



INSTRUCTION MANUAL

WIRELESS MICROPHONE

WS-100H-AS WS-100H-AS WA2

Thank you for purchasing TOA's WS-100H-AS.

Please carefully follow the instruction in this manual to ensure long, trouble-free use of your equipment.

1. SAFETY PRECAUTIONS

- Before installation or use, be sure to carefully read all the instruction in this section for correct and safe operation.
- Be sure to follow all the precautionary in this section, which contain important handling precautions.
- After reading, keep this manual handy for future reference.



CAUTION

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



CAUTION

- When the unit is not use for 10 days or more, be sure to take the battery out of the unit because battery leakage may cause personal injury or contaminant environment.
- Make sure to observe the following handling precaution so that a fire or personal injury does not result from leakage or explosion of the battery :
 - Do not short, disassemble, heat nor put 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.
 - Not correct polarity (positive and negative orientation) when inserting a battery in the unit.
 - Avoid location exposed to direct sunlight, high temperature and high humidity when storing batteries.

2. HANDLING PRECAUTIONS

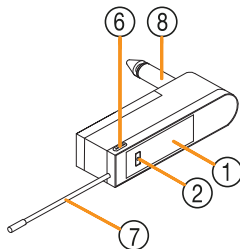
- Do not expose the unit to rain or an environment where it may be splashed by water or other liquid, as doing so may result in unit failure.
- Never open nor remove the unit case to modify the unit. Refer all servicing to your nearest TOA dealer.
- Take care not to drop the unit onto the floor nor bump it against a hard object as the unit could fail.
- Do not place the unit in locations of high temperature (ex. In an unventilated car 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 it slightly with a cloth damped in a dilute neutral cleanser, then wipe with a dry cloth. Never use benzene, thinner, or chemically-treated cleaning towel.

3. GENERAL DESCRIPTION

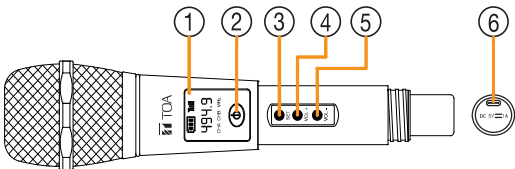
The WS-100H-AS is a dual handheld UHF wireless microphone system featuring a receiver that automatically pairs its frequency with both microphones.

4. NOMENCLATURE AND FUNCTION

[Receiver]



[Wireless Microphone]



1. Display

Shows the frequency value, signal indicator, and also battery.

2. Power Button

Press to turn on for 2 seconds (ON position).
Press again to turn off for 2 seconds (OFF position).

3. Set Button

To change the channel frequency.

4. Volume + Button

To increase the microphone volume.

5. Volume - Button

To decrease the microphone volume.

6. DC Input

Connect the type C cable to this socket to charge the battery.

7. Antenna

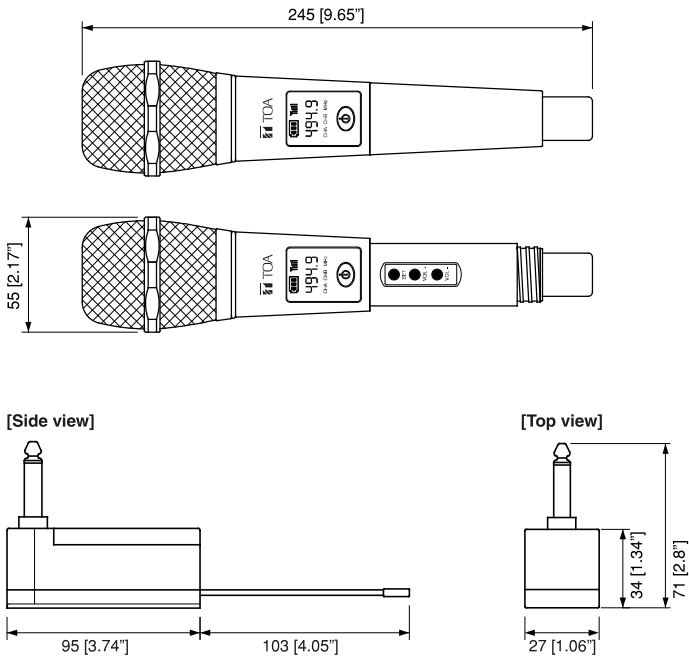
To receive a signal.

8. Phone Plug

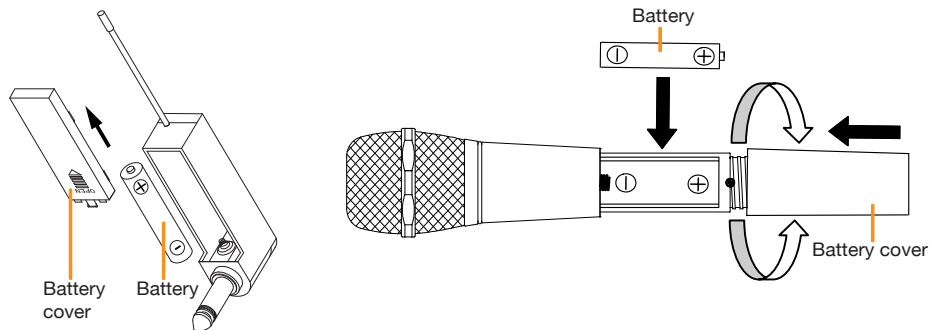
To connect to the amplifier input, you can also connect a phone plug cable if you need a longer one.

5. DIMENSIONAL

Unit : mm



6. OPERATION



* Lithium-ion Battery 18650 is not Included.

[Insert the receiver battery]

- Open battery cover by push and slide open battery cover.
- Insert a battery and make sure the polarity of the battery is correct.
- To lock, slide the battery cover until it is properly lock.

[Insert the wireless microphone battery]

- Open the battery cover by turning counterclockwise until it opens.
- Insert a battery and make sure the polarity of the battery is correct.
- To lock, turn the battery cover clockwise until it is completely locked.

[Using the microphone]

- Connect the receiver unit to the microphone input on the amplifier. Adjust the amplifier's volume control.
- Turn on the power button of both, the receiver and the microphone.
- Adjust the microphone volume as desired by pressing the VOL + or VOL -.
- Select channel frequency, there are 12 channels for the WS-100H-AS WA2 model and 16 channels for the WS-100H-AS model. Automatically the frequency on the receiver will adjust to the frequency on the microphone (auto pairing).
- To achieve the best sound reproduction, keep the distance of 1-2 cm between the mouth and the microphone.
- To turn off, press the power button and hold it for a few seconds.

[Use of more than 1 tuner unit]

- To lock the microphone and tuner pairing, ensure the microphone and tuner are connected to the same frequency. Turn off the microphone, press the SET and power buttons simultaneously for 4 seconds until the indicator [---] appears on the display. Then, wait 4 seconds for the frequency indicator to reappear.
 - To unpair the microphone and tuner, press the SET button for 4 seconds until the [--] sign appears on the display, then wait 4 seconds until the frequency indicator appears again.
- * Make sure only 1 microphone and 1 tuner are on during (locking).

7. SPECIFICATION

Model no.	WS-100H-AS	WS-100H-AS WA2
Product Composition	Handheld wireless microphone ...2, Receiver ...1	
Frequency Range	487 - 694 MHz	694.4 - 702.8 MHz
Preset Frequency	16 x 2 channel (Auto Pairing)	12 x 2 channel (Auto Pairing)
Tunable Frequencies	1.8 MHz Steps	0.3 MHz Steps
Pilot Tone	32.768 kHz	
Operating Temperature	-10 °C to +50 °C (14 °F to 122 °F)	
Total Harmonic Distortion	1 % or less	
Working Range	Up to 50 m (open space)	
Accessories	Wire Extension ...1, Wire charging type C ..1	

[Wireless Microphone]

Model no.	WS-100H-AS	WS-100H-AS WA2
Microphone Element	Dynamic Microphone Unit, Cardioid Characteristic	
RF Carrier Power	5 - 10 mW	
Audio Input Level	120 dB SPL (maximum)	
Modulation System	FM	
Battery	3.7 V (Lithium Ion 18650) (not included)	
Battery Life	Approx. 7 hours (3.7 V 1500 mAh) Approx. 14 hours (3.7 V 3400 mAh)	
Finish	Aluminum Casting Body with Black Rubber Painting	
Dimension	245 x Ø55 mm (9.64" x Ø2.17")	
Weight	224 g (0.49 lb) without battery	

[Receiver]

Model no.	WS-100H-AS	WS-100H-AS WA2
Battery	3.7 V (Lithium Ion 18650) (not included)	
Battery Life	Approx. 7 hours (3.7 V 1500 mAh) Approx. 14 hours (3.7 V 3400 mAh)	
Current Consumption	150 mA	
Audio Output Level	280 mV, Unbalanced, Phone plug 6.3 mm	
Antenna	Fixed antenna	
Frequency Response	60 - 15000 Hz	
Finish	ABS Resin, Black	
Dimension	95 (w) x 71 (h) x 27 (d) mm (3.74" x 2.80" x 1.06") (exclude antenna)	
Weight	42 g (0.09 lb) without battery	

Note : Design and specification is subject to change without notice for improvement.

■ **Table of Frequency model WS-100H-AS (490 - 518 MHz)**

MIC A / CH A				MIC B / CH B			
No	Frequency	No	Frequency	No	Frequency	No	Frequency
1	490.1 MHz	9	504.5 MHz	1	491.0 MHz	9	505.4 MHz
2	491.9 MHz	10	506.3 MHz	2	492.8 MHz	10	507.2 MHz
3	493.7 MHz	11	508.1 MHz	3	494.6 MHz	11	509.0 MHz
4	495.5 MHz	12	509.9 MHz	4	496.4 MHz	12	510.8 MHz
5	497.3 MHz	13	511.7 MHz	5	498.2 MHz	13	512.6 MHz
6	499.1 MHz	14	513.5 MHz	6	500.0 MHz	14	514.4 MHz
7	500.9 MHz	15	515.3 MHz	7	501.8 MHz	15	516.2 MHz
8	502.7 MHz	16	517.1 MHz	8	503.6 MHz	16	518.0 MHz

■ **Table of Frequency model WS-100H-AS WA2 (694.4 - 702.8 MHz)**

MIC A / CH A				MIC B / CH B			
No	Frequency	No	Frequency	No	Frequency	No	Frequency
1	694.7 MHz	7	696.5 MHz	1	698.3 MHz	7	700.1 MHz
2	695.0 MHz	8	696.8 MHz	2	698.6 MHz	8	700.4 MHz
3	695.3 MHz	9	697.1 MHz	3	698.9 MHz	9	700.7 MHz
4	695.6 MHz	10	697.4 MHz	4	699.2 MHz	10	701.0 MHz
5	695.9 MHz	11	697.7 MHz	5	699.5 MHz	11	701.3 MHz
6	696.2 MHz	12	698.0 MHz	6	699.8 MHz	12	701.6 MHz

