PA-223
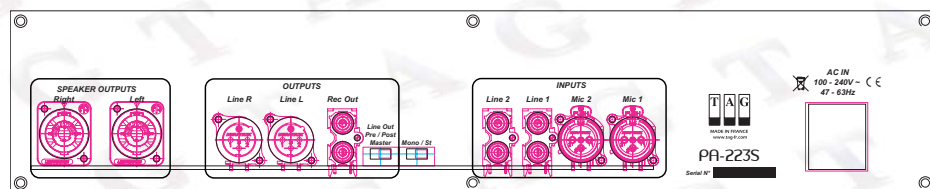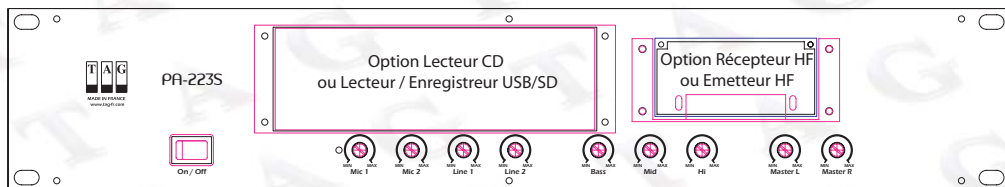## A-140

USER'S MANUAL

Example of one PA-223A-140

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SUMMARY

INTRODUCTION

Thank you for choosing PA-223A-140. To ensure the best performance and get the maximum life out of the equipment, we recommend that you read this manual carefully.

PA-223A-140 is an automatic mixer which can be equipped with 1 player, 1 audio transmitter or/and 1 UHF wireless module. This product only functions on AC main 100-240V, 47-63 Hz.

ADVICE FOR A GOOD USE

✓ Do not use the sound system in a humid or dusty place, or near any heat sources such as radia-tors, 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.

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 dange-rours voltage. To reduce the risk of electric shock, do not remove the cover. Refer servi-cing to qualified personnel.

BASIC EQUIPMENT

POWER SUPPLY INPUT

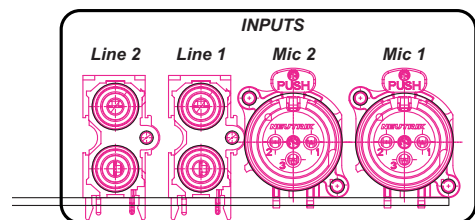AC 110/220 power supply input. Allows working on AC main. It is recommended to use the provided cable.

ON/OFF BUTTON
Use this button to switch on/off the device.

PREAMPLIFIER
automatic mixer stereo 2 x 70 W RMS / 4 ohms

INPUTS

INPUTS

Line 2   Line 1   Mic 2   Mic 1

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 all 4 inputs are connected, you can use them simultaneously. Every input has its own volume control.

TONE ADJUSTMENT

MIN   MAX   MIN   MAX   MIN   MAX
Bass   Mid   Hi
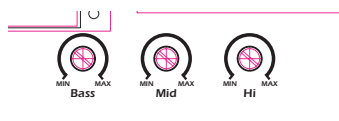
PA-223 is equipped with 3 highly performing tone adjustments.
Bass, Mid, treble : +/- 12 dB efficiency

VOLUME CONTROLS

MIN   MAX   MIN   MAX   MIN   MAX   MIN   MAX
Mic 1   Mic 2   Line 1   Line 2
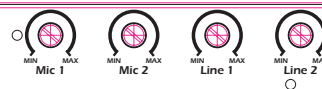
PA-223 is equipped with 4 independent volume controls: MIC1, MIC2, Line1, Line2.

OUTPUTS

SPEAKER OUTPUTS
Right   Left
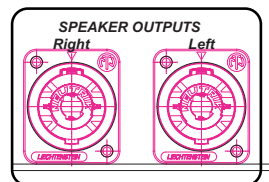
AMPLIFIER 2 x 70 W RMS
Output 2 x 70 W on 4 pole Speakon plug. Cable 1- et 1+

OUTPUTS
Line R   Line L   Rec Out

Line Out
Pre / Post
Master   Mono / St
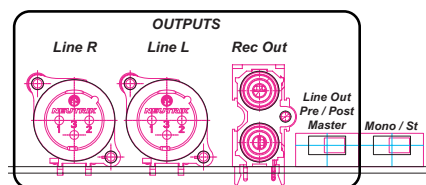
2 balanced XLR outputs (3 pole connector) right and left.

1 Changeover switch Mono/Stereo : Allows to switch the Line output before or after the volume control.
Post: The level of the output depends on the volume control.
Pré: The level of the line output is not modifiable.

1 REC OUTPUT stereo equipped with 2 dual RCA connectors, allowing to connect auxiliary product and to register for example a speech.

OPTIONS

RECEIVER SDR-6216M

On/Off + Volume

Selection of the channel

LED A et B

Technical caracteristics of receiver SDR-6216M
UHF receiver, True Diversity, with Pilotone.
- ✓ **Switch on the receiver:**
  The switch on the right is power switch <u>and</u> 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
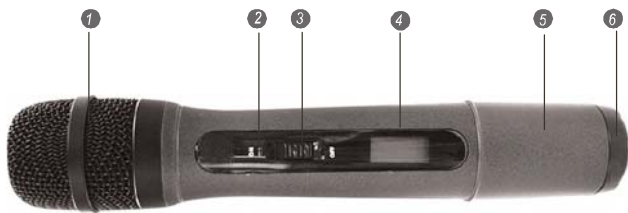
1. Microphone capsule
2. Battery status led
3. Power switch (ON/OFF)
4. LCD display
5. Battery compartment
6. Rotative protective cap for controls
7. Lock/Unlock
8. Set
9. UP
10.DOWN
11.Charging Port
12.Name plate

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 of 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 SENSITIVIY
   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 touse 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.
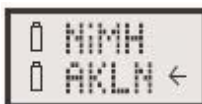
Battery Installation
SM-5016 uses 2 pieces of " AA " size batteries (Alkaline battery is recommended).
To install or remove the batteries, press the release buttons at the edges of the transmitter to open or close the cover as illustrated below.

ⓘ 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

PLAYERS

The PA-223A-140 can be equipped with 1 player. You can chosse between 4: CD/MP3/USB Player (reference CD-456), digital player (reference EM010PR), digital player/recorder (reference EM020R), built in under the LED or digital player (reference T-EM040).

T-EM040
The USB/MP3 and MMC Card player 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. **In stop mode:** Changes the starting play track (file) during stop mode or cyclics to the first track, if it is the last track. **In play mode, pause mode, random play mode:** Selects the next titel (file).	
DOWN/ REV Skip	This function allows you to select a specific title. **In stop mode:** Changes the starting play track (file) during stop mode or cyclics to the last track, if it is the first track. **In play mode, pause mode, random play mode:** Selects the previous titel (file).	
FOLDER UP	Press this button to select the next folder. **In stop mode:** Skips the starting play folder and selects the next folder It cyclics to the first folder if it is the last folder. **In normal play mode:** 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. **In stop mode:** Skips the starting play folder and selects the previous folder It cyclics to the last folder if it is the first folder. **In normal play mode:** 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 alows 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..	

CD-456

The CD player /MP3/USB Plug is equipped with an antichoc memory making it insensible to use handle and vibrations. The absence of drawer makes handling CDs in and out secure. It is equipped with Pitch control.

Keys	Explanation	Front Panel	Remote
PLAY/ PAUSE	If on Stop CD starts playing If on Play it turns to Pause If on Pause the CD starts playing again		
STOP/ EJECT	Stops music or CD ejection		
Pitch Control	Clockwise to increase music speed and anti clockwise to decrease music speed.		
ESP	Anti choc memory. Lasts 40 seconds		
UP/CUE Skip	Single and slightly pressed skips to next track. If pressed again a little longer goes forward in the track. **Play mode:** The selected track starts playing **Stop/Pause mode:** Skips to next track. **Program mode:** Skips to next track according to program selection		
DOWN/ REV Skip	Single and slightly pressed skips to previous track. If pressed again a little longer goes to previous track **Play mode:** The selected tracks starts automatically **Stop/Pause mode:** Playing does not start automatically **Program mode:** Skips to previous track according to program selection		
FOLDER Skip	Enables to skip to next file **Stop mode:** skips to next file **Program mode :** skips to the first track in the next file. **Play mode :** skips to the first track in the next file		

Keys	Explanations	Front panel	Remote
FOLDER Skip	Enables to skip to previous file **Stop mode :** skips to previous file **Program mode:** skips to first track in previous file **Play mode:** skips to first track in previous file		
REPEAT	"REPEAT" in following range repeat all random ⟶ repeat track ⟶ play all ⟶ ⟵ repeat all random repeat ⟵		
PROG	Enables to choose the tracks . To delete this selection press Stop.		
MUTE	**Mute**: to cancel Mute press this button again.		
CD	Changes mode and skips to CD-MP3 mode		
USB	Changes mode and skips to USB mode		
VOL-	Decreases volume by 1 dB (lowest volume = 0dB)		
VOL+	Increases volume by 1 dB (highest volume 30dB)		
FIND	Enables to change the display information (Album or title) and to choose the right title or file.		
0~10	The keyboard enables to choose the title directly by typing title number + Play.		

EM-010PR
This player is equipped with Pitch Control.

Keys	Explanations	Front Panel Player	Remote
POWER	To switch on or off the player		
PLAY/ PAUSE	Play Pause		
STOP USB/Card (FUNC)	Stops music Changes mode		
Pitch Control	Clockwise to increase music speed and anticlockwise to decrease music speed		
UP/CUE Title Skip	Press briefly to skip to next title. Press a little longer (>0,7s) to play forwards within a title **Play mode:** The selected title starts automatically **Stop/Pause mode:** The selected title does not start automatically **Program mode:** Enables to skip to next title.		
DOWN/ REV Title Skip	Press briefly to skip to previous title. Press a little longer (>0,7s) to play backwards within a title. **Play mode:** The selected title starts automatically **Stop/Pause mode:** The selected title does not start automatically **Program mode:** Skips to previous title		
PRE-UP FOL- DER>>	Press this to skip to next file **Stop mode :** to choose next file **Program mode :** to select the first title in next file. **Play mode :** to select the first title in next file		

Keys	Explanations	Front Panel Player	Remote
PRE-DOWN FOL-DER<<	Press this to skip to previous file **Stop mode :** to select previous file **Program mode :** to select the first title in previous file **Play mode :** to select the first title in previous file		
REPEAT	Press this for Repeat function **Repeat 1 track** **Repeat 1 file:** **Repeat all track** **Repeat off ⟶ repeat 1 track ⟶ repeat 1 file ⟶** **⟵ repeat all track ⟵**		
PROG	Press this to select title. To delete the selection press Stop.		
MUTE	**Mute: stops music** Press and music starts again		
INTRO	**Intro**: plays each track for 10 seconds.		
RAN-DOM	Random play mode		
VOL-	Decreases volume by 1 dB (lowest volume = 0 dB)		
VOL+	Increases volume by 1dB (highest volume = 30dB)		
FIND	Press this to change information on display (name of album or title) and to select title or file.		
0~10	Tape directly number of title + play on the keyboard.		

EM020R

MP3 / USB + SD MMC digital player/recorder.

Keys	Explanations	Front panel player	Remote
POWER	On/Off		
PLAY/ PAUSE	Plays music Pause		
STOP	Stops music		
FUNC	To change mode → USB → CARD → AUX →		
UP/CUE Title skip	Press briefly to select next title. Press a little longer to go forward in the title (>0,7s) **Play mode :** The selected track starts automatically **Stop/Pause mode:** The selected track does not start automatically. **Program mode:** Skips to next track according to selection		
DOWN/ REV Title skip	Press briefly to select previous title. Press a little longer to go backward in the title (>0.7s) **Play mode :** The selected track starts automatically **Stop/Pause mode :** The selected track does not start automatically **Program mode :** Skips to previous track according to selection		
DELETE	In **USB mode**, press DEL and use >> Next or << Back to select file. .Press for a while >> Next or << again to select the file. Press on DEL to start deleting the file		

Keys	Explanations	Front panel of player	Remote control
REC	Press briefly the button FUNC to chose: MP3, SD MMC or AUX If you press a little longer you can choose the recording quality **MID→HIGH→LOW→MID** **MID** (128Kbps = medium quality), **LOW** (64Kbps = lowest quality), **HIGH** (256Kbps = highest quality) Select **USB** or **CARD with** >> Next or << Back Press "REC" to start recording . The display indicates **REC WAIT**, then **REC AUX** If you want to stop recording press **STOP**. On the display: **REC OK** **CAUTION : Memory place** You need space on your USB key or your card, otherwise recording will not be possible. The display indicates **REC NG** if problem with recording File structure of recording TM-AUX → AUX001.MP3 / AUX002.MP3 USB Root → TMCDDA → Track001.MP3 / Track002.MP3 TMCDROM → Filename001.MP3 / Filename002.MP3		
PRE-UP FOL- DER>>	Skips to next folder **Stop mode:** skips to next file **Program mode :** skips to the first file in next folder **Play mode :** skips to the first file in next folder .		

Key	Explanations	Front panel Player	Remote control
PRE-DOWN FOL-DER<<	Skips to previous folder **Stop mode :** Skips to previous folder **Program mode:** Selects first title in previous folder **Play mode:** Selects first title in previous folder		
REPEAT	"REPEAT" **Repeat all**: **Repeat album**: **Repeat off** ⟶ **repeat all** ⟶ **repeat album**		
PROG	PROG : to make a selection of titles To delete this selection, press STOP		
MUTE	**Fonction Mute**: music stops To get back to music, press again		
INTRO	**Intro**: each title is being played for 10 seconds		
RAN-DOM	Random play mode		
VOL-	Volume decreases by 1 dB (lowest volume = 0dB)		
VOL+	Increases volume by 1 dB (highest volume 30dB)		
FIND	Press to change the information on display (name of album or title) and to select a title.		
0~10	Tape directly on the keyboard number of title + Play		

TECHNICAL DATA

Basic Equipment	PA-223A-140
Power Requirements	Operates on AC 100-240V, 47-63 Hz
RMS Power	70 Watts 2 ways amplified
Inputs	Mixable inputs: 2 RCA Line control inputs 2 MIC control inputs on XLR (3 pins) Switch ON/OFF Power Supply Input
Volume controls	4 independent volume controls: - MIC1 - MIC2 - LINE1 - LINE2
Bands EQ	Bass, Mid, Treble
Outputs	2 Speakon outputs; 4 pole 1 RCA Rec output 2 balanced outputs on XLR 1 changeover switch Mono/Stereo
More Information	Dimensions: 19" x 2U x 190 mm Weight : 3 kg / 6.6 lbs

Options

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 CD/USB player: CD-456 USB/MMC Card player: EM-010PR USB/MMC Card record player: EM-020R