



Josephson Engineering, Inc. Microphone Warranty

Josephson microphones are warranted to be free of defects for five years from the date of original purchase. If purchase documents are not available, the warranty period begins when the microphone was shipped from the factory. Josephson Engineering will, at its option, repair or replace any microphone that fails, providing that it is returned to the factory prepaid and has not been abused or altered.

There are no user-serviceable parts inside Josephson Engineering microphones. Disassembling a Josephson microphone will void its warranty.

For service information please contact Josephson at +1-831-420-0888, or see www.josephson.com

EU Regulatory Compliance

Josephson Engineering, Inc. certifies that C617 microphones bearing the "CE" mark conform at the time of shipment to the applicable requirements of the European Union directives as follows:

Machinery 93/68/EEC	Exempt - passive sensor
Low Voltage 93/68/EEC	Exempt - passive sensor
EMC 93/68/EEC	Exempt - passive sensor

RoHS 2002/95/EEC	Compliant for Hg Cd Cr6 Pb and PBDE
------------------	-------------------------------------

David L Josephson CEO
Josephson Engineering, Inc., 329A Ingalls, Santa Cruz CA 95060 USA



C617

HIGH VOLTAGE OMNIDIRECTIONAL MICROPHONE BODY

The **C617** microphone is the second generation of the Josephson design that allows metal-diaphragm instrumentation microphone capsules to be used at their fullest potential for music recording. Unlike measurement microphone preamps, the **C617** operates from standard phantom power. No compromises are made in the sonic quality of the circuit or the components used to build it.

Many different instrumentation capsules have been made since the 1940's, beginning with the legendary one-inch Western Electric 640AA. The best omni capsule available for music recording today is the Microtech Gefell half-inch **MK221**, and this type is supplied with the C617 body to form the **C617SET** microphone. Noise level of the **C617SET** is around 2.5 μ V rms (A-weighted) for an equivalent input noise of 14 dB(A).

Because of the limited power budget imposed by P48 phantom power, it takes some time for the **C617** to reach full operating performance. The microphone becomes operational about ten seconds after application of power, but as the internal power supplies become stable, there may be some spurious noises in the output. These are very low level, but the user should not be surprised to hear a few noises in the first 5 minutes of operation as 200 volts are generated from P48 for use in charging the capsule. The microphone should be allowed to operate for 7 minutes before being used for critical recording.

Any industry standard half-inch instrumentation capsule having 0.460-60 threads and intended for 200 volt polarization may be used with the C617.

CAUTION

Do not use electret or low-voltage capsules with the C617. The high voltage polarize potential can damage the diaphragm of low-voltage capsules through arcing. Capsules intended for 28 volt polarization or having electret self-polarization must not be used with the C617.

Be careful when removing and installing the microphone capsule. The spring-loaded contact pin of the C617, and the white plastic insulator around it, must be kept absolutely clean. A cotton swab lightly moistened with isopropyl alcohol may be used to clean the insulator so it cannot contribute to the leakage current of the front-end stage.

For additional overload margin, the C617 may be used with "super phantom" powering according to IEC 61938. This is identical to normal P48 phantom but using 2.2K resistors matched to within 2 ohms rather than 6.8K. About 10 mA will be drawn in "super phantom" mode.

JOSEPHSON ENGINEERING, Inc.
329A Ingalls Street, Santa Cruz, California 95060

Tel 831-420-0888 Fax 831-420-0890
email info@josephson.com
<http://www.josephson.com>