

## [Operating Instructions]



# WIRELESS MICROPHONE

## WM-370



Please follow the instructions in this manual to obtain the optimum results from this unit. We also recommend you keep this manual handy for future reference.

### ■ GENERAL DESCRIPTION

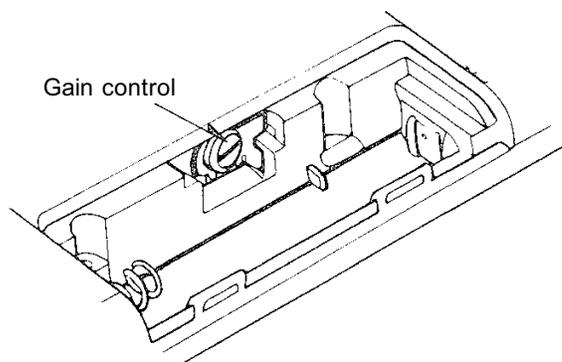
Compact and light weight, the TOA WM-370 is a lavalier type wireless microphone for speech. It incorporates a uni-directional electret condenser microphone to minimize feedback, and a compressor/expander system noise reduction circuit to minimize the influence of high-frequency noise generated from digital equipment such as personal computers and word processors.

### ■ FEATURES

- Internal loop antenna.
- Small size, light weight and high reliability.
- Continuous operation for 12 hours or more on one alkaline battery (LR6/1.5V).
- Two battery indicators (green and red).
- Internal I.D. signal generator for tone squelch.
- Compressor/expander system noise reduction circuit.

### ■ USER PRECAUTIONS

- Take care not to drop the unit on to a hard floor.
- Do not flip nor blow into the microphone head.
- Avoid placing the unit in areas of extremely high humidity and temperature.
- Never open the unit nor touch its internal components.
- Clean the unit's exterior periodically with a soft dry cloth. If it gets very dirty, wipe first with a soft damp cloth lightly soaked in a neutral detergent, and then dry with a soft cloth.  
Never use thinner, benzine, or other solvents, which may damage plastic part of the unit.
- Remove the battery if the unit is to be stored for two weeks or more.
- MICROPHONE GAIN CONTROL  
Remove a battery to expose the control. Use a Philips screwdriver to adjust it. The sensitivity increases as the control is rotated clockwise, and decreases as rotated counterclockwise. Usually leave the control intact.



## ■ BATTERY LOADING

Use LR6 type alkaline battery.

1. Remove the battery cover by sliding in the direction indicated by the arrow on the unit surface. (Fig. 1)

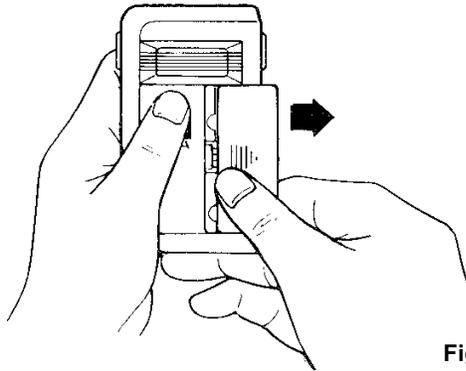


Fig. 1

2. Observing correct polarity instructed inside the battery compartment, insert a battery. (Fig. 2)

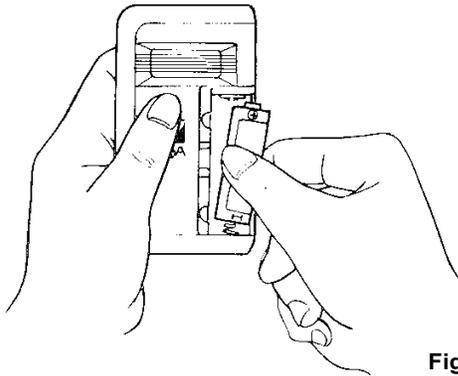


Fig. 2

3. Replace the cover.

## ■ BATTERY REPLACEMENT

1. The alkaline battery LR6 can be continuously used for approximately 12 hours. (The manganese battery R6 for approximately four hours.)

### 2. Battery indicator

When the battery voltage is sufficient, the green LED lights. The green LED becomes dimmer as the battery voltage drops, and the red LED lights. In such a case, renew the alkaline battery LR8 inside an hour or two (renew the manganese battery R6 inside a half hour.).

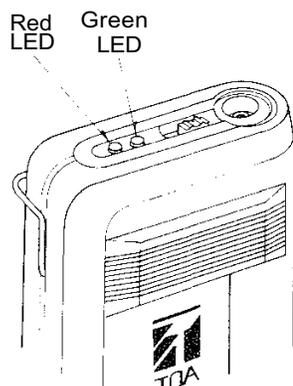


Fig. 3

## ■ HOW TO USE

1. Verify that the receiver frequency is identical with the microphone (transmitter) frequency.
2. Plug the microphone cable into the transmitter assembly. (Fig. 4)

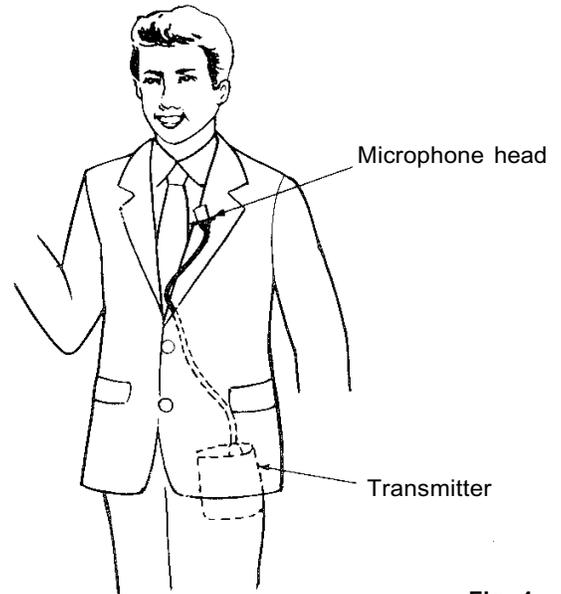


Fig. 4

3. Fit a microphone clip to a head assembly along a groove in the assembly, and clip the head assembly to a lapel or necktie, as shown in Fig. 5. The clip can rotate 360° for attachment from any direction.

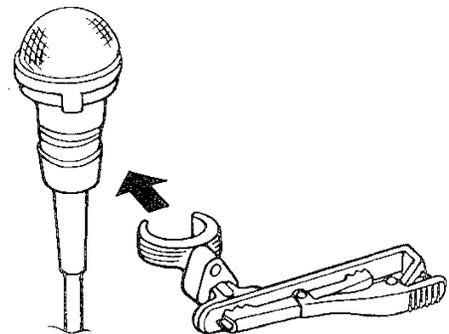


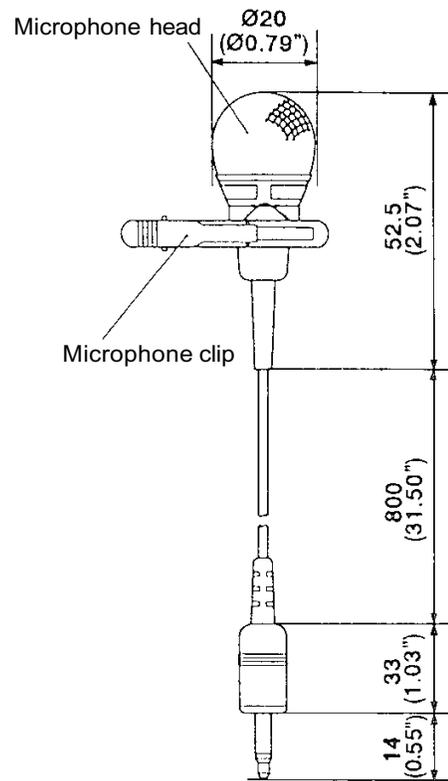
Fig. 5

4. Set the microphone on/off switch to ON, and verify that the green battery indicator lights.
5. Place a transmitter assembly in a pocket or clip it to a belt.
6. Set the on/off switch to OFF after use and verify that the green LED is extinguished.

## ■ TIPS FOR CONVENIENT USE

1. To avoid feedback, use the microphone with your mouth put as close to the microphone top as possible.
2. Adjust the tuner volume control to an appropriate volume level that prevents feedback. The system is prone to feedback if the microphone comes too close to the speaker. It is suggested that tests be performed preliminarily of feedback points in locations where the microphone is to be actually used.
3. To prevent radio interference or malfunction of the tuner, always use the microphone at least 3m (10 feet) away from a receiving antenna.
4. When using multiple microphones simultaneously, separate them at least 60cm (2 feet) from each other to prevent noise or break in sound, which may result from mutual microphone interference.
5. Walls, floors, and ceilings block the radio wave's straight-line travel, and frequently create null spots that can cause temporary loss of signal reception even within the practical transmission distance threshold. In such cases, relocate a receiving antenna or change microphone locations. (To effectively reduce the null spots, use the diversity tuner instead of non-diversity tuners.)
6. Human bodies absorb radio signals, and this can badly affect signal reception. In rooms having a number of people, attempt to install an antenna high above the floor.
7. Once a wireless system is installed, actually move around the site with a microphone to check system operation.

## ■ PART NAME

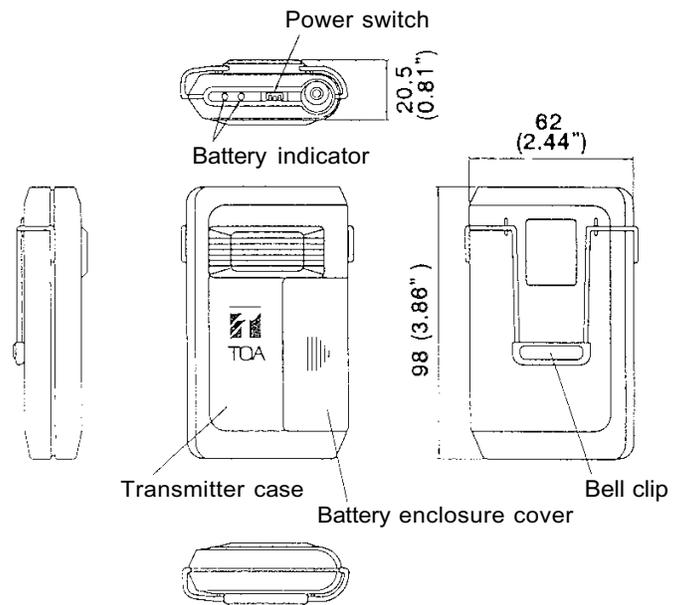


## ■ ADDITIONAL EXPLANATIONS

### Squelch circuit

In a receiver employing only a noise or carrier squelch, the squelch circuit is actuated and provides the output whenever the receiver receives the same RF carrier as a receiving frequency. This causes even a disturbing radio signal to be received provided its frequency is the same as the receiving frequency. As a result, it can happen that sound is suddenly heard from the speaker due to disturbing radio signal even when the wireless microphone's power switch is left OFF.

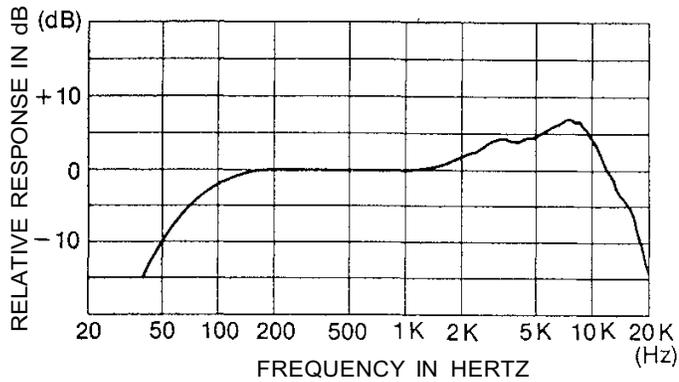
The squelch circuit of TOA's wireless systems consists of both the tone and noise squelches, and is not actuated if only same RF carrier as the receiving frequency is received. It is so designed as to be actuated and output a signal only when the received RF carrier contains a very exact pre-determined tone frequency component. Therefore, disturbing radio signals are rejected and the speaker can be kept completely quiet when the wireless microphone's power switch is set to OFF, ensuring reliable use in every application.



Unit: mm (in.)

■ **TYPICAL FREQUENCY RESPONSE**

• FCC license requirement



The operation of the TOA wireless microphone systems must conform with the rules and regulations contained in the code of Federal Regulations, 47, Telecommunications, Part 74 and Part 90. These regulations are available from the U.S. Government Printing Office.

■ **SPECIFICATIONS**

Version	WM-370 US version	
Regulations	FCC Part 90	FCC Part 74
Carrier Freq. Range	169.445~171.945 MHz	174~216MHz
Freq. Stability	±0.005%	±0.005%
RF Carrier Power	15mW	15mW
Maximum Input Level	115 dBspl	←
Modulation (Max.)	±15kHz Deviation	±40kHz Deviation
Tone Freq.	32.768kHz	←
Controls	Power ON/OFF	←
Battery	LR6 (1.5 Volts) Alkaline	←
Current Drain	90mA Typ. (1.5V)	←
Battery Life	More than 12 hours	←
Battery Indicator	Green and Red LED's	←
Antenna	Internal Loop	←
Ambient Temperature	-10°C~50°C (14°F~122°F)	←
Colour	Dark Gray	←
Dimensions (W x H x D)	62×98×20.5mm (2.44" × 3.86" × 0.81")	←
Weight	90g (0.198lbs.) with battery	←

\*Specifications are subject to change without notice.

• **Accessories:**

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**TOA Corporation**

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