



KD-VP750

Digital Video Processor, Switcher,
and Universal Video Center

Operating Instructions

KD-VP750



Key Digital's KD-VP1250 and KD-VP750 are highly-flexible Universal Video Centers with video processing and video switching abilities. These Hot Rod Series™ Video Processors are capable of scaling, de-interlacing, up-converting, and down-converting virtually any input source and output to virtually any Standard and High Definition display up to 1080p.



Key digital®

The Experts in Digital Video Technology and Solutions™

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Please read all instructions to insure safe operation of the product.

KD-VP750

About KD-VP750

Description

- » Digital Video Processor and Switcher capable of scaling 480i standard definition and 480p high definition Component, Composite and S-Video sources to Component or VGA output.

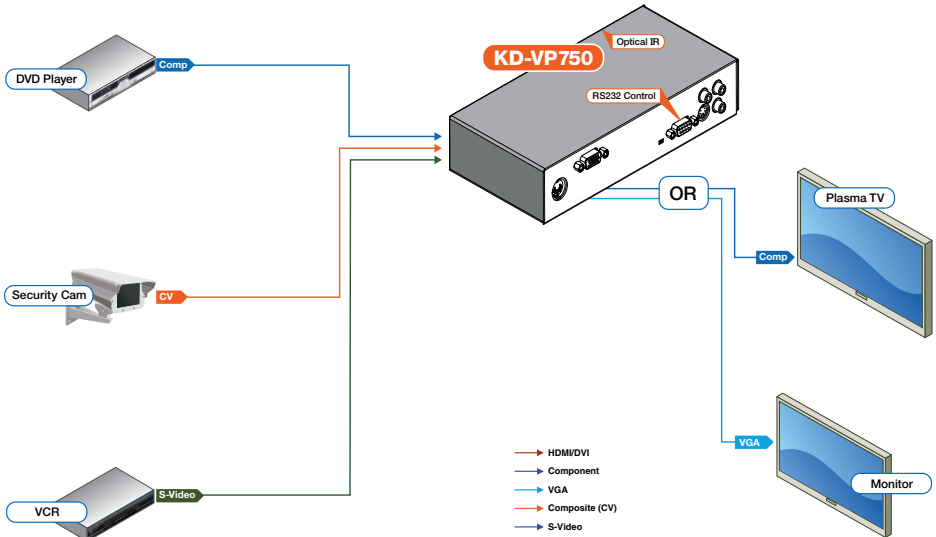
Key Features

- » VGA Output accommodate Component Video format with supplied breakout cable
- » Up-converts 480i and 480p resolution video inputs to a single Component/RGBHV output with available resolutions from 480i to 1080p
- » Supports most video formats to all standard HDTV outputs: SD, HD, and VESA (VGA, SXGA, WXGA) resolutions up to 1080p

Key Benefits

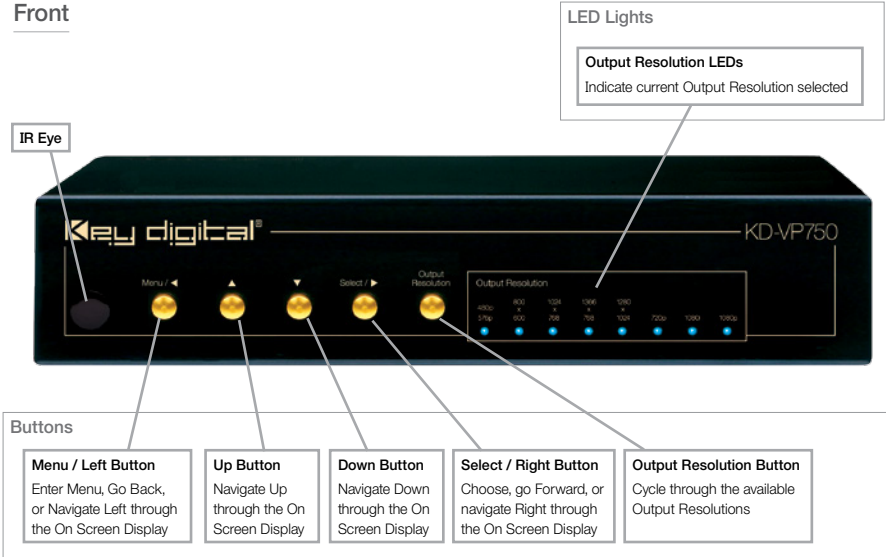
- » Universal Video Center consolidating multiple video formats to a single Component/YPrPb or VGA/RGBHV Video connection on display
- » Frame rate conversion from 50Hz to 60Hz and from 60Hz to 50Hz
- » Optical IR, Top panel push buttons, On-Screen Display and RS-232 control.
- » Supports major control systems such as AMX®, Colorado vNet®, Control4®, Crestron®, HomeLogic™, lifeIware™, RTI®, Savant, Universal®, Xantech®

Application Example

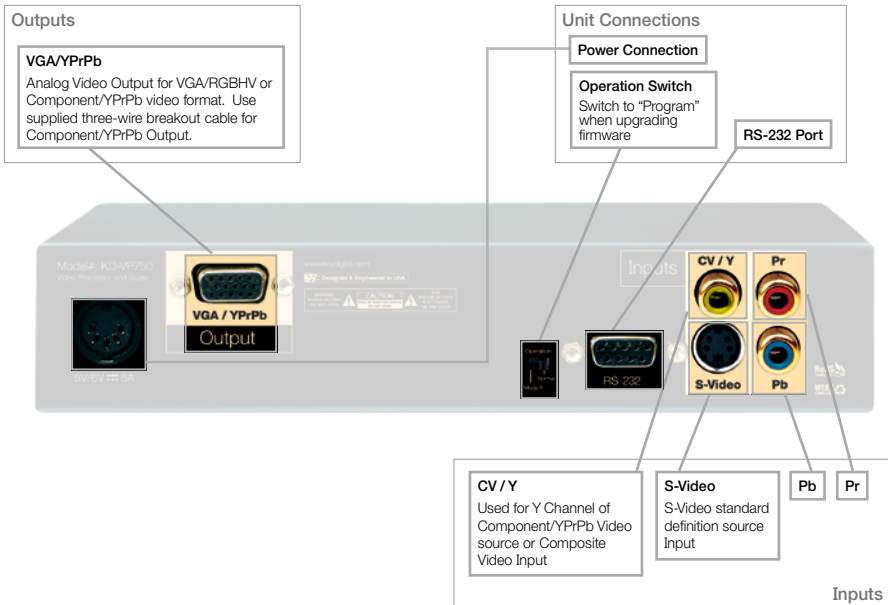


Connections, LEDs and Button Map

Front



Rear



On Screen Display (OSD) Map

Set Up Menu

- › Input Source
 - › Press the Up or Down Buttons to cycle through S-Video, Composite, or Component Inputs
- › Out Resolut.
 - › Press the Up or Down Buttons to cycle through available output resolutions and available frame rates for each
- › Analog Output
 - › Press the Up or Down Buttons to cycle between RGBHV (VGA) or YPbPr (Component) output video format for the VGA / YPrPb Output
- › Aspect Ratio
 - › Press the Up or Down Buttons to cycle between 4:3 or 16:9
- › Over Scanning
 - › Press the Up or Down Buttons to cycle through Off, 20%, 15%, 10%, or 5% Over Scanning



Quick Setup Guide

1. Begin with the KD-VP750 and all input/output devices turned off with power cables removed
2. Connect video sources to appropriate input ports on the KD-VP750
3. Connect all video outputs to displays or receiving devices
4. Connect power to the KD-VP750 and all other input/output devices and turn them on
5. Select desired Analog Video Mode
 - › Use supplied three-wire breakout cable if selecting Component/YPrPb Output
 - › Select desired output resolution by pressing Output Resolution

Supported Input/Output Resolutions

| INPUT | 480i /60 | 576i /50 | 480p /60 | 576p /50 | 720p 50&60 | 1080i 50&60 | VGA 640x 480 | SVGA 800x 600 | XGA 1024x 768 | SXGA 1280x 1024 | WXGA 1366x 768 | 1080p 50&60 |
|----------------|-------------|-------------|-------------|-------------|---------------|----------------|--------------------|---------------------|---------------------|-----------------------|----------------------|----------------|
| CV | ✓ | ✓ | | | | | | | | | | |
| S-Video | ✓ | ✓ | | | | | | | | | | |
| YPrPb | ✓ | ✓ | ✓ | ✓ | | | | | | | | |

| OUTPUT | 480i /60 | 576i /50 | 480p /60 | 576p /50 | 720p 50&60 | 1080i 50&60 | VGA 640x 480 | SVGA 800x 600 | XGA 1024x 768 | SXGA 1280x 1024 | WXGA 1366x 768 | 1080p 50&60 |
|--------------|-------------|-------------|-------------|-------------|---------------|----------------|--------------------|---------------------|---------------------|-----------------------|----------------------|----------------|
| VGA | | | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| YPrPb | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | | |

RS-232 Commands and Protocol

- › KD-VP750 is compatible with all Control Systems, such as AMX®, Colorado vNet®, Control4®, Crestron®, HomeLogic™, lifeIware™, RTI®, Savant, Universal®, Xantech®
- › Connect your Control System's Master Controller to the KD-VP750 unit using the RS-232 port. Follow all instructions provided with your control system.
 - › RS-232 Protocol:
 - › Baud Rate = 19600 bits per second
 - › Data Bits = 8
 - › Parity = None
 - › Stop Bits = 1
 - › Flow Control = None
 - › RS-232 Command List:

RS-232 Command List:

| RS-232 Command | Description | Comments |
|--------------------------------------|---|--|
| H | Help | Full RS-232 command listing |
| System Output Setup Commands | | |
| SP O R x y | Set Output Resolution | x = Format, y = Frame Rate x = [1=480i/576i, 2=480p/576p, 3=SVGA, 4=XGA, 5=1360x768p, 6=SXGA, 7=720p, 8=1080i, 9=1080p] y = [1=60hz, 2=50hz] *Note: Computer resolutions always output @ 60hz irrelevant to setting of "y". |
| SP O A x | Set analog output | x = [1=RGBHV, 2=Component] |
| SP O S x | Set aspect ratio | x = [1=4:3, 2=16:9] |
| SP O V x | Set overscan | x = [1=off, 2=5%, 3=10%, 4=15%, 5=20%] |
| SP I x | Input Select | x = [1=CVBS, 2=S-Video, 3=Component] |
| System Control Setup Commands | | |
| SP C FB E/D/T | Front Panel Buttons Enabled/Disabled/Toggle | E = Enable, D = Disable, T = Toggle |
| SP C DF | Reset to Factory Defaults | |
| Status Commands | | |
| STA | Out Global System Status | |

Specifications

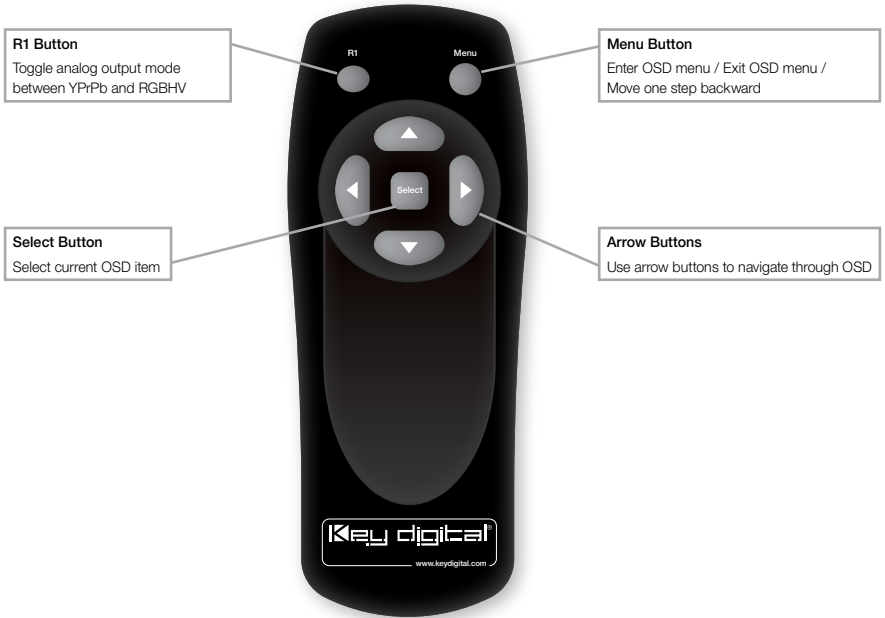
Technical:

- » **Inputs:** 1x Component (Y, Pb, Pr) 1Vpp/75 Ω (progressive or interlaced) on RCA Connectors; 1x Composite 1Vpp/75 Ω on RCA connector, 1x S-Video 1Vpp/75 Ω (Y)
- » **Outputs:** 1 x Component/RGBHV Scaled output (Y/G, Pb/B, Pr/R, H, V) 1Vpp/75 Ω ; 5V TTL for H&V on a VGA female connector
- » **Processing:** 8 fields of 3-D motion adaptive de-interlacing; 3:2 and 2:2 pull-down; bad-edit film detection and correction; subtitle detection and artifact removal; pixel-by-pixel adaptive interpolation; intra-inter-interpolation with alpha-blend combination; multi-directional edge detection and interpolation; fast moving detection and interpolation; noise detection and noise adaptive interpolation; anti-aliasing filter for down scaling, independent vertical and horizontal filter for up and down scaling
- » **Control:** Front panel push buttons, front IR, On Screen Display, RS-232 control
- » **Additional Control:** Auto sensing for input resolutions, selectable output resolutions, independent ProcAmp and aspect ratio control
- » **Power:** External 6V/5A power supply for 100-240VAC, 50/60Hz, 30VA.

General:

- » **Regulation:** RoHS, WEEE
- » **Rack Mount:** Half Rack (Rack Ears Included)
- » **Enclosure:** Black Metal
- » **Product Dimensions:** L = 8.25" W = 4.25" H = 1.75"
- » **Shipping Carton Dimensions:** L = 13.5" W = 7" H = 4.5"
- » **Product Weight:** 2 lbs
- » **Shipping Weight:** 3 lbs
- » **Accessories:** IR Remote Control, VGA (F) to RCA (F) Breakout Cable, UL Certified Power Supply

KD-VP1250/750 Remote Control



KD-VP1250/750 Troubleshooting

If you use component output from KD-VP1250/750 and don't see any picture, try the following:

1. Set output resolution to 480i or 480p (European customers should set it to 576i or 576p) by pressing 'Output Resolution' button on the front of the unit.. Keep in mind that if LED doesn't change after pressing 'Output Resolution' button, frame rate changed to 50hz with the resolution remaining same.



2. If you still don't see any picture after changing resolution, press R1 button on the remote to change analog output mode to YPbPr. This is required because if the KD-VP1250/750 is set to RGBHV output, component sync is not available on the output, resulting in the display not showing any picture.



Important Product Warnings:

1. Connect all cables before providing power to the unit.
2. Test for proper operation before securing unit behind walls or in hard to access spaces.
3. If installing the unit into wall or mounting bracket into sheet-rock, provide proper screw support with bolts or sheet-rock anchors.



Safety Instructions.

Please be sure to follow these instructions for safe operation of your unit.

1. Read and follow all instructions.
2. Heed all warnings.
3. Do not use this device near water.
4. Clean only with dry cloth.
5. Install in accordance with the manufacturer's instructions.
6. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
7. Only use attachments/accessories specified by the manufacturer.
8. Refer all servicing to qualified service personnel. Servicing is required when the device has been damaged in any way including:
 - » Damage to the power supply or power plug
 - » Exposure to rain or moisture



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.

How to Contact Key Digital®

System Design Group (SDG)

For system design questions please contact us at:

- › Phone: 914-667-9700
- › E-mail: sdg@keydigital.com

Key Digital Trainings

For questions about Key Digital® Trainings please contact us at:

- › Phone: 914-667-9700
- › E-mail: training@keydigital.com

Customer Support

For customer support questions please contact us at:

- › Phone: 914-667-9700
- › E-mail: customersupport@keydigital.com

Technical Support

For technical questions about using Key Digital® products, please contact us at:

- › Phone: 914-667-9700
- › E-mail: tech@keydigital.com

Marketing and Public Relations:

For marketing and public relations information, please contact us at:

- › Phone: 914-667-9700
- › E-mail: marketing@keydigital.com

Repairs and Warranty Service

Should your product require warranty service or repair, please obtain a Key Digital® Return Material Authorization (RMA) number by contacting us at:

- › Phone: 914-667-9700
- › E-mail: rma@keydigital.com

Feedback

Please email any comments/questions about the manual to:

- › E-mail: customersupport@keydigital.com

Warranty Information

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.



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.



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