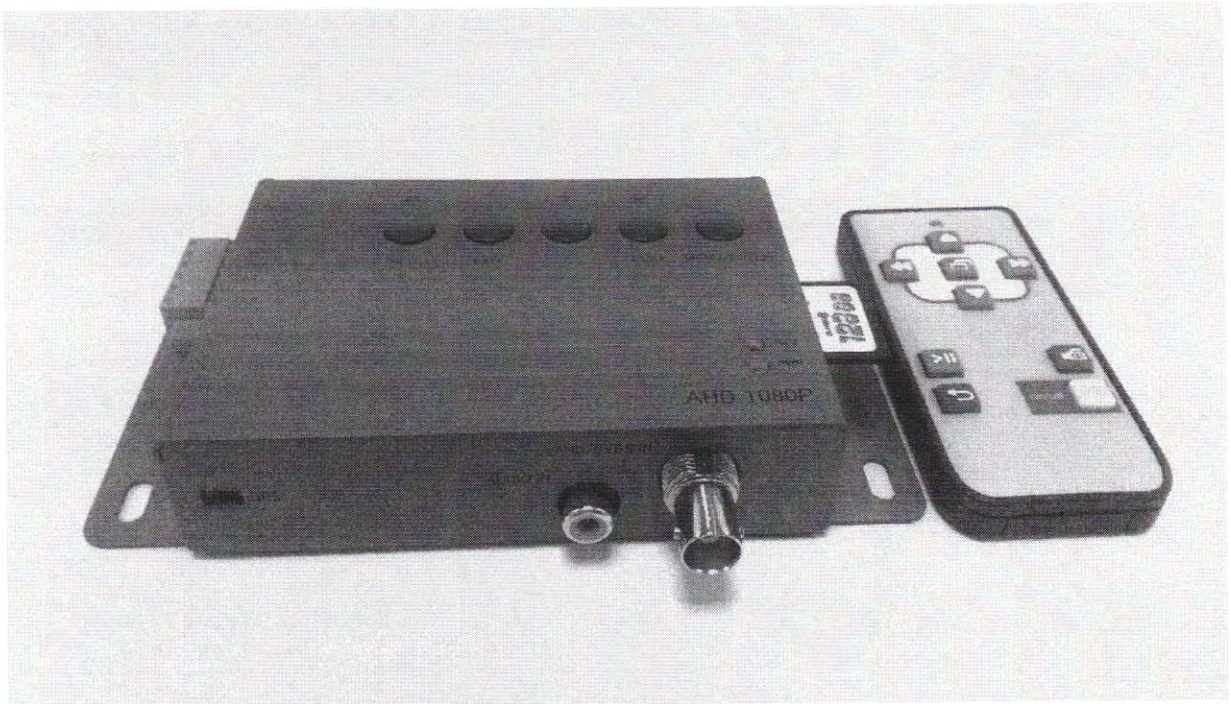# SeaViewer Cameras

H.264 AHD 1080P recorder with converter and support UTC functions and support GPS

INSTRUCTION MANUAL

Safety Precautions

It is advised to read the safety precaution guide through carefully before operating the product, to prevent any possible danger.

⚠️ **WARNING:** The lightning flash with an arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of un-insulated "dangerous voltage".

⚠️ **CAUTION:** The exclamation point within an equilateral triangle is intended to alert the user to presence of important operating and maintenance.

Do not power sources other than that specified and do not expose this appliance to rain or moisture.

Do not install the product in an environment where the humidity is high.
Unless the product is waterproof or weatherproof, otherwise poor image quality may occur.

Do not drop the product or subject them to physical shocks.
Except for vandal-proof or shockproof product, otherwise malfunctions may occur. Never keep the product to direct strong light. It can damage the product.

Do not spill any kind of liquid on the product.
If it gets wet, wipe it dry immediately, Alcohol or beverage can contain minerals that corrode the electronic components.

Do not install the product in extreme temperature conditions.

Use this product under conditions where temperatures are between -10∘C (14∘F)

~50°C (122°F). Be especially careful to provide ventilation when operating under

high temperature

Table of Contents

Warning

The recorder and camera require periodic Inspection.

Contact an authorized technician to carry out the inspection.

Stop using your camera when you find it malfunctioning.

If the camera emits smoke or is unusually hot for a long period, a fire may be caused.

Do not install the camera on a surface that can not support it.

If the camera is installed on an inappropriate surface it may fall and cause injury.

Do not hold plug with wet hands.

It could cause an electric shock.

Do not disassemble the camera.

It may result in an electric shock or other hazards.

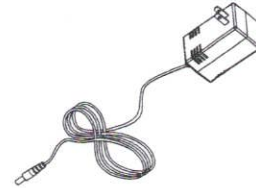**Do not use the camera close to a gas or oil leak**

It may result in a fire or other hazards.
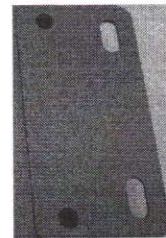
Components

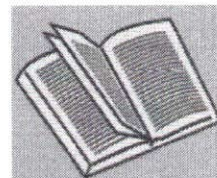1. 1080P AHD recorder

2. Power Adapter DC 12V/1A
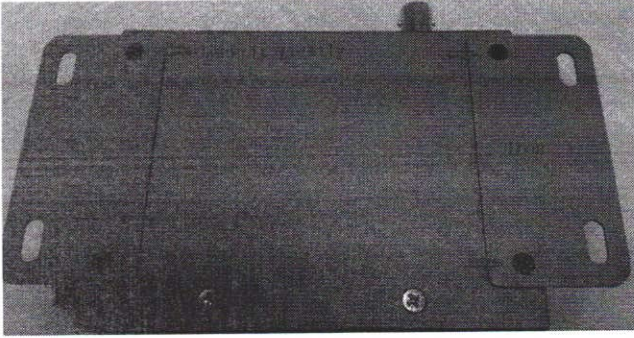
3. 2 pieces of irons and screws

4. Remote Control

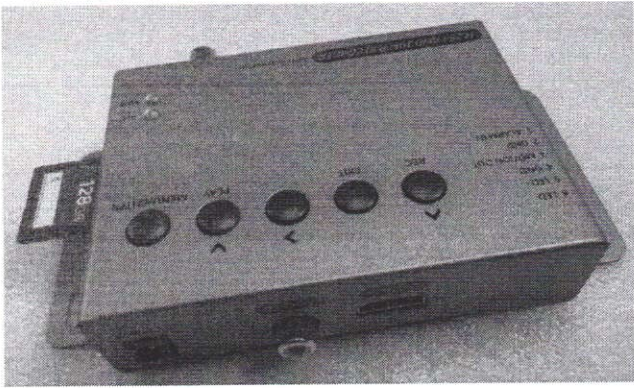5. Instruction Guide CD

Installation

*Mounting with included wall mount bracket

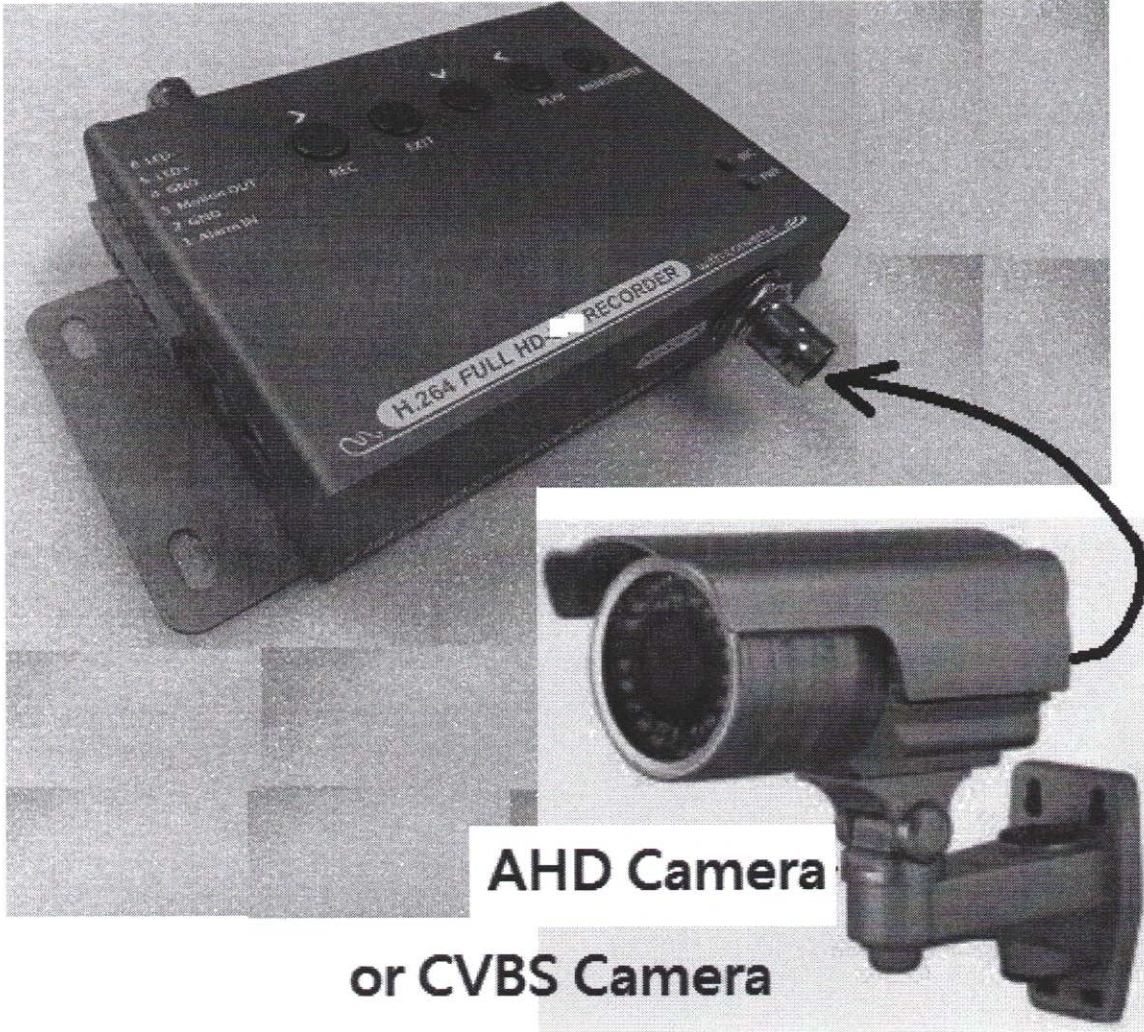*SD Card Insertions:

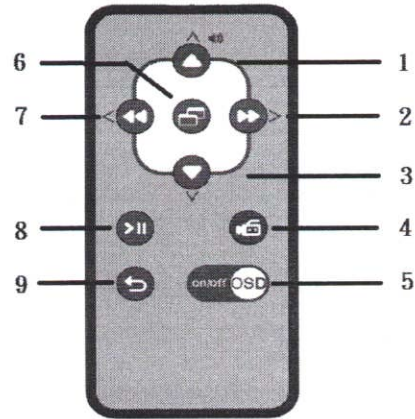
*HDMI out and CVBS out connections

CVBS OUT

HDMI OUT

TV

HDMI Monitor
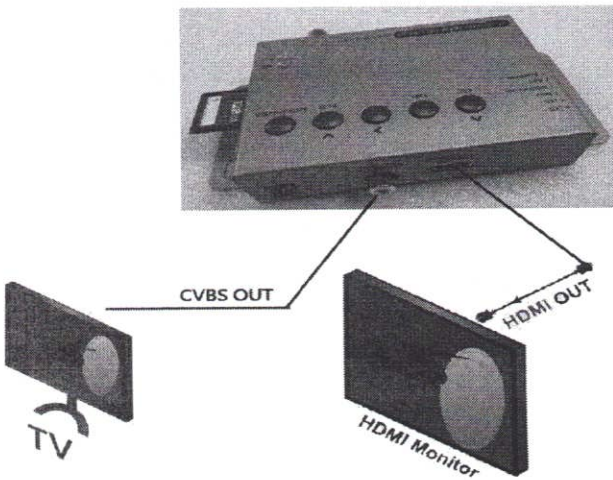
*Full HD AHD input connections of recorder

User can choose 1080P/720P AHD camera or traditional CVBS camera for input.

AHD Camera
or CVBS Camera

Operation

●Button Functions

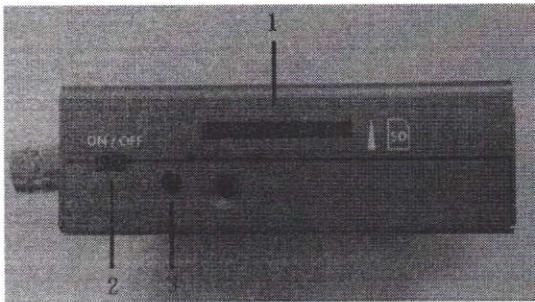| No.	Name	Function
1	Up Button	Menu : Navigate up
2	Right Button	Menu : Increase value Playback : Fast forward Playback Paused : Step forward
3	Down Button	Menu : Navigate down
4	Record Button	Recording function
5	OSD Button	OSD on/off for switching to set menu of camera by UTC
6	Menu/Enter Button	Menu : Navigate enter
7	Left Button	Playback : Fast rewind Playback Paused : Step rewind
8	Play Button	Playback /Pause functions
9	Exit Button	Menu : Exit sub menu/main menu

Camera OSD settings:
Press OSD button to OFF ◊ Camera mode

No.	Name	Function
1	Up Button	Move AF/AZ of camera in step by UTC
3	Down Button	Move AF/AZ of camera out step by UTC
4	Record Button	Move AF/AZ of camera in fast by UTC
6	Menu/Enter Button	Main menu of camera : Navigate enter by UTC
8	Play Button	Move AF/AZ of camera out fast by UTC

Operation continued
-Side 1

No.	Name	Function
1	SD card slot	SD card storage connection - SD card should be inserted with the label facing the front of the device.
2	Power switch	Power ON/OFF for system

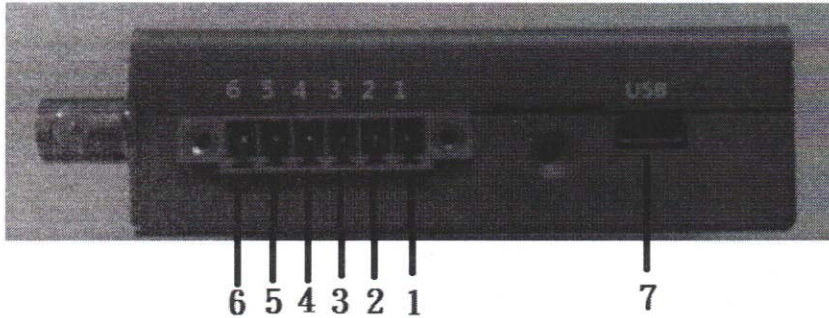| 3	IR receiver	Remote controller for receiving signals

-Side 2

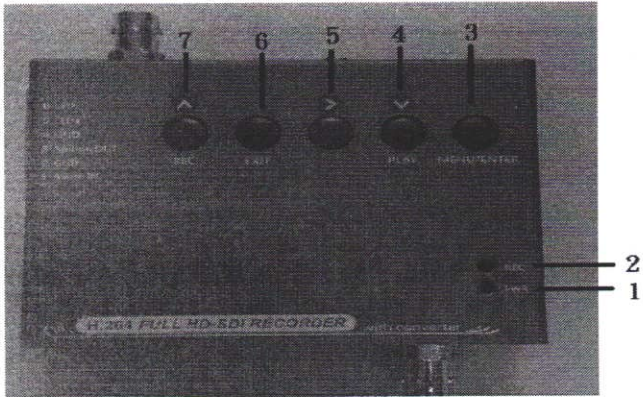| No.	Name	Function
1	DC Jack	Input DC12V/1A
2	Video out	Video output signals for general Monitor/TV
3	HDMI out	HDMI 1080P/720P output for TV
4	DC Terminal	DC12V Output

-Side 3

No.	Name	Function
1	AHD/CVBS in	Full HD AHD input for 1080P/720P camera And CVBS in
2	AUDIO in	Audio input
3	GPS in	GPS input

-Side 4

No.	Name	Function
1	Terminal	Alarm in (N.C./N.O. selection)
2		GND for alarm in
3		Motion out for open/short
4		GND for motion out
5		LED+ (showing status same as the one of Recording LED)
6		LED- (showing status same as the one of Recording LED)
7	USB	Device USB, User can access files from recorder to PC/Notebook through mini USB

-Top

No.	Name	Function
1	Power LED	Show power on status
2	REC LED	**Show SD card running status :** ***LED flashing : No insert SD card or SD card accessing fail** ***LED lighting : SD card is recording** ***No light : SD card is inserted SD slot but no record.**
3	5 keys setting	Menu/Enter button
4		Play/Navigate down button
5		Navigate right button
6		Stop/Exit button
7		Record/Navigate up button

•Initial Start Up

1. To turn the device ON/OFF:
   - Make sure if recorder is power switch is at OFF state
   - Plug DC12V adaptor in DC Jack for power on
   - Insert SD card in SD slot
   - Switch power switch ON for starting running system

   NOTE: Each time after power-on, the system auto-detects its peripherals. When the REC LED flashing indicates the SD is proceeding testing (complete boot time is several seconds) When an image file error has been detected, the system will display error message on OSD

2. The default menu language is English. To change the languages:
   - Select [POWER ON SETUP] in the main menu. Here you can change the language of the menu. System support languages : English, Spanish and German.

3. After successful start-up the recorder shows the live view.
   - If schedule recording has been programmed, the device will automatically resume this schedule.
   - During recording, The REC LED indicator will be lighting

4. If the symbol [SD NOT READY] is shown, the SD-Card has not been recognized, or the SD-Card is inserted improperly.
   - If the SD-Card cannot be recognized the REC LED flashes red. In this case, inserted SD card, erase the SD-Card contents, or re-format the card.

5. If the write-protection on the side of the SD-Card is activated, It is only possible to read recorded data

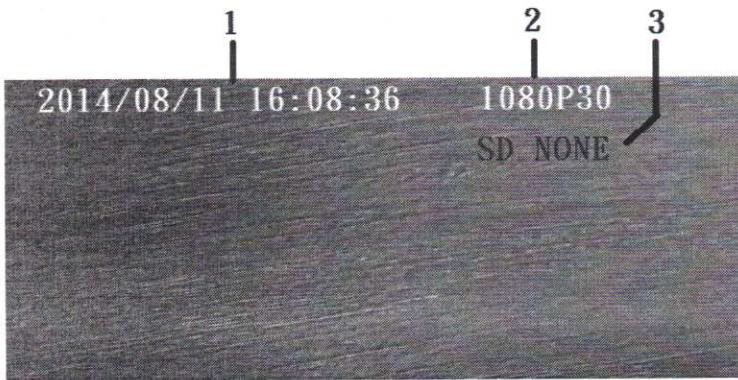6. When SD-Card is writing data during recording, record indicator will light on.

7. After power-loss the system auto returns to previous recording mode.

⚠ Attention

-Never remove the SD-Card during the boot process, This can lead to permanent damage of recorded data.
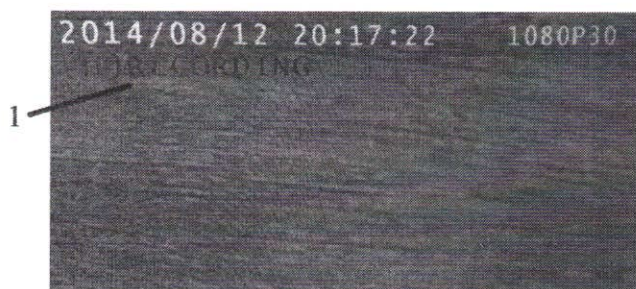
•Live View

User will see the OSD on screen as below when user power on machine

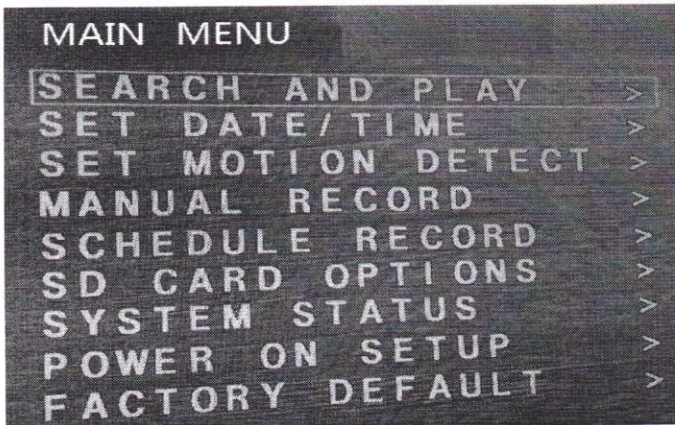| No.	OSD Functions
1	Shows the current date and time.
2	Shows the connecting camera resolution. The recorder support 1080P and 720P
3	Shows the SD card status : "SD NONE" means no inserting SD card No showing "SD NONE" symbol means SD card ready
4	When GPS Status is "ON" in OSD Menu "POWER ON SETUP" "NONE GPS" means no inserting GPS "NONE GPS" is flashing means GPS is under detecting "GPS" means GPS is connected and working If GPS is connected and working, GPS coordinate information will be recorded in SD card. When SD card is read by PC, you will see GPS coordinate information on screen.

Note : The OSD can be ON/FF when pressing [ ]

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●Record View

2014/08/12 20:17:22   1080P30
(1)RECORDING

No.	Recording View Function
1	Flashing recording status. There are four kinds of recording status: *(H)RECORDING : Manual recording by Hand *(M)RECORDING : Motion recording by Motion trigger *(A)RECORDING : Trigger recording by Alarm in *(C)RECORDING : Continue recording by hour in schedule There are priority for H>A>M>C

Note : The lighting record LED on top of case indicates that the system is currently loading files on to the SD-Card.

·Do not withdraw the SD-Card while recording. It may destroy the stored data.

·Power loss during recording result in incomplete videos or errors.

•Main Menu view


```
MAIN  MENU
SEARCH  AND  PLAY      >
SET  DATE/TIME         >
SET  MOTION  DETECT    >
MANUAL  RECORD         >
SCHEDULE  RECORD       >
SD  CARD  OPTIONS      >
SYSTEM  STATUS         >
POWER  ON  SETUP       >
FACTORY  DEFAULT       >
```

When you press "Menu/Enter" button, you will see the main menu on OSD as above.

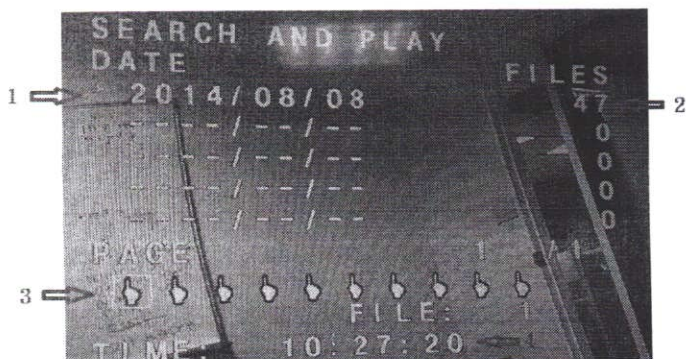Here we will introduce every function as below.

•Search and Play

There are two kind of play back recorded video on machine :

1. Play back newest video directly :

On live view, Please press " ⏯ " button, and you will see the most newest recorded video playing on screen. And you can user some buttons to control play forward/rewind/pause functions as below.

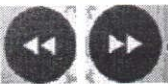2. Using Search and Play to play the selected videos :

When you press "Menu/Enter" button in Search and Play. You will see the sub menu as below:


```
SEARCH  AND  PLAY
DATE                        FILES
1 ⟹   2014/08/08              47    ⟸ 2
      --/--/--                 0
      --/--/--                 0
      --/--/--                 0
      --/--/--                 0
PAGE                    1    /1
3 ⟹  ⬆ ⬇ ⬆ ⬇ ⬆ ⬇ ⬆ ⬇ ⬆ ⬇
                        FILE:  1
TIME:    10:27:20
```

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No.	Name	Function

1	Recorded files by date	**Recorded files by sorted date**
2	All files by date	Total recorded files by date
3	Pointed file	There is block line that points on this file to be played back
4	Time showing on file	Starting time that block line that points on this file to be played back

Press ⟲ to select the file for playing on Search and Play and you can select some buttons for forward, rewind, step rewind and step forward functions as below:

Symbol	Playback Function
[>II]	1. Normal playback speed 2. During playback, press [>II] button to pause playback and press again to return to playback status
[◄◄] [►►]	During the normal playback press [◄◄] or [►►] button to fast rewind or fast forward By pressing in the same direction again you raise the search speed (Speed :X2/X4/X8/X16/X32). Press [>II] button to playback at normal speed from [◄◄] or [►►] Note: There is no this [◄◄] button on machine, You only can use this button on remote controller
[▲]	Navigate up in menu
[▼]	Navigate down in menu
[↩]	Stop recording or stop playing back button Exit from menu to live view

on/off OSD	OSD is on/off button on live view

Playback using a Computer

All files on the SD-Card are stored in a folder named DVH264 and will have an approximate of 3MB~100MB, and will be ordered chronologically. These files can be viewed with Microsoft Media Player or DivX Player. In order to playback the files correctly, an update to the audio and video codec of the Windows Media Player may be necessary.

SD-Card Maintenance

1. The device supports only FAT32 file system. It is unable to determine other file systems. Please format the SD card (enter [MAIN MENU/SD CARD OPTIONS] and select "Format Disk")
2. When using SD card, you need to choose class 10 or above and Do not use no any brand from manufacturer.
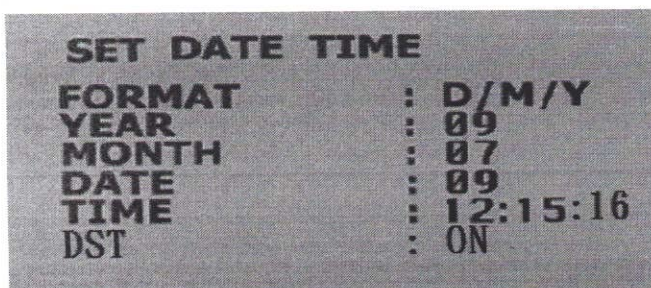
Firmware Update

Use the SD card to update your system newest firmware. Here Just agent is permitted to update firmware only.
1. Using your computer, copy firmware into the directory of the SD card.
2. Switch off the device, then insert the SD card into the device, switch on the main power
3. Wait for 20~50 seconds, the system updating will be completed and return back to live view. You can check your version number in
[MAIN MENU/SYSTEM STATUS/VERSION].

⚠ Do not remove the SD-Card while booting, if a power-loss occurs while completing step 3, please repeat step 2 and 3.
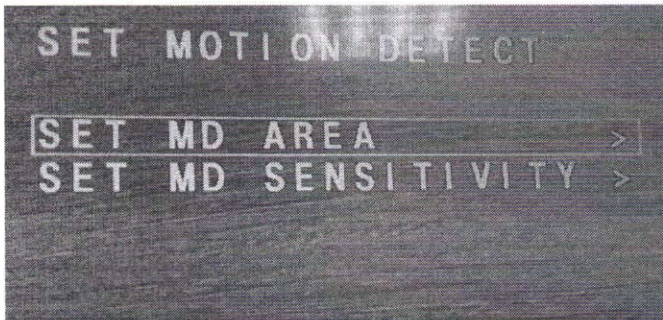
•Set Date/Time

```
SET  DATE  TIME
FORMAT       : D/M/Y
YEAR         : 09
MONTH        : 07
DATE         : 09
TIME         : 12:15:16
DST          : ON
```

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·Date Format : Here you can change the way the date is displayed
·Year/Month/Date/Time Adjustment: Here you can change the date and time.
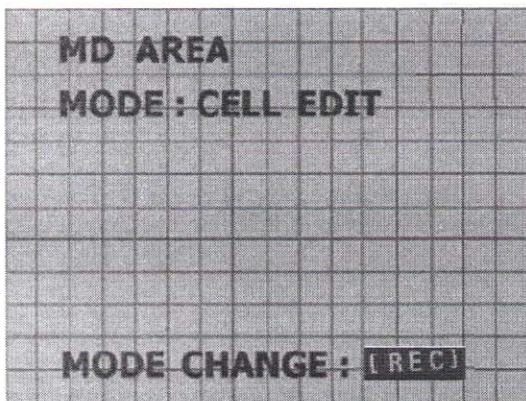·DST : It is for day time saving (Default is OFF)

•Set Motion Detect

Press "Set Motion Detect" button under main menu, system will enter sub menu as below:

Under "Set Motion Detect", Entering SET MD AREA:

-SET MD AREA

The motion detection area is split up into 16x12 cells. Cells which are marked to detect motion are displayed in red. One or more red cells from a block.

In order to navigate use [⊕⊕ and ▼] buttons and confirm by pressing [⊖] button. Press [🔒] or [REC] record button in order to change the editing mode.

·**CELL EDIT** : Here you can (de-)activate every single cell.
·**DEL BLOCK** : Here you can deactivate a complete block of cells.
·**DEL ALL** : Here You can deactivate all cells at once.
·**ADD BLOCK** : Here you can activate a complete block of cells
·**ADD ALL** : Here you can activate all cells at once.

Under "Set Motion Detect", Press [⊖] button and system will enter SET MD SENSITIVITY:

-SET MD SENSITIVITY

MD SENSITIVITY

MD ENERGY   :
MD THRESHOLD:
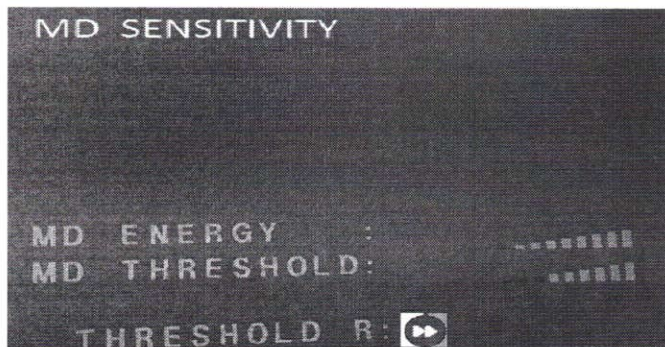
THRESHOLD R: ⊕

Here you can set the sensitivity level of motion detection.
·**MD ENERGY** : Shows the current recognized motion.
·**MD THRESHOLD** : By pressing the buttons [⊖]or[⊕] you can set the value when motion detection is triggered. The lower the value is set. The more sensitive motion detection reacts.

•Manual Record

Under Manual Record, Please enter it and will image as below


```
MANUAL  RECORD

VIDEO SIZE      : 1920x1080 ———•1
FRAME RATE      : 25    FPS  ———•2
QUALITY         : HIGH      ———•3
```
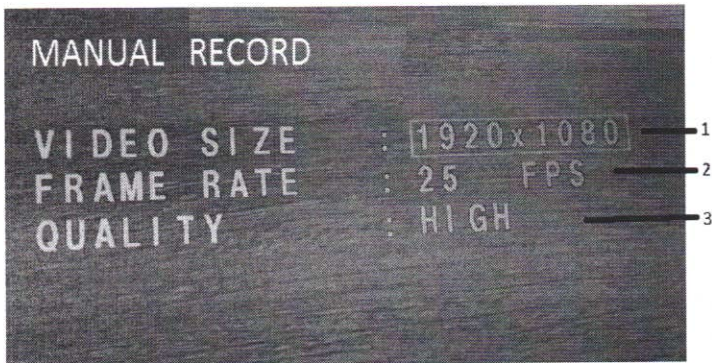
No.	Manual Record Function
1	Set the current record resolution. There are two kinds of resolution to be selected : 1920*1080P and 1280*720P
2	Set the recorded frame rates : 1080P : 1,4,10,15,20 and 25 fps 720P : 1,4,10,15,20,25 and 30 fps 480i(CVBS) : 1,4,10,15,20,25 and 30 fps
3	Set recorded video quality : High, Normal and Basic

●Schedule Record

Under the main menu, Press [⊖] button and system will enter as below

OSD:
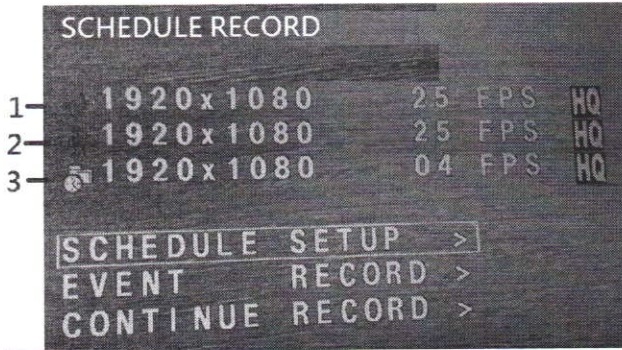
No.	Schedule Record Function
1	Show the trigger settings: 1920*1080/25fps high quality (Default setting) recording status. Please enter "Event record" if user like to change different setting.
2	Show the motion settings: 1920*1080/25fps high quality (Default setting) recording status. Please enter "Event record" if user like to change different setting.
3	Show the motion settings: 1920*1080/4fps high quality (Default setting) recording status. Please enter "Continue record" if user like to change different setting.

-Schedule Setup

Under the schedule record, Press [⊖] button and system will enter as below OSD:
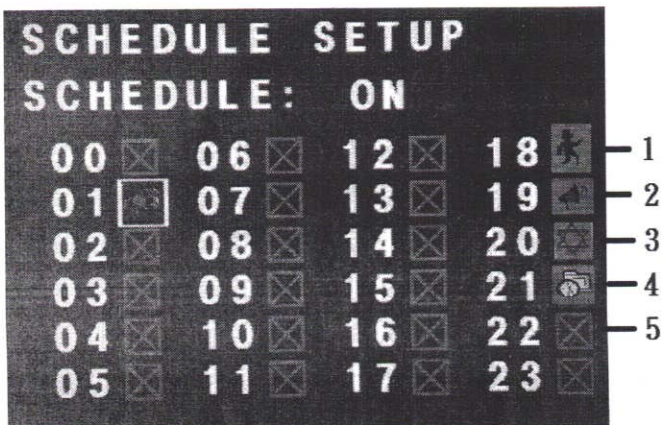
There are four kinds of different trigger modes by hour. User needs to turn schedule on before using the trigger modes as below:

No.	Schedule Setup Function
1	🏃 : motion trigger mode
2	📢 : Alarm in trigger mode
3	✡ : Accept all trigger modes : Manual > Alarm in> Motion>Continue
4	📇 : Continue record by hour
5	✖ : No any action in this hour

-Event Record

There are frame rates and quality to be changed for Motion and Alarm in as below:

No.	Event Record Function
1	Video Size :Set the recorded frame rates for Motion and Alarm in mode : 1080P or 720P
2	Frame Rate : Set different frame per second for Motion and Alarm in mode : 1080P : 1,4,10,15,20 and 25 fps 720P : 1,4,10,15,20,25 and 30fps 480i(CVBS): 1,4,10,15,20,25 and 30fps
3	Recorded quality : High , Normal and Basic modes

| 4	Duration : Recording time after being triggered by Motion or Alarm in. The time is 1~90 seconds
5	Pre-record : Recording time before being triggered by Motion or Alarm in. The time is 0~10 seconds

-Continue Record

There are frame rates and quality to be changed for continue record as below:

| No.	Continue Record Function
1	Video Size :Set the recorded frame rates for continue mode : 1080P or 720P
2	Frame Rate : Set different frame per second for continue mode : 1080P : 1,4,10,15,20 and 25 fps 720P : 1,4,10,15,20,25 and 30fps 480i(CVBS): 1,4,10,15,20,25 and 30fps
3	Recorded quality : High , Normal and Basic modes

•SD Card Options

Showing SD card information and format it.
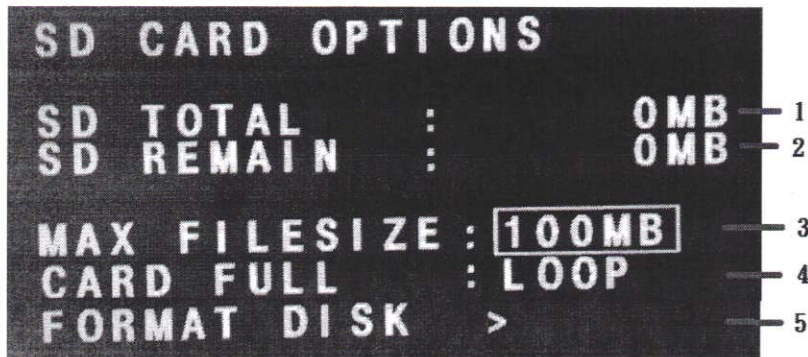
No.	SD card options
1	SD TOTAL : Show the total capacity of the inserted SD card.
2	SD REMAIN : Show the remaining capacity of the inserted SD card.
3	MAX FILESIZE : Here you can set the max. file size "45 Min." and "30 Min." recording time. One file size is fixed 1.8Gb. If you set 30 Min., the recording quality will be better than you set 45 Min.
4	CARD FULL : Here you can choose what happens when the total capacity of the SD card is reached. -STOP : The recording is stopped. -LOOP : The recording continues. The oldest files are replaced by new recordings
5	FORMAT DISK : Here you can format the SD card. All data that include recorded video and media video will be deleted.

•System Status

Here you can find a summary of the firmware version and the recording settings.
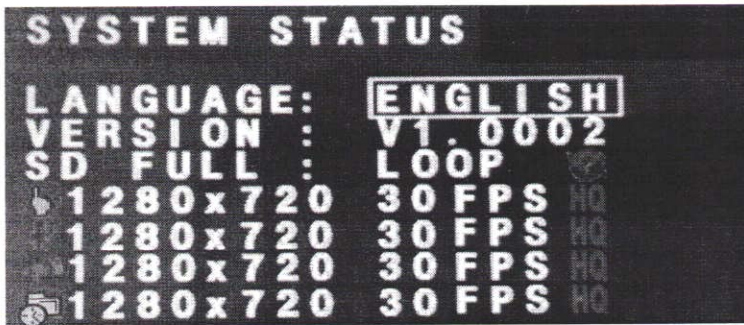
Language : show "English" or "Spanish" or "German" version

Version : working software version

SD full : show "loop' or "stop' after writing data full in SD card

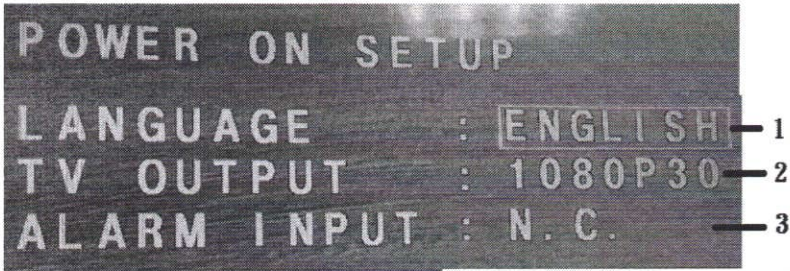Manual status : 1280*720 30 FPS and high quality recording

Motion status : 1280*720 30 FPS and high quality recording

Alarm status : 1280*720 30 FPS and high quality recording

Continue status : 1280*720 30 FPS and high quality recording

●Power On Setup

Here user can set language and output resolutions

No.	Power On Setup
1	Language : Support English, Spanish and German
2	TV Output : Support under resolutions 1080P30, 1080i60, 720P30, 720P60 and 480i
3	Alarm Input : Support "N.C" and N.O." N.C. : normal close and trigger when wires (Alarm in and GND) are opened. N.O. : normal open and trigger when wire (Alarm in and GND) are closed.
4	GPS STATUS: Support "ON" and "OFF" ON: shows "NONE GPS" or "GPS" on screen in live mode, according to GPS connection status. OFF: won't show "NONE GPS" and "GPS" on screen in live mode, even GPS is connected and working.

●Factory Default

Here you can reset all settings, except Date and Time, to factory default.

```
FACTORY DEFAULT

RECALL DEFAULT NOW ?

NO: EXIT    YES: ENTER
```
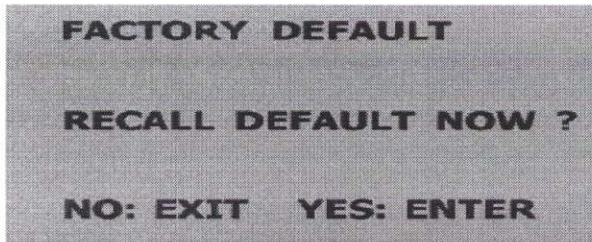
·Press [⟳] button to reset to factory default.
   ·To be back , press [↩] button and return to the main menu