# VISION SYSTEM®
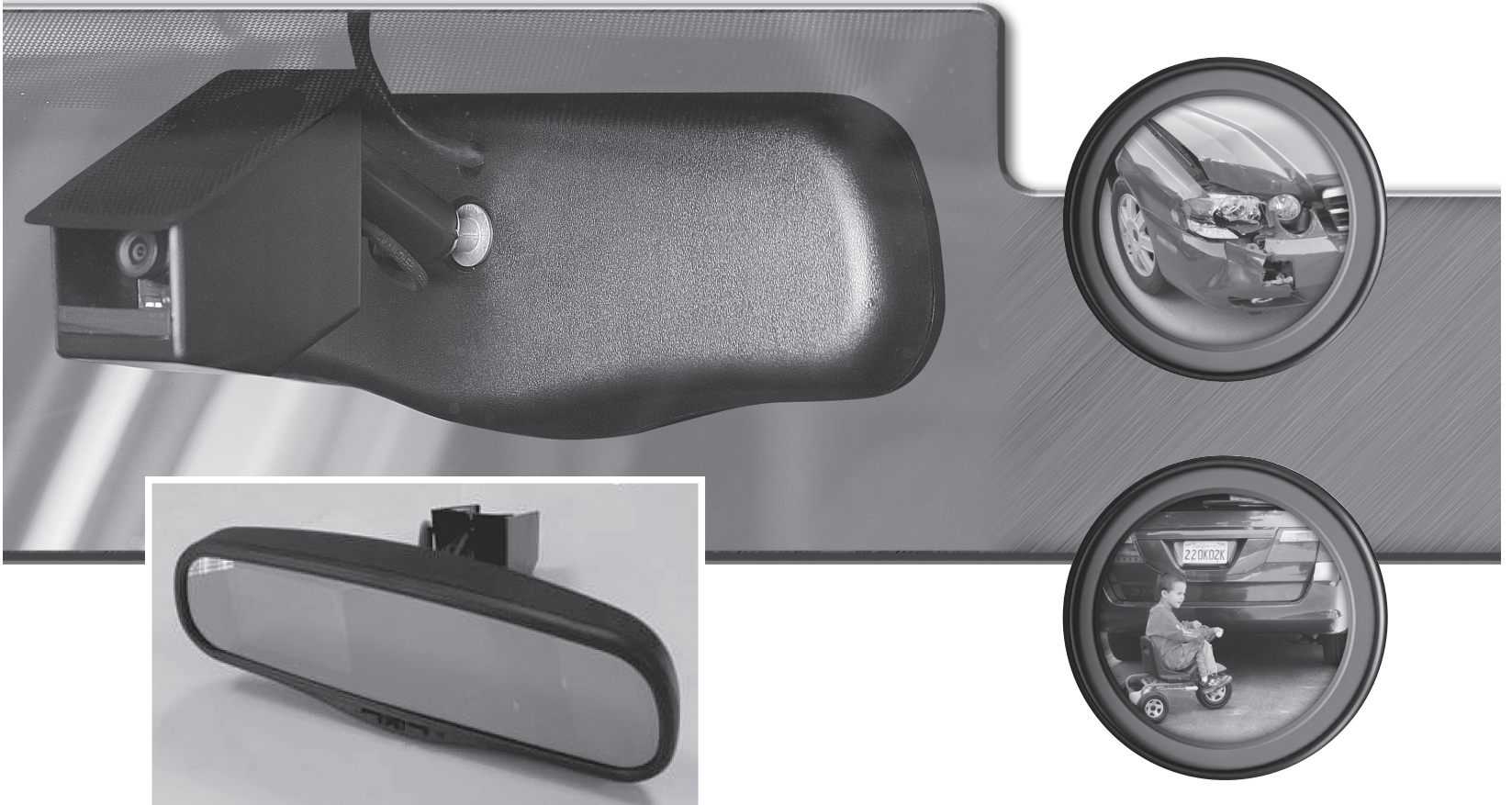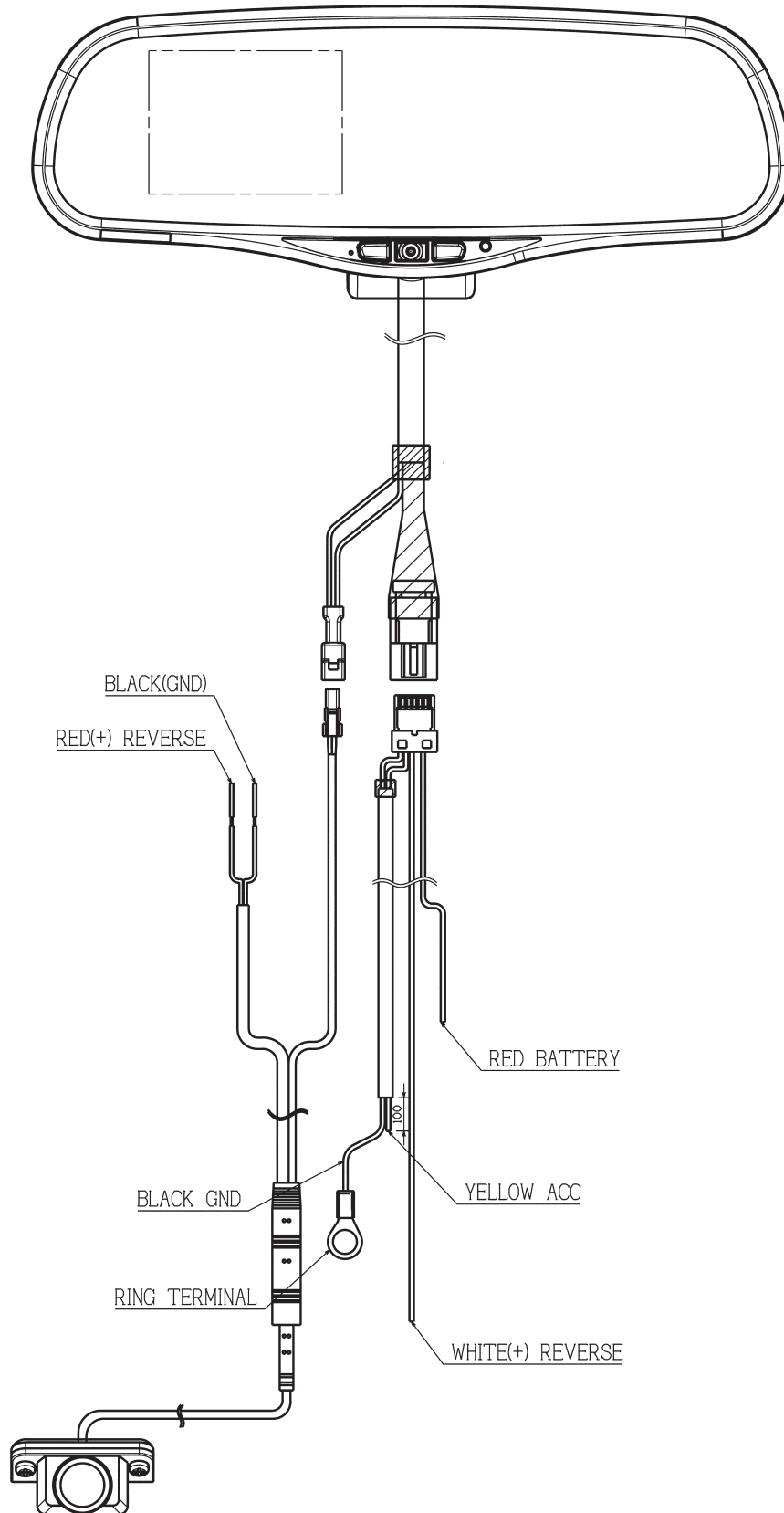
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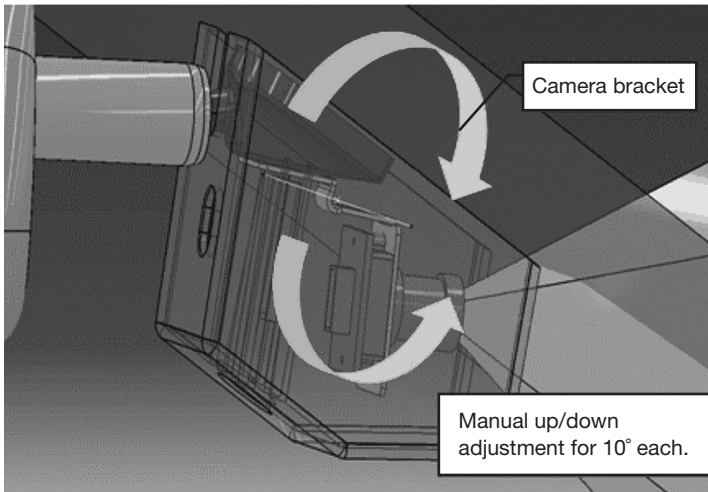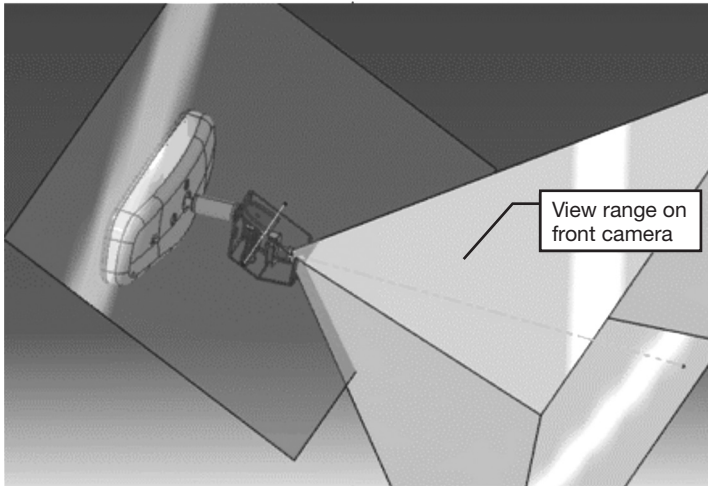
# GPS+CAM™

# User Manual



*Congratulations on purchasing the Vision System. This innovative product integrates the functions of a front view car video recorder, a rear view monitoring system, and GPS recording device into an interior mirror. The advanced technology built into this system effectively monitors your fleet vehicles, increases your employees' driving skills while helping you avoid traffic disputes. We recommend keeping this manual in a safe place for future reference.*

# *INSTALLATION DIAGRAM*

BLACK(GND)

RED(+) REVERSE

RED BATTERY

BLACK GND

YELLOW ACC

RING TERMINAL

WHITE(+) REVERSE

# FRONT CAMERA ANGLE ADJUSTMENT

View range on front camera

Camera bracket

Manual up/down adjustment for 10° each.

# Contents

# 1. FUNCTION DESCRIPTION

- **High Resolution:** The resolution of recording image is high HD 720P (1280x720, about 920K dots). 30 frames per second.

- **Uninterrupted Recording:** Uses dedicated file format for uninterrupted recording to ensure total video capture.

- **Loop Recording:** Recording will start to loop when memory reaches full capacity, saving your latest recorded files as it records over your oldest files. In effect, recording never stops even when memory is full.

- **Event Recording:** When "LOCK" function is turned on manually, the video before and after 20 seconds of the event will be stored on the system instead of loop recording (Event recording capacity is 1/3 of a memory card, or about 8 event recordings on an 8 gigabyte card).

- **Additional Recording:** When the engine is turned off, the system will keep recording for 30 seconds.

- **Video display:** View your recording right on the mirror monitor, by changing the setting to display mode.

- **Easy to use:** Simply set date and time during initial installation and the system starts to record automatically as soon as engine is turned on.

- **MJPEG format:** Clear images cannot be altered once recorded, offering convincing proof of traffic incident exactly as it occurred.

- **Interior mirror function:** Screen shuts down automatically after 20 seconds of display, while the LED stays on when the system is in recording mode.

- **File encryption:** Utilizing "ADRPlayer" software for file encryption, this prevents false data on time and date stamping.

- **Rear view monitor system:** The rear view display shows automatically when put into reverse gear while continuing to record the front image.

*CAUTION!*
The Back Up camera system only assists the driver with a better view while reversing. Driver is still required to look back and confirm that no objects are in the vehicle's path when backing up.

# 2. SPECIFICATION DESCRIPTION

| | | |
|---|---|---|
| **Sensor** | Front camera | 1/4" CMOS Sensor 1.2 million dots, 90 view angle |
| | Rear camera | 1/4" CMOS Sensor 0.3 million dots, 130 view angle |
| **Display** | 3.5" TFT LCD monitor displays speed, compass and clock | |
| **SDRAM** | 8M×16 BITS | |
| **Audio** | Supporting voice recording and play | |
| **RTC** | Built-in clock | |
| **SPI NOR Flash** | 16Mbit (2MB bytes) | |
| **Video Size** | 1280×720 30FPS HD or 720P<br>640×480 30FPS VGA | |
| **Language modes** | Six language modes available<br>English / Traditional Chinese / Simplified Chinese / Japanese /<br>Spanish / Portuguese | |
| **Memory card** | Includes 8GB Micro SD memory card which can record for about<br>1 hour in HD format, or 2 hours in VGA format. The system will<br>prompt to format the memory card when used initially.<br>Memory cards for this system should be 4~32GB Class 6 (or higher). | |
| **Others** | 1. When reading the memory card in your computer, it will show<br>   "ADRPlayer.exe" files only.  Do not format the memory card or files will<br>   be deleted.<br>2. Due to the dedicated file format, when displaying on your computer<br>   the files can only be read by "ADRPlayer" | |

# 3. USE AND CARE

This manual will not only help you to use your new system correctly and safely, but will also help to prevent any damage to the hardware or loss of data.

## Icon explanation

| ⚠ | Caution | | ❗ | Action Required |
|---|---------|---|---|-----------------|

❗ (1)  Whenever a memory card is inserted into the recording mirror, the system will automatically request you to format the card in order for the system to work properly. If you have recorded video on the card that you need to keep, please back it up before formatting.

❗ (2)  Abruptly removing the memory card may damage files; before removing the memory card, stop recording or wait 30 seconds for the recording to completely stop.

❗ (3)  High temperatures will damage the memory card. Please avoid exposing the memory card to high temperatures inside your car for long periods of time. We suggest you park in cool places or take out the memory card when system is not in use.

❗ (4)  We recommend not operating this system while driving, in the interest of safety.

⚠ (5)  Please do not push the "RESET" button, if possible, to avoid potential risk of file damage or system instability.

(6)  Please note the battery capacity when logging on. Green status means battery capacity is sufficient. Red status means battery voltage is too low or the wiring connecting the battery is faulty, causing the system to shut down.
Note: For safe driving and normal system operation, we suggest you contact your dealer if "red "battery status occurs.

⚠ (7)  If you lock a scene in a video and do not want that scene to be overridden and deleted, make sure not to click "unlock" at the bottom right corner of the screen.

⚠ (8)  The internal clock will lose about 2 to 3 minutes of accuracy every month; we suggest calibrating for accuracy every month.

⚠ (9)  When reading the memory card on your computer, only ADRPlayer.exe files can be read. You will need to download this software to read your card. Do not format your card or you will lose all data.

❗ (10) When using ADRPLayer software in Windows Vista and Windows 7, the user should be set as administrator. This applies to public access computers and not personal users.

❗ (11) If you get any interference, we suggest adjusting the GPS (antenna) installation location.

# 4. MIRROR PARTS

## Front of interior mirror
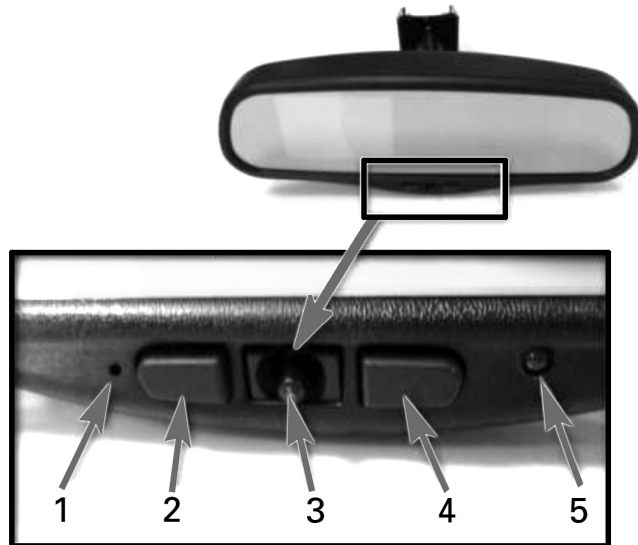


| No. | Description |
|-----|-------------|
| 1 | Voice receiver |
| 2 | MENU |
| 3 | Five-way button |
| 4 | REC |
| 5 | LED (Recording indicator) |

## Back of interior mirror
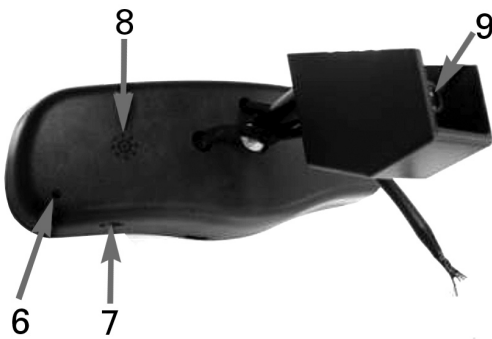


| No. | Description |
|-----|-------------|
| 6 | RESET |
| 7 | Memory Card Slot |
| 8 | Speaker |
| 9 | Camera |

# 5. REFORMATTING THE MEMORY CARD

5.1  Insert the memory card into the memory card slot on the mirror, and then reformat by selecting "yes" as shown below.
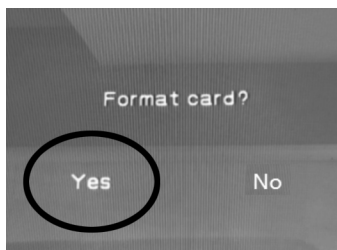


5.2    After formatting, open the memory card through computer and click "ADRPlayer2", you will find an image like below.

5.3   Click toolbox icon ⚙️ , the system will apply time zone to the memory card and display it on the bottom right corner of the window as shown below.



5.4   After completion of this process, close the window and remove the memory card from the computer and then insert it into the slot on the mirror (it takes approximately 20 seconds to get GPS satellite signal. Once the system is connected to GPS satellite, an icon **GPS** will appear as shown below. Time correction will be made automatically at this point.

Once this is on, the system is connected



Current Speed

Compass for driving direction
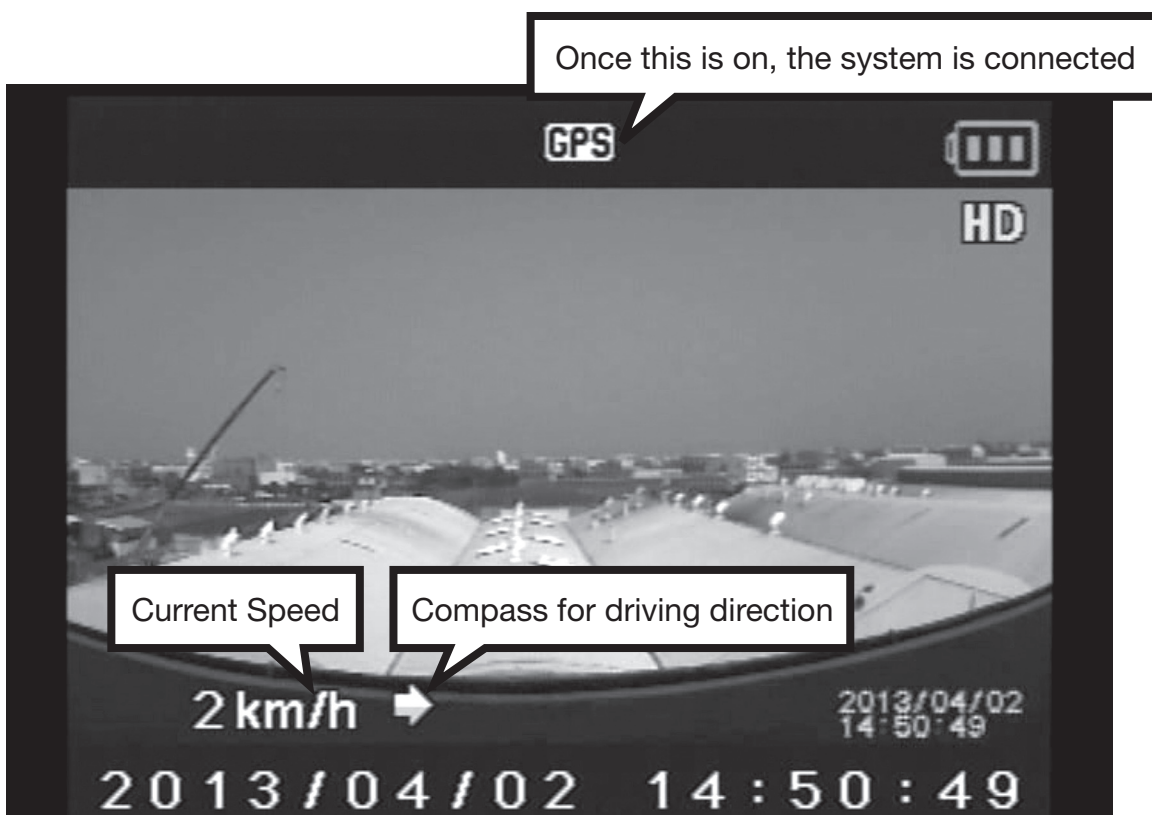
# 6. BUTTON FUNCTIONS

## Screen mode


Display screen


Recording screen


Menu screen

## Description of screen modes and button functions

| Screen mode / Button | | Display screen | Recording Screen | Menu Screen |
|---|---|---|---|---|
| **REC** | | Back to recording screen | × | × |
| **MENU** | | Go to menu screen | Stop recording and go to menu screen | Back to last screen mode |
| **5-way button** | **Up** | Last video | Voice not recording (mute) | Scroll Up |
| | **Dn** | Next Video | × | Scroll Down |
| | **Left** | Cancel event recording | Event recording | × |
| | **Right** | × | × | × |
| | **Push** | Play/Pause | Stop recording and go to display screen | Select (OK) |
| **REC** | | Back to recording screen | × | × |

× not applicable


Adjust operating position

## 1. Power on/off:

(1) ACC ON:  Power on
(2) ACC OFF:  Additional recording for 30 seconds, then powers off automatically

## 2. Manual on/off

(1) Manual off:  In recording mode, push "REC" button for 5 seconds; the system turns off.
(2) Manual on:  After turning off manually, push "REC" button for 5 seconds to turn the system back on.

## 3. Screen status

| Screen mode | Description |
| --- | --- |
| Recording screen | The screen will turn off after 20 seconds, while continuing to record if there is no further button operation. |
| Display screen | The screen stays on, with no recording in progress. |
| Menu screen | The screen will turn off after 20 seconds, while it records automatically. |
| No memory card | The screen shows "no memory card", and will turn off after 20 seconds. The system will start recording automatically when a memory card is inserted. |

• To check if you are in recording status, please see the LED indicator. The LED should be lit  when recording, off  when recording has stopped.

## 6.1 Menu

1. On recording/display screen, push the "MENU" button to get to the menu screen, then push the "MENU" button again to go back.
2. On menu screen, toggle up/down for project selection, then push to set.

### 6.1.1 Video size (Resolution)

Function:  VGA and HD format available, the selected format will appear on the upper right of the screen.

Operation:  select "video size" on the menu screen, push button to select resolution.



Video size selection screen



Time setting on recording screen

## 6.1.2 Time setup

Function:    set year/month/day and time on the system; shows on the bottom of screen.

Operation:   select "time setup" on the menu screen, toggle up/down to select, then push the button for next item. Selection will show in blue highlight. Sequence of setting is year>month>day>hour>minute>second



Time setup screen



Time setting on recording screen

## 6.1.3 TV out

Function:    NTSC and PAL format available (default: NTSC)
• Default is NTSC; switching to PAL may cause image on screen to vibrate temporarily.

Operation:   select "TV out" on menu screen, toggle up/down to select NTSC/PAL, push the button to set.



TV out selection screen

### 6.1.4 Beep (Voice prompts)

Function:    by selecting the beep on/off for operation.

Operation:  select "beep" on the menu screen, toggle up/down to select voice on/off, push the button to set.



Beep selection screen

### 6.1.5 Audio record

Function:    selects audio on/off during video recording. When audio recording is turned off,

this symbol  will appear in the upper right of the screen.

• In recording mode, toggle up/down to switch audio record on/off. To keep audio record off as default, pre-set in menu screen.

Operation: select "audio record" on menu screen, toggle up/down to select on/off, push the button to set.



Audio record selection screen



Symbol position on recording screen

### 6.1.6 Language

Function:   6 language modes available (English / Traditional Chinese / Simplified Chinese / Japanese / Espanol / Portuguese)

Operation:  select "language" on the menu screen, toggle up/down for language selection, push the button to set.

Language selection screen

### 6.1.7 Frequency

Function:   50HZ and 60HZ available (default: 60HZ)

• The system is factory set on NTSC--we strongly recommend the 60HZ setting with NTSC TV format.

Operation:  select "frequency" on menu screen, toggle up/down to select 50/60HZ, push the button to set.

Frequency selection screen

## 6.2 Record

1. There is no function for recording and menu mode.

2. On the display screen, push the button to get into the recording screen.

## 6.3 Reset

1. On start-up/recording/display/menu screen, pushing "reset" button will re-start the system.

2. During additional recording, pushing "reset" button will stop recording (the LED turns off)

• We recommend pushing "reset" only when the system is behaving abnormally or has crashed.

# 7. COMPUTER BROADCAST

Software for video playback will automatically install on the memory card during initial formatting. If the video needs to play on a computer, please install ADRPlayer and follow the steps necessary to display the video

*CAUTION!*

⚠ (1) Please turn off the system before you remove the memory card.

⚠ (2) When reading the memory card by computer, it is normal that the file name be dis played only as ADRPlayer.exe. This does not mean an empty memory card — do not format or you will lose all data on the card.

## 7.1 Icon Functions

### 7.1.1 File open icon

File open icon: Reads the video file on the driver or path of SD card

### 7.1.2 Print screen icon

Print screen icon: Saves the screen into single JPG format file

### 7.1.3 Video save icon

Save icon: Changes the video format to AVI on memory card.

### 7.1.4 Video delete icon

File delete icon: Deletes the file from SD memory card

### 7.1.5 Tool box setting icon

Tool box setting icon: For any system setting

### 7.1.6 Stop icon

Stop icon: Stops video display. Cancels video copy when exporting to AVI file.

### 7.1.7 Play/Pause icon

### 7.1.8 Slow motion icon

Slow motion icon: When playing the video, select this icon to slow the display speed.

### 7.1.9 Fast forward icon

Fast forward icon: Increases the video play speed 2~5 times, both when playing forward or reverse.

### 7.1.10 Volume adjustment

Volume adjustment: Adjust the volume on the video display.

### 7.1.11 Unlock icon

Unlock icon: Stop video display, and unlock the locked file.

### !! Attention !!

Once the video is unlocked, it cannot be locked again. Make sure you have backed up your data before unlocking.

### 7.1.12 Video recover

Recover video file icon: Recovers damaged files.

## 8. TROUBLESHOOTING

| Screen information | Possible reason | Solution |
| --- | --- | --- |
| **No Card** | No memory card detected, will not record | Insert the memory card |
| **Card Protected** | Memory card is protected, will not record | Unlock the memory card and insert the card again |
| **Card Error** | Error or memory card corrupted, will not record | Change to new memory card |
| **Card size too small** | Capacity of memory card is less than 4GB, card is damaged, will not record | Change to memory card with more than 4GB size, or change to new memory card |
| **Card not formatted** | Memory card has not been formatted yet, will not record | Format the memory card |
| **Card size changed** | Memory card too old, causing storage capacity damage | Backup file and format again |
| **Sensor FAIL** | Initialization error, will not record | Push "reset" button to re-start the system, contact dealer if the message stays on screen |
| **Protect slot full** | Capacity for event recording is full, will not event record | Unlock the video file on display screen or on computer. |
| **No Video** | Memory card is formatted | Change to recording mode and start recording. |

# 9. *MAINTENANCE*

⚠ (1) Please use a soft cloth to wipe loose dirt and dust; if heavily soiled clean with a damp cloth. Please do not use gasoline, thinner, any volatile oil or ethanol to clean the product; these solvents will harm the product surface.

⚠ (2) If dirt should get on the surface of the camera lens, it will affect image quality and performance. Please use a soft cloth to wipe the glass and keep it clean.