

# UEM81S SHOTGUN INSTRUMENT CONDENSER

## OVERVIEW:

The UEM81S is a pre-polarized condenser microphone used for stage, studio, video and broadcast applications. The UEM81S is conveniently powered by one AA battery; therefore it is not dependent on phantom power for operation. Known for its exceptional sound quality, accurate response and ability to pick up from a distance, the UEM81S is designed to be aimed directly at the sound source and can help capture those "hard to get to" places in a theatre, on a stage, in a sporting event or in the outdoors.

Characterized with a uniformly controlled supercardioid polar pattern, the UEM81S is designed to capture the acoustics of a vocal or instrument while at the same time isolating it from the rest of the ambient noise on stage or in the room. With a wide frequency range of 20 Hz – 20 kHz, the UEM81S is equipped with an on-off switch as well as with a bass roll-off switch.

The UEM81S is very easy to position, durable and manufactured with high standards and tight tolerances. Roadworthy construction includes a machined aluminum body and capsule housing, black e-coat finish, interchangeable threaded capsule and snap to fit composite clip.

## SUPPLIED ACCESSORIES:

Modular preamp supply with on-off switch and bass roll-off filter (PS-81)  
Modular cardioid capsule (CPS81S)  
Tension-fit clip (MC81)  
External Foam Windscreen (WS81S)  
20' XLR-XLR mic cable  
1 AA Battery  
Vinyl carrying box

## OPTIONAL ACCESSORIES:

DCLIP - Heavy duty tension clip  
SMT25 - Shockmount suspension clip  
TRIPOD - Tripod mic stand

## REPLACEMENT CAPSULE:

CPS81C - Modular cardioid capsule



## FEATURES:

"Shotgun" pick up pattern  
Excellent sonic quality  
AA Battery operated  
Highly sensitive  
On-off switch, bass roll-off filter  
Lightweight, easy to position  
Modular capsule

## APPLICATIONS:

Live sound, location recording, video, film  
Vocals - lead, background, group  
Acoustic instruments  
Overheads, room ambience



WS81S



UEM81S on MC81



SMT-25



TRIPOD

# UEM81S

**SPECIFICATIONS:**

<b>Transducer Type</b>	<b>Pre-Polarized Condenser</b>
<b>Frequency Response</b>	<b>20 Hz - 20 kHz</b>
<b>Polar Pattern</b>	<b>Supercardioid</b>
<b>Output Impedance</b>	<b>600 Ohms</b>
<b>Open Circuit Sensitivity</b>	<b>3 mV / Pa</b>
<b>Equivalent Noise Level</b>	<b>24 dB (A weighted)</b>
<b>Signal to Noise Ratio</b>	<b>79 dB</b>
<b>Power Requirements</b>	<b>AA Battery</b>
<b>Maximum SPL</b>	<b>≥128 dB</b>
<b>Cable/Connector</b>	<b>20' XLR-XLR</b>
<b>Polarity</b>	<b>Positive pressure on diaphragm produces positive voltage on pin 2 relative to pin 3</b>
<b>Housing/Finish</b>	<b>Aluminum / Black E-Coat</b>
<b>Weight</b>	<b>396.9 g / 14 ounces</b>
<b>Length</b>	<b>435 mm / 17.1 inches</b>

**ARCHITECTS AND ENGINEERS SPECIFICATIONS:**

The microphone shall be a back plate pre-polarized condenser with a modular capsule and supercardioid polar pattern. The microphone shall operate on 3 volts DC (AA Battery) and the nominal output impedance shall be equal to 600 ohms at 1 kHz. The microphone shall have switches for on-off function and bass roll-off filter. The microphone shall have a sensitivity of 4 mV / Pa at 1 kHz and a maximum SPL level of ≥128 dB with a THD of 0.5%. The microphone shall be machined from aluminum brass with dimensions of 21 mm in diameter and 435 mm in length. The microphone shall be the Audix UEM81S.

**OPERATION AND MAINTENANCE:**

The UEM81S is a low impedance microphone and should be plugged into the mic level input of your mixer, console, or recording device. The UEM81S does not require phantom power as it is powered by one AA battery and will operate for 500-1000 hours under normal useage. Phantom power will not adversely effect the UEM81S as long as batteries are installed. If batteries are not installed and phantom power is engaged, you may experience frequency loss in the bass frequencies and higher self noise.

Avoid plugging or unplugging the microphone from a PA system unless the channel is muted or the volume of the system is turned down. Failure to do so may result in a loud "popping" noise which could seriously damage the speakers in the PA system.

**On-Off Switch:** The switch must be in the ON position in order for the microphone to operate. Avoid using the switch unless the PA system is muted or the volume turned down. When the microphone is not in use, be sure to turn the microphone OFF in order to conserve battery power.

**M/V Bass Roll-Off Switch:** This feature gently rolls off the bass frequencies starting at 150 Hz which is very helpful in reducing "boominess" for voice. This feature is engaged when the switch is in the "150Hz" position. For full range frequency response for musical instruments put the switch in the "Flat" position.

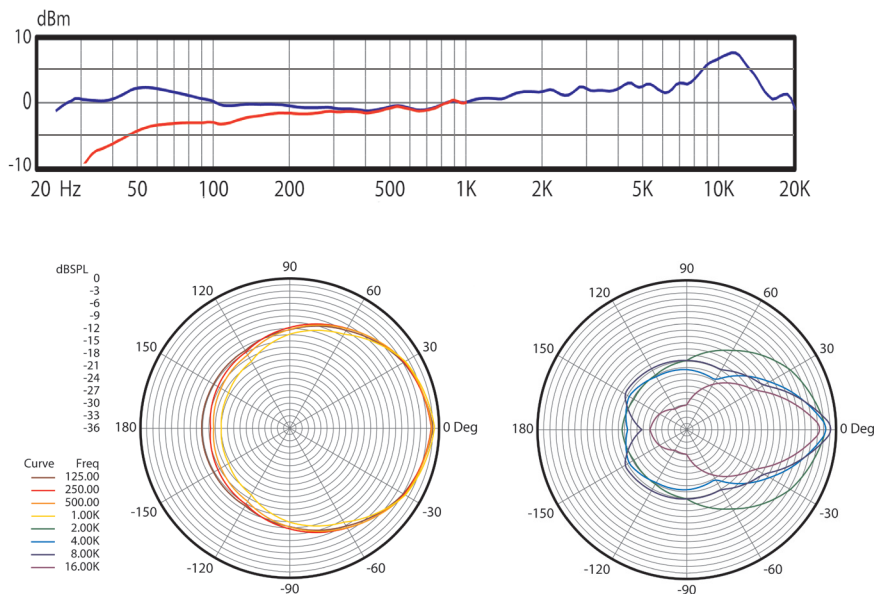
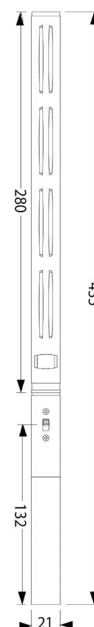
**Replacing the battery:** If the microphone begins to sound distorted or weak, it is time to change the battery. Battery is housed in bottom section of the mic above the XLR connector. Unscrew the housing to replace the battery.

**Windscreen:** The windscreen can be utilized to help control wind noise, breath noise, popping and sibilance sounds.

**USER TIPS:**

The UEM81S is an excellent utility microphone for audio and video applications as it will pick up and isolate sound from a distance. Depending on the gain structure of the device it is plugged into and noise conditions surrounding the microphone, the UEM81S will have an effective reach of 25' or more.

\*Further miking techniques may be found on our website at [www.audixusa.com](http://www.audixusa.com)

**FREQUENCY / POLARS:****DIMENSIONS (mm):**

\*\*\*All specifications subject to change without notice.

**SERVICE AND WARRANTY:**

This microphone is under warranty for a period of 3 years from any and all manufacturing defects. Should your microphone fail in any way, please contact the Audix Service department at 503-682-6933. A Return Authorization number is required before returning any products.

**CARE AND MAINTENANCE:**

The UEM81S is manufactured to exacting specs with roadworthy construction. However, the capsule is highly sensitive and should be handled with care. Avoid extreme temperatures and be sure to store your microphone in the pouch provided when not in use. Moisture of any kind can adversely affect the sound and performance of your microphone.

To register your  
microphone, please visit

[www.audixusa.com](http://www.audixusa.com)



**AUDIX**  
MICROPHONES

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