## Contents

- **Guarantee & Copyright** .......................................................... 3
- **Safety precaution** .................................................................. 4
- **Special features** .................................................................... 6
- **Mi-Witness HD key components** .......................................... 7
- **Parts overview** ...................................................................... 8
- **Mi-Witness HD installation** .................................................. 10
- **Image recording** .................................................................... 14
- **Operational status LED guide** .............................................. 16
- **Operational audio guide** ....................................................... 17
- **Mi-Viewer software guide** .................................................... 18
- **Mi-Viewer mobile application** .............................................. 27
- **Micro SD card format** ............................................................ 33
- **Firmware upgrade** ............................................................... 34
- **Customer support & nationwide installation** ....................... 35
- **Product specification** ........................................................... 36
- **Guarantee and extended guarantee** ....................................... 37
Thank you for buying our Mi-Witness HD product

This instruction manual contains information on the main functions of Mi-Witness HD. Please read and understand these instructions prior to installing and operating this product. The contents of this manual are subject to change without user’s prior consent.

☐ This product is an auxiliary images recording device for a vehicle. Storing the recorded images on a memory card through the product (camera) mounted in the vehicle. Checking the recorded footage is done through a private program or video playback (display) program.

☐ The recorded images on this product is supplementary data that can be used to determine incident circumstances.

☐ This product is an auxiliary device recording and storing images at the time of car accidents but it is not guaranteed to record all the images of accidents. The moment of the accident occurring from slight shock may not be recorded because shock sensing sensor would not work normally, and any images may not be recorded due to malfunction of the product caused by careless use or incorrect installation.

☐ Depending on user environment, the performance and features of this product can be limited or unusable.

☐ Our company is not responsible for any data loss or recording equipment malfunction that can happen when our customers are using this product.

☐ Please backup important images at all times for the precautions against data loss caused by product failure or malfunction.

☐ MI-Witness HD is the registered trademark of TTW Group.

☐ This manual is protected by copyright law.

☐ The copyright to all the materials is owned by TTW Group and any reproduction and use without authorization is prohibited.
Safety precaution (1/2)

Please read the following precautions to ensure user safety

Please be informed of the precautions to protect user’s safety and prevent property damage. Also, if you do not use the product correctly, it will be cause product failure and abnormal operation. Please feel free to contact Mi-Witness HD customer support center (technical@mi-witness.co.uk) for product failure, repair and other matters regarding the use of product.

□ Do not disassemble, repair and remodel (convert) this product yourself, it may cause fire, electric shock and malfunction.
□ If water or foreign objects get into the product, quickly disconnect the electrical power.
□ Do not adjust the product whilst driving as this may cause an accident, only do this whilst the vehicle is stationary.
□ Please install this product in a suitable place where the driver’s field of vision is not obstructed.
□ You must use the power cable supplied by the manufacturer. Please do not use a damaged or converted power cable because this may lead to damage to the product or even fire/explosion.
□ Please always keep the power cable terminals clean. It can be the cause of overheating and fire.
□ Do not handle this product with wet hands or you may be electrocuted.
□ If water/wax and other liquid substances get into this product, it may cause discoloration, deformation and breakdown.
□ If you install this product in a place where the surrounding temperature and humidity is high, it may cause breakdown.
□ If you install this product in a place where highly inflammable liquid or gas is nearby, it can be the cause of fires and explosions.
□ Please keep this product out of the reach of children and pets.
□ The product should be disconnected quickly, via the power cable, from the vehicle if the unit produces abnormal smoke or burning smell.
Safety precaution (2/2)

Please read the following precautions to ensure user safety

- If you install this product in a place where the surrounding humidity is high, it can be the cause of breakdown. If this product is not well ventilated i.e. being covered with something, it may cause discoloration, deformation and breakdown due to over-heating.
- Please always ensure the power cable and other accessories are firmly connected and the cabling is neatly stored.
- Whilst driving through a tunnel, where tunnel lighting is too bright or too dim, the recording quality of the video can be degraded.
- If this product is damaged because of accident or impact and power supply is cut off, the video recording can be stopped.
- If there are foreign substances on the lens or excessive window tinting, the recorded image can be blurred, distorted or appear dark.
- Please be careful when this product is exposed to direct sunlight and turned on for a long time, as the camera may become hot.
- The micro SD card is a consumable item and its number of uses (reading/writing) is different depending on the product use. Please exchange it with a new micro SD memory card if it no longer functions correctly.
- Please format the micro SD card on a regular basis. We recommend more than once per month using SD Formatter software.
- We recommend the use of specific micro SD cards, as sold on our online store, as we cannot guarantee that other products will be compatible.
- We recommend this product to be installed by one of our recommended professional installers.
- Please note that the user has a liability for the recorded and stored image/sound data in accordance with Personal Data Protection Act and related law (statute).
- Please use the authentic Mi-Witness HD product/parts that we provide. We will not be held responsible for the breakdowns and accidents caused by the use of non-authentic Mi-Witness HD products/parts.
Special features

- **Special features of the Mi-Witness HD**

  - **Recorded image of front and rear 2CH High-definition**
    Front and rear 1280x720 HD resolution. Smooth image recording with 30 frames from the front and 30 frames from the rear.

  - **Wi-Fi control and real time monitoring through the Mobile Application (supports Android/iOS)**
    Provide various additional features such as instant playback, live view and settings adjustment by connecting to the Wi-Fi network.

  - **External GPS cradle combined in the mount**
    An external GPS cradle that is easy to install.

  - **CPL Filter provided to reduce glare and reflection**
    Relieves the problem of light reflection or glare from the windscreen.

  - **Offers various recording modes**
    Normal traffic recording / impact detection recording / parking mode / motion detection mode / recording mode

  - **High-definition wide-angle lens of 123°**
    Record and store wider images of accidents through high definition wide-angle lens of 123°.

  - **Built in Smart Power and high temperature cut-off**
    Checks the battery voltage of the vehicle to prevent battery discharge and protects device through high temperature cut off function in parking mode.

  - **Micro SD memory card support specification up to 64GB (only using recommended SD card products)**
    More video can be stored by supporting Micro SD memory card up to 64GB.

  - **PC viewer program (supports Windows/MAC)**
    PC viewer program supports various functions such as front/rear playback, Mi-Witness settings, checking GPS location.
Mi-Witness HD key components

- Mi-Witness HD package components

![Diagram of Mi-Witness HD components](image)

- STB-11 Front Camera
- Rear Camera
- Rear Camera Cable
- External GPS (Cradle)
- Front Mount
- Power Cable
- Cigar Power Cable
- Micro SD Card
- Micro SD Adaptor
- CPL Filter
- 4 Clips
- 3M Sticky Pad
- Manual

Please note

- Accessory components of the product may vary depending on changes due to performance or specification improvements.
- Package components can be purchase additionally through MI-Witness homepage (http://www.mi-witness.co.uk).
Parts overview (1/2)

- Part name and function of Mi-Witness HD

Front

- FRONT Lens
- Security LED

Rear

- GPS: GPS reception state LED
- WIFI: WIFI connection state LED
- STATUS: Product operation state LED
Part name and function of Mi-Witness HD

- **Side**
  - **V-IN:** Rear camera connection port
  - **DC-IN:** Power connection port
  - **Micro SD:** Memory card insertion slot
  - **GPS:** External GPS connection port

- **Rear camera**
  - **Reverse(LR):** Image reversal switch(L/R)
  - **V-OUT:** Video output port of rear camera

Designed by TTW Group
Mi-Witness HD installation (1/4)

- **Precautions before product installation**

  □ Start installation with vehicle turned off after parking it safely, if possible, on flat ground.
  □ For your safety, please refrain from installing on the side of the road, especially in busy areas.
  □ Please wipe clean the glass of the vehicle, where the sticky pad is to be installed, with an alcohol wipe.
  □ Please position this camera where it does not interfere with the driver's field of vision.
  □ It is recommended to get this product installed by a recommended professional installer to protect your warranty if hard wiring the device.
  □ Mi-Witness and TTW will hold no responsibility for installations that damage the Mi-Witness HD or vehicle.

- **Installing power cable and rear camera cable**

  □ How to of installing regular power cable

  As shown in the figure, starting from the side where this product would be attached, bury regular power cable along the front window top of driver seat up to side frame next to driver's seat. Pull out the cable up to the fuse terminals.

  □ How to installing rear camera cable

  As shown in the figure, starting from the side where this product would be attached, bury rear power cable along the front window top of driver seat or passenger seat up to rear window passing through the side of vehicle. Pull out the cable to the position where rear camera would be attached.
Mi-Witness HD installation (2/4)

- Mi-Witness HD front camera installation

**STEP 1**
Insert Micro SD into the main body. You must ensure to insert the correct way round.

**STEP 2**
Slide the mount onto the main body after checking the recording direction of front camera.

**STEP 3**
Slide the External GPS cradle onto the mount.

**STEP 4**
Clean the glass, before placing the sticky pad, with an alcohol wipe.

**STEP 5**
Remove the double-sided tape from the sticky pad.

**STEP 6**
Attach the camera firmly by pressing to the glass.

**STEP 7**
Connect the rear camera, External GPS and power cable to the main camera. The power cable must be connected last.

**STEP 8**
Check if WIFI and STATE LED are on after connecting power cable. If STATE LED blinks this is normal and GPS LED is on after the receipt of GPS signal.

**Please note**
- The GPS Status LED will be constantly ON when it receives GPS signal. If GPS doesn't receive signal, LED will blink. GPS will acquire a better signal with a clear view of the sky.
Mi-Witness HD installation (3/4)

- Mi-Witness HD rear camera installation

  □ Rear camera installation

  ![Rear camera installation](image)

  It is recommended to install rear camera at the top of the rear window and connect the cable so it is located to the right direction, as shown above.

  □ Reverse (LR) Switch

  ![Reverse (LR) Switch](image)

  You can set the image reverse (LR) to the left/right depending on the direction of rear camera by using the reverse switch that is provided.

Please note

- You can check status of cameras connection and camera degree by using the WiFi App.
Mi-Witness HD installation (4/4)

- Mi-Witness HD CPL Filter replacement, lens direction setting and mount/GPS removal

  □ Camera lens protector separating
  Separate the attached front piece (with the logo on) from the front camera as shown above.

  □ CPL Filter mounting
  Press on the CPL Filter into the same position and ensure it is secure.

  □ Adjusting the viewing angle
  Adjust the recording angle by rotating the camera within the mount.

  □ Removing the mount
  Press and hold the button on the mount and detach the camera by sliding the camera out of the mount.

  □ Removing the External GPS
  Holding the main body slide the External GPS to the right.

Please note
- If you don't want to use External GPS, you can attach it directly to the mount by using an additional sticky pad (sold separately).
Image recording (1/2)

- **Image recording by each mode**

<table>
<thead>
<tr>
<th>Category</th>
<th>Regular driving recording</th>
<th>Impact detection recording</th>
<th>Parking mode motion detection recording</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Location</td>
<td>normal</td>
<td>event</td>
<td>parking</td>
</tr>
<tr>
<td>Recording time (max.)</td>
<td>1 min</td>
<td>40 sec</td>
<td>40 sec</td>
</tr>
<tr>
<td>Security LED Motion</td>
<td>Flickering</td>
<td>Fast Flickering</td>
<td>Fast Flickering</td>
</tr>
</tbody>
</table>

- **Features**
  - Start the vehicle, recording begins and continues automatically.
  - Recording begins with a chime sound after 10 seconds, then there will be a ding sound 20 seconds after power connection.
  - In the regular recording mode or parking mode, event recording begins with a "ding" sound when an impact to the vehicle is detected.
  - You can set the G-Sensor sensitivity for detecting impact in the settings.
  - An image is recorded 10 seconds before and 30 seconds after the occurrence of an impact.
  - In the parking mode, motion recording begins when the front and rear camera detect any movement outside the vehicle.
  - You can set the G-Sensor sensitivity for detecting any movement in the settings.
  - An image is recorded 10 seconds before and 30 seconds after the detection of movement.

- **Store type of record file**
  - ch1_NNNN_YYYYYMMDD_HHMMSS_msec_duration_mode.avi
    ch1 : Front / ch2 : Rear  |  NNNN : Sequence of file  |  YYYYMMDD : Year/Month/Date of Saving  |  HHMMSS_msec : Hour/Minute/Second of Saving
  - duration : Recording Time 5 digits (sec 2 digits + msec 3 digits)
  - mode : N - Regular driving recording | E - Impact detection recording | P - Parking mode motion detection recording

G-Sensor sensitivity, speaker volume, security LED setup can be changed in the settings in the PC Mi-Viewer or the Mi-Viewer App.

Designed by TTW Group
## Image recording (2/2)

### Use of memory card

- Normal recording time is 1 minute and event/parking recording time is 40 seconds per file.
- This information, on the number of recorded files and the time used, is based on the SD Card Capacity being set at “A – 70/20/10(%)”
- The Micro SD Capacity setting can be changed in “WiFi/Extras” of PC Mi-Viewer Settings.

<table>
<thead>
<tr>
<th>Micro SD Card Capacity</th>
<th>Normal (Based on 60 seconds)</th>
<th>Event (Based on 40 seconds)</th>
<th>Parking (Based on 40 seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Recording File Count (Front)</td>
<td>Recording File Count (Rear)</td>
<td>Total time</td>
</tr>
<tr>
<td>8GB</td>
<td>About 46</td>
<td>About 46</td>
<td>1hrs 32min</td>
</tr>
<tr>
<td>16GB</td>
<td>About 95</td>
<td>About 95</td>
<td>3hrs 10min</td>
</tr>
<tr>
<td>32GB</td>
<td>About 191</td>
<td>About 191</td>
<td>6hrs 22min</td>
</tr>
<tr>
<td>64GB</td>
<td>About 386</td>
<td>About 386</td>
<td>12hrs 52min</td>
</tr>
</tbody>
</table>

### Please note

- Calculation capacity(Average): Normal 55MB / Event 35MB / Parking 20MB
- The number of files and saving time is based on the “Highest” video quality setting and can be different depending on the actual size of the recorded image file.
- The usable space of memory card for video recording can be smaller than indicated capacity due to minimum requirement space for running DVR system.
Operational status LED guide

- Operational status LED guide is as follows

<table>
<thead>
<tr>
<th>Operating Status</th>
<th>Front Security LED</th>
<th>Rear Status LED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BLUE</td>
<td>RED</td>
</tr>
<tr>
<td>Power ON (Booting)</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td>Power OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>Driving recording begins</td>
<td>Flickering</td>
<td>OFF</td>
</tr>
<tr>
<td>Event recording begins (on driving mode)</td>
<td>Fast Flickering</td>
<td>OFF</td>
</tr>
<tr>
<td>Parking mode begins (WIFI off)</td>
<td>OFF</td>
<td>Flickering</td>
</tr>
<tr>
<td>Event recording begins (on parking mode)</td>
<td>OFF</td>
<td>Fast Flickering</td>
</tr>
<tr>
<td>Motion detected (on parking mode)</td>
<td>OFF</td>
<td>Fast Flickering</td>
</tr>
<tr>
<td>F/W upgrade</td>
<td>Fast Cross Flickering x 3 (Repeat)</td>
<td>Fast Cross Flickering x 3 (Repeat)</td>
</tr>
<tr>
<td>SD card format</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>GPS connected (No Signal)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>GPS connected (Signal)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>GPS disconnected</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>WIFI activation (only Driving mode)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Error detected</td>
<td>OFF</td>
<td>OFF</td>
</tr>
</tbody>
</table>
### Operational audio guide

- **Operational audio guide is as follows**

<table>
<thead>
<tr>
<th>Operating Status</th>
<th>Audio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Booting</td>
<td>Di</td>
</tr>
<tr>
<td>SD card error / SD card is not inserted</td>
<td>No SD card. Please insert the SD card. (2 times repeat and rebooting)</td>
</tr>
<tr>
<td>Recording end (Power off)</td>
<td>Di (and power off)</td>
</tr>
<tr>
<td>Parking mode start</td>
<td>D~~-ing</td>
</tr>
<tr>
<td>Normal recording start</td>
<td>Diririring</td>
</tr>
<tr>
<td>Event recording start</td>
<td>Dooooong</td>
</tr>
<tr>
<td>Firmware upgrade start</td>
<td>di-~ di-~ di-~ (Repeated at 1 second intervals)</td>
</tr>
<tr>
<td>File format start</td>
<td>Proceed to format SD card. SD card format has been completed. (and rebooting)</td>
</tr>
<tr>
<td>SD card or cluster problem</td>
<td>Proceed to format SD card. (and rebooting)</td>
</tr>
<tr>
<td>Not able to do auto formatting</td>
<td>Please format the SD card. (repeat)</td>
</tr>
<tr>
<td>System end (Rebooting)</td>
<td>D~~-ing</td>
</tr>
<tr>
<td>SD card is pull out</td>
<td>Di (and rebooting)</td>
</tr>
<tr>
<td>Insert rear camera</td>
<td>The rear camera is connected. Restart the system. (and rebooting)</td>
</tr>
<tr>
<td>Operating “High temperature cut-off: over 85℃” (Parking mode)</td>
<td>Ding x 3 (and power off when select &quot;High temperature cut-off: ON)</td>
</tr>
<tr>
<td>Front camera error</td>
<td>Di--ding (and rebooting)</td>
</tr>
<tr>
<td>Operating “cut-off voltage” (Parking mode)</td>
<td>Ding x 3 (and power off)</td>
</tr>
<tr>
<td>Change Setting and Saved (App)</td>
<td>Restart the system. (and rebooting)</td>
</tr>
</tbody>
</table>
Mi-Viewer software guide (1/9)

- How to install the PC Mi-Viewer

- MAC/Windows version of private PC Mi-Viewer is stored as pc viewer folder on the micro SD card that is provided with this product.
- You can also download private PC viewer from the download sections of our website, accessed through the Mi-Login area.
- It is a recorded image file (AVI format) and can be played by a general video player. However, on the PC Mi-Viewer, you can play and check the images from the front and rear at the same time and various additional functions such as GPS details, changing settings, image capture, and printing are provided.
- Support Version: MAC OS X 10.7 or later | Windows XP/Vista/7/8/10 or later (32/64bit)

1. Put the micro SD card provided with this product into the adapter and connect to your computer.

2. **Windows**
   - Install the program by running setup.exe in the "pc_viewer/win" folder of micro SD card.
   - **MAC**
     - Install the program by copying mi-viewer in the "pc_viewer/mac" folder of micro SD card to MAC BOOK.

3. When setup is completed, to check if the PC Mi-Viewer is working normally, run the shortcut icon of the PC Mi-Viewer on desktop.
The PC Mi-Viewer software provides various additional features such as recorded image playback and settings of Mi-Witness HD.

You can download programs from our website through the Mi-Login area. There are video help files available on the website.

### Main screen and key features of the Mi-Viewer software

<table>
<thead>
<tr>
<th>Key Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front/Rear Sync Play</td>
</tr>
<tr>
<td>Play &amp; Frame Seek</td>
</tr>
<tr>
<td>Zoom Control Display</td>
</tr>
<tr>
<td>Video &amp; Capture Image Backup</td>
</tr>
<tr>
<td>The Occurrence Report &amp; Print</td>
</tr>
<tr>
<td>Mi-Witness Option Setting</td>
</tr>
<tr>
<td>Video File Navigation &amp; Filtering</td>
</tr>
<tr>
<td>G-sensor State</td>
</tr>
<tr>
<td>Speed Display</td>
</tr>
<tr>
<td>Map Navigation</td>
</tr>
<tr>
<td>SD Card Format</td>
</tr>
<tr>
<td>Playback Screen Size Control</td>
</tr>
</tbody>
</table>

Please note

- The captured screen view in this manual is an example. The screen and icon display between MAC and PC versions will may be different from this and some functions may not be available depending on the software used.
Mi-Viewer software guide (3/9)

- Detailed functions of Mi-Viewer (left screen)

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-1.</td>
<td>Viewer information</td>
</tr>
<tr>
<td>A-2.</td>
<td>Video File Name</td>
</tr>
<tr>
<td>A-3.</td>
<td>Main Screen Zoom in/out (Scroll) <em>only Windows</em></td>
</tr>
<tr>
<td>A-4.</td>
<td>Video Color Change</td>
</tr>
<tr>
<td>A-5.</td>
<td>Front/Rear Playback Screen Change</td>
</tr>
<tr>
<td>A-6.</td>
<td>Reverse Display (Up/Down, Left/Right) <em>only Windows</em></td>
</tr>
<tr>
<td>B-1.</td>
<td>Play Progressive Bar/Play Time <em>only Windows</em></td>
</tr>
<tr>
<td>B-2.</td>
<td>Play/Seek/Pause/Stop</td>
</tr>
<tr>
<td>B-3.</td>
<td>Play Speed Change (-4X/-2X/1X/2X/4X)</td>
</tr>
<tr>
<td>B-4.</td>
<td>Volume</td>
</tr>
<tr>
<td>B-5.</td>
<td>Speed Display (km/h, mph)</td>
</tr>
<tr>
<td>C-1.</td>
<td>Sub Screen Zoom in/out (Scroll) <em>only Windows</em></td>
</tr>
<tr>
<td>C-2.</td>
<td>G-Sensor Sensitivity Graph</td>
</tr>
</tbody>
</table>

Please note
- Zoom in/out(A-3, C-1) and Reverse Display(A-5) functions are provided only in Windows version.
Mi-Viewer software guide (4/9)

- Detailed functions of Mi-Viewer (right screen)

<table>
<thead>
<tr>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>D-1. Full Screen/Hide/Maximize/Close</td>
</tr>
<tr>
<td>E-1. File Open</td>
</tr>
<tr>
<td>E-2. Backup/Capture</td>
</tr>
<tr>
<td>E-3. Print</td>
</tr>
<tr>
<td>E-4. Settings</td>
</tr>
<tr>
<td>F-1. Video File List Filtering</td>
</tr>
<tr>
<td>F-2. Remove Video File</td>
</tr>
<tr>
<td>F-3. Video File List &amp; Sort</td>
</tr>
<tr>
<td>G-1. Google Map</td>
</tr>
<tr>
<td>H-1. Current Time/Play Start &amp; End Time</td>
</tr>
<tr>
<td>H-2. Right Screen Divide</td>
</tr>
<tr>
<td>H-3. Latitude/Longitude</td>
</tr>
</tbody>
</table>
Mi-Viewer software guide (5/9)

- Playback image color setting

![Windows](image1.png) ![MAC OS](image2.png)

Please note

- You can adjust color value of the video during playback if you select the icon as shown in the figure.
● Zoom in/out function during playback

Please note

▶ The screen will be zoomed in/out during playback if you scroll the mouse after clicking in area A or B area (red boxes on the left).
▶ The position of the enlarged screen will be moved if you drag the mouse when it is zoomed out.
▶ The area being zoomed out is displayed in the square box on the lower right-hand corner of the screen.
▶ Zoom in/out function is provided only in the Windows version.
Adjusting the settings within the Mi-Viewer software

- You can set the cut-off time and voltage to prevent vehicle discharge in advance and set high temperature cut-off for safety.
- You can set impact sensitivity G-Sensor mode on parking/driving mode and set motion sensitivity settings to detect movement.

Please note:

▶ You can set the cut-off time and voltage to prevent vehicle discharge in advance and set high temperature cut-off for safety.
▶ You can set impact sensitivity G-Sensor mode on parking/driving mode and set motion sensitivity settings to detect movement.
Mi-Viewer software guide (8/9)

- Adjusting the settings within the Mi-Viewer software

Please note

- Initial WIFI account **SSID is STB-(6 digit of MAC Address)** and **password is 12345678**. They can be changed in Mi-Viewer/App.
- Time is set automatically through GPS or time can be set manually if users who don’t use GPS.
  - Manual time setting
    - The time will be saved as a timeset.cfg file and will be applied when you insert the SD card into Mi-Witness HD after saving the ‘timeset.cfg’ file directly onto the Micro SD card by clicking the “save” button or copy it onto the Micro SD card.
- Internal time on RTC (Real Time Clock) is set by the GPS signal.
- When RTC battery has completely discharged (max. 7 days), time information may revert back to RTC default time.
## Initial setup information

<table>
<thead>
<tr>
<th>Category</th>
<th>Function</th>
<th>Setting Value</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>Time Zone (GMT)</td>
<td>+12:00 ~ -12:00</td>
<td>+00:00 London, Lisbon</td>
</tr>
<tr>
<td></td>
<td>Cut-off Voltage (Parking Mode)</td>
<td>Based 12V (11.6/11.7/11.8/11.9/12.0/12.1/12.2/12.3) 12.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Based 24V (23.2/23.4/23.6/23.8/24.0/24.2/24.4/24.6) 24.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cut-off Time (Parking Mode)</td>
<td>1~48 hour (1,2,4,6,12,24,36,48)</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>High Temperature Cut-off (Parking Mode)</td>
<td>ON, OFF</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>Security LED (Front)</td>
<td>ON, OFF</td>
<td>ON</td>
</tr>
<tr>
<td>Recording</td>
<td>Mic Volume</td>
<td>0,1,2,3,4,5</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Speaker Volume</td>
<td>0,1,2,3,4,5</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Video Quality</td>
<td>Normal, High, Highest</td>
<td>Highest</td>
</tr>
<tr>
<td></td>
<td>G-Sensor Sensitivity (Driving Mode)</td>
<td>0,1,2,3,4,5 (Insensitive ~ Sensitive)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>G-Sensor Sensitivity (Parking Mode)</td>
<td>0,1,2,3,4,5 (Insensitive ~ Sensitive)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Motion Sensitivity (Parking Mode)</td>
<td>0,1,2,3,4,5 (Insensitive ~ Sensitive)</td>
<td>3</td>
</tr>
<tr>
<td>WiFi / Extras</td>
<td>WiFi Account</td>
<td>SSID/Password</td>
<td>“STB-” MAC Address / 12345678</td>
</tr>
<tr>
<td></td>
<td>SD Card Capacity</td>
<td>A, B, C (Normal/Event/Parking)</td>
<td>A - 70/20/10 (%)</td>
</tr>
<tr>
<td></td>
<td>Video Format</td>
<td>NTSC, PAL</td>
<td>PAL</td>
</tr>
<tr>
<td></td>
<td>Speed Unit</td>
<td>km/h, mph</td>
<td>mph</td>
</tr>
<tr>
<td></td>
<td>Voice Guidance</td>
<td>English, Korean</td>
<td>English</td>
</tr>
<tr>
<td>Additional</td>
<td>SD Card Format</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Time Setting</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Please note**

- This table shows the contents of the setting values, and the default setting values, according to functions.
- These values can be changed in the settings in the Mi-Viewer software after you insert the Micro SD card into a computer.
The Mi-Viewer Mobile Application provides various additional features such as local (max. 15 meters) monitoring of the recorded image, Live View and changing settings by connecting to the Mi-Witness HD through the WIFI network. iOS and Android OS can be supported and downloaded by searching MI-WITNESS HD from the relevant App store. Support Version: iOS 7.1 or later | Android 4.0 (ICS) or later

---

**Key Features**

- Video Recording File Search
- Video Recording File Playback
- Live View
- Video Recording File Download
- Search Filtering (Front/Rear/N/E/P)
- Search Date
- MI-WITNESS Option Remote Setting
- MI-WITNESS SD Card Remote Format
- Downloaded File Manage (PHONE STORAGE)
- Help Desk/Manual/Version Check (EXTRAS)

---

*Please note*

- Before you use the App, please connect your smart phone to the Mi-Witness HD device (Device name : STB-Mac address) in your WIFI network settings.
Mi-Viewer mobile application (2/6)

- Mi-Viewer mobile application by functions

Please note
- Run APP after selecting the Mi-Witness HD device (STB-Mac address 6 digit) from your WIFI network in the phone settings.
- Initial password is **12345678**. Password can be changed in the PC Mi-Viewer software or APP.
- If you connect Mi-Witness and WIFI, the WIFI connection icon on the upper side of menu will be activated and displayed so that you can access into the menu.
- Mi-Witness HD menu, various functions such as Live View, checking recorded image, and changing setting are provided by remote communication with Mi-Witness HD.
Mi-Viewer mobile application (3/6)

- Mi-Viewer mobile application by functions

Please note

▶ On the phone storage menu, you can check the files downloaded by selecting download icon at the right side of Mi-Witness HD image list.
▶ If you select Live View, you can check the images recorded from front/rear side in real time as well as the detailed information of this product.
▶ If you keep Live View operated for a long time, some frames of recorded images can be dropped during Live View operation.
Mi-Viewer mobile application (4/6)

- Mi-Viewer mobile application by functions

**SD Card Storage Screen**

- If you select setting icon on the upper side of screen, you can check and change the current setting information of Mi-Witness HD and format SD card remotely.
- If you select Mi-Witness HD image list, the streaming playback of selected image recording will be in progress.
- If you select the More icon on the top right hand side of the screen, Default Setting, SD Card Format functions will be provided.

**Settings Screen**

Please note

- If you select setting icon on the upper side of screen, you can check and change the current setting information of Mi-Witness HD and format SD card remotely.
- If you select Mi-Witness HD image list, the streaming playback of selected image recording will be in progress.
- If you select the More icon on the top right hand side of the screen, Default Setting, SD Card Format functions will be provided.
Mi-Viewer mobile application by functions

- You can check the current setting information of Mi-Witness HD remotely through the App. Please select the save button after making changes to the settings.
- On the WIFI menu, initial setup SSID and password is provided and they can be changed as required.
Mi-Viewer mobile application (6/6)

- Mi-Viewer mobile application by functions

In the phone storage you can check the downloaded files and find important images easily by selecting the favorites icon.

In Extras various additional information regarding service such as help desk, manual, and checking the version information is provided.
Micro SD card format

- How to micro SD card format

1. Format from explorer

   - Open file explorer
   - Right-click on the SD card drive
   - Select 'Format'
   - Change file system to FAT32
   - Set allocation unit size to 64KB
   - Click 'Start'

2. Format from Mi-Viewer

   - Run Mi-Viewer
   - Select 'Format'
   - Choose 'Format' from 'Additional'
   - Select drive
   - Select 'FAT32'
   - Set cluster size to 64K
   - Click 'Run'

Please note

- Please surely format Micro SD card after selecting file system as FAT32 (the default) and allocation unit size as 64KB.
Firmware upgrade

Upgrading the firmware on the Mi-Witness HD

Precautions

1) This product may malfunction if you copy and use any other file but the upgraded firmware file we provide.
2) Please do not remove the memory card from PC or notebook during copying.
3) Please do not turn off the engine or unplug the power jack of the vehicle during the black-box firmware upgrade. If ERROR occurs because the power is disconnected during the upgrade process and process is interrupted, please reboot the program.
   In case you can not resolve the problem, please contact us at www.mi-witness.co.uk.
4) Please reset and use the changed setting(configuration) information because setting(configuration) information would be set as initial value if you upgrade the firmware.

Upgrade sequence

1) Download the newest firmware compressed file of Mi-Witness HD from the archives of our homepage: www.mi-witness.co.uk.
2) Unzip(decompress) the compressed file to a specific folder.
3) Insert Micro SD into PC or laptop after mounting it into Card Adapter.
   (If your PC or laptop doesn’t have a SD card port, you should purchase USB memory card reader separately).
4) Copy all of the files in the unzipped folder into Micro SD.
   (Don’t copy whole folder into a specific folder. In case there is existing file it can overwritten.)
5) When copy is completed, safely remove Micro SD card from PC or laptop.
6) Put Micro SD, in a power disconnected state, into the DASHCAM mounted in your car and connect electrical power, upgrade will be in progress with guide speech (After about 1 minute).
7) When upgrade is completed, recording guide speech will start after rebooting.
Customer support & nationwide installation

● Mi-Witness customer support
  □ E-mail: sales@mi-witness.co.uk
  □ Website: www.mi-witness.co.uk

● Nationwide installation service
  □ For further information regarding nationwide installation please visit www.mi-witness.co.uk.

● Online video guides
  □ TTW group offer an extensive range of online video help guides. For further information regarding the use of your Mi-Witness, software and other features please visit https://vimeo.com/channels/miwitnesshd
## Product specification

### Mi-Witness HD specification

<table>
<thead>
<tr>
<th>Category</th>
<th>Spec</th>
<th>Category</th>
<th>Spec</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU</td>
<td>Cortex-A5 up to 800Mhz</td>
<td>Storage Temperature</td>
<td>-30°C ~ 80°C</td>
</tr>
<tr>
<td>DRAM</td>
<td>DDR3 2Gbit</td>
<td>Power Capacitor</td>
<td>Super capacitor</td>
</tr>
<tr>
<td>Size</td>
<td>Ø38.5 * 101.2 * 24.3 (mm)</td>
<td>GPS</td>
<td>External GPS (Cradle)</td>
</tr>
<tr>
<td>Weight</td>
<td>76g</td>
<td>WIFI</td>
<td>802.11n (20Mhz)</td>
</tr>
<tr>
<td>Front Image Sensor</td>
<td>2M pixel 1/3.2 inch CMOS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recording Frame (Driving Mode)</td>
<td>Front/Rear max 30fps</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recording Frame (Parking Mode)</td>
<td>Front/Rear max 15fps</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resolution (Front/Rear)</td>
<td>HD (200MP) / HD (120MP)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angle of view</td>
<td>D=123° H=101° V=52°</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Video Encoding</td>
<td>H.264(AVI)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Memory Card</td>
<td>Micro SD 16GB (Max 64GB, Class10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G-Sensor Sensitivity</td>
<td>3-Axis Acceleration Sensor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DC-IN</td>
<td>DC 12V / 24V</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cut-off Voltage (Parking Mode)</td>
<td>User setting enabled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Temperature Cut-off (Parking Mode)</td>
<td>More than 85°C User setting enabled (Default setting: off)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operation Temperature</td>
<td>-20°C ~ 65°C</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Guarantee and extended guarantee

● **TTW Group is providing this product with a guarantee for the 1\textsuperscript{st} year**

- The guarantee period for the camera body is 12 months and for the accessories is 6 months.
- If you require technical help please contact us at technical@mi-witness.co.uk.

<table>
<thead>
<tr>
<th>Type of consumers’ damage</th>
<th>Within warranty period 1\textsuperscript{st} year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance/ functional issues when the product has been used in accordance with the manual.</td>
<td>Repair or exchange of product</td>
</tr>
</tbody>
</table>

1) **If breakdown occurred due to the negligence of customer**
   - If breakdown and product damage occurred due to negligent handling (dropping, impact, breakage, unreasonable behavior, etc.) or improper use by the customer
   - If breakdown and product damage occurred after the repair and conversion made by customer or other person.

2) **Other cases**
   - If breakdown is caused by natural disasters (fires, flooding, earthquakes etc)
   - If the life of the consumable comes to an end
   - If breakdown occurred by external causes

- Chargeable repair or exchange

● **TTW Group provides a limited extended guarantee with this product for years 2 and 3**

- The 2\textsuperscript{nd} and 3\textsuperscript{rd} year guarantee covers the main camera only and excludes accessories. Terms and conditions apply.
- For full terms and conditions please visit www.mi-witness.co.uk/3yrguarantee.