



OPERATING INSTRUCTIONS

VHF WIRELESS MICROPHONE

WM-3310 WM-3310H

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

1. SAFETY PRECAUTIONS

- Be sure to read the instructions in this section carefully before use.
- Make sure to observe the instructions in this manual as the conventions of safety symbols and messages regarded as very important precautions are included.
- We also recommend you keep this instruction manual handy for future reference.



WARNING

Indicates a potentially hazardous situation which, if mishandled, could result in death or serious personal injury.

- To prevent the electromagnetic wave from badly influencing medical equipment, make sure to switch off the unit's power when placing it in close proximity to the medical equipment.



CAUTION

Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage.

- When the unit is not in use for 10 days or more, be sure to take the battery out of the unit because battery leakage may cause personal injury or contamination of environment.
- Make sure to observe the following handling precautions so that a fire or personal injury does not result from leakage or explosion of the battery.
 - Do not short, disassemble, heat nor put the battery into a fire.
 - Never charge batteries of the type which are not rechargeable.
 - Do not solder a battery directly.
 - Be sure to use the specified type of battery.
 - Note correct polarity (positive and negative orientation) when inserting a battery in the unit.
 - Avoid locations exposed to the direct sunlight, high temperature and high humidity when storing batteries.

2. GENERAL DESCRIPTION

The wireless microphone WM-3310 is of lavalier type, while the WM-3310H is of headset type, and all are designed for use on VHF band.

The WM-3310/-3310H accommodate the supplied microphone unit or headset with a cardioid pick-up pattern and are suitable for speech reinforcement applications. The built-in circuitry is so designed to minimize the influence from ambient noise.

3. FEATURES

- One frequency can be selected from 6 operating frequencies of 169 – 216 MHz.
- An optimized PLL-synthesizer minimizes the oscillation frequency drift resulting from the ambient temperature or voltage fluctuation.
- Audio level control adjusts the microphone sensitivity.
- Battery lamp indicates battery consumption to prevent the unit from malfunctioning when the battery level remarkably decreases.
- Compact size and high reliability

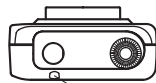
4. HANDLING PRECAUTIONS

- Do not expose the unit to rain or an environment where it may be splashed by water or other liquids, as doing so may result in unit failure.
- Never open nor remove the unit case to modify the unit. Refer all servicing to your nearest TOA dealer.
- Take care not to drop the unit onto the floor nor bump it against a hard object as the unit could fail.
- Do not place the unit in locations of high temperature (ex. in a car parked in summer) or high humidity as the unit could fail.
- Do not use the unit in locations where it is exposed to seawater.
- To clean, use a dry cloth. When the unit gets very dirty, wipe lightly with a cloth damped in a dilute neutral cleanser, then wipe with a dry cloth. Never use benzine, thinner, or chemically-treated cleaning towel.
- Avoid using a mobile telephone near the wireless microphone in use. Noise could be picked up.

5. NOMENCLATURE

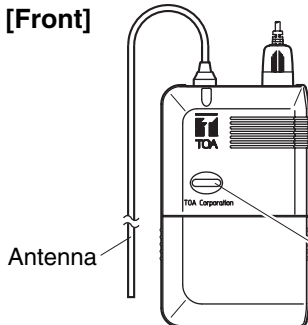
• Main unit

[Top]



Power/Battery lamp
(Orange LED)

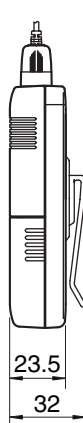
[Front]



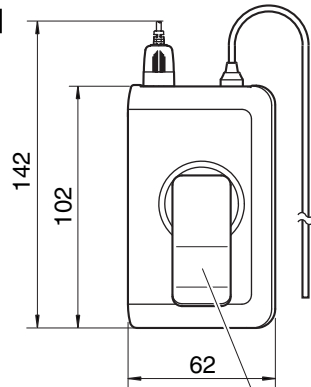
Antenna

Power ON/OFF switch
(push lock)

[Side]

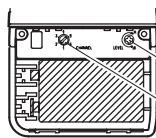


[Rear]



Clip
(Rotates 360°.)

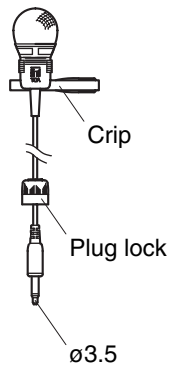
[Inside of a battery cover]



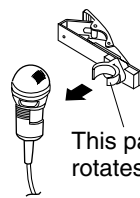
Audio level control

Channel selector switch

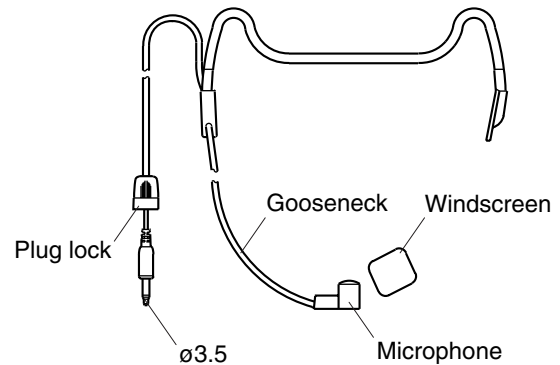
• Lavalier microphone (WM-3310 only)



Tie-clip attachment

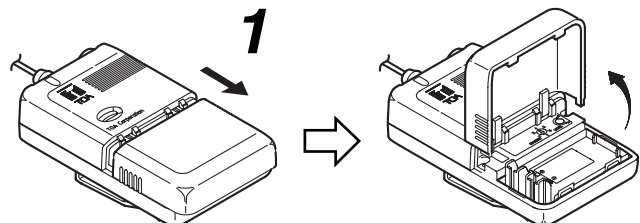


• Headset (WM-3310H only)

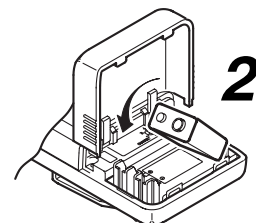


6. BATTERY INSERTION

Step 1. Holding the microphone body, slide the battery cover down to open it.
The battery cover is designed not to be removed from the body.



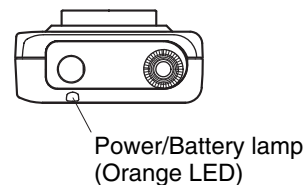
Step 2. Insert the battery 6LR61 (Alkaline 9 V) according to the instructions attached to the inside of the battery compartment. Pay attention to the correct polarity when inserting the battery.



Step 3. Replace the battery cover.

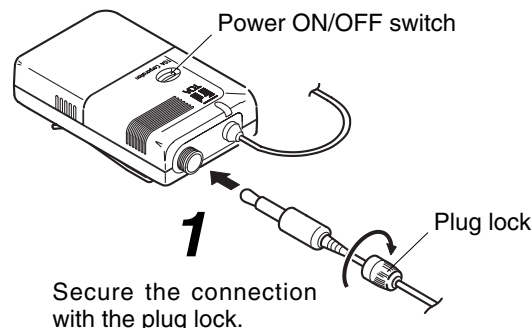
Battery replacement

- A brand-new battery will provide the power enough to operate the unit continuously for 10 hours.
- As long as the battery has sufficient power for the microphone to function properly, the orange LED will light. When the orange LED starts to fade and then flash, replace it with a new one.



7. OPERATION

- Step 1.** Plug the microphone's plug into the input connector as illustrated.
- Step 2.** Make sure that the receiver and the wireless microphone are of the same channel (frequency).
- Step 3.** If they are not identical in channel, you have to adjust the channel switch.
- Step 4.** Press the power ON/OFF switch to turn on the microphone.
The orange LED indicates the circuit is active.
- Step 5.** Make sure to press the ON/OFF switch again to turn off the microphone after using.



8. OPERATIONAL HINTS

- The microphone's service distance is 3 – 100 m. When the microphone user moves in a facility, signal dropouts (momentary losses of signal reception) may be encountered. These dropouts are caused by the building's architectural designs or materials which block the travel of or reflect the radio signal. If this occurs, the user needs to change locations for better signal reception.
- Dangle the antenna freely. If wound around the unit or tied into bundles, sufficient service distance cannot be obtained.
- The proper operation of your wireless system may be interfered with by other system operating on the same frequency. In such cases, change the operating frequency of your system. (As to dealing with the interference, refer to the operating instructions of the wireless tuner.)
- Should you have any questions regarding the use or availability of TOA wireless products, please contact your local TOA dealer.

9. DISTANCE BETWEEN THE MICROPHONE AND THE MOUTH

[Lavalier type version (WM-3310)]

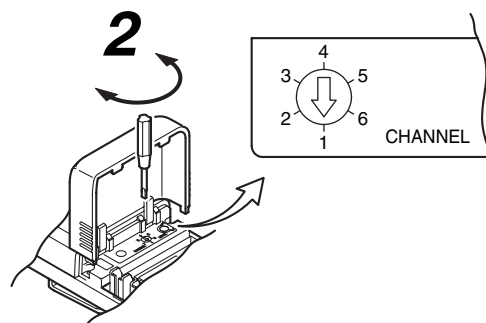
Keep your mouth 15 – 20 cm away from the microphone for the best possible sound reproduction. Take care not to bring your mouth too close to the microphone (within 5 cm) as this impairs speech clarity if you speak loudly.

[Headset type version (WM-3310H)]

By adjusting the gooseneck, locate the microphone with the supplied windscreen in front of your mouth, and position it 3-5 cm away from your mouth for the best sound reproduction. When the microphone is too close to your mouth or you speak too loud, speech clarity will be impaired, making it hard for the audience to hear announcements.

10. CHANNEL NUMBER SETTING

- Step 1.** Slide the battery cover down to open it.
- Step 2.** Using the supplied screwdriver, set the channel selector switch pointer to the desired channel number.
- Step 3.** Replace the battery cover.



Note

Make sure that the wireless microphone is identical to the wireless tuner in the channel number. Should the microphone's setting differ from that of the tuner, the tuner does not receive the microphone signal.

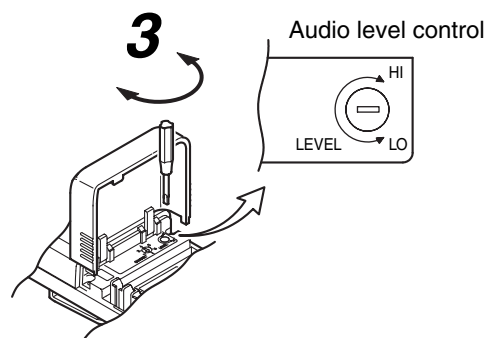
11. AUDIO LEVEL ADJUSTMENT (SENSITIVITY CONTROL)

To change the factory-preset level, follow the procedures below.

Step 1. Holding the microphone body, slide the battery cover down to open it. The battery cover is designed not to be removed from the body.

Step 2. Switch on the power of the tuner and microphone.

Step 3. Adjust the audio level control using the supplied screwdriver. The microphone sensitivity increases as the control is rotated clockwise, and decrease as rotated counterclockwise.



Step 4. Adjust the corresponding tuner's volume control so that its knob points to the 2 o'clock position. If the tuner's AF PEAK indicator remains lit, readjust the microphone's audio level control to the position that causes the indicator to flash when the tuner output level reaches its peak. The AF PEAK indicator lights when the output level reaches the point of about 3 dB below the clipping level.

Note

The AF PEAK indicator operates in response to the volume control position.

However, the AF LEVEL indicator (on the WT-3810) indicates the level regardless of the volume control setting.

Step 5. Replace the battery cover.

12. SPECIFICATIONS

Model No.	WM-3310	WM-3310H
Emission	F3E	
Frequency Range	169 – 216 MHz, VHF	
Selectable Channel	6 channels	
RF Carrier Power	Less than 50 mW	
Tone Frequency	32.768 kHz	
Modulation System	PLL synthesizer	
Maximum Input Level	120 dB SPL	
Battery	6LR61 (9 V x 1)	
Battery Life	10 hours (alkaline)	
Indicator	Power/Battery lamp (common use)	
Antenna	1/4 λ wire type	
Microphone Type	Lavalier type	Headset type
Microphone Element	Electret condenser type, cardioid pattern	
Operating Temperature	–10 to +50°C	
Finish	Resin, coating, dark gray	
Dimensions	62 (w) x 142 (h) x 32 (d) mm	
Weight	135 g (with battery)	

Note: The design and specifications are subject to change without notice for improvement.

• Accessories

Screwdriver (for setting) 1
Channel identification seal 1

License requirement

Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

