



The Real Britney Spears

Crown Headworn Mic to be Shown in Wax Museum

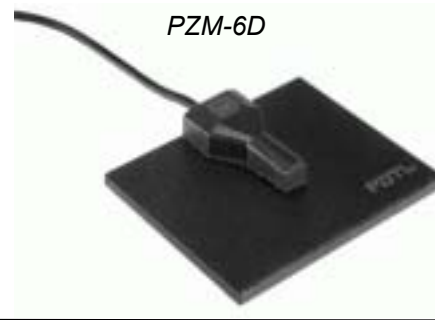
Madame Tussaud's Wax Museum in London will be displaying a figure of pop superstar Britney Spears. Museum personnel want to outfit the figure with the microphone that Britney actually uses. So the museum will use a Crown CM-311AE headworn microphone. The mic will be immortalized in Madame Tussaud's!

The CM-311AE will provide the realism that the museum requires.

PZM-6D Drum and Piano Tips

The September 2003 issue of *Live Sound International* featured an article, "The Secret Life of Instrument Mics," by Gary Gand. The author had this to say about the **PZM[®]-6D** Pressure Zone Microphone[®]:

"[The PZM-6D] gets extra snap out of a kick drum. Lay it in the bottom, on top of the pillow in addition to your fat drum mic. Check polarity please."



Four Seasons Hotel Installs LM-300 Mics

In a recent installation in the Four Seasons Hotel in Cyprus, sixty Crown LM-300 lectern mics were used in the conference center/ballroom. Several Crown CTs power amplifiers and IQ-PIP cards are part of the system as well.

"I did the Talking Heads 'Remain in Light' tour with three drum mics (total!)—a PZM-6D between the rack toms (at their engineer's request), another over the percussionist..."

"The best bootleg board tape I ever made ... was from one PZM-6D taped to the lid of the grand piano on the tall stick on stage. It's mono, but the balance and tone are unequalled in my career as a secret tapper."

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Choir Miking

We received the following email from sound mixer Marty Knowles:

My church has two PZM-6LPG mics mounted above and at the center of the choir. One is mounted without the metal plate on a piece of Plexiglass hung at about a 30 degree angle above and ahead of the choir. The other is mounted on a metal plate screwed to acoustic tile directly above the back row. Both mics have a PX-18B interface between the mics and our mixer. I have some questions below.

How can I get a data sheet on the PZM-6LPG?

The PZM-6LPG was introduced in 1980, and there have been a lot of improvements since then. The closest

data sheet to the PZM-6LPG is the PZM-6R.

The specs for the PZM-6LPG are the same as for the PZM-6R, except that the PZM-6LPG is gold and requires a PX-T, PA-18, or PX-18 interface to work. The interface is built into the PZM-6R (now the PZM-6D). Also, the sensitivity of the PZM-6LPG is about 6 dB less than the PZM-6R or PZM-6D.

Is the PX-18B required?

Yes, with the PZM-6LPG.

Or will the phantom power run the mic properly without the interface?

No, not with the PZM-6LPG. The PZM-6R and PZM-6D have built-in interfaces, so they work directly off phantom power.

How about wiring? I am assuming that the input to the PX-18B from the mixer is standard XLR wiring (1 Shield, 2 Hot, 3 Cold).

Yes. XLR pin 1 in the mic is shield, pin 2 is B+ from the PX-18, and pin 3 is audio and B- from the PX-18. Be sure that pin 1 in the mic connects to pin 1 in the PX-18, pin 2 connects to pin 2, and so on.

How can I improve the microphone mountings to increase choir volume or would it be better to replace them?

It would be better to replace them with the Crown CM-30 or CM-31 choir mics (Figure 1). They are small, supercardioid condenser mics with

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Figure 1. Left to right: CM-30 interface, CM-31 interface, CM-30W microphone

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very good gain-before-feedback, and a more natural sound than those older PZMs. The CM-30's electronics mount in an electrical outlet box near the ceiling and has screw-terminal connectors. The CM-31 has a standard XLR connector. They are available in black or white.

Would these mics (PZM-6LPG) work better for a piano?

Yes, definitely. Tape them to the underside of the lid, with one mic over the treble strings about 8 inches horizontally from the hammers, and the other mic over the bass strings a couple feet from the hammers. You might need to close the lid to reduce feedback. If you do so, the sound can get a little tubby, so you might want to EQ in a dip around 300 Hz or so.

Cheap Shock Mount

Microphones on floor stands can pick up vibrations from foot steps. To get some shock isolation, place the base of each mic stand on sponges.

The mass of the stand base and the compliance of the sponges act as a high-cut filter for vibrations from the floor.

Conference Miking With No Table Mics

I need to mike a conference system in a Four Seasons hotel with approximately 60 mics. Please, no table mics. What do you suggest?
– Andrea Piemonti

Experience has shown that mics installed in the ceiling are too far away from the participants to work well. The mics must be close to the people in order to work without feedback.

We recommend Crown CM-30 or CM-31 hanging microphones. These supercardioid mics hang from the ceiling by their cables. Each mic is within arm's length of each person as shown in Figure 2.

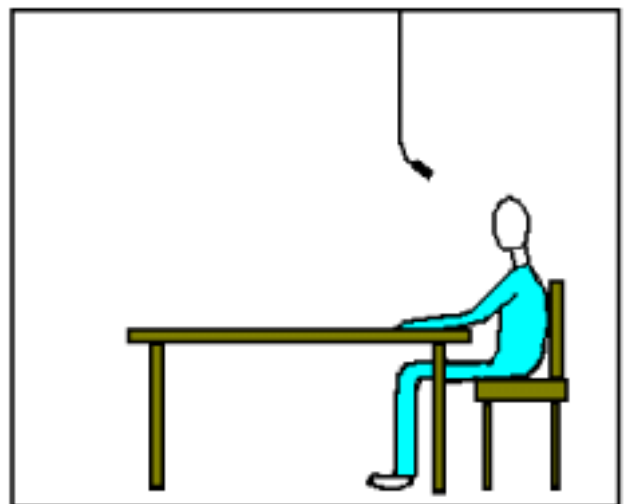
You could hang one mic between every two people, cutting the number of mics in half.

The CM-30 circuit module mounts in a standard electrical outlet box and has screw-terminal connectors. The CM-31 circuit module is built into an XLR connector.

If the ceiling is low, you could mount Crown LM-300 gooseneck mics upside-down on the ceiling.

It's very important to feed the microphones into an automatic (gated) mixer, so that only one mic is on at a time. This makes the sound much clearer and greatly reduces feedback.

Figure 2.
A CM-30 Hanging from the Ceiling



SASS[®] Recommended for Nature Recording

In an article in the April 2003 issue of *Electronic Musician*, Gino Robair describes several microphones that are suitable for recording natural sounds such as birds, frogs, surf, waterfalls, and so on. He described the Crown SASS-P MKII stereo PZM microphone:

"For better speaker translation, many recordists choose the Crown Stereo Ambient Sampling System[®] (SASS-P)



mic. The SASS-P is a roughly head-size - although decidedly not head-shaped - apparatus that provides a quasi-binaural image that is more loudspeaker friendly than a binaural arrangement."

In other words, the SASS is something like a binaural dummy head in concept, but provides more accurate stereo localization over loudspeakers than dummy heads do.

Other features that make the SASS a great choice for nature recording are its very low pickup of wind noise and handling noise. In addition, the microphone's handgrip and its built-in 9-volt batteries are convenient for field use.

Bassoon-Miking Suggestions

Have you ever needed to mike a bassoon? Here are some suggested Crown mics and their placement:

- CM-700 8 inches to 2 feet from the fingering holes.
- PZM-30D or PZM-6D on the floor about 15 feet away in a live room.
- CM-700, 4 feet in front and about 3.5 feet high, combined with another CM-700 that is 2 feet behind and to the right of the player.



SASS Low-Frequency Response

I've always wondered how the SASS stereo microphone achieves good low-end response from such a small boundary. Is there boost built into the preamp?

Gary Hedden
GHL Audio, Franklin, TN

Reply:

We start with mic capsules that are flat down to 20Hz without any boundaries. Then we add a small boundary (the SASS housing), which boosts the response above 1 kHz due to diffraction. This boost occurs in a free field, but not in a reverberant sound field (like in a concert hall).

Here's why. Sound waves in a reverberant field approach the mic from all directions. Sounds

from behind the mic are picked up with a rolled-off high-frequency response due to the shadowing effect of the SASS housing. In contrast, sounds from the front are picked up with a boosted high end. The responses of the sounds from all directions average out to flat. So the frequency response of the SASS is flat in a reverberant field, without any bass boost in its circuitry.