IGS Audio S-Type 500

The Good Stereo Compression

By
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Igor Sobczyk is a well-known record producer and sound engineer. He is also the founder of IGS Audio. He started the company in Poland in 2003, initially producing replicas and accurate clones of famous gear. IGS Audio eventually developed its own product line that includes stereo and mono compressors, passive and active equalizers, and solid-state to tube topologies.
Among its latest offerings is the S-Type 500, which is the newest version of one of this company's first compressors. This stereo VCA compressor features new functionality and improved circuitry. The S-Type 500 is based on the famous SSL Bus Compressor. Notable features include the use of stepped switches for easy recalling, on-board parallel compression, side-chain filtering, and stereo linking/unlinking for compression action.

The S-Type 500 is a true stereo compressor for the API 500 series. Its origins can be traced back to the famous SSL Bus Compressor that first appeared in the 4000 series mixers in the late 1980s. This is one of the most sought after bus compressors, mostly because of its ability to polish and glue all the elements in a mix. This special characteristic is one reason the SSL is used in thousands of top 10 records today.

The S-Type 500 is more of a modern take on this famous compressor even though it can replicate most of the original compressor's settings. The S-Type 500's features (e.g., on-board parallel compression, side-chain linking, and side-chain filtering) provide more versatility than the original one. It also uses modern VCA chips. Each unit has eight THAT 2180LA instead of the DBX 202XT that was featured on the original SSL and is now obsolete. The S-Type 500 also uses "ultra-fast" op-amps running in Class A, which according to the manufacturer, should provide cleaner sounding I/O stages with lower noise and THD levels.

The IGS Audio S-Type 500 is a modern take on the famous SSL Bus Compressor. This is a modern SSL Bus Compressor with better specifications that can be used in more applications, including mastering. New features (e.g., the ability to filter the side chain) add versatility to this compressor.

Now that we've discussed some of the differences between this S-Type 500 and the model that inspired it, we'll take a detailed look at this unit's features. This is a 500-series stereo compressor. Therefore, it uses two slots on a compatible rack or lunchbox.

It has a military-green thick face plate in a quality satin/matte finish with long dark metal knobs. All the knobs, with the exception of the Wet/Dry one used to set parallel compression, are stepped switches. This enables us to recall exact settings and it also provides the unit with a sturdy, quality feel. The build quality is good. The face plate has seven knobs, which from the top left to the bottom right address the following functions: threshold, output, wet/dry mixer, attack, release, ratio, and side-chain filter.

A gain reduction meter on the unit's side uses LEDs that show gain reduction in 1-dB steps up to 20 dB. A red LED-power indicator on the left of the dry/wet knob and a three-way switch on its right completes the face plate. This switch sets the unit in bypass (BY) if it is in the middle position, while the top and bottom positions turn the stereo linking on and off.

The top position "London" links the compression to work equally on both channels, making it a true stereo unit. The bottom position "New York" unlinks the side chain and makes the gain reduction action independent on each channel. However, it would be clearer and more intuitive if the manufacturer just labeled these settings as "Linked" or "Unlinked." This is a new S-Type 500 feature that is not available on the older S-Type rack version. This is also a feature that's not seen in most other SSL Bus Compressor clones or replicas.

With regard to each function's available settings, the S-Type 500 features all the attack and release constants available on the original unit. Attack times vary from 0.1 to 30 ms and release times vary from 0.1 to 2 s. The 2-s release time constant is not available on the original unit.

This compressor also features the "Auto" release time constant present on the original model, which technically combines two release constants. The idea behind this option is to provide a fast release setting for short program peaks and a slower release if the gain reduction continues for a longer time.

The side-chain filter has a six-position switch for five different frequency points plus an off position. The low-pass filter can be set at 60, 90, 120, 180, and 240 Hz. These are first-order low-pass filters. The available ratios on the S-Type 500 are the same ones found on the original unit, with 2:1, 4:1, and 10:1 as choices. This compressor can provide up to 20-dB gain reduction and its make-up gain can compensate to the same 20-dB amount.

Measurements and Specifications

All the S-Type 500 measurements we took were equivalent with the manufacturer's published specifications. This S-Type 500 is pretty much linear from near DC up to 20 kHz, though it is not considered high-bandwidth equipment. The THD+N is considerably low as we should expect from well-built modern gear. The noise floor is also low enough to comfortably use this equipment on more sensitive applications (e.g., mastering). Judging by the specifications, this S-Type 500 is a cleaner unit with more specifications than the original SSL Bus Compressor.

Examining the unit's interior, we noticed the "ultra-fast" op-amps the manufacturer mentions. Instead of the traditional NE5532 op-amps, and most other clones, the S-Type 500 uses the OPA134 series from TI/Burr Brown. These are more than twice as fast as the NE5532. They are also better in other technical aspects, definitely improving the overall sound and audio integrity on the audio path.

Operation and Sound Quality

The S-Type 500 is a straightforward compressor. And that's a good thing. Anyone who is familiar with compressing audio will easily achieve the desired results with this device. In fact, the unit didn't even ship with a written manual.

As with the original unit, the S-Type 500 is best when compressing mixes. Using fast to medium attack times with the GR meter barely lighting is a great starting point. If you're working on a track that needs more compression, just speed up the attack time or use the "Auto" release function. The "Auto" release actually compresses a bigger portion of the signal, as it affects both short peaks and slower signals. In any case, it won't be difficult to find a good setting for almost any kind of music.

Mixing into this compressor will provide a song with a more finished sound. It will also create a more polished mix and take less time to do it. It's

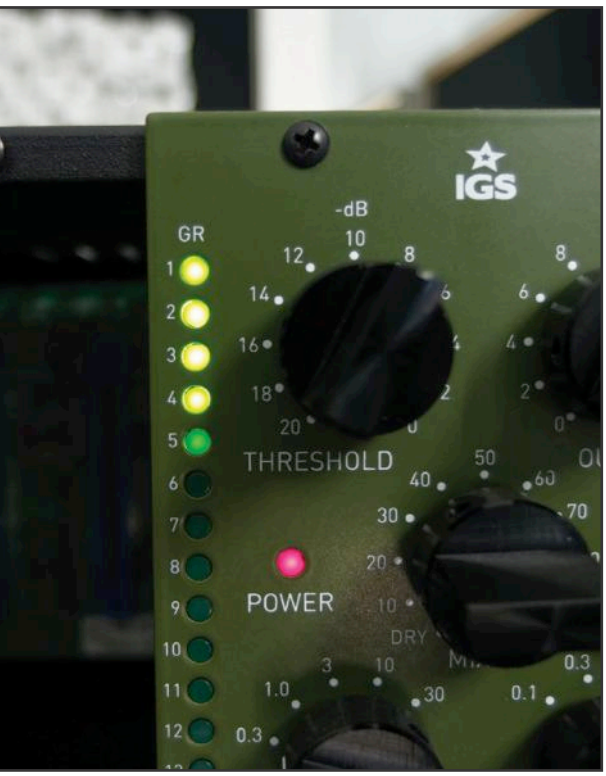
This compressor is very well built with a thick front panel in a quality finish. The IGS logo and the green faceplate adds a cool military look to the unit.

Manufacturer Specifications

Frequency response: 5 Hz–20 kHz (±0.1 dB)
THD+N at 0 dBU (20 Hz–20 kHz): 0.012%
Maximum I/O levels: 21 dBU
Noise floor: –102 dBA
Crosstalk: 101 dB
Power consumption: 4.5 W

About the Author

Miguel Marques is a full-time mastering engineer who works in his own mastering studio in the north of Portugal. After earning a bachelor's degree in Music Production and Technologies, Miguel worked in commercial recording studios as a recording engineer. He has also written several technical reviews and articles for pro audio magazines. He recently finished his first book about audio engineering, which will be released soon in Portuguese-speaking countries.

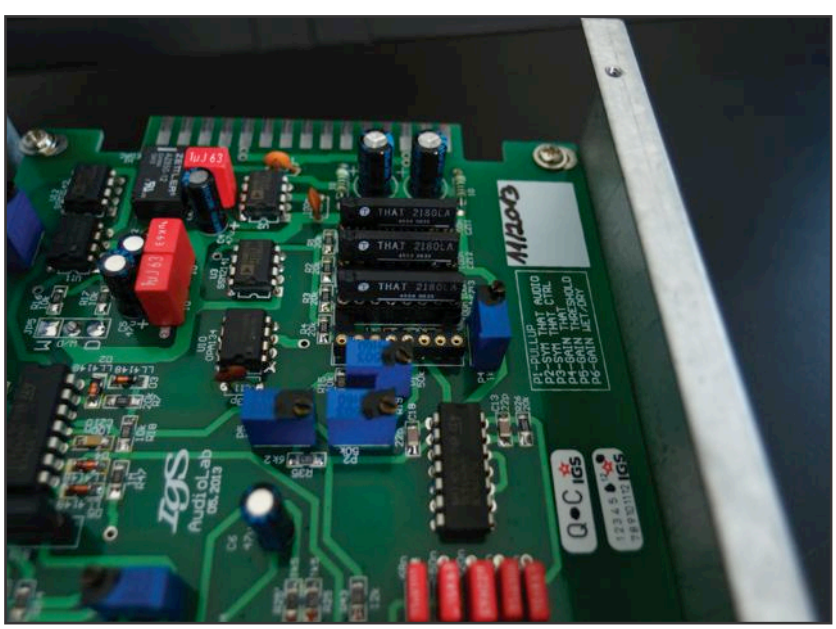


Operating the S-Type 500 is fairly easy. It uses stepped switches on most functions which add a sturdy, quality feel to the unit. The LED gain reduction meter on the compressor's side displays up to 20 dB of gain reduction in 1 dB steps.

in this scenario that the side chain's high-pass filter comes in handy. It's one feature we consistently use when compressing entire mixes with the S-Type 500. It enables the low end of a track not to trigger compression or to just trigger it by a controlled amount of energy.

By removing the low end from the side-chain circuitry, you can more effectively blend a vocal to the rest of a mix. You can also prevent a kick drum from prompting to much gain reduction, making the compression sound uneasy. These are just a couple of examples in which side-chain filtering is useful.

The S-Type 500 does more than compress mixes. Even with the limited number of available attack and release time constants, you can have a lot of control over single instruments and groups. Because of its VCA topology, it is a fast enough compressor to squash and create pleasant distortion on a drum group, yet slow enough to do program leveling and overall dynamic range reduction. It has a smooth compression action on medium to slow time constants. With the right settings, you can receive considerable amounts of gain reduction without noticeable side effects.



The S-Type 500 uses eight THAT 2180LA ICs instead of the now-unavailable DBX 202XT used in the original SSL Bus Compressor. One of this compressor's notable features is its use of TI/Burr-Brown OPA134 series op-amps, which are more than twice as fast as the NE5532s used in the original model and other SSL clones. OPA134s provide better noise and THD levels, which makes the S-Type 500 a cleaner sounding compressor.

It's fairly easy to tame most drum transients, to change the level of the pick sound on an electric bass, or to control any melodic source's dynamics. Because of its smooth compression and clean I/O stages, the S-Type 500 can sound fairly neutral though not completely transparent. It's not one of the most pristine compressors on the market, but it is a clean enough unit to be used on most stereo- and mono-source applications. If you only have one S-Type 500, you'll find it difficult not to use it on a mix or a stereo group.

During the review, we found the linking and unlinking of the side-chain compression circuits to be one of this compressor's greatest bonuses. Generally speaking, we prefer the action and sound of an unlinked compressor, mostly when processing an entire mix. Using compression in a linked or unlinked mode affects the stereo image. It can sound more open or reinforce the mix's center. Because most of the time only small amounts of gain reduction are happening, there's no need to worry about shifting the stereo image.

However, with the S-Type 500 you can easily switch modes to easily compare the each one's effect. Obviously, if you're aiming at large amounts of gain reduction on a stereo source, you'll probably have no other choice than to run this unit in stereo. That is unless you actually want a crazy stereo effect , then you can shift the stereo image with compression. But that would be the exception.

Although the S-Type 500 offers parallel compression, we did not feel it was necessary. In any case, it is a nice option. In a mixing scenario, we imagine this would be useful, mostly when dealing with drum groups or any time you want to have compressed sound yet maintain some of the original source. It can also be a good feature to louden or impart some compression action on quiet parts.

It's easy to achieve by adding exaggerated compression. You can adjust the levels so you cannot hear the compression on the loudest parts but you can still notice its effect on the quietest ones. The fact that this unit's wet/dry knob is not stepped actually helps achieve this result, as a stepped switch could not be precise enough for it.

SSL Bus Compressor

The SSL Bus Compressor is not only one of the most sought after compressors on the market, but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Sources

2180LA ICs
THAT Corp. | www.thatcorp.com

NE5532 and OPA134 op-amps
Texas Instruments, Inc. | www.ti.com

it is also one of the most cloned pieces of studio gear out there. In DIY groups and in the professional industry, several brands offer a version of this SSL classic. And, there are already a few in 500-series format. Even SSL designed its own version, announced last year.

So the question here is not if the Audio S-Type 500 is a great piece of equipment, because it is. It is a proven design, with solid improvements and great build construction. The real question is: Why buy this one instead of a similar compressor?

The answer is simple. The S-Type 500 is more capable than most other units. It is more complete feature-wise, and the extra features are helpful when dealing with compression duties. It also has good I/O stages, which makes this compressor usable even when working on delicate programs. But the S-Type 500's most remarkable aspect is its affordability. With a $699 MSRP, it costs considerably less than its main competitors. And, we found no flaws. So if you need a stereo compressor or want a new mix bus compressor, the S-Type 500 should top your list.

To watch the S-Type 500 in action, visit http://youtube/8NGOQU4HM_I. For more information, visit www.igsaudio.pl/en.

About IGS Audio

IGS Audio is the result of Igor Sobczyk's many creative facets. Sobczyk is a well-known producer in Poland and he is responsible for the popularity of hip-hop in his country. Since the 1990s, he has produced and recorded some of the biggest hip-hop acts in Poland. His success led to the opening of IGS Studio, in 1997. As his career flourished, Sobczyk worked with several top artists from various musical genres in his studio.

Using his studio experience and his electronics background, Sobczyk started building clones of famous gear so he could use them. Following his engineering success, local studios and other engineers asked Sobczyk to build gear for them. So began IGS Audio, which officially opened in 2003. At the time, the IGS Audio brand was known for its ability to make the best, relatively affordable, clones of several studio compressors, preamplifiers, and equalizers. The work made IGS Audio a commercial success in Poland and across Europe. As the IGS Audio product line continued to expand, the brand gained new dealers worldwide and is now an established name among engineers everywhere.

Recently, IGS Audio has been developing new products, and it is moving away from its roots as a clone manufacturer. IGS Audio is developing new designs and products, with a recent focus on 500-series products. The S-Type 500 is one of the many new 500-series products the company announced this year.

Sobczyk and IGS Audio also collaborated with Lindell Audio to manufacture the 500-series modules. As with all IGS products, they are still made in Poland.

IGS Audio even offers a 500-series rack with its own power supply module called the PANZER 500. The Alter 500 FET compressor and the VANAD 500 preamplifier are two other IGS Audio products similar to the S-Type 500.