

# Indigo HD Expansion

EXPANDING INDIGO TO EIGHT HD-SDI INPUTS

Now you can cut and mix between eight HD sources right from the buttons on the Indigo control panel.



The Indigo™ AV Mixer now can connect up to eight HD-SDI inputs. The input expansion is a combination of Indigo's powerful external device controls with a customized version of the Acappella™ router from Grass Valley™.

Connected to Indigo via Ethernet and standard BNC video cables, the rack-mountable input expansion provides eight HD-SDI inputs and four outputs. Two of the outputs connect to Indigo and the other two can be used as auxiliary outputs. Because the expansion provides a clean switch output, the inputs do not require external timing or synchronization.

With this expansion you can now cut and mix between eight sources right from the buttons on the Indigo control panel. The operation and video processing capabilities of Indigo, including keys, effects, and scaling remain unaffected.

## Ready Right out of the Box

Only 1 RU in size, the HD expansion comes ready to operate right out of the box—just plug it in, connect the cables, and you can get right to work. In the few instances when configuration is necessary, all that is needed is to connect a standard Web browser to the router's Ethernet interface—or use the Grass Valley NetConfig™ application that comes standard with the router. And with its 14-inch (34.5 cm) depth, you never have to reach deep inside the back of a rack to change out a cable.

The HD expansion offers high-performance digital video processing. Its video processing features include automatic input cable equalization. It also supports the reclocking of a data stream at all standard data rates, including 1.5 Gb/s, eliminating the jitter associated with long cable runs and previously

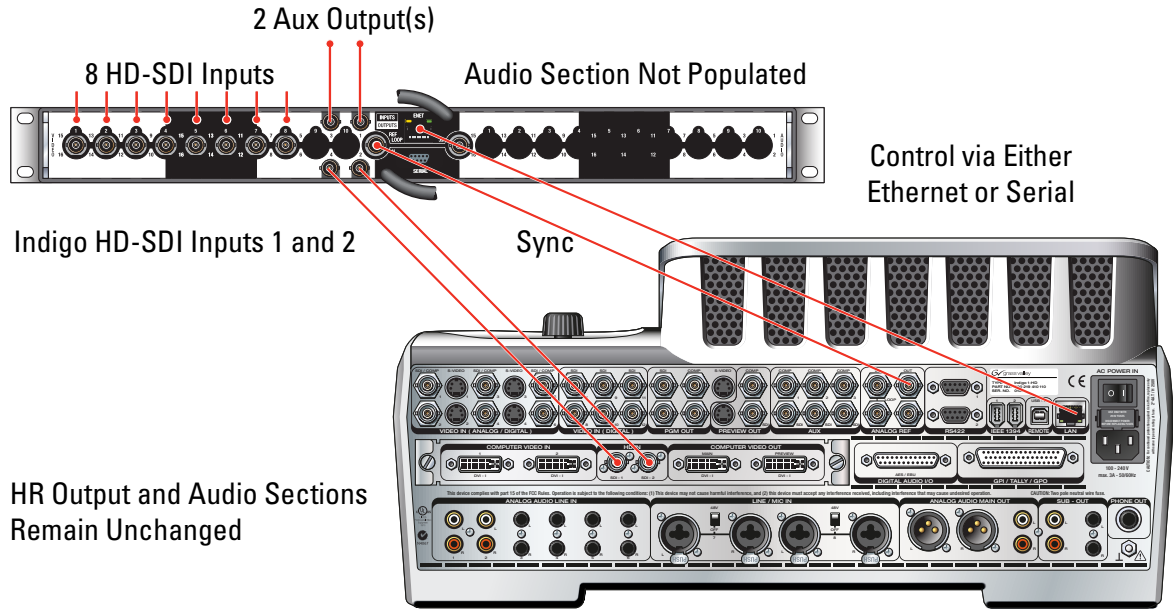
processed signals. If an external reference source is not available, the HD expansion will synchronize all sources with its internal clock.

Designed to maximize uptime, you can add an additional auto-ranging AC power supply for full power redundancy. Each power supply features a removable IEC power cord connection with integrated cord clamps to eliminate accidental unplugging; the cord connection also supports any AC plug-end available.

## KEY FEATURES

- Compact 1 RU rack-mountable routing system:
  - Eight HD-SDI inputs
  - Four HD-SDI outputs
- Configured for simple plug-and-play operation
- 14-inch (34.5 cm) depth for easy in-rack cabling
- Optional dual internal redundant auto-ranging AC power supplies
- Interface connection via Ethernet to Indigo AV Mixer
- Easy customization via Web browser or Grass Valley NetConfig software
- All standard features of Acappella router
- Inputs do not require external timing or synchronization

**SIMPLE CONNECTIONS**



**SPECIFICATIONS**

**Adjustable Timing Range with Full Delay Control**

- Min delay = 150 pixels (all inputs pre-synchronized)
- Std delay = 1 frame (inputs synchronized, clean-switch guaranteed)
- Max delay = 2 frames (will cause up to 3 frames of freeze if all inputs asynchronous)
- Use internal clock for synchronizing sources when reference source not present

**All Acappella routers include:**

- One RJ-45 100Base-T Ethernet connector
- One RS-232 control connector
- Two 75Ω BNC looping video reference (NTSC 525, PAL 625, or Tri-Level)

**Acappella Router**

**Dimensions**

**Height:** 1 RU 4.4 cm, 1.8 in.

**Width:** 48.3 cm, 19.0 in

**Depth:** (incl. cables) 39.2 cm, 15.4 in

**Weight:** 4.9 kg, 10.8 lbs.

**Power Consumption:** ≤40W

**Power**

90 to 260 VAC, 47 to 63 Hz

**Environmental**

**Operating Temperature:** 0 to 40°C

**Operating Humidity:** 10% to 90%, non-condensing

**High-Definition Digital Video**

**Inputs**

- Available with eight gold-plated 75Ω BNC inputs conforming to SMPTE 259M and 292M
- Return loss: >15 dB (10 MHz to 1.5 GHz)
- Automatic cable equalization ≤100 meters of Belden 1694A or equivalent for ≤1.485 Gb/s data rates or ≤300 meters for ≤270 Mb/s data rates

**Outputs**

- Available with four gold-plated 75Ω BNC outputs conforming to SMPTE 259M and 292M
- Return loss: >15 dB (10 MHz to 1.5 GHz)
- Level: 80 mVp-p (±10%) 75Ω terminating

**Operational Modes**

- Reclocking: automatic or manual selection of 143, 270, 360, 540 Mb/s or 1.485 Gb/s
- Non-reclocking or bypass: non-standard bit rates from 10 to
- 540 Mb/s for signals with one-to-zero ratio ≤20:1

**ORDERING INFORMATION**

**Options and Licensing**

Any Indigo AV Mixer may be upgraded to add the expansion. While the Indigo HD expansion is based on the Acappella router, the expansion is not a retrofit for existing Acappella units. No special software or licenses are required in addition to the purchase of the expansion hardware.

To purchase the Indigo HD expansion, use the part numbers below. Connecting standard Acappella units will not provide a synchronized switch with Indigo.

**INDG01-HR-8**

New clean-switch A84HR router

**INDG01-HR-8-UPG**

Upgrade from INDG01-HR to INDG01-HR-8

**INDG01-SDHR-8-UPG**

Upgrade from INDG01-SD to INDG01-HR-8

**CUSTOMER SUPPORT & SERVICES**

Our customer support and services offerings ensure optimal system performance and maximize uptime. These services include call centers staffed around the clock, commissioning, professional training courses, and technical maintenance programs and service agreements.

[www.grassvalley.com/support](http://www.grassvalley.com/support)

