

ECM-Z70

SERVICE MANUAL

US Model
Canadian Model
AEP Model



SPECIFICATIONS

Type	Electret condenser microphone (with back-electret condenser capsule)
Microphone cord	1.5 mm (1/16 inches) dia. Shielded cord with the gold plated L-shaped miniplug
Power source	Length: Approx. 1.5 m (5 feet) IEC designation R03 (size AAA) battery (1)
Battery life	Approx. 300 hours with Sony Ultra Super battery UM-4 (NU)
Dimensions	Approx. 43 x 16 x 76 mm (w/h/d) (1 3/4 x 2 1/32 x 3 inches)
Mass (incl. battery and cord)	Approx. 45 g (1.6 oz)
Frequency response	200 - 12,000 Hz
Directivity	Super-directional
Output impedance	400 Ω \pm 30%
Sensitivity	Effective output level At High -22.0 ± 4 dBm At Low -42.0 ± 4 dBm (0 dBm = 1 mW/Pa, 1,000 Hz)
Maximum sound pressure input level (at 1,000 Hz, 1% distortion)	More than 100 dB SPL 0 dB SPL = 2×10^{-5} Pa
Operating temperature	0°C - 40°C (32°F - 104°F)

Design and specifications are subject to change without notice.

Features

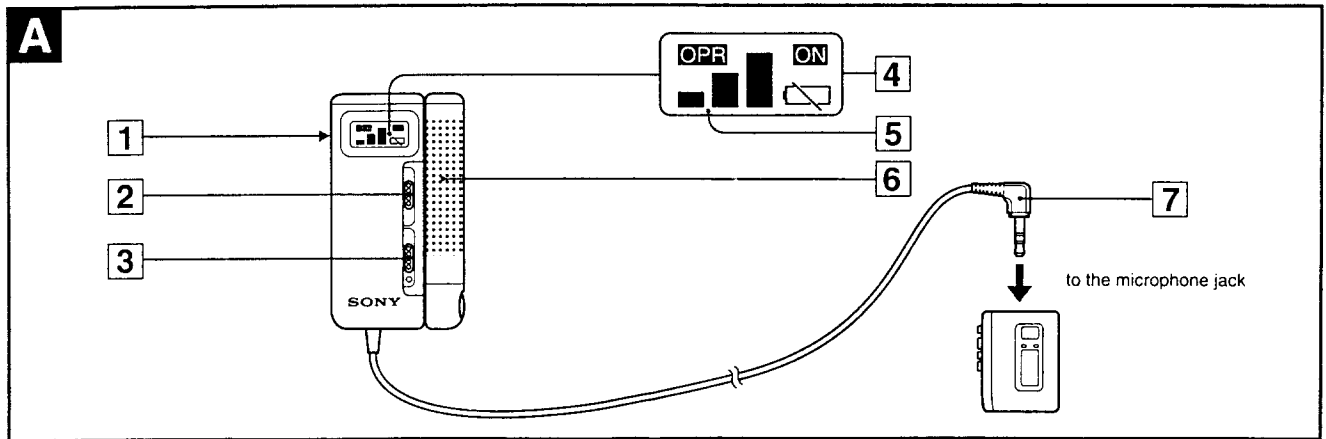
- The super-directional microphone for picking up a specific sound source precisely, while eliminating noise around the microphone.
- The crystal liquid display enables you to easily check the input level, power on-off or battery status.
- You can check the elapsed recording time later by referring to the recorded signal sounds (interval marker function).
- When using a Sony tape recorder whose microphone jack is marked with PLUG IN POWER, the power of the microphone is turned on automatically when you start recording, even though the POWER switch on the microphone is set to OFF. This will prevent you from missing a recording even when you forget to set the POWER switch to ON.

ELECTRET CONDENSER MICROPHONE
SONY®



SECTION 1 GENERAL

This section is extracted from instruction manual.



Parts Identification and How to Use (See fig. A)

- 1 **Battery compartment**
- 2 **CARDIOID switch**
Set this switch to H (High) or L (Low) in accordance with the noise around the microphone or the level of the speaker's voice referring to the recording level indicator.
- 3 **POWER/INTERVAL MARKER switch**

POWER	INTERVAL MARKER
ON	ON
ON	OFF
OFF	OFF

Interval marker function

When the INTERVAL MARKER switch is set to ON, the signal sound "Peep" will be recorded every 30 seconds, and the signal sound "Peep peep" will be recorded every 5 minutes. These sounds will be helpful when searching for desired portion later in the cue or review mode of the tape recorder (fast forward or rewind in the playback mode). When you do not want the signal sound in playback, set the POWER/INTERVAL MARKER switch to the center position when you start recording.

When the INTERVAL MARKER switch is set to ON, the "ON" indication appears on the display.

Do not change the setting of the INTERVAL MARKER switch during recording.

Automatic power-on system

When you use Sony tape recorder whose microphone jack is marked with PLUG IN POWER, such as M-607V or TCM-77, etc., the battery in the microphone will activate when you start recording, even though the POWER switch on the microphone is set to OFF. In this case, the "OPR" (operation) indication appears on the display.

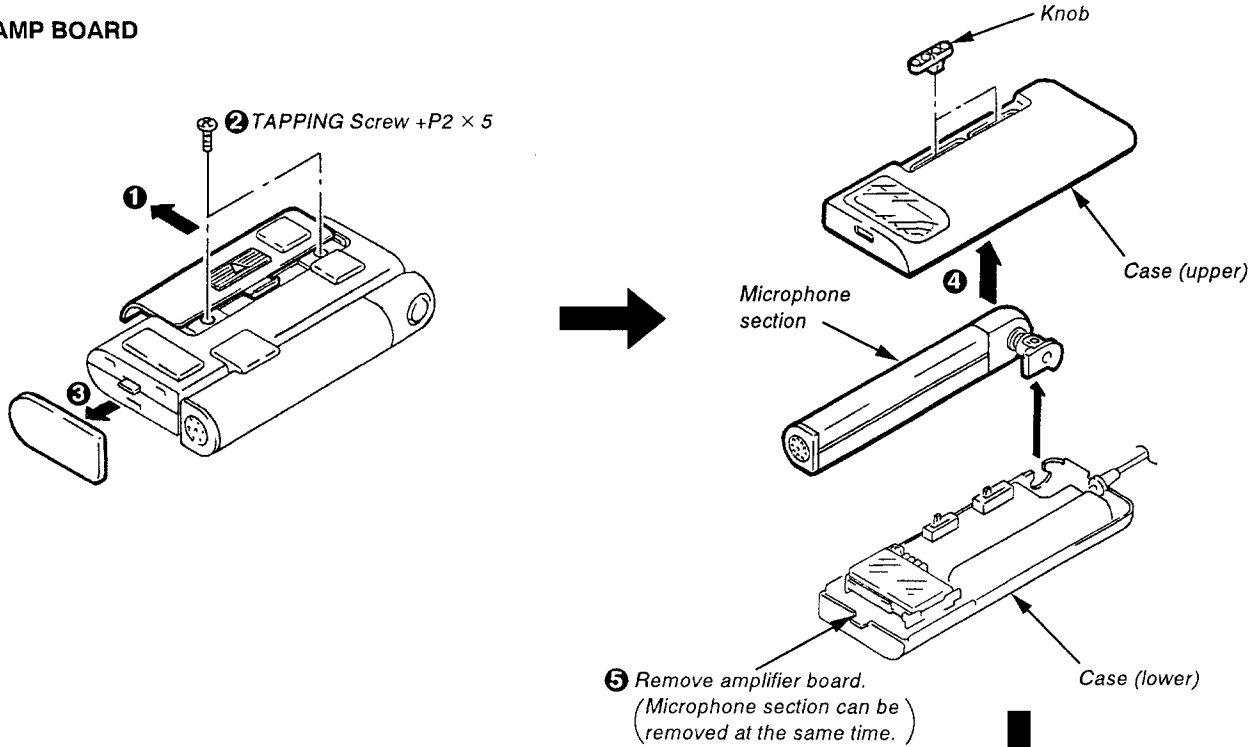
The INTERVAL MARKER will not activate automatically.

- 4 **Liquid crystal display**
- 5 **Recording level indicator**
The indicator shows the input level in three stages. When the sound level is appropriate, the left and center indicators will stay lit and the indicator on the right sometimes flash. Decide on the position of the microphone by referring to the indicator.
- 6 **Microphone unit**
Can be raised up to 60 degrees. Clicks at the angles of 30 and 60 degrees.
- 7 **Output plug (gold plated L-shaped miniplug)**
Connect the plug to the microphone jack of a tape recorder.

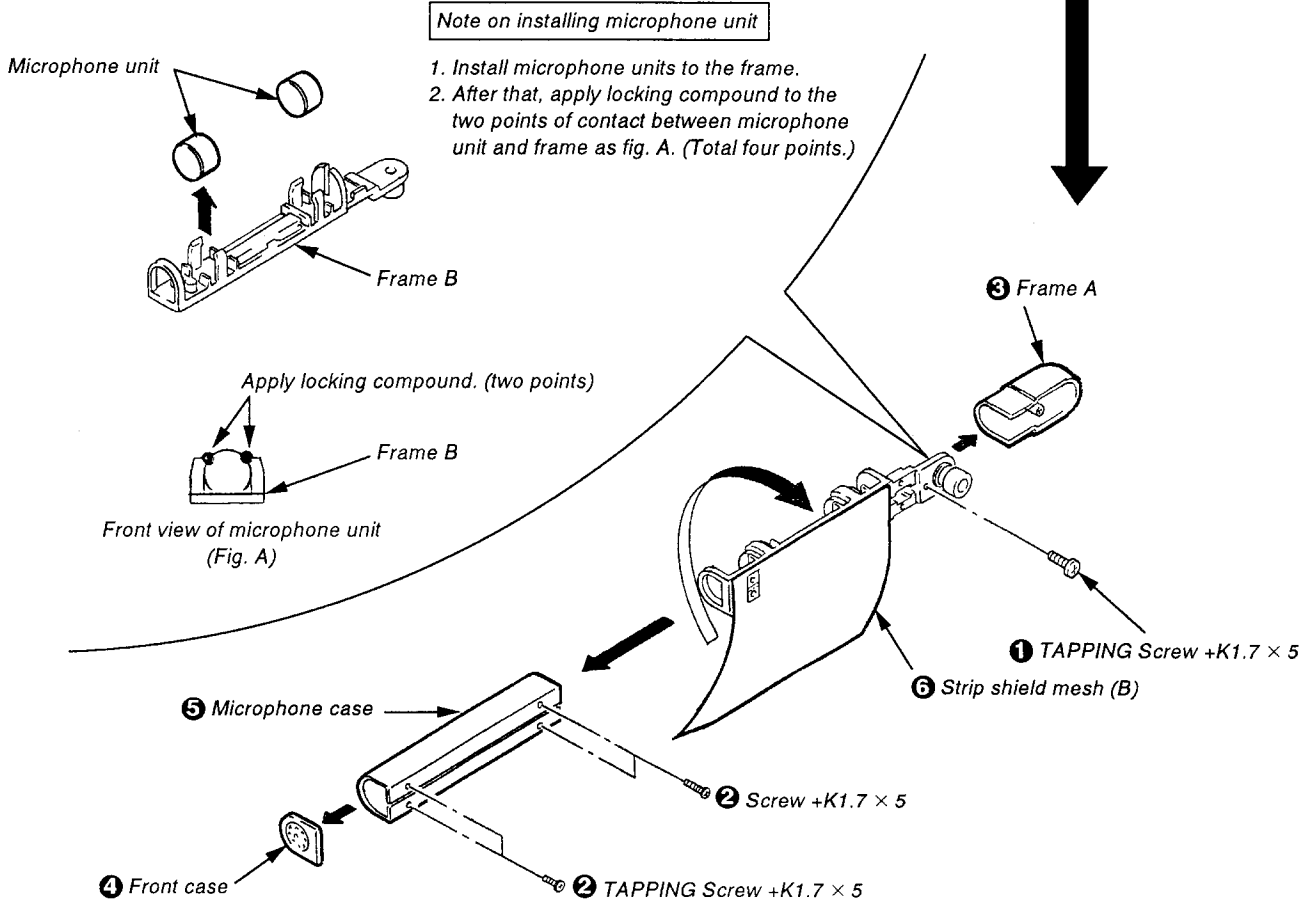
SECTION 2 DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

2-1. AMP BOARD



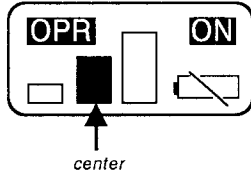
2-2. MICROPHONE UNIT



SECTION 3 ELECTRICAL ADJUSTMENT

3-1. LCD Lighting level Adjustment (RV1)

Feed in the signal 1kHz 0.5mV(- 66dBV) to capacitor C29 and adjust RV1 to bright the center of LCD lighting level as show in below drawing.



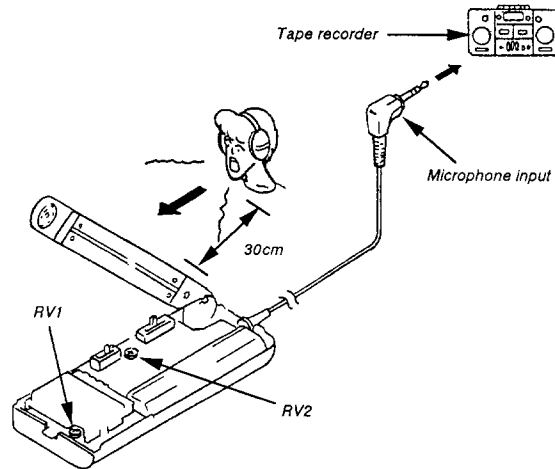
Note : This adjustment should be done when replacing the parts of Q1 - Q3 and RV1.

3-2. Directivity Adjustment (RV2)

Note : This adjustment should be made when replacing following parts.

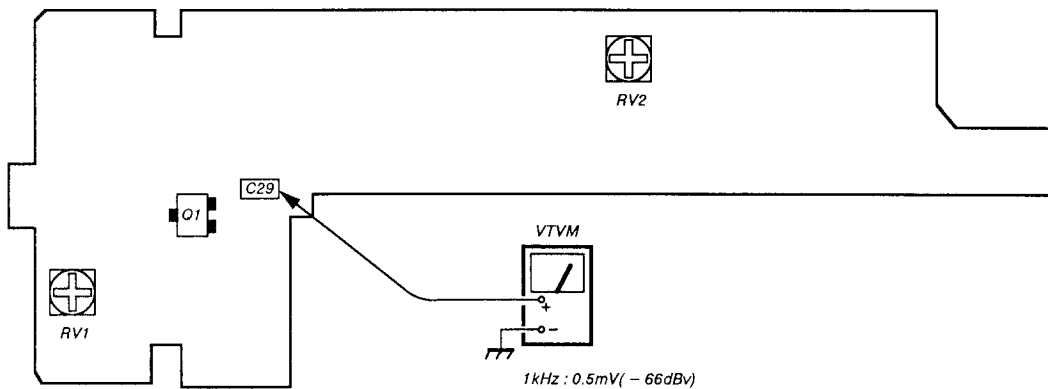
Microphone capsule, Q6, R23 - R26, RV2

- ① Connect to the microphone input of the tape recorder.
- ② Apply your voice to the microphone unit at right angle as shown.
- ③ Adjust RV2 to obtain minimum output from headphone output



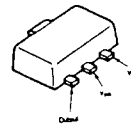
Adjustment Location : AMP board

[AMP BOARD] (Component side)

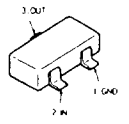


● SEMICONDUCTOR LEAD LAYOUTS

SC17700YBA



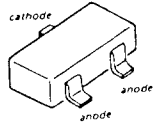
DTC114TK



2SA1036K-Q
2SC2411K



RB705D



Note:

- ○ : parts extra
- ● : Through h
- [Pattern] : Pattern f
(The oth

Caution :
 Pattern face side :
 (Conductor Side)
 Parts face side :
 (Component side)

