

Soundcraft

**Vi6**<sup>TM</sup>

**DIGITAL LIVE SOUND CONSOLE**



Beyond intuitive.

Direct access to all functions with maximum information and visibility at all times.

A unique integration of touch screens and encoders eliminating complex and fatiguing mental mapping.

A compact operating surface with a perfectly optimised control density.

The time has come to forget the console and focus on the creativity.

The time has come for the Soundcraft Vi6™ console.





Thirty years in the making.

With more than 30 years in the business, no-one knows more about live sound mixing than Soundcraft. In our opinion, there's simply no point in presenting the live sound engineer with the undeniable power and flexibility of digital audio technology if all that power is locked away in an ill-conceived and inaccessible mixer that

confuses the operator and impedes workflow. That's why our first digital live sound console puts the engineer at the heart of the process, just like our analogue mixers do. The product of a development team that combines unrivalled Soundcraft live sound know-how with the impressive digital audio expertise of our sister company Studer,

the Soundcraft Vi6<sup>™</sup> is a third generation digital live sound console which abandons the layering and assignability concepts of earlier designs in favour of a system that's altogether more intuitive.

Say goodbye to the learning curve. Say hello to the Soundcraft Vi6 digital live sound console.



The Soundcraft Vi6 system consists of three elements: the compact, space-saving control surface, the local rack containing the SCore Live processing engine and a stagebox which connects conveniently to the local rack via Cat5 or Cat7 cable, with fibre optic interfacing available as an option.

The 32 fader control surface delivers simultaneous mixing of 64 mono inputs into 35 outputs, with 24 insert send/return pairs assignable to any of the input or output channels.

All input channels can have direct outputs in addition to their internal routing to 32 Group/Aux/Matrix busses, and the main LCR and LR busses.

Pristine sound quality is assured by a combination of Soundcraft ultra-low noise mic amp designs and Studer advanced 40-bit floating point digital audio processing.

And complete security is assured by diagnostics of the separate control surface, local rack and stagebox power supplies from the mixing position, with

the facility to add second redundant supplies to each.

With a competitive, 'midrange' price tag and compatibility with the groundbreaking Harman HiQnet<sup>™</sup> communications protocol, the Soundcraft Vi6 is the first in what will become a range of high performance Soundcraft digital live sound mixers.







Vistonics™ II. Free yourself from mental mapping.

At the heart of the Soundcraft Vi6™ control surface lies the patented Vistonics™ II system. Obviating the ergonomic limitations of arranging controls around or adjacent to a flat TFT screen, Vistonics II builds the rotary encoders and switches right onto the touch screen. With the visual information and operational controls combined in one area, the burden of complex mental mapping is removed from the operator, streamlining workflow and enhancing the creative process.

Each of four Vistonics II interfaces controls eight input channels, and comprises of a touch screen with 16 rotary encoders and 16 switches. A simple touch of the screen is all it takes to access channel functions including routing, input gain, digital gain trim, delay, high and low pass filters, 4-band fully parametric EQ, compressor, limiter, gate, de-esser and pan, with immediate access to a sophisticated visual status display and straightforward controls.

In addition, a dedicated Vistonics II interface is provided for output processing control, and also functions as a complete meter overview display for all inputs and outputs, as a snapshot cue list display, and as a display for diagnostics information.





The blue input stage and routing screen allows adjustment of input delay, mic gain, digital trim, high and low-pass filter frequency, channel patching, channel naming and stereo pairing.

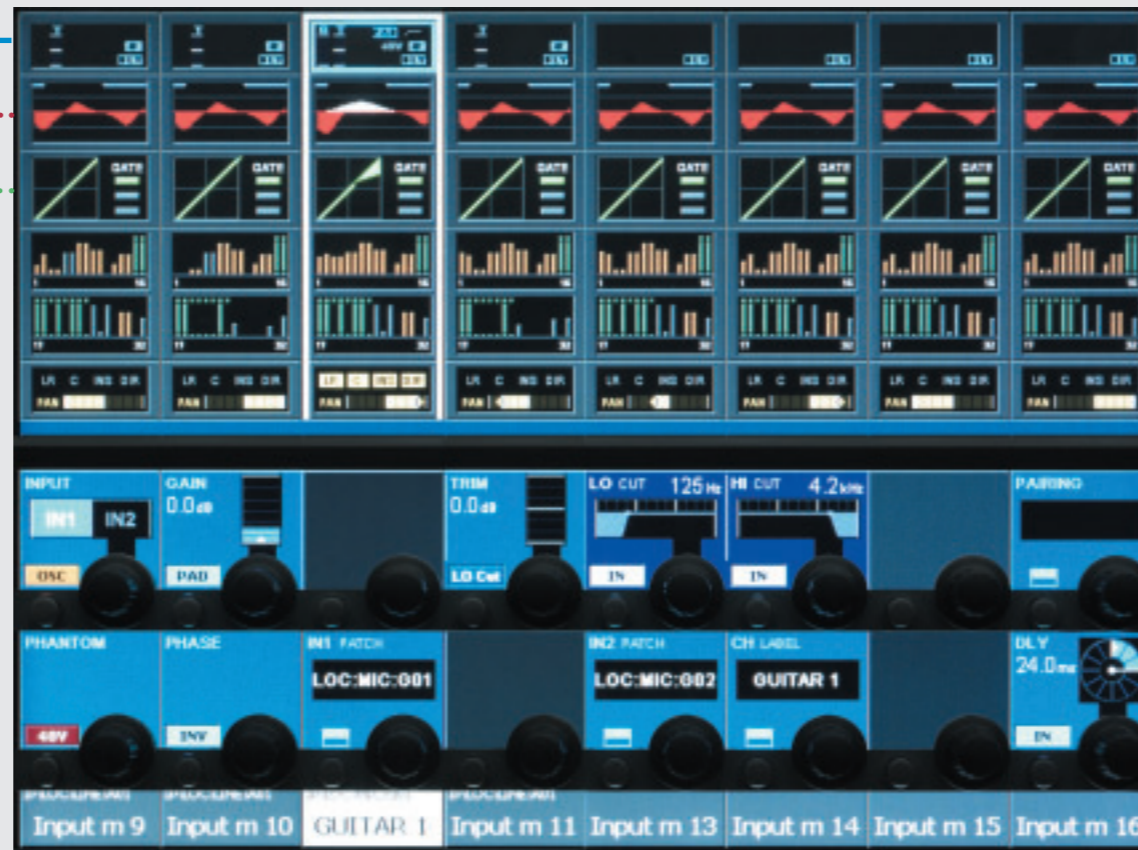


The four-band fully parametric EQ is graphically displayed with the settings for boost/cut, frequency and Q (bandwidth), with the main screen showing the composite EQ curve. Frequency is displayed in a similar style to a radio tuner scale for easy assimilation, and the HF and LF bands can be switched to shelving EQ.



The dynamics section controls a Noise Gate with attack, hold and release, and a key facility with filtering. The Gate can be replaced with a De-Esser function. Working in series with the Gate, the full-function Compressor maps gain reduction metering onto the LED meter in the fader area, with full control of threshold, ratio and release with an independent Limiter section and overall gain makeup.

Touching the chosen function area on the Vistonics™ II channel strip opens up the corresponding control panel in the lower area, with that area being highlighted to easily identify which part of the channel strip is active.



The 16 switches and rotary encoders change function according to the mode selected. This real 'where you look is where you control' philosophy makes operation of the Soundcraft Vi6™ console highly intuitive.



Two areas of the channel strip allow access to routing and control of the 32 output busses, arranged in two banks of 16. The ALL BUSSES mode allows assignment of each of the 32 busses as an Aux, Group, or Matrix output (maximum of 16 Matrix busses possible), with additional stereo pairing controls if busses are required as stereo sends.



Subsequently within each channel strip setup, busses can be switched on or off with level control, or switched pre or post fader, with a global mode allowing pre or post EQ feeds.



The final section of the channel strip controls the Pan, Insert and Direct out functions, with assignable LR and C, or LCR panning modes. Inserts can be switched pre or post EQ/dynamics, with the Direct output send assignable to pre-filters, pre-EQ/dynamics, post EQ/dynamics and post-fade points.

Touch and control. Digital live sound mixing the way it should be.

The key to the intuitive operation of the Soundcraft Vi6 is the Vistonics II channel strip display that functions both as a permanent overview of all the current settings for 8 channels per screen, and as the access point for immediate hands-on control of any of those settings. Simply touching the screen in one of the six vertically stacked touch zones immediately opens out that part of the strip onto the 16 real knobs and switches mounted directly on the lower part of the display, allowing immediate, tactile, analogue-

style control. The colour-coded context-sensitive graphics around the knobs make it abundantly clear which type of function is being adjusted, and a clear white highlight is a constant reminder of which channel is being controlled. Touching the screen again is all it takes to move to another area of the channel strip, or to close down the control area. HiQnet™ integration allows the simple creation of Cue Lists from console snapshots, MIDI events and HiQnet Venue Recall commands, which can be used to trigger changes in amplifier

levels, loudspeaker processing EQ and routing across an entire HiQnet system. Compatibility with the HiQnet protocol also enables the console to receive and display system diagnostic messages from other devices on the HiQnet network.

Future software upgrades will provide even greater flexibility with a suite of Harman company plug-ins including Lexicon reverbs and multi-FX, dbx dynamics and BSS graphic EQs.



## Soundcraft FaderGlow<sup>™</sup>. Lighting the way to a perfect mix.

Assignable faders are an inevitable part of digital mixing. But assignability can quickly lead to confusion. That's why we developed Soundcraft FaderGlow<sup>™</sup> for the Soundcraft Vi6<sup>™</sup> – a clever yet simple idea to illuminate the fader track in colours that integrate with those of Vistonics<sup>™</sup> II to show at glance what function a fader is controlling at any given time.

Within the output section of the console, the bank of 8 faders can be assigned to provide master control of

the Aux, Group and Matrix outputs, and VCA control groups. Soundcraft FaderGlow applies orange, green, cyan and blue illumination respectively to the fader track, enabling the operator to see the different output types immediately – even before reading the text labels which also exist for each fader.

When controlling inputs, no illumination is applied to the 32 motorised faders. But when the Aux, Group or Matrix bus master is soloed

with the Follow Solo function switched on, the fader becomes a 'contributor' for the soloed bus, lighting up in orange, green or blue accordingly. Furthermore, custom fader pages can be created to contain, for instance, 10 drum faders grouped on a single VCA master, which would glow in blue.

Operating in conjunction with Vistonics II, Soundcraft FaderGlow helps the console achieve previously unattainable levels of intuitive operational control.





A better user experience through better ergonomic design.

Vistonics™ II and Soundcraft FaderGlow™ are just part of what makes the Soundcraft Vi6™ digital console such an intuitive and creative tool. By optimising the density of faders and controls on an operating surface that measures just 175cm x 73cm, the live sound engineer is able to reach all critical areas of the console comfortably from a central point, without straining or leaning over.

The angle of the panel housing the touch screens has been carefully chosen to ensure that the engineer can always view display data clearly during the show. The brightness and contrast of the displays, and the illumination of the control surface itself, are designed to minimise strain on the eye.

Only by paying such close attention to the integration of mechanical and operational design has Soundcraft created a digital live sound console that truly enhances the operator experience, resulting in unimpeded workflow and a more creative mix.





All the right connections.

Cat5 or Cat7 cables with Neutrik EtherCon® XLR connectors provide a convenient, highly robust connection between the Soundcraft Vi6™ stagebox and local rack.

Flexible, reel-mounted Cat5 cabling enables the mixing position to be located up to 100 metres from the stage, while Cat7 increases that distance by 30 metres in fixed installations.

And in larger venues and installations, an optional Fibre Optic interface allows a run of up to 2 kilometres between the stagebox and the local rack.



A comprehensive provision of inputs and outputs can be patched to any channel input, direct output, bus output or insert point as required.

The stagebox houses 64 analogue mic/line inputs and 32 analogue line outputs, with 48V phantom power and a 100Hz HPF before the A-D converters. Mic amp gain can be controlled remotely from the control surface.

The local rack has 16 analogue line inputs, 3 analogue mic/line inputs, a

talkback mic input (mounted on the control surface) and 8 pairs of AES/EBU inputs. Outputs include 16 analogue line, 8 pairs of AES/EBU, 3 LCR local monitor A line, 2 LR local monitor B line and TB line.

64 channel MADI I/O via optical SC connectors is fitted as standard and can be replaced by optional 8 channel ADAT I/O via optical connectors, or 8 channel TDIF I/O via 25 pin D-type connectors.

There are 16 GPIO contact closure inputs and outputs on the local rack, and 8 inputs and outputs on the stagebox.

With connectors almost entirely absent from its rear panel, the control surface does however feature 1 MIDI input and 2 MIDI outputs.





Before we built the mixer, we built the factory.

With the Soundcraft Vi6™ representing the first in a complete range of Soundcraft digital live sound consoles, we've invested a massive \$7 Million at our 160,000 square-foot headquarters in Potters Bar, UK, to create a state-of-the-art manufacturing facility capable of the quality and volume demanded by a project of this scale.

A 40 metre-long surface mount line is the most advanced in Europe, able to produce at lightning speed and to exacting levels of quality up to 500 different circuit board designs, delivered through 6 high-speed placement heads. Meanwhile in-line X-ray PCB inspection, in-circuit testing and flying probe examination ensure integrity and reliability.

With a rigorous quality management programme in place, the entire plant has, in short, been recreated to complement this exciting collaboration between two great names in professional audio - Soundcraft and Studer.



## System overview.

### AUDIO CHANNELS

Max number of simultaneous mixing channels: 64 mono inputs into 35 Outputs. Pairs of mono inputs can be linked to create stereo channels.

Insert points: 24 insert send/return pairs can be configured (using available I/O) and assigned to any of the 64 inputs or 35 output channels.

Direct Outputs: All 64 input channels can have direct outputs in addition to their internal bus routing, assuming sufficient I/O is available (eg optical MADI card).

Busses: 32 Grp/Aux/Matrix, plus main LCR Mix and LR Solo busses (maximum of 16 matrix outputs can be configured).

### I/O CAPABILITY

The following I/O is available and can be patched to any channel input, direct output, bus output or insert point as required:

Local rack Inputs: 16 analogue line inputs, 3 analogue mic/line inputs, 1 Talkback Mic input (mounted on control surface), 8 pairs of AES/EBU inputs (=16 channels), 64-ch optical MADI in.

Local rack Outputs: 16 analogue line outputs, 8 pairs of AES/EBU outputs (= 16 channels), 3 LCR Local monitor A analogue line outputs, 2 LR Local Monitor B analogue line outputs, TB line output, 64-ch optical MADI out.

Optional extras for local rack (additional cost), one of the following cards: 8-ch ADAT In/Out via optical connectors, 8-ch TDIF In/Out via 25pin D-type connectors. NB: Optional I/O cards replace standard MADI I/O card.

Stagebox Inputs: 64 analogue mic/line inputs (with remote gain control, 48V and pre-A-D 100Hz HPF).

Optional 4 x AES/EBU input card (replaces 8 x mic inputs).

Stagebox Outputs: 32 analogue line outputs.

Optional 4 x AES/EBU output card (replaces 8 x line outputs).

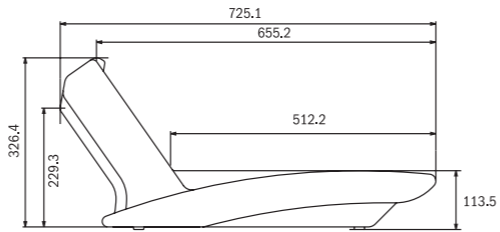
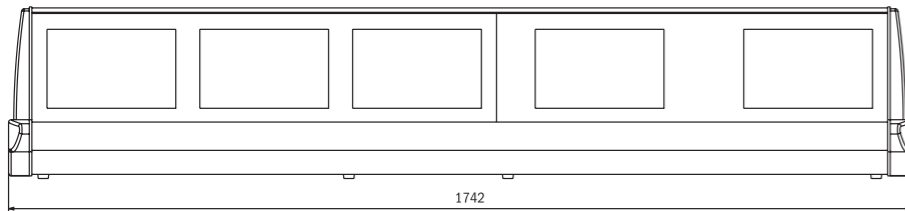
### CONNECTIVITY

Connection from local rack to stagebox: Standard fit: Cat5 or Cat7 cable, with Neutrik EtherCon XLR. Optional: Fibre Optical interface card (additional cost).

Max distance, local rack to stagebox: 100m using flexible reel-mounted Cat5 cable, 130m using Cat7 permanent installation cable.

GPIO facility: There are 16 GPIO contact closure inputs and outputs on the local rack, and 8 inputs and outputs on the stagebox.

MIDI: There is 1 MIDI In and 2 MIDI Outs on the rear of the control surface.



Request the Soundcraft Vi6™ flightcasing guide for more information.

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### CHANNEL PROCESSING

Inputs: Analogue gain (remote control of stagebox or local mic preamp), Digital Gain Trim (+/- 18dB), Delay (0-100ms), HPF, LPF (variable), 4-band fully parametric EQ, shelf mode on HF/LF, Compressor, Limiter plus Gate or De-Esser, Insert point for external processing, Pan - LR or LCR switchable, Direct Output, patchable to any I/O and with selectable tap-off point.

Outputs: HPF (variable), 4-band fully parametric EQ, shelf mode on HF/LF, Compressor, Limiter, Delay (0-1sec), Insert point for external processing, Pan (Output bus to LCR) - LR or LCR switchable, Bus Feed feature - allows routing of one bus to another, Assignable Graphic EQ 1/3-octave, Assignable Lexicon Multi-FX processors x 8.

### CONTROL SURFACE

Inputs: 32 input faders, switchable in 2 fixed layers to access 64 inputs.

Additional 'User Definable' layers x 3, channel order can be customised on these.

Vistonics™ II channel strip interface x 4, each Vistonics controls 8 input channels.

The Vistonics II interface contains 16 real knobs and switches and a touch screen.

Fader tray contains (per input channel) motorised fader, Mute, Solo, Isolate and F (user defined) switches, plus one assignable rotary encoder with LED ring. This encoder is globally assignable to Gain, Pan, Gate Threshold, or one of 2 user-definable parameters.

Input level and gain reduction meter is located above each fader.

Input faders can be switched to control all 32 Grp/Aux/Matrix Outputs, or can control an individual Aux send mix, using the switchable 'Follow Solo' function.

Outputs: 8 assignable Output faders, plus 3 dedicated LR and C Master faders, plus 16 assignable rotary Output faders.

Output faders can be assigned to VCA (control group) masters.

Single Vistonics II interface for Output processing control, also functions as complete meter overview display for all Inputs & Outputs, plus snapshot Cue List and diagnostics info display.

Special mode allows Output section to be expanded to 16 faders, in this case only 24 input faders are available. (3 fixed layers are used to access all 64 possible inputs in this mode).

### MISCELLANEOUS

Controls for Mute Group (x 4) and VCA Group (x 16) assignment. Controls for assignment of Vistonics rows to bus sends (when channel parameters are not selected to Vistonics).

Snapshot automation controls. Talkback controls. Controls for Monitor Output level, phones level and Solo Trim and blend level.



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