

## **Sennheiser Digital 9000 provides no compromise solution for Adele tour**

**Wedemark, 19 May 2016 – Adele's tour of Europe and North America is possibly the biggest tour of 2016 – it certainly has the highest of production values and**



**there is, quite simply, no room for error. This is the remit for German rental company Black Box Music and a team of top-class engineers, who have specified equipment from some of the audio industry's best known and most well respected manufacturers. Used by Adele**

**and her three backing singers, Sennheiser's flagship Digital 9000 system microphones are a vital component.**

For Sennheiser, being part of such a prestigious, high production value tour fits perfectly with its ethos of providing world-class, innovative solutions that continually push the boundaries of audio technology. Front-of-House engineer for the tour is Dave Bracey and he was delighted with Digital 9000 from the moment he heard it.

"This is the first time that Adele, Joe [Campbell, monitor engineer] and I have used Digital 9000," Dave explains. "Adele had used a different Sennheiser mic for her previous tour, which she really liked. We were going to try out several alternative mics with her during rehearsals, but after we listened to the 9000 we knew we already had the winner. So we compared Adele's previous Sennheiser mic to the Digital 9000 with a 9235 capsule with her and the 9000 sound was twice as good. It was such a leap forward straight away that we knew it was the right choice. Its whole sonic character is amazing.



"The main thing is that there's no compression or expanding going on in the transmission stage, so all of that messing with the signal that happened with analogue radio systems is just not there now. It used to be the case that the cable

version of any system sounded better than the radio one. Now there is a radio system that sounds as good as, or better than, any cable microphone I've ever heard. That's a pretty cool thing to lay your ears across."

With the mic initially running analogue out, Dave and Joe did an A/B test using AES out. "That was superior sound again," says Dave. "Now we're running AES from the mic capsule all the way to the amps flown in the roof. It doesn't hit anything analogue between the capsule and the amp – which is everything – so it's an absolutely clean path."

"It sounds great," agrees Joe. "It's the best sounding radio mic we've ever used and, moreover, Adele likes it. She's got a very good ear and she really likes it."

Dave is using a fair amount of processing on Adele's mic, partly because she spends most of the show out in front of the PA – the main stage is a triangular shape with a diamond shaped thrust, with the main PA sitting at the rear of this thrust, whilst the B stage is located in the middle of the arena floor with its own PA hung high above it to avoid any impact on sight lines. "I need to control the relative tonal balance through a range of performance styles, from when she's singing low, right on mic, to when she is hitting top voice with it ten inches away.



"It requires work because Adele's vocal performance pushes boundaries. If she was behind the PA and just used one mic technique for the whole show, you would do practically nothing with it. The chat between the songs has to sound correct, as well. I have to process the vocal so that it sounds good when she's talking and good when she's singing, in every way. You would think that with Adele singing with a quality mic through a quality PA, the channel would be flat all the time. It's actually not."

Dave is pleased that everything pretty much looks after itself, but to encourage Adele to get closer to the mic when talking in front of the PA, he fires a macro that rolls up a high-pass filter, she hears a little body go out of it which naturally brings her closer to the mic. "I talked to her about it once," he says. "She understood what I was doing and it works."

Control tech Oliver Twiby is in charge of managing the required radio frequencies. "I do all the RF management. At each venue, I scan the venue to check what frequencies we can use and then license them through Ali Viles at Mission Control. We have 22 Sennheiser 2000 in-ears and for Adele we're running four frequencies in two ranges, a main and a backup in both ranges. We have eight 9000 Series mics. We're using the entire rack and we have a redundant unit that we can hot swap to, and we're also running some wireless talk-back mics for techs.

"There are 32 frequencies in total to look for and set up every day. All the in-ears are in the same range, so we have a quite tight RF plot and it's also quite a tight schedule. The mics have a very good noise floor – you only need 10dB of noise floor – which means that in a busy environment, where everyone is using a mobile phone, we could have drop outs if we were using different mics. The sound of the capsule is also really good. It's a very organic sounding mic."

"We haven't had any problems with RF," adds Joe. "The main challenge we have here is the antenna system. We don't get to place it where we'd ideally like to have it because of the problems with sight lines, etc. There's nowhere on the stage that's high enough to make it ideal, so we have placed one antenna stage left on the back handrail. It could do with being at least a metre higher, but then it would be in front of the LED screen.

"Because we need flawless reception from the A to the B stage, we placed another antenna at FOH, which sits in front of the camera position and points at the B stage. This means that wherever Adele is in the room, we can switch between the two receiver systems and have full-strength reception. It works very well."

The sound quality and reliability of Sennheiser's 9000 Series has clearly impressed the team. "On this tour, nothing is allowed to go wrong. That's the word from the top," says Dave. "It's a classy show and there can't be glitches. Audio, touch wood, hasn't had any. But you also have to future-proof your tour when you're going out for a couple of years. You don't change what you start out with, there simply isn't time. We know that we've done that with Digital 9000.

"The tour has been fantastic so far. Adele is singing incredibly; her voice sounds beautiful. I've never heard anything like it. We've had great reviews and there have been lots of comments about the sound. It's one of the best sounding shows I've ever mixed, if not the best, probably by a long way. What more can I say..."

"The advancement in RF technology has enabled us to do more with more reliability," said Richard Young, Production Manager. "The Sennheiser system allows us to have confidence every night that the audio will be rock solid."

"Working on one of the biggest, if not the biggest, world tour of 2016 is a fantastic opportunity for us," concludes Phil Cummings, Artist Relations Live Performance & Music for Sennheiser. "We started work on providing the Digital 9000 microphone system for Adele last July; the kit requirements for this tour have taken a lot of planning to make sure the audio team have everything they need. Andrew Lillywhite, Tim Sherratt and myself were on hand during rehearsals and through to the live shows. It's been a real pleasure dealing with everyone on the Adele tour."

**Image captions**

*Adele.jpg*: Adele greeting fans in Belfast (photo credit: Alexandra Waespi, courtesy of Adele 25 tour photography)

*Dave Bracey.jpg*: Dave Bracey, Front-of-House engineer for Adele's tour

*Joe Campbell.jpg*: Monitor engineer Joe Campbell

**Equipment list:**

- Two EM 9046 receiver units with all eight channels on each used
- 16 SKM 9000 mics, eight SKM 9000 in use at any one time
- Two antenna systems for reception of 9000 Series
- Eleven SR 2050 IEM transmitters for 22 stereo IEM mixes.
- Four AC 3200 antenna combiners with four A 5000-CP circularly polarised antennas for the IEM mixes

**About Sennheiser**

Audio specialist Sennheiser is one of the world's leading manufacturers of headphones, microphones and wireless transmission systems. Based in Wedemark near Hanover, Germany, Sennheiser operates its own production facilities in Germany, Ireland and the USA and is active in more than 50 countries. With 19 sales subsidiaries and long-established trading partners, the company supplies innovative products and cutting-edge audio solutions that are optimally tailored to its customers' needs. Sennheiser is a family-owned company that was founded in 1945 and which today has 2,700 employees around the world that share a passion for audio technology. Since 2013, Sennheiser has been managed by Daniel Sennheiser

and Dr. Andreas Sennheiser, the third generation of the family to run the company. In 2014, the Sennheiser Group had sales totalling €635 million. [www.sennheiser.com](http://www.sennheiser.com)

**Press contacts****UK contact**

Sarah James  
Professional Systems, Integrated Systems, Music Industry  
T: 01372 471472  
M: 07702 421635  
E-mail: [sarahj@gasolinemedia.com](mailto:sarahj@gasolinemedia.com)

**Global contact**

Sennheiser electronic GmbH & Co. KG  
Stephanie Schmidt  
PR Manager Professional Systems  
Audio Recording • Broadcast & Media • Live Performance & Music  
Am Labor 1 • 30900 Wedemark • Germany  
Tel. +49 (5130) 600 – 1275  
[stephanie.schmidt@sennheiser.com](mailto:stephanie.schmidt@sennheiser.com)