RE97-2S

Low Profile, Head-worn,
Condenser Microphone
with TA4F Connector

RE97-2S *Key Features*:

- **o Superior Sound Quality**
- **o Omni-directional Polar Pattern**
- **o Lightweight, Low Profile, and Rugged**
- **o Adjustable Head-Band and Boom**
- **o Swivel Earloops Allow for Left or Right Side Use**

Product Description:

The Electro-Voice® RE97-2S is a low profile, omni-directional, condenser microphone designed for demanding applications where a hands-free microphone is required. The RE97-2S is intended for spoken-word use in theatrical performance, corporate AV presentations, fixed installations, houses of worship, or any venue where a full-range, natural, and well-balanced sound is required from an inconspicuous, lightweight, head-worn microphone.

The output of the RE97-2S is clean and accurate, while the omni-directional polar pattern ensures uniform output regardless of the microphone's angle relative to the sound source. The RE97-2S head-band is easily adjusted to fit virtually any head size, is light in weight, and provides a stable base for the microphone boom.

The microphone boom can be easily adjusted for optimum placement near the user's mouth by sliding the boom forward and backward along the headband. The microphone boom is made of special, malleable stainless steel that may be shaped to better match facial contours. The earloops are designed for full 360° rotation, allowing for microphone usage on either side of the head, as well as convenient flat storage when not in use.

The supplied windscreen can be utilized in windy environments and to reduce breath noise. The RE97-2S has a shielded 4ft cable terminated in a genuine Switchcraft® TA4F connector and is ready for use with standard Shure brand body-pack transmitters. The wire to the body-pack may be conveniently routed behind the user and attached to a shirt collar with the included clothing clip.

Technical Specifications:

Transducer:	Condenser, back-electret
Frequency Response:	50 – 15 kHz
Polar Pattern:	Omni-directional
Sensitivity, 1 kHz:	-48 dBV, 4.0 mV/Pascal
Maximum SPL:	>125 dB SPL
Equivalent Noise:	32 dBA
Dynamic Range:	93 dB
Output Impedance, 1 kHz:	3000 Ohms
Power Requirements:	+5 VDC
Current Consumption:	310 μA
Polarity:	Positive Pressure on Diaphragm Produces a Positive Voltage on pin 3
Dimensions:	See diagram
Cable:	4 ft (1.22 m) long; 0.052 in (1.30 mm) diameter
TA4F Connector Wiring:	Pin 1 – Ground Pin 2 – Bias Voltage Pin 3 – Audio Pin 4 – Unused
Accessories Furnished:	Windscreen Clothing Clip Gig Bag
Colors Available:	Beige, Brown, Black
Net Weight:	0.6 oz (17 g) Mic and headset only: 0.33 oz (9.4 g)
Optional Accessories:	TXA Phantom Power Adapter

Application Notes:

Using your RE97-2S

Earloops:

The RE97-2S arrives with the earloops in the flat storage position. To change the position of the earloops, first pull the base of the earloop straight away from the headband while gripping the cylindrical connector (Figure 1).

Next, rotate the earloop 90 degrees, and release. The earloop will "lock" into place when positioned correctly. To replace the RE97-2S in the gig bag, repeat this procedure to flatten the earloops.

Note: You may wear the mic boom on either side of the face. To change sides, simply rotate both earloops 180 degrees.

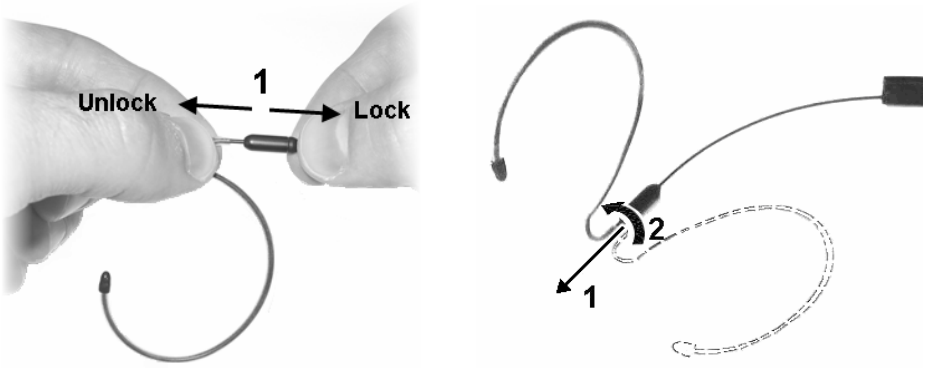


Figure 1. Unlocking and Rotating the Earloops

Headband and Microphone Placement:

Before placing on the user's head, expand the headband to the largest position by moving the sliders toward each other until they almost touch (Figure 2).

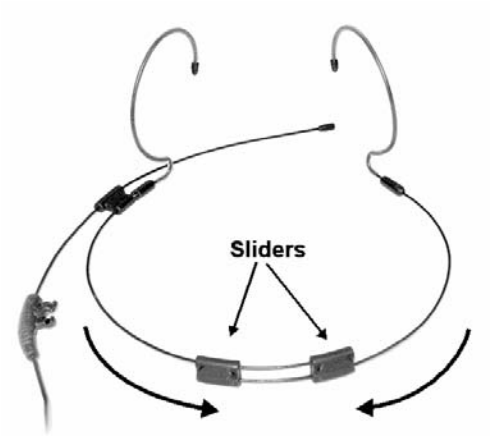


Figure 2. Headband in the Largest Position

Application Notes (continued):

Headband and Microphone Placement (continued):

Place the earloops on the user's ears and then pull the sliders apart, towards the ears, tightening until the headband fits firmly yet comfortably (Figure 3). Adjustments may be made for additional comfort or stability by gently bending the earloops (Figure 4).

Figure 3. Adjusting the Headband

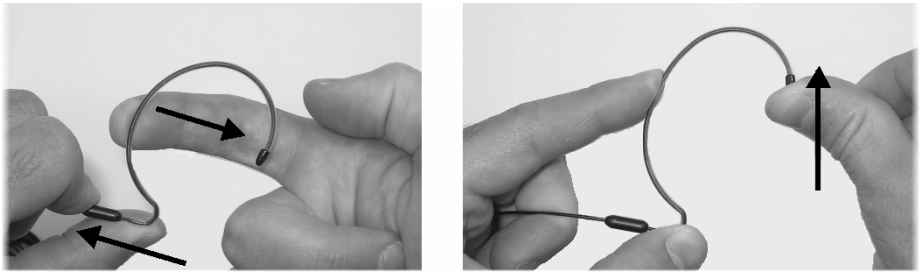


Figure 4. Changing the Earloop Shape

Microphone Positioning:

The ideal placement of the microphone is ½ inch behind the corner of the mouth and ½ to 1 inch away from the face. The signal-to-noise ratio is optimized and breath noise is minimized in this configuration (Figure 5).

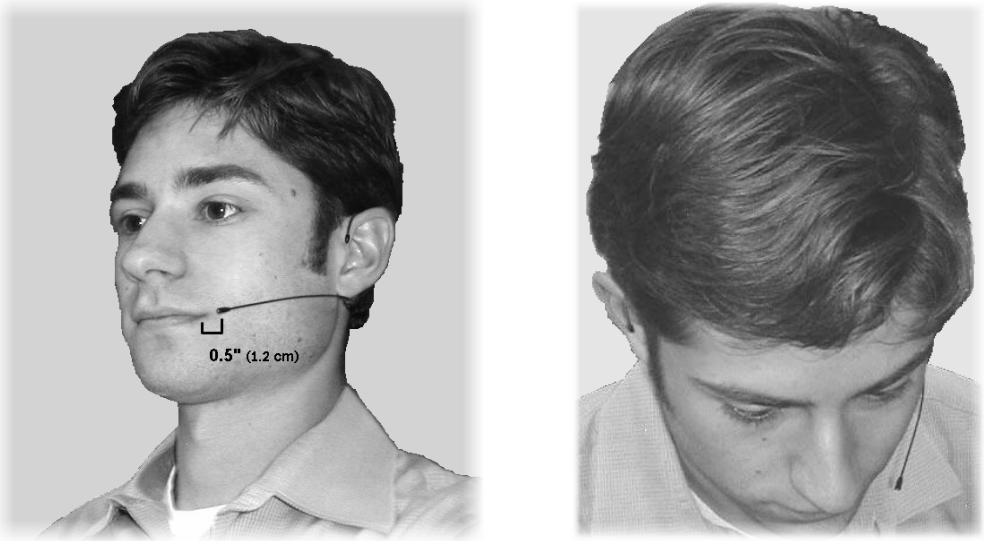


Figure 5. Suggested Placement

Application Notes (Continued):

Adjusting the Microphone Boom:

The three-pronged snap on the strain relief at the back end of the microphone boom can be placed anywhere along the headband. Simply pull the strain relief off of the headband, move the boom and microphone to the desired position, and snap the strain relief back on to the headband (Figure 6).

A slight bend can be put into the boom for ideal placement of the microphone near the corner of the mouth. **Note: Although the microphone boom is designed to be malleable, permanent damage to the microphone may result if bent at an angle exceeding 45 degrees.** To adjust, gently bend the boom a small amount at multiple locations or around a curved object rather than bending it sharply at one point (Figure 7a and Figure 7b).

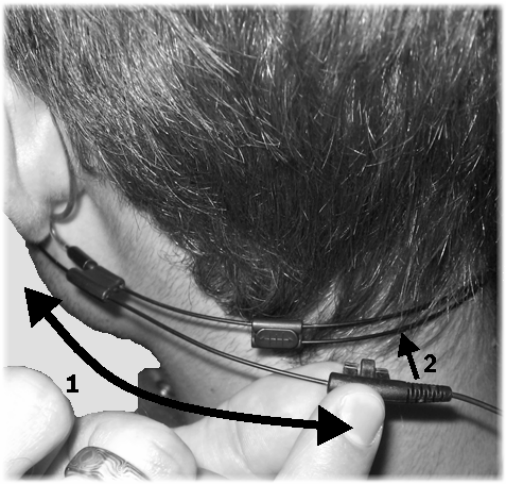


Figure 6. Adjusting the Microphone Boom

Figure 7a. Do Not Bend Mic Boom Sharply

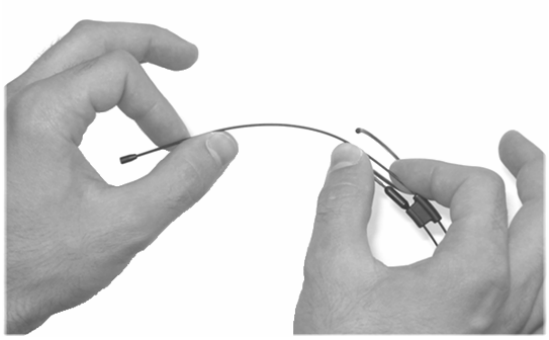


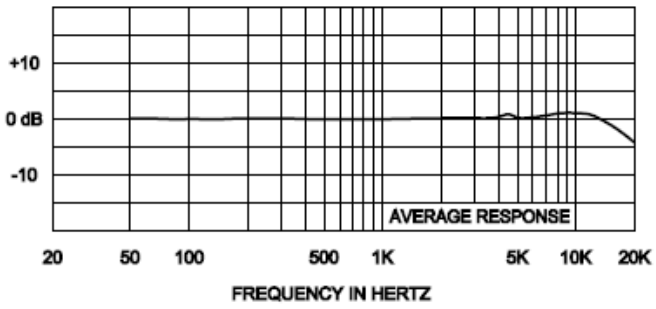
Figure 7b. Shaping the Mic Boom Gently

Using the Clothing Clip:

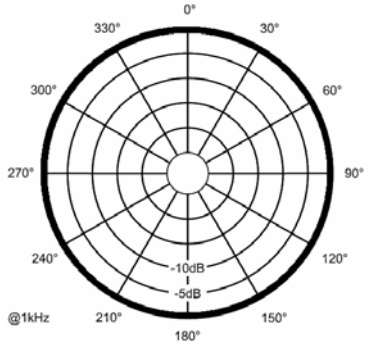
The microphone cable should be routed behind the neck of the user and secured in place with the supplied clothing clip. Allow some slack in the cable to enable the user's head complete range of motion in both directions without pulling the cable from the clothing clip (Figure 8).

Figure 8. Using the Clothing Clip

Frequency Response:



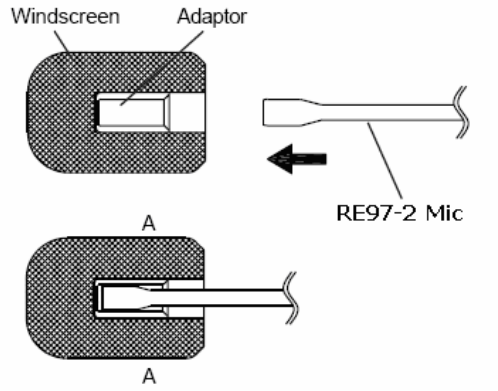
Polar Response:



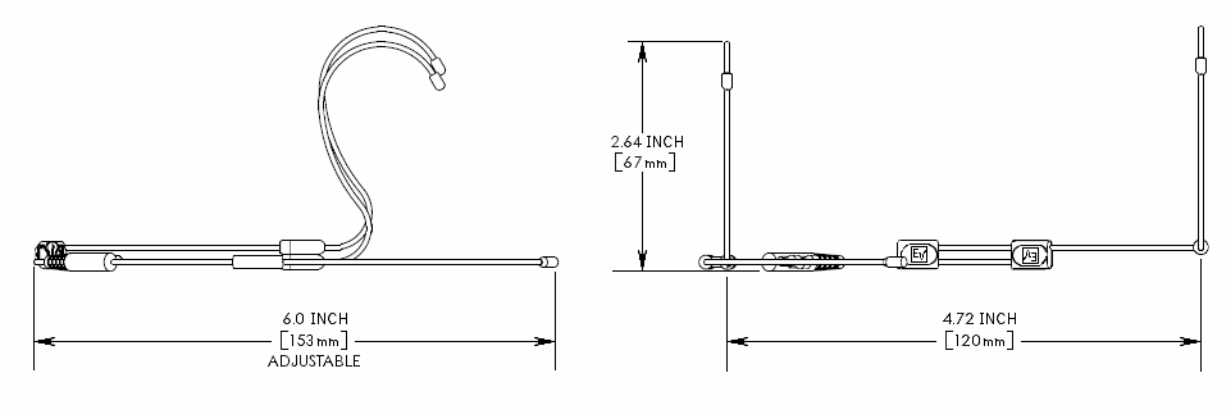
Windscreen Assembly:

The windscreen assembly is supplied with a plastic adaptor to improve stability.

To apply: Hold the windscreen firmly at the “A” locations. Firmly press the microphone into the adaptor until it stops.



Product Dimensions:



Interfacing RE97-2:

Your RE97-2S is configured for use with standard Shure bodypack transmitters. Modifications to RE97-2 should be performed by a qualified technician only. Using the microphone in a way other than described in this manual may damage the microphone and void your warranty.

The following table is provided for your reference should you desire to utilize the RE97-2 with another manufacturer's wireless transmitter bodypack. Please verify the specifications of your transmitter before attempting any changes to your microphone.

Manufacturer	Wireless Systems	Connector Type	Suggested Wiring
AKG	WMS 40 Pro, WMS 400, and WMS 4000 (Transmitters PT 40, PT400, and PT4000)	TA3F	Pin 1: Shield Pin 2: Wire Jump Pin 2 to Pin 3
Audio-Technica	AT UniPak-type Transmitters ATW-1127, ATW-1235, ATW-1451, ATW-2110, ATW-3110a, AEW-T1000, ATW-201, ATW-601, ESW-T210, and ESW-T211 for the following systems: 1100, 1200, 1400, 2000, 3000, 4000, 5000 Series Professional; 200 and 600 Series Freeway; NOT for use with the U100 System	Hirose 4-Pin HR10A-7P-4S	 Pin 1: Shield Jump Pin 1 to Pin 2 Pin 3: Wire Shunt Pins 3-4 with R = 5k Ohms
Electro-Voice	RE-2 (BPU-2); RE-1 (CSB-1000); R100 (BPV)	TA4F	Pin 1: Shield Pin 2: Wire Shunt Pins 2-3 with R = 10k Ohms Pin 4: Not Connected
Sennheiser	Evolution Wireless Systems 100, 300, 500 (Transmitters SK100, SK300, SK500), and G2 Series	3.5 mm (1/8") Stereo or Mono Mini-Plug	Tip: Wire Sleeve: Shield (Ring: Not Connected) 5V Zener diode: + to tip, - to sleeve (1N5231 or similar)
Shure	Performance Gear (UT1); PGX1; SLX1; T Series (T1, T11); UC1; UHF (U1); UHF-R (UR1); ULX Professional and ULX Standard (ULX1)	TA4F	Pin 1: Shield Shunt Pins 2-3 with R = 10k Ohms Pin 3: Wire Pin 4: Not Connected
Telex	FMR Series 70, 500, 1000 (Transmitters WT-55, WT-500, WT-1000); SAFE 1000 (SAFE WT)	TA4F	Pin 1: Shield Pin 2: Wire Shunt Pins 2-3 with R = 10k Ohms Pin 4: Not Connected

RE97-2S Beige	Part Number: PRD000064002
RE97-2S Brown	Part Number: PRD000077002
RE97-2S Black	Part Number: PRD000078002

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Part Number LIT000079-001 Rev. A

U.S.A. and Canada only. For customer orders, contact Customer Service at:
800/392-3497 Fax: 800/955-6831
Europe, Africa, and Middle East only. For customer orders, contact Customer Service at:
+ 49 9421-706 0 Fax: + 49 9421-706 265
Other International locations. For customer orders, contact Customer Service at:
+ 1 952 884-4051 Fax: + 1 952 736-4212
For warranty repair or service information, contact the Service Repair department at:
800/553-5992 or 402/467-5321
For technical assistance, contact Technical Support at: **800/392-3497 or 952/736-4656**

Specifications subject to change without notice.