



Bone conduction Hearing Aid

User Manual

Model:

SHOKZHEAR BM400, SHOKZ BM400MN, SHOKZHEAR BM410,
SHOKZHEAR BM410MN, SHOKZHEAR BM420 and SHOKZHEAR
BM420MN



Table of Contents

I.	Overview	5
1.1	Product information	5
1.2	Manufacturer Information	5
1.3	Technical Principle of the Hearing Aid.....	5
1.4	Main Structural Composition	6
1.5	Intended use and indication	6
1.6	Intended operator	6
1.7	Intended operation environment.....	6
1.8	Contraindications	6
1.9	Possible Side Effects	6
II.	Warnings and precautions	7
2.1	Warnings	7
2.2	Precautions.....	8
III.	Packing and environment information	11
3.1	Unpacking and Inspection	11
3.2	Working Environment.....	12
3.3	Storage and Transportation Environment	12
IV.	Specifications	12
4.1	Technical Specifications Table	12
4.2	Safety classification.....	13
V.	Operating instructions.....	13
5.1	Button Diagram and description	13
5.2	Charging and Battery Endurance	15
5.2.1	Battery and Charging Power Connection Conditions:	15
5.2.2	Charging.....	15
5.2.3	Identification of the Power Level	16
5.2.4	Battery Warning	16
5.3	How to Wear	17
5.4	Power On	18
5.5	Bluetooth Pairing and Connection*	19
5.6	Hearing Aid Volume Adjustment	20
5.7	Bluetooth Volume Adjustment*	21
5.8	Switch Mode Presets**	21
5.9	Answer the phone*	21
5.10	Hang up the phone*	22
5.11	Decline the call*	23
5.12	Turn off hearing aid mode*	23
5.13	Turn on hearing aid mode*	24
5.14	Power down	24
5.15	Bluetooth Disconnection*	25
5.16	Bluetooth Reconnect*	25
VI.	Cleaning	26
VII.	Product Maintenance and Warranty	26
7.1	Simple Troubleshooting and Resolution	26
7.2	Manufacturing, Expiration, and Warranty Dates of the Product	28
7.3	Warranty Regulations.....	29
7.4	Performance Malfunction Table.....	29
7.5	Non-warranty Regulations.....	29
VIII.	Explanation of Graphics, Symbols, Wording, etc. Used for Medical Device Labeling	30
IX.	Disposal	31
X.	EMC information	31
XI.	Preparing Date of the User Manual:	36

Introduction

This User Manual contains important information that must be understood for the safe and proper use of this product.

As the User Manual is part of the product, it is essential that all personnel read this manual carefully before using the product.

This User Manual should be passed on to all subsequent owners or users of this product.

Any reproduction, photography, digital post-processing, or copying of this manual is strictly prohibited without the prior consent of Shokz Health Global Limited.

This product is safe and reliable to use, except for potential risks caused by special factors such as improper operation or use for unintended purposes.

Therefore, please comply with the following rules when using the product to prevent any accidents:

- This product must be operated according to the User Manual.
- Only technical personnel from Shokz Health Global Limited. or its authorized facilities are allowed to conduct maintenance on this device.
- For any operational issues not mentioned in this User Manual, please contact Shokz Health Global Limited. in a timely manner
- If there are any modifications to the content of the User Manual, the latest version on the official website shall prevail. Please refer to the website address on the last page.
- Please place the User Manual nearby for reference.
- This Manual is applicable to six models, SHOKZHEAR BM400, SHOKZHEAR BM400MN, SHOKZHEAR BM410, SHOKZHEAR BM410MN, SHOKZHEAR BM420 and SHOKZHEAR BM420MN.
- Please note that the functions marked with an asterisk "*" are only supported by the following models: SHOKZHEAR BM410, SHOKZHEAR BM410MN, SHOKZHEAR BM420, and SHOKZHEAR BM420MN.
- The functions marked with double asterisks "**" are only supported by the following models: SHOKZHEAR BM420 and SHOKZHEAR BM420MN.
- Note: The Bluetooth function has no medical purpose.
- .

· **FCC**

· **FCC Caution FCC ID : 2BEF4-BM420**

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC SAR

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End user must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The portable device is designed to meet the requirements for exposure to radio waves established by the Federal Communications Commission (USA). These requirements set a SAR limit of 1.6 W/kg averaged over one gram of tissue. The highest SAR value reported under this standard during product certification for use when properly worn on the head.

Responsible party (contact for FCC matters only):

Shokz Technology Inc

3200 Gracie Kiltz Lane Suite 300, Austin, TX, USA.(78758)

www.shokzhear.com

I. Overview

1.1 Product information

Name: Bone conduction Hearing Aid Model: SHOKZHEAR BM400, SHOKZHEAR BM400MN, SHOKZHEAR BM410, SHOKZHEAR BM410MN, SHOKZHEAR BM420 and SHOKZHEAR BM420MN

Software Release: V1

Type: Onboard power supply, type BF application

Difference among six models:

Difference term	SHOKZHEAR BM400	SHOKZHEAR BM410	SHOKZHEAR BM420	SHOKZHEAR BM400MN	SHOKZHEAR BM410MN	SHOKZHEAR BM420MN
Bluetooth audio	x	✓	✓	x	✓	✓
Change programs	x	x	✓	x	x	✓
Size	Large	Large	Large	medium	medium	medium

X-No this function

✓-Have this function

1.2 Manufacturer Information

Manufacturer: Shokz Health Global Limited.

After-sales Service Provider: Shokz Health Global Limited.

Address: RM 1003,10/F TOWER 1 LIPPO CTR 89 QUEENSWAY ADMIRALTY HONG KONG

1.3 Technical Principle of the Hearing Aid

The bone conduction hearing aid features an integrated microphone, advanced digital speech processing chip, and high-performance bone conduction vibrator. This product conducts a range of processing on the collected sound, including filtering, noise reduction, wide dynamic range compression, and outputs the processed signal to the bone conduction vibrator to generate vibration. The vibration is further transmitted through the skin and skull to the inner ear to stimulate the cochlea, allowing the user to perceive sound.

1.4 Main Structural Composition

The bone conduction hearing aid is composed of a microphone, signal processing unit, bone conduction vibrator, and lithium battery.

1.5 Intended use and indication

The device is intended to treat patients with hearing loss via bone conduction. The device is non-invasive bone conduction hearing device which is retained on the patient's head.

Indications:

- 1) Patients above 6 years old with conductive or mixed hearing loss. The pure tone average bone conduction hearing threshold (measured at 0.5, 1, 2, and 4kHz) should be better than or equal to 60 dB HL.
- 2) Patients above 12 years old with sensorineural hearing loss. The pure tone average bone conduction hearing threshold (measured at 0.5, 1, 2, and 4kHz) should be better than or equal to 60 dB HL.

1.6 Intended operator

Prescription use device, the product shall be fitted by professional. The patient should be operated follow the doctor's advice and user manual.

1.7 Intended operation environment

Indoor and outdoor

1.8 Contraindications

- 1) Sudden hearing loss within 3 months with ongoing progression,
- 2) Cochlear auditory system lesions
- 3) Other cases in which the doctor has diagnosed that the hearing aid is not indicated for wearing
- 4) Patients who are allergic to the material of this product

1.9 Possible Side Effects

The bone conduction hearing aid is made of medical-grade silicone rubber, which can effectively prevent allergic reactions in the body, but cannot avoid local skin irritation in very rare cases. If you experience any side effects, consult your doctor immediately.

II. Warnings and precautions

2.1 Warnings

- ⚠ Do not place this product near heat sources or open flames, e.g., electric heaters, microwave ovens, stoves, hot water heaters, candles, or other high temperature sources.
- ⚠ When the device is connected to the adapter, do not place it in a hard-to-reach location to ensure that you can disconnect it promptly in case of accidental electric shock.
- ⚠ Changes or modifies this unit by unauthorized responsible party, which may void the user's authority to operate the equipment.
- ⚠ **People younger than 18 should go to a doctor before using this.** People younger than 18 years old need specialized care, and using this without a medical evaluation may worsen impairment or disability. A hearing aid user who is younger than 18 should have a recent medical evaluation from a doctor, preferably an ear-nose-throat doctor (an ENT). Before using this, a doctor should determine that the use of a hearing aid is appropriate.
- ⚠ **WARNING: When to See a Doctor**
If you have any of the problems listed below, please see a doctor, preferably an ear-nose-throat doctor (an ENT).
 - Your ear has a birth defect or an unusual shape. Your ear was injured or deformed in an accident.
 - You saw blood, pus, or fluid coming out of your ear in the past 6 months
 - Your ear feels painful or uncomfortable
 - You have a lot of ear wax, or you think something could be in your ear
 - You get really dizzy or have a feeling of spinning or swaying (called vertigo)
 - Your hearing changed suddenly in the past 6 months
 - Your hearing changes: it gets worse then gets better again
 - You have worse hearing in one ear
 - You hear ringing or buzzing in only one ear

⚠ WARNING to Hearing Aid Dispensers:

You should advise a prospective hearing aid user to consult promptly with a doctor, preferably an ear specialist such as an ENT, before dispensing a hearing aid if you determine through inquiry, actual observation, or review of any other available information concerning the prospective user, that the prospective user has any of the following conditions:

- Visible deformity of the ear, either congenital or traumatic
- Fluid, pus, or blood coming out of the ear within the previous 6 months
- Pain or discomfort in the ear
- History of excessive ear wax or suspicion that something is in the ear canal
- Dizziness, either recent or long-standing
- Sudden, quickly worsening, or fluctuating hearing loss within the previous 6 months
- Hearing loss or ringing (tinnitus) only in one ear or a noticeable difference in hearing between ears
- Audiometric air-bone gap equal to or greater than 15 dB at 500 Hz, 1000 Hz, and 2000 Hz

2.2 Precautions

- Do not disassemble or modify the product and accessories without authorization. Any product damage caused by such actions will not be covered by our company's warranty.
- The Hearing Aid should be professionally examined and audiotologically tested before fitting, and should be used under the guidance of a doctor or a professional hearing aid dispenser.
- Protect the device from moisture, shock and high temperature.
- Do not immerse your hearing aid in any liquid, and remove your hearing aid before swimming, washing your hair, showering or bathing;
- After removing the hearing aid at night, place it in a box with a desiccant to protect it, then store this product and the accessories in a ventilated, cool and dry place and protect them from direct sunlight.
- Use the function and volume control switches correctly, and toggle it gently to avoid excessive force.

- Send the hearing aid to a fitting center for regular maintenance and checkups (every 3-6 months is recommended) to ensure that they are in good condition.
- Do not use this product during the face washing, shaving, makeup, etc.
- Please avoid heavy pressure on the bone conduction oscillator to avoid damage.
- Please avoid bumping or dropping to avoid malfunction.
- When the product is not in use, turn it off by adjusting the power switch.
- For charging, make sure the charging port is dry. In the cases of sweat, accidental rain, or water, DO NOT charge immediately; wipe the product with a clean cotton cloth or paper towel and dry it thoroughly before charging.
- When the product is dirty or stained with sand or dust, please clean it using neutral detergent by wiping it with a spectacle cloth.
- Do NOT wash it directly with water, acidic detergents, or alkaline detergents.
- **Environmental Protection:** Do not dispose of used electrical products indiscriminately. Please dispose of the device in accordance with local laws and regulations to avoid environmental pollution.

➤ **This is not hearing protection.**

You should remove this device if you experience overly loud sounds, whether short or long-lasting. If you're in a loud place, you should use the right kind of hearing protection instead of wearing this device.

➤ **The sound output should not be uncomfortable or painful.**

You should turn down the volume or remove the device if the sound output is uncomfortably loud or painful. If you consistently need to turn the volume down, you may need to further adjust your device.

➤ **What you might expect when you start using a hearing aid.**

A hearing aid can benefit many people with hearing loss. However, you should know it will not restore normal hearing, and you may still have some difficulty hearing over noise. Further, a hearing aid will not prevent or improve a medical condition that causes hearing loss.

People who start using hearing aids sometimes need a few weeks to get used to them. Similarly, many people find that training or counseling can help them get more out of their devices.

If you have hearing loss in both ears, you might get more out of using hearing aids in both, especially in situations that make you tired from listening – for example, noisy environments.

➤ **Note: Tell FDA about injuries, malfunctions, or other adverse events.**

To report a problem involving your hearing aid, you should submit information to FDA as soon as possible after the problem, FDA calls them "adverse events," and they might include: skin irritation in your ear, injury from the device (like cuts or scratches, or burns from an overheated battery), pieces of the device getting stuck in your ear, suddenly worsening hearing loss from using the device, etc.

Instructions for reporting are available at

<https://www.fda.gov/Safety/MedWatch>, or call 1-800-FDA-1088. You can also download a form to mail to FDA.

➤ **Note: Hearing loss in people younger than 18.**

- People younger than 18 should see a doctor first, preferably an ear-nose-throat doctor (an ENT), because they may have different needs than adults.
- The doctor will identify and treat medical conditions as appropriate.
- The doctor may refer the person to an audiologist for a separate test, a hearing aid evaluation.
- The hearing aid evaluation will help the audiologist select and fit the appropriate hearing aid.

A person who is younger than 18 years old with hearing loss should have a medical evaluation by a doctor, preferably an ENT, before buying a hearing aid. The purpose of a medical evaluation is to identify and treat medical conditions that may affect hearing but that a hearing aid won't treat on its own.

Following the medical evaluation and if appropriate, the doctor will provide a written statement that the hearing loss has been medically evaluated and the person is a candidate for a hearing aid. The doctor may refer the person to an audiologist for a hearing aid evaluation, which is different from the medical evaluation and is intended to identify the appropriate hearing aid.

The audiologist will conduct a hearing aid evaluation to assess the person's ability to hear with and without a hearing aid. This will enable the audiologist to select and fit a hearing aid for the person's individual needs. An audiologist can

also provide evaluation and rehabilitation since, for people younger than 18, hearing loss may cause problems in language development and educational and social growth. An audiologist is qualified by training and experience to assist in the evaluation and rehabilitation of hearing loss in people younger than 18.

- Ask about trial-rental or purchase-option programs. If you're unsure about your ability to get used to using a hearing aid, you should ask about a trial-rental or purchase-option program. Many hearing instrument specialists offer programs that allow you to wear a hearing aid for a short time at a nominal fee, before you decide to buy the hearing aid.
- The replacement of lithium batteries or fuel cells by inadequately trained personnel could result in a hazardous situation;
- The product should not be serviced or maintained while in use with the patient.
- At least 30 min required for ME equipment to warm from the minimum storage temperature between uses until it is ready for intended use.
- At least 30 min required for ME equipment to cool from the maximum storage temperature between uses until it is ready for intended use.

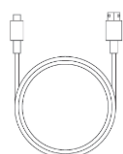
III. Packing and environment information



1) Bone conduction Hearing Aid



2) Storage bag



3) Type-C charging cable
(Not for data transfer, for charging only)



4) User Manual and warranty card
5) Certificate of Conformity

3.1 Unpacking and Inspection

- 1) Check the actual accessories against the accessories list.
- 2) Check that the model number on the warranty card matches the product model.

- 3) Check that the serial number on the warranty card matches the serial number of the product.

3.2 Working Environment

- 1) Temperature Range: 0°C~40°C
- 2) Relative Humidity Range: ≤ 80%
- 3) Atmospheric Pressure Range: 86kPa-106kPa
- 4) Avoid prolonged exposure to high temperatures, humidity or direct sunlight

3.3 Storage and Transportation Environment

- 1) The product should be transported using general cargo transportation methods to prevent direct exposure to sunlight, rain, and snow, and to prevent mechanical collisions.
- 2) For long-term storage, the product should be kept in a well-ventilated, non-corrosive gas indoor environment with a temperature range of -10°C to 45°C and relative humidity not exceeding 80%, Atmospheric pressure: 86 to 106 kPa.

IV. Specifications

4.1 Technical Specifications Table

Model and specification	SHOKZHEAR BM400, SHOKZHEAR BM400MN, SHOKZHEAR BM410, SHOKZHEAR BM410MN, SHOKZHEAR BM420 SHOKZHEAR BM420MN
Maximum OVFL90 / dB rel.1μN	125
HFA-OVFL90 / dB rel.1μN	115
Full-on HFA-AMSL / dB	46
Maximum full-on AMSL / dB	53
Equivalent input noise / dB SPL	<22
Frequency range / Hz	f ₁ <200, f ₂ >6000

Total harmonic distortion @ 500Hz	<2%
Total harmonic distortion @ 800Hz	<1%
Total harmonic distortion @ 1600Hz	<1%
Total harmonic distortion @ 3200Hz	<1%

4.2 Safety classification

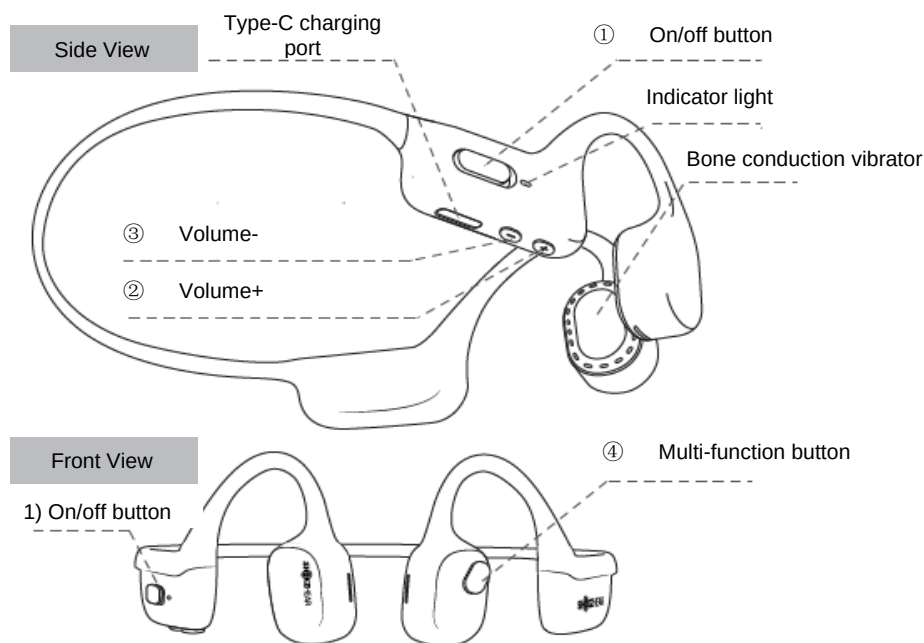
Name	Type
Electric shock protection type	Class II (during charging), onboard power supply (during operation)
Degree of electric shock protection	Type BF
Intended for use in a high-oxygen environments or not	Not intended for use in a high-oxygen environment; Not intended for use with flammable anaesthetics; not intended for use in conjunction with flammable agents;
Operating mode	Continuous operation
Protection class	IP54

Remark:

As patients are expected to be the operators of this product, all surface areas that may contact with the patient are considered Type BF applied parts.

V. Operating instructions

5.1 Button Diagram and description



Specific functions and operations of the buttons:

Button name	Function	Operation
① On/off button	Turn on the hearing aid	Push the [On/Off] button to turn it "On", indicated by green color
	Turn off the hearing aid	Push the [On/Off] button to turn it "Off", indicated by black color
② Volume+	Increase volume	Short press the [Volume+] button to increase the hearing aid volume by one notch
	Turn on hearing aid mode*	Press the [Volume +] button
	Switch Mode presets**	Press and hold the [Volume +] button for 2 seconds.
③ Volume-	Decrease volume	Short press the [Volume-] button to decrease the hearing aid volume by one notch
	Turn off hearing aid mode*	Press and hold the [Volume-] button for 2 seconds.
	Turn on hearing aid mode*	Press the [Volume -] button
	Bluetooth pairing*	Press and hold the [Multi-function] button for 3

Button name	Function	Operation
④ Multi-function button*		seconds
	Answer the phone*	Short press the [Multi-function] button
	Hang up the phone*	Short press the [Multi-function] button
	Decline the call*	Double-click the [Multi-function] button
	Music Play/Pause	Short press the [Multi-function] button

The functions marked with an asterisk "*" are only supported by the following models: SHOKZHEAR BM410, SHOKZHEAR BM410MN, SHOKZHEAR BM420 and SHOKZHEAR BM420MN.

The functions marked with double asterisks "**" are only supported by the following models: SHOKZHEAR BM420 and SHOKZHEAR BM420MN .

5.2 Charging and Battery Endurance

5.2.1 Battery and Charging Power Connection Conditions:

- 1) The product is powered by the onboard power supply, and the battery type is lithium-ion rechargeable battery.
 - Battery Specification: 3.87V/235mAh
 - Charging Power: DC 4.75~5.25V*0.5A
 - Battery life: 3 years

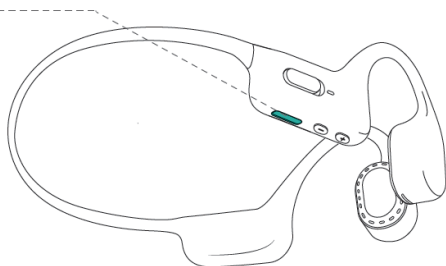
Note: If you use a power adapter to supply power, please use a power adapter that meets the requirements of IEC 60601-1 standard, or use a power supply that has been approved by the relevant authorities and meets the local regulatory requirements (e.g. UL, CSA, VDE, etc.).

- 2) Battery Endurance: After being fully charged, the product can continuously operate for 14 hours under laboratory conditions when using the factory configuration with only the pure hearing aid mode enabled (the battery capacity will decrease with use).
- 3) Charging: The hearing aid takes about 1.5 hour to be fully charged.

5.2.2 Charging

Insert the plug end of the charging cable into the socket and the other end into the Type-C charging port of your hearing aid.

Type-C charging port



Note 1: If your hearing aid is currently charging, the indicator light will appear solid orange.

Note 2: If your hearing aid is fully charged: the indicator light will appear solid white.

Note 3: This product is not available when charging and automatically shuts down. Please power on the product for use after the charging is complete.

5.2.3 Identification of the Power Level

Method 1:

If you are wearing a hearing aid, turn it off and then on again, and then listen carefully to the prompt voice. After the "Power on" prompt voice, there will be a prompt voice indicating the current volume of the hearing aid. They are respectively "Battery high", "Battery medium", "Charge me".

Method 2:

- If you have already taken off the hearing aid, toggle the hearing aid On/Off button to change the on/off state of the hearing aid, and then observe the color of the indicator light:
- If the indicator light is white, this means that the battery level is high.
- If the indicator light is steady orange, this means that the battery level is medium.
- If the indicator light is flashes orange, this means that the battery level is low, please recharge.

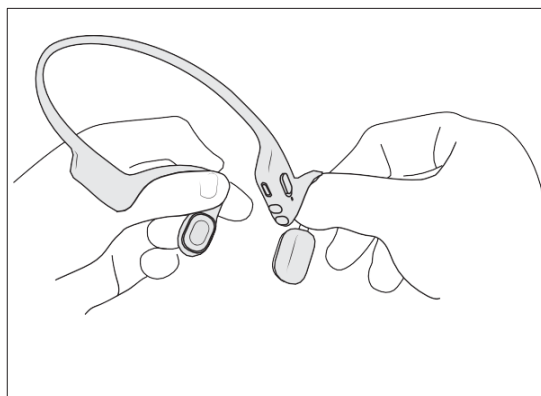
5.2.4 Battery Warning

- ⚠ Do not expose the battery to high temperatures or around heat generating equipment such as sunlight, heaters, microwaves, ovens or water heaters. Overheated battery may lead to explosion;

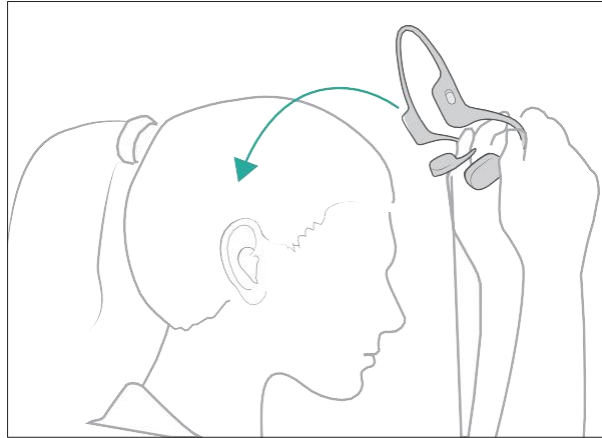
- ⚠ Do not disassemble or modify the battery, insert foreign objects, or immerse it in water or other liquids, as this may cause the battery to leak, overheat, catch fire, or explode;
- ⚠ If the battery leaks, do not let the liquid contact with your skin or eyes. In case of contact with skin or eyes, flush with water immediately and go to hospital for medical treatment;
- ⚠ If the battery is discolored, deformed, or abnormally hot during use, charging, or storage, do not use it;
- ⚠ Do not throw the battery into a fire, which may cause the battery to catch fire or explode. Do not let children or pets swallow the battery to avoid harm or battery explosion.
- ⚠ Do not drop, crush or puncture the battery. Avoid exposing the battery to external pressure, which may cause internal short-circuits or overheating;
- ⚠ The battery inside the device is non-removable. Do not replace the battery by yourself, which may damage the device or the battery.
- ⚠ If this product is not expected to be used for a long period of time, please charge and discharge once a month to avoid damage to the battery performance.

5.3 How to Wear

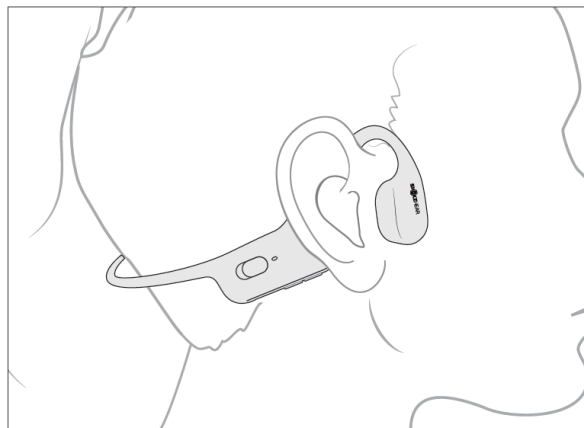
Step 1: Spread your hands apart and hold the hearing aid.



Step 2: Wear the hearing aid from top to bottom in the direction of the arrows shown in the illustration, and then hang the curved ends on both ears.



Step 3: Adjust the position of the hearing aid to ensure that the bone conduction vibrator fits in front of the ear.

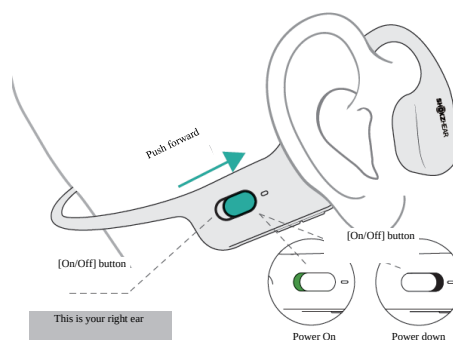


5.4 Power On

Push the [On/Off] button of the hearing aid forward when you wear it.

Note 1: Position of the button: The [On/Off] button is located on the outside of the compartment behind your right ear when you wear it.

Note 2: If the device is turned on successfully: The [On/Off] button will show green and the indicator will light up briefly. If you are wearing the hearing aid, you will hear a prompt voice saying "Power On".



5.5 Bluetooth Pairing and Connection*

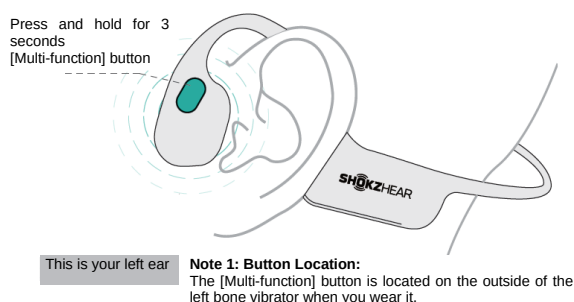
The functions marked with an asterisk "*" are only supported by the following models: SHOKZHEAR BM410, SHOKZHEAR BM410MN, SHOKZHEAR BM420 and SHOKZHEAR BM420MN.

Step 1:

Put on your hearing aid and turn it on.

Step 2:

Press and hold the [Multi-function] button for about 3 seconds until you hear the prompt voice saying "Bluetooth pairing" or see the indicator light next to the "On/Off" button flashing blue and white alternately, then release the button.



Step 3:

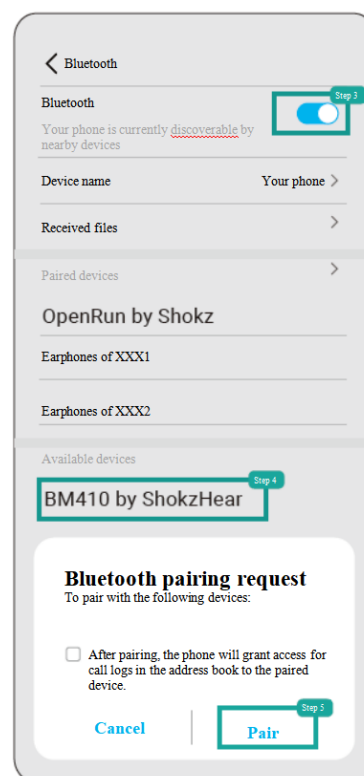
Enter the "Settings" in your mobile phone, tap on the "Bluetooth" option to enter the "Bluetooth" interface, and turn on the "Bluetooth" option.

Step 4:

Locate the "Available Devices" or "Other Devices" in the "Bluetooth" interface, wait for 10-15 seconds until [BM410 by ShokzHear] or [BM420 by ShokzHear] appears in the "Available Devices" or "Other Devices".

Step 5:

Tap on [BM410 by ShokzHear] or [BM420 by ShokzHear], and in the Bluetooth Pairing pop-up window, check "Agree", and then tap "Pair".



Note 1: Button Location:

The [Multi-function] button is located on the outside of the left bone vibrator when you wear it.

Note 2: If the Bluetooth connection is successful:

You will hear a prompt voice saying "Bluetooth connected".

Caution:

If you do not need to connect to Bluetooth, do not long press the button to enter Bluetooth pairing mode, otherwise it may be connected by malicious users. If connected by a malicious user, you can turn off the device or long-press the button again to enter Bluetooth pairing mode and connect to the correct device.

5.6 Hearing Aid Volume Adjustment

Short press [Volume+] button to increase the hearing aid volume.

Short press [Volume-] button to decrease the hearing aid volume.

Note 1: The volume is adjustable in 5 levels, and the level range is 1-5; the default level is level 4.

Note 2: If the volume adjustment is successful:

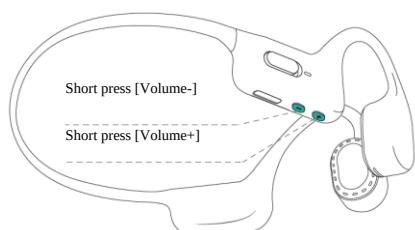
You will hear a prompt voice saying "Volume up/down".

If the volume has been adjusted to maximum/minimum: You will hear a prompt voice saying "Maximum/minimum volume".

Note 2: Button Location:

The [Volume+] button is located at the front of the lower side of the compartment behind your right ear when you wear it;

The [Volume-] button is located at the back of the lower side of the compartment behind your right ear when you wear it;



5.7 Bluetooth Volume Adjustment*

The functions marked with an asterisk "*" are only supported by the following models SHOKZHEAR BM410, SHOKZHEAR BM410MN, SHOKZHAER BM420 and SHOKZHEAR BM420MN.

The Bluetooth volume is the volume of the phone audio heard through the hearing aid, and it is controlled by the volume buttons of your phone.

5.8 Switch Mode Presets**

The functions marked with double asterisks "**" are only supported by the following models: SHOKZHEAR BM420 , SHOKZHEAR BM420MN.

Press and hold the [Volume +] button for two seconds until you hear the prompt voice of "Ding" or "Ding-dong", then release the button. This indicates that the built-in scene mode preset has been switched.

Note 1:

"Ding" indicates switching to preset mode 1.

"Ding-dong" indicates switching to preset mode 2.

Note 2: Button Location:

The [Volume +] button is located at the front of the lower side of the compartment behind your right ear when you wear it.

5.9 Answer the phone*

The functions marked with an asterisk "*" are only supported by the following models SHOKZHEAR BM410, SHOKZHEAR BM410MN, SHOKZHEAR BM420 and SHOKZHEAR BM420MN.

If you want to use your hearing aid to answer a call: After hearing the incoming call ringing, short press the [Multi-function] button.



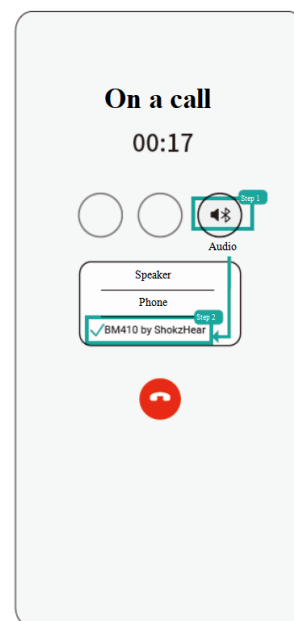
This is your left ear

Note 1: Button Location:
The [Multi-function] button is located on the outside of the left bone vibrator when you wear it.

If you want to answer a call using your phone:
After connecting the Bluetooth of your phone,
tap on the answer button on your phone to
answer a call through your hearing aid.

Note 1:

If you are an iPhone user, after you tap on the answer button on your phone, you will also need to tap on the audio icon in the upper right corner of the answer screen, tap on [BM410 by ShokzHear] or [BM420 by ShokzHear], and then you can answer a call through the hearing aid.



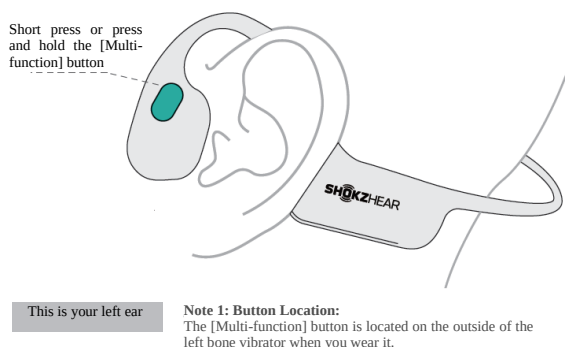
5.10 Hang up the phone*

The functions marked with an asterisk "*" are only supported by the following models SHOKZHEAR BM410, SHOKZHEAR BM410MN, SHOKZHEAR BM420 and SHOKZHEAR BM420MN.

It means "After the call is finished, hang up the phone."

Short press the [Multi-function] button.

Or hang up the call directly on the phone.



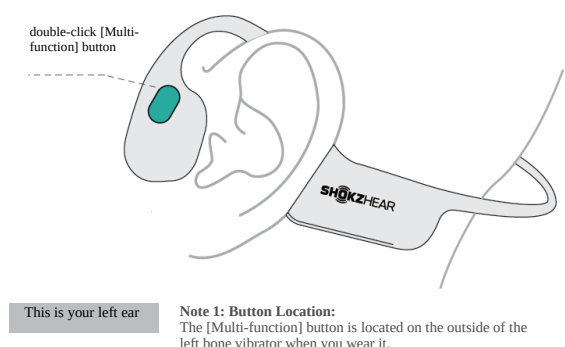
5.11 Decline the call*

The functions marked with an asterisk "*" are only supported by the following models SHOKZHEAR BM410, SHOKZHEAR BM410MN, SHOKZHEAR BM420 and SHOKZHEAR BM420MN.

It means "Refuse to answer a call".

After you hear the incoming call ringing, double-click the [Multi-function] button.

Or you can reject the call directly on the phone.



5.12 Turn off hearing aid mode*

The functions marked with an asterisk "*" are only supported by the following models SHOKZHEAR BM410, SHOKZHEAR BM410MN, SHOKZHEAR BM420 and SHOKZHEAR BM420MN.

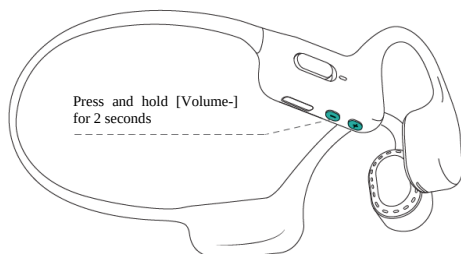
Press and hold the [Volume -] button for 2 seconds until you hear the prompt voice saying "Hearing assist disabled", then release the button.

This indicates that the hearing aid mode has been turned off, and the hearing aid will not have any hearing aid effect. It will only function as a Bluetooth earphone.

Note 1: If the Hearing Aid Mode is successfully turned off: You will hear a prompt

voice saying "Hearing assist disabled".

Note 2: Button Location: The [Volume -] button is located at the back of the lower side of the compartment behind your right ear when you wear it.



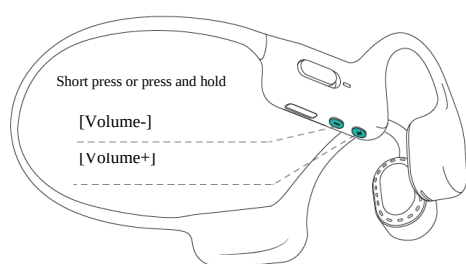
5.13 Turn on hearing aid mode*

The functions marked with an asterisk "*" are only supported by the following models SHOKZHEAR BM410, SHOKZHEAR BM410MN, SHOKZHEAR BM420 and SHOKZHEAR BM420MN.

Short press or press and hold any volume button.

Note 1: If the Hearing Aid Mode is successfully turned on: You will hear a prompt voice saying "Hearing assist enabled".

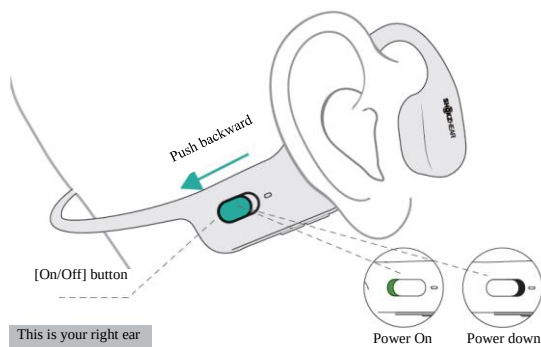
Note 2: Button Location: The [Volume +] button is located at the front of the lower side of the compartment behind your right ear when you wear it.



5.14 Power down

Push the [On/Off] button of the hearing aid backward when you wear it, you will hear ""Power Off" voce prompt.

Note 1: Position of the button: The [On/Off] button is located on the outside of the compartment behind your right ear when you wear it.



Note 2: If the power off is successful: The On/Off button will appear black, and the indicator will light up a color corresponding to the battery level for 2 second. If you are wearing the hearing aid, you will hear a prompt voice saying "Power off".

5.15 Bluetooth Disconnection*

The functions marked with an asterisk "*" are only supported by the following models SHOKZHEAR BM410, SHOKZHEAR BM410MN, SHOKZHEAR BM420 and SHOKZHEAR BM420MN.

Operation from the phone is required.

Method 1:

Turn off Bluetooth on your phone.

Method 2:

Enter "Settings" in your phone, tap on "Bluetooth" to enter the "Bluetooth" interface, tap on [BM410 by ShokzHear] or [BM420 by ShokzHear] in "My Devices", and select "Bluetooth disconnected".

Note 1: If Bluetooth is successfully disconnected: You will hear a prompt voice saying "Bluetooth disconnected".

5.16 Bluetooth Reconnect*

The functions marked with an asterisk "*" are only supported by the following models SHOKZHEAR BM410, SHOKZHEAR BM410MN, SHOKZHEAR BM420 and SHOKZHEAR BM420MN.

If you want to connect Bluetooth again after it has been disconnected:

Turn on Bluetooth on your phone, tap on [BM410 by ShokzHear] or [BM420 by

ShokzHear] in "My Devices" in the Bluetooth interface, and wait for 5-10 seconds.

Note 1: If the Bluetooth re-connection is successful: You will hear a prompt voice saying "Bluetooth connected".

Caution:

1) Users can report vulnerabilities via: zhengrt@shokz.com.cn

2) Data cleaning:

No personal information is stored on the device. If you need to clear your sound configuration, please contact lijx@shokz.com.cn

3) SBOM

Users can obtain SBOM information that meets NTIA requirements through the following contact information: lijx@shokz.com.cn

VI. Cleaning

When the product is dirty or contaminated with sand and dust, please wipe it gently with a soft cloth moistened with neutral detergent. Do not wash it directly with water or use acidic or alkaline detergents, and it is recommended to clean it once a day after use.

VII. Product Maintenance and Warranty

7.1 Simple Troubleshooting and Resolution

Malfunction	Cause	Resolution
No sound during phone call*	1) On IOS phones, when you press the answer button, the sound will be output from the phone speaker by default.	1) After you press the answer button on the phone, select "BM410 by ShokzHear" or "BM420 by ShokzHear" in the sound output option.
No sound from the hearing aid	1) Your Hearing Aid mode is off*	1) Check Section [5.13 Turning on the Hearing Aid Mode] of the Manual*
Intermittent Bluetooth	1) Unstable signal transmission occurs when the	2) The phone and earphone should be within visual range and not more

Malfunction	Cause	Resolution
sound	distance between the phone and earphones is too far	than 10 meters away.
Bluetooth cannot be connected*	1) The Bluetooth of the phone is not enabled 2) The Bluetooth of the earphone enters idle mode after a long disconnection	1) Enable the Bluetooth of your phone, and short press the multi-function button to activate the earphone active reconnect function 2) If none of the above methods work, please refer to the manual [5.5 Bluetooth Pairing and Connection] to re-pair Bluetooth.
Whistling	1) The product is not worn correctly 2) The volume is set too high 3) The Bone conduction vibrator in front of the ear does not fit snugly on the face. 4) Hair or other accessories are interfering with the microphone's pickup. 5) Inappropriate personized fitting	1) Please refer to Section [5.3 How to Wear] of the manual 2) Turn down the volume 3) Reposition the wearing position 4) Keep both microphones unobstructed 5) Seek a professional for personalized fitting
No sound	1) The hearing aid is not turned on 2) Your Hearing Aid mode is off 3) The battery is depleted 4) The bone conduction vibrator is not pressed against the skin in front of the ear	1) Toggle the On/Off button to power switch to restart the hearing aid 2) Check Section [5.13 Turning on the Hearing Aid Mode] of the Manual 3) Recharge the hearing aid and try again 4) Please refer to Section [5.3 How to Wear] of the manual 5) Increase the volume

Malfunction	Cause	Resolution
	5) The volume is set too low	
The volume is too high or the vibration is too strong	1) The volume is set too high 2) The environment is too noisy 3) Inappropriate personalized fitting	1) Decrease the volume 2) Leave the current noisy environment 3) Seek a professional for personalized fitting*
The volume is too low	1) The volume is set too low 2) Inappropriate personalized fitting*	1) Increase the volume 2) Seek a professional for personalized fitting
The volume up to maximum remains inaudible	1) Inappropriate personalized fitting	1) Seek a professional for personalized fitting
Unable to adjust sound level	1) The volume has already been adjusted to the maximum or minimum 2) The buttons are not working	1) Adjust the volume in the opposite direction 2) Contact customer service for repair or replacement

If the above methods fail to solve the problem.

Please call the after-sales hotline: +86 4001509299

Do not disassemble the product by yourself, as it may cause danger and void the warranty or return policy.

7.2 Manufacturing, Expiration, and Warranty Dates of the Product

- 1) Manufacturing Date: see package label
- 2) Service Life: 3 years
- 3) Warranty period: Warranty without charge for non-human damage within 2 years, paid repair for more than 2 years.

7.3 Warranty Regulations

The service is as follows: within the validity period of the three-guarantee, you have the right to return the product, or have the product replaced or repaired according to this regulation. Repairs, replacements, and returns must be processed with the relevant order number or invoice.

- 1) If this product experiences any performance malfunctions listed in the "7.4 Performance Malfunction Table", and it is confirmed after inspection, the following services can be provided free of charge:
- 2) Manufacturer will provide circuit diagrams, component part lists, descriptions, calibration instructions to assist to service personnel in parts repair.

Service type	Service policy.
Return	The product can be returned within 7 days from the date of receipt due to quality issues.
Replacement	The product can be replaced within 15 days from the date of receipt due to quality issues.
Repair	The product can be repaired within 2 years from the date of receipt due to quality issues.

7.4 Performance Malfunction Table

1. The hearing aid does not work after power on.
2. The phone cannot connect to the Bluetooth of the hearing aid or cannot discover the Bluetooth of the hearing aid*.
3. The hearing aid cannot be charged.
4. The hearing Aid cannot be fitted.
5. The hearing aid produces obvious abnormal noise.
6. The hearing aid volume cannot be adjusted by pressing the buttons.
7. No sound or no sound amplification on either side of the hearing aid.

7.5 Non-warranty Regulations

- 1) Unauthorized repair, misuse, collision, abuse, ingestion of fluids, accidents, alterations, improper use of accessories other than those supplied with the

- product, or removal or alteration of labels or tamper-evident markings;
- 2) Failure to use the software specified by us for fitting the hearing aid;
 - 3) Beyond the three-guarantee period;
 - 4) Performance malfunctions listed in the "Performance Malfunction Table" are caused by human factors;
 - 5) Appearance or structural damage to the product are caused by human factors.
 - 6) Damage caused by force majeure.

VIII. Explanation of Graphics, Symbols, Wording, etc. Used for Medical Device Labeling

	Refer to the User Manual		Type BF applied part
	Warning		DC
	Date of manufacture		Batch code
	Do not dispose of with household waste. Please dispose of device according to the laws of your country and facilitate the protection of the environment. Complies with the WEEE directive.		Keep away from sunlight
	This way up		Keep away from rain
	Medical Device		MR Unsafe

IP54

IP 54 Ingress Protection Rating, protected against • 5 indicates protect against dust limited ingress (Dust-protected)
• 4 indicates protect against splashing water.

Rx Only Prescription use

IX. Disposal



At the end of the product life cycle, do not throw this product into the normal household garbage, but bring it to a collection point for the recycling of electronic equipment and battery.

Waste Electrical and Electronic Equipment may have potentially harmful effects on the environment. Improper disposal may lead to the accumulation of harmful toxins in air, water and soil, which is harmful to human health. you have obligation to dispose of device correctly. Consult your municipal authority for information about disposal.

X. EMC information

Guidance and manufacturer's declaration – electromagnetic emission – for all EQUIPMENT AND SYSTEMS

Guidance and manufacturer's declaration – electromagnetic emission		
The BM400 SERIES is intended for use in the electromagnetic environment specified below. The customer or the user of BM400 SERIES should assure that it is used in such an environment.		
Emissions test	Compliance	Electromagnetic environment - guidance
RF emissions CISPR 11	Group 1	The BM400 SERIES uses RF energy only for its internal function. There for, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The BM400 SERIES suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions	Class A	

IEC 61000-3-2		
Voltage fluctuations flicker emissions	Complies	
IEC 61000-3-3		

**Guidance and manufacturer's declaration – electromagnetic immunity –
for all EQUIPMENT and SYSTEMS**

Guidance and manufacturer's declaration – electromagnetic immunity			
The BM400 SERIES is intended for use in the electromagnetic environment specified below. The customer or the user of the BM400 SERIES should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Electrostatic discharge (ESD) IEC 61000-4-2	± 8 kV contact ± 2 kV, ± 4 kV, ± 8 kV, ± 15 kV air	± 8 kV contact ± 2 kV, ± 4 kV, ± 8 kV, ± 15 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrostatic transient / burst IEC 61000-4-4	± 2 kV for power supply lines ± 1 kV for input/output lines	± 2 kV for power supply lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	± 1 kV differential mode ± 2 kV common mode	± 1 kV differential mode	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short	0 % UT; 0,5 cycle g) At 0°, 45°, 90°, 135°, 180°, 225°	0 % UT; 0,5 cycle g) At 0°, 45°, 90°, 135°, 180°, 225°	Mains power quality should be that of a

interruptions and voltage variations on power supply input lines IEC 61000-4-11	180°, 225°, 270° and 315° 0 % UT; 1 cycle and 70 % UT; 25/30 cycles Single phase: at 0° 0 % UT; 250/300 cycle	270° and 315° 0 % UT; 1 cycle and 70 % UT; 25/30 cycles Single phase: at 0° 0 % UT; 250/300 cycle	typical commercial or hospital environment. If the user of the BM400 SERIES requires continued operation during power mains interruptions, it is recommended that the BM400 SERIES be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30 A/m	30 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE U_T is the a. c. mains voltage prior to application of the test level.			

**Guidance and manufacturer's declaration – electromagnetic immunity –
for EQUIPMENT and SYSTEM**

Guidance and manufacturer's declaration – electromagnetic immunity			
The BM400 SERIES is intended for use in the electromagnetic environment specified below. The customer or the user of the BM400 SERIES should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	N/A	Portable and mobile RF communications equipment should be used no closer to any part of the BM400 SERIES, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance $d = \left[\frac{3.5}{V_1} \right] \sqrt{P}$ $d = \left[\frac{12}{V_2} \right] \sqrt{P}$

Radiated RF IEC 61000-4-3	6 V in ISM and amateur radio bands between 0,15 MHz and 80 MHz	10 V/m	$d = \left[\frac{3,5}{E_1} \right] \sqrt{P}$ 80 MHz to 800 MHz
	10 V/m 80 MHz to 2.7 GHz 385MHz-5785MHz Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communication equipment (Refer to table 9 of IEC 60601-1-2:2014)	80 MHz to 2.7 GHz 385MHz-5785MHz Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communication equipment (Refer to table 9 of IEC 60601-1-2:2014)	$d = \left[\frac{7}{E_1} \right] \sqrt{P}$ 800 MHz to 2.7 GHz where p is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in metres (m). ^b Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, ^a should be less than the compliance level in each frequency range. ^b Interference may occur in the vicinity of equipment marked with the following symbol: 

NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic is affected by absorption and reflection from structures, objects and people.

^a The ISM (industrial, scientific and medical) bands between 150 kHz and 80 MHz are 6,765 MHz to 6,795 MHz; 13,553 MHz to 13,567 MHz; 26,957 MHz to 27,283 MHz; and 40,66 MHz to 40,70 MHz. The amateur radio bands between 0,15 MHz and 80 MHz are 1,8 MHz to 2,0 MHz, 3,5 MHz to 4,0 MHz, 5,3 MHz to 5,4 MHz, 7 MHz to 7,3 MHz, 10,1 MHz to 10,15 MHz, 14 MHz to 14,2 MHz, 18,07 MHz to 18,17 MHz, 21,0 MHz to 21,4 MHz, 24,89 MHz to 24,99 MHz, 28,0 MHz to 29,7 MHz and 50,0 MHz to 54,0 MHz.

^b Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an

electromagnetic site survey should be considered. If the measured field strength in the location in which the BM400 SERIES is used exceeds the applicable RF compliance level above, the BM400 SERIES should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the BM400 SERIES.

^c Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3V/m.

Recommended separation distances between portable and mobile RF communications equipment and the EQUIPMENT or SYSTEM - for EQUIPMENT and SYSTEMS

Recommended separation distances between portable and mobile RF communications equipment and the BM400 SERIES				
The BM400 SERIES is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the BM400 SERIES can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the BM400 SERIES as recommended below, according to the maximum output power of the communications equipment				
Rated maximum output of transmitter W	Separation distance according to frequency of transmitter m			
	150 kHz to 80 MHz outside ISM and amateur radio bands $d = [\frac{3.5}{V_1}] \sqrt{P}$	150 kHz to 80 MHz in ISM and amateur radio bands $d = [\frac{12}{V_2}] \sqrt{P}$	80 MHz to 800 MHz $d = [\frac{3.5}{E_1}] \sqrt{P}$	800 MHz to 2.7 GHz $d = [\frac{7}{E_1}] \sqrt{P}$
0.01	0.12	0.20	0.035	0.07
0.1	0.38	0.63	0.11	0.22
1	1.2	2.00	0.35	0.70
10	3.8	6.32	1.10	2.21
100	12	20.00	3.5	7.0
For transmitters rated at a maximum output power not listed above the recommended separation distance d in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.				
NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.				

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

WARNING:

- Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.
- Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this the BM400 SERIES could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation
- Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the BM400 SERIES, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result
- The hearing aid should never be brought into a room with an MRI machine, as damage to the sound processor or the MRI equipment could occur. The sound processor must be removed before entering a room where an MRI scanner is located. If you are to undergo an MRI procedure, refer to the MRI Reference Card included in the document pack.

XI. Preparing Date of the User Manual:

July 2024 Version: V1.0

Warranty Card and Three-guarantee
Voucher

Warranty Period: 2 years

*This card needs to be stamped by the
seller to take effect.

Product information

Model:	SHOKZHEAR BM400, SHOKZHEAR BM400MN, SHOKZHEAR BM410, SHOKZHEAR BM410MN, SHOKZHEAR BM420 and SHOKZHEAR BM420MN
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Product ID:	
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User Information

Name:	Tel:
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Address:

Vendor Information

Vendor name:	
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Date of sale:	
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SHOKZHEAR
WeChat Subscription
Account



SHOKZHEAR
WeChat official
service account

SHOKZHEAR Official Website:
www.shokzhear.com