



Brüel & Kjær

pro audio forum

percussion

Percussion Instruments and the Brüel & Kjær Series 4000 Professional Microphones.

"I want the microphones to capture the spirit of my performance — the subtle dynamics as well as the intensity of my playing, and especially the delicate moments when silence is my best instrument."

This insight and those that follow were given by session percussionist Chip Donohue after a recent digital recording session using Brüel & Kjær Series 4000 Professional Microphones. It should be noted that standard miking techniques were used throughout this session and the inherent qualities of the B & K microphones alone were enough to inspire these comments. Along with a standard drum kit Mr Donohue's array of percussion instruments includes those listed below, giving a diversity of sounds which would present a challenge to any microphone. The B & K Series 4000 microphones successfully rise up to this challenge.

Chip Donohue's percussion set-up;

- Kick Drum
- Snare Drum
- Cymbals
- Hi-Hat
- Bongos
- Cabasa
- Castanets
- Claves
- Congas
- Cow Bells
- Finger Cymbals
- Gong
- Guerro
- Indian Ankle Bells
- Maracas
- Sandpaper Blocks
- Shakers
- Sleigh Bells
- Tambourines
- Temple Blocks
- Timbales
- Triangles
- Two-Tone Wood Block
- Vibraslap
- Wind Chimes
- Wood Blocks



CHIP DONOHUE has been an active performing and recording percussionist for the past thirteen years. A diverse and multi-talented musician, he has performed everything from classical music to Broadway shows, traditional jazz to fusion, folk to country, and rock to new wave. He has written a percussion score for television and played in a variety of configurations including duos, jazz big bands and full orchestras.

"Percussion instruments are often used in modern recording to add "spice", only to be lost in the final mix. Analogue recording, poor room acoustics and improper microphone selection and techniques combine to mask the intricacies of my instruments. Af-

ter tonight's session it's clear to me that the combination of these B & K microphones, digital recording and great room acoustics allows my percussion instruments to fully play their part in creating the mood for any piece of music.

When I walk into a session I want to hear each instrument I play as it sounds in my head. I want a realistic and honest sound that doesn't need electronic gadgetry to fatten it up or round it off. Using the B&K Series 4000 Microphones my brushes sliding on the snare drum and the quietest triangle passages were captured with the same crispness and emotion as I heard them. The incredible sustain on the ringing triangle at the end of the passage seemed to last forever! Similarly the sound of the wind chimes was captured with remarkable accuracy — the ability of the mics to “hear” each individual chime was a real thrill! To combine this delicate presence with the rich full tones of the set of chimes and keep it all together throughout the natural sustain is something that I've never heard any other microphone do.

Congas are my favourite percussion instrument and so I've always been most concerned about their recorded sound. The warm wooden tones and richness you can get by letting the shells and the heads speak as one is a thrill for any percussionist. This natural resonance was captured in its en-



Session musicians Chip Donohue, Jason Klagstad (electric guitar) and Bill Camplin (acoustic guitar) during a live to two-track digital recording session. Eleven Brüel & Kjær Series 4000 Professional microphones were used on the session, and no others.

tirety by the B&K's. My congas have never sounded more realistic on tape and it was great not to have to add any extra effects. After hearing some of

the initial playbacks using these mics I felt free to control my attack and dynamics to capture the moods across a variety of pieces.

These B&K mics allow me to integrate my playing into the total musical concept by capturing every nuance of my performance. When the final mix was done my percussion tracks retained their original impact and became what they were intended to be — a part of the total sound. I know I'll have at least a pair of B&K mics in front of my percussion rig for every session I do from now on!"

Brüel & Kjær Series 4000 Professional Microphones were developed with the aim of giving clean sound without compromise. This has been achieved through performance characteristics which comfortably accommodate the entire audio frequency range, with a smooth high frequency roll-off to give excellent phase response. Add to this exceptional dynamic range and very good diffuse field response and it then becomes clear why Chip Donohue says "I've never heard a truer recorded percussion sound".

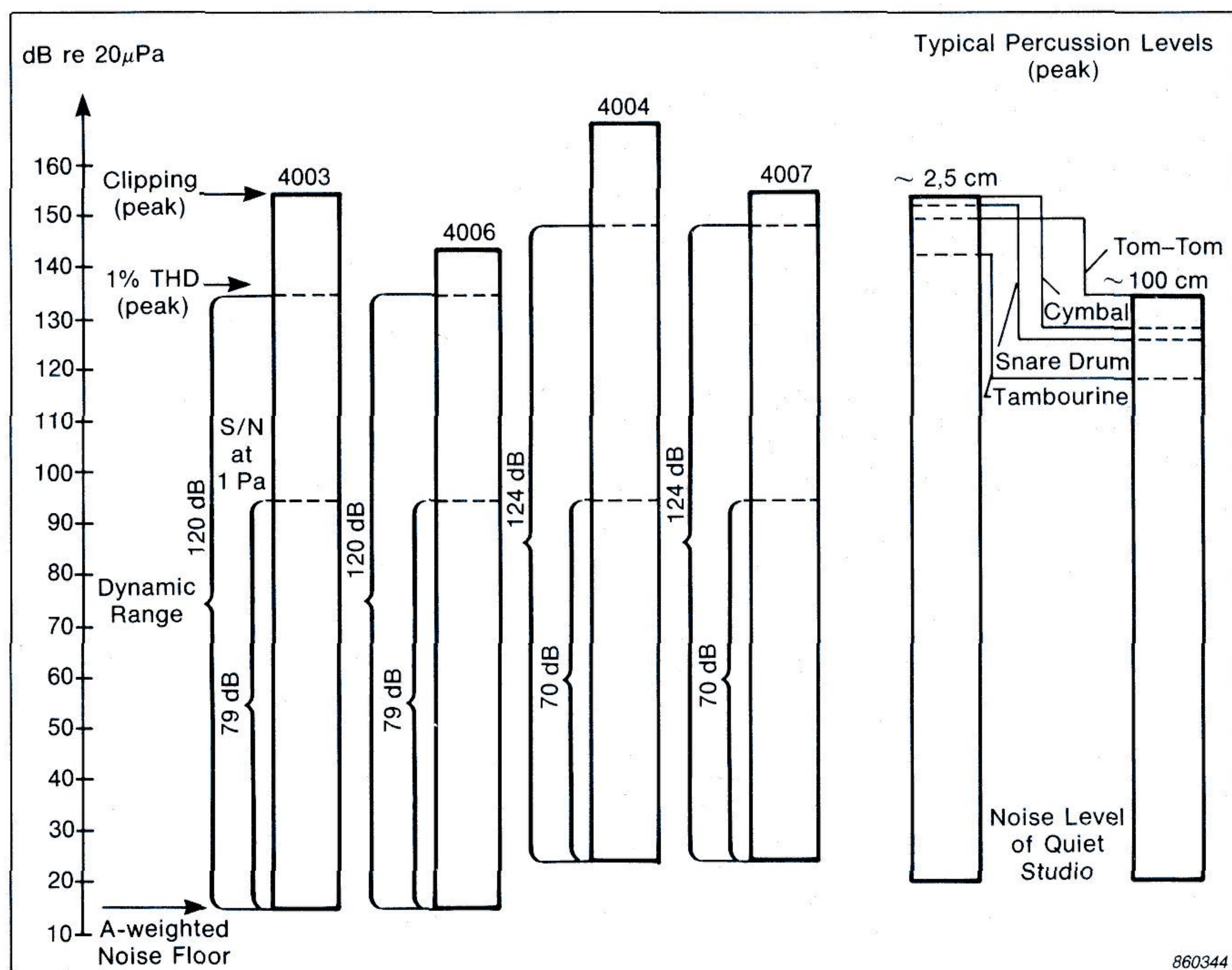


Fig. 1. The typical levels of some percussion instruments and the dynamic ranges of the B & K mics, showing how the exceptional dynamic range of the mics enables them to faithfully capture percussion sounds.

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