okayo
The sound option

UHF

40W
Wireless Portable Sound System

System Family:
GPA-650 (Lead-Acid battery powered)
GPA-660 (Ni-MH battery powered)
GPA-670 (Lithium battery powered)

[User Manual]

Preface

Thank you for the purchase of Wireless Portable Sound System GPA-650 and its family product GPA-660 and GPA-670. This manual will give comprehensive instructions and operation. Please read it over before your use to perform this unit well.

✻ All peripheral and accessories are subject to order. Components in the package might be different by demand.

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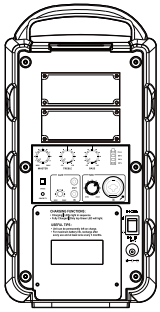
Product Mix

GPA-650 is powered by Lead-Acid battery; its family product GPA-660 and GPA-670 are respectively powered by Ni-MH and Lithium battery. They are all compatible with same receiver and audio player. The available mix are presented as below.

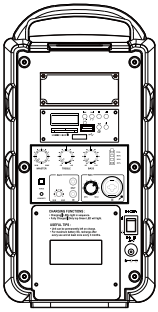
GPA-6X0

Portable Powered Speaker



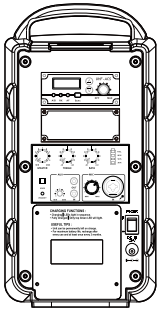
GPA-6X0U

Portable Powered Speaker, 1 audio player built-in



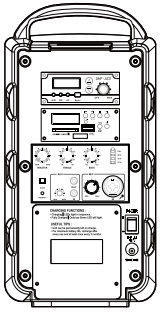
GPA-6X0W1

Wireless Portable Sound System, 1 receiver built-in



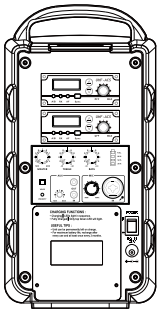
GPA-6X0WU

Wireless Portable Sound System, 1 receiver and 1 audio player built-in



GPA-6X0W2

Wireless Portable Sound System, 2 receiver built-in



✻ X is the variable for 5, 6 and 7; battery type dependant

Illustration

1. Tweeter (1”)
2. Neodymium driver (5”)
3. Receiver DR-501A
4. Digital audio player UM-502
5. Controls, battery meter, mic in
6. Power switch
7. DC input
8. Battery door

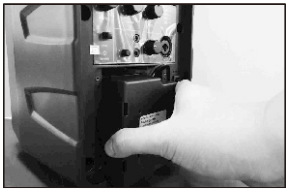
Battery replacement

Get screws off

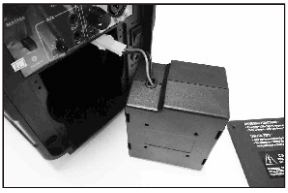
Take battery out

Get connection right –
RED for Anode;
BLACK for Cathode

Get screws off



Take battery out



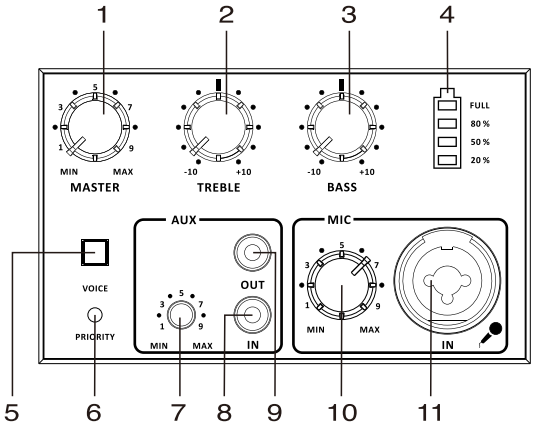
Get connection right –
RED for Anode;
BLACK for Cathode

Peripheral

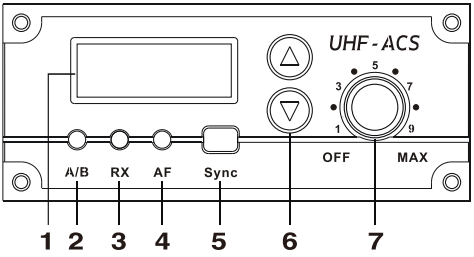
Carry Bag
CB-650

Folding Tripod
ST-35

Controls and Operation



1. **Master**
2. **Treble**
3. **Bass**
4. **Battery meter**
5. **Voice priority :** when it is activated, an indicator (6) will light up.
6. **Voice priority indicator**
7. **Aux in control**
8. **Aux in, Ø3.5 mm**
9. **Aux out, Ø3.5mm**
10. **Mic (wired) in control**
11. **Mic in, Ø6.5mm XLR jack**



1. LCD window
2. Antenna A and B indicator
3. RF signal indicator
4. AF signal indicator
5. Synchronization button
6. Channel up/down adjustment
7. Receiver power on/off control and volume adjustment

Operation

Turn receiver power on/off control (7) clockwise until a click occurs. A text of " SYnC " will appear on LCD window for about 2 seconds and it follows a channel number. The turn on is successfully. To turn it off, just turn the control counterclockwise until a click occurs. A text of " OFF " will appear on LCD window and will disappear after 2 to 3 seconds.

How SYNC works

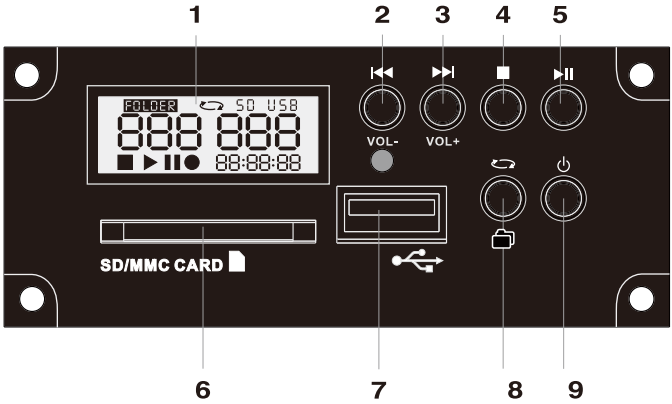
" SYnC " function can find a clean channel and assign it to transmitter in the range, about 3 m. Just turn on your microphone or transmitter first and press SYNC button, in few seconds the progress will be done. During synchronization, the RF indicator will blink.

Change channel manually

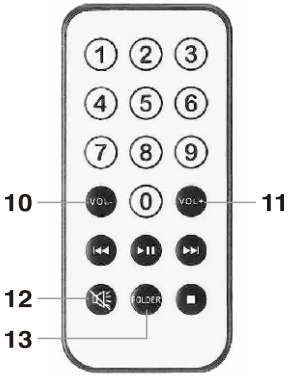
Press and hold UP or DOWN button (6) for 1 second until channel number is blinking. Select a desired number through UP or DOWN (6) button. A selected channel number will be confirmed in 1 second if no more adjustment made to it.

* Please complete channel setup in one receiver first and then a second one when you have more than 1 receiver.
* Be sure to give different channel number to each receiver.

Digital Audio Player UM-502



1. LCD window
2. Previous track / volume down
   (works during playback)
3. Next track / volume up
   (works during playback)
4. Stop
5. Play / Pause
6. SD/MMC port
7. USB port
8. Repeat / Folder select
9. Power
10. Volume down (MUTE when in minimum level)
11. Volume up
12. Mute
13. Folder select



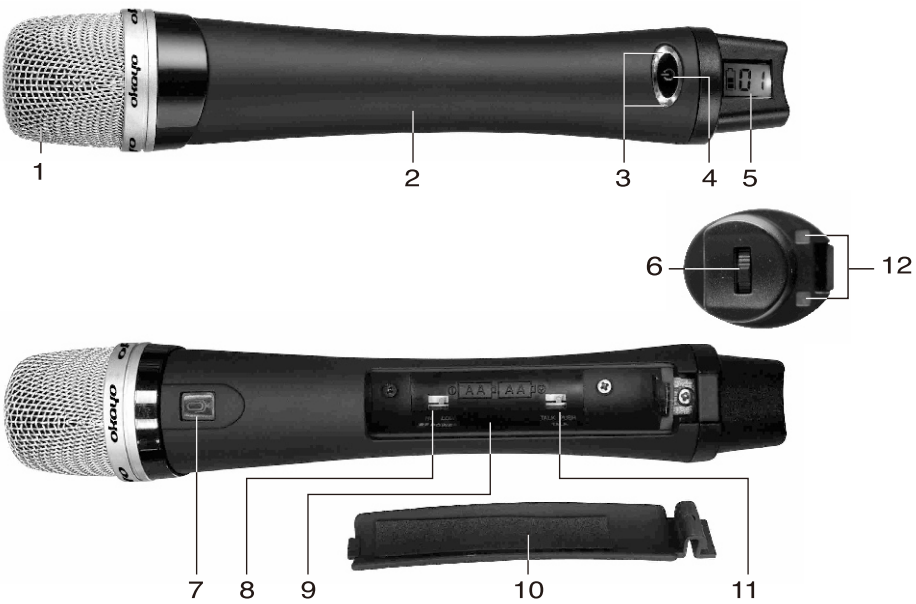
remote control

1. Press and hold (9) for 1 second to turn this player on. Press and hold (9) for 1 second to turn it off.
2. Press (2) to play previous audio track; press (3) to play next audio track. Press (4) to stop any playback.
3. Press (5) to Play or to Pause any audio track.
4. When both SD card and USB are installed, USB has higher priority to be readout.
5. Do not pull SD card out directly or it might be damaged. Just push it a bit forward and it will be ejected.

6. Repeat / Folder Select:
   a. There are 3 modes for repeat during audio playback.
   - : To repeat a track.
   - : To repeat all tracks in all album.
   - : To repeat all tracks in a single album.

   b. When not in playback, press (8) to select a desired folder/album with NEXT, PREV buttons. Finally press PLAY to end the setting.
7. During playback, press VOL+ to increase volume; press VOL- to decrease volume.

Handheld Microphone EJ-501TM



1. Mesh head
2. Handheld tube
3. Power indicator
4. Power ON/OFF button
5. LCD screen
   (channel, battery energy)
6. Channel adjustment and
   setup button
7. Talk/Mute button
8. Power Hi/Low switch
9. Battery room
10. Battery door
11. Talk/Push mode switch
12. Charging contacts

Insert battery

Open battery door and insert 2 AA 1.2 V (Ni-MH 1600mAh) or 2 AA 1.5 V Alkaline batteries. Make sure the batteries are allocated in correct direction.

Handheld Microphone EJ-501TM

Operation and setup for handheld microphone EJ-501TM

1. Take batteries off and make your preferred microphone mode Talk/Push (11).
   - ※ TALK - Under this mode, microphone will activate only when microphone icon turns into green; mute the microphone by a press to microphone icon which will be turned into red.
   - ※ PUSH - Under this mode, microphone will send out signal only when the talk/mute (7) button is pressed and held-the microphone icon turns into green; when talk/mute (7) button is released the microphone will mute any signal-the microphone icon turns into red.
2. Choose a preferred output power with Hi/Low power switch (8)
   - ※ Hi - offers operation range up to 60 M (line-of-sight); current drained at 100 mA.
   - ※ Low - offers operation range up to 30 M (line-of-sight); current drained. at 70 mA.
3. Insert batteries and resume battery door. Press and hold power ON/OFF button (4) for 1 second to turn on. The power indicator (3) lights up when power on progress is made successfully.
   - ※ Power indicator lights in green - sufficient battery energy
   - ※ Power indicator lights in red - low battery
4. Under “Talk” mode:
   Green microphone icon - Talk; Red microphone icon - Mute
   Under “Push” mode:
   Green microphone icon - Talk; Flashing red microphone icon - Mute
5. Turn off handheld microphone by pressing and holding power ON/OFF button (4) for 2-3 seconds.
6. The performance of signal transmission is highly involved with battery energy. Batteries with 1600 mAh (or above) in capacity are recommended. The optional charger HDC-502/503 is an economy soluton for you daily use.

HDC-502

HDC-503

CAUTION!!

- ※ ***DO NOT attempt to charge Alkaline battery. It will lead to battery leakage or even explosion!***
- ※ ***Take out batteries when the devices won’t be operated in a long time.***

Pendant/Bodypack Transmitter EJ-5T

1. POWER / MUTE switch (MUTE indicator)
2. Channel / Volume switch
3. LCD screen
4. Mesh head (hidden microphone)
5. External mic. Input
6. Hidden charging indicator
7. Aux input
8. Neck Strap hole
9. DC charging input
10. Strap hole
11. Neck strap
12. Buckle clip
13. Charging terminal

Set up/ Installation

Power ON

1. Press and hold for 0.5 second and the power is on. LCD backlit lights up.
2. When power is on, the button lights blue.
3. Power is on in two seconds and receiving audio signal.

Power OFF

1. Press and hold for two seconds to turn the device off.
2. OFF display on screen and all indicators turned off.

Channel select

1. Press and hold SET button for two seconds; enter into the channel select mode.
2. When channel numbers flashes, press ⊕ or ⊖ to select preferred channel. To confirmed, press SET button.

Channel display

- Press SET button to display the current used frequency.

Select output power/Maximum available channels

1. On OFF mode, press SET and POWER button to enter into the selection mode.
2. LCD screen will display maximum available channels; 640 -664 MHz, 794-806 MHz and 863-865 MHz. Press ⊕ or ⊖ to select preferred channel.
3. Press SET button to confirm and select, or it will confirm in 5 seconds without any keys pressed.
4. LCD screen will display Hi / Lo, press ⊕ or ⊖ to select preferred output power.
5. Press SET button to confirm and select or to wait for 5 seconds without any keys pressed.

Volume switch

- LCD screen will display current used volume level when press ⊕ or ⊖ (VOL. 1 ~ 3).

Charging mode

1. LED lights red when charging.
2. LED lights green when battery is fully charged.
3. When device is slot into a charger stand, will off the power.
4. Battery error: LED status lights red and flashes when charging, LCD battery symbol lights flashes, and it caused by:
   (1)The battery charge temperature is exceeded 60 ˚C.
   (2)The duration of charging time for charger stand is exceeded seven hours.
   (3)The battery is defected.

Frequency synchronization

1. When power is on, it will synchronize frequency or switch off without receiving audio signal when exceeded upto ten minutes. When synchronization, MUTE indicator lights blue / flashes and LCD backlit lights up.
2. Press MUTE button when channel is displayed on screen, enter into the synchronization mode or off without receiving audio signal exceeded upto twenty seconds.
3. When succeed, it will switch to MUTE mode and LED lights red.

Others

- To reset mode, press ⊕ / ⊖ at the same time and switch the power on.

※ Caution

1. DON'T operate the device in the rain or in humid circumstance to prevent failure.
2. Prevent the device from dropping.
3. Apply factory recommended power supply to this system only. It is dangerous and risky when employing a not qualified power.

Troubleshooting

Failed to Power On

Be sure batteries are allocated and put in correct direction.
Be sure power adapter is plugged well.

No Sound Output

Be sure transmitter and receiver stay at same channel.
Be sure volume control on transmitter and receiver are turned properly.
Be sure Master is turned properly.
Be sure Mute button is not on.
Check if transmitter and receiver stay at same frequency band.
Check if there is huge air interference nearby.

Maintenance

Avoid heat, humidity

DO NOT put the unit in the sunshine for a long time, or any other hot, humid environments or places with flame. Stay away from any occasions where situation mentioned above might occur. Store the unit in general indoor temperature or in cool circumstance.

Charge BEFORE you start using for the fist time

After unpacking the unit for the first time, please charge the unit for about 8 hours. This is absolutely necessary as the built-in rechargeable battery might have been discharged naturally due to long transportation and storage time, even though it has been fully charged in the factory prior to shipment. To secure a longer life for battery, please MUST execute this IMPORTANT process.

Charge fully

Ensure battery is fully charged BEFORE you store the unit. To remain a longer battery life and better performance, make sure you charge the battery regularly every month.

- ☞ **When you need to use the unit again after a long period of stogare,make sure you charge if fully for at least 8 hours BEFORE any operation.**
- ☞ **Please also charge this unit every time right after operation to secure a longer battery life.**

This unit has DOD (depth of discharge) protection design. When Power Switch LED flashes red - which means there isn't enough electricity (when operating via the battery's power - this unit will turn off automatically in a short time secure battery from deep-discharging damage. At this moment please immediately recharge your unit, do not continue with operation.

This unit has protection circuit against overcharge. The circuit will stop charging when battery is fully charged even power cord is plugged.
Useful hint: You can still operate during charging.

Replacing battery

Make sure the substitute battery is in compliance with qualified specifications. Using incorrect battery may lead to explosion or malfunction.

Maintenance

Remove battery from transmitter when you won't use it for a long while.

Charging contacts

Clean charging contacts regularly to ensure good connection with charger. When any corrosion occurs, contact your dealer to change it if you can't repair it.

This device complies with Part 15 of the FCC Rules. 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.

Notice: The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: 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.

Specifications

Overall

Carrier frequency	640 ～ 865 MHz (country dependant)
Channels	16 ～ 96 (frequency dependant)
LCD window	channel, frequency
Channel adjustment	select through UP and DOWN
Frequency modulation	24 MHz (max.)
Ambient temperature	-10 °C ～ +50 °C
Dynamic range	100 dB
T.H.D.	< 0.5 %
Pre-emphasis	50 μs
Frequency response	70 Hz ～ 16 kHz
Wireless coverage	25 ～ 50 meter (RF power dependant)

Output power	40 W (RMS) @ 4 Ω
Speaker	5” Neo driver, 1” tweeter
Digital audio player	supports USB disk and SD card (optional)
Receiver	plug-in receiver with ACS (Auto Channel Synchronization), supports 2 receivers maximum.
Audio input	mic in (combo jack); aux in (stereo mixed, 3.5 mm)
Audio output	aux out (stereo mixed, 3.5 mm)
Controls	Master, Tone, Mic, Aux in
Power supply	AC switching power adapter 100 ～ 240 V, 20V/3.25A
Battery	Lead-Acid, Ni-MH, Lithium rechargeable battery (model dependant)
Charging time	8 ～ 12 hours (battery dependant)
Running time	3 ～ 6 hours (battery dependant)
Dimensions (DxWxH)	200 x 170 x 276 mm
Weight	3.7 kg (Lithium battery included)

※ Specifications are subject to change

Specifications

Digital Audio Player UM-502

Frequency response	20 Hz ～ 20 kHz
Power requirement	DC 12 V
Display	backlit LCD
Output level	600 mV
Format supported	MPEG Layer 3
S/N ratio	> 60 dB
T.H.D.	< 1 %
Remote range	> 3 m
Controls	Play, Stop, Repeat, Next, Prev.
External audio supported	USB disk, SD card

Pendant/Bodypack Transmitter EJ-5T

Microphone capsule	condenser
Antenna	internal
RF output power	10 mW@H i / 3 mW@Low
Audio input	Mic in, Aux in
Mic in jack	3.5 mm
Audio control	Mute, Hi/Mid/Low sensitivity
Battery	Lithium (1200 mAh)
Running time	12 ～ 16 hours
Dimensions (DxWxH)	32 x 52 x 88 mm
Weight	81 g (battery included)

Wireless Handheld Microphone EJ-501TM

Microphone capsule	condenser
Antenna	internal
RF output power	10 mW@H i / 3 mW@Low
Audio control	Talk / Mute button
Battery	2 AA 1.2 V (Ni-MH, 1600 mAh); or 2 AA 1.5 V (Alkaline)
Running time	15 (Ni-MH) / 20 (Alkaline) hours, typical
Dimensions (D x L)	37 x 200 mm
Weight	140 g (battery included)

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