



## DIRECTORY

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### PREFACE

Thank you for purchasing the MI-96HD high resolution digital camcorder. The MI-96HD is a small, all-in-one design that is convenient for you to record activities anytime and anywhere. With the high speed dynamic photograph function, it can clearly record any activity, and let you share the experience with anybody.

Please read this manual carefully to ensure you understand it before using this product. Please also keep this manual safe for future reference.

#### **PRODUCT ASSURANCE**

This product has authoritative CE, RoHS & FCC certification to assure customer safety when using it.

#### PRODUCT OVERVIEW

The MI-96HD has world leading digital video/photography/audio storage, high-speed HDMI video transmission and other functions, as well as a number of invention patents & technical patents.

### **PRODUCT FEATURES**

- 1. Resolution : 960 x 240 ; integrated 2.0-inch TF LCD
- 2. Image sensor: 5Mega pixel ,1/2.5-inch CMOS sensor
- 3. Video output: HDMI CTS1.2 Compliant
- 4. Composite video output (AV-OUT)
- 5. Video signal format: MPEG-4 AVC/H.264
- 6. Resolutions: 1920 x 1080(30FPS) 1440 x 1080(30FPS)

1280 x 720 (25FPS/50FPS/30FPS/60FPS) 848 x 480(30FPS /60 FPS)

- 7. 5Mega pixel static shooting
- 8. Recording format: MOV/MP4
- 9. Lens design rotates 200° to allow multiple camera mounting positions.
- 10. Built-in microphone/speaker (single channel)
- 11. Recovering function makes it possible to recover files which have been lost.
- 12. Electronic shutter1/2-1/1000 second
- 13. USB2.0/HDMI/TV jack
- 14. Support external Micro SD Card up to 32Gb (Class 4)
- 15. Overwrite recording, Motion-Detection, Real-time stamp
- 16. Built-in high capacity li-ion battery, 3.7V/100mAh
- 17. Working humidity: 10% ~ 98%
- 18. Temperature: -10 ~ 60 °C
- 19. Dimension: 102 x 57 x 38 mm (L x W x H)
- 20. Camera weight- 122 grams

### PACKAGE CONTENT



**Goggle Strap Mount** 

00





Flat Mount

Bar Mount

Vented Helmet Mount



Carry Pouch



Rubber Belt x 3



3M sticker x 3



Lanyard Rope



Elastic Strap

USB Cable

HDMI Cable

AC Charger

AV-OUT Cable

Battery



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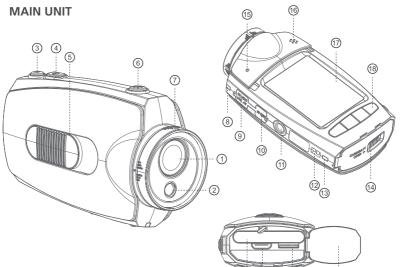
Wired Remote



CD-Rom/User Manual

NOTE: ALL CONTENTS ABOVE ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

### **PRODUCT STRUCTURE**



- 1. 110°lens
- 2. Horizontal laser light
- 3. Camera shutter
- 4. [⊙]Press and Hold for 2 seconds to power on or power off the Cam
- 5. Recording key
- 6. Turn on or turn off the horizontal laser light
- 7. 200° rotating lens
- 8. Recording indicator
- 9. External MIC interface
- 10. Wired-Remote jack VSB jack AV-OUT jack
- 11. 1/4 Screw Thread
- 12. Lanyards orifice
- 13. Power indicator

- 14. Locking key of rear cover
- 15. Internal MIC

(21)

(19 (20)

- 16. Loudspeaker
- 17. 2-inch LCD Screen
- 18. Playback integrated key
- 19. Battery Holder
- 20. HDMI output jack
- 21. Micro-SD Holder
- 22. Screen Cover

### **PRODUCT STRUCTURE**



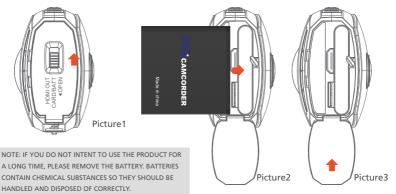
- A .Cradle: with two 1/4 tripod threads fitted for use with other mounts as shown below, this camera can be widely used with any equipment and any application.
- B. Goggle Strap Mount: can be fixed on to your goggle strap and any other elastic band or strap.
- C. Flat Mount: With a high performance, waterproof and heat-resistant 3M sticker at the back, it is ideal for flat, non-porous surfaces.
- D. Bar Mount: with 3 sizes of rubber, the camera can be mounted on to the tubes of mountain bike handle bars, roll bar cages etc.
- E: Vented Helmet Mount, with the Velcro strap is ideal for mounting the camera to various styles of vented helmets.

### FIRMWARE UPDATE

Please check the current software version if you want to get the latest firmware Update then please compare with the latest version on www.micamcorder.com.

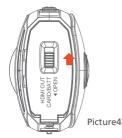
#### **Installing the Battery**

- 1. Slide the lock on the rear cover and it will automatically open. (Refer to picture1)
- 2. Follow the instructions. Insert the battery with the correct Polarity (+/-). (Refer to picture2)
- 3. Push the rear cover closed. (Refer to picture3)

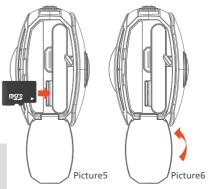


### Installing the Micro-SD card

- 1: Slide the lock on the rear cover and it will automatically open. (Refer to picture4)
- 2: Follow the instructions. Insert the SD card in the correct direction. (Refer to picture 5)
- 3: Push the back cover to the closed position. (Please refer to picture6)

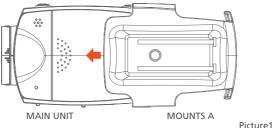


NOTE: THE MI-96HD REQUIRES A CLASS 4 OR ABOVE SD CARD TO OPERATE CORRECTLY. MOST FAULTS WITH OPERATING CAMERAS ARE BECAUSE A CHEAP SD CARD IS USED. CHOOSE ADDITIONAL SD CARD WITH CARE.



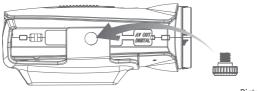
#### Installing the mounts

- 1. Follow the instructions. Fix the mounts to the camera in the correct direction.
  - (Refer to picture 1)



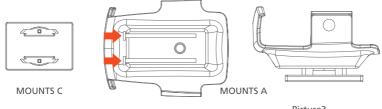


2: Follow the instructions. Using the screw cap to fix the mount to the 1/4 thread of camera (Or it can be fixed on other 1/4 tread mounts. (Refer to picture2)



Picture2

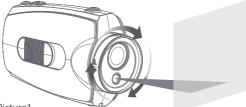
3: Follow the instructions. Slide any mount of B/C/D/E into the holder of "A" mount. (Refer to picture3) Make sure the mount locks in firmly to avoid the cradle sliding out of the mount during operation.



#### **Recording Instructions**

- 1.Press [] key and hold for 2 seconds to power up the camera.
- 2. Adjust the lens to the proper angle.
- a) Face a blank surface and press [○] to turn on the lasers ( The lasers will disappear in 15 seconds). The laser can be turned on or off at any time with the laser light button.
- b) Check whether the laser light is horizontally aligned. If not, rotate the lens until it is in the horizontal state. (Refer to picture1)

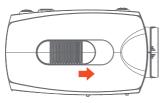
WARNING: DO NOT DIRECT THE LASER LIGHT INTO ANYBODY'S EYES

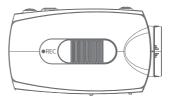


Picture1

The indicator light glows green to indicate standby mode.

- 3. Start / stop recording
- a) Slide the recording switch forward. The recording indicator (red) turns on and flashes while camera beeps (These audio beeps can be turned off in the menu), and camera is recording. (Refer to picture2)
- b) To stop recording, slide the switch backwards, the camera beeps and the indicator light turns green indicating standby mode. (Refer to picture3)
- \* With the LCD screen constantly on the battery will only last for approximately 30 minutes. By pressing the LCD button the screen will turn off and then the battery will last for 2-3 hours. By pressing the LCD button for 2 seconds the camera will completely turn off.
- \* The LCD screen will shut off automatically 30 seconds after the camera starts recording, and the LCD screen will also shut off automatically 60 seconds when in standby mode if no keys pressed. It allows more time to the user for tuning the camera. But the LCD won't shut off during Playback mode.





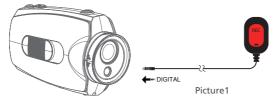
Picture2

Picture3

#### Start / stop Recording Via Wired Remote

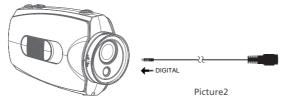
Press  $[\odot]$  key ( hold for 2 seconds ) to power up the camera.

- 1. Connect wired remote to the DIGITAL interface of camera (Refer to picture 1)
- 2: Press [REC] key on the wired remote to start recording, recording indicator ( red ) turns on and flashes when it is recording.
- 3. During recording, press [REC] key on wired remote again to stop, and recording indicator turns off when camera stops recording.



#### Start / stop recording automatically by power-on wired remote.

- 1. Connect one end of power-on wired remote to the DIGITAL interface on the camera. (Refer to picture 1)
- 2: Connect the other end of power-on wired remote to a 5V power source. (Refer to picture 2)



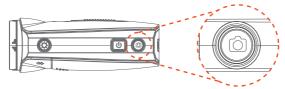
As long as the DC5V input is detected by camera it will start recording automatically. During recording, if DC5V is stopped being detected by camera, then it will stop recording automatically.

NOTE: 1. YOU MUST HAVE A WELL CHARGED BATTERY INSERTED IN TO THE CAMERA FOR THE AUTO 5V INPUT AUTO RECORD FUNCTION TO WORK CORRECTLY.

- 2. IN STANDBY MODE OR RECORDING MODE YOU CAN ENTER INTO REAL-TIME PREVIEW IMAGES AFTER OPENING THE LCD.
- 3. IN STANDBY MODE OR RECORDING MODE YOU CAN ENTER INTO REAL-TIME PREVIEW BY CONNECTING THE CAMERA TO OTHER DISPLAY DEVICES.
- 4. IN RECORDING MODE YOU CAN CONNECT AN EXTERNAL MIC TO ENHANCE AUDIO RECORDING , AND EXTERNAL MIC AND INTERNAL MIC AUDIO RECORDING CAN BE MIXED.

#### **Picture Shooting Instructions**

In standby mode , press [ ] key to take photos. (Refer to picture1) Picture Resolution: 5 mega pixels Picture Size: 2560 x 1920





#### **Playback Instructions**

1. Playback on the camera

a)Press and push the screen cover backwards to open it. (Refer to picture1)

b)Gently press  $[\mathsf{LCD}]\;$  key , and the screen will come on.

c)Press [MODE] to switch until you see the Play Mode, the screen shows 6 video files per page in grid form.

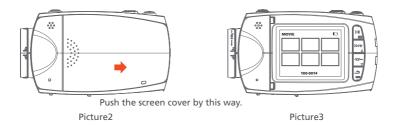
d)Press [+][-] to choose which video to play, the video will be highlighted with yellow borders, press [ ▶ || ]to start recording, and press again to stop.

e)When playing video, user can short press [+][-] to turn up or turn down the volume.

f)When playing video, user can Long press [+] [-] to Fast forward or reverse at X2/X4/X8. g)Press[MODE]to stop playback, and return to the video files listing.

h)Gently press [LCD] key to turn the LCD screen off.

i)Push the rear cover back on to protect the screen when not in use.



2. Connect to other TV/Display devices to playback.

a)Connect one end of AV-out cable to the DIGITAL interface on the base of the camera, and connect the other end of AV-out cable to your TV or other display device. (Refer to picture 1) b)Turn on the TV or display device, and enter into the AV-in mode.

c)Press[MODE] to switch to Play Mode, the screen shows 6 video files per page in grid form.
d)Press [+] [-] to choose which video to play, the video will be highlighted with yellow borders, press [▶|] ] to start recording, and press again to stop.

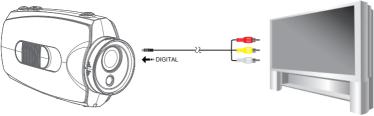
e)When playing video, user can short press [+] [-] to turn up or turn down the volume.

f)When playing video, user can Long press [+] [-] to Fast forward or reverse at X2/X4/X8.

g)Press[MODE] to stop playback, and return to the video files list.

h)Gently press [LCD] key, and LCD Screen is off.

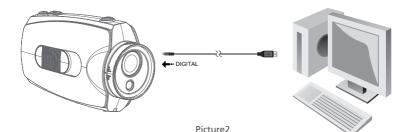
i)Push the screen cover back on to protect the screen when not in use.



Picture1

3.Playback on a PC

Connect AV-out cable to digital interface of camera, and connect the other end of AV-out cable to USB jack of PC. (Refer to picture2)



## **OUTPUT CONNECTION**

#### **Connect to external MIC**

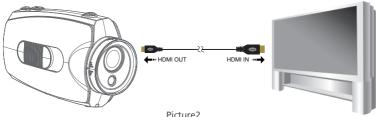
Connect MIC device to camera for capturing higher quality audio.





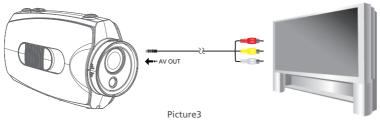
#### Connect to HD TV via HDMI

Connect HDMI cable to HDMI interface on the camera and HDMI interface of TV. The LCD will turn off automatically when connected to TV. (Refer to picture2)



#### Connect to TV via AVOUT

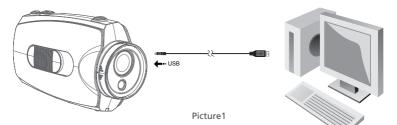
Connect the AV cable to AV-OUT jack of camera and AVIN jack of TV. The LCD will turn off automatically when connect to TV. (Refer to picture3)



# **OUTPUT CONNECTION**

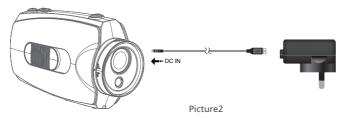
#### Connect to PC via USB

Connect USB to the Digital interface of camera and USB port on the PC. (Refer to picture1)



#### Connect to power source

1. Connect the power line to DIGITAL interface of camera, power light (Red) is on when it is connected.



2. When the camera is off, connect the power line to camera, it will supply power for the camera. Power light (Red) is off when fully charged.

# SYSTEM FUNCTION SETTINGS

#### Setting Operational Approach

Press[MODE] to switch into system function settings mode.

- 1: Press [▲] [▼] key to shift the yellow cursor, choose the setting function, press [OK]key to set up.
- 2. Press  $[\blacktriangle]$  [V] key to choose the needed function, press[OK] again.

Press[MODE] to switch into system function settings mode.

3. After Pressing [OK] key it will automatically return to the main menu.





#### **Resolution Setting**

Set up the required recording resolution:

FULL HD = 1920x1080 30fps 1080P30 = 1920x1440 30fps

720P25 = 1280x720 25fps 720P30 = 1280x720 50fps

720P30 = 1280x720 30fps 720P60 = 1280x720 60fps

720P60 = 1280x720 60fps WVGA30 = 848x480 60fps

WVGA60 = 848x480 60fps

The higher resolution you choose the less video you can fit on your SD card.

### **Quality Setting**

H: High L: Low M: Medium The higher the quality setting you choose the less video you will be able to store on your SD card.

### **Video Rotation Setting**

STANDARD: Choose this setting when the camera is installed in the normal position. INVERTED: Choose this setting when the camera is installed in the inverted position. Using this setting you can invert the image being recorded. This is useful if you wish to film with the camera in the upside down position. The image will be flipped the right way up using this setting.

# SYSTEM FUNCTION SETTINGS

#### **Record Mode Setting**

#### NTSC PAL

When using in different countries, choose the TV system according to local standard. The image will be flickeringly if the TV system is set incorrectly.

#### **External MIC VOL Setting**

The volume of external MIC or audio equipment can be set, and there are 7 grades that can be selected. It will be stereo when it is used with the external MIC.

#### Internal MIC VOL Setting

The volume of internal MIC can be set and there are 7 grades to be selected, there will be stereo when it is used with the external MIC, defaults to right channel.

#### **Record Overwrite Setting**

When set as the RECORD OVERWRITE mode, the video will default to 5 minute per file. When the card is full it will start overwriting the earliest recorded files.

#### **Motion Detection Setting**

Setting as below:

NO: No start MOTION DETECTION function

1 MIN: Start MOTION DETECTION function, it will delay 1 minute to stop recording after the object leaves the shooting range.

3 MINS: Start MOTION DETECTION function, it will delay 3 minutes to stop recording after the object leaves the shooting range.

5 MINS: Start MOTION DETECTION function, it will delay 5 minutes to stop recording after the object leaves the shooting range.

When set in the MOTION DETECTION mode, the camera will automatically start recording when it detects any kind of movement in its filming range. When the motion stops, the camera will automatically stop recording again.

#### **Time Stamp Setting**

OFF: No time stamp DATE: DATE only TIME: TIME only DATE/TIME: both DATE/TIME With this setting, the current time will be stamped on the video and the recording time can be seen during playback.

## SYSTEM FUNCTION SETTINGS

#### **TV Type Setting**

PAL NTSC

Choose the correct video output system when connecting AVOUT to TV. The image on the TV will be flickering if the TV system is incorrect

#### **Time Setup Setting**

There is year / month / day / hour / minute to set up on the camera.

#### **Beep Sound Setting**

When you operate the camera, the key tone can be set to on or off.

#### **Format Setting**

Format the micro SD Card.

Note: ALL FILES IN THE MICRO SD WILL BE DELETED AND WILL BE UNRECOVERABLE AFTER FORMATTING. WE SUGGEST YOU FORMAT YOUR MEMORY CARD ON A REGULAR BASIS. SHOULD YOU HAVE A PROBLEM WITH YOUR CAMERA, FORMATTING THE MEMORY CARD WILL QUITE OFTEN SOLVE THE ISSUE.

#### Language Setting

ENGLISH FRENCH Select the needed language

- •All specifications above are based on the testing standard of MICAMCORDER.
- Appearance and all specifications are subject to change without prior notice.
- Color of product shown in the user manual maybe different from that included in the package. The Pictures are for your reference only.



PLEASE REFER TO: http://www.micamcorder.com THE ACCESSORIE MAYBE SUPPLIED DIFFERENTLY SUBJECT TO THE MARKET, PLEASE CONSULT IT WITH THE LOCAL AGENT. MICAMCORDER.COPYRIGHT 2008. ALL RIGHT RESERVED.