Dual Mode Slide-Rail 4CH Mobile DVR

User Manual (4860ML-V2)

Please read this user manual completely before operating this DVR system and keep it in a safe place for future reference.

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INTRODUCTION

*T*hank you for purchasing our unique **Mobile DVR** system. To ensure that you optimize the full capabilities of this product, please read this user's manual before proceeding. Be sure to keep this manual for future reference in case any problems or questions should arise. We hope you enjoy your new **Mobile DVR** system.

IMPORTANT SAFETY INFORMATION

*W*hen using your **Mobile DVR** equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury. Please read the followings before using your equipment:

1. Read and follow all instructions carefully.

2. Follow all warnings and instructions on the product.

3. Unplug the product from the power outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

4. Do not use this product near water.

5. Do not place this product on an unstable cart, stand or table.

6. Do not allow anything to rest on the power cords. Do not place this product in a location where the cords can be stepped on or where someone can trip over them.

7. Do not use this product near an area where there is a potential of gas leaks or near any explosive fumes.

8. Do not place this product near or over a radiator or any other heat source.

9. Use ONLY the power cord supplied with the system.

10. Do not overload the wall outlet or power cord where the power cord is installed. This can result in fire or electric shock.

11. This equipment is to be opened by ONLY a qualified serviceperson. There are no user serviceable parts inside. Opening this equipment may expose you to dangerous voltage and other risks. Incorrect re-assembly of this equipment may result in electric shock.

12. Avoid spilling liquid on this equipment and do not insert any objects through the ventilation slots.

UNPACKING YOUR SYSTEM

Your DVR system will include the followings:

1 x Mobile DVR	
4 x Screws for fixing DVR	
1 x A/V Input connector	
2 x Fuse (for DVR power cord & key on cord)	
1 x Tool for removing HDD tray and front cover	
1 x DC power cord and Key on cord	
1 x RCA A/V connector	
1 x RCA A/V connector	
1 x USB cable for data download(mobile rack)	
1 x IR remote control	

1 x User's Manual	

## Optional Accessories

|	
◆ External GPS unit (GPS-E1)	
◆ Sensor signal box (Driver action detecting box)	
◆ Alarm I/O box with 1M cable	
◆ Panic button with 3M cable	
◆ G sensor box	

CONTROL PANEL AND FUNCTION

Front Panel

1. Audio/Video output terminal
2. Key socket
3. IR remote control receiver
4. Mobile rack
5. Screw hole
6. Audio/Video output terminal

7. USB host download port
8. Record indicator
9. Power indicator
10. IR remote control receiver
11. USB slave download port
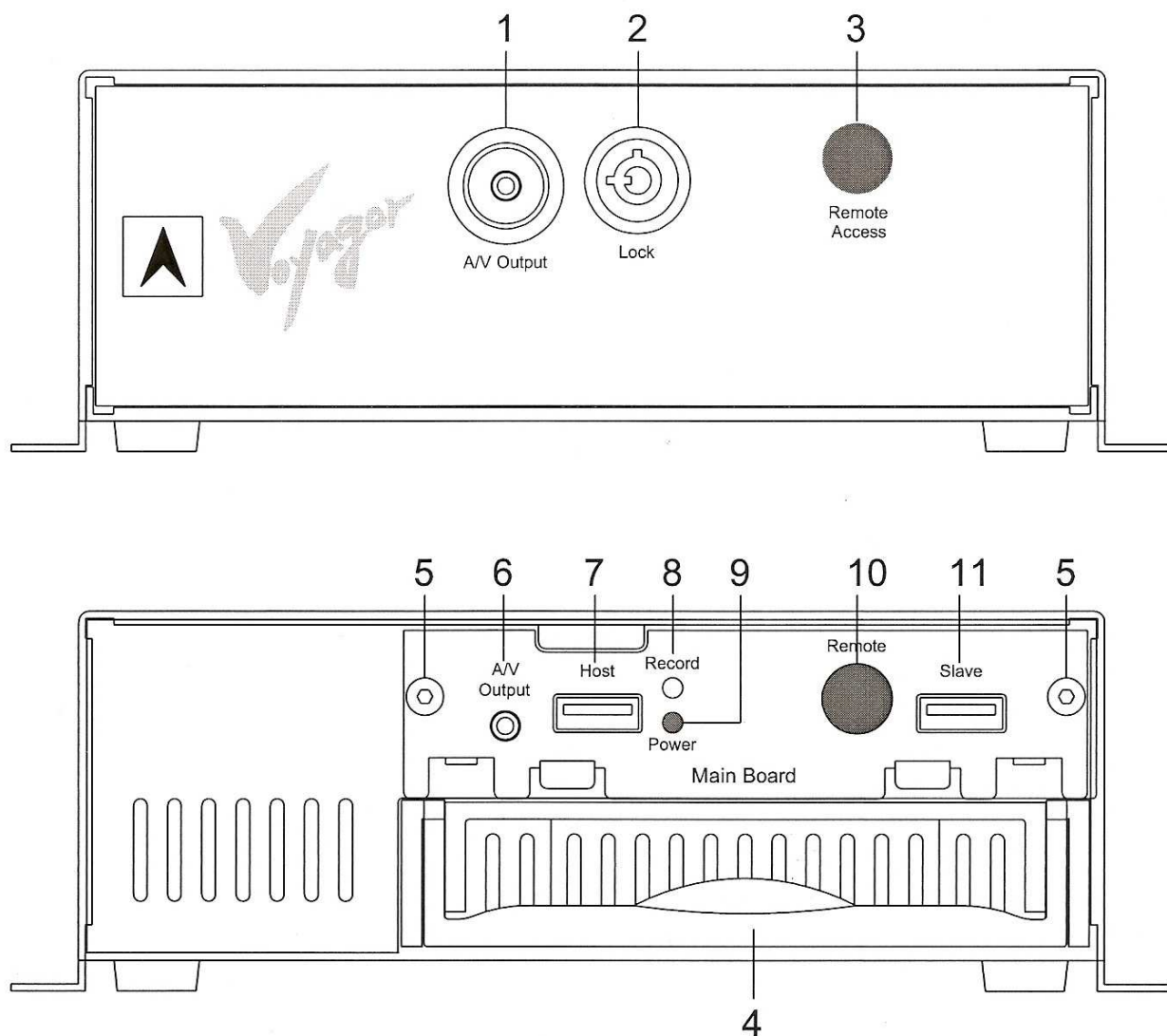
Rear Panel
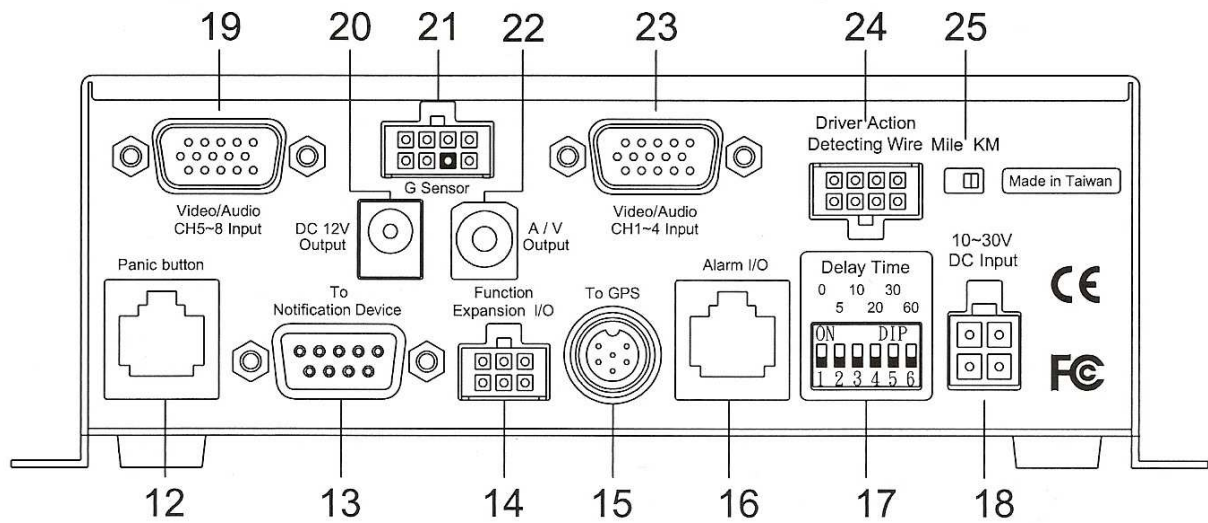
12. Panic button connecting socket
13. Notification Device connecting socket
14. Function expansion I/O socket
15. GPS Device socket
16. Alarm I/O box connecting socket
17. Delay time select switch
18. DC power cord connecting socket
19. Video/Audio(camera) 5~8CH input socket

20. Notification Device power connecting socket
21. G Sensor box connecting socket
22. Audio/Video output terminal
23. Video/Audio(camera) 1~4CH input socket
24. Driver action detecting wire connecting socket
25. Mile/KM select switch

IR Remote Control
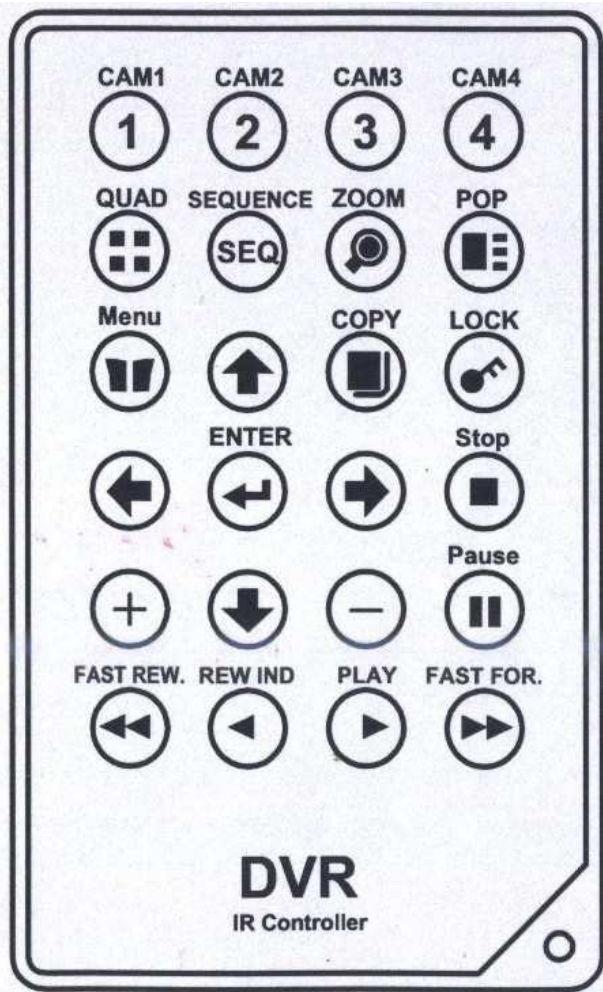
1. **①** Camera 1

2. **②** Camera 2

3. **③** Camera 3

4. **④** Camera 4

5. **⊞** Quad mode button

6. **(SEQ)** Sequence mode button

7. **🔍** Screen zoom button

8. **▣** POP button

9. **🎦** Menu button

10. **⬆** Move up key (PTZ up)

11. **▣** Copy button

12. **🗝** Lock button

13. **⬅** Move left button (PTZ left)

14. **↵** Enter button (PTZ auto pan/Stop)

15. **➡** Move right button (PTZ right)

16. **■** Stop button

17. **+** Value up button   (PTZ zoom in)

18. **⬇** Move down key (PTZ down)

19. **−** Value down button (PTZ zoom out)

20. **⏸** Pause button

21. **⏪** Fast rewind button

22. **◄** Rewind button

23. **►** Play button

24. **⏩** Fast forward button
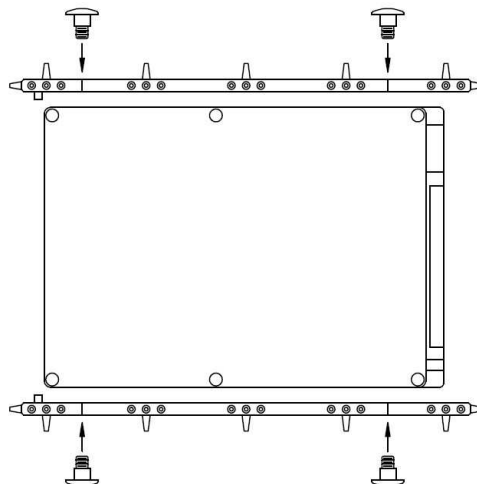
INSTALLATION

DVR Installation

1. Insert the attached key to open the front lock panel.
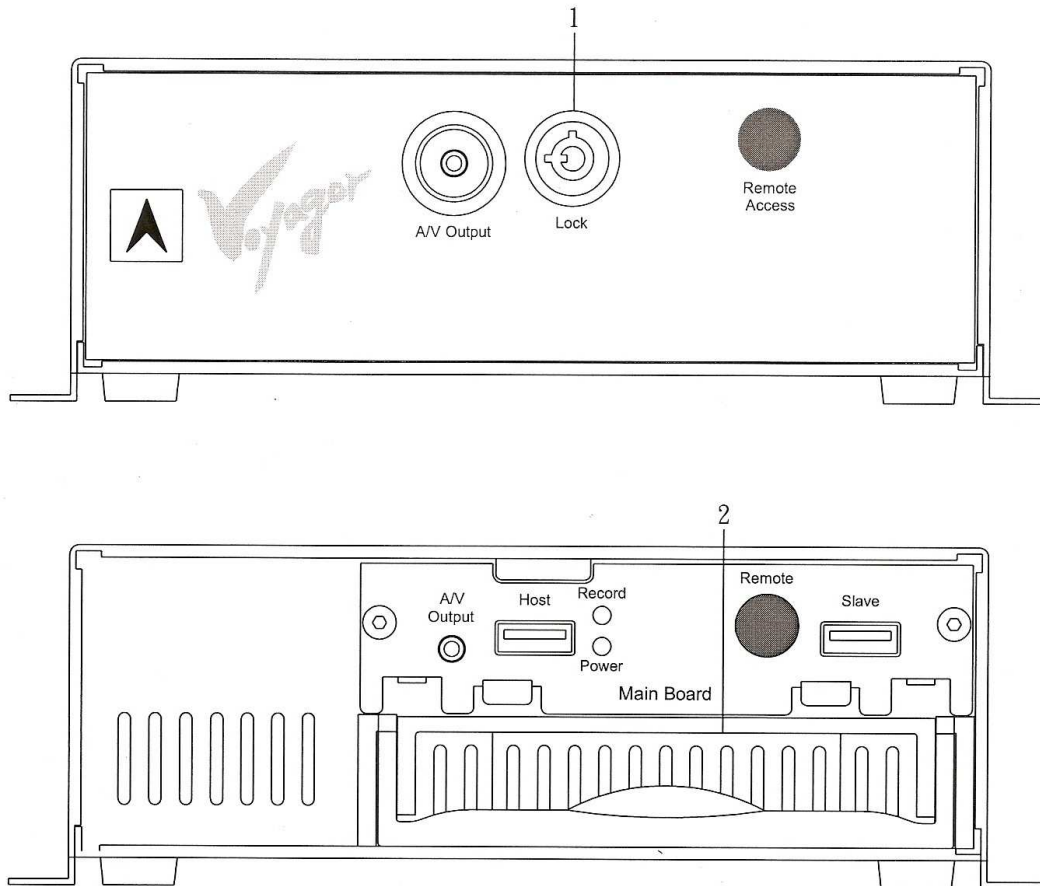
2. Hard Disk installation
   Please carefully follow the steps as below to install Hard Disk Drive.

a). Fix the rubbers to 2.5" HDD two sides as the picture showed below:
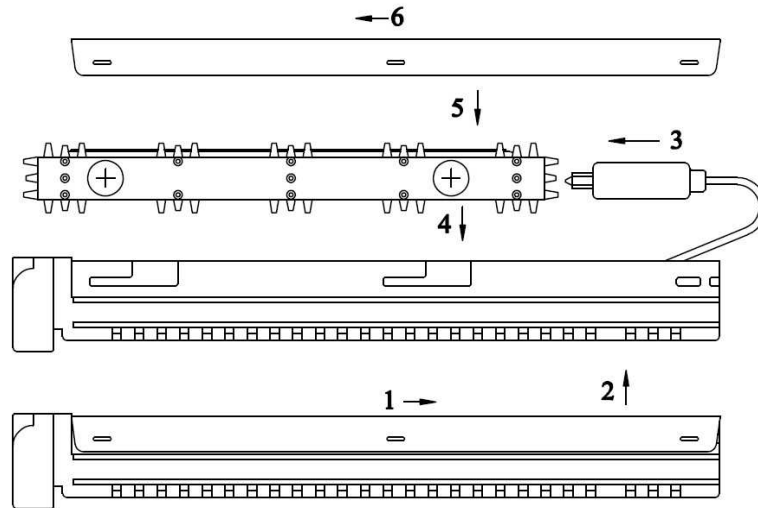   *(The rubber can protect the HDD.)*

b). *Take out the mobile rack.*
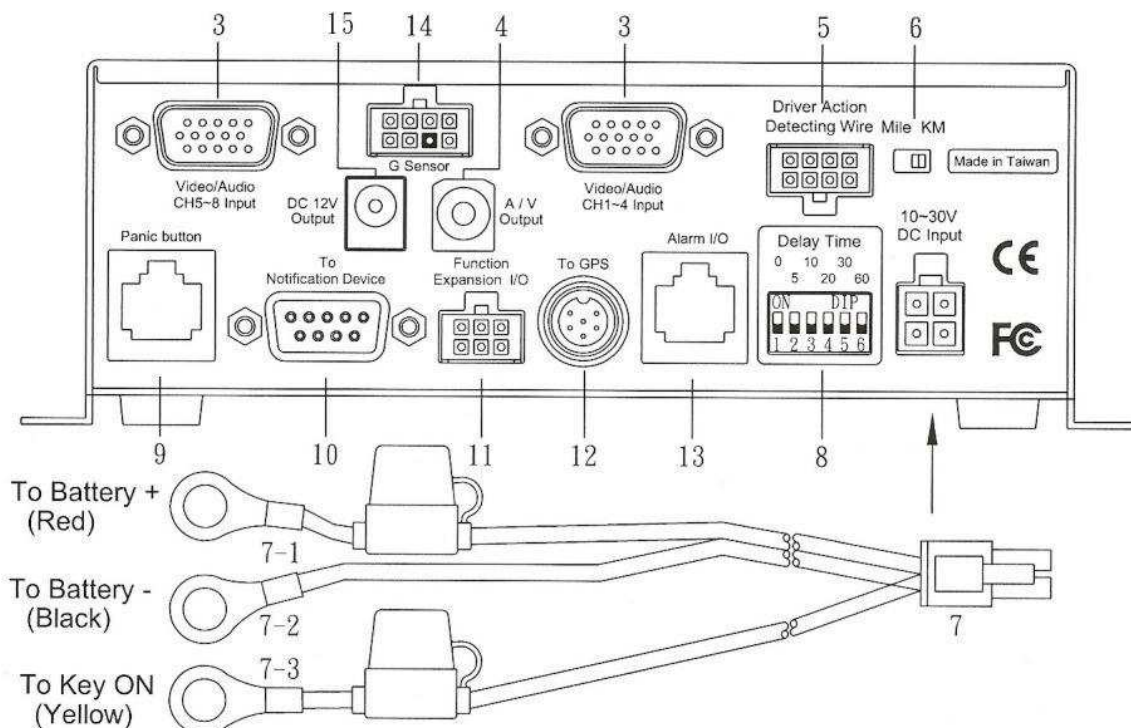
Step 1, 2). Take off the top cover.
Step 3). Connect the cable to 2.5" hard disk. (Make sure the HDD pin is correctly connected)
Step 4). Put the HDD into the DVR HDD slot.
Step 5, 6). Close the top cover and insert the mobile rack to DVR.

Please refer to the installation process as the following drawing:

3. **System camera installation**

Connect one end of camera cable to Camera and the other end to Video Input terminal at the back of DVR. Please number the camera by yourself for convenient operation.

4. Audio and Video output connection

The A/V output terminal is in front of the DVR panel. Connect the A/V output connector to this terminal and connect A/V output cord to the monitor.

5. Driver Action Detecting Wire Connection

Connect Driver action box sensor input socket and follow the drawing showed below to connect the other end with the car signal wire.
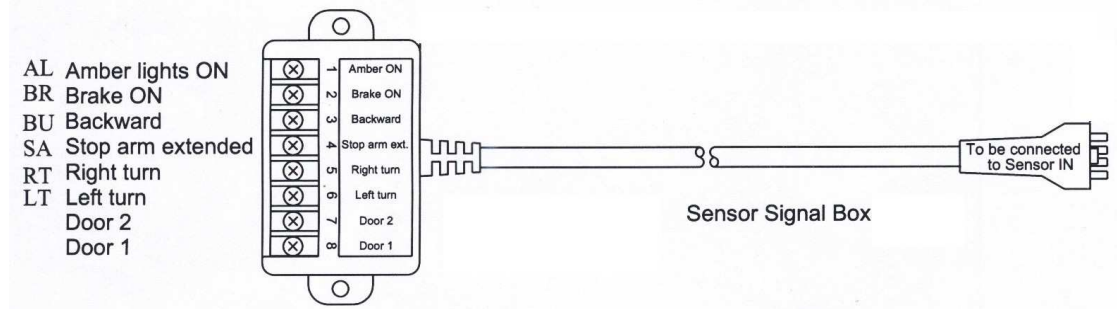
6. Mile/KM select switch

Please select the record speed by Mile or KM to meet your requirement.

7. Power connection

7-1. Plug the red power cord to Battery positive (+) position(e.g. car battery +).

7-2. Plug the black power cord to Battery negative (-) position (e.g. car battery -).
    When the power is connected, the DVR is ready to be used.

7-3. Plug the wire for key [On] and key [Start] wire connection
    Connect the key on connecting wire (yellow) to car key "ON" position.
    Connect the key start wire (white) to car key "Start" position.

The built-in power supply with delay circuit board designed for DVR to delay switch-on time for 10 seconds. With the delay, it can avoid DVR working on unstable voltage.

8. Delay time select switch

The delay switch-off time from 5 minutes to 60 minutes selected by switch depending on the user requirement.

Delay time setting switch:

Switch No.	1 On	2 On	3 On	4 On	5 On	6 On	All Off
Delay time	Car key short	5 minutes	10 minutes	20 minutes	30 minutes	60 minutes	5 seconds

Remarks:

＊The Switch 1 is used to replace car key while using the DVR outside the car.

＊The factory will preset delay time to "0" (= no delay time function). The user has to switch the required delay time so that it can function and will go standby mode without using any current while DVR is switch off.

Note:

The DVR switch-off delay function can work normally only when key on/key start wire is correctly connecting.

9. **Panic button connection** (optional)
    The panic button can be connected to show DVR working condition when the DVR is hidden in trunk or somewhere cannot be seen. The box design has the following functions:
    a) Power indicator LED. b) Record indicator LED. c) GPS signal indicator LED. d) Alarm buzzer. e) Panic button for emergency.
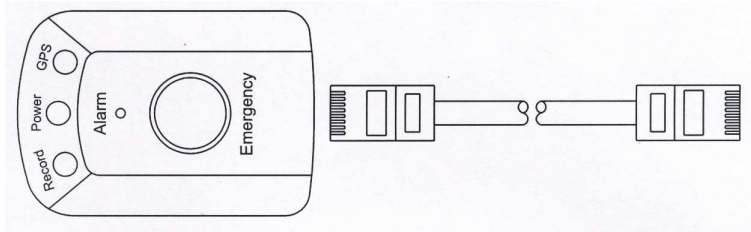
10. **Notification Device installation** (optional)
    Connect Notification device to this socket to extend the DVR function.

11. **Function Expansion I/O socket connection** (optional)
    This socket can connect LAN box or sensor recorder for future requirement.

12. **GPS Device installation** (optional)
    Connect GPS device to the GPS socket and fix it on top of dashboard or car roof in order to directly receive satellite signal and prevent the antenna being covered by any metal part.

13. **Alarm I/O box connection** (optional)
    Connect the alarm I/O box to this socket. Then, you can connect the sensor, alarm or PTZ camera. The signal I/O box is showed as below:
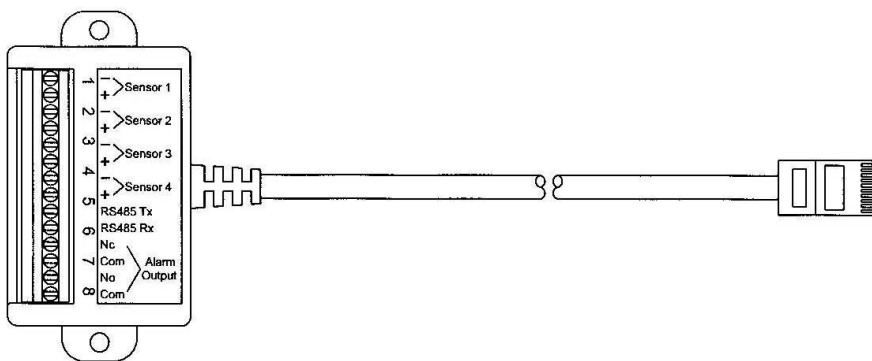
14. **G Sensor box connection** (optional)
    Connect the G Sensor box to G Sensor box socket.

15. **DC 12V output plug**
    This plug can supply 12V DC power.

BEFORE OPERATION

(1) The system will auto detect the hardware and enter **Recording** mode while hardware is in normal condition.

(2) The system default AUTO FORMAT setting is "ON". If the HDD is new or unrecognized, the DVR will auto format the HDD.

(3) If [NO HDD] signal is shown on screen, please check the mobile rack is installed or not. If it is not this problem, please turn off the power and check the HDD connecting wire and check the HDD master/slave selecting jumper which has to be set to "Master". You can then turn the power back on.

(4) If [NO VIDEO] is showed on screen, please check whether video input connector is connected with camera correctly or not.

(5) It is suggested to turn on the camera power before turning on the system power.

OPERATION

The system is preset to OFF for [KEY LOCK] mode.   If the system is set to ON for [KEY LOCK] mode, the screen will show the following message. Please key in security code by remote control number buttons to enter the OSD menu for setting.

```
        LOGIN DVR
  PLEASE ENTER PASSWORD
  PASSWORD: * * *

  SELECT NUMBER: 0~9
```
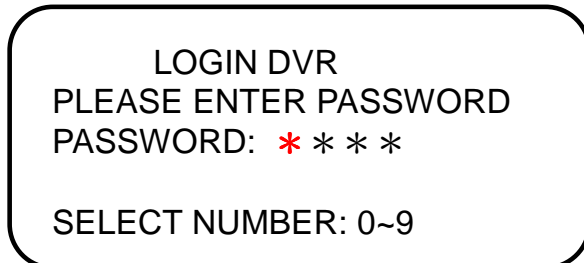
Then, press ⏎[Enter] button. If the screen shows below, it means the password is correct.

```
  LOGIN SUCCESS

  WELCOME TO DVR SYSTEM
```
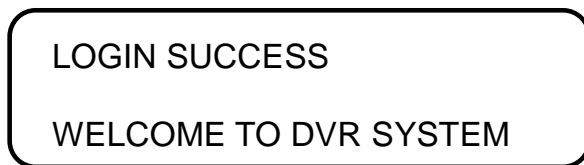
If the screen shows below, it means the password is incorrect. Then, please enter correct password in order to enter Main Menu or playback.

```
  PASSWORD ERROR
  PLEASE ENTER PASSWORD
  PASSWORD: * * *

  SELECT NUMBER: 0~9
```
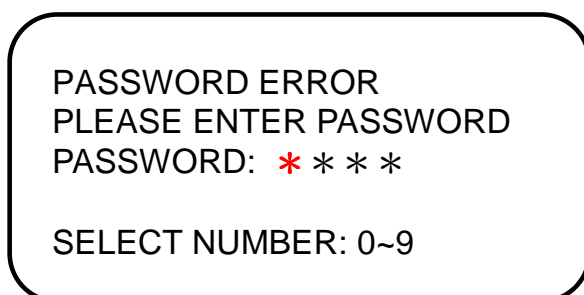
OSD (On Screen Display) Menu Setting Operation Process

1. Press ⓤ Menu button to enter menu selection mode.
2. Press ⬆ Up button/ ⬇ Down button / ⬅ Left button / ➡ Right button to select the item for setting.
3. Press ↵ Enter button to enter Sub menu to select item for setting.
4. Press ⊕ (value up) button or ⊖ (value down) button to change the value for your setting.
5. Press ⓤ key to exist for other setting.


Key and Function for Operation

1、MENU operation key

Button	Operation	Remarks
ⓤ MENU	Enter OSD menu	1. Press ⓤ Menu button to enter OSD menu. 2. Press direction key to select. 3. Press ↵ key to enter Sub menu. 4. Press ⓤ to exit while finish setting.
⬆ Up button	Go Up	
⬇ Down button	Go Down	
⬅ Left button	Go Left	
➡ Right button	Go Right	
⊕ Value up	Audio channel select	
⊖ Value down		
↵ Enter button	ENTER next page	

2、Play operation key

Button	Operation	Remarks
PLAY	Play	
REWIND	Rewind	
FAST FOR.	Fast Forward	
FAST REW.	Fast Rewind	
Pause	Pause	
Stop	Stop	
+	Audio channel select	

3、PTZ control key operation

Button	Operation	Remarks
ZOOM	Screen Zoom	1. Press ZOOM button to enter the function.
+	ZOOM IN	2. Press function key to operate.
−	ZOOM OUT	3. Press direction to select the area.
↑	Go Up	
↓	Go Down	
←	Go Left	
→	Go Right	
ENTER	Auto pan ON/OFF	ON/OFF Toggle

4、Display operation key

Key	Operation	Remarks
SEQ	Sequent view	

5、Number buttons

Number	1	2	3	4	5	6	7	8	9	0
Button	CAM1 (1)	CAM2 (2)	CAM3 (3)	CAM4 (4)	Menu	SEQUENCE (SEQ)	ZOOM	POP	FAST REW.	FAST FOR.

Screen Instruction:

●CAM1: Camera 1
●CAM2: Camera 2
●CAM3: Camera 3
●CAM4: Camera 4

ID0000: Car Number or DVR number
68%: The percentage of HDD recording space.

1. HDD information
[R]: Recycle recording (Overwrite enabled)
[O]: Once recording (Overwrite not allowed)

2. Audio channel
[A1]: Audio in channel 1
[A2]: Audio in channel 2
[MUTE]: Audio mute

3. Status
[REC]: Recording
[LIV]:   View mode (Without recording)
[BOT]: The DVR system is booting.
[PB]:   Playback mode
[NOP]: No operation process (HDD is removed incorrectly.)

4. Record mode
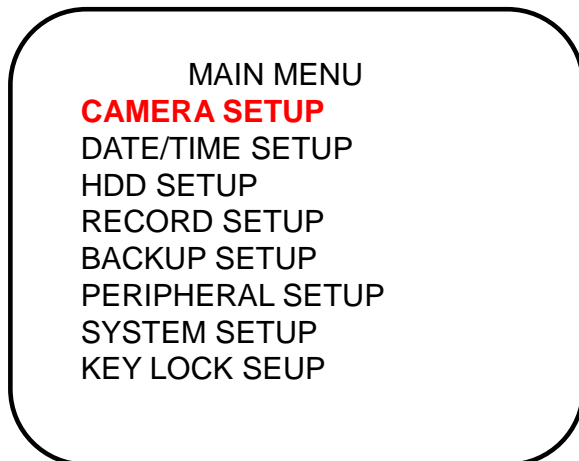[CON]: Continuous record
[MON]: Motion record
[ALM]: Alarm record

OSD Setting Operation

1. Camera Setup Operation

1.1 Title Setup

A. Press MENU button ⓜ to enter menu selection mode.

```
        MAIN MENU
    CAMERA SETUP
    DATE/TIME SETUP
    HDD SETUP
    RECORD SETUP
    BACKUP SETUP
    PERIPHERAL SETUP
    SYSTEM SETUP
    KEY LOCK SEUP
```

B. Use ⬆ / ⬇ / ⬅ / ➡ button to select [CAMERA SETUP] setting section.

C. Press ⏎ button to enter Camera Setup screen:

```
        CAMERA SETUP

    TITLE SETUP
    COLOR SETUP
    MOTION DETECTION
    STATUS SELECT
```

D. Press ⏎ button to enter camera title setup

```
    TITLE SETUP

    CAM 1: CAM1
    CAM 2: CAM2
    CAM 3: CAM3
    CAM 4: CAM4
```

E. Use ⬆ / ⬇ / ⬅ / ➡ button to select channel and set title.

F. Use ⊕ / ⊖ button to change the camera number.

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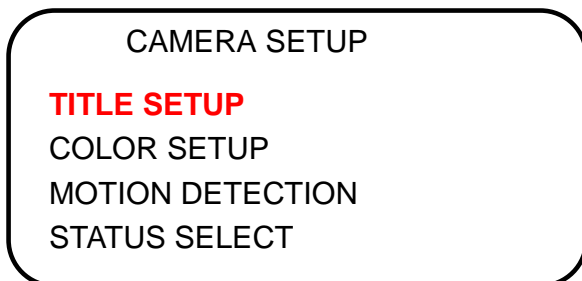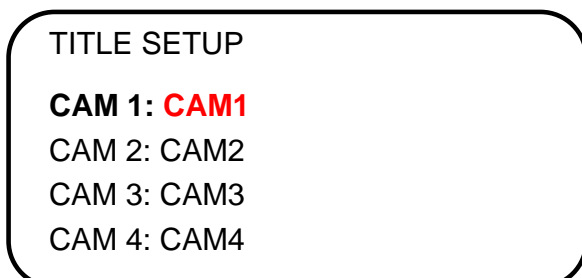G. Press MENU button 🔘 to exist for other setting

1.2 Color Setup

A. Press MENU button 🔘 to enter menu selection mode.

B. Use ⬆ / ⬇ / ⬅ / ➡ button to select [CAMERA SETUP] setting section

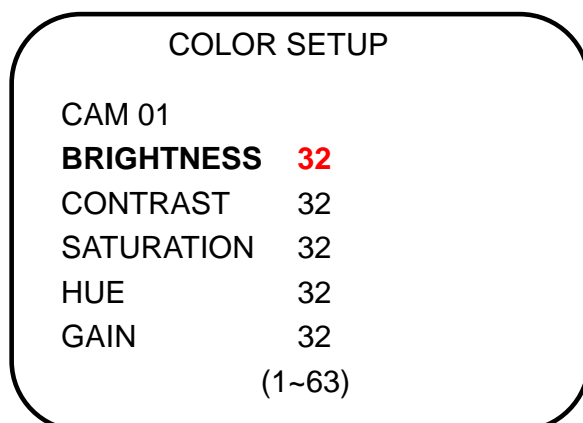and press ↵ button to enter channel select mode.

C. Use ⬆ / ⬇ / ⬅ / ➡ button to select [COLOR SETUP] setting section

and press ↵ button to enter.

```
         COLOR SETUP

CAM 01
BRIGHTNESS    32
CONTRAST      32
SATURATION    32
HUE           32
GAIN          32
         (1~63)
```

    a. Brightness: Brightness is adjustable from 00~63."00" = the darkest, "63" = the lightest.

    b. Contrast: Contrast is adjustable from "00" ~"63".

    c. Saturation: Saturation is adjustable from "00"~"63".

    d. Hue: Hue is adjustable from "00" ~"63".

D. Use ⊕ / ⊖ button to select the camera. (CAM 01/02/03/04)

E. Use ⬆ / ⬇ / ⬅ / ➡ button to select the item you want to change.

F. Use ⊕ / ⊖ button to change the value.

G. Press MENU button 🔘 to exist for other setting

1.3 Motion Detection

A. Press MENU button [Menu icon] to enter menu selection mode.

B. Use [up] / [down] / [left] / [right] button to select [CAMERA SETUP] setting section.

C. Use [up] / [down] / [left] / [right] button to select [MOTION DETECTION] setting section.

```
MOTION DETECTION

AREA SETTING    CH01
                RUN
SENSITIVITY     07
(1: MOST SENSITIVE) ------------------- 1 is the most sensitive value.
RELAY OUT       OFF          There are 16 levels to be selected.
FULL SCREEN     OFF
```

D. Press [RUN] to enter area setting and the screen will show as below:
  (There are 16 x 12 blocks)
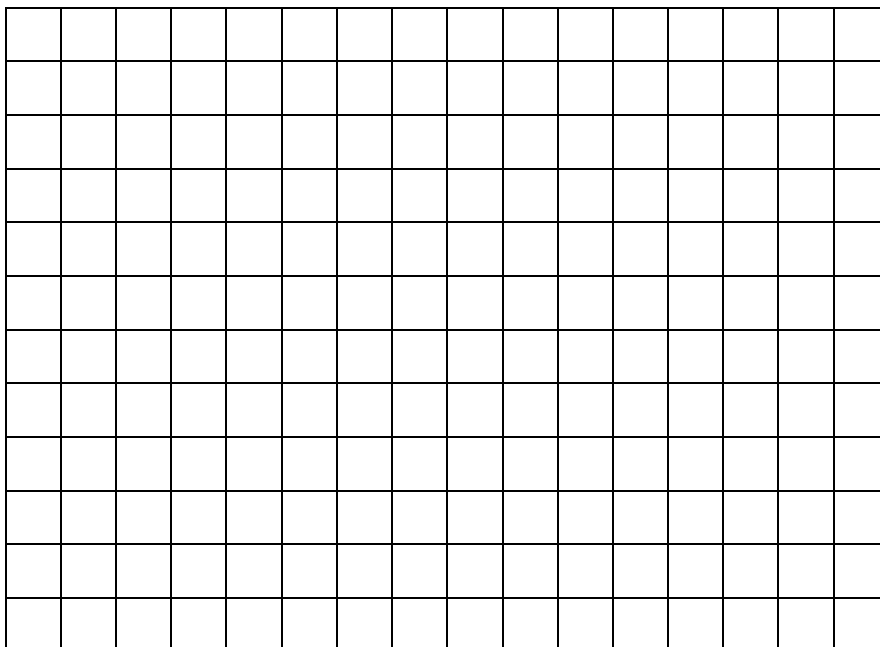
E. Use [up] / [down] / [left] / [right] button to select the area.

F. Use ⊕ / ⊖ button to activate or close the detection of the area. Press ⏎ (ENTER) button to select all activate or close. (This function will activate when the record mode is selected "Motion Detection (M)".)

G. Press MENU button ⏸ to exist above screen.

H. Use ⬆ / ⬇ / ⬅ / ➡ button to select the item you want to change.

I. Use ⊕ / ⊖ button to change the value.

J. Press MENU button ⏸ to exist for other setting

1.4 Status Select

A. Press MENU button ⏸ to enter menu selection mode.

B. Use ⬆ / ⬇ / ⬅ / ➡ button to select [CAMERA SETUP] setting section.

C. Use ⬆ / ⬇ / ⬅ / ➡ button to select [STATUS SELECT] setting section.

```
STATUS SELECT

CH        VISIBLE
CAM 1   ON(OFF)
CAM 2   ON(OFF)
CAM 3   ON(OFF)
CAM 4   ON(OFF)
```
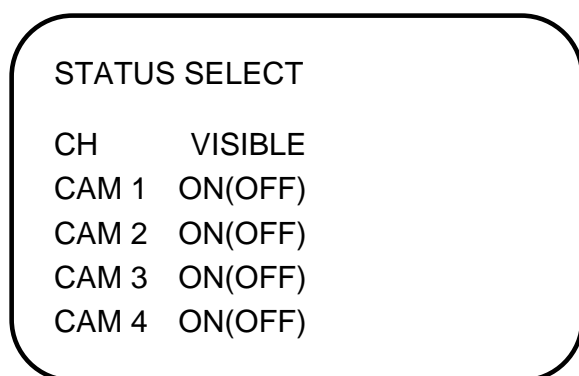
D. Use ⬆ / ⬇ / ⬅ / ➡ button to select the camera you want to change.

E. Use ⊕ / ⊖ button to change the screen to be visible or not. (Visible OFF: The recording information will be stored in hard disk, but the live picture will not be showed on screen. Visible ON: The recording information is showed same as on screen.)

F. Press MENU button ⏸ to exist for other setting

2. Date / Time / Daylight Saving Time Setting

A. Press MENU button ⏸ to enter menu selection mode.

B. Use ⬆ / ⬇ / ⬅ / ➡ button to select [DATE/TIME SETUP] setting section.

```
        DATE/TIME SETUP

   DISPLAY FORMAT:
   MM/DD/YY
   09/01/09


   YEAR       2009
   MONTH       09
   DAY         01
   HOUR        12
   MINUTE      20
   SECOND      50


   DAYLIGHT SAVING TIME
```

C. Use ➕ / ➖ button to change the Display Format.

D. Use ⬆ / ⬇ / ⬅ / ➡ button to select the other item. (Year/Month/Day/Hour/Minute/Second).

E. Use ➕ / ➖ button to change the value.

F. If you want to set daylight saving time, then you can use ⬆ / ⬇ / ⬅ / ➡ button to go daylight saving section and use ➕ / ➖ button to turn on daylight saving mode for setting. Or, press MENU button ⏸ to exit for other setting.

```
   DAYLIGHT SAVING TIME

   TURN: ON (OFF)
   START TIME
           MONTH    : 04
           DAY      : 02
           HOUR     : 02
   END TIME
           MONTH    : 10
           DAY      : 29
           HOUR     : 02
```

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3. HDD Setup

A. Press MENU button ⓘ to enter menu selection mode.

B. Use ⬆ / ⬇ / ⬅ / ➡ button to select [HDD SETUP] setting section and

press ⏎ button to enter the following screen.

```
        HDD SETUP

   HDD INFORMATION
   HDD REC MODE: RECYCLE
   HDD FORMAT
   AUTO FORMAT: ON
```
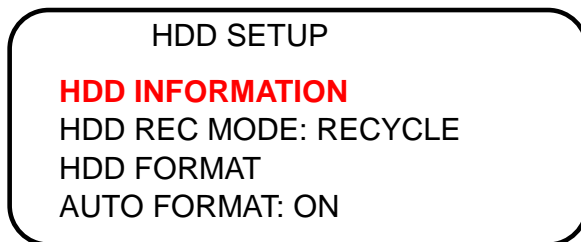
3.1 HDD Information

A. Use ⬆ / ⬇ / ⬅ / ➡ button to select [HDD INFORMATION] setting

section and press ⏎ button to enter.

```
        HDD INFORMATION

   HD 1: MASTER
   MODEL: XXXXX
   SIZE: 160.0 GBYTES
   FREE SIZE: 080.0 GBYTES
```
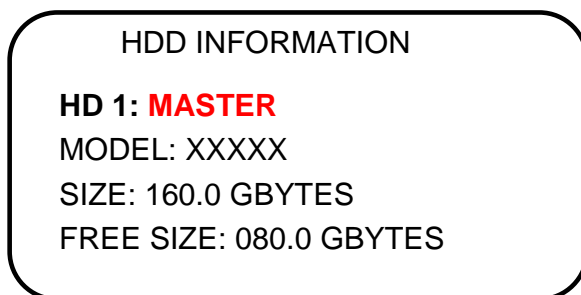
 (The screen will show current HDD information.)

B. Press ⓘ button to exit

3.2 HDD REC Mode

A. Use ⬆ / ⬇ / ⬅ / ➡ button to select [HDD REC MODE] setting section.

```
   HDD REC MODE: RECYCLE
```

B. Use ⊕ / ⊖ button to select HDD recording mode to recycle or once.

C. Press ⓘ button to exit

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3.3 HDD Format

A. Use ⬆ / ⬇ / ⬅ / ➡ button to select [HDD FORMAT] setting section and

press ↵ button to enter.

```
           HDD FORMAT

    SELECT HDD: 01
    CONFIRM:     RUN
```
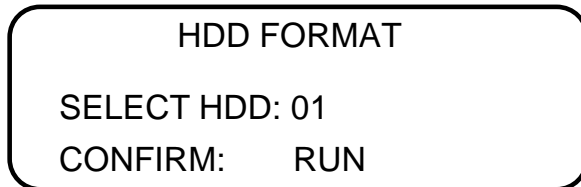
B. Use ⬆ / ⬇ / ⬅ / ➡ button to select HDD: 01 section.

C. Use ⊕ / ⊖ button to select HDD 1 or HDD 2 .

D. Use ⬆ / ⬇ / ⬅ / ➡ button to "RUN" and press ↵ button to enter.

```
    FORMAT HDD 01: NO (or YES)

                  RUN
```
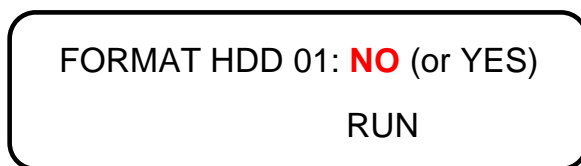
E. Press ⏸ button to exit.

3.3 Auto Format

Select Auto Format HDD: ON, the DVR will format the HDD when new HDD is installed.

4. Record Setup

A. Press ⏸ button to enter menu selection mode.

B. Use ⬆ / ⬇ / ⬅ / ➡ button to select [RECORD SETUP] setting section.

C. Press ↵ button to enter [RECORD SETUP] select mode.

```
        RECORD SETUP

RECORD MODE
CONTINUOUS RECORD
ALARM RECORD
MOTION RECORD
```

```
                 RECORD MODE

0   —   —   3   —   —   6   —   —   9   —   —
A   C   C   M   C   C   C   C   C   C   C   C

12  —   —   15  —   —   18  —   —   21  —   —
C   C   C   C   C   C   C   C   C   C   C   C
```

D. Use ⬆ / ⬇ / ⬅ / ➡ to select time for setting.

E. Use ⊕ / ⊖ button to select the record mode(C / M / A).

F. Press ↵ to enter selected section for setting, then use ⬆ / ⬇ / ⬅ / ➡ to select the section for setting and use ⊕ / ⊖ button to select the value.

G. Press 🔘 button to exit.

   a. Record Mode set up: 3 record modes ("C" = Continuous, "A" = Alarm and "M" = Motion) for select.

   b. Continuous Record: for set-up 4 level record quality and 4 kinds frame rate for record.

```
        CONTINUOUS RECORD :

RECORD QUALITY: SUPER
COMPRESSION/FPS : JPEG 30
RECORD SELECT:
                RECORD      PRIORITY
    CAM1:        ON            ON
    CAM2:        ON            ON
    CAM3:        ON            ON
    CAM4:        ON            ON
```

* Quality: Standard / Normal / High / Super.

* REC FPS: Set up frame per second (fps) as below

  MP4L 2/4/8/16/30/60/120 (fps)

  JPEG 1/2/4/8/15/30/60 (fps)

  (When the DVR power is ON, it will detect the system in NTSC or PAL by the camera installed.)

c. Alarm Record: for set-up 4 level record quality, 4 kinds frame rate and duration for record while detect alarm or motion.

> ALARM RECORD
>
> **RECORD QUALITY: SUPER**
> COMPRESSION/FPS: JPEG 30
> REC/FULL SCREEN TIME: 10 SEC
> PRE RECORD: ON

* Quality: Standard / Normal / High / Super.

* REC FPS: Set up frame per second (fps) as below

  MP4L 2/4/8/16/30/60/120 (fps)

  JPEG 1/2/4/8/15/30/60 (fps)

* REC Time: 10 / 20 / 30/ 40 / 50 /60 (seconds)

d. Motion Record: for set-up 4 level record quality, 4 kinds frame rate and duration for record while detect alarm or motion.

> MOTION RECORD
>
> **RECORD QUALITY: SUPER**
> COMPRESSION/FPS: JPEG 30
> REC/FULL SCREEN TIME: 10 SEC
> PRE RECORD: ON

* Quality: Standard / Normal / High / Super.

* REC FPS: Set up frame per second (fps) as below

  MP4L 2/4/8/16/30/60/120 (fps)

  JPEG 1/2/4/8/15/30/60 (fps)

* REC Time: 10 / 20 / 30/ 40 / 50 /60 (seconds)

5. Backup Setup

A. Press ![Menu] button to enter menu selection mode.

B. Use ![Up] / ![Down] button to select [BACKUP SETUP] setting section.

C. Press ![Enter] button to enter [BACKUP SETUP] select mode.

```
      BACKUP SETUP
 USB SLAVE
 USB MASTER
 EVENT SETUP
```

```
       USB SLAVE
 USB SLAVE: RUN
```

Please refer to the "USB Download Instruction" section for more details.

D. Press ![Menu] button to exit

6. Peripheral Setup

A. Press ![Menu] button to enter menu selection mode.

B. Use ![Up] / ![Down] / ![Left] / ![Right] button to select [PERIPHERAL SETUP] setting section.

C. Press ![Enter] button to enter [PERIPHERAL SETUP] select mode.

```
       PERIPHERAL SETUP

 BUZZER SETUP
 ALARM SETUP
 SEQUENCE SETUP
 PASSWORD SETUP
 MONITOR SETUP
```

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6.1 Buzzer setup

A. Use ⬆ / ⬇ / ⬅ / ➡ button to select [BUZZER SETUP] setting section.

B. Press ↵ (ENTER) button to enter [BUZZER SETUP] select mode.

Buzzer: for setting buzzer alarm time for video loss, motion is detect, I/O alarm detect and key move alarm.

```
        BUZZER SETUP

  KEY BEEP: ON (OFF)
  POWER ON: ON (OFF)

  VIDEO LOSS: ON (OFF)
  ALARM EVENT: ON (OFF)
  MOTION: ON (OFF)
  TIME DURATION: 02 SEC (1~60 SECONDS)
```
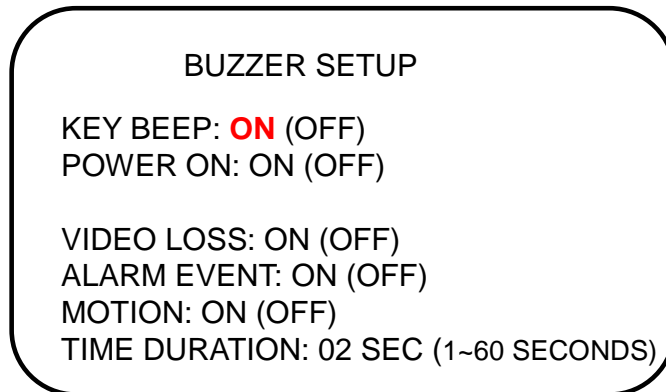
* Key beep: Buzz when button is pressed (one buzz)

* Power on: Buzz when system power on (one buzz)

* Video loss: Buzz when video signal is lost.

* Alarm Event: Buzz when alarm input is triggered.

* Motion: Buzz when system motion is detected.

C. Use ⬆ / ⬇ / ⬅ / ➡ to select item for setting.

D. Use ⊕ / ⊖ button to select On/OFF.

E. Press ⏸ (Menu) button to exit.

6.2 Alarm setup

A. Use ⬆ / ⬇ / ⬅ / ➡ button to select [ALARM SETUP] setting section.

B. Press ↵ (ENTER) button to enter [ALARM SETUP] select mode.

```
┌─────────────────────────────────────┐
│          ALARM SETUP                │
│                                     │
│     ALARM INPUT                     │
│     ALARM OUTPUT                    │
│                                     │
└─────────────────────────────────────┘

┌─────────────────────────────────────┐
│        ALARM INPUT SETUP            │
│                                     │
│   ALARM IN   STATUS   OUT   FULL    │
│   1          NO       ON    OFF     │
│   2          NO       ON    OFF     │
│   3          NO       ON    OFF     │
│   4          NO       ON    OFF     │
│                                     │
└─────────────────────────────────────┘
```

* NC = Normal Close: The signal loop is closed under normal conditions. When the loop becomes open, alarm will be triggered until the loop becomes closed again. In other words, if the loop keeps on open for a period of time, alarm will keep on triggering in that time interval.

* NO = Normal Open: The signal loop is open under normal conditions. When the loop becomes closed, alarm will be triggered until the loop becomes open again. In other words, if the loop keeps on closed for a period of time, alarm will keep on triggering in that time interval.

*Full: Full screen

```
┌─────────────────────────────────────┐
│        ALARM OUTPUT SETUP           │
│                                     │
│   ALARM OUT    STATUS    TIME       │
│       1          ON      01~60      │
│                                     │
└─────────────────────────────────────┘
```

C. Use ⬆ / ⬇ / ⬅ / ➡ to select item for setting.

D. Use ⊕ / ⊖ button to select On/OFF.

E. Press ⧐ button to exit.

6.3 Sequence setup

A. Use ⬆ / ⬇ / ⬅ / ➡ button to select [SEQUENCE SETUP] setting section.

B. Press ↵ button to enter [SEQUENCE SETUP] select mode.

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```
┌─────────────────────────────────┐
│        SEQUENCE SETUP           │
│                                 │
│     FULL SCREEN: 01~60 SEC      │
│                                 │
└─────────────────────────────────┘
```
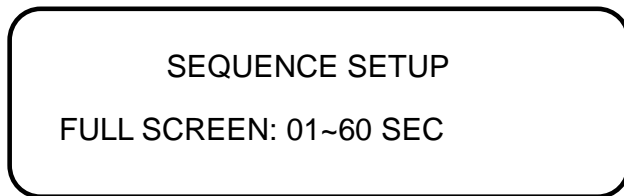
C. Use ⬆ / ⬇ / ⬅ / ➡ to select item for setting.

D. Use ⊕ / ⊖ button to select value.

E. Press 𝐌 button to exit.

After above setting, press the (SEQ) (Sequence) button at Live/Record mode to activate this function.

6.4 Password setup

A. Use ⬆ / ⬇ / ⬅ / ➡ button to select [PASSWORD SETUP] setting section.

B. Press ↵ button to enter [PASSWORD SETUP] select mode.

```
┌─────────────────────────────────┐
│        PASSWORD SETUP           │
│                                 │
│   NEW:  ＊＊＊＊                  │
│   CONFIRM:  ＊＊＊＊              │
│                                 │
│   SELECT NUMBER: 0~9            │
└─────────────────────────────────┘
```
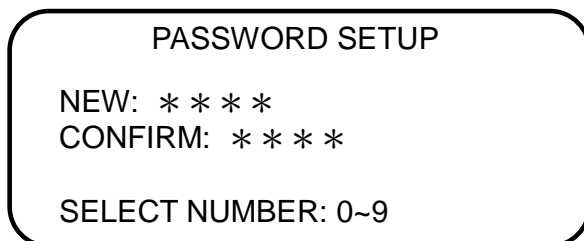
  (initial password: 0000)

C. Use number button to change the password. (Please refer to Key & Function Operation section for the number keys.)

D. Press 𝐌 button to exit.

Please contact your distributor for more information if you forgot password.

6.5 Monitor setup

This function just working when the DVR VGA card is installed

A. Use ⬆ / ⬇ / ⬅ / ➡ button to select [MONITOR SETUP] setting section.

B. Press ⏎(ENTER) button to enter [MONITOR SETUP] select mode.

```
MONITOR SETUP

VGA RESOLUTION: 640X480/60HZ
```
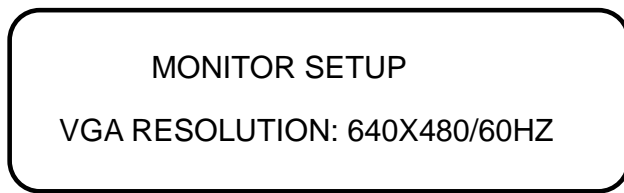
C. Use ⬆ / ⬇ / ⬅ / ➡ to select item for setting.

D. Use ⊕ / ⊖ button to select value.

E. Press ⏸(Menu) button to exit.

7. System Setup

A. Press ⏸(Menu) button to enter menu selection mode.

B. Use ⬆ / ⬇ / ⬅ / ➡ button to select [SYSTEM SETUP] setting section.

C. Press ⏎(ENTER) button to enter [SYSTEM SETUP] select mode.

```
SYSTEM SETUP：

GPS
PTZ
DVR ID
FACTORY DEFAULT
UPDATE CODE
```
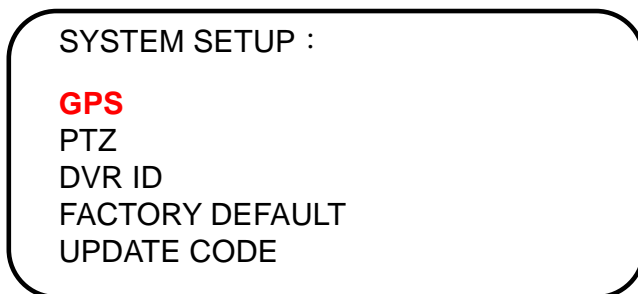
7.1 GPS

A. Use ⬆ / ⬇ / ⬅ / ➡ button to select [GPS] setting section.

B. Press ⏎(ENTER) button to enter [GPS] select mode.

GPS:

(This function is available when DVR has built-in GPS)

```
┌──────────────────────────────────┐
│   DIALER/GPS                     │
│                                  │
│   DEVICE: GPS                    │
│                                  │
│   SETUP: RUN                     │
│                                  │
└──────────────────────────────────┘
```

C. ⊕ / ⊖ button to select GPS.

D. Use ⬆ / ⬇ / ⬅ / ➡ to RUN.

E. Press ⏎ button to enter [GPS] mode.

```
┌──────────────────────────────────┐
│   GPS                            │
│                                  │
│   BAUD RATE: 9600                │
│                                  │
│   SPEED LIMIT: 100               │
│                                  │
└──────────────────────────────────┘
```

* Baud rate: 2400/4800/9600/14400/19200/38400/57600 for select.

F. Use ⊕ / ⊖ to change the baud rate.

G. Use ⬆ / ⬇ / ⬅ / ➡ to speed limit.

H. Use ⊕ / ⊖ to set the speed.

I. Press ⏸ button to exit.

7.2 PTZ:

```
┌──────────────────────────────────┐
│          PTZ                     │
│                                  │
│  ID: 01                          │
│  PROTOCOL: PELCO-P               │
│  BAUD RATE: 4800                 │
│  SPEED: 05                       │
└──────────────────────────────────┘
```

*ID: 01~04

* Protocol: PELCO-D / PELCO-P

* Baud rate: 2400/4800/9600

* Speed: 01~10

Please refer to "PTZ Camera and Setting Control" section for more details.

7.3 DVR ID

The DVR ID is for setting DVR ID number.

A. Use ⬆ / ⬇ / ⬅ / ➡ button to select [DVR ID] setting section.

B. Press ⏎ button to enter [DVR ID] select mode.

```
DVR ID

ID TYPE: ID
ID      : xxxx
```

* ID TYPE: ID/BUS/TAXI/TRAIN

C. Use ⬆ / ⬇ / ⬅ / ➡ to select item for setting.

D. Use ⊕ / ⊖ button to select ID type. Use Number keys to change the ID number.

E. Press ⏸ button to exit.

7.4 Factory default

A. Use ⬆ / ⬇ / ⬅ / ➡ button to select [FACTORY DEFAULT] setting section.

B. Press ⏎ button to enter [FACTORY DEFAULT] select mode.

```
FACTORY DEFAULT

LOAD FACTORY DEFAULT: YES

PRESS ENTER KEY TO RUN
```
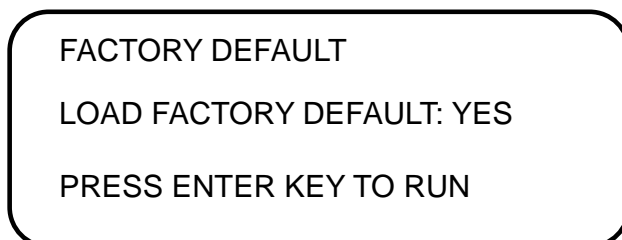
C. Use ⊕ / ⊖ button to select YES or NO.

D. Press ⏎ button to RUN this function. (When you press Enter Key, the DVR will go back to factory default. The screen will show "**FACTORY DEFAULT** OK!".)

E. Press ⏸ button to exit.

7.5 Update code

A. Use ⬆ / ⬇ / ⬅ / ➡ button to select [UPDATE CODE] setting section.

B. Press ↵ (ENTER) button to enter [UPDATE CODE] select mode.

```
              UPDATE CODE

    1.  FORMATE USB DEVICE: NO
    2.  FIRMWARE UPGRADE-USB: NO
    3.  LOAD PC PLAYER: NO
    4.  FIRMWARE UPGRADE-CF:NO

    ML304BCL:     XXX  00/
    JAYS:         XXX  00/
    SKL:          XXX  00/

    PRESS ENTER KEY TO RUN
```

C. Use ⊕ / ⊖ button to select YES or NO.

D. Press ↵ (ENTER) button to RUN this function.

E. Press ⓤ (Menu) button to exit.

8. Key Lock Setup

A. Press ⓤ (Menu) button to enter menu selection mode.

B. Use ⬆ / ⬇ / ⬅ / ➡ button to select [KEYLOCK SETUP] setting section.

C. Press ↵ (ENTER) button to enter [KEYLOCK SETUP] select mode.

```
KEYLOCK SETUP
LOCK: YES
```

D. Use ⊕ / ⊖ button to select YES or NO.

E. Press ⓤ (Menu) button to exit

After leave the OSD Main Menu, press the 🔑 (Lock) button to activate this function.

PLAYBACK RECORD DATA

There are two ways to playback the record data.

1. Playback by Time:

a. Press the ▶ Play button, the screen will display SEARCH menu.

b. Use ⬆ / ⬇ / ⬅ / ➡ buttons to select the start day and time which you

want to play back, then move to "RUN" and press ↵ Enter button to playback.

```
                    SEARCH
      TIME: 2009-09-01 12:20:30 RUN
      EVENT SEARCH

      BEGIN:   2009-09-01 12:00
      END:     2009-09-01 15:30
```

2. Playback by Event:

a、 Press ▶ "Play" button, you can select the PLAY BY EVENT from SEARCH

   menu.

```
                    SEARCH                              EVENT SEARCH          PAGE001
      TIME: 2009-09-01 12:20:30 RUN
      EVENT SEARCH                                      0001   09/09/01   12:00:30   R1
                                           →            0002   09/09/01   12:03:25   M1
      BEGIN:   2009-09-01 12:00                         0003   09/09/01   12:06:35   M2
      END:     2009-09-01 15:30                         0004   09/09/01   12:09:30   M3
                                                        0005   09/09/01   12:15:30   L1
                                                        0006   09/09/01   12:20:30   A1
                                                        0007   09/09/01   12:30:30   B1
                                                        0008   09/09/01   12:30:30   A2
                                                        0009   09/09/01   12:40:30   B2
                                                        0010   09/09/01   12:50:30   P1

                                                        A: Alarm   L: Video loss   M: Motion
                                                        R: Record   B: Boot   P: Panic
```

b、 Use ⬆ / ⬇ buttons to select page.

c、 Use ⬆ / ⬇ buttons to select event which you want to play back.

d、 Press ⏎ Enter button to playback.

e、 During playback, press stop button to back to EVENT SEARCH.

Press ⏸ "Menu" button will exit.

* Each page can display 10 events (maximum 1000 events can be recorded).
* The event log will be cleared simultaneously when format HDD.
* EVENT is recorded in the HDD. It can be searched for playback when the HDD is removed and installed into the other DVR in same type.

In the play mode you can use play bar to control play function. The play bar buttons introduction as below:

⏩ **FAST FOR**.: Fast Forward.

Press the "FF' once the playback speed will change to x2 speed to play, press again it will change to x4 and press again it will change x8, if you want to return to the playback speed just press the "Play" button.

⏪ **FAST REW.**: Fast Rewind

Press the "FB' once the backward speed will change to x2 speed to backward play, press again it will change to x4 and press again it will change x8, if you want to return to the playback speed just press the "Play" button.

⏸**Pause**: Pause the playback.

⏹ **Stop**: Stop playback and go back to the view mode.

PTZ CAMERA SETTING AND CONTROL

1. **Introduction:**

   Connect the Signal I/O box to the DVR. The signal I/O box has RS485 ports for PTZ camera control.

2. **Installation:**

   2.1 Setting PTZ camera control protocol:

   Follow PTZ camera user manual to choose and setting control protocol, all the camera need to choose same protocol type.

   2.2 Setting PTZ camera ID:

   Follow PTZ camera user manual to set PTZ ID, each camera has a unique ID it's own. We suggest stronger CH1 camera use the ID no: 1, CH2 camera use the ID no: 2 …, that you will have more convenience to control your PTZ cameras.

   Follow the figure to connect all of cameras RS485 TX together and RX together, then insert RS485 TX into the RS485 TX terminal and RX insert into the RS485 RX terminal and tight it.

   The signal I/O box is as follows:
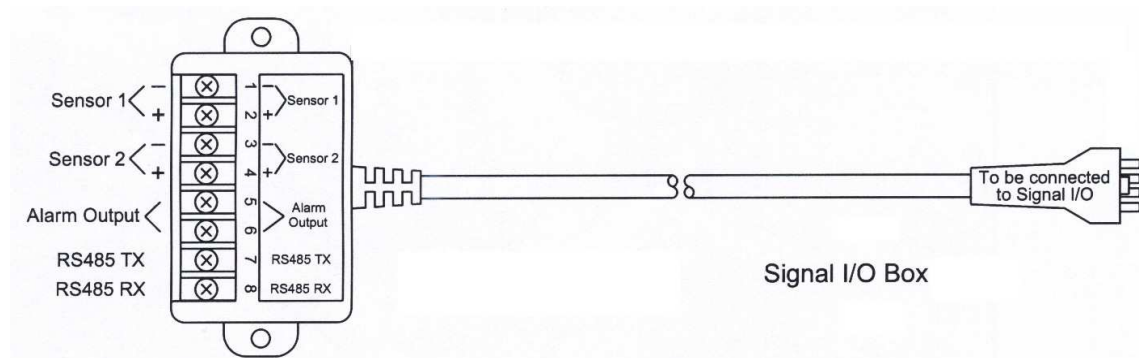
3. **PTZ control setting:**

   3.1 Go to DVR menu and select system, into system list and select subject of PTZ/Keyboard, then use left and right keys to select protocol to match your PTZ camera setting.

   SYSTEM SETUP：

   GPS
   PTZ
   DVR ID
   FACTORY DEFAULT
   UPDATE CODE

   →

   PTZ

   ID: 01
   PROTOCOL: PELCO-P
   BAUD RATE: 4800
   SPEED: 05
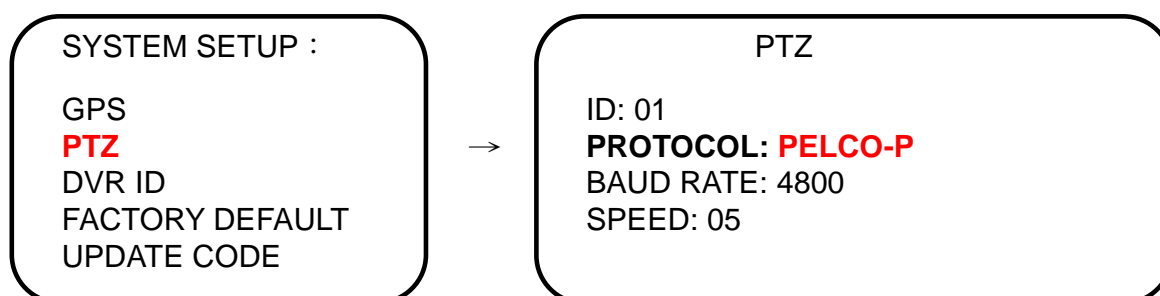
3.2 Use ⬆ / ⬇ / ⬅ / ➡ buttons to select ID and use ⊕ / ⊖ button to change ID number.

3.3 Use ⬆ / ⬇ / ⬅ / ➡ buttons to select PROTOCOL and use ⊕ / ⊖ button to select PELCO-P or PELCO-D.

3.3 Use ⬆ / ⬇ / ⬅ / ➡ to select subject of BAUD RATE, then use ⊕ / ⊖ keys to select baud-rate to match your PTZ camera setting.

3.4 Use ⬆ / ⬇ / ⬅ / ➡ to select SPEED, then use ⊕ / ⊖ keys to select speed to match your PTZ camera setting.

4. PTZ control:

How to move PTZ camera?

1. Select ① ② ③ ④ channel which you want to control

2. Press ⏸ PTZ (pause) button into PTZ mode.

3. Press ⬆ Up key to move camera up.

4. Press ⬇ Down key to move camera down.

5. Press ⬅ Left key to move camera left.

6. Press ➡ Right key to move camera right.

7. At any time press ⏹ Stop key to stop camera move.

8. Press ↵ Auto (Enter) key to turn the auto pan on.

9. Press ⏸ PTZ key to quit PTZ control mode.

USB DOWNLOAD INSTRUCTION

1. USB SLAVE DOWNLOAD

USB Slave Download Process:

1.. Connect USB download cable one end to the DVR USB Slave download port and the other end to PC.

2.. Enter the [BACKUP SETUP] screen as below:

Press 🔘 MENU button to [MAIN MENU], then use ⬆ / ⬇ button to select [BACKUP SETUP], and then select [USB SLAVE]. The screen will show as below.

BACKUP SETUP		USB SLAVE
USB SLAVE USB MASTER EVENT SETUP	→	USB SLAVE: RUN
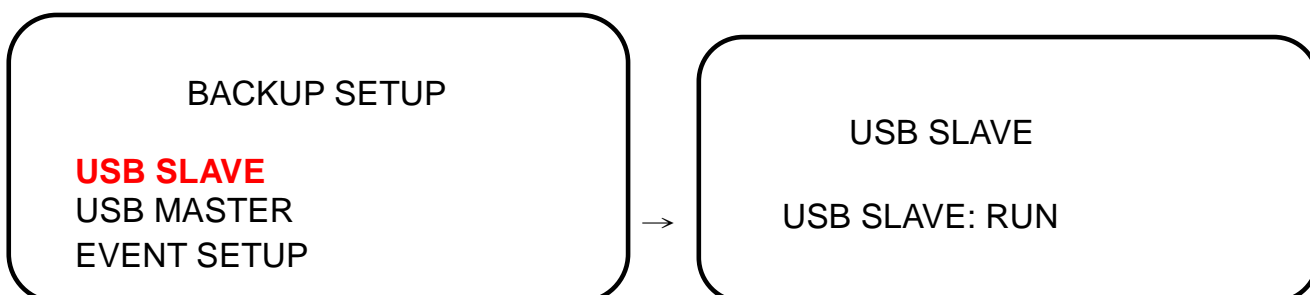
If the USB cable is not connected, the screen will show as below:

USB SLAVE		USB SLAVE
USB SLAVE: RUN SYSTEM WILL STOP RECORD WHILE USB SLAVE CONNECTION! STOP: EXIT 　　　　　　CONNECT…	→	USB SLAVE: RUN
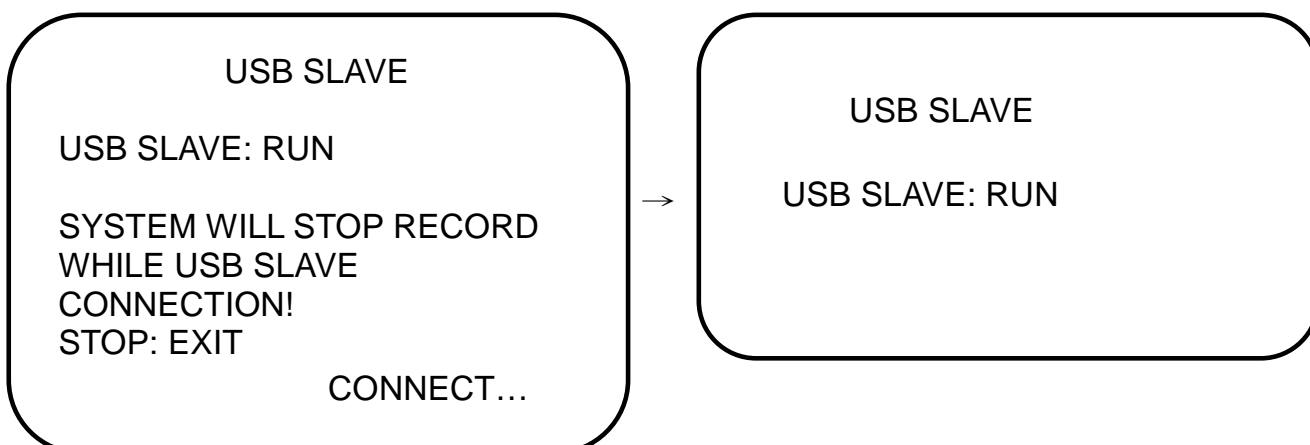
If the USB cable is connected, the screen will show as below:

USB SLAVE
USB SLAVE CONNECT OK! STOP: EXIT
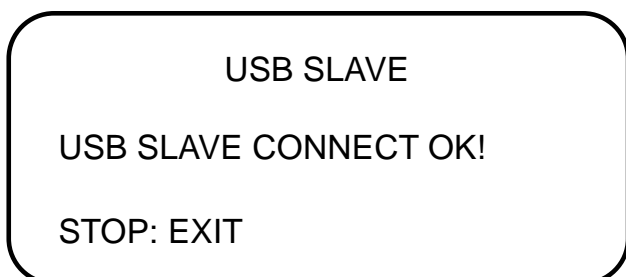
3. Please copy the recording files to PC. (Please note that the PC should be Window 2000/XP version.)

USB salve working recorded data download speed

1. The system is designed with USB salve 2.0 high speed.
2. The download speed is 400M bit per second.
3. Will download 50M byte per second at idea condition. Need 20 seconds for download IG byte data, if the actual efficiency is 50%, it will need 40 seconds to download 1G byte data.

2. USB HOST DOWNLOAD

a. Download by time

1. Connect the Flash device(Pen drive) to DVR Host download port.

2. Enter the [BACKUP SETUP] screen as below:

Press **Menu** MENU button to [MAIN MENU], then use ⬆ / ⬇ button to select [BACKUP SETUP], and then select [USB MASTER]. The screen will show as below.

```
        BACKUP SETUP

  USB SLAVE

  USB MASTER

  EVENT SETUPITIAL      10%
```

→

```
  USB MASTER

    HDD:    YY/MM/DD    HH:MM
    BEGIN   09/09/01       08:00
    END      09/09/02       15:30

    USB BACKUP
    BEGIN   09/09/01       10:00
    END      09/01/02       10:02

    USB BACKUP: RUN
```

→

```
    USB MASTER WARNING

    FORMAT USB FLASH DEVICE

    ENTER: FORMAT USB FLASH
    STOP: EXIT USB BACKUP
```
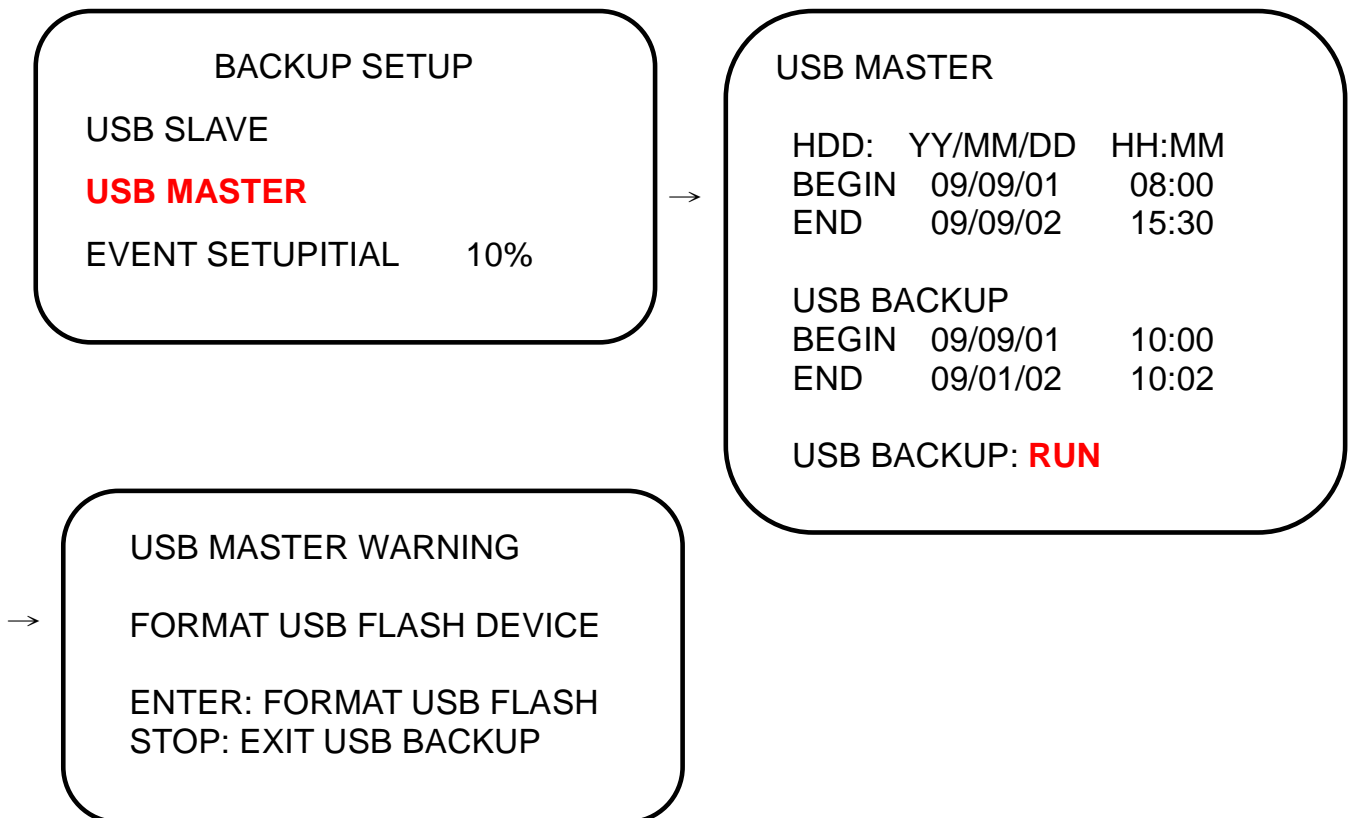
Press [Enter] button to download, the DVR will start to format the Flash Memory (Pen Drive).

The screen will show:

```
    WAIT …

    INITIAL      10%
```
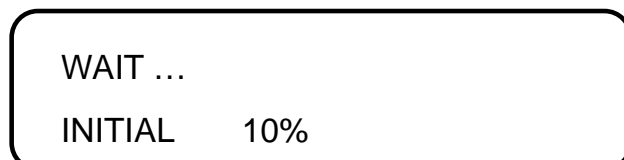
When the format is finished, the "Bi" sound will appear, then it will continue to download and show the following on screen:

```
WAIT …

BACKUP     3%
```
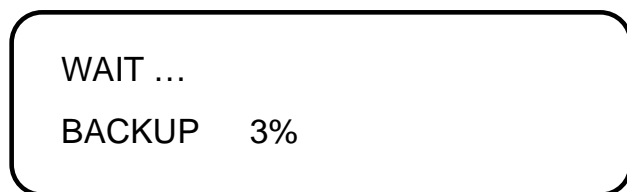
3. When the file is download completed, the DVR will appear continued "Bi" sound. Press Stop button and the warning voice will be stopped. Press MENU button to exit.

b. Download during playback:
1. Press "PAUSE" button and then press "COPY" button.
2. The system will download the recorded data one minute before and one minute after you press "PAUSE" button. For example, if you press "PAUSE" button at 2009/09/01 13:01:24, then the downloaded data will be three minutes from 2009/09/01 13:00:00 to 2009/09/01 13:03:00.

c. Quick download:
1. Plug memory stick into DVR USB Host port.
2. Press "COPY" button two times. Under such circumstances, the Record LED will stop flashing (in closed mode.)
3. The system will check whether there is any USB device connected.
4. If no, you will hear 5 short buzzing every 5 seconds. Press "STOP" button to exit. Then, go back to Step 1.
5. If yes, DVR will start download process. Under such circumstances, the Record LED will be in flashing mode.
6. When the download is completed, you will hear one long buzzing and the Record LED will stop flashing. Please press "STOP" button to exit. Then, the Record LED will re-start to flash that means go back to Record mode.
7. If the memory stick capacity is not enough, you will hear 3 short buzzing every 5 seconds. Under such circumstances, you can plug another memory stick and press "COPY" button one time to continue download process or press "STOP" button to exit.
8. If the memory stick is not well connected with DVR, you will hear 5 short buzzing every 5 seconds. Under such circumstances, please press "STOP" button to exit. Then, go back to Step 1.

SENSOR RECORDER FUNCTION OPERATION

(Optional for GDV-4860ML)

Signal Development Record Function

Total 8 kinds of signal development can be recorded in your mobile DVR as follows:

1. Right Turn, "RT" will be recorded and showed on screen.
2. Left Turn, "LT" will be recorded and showed on screen.
3. Stop Arm Extended, "SA" will be recorded and showed on screen.
4. Amber Lights On, "AL" will be recorded and showed on screen.
5. Brake On, "BR" will be recorded and showed on screen.
6. Backward, "BU" will be recorded and showed on screen.
7. Door 1, the video of door 1 camera will be showed on screen.
8. Door 2, the video of door 2 camera will be showed on screen.

<u>The playback screen will show recorded signal development data location as below:</u>

E120°50'43.24" N21°54'15.38"	ID2009 68% R
CAM1●	●CAM2
CAM3●	●CAM4
BR LT BU 09/01/09 A1	08:56:50AM REC CON BUS: 2009 H:W 30MPH

1. The location "LT" (Left Turn) will show "RT" when right turn signal lights up.
2. The location "BU" will be showed only when backward signal lights up.
3. The location "BR" will be showed only when Brake signal light is on.
4. The location "SA" will be showed only when Stop Arm Extended is on.
5. The location "AL" will be showed only when Amber Light is on.
6. The location "30MPH" (Speed) will show KMPH when your speed is selected to KMPH..
7. The location "H:W" is showed to indicate head direction (W=West, E=East, S=South, N=North).
8. The location "E120°50'43.24" is showed to indicate position longitude east of Greenwich (The location "E" while show "W" is meaning longitude west of Greenwich).
9. The location "N21°54'15.38" is showed to indicate position of northern latitude (The

location "N" while show "S" is meaning latitudes south of the Equator).
10. The location show "BUS:2009" is bus number key-in on DVR "OSD" menu under sub menu section.
11. The location "09/01/09 08:56:50 is showed as recorded time.

Video Signal Development Record Function

Five camera outputs can be connected to the box's video input connector. The sensor recorder CPU will manage the signal to follow the car signal development and select one of the camera inputs for video output connector.

(Remark: The sensor recorder CPU will manage to output "Right turn view camera's input" when right turn signal lights up, output "Left turn view camera's input" when left turn signal lights up and output "Back view camera's input" when backward signal light up. All other signal development will only output "Main direction view camera's input").

The sensor recorder with two video output connectors share same video output signal. One BNC female output for connect to one of the DVR input to record the video signal and the RCA socket is designed for connect to car monitor as assistance for driver.

Position, Speed & Head Direction Record in DVR Function

Car speed, position and head direction will be recorded in your mobile DVR. The speed can be recorded by KMPH or MPH (changed by 'Select' switch on front panel of the box); the recorded data will be showed on screen while playback.

GPS Location Record in Sensor Recorder Box Function

More than 7 days car location data will be recorded in the Sensor Recorder box. The location data recorded in Sensor Recorder box can be downloaded in computer as a GPS location data file to show road map when map software is transferred into.

Special Note:
The GPS can be positioned only when the antenna can directly receive at least 4 satellite signals. In other words, the GPS can be positioned only when there is no cover. So, if you are in garage or underground parking lot where can not receive satellite signal by GPS, when the car leaves this place, you have to check your DVR in the place where can receive and make sure you have got speed, direction and GPS data. This way, the recording can be done. Or, you have to stop the car for 1~3 minutes to let the GPS positioned for normal operation.

GPS Recorded Data Download Operation Process

1. Install USB driver software (attached in CD).
2. Install GPS download software (attached in CD).
3. Select GPS download software
   a. Select COM port.
   b. Select "Download" and key-in file name.
   c. Press download button and keep for more than 2 seconds (can see the data loaded to the file, then can release) to download the GPS recorded data. The download LED will light up till download is completed.
   d. Select "CLOSE" after download is completed (The download LED will be off after download is completed).
   e. The download file will be saved under GPS download file; user can open the file to view.
   f. The download file data is in standard GPRMC format.

Remarks:
1. When GPS display LED flashed, it means GPS does not succeed to get position data. When GPS display LED lights and keeps still, it means it gets position data.
2. Press and keep the download button, then turn on the power and then release the download button. This process will delete all recorded GPS data. The LED will flash after data is deleted.

Show Road Map on Map Software

1. Transfer the GPS GPRMC file to match local map software.
2. Open local map software.
3. To transmit the recorded and transferred data to map software to show recorded road track on the map.

PC PLAYER SOFTWARE OPERATION

Install PC player software

Open the "PC Player Software" burnt on CD and install it on your PC.

PC Player Software

↓

Viewer400_6.75

↓

↓
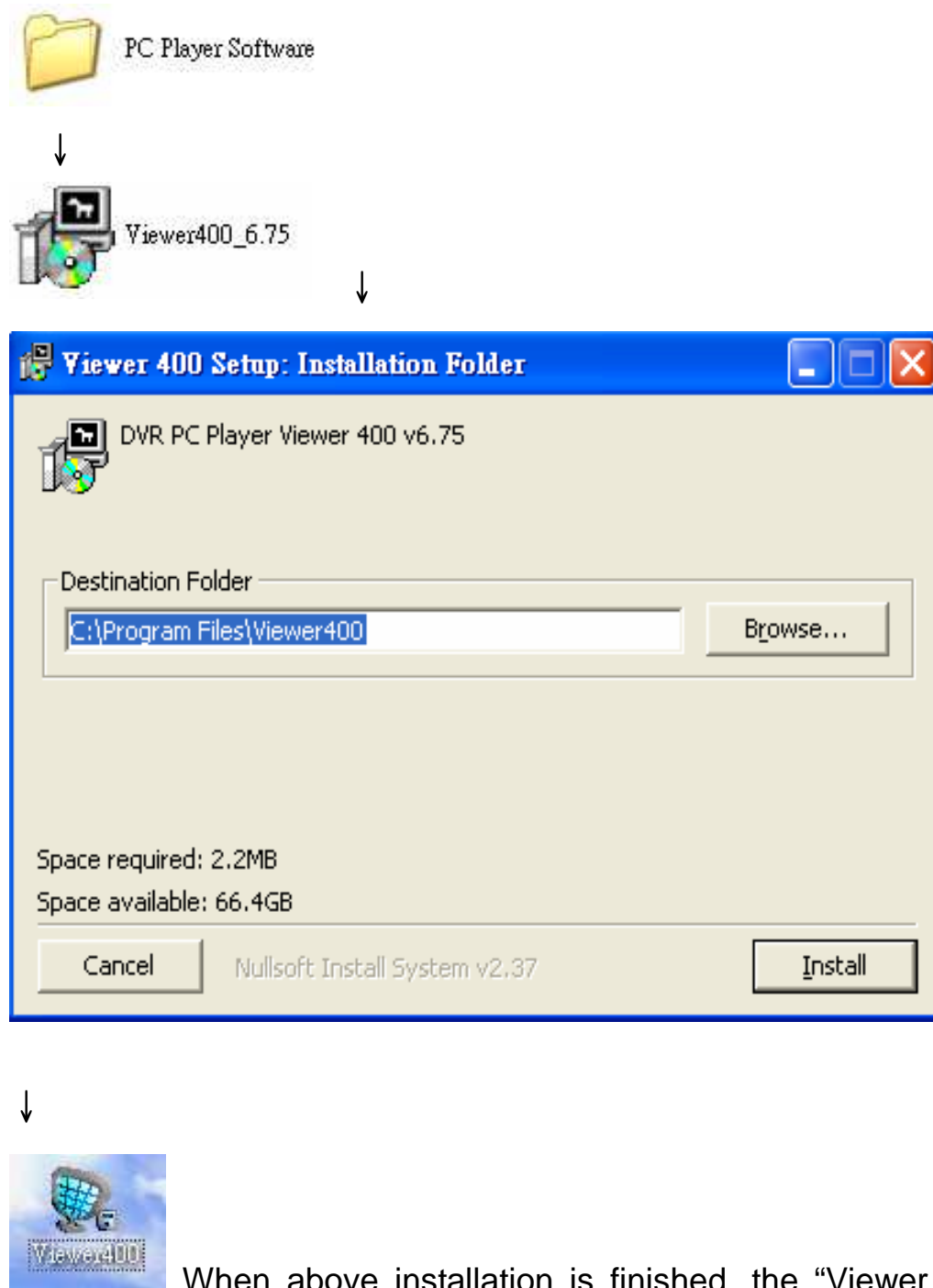
Viewer400

When above installation is finished, the "Viewer 400" icon will be showed on desktop and ready to be used.

How to play the file

a. Connect DVR Slave port to PC

On DVR side: Press **"MENU"** button and enter "**USB SLAVE**" screen first.

MENU → BACKUP SETUP → USB SLAVE → RUN

Connect DVR Slave port to PC by USB cable and follow "Start playback" process to play the DVR files.

b. Connect hard drive (removable tray) by USB docking unit (dongle)

Hard drive   **Dongle**   **USB cable**

b-1. Remove hard drive from the DVR.

b-2. Connect playback dongle to hard drive (removable tray).

b-3. Connect USB cable to dongle, connect to USB port on your PC.

Start playback

1. Double-click on the Viewer400 icon on your desktop.

2. Enter **account: root** and **password: root**.
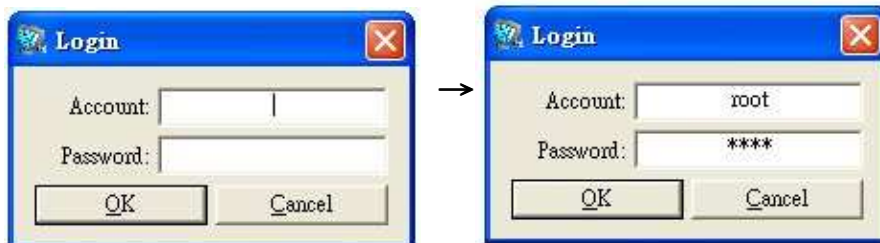
3. Click button for the following screen:
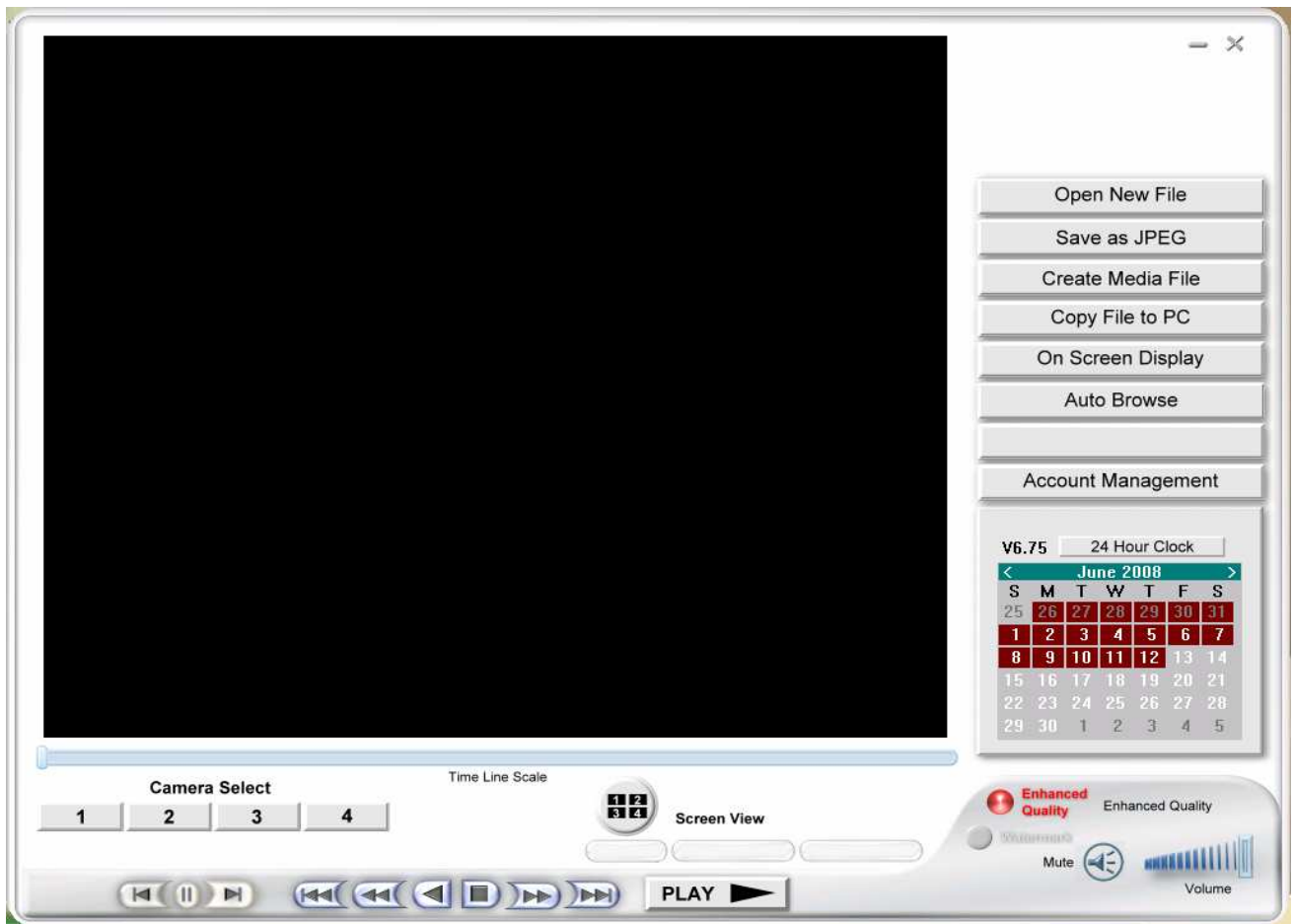
Control panel function.

Open new file

Save as JPEG

Create Media File

Copy File to PC

On Screen Display

Auto Browse

Account Management

Minimize / Exit
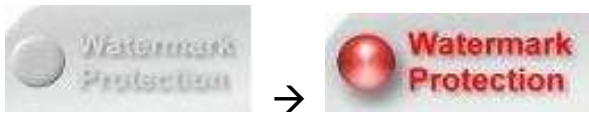
	Watermark Protection: The system will show the warning light and stop playing when the recorded data is abnormally put in or removed. Press "Play" button to continue the playback.
	Enhance video quality
	Information related to the current software or file
	Play
	Volume adjustment or activate mute play
	Play speed adjustment
	Camera channel selection
	Time Line Scale
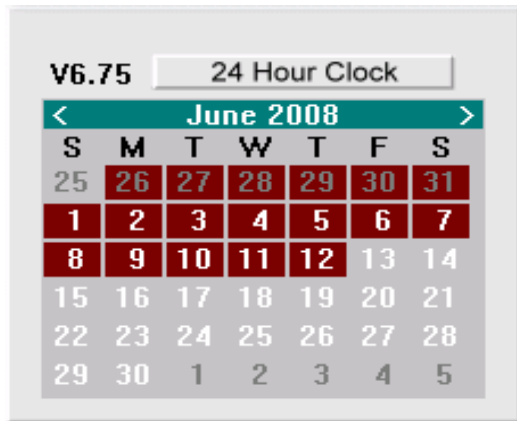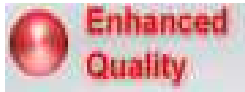
4. Press **Open New File** Button

5. Click button.

6. Find the DVR device and select one file, and then press "OPEN".

7. Highlight desired time and click "Open".

Open File List

Browse	**Open**

Type NTSC

File Name E:\DVR_0001.DVR   **Cancel**

Start Time 06/12/2008 12:46:42   End Time 06/12/2008 13:28:37   **Output GPS**

Search all time(Start/End)	Search file event	Search all event
Copy file to PC	Copy event to PC	

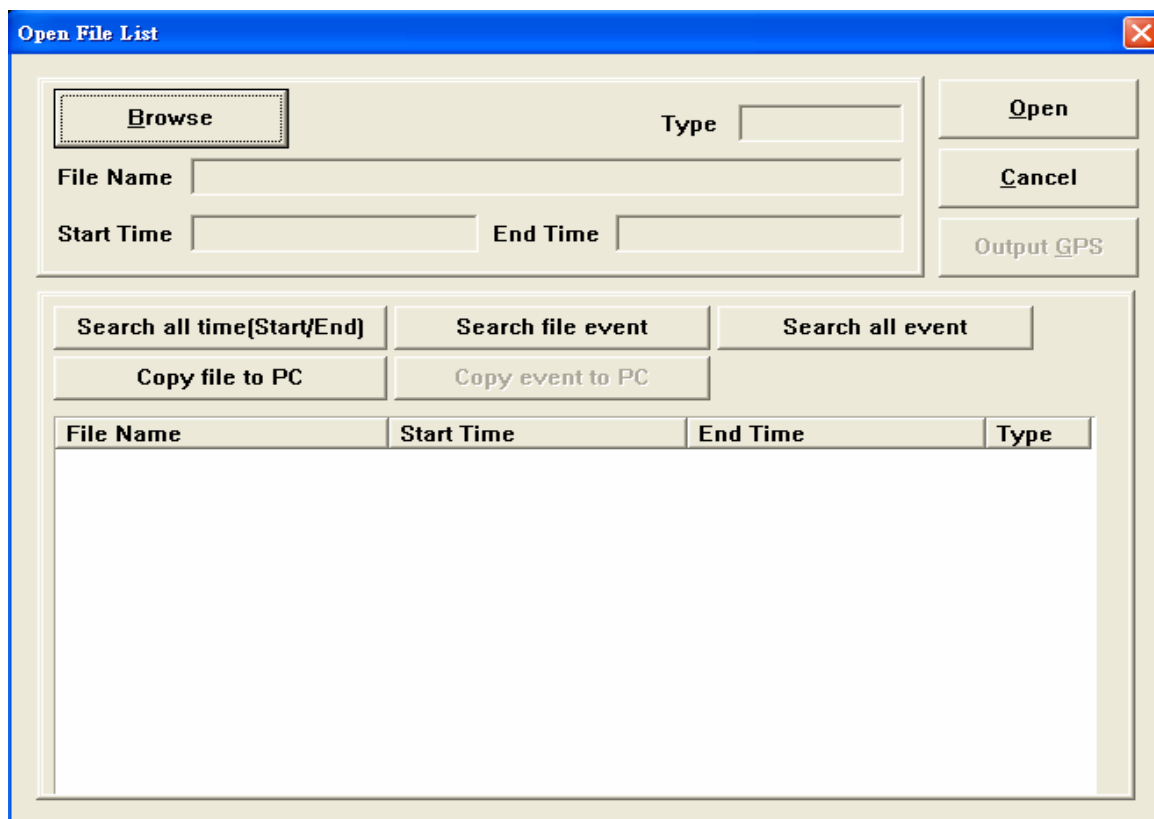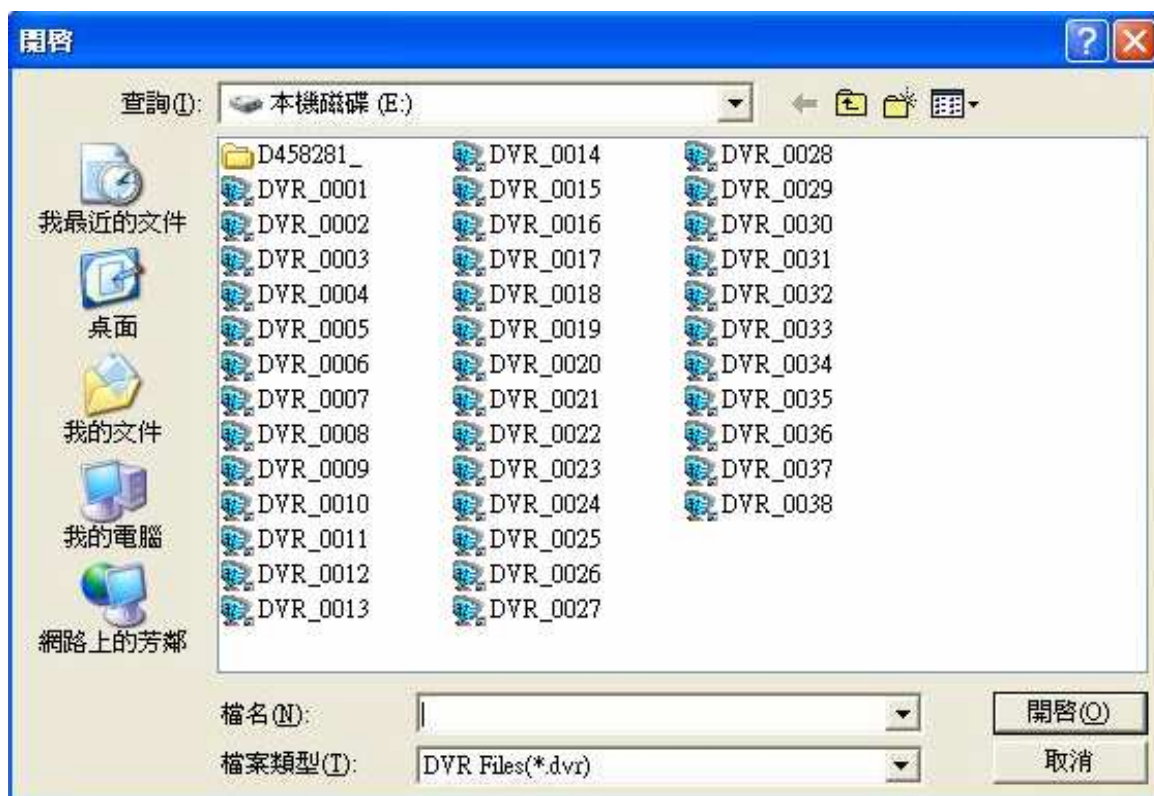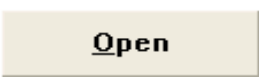| File Name	Start Time	End Time	Type
E:\DVR_0016.DVR	05/27/2008 09:42:58	05/27/2008 10:18:15	NTSC
E:\DVR_0015.DVR	05/27/2008 09:08:52	05/27/2008 09:42:58	NTSC
E:\DVR_0014.DVR	05/27/2008 08:34:59	05/27/2008 09:08:52	NTSC
E:\DVR_0013.DVR	05/27/2008 08:01:36	05/27/2008 08:34:59	NTSC
E:\DVR_0012.DVR	05/27/2008 07:28:21	05/27/2008 08:01:36	NTSC
E:\DVR_0011.DVR	05/26/2008 12:40:34	05/27/2008 07:28:21	NTSC
E:\DVR_0010.DVR	05/26/2008 12:08:09	05/26/2008 12:40:34	NTSC
E:\DVR_0009.DVR	05/26/2008 11:34:52	05/26/2008 12:08:09	NTSC
E:\DVR_0008.DVR	05/26/2008 11:02:16	05/26/2008 11:34:52	NTSC
E:\DVR_0007.DVR	05/26/2008 10:28:22	05/26/2008 11:02:16	NTSC
E:\DVR_0006.DVR	05/26/2008 10:16:20	05/26/2008 10:28:22	NTSC

8. If the file does not meet your desired date/time, press

Search all time (Start/End) to list all recorded image.

9. Select the desired file to play.

10. Press **Open** button.

11. Click **PLAY ▶** to play video.

How to archive your event data

Once the file is opened (after follow Steps 1 ~ 10 of "Start playback" as mentioned above), please follow the steps below to archive your event data.

1. Select Play **PLAY ▶** or move the Time Line Scale to the start of the event. And, note the time on paper.
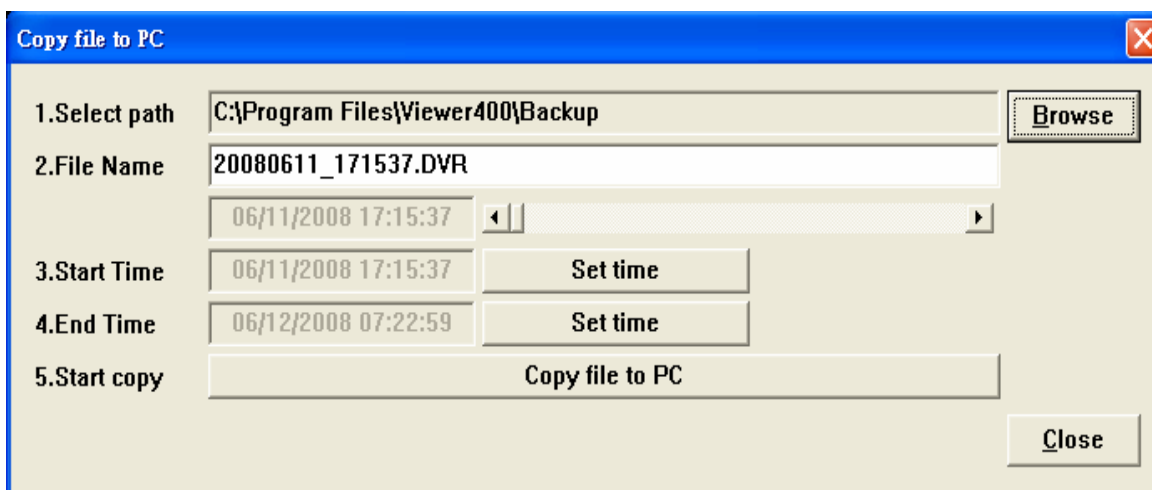
2. Continue to play the file until the event is over.

3. Click [Open New File] "Open New File".

4. When the dialog box comes up, select "[Copy file to PC]".

5. From the noted times, slide the time slider to the beginning time.

Copy file to PC

1.Select path	C:\Program Files\Viewer400\Backup	Browse
2.File Name	20080611_171537.DVR	
	06/11/2008 17:15:37 ◄|| _____ ►	
3.Start Time	06/11/2008 17:15:37	Set time
4.End Time	06/12/2008 07:22:59	Set time
5.Start copy	Copy file to PC	
		Close

6. Now select "Set time" parallel to "Start Time"

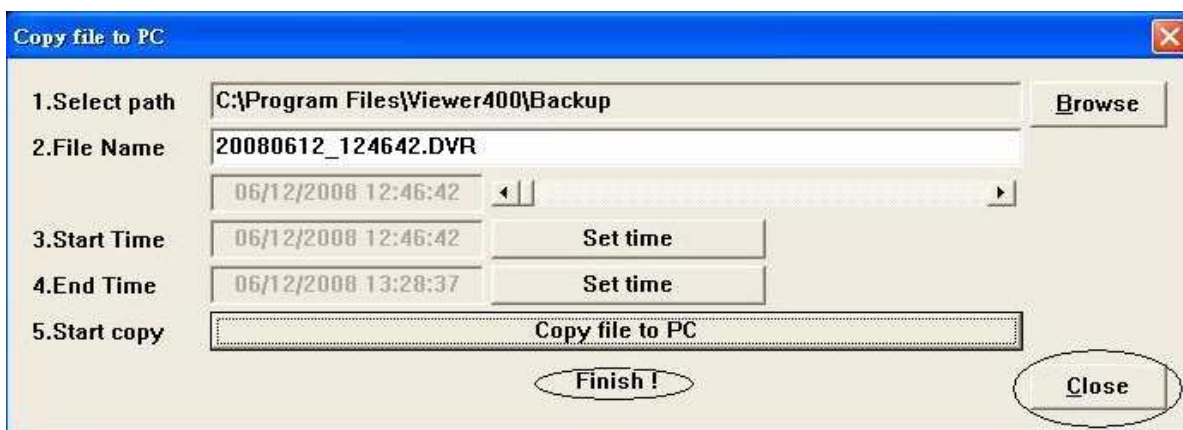7. Now move the time slider to the end of the event.

8. Now select "Set time" parallel to "End Time".

9. Click "Browse" and select the "My Backup Video Files" folder you created earlier to save your file.

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10. Click "Copy file to PC".

11. When completed it will say "Finish".

12. After finishing, close all dialog boxes.

Suggestion: You can then open the folder you created and rename the file. Make sure the file name ends with " .dvr".
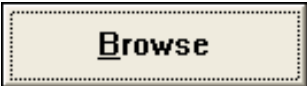
How to create an AVI file

Once the file is opened (after follow Steps 1 ~ 10 of "Start playback" as mentioned above), please follow the steps below to create an AVI file.

1. Click [Create Media File] button to transfer the file to AVI format

2. Select camera channel. Then, move time slider to desired start time.
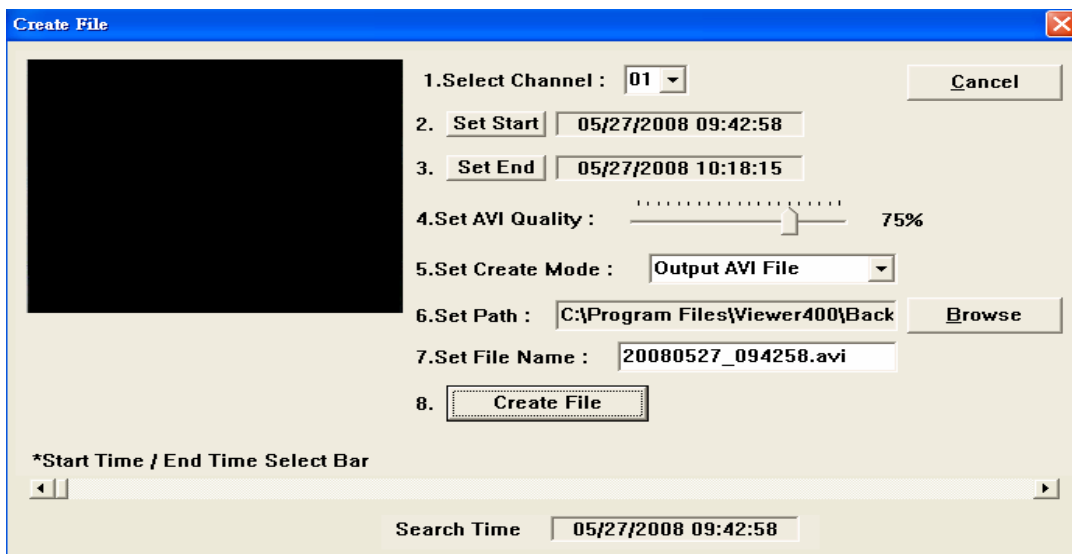
3. Click "Set Start".

4. Click "Set End".

5. Click [Browse] and choose the location you want to save.

6. Name your file.

7. Click [Create File]. This may take several minutes depending on the file size to be created.

8. You will see the percent completed. When completed, click "OK".

* This document is subject to change without notice.