

# PA-223

## USER'S MANUAL



Example of one PA-223



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## SUMMARY

## INTRODUCTION

### INTRODUCTION

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Thank you for choosing PA-223. To ensure the best performance and get the maximum life out of the equipment, we recommend that you read this manual carefully.

### ADVICE FOR A GOOD USE

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PA-223 is an automatic mixer which can be equipped with 1 MP3/USB player, 1 audio transmitter or/and 1 UHF wireless module. This product only functions on AC main 100-240V, 47-63 Hz.

### BASIC EQUIPMENT

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- Preamplifier
- ON/OFF button
- Talk Overs
- Volume Controls
- Tone adjustment
- Inputs
- Outputs

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### ADVICE FOR A GOOD USE

- ✓ Do not use the sound system in a humid or dusty place, or near any heat sources such as radiators, heat registers, neither under the sun or at very low temperatures.
- ✓ Place the sound system in a ventilated place.
- ✓ Be careful when moving this unit in order not to damage the electronics.
- ✓ Carry the sound system with caution.
- ✓ Do not forget to decrease the volume switch before turning off the sound system.
- ✓ Handle the control switches carefully.
- ✓ Clean the sound system regularly.
- ✓ Keep the carton in case of return. Transport will be safe and without any risk of damage.

### OPTIONS

Pages 5-12

- Amplifier
- Wireless receiver SDR-6216M
- Handheld microphone SQ-5016 + Charger
- Beltpack transmitter SM-5016 + Charger
- Audio transmitter RP-6016M
- Digital player T-EM040

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### TECHNICAL DATA

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The exclamation point inside an equilateral triangle indicates the existence of internal components whose substitution may effect safety. Also indicates important operating instructions.



The lightning and arrowhead symbol warns about the presence of uninsulated dangerous voltage. To reduce the risk of electric shock, do not remove the cover. Refer servicing to qualified personnel.



# BASIC EQUIPMENT

## PREAMPLIFIED

The automatic mixer PA-223 is preamplified.



### ON/OFF BUTTON

Use this button to switch on/off the device.

## TALK OVER

PA-223 is equipped with 2 voice priorities: 1 for the 1<sup>st</sup> MIC/Line input, the 2<sup>nd</sup> for the wireless system.



This function allows to speak while music is playing > Priority of speech over music. If this feature is activated the level of sound will decrease automatically as soon as the mic is open. The voice priority for the MIC/Line input overrides external music through the AUX1 input.

## VOLUME CONTROLS



PA-223 is equipped with 5 independent volume controls: MIC/Line1, MIC/Line2, Aux1, Aux2 and the master volume control. It is the general volume control output. This setting allows to balance the different levels of each input.

### ⓘ CAUTION : MIC Adjustment

To avoid the larsen effect when you switch on mics, do not turn the gain if you are not far from PA-223. ADVICE : We strongly recommend that you switch off the mic, adjust the volume of the PA-223 to the desired volume, then be a few meters away before switching on the mic again.

## tone ADJUSTMENTS



PA-223 is equipped with 3 highly performing tone adjustments.  
1 bass frequency tone control on 100 Hz with +/- 12 dB efficiency.  
1 treble frequency tone control on 10000 Hz with +/- 12 dB efficiency.  
1 voice adjustment especially designed for use in medium frequency which allows for a sharp increase of voice presence on the mic inputs.

## INPUTS



2 MIC INPUTS equipped with XLR(3 pins) connectors. The balanced inputs allow use of long cables. One condition: use high quality cables.

2 LINE INPUTS equipped with 2 dual RCA connectors, allowing to connect auxiliary product such as tuner, CD or Tape player. If both inputs are connected, you can use them simultaneously.

2 AUXILIARY INPUTS equipped with 2 dual RCA connectors, allowing to connect auxiliary product such as tuner, CD or Tape player. Both inputs have an independent volume control on the front panel.

## POWER SUPPLY INPUT



12 Volts power supply input. Allows working on AC main. It is recommended to use the provided cable.

## OUTPUTS



1 REC OUTPUT equipped with 2 dual RCA connectors, allowing to connect auxiliary product and to register for example a speech.  
1 MASTER OUTPUT: PA-223 is equipped with 1 XLR line output so as to link it to another sound system. You just have to connect the PA-223 Line out to the Line in of the other correspondent product.

## OPTIONS

PA-223.A: The mixer PA-223 can be amplified: 1 x 70 W RMS or 2 x 70 W RMS.



## RECEIVER SDR-6216M

On/Off + Volume



Selection of the channel

LED A et B

### Technical characteristics of receiver SDR-6216M

UHF receiver, True Diversity, with Pilotone.

#### ✓ Switch on the receiver:

The switch on the right is power switch and volume control

#### ✓ Switch on the handheld microphone/beltpack transmitter:

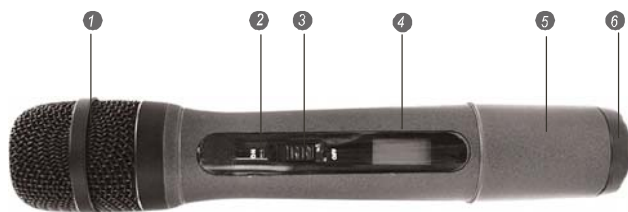
The LEDs A and B are lightning when the UHF link between transmitter and receiver is ok.

Channel can be changed with the switch on the left side.

## HANDHELD MICROPHONE TRANSMITTER SQ-5016 (UHF)

The microphone is equipped with 16 frequencies

1. Microphone capsule
2. Battery status led
3. Power switch (ON/OFF)
4. LCD display
5. Battery compartment
6. Rotative protective cap for controls
7. Lock/Unlock
8. Set
9. UP
10. DOWN
11. Charging Port
12. Name plate



### Microphone settings

#### 1. Making changes to CHANNEL/FREQUENCY

Press on Set for 2 seconds to enter into Settings.

Use UP or DOWN button to go to the Channel/Frequency page. Pressing UP or DOWN button will increase or decrease the channel number. The corresponding frequency will change accordingly. When a desired channel is being selected, it will automatically be saved and stored in the memory.

#### 2. Making changes to SENSITIVITY

Use UP or DOWN button to go to the Set page.. Use UP or DOWN to decrease or increase sensitivity. Level: 1 - 4 . for singing, Level 4 for speech or if microphone is used with a stand

#### 3. Making changes to battery selection

Use UP or DOWN to go to the Battery selection page. Press UP or DOWN to move the cursor to either: NiMH (rechargeable battery) or AKLN (alkaline). When the battery has been selected it is saved and stored in the memory.

### Changing Batteries

2 pieces of AA batteries are used. Unscrew the tap of battery compartment and insert the new batteries. BEWARE OF THE POLARITY



### ⓘ CAUTION: BATTERY

For rechargeable batteries we strongly recommend NiMH batteries, no alkanies. Wrong batteries can damage the microphone functions. Check battery status. Many batteries are known to have leakage problem of conductive and corrosive liquid. Remove the batteries if you do not plan to use the microphone for a few days. Also check that transmitter and receiver are on the same channel.

### HC-30 Charger

Handheld microphones and beltpack transmitters can be reloaded. The charger HC-30 is for the handheld microphone SQ-5016. Before loading check that the batteries are rechargeable ones.





## BELT TRANSMITTER SM-5016 (UHF)



1. Antenna
2. Battery weak indicator
3. Audio mute switch
4. Mini-XLR connector
5. Power ON / OFF switch
6. LCD display
7. Charging port
8. Cover release button
9. Charging contacts
10. Lavalier microphone
11. Mic clip



12. SET
13. UP
14. DOWN
15. GT
16. MT

### Belt transmitter settings

#### 1. Making changes to CHANNEL / FREQUENCY

Press on Set for 2 seconds to enter into Settings.

Use UP or DOWN button to go to the CHANNEL /FREQUENCY page. The cursor will flash to allow changes to be made. Pressing UP or DOWN button will increase or decrease the channel number. The corresponding frequency will change accordingly. When a desired channel(frequency) is being selected, it will be automatically saved and stored in the memory.



#### 2. Input Level Gain Control Adjustment

Low impedance (Lo-Z) " MT" & high impedance (Hi-Z) " GT" gain controls are situated inside the transmitter. Gain controls are adjustment ports that enable you to use microphones of differing output levels and Guitar or instruments with Hi-Z output. To adjust microphone (Lo-Z) input levels, turn the "MT" control and to adjust the Guitar or instrument (Hi-Z) input, adjust the "GT" gain control to set the transmitter's desired audio input level.

#### 3. Making changes to Battery selection

Use UP or DOWN button to go to the Battery selection page. Press SET for about 2 seconds to activate the cursor. Press UP or DOWN button to move the cursor to either NiMH (rechargeable battery) or AKLN (Alkaline battery) position. When the desired option has been selected, press SET for about 2 seconds to save and store the data in the memory.



### Battery Installation

SM-5016 uses 2 pieces of " AA " size batteries (Alkaline battery is recommended ).

To install or remove the batteries, press the release buttons at the edges of the transmitter to open or close the cover as illustrated below.



### ⓘ CAUTION: BATTERY

For rechargeable batteries we strongly recommend NiMH batteries, no alkanies. Wrong batteries can damage the microphone functions. Check battery status. Many batteries are known to have leakage problem of conductive and corrosive liquid. Remove the batteries if you do not plan to use the belt transmitter for a few days. Also check that transmitter and receiver are on the same channel.

### HC-37 Charger

The beltpack transmitter SM-5016 can be reloaded with the charger HC-37. Before loading check that the batteries are rechargeable ones.





### UHF TRANSMITTER RP-6016M

#### Technical specifications of transmitter RP-6016M

UHF 16 frequencies , True Diversity, with Pilotone

1. Power switch (ON/OFF)
2. Antenna socket (TNC)
3. Channel
4. Audio sensitivity: clockwise to increase sensitivity and anti-clockwise to decrease.
5. Output power switch. L for LOW power and H for HIGH power. Low Output power will reduce the RF transmission distance and High Output power will extend the possible RF transmission distance.



The RP-6016M transmitter enables the link between PA-223 and other active sound systems (Xpresso, Nomade UHF, Premio UHF,...) Furthermore, PA-223 can be linked via cable to other passive annex cabinets.



UHF amplified sound system Xpresso



UHF amplified sound system Nomade



UHF amplified sound system Premio








### DIGITAL PLAYER

The PA-223 can be equipped with one USB/MP3 and MMC Card player which can read MP3 and WMA format.



Key	Explanation	Front cover of the player
PLAY/ PAUSE	Starts/ Pauses playback	
STOP	Stops playback.	
UP/CUE Skip	This function allows you to select a specific title. <b>In stop mode:</b> Changes the starting play track (file) during stop mode or cyclics to the first track, if it is the last track. <b>In play mode, pause mode, random play mode:</b> Selects the next titel (file).	
DOWN/ REV Skip	This function allows you to select a specific title. <b>In stop mode:</b> Changes the starting play track (file) during stop mode or cyclics to the last track, if it is the first track. <b>In play mode, pause mode, random play mode:</b> Selects the previous titel (file).	
FOLDER UP	Press this button to select the next folder. <b>In stop mode:</b> Skips the starting play folder and selects the next folder It cyclics to the first folder if it is the last folder. <b>In normal play mode:</b> Skips the current file and selects the next folder's first file.	



Key	Explanation	Front cover of the player
FOLDER DOWN	Press this button to select the previous folder. <b>In stop mode:</b> Skips the starting play folder and selects the previous folder It cyclics to the last folder if it is the first folder. <b>In normal play mode:</b> Skips the current file and selects the previous folder's first file.	
REPEAT	[repeat] mode is changed cyclically shown below Repeat off → repeat one track → repeat all	
RST	System reset.	
RANDOM	All titles are played in a random sequence	
VOL.- VOL.+	Decrease volume Increase volume	
FUNC	This button allows to select CARD or USB mode.	
+10	When this key is pushed during playback, pause or stop, the device selects the 10th MPR3 file which is following the current file. If less than 10 files are left during playback, the device plays the first file..	

## TECHNICAL DATA

<i>Basic Equipment</i>	<b>PA-223</b>
Power Requirements	Operates on AC 240V
Inputs	Mixable inputs: 2 RCA Line control inputs 2 MIC control inputs on XLR (3 pins)  2 RCA auxiliary control inputs Switch ON/OFF Power Supply Input
Volume controls	5 independent volume controls: - MIC/LINE1 - MIC/LINE2 - Aux1 - Aux2 - Master volume control
Voice Priorities	Voice Priority for wireless system SDR-6216M Voice Priority for 1 <sup>st</sup> MIC/Line input for AUX1
Bands EQ	Bass, Mid, Treble
Outputs	1 RCA Rec output 1 Master output on XLR
More Information	Dimensions: 19" x 2U x 190 mm Weight : 3 kg / 6.6 lbs
<b>Options</b>	
RMS Power	70 Watts 1 way amplified <b>or</b> 70 Watts 2 ways amplified
Wireless System	1 UHF 16 Frequency Receiver SDR-6216M
Audio Transmitter	1 Transmitter Module RP-6016M to link to cabinets
Player	USB/MMC Card player T-EM040