

# Solid State Logic C300 Digital Post Production Console Product Overview



**C300** The **C300™** is a fully-configurable, multi-operator digital console for the full spectrum of post-production applications. The latest model from the industry-proven **C Series™** range, it provides the powerful features, intuitive operation, focused design and sonic excellence for which SSL consoles are renowned.

The **C300** offers up to 512 mix inputs from a single core, and the unmatched flexibility of its DSP allows re-configuration without a reboot. Simultaneous multiformat mixing is provided via 80 mix busses that may be grouped and formatted (up to 7.1 surround), with a 128 x 8 monitor matrix and a 32 x 16 re-record matrix. SSL's unique **TimeFreeze™** automation system, recorder control and a 4-port serial machine synchroniser are included as standard.

For projects where mixing within the audio editing package is required, the **C300** also provides direct control of the digital audio workstations found throughout the production process, with the vital high-end benefits of an ergonomic

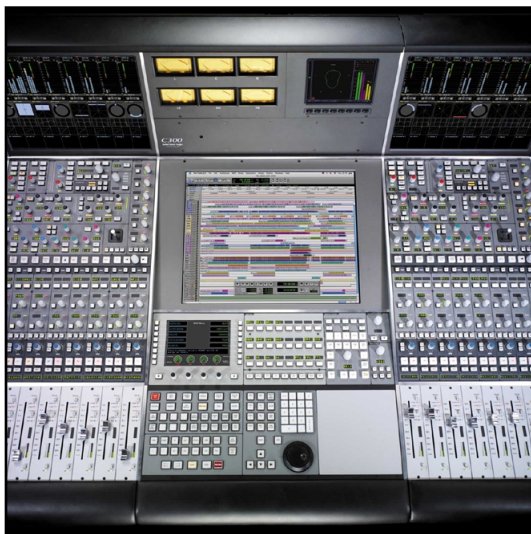
control surface, full monitoring, and machine control, which are often limited or completely absent on those platforms.

- Ergonomic work surface with excellent visual feedback
- Direct (HUI) control of up to 4 DAWs simultaneously
- High-resolution TFTs display routing and processing
- 128 x 8 monitor matrix, 64 Pec/Direct and 8-ch insert
- Supports 4 sets of speakers, each up to 7.1 format
- **TimeFreeze** automation system, provides slo-mo operation with no requirement for external timecode
- Multichannel formatting (up to 7.1) for the 80 mix busses
- Scalable frame from 8 to 128 faders, 1 to 3 operators
- Scalable DSP provides from 32 to 512 mix inputs (plus mix busses and full monitoring facilities as standard)
- Flexible channel linking and formatting allows easy creation of multichannel inputs, for up to 7.1 surround
- Instant allocation/optimisation of audio processing – new layouts can be made without requiring a restart
- Online multi-user setup of control surface and DSP
- Synchroniser for 4 serial machine control ports
- Central touchscreen for machine and monitor control
- 32 x 16 main 're-record' matrix with output processing

### Fast, Efficient Operation

The **C300** presents the engineer with a clear and intuitive work surface, promoting rapid operation even for an infrequent user. Its comprehensive set of features provides all of the automation and control benefits associated with SSL's digital technology:

- Compact work surface that controls a combination of the console's DSP and a DAW's internal parameters
- Powerful monitoring options allow multi-format work to be heard on several different sets of speakers
- Synchroniser for 4 serial machine control ports
- Fully integrated professional automation system
- SSL's acclaimed sonic signature reproduced in proprietary 40-bit floating-point algorithms



### Integrated Productivity

The **C300** integrates all the power features that are essential in commercial post, saving the operator time, and avoiding the often painful process of trying to make separate automation, control surface, machine control and monitoring systems work elegantly together. With the ability to choose any combination of mixing in the console and the DAW, the best of both worlds can easily be achieved.

### World Class Automation

SSL's **TimeFreeze** automation system is unique in its ability to read and write data at non-play speeds, allowing slow-mo mixing for complex scenes, and simple cue-by-cue alteration of parameter values.

The ability to automate several different items in different modes within a single pass provides the high level of parallel work (and resultant efficiency) required by today's time-critical post environments.

### Flexible Performance

At the heart of a **C300** system lies the **Centuri** core, designed to assist fast-changing post sessions with its flexible online reconfiguration capabilities:

- Each DSP card (max. 8) provides an assignable pool of processing, eg. providing 64 4-band EQ processes
- Processing resources include Filters, EQ, dual process Dynamics, Insert point, and channel Delay
- **Dynamic Resource Allocation™** optimises use of processing, eg. replacing a 2-band EQ with a 4-band if more than 2 bands are switched into circuit – *without the need to restart any part of the system*
- Each DSP card, in addition to the pool of processing, can provide 1 of 3 channel/bus models:
  - Short** = 32 channels feeding all 80 busses
  - Tall** = 48 channels feeding 56 of 80 busses
  - Grande** = 64 channels feeding 40 of 80 busses
- Any DSP card may have any 'mixer model' loaded on it regardless of its neighbour(s), and each card may be reconfigured online *without requiring a reboot*
- Built-in latency compensation automatically aligns all channels regardless of their allocated processing
- Of the 80 console-wide busses, the user may dynamically choose which are fed by each DSP card, in both single- and multi-operator configurations.

These features provide the key benefit that a smaller, cheaper console may be used for large productions.

### Modular, Scalable Construction

The system consists of two main parts; the **C300** console provides the user interface, and the **Centuri** core contains SSL's proprietary industrial computer and the modular DSP and I/O.

AES, MADI, Analogue Line and Mic I/O options are offered, with space for 8 cards in any combination.

### Maximum Value

The increased adoption of semi-pro audio editing equipment has caused budgets to be squeezed and capital purchases to be closely scrutinized, but the **C300** offers invaluable time savings in the critical mixing stages of a project, representing true cost-efficiency and maximized workflow.

The **C300** provides features vital to commercial post, but allows budget control through tailored scaling of all parts, in order to meet operational *and* budgetary demands. Future change in needs can then be accommodated through the clear expansion path, ensuring a long and productive working life.

### Advanced Signal Flow

The *C300's* flexible architecture allows channels to feed the 80 console-wide busses directly, or via one of 18 independent aux sends on each channel, which may feed any bus or group of formatted busses, with separate level and/or panning (up to 7.1) if required.

The 128 x 8 monitor matrix provides flexible monitoring options including 64 Pec/Direct switches, and 4 different sets of speakers may be used in up to 7.1 surround, with user-definable monitor formats.

The 32 x 16 re-record matrix may be used for simultaneous mixes (eg. final and M&E versions), with EQ and Dynamics on the outputs. Any bus may be fed back through a channel (ie. 're-assign') for additional audio processing as required.

### Fader Strips

Each channel bay has 8 Fader Strips for direct control of signal paths. Each Fader Strip consists of a dedicated fader cassette, 8 character name label, SOLO, PFL, ON and OFF buttons, panpot, linking buttons, and four user-definable 'free' controls.



#### Fader Cassette

This motorised fader unit provides essential feedback of key information, including a signal level display, grouping and linking indicators, and both automation mode and write status. They are also hot-swappable, for fast servicing and replacement without interruption.



#### Free Controls

Each channel has two definable buttons and two definable knobs with associated switches, each with a 4 character display. These provide direct control of any of the channel's processing parameters, allowing the operator to keep often-altered settings close to hand. Preset banks of these Free Controls may be configured and quickly selected. Full access for all parameters is found on Master Channel panels.

### User Layers

User-defined layers may be created from any mix of signals (channels, busses, outputs, DAW tracks). 'Fixed' bays provide permanent access to specific signal paths, while 'scrolling' bays allow hundreds of channels to be accessed through any size of front panel – each User Layer may have any combination.

### Master Channel

This hardware panel provides dedicated control of all routing and processing parameters; its 'knob-per-function' design promotes intuitive operation for first-time users, and rapidly builds confidence.



A Master Channel may be fitted in each bay of the console, providing multiple access points, and redundancy in case of damage. An optional motorised x-y controller (shown above) has user-defined mapping onto any two variable parameters, e.g. for simultaneous control of gain and frequency.

### Multichannel Linking

The Link function allows parameters on any number of mono channels to track each other. Offsets between channels may be kept intact, or may be discarded, i.e. copy a 'template' channel to all.

Linked channels may be re-ordered next to each other on the surface, with intervening channels moved out of the way. Any of the channels in the 'link' may be suspended using a dedicated button, and a fader may be suspended momentarily by holding another fader in the 'link' before moving it.

All faders in a 'link' may be hidden under a single 'master', increasing the number of inputs and mix busses directly accessible on the control surface.

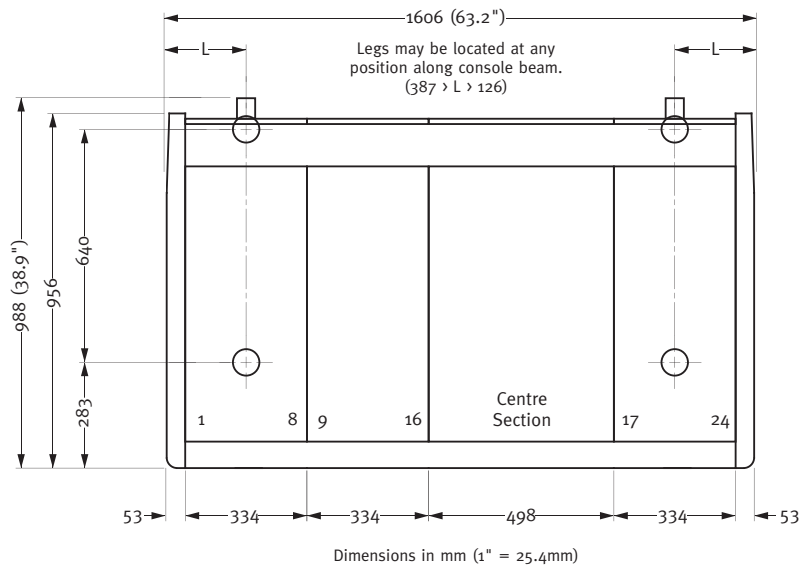
### Multichannel Formatting

The *C300* allows multiple signal paths (channels, busses, etc.) to be formatted as stereo, LCR, or other formats up to 7.1, ensuring that the processing and panning for those paths are treated correctly.

### Fader Expand

A fader group (or bus) master on the control surface may use its expand button to place all its group slaves (or contributing channels) into a dedicated 'Expand' User Layer, allowing fast rebalancing and easy identification whenever required.

## Console Physical Specification

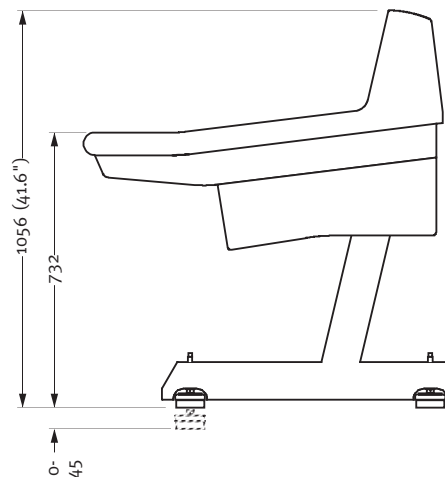


The **C300** console is constructed in 'bays' of 8 fader strips, providing frame sizes between 8 and 128 fader strips. Single or multiple Master Channels (with/without x-y controllers) may be fitted, and 1, 2, or 3 Centre Sections, located at any bay boundary.

Supporting legs may be fitted anywhere along the console beam, and the console may be split between bays for ease of shipping and installation.

### Physical and Environmental Specification

Minimum Height	1056mm (41.6")
Height Adjustment	0-45mm (0-1.8")
Weight (24 channels)	~170kg (~375lbs)
Each Channel Bay adds	~35kg (~77lbs)
Each Centre Section adds	~45kg (~99lbs)
Max Width (see diagram above)	
Each Channel Bay adds	334mm (13.1")
Each Centre Section adds	498mm (19.6")
End trim adds	106mm (4.2")



Max Depth . . . . . 998mm (39.3")

Console Power (100-240V AC). . . . . 300W - 700W (dependent on frame size)

Cooling Method. . . . . Convection

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