Digital Quad Recorder

User Manual

770 *V 1.0*

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1. Introduction

Thank you for choosing this high quality Digital Quad Recorder. The DQR converts analog NTSC or PAL video to digital images and records them to a removable hard disk drive. Digitally recorded video has many advantages compared to analog video recorded on tape. There is no need to adjust tracking. Digital video can be indexed by time schedule or events, and you can instantly view video after selecting the time or event. You can freeze frames, fast-forward, and fast-reverse, slow forward, and slow reverse without image streaking or tearing. It can be used as a replacement for both a time-lapse VCR and a Quad in a security installation.

1.1 Safety Warning

All the safety and operating instructions should be read before the operation. The improper operation may cause permanent damage.

1.1.1 Please use the adaptor provided from AV TECH.

1.1.2 Please lift and place this equipment gently.

1.1.3 Do not expose this equipment to open sunlight.

1.1.4 Do not use this equipment near water or in contact with water.

1.1.5 Do not spill liquid of any kind on the equipment.

1.1.6 Please power down the unit before unplugging.

1.1.7 This equipment should be operated only with power source from standard package.

1.1.8 Unauthorized repair or parts substitutions may result in fire, electric shock or other hazards.

1.1.9 Do not switch the Power On & Off within short period o time (within 3 seconds).

1.1.10 Do not attempt to service this equipment by yourself. Refer all servicing and repair to qualified service personnel.

1.1.11 This unit should be operated only from power source indicated on the manufacturer's label.

1.1.12 Installation should be made by a qualified service personnel and should conform to all local safety codes and regulations.

1.2 Features

1.2.1 Wavelet Compression Format replaces Time-Lapse VCR and Quad

1.2.2 4 Audio inputs / 2 Audio outputs

1.2.3 On Screen Display and RTC (Real time clock) Function

1.2.4 Resolution

Screen Modes	Resolution
Full screen	704(H) x 468(V) <NTSC> / 704(H) x 564(V) <PAL>
4 channels	352(H) x 234(V) <NTSC> / 352(H) x 282(V) <PAL>

1.2.5 Main monitor output allows simultaneous viewing of 4 cameras and full screen viewing.

1.2.6 Multi Screen Display Mode
● Below display modes are selectable for in surveillance & DQR playback mode:

Full Screen   Quad
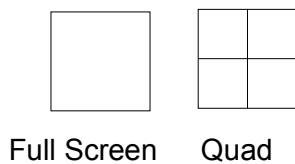
1.2.7 Digital Zoom can be up to 2 X 2 in DQR playback modes
1.2.8 4 channels and each channel has independent title generator (up to 10 characters).
1.2.9 Video Quality Adjustable on Each Channel

1.2.10 Alarm Input & Output Function
● 4 channels alarm input, ALARM display and one alarm output.
● Video loss detection on each channel.
● Record 160 events.
1.2.11 Power-loss memory function: set up parameter will remain, in case of power failure.

1.2.12 Support 1 Removable HDD, IDE Type

1.2.13 Timer: Schedule recording

1.2.14 Display refresh rate up to 60 IPS (50 IPS for PAL)

1.2.15 Record refresh rate up to 60 IPS (50 IPS for PAL)

1.2.16 Quick Multiple Search by date/time, alarm, full list

1.2.17 Fast and slow playback in multiple speeds.

1.2.18 Security password protection

1.2.19 RS-232, RS-485 communication protocol

1.3 Specifications

Video format	NTSC/EIA or PAL/CCIR
Hard disk storage	IDE type, UTMA 66 above, 1 removable HDD supported
Record mode	Manual / Alarm / Timer
Camera Input Signal	Composite video signal 1 Vp-p 75Ω BNC, 9 channels
Camera Loop Back	Composite video signal 1 Vp-p 75Ω BNC, 9 channels
Main Monitor Output	Composite video signal 1 Vp-p 75Ω BNC
Audio input	4 audio inputs, (RCA) ＊1
Audio output	2 audio outputs, (RCA) ＊2.
Video Loss Detection	Yes
Refresh Rate	60 images/sec. for NTSC / 50 images/sec. for PAL
Recording Rate	60 images/sec. for NTSC / 50 images/sec. for PAL
Dwell Time	Programmable (1~10 Sec)
Key Lock	Yes
Picture Zoom	2 x 2
Camera Title	8
Video Adjustable	Color/Contrast/Brightness Adjustable
Alarm Input	TTL input, Hi (5V), Low (GND)
Alarm Output	COM,/N.O/N.C.
Remote Control	RS-232 or RS-485
Time Display Format	YY/MM/DD, DD/MM/YY, MM/DD/YY, OFF
Power Source	AC90~240V± 10% switching adaptor
Power Consumption	<27W
Operation Temperature	10～40℃
RS-232C / RS-485 (bps)	115200、57600、19200、9600、4800、3600、2400、1200
Dimension	380 x 270 x 65mm (W x L x H)
Net Weight	5.2Kgs

Specifications are subject to change without notice.

＊1 . 4 audio inputs, but only can select 1 during operation for recording

＊2 . With 2 mono audio outputs from the same source.
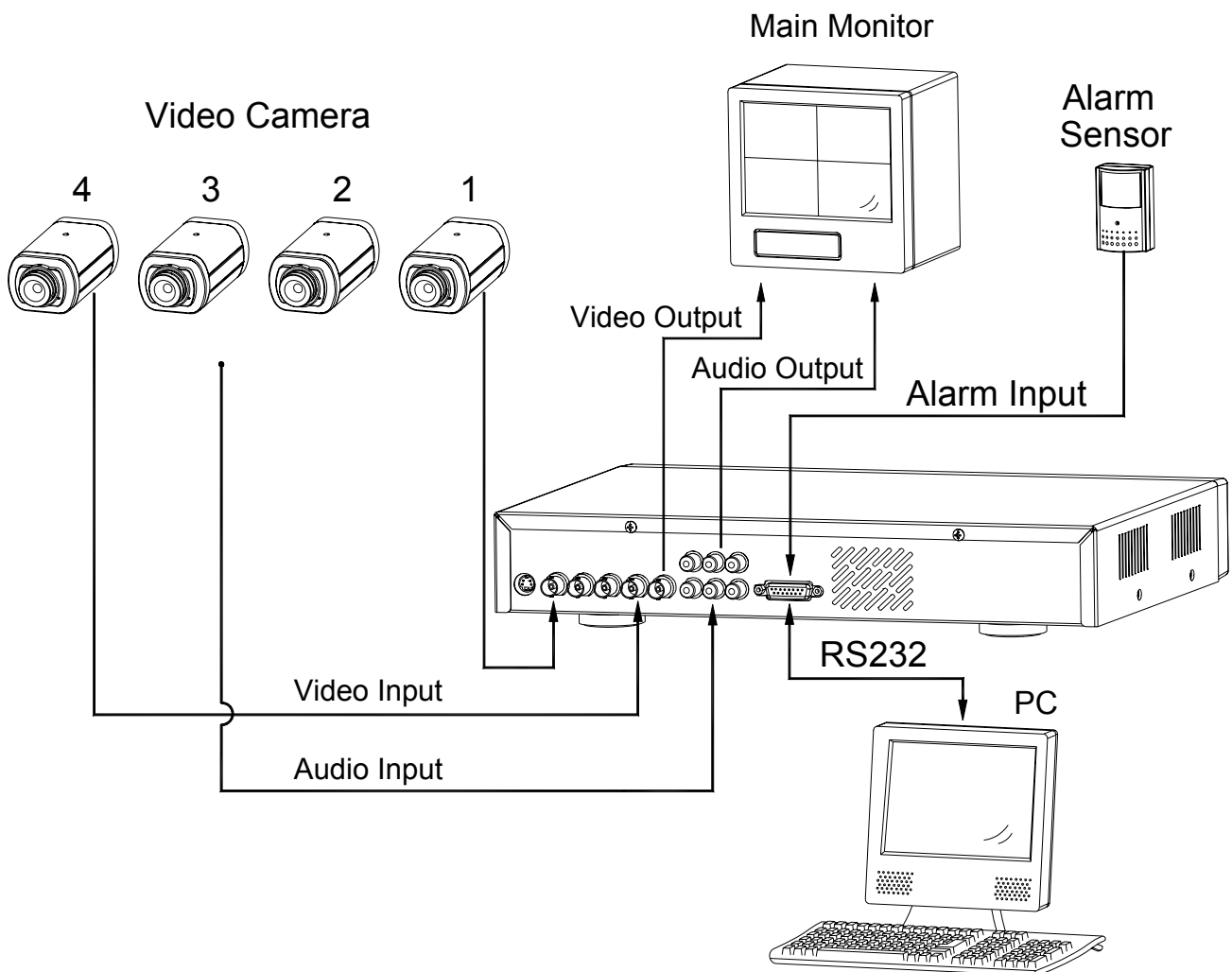
2. Installation

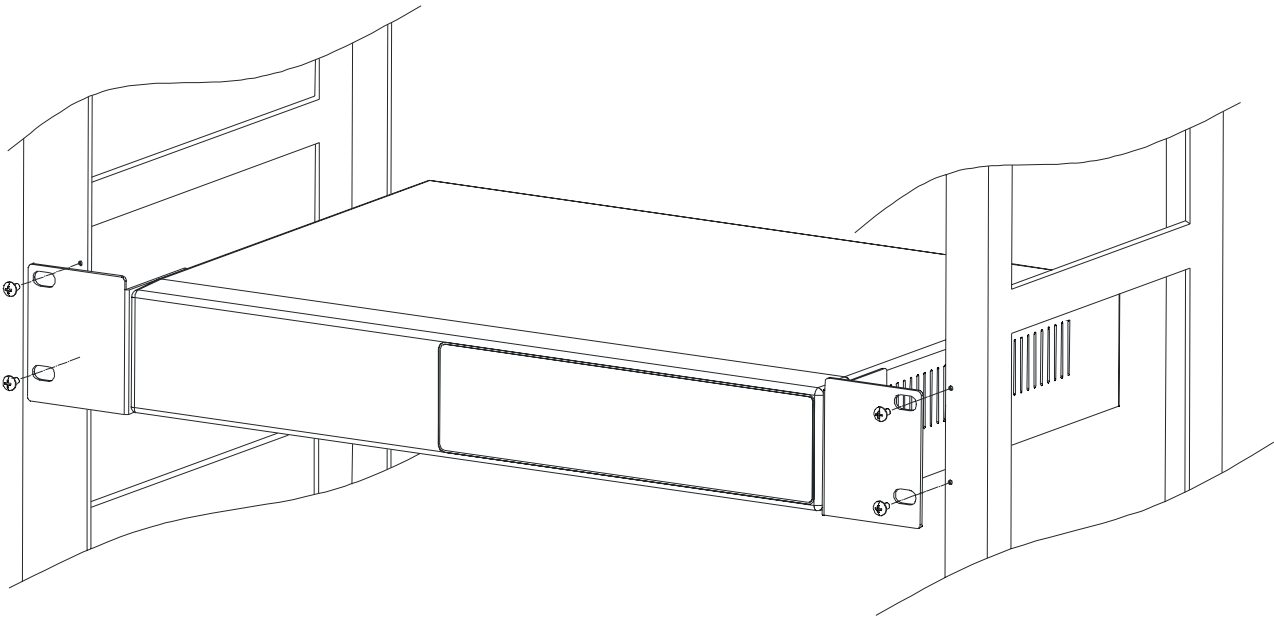## *2.1 Package contents*

The package contents the following items.

- Digital Quad Recorder
- HDD cartridge
- Key for cartridge (Attached in HDD cartridge)
- Power cord
- User manual
- Rack mounting kit (Optional)

2.2 Connection

2.2.1 Connect with cameras

2.3 Rack mount installation

Front Angle with Rock Mount
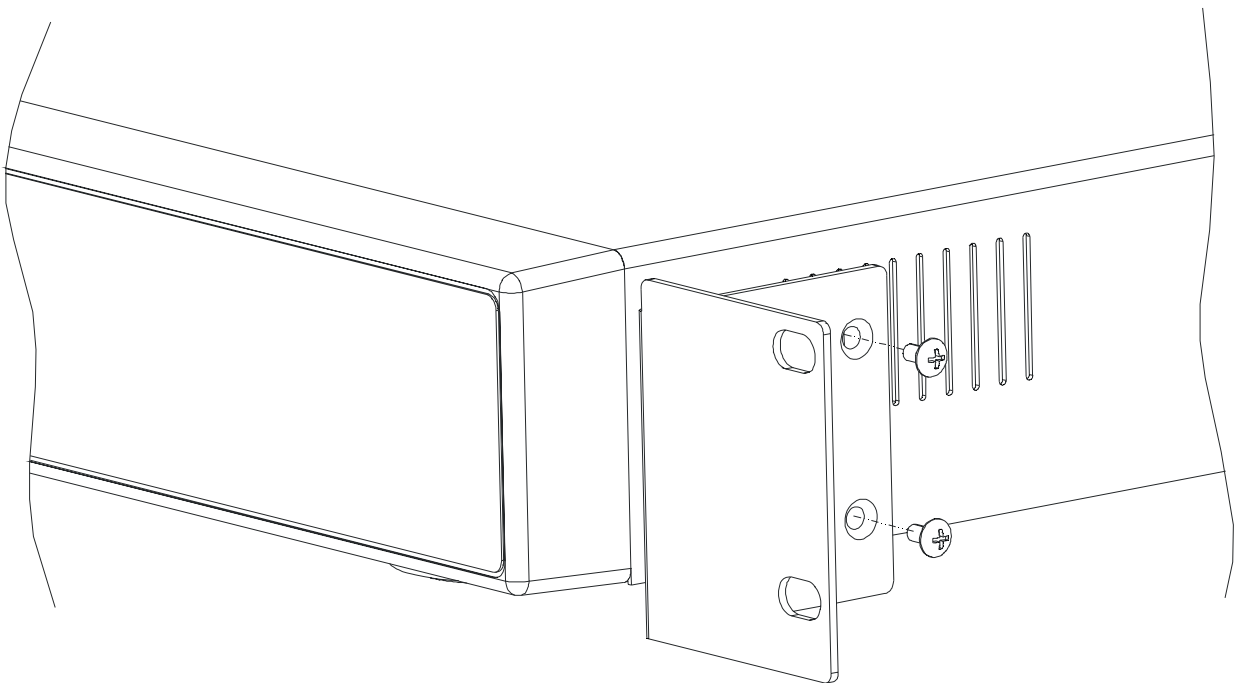
Side View with Rack Mount

2.4 RS232/ RS485 Remote Protocol

You can use the PC keyboard to simulate DQR keypad.

DATA: REMOTE PROTOCOL using 8 bit data、1 start bit、1stop bit

ACT	C0H	ID	FUNCTION	STOP
(FFH)				(7FH)
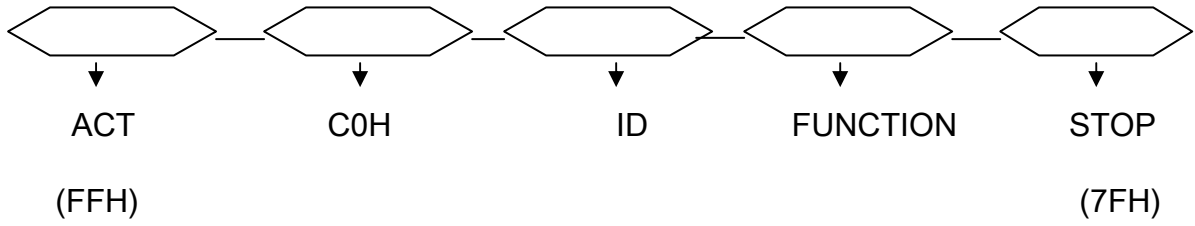
FUNCTION	CODE	ASCII	FUNCTION	CODE	ASCII
Menu	0x4D	M	Play	0x50	P
Enter	0x0D	ENTER	REC	0x72	r
Search	0x48	H	CH1	0x31	1
Slow	0x53	S	CH2	0x32	2
Up	0x55	U	CH3	0x33	3
Down	0x4E	N	CH4	0x34	4
Left	0x4C	L	QUAD	0x51	Q
Right	0x52	R	AUTO	0x41	A

3. Configuration

3.1 HDD Installation

3.1.1 Installing Hard Drive into Cartridge
    3.1.1.1.   Please find the Key in the Cartridge.
    3.1.1.2.   Use the provided miniature key and insert into the keyhole, turning the key counter-clockwise.
    3.1.1.3.   Pull the handle outwards to remove the carrier body away from the cartridge frame.
    3.1.1.4.   Push the open button to slide the top cover backwards and remove.
    3.1.1.5.   Insert the DC power cable and IDE cable on the HDD.
    3.1.1.6.   Position the HDD into carrier body and secure the HDD with the four 6#-32 screws provided.
    3.1.1.7.   Slide the top cover back to the carrier body by sliding it forward to secure.
    3.1.1.8.   Slide the carrier body back into the cartridge frame.

3.1.2 Function Settings and Operation
    3.1.2.1   Power Indicator and HDD Access indicator

       When power is **ON**, the indicator will display the following message :

Item	Indicator
Power Indicator	Green LED
HDD Access Indicator	Yellow LED

3.1.3 Key lock
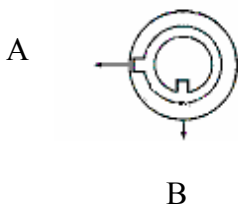
Status \\ Segment	Power status	Security status
A	ON	Locked (Irremovable)
B	OFF	Unlocked (Removable)

You must turn key lock to "A" position before powering on the unit. Otherwise HDD will not operate properly.

3.1.4 The Record Time differs on Record Speed and Record Quality.   Please

Refer to the following table.

NTSC SYSTEM

IPS		60	30	15	8	4	2	1
Record Quality	Best	12hr	24hr	48hr	90hr	180hr	360hr	720hr
	High	15hr	30hr	60hr	112.5hr	225hr	450hr	900hr
	Normal	24hr	48hr	96hr	180hr	360hr	720hr	1440hr
	Basic	40hr	80hr	160hr	300hr	600hr	1200hr	2400hr
HDD Type		120GB						

PAL SYSTEM

IPS		50	25	12	6	3	2	1
Record Quality	Best	12hr	24hr	50hr	101hr	203hr	304hr	608hr
	High	15hr	30hr	63hr	127hr	253hr	380hr	760hr
	Normal	24hr	49hr	101hr	203hr	405hr	608hr	1220hr
	Basic	41hr	81hr	168hr	338hr	675hr	1013hr	2025hr
HDD Type		120GB						

Note: Above data is from actual test data obtained from recording normal TV program.

(Reference only)

3.2 Front panel keypad
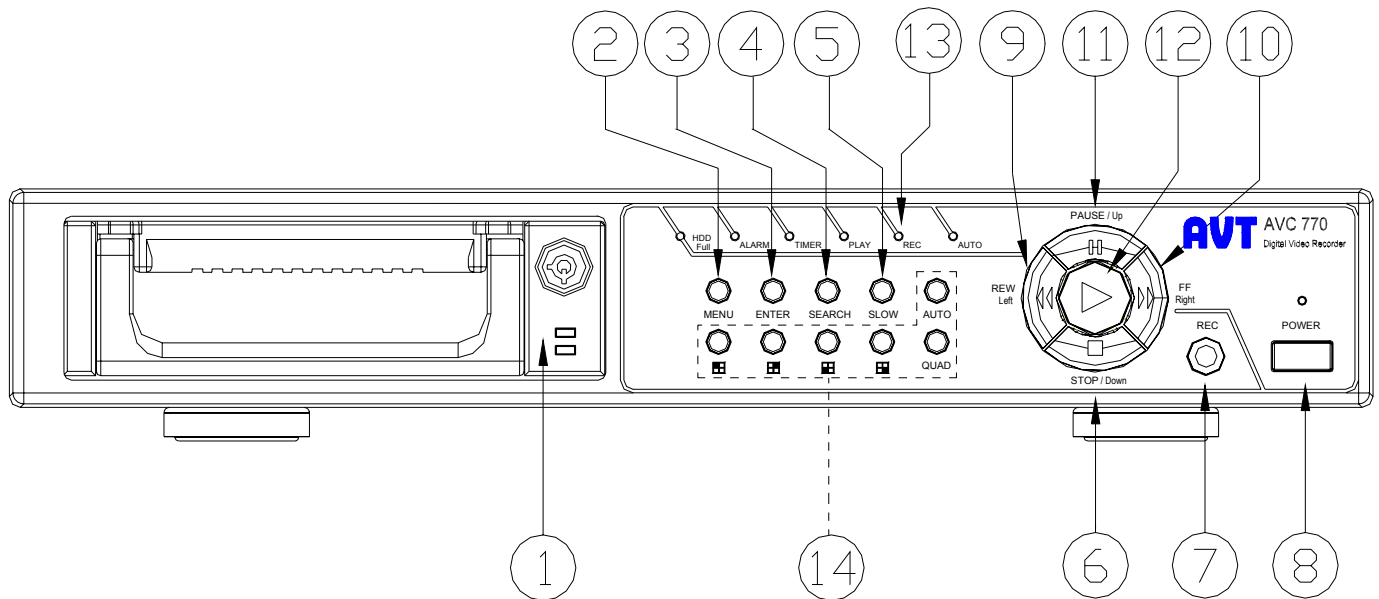
Please follow the instructions below to operate this unit.

1. **Install HDD** :This unit is with a removable hard disk drive tray. Before turning on this device, you must install hard disk drive (not included in standard package) for proper operation.

2. **MENU** : Press **MENU** to enter main menu operation mode, and press Administrator Password (default:0000) to access main menu.

3. **ENTER** : Press **ENTER** for confirmation.

4. **SEARCH**
   Press **SEARCH** for period recording video searching.

5. **SLOW** : To press **SLOW** to slow down speed of play mode.

6. **STOP / Down** :
   STOP : Under DQR Record/Play mode, it will stop recording / playing.
   DOWN : Under setup mode , it can work as **DOWN** button.

7. **REC** : Press **REC** to start recording.

8. **POWER :** To power on, press power button.
   To power off, press power button again.

9. **REW / Left** :
   REW : Under DQR play mode, it can play video backward at high speed, and press REW again to adjust speed at 1, 2, 4, 8, 16, 32 times
   LEFT: Under setup mode , it can work as **LEFT** button.

10. **FF / Right** :
    FF : Under DQR play mode, it can play video forward at high speed, and press **FF** again to adjust speed at 1, 2, 4, 8, 16, 32 times.

11

Right : Under setup mode , it can work as **RIGHT** button.

11. **PAUSE / Up** :

    PAUSE : Under DQR play mode, it will make video pause.

    UP : Under setup mode , it can work as **UP** button.

12. **PLAY** : Press **PLAY** to play recorded video.

13. **LED Light** : Under the following conditions, the LED Light is ON.

    (1) HDD Full：HDD is full

    (2) ALARM：When Alarm Enable : Yes (when alarm is triggered, the led is flashing)

    (3) TIMER：When Timer Enable : Yes

    (4) PLAY：Play operation

    (5) REC：Recording operation

    (6) AUTO: 4 channel will display in full screen by turns

14. : Displays the CH1 camera in the full screen format.

 : Displays the CH2 camera in the full screen format.

 : Displays the CH3 camera in the full screen format.

 : Displays the CH4 camera in the full screen format.

QUAD : Display 4 cameras in quad screen format.

AUTO : 4 channel will display in full screen format by turns.

3.3 Back panel connection
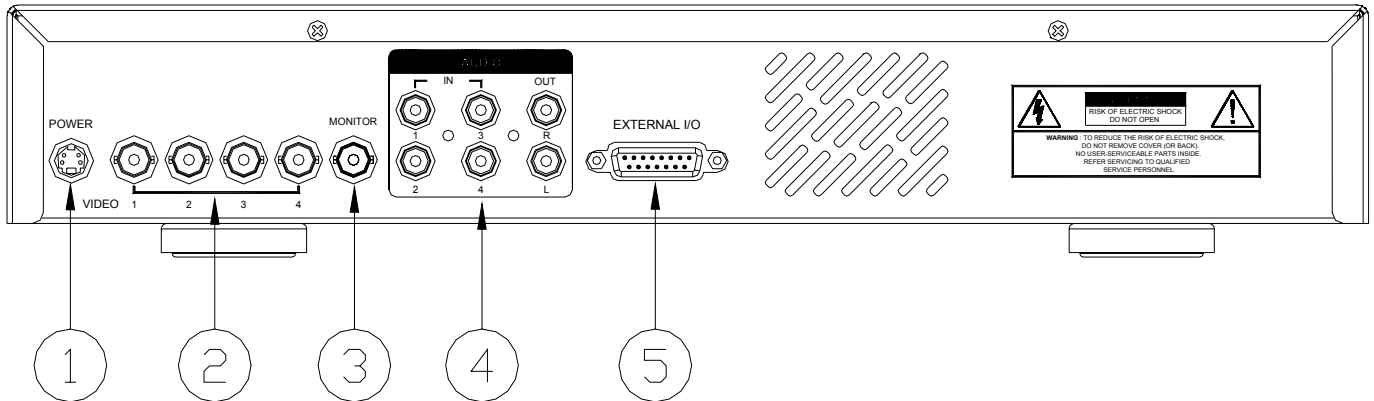
1. **POWER INPUT**

   Connect to power cord (standard package attached).

2. **VIDEO IN 1~4**

   Connect to video source, such as camera.

3. **MONITOR**

   Connect to Main monitor

4. **AUDIO IN 1~4**

   Connect to audio source, such as microphone.

   * IPS should be set over 30 (for NTSC) or 25 (for PAL)

   AUDIO OUT   R/L

   Connect to monitor or speaker.

5. **External I/O**

   Controlled remotely by an external device or control system.

   Alarm input, external I/O explanation.

3.3.9 External I/O

25 pin com port

```
        COMPUTER          DQR
      1                9  1
   14  o                   o─── RS232-TX
     o                  o───── GND
       o2               o───── RS232-RX
     o   o3             o───── RS485-B
       o                o───── ALARM INPUT1
     o   o              o───── RS485-A
       o                o───── ALARM INPUT2
     o   o              o───── DISK FULL
       o                o───── ALARM INPUT3
     o   o              o───── REC START
       o   7            o───── ALARM INPUT4
     o   o              o───── ALARM RESET
       o                o───── EXTERNAL ALARM NC
     o             15   o───── EXTERNAL ALARM COM
       o                o───── EXTERNAL ALARM NO
     o   o                8
       o   o
     o   o
       o   o
     o   o
       o   o
      o                
     25  o
         13
```
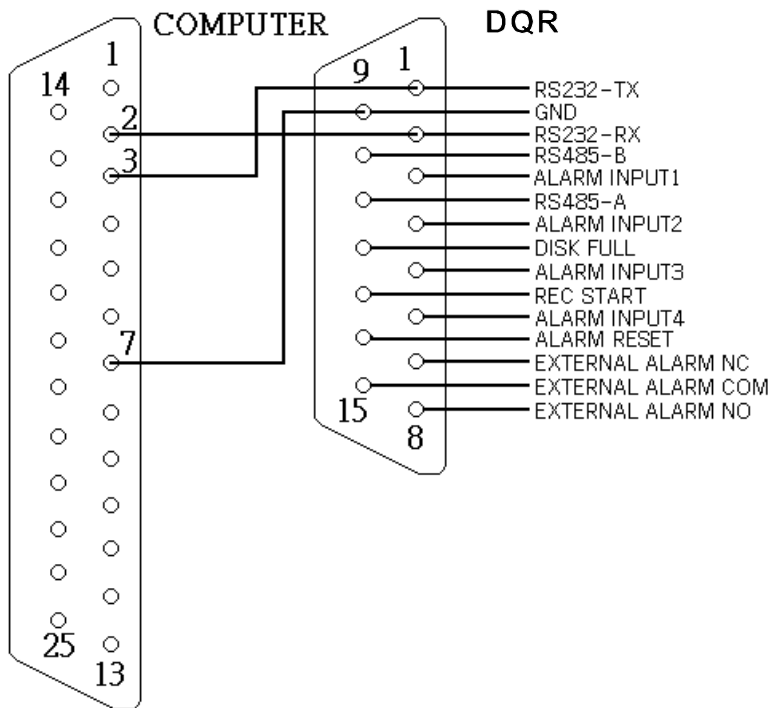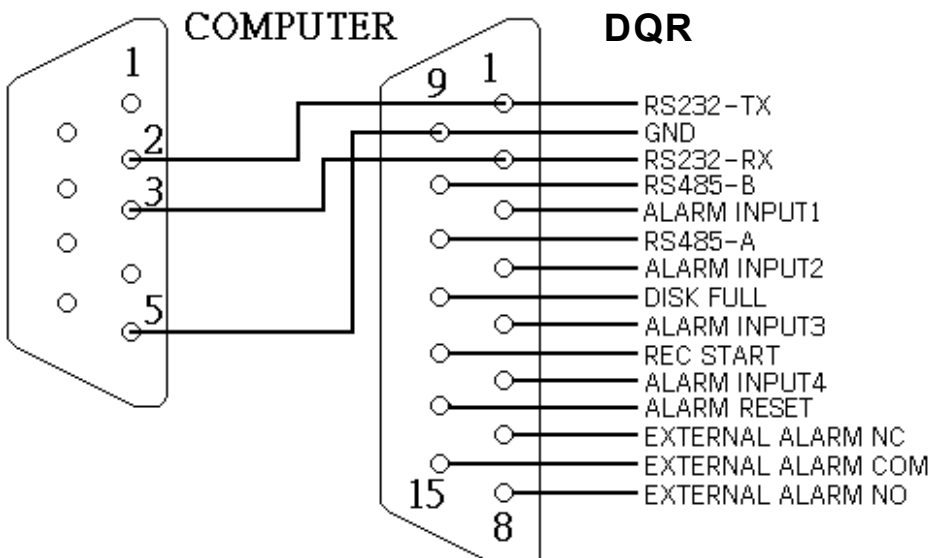
9 pin com port

```
        COMPUTER          DQR
      1                9  1
     o                    o─── RS232-TX
   o   o2                o───── GND
     o                  o───── RS232-RX
   o   o3              o───── RS485-B
     o                  o───── ALARM INPUT1
   o                    o───── RS485-A
     o                  o───── ALARM INPUT2
   o   o5              o───── DISK FULL
                        o───── ALARM INPUT3
                      o───── REC START
                        o───── ALARM INPUT4
                      o───── ALARM RESET
                        o───── EXTERNAL ALARM NC
                 15   o───── EXTERNAL ALARM COM
                        o───── EXTERNAL ALARM NO
                          8
```

PIN 1. RS232-TX : RS-232

DQR can be controlled remotely by an external device or control system, such as a control keyboard, using RS-232 serial communications signals.

PIN 2. RS232-RX : RS-232

DQR can be controlled remotely by an external device or control system, such as a control keyboard, using RS-232 serial communications signals.

PIN 3. ALARM INPUT 1 (INPUT)

To connect wire from **ALARM INPUT 1 (PIN 3)** to **GND (PIN 9)** connector, DQR will start recording and buzzer will be on. When alarm has been triggered, signal becomes "Low", and it will stop all alarm activities. Under normal operation, signal remains "High".

PIN 4. ALARM INPUT 2 (INPUT)

To connect wire from **ALARM INPUT 2 (PIN 4)** to **GND (PIN 9)** connector, DQR will start recording and buzzer will be on. When alarm has been triggered, signal becomes "Low", and it will stop all alarm activities. Under normal operation, signal remains "High".

PIN 5. ALARM INPUT 3 (INPUT)

To connect wire from **ALARM INPUT 3 (PIN 5)** to **GND (PIN 9)** connector, DQR will start recording and buzzer will be on. When alarm has been triggered, signal becomes "Low", and it will stop all alarm activities. Under normal operation, signal remains "High".

PIN 6. ALARM INPUT 4 (INPUT)

To connect wire from **ALARM INPUT 4 (PIN 6)** to **GND (PIN 9)** connector, DQR will start recording and buzzer will be on. When alarm has been triggered, signal becomes "Low", and it will stop all alarm activities. Under normal operation, signal remains "High".

PIN 7. EXTERNAL ALARM NC

Under normal operation COM connect with NC and disconnect with NO. But when alarm triggered, COM disconnect with NC, and connect with NO.

PIN 8.   EXTERNAL ALARM NO

Under normal operation COM connect with NC and disconnect with NO. But when Alarm triggered, COM disconnect with NC, and connect with NO.

PIN 9.   GND

GROUND

PIN 10.   RS485-B

DQR can be controlled remotely by an external device or control system, such as a control keyboard, using RS485 serial communications signals.

PIN 11.   RS485-A

DQR can be controlled remotely by an external device or control system, such as a control keyboard, using RS485 serial communications signals.

PIN 12.   DISK FULL (OUTPUT)

When HDD is full, it sends a signal to trigger next DQR record mode, if you install another DQR. Under normal operation, the signal remains "High". But when disk full, DVR will send the "Low" signal.

PIN 13.   REC START (INPUT)

This pin can accept the external trigger signal to activate record mode from external device. When the external signal turn to "Low", it will trigger DQR record mode. When the external signal back to "High", it will stop recording action.
The default normal operation remains "High".

PIN 14.   ALARM RESET (INPUT)

To connect wire from **ALARM RESET (PIN 14)** to **GND (PIN 9)** connector, it can disable ALARM. An external signal to **ALARM RESET (PIN 14)** can be used to reset both **ALARM OUTPUT** signal and DQR's internal buzzer. When alarm has been triggered, signal becomes "Low", and it will stop all alarm activities. Under normal operation, signal remains "High".

PIN 15.   EXTERNAL ALARM COM

Under normal operation COM connect with NC and disconnect with NO. But when alarm triggered, COM disconnect with NC, and connect with NO.

3.4 Menu setup

Press **"MENU"** to enter main menu. You will
need to enter password to access main menu.
To press "**Right**" "**Left**" to move digit, and
Press "**Up**" "**Down**" to select number.
Press **"ENTER"** button to confirm password.

Ex.: Password : 0000   (Default : 0000)

```
PASSWORD : 0000
```

After keying in correct password, confirm by

pressing **"ENTER"** button, screen will show

following options.

TIMER   -------- Scheduling Record
CAMERA ------- Camera Channel Setup
RECORD------- Record Mode Setup
ALARM   -------- Alarm Mode Setup
DWELL   -------- Auto channel switching setup
REMOTE------- Remote control protocol Setup
SYSTEM ------- System Setup
EVENT   -------- Event List

```
        (MENU)
    ► TIMER
      CAMERA
      RECORD
      ALARM
      DWELL
      REMOTE
      SYSTEM
      EVENT
```
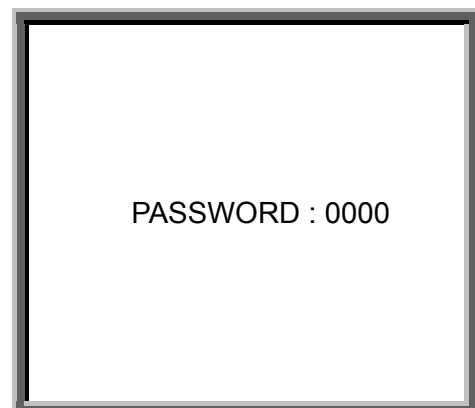
For the unit can be operated properly, we start introducing from System setup.

3.5 System setup

Press **"MENU"** to enter main menu. You will
need to enter password to access main menu.
Press "**Right**" "**Left**" to move digit, and
Press "**Up**" "**Down**" to select number.
Press **"ENTER"** button to confirm password.

Ex.: PASSWORD : 0000   (Default : 0000)

```
PASSWORD : 0000
```

After keying the correct password, confirm by pressing **"ENTER"** button, screen will show following options.

```
(MENU)
► TIMER
  CAMERA
  RECORD
  ALARM
  DWELL
  REMOTE
  SYSTEM
  EVENT
```

TIMER   -------- Scheduling Record
CAMERA ------- Camera Channel Setup
RECORD------- Record Mode Setup
ALARM   -------- Alarm Mode Setup
DWELL   -------- Auto channel switching setup
REMOTE------- Remote control protocol Setup
SYSTEM ------- System Setup
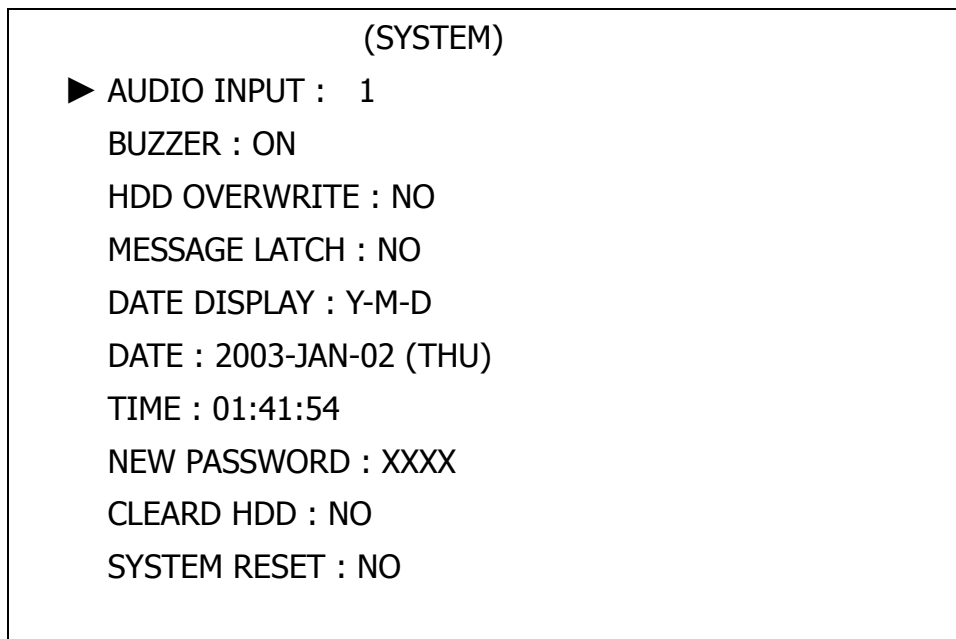EVENT   -------- Event List

Press "**Up**" "**Down**" to choose **SYSTEM** setup

```
      TIMER
      CAMERA
      RECORD
      ALARM
      DWELL
      REMOTE
►SYSTEM
      EVENT
```

```
(MENU)
  TIMER
  CAMERA
  RECORD
  ALARM
  DWELL
  REMOTE
►SYSTEM
  EVENT
```
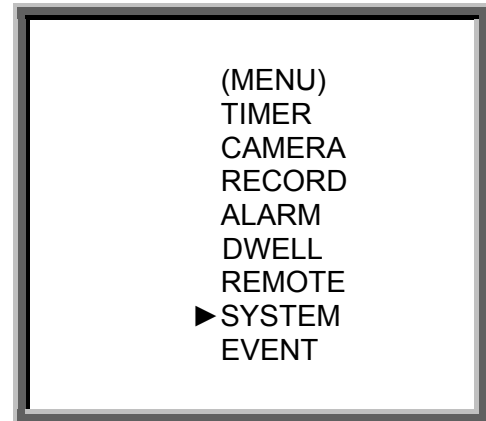
Press "**ENTER**" to confirm **SYSTEM** setup, and the screen will show following options.

```
            (SYSTEM)
  ► AUDIO INPUT :   1

    BUZZER : ON

    HDD OVERWRITE : NO

    MESSAGE LATCH : NO

    DATE DISPLAY : Y-M-D

    DATE : 2003-JAN-02 (THU)

    TIME : 01:41:54

    NEW PASSWORD : XXXX

    CLEARD HDD : NO

    SYSTEM RESET : NO
```

3.5.1 AUDIO INPUT setup:

This device allows user to set the AUDIO INPUT.   User can choose one of 4 channels to record at one time.

3.5.1.1 Press "**Up**" "**Down**" to choose AUDIO INPUT :

3.5.1.2 Press "**ENTER**" button to confirm AUDIO INPUT

3.5.1.3 Press "**Up**" "**Down**" to choose the AUDIO INPUT : **1~4**

3.5.1.4 Press "**MENU**" to exit and confirm current operation.

3.5.1.5 Press "**MENU**" again to exit and close **AUDIO INPUT** setup mode.

3.5.2 BUZZER setup:

This device allows user to set the BUZZER. BUZZER will be trigged by event occurrence when the setting is ON.

3.5.2.1 Press " **Up**" or " **Down**" to choose BUZZER

3.5.2.2 Press " **ENTER**" button to confirm BUZZER

3.5.2.3 Press " **Up**" or " **Down**" to choose the BUZZER : ON/OFF

    ON: Internal Buzzer ON

    OFF: Internal Buzzer OFF

3.5.2.4 Press " **MENU**" to exit and confirm current operation.

3.5.2.5 Press " **MENU** " again to exit and close **BUZZER** setup mode.

3.5.3 HDD OVERWRITE Setup option:

This device allows user to set the HDD OVERWRITE.

3.5.4.1 Press " **Up**" or " **Down**" to choose HDD OVERWRITE

3.5.4.2 Press " **ENTER**" to confirm HDD OVERWRITE setup.

3.5.4.3 Press " **Up**" or "**Down**" to choose HDD OVERWRITE setup

    NO : When HDD full will stop recording

    YES : When HDD full will overwrite the HDD recording

3.5.4.4 Press " **MENU**" to exit and confirm current operation.

3.5.4.5 Press " **MENU**" again to exit and close **HDD OVERWRITE** setup mode.

3.5.4 MESSAGE LATCH setup

This device allows user to decide the External Alarm graph showed on monitor or not.

3.5.4.1 Press " **Up**" or " **Down**" to choose MESSAGE LATCH setup

3.5.4.2 Press " **ENTER**" button to confirm MESSAGE LATCH setup

3.5.4.3 Press " **Up**" or " **Down**" to choose the MESSAGE LATCH: YES/NO

    YES : Message latch ON

    NO : Message latch OFF

3.5.4.4 Press " **MENU**" to exit and confirm current operation.

3.5.4.5 Press ” **MENU**” again to exit and close **MESSAGE LATCH** setup mode.

3.5.5 DATE DISPLAY setup

This device allows user to set the title shown on monitor or not.

3.5.5.1 Press ” **Up**” or “ **Down** ” to choose DATE DISPLAY setup

3.5.5.2 Press ” **ENTER**” button to confirm DATE DISPLAY setup

3.5.5.3 Press ” **Up**” or “ **Down** ” to choose DATE DISPLAY format

Y-M-D / M-D-Y / D-M-Y / OFF

3.5.5.4 Press ” **MENU** ” to exit and confirm current operation.

3.5.5.5 Press ” **MENU** ” again to exit and close **DATE DISPLAY** setup mode.

3.5.6 DATE setup

This device allows user to set date on monitor.

3.5.6.1 Press ” **Up** ” or “ **Down** ” to choose DATE display

3.5.6.2 Press ” **ENTER** ” to confirm DATE setup.

3.5.6.2 Press ” **Up** ” or “ **Down** ” to choose the correct Date, and press press “ **Right** ”
or “ **Left** ” to move digit location.

3.5.6.4 Press ” **MENU** ” to exit and confirm current operation.

3.5.6.5 Press ” **MENU** ” again to exit and close **DATE** setup mode.

3.5.7 TIME setup:

This device allows user to set time on monitor.

3.5.7.1 Press ” **Up** ” or “ **Down** ” to choose TIME display

3.5.7.2 Press ” **ENTER** ” to confirm TIME display.

3.5.7.3 Press ” **Up** ” or “ **Down** ” to choose the correct Time, and press press “ **Right** ” or
“ **Left** ” to move digit location.

3.5.7.4 Press ” **MENU** ” to exit and confirm current operation.

3.5.7.5 Press ” **MENU** ” again to exit and close **TIME** setup mode.

3.5.8 NEW PASSWORD: XXXX setup: (Default password: 0000)

This device allows user to set the new password.

3.5.8.1 Press ” **Up** ” or “ **Down** ” to choose NEW PASSWORD: XXXX setup.

3.5.8.2 Press ” **ENTER** ” to confirm NEW PASSWORD: XXXX setup.

3.5.8.3 Press   ” **Up** ” or “ **Down** ” to choose number, and press“ **Right** ” or “ **Left** ” to
move digit location.

3.5.8.4 Press ” **MENU** ” to exit and confirm current operation.

3.5.8.5 Press " **MENU** " again to exit and close **NEW PASSWORD** setup mode.

3.5.9 CLEAR HDD setup

This device allows user to have the HDD cleared.

3.5.9.1 Press " **Up** " or " **Down** " to choose CLEAR HDD setup.

3.5.9.2 Press " **ENTER** " to confirm CLEAR HDD setup.

3.5.9.3 Press " **Up** " or " **Down** " to choose CLEAR HDD setup YES or NO.

YES: Confirm to clear HDD, and screen will show followings.

```
ALL DATA IN HDD
WILL BE CLEARED
ARE YOU SURE?
( ◄ : NO ► : YES )
```

Press " ► " to clear HDD

NO: Confirm not to clear HDD.

3.5.9.4 Press " **MENU** " to exit and confirm current operation.

3.5.9.5 Press " **MENU** " again to exit and close **CLEAR HDD** setup mode.

3.5.10 SYSTEM RESET setup

This device allows user to reset the system.

3.5.10.1 Press " **Up** " or " **Down** " to choose SYSTEM RESET setup.

3.5.10.2 Press " **ENTER**" to confirm SYSTEM RESET setup.

3.5.10.3 Press " " **Up** " or " **Down** " to choose SYSTEM RESET Yes or No

YES: To confirm System Reset (load default system reset)

NO: Confirm not to System Reset

3.5.10.4 Press " **MENU** " to exit and confirm current operation.

3.5.10.5 Press " **MENU** " again to exit and close **SYSTEM RESET** setup mode.

3.6 TIMER setup (Schedule Time-Lapse record mode setup)
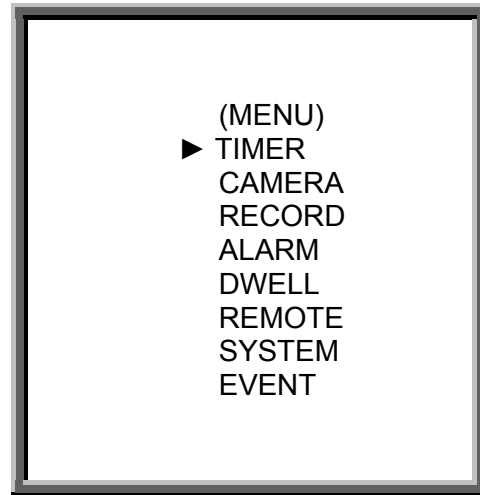
Press **"MENU"** to enter main menu. You will need to enter password to access main menu. Press " Left " or "Right " to move digit, and press " Up " or " Down " to select number. Press **"ENTER"** button to confirm password.

Ex.: PASSWORD : 0000   (Default : 0000)

```
PASSWORD : 0000
```

After keying the correct password, confirm by

pressing **"ENTER"** button, screen will show

following options.

TIMER   -------- Scheduling Record
CAMERA ------- Camera Channel Setup
RECORD------- Record Mode Setup
ALARM   -------- Alarm Mode Setup
DWELL   -------- Auto channel switching setup
REMOTE------- Remote control protocol Setup
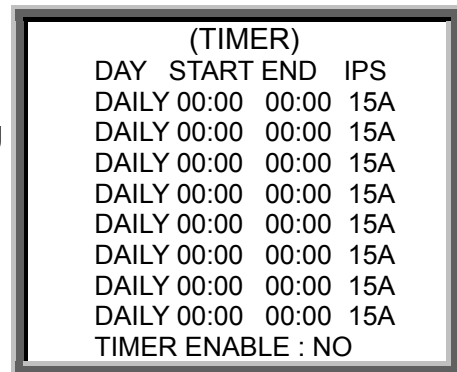SYSTEM ------- System Setup
EVENT   -------- Event List

```
        (MENU)
      ► TIMER
        CAMERA
        RECORD
        ALARM
        DWELL
        REMOTE
        SYSTEM
        EVENT
```

Press "**Up**" "**Down**" to choose **TIMER** setup

►TIMER
　CAMERA
　RECORD
　ALARM
　DWELL
　REMOTE
　SYSTEM
　EVENT

```
        (MENU)
      ► TIMER
        CAMERA
        RECORD
        ALARM
        DWELL
        REMOTE
        SYSTEM
        EVENT
```
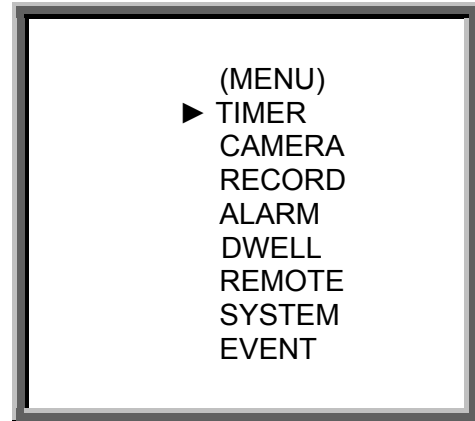
Select TIMER item, and press "**ENTER"** button to confirm TIMER Record setup mode. Following screen will be displayed.

```
         (TIMER)
  DAY   START END   IPS
  DAILY 00:00  00:00  15A
  DAILY 00:00  00:00  15A
  DAILY 00:00  00:00  15A
  DAILY 00:00  00:00  15A
  DAILY 00:00  00:00  15A
  DAILY 00:00  00:00  15A
  DAILY 00:00  00:00  15A
  DAILY 00:00  00:00  15A
  TIMER ENABLE : NO
```

3.6.1 TIMER setup:

3.6.1.1 Press " **ENTER** " to confirm TIMER setup.

3.6.1.2 Press " **Up** " or " **Down** " to choose the Timer Record day

        Daily: Everyday

        MON: Monday

        TUE: Tuesday

        WED: Wednesday

        THU: Thursday

        FRI: Friday

        SAT: Saturday

        SUN: Sunday

        MO-FR: Monday to Friday

        SA-SU: Saturday & Sunday

        JAN-01: Special Date

3.6.1.3 Press " **Left** " or " **Right** " move to START record time 00:00 (HH:MM)

        Press " **Up** " or " **Down** " to change START record time numerical digit

3.6.1.4 Press " **Left** " or " **Right** " move to END record time 00:00 (HH:MM)

        Press " **Up** " or " **Down** " to change END record Time numerical digit

3.6.1.5 Press " **Left** " or " **Right** " move to Record IPS (Images Per Second)

        Press" **Up** " or " **Down** " to choose option of

      NTSC - 60、30、15、8、4、2、1

      PAL - 50、25、12、6、3、2、1

3.6.1.6 Press **"MENU"** to confirm current operation, and enter to next Timer Record
        setup.

3.6.1.7 Press " **Up** " or " **Down** " to move location to Timer Enable：Yes or No setup

        YES : To confirm Timer Enable：Schedule Timer Record function

        NO : To confirm Timer Disable：No Schedule Timer Record function

3.6.1.8 Press " **MENU** " to exit and confirm current operation.

3.6.1.9 Press again " **MENU** " to exit and close **TIMER** setup mode.
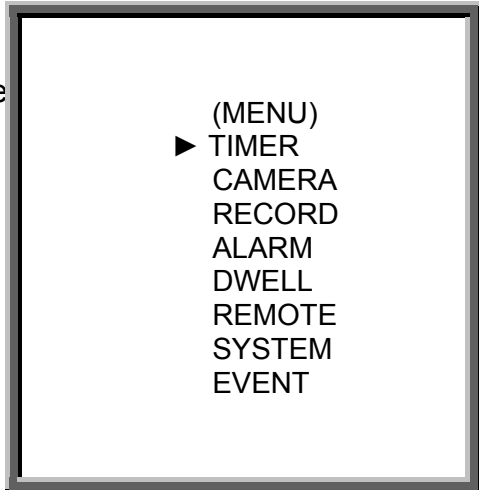
3.7 CAMERA setup

Press **"MENU"** to enter main menu. You will need to enter password to access main menu. Press " **Left** " or " **Right** " to move digit, and to press " **Up** " or " **Down** " to select number. To press " **ENTER** " button to confirm password.

Ex.: Password: 0000 (Default: 0000)
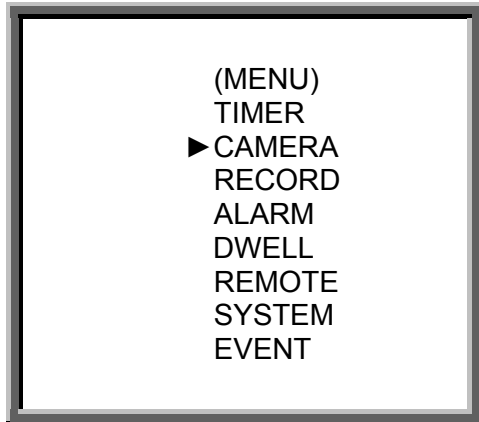
```
          PASSWORD: 0000
```

After keying the correct password, confirm by

pressing **"ENTER"** button, screen will show the

following options.

TIMER -------- Scheduling Record
CAMERA ------- Camera Channel Setup
RECORD------- Record Mode Setup
ALARM -------- Alarm Mode Setup
DWELL --------Auto channel switching setup
REMOTE------- Remote control protocol Setup
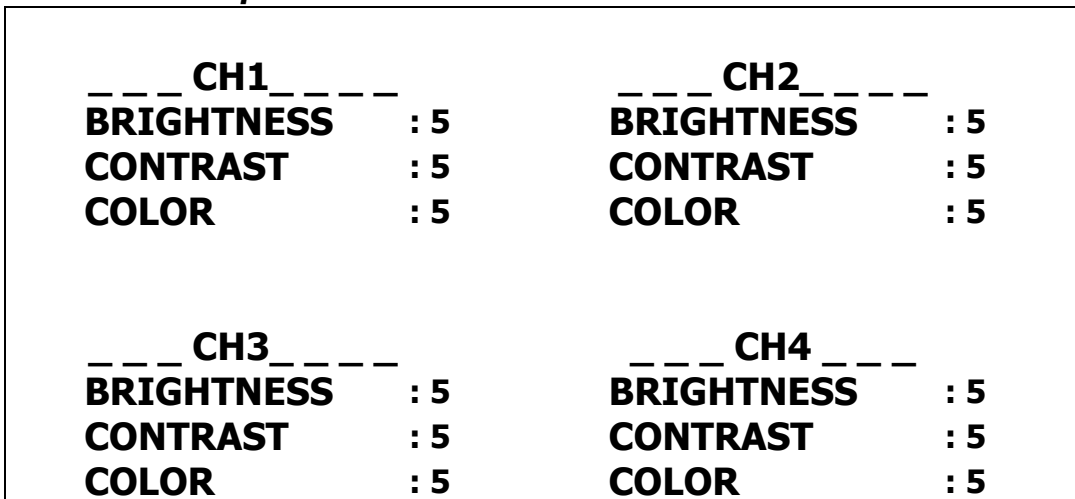SYSTEM ------- System Setup
EVENT -------- Event List

```
        (MENU)
     ► TIMER
        CAMERA
        RECORD
        ALARM
        DWELL
        REMOTE
        SYSTEM
        EVENT
```

Press "**Up**" "**Down**" to choose **CAMERA** setup

```
    TIMER
  ►CAMERA
    RECORD
    ALARM
    DWELL
    REMOTE
    SYSTEM
    EVENT
```

```
        (MENU)
        TIMER
     ►CAMERA
        RECORD
        ALARM
        DWELL
        REMOTE
        SYSTEM
        EVENT
```

CAMERA *setup*

_ _ _ CH1_ _ _ _		_ _ _ CH2_ _ _ _	
BRIGHTNESS	**: 5**	**BRIGHTNESS**	**: 5**
CONTRAST	**: 5**	**CONTRAST**	**: 5**
COLOR	**: 5**	**COLOR**	**: 5**
_ _ _ CH3_ _ _ _		_ _ _ CH4 _ _ _	
BRIGHTNESS	**: 5**	**BRIGHTNESS**	**: 5**
CONTRAST	**: 5**	**CONTRAST**	**: 5**
COLOR	**: 5**	**COLOR**	**: 5**

3.7.1 **TITLE / Brightness/   Contrast / Color**:

It allows you to assign a title to each camera input. Initially each title is the camera's number.

3.7.1.1 Press" **Up** " " **Down** " " **Left** " or " **Right** " : Select a channel in the <u>Channel setup</u>

3.7.1.2 Press **ENTER**: Confirm the channel

3.7.1.3 Press " **Left** " or " **Right** " : Select the location of title (11 characters maximum)

3.7.1.4 Press " **Up** " or " **Down** " : Select the characters for display (**0~9, A~Z,-, :, (,),**)

3.7.1.5 Press" **Up** " " **Down** " " **Left** " or " **Right** " : Select channel in the <u>Channel setup</u>

3.7.1.6 Press "**ENTER"** Enter the <u>channel setup</u>

3.7.1.7 Press " **Up** " or " **Down** " : Select **BRIGHTNESS/ CONTRAST/ COLOR** on the screen

3.7.1.8 Press " **Up** " or " **Down** " : Set up **0~9** on the screen.
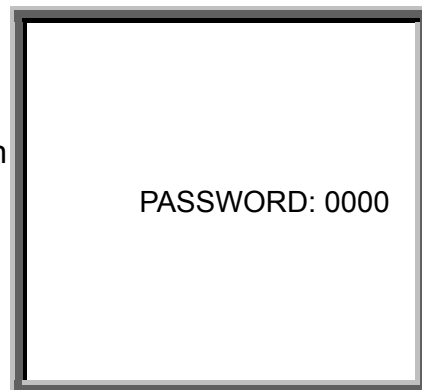
3.7.1.9 Press "**MENU** " :   Confirm and exit the brightness/contrast/color setting.

3.7.1.10 Press "**MENU**":   Exit the Channel setup
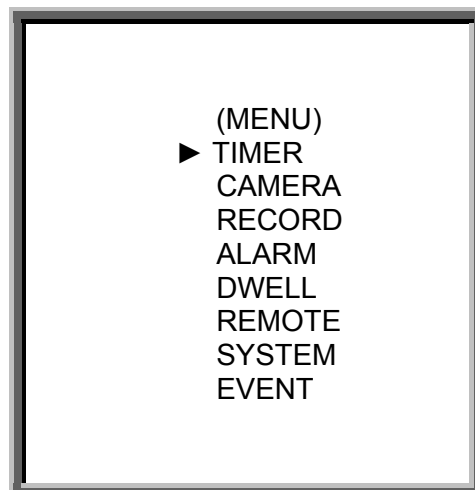
3.8   RECORD setup

Press **"MENU"** to enter main menu. You will need to enter password to access main menu. To press " **Left** " or " **Right** " to move digit, and to press " **Up** " or " **Down** " to select number.   To press " **ENTER** " button to confirm password.

　　Ex.: PASSWORD: 0000　(Default: 0000)

```
PASSWORD: 0000
```

After keying the correct password, confirm by

pressing **"ENTER"** button, screen will show

following options.

TIMER   -------- Scheduling Record
CAMERA ------- Camera Channel Setup
RECORD------- Record Mode Setup
ALARM   -------- Alarm Mode Setup
DWELL   -------- Auto channel switching setup
REMOTE------- Remote control protocol Setup
SYSTEM ------- System Setup
EVENT   -------- Event List
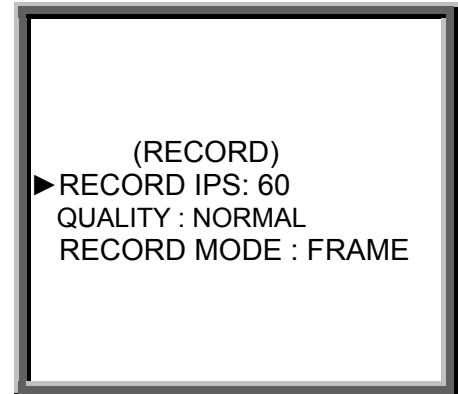
```
       (MENU)
   ► TIMER
     CAMERA
     RECORD
     ALARM
     DWELL
     REMOTE
     SYSTEM
     EVENT
```

Press "**Up**" "**Down**" to choose **RECORD** setup

    TIMER
    CAMERA
 ►RECORD
    ALARM
    DWELL
    REMOTE
    SYSTEM
    EVENT

```
      (MENU)
      TIMER
      CAMERA
    ►RECORD
      ALARM
      DWELL
      REMOTE
      SYSTEM
      EVENT
```
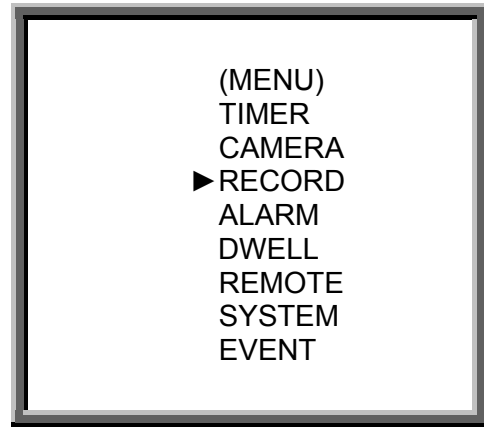
To choose Record item, and press " **ENTER** " to enter Record mode. Following screen will be displayed.

```
       (RECORD)
    ►RECORD IPS: 60
     QUALITY : NORMAL
     RECORD MODE : FRAME
```

3.8.1 RECORD IPS setup:

    3.8.1.1 Press " **Up** " or " **Down** " to choose RECORD IPS setup.

    3.8.1.2 Press " **ENTER**" to confirm RECORD IPS setup.

    3.8.1.3 Press " **Up** " or " **Down** " to choose IPS record speed.

        NTSC - 60、30、15、8、4、2、1

        PAL - 50、25、12、6、3、2、1

    3.8.1.4 Press " **MENU** " to exit and confirm current operation.

    3.8.1.5 Press " **MENU** " again to exit and close **RECORD IPS** setup mode.

3.8.2 RECORD QUALITY setup

    3.8.2.1 Press " **Up** " or " **Down** " to choose RECORD QUALITY setup.

    3.8.2.2 Press " **ENTER** " to confirm Record Quality setup.

    3.8.2.3 Press" **Up** " or " **Down** " to choose Record Quality level.

        BEST, HIGH, NORMAL, BASIC

    3.8.2.4 Press " **MENU** " to exit and confirm current operation.

    3.8.2.5 Press " **MENU** " again to exit and close **RECORD QUALITY** setup mode.

3.8.3 RECORD MODE setup

    3.8.3.1 Press " **Up** " or " **Down** " to choose RECORD MODE setup.

3.8.3.2 Press " **ENTER** " to confirm Record Mode setup.

3.8.3.3 Press" **Up** " or " **Down** " to choose Record Mode (Field / Frame).

3.8.3.4 Press " **MENU** " to exit and confirm current operation.

3.8.3.5 Press " **MENU** " again to exit and close **RECORD MODE** setup mode.

3.9 ALARM setup

Press **"MENU"** to enter main menu. You will need to enter password to access main menu. Press " **Left** " or " **Right** " to move digit, and to press " **Up** " or " **Down** " to select number.   Press " **ENTER** " button to confirm password.

  Ex.: PASSWORD: 0000   (Default: 0000)

```
PASSWORD: 0000
```

After keying the correct password, confirm by pressing **"ENTER"** button, screen will show following options.

TIMER   -------- Scheduling Record
CAMERA ------- Camera Channel Setup
RECORD------- Record Mode Setup
ALARM   -------- Alarm Mode Setup
DWELL   -------- Auto channel switching setup
REMOTE------- Remote control protocol Setup
SYSTEM ------- System Setup
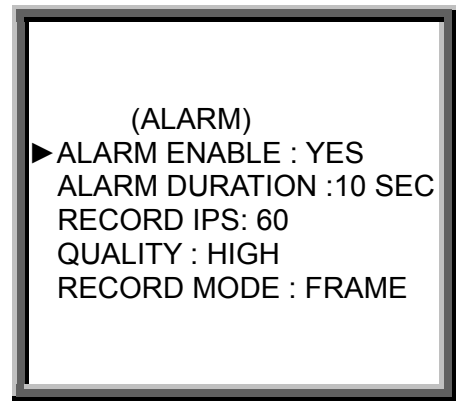EVENT   -------- Event List

```
(MENU)
► TIMER
  CAMERA
  RECORD
  ALARM
  DWELL
  REMOTE
  SYSTEM
  EVENT
```

Press "**Up**" "**Down**" to choose **ALARM** setup

  TIMER
  CAMERA
  RECORD
► ALARM
  DWELL
  REMOTE
  SYSTEM
  EVENT

```
(MENU)
  TIMER
  CAMERA
  RECORD
► ALARM
  DWELL
  REMOTE
  SYSTEM
  EVENT
```
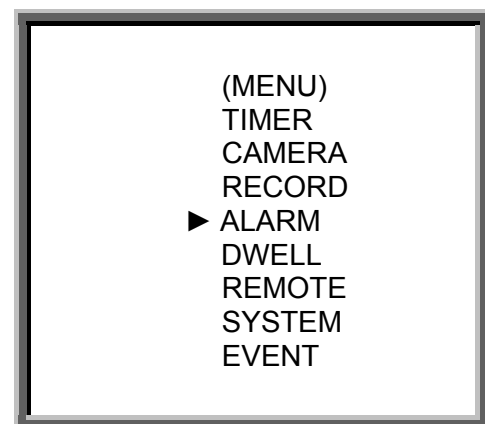
Press " **ENTER** " to enter Alarm mode. Following screen
will be displayed.

```
        (ALARM)
►ALARM ENABLE : YES
 ALARM DURATION :10 SEC
 RECORD IPS: 60
 QUALITY : HIGH
 RECORD MODE : FRAME
```

3.9.1 ALARM ENABLE setup:

    3.9.1.1 Press " **Up** " or " **Down** " to choose ALARM ENABLE setup.

    3.9.1.2 Press " **ENTER**" to confirm ALARM ENABLE setup.

    3.9.1.3 Press " **Up** " or " **Down** " to choose ALARM ENABLE.

        YES - Alarm trigger will be available.

        NO - Alarm trigger will be unavailable.

    3.9.1.4 Press " **MENU** " to exit and confirm current operation.

    3.9.1.5 Press " **MENU** " again to exit and close **ALARM ENABLE** setup mode.

3.9.2 ALARM DURATION setup

    3.9.2.1 Press " **Up** " or " **Down** " to choose ALARM DURATION setup.

    3.9.2.2 Press " **ENTER** " to confirm ALARM DURATION setup.

    3.9.2.3 Press" **Up** " or " **Down** " to choose ALARM DURATION time.

        Always, 10sec, 15sec, 20sec, 30sec, 1min, 2min, 3min, 5min, 10min, 15min, 30min

    3.9.2.4 Press " **MENU** " to exit and confirm current operation.

    3.9.2.5 Press " **MENU** " again to exit and close **ALARM DURATION** setup mode.

3.9.3 RECORD IPS setup

    3.9.3.1 Press " **Up** " or " **Down** " to choose RECORD IPS setup.

    3.9.3.2 Press " **ENTER** " to confirm RECORD IPS setup.

    3.9.3.3 Press " **Up** " or " **Down** " to choose RECORD IPS record speed.

        NTSC - 60、30、15、8、4、2、1

        PAL - 50、25、12、6、3、2、1
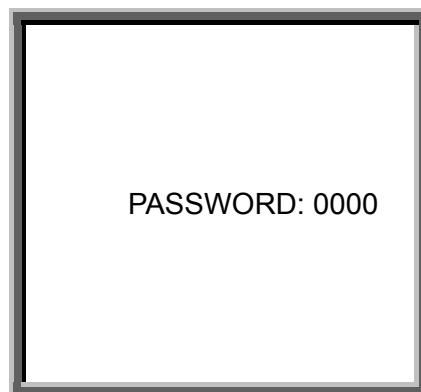
    3.9.3.4 Press " **MENU** " to exit and confirm current operation.

    3.9.3.5 Press again " **MENU** " to exit and close **RECORD IPS** setup mode.

3.9.4 QUALITY setup

3.9.4.1 Press " **Up** " or " **Down** " to choose QUALITY setup.

3.9.4.2 Press " **ENTER** " to confirm QUALITY setup.

3.9.4.3 Press " **Up** " or " **Down** " to choose QUALITY level.

　　BEST, HIGH, NORMAL, BASIC

3.9.4.4 Press " **MENU** " to exit and confirm current operation.

3.9.4.5 Press again " **MENU** " to exit and close **QUALITY** setup mode.

3.9.5 RECORD MODE setup

3.9.5.1 Press " **Up** " or " **Down** " to choose RECORD MODE setup.

3.9.5.2 Press " **ENTER** " to confirm Record Mode setup.

3.9.5.3 Press " **Up** " or " **Down** " to choose Record Mode (Field / Frame).

3.9.5.4 Press " **MENU** " to exit and confirm current operation.

3.9.5.5 Press " **MENU** " again to exit and close **RECORD MODE** setup mode.
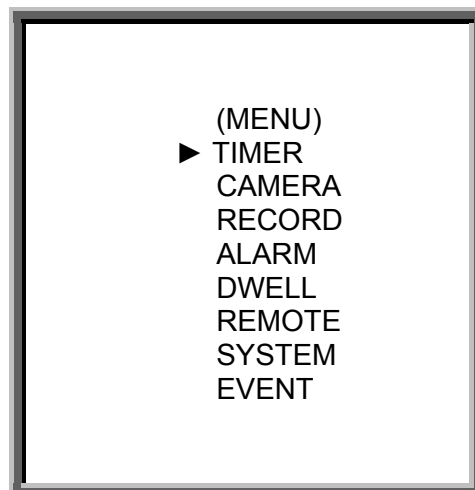
3.10　DWELL setup

Press **"MENU"** to enter main menu. You will need to enter password to access main menu. Press " **Left** " or " **Right** " to move digit, and to press " **Up** " or " **Down** " to select number.　Press " **ENTER** " button to confirm password.

　Ex.: PASSWORD: 0000　(Default: 0000)

```
PASSWORD: 0000
```

After keying in correct password, confirm by

pressing **"ENTER"** button, screen will show

following options.

```
TIMER    -------- Scheduling Record
CAMERA ------- Camera Channel Setup
RECORD------- Record Mode Setup
ALARM    -------- Alarm Mode Setup
DWELL    -------- Auto channel switching setup
REMOTE------- Remote control protocol Setup
SYSTEM ------- System Setup
EVENT    -------- Event List
```
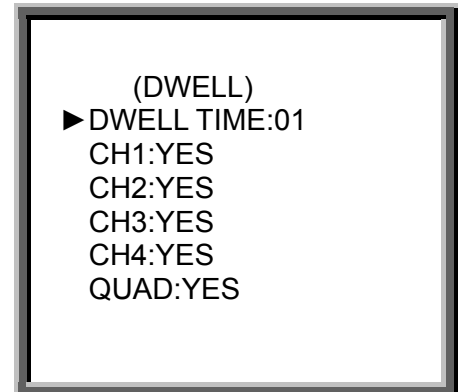
```
        (MENU)
    ► TIMER
      CAMERA
      RECORD
      ALARM
      DWELL
      REMOTE
      SYSTEM
      EVENT
```

Press "**Up**" "**Down**" to choose **DWELL** setup

TIMER
CAMERA
RECORD
ALARM
►DWELL
REMOTE
SYSTEM
EVENT

```
(MENU)
TIMER
CAMERA
RECORD
ALARM
►DWELL
REMOTE
SYSTEM
EVENT
```
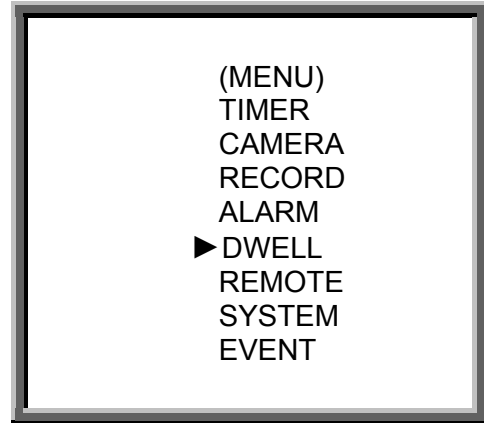
To choose DWELL item, and press " **ENTER** " to enter
Dwell mode. The following screen will be displayed.

```
(DWELL)
►DWELL TIME:01
CH1:YES
CH2:YES
CH3:YES
CH4:YES
QUAD:YES
```

3.10.1 DWELL TIME setup

This device allows user to set the DWELL TIME. DWELL TIME is the lasting time that
each channel sequentially shown on monitor.

3.10.1.1 Press " **Up** " or " **Down** " to choose DWELL TIME setup

3.10.1.2 Press " **ENTER** " to confirm DWELL TIME setup

3.10.1.3 Press　" **Up** " or " **Down** " to choose DWELL TIME setup (From 01-10 SEC)

3.10.1.4 Press " **MENU** " to exit and confirm current operation.

3.10.1.5 Press " **MENU** " again to exit and close **DWELL** setup mode.

3.10.2 CH1 setup

3.10.2.1 Press " **Up** " or " **Down** " to choose CH1 setup.

3.10.2.2 Press " **ENTER** " to confirm

3.10.2.3 Press　" **Up** " or " **Down** " to choose CH1 setup

YES- Channel 1 will be shown on the screen sequentially.

NO- Channel 1 will not be shown on the screen sequentially.

3.10.2.4 Press " **MENU** " to exit and confirm current operation.

3.10.2.5 Press " **MENU** " again to exit and close **DWELL** setup mode.

3.10.3 CH2 setup

3.10.3.1 Press ” **Up** ” or “ **Down** ” to choose CH2 setup.

3.10.3.2 Press ” **ENTER** ” to confirm

3.10.3.3 Press　” **Up** ” or “ **Down** ” to choose CH2 setup

　　YES- Channel 2 will be shown on the screen sequentially.

　　NO- Channel 2 will not be shown on the screen sequentially.

3.10.3.4 Press ” **MENU** ” to exit and confirm current operation.
3.10.3.5 Press ” **MENU** ” again to exit and close **DWELL** setup mode.

3.10.4 CH3 setup

3.10.4.1 Press ” **Up** ” or “ **Down** ” to choose CH3 setup.

3.10.4.2 Press ” **ENTER** ” to confirm

3.10.4.3 Press　” **Up** ” or “ **Down** ” to choose CH3 setup

　　YES- Channel 3 will be shown on the screen sequentially.

　　NO- Channel 3 will not be shown on the screen sequentially.

3.10.4.4 Press ” **MENU** ” to exit and confirm current operation.
3.10.4.5 Press ” **MENU** ” again to exit and close **DWELL** setup mode.

3.10.5 CH4 setup

3.10.5.1 Press ” **Up** ” or “ **Down** ” to choose CH4 setup.

3.10.5.2 Press ” **ENTER** ” to confirm

3.10.5.3 Press　” **Up** ” or “ **Down** ” to choose CH4 setup

　　YES- Channel 4 will be shown on the screen sequentially.

　　NO- Channel 4 will not be shown on the screen sequentially.

3.10.5.4 Press ” **MENU** ” to exit and confirm current operation.
3.10.5.5 Press ” **MENU** ” again to exit and close **DWELL** setup mode.

3.10.6 QUAD setup

3.10.6.1 Press ” **Up** ” or “ **Down** ” to choose QUAD setup.

3.10.6.2 Press ” **ENTER** ” to confirm

3.10.6.3 Press　” **Up** ” or “ **Down** ” to choose QUAD setup

　　YES- QUAD will be shown on the screen sequentially.

　　NO- QUAD will not be shown on the screen sequentially.

3.10.6.4 Press ” **MENU** ” to exit and confirm current operation.
3.10.6.5 Press ” **MENU** ” again to exit and close **DWELL** setup mode.
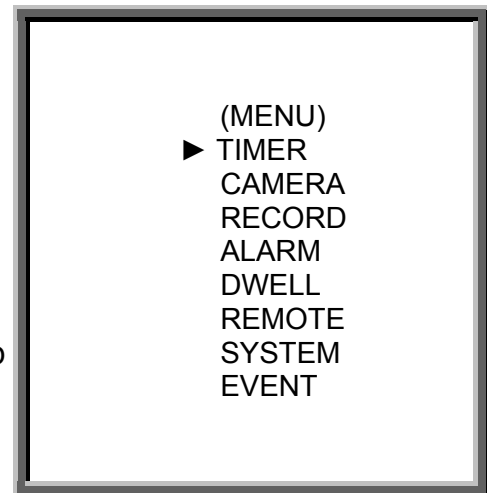
3.11 REMOTE setup

Press **"MENU"** to enter main menu. You will need to enter password to access main menu. Press " **Left** " or " **Right** " to move digit, and to press " **Up** " or " **Down** " to select number.   Press " **ENTER** " button to confirm password.

 Ex.: PASSWORD: 0000   (Default: 0000)

```
PASSWORD: 0000
```

After keying in correct password, confirm by

pressing **"ENTER"** button, screen will show

following options.

TIMER   -------- Scheduling Record
CAMERA ------- Camera Channel Setup
RECORD------- Record Mode Setup
ALARM   -------- Alarm Mode Setup
DWELL   -------- Auto s channel witching Setup
REMOTE------- Remote control protocol Setup
SYSTEM ------- System Setup
EVENT   -------- Event List

```
      (MENU)
  ► TIMER
    CAMERA
    RECORD
    ALARM
    DWELL
    REMOTE
    SYSTEM
    EVENT
```

Press "**Up**" "**Down**" to choose **REMOTE** setup

 TIMER
 CAMERA
 RECORD
 ALARM
 DWELL
►REMOTE
 SYSTEM
 EVENT

```
      (MENU)
    TIMER
    CAMERA
    RECORD
    ALARM
    DWELL
  ►REMOTE
    SYSTEM
    EVENT
```
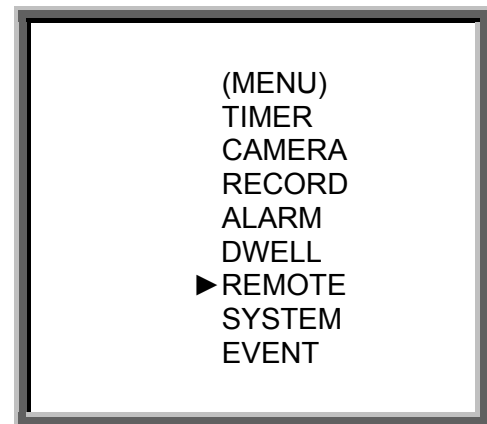
Choose REMOTE, and press " **ENTER** " to enter Remote mode. The following screen will be displayed.

```
      (REMOTE)
  ►REMOTE MODE: RS-232
    BAUD RATE: 9600
    ID: 000
```
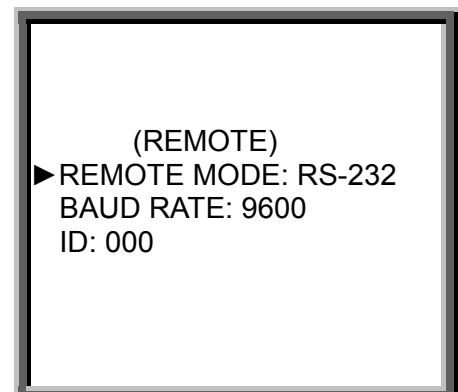
3.11.1 REMOTE MODE setup

This device allows user to set the remote mode.

3.11.1.1 Press ” **Up** ” or “ **Down** ” to choose REMOTE MODE setup

3.11.1.2 Press ” **ENTER** ” to confirm REMOTE MODE setup

3.11.1.3 Press 　 ” **Up** ” or “ **Down** ” to choose Interface for REMOTE MODE setup

　　　RS-232: 　Use RS-232 interface

　　　RS-485: 　Use RS-485 interface

3.11.1.4 Press ” **MENU** ” to exit and confirm current operation.

3.11.1.5 Press ” **MENU** ” again to exit and close **REMOTE MODE** setup mode.

3.11.2 Remote protocol Transmitting Baud Rate setup

This device allows user to set the remote protocol transmitting baud rate.

3.11.2.1 Press ” **Up** ” or “ **Down** ” to choose Baud Rate setup.

3.11.2.2 Press ” **ENTER** ” to confirm

3.11.2.3 Press 　 ” **Up** ” or “ **Down** ” to choose BAUD RATE setup

　　　115200、57600、19200、9600、4800、3600、2400、1200

3.11.2.4 Press ” **MENU** ” to exit and confirm current operation.

3.11.2.5 Press ” **MENU** ” again to exit and close **BAUD RATE** setup mode.

3.11.3 Remote protocol ID setup:

This will allow user to control different DQR by setting RS232 or RS485 remote protocol. ID number can be set from 000 to 255.

3.11.3.1 Press ” **Up** ” or “ **Down** ” to choose ID setup.

3.11.3.2 Press ” **ENTER** ” to confirm ID setup

3.11.3.3 Press ” **Up** ” or “ **Down** ” to set numerical number, from **000 ~ 255**

3.11.3.4 Press ” **MENU** ” to exit and confirm current operation.

3.11.3.5 Press ” **MENU** ” again to exit and close **ID** setup mode.

3.12 Event

Press **"MENU"** to enter main menu. You will need to enter password to access main menu. Press " **Left** " or " **Right** " to move digit, and to press" **Up** " or " **Down** " to select number. Press **"ENTER"** button to confirm password.

Ex.: Password: 0000   (Default: 0000)

```
PASSWORD: 0000
```

After keying in correct password, confirm by pressing **"ENTER"** button, screen will show following options.

TIMER   -------- Scheduling Record
CAMERA ------- Camera Channel Setup
RECORD------- Record Mode Setup
ALARM   -------- Alarm Mode Setup
DWELL   -------- Auto channel switching setup
REMOTE------- Remote control protocol Setup
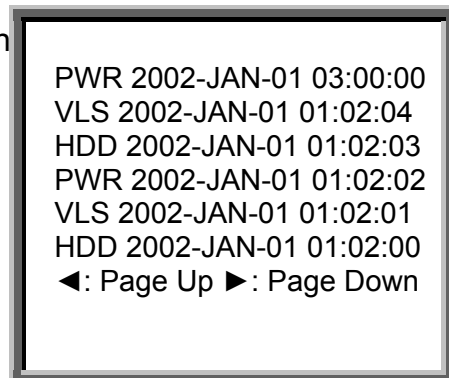SYSTEM ------- System Setup
EVENT   -------- Event List

```
        (MENU)
    ► TIMER
      CAMERA
      RECORD
      ALARM
      DWELL
      REMOTE
      SYSTEM
      EVENT
```

Press "**Up**" "**Down**" to choose **EVENT** setup

TIMER
CAMERA
RECORD
ALARM
DWELL
REMOTE
SYSTEM
►EVENT

```
        (MENU)
      TIMER
      CAMERA
      RECORD
      ALARM
      DWELL
      REMOTE
      SYSTEM
    ►EVENT
```
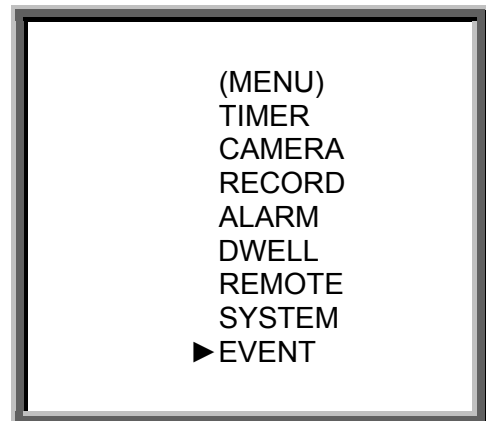
Press "**ENTER**" to confirm Full List, and the screen will be as right displayed.

Press "▲ " "▼ " to choose wanted recorded event (There will be shown only 8 list in one page.), and press "◄" " ►" to change the pages.
Press "**ENTER**" to Play selected recorded video

```
PWR 2002-JAN-01 03:00:00
VLS 2002-JAN-01 01:02:04
HDD 2002-JAN-01 01:02:03
PWR 2002-JAN-01 01:02:02
VLS 2002-JAN-01 01:02:01
HDD 2002-JAN-01 01:02:00
◄: Page Up ►: Page Down
```

PWR: Recovery time after power shut down

   (For example, power shut at 01:00 and power
   recover at 03:00. It will display to let user knows
   that there is power shut down before 03:00.)

HDD: HDD error time

VLS: Video loss time

4. Operation

4.1 *Power on*

Before powering on the unit, make sure the HDD cartridge has been locked, and the POWER LED is red color now. After pressing POWER button, POWER LED will turn to green, then all other LED light will turn to RED except the LED for HDD. OSD screen will display "HDD Detecting"; Power on running time will take approximately 15 to 20 seconds.

4.2 *Recording*

Your DQR offers a variety of flexible recording modes. You can set it up to record continually, scheduled time, or by record events, and you can also set up recording speed and resolution. You can set these options by selecting MENU and SYSTEM before recording. Under the recording status, if power is stopped accidentally, recorded video will still be stored in the HDD after power return. DQR will continue with original recording setup after power return.

There are 3 record modes for DQR: Alarm Record, Timer Record, and Manual Record.

All record Modes descriptions in followings.

4.2.1 Alarm Record

When DQR is triggered by alarm input, it will start to record immediately.

The screen will be as right displayed.
 A : Alarm trigger
OW : HDD Over Write
032GB : If the OW location shows 32GB, it
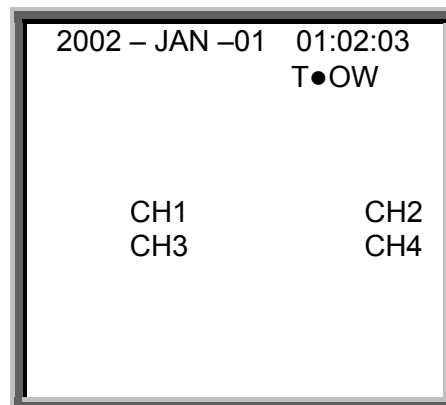means that 32 GB HDD left for video
recording.

```
2002-JAN-01 01:02:03
        A●OW


   CH1          CH2
   CH3          CH4
```
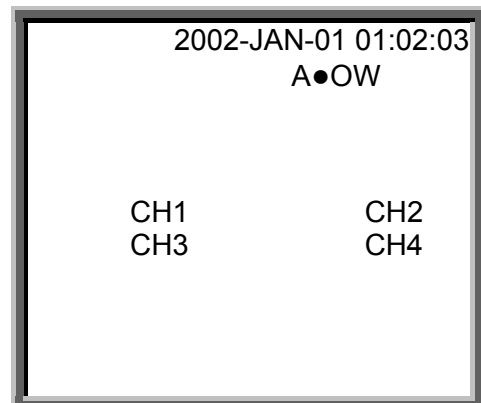
4.2.2 Timer Record

DQR will follow "Timer" setup when record. The recording speed and quality will be determined by " Timer" recording mode setup in main menu.

The screen will be as right displayed.
  T : Timer record
  OW : HDD Over Write
  032GB : If the OW location shows 32GB, it
          means that 32 GB HDD left for video
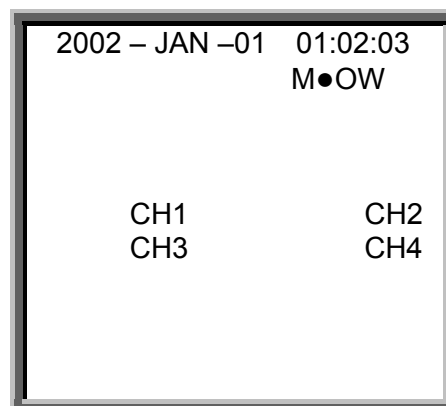   recording.

```
┌─────────────────────────────┐
│ 2002 – JAN –01   01:02:03    │
│                    T●OW      │
│                              │
│                              │
│      CH1            CH2      │
│      CH3            CH4      │
│                              │
│                              │
└─────────────────────────────┘
```

4.2.3 Manual Record

You can press **"REC"** to start recording immediately. The recording speed & quality will be followed by "Record" recording mode setup in main menu.

Following screen will be displayed.
  M   : Manual record
  OW : HDD Over Write
  032GB : If the OW location shows 32GB, it
   means that 32 GB HDD left for video
          recording.

```
┌─────────────────────────────┐
│ 2002 – JAN –01   01:02:03    │
│                    M●OW      │
│                              │
│                              │
│      CH1            CH2      │
│      CH3            CH4      │
│                              │
│                              │
└─────────────────────────────┘
```

4.3   Camera Select (1-4)

Press Camera Select (1-4) to select appointed camera to display on full screen mode.

4.4   QUAD

This device allows user to get the ideal view size.

4.4.1. Press ▢ ▢ ▢ ▢ or **QUAD** button to view each display.

4.4.2 Press " **Menu** " to exit.

4.5 Play

Press " **PLAY** " then DQR will enter the Play mode; it will show the last record.

4.7.1 Fast Forward (F.F.) & Fast Rewind (F.R.)

4.7.1.1 Press " **PLAY** " and press " ►►" for fast forward searching screen. Press once " ►►" to get speed for 2X. To press twice "►►" to get speed for 4X,. …And the maximum speed can be 32X.

4.7.1.2 Press " **PLAY** " then Press "◄◄" for fast rewind searching screen. Press once "◄◄ " to get speed for 2X. To press twice "◄◄ " to get speed for 4X, … and the maximum speed can be 32X.

4.7.2 Slow Forward (S.F.) & Slow Rewind (S.R.)

4.7.2.1 Press " **PLAY** " then press " **SLOW** " for slow play, To press once "►►" for slow forward speed 1/2X. and press twice "►►" speed for 1/4X, ….the minimum slow speed can be 1/32X.

4.7.2.2 Press " **PLAY** " then press " **SLOW** " for slow forward, To press once " ◄◄ " for slow rewind speed 1/2X, and press twice "◄◄" speed for 1/4X, ….the minimum slow speed can be 1/32X.

4.7.3 Pause : Press " **PLAY** " then press " **PAUSE** ", it will pause the screen

4.7.4 Stop : Press " **STOP** " under any circumstance, it will return DQR to live monitoring mode.

4.7.5 Image jog dial

4.7.5.1 Press " **PLAY** " then press " **PAUSE** ", it will pause the screen. Then press "►► " for single image play, it will show recorded image one by one when continuously pressing the " ►► ".

4.7.5.2 Press " **PLAY** " then press " **PAUSE** ", it will pause the screen. Then press "◄◄ " for single image play, it will show recorded image one by one continuously pressing the " ◄◄ ".

4.6 VIDEO LOSS

Screen will display "✕" if the video input is not connected properly.

4.7 KEY LOCK

Press " **MENU** " and " **ENTER** " key at same time, Screen will display " KEY LOCK ", and the screen will be going to the Key Lock function.

Press "**MENU**" and "**ENTER** " key again at the same time, Screen will display " KEY UNLOCK " it will stop the Key Lock function.

5. Trouble shooting & Appendix

5.1   Trouble shooting

When DQR appears a malfunction; it may be not serious and can be corrected. The table below

describes some typical problems and their remedies.   Check them before calling your DQR dealer:

PROBLEM	REMEDY
HDD Not Found	● Please Insert HDD ● Please use the Key to lock the HDD Cartridge And press any key
No power	● Check power cord connections. ● Confirm that there is power at the outlet.
Not working when press any button	● Check if it is under Key Lock mode. ● Press "**MENU"** & "**ENTER"** at same time to exist Key Lock mode.
No recorded video	Check if the HDD is installed properly.
Timer Record enable does not working	Check if the Record Enable is set to YES
No live video	● Check camera video cable and connections. ● Check monitor video cable and connections. ● Confirm that the camera has power. ● Check camera lens setting.

5.2 Compatible HDD brands

Manufacturer	Model	Capacity	Rotation
HITACHI	Deskstar 180 GXP (120 GB)	120GB	7200rpm
IBM	Deskstar 120GXP (40GB)	40GB	7200 rpm
IBM	Deskstar 60GXP IC35l060	60GB	7200 rpm
IBM	Deskstar 120GXP (80GB)	80GB	7200 rpm
IBM	Deskstar 120GXP (120GB)	120GB	7200 rpm
Maxtor	DiamondMax 536DX(60GB) 4W060H4	60GB	7200rpm
Maxtor	DiamondMax Plus 9, Model#6Y120L	120GB	7200 rpm
Seagate	Barracuda ATA IV ST340016A	40GB	7200 rpm
Seagate	Barracuda ATA V, ST3120023A	120GB	7200 rpm
Seagate	Barracuda ATA IV, ST380021A	80GB	7200rpm
Western Digital	Caviar WD400BB-00BSA0	40GB	7200 rpm
Western Digital	Caviar WD400EB-00CPF0	40GB	5400 rpm
Western Digital	Caviar WD1200BB-00CAA1	120GB	7200rpm

Note 1: The models and manufactures of HDD listed above have been tested and proven compatible with this appliance

Note 2 : Please remove hard disk drive ONLY after power was shut off for more than 60 seconds. This would protect and extend the operating life of the hard disk drive.