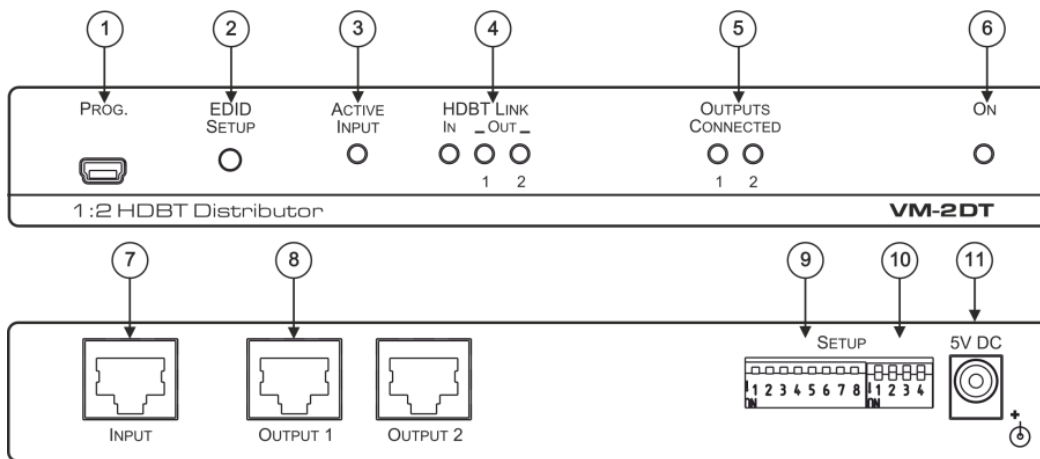# KRAMER

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
- ☑ 1 Quick start guide
- ☑ 1 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:www.kramerav.com/manual/EDID Designer.
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 **TP-580R**.
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.

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 www.kramerav.com/downloads/VM-2DT.
- Mount the unit in a rack using the recommended rack adapter (see www.kramerav.com/product/VM-2DT).
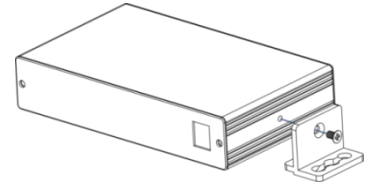
Step 4: Connect the inputs and outputs

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**.
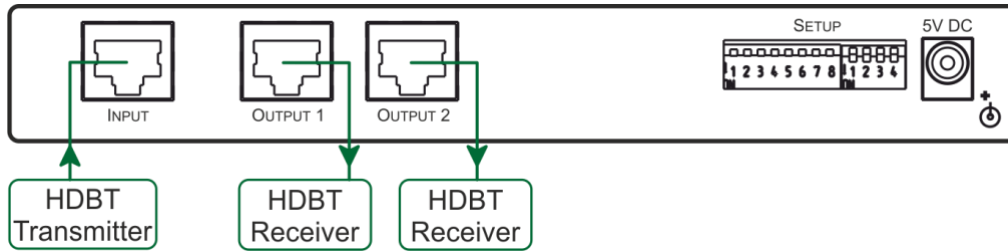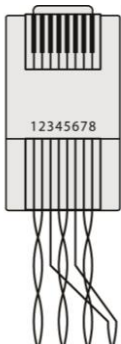

RJ-45 Pinout:

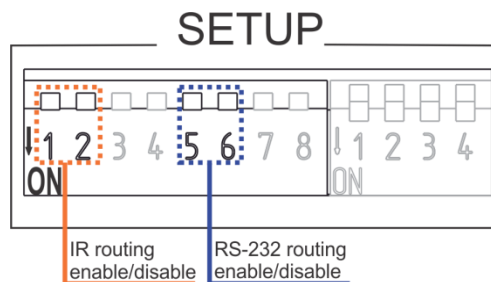Use a straight pin-to-pin cable with RJ-45 connectors.

We recommend that for HDBT cables, the ground shielding be connected/soldered to the connector shield.

DIP-Switch Setup:

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

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

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 cord to **VM-2DT** 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 6: Operate the VM-2DT

Acquire EDID by:	USB setup for RS-232 communication:

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 EDID data from Output 1 to the Input):		"#CPEDID 1,1,0<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: 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 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.

3. 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.

ⓘ 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.

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

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 change without notice at www.kramerav.com		