Strike Black Box Mobile DVR System

A revolutionary device for fleet management & vehicle safety

- Mobile digital video recorder which stores all camera vision
- Supports four video and four audio channels simultaneously
- GPS tracking history stored securely on hard drive
- Real time and trigger video record

USER MANUAL
➢ **Attention**

- Before the installation and use of this device, please carefully read the contents of the user manual in full.
- This product is designed for in-vehicle use. In order to prevent a short-circuit blowout or electric shock; do not operate the device in the rain or humid environments.
- In the event of any solid or liquid spilling on the device, please disconnect the power of the machine immediately and ask a qualified technician to examine and restart it.
- The product is high-tech equipment. Users should not attempt to repair any part of the device themselves. If a failure occurs, please see a qualified technician or contact the dealer you purchased the device from.

➢ **Installation Preparation**

- Operates on an 8-48V DC power supply. Please confirm the local power supply before attempting to turn the device on.
- If the device has not been used for an extended period of time, please completely disconnect the video’s power supply before powering on.
- Please select the appropriate location for the installation of the device, where the air can flow freely around the machine to avoid overheating.
- The device should not be installed near radiators, or near any location that is near direct heat, directly under sunshine, near dust, or near any area where excessive mechanical vibration may occur.
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1 Product Overview

This four-channel embedded digital hard disk video recorder is designed for improved vehicle safety and fleet efficiency. With an embedded processor and operating system, it combines a video & audio compression / decompression system, GPS unit, camera recorder and the capacity to store record information on a hard drive. It is widely used by fleet managers and corporations and installed in cars, trucks, buses, trains, and security vehicles.

2 Features

2.1 Operating System

- Embedded Linux operating system, that eliminates the threat of virus infection
- Chinese and English language menu options

2.2 Video Compression Standard

- H.264 video formats, with superb screen quality

2.3 Surveillance and Video Processing

- Surveillance: 4 channels, D1 video (PAL: 704 * 576, NTSC: 704 * 480)
- Three record modes: alarm record, timer record and manual record; support 4 channels video and 4channels audio record at the same time.
- Video quality: eight grades to adjust.
- Specially designed video file system that prolongs the life of hard drive.
- The disk storage of video & audio data can not be artificially modified, ensuring high security & credibility.
2.4 Playback and Search

- Timed playback
- Supports 4 channel video and 4 channel audio playback simultaneously, or 1 channel video and audio playback if amplified (using PC viewer software)
- If using playback function on an in-vehicle LCD monitor, then will support 1 channel video and 1 channel audio playback

2.5 Hard Drive and Backup

- Removable hard drive. Supports 2.5-inch notebook computer hard drive.
- Compatible with Samsung & Hitachi SATA series of notebook computer drives.
- Can use the USB interface to back up or connect hard drive box directly to a computer

2.6 Control

- Dual MCU remote control system

2.7 Designed to Prevent Vibration

- Non-fixed, suspended hard drive for shockproof protection
- Special SATA hard drive box connector design
- Circuit board and electronic components were designed with shockproof & reinforcement components

2.8 Others

- USB software upgrading system
- Password-protection prevents destruction of data
- Can select real-time and trigger video record
- Prevents impulse voltage, low voltage supply protection.
- Time-lapse ‘turn off device’ function (Default: 5 seconds)
- Real-time clock
# 3 Technical Parameters

<table>
<thead>
<tr>
<th>Items</th>
<th>Item Name</th>
<th>4 Channel Mobile DVR(HDD Storage)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Item Number</td>
<td>ACC-STK Black Box</td>
</tr>
<tr>
<td></td>
<td>Solutions</td>
<td>H.264 Main Profile</td>
</tr>
<tr>
<td>System</td>
<td>Operation Language</td>
<td>Chinese / English</td>
</tr>
<tr>
<td></td>
<td>Operation Interface</td>
<td>Graphical Interfaces</td>
</tr>
<tr>
<td></td>
<td>Password Control</td>
<td>User Password</td>
</tr>
<tr>
<td>Video</td>
<td>Video Input</td>
<td>4ch Independent Input: 1.0Vp-p, 75Ω. Both B&amp;W and Color Cameras</td>
</tr>
<tr>
<td></td>
<td>Video Output</td>
<td>1 Channel PAL/NTSC Output, 1.0Vp-p, 75Ω. Composite Video Signal</td>
</tr>
<tr>
<td></td>
<td>Video Display</td>
<td>1 Or 4 Screen Display</td>
</tr>
<tr>
<td></td>
<td>Video Standard</td>
<td>PAL:25frames/Sec; NTSC:30frames/Sec</td>
</tr>
<tr>
<td></td>
<td>System Resources</td>
<td>PAL:100 Frames; NTSC:120 Frames</td>
</tr>
<tr>
<td>Audio</td>
<td>Audio Input</td>
<td>Four Channels Independent Input 600Ω</td>
</tr>
<tr>
<td></td>
<td>Audio Output</td>
<td>1 Channel (4 Channels Can Be Convert Freely)</td>
</tr>
<tr>
<td></td>
<td>Basic Output Level</td>
<td>1.0—2.2V</td>
</tr>
<tr>
<td></td>
<td>Distortion Plus Noise</td>
<td>≤-30dB</td>
</tr>
<tr>
<td></td>
<td>Recording Mode</td>
<td>Sound And Image Synchronization</td>
</tr>
<tr>
<td></td>
<td>Audio Compression</td>
<td>ADPCM</td>
</tr>
<tr>
<td></td>
<td>Image Compression</td>
<td>H.264 Fixed Code Stream</td>
</tr>
<tr>
<td></td>
<td>Image Format</td>
<td>4<em>CIF (352</em>288), or 4<em>HD1(704</em>288), or 4<em>D1(704</em>576)</td>
</tr>
<tr>
<td></td>
<td>Video Stream</td>
<td>CIF: 8K-64Kbyte/s; HD1 &amp; D1: 32K-96Kbyte/s;</td>
</tr>
<tr>
<td></td>
<td>Video Taking Up Of Hard Disk</td>
<td>CIF: 28M-230Mbyte / hour / channel</td>
</tr>
<tr>
<td></td>
<td>HD1 &amp; D1: 115M-340Mbyte / hour / channel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Resolution</td>
<td>Playback 1 Channel</td>
</tr>
<tr>
<td></td>
<td>Video Streaming Standard</td>
<td>H.264 Main Profile</td>
</tr>
<tr>
<td></td>
<td>Audio Bit rate</td>
<td>4Kbyte / s / channel</td>
</tr>
<tr>
<td></td>
<td>Audio Taking Up Of Hard Disk</td>
<td>14Mbyte / hour / channel</td>
</tr>
<tr>
<td></td>
<td>Internal Storage</td>
<td>1 SATA Hard Disk, Support Max 2T Hard</td>
</tr>
<tr>
<td></td>
<td>Image Quality</td>
<td>Eight Grades to Choose</td>
</tr>
<tr>
<td>Alarm</td>
<td>Alarm in</td>
<td>4 Channels Independent Input. High Voltage Trigger</td>
</tr>
<tr>
<td>Interface</td>
<td>USB Port</td>
<td>Available For USB Disk and HDD (FAT32) Storage</td>
</tr>
<tr>
<td></td>
<td>GPS,3G</td>
<td>Vehicle Tracking and Data Wireless Upload</td>
</tr>
<tr>
<td>Others</td>
<td>Power Consumption</td>
<td>DC8-48v 5% 8W (without HDD)</td>
</tr>
<tr>
<td></td>
<td>Working Temperature</td>
<td>-20℃ ~ +60℃</td>
</tr>
<tr>
<td></td>
<td>Clock</td>
<td>Built-In Clock, Calendar</td>
</tr>
<tr>
<td>Packaging</td>
<td>Product Size</td>
<td>213(L)*230(W)*63(H)mm (with Holder)</td>
</tr>
<tr>
<td></td>
<td>Product Weight</td>
<td>1.9KG (without HDD)</td>
</tr>
<tr>
<td></td>
<td>Package</td>
<td>Each In a Box, 10set/Canton</td>
</tr>
<tr>
<td></td>
<td>Box Size</td>
<td>252(L)*93(W)*250(H)mm</td>
</tr>
<tr>
<td></td>
<td>Carton Size</td>
<td>500(L)*265(W)*520(H)mm</td>
</tr>
<tr>
<td></td>
<td>Carton Weight</td>
<td>19kgs/21kgs (without HDD)</td>
</tr>
</tbody>
</table>
4 Installation Instruction

4.1 External Interface Wiring

1) BNC interface connection instruction:
2) 4 pin aviation interface connection instruction:

Remarks:

- If the power supply is 12V, then the current of 12V output can be just 1A. If installing more than 3 cameras, we suggest users get power for other cameras from the 12V vehicle power directly.
- 3G Antenna input is not available on this model.
4.2 HDD Installation
Make sure power switch is turned off. If on, please use the key and turn the lock to the “turn off” position.

- Pull out the front panel of the hard drive box
- Remove the two screws from hard drive casing
- Pull the backing of the hard drive box out and check the connector to the hard drive is not damaged
- Attach the line connection of the hard drive box to the hard drive
- Insert the hard drive in the hard drive box. Ensure the hard drive is sitting in the right position (should fit comfortably without any force)
- Screw in the four white screws of the device through the four shockproof rubber pads. Do not make the screws too taut; leave a little space for hard drive to move. So it can reach a perfect position
- Insert the hard drive into the backing and use screwdriver to screw the under backing and top backing
- Aim the hard drive box towards the groove of the front board and insert by pushing
- Insert key into lock. Turn to the “turn on” position to prevent hard drive from moving out

**Note:** The hard drive fixing lock also acts as the host power switch. When completing the install operation make sure all lines are completely connected. If the car’s power has been connected with the standard input voltage, the device may be destroyed.
5 Usage Instruction

5.1 Front Panel

- **LED**
  - **PWR LED**: Light while starting. Power LED on
  - **RUN LED**: LED flashing when machine is normal working
  - **HDD LED**: When records, playback & video data are backing up, LED is flashing
  - **GPS LED**: GPS working LED indicator

- **Key and Other Descriptions**
  - **DEBUG**: Debug interface
  - **IR**: Infrared receiving window
  - **LOCK**: In order to remove the hard drive, use the key to unlock. Only unlock after the device auto-disconnects the power. Power will auto-connect after being locked.
  - **USB**: Playback of the video data on the hard drive via USB.

**NOTE**: Sandisk is the recommended brand of USB. The minimum storage capacity is 256MB and it must support the FAT32 file system.
5.2 Remote Control Operation

- **Rec**: Record key
- **Menu**: Enter menu
- **Confirm**: Confirm selection
- **Play**: Play key
- **Prev/Next**: Modify key parameters selected
- **Stop**: Stop
- **Pause**: Pause
- **Up/Down**: Modify key parameters selected
- **1-0**: Modify key parameters selected
- **1**: Record video or play, screen zoom display in first channel. System default password: six 1 this key.
- **2-4**: Record video or play, screen zoom display in second channel. Set System password.
- **5-7**: Record video or play, screen zoom display in third channel. Set System password.
- **8-0**: Record video or play, screen zoom display in fourth channel. Set System password.
- **0**: Four channels display. Modify system's password
- Other number keys: Used for password change
5.3 Menu Setup

In surveillance mode, press [MENU]. If it is the first time you are entering the MENU interface, the system will show “ENTER THE PASSWORD” (The defaulted password is 6666). When finished, press [OK] to enter the MENU interface. When in recording mode, please press [STOP] to stop recording, and then press [MENU] to enter the MENU interface.

- **Settings:**
  - **TIME:** Set up the time on the mobile DVR.
  - **CAR LICENSE:** Set up the vehicle ID number.
  - **LANGUAGE:** Can select “Chinese” or “English”. When finished, please restart the machine, then this setting will be applied.
  - **VIDEO MODE:** Set up the video standard. You can select PAL or NTSC. When finished, please restart the machine, then this setting will be applied.
  - **DELAY TIME:** Time-lapse turn off function. Defaulted time is 5 seconds, you can set to 5s, 30s, 1min, 2min, 5min, 10min, 20min, 30min, 1hr, 2hrs. When finished, please restart the machine, then this setting will be applied.
  - **PASSWORD:** Before changing the password, you will need to enter into the original password.
  - **NEW PASSWORD:** Enter the new password.

- **HDD:** Can setup and check the information of the hard disk.
  - **HDD OVERWRITE:** Setup the rewrite function.
  - **HDD TOTAL SIZE:** Show the total capacity of the hard disk.
  - **HDD FREE SIZE:** Show the rest of the capacity of the hard disk.
  - **HDD FORMAT:** Enter the password, the machine will format the hard disk and delete the video files in the hard disk automatically.

- **Record:** Settings for the video files.
  - **REC RESOLUTION:** CIF/HD1/D1
  - **RECORD FRAME:** 1~25 frames (adjustable)
  - **REC QUALITY:** Setup the picture quality (8 grades total, LOWEST—HIGHEST)
  - **DISPLAY CH:** Setup how many channels display on the LCD monitor.
  - **File time:** Set up record time of files (300~3600 second)
✓ **VIDEO RECORD CH:** Setup the recording video channel, Red means record
✓ **AUDIO RECORD CH:** Setup the recording audio channel, Red means record.
✓ **REC SCHEDULE:** Setup the recording mode for different time
  - **White:** No recording  
  - **Red:** Recording  
  - **S:** Alarm recording

● **Search:** Playback the recorded videos.
✓ **FILE LIST:** Display the date of the videos. Enter the date and you can see the time list of the videos within the day. Select the time according to your needs, press “PLAY” on the remote control to playback the videos.
✓ **PLAYBACK CH:** Only 1 channel can be played on the device with a LCD monitor (not on the computer)

● **Video download:**
✓ Connect USB Flash Drives or HDD to USB interface in front of the DVR
✓ Shift to “Playback Menu”, select target video for download via the remote control, press “Ok” to start copy.
✓ After downloading one section, repeat process to download more.

● **Alarm:**
✓ **Alarm record time:** 10-90 seconds
5.4 Video Data Volume

For the required volumes of video and video-related settings please see the following table

<table>
<thead>
<tr>
<th>VIDEO QUALITY</th>
<th>Total Record Frame</th>
<th>Data Size Per Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIGHEST</td>
<td>100 frame</td>
<td>1120 MB</td>
</tr>
<tr>
<td>HIGHER</td>
<td>100 frame</td>
<td>1012 MB</td>
</tr>
<tr>
<td>HIGH (default)</td>
<td>100 frame</td>
<td>900 MB</td>
</tr>
<tr>
<td>BETTER</td>
<td>100 frame</td>
<td>780 MB</td>
</tr>
<tr>
<td>NORMAL</td>
<td>100 frame</td>
<td>675 MB</td>
</tr>
<tr>
<td>LOW</td>
<td>100 frame</td>
<td>560 MB</td>
</tr>
<tr>
<td>LOWER</td>
<td>100 frame</td>
<td>450 MB</td>
</tr>
<tr>
<td>LOWEST</td>
<td>100 frame</td>
<td>340 MB</td>
</tr>
</tbody>
</table>

Note: Based on users matching conditions to apply the appropriate drive and related settings.