# KRAMER





## VM-218DTxr Quick Start Guide

This guide helps you install and use your VM-218DTxr for the first time.

Go to <u>www.kramerav.com/downloads/VM-218DTxr</u> to download the latest user manual and check if firmware upgrades are available.

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

✓ VM-218DTxr HDMI/HDBT Switcher/DA

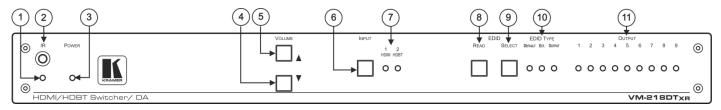
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1 Set of rack ears

✓ 1 Power cord

4 Rubber feet

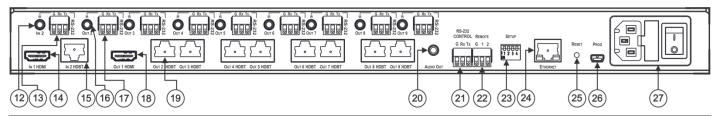
## Step 2: Get to know your VM-218DTxr



#	Feature	Function	
1	IR LED	Lights orange when the unit accepts IR remote commands.	
2	IR Sensor	Use to control a peripheral device connected to OUT 2 HDBT with that device's remote controller.	
3	POWER LED	Lights when the unit is powered.	
4	VOLUME (▼)	Press to decrease the volume of the analog audio output.	
5	VOLUME (▲)	Press to increase the volume of the analog audio output.	
6	INPUT Selector Button	Press to select input 1 HDMI or input 2 HDBT.	
7	INPUT LEDs	Lights green to indicate the selected input: 1 HDMI or 2 HDBT.	
8	EDID READ Button	Press to read the selected EDID and write it to both inputs.	
9	EDID SELECT Button	Press to cycle through the sources from which to read the EDID: Default, External, or Output. When Output is selected, cycles through outputs 1 to 9. The relevant EDID TYPE and OUTPUT LEDs light green.	
10	EDID TYPE LEDs	Lights green to indicate the selected EDID type: DEFAULT, EXT. (external) or OUTPUT.	
11	OUTPUT LEDs (1 to 9)	In normal operation mode: lights green when an acceptor is connected to the output.  In EDID mode: when EDID TYPE OUTPUT LED lights green, press the EDID SELECT button briefly to cycle through output 1 to 9 to select the output from which to read EDID. The relevant LED lights during EDID setup and remains lit after completing the EDID setup.	

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#	Feature	Function	
12	IN 2 IR on a 3.5 Mini Jack	Connect to an IR emitter/sensor cable for IR link extension via IN 2 HDBT.	
13	IN 2 RS-232 (G, Rx, Tx) Terminal Block Connector	Connect to a serial controller for RS-232 link extension via IN 2 HDBT.	
14	IN 1 HDMI™ Connector	Connect to an HDMI source.	
15	IN 2 HDBT on RJ-45 Connectors	Connect to an HDBT transmitter (for example, TP-580Txr).	
16	IR on 3.5 Mini Jacks (for OUT 2 to 9)	Connect to remote IR emitter/sensor cables to IR control the devices that are connected to the HDBT acceptors.	
17	RS-232 OUT (G, Rx, Tx) Terminal Block Connectors (2 to 9)	Connect to serially control the devices connected to the HDBT acceptors.	
18	OUT 1 HDMI Connector	Connect to a local HDMI acceptor.	
19	OUT HDBT RJ-45 Connectors (2 to 9)	Connect to HDBT receivers (for example, <b>TP-580Rxr</b> ).	
20	AUDIO OUT 3.5mm Mini Jack	Connect to an analog audio acceptor.	
21	RS-232 CONTROL 3-pin Terminal Block	Connect to the serial controller to control the VM-218DTxr.	
22	REMOTE 3-pin Terminal Block	For future use.	
23	SETUP DIP-switches	Use to set the device behavior.	
24	ETHERNET RJ-45 Connector	Connect to LAN for Ethernet extension via IN and OUT HDBT ports and remote IP control of the <b>VM-218DTxr</b> .	
25	RESET Button	Press and hold while powering on the device to reset to factory default parameters.	
26	PROG Mini USB Connector	Connect to a PC to perform firmware upgrades.	
27	Mains Power Connector, Fuse, and Switch	Connect to the mains supply.	

## Step 3: Install VM-218DTxr

Install VM-218DTxr using one of the following methods:

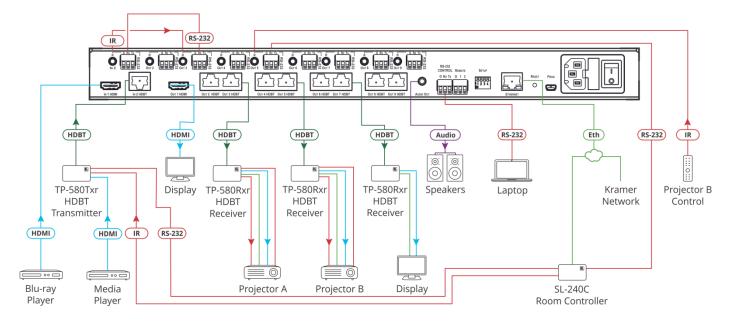
Remove the three screws from each side of the unit, reinsert those screws through the rack ears and mount on a 19" rack.

Attach the rubber feet and place the unit on a flat surface.



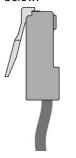
## Step 4: Connect the inputs and outputs

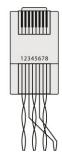
Always switch OFF the power on each device before connecting it to your **VM-218DTxr**. For best results, we recommend that you always use Kramer high-performance cables to connect AV equipment to the **VM-218DTxr**.



#### **RJ-45 Pinout:**

For the Ethernet connector, see the wiring diagram below:





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		
8	Brown		

#### **DIP-Switch Settings**

Changes to the DIP-switches only take effect on power-up. After changing a switch, reboot the device. All DIP-switches are set to Off (up) by default.

#	Feature	Dip-switch Settings		
1	Reserved			
2	Range mode	On (down) – HDBaseT Ultra-long range (provides increased range at a reduced bandwidth).  Off (up) – Normal range (default).		
	Note that range	ote that range mode affects the HDBT input only		
3	Audio de- embedding	On (down) – Disable audio de-embedding. Note that the audio output port is muted.  Off (up) – Enable audio de-embedding to the		
	analog audio output port (default).			
4	Force RGB	On (down) – Force RGB mode. Off (up) – Normal mode (default)		

For optimum range and performance use the recommended Kramer cables available at <a href="https://www.kramerav.com/product/VM-218DTxr">www.kramerav.com/product/VM-218DTxr</a>.

### **Step 5: Connect the power**

Connect the power cord to VM-218DTxr and plug it into the mains electricity.

#### Safety Instructions



Caution: There are no operator serviceable parts inside the unit.

Warning: Use only the power cord that is supplied with the unit.

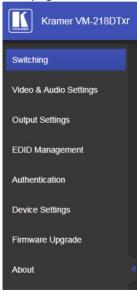
Warning: Do not open the unit. High voltages can cause electrical shock! Servicing by qualified personnel only.

Warning: Disconnect the power and unplug the unit from the wall before installing.

See www.KramerAV.com for updated safety information.

## Step 6: Operate the VM-218DTxr

#### Web pages:



#### RS-232 and Ethernet:

RS-232/Ethernet					
Baud Rate:	115,200	Parity:	None		
Data Bits:	8	Command Format:	ASCII Protocol 3000		
Stop Bits:	1				
Example (Route in	put 1 to output 1	):	#ROUTE 1,1,1 <cr></cr>		
Ethernet Parameters					
IP Address:	192.168.1.39				
Subnet Mask:	255.255.0.0	Default UDP Port #:	50000		
Default Gateway:	192.168.0.1				
Full Factory Reset					
Front Panel Buttons:	Front panel buttons: power off the device, press and hold the RESET button for 3 seconds while powering the device, and then release.				
Protocol 3000:	"#factory" command.				
Web Pages:	In the Device Settings page, click Reset.				

## **Technical Specifications**

Inputs	1 HDMI	On a female HDMI connector	
inputs	1 HDBT	On an RJ-45 connector	
Outputs	1 HDMI	On a female HDMI connector	
Outputs	8 HDBT	On RJ-45 connector	
Danta	1 Unbalanced Stereo Audio	On a 3.5mm mini jack	
Ports	1 IR IN	On a 3.5mm mini jack for IR link extension via IN 2HDBT	
	8 IR OUT	On 3.5mm mini jacks for IR link extension via OUT HDBT (2 to 9)	
	1 RS-232 IN	On a 3-pin terminal block for serial link extension via IN 2HDBT	
	8 RS-232 OUT	On 3-pin terminal blocks for serial link extension via OUT HDBT (2 to 9)	
	1 Mini USB	On a female USB connector for firmware upgrade	
	1 RS-232	On a 3-pin terminal block for device control	
	1 10/100BaseT Ethernet	On an RJ-45 female connector for device control via LAN and Ethernet link extension via IN HDBT and OUT HDBT (2 to 9)	
Extension Reach	4K @60Hz (4:2:0)	Up to 100m (330ft)	
	Full HD (1080p @60Hz 36bpp)	Up to 130m (430ft)	
	HDBaseT Ultra Mode and Full HD (1080p @60Hz 24bpp)	Up to 180m (590ft)	
	Compliance	HDBaseT 1.0	
Video	Max. Resolution	4K@60Hz (4:2:0) and 4K@30Hz (4:4:4)	
	Compliance	Supports HDMI 2.0 and HDCP 1.4	
RS-232 Extension	Baud Rate	300 to 115,200	
Analog Audio	Max Level	1 Vrms	
· ·	THD + Noise	0.03% @1kHz at nominal level	
Controls	Front Panel	Front panel buttons: input select, volume, EDID, IR	
		Indication LEDs: input select, EDID type, outputs	
	Rear Panel	RS-232 device control	
		RS-232 remote control via HDBT ports	
		IR remote control via HDBT ports	
		Ethernet	
		DIP-switches	
Supported PC Web Browsers	Windows 7 and Higher	Internet Explorer (32/64 bit) version 10	
Supported to Web Blowsers	Williams 7 and riighei	Firefox version 30	
		Chrome version 35	
	MAC	Chrome version 35	
		Chrome version 63.0.3239.84	
		Firefox version 30	
		Firefox version 57.0.2	
		Safari version 7	
	Minimum Browser Window Size	1024 x 768 when in full screen mode	
Power	Consumption	65VA	
	Source	100-240V AC, 50/60Hz	
<b>Environmental Conditions</b>	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	
Regulatory Compliance	Safety	CE, FCC	
	Environmental	RoHs, WEEE	
Enclosure	Size	19" 1U	
	Туре	Aluminum	
	Cooling	Fan ventilation	
General	Net Dimensions (W, D, H)	43.6cm x 23.7cm x 4.4cm (17.2" x 9.3" x 1.7")	
	Shipping Dimensions (W, D, H)	52.5cm x 33cm x 10.7cm (20.7" x 13" x 4.2")	
	Net Weight	2.5kg (5.5lbs) approx.	
	Shipping Weight	3.2kg (7.1lbs) approx.	
Accessories	Included	Power cord, rack ears	
. ,	Optional	For optimum range and performance use the recommended USB,	
		Ethernet, serial and IR Kramer cables available at	
		www.kramerav.com/product/VM-218DTxr	

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