

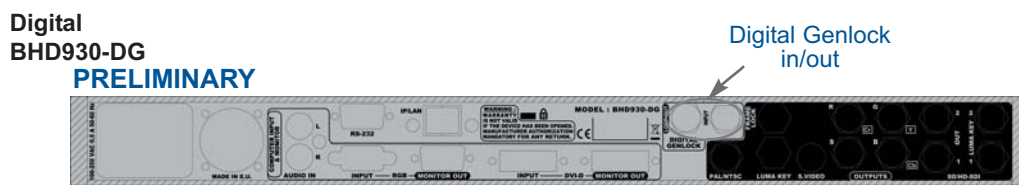
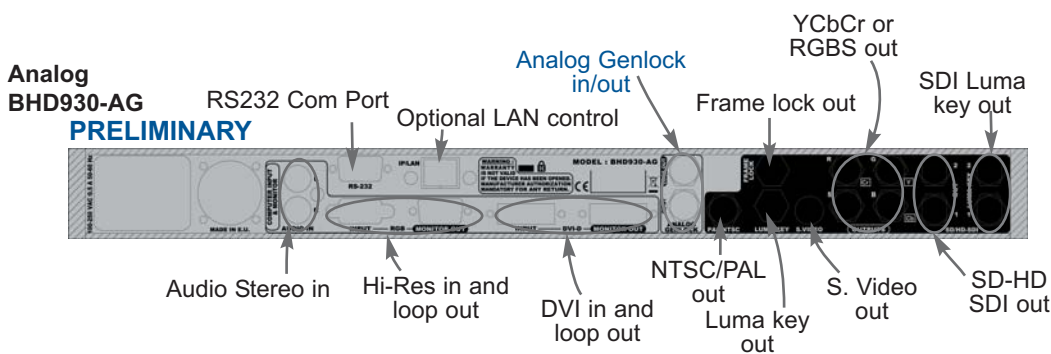
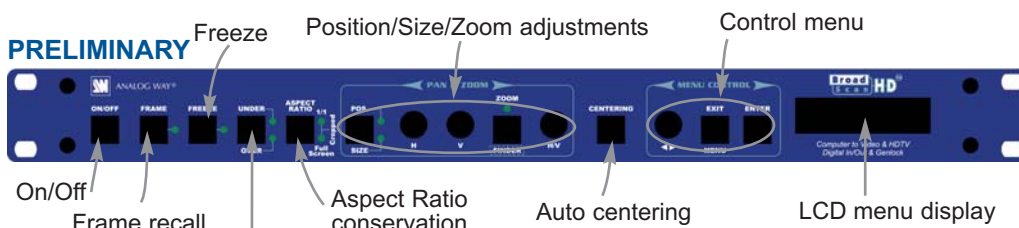
# Broad Scan HD™

## Broad Scan HD

PRELIMINARY

Models BHD930-AG  
BHD930-DG

- > Very High Resolution to Video and HDTV Scan Converter with Genlock and Embedded Audio
- > For High Definition and Standard Television Broadcast
- > DVI and RGB Computer Input up to 1920x1200
- > SD/HD-SDI 4:2:2 & SD/HDTV Analog Outputs



### FEATURES

- Workstations, PC, Mac compatible input
- Digital outputs: HD/SD-SDI 10 bits
- Analog outputs: HD/SD-YUV, NTSC/PAL, RGB, S-Video
- Embedded Stereo Audio
- Genlock: HD/SD-SDI or Analog HD Black and Black Burst
- Multi-level anti-flicker
- Horizontal & vertical filters
- 16/9, 4/3, special sized and cropped output
- Pan & zoom resizing up to 1000%
- Zoom Finder
- Frame & logo memory
- RS232 Upgradable
- Remote control software
- Ethernet interface: Optional



ANALOG WAY®

www.analogway.com

P/N: BHD930/A0207-VA

### TECHNICAL SPECIFICATIONS

#### COMPUTER INPUT:

- For PC, Mac and Workstation
- DVI-D and RGBS, RGBS, RGBHV with Automatic synchronization detection
- Resolution up to 1600x1200/60Hz & 1920x1200RB/60Hz
- Horizontal frequency from 31.5 to 130 KHz
- Vertical frequency up to 130 Hz
- Audio Stereo: Unbalanced 44kOhms - +18dB – Adjustable level

#### OUTPUTS:

- HD-SDI (x2): 4:2:2 - 10 bits – 1.5 Gbs - 75 Ohms or SDI (x2): 4:2:2 – 10 bits – 270 Mbs - 75 Ohms (fs=48KHz@20/24 bit)
- HD-YUV: HD-YCrCb - 0.7Vp/p + 3 level Sync. +/- 0.3V - 75 Ohms or YCrCb; RGBS, RGBS: 0.7Vp/p + Sync. 0.3V - 75 Ohms
- S.Video: YC - 0.7Vp/p + Sync. 0.3V - 75 ohms
- NTSC/PAL: Composite Video - 0.7Vp/p + Sync. 0.3V - 75 Ohms
- Luma key (x2): SDI/HDSDI – Same format as output - 75 Ohms
- Luma key: Analog SD/HD 0.7Vp/p - Same format as output - 75 Ohms
- Frame Lock: TTL Level – Output frame rate

#### DIGITAL GENLOCK (Model BHD930-DG):

- Input: HD/SD-SDI Black
- Output: Active loop through

#### ANALOG GENLOCK (Model BHD930-AG):

- Input: 3 level HD Black or Black Burst
- Output: Active loop through

#### USER CONTROLS AND CONNECTORS:

##### FRONT PANEL

- Standby On/Off
- Frame recall
- Freeze
- Under/Over scan
- Aspect ratio: 1/1 – Cropped - Full Screen
- Zoom up to 1000%, linear pan & scan & Finder
- Position and size
- LCD screen and control buttons for:
  - Input type and status
  - 8 level anti-flicker
  - RGB & Black level adjustment, sharpness
  - Output format selection
  - Genlock phase adjustment

##### REAR PANEL

###### • Input Connectors:

- DVI-I Female: (Digital computer in)
- HD15 Female (Analog computer in)
- BNC (Genlock in)
- RCA Audio Stereo

###### • Output Connectors:

- DVI-I Female: Active loop through
- HD15 Female: Active loop through
- BNC (x2): HD/SD-SDI
- BNC (x4): HD/SD-YUV & RGB/RGBS
- Mini Din 4 pin: S. Video
- BNC: NTSC / PAL
- BNC: Genlock Active loop through
- BNC: Analog Luma key out
- BNC (x2): Digital Luma key out
- BNC: Frame lock out
- Miscellaneous:
  - DB9: RS232 for remote control
  - RJ45: Optional Ethernet connection
  - AC Main connector with On/Off switch

#### DIMENSIONS:

- 1U, 19" compatible
- D 10.4" x W 19" x H 1.74"
- D 265mm x W 482mm x H 44mm

#### WEIGHT:

3.3 kg / 7.3 lbs

#### POWER SUPPLY:

- Internal, universal, automatic, 100-250 V; 50/60 Hz; 40 W (UL, CSA, GS, CE)

#### SUPPLIED WITH:

- 1 x AC power cable
- 1 x Remote control software
- 1 x User manual

**Broad Scan HD™** by **Analog Way** is a **Broadcast and Professional Computer to Video and High Definition TV Scan Converter**. Fitted with Digital DVI and Analog RGB input, it converts Workstation, PC or Mac graphic images up to 1600x1200@60Hz (1920x1200 RB) into Video or HDTV. Each computer input has its own monitor loop throughout for the connection of a control display. Output signal can be both analog and digital thus Broad Scan HD can provide a full Digital signal processing path from the input to the output.

**Broad Scan HD** features a powerful broadcast Genlock. Two versions of the **Broad Scan HD** offer either a Digital HD/SD-SDI Genlock (Model BHD930-DG) or an Analog HD Black or Black Burst Genlock (Model BHD930-AG). Genlock input is fitted with a loop through output allowing chaining devices. The user can adjust phase and sub-carrier delay according to his specific installation requirements. HD output formats can also be genlocked with a SD TV Black Burst signal. All Genlock timings meet broadcast ITU/SMPTE standards.

**Broad Scan HD** supports many Output formats as listed below:

- HDTV**
- 720p @ 60, 59.94 & 50 Hz (SMPTE 296M),
  - 1080i @ 60, 59.94 & 50 Hz (SMPTE 274M),
  - 1035i @ 60 Hz & 59.94 Hz (SMPTE 260M),
  - 1080sF @ 30, 29.97 & 25 Hz (RP2H/SMPTE 274M),
  - 1080p @ 30, 29.97, 25, 24, 23.98 Hz (RP2H/SMPTE 274M).
- SDTV**
- NTSC – 525i @ 60 & 59.94 Hz – 15.735 kHz - ITU / RS170-A
  - PAL – 625i @ 50 Hz – 15.625 kHz – CCIR

**Broad Scan HD** outputs different signals at the same time in one selected output format:

- **In HDTV:** Two HD-SDI and one HD-YUV 3 level sync signals are available simultaneously.
- **In SDTV NTSC/PAL:** Two SDI, one YUV or RGB, one S.Video and one Composite Video signals are available simultaneously.

**Broad Scan HD** also outputs a Luma Key signal in both Digital and Analog format. Luma key is at the same format as the output and is perfectly synchronized. In addition, a Frame Lock output allows synchronizing external device frame rate such as some graphic cards.

**Broad Scan HD** features real time conversion with high performance Image Processing. User adjustments offer an Anti-Flicker filter to significantly reduce flickering of the interlaced HD/SD-TV outputs, as well as 2D Sharpness, RGB level and Black level. It converts single wire computer type signal into black and white video image just by setting a menu. The state of the art high speed hardware FPGA allows aspect ratio control and a wide range linear or non linear zoom up to 1000%. In addition, a new "zoom finder" is provided to preview the actual part of the picture to be zoomed (H,V and H&V simultaneously). Broad Scan HD also offers a Frame Memory to store a full screen image that can be displayed at any time, as well as 1 animated or 4 still logos.

**Broad Scan HD** allows embedding analog audio Stereo signal into the HD/SD-SDI signal (fs=48 Khz@20/24 bits), with matched A/V delay.

**Broad Scan HD** is designed to be User Friendly thanks to many direct access functions such as Freeze, Frame, Under/Over scan, Aspect Ratio, Zoom position and size. It also provides easy to use and efficient menus on a clear bright blue LCD screen. LCD continuously displays Input and Output status during operations.

**Broad Scan HD** includes Computer input format memory: Up to 16 user presets are stored in the machine corresponding to 16 different input formats. The exact adjustments of the frequently used formats are instantly recalled, which makes the **Broad Scan HD** ideal and very useful for multi-computer applications or rental.

#### Cables for the Broad Scan HD

- >BNC cables from 6 ft to 66 ft - Ref 10038 -10039 -10096 -10098 -10100
- >S.Video cables from 6 ft to 66 ft - Ref 10009 -10093 -10094 -10095
- >Remote cables from 1 ft to 100 ft - Ref 10109 -10110 -10111-10112 -10113 -10114
- >SDI-HD SDI Cables from 10 ft to 100 ft M/M - Ref 10135 -10136 -10137-10138 -10139 -10140 -10141
- >DVI Cable from 6 ft to 230 ft - Ref 11000 - 11004 - 11005 - 11006 - 11007 - 11008 - E30DVI - E40DVI - E50DVI - E60DVI - E70DVI
- >VGA cable from 1 ft to 6 ft - Ref 10014 - 10015 - 10077

**WARRANTY:** 3 year warranty on parts & labor, back to the factory

Specifications are subject to change without prior notice

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