

DVRcam



User Manual



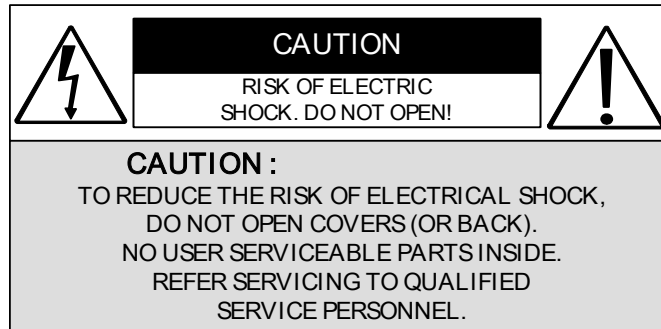
5327 Cedar Creek, Kemp, Texas 75143, USA
Tel: 866-301-CCTV, Fax: 903-498-8989

CONTENTS


1. SAFETY PRECAUTIONS	2
2. INTRODUCTION	3
3. FEATURES	4
4. ACCESSORIES	5
5. INSTALLATION	6
6. NAME AND FUNCTION OF EACH PART	7
7. OPERATING PROCEDURE	9
7-1 FUNCTION DESCRIPTION TABLE.....	9
7-2 OPERATION DESCRIPTION.....	10
8. SYSTEM SETUP	14
9. SPECIFICATIONS	15


The author assumes no responsibility for any errors or omissions that may appear in this document nor does it make a commitment to update the information herein.

1. 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 uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

 **CAUTION:** The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

The power cord is the main power connection. Therefore, constant plugging and unplugging of the power cord may result in malfunction of the product.

Do not install the product in an environment where the humidity is high.

This can cause damage to the product.

Do not drop the product or subject it to physical shocks.

This can cause damage to the product.

Never point the product at a strong light.

This can cause damage to the product.

Do not spill liquid of any kind on the product.

If it gets wet, wipe it dry immediately. Alcohol or beverage can contain minerals that corrode the electronic components.

2. INTRODUCTION

This product is a professional, mobile digital recording device. It has a built-in high quality pinhole camera, which enables continuous recording, motion detection recording and storage of pictures in the Flash Memory. It is supplied with a wall fixing bracket that makes it perfect for simple installation in many different applications:

- With the bracket, such as by a front door, on a wall in a room, by a garage door.
- Without the bracket, such as in a glass cabinet, on a shelf, inside a vehicle.

Power is provided by either four AA batteries or a plug-in power adaptor (DC12V). It is suggested to use the plug-in adaptor for usage under long extended period of time. Four AA batteries can be used for short operational durations or when there is no power socket. The LED light easily allows the user to distinguish the current battery status (LED lit, indicates that the power is sufficient. When the LED light is unlit this indicates that there are insufficient power).

There is a simple user-friendly interface which enables easy recording setups (Record Mode, Record Frames per Second and Motion Detection Sensitivity). For more details, please refer to the section on “Operation Description” and “Function Setup Description”.

3. FEATURES

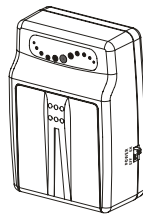
- Extremely portable device with built-in color camera.
- Automatic image control functions.
- Functions Supported: Auto Electronic Shutter (AES), Auto White Balance (AWB) and Auto Gain Control (AGC).
- High resolution, low cost video capture machine records images onto built-in 128MB/256MB/512MB/1Gb (depending on model) Flash memory.
- Recording auto resumes after power loss.
- Supports two recording modes: Continuous and Motion Detection.
- One device supports both PAL and NTSC systems.
- Live video is available during recording.
- Supports VGA and QVGA image compression format.
- Selectable compression image qualities and frame rates.
- Motion detection with Adjustable motion sensitivity level.
- Supports flexible playback mode: Normal, Fast Forward, Fast Rewind, Pause, Step Forward and Step Rewind.
- User-friendly OSD set-up menu and front panel design.
- Supports DC 12V or 4 x AA batteries.

4. ACCESSORIES

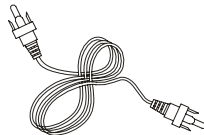
Unpack the product and inspect it to ensure all accessories are included inside the product packaging.

The following are included inside the packaging:

1. Camera Body



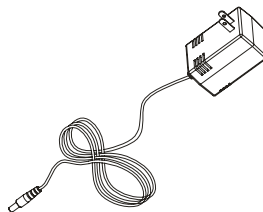
2. Video Line



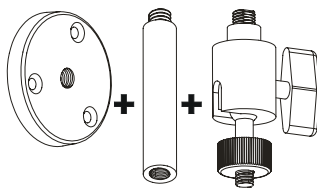
3. User Manual



4. Power Adaptor



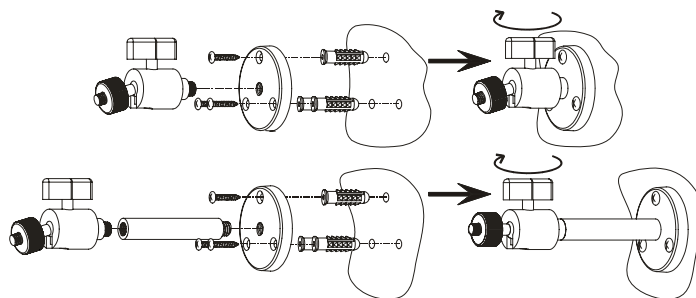
5. Bracket



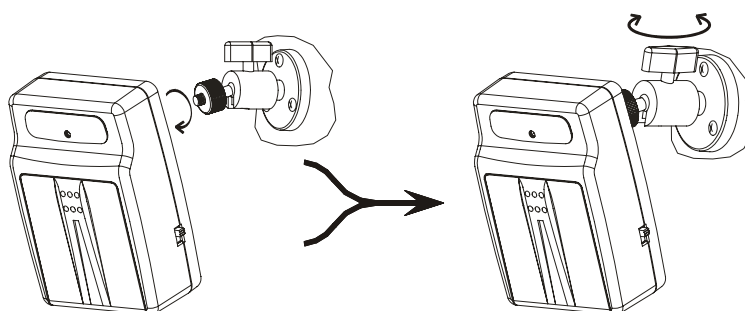
5. INSTALLATION

Please refer to the instructions below for camera mounting and bracket assembly:

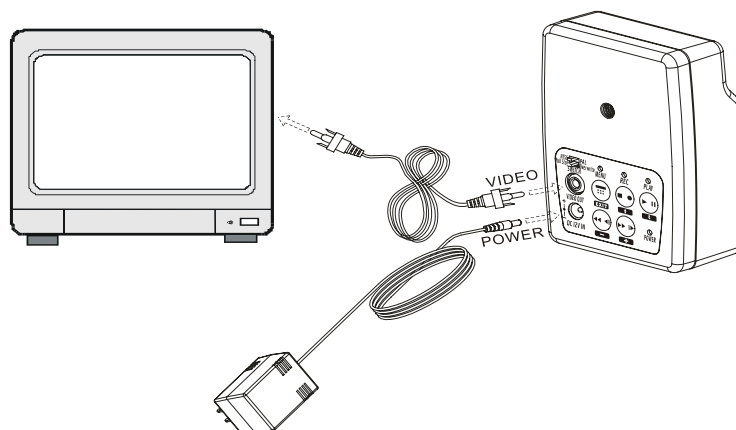
■ Bracket Assembly Guide



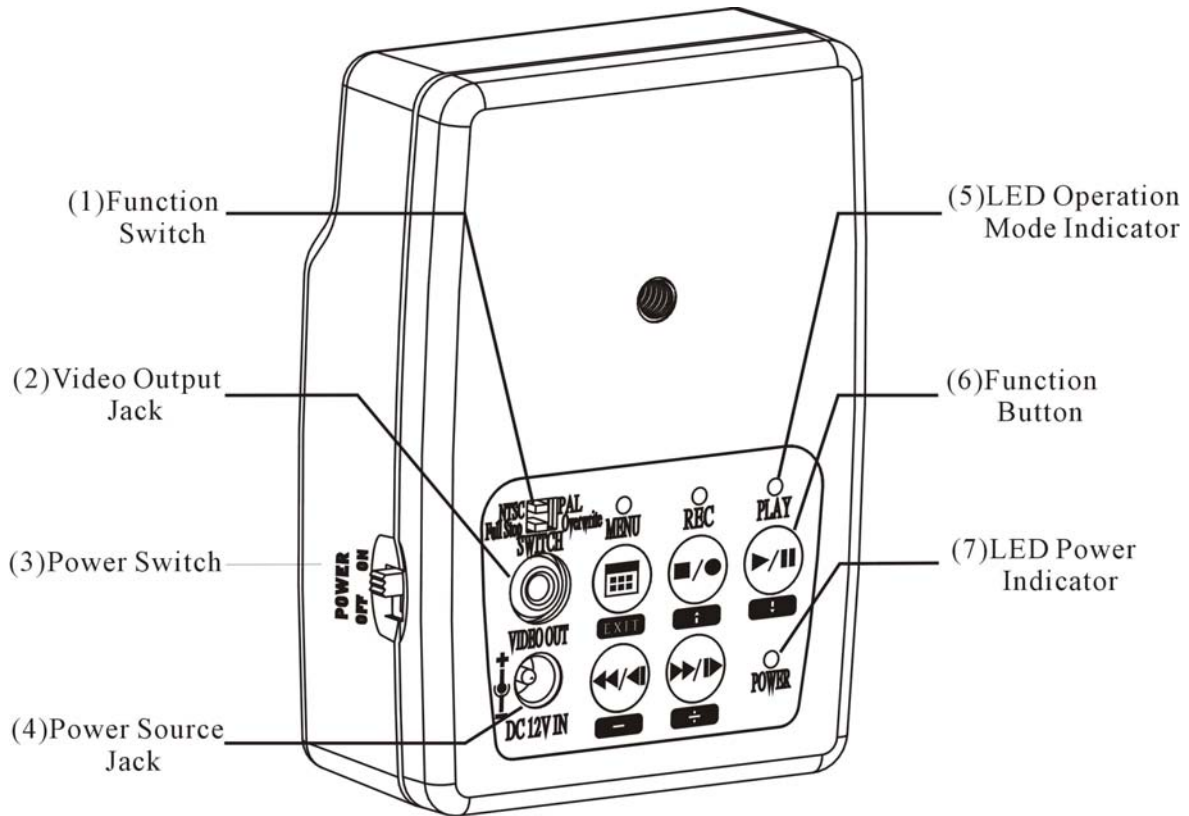
■ Camera Mounting Installation Guide



■ Video Output & Adaptor Connection Guide



6. NAME AND FUNCTION OF EACH PART



(1) Function Switch

● NTSC<->PAL

The two most common video standards used are **NTSC** and **PAL**. **NTSC** is the video system or standard used in North America and most of South America. **PAL** is the predominant video system or standard mostly used in Europe. Please select and switch to the system that best suits your location.

● Full Stop<->Overwrite

To select whether to overwrite the recorded data or to stop recording when memory is full. If you select “**Overwrite**”, the memory will be overwritten starting with the oldest data first.

Selecting “**Full Stop**” will cause the **RECORD** mode to **STOP** mode, and the **REC** LED will be unlit.

(2) Video Output Jack

To enable monitoring functions, connect one terminal to the video out jack and the other terminal to the monitor (TV).

(3) Power Switch

Select “**On**” to switch on the device, and “**Off**” to switch off the device.

(4) Power Source Jack

(5) LED Operation Mode Indicators

LED light easily allows the user to distinguish the current system status. For example **REC** LED: when the LED light is on, this indicates recording and when the LED light is off, this indicates no recording.

(6) Button

Buttons commonly used are **STOP** and **REC** buttons (switches to ■ **STOP** mode and ● **RECORD** mode). But all other 5 buttons are applied during setups. Each button under each mode has different definition. For more details, please refer to the section on “Function Setup Description”.






(7) LED Power Indicator

When the LED light is on, this indicates that the device is powered up and when the LED light is off, this indicates that the power is insufficient or the unit is switched off.

7. OPERATING PROCEDURE

7-1 Function Description Table

Please read the Function Description Table below carefully before reading the Operation Description.

BOTTON MODE						
		EXIT	↑	↓	-	+
STOP	<input type="radio"/> MENU <input type="radio"/> REC <input type="radio"/> PLAY	Switch to Menu Setup Mode	Switch to Record Mode	Switch to Playback Mode		
RECORD	<input type="radio"/> MENU <input checked="" type="radio"/> REC <input type="radio"/> PLAY		Switch to Stop Mode			
SETUP	<input checked="" type="radio"/> MENU <input type="radio"/> REC <input type="radio"/> PLAY					
	Normal Items	Switch to Stop Mode	Cursor upward or leftward movement	Cursor downward or rightward movement	content change(-)	content change(+)
	"Search Playback"	Switch to Stop Mode	Cursor upward or leftward movement	Cursor downward or rightward movement		Switch to SearchMenu
PLAYBACK	<input type="radio"/> MENU <input type="radio"/> REC <input checked="" type="radio"/> PLAY					
	Pause	Switch to SearchMenu	Switch to Stop Mode	to Playback	Step Rewind	Step Playback
	Playback	Switch to SearchMenu	Switch to Stop Mode	to Pause	Fast Rewind (X1/X2/X4..X16)	Fast Forward (X2/X4..X16)
SEARCH MENU						
		Switch to Menu Setup Mode	Cursor upward or leftward movement	Cursor downward or rightward movement	content change(-)	content change(+)
	When the cursor is move to "<Playback...>"	Switch to Menu Setup Mode	Cursor upward or leftward movement	Cursor downward or rightward movement		Switch to Playback Mode

The LED light on the front panel indicates the current OPERATION MODE or screen display status. Under different modes each function has different meanings. The **Function Description Table** clearly lists out the LED light as it appears during different modes and its corresponding relations with the function buttons.

The system is mainly divided into 5 modes: **STOP**, **RECORD**, **PLAYBACK**, **SETUP** and **SEARCH MENU**. **PLAYBACK** mode, **RECORD** mode and **SETUP** mode may only be switched to **STOP** mode, but **STOP** mode may also be switched to **PLAYBACK** mode **RECORD** mode or **SETUP** mode. This means that one must switch to **STOP** mode before setting up **PLAYBACK** mode, **RECORD** mode and **SETUP** mode.

Under **SETUP** mode one may switch to **SEARCH MENU** mode and then to **PLAYBACK** mode.

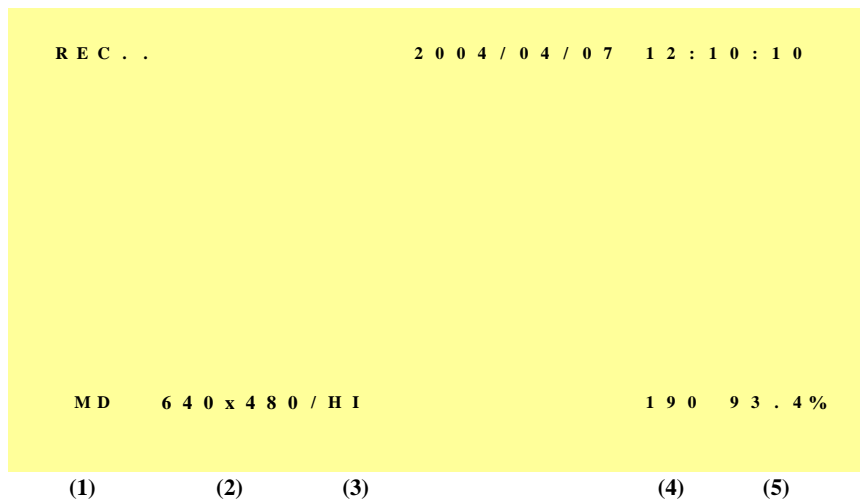
7-2 Operation Description

POWER ON

Each time immediately after power is restored; the system proceeds with auto detection and warming up function, and then enters **RECORD** mode.

RECORD MODE

Under the **RECORD** mode the system uses two types of recording format: Continuous Recording and Motion Detection Recording. The recording format depends on the <**RECORD MODE**> settings in the **SETUP** mode. The interval of the captured frames depends on the <**CAPTURE RATE**> settings in the **SETUP** mode.



When recording has been set as continuous recording, for every fixed period of time the system will automatically record one frame and when recording is set to Motion Detection recording, for a fixed period of time the system will automatically detect for any changes on the screen (Motion Detection Sensitivity Rate is adjustable according to preference).

When the memory is full, and the “**Full Stop-Overwrite**” switch on the front panel is switched to “**Overwrite**”, the memory will be overwritten starting with the oldest data first, or switch to “**Full Stop**”. It will automatically enter **STOP** mode.

Under record mode, press 《 ■ 》 button to enter **STOP** mode.

(1) Record Status:

MD - Motion Detection Recording.

CNT - Continuous Recording.

(2) Image Resolution:

640X480.

320X240.

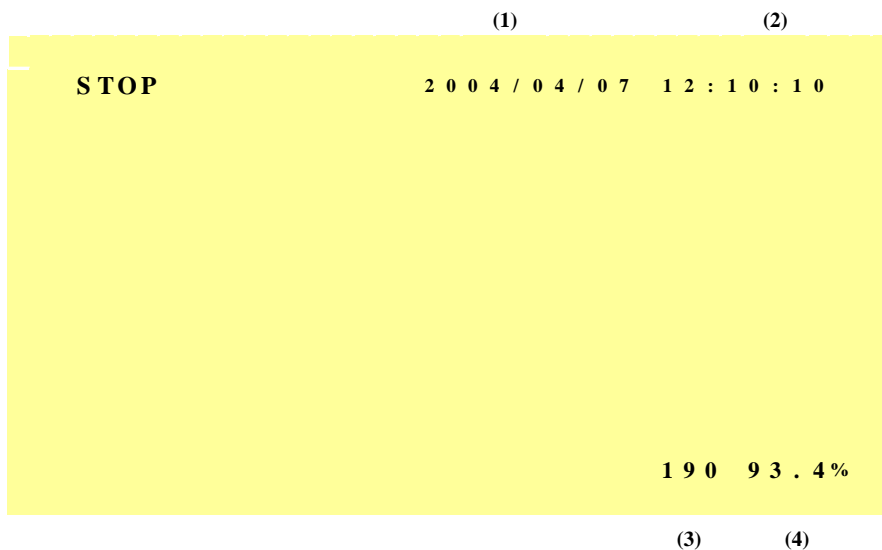
(3) Image Quality: **HIGH**, **MEDIUM** and **LOW**.

(4) The screen display shows the recorded images by value of frames.

(5) The screen display shows the recorded images by percentage (0%~100%). When the memory is full and the “**Full Stop-Overwrite**” switch on the front panel is switched to “**Overwrite**”, the word “**LOOP**” will be shown.

STOP MODE

Under **STOP** mode, the camera will not proceed to record. When a monitor has been connected, the user may view images through the monitor.



Under this mode Press 《 ● 》 button, to enter **RECORD**, Press 《 ▶ 》 button to enter **PLAYBACK** mode, Press 《 MENU 》 button to enter **SETUP** mode.

(1) Date

(2) Time

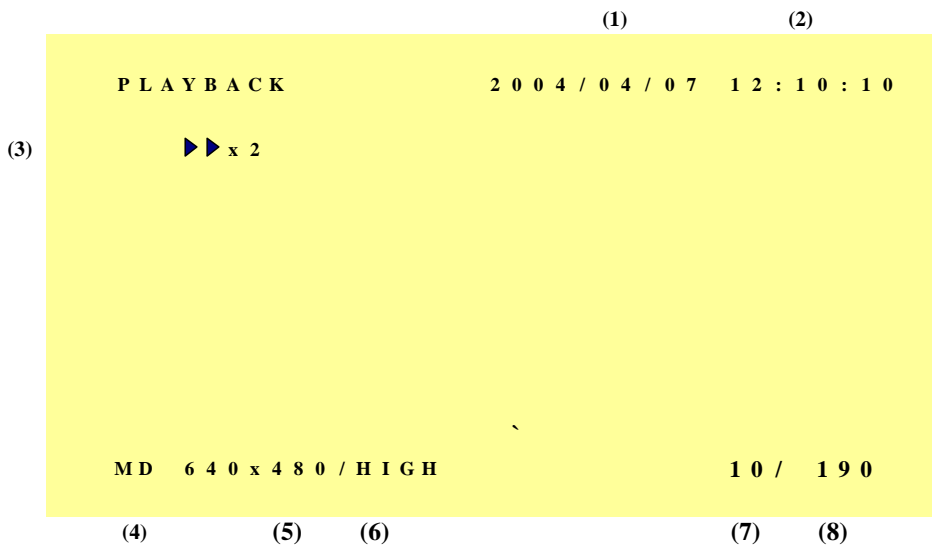
(3) Recoded frames per seconds

(4) System free space; range: 0%~100%. When memory is full (0%) and “**Full Stop Overwrite**” switch is switched to “**Full Stop**”, the word “**FULL**” will be show or switched to “**Overwrite**”, then the word “**LOOP**” will appear.

PLAYBACK MODE

After entering **PLAYBACK** mode the system automatically playbacks previously recorded images.

- There are two conditions that the system will be switched to **PLAYBACK** mode:
 - Under **STOP** mode, press 《▶》 button.
 - Under **SEARCH MENU** mode, press 《+》 button.
 - Under **PLAYBACK** mode, press 《▶》 button, to enable playback or to pause.
 - (1) Under **PLAYBACK** mode, press 《▶▶》 button, to switch the playback forward speed (X2, X4, X8 and X16). Press 《◀◀》 button, to switch playback backward (X2, X4, X8, X16).
- speed (X1, X2, X4, X8 and X16).
- Under Pause status, press 《⏸》 button to proceed with step forward playback, press 《◀⏪》 button to proceed with step rewind playback.

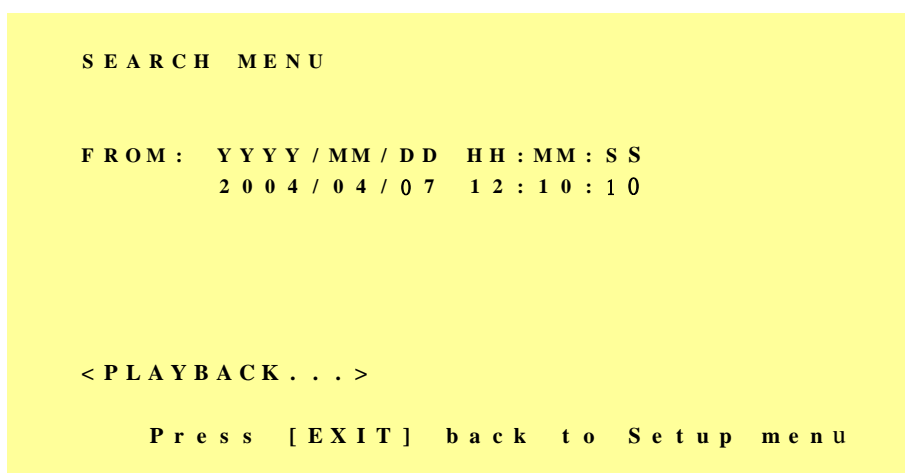


- (1) Record Date
- (2) Record Time
- (3) Playback status:
 - ▶ : Playback
 - ▶▶ : Fast Forward Playback
 - ◀◀ : Fast Rewind Playback
 - ⏸ : Pause
- (4) Record Status:
 - MD**: Motion Detection Record
 - CNT**: Continuous Record

- (5) Record Resolution:
320X240
640X480
- (6) Record Quality: **HIGH, MEDIUM** and **LOW**
- (7) Current frame number.
- (8) Total Frames Recorded.

SEARCH MENU mode

The user may setup the starting time of playback under this mode. Therefore, when the system is switched to **PLAYBACK** mode it plays back video according to setup under the **SEARCH MENU** mode.



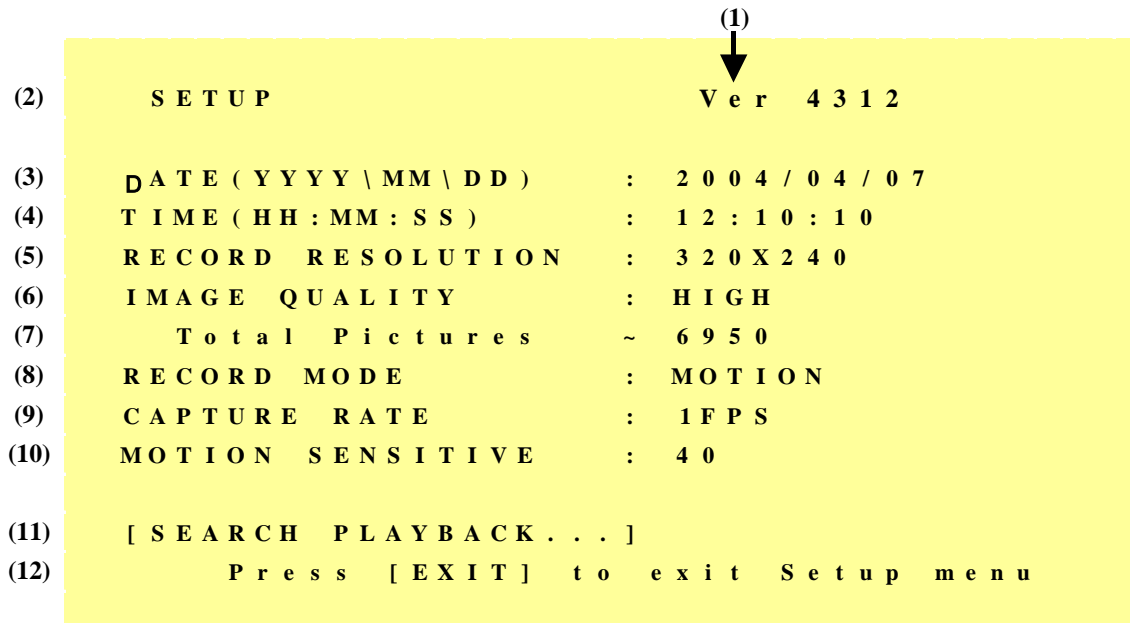
When the cursor has been moved to **<PLAYBA/CK...>** and **《+》** button has been pressed, the system will be switched to **PLAYBACK** mode and starts playback. Under all conditions, press **《EXIT》** button, the system will be switched to **SETUP** mode.

DELETE MODE

To delete all data in the memory, switch the unit off. Press and hold down the MENU button as you switch the unit back on. The unit will beep and a prompt will come on screen asking you to confirm that you wish to delete all the data in the memory.

8. SYSTEM SETUP

All relevant system setups may be set under Menu Setup Mode, please refer to the descriptions below:



- (1) Software Version Number
- (2) Function Setup Page
- (3) Date Setup (Year/ Month/ Day)
- (4) Time Setup (Hour/ Minute/ Second)
- (5) Image Resolution Setup (**320x240** or **640X480**)
- (6) Image Quality Setup (**HIGH/ MEDIUM/ LOW**)
- (7) Indication of the estimated maximum picture storage
- (8) Record Mode Setup (**MOTION** or **CONTINUE**)
- (9) Capture Rate Setup (**10SEC, 5SEC, 2SEC, 1FPS, 2FPS, 3FPS, 4FPS, 6FPS, 8FPS** and **MAX**). **10SEC** refers to 10 seconds per frame recording **5SEC** refers to 5 seconds per frame recording and so forth. **2FPS** refers to 2 frames per second recording **4FPS** refers to 4 frames per second and so forth. Max refers to full speed recording (when recording resolution is set to **320X240** and the recording is at approximately 15FPS or set to **640x480** and the recording is at approximately 8FPS.
- (10) Motion Detection Sensitivity Rate setup: 1~99. The smaller the value, the higher the sensitivity rate. Please refer to the display seen on the monitor for accuracy
- (11) [**Search Playback ...**]: When the cursor moves to [**Search Playback...**], press **⟳** button to "**SEARCH MENU**" mode , to setup playback starting time
- (12) Operation Indication
- (13) Basic Operation: Press **<↓>** or **<↑>** button, to move the cursor, press **<+>** or **<->** button, to make changes to the content

9. SPECIFICATIONS

Model No.	DVRcam128	DVRcam256	DVRcam512	DVRcam1000
Sensor	1/4" color CMOS Sensor			
Lens	Cone Lens f3.7 mm/F2.0			
Effective Picture Elements	VGA (H: 640xV: 480)			
S/N Ration	46 dB			
Auto Electronic Shutter	1/60s~1/15,000s			
Auto Gain Control	Yes			
Auto White Balance	Yes			
Synchronous System	Negative Sync			
Video output port	RCA Jack, 1 Vp-p./75 Ohms			
Video output format	NTSC or PAL(Switch Settable)			
Recording Resolution	VGA (640X480) / QVGA (320X240)			
Compress Quality Level	High/Medium/Low			
Recording Mode	Continue/Motion Detection			
Recording Interval	10 Sec/5 Sec/3 Sec/2 Sec/1 FPS/2 FPS/4 FPS/6 FPS/8 FPS/Max			
Storage Capacity (built-in)	128Mb	512Mb	512Mb	1Gb
Memory Full	Selectable Function: Full Stop/Overwrite.			
Playback Mode	Forward/Rewind: x1 / x2/ x4/ x8/ x16, Pause and Step			
Search Playback	Date & Time			
Motion Detection	Full Screen/ Adjustable Detect sensitivity rate 1~99			
On Screen Display	Mode/ Date/Time/ Status/ Set-up Menu			
Power Supply	DC 12V \pm 10%/170mA or 4 AA Batteries			
Battery Life:				
Carbon-Zinc:	1.5Hours			
Alkaline:	6.0Hours			
NiMH:	4.0Hours			