Recordex USA®
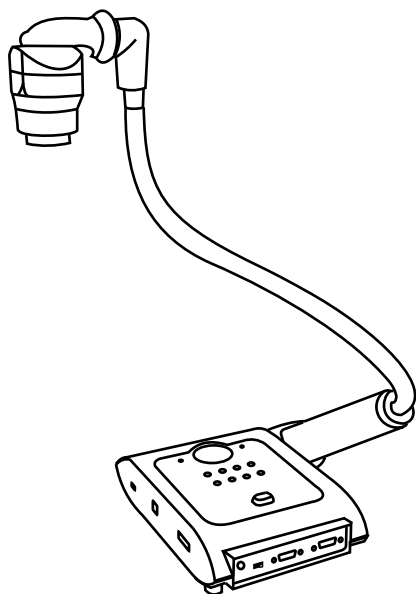
iMMCam AFX-150

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
© 2011 by Recordex USA, Inc. All rights reserved. Reproduction or adaptation without prior written permission is prohibited, except as allowed under copyright laws.

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.

Trademarks
Recordex is a registered trademark of Recordex USA, Inc. iMMCam is a trademark of Recordex USA, Inc. Macintosh is a registered trademark of Apple Computer, Inc. Microsoft, and the Windows Operating System are trademarks of Microsoft Corporation. All other trademarks, product names or companies mentioned in this document are used for reference and clarification only and may be the registered marks or property of their respective owners.

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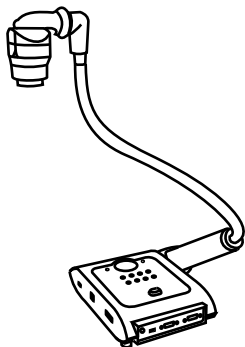
Precautions When Using
- Do not use on unstable tray, table, or cart. Use only on stable surface.
- Do not use near water, steam, or excessive direct heat source.
- Only use the power adapter provided by the manufacturer.
- Always unplug the document camera before cleaning any part of the camera.
- Unplug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

Table of Contents

PACKAGE CONTENTS

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

Recordex iMMCam AFX-150

QuickStart Guide
(with XSight License)

VGA D-Sub Cable

USB Cable

HDMI - DVI Cable

Power Adapter & Cord
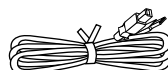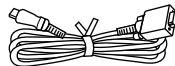
Remote
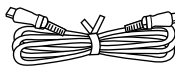
HDMI - HDMI Cable

Carrying Case

Anti-Glare Sheet

Optional Microscope
Adapter (28 mm)

GETTING TO KNOW YOUR iMMCam AFX-150

Use the illustrations below to familiarize yourself with the Recordex iMMCam AFX-150.

Camera Head

Head Pivot Joints

LED Lamps and
Camera Lens

Flexible Gooseneck

Gooseneck
Pivot Point

Control Panel

Side Ports

Rear Ports
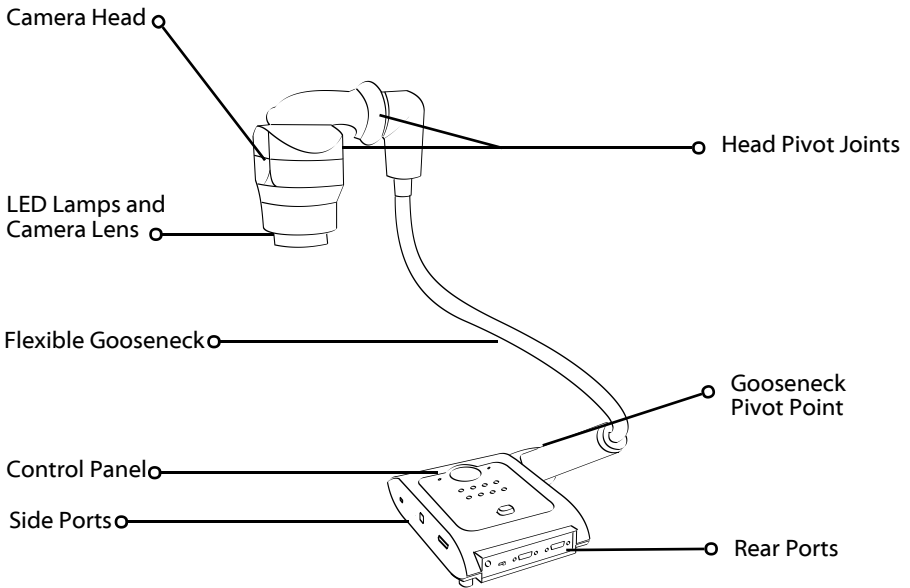
AFX-150: Rear Side View

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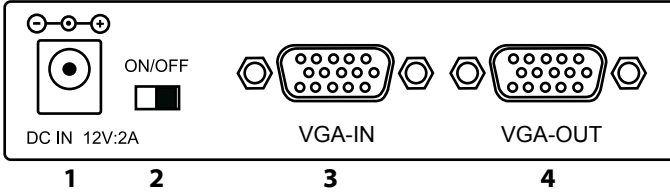
#	Label	Description
1	DC12V:2A	Power Supply Port (DC 12V)
2	ON/OFF	Power Switch
3	VGA-IN	D-Sub RGB Port (VGA Input) - Used for VGA Passthrough
4	VGA-OUT	D-Sub RGB Port (VGA Output) - Connect to Projector/Display

Right Side I/O Panel

#	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), 12 X Optical Zoom, SXGA Resolution.

CONTROL PANEL

Refer to the illustration below and the summary table for a description of the control panel function buttons.
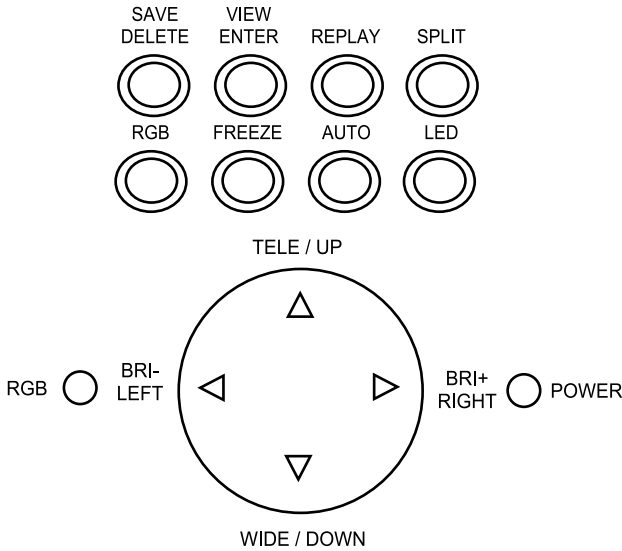
Label	Description
TELE	Zoom in
WIDE	Zoom out
UP	Navigate saved images
DOWN	Navigate saved images
LEFT	Navigate saved images
RIGHT	Navigate saved images
BRI-	Reduce image brightness
BRI+	Increase image brightness
SAVE	Capture current view to internal memory
DELETE	Delete saved images (hold down for 3 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
LIGHTS	**Description**
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
NOTE: most buttons are defined in the table on page 8. This table defines function buttons that only appear on the remote control.	
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)
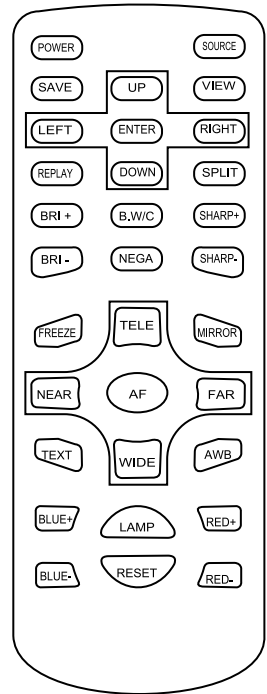
SPECIAL FUNCTIONS

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 (1280x800 @60Hz) or HD (1920x1080 @ 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, 1920x1080. NOTE: Not all display devices will be able to accept all resolutions.

Deleting Saved Images. To delete the images stored to the internal memory follow these steps:

- Press VIEW/ENTER and then select the image you wish to delete by using the UP, DOWN, LEFT and RIGHT buttons.

- After the image is highlighted press the SAVE/DEL button and hold it down for three seconds.

- **NOTE: The images can only be deleted while in thumbnail view**. Do not enlarge/view and then try to delete. Highlight the image in the thumbnail view and then hold down the ENTER/DEL button for three seconds.

TECHNICAL SPECIFICATIONS

Feature/Specification	Model: AFX-150 // Portable Gooseneck
Image Sensor	1/3" CMOS
Pixels	3.2 Mega Pixel
Zoom	12x Optical, 13x Digital (156x Total)
Lens	Glass
Frame Rate	25 fps (max)
Focus	Auto Focus
Image Effect	Mirror/Freeze/B&W/Negative/Split
Head Rotation	270 degrees/ 45 d. pivot
White Balance	Auto/Manual
Exposure	Auto
Flicker Level	2 levels
Horizontal Resolution	1000TV
Shooting Area	12"x14"
VGA/RGB Output	WUXGA/HD (1920x1080 @ 60Hz SXGA (1280x1024 @ 60Hz) WXGA (1280x800 @ 60Hz) XGA (1024 x 768 @60Hz)
Video Input Switching	VGA Passthrough Switch
RGB/VGA Pass-through	Passive & Active Pass-through (power on or off)
USB 2. 0 Output (Hi-Res)	USB Video Device (1280x1024) 12x Optical Zoom (12x total Zoom) with additional Zoom through XSight HD Viewer software.
Save Images	64-JPEG to Internal Memory Unlimited capture by USB 2.0 (Video and still capture)
Software	XSight HD Viewer for Windows VidoeGlide Video Capture for MAC
Video Input	1 VGA Passthrough
Audio Input	N/A
Video Output	1 x VGA Out (XGA, SXGA, WXGA, HD/WUXGA) 1 x HDMI/DVI Out (XGA, SXGA, WXGA, HD/WUXGA) 1 x USB 2.0 (SXGA, XGA, VGA)
Audio Output	N/A
Power (brick)	DC 12V/2A (100-240v 50/60 Hz)
Light Source	LED Lamp (adjustable: on/off)
IR Remote	Yes
Carrying Case	Yes
Microscope Adapter	Optional
Physical Dimensions Weight	Folded: 15.25 x 8 x 2.5 (in) Open: 7.25 x 7.7x 24 (in) Weight: 4.5 lbs Shipping Weight: 10 lbs

DEVICE DRIVER INSTALLATION

Your iMMCam AFX-150 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 cap-turedth.	
TYPICAL USE	Capturing hi-resolution image stills and video using XSight HD Viewer (Windows) or VideoGlide (MAC)
MAX ZOOM	Up to 12x Zoom plus 8X XSight Zoom = 96X total
DRIVER	No driver pre-installation required for Windows or Mac OS X. Simply connect camera with supplied USB cable and the OS will auto-matically install the proper device driver and the device will be installed as a **USB Video Device.**
INSTALLATION	No special driver installation required. Simply plug in device, connect the USB cable to your computer and allow the operating system to de-tect the hardware and install the appropriate driver. This device will ap-pear as a USB Video Device under Windows and Mac OS X.

VIDEOGLIDE FOR MAC OSX

If you are running MAC OSX you will use VideoGlide to capture still images and video with your AFX.

To Install VideoGlide go to www.recordexusa.com/myAFX.html to register your camera and download the software. Then install the software on your computer.

Next to connect your AFX to your computer by following these steps:

1. Plug in your AFX

2. Make sure it is powered on.

3. Connect the AFX to your MAC using the supplied USB cable. Use any open USB 2.0 port on your computer.

4. The MAC OS will auto-detect the camera.

VideoGlide Capture File Edit Snapshot Record **Digitizers**
USB Video Device

6. Use the Snapshot or Record menu to capture still images or video from the camera.

USB Video Device
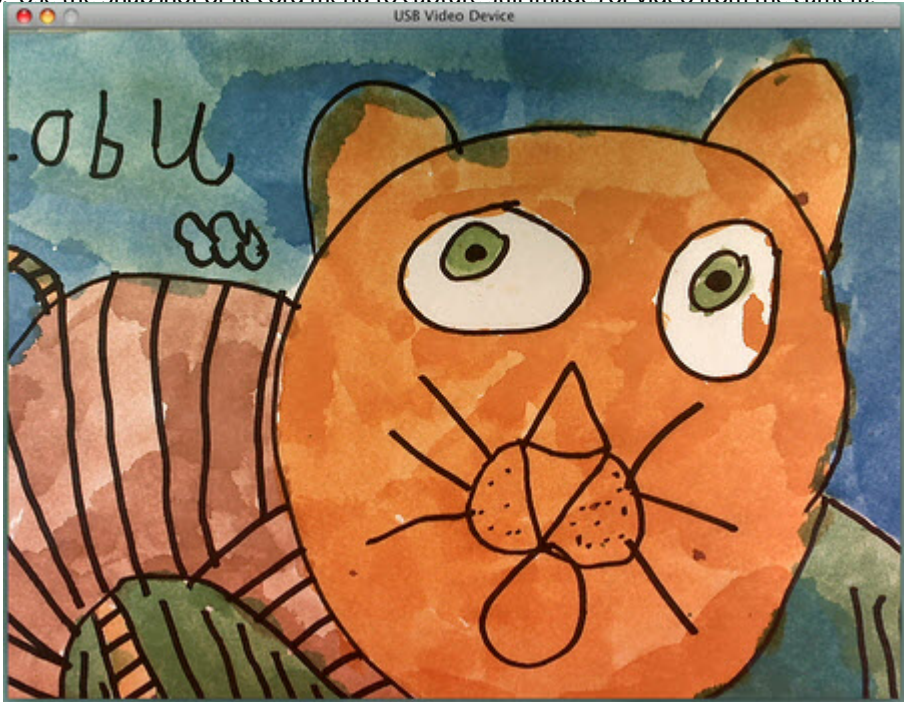
XSIGHT HD VIEWER INSTALLATION

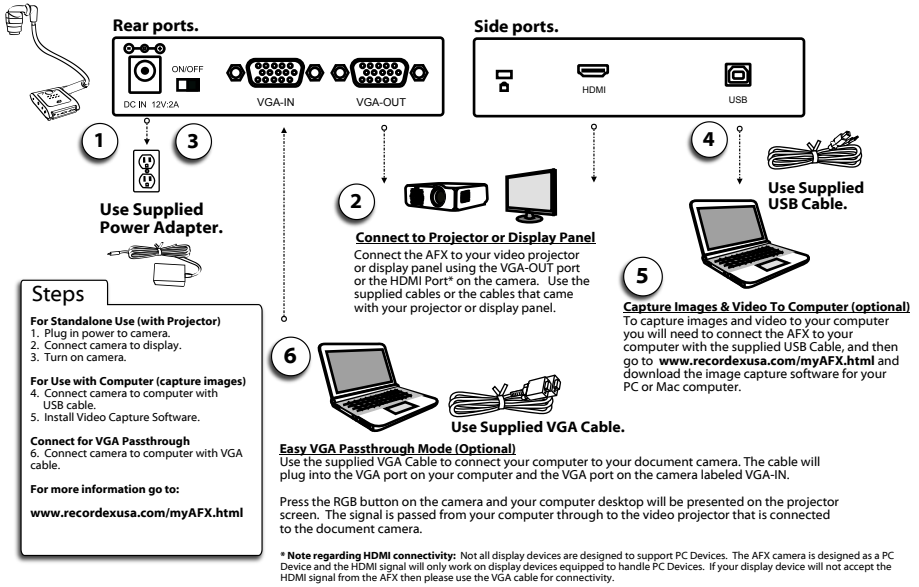If you are running Windows you will use XSight HD Viewer to capture still images and video with your AFX.

Go to 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.

Rear ports.

ON/OFF

DC IN   12V:2A   VGA-IN   VGA-OUT

Side ports.

HDMI   USB

1   **3**

**Use Supplied
Power Adapter.**

4

**Use Supplied
USB Cable.**

2

Connect to Projector or Display Panel
Connect the AFX to your video projector
or display panel using the VGA-OUT port
or the HDMI Port* on the camera. Use the
supplied cables or the cables that came
with your projector or display panel.

5

Capture Images & Video To Computer (optional)
To capture images and video to your computer
you will need to connect the AFX to your
computer with the supplied USB Cable, and then
go to **www.recordexusa.com/myAFX.html** and
download the image capture software for your
PC or Mac computer.

Steps

For Standalone Use (with Projector)
1. Plug in power to camera.
2. Connect camera to display.
3. Turn on camera.

For Use with Computer (capture images)
4. Connect camera to computer with
    USB cable.
5. Install Video Capture Software.

Connect for VGA Passthrough
6. Connect camera to computer with VGA
    cable.

For more information go to:

www.recordexusa.com/myAFX.html

6

Use Supplied VGA Cable.

Easy VGA Passthrough Mode (Optional)
Use the supplied VGA Cable to connect your computer to your document camera. The cable will
plug into the VGA port on your computer and the VGA port on the camera labeled VGA-IN.

Press the RGB button on the camera and your computer desktop will be presented on the projector
screen. The signal is passed from your computer through to the video projector that is connected
to the document camera.

* 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.

* 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.	• 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. • Check that the VGA cable is tightly connected to the document camera and the projector. • The camera is zoomed too far in and is displaying only a blank portion of the document or object. Zoom out or move object.
USB capture is not working	• Make sure the USB cable is plugged into the camera and the computer. • 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. • Try using the capture software provided with the camera to rule out any issues with third party software. • Unplug USB cable, restart your computer and camera. Make connection after computer has been logged into Windows. (resets USB ports)
Image is out of focus	• Press the AutoFocus button. • Press the reset button • Try zooming in or out a little (press Tele / Wide) • Use the near/far button on the remote to manually tweak the focus. • **Refer to the "Quick Setup Guide" for optimum camera head placement. 15-18" above document**
Image is dark or washed out	• Press the Auto White Balance button (AWB) • Try changing the lighting • Manually change the brightness (BRI+/BRI-) • Power off camera and try again.
Image is stuck	• Press the Freeze button to resume normal viewing • Power off the unit. Power on and try again.
VGA pass-through is not working	• If using a laptop/notebook make sure to switch the display settings of the notebook to use an external monitor. • Make sure computer has not gone into sleep mode.
Video projector is unable to project image from camera.	• Make sure VGA connection is tight. • Try changing the output resolution by pressing and holding the AUTO button for 3 seconds.

RECORD PRODUCT INFORMATION

We strongly recommend you fill out the information below:

MODEL NUMBER: _____

SERIAL NUMBER: _____

SOFTWARE KEY: _____

PURCHASED FROM: _____

PURCHASE DATE: _____
(staple copy of invoice to this manual)

SUPPORT CONTACTS

PHONE: 718-392-5380 Ext. 2

EMAIL: support@recordexusa.com

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 and 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.