



C10 HD Compact Broadcast Console

Streamlined on-air audio mixing

C10 HD. This is SSL.

Solid State Logic
SOUND | VISION

C10 HD Digital Broadcast Console

Compact, Affordable, Powerful, Easy To Use

The C10 HD brings an unprecedented combination of size, price and performance to the broadcast console market. It combines the highest standards of reliability and performance for a wide range of on-air applications with intelligently simplified design and operation, all in an exceptionally cost effective and compact package. The C10 HD benefits from the world-wide success of the C100 HD console, offering all of the robustness along with SSL's renowned signal processing, in an intuitive user interface designed for the smaller budget broadcast market.

Key Benefits

- The quality, features, power and robust reliability of the world's finest broadcast audio console... in a compact, highly affordable system.
- Solves many broadcast and production challenges with operational features that simplify and/or automate key processes.
- Helps users of all skill levels deliver professional results with a simple, logical interface that is easy to operate.
- Straightforward and cost-effective to install with DSP processing built into the control surface.
- A choice of fader configurations and a range of I/O options to suit a wide spectrum of applications and budgets.
- Production Automation interface option maximises productivity by providing complete integration with full newsroom automation.



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C10 HD delivers professional results for users of all skill levels

The C10 HD is designed specifically for use in broadcast environments where a broad range of individuals with varying roles and skill levels need to use an audio console. C10 HD takes the quality, power and pure audio excellence of the larger, network-proven Solid State Logic C100 HD console and presents it in a streamlined multi layered user interface.



For Advanced Users

Beneath its elegant, deceptively simple surface, C10 HD offers all of the power, sophistication and benchmark performance capabilities of the acclaimed C100 HD console. Experienced Operators will find that this refined and simplified control surface makes configuring and running shows a truly rewarding and comfortable experience. Key operational features remain available for immediate hands-on operation at the highest level of the control interface and extensive system information is available at a glance at all times. Experienced Operators will appreciate how quickly and easily they can drill down into the sheer depth and sophistication of the world's finest and most comprehensive Routing, Monitoring and Processing environment to keep pace with the demands of more sophisticated projects.

For all users

C10 HD ensures that all users are presented with the necessary controls and functionality to suit the needs of their show. Management will be reassured that less skilled users will be restricted from accessing areas they are not trained for, eliminating confusion or operator errors. This is achieved through our unique 'Feature Match' system where a set of 'User Passwords' and administrator defined 'Presets' determines the functionality that is presented to the user. C10 HD features a contextual on-screen help system that provides extensive operator guidance from within the user interface. There are four operational modes;

Admin

At the highest level the System Administrator has access to all system configuration and operational settings. Administrators configure deep system settings and create 'Presets' for every day use. 'Show' presets include a set of channels with their routing and processing settings for instant recall of a specific show configuration. 'Channel' presets enable the channel settings for an individual presenter or any other audio source to be saved and recalled from the Preset Library.

Standard

Standard mode provides highly skilled operators with everything they need to run complex shows; they can recall and edit Presets and access all but the deepest system settings.

Preset

Preset mode allows every day users to recall Show Presets and manipulate fader levels to manually run shows. Additional channels can be added and individual Channel Presets recalled to select a typical channel processing configuration to suit the audio source.

Locked

C10 HD is ready for Station Automation. In Locked mode almost all features of the control surface are completely locked, leaving the console in a tamper-proof state.

Enhanced workflow features

'5.1 Upmix'

Ensuring a smooth transition between 5.1 and stereo audio material is a common broadcast challenge. Our '5.1 Upmix' option automatically creates a 5.1 surround mix from a stereo audio source and makes it available for manipulation. Upmixed 5.1 can easily be downmixed back to stereo or mono without any artefacts in the downmixed audio.

'Dialogue Automix'

One of the most challenging tasks facing audio engineers is riding the faders to maintain a smooth, balanced mix in the fast paced environment of a multi-microphone talk show. SSL's 'Dialogue Automix' option provides software-driven automation of this process. Once relative mic levels have been set, Dialogue Automix makes gain adjustments to maintain the ambience between mic's and avoids the upcuts created as operators struggle to match the pace of the show.

Contextual Help menus

C10 HD features an intuitive on-screen help function. By placing the control surface in to Help Mode, the next control touched does not change any settings but recalls the associated Help Screen for the currently assigned parameter on the selected control. The contextual help system can be displayed in one of a range of languages.

Streamlined user interface

C10 HD benefits from decades of audio console design and delivers the immense power of the **C100** audio engine in an elegant streamlined user interface. **C10 HD** employs a combination of dedicated & assignable hardware controls, touchscreen interface and 'channel info' displays to create a simple, logical, intuitive and comfortable system.

The console is compact ensuring that all of the **Hardware Controls** are within very easy reach and labels are easy to read. The layout is uncluttered and logical with key operational features assigned dedicated hardware controls. The **C10 HD Channel Info** screens present a refined dedicated display of channel routing and metering with all top level settings visible at all times. SSL's innovative '**Eyeconix**' system provides instant visual recognition of each channel's audio source. The lower section of the Channel Info screens combine with adjacent assignable hardware controls for easy access to inputs and sends. Control Surface channels are freely configurable as mono, stereo or 5.1, have flexible processing order and are arranged in easily configured and selected layers. The **C10 HD** design and colour scheme avoids eye fatigue even on long sessions.

The **Centre Section** hardware controls provide immediate hands on access to; recall of Presets for immediate use, assignment of editable parameters to 'Channel' & 'Centre Section' Assignable Controls, Monitor source and destination selection & level setting, and a 'Master Channel' featuring a set of hardware controls for EQ, Dynamic and FX controls for adjustment of any selected channel.

The **Central Touchscreen** provides clear, permanent, simultaneous master and bus level monitoring and instant access to configuration tools for authorised users. The SSL software interface makes accessing, displaying and adjusting routing and processing settings fast and effective. Unlike other systems where users must scroll through layers and pages to access parameters, SSL's unique OS means you select one or many channels (using channel Attention buttons) and within a couple of screen touches your channel settings are recalled and displayed for adjustment. System configuration menus are equally streamlined, reducing the required Administrator time for system configuration and Preset creation.



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Engineered for reliability

The C10 HD offers the exceptional level of reliability which the broadcast industry demands, and which SSL customers have come to know. The C10 HD is manufactured to the very highest standards at SSL HQ in Oxford, England, with all of the pride and tradition of UK manufacturing.

Proprietary, robust, virus-proof hardware and software systems

Unlike other broadcast audio systems, all of the C10 HD's console computer systems are 100% proprietary, so the C10 HD is extremely stable, robust and virus-proof.

Internal processor simplifies installation

The C10 HD's fanless Blackrock processor is built into the console's chassis. As a result, installation is significantly simplified, requiring very little cabling, minimising installation cost and the potential for wiring failures.

Fully redundant audio and control systems

The C10 HD comes with a high degree of redundancy as standard, with the option of including full redundancy for all mission critical console elements. Individual control surface tiles, or bays, can be switched off during operation without affecting the audio, and their operation seamlessly transferred to other tiles/bays. Full DSP redundancy is also available as an option. All PSUs are dual redundant.

Internal self-testing, error-correcting software

Self-healing DSP provides fast, fault-tolerant processing recovery in under 1/5th second. A portion of the console's code consists of SSL's own built-in self-checking, self-healing software. Conditions which might result in a fault are therefore quickly detected, and resolved before they are ever realised.

Diagnostics and Fault Prevention

Internal SNMP diagnostics monitors key critical system elements and generates alerts to help prevent problems. In addition to SNMP, C10 HD features extensive Remote Diagnostics capability, available either to client support teams within client Firewalls or by SSL support staff located externally if Firewall access is permitted.

Service & Support options

SSL is committed to the highest levels of pre- and post-sales service and support, ensuring you get the performance you need, backed up by our world-class team of engineers and experts. From specification and commissioning, through to installation and training, we'll be on hand to ensure you get the absolute very best from your equipment purchases.

Our Commitment to Customer Support

A great product is only the start of what sets SSL equipment apart. We believe the world's best products demand the best support. To provide this, SSL has a network of sales and service centres throughout the world, including offices in New York, Los Angeles, Paris, Milan and Tokyo. Through these offices, and our distributors in other countries, a full program of backup and technical support is guaranteed.

Commissioning and Training

To ensure you get the most out of your C10 HD, our commissioning engineers will guarantee that your C10 HD works to the standard you expect from SSL. Our training will provide you with the skills and confidence to tackle the most demanding project. Maintenance Training will provide you with the in-house skills to deal with any eventuality with confidence and may lower maintenance costs and downtime.

SSL Extended Warranty & Support

When you buy a console, you have the right to peace of mind. You can maintain this reassurance beyond the factory warranty and protect your investment with an SSL Extended Warranty. This provides you with great cover and the ability to budget operating costs accurately and may cost less than you think.

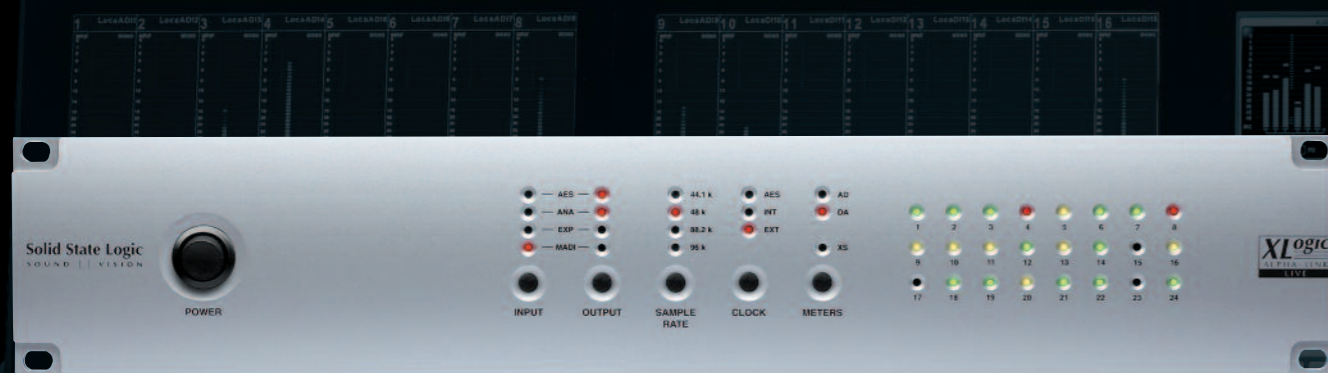
Spares

Having spares on site is the quickest way to diagnose and resolve hardware issues. We offer a full range of spares, also available as packages and through our advance exchange service.



Standard I/O Options

The C10 HD has up to eight built-in MADI-over-fibre-optic digital audio connections enabling interfacing with a broad range of peripheral physical I/O. SSL offers a range of audio connection and converter solutions that enable connectivity to be scaled to match requirements and budget.



Alpha-Link Live - Local I/O, pure and simple

Alpha-Link Live is a high quality, low cost 2U rack enclosure that connects to the C10 HD via MADI fibre-optic cable. It provides 24 balanced analogue lines (24 in and 24 out, with 24-bit analogue A/D D/A conversion) simultaneously with 24 channels (12 pairs) of AES digital connectivity (12 in and 12 out, with eight channels of 24-bit sample rate conversion). Alpha-Link Live features dual redundant PSU's as standard.



Alpha-Link 8-RMP - Remote controlled mic pre's

The Alpha-Link 8-RMP houses eight high-quality analogue mic pre-amplifiers, controlled remotely from the C10 control surface. The 8-RMP connects to the console via the Alpha-Link Live's balanced analogue inputs, allowing three 8-RMP modules to be connected to each Alpha-Link Live unit. Each 8-RMP module is housed in a matching 2U rack, and also includes dual redundant PSUs as standard.

Modular I/O Options



B-RIO - Customised audio delivery

If Alpha-Link Live does not supply a sufficient level of I/O complexity, the B-RIO provides advanced, modular I/O that can be customised to meet your specific connectivity requirements.

B-RIO is a 7U modular rack which connects to the console using MADI over fibre with control data and SNMP diagnostics embedded in the fibre-optic cabling. B-RIO has capacity for 5 audio cards, providing up to 254 channels of local I/O, and can be fitted with a combination of Mic/Line, Line and AES I/O cards. B-RIO comes with temperature-controlled fan cooling and redundant PSU as standard, with MADI links configurable to provide fibre-optic redundancy.

MORSE - Remote I/O, Resource Sharing & DSP Redundancy

While the Alpha-Link provides cost-effective pre-configured I/O for the C10, MORSE Stageboxes can supply customised and mixed format feeds from the full range of production and technical areas of a studio facility, providing further levels of scalability. The MORSE Stagebox is a 3U chassis which connects to the console using MADI over fibre with control data embedded in the fibre-optic cabling. Each MORSE Stagebox offers 56 channels of IO via 14 card slots which can house a combination of Analogue, AES3 digital and SDI Embedder/Deembedder cards (HD or SD).

For multi-studio broadcast facilities MORSE Stageboxes can be combined with the MORSE Router to provide an extremely reliable, cost effective and scalable solution for sharing audio I/O between multiple studios and control rooms and managing related control data.

Automatic management of I/O connected to a C10 HD with full processor redundancy can be achieved in conjunction with a MORSE Router.



C10 HD Specification

Hardware architecture:

- 24+8 or 32+8 fader frames, with dual mains inlets and redundant PSUs providing automatic power failover
- 12 opto-isolated inputs and 12 contact closure outputs for general purpose interfacing (GPI)
- Infrared keyboard & trackball included as standard for external backup of Touchscreen element
- Embedded Blackrock processor core with RAID 1 Hard Disk array, providing console control interface and self-healing audio processing
- Embedded Integration Computer providing secured network login for file management, SNMP and remote diagnostics
- 4 MADI I/O ports offering up to 256ch audio interfacing, with embedded control data for SSL I/O solutions
- Cost option to upgrade to dual Blackrock processor cores, offering redundancy for CPU, DSP, file system, network, and MADI I/O
- Cost option to upgrade to 8 MADI I/O ports, offering up to 512ch audio interfacing

DSP architecture:

- 64 full input channels, each with dedicated 4-band EQ, Comp/Lim, Insert, Direct Output
- 64 Delay modules, 5.4 seconds each, assignable to input channels and ASG buses
- 16 dedicated mono Mix Minus buses with insert points, can be stereo-linked
- 8 dedicated mono Aux buses with insert points, can be stereo-linked
- 16 dedicated ASG buses, formatted as 8 x stereo or 2 x 5.1 & 2 x stereo, with inserts and comp/lim processing
- 12 dedicated PGM buses, formatted as 2 x stereo, 2 x 5.1, or 1 x 5.1 & 1 x stereo, with inserts, comp/lim, and LFE filters
- 4 x 12-way source selectors for multipurpose switching (eg. monitoring/metering)
- 16 mono direct inputs with level, on/off and AFL, can be linked for stereo/5.1 operation and can feed any and all console buses
- 2 communications mixes, each with 2 x stereo source selection, level, on/off, AFL, T/B and on-air mute logic
- 3 monitor buses, in 5.1, stereo and stereo/mono formats, with insert point, source selection, solo/mute, phase and level control
- Cost option to upgrade to 96 full input channels

C10 HD Dimensions

| 24+8 Configuration | Height | Width | Depth | Weight |
|---------------------------|----------------|-----------------|----------------|---------------|
| Including End Trim | 99.7cm (38.5") | 121.8cm (48") | 76.8cm (30.2") | 83Kg (183lbs) |
| Without End Trim | 99.7cm (38.5") | 114.6cm (45.1") | 76.8cm (30.2") | 83Kg (183lbs) |
| 32+8 Configuration | | | | |
| Including End Trim | 99.7cm (38.5") | 150.3cm (59.2") | 76.8cm (30.2") | 97Kg (214lbs) |
| Without End Trim | 99.7cm (38.5") | 143.1cm (56.3") | 76.8cm (30.2") | 97Kg (214lbs) |

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