

Sabine SWM7000

Henry Brister models the latest in wireless microphone technology.

My initial response to the idea of a Sabine radio mic was: “Who makes the capsule?” followed by: “Where’s the feedback exterminator?!”

Perhaps I was a little pre-emptive in my sight-unseen appraisal of the SWM7000 system, but Sabine is not previously known as a microphone manufacturer. The system’s brain is the SWM-72NDR, a dual-channel 1RU receiver unit that is compatible with all 7000 Series wireless microphones. Thanks to some on-board DSP, the 72NDR packs some interesting features, including the obligatory FBX Feedback Exterminator, ‘Mic SuperModeling’, parametric filters, compressor/limiter, and an adaptive de-esser. It’s a 2.4GHz wireless device, which is a fairly recent development. By international agreement, the 2.4GHz band can be used anywhere in the world, and, in this case accommodates as many as 70 different frequencies.

As far as transmitters go, it turned out the Sabine handheld SW70-H15 microphone I was given to review sported an Audix OM5 capsule, a capsule renowned for its smooth capture of nuance in the human voice but not necessarily for its ruggedness on the road. Visually and physically, however, the transducer units are very sturdy – the die-cast

beltback almost fearsome in its implied toughness. The handheld unit has a rubberised covering and a gloss-black basket as well as a stubby square antenna projecting from the base [left!]. A simple recessed switch prevents handling accidents and another switch inside the body determines the function of the external switch, of which there are three modes of operation: on/off; on/mute; and on/on.

Dry Run

Sabine has really concentrated on ease of use – I patched the system and had it running from scratch within 10 minutes. The operating instructions are clear, with some succinct pointers for the novice, including detailed troubleshooting passages, with plenty of notes on getting the most reliable reception – and at least a page on each of the

panel features, the interface, and setup.

Navigating the SWM-72NDR’s functions is pretty simple thanks to the self-explanatory front display. The control knobs are quite tactile (with rubber rings around the circumference). However, the output gain and RF channel select knobs were nowhere near as sturdy as the other five on the rack, and consequently the review unit is now missing one of these two knobs...

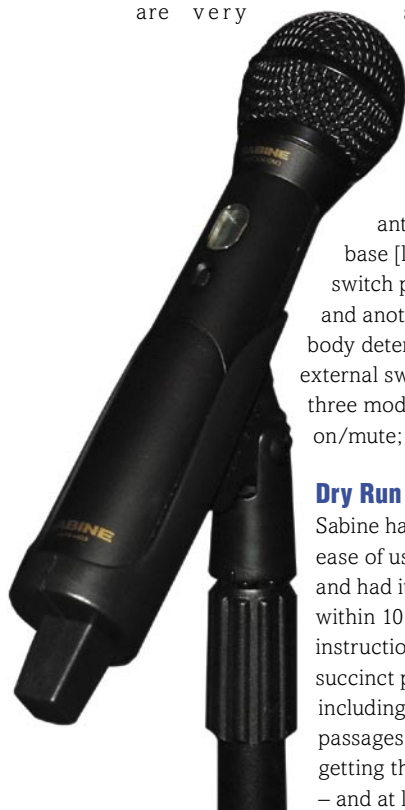
To begin with, I used the wireless system at a gig without any of its ‘extra’ functions engaged, and it certainly performed to expectations, with some vocalists benefiting from the change of capsule away from the ubiquitous SM58. (In the past I’ve actually found that the OM5 capsule through a Shure 58-tuned PA system can sound just that little bit clearer, and this was certainly the case in this instance.) All up, the unit performed flawlessly despite my controlling laptop computer crashing several times, and the unit only caused a static burst on one occasion when the battery charger fell out of the mic, causing it to power down.

Exterminate Exterminate

After allowing the system to stretch its legs, it was time to delve more deeply into some of the more advanced functionality. This is a Sabine device, so naturally I assumed the ‘FBX’ feedback exterminator program was the cornerstone of this product, and the reason for Sabine to head into the wireless market. As it happens, I was not entirely accurate, yet I attacked this feature first – the controls for the feedback exterminator are the initial group of three buttons on the left-hand side of the receiver unit.

The options available for those not using an external interface (in this case, my laptop) are limited when it comes to the feedback filtering section: a dipswitch on the back panel of the rack unit changes the feedback notch from 1/10 to 1/5 of an octave (the options range from 1/10 to one via the remote software); dynamic roaming filters which are constantly on the lookout for feedback – which is often more of a concern with a cordless mic given that it allows the user to roam freely about the stage – are set at three out of the 10 at work at any given time, or two out of 10 by the same method (or any configuration of 10 remotely via the external software).

That said, the fixed filtering works the same way regardless, and I found it to be more than capable for getting plenty of gain in awkward situations, especially with the handheld unit. On several occasions I used the mic on a drummer’s vocal where the foldback was



inevitably quite *loud* and the feedback suppression worked to great effect, allowing significantly increased gain over the alternative dynamic mics available. The lavalier microphone really did test the limits of the dynamic filtering though, and used in stand-alone mode in a studio control room displayed the disturbing habit of 'round robinning' feedback tones – the dynamic filters holding for a time, then going for another frequency, releasing the previous problem tone back into the wild.

Sabine provides control software which affords all manner of editing. Whether it's changing the dynamic filter hold time (from seconds to minutes, even hours), or using the function as a parametric equaliser, the remote software opens up the FBX to its full potential. All changes made in software can then be saved back to the unit in case of computer failure. Nice...

Search for a Super Model

The 'mic super modelling' aspect of the 7000 Series wireless system is where the Sabine starts to stake out its own turf. Unique amongst wireless systems, the modelling feature is what sets the Sabine apart from the rank and file of wireless mics. There are currently seven mic 'models' to choose from, three of which are emulations of condensers such as the Shure Beta 87A, AKG's C535EB, and Audio-Technica's ATM89R. Unfortunately none of these emulations is accessible when the Audix OM5 dynamic headstock is being used, and since that was all I had, I was limited to the dynamic mic emulations, of which there are four to choose from at base level. These digital 'emulations' include the aforementioned Shure SM58 and Beta 58, the Audio-Technica ATM41A, and the AKG D3800 – with more available for download from the Sabine website soon, apparently. In a typical install situation where the number and variety of mics is often far outweighed by the variety of performers the mic kit caters to, this virtual multiple capsule option places the Sabine wireless at a distinct advantage. I can see a future where mic modelling and emulation software will abound in the live domain and perhaps a wireless mic that lacks this feature will seem a little antiquated in the not too distant future. But remember, modelling an SM58 doesn't make the OM5 as robust as one!

De-esser

To my mind, the Sabine de-esser, or 'de-ess cut'

knob, was the hidden gem in the system. Although at full stick (-24dB) it is of course quite blatant, at more realistic gain reduction levels it worked brilliantly to combat sibilance. With about 8dB of 'cut' it can smooth out some pretty sizzly singing. A nice feature to be sure...

Next to the de-esser control knob there are three rotary pots that manipulate the compressor. Sonically, the compressor worked fairly transparently at low ratios on vocals, but as I didn't have the specific lead that's required to connect instruments such as guitars and keyboards to the belt pack (which is a frustrating design feature), I couldn't test it on anything other than vocals. The onboard compression feature is nevertheless another bonus for systems large and small, as it provides dynamics processing for a wide range of applications and inputs. Tailoring individual receiver/transmitter pairs for complex multi radio microphone setups (such as in theatres) should be a doddle – with your settings saved into your computer, imposing them onto the appropriate receiver/transmitter is easy.

From there, we come to the channel select knob. This hides the punch line of the 7000 Series. There are 70 channels to choose from, and using a PC you can slave up to 69 (mono) systems off your first unit, or 34 stereo units. The interface is very simple to use, and each individual icon displays RF strength, battery status, audio level and gain reduction, and clicking on the appropriate icon brings up the editing page.

Digital (XLR), network, serial, USB, BNC (sync), and comms ports adorn the rear panel of the receiver along with the BNC connectors for the aerials. Extra antenna distribution and RF amplification units are available to supply up to 12 units with clear reception.

Cradle to Grave

One issue I did have involved charging the supplied AA rechargeable batteries. It took a while for the units to charge their batteries up, so I had to tape the power adaptor to a mic stand to put the handheld in its customised charging cradle – as the adaptor only has a 10cm cord! Nevertheless, the cradle charger didn't work at any stage. Despite repeated attempts to get the cradle charger to power the mic I never managed to get this device to function...
The longest





Sabine wireless remote GUI interface.

period of useable battery life I got out of the rechargeable batteries was about six hours, and Sabine supply rechargeables called 'Tysonic', and exhort you to use 'Sabine' replacements. For large systems I still prefer disposables (although they are an environmental hazard) because they will always last significantly longer. Given that the Sabine recharging system didn't exactly inspire me with confidence – on more than one occasion taking up to 12 hours to finish charging – recharging the supplied batteries may require you to keep a studious eye on proceedings to be sure they're powering up. Also, the voltage drops off incredibly quickly, so any perceptible reduction of charge is treated as a discharged cell. One last minor grievance was that, according to the brochure, the handheld microphone's battery hatch flips open. However, the one I used was a screw-off cylinder that took its protective 'O' ring with it a couple of times during battery change over, and the stiffness of the thread made it feel as if the unscrewing process was causing the mic harm. Despite these minor construction quibbles, the Sabine wireless system is a good-sounding and reasonably robust component system. It offers unique features that will suit the smallest and largest installations, can be plugged straight into an amplifier, and you can have up to 70 units controlled by one workstation. It's a versatile system that emphasises its 'peripheral' features to great effect – and being a product not manufactured by a microphone company, as such, it offers great variety in capsule and modelling options. Apart from the few construction issues, which will be rectified soon in all likelihood, this unit is bound to make its presence felt in the live arena.



Distributed by

• *Audio Telex*
 Phone: (02) 9647 1411
 Email: nsw@audiotelx.com.au
 Web: www.audiotelx.com.au

Price

• \$3,099 (for a receiver and handheld system)