

## CARDIOID CONDENSER HANGING MICROPHONE



- Designed for suspension over choirs, instrumental groups and the theater stages.
- Superior off-axis rejection for maximum gain before feedback.
- UniGuard™ RFI-shielding technology offers outstanding rejection of radio frequency interference (RFI).
- UniSteep® filter provides a steep low-frequency attenuation to improve sound pickup without affecting voice quality.
- Accepts interchangeable elements to permit angle of acceptance 90° to 360°.
- Low-profile design with low-reflectance finish for minimum visibility.

- Available in two colors: black (U853A / U853R) and white (U853AW / U853RW).

The U853A requires 11V to 52V DC phantom power or a 1.5V AA battery for operation. A battery need not be in place for phantom power operation.

Alkaline batteries are recommended for longest life. Remove the battery during long-term storage.

The U853R requires 11V to 52V phantom power operation only.

A uniform 120° angle of acceptance provides well-balanced audio pickup. The microphone should be located forward of the front-most source, above the rear-most source, and "aimed" between them (Fig.1). Increasing the height of the mic above the sources will tend to equalize sound levels between them, but may also increase from the mic to the rear-most pickup should be no more than twice the distance to the front source, to maintain front-to-rear balance (Fig.1).

Width of pickup is approximately three times the distance to the closest performer. If additional mics are needed for wide sources, they should be positioned apart laterally at least three times the distance to front source, to avoid phase cancellation (Fig.2).

To orient the microphone in the proper direction, twist the housing slightly in its wire holder. (Clockwise rotation moves the microphone to the right; counterclockwise rotation moves it to the left.)

Output from the power module's XLRM-type connector is low impedance (Lo-Z) balanced. The signal appears across Pins 2 and 3; Pin 1 is ground (shield). Output phase is "Pin 2 hot" - positive acoustic pressure produces positive voltage at Pin 2.

At integral 80 Hz high-pass UniSteep® filter provides easy switching from a flat frequency response to a low-end roll-off. The roll-off position reduces the pickup of low-frequency ambient noise (such as traffic, air-handling systems, etc.), room reverberation and mechanically coupled vibrations.

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.

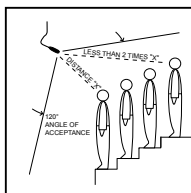


Fig.1

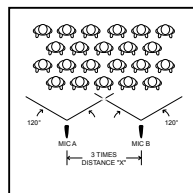
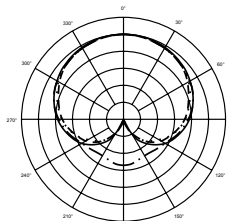


Fig.2

### SPECIFICATIONS

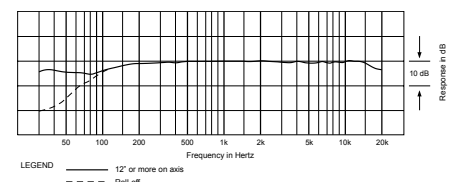
ELEMENT	Fixed-charge back plate permanently polarized condenser	
POLAR PATTERN	Cardioid	
FREQUENCY RESPONSE	30-20,000 Hz	
LOW FREQUENCY ROLL-OFF	80 Hz, 18 dB/octave	
OPEN CIRCUIT SENSITIVITY	(re 1V at 1 Pa)	
	U853A (Phantom / Battery)	-42 dB (7.9 mV) / -43 dB (7.0 mV)
	U853R	-39 dB (11.2 mV)
IMPEDANCE		
	U853A (Phantom / Battery)	200 ohms / 270 ohms
	U853R	250 ohms
MAXIMUM INPUT SOUND LEVEL	(1 kHz at 1% T.H.D.)	
	U853A (Phantom / Battery)	133 dB / 123 dB SPL
	U853R	139 dB SPL
DYNAMIC RANGE (typical)	(1 kHz at Max SPL)	
	U853A (Phantom / Battery)	109 dB / 99 dB
	U853R	115 dB
SIGNAL-TO-NOISE RATIO		
	U853A	70 dB, 1 kHz at 1Pa
	U853R	70 dB, 1 kHz at 1Pa
PHANTOM POWER REQUIREMENTS	11-52V DC, 2 mA typical	
SWITCH		
	U853A	Off, on-flat, on-roll-off
	U853R	Flat, roll-off
BATTERY TYPE (U853A)	1.5V AA/UM3	
BATTERY CURRENT / LIFE (U853A)	0.4 mA / 1200 hrs typical (alkaline)	
WEIGHT		
	MICROPHONE (U853A / U853R)	14 g / 14 g
	POWER MODULE (U853A / U853R)	139 g / 81 g
DIMENSIONS		
	MICROPHONE	34 mm - long, 12.2 mm - diameter
	POWER MODULE (U853A)	84 mm(H) x 63 mm(W) x 22 mm(D)
	(U853R)	92.9 mm -long, 18.9 mm diameter
OUTPUT CONNECTOR	Integral 3-pin XLRM-type (power module)	
CABLE	7.6m long (permanently attached to microphone), 3.2mm diameter, 2-conductor shielded cable with TA3F-type connector.	
OPTIONAL INTERCHANGEABLE ELEMENTS	UE-C cardioid (120°) UE-H hypercardioid (100°) UE-O omnidirectional (360°) UE-UL UniLine™ (90°)	
ACCESSORIES FURNISHED		
	U853A / U853R	AT8153 two-stage foam windscreen; AT8451 steel hanger
	U853AW / U853RW	AT8153(WH) two-stage foam windscreen; AT8451(WH) steel hanger; Battery (U853AW)
	OTHER	Battery (U853A / U853AW), AT8531 power module(U853A / U853AW), AT8538 power module(U853R / U853RW), AT8438 ¾"-27 stand adapter.

Polar Pattern



SCALE IS 5 DECIBELS PER DIVISION  
LEGEND  
200 Hz — — — —  
1 kHz — — — —  
5 kHz — — — —  
8 kHz — — — —

Frequency Response



LEGEND — — — — 12° or more on axis  
- - - - Roll-off

## 心形指向性悬挂式电容话筒



- 设计于悬挂式安装，提供高质量收音给合唱、乐团、及舞台话剧等高要求的收音应用。
- 半球形单一指向性，可抑制后方杂音而清楚地在前方收音。
- UniGuard™ - 射频干扰(RFI)屏蔽技术，提供杰出的防止射频干扰能力，避免收音时受到如手提电话等的干扰。
- UniSteep® - 高通滤波器，提供了一个高效能的高通滤波，把低频噪声作出衰减而无损语音的收音质量。
- 标准为心形指向配置，但可选配适合的收音头更换配合实际的应用，收音角度可由90°至360°。

- 不显眼的设计，并涂上低反光的颜色涂料。

- 设有两种颜色选择：黑色U853A / U853R，及白色U853AW / U853RW。

U853A话筒使用直流11V至52V幻象供电或一枚1.5V AA 3号电池供电操作，当使用幻象供电时，可不用安装电池。

建议使用硷性电池工作，当长期不使用电池时，请把电池取出。

U853R话筒只作直流11V至52V幻象供电操作。

标准配置为心形指向，收音角度可为120°。话筒安装时，应先决定最前及最后的声源位置，而话筒应瞄准两者之间的中央位置(图1)，然后提升话筒高度，使前后声源趋向平衡；但却可能会增加背景噪音及回声，所以调校话筒时，应避免最后的声源距离长于最前声源的两倍(图1)，以维持前后平衡。

而与其他话筒的宽度距离，应以最前声源的大致三倍距离为最佳设定(图2)，这样做既可覆盖每点声源，又可避免话筒的相位互相抵消情况出现。

话筒附有一条悬挂弹簧，可将收音头固定调校到任何正确位置。(把收音顺时针转动，话筒会向右转；反时针转动时，话筒会左转)

低阻抗的平衡音频输出，话筒音频信号最终以卡农公头的2号及3号针脚输出，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号针脚上。

内置高质量高通滤波电路，可由平直的频率响应，开启为于80 Hz以下衰减的收音效果，应高通滤波器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。

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。

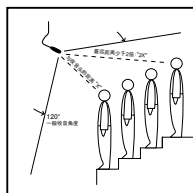


图1

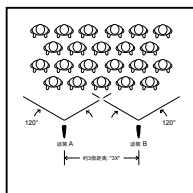
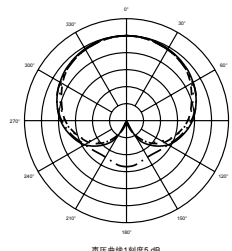


图2

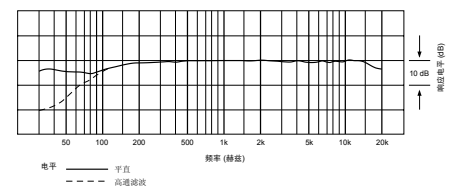
### 技术指标

收音头	固定充电背板，静电型电容式	
指向特性	心形单指向性	
频率响应	30-20,000 Hz	
高通滤波	80 Hz, 18 dB/octave	
开通灵敏度	(以 1V 于 1 Pa)	
	U853A (幻象供电/电池)	-42 dB (7.9 mV) / -43 dB (7.0 mV)
	U853R	-39 dB (11.2 mV)
输出阻抗		
	U853A (幻象供电/电池)	200 欧姆 / 270 欧姆
	U853R	250 欧姆
最大承受声压	(1 kHz 于 1% T.H.D.)	
	U853A (幻象供电/电池)	133 dB / 123 dB 声压
	U853R	139 dB 声压
动态范围 (典型)	(1 kHz 于最高声压)	
	U853A (幻象供电/电池)	109 dB / 99 dB
	U853R	115 dB
讯噪比		
	U853A	70 dB, 1 kHz 于 1Pa
	U853R	70 dB, 1 kHz 于 1Pa
幻象供电	直流 11-52V, 耗电 2 mA 典型	
开关		
	U853A	关闭, 平直, 高通滤波
	U853R	平直, 高通滤波
电池种类 (U853A)	1.5V AA 3号电池	
电池耗电量 / 电池寿命 (U853A)	0.4 mA / 1200 小时 (典型硷性电池)	
重量		
	话筒 (U853A / U853R)	14 克 / 14 克
	供电模组 (U853A / U853R)	139 克 / 81 克
外形尺寸		
	话筒	34 mm - 长, 12.2 mm - 最大直径
	供电模组 (U853A)	84 mm(高) x 63 mm(宽) x 22 mm(厚)
	(U853R)	92.9 mm - 长, 18.9 mm - 最大直径
输出连接器	内置式3针卡农头 (供电模组)	
连接线	7.6m 长 (固定装置于收音头中), 3.2 mm 直径连接线, 2蕊线连屏蔽电线, 以TA3F 插头连接	
可转换收音头	UE-C 心形指向 (120°) UE-H 超心形指向 (100°) UE-O 全方向性 (360°) UE-UL UniLine™ 超指向性 (90°)	
附属品		
	U853A / U853R	AT8153 双层海棉防风罩; AT8451 悬挂弹簧。
	U853AW / U853RW	AT8153(WH) 白色双层海棉防风罩; AT8451(WH) 白色悬挂弹簧。
	其他	AT8531 双供电模组 (U853A / U853AW); AT8451 供电模组 (U853A / U853AW); AT8438 5/8"-27 话筒架转接环; 电池 (U853A / U853AW)。

### 指向特性



### 频率特性



频率  
200 Hz  
1 kHz  
5 kHz

—— 平直  
- - - 高通滤波

声压曲线 1 程度 5 dB



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鐵三角