## Multi-Standard Component to 10-Bit Serial
Digital Converter

The BVV2SD10 converts NTSC or PAL-B composite or Y/C analog video to SMPTE 259M Serial Digital (CCIR 601) video. A rotary mode selector and two momentary increment and decrement push buttons allow for input standard selection as well as individual video processor level controls. In addition, the unit features four SDI outputs and composite input loop through.
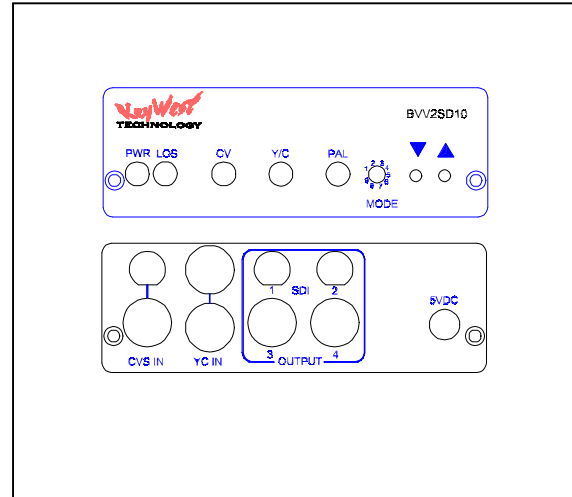
SPECIFICATIONS:

- Accepts analog composite and Y/C NTSC and PAL-B video (output standard same as input standard)
- Quad-Output NTSC or PAL-B 10-Bit SMPTE 259M Serial Digital (CCIR 601) video.
- Analog composite loop
- Individual proc amp level control
- Professional 75 ohm BNC input and output connectors
- Stand-alone, or rack mount four units across with Keywest 19" rack kit (kit not included)
- 5 VDC operation (wall transformer included)
- 80dB typical SNR
- 5.8 MHz typical luma NTSC bandwidth (to 3dB)
- 7nS typical frame input to output delay
- Ambient operating temperature 0 to + 70 °C

ORDERING INFORMATION

Part #	Options
BVV2SD10	Rack Kit, Rack Kit Blanks

APPLICATIONS

- ➢ In studio conversions
- ➢ Truck/van conversions
- ➢ Utilize SDI equipment with current analog equipment in any situation
- ➢ Transmit video noise-free over distances (with single cable)
- ➢ Reduce SDI conversion budget by avoiding replacement of entire suite

OPERATING INSTRUCTIONS

Front Panel Controls & Indicators
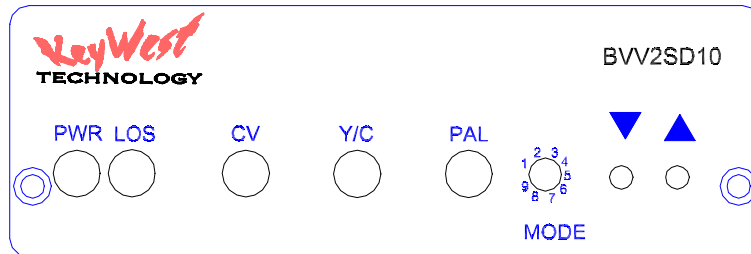
PWR

The PWR LED illuminates, and remains illuminated when 5VDC is applied to the device

LOS

The LOS LED indicates a loss-of-sync condition. The LOS LED will illuminate when input video is not present, or of invalid format. For example, the LOS condition can be caused by removing input video; or LOS can be caused by setting the unit to PAL-B operation, and inputting NTSC; or LOS can be caused by poor input video with unusable or absent sync

CV

The CV LED illuminates when composite video is selected as the input source

Y/C

The Y/C LED illuminates when Y/C (or S-Video) is selected as the input source

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PAL

The PAL LED illuminates when PAL-B is the selected input standard; the LED is extinguished when NTSC is the selected input standard

Rotary Knob

The Rotary Knob selects any one of 10 possible functions of the unit. Not all functions are used. Turn the knob so that the inset arrow points to any one of the dial-face numbers printed around it. A description of each of the numbered functions is shown in section "FUNCTION"
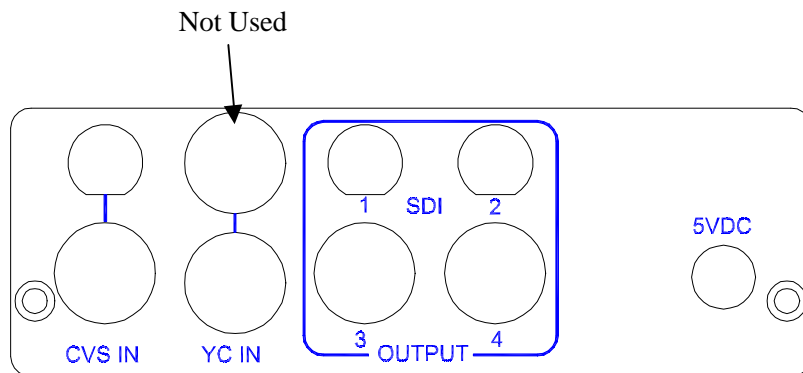
▼

The down arrow is used in conjunction with the rotary knob to decrement selected proc amp values and other modes. See section "FUNCTION"

▲

The up arrow is used in conjunction with the rotary knob to increment selected proc amp values and other modes. See section "FUNCTION"

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CONNECTIONS

Not Used

CVS IN   YC IN   SDI 1 2   OUTPUT 3 4   5VDC

CVS IN

BNC connector labeled CVS IN is for inputting analog composite video (PAL-B or NTSC as selected)

Composite Loop

The BNC connector above the CVS IN connector is a loop output for the analog composite input (to use in Loop mode, a jumper must be removed from the internal circuit board—see section "PRINTED CIRCUIT BOARD ASSEMBLY")

YC IN

4-Pin Mini-DIN connector labeled YC IN is for inputting analog Y/C video (PAL-B or NTSC as selected)

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OUTPUT (SDI 1, 2, 3, and 4)

The output SDI BNC connectors are four identical serial digital (SMPTE 259M) outputs. The quad-output device eliminates the need for serial digital distribution amplifiers in most installations. (Should more than four SDI outputs be required, Keywest Technology recommends Keywest Technology BV1X4SD—serial digital distribution amplifier)


5 VDC

This connection is the power input receptacle. Input only approved 5 VDC sources provided by Keywest Technology. Use of alternate power supplies may void your warranty. This connection is a screw-lock type, enabling positive connection in the most rugged environments

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Functions

Rotary Mode Switch

The rotary mode switch is a 10-detent switch. The BVV2SD10 uses only eight of those detents as described below. On the unit, each detent is marked by a number (see illustration below).
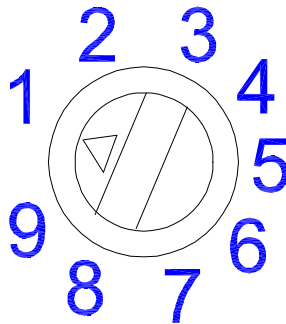
Position 1—Contrast Adjustment

Rotate the switch to the "1" position. Press the ▲ (increment) or the ▼ (decrement) button to adjust output contrast

Position 2—Brightness Adjustment

Rotate the switch to the "2" position. Press the ▲ (increment) or the ▼ (decrement) button to adjust output brightness

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Position 3—Hue Adjustment

Rotate the switch to the "3" position. Press the ▲ (increment) or the ▼ (decrement) button to adjust output hue (color phase—UV balance)

Position 4—Chroma Adjustment

Rotate the switch to the "4" position. Press the ▲ (increment) or the ▼ (decrement) button to adjust output chroma level (UV gain)

Position 5—Not Used

Position 6—Sharpness Adjustment

Rotate the switch to the "6" position. Press the ▲ (increment) or the ▼ (decrement) button to adjust output sharpness (Detail)

Position 7—Input Format

Rotate the switch to the "7" position. Press the ▲ (increment) or the ▼ (decrement) button to alternately select CV (composite) or Y/C input format

Position 8—Standard

Rotate the switch to the "8" position. Press the ▲ (increment) or the ▼ (decrement) button to alternately select I/O video standard NTSC or PAL-B (input and output standards must match for proper operation)

Position 9—Pedestal On/Off

Rotate the switch to the "9" position. Press the ▲ (increment) or the ▼ (decrement) button to alternately add or remove 7.5 IRE Pedestal (Normal default operation is a valid CCIR 601 stream that does not contain 7.5 IRE Setup)

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STORING SETTINGS

The BVV2SD10 automatically stores the user settings after actuation of any switch or button. The unit will auto-store these settings 10 seconds after the last turn of a switch or push of a button. There is no provision to store settings in any other manner

PRINTED CIRCUIT BOARD ASSEMBLY LAYOUT & LANDMARKS

Y/C Luma Input Terminator

Y/C Chroma Input Terminator

Composite (CV) Input Terminator

JP4

Terminator Jumper Block JP4

KEYWEST TECHNOLOGY, INC.
ADV 10 BIT / SDI-OUT
PCB 50167 REV 04
MADE IN USA

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