In order to ensure your rights and interests, please read the manual carefully before installation of your DVR.

- Use the appropriate power adapter for the DVR.
- To protect the main chipset from thunder damage, please make sure the ground wire is correctly connected before using DVR.
- Do not expose DVR to rain or moisture.
- The DVR cannot be installed at the placed with dust. And avoid potential mechanical vibration or impact.
- Install the DVR under good air circulation conditions. Do not place it near to heater or under direct sunlight.
- Please choose high quality hard disk which could meet the working demand of DVR.
- Before connecting to other facilities, please disconnect the power supply and pull the power plug out from the power socket.
• In case of any solid or liquid coming into the case, please disconnect the power supply immediately. And the DVR can be restarted only after being checked by qualified person.
• If the DVR is not in use for a long time, please disconnect the power supply and pull the power plug out from the power socket.
• This is precise instrument. No internal part can be repaired by the users. If default occurs, it is necessary to ask qualified person to repair it or contact the dealer for the solution.
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Chapter 1 Panel Introduction

1.1 Description of front panel

Type A front panel:

Type B front panel:

Type C front panel:
Network Digital Video Recorder

Type D front panel:

Type E front panel:

Type F front panel:
<table>
<thead>
<tr>
<th>Name</th>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status indicator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>POWER</td>
<td>POWER</td>
<td>It is red in running mode, it is green in standby mode. It is off in power off mode.</td>
</tr>
<tr>
<td>HDD</td>
<td>HDD</td>
<td>Hard drive LED indicator light. It will flash when the HDD is being used.</td>
</tr>
<tr>
<td>LOCK</td>
<td>LOCK</td>
<td>Lock LED indicator light. It is on in locking mode.</td>
</tr>
<tr>
<td>REC</td>
<td>REC</td>
<td>Record LED indicator light. It is on in recording mode.</td>
</tr>
<tr>
<td>PLAY</td>
<td>PLAY</td>
<td>Play indicator light. It is on in playback mode.</td>
</tr>
<tr>
<td>IR</td>
<td>IR</td>
<td>Remote signal receiver LED indicator light. It is on in remote control usable mode.</td>
</tr>
<tr>
<td>SEQ</td>
<td>SEQ</td>
<td>Channel sequence LED indicator light. It is on in channel sequence mode.</td>
</tr>
<tr>
<td>PTZ</td>
<td>PTZ</td>
<td>PTZ control LED indicator light. It is on in PTZ control mode.</td>
</tr>
<tr>
<td>NET</td>
<td>NET</td>
<td>Network LED indicator light. It is on in network connection mode.</td>
</tr>
<tr>
<td>ALARM</td>
<td>ALARM</td>
<td>Alarm LED indicator light. It is on when alarm happens.</td>
</tr>
<tr>
<td>IR Receiver</td>
<td>01</td>
<td>Receive signal from remote control.</td>
</tr>
<tr>
<td>Number key</td>
<td>1~16</td>
<td>a) Press 1-16 to select channel.</td>
</tr>
<tr>
<td></td>
<td>0/10+</td>
<td>b) Press it once to input&quot;0&quot;. Press it twice to input &quot;10&quot;. Press it and other number to input number 10 plus.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d) Press 1-9 to input password.</td>
</tr>
</tbody>
</table>
### Recording Key

<table>
<thead>
<tr>
<th>Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Start</strong></td>
<td>Start recording.</td>
</tr>
<tr>
<td><strong>Playback/Stop</strong></td>
<td>Enter into &quot;SEARCH&quot; menu, select the time schedule and press it to play the video. Press it once again to stop playback. Press it to stop recording, when it's under recording; press it to stop playback when it's under playback. Then it will go to &quot;search menu&quot;; press it to view preset operation when it's under PTZ status.</td>
</tr>
<tr>
<td><strong>Search</strong></td>
<td>Press it to enter into SEARCH menu.</td>
</tr>
<tr>
<td><strong>PTZ</strong></td>
<td>Press it to make PTZ control.</td>
</tr>
<tr>
<td><strong>Backup</strong></td>
<td>Press it to enter into SEARCH menu.</td>
</tr>
<tr>
<td><strong>Information</strong></td>
<td>Press it one time to display the status bar on the top right of screen. Press it twice to check the systems' information. Press it three times to check the log list.</td>
</tr>
<tr>
<td><strong>Exit</strong></td>
<td>Press it to cancel the operation or turn back to previous menu.</td>
</tr>
<tr>
<td><strong>SEQ</strong></td>
<td>Press it to shift the channel automatically.</td>
</tr>
<tr>
<td><strong>Audio</strong></td>
<td>Press it to enter into audio setup.</td>
</tr>
<tr>
<td>Main menu</td>
<td>MENU</td>
</tr>
<tr>
<td>-----------</td>
<td>------</td>
</tr>
<tr>
<td>Spot output</td>
<td>SPOT</td>
</tr>
<tr>
<td>LOCK</td>
<td>LOCK</td>
</tr>
<tr>
<td>Direction / split/ confirm key</td>
<td>➧ ➣ ➦ ➤</td>
</tr>
<tr>
<td>+/-</td>
<td>+/-</td>
</tr>
<tr>
<td>Split key</td>
<td>菜</td>
</tr>
<tr>
<td></td>
<td>菜</td>
</tr>
<tr>
<td></td>
<td>菜</td>
</tr>
<tr>
<td>Shuttle</td>
<td>◎</td>
</tr>
<tr>
<td>USB port</td>
<td>☟</td>
</tr>
</tbody>
</table>
1.2 Description of rear panel

Type A 4ch rear panel

Type A 8ch rear panel

Type B/C/D/E 4ch rear panel
Network Digital Video Recorder

Type F 8ch rear panel

Type F 16ch rear panel

1. Video input  2. Video CVBS output  3. RS-485, alarm and IR receiver port  4. Spot output
10. VGA output  11. Power port
1.3 Instruction of installation

Type F 16ch DVR as example to show how to connect:
1.4 Instruction of alarm connection

1) 1-4 is alarm input. "NC/NO/COM" is relay output.
   NC: OFF, NO: ON, COM: common port

2) "÷" : Is ground cable.
1.5 Instruction of remote control

Before using it, please make sure that batteries have been installed correctly. When using it, please aim IR transmitter of the remote control at IR reception of the DVR. Then the IR light in the front of panel power on and the icon on the top right of the screen turns to blue.

You could enter into SYSTEM SETUP to select REMOTE ID to be off. Then the remote control cannot work and the status bar of IR will turn to red.

<table>
<thead>
<tr>
<th>No.</th>
<th>Symbol</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>Power key</td>
<td>Press it to power off the DVR.</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>IR ID key</td>
<td>Press it to control the DVR which have been set the remote ID.</td>
</tr>
<tr>
<td>No.</td>
<td>Symbol</td>
<td>Name</td>
<td>Description</td>
</tr>
<tr>
<td>-----</td>
<td>--------</td>
<td>----------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>Info key</td>
<td>Press it one time to display the status bar on the top right of screen. Press it twice to check the systems' information. Press it three times to check the log list.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4ch split</td>
<td>Press it to 4ch split.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9ch split</td>
<td>Press it to 9ch split.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16ch split</td>
<td>Press it to 16ch split.</td>
</tr>
<tr>
<td>4</td>
<td>SEQ</td>
<td>SEQ key</td>
<td>Press it to shift channels automatically.</td>
</tr>
<tr>
<td></td>
<td>SPOT</td>
<td>Spot key</td>
<td>Press it to make Spot setup.</td>
</tr>
<tr>
<td></td>
<td>PTZ</td>
<td>PTZ key</td>
<td>Press it to control the speed dome.</td>
</tr>
<tr>
<td></td>
<td>AUTO</td>
<td>AUTO key</td>
<td>Press it to make speed dome rotate automatically.</td>
</tr>
<tr>
<td></td>
<td>Z+/Z-</td>
<td>Zoom+/-</td>
<td>Press it to make zoom+/-</td>
</tr>
<tr>
<td></td>
<td>F+/F-</td>
<td>Focus+/-</td>
<td>Press it to make focus+/-</td>
</tr>
<tr>
<td></td>
<td>I+/I-</td>
<td>Iris+/-</td>
<td>Press it to make iris+/-</td>
</tr>
<tr>
<td>5</td>
<td>CRUISE</td>
<td>Standby key</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FOPEN</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FCLOSE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Chapter 2 Instruction of GUI

2.1 Power on

- Please make sure that if the system connection is correct.
- Please make sure the system format of DVR is the same as monitor's format.
- Please plug the power cable in DVR.
- When DVR power on, the power indicator light will turn to red.

2.2 Power off

- Power off normally: Stop all the operation and back to preview status. Press the Power key " " on remote control It will show the bar to confirm the operation. Press CONFIRM to finish it.
- Un-normal power off: Please avoid all the un-normal power off. Such as cutting the power by removing the power plug from DVR.
- Recover after power failure: If the DVR is under recording status, and then there is a power failure. It will save all the recorded file when you restart the DVR. Also the DVR will start recording automatically.

2.3 Live preview

When you start DVR normally, you will enter live preview interface. And then there are some icons displayed in the pictures. Please learn their meaning from the following table.
2.4 Menu

Press the [MENU] key in front panel or click the mouse tool bar " " to enter into main menu. And press [ESC] to exit from main menu.

If you want to modify the information in submenu, you could use remote control or mouse change it. When you modified the information, please click "SAVE" to save the operation and exit sub-menu.

Press the right key of mouse to display mouse tool bar.
2.5 System setup

Select "SYSTEM" in main menu to enter into SYSTEM SETUP interface.

1) Time setup: To change system time.
2) Video format: To select PAL or NTSC format. After the operation finished, the DVR will restart automatically.
3) IR ID: To set the remote ID NO. for the relevant DVR.
4) Call monitor alarm popup: If set it on, it will popup the picture in call monitor once there is alarm signal in any channel.
5) Main monitor alarm popup: If set it on, it will popup the picture in main monitor once there is alarm signal in any channel.
6) HD output: To select HD output mode: VGA(1280*1024), YPbPr, HDMI(1920*1080).
7) Mouse display: To select CVBS or HD monitor.
8) Default load: To restore the DVR to factory default. Once finish this operation, DVR will restart automatically.
Before recording, please make sure all the devices power on and there must have video input. Also please test the audio input.

Press the [INFO] key in front panel twice to enter into the interface of system information. Please check the HDD remaining capacity. If the remaining capacity is not enough, please charge a new one or set the HDD overwrite function.

If it is possible, you could enter MAIN MENU and select RECORDING SETUP to modify its setup.

1) Resolution: CIF resolution: 352×288(PAL) 352×240(NTSC) D1 resolution: 720×576(PAL) 720×480(NTSC). When change the resolution between CIF and D1, DVR will restart automatically.

2) Image quality: To set the image quality at high, middle and low.

3) Frame rate: To modify the frame rate per second.

4) Audio: To set audio recording on and off. It only support 4ch audio maximum.
Please enter DISK MANAGEMENT to check the HDD information. Enter SCHEDULE SETUP to set recording mode and time segment.

1) Channel: To select the channel to set schedule.
2) Date: To set time schedule for recording. There are 4 time segments you could set in 1 day.
3) Time segment: To set recording time from beginning to end.

2.7 Recording start and stop

Start recording: Press the [ ] key in front panel or use mouse to click the icon " " in mouse tool bar to start recording. Once start recording or HDD begin to write, the HDD indicate light will turn on.

Press the[ ■ ] key in front panel or use mouse to click the icon " " to stop recording.
2.8 Recording search, playback and backup

Press the [>] key in front panel to enter recording search interface. You could search for the recording file and backup the file into another device. Also you could search for a video file to playback.

1) Valid time: From beginning to end of recording.
2) Select the channels to playback. There are some choice for playback. You could select 1 channel, 2 channels, 3 channels, 4 channels to playback here. And if you want playback 8ch and 16ch together, you could press the "■" and "■" key in front panel.
3) Backup devices: Our DVR support DVD-RW and USB disk backup. And the DVD disk's capacity should not exceed 1.5G.
4) Playback: Select the time segment you want to playback. Modify the beginning time and end time. Then click the "PLAY" to playback. Or you could use mouse to move the icon "età" to select beginning time and move icon "àì" to select ending time. Finally click "PLAY" for playback.

5) Calculate: To calculate the video file's capacity which you want to backup. Before your backup, please try to proceed this operation.

6) Backup: Before backup, please make sure if the backup devices are ready, for example, USB disk and DVD-RW. According to your need, you could select the channel name you want to backup Then select the time segment in this channel. Finally please click BACKUP to confirm the operation. It will take several minutes. When it finished, it will show you a message to confirm it and then move backup devices from DVR.

7) During backup, it will display some icons to show you playback status.

2.9 Motion setup

Enter Motion setup to proceed this operation.

1) Channel: Select the channels you need to set motion.

2) Sensitivity: Select number 1-10 for motion sensitivity.

   Generally speaking, numerical value higher, the sensitivity better.
3) Detection area: Select the motion detect area. Use the mouse to select the area. When it detects there is movement in this area, the border color will turn red.

2.10 Alarm setup

Enter alarm setup to proceed this operation.
The type of alarm popup: video loss alarm, motion detection alarm, external alarm.
Alarm mode: buzzer, relay, email

2.11 Network setup

Enter Network setup to proceed the operation.
1) IP distribution: There are two type of IP, fixed IP and dynamic IP. When you click DHCP/DDNS, it will get IP
automatically. Gateway and subnet mask cannot be changed. If the IP is 0, it means it failed to get IP automatically.

Then you should check if you set the network and router correctly.

2) DVR port: The default port is 6802 and it's changeable for users.

3) IE port: The default port is 0080 and it's changeable for users.

### 2.12 Email setup

Enter Network setup and click Email to proceed this operation.

1) Time interval: To set the time interval for sending email. It should be in denomination of minutes.

2) Email server name: To set the email server for sending email.

3) Email server port: To set the email server port.

4) User name: It's the email user name.

5) User password: It's the email password.

6) Password confirmation: To confirm your email password.

7) Receiving address: It's the email address.
2.13 HDD management

Enter Disk management to proceed this operation.

1) Overwrite: Select it to overwrite recorded video automatically when the HDD is full. If you didn't select it, it will stop recording when HDD is full. And system will remind you to select this function or format HDD if you want to continue recording.

2) Disk name: To check the disk information when you connect several HDD or USB disk.

3) Disk capacity: To show capacity of the HDD.

4) Remaining capacity: To show the remaining capacity of the HDD.

5) Bad area: To show the bad area capacity of the HDD.

6) Format: To delete all the recorded files.

2.14 PTZ setup

- Set the ID of speed dome correctly.
- Make sure if the A、B connector of speed dome is connected well with DVR's
- Enter PTZ setup to proceed this operation:
1) Channel: To select the channel connected with speed dome.
2) Baud rate: To select the baud rate of the speed dome, 1200, 2400, 4800 and 9600.
3) Device ID: Default ID is the channel name.
4) Protocol: To select the communication protocol of speed dome, PELCO_P, PELCO_D1 and PELCO_D2.

After speed dome setup, please enter PTZ setup. Press the [PTZ] key to enter it. Then it will display "PTZ:CAM01 SPEED:16 DATA:00" in the screen. It means DVR is under PTZ status now. Press [PTZ] or [ESC] again to exit PTZ interface. When DVR is under PTZ status, it will display the mouse tool bar as below:

<table>
<thead>
<tr>
<th>Icon</th>
<th>Descriptions</th>
<th>Icon</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>🔼🔽◀▶</td>
<td>Direction key, to move speed dome up, down, right and left</td>
<td>🔬</td>
<td>To make speed dome rotate automatically. Press it again to stop rotating.</td>
</tr>
<tr>
<td>🔼🔽</td>
<td>Zoom key</td>
<td>🔬</td>
<td>To check the preset data already saved.</td>
</tr>
<tr>
<td>🔵</td>
<td>To make preset setup</td>
<td>🔵</td>
<td>Shut off PTZ and exit PTZ interface</td>
</tr>
</tbody>
</table>
Modify parameters:
You could use mouse or remote control the modify the preset data. Select the item which you want to modify by press [SPOT] key on remote control or click the item directly by mouse. Then modify the data by pressing [ ] [SEQ]on remote control or left/right click by mouse.

Preset setup:
1) Select image point in selected camera by [ ] [ ] [ ] [ ] key. Set a number for the image point in DATA, such as 01. then press [ ] key on remote control or click" " icon to finish the setup.
2) To view of image point which has been saved, you could select the corresponding number in DATA. Then press [ ]key on remote control or click" "icon by mouse.

2.15 User setup

Before enter USER SETUP interface, you should enter USER LOGIN interface and type the correct password first.
1) User name: To select administrator and users. There are 4 user name , ADMIN0, USER01, USER02 and USER03. ADMIN0 is default one.
2) Password: To set user's password. The default password is 000000 for ADMIN0, 111111 for USER01, 222222 for USER02 and 333333 for USER03. And password is changeable by users.
3) Authority setup: As administrator, you could enter USER SETUP to grant normal user authority to make setup.
Unlock setup: If the DVR was locked, please click the "i" on right top of screen. Then it will popup the interface of USER LOGIN. Type the user name and password to unlock the DVR. Then the icon "i" will turn to blue "1S".

**2.16 User shift**

Please enter USER LOGIN interface to shift the user and type correspond password.

**2.17 Instruction of CMS**

You could control the DVR via CMS. If you want learn details, please refer to "Client software instruction" attached in disk.
NOTE

- The operation manual is for reference only. Products may vary.
- Products are subject to update without further notice.
- Please contact the customer service department for latest program and supplementary information.
- Any disputes or doubts in products description are subject to our final explanation.