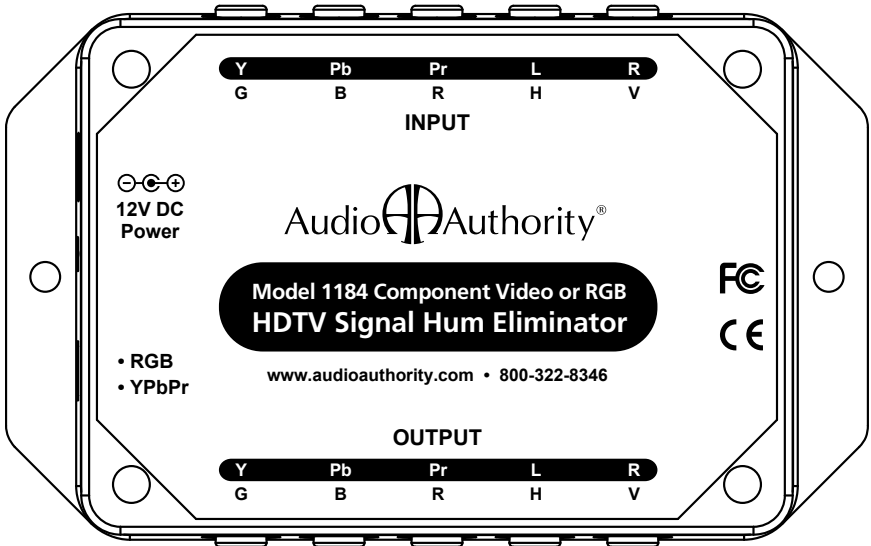


User Manual

Model 1184 Signal Hum Eliminator



Audio Authority®

Model 1184 Signal Hum Eliminator

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WARNINGS

- Read these instructions before installing or using this product.
- To reduce the risk of fire or electric shock, do not expose this unit to rain or moisture; install only in dry, indoor locations.
- This product must be installed by qualified personnel.
- Do not open the cover—there are no user-serviceable parts inside.
- Do not expose this unit to excessive heat.
- Clean the unit only with a dry or slightly dampened soft cloth.

LIABILITY STATEMENT

Every effort has been made to ensure that this product is free of defects. Audio Authority cannot be held liable for the use of this hardware or any direct or indirect consequential damages arising from its use. It is the responsibility of the user of the hardware to check that it is suitable for his/her requirements and that it is installed correctly. All rights are reserved. No parts of this manual may be reproduced or transmitted by any form or means electronic or mechanical, including photocopying, recording or by any information storage or retrieval system without the written consent of the publisher.

Audio Authority reserves the right to revise any of its hardware and software following its policy to modify and/or improve its products where necessary or desirable.

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1.0 INTRODUCTION

Thank you for purchasing this Model 1184 Signal Hum Eliminator from Audio Authority. Video “hum bars” appear as one or more horizontal distortions rolling slowly across the video image. The 1184 is designed to solve the problem of rolling video hum bars caused by AC-line related noise due to ground loops in coaxial cabling. It can be installed at the input of any device, such as a television display, exhibiting signs of a ground loop. The 1184 also eliminates hum from low level stereo audio signals. Audio Authority also offers an extensive line of audio and video switchers, converters, and distribution amps available for purchase online at www.audioauthority.com.

1.1 HOW IT WORKS

Television displays and projectors usually have a hard connection between their inputs and chassis. Therefore, a ground loop may develop, leading to 60Hz current flowing in the input cable, which causes hum bars. Model 1184 uses active circuitry to isolate the input and output grounds. It also includes video input clamping to thoroughly eliminate artifacts caused by differences in electrical potential between the chassis of equipment connected to it. In addition, Model 1184 strips DC off sources of component or RGB video, and clamps the Y or RGB black level to 0 volts.

Passive devices, known as hum buckers or video transformers, can be effective in eliminating the effect of the difference in ground potential. The advantage of the 1184 is that its bandwidth is not limited by inductance, as is the case with the chokes used in hum buckers or transformers. Furthermore, as passive devices, humbuckers and transformers are inherently lossy—their gain is a little less than one—compared to the 1184, which has a gain of exactly one.

1.2 FEATURES

- Eliminates video and/or audio hum caused by ground loops
- Clamps video input to eliminate artifacts
- Strips DC from source video output
- Clamps black level to 0 volts
- Input and output have 75 ohm termination
- Can be used for either YPbPr or RGBHV video format
- Wideband audio channels can be used for H and V in RGBHV mode
- Physical Dimensions: 3.45 x 5.5 x 1.32 (HxWxD, inches)

1.2 APPLICATIONS

Model 1184 is designed to overcome hum bars on a Component or RGB display at the end of a long run of coaxial cable. In these cases, breaking the ground loop is best accomplished at the video input of an offending TV, projector, or video display. This situation could occur in a residence, but is more likely to occur in larger venues, such as clubs and churches.

For example, if four component video displays are fed by a component video distribution amplifier and ground current happens to circulate between any of the displays and/or their source, hum bars will appear on one or more of the displays. A Model 1184 can be added at the input of the offending display(s) to break the ground current path and eliminate the hum bars without sacrificing bandwidth or image quality.

2.0 CHECKING PACKAGE CONTENTS

Please check the packaging and make certain the following items are contained in the shipping carton:

- 1184 Hum Eliminator
- 12V DC power adapter
- User manual

Note: Please keep the original packing material in case the unit ever needs to be returned. If you find any items are missing, contact Audio Authority immediately. Have the serial number and invoice available for reference when you call.

3.0 INSTALLATION

Connect the output of a Model 1184 to the input of the television monitor or other downstream device using short patch cords, and connect its input to the source of video and/or audio or sync. Connect the included 12 volt DC power supply to the Model 1184 and plug it into a wall outlet.

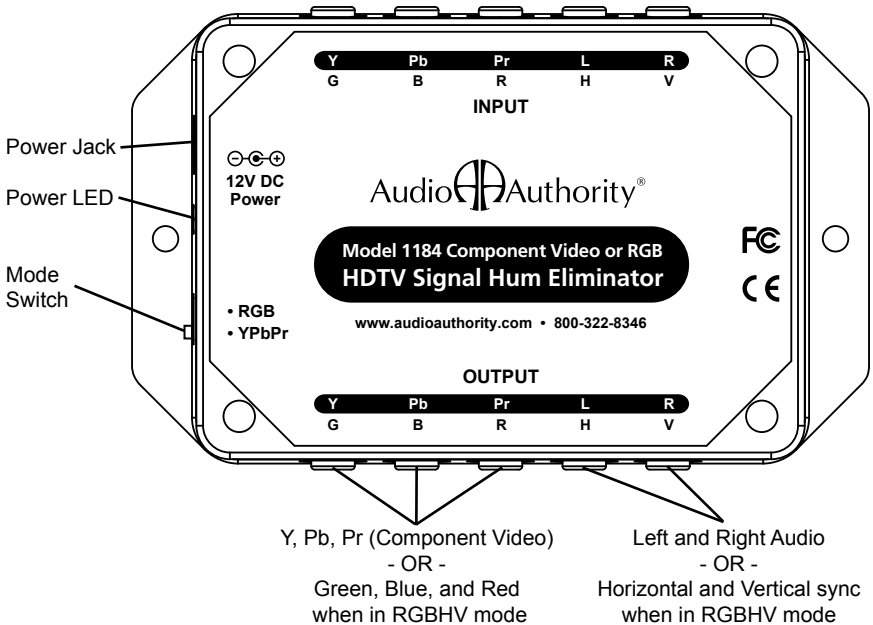
3.1 CONNECTIONS AND SETTINGS

Set the video mode switch to YPbPr or RGB according to the application. Left and right audio may be connected when using YPbPr Mode, or in the case of RGBHV, the audio channels may be used to pass horizontal and vertical sync, thus eliminating picture jitter.

4.0 TROUBLESHOOTING

- Check the power light and check the AC outlet to which the power adapter is connected.
- If using RGB mode, make sure the H and V cables are connected to the H and V jacks.
- If the 1184 does not eliminate a ground loop you should have an electrician check your electrical grid and make repairs if necessary.
- In extreme cases, only wideband transformers (not sold by Audio Authority) may eliminate a severe ground loop.

If a problem still persists after trying these suggestions, contact the Audio Authority Technical Service department via e-mail: support@audioauthority.com, or call 800-322-8346 or 859-233-4599.



5.0 SPECIFICATIONS

Subject to change without notice

Video Parameters	
Signal Type	Component/RGBHV
Video Formats	All
Input/Output Impedance	75 ohms
Input Ground Isolation	Yes, full time
Gain	1
Gain Accuracy	1%
3dB Bandwidth	250MHz
Input Coupling	AC/sync tip clamped
S/N Ratio	65dB
Max Gain/Equalization	1
Audio/HV Sync Parameters	
Analog/Digital Audio	Analog only
Digital Input/Output Type	n/a
Input Impedance	11K ohms
Min Load Impedance	10K ohms
Multi-channel Digital	n/a
Frequency Response	DC-1MHz
S/N Ratio	75dB
THD+Noise	0.05%
Crosstalk	75dB
DC Input Connector	5.5 X 2.1mm
DC Input Voltage/Polarity	12V/Center positive
Max DC Input Current	100mA
Power Supply	571-013

6.0 LIMITED WARRANTY

Should any consumer product from Audio Authority fail due to defects in materials or workmanship within one year from the date of the original sale to the end-user, Audio Authority guarantees that we will replace the defective product at no cost. Freight charges for the replacement unit will be paid by Audio Authority (ground service only). A copy of the invoice showing the item number and date of purchase (proof-of-purchase) must be submitted with the defective unit to constitute a valid in-warranty claim.

Units that fail after the warranty period has expired may be returned to the factory for repair at a nominal charge, if not damaged beyond the point of repair. All freight charges for out-of-warranty returns for repair are the responsibility of the customer. Units returned for repair must have a Return Authorization Number assigned by the factory.

This is a limited warranty and is not applicable for products which, in our opinion, have been damaged, altered, abused, misused, or improperly installed. Audio Authority makes no other warranties either expressed or implied, including limitation warranties as to merchantability or fitness for a particular purpose. Additionally, there are no allowances or credits available for service work or installation performed in the field by the end user.

6.1 WARRANTY SERVICE PROCEDURES

If you suspect a product defect, contact Audio Authority's Technical Service Department at 800-322-8346 or 859-233-4599 for assistance in verifying the problem. If a defect or potential defect is suspected, a replacement unit will be shipped immediately on a defect-exchange basis and a Return Authorization number will be issued for the return of the defective product. Replacement units are sent out at the Manufacturer's Suggested Retail Price which is debited to the customer's credit card at the time of shipment. Once we receive the defective unit back at the factory, it will be evaluated under the conditions of this warranty and if found to be in-warranty, a full credit will be issued to the customer's credit card. Return freight charges for the defective unit are the customer's responsibility. Please contact our Technical Service Department for complete details concerning all in and out of warranty service matters.

We appreciate your confidence in our products and services and will always strive to meet or exceed your needs.

7.0 REGULATORY COMPLIANCE

The Model 1184 has been tested for compliance with appropriate FCC, and CE rules and regulations.

The Power Adapter/Supply included with this unit has been tested for compliance with UL, CE, and CSA rules and regulations and is RoHS compliant.

8.0 CONTACT INFORMATION

If you have questions or require assistance with this product in areas not covered by this manual, please contact Audio Authority using the information below.

Audio Authority Technical Service
800-322-8346 M-F 8:30 AM to 5:00 PM, EST
International: 859-233-4599 Fax: 859-233-4510
Send e-mail to: support@audioauthority.com

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