



NOT
ACTUAL SIZE

SONY[®] C-500 STUDIO-STANDARD CONDENSER MICROPHONE

Undeniably the finest cardioid condenser microphone ever developed, the Sony C-500 is an essential part of the sophisticated studio's complement of microphones. It is the only microphone capable of equaling or surpassing the technical sophistication of all other equipment in today's state-of-the-art recording systems. Its dynamic range, in excess of 130 dB, permits noise- and distortion-free recording of extremely dynamic works of music. Its remarkably low distortion, less than 0.1% (I.M. or T.H.D.)

at or below 134 dB SPL, is fully the match of the finest consoles. *NO OTHER MICROPHONE* even approaches this distortion-free performance. And it will accept sound pressure levels up to 154 dB without significant increase in distortion! Frequency response is virtually flat from 20 Hz to beyond 20 kHz. All other performance parameters are equally impressive, thus justifying the C-500's title: STUDIO-STANDARD.

FEATURES

- **Two Low-Cut Filters:** A choice of two degrees of low frequency attenuation may be selected to compensate for acoustically difficult or uncontrolled conditions.
- **Uniform Directivity:** The cardioid polar pattern is remarkably uniform for maximum rejection of off-axis sound, regardless of frequency.
- **8 dB Pad:** The pad, located between the capsule and impedance translator prevents overload of the impedance translator and the console's microphone preamplifier when used with extreme high SPL sound sources.
- **Phantom Power System:** The C-500 may be powered from any standard phantom power supply (DC 48-54 Volts).

SPECIFICATIONS

- **Frequency Response:** 20-20,000 Hz ± 3 dB (frontal)
- **Output Level:**

Position of the Pad Switch [0] [-8 dB]	Output impedance	Effective output level (dBm) ¹	Open circuit output level (dB) ²	EIA Rating Gm (dB) ³
250 Ω	250 Ω	-49.8	-50 (3.16mV)	-141.8
250 Ω	250 Ω	-57.8	-58 (1.25mV)	-149.8

Note: (1) 0 dBm=1 mW/10 μ bar, 1,000 Hz
 (2) 0 dB=1 V/10 μ bar (deviation ± 2 dB), 1,000 Hz
 (3) EIA Standard SE-105

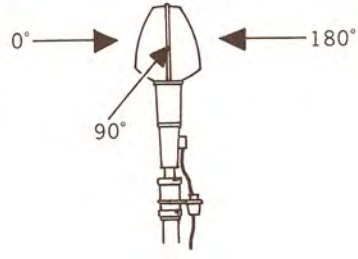
- **Impedance:** 250 ohm $\pm 20\%$ (balanced)
- **Power Supply:** Standard operating voltage: 48V
Current drain: less than 2.5 mA
- **Noise Level:** a. S/N ratio: more than 70 dB (1000 Hz, reference=10 μ bar)
b. Inherent noise: Less than 24 dB SPL (Equivalent; 0 dB=2x10⁻⁴ μ bar)
c. Wind Noise*: less than 40 dB SPL
d. Induction noise of external magnetic field**: less than 5 dB SPL/m gauss

*Wind Noise is value measured by applying a wind velocity of 6.6 ft/second from all directions to the microphone. The mean value is taken and converted to the equivalent input sound level. (0 dB=2x10⁻⁴ μ bar)
 **The external magnetic field induction noise is measured with the microphone placed in the alternating magnetic field of 50 Hz, 1 milligauss. The maximum noise value is taken and then converted to the equivalent input sound level (0 dB=2x10⁻⁴ μ bar)

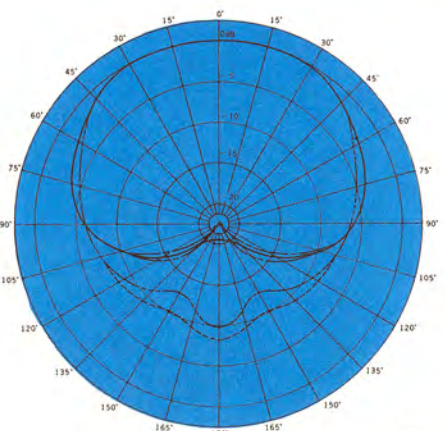
- **Maximum Sound Pressure Input Level*:** 154 dB SPL

*This is the maximum input level which produces less than 1% total harmonic distortion at the output with 1,000 Hz and less than 1% intermodulation distortion at the output signal with 70 Hz: 7 kHz.

- **Dynamic Range:** 130 dB
- **Microphone Cable:** Approx. 0.28" (5.8 mm) dia. Four conductor shielded cadmium bronze cable (19 ft. 8 in. 6 m), XLR-3-12C Cannon Connector
- **Mounting Thread:** Standard RCA thread (5/8" — 27 adaptor included)
- **Dimensions:** Refer to figure, below
- **Weight:** 2.2 lb (1,000 g)
- **Supplied Accessories:** Stand Adaptor SAD-3B, (1/2" — 14 to 5/8" — 27), Microphone Cover
- **Optional Accessories:** AC power supply AC-148A

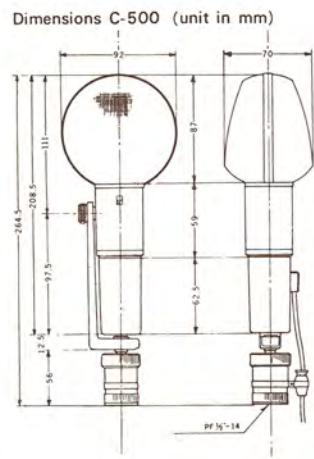
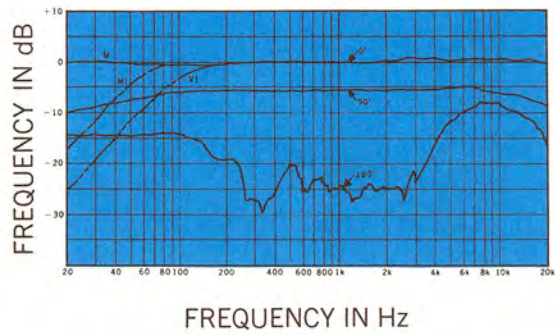


DESIGN AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE



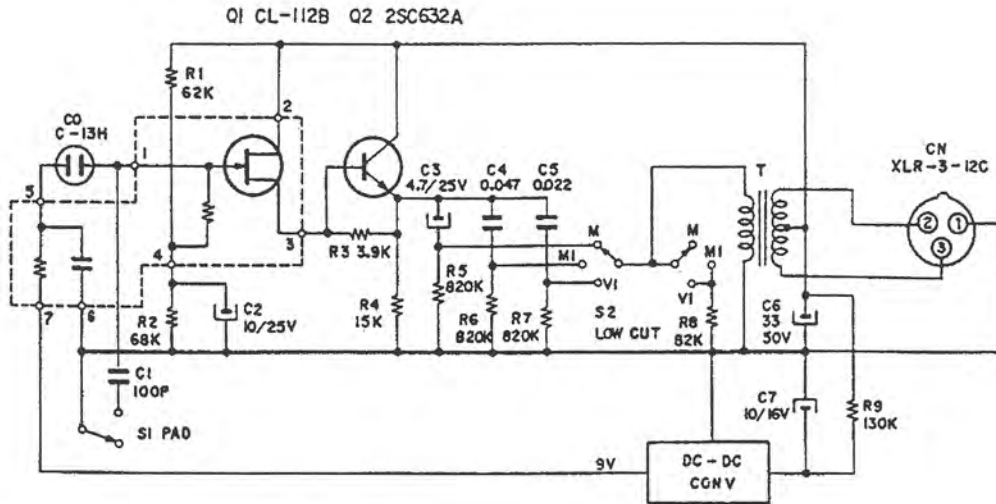
POLAR PATTERN

FREQUENCY RESPONSE



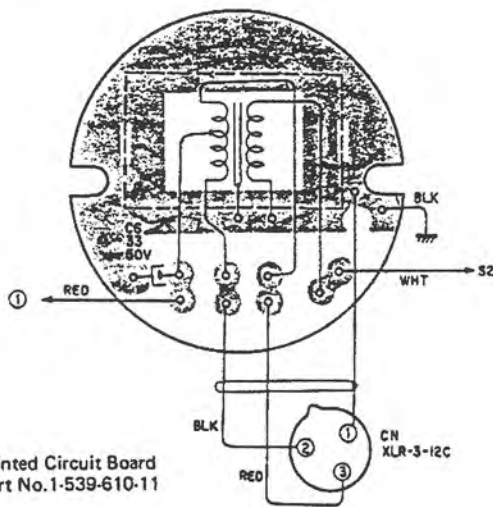
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4. SCHEMATIC DIAGRAM



5. MOUNTING DIAGRAMS

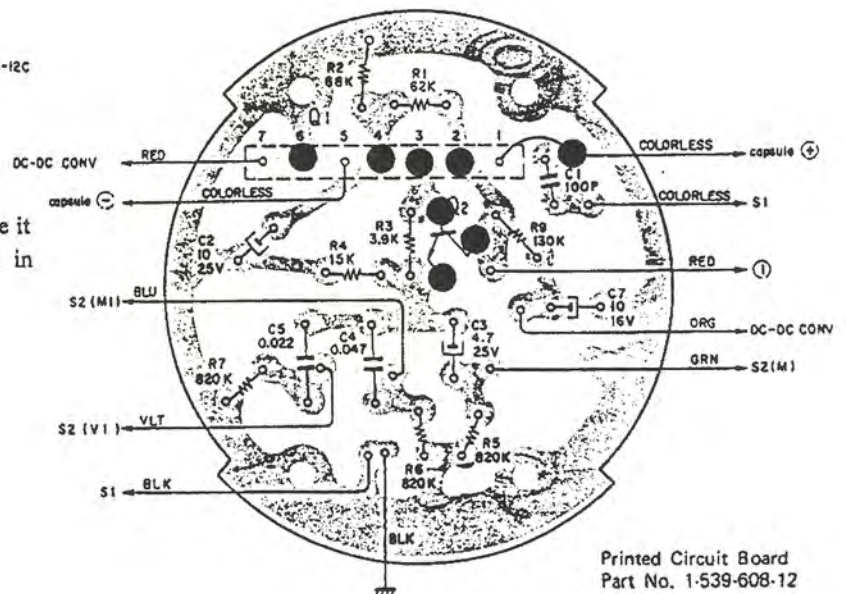
Subsidiary Circuit Board – Conductor side –



Notes:

1. All resistors and capacitors are in Ω and μF , unless otherwise indicated.
2. Q1 is a module in which one FET, one capacitor and two resistors are included.

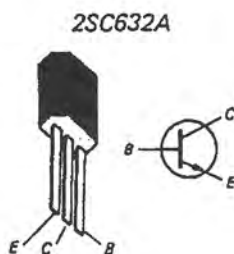
Amplifier Circuit Board – Conductor side –



Printed Circuit Board
Part No. 1-539-610-11

CAUTION

Dc-dc converter is unserviceable since it is strictly assembled and adjusted in the factory.



Printed Circuit Board
Part No. 1-539-608-12