

THOR:



S H A D O W

SH20

# S A F E T Y

## Important Safety Instructions

When using a microphone, it’s essential to follow certain safety precautions to ensure both personal safety and the longevity of your device.

1. Intended use for the SHADOW microphone series is for indoor.
2. Avoid exposing the microphone to excessive moisture as it can damage internal components.
3. Read and understand this entire manual.
4. Keep this manual available for reference.
5. Heed all warnings and precautions in this manual and notices marked on the product.
6. Always handle the microphone with care, avoiding unnecessary bending or pulling of the cables, as this may cause permanent damage or reduce the product's lifespan.
7. THOR AV products must be used in accordance with local, state, federal and industry regulations.
8. Refer all servicing to qualified service personnel. There are no user serviceable components inside the product.
9. The product shall not be exposed to moisture. Do not touch the unit with wet hands.

By observing these precautions, you can enjoy a reliable and safe experience with your headworn microphone.

## Care and Maintenance Guidelines

Proper care and maintenance of your headworn microphone will ensure it delivers high-quality performance and lasts for years.

- To clean the microphone’s exterior, use a soft, dry cloth to remove dust and dirt, and avoid using any abrasive, as they can damage sensitive components. If needed, an alcohol wipe could be used to remove any makeup or residual adhesives.
- You may remove and wash the wind screen periodically in mild soap and water, allowing it to fully air dry before reattaching.
- Always store the microphone in its protective case when not in use, keeping it away from moisture, direct sunlight, and extreme temperatures.
- Be sure to handle the cables gently to prevent strain or breakage, especially around connection points.

With consistent care, your headworn microphone will maintain optimal performance and reliability.

# W A R R A N T Y

## Warranty Information

All THOR AV audio products are warranted to the original purchaser to be free of defects in materials and workmanship for a period of one year from date of purchase. During this period, THOR AV will, at its discretion, repair the defective unit or replace it with a new or rebuilt.

The warranty does NOT cover:

- Damage due to abuse, misuse, shipping damage or accident.
- Damage due to operation contrary to the instructions in the product instruction manual.
- Units that have been serviced by unauthorized personnel.
- Microphone accessories. Cables are guaranteed for 30 days and repair or replacement shall be at THOR AV’s discretion.

All implied warranties, including warranties on merchantability and fitness, are limited in time to the length of this warranty. Some states do not allow time limitations on implied warranties, so this limitation may not apply to you. THOR AV’s liability is limited to the repair or replacement of its product. THOR AV shall in no way be held liable for incidental or consequential damages resulting from the use of their product, including, without limitation, damages from loss of business profits, business interruption, loss of business information or other pecuniary loss. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

### REPAIR POLICY

Please contact [support@thorav.us](mailto:support@thorav.us), or use our request form at [thorav.us/support-request](https://thorav.us/support-request) to obtain an RMA number prior to returning your product to THOR AV. Do not return the product to the place of purchase. Write the RMA number on the outside of the shipping carton. Any product sent to us without a valid RMA number will be refused.

Shipping Address:  
THOR AV  
Attn: **[RMA#]**  
8821 Zealand Ave. N  
Brooklyn Park, MN 55445 USA

Include the following with the product: a brief description of the problem, your name, return shipping address, phone number and the RMA number. Do not include any accessories. THOR AV is not responsible for any damage to or loss of the product during transit. We recommend that customers obtain a receipt and tracking number for all packages shipped to us. Turnaround time on repairs is generally ten business days. If you live outside of the United States, please contact your local distributor for warranty service.

### WARRANTY SERVICE

You will be responsible for shipping charges to THOR AV and the product will be returned by THOR AV. We reserve the right to inspect any product that may be the subject of any warranty claim before repair is carried out. To qualify for warranty service, documentation showing the date of purchase may be required. Final determination of warranty coverage lies solely with THOR AV.

### NON-WARRANTY SERVICE

If it is determined that the product does not meet the terms of our warranty, you will be billed for labor, materials, return shipping and insurance. There is a \$100 USD minimum charge for materials and labor. Appropriate shipping charges will be applied. We require payment in advance of repair by credit card; we accept Visa and Master Card. In the event the charges are over the minimum charge, THOR AV will contact you and inform you of the cost of the repair before any work is completed.

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# SHADOW Series

## SH20 Headset Microphone

The SHADOW SH20 microphone embodies the perfect balance of presence and discretion. The name SHADOW was carefully chosen to reflect the series' ability to seamlessly blend into the background, ensuring an unobtrusive stage presence. Designed with performer comfort in mind, the SHADOW series takes inspiration from the concept of one's own shadow—a constant yet effortless companion. Engineered for precision, the SH20 captures more of the performer's voice with less of the room, delivering crystal-clear audio without the unwanted ambient noise. Whether on stage or in a corporate room, it allows presenters to focus solely on their craft, free from distractions.



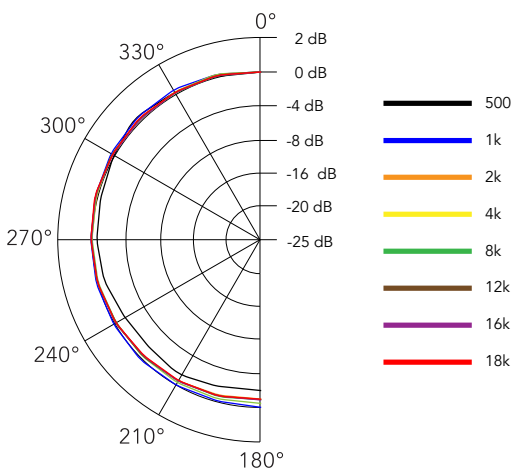
S P E C I F I C A T I O N S

Frequency Response  
and Polar Pattern

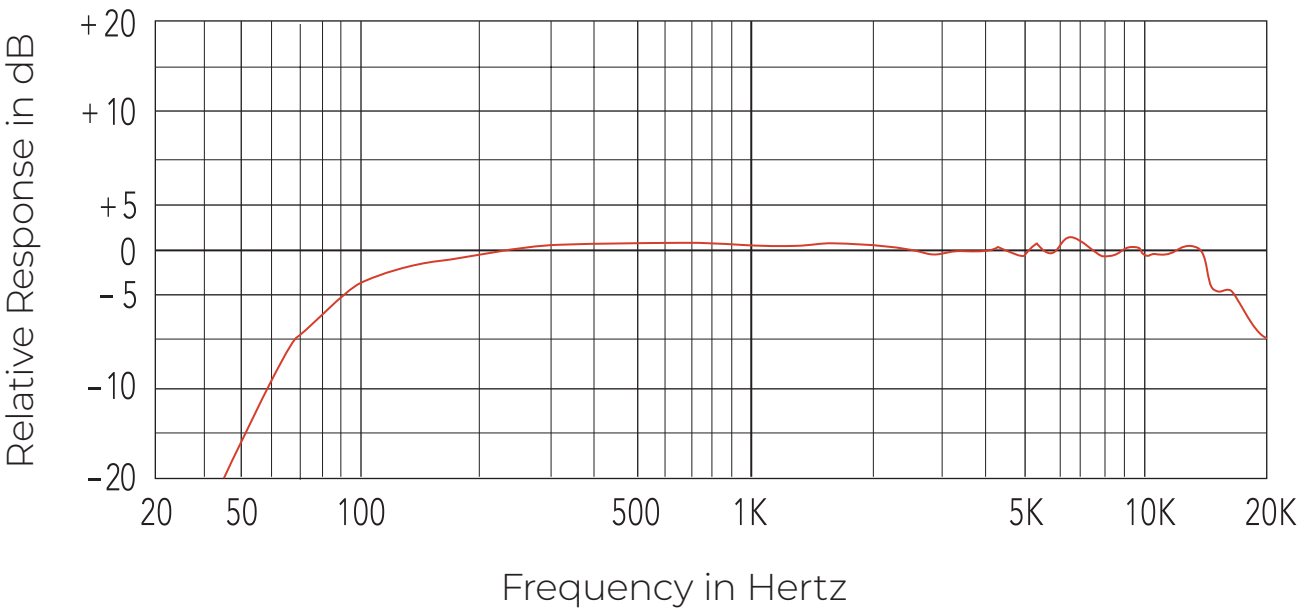
An omnidirectional headset mic with a flat frequency response is ideal for capturing natural, balanced sound from all directions. This design ensures that a voice is accurately reproduced without distortion or bias towards certain frequencies.

It's particularly useful in broadcast studios, live performances, and corporate presentations, where a faithful representation of each person's voice is essential for clarity and authenticity.




OMNIDIRECTIONAL  
POLAR PATTERN



FREQUENCY RESPONSE



Specifications

Pattern	Omnidirectional
Sensitivity, Typical, at 1 kHz	-45 dB ± 3 dB ( 0 dB = 1V / Pa @ 1 kHz ) ( RL : 2.2KΩ DC : 3 V )
Frequency Response	40 Hz – 20 kHz
Max SPL 1 kHz at <1% THD	130.5 dB SPL Peak
Output Impedance	2,000 Ω
Equivalent Noise Level	32 - 34 dB ( A-Weighted )
Weight	5 g without cable
Style	Reversible dual ear ambidextrous
ReEx Boom Length	95 mm - 117 mm
Color	  
Cable Thickness	1.4 mm
Capsule Housing	3 mm OD x 7 mm
Boom Diameter	.7 mm
Connectors	TA4F 3.5 mm MicroDot - TA4F MicroDot - 3.5mm MicroDot - LEMO

W H A T S I N T H E B O X



What's in the Box?

The Shadow SH20 comes complete with essential components to enhance the audio experience. Each box includes one windscreen, cable and cable clip. Windscreens minimize unwanted plosive sounds. Durable cables connect seamlessly to most pro audio devices. Cable clips offer practical cable management to keep the setup tidy and in place.





C O L O R

SH20



Three Colors

This sleek and compact microphone not only delivers superior audio performance but also allows for blending with a diversity of skin tones. The Shadow SH20 headset microphone offers versatility and style with its availability in three distinct colors: tan, brown, and black.



# HEADSET

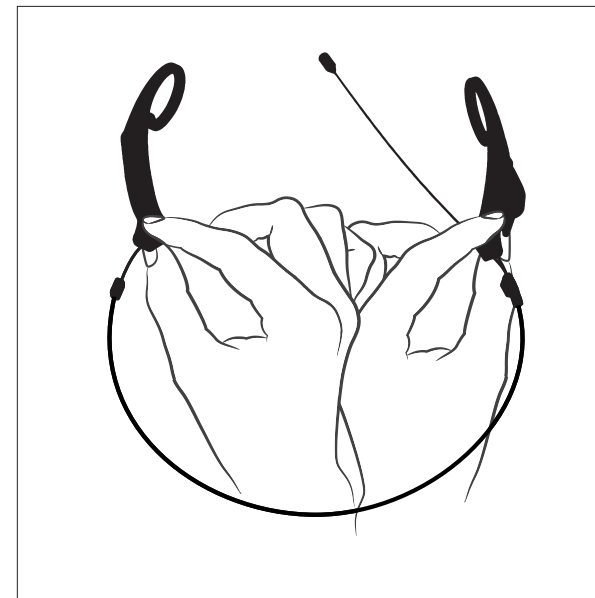
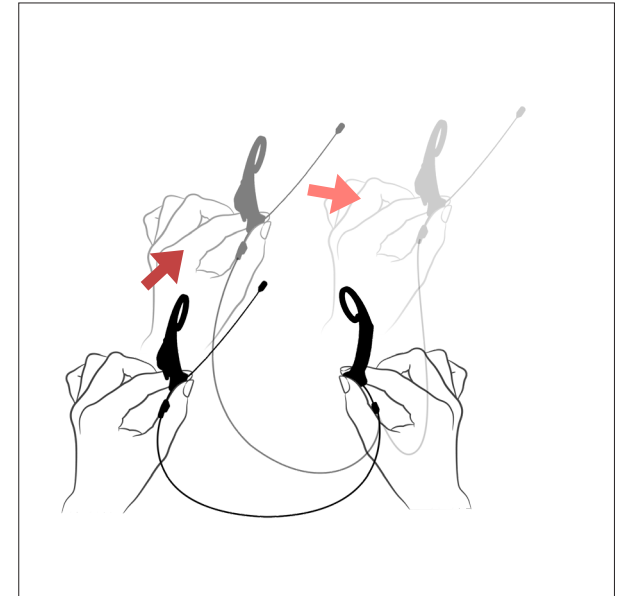
## Handling the Headset

Handling a headworn microphone properly is essential to prevent damage and ensure consistent performance. Always pick up the microphone by its frame or headband, avoiding direct pressure on the microphone capsule or boom arm, as these parts are sensitive and can be damaged by squeezing or bending. When adjusting the boom arm, make small, gentle movements to position the microphone correctly; avoid forcefully twisting or bending it, as this could affect sound quality or lead to breakage. Avoid pulling on the cable or letting it hang freely when moving the microphone, as this can cause strain or weaken the internal wiring. When not in use, carefully store the microphone in its designated case, coiling the cable loosely if necessary, and avoid placing heavy objects on top of it. Following these handling tips will help protect the microphone and extend its lifespan.

# REVERSIBLE

## Flipping Boom

For those preferring to have the mic boom on the other ear, pinch both ear pieces with thumb and finger and rotate the mic to the other side by crossing one hand over the top of the other. Readjust 90° connector, cable, and cable clips.

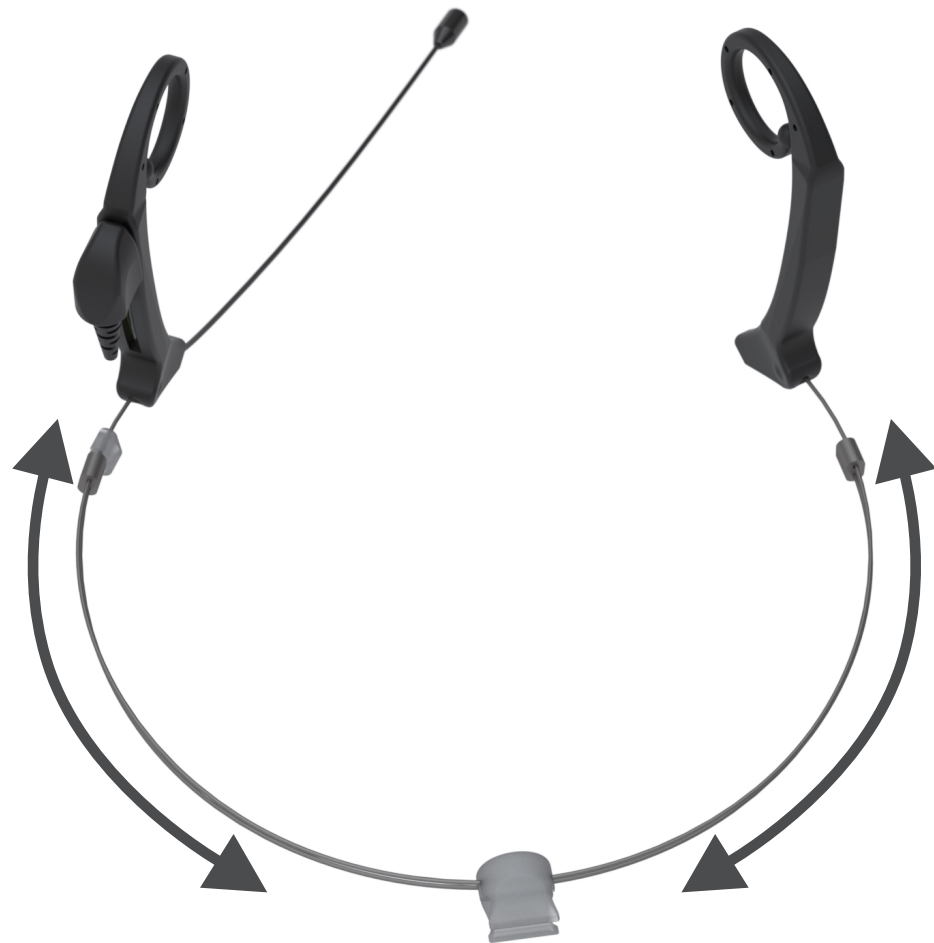




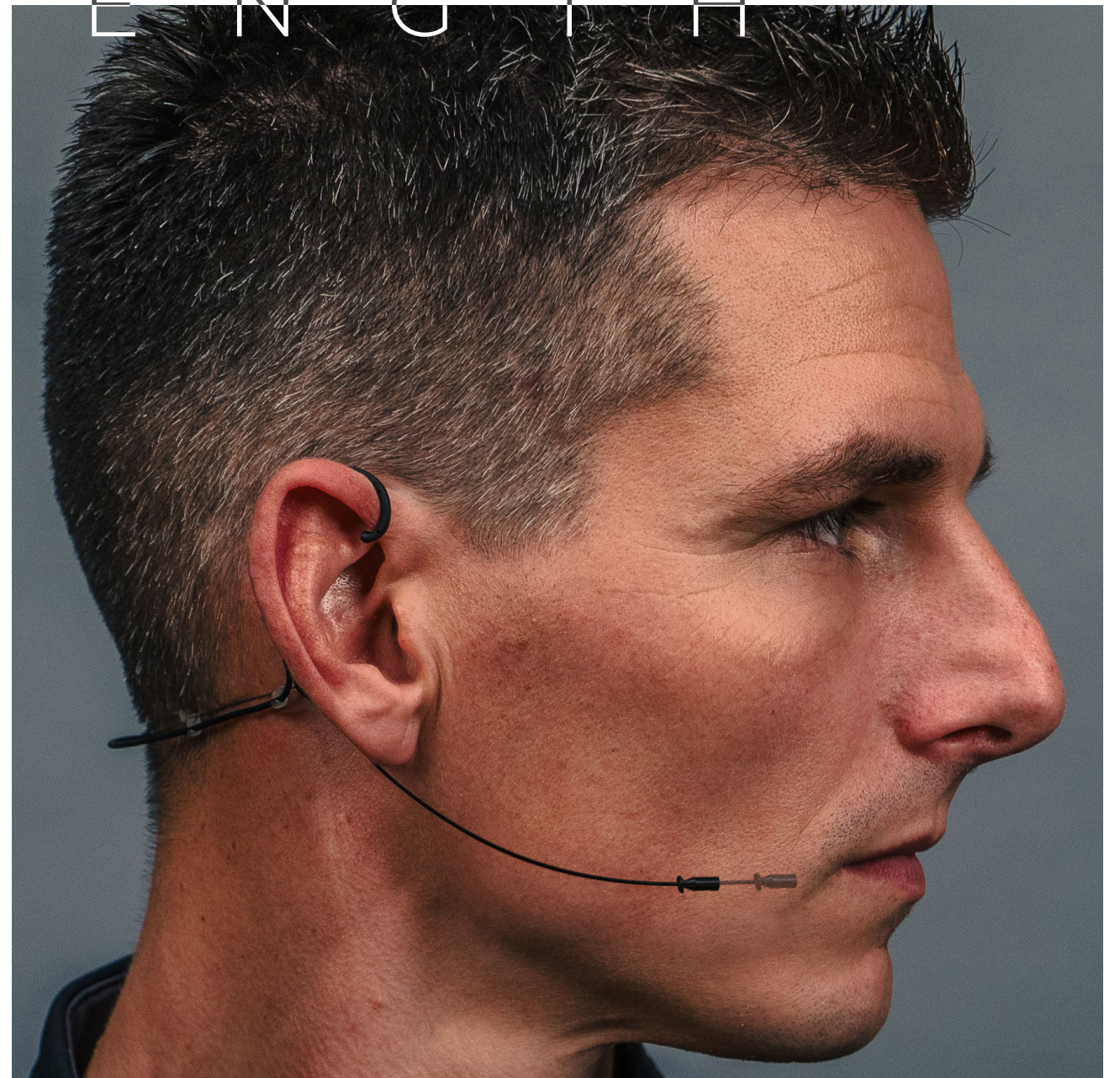
# HEADSET SIZE

## Headset Size Adjustment

To fit the headband, reduce the headband to the smallest size and position the top of the ear pieces just over the ears to help with proper capsule placement. Hold the bottom of the ear pieces in place behind the earlobes and tilt head up and down to resize. The headband should sit comfortably on the back of the neck. Position the boom mic about an inch away from the mouth for clear voice capture. Make minor adjustments to the headband and ear pieces to ensure a secure and comfortable fit without any pressure points. See Neck Placement on page 23.



# LENGTH

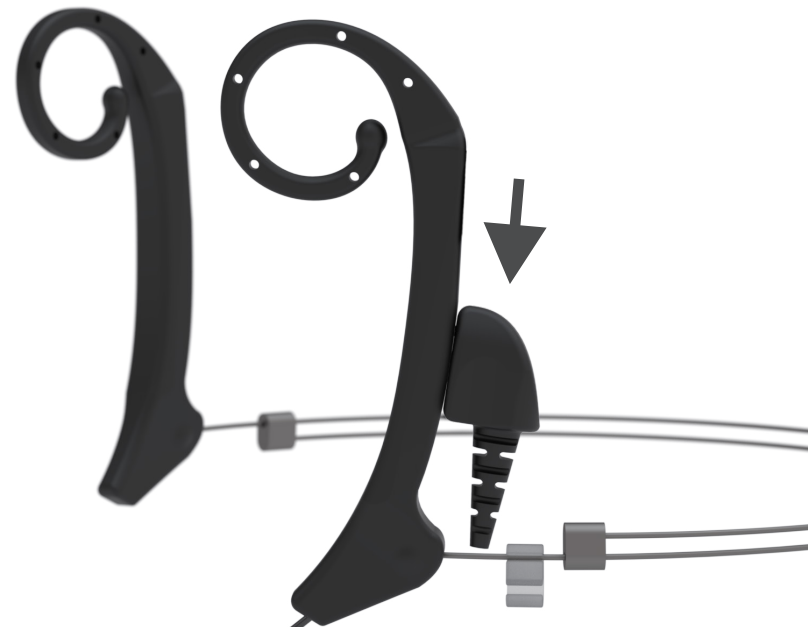


## Boom Length

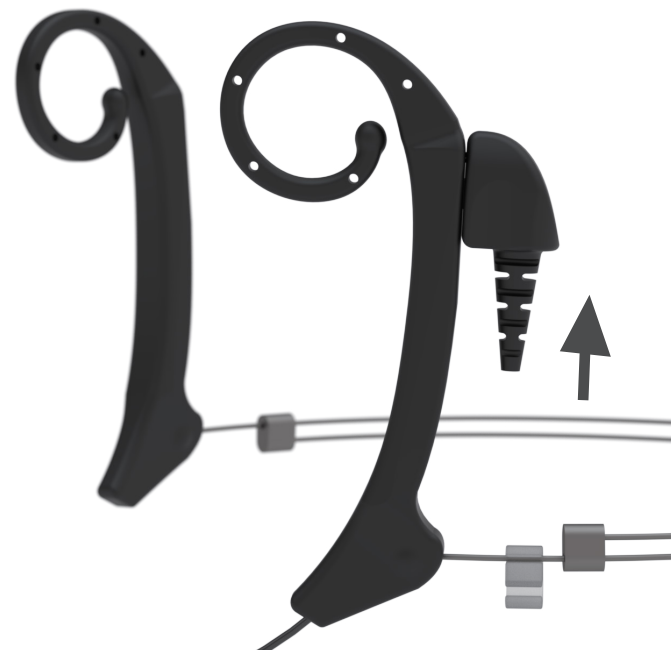
Boom placement is essential for clear and accurate audio capture. Proper positioning ensures the microphone picks up the voice clearly while minimizing background noise. This is crucial for effective communication or recording, as it ensures that speech is easily understood without interference.

## ReEx™ Boom

The Shadow SH20 has a ReEx™ boom (**R**etractable and **E**xtendable). To extend, hold onto the earpiece and gently press down on the ReEx™ Rear Housing, which is located on the back of the earpiece. Extend the boom to the desired length. Ensure the microphone capsule is positioned correctly near the corner of the mouth for optimal audio capture.



## A D J U S T

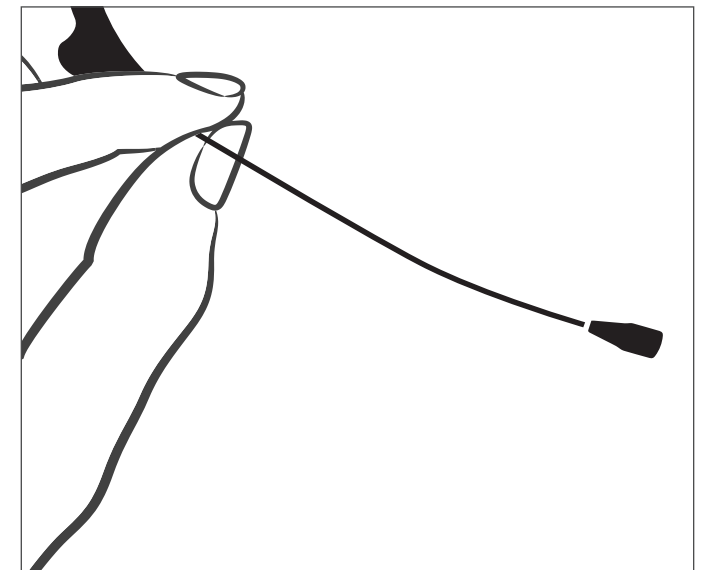
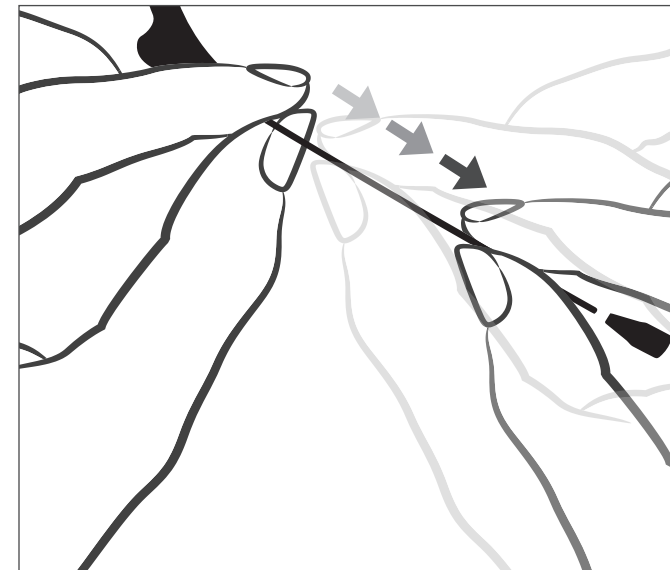


To retract the boom, slide the ReEx™ Rear Housing to shorten the boom. Ensure that the microphone capsule is positioned correctly near the corner of the mouth for optimal audio capture.

# S H A P I N G

## Shaping the Boom

When shaping the boom on a headworn microphone, handle it gently to avoid damaging the delicate components. To adjust the position, use gradual, smooth movements to angle the boom toward the corner of the mouth. Repeat as necessary. For optimal sound capture without direct breath interference, keep the microphone capsule about an inch away from the mouth. Avoid twisting or sharply bending the boom, as forceful adjustments can damage the internal wiring or create weak points. Never grip the microphone capsule itself, as this may compromise its sensitivity and lead to performance issues. Following these guidelines will help maintain the microphone's shape, ensuring consistent, clear sound pickup during use.





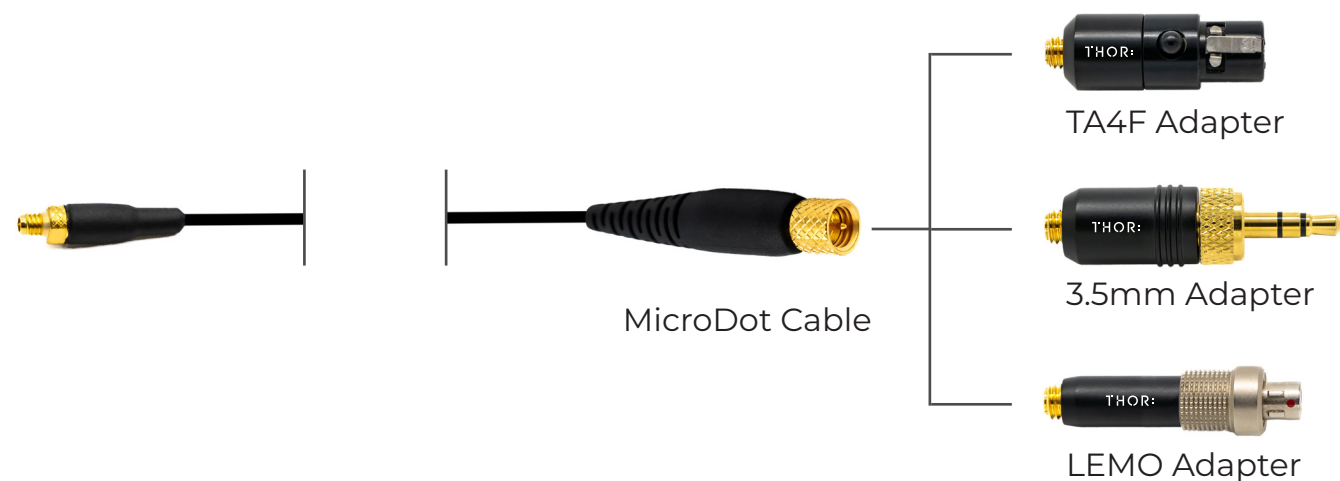
# CABLE



TA4F Cable



3.5mm Cable

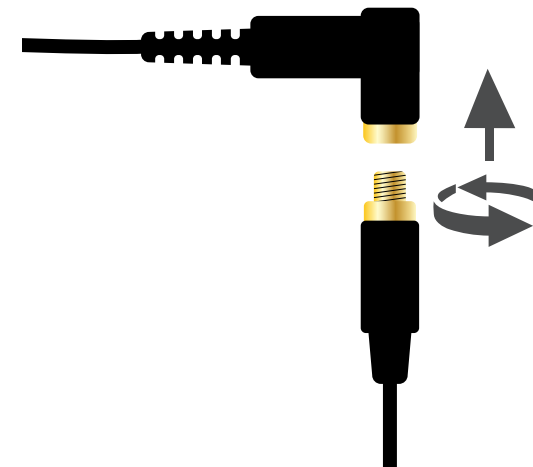


MicroDot Cable

TA4F Adapter

3.5mm Adapter

LEMO Adapter



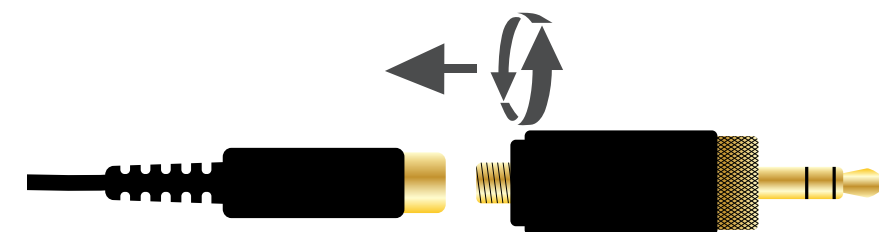
## Attaching Cable

To attach mic cable, align the cable's threaded end with the microphone's socket and gently turn it clockwise to engage the threads. Continue to tighten until snug. Avoid overtightening.

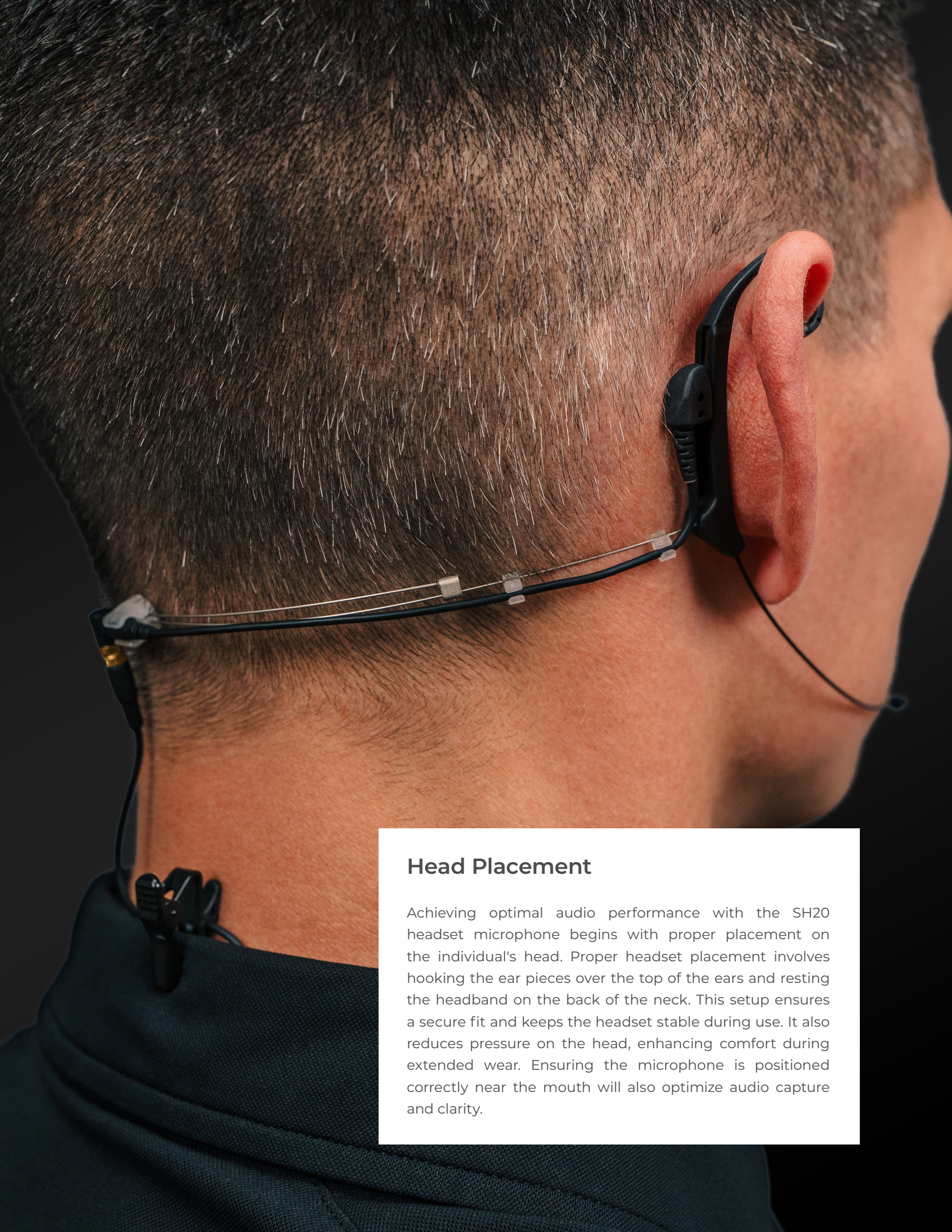
Finally, test the microphone by plugging it into an audio device and performing a soundcheck to confirm the connection is stable and the microphone functions correctly.

## Attaching Adapter

When using a MicroDot cable, align the MicroDot connector with the adapter, ensuring thread alignment. Gently screw the MicroDot cable onto the adapter, turning clockwise until it's securely fastened. Be careful not to overtighten, as excessive force may strip the threads or damage the connector.







### Head Placement

Achieving optimal audio performance with the SH20 headset microphone begins with proper placement on the individual's head. Proper headset placement involves hooking the ear pieces over the top of the ears and resting the headband on the back of the neck. This setup ensures a secure fit and keeps the headset stable during use. It also reduces pressure on the head, enhancing comfort during extended wear. Ensuring the microphone is positioned correctly near the mouth will also optimize audio capture and clarity.

# P L A C E M E N T

### Ear Placement

Proper headset placement involves gently hooking the ear piece over the top of the ear, while the bottom rests just behind the earlobe. Gently bend the boom to snugly fit under the earlobe.



### Neck Placement

Start with headband at its smallest size. Position the top of the ear pieces just over the ears. Holding the bottom of the ear pieces behind the earlobes, tilt head up and down to resize for a secure and comfortable fit.



### Capsule Placement

Position the capsule close to the corner of the mouth. This ensures that each voice is effectively captured and transmitted without distortion or unwanted background noise. Experiment with the angle and distance of the capsule to find the optimal placement that provides clear, natural sound reproduction.





Questions

What type of mic is the Shadow SH20	Omnidirectional dual ear headworn mic.
What type of mic connectors are available	TA4F 3.5mm MicroDot-TA4F MicroDot-3.5mm MicroDot-LEMO Be sure to check with your wireless manufacturer for connector type.
What colors are available	Tan, Brown, and Black
Can the Shadow SH20 be worn on left or right side of the head	Yes
What are some ways to optimize the performance of the mic	Adjust the gain accordingly on the microphone channel on your audio console. Position the mic capsule close to the user's face and directed just below the corner of the mouth to avoid plosives. Tweak the channel EQ as needed based on the uniqueness of the room, how the audio system is EQ'd, and by using HPF and LPF. Dedicating one microphone for each user prolongs the performance life.
Are there replacement parts for the headset microphone	Yes.
Can I paint the Shadow SH20?	Yes, it is even safe to paint it with alcohol markers.

Support Process

Please contact [support@thorav.us](mailto:support@thorav.us) or [thorav.us/support-request](https://thorav.us/support-request) online to obtain an RMA number prior to returning your product to THOR: AV. Do not return the product to the place of purchase. Write the RMA number on the outside of the shipping carton. *Products sent without a valid RMA number will be refused.*

Shipping Address:  
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**Attn: [RMA#]**  
**8821 Zealand Ave. N**  
**Brooklyn Park, MN 55445 USA**

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NOTE: For product repair, use only certified THOR technicians.

**Removal of the microphone capsule (enclosed in mic cap) or the cap, voids the product warranty.**

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