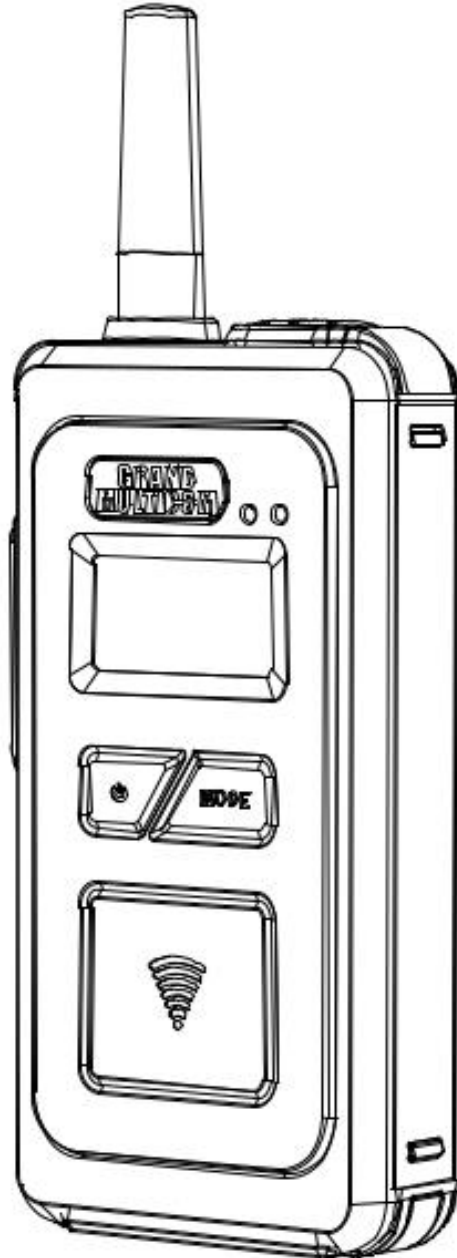


# Grand Multicom

## USER MANUAL

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MULTIPLEX COMMUNICATION EQUIPMENT

Model: GM 2.4G

Maytel Co., Ltd

# 1. General Information

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## 1.1 Introduction

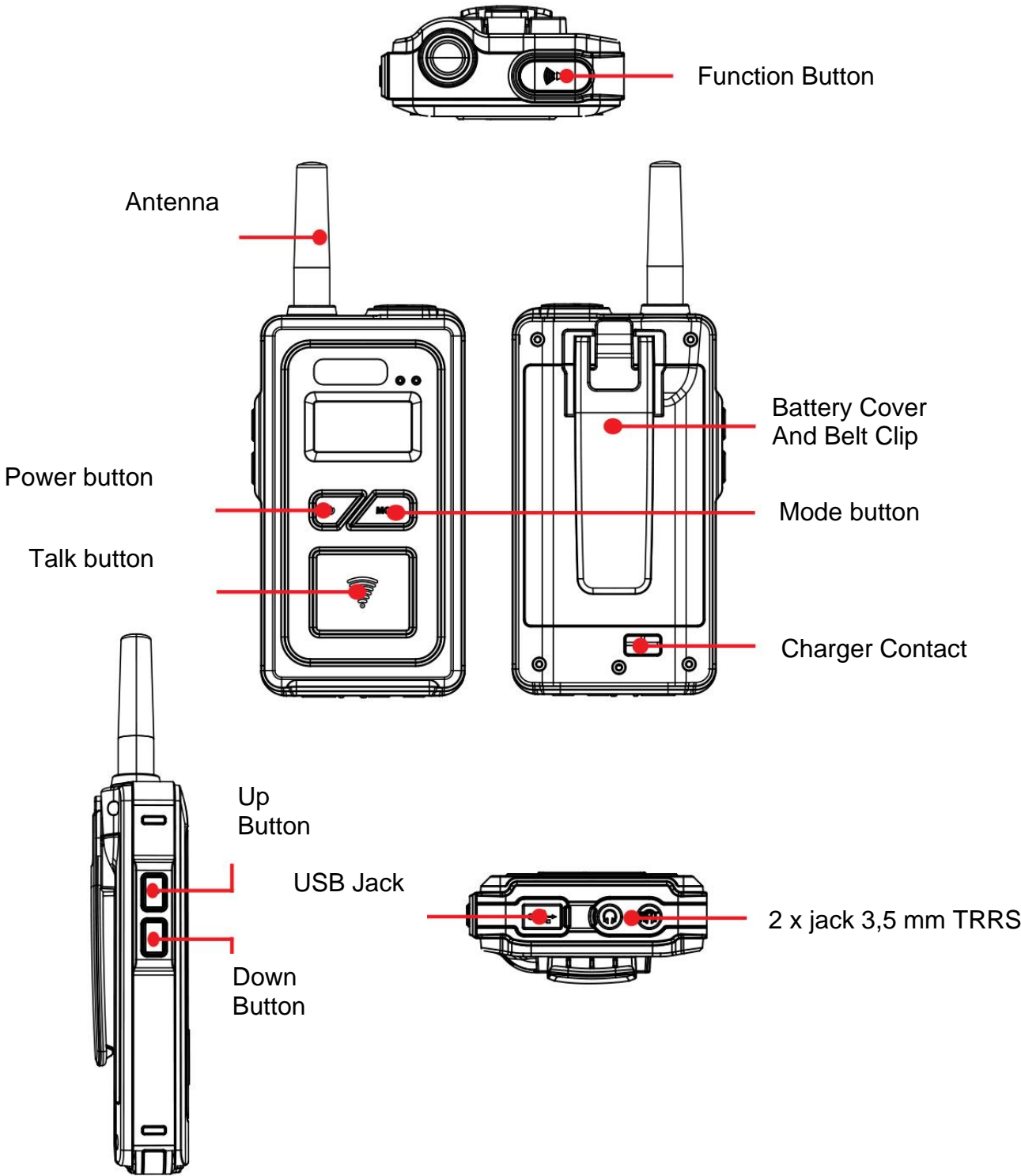
The "GRAND MULTICOM" is the most advanced multiplex communication equipment, providing up to 10 user talks simultaneously with hands-free solution. The "GRAND MULTICOM" combines reliable performance, quality and versatility into a compact and easy to use with state-of-the-art technology.

## 1.2 Main Feature

- Any 10 users out of unlimited users per Group talking simultaneously with fully hands free while rest members are listening
- Advanced CODEC protocol minimized the impact of terrestrial interference and super dynamic range of noise cancellation more than 95dB
- Long enough direct talk range 0.62mile / 1.0Km typical for 900Mhz version & 0.31mile / 500m typical for 2.4Ghz version
- Secure way of isolated PIN encryption per Group and powerful OLED display indicating Group & ID on one screen at the same time
- Heavy duty and robust mechanical design and fully full-pled water proof IP67 including detachable Antenna system
- Convenient drop-in charge, individual USB charge, and replaceable battery system

## 2. Controls and Indicators

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<b>Power Button</b>	Press and hold the Power button longer than 2 seconds to turn the device power on/off
<b>Mode Button</b>	Select Group number, ID number, Side Tone on/o, Talk on/off, Microphone sensitivity level, and Audio output level
<b>Up Button</b>	Increase Volume level, Group number, and ID number etc. in each mode
<b>Down Button</b>	Decrease Volume level, Group number, and ID number etc. in each mode
<b>Talk Button</b>	Talk On/O in Group mode Mute On/O in Team mode
<b>Top Button</b>	Talk on/off for ID 01~08 and PTT for ID 09
<b>Headset Jack</b>	2x jack 3,5 mm TRRS
<b>Antenna</b>	Detachable antenna
<b>USB Jack</b>	USB port for -rmware upgrade and battery recharge
<b>Drop in charge Contact</b>	Drop in charge contact for recharging battery

### 3. How to use

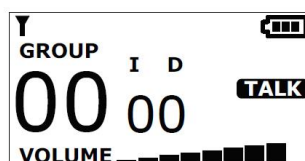
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#### 3.1 Power On/Off

Press and hold the "Power" button longer than 2 seconds to turn the device power on/off.

#### 3.2 Volume Up/ Down

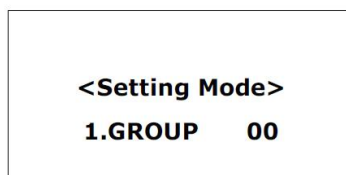
Press "+" button to control volume up and "-" button for volume down after turn the device power on. The display shows already set level 03 initially. It is available to adjust the volume level 0~8.



### 3.3 Group selection

Press and hold the "Mode" button till "Setting Mode" is displayed. Select the Group number "00"~"51" for 900Mhz or "00"~"39" for 2.4Ghz you desire by press the "+" or "-" button.

Long press the "Mode" button to keep the Group number you selected. All equipment/belt packs must have the same Group number to communicate with each other within the group.



### 3.4 ID selection

In every group, identifiers ID 00 ~ 08 is meant for only one Grand Multicom. Identifiers ID09 and ID10 can be assigned to an unlimited number of devices.

**ID00 (Master User)** – main identifier for only one device, required to create a group, no signal can be transmitted without the device with ID00.

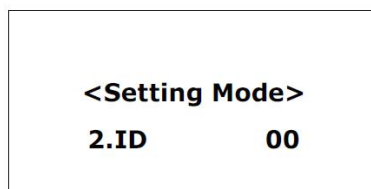
**ID01~08 (User)** – identifiers enabling hands-free transmission, one ID number per device from the available pool.

**ID09 (PTT User)** – identifier for an unlimited number of users, broadcasting in a group is possible by pressing the TALK/FUNCTION button.

**ID10 (Listen)** – identifier for an unlimited number of users, only group broadcasts can be received.

Press and hold the "Mode" button till "Setting Mode" is displayed. Short press the "Mode" button so "ID" is displayed in "Setting Mode". Select each different ID number per device from "00" to "09" in a group by press the "+" or "-" button.

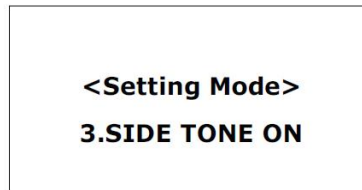
Long press the "Mode" button to keep the ID number you selected.



### 3.5 Side Tone On/Off

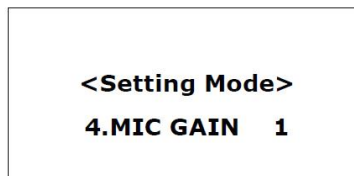
Press and hold the "Mode" button till "Setting Mode" is displayed. Short press the "Mode" button two times so "SIDE TONE" is displayed in "Setting Mode".

Select the Side Tone “ON” or “OFF” by press the "+" or "-" button.  
Long press the “Mode” button to keep the side tone on or o you selected.



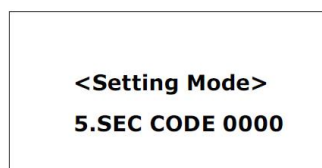
### 3.6 Microphone Sensitivity Level selection

Press and hold the "Mode" button till “Setting Mode” is displayed. Short press the “Mode” button three times so “MIC GAIN” is displayed in “Setting Mode”. Select the Microphone Sensitivity Level “1”~”5” by press the "+" or "-" button.  
Long press the “Mode” button to keep the Microphone Sensitivity Level you selected.



### 3.7 Security Code Selection

Press and hold the "Mode" button till “Setting Mode” is displayed. Short press the “Mode” button four times so “SEC CODE” is displayed in “Setting Mode”.  
The security code consists of four digits and it is available for you to select “1”~”9”, “A”, “B”, “C”, “D”, “E”, “F” for each digit by press the "+" or "-" button.  
Long press the “Mode” button to keep the security code you selected.



## 4. Speci-cation - 2.4Ghz

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<b>Dimension</b>	122.7 x 23.5 / 31.0(With Belt Clip) x 67mm
<b>Weight</b>	180 g
<b>Frequency Range</b>	2407Mhz ~ 2476Mhz

<b>Modulation</b>	GFSK with FHSS
<b>Volce Codec</b>	16bit/8KHz
<b>Tx Max Output Power</b>	100mW
<b>Rx Sensitivity</b>	-95dBm
<b>Headset Input / Output</b>	Microphone: 3.5 mm phone jack with electret microphone bias, adjustable gain with 30dB range. Headphone: 3.5 mm phone jack 32 $\Omega$ load Front panel: Push buttons for Power On/Off, Talk On/Off, Mode select Top panel: Push button for Talk On/Off for ID 01~08 and PTT for ID 09
<b>External Interfaces</b>	4 Pole 3.5 mm Headphone Jack X 2 ea, Micro USB Jack for Battery Charging & Firmware update
<b>Voice Latency</b>	< 180ms typical
<b>Num. of Frequency Channel</b>	40 channels for 2.4Ghz
<b>Channel Spacing</b>	500 KHz
<b>Battery Type</b>	Li-ion Battery @3.7V/ 2000mA
<b>Antenna</b>	Detachable Type Dipole Antenna
<b>Distance Range @Typical</b>	0.31mile / 500m for 2.4Ghz
<b>Frequency response</b>	50 Hz ~ 4 kHz
<b>Maximum operation users</b>	10 User including Master device
<b>Indicators</b>	OLED display for Group Number, ID, Volume Level, Battery status, Operational Mode, Talk On/Off
<b>Battery Operational Time</b>	15 Hours Typical
<b>Battery Charing Time</b>	3 to 5 Hours

## 5. Distribution and service



**Mexpo**  
ul. Kazimierza Pułaskiego 8  
81-368 Gdynia

+48 58 550 10 25  
+44 20 819 00 330  
www.systemtourguide.co.uk  
office@systemtourguide.com