

Mic me up before you go-go

Superstar George Michael has been celebrating an eventful 25-year career with a European tour

UK/EUROPE: As ambitious in its production values as it is in its content, the George Michael 25-Live show is a visual and acoustic spectacular. Performing from a huge and dynamic curved video screen stage 25m high by 9m wide, Michael belts out a smooth, strong, controlled vocal that is an absolute pleasure to hear.

PSNE caught up with the tour at one of the more testing venues for an audio team: Earl's Court. However, aside from having to overcome venue idiosyncrasies, the major challenge for the sound

department, has been to cope with the RF generated by the massive video screen stage set.

Wireless system engineer Jon Sugden and Sennheiser UK director of engineering Dave Hawker attended early rehearsals and carried out numerous tests with the wireless mics and IEMs. Not only did they find the screen to be giving off plenty of RF, but that the entire surface was acting as a giant signal reflector. Problems have largely been overcome by strategic positioning of aerials. Sugden elaborates:

"We're now using the Sennheiser A5000-CP circular polarised antenna; the benefit of its propagation characteristics means that multipath drop out in both IEM and radio mic systems are virtually eliminated. We're also using the Sennheiser UK custom designed Vulcan IEM launch system."

The brainchild of Hawker, Vulcan is a dual amplifier that enables large multichannel IEM systems to operate faultlessly in RF hostile live-touring environments. Hawker reveals: "Vulcan was borne



George Michael back in Europe

out of Live 8. It enables any IEM system to outperform its original specification."

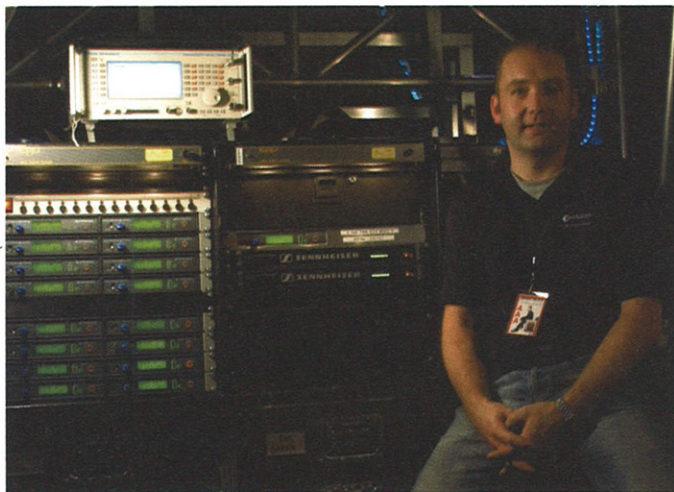
The set design for 25 Live means that the 15-strong band is split either side of the video wall. The lack of visual communications results in a high reliability being placed on the in-ears. Vulcan eliminates all of the problems associated with antennae placement and long cable runs.

Besides Michael, one musician playing radio mic'd congos on stage, the six backing vocalists and the two guitars on stage for Faith, everyone else is wired. Michael and the backing vocalists use Sennheiser SKM 5200 hand-held radios with Neumann KK104 cardioid heads. Monitors are Sennheiser Evolution wireless IEMs. Sugden continues: "In total we have 17 channels of IEM and 24 channels of radio mics. There are nine Shure hard-wired IEMs on the show for the band. However it would be great if Sennheiser manufactured a hard-wired pack itself. Then all our outputs – wired or wireless – would sound the same."

Maximizing sound quality FOH is engineer Gary Bradshaw. His brief from Michael was what we saw Madonna demanding on her Confessions tour: to make it sound as much like the CD as possible. >>



FOH engineer Gary Bradshaw



Wireless system engineer Jon Sugden

❖ Bradshaw makes extensive use of a DiGiCo D5 live's considerable channel capacity. "All onboard effects and processing is disabled to accommodate the large number of channels we require – every effect is outboard. I have a TC6000 for George's reverb and double tracking, plus there are two other engines for drum reverb. We also have two D2s for delays – mainly for George. A further two SPX990s and a PCM 91 do the other band reverbs etc. All the compressors – even George's – are on the D5."

The PA, supplied by Wigwam Acoustics, is predominantly d&B J-Series; the main hangs left and right, comprise 20 each of d&B J8s on top, eight each of the wider dispersion J12s below. Bradshaw discusses: "The d&B J-Series PA has produced outstanding reviews at every venue. We chose it because we knew it would be the best solution for this show. It's very powerful and excellent for delivering vocals – fantastic, as this is what George's show is all about. The choice of vocal mic was based on previous experience and

George's personal preference. I've used the SKM 5200 before and got great results – the clarity of the top end is excellent. It's like having a radio version of a studio mic."

Throughout the show Michael is right on the mic – loud bits and all. "When George sings loud all three of us, myself and the monitors guys – Andy 'Baggy' Robinson and John Roden – have to be ready for it. We all manually ride his vocal to get it even. In addition to George's channel I also have the overall band VCA and the backing vocalists as manual. George is a very consistent performer so we intuitively know when he is going to belt it out."

Baggy explains why there are two engineers on monitors: "This is a huge show for us, we needed two engineers, one dedicated to George's mix – me – and the other to cope with the large band and the backing vocalists – John. We are using two DiGiCo consoles, a D5 for George and a D5T for the band and vocalists. The 'T' can manage more outputs – with 15 in the band, all on stereo mixes, plus all the other stuff

we're running a D5 wasn't big enough. Like FOH we are not using any of the onboard processing – all three boards are set to the maximum 160 channels."

Replacing the onboard effects and processing of Roden's D5T is a dozen SPX2000 and 36 channels of TC EQStation. Baggy is running two Lexicon 960s and two vintage Lexicon 224s – one of which produces Michael's favourite vocal plate effect. The other is a spare because as Baggy says, "The days of these liking the road are over."

Both consoles are at saturation in terms of racks; where possible all outboard is connected digitally, which cuts cabling considerably. All in all, 18 cables connect the racks and consoles. This set up has allowed Baggy and Roden to accommodate 320 channels onto a 16 x 8 riser – an impressively small footprint by any standard."

Another unusual aspect of the monitor set up is that the mic signal path to Michael's IEM is analogue. Baggy explains: "The necessary processing in the signal path from George's mic to his IEM, combined with his singing off mic, caused a latency in the region of 6-8 milliseconds. At this level a good ear will detect a slight chorus effect. We reverted to using the D5 to generate band and effects mixes but the vocal is analogue processed through to the transmitter. The learning curve has been such that I think we could now go back and sort it digitally. Nevertheless that's something for next time – it all works now so why fix it!"

Every stop has been pulled out on this tour and it shows. Ultimately it has allowed George Michael to prove to the world, after 17 years absence from live performing, that he is an accomplished and extremely confident live performer. ■

SARAH RUSHTON-READ