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## VP-427X Quick Start Guide

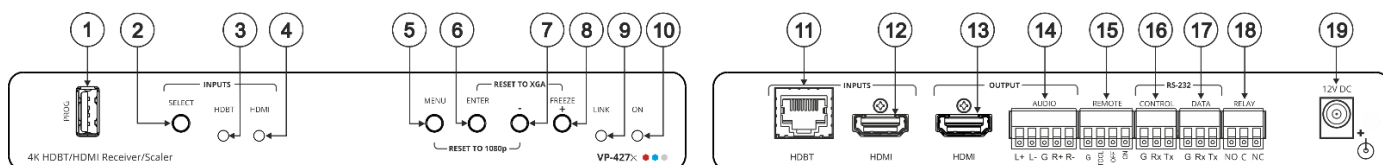
This guide helps you install and use your VP-427X for the first time.

Go to [www.kramerav.com/downloads/VP-427X](http://www.kramerav.com/downloads/VP-427X) to download the latest user manual and check if firmware upgrades are available.

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

- ✓ VP-427X 4K HDBT/HDMI Receiver Scaler
- ✓ 1 Power adapter and cord
- ✓ 1 Bracket set
- ✓ 4 Rubber feet
- ✓ 1 Quick start guide

### Step 2: Get to know your VP-427X

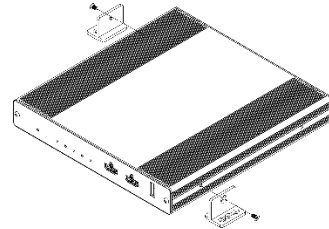


#	Feature	Function	
1	PROG USB Connector	Connect to a USB stick to perform firmware upgrades.	
2	INPUTS	SELECT Button	Press to select the input (HDBT or HDMI).
3		HDBT LED	Lights blue when the HDBT input is selected.
4		HDMI LED	Lights blue when the HDMI input is selected.
5	MENU Button	Press to enter/exit the on-screen display (OSD) menu. Press together with the – button to reset the output to 1080p resolution.	
6	ENTER Button	In OSD, press to choose the highlighted menu item. Press together with the FREEZE/+ button to reset the output to XGA resolution (1024x768).	
7	–	In OSD, press to move back through menus or decrement parameter values.	
8	FREEZE/+ Button	In OSD, press to move forward through menus or increment parameter values. When not in OSD, press to freeze the display.	
9	LINK LED	Lights blue when a link is established with the transmitter.	
10	ON LED	Lights green when device is powered.	
11	INPUTS	HDBT RJ-45 Connector	Connect to a transmitter (for example, the Kramer TP-580T).
12		HDMI Connector	Connect to an HDMI source.
13	OUTPUT	HDMI Connector	Connect to an HDMI acceptor.
14		AUDIO 5-pin Terminal Block Connector	Connect to a balanced stereo audio acceptor.
15	REMOTE Contact-Closure 4-pin Terminal Block Connector	Connect to contact closure switches, an occupancy sensor and/or toggle switches (contact between the desired pin and GND pin), to turn display on or off. See <a href="#">Step 6: Operate VP-427X</a> .	
16	RS-232	CONTROL 3-pin Terminal Block Connector	Connect to a serial controller or PC.
17		DATA 3-pin Terminal Block Connector	Connect to a serial data SOURCE or acceptor.
18	RELAY 3-pin Terminal Block Connector	Relay contact pins: normally open (NO), normally closed NC and common (C). Connect to a device to be controlled by a relay (for example, a motorized projection screen).	
19	12V DC Connector	Connect to the supplied power adapter.	

## Step 3: Mount VP-427X

Install **VP-427X** 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 (see [www.kramerav.com/downloads/VP-427X](http://www.kramerav.com/downloads/VP-427X)).



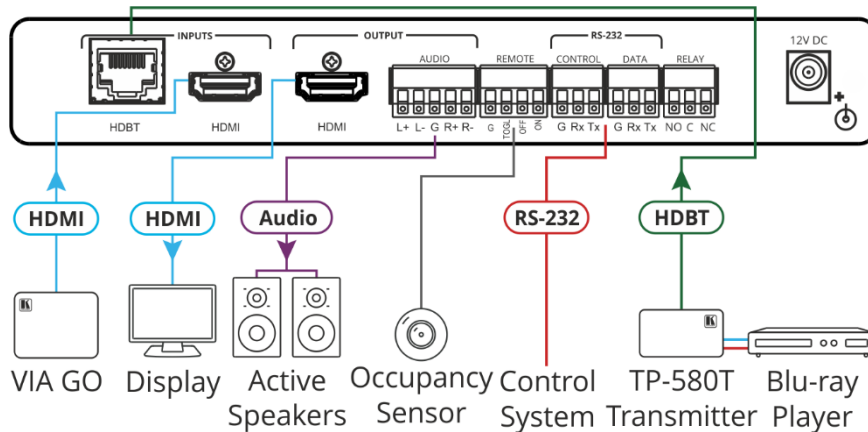
- Mount the unit in a rack using the recommended rack adapter (see [www.kramerav.com/product/VP-427X](http://www.kramerav.com/product/VP-427X)).



- Ensure that the environment (e.g., maximum ambient temperature & air flow) is compatible for the device.
- Avoid uneven mechanical loading.
- Appropriate consideration of equipment nameplate ratings should be used for avoiding overloading of the circuits.
- Reliable earthing of rack-mounted equipment should be maintained.
- Maximum mounting height for the device is 2 meters.

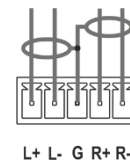
## Step 4: Connect inputs and outputs

Always switch OFF the power on each device before connecting it to your **VP-427X**.



### Connecting the audio output

To a balanced stereo audio acceptor:



L+ L- G R+ R-

To an unbalanced stereo audio acceptor:



L+ L- G R+ R-

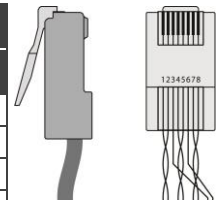
### Wiring the RJ-45 connectors

This section defines the TP pinout, using a straight pin-to-pin cable with RJ-45 connectors.



For HDBT cables, it is recommended that the cable ground shielding be connected/soldered to the connector shield.

EIA / TIA 568B			
PIN	Wire Color	PIN	Wire Color
1	Orange / White	5	Blue / White
2	Orange	6	Green
3	Green / White	7	Brown / White
4	Blue	8	Brown



To achieve specified extension distances, use the recommended Kramer cables available at [www.kramerav.com/product/VP-427X](http://www.kramerav.com/product/VP-427X). Using third-party cables may cause damage!

## Step 5: Connect power

Connect the power cord to **VP-427X** and plug it into the mains electricity.

Safety Instructions (See [www.kramerav.com](http://www.kramerav.com) for updated safety information)

### Caution:

- For products with relay terminals and GPIO 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 VP-427X

Operate VP-427X via:

- Front panel buttons
- Remotely, by RS-232 serial commands transmitted by a touch screen system, PC, or other serial controller
- OSD menu.
- Remote control switches.

RS-232 Control / Protocol 3000			
Baud Rate:	115,200	Parity:	None
Data Bits:	8	Command Format:	ASCII
Stop Bits:	1		

### Operating via the remote control switches

Momentarily connect the desired pin to the GND pin to select an input:

Pin Name	Function
TOGL	One button toggles between display on and display off (instead of using two separate buttons for on and off). Alternatively, using the VP-427X OSD, configure turning the display on and off according to whether a switch is open or closed, for example, using an occupancy sensor.
OFF	Turn off the display.
ON	Turn on the display.



The terms HDMI, HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.

### Using the OSD Menu

VP-427X enables controlling and defining the device parameters via the OSD, using the front panel MENU buttons.

To enter and use the OSD menu buttons:

1. Press MENU.
2. Press:
  - **ENTER** to accept changes and to change the menu settings.
  - **Arrow buttons** to move through the OSD menu, which is displayed on the video output.
  - **MENU** to exit the menu or to go back when within the menu nesting.



The default OSD timeout is set to 10 SECONDS.  
Default values appear in bold in the following table.

Mode	Function			
PICTURE	CONTRAST	Set the contrast (0~60) ( <b>30</b> )		
	BRIGHTNESS	Set the brightness (0~60) ( <b>30</b> )		
	FINETUNE	Connector	<b>Function</b>	<b>Parameter</b>
		HDBT/HDMI	HUE	0~60 ( <b>30</b> )
			SATURATION	0~60 ( <b>30</b> )
			SHARPNESS	0~63 ( <b>0</b> )
NOISE REDUCTION	<b>OFF</b> , LOW, MIDDLE, HIGH, AUTO			
COLOR	Set the red, green, and blue shades 0 to 1023 ( <b>512</b> )			
INPUT	SOURCE	Select the source: <b>HDBT</b> , HDMI		

Mode	Function			
OUTPUT	SIZE	Select the size of display: OVER SCAN, FULL, <b>BEST FIT</b> , PAN SCAN, LETTER BOX, UNDER 2, UNDER 1, FOLLOW IN		
	RESOLUTION	Select the output resolution from the menu (Default, <b>NATIVE</b> )		
		640x480 @60Hz	800x600 @60Hz	1024x768 @60Hz
		1280x768 @60Hz	1280x800 @60Hz	1280x1024 @60Hz
		1360x768 @60Hz	1400x1050 @60Hz	1440x900 @60Hz
		1600x1200 @60Hz	1680x1050 @60Hz	1920x1200 @60Hz RB
		2560x1600 @60Hz RB	1920x1080 @60Hz	1280x720 @60Hz
		2048x1080 @50Hz	2048x1080 @60Hz	2560x1440 @60Hz RB
		3440x1440 @30Hz	3440x1440 @60Hz	720x480P @60Hz
		720x576P @50Hz	1280x72P @50Hz	1280x720P @60Hz
		1920x1080P @24Hz	1920x1080P @25Hz	1920x1080P @30Hz
		1920x1080P @50Hz	1920x1080P @60Hz	2560x1080P @50Hz
		2560x1080P @60Hz	3840x2160P @24Hz	3840x2160P @25Hz
		3840x2160P @30Hz	3840x2160P @50Hz	3840x2160P @60Hz
	<b>Native</b>			
AUDIO	DELAY	OFF,40ms, 110ms, 150ms ( <b>40ms</b> )		
	OUTPUT VOLUME	Value 0 ~ 100, ( <b>80 = 0db</b> )		
OSD	<b>OFF</b> by default. Set the OSD parameters: H-POSITION; V-POSITION; TIMER 5~60 seconds, OFF ( <b>20sec</b> ); TRANSPARENCY; DISPLAY ( <b>INFO/ON/OFF</b> ).			
ADVANCED	HDCP ON HDBT INPUT	<b>ON/OFF</b>		
	HDCP ON HDMI INPUT	<b>ON/OFF</b>		
	HDCP(OUT)	FOLLOW INPUT/ <b>FOLLOW OUTPUT</b>		
	AUTO SYNC OFF	<b>DISABLE/SLOW/FAST</b>		
	AUTO SWITCH	OFF/ <b>AUTO SCAN</b> /LAST CONNECTED		
	FREEZE	<b>FREEZE + MUTE</b> / ONLY FREEZE / ONLY MUTE		
	EDID MANAGE	Port	EDID Value	
		HDBT EDID	Def. 1080P	
			Def. 4K2K(3G)	
			<b>Def. 4K2K(3G-4:2:0)</b>	
			USER1	
			USER2	
			OUTPUT	
		HDMI	Def. 1080P	
Def. 4K2K(3G)				
Def. 4K2K(3G-4:2:0)				
<b>Def. 4K2K(6G)</b>				
USER1				
OUTPUT				
EDID UPLOAD	USER EDID UPLOAD			
TOGGLE PIN	<b>EDGE</b> /ON /OFF / INPUT SELECT			
RELAY	<b>ON/OFF</b>			
OUTPUT CEC BYPASS	<b>ON/OFF</b>			
INFORMATION	Displays the source, the input and output resolution, and the software version.			
FACTORY	Reset to factory default parameters (resolution is set to Native).			
EXIT	Select to exit the menu.			