

# INDAY

Multimedia Accessories

## SVDA-1 S-Video Distribution Amplifier

### Overview And Uses

The SVDA-1 is a 4 output S-Video distribution amplifier designed for the Broadcast, Video Production and Multimedia environments. Its most common application will be to distribute the output of a VCR or other S-Video source to Switchers, Routers, Monitors and other VCR's while maintaining picture quality.

Often times the output of a VCR or Computer Based Editing system has only One S-Video connector. This can be quite limiting if you need to make multiple dubs of a finished project or you need to monitor the quality of the signal BEFORE it passes through another VCR or piece of processing equipment. Figure 1 shows a typical application that overcomes these problems.

S-Video is a much cleaner way to distribute Video signals. Its component nature reduces the interference and distortion that is often seen in NTSC Video. The longer you can keep a Video signal in its component format the cleaner the end product will look. Although the SVDA-1 cannot make "Poor" video look any better, it will not add any noise or distortion to it.

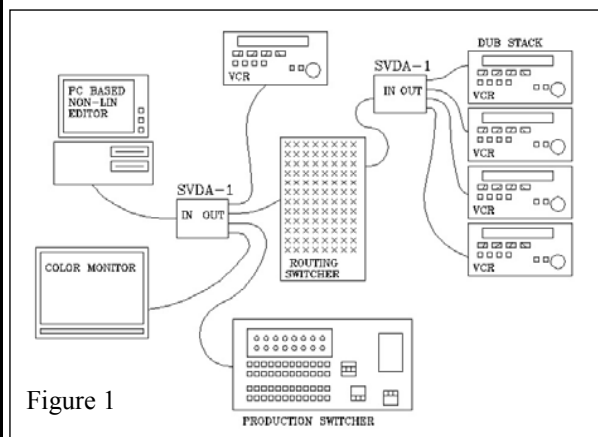


Figure 1

### Installation

The SVDA-1 comes shipped ready to use. The proper Wall Transformer is supplied. Simply connect your source to the SVDA-1 input and connect outputs as needed. Under most circumstances no gain adjustment should be required. The unit is shipped with gain set for unity. A 1Vp-p input will produce 4-1Vp-p outputs. However if your Input level is low or the outputs are driving long (>200 ft.) cables, the Y and C gain may need to be adjusted. See the next section for alignment procedures.

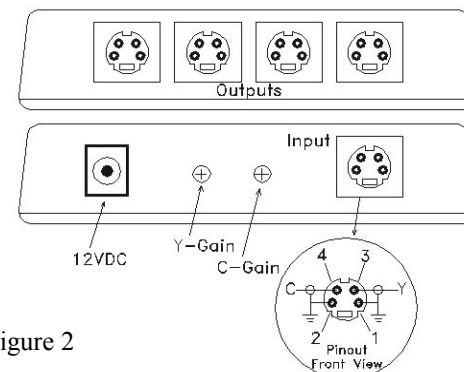


Figure 2

### Y/C Delay Notes

Y/C Delay is the leading or lagging of the Chroma signal in time, referenced to the Luminance signal. The SVDA-1 has no provision to correct this error. Delays less than 100ns usually do not cause problems. If there is a gross delay error, a Delay Line must be inserted in either the Y or the C signal path. The delay line can be just a piece of Coax cable or a Delay Box with switches. The Delay Box should be capable of at least 300ns. If Coax is used remember that 1ns equals 0.648-ft. (7.778") of cable. For example, a Chroma delay of 281ns can be corrected by inserting 182 ft. of coax in the Y signal path.

# Alignment

If critical level adjustment becomes necessary you will need a Y/C Test Generator, such as a Tektronix TSG 120, a Dual channel Oscilloscope and an S-Video to BNC adapter. If these are not available, accurate level settings cannot be made. In most cases the gain controls should be kept around the 10 o'clock position. This assumes a 1V p-p input. If you have the necessary test equipment proceed as follows:

- 1- Connect Y to Oscilloscope CH-1
- 2- Connect C to Oscilloscope CH-2
- 3- Terminate both channels with 75 ohms
- 4- Adjust Y for 1Vp-p using Color Bars & Bar Pulse & Bar
- 5- Put Oscilloscope in Dual Add mode
- 6- Adjust C level to match the Color Bars White Flag -or- Adjust C level using a Pulse & Bar signal by flattening out the bottom of the 12.5T pulse.

See Figure 3.

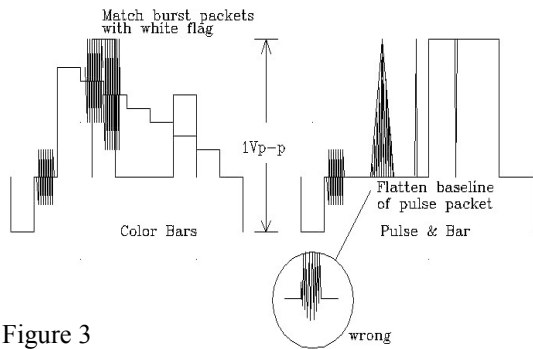


Figure 3

# Specifications

## INPUT:

4-pin mini Din (SVHS)  
Y-channel 1Vp-p terminated  
C-channel .8Vp-p terminated

## OUTPUT:

Four 4-pin mini Din  
Y-channel 1Vp-p \*  
C-channel .8Vp-p \*  
Impedance 75 ohms  
Noise > 60dB below 1Vp-p  
Frequency Response DC - 10Mhz +/- .3dB  
Y/C delay < 2ns

## GAIN:\*

-4.5dB to +3dB both Y & C  
.6V p-p to 1.4V p-p Y-channel  
.45V p-p to 1.05Vp-p C-channel

## POWER:

12VDC (18VDC Max) @ 200ma Max.  
Wall Transformer supplied

## DIMENSION:

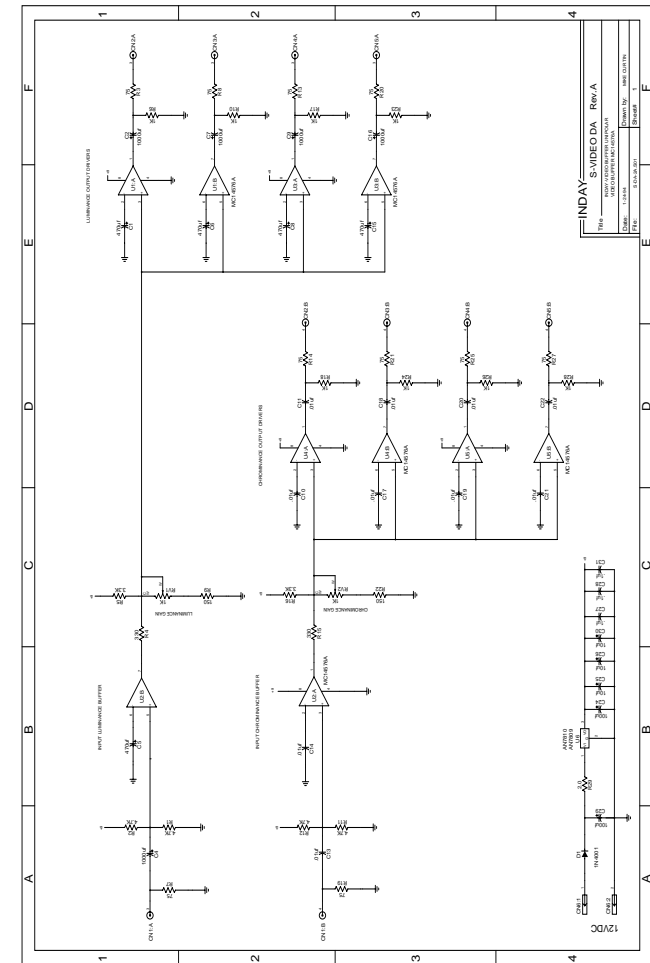
4"W x 5"L x 7/8"H

## TEMPERATURE

0 TO 50 DEGREES C

## HUMIDITY

0 TO 90% (non-condensing)



# Disclaimer

This manual has been checked for accuracy. Inday assumes no liability for damages incurred directly or indirectly from errors or omissions or from the use and suitability of this product for a particular application.