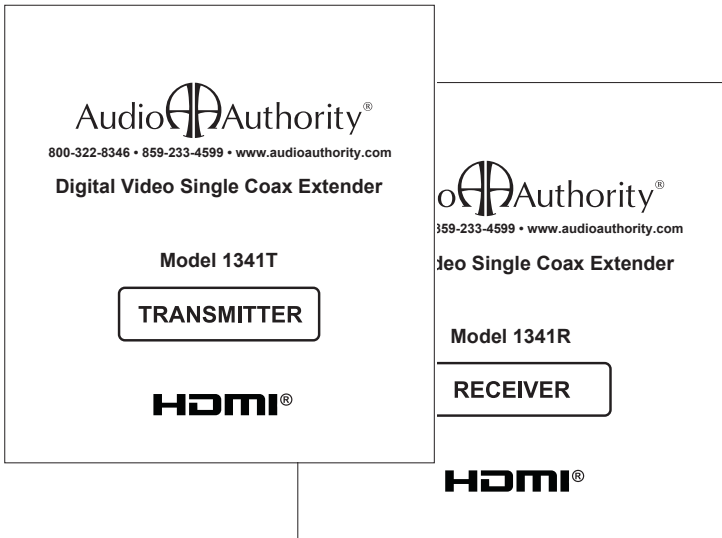


# User Manual

**HDMI®**

## Video Distribution System



Models 1341T and 1341R  
**HXE-11 Kit**

Audio Authority®

# Audio Authority®

2048 Mercer Road, Lexington, Kentucky 40511-1071

Phone: 859-233-4599 • Fax: 859-233-4510

Customer Toll-Free USA & Canada: 800-322-8346

[www.audioauthority.com](http://www.audioauthority.com)

## **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.
- 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.
- Install only in dry, indoor locations.
- 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.

Audio Authority and the Double-A Symbol are registered trademarks of Audio Authority Corp. Copyright April, 2010. HDMI, the HDMI Logo, and High-Definition Multimedia Interface are registered trademarks of HDMI Licensing LLC in the United States and other countries. All other third party trademarks and copyrights are recognized.

# User Manual

## 1341T and 1341R HDMI® Signal Distribution System

### Table of Contents

1.0 INTRODUCTION . . . . .	4
2.0 CHECKING PACKAGE CONTENTS . . . . .	4
3.0 SYSTEM DESIGN. . . . .	5
4.0 CABLE LENGTH AND FABRICATION . . . . .	6
5.0 INSTALLATION . . . . .	7
6.0 TROUBLESHOOTING . . . . .	8
7.0 SPECIFICATIONS. . . . .	9
8.0 LIMITED WARRANTY . . . . .	10
9.0 REGULATORY COMPLIANCE . . . . .	11
10.0 CONTACT INFORMATION . . . . .	11

## 1.0 INTRODUCTION

Thank you for purchasing this HDMI® distribution system from Audio Authority®. The HXE-11 Kit (1341T and 1341R) digitally transmits HDMI signals over a single coax cable to achieve distances many times those possible using an HDMI cable. Preserves high quality 1080p video with embedded multi-channel audio such as Dolby® TrueHD™.

Audio Authority audio/video switchers, converters, and distribution amps can be purchased at [www.audioauthority.com](http://www.audioauthority.com) or through authorized dealers.

### 1.1 SYSTEM FEATURES

- Requires only one BNC-terminated coax cable (RG-6 or RG-59)
- Quick synchronization means maximum up-time
- Installation is plug and play – no complex setup routines or programming
- Multiple receivers may be cascaded from one transmitter
- Supports 720p, 1080i, and 1080p resolutions
- Up to 200 ft. cable length using RG-6 with 1080p and lossless audio
- Up to 300 ft. cable length using RG-6 with 1080i/720p with lossless audio
- HDMI version 1.3 and HDCP compliant

### 1.2 HDMI VERSION 1.3 FEATURES SUPPORTED

- 1080p/60 and 1080p/24 video
- 1080i and 720p video
- Lossless bitstream audio (Dolby TrueHD, DTS-HD: Master Audio, Multichannel LPCM)
- Lip sync compensation

## 2.0 CHECKING PACKAGE CONTENTS

Before connecting the system, please make certain the following items are in the shipping cartons. Note: the 1341T and 1341R are sold separately.

- 1341T Transmitter
- (and/or) 1341R Receiver
- 5V DC power adapter(s)
- User manual

Note: Please retain the original packing material and invoice in case you need to return the unit. If you find any items are missing, contact Audio Authority immediately. Have the model number and invoice available for reference when you call.

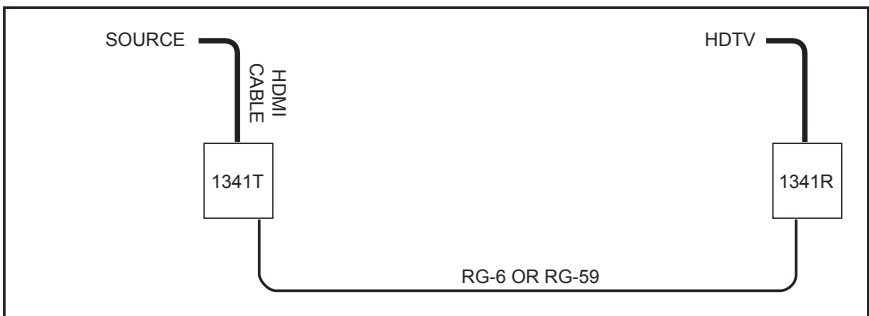
### 3.0 SYSTEM DESIGN

Consider the following factors and basic precautions to ensure the best possible performance.

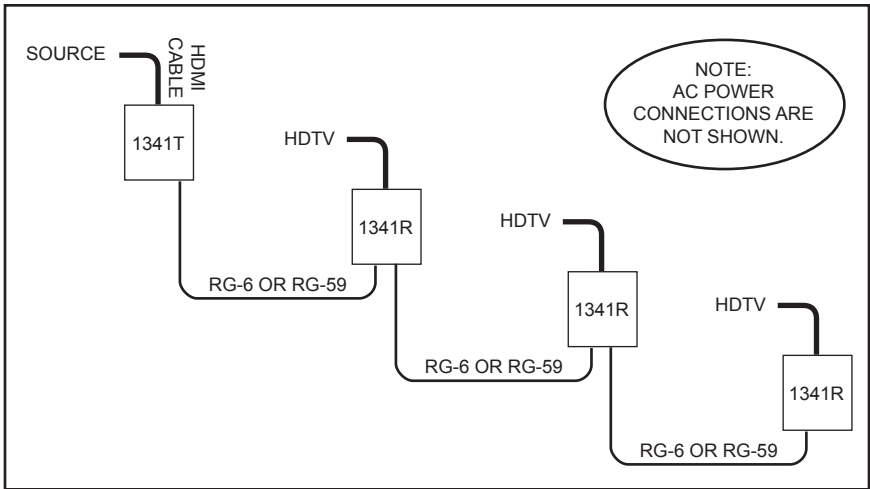
- **Do not use soldered BNC connectors.** Coaxial cables *MUST* be terminated with either crimp-on or compression type BNC connectors.
- **Resolution tracking for multiple displays.** Set up the source to output the best resolution that all TVs are capable of displaying. The HXE-11 Series supports 720p, 1080i, and 1080p. If some TVs in the network are not capable of accepting 1080p, the higher resolution sets may not be shown to their best advantage.
- **Source resolution and video/sound quality.** Sources, such as satellite receivers or cable boxes, can output at low resolutions or deliver extremely compressed video material, yielding poor results. Consider the source when planning and troubleshooting your system.
- **Display devices.** The perceived quality of the video image depends heavily upon the type and quality of the TVs or projectors used. High quality displays should be expected to produce a noticeably better image.
- **Distance between the transmitter and the receiver.** Long distances are possible, but premium quality cables are necessary for the longest runs. RG-6 provides superior results, but RG-59 may be used in shorter distance applications.
- **Source and TV connection cables.** Use short, premium HDMI cables; low quality cables are often unreliable. Always use good strain relief methods or locking cables to prevent cables from becoming loose over time.
- **Interference from nearby electrical devices** can have an adverse effect on signal quality. For example, older computer monitors often emit very high electromagnetic fields that can interfere with the performance of nearby video equipment.

The 1341T and 1341R may be used in simple point-to-point applications or in multiple destination video distribution applications.

#### Point-to-point Extension Application



## Point-to-point Distribution Application



## 4.0 CABLE LENGTH AND FABRICATION

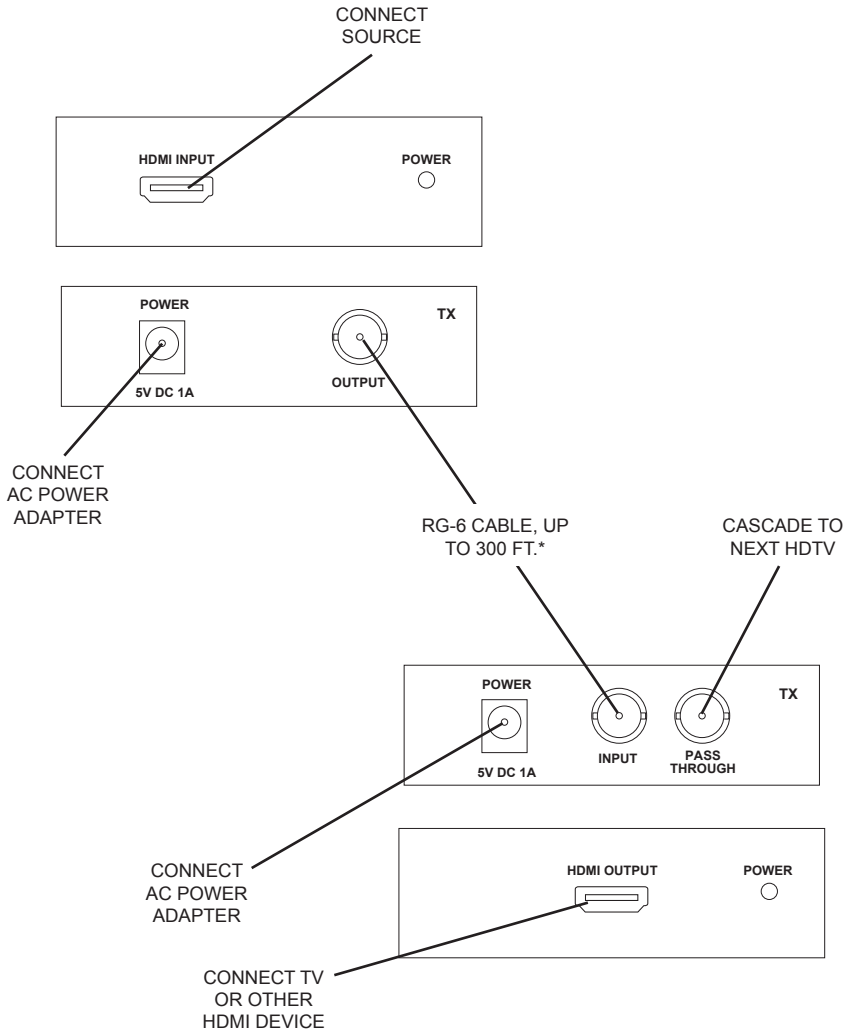
Maximum cable length depends on total bandwidth (video resolution plus audio). Use the table below as a guide, but test the actual cable length with the target source and TV before installation.

Cable	1080p + lossless audio	1080i + lossless audio	720p + lossless audio
RG-6	Up to 200 ft.	Up to 300 ft.	Up to 300 ft.
RG-59	Up to 120 ft.	Up to 200 ft.	Up to 200 ft.

- Do not solder BNC connectors – use only crimp on or compression type terminations on coaxial cables.
- Do not bend coaxial cables beyond the manufacturer's recommended radius.
- RG-59 cable may be used over shorter cable lengths or lower bandwidth requirements; test each application before permanent installation.

## 5.0 INSTALLATION

- Connect coaxial cables and HDMI cables first, then connect power supplies.
- Use good strain relief methods on HDMI cables to prevent loose connections, and power system for final testing.



\* See page 5 for cable types and distance limitations.

## 6.0 TROUBLESHOOTING

- **Poor image quality:** Some sources, such as cable and satellite receivers, compress output resulting in poor image quality. Connect the source directly to a display via a short HDMI® cable to compare.
- **Intermittent signal dropout:** Cable is longer than rated distance for the bandwidth of the source signal. Reduce bandwidth or cable length.
- **No surround sound (multi-channel audio):** adjust the source to output the desired digital audio format, and make certain the destination device is capable of receiving it.
- **No picture:** perform the verifications below.
  - DO NOT use soldered BNC terminations – use only crimp or compression type BNC terminations.
  - Use a cable tester to make certain coaxial cables are terminated correctly and the BNC connectors are securely attached to the cable at both ends. Check for cable defects or damage.
  - Check the HDMI cables at input and output connections to see if any of the connectors have become loose. Use good strain relief methods.
  - Make certain 1341T and 1341R units are connected to live AC outlets and check the power indicators on all units.
  - Connect the display device directly to the source using the HDMI cable from the 1341T end, then test with the 1341R connection cable. If an image is present under those circumstances then the display, the source, and the HDMI cables can be eliminated as the cause of the problem.
  - If the above methods do not produce a picture, test using a short, known good HDMI cable, and set up the source to output a resolution that the display can accept. If this test is successful, connect the HXE-11 System again, making sure the source resolution is the same as the test.

Contact Audio Authority Technical Service at [support@audioauthority.com](mailto:support@audioauthority.com), or call 800-322-8346 or 859-233-4599.



## 7.0 SPECIFICATIONS

<b>DIGITAL AUDIO/VIDEO I/O</b>	
1341T Transmitter	1x via HDMI connector – HDMI input
1341R Receiver	1x via HDMI connector – HDMI output
<b>COAXIAL CONNECTIONS I/O</b>	
1341T Transmitter	1x via BNC connector – coaxial output
1341R Receiver	1x via BNC connector – coaxial input
<b>VIDEO PERFORMANCE</b>	
Minimum resolution	720p
Maximum resolution	1080p (1920x1200, 1080p/60Hz)
HDMI TMDS clock speed	225MHz
HDMI Data bit rate	2.25Gbps
Maximum RG-6 cable length	200 ft. (90m) with 1080p / lossless audio 300 ft. (60m) with 1080i / lossless audio 300 ft. (60m) with 720p / lossless audio
<b>AUDIO PERFORMANCE</b>	
Digital Audio	Multi-channel, lossless audio formats
<b>ENVIRONMENTAL</b>	
Operating Temperature	0° to +50° C (+32° to +122° F)
Operating Humidity	10% to 90%, Non-condensing
Storage Temperature	-10° to +70° C (12° to +158° F)
Storage Humidity	10% to 90%, non-condensing
<b>REGULATORY APPROVALS</b>	
Transmitter and Receiver	HDMI, HDCP, RoHS
Power Supply	UL, CUL, CE, PSE, GS, RoHS
<b>CABLE REQUIREMENTS</b>	
Coaxial Cable	RG-6 or RG-59 (See page 6 for details)
Terminations	BNC crimp or compression (not solder)
<b>MECHANICAL</b>	
Dimensions: H-W-D inches (mm)	1.1 x 3.9 x 3.65 (28x100x93mm)
<b>ACCESSORIES INCLUDED</b>	
Power Adapter	5 VDC@2A
User Manual	Printed, 12 pages
<b>WARRANTY</b>	
Limited Warranty	1 year, parts and labor

## **8.0 LIMITED WARRANTY**

If any consumer product from Audio Authority® fails 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.

## **8.1 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.

## **9.0 REGULATORY COMPLIANCE**

The 1341T and 1341R comply with HDMI® and HDCP rules and regulations. Power supplies included have been tested for compliance with UL, CUL, CE, PSE, and GS rules and guidelines. This product and its power supply are RoHS compliant.

## **10.0 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 email to: [support@audioauthority.com](mailto:support@audioauthority.com)

Audio Authority Corporation  
2048 Mercer Road  
Lexington, Kentucky 40511-1071  
USA



2048 Mercer Road, Lexington, Kentucky 40511-1071

Phone: 859-233-4599 • Fax: 859-233-4510

Customer Toll-Free USA & Canada: 800-322-8346

[www.audioauthority.com](http://www.audioauthority.com)