CRESCENDO

Inputs and outputs in the console (internal audio)
- 1 × A/D converter for the talkback microphone
- 2 × D/A converters for headphones
- 2 × D/A converters for nearfield monitors
- 8 × AES/EBU output, e.g. for external multichannel meter display
- 4 × AES/EBU aux outputs

Input Channels
- Up to 300, depending on the cards installed and the total number of buses

Audio Configuration
- Freely configurable number of channels and sum buses

Buses
- Up to 128 freely configurable buses
- Up to 96 aux freely configurable N-1 buses

Monitoring Channels and Buses
- 5.1 or stereo monitor channel
- Stereo channel ("Play Back Channel")
- Assignable 5.1 or stereo solo bus
- Assignable stereo PFL bus

Processing Modules (input channel type)
- Input gain
- Input meter
- Expander/noise gate, switchable to ext. controls
- Equalisers & filters (4 peak filters, 2 band reject filters)
- Signal delay (Delay)
- Switchable Insert point, switchable (Insert)
- Direct output, pannable, pre/post switchable
- Compressor/Limiter
- Mute
- Aux send, pre/post switchable
- N-1 send, pre/post switchable
- Meter pre/post fader
- Pan, multichannel capable
- Bus routing

Reliability
- Selectable and configurable redundant signal processing card
- Automatic power failure backup system which restores the last known settings after Power ON
- Redundant power supplies in all components
- Continuous auto diagnostics and error logging in CRESCENDO and NEXUS
- Direct display of error messages on console interface
- Projects saved in console and accessible without a PC

Power supply
- Separate power supply
- Redundant power supply

Physical Dimensions
- Control surface operating depth: 625 mm
- Channel spacing: 38 mm
- Console depth: 777 mm
- Width (with standard side panels): 814 mm (8 faders), 1146 mm (16 faders), 1479 mm (24 faders), 2807 mm (56 faders)
- Height: 313 mm (desktop variant), 1033 mm (with stand)

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CRESCENDO

CRESCENDO fits neatly between the AURUS and AURATUS mixing consoles in terms of functionality and features. The console utilises hardware components from both systems. AURUS contributes the audio processing and the mixing console control, i.e. the RMC and RMD cards. AURATUS provides the console control surface and enables CRESCENDO to be expanded to a maximum of 48 channel strips.

With an operating depth of just over 60 centimetres CRESCENDO is easy to accommodate in smaller studios, and delivers on the requirement for smaller control surfaces with optimized functionality.

CRESCENDO offers a freely configurable number of channels and buses: Configurations with up to 300 audio channels and 128 summing buses can be created.

The number of mono, stereo and 5.1 sums as well as stereo and 5.1 input channel linking is also freely configurable. Up to 96 aux or mix-minus (N-1) paths can be defined. With this capacity up to 96 separate monitor mixes are possible, for example at a live event.

CRESCENDO provides comprehensive snapshot and scene automation, making the console a natural for theatre use.

Function representations in the channel TFT have been adapted for CRESCENDO. In order to visualise the large number of bus routings the channel TFT graphics have been developed from the ground up.

The CRESCENDO console is purely a user interface. It is connected to the audio processor and controller cards integrated into the NEXUS STAR. The STAR can be configured with up to seven signal processing cards (6 U plug-in). CRESCENDO and the STAR router are interconnected via fibre-optic cable.

NEXUS STAR provides high capacity routing (4096 x 4096 crosspoints) and can be equipped with MADI and/or fibre-optic cards. The cards provide interfaces to the studio peripheral equipment or NEXUS Base Devices.

CRESCENDO (RMD) can access all the required NEXUS inputs and outputs across the entire audio network via the internal star bus.

Like all Stage Tec products CRESCENDO offers excellent audio quality and maximum reliability in professional settings. 40-bit floating point arithmetic and 32-bit TrueMatch converters are also standard as are components which can be replaced during live operation, redundant power supplies, fibre-optic links and automated test routines.

Console

- Modular design
- Free assignment of audio channels to channel strips
- 8 operating layers, freely assignable
- Instant access to 2 pre-selected layers per channel strip
- Quick access to eight operating layers per panel in the channel strip
- Central channel operation for improved parameter viewing and adjustment
- Monitoring panel for monitoring, automation, Logic Control and Communications
- Sensor-controlled display brightness on the control surface
- Configuration computer built into the console, free floating wireless keyboard with touchpad hidden in a drawer
- Integrated OEM version of the RTW TM9 audio monitor (optional)
- USB port for removable media

Inputs and Outputs

- Full I/O-routing configuration using the graphical control program running on the built-in PC
- Different routings can be stored as NEXUS statuses in projects
- Freely configurable graphical I/O display groups for fast access to crosspoints
- Channel and bus names are editable
- Precise metering display of inputs and outputs in the configurable MultiMeter computer software (96 meters)
- Loudness metering according to ITU-R BS.1770-2, ITU-R BS.1771 and EBU R 128 for inputs and outputs in the configurable Master Monitor software

Monitoring

- Selectable monitoring modes for PFL, Solo and Solo in-place
- Fader controlled backstop PFL
- 576 user-definable monitoring sources in NEXUS, mono, stereo or 5.1

Configuration

- Freely configurable bus modes, mono, stereo, 5.1
- Freely configurable assignment of audio channels to the console surface
- All settings can be saved in projects
- Projects are created in an internal computer, which also provides storage for console projects
- Supports various international character sets

Controls

- Linking of input channels to stereo strips (including dynamics side-chain key signals)
- 24 freely assignable Master/Slave groups with selectable functions
- Switchable VCA fader mode
- 16 freely assignable link groups with selectable functions
- 16 freely assignable mute groups
- Spill function for all link types including stereo
- AUX/N-1 sends assignable to faders for quick and intuitive access

Displays

- Hi-resolution level and dynamics meters on each channel strip:
  - Graphic EQ curve and panner position display
  - Dynamics module curve view
  - Bus routing (including pre/post, mute and control groups)
  - Information pop-up window for displaying numeric values of recently adjusted mixing parameters
- Hi-resolution level and dynamics meters on the master TFT screen:
  - Permanent metering of up to 96 bus channels
  - Additional graphic display areas with graphic curves

Automation

- Snapshot automation with up to 999 snapshots per project
- Full snapshots (all mixing console settings), selective parameter snapshots (e.g. all fader settings, EQ) and channel snapshots (selected channels including functions) can be stored
- Scene automation with up to 999 entries possible
- Configuration and management of snapshot user rights
- Isolate function protects individual settings from being overwritten when loading snapshots
- MIDI control of external devices
- Selectable machine controls for 16 devices
- Cue List Manager per machine
- Projects can be saved to a PC or other media
- Integrated NEXUS Base Device emulator for unconnected Base Devices (especially for use in OB vans)

N–1 System (Mix Minus)

- Complete integrated N-1 system
- All input, group and summing channels available as possible sources
- 8 or 16 off-air conference buses, up to 96 buses for playback
- Fader controlled pre/post-switching
- “Off Air Matrix” control

Controls

- 12 direct access rotary encoder functions with LED metering per channel strip, 14 illuminated buttons
- High-resolution OLED per channel strip for metering, channel name and layer assignment indication
- Dedicated controls in the central panels for direct control of corresponding mixing console functions with dual rotary encoders, buttons and graphic TFT displays

Integrated audio interfaces for

- Headphones: 6.3 mm jack
- Multichannel meter display port, 8 channels, D-Sub
- Talk-back microphone: XLR-3, female
- Near field monitors: XLR-3, male
- Link to audio signal processing: fibre-optic

Formats

- Multichannel and/or stereo system including 5.1 channel multichannel monitor, solo and pan control functions
- Supports simultaneous mono, stereo and 5.1 multichannel mixing
- Configurable independent downmix matrix for format conversion (5.1 to stereo)

Logic Control

- Integration of selected CRESCENDO functions with the programmable NEXUS logic system for switching and control functions
- Remote control of dynamic expanders (Audio Follows Video) and fader On / Off function
- Status of certain keys and fader start relays can be queried
- Fader On/backstop logic for broadcasting
- 40 user assignable keys in the console centre section, for example programming an on-air switch
- Scene automation control
- Activation of configurable display fields in the central TFT screen
- Control and query both timers
- TFT can be switched to connected external PC

Inputs and Outputs

- NEXUS audio network used as an I/O interface
- Scalable from a small Base Device to large networks
- Excellent microphone A/D and D/A converter:
  - Microphone inputs: 32 bit TrueMatch A/D converter, exceeding 158 dB (A) dynamic range
  - Line inputs: 24 bit TrueMatch A/D converter, 133 dB (A) typical dynamic range
  - Line outputs: 24 bit D/A converter, 131 dB (A) typical dynamic range
- Digital audio formats: AES/EBU, AES 42, S/PDIF, SDIF-2, MADI, ADAT, TDIF, SD and HD-SDI, Dolby E®, Dante
- Sample rates: 44.1, 48, 88.2, 96 kHz
- Sampling rate converter: standard or optional, depending on the card type

CRESCENDO — a digital mixing console