P100

OWNERS MANUAL Ver 1.0

# artsound P100



# Index

Introduction Trademark Notice Key Product Features IMPORTANT SAFETY INSTRUCTIONS General Heed and Warnings CE Statement Battery Information Unpacking Part Names & Functions Getting Started Functions	01 02 03-04 04 04 05 06-07 08-11
Install P100 PRO Battery Install M20 Battery Connect P100 Charger Connect M20 Charger Pair the Microphone Pair the Bluetooth Control Panel & Information Display	08 09 09 10 11 12-13
Functions [DC Charging Port] [Power] Button [Analog Line-Out] [Analog Line-Out] [Microphone Pairing Window] [Microphone Pairing Window] [Microphone Input] [USB-A Port] [USB-A Port] [USB] Button [NEXT] Button [REC] Button [REC] Button [REC] Button [FAU/Pause] Button [ALARM/SOUND] Button [ALARM/SOUND] Button [MENU] Button [MENU] Button [MINU] Button [AUX] Button [AUX] Button [Microphone Pairing Wenu Settings Menu Settings Menu Changing the Device Language RF Receiver Region Bluetooth Pairing Wireless MIC Channel & Frequency Automatic Channel Selection & Microphone Pairing Process Manual Channel Selection & Microphone Pairing Process Manual Channel Selection & Microphone Service & Clearing PIOO Size & Dimensions Packaging Size & Dimensions	$\begin{matrix} 14\\14\\14\\14\\15\\16\\16\\16\\17\\18\\19\\20\\21\\223\\24\\25\\26\\27\\28\\29\\30\\1\\32\\33\\45\\36\\37\\89\\41\\43\\41\\42\\43\\41\\42\\43\\41\end{matrix}$

ARTSOUND is proud to introduce the P100 Personal Broadcasting System. This portable amplifier (PA) is a professional personal loudspeaker system with а built-in multi-functional music player, 5 independent audio source mixer and enough power to reach an audience up to 50 people. The PA incorporates a Dual Core 1.0 GHz CPU outdoor system and its readable. monochrome display, allow you to control and manage your broadcasting experience. The feature rich information display is accompanied by a single (1) true-diversity UHF microphone receiver, Bluetooth audio, analog microphone input, auxiliary inputs, as well as line-output connection. You can connect your media via both USB or MicroSD simultaneously. The high-bitrate music player can also record your broadcasting sessions directly to MP3 format. The quick-exchangable, removable battery pack, ensures you'll have enough autonomous time throughout the day. The integrated Microphone Stand Mount allows you to raise your sound to make the most impact to your audience.



Thank you for choosing ARTSOUND!

To ensure proper operation, please carefully read this owner's manual and safety instruction before using the product. After reading this manual, be sure to keep it for future reference.

Should you have any questions about your new device please contact support at: <u>https://www.artsound.com.cn/support</u>

Every ARTSOUND P-Series products incorporate true-diversity wireless technology. The UHF Receiver is accompanied by 2 independent RF receivers (2 antennas in total). This ensures the wireless link between the microphone stays stably connected to the PA system. You will be able to monitor the reception strength and battery level of the companion M20 Microphone.

#### **Trademark Notice**



The Bluetooth<sup>®</sup> word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by ARTSOUND is under license.

# ARTSOUND

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### IMPORTANT SAFETY INSTRUCTIONS





This symbol alerts the user to the presence of recommendations about the product's use and maintenance.



The lighting flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated, dangerous voltage within the product enclosure that may be of magnitude to constitute a risk of electrical shock.



WARNING! This product contains magnetic material. Contact your physician if you have questions on whether this might affect the operation of your implantable medical device



This symbol Indicates safe use in non-tropical climatic conditions.

For indoor use only This electrical equipment is designed primarily for indoor use.



#### WEEE

Please dispose of this product at the end of its operational lifetime by bringing it to your local collection point or recycling center for such equipment.

• WARNING: Only use attachments/ accessories specified or provided by the manufacturer (such as the exclusive supply adapter, battery, etc.)

#### General heed and warnings

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accor dance with the manufacture's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding plug. A polarized plug has two blades with one wider than the other. A grounding plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at the plugs, convenience receptacles, and at the point where they exit from the apparatus.
- Clean the product only with a soft and dry fabric. Never use liquid cleaning products, as this may damage the products cosmetic surfaces.
- Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart or rack is used, use caution when moving the cart/ apparatus combination to avoid injury from tip-over.
- Unplug the apparatus during lightning storms or when unused for long periods of time.

- Avoid placing the product in a location under direct sunlight or near any appliance that generates UV (Ultra Violet) light, as this may change the product surface finishing and cause a change in color.
- Audio vibrations created by the product may cause other objects to move, ensure that loose objects are not at risk of falling onto the product or persons and cause personal or object damage.
- To prevent possible hearing damage, do not listen at high volume levels for long periods.
- Refer all servicing to qualified personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- For PLUGGABLE EQUIPMENT, the Mains power outlet shall be installed near the equipment and shall be easily accessible.
- Please see the bottom of the product for nameplate and electrical rating.
- **CAUTION:** The instructions under Service section are for use by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.
- The maximum ambient operating temperature is 40°C
- The plug of the power supply is used as the disconnect device, the socket-outlet shall be installed near the equipment and shall be easily accessible.

#### CE Statement

Hereby, Manufacturer (Artsound International Development Co. Ltd), declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

- The plug of the power supply is used as the disconnect device, the socket-outlet shall be installed near the equipment and shall be easily accessible.
- The marking is located on the bottom of the apparatus.
- CAUTION: Risk of explosion if the battery is replaced by an incorrect type.
- High or low extreme temperatures that a battery cannot be subjected to during use, storage or transportation and low air pressure at high altitude.
- Replacement of a battery with an incorrect type that can defeat a safeguard.
- Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, that can result in an explosion.
- Leaving battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas.
- A battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas.

#### **Battery Information**

**CAUTION:** Risk of explosion if the battery is replaced by an incorrect type.

High or low extreme temperatures that a battery cannot be subjected to during use, storage or transportation and low air pressure at high altitude.

Replacement of a battery with an incorrect type that can defeat a safeguard.

Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, that can result in an explosion.

Leaving battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas.

A battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas.

## Unpacking

Each P100 is built to the highest standard and thoroughly inspected before leaving the factory. Upon arrival, carefully inspect the packaging. If you find any damage, immediately notify the retailer or shipping company. Check that the following parts are supplied within the package:

- A. ARTSOUND P100 PA Speaker
- B. P100 Battery Pack
- C. M20 Microphone
- D. 18500 Rechargeable Microphone Battery
- E. AC/DC 19VDC Battery Charger
- F. AC Socket Adaptor(s)
- G. Quick Start Guide
- H. Safety & Warranty Information
- I. Shoulder Strap



# **Part Names & Functions**

**Control Panel** 







P100 Battery



Tripod Mount



# **Part Names & Functions**

Firmware Update Port



Microphone Battery



Shoulder Strap Clip/Mounts

Microphone Pairing Window





1. Install P100 Battery





### 2. Install M20 Battery



3. Connect P100 Charger



4. Connect M20 Charger



5. Pair the Microphone

Step 1 Turn Mic power on



Step 2 Remove battery cover



Step 3 Press MENU button

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Step 4 <Select "Auto"> for the MIC 1 Channel

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RF Region	Mainland China
Bluetooth	Disconnected
MIC1 Receiver	Auto
MIC1 Start Pairing	Disconnected
Alarm Sound	Air Blast 1s
Display Brightness	FULL

Step 5 <Select "Radio Search"> to Start MIC1 Pairing

MASTER ( 25%	≣∎Fx 🕩 47%
RF Region	Mainland China
Bluetooth	Disconnected
MIC1 Receiver	Auto
MIC1 Start Pairing	Radio search
Alarm Sound	Air Blast 1s
Display Brightness	FULL





6. Pair the Bluetooth

Step 1 Press MENU button



Step 2 <Select "Pair"> in Bluetooth Setting

MASTER ( 25%	🗏 🖬 Fx 🖸 🛛 47%
Language	English
RF Region	Mainland China
Bluetooth	Pairing
MIC1 Receiver	CH1 (655.200MHZ)
MIC1 Start Pairing	OFF
Alarm Sound	Air Blast 1s

Step 3 Pair the Phone to "P100"

Step 4 Adjust the Bluetooth Source, Volume Level





# **Control Panel & Information Display**



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This Port Volume Control is controlled by AUX Volume Level

# **Control Panel & Information Display**



#### **STOP Button**

When Pressed, this will stop the MP3 Player Recording or Playback



#### PLAY/PAUSE Button

When Pressed this will toggle the MP3 Player Between Play and Pause of a Track



#### ALARM/SOUND Button

While Pressed, the selected Alarm Sound will play



#### FX Button

When Pressed, this Toggles Microphone Effects On/Off Long Pressing this button enters the **Microphone Effects Menu** 



#### **MENU Button**

When Pressed this Toggles between the Main Menu and Settings Menu



#### **Navigation Rotary Dial**

Rotating the Dial **Scrolls Up/Down** lists is the menu screens Pressing the Dial **Selects/Exits** menus



#### **Bluetooth Source Button**

When Pressed, this toggles the MUTE of the Bluetooth Source Long Pressing this button for 3sec enters **Bluetooth Source Level Editing**.



#### AUX Input Button

When Pressed, this toggles the MUTE of the Auxiliary Source Long Pressing this button for 3secenters **Auxiliary Source, Volume Level** Editing



#### MIC 1 Source Button

When pressed, this toggles the MUTE of the Wireless Microphone Source Long Pressing this button for 3sec enters **Wireless Microphone, Source Volume Level Editing**.



#### 192\*64 Pixel Backlight Display

The 3" monochrome 192\*64 pixel backlight display an intuitive interface between the user and the many audio features of the P100.



### Port Function

- Connect 19VDC 45-Watt power supply for charging the battery
- P100 can also operate from this power input when the battery is removed

3 Analog 3.5mm Line-Out Port



### Port Function

- Provides unbalance singled-ended audio output from the DSP to connect to an external companion power amplifier



### Key Function (pressing action)

**Power Button** 

- Press 2s to power ON/OFF



Analog 3.5mm Line-in Port



### Port Function

- Provides unbalance singled-ended audio input to the DSP for connecting external analog audio sources.
- Source is controlled by the AUX Source Volume Level
- Source is affected by FX Effects

14

5

The Microphone Pairing Windows is used to send pairing and configuration data from the P100 to the M20 wirless microphone. When initiating the pairing command in the settings menu, point this blinking light at the IR window located on the M20 Microphone under the battery cover. Light signals will transmit the pairing data. Make sure the window is clear from obstruction during the microphone pairing process. Point the microphone IR receiver window at the blinking light within 10cm. Once pairing was successful, you will notice the wireless microphone status displayed on the main menu. Follow the Microphone Pairing Process for more details.

Microphone Pairing Window





6 External Microphone <sup>1</sup>/<sub>4</sub>" Input Port



### Port Function

- Provides unbalance singled-ended audio \_ input from an external wired microphone.
- Source is controlled by the AUX Source Volume Level
- Source is affected by **FX Effects**

7 MicroSD Card Slot



### Port Function

- Install microSD card flash with NTFS or FAT16/32 files system for music player record and playback.





### 9 [USB] Music Player Source Button

By pressing the music player source button you will be taken to the music player screen where you can preview and select tracks in the music player playlist. The volume of this source can be edited / adjusted by long pressing the key. This button does not have a quick mute/unmute function. See the **Music Player Section** for more details. Toggles between Music Player & Main Menu



#### Edit/Adjust Music Player Volume Level

Step 1



Step 2

Adjust Volume Level



Press to Save



Key Function (pressing action)

- Short Press <1s: toggles between Music Player Screen and the Main Menu
- Long Press >2s: edit Music Player Volume Level

### 10 [NEXT] Next Track Button

While a track is currently being played in the music player, pressing the next [NEXT] track button will cause the music player to go to the next track in the playlist. If the button is continuously held for 2 seconds it will change the playback loop type. It will toggle the player between continuous consecutive playing, looping to the beginning only once it has reached the last track or to single Track looping feature. Note: that the media player is always in continuous consecutive play mode each time the speaker is powered for more details.

#### Key Function (pressing action)

- Short Press <1s: play the next track in the playlist
- Long Press >2s: toggles the music player looping mode between Continuous Consecutive Play and Single Track Loop
- \*\* Default Mode on Start-up is Continuous Consecutive Play

#### Play the Next Track in the Playlist



Toggles the Music Player Looping Mode between Continuous Consecutive Play and Single Track Loop



Track List Play



Single Track Loop



### 11 [PREV] Previous Track Button

While a track is currently being played in the music player, pressing the previous [PREV] track button will cause the music player to return to the previous track in the playlist. If the button is continuously held for 2 seconds it will force the media player to return to the first track in the playlist. The long press is a fast way to restart the player from the beginning again.

Play the Previous Track in the Playlist



#### Key Function (pressing action)

- Short Press <1s: play the previous track in the playlist
- Long Press >2s: rewinds the media player to track #001

Rewinds the Media Player to Track #001



Long press >2sec

MASTER 🔄 💶 🗆 25% 🔳 🗗 Fx 🗈	47%
Slang of Ages.wav	
Temptation.wav	
Temptation 2.way	03:21
Air Blast 1s 10dB.wav	
Air Blast 1s.wav	
Air Blast 2s 10dB.wav	

The record [REC] button is used to start a new MP3 recording of a live broadcasting session. Press the stop button to terminate and save the recording directly to MP3 format. The recording will be saved into the removable flash microSD or USB connected device. The recording feature is disabled if no removable storage devices are connected. Note: the music player can not play a song from the playlist and record at the same time. You can however, record music and microphone input together by using the Bluetooth connection or any of the inputs such as line-in if you wish to record music and the microphone voice at the same time.

### Key Function (pressing action)

Starts an MP3 Recording Session

PFC

- Press: starts an MP3 recording session

#### Key Function (pressing action)

- Press: stops the track that is being played or recorded.

#### Stops the Track that is being Played or Recorded.

20





Short press <1sec

### P100

### [STOP] Stop Button

Use the stop button to stop a song that is currently playing or to terminate and save a MP3 live session recording. You can also use the stop button to rewind a single track that is being played to the beginning of the same track again. The default state of the music player is "stopped" status on power up of the device.

#### 14 [Play/Pause] Button

The play/pause button is used to start or pause a track that is in the music player playlist. There must be removable flash media connected to the USB or microSD card slot in order to start the music player. If no media is available for playback this feature will be disabled. See the **Multi-Media Player Function Section** for more details.

### 15 [SOUND] Alarm/Sound Button

This button will play the preselected siren/alarm announcements while the button is being held. This allows the user to demand the audiences attention. See the **Siren/Alarm Section** for more details how to customize the alarm/siren effects for this button. The Volume of the Siren/Alarm effects are controlled by the master volume level.

#### Function (key press)

- Press: plays the preselected **Alarm Sound** while this button is pressed

#### Key Function (pressing action)

 Press: toggles media player play / pause state

#### Plays the Preselected Siren/Alarm Sound

Toggles Media Player Play / Pause State





### 16 [<a>FX] Button</a>

The FX button offers a quick way to enable or disable the voice enhancement feature for karaoke sound effects applied to all of the input signals. By short pressing the button you disable or enable the effects. By long pressing the button you will be taken to the karaoke effects adjustment screen where you can adjust the tonality and amplitude of the effect. See the **Microphone/Input Voice Enhancer** -**FX Effects Section** for more details about the customization of the voice effects. Use this button in conjunction with the menu button when a software reset is required.

#### Toggle the FX Effects ON/OFF



Enter the FX Editing Screen



#### Key Function (pressing action)

- Short Press <1s: Toggle FX Effects ON/OFF
- Long Press >2s: Enter FX Editing Screen
- Press both MENU + FX buttons together for Software Reset

Software Reset: restart the device



### 17 [MENU] Button

The menu button offers a convenient way to switch between the main menu and the settings menu screens. It also allows you to exit other screens such as the karaoke effects editing or the music player screen and return back to the main menu screen. Use this button in conjunction with the FX button when a software reset is required. Toggles between the Main Menu & Settings Menu



Key Function (pressing action)

- Press: toggles between the Main Menu & the Settings Menu or return to the main menu when in Media Player or FX screens
- Press both MENU + FX buttons together for Software Reset

Software Reset: restart the device



#### Navigation Rotary Dial 18

The navigation dial is a 2-axis button that has both rotation and pressing actions. The navigation dial is the main way for the user to interact with menus and settings as well as adjust the master or independent volume sources. Rotating the dial allows for preview of menu or playlist items and the button press selects individual items in lists.

#### Dial Function (rotate action)

- Rotate Clockwise: navigates "Down" in \_ menu lists or navigates "Right" in the main menu
- Rotate Counter-clockwise: navigates "Up" in menu lists or navigates "Left" in the main menu

#### Key Function (pressing action)

Press: selects or confirms highlighted menu items

#### Key Illumination (indicator)

- Blue: Idle state
- White: while dial is pressed
- White Flashing: during editing a highlighted menu item
- Red: Master Volume Muted
- Red Flashing: when action is denied or on Press to Select Menu Items system errors / warnings

#### **Dial Illumination Types**

Key Brightness OFF



White: While Dial Is Pressed



Red: Master mute



Blue: Idle State



White Flashing: Edit Highlighted Items



Red Flashing: Action Denied or Errors



Rotate to Navigate Menus





### 19 [BT] Bluetooth Source Button

This button allows the user to quickly mute (Disable) or unmute (Enable) the Bluetooth source. The volume of this source can be edited and adjusted by long pressing the key for 2 sec. Then you will be able to adjust the Bluetooth source volume level. Toggles Bluetooth Source between Mute & Unmute



Key Function (pressing action)

- Short Press <1s: toggles between mute & unmute
- Long Press >2s: edit Bluetooth Source
   Volume Level

Edit/Adjust Bluetooth Source Volume Level



#### Adjust Volume Level



#### Press to Save



### 20 [AUX] Auxiliary Input Source Button

This button allows the user to quickly mute (Disable) or unmute (Enable) the ¼" microphone or auxiliary 3.5mm line-in source. The volume of this source can be edited / adjusted by long pressing the key for 2 sec. Then you will be able to adjust the auxiliary source volume setting. Toggles AUX Source between Mute & Unmute



#### Key Function (pressing action)

- Short Press <1s: toggles between mute & unmute
- Long Press >2s: edit AUX Source Volume Level

Edit/Adjust AUX Source Volume Level



Long press >2sec

#### Adjust Volume Level



Press to Save



21

### [MIC 1] Wireless Microphone Source Button

The MIC 1 button allow the user to quickly mute (Disable) or unmute (Enable) the build-in wireless microphone receiver. The volume of this source can be edited / adjusted by long pressing the key for 2 sec. Then you will be able to adjust the MIC 1 source volume level. Additionaly when the MIC 1 source becomes muted (disabled) the UHF radio receiver will become shutdown and put into standby mode. This helps the speaker to save power when the wireless microphone is not in use. Turning off MIC 1 when not using them, will significantly increase the music playing time.

#### Key Function (pressing action)

- Short Press <1s: toggles between mute & unmute
- Long Press >2s: edit MIC UHF Receiver Volume Level

Toggles MIC 1 Source between Mute & Unmute











#### Press to Save



## **Information Display - Main Menu**



3" Monochrome 192\*64 Pixel Backlight Display



# **Information Display - Music Player Menu**





#### Next Track Selection Marker

Shows the current cursor position in the menu. If the Navigation button is pressed, this track will immediately play



#### **Player Track Title**

Displays the name of each audio file from an attached USB or MicroSD removable media device



#### **Currently Playing Track Marker**

Shows the current state of the track in the playlist \_



#### **Playlist Track Scroller**

- When music tracks are longer than can be displayed on the screen the Playlist Track Scroller assists with navigation The scroller size/scale is based on the total length of the
- menu items



#### **Track Timer**

- Displays the current position in the audio file playback While Playing & Recording, this shows the Count Up Time
- Duration Flashing Timer when the track is Paused

## **Information Display - Settings Menu**



47

#### **Highlighted Items Settings**

- The Menu Item has an inverted background color to identify the selected item in the menu list. When selected, the user can modify the menu item

#### Settings Menu Scroller 48

- When menu items are longer than can be displayed on the
- screen the menu scroller assists with navigation. The scroller size/scale is based on the total length of the menu items



#### Settings Item

Displays the Value for the selected item. If the item is selected and the item has a range of settings the navigation wheel allows for scrolling through the available items in the list

## **Information Display - Settings Menu item list**

Maaten <b>Al</b> aeu	
THSTER ()254	,≡∎rx 📭 47%
Language	Engli≴h
RF Region	Mainland China
Bluetooth	Disconnected
MIC1 Receiver	Auto
MIC1 Start Pairing	Disconnected
Alarm Sound	Air Blast 1s
Display Brightness	FULL
Hardware Version	1.0
Firmware Version	1.0
Serial Number	FF:FF:FF:FF:FF
Power Consumption	0.00W
Battery Calibration	
Factory Reset	

#### Language

- User can select the Information Display language
- English 中文
- \*\* Language preview with save on exit

#### **RF** Region

Displays the products UHF receiver territory \*\*information is read only

#### Bluetooth

- This is where bluebooth connections can be initiated Diring new devices)
   Connect (connect to a previously paired divice)
   Disconnect (remove the previously paired divice)

#### Wireless Microphone Channel Selection

- Allows for automatic or manual channel selection

  Choose "AUTO" for Easy Automatic channel searching
  Alternatively, manually choose the Frequency & channel desired, Channels 1-16
  Perform the Pairing process to send updated settings to the microphone using the IR pairing process below
  Frequency displayed in xxx.xxxMhz format

#### Wireless Microphone Start Pairing Process

After Selecting the Desired Channel Frequency from the above menu item. Pair and Syncronize the updated setting to the microphone using the IR pairing process. 1. Perform the Channel Selection Type: Auto or Manual

- Initiate Pairing with the microphone to configure the microphone with the new setting

\*\*Settings preview with save on exit

#### Alarm Sound Effect

User can choose form the 7 different alarms sounds

- 1. Air Blast 1s 2. Air Blast 2s
- 3. Air Raid Siren 4. School Bell
- 5. Emergency Siren
- 6. Siren Wail 7. Siren Yelp

\*\*Sound preview with save on exit

#### **Display Backlight Brightness**

User can choose form the 5 display brightness levels 1. FULL (maximum outdoor brightness)

- 1. FULL (m 2. High 3. Medium
- 4 I ow
- 5. Lowest (10% brightness minimum) \*\*Brightness preview with save on exit

#### **Hardware Version**

Displays the electronic hardware version of the product \*\*information is read only

#### **Firmware Version**

Displays the products currently installed software version \*\*information is read only

#### **Serial Version**

Displays the products unique identification number \*\*information is read only

#### **Power Consumption**

Displays the real-time power consumption in (Watts) \*\*information is read only

#### **Battery Calibration**

- User can initiate the new battery calibration 1. Calibration is completed after 3 charging cycles 2. Use when new battery or different battery is installed 3. This resets the estimated time remaining history

#### Factory Reset

Sets the product back to factory initial setting

### Settings Menu

To Enter the Settings Menu, Press the **MENU** Button

To Exit the Settings Menu and return to the Main Menu, Press the **MENU Button** 

In the Settings Menu you can View & Adjust

- 1. Display Language
- 2. RF Receiver Region (View Only)
- 3. Bluetooth Pairing & Status
- 4. Wireless MIC Channel & Frequency
- 5. Wireless MIC Pairing & Status
- 6. Alarm Sound
- 7. LCD Display Brightness
- 8. Hardware Version (View Only)
- 9. Firmware Version (View Only)
- 10. Serial Number (View Only)
- 11. Power Consumption
- 12. Battery Calibration
- 13. Factory Reset

MASTER ( 25%	🗏 🖬 Fx 🖸 🛛 47%
Language	English
RF Region	Mainland China
Bluetooth	Disconnected
MIG1 Receiver	Auto
MIC1 Start Pairing	Disconnected
Alarm Sound	Air Blast 1s
Display Brightness	FULL
Hardware Version	1.0
Firmware Version	1.0
Serial Number	FF:FF:FF:FF:FF
Power Consumption	0.00W
Battery Calibration	
Factory Reset	

#### 1. Enter/Exit Setting Menu



2. Preview Option



3. Select/Edit Options



### Changing the Device Language

The P100 supports 3 languages, English, Simplified Chinese & Italian. The displayed language can be adjusted by entering the Settings Menu and selecting the desired language from the list.

#### To adjust the desired language:

- 1. Press the **MENU** button to enter the Settings Menu
- 2. Rotate the Navigation Dial to highlight the **Language** option from the Settings List
- 3. Press the Navigation Dial to Select the **Language** option
- 4. Rotate the Navigation Dial to preview the selected language types
- 5. To select the displayed language, Press the Navigation Dial to **Save** the option

The device will remember this setting the next time you power on the unit.

MASTER	) 25%	≣∎Fx 🖸 47%
Language	24	English
RF Region		Mainland China
Bluetooth		Disconnected
MIC1 Receiver		Auto
MIC1 Start Pairing		Disconnected
Alarm Sound		Air Blast 1s
Display Brightness		FULL
Hardware Version		1.0
Firmware Version		1.0
Serial Number		FF:FF:FF:FF:FF
Power Consumption		0.00W
Battery Calibration		
Factory Reset		

1. Enter Setting Menu



2. Navigate To Language Option



3. Select/Modify Language Setting



4. Preview Desired Language



5. Select Desired Language



6. Exit Setting Menu



### **RF** Receiver Region

The P100 wireless UHF receiver incorporate true-diversity dual (2) antenna technology and are calibrated from the factory. This setting is View Only and can not be modified. Each Country has its own regulation and licensed bandwidth criterial. Below are the RF region details and channel / frequency available in the settings menu.

- Mainland China UHF Channel Selection Frequency Range: 655Mhz – 679Mhz Bandwidth: 24Mhz Channel Presets: 16ch
- Hong Kong / Macau UHF Channel Selection Frequency Range: 514Mhz – 542Mhz Bandwidth: 28Mhz Channel Presets: 16ch
- <u>Taiwan UHF Channel Selection</u> Frequency Range: 748Mhz - 758Mhz Bandwidth: 10Mhz Channel Presets: 12ch

MASTER	)25% 🗐 🖡 🕩 47%
Language	English
RF Region	Mainland China
Bluetooth	Disconnected
MIC1 Receiver	Auto
MIC1 Start Pairing	Disconnected
Alarm Sound	Air Blast 1s
Display Brightness	FULL
Hardware Version	1.0
Firmware Version	1.0
Serial Number	FF:FF:FF:FF:FF:FF
Power Consumption	0.00W
Battery Calibration	
Factory Reset	

### **Bluetooth Pairing**

The P100 can pair with Bluetooth Audio Sources to stream A2DP music and audio

To pair the Bluetooth of the P100:

- 1. Press the **MENU** Button enter the Settings Menu
- 2. Rotate the Navigation Dial to highlight the **Bluetooth Pairing** option from the Settings List
- 3. Press the Navigation Dial to Activate the **Bluetooth Pairing** process. **Pairing** will be displayed
- 4. All previously paired/connected devices will be removed
- 5. On your mobile device turn on your Bluetooth and Scan for New Devices
- 6. Search for the "**P100**" name in the device list and confirm pairing with the New Device
- 7. Once the connection is successful you will see "Connected" listed in the Status Box

After pairing is successful, the P100 will automatically reconnect with the Bluetooth source each time the PA speaker is powered on.

\*\*The Speaker does not support Bluetooth HFP or HSP profiles (wireless phone call with microphone)

MASTER ( 25%	🗏 🖬 Fx 🖸 🛛 47%
Language	English
RF Region	Mainland China
Bluetooth	Disconnected
MIC1 Receiver	Auto
MIC1 Start Pairing	Disconnected
Alarm Sound	Air Blast 1s
Display Brightness	FULL
Hardware Version	1.0
Firmware Version	1.0
Serial Number	FF:FF:FF:FF:FF:FF
Power Consumption	0.00W
Battery Calibration	
Factory Reset	

# Wireless MIC Channel & Frequency

The P100 Wireless UHF Microphones and Receiver have up to 12/16 preset channels that can be selected based on the country / region.

The P100 incorporates an automatic pairing process that make the microphones pairing and channels selection process easy. You are also allowed to manually choose the channel you wish to use.

#### Preset CH 1 CH 2 CH 3 CH 4 CH 5 CH 6 CH 7 CH 8 655.200 MHz 656.675 658.500 660.050 661.500 665.900 664.425 666.500 CH 9 CH 10 CH 11 CH 12 CH 13 CH 14 CH 16 Preset CH 15 MHz 667.800 668.225 670.800 672.275 673.725 675.075 676.500 678.600

#### Mainland China UHF Channel Selection

### Hong Kong / Macau UHF Channel Selection

Preset	CH 1	CH 2	CH 3	CH 4	CH 5	CH 6	CH 7	CH 8
MHz	514.400	515.450	516.400	517.550	519.150	520.450	521.850	523.750
Preset	СН 9	CH 10	CH 11	CH 12	CH 13	CH 14	CH 15	CH 16
MHz	525.500	527.550	528.550	530.000	534.150	536.550	538.800	541.450

### Taiwan UHF Channel Selection

Preset	CH 1	CH 2	CH 3	CH 4	CH 5	CH 6	CH 7	CH 8
MHz	748.200	748.500	749.000	750.000	750.350	751.200	753.700	754.825
Preset	СН 9	CH 10	CH 11	CH 12				
MHz	755.400	756.450	756.850	575.750				

# Automatic Channel Selection & Microphone Pairing Process

The automatic microphone pairing process removes the headache of trying to find the best channel in your location. Choosing the best channel means you will have the most stable wireless connection and the microphone will have the most optimal broadcasting range.

# Perform this procedure if you are experiencing microphone interference or range limitation

#### How does the Automatic Microphone Pairing Process Work?

When the user selects the **AUTO** channel selection feature from the Settings Menu, the P100 will automatically **scan and analyze** every channel available and determine which channel has the least radio traffic interference. Once the most optimal channel has been determined, the P100 will then continue the normal pairing process, and send the updated configuration to the microphone transmitter.

Perform the 3-step Automatic Microphone Pairing Process:

- 1. Prepare the M20 Microphone for Pairing
  - a. Remove the Microphone Battery Cover
  - b. Turn the Microphone ON, it should display a Blue color indicator
  - c. Make sure the IR Pairing window is free from obstructions
- 2. Prepare the P100 for Automatic Channel Analyzing
  - a. Press the **MENU** Button to enter the Settings Menu
  - b. Decide which Receiver to pair the MIC 1
  - c. Rotate the Navigation Dial to highlight the desired MIC 1 Receiver from the Settings List
  - d. Press the Navigation Dial to Select the MIC1
     Channel you want to change
  - e. Rotate the Navigation Dial and select **AUTO** from the Settings List
  - f. Press the Navigation Dial to confirm the desired Automatic Scanning to be used for microphone pairing

- 3. Perform the Microphone Pairing Process
  - a. Rotate the Navigation Dial to highlight the MIC 1 Start Pairing option from the Settings List
  - b. Press the Navigation Dial to Initiate the pairing process
  - c. The Radio will indicate "Radio Searching..." indicating that it is analyzing all available channels
  - d. After the Radio Channel analysis is complete for the MIC 1, the P100 will immediately enter the microphone pairing process.
  - e. Place the M20 microphone within 5" (10cm) from the blinking pairing light on the P100. This will allow the P100 to send the updated command information to the microphones IR receiver. Its important not to obstruct and direct the blinking light towards the microphones IR receiver window.
  - f. Once the process has successfully completed and can receive data from the connected microphone, the P100 will display Connected CH# in the MIC 1 Start Pairing option
  - g. You will see the updated Channel and Frequency that the P100 has determined to be the most optimal in the MIC 1 Receiver options list
  - h. If the display says **Disconnected** in the **MIC 1 Start Pairing** option after the pairing process has completed and the LED Pairing Light has stopped blinking, than the communication from the P100 to the M20 Microphone was unsuccessful and you will need to perform the automatic pairing process again.

# Manual Channel Selection & Microphone Pairing Process

If you are an advanced user and wish to choose the M20 Microphones Transmission Frequency directly, than use this option to update the Transmission Frequency of the M20 Microphone

### Perform the 3-step Manual Microphone Pairing Process:

- 1. Prepare the M20 Microphone for Pairing
  - a. Remove the Microphone Battery Cover
  - b. Turn the Microphone ON, it should display a Blue color indicator
  - c. Make sure the IR Pairing window is free from obstructions
- 2. Manually Select the P100's Frequency / Channel
  - a. Press the **MENU** Button to enter the Settings Menu
  - B. Rotate the Navigation Dial to highlight the desired MIC 1 Receiver from the Settings List
  - c. Press the Navigation Dial to Select the **MIC 1 Channel** you want to change
  - d. Rotate the Navigation Dial and select **CH#** Channel Number and Frequency from the Settings List
  - e. Press the Navigation Dial to confirm the desired Channel Number and Frequency to be used for microphone pairing.

- 3. Perform the Microphone Pairing Process
  - Rotate the Navigation Dial to highlight the MIC 1 Start Pairing option from the Settings List
  - b. Press the Navigation Dial to Initiate the pairing process
  - c. Place the M20 microphone within 5" (10cm) from the blinking pairing light on the P100. This will allow the P100 to send the updated command information to the microphones IR receiver. Its important not to obstruct and direct the blinking light towards the microphones IR receiver window.
  - d. Once the process has successfully completed and can receive data from the connected microphone, the P100 will display Connected CH# in the MIC 1 Start Pairing option
  - e. If the display says **Disconnected** in the **MIC 1 Start Pairing** option after the pairing process has completed and the LED Pairing Light has stopped blinking, than the communication from the P100 to the M20 Microphone was unsuccessful and you will need to perform the manual pairing process again.

# Microphone/Input Voice Enhancer - 🕅 FX Button

The P100 incorporates an (FX Effects) Voice Enhancing Digital Signal Processor that can modify the entertainment effects of the microphone and analog inputs. Users can easily toggle this feature on/off and adjust different parameters to modify the input tonality and reverb / echo effects.

The FX feature affects wireless MIC 1 as well as the Mic-In and Line-In analog input connections



• Short Press The  $\ensuremath{\widehat{\triangleleft}}\xspace$  FX Button to toggle the

Exit the FX Effect Settings Menu

**USB** buttons will exit the FX effects settings menu

\*\*Inputs with FX Effects Feature

- 1/4" Microphone-In
- 3.5mm Aux-In
- Wireless MIC 1

### Toggle the FX Effects ON/OFF



Short press

Enter the FX Editing Screen

### Enter the FX Effect Settings Menu

Turning ON/OFF the FX Effects

Input effects ON or OFF

- 1. Press and Hold the 🖁 **FX Button** for 2 Seconds
- 2. Rotate the Navigation Dial to adjust the selected effects settings
- 3. Press the Navigation Dial to toggle between REVERB and ECHO settings



Long press >2sec

# **Technical Specifications**

P100		
System		
Model Number	P100	
CPU System	Dual Core, 1.0Ghz, 64MB RAM	
Display	MONO, 192*64pix Monochrome Display	
Features	Audioz Player, True-Diversity Dual UHF Receiver, Bluetooth, Analog 3.5mm, ¼" Microphone & 4-Channel Mixer. Siren, Alarm and Microphone Effects	
Interface	2-Axis Navigation control USB & MicroSD Removable Media	
Music Player		
Controls	Play/Pause, Stop, Record, Previous & Next Track, Track/Playlist, Repeat	
Music Preview	Song List Album Cover Supports 1,000 Audio Tracks	
File System	FAT 16/32 or NTFS	
Removable Media	USB 2.0 + MicroSD UHS-1 (Class 4)	
Bitrates Supported	32-320kbps	
Audio Formats	MP3, WAV, AAC	
Record Feature	Encoded to MP3	
Audio		
Amplifier Rated Power	40 Watt	
Frequency Response	80 - 18,000 Hz ± 3dB	
Max SPL <sup>1</sup>	102 dB	
Driver	4" Full Range	
Analog input	3.5mm Line-In ¼" Microphone Input	
Analog output	3.5mm Line-Out	
DSP	SigmaDSP® 50-MIPS Digital Audio Processor Microphone Effects 4 Channel Mixer	

Bluetooth Wireless		
Bluetooth Version	V5.3	
Bluetooth Profile	A2DP, AVRCP, SBC, AAC	
Frequency Band	2.400GHz - 2.483GHz ISM Band /4dBm (Class 2)	
Bluetooth Range	10 m / 30 ft (free space)	
UHF Wireless		
RF Technology	Analog UHF True Diversity Receiver 2-Integrated Antennas	
Option #1	UHF 655-679MHz 24MHz Bandwidth 16 Channels	
Option #2	UHF 514-542MHz 28MHz Bandwidth 16 Channels	
Option #3	UHF 748-758MHz 10MHz Bandwidth 12 Channels	
Microphone Pairing	Infrared Transmitter	
General		
Accessories	<ol> <li>M20 Wireless Microphone</li> <li>Integrated 5/8" Tripod Mount<sup>2</sup></li> <li>Detachable Shoulder Strap</li> </ol>	
Battery Pack	Removable / Replaceable Lithium-Ion Battery Pack INR26650-4S1P 14.4V @ 2,550mAh, 37.0Wh	
Charging Time	Approx. 3hrs	
Autonomous time <sup>3</sup>	Approx. 10hrs	
Power Supply	100-240VAC @ 50/60Hz 19VDC @ 2.5A (47-Watts)	
Dimensions (WxHxD)	128(W) x 148(H) x 260(D) mm	
P200 Weight⁴	1.84 kg	
All-in-One Weight⁵	2.1 kg	

<sup>1</sup>Maximum SPL at 1 m calculated using crest factor 4 (12dB)

<sup>2</sup> Tripod Sold Separately

<sup>3</sup> Playtime varies based on number of receivers turned on and the loudness and music setting.

<sup>4</sup> Gross Weight Including P100 & Battery (not include microphone)
 <sup>5</sup> Gross Weight Including one (1) M20 Microphone and Batteries

# **Technical Specifications**

M20 Microphone	
System	
Model Number	M20
Microphone Type	Dynamic
Frequency Response	40-18,000 Hz
UHF Transmission Range	Dynamic Bands
Option #1	UHF 655-679MHz 24MHz Bandwidth 16 Channels
Option #2	UHF 514-542MHz 10MHz Bandwidth 16 Channels
Option #3	UHF 748-758MHz 20MHz Bandwidth 12 Channels
UHF Transmission Power	20-50mW
Microphone Pairing	Infrared Receiver
General	
Battery	Lithium-Ion Battery Removable / Replaceable ICR18500 3.7V @ 1,400mAh, 5.18Wh
Interface	Power Switch RGB LED for Power/Charging Status
Charging Time	Approx. 3hrs
Autonomous time <sup>1</sup>	Approx. 20hrs
Radio Range	30 m / 100 ft (free space)
USB-C Charger <sup>2</sup>	5V <sub>DC</sub> @ 1.0A (5-Watts)
Dimensions (WxDxH)	50(W) x 50(D) x 200(H) mm
Weight <sup>3</sup>	250 gm

<sup>1</sup>Playtime varies based on level on RF interference in the environment and transmission power setting

<sup>2</sup> USB-C cable and Charger Sold Separately

<sup>3</sup> Gross Weight Including Removable Battery

# Service

To obtain service:

- 1. Please have the serial number of the unit available for reference.
- Contact <u>https://www.artsound.com.cn/support</u>
   Please describe the problem clearly and completely to the Customer Service.
- 3. You will be contacted back for online servicing.
- 4. If the problem cannot be resolved over the phone, you may be required to send the unit in for service. In this instance, you will be provided with an RA (Return Authorization) number which should be included on all shipping documents and correspondence regarding the repair. Shipping charges are the responsibility of the purchaser.

Any attempt to modify or replace components of the device will void your warranty. Service must be performed by an authorized ARTSOUND service center.

# Cleaning

Use only a soft, dry cloth to clean the housing. Do not use any solvents, chemicals, or cleaning solutions containing alcohol, ammonia, or abrasives. Do not use any sprays near the product or allow liquids to spill into any openings. P200 PRO Size & Dimensions



260 mm





# Packaging Size & Dimensions



# artsound P100

Technical Support For additional information or support with your product please visit our website



www.artsound.com.cn/support