KRAMER

DIP-31 Quick Start Guide

This guide helps you install and use your **DIP-31** for the first time.

Go to www.kramerav.com/downloads/DIP-31 to download the latest user manual and check if firmware upgrades are available.

Step 1: Check what's in the box

- ☑ **DIP-31 Automatic Video Switcher**
- ☑ 1 Power supply (12V DC)
- ☑ 1 Set of rack ears
- ☑ 4 Rubber feet
- ☑ 1 Quick start guide

Step 2: Get to know your DIP-31
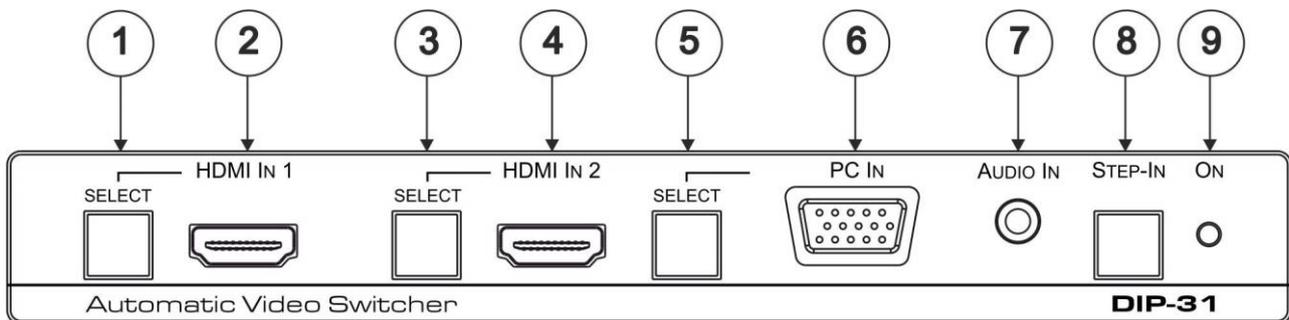
#	Feature		Function
1	HDMI™ IN 1	SELECT Button	Press to select the HDMI In 1 input. When HDMI In 1 is selected, the button: Lights red when external audio is selected Lights green when HDMI In 1 is selected
2		HDMI 1 Connector	Connect to the first HDMI source
3	HDMI IN 2	SELECT Button	Press to select the HDMI In 2 input. When HDMI In 2 is selected, the button: Lights red when external audio is selected Lights green when HDMI In 2 is selected
4		HDMI 2 Connector	Connect to the second HDMI source
5	PC IN	SELECT Button	Press to select the PC graphics input. When PC graphics is selected, the button: Lights red when external audio is selected Lights green when the PC input selected
6		PC Graphics 15-pin HD Connector	Connect to the PC graphics source, (for example, a laptop)
7	AUDIO IN 3.5mm Mini Jack		Connect to the unbalanced, stereo audio source, (for example, the audio output of the laptop)
8	Step-In Button		Press to take control of the input that this device is connected to on a compatible switcher
9	ON LED		Lights green when the device is powered on
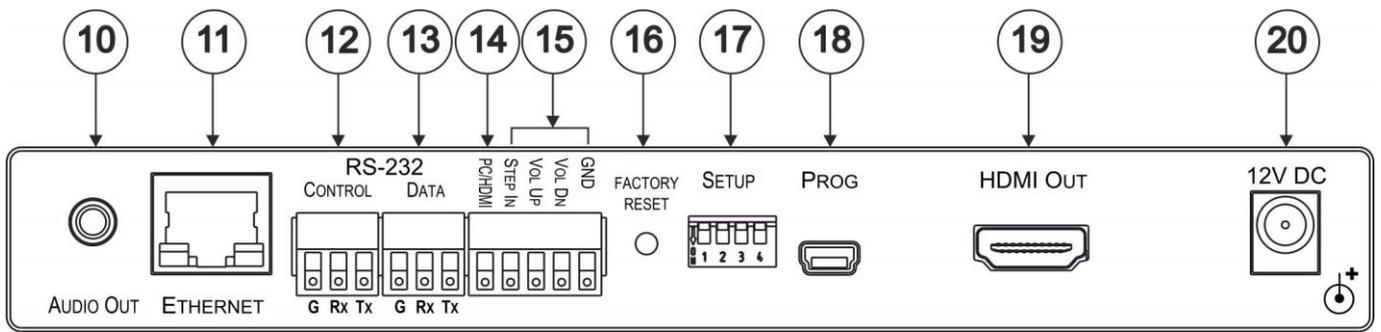
#	Feature	Function
10	AUDIO OUT 3.5mm Mini Jack	Connect to the unbalanced, stereo audio acceptor, (for example, active speakers)
11	ETHERNET RJ-45 Connector	Connect to the LAN, (Ethernet traffic or PC controller)
12	RS-232 CONTROL 3-pin Terminal Block	Connect to a serial controller or PC
13	RS-232 DATA 3-pin Terminal Block	Connect to a serial data source or acceptor
14	PC/HDMI Remote Toggle Switch Terminal Block	Connect to a remote switch to toggle between the PC graphics and HDMI inputs
15	Remote Contact-closure 4-pin Terminal Block	Connect to remote momentary switches to control step-in and audio volume
16	FACTORY RESET Button	Short press to reboot, long press to reset the device to factory default parameters
17	SETUP 4-way DIP-switch	Switches for setting the device behavior (see Step 5)
18	PROG Mini USB Connector	Connect to a PC to perform a firmware upgrade
19	HDMI OUT Connector	Connect to a compatible HDMI display
20	12V DC Connector	Connect to the supplied power adapter

The terms HDMI, HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.

Step 3: Mount DIP-31

Install **DIP-31** using one of the following methods:

- Attach the rubber feet and place the unit on a flat surface.
- Fasten a bracket (included) on each side of the unit and attach it to a flat surface (see www.kramerav.com/downloads/DIP-31).
- Mount the unit in a rack using the recommended rack adapter (see www.kramerav.com/product/DIP-31).
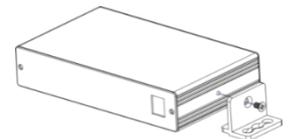
- Ensure that the environment (e.g., maximum ambient temperature & air flow) is compatible for the device.
- Avoid uneven mechanical loading.
- Appropriate consideration of equipment nameplate ratings should be used for avoiding overloading of the circuits.
- Reliable earthing of rack-mounted equipment should be maintained.
- Maximum mounting height for the device is 2 meters.

Step 4: Connect inputs and outputs

Always switch OFF the power on each device before connecting it to your **DIP-31**. For best results, we recommend that you always use Kramer high-performance cables to connect AV equipment to the **DIP-31**.
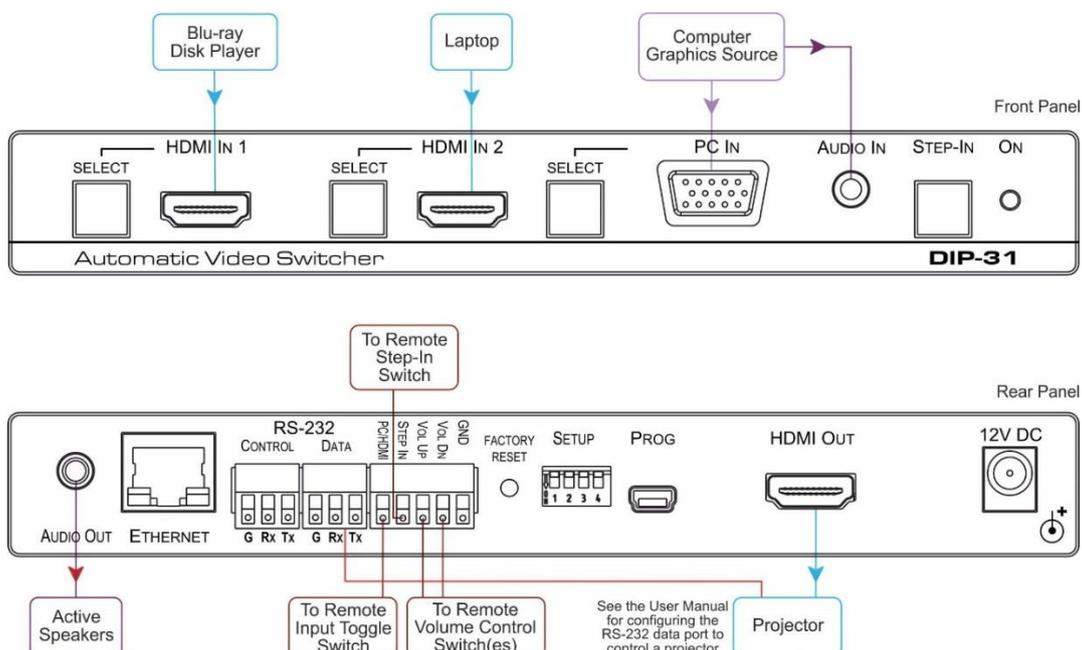
Step 5: Set DIP-switches

Video Switching Selection

DIP-switch 1	DIP-switch 2	Video Input Selection
Off (up)	Off (up)	Automatic—Last connected. Where more than one source is connected the last one connected has priority
Off (up)	On (down)	Automatic—Priority selection. HDMI 1 → HDMI 2 → PC IN (default, high to low priority)
On (down)	Off (up)	Manual
On (down)	On (down)	Manual
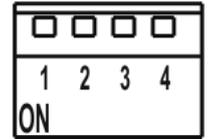
Audio Switching Selection

DIP-switch 3	DIP-switch 4	Audio Input Selection
Off (up)	Off (up)	Automatic—Priority selection. Embedded HDMI → analog Audio In (high to low priority)
Off (up)	On (down)	Automatic—Priority selection. Analog Audio In → embedded HDMI (high to low priority)
On (down)	Off (up)	Embedded HDMI
On (down)	On (down)	Analog Audio In

Step 6: Connect power

Connect the 12V DC power adapter to the **DIP-31** and plug it into the mains electricity.

Safety Instructions (See www.kramerav.com for updated safety information)
Caution:
- For products with relay terminals and GPI\O ports, please refer to the permitted rating for an external connection, located next to the terminal or in the User Manual.
- There are no operator serviceable parts inside the unit.

Warning:
- Use only the power cord that is supplied with the unit.
- Disconnect the power and unplug the unit from the wall before installing.

Step 7: Operate DIP-31

To operate and control the **DIP-31** use:

Front Panel Buttons

HDMI 1 Select

HDMI 2 Select

PC IN Select

STEP-IN

Remote Control Switches

PC/HDMI—input selection/VGA phase shift adjustment	Short press—Input toggle Long press—Adjusts the VGA phase shift)
STEP IN	Activates the step-in function if relevant
VOL UP—analog audio output volume increase control	Short press—Increases the volume one step Long press—Increases the volume from 0% to 100% in 10 seconds
VOL DN—analog audio output volume decrease control	Short press—Decreases the volume one step Long press—Decreases the volume from 100% to 0% in 10 seconds
GND	Connect to the common side of the switches
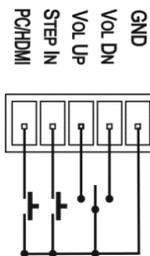
Web Pages from IP 192.168.1.39
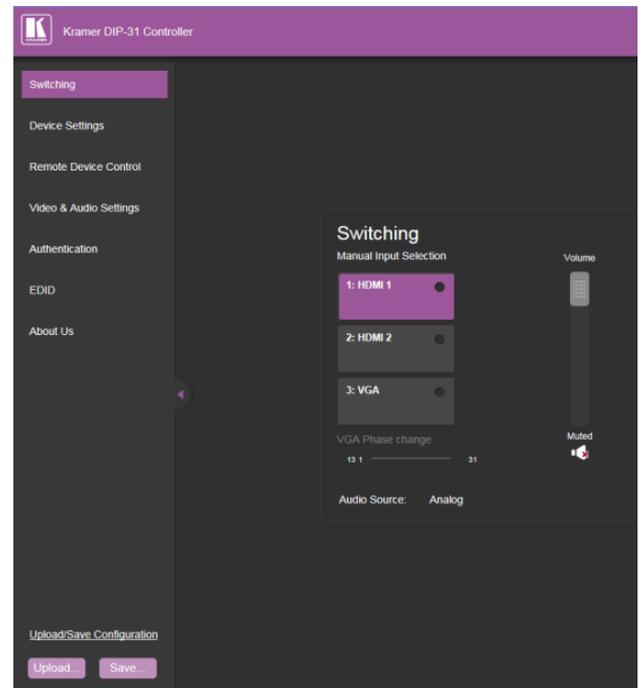
Default RS-232 Communication Parameters

Parameter	Values
Baud Rate	115200
Data Bits	1
Stop Bits	1
Parity	None
Command Format	ASCII

Technical Specifications

Inputs	Video:	2 HDMI on HDMI connectors 1 VGA on a 15-pin HD (F) connector
	Audio:	1 Unbalanced stereo audio 1V RMS (nominal) on a 3.5mm mini jack
Outputs	Video:	1 HDMI on an HDMI connector
	Audio:	1 Unbalanced stereo audio 1V RMS (nominal) on a 3.5mm mini jack
Ports	1 Ethernet on an RJ-45 connector 1 RS-232 3-pin terminal block control port 1 RS-232 3-pin terminal block data port 1 USB on mini USB connector	
Controls	Remote switches for input switching, step-in, volume control, and device reset switch	
Standards	HDMI with Deep Color, x.v.Color™ and 3D HDCP—works with sources that support HDCP repeater mode	
Maximum Analog Audio Levels	3.1V p-p	
THD	0.013%	
SNR	75dB	
Supported Web Browsers	Windows 7 and higher: • Internet Explorer (32/64 bit) version 11 • Firefox version 30 • Chrome version 35 MAC: • Chrome version 35 • Firefox version 27 • Safari version 7 Android OS: • Chrome version 35 iOS: • Chrome version 35 • Safari version 7	
Power Consumption	12V DC, 600mA	
Operating Temperature	0° to +40°C (32° to 104°F)	
Storage Temperature	–40° to +70°C (–40° to 158°F)	
Humidity	10% to 90%, RHL non-condensing	
Cooling	Convection	
Enclosure Type	Aluminum	
Dimensions	18.75cm x 11.5cm x 2.54cm (7.38" x 4.53" x 1.0") W, D, H	
Weight	0.43kg (0.95lbs) approx.	
Shipping Dimensions	34.5cm x 16.5cm x 5.2cm (13.6" x 6.5" x 2.0") W, D, H	
Shipping Weight	1.03kg (2.3lbs) approx.	
Environmental Regulatory Compliance	Complies with appropriate requirements of RoHs and WEEE	
Included Accessories	Power adapter	
Warranty	7 years parts and labor	

CE   22 PAP