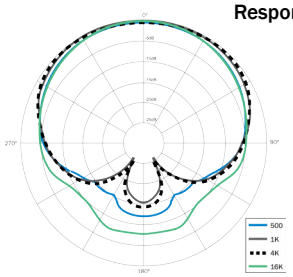
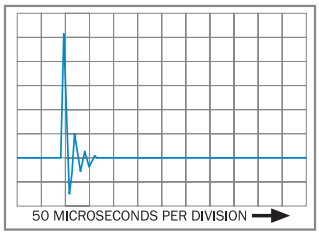
WL40V

Wireless High Definition Vocal Microphone Capsule™

- **High Definition Vocal Microphone Capsule™ for Wireless Handheld Transmitters**
- **30Hz to 40kHz Frequency Response**
- **Hypercardioid**
- **Capture Detail That Other Microphones Miss**
- **Uniform Frequency Response at 0°, 45° & 90°**
- **135dB SPL Max Acoustic Input**
- **More Gain Before Feedback**
- **Exceptional Rejection of Sounds From the Rear of the Microphone**
- **Made in U.S.A.**

Polar Response





Impulse Response

WL40V - a wireless capsule version of the incredible SR40V

Earthworks advanced technologies have made it possible to create a hypercardioid HIGH DEFINITION MICROPHONE with a 40kHz high frequency response. This provides an exceptional ability to capture minute details that conventional cardioid microphones miss. Like the SR40V, the WL40V capsule features impressive impulse response which allows the microphone to capture fast transients with great accuracy and precision. Its incredible gain-before-feedback and exceptional ability to reject sounds from the rear of the microphone make the WL40V a perfect tool for live sound, recording and broadcast applications. Its near-perfect polar response provides the same pristine sound quality at both the front and sides of the microphone. The WL40V is machined and hand tooled from high quality, aircraft-grade metals in our New Hampshire based facility. The capsule features a textured black finish. The WL40V redefines vocal microphone capsules and will dramatically enhance the performance of any compatible wireless handheld transmitter.

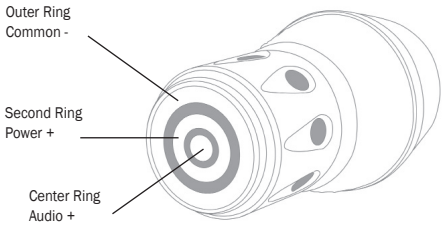
Compatibility with Wireless Handheld Transmitters

The WL40V wireless capsule is interchangeable with most screw-on-type handheld transmitters that receive a 31.3mm/pitch 1.0mm threading (1.25" x 28 thread pitch). The WL40V utilizes a conventional 3-ring concentric connector with the outer ring as common-, middle ring as power+ and center ring as audio +. Please verify that your wireless transmitter has the same 3-ring concentric ring configuration as described above to insure proper functionality of the capsule.

Applications

The Earthworks High Definition WL40V microphone capsule can be utilized as a significant upgrade for wireless transmitters utilizing a compatible 3-ring concentric interface.

Earthworks unique microphone technology enables this capsule to capture vocals with extraordinary detail and incredibly clear articulation, and with fewer plosives. Upgrade your wireless microphone systems today, and enjoy all the exceptional benefits of Earthworks High Definition Microphone technologies in your wireless systems.



Architectural & Engineering Specifications

40kHz Hypercardioid Microphone Capsule

The microphone capsule shall be a back-electret condenser type with a wide-range uniform frequency response of 30 Hz to 40 kHz, ±2 dB @ 30cm. The capsule shall have an output level of 10 mV/Pa and shall be of a single capsule, single membrane design. The capsule shall have an impulse response with the rise time no longer than 25 microseconds, and total settling time, including the rise time, no longer than 120 microseconds. The capsule shall have polar characteristics uniform in all planes to form a hypercardioid of revolution. The capsule shall accept sound pressure at least 135 dB (based on DC voltage supplied) producing no more than 3% THD. The capsule shall have a wire-mesh windscreen. Dimensions shall be 3.7 in. (93.98 mm) long with a maximum windscreen diameter of 1.93 in. (49 mm) and a lower body diameter of 1.46 in. (37 mm) min. The threads have 1.25"/28 thread pitch, and 31.3mm/pitch 1mm threading. The capsule shall be terminated with a 3-ring concentric connector. The capsule power shall be between 5 to 12 volts DC at approximately 500µA (+ 2nd ring & - outer ring). Audio output level shall be (Subject to DC voltage supplied) between 5 to 12 dBv (+ center ring & - outer ring). The microphone capsule shall be made of metal with a black finish. The Earthworks WL40V is specified.

Specifications

Frequency Response:	30Hz to 40kHz ±2dB @ 30cm
Polar Pattern:	Hypercardioid
Sensitivity:	Dependent upon wireless system
Power requirements:	5 to 12V @ 500µA using second & outer ring on 3-ring concentric connector
Max Acoustic Input:	135dB SPL (based on DC voltage supplied)
Distortion	Less than 3% THD
Output:	10mv/Pa using center & outer ring on 3-ring concentric connector
Output Impedance:	300Ω, unbalanced (center & outer ring)
Noise:	22dBA @ capsule output, (A weighted)
Threads:	1.25"/28 thread pitch, and 31.3mm/pitch 1mm threading
Dimensions L x D:	3.7 in. (93.98mm) 1.93 in (49mm) max dia. & 1.46 in (37mm) min dia.
Weight:	0.2 lbs. (90g)

Specifications Subject to Change Without Notice

Earthworks, Inc. • 37 Wilton Rd. • Milford, NH 03055 • (603) 654-2433, ext 114 • email: sales@earthworksaudio.com • earthworksaudio.com