

# Mini HDVR

High Quality Digital Video Recorder System

---

## LS-H720

### Operation Manual



V2.0



RoHS

**Warning**

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

**Attention**

The electromagnetic fields at the specific frequencies may influence the picture of the recorder.

**Be sure to read the following before using the recorder and the mini camera.**

**Trail recording**

Before you record one-time events, you may want to make a trial recording to make sure that the recorder and the camera are working correctly.

**Notes on image data compatibility**

Playback of moving images recorded with your recorder on the other equipment and playback of moving images recorded or edited with other equipment on your recorded are not guaranteed.

**Do not shake or strike the recorder.**

In addition to malfunctions an inability to record moving images, this may render the SD card unusable or image data breakdown, damage or loss may occur.

**LCD screen and mini camera**

Be careful when placing the camera near a window or outdoors. Exposing the LCD screen or the lens of camera to direct sunlight for long period may cause malfunctions.

**Back up recommendation**

To avoid the potential risk of data loss always copy data to disk.

## Table of Contents

---

Connection and Usage.....	4
Function of keys and Interfaces.....	5
Main Interfaces.....	6
Description of Functional Icons on Record Interface.....	7
Operations of Record Interface.....	7
Operations of Video Interface.....	8
Operations of Video Playing Interface.....	8
Operations of Music Interface.....	9
Function Setting.....	9
REC Setting.....	10
REC Object.....	10
REC Quality.....	11
Video Segment Sizes.....	12
Overwrite.....	12
Date and Time Show.....	13
Auto lock Key.....	13
Storage.....	13
Operations of Date and Time.....	14
Video Output.....	14
Power Save.....	15
Shake Alarm.....	15
Beep Alarm.....	16
Format.....	16
Language.....	16
Defaults.....	17
System Info.....	17
USB Connection.....	18
LANC Connection.....	18
Specifications.....	18
Copyright and Statement, Limited Responsibility.....	19

## Connection and Usage

---

### AV IN Connection

The product may, via this device, record video on camera, TV and DVD player, please connect A/V cable to A/V input interface of this product.

### AV OUT Connection

This product may use video output cable ( RCA ) via AV OUT interface to display the recorded video on TV, LCD screen turns black at this moment.

### USB Connection

This product uses Mini USB2.0 with the maximum speed up to 480Mbps, the connection with PC enables the device to copy or delete the video files inside conveniently, and it may charge the battery via this USB connection.

Mini USB may be used as 5V-12V power input interface and supply power to the recorder via 5V-12V 1000Am vehicle charger.

### Earphone Connection

This product is equipped with 2.5 earphone jack, the speaker will be automatically shielded after the earphone connected.

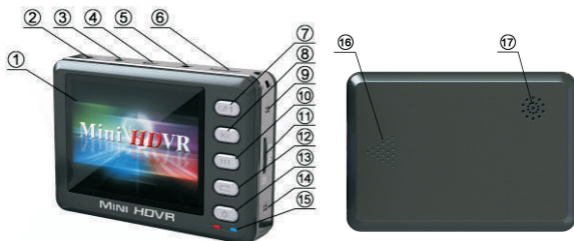
### LANC Connection

This product uses Mini HDMI interface to connect the monitor, through which the user may power on/off the device and use the functions of starting/stopping record.

### TF Card

This product uses TF card to store the video files with the maximum capacity of 512MB-16GB, please insert TF card as per the instructions to avoid damage to the card slot.

## Function of Keys and Interfaces



1. 2.5" TFT LCD Screen
2. AV in Jack to connect with the Mini camera/TV
3. AV Out jack to connect with TV
4. USB jack to connect with PC/ 5V-12V DC
5. Earphone jack
6. LANC Mini HDMI jack
7. [●/▶] play / Stop key (unlock key)
8. [⏩] FWD / Select key ( delete and copy ) ( adjust volume ) ( fast forward )
9. MIC
10. [⏪] REV / Select key ( adjust volume ) ( fast reverse )
11. TF Card support up to 512MB-16GB
12. [↶] Return key
13. [⏻] Power Key
14. Beep Alarm
15. LED Indicators
16. Direction of opening the rear cover
17. Speaker

## Main Interface

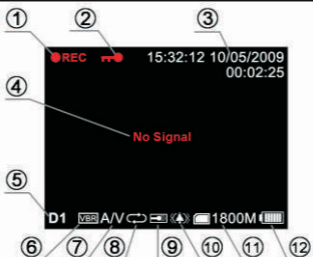
---



In main interface, use [◀◀] key and [▶▶] key to select the function, the cursor will skip and stop with the selection, when the cursor stays on one function icon, it shall display the name of the function, press [●▶] key to enter this function interface.

- Record** : select this option to enter the waiting interface for record
  - Video** : select this option to enter the video file playing interface
  - Music** : select this option to enter the music file playing interface
  - Setup** : select this option to enter the setting interface of functions
- In any interface, press [↶] key to exit from the current menu.

## Description of Function Icons on Record Interface



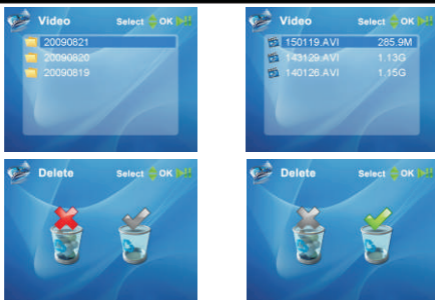
1. In recording state
2. "Lock" icon
3. Date and time of current record
4. "No Signal" alert
5. Record mode: D1/VGA/SIF  
D1 - PAL: 720x576 (25fps), NTSC:720x480(30fps)  
VGA-640x480 (30fps)  
SIF-320x240 (30fps)
6. Record quality: VBR / HQ / SP / LP / EP / SLP
7. Record contents: Video / Video+ Audio
8. Overwrite/Not overwrite
9. Inside MIC / Outside MIC
10. Shake Alarm / Beep Alarm
11. SD card icon and the usable memory
12. Usable electric capacity at present

The product enters the standby state after power on, press key to exit and return to the main menu.

### Operations of Record Interface

By this function, the user may record the video on TV/DVD player, in standby state, press [●/▶] key to start to record and the screen displays the icon [●REC], further press [●/▶] key to stop recording, when in standby state, the device will automatically detect whether AV IN has video signal input, if no signal, the device will give shake alarm or beep alarm and the screen displays "No Signal".

## Operations of Video Interface



Enter Video File interface, the folder is named with the current date, and the video file is named with the record time, in this interface, long press [◀◀] key to pop up “Delete/Copy”, press [▶▶] key to select and confirm to delete folder/video file or copy the folder/video file to the memory or SD card, press [●/▶] key to confirm the operation. Press [↶] key to exit from the current interface.

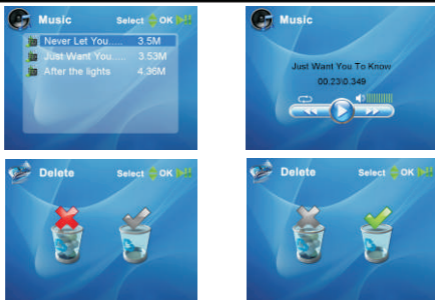
## Operations of Video Playing Interface :



In Video interface, select the video file to be played and press [●/▶] key to enter the playing interface, press [●/▶] key to play or pause to play the video, short press [◀◀] key and [▶▶] key to adjust the volume, long press [◀◀] key to fast reverse, long press [▶▶] key to fast forward, with the speed of X2, X4, X8, X20.



## Operations of Music Interface



Enter Music File interface, in this interface, long press [⏮] key to pop up “Delete/Copy”, press [⏭] key to select and confirm to delete folder/audio file or copy the folder/audio file to the memory or SD card, press [⏪] key to confirm the operation. Press [⏪] key to exit from the current interface.

In Music Interface, select the audio file to be played and press [⏪] key to enter the audio playing interface, press [⏪] key to play or pause to play the audio, short press [⏮] key and [⏭] key to adjust the volume, in the process of playing, long press [⏭] key to switch between Shuffle[🔄] and Random[🌀], long press [⏮] key to skip to the next song.

## Function Setting



In the functional menu, press [⏮] key and [⏭] key to select and press [⏪] key to enter the submenu.

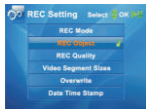
## REC Setting



### REC Mode:

- ( 1 ) **One Key** : select this mode and in standby state, press [●/▶] key to start to record.
- ( 2 ) **Motion Detect** : select this mode and in standby state, enter the working interface of Motion Detect, press [●/▶] key to start to record, when there is object moving in front of the camera, the device will record the video 20 seconds in advance.
- ( 3 ) **Car Mode** : in the menu, select Car Mode option and then power off the machine, use the car cigar lighter to connect to USB port of this machine, in OFF state, when the car starts, the machine will automatically record the video, when the car flames out, the machine will store the video in two minutes and then power off automatically, when the car starts again, the machine repeats the work. Note: the cable of cigar lighter is different from the general, do NO Tuse other lighter to avoid any damage to the device.

### REC Object:



**Video** : record the video only without audio.

**Video + Audio** : record the video and audio, the user may select to use inside Mic or outside Mic, it's advised to use outside Mic when record DVD/TV video.

## REC Quality

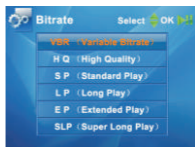


### [ Resolution Rate ]

D1 ---- PAL: 720x576 (25fps), NTSC: 720x480(30fps)

VGA---640x480 (30fps)

SIF----320x240 (30fps)



### [ Compression Rate ]

VBR----Variable Bit rate

HQ-----High Quality

SP-----Standard Play

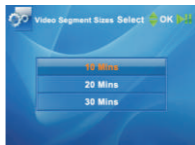
LP-----Long Play

EP-----Extended Play

SLP----Super Long Play

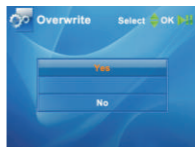
The user may set up Resolution Rate and Compression Rate according to the time length and quality, VBR mode will automatically adjust the bit rate as the scenes and the pixels, this is a mode in consideration of the size of file in the premise of quality, it's the common mode used by the people.

## Video Segment Sizes



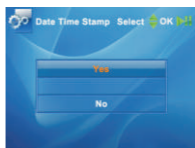
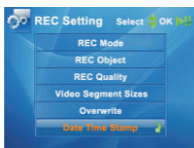
The user may separate segments according to the capacity of memory card or the time length. Note: do not select 30 minutes when use 2GB TF card as 2GB card couldn't be enough to store a 30-minute video file in VBR mode.

## Overwrite:



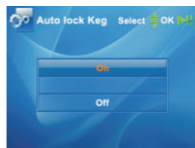
The user may select to activate the function of overwrite as need, when the function is selected, when the memory card is full, the new record file will automatically cover the before-recorded video file. When the function is not selected, when the memory card is full, the machine will automatically stop recording and give "Memory Full" alert.

## Date and Time show



The user may select to display the time and date when recording.

## Auto lock Key:



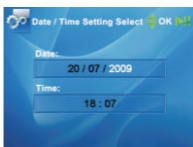
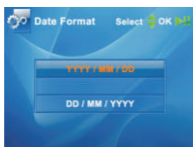
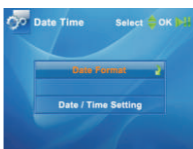
In the menu, open the function of Auto Lock Key, the machine will automatically lock in ten seconds after recording, and the screen displays the key icon [●], long press [●/▶] key for three seconds to unlock, the function of lock is also available to the keys of line control.

## Storage:



The user may select to store the file in the machine or TF card as need. TF card is hot plug, when TF card is inserted into the device, TF card is defaulted as the storage media. And the screen displays the storage icon [📁].

## Operations of Date and Time



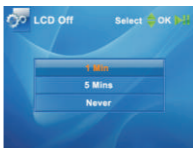
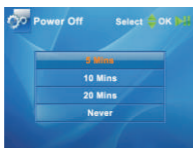
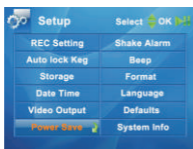
The user may select and adjust the display format of date and time. Press [◀] key and [▶] key to adjust the numbers of time and date, and then press [OK] key to confirm, press [Exit] key to exit from the

## Video Output



The user may display the video file on TV/DVD player via 2.5 AV cable to AV OUT port of this device, connect the other end "RCA" to TV/DVD player, at this moment the LCD screen turns black.

## Power Save



**Power OFF** : After setting up the time, the machine will automatically power off after the set time is over, it will store the video before power off.

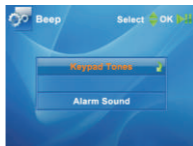
**LCD OFF** : After setting up the time, the machine will automatically close the screen to save power, press any one key to display the LCD screen once again.

## Shake Alarm



After open the item, when the machine detects no signal input or when the power is not enough, or the memory is full, the machine will give shake alarm or beep alarm to alert the user. The user may select the alarm mode as need and the screen will display the icon.

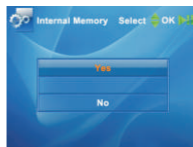
## Beep Alarm



**Keypad Tones** : after activate this item, the machine will give beep alarm once press any key.

**Alarm Sound** : after activate this item, when the machine detects no signal input, or when the power is not enough, or the memory is full, the machine will give shake alarm or beep alarm to alert the user. The machine gives shake alarm or no sound when close this item.

## Format



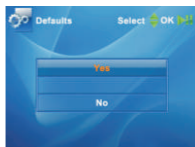
Select the disc to be formatted. **Note:** no file in the formatted disc can be recovered; the screen displays the capacity of the disc after being formatted.

## Language

This product supports English only at present.



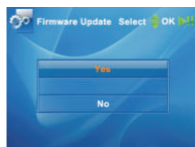
## Defaults



When select this function item, all settings shall be reset to the ex-factory values.

The parameters that may be recovered include language, date format, LCD OFF time, storage media, record quality, time, overwrite mode, video input, camera audio input, inside audio input and sound volume.

## System Info :



Store the update procedure in TF card root directory, and select [YES] in [Firmware Update], then the machine will update the software, it will automatically power off after updating.



The user may view the software version and memory info of TF card in [Version Memory Info] menu.

## USB Connection



Use USB cable to connect the machine to PC, and then the system will enter USB connecting interface.

## LANC Connection

In any interface, when LANC is connected to the machine, and when the system detects the device, it will automatically enter standby state.

## Specifications :

LCD	2.5" TFT LCD 920 x 240 Pixels
Video	MPEG-4 (AVI)
Resolution	D1----PAL:720x576 (25fps) NTSC:720x480 (30fps) VGA-640x480 (30fps) SIF---320x240 (30fps)
Frame Rate	PAL (25fps), NTSC (30fps)
Standard	PAL/NTSC
Bit Rate	1M-10Mbps, six levels adjustable
Disk Format	FAT16, FAT32
AV IN	2.5 JACK Output:5V-300mA
MIC	Built-in Mic / Outside Mic
USB Connection	USB 2.0 Device (Charge the unit)
Earphone	Stereo Earphone
Storage Device	512MB-16GB expandable
Working Temperature	0-50C°
Batteries	Lithium Polymer Battery ( 1400 mAh )
AC Adaptor	Input:100V-240V 50/60Hz Output:5V-600mA
Size	79 mm x 55 mm x 20mm (L X W X H)
System Requirements	Windows 98/ME/2000/XP/VISTA

**Copyright and Statement:**

The manufacturer reserves the patent, trademark, copyright and other intellectual property rights relating to the product; copy or reproduction of any part or all of contents in this manual is not allowed.

The software, music or film with copyright is under protection by laws; the user shall be liable to all when use our product to copy the contents aforesaid.

**Limited Responsibility:**

The manufacturer, importer and dealer shall not be liable to any loss or damage arising from the accidents including the man-made or force majeure.

Please take the real product as final, the description in this manual may be different from the real product. The manual and product shall be subject to change without any further notice.

**Statement:**

The manufacturer reserves the final explanations for the difference of the real product from the description in this manual.

Printed in China

Copyright c 2009 All rights reserved



Recycled paper

---