



## **Quick Guide**

## **Quick Start Guide**

### **About this Manual**

This Manual is applicable to HDPTZ32XIR Speed Dome.

The Manual includes instructions for using and managing the product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version in the company website.

Please use this user manual under the guidance of professionals.

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IN THE EVENT OF ANY CONFLICTS BETWEEN THIS MANUAL AND THE APPLICABLE LAW, THE LATER PREVAILS.

### **Regulatory Information**

#### **FCC Information**

**FCC compliance:** This equipment has been tested and found to comply with the limits for a digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

#### **FCC Conditions**

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.
2. This device must accept any interference received, including interference that may cause undesired operation.

#### **EU Conformity Statement**



This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the EMC Directive 2014/30/EU, the RoHS Directive 2011/65/EU.

2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: [www.recyclethis.info](http://www.recyclethis.info).



2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information.

The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: [www.recyclethis.info](http://www.recyclethis.info).

### **Industry Canada ICES-003 Compliance**

This device meets the CAN ICES-3 (A)/NMB-3(A) standards requirements



## Safety Instruction

These instructions are intended to ensure that user can use the product correctly to avoid danger or property loss.

The precaution measure is divided into “Warnings” and “Cautions”

**Warnings:** Serious injury or death may occur if any of the warnings are neglected.

**Cautions:** Injury or equipment damage may occur if any of the cautions are neglected.

	
<b>Warnings</b> Follow these safeguards to prevent serious injury or death.	<b>Cautions</b> Follow these precautions to prevent potential injury or material damage.



### Warnings

- All the electronic operation should be strictly compliance with the electrical safety regulations, fire prevention regulations and other related regulations in your local region.
- Please use the power adapter, which is provided by normal company. The standard of the power adapter is 24 VAC  $\pm 10\%$ . The power consumption cannot be less than the required value.
- Do not connect several devices to one power adapter as adapter overload may cause over-heat or fire hazard.
- Please make sure that the power has been disconnected before you wire, install or dismantle the speed dome.
- When the product is installed on wall or ceiling, the device shall be firmly fixed.
- If smoke, odors or noise rise from the device, turn off the power at once and unplug the power cable, and then please contact the service center.
- If the product does not work properly, please contact your dealer or the nearest service center. Never attempt to disassemble the speed dome yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)



### Cautions

- Do not drop the dome or subject it to physical shock, and do not expose it to high electromagnetism radiation. Avoid the equipment installation on vibrations surface or places subject to shock (ignorance can cause equipment damage).
- Do not place the dome in extremely hot, cold, dusty or damp locations, otherwise fire or electrical shock will occur. The operating temperature should be  $-30^{\circ}\text{C}$  to  $65^{\circ}\text{C}$ .
- Exposing the equipment to direct sun light, low ventilation or heat source such as heater or radiator is forbidden (can cause fire danger).
- Do not aim the speed dome at the sun or extra bright places. A blooming or smear may occur otherwise (which is not a malfunction however), and affecting the endurance of sensor at the same time.
- Please use the provided glove when opening the dome cover, avoid direct contact with the dome cover, because the acidic sweat of the fingers may erode the surface coating of the dome cover.

- Please use a soft and dry cloth when cleaning inside and outside surfaces of the dome cover, do not use alkaline detergents.
- Please keep all packaging after unpacking the product for future use. In case of any failure, you need to return the speed dome to the factory with the original Packaging. Transportation without the original packaging may result in damage on the speed dome and lead to additional costs.

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# 1 Installation

## **Before you start:**

Check the package contents and make sure that the device in the package is in good condition and all the assembly parts are included.

There are several ways to install the analog speed dome. The wall mounting is taken as an example below.

## 1.1 Connecting the Cables

Turn the power off before connecting the cables.

The cable interfaces of speed dome are shown in following figure. The cables are distinguished by different colors. The labels attached on the cables are for identification.



The Figure 1-1 contains all the possible cables, and they may vary according to different camera models. Refer to the actual device for the specific cables.

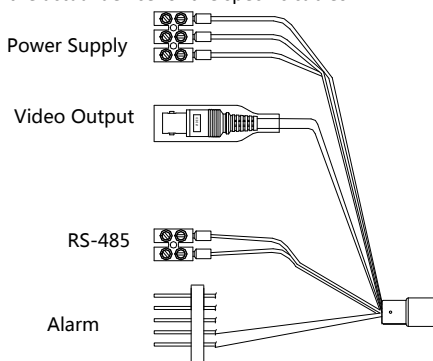


Figure 1-1 Cables

Table 1-1 Cables Description

Name	Description
Power Supply	24 VAC/12 VDC
Video Output	Coaxial video output
RS-485	485 control
Alarm	Alarm input and alarm output

## 1.2 DIP Switch Settings

### 1.2.1 IR Speed Dome Settings

Two DIP switches, SW1 and SW2, are for setting the speed dome address, baudrate, protocol, video output mode, and terminal resistor, with value OFF=0. The DIP switch of the speed dome is shown as Figure 1-2.

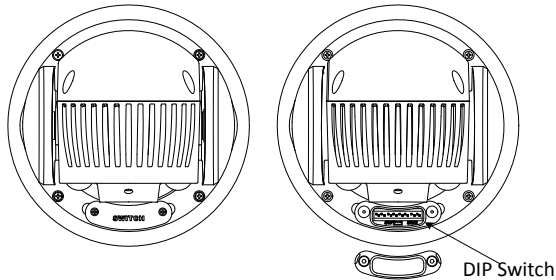


Figure 1-2 Label of DIP Switch for IR Speed Dome



Figure 1-3 Enlarged View of DIP Switch



The default address is 0, the default baudrate is 2400, and the default terminal resistor is OFF.

Table 1-2 Switch Functions

Switch No.	Function
1 to 8 (SW1)	Set the address for the speed dome
1 to 2 (SW2)	Set the baudrate for the speed dome
3 to 5 (SW2)	Set the protocol for the speed dome
6 to 7 (SW2)	Set the video output mode for the speed dome
8 (SW2)	Set the terminal resistor for the speed dome

#### ● Address Settings

The SW1 switch is used for setting the address of speed dome, with value ON=1, 2, 3, 4, 5, 6, 7 standing respectively for 1, 2, 4, 8, 16, 32, 64, 128, and OFF=0. You can refer to the Table 1-3 for setting the address.



Table 1-3 Set Dome Address

Dome Address	1	2	3	4	5	6	7	8
0	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
1	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
2	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
3	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF
...	...	...	...	...	...	...	...	...
255	ON	ON	ON	ON	ON	ON	ON	ON

### ● Baudrate Settings

The No.1 and No.2 SW2 switches are for setting the baudrate of the speed dome. The baudrate can be 2400bps, 4800bps, 9600bps, and 19200bps. The baudrate will be set as 2400bps by default when it is out of this range. Refer to the following table for details.

Table 1-4 Set Baudrate

DIP Switch SW2-Baudrate Settings		
Baudrate	1	2
2400	OFF	OFF
4800	ON	OFF
9600	OFF	ON
19200	ON	ON

### ● Protocol Settings

The No. 3 to No. 5 SW2 switches are for setting the protocol of the speed dome. Refer to the following table for setting the protocol.

Table 1-5 Set Protocol

DIP Switch SW2-Protocol Settings			
Protocol	3	4	5
Self-adaptive	OFF	OFF	OFF
PELCO_P	ON	OFF	OFF
PELCO_D	OFF	ON	OFF
HIKVISION	ON	ON	OFF
KALATE	OFF	OFF	ON
VICON	ON	OFF	ON

DIP Switch SW2-Protocol Settings			
MAN_BOSCH	OFF	ON	ON
MAN_AD	ON	ON	ON

### ● Video Output Settings

The No.6, No.7 SW2 switches are for setting the video output mode of the speed dome. You can refer to Table 1-23 for setting the video output.

Table 1-6 Set Video Output

Switch No.	6	7
Description		
TVI	OFF	OFF
AHD	ON	OFF
CVI	OFF	ON
CVBS	ON	ON

### ● Terminal Resistor Settings

The No. 8 SW2 switch is for turning on/off the 120 Ω terminal resistor. You can refer to Table 1-24 for setting the terminal resistor.

Table 1-7 Set Terminal Resistor

Switch No.	8
Description	
Turn on the resistor	ON
Turn off the resistor	OFF

## 1.3 Wiring and Installation

There are several ways to install the speed dome. Here we take wall mounting as the example.

### 1.3.1 Wiring

Check the installation environment and cables before wiring.

- Get familiar with the installation environment before wiring, including the wiring distance, surrounding, electromagnetic interference, etc.
- Choose the cable with nominal voltage higher than the actual voltage to guarantee a normal running.
- To protect the power cable and the signal transmitting cable from human tampering, you should pay attention to the protection and reinforcement of the cables.

- When wiring, do not tighten the wire or loosen the wire.

The wiring of the speed dome should be performed by professionals.

### 1.3.2 Installing the Mount

#### **Before you start:**

Wall mounting is applicable for the indoor/outdoor solid wall. The followings are the mandatory precondition for wall mounting:

- The wall must be thick enough to install the expansion screws.
- Make sure that the wall is strong enough to withstand more than 8 times the weight of the dome and the mount.

#### **Steps:**

1. Make sure that the type of the mount, and the number of accessories are right, as shown in the figure below.

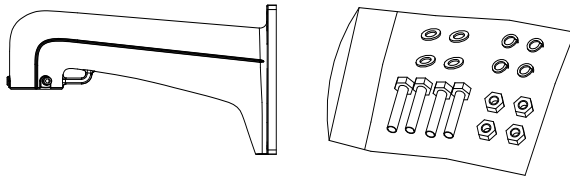


Figure 1-4 Wall Mount, Nuts, and Flat Washers

2. Drill 4 screw holes in the wall according to the holes of the mount, and then insert expansion screws into the screw holes.

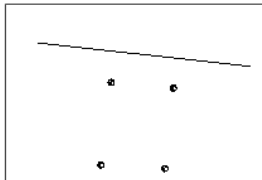


Figure 1-5 Drill Mounting Holes

3. Attach the wall mount to the wall by aligning the 4 screw holes of the mount with expansion screws on the wall.
4. Secure the wall mount with 4 hex nuts and washers.

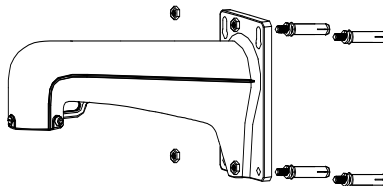


Figure 1-6 Secure the Mount

5. Install the speed dome to the mount. Refer to *Section 1.3.3 Installing the Speed Dome* for installation details.



For outdoor applications, adopt the water-proof measures. Setting the DIP Switch

Set the address and baudrate for the speed dome. The default value of DIP switch is shown below:

- ◆ **Address: 0**
- ◆ **Baudrate:2400**
- ◆ **Terminal Resistor: OFF**

Refer to the *Section 1.2 DIP Switch Settings* for DIP switch settings.

### 1.3.3 Installing the Speed Dome



The sketches of installing the speed dome are for reference only.

#### **Steps:**

1. Hang the safety rope to the speed dome, and then hook it to the mount as shown in Figure 1-7 (left).
2. Route the cables of the speed dome through the wall mount.
3. Connect the corresponding video/power/RS-485 cables.
4. Install the speed dome to the mount, and secure the speed dome by rotating the speed dome clockwise.
5. Fasten the two lock screws with the Allen wrench, as shown in Figure 1-7 (right).

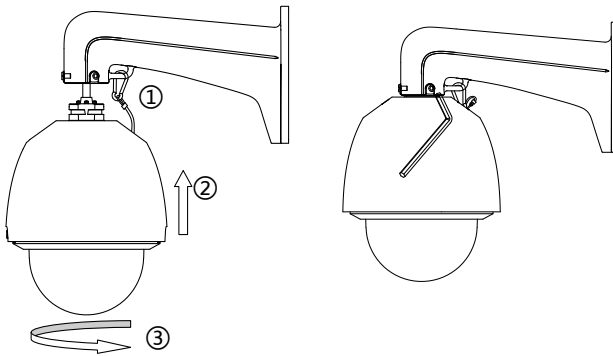


Figure 1-7 Install the Speed Dome

## 2 Application and Operations

### 2.1 System Application

The device can be controlled through the back-end device or control software. The back-end device includes control keyboard, DVR (Digital Video Recorder), etc., and the control software includes client software. Here we take the connection of DVR as the example.



Figure 2-1 System Application



- If both the speed dome and the DVR support the coaxial function, the RS-485 cable is not necessary.
- The HD-TVI video output can only be connected to specific HD-TVI DVR.

### 2.2 Basic Operations

Make sure the speed dome is connected properly, and the following basic operations are supported:

#### Panning and tilting:

Click the direction buttons to control the pan and tilt movement of the speed dome.

#### Zooming:

Click the **ZOOM+** or **ZOOM-** button to control the zooming.

#### Focusing:

Click the **FOCUS+** or **FOCUS-** button to adjust the focus.

#### Iris:

Click the **IRIS+** or **IRIS-** buttons to adjust the iris.

#### Preset control:

The speed dome supports the preset function, and the configurable preset range varies according to the control system. The system menu pops up after you call the preset 95.

The main menu interface is shown as follows:

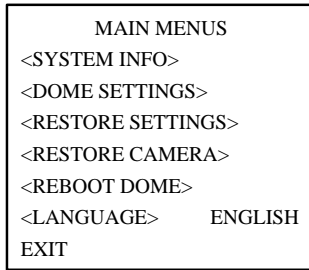


Figure 2-2 Main Menu



Refer to the user manual for the detailed instruction to set the speed dome.

### 2.2.1 Configuring Patrol

You can set the patrol function by the DVR and OSD menu, as well as the one-touch patrol can be realized.

- **Configuring Patrol by DVR**

**Steps:**

1. Enter the PTZ Control interface.

**Menu > Camera > PTZ**



Figure 2-3 PTZ Settings

2. Select patrol No. in the drop-down list of patrol.
3. Click the **Set** button to add key points for the patrol.

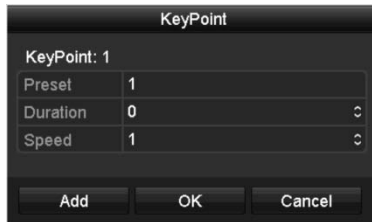


Figure 2-4 Key point Configuration

4. Configure key point parameters, such as the key point No., duration of staying for one key point and speed of patrol. The key point is corresponding to the preset. The **Key Point No.** determines the order at which the PTZ will follow while cycling through the patrol. The **Duration** refers to the time span to stay at the corresponding key point. The **Speed** defines the speed at which the PTZ will move from one key point to the next.
5. Click the **Add** to add the next key point to the patrol, or you can click the **OK** to save the key point to the patrol.

You can delete all the key points by clicking the **Clear** for the selected patrol, or click the **Clear All** to delete all the key points for all patrols.

● **Configuring Patrol by OSD Menu**

**Steps:**

1. Call the preset 95 to enter the main menu and move the cursor to enter patrol configuration submenu:

**MAIN MENU > DOME SETTINGS > PATROLS**

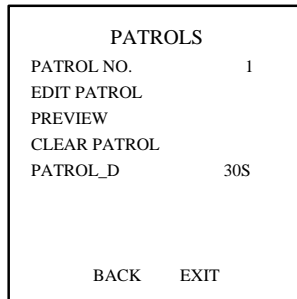


Figure 2-5 Patrol Configuration Menu

2. Choose the patrol number.
  - (1) Move the cursor to **PATROL NO.** and click **IRIS+** to enter edit mode.
  - (2) Click the up and down direction buttons to select the number of the patrol which is to be configured.
  - (3) Click **IRIS+** again to confirm the settings and exit editing mode.



Up to 8 patrols can be configured.

### 3. Edit the patrol.

- (1) Move the cursor to **EDIT PATROL** and click **IRIS+** to enter the editing mode.

NUM	PST	DWELL	SPEED
1	0	6	30
2	0	6	30
3	0	6	30
4	0	6	30
5	0	6	30
6	0	6	30
7	0	6	30
IRIS+ OK		IRIS- CANCEL	

Figure 2-6 Edit the Patrol

- (2) Click up/down direction buttons to choose the number and locate the preset to be edited.
- (3) Click left/right direction buttons to position the cursor to the column of **PRESET**, **DWELL** and **SPEED**. You can click the up/down direction buttons to set the value of preset number, dwell time and patrol speed.



The presets you set for a patrol should be the ones that have been pre-defined by users. The dwell time (15 to 800 seconds selectable) is the time that the speed dome stays on a certain preset. The patrol speed (level 1 to 40 selectable) is the scanning speed for the speed dome switching between the presets.

- (4) Follow the above steps to define the other presets for the selected patrol. You can configure up to 32 presets in sequence for a patrol. Press **IRIS+** to save the new settings or press **IRIS-** to cancel and return to the previous menu.
- ### 4. Call the defined patrol.

Back to the live view interface after you finish editing the patrol, and call the special presets to call the defined patrol. The presets 35 to 38 stand for patrol 1 to 4 and presets 102 to 105 stand for patrol 5 to 8.

#### ● Calling Quick Patrol

The dome starts patrol from the predefined preset 1 to preset 32 in order after the park time. The undefined preset will be skipped.

#### **Steps:**

1. Set the preset 1 to 32 by DVR or OSD menu.
2. Call the preset 46 to start the quick patrol.



## 2.2.2 Configuring Park Actions

### Purpose:

For some certain model of the speed dome, it can be configured to start a predefined park action (scan, preset, patrol and etc.) automatically after a period of inactivity (park time).

### ● Configuring Park Actions by DVR

#### Steps:

1. Click the **PTZ** in the lower-right corner of the PTZ setting interface.

**Menu > Camera > PTZ**


2. Click the  button to show the one-touch function of the PTZ control.



Figure 2-7 PTZ Panel - One-touch

3. There are 3 one-touch park types selectable, click the corresponding button to activate the park action.

**Park (Quick Patrol):** The dome starts patrol from the predefined preset 1 to preset 32 in order after the park time. The undefined preset will be skipped.

**Park (Patrol 1):** The dome starts moving according to the predefined patrol 1 path after the park time.

**Park (Preset 1):** The dome moves to the predefined preset 1 location after the park time.



The park time can only be set through the speed dome configuration interface. By default the value is 5 s.

4. Click the button again to inactivate it.

### ● Configuring Park Actions by OSD Menu

#### Steps:

1. Call the preset 95 to enter the main menu and move the cursor to enter motion settings submenu:

**MAIN MENU > DOME SETTINGS > MOTION SETTINGS**

MOTION	
AUTO FLIP	ON
PROPORTIONAL PAN	ON
PARK TIME	5
PARK ACT	NONE
SCAN SPEED	28
IMAGE FREEZE	OFF
DOME SPEED	6
BACK	EXIT

Figure 2-8 PTZ Configuration

2. Move the cursor to the **PARK TIME**, and set the value ranging from 5 to 720 seconds.
3. Move the cursor to the **PARK ACT**, and the action can be set as preset 1 to 8, pattern 1 to 5, patrol 1 to 10, pan scan, tilt scan, random scan, frame scan, panoramic scan, day mode, night mode, patrol-d or none.



If no control signal is received after the park time under the following circumstances, no park actions will be performed: in the process of performing dome actions by calling special presets.

## 3 Troubleshooting

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### 3.1 Device Exceptions

#### Question

Why does the speed dome fail to start or repeatedly reboot? Why does the speed dome restart intermittently when controlling PTZ, calling presets or turning on the infrared lights of the IR dome at night?

#### Answer

- Check the supply voltage of the dome. Ensure the supply voltage to meet the power requirements of the speed dome. The nearest power supply is recommended.
- Check whether the diameter of the power wire meet the standards.

### 3.2 PTZ Control Exceptions

#### Question

The speed dome cannot do PTZ control but can do zoom control.

#### Answer

- For IR speed dome, please remove the protective sticker and then wire up.

#### Question

Neither zoom control nor PTZ control is available for the speed dome.

#### Answer

- Check the supply voltage of the dome. Ensure the supply voltage to meet the power requirements of the speed dome. The nearest power supply is recommended.
- Check whether the diameter of the power wire meet the standards.

### 3.3 Other Questions

#### Question

The preview image of the speed dome is not clear.

#### Answer

- Please check whether the protective film of the bubble has been removed.

- Please check whether there are foreign objects on the bubble or the lens.
- Please check where there are obstructions such as spider web nearby.
- Open the bubble and check whether the lens cover has been removed.
- Restore the device to the default settings. Call the preset 95 to enter the OSD menu and select the **RESTORE CAMERA**.

### Question

For the IR speed dome, the image is abnormal white when the IR light is turned on in the night.

### Answer

- Please check whether there are obstructions near the lens, e.g. wall, leaf, spider web, cables, etc., which will cause the over-exposure due to the IR light reflection. Clear the obstructions if necessary.

### Question

The speed dome cannot focus when working in the indoor condition.

### Answer

- Please restore the device to the default to exclude the factor of incorrect configuration.
- Reduce the minimum focusing distance of the device by configuring the image settings through the OSD menu.