



# Soundcraft

## Si Compact 24

### Digital Mixing Desk

Soundcraft's compact desk is designed to offer digital power and versatility combined with an operator-friendly 'analogue feel'.

MIKE CROFTS

Soundcraft have just released Version 2 software for their newest portable digital mixer, the Si Compact. The latest version adds new features and improves the performance of what is already a well-respected desk, so I was very keen to get 'hands-on' with this interesting package for the first time.

One of the long-time goals for digital mixer designers has been to give their product an 'analogue feel', something that will widen its appeal especially amongst those considering making the move from analogue to the new world, where outboard effects racks and tedious cable patching are gone forever.

The technical advantages of a fully integrated digital mixer are already pretty obvious, but it's practical things such

as ease of use, uncomplicated user controls and portability that will attract the interest of 'casual' users who don't — and won't — spend much of their working lives behind the desk. The main reasons I bought my own digital mixer were the vastly increased functionality, the ability to store and recall many different settings, and the ability to use digital communication between stage and control point.

There are lots of other reasons to take the digital route, like audio quality, future software enhancements and so on, but there are still some things to consider before making what can, for many users, represent a considerable outlay of cash.

#### From The Top

The Si Compact has been designed from the outset to maintain Soundcraft's long-standing reputation for excellent

audio and build quality, and to offer the user a straightforward hands-on experience so that they don't need to keep referring to a set of instructions or menu choices to access most of its functions. Let's take a tour of the Si Compact, which comes ready to work straight out of the box, with its factory settings.

True to its name, the Si Compact is indeed a small, neat unit with an air of

### Soundcraft Si Compact 24 £6200

#### PROS

- Great audio quality.
- Excellent build quality.
- Lovely fader feel and performance.
- Practical and easy to operate.
- Many useful and innovative user features.

#### CONS

- Nothing major.

#### SUMMARY

The Soundcraft Si Compact 24 is among the best in its class, with a vast array of features accessed by an interface that could trick you into thinking Si stands for 'simplicity itself'. Though it will set you back quite a bit financially, what you get is an excellent digital mixer in terms of build, features, usability and audio quality.



purpose about it. The housing and main panel are black, with various colour-coded sections that all have clear and obvious functions — indeed, I remarked on the clear panel labelling as soon as I unpacked the desk. The model I borrowed for review was the 24-channel version, which is no trouble to lift and carry, as it weighs only 15.5kg and is about 28 inches wide: very compact for this frame size.

The Si Compact provides a full complement of 24 (or 16 or 32, depending on the model) XLR inputs on the back panel, and two additional pairs of analogue line-in connectors using TRS jacks. Below the inputs are no fewer than 16 analogue outputs, of which numbers 15 and 16 default to the main left and right output. On the 24- and 32-channel versions only, there are four insert points with separate send and return jacks. Inserts are a welcome feature, as they allow the use of any favourite or specialist pieces of outboard gear an engineer might have.

To complete the extensive connectivity, there are ports for MIDI, word clock, AES digital I/O, and an Ethernet port for

HiQnet data. There's also a 64- by 64-way expansion I/O slot, which is compatible with Si option cards.

## Start Me Up

As soon as the Si Compact is connected to a live mains supply, the on and off button flashes slowly, and a short press brings everything to life. My first task was to install the newly-released software update (downloadable from the Soundcraft web site at <http://www.soundcraft.com/downloads/software.aspx>), which was accomplished simply using a USB flash drive. It takes around 40 seconds for the booting process to complete (about five seconds faster than before I updated to V2), and all the default active sections light up.

The start-up time seems quite long, but there's a lot going on inside the desk, and the only time this might be frustrating would be if the desk had to be restarted during a performance. Personally speaking, I always feed my digital mixer from an online UPS (uninterruptible power supply) that gives me about 20 minutes of full operation if the mains power goes down.

Having re-booted and re-set everything to factory defaults, I was able to start getting a real feel for the Si Compact. The 24 faders have a full 100mm of travel and feel exceptionally smooth, with no hint of stickiness or 'digging in'. When moving under their own power, they travel quietly and quickly, and even when I made the whole lot move along their full travel, by flipping between layers, there was only a refined 'whoosh'.

In a fully digital mixer, the number of input sources, processing channels, physical faders, buses and outputs are independent and unrelated: the Si Compact 24 is actually a 40-channel mixer, with 24 mic preamps, eight (four stereo) effects returns and a further eight channels that can be patched as line inputs or AES digital, double-patched to existing sources, or used with inputs provided by the option slot. The faders are therefore used in layers, with two input-source layers and two output-bus layers. The default setting places channels 1-22 in the first layer (called 'IN A') with channels 23-32 and the stereo effects (FX) returns on the next layer, 'IN B', which

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» assigns mic inputs 23 and 24 to faders 1 and 2, and so on.

The next two layers are for the 14 output bus masters and matrix masters respectively, and lastly there's a fader mode for accessing the graphic equaliser in two banks, where the uppermost 14 faders are used to control EQ bands 31Hz-630Hz or 800Hz-16kHz. The V2 software allows more flexible layer configuration than before, and the default configuration can be modified by the user to place any input channel on either (or both) input layers, and any output bus master on either of the bus layers.

The result of all this is an uncompromised overall layout that's easy to see and work with, boasting a generous amount of space around the controllers and displays across the whole board.

## All Aglow

The faders on the Si Compact are very high-quality components with the various functions printed alongside them, and come equipped with a handy and visually attractive feature called 'Fader Glow'. This lights up the fader slot in different colours depending on what it's being used for at the time. It looks very good without being over the top, and the colours are distinctive.

Other than when a fader is assigned to a mono input channel, the colour code indicates what's going on, even distinguishing between pre-fade and post-fade bus settings. Changing between fader layers is simply a matter of pressing the relevant button in a small bank between the channel and master faders, and each layer comes up directly with a single hit (one button per layer), with no 'stepping through' required at all.



Looking at the 'IN A' layer for the moment, inputs 1-22 are controlled by the faders, and each channel has other dedicated indicators and switches: in the space directly above each fader are selector buttons for solo, 'on' (which is, in effect, a mute switch) and a select button which links that channel to the detailed channel controls within the 'strip' above.

The channels also have a rotary encoder each, which can function (globally assigned, not per-channel) as pan, trim or input filter frequency, the last being adjustable over a huge range from 40Hz all the way up to 1kHz. Finally, there are two small four-segment LED displays that show input signal level, gain reduction when the compressor is being used, and gate status.

## The Channel Strip

In common with most compact digital mixers, the Si Compact has a single physical set of controls that are used to access all the main 'strip' parameters available, and these controls will affect and display settings for the currently-selected channel only. The

application of these controls can vary quite widely between manufacturers and designs, but the Si Compact has a clean, well thought-out layout that makes everything easy to see, adjust and understand.

The 'Assignable Channel Strip', or ACS, contains five sections: the input controls are outlined in blue and consist of a twin eight-segment LED ladder for input level, phase reverse and phantom power switches, a pair of rotary encoders for trim level and high-pass filter frequency, and a high-pass filter button. I like the provision of separate input metering rather than metering that temporarily uses the main output displays, as you can see a direct correlation between input and main out levels if you want to. It also means the input meter is right where you want it, alongside the controls you're focusing on.

The rotary encoders have plenty of room around them, and include a globally-dimmable illuminated scale that's easy to see, and especially good when using the desk in low-light conditions. The next two (green) sections in the ACS are for channel dynamics, with separate sets of controls for operating the compressor and gate, which even provide a facility to adjust the side-chain high and low cutoff frequencies.

The dynamics sections each have an LED display showing their current status, and this is also indicated on the mini-displays alongside each fader. This means that the dynamics status of every channel on the active fader layer is displayed right across the console and you can instantly see, for example, which channels are gated, no matter which one is currently selected and being controlled in the ACS. This an incredibly useful feature, and one with definite 'get out of trouble fast' potential!

The remaining ACS sections are a four-band equaliser (with two fully-parametric mid bands), an output

## Key Changes In V2 Software

- Increased inputs to mix on Si Compact 16 and 24 models.
- Support for multiple shows on an SD card.
- Ability to dim the illuminated control surface elements from new 'PREFS' page.
- Wider gain range on line-trim function.
- Ability to isolate inserts.
- Press and hold of backspace button on QWERTY keyboard will auto-delete the current name.
- Improved system-default settings for FX return routing and bus masters.
- Ability to instantly set bus and matrix sends to unity or -infdB.
- DOGS Gain tracking.
- Selective copy and paste.
- Security lockout.
- Assignable fader layers.
- Control of snapshots using MIDI.
- Ability to independently send left, right and mono mix to a matrix bus.
- Desk can be word-clock slave or word-clock master.
- Global isolation of individual buses.
- Patching of stereo inputs to any channel.
- HPF setting shown on EQ screen.
- Delay displayed in meters, feet and ms.
- PEQ filter width displayed in Q and octaves.
- SElect Function Focus includes additional information, and is active only whilst SEL key is held.
- Support for CobraNet and Aviom.
- Minimum 25 percent speed improvement on all processes.
- Improved fader operation.
- Easier access to LCR > Matrix function.
- Improved menu navigation.





The Si Compact 24 has a comprehensive range of analogue inputs and outputs, as well as HiQnet and an optional expansion board.

» control, pan, and an always-accessible delay control that can be used to set up to 500ms of delay. Although the low and high EQ bands are not fully parametric, the two mid-range bands can in fact be swept over a 20Hz-20kHz range, so can operate anywhere in the spectrum. Whether this works for you is down to personal choice, but I didn't see the fixed shelves as a problem, since I almost always have the upper and lower EQ bands of my own desks set as shelves anyway. If additional EQ control is really necessary, bear in mind that each of the output buses also has its own four-band EQ and a full GEQ graphic equaliser (see the section on buses for a full description), so there is plenty of equalisation available to throw at any of your problem sources.

All of the ACS functions are easy to operate, and I like how every control has a single dedicated function that always does the same thing, and is always available no matter what else the Si Compact is doing. My feeling is that this desk encourages you to mix with your ears rather than becoming too reliant on visual indicators, but there is still some additional information available on the LCD screen: when anything in the ACS is

being adjusted, as soon as you move one of the controls, the touchscreen automatically displays a lower-half overlay showing all the relevant parameters. It's clear, easy and makes it virtually impossible to go wrong!

If you happen to notice something missing from the main mix, pressing the 'LR' key will similarly light up all the channels currently assigned to the stereo output. This is much better than searching channel settings one at a time, and is another great little feature designed to make life easier.

Immediately to the right of the channel-strip section is a monitoring section, with eight-segment LED metering for the main stereo and mono output buses and a separate stereo meter for the engineer's monitor outputs. A dedicated encoder controls the monitor level, which can be switched to follow the main mix, PFL or AFL.

The engineer's headphone output is tucked away under the front left-hand edge, by fader 1, which is a sensible location, since most single-wire headphones have left-side cable entry.

## Bus Routes

One of my favourite things about the Si Compact is the ease with which auxiliary buses can be set up, and the generous number available: no fewer than 14. A row of buttons selects the bus you want to set up or work on, and the faders light up yellow or green depending on the bus's 'pre' or 'post' configuration, becoming the channel sends to that bus. If a bus is selected, the menu on the LCD touchscreen makes the 'outputs' option selectable. Pressing that brings up a menu where various bus properties can be addressed.

The bus can be either mono or stereo, or linked with an adjacent odd or even bus to form a pair. Two destination patches can be set from here too, and there are two pre and post options available, namely the signal source either before or after the channel fader, and also a pre or post EQ option. These settings result in the corresponding Fader Glow colour being displayed whenever that bus is 'on a fader'. The selected bus can be given a name, using a QWERTY keyboard which pops

up on screen when the data encoder is pressed.

The menu screen is uncomplicated and shows all the above settings without any need for diving into further layers. Creating a routing matrix is easy, too, by selecting one of the four MTX buttons and simply sending an output, and input sub-groups can be effectively created by sending them to an aux bus and then assigning its output to the main mix.

While on the subject of the buses, it's worth noting that the Si Compact has a 28-band graphic equaliser (created by BSS) on every aux bus, matrix and the main outs. The graphic EQ is accessed directly from the faders, and an on-screen display (showing all the bands at once) complements the fader positions. In this mode, the motorised faders exhibit a physical zero-detent feature, which is quite pronounced and makes it easy to notch them back into the zero position.

Having a full graphic EQ available on all buses is a must for live monitor auxes, and the Si Compact certainly delivers in this respect. Also, they are 'always on' and the system load is constant no matter how many aux buses or graphic EQs are in use, so running out of processing power is not a worry. The Assignable Channel Strip section also operates on any selected bus, offering all of the input strip functions except gating.

## Patchbay & Connectivity

The Si Compact's patchbay allows very flexible input and output routing: almost any input source can be patched to any control channel and linked as mono or stereo. The input patch screen shows the current source for whichever channel is selected by displaying a row of input connector icons: the one with a tick mark is the current patch, and to change it you just have to touch another icon on the screen.

There's also a handy automatic function within this screen, which will assign patches incrementally from the one you've just selected, meaning that re-patching a whole section of the desk becomes a breeze, rather than a chore.

## Alternatives

Similarly equipped alternative digital desks include the **LS9** from **Yamaha** and the **Roland M-series** consoles.

## Four Lots Of Lexicon

Soundcraft mixers have incorporated Lexicon technology since a long way back, and the Si Compact is endowed with four separate processors that have a dedicated control area below the LCD screen, and are based on the Lexicon MX400. They also have their own buses that are additional to the auxiliary, main and matrix buses. Accessing the reverb sends is simply a matter of pressing one of the four 'FX' buttons, whereupon the faders glow blue and become the channel sends to that processor. Individual effects processors can be set to a preset (14 reverbs, seven delays, and eight more effects of various flavours) from a list, and the parameters can be edited by using the touchscreen and adjustment encoder. There are plenty of great default settings, including some very smooth hall and room reverbs, and the amount of fine control available should be great for most live sound requirements.

The more I saw of the Si Compact the more I was impressed by the amount of 'ease of use' thinking that's gone into the design, and these features (including an 'auto insert' feature which lets you add a channel into the middle of a group and moves everything up one slot, names and all) are typical of its user-friendly nature. Perhaps 'Si' is short for 'simplicity itself'.

## Conclusion

So is it really that easy to use? The answer has to be a resounding 'yes' as far as getting up and running goes, plus if you read through the Quick Start guide you're pretty much sorted for all the basic stuff. I haven't really got into all of the more advanced capabilities of the Si Compact, but you only have to download the full Version 2 User Guide to start thinking about the potential. I've looked at the Si Compact very much as a straightforward live sound mixer, but it has a lot more to offer, especially when you look at the possibilities offered by HighQNet and connecting it up to digital stage boxes (the Si Compact will work with Studer D21m, Soundcraft Vi and Soundcraft Compact systems) and so on. The Version 2 update is quite a long list and includes features like 'DOGS' gain tracking, which maintains direct out feeds (to a recorder, for example) at a previously stored level even if the gain is manually altered on that channel during the live performance. There's a very neat copy and paste function, which can replicate all the settings in any section, and an enhanced security lock-out feature which allows system access rights to be set up and modified within a security profile (and can be used by more than one operator) rather than having to change every individual user.

Although it seems to be built around live sound use, its excellent audio quality makes the Si Compact a great portable recording desk too: there's also no fan noise, but the fader motors murmur quietly sometimes. Although channel EQ and dynamics are always a matter of personal taste, I think the folks at Soundcraft have got all of this spot on: the EQ is sweet, smooth and practical, and you'd surely have to go a long way to find anything that out-performs the Si Compact 24 in this price range and with such a small footprint. A small issue I noticed was that because the screen doesn't flip up, you have to sit pretty much above it for optimum screen contrast. In a semi-darkened room, I also found the letters on some of the soft-feel buttons hard to read when they weren't lit up.

In the portable live sound market, this little desk performs at the top of — if not above — its class, and offers more than enough flexibility to cope with virtually any situation. If you're considering a digital console, it would be well worth arranging a proper dealer demonstration.

The Si Compact 24 isn't the least expensive digital desk money can buy, but it ranks among the best, and offers grown-up performance and operating capability. It's also designed in the UK and produced by a company who have a reputation for standing behind their products. I'd describe

the Si Compact as a great little pedigree series that combines seriously good performance with innovative, thoughtful and practical design values. ■■■

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