User Manual

Dual-element Cardioid Instrument Microphone AE2500

audio-technica

ARTIST ELITE™

Thank you for purchasing this product. Before using the product, read through the user manual to ensure that you will use the product correctly.
Please keep this manual for future reference.

Features

- Revolutionary dual-element design features two elements (condenser and dynamic) enclosed in a single-housing
- Dynamic element delivers the aggressive attack of the beater while the condenser captures the round tonalities of the shell
- Elements are positioned in a perfect phase relationship, something practically unachievable with two separate microphones
- Robust design for enduring dependability on the road
- Integral 80 Hz HPF switch and 10 dB pad (condenser element)

Notes on use

The AE2500 is intended for use in professional applications where remote power is available. It requires 11V to 52V DC phantom power only to the condenser output of the supplied cable.

Output from the microphone's 5-pin XLRM-type connector is lowimpedance (Lo-Z) balanced. The included 5m shielded cable features a 5-pin XLRF-type input connector and two standard 3-pin XLRM-type output connectors. The balanced signals appear across Pins 2 and 3 (condenser) and Pins 4 and 5 (dynamic). Pin 1 is ground (shield). Output is phased so that positive acoustic pressure produces positive voltage at Pins 2 and 4.

An integral 80 Hz hi-pass filter provides easy switching from a flat frequency response to a low-end roll-off. The roll-off position reduces the microphone's sensitivity to popping in close vocal use. It also reduces the pickup of low-frequency ambient noise (such as traffic, air-handling systems, etc.), room reverberation and mechanically-coupled vibrations.

The AE2500 includes an AT8471 isolation clamp to provide secure mounting, versatile positioning, and effective dampening of unwanted mechanical noise.

Avoid leaving the microphone in the open sun or in areas where temperatures exceed 43°C for extended periods. Extremely high humidity should also be avoided.

Safety precaution

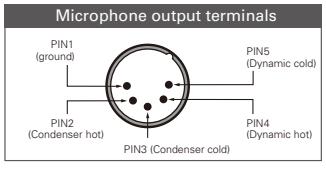
Although this product was designed to be used safely, failing to use it correctly may result in an accident. To ensure safety, observe all warnings and cautions while using the product.

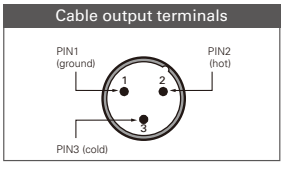
Cautions for the product

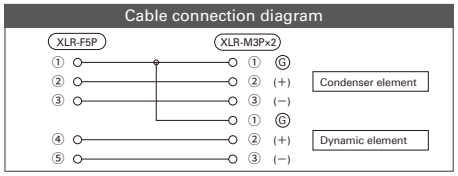
- Do not subject the product to strong impact to avoid malfunction.
- Do not disassemble, modify or attempt to repair the product.
- Do not handle the product with wet hands to avoid electric shock or injury.
- Do not store the product under direct sunlight, near heating devices or in a hot, humid or dusty place.

Connection procedure

Connect the output terminals of the microphone to the 5-pin XLRF-type connector on the included cable. Connect the two 3-pin XLRM-type output connectors on the opposite end of the cable to devices that have a microphone input (balanced input) compatible with a phantom power supply.
The output connectors are XLRM-types with polarities as show in the figures below.







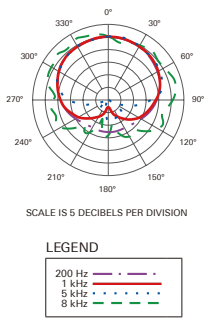
This product requires 48V DC phantom power for Condenser element.

Specifications

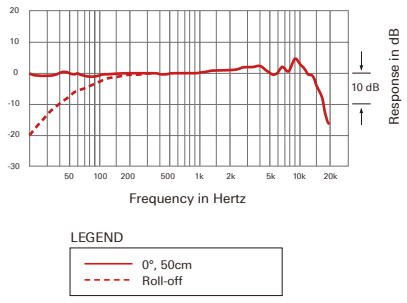
Element	Condenser, dynamic
Polar pattern	Cardioid
Frequency response	20 - 17,000 Hz (condenser) 30 - 10,000 Hz (dynamic)
Low Frequency response	80 Hz, 12 dB/octave (condenser)
Open circuit sensitivity	-51 dB (2.8 mV) re 1V at 1 Pa (condenser) -54 dB (1.9 mV) re 1V at 1 Pa (dynamic)
Impedance	100 ohms (condenser) 600 ohms (dynamic)
Maximum input sound level	148 dB SPL, 1 kHz at 1% T.H.D. (condenser) 158 dB SPL, with 10 dB pad (normal)
Dynamic range (typical)	124 dB, 1 kHz at Max SPL (condenser)
Signal-to-noise ratio	70 dB, 1 kHz at 1 Pa (condenser)
Phantom power requirements	11-52 V DC, 3 mA typical (condenser)
Switch	Flat, roll-off ; 10 dB pad (normal) (condenser only)
Weight	390 g
Dimensions	165.0 mm long, 55.0 mm maximun diameter
Output connector	Integral 5-pin XLRM-type
Cable	5m dual shielded, 8-conductor cable, 5-pin XLRF-type connector at microphone, two 3-pin XLRM-type output connectors
Included accessories	AT8471 isolation clamp for 5/8"-27 threaded stands; 5/8"-27 to 3/8"-16 threaded adapter; soft protective pouch

• 1 Pascal = 10 dynes/cm^2 = 10 microbars = 94 dB SPL
* Typical, A-weighted, using Audio Precision System One.
For product improvement, the product is sublect to modification without notice.

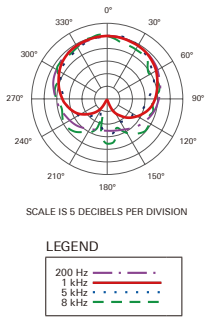
Condenser polar pattern



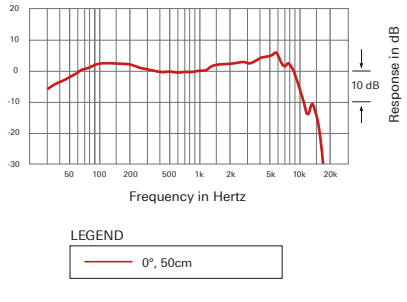
Condenser frequency response: 20~17,000Hz



Dynamic polar pattern



Dynamic Frequency response: 30~10,000Hz



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用户手册

ARTIST ELITE™

感谢您购买本产品。在使用产品之前，请全文浏览本用户手册以确保您将正确地使用本产品。请妥善保存本手册，以供将来参考。

■ 产品特点

- 革命性的双元件收音设计，提供一个创新的声音传感技术
- 在电容式收音头提供清晰收音的同时，动圈收音头补充了丰满的节拍感
- 收音元件的位置设计，有完善的相位联系，并非随便合并两支话筒就可造出的效果
- 坚固的金属结构，可确保在现场演出使用时的可靠性能
- 内置 80Hz 高通滤波器及 10dB 衰减（电容收音头）

■ 使用注意事项

AE2500 适合于使用远程供电的专业应用，其电容收音头可以由调音台或混音器提供 11V 至 52V 的直流幻象电源。

话筒的5针XLRM卡农输出端为低阻抗平衡输出，配置一条5米长的屏蔽话筒连接线，具有一个5针XLRF型输入连接器和两个标准的3针XLRM型输出连接器。话筒音频信号以卡农公头的2号/3号针脚作电容元件输出，和4号/5号针脚作动圈元件输出，而1号针脚则为地线(屏蔽)连接。输出相位将以正相位电平设于2号和4号针脚上。

电容收音头内置低截滤波电路，可轻易由平直的频率响应，开启为于 80Hz 以下衰减的收音效果，应用低截滤波器可减低话筒在近距离讲话收音时的喷气声，并可减低收音环境中低频噪声(如外间汽车引擎声，空调系统的风声等)，房间中的回声及机械性的震动声。

AE2500附属的AT8471防震话筒夹配有5/8"-27螺纹，可牢固安装在任何话筒支架中，提供多功能定位，并有效阻隔的机械噪音。

把话筒暴露于高温中可能导致输出电平逐渐及永久性减弱，应避免将话筒留在日晒的地方或长时间置于温度超过43°C的地方，而极高湿度也应避免。

■ 安全预防措施

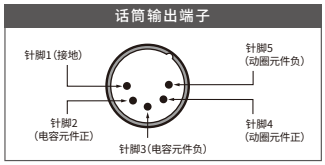
虽然本产品采用安全设计，但使用不当仍可能发生事故。为了确保安全，使用本产品时请注意全部警告和提醒。

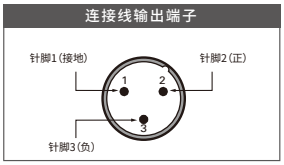
■ 本产品注意事项

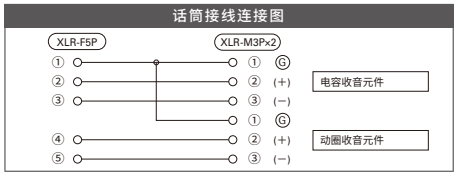
- 切勿让本产品遭受强烈冲击，以避免发生故障。
- 切勿拆开、改装或尝试维修本产品。
- 切勿用湿手握持本产品，以免触电或受伤。
- 切勿将本产品存放在阳光直射的地方、加热装置附近或者炎热、潮湿或多尘的地方。

■ 连接步骤

将话筒的输出端子连接到具有兼容幻象电源的话筒输入（平衡输入）的设备。输出接口是XLRM型接口，其极性如下图所示。







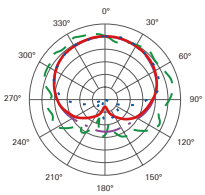
本产品的电容收音元件
使用直流 48V 幻象电源。

■ 规格

元件	电容式及动圈式
指向性	心形指向性
频率响应	20 - 17,000 Hz (电容收音) 30 - 10,000 Hz (动圈收音)
高通滤波	80 Hz，12 dB/octave (电容收音)
开路灵敏度	-51 dB（2.8mV) 以 1V 于 1Pa (电容收音) -54 dB（1.9mV) 以 1V 于 1Pa (动圈收音)
输出阻抗	100 欧姆 (电容收音) 600 欧姆 (动圈收音)
最大承受声压	148 dB 声压, 1 kHz 于 1% T.H.D. (电容收音) 158 dB 声压, 于 10 dB 衰减 (正常)
动态范围 (典型)	124 dB, 1 kHz 于最高声压 (电容收音)
信噪比	70 dB, 1 kHz 于 1 Pa (电容收音)
幻象供电	直流 11-52V，3mA 典型 (电容收音)
开关	低截滤波，10 dB 衰减 (正常) (电容收音)
重量	390 克
尺寸	长度 165.0 mm, 最大直径 55.0 mm
输出端子	内置式 5 针卡农公头
连接线	5米长8芯屏蔽导线， 5 针卡农母头连接于话筒， 2个3 针卡农公头输出
附带配件	AT8471 防震式 5/8"-27 接头话筒夹; 5/8"-27 至 3/8"-16 转接头、 保護袋

• 1 帕= 10 达因 / 平方厘米= 10 微巴= 94 dB SPL
*典型，A 计权，使用 Audio Precision System One
因产品改进，本产品会随时改装，恕不另行通知。

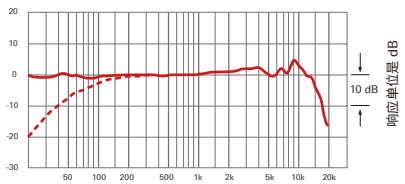
■ 电容收音指向性



比例是每分隔线 5 分贝

图例
200 赫兹
1 千赫兹
5 千赫兹
8 千赫兹

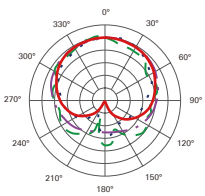
■ 电容收音频率响应: 20~17,000Hz



频率单位是赫兹

图例
0°，50 厘米
高通滤波

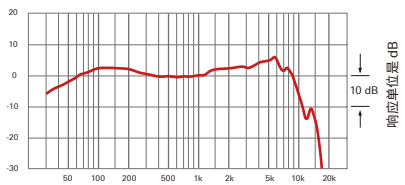
■ 动圈收音指向性



比例是每分隔线 5 分贝

图例
200 赫兹
1 千赫兹
5 千赫兹
8 千赫兹

■ 动圈收音频率响应: 30~10,000Hz



频率单位是赫兹

图例
0°，50 厘米

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