

Crestron **ABVR-1**
Adagio® Balanced Video Receiver

Operations Guide



Contents

Adagio® Balanced Video Receiver: ABVR-1	1
Introduction	1
Features and Functions	1
Applications.....	2
Specifications	2
Physical Description.....	3
Industry Compliance	7
Setup.....	8
CAT5 Wiring.....	8
Installation.....	8
Hardware Hookup	8
Problem Solving	11
Troubleshooting.....	11
Reference Documents.....	12
Further Inquiries	12
Future Updates	12
Return and Warranty Policies	13
Merchandise Returns / Repair Service	13
CRESTRON Limited Warranty.....	13

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Adagio[®] Balanced Video Receiver: ABVR-1

Introduction

The ABVR-1 is an active balanced-to-unbalanced video converter designed to enable the connection of any Crestron Home[®] CAT5 balanced video source to a conventional RCA input. Connected at the input of an Adagio Media System or CNX-PVID8 Video Distribution Switcher, the ABVR-1 allows a CEN-IDOCV Interface for Apple[®] iPod[®], CEN-ISERVER Crestron iServer[™] Network Audio Server, CEN-IDOCV-DSW Wall Mount Interface for Apple iPod or other Crestron Home CAT5 balanced video source to be installed up to 500 feet (152 m) from the central equipment location.

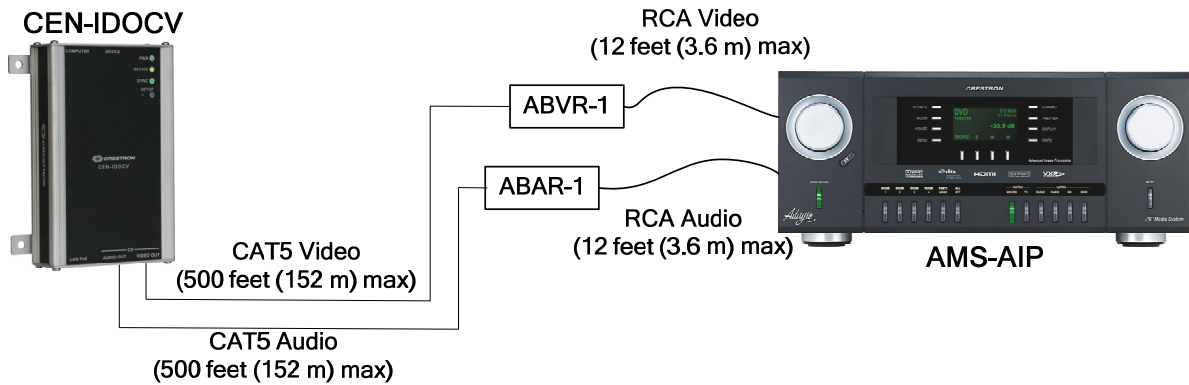
Features and Functions

- Converts Category 5 (CAT5) balanced video to RCA unbalanced video (Component (Y_PP_r), S-video (Y/C), or composite video)
- Small compact size

Applications

The following diagram shows an ABVR-1 and an ABAR-1 in a residential application.

ABVR-1 and ABAR-1 in a Residential Application



Specifications

Specifications for the ABVR-1 are listed in the following table.

ABVR-1 Specifications

SPECIFICATION	DETAILS
Signal Types	Component (YP _b P _r), S-video (Y/C), or composite video; digital audio*
Video/HDTV Formats	480i (NTSC), 576i (PAL), 480p, 576p, 720p, 1080i*
Digital Audio Format	S/PDIF coaxial*
Power Requirements	3 Watts (0.13 Amps) @ 24 Volts DC May be powered by Cresnet or dedicated power supply (not included)
Environmental	
Temperature	41° to 104°F (5° to 40°C)
Humidity	10% to 90% RH (non-condensing)
Heat Dissipation	10 BTU/Hr

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ABVR-1 Specifications (Continued)

SPECIFICATION	DETAILS
Enclosure	Metal with label overlay, freestanding or surface mount with (4) integral mounting flanges
Dimensions Height Width Depth	1.43 in (3.64 cm) 3.91 in (9.94 cm) 4.52 in (11.47 cm)
Weight	10 oz (284 g)

* Actual output signals dependent upon the output capabilities of the CH source device.

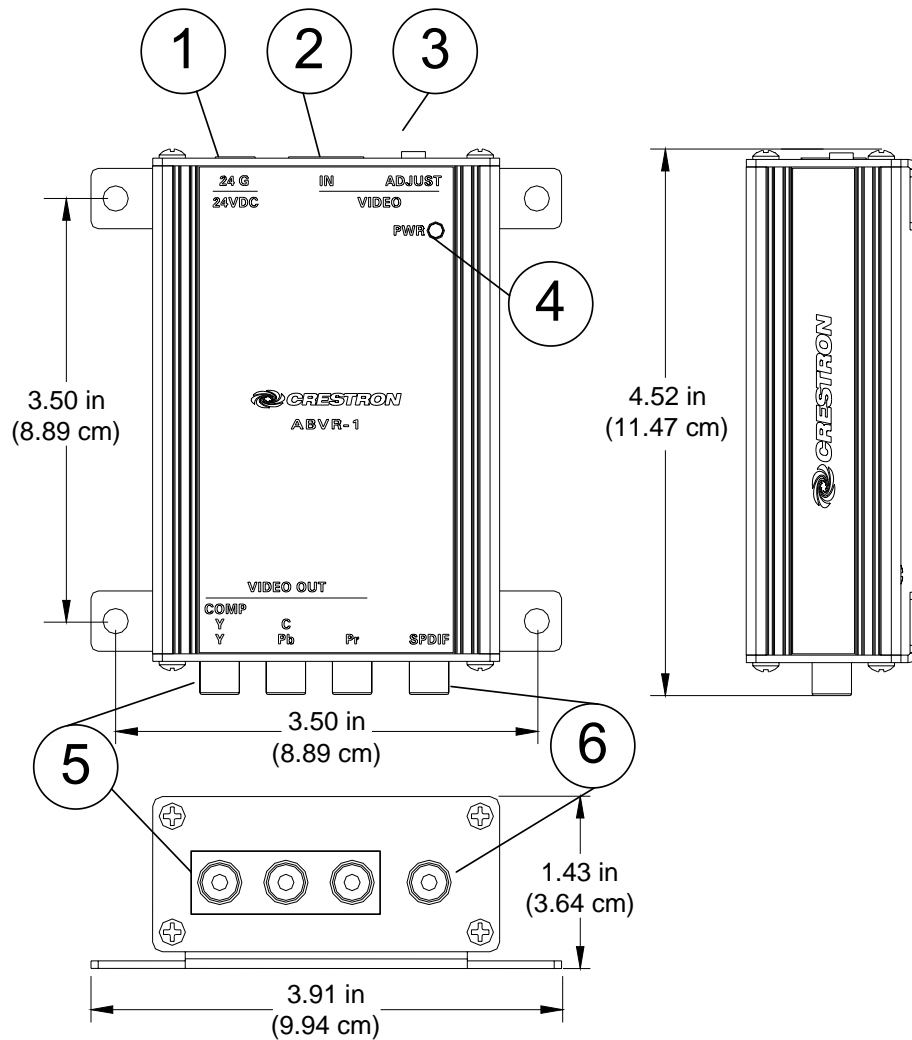
Physical Description

This section provides information on the connections, controls and indicators available on your ABVR-1.

ABVR-1 Physical View



ABVR-1 Overall Dimensions

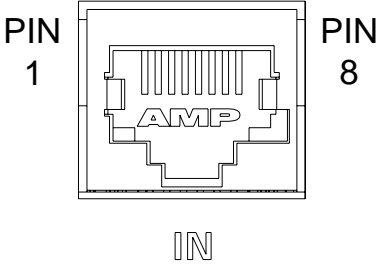
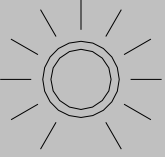
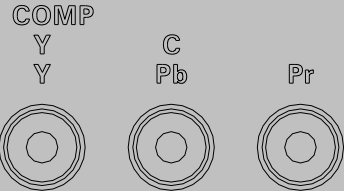
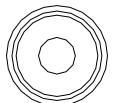


Connectors, Controls & Indicators

#	CONNECTORS ¹ , CONTROLS & INDICATORS	DESCRIPTION
1	<p>24VDC</p> <p>24 G</p> <hr/> <p>24VDC</p>	<p>(1) 2-pin 3.5 mm detachable terminal block</p> <p>24 Volt DC power input (power supply not included)</p>

(Continued on following page)

Connectors, Controls & Indicators (Continued)

#	CONNECTORS ¹ , CONTROLS & INDICATORS	DESCRIPTION
2	<p style="text-align: center;">VIDEO IN²</p> 	<p>(1) 8-pin RJ-45 female, shielded</p> <p>CAT5 balanced video input port</p> <p>Input Impedance: 100 ohms per pair</p> <p>Connect to any “CH” CAT5 video output port</p> <p>Maximum Cable Length: 500 ft (152 m)³</p>
3	<p style="text-align: center;">VIDEO ADJUST</p>  <p style="text-align: center;">ADJUST</p>	<p>(1) rotary potentiometer for adjustment of CAT5 video input compensation</p>
4	<p style="text-align: center;">PWR LED</p>	<p>(1) green LED, indicates 24 Volts DC power supplied from Cresnet or power supply</p>
5	<p style="text-align: center;">VIDEO OUT</p> <p style="text-align: center;">VIDEO OUT</p> 	<p>(3) RCA female comprising (1) component/S-video/composite video output⁴</p> <p>Output Impedance: 75 ohms</p> <p>Output Level: 1 V_{p-p} nominal</p>
6	<p style="text-align: center;">SPDIF</p> <p style="text-align: center;">SPDIF</p> 	<p>(1) RCA female comprising (1) coaxial digital audio output⁴</p> <p>Output Impedance: 75 ohms</p> <p>Output Level: 0.5 V_{p-p} nominal</p>

1. Interface connector for the **24VDC** port is provided with the unit.

2. This eight-pin RJ-45 port provides connectivity to a device with a CH input port or a Crestron device with a CAT5 video input. This port provides component or composite balanced output over CAT5 wiring. Refer to the following table for connector pinouts.

RJ-45 PIN NUMBER	WIRE COLORS (568B)	COMPOSITE	COMPONENT
1	WHITE/ORANGE	+ Composite	+ Y
2	ORANGE	- Composite	- Y
3	WHITE/GREEN	N/A	+ P _b
4	BLUE	N/A	+ P _r
5	WHITE/BLUE	N/A	- P _r
6	GREEN	N/A	- P _b
7	WHITE/BROWN	+ SPDIF	+ SPDIF
8	BROWN	- SPDIF	- SPDIF

3. Maximum cable length for CAT5 video is 500 feet (152 m) using CresCAT® IM or quality CAT5e cable.
4. Actual output signals dependent upon the output capabilities of the CH source device.

Industry Compliance

As of the date of manufacture, the ABVR-1 has been tested and found to comply with specifications for CE marking and standards per EMC and Radiocommunications Compliance Labelling.



Federal Communications Commission (FCC) Compliance Statement

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION: Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
 - Increase the separation between the equipment and receiver.
 - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
 - Consult the dealer or an experienced radio/TV technician for help.
-

Setup

CAT5 Wiring

Category 5 (CAT5) wiring is a twisted pair cable designed for Ethernet networks. These networks operate at speeds of up to 100 Megabits per second (Mbps) using the 100BASE-T standard. Crestron takes advantage of this specification for a variety of audio and video applications.

Crestron recommends using CresCAT-IM (or D) wire for transmitting video signals from the CH port.

When using a Crestron wiring solution, the CresCAT-IM (or D) wire can carry video signals up to 500 feet (152 meters) (observe distance limitations based upon power consumption for the device in use).

For more information, refer to the latest version of the Crestron CAT5 Wiring Reference Guide (Doc. 6137), which is available for download from the Crestron website (www.crestron.com/manuals).

Installation

The ABVR-1 can be mounted in a rack or to any surface using the integral mounting flanges. Mounting hardware is not provided.

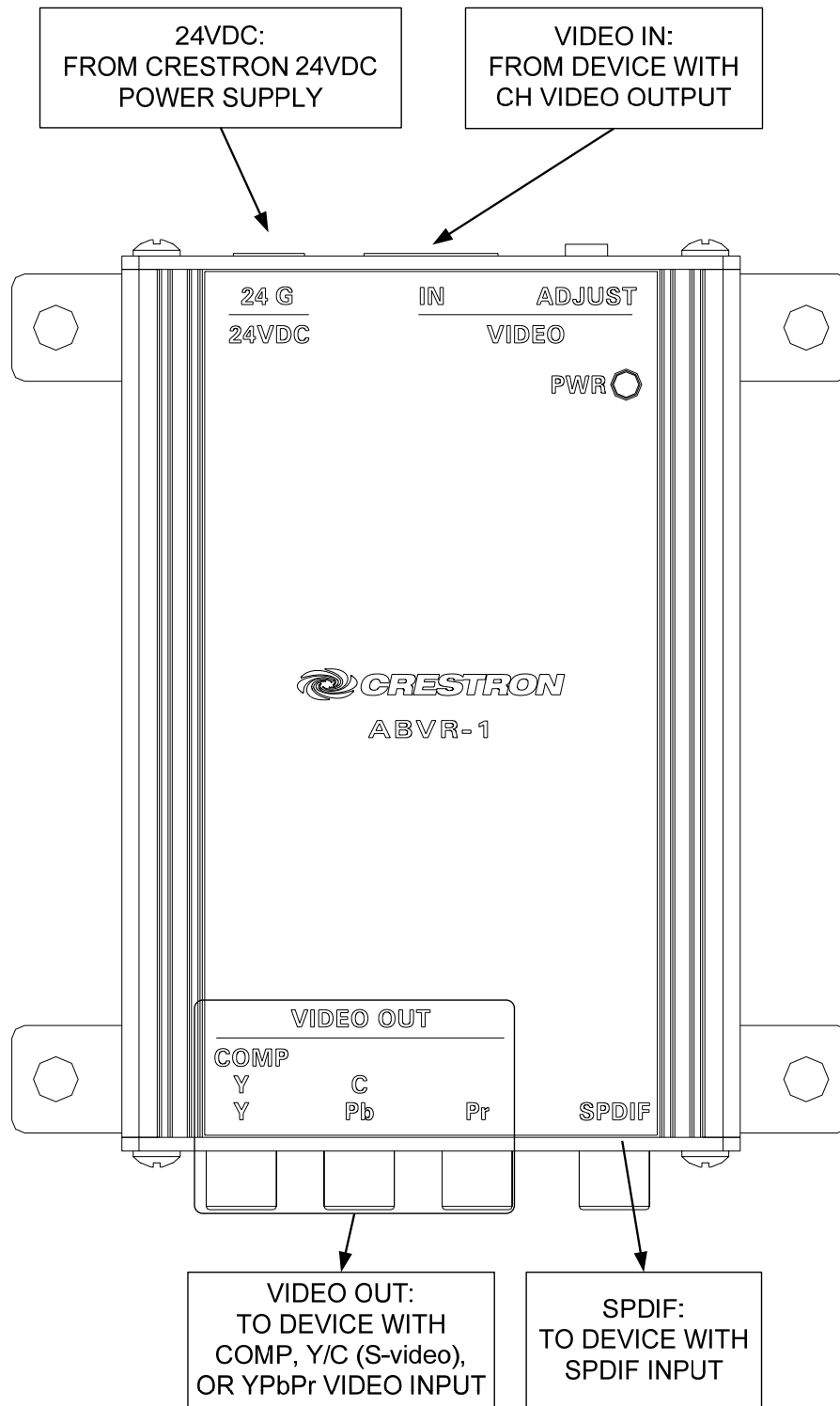
Hardware Hookup

Connect the Device

Make the necessary connections as called out in the illustration that follows this paragraph. Apply power after all connections have been made.

When making connections to the ABVR-1, use Crestron power supplies for Crestron equipment.

Hardware Connections for the ABVR-1



NOTE: For CAT5 connections use Crestron Certified Wire.

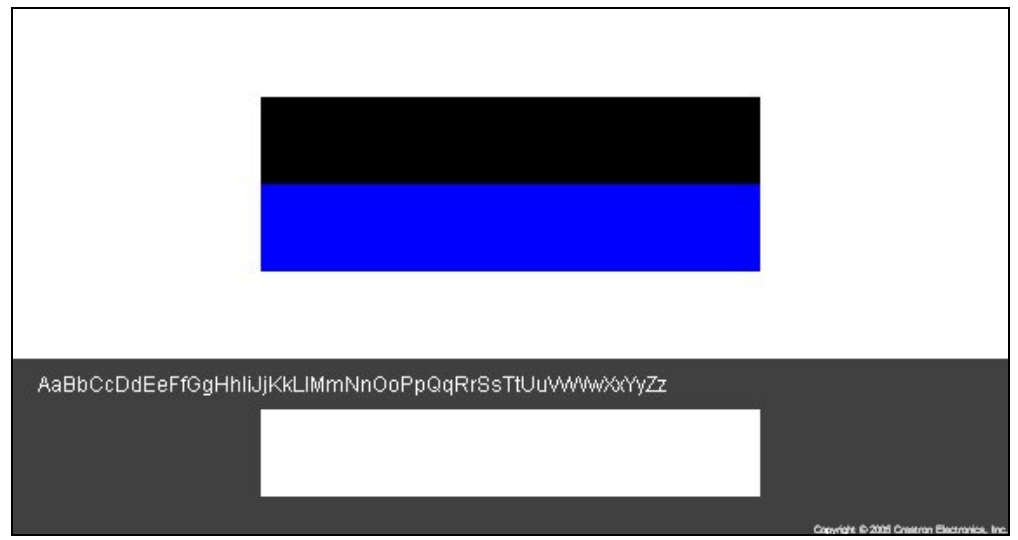
Fine Tuning

The output of the ABVR-1 can be adjusted for optimum picture quality using the **VIDEO ADJUST** control located at the top of the ABVR-1.

To adjust the output of the ABVR-1:

1. Connect a video source with a “CH” video output to the **VIDEO IN** port of the ABVR-1.

NOTE: The video source must be able to display the “Streak” test pattern (or similar pattern) shown below.



2. Verify that the **VIDEO ADJUST** control on the ABVR-1 is turned completely counterclockwise.
3. If the picture shows streaks, turn the **VIDEO ADJUST** control clockwise until picture quality improves.

Problem Solving

Troubleshooting

The following table provides corrective action for possible trouble situations. If further assistance is required, please contact a Crestron customer service representative.

ABVR-1 Troubleshooting

TROUBLE	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Device does not function.	Device is not receiving power from a Crestron power source.	Use the provided Crestron power source. Verify connections.
	Device is not wired correctly.	Verify wiring from source to ABVR-1 and from ABVR-1 to receiver.
	Source or destination device is not operating.	Verify source and destination devices are operating.
PWR LED does not illuminate.	Device is not receiving power from a Crestron power source.	Use a Crestron power source. Verify connections.
Poor picture quality.	Cable length and/or cable quality affect picture quality.	Check cables. Turn the VIDEO ADJUST control to improve picture quality.
	VIDEO ADJUST control is turned too high.	Turn control completely counter-clockwise and retune for best picture quality.

Reference Documents

The latest version of all documents mentioned within the guide can be obtained from the Crestron website (www.crestron.com/manuals). This link will provide a list of product manuals arranged in alphabetical order by model number.

List of Related Reference Documents

DOCUMENT TITLE
CAT5 Wiring Reference Guide

Further Inquiries

If you cannot locate specific information or have questions after reviewing this guide, please take advantage of Crestron's award winning customer service team by calling Crestron at 1-888-CRESTRON [1-888-273-7876].

You can also log onto the online help section of the Crestron website (www.crestron.com/onlinehelp) to ask questions about Crestron products. First-time users will need to establish a user account to fully benefit from all available features.

Future Updates

As Crestron improves functions, adds new features and extends the capabilities of the ABVR-1, additional information may be made available as manual updates. These updates are solely electronic and serve as intermediary supplements prior to the release of a complete technical documentation revision.

Check the Crestron website periodically for manual update availability and its relevance. Updates are identified as an “Addendum” in the Download column.

Return and Warranty Policies

Merchandise Returns / Repair Service

1. No merchandise may be returned for credit, exchange or service without prior authorization from CRESTRON. To obtain warranty service for CRESTRON products, contact an authorized CRESTRON dealer. Only authorized CRESTRON dealers may contact the factory and request an RMA (Return Merchandise Authorization) number. Enclose a note specifying the nature of the problem, name and phone number of contact person, RMA number and return address.
2. Products may be returned for credit, exchange or service with a CRESTRON Return Merchandise Authorization (RMA) number. Authorized returns must be shipped freight prepaid to CRESTRON, 6 Volvo Drive, Rockleigh, N.J. or its authorized subsidiaries, with RMA number clearly marked on the outside of all cartons. Shipments arriving freight collect or without an RMA number shall be subject to refusal. CRESTRON reserves the right in its sole and absolute discretion to charge a 15% restocking fee plus shipping costs on any products returned with an RMA.
3. Return freight charges following repair of items under warranty shall be paid by CRESTRON, shipping by standard ground carrier. In the event repairs are found to be non-warranty, return freight costs shall be paid by the purchaser.

CRESTRON Limited Warranty

CRESTRON ELECTRONICS, Inc. warrants its products to be free from manufacturing defects in materials and workmanship under normal use for a period of three (3) years from the date of purchase from CRESTRON, with the following exceptions: disk drives and any other moving or rotating mechanical parts, pan/tilt heads and power supplies are covered for a period of one (1) year; touchscreen display and overlay components are covered for 90 days; batteries and incandescent lamps are not covered.

This warranty extends to products purchased directly from CRESTRON or an authorized CRESTRON dealer. Purchasers should inquire of the dealer regarding the nature and extent of the dealer's warranty, if any.

CRESTRON shall not be liable to honor the terms of this warranty if the product has been used in any application other than that for which it was intended or if it has been subjected to misuse, accidental damage, modification or improper installation procedures. Furthermore, this warranty does not cover any product that has had the serial number altered, defaced or removed.

This warranty shall be the sole and exclusive remedy to the original purchaser. In no event shall CRESTRON be liable for incidental or consequential damages of any kind (property or economic damages inclusive) arising from the sale or use of this equipment. CRESTRON is not liable for any claim made by a third party or made by the purchaser for a third party.

CRESTRON shall, at its option, repair or replace any product found defective, without charge for parts or labor. Repaired or replaced equipment and parts supplied under this warranty shall be covered only by the unexpired portion of the warranty.

Except as expressly set forth in this warranty, CRESTRON makes no other warranties, expressed or implied, nor authorizes any other party to offer any warranty, including any implied warranties of merchantability or fitness for a particular purpose. Any implied warranties that may be imposed by law are limited to the terms of this limited warranty. This warranty statement supersedes all previous warranties.

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change without notice.