



PH1L/PH2L User's Guide
www.planethalo.com

1. Product Information

Instructions Before Operating this Product

- Thank you for purchasing our product. The following is the safety instructions, product user manual and warranty information.
- Please read these safety instructions thoroughly before operating this product and keep this manual for future reference.
- The product, the main camera, is designed to be mounted on the front windshield to record a wide-angle front view of the road. The product is capable of capturing audio inside the vehicle, although this feature may be disabled through configuration menu of the software (Viewer). You can add a secondary camera to the main camera to record inside or rear view of the vehicle. This is a device to encourage safe driving and to help drivers to collect the recorded evidences which may or may not hold any legal validity.
- The product does not guarantee to record all of the video and audio data.
- The product may not be able to recognize a slight shock or a minor collision as an event. In this case, you may press the panic button to save the data as an event.
- We strongly encourage you to use our recommended micro SD memory cards. No standard warranty service is provided by the manufacturer or the distributor unless the product is used with the recommended micro SD memory cards even within the warranty period.

Note: GPS Satellite Reception

- GPS may take 5~15 minutes to be connected when turning on the product for the very first time, or if the product has not been used for more than 3 days.
- The GPS may lose reception in areas where high-rise buildings are present. Stop at a location where your GPS can regain its reception, before proceeding again.
- Extreme weather conditions may interfere with the GPS reception. The operating temperature should remain between -10~70°C.

1. Product Information



Warranty and Safeguards

- Before implementing the device, record on to a micro SD memory card for 5 to 10 minutes as a trial recording then check to make sure that it has recorded properly.
- Using other types of power sources than the one that is supplied will void the product warranty. Please note that alternative power sources could cause a fire and damage the product.
- Consult an installations expert if you intend on using direct power connection to the vehicle's battery. The product warranty will be void in the event of an installation mishap by a non-qualified auto electrician.
- The warranty does not cover claims related to mishandling, tampering and / or disassembling of the product.
- Altering and disassembling of the product may result in a fire or electric shock. Disassembling the product will void the warranty. Inquire with your associate in the event the product needs repair work or a checkup.
- Do not store the product in extreme high or low weather conditions. Exposure to sunlight for a long period of time could cause the product to malfunction.
- Refrain from using liquid cleaners or chemicals to clean the device. Using a cloth to wipe down the product will suffice.
- Product warranty will be void if you use a micro SD memory card other than the one supplied or recommended by the manufacturer or the distributor.
- Saving files other than the device's recorded files on to the micro SD memory card, may cause a camera error.
- Do not use the micro SD memory card with other applicable products such as a portable navigation system or a digital camera, as this may cause an error to the already existing recorded files.
- Do not remove the micro SD memory card from its slot until after the power has been completely turned off, as this will damage the camera.
- Removing the micro SD memory card prior to all the LED lights shutting off may not save the last recorded file.
- Do not try to change the settings of the product while driving, as it may cause a fatal accident.
- Stop operating the product immediately if you notice smoke or burning smell, as it may result in a fire or electric shock. Please contact your local dealer or supplier.
- Clean the area of the windshield prior to mounting the camera.
- Please note that cold weather may temporarily weaken the strength of the adhesive.
- The product is designed to be installed inside the vehicle. Any damage caused by placing the device outside your vehicle, or damage due to misuse of the product will void the warranty.
- For additional information regarding your warranty and after warranty servicing of your product, please contact your dealer or supplier.

1. Product Information

Q Product At a Glance

Actual product(s) and parts may vary from the image shown below and they can be changed in order to improve the overall quality of the product.

[Model: PH1L]

[Components – Standard]

- Main body & bracket
- Power cable (direct power)
- Key lock (two keys)
- Built-in GPS
- Micro SD memory card
- Memory card adapter
- Cable holders
- User's manual (PDF file)

[Optional Accessories]

- Power cable (cigar plug type)
- Extra microSD memory card (8/16/32/64/128GB)
- External GPS
- External panic button
- Trigger cable (with video out for PH2L)
- Add-on camera and connection cable (15M)

[Model: PH2L]

[Components – Standard]

- Main body & bracket
- Power cable (direct power)
- Add-on camera and connection cable (5M)
- Key lock
- Built-in GPS
- Micro SD memory card
- Memory card adapter
- Cable holders
- User's manual (PDF file)

Optional Add-on Cameras



i Information : this is an information message

This product will start to record once it is connected with the car battery or when you turn on the engine via a cigar plug connection. You can stop recording by unplug the direct power cable or turning off the engine (cigar plug connection). Then, consequently, it saves the last recording scenes and ends operating. If the product is directly connected with the car battery, it may restart recording once it gets a certain voltage of the power from the car battery. If the voltage of your car battery goes below a certain set point, it will turn off the product to prevent your car battery to go flat (Battery Protection Mode).

If there is a lack of memory space of the microSD memory card, it will overwrite the latest data on top of the existing data. For instance, the oldest normal recording data will be deleted and the latest recording data will be saved. In case of event recording data, it deletes the data depends on the importance and time frame of the data.

1. Product Information

Q Identifying Parts [PH1L/PH2L]

Actual product may vary from the image shown.

- ① Front Camera Lens
- ② Bracket
- ③ Security LED
- ④ LED Status

 : MIC LED
 : GPS LED
 : Recording LED
 : Power LED

- ⑤ [Panic] button
- ⑥ Speaker
- ⑦ Microphone input
- ⑧ Key lock: Micro SD memory card slot & cable input ports (Inside the cover)



Q Button Operations/Functions

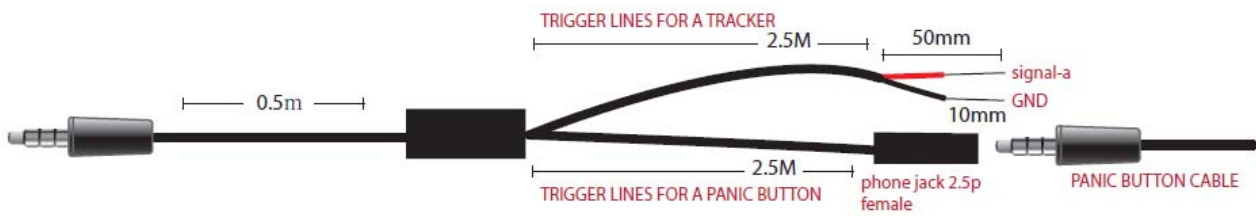
[Panic Button]

This function enables you to store data for a longer period than the normal recording by creating an 'event' occurrence. It will delete the most outdated event data in consecutive order once the event recordings exceed its "Event" storing capacity which can be set from the Viewer configurations.

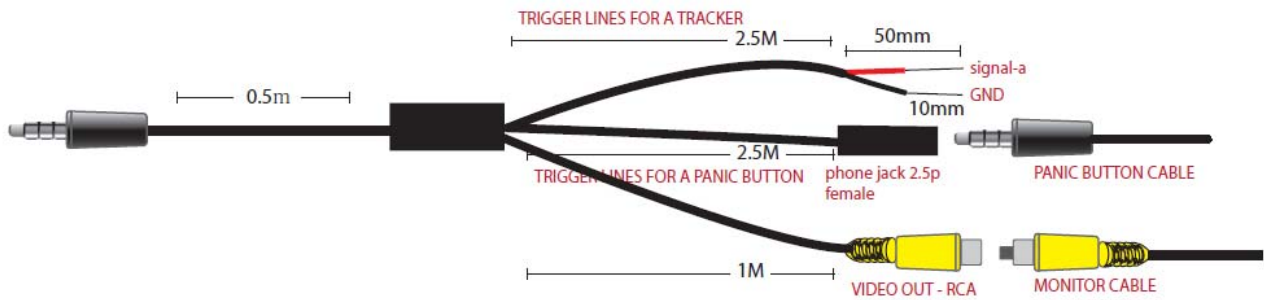
1. Product Information

Trigger Cable Information

[SK40WU] j hu# de ch]



[PH2L Trigger Cable]



1. Product Information

Specifications

Product specifications may change from above, in order to improve the overall quality of the product.

| Model | PH1L | PH2L |
|-------------------------------|--|-----------------------------|
| Channel | 1 | 2 |
| Camera (Front) | 1/2.9"CMOS Digital | 1/2.9"CMOS Digital |
| Camera Angle (Front/Rear) | 165 | 165/130 |
| Recording Resolution (Front) | 1920x1080/30FPS | 1920x1080/30FPS |
| Recording Resolution (Rear) | - | 1280x720/30FPS |
| Recording Mode | Driving, Parking, Event | |
| Video Out | None | CVBS output (1V Vp-p 75ohm) |
| GPS | Built-in GPS or External GPS | |
| G-Sensor | Built-in 14 Bit 3 Axis (X, Y, Z axis), acceleration sensor | |
| Memory Card | MicroSD memory card - SDXC (recommended): 8GB~128GB | |
| Audio Recording | Via built-in high-sensitivity microphone / PCM compression | |
| Voice Notice | Built-in high quality speaker for status notice (voice/buzzer) | |
| Battery Protection | Yes | |
| Exclusive PC Viewer | Yes | |
| Power - rated voltage | DC 12V~24V | |
| Power - operating voltage | DC 7V~28V | |
| Power Consumption | 12V (190~230mA) | 12V (210~250mA) |
| Temperature Range - Operating | -10°C~70°C | |
| Temperature Range - Storage | -30°C~80°C | |

Information : this is an information message

► This product is a device for recording high-resolution video, designed to monitor driving behavior and capture incidents that could occur while your vehicle is on the road or parked. The recorded evidence may or may not hold any legal validity in the court of law. Bear in mind that we are not liable for any disputes or loss in the court from recorded or unrecorded video data. Also, we are not responsible for any damages that could occur to your vehicle while operating the product. Please refer to "Product Information" pages in this manual and contact your local dealer or supplier when you notice abnormal symptoms of the product. Be safe, drive safe!

1. Product Information



Installation

1) Select the installing position of the product and then attach the bracket on the windscreen.



Prior to attaching the bracket, please be aware that the cold weather, condensation, and dust may cause product damage from falling.

2) Adjust camera angle facing the front (Recommendation: 15 degrees downward).

3) Place an add-on camera on the appropriate position and connect the camera cable to the camera input port by using extension cables.

4) Insert the micro SD memory card into the product. (Ensure that the micro SD memory card is correctly inserted / you will hear a click sound)

5) Connect either hard wiring power cable or cigar power cable to the product.

6) Check the LED lamps.

7) Use cable holders to tidy up cables.

[Note : Using the micro SD memory card]

: Must insert or eject the micro SD memory card when both the product and the LED lights are turned off.

: The micro SD memory card contains the Viewer program. Please save Viewer to your PC.

: Using either damaged or low-quality micro SD memory card may damage the recorded data and decrease the speed of saved video playback.

: Please be aware of the fact that the micro SD memory card does not last forever, and it may wear out after using it for a certain time. It also may cause an error of recordings. Try to conduct format and run virus checking programs regularly to prevent malfunctions of the micro SD memory card. Our standard warranty does not cover any micro SD memory card related problems and the manufacturer or the supplier is not responsible for your data loss or missing recordings.

: We recommend you to make back up files and save them to other medium of storage such as your PC because your valuable data can be damaged from external power voltage.

: Do not put a heavy pressure on the micro SD memory card and never use a wet micro SD memory card.

1. Product Information

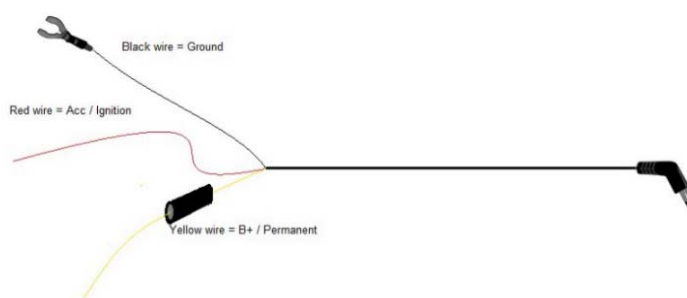


Wiring Guide for Ph1L/PH2L

[Hard Wiring Power Cable]

The power cable comes with three different wires: **Black, Red and Yellow.**

- Black: Ground
- Red: ACC/ignition
- Yellow: B+/permanent/12V or 24V



If you wish to record continuously (24/7) while the car ignition is turned on and off:

- Eg. Connect Red wire to ACC or cigar jack fuse
- Connect Yellow wire to in-cabin lights or emergency lamps fuse
- Connect Black wire to bolt or metal frame of a vehicle (Ground). The power cable

If you only wish to record while the car ignition is turned on:

- Eg. Tie Red and Yellow wires together and connect them to ACC or cigar jack fuse.
- Connect Black wire to bolt or metal frame of a vehicle (Ground).
- Use the cigar jack power cable



Information : this is an information message

- This wiring guide is only our suggestion and we are not liable for any power shortage or damage to your vehicle. Please consult with professional installers for powering up of the product.

2. Operations and Functions of Viewer

- Insert the micro SD memory card directly to your PC, or use the memory card reader to connect the micro SD memory card to your PC. Open the micro SD memory card folder and then double click on [Viewer.exe] file to run the Viewer program. The file can be found in the enclosed micro SD memory card.



[To start Viewer]

- 1) Click the 'Open' icon. and select the folder called "BLACKBOX"



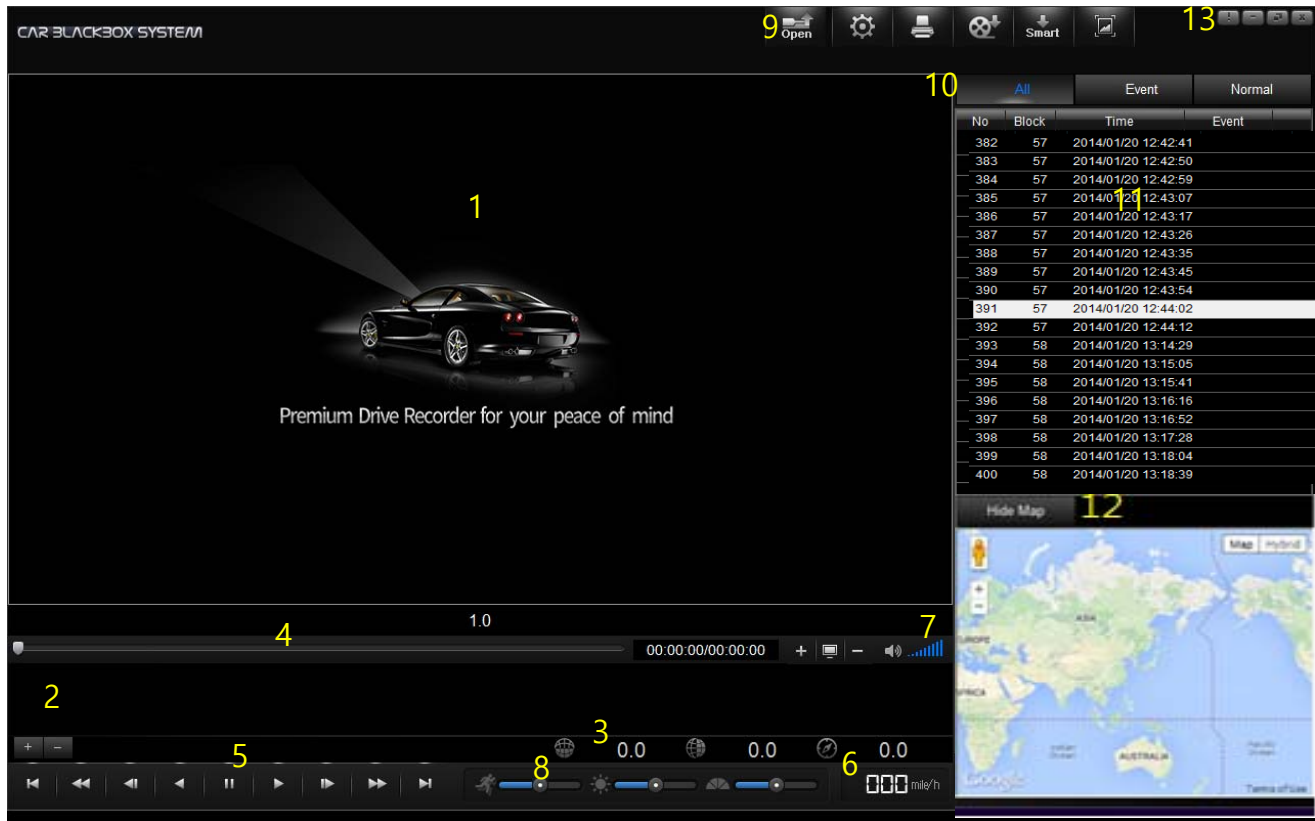
- 2) 'Select Drive' window appears. Select drive, i.e. BLACKBOX(H:), and then click the [ok] button.

PC Viewer

: Install the PC Viewer program in your PC from the provided micro SD memory card. The PC Viewer may need to be updated along with continuous product development and maintenance.

2. Operations and Functions of Viewer (Cont.)

[Key Functions of Viewer]



1) **Playback Display Screen** : It shows the playback of your recorded video data from the micro SD memory card.

- ① Enlarge Screen: Double clicking the mouse (left) enlarges the display screen. Double clicking again returns the display screen back to its original size.
- ② Zooming: Scrolling your mouse wheel upward zooms in on the video. Scrolling your mouse wheel downward zooms out on the video (up to 3x)
- ③ View Shift: Clicking the mouse and dragging the cursor will allow you to view the desired position on the display screen.

2) **G-Sensor Graph** : The G-sensor graph displays the information on 3 axis points.



Clicking on the 'Zoom' button on the top left corner of the box gives you a closer look at the graph.

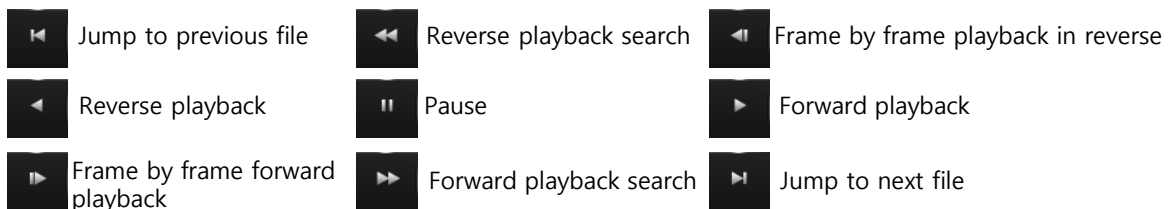
2. Operations and Functions of Viewer (Cont.)

- 3) **GPS Information** : Displays the longitude, latitude, azimuth, date and time of the current playback.



- 4) **Playback Position Slider / Playback Time** : It allows you to choose the position of playback data and you will be able to see the current / the total time of playback.

5) Control Button



- 6) **Speed** : It displays the car speed(km/h, mile/h) by the GPS signal analysis.

- 7) **Volume Control** : Recorded audio volume controller.

8) Control Slider

- 1. Playback Speed Slider : It enables to adjust the playback speed.
- 2. Brightness Control Slider : It enables to change the brightness of video to analyze the data precisely by sliding the bar left and right.
- 3. Saturation Control Slider

- 9) **Open file / Configuration / Print / AVI Backup / Smart Backup / Capture Image**



- 10) **Click on All / Event / Normal** to show the lists of each recorded data to play.



2. Operations and Functions of Viewer (Cont.)

11) Playback List : A list of recorded files in the playback list. Double click on the file to play.

12) Maps: The internet connection is required to display maps.

13) Software version information / Minimize window / Maximize window / Close button



i Information : this is an information message

Upgrading the Product

: Our product may need to be updated along with continuous product development and maintenance.

1. Insert the micro SD memory card in to the computer.
2. Download the updated firmware from our website on to the micro SD memory card.
3. Insert the microSD memory card in to the product and turn the power on. The LED lights will begin to flicker and the product will be automatically upgraded.

⚠ Warning ! This is a warning message

Please do not change the file name of the firmware. Otherwise, this may not allows you to upgrade the firmware successfully.

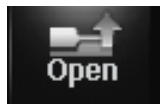
[Viewer requirement]

- CPU : Pentium4 (Recommended-Dual Core)
- Memory : RAM 2G (Recommended-RAM 4G)
- Graphic : Graphic card compatible with DIRECT-X 10
- Operating System : MS WINDOWS 7/8/10
- Monitor Display: Required monitor resolution 1280x1024

2. Operations and Functions of Viewer (Cont.)

[Playing the recorded data]

- 1) Click the 'OPEN' button. Load the data from the micro SD memory card which is connected to PC.



- 2) [Select drive] window appears. Select the micro SD memory card drive and then click the 'OK' button.
- 3) A list of playback appears and select a file that you want to watch by double click.

* All: Normal + Event files.

| All | | Event | Normal |
|-----|-------|---------------------|--------|
| No | Block | Time | Event |
| 21 | 0 | 2015/06/12 23:20:09 | |
| 22 | 0 | 2015/06/12 23:20:17 | |
| 23 | 0 | 2015/06/12 23:20:24 | |

* Event: Events such as impact, sudden acceleration, sudden break, sharp turn, overspeed, emergency (panic button) and pre-event recording files.

| All | | Event | Normal |
|-----|-------|---------------------|--------|
| No | Block | Time | Event |
| 0 | 0 | 2015/06/16 20:36:13 | P |
| 1 | 0 | 2015/06/16 20:36:21 | S I |
| 2 | 0 | 2015/06/16 20:36:28 | S I |
| 3 | 0 | 2015/06/16 20:36:36 | I |
| 4 | 0 | 2015/06/16 20:36:43 | A I |
| 5 | 0 | 2015/06/16 20:36:51 | T I |

2. Operations and Functions of Viewer (Cont.)

[Setup configurations]

- 1) Click the 'Configuration' icon.



- 2) 'Configuration' window appears. Select each functions you desire and then save the configuration settings. The updated settings are saved to the micro SD memory card. Insert the micro SD memory card into the micro SD memory card slot of the product and turn the power on. The product will be updated with the new settings.

* If there is no data on the micro SD memory card, you cannot configure the settings.

The screenshot shows the 'Configuration' window with two tabs: 'Blackbox Setting' and 'Viewer Setting'. The 'Viewer Setting' tab is active. The settings are organized into several sections:

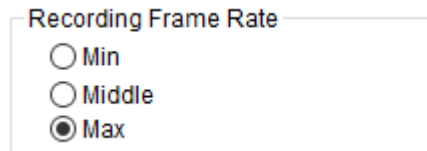
- Recording Frame Rate:** Radio buttons for Min, Middle, and Max (Max is selected).
- G-Sensor Sensitivity(Driving):** Three sliders for X, Y, and Z axes, ranging from 1 to 10.
- G-Sensor Sensitivity(Park):** Three sliders for X, Y, and Z axes, ranging from 1 to 10.
- Auto Parking 2:** A slider ranging from 0 to 30 minutes.
- Event Storage Percent 10:** A slider ranging from 0 to 30.
- Connected Camera:** Checkboxes for Front and Rear (both are checked).
- Sudden Stop:** A slider ranging from 1 to 10.
- Sudden Acceleration:** A slider ranging from 1 to 10.
- Sharp Turn:** A slider ranging from 1 to 10.
- Audio Recording:** Radio buttons for No and Yes (Yes is selected).
- Audio Guide Volume 4:** A slider ranging from 0 to 4.
- Time Zone:** A dropdown menu showing GMT +09:00.
- Set Time:** A date and time picker showing 2015-02-01 (SUN) and AM 10:58:29.
- Voltage Check:** A dropdown menu showing 12.0 v.
- Video Quality:** Radio buttons for Low, Middle, and High (High is selected).
- LED:** Radio buttons for Off, On, and Blink (Blink is selected).
- Access to Function Keys:** Radio buttons for Unblock and Block (Unblock is selected).
- Auto Shutdown Timer:** A dropdown menu showing Off.
- Event Select:** Checkboxes for Impact, Pre-Event, Sudden Stop, Sudden Acceleration, Sharp Turn, Emergency, Overspeed, and External Signal (all are checked).
- Information:** Fields for Company, Vehicle Type, License Plate, and Driver.
- Buttons:** 'Apply', 'Save', and 'Cancel' buttons.



Please be aware of that if the [index.dat] file gets deleted from the micro SD memory card, it does not allow to save the configuration settings. The [index.dat] file can be created again when the micro SD memory card is inserted into the product and the power is turned on, but the configuration settings will not be applied.

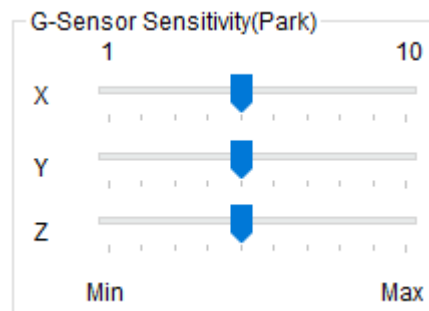
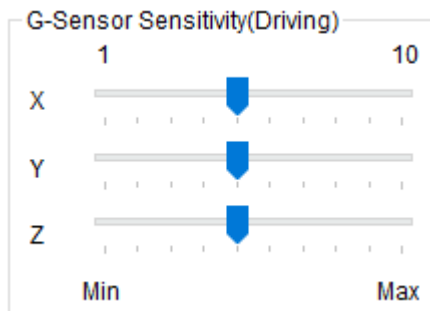
2. Operations and Functions of Viewer (Cont.)

- Recording Frame setting (default setting : maximum)



- Maximum recording mode (max. normal recording mode function)
: This is the normal recording mode which allows to record **30fps** (frames per second) each for the front and the secondary channels. If the memory card has reached its full capacity, it overwrite new recording files on top of existing files. In case of event recording data, it erases the data depends on the importance and time frame of the data.
- Mid-recording mode (mid.)
: [PH2L: Front & Secondary] Recorded at **15fps each**.
[PH1L: Front] Recorded at **15fps**.
- Minimum recording mode (min.) *Low video quality
: [PH2L: Front & Secondary] Recorded at **7.5fps each**.
[PH1L: Front] Recorded at **7.5fps**.

- G-Sensor Sensitivity setting [default setting : driving (X)5, (Y)5, (Z)5 / parking (X)5, (Y)5, (Z)5]



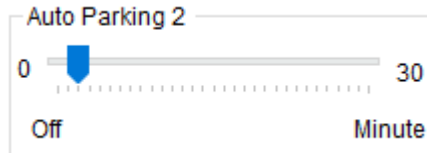
- X-axis / Y-axis / Z-axis.
- It adjusts the sensitivity of the shock sensor. Enable to select the detection level from 1 (min.) to 10 (max.), and it saves video recording as an 'event' depends on the selected sensitivity of the shock detection level.



Higher sensitivity level of the G-Sensor the more event recordings on minor impacts.

2. Operations and Functions of Viewer (Cont.)

- Auto Parking Mode (default setting : 2 minutes)

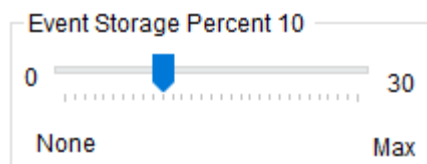


- Configuration setting : 0 (do not use) ~ 30mins (max.)
- If there is no impact on the vehicle because it is stopped or parked, this function allows to record 7.5 frames per second for the setting time. But it will change from the parking mode to the auto driving mode when the vehicle starts to move.



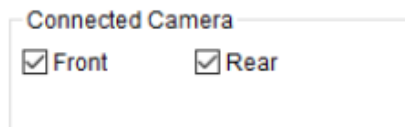
You must set auto parking mode to protect your car battery from discharge. Please refer to Voltage Check menu.

- Event Storage Percent (default setting : 10%)



- Configuration setting : 0 (do not use) ~ 30% (max.)
- This function enables to set the total event recording capacity (%) out of the whole capacity of the micro SD memory card. For instance, if you set '10' for the event recording ratio, then event recording data will not be deleted before it reaches 10 percent. However, if the total event recording data reaches 10 percent, then it starts to delete the most outdated event data in consecutive order.

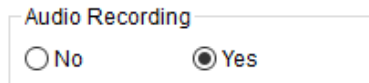
- Connected Camera (default setting : both front and rear for PH2L)



- It decides whether to record the secondary camera or not for PH2L

2. Operations and Functions of Viewer (Cont.)

- Audio Recording (default setting : to save)

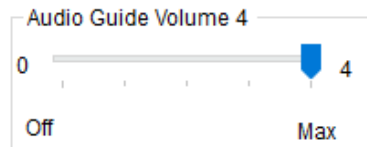


Audio Recording

☐ No ☒ Yes

- It decides whether to record audio data or not

- Audio Guide Volume (default setting : 4)



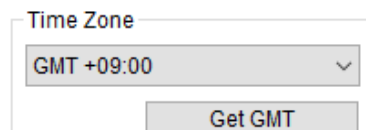
Audio Guide Volume 4

0 4

Off Max

- Adjust the volume of audio announcement or operation status melody.
- Select the setting from 0 (off) to 4. (max.)

Time Zone : regional time setting (default setting : +9 *Seoul)



Time Zone

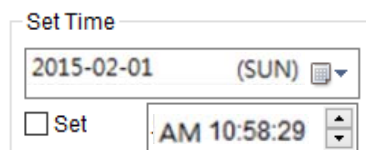
GMT +09:00

Get GMT

* GMT(Greenwich Mean Time)

- Adjust to your local time, time on your computer, by pressing the [Get GMT] button.
- It sets the time automatically through the GPS reception.

Time Settings



Set Time

2015-02-01 (SUN)

☐ Set AM 10:58:29

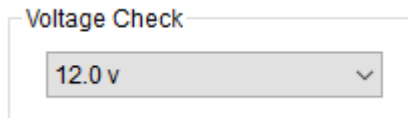
- You can set the date and time on the product.
- When you change the time, please ensure that '☐ set' is checked in order to activate the new time set.



In regards to time settings, please be aware of that you may need to set the clock forward a bit ahead of the current time, in order to adjust the time duration which will be taken to insert the micro SD memory card into the product and reboot the system.

2. Operations and Functions of Viewer (Cont.)

- Voltage Check (default setting : 12.0v)



Voltage Check

12.0 v

Off
11.6 v
11.8 v
12.0 v
12.2 v
12.4 v
23.8 v
24.0 v
24.2 v
24.4 v

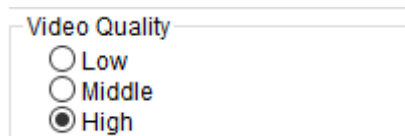
Voltage Check for both driving and parking mode.

- A function for avoiding battery discharge and battery protection.
- Off: it operates without battery protection mode (NOT Recommended).
i.e. 12.0V : it stops operating when the voltage drops under 12.0V and restarts when the voltage goes over 12.0V.
- The battery protection voltage range is from 11.6V to 24.4V.



Voltage check function may not work properly depends on the conditions of the motor vehicle and the weather (temperature, humidity). For the above reason, you may want to use an additional battery protection equipment.

- Video Quality (default setting : High)



Video Quality

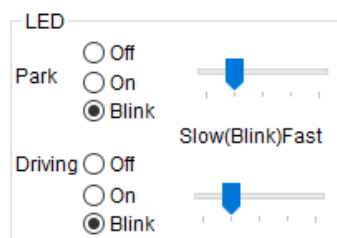
☐ Low

☐ Middle

☒ High

- Adjust video quality of recording data. The main purpose is to extend the total recording hours of the memory card. For instance, if you set video quality as "Low", it will take less memory capacity.

- LED indicator



LED

Park ☐ Off ☐ On ☒ Blink

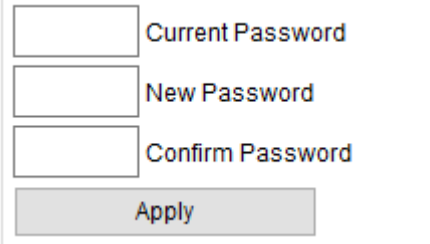
Driving ☐ Off ☐ On ☒ Blink

Slow(Blink)Fast

- Set the LED indicator for both park and driving mode.

2. Operations and Functions of Viewer (Cont.)

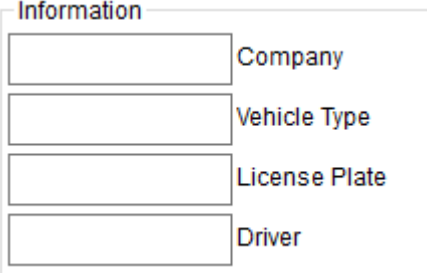
- Password



A form for password configuration with three input fields labeled 'Current Password', 'New Password', and 'Confirm Password'. Below the fields is a grey 'Apply' button.

- Password protection for playback and configurations.

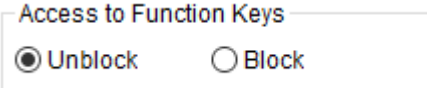
- Information



A form titled 'Information' with four input fields labeled 'Company', 'Vehicle Type', 'License Plate', and 'Driver'.

- You can insert information such as company name, vehicle type, license plate and driver's name or ID to be displayed on the screen or in backup screen shot (stamped).


- Access to function keys (default setting: Unblock)



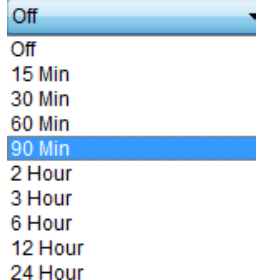
A form titled 'Access to Function Keys' with two radio buttons: 'Unblock' (selected) and 'Block'.

- If you select 'Block' option then by pressing "panic" button will not create an event.

- Auto shutdown timer (default setting: Off)



A form titled 'Auto Shutdown Timer' with a dropdown menu showing 'Off'.



A dropdown menu for the 'Auto Shutdown Timer' showing the following options: Off, 15 Min, 30 Min, 60 Min, 90 Min (highlighted), 2 Hour, 3 Hour, 6 Hour, 12 Hour, 24 Hour.

- Select a time period if you wish to use 'auto shutdown timer' function. This allows you to shutdown the product after a certain period of time.

2. Operations and Functions of Viewer (Cont.)

• Event Select

Event Select

- ☒ [I] Impact
- ☒ [P] Pre-Event
- ☒ [S] Sudden Stop
- ☒ [A] Sudden Acceleration
- ☒ [T] Sharp Turn
- ☒ [E] Emergency
- ☒ [O] Overspeed
- ☒ [X] External Signal

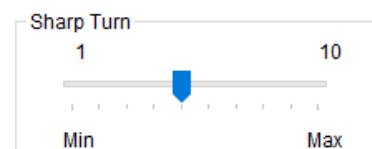
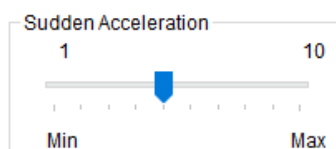
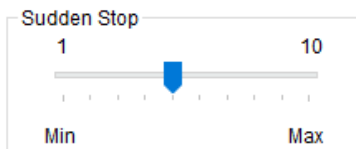
| All | | Event | Normal |
|-----|-------|---------------------|--------|
| No | Block | Time | Event |
| 8 | 4 | 2000/01/19 19:08:57 | E |
| 9 | 5 | 2000/01/19 19:13:54 | I |
| 37 | 11 | 2015/01/15 09:59:07 | I |
| 38 | 12 | 2015/01/15 10:01:50 | TA |
| 39 | 12 | 2015/01/15 10:09:36 | O |
| 57 | 20 | 2015/01/16 15:31:03 | S |
| 58 | 20 | 2015/01/16 15:31:41 | T |
| 59 | 21 | 2015/01/19 08:22:27 | A |

- To select which types of occurrences or driving behaviors are recorded as an event accordingly in the playback list. It shows the [letter] of an event for that playback period in the playback list.

Adjustable sensitivity settings for different Event categories.

[I] Impact – please refer to page x for sensitivity settings (both driving and parking mode).

[S] Sudden Stop, [A] Sudden Acceleration, [T] Sharp Turn



[P] Pre-Event

[E] Emergency (Panic button press)

[O] Overspeed - Adjustable overspeed settings

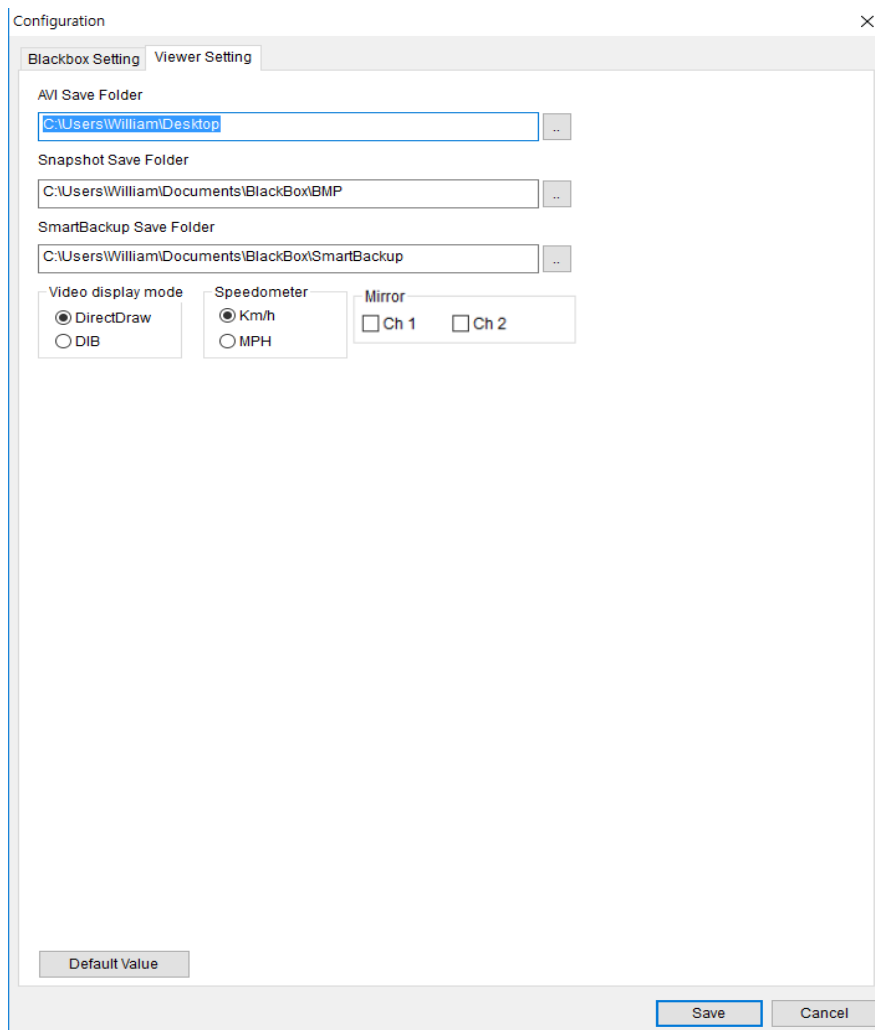
(You can select either KMH or MPH from Viewer configuration page)



[X] External Signal (External panic button trigger)

2. Operations and Functions of Viewer (Cont.)

Click on 'Viewer Setting' under 'Configuration'. Select each functions you desire and then save the configuration settings. The updated settings are saved to the micro SD memory card. Insert the micro SD memory card into the micro SD memory card slot of the product and turn the power on. The product will be updated with the new settings.



Please be aware of that if the [index.dat] file gets deleted from the micro SD memory card, it does not allow to save the configuration settings. The [index.dat] file can be created again when the micro SD memory card is inserted into the product and the power is turned on, but the configuration settings will not be applied.

2. Operations and Functions of Viewer (Cont.)

- Select the folder for AVI, Snapshot and Smart Backup to be saved.

AVI Save Folder
 

Snapshot Save Folder
 

SmartBackup Save Folder
 

- Video display mode (default setting : Direct Draw)

Video display mode

☒ DirectDraw

☐ DIB

- DirectDraw – select this option if you are using a relatively high-quality graphic card.
- DIB – select this option if you are using a relatively low-quality graphic card.

- Speedometer (default setting : Km/h)

Speedometer

☒ Km/h

☐ MPH

- It show the speed of your vehicle in kilometers per hour (Km/h) or miles per hour (MPH). Adjust this option in accordance with your local road code.

- Mirror

Mirror

☐ Ch 1 ☐ Ch 2

- Mirror function allows you to switch the viewing mode between actual image and mirror image. Choose the camera that you would like to view it as a mirror image.

2. Operations and Functions of Viewer (Cont.)

[Printing the video image on display]

1) Click the 'PRINT' icon to open print option. Click the [OK] button. This allows to print the video image on display while watching the playback.

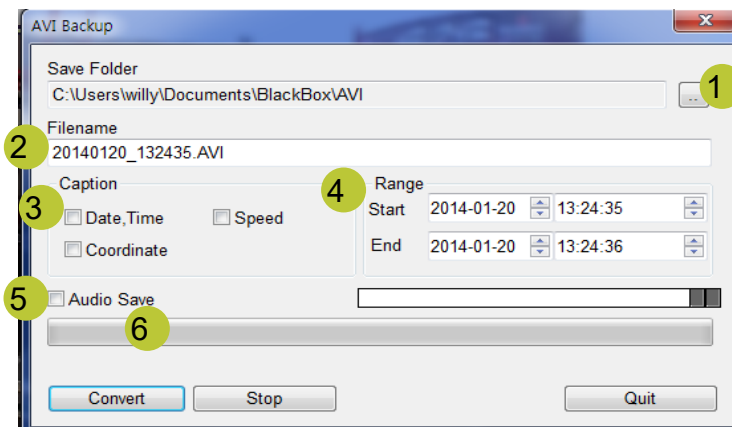


[AVI Backup]

1) This allows to export and convert a specific time period of video recordings into a PC media player file such as Media Player and KMP. Click the 'AVI' button to open AVI Backup window. Select the following options: Save Folder/ Filename/ Caption (Date, Time, Speed, Coordinate)/ Audio Save and Ch. etc and click the 'Convert' button. Then it will be converted to AVI file and saved to your designated location.



2) Filename will be save as (user's input)_CHn.AVI [n:Ch.1(front)/ 2(rear)]

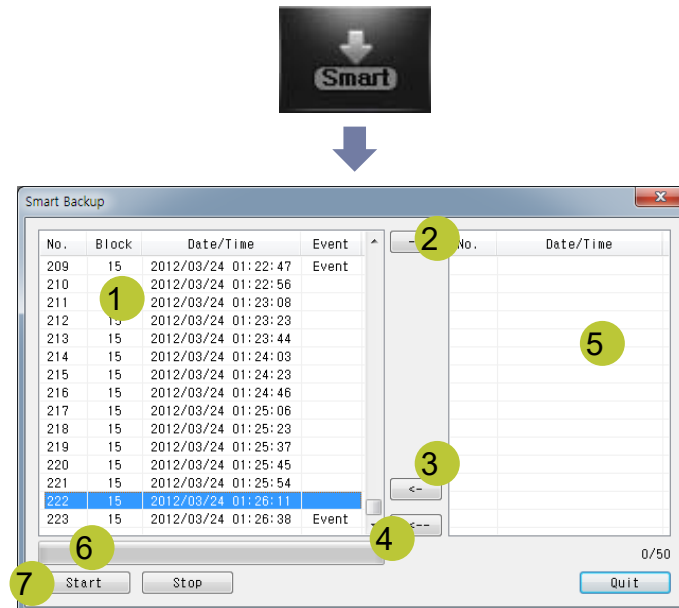


- 1 : Browse (folder) location
- 2 : Enter the filename
- 3 : Select save option: Date,Time/Speed/Coordinate
- 4 : AVI backup time range option
- 5 : Audio save option
- 6 : Status bar of saving

2. Operations and Functions of Viewer (Cont.)

[Smart backup]

- 1) This function enables to select desired time periods of recording data and watch them via Viewer and other PC media players.

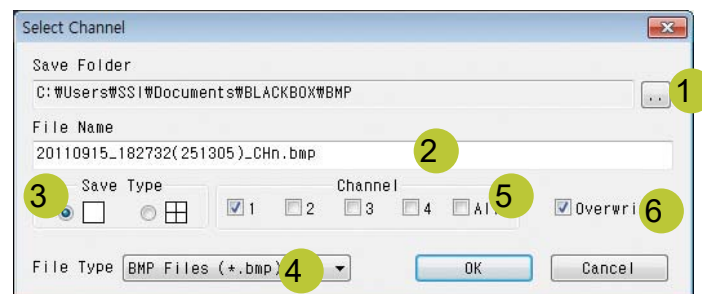


- 1 : Playback list
- 2 : Select button
- 3 : Delete button
- 4 : Delete all button
- 5 : A selected bloc from the playback list.
- 6 : Saving status
- 7 : Start button (select the folder location + insert filename)

Operations and Functions of Viewer (Cont.)

[Saving the video image on display as jpg, png, bmp files]

- 1) Click the 'Capture' icon to open [Select Channel] window. Select the 'Save Folder' and file type such as JPG, PNG, BMP and then click on the 'OK' button.



- 1 : Browse (folder) location
- 2 : Enter the filename
- 3 : Choose desired channel display type
- 4 : Select file type (JPG, PNG, BMP)
- 5 : Select the channel
- 6 : Option for overwriting on the same filename

- 2) You can select your desired channel. Filename will be saved as (user's input)_CHn.bmp (file type). (n: Ch. number 1[front]/2[rear]/3[left]/4[right])



- 3) You cannot select the channel. Filename will be saved as (user's input)_QUAD.bmp (file type)



3. Warranty Policy

Frequently Asked Questions

| Trouble / Symptom | Troubleshooting |
|--|---|
| ✓ Product does not start. | <ol style="list-style-type: none"> 1. Check that the power of product is properly connected. 2. Use only the cable that is supplied or recommended by your local dealer or supplier. |
| ✓ Video is not as clear as it should be. | <ol style="list-style-type: none"> 1. Make sure your camera lens is clean and dust free. 2. Make sure your vehicle's windshield is clean. 3. Make sure that the desired resolution is selected. |
| ✓ Footage is not being saved on the micro SD memory card. ✓ The device does not recognize the micro SD memory card. | <ol style="list-style-type: none"> 1. Eject your micro SD memory card and insert it into the device again. 2. Make sure your micro SD memory card is not locked. 3. Format your micro SD memory card and try it again. 4. Replace the micro SD memory card with a new one. |
| ✓ Cannot receive GPS signal ✓ Loss of GPS reception | <ol style="list-style-type: none"> 1. Check that the GPS cable is connected properly. 2. Make sure your windshield is not tinted. 3. If you have not used the product for more than 3 days or are using it for the first time, it may take longer, as much as up to 15 minutes, to receive the GPS signal. 4. The GPS may lose reception depending on the weather conditions and surroundings. Stop at a location where your GPS can regain its reception, before proceeding. |

3. Warranty Policy

Warranty Policy

Planet Halo values your business and always attempts to provide you the very best of service.

General warranty is provided by Planet Halo unless your Planet Halo product ("Product") was purchased from an authorized distributor or authorized reseller. Distributors may sell Products to resellers who then sell Products to end users. Please see below for warranty information or obtaining service. No warranty service is provided unless the Product is returned to an authorized supplier or return center.

Note: The term of your general warranty period shall commence on the purchase date appearing on your purchase receipt from an authorized distributor or authorized reseller and extends only for the period of time set forth in the Product documentation.

Proof of purchase shall be required to be eligible for this warranty and to establish the commencement date of this warranty. To verify the warranty of your Product, Please refer to your User Manual for a statement of your limited warranty. A User Manual can be obtained from your micro SD memory card which comes with Product or authorized distributor or reseller or the Planet Halo web site.

No Product may be returned directly to Planet Halo without first contacting Planet Halo for a **R e t u r n M a t e r i a l** Authorization ("RMA") number. If it is determined that the Product may be defective, you will be given an RMA number and instructions for Product return. An unauthorized return, i.e. one for which an RMA number has not been issued, will be returned to you at your expense. Authorized returns are to be shipped prepaid and insured to the address on the RMA in an approved shipping container. Your original box and packaging materials should be kept for storing or shipping your Product. If upon inspection of your returned Product Planet Halo suspects fraud or deems such Product to be counterfeit, Planet Halo may, in its sole discretion, confiscate such Product or take such other actions as it deems necessary. To request an RMA, please contact your supplier.

Note: RMA shipments may be subject to delays if we encounter discrepancies such as entering incorrect information, wrong product shipped to Planet Halo or incorrect quantity.

YOUR EXCLUSIVE REMEDY FOR ANY DEFECTIVE PRODUCT IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT.

Planet Halo may elect which remedy or combination of remedies to provide in its sole discretion. Planet Halo shall have a reasonable time after determining that a defective Product **e x i s t s** to repair or replace a defective Product. MIR's replacement Product under its limited warranty will be manufactured from new and serviceable used parts. MIR's warranty applies to repaired or replaced Products for the balance of the applicable period of the original warranty or ninety days from the date of shipment of a repaired or replaced Product, whichever is longer.

3. Warranty Policy

Warranty Policy (Cont.)

MIR's ENTIRE LIABILITY FOR ANY DEFECTIVE PRODUCT SHALL IN NO EVENT EXCEED THE PURCHASE PRICE FOR THE DEFECTIVE PRODUCT. THIS LIMITATION APPLIES EVEN IF Planet Halo CANNOT OR DOES NOT REPAIR OR REPLACE ANY DEFECTIVE PRODUCT AND YOUR EXCLUSIVE REMEDY FAILS OF ITS ESSENTIAL PURPOSE.

NOTWITHSTANDING ANYTHING ELSE IN THIS POLICY OR OTHERWISE, Planet Halo WILL NOT BE LIABLE WITH RESPECT TO THE PRODUCTS UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL OR EQUITABLE THEORY (I) FOR ANY AMOUNT IN EXCESS OF THE PURCHASE PRICE FOR THE DEFECTIVE PRODUCT OR (II) FOR ANY GENERAL, CONSEQUENTIAL, PUNITIVE, INCIDENTAL OR SPECIAL DAMAGES. THESE INCLUDE LOSS OF RECORDED DATA, INTERRUPTION OF USE, THE COST OF RECOVERY OF LOST DATA, LOST PROFITS AND THE COST OF THE INSTALLATION OR REMOVAL OF ANY PRODUCTS, THE INSTALLATION OF REPLACEMENT PRODUCTS, AND ANY INSPECTION, TESTING, OR REDESIGN CAUSED BY ANY DEFECT OR BY THE REPAIR OR REPLACEMENT OF PRODUCTS ARISING FROM A DEFECT IN ANY PRODUCT. THIS SECTION DOES NOT LIMIT LIABILITY FOR BODILY INJURY OF A PERSON.

Your Use of the Product

Planet Halo will have no liability for any Product returned if Planet Halo determines that: The product was stolen from Planet Halo.

The asserted defect:

- is not present,
- is attributable to misuse, improper installation, alteration (including removing or obliterating labels and opening or removing external covers (unless authorized to do so by Planet Halo or an authorized Service Center)), accident or mishandling while in the possession of someone other than Planet Halo.

The Product was not sold to you as new.

The product was not used in accordance with Planet Halo specifications and instructions.

The product was not used for its intended function (for example, in-vehicle recording environment).

Additional Limitations on Warranty

MIR's warranty does not cover Products which have been received improperly packaged, altered, or physically damaged. Products will be inspected upon receipt. Please see additional examples of the warranty limitations below:

Packaging

- Improperly packaged
- Non-qualified shipping container

Alterations

- Counterfeit label(s)
- Customer added jumper wires
- Labels have been switched
- Labels exhibit tampering
- Missing barcode or top cover label
- Serial number on product does not match barcode on end

3. Warranty Policy

Warranty Policy (Cont.)

Damage

- Broken pins on connector
- Connector(s) are damaged, cracked, missing or broken
- Cracked components on the circuit board
- Dented base casting
- Torn or punctured tape seal
- Dented top cover
- Deep scratch
- Loose, damaged, or missing screws
- Missing PCBA (Circuit Board)
- Obscured breather filter holes
- Stripped mounting hole threads

Warranty Period

- Main Camera Unit: 12 months (from purchase)
- Add-on Camera: 6 months (from purchase)
- Micro SD memory card and other accessories: N/A

Product Guarantee Services

- Product parts of a discontinued product will be kept for 12 months only
- Make sure you record on the warranty form upon your purchase of the product and please keep it for the after services
- Repairing services may or may not be free of charge depends on types of product defects. Repairing costs may arise upon examination of the product

| Upon Different Occasions | After Services | |
|--|---------------------------------|---------------------------------|
| | Within the Warranty Period | After the Warranty Period |
| Product defect or malfunction occurs after using it | Replacement or Repairing (Free) | Repairing (Cost Charged) |
| Product defect or malfunction occurs during shipment (upon purchase) | Replacement or Repairing (Free) | N/A |
| Product defect or malfunction occurred during shipment (upon after services) | Replacement or Repairing (Free) | Replacement or Repairing (Free) |
| Repeated defect or malfunction occurs more than 5 times | Replacement | Repairing (Cost Charged) |
| Product defect or malfunction occurs due to natural disasters | Repairing (Cost Charged) | Repairing (Cost Charged) |