Design
Manufacture
Service

GWD900 Waterproof Wireless Microphone System

GWD-915T/910T & GWD-915R/910R

Owner's Manual

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Wireless Microphone General Specification

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE CONDITION THAT THIS DEVICE DOES NOT CAUSE HARMFUL INTERFERENCE. (FCC ID :QS6-GWD915T & QS6-GWD910R)

Modulation Mode:	DSSS (Direct Sequence Spread Spectrum)
Frequency:	904 ~ 926MHz
Microphone RF Power Output	22 dBm (145mW) / GWD-910T
Receiver RF Power Output	22 dBm (145mW) / GWD-910R
Operating Range:	3000 ft.(900M) - Test with Leather Shoulder Pouch
Battery:	3.7V Rechargeable Li-Ion battery (Handset) 5V DC (Base Station)
Air Time:	Max. 18 Hours* (Without Motion sensor & GPS) Max. 11 Hours* (Motion sensor + GPS Continue Mode) Max. 12 Hours* (Motion sensor + GPS Power Saving Mode) * Test in 30 feet far from patrol car, according to radio quality auto adjustment the RF power saving level
Standby Time:	GWD910T: 12 days (Idle Mode) / 70 days (Suspend Mode), GWD915T: 4.5 days (With GPS + Motion sensor) / 70 days (Suspend Mode)
Microphone:	Internal microphone and Lapel microphone
Channels:	8~12 Channels with Automatic Synchronization
APL(Auto Police Location):	GNSS: GPS+GLONASS (GWD915T only)
Motion Sensor:	Walking, Running, Lying, Attacked (GWD915T only)

- This GWD915/910 is protected against water splashes and dust - IP66.
- GWD915/910 Wireless Microphone will automatically turns ON and shut OFF when recording is activated or deactivated through In-Car Video System.
- GWD915/910 Wireless Microphone is also able to trigger IN-CAR VIDEO SYSTEM to activate digital video recording.
- Any GWD915/910 Wireless Microphone will work with any IN-CAR VIDEO SYSTEM that is equipped with GWD910 receivers. - Automatic Synchronization
- Build-in Programmable Function Button, Panic Button & Mute Button
- LED indicators are used for status on mute, ON/OFF, signal, battery and panic functions.
- GWD915/910 will automatically detect radio frequency noises, channel conflicts and cross talks with as many as 10 - 12police in close proximity, and perform auto switch to ensure clear communication and recording.

Hardware Overview

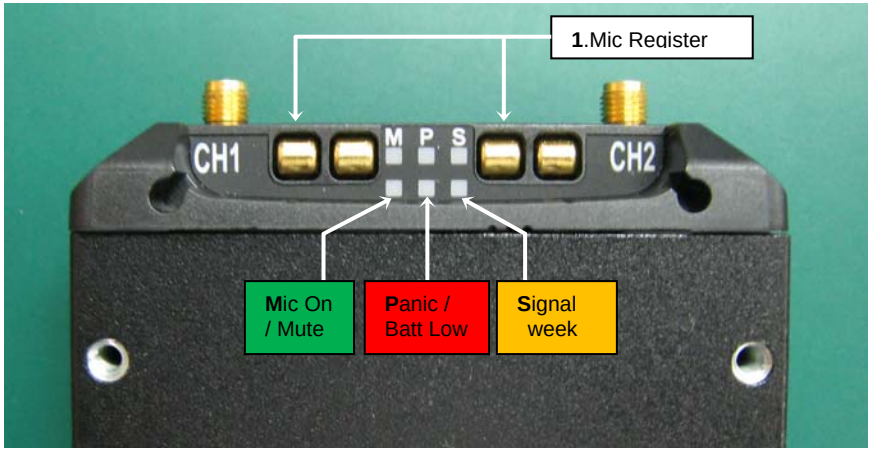
Wireless Microphone
GWD915T/910T

Wireless Microphone Receiver
GWD915R/910R

Charger, AC Wall Charger Cable

System Overview

Dual Channels Wireless Microphone Receiver



1 Receiver's Register Contact (Right - CH1) and (Left - CH2)
The register contact is used to synchronize the frequency of the receiver and the wireless microphone.

M Green LED (Top Ch1, Bottom Ch2)
Green LED OFF for Microphone on Standby Mode
Green LED ON for Microphone on Recording Mode
Green LED Blinking for wireless Microphone audio Mute Mode

P Red LED (Top Ch1, Bottom Ch2)
Red LED OFF for Panic Mode OFF
Red LED ON for Panic Mode ON
Red LED Blinking for Wireless Microphone Low Battery

S Yellow LED (Top Ch1, Bottom Ch2)
Yellow LED OFF for Strong Signal
Yellow LED ON for Signal is Marginal or Weak

System Overview

Wireless Microphone Receiver GWD915R/910R

Installation

No installation is required from the user. The GWD915/910 wireless microphone receiver is located in the computer, monitor module of the IN-CAR VIDEO SYSTEM or use the extension box (RS-485/USB/DIO) mounting on the wall.

Power Connection

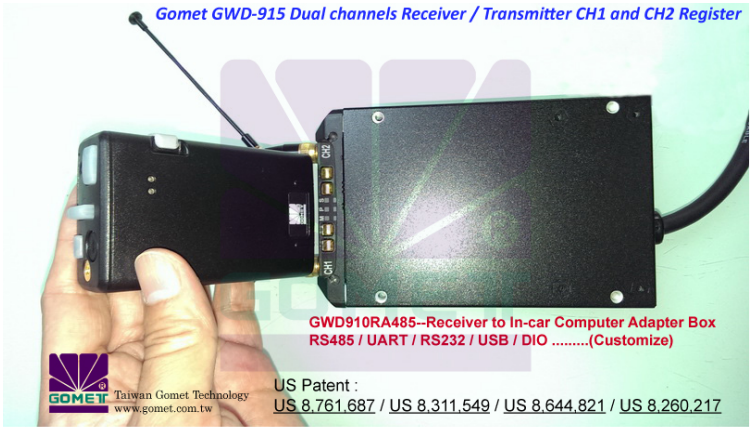
The wireless microphone receiver has no ON / OFF switch. The receiver will become energized in standby mode whenever the IN-CAR VIDEO SYSTEM system is ON.

Receiver's Antennas

To prevent damage, antenna for the receiver is package separately. Remove the antenna from the package and tighten the titanium antenna to the receiver. Do not try to lengthen, shorten, or temper with the antennas, which might result in damage of the audio system and may violate FCC regulation.

Receiver's Register Contact

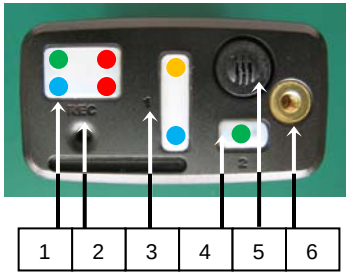
The register contact is used to synchronize the frequency of the receiver and the wireless microphone.



GWD 910 / 915 Wireless Microphone System Owner's Manual

System Overview

Wireless Microphone GWD915T/910T



LED Indicators (Within the REC & Button 1 & 2)

***REC* Button**
Green / Blue LED OFF for ***Standby*** *Mode*
Green / Blue LED ON for ***Recording*** *Mode*
Green / Blue LED Fast Blink for ***Mute*** *Recording*
Red LED Slow Blink for ***Low Battery***
Red LED ON for ***Panic*** *Mode ON*
Red LED OFF for ***Panic*** *Mode OFF*

Programmable *Button 1*
Blue LED ON for Programmable 1 Function ON
Yellow LED OFF for *Strong Signal*
Yellow LED ON for *Signal is Marginal or Weak*

Programmable *Button 2*
Green LED ON for Programmable 2 Function ON

1	**REC** Button:	**Audio / Video Recording ON** *(Press REC Button once)* This action will initiate the IN-CAR VIDEO SYSTEM to record both audio and video data. To stop recording, press the stop button on the IN-CAR VIDEO SYSTEM monitor module. **Panic ON/OFF** *(Press and hold REC Button for 3 second)* Wireless microphone will automatically send a panic signal to the IN-CAR VIDEO SYSTEM ; the signal will be relayed back to the station for process. *(This function is only available if the wireless communication is established)* The Panic Mode may be deactivated by holding down the REC button for another 3 seconds. (Setting – Panic function Enable) **Mute Audio ON/OFF** (Press REC Button once during Recording) (Setting – Mute function Enable)
2	**Buzzer**	Produce Warning Tone
3	**PB 1**:	Programmable Button 1 (Define by programmer for PD required)
4	**PB 2**:	Programmable Button 2 (Define by programmer for PD required) **STOP Recording**—Press and hold 3 second (Setting - PB2 Off Air Enable)
5	**Microphone**	Audio Input.
6	**Antenna**	External Antenna base for long distance used.
1 + 3	**REC+PB1**	Hold both Button 3 Seconds for **Covert Mode ON/OFF:** Switching Warning Features between Vibration and (LED + Buzzer + Vibration)—(Setting – Covert Mode function Enable)

System Overview

Wireless Microphone GWD915T/910T

Battery Selection and Installation

The GWD915/910 wireless microphone is powered by a rechargeable lithium-ion battery. The wireless microphone housing is designed to prevent incorrect installation of the battery. Do not force the battery in to the housing. Reversed batteries may cause damage to the wireless microphone. The battery compartment is located at the bottom of the wireless microphone. Slide off the battery cover and remove the silicon seal, at this point the battery is free to slide out.

Transmitting Antenna

The GWD915/910 Wireless Microphone includes a flexible antenna, which is package separately to prevent damage. Remove the antenna from the package and tighten the antenna to the wireless microphone. For best result, allow the antenna to extent fully. If the signal is marginal, please experiment with different wireless microphone position on your body. Do not attempt to remove, replace or change the length of the transmitting antenna, which might result in damage of the audio system and may violate FCC regulation

Wireless Microphone Contact

The wireless microphone contact is used to synchronize the frequency of the wireless microphone and the receiver. It is also the contact for the battery charger.

Microphone special function note:

Special OOR Mode: **Turn OFF Buzzer and Vibrate Alter to avoid the police become shooting target when he chasing suspects and running out of radio range (OOR) -- (Use Control command)**

Suspend Enable: When microphone out of radio range or police off duty over 3 hours, Microphone goes into suspend to save Battery Power.

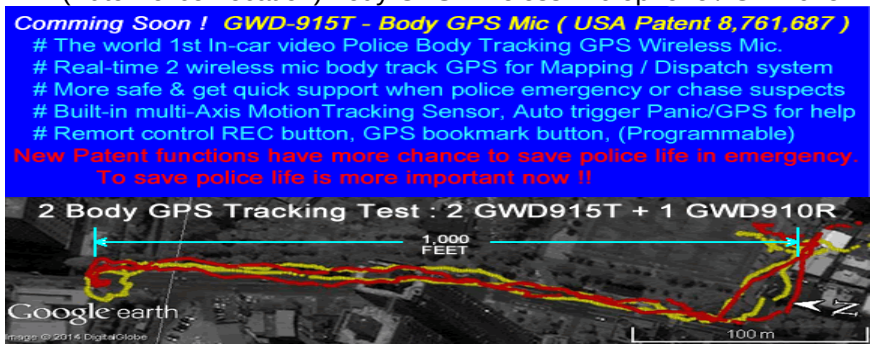
Suspend wake up: 1. Press microphone REC Button (Big) direct to On Air (Record).
2. To sync with Receiver or contact the charger again.

OAD (Over Air Download Program): Auto overwrites Mic. compatible firmware when sync with incompatible Receiver. (All LED blinking around 60Sec then Beep 3 times to finish OAD process)

**** During OAD can't move out battery or to sync, but it can press REC Button****

System Overview

APL (Auto Police Location) Body GPS Wireless Microphone / GWD915T



- APL (Automatic Police Location) Function: The Body GPS Mic. can send police real time location and body motion (walking, running, lying) from 2,000~3,000 feet to patrol car and PD when police in emergency or chasing suspects.
- The PD can use dispatch or mapping system share the location coordinates and body motion to other patrol car for quickly support and rescue.
- When police walking out of patrol hit or attacked by car or suspect, also police suddenly running to chase suspect, the Body GPS microphone can auto trigger recording and send back location to PD for quickly support and rescue.

GPS Location Data Output Rule and Power Mode:

1. When Police moving over 10M (30 feet) - output one coordinate.
2. Moving in 10M (30 feet) - Every 1 minute output one coordinate.

Continue Power Mode: Continue tracking satellites after 3D fixed (**High Accuracy**)

Saving Power Mode: Every time GPS 3D fixed, the GPS go to sleep for 10 seconds then wake up for satellites acquisition until the GPS 3D fixed again.

Operating Procedure

The GWD915/910 is designed to eliminate unnecessary hassle of pairing a receiver with a particular wireless microphone. With the latest technologies, the GWD915/910 is able to synchronize the frequency of any GWD915T/910T Wireless Microphone with any GWD915R/910R Receiver.

Just follow these few simple instructions to ensure maximum performance:

1. Check out any GWD910T Wireless Microphone and make sure it is fully charged before operation.

2. Please be sure the IN-CAR VIDEO SYSTEM is ON before proceeds any further.

3. Slide the wireless microphone contact directly on top of the receiver's register contact (*located on the top of the IN-CAR VIDEO SYSTEM monitor module*) until a confirmation tone has sound. This indicates the receiver's register contact has synchronized the frequency of the receiver and the wireless microphone. Wireless microphone is now on standby mode and is ready for use.

4. Please only synchronize one wireless microphone to one receiver.

5. There are three methods to activate recording on the wireless microphone:

    a. Press the ON or Panic Button once on the wireless microphone for recording.

    b. Activate video recording at the IN-CAR VIDEO SYSTEM. This action will automatically trigger wireless microphone recording.

    c. Turn on the light bar or siren in the patrol car. This action will also automatically trigger wireless microphone and video recording.

6. To prevent accidental audio shut off. The only way to return wireless microphone to standby mode from recording mode is to stop the video recording from the IN-CAR VIDEO SYSTEM. **Or press and hold PB2 until 3Seconds.**

7. During recording mode, if the warning sounds and the yellow LED flash, this means the signal is marginal or weak. At this time, please step closer to the receiver or reposition the wireless microphone until the warning stops. However, if the warning persists and exceeds 30 seconds, the wireless microphone will automatically shut off and return to standby mode. If user returns within the signal range again while the video is still recording, the receiver will re-initiate the wireless microphone automatically.
8. For charging, simply place the wireless microphone to the charger and leave it charging for at lease 6 (six) to maximize battery capacity.

Federal Communications Commission (FCC) Statement

You are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.
-Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment. .

FCC RF Radiation Exposure Statement:

To comply with the FCC RF exposure compliance requirements, this device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

For next to mouth operation, this device has been tested and meets FCC RF exposure guidelines when used with an accessory that contains no metal and that positions the device a minimum of 10 mm from the face. Use of other accessories may not ensure compliance with FCC RF exposure guidelines

For limb-worn operation, this device has been tested and meets FCC RF exposure guidelines when used with an accessory that contains no metal and that positions the device a minimum of 0 mm from the body. Use of other accessories may not ensure compliance with FCC RF exposure guidelines

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