

# TAKSTAR<sup>®</sup> 得胜

用户手册  
User Manual



**CM-450** 广播录音专用麦克风  
BROADCASTING AND RECORDING MICROPHONE

尊敬的用户：

感谢您选购TAKSTAR CM-450广播录音专用麦克风，为了您能够更好的了解使用本产品，建议您在使用前仔细阅读本说明书。

若存在有疑问或者您有宝贵的建议，可通过拨打得胜官方服务热线400 6828 333或使用微信扫描二维码关注得胜官方公众号与我们联系。



## ■ 产品简介

CM-450是得胜公司新推出的一款具有低频衰减及灵敏度衰减、全指向、单指向、双指向等9种指向性的多功能电子管电容传声器。该产品经过专业技术开发人员兢兢业业的刻苦钻研和探索及精心的结构设计，精密的电子元件和大振动镀金膜极头，使CM-450无论在性能、音质上都迈向新一步台阶！

## ■ 包装清单

CM-450电容传声器.....	1支
PM-3幻象电源盒.....	1个
电源线 .....	1条
7P公母卡侬输出线（8米） .....	1条
SH-100防震架.....	1个
W-10防风海绵.....	1个
防震架备用橡胶圈.....	1条
铝合金箱 .....	1个
说明书.....	1份

## ■ 适用范围

适用于广播电视台、电影制片厂、录音室、舞台演出等专业场合

## ■ 技术参数

单体：压力梯度型镀金膜电容传声器

指向性：全指向、单指向、双指向等9种

频率响应：20Hz~20KHz

灵敏度：-37dB  $\pm$  2dB (0dB=1V/Pa at 1KHz)

输出阻抗：200 $\Omega$   $\pm$  30% (at 1KHz)

负载电阻： $\geq$  1000 $\Omega$

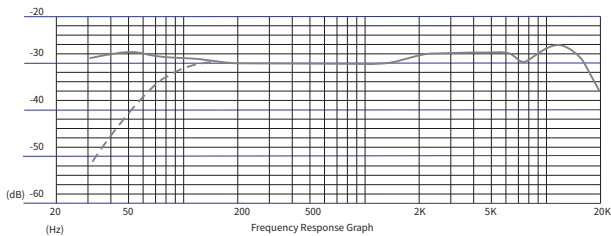
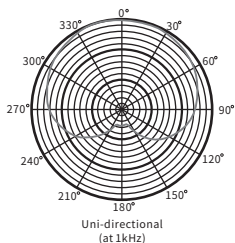
等效噪声级：22dB A (IEC 268-5)

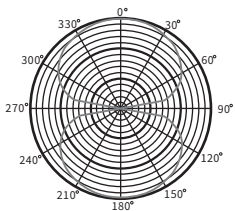
最大声压级：120dB (1KHz谐波失真 $\leq$ 1%)

单体尺寸： $\varnothing$ 54X201mm

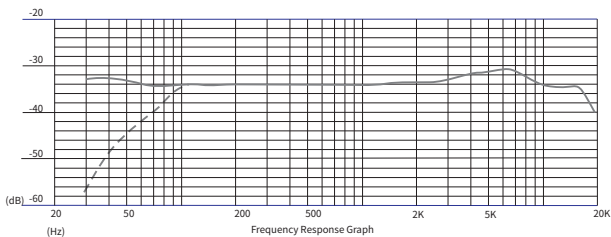
单体重量：590g

心型图/频率响应图：

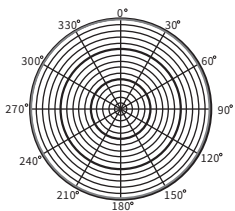




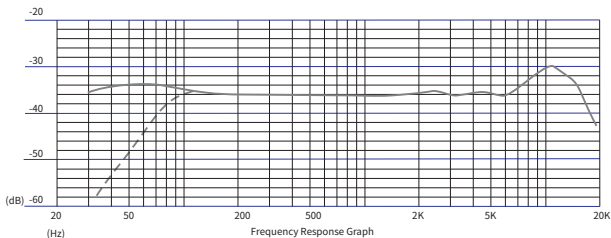
Bi-directional  
(at 1kHz)



Frequency Response Graph



Omni-directional  
(at 1kHz)

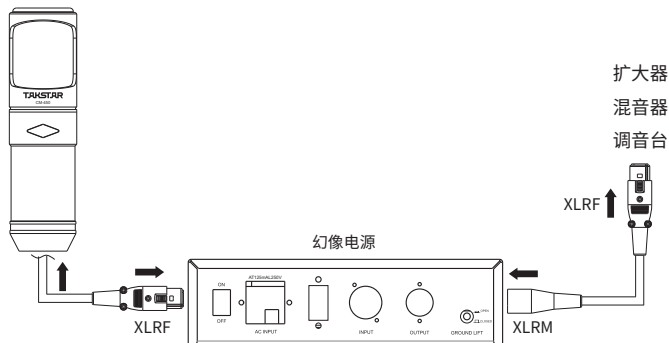


注：以上数据由得胜实验室测试得到，并拥有最终解释权！

## ■ 使用说明

1. 打开包装箱后，把CM-450传声器与SH-100防震架组合起来，固定在你所拾取声源的正前方；
2. 将扩音器或调音台音量调小，按连接示意图所示，接好传声器及幻像电源，打开电源开关，通电后，CM-450电子管显示窗发出亮光，显示进入工作状态；
3. 通电后，应使传声器预热几分钟，将扩音器或调音台音量控制从小到大慢慢调节至合适，即可开始工作。

连接示意图：

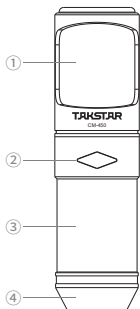


### 连接线的安装与拆卸：

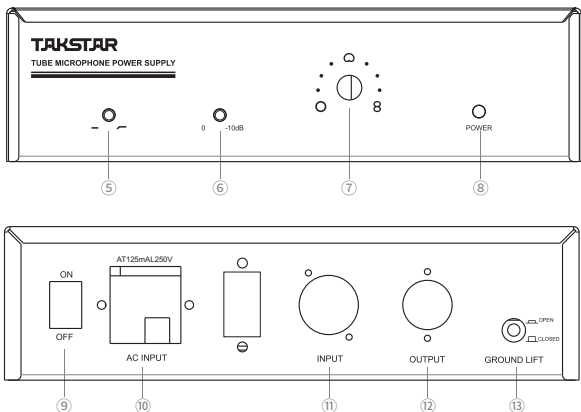
1. 把卡侬（XLR）插头插入传声器，旋转插头使上面的扣键与传声器上的槽口对准，然后将插头推入传声器，直至扣键定位；
2. 传声器与连接线分开时，可握住插头，同时按压扣键，然后将插头从传声器拉出。

### CM-450电容传声器：

- ① 保护网罩
- ② 真空电子管显示窗
- ③ 锌合金外壳
- ④ XLR-7P接口



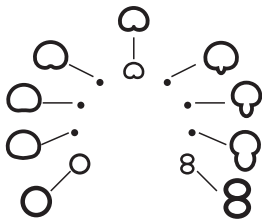
## PM-3幻象电源:



- ⑤ 低频衰减功能：开关拨向“—”位置时，一般在环境优越的情况下（消声室）及装上防震架，能够拾取真实的声源。开关拨向“—”位置时，可均衡近距离拾音时的低频提升效应和降低风噪声、舞台地板震动声等，此时的低频得到修饰，使音质更加清晰自然。
- ⑥ 灵敏度衰减功能：开关拨向“—”位置时，为无衰减状态。当开关拨向“-10dB”时，灵敏度降低-10dB，一般在高声压级大动态拾音场合使用（如交响乐队的低频鼓、小号等乐器拾音）。
- ⑦ 指向性调节功能：开关调节“○”时为全指向，在各个方位（360°）拾音效果是相同、均匀的，用于多声场音源拾音。开关调节“○”时为为单指向，从传声器正前方拾音，这时为理想的灵敏度拾音，通常用于单一声源录音功能。开关调节为“8”时为双指向，从传声器正前方和背面的拾音灵敏度是相等的，使用于双向录音场合。其它各档位指向性与“○”、“○”、“8”的指向性相差3dB，依据不同的拾音场合选择（如下图）
- ⑧ 电源指示灯
- ⑨ 电源开关
- ⑩ AC~220V电源电压输入
- ⑪ 电容传声器输入

⑫ 信号输出

⑬ 数码干扰开关：一般传声器在数字录音的情况下使用，会遇到数字信号干扰或谐波干扰等现象，此时请将开关按下，即可消除干扰



指向性调节功能



## ■ 安全警示

为避免电击、过高温度、着火、辐射、爆炸、机械危险以及使用不当等可能造成的人身伤害或财产损失，使用本产品，请仔细阅读并遵守以下事项：

1. 使用产品时请确认所连接设备与本产品功率是否匹配以及合理调整音量大小，不要在超过产品功率及大音量下长时间使用，以免造成产品异常和耳朵听力损伤
2. 使用中若发现有异常（如冒烟、异味等），请立即关闭电源开关并拔掉电源插头，然后将产品送经销商检修
3. 本产品及附件都应放置在室内干燥通风处，勿长期存放在潮湿、灰尘多的环境，使用中避免靠近火源、雨淋、进水、过度碰撞、抛掷、振动本机及覆盖通风孔，以免损坏其功能
4. 若产品需要固定于墙壁或天花板上时，请确保固定到位，防止因固定强度不足导致产品发生跌落危险
5. 使用该产品时需遵守相关安全规定，法律法规明确禁止使用场合请勿使用本机，以免导致意外事故
6. 请不要自行拆机改装或维修，以防止出现人身伤害，如有问题或服务需求请联系当地经销商跟进处理

Dear Customer,

Thank you for purchasing TAKSTAR CM-450 broadcasting and recording microphoned. Please read the user manual carefully before operation and keep it for reference in future.

If you have any question or suggestion, please contact our local dealer.



## ■ Product brief introduction

CM-450 tube microphone is the latest design of TAKSTAR with a characteristic of nine transient polar patterns from omni-directional to bidirectional and cardioid. The solid tube microphone use a special vacuum tube, the circuit is meticulous in design and construction. The precision components and gold plated diaphragm make the performance come up to advanced world standards.

## ■ Packing List

CM-450 solidtube microphone.....	1pc
PM-3 phantom power supply.....	1pc
Power cable.....	1pc
8m (30ft) connecting cable with 7 Pin M&F connector.....	1pc
SH-100 elastic shock mount.....	1pc
W-10 foam windscreen.....	1pc
Black rubber band (spare part).....	1pc
Aluminum carrying case .....	1pc
Manual .....	1pc

## ■ Application

a wide variety of professional applications such as broadcasting, film studio, recording, show on stage and so on.

## ■ Specifications

Unit: Gold plated transducer

Polar pattern: 9 types Uni/Figure 8/Omni and so on

Frequency response: 20Hz~20KHz

Sensitivity:  $-37\text{dB} \pm 2\text{dB}$  ( $0\text{dB}=1\text{V}/\text{Pa}$  at 1KHz)

Output impedance:  $200\Omega \pm 30\%$  (at 1KHz)

Load impedance:  $\geq 1000\Omega$

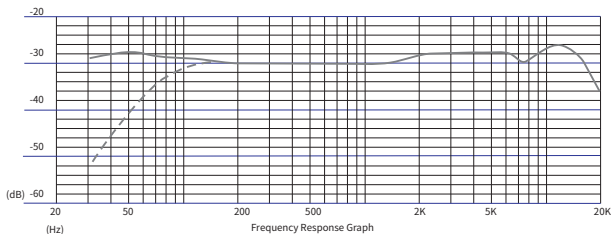
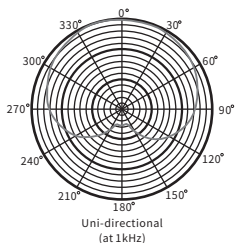
Self noise: 22dB A (IEC 268-5)

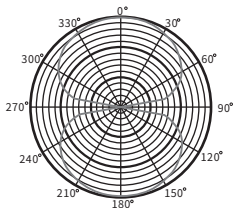
Max input SPL: 120dB (at 1KHz  $\leq 1\%$  T.H.D)

Body dimensions:  $\varnothing 54 \times 201\text{mm}$

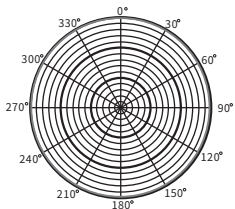
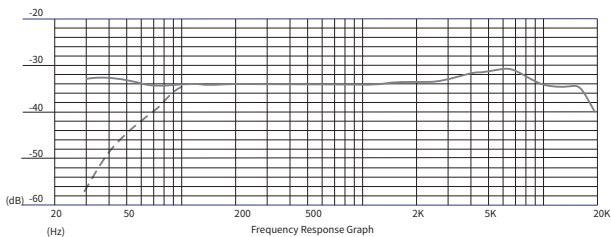
Net weight: 590g

Polar Response Curve/Frequency Response Graph:

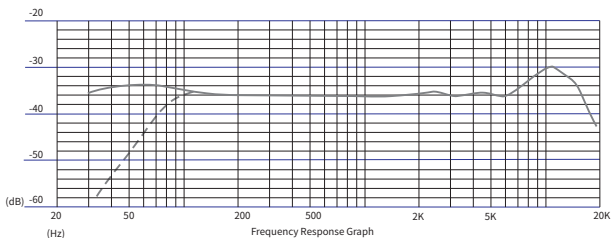




Bi-directional  
(at 1kHz)



Omni-directional  
(at 1kHz)

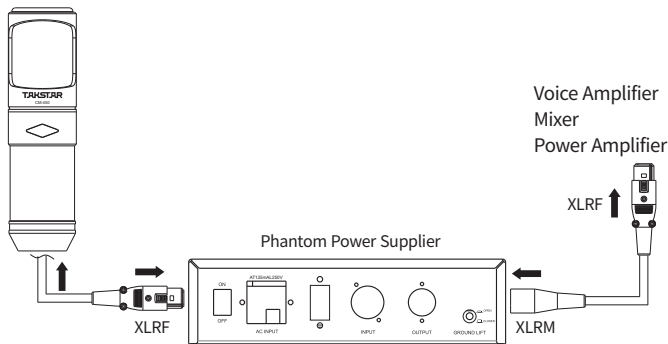


Note: The above data are tested by the Takstar laboratory and Takstar has the right of final interpretation.

## ■ Usage

1. Open the carrying case, fit the microphone into the shock mount, ensure the position of the microphone on the front of the sound sources.
2. Take the PM-3 phantom power out from the carrying case, two types of voltage can be selected: 220V or 110V, so please check the power type of the phantom power with the local mains voltage.
3. Adjust the volume control knob of the amplifier or mixer, make the volume is the lowest, set up the equipments according to the sketch. Turn on the power supply, then power the microphone, the tube will give off light, which indicate the microphone is essentially ready for operation.
4. After switching on the microphone power on the power supply unit, please allow a few minutes for the tube to warm up so as to get the full, warm sound.

## Operation:

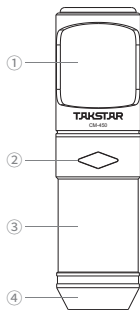


## Connecting and Disconnecting the Microphone Cable:

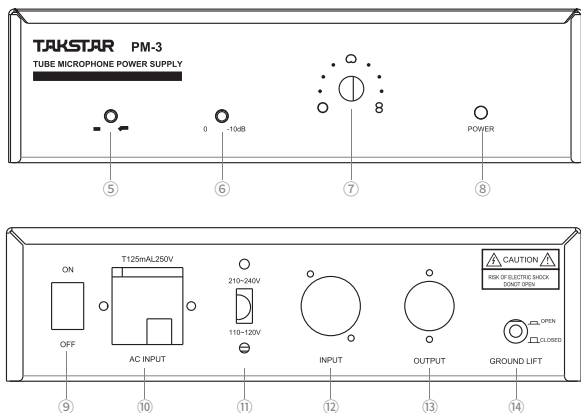
1. Insert the XLR connector into the microphone. If necessary, rotate the connector to align the key on the connector and the groove in the microphone. Push the connector into the microphone until it clicks.
2. To disconnect the cable and microphone, grasp the connector while depressing the tab. Pull the connector away from the microphone.

## CM-450 Condenser Microphone:






- ① “POP” filter hardened grille
- ② Window for electron tube
- ③ Zinc die-cast body
- ④ XLR-7P Male socket



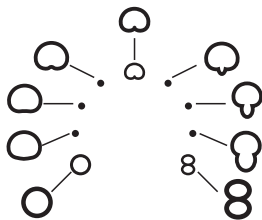
## PM-3 Phantom Power:



- ⑤ Flat-response/Low-frequency cut off: When switched to the active position “—”, the microphone is essentially transparent and will give the most natural reproduction of the source. Since this setting allows the reproduction of ultra-low frequencies, an elastic isolation mount should be used to avoid the transmission of unwanted low-frequency content through the microphone stand. When switched to the position “∩”, microphone introduces a low-cut filter which helps to eliminate wind, stage and background noise. It is also useful to compensate for proximity effects or to reduce low frequencies that might otherwise dull or cloud the desired sound.
- ⑥ -10dB attenuation switch: When switched to the position “0”, the sensitivity is original without attenuation. When switched to the position “-10dB”, the switch reduces the signal level from the microphone cartridge by 10dB to allow better handling of very loud sound sources. (Such as drum for symphony orchestra, trumpet)
- ⑦ Pattern selection switch: Selected the setting “•”, the polar pattern is Omni-directional, sound is captured equally well from all directions. This pattern is ideal for miking multiple sources and capturing overall location

ambience. Selected the setting “”, the polar pattern is cardioid, picks up sound directly in front of the microphone and is considerably less sensitive to sounds originating to the rear of the microphone. Cardioid is the most commonly used pattern in studio recording and live-sound applications. Selected the setting “”, the polar pattern is bidirectional, picks up equally from the front and back of the microphone, while rejecting sounds from the sides. Please select the polar patterns “”, “”, “” according the applications.

- ⑧ Power indicator lamp
- ⑨ Power switch
- ⑩ AC~110V/230V power input
- ⑪ AC~110V/230V power selection switch
- ⑫ Input (from condenser microphone).
- ⑬ Output
- ⑭ Ground lift switch: When the condenser microphone used with digital recording systems, the digital signal or resonance interference often occur, if press down the switch, the interference will be removed.



Pattern Selection Switch



## ■ Cautions

To avoid electric shock, over temperature, catching fire, radiation, explosion, mechanical risk and hurt or property loss caused by improper use, please read the following items carefully before operation:

1. Adjust the volume to proper level during operation. Do not operate at high volume level to avoid hearing loss.
2. If abnormal phenomenon (smoke, abnormal smell) happens, please turn off the power switch and disconnect the power plug with power socket immediately, and send the product to local dealer for maintenance.
3. The product and accessories should be put in dry and ventilated place rather than humid or dusty environment. Prevent the product from fire, rain, water, over-colliding, throwing, vibrating, vent hole covered to avoid function destroyed.
4. When the product needs to be installed on wall or ceiling, please fix it tightly to avoid dropping risk.
5. Please abide by safety rules during operation. Do not use the product in the place prohibited by regulation or law to avoid accident.
6. Do not disassemble or repair the product by yourself to avoid hurt. If you have question or need service, please contact the local dealer.

产品中有毒有害物质或元素的名称及含量标识表

部件名称	有毒有害物质或元素					
	铅 (Pb)	贡 (Hg)	镉 (Cd)	六价铬 (CrVI)	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
塑料部件	○	○	○	○	○	○
金属部件	×	○	○	○	○	○
电路板组件	×	○	○	○	○	○
线缆	×	○	○	○	○	○
<p>本表格依据SJ/T 11364的规定编制。</p> <p>○: 表示该有害物质在该部件所有均质材料中的含量均在GB/T 26572规定的限量要求以下。</p> <p>×: 表示该有害物质至少在该部件的某一均质材料中的含量超出GB/T 26572规定的限量要求。</p>						
<p>此标志为产品的环保使用期限标志， 且此标保使用期限只适用于产品正常工作的温度和湿度等条件。</p>						

## 产品服务保证书

姓名：\_\_\_\_\_ 电话：\_\_\_\_\_ 地址：\_\_\_\_\_

商品：\_\_\_\_\_ 型号：\_\_\_\_\_ 购买日期：\_\_\_\_\_ 年 \_\_\_ 月 \_\_\_ 日

维修记录栏 (由维修员填写)	维修员签名	日期

### 注意事项：

1. 本单为保修凭证，请用户妥善保管，如有遗失，恕不保修或退换。
2. 保修期限制：购买之日起十二个月内。
3. 除了不可抗力事件损坏外，由本公司负责，免费维修。
4. 如属保管不善或使用不当造成的损坏，维修点将酌情收费。
5. 擅自拆卸维修者，不予保修。
6. 以上保修条款仅限于中国市场适用（不含港澳台地区）。

◆ 广东得胜电子有限公司 ◆ 电话：400-6828-333 ◆ 地址：广东省惠州市博罗县龙溪街道富康一路2号



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