Warranty statement.

Sound Projections Six Year Limited Warranty.

The Sound Machine SM-4neo is warranted to be free of defects in materials and workmanship for a period of 6 years from the date of original purchase, subject to the following conditions:

- This warranty excludes defects caused by normal wear, abuse, shipping damage or failure to use product in accordance with instructions. All warranty service must be performed or authorized by Sound Projections. Any service or modifications performed without authorization from Sound Projections may void this warranty.

- The Ni-MH rechargeable battery in SM-4neo models is warranted for a period of 3 years.

- Wireless microphone and CD/MP3 player options are warranted for a period of two years.

- Prior to returning your system for repair and/or warranty service, please contact our customer service department at the address below for a Return Authorization (RA) number.

User Guide
Sound Machine SM-4neo
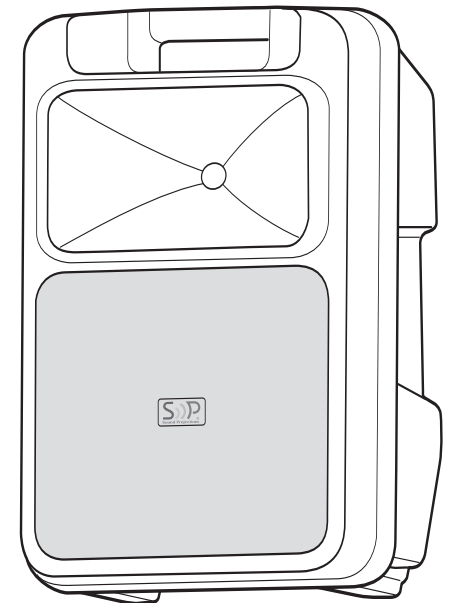
Welcome

Congratulations on purchasing a portable sound system from Sound Projections. Our products combine superior design with quality components and rugged construction. We're proud of the products we manufacture, and appreciate the confidence you've shown by choosing us.

Please take a few of minutes to read this user guide. Our products incorporate many unique features, and your knowledge of them will enhance the performance of your system.

John Munroe, President
and the entire staff at Sound Projections

Unpacking

System inspection and inventory.
Check the unit carefully for damage which may have occurred during transit, and contact the freight carrier immediately should you find damage.

Save the shipping carton and packing materials.
The shipping box was designed to ship your unit safely.

Contents

Replacing the fuse.

Warning! Replace fuse with same type and rating as indicated on panel.

1. Remove power cord plug from panel mounted AC receptacle

2. Pry fuse carrier away from receptacle with small screwdriver

3. Remove fuse to be replaced.

4. Install new fuse

5. Insert fuse carrier with new fuse back into receptacle

6. Plug power cord back into AC receptacle
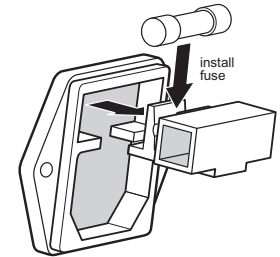
Specifications for SM-4neo.

Rated power output . . . . 200 watts dynamic

Max SPL . . . . 127 dB 'loud' mode
. . . . 120 dB 'normal' mode

Frequency response . . . . 65 Hz - 16 kHz

Wireless system (optional) . . . . Shure 90 channel auto-scan

Battery life . . . . 4-8 hours typical

Power requirements . . . . 110/240 VAC - 50/60 Hz, 200 watts max

Dimensions (HWD) . . . . 23 x 15 x 13" (58 x 38 x 33cm)

Weight . . . . 33 pounds (15 kg)

Inputs . . . . (2) mic level, balanced, XLR
. . . . (1) line level, balanced, XLR
. . . . (1) line level, 1/4" phone
. . . . (1) tape/CD level, dual RCA

Outputs . . . . (1) line level, balanced, XLR
. . . . (1) line level, 1/4" phone
. . . . (1) tape/CD level, dual RCA
. . . . (1) speaker output

Specifications and models subject to change without notice

Using the outputs.

L

tape

R

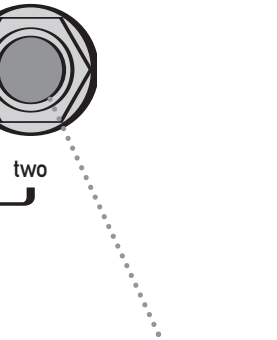output
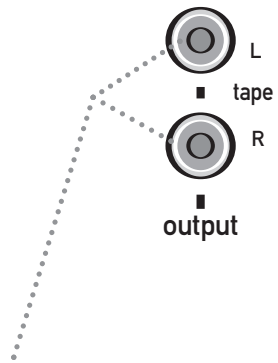
one └ line output ┘ two

Connect RCA outputs to a tape player's input to record the sound system.

The tape output is a line-level, summed and composite signal of the sound system inputs.
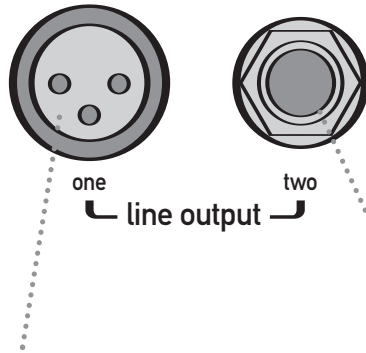
Connect line output one to the balanced input of another system for daisy-chain applications.

Line output one is a balanced, low-impedance and composite signal of the sound system inputs.

Connect line output two to a tape player's input to record the sound system.

Line output two is an unbalanced, line-level and composite signal of the sound system inputs.

Important safeguards

CAUTION AVIS
RISK OF ELECTRIC SHOCK
DO NOT OPEN
RISQUE DE CHOC ELECTRIQUE
NE PAS OUVRIR

CAUTION: To reduce the risk of electric shock, do not remove the cover. No user-serviceable parts inside. Refer servicing to qualified personnel.

ATTENTION: Pour eviter les risques de choc électrique, ne pas enlever le couvercle. Aucun entretien de pièces intérieures par l'usager. Confier l'entretien au personnel qualifié.

WARNING: To prevent fire or electric shock, do not expose this equipment to rain or moisture.

AVIS: Pour eviter les risques d'incendie ou d'électrocution, n'exposez pas cet article à la pluie ou a l'humidité.

Explanation of graphical symbols.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to humans.

The exclamation point, within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Explication des symboles graphiques.

Le symbole éclair avec point de flèche à l'intérieur d'un triangle équilatéral est utilisé pour alerter l'utilisateur de la presence à l'intérieur du coffret de "voltage dangereux" non isolé d'ampleur suffisante pour constituer un risque d'elétrocution.

Le point d'exclamation à l'intérieur d'un triangle équilatéral est employé pour alerter les utilisateurs de la présence d'instructions importantes pour la fonctionnement et l'entretien (service) dans le livret d'instruction accompagnant l'appareil.

Getting started.

Whether you're a first-time user or an experienced presentation professional, the Sound Machine SM-4neo was designed with you in mind. Easy to use and loaded with features, you'll need only a few minutes to set up and begin operation. This user guide is full of valuable information — please read it!

!! Charge the battery!

Your SM-4neo is shipped with the battery fully charged. If stored for more than two weeks before use, plug it in to top off the battery. See "Charging the battery" on page 5.

1. Set up the sound system in front of your audience.

Proper set-up is important. For best sound distribution, put the unit on a speaker stand or table so the sound projects over the audience.

Connecting an SM-4C Companion Speaker.

For expanded crowd coverage, connect unpowered companion speaker SM-4C to the speaker output jack on the lower panel of the Sound Machine.
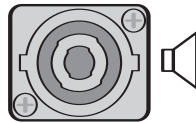
Note: The speaker output is designed specifically for use with the Sound Machine SM-4C companion speaker and SC50-4W or SC100-4W cable — DO NOT use other type external speakers or damage may result!

2. Plug a microphone or audio source into an input jack.

Connect a microphone, tape player or other source to the matching input jack; turn down the corresponding volume knob before turning on the SM-4neo.
(See "Choosing an Input" on pages 6-7 for more information on input selection.)

If using the optional wireless microphone system, use the corresponding knob to control the input volume.
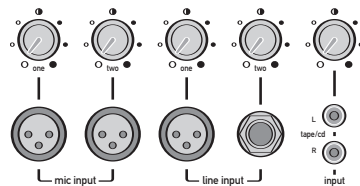
Note: See separate instructions for operation of the CD/MP3 player.

Using talkover.

Press the red button to use the "talkover" feature, which automatically lowers the volume of all other inputs (including optional CD) when speaking on the microphone.

talkover
on — off

When to use talkover.

Use talkover when making voice announcements over music or other program material being played through the sound system (without having to manually adjust the other volume controls). When you stop speaking into the microphone, the volume on other inputs smoothly returns to normal in 3 seconds.

Note: The talkover feature is assigned to optional wireless mic 1 if installed; otherwise, it is assigned to the mic 1 XLR input.)

CD/MP3 player operation.

See separate instructions for operation and features of the CD/MP3 player.

Setting the EQ controls.

Use the 3 equalizer tone controls to adjust for best sound quality and clarity. The top-center mark indicates a 'flat' response.

low   mid   high   loud
equalizer   norm
voice
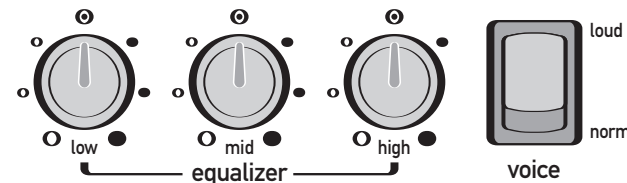
For outdoor / voice applications:

Set the voice switch to "loud" for outdoor and other applications where powerful voice projection is needed.

Turn the "low" control to the 9 o'clock position for maximum voice clarity (reducing the bass level will also increase battery life).

For indoor and/or music playback:

Set the controls to the flat (12 o'clock) position, then adjust for desired sound quality (be sure the voice switch is in the "normal" position).

Set the voice switch to the "normal" position when playing music and for most indoor applications.

Dual wireless system set-up.

Follow these steps to set-up a Sound Machine with two wireless systems:

1. Turn the sound system "on", and turn all transmitters "off".

2. Perform Automatic Frequency Selection on the first receiver (see page 11).

3. Turn the first transmitter "on."

4. Perform Automatic Transmitter Setup (see page 11).

Leave the first transmitter on. Repeat for steps 2-4 for the second system.

!! **Note**: Be sure that only one transmitter's IR port is exposed when synchronizing a system.

Manual Frequency Selection (receiver only)

To manually select a group or a channel, press and hold the channel button. The display alternates between the group number and the channel number.

hold channel button
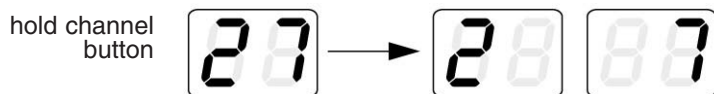
Releasing the channel button while either number is displayed makes that displayed number flash. Then, *press* the channel button while the number is flashing to increase the setting by one.

To activate the newly-selected group or channel, simply wait until the number stops flashing.

to change the *group* value, release the channel button while the first digit displays…

…then press the channel button to increase the value.

to change the *channel* value, release the channel button while the second digit displays…

…then press the channel button to increase the value.

Receiver locking feature.

The wireless receiver has a locking feature which prevents accidental channel changes.

- To lock the channel: Hold the channel button until **both** numbers flash (approximately 10 seconds).

- To unlock the channel: Hold the channel button until **both** numbers flash (approximately 5 seconds).

3. **Turn the power switch ON (plug in power cord for AC operation). Observe LED indicators to confirm battery level and power.**
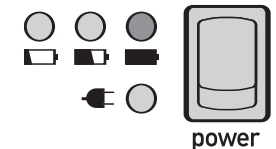
power

Battery Power (upper LED's): The green light indicates the battery is at or near full charge and ready to use. The yellow light means 30-60% usage remains, and red means less than 30% remains and that the battery should be charged before use (see "Charging the battery.")

AC Power (lower LED): The SM-4neo automatically runs on AC power whenever the unit is plugged in and turned on. The green indicator on the bottom row will light indicating full AC operation.

4. **Adjust the volume level and sound quality.**

Increase the volume of the input being used to desired level (be sure the microphone or input source is turned on!) Adjust equalizer and set voice switch as necessary (see pages 6, 7 and 9 for more details).

Charging the battery.

!! **For maximum operating time, charge the battery after EVERY use.**

While it does not harm the battery if the unit is left in a partially discharged state, over time the battery's self discharge will result in a low battery. Optimum charging is achieved when the battery is charged between 0 and 40 degrees Centigrade (32 - 104° F). If the outdoor environment is unusually warm or cold, bring the system indoors before charging. (The Sound Machine may be left plugged into an AC outlet during storage for optimum results.)
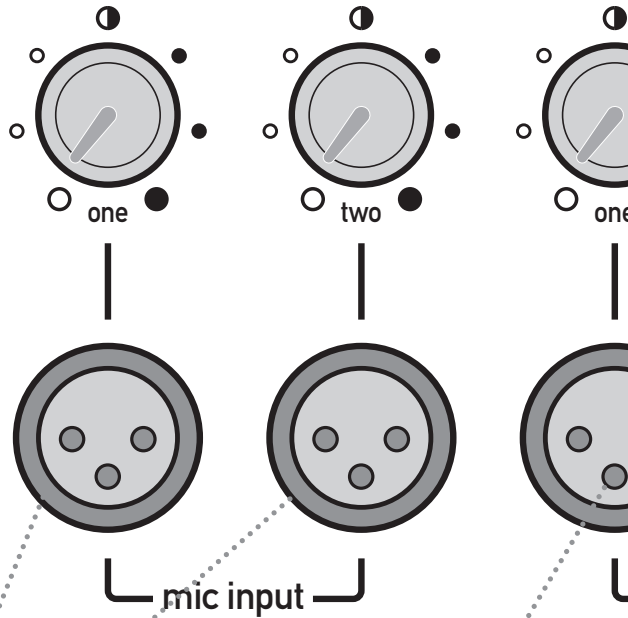
Charging the battery.

Turn the system "off" and plug the cord into a standard AC outlet to charge the battery. The unit automatically begins charging, indicated by the flashing charge LED.

flash = charging

When the charge LED lights steady, the battery is fully charged and the unit is ready for use or storage.

Choosing an input.

one   two   one

⌐ mic input ⌐

Plug a microphone with an XLR connector into mic input one or two. The knob above the jack controls the volume level.

The mic inputs are balanced and low impedance, and supply phantom power (10 volts) for condenser type microphones.

When using long mic cables, use a balanced microphone to help prevent hum and interference.

Plug a balanced, line-level source with an XLR connector (such as the output from a mixer) into line input one. The knob above the jack controls the volume level.

Line input one is a balanced line level input.

Use shielded cable to avoid hum or interference.

To daisy-chain two sound systems together for greater crowd coverage, connect the line output from one system into line input one.
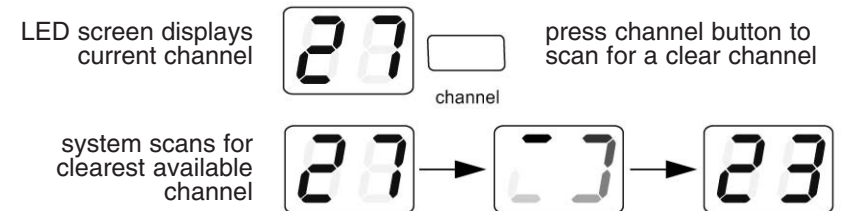
Wireless system set-up.

Each transmitter and receiver pair must be the same frequency, or channel. The Shure wireless system uses transmitter setup to synchronize the transmitter and receiver channels.

Note: transmitting devices such as cellular phones may interfere with wireless audio transmissions. Keep transmitters and receivers away from these and other potential sources of interference.

Single wireless system set-up.

1. Automatic Frequency Selection: Press and release the channel button. This scans for a clear channel and sets the receiver to that channel.

LED screen displays current channel   [27]   press channel button to scan for a clear channel

channel

system scans for clearest available channel   [27] → [ ] → [23]

2. Automatic Transmitter Setup: Turn transmitter "on". Open the transmitter's battery compartment to display the infrared (IR) port (see pages 9 and 10). With the transmitter IR port exposed to the wireless receiver, press and release the **sync** button until the red light stops flashing on both receiver and transmitter.

< 15 cm (8 in.)

or

sync
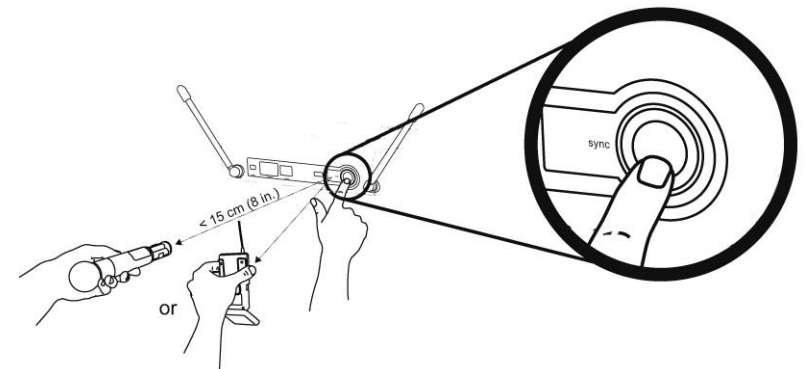
When the receiver's ready light glows green, the system is ready for use. Close the transmitter battery compartment.

Operating the body-pack mic/transmitter.
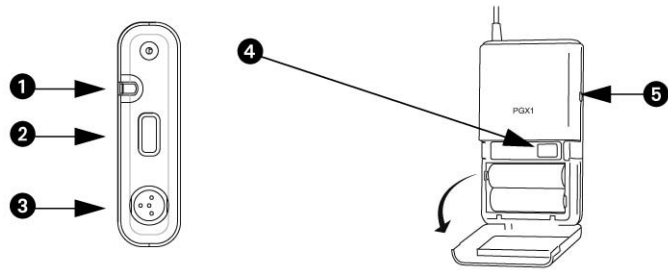
1 Indicator LED for Power / Infrared (IR) / Mute

Green	Ready
Flashing green	Controls locked (see "locking feature" pg 9)
Amber	Mute on
Flashing red	IR transmission in process
Glowing red	Battery power low
Pulsing red on startup	Batteries dead (transmitter cannot be turned on until batteries are charged)
Pulsing red after synchronization	Frequency group incompatible; check transmitter group.

2 On-Off / Mute switch: Press and hold to turn "on" (LED green), press and hold for 2 seconds to turn "off." To mute or unmute, press and release.

3 4-Pin Microphone Input Jack.

4 IR port: Receives infrared beam to synchronize frequencies.

Note: When using multiple systems, only one transmitter IR port should be exposed at a time.

5 Gain adjustment switch (see instructions below)

Changing batteries.

Install 2 new AA alkaline batteries in the transmitter for best results; expected life is approximately 8 hours.

When the transmitter light **1** glows red, replace the batteries.

Adjusting gain.

Three gain settings are available:

- **mic**: low-output microphone.
- **0**: high-output microphone, guitar
- **-10**: Use only if audio is distorted due to high input level.

---

two

— line input —

L

tape/cd

R
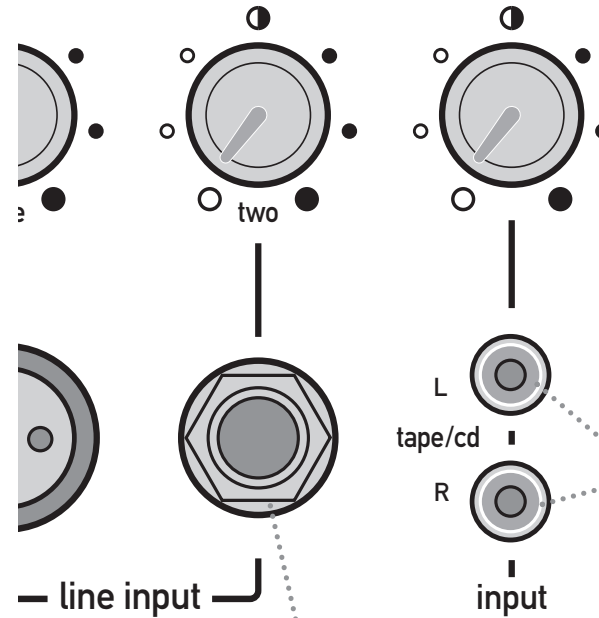
input

Plug any line-level source with a 1/4" phone plug (tape player, music instrument, etc) into line input two. The knob above the jack controls the volume level.

Line input two is an unbalanced line level input.

Use shielded cable to avoid hum or interference.

Plug the outputs from a tape player or external CD player with RCA jacks into the tape/cd input. The knob above the jack controls the volume level.

The tape/cd input is a line level input.

This is a summing input, meaning the left and right channels will combine for a mono input signal.

Wireless system operation.

The Sound Machine SM-4neo is available with single or dual built-in Shure wireless receivers. The instructions on the following pages describe how to set-up and operate the receiver units and wireless transmitters.

Operating the optional wireless mic system.

The built-in wireless receiver(s) turn on automatically when the Sound Machine is turned "on." Raise the paired left/right antennas up and out at a slight angle; single wireless options will have two antennas, dual wireless will have four. Also, note the location of the wireless mic volume controls on the Sound Machine's rear panel.

one
wireless mic

two
wireless mic
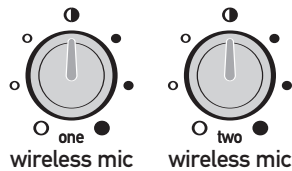
Features and controls of the built-in wireless receiver.

audio   channel   ready   sync
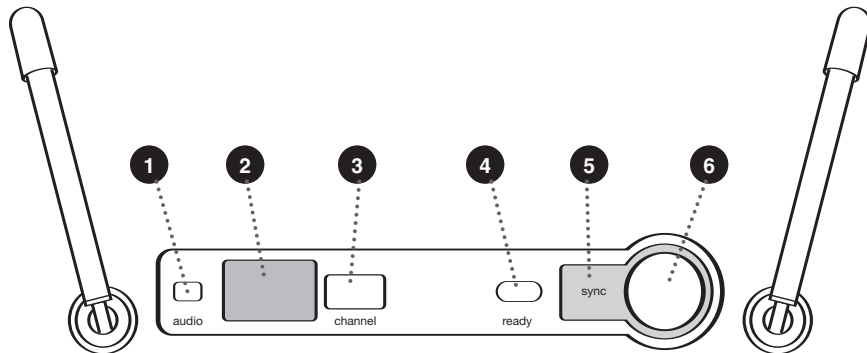
1   **audio** LED: Indicates strength of incoming audio signal: green for normal, amber for strong, red for peak.

2   Channel number readout: See "Single System Setup" on page 11.

3   **channel** button: See "Single System Setup" on page 11.

4   **ready** LED: Green light indicates wireless system is receiving signal.

5   Infrared (IR) port: Broadcasts IR signal to transmitter.

6   **sync** button: Press and release to synchronize transmitter and receiver frequencies.

Operating the handheld wireless mic/transmitter.
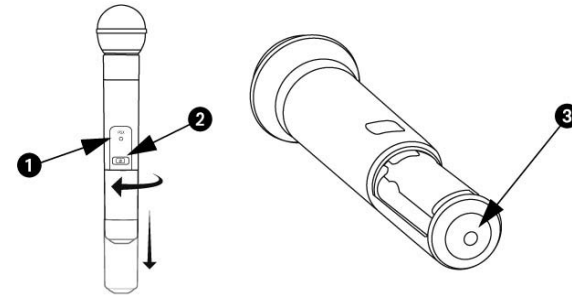
1   Indicator LED for Power / Infrared (IR) / Mute

Green	Ready
Flashing green	Controls locked (see "locking feature" below)
Amber	Mute on
Flashing red	IR transmission in process
Glowing red	Battery power low
Pulsing red on startup	Batteries dead (transmitter cannot be turned on until batteries are charged)
Pulsing red after synchronization	Frequency group incompatible; check transmitter group.

2   On-Off / Mute switch: Press and hold for 2 seconds to turn "on" (LED green), press and hold again to turn "off." To mute or unmute, press and release.

3   IR port: Receives infrared beam to synchronize frequencies.

Note: When using multiple systems, only one transmitter IR port should be exposed at a time.

Changing batteries.

Install 2 new AA alkaline batteries in the transmitter for best results; expected battery life is approximately 8 hours.

When the transmitter light 1 glows red, replace the batteries.
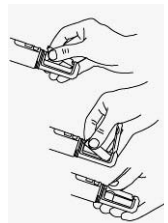
Transmitter locking feature.

The transmitter (handheld and body-pack) has a locking feature which prevents accidental muting or turning off during performance.

• To lock the controls: With the transmitter "off", hold the power button ⏻ down until the green LED flashes (approximately 5 seconds).

• To unlock the controls: With the transmitter "on", hold the power button ⏻ down until the green LED flashes (approximately 5 seconds).