KD-CDA3 Operating Instructions

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The Experts in Digital Video Technology and Solutions®

Key Digital®, led by digital video pioneer Mike Tsinberg, develops and manufactures high quality, cutting-edge technology solutions for virtually all applications where high quality video imaging is important. Key Digital® is at the forefront of the video industry for Home Theater Retailers, Custom Installers, System Integrators, Broadcasters, Manufacturers, and Consumers. We provide total video system solutions because we know and help drive the technology, the industry, the business, and all the latest up-and-coming standards. But most of all, we know exactly what you need for your unique application – the right solution.

KD-CDA3
HDTV Distribution Amplifier
3-Channel Component Video & Audio Distribution Amplifier

OPERATING INSTRUCTIONS

The **KD-CDA3 3-Channel HDTV Component Video & Audio Distribution Amplifier by Key Digital®** is the perfect solution for small video and audio distribution applications. Convenient and practical, the **KD-CDA3** is the ideal choice for high-quality and economical 3-channel Analog signal distribution from any HDTV or SDTV Component Video (YPbPr) or RGBHV Video source including 1080p, as well as analog stereo or digital (PCM) Audio. It delivers crystal-clear, color-rich, artifact-free, and pristine HDTV and SDTV images to component HDTV-ready monitors in all video formats, including 1080p. **The KD-CDA3** is the ideal product for driving your HD and SD sources to plasma displays, front and rear projectors, direct view monitors, and video walls; and can even be adapted for Composite Video and S-Video SDTV applications. The Output format and resolution = the Input format and resolution. Future-proof, expandable, 300 MHz Video bandwidth, the KD-CDA3 drives cables up to 300 feet. It is compact and rugged, and comes equipped with its own convenient mounting bracket. **Only operate the KD-CDA3 with the Key Digital® external Power Supply provided with your unit.**

HDTV CERTIFIED
480p · 720p · 1080i · 1080p

Web :: www.keydigital.com

Phone :: 914-667-9700   Fax :: 914-668-8666   Rev 0 - December 2005

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⚠️ CAUTION! ⚠️

KD-CDA3 HDTV Distribution Amplifier
3-Channel Component Video & Audio Distribution Amplifier

CAUTION: YOUR KD-CDA3 HDTV DISTRIBUTION AMPLIFIER COMES WITH ITS OWN EXTERNAL POWER SUPPLY THAT MUST BE ATTACHED TO THE UNIT.

No other Power Supply Adapter can be used with this unit! Using a Power Supply other than the one provided by Key Digital® with your unit VOIDS THE ENTIRE PRODUCT WARRANTY, may cause damage to your unit and associated equipment, and is a potential safety hazard.

You MUST use the Power Supply that came with your unit:

+ 5V DC, 110-120 VAC, 60 Hz (7 watts)

⚠️

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Safety Instructions – Please be sure to follow these instructions for safe operation of your unit

1. Read these instructions.

2. Keep these instructions.

3. Heed all warnings.

4. Follow all instructions.

5. Do not use this apparatus near water.

6. Clean only with dry cloth.

7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11. Only use attachments/accessories specified by the manufacturer.

12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.

14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

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Introduction

Key Digital's® dedication to providing the best possible solution to the Home Theater community is reflected in the **KD-CDA3 HDTV Distribution Amplifier**, manufactured under stringent quality control standards that exceed the industry norm. This commitment to quality, reliability and performance is reflected throughout the entire Key Digital® product line. Every product is tested and certified by a limited warranty of two years parts and labor, one of the best in the business. Please read the installation instructions below and enjoy your Component Video/Audio Distribution Amplifier for years to come.

The **KD-CDA3 HDTV Distribution Amplifier by Key Digital**® provides convenience and economy for your small-scale professional Video/Audio distribution applications. Perfect for both the board room and home entertainment applications, this versatile component is the ideal complement to your video and audio equipment, making possible the interface of your HDTV or SDTV source signals (Video and Audio) to as many as three (3) independent video displays. In addition, the KD-CDA3 HDTV Analog Distribution Amplifier can also switch PCM digital and/or left and right stereo Audio for as many input/output combinations. The interface is via the RCA type connector array, supporting Component Video (YPbPr) or "VGA" (RGBHV) Video formats up to and including 1080P.   The KD-CDA3 can even be adapted for Composite Video and S-Video SDTV applications.

Typical source components you may need to distribute with your KD-CDA3 HDTV **Distribution Amplifier** can include the following:

- DVD Players
- Electronic game boxes
- Cable TV, satellite and terrestrial DTV set-top receivers
- Digital Video Recorders
- D-VHS, S-VHS and VHS VCR's

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Key Features

Your KD-CDA3 HDTV Distribution Amplifier enables 3-channel signal distribution from any HDTV or SDTV Component Video (YPbPr) or RGBHV Video source including 1080p, to HDTV-ready displays. The KD-CDA3 distributes Video and analog stereo or digital (PCM) Audio with the crystal-clear images you've come to expect from Key Digital®.

There is so much in store with Key Digital's® new **KD-CDA3 HDTV Distribution Amplifier:**

- Pristine, crystal-clear distribution of ALL your HD and SD Analog sources, even 1080p, out to 300 MHz:
  ⇒ Component Video (YPbPr) or "VGA" (RGBHV) Video
    - RGBHV installations preclude Audio distribution with your KD-CDA3 unit
  ⇒ Digital PCM or analog stereo (Left & Right pairs) Audio
  ⇒ RCA connectors
  ⇒ Output video format & resolution = Input video format & resolution
  ⇒ It is possible to substitute Composite Video (CVBS) or S-Video in place of the Component Video signals, using appropriate adapter cables
- Easy to set up and operate:
  ⇒ Simply connect your source and displays, and you are up and running
  ⇒ You must use the external Power Supply provided with your unit
- Expandable and cascadable with additional KD-CDA3 or other Key Digital® HDTV Distribution Amplifiers
- Convenient mounting bracket provided for ease of installation

Technology

As for all Key Digital® products, it's our custom technology that allows us to deliver the highest standard of picture quality, like:

LHBC (Linear High Bandwidth Circuit)
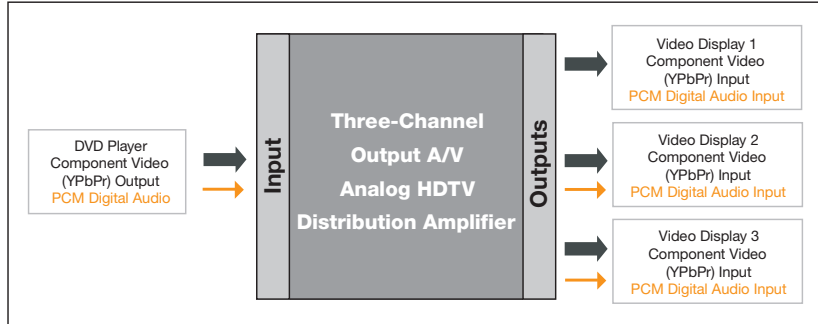
Surface Mount Technology

Multi-Layer Board Technology

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Getting Started

The **KD-CDA3 HDTV Distribution Amplifier** is capable of distributing any Analog three-wire Component Video (YPbPr) and/or five-wire "VGA" Video (RGBHV) source, as well as analog/digital audio, to as many as three (3) outputs (typically your displays or projectors). If your source device output is on a VGA connector, you will need a breakout cable to RGBHV on separate RCA connectors; RGBHV installations pre-clude Audio distribution with your KD-CDA3 unit. Once configured, there are no con-trols to operate and the unit will be "transparent" to your entire installation or applica-tion. It's truly "configure and forget about it" - you are done.

Functionality of a Three-Channel Distribution Amplifier

DVD Player Component Video (YPbPr) Output PCM Digital Audio	Input	Three-Channel Output A/V Analog HDTV Distribution Amplifier	Outputs	Video Display 1 Component Video (YPbPr) Input PCM Digital Audio Input
				Video Display 2 Component Video (YPbPr) Input PCM Digital Audio Input
				Video Display 3 Component Video (YPbPr) Input PCM Digital Audio Input

This KD-CDA3 HDTV Distribution Amplifier accepts virtually any Component Video input signal (YPbPr) with a matching left and right stereo audio pair (L&R audio can be substituted by a single digital PCM audio connection), and distributes it to up to three (3) Display devices around your home or showroom without the loss of signal quality. "VGA"-like video, called RGBHV, can be used in place of the Component Video and Audio. A typical hookup will consist of a "Source" device that outputs Component Video (or Composite Video or S-Video with optional video adapters) such as a DVD player, Set-Top Box unit, Satellite receiver, digital VCR, Sony-PlaystationÍ, XBOXÍ, GameCubeÍ or any other consumer video device.

> ⚠️ **CAUTION: Always test all connections and final operation first, before sealing cables behind walls or completing diffi-cult wire routings. Since the KD-CDA3 HDTV Distribution Amplifier does NOT perform video processing, the output video format and resolution is the same as the input video format and resolution. This means that the video resolution is not changed and also that if you input one form of video, for example Component Video (YPbPr), the output will be in exactly the same format.**

Open the carton and you will find the following contents:

1. One (1) KD-CDA3 HDTV Distribution Amplifier unit
2. One (1) +5V DC external Power Supply adapter module*
3. One (1) plastic mounting bracket
3. One (1) Operating Instructions Manual
4. One (1) Warranty card

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*Power Requirements

- External power supply
- + 5V DC, 110-120 VAC, 60 Hz (7 watts)

> ⚠️ **CAUTION: No other power supply adapter can be used with the KD-CDA3 unit; you must use the Power Supply provided! Using a power supply other than the one provided by Key Digital® with your unit VOIDS THE WARRANTY, may cause damage to your unit and associated equipment, and is a potential safety hazard.**

CONNECTING A/V EQUIPMENT TO YOUR UNIT

In this section, you will be instructed as to how to connect all of your A/V Input and Output devices to your KD-CDA3 HDTV Distribution Amplifier unit.

Setting up your KD-CDA3 HDTV Distribution Amplifier for operation:

Your KD-CDA3 HDTV Distribution Amplifier is easy to configure and operate. Simply connect your Input analog Video and analog or digital Audio source, and drive up to three (3) displays. For Component Video applications, you can also simultaneously drive your displays or Surround Sound processors with digital or analog Audio. There are no other controls, and no other setup is required other than supplying power to your unit with the Power Supply adapter provided with your unit.
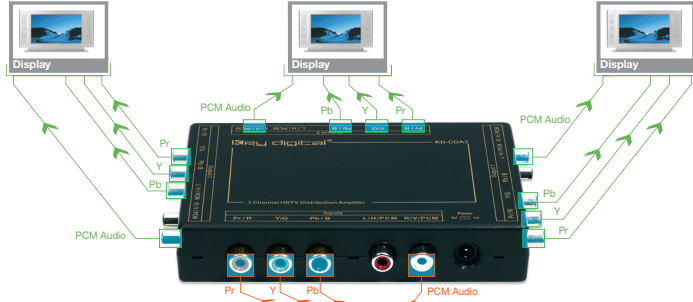
KD-CDA3 Operating Instructions

> ⚠️ **CAUTION: When unpacking the unit, make all hookups and connections before plugging in the Power Adapter provided with your unit. Do NOT apply power to the unit until all Video and Audio connections have been made to your KD-CDA3 unit from the "Source" device to the Display(s) and/or Audio system(s). You MUST use the Power Supply provided with your unit or you VOID the Key Digital® Warranty and risk damage to your unit and associated equipment.**
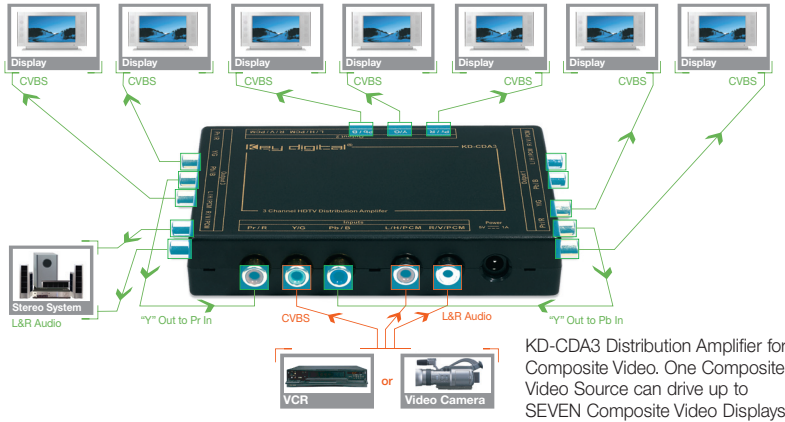
You may wish to distribute the signal from your DVD Player, Video Game, Cable TV, Satellite and Terrestrial DTV set-top receiver, Digital Video Recorder, D-VHS, S-VHS, or VHS VCR "Source" to several Displays. Typical Application Examples of how you may use the KD-CDA3 HDTV Distribution Amplifier in your installation are shown here. Because not all consumer equipment marketed uses RCA connector interfaces, it may be necessary to employ BNC-to-RCA, VGA-to-RCA, and other adapter plugs and/or cable assemblies to interface these various devices to your KD-CDA3 HDTV Distribution Amplifier.

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Typical Application Examples for the KD-CDA3 HDTV Analog A/V Distribution Amplifier

KD-CDA3 HD Analog Component Video (YPbPr) and Digital PCM Audio One Source can drive up to THREE Displays

KD-CDA3 Distribution Amplifier for Composite Video. One Composite Video Source can drive up to SEVEN Composite Video Displays

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High-quality Component Video (YPbPr) and "VGA" (RGBHV) Equipment

Some of your Source equipment and Displays may have an analog video output that is called Component Video. Component Video is a three-wire video format, with the video signals typically labeled YPbPr. Another common analog video output format is RGB (like the "VGA" outputs on your computer), which typically has separate H&V sync signals.

The KD-CDA3 HDTV Distribution Amplifier has one (1) bank of RCA-type Input connectors, and three (3) banks of RCA-type Output connectors. Each of the RCA connectors are color coded to match most "Source" and "Display" devices available in the consumer industry; Red, Green and Blue for Component Video; White, and Red for left and right audio respectively (PCM audio can be distributed by using either the left or right audio channel).

Typical Connectors Color-code

Component Video (YPbPr)		"VGA" Video (RGBHV)		Left & Right Analog Stereo Audio (L&R)		Digital PCM Audio	
Pr	Red	R	Red	R	Red	PCM 1	Red**
Y	Green	G	Green	L	White	PCM 2	White**
Pb	Blue	B	Blue				
		H = Horizontal Sync	Red*				
		V = Vertical Sync	White				

*Note: H Sync may also be Yellow on some Source and Sync products

**Note: These are the colors on the KD-CDA3 RCA connectors; however, the corresponding colors on your Source and Sink products may vary

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Be careful not to confuse the Red lead of a Component Video (YPbPr) cable with the Right or Red audio channel. To avoid confusion, note that the Red lead (Pr) from the Component Video cable is often bundled to the Green lead (Y) and Blue lead (Pb) from the component cable. Typically an analog Audio cable is comprised of a Right-channel stereo (Red-colored) connector together with a Left-channel stereo (White-colored) connector.

Typically, connecting the KD-CDA3 HDTV Distribution Amplifier into your system is as simple as matching the proper color-coded connectors. When inserting the RCA connectors use a slight twisting motion when inserting the cables, this assures a proper connection by seating the RCA connector all the way in. Be sure to use high-quality 75 Ohms cables for the video. When running long lengths of cable please make sure to use heavy shielded high quality cables.

> **Caution: For proper operation of the high quality electrical circuits in your KD-CDA3 unit, do NOT "daisy chain" Inputs:**
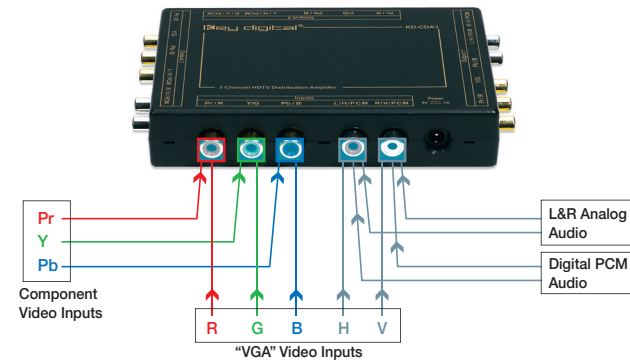> - **Each Input of the KD-CDA3 has its own 75 Ohms termination**
> - **Do NOT feed a Source to multiple KD-CDA3 Inputs without proper Distribution equipment**

Note: Since the KD-CDA3 HDTV Distribution Amplifier does NOT perform video processing, the output video format is the same as the input video format. This means that the video resolution is not changed and also that if you input one form of video, for example Component Video, the output will be in exactly the same format.

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Connect your COMPONENT VIDEO Source Input

Before supplying power to your KD-CDA3 HDTV Distribution Amplifier unit, connect the Output of the Component Video Source device you wish to distribute to your displays to the Inputs of KD-CDA3.

The "Source" device Outputs should be connected to the jacks marked "Input" on the KD-CDA3. After hooking up the "Source" device to the marked input connectors, the KD-CDA3 will distribute the selected input signal to all of the output connectors.

Alternate Video Inputs

RGBHV

RGBHV installations with separate H & V syncs preclude Audio distribution with your KD-CDA3 unit. Simply follow the labels on your KD-CDA3 and connect the RGB Video signals, and H&V Sync signals, accordingly. You may require breakout cables or adapters to the RCA Inputs of the KD-CDA3.

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S-Video

For SDTV S-Video, simply follow the labels on your KD-CDA3 and connect the Y and color (chrominance) signals. Use the "Y" Input of the KD-CDA3 for the S-Video Y signal. Note that if you may use either the Pr or Pb Input for the S-Video chrominance signal. However, be sure to correspondingly use the same (Pr or Pb) when driving your displays. For example, if you input the S-Video color signal on the Pr path, then you MUST use the Pr Outputs of the KD-CDA3 to drive your S-Video displays. You may require breakout cables or adapters to the RCA Inputs of the KD-CDA3.
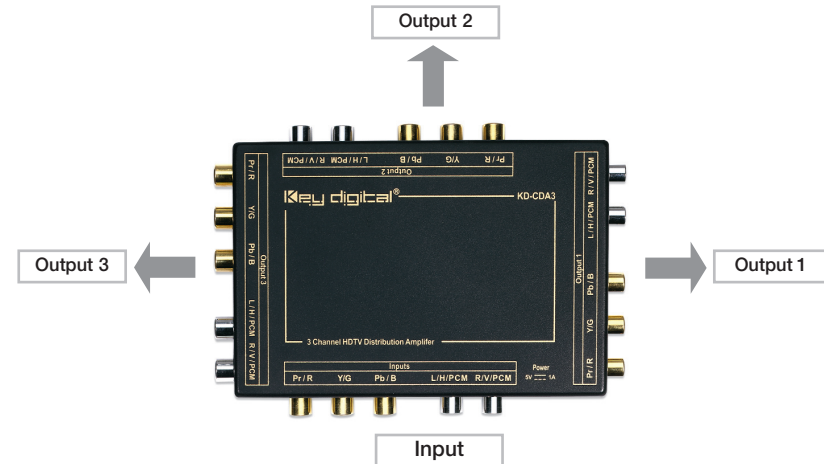
Composite Video

SDTV Composite Video, frequently called CV or CVBS, is a single-wire video format. You must use one of the three KD-CDA3 inputs for the Composite Video Input, and correspondingly use the same Output label to drive your Composite Video display. For example, use the "Y" Inputs and Outputs. This way, you will have three (3) Composite Video Outputs. You can achieve a higher level of CVBS distribution, for driving up to seven (7) Composite Video displays, by feeding back the KD-CDA3 Outputs to the open KD-CDA3 Inputs. Refer to the Application Example for Composite Video provided later in this Operating Manual. You may require breakout cables or adapters to the RCA Inputs of the KD-CDA3.

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Connect your Output Displays

Now that the Video and Audio Inputs are connected to your KD-CDA3, run each of the individual set of Output connectors to their respective "Display" devices. The three (3) Output port banks are labeled Output 1, Output 2, and Output 3.

Output 2

Output 3

Output 1

Input

Always test all connections and final operation first, before sealing cables behind walls or completing difficult wire routings.

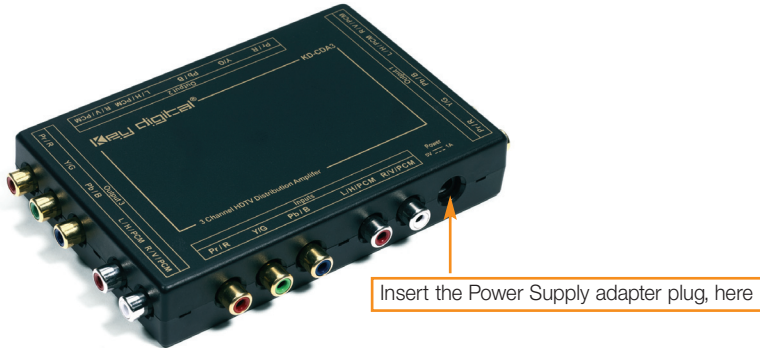Caution: For proper operation of the high-quality electrical circuits in your KD-CDA3 unit, you MUST ensure for each Output:
- **Each run of YPbPr cable MUST be the same length**
- **Maximum run length = 300 feet**

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Make sure to use the correct wires when making the connections to the "Display" device (use the color matching system if possible).

The same consideration applies to the audio interfaces. Both analog and digital output options are provided on the KD-CDA3 HDTV Distribution Amplifier. Your analog Audio may drive the speakers in your display. Your digital Audio may connect instead to an A/V receiver having coaxial digital (PCM) interfaces for decoding surround sound signals.

Insert the Power Supply adapter plug, here

Next, plug the external Power Supply provided with your unit into an appropriate* wall outlet.

*Power Requirements
- External power supply
- + 5V DC, 110-120 VAC, 60 Hz (7 watts)

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You MUST use the Power Supply that came with your unit:
+ 5V DC, 110-120 VAC, 60 Hz (7 watts)

For added safety and protection it is always recommended to use a good quality surge protector.

Use a reliable "Source" to test your connections (like a DVD player) before routing or hiding any wires behind walls or ceilings.

Mounting and Maintenance instructions

The KD-CDA3 HDTV Distribution Amplifier is built for years of trouble free operation. It can be installed in any home theater, showroom, or other system using multiple displays. Cleaning or maintenance is usually not necessary, but if needed use a soft non-abrasive dry cloth to wipe the dust from the unit.

Since the KD-CDA3 is an electrically powered device, it will produce a small amount of heat; therefore it is recommended to leave a few inches of room around the unit to dissipate this heat. You may attach the mounting clip provided to a suitable location, and then carefully clip the KD-CDA3 into the mounting clip once the mounting clip is secure.

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Mounting Information

- A convenient mounting bracket is provided

- The top and bottom of the unit are solid metal (no vents)

- The unit may be oriented horizontally, or mounted vertically on a wall
  -Use #8 or M4 screws to hang the unit (keyhole slots are provided on the base of the unit)

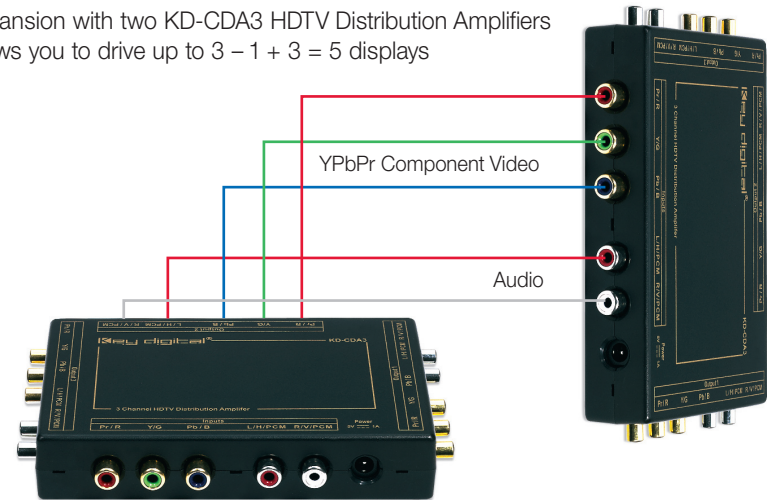| ⚠	Caution: If installing the KD-CDA3 unit or Mounting Bracket into sheet-rock or hollow walls, provide proper screw support with bolts or sheet-rock anchors.

Expansion

You may find that as your Video and Audio system grows, you may need to distribute your Source to more than three displays. The full line of Key Digital® Analog Distribution Amplifiers is truly expandable and cascadeable. Not only is your system future-proof, but also you will be able to enjoy beautiful, crystal-clear images, because the signal will not be degraded in any way when you properly cascade Key Digital® products.

If you need to expand the distribution capability of your KD-CDA3 HDTV Distribution Amplifier, simply use one of the Outputs of the unit that may now be going to one of your displays, and connect that output to the input of another Key Digital® Analog Distribution Amplifier. The total distribution capability is the sum of the total Outputs of all units, minus one. For example, using the KD-CDA3 3-output Distribution Amplifier, cascaded with the Key Digital® KD-CDA6 6-output Distribution Amplifier, you will need to use one of the three Outputs of the KD-CDA3 to drive the Input of the Input of the KD-CDA6. Hence, you will be able to drive your Source to up to 8 displays (3 - 1 + 6 = 8).

Remember, you MUST only use the Power Supplies intended for each product, as provided with each Unit. Do not attempt to share or swap Power Supplies.

Expansion with two KD-CDA3 HDTV Distribution Amplifiers allows you to drive up to 3 – 1 + 3 = 5 displays

YPbPr Component Video

Audio

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TROUBLESHOOTING

If you encounter problems or find that the KD-CDA3 unit fails to properly distribute the "Source" signal (such as from your DVD player) to the Video Display(s) and/or Audio system(s), it is suggested you first check for the following:

- Verify that your Source device and displays are functioning properly without the KD-CDA3. Connect your Source directly to your displays and check for proper operation. If you are not able to obtain satisfactory operation, correct the problem before proceeding with the KD-CDA3 in the path.

- Validate that all of the connections are made at all points: the Source Output, the KD-CDA3 Input and Outputs, and your Display and Audio system Inputs.

- Be sure that you have supplied power to the KD-CDA3 unit, using ONLY the Power Supply adapter provided in the package with your unit.

- Ensure you have good-quality cables, of equal length, no greater than 300 feet each in length.

Troubleshooting Guide

If you still encounter a problem with your unit or installation after checking for the items above, you may find it helpful to review the Troubleshooting Guide, next page:

PROBLEM: No power to the unit.
You **MUST** use the Power Supply provided with your unit:
Verify that the external Power Supply provided with your unit is properly connected to a standard 110V household outlet.
Check to make sure that the power connector is properly inserted into the jack on the KD-CDA3.
Check and verify that the wall outlet is active by plugging in a component known to be operational, such as a desk lamp.
Unplug the adapter from the wall and verify that the cable is not cut or interrupted anywhere.
If none of the above works, please contact Key Digital® technical support. See "How to Contact Key Digital® at the end of these Operating Instructions.

PROBLEM: You are not able to view a picture on any or all of your Display devices.
Check to make sure that the connected Display devices are capable of operating with the format and resolution of the "Source". For example, if the Source (such as your DVD player) outputs Component Video (YPbPr) at 1080p, but your display device only accepts 720p RGBHV, then there is a compatibility problem among your equipment.
If any Display device connected to the output of the KD-CDA3 is not capable of handling HDTV-compatible video signals, make sure that the "Source" device connected to the Input of the KD-CDA3 for distribution is set to output SD-compatible signals (Standard Definition or 480i).

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For "VGA" (RGBHV) operation, verify that the Sync is either present on the Green connector or the H & V connectors. Make sure you have properly connected Sync from the Output jacks of your "Source" to the Input of your KD-CDA3, and that the corresponding Outputs of the KD-CDA3 are properly connected to your Display(s).

Note: For Component Video (YPbPr), sync is present on the "Y" Channel.

PROBLEM: **You are able to view a picture on the Display(s), but the image is Black and White, Green, or Pink in Nature.**

This is indicative of a mismatch between "Source" and Display devices in the Video connections. Make sure that your Source and Displays are all of the same format. For example, if the Source outputs "Component Video" (YPbPr) then the connections to your Display(s) must also be via the "Component Video" path (and not the VGA).

Make sure that the Component Video (YPbPr) or "VGA" Video (RGBHV) connections are properly maintained throughout the entire chain from the Source, to the KD-CDA3, to your Display device(s).

PROBLEM: **There is a picture but it is "scrolling" across the screen of one or more of your Display devices.**

This happens when the Input signal from your Source device is not compatible you're your Display, or if there is a problem with the Sync signal(s).

For example, if one or more of your Displays connected to the Output of the KD-CDA3 is not capable of handling HDTV-compatible video signals, make sure that the "Source" device is set to output SD- compatible signals (Standard Definition or 480i).

For "VGA" (RGBHV) operation, verify the presence of the Sync signal.
Note: For Component Video (YPbPr), sync is present on the "Y" Channel.

PROBLEM: **You are able to view a picture but there is interference, noise, or hum bars visible on the image on one or more of your Display devices.**

This can happen when crossing power lines when routing the cable from the "Source" device to the KD-CDA3, or when routing the cables from the KD-CDA3 to your Display device(s).

If crossing power lines is inevitable, make sure to use heavy, shielded, high-quality Video and Audio cables.

Sometimes using a shielded and noise filtering surge protector can eliminate noise in power lines.

PROBLEM: **There is no Audio from your Audio system.**

Check to make sure that the volume is turned up to an audible level on the "Source" device as well as the Display device. If you still encounter a problem, then:

Make sure that the Audio connections were properly configured, and that your display has speakers. Check the connections from start to finish for the Left (white) and Right (red) stereo Audio channels.

When using the Digital Audio connection ("PCM" or coaxial audio), make sure that the Display device is capable of decoding this compressed bit stream of audio information. Most often when using the "PCM" audio function, the audio will be connected to an AV-Receiver or amplifier capable of decoding Dolby Digital®.

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TECHNICAL SPECIFICATIONS

Model: KD-CDA3 Operating Instructions

HDTV Distribution Amplifier

3-Channel Component Video & Audio Distribution Amplifier

Key Features

- Enables 3-channel signal distribution from any HDTV or SDTV Component Video (YPbPr) or RGBHV Video source including 1080p, to HDTV-ready displays
    ⇒ Also distributes S-Video
    ⇒ Also distributes a Composite Video (CVBS) signal to up to seven (7) Composite Video displays
- Distributes Video and analog stereo or digital (PCM) Audio
    ⇒ RGBHV installations preclude Audio distribution with your KD-CDA3 unit
- No controls
- Crystal-clear images

Inputs and Outputs

- One (1) Audio/Video Input
- Three (3) Audio/Video Outputs
- Each Input and Output array is comprised of three (3) component YPbPr analog Video connectors, and two (2) analog stereo Left and Right Audio connectors:
    ⇒ Instead of analog Audio Input/Output, the two (2) connectors can be used for:
        – The Horizontal (H) and Vertical (V) sync for RGBHV signals, or
        – Two (2) PCM digital Audio signals

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- RCA connectors for all Video and Audio inputs and outputs
- Future-proof and expandable:
    ⇒ Can be cascaded to KD-CDA3 or other Key Digital® Distribution Amplifiers to drive as many outputs as desired from one source
- It is possible to substitute Composite Video (CVBS) or S-Video in place of the Component Video signals, using appropriate adapter cables

Compatible Video Signals

- Compatible with all standard analog video signal formats that use 50Hz or 60Hz refresh rates, including:
    ⇒ 1080p, 1080i, 720p, 576p, 576i, 540p, 480p, 480i

Video

- Component Video (YPbPr) or RGBHV Video
    ⇒ RGBHV installations preclude Audio distribution with your KD-CDA3 unit
- Three RCA-type color-coded input connectors (YPbPr, RGB)
- 1V p-p @ 75 ohms, terminated
- 300 MHz video bandwidth
- Sync:
    ⇒ Component Video (YPbPr) sync on "Y" input
    ⇒ The analog audio input/output connectors also serve as the Horizontal and Vertical sync for RGBHV signals
- It is possible to substitute Composite Video (CVBS) or S-Video in place of the Component Video signals, using appropriate adapter cables
    ⇒ Supports up to seven (7) CVBS Outputs or three (3) S-Video Outputs

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KD-CDA3 Operating Instructions

Cable Recommendations
- Each run of YPbPr cable MUST be the same length (300' maximum)

Bandwidth
- -3 dB @ 300 MHz
- Linear phase pass-band
- Drives video signals up to 300 feet

Video Gain
- Unity gain for YPbPr and RGBHV

Analog Audio
- Analog stereo (Left and Right) Audio
- Two RCA-type color-coded input connectors (L, R)
- High-impedance (1K ohm) line level inputs
- RGBHV installations preclude Audio distribution with your KD-CDA3 unit

Digital Audio
- Use the analog Audio Left and Right connectors for digital PCM Audio
- Standard PCM digital format
- RGBHV installations preclude Audio distribution with your KD-CDA3 unit

Mechanical
- Size: 4" x 8" x 1-13/16"

KD-CDA3 Operating Instructions

- Weight: 1.5 lbs. (0.7 kg.)
- Enclosure Type: Metal
- Plastic mounting bracket, included

Mounting Information
- A convenient mounting bracket is provided
- The top and bottom of the unit are solid metal (no vents)
- The unit may be oriented horizontally, or mounted vertically on a wall
  ⇒ Use #8 or M4 screws to hang the unit (keyhole slots are provided on the base of the unit)

> ⚠ **CAUTION: If installing the KD-CDA3 unit or Mounting Bracket into sheet-rock or hollow walls, provide proper screw support with bolts or sheet-rock anchors.**

Power Requirements
- External power supply
- + 5V DC, 110-120 VAC, 60 Hz (7 watts)

> ⚠ **CAUTION: No other power supply adapter can be used with this unit! Using a power supply other than the one provided by Key Digital® with your unit VOIDS THE ENTIRE PRODUCT WARRANTY, may cause damage to your unit and associated equipment, and is a potential safety hazard.**

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How to contact Key Digital®

Repairs and Warranty Service

- Should your KD-CDA3 HDTV Distribution Amplifier require warranty service, please contact Key Digital® to obtain a Returned Materials Authorization (RMA) number

- Please contact us at either:

- Phone: 1-914-667-9700

- E-mail: tech@keydigital.com

Technical Support

- For technical questions about using our products, please contact us at either:

- Phone: 1-914-667-9700 or Toll-free 1-888-258-2028

- E-mail: tech@keydigital.com

Customer Support

- For customer support questions about using our products, please contact us at either:

- Phone: 1-914-667-9700

- E-mail: customersupport@keydigital.com

WARRANTY

All Key Digital® products are built to high manufacturing standards and should provide years of trouble-free operation. They are backed by a limited two-year parts and labor warranty.

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Notes

Notes

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