

CRESCENDO

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AUDIO PORTS ON THE CONSOLE

- Headphones: 1/4" socket
- Multichannel-display ports, 8 channels: D-Sub
- Talkback-microphone port: XLR-3, female
- Nearfield-speaker ports: XLR-3, male
- DSP-unit line: optical fibre

POWER SUPPLY

- Dedicated power supply
- Redundant power supply

AUDIO OVERVIEW

The signal processors are accommodated on NEXUS STAR plug-in boards. Supported sample rates from 41.1 to 96 KHz. Channel structures are freely configurable. All processing modules and resources are available at all times.

FORMATS

- Multichannel and/or stereo system, including 5.1 multichannel monitoring, solo functions, and pan controls
- Simultaneous mono, stereo and 5.1 multichannel mixing is possible
- Configurable dedicated downmix matrix for format conversions (e.g. 5.1 to stereo)

INPUTS AND OUTPUTS

- Uses the NEXUS audio-network resources as an I/O interface
- Can be used as a simple, compact device or to control large audio networks
- Interfaces installed as per customer's requirements
- High-quality microphone, A/D and D/A converters
- Host of digital format interfaces available
- Access to additional NEXUS functions

CONSOLE I/O (INTERNAL AUDIO)

- 1 x A/D converter for the talkback microphone
- 2 x D/A converter for headphones
- 2 x D/A converter for nearfield speakers
- 8 x AES/EBU output, e.g. for external goniometer
- 4 x AES/EBU output aux

INPUT CHANNELS

- 300 max. (depends on the boards and summing buses configured)

AUDIO CONFIGURATION

- Freely definable number of channels and summing buses

BUSES

- 128 freely configurable buses (max.)
- 96 aux or mix-minus buses (max.) configurable

MONITORING CHANNELS AND BUSES

- 1 x 5.1 or stereo monitoring channel
- 1 x stereo cue-mix channel
- 1 x configurable 5.1 or stereo bus (configurable)
- 1 x configurable stereo PFL bus

PROCESSING MODULES (INPUT CHANNEL)

- Input gain
- Input meter
- Expander/noise gate, switchable to external control
- Equaliser and filters (4 peak filters, 2 band-reject filters)
- Signal delay
- Insert loop (switchable)
- Direct output with gain, pre/post routing
- Compressor/Limiter
- Faders
- Aux send, pre/post routing
- N-1 send, pre/post routing
- Pre-fader meter
- Post-fader meter
- Pan (multichannel)
- Bus routing



**12 ENCODERS ON EACH CHANNEL STRIP FOR IDEAL INSTANT ACCESS • EASY OPERATION •
96-KHZ ENABLED • SIMULTANEOUS MIXING OF STEREO AND 5.1 • SUPERIOR SIGNAL PROCESSING
• FULLY INTEGRATED INTO THE NEXUS STAR ROUTING SYSTEM**

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CRESCENDO

From the functionality and feature-set point of view the CRESCENDO mixing console sits in between the AURUS and AURATUS. The console is a response to the increased demand for slimmed down user interfaces with reduced feature sets.

CRESCENDO is freely configurable both in respect to the number of channels and the number of buses. Configurations of up to 300 audio channels and 128 summing buses are supported.

The number of mono, stereo, and 5.1 sums as well as stereo and 5.1 input-channel linking are also freely configurable. Up to 96 aux or N-1 (mix-minus) buses can be defined. For example, this would allow for up to 96 separate monitor mixes to be configured for a live show.

The CRESCENDO offers extensive snapshot and scene automation. This functionality makes it the ideal solution for use in theatre applications.

The CRESCENDO console is available in various sizes with up to 48 channel strips and a master section. The control surface operating depth of 625 mm, allows the CRESCENDO to be accommodated in smaller studios without problems.

The function view on the channel display was redeveloped from scratch for the CRESCENDO console specifically. This now provides an excellent overview of the status of the large number of freely configurable sends.

The central TFT display offers 2 x 48 additional meters, so called Free Meters. These are freely assignable to any bus signal, AUX etc. thus ensuring optimal monitoring.

In addition to concurrent stereo output of 5.1 signals, the console offers a configurable downmix matrix. EQ and dynamic settings are displayed graphically.

The CRESCENDO uses the AURUS audio hardware, i.e. it is actually an operating and control surface connected to a NEXUS STAR audio router. The STAR hosts up to seven DSP boards (6-U plug-in boards) plus a controller board per console. The CRESCENDO and the STAR router are interconnected by optical fibre.

The NEXUS offers extensive routing capacity (4,096 x 4,096 crosspoints) and can be equipped with MAD1 and/or optical interface boards to provide connections to studio gear directly or to NEXUS Base Devices.

Inside the NEXUS STAR the CRESCENDO RMD mixing boards have access to all desired NEXUS inputs and outputs via the star-topology bus structure.

For storing project configurations and automation data a PC, integrated into the console, can be connected to the CRESCENDO RMC board.

CRESCENDO features a sophisticated auto-backup system which is activated in case of power failure: The console will restore the last status prior to power failure and will be operable again in just a few seconds.

Projects can also be stored locally on the console to avoid data loss in case the PC fails.

CRESCENDO IN BRIEF

CRESCENDO mixing-console systems offer the following standard features:

CONSOLE

- Modular structure, free assignment of audio channels to channel strips
- 8 user-assignable operating layers
- Instant access to 2 pre-selected layers per channel strip
- Fast access to all 8 layers per panel on the channel strip
- Channel panel providing full parameter overview
- Master section for monitoring, automation, logic control, and communication
- Sensor-controlled display brightness on the control surface
- Integrated CRESCENDO control computer, freely placeable wireless keyboard with touchpad
- Integrates the OEM version of the latest RTW TM9 audio monitor, offering the same supreme metering functionality and flexibility as the standalone unit (as an option)
- USB port for removable storage

INPUTS AND OUTPUTS

- Full I/O routing using the dedicated PC-based CRESCENDO GUI
- Several routings can be stored as NEXUS statuses within projects
- Freely configurable graphical I/O display groups for fast access to crosspoints
- Freely editable channel and bus names on the CRESCENDO control program (8 characters)
- 8 x 48 I/O meters available using the configurable MultiMeter PC software
- Loudness metering (compliant with ITU-R BS.1770-2, ITU-R BS.1771, and EBU R 128) for master monitor inputs and outputs, software configurable

MONITORING

- Selectable monitoring modes for PFL, solo, and in-place solo
- Fader-controlled PFL routing (»backstop PFL«)
- 576 user-definable mono, stereo, or 5.1 monitoring sources on the NEXUS

CONFIGURATION

- Freely configurable bus modes (mono, stereo, 5.1)
- Free assignment of audio channels to the console interface
- All settings can be stored to project files
- The PC creates projects online and serves as project-storage medium
- Supports various international characters sets

CONTROL FEATURES

- Input-channel stereo grouping (including key signals)
- 24 assignable master/slave groups with selectable functions
- Selectable VCA mode for faders
- 16 assignable link groups with selectable functions
- 16 assignable mute groups
- Spill function for all link types (incl. stereo)
- Aux/N-1 to fader function for quick and intuitive access

DISPLAYS AND INDICATORS

- Level and gain-reduction metering on the TFT screen portion of each channel strip
- Graphic EQ curve for each channel strip
- Dynamics-module control and curve display on each channel strip
- Bus routing (including aux and N-1 routing) plus control groups for each channel strip

- Automatic information pop-up window on the channel-strip TFT display showing the numeric values of recently adjusted mixing parameters
- Permanent metering of up to 96 bus channels on the central TFT display
- Additional graphic display areas with graphic curves in the master section

AUTOMATION

- Snapshot automation with 999 memories per project
- Scene automation supporting up to 999 items
- Configuration and management of snapshot user rights
- NEXUS save-load statuses for I/O routing
- MIDI control for external devices
- Selectable machine control for up to 16 external machines using the GUI
- Cue-list management per machine
- Stores full snapshots including all console settings and partial snapshots (e. g. the settings of all faders, equalisers, or aux controls) as desired
- Isolate function for ignoring specific settings contained in loaded snapshots
- Projects can be stored to the PC or other media

- Scene-automation control
- Freely configurable displays on the central TFT screen
- Control and query functions for the two timers
- Switchover to a secondary display port for each TFT screen (as an option)

RELIABILITY

- Selectable and configurable redundant DSP board
- Auto power-down backup system restoring recent settings after power return
- Redundant power supplies for all Components
- Continuous auto-diagnosis plus error logging as necessary on CRESCENDO and NEXUS
- Error messages can be configured for display on the user interface
- Projects are stored locally on the console and can be loaded without using an external computer

CONSOLE OVERVIEW

Except for the integrated audio interfaces (for talkback, monitoring, and goniometer), the CRESCENDO is just a control surface. All audio processing is performed using the DSP boards in the NEXUS STAR.



- Integrated NEXUS Base Device emulation for offline base devices (in particular, for use in OB vans)

N-1 SYSTEM (MIX MINUS)

- Comprehensive N-1 system
- Input, group, and mix channels supported as sources
- 8 or 16 off-air conference-buses, up to 96 cue-mix buses
- Fader-controlled pre/post switching via off-air matrix

LOGIC CONTROL

- Links selected CRESCENDO functions to the NEXUS programmable logic system – supports switching and control functions
- Dynamics-expander remote control (audio follows video) and fader on/off functionality
- The status of certain keys and fader start relays can be queried
- Fader-on/backstop logic for broadcasting
- 40 freely assignable user keys (for example, for programming a transmission switch) available on the master section

PHYSICAL DIMENSIONS

Up to 48 channel strips within an 8-strip grid:

- Operating depth: 625 mm
- Channel grid: 38 mm
- Dimensions of fader panel (W x H): 332 x 340 mm
- Dimensions of multifunctional panel (W x H): 332 x 190 mm
- Dimension of TFT panel (W x H): 332 x 216 mm
- Dimensions of channel panel (W x H): 400 x 340 mm
- Dimensions of monitoring panel (W x H): 400 x 190 mm

CONTROLS

- 12 instant-access encoders with LED fans plus 14 illuminated keys per channel strip
- Hi-res OLED for channel name and layer assignment for each channel strip
- Dedicated controls in the central panels for direct access to mixing functions: concentric encoders, keys, and graphic TFT displays