HeiL GMElite

HeiL GMElite Microphone User Manual

Model: GMElite

Introduction Features Setup Operation Maintenance Troubleshooting Specifications Warranty & Support

1. Introduction

This manual provides detailed instructions for the proper use and care of your HeiL GMElite Microphone. The GMElite is specifically designed for amateur radio communications, featuring dual high-performance dynamic elements to accommodate various communication requirements. Please read this manual thoroughly before operating the microphone to ensure optimal performance and longevity.

2. Key Features

- **Dual Dynamic Elements:** Equipped with two distinct high-performance dynamic elements, selectable via a switch, to suit different communication needs.
- **WIDE Position (Heil Elite Element):** Provides a smooth, articulate audio response from 60Hz to 16 kHz, with a traditional +4 dB peak centered at 2 kHz. This setting is ideal for a balanced, studio-quality SSB signal with excellent voice articulation and a robust low end.
- **NARROW Position (HC-5.1 Element):** Delivers a smooth response from 200Hz to 8 kHz. The HC-5.1 element is designed for compatibility with older radio transceivers or for modern transceivers utilizing onboard DSP EQ, offering full-range broadcast audio or tailored DX/Contest audio through EQ adjustments.
- **Soft-Touch PTT Switch:** Features a Push-To-Talk switch wired to pins 3 and 4 for transmit control.
- **XLR Connectivity:** Microphone audio is fed to pins 1 (shield) and 2 of the four-pin XLR connector.
- **Included Accessories:** Comes with a foam windscreen and a 5/8"-27 microphone clip, compatible with standard booms and desk stands.

Figure 1: The HeiL GMElite Microphone. This image displays the microphone's gold grille, black body, the "GOLD ELITE" branding, the HeiL logo, and the WIDE/NARROW selector switch with the PTT button below it.

3. Setup Instructions

3.1 Unpacking the Microphone

Carefully remove all components from the packaging. Ensure the following items are present:

- HeiL GMElite Microphone
- Foam Windscreen
- 5/8"-27 Microphone Clip

3.2 Attaching the Microphone Clip

1. Thread the included 5/8"-27 microphone clip onto your desired microphone boom arm or desk stand.
2. Securely fasten the microphone clip to prevent accidental detachment.

3.3 Mounting the Microphone

1. Gently insert the HeiL GMElite Microphone into the microphone clip.
2. Adjust the microphone's position and angle for optimal speaking comfort and sound capture.

3.4 Connecting to a Transceiver

The GMElite microphone uses a four-pin XLR connector. It requires a HEIL CC1 Connecting Cable (sold separately) to interface with your specific amateur radio transceiver.

- Connect the XLR end of the HEIL CC1 cable to the microphone's XLR port.
- Connect the other end of the HEIL CC1 cable to the microphone input of your amateur radio transceiver.
- Ensure a secure connection at both ends.

- *Note:* The PTT switch is wired to pins 3 and 4. Microphone audio is fed to pins 1 (shield) and 2. Consult your transceiver's manual for specific microphone input wiring requirements.

4. Operating Instructions

4.1 Element Selection

The GMElite microphone features a switch to select between two distinct dynamic elements: WIDE and NARROW.

- **WIDE Position:** Select this for a full-range audio response (60Hz – 16 kHz) with enhanced voice articulation and a strong low end. This is suitable for general SSB communications where a rich, broadcast-quality sound is desired.
- **NARROW Position:** Select this for a tailored audio response (200Hz – 8 kHz). This element is optimized for older transceivers or for situations requiring a more focused audio profile, such as DX or contest operations, especially when combined with your transceiver's DSP EQ.

4.2 Push-To-Talk (PTT) Function

The soft-touch PTT switch on the microphone controls your transceiver's transmit function.

- Press and hold the PTT switch to transmit.
- Release the PTT switch to return to receive mode.

4.3 Audio Level Adjustment

Adjust the microphone gain and audio processing settings on your amateur radio transceiver to achieve optimal audio levels and clarity. Refer to your transceiver's instruction manual for specific adjustments.

5. Maintenance

5.1 Cleaning

- Wipe the microphone body with a soft, dry cloth.
- Do not use liquid cleaners, solvents, or abrasive materials, as these can damage the finish or internal components.
- The foam windscreen can be gently removed and cleaned with mild soap and water, then allowed to air dry completely before reattaching.

5.2 Storage

When not in use, store the microphone in a clean, dry environment, away from extreme temperatures and humidity.

6. Troubleshooting

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
No audio output or very low audio.	• Incorrect cable connection. • Microphone gain on transceiver set too low. • Incorrect element selected (e.g., NARROW for full-range audio). • Transceiver not compatible with dynamic microphones (e.g., some Icom models).	• Ensure the HEIL CC1 cable is securely connected to both the microphone and the transceiver. • Increase microphone gain on your transceiver. • Try switching between WIDE and NARROW elements to see if audio improves. • Consult your transceiver's manual to confirm compatibility with dynamic microphones and proper wiring.
Distorted or unclear audio.	• Microphone gain on transceiver set too high. • Speaking too close to the microphone (proximity effect). • Environmental noise.	• Decrease microphone gain on your transceiver. • Maintain an appropriate distance from the microphone (typically 2-6 inches). • Ensure a quiet operating environment.
PTT switch not activating transmit.	• Incorrect cable wiring or faulty cable. • Transceiver PTT input issue.	• Verify the HEIL CC1 cable is correctly wired for PTT (pins 3 and 4). • Test with a different compatible microphone or cable if available. • Consult your transceiver's manual for PTT input specifications.

7. Specifications

Feature	Detail
Model	GMElite
Brand	HeiL
Microphone Type	Dynamic
Element 1 (WIDE) Frequency Response	60Hz – 16 kHz (with +4 dB peak at 2 kHz)
Element 2 (NARROW) Frequency Response	200Hz – 8 kHz
Polar Pattern	Unidirectional
Connectivity Technology	XLR (requires HEIL CC1 cable)
Connector Type	XLR
PTT Wiring	Pins 3 and 4
Audio Wiring	Pins 1 (shield) and 2
Item Weight	1.9 pounds (0.86 kg)

Feature	Detail
Product Dimensions (L x W x H)	10 x 6 x 8 inches (25.4 x 15.24 x 20.32 cm)
Included Components	Microphone, Foam Windscreen, 5/8"-27 Microphone Clip
UPC	701630971653

8. Warranty and Support

For warranty information and technical support, please refer to the official HeiL Sound website or contact your authorized HeiL dealer. Keep your purchase receipt as proof of purchase for warranty claims.
Note: Specific warranty terms may vary by region and retailer.

Related Documents - GMElite

	Heil Equipment Training: Mastering R-454B Refrigerant and HVAC Updates Comprehensive training for HVAC professionals on Heil equipment, covering the transition to R-454B refrigerant, A2L safety, new Puron Advance features, NFC controls, and updated service procedures by LEE Supply Corp.
	Heil Ductless Systems Catalog: Residential & Light Commercial Solutions Explore the Heil Residential and Light Commercial Ductless Systems Catalog. Discover efficient, flexible, and comfortable HVAC solutions with detailed product information, specifications, and compatibility for mini-split systems.
	Heil PGD4, PGS4 Package Gas/Electric Unit Product Specifications Detailed product specifications for Heil PGD4 and PGS4 series package gas/electric HVAC units, covering cooling and heating capacities, electrical data, physical dimensions, and performance tables.
	Heil Performance Series Air Conditioners: Cool Indoor Comfort & Energy Efficiency Explore Heil's Performance Series air conditioners, offering advanced features for cool indoor comfort, energy efficiency, and reliable performance. Learn about SEER ratings, two-stage cooling, durable construction, and system components.
	Heil Gas Furnaces: Ion™ System and QuietComfort® Series Explore Heil Gas Furnaces, including the Ion™ System and QuietComfort® Series. Learn about their features, efficiency ratings (AFUE), warranties, and design benefits for home comfort.

Heil Gas Furnaces: Performance Series - Efficiency, Comfort, and Reliability

Discover Heil Performance Series gas furnaces (N96VSN, N95ESN, N92ESN, N80VSL, N80ES). Learn about their AFUE ratings, advanced features like RPJ heat exchangers and ECM motors, quiet operation, and comprehensive warranties for optimal home comfort.