





# VM-2DT Quick Start Guide

This guide helps you install and use your VM-2DT for the first time.

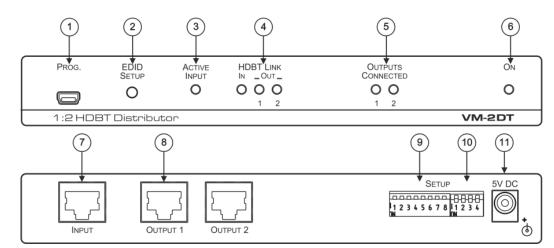
Go to www.kramerav.com/downloads/VM-2DT to download the latest user manual and check if firmware upgrades are available.

## Step 1: Check what's in the box

- VM-2DT 1:2 HDBT Distributor
- ✓ 4 Rubber feet

- 1 Power adapter and cord  $\mathbf{\mathbf{V}}$ 1 Quick start guide
- I Bracket set

### Step 2: Get to know your VM-2DT



#	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: <u>www.kramerav.com/manual/EDID Designer</u> .	
2	EDID SETUP Button		Press to capture the input EDID, force RGB mode or select the default EDID.	
3	ACTIVE INPUT LED		Lights green when an HDMI signal is embedded on the HDBaseT input.	
4	HDBT LINK LEDs IN		Lights green when a link is established with the HDBaseT transmitter.	
		OUT	Lights green when a link is established with the HDBaseT receiver (1 and 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).	
5	OUTPUTS CONNECTED LEDs		Lights green when an acceptor (sink) is detected on the HDBaseT receiver connected to the output (from 1 to 2).	
6	ON LED		Lights green when the unit receives power.	
7	INPUT HDBT Connector		Connects to an HDBaseT source, for example VS-44DT.	
8	HDBT OUT Connectors		Connect to an HDBaseT acceptor (from 1 to 2), for example <b>TP-580R</b> .	
9	SETUP 8-way DIP-switches		Use to set the IR (DIP-switches 1 and 2) and RS-232 (DIP-switches 5 and 6) command behavior.	
10	SETUP 4-way DIP-switch		Always keep all four DIP-switches UP (off).	
11	5V DC		+5V DC connector for powering the unit.	





Rev:

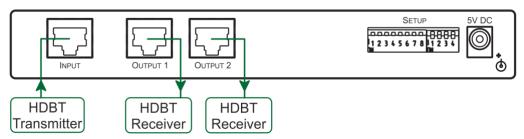
## Step 3: Install the VM-2DT

Install VM-2DT 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 <u>www.kramerav.com/downloads/VM-2DT</u>.
- Mount the unit in a rack using the recommended rack adapter (see <u>www.kramerav.com/product/VM-2DT</u>).

# Step 4: Connect the inputs and outputs

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



#### RJ-45 Pinout:

Use a straight pin-to-pin cable with

RJ-45 connectors.

We recommend that for HDBT cables,

the ground shielding be

connected/soldered to the connector shield.

	PIN EIA /TIA 568B	
	PIN	Wire Color
12345678	1	Orange / White
	2	Orange
	3	Green / White
	4	Blue
242	5	Blue / White
0000	6	Green
	7	Brown / White

#### DIP-Switch Setup:

To enable/disable IR and RS-232 routing, set the DIP-switches as follows:

	S	ETUP
I I ON	2345	6 7 8 1 2 3 4 N
	IR routing enable/disable	RS-232 routing enable/disable

DIP-switches 3, 4, 7 and 8 are reserved for future use. By default, all DIP-switches are set to OFF (up).

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)

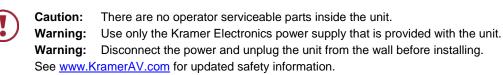
For optimum range and performance use the recommended Kramer cables available at

www.kramerav.com/product/VM-2DT.

### Step 5: Connect the power

Connect the power adapter to the VM-2DT and plug the adapter into the mains electricity.

#### Safety Instructions



### Step 6: Operate the VM-2DT

#### 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	
Stop Bits:	1	
Parity:	None	
Command Format:	ASCII	
Example (Copy the E	DID data from Output 1 to the Input): "#CPEDID 1,1,0 <cr></cr>	
Factory Reset		
Protocol 3000: #FACTORY command to reset to factory default configuration		



**VM-2DT** supports EDID Designer (via the mini USB port) that can be loaded from our Web site: <u>Kramer EDID</u> <u>Designer</u>.

To use the mini USB port, you need to download and the Kramer USB driver from our Web site at: <a href="http://www.kramerav.com/support/product\_downloads.asp">www.kramerav.com/support/product\_downloads.asp</a> and install it.

#### Acquiring the EDID via front panel

Press the EDID SETUP once to display the current EDID source: OUT 1, OUT 2, or both OUT LEDs flash (default EDID).

To acquire an EDID:

- 1. Press EDID SETUP. the current EDID source is displayed.
- 2. Press EDID SETUP (a second time) to enter EDID select mode.
- Press EDID SETUP repeatedly to cycle through the EDID source options. The OUT LEDs flash in the following order: OUT 1 -> OUT 2 -> all output LEDs flash (default EDID).

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

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

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If an unconnected output is chosen or the connected EDID cannot be read, the VM-2DT 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. In case of a color space problem, using the Force RGB mode may improve the colors of the image on the display.

То:	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**

Input	1 HDBT	On a female HDMI connector	
Outputs	2 HDBT	On RJ-45 female connectors	
Ports	1 USB	On a Mini female connector	
Maximum Extension Range	40m (130ft)	At 4K@60Hz (4:2:0)	
	70m (230ft)	At full HD (1080p@60Hz 36bpp)	
	The specs only apply when using Kramer HDBaseT cables. This reach applies to each IN and OUT port separately; the total end-to-end reach is the sum of all ports' reach.		
Video	Max. Resolution	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	
		ON, OUTPUTS CONNECTED, HDBT LINK, and ACTIVE INPUT indication LEDs	
	Rear Panel	DIP-switches	
Power	Consumption	5V DC, 2.5A	
	Source	5.2 V 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, FCC	
	Environmental	RoHs, WEEE	
Enclosure	Size	MegaTOOL	
	Cooling	Heat sink	
General	Net Dimensions (W, D, H)	18.8cm x 11.5cm x 2.5cm (7.4" x 4.5" x 1")	
	Shipping Dimensions (W, D, H)	34.5cm x 16.5cm x 5.2cm (13.6" x 6.5" x 2.1")	
	Net Weight	0.53kg (1.2lb) approx.	
	Shipping Weight	1.3kg (2.9lb) approx	
Accessories	Included	Power cord and adapter	
Specifications are subject to c	hange without notice at www.krame	ray.com	

