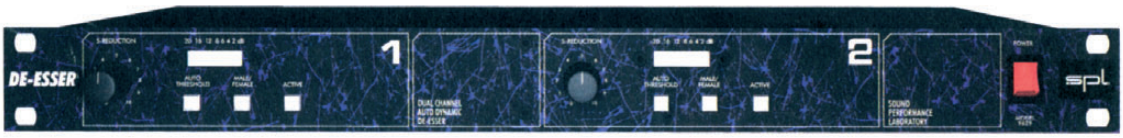
PRODUCT EVALUATION

SPL Squelches Esses Automatically

By Greg M. Savoldi

It is a classic dilemma: Stage sequencing in voice processing generally puts the de-esser ahead of the compressor. The problem is, with widely varying source levels, the de-esser is driven too heavily or not enough.

"Live microphone" situations and multiple talent using the same microphone present this problem, and while the drive depth could be actively adjusted by several methods, none is efficient or practical.



The SPL Model 9629 Autodynamic De-Esser

Practical solution

SPL has a practical solution in a 1-rack-unit package, the Model 9629 autodynamic de-esser. It handles two independent line-level channels, each adjustable for automatic or manual operation.

The "manual" operation is as expected. Just dial in the depth of de-essing desired; a 20 dB segmented display shows the amount of action.

However, instead of a corner frequency set knob, SPL took a "less is more" approach and replaced the standard knob-type tuning pot with a two-position switch labeled "female" and "male." Female is cornered around 6 kHz, while male is closer to 8 kHz.

Utilizing the automatic mode for de-essing is what sets the Model 9629 apart. On-board circuitry makes intelligent decisions about RMS levels, *s* frequencies and phase relationships.

The de-essing bandwidth is set so narrowly around the range of the sibilance that adjacent frequencies remain unaffected.

Audio processed via this frequency band is mixed back into the main signal phase-inverted so that only the *s* sounds are cancelled where the *s* reduction controller determines the intensity of the phase-cancelled mix.

Once a target *s* reduction depth has been set (a simple one-knob adjustment), the 9629 dynamically maintains that relative amount of activity, regardless of varying input levels.

Overall throughput

Note that this action does not affect the overall throughput level. It is not a compressor or leveling/AGC device. Other than smoothly controlling that top end, the audio is left practically untouched at the output.

A real-world application would be a live venue, whereby different speakers or vocalists use the same microphone. This could be a religious service, talent show, control room microphone or an outside broadcast.

While the male/female switch is handy, I found running in the male setting worked well for most applications. With an average level coming into the 9629, I set the gain/release (G/R) knob for 3 to 5 dB of *s* reduction. I then engaged the auto mode and let the box do the rest.

As levels varied from source to source, the amount of de-essing stayed within a few dB of my set point, even though input levels increased toward 10 dB.

If the input levels dropped below my G/R window set point, the box simply passed the audio with no processing effect.

The specifications for construction, layout and practical features are excellent. Both XLR and quarter-inch TRS jack sets are standard, and hardwire bypass is a feature I have always liked.

Those who have had to lean over into the back of a dark rack or pull a box halfway out will appreciate the silk-screening on the back and top rear of the Model 9629, because it is printed right-side-up and upside-down. I thought this was a nice touch.

My only recommendation is a rescaling of the G/R LED segment metering. Past 4 dB of G/R, the scaling goes in 2 dB or 3 dB increments, out to 20 dB. With the automatic operation being the preferred mode of use, a user really does not need or want to be any "deeper" than 10 dB.

Past 8 dB of G/R, the user can start "hearing" the box work, so I would like to see the G/R segments in 1 dB increments to 8 dB G/R, then 2 dB steps out to 14 dB G/R. For dialing in more than this, de-essing is not the processing needed.

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