

David Springan-O'Rourke is a TV and Film audio specialist. With over 25 years' experience in the broader AV industry, having started out mixing bands, David moved into TV audio 15 years ago. He is based in Canberra.

CEDAR DNS2



by David Springan-O'Rourke

I became aware of Cedar's DNS dialogue noise suppression product when I saw the eight channel DNS 8 in a trade magazine. I immediately thought it was an interesting bit of kit. I then spotted the DNS 2 on the web and had to try it out. I spoke with Australian distributors CDA Pro Audio, who sent me a demo unit. I used it once and bought it immediately – it is that good.

In TV, regardless if it's a live interview on location, or you're in the studio with some control over the setting, noise happens. There can be noisy kids, road noise, running water, or air conditioning, and they're all outside of your control. You can't keep saying 'stop, we have to redo that' unless you have a Hollywood-sized budget and the ability to put the whole environment into lockdown.

Previously, there was no real way to achieve the results the DNS 2 gives me. With the DNS 2 I was instantly able to put it in-line with my kit and dial in the noise reduction. It was startlingly effective.

Application

The DNS 2 is designed for 'bag use', as we call it in location sound. My standard 'bag' includes my Sound Devices 664 mixer with an extender to give me six more inputs, half a dozen channels of Lectrosonics lapels or handhelds, and a radio boom. On location,

and environments where I have reasonable control, I will put the DNS 2 on the boom channel and split the signal, so one channel is recorded unprocessed and the other channel with the DNS 2 noise suppression. That gives the editor the option of using the raw recording or the processed version, and that's the workflow most editors prefer. They might want to use their own noise reduction, and I give them the option. The interesting thing is that in the 18 months I have used the DNS 2, not one editor has used the raw recorded file. Editors are notoriously hard to please, and now I use the DNS 2, I don't get as many complaints!

If I'm doing a live-to-air OB with multiple talent, I'll put a lapel on everyone on set (four talent and a host, for example) then I will use the DNS 2 over the master bus. This goes out to OB truck at line level, and works really well, though processing a group works slightly differently than processing a single channel.

Operation

Operating the DNS 2 is very simple; you choose between mic or line input, and line or AES out. There's one knob to dial in the amount of noise reduction you want. It's very intuitive. Most often in live broadcast, you don't get the luxury of time to be too critical, but I've never found myself putting too much noise reduction in. The big test of noise reduction for lapel mics in particular is to jangle a set of keys near them; they don't like the key test. It usually reveals a lot of clicking and companding. The DNS 2 passes this test with flying colours.

There's a 'Learn' button on each channel. When this is activated, the processing constantly adjusts to adapt to changing noise conditions. For example, if you're in a room with classic air conditioning noise, you could activate 'Learn', let the talent speak, get the levels, and then deactivate. The DNS 2 would then hold the same noise reduction settings through the shoot. I tend to keep the DNS 2 in Learn mode just in case the air conditioning noise changes or there are any unexpected surprises!

The Setup button on the front panel allows you to adjust the processing, and set the input level to mic or line. There's only two levels of menu, so you can't get lost. In addition to the audio I/O, there's also a mini USB port on the back for firmware updates and service.

Latency

At the stated 'less than 0.1 millisecond of latency', there's effectively no latency at all. An editor's eye is always looking very carefully

ROAD TEST

to make sure lip sync is maintained. A good editor will spot any delay straight away. No-one's ever spotted delay from the DNS 2 because it's totally imperceptible. That's the best testament of how quick and effective the DNS 2 is.

Physical

The build quality of the DNS 2 is excellent. It's rugged – the housing is clearly a piece of nice aluminium plate, yet it's still very light. The knobs and buttons feel good, and all of the ergonomic and tactile factors are addressed well.

Conclusion

If I can have a device in my kit that makes me look better on the day, it's worth it. It puts some distance between me and tricky situations. For example, only a week ago, I was working on a commercial shot in a working hospital, so there was no control over the environment at all. It was a classic 'bathroom cavern' type acoustic to work in, but the DNS 2 cleaned up the noise and reverb straight away; I didn't even have to think about it. Devices like the DNS 2 are time-savers, and save you from getting in people's faces, saying it sounds bad and we have to stop – you can just do the job. It sounds like self-interest, but if a device can simplify workflow and produce a better result, I'm very happy. It just makes everything easier for everyone.

Product Info: www.cedar-audio.com/products/dns2/dns2.shtml

Australia: CDA Professional Audio
www.cda-proaudio.com

New Zealand: Protel www.protel.co.nz



Cedar DNS 2 – The Specs

Number of channels: 2

Process type: CEDAR DNS with Learn

Analog Mic and line inputs: Balanced XLR3F

Phantom power on mic input: 48V ±4V, 10mA per mic

Analog Line output: Balanced XLR3M

Digital Input: AES3 or AES11 via balanced XLR3F

Digital Output: AES3 via balanced XLR3M

AD/DA resolution: 24-bit linear PCM

Process resolution: 40-bit, floating-point

Latency: <0.1ms

Size: 146mm x 110mm x 44mm

Weight: 540g

“There’s a ‘Learn’ button on each channel. When this is activated, the processing constantly adjusts to adapt to changing noise conditions. For example, if you’re in a room with classic air conditioning noise, you could activate ‘Learn’, let the talent speak, get the levels, and then deactivate. The DNS 2 would then hold the same noise reduction settings through the shoot.”