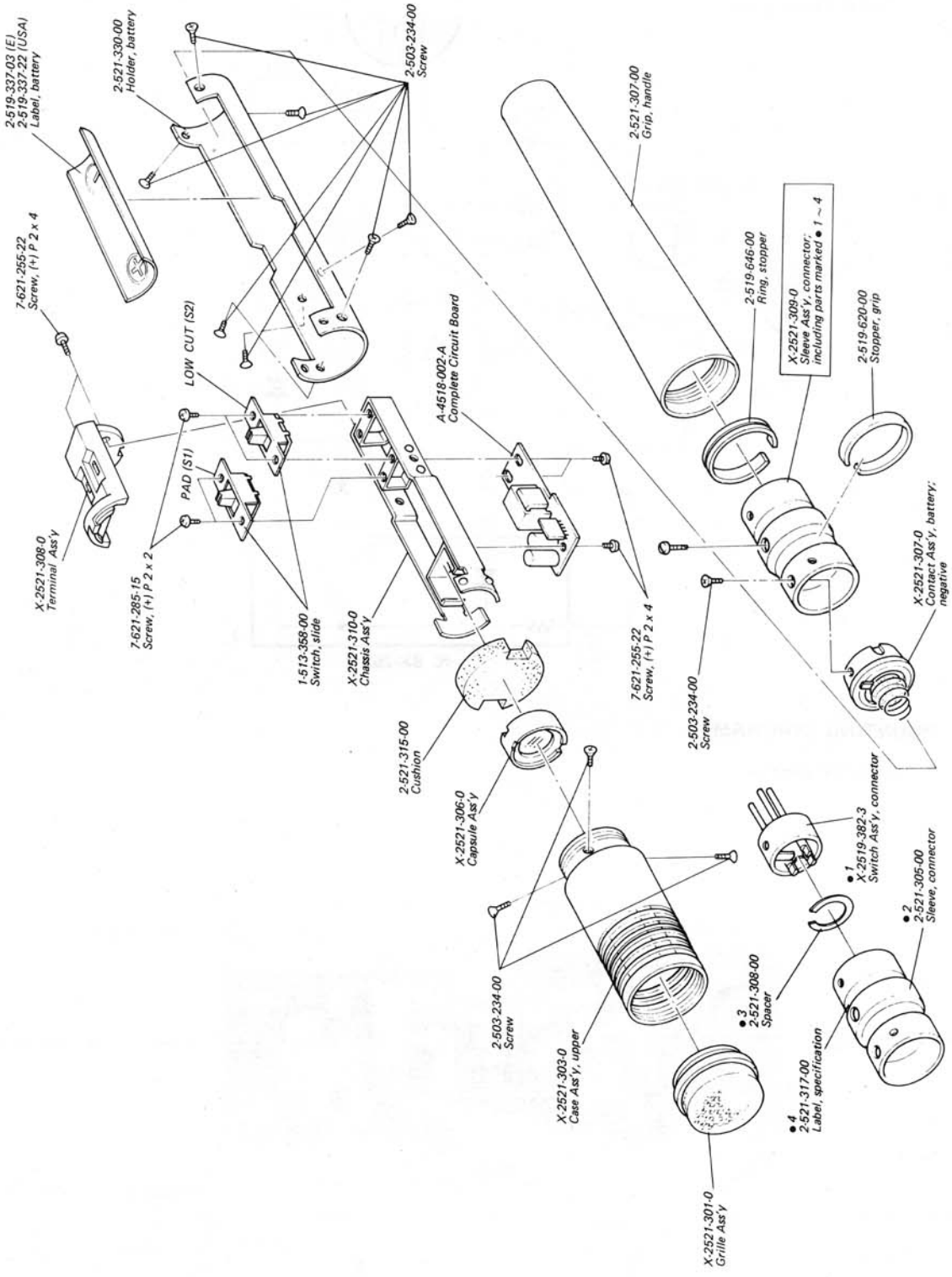
2-B MOUNTING DIAGRAM

— Conductor Side —



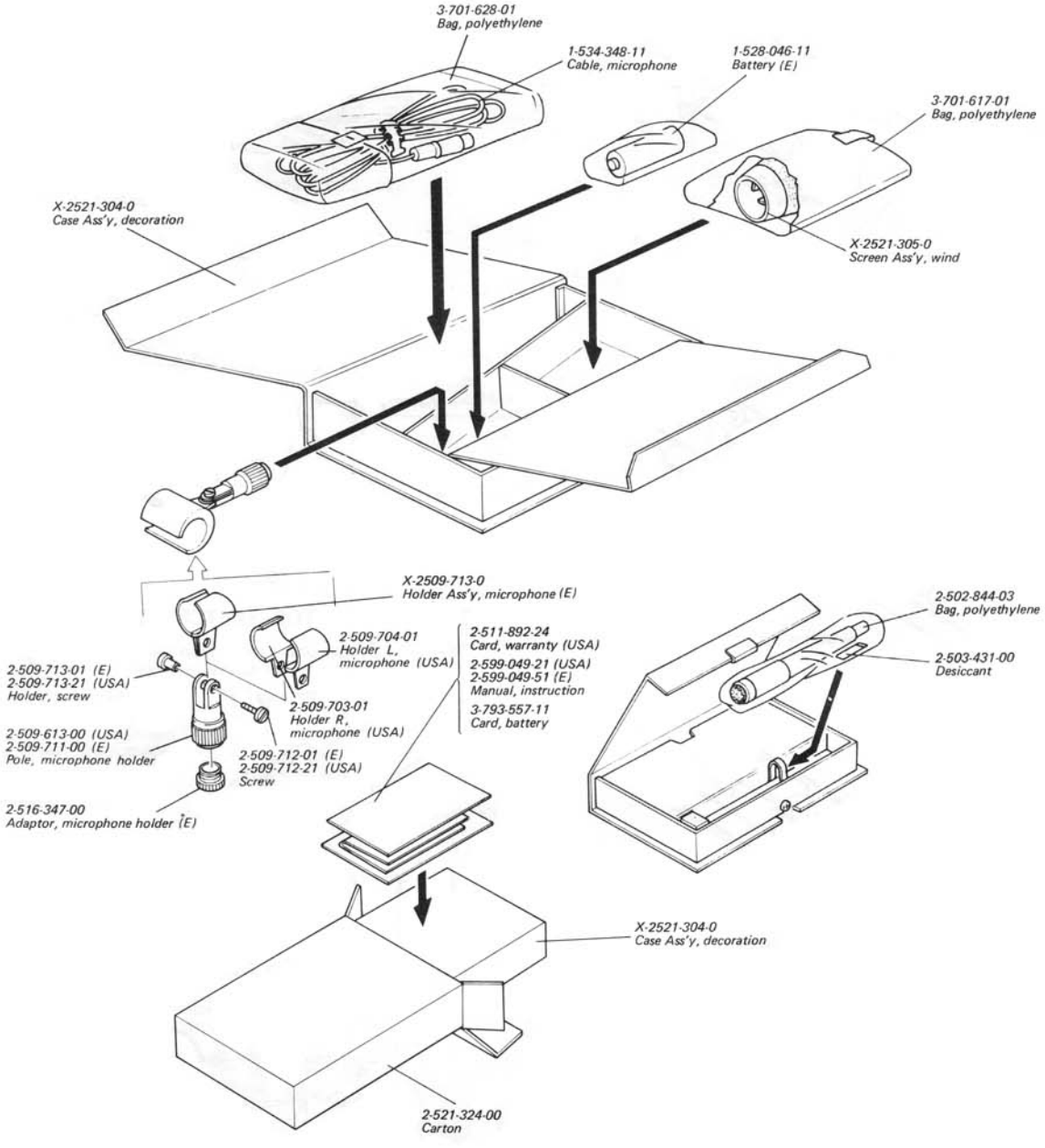
3. EXPLODED VIEW

Note: Parts without part numbers and names are not available.



4. PACKING

Note: Parts without part numbers and names are not available.



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