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Walking with Dinosaurs

The 'Live' Experience, down under

In this issue . . .

Classic Gear: Crown PCC-160 microphone

Rob Halliday takes a nostalgic but instructive look back at the tools that have shaped the industry . . .

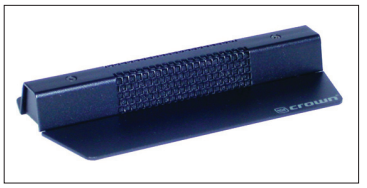
Go back to old books about theatre sound or about musicals, look at the pictures, and along the front of the stage you'll find a line of rifle microphones pointing up towards the singers, desperately trying to pick up their sound in order to amplify it for the benefit of the audience. They weren't at all subtle, visually, and were often not hugely effective, audibly. Then one day, seemingly overnight, they vanished.

Now, that was in part due to the rise of a classic product for another month, the radio microphone. But, especially early on, not every show had enough money to fit the entire cast out with radio mics. And beyond musicals, not every show actually used radio mics, but many still needed to pick up some dialogue, for a little lift or a little reverb.

The float microphones hadn't vanished, though; they'd simply shape-shifted into a radical new form. You had to look much more closely at the very front of the stage, but there you'd now see some tiny rectangular protrusions. These were - are - Crown PCC-160 microphones.

The PCC acronym explains the technology: the mic is a Phase Coherent Cardioid. Inside that robust, rectangular body, beautifully discrete at just 2cm high, is a tiny, highly directional supercardioid mic capsule, rejecting noise from the rear almost entirely. The phase coherence arises because the mic is designed to be used placed on a large boundary surface, such as a stage floor. Located there, with the tiny mic capsule located very close to the surface, direct and reflected sounds arrive at the microphone in-phase, which has the twin benefits of preventing phase cancellation and increasing sensitivity.

The mic is self-contained, requiring only phantom power to operate, and easy to position - just space along the front of the stage, and secure the flat mounting plate, perhaps with a touch of gaffer tape, to ensure that it stays where put. Attention to detail in its design even has the cable coming out of the side of the unit rather than the front or back, so that even the connection can be discrete. And while they'd never match up to individual radio mic'ing, they were a step forward for their applications - picking up stage sound, covering for a dead radio mic, all without cluttering up the audience's view.



Crown's PCC-160 microphone.

Of course, there are problems with discretion and stage surfaces, particularly when those stage surfaces get painted. While the PCC-160 is available in white and can be customised to other colours; leaving the mics on a stage while the floor gets painted is not the best way to achieve this! Paint in its dust filters tends to dull performance somewhat. Of course, caring painters can be a bigger problem: one legendary PCC story has a sound engineer fussing and fretting with EQ, applying massive amounts of boost trying desperately to get his float mics to sound as they should. Unfortunately, just as he opened the faders to hear the result live, someone on stage started ripping off the masking tape that had been carefully applied by a caring crew member to protect the microphones during the overnight work call . . .

Crown PCC-160 data sheet:
>>> www.crownaudio.com/pdf/mics/101062.pdf

Technology explanation:
>>> www.crownaudio.com/pdf/mics/136366.pdf