KRAMER

VM-2HDT, VM-3HDT Quick Start Guide

This guide helps you install and use your **VM-2HDT, VM-3HDT** for the first time.
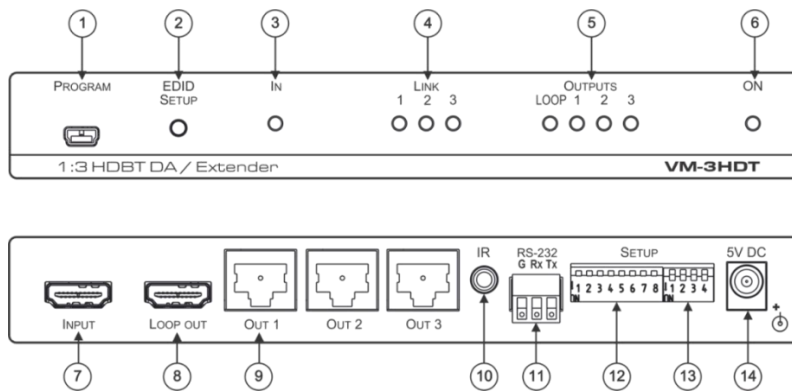
Go to www.kramerav.com/downloads/VM-2HDT, VM-3HDT to download the latest user manual and check if firmware upgrades are available.

Step 1:   Check what's in the box

- ☑ **VM-2HDT** or **VM-3HDT** HDBT DA/Extender
- ☑ 1 Power adapter and cord
- ☑ 4 Rubber feet
- ☑ 1 Quick start guide
- ☑ 1 Bracket set

Step 2:   Get to know your VM-2HDT, VM-3HDT

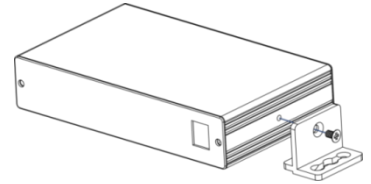This section defines the **VM-3HDT**. **VM-2HDT** is identical but has 2 HDBT OUT connectors (OUT 1 and OUT 2).

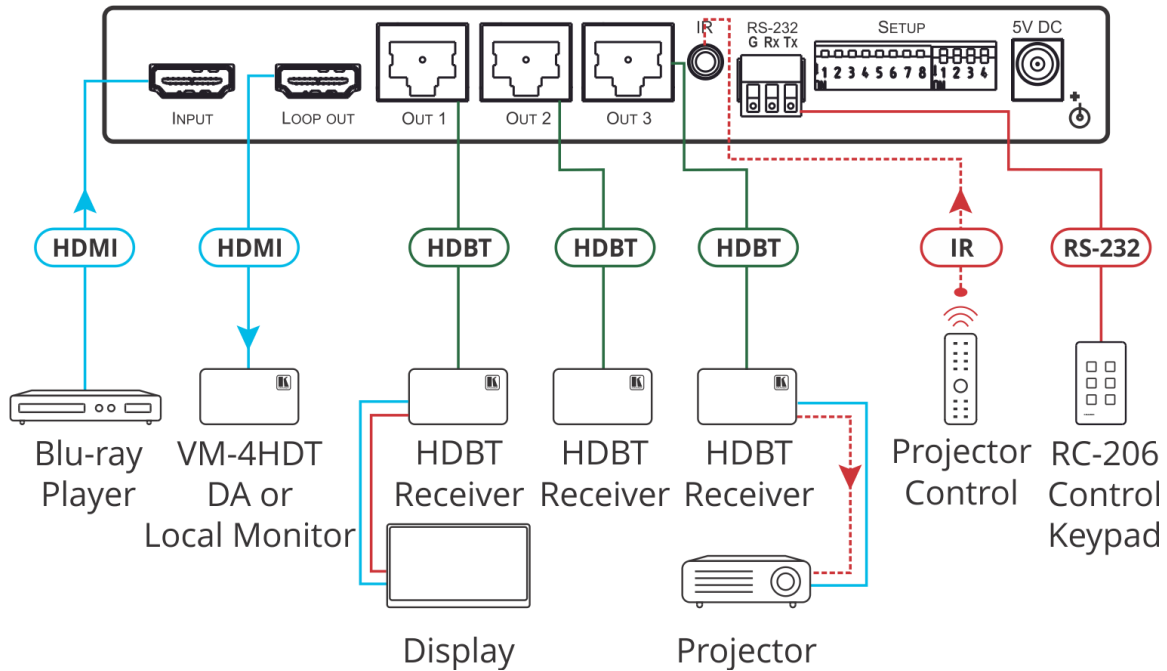| #	Feature	Function
1	PROGRAM Mini USB Connector	Use to send RS-232 commands. Connect to a PC to perform firmware upgrades (via K-Upload) and work with the EDID Designer. K-Upload and EDID Designer can be downloaded from our Web site at: www.kramerav.com/support. To use the mini USB port, you need to download and the Kramer USB driver from our Web site at: www.kramerav.com/support/product_downloads.asp and install it.
2	EDID SETUP Button	Press to capture one of the output EDIDs or the default EDID to the input EDID.
3	IN LED	Lights when an active input signal is detected.
4	LINK LEDs (1 to 3)	Lights when a link is established with the receiver (**VM-2HDT**: 1 to 2).
5	OUTPUT LEDs (LOOP and 1 to 3)	Lights when a remote active output acceptor (sink) is detected on the LOOP or HDBaseT receiver that is connected to the output (**VM-2HDT**: LOOP and 1 to 2). Flashes when a non-HDCP acceptor is connected to the output and the input is HDCP-encrypted (the content is displayed for only a few seconds).
6	ON LED	Lights when the unit receives power.
7	INPUT HDMI™ Connector	Connects to the HDMI source.
8	LOOP OUT HDMI Connector	Connect to a local monitor or a daisy-chained distributor, for example, a **VM-4HDT**.
9	HDBT OUT Connectors (1 to 3)	Connect to an HDBT acceptor, for example **TP-580R** (**VM-2HDT**: 1 to 2).
10	IR 3.5mm Mini Jack	Connect an IR sensor for sending IR signals to a remote device (for example, a projector connected to an HDBT receiver). **Or** Connect an IR emitter (attached to a local device) for receiving IR signals from the device's IR remote control via HDBT.
11	RS-232 3-pin Terminal Block	Connect to a serial controller to control a remote device that is connected to the RS-232 port of the HDbaseT receiver.
12	SETUP 8-way DIP-switch	Used to set the IR and RS-232 command behavior.
13	SETUP 4-way DIP-switch	Always keep all four DIP-switches UP (off).
14	5V DC Connector	Connects to the 5V DC power supply.

Step 3: Install VM-2HDT, VM-3HDT

Install **VM-2HDT, VM-3HDT** 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. For more information go to www.kramerav.com/downloads/VM-2HDT, VM-3HDT.
- Mount the unit in a rack using the recommended rack adapter (see www.kramerav.com/product/VM-2HDT, VM-3HDT).

Step 4: Connect the inputs and outputs

Always switch OFF the power on each device before connecting it to your **VM-2HDT, VM-3HDT**. For best results, we recommend that you always use Kramer high-performance cables to connect AV equipment to **VM-2HDT, VM-3HDT**.

Step 5: Connect the power

Connect the 5V DC power adapter to **VM-2HDT, VM-3HDT** and plug it into the mains electricity.

Safety Instructions

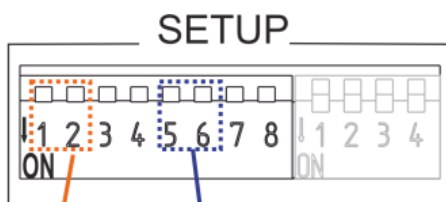**Caution:** There are no operator serviceable parts inside the unit.
Warning: Use only the Kramer Electronics power supply that is provided with the unit.
Warning: Disconnect the power and unplug the unit from the wall before installing.
See www.KramerAV.com for updated safety information.

Step 6: Operate VM-2HDT, VM-3HDT

To enable/disable IR and RS-232 routing, set the DIP-switches (by default, set to OFF) as follows:

Out #	IR Routing is enabled when:	RS-232 Routing is enabled when:
OUT 1	DIP 1 – OFF (up)	DIP 5 – OFF (up)
OUT 2	DIP 2 – OFF (up)	DIP 6 – OFF (up)
OUT 3	DIP 3 – OFF (up)	DIP 7 – OFF (up)

Acquire EDID by:

- Using the **EDID SETUP** front panel button.
- Using the Kramer **EDID Designer** PC tool connected to USB.
- Manually sending RS-232 serial commands via laptop connected to USB.

USB setup for RS-232 communication:

RS-232	
Baud Rate:	115200
Data Bits:	8
Command Format:	ASCII
Stop Bits:	1
Parity:	None
Example (Copy the EDID data from the Output 1 to the Input):	**"#CPEDID 1,1,0**<cr>
Factory Reset	
Protocol 3000:	#FACTORY command to reset to factory default configuration.

VM-2HDT, VM-3HDT supports EDID Designer (via the mini USB port) that can be loaded from our Web site: Kramer EDID Designer.

To use the mini USB port, you need to download and the Kramer USB driver from our Web site at:

www.kramerav.com/support/product_downloads.asp and install it.

Acquiring the EDID via front panel

Press **EDID SETUP** once to display the present EDID source: OUT 1, OUT 2, OUT 3. OUT 4, or all OUT LEDs flash (default EDID).

To acquire an EDID:

1. Press **EDID SETUP**. the present EDID source is displayed.

2. Press **EDID SETUP** (a second time) to enter EDID select mode.

3. Press **EDID SETUP** repeatedly to cycle through the EDID source options.
   The OUT LEDs flash in the following order:
   OUT 1 -> OUT 2 -> OUT 3 -> OUT 4 -> all output LEDs flash (default EDID).

   Stop pressing **EDID SETUP** once the required EDID source is reached.

4. Wait a few seconds, until **VM-2HDT, VM-3HDT** acquires the EDID.
   When complete, all output LEDS return to normal operation, displaying the present output connection status.

If an unconnected output is chosen or the connected EDID cannot be read from a connected output, the **VM-2HDT, VM-3HDT** loads the default EDID.

Forcing the RGB Mode

Normally (the default state), when acquiring the EDID, the device supports any color space that is defined in the acquired EDID parameters.

To:	Do the following:
Force the acquired EDID to support only RGB color space:	Press and hold the EDID button for few seconds until all the output LEDs flash together four times. Continue to acquire the desired EDID. This acquired EDID is then forced to support the RGB color space only.
Return to the normal EDID mode:	Press and hold the EDID button for few seconds until the output LEDs flash together once. Continue to acquire the desired EDID.
View the current EDID mode:	Power cycle the unit. All output LEDs will flash together once when in normal EDID mode, and four times when in Force RGB mode.

Technical Specifications

	VM-2HDT	VM-3HDT	
Inputs	1 HDMI	1 HDMI	On a female HDMI connector
Outputs	1 LOOP HDMI	1 LOOP HDMI	On a female HDMI connector
	2 HDBT	3 HDBT	On RJ-45 female connectors
Ports	1 USB	1 USB	On a Mini female connector
	1 RS-232	1 RS-232	On a 3-pin terminal block connector
	1 IR	1 IR	On a 3.5mm mini jack
Maximum Extension Range	40m (130ft)		At 4K@60Hz (4:2:0)
	70m (230ft)		At full HD (1080p@60Hz 36bpp)
Video	Max. Resolution		4K@30Hz and 4K@60Hz 4:2:0
	Max. Data Rate		10.2Gbps (3.4Gbps per graphic channel)
	Compliance		Supports HDMI 2.0, HDCP 1.4, and HDBaseT 1.0
Control	Front Panel		EDID setup button
			IN, LINK, OUTPUT and ON indication LEDs
	Rear Panel		DIP-switches
Power	Consumption		**VM-2HDT**: 5V DC, 1.6A **VM-3HDT**: 5V DC 2.1A
	Source		5V DC, 4A
Environmental Conditions	Operating Temperature		0° to +40°C (32° to 104°F)
	Storage Temperature		-40° to +70°C (-40° to 158°F)
	Humidity		10% to 90%, RH non-condensing
Regulatory Compliance	Safety		CE
	Environmental		RoHs, WEEE
Enclosure	Size		Mega Tool
	Cooling		Convection ventilation
General	Net Dimensions (W, D, H)		18.8cm x 11.5 cm x 2.54cm (7.4" x 4.53" x 1.")
	Shipping Dimensions (W, D, H)		34.5cm x 16.5cm x 5.2cm (13.6” x 6.5” x 2.05”)
	Net Weight		0.5kg (1.1lbs) approx.
	Shipping Weight		1.29kg (2.84lbs) approx.
Accessories	Included		Power adapter and cord
Specifications are subject to change without notice at www.kramerav.com			

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