Duality δelta

Large-Format Analogue Console with SSL δelta and DAW Control

Solid State Logic

SOUND || VISION

The hybrid studio standard

Welcome to the world of Duality δelta, the large-format analogue console designed for the modern studio environment.

Installed in some of the world's most prestigious studios, Duality allows producers and engineers to harness the clear sonic advantages of SSL SuperAnalogue™ processing and the workflow benefits of advanced DAW integration.

- **The analogue console for the modern studio**
  Full analogue console with latest generation SuperAnalogue™ technology

- **NEW! δelta control automates your console within your DAW like a plug-in**
  Cue, FX, EQ, Cut, Insert switches and analogue faders can be automated

- **Complete SSL analogue processing toolkit**
  SuperAnalogue™ & VHD™ Mic Pres, E & G Series EQs, Dynamics and Master Bus Compressor

- **Unrivaled levels of visual feedback**
  TFT screens provide metering, process order, routing and Eyeconix™ for every channel

- **Integrated console processing within the DAW signal path**
  Innovative SPLIT channel signal path architecture

- **Fully equipped for multichannel production**
  Multiple Stereo buses and full 5.1 functionality

- **Ethernet connected multi-layer control of all major workstations**
  Controls two DAWs simultaneously

Duality. This is SSL.

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δelta Control (δ-Ctrl)

The unique new SSL console automation system unites the very best of automation in the analogue console domain with DAW based workflow.

δ-Ctrl is a native AAX/RTAS/AU/VST/VST3 plug-in that allows automation of Duality as if it were a DAW Plug-in. The automation system in the DAW is used to record and playback control data from the faders and switches on the console replacing the SSL legacy automation system in Duality. The δ-Ctrl plug-in is inserted into a DAW mixer audio channel. The plug-in then receives and sends control data from an assigned Duality channel, VCA or Master fader via a high speed Ethernet Network connection. Audio on the DAW track passes through the plug-in slot unprocessed so the plug-in can be combined with other DAW plug-ins. The console Fader, mutes and relevant switches are represented as plug-in parameters in a δ-Ctrl plug-in GUI and their automation data is recorded to the automation lane of the selected DAW channel. In playback the plug-in converts the stored automation data from the DAW into δ-Ctrl messages and routes these back to the console via the SSL Logictivity Network connection.

Automation data can be viewed and edited as normal plug-in data in the DAW tracks. The Duality Fader Absolute and Trim values are saved using the same dB law as Pro Tools Fader automation so that the 'Paste Special' command can be used to copy existing Pro Tools fader data into the plug-in. This feature is DAW specific and may not necessarily be available with other systems. δ-Ctrl retains all the key operational elements of SSL's Signature Mix System with much loved features such as JOIN, REVISE, MOTORS OFF and SNAP Override all actioned from dedicated front panel switches. The MOTORS OFF mode offers the full non moving fader SSL VCA mix experience as preferred by key industry re-mixers. The New MOTORS OFF, Touch Write mode emulates the SSL G Series Mix system Immediate Pickup (IP) option. δ-Ctrl also works with SSL AWS δelta consoles.

The δelta Ctrl plug-in

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The Duality channel strip

Input

Duality features two switchable Mic Preamplifiers on every channel, allowing you to choose from the unrivalled purity of SuperAnalogue™, or the creative possibilities of Variable Harmonic Drive (VHD)™. The VHD™ circuit introduces controlled 2nd or 3rd harmonic distortion to add warmth or grit. DAW line level signals can also be fed into the VHD™ circuit to creatively colour and enhance sterile DAW stems. Both inputs offer 48V Phantom Power, Phase and Pad switches.

Dynamics

The classic SSL Dynamics processor features three sections; the Compressor (switchable between traditional RMS and Peak Sense modes), the Gate (with variable Hold time) and the Expander. There is also a Side Chain Listen feature for full creative control.

EQ

Duality offers a 4-band, twin-curve SuperAnalogue™ EQ design, switchable between E Series operation and G Series curves and control interaction. The HF and LF bands feature a Bell curve option to allow a fixed Q parametric response. Additional HF and LF filters complete the EQ section.

Flexible routing options allow the channel processing elements to be re-ordered to a wide variety of configurations.

5.1 Panner

The most comprehensive analogue surround panning ever seen. In addition to standard Left/Right pan, every console channel features separate controls for Front/Rear positioning, a dedicated LFE send and an LCR divergence control.
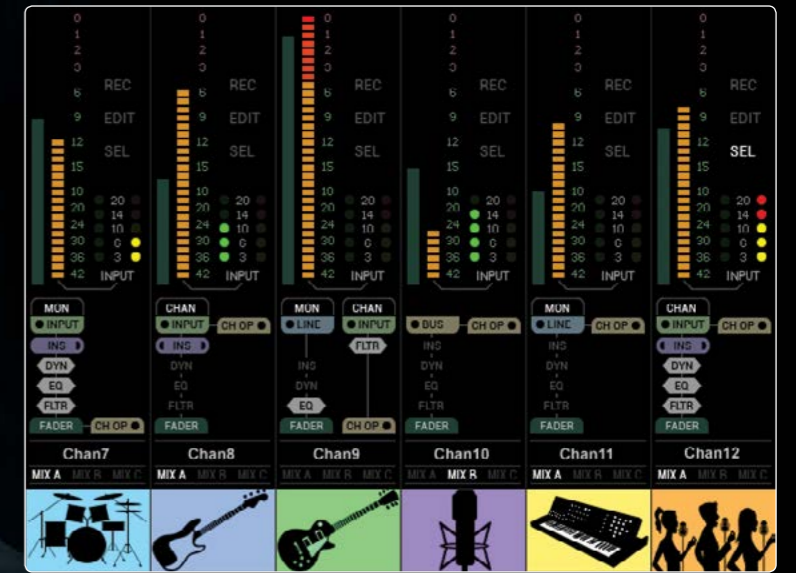
Solo + Cut and Fader

Control your traditional analogue channel level, your DAW's channel faders or both at the same time! Through SSL's unique approach, Duality offers unrivalled integration of today's DAWs within the analogue console paradigm. You can even control the analogue mixer and the DAW mixer simultaneously. Depending upon DAW used, various functions can 'flipped' onto the faders for enhanced real-time control. Duality features high quality motorised faders with 'fader linking', Automation activation, and DAW function display. CUT, FX, CUE, INSERT and EQ switches respond to automation.

CUE & Sends

Each channel has a dedicated Stereo CUE send, and four mono FX sends. The innovative and flexible EFX feature reassigns FX send level controls to the Track Buses and CHOP (Channel output) replicating 'small fader' functionality as well as effortlessly sourcing zero latency monitoring stems for personal headphone mixes.

Channel TFT Screens

The amount of visual feedback provided by the console's large innovative TFT meter bridge screens is unsurpassed. Featuring Level display (for both console and DAW channels), Track Bus Routing assignment, Channel Processing order, Mix Bus assignment, DAW Channel Status indicator (REC READY, SELECT, EDIT), and Dynamics metering (for both Gain reduction and Gate). A new innovation, SSL's unique Eyeconix system allows operators to place images of their choice onto the meter bridge, aiding track recognition and enhancing workflow.

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Centre Section and Routing

Duality features a comprehensive and elegantly organised mix environment control section that enables the operator to set up and manipulate routing, monitoring and transport from a single location.

Centre Section

The fully-featured centre section includes:

- Trackball, Group + Master Faders, DAW Transport & Numeric Location panel
- Comprehensive monitoring section with external feeds and full monitor speaker calibration options, Oscillator and Noise Generator
- Talkback Mic and associated communications switches
- Main Output Bus functions (eg. Inserts, Summing, Mix Bus reassign etc.)
- Four dedicated Stereo returns
- Classic SSL Main Bus Compressor (both Stereo & 5.1)
- Master controls for Track, Foldback and CUE/FX buses
- Centre section TFT Metering
- Dedicated VU meters and moving coil phase meter
- DAW control TFT displays shows DAW status and plug-in parameters
- Four encoders and five buttons assignable to plug-in editing

Routing Tile

The central Routing Tile provides centralised control of channel routing, signal processing order, and other facilities for a selected channel or across multiple channels. Selections can be a contiguous range or a selection of individual channels whose states can be controlled together. The Routing Tile provides a speed and comfort of operation not previously seen on an analogue console and allows operators to stay in the central monitoring 'sweet spot' while having full access to channels positioned away from their reach.

Mix Reassign Matrix

A powerful and extremely useful tool, allowing assignment of the CUEs (A+B) and Track Buses 1-24 to the main mix, which doubles up the number of inputs on Mixdown or Monitor Returns while recording. A unique Stereo Downmix panel allows complete control of the 'fold down' of a multichannel 5.1 mix to Stereo, allowing the operator to seamlessly move between surround and a Stereo mix. Further 5.1 enhancement is provided by the inclusion of LFE filter frequency selection ideal for cross platform 5.1 work.

Configuration and options

Duality is a self-contained system with no remote power supplies. Because the console is convection cooled it has no need of fans and is silent in operation. Consoles are available fitted with 24, 48, 72 or 96 channel strips in standard or 'Pro-Station' configurations.

Total Recall™

SSL's unique Total Recall system uses patented control technology to enable the operator to quickly and accurately manually return the analogue controls of the console to a snapshot of stored settings.

Producer Table

A producer's section may be specified. This is 600mm (23.6") wide and has a flat, full depth table.

Patch + 19" Racking

Integral 19" rack sections with 10U of rack space are available as an option. These may be used for outboard effects units or to house the optional bantam patchbay. This can be fitted internally to the console frame or may be remotely mounted by the studio facility.

Angled Frames

In addition to the Pro-Station option, standard consoles can be specified with additional angled sections at split points to achieve curved console configurations.

Speaker Shelves

A flat shelf that fits over the top trim of the console, suitable for the placement of near field monitors can be retro-fitted to existing consoles without modification.

TFT Monitor Arm

The Duality TFT monitor arm attaches to the rear of the console and holds either one or two monitors. It is the most elegant way to securely position your preferred DAW monitor close to the control surface.

Our Commitment to Customer Support

A great product is only the start of what sets SSL equipment apart. We believe that the world's best products deserve 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 Duality, our commissioning engineers will guarantee that your Duality works to the standard you expect from SSL. Our training will provide you with the skills and confidence to tackle the most demanding project.

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. We offer a full range of spares, also available as packages and through our advance exchange service.

FOLDBACK
Two identical Foldback Outputs allow a variety of console sources to be used as headphone or studio monitor feeds.

ETHERNET CONNECTION

MIDI PORTS

GP.I/O
25 way D-Sub with connections for Red Light Relays & Switch, Monitor Cut & Dim, Slate & Listen switches, Talkback & Foldback switches and Tally lights.

TRACK BUSES
Outputs for the 24 console Track Buses. Each has a front panel Level control along with a dedicated AFL switch.
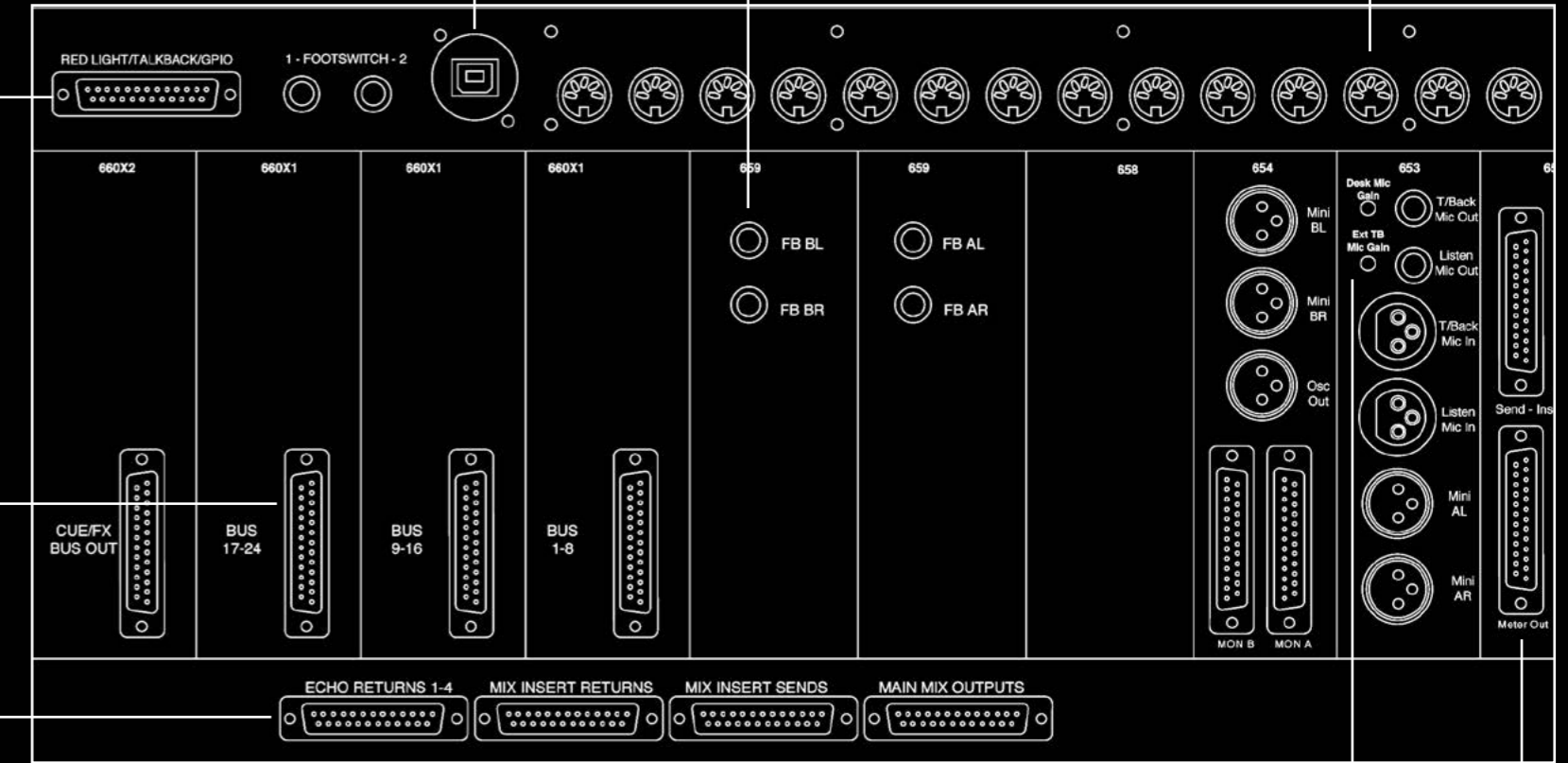
ECHO RETURNS
Four Stereo Line Inputs with dedicated Foldback feeds. There are front panel controls for Stereo imaging, Master Bus Level and AFL.
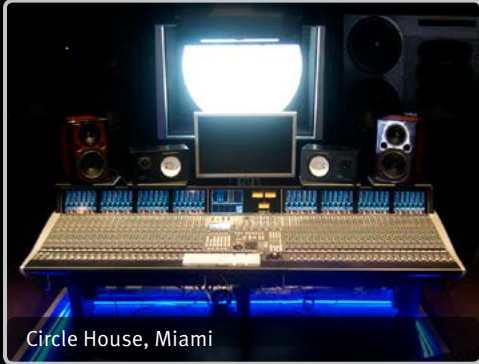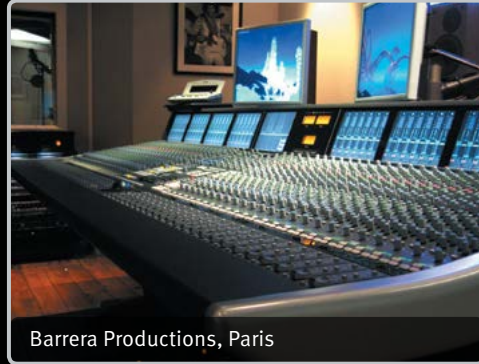
TALKBACK/LISTENBACK
Outputs for the two Foldback outputs (A+B), along with a dedicated External Talkback Output, Listen Mic Input with renowned SSL LMC circuitry.

METER OUTPUT
A dedicated multichannel metering output for use with third party metering options.

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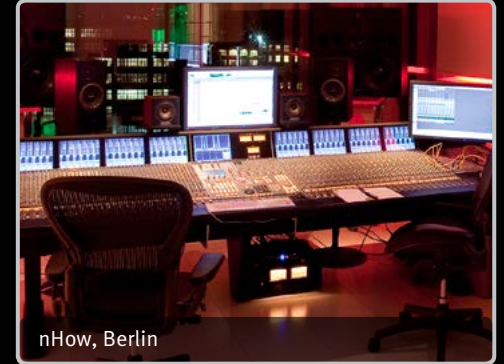S O U N D | V I S I O N

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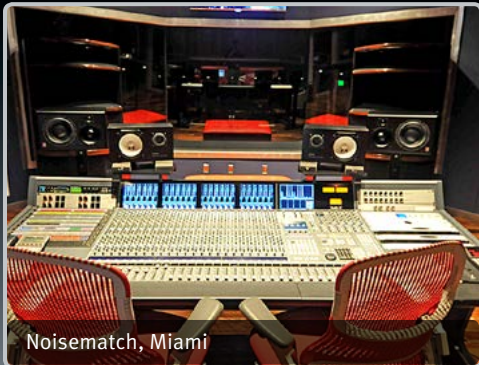

Barrera Productions, Paris

Humber College, Toronto

nHow, Berlin

Noisematch, Miami

Miami Dade, Miami

Full Sail Audio Temple, Florida

Dean St, London

Solid State Logic

International HQ: Begbroke, Oxford, England OX5 1RU · Tel +44 (0)1865 842300 · sales@solidstatelogic.com

Cologne: Tel +49 7001 8658 42300 · sales@solidstatelogic.com
Italy: Tel +39 3355 870 703 · itsales@solidstatelogic.com
Los Angeles: Tel +1 213 249 9229 · lasales@solidstatelogic.com

New York: Tel +1 212 315 1111 · nysales@solidstatelogic.com
Paris: Tel +33 (0)1 48 67 84 85 · frsales@solidstatelogic.com
Singapore: Tel +65 6438 2272 · sales@solidstatelogic.com

Thailand: Tel +66 2 587 5111 · akaraphol@ssl-bkk.com
Tokyo: Tel +81 (0)3 5474 1144 · jpsales@solid-state-logic.co.jp
Zagreb: Tel +38 513 079 405 · sales@solidstatelogic.com

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