

Scorpius

DIGITAL ON-AIR CONSOLE



The Scorpius is a fully digital On-Air mixer, designed to be the centerpiece of the modern digital broadcast station.

It features instant recall of everything. Imagine a talk show needing 6 Mics and within 2 minutes a sport event with completely different in/output settings. With the new Scorpius it is a matter of seconds.

Super and ordinary user levels can be password protected giving each and everyone exactly what is needed to perform. Although the Scorpius is a digital console, it is operated with the same comfort as a conventional analog broadcast mixer.

No fundamental concessions have been made towards reliability, high speed controller-response and system stability.

SYSTEM DESCRIPTION.

Twenty-four stereo inputs, accepting various audio formats and 6 Mic inputs, are connected to a digital input router.

This router is an integrated programmable patch-bay. It allows you to send any of the input signals to any of the 16 stereo processing channels. Each processing channel has a full three band parametric Equalizer-section and a dynamics control application.

All four output busses are stereo and have dedicated analog and assignable digital outputs. This bus routing is a second cross-point matrix.

The Control room, Studio, Guest, Phones and Announcer outputs are analog for easy interfacing and are fed by the input select switches in the master section. An integrated Talkback system can be assigned to any connected Studio.

HIGH LIGHTS.

- Less than 0,5 milliseconds propagation delay (excl. A/D – D/A conversion + SRC).
- Digital I/O's are 16/20/24 bit and supports sample frequencies from 32KHz to 96KHz.
- Sample rate converters on all digital inputs.
- EQ and Dynamic control on all processing channels.
- All faders are electronically labeled.
- Graphic display shows modules or meters.
- Integrated programmable digital patching system.
- Remote connector per input. (GPIO's) with Start, Stop (pulse/continuously) on relays.
- Auto Red light function; Cue Reset.
- Insert on every Mic input.
- Fader, Switch or Cue start/stop.
- Timer and clock functions integrated.
- Digitally controlled microphone gain.
- External meter output.
- Industry standard connectors.

FLEXIBLE INPUTS.

The Scorpius accepts all standard input formats such as; Microphone, analog line, AES/EBU, S/P-DIF coaxial and S/P-DIF optical.

The six balanced mic inputs have digitally controlled gain adjustment and are provided with individual phantom power switches and insertion points.

A convenient aspect of the Scorpius is that all connectors are industry standards; XLR type connectors, cinch, jacks, as well as the usual digital format type of connectors. Two N-1 connections give you the option to directly connect a hybrid to the console. Eight stereo balanced inputs allow for connection of analog audio sources, 8 inputs accepting AES/EBU, 6 inputs designed for S/P-DIF coaxial and 2 S/P-DIF optical.

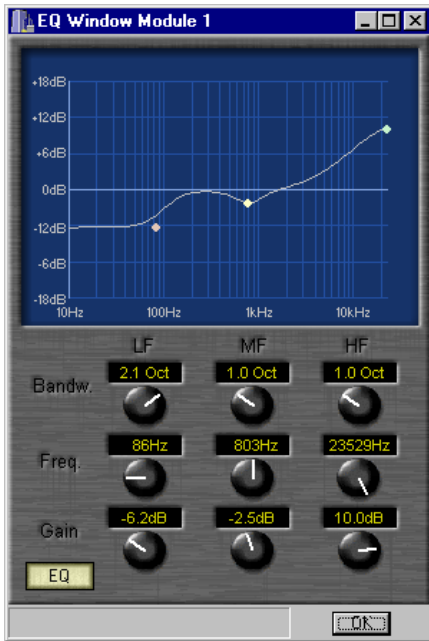


IN-OUTPUT ROUTING MATRIX.

The audio-paths within the Scorpius are programmable by way of two routers. This eliminates the need for an external patch-bay. The first routing matrix is situated between the input modules and the DSP.

It allows a custom configuration of the various inputs into the 16 stereo processing channels. A second router is located between the four stereo output busses and the console's digital outputs. The analog outputs are hard wired (via D/A's) to the 4-digital program busses. An input selection bank of switches feeds the monitoring section.





PROCESSING.

All signal processing takes place in the DSP engine using precise floating-point calculations at a word-length of 32 bits. All audio signals throughout the console preserve their 24-bit resolution from the input conversion.

Even 16 bit data streams, like CD-players, have 24 bits reserved. The audio data always preserves the sonic characteristics of the original input signal. Processing includes EQ as well as dynamic control in all 16 channels in real time.

EQUALIZER.

The EQ section of the Scorpius is three-band and fully parametric. All bands provide a boost/cut of 18 dB max, a band related frequency range selection and a Q-factor adjustment between 0.1 and 3. Frequency and

bandwidth settings are done on the optional TFT screen(*). The LF-control features a special function. When attenuating, the LF band function is shelving, when amplifying the LF band transforms the shelving function into a bell shaped curve.

This prevents amplification of any unwanted subsonic frequencies.

The EQ can be turned off locally, overall or even limited in gain range.

DYNAMICS SECTION.

The dynamic range control is a highly intelligent compressor. A lot of effort has been put in creating a user-friendly, intelligent, yet effective, dynamics control algorithm. One single control sets the amount of compression applied for "instant-result" adjustments. Ratio, Threshold and Make up gain are a thing of the past.

BUSS SYSTEM.

The 16 stereo processing channels can be assigned to the Program bus, Sub bus, Cue bus and/or Aux bus.

The signal on each bus always appears in analog form on a dedicated output. The digital output router (Matrix) feeds the digital consoles outputs.

OUTPUTS.

The output router assigns the four output busses in digital format to the output connectors. There are six outputs in AES/EBU format, another six in S/P-DIF coaxial and two S/P-DIF optical.

There are stereo analog outputs for Control Room Monitoring, Studio Monitoring, Phones, Guest and Announcer.

SUMMARY.

This software-controlled Scorpius secures absolute stability due to the industrial stan-



dard Windows NT® operating system. An optional TFT-Screen (*) gives real-time information about the status of the system and settings currently in use. This includes; routers; channel, processing settings and a screen wide metering. And...all settings can be saved/recalled on hard disk, floppy drive, or chip card. Its applications are targeted at Broadcasting, Pre-Production and outside broadcasting.

(*) Not integrated in the delivery.



DIMENSIONS.

Drop through hole: 960x570x100mm.

SPECIFICATIONS.

A technical specification sheet is available on request.

OPTIONS

Redundant power supply.
SiCo remote unit.



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We reserve the right to change specifications.

