

# BPS-2020 Connection Guide

Wednesday, April 11, 2012

Note: each audio input "D" connector provides connections for 8 AES inputs that are associated with the 8 video by-pass switcher inputs. Up to four AES streams can be configured for each by-pass input by installing the optional 8X1 AES crosspoint cards. All 4 input "D" connectors use an identical pin out configuration as described in the input pin out balloon.

**AES Audio Input Pin Out:**  
 In 1: Pin 1=+, Pin 11=-; In 2: Pin 2=+, Pin 12=-;  
 In 3: Pin 3=+, Pin 13=-; In 4: Pin 4=+, Pin 14=-;  
 In 5: Pin 5=+, Pin 15=-; In 6: Pin 6=+, Pin 16=-;  
 In 7: Pin 7=+, Pin 17=-; In 8: Pin 8=+, Pin 18=-;  
 Pins 9, 10 & 19-26=gnd  
 See note above

Note: each audio output "D" connector provides connections for 2 optional AES streams associated with the 8)BPS-2020 video output.

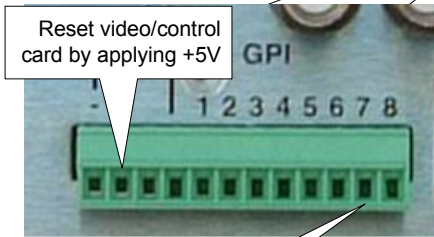
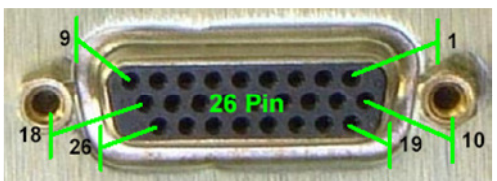
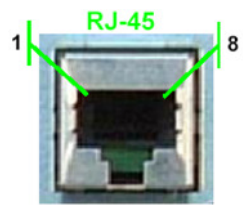
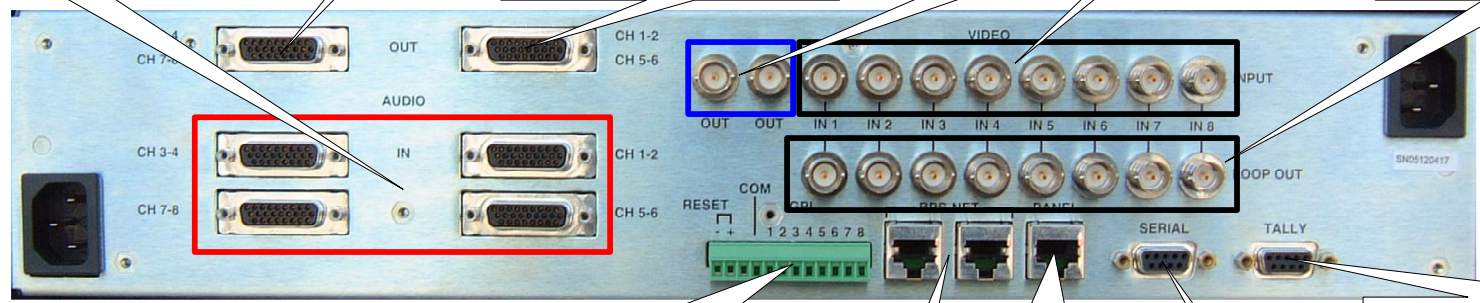
**Output Pin Out:**  
 AES 2: 1=+, 2=- (CH 3-4)  
 AES 4: 11=+, 12=- (CH 7-8)  
 Pins 3-9, 10, 13-18 & 19-26=gnd

**Output Pin Out:**  
 AES 1: 1=+, 2=- (CH 1-2)  
 AES 3: 11=+, 12=- (CH 5-6)  
 Pins 3-9, 10, 13-18 & 19-26=gnd

2 video Program output BNC's. The BNC labeled **OUT** is inverted.

8 source BNC connections. Typically the master control program output connects to the source 1 BNC, with the other source BNC's being connected to sources that are used while the master control is being bypassed. BPS-2020 supports SMPTE259 and 292 digital video sources.

Optional video DA board provides 8 active loop through video sources for use with downstream devices.



Reset video/control card by applying +5V

A closure between COM and connectors 7 and 8 will switch the bypass to the corresponding input.

Note: both the BPS-8 and BPS-16 can be connected at the same time. Providing local & remote control

BPS-NET provides control of up to 8)BPS-2020's with 1)BPS-16 master panel via CAT5 cable.

BPS-8 control panel connected via a CAT5 cable.

Active Source Tally: Selected source drives the corresponding pin to >+3V.  
 Pin#s  
 Source 1=1, 2=2, 3=3, 4=4, 5=5, 6=6, 7=7, 8=8. Pin 9=gnd

RS-232 or RS-422 serial port, 19.2K or 38.4K baud. Protocol is either USI RCP-1 or GVG 10XL.  
**RS-232** pin #'s: 2-TX, 3-RX, 5-gnd.  
**RS-422** pin #'s: 2=TX-, 3=RX+, 5=gnd, 7=TX+ & 8=RX-. Jumper J12 & J13 select RS-232 or RS-422. For RS-232 set both jumpers between pins 1&2; for RS-422 set both jumpers between pins 3&4.

# BPS-2020 Front View

Wednesday, April 11, 2012

**Optional Video DA slot for active loop-through inputs.**

**Debug port. Use supplied RJ-45 to 9 pin adapter (labeled UT 400) and user supplied CAT-5 cable. Terminal emulation, using Hyperterminal or TeraTerm, is set to: 38400 baud, 8N1, no flow control**

**RJ-45 Adapter**

**Video/Control board**

**Optional AES audio input board slot**

**Power Supply LED's**

- Alarm (Green)
- Fan (Red)
- Temp -12 (Red)
- +12 (Red)
- +3.3 (Red)
- +5 (Red)

**Power Supply LED's**

- +5 (Red)
- +3.3 (Red)
- +12 (Red)
- 12 (Red)
- Temp (Red)
- Fan (Red)
- Alarm (Green)

**Crosspoint (Left)**

**Crosspoint (Right)**

**2nd slot for optional audio input board**

**SMPTE Alarm (Red) DS-9**

**Reference OK (Green) DS-7**

**Clean/Quiet Module Active (Green) DS-10**

**VCO Lock (Green) DS-6**

**Switch 1 Dipswitch (1, 2, & 4 - BPS Net only)**

**Red = board is in "Reset" and no operation can occur.**

**Local board reset**

**P1 Diagnostic Port**

**Green = Power Okay**

**Binary representation of which of the 8 sources is currently selected. All off = source 1; all on = source 8**