



***Hum Reducing Power Supply System Regarding
Distribution Amplifiers, Ground Loops, and Interference***

Most of VAC's distribution amplifiers take advantage of the properties of individual floating (ungrounded) power sources (AC adapters) to provide some inherent ground loop and interference protection.

By using a floating power source, the VAC distribution amplifier does not provide a direct path to the power line ground and so does not introduce a ground loop, as is the case with traditional distribution amplifiers. The use of individual floating power sources also precludes the possibility of loop currents between distribution amplifiers causing power supply interference.

An additional advantage is that the use of individual floating power sources eliminates power supply paths that allow different signals to interfere with each other through cross talk between distribution amplifiers.

For the reasons noted above we highly recommend that the AC adapters included with most of our distribution amplifiers be used to provide power individually to those distribution amplifiers.

Two Year Limited Warranty

All Video Accessory Corporation (VAC) products have a full two year limited warranty. Exclusions to the warranty include but are not limited to damage to external components, power LED failure where the product continues to function, and electrical damage due to lightning. The warranty shall be void if any alteration or repair of a VAC product is attempted by anyone not authorized by VAC.

This warranty is expressly in lieu of all other warranties express or implied, including warranties of merchantability and fitness for use, and of all other obligations or liabilities on the part of VAC, and it neither assumes nor authorizes any other person to assume for it any liability in connection with the sale of this product.

This warranty shall not apply to the product or any part thereof subjected to accident, negligence, alteration, abuse, or misuse. No warranty whatsoever is made with respect to accessories or parts supplied by anyone other than VAC, and this warranty shall extend only to the original purchaser of this product.

The warranty provided in this article is exclusive and in lieu of, and buyer hereby waives, all other remedies, express or implied, arising by law or otherwise, including consequential damages, whether or not occasioned by negligence of VAC.

This warranty shall not be extended, altered or varied except by written instrument signed by VAC and buyer, and shall only apply within the boundaries of the continental United States. Liability of VAC is limited to repair or replacement at the option of VAC. Warranty work is to be sent to VAC. Freight charges will be the responsibility of the purchaser.



www.vac-brick.com

PN: 11-143-102 Rev A

1 X 2 Differential Loop-thru, Global Var. Gain,
12VAC, P5, BNC

Composite Video DA

Includes: 1 (one) 78099 - 75 Ohm Terminator

ProSeries Products

All VAC products are assembled in Longmont, CO, USA

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1 X 2 Differential Loop-thru, Global Var. Gain, 12VAC, P5,
BNC, Composite Video DA
PN: 11-143-102 Rev A

Purpose:

The VAC model 11-143-102 Video Distribution Amplifier provides two video outputs from one differential loop-thru input for baseband video signals. The 12VAC wall transformer provides isolated power to the Brick to control ground loops.

Power:

The 11-143-102 is designed to function properly with an input power of 11-13 VAC. The Brick will not operate from a DC voltage. A non-polarized 2.1mm P5 style connector is used for the power input. If the input voltage is a grounded system, the center pin of the P5 is the power connection and the barrel is the ground side. All ProSeries units are shipped with a 12VAC, 600mA floating power supply that eliminates any ground loops through the power supply connection.

Input:

The input for this product consists of two standard 75 Ohm BNC connectors. The loop-thru input allows a video signal to be connected to one of the Brick inputs and then routed to another video device by the second input connector. It does not matter which input is used to input a signal to the Brick. If the input signal is not routed to another device a 75 Ohm terminator must be installed on the unused input connector. If the video signal is routed to another device, the external device must terminate the signal with 75 Ohms. If the input is not terminated correctly, the outputs will not generate the correct voltage level for the output video signal.

A video signal with excessive DC component (or offset) such as those generated by many computer video boards will cause the 11-143-102 to malfunction. The 1 Vpp video signal needs to be within -1V to +1V. Ideally, the video signal's blanking level should be clamped to 0 volts, although an AC coupled signal is also acceptable.

Outputs:

The 11-143-102 has two video outputs consisting of 75 Ohm BNC connectors. All outputs are controlled by one gain control. Unused outputs do not need to be terminated for proper operation of the Brick. Using terminators on unused outputs provides additional protection for the Brick from ESD (static electricity) events.

Specifications:

Frequency Response:	DC - 200 MHz @ -3dB (1 Vpp input signal)
Input Signal Level:	0.5 - 2.0 Vpp (within -1 volt to +1 volt range from ground)
Loop-thru Input Impedance:	> 5K Ohms (must have external 75 Ohm termination)
Input Coupling:	DC
Input Connector(s):	75 Ohm BNC (total of 2)
Output Connectors:	75 Ohm BNC (total of 2)
Configuration:	Differential Loop-thru input, two active outputs
Gain:	0.75X - 1.75X
Output Series Impedance:	75 Ohms
Package:	Solid epoxy block (2.2" x 4.4" x 0.65" not including connectors)
Mounting:	Two threaded 6-32 inserts
Power:	11-13 VAC (2.1mm P5 connector) 135 mA typical fully loaded < 185 mA maximum
Power Status:	Power LED indicator
Operating Temp:	- 40C to + 50C
Operating Humidity:	0% - 95%
Weight:	2 lbs