

SubZero

SZW-50

UHF WIRELESS MICROPHONE SYSTEM



SAFETY INSTRUCTIONS AND WARNINGS



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 the user.



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 product.

	CAUTION VORSICHT	
BEFORE OPENING PULL MAIN PLUG	VOR DEM OFFNEN NETZSTECKER ZIEHEN	
CAUTION: TO REDUCE THE RISK OF FIRE REPLACE WITH ONLY SAME TYPE AND RATING OF FUSE		

IMPORTANT SAFETY INSTRUCTIONS

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 accordance with the manufacturer'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-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for 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 plugs, convenience receptacles, and the point where they exit from the apparatus.
Only use attachments/accessories specified by the manufacturer.
Unplug this apparatus during lightning storms or when unused for long periods of time.
Refer all servicing to qualified service 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, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.

PRECAUTIONS

PLEASE READ CAREFULLY BEFORE PROCEEDING

Please keep this manual in a safe place for future reference.

WARNING

Always follow the basic precautions listed below to avoid the possibility of serious injury or even death from electrical shock, short-circuiting, damages, fire or other hazards. These precautions include, but are not limited to, the following:

Power supply/Power cord

- Only use the voltage specified as correct for the device. The required voltage is printed on the name plate of the device.
- Use only the included power cord.
- Do not place the power cord near heat sources such as heaters or radiators, do not excessively bend or otherwise damage the cord, place heavy objects on it, or place it in a position where anyone could walk on, trip over, or roll anything over it.

Do not open

- Do not open the device or attempt to disassemble the internal parts or modify them in any way. The device contains no user-serviceable parts. If it should appear to be malfunctioning, discontinue use immediately and have it inspected by qualified service personnel.
- Do not open the device or attempt to disassemble the internal parts or modify them in any way. The device contains no user-serviceable parts. If it should appear to be malfunctioning, discontinue use immediately and have it inspected by qualified service personnel.

Water warning

- Do not expose the device to rain, use it near water or in damp or wet conditions, or place containers on it containing liquids which might spill into any openings.
- Never insert or remove an electric plug with wet hands.

If you notice any abnormality

- If the power cord or plug becomes frayed or damaged, there is a sudden loss of sound during use of the device, or any unusual smells or smoke should appear, turn off the power switch, disconnect the electric plug from the outlet immediately, and have the device inspected by qualified service personnel.
- If this device is dropped or damaged, immediately turn off the power switch, disconnect the electric plug from the outlet, and have the device inspected by qualified service personnel.

 **WARNING**

Always follow the basic precautions listed below to avoid the possibility of physical injury to you or others, or damage to the device or other property. These precautions include, but are not limited to, the following:

Power supply/Power cord

- Remove the electric plug from the outlet when the device is not to be used for extend periods of time, or during electrical storms.

When removing the electric plug from the device or an outlet, always hold the plug itself and not the cord. Pulling by the cord can damage it.

Location

Before moving the device, remove all connected cables.

When setting up the device, make sure that the AC outlet you are using is easily accessible. If some trouble or malfunction occurs, immediately turn off the power switch and disconnect the plug from the outlet.

Do not use the device in a confined or poorly ventilated location. Make sure that there is adequate space between the mixer and surrounding walls or other devices: at least 1ft. at the side, 1ft. behind and 1ft. above. If the mixer is to be used installed into the speaker cabinet, make sure to allow adequate space between the speaker and the surrounding walls or other devices: at least 1ft. at the sides, 1ft. behind and 1ft. above. Inadequate ventilation can result in overheating, possibly causing damage to the device, or even fire.

Avoid setting all volume controls to their maximum. Depending on the condition of the connected devices, doing so may cause feedback and may cause damage.

Do not expose the device to excessive dust or vibrations, or extreme cold or heat (such as in direct sunlight, near a heater, or in a car during the day) to prevent the possibility of panel disfiguration or damage to the internal components.

Do not place the device in an unstable position where it might accidentally fall over.

Do not block the vents. Do not place the device on its side or upside down. Inadequate ventilation can result in overheating, possibly causing damage to the device, or even fire.

Do not use the device in the vicinity of a TV, radio, stereo equipment, mobile phone, or other electric devices. Doing so may result in noise, both in the device itself and in the TV or radio next to it.

Connections

- Before connecting the device to other devices, turn off the power for all devices. Before turning the power on or off for all devices, set all volume levels to minimum.

Handling Precautions

When turning on the AC power in your audio system, always turn on the device LAST, to avoid speaker damage. When turning the power off, the device should be turned off FIRST for the same reason.

Do not insert your fingers or hands in any gaps or openings on the device (vents, ports, etc.).

Avoid inserting or dropping foreign objects (paper, plastic, metal, etc.) into any gaps or openings on the device (vents, ports, etc.). If this happens, turn off the power immediately and unplug the power cord from the AC outlet. Then have the device inspected by qualified service personnel.

Do not use the device for a long period at a high or uncomfortable volume level, since this can cause permanent hearing loss. If you experience any hearing loss or ringing in the ears, consult a physician immediately.

Do not operate the device if the sound is distorting. Prolonged use in this condition could cause overheating and result in fire.

Do not rest your weight on the device or place heavy objects on it, and avoid use excessive force on the buttons, switches or connectors.

Interference From Cell Phone

Using a cell phone near the device can induce noise. If this occurs, move the cell phone further away from the system.

The manufacturer will not be responsible for damage caused by improper use or modification to the device.

Always turn the power off when the device is not in use. The performance of components with moving contacts, such as switches, volume controls, and connectors, deteriorates over time. Consult qualified service personnel about replacing defective parts.

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Please check all contents upon arrival to ensure you have all the parts. Should you be missing anything, contact the Gear4music Customer Service Centre on 0330 365 4444 or at info@gear4music.com

Receiver	x 1
Wireless Microphone	x 2 (in SZW-50H version only)
Wireless Bodypack	x 2 (in SZW-50L version only)
Lavalier Microphone	x 2 (in SZW-50L version only)
Headset Microphone	x 2 (in SZW-50L version only)
Power Supply	x 1
Jack Cable	x 1
AA Battery	x 4

QUICK SET UP

UHF RECEIVER

1. Place the UHF receiver at a location at least 3,5 feet (1 meter) away from the ground and all the walls. Also, keep the receiver away from any electro-magnetic noise sources as far as possible.
2. Extend the antennas to be perpendicular to the ground.
3. Plug the supplied AC/DC adaptor 12VDC output connector to the receiver's DC input, and then plug the AC input of the adaptor to a 230V AC outlet (make sure to check your mains power before connecting).
4. Connect the outputs of the UHF receiver to microphone inputs of a mixer or a sound system. In order to do so, (1) you could use the supplied microphone cable (a cable with 1/4" connectors on both ends) to connect from the unbalanced output (an 1/4" jack) to an 1/4" microphone input on a mixer or a sound system; or (2) you could get two balanced microphone cables (cables with a male XLR connector at one end and a female XLR connector on the other end; not included in the package) to connect from both the balanced outputs (male XLR jacks) to two balanced microphone inputs (female XLR jacks) on a mixer or a sound system.
5. Turn both audio level adjustment knobs all the way to the minimal audio position. Press the power On/Off switch to the "1" position to turn on the UHF receiver. After the power of the receiver is turned on, the LCD display will be turned on. (Note: The audio level adjustment knobs will be adjusted to its optimal position after the transmitters are turned on as discussed in the following section.)

HANDHELD MICROPHONE (SZW-50H ONLY)

1. Open the battery cover of the handheld transmitter by sliding the battery cover out.
2. Place two 1.5V AA batteries into the battery housing with the battery polarity orientation as indicated.
3. Place the battery cover back on the handheld transmitter by sliding the battery cover back in.
4. Turn on the power of the handheld transmitter.

BODYPACK TRANSMITTER (SZW-50L ONLY)

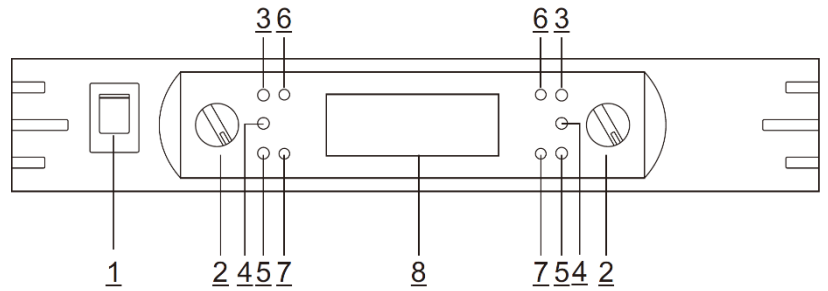
1. Open the battery cover of the body-pack transmitter by pushing the latch button inwards (There is a concaved opening and the latch button is at the lower side of the opening) and flipping open the battery cover.
2. Place two 1.5V AA batteries into the battery compartment with the battery polarity orientations as indicated.
3. Plug the supplied headset or lavalier microphone into the microphone input (a mini XLR jack) on the body-pack transmitter. When the lavalier microphone is used, the AUDIO INPUT ATTENUATION SWITCH needs to be set to the 0dB position. When the headset microphone is used, the AUDIO INPUT ATTENUATION SWITCH needs to be set to the -10dB position.
4. Flip the cover down in the direction toward the latch button to close the battery cover.
5. Turn on the power on.

SETTING UP THE UHF SYSTEM

1. The best wireless reception can be achieved by selecting the same number setup to both channels (or four channels) on the UHF receiver (Selections 1 through 50; Total 50 selections) as follows:
2. If the transmitters need to have their frequencies adjusted to match to the receiver frequencies, utilize the infrared signal windows as follows: Following the previous sections to open the battery covers of the transmitters (either handheld or body-pack). Keep both transmitters' power on. Press the Channel A "IR/SET" button and then align the INFRARED SIGNAL RECEIVING WINDOW to the IR Window of the receiver, the above transmitter will be synchronized to the Channel A frequency and the Channel A RF LED light will be turned on to indicate that the above transmitter's signal has been received by the receiver. (The operating of Channel B/C/D is same as A).
3. Adjust the volume control knobs on the receiver to the maximum position and adjust the mixer or the sound system, which is connected to the microphone outputs, to have an optimal sound level. If the sound seems to be abnormal, it may be caused by the overdriven inputs of the mixer or the sound system. Adjust the volume control knobs on the receiver to a lower level until the abnormal sound quality is removed. The UHF system is now ready.
4. If more than one system is to be used, the frequencies of the systems other than the first one need to be adjusted to be different from one another. First, select the channel number that is different from the other receivers to be used at the same time. (For instance, if there are three receivers to be used at the same time and the frequencies of first two receivers have been selected to be Selection 0 and Selection 9 from the channel, the third receiver can select any channel selection numbers other than Selection 0 and Selection 9.) Then, refer to step one of this section for the frequency transmitters' synchronization details.

FUNCTIONS

1. **POWER ON/OFF SWITCH**
2. **AUDIO LEVEL ADJUSTMENT KNOBS** ---
There are two audio level adjustment knobs, one for each channel. These two knobs are used to raise or lower the audio levels.
3. **DOWN BUTTON** --- This ▲ button is used to increase the channel number.
4. **UP BUTTON** --- This ▼ button is used to decrease the channel number.



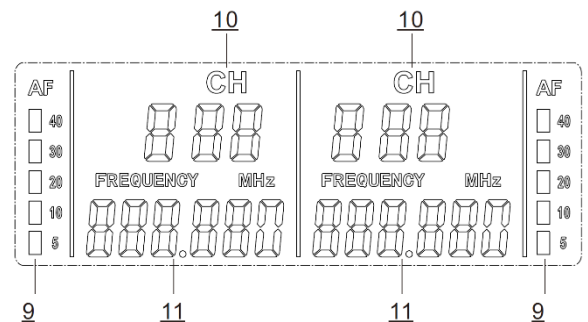
When the ▲ or ▼ button is pressed steadily, the channel number will be increased or decreased in a fast manner until the button is released.

When the desired channel number is displayed, press the IR/SET button to save.

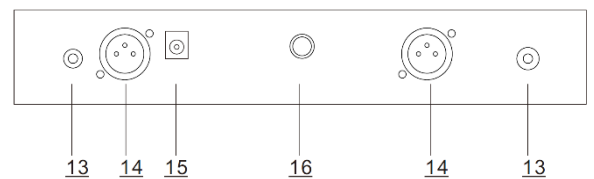
Before the IR/SET button is pressed, the selected channel number display will keep blinking up to 10 times. The receiver will save the selected channel number automatically after the channel number display blinks 10 times.

5. **IR/SET™ BUTTONS** --- There are two IR/SET buttons: one for Channel A and the other for Channel B. These buttons are used to confirm a selected channel number or to synchronize the channel number between receiver and transmitter. To synchronize the transmitter frequency to the receiver frequency, keep the power of the transmitter on, press the IR/SET button, and then align the INFRARED SIGNAL RECEIVING WINDOW to the IR window of the receiver to synchronize the frequency of the above transmitter to the frequency of the receiver.
6. **RADIO FREQUENCY (RF) SIGNAL INDICATORS (Red)** -- These RF indicators are used to indicate the wireless signal is being received from the transmitter.
7. **INFRARED SIGNAL WINDOW (IR WINDOW)**
8. **LCD DISPLAY**

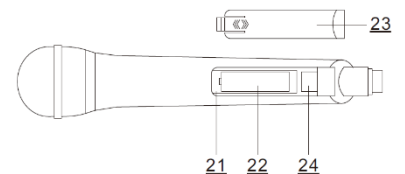
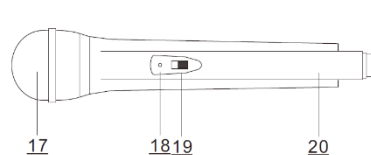
9. **AUDIO FREQUENCY (AF) SIGNAL LEVEL INDICATOR** --- This AF signal level indicator is used to indicate the audio input level of the signal being received from the wireless transmitter.
10. **CHANNEL NUMBER** --- This channel number displays the selected channel for the receiver.
11. **FREQUENCY DISPLAY** --- This six-character frequency display is used to show the current frequency setting.



13. **ANTENNAS**
14. **BALANCED MICROPHONE OUTPUTS (XLRM Jacks)**
15. **12VDC INPUT (Positive Centre)**
16. **UNBALANCED MICROPHONE OUTPUT (1/4" Jack)** --- This is a mixed unbalanced microphone output from both Channel A and Channel B (mixed output).

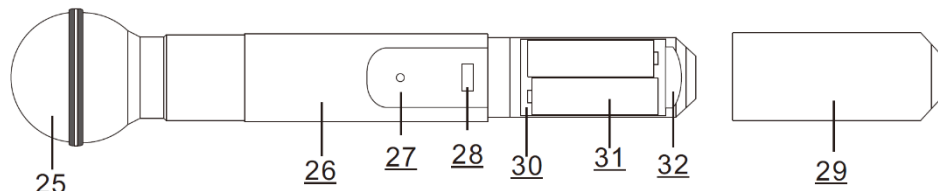


17. **MICROPHONE GRILLE**
18. **POWER ON/OFF LED INDICATOR**
19. **POWER ON/OFF SWITCH**
20. **HANDHELD MICROPHONE BODY**
21. **BATTERY COMPARTMENT**
22. **BATTERIES** --- 2 X AA alkaline batteries or 2 X NiMH rechargeable AA batteries
23. **MICROPHONE BATTERY COVER**



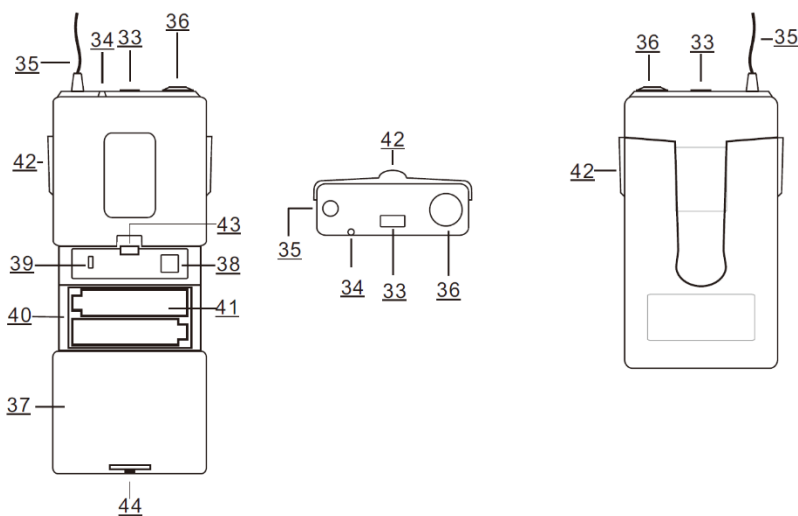
24. **INFRARED SIGNAL RECEIVING WINDOW** --- This IR window is hidden under the microphone battery cover (numeral 22). To synchronize the frequency of the handheld microphone to the frequency of the receiver, the microphone battery cover needs to be opened and set aside to expose this IR window. Place this window 4 inches (10cm) away and facing the receiver IR window to proceed to the transmitter frequency synchronization.

- 25. **WIRELESS HANDHELD MICROPHONE GRILLE**
- 26. **WIRELESS MICROPHONE BODY**
- 27. **POWER LED / MUTE LED INDICATOR**
- 28. **POWER ON/OFF & MUTE**



- 29. **MICROPHONE BATTERY COVER**
- 30. **BATTERY HOUSING**
- 31. **BATTERIES --- 2 X AA alkaline batteries or 2 X NiMH rechargeable AA batteries.**
- 32. **INFRARED SIGNAL RECEIVING WINDOW ---** Place this window 4 inches (10cm) away and facing the receiver IR window to proceed to the transmitter frequency setting.
- 33. **POWER ON/OFF & MUTE BUTTON ---** This button is to be used as a power On/Off switch and as a mute button. When the body-pack transmitter power is off, press and hold this button to turn on the power and the green Power LED Indicator will be turned on. While the power is on, press and hold this button to turn off the power and the green Power LED Indicator will be turned off. If the power is on and this button is pressed, this button will have the body-pack transmitter muted and the power LED indicator will turn yellow. If the body-pack transmitter is muted, press this button to turn off the mute and the power LED indicator will turn back to green. If the power level of the AA batteries is low, the power LED indicator will start to blink between green and yellow.
- 34. **POWER LED (Green) /MUTE LED (Yellow) INDICATOR ---** Please refer to numeral 24 for the details.

- 35. **ANTENNA**
- 36. **MICROPHONE INPUT**
- 37. **BATTERY COMPARTMENT COVER**
- 38. **INFRARED SIGNAL RECEIVING WINDOW ---** This IR window is hidden under the body-pack transmitter battery cover (numeral 28). To synchronize the frequency of the body-pack transmitter to the frequency of the receiver, the body-pack transmitter battery cover needs to be flipped open to expose this IR window. Place this window 4 inches (10cm) away and facing the receiver IR window to proceed to the transmitter frequency synchronization.



- 39. **AUDIO INPUT ATTENUATION SWITCH (0dB & -10dB) ---** This switch needs to be set to the "0dB" position when the lavalier microphone is used. This switch needs to be set to the "-10dB" position when the headset microphone is used.
- 40. **BATTERY COMPARTMENT**
- 41. **BATTERIES --- 2 X AA alkaline batteries or 2 X NiMH rechargeable AA batteries**
- 42. **BELT CLIP**
- 43. **BATTERY COMPARTMENT COVER LATCH**
- 44. **LATCH BUTTON**

SPECIFICATIONS

RECEIVER	
Receiving Mode	Superheterodyne Double Conversion
Sensitivity	15dBuV
Sensitivity Regulating Range	15-30dBuV
RF Squelch	>80dB
Weight	450g
Dimensions	245 x 175 x 44mm

TRANSMITTER	
Antenna	Built In, Quarter Wave Whip
Emission Power	8mW
Max SPL	130dB
Image Spurious Rejection	>70dB
Microphone Cartridge	Handheld: Dynamic, Lavalier + Headset: Condenser
Batteries	AA Batteries

SYSTEM	
Frequency Range	863-865MHz
Modulation Mode	FM
Oscillation Mode	VCO + PLL
Deviation	+/-45KHz
S/N Ratio	30MHz
Total Harmonic Distortion	>85dB
Frequency Response	8 - 15,00Hz (+/-3dB)

Hereby, Gear4music declares that the SubZero SZW-50 is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. The declaration of conformity may be consulted by contacting info@gear4music.com, or writing to Gear4music, Kettlestring Lane, York, YO30 4XF, UNITED KINGDOM.

Should you have any queries about this product, please contact the customer service team on 0330 365 4444, or email info@gear4music.com

