

Comprehensive[®]
VIDEO GROUP
The Interface Place[®]

PREMIUM INTERFACE PRODUCTS

USER MANUAL

Models:

CVG-3AVR, 1:3 Audio/Video DA

CVG-3AVB, 1:3 Audio/Video DA



For maximum results, use Comprehensive Brand Premium High Resolution cables and connectors.

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1 Introduction

Congratulations on purchasing your **CVG-3AVR** and/or **CVG-3AVB 1:3 Audio/Video DA**, which are ideal for the following applications:

- Video/Audio duplication studios
- Retail outlets and home theater systems

The package includes the following items:

- **CVG-3AVR** and/or **CVG-3AVB 1:3 Audio/Video DA**
- Power adapter(s)
- This user manual

2 Getting Started

We recommend that you:

- Unpack the equipment carefully and save the original box and packaging materials for possible future shipment
- Review the contents of this user manual

3 Overview

The **CVG-3AVR** and/or **CVG-3AVB 1:3 Audio/Video DA** are exceptionally high performance 1:3 distribution amplifiers for video and stereo audio signals. The **CVG-3AVR** and/or **CVG-3AVB** accept one input¹ and distribute the signal to 3 identical outputs.

Video signals transmit via:

- RCA connectors on the **CVG-3AVR**
- BNC connectors on the **CVG-3AVB**

Both the **CVG-3AVR** and/or **CVG-3AVB** include:

- RCA connectors for stereo audio signals
- Extra wide video bandwidth of 430MHz that allows for high-resolution data/video signals, SDI (serial digital) video and other specialized signals
- An audio level control knob
- Front panel cable EQ (equalization) and video level trimmer controls

¹ Typically, a composite video source (such as VCR or camera)

Achieving the best performance means:

- Connecting only good quality connection cables, thus avoiding interference, deterioration in signal quality due to poor matching, and elevated noise levels (often associated with low quality cables)
- Avoiding interference from neighboring electrical appliances that may adversely influence signal quality and positioning your **CVG-3AVR** or **CVG-3AVB** away from moisture, excessive sunlight and dust

4 Your Audio/Video DA

Figure 1 illustrates the front and rear panels of the **CVG-3AVR**:

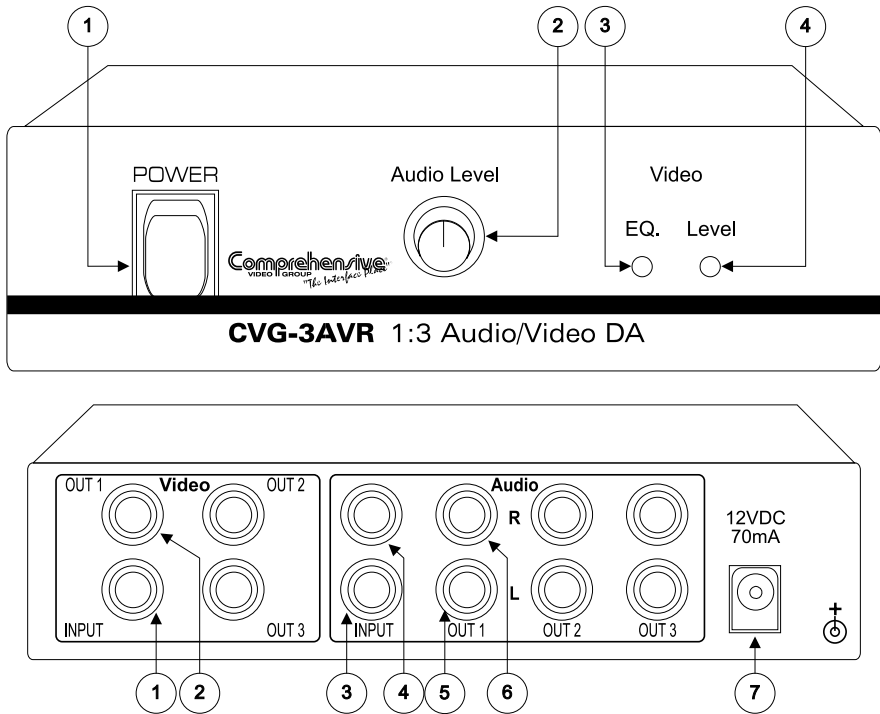


Figure 1: CVG-3AVR 1:3 Audio/Video DA

Figure 2 illustrates the front and rear panels of the **CVG-3AVB**:

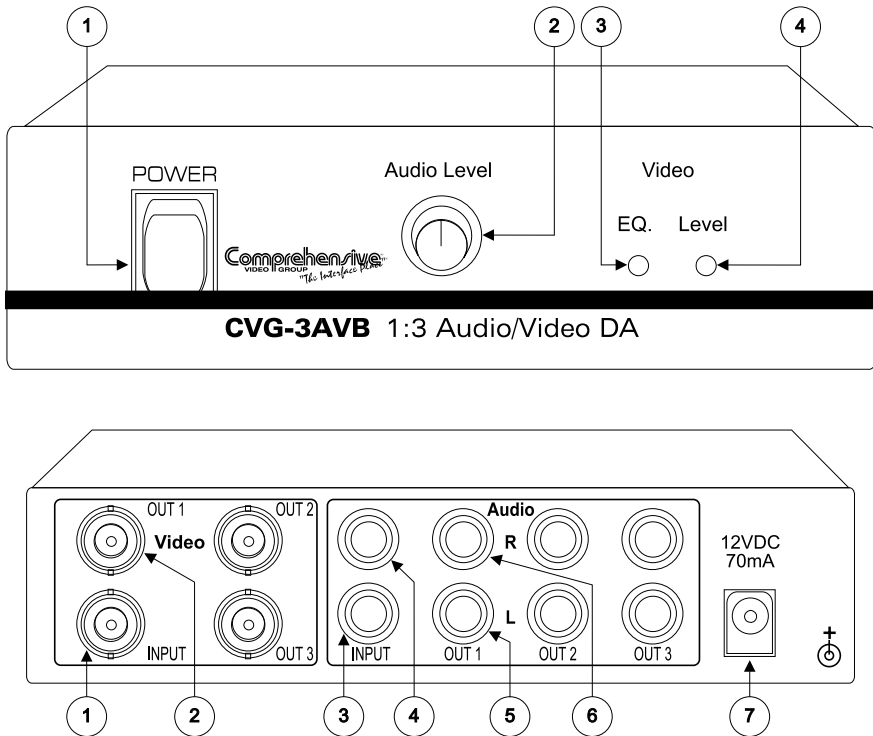


Figure 2: CVG-3AVB 1:3 Audio/Video DA

Table 1 and Table 2 define the front and rear panels of the **CVG-3AVR** and the **CVG-3AVB**, respectively.

Table 1: Front Panel CVG-3AVR and CVG-3AVB 1:3 Audio/Video DA Features

#	Feature	Function
1	POWER Switch	Illuminated switch supplying power to the unit
2	Audio Level Knob	Adjusts the audio output signal level
3	Video EQ. Trimmer	Adjusts ¹ the video EQ. (equalization) compensation
4	Video Level Trimmer	Adjusts ¹ the video signal level

¹ Insert a screwdriver into the small hole and carefully rotate it, to trim the appropriate level

Table 2: Rear Panel CVG-3AVR and CVG-3AVB 1:3 Audio/Video DA Features

#	Feature	Function
1	Video INPUT CVG-3AVR: RCA Connectors	Connects to the video source
2	Video OUT CVG-3AVB: BNC Connectors	Connects to the video acceptor (from 1 to 3)
3	Audio INPUT (L) RCA Connector	Connects to the left audio source
4	Audio INPUT (R) RCA Connector	Connects to the right audio source
5	Audio OUT (L) RCA Connector	Connects to the left audio acceptor (from 1 to 3)
6	Audio OUT (R) RCA Connector	Connects to the right audio acceptor (from 1 to 3)
7	12 VDC 70mA	+12V DC connector for powering the unit

5 Using Your Audio/Video DA

Section 5.1 describes how to connect a **CVG-3AVR/B**. Section 5.2 describes how to configure a 1:3 Audio/Video DA for Component (YUV) or RGB. You can also use the **CVG-3AVR/B**, with its very high frequency, to process SDI (serial digital interface) video.

5.1 Connecting a CVG-3AVR/B

Connect¹ the CVG-3AVR/B 1:3 Audio/Video DA, as Figure 3 illustrates, as follows:

1. Connect a composite video source to the video input connector.
2. Connect up to 3 video output connectors to the appropriate audio video acceptors.
3. Connect the audio source to the right and left audio input connectors.
4. Connect up to 3 right and left audio output connectors to the appropriate audio video acceptors.
5. Connect the 12V DC power adapter to the power socket and connect the adapter to the mains electricity.
6. Adjust the audio level and the video EQ. and video level, as required.

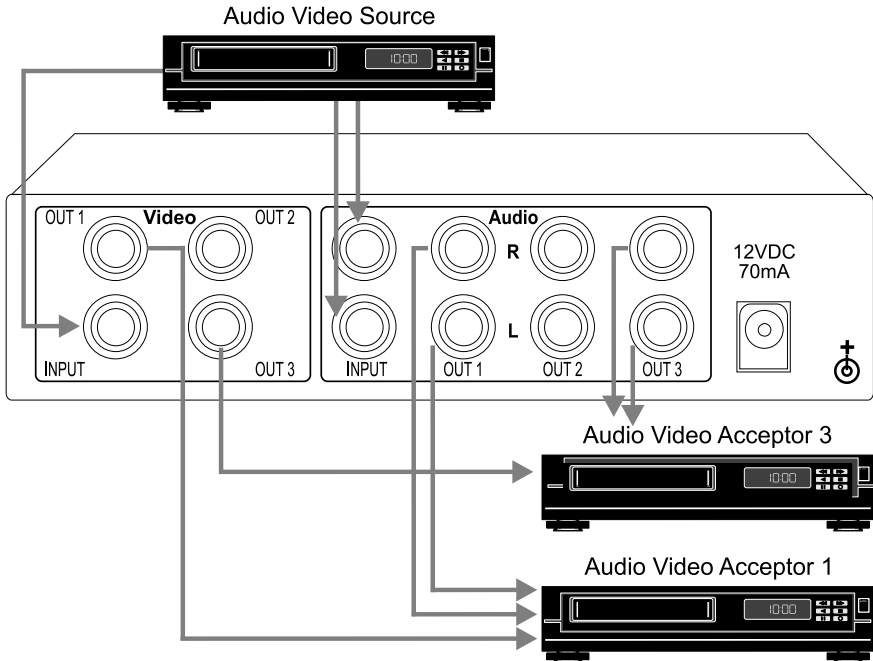


Figure 3: CVG-3AVR 1:3 Audio/Video DA Connection

¹ Switch OFF the power on each device before connecting it to your CVG-3AVR/B. After connecting your CVG-3AVR/B, switch on its power and then switch on the power on each device

5.2 Configuring a 1:3 Audio/Video DA for Component (YUV) or RGB

Configure a 1:3 Audio/Video DA for component (YUV) or RGB by combining 3 **CVG-3AVR/B** units, as Figure 4 illustrates.

Connect¹ the 1:3 Audio/Video DA for component (YUV) or RGB, as follows:

1. Connect the RGB source, by connecting:
 - The R cable to the first unit's INPUT connector
 - The G cable to the second unit's INPUT connector
 - The B cable to the third unit's INPUT connector
2. Connect the first RGB acceptor, by connecting the OUT 1 connector from the:
 - First unit to the R cable
 - Second unit to the G cable
 - Third unit to the B cable
3. Connect the second RGB acceptor, by connecting the OUT 2 connector² from the:
 - First unit to the R cable
 - Second unit to the G cable
 - Third unit to the B cable
4. Connect the third RGB acceptor, by connecting the OUT 3 connector from the:
 - First unit to the R cable
 - Second unit to the G cable
 - Third unit to the B cable
5. Connect the audio source and acceptors, as required.
6. On each **CVG-3AVR/B** unit, connect the 12V DC power adapter to the power socket and connect the adapter to the mains electricity.
7. Adjust the audio level and the video EQ. and video level, as required, on the front panel on the first **CVG-3AVR/B** unit.
This adjusts the levels on the combined 3 **CVG-3AVR/B** units.

¹ Switch OFF the power on each device before connecting it to your CVG-3AVR/B units. After connecting your CVG-3AVR/B units, switch on the power on each of the CVG-3AVR/B units and then switch on the power on each device

² Not illustrated in Figure 4

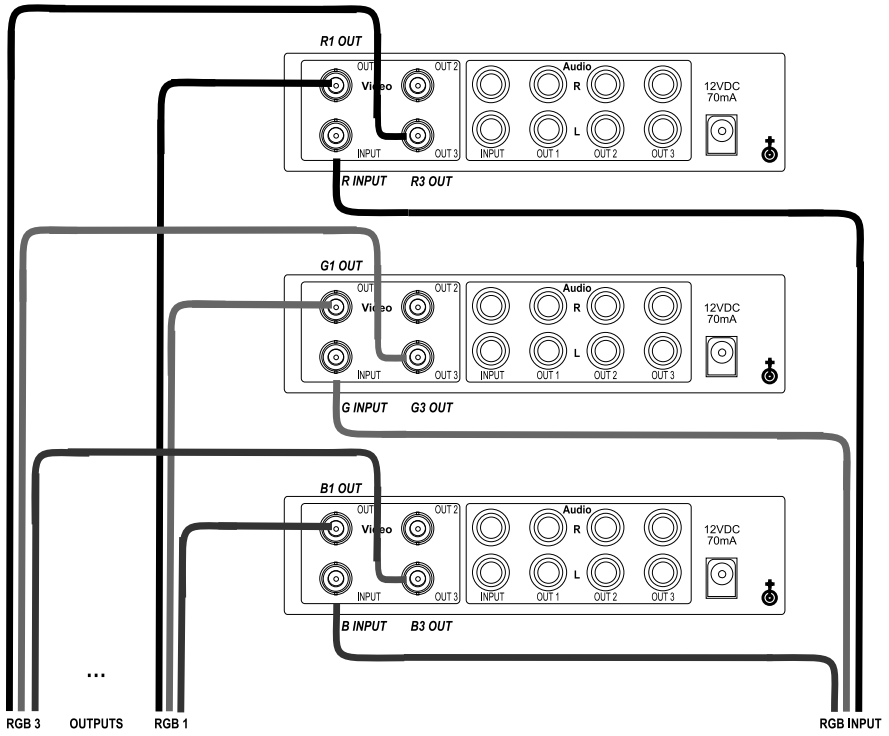


Figure 4: Configuring a 1:3 Audio/Video DA for Component (YUV) or RGB

6 Technical Specifications

Table 3 includes the technical specifications.

Table 3: Technical Specifications¹ of the CVG-3AVR and CVG-3AVB

Inputs:	1 composite video 1 Vpp/75Ω: RCA connector (CVG-3AVR); BNC connector (CVG-3AVB) 1 stereo audio, 4.8 Vpp / 73kΩ on RCA connectors
Outputs:	3 composite video 1 Vpp/75Ω: RCA connectors (CVG-3AVR); BNC connectors (CVG-3AVB) 3 stereo audio, 1 Vpp / 150Ω on RCA connectors
Coupling:	AC
Bandwidth:	<i>Video:</i> 430MHz (-3dB), 370MHz (-0.1dB), Full Load; <i>Audio:</i> >100kHz (-3dB), 20kHz (-0.1dB)
Gain Range:	<i>Video:</i> -1.1dB to +1.8dB; <i>Audio:</i> -66dB to +16dB
Maximum Output:	<i>Video:</i> 2.0Vpp; <i>Audio:</i> 5.4Vpp
Video Equalization:	0 to +14.6dB
S/N Ratio:	<i>Video:</i> 73.1dB; <i>Audio:</i> 83dB
Video Non-linearity:	0.1%
Differential:	Gain: 0.04%; Phase: 0.07 Deg
THD (Audio)/Noise:	0.38% @ 1kHz
2 nd Harmonic:	0.02% @ 1kHz
K-Factor:	<0.05%
Dimensions:	16.5cm x 12cm x 4.5cm (6.5" x 4.7" x 1.7", W, D, H)
Power Source:	12 VDC, 45mA
Weight:	0.6kg (1.3lbs.) approx.
Accessories:	12 VDC power supply

¹ Specifications are subject to change without notice