

# Touchboards

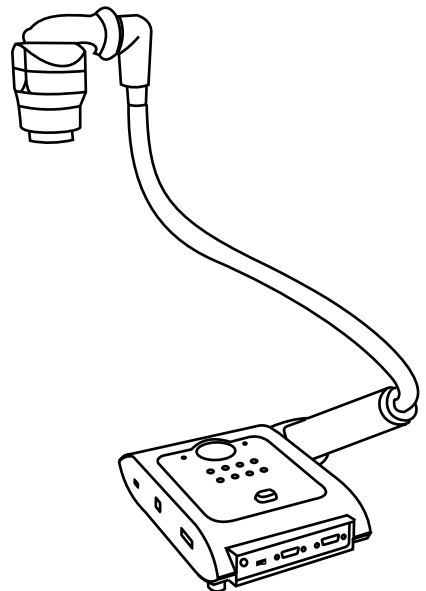
205 Westwood Ave, Long Branch, NJ 07740  
Phone: 866-94 BOARDS (26273) / (732)-222-1511  
Fax: (732)-222-7088 | E-mail: sales@touchboards.com

**Recordex**  
USA

INSTRUCTION MANUAL

# iMMCam AFX-120

INTERACTIVE MULTIMEDIA DIGITAL DOCUMENT CAMERA



ENGLISH

Thank you for choosing a Recordex iMMCam AFX camera for your presentation needs. Our iMM line of products are developed specifically to enhance the interactive multimedia experience of any presentation.

### **Copyright**

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### **Disclaimer**

The information contained in this document may change without notice.

The product warranty is defined on page 16. No part of this document should be construed as constituting an additional warranty. Recordex shall not be liable for any errors or inaccuracies contained in the document. Under no circumstances is Recordex USA liable for direct or indirect damages arising out of the use of this product or documentation.

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### **FCC Notice (Class A)**

This device complies with Subpart J of Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesirable operation.

**Warning** - This is a class A Product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

### **CE Class A (EMC) Notice**

This product is intended for use in a commercial, industrial or educational setting and environment. It is not intended for residential home use.

**Warning** - This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures to correct the interference.

### **RECYCLE PROPERLY**

This device should not be disposed of with other household waste. It should be discarded through an authorized recycling center able to accept electrical and electronic waste.

### **CAUTION**

**WARNING - TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.**

**CAUTION - RISK OF ELECTRIC SHOCK - Do not attempt to service unit. Do not remove cover. There are no user-serviceable parts inside the unit. Unit should be returned to the manufacturer for service.**

### **Precautions When Using**

- Do not use on unstable tray, table, or cart. Use only on stable surface.
- Do not use near water, steam, or excessive direct heat source.
- Only use the power adapter provided by the manufacturer.
- Always unplug the document camera before cleaning any part of the camera.
- Unplug the device when not in use for long periods of time and during electrical storms.

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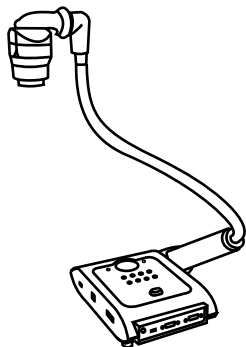
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## PACKAGE CONTENTS

Take a moment to confirm that you received all the items listed below:



Recordex iMMCam AFX-120



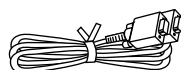
QuickStart Guide  
(with XSight License)



Power Adapter & Cord



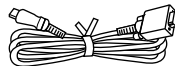
Remote



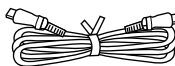
VGA D-Sub Cable



USB Cable



HDMI - DVI Cable



HDMI - HDMI Cable



Carrying Case



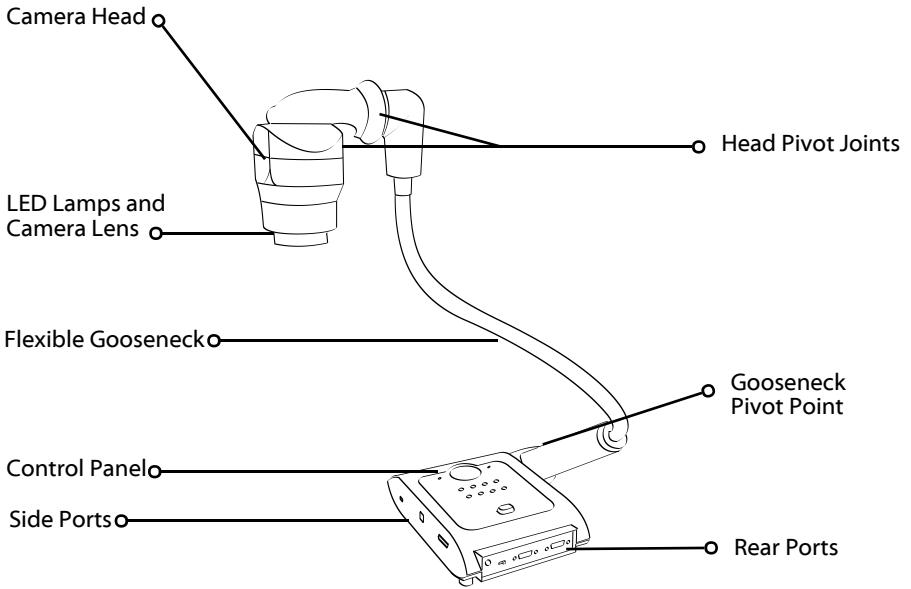
Anti-Glare Sheet



**Optional** Microscope  
Adapter (28 mm)

## GETTING TO KNOW YOUR iMMCam AFX-120

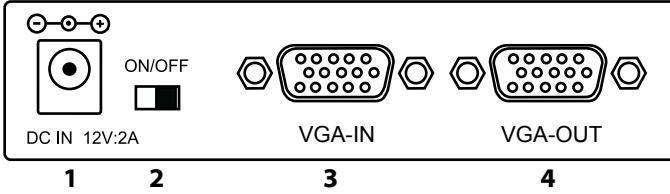
Use the illustrations below to familiarize yourself with the Recordex iMMCam AFX-120.



## THE INPUT/OUTPUT PANELS

Use the illustrations below to familiarize yourself with the various ports found on the rear and side panel of the camera.

### Rear I/O Panel

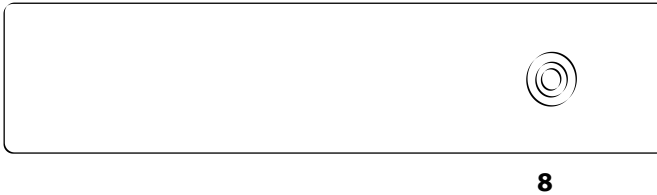


#	Label	Description
1	DC12V:2A	Power Supply Port (DC 12V)
2	ON/OFF	Power Switch
3	VGA-IN	D-Sub RGB Port (VGA Input) - Used for VGA Passthrough
4	VGA-OUT	D-Sub RGB Port (VGA Output) - Connect to Projector/Display

### Right Side I/O Panel



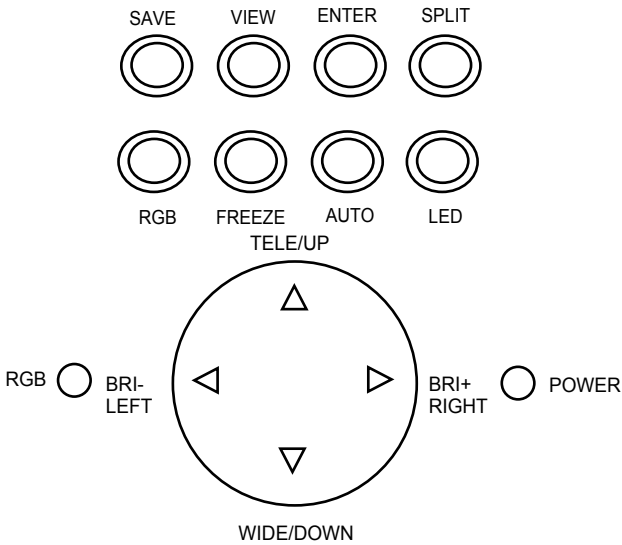
### Left Side I/O Panel



#	Label	Description
5	LOCK	Kensington Lock
6	HDMI	HDMI Port (OUTPUT to Display) - Connect to HDMI or DVI port.
7	USB	USB 2.0 Port (OUTPUT to Computer), 10 X Optical Zoom, SXGA Resolution.
8	USB	C-Video port (OUTPUT to display)

## CONTROL PANEL

Refer to the illustration below and the summary table for a description of the control panel and/or remote control function buttons.

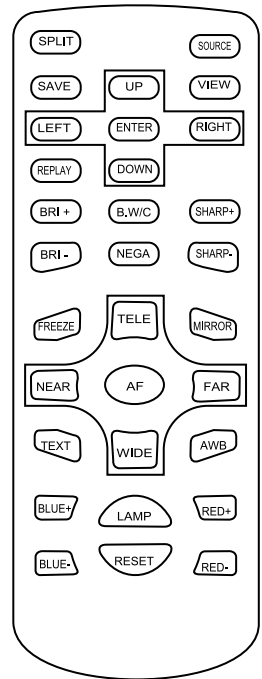


Label	Description
TELE	Zoom in
WIDE	Zoom out
UP	Navigate saved images
DOWN	Navigate saved images
LEFT	Navigate saved images
RIGHT	Navigate saved images
BRI-	Reduce image brightness
BRI+	Increase image brightness
SAVE	Capture current view to internal session memory
DELETE	Delete saved images (hold down for 3 seconds when selected in thumbnail view)
VIEW	Bring up catalog of saved images, press to cycle through pages of images
ENTER	Select saved image for full screen viewing
REPLAY	View saved images in slideshow
SPLIT	Divide display: ½ screen is frozen, ½ screen is live image
RGB	Switch to VGA Passthrough (RGB-IN passed through to VGA-OUT)
FREEZE	Toggle on/off image freeze mode (press again for normal view)
AUTO	Automatically optimize image focus, brightness, and white balance
LED	Toggle on/off the LED lamps
<b>LIGHTS</b>	<b>Description</b>
RGB	Lit when VGA Passthrough is active
POWER	Lit when camera is powered on

## REMOTE CONTROL

Refer to the illustration below and the summary table for a description of the remote control function buttons.

Label	Description
<i>NOTE: most buttons are defined in the table on page 8. This table defines function buttons that only appear on the remote control.</i>	
B.W/C	Switch between black and white or color viewing
MIRROR	Displays mirror image of current presenter view
NEAR	Small nudge adjustment to AutoFocus
FAR	Small nudge adjustment to AutoFocus
SHARP+	Increase edge sharpness
SHARP-	Decrease edge sharpness
TEXT	Increase text sharpness (toggle text/graphic mode)
AWB	Auto white balance the image
RESET	Reset image settings
BLUE+	Increase blue color level (manual white balance, remote control function only)
BLUE-	Decrease blue color level (manual white balance, remote control function only)
RED+	Increase red color level (manual white balance, remote control function only)
RED-	Decrease red color level (manual white balance, remote control function only)



## SPECIAL FUNCTIONS

**Changing Output Resolution.** The default output resolution of the camera is SXGA (1280x1024 @60Hz). The VGA/HDMI output resolution can be changed to XGA (1024x768 @60Hz), SXGA (1280x1024 @60Hz), WXGA (1280x720 @60Hz). To do this press the AUTO button on base control panel and hold it down for three seconds. Doing so will cycle the camera through the three output resolutions 1024x768, 1280x800, 1280x1024. NOTE: Not all display devices will be able to accept all resolutions.

- **CAUTION:** IMAGES SAVED USING THE CAMERA REMOTE OR CONTROL PANEL TO INTERNAL SESSION MEMORY ARE DELETED WHEN THE CAMERA IS POWERED OFF.

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## TECHNICAL SPECIFICATIONS

<b>Feature/Specification</b>	<b>Model: AFX-120 // Portable Gooseneck</b>
<b>Image Sensor</b>	1/3" CMOS
<b>Pixels</b>	2.0 Mega Pixel
<b>Zoom</b>	10x Optical, 16x Digital (160x Total)
<b>Lens</b>	Glass
<b>Frame Rate</b>	25 fps (max)
<b>Focus</b>	Auto Focus
<b>Image Effect</b>	Mirror/Freeze/B&W/Negative/Split
<b>Head Rotation</b>	270 degrees/ 45 d. pivot
<b>White Balance</b>	Auto/Manual
<b>Exposure</b>	Auto
<b>Flicker Level</b>	2 levels
<b>Horizontal Resolution</b>	750TV
<b>Shooting Area</b>	11.8"x16.1"
<b>VGA/RGB Output</b>	SXGA (1280x1024 @ 60Hz) WXGA (1280x720 @ 60Hz) XGA (1024 x 768 @60Hz)
<b>Video Input Switching</b>	VGA Passthrough Switch
<b>RGB/VGA Pass-through</b>	Passive & Active Pass-through (power on or off)
<b>USB 2.0 Output (Hi-Res)</b>	USB Video Device (1280x1024) 10x Optical Zoom (10x total Zoom) with additional Zoom through XSight HD Viewer software.
<b>Save Images</b>	16-JPEG to Internal Session Memory Unlimited video and still image capture by USB 2.0
<b>Software</b>	XSight HD Viewer for Windows and Mac
<b>Microphone</b>	Yes, built in microphone.
<b>Video Input</b>	1 VGA Passthrough
<b>Audio Input</b>	N/A
<b>Video Output</b>	1 x VGA Out (XGA, SXGA, WXGA) 1 x HDMI/DVI Out (XGA, SXGA, WXGA) 1 x USB 2.0 (SXGA, XGA, VGA) 1 x C-Video 750 Horizontal TV resolution
<b>Audio Output</b>	N/A
<b>Power (brick)</b>	DC 12V/2A (100-240v 50/60 Hz)
<b>Light Source</b>	LED Lamp (adjustable: on/off)
<b>IR Remote</b>	Yes
<b>Carrying Case</b>	Yes
<b>Microscope Adapter</b>	Optional
<b>Physical Dimensions</b>	Folded: 15.25 x 8 x 2.5 (in)
<b>Weight</b>	Open: 7.25 x 7.7x 24 (in) Weight: 4.5 lbs Shipping Weight: 10 lbs

## DEVICE DRIVER INSTALLATION

Your iMMCam AFX-120 document camera can be used as a visualizer without installing any device drivers or additional software. However, if you wish to capture video or image stills from your iMMCam then you will need to install USB capture software.

### Hi-Resolution USB Port (Labeled : USB) (Location: Side panel)

This port is designed for hi-resolution image capture. It will support up to 1280x1024 image capturedth.	
TYPICAL USE	Capturing hi-resolution image stills and video using XSight HD Viewer
MAX ZOOM	Up to 10x Zoom plus 16X XSight Zoom = 160X total
DRIVER	No driver pre-installation required for Windows or Mac OS X. Simply connect camera with supplied USB cable and the OS will automatically install the proper device driver and the device will be installed as a USB Video Device.

## XSIGHT HD VIEWER INSTALLATION

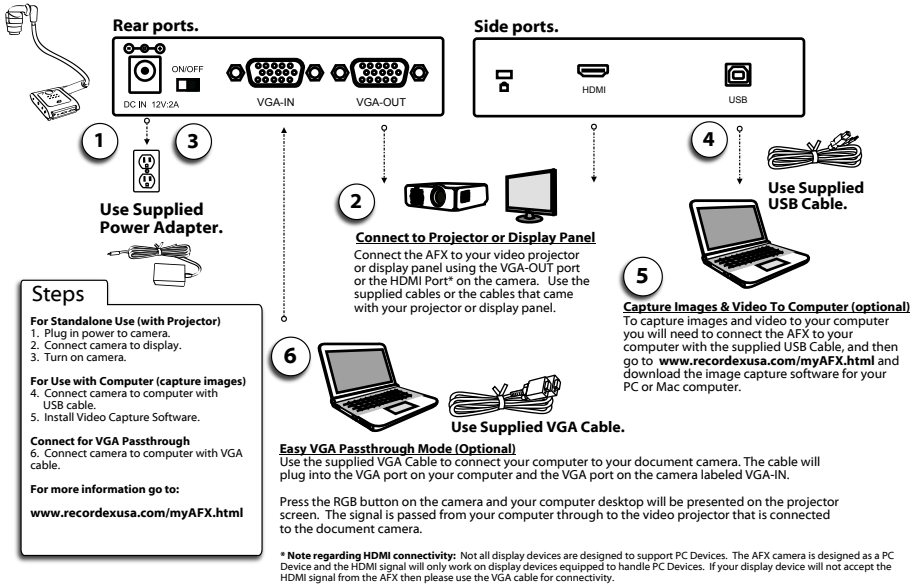
You will want to use XSight HD Viewer to capture still images and video with your AFX. XSight also includes many other presentation tools such as annotation, spotlight, etc.

Go to [www.recordexusa.com/myAFX.html](http://www.recordexusa.com/myAFX.html) for instructions on downloading and installing XSight HD Viewer. Also you will find several videos showing how to use the software.



# MAKING THE CONNECTIONS

The diagram below demonstrates the input and output connections the AFX supports.



**\* Note regarding HDMI connectivity:** Not all display devices are designed to support PC Devices. The AFX camera is designed as a PC Device and the HDMI signal will only work on display devices equipped to handle PC Devices. If your display device will not accept the HDMI signal from the AFX then please use the VGA cable for connectivity.

## TROUBLESHOOTING

Problem/Observation	Solution
No image is displayed or image is totally black or totally white.	<ul style="list-style-type: none"> <li>• Check that the unit is plugged in and powered on. Press the LED button to cycle through the lighting options to confirm the unit is on.</li> <li>• Check that the VGA cable is tightly connected to the document camera and the projector.</li> <li>• The camera is zoomed too far in and is displaying only a blank portion of the document or object. Zoom out or move object.</li> </ul>
USB capture is not working	<ul style="list-style-type: none"> <li>• Make sure the USB cable is plugged into the camera and the computer.</li> <li>• Use a rear USB Port on your computer. Some front USB ports do not have adequate bandwidth and power to allow for quality image capture.</li> <li>• Try using the capture software provided with the camera to rule out any issues with third party software.</li> <li>• Unplug USB cable, restart your computer and camera. Make connection after computer has been logged into Windows. (resets USB ports)</li> </ul>
Image is out of focus	<ul style="list-style-type: none"> <li>• Press the AutoFocus button.</li> <li>• Press the reset button</li> <li>• Try zooming in or out a little (press Tele / Wide)</li> <li>• Use the near/far button on the remote to manually tweak the focus.</li> <li>• <b>Refer to the “Quick Setup Guide” for optimum camera head placement. 15-18” above document</b></li> </ul>
Image is dark or washed out	<ul style="list-style-type: none"> <li>• Press the Auto White Balance button (AWB)</li> <li>• Try changing the lighting</li> <li>• Manually change the brightness (BRI+/BRI-)</li> <li>• Power off camera and try again.</li> </ul>
Image is stuck	<ul style="list-style-type: none"> <li>• Press the Freeze button to resume normal viewing</li> <li>• Power off the unit. Power on and try again.</li> </ul>
VGA pass-through is not working	<ul style="list-style-type: none"> <li>• If using a laptop/notebook make sure to switch the display settings of the notebook to use an external monitor.</li> <li>• Make sure computer has not gone into sleep mode.</li> </ul>
Video projector is unable to project image from camera.	<ul style="list-style-type: none"> <li>• Make sure VGA connection is tight.</li> <li>• Try changing the output resolution by pressing and holding the AUTO button for 3 seconds.</li> </ul>



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## WARRANTY STATEMENT

### LIMITED 5-YEAR WARRANTY RECORDEX USA AFX Document Camera ("Product")

**What is my warranty?** Recordex warrants to the original purchaser only that the Product will be free from defects in material and workmanship under normal use for a period of five (5) years from the date of original purchase.

**How long does this warranty last?** Five (5) years from the date of the original purchase.

**Who is responsible for Shipping?** You are responsible for shipping the Product to our Warranty Service Depot. Recordex will pay for return shipment of the repaired Product under warranty. Return shipment will be by ground service to the 48 contiguous US states. You are responsible for shipping to Alaska, Hawaii and any address outside of the United States. If the Product is repaired out of warranty then you are responsible for shipping both ways. Recordex is not responsible for any shipping damage that may occur in transit to the service depot.

### Is There A Special Warranty for Educators?

Yes, Product used in a classroom or education setting is eligible for our Replacement Warranty Service. Make sure our customer service representative knows that the Product is in an educational setting and we will replace the product should a defect arise. Product will be replaced with new or refurbished product at Recordex's discretion. This process eliminates the wait time associated with sending in the Product for repair. This warranty is often referred to as a 'hot swap' warranty.

**What must I do to obtain warranty service?** To obtain warranty service please contact Recordex's Customer Service Center at 1-718-392-5380 x2 or contact your authorized Recordex Dealer for assistance in filing a warranty claim. You will receive instructions on how to properly return your product for authorized warranty repair. In order to receive warranty service you must be able to provide an original receipt or invoice for the purchase of your Product.

**What are the limitations?** Recordex's warranty shall not apply: (i) to any Product subjected to accident, misuse, neglect, alteration, acts of God, improper handling, improper transport, improper storage, improper use or application, improper installation, industrial or commercial use, improper testing or unauthorized repair; or (ii) to cosmetic problems or defects that result from normal wear and tear under ordinary use, and do not affect the performance or use of the product. If the Product develops a covered defect within the warranty period, Recordex will, at its option, either repair or replace the Product at no charge, provided that the Product is returned during the warranty period and this is your exclusive remedy and the entire liability of Recordex under this warranty. No warranty is made or implied as to the effectiveness or suitability of this product for your purposes.

THE ABOVE STATED WARRANTY IS EXCLUSIVE AND REPLACES ALL OTHER WARRANTIES EXPRESSED OR IMPLIED INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. RECORDEX WILL NOT BE HELD LIABLE FOR ANY OTHER DAMAGES OR LOSS INCLUDING INCIDENTAL OR CONSEQUENTIAL DAMAGES AND LOSS OF PROFITS OR REVENUES FROM WHATEVER CAUSE, INCLUDING BREACH OF WARRANTY OR NEGLIGENCE.

