



The Apex415 Microphone:

The Apex415 multi-pattern wide diaphragm condenser microphone is one of the most versatile microphones available for your studio toolkit. Three selectable polar patterns, low frequency roll-off and -10dB pad switch on the body of the microphone ensure the Apex415 can easily be applied to virtually any live or recording application.

While the Apex415 can easily be used as an overhead mic for drum kits, for guitar or bass cabinets or anywhere superior sound quality and high sound pressure handling is required, it is the microphone of choice for solo vocals, saxophones, flutes, brass or woodwinds, acoustic guitars or acoustic bass where subtlety and clarity is paramount.

Due to its rugged construction and ability to handle high SPL, the Apex415 is an outstanding choice for live sound reinforcement or live recording applications.

Controls on the microphone itself include a -10 dB pad switch, allowing distortion-free reproduction of extremely loud at-source signals, and a low frequency roll off switch that reduces unnecessary low end 'boominess' and low frequency interference. The included external shock-mount suspension virtually eliminates vibration and handling noise, while at the same time safely securing the microphone in any position needed during the recording process.

Multiple Polar Patterns:

A **Cardioid** polar pattern is the standard setting for almost all applications and will deliver the best results on vocals and a wide range of instruments. It offers full frequency response off of the front of the microphone and excellent noise rejection from the sides and back, or 180° position of the microphone. The cardioid pattern also delivers the most pronounced 'proximity effect' or increased low frequency response when microphone is placed close to sound source.*

The cardioid pattern is ideal for single instrument or vocal use. The pattern picks up only sound directly in front of the mic and sound emanating from any other direction is rejected. Note: The cardioid symbol on the microphone housing denotes the 'live side', or front face of the microphone that in all cases should face the performer.

**Vocalists can use the proximity effect to their advantage, adding fullness and more 'bottom end' to the voice. Experienced vocalists can easily incorporate it as part of their overall microphone technique. Again, experimentation with mic placement during the recording process is the key. The omnidirectional polar pattern does not exhibit this effect.*

The **Omnidirectional** polar pattern picks up sound equally from all around the microphone. This is mostly used for recording ambient sounds, or when recording in an exceptionally good sounding live room where the character, ambiance and tone of the studio needs to be recorded, as well

Apex415 Specifications:

Type	Wide Diaphragm Condenser Microphone
Polar Pattern(s)	Cardioid, Omnidirectional and Figure-8
Frequency Response	20 - 20000 Hz
Sensitivity	15mv/Pa = -36dB (0dB = 1v/Pa) -10dB
Impedance	<200 Ohms
S/N Ratio	>73dB
Max SPL	(For .05% THD @ 1000Hz) 130dB
Equivalent Noise	(IEC 268 - 4 - A weighted) 17dB
Power Requirement	Phantom Power
Controls	Low Frequency Roll-off, -10dB Pad
Dimensions	2 inches x 6.5 inches (5mm x 165mm)
Weight	16.6oz (470g)

as the source voice or instrument. It would also be the ideal choice for picking up audience interaction in a live recording situation.

The **Bi-directional** or **Figure-8** polar pattern will hear sound from both front and back. This is ideal for recording a solo vocal or instrument with limited proximity effect, better off-axis rejection (limited interference from the sides of the microphone) while still picking up room ambience or natural reverberation from behind the microphone. It also can be used for or duet vocals or for recording harmony vocals with two vocalists.

Low Frequency Roll Off:

In virtually all recording and live sound applications, the low frequency roll-off should be engaged to reduce handling noise and low frequency 'rumble' at source. It is a generally accepted practice use the low frequency roll off on all vocal applications and when recording solo instruments.

Care and Feeding of your Apex415:

All wide diaphragm condenser microphones are fragile. They do not like to be exposed to any sharp impact that may stretch or knock the element out of alignment including being dropped, tapped, or being blown into.

It is always advisable to use a pop filter when recording vocals not only to avoid overly accentuated 'S', 'P' and 'B' sounds, but also to keep excessive moisture off the element. It is always a good idea that the microphone is kept in its case when not in use.

Connect the microphone to your mixer or recording device with a high quality XLR cable before turning on the phantom power source. It is always a good idea to make sure all volume and gain controls on your mixer or mic preamp are set to their minimum levels when powering up the microphone.

Once the Apex415 is plugged in and powered up, you should gradually bring the mixer's channel fader up and properly set the input gain on the mic's channel and stop just before the signal peaks. It is never a good idea to unplug a phantom powered condenser microphone like the Apex415 from its power source with the gain and volume controls open.

The outer shell of your mic can be cleaned with a soft damp cloth. Do not use harsh detergents, solvents, or abrasive materials. Never immerse any microphone in water.

Suggested Accessories:

- Apex MWS-56DLX 6-inch studio pop filter
- Apex MS-700B Studio microphone Stand
- Apex APP2 Phantom Power Supply