

ON TEST

DiGiCo SD12 Digital Mixing Console

Sound engineer Simon Allen takes a closer look at DiGiCo's compact digital desk . . .



ABOUT THE EXPERT
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Simon Allen is an internationally recognised freelance engineer/producer and pro audio professional with over a decade of experience. Working mostly in music, his reputation as a FOH and studio mix engineer continues to reach new heights.

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DiGiCo released its first S-Series compact console in 2015, designed to deliver the professional DiGiCo workflow at a more affordable price. Last year, the company launched the Core 2 software across the whole of its SD-Range, an update that considerably increased the processing power and performance of the SD consoles, adding several new features. The SD12 is the first console from DiGiCo to incorporate these aspects into its foundation. From its name - SD12 rather than just S12 - we can conclude this is a typically 'pro' machine, albeit badged as a competitively-priced console for this area of the market. I set off to the DiGiCo HQ in Chessington, Surrey to find out more about the SD12's concept and features, and to discover where this new animal fits into the company's product line . . .

STAGE PLAN

Just as with all the latest consoles from DiGiCo, the SD12 is a live sound, houses of worship, install, theatre and broadcast mixer. As you would expect from the company, this is a self-contained system which harbours the user interface and processing engine in one - unlike other systems on

the market, where the console and stage racks work in tandem. This allows you to use this desk with any of the existing stage box solutions from DiGiCo according to your application.

The concept for the SD12 was formed two years ago and has been developed since. Code-named *Project Vulcan*, DiGiCo recognised that it could deliver a product that combined some of the most desired features and technologies into a versatile format at a competitive price. The biggest talking point with this console is the dual 15" touchscreens, and DiGiCo claims this is the only console in this area of the market to offer two large touchscreens. Any DiGiCo user will know that two screens lend themselves very neatly to the workflow to which we're now accustomed.

The two screens give way to the StealthCore2 software all SD consoles now run - a powerful update that provides many advantages straight out the box, especially when compared to the competition. For example, each channel EQ can be dynamic EQ enabled on any of the four parametric bands. Each input channel now features DiGiTuBe, a valve-style harmonic saturation algorithm and all dynamics engines across the desk are notably more powerful, too. There are two dynamic modules available on every channel, such as compressors, gates and a de-esser, but also a four-band multi-band dynamics module. In each of these dynamics modules, there are now expandable displays with graphical representation.



← DiGiCo's SD12 digital mixing console

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All this offers a significant level of toolset right from the start, even before you consider connecting anything such as a Waves SoundGrid. There are other manufacturers who are also starting to build upon the basic channel strip idea, that you typically find at console level. However, this Stealth Core 2 package is impressive, coming from a very live sound orientation. My studio experience wonders why DiGiCo didn't pursue various compressor styles, as another brand has done, but the DiGiCo compressor works extremely well for most scenarios on the stage. Having multi-band dynamics and dynamic EQ is obviously very useful in the live environment.

ON STAGE

Apart from the SD12's party piece of offering dual touchscreens, the rest of the layout on the surface maps really well. There are two panels of 12 faders, one under each screen. The SD12 offers two rows of encoders between the faders and the bottom edge of the screen. These encoders work as on any other DiGiCo console, controlling any of the major parameters along your channel strips, or for any open windows such as dynamics and effects. Everything lines-up in true DiGiCo fashion, so that the graphics on screen map to the hardware controls clearly.

Along the right side of both screens are EQ and major dynamics controls that work for the selected channel and colour map to the same colour scheme as on the screen. This completes the major hardware operation for general mixing besides some additional push buttons enabling certain aspects or selecting areas of control. There is the usual touch and turn control that can be useful for jumping straight in on any parameter.

Another feature that helps the desk become fluid to use and feel very 'DiGiCo' is the Hidden-Til-Lit technology that runs throughout these controls. Not only do the RGB colours fall in-

line with what you're seeing on screen, but parameters such as the gain on the EQ won't light up until you make a boost or cut.

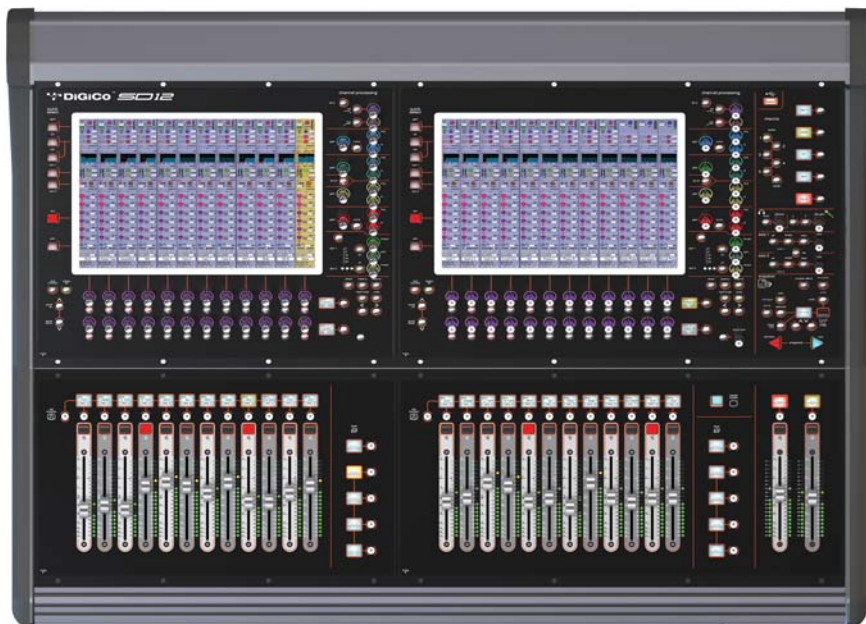
This layout and hardware feature set will feel very familiar to any engineer who's operated an SD7. Besides the large amount of screen real estate, I think it's refreshing to see DiGiCo sticking to its guns and providing a good number of hardware controls. Other consoles recently released seem to be making more use of touchscreen technology and saving on knobs and buttons to keep costs down, but DiGiCo has gone the extra mile and retained the hardware control instead of investing in multi-touch touchscreen features, such as pinching an EQ bandwidth. Whether this is a positive comes down to personal taste, but as a reviewer I hear more complaints about touchscreen control and the lack of provision of tactile feedback.

This dual control, dual screen format offers great workflow opportunities. While the right-hand screen harbours the home screen as well as the channel display for the right bank of faders, you can customise the layout of channels to your liking. You might want to work left to right, or inputs on the left and outputs on the right, or however suits your application.

The other possibility could be for two engineers to operate the desk simultaneously. As the left and right screens work independently along with their own controls, while one engineer might be applying EQ to FOH, another could be dialling in



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monitor mixes. I think this will be part of the attraction that the SD12 draws, particularly for festival stages and small-to-medium-sized venues.

DiGiCo has also applied some neat design touches to its console, such as the light bar across the top, which highlights the labels and information on the surface nicely and looks great, too. A small but notable feature for some are the two headphone jacks under the front edge of the desk: one 3.5mm jack and one 1/4" jack. As DiGiCos are often an IEM engineer's weapon of choice, the smaller 3.5mm is great to see. Also lifted from the SD7 is a convenient headphone hook.

Metering on the SD12 has also been improved upon from previous models, and there are gain reduction meters in the channel strip section to the right of each screen. These meters aren't seen very often in this price range and I found them very useful. In addition to the 24 faders located under the screens, there are two assignable faders in what you might recognise as a master section on a SD7 or SD5. These two faders can be assigned to control anything, of course, but naturally suit your main output or solo busses.

Above the master faders are the other hardware aspects you might expect to see from DiGiCo, including the snapshot section, which looks like a compact layout of the SD7's snapshot control. There, you can preview a snapshot even if you're offline, which can prove very useful. Above this are the solo and talkback controls as well as the DiGiCo macros. The SD12 supports five layers of five macros,

each with an on and off position. Most features on the console can be automated via custom macros, and the SD12 offers as many as 25 to use. All these user-friendly controls add up to ensure the SD12 feels like "a very DiGiCo product".

BACK STAGE

On the rear of the console are a number of connectivity options. For starters, there are eight local mic/line inputs, eight local line outputs and eight channels of AES/EBU. As with any DiGiCo console there are MADI connections, with the SD12 offering two pairs. A first for an SD-Range console, however, is a UB-MADI port, which the company has taken from its S-Series consoles. This provides a USB connection to any PC or Mac for multi-track recording and/or virtual sound checking. This offers an interface of 48 channels at 48kHz, or 24 channels at 96kHz, which I think is a really useful and important feature on any console today.

There are also 16 GPI and 16 GPO connections, MIDI ports and BNC wordclock connections, along with the standard USB and network connections. What's new, however, is a DVI connection for an external monitor to display a new overview screen. This is great to see, especially if you're faced with high channel count scenarios and need to keep a tab on things at a glance.

The rear panel can also feature dual Optocore loop connections, but as an optional extra. Each loop is capable of handling 504 channels with multiple surfaces and stage racks, enabling the SD12 ready for the pro world. After all, this is an SD console and it really lives up to this label.



DIGICO SD12 TECH SPEC

FEATURES

- ▶ Dual 15" touchscreens
- ▶ 24 channels in 1 view
- ▶ 72 input channels with full processing
- ▶ 36 aux/grp busses with full processing
- ▶ 12 x 8 matrix with full processing
- ▶ LR / LCR bus with full processing
- ▶ 12 FX processors
- ▶ 16 Graphic EQs
- ▶ 119 Dynamic EQs
- ▶ 119 Multiband Compressors
- ▶ 119 DiGiTubes
- ▶ 12 Control Groups (VCA)
- ▶ Weight: 42kg (82kg with flightcase)
- ▶ Dimensions: 1124mm (w) x 795mm (d) x 389mm (h)

Finally, the SD12 features two DMI card slots, which open the console to a multitude of connectivity options. DiGiCo has an extensive range of DMI cards for everything from Dante, MAD1, Aviom, through to Waves Soundgrid and more. This not only keeps your options open for different requirements, but is one way in which DiGiCo has tried to future-proof its entire range.

On the number-crunching side, the SD12 isn't as weighty as the rest of the SD-Range. However, with 72 full processing input channels and 36 busses, I can see this surface suiting most scenarios. Don't forget that this being a DiGiCo console, the master and solo busses are on top and aren't included in those 36. There's a 12 by 8 matrix mixer on board too, as well as 12 control groups. These can be moving fader or VCA. To round up the processing power inside, there are 12 effects engines that can be routed anywhere - as with any DiGiCo product - and 16 Graphic EQs. The Graphic EQs also feature a 0dB indent in the fader movement.

OFF STAGE

It's safe to say the SD12 is deserving of the prestigious SD title. It harbours all the

necessary features and options that make this a very pro machine. There aren't any ground-breaking statistics to quote that we haven't heard before, but the SD12 isn't about being bigger or better - rather, it's an accumulation of DiGiCo solutions and technologies in a very attractive product. The surface layout with the dual screens is something I'm sure DiGiCo fans will welcome with open arms at this price point. Add the generous offerings of hardware control and features such as the UB-MAD1, and the SD12 represents the DiGiCo brand for tomorrow's market.

I've heard some people try to describe the SD12 as a small format SD console, and while it is indeed considerably more compact than the flagship models, you shouldn't be put off on that basis. I personally think this is quite a decent-sized desk compared to others, which seem to have become so small they no longer feel pro. This is a serious machine for any professional in a live sound scenario. Potentially labelled as DiGiCo's first SD academy desk, this is the ideal frame for any small-to-medium-sized venue, and an excellent festival desk. ✖

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