KRAMER

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691 Quick Start Guide

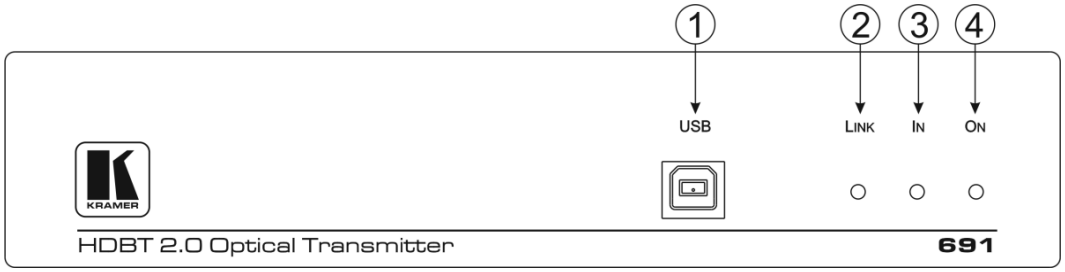
This guide helps you install and use your **691** for the first time.

Go to **www.kramerav.com/downloads/691** to download the latest user manual and check if firmware upgrades are available.

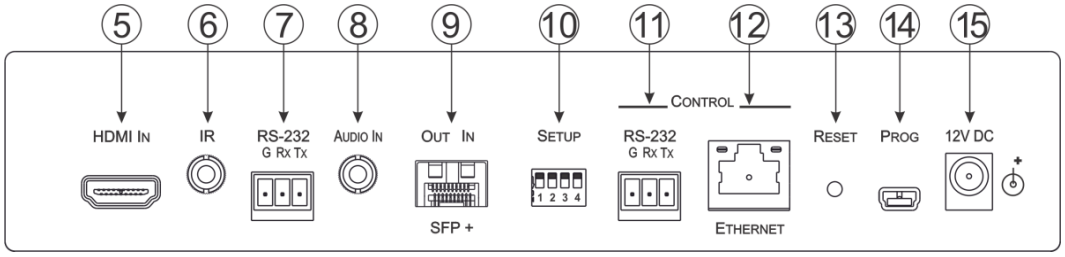
Step 1: Check what's in the box

- ☑ **691** HDBT 2.0 Optical Transmitter
- ☑ 1 Power adapter (12V DC)
- ☑ 4 Rubber feet
- ☑ 1 Quick start guide

Step 2: Get to know your 691



#	Feature	Function
1	USB Connector	Connect to the USB host for traffic extension, (for example, a laptop)
2	LINK LED	Lights green when the HDBT link is valid
3	IN LED	Lights green when an HDMI active signal device is connected
4	ON LED	Lights green when the device receives power



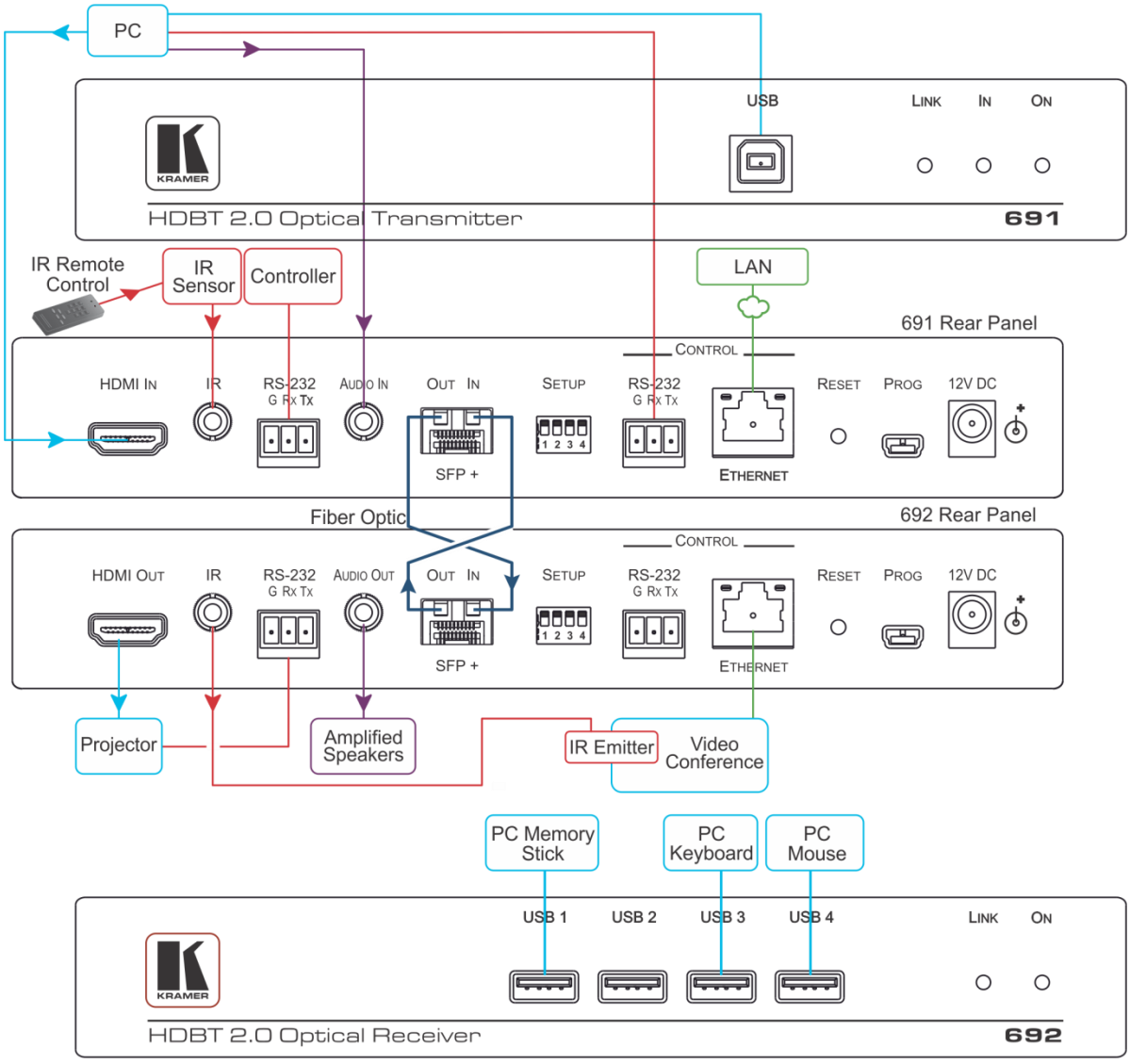
#	Feature		Function
5	HDMI IN Connector		Connect to the HDMI source
6	IR 3.5mm Mini Jack Connector		Connect to an external infrared transmitter or sensor for traffic extension
7	RS-232 3-pin Terminal Block		Connect to an RS-232 controller for traffic extension (for example, a PC to control the projector)
8	AUDIO IN 3.5mm Mini Jack		Connect to the stereo, analog audio source
9	OUT IN SFP+ Connector		Connect the fiber optic cable to the OUT IN SFP+ LC connector
10	SETUP 4-way DIP-switch		Sets the device behavior
11	CONTROL	*RS-232* 3-pin Terminal Block	Connect to the serial controller to control this device
12		*ETHERNET* RJ-45 Connector	Connect to the Ethernet controller to control this device or to a LAN to extend network traffic to the receiver
13	RESET Switch		Press and hold while power-cycling the device to reset to factory default parameters
14	PROG Mini USB Connector		Connect to a PC to perform firmware upgrades
15	12V DC Power Connector		Connect to the supplied power adapter

Step 3: Install the 691

To mount the **691** in a rack, use an **RK-1** rack adapter. Alternatively, attach the rubber feet to the underside of the **691** and place it on a table.

Step 4: Connect the inputs and outputs

Always switch OFF the power on each device before connecting it to your **691**. For best results, we recommend that you always use Kramer high-performance cables to connect AV equipment to the **691**.



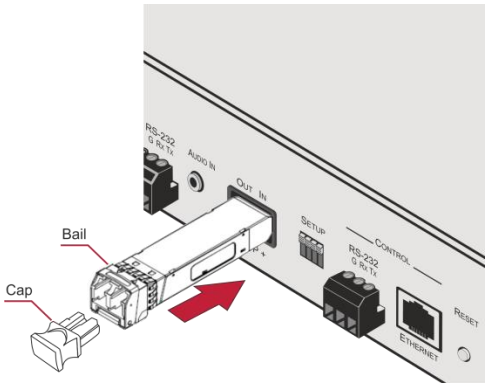
Always cross-connect the fiber connections, Rx OUT to Tx IN and Rx IN to Tx OUT, as transmission is carried on simplex fiber strands.

To install the OSP SFP+ transceiver:

1. Make sure the bail is pushed up, in the closed position.
2. Insert the **OSP SFP+** transceiver into the relevant optical device SFP+ slot and push it in until it clicks.

Remove the protective cap and store it in a safe place for future use.

Warning: Connecting the **OSP SFP+** connector to an LC(APC) fiber connector may cause poor performance and damage the connector!
Refer to www.kramerav.com/downloads/OSP-MM1 for more information.

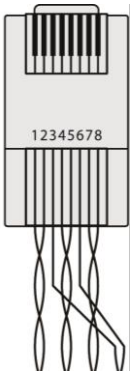


Warning: Class 1 Laser Product

- Invisible laser radiation present.
- Avoid long-term viewing of laser.
- Avoid the use of magnifying viewing aids or instruments (such as binoculars, telescopes, microscopes and magnifying lenses, but not spectacles or contact lenses).
- Avoid placing optical devices in the emitted beam that could cause the concentration of the laser radiation to be increased.

RJ-45 Pinout:

For the Ethernet connectors, see the proper wiring diagram



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

SETUP DIP-Switches

A DIP-switch that is down is on, up is off. Changes to the DIP-switches only take effect on power-up. After changing a switch, reboot the device.

#	Function	Status
1	For future use	
2	Audio source priority	Off—Embedded audio (factory default) On—Analog audio
3	EDID lock	Off—Automatic EDID acquisition (factory default) On—Lock (locks the current EDID so that changes on the output do not result in changes to the EDID)
4	Audio mode selection	Off—Auto (factory default) On—Manual

Step 5: Connect the power

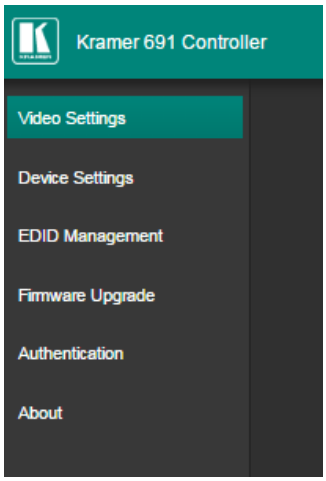
Connect the power adapter to the **691** and plug the adapter into the mains electricity.

Safety Instructions

Caution: There are no operator serviceable parts inside the unit
Warning: Use only the Kramer Electronics power supply that is provided with the unit
Warning: Disconnect the power and unplug the unit from the wall before installing
See www.KramerAV.com for updated safety information.

Step 6: Control the 691 via the:

Embedded Web pages:



RS-232 and Ethernet:

RS-232			
Protocol 3000			
Baud Rate:	115,200	Stop Bits:	1
Data Bits:	8	Parity:	None
Command format:	ASCII		
Example (get device model name):		#model?<cr>	
TCP/IP Parameters			
IP Address:	192.168.1.39	UDP Port #:	50000
Subnet mask:	255.255.000.000	TCP Port #:	5000
Default gateway:	192.168.0.1		
Full Factory Reset			
Rear panel button:	Press and hold to reset to factory default parameters		
P3K command:	#factory<cr>		
Embedded Web pages:	Select Device Settings page and click Factory reset		

Default Parameters	Value
Name:	KRAMER_
Model:	691
Audio delay input switching on new signal:	Immediate
Audio delay input switching on signal loss (leave 5V on):	5 seconds
Audio delay input switching on cable unplug:	Immediate
Video delay power off 5V on signal loss:	15 minutes
HDCP:	Follow output
Web Logon credentials:	Name: Admin; Password: Admin

Technical Specifications

Inputs	1 HDMI	On a female HDMI connector
	1 Stereo Analog Unbalanced Audio	2Vrms / 10kΩ, on a 3.5mm mini jack
Outputs	1 Fiber Optic	On 2 LC connectors
Ports	1 IR	On a 3.5mm mini jack for IR link extension
	1 USB	On a female USB-B connector for USB link extension
	1 RS-232	On a 3-pin terminal block for serial link extension
	1 RS-232	On a 3-pin terminal block for device control
	1 100BaseT Ethernet	On an RJ-45 female connector for device control and LAN extension
Extension Line	Compliance	HDBaseT 2.0
	Optical Fiber	Multi-mode (MM) or single-mode (SM)
	Fiber Line	2 simplex strands
	Optical Module	10Gbps SFP+ IEEE 802.3ae compliant
Multi-mode Line	Compliance	G.651.1 OFNR fiber
	Nominal Peak Wavelength	850nm
	Max Data Rate	10.2Gbps
	Typical Optical Transmission Power	-2.5dBm
	Typical Optical Maximum Loss Budget	8.6dB
	Max Reach over OM3 MM Fiber	500m (1640ft)
Single-mode Line	Compliance	G.652D OFNR fiber
	Nominal Peak Wavelength	1310nm
	Max Data Rate	10.2Gbps
	Typical Optical Transmission Power	-2.5dBm
	Typical Optical Maximum Loss Budget	11.9dB
	Max Reach over OS1 SM Fiber	10Km (6.2 miles)
Video	Max Bandwidth	10.2Gbps (3.4Gbps per graphic channel)
	Max Resolution	4K UHD @60Hz (4:2:0) 24bpp resolution
	Compliance	HDMI 2.0 and HDCP 1.4
Analog Audio	Max Vrms Level	1
	THD + NOISE	0.03% @1kHz at nominal level
Extended USB	Host Compliance	1.1 and 2.0
	Max Extended Line Rate Bandwidth	127Mbps (out of max 480 USB)
	Max Devices	7
	Max Hubs	2
	Max Ports per Hub	8
Extended Ethernet	Max Transmission Bandwidth	100Mbps
Extended RS-232	Baud Rate	300 to 115200
Control RS-232	Baud Rate	115200
Supported PC Web Browsers	Windows 7 and Higher	Internet Explorer (32/64 bit) version 10 Firefox version 30 Chrome version 35
	MAC	Chrome version 35 Firefox version 30 Safari version 7
	Minimum Browser Window Size	1024 x 768
Power	Consumption	12V DC, 1300mA
	Source	12V DC, 2A
Cooling	Convection Ventilation	
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%, RHL non-condensing
Regulatory Compliance	Safety	CE, UL
	Environmental	RoHs, WEEE
Enclosure	Size	Half 19” 1U
	Type	Aluminum
General	Net Dimensions (W, D, H)	21.46cm x 16.3 cm x 4.36cm (8.45" x 6.42" x 1.7")
	Shipping Dimensions (W, D, H)	35.1cm x 21.2cm x 7.2cm (13.82" x 8.35" x 2.8")
	Net Weight	0.95 kg (2.1lbs)
	Shipping Weight	1.45 kg (3.2lbs) approx.
Accessories	Included	Power supply
	Optional	For optimum range and performance use the recommended USB, Ethernet, serial and IR Kramer cables available at www.kramerav.com/product/691
Specifications are subject to change without notice at www.kramerav.com		