

# Operation Manual

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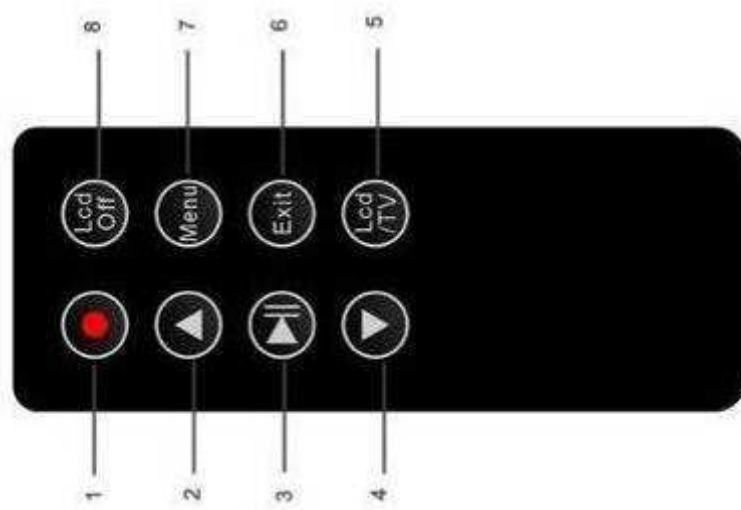
# Hardware Orientation

## I. DVR



- |                           |                  |                         |
|---------------------------|------------------|-------------------------|
| 1. Power On/Off           | 2. Charge Led    | 3. Internal Microphone  |
| 4. AV Input & DC Out jack | 5. Low Power LED | 6. Record / Stop Button |
| 7. Power On/Record LED    | 8. DC5V In Jack  | 9. USB Port             |
| 10. AV Out& Alarm In Jack | 11. Reset Button | 12. Lock Switch         |
| 13. Internal Speaker      | 14. SD Socket    | 15. IR Sensor           |
| 16. Down Button           | 17. Up Button    | 18. Enter Button        |
| 19. Esc Button            | 20. Menu Button  |                         |

## II. Remote Control



1. Record/Stop button

2. Up Button

3. Enter Button;

4. Down Button

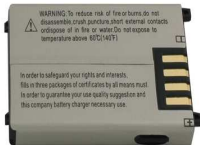
5. LCD/TV Switch Button

6. Exit Button;

7. Menu Button

8. LCD Off Button;

## III. Accessories



Battery



AV Cable



Control



Leather



AC Adapter



Wired Control Button



USB Cable



Manual

# Setting Record Modes

There are three work model for record : showed as the following Figure

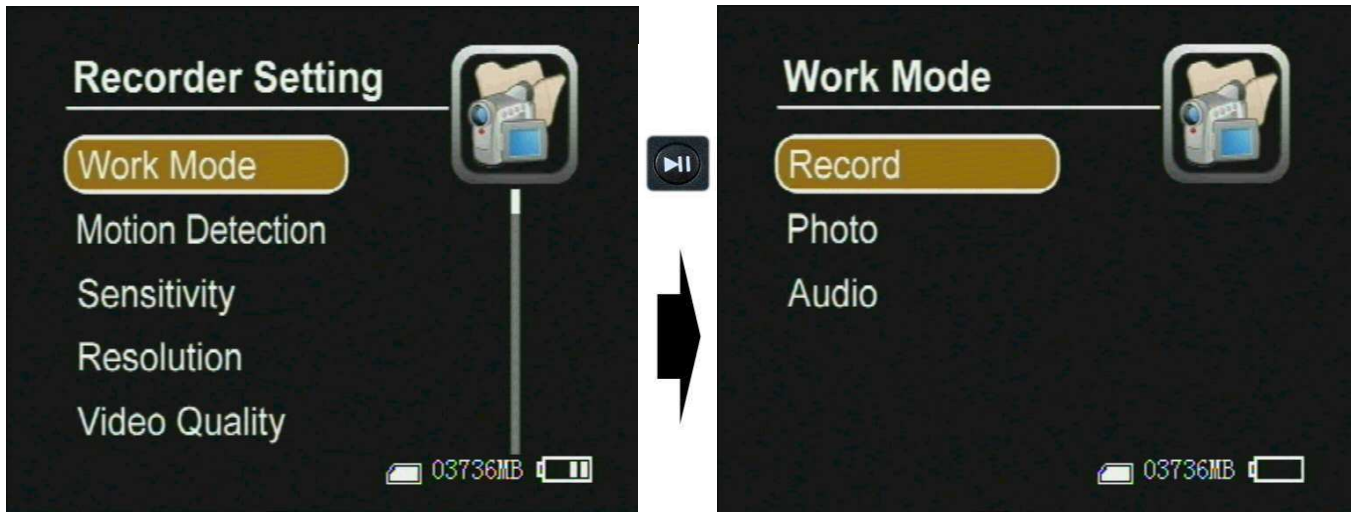





Figure 0

- **Record** ----- for video and audio record, the record data will be saved in AVI files under the “Record Files” folder; the prompt icon will appear on the top left corner of the screen.
- **Photo** --- for still picture capture ,the photos will be saved in JPG files under the “Photo Files”, and the prompt icon will appear on the to left corner of the screen.
- **Audio** ----for only audio record, the record data will be saved in WAV files under “”Audio Files” and the prompt icon will appear on the top left corner of the screen;

## Basic Operation

### I . How to turn on / off the DVR:

- Turn on /off the DVR by the **Power On/Off**  switch.  
Push **Power On/Off**  to “On/Off” side until the RED power led light to turn the DVR on , then the startup picture will appear on the screen; when the DVR is power on, push the **Power On/Off**  switch to “On” side until the shut down picture appear on the monitor to turn the DVR off,  
PS: if the video signal and SD card are unavailable the DVR will alarm by vibration and the red letters on screen until they all are ready;



Startup



Shutdown

Figure 1

Figure 2

- One button for all tusk by the Alarm In Cable



Press the red button to the DVR will power on to record, if the you want to stop the recording , please press the button the release the switch , the DVR will save all files and power down;

Ps: 1.. the Alarm In Cable Button



is inserted into the AV Out& Alarm In Jack  ;

- You can turn off the DVR on your schedule as the setting automatic shutdown time, as shown in the following figure ;



PS: Camera Manager Interface orientation as the following: (as shown in Figure 4)

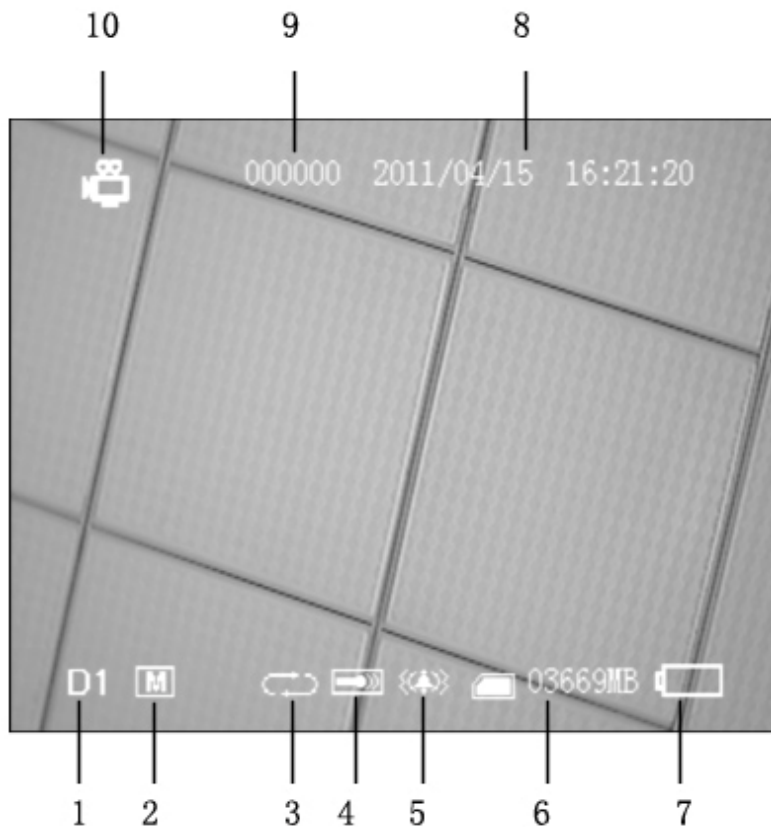


Figure 4

- |                      |                           |                     |
|----------------------|---------------------------|---------------------|
| 1. Image Size;       | 2.Resoluton ;             | 3.Overwrite On/Off; |
| 4.In/Out Microphone; | 5. Vibration On;          | 6. SD card info.;   |
| 7.Battery Capacity;  | 8. Date and Time Stamped; | 9.User ID; 10.Mode; |

## II. How to start a recording

### 1. Preparing for your recording task:

- Select a correct record mode for your task by setting work mode;
- Please charge the internal mobile battery over 3 hours before you begin recording ; we advise that you equip the UPS Battery Bank (7200mAH) to the DVR for your long time record task(over 10 hours); as shown in the underside figure ;





Mobile Battery

- The special external camera from our DVR kits can be connected to the DVR directly via the AV-In port without additional power cord, the DVR can output DC5V @ 400mA for a external DC5V CCD or CMOS camera by the AV-In cable;


- Prepare a high speed SD card to save your record data.;

Figure 6

Figure 7

- A video image and OSD will appear on the screen of the display device, you can select a TV or LCD as the display device by pressing the LCD/TV Switch Button  on Wireless Remote Controller , press the button  to switch the display as the following: LCD--> TV PAL-->TV NTSC→LCD,

## 2. How to capture the video and audio:

- Push the Record / Stop switch  to “Rec” side to start a recording, the red power led lamp and the red dot icon on the left up corner of screen will flash at once per second until the switch be push to “Stop” side to stop recording; the continued recording time will be shown on the right up corner, as shown in recording figure, if the switch is set on “Rec” side before power on, the DVR will record directly if the SD card is available



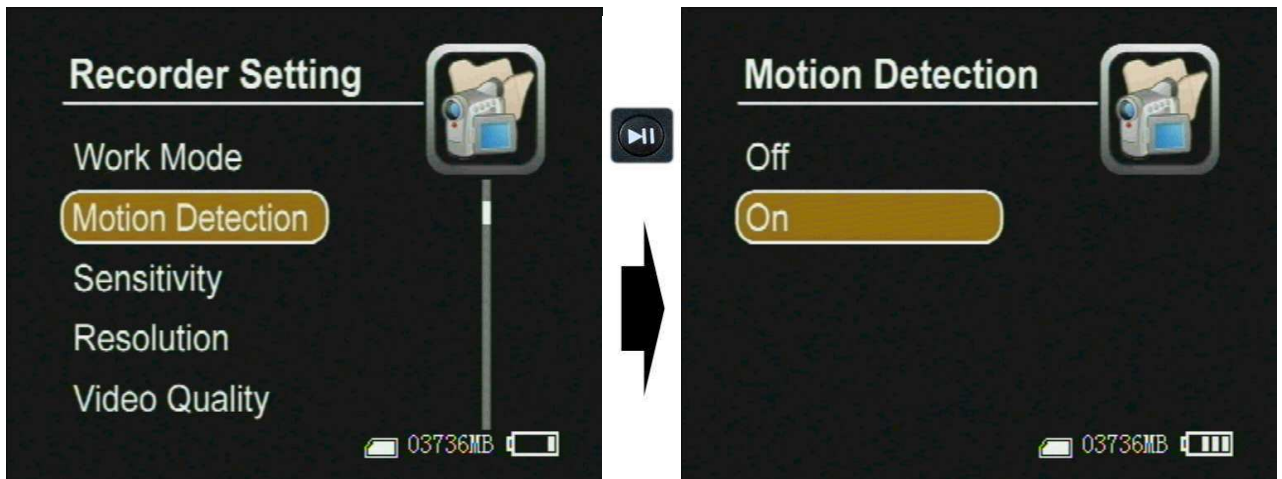
- **One button for your recording task.:** ,Press down the red button to turn on the DVR to recording, and release the button to stop recording ,then the DVR will power off after saving record date automatically ,(PS: the Alarm In Cable is plugged into the



Recording Figure

Figure 10

- Motion detect recording, the DVR will be triggered to record when only the video image is changed in the motion detect red area covered by the red block, as how in Figure13,14.



When the motion detect function is on, you can select the motion sensitivity (showed as the following figure)

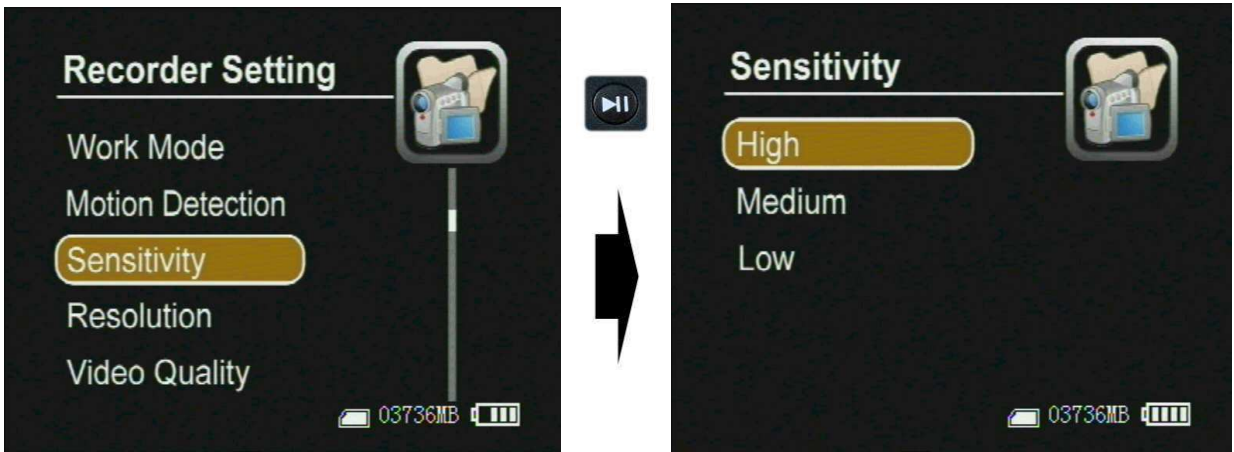



Figure 15


#### IV. Managing and play back your evidence files

On the Camera Manager screen, press the Menu Button , select Event Playback option, , the evidence files are sorted in related folders. Select one files then pressed the end key to playback the files, as shown in the following figure



Playback evidence

- **Playing back record files:**

**Play back the video files:** Press the select button  on the Video Player item option to play back the video files; the prompt information will appear on the screen such as: time, sound volume, etc. as shown in following figure, meanwhile, you can press the up or down key to adjust the audio value once by once, you can also select the speed of playback by holding the key up or down key is pressed over 3seconds,



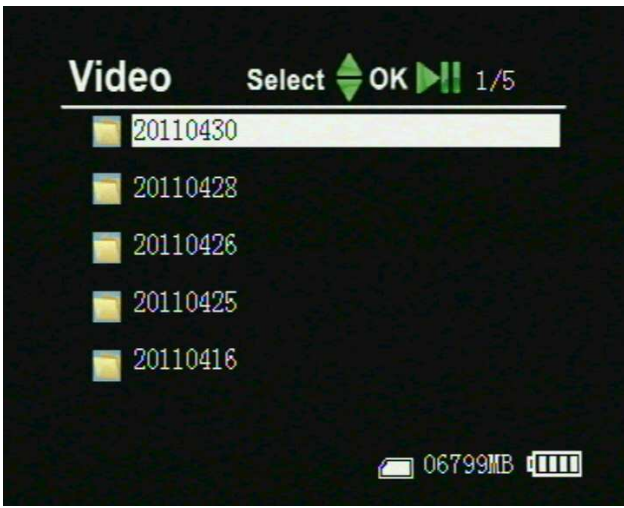



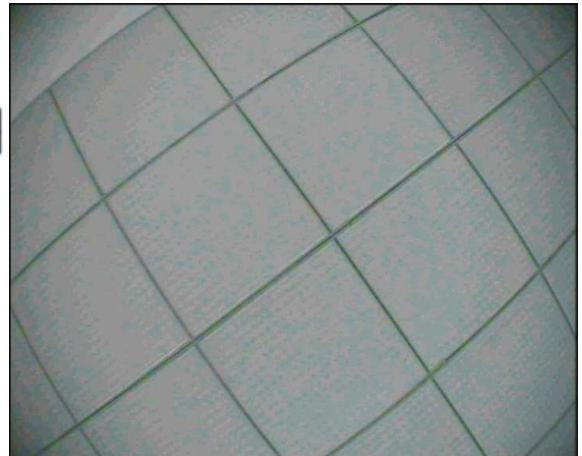


Figure 20



Figure 21


**Browse still photos:** Press the select button  on the image Viewer item to browse the still photos, press the up or down key   to view last or next picture;




**Play back the audio files:** Press the select button  on the Voice Player item to play back the audio files;



● **Managing recorded files:**

Move the cursor onto the Files Brower, then press Select Button  to select the storage media, (the “usb” is a attached USB storage media, such as hard driver or U-disk, the “sd ” is SD card, as shown in Figure 22), then the folders and files will appear the screen, as shown in Figure 23; the recorded files will be listed by the order of

record time, as shown in Figure 23, move the cursor to select a file, when press the Menu Button , the file manager menu will popup on the screen, as shown in Figure 25, you can play back, copy, paste, delete the file, or view it's attribute etc.

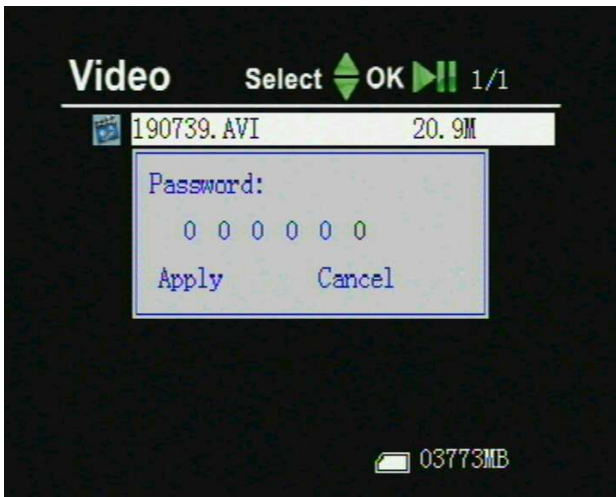


Figure 22

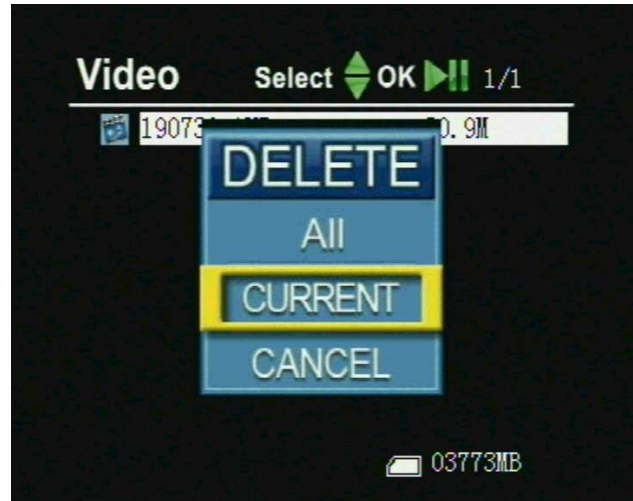


Figure 24

Figure 24

Figure 25

- **Format the storage media:**


Select a storage media, then press the menu button , on the popup menu select the Format item to format the storage media; as shown in the figure 26;



Figure 26

### III. System Parameter Setting

#### 1. Learning to use the navigation buttons















-  : For bring out the popup menu or shut it or move the cursor in some times;
-   : For moving cursor or adjust the value of speaker/microphone and the number ;
-  :For exit;
-  : for selecting or enter;



Figure 27



Figure 28

E.g. When the DVR is powered on, the screen will appear on the built in LCD, as shown in Figure 27, Press the Menu Button  to bring out the pop-up main menu, as shown in Figure 28, Press the Up  or Down  button to move the cursor on the Setting line, then press the Select Button  to select it. The setting main menu will appear, as shown in Figure 29, in this screen press the Menu button  to move the cursor on the Record Setting line then press the Select button , the screen will appear, as shown in Figure 30, the up arrowhead on the right means you can use the UP Button  to change the selection, the down arrowhead on the right means you can use the Down Button  to change the selection, if you press the , it will exit the screen and save your selections;

Ps: The same functions can be accessed via the Wireless Remote Controller

## 2. Record Setting (shown as in Figure 29, 30)



Figure 29



Figure 30

- **Resolution:** You can select the image size for your photo or video capture: D1:720\*480 or 720\*576, VGA:680\*480 ;
- **Rate Control:** Rate Control Mode for your video recording: **VBR** (Variable Bit rate) ; **ABR** (Average Bit rate);  
**CBR** (Constant Bit rate) ;
- **JPEG Quality:** You can select a quality grade for your photos: High, Normal or Low;
- **MPEG Rate:** You can select a bit rate 4Mbps,3Mbps,2Mbps,1.5Mbps or 0.75Mbps for video record, the video quality will be better when you select a bigger bit rate;
- **MPEG Rate:** This option is for setting how many frames picture per second when you video record, such as 30 frames per second, 15 frames per second;

- **Color System:** This option is for setting the video input format: such as PAL 50Hz, NTSC 60Hz, or Auto Select it by the DVR;
  - **Mic Switch:** You can select the build in microphone or external microphone as your audio source;
  - **Mic Gain:** You can adjust the volume level value for the audio input in 1 to 18;
3. **System Time** (shown as in Figure 31,32)



Figure 31



Figure 32

- **Setting system date and time:** Use the navigation buttons to move the cursor to the date line and correct the YEAR, DAY or MONTH, Next move to the time line and adjust to the correct time for your time zone.
- **Timestamp and format:** The timestamp will appear on left top of the video image when your selection Timestamp setting is On, otherwise the timestamp will not been shown;

4. **Schedule Presetting**




Figure 33



Figure 34

You can program your recording on your schedule by setting this item, as shown in Figure 33 and Figure 34.

- **Choice:** Enable or Disable the schedule record function;
- **Time:** Set date that you plan to record;
- **Start:** Set the start time for your recording
- **Duration:** Set the record time length ;
- **Clear All:** It will clear all schedule setting if you press the button  on the Clear All item;

5. **Alarm Setting**



Figure 35

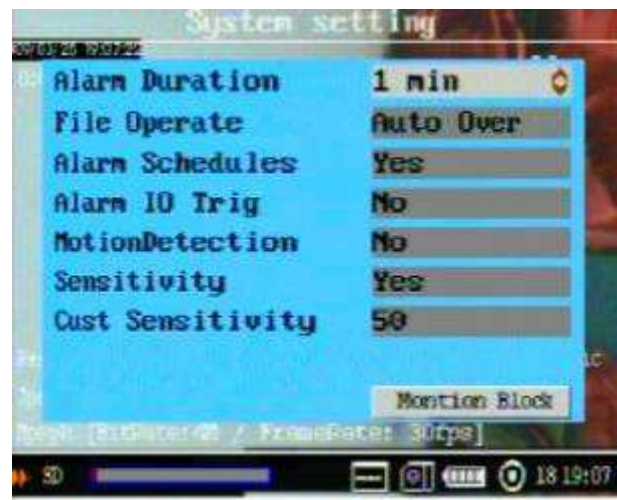


Figure35

The following setting is for the Alarm In, I\O Trigger, Schedule Presetting Record and Motion Detection, as shown in the Figure 35 , Figure 36;

- **Alarm Duration:** Setting the video and audio files' time length for package in saving , you can save your video and audio data in many different size files segments such as 10 second ,30 second ,1 minute, 5 minutes, 10 minutes, etc. or continuous, in order to avoid losing all record data unexpectedly;
- **File Operate:** If your selection is FULL STOP ,the DVR will stop recording once the SD Disc or external hard drive becomes full, if your selection is FULL OVERWRITE, the DVR will continue to record by writing over the old files once the SD Disc or external hard drive becomes full;
- **Alarm Schedules:** You can select the YES or NO to enable or disable the Schedule Presetting Record function;
- **Alarm IO Trigger:** When you select the YES to enable the I/O and Alarm In record function, the DVR will finish initial startup to record automatically once the button of the Alarm In Cable is pushed down or the PIN 1 and PIN 2 of the I\O are shorted together , then it will stop recording and shut down after save the record data if the button of the Alarm In Cable is released or the PIN 1 and PIN2 is opened, When you select NO, you can only turn the DVR on by the Alarm in Cable or I\O but not do to do video and audio recording;
- **Motion Detection:** You can select the YES or NO to enable or disable the Motion detection record function, When the motion detect record function is on, a motion can trigger a automatic recording;
- **Sensitivity and Redefine Level:** When you select the NO, the Redefine Level can be selected in highest, high, medium, low, lowest, When you select the YES , you can adjust the sensitivity in 1-50,
- **Motion Detect Block:** You can move the red block to the area that you will focus, when there is a motion in the area covered by the red block, it will trigger a automatic recording, as shown in the Figure 14 ;



## 6. System Setting (shown as in Figure37,38)



Figure37




Figure 38

- **Language Name:** For you select the OSD language for you can read;
- **TV Output Type:** Please select the correct TV out signal format for your external display device, and switch TV and LCD;
- **OSD Transparency:** For a OSD transparency selection in 1-7,
- **Automatic Shutdown:** when you select the ON to enable the automatic shutdown , the DVR will be power off automatically after time that you have selected;
- **Automatic Backlight:** when you select the ON to enable the automatic shutdown, the LCD will turn into dark automatically after the time that you have selected;
- **Direction:** You can select the storage media where you can save the record files, such as : SD card media, external USB storage medias, and your selection will be shown on the left bottom on the screen; as shown in Figure 39, the media selection pop-up menu will appear on center of the screen for your selection, once the DVR can not capture the media that you had selected, as shown in the Figure 7;
- **USB Mode:** when you need to attach a external hard disk or U disk to the DVR for saving record data, you must set the USB Mode into Host; when you need to attach the DVR to a computer by the USB port to download or upload some files, you must set the USB Mode into Device;
- **Output Volume:** You can adjust the output sound volume in 1-18 when you play back the files, and your selection will be saved, the output volume also can be adjusted by pressing the up  or Down  button while you are play back the video and audio files temporarily without saving.

## 7. System Log

Future feature, Not available at this time.

## 8. Reset to Default


- You can reset the DVR to default setting if it is necessary; press the select button  on this item, the pop-up dialog block will appear on the screen, then select the YES to reset to default setting;

## *How to Connect External Devices*

- **Connect with the external camera:**



Figure 39

You can connect the special cameras to the DVR by the AV-In port  directly, or you can input a video and audio source by the AV-In & DC Out cable, on the same time the DVR can output DC5V voltage (max 400mA) to power the external CCD or CMOS camera by the AV-In & DC Out cable, The yellow RCA connector is for video, the white and the red RCA connector are for audio;

- **Connecting with the UPS Battery Bank**



Figure 40

Figure 41

The UPS Battery Bank (7200mAH) can output DC 5V and DC12V voltage at the same time to power the DVR and a 12V Cameras for over 10 hours recording time, as shown in Figure 40 and Figure 41;




- **Connecting with TV;**



Figure 42



Figure 43

Please set the correct TV out format for your TV set, as shown in Figure 42, 43; on the other hand you can switch the selection in PAL ,NTSC and LCD by pressing the button  on the remote controller; The AV Out Cable's yellow RCA connector is for video, the white and the red RCA connector is for audio; now you can turn up the volume of the TV out by pressing the down button , or turn low the volume of the TV out by pressing the up button .

- **Connecting with computer**



Figure 44



Figure 45

When you set the USB Mode into Device, shown as in Figure 44, you can connect the DVR with your computer by the USB Port directly to transmit the files, as shown in Figure 45;



- **Connecting with wireless video and audio receiver**

You can connect the DVR with the wireless video and audio receiver for your remote recording, as shown in Figure 46.



Figure 46

- **Connecting with external hard disk**



Figure 47



Figure 48


When the USB Mode is set to Host, as shown in the Figure 47, you can connect a external hard disk to the DVR by USB cable as a extension storage media for your long time recording, the hard disk must be formatted into FAT32 format. as shown in Figure 48

## Type Usage



Figure 50

## Updating the DVR Firmware

1. Copy the firmware update file to a SD card or external hard disk;
2. Insert the SD card into the DVR or attach the external hard disk to the DVR;
3. Locate the firmware, then press the Select Button  on the firmware file, the firmware update dialog block will appear on the screen, as shown in the Figure 51

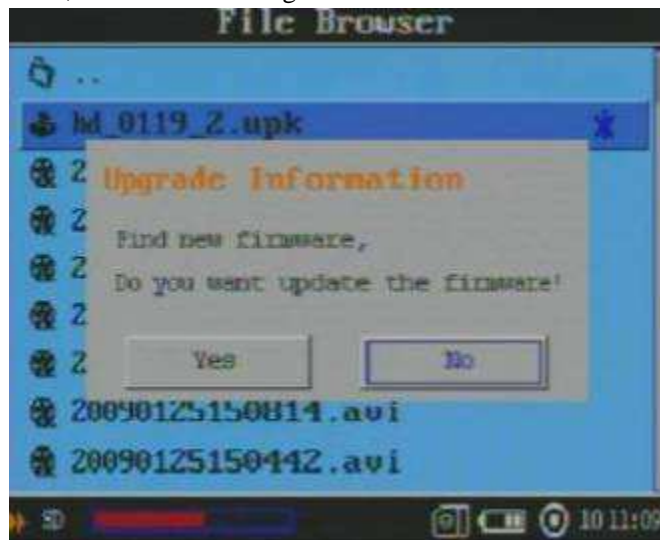


Figure 51

4. Move the cursor to YES button then press the Select Button , the DVR will finish the update program automatically, then shut down.

**CAUTION :** You must fully charge the battery and connect the AC power supply to the DVR during updating the firmware, otherwise the root up files will be loss if the power is interrupted suddenly during updating the firmware, that will cause the DVR can not be turned on again

## **DVR Specifications**

- **Video compressed format:** H.264 or MPEG , files format: ASF
- **Photo format:** JPG
- **High Resolution LCD:** 2.5", TFT true color LCD;
- **Audio and video output:** RCA 3-in-1 AV output;
- **Storage type:** hard disk and SD card(FAT 32 ,support over 16G);
- **Video size and speed:** PAL: 720x576(D1)/25FPS, NTS: 720x480(D1)/30FPS
- **Power supply for external camera is available:** Voltage: 5V max. current: 400 mA;
- **Video format:** NTSC/PAL;
- **Multi record mode:** Manual/Auto/Motion detection/Schedule for different scenarios;
- Real-time recordings are marked in File;
- **Compute transfer screen:** USB2.0;
- **Recording time:** 30minute~2.5 hours /1G ;:
- **Power consumption:** 200mA , 3.7V 1000 mAH chargeable Li-ion battery, 5.0V 2A AC Adapter;
- **Size:** 90 mm x 59 mm x23 mm;
- **Weight:**100g (including battery);