

DBC Network Bridge



At the heart of a Digital B Chain system, the Crown® DBC™ Bridge allows you to distribute multiple channels of digital audio over standard fast Ethernet hardware and cabling for use in traditional, e-cinema and d-cinema applications.

The DBC Bridge accepts standard analog and/or AES digital audio and CobraNet™ digital channels from other Cinema processors (Dolby®, DTS®), Cinema Servers, or Alternative Content Media Players; and bridges (routes) them to a Crown DBC network.

This network is Crown's proprietary "Single-Click" solution that provides system control, monitoring, and digital audio transport. The DBC network (fed by the DBC Bridge) distributes the digital audio and system-wide control protocol to Crown amplifiers. The DBC Bridge also provides the necessary system equalization, which is stored and recalled via a series of presets for use in both feature film and alternative content programming.

Specifications

Performance

Dynamic Range: >108 dB (A-weighted, 20 Hz-20 kHz).

Digital Sampling: 24-bit, 48 kHz.

Frequency Response: ± 0.5 dB, 20 Hz-20 kHz.

Total Harmonic Distortion: <0.05% THD+N (1 kHz, 0 dBu).

Common Mode Rejection: 50 dB at 60 Hz (typical).

Maximum Input Level: +32 dBu (line) or +7 dBu (mic).

Maximum Output Level: +20 dBu.

Required AC Mains: Universal AC input. Operates from 100 VAC to 240 VAC at 50/60 Hz, 24W nominal.

AC Line Connector: 15A IEC AC power inlet.

Latency (analog, digital inputs): Analog: 1.13 mS. Digital: 2.28 mS at 48 kHz.

A/D, D/A Converters: 24-bit 96 kHz Cirrus Logic

Digital Input: AES/EBU, 24-bit, 32-96 kHz. Onboard sample rate converter.

Network: Onboard TCP/IQ, compatible with standard 100Mb Ethernet hardware

DSP: 24-bit conversion with 32-bit, floating-point DSP processing.

Analog Auxiliary Input Gain Range: +20 dB to -12 dB (add 25 dB for mic setting)

Input Impedance: 20 kilohms balanced, 10 kilohms unbalanced.

Features

- Accepts 8 inputs (7.1 surround) via one of the following formats:
 - Analog AES/EBU
 - CobraNet
- Selectable mic or line auxiliary analog XLR inputs for alternative content
- Primary and Secondary 100mb Ethernet "Single-Click" connection for DBC network
- Front-panel LCD display and control functions of internal presets and system setup
- Full 32-channel CobraNet digital audio transmit/receive capability
- Enhanced matrix mixer capable of full 8x32 crosspoint matrix mixing
- 24-bit/48 kHz converters
- Studio-grade DSP with multiple filter banks for each channel (up to 256 filters)
- 32 presets, 32 scenes, and 32 events can be stored, labeled, and recalled
- Analog monitoring of cinema processor inputs, pre-amp, or post-amp signals
- Multiple-function control port for third-party automation/control
- Internal clock/calendar for scheduling events
- Auto leveling functions for dynamic volume control of auditoriums or lobby
- Ambient leveling functions for maintaining maximum signal-to-noise ratio
- Three-year, No-Fault, Fully Transferable Warranty completely protects your investment and guarantees its specifications

Output Impedance: 100 ohms balanced, 50 ohms unbalanced.

Digital Sampling: 24-bit, 48 kHz.

Crosstalk: > 80 dB at 10 kHz.

Required AC Mains: Universal AC input. Operates from 100 VAC to 240 VAC at 50/60 Hz, 24W nominal.

AC Line Connector: 15A IEC AC power inlet.

Control Port

Power Supply: +5 VDC and +10 VDC output. Total output current 1A.

Monitor Output Logic Low: < 0.1V

Monitor Output Logic High: 10 V (via internal pull-up). Output current limited to 10 mA max per pin.

Input Impedance: > 50 kilohms

Input Logic Low: < 0.5 V

Input Logic High: > 5V

Input Analog Range: 0 to 10 V (for inputs 9-16 only)

Max. Input Voltage: 25 V

Front Panel Controls and Indicators

Power Indicator: Blue LED shows that the unit is plugged in and AC power is being supplied. The unit does not have a power on/off switch.

Data Indicator: Amber LED flashes when commands addressed to the DBC Bridge are received.

AES/EBU Indicator: Amber LED illuminates when the unit is switched to AES digital inputs.

Input Display: An eight-segment LED display matrix shows input signal presence for all eight analog or digital inputs.

Output Display: An eight-segment LED display matrix show output signals for all eight surround channels.

LCD Control Screen: LCD digital display shows information about the currently selected IQ address, inputs, presets, scenes, and firmware information.

Next/Previous Buttons: These two buttons scroll through parameters in each menu.

Menu/Select Button: Scrolls through the menus of IQ address, inputs, presets, scenes, and firmware information. Also used to select a parameter that is found by the Next/Prev buttons.

Back Panel Controls, Indicators and Connectors

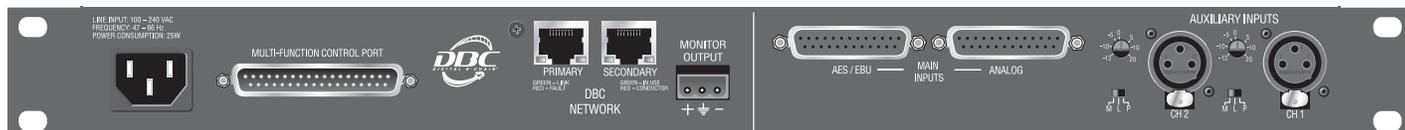
Analog Audio Input: DB25 female connector accepts eight balanced analog line-level analog inputs. Pinout matches Dolby CP-650 analog output.

AES/EBU Digital Audio Input: DB25 female connector accepts eight AES3 digital audio signals. Pinout matches Dolby #778 AES input/output card for CP-650.

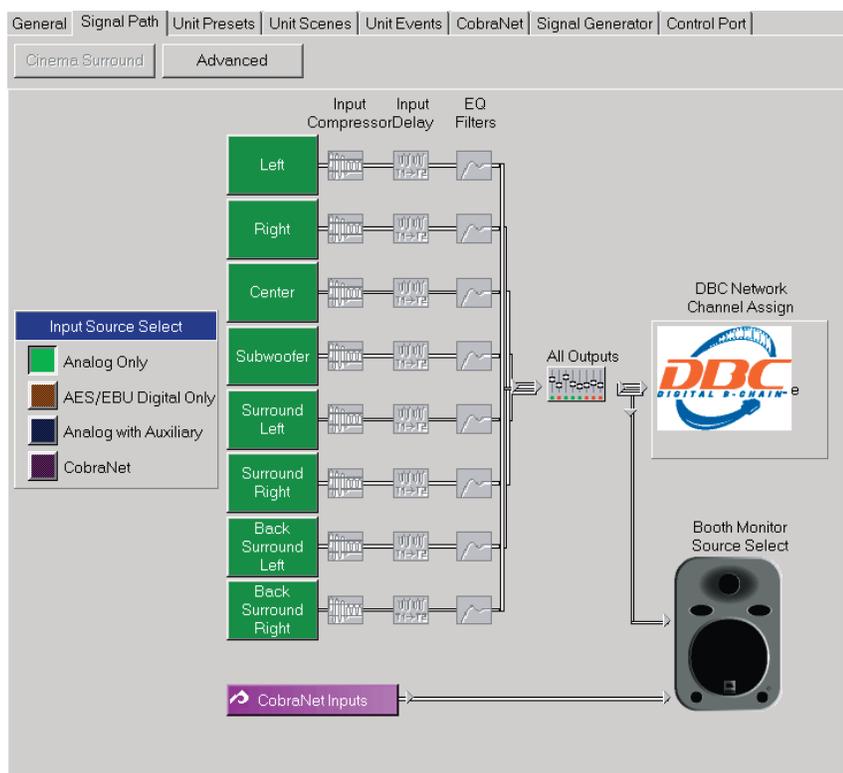
Aux Inputs: 2 female XLR balanced inputs for speech reinforcement or announcements. Switchable between mic, line, and mic with phantom power.



DBC Network Bridge



DBC Network Bridge back panel



DBC Network Bridge — Cinema Surround Signal Path Window

Network Connectors: Two RJ45 connectors for primary and secondary network connections. Supports TCP/IP communications with CobraNet digital audio channels.

Multifunction Control Port: One DB37M for analog inputs, digital inputs, +5VDC, +10VDC and ground. 8 input-switch closures, 8 analog 0-10VDC inputs, 16 output contact closures, +10VDC power source (1A), GND (1A+).

Monitor Out Connector: 3-pin Phoenix-type connector supplies a balanced analog line-level output signal which can feed a powered monitor loudspeaker.

Construction

Cooling: Convection cooled, no vents, no fans

Dimensions: 19 in. (48.3 cm)W x 1.75 in. (4.4 cm) H x 16 in. (40.6 cm) D

Net Weight: 15.3 lbs (6.9 kg)



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Crown offers a Three-Year, No-Fault, Fully Transferable Warranty for every new Crown amplifier—an unsurpassed industry standard. With this unprecedented No-Fault protection, your new Crown amplifier is warranted to meet or exceed original specifications for the first three years of ownership. During this time, if your amplifier fails, or does not perform to original specifications, it will be repaired or replaced at our expense. About the only things not covered by this warranty are those losses normally covered by insurance and those caused by intentional abuse. And the coverage is transferable, should you sell your amplifier.

See your authorized Crown dealer for full warranty disclosure and details. For customers outside of the USA, please contact your authorized Crown distributor for warranty information or call 574-294-8200.