KRAMER

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VM-212DT Quick Start Guide

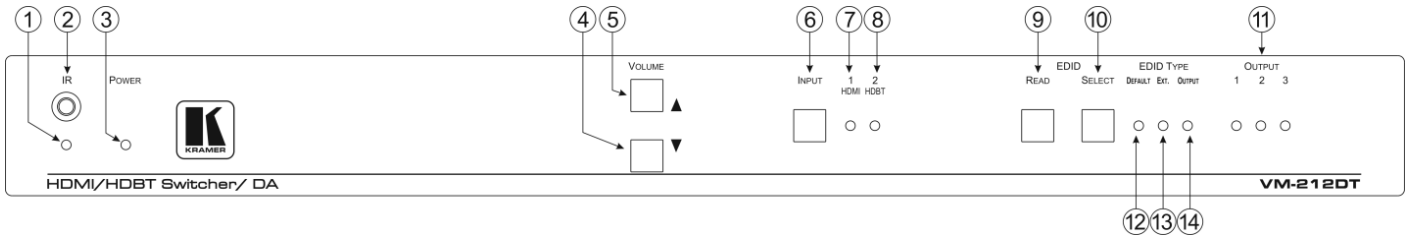
This guide helps you install and use your **VM-212DT** for the first time.

Go to www.kramerav.com/downloads/VM-212DT to download the latest user manual and check if firmware upgrades are available.

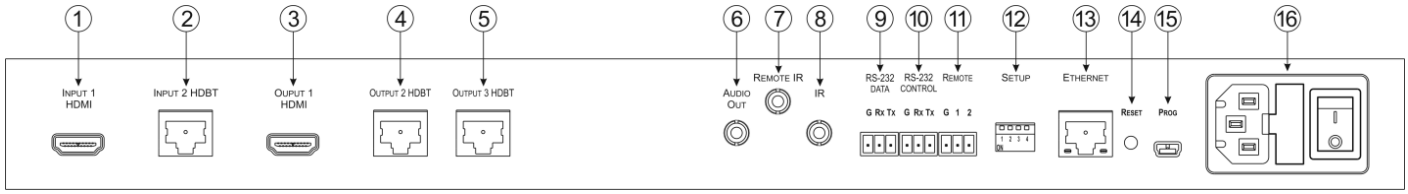
Step 1: Check what's in the box

- ☑ **VM-212DT** HDMI/HDBT Switcher/DA
- ☑ 1 Power cord
- ☑ 4 Rubber feet
- ☑ 1 Quick start guide
- ☑ 1 Set of rack ears

Step 2: Get to know your VM-212DT



#	Feature		Function
1	*IR* LED		Lights yellow when receiving signals from the IR remote control sensor.
2	*IR* Remote Control Sensor		Sensor for an IR transmitter. IR data is routed according to the IR routing configuration.
3	*POWER* LED		Lights green when the unit receives power.
4	*VOLUME* Buttons	▼ Down	Press to decrease the audio volume.
5		▲ Up	Press to increase the audio volume.
6	*INPUT* Button		Press to toggle between HDMI Input 1 and HDBT Input 2. Lights red when the input is valid, selected and routing to an output(s).
7	*1 HDMI* LED		Lights green when *HDMI 1* Input is selected.
8	*2 HDBT* LED		Lights green when *HDBT 2* Input is selected.
9	*EDID* Buttons	*READ*	Press to read the selected EDID to both inputs (see Step 6).
10		*SELECT*	Press to cycle through the EDID sources, (default, external, and each output) from which to read the EDID. The relevant LED lights green (see Step 6).
11	*OUTPUT* LEDs *1* to *3*		In normal operation mode: lights green when an acceptor is connected to the output. In EDID mode: the relevant LEDs light during EDID setup (see Step 6).
12	*EDID TYPE* LEDs	*DEFAULT*	Lights green when the default EDID is selected (see Step 6).
13		*EXT.*	Lights green when an external EDID is selected.
14		*OUTPUT*	Lights green when one of the output EDIDs is selected.

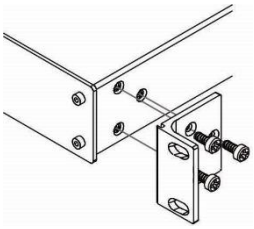


#	Feature	Function
1	*INPUT 1 HDMI* Local Input	Connect to the HDMI source.
2	*INPUT 2 HDBT* Remote Input	Connect to the remote HDBT transmitter, (for example, the **WP-20** or **TP-580Txr**).
3	*OUTPUT 1 HDMI* Local Output	Connect to the HDMI acceptor.

4	*OUTPUT HDBT* 2 Connector	*OUTPUT HDBT* Connectors.
5	*OUTPUT HDBT 3* Connector	
6	*AUDIO OUT* 3.5mm Mini Jack	Connect to the analog audio acceptor.
7	*REMOTE IR* 3.5mm Mini Jack	For future use.
8	*IR* 3.5mm Mini Jack	Connect to the remote IR sensor/emitter.
9	*RS-232 DATA* 3-pin Terminal Block	Connect to the device to be controlled via RS-232.
10	*RS-232 CONTROL* 3-pin Terminal Block	Connect to the serial controller to control the **VM-212DT**.
11	*REMOTE* 3-pin Terminal Block	For future use.
12	*SETUP* 4-way DIP-switch	Used to set the device behavior (see Step 7).
13	*ETHERNET* RJ-45 Connector	Connect to a remote network controller via a LAN.
14	*RESET* Switch	Press and hold while powering on the device to reset to factory default parameters.
15	*PROG* Mini USB Connector	Connect to a PC to perform firmware upgrades.
16	Power Connector, Fuse, and Switch	Connect to the power cord and the mains electricity.

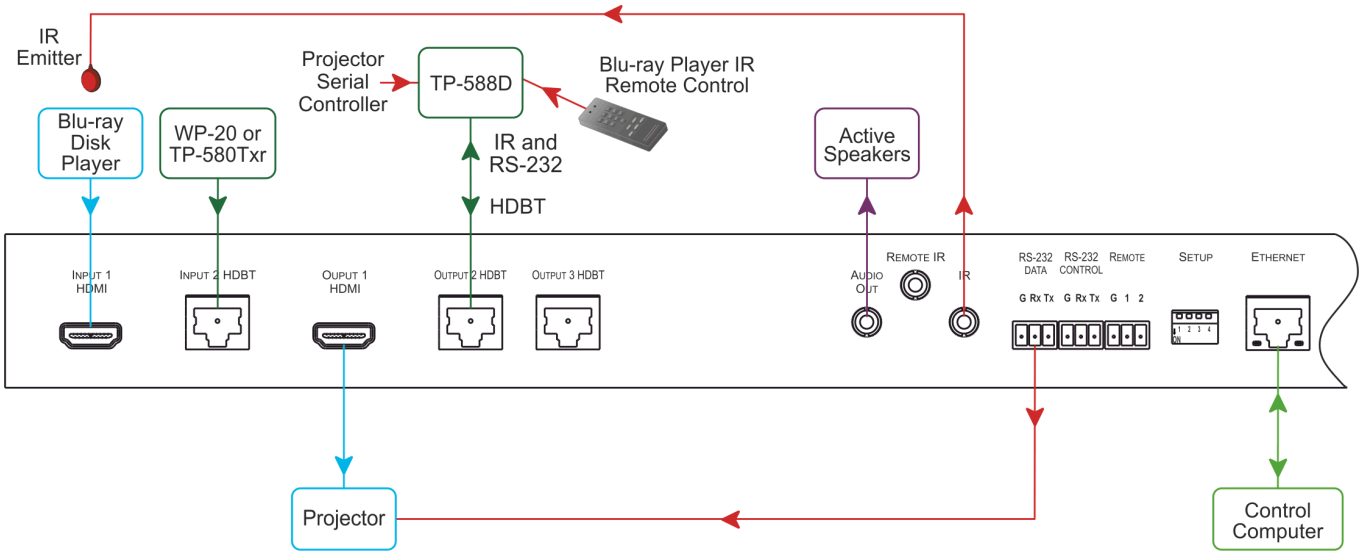
Step 3: Install VM-212DT

Install **VM-212DT** 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-212DT**. For best results, we recommend that you always use Kramer high-performance cables to connect AV equipment to **VM-212DT**.



Step 5: Connect the power

Connect the power cord to **VM-212DT** 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 VM-212DT

Operate **VM-212DT** via:
Front panel buttons
Remotely, by RS-232 serial commands transmitted by a touch screen system, PC, or other serial controller
Embedded web pages via the Ethernet

RS-232 Control			
Protocol 3000			
Baud Rate:	115200		
Data Bits:	8		
Stop Bits:	1		
Parity:	None		
Command Format:	ASCII		
Example: (Get EDID support on specific input/output): #GEDID?<SP>stage, stage_id <CR>			
Default Ethernet Parameters			
Device Name:	KRAMER_	Gateway:	192.168.0.1
DHCP:	OFF	TCP Port:	5000
IP Address:	192.168.1.39	UDP Port:	50000
Mask:	255.255.0.0		

Acquiring the EDID using the front panel buttons:

1. Press the *EDID SELECT* button repeatedly until the required EDID source is selected, (either Default, Ext, or one of the outputs).
   The relevant *EDID TYPE* / *OUTPUT* LEDs light green.
2. Press the *EDID READ* button.
   The EDID *READ* button lights red for a short while and the EDID is copied to the currently selected input. If the EDID *READ* button flashes once, this indicates that the EDID was not read and the device reverts to the last stored EDID, as indicated by the LEDs.

Note: If the EDID *READ* button is not pressed for a few seconds, the procedure is terminated and the device does not store a new EDID.

Note: The EDID can also be acquired and modified using the embedded webpages or Kramer EDID Designer software.

Selecting an input:

Press the *INPUT* button to toggle between the inputs.
The relevant *INPUT* LED lights green.

Protocol 3000 Commands:

Command	Description
#	Protocol handshaking
AUD-LVL	Set/get audio level in specific amplifier stage
AV-SW-TIMEOUT	Set/get video auto-switch timeout
BUILD-DATE?	Read device build date
CPEDID	Copy EDID data from the output to the input
DIR	List files in device
DISPLAY?	Get output HPD status
DPSW-STATUS?	Get the DIP-switch status
ETH-PORT	Set/get Ethernet port protocol
FACTORY	Reset to factory default configuration
FPGA-VER?	Get current FPGA version
FS-FREE?	Get file system free space
GEDID	Read EDID data
GET	Get file
HDCP-MOD	Set/get HDCP mode
HDCP-STAT?	Get HDCP signal status
HELP?	Get command list
LDEDID	Write EDID data to input
LOGIN	Set/get protocol permission

Command	Description
LOGOUT	Cancel current permission level
MODEL?	Read device model
MUTE	Set/get audio mute
NAME	Set/get machine (DNS) name
NAME-RST	Reset machine name to factory default (DNS)
NET-DHCP	Set/get DHCP mode
NET-GATE	Set/get gateway IP
NET-IP	Set/get IP address
NET-MAC?	Get MAC address
NET-MASK	Set/get subnet mask
PASS	Set/get Password
PING	Sends ICMP ECHO
PROT-VER?	Get device protocol version
RESET	Reset device
ROUTE	Set/get layer routing
SECUR	Start/Stop Security
SIGNAL?	Get input signal lock status
SN?	Read device serial number
VERSION?	Read device firmware version

Using the Embedded Web Pages

The **VM-212DT** can be operated remotely using the embedded web pages. Access the web pages from the control computer using a web browser and an Ethernet connection.

Before attempting to connect:

Ensure that your browser is supported.

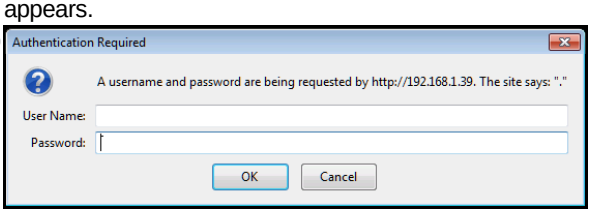
Ensure that JavaScript is enabled.

Note: In the event that a Web page does not update correctly, clear your Web browser's cache.

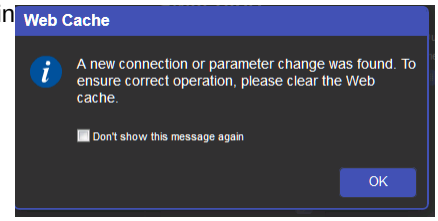
To browse the VM-212DT web pages:

1. Open your Internet browser.
2. Type the IP number of the device (default = 192.168.1.39) in your browser.

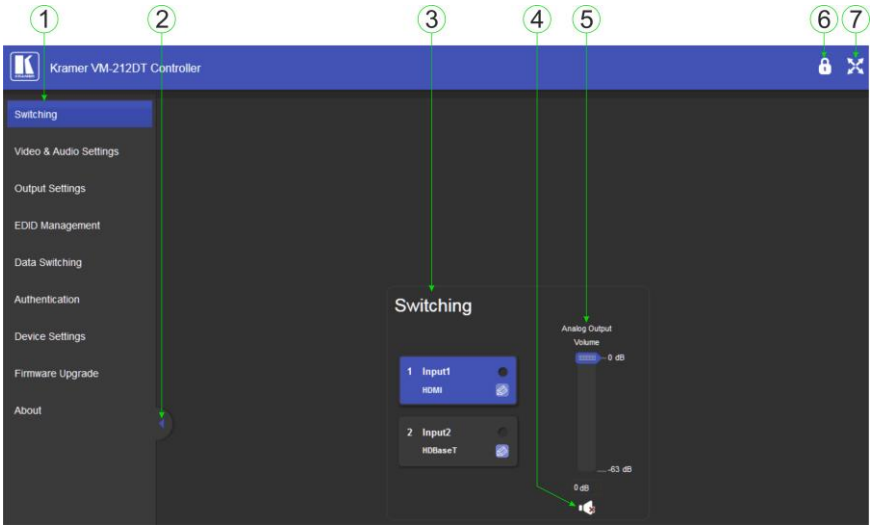
If authentication is enabled, the Authentication Required window appears.



3. Enter the valid username and password to access the web pages (default = User Name: Admin; Password: Admin). The Web Cache message appears.



4. Click **OK**.
   The Switching page appears



#	Item	Description
1	Page Selection Panel	Click one of the buttons to select a page.
2	Page Selection Panel Hide/Reveal Button	Click the arrow to open or close the page selection panel.
3	*Switching* Selection	Click one of the buttons to select an input.
4	Mute Button	Click to mute/unmute the audio.
5	*Analog Output Volume* Control	Click and drag the slider to control the audio volume.
6	Security Indicator	Indicates whether security is enabled (locked) or disabled (unlocked).
7	Full Screen Button	Click to maximize the page.

Step 7: Setting the DIP Switches

Set the DIP-switches using the table on the right. The ON/OFF positions are as follows:

Switch down = ON

Switch up = OFF

#	Feature	Switch State
1	IR modulation selection	Off—Disable IR On—Enable IR modulation
2	Extra range	Off—Disable extra range On—Enable extra range
3	Compressed audio/ Audio de-embedding	Off—De-embed audio On—Enable compressed audio
4	Reserved	