ARX SIXGATE NOISE GATE

Total

Since the birth of audio electronics, one of the permanent problems that sound engineers have had to to fight is without a doubt that of noise. It can be generated by many factors; the electronics of synthesizers, samplers and rhythm boxes, the cables used, the background noise that microphones can pick up, and audio circuitry in general. This is one of the reasons that many manufacturers who create solutions to these problems have decided to include noise gates in their catalogs. ARX is no exception, but as is habitual with this brand it has beaten its competitors with a model that incorporates six noise gates in a one rack unit package

With its uncluttered businesslike exterior, the ARX Sixgate might seem, to lovers of lights and switches, to be a very basic noise gate. Nothing could be further from the truth. If we look closely we can see that this unit has many functions that audio professionals need.

To begin with, we can see that all inputs and outputs are balanced. Continuing their multitude of virtues the Sixgate incorporates a Key input/Sidechain access point on each channel. This enables the gate to be opened or closed by a signal plugged into the Key input, and not the signal that is plugged into the normal input. Another important element for pro users is Open and Closed LEDs which correspond to the gate activity.

The controls for each channel are: Release, Depth and Threshold. The first of these is the one controlling the time until the door closes, once it has opened. The second of the controls is very practical for fine-tuning and it is called Depth.

With the Depth control set to the maximum, the gate won't allow anything to pass: gradually turning the knob toward the minimum position will gradually increase the amount of signal let through when the gate is closed. This can make gated instruments and especially vocals appear less 'jumpy'. The final control is Threshold, which sets the level in dB the signal must reach for the gate to open.

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by EMILIO JOSE PEREZ DE URIGÜEN

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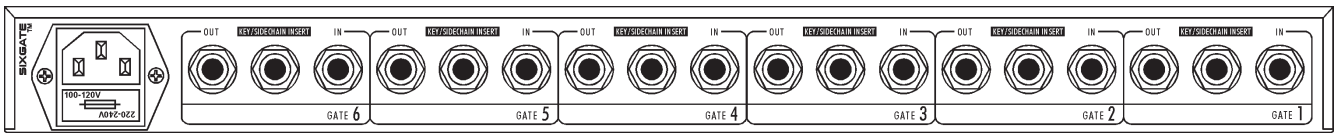
transient or a signal with a slower rise time. The result was more than surprising - its sensitivity and ease of adjustment left me openmouthed!

The response to signals like vocals or drums left no doubt as to its speed, and as for false gate openings they were non-existent, as if the Sixgate knows whether it should open up or not.

The conclusion after testing the gate is that I had never imagined that something in a single rack unit could be so effective and precise with so few controls!

noise control



Sixgate rear panel

The rear panel has three 1/4" jack connectors per channel. The input and output are balanced, as we have mentioned previously, plus the Sidechain is Tip - In, Ring - Out, Sleeve - Ground.

On the rear panel there is also a removable fuseholder which will allow changing the voltage from 110V to 220V without having to open up the unit.

To my way of seeing, noise gates should handle a series of essential requirements. These are: to eliminate the noise, not to generate any clicks when opening or closing, not to modify the tonal color of the signal as it passes through the unit, and lastly to respect the musical program completely and not to chop any content due to late opening of the gate. Regarding noise, I can honestly say the Sixgate doesn't produce the slightest click or residual noise, either with balanced or unbalanced signals. Regarding accuracy, we checked the frequency response of the signal passing through the sixgate and it is not altered in any way. Lastly and more complicated is the opening and closing of the gate.

Regarding the attack time of the Sixgate, it is program dependent, and responds differently to a fast

SPECIFICATIONS

Input Headroom: +22 dB
CMRR: Better than 60dB 20 Hz-20 Khz
Maximum output level: 20 dB
Freq Response: 20 - 20Khz (+/-0,2 dB)
Signal to Noise:
Gate Closed:
-95 dB unweighted, -105 dB "A" weighted
Gate open, Depth at minimum:
-93.5 dB unweighted, -98 dB "A" weighted
Distortion: .01% THD OdB, 1 Khz.
Dynamic range: 125 dB