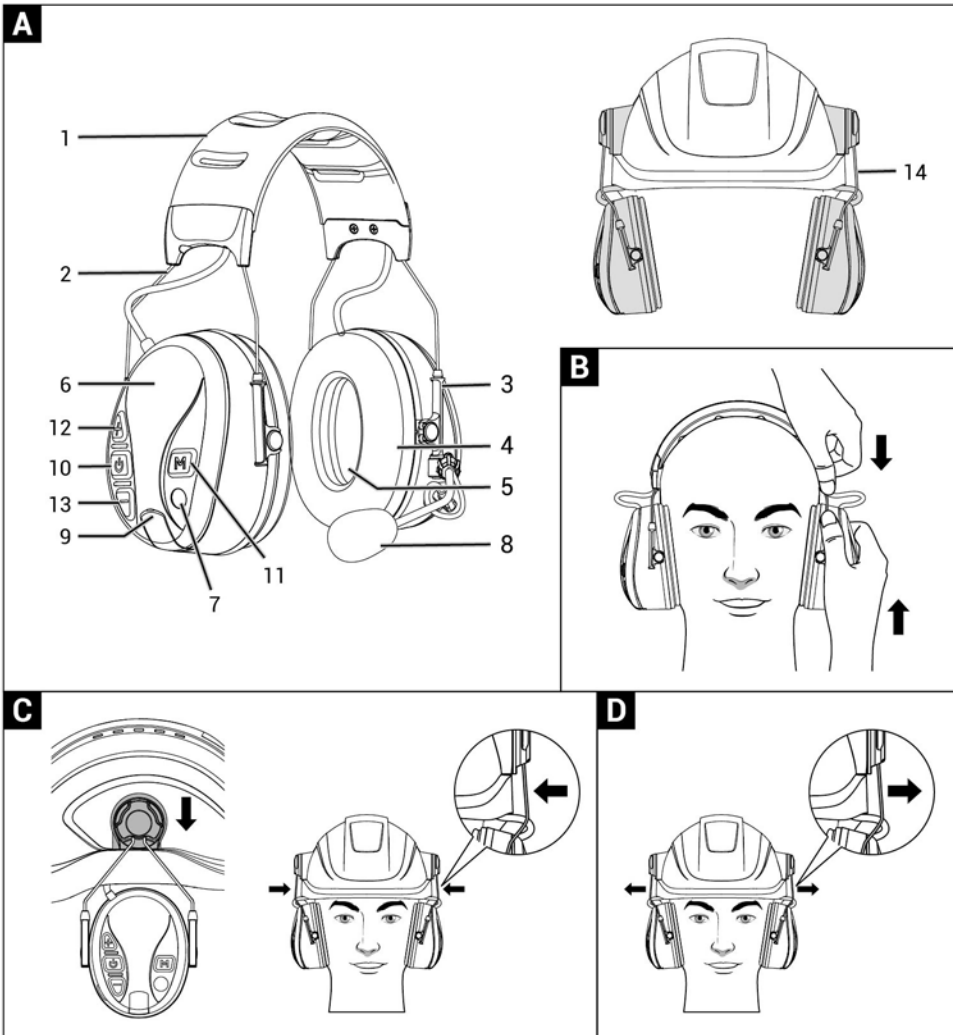


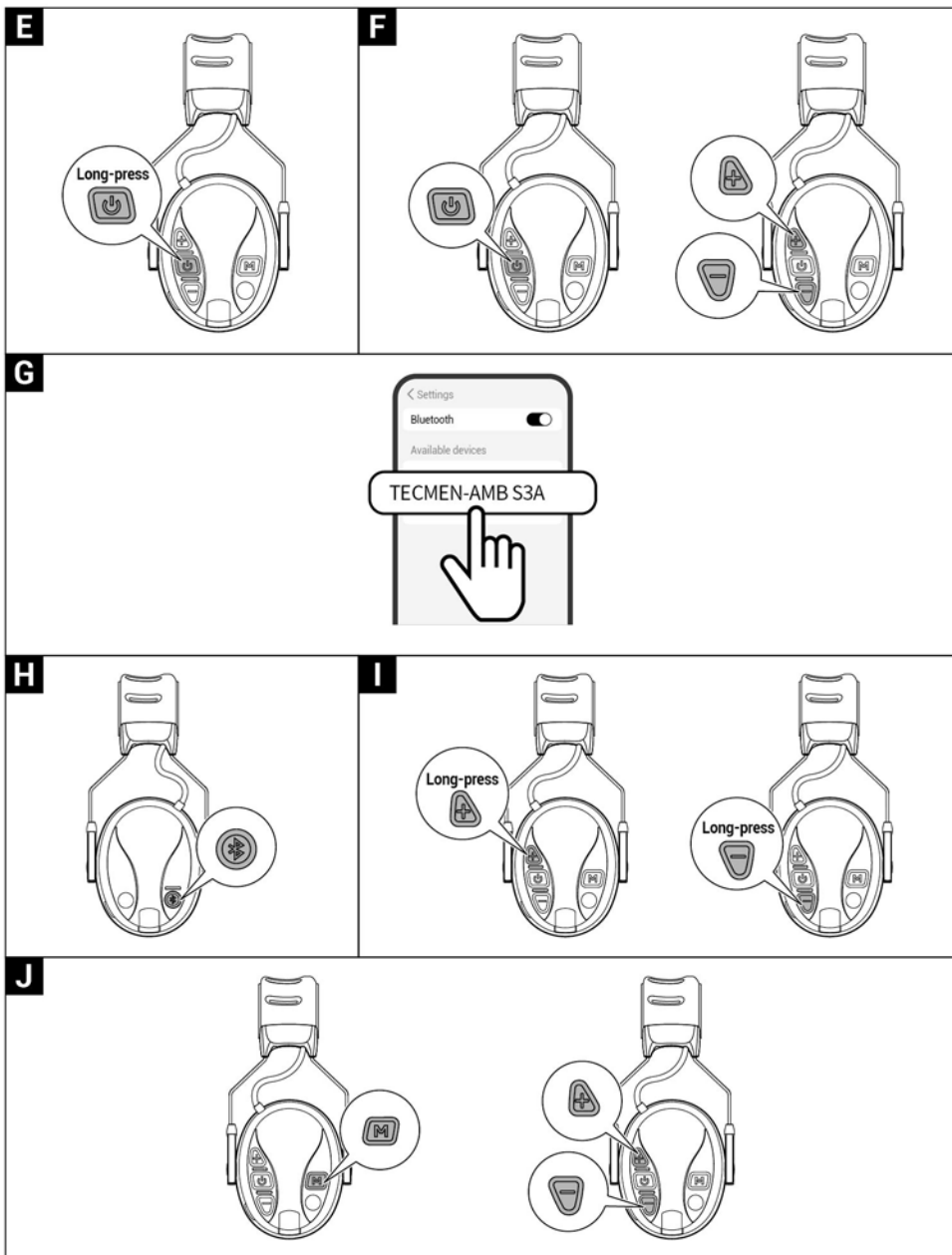


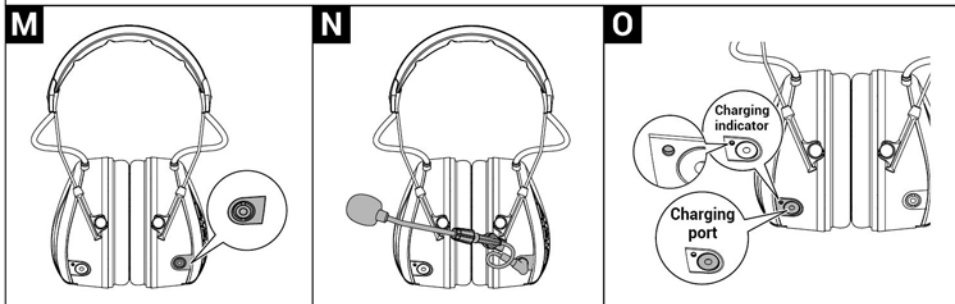
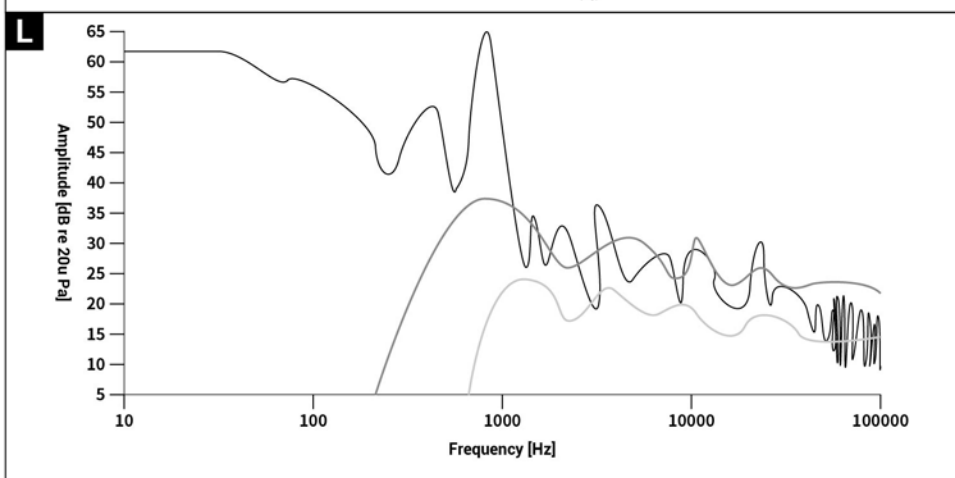
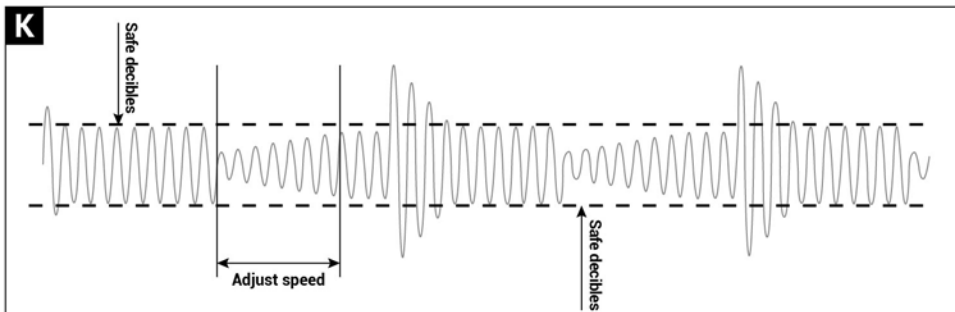
ProQuiet™ Headsets

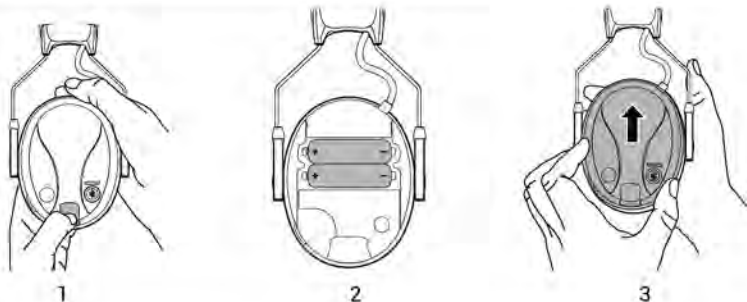
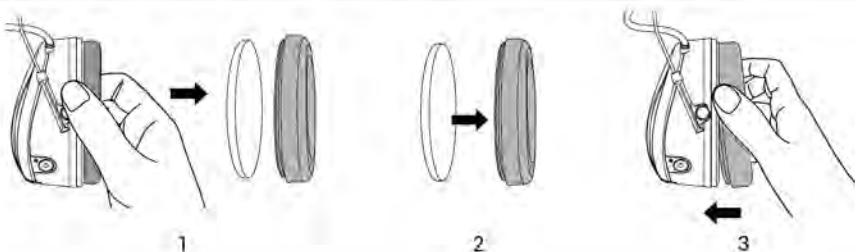
User Instructions









P**Q**

1. OVERVIEW

Thank you for choosing TECMEN PROQUIET AMB Series Headsets!

Please fully read and understand instructions in this user manual prior to use, and retain these instructions for future reference.

This user manual applies to:

Headsets	Hard hat mounted headsets
AMB S0A	AMB S0E
AMB S1A	AMB S1E
AMB S2A	AMB S2E
AMB S3A	AMB S3E

2. INFORMATION TO USER

The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. In cases where the manual is provided only in a form other than paper, such as on a computer disk or over the Internet, the information required by this section may be included in the manual in that alternative form, provided the user can reasonably be expected to have the capability to access information in that form.

3. INTENDED USE

The TECMEN PROQUIET Series Headset is an active over the head earmuff or helmet mounted earmuff with a level dependency function, an electrical audio input (Aux-In), a Bluetooth connectivity for entertainment and communication purposes and an FM Radio receiver.

Up to an input voltage of 150mVrms the entertainment audio signal doesn't exceed 82 dB(A).

Warning: The product shall not be used if it can't be ensured that the input voltage doesn't exceed 150 mVrms.

TECMEN PROQUIET Series Headsets are designed for use in noisy environments such as industry, construction, transportation, and more. These headsets effectively attenuate both continuous and impulse noises, enabling users to work comfortably in loud surroundings (ambient noise level up to 113dB Ho-Noise). Users can easily perceive surrounding sounds while ensuring hearing protection.

4. WARNING ⚠

- The earmuffs are fitted, adjusted and maintained in accordance with the fitting instructions. The earmuffs are worn at all times in noisy surroundings. The earmuffs are regularly inspected for serviceability. If the recommendations are not adhered to, the protection afforded by the earmuffs will be severely impaired.
- Please clean with pure water and do not use liquids containing salt or alcohol. The product may be adversely affected by certain chemical substances. Refer to the TECMEN Technical Service for further information.
- Particularly, cushions may deteriorate with use and should be examined at frequent intervals for cracking and leakage. When used regularly, replace the ear cushions at least twice a year to keep good status for protection.
- The fitting of hygiene covers to the cushions may affect the acoustic performance of the earmuffs.
- The earmuff is provided with level-dependent attenuation. The user should check correct operation before use. If distortion or failure is detected, the user should refer to the TECMEN's advice for maintenance.
- The performance may deteriorate with battery usage the typical period of continuous use that can be expected from the earmuff batteries, when fully charged.
- The output of the audio circuit of this hearing protector may exceed the exposure limit level.
- The audibility of warning signals at a specific workplace may be impaired while using the entertainment facility.
- To reduce the risks of igniting an explosion. Please do not use this product in flammable and explosive environments.
- Failure to follow the information and recommendations in this manual may significantly impact the product's protective performance.
- Incorrect usage of the product may result in hearing loss when exposed to harmful noise.
- The cushions on the product will naturally age with use. Users are advised to regularly inspect them for cracks and consider replacement at least once a year.
- When additional personal protective equipment is necessary (e.g. safety glasses, respirators, etc.), select flexible, low profile temples or straps to minimize interference with the earmuff cushion.
- EU Declaration of Conformity enclosed in the manual.



- Excessive sound pressure from earphones and headphones can cause hearing loss.



- The power delivered by the charger must be between min 1. Watts required by the radio equipment, and max 20 Watts in order to achieve the maximum charging speed USB PD fast charging.

FREQUENCY BANDS AND POWER

	Bands	Operation Frequency	Max.Power
Bluetooth	2.4GHz	2402-2480 MHz	EIRP 3.88 dBm

5. IMPORTANT

- This product features ambient sound pickup alongside noise reduction and includes an FM radio function. Before using, conduct a comprehensive inspection to verify normal functionality and an intact appearance. If any deformation or malfunction is detected, consult the manufacturer's guidelines for maintenance or battery replacement.
- Although the headset can reduce impulse noises, keep in mind that the noise reduction rating is determined based on continuous noise. It may not perfectly indicate the level of protection against impulse noises, such as gunshots.

6. PRODUCT COMPOSITION (Fig. A)

ITEM	PART NO.	Description
A-1		Headband (PVC , ABS, stainless steel)
A-2		Headband wire
A-3		Two-point fastener
A-4	TEC-EAR-01	Cushion (PVC)
A-5		Foam liner (PUR foam)
A-6		Cup (ABS)
A-7		Dust cover of level-dependent microphone
A-8		Noise-canceling microphone
A-9		Buckle
A-10		Power / Mode
A-11		Menu
A-12		"+"
A-13		"-"
A-14		Hard hat adaptor (ABS, stainless steel)

7. SPECIFICATIONS

Images								
Model	AMB S0A	AMB S0E	AMB S1A	AMB S1E	AMB S2A	AMB S2E	AMB S3A	AMB S3E
Surround sound	Yes							
Bluetooth	No		Yes		Yes		Yes	
Noise-cancellation speech microphone	No		No		Yes		Yes	
FM Radio	No		No		No		87.5MHz ~ 108MHz	
SNR	29dB							
Voice guided menu	Yes							
3.5mm Aux input	No		No		No		Yes	
Auto-off	2h							
Rated input	5V, 1A							
Battery Life	100h		100h		100h		70 ~ 100h	
Low-battery warning	Yes							
Battery type (AA)	2*Ni-MH Batteries (1.2V, 2700mAh) Charge temperature: 0°C to 40°C Operating temperature range: -20°C to 55°C							
	2 Alkaline Dry Batteries (1.5V)							

8. FITTING INSTRUCTIONS

1. Headset (Fig. B)

The headband should be positioned above the head, and the height of the cup can be adjusted by sliding it up and down.

2. Hard hat mounted headsets (Fig. C)

- Insert the hard hat attachment in the slot on the hard hat and snap it into place.
- Push the earmuffs inward until you hear a click. Ensure that the cups and headband wire are not pressed against the edge of the helmet to prevent noise leakage. You can adjust the height of the cups by sliding them up and down.
- Push the earmuffs outward to remove them. (Fig. D)

9. OPERATING INSTRUCTIONS

9.1 On/off (Fig. E)

Long-press " " for 2 seconds to power the headset on/off. A voice message will notify "Power on" or "Power off".

9.2 Surround sound adjustment (Fig. F)

When the headset is on, short press " " to enter the sound mode. Upon hearing the voice prompt "Ambient Sound", short press "+" or "-" to adjust the volume. There are 7 levels of volume, with the lowest being mute, which is to turn off the ambient sound monitoring function.

9.3 Bluetooth

1. Bluetooth connection (Fig. G)

When the headset is turned on, find the device name that matches your model (e.g., TECMEN-AMB S3A) on your mobile phone's Bluetooth page and click to connect. Upon successful connection, you will hear the voice reminder "Bluetooth Connected".

2. Bluetooth volume adjustment (Fig. F)

When the headset is on, short press " " to enter the sound mode. Upon hearing the voice prompt "Bluetooth Volume", short press "+" or "-" to adjust the volume. There are 7 levels of volume, with the lowest being mute, which is to turn off the Bluetooth volume.

3. Play / pause music (Fig. H)

Short press " " to pause or resume music.

4. Answer/decline incoming calls

- When the Bluetooth is on, short press " " to answer the incoming call, or long press " " to decline.
- When a call is in process, short press " " to hang up.
- When you are on a call and a second incoming call occurs, short press " " to answer the second call and keep the first one on call waiting, or long press " " to decline the second call.

5. Calls volume adjustment

When the call is connected, short press " " to enter the phone volume mode. Upon hearing the voice prompt "Phone Volume", then short press the "+" or "-" button to change the phone volume.

9.4 FM Radio

1. Turn on the radio (Fig. I)

- When the headset is on, long press the "+" button until you hear the voice reminder "Radio On", indicating entry into the FM Radio mode.
- Long press "-" until you hear the voice reminder "Radio Off" to exit the FM Radio mode.

2. Search Station (Fig. J)

Press " " and after hearing the voice reminder "Search Station", use the "+" or "-" buttons to select the

desired channel within the range of 64-108 MHz. To obtain voice frequency information for the current channel, press and hold the "+" button for two seconds.

3. Store Station (Fig. J)

It can realize the storage of 5 frequency bands. Short press "M" until you will hear the voice reminder "Store Station". After long pressing "+" to store the current channel information, you will hear the voice reminder "Store Confirmed".

4. Preset Station (Fig. J)

Short press "M" to access the stored channel. Upon hearing the voice prompt "Preset Station", use the "+" or "-" buttons to select the desired channel.

5. FM Radio volume adjustment (Fig. F)

When the headset is on, short press the "🔊" button until you hear the voice reminder "Music Volume". Short press "+" or "-" to adjust the volume, there are 7 levels of volume, with the lowest being mute.

6. No signal

Voice reminder of "No Signal" .

9.5 Sound quality adjustment

1. Enter sound quality adjustment

Long press "M" for 2 seconds to adjust sound quality. Upon hearing the voice reminder "Menu", short press to switch between setting items "Adjust Speed", "Balance", "Surround Bass", "Play Bass".

2. Exit sound quality adjustment

Long press "M" for 2 seconds to exit sound quality adjustment, or wait for a few seconds for auto-exit. You will hear a beep sound upon exit.

3. Adjust speed (Fig. K)

- This adjustment controls the speed at which the headset returns from low to normal volume, particularly useful in scenarios with loud noises, such as a heavy hammer (around 100dB), where the headset can quickly attenuate the noise within the earmuff. Once the noise diminishes, the earmuffs' return to normal volume depends on the adjust speed, which is available in two levels: "Normal" and "Fast". Use the "+" or "-" button for short presses to adjust the required level, accompanied by the corresponding voice reminder.
- The "— —" line indicates the safe and appropriate volume level. When ambient sound exceeds this safe level, the earmuffs quickly suppress external noise. In low ambient volume conditions, the earmuffs automatically amplify the sound to an appropriate level.

4. Balance

There are three balance levels for the left and right channels: "center", "right", and "left". Use the "+" or "-" buttons for adjustment, and you will hear the corresponding voice reminder.

5. Surround bass (Fig. L)

Adjust the three levels of low-frequency sound components in ambient noise ("normal", "stronger", and "weaker") using short presses of the "+" or "-" button. Each adjustment is accompanied by a corresponding voice reminder.

- Strong "———" line: no processing is performed on ambient low-frequency sounds.
- Normal "———" line: filters ambient sounds below 200Hz.
- Weaker "———" line: filters ambient sounds below 600Hz.

6. Play bass

Play bass refers to the low-frequency sound component of the external input source of the radio and Aux. Choose between two levels - "normal" and "stronger" by using the "+" or "-" button with short presses, each accompanied by a corresponding voice reminder.

9.6 External input jack

1. Device connection (Fig. M)

Connect external devices using the separately purchased 3.5mm cable input jack. Please note that the Aux jack is designed to receive audio sources and does not output audio to external devices.

2. Volume adjustment (Fig. F)

When the headset is active, short press " " to choose the sound mode. When you hear "Music Volume", use the "+" or "-" buttons for volume adjustment. There are seven levels, with the lowest being mute.

9.7 Noise-canceling microphone (Fig. N)

The headset jack located on the left side is the 3.5mm jack, which is different from the power and Aux jacks on the right side. When using the headset for Bluetooth calls with a mobile phone, position the headset near your mouth for effective voice noise cancellation. The sponge on the headset serves to prevent wind and dust.

Equipped with a noise-cancelling microphone and artificial intelligence processing for clear communication in noisy environment (110 dBA).

9.8 Charging

1. Charge using a charger (Fig. O)

Connect the charger to the charging port. Red LED light indicates charging; green LED light signals full charge.

 Do not charge the product when Alkaline dry batteries (1.5V) are being used.

2. Battery replacement (Fig. P)

Open the outer cover on the left side of the earmuff, replace the lithium battery with a new one (please pay attention to the battery's positive and negative polarity marks), and reinstall the cover.

* Replace the two Ni-MH rechargeable batteries (1.2V) or two alkaline dry batteries (1.5V). Do not mix Ni-MH batteries with alkaline dry batteries.

 Do not use 3.7V lithium batteries.

10. HEADSET STATUS

10.1 Operation time

- Bluetooth + Ambient sound: 100 hours
- FM Radio + Bluetooth + Ambient sound: 70 hours

10.2 Auto-off

The product will automatically power off after 2 hours of inactivity to conserve energy.

10.3 Warning

- The earmuff is provided with safety-related audio input. The user should check correct operation before use. If distortion or failure is detected, the user should refer to the TECMEN' s advice for maintenance.

11. MAINTENANCE

11.1 Replace the ear cushion (Fig. Q)

- Hold the edge of the ear cushion and pull it outwards to remove.
- Remove existing liner and insert new foam liner.
- Fit one side of the ear cushion into the groove of the cup and then press on the opposite side until ear cushion fit in place.
- The earmuffs and clamps are bonded with glue. To maintain optimal noise reduction performance, it is recommended to replace both at the same time when needed.

Please contact TECMEN or an authorised distributor to order the replacement parts.

12. CLEANING & MAINTENANCE

12.1 Cleaning

Clean the earcups by wiping them with a damp cloth to remove dust and dirt. Do not use strong cleaners or chemicals to prevent damage.

12.2 Replace the earcups

Replace earmuffs promptly if they are damaged, aged, or lose elasticity. Do not keep using damaged earmuffs to maintain the intended protective effect.

12.3 Storage

Store the product in a dry and ventilated location when not in use. Avoid exposure to hot or humid environments, as this may lead to damage.

12.4 Follow the manufacturer's advice

Make sure to read and follow the instructions from the manufacturer before using or servicing the product. This helps you use and maintain the product correctly, thereby prolonging its lifespan.

Manufacture date: MM/YYYY

Shelf Life: 5 years since the date of manufacture.

12.5 Operating temperature

– Operating Temp.: 4°F (-20°C) to 131°F (55°C)

– Storing Temp.: -4°F (-20°C) to 131°F (55°C)

AMB S0E, AMB S1E, AMB S2E, AMB S3E

COMPATIBLE SAFETY HELMETS:

Hard Hat Manufacture	Hard Hat Model	Attachment	Head size
TECMEN	M3.01	E	M, L

LABORATORY ATTENUATION:

EN352-1: 2020

AMB S0A, AMB S1A, AMB S2A, AMB S3A

Headband with foam cushion TEC-EAR-01

Size: S, M, L

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000	SNR 29dB
Mean attenuation (dB)	17.7	17.9	21.9	26.8	30.3	32.8	42.3	38.8	
Standard deviation (dB)	4.1	3.2	2.3	3.1	3.5	4.8	2.6	2.9	
Assumed Protection Value (dB)	13.6	14.7	19.6	23.7	26.8	28	39.7	35.9	

	SNR	H	M	L
Mean attenuation (dB)	31	33.7	28.5	23.5
Standard deviation (dB)	2.2	3.5	2.1	2.2
Result	29	30	26	21

Mass: 460 g (batteries incl.)

EN352-3: 2020**AMB S0E, AMB S1E, AMB S2E, AMB S3E****Headband with foam cushion TEC-EAR-01****Size: M, L**

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000	SNR 29dB
Mean attenuation (dB)	19.0	19.6	20.8	27.0	30.8	33.1	39.7	36.1	
Standard deviation (dB)	4.0	3.4	3.3	2.8	3.7	3.2	3.0	5.3	
Assumed Protection Value (dB)	15.0	16.2	17.5	24.2	27.2	29.8	36.7	30.9	

	SNR	H	M	L
Mean attenuation (dB)	31.1	33.8	28.7	23.6
Standard deviation (dB)	2.2	2.5	2.3	2.6
Result	29	31	26	21

Mass: 476 g (batteries incl.)

EN352-4: 2020**Level-dependent Earmuffs**

Products that are intended for both use in impulse-type and continuous-type noise situations.

Criterion Levels:

H	113 dB(A)
M	111 dB(A)
L	102 dB(A)

Earmuff settings:

Surround-Bass: "Strong"

Speed: "Fast"

H = frequency higher than 2000 Hz

M = frequency between 500Hz and 2000 Hz

L = frequency lower than 500Hz

Example: When the H noise in the environment is greater than 113dB (A), the noise volume in the earmuff firstly reaches 85dB (A).

EN352-6: 2020**Criterion input signal for earmuffs with Bluetooth**

Bluetooth profile: HSP/HFP

Relationship between sound output level and input signal level					
SPL [dB(A)]	60	65	70	75	79.3
Input signal level [dBFS]	-34.3	-29.2	-24.1	-18.7	-14.0

Criterion input voltage:	A-weighted diffuse field related sound pressure level did not reach 82 dB(A).
Sound output level for maximum input voltage:	79.3 dB(A) at -14 dBFS
Usage time for the maximum input level that corresponds to an equivalent sound output level of 82dB(A)	8 hour

EN352-8: 2020**Sound pressure level for entertainment earmuff with Bluetooth**

Bluetooth profile: A2DP

Result	
The maximum sound pressure level	79,7 dB(A) at -10 dBFS

EN352-8: 2020**Sound pressure level for Entertainment audio earmuff with electrical audio input**

Result	
The maximum sound pressure level	76,5 dB(A) at 150,0 mVrms

EN352-8: 2020**Sound pressure level for earmuff with built-in broadcast receiver (FM)**

Test signal	"Program simulation noise" described in IEC 60268-1 with -6 dB FS
Measurement conditions	Bass boost was turned on. The earmuff is set to maximum volume.
Result	76.3 dB(A) / pass

ANSI S-3.19-1974**AMB S0A, AMB S1A, AMB S2A, AMB S3A****Headband with foam cushion TEC-EAR-01**

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean attenuation (dB)	19.3	21.6	25.9	28.7	33.4	38.5	42.8	40.1	38.3	21dB
Standard deviation (dB)	1.7	2.7	3.4	3.8	4.5	3.8	3.6	3.7	3.5	

AMB S0E, AMB S1E, AMB S2E, AMB S3E**Helmet Attachment with foam cushion TEC-EAR-01**

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean attenuation (dB)	17.3	19.0	26.0	30.1	30.9	37.2	39.0	38.3	34.7	20dB
Standard deviation (dB)	3.9	3.0	3.1	3.9	4.8	4.0	2.8	5.0	5.5	

AS/NZS 1270**AMB S0A, AMB S1A, AMB S2A, AMB S3A****Headband with foam cushion TEC-EAR-01****Clamping force:10.2N**

Frequency (Hz)	125	250	500	1000	2000	4000	8000	SLC ₈₀	CLASS
Mean attenuation (dB)	17.5	21.5	26.0	29.9	32.7	41.6	38.2	28dB	5
Standard deviation (dB)	3.2	2.0	3.5	4.0	4.7	3.2	3.6		
Assumed Protection Value (dB)	14.3	19.5	22.5	25.9	28.0	38.4	34.6		

AMB S0E, AMB S1E, AMB S2E, AMB S3E**Headband with foam cushion TEC-EAR-01**

Frequency (Hz)	125	250	500	1000	2000	4000	8000	SLC ₈₀	CLASS
Mean attenuation (dB)	19.4	20.6	26.7	30.3	32.1	39.1	36.2	28dB	5
Standard deviation (dB)	3.8	3.4	3.0	4.7	3.9	2.9	5.5		
Assumed Protection Value (dB)	15.6	17.2	23.7	25.6	28.2	36.2	30.7		

APPROVALS

Personal Protective Equipment Regulation

TECMEN ELECTRONICS CO.,LTD declares that the AMB S0A, AMB S1A, AMB S2A, AMB S3A (Over-the-Head Earmuff) and AMB S0E, AMB S1E, AMB S2E, AMB S3E (Hard Hat Mount Earmuff) meet the PPE Regulation (EU) 2016/425, and have been examined at the design by PZT GmbH, Notified Body No. 1974, Bismarckstrasse 264 B, D-26389, Wilhelmshaven, Germany.

The AMB S0A, AMB S1A, AMB S2A, AMB S3A (Over-the-Head Earmuff) has been tested and CE approved in accordance with EN 352-1:2020, EN 352-4:2020, EN 352-6:2020, EN 352- 8:2020.

The AMB S0E, AMB S1E, AMB S2E, AMB S3E (Hard Hat Mount Earmuff) has been tested and CE approved in accordance with EN 352-3:2020, EN 352-4:2020, EN 352-6:2020, EN 352- 8:2020.

FCC compliance statement

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.

Note: 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.

The device has been evaluated to meet general RF exposure requirement, The device can be used in portable exposure condition without restriction. Federal Communication Commission (FCC) Radiation Exposure Statement Power is so low that no RF exposure calculation is needed.

RF exposure information: The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction. Radiation Exposure Statement Power is so low that no RF exposure calculation is needed.

This product can be used across EU member states.

CE Declaration of Conformity

TECMEN ELECTRONICS CO.,LTD declares that the radio communication is in compliance with Directive 2014/53/EU and other appropriate directives to fulfill the requirements for the CE marking.

WEEE(Waste Electrical and Electronics Equipment)

This product contains electrical and electronic components and must not be disposed of using standard refuse collection. Please consult local directives for disposal of electrical and electronic equipment.

CE DECLARATION OF CONFORMITY

The manufacturer :

TECMEN ELECTRONICS CO., LTD

No.8 Huyue East Road, Longchi Street, Luhe District,

Nanjing, 211599 JIANGSU, CHINA

declares that the new PPE described hereafter:

AMB S0A

AMB S1A

AMB S2A

AMB S3A



This declaration of conformity is issued under the sole responsibility of the manufacturer.

This product is in conformity with Union harmonization legislation: RED: 2014/53/EU and PPE Regulation (EU)2016/425 and the harmonized standards EN352-1:2020, EN 352-4:2020, EN 352-6:2020, EN 352-8:2020.

The notified body

PZT GmbH

Bismarckstrasse 264 B

D-26389 Wilhelmshaven

Notified body number 1974

performed the EU type-examination (Module B) and issued the EU type-examination certificates 9342402.

This product is Category III and is subject to Module D Conformity to type based on quality assurance of the production process and is under the surveillance of Notified Body CCQS Certification Services Limited. (NB 2834).

Done at Nanjing, China , on June 07, 2024

TECMEN ELECTRONICS CO., LTD.



CE DECLARATION OF CONFORMITY

The manufacturer :

TECMEN ELECTRONICS CO., LTD

No.8 Huyue East Road, Longchi Street, Luhe District,

Nanjing, 211599 JIANGSU, CHINA

declares that the new PPE described hereafter:

AMB S0E



AMB S1E



AMB S2E



AMB S3E



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This product is in conformity with Union harmonization legislation: RED: 2014/53/EU and PPE Regulation (EU)2016/425 and the harmonized standards EN352-3:2020, EN 352-4:2020, EN 352-6:2020, EN 352-8:2020.

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