

# ADX40 OVERHEAD CONDENSER MICROPHONE

## overview

► The ADX-40 is a miniature pre-polarized condenser microphone designed to hang from an overhead position for applications in professional live sound, music, and broadcast. Available with a choice of three interchangeable microphone capsules (cardioid, omni, and hypercardioid), the ADX-40 is most commonly used for plays, theatrical productions, choirs, group vocals, and room ambience miking. With a smooth uniform response over a frequency range of 40-20k Hz, the ADX-40 provides a warm, rich sound not typical of microphones this size. It is machined from solid brass and is available in non-reflective black or white (ADX40W). Supplied with an attached 30' cable, the ADX-40 operates on phantom power (9-52volts) with the preamp module provided (APS-910). If phantom power is not available, there is an optional power supply (APS-911) that operates in phantom or battery mode with bass roll-off and on-off switches. Low noise electronic circuitry, low impedance, and balanced output allow interference-free performance even with long cable runs.

## specifications

► Transducer Type	Condenser (pre-polarized)
Frequency Response:	
Cardioid/Hypercardioid	40 Hz - 20 kHz
Omni	20 - 18 kHz
Polar Pattern	cardioid, omni, hypercardioid depending on choice of capsule
Output Impedance	250 Ohms balanced
Open Circuit Sensitivity:	
Cardioid / Hypercardioid	5.2 mV
Omnidirectional	4.1 mV
Equivalent Noise Level	29 dB (A weighted)
Signal to Noise Ratio	65 dB (ref 1k @ 1 Pascal)
Power Requirements	9 - 52v phantom
Maximum SPL	130dB
Cable/Connector	Shielded 30' (14m) terminating to a miniature 3 pin Switchcraft XLR connector (TA3-f)
Polarity	Positive voltage on pin 2 relative to pin 3 of output XLR connector
Housing	Machined Brass
Weight	4 oz/110 grams (not including cable)



## applications

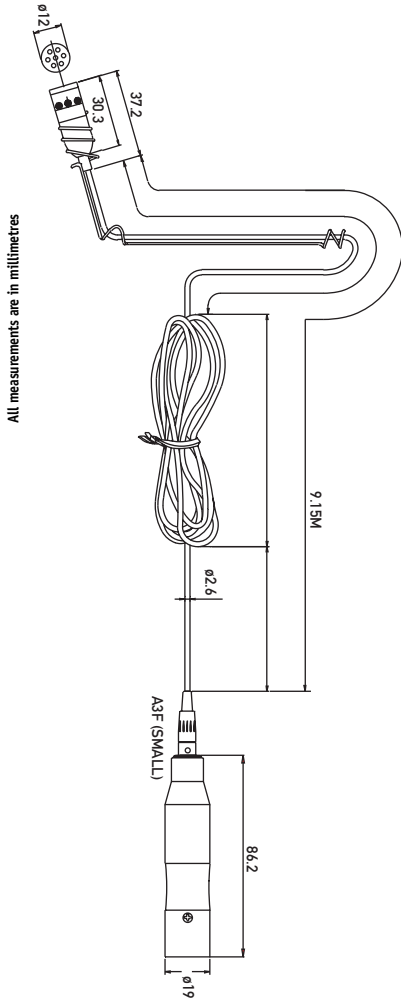
- ► Choirs, musical groups
- School plays, theatrical productions
- Room ambience microphone for recording or broadcast
- Orchestra



ADX40 CONDENSER MIC

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PERFORMANCE IS EVERYTHING®

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## Supplied Accessories

- ▶ APS 910 Cylindrical preamplifier for use with phantom power
- ▶ MC40 Wire hanger
- ▶ WS20 External foam windscreen
- ▶ 30' attached shielded cable with mini XLR Switchcraft® (TA3-f)
- ▶ Vinyl carrying case

## Optional Accessories & Capsules

- ▶ WS20-s Snap on foam windscreen
- ▶ APS 911 Battery/phantom preamplifier with on-off switch and roll-off
- ▶ P1 Audix cordura carrying pouch

## Interchangeable Capsules (elements only)

- ▶ ADX-c Cardioid
- ▶ ADX-om Omni-directional
- ▶ ADX-hc Hypercardioid

## Models

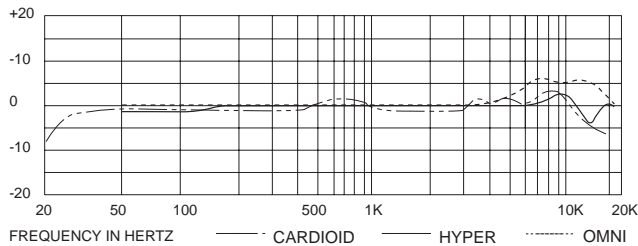
- ▶ ADX-40 Cardioid capsule, black
- ▶ ADX40-om Omni-directional capsule, black
- ▶ ADX40-hc Hypercardioid capsule, black
- ▶ ADX-40W Cardioid capsule, white
- ▶ ADX40W-om Omni-directional capsule, white
- ▶ ADX40W-hc Hypercardioid capsule, white

## Recording:

If there are no PA speakers or monitors to contend with, there is much more latitude with mic choice and placement when recording is involved. Here it is even more important to find the right blend between the 'room sound' and the instrument or voice being recorded. The ADX-40 is a remarkably good sounding mic for musical performances and orchestras. In most cases using a boom stand is recommended and some experimentation with placement will be necessary.

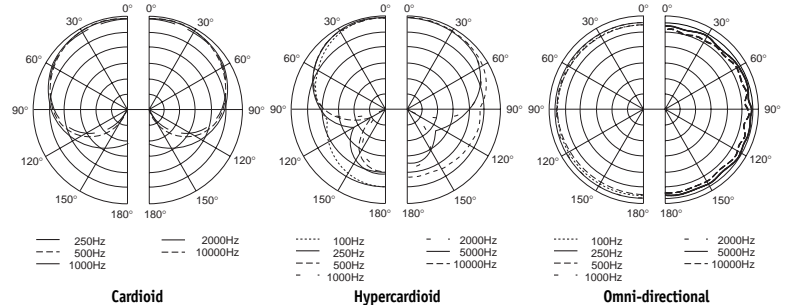
In general, when using multiple ADX-40s for live sound, there should be a distance of 5-6' between mics. Microphones in close proximity to each other can cause phase cancellation and be more prone to feedback problems.

## Typical Frequency Response



The frequency response curve shown (measuring tolerance at  $\pm 3\text{dB}$ ) and polar pattern correspond to typical production run specifications for this microphone.

## Polar Charts



## Operation and Maintenance:

Condenser microphones as a general rule are much more sensitive and reactive than dynamic microphones and should be handled with care. Avoid extreme temperatures wherever possible. Moisture and high humidity can adversely effect the performance of the microphone and cause permanent damage. For most applications use the foam windscreen provided with your microphone to help reduce wind noise or popping. When not in use, please store your mic in the vinyl case at room temperature.

## Changing Capsules:

Capsules can easily be interchanged by simply screwing them on and off the capsule housing. Important: The small copper lead on the housing must make contact with the small pin underneath the capsule in order to work. The lead contact can be stretched gently by hand if necessary.

## Choirs:

### Vertical placement:

As a general rule, the microphone should be 2'-3' in front of the first row and 2'-3' higher than the singers in the back row.

### Horizontal placement:

Two mics will handle most choirs. Divide the distance into thirds and center the mics equally from the sides. For example, for a 15' span, place each mic 5' from the ends so that they are evenly spaced 5' apart.

## Plays:

The front to back ratio should be around 2:1. Try to position the mics so that the furthest person is not more than twice the distance from the nearest speaker. For example if the mic is 6' away from the furthest person, it should be no more than 3' away from the nearest person. Side to side ratio is around 3:1. For example if the closest person is 3' away the mics should be around 9' apart. If more mics are needed to cover a wide area, then the hypercardioid capsule should be used. The microphone can be positioned correctly by twisting the microphone slightly inside the holder. The foam windscreen provided is not necessary unless the performance is outdoors or there is a soloist in very close proximity to the microphone.

## Choice of Elements:

The cardioid element (ADX-c) is the most commonly used, providing a good balance of full sound and rejection of ambient noise from stage and monitors. The omni-directional element (ADX-om) is suggested if only one microphone is going to be used to pick up a group or an audience. Provides a 'live' effect for recordings or broadcast. The hypercardioid element (ADX-hc) is the best choice for maximum gain over feedback and high rejection of ambient noise. ADX-hc is the best choice when more than 2 mics are needed.

## Output:

It is recommended to use a high quality microphone cable with 3 pin XLR connectors. The ADX-40 output is balanced across Pin 2 (positive) with respect to Pin 3, with the shield connection to Pin 1.

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**SERVICE AND WARRANTY:** This microphone is warranted for a period of 1 year 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 sending back any products. Specifications are subject to change without written notice.