



DA-20 CDA-20
DA-12 MDS-12 LDA-100



Instruction Manual

Thank you for purchasing one of our products. Please read this manual before using this product. When using this product, always follow the instructions contained in this manual, and pay attention to the safety information.

WARNING!

Do not expose this product to water, rain or moisture.

Doing this can result in electric shock or fire.

Never take this product apart or try to modify it.

Doing so is very dangerous and could result in electric shock.

Do not store this product near open flame.

Do not use this product near open flame or place lit or flammable items, such as candles, incense, ect., on it.

Do not place any containers filled with water or other liquids near this product.

Doing so could result in fire or electric shock if the liquid spills and enters the product or gets it wet. If a liquid spills near this product, unplug the product immediately.

Do not remove or insert the power supply with wet hands.

Doing so could result in electric shock.

Do not use the power supply in any of the following ways.

Doing so could result in fire or electric shock.

Modifying or heating the power cable

Damaging the power cable

Bending or tugging on the power cable unnecessarily

Knotting or kinking the power cable

Setting heavy objects on the power cable

When moving this product , first unplug the power supply from the outlet. Do not tug the cable or move this product with the power supply plugged into the outlet.

Doing so could damage the cable, possibly resulting in fire or electric shock.

To reduce the risk of electric shock, do not remove the cover.

No parts inside the product can be serviced by the user. If your product needs service contact

Compu-Video Systems Inc. at (845) 737-7009.

Usage Environment

Avoid using or storing this product in areas such as those listed below. Doing so could damage the product or cause it to malfunction.

Areas exposed to heat or flames

Humid areas and areas where water is used

Handling this product

Do not drop or apply a strong force to this product or any included or connected parts.

Do not spill liquids around or inside this product or drop flammable objects around or inside it.

Power Supply

Only use the supplied power supply which is designed specifically for this product.

Do not allow the plug to come into contact with metal or water.

This Product is not designed for contact medical use

Do not use this product for medical applications that could result in patient contact.

1) Determine the model number

Model	Inputs/outputs		Controls	Special features
LDA-100	1	1	Gain Only	Wall mount
LDA-100HT	1	1	Gain Only	HighTemp operation
DA-12	1	2		
MTA-12	1	2		Mobile applications
DA-20	1	2	Gain, High Freq.	Gnd loop isolation CAT-5/Coax input

2) Determine the mounting location:

Model	Mounting locations:
LDA-100	Just after camera or in center of cable run
LDA-100HT	Just after camera or in center of cable run
DA-12	As close to center of the two output feeds.
MTA-12	As close to center of the two output feeds.
DA-20	As close to center of the two output feeds.

Tools and equipment requirements, LDA-100/HT, MTA-12:

- _____ 1/8" straight blade screw driver
- _____ 12VDC-18VDC power adapter, UL Listed CVS part # CVT-1230 or a 18-24VAC camera power supply.
- _____ Four # 8 x 3/8 sheet metal screws to mount unit on wall. 4 rubber feet supplied for table top use.
- _____ Oscilloscope
- _____ 75 ohm terminator
- _____ BNC "T" type connector

3) Installation:

Wall Mount LDA-100/HT, MTA-12: Before the unit is to be mounted you will need determine where to mount it, allowing for clearance for the BNC connectors and the cables. Do not mount the unit over a heat source! Using the four #8 screws, secure the unit to the mounting surface.

Table Top LDA-100/HT, MTA-12: If you wish to table top the LDA-100/HT, MDA-12, install the 4 rubber feet on the bottom of the unit. Place them so that they cover the 4 holes that would be used for surface mounting. The DA-20 and The DA-12 are table top units.

After the unit has been placed, you can connect the power.

For the DA-20, Hum in a video picture can be caused by several things:

- A) ground loop
- B) power supply failure
- C) induced hum due to proximity of ac power feeds.

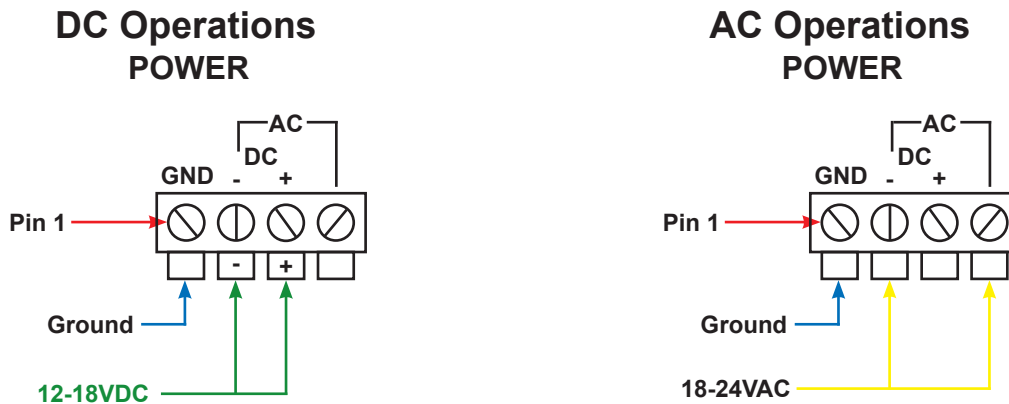
The DA-20 is designed to only reduce or eliminate ground loop hum between two points and will have minimal to no effect on the other types of distortion. If you have any splices or bare cables that may be touching metal between the camera and the DA-20, isolate it with tape so that it does not touch any other metal items.

Ground loops usually become visible when several cameras are connected together at a switcher or a quad screen splitter. The problem also occurs when a camera is located in a different "ground" plane than the monitor is located in. The hum or interference is caused by the differences in ground voltages from each device mixing together. By using the DA-20 to isolate the signal and the ground, the problem is resolved. The main thing is not to have the two outputs feeding different locations, as you could get a ground loop on the output side of the DA.

4) Connect the Power

WARNING! The DC power cannot be from the same supply as the DC camera or video source. It must be from an isolated source. For units that can work with a common DC source use the MDS-12.

If AC power is used, a separate transformer for the DA-20 product should be used. Multiple DA-20s can be attached to one transformer, but not one with any camera on it.

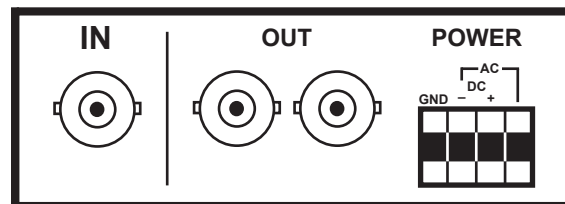
Fig. 1**Power Wiring Diagram**

Make sure that the wires are secure in the power connector. **If you use the earth ground on the unit, this cannot be the same as or common to the (-) on the 12-18VDC or one side of the AC power.**

SIGNAL ADJUSTMENTS FOR THE LDA-100, DA-20:

On the LDA-100 and the DA-20 there is a opening on the front panel for the gain control. Insert a small straight edge screwdriver to adjust. Connect a 1VPP signal to the video "in" of the unit. With an oscilloscope connected to the output and the output cable terminated in 75 ohms, adjust the gain control so that the sync signal is 280mv or if a 1VPP test signal is available, adjust the gain control for an overall level of 1VPP at the end of the cable.

On the DA-20, the HF control is adjusted for the sharpest picture desired.

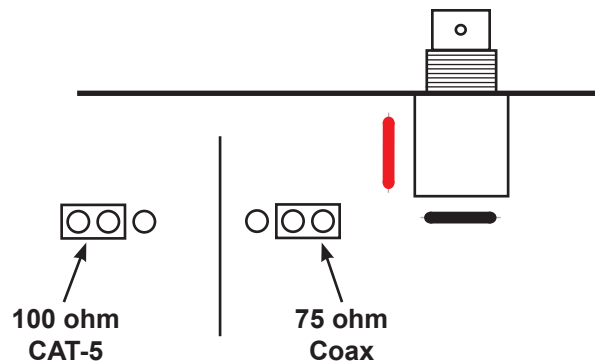
Fig. 2**Rear View Of Chassis**

DA-20: 75 ohm Coax /100 ohm CAT-5 selection

To convert an input for the DA-20 from 75 Ohm to 100 ohm for Cat-5 perform the following steps:

- Disconnect the power from the unit and remove the cover of the unit by taking out the two side screws.
- Identify which input you want to convert and go to just above the input connector at the rear of the PC board.
- Move the suitcase jumper to the right as shown in figure 1:

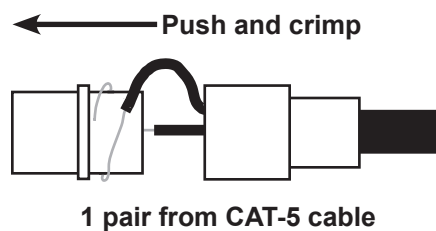
Fig. 3
Jumper Set Up



d) Reinstall the cover and connect the power.

To Install a BNC connector on the CAT-5 cable:

Fig. 4
BNC Connector Wiring



Placement in system: The DA-12/20 should be placed as near the end of a system as possible.

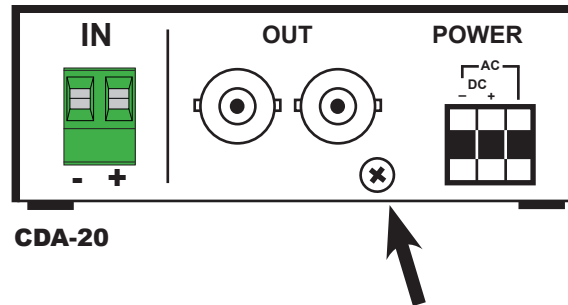
- 1) Disconnect the feed from the camera at the end by the monitor, switcher or VCR. Connect the camera feed to DA-12/20 input. Connect one output to your Monitor, switcher or VCR. and verify that the hum is reduced or eliminated.
- 2) Adjust the front panel video gain for the desired level
- 3) Adjust the HF adjust for the sharpest possible picture.

CDA-20 Operations:

The CDA-20 is a 1x2 Video DA with 1 UTP input and 2 BNC outputs in a single Chassis. The input has built in Ground Loop protection to provide superior video performance. The Maximum UTP Cable length on the UTP input is 1200ft., for any system requiring more then 1 CDA-20 we recomend the DA-2160, which can have up to 16 CDA-20s in it.

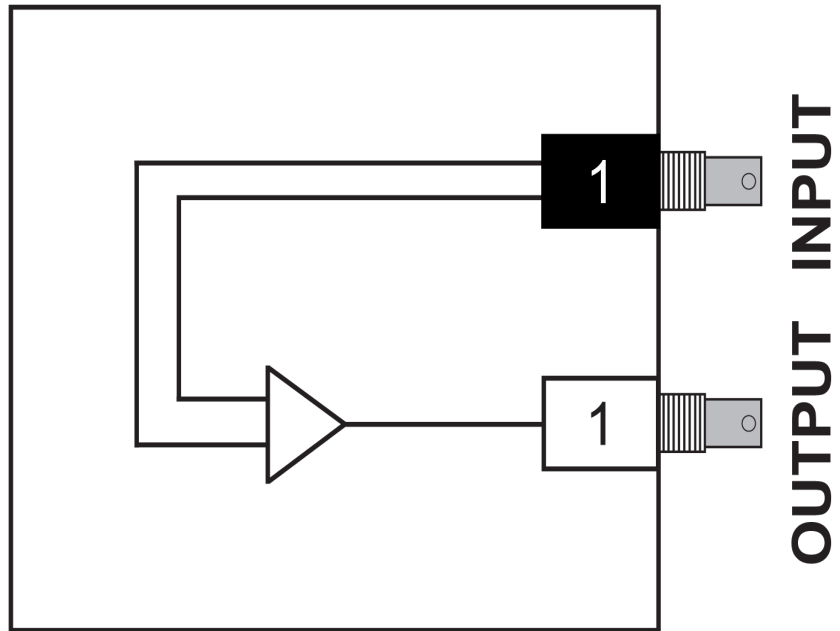
The CDA-20 & the DA-20 are now equipped with surge suppression. To ensure maximum effectiveness the unit must be tied to an earth ground. This will give you +/-15kv (air) +/-8kv (contact) in protection.

Fig. 5
Grounding

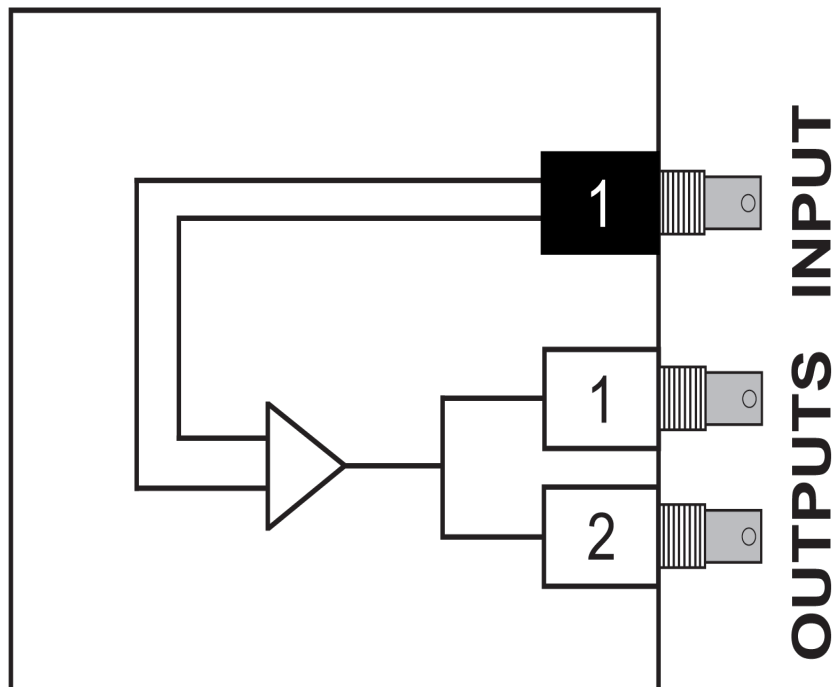


**Tie To Earth Ground To
Guarantee Maximum
Transient Suppression**

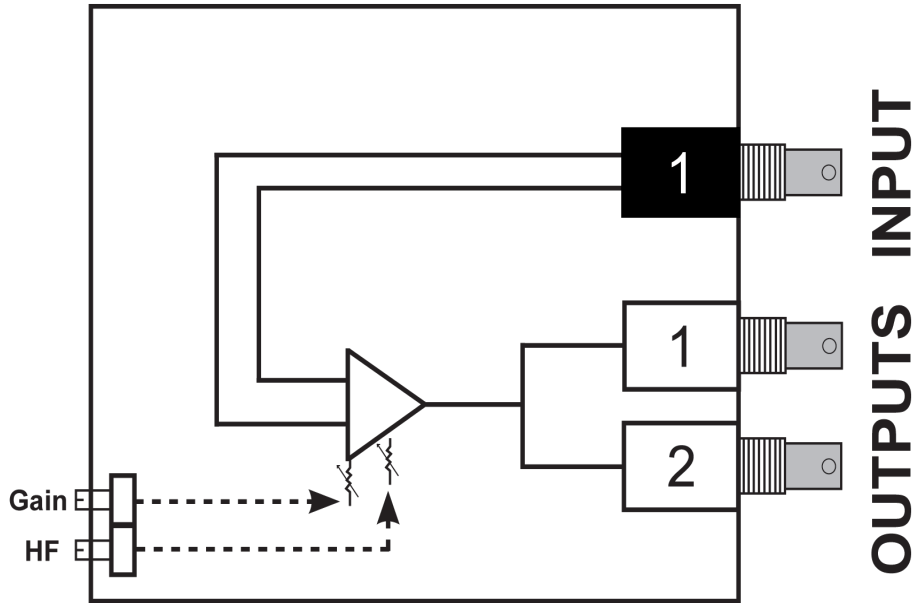
LDA-100



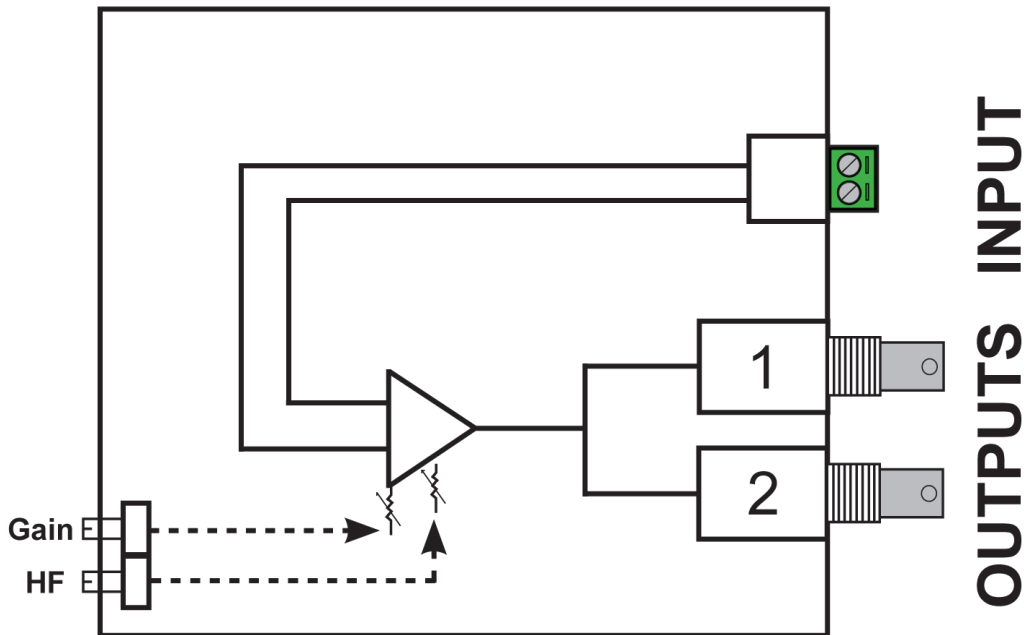
DA-12 / MDS-12



DA-20



CDA-20



KEY FEATURES

- 1x1 line amp w/variable gain ctl.
- High quality Color video performance
 - AC or DC operation
- Built in mounting brackets
 - Compact size
 - Made in the USA
 - 5 Year Warrenty



COMPU-VIDEO SYSTEM'S LDA-100 is a high performance 1x1 Color Video line Amplifier with a variable level adjust in a compact chassis. **LDA-100** should be placed at the mid-point of the cable run and operates on either 12-18VDC, isolated or 18-24VAC. The **LDA-100** can be powered off of the AC Camera's power transformer to save money.

SPECIFICATIONS

Video:		Power Requirements:	
Inputs:	Composite Video	DC Operation:	12 to 18VDC 60Hz Source
Input Connectors:	BNC	AC Power:	18VAC To 24VAC 60Hz
Input Level:	1vpp Into 75 Ohms	AC Power Draw:	<1w
Input Impedance:	75 ohm +/-5%	Power Connector:	Terminal Block
Output:	1x Per Input	Mechanical:	
Output Connector:	BNC	Size:	5.6"W, 5.25"D, 1.5"H
Output Impedance:	75 ohm +/-5%	Weight:	1.0lbs
Diff Gain:	<1%		
Diff Phase:	<1°		
Frequency Response:	0-15mHz +/- .5dB		
Power / Supply Hum:	<63dB		
H Tilt:	<1%		
V Tilt:	<1%		

KEY FEATURES

- 1x2 Distribution amp
- High quality Color video performance
 - AC or DC operation
- Industrial grade specifications
 - Compact size
 - Made in the USA



COMPU-VIDEO SYSTEM'S **DA-12** is a high performance 1x2 Color Video distribution Amplifier in a compact chassis. For 1x1 operation use only the output needed and simply leave the unused one unterminated. **DA-12** operates on either 12-18VDC, isolated or 18-24VAC. (Not Included) The **DA-12** can also be powered off of the AC Camera's power transformer to save money.

SPECIFICATIONS

Video:		Power Requirements:	
Inputs:	Composite Video	DC Operation:	12 to 18VDC Isolated Source
Input Connectors:	BNC	AC Power:	18VAC To 24VAC 60Hz
Input Level:	1vpp Into 75 Ohms	AC Power Draw:	<1w
Input Impedance:	75 ohm +/-5%	Power Connector:	4 Screw Terminal Block
Output:	2x Per Input	Mechanical:	
Output Connector:	BNC	Size:	4.5"W, 5.25"D, 1.5"H
Output Impedance:	75 ohm +/-5%	Weight:	1.0lbs
Gain In/Out:	Unity: +/-10%		
Diff Gain:	<1%		
Diff Phase:	<1°		
Frequency Response:	0-15mHz +/- .5dB		
Power / Supply Hum:	<63dB		
H Tilt:	<1%		
V Tilt:	<1%		

KEY FEATURES

- 1x2 Distribution amp
- High quality Color video performance
- AC or DC operation
- Industrial grade specifications
- Compact size
- Made in the USA



COMPU-VIDEO SYSTEM'S MDS-12 is a high performance 1x2 Color Video distribution Amplifier in a compact chassis. For 1x1 operation use only the output needed and simply leave the unused one unterminated. **MDS-12** operates on either 12-18VDC, isolated or 18-24VAC. (Not Included) The DA-12 can also be powered off of the AC Camera's power transformer to save money.

SPECIFICATIONS

Video:		Power Requirements:	
Inputs:	Composite Video	DC Operation:	12 to 18VDC Isolated Source
Input Connectors:	BNC	AC Power:	18VAC To 24VAC 60Hz
Input Level:	1vpp Into 75 Ohms	AC Power Draw:	<1w
Input Impedance:	75 ohm +/-5%	Power Connector:	4 Screw Terminal Block
Output:	2x Per Input	Mechanical:	
Output Connector:	BNC	Size:	4.5"W, 5.25"D, 1.5"H
Output Impedance:	75 ohm +/-5%	Weight:	1.0lbs
Gain In/Out:	Unity: +/-10%		
Diff Gain:	<1%		
Diff Phase:	<1°		
Frequency Response:	0-15mHz +/- .5dB		
Power / Supply Hum:	<63dB		
H Tilt:	<1%		
V Tilt:	<1%		

KEY FEATURES

- 1x2 Distribution amp
- High quality Color video performance
 - AC or DC operation
 - Differential inputs
- Industrial grade specifications
 - Variable gain control
 - HF Compensation
- CAT-5 or Coax selectable
- Made in the USA



COMPU-VIDEO SYSTEM'S **DA-20** is a Differential input, high performance 1x2 Color Video distribution Amplifier in a compact chassis. The **DA-20** has gain and HF adjust to compensate for signal loss. The differential input amplifier is used to minimize or eliminate ground loop problems. For 1x1 operation use only the output needed and simply leave the unused one unterminated. **DA-20** operates on either 12-18VDC, isolated or 18-24VAC. The **DA-20** can be powered off of the AC Camera's power transformer to save money.

SPECIFICATIONS

Video:		Power Requirements:	
Inputs:	Composite Video	DC Operation:	12 to 18VDC Isolated Source
Input Connectors:	BNC	AC Power:	18VAC To 24VAC 60Hz
Input Level:	1vpp Into 75 Ohms	AC Power Draw:	<1w
Input Impedance:	75 ohm +/-5%	Power Connector:	Terminal Block
Output:	2x Per Input	Mechanical:	
Output Connector:	BNC	Size:	4.5"W, 5.25"D, 1.5"H
Output Impedance:	75 ohm +/-5%	Weight:	1.0lbs
Gain In/Out:	+/-3dB		
Diff Gain:	<1%		
Diff Phase:	<1°		
Frequency Response:	0-15MHz +/- .5dB		
Power / Supply Hum:	<63dB		
H Tilt:	<1%		
V Tilt:	<1%		
CCMR:	Type. 60dB @ 4Mhz		
High Freq. Boost:	Type 0+/- 10dB		

KEY FEATURES

- 1x2 Distribution amp
- High quality Color video performance
 - AC or DC operation
 - Differential inputs
- Industrial grade specifications
 - Variable gain control
 - HF Compensation
- CAT-5 or Coax selectable
- Made in the USA



COMPU-VIDEO SYSTEM'S **CDA-20** is a Differential input, high performance 1x2 Color Video distribution Amplifier in a compact chassis. The **CDA-20** has gain and HF adjust to compensate for signal loss. The UTP input amplifier is used to minimize or eliminate ground loop problems. For 1x1 operation use only the output needed and simply leave the unused one unterminated. **CDA-20** operates on either 12-18VDC, isolated or 18-24VAC. The **CDA-20** can be powered off of the AC Camera's power transformer to save money.

SPECIFICATIONS

Video:		Power Requirements:	
Inputs:	Composite Video	DC Operation:	12 to 18VDC Isolated Source
Input Connectors:	2 pos. Terminal Strip	AC Power:	18VAC To 24VAC 60Hz
Input Level:	1vpp Into 75 Ohms	AC Power Draw:	<1w
Input Impedance:	75 ohm +/-5%	Power Connector:	Terminal Block
Output:	2x Per Input	Mechanical:	
Output Connector:	BNC	Size:	4.5"W, 5.25"D, 1.5"H
Output Impedance:	75 ohm +/-5%	Weight:	1.0lbs
Gain In/Out:	+/-3dB		
Diff Gain:	<1%		
Diff Phase:	<1°		
Frequency Response:	0-15mHz +/- .5dB		
Power / Supply Hum:	<63dB		
H Tilt:	<1%		
V Tilt:	<1%		
CCMR:	Type. 60dB @ 4Mhz		
High Freq. Boost:	Type 0+/- 10dB		

Limited Warranty:

Compu-Video Systems warrants this product and all accessories provided with it to be free of defects in material and workmanship for a period of 5 years after the original date of purchase. This warranty does not cover damage to the product resulting from accident, misuse or modification.

How The Warranty Works

If this product, or any of the accessories supplied with it, become defective within the warranty period, Compu-Video Systems Inc. will at its discretion repair, or replace the product with an equivalent unit of equal or higher value without charge. Overland return transportation from Compu-Video Systems Inc. to the user is free of charge.

How To Get Service

Please contact CVS by phone for return authorization number and then return the defective unit, transportation prepaid and a dated proof of purchase to:

**Compu-Video Systems Inc.
37 Arden Drive
Garrison, NY 10524**

The customer is responsible for all costs incurred from shipping the product back to Compu-Video Systems.

Obtaining Technical Help/Service

Web Site: www.compuvideosystems.com
Phone: (845) 737-7009
Fax: (845) 737-0426

**In no event shall Compu-Video Systems Inc.
be liable for Consequential Damages.**

Some states do not allow exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.



COMPU-VIDEO SYSTEMS INC.

CVS