Precautions

Before using this unit, please read these operating instructions carefully. Take special care to follow the warnings indicated on the unit itself as well as the safety suggestions listed below. Keep them handy for future reference.

1. **Power source** – The unit operates on DC12V 1A of power.
2. **Power cord protection** – AC power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Never take hold of the plug or cord if your hand is wet, and always grasp the plug body when connecting or disconnecting it.
3. **Water and Moisture** – Do not use this unit near the sources of water for moisture will damage the internal parts.
4. **Heat** – Do not install the unit near heat sources such as radiators, stoves, heat registers, or other appliances that produce heat.
5. **Ventilation** – The unit should be situated so that its location or position does not interfere with its proper ventilation.
6. **Foreign Material** – Extremely caution should be taken so that the objects do not fall into the unit.
7. **Surface** – Place the unit on a flat, level surface or the unit may fall causing serious damages to the unit.
8. **Damage Requiring Service** – The unit should be serviced by qualified service personnel when:
   - The power cord or the plug has been damaged; or
   - Objects have fallen or liquid has been spilled into the unit; or the unit has been exposed to rain or water; or
   - The unit does not appear to operate normally or exhibits a marked change in performance; or
   - The unit has been dropped, or the enclosure damaged.

9. **Replacement Parts** – Use only manufacturer specified parts. Unauthorized substitutions may result in fire, electrical shock or other hazards.

10. **Service** – Should not attempt to service the unit beyond that described in the operating instructions. All other servicing should be referred to an authorized service personnel.

**Notification:** This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: 1) This device may not cause harmful interference and 2) This device must accept any interference received, including interference that may cause undesired operation.
Touch Panel Type LCD: Control Keyboard

1 Command Buttons

2 LCD Touch Panel

3 Joystick
# Touch Panel Type LCD: Control Keyboard Key Function Define

<table>
<thead>
<tr>
<th>Key</th>
<th>Function Define</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 ~ 9</td>
<td>Numeric buttons. Call Device ID</td>
</tr>
<tr>
<td>CAM</td>
<td>Call Camera ID. Numeric + CAM</td>
</tr>
<tr>
<td>MUX</td>
<td>Call Multiplexer ID. Numeric + MUX</td>
</tr>
<tr>
<td>DVR</td>
<td>Call DVR ID. Numeric + DVR</td>
</tr>
<tr>
<td>MAT</td>
<td>Call Matrix ID. Numeric + MAT</td>
</tr>
<tr>
<td>MON</td>
<td>Call Monitor ID. Numeric + MON</td>
</tr>
<tr>
<td>SLOW</td>
<td>on/off</td>
</tr>
<tr>
<td>LOG IN</td>
<td>Matrix user login. (Only for Matrix Mode use)</td>
</tr>
<tr>
<td>LOG OUT</td>
<td>Matrix user logout. (Only for Matrix Mode use)</td>
</tr>
<tr>
<td>LOCK</td>
<td>Key / joy / touch lock. Key Lock (Press until 3 sec)</td>
</tr>
<tr>
<td></td>
<td>After, insert password to unlock. PASSWORD + ENT</td>
</tr>
<tr>
<td>ENT</td>
<td>Enter</td>
</tr>
<tr>
<td>ESC</td>
<td>ESC / CLR Preset.</td>
</tr>
<tr>
<td>MENU</td>
<td>Enter setup menu.</td>
</tr>
<tr>
<td>PRESET</td>
<td>Call preset.</td>
</tr>
<tr>
<td>SET</td>
<td>Set preset. (Preset + SET press until 3 sec)</td>
</tr>
<tr>
<td>CLR</td>
<td>Clear preset one by one. (Preset + CLR press until 3 sec)</td>
</tr>
<tr>
<td></td>
<td>77 + SET press until 3 sec clear all preset.</td>
</tr>
<tr>
<td>ZOOM IN</td>
<td>Zoom in</td>
</tr>
<tr>
<td>ZOOM OUT</td>
<td>Zoom out</td>
</tr>
<tr>
<td>IRIS OPEN</td>
<td>IRIS open</td>
</tr>
<tr>
<td>IRIS CLOSE</td>
<td>IRIS close</td>
</tr>
<tr>
<td>FOCUS FAR</td>
<td>Focus far</td>
</tr>
<tr>
<td>FOCUS NEAR</td>
<td>Focus near</td>
</tr>
<tr>
<td>F1</td>
<td>Additional function key</td>
</tr>
<tr>
<td>F2</td>
<td>Reserve</td>
</tr>
<tr>
<td>AUTO IRIS</td>
<td>Enable auto iris.</td>
</tr>
<tr>
<td>AUTO FOCUS</td>
<td>Enable auto focus.</td>
</tr>
<tr>
<td>AUTO TOUR</td>
<td>Auto Tour On/Off.</td>
</tr>
<tr>
<td>UP</td>
<td>Direct up</td>
</tr>
<tr>
<td>DOWN</td>
<td>Direct down</td>
</tr>
<tr>
<td>LEFT</td>
<td>Direct left</td>
</tr>
<tr>
<td>RIGHT</td>
<td>Direct right</td>
</tr>
<tr>
<td>LED</td>
<td>Tour/Focus/IRIS/Power.</td>
</tr>
</tbody>
</table>
Touch Panel Type LCD: Control Keyboard LCD Menu Page

The P/T/Z Dome menu page after power on:

CAM: 001 MUX:000
DVR: 000 MON:000

Description:
Factory default displays the HISHARP protocol
P/T/Z dome control function page.

P/T/Z dome control function page would display different
if user choose others P/T/Z dome protocol.

Please setup all control keyboard system menu before
start to control all device. See the control keyboard menu
setup. Single mode only use keyboard menu to setup.
Matrix mode needs to setup by PC Matrix wizard.

Function Define:

CAM: 000 - CAM ID. Display the CAM ID after call camera.
MUX: 000 - MUX ID. Display the MUX ID after call Multiplexer.
DVR: 000 - DVR ID. Display the DVR ID after call DVR.
MON: 000 - MON ID. Display the MON ID after call Monitor.
ZOOM SPEED: Image zoom in and out speed setup.
FOCUS SPEED: Image focus speed setup.
FLIP: Auto 180°, Flip.
RIGHT LIMIT: Line scan right position setup.
LEFT LIMIT: Line scan left position setup.
LINE SCAN: Start line scan.
MENU UP: P/T/Z dome OSD menu direction UP.
MENU SET: P/T/Z dome OSD menu values confirm.
STOP SCAN: Line scan stop.
MENU DOWN: P/T/Z dome OSD menu direction down.
PAN ZERO: If the preset position is not correct, pan zero to reset.
Menu Go to P/T/Z Dome OSD function menu setup
HISHARP CAMERA Now controlling the HISHARP protocol P/T/Z dome.
YY MM/DD HH/MM/SS Local date and time displays.
Device controlling by LCD panel control keyboard:

1. P/T/Z dome
   -- Protocol: HISHARP / PELCO-D / PELCO-P / LILIN
   PS. The P/T/Z dome maximum controls check the company specifications.

2. Multiplexer
   - 9 CH / 16 CH Multiplexer. Total maximum is 16.
   Notice: Multiplexer Protocol must be compatible.

3. DVR
   -- 1 CH / 4 CH / 16 CH DVR. Total maximum is 16.
   Notice: DVR Protocol must be compatible.

Press **MENU** button to pop-up control keyboard system function setup:

| CAM: 001 | MUX: 000 |
| DVR: 000 | MON: 000 |

Main function menu page:

1. SYSTEM SETUP
2. REMOTE SETUP
3. LCD SCREEN SETUP
4. BUZZER SETUP
5. DATE AND TIME
6. ABOUT SYSTEM
7. LOAD DEFAULT
8. EXIT MENU

Direction Up and Down

ESC: Menu exit
ENT: Function values confirm
SYSTEM SETUP:

User can use touch pad double click the function item, with the touch panel LCD ▲▼ ESC ENT to choose which function setup is going to in.

Or use the buttons on the keyboard. ▲▼
Press ENT to start sub-menu. Needs to press ENT again the mode window would become blink, use Up/Down key to change values. Press ESC until back to P/T/Z dome menu page or choose EXIT MENU to back P/T/Z dome menu page.

SYSTEM SETUP:

System setup the control keyboard system mode and function.

1. SYSTEM MODE
   - Choose system mode
     ➢ SINGLE / MATRIX

2. SYSTEM ID
   - Choose the keyboard system ID
     ➢ 01 ~ 16

3. SCREEN SAVE TIME
   - Screen save time setup
     ➢ 1~20MIN / OFF

4. AUTO LOGOUT TIME
   - Auto log out time setup
     ➢ 1~20MIN / OFF

5. ALARM RESET TIME
   - Auto log out time setup
     ➢ 1~20MIN / OFF

6. PASS WORD
   - Password setup
     ➢ ********. 10000001. 8 characters.

7. LAST PAGE
   - Choose back to the main menu.
     ➢ Press ENT back to the main menu page.
**SINGLE mode:** Only one control keyboard in the system. Single mode can be includes these systems below.

For Example:

- **System A:**

  - System A Maximum device control:

    | Device     | P/T/Z Dome | Control Keyboard |
    |------------|------------|-----------------|
    | Maximum    | X1         | X1              |


- **System B:**

  - System B Maximum device control:

    | Device     | P/T/Z Dome | Multiplexer    | Control Keyboard |
    |------------|------------|----------------|-----------------|
    | Maximum    | X16        | X1             | X1              |

  *Monitor: Image viewer. Full screen or quad split screen display by Multiplexer.

**PS:** DVR can be added in the system to record video image.

**PS:** Control Keyboard, PORT 1 to P/T/Z Dome; PORT 2 to DVR or Multiplexer.
**All Device RS-458 Interface**

**RS-485 Port of each Device:**

- P/T/Z Dome RS-485, User need to check (T+/T-) pin define.
- LCD Control Keyboard RS-RS485 PORT 1 and PORT 2.
- 9CH / 16 CH Multiplexer RS-485 PORT 1 and PORT 2.
- 1 CH DVR RS-485 IN and RS-485 OUT.
- 4 CH DVR RS-485 (+/-) pin define.
- 16 CH DVR RS-485 (+/-) pin define.

**P/T/Z Dome / RS485 □**

User can make a RS485(RJ11) connector or bare wire connect

Pin Define:

3: Data + (T+)
4: Data – (T-)

**Pin Define:**

3: Data +
4: Data -

**Pin Define:**

3: Data +
4: Data -

**Pin Define:**

3: Data +
4: Data -

**Pin Define:**

Data +
Data -

**Pin Define:**

Data +
Data -
User can use touch pan double click the function item, with the touch panel LCD ▲▼ ESC ENT to choose which function setup is going to in.

Or use the buttons on the keyboard, ▲▼ Press ENT to start sub-menu. Needs to press ENT again the mode window would become blink, use Up/Down key to change values. Press ESC until back to P/T/Z dome menu page or choose EXIT MENU to back P/T/Z dome menu page.

REMOTE SETUP (Remote Function Setup)
(No connect to Matrix) User need to setup what P/T/Z protocol is connecting to control keyboard. If control keyboard on Matrix mode, do not have to setup. It setups in PC Matrix Menu Wizard

Function Setup:
1. CAMERA TYPE
   • Choose the P/T/Z dome protocol.
     ➢ HISHARP / PELCO-D / PELCO-P / LILIN

2. BAUD RATE
   • Choose the P/T/Z dome baud rate setup.
     ➢ 2400/4800/9600
     ✓ HISHARP, PELCO-D, PELCO-P, and LILIN baud rate is 9600.

3. LAST PAGE
   • Choose back to the main menu.
     ➢ Press ENT back to the main menu page.
User can use touch panel double click the function item, with the touch panel LCD ESC ENT to choose which function setup is going to in.

Or use the buttons on the keyboard. Press ENT to start sub-menu. Needs to press ENT again the mode window would become blink, use Up/Down key to change values. Press ESC until back to P/T/Z dome menu page or choose EXIT MENU to back P/T/Z dome menu page.

**LCD SCREEN SETUP (LCD Panel Setup)**

Touch panel pan click position accuracy and LCD brightness adjustment setup.

### Function Setup:

1. **TOUCH ADJUST**
   - The touch panel position accuracy adjustment.
     - Touch Right-Bottom / Touch Left-Top

2. **BRIGHTNESS ADJUST**
   - LCD screen brightness adjustment.
     - 01~09.

3. **LAST PAGE**
   - Choose back to the main menu.
     - Press ENT back to the main menu page.
▲ TOUCH ADJUST: The touch panel position accuracy adjustment.

Touch Right-Bottom: Use touch pan to touch right bottom.
Touch Left-Top:   Use touch pan to touch right bottom.

P.S.:  
After finish TOUCH ADJUST, back to the P/T/Z dome menu page.
For example: Back to HISHARP protocol menu page:

```
CAM: 001   MUX:000
DVR: 000   MON:000
```

```
ZOOM    FOCUS    FLIP
SPEED   SPEED   
RIGHT   LEFT     LINE
LIMIT   LIMIT    SCAN
MENU    MENU     STOP
UP      SET      SCAN
MENU    PAN      MENU
DOWN    ZERO     
```

HISHARP CAMERA YYMM/DD HH/MM/SS
BUZZER SETUP (Buzzer Function Setup)

User can use touch pan double click the function item, with the touch panel LCD ESC ENT to choose which function setup is going to in.

Or use the buttons on the keyboard. Press ENT to start sub-menu. Needs to press ENT again the mode window would become blink, use Up/Down key to change values. Press ESC until back to P/T/Z dome menu page or choose EXIT MENU to back P/T/Z dome menu page.

BUZZER SETUP (Buzzer Function Setup)
User chooses to turn on or off buzzer.

Function Setup:
1. KEY BUZZER.
   - Choose key buzzer on or off.
     ➢ ON / OFF

2. OPERATE BUZZER.
   - Choose operate buzzer on or off.
     ➢ ON / OFF

3. ALARM BUZZER.
   - Choose alarm buzzer on or off.
     ➢ ON / OFF

4. LAST PAGE.
   - Choose back to the main menu.
     ➢ Press ENT back to the main menu page.
USER: 001    MUX:000
DVR: 000    MON:000

CAM: 001    MUX:000
DVR: 000    MON:000

> SYSTEM SETUP
REMOTE SETUP
LCD SCREEN SETUP
BUZZER SETUP
DATE AND TIME
ABOUT SYSTEM
LOAD DEFAULT
EXIT MENU

DATE AND TIME
2003 05/15 10:47
ESC ENT

Function mode menu

CAM: 001    MUX:000
DVR: 000    MON:000

> SYSTEM SETUP
REMOTE SETUP
LCD SCREEN SETUP
BUZZER SETUP
DATE AND TIME
ABOUT SYSTEM
LOAD DEFAULT
EXIT MENU

DATE AND TIME
2003 05/15 10:47
ESC ENT

User can use touch pan double click the function item, with the touch panel LCD ESC ENT to choose which function setup is going to in.

Or use the buttons on the keyboard, ▲▼◄ ► Press ENT to start sub-menu. Needs to press ENT again the mode window would become blink, use Up/Down key to change values. Press ESC until back to P/T/Z dome menu page or choose EXIT MENU to back P/T/Z dome menu page.

DATE AND TIME (Date and time setup)

Function Setup:

Use up/down/left/right key to change date and time.

Left and right key is for moving the item position.

Up and down key is for change value.
ABOUT SYSTEM (System Information)

User can use touch pan ✧ double click the function item, with the touch panel LCD ▲▼ ESC ENT to choose which function setup is going to in.

Or use the buttons on the keyboard, ▲▼ Press ENT to start sub-menu. Needs to press ENT again the mode window would become blink, use Up/Down key to change values. Press ESC until back to P/T/Z dome menu page or choose EXIT MENU to back P/T/Z dome menu page.

ABOUT SYSTEM (System Information)

Function Setup:
1. SYSTEM VERSION.
   • Displaying the system version.
2. LAST PAGE.
   • Choose back to the main menu.
     ➢ Press ENT back to the main menu page.
LOAD DEFAULT (Factory Default Reload)

User can use touch pan double click the function item, with the touch panel LCD ESC ENT to choose which function setup is going to in.

Or use the buttons on the keyboard. Press ENT to start sub-menu. Needs to press ENT again the mode window would become blink, use Up/Down key to change values. Press ESC until back to P/T/Z dome menu page or choose EXIT MENU to back P/T/Z dome menu page.

LOAD DEFAULT (Factory Default Reload)
Users choose this function to load factory default.

**Function Setup:**

1. **ENT: LOAD.**
   - Reload Confirm.
     - Press ENT to start factory reload

2. **OPERATE BUZZER.**
   - **ESC: EXIT.**
     - Press ESC to exit function setup.
User can use touch pan double click the function item, with the touch panel LCD ESC ENT to choose which function setup is going to in.

Or use the buttons on the keyboard, ▲▼ Press ENT to start sub-menu. Needs to press ENT again the mode window would become blink, use Up/Down key to change values. Press ESC until back to P/T/Z dome menu page or choose EXIT MENU to back P/T/Z dome menu page.

EXIT MENU (Menu Exit)
Users choose to exit menu after all function setup done or function setup abandon.
**Touch Panel LCD Type Control Keyboard: Call Device and control**

**HISHARP protocol P/T/Z Dome function menu page:**

```
CAM: 001     MUX:000
DVR: 000     MON:000
>          
ZOOM  FOCUS  FLIP
SPEED  SPEED                  
RIGHT  LEFT  LINE
LIMIT  LIMIT  SCAN
MENU  MENU  STOP
UP     SET    
MENU  PAN  MENU
DOWN  ZERO
HISHARP CAMERA  Y  M/D  H/M/S
```

**Icon Command** | **Function Define**
--- | ---
CAM: 000 | CAM ID. After input CAM ID, CAM ID would display.
MUX: 000 | MUX ID. After input MUX ID, MUX ID would display.
DVR: 000 | DVR ID. After input DVR ID, DVR ID would display.
MON: 000 | MON ID. After input CAM ID, MON ID would display.
ZOOM SPEED | Image zoom in/out speed setup
FOCUS SPEED | Image focus speed setup
FLIP | Auto 180 rotate
RIGHT LIMIT | Line scan right position setup
LEFT LIMIT | Line scan left position setup
LINE SCAN | Start line scan
MENU UP | OSD menu direction UP
MENU SET | OSD menu function value confirm
STOP SCAN | Stop line scan
MENU DOWN | OSD menu direction Down
PAN ZERO | If the preset position is not correct, pan zero to reset.
MENU | Go to P/T/Z Dome OSD function menu setup
HISHARP CAMERA | HISHARP Protocol
HISHARP | P/TZ Dome
Y M/D H/M/S | Local area date and time display
```

**PELCO-P protocol P/T/Z Dome function menu page:**

```
CAM: 001     MUX:000
DVR: 000     MON:000
>          
ZOOM  FOCUS  FLIP
SPEED  SPEED                  
RIGHT  LEFT  LINE
LIMIT  LIMIT  SCAN
MENU  MENU  STOP
UP     SET    
MENU  PAN  MENU
DOWN  ZERO
PELCO-P CAMERA  Y  M/D  H/M/S
```

PS: HISHARP and PELCO-P same menu page
P/T/Z Dome function setup

Click MENU to start P/T/Z Dome function setup:

<table>
<thead>
<tr>
<th>ZOOM SPEED</th>
<th>FOCUS SPEED</th>
<th>FLIP</th>
<th>RIGHT LIMIT</th>
<th>LEFT LIMIT</th>
<th>LINE LIMIT</th>
<th>MENU UP</th>
<th>MENU SET</th>
<th>MENU DOWN</th>
<th>PAN ZERO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Use MENU UP / MENU DOWN / MENU SET to move items / change values / values confirm.

P/T/Z Dome ODS menu function:

<table>
<thead>
<tr>
<th>Speed Dome OSD Menu</th>
<th>600</th>
<th>610</th>
<th>620</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.FOCUS-------Auto/Manual!</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.WB---------Auto/R.Gain/B.Gain</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.SHTTR------Auto/Manual!</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.SBLC--------Off/On!</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.FREEZ------Disable/enable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.NIGHT-------Auto/Manual!</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.SHARP------Default/Adjust!</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.neg----------On/Off!</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.Privecy Zone---------Enable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Save---------Yes/No</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

LILIN protocol P/T/Z Dome function menu page:

<table>
<thead>
<tr>
<th>Icon Command</th>
<th>Function Define</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAM: 000</td>
<td>CAM ID. After input CAM ID, CAM ID would display.</td>
</tr>
<tr>
<td>MUX: 000</td>
<td>MUX ID. After input MUX ID, MUX ID would display</td>
</tr>
<tr>
<td>DVR: 000</td>
<td>DVR ID. After input DVR ID, DVR ID would display</td>
</tr>
<tr>
<td>MON: 000</td>
<td>MON ID. After input CAM ID, MON ID would display</td>
</tr>
<tr>
<td>P: 000</td>
<td>Preset ID</td>
</tr>
<tr>
<td>T: 000</td>
<td>Dwell time</td>
</tr>
<tr>
<td>S: 000</td>
<td>Moving speed</td>
</tr>
<tr>
<td>ALARM</td>
<td>Alarm reset function</td>
</tr>
<tr>
<td>RESET</td>
<td>FLIP Auto 180° rotating</td>
</tr>
<tr>
<td>SET GROUP</td>
<td>Preset position group</td>
</tr>
<tr>
<td>LILIN CAMERA</td>
<td>LILIN Protocol P/TZ Dome</td>
</tr>
<tr>
<td>Y M/D H/M/S</td>
<td>Local area date and time display</td>
</tr>
</tbody>
</table>

**PS.**

2. PELCO-D protocol current reserve
9 CH Multiplexer Function Menu Page:

- **Icon**: Function Define
- **Full screen display**
- **4 quad split screen display**
- **8 quad split screen display**
- **9 quad split screen display**
- **13 quad split screen display**
- **16 quad split screen display**

- **SEL**: Channel select to change
- **LIVE / VCR**: Live display mode or VCR playback mode switch
- **AUTO**: Screen auto sequence mode
- **ZOOM / ENTER**: 2x2 Zoom or Enter in menu setup
- **MENU**: Menu setup or Exit without saving
- **FRZEE / ESC**: Freeze display in live mode or Esc in menu setup
- **16CH**: Go to 16 CH Multiplexer menu page

HISHARP 9CH MUX YYYY MM/DD HH/MM/SS
9 CH MUX menu page and date/time display
1CH DVR Function Menu Page:

- **Cam**: 001  **MUX**: 000
- **DVR**: 000  **MON**: 000

<table>
<thead>
<tr>
<th>Icon</th>
<th>Function Define</th>
</tr>
</thead>
<tbody>
<tr>
<td>►</td>
<td>Image playback. From the current time backwards</td>
</tr>
<tr>
<td>►►</td>
<td>Forward search button. (Adjust playback speed)</td>
</tr>
<tr>
<td>◄</td>
<td>Reverse search button (Adjust playback speed)</td>
</tr>
<tr>
<td>◄►</td>
<td>Image step playback</td>
</tr>
<tr>
<td>●</td>
<td>Image recording</td>
</tr>
<tr>
<td>■</td>
<td>Stop image playback</td>
</tr>
<tr>
<td>MUX</td>
<td>Mux / Rec In / Play Out image change</td>
</tr>
<tr>
<td>ENT</td>
<td>Menu function confirm (Enter)</td>
</tr>
<tr>
<td>ESC</td>
<td>DVR menu Function exit</td>
</tr>
<tr>
<td>MENU</td>
<td>1 CH DVR menu setup</td>
</tr>
<tr>
<td>To 4CH</td>
<td>Go to 4 CH DVR menu page</td>
</tr>
</tbody>
</table>

**HISHARP 1CH DVR YYYY MM/DD HH/MM/SS**

1 CH DVR menu page and date/time display

---

4 CH DVR Function Menu Page:

- **Cam**: 001  **MUX**: 000
- **DVR**: 000  **MON**: 000

<table>
<thead>
<tr>
<th>Icon</th>
<th>Function Define</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIME PLAY</td>
<td>Playback time search</td>
</tr>
<tr>
<td>MODE</td>
<td>4 quarterly split screen mode</td>
</tr>
<tr>
<td>SEL</td>
<td>Channel select to change</td>
</tr>
<tr>
<td>PIP</td>
<td>Picture in picture mode</td>
</tr>
<tr>
<td>REC</td>
<td>Image recording</td>
</tr>
<tr>
<td>FREZE</td>
<td>Picture freeze mode</td>
</tr>
<tr>
<td>ESC</td>
<td>Key lock function or menu function exit</td>
</tr>
<tr>
<td>AUTO</td>
<td>Auto sequence mode</td>
</tr>
<tr>
<td>ZOOM</td>
<td>Picture zoom in mode</td>
</tr>
<tr>
<td>MENU</td>
<td>4 CH DVR menu setup</td>
</tr>
<tr>
<td>ENTER</td>
<td>Menu function confirm (Enter)</td>
</tr>
<tr>
<td>To 1CH</td>
<td>Go to 1 CH DVR menu page</td>
</tr>
</tbody>
</table>

**HISHARP 4CH DVR YYYY MM/DD HH/MM/SS**

1 CH DVR menu page and date/time display
All device connecting:

**PS. 1:**
Single control keyboard mode. No more control keyboard can be connecting. Except on Matrix mode, 8 control keyboard. DVR and Multiplexer always connect to control keyboard RS485 PORT 1. P/T/Z Dome always connects to control keyboard PORT 2.

**PS. 2:**
1. Control Keyboard PORT 1 connects to P/T/Z Dome. PORT 2 connects to DVR and Multiplexer.

2. Multiplexer PORT 1 and PORT 2 not interflow. Users only use PORT 1 to connect. PORT 2 does not use.

3. 1 CH DVR RS485 IN and OUT is interflow.

4. 4 CH DVR RS485 is +/- pin.
**Additional: P/T/Z Dome, Multiplexer, DVR remote function setup**

All device control function please read the product manual book. All remote function must set correct, otherwise the device cannot control by control keyboard.

**P/T/Z DOME**

Normally the P/T/Z dome does not include the RS485 (RJ11 female), but it shows out the pin define. User read the product manual book to check the pin define (T+ / T-), and then make the RS-485 (RJ11 female). For example HISHARP protocol P/T/Z dome.

<table>
<thead>
<tr>
<th>Color</th>
<th>Function</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red(DC12+)</td>
<td>Dome power</td>
<td>DC12V+</td>
</tr>
<tr>
<td>Black(GND)</td>
<td>Dome power</td>
<td>GND</td>
</tr>
<tr>
<td>Yellow</td>
<td>RS485</td>
<td>A+</td>
</tr>
<tr>
<td>Grey</td>
<td>RS485</td>
<td>B -</td>
</tr>
</tbody>
</table>

**How to setup ID**

Step 1, To revolve the tray of the Camera base

Step 2, The picture shows out the cavity of the camera base.

Step 3, Insert the screwdriver inside.

Step 4, Turn the camera body clock Wise slowly. Clockwise: Open
Step 5, Hold the camera body to Remove.

Step 6, Hold the dome body then Take it out.

Step 7, A dip switcher is on the rear panel Of the dome base. Every speed dome must give it an ID, like we give it a name.

Step 8, High Speed Dome address Up to 64 ID (See page 7)

Step 9, Check the ID and then put it back, There are 3 immobile fillister for the Screw inside the dome base cover.

Step 10, The picture shows out the cavity of the camera base.

Step 11, Insert the screwdriver inside.

Step 12, Turn the camera body anti-clockwise slowly.
Anti-clockwise: Close
Step 13, Attach 3 screws nuts of the speed Dome and dome cover. And then done.

Dome address setup:

There is a DIP switcher on the dome base. (See the following chart)

1. Switch 7 and 8 is the baud rate selector (9600)
2. Switch 1-6 is address selector

Dome ID address table
Press MENU key to enter main menu, and then choose remote setup page.

1. REMOTE BAUD RATE: 2400 / 4800 / 9600 / 19200

2. MACHINE ADDRESS ID: Use the UP/DOWN/ENTER keys to set the Address ID of this machine. In the whole system architecture, the value is range from 01 to 16.

3. MACHINE NAME: There are 5 character spaces to hold the name.

4. PORT 1 DEVICE TYPE: This switch defines which device the port 1 (RS485) is connecting.
   The default is KEYB (REMOTE KEYBOARD)
   Control Keyboard SINGLE mode: KEYB
   Control Keyboard Matrix mode: KEYB

5. PORT 2 DEVICE TYPE: This switch defines which device the port 2 (RS485) is connecting.
   The default is LILIN (LILIN'S FAST DOME). Control Keyboard SINGLE and MATRIX mode, do not have to care.

6. PORT CROSS LINK: This switch is setting whether both the PORT 1 & PORT 2 are cross connected? “ON”: Both PORT 1 & PORT 2 are connected. The Multiplex can use PORT 1 to connect one Remote Keyboard and one kind of Fast Dome via PORT 2 bus, and it can be controlled by this Remote Keyboard, but it cannot connect any P/T/Z Dome in the PORT 1 bus. In this architecture you can install multiple keyboard via PORT 1 bus. “OFF”: Both PORT 1 & PORT 2 are not cross connected. The multiplex can use PORT 1 to connect one Remote Keyboard and one kind of P/T/Z Dome PORT 1 bus, and both the mux and P/T/Z Dome can be controlled by the Remote keyboard, on the same bus, but not the fast Dome at the other side. In This architecture, the multiplex can also install another keyboard and another kind of fast Dome via PORT 2 bus, and it can be controlled by this Keyboard on the same bus.

**NOTICE:** Control Keyboard SINGLE and MATRIX mode, always cross link “OFF”.

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### Remote Setup

- **Remote Baud Rate:** 9600
- **Machine Address ID:** 01
- **Machine Name:** MUX
- **Port 1 Device Type:** KEYB
- **Port 2 Device Type:** LILIN
- **Port Cross Link:** ON

---
>1 CH DVR
Press MENU/ENT to display main menu. Choose SYSTEM, press MENU/ENT to start sub-menu.

Use up/down key to choose RS-485 item, use left/right key to change ID: 1~16.
Press Enter to save and ESC to exit.

>4 CH DVR
Press MENU to display MENU page. Use up / down key moves to SYSTEM SETUP, press ENTER to sub-menu.

Use up / down moves to RS-485 ID,
Use left / right to change values.
ID: 1~16.

PS.
1CH DVR maximum control is 16.
4CH DVR maximum control is 16.
Or 1CH + 4CH DVR maximum control is 16.
**Additional: Control Command Display**

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAM: 001 MUX:000 DVR: 000 MON:000</td>
<td>Matrix Mode: NOT YET LOGIN User not log in yet No this function of Single mode.</td>
</tr>
<tr>
<td>CAM: 001 MUX:000 DVR: 000 MON:000 USER LOGIN</td>
<td>Matrix Mode: USER LOGIN User has log in No this function of Single mode.</td>
</tr>
<tr>
<td>CAM: 001 MUX:000 DVR: 000 MON:000 USER LOGOUT</td>
<td>Matrix Mode: USER LOGOUT User log out No this function of Single mode.</td>
</tr>
<tr>
<td>CAM: 001 MUX:000 DVR: 000 MON:000 NOT CORRECT PW</td>
<td>Single / Matrix Mode: NOT CORRECT PW The password is not correct</td>
</tr>
<tr>
<td>CAM: 001 MUX:000 DVR: 000 MON:000 NEW PASS WORD SAVE</td>
<td>Single / Matrix mode: NEW PASS WORD SAVE New password has saved</td>
</tr>
<tr>
<td>CAM: 001 MUX:000 DVR: 000 MON:000 PASS WORD RELOG</td>
<td>Single / Matrix mode: PASS WORD RELOG PASS WORD re-log in.</td>
</tr>
<tr>
<td>CAM: 001 MUX:000 DVR: 000 MON:000 DEVICE CONNECT</td>
<td>Single / Matrix Mode: DEVICE CONNECT Call CAM / MUX / DVR / MON. Device connecting.</td>
</tr>
<tr>
<td>Command</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>ID IS NOT CORRECT</td>
<td>Device ID is not correct.</td>
</tr>
<tr>
<td>COMMAND LOST</td>
<td>Call device, but command lost. Usually the control cable is broken.</td>
</tr>
<tr>
<td>DEVICE BUSY</td>
<td>Another user is using the same device No this function of Single mode.</td>
</tr>
<tr>
<td>SET PRESET</td>
<td>Preset position has set.</td>
</tr>
<tr>
<td>CALL PRESET</td>
<td>Call preset position</td>
</tr>
<tr>
<td>CLEAR PRESET</td>
<td>Clear all preset position</td>
</tr>
<tr>
<td>START AUTO TOUR</td>
<td>START preset position auto tour</td>
</tr>
</tbody>
</table>
Single / Matrix Mode:
STOP AUTO TOUR
STOP preset position auto tour

Single / Matrix Mode:
ALARM APPEAR
Alarm event is happening

Single / Matrix Mode:
VIDEO LOSS
Video image disconnect

Single / Matrix Mode:
AUTHORITY ERROR
User has no enough authority level.
**Additional: F1 function key**

This function is to avoid if LCD panel broken, user still can control.
Press numeric 1 + F1, LCD function area becomes blink.

1 + F1 = ZOOM SPEED  
1/2/3/4(choose speed) + ENT to process function. ESC is exit.

2 + F1 = FOCUS SPEED  
1/2/3/4(choose speed) + ENT to process function. ESC is exit.

3 + F1 = FLIP  
ENT to process function. ESC is exit.

4 + F1 = RIGHT LIMIT  
ENT to process function. ESC is exit.

5 + F1 = LEFT LIMIT  
ENT to process function. ESC is exit.

6 + F1 = LINE SCAN  
ENT to process function. ESC is exit.

7 + F1 = MENU UP  
ENT to process function. ESC is exit.

8 + F1 = MENU SET  
ENT to process function. ESC is exit.

9 + F1 = STOP SCAN  
ENT to process function. ESC is exit.

10 + F1 = MENU DOWN  
ENT to process function. ESC is exit.

11 + F1 = PAN ZERO  
ENT to process function. ESC is exit.

12 + F1 = MENU  
ENT to process function. ESC is exit.