

PORTABLE TRANSMITTER

WM-2100

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.

Safety Symbol and Message Conventions

Safety symbols and messages described below are used in this manual to prevent bodily injury and property damage which could result from mishandling. Before operating your product, read this manual first and understand the safety symbols and messages so you are thoroughly aware of the potential safety hazards.



WARNING

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

- Do not use the transmitter's neck strap in close proximity to the rotating machinery, such as drill presses, as the strap could become entangled in the machinery, resulting in personal injury.



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 batteries 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 batteries.
 - 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

TOA's WM-2100 is a Portable Transmitter designed to use 470 MHz band radio signals. An optional microphone (not supplied with the unit) is required.

3. FEATURES

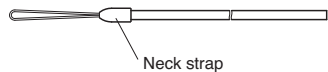
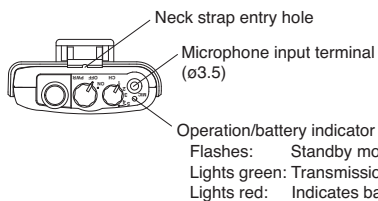
- Microphone sensitivity can be changed.
- The transmission switch (press-to-talk) function is made available. (An optional microphone with the transmission switch is required.)
- A maximum of 5 different channels can be simultaneously used in the same location.
- The battery indicator indicates the state of battery consumption to avoid the unit's failure due to battery exhaustion.
- Compact size and high reliability.
- Optional microphones can be selected from 3 different types.

4. HANDLING PRECAUTIONS

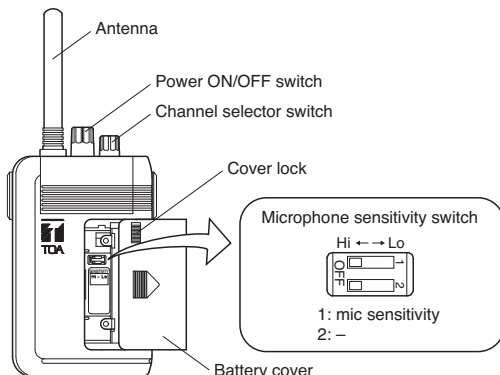
- Do not expose the unit to rain or an environment where it may be splashed by water or other liquids, as doing so may result in unit failure.
- Never open nor remove the unit case to modify the unit. Refer all servicing to your nearest TOA dealer.
- Take care not to drop the unit onto the floor nor bump it against a hard object as the unit could fail.
- Do not use the unit in locations where it is exposed to seawater.
- To clean, wipe with a dry cloth. When the unit gets very dirty, use a cloth damped in a neutral cleanser. Never use benzene, thinner or chemically-treated cleaning cloth because such volatile liquids could deform or discolor the unit.
- To avoid damage, do not carry the unit by its antenna.
- To avoid the unit's failure, do not use the unit in locations which vibrate or where dust accumulates.

5. NOMENCLATURE

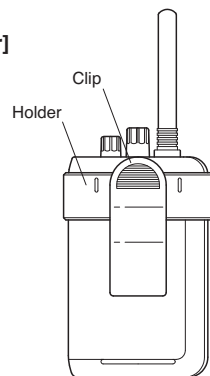
[Top]



[Front]



[Rear]



6. OPERATION

Step 1. Remove the battery cover and place the battery as shown below. (Ensure that the Power switch is set to the OFF position.)



Step 2. Set the Microphone sensitivity switch to the "Hi" (left-hand side) position (normal setting position).

Step 3. Replace the battery cover and securely lock it .

Step 4. Set the Channel selector switch to the same channel as the receiver.

Step 5. Connect an optional microphone to the input terminal.

Step 6. Switch on the power by turning the Power switch clockwise. The Operation/battery indicator either lights or flashes when the power is turned on.

Step 7. Speak into the microphone. If the microphone is equipped with the transmission switch, speak while pressing the switch.

Step 8. Turn off the power after use.

[Operation/battery indicator-to-WM-2100 Relationship]

Indicator	WM-2100
Flashes slowly.	Standby mode (Transmitting no signal.)
Steadily on	Transmitting a signal.
Changed from green to red.	Battery has been exhausted.

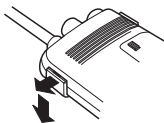
7. HINTS ON OPERATION

- Microphone sensitivity can be changed. When using the transmitter in the high noise level area, speech clarity may be improved by reducing the sensitivity.
- The WM-2100 unit features the transmission switch (press-to-talk) function, which permits signal transmission only while the transmission switch is pressed. When using this function, select an optional microphone with the transmission switch.
- A maximum of 5 different channels can be simultaneously used in the same location. (Note that communication distances may be shortened by simultaneously using 2 or more channels compared to use of only a single channel.)

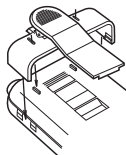
8. HOW TO DETACH AND ATTACH THE HOLDER AND NECK STRAP

8.1 Holder

Raise the holder's tab to detach.

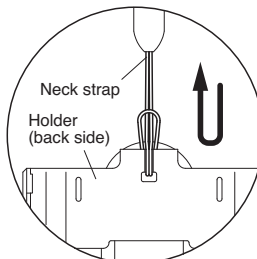


To attach, push the holder till it fits onto the unit with a click.



8.2 Neck Strap

When attaching the neck strap, remove the holder, then fit the strap as shown in the figure.



9. IF YOU THINK THERE IS A FAILURE

Symptom	Cause	Remedy
Power is not switched on.	Battery is exhausted.	Replace with new battery.
	Incorrect battery polarity connection.	Remove and reinsert battery.
Receiver does not receive radio signal even when distance between transmitter and receiver is short.	Channel selector switch is not set the same channel as receiver.	Set Channel selector switch to the same channel as receiver.
Receiver does not receive radio signal even when distance between transmitter and receiver is short. Operation/battery indicator is flashing slowly.	Microphone plug is not fully inserted.	Fully insert microphone plug.
Small voice output from receiver if not loudly speaking into microphone.	Microphone sensitivity switch is set to "Lo" position.	Set Microphone sensitivity switch to "Hi" position.

10. SPECIFICATIONS

Power Source	1.5 V DC (Battery)
Modulation	Frequency modulation
Transmitting Frequency	470 MHz band (5 ch) 470.075, 470.150, 470.375, 470.625, 470.725 MHz
RF Carrier Power	2 mW
Oscillator	PLL synthesizer
Frequency Response	200 – 5,000 Hz (Portable transmitter → Portable receiver)
Pre-emphasis	50 μ s
Input Level	–50 dBs (sensitivity "Hi") / –44 dBs (sensitivity "Lo")
Battery Life	18 hours (alkaline)
Battery	LR6 (1.5 V) x 1
Ambient Temperature	–10 to 40°C
Finish	Resin, dark gray
Dimensions	62 (w) x 163.6 (h) x 32.5 (d) mm
Weight	115 g (Battery included)

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

• Accessory

Neck strap 1