

Location Dialogue Recording for Film/Video

Phantom-powered condenser microphones

BP4071 Line+Gradient Condenser Long Shotgun Microphone



Length: 15.55" (39.50 cm)
Frequency response: 20-20,000 Hz
Sensitivity: -29 dB (35.5 mV)
Noise: 13 dB SPL
Dynamic range: 128 dB
Power: 48V DC

Highly directional shotgun microphone is recommended choice for exterior dialogue and distant sound effects. Best exterior results can be obtained 2 to 6 feet over actor's head, while good interior results are obtained with mic 2 to 9 feet overhead. May show slightly more echo sensitivity indoors than short shotguns, but offers far greater reach when needed. Requires 48V DC phantom power.

BP4073 Line+Gradient Condenser Short Shotgun Microphone



Length: 9.17" (23.3 cm)
Frequency response: 20-20,000 Hz
Sensitivity: -29 dB (35.5 mV)
Noise: 13 dB SPL
Dynamic range: 128 dB
Power: 48V DC

General-purpose workhorse of the shotgun group. Medium directional pickup is recommended for crisp, clear interior as well as exterior dialogue. Best interior results can be obtained with mic 1 to 6 feet over actor's head, while good exterior results can be obtained with mic 1 to 4 feet overhead. Moderate echo sensitivity when used in tight quarters. Requires 48V DC phantom power.

AT4051b Cardioid Condenser Microphone



Length: 6.10" (15.5 cm)
Frequency response: 20-20,000 Hz
Sensitivity: -34 dB (19.9 mV)
Noise: 16 dB SPL
Dynamic range: 129 dB
Power: 48V DC

One of Hollywood's best-kept secrets, this "wide-angle" boom mic is the best choice for short-range, interior dialogue. When deployed up to 2 feet overhead, this mic provides the richest dialogue and may reduce or eliminate echo in tight quarters or hard rooms. Ideal for "two-shots"; balance softer to louder voice by taking advantage of off-axis pickup. For longer reach, choose BP4073. Requires 48V DC phantom power.

Battery powered condenser microphones

These electret condenser microphones are typically less expensive and may be powered either from a single AA battery or phantom power when available. Known affectionately by the industry as ENG (Electronic News Gathering) or "video" mics, they provide a rugged and economical alternative to the condenser microphones preferred by Hollywood.

AT897 Line+Gradient Condenser Shotgun Microphone



Length: 10.98" (27.90 cm)
Frequency response: 20-20,000 Hz
Sensitivity: -40 dB (10.0 mV)
Dynamic range: 112 dB
Power: 11-52V DC phantom
 1.5V AA/UM3 battery

General purpose short shotgun. Suitable for interior dialogue with microphone positioned from 1 to 4 feet above actor's head. Can be used effectively outdoors in situations where mic is closer to the actors. Operates on 11-52V DC phantom power or 1.5V AA battery.

AT8015 Line+Gradient Condenser Shotgun Microphone



Length: 18.11" (46.00 cm)
Frequency response: 40-20,000 Hz
Sensitivity: -38 dB (12.5 mV)
Dynamic range: 110 dB
Power: 11-52V DC phantom
 1.5V AA/UM3 battery

Very directional long shotgun microphone is better choice for exterior dialogue and distant sound effects. Best exterior results can be obtained 2 to 5 feet over actor's head. Can be used indoors in rooms with high ceilings, showing more echo sensitivity than short shotguns, but offers greater reach when needed. Operates on 11-52V DC phantom power or 1.5V AA battery.

General notes regarding boom mics

Always engage the high-pass (low-cut) filter for general production or dialogue acquisition to reduce rumble and wind noise. Only use the "flat" setting for controlled recording of music or sound effects when full bass response is an asset. Engage the -10 dB pad (where applicable) if the mixing panel or camcorder shows signs of input overload or distortion due to the high output level of the microphone. Use a good shock mount to attach the microphone to the boom pole to minimize pickup of boom and handling noise. It is recommended that the foam windscreen always be used indoors and a full zeppelin or heavier duty fuzzy-type windscreen be used outdoors.

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Lavalier microphones

Designed to be worn or planted on the set, lavalier microphones are available with XLR power modules (battery or phantom) or wired for popular radio mic transmitters. Transparent lavalieres are typically omnidirectional, very natural sounding, with gradual reduction of gain over distance but are more susceptible to background sound. When used on set, transparent lavalieres are more forgiving to actor movement and intercut much easier with overhead boom mics. Proximity lavalier mics have strong close-up voice presence with rapid fall off as distance increases, providing excellent suppression of background sound. Each A-T lavalier microphone includes an extensive kit of clips, mounts and windscreens.

BP896 MicroPoint™ Omnidirectional Condenser Lavalier Microphone



Type: Omnidirectional - Proximity
Size: 2.6 mm diameter
Frequency response: 20-20,000 Hz
Sensitivity: -49 dB (3.5 mV)
Max SPL: 135 dB SPL (phantom pwr.)
Dynamic range: 104 dB

Micro-subminiature electret condenser lavalier. 2.6 mm diameter capsule is not much bigger than the head of a pin, and easy to hide on an actor. Short reach and insensitivity to distant sound makes it ideal for controlling background noise in loud environments such as exteriors or busy interiors. Operates on 11-52V DC phantom power using AT8539 power module or can connect to A-T UniPack wireless transmitters. Available in black or beige.

AT899 Subminiature Omnidirectional Lavalier Condenser Microphone



Type: Omnidirectional - Transparent
Size: 5.0 mm diameter
Frequency response: 20-20,000 Hz
Sensitivity: -43 dB (7.0 mV)
Max SPL: 138 dB SPL (phantom pwr.)
Dynamic range: 108 dB

Subminiature electret condenser lavalier. Its 5 mm diameter capsule provides outstanding clarity and accurate voice reproduction for natural sound. Ideal for use as body-worn (hidden or exposed), the AT899 has good reach, making it ideal to be hidden in the set as a plant mic. Operates on 11-52V DC phantom power or a single 1.5V AA battery using the AT8537 power module. Can be configured for radio mic transmitters. Available in black or beige.

AT898 Subminiature Cardioid Condenser Lavalier Microphone



Type: Cardioid - Transparent
Size: 5.0 mm diameter
Frequency response: 200-15,000 Hz
Sensitivity: -43 dB (7.0 mV)
Max SPL: 131 dB SPL
Dynamic range: 100 dB

Subminiature directional electret condenser lavalier. The 5 mm diameter cardioid capsule is best suited for situations with live sound reinforcement (directionality reduces potential for acoustic feedback) or as a directional plant mic on set. Tailored response reduces pickup of undesired low frequencies. Operates on 11-52V DC phantom power or a single 1.5V AA battery using the AT8537 power module. Can be configured for radio mic transmitters. Available in black.

Multi-track Recording for Film/video

The use of multi-track digital recorders has become standard operating procedure on today's feature films as well as reality and episodic television programs that utilize a number of active microphones and/or radio mics. The basic approach is to record each microphone to its own channel or track, while simultaneously live mixing all of the mics to a composite or mixdown track. The mixdown version is used for immediate playbacks, dailies and for the picture edit. After the picture cut is "locked," the sound editors have the option of reconstructing all or part of the live production mix from the raw independent tracks (also known as iso's).

Sound mixers utilize a variety of mic techniques for acquiring a full and realistic sound track. A typical feature film or TV show may utilize one or two boom mics simultaneously, along with plant mics deployed around the set to capture what the boom mics cannot and radio mics on the key actors to cover the action (or as iso backup). In the field, the sound mixer has the option of feeding the multi-track recorder from any suitable external mixing panel, or using a dedicated fader controller provided by the multi-track recorder manufacturer.

When using the dedicated fader controller, the recorder is able to record up to eight or more external inputs as iso's while simultaneously assigning and mixing down these channels to an additional pair of stereo tracks. The recording level for each input is initially set using the trim/gain control on the recorder which determines the level for each iso track. The levels of the mixdown stereo tracks are actively controlled by the faders, allowing the sound-mixer to adjust mics during the take.

Example: Inputs/tracks 1-8 represent boom, plant and radio mics. They are mixed down to recorder tracks 9 & 10 (on a 12 track recorder)

Sometimes the use of a more sophisticated mixing console is preferred. External mixing panels offer a greater number of microphone inputs, sub groups, monitor outs, and boom outs. They also offer more sophisticated signal processing (EQ, compression, gates, etc) along with digital mix recall. The downside of using a non-dedicated mixing panel is that the soundmixer can no longer avail himself of being able to record all of the inputs as iso's and mix them to a stereo pair. Instead the sound mixer will dedicate one of the recorder's inputs to receive the mixdown and utilize the remaining recorder inputs for iso's.

Example: Using an 8 track recorder, input/track 1 is fed from main output of mixer panel (console). Recorder input/tracks 2-7 can be assigned key iso's (boom, radio mics) fed from the channel direct-outs on the mixer. Any remaining plant mics or radio mics can be assigned to one of the mixer panel's sub-groups and the sub-group output can be sent to input/track 8 of the recorder.