Usage Guidelines

- Earmuffs are subject to wear and tear. Regular examinations are required to detect any potential defect such as a crack or a leak.
- The use of safety glasses while wearing an earmuff may result in a less than optimal seal for the ear cushion. Degrading this seal can cause a loss of low frequency ANR performance as well as a loss of passive performance.
- This earmuff is provided with audio input jack. The wearer should check correct operation before use. If distortion or failure is detected, the wearer should refer to the manufacturer's advice.
- If you are using the earmuff with a portable audio device, avoid using it at high volume.

Limited Six-Month Warranty

There is a six-month warranty to the original purchaser against defects in material and workmanship from date of purchase. The warranty does not cover damage caused by misuse, abuse or unauthorized modification.

For the period stated above, Pro Tech will either repair or replace at no charge the defective product with the same model or an equivalent model, provided the purchaser delivers the product in its original packaging or packaging affording an equal degree of protection, along with proof of purchase, to the authorized Pro Tech dealer from whom you purchased the product or to Pro Tech if the product was purchased directly from Pro Tech.

If your product purchased directly from Pro Tech Technologies requires service while under warranty, call Pro Tech Customer Service at 1-203-210-7230 or e-mail us at customer service@noisebuster.net to obtain a Return Authorization Number (RMA). Return the product with the RMA Number noted on the outside of the package to: Pro Tech Technologies, Inc., 217 Westport Road, Wilton, CT 06897. Include your name, company name (if applicable), address, and phone number along with the RMA Number inside your package. (Packages will not be processed without this mandatory RMA information.) This warranty does not cover defects or damage resulting from: (i) use of the product in other than its normal and customary manner, (ii) misuse, accident or neglect, (iii) improper operation, adjustment, alteration or modification of any kind, (iv) any attempt to disassemble or repair, or (v) spills of food or liquid. This warranty does not cover: (vi) products which have had the serial number removed or made illegible, or (vii) plastic surfaces and other eternally exposed parts scratched, discolored or otherwise damaged from normal use.

THE WARRANTY REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHERS, WHETHER ORAL OR WRITTEN, EXPRESSED OR IMPLIED. PRO TECH TECHNOLOGIES SPECIFICALLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. NO AGENT OR EMPLOYEE OF PRO TECH IS AUTHORIZED TO MAKE ANY MODIFICATION, EXTENSION OR ADDITION TO THIS WARRANTY. PRO TECH IS NOT RESPONSIBLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR UNDER ANY OTHER LEGAL THEORY, OR FAILURE TO MEET OR COMPLY WITH THE REQUIREMENTS OF ANY SAFETY, OR ENVIRONMENTAL LAW, ORDINANCE, CODE OR REGULATION OF ANY COUNTRY OR POLITICAL SUBDIVISION THEREOF.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitations or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

Warning

The output of the audio circuit of this hearing protector may exceed the daily limit sound level. Hearing experts advise against continuous, loud and extended play. If you experience a ringing in your ears, reduce the volume or discontinue use. Do not use earmuffs while driving or in any situation where hearing must not be impaired.

Customer Service

Your NoiseBuster ANR Safety Earmuff has been manufactured to exacting specifications and carefully checked for any possible operational malfunctions. Occasionally, however, technical service, repair or replacement parts may be required. In the unlikely event that such a situation occurs, please contact PRO TECH TECHNOLOGIES, INC., 217 Westport Road, Wilton, CT 06897, USA, Tel 203-210-7230, Fax 203-210-7229 or e-mail us at customerservice@noisebuster.net for information and advice.

noisebuster®

Pro Tech Technologies, Inc.

217 Westport Road, Wilton CT 06897 | Tel 203-210-7230 | Fax 203-210-7220 | www.noisebuster.net

noisebuster

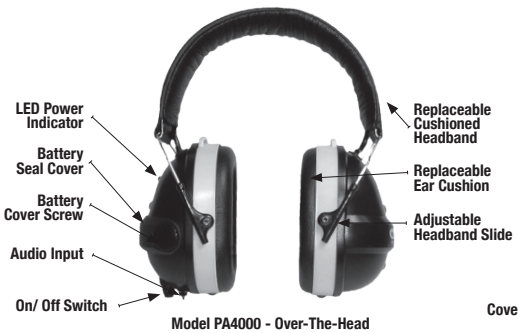
NoiseBuster ANR Safety Earmuff
Models PA4000, PA4100, PA4200
USER MANUAL

Congratulations on your purchase of the NoiseBuster® Active Noise Reduction (ANR) Safety Earmuff.

If you work around engines, blowers, motors, vacuums, pumps, generators, compressors, fans, etc., you need protection against low-frequency noise--noise that conventional passive earmuffs alone can't handle. NoiseBuster Active Noise Reduction Safety Earmuffs combine high-performance passive earmuffs with advanced active noise cancellation technology for the most comprehensive hearing protection available to industry today.

Product Contents and Features

- NoiseBuster Safety Earmuff
- Powered by a single AA battery (included)
- 3.5 mm Audio Interface cable allows you to listen to music from portable audio devices
- Resistant to water and moisture, contaminants, mechanical shock and vibration
- Warranty six-months against defects and workmanship – not covered is any misuse, abuse, or modification.



Model PA4000 - Over-The-Head

Model PA4100 - Behind-The-Head

Model PA4200 - Hard Hat Cap Mount

Battery Installation

1. Unscrew Battery Cover Screw in a counter-clockwise direction and pull away Battery Seal Cover to expose battery compartment. For easier removal, loosen other battery cover screw slightly.
2. Insert provided AA battery according to their respective (+)/(-) markings in battery compartment.
3. Place Battery Seal Cover back into place. Be sure plastic insert inside rubber Battery Seal Cover is inserted before placing back onto earcup.
4. Screw on Battery Cover Screws in a clockwise direction until tight.

Materials Used

Headband - Wire headband with plastic hangers that are screwed into the earmuff.
The headband is covered with a polyurethane cushion.

Ear Cushion - PVC and polyurethane material.
Interior Cushion - Foam cushion and acoustically-permeable cloth.

General Care

To properly care for your NoiseBuster ANR Earmuff, the following guidelines are recommended:

- Avoid physical abuse of the unit, including excess dropping, pulling on cables, etc.
- Minimize exposing the unit to extreme temperatures.
- Clean and disinfect the unit using a cloth moistened with water and a mild soap. This product may be adversely affected by certain chemical substances. Avoid exposing the unit to harsh chemicals, alcohol or petroleum products as these may damage the earmuff and battery housing.
- Earmuffs, and in particular cushions, may deteriorate with use and should be examined at frequent intervals for cracking and leakage. Inspect regularly the insert foam for deterioration.
- The fitting of hygiene covers to the cushions may affect the acoustic performance of the earmuffs – AND POSSIBLY CAUSE AN OSCILLATION CONDITION CREATING WHISTLING OR SQUEALING.

Accessories and Replacement Parts

You can purchase the following online at www.noisebuster.net:

Headband Conversion Kits/Replacement Headbands

CONV40:	Over-The-Head PA4000 Conversion Kit
CONV41:	Behind-The-Head PA4100 Conversion Kit
CONV42:	Hard Hat Cap Mount PA4200 Conversion Kit

Accessories

SEAC:	Audio Interface Cable
SEBD:	Battery Door Assembly
SEEC:	Replacement Ear Cushions (one pair)
SEHK:	Hygiene Kit (one pair replacement ear cushions and one pair ear cup foam)

Low-Battery

Change battery if LED light on earmuff is not lit when power switch is pushed to the ON position. Earmuff runs on a single AA battery for an average of 65 hours.

Battery Care

1. Keep battery contact surfaces and battery compartment contacts clean by rubbing them with a clean pencil eraser or a rough cloth each time you replace batteries.
2. Remove battery from the earmuff when it is not expected to be in use for several months.
3. Make sure that you insert the battery properly, with the + (plus) and – (minus) terminals. Alkaline batteries can be safely disposed of with normal household waste. Never dispose of batteries in fire because they could explode. Some communities offer recycling or collection of alkaline batteries–contact your local government for disposal practices in your area.

Earmuff Operation

1. Place earmuff on your head. Adjust the headband and adjustable headband slides appropriately to ensure that ear cups are centered over the ears and that the earmuff fits comfortably on the head. Best performance will be obtained when cushions seal tightly against the head. Hair should be pulled back and out from underneath the cushions and items such as pencils should not be stored under cushions.

   This earmuff is provided with active noise reduction. The wearer should check correct operation before use. If distortion or failure is detected, the wearer should refer to the manufacturer advice for maintenance and replacement of the battery.

   Warning: Performance may deteriorate with battery usage. The typical period of continuous use that can be expected from the earmuff battery is 65 hours. The performance of the active noise reduction may be adversely affected when sustained oscillation (whistling or instability) is perceived. If refitting the earmuff or replacing the battery does not overcome this malfunction, the wearer should contact Pro Tech Technologies.

   NOTE – COVERING EARCUP VENT HOLE (SEE PICTURE) WITH FINGER MAY AFFECT ANR REDUCTION AND POSSIBLY CAUSE AN OSCILLATION CONDITION CREATING WHISTLING OR SQUEALING. EARMUFF SHOULD FITTED WITH POWER "OFF".

2. Depress the on/off button located on the bottom of one of the ear cups to engage the ANR. The red LED on the ear cup will turn on.
3. An adapter cable is provided. This equips the earmuff for use with portable audio equipment, e.g. MP3 player. Plug the audio cable into the connection jack of your audio device. Plug the other end into the line-in jack located next to the on/off switch on the ear cup. Note: The audio input cover that is plugged into the line-in jack must be removed before the cable can be inserted.

Technical Specifications

- ANR performance range: Between 20Hz and 800Hz
- Frequency response: ± 6dB over the range of the 350 to 3000 Hz
- Storage temperature: -40C to +85C
- Operating temperature: 0C to +45C
- Audio cable length: 50cm (20 inches)
- Product weight: 482 g, 17 oz. (with battery inserted)

USA & Canada test results for NoiseBuster (ANR) Active Noise Reduction Safety Earmuffs

NoiseBuster PA4000: ANSI S3.19-1974, testing by Dr. Kevin Michael & Associates, State College, Pennsylvania, USA

	Passive Attenuation											*Active Noise Reduction Attenuation	
Frequency, Hz	125	250	500	1000	2000	3150	4000	6300	8000	NRR	CSA		
Mean Value, dB	17.5	22.3	30.6	37.3	34.7	40.2	44.6	43.7	44.9	26	A	Additional low frequency Noise Reduction Between 20 & 800 Hz	Up to 20 dB
Std. Deviation	3.1	2.4	2.5	2.7	2.6	2.9	2.4	2.4	3.5				

*Active Noise Reduction (ANR) is the most effective defense against low-frequency noise.

NoiseBuster PA4100: ANSI S3.19-1974, testing by Dr. Kevin Michael & Associates, State College, Pennsylvania, USA

	Passive Attenuation											*Active Noise Reduction Attenuation	
Frequency, Hz	125	250	500	1000	2000	3150	4000	6300	8000	NRR	CSA		
Mean Value, dB	16.2	22.7	28.6	35.9	33.2	38.0	41.8	43.4	43.8	24	A	Additional low frequency Noise Reduction Between 20 & 800 Hz	Up to 20 dB
Std. Deviation	2.9	3.0	3.1	3.6	2.7	4.3	5.0	4.3	4.9				

*Active Noise Reduction (ANR) is the most effective defense against low-frequency noise.

NoiseBuster PA4200: ANSI S3.19-1974, testing by Dr. Kevin Michael & Associates, State College, Pennsylvania, USA

	Passive Attenuation											*Active Noise Reduction Attenuation	
Frequency, Hz	125	250	500	1000	2000	3150	4000	6300	8000	NRR	CSA		
Mean Value, dB	20.1	25.5	31.2	36.0	34.2	39.7	41.8	44.3	43.4	25	A	Additional low frequency Noise Reduction Between 20 & 800 Hz	Up to 20 dB
Std. Deviation	3.6	3.0	4.0	3.5	3.1	4.2	5.0	3.8	3.8				

*Active Noise Reduction (ANR) is the most effective defense against low-frequency noise.

Australian test results for NoiseBuster (ANR) Active Noise Reduction Safety Earmuffs

NoiseBuster PA4000: AS/NZS 1270:2002, testing by Dr. Kevin Michael & Associates, State College, Pennsylvania, USA

	Passive Attenuation								*Active Noise Reduction Attenuation	
Frequency, Hz	125	250	500	1000	2000	4000	8000	SLC (80)		
Mean Attenuation, dB	16.6	21.7	28.4	35.1	31.7	39.7	40.7	29.2 Class 5	Additional low frequency Noise Reduction Between 20 & 800 Hz	Up to 20dB
Std. Deviation	3.9	3.1	4.1	4.1	3.2	4.6	5.1			
Mean – Std. Deviation	12.7	18.6	24.3	31.0	28.5	35.1	35.6			

*Active Noise Reduction (ANR) is the most effective defense against low-frequency noise.

NoiseBuster PA4100: AS/NZS 1270:2002, testing by Dr. Kevin Michael & Associates, State College, Pennsylvania, USA

	Passive Attenuation								*Active Noise Reduction Attenuation	
Frequency, Hz	125	250	500	1000	2000	4000	8000	SLC (80)		
Mean Attenuation, dB	11.9	17.7	22.3	30.1	28.0	36.2	37.0	23.3 Class 4	Additional low frequency Noise Reduction Between 20 & 800 Hz	Up to 20dB
Std. Deviation	4.8	5.7	5.4	4.0	4.0	5.8	5.0			
Mean – Std. Deviation	7.1	12.0	16.9	26.1	24.0	30.4	32.0			

*Active Noise Reduction (ANR) is the most effective defense against low-frequency noise.

NoiseBuster PA4200: AS/NZS 1270:2002, testing by Dr. Kevin Michael & Associates, State College, Pennsylvania, USA

	Passive Attenuation								*Active Noise Reduction Attenuation	
Frequency, Hz	125	250	500	1000	2000	4000	8000	SLC (80)		
Mean Attenuation, dB	17.7	21.9	25.4	31.0	30.1	39.2	37.3	24.7 Class 4	Additional low frequency Noise Reduction Between 20 & 800 Hz	Up to 20dB
Std. Deviation	5.9	6.7	6.4	6.2	5.7	6.0	6.5			
Mean – Std. Deviation	11.8	15.2	19.0	24.8	24.4	33.2	30.8			

*Active Noise Reduction (ANR) is the most effective defense against low-frequency noise.