Besides the common functions, four main characteristics have been added for the Tachograph as follows:

(1) It has internal dual lens, which makes it able to catch and shoot both front and back images.

(2) Touch-sensitive display (Button).

(3) GPS module has been added to it, which can record the complete driving/travel track. By using the special attached software, driving/travel track can be displayed on the map by connecting Google map through Internet while you can watch the video on the computer, which will help you to track the driving/travel track of the vehicle.

(4) It is equipped with internal Gravity Sensor (Gravity Sensor is short for G-Sensor). Gravity Sensor can record gravity sensing information and make judgments according to up and down, left and right, and front and back deviation of the vehicle, in case that the deviation approaches a certain value, it will be considered that abnormality occurred to the vehicle and it will automatically give lock protection to the current video.

At the same time of viewing/watching the video on the computer by using the special attached software, you also can get the changes of gravity sensing data, which will help you to track the gravity status during the travelling course.

In order to bring the maximum function of the Tachograph into full play, please read this handbook before using (please understand that we will not give notice separately in case of any change to the design or specification of the Tachograph or its accessories).
Product Characteristics
- Ultra-small size, dual lens with high definition, it is a perfect combination that the back lens are able to rotate for 270 degrees and super-wide high resolution lens, which facilitate it, with more convenience, to shoot videos from multi-angles in various occasions to get the videos in high resolution.
- High definition of 3.0 inch LCD screen with touch function, icon touching operation, which is easier to be sensed and used.
- 1/4 inch internal photosensitive elements with low noise and high picture quality, which can capture ultra-clear pictures in relatively dark occasions.
- Internal lithium polymer battery, which enables videos being shot while the battery is being charged.
- Internal microphone / speaker
- Support Micro TF card of high capacity
- It will be turned on and video shooting function will be started automatically as the vehicle starts.
- It has delay starting function, which can prevent it from damage caused by transient pulse current occurred at the moment of vehicle starting.
- GPS scanning and positioning, travelling track restoring, everything is under control.
- Infrared photosensitive
- Gravity Sensor for gravity sensing
- Video encryption protects user s' privacy by setting password.

Product Structure
1. Infrared lamp
2. Back lens
3. OK
4. LOCKING shortcut
5. Display screen
6. LED lamp
7. TURN ON/OFF button
8. Microphone
9. TF Card Slot
10. Car charger port
11. RESET button
12. Speaker hole
13. GPS port
14. Front lens
15. Triangle nut hole
- Begin to use the Tachograph
- Charge the battery

There is a way for you to charge the batteries:
1. The green charging indicator will be lightened during the course of charging, and the indicator will go out automatically after the charging finished.

The time for the entire charging is approximately four hours.

Preparation for the memory card (TF)

Requirements on TF card: The Tachograph requires that the capacity of TF card should be and be more than 4GB, and its speed should be and be more than CLASS6.

Since the Tachograph uses an independent special document system, that “it is necessary to be formatted to establish special document system” will be prompted as you use memory card in it for the first time. Formatting will delete all the data on the memory card forever which can not be restored, including the video under protection. Therefore, please copy and make backup of and for the important data before formatting the memory card.

Note: An AP software for customer using will be generated in TF card after the formatting. Since it have GPS positioning and time service function, the time zone where it locates should be set, while the current time zone will be set automatically simply by turning on AP in the TF card on computer. The icon will be displayed on the screen and the time service can not be realized for GPS positioning if the aforesaid operation has not been carried out, however, it will not affect other functions.

Adjust the position of the lens

Its back lens can be rotated for 270 degree, so as to cooperate with the fixed position of the Tachograph to reach a better video shooting effect.

Turn on and off the Tachograph

1. Turn on and off it manually: Press and hold the POWER button for one time, then the red Turning On indicator will be lightened, and it will be started after the sound “Tick” sent out, then video can be shot. You can turn off it by pressing and holding the POWER button again

2. Turn it on or off while driving/travelling: Connect with the vehicle power first, then, while the vehicle is being started, it will be turned on automatically and begin to shoot videos after time delaying.

Note: Where the Tachograph uses internal power, in case of low power, videos will be saved and the Tachograph will be turned off automatically after the information of low power being indicated.

Reset of the Tachograph

In event of abnormality occurs arising from improper operation to it, it can be re-started and be restored to be normal by pressing RESET button.

Basic operations of the Tachograph
Switch operation modes
There are two kinds of operation modes: VIDEO and REPLAY modes. In preview mode, it can be switched to REPLAY modes by touching the icon on the lower right on the color screen.
In VIDEO mode, it may begin or stop to shoot videos by pressing VIDEO SHOOTING button.
Note: In SHOOTING mode, videos shooting and lock protection will be executed by pressing LOCKING shortcut directly.
In Replay mode, the video documents are ranked in time order, which can be viewed by pressing LEFTWARDS/RIGHTWARDS button, and the current video can be played by pressing OK button.

Set Menu
In PREVIEW mode, SYSTEM SET menu page may be entered by pressing the icon “MENU”, then the column background of “MENU SET” is blue. Touch the items needed to be set. After setting, confirm the set by touching the icon “✓” or pressing “VIDEO SHOOTING” button. It may return to sub-menu by touching the icon “←”. You can exit the menu by pressing the icon again.

Video shooting
Begin/Stop video shooting: Video shooting will begin automatically when it starts or the TF is inserted. The video shooting may be stopped during video shooting course by pressing VIDEO SHOOTING button, and may be re-began by pressing VIDEO SHOOTING button again.

Application of shortcuts during video shooting
Press the icon on the lower left corner to turn off /on voice recording function.
Press TURN ON/OFF button to switch between front and back lens display in full screen (which only will take effect when the DUAL-LENS mode has been chosen).
Locking button: Execute locking protection to the current video by pressing the locking button manually in emergency situation.

Prompt tone: Turn on/off
Language: English/Simplified Chinese/Traditional Chinese/Japanese/Korean/Russian/German
Protection sensitivity for automatic video shooting:
Low/General/High/Turn off automatic video protection function.
(This function is used to set G-Sensor and start sensitivity of automatic video shooting)
Frequency: 50HZ/60HZ.
Default set: choose ✓ (Default factory parameter setting will be restored by choosing this default set)
Save and stop shooting videos by pressing VIDEO SHOOTING button. In pre-view mode, touch the icon “[ ]” on the lower right corner of the color screen to enter REPLAY mode, and pressing the icon “ ” to exist REPLAY mode and begin to shoot videos again.

Video reading/access instruction and using instruction for AP software
It does not support direct reading/access through USB, it needs the equipment (such as card reader) which supports TF card to read/access the videos shot by it. When TF card is inserted into it for the first time and after the formatting having been finished, the special software tool will be generated in the memory card automatically, which must be used for the computer to access/visit its video documents.

Note:
(1) In order to make it convenient for using and prevent abnormality occurring to memory card which will result in damage to software tool, it is suggested to copy/make a backup of the tool into your computer for saving.
(2) The computer operation system must be these which level is higher than Windows 2000/XP/Vista/Windows 7 and MAC OS X 10.3.6.

Using instructions for AP software
When you open TF disk on PC, you can't see any other video document, but only a J PLAYER software , which is necessary to be used by the user to read/access to video and related applications.

Read and Play Video Files
Click document will appear, open CHOOSING menu (from the occurred documents).
Disk: Read all the contents in the designated TF card.
File: Import and play the designated documents which have been saved into PC.
Route: Import AP into all the video documents which are under the designated PC folders.
Password: If TF card is used and it has been encrypted, then it only can be read provided that the password has been input.
After choosing the above mentioned routes, click “Apply”, then it will return to AP to play.
The playing status can be controlled by clicking the Control ler icon : Slow Turning/Stop/Play (pause)/Quick Turning can be realized separately by clicking the key from the left to the right.
You can choose dual lens for playing videos by clicking the icon: Dual lens / Front lens / Back lens (It is only apply to dual lens video documents)
When the video is playing, the current frame/image can be saved as picture by clicking.

Filing of video documents
Two types of filing: one type is to file and save the entire video document, another type is to file and save a certain section of the video chose by you.
Save the entire video document: it is only necessary to tick in the box which is in front of the video and then click, as a result the entire video document will be saved in the designated place.
Video section saving: Its video will not be processed as sections for approximately every 3 minutes, the specified section can be saved, so as to decrease the size of the documents. The cursor will stop at the video document which needs to be saved, it is not unnecessary to tick in the box then click for saving. Then the below dialog box will appear. You just need to tick the section which needs to be saved and then click “Filing”, finally the document filing/saving will be finished.

Delete documents:
Choose the video documents that you do not want to save, and click, then the options “Confirm/Cancel” will appear. Then you can delete the video document you chose by choosing “Confirm”.

Documents restoring:
During video shooting course, damage may be occurred to the current document which is being shot arising from card problem or abrupt power failure etc, at that time, the video document can be restored by using

GPS positioning and application
Two conditions should be met in order to use this application, i.e.: when video shooting is carried out, the positioning have been carried out successfully by GPS and the current PC computer can be connected to network. After the video having been positioned by GPS successfully, a notice in respect of latitude, longitude and moving speed will appear on the upper side of AP:
then you can open or close the map by clicking

In this mode, you can switch between map and 3D map by choosing "MAP/SATELLITE" options on the upper right corner. You can shoot the real scene on the street by dragging the icon to the map (this function needs the supports from GOOGLE, please contact GOOGLE for the details of specific area and country). GOOGLE Earth KML application:
GPS Positioning data can be downloaded and saved as *.KML document by clicking

And then the entire travelling route can be restored by using Google Earth software(http://www.google.com/earth/index.html).

Using of tool box:

You can enter into TOOL BOX by clicking to realize a series of practical functions such as SD card formatting, software upload (upload the software into SD card), SD card speed testing, map selection and user password setting etc.

Password setting: In need of confidentiality protection, the user can encrypt a password to TF card. Then video in TF card only can be opened/unfolded by using the password.

Technical Specifications

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<td>Dual-camera/lens (High definition), back lens has infrared night shooting function</td>
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<td>System Requirements</td>
<td>Above/higher than Windows 2000/XP/Vista/Windows 7, MAC OS x 10.3.6</td>
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Note: The designing and specification changing rights of the product are reserved. Please understand that Any change will not be notified separately.

Accessories Table

1. Vehicle power, 2. Vehicle bracket, 3. GPS module, 4. Instructions