

***HIKVISION***



# **Analog Speed Dome**

## **Quick Start Guide**

UD.6L0201B1442A01

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Thank you for purchasing our product. If there are any questions, or requests, please do not hesitate to contact the dealer.

This manual applies to **5-inch speed dome** and **IR Speed Dome**.

This manual may contain several technical incorrect places or printing errors, and the content is subject to change without notice. The updates will be added to the new version of this manual. We will readily improve or update the products or procedures described in the manual.

**DISCLAIMER STATEMENT**

“Underwriters Laboratories Inc. (“UL”) has not tested the performance or reliability of the security or signaling aspects of this product. UL has only tested for fire, shock or casualty hazards as outlined in UL’s Standard(s) for Safety, UL60950-1. UL Certification does not cover the performance or reliability of the security or signaling aspects of this product. UL MAKES NO REPRESENTATIONS, WARRANTIES OR CERTIFICATIONS WHATSOEVER REGARDING THE PERFORMANCE OR RELIABILITY OF ANY SECURITY OR SIGNALING RELATED FUNCTIONS OF THIS PRODUCT.”

## 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 Low Voltage Directive 2006/95/EC, the EMC

Directive 2004/108/EC, 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).



## 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:** Neglecting any of the warnings may cause serious injury or death.

**Cautions:** Neglecting any of the cautions may cause injury or equipment damage.

	
<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 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 dome cover for indoor use shall be kept from rain and moisture.

- Exposing the equipment to direct sun light, low ventilation or heat source such as heater or radiator is forbidden (ignorance 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 open up 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 clean inside and outside surfaces of the dome cover, do not use alkaline detergents.
- Please keep all wrappers after unpack them for future use. In case of any failure occurred, you need to return the speed dome to the factory with the original wrapper. Transportation without the original wrapper may result in damage on the speed dome and lead to additional costs.

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# 1 Installation and Cabling

## 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.

**Note:** Do not drag the speed dome with its cables, otherwise the waterproof performance is affected.

## 1.1 Cable Descriptions

The cable interfaces of speed dome are shown in the following figure. The power supply cables, etc. are distinguished by different colors. Please refer to the labels attached on the cables for identification.

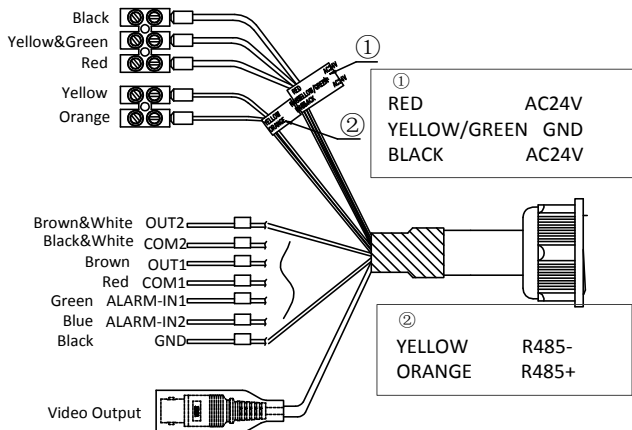


Figure 1-1 Cables of Speed Dome

Table 1-1 Descriptions of Cables

Name	Description
AC24V	Power supply
RS485+/-	485 control
ALARM-IN1/2	Alarm inputs
OUT1/2	Alarm outputs
VIDEO	RS-485 cable

**Notes:**

- The cables vary depending on the speed dome models.
- The medium speed domes do not support alarm interfaces and have only one pair RS485 cables.

## 1.2 Setting DIP Switch

### 1.2.1 DIP Switches Location of IR Speed Dome

**Steps:**

1. Loosen the screws on the switch cover which is on the right side of the speed dome as shown in the Figure 1-2.
2. Remove the switch cover and set the address, baudrate, protocol, etc. by switching the DIP switch in the speed dome. (A label is on the back of the switch cover. The brief address, baudrate, protocol settings are on it.)
3. Install the switch cover back after the DIP settings.

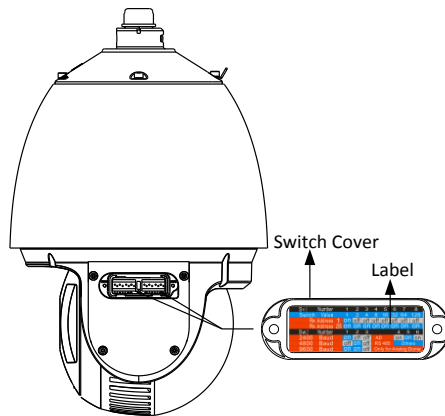


Figure 1-2 DIP Switch of IR Speed Dome

### 1.2.2 DIP Switches Location of 5-inch Speed Dome

Refer to the steps 1 of *Section 1.3.3 Installing the Speed Dome* to disassemble the speed dome, and then configure the DIP settings.

For high speed dome, the DIP switch is on the bottom of the camera module as shown in the following figure.

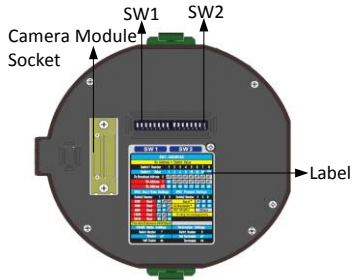


Figure 1-3 DIP Switches of High Speed Dome

For medium speed dome, the DIP switch is on the side of the camera module as shown in the following figure.

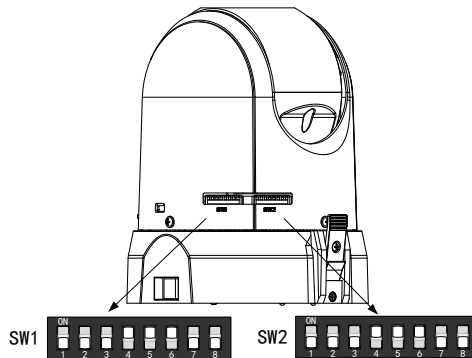


Figure 1-4 DIP Switches of Medium Speed Dome

### 1.2.3 DIP Switch Settings

The DIP switch is shown in the following figure.

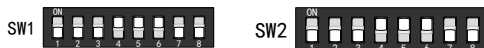


Figure 1-5 Enlarged View of DIP Switches

DIP switches SW1 and SW2 are for setting the speed dome address, baudrate, protocol, etc., with value ON=1 and OFF=0(binary system), as shown in Figure 1-2, Figure 1-3 or Figure 1-4. Please refer to *Section 1.2.1 and 1.2.2* for detailed settings.

**Note:** The default dome address is 0; the default baudrate is 2400; and the default value of the 120Ω terminator is OFF.

### ● Setting Dome Address

The DIP switch SW1 is used for setting the address of speed dome. You can refer to Set the Dome AddressTable 1-2 and Table 1-3 for details of setting the speed dome address to a specific number.

Table 1-2 Set the Dome Address




Dome Address	SW1 Settings	1	2	3	4	5	6	7	8
0	SW1 	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
1	SW1 	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
-	-	-	-	-	-	-	-	-	-
255	SW1 	ON	ON	ON	ON	ON	ON	ON	ON

Table 1-3 Set the Dome Address from 0 to 71

Address	DIP Switch SW1 Settings							
	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
4	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF
5	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF
6	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF
7	ON	ON	ON	OFF	OFF	OFF	OFF	OFF

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\	DIP Switch SW1 Settings							
8	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF
9	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF
10	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF
11	ON	ON	OFF	ON	OFF	OFF	OFF	OFF
12	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF
13	ON	OFF	ON	ON	OFF	OFF	OFF	OFF
14	OFF	ON	ON	ON	OFF	OFF	OFF	OFF
15	ON	ON	ON	ON	OFF	OFF	OFF	OFF
16	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF
17	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF
18	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF
19	ON	ON	OFF	OFF	ON	OFF	OFF	OFF
20	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF
21	ON	OFF	ON	OFF	ON	OFF	OFF	OFF
22	OFF	ON	ON	OFF	ON	OFF	OFF	OFF
23	ON	ON	ON	OFF	ON	OFF	OFF	OFF
24	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF
25	ON	OFF	OFF	ON	ON	OFF	OFF	OFF
26	OFF	ON	OFF	ON	ON	OFF	OFF	OFF
27	ON	ON	OFF	ON	ON	OFF	OFF	OFF
28	OFF	OFF	ON	ON	ON	OFF	OFF	OFF
29	ON	OFF	ON	ON	ON	OFF	OFF	OFF
30	OFF	ON	ON	ON	ON	OFF	OFF	OFF
31	ON	ON	ON	ON	ON	OFF	OFF	OFF
32	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF
33	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF
34	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF
35	ON	ON	OFF	OFF	OFF	ON	OFF	OFF
36	OFF	OFF	ON	OFF	OFF	ON	OFF	OFF
37	ON	OFF	ON	OFF	OFF	ON	OFF	OFF
38	OFF	ON	ON	OFF	OFF	ON	OFF	OFF
39	ON	ON	ON	OFF	OFF	ON	OFF	OFF






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\	DIP Switch SW1 Settings							
40	OFF	OFF	OFF	ON	OFF	ON	OFF	OFF
41	ON	OFF	OFF	ON	OFF	ON	OFF	OFF
42	OFF	ON	OFF	ON	OFF	ON	OFF	OFF
43	ON	ON	OFF	ON	OFF	ON	OFF	OFF
44	OFF	OFF	ON	ON	OFF	ON	OFF	OFF
45	ON	OFF	ON	ON	OFF	ON	OFF	OFF
46	OFF	ON	ON	ON	OFF	ON	OFF	OFF
47	ON	ON	ON	ON	OFF	ON	OFF	OFF
48	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF
49	ON	OFF	OFF	OFF	ON	ON	OFF	OFF
50	OFF	ON	OFF	OFF	ON	ON	OFF	OFF
51	ON	ON	OFF	OFF	ON	ON	OFF	OFF
52	OFF	OFF	ON	OFF	ON	ON	OFF	OFF
53	ON	OFF	ON	OFF	ON	ON	OFF	OFF
54	OFF	ON	ON	OFF	ON	ON	OFF	OFF
55	ON	ON	ON	OFF	ON	ON	OFF	OFF
56	OFF	OFF	OFF	ON	ON	ON	OFF	OFF
57	ON	OFF	OFF	ON	ON	ON	OFF	OFF
58	OFF	ON	OFF	ON	ON	ON	OFF	OFF
59	ON	ON	OFF	ON	ON	ON	OFF	OFF
60	OFF	OFF	ON	ON	ON	ON	OFF	OFF
61	ON	OFF	ON	ON	ON	ON	OFF	OFF
62	OFF	ON	ON	ON	ON	ON	OFF	OFF
63	ON	ON	ON	ON	ON	ON	OFF	OFF
64	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF
65	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF
66	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF
67	ON	ON	OFF	OFF	OFF	OFF	ON	OFF
68	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF
69	ON	OFF	ON	OFF	OFF	OFF	ON	OFF
70	OFF	ON	ON	OFF	OFF	OFF	ON	OFF
71	ON	ON	ON	OFF	OFF	OFF	ON	OFF

● **Baudrate Settings**

The positions 1, 2 and 3 of DIP switch SW2 are for setting the baudrate of the speed dome, standing for 2400bps, 4800bps, 9600bps, 19200bps and 38400bps respectively. The baudrate will be set as 2400bps by default if it is out of this range. Refer to the following table:



Table 1-4 Set the Baudrate of the Dome

	DIP Switch SW2-Baudrate Settings			
Baudrate	Positions1-3 Settings	1	2	3
2400	SW2 	ON	OFF	OFF
4800	SW2 	OFF	ON	OFF
9600	SW2 	ON	ON	OFF
19200	SW2 	OFF	OFF	ON
38400	SW2 	ON	OFF	ON

● **Protocol Settings**

The positions 4, 5 and 6 of DIP switch SW2 are for setting the communication protocols of the dome. Refer to the following table:

Table 1-5 Set the Protocol of the Dome



	DIP Switch SW2-Protocol Settings			
Protocol	Positions 4-6 Settings	4	5	6
Bosch Manchester	SW 2 	OFF	ON	ON
AD Manchester	SW 2 	ON	ON	ON
Self-adaptive	Others			

The speed dome is self-adaptive to the Pelco-P, Pelco-D and Private-Code. You don't have to set the RS-485 control protocol by the DIP switch.

● **Communication Mode Settings**

The position 7 of DIP switch SW2 is for setting the RS485 communication mode of the dome to simplex or half-duplex.



Table 1-6 Set Communication Mode of the Dome

DIP Switch SW2-Simplex/Half-duplex Settings		
Description	Position 7 Setting	7
Simplex	SW2 	OFF
Half-duplex	SW2 	ON

● **Terminal Resistor Settings**

The position 8 of DIP Switch SW2 is for enabling or disabling the terminating resistor.

Table 1-7 Set Terminal Resistor

DIP Switch SW2-Terminating Resistor Settings		
Description	Position 8 Setting	8
Not Terminated	SW2 	OFF
Terminated	SW2 	ON

**Note:** The factory default setting for the speed dome is half-duplex.

## 1.3 Mounting

### 1.3.1 Wiring

The survey of the actual installation environment and planning the wiring is highly recommended before the accurate deployment of the wire is implemented in order to provide a safe and steady power supply and a reasonable wiring route.

- Get familiar with the installation environment before deploying the wire, including the wiring distance, surrounding, and electromagnetic interference and so on.
- Please choose the cable with nominal voltage higher than the actual voltage, to ensure a normal running in case of unsteady voltage.

- 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 deploying the wire, please do not tighten the wire or make the wire loose.
- The wiring of the speed dome should be performed by professionals.

### 1.3.2 Installing the Wall Mount

#### **Notes:**

- The speed dome can be installed to a thread interface or non-thread interface mount. The non-thread mount is highly recommended.
- When you select a thread mount, please install the pendant adapter(supplied) between the mount and speed dome. Any mismatch problems shall be taken responsibility by the user.
- The dimension of pendant adapter is  $G1\frac{1}{2}$  .

There are several ways to install the speed dome. In this guide, the non-thread wall mount installation is taken as an example. Refer to the following steps for details:

#### **Steps:**

1. Get the wall mount and screws from the packing box as shown follows.

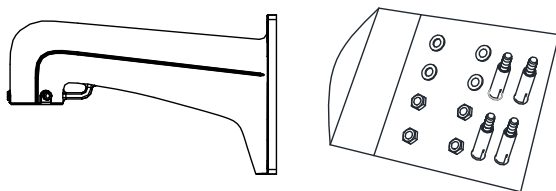


Figure 1-6 Wall Mount and Accessories

2. Drill 4  $\phi 12$  screw holes in the wall according to the hole locations of the mount, and then insert M8 expansion screws into the screw holes.

#### **Notes:**

- For cement wall, you need to use the expansion screw to fix the mount.

- For wooden wall, you can just use the self-tapping screw to fix the mount.
- Please make sure that the wall is strong enough to withstand at least 8 times the weight of the dome and the mount.
- The wall must be thick enough to mount the expansion screws.

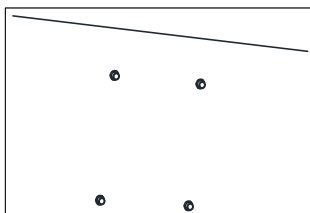


Figure 1-7 Drill Screw Hole and Insert Expansion Screw

3. Secure the wall mount with 4 hex nuts and washers.

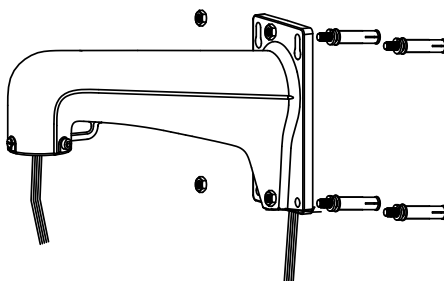


Figure 1-8 Drill Screw Holes

### 1.3.3 Installing the Speed Dome

#### Steps:

1. Disassemble the 5-inch speed dome; for the IR speed dome, remove the protective sticker from the dome drive directly.
  - (1) For the 5-inch speed dome, loosen the two lock screws on the both side of the speed dome. Pull the lower dome to separate it from the back box as shown in Figure 1-9 (left).

**Note:** Please do not remove the lock screws from the dome.

  - (2) Remove the protective lens cover, foam and sticker, as shown in Figure 1-9.

- (3) For the 5-inch speed dome, push the two snap locks towards the Camera Module and pull the Camera Module out from the back box.

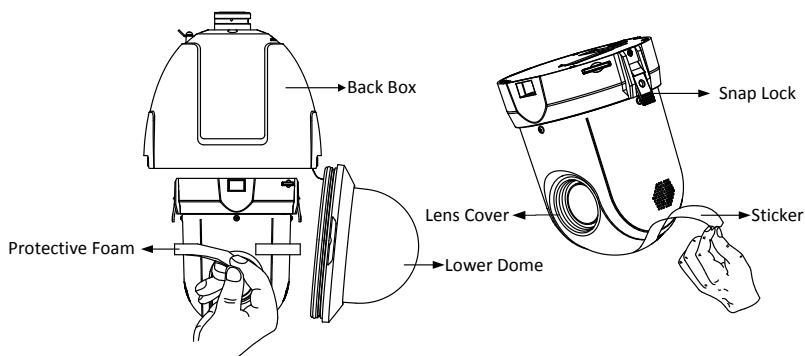


Figure 1-9 Disassemble the 5-inch Speed Dome

2. Set the communication address and baudrate for the speed dome. Refer to *section 1.2 Setting DIP Switch* for detailed settings.
3. Push the tab lock towards the back box and lift the hinged door open.
4. Connect the cables to the back box circuit board according to your demand.
5. Close the hinged door and snap the Camera Module back into the back box and make sure that it is secured firmly.
6. Hang the safety rope to the speed dome and then hook to the mount as shown in Figure 1-10.

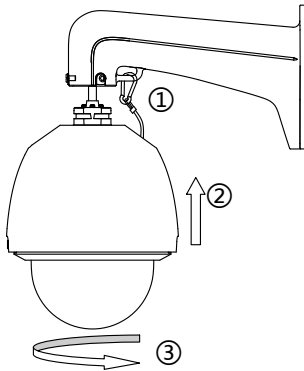


Figure 1-10 Mount the Dome

7. Route the cables of the speed dome through the wall mount.
8. Connect the corresponding video/power/RS-485 cables.
9. Install the speed dome to the mount, and secure the speed dome by rotating the speed dome clockwise.
10. Fasten the two lock screws with the Allen wrench.

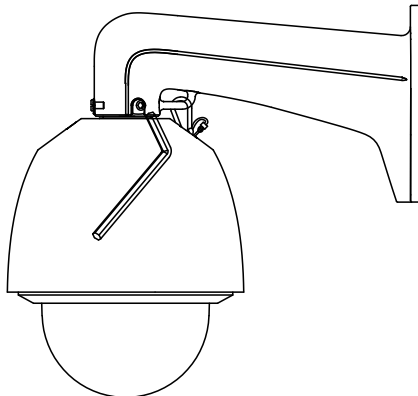


Figure 1-11 Tighten the Lock Screws

## 2 Other In-door Mounting Applications

**Note:** This section is applicable to the 5-inch indoor speed domes.

**Before you start:**

- For cement wall, you need to use the expansion screw to fix the mount. The mounting hole of the expansion pipe on the wall should align with the mounting hole on the mount.
- For wooden wall, you can just use the self-tapping screw to fix the mount.

### 2.1 In-ceiling Mounting Applications

#### 2.1.1 Installation Conditions

**Before you start:**

The in-ceiling mounting is applicable to the indoor ceiling construction. The followings are the mandatory precondition for mounting:

- The height of the space above the ceiling must be more than 250mm.
- The thickness of the ceiling must ranges from 5 to 40mm.
- The ceiling must be strong enough to withstand more than 4 times the weight of the dome and its accessories.

#### 2.1.2 In-ceiling Mounting

**Steps**

1. Rotate the lower dome counterclockwise to separate it from the back box as shown in Figure 2-1.
2. Remove the protective lens cover, foam and sticker from the dome drive.
3. Set the address and baudrate for the analog speed dome. Please refer to the *section 1.2 Setting DIP Switch* for DIP switch settings.
4. Attach lower dome to the back box, and rotate clockwise to secure it.

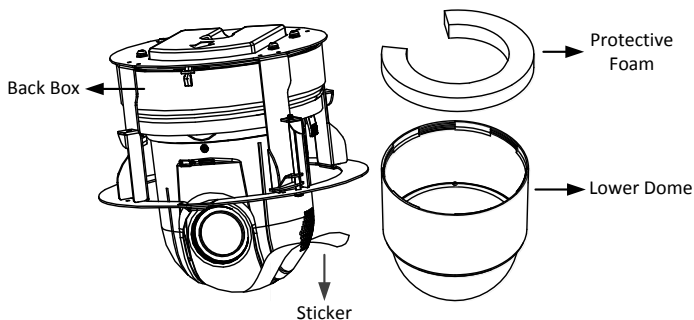


Figure 2-1 Remove the Protective Accessory

5. Drill a hole on the ceiling according to the drill template (supplied).

**Note:**  $\pm 2\text{mm}$  of the diameter of the circle is tolerable.

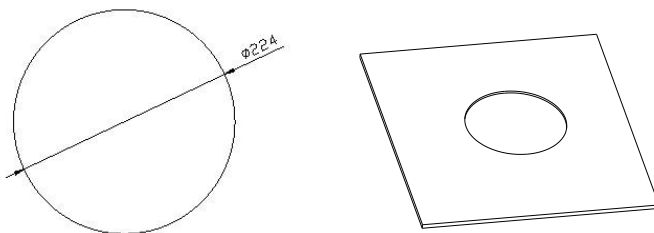


Figure 2-2 Draw and Cut Hole on the Ceiling

6. Connect the cables.

The video cable, control wire and network cable have been connected to the corresponding interfaces. Connect the power cable and the red LED indicator turns on when the power is on.

**Note:** Please turn the power off after checking the speed dome.

7. Install the speed dome.

- (1) Loosen the two lock screws on both sides of the back box and make the locks in internal position, as shown in the following figure:

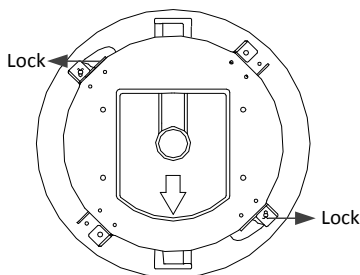


Figure 2-3 Locks and Lock Screws

- (2) Push the back box into the mounting hole in the ceiling
- (3) Tighten the lock screws with the screwdriver and the locks will automatically rotate outwards to secure the in-ceiling mount to the ceiling.

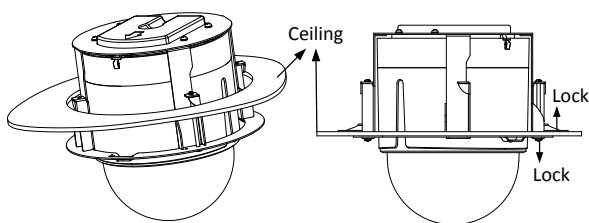


Figure 2-4 Install the back box

8. Install the trim ring.
  - (1) Attach the trim ring to the lower dome and align the triangular notch of the trim ring with the arrow label on the in-ceiling mount.
  - (2) After having firmly placed the trim ring to the ceiling, rotate the trim ring in the direction of arrow to secure the trim ring in place.

**Notes:**

- Please remove the protective film on the lower dome after the installation is finished.
- In order to obtain clear video images, please wear the anti-static gloves when you install the speed dome.

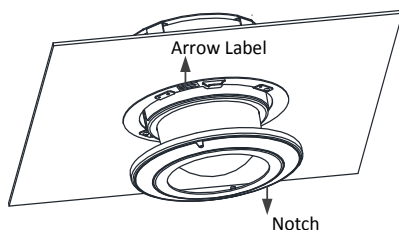


Figure 2-5 Install the Trim Ring

## 2.2 Ceiling Mounting Applications

### *Before you start:*

The ceiling mounting is applicable to the indoor/outdoor solid ceiling construction. The followings are the mandatory precondition for ceiling mounting:

- The thickness of the ceiling must ranges from 5 to 40mm.
- The ceiling must be strong enough to withstand more than 4 times the weight of the dome and its accessories.

### 2.2.1 Removing the Mounting Bracket

It is required to modify the external structure of the in-ceiling mounting speed dome before the operation of ceiling mounting.

#### **Steps:**

1. Remove the 4 screws on the back box by a Phillips screwdriver.

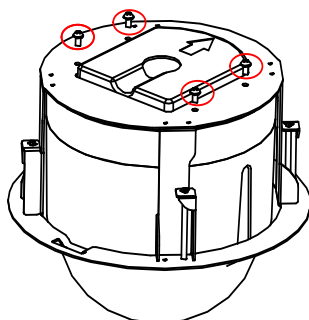


Figure 2-6 Remove 4 screws

2. Remove the in-ceiling mounting bracket.

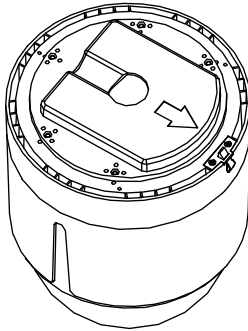


Figure 2-7 Remove the in-ceiling mounting bracket

3. Screw 4 bolts onto the back box by a Phillips screwdriver.

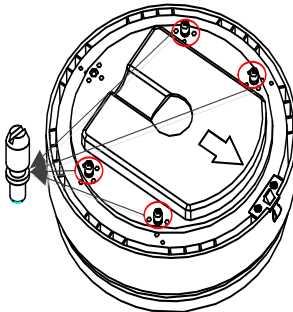


Figure 2-8 Install the bolts

### 2.2.2 Ceiling Mounting

The cables of dome can be routed either from the top or the side of the back box. For the cables routed from the top of the back box, it is required to drill a cable hole in the ceiling.

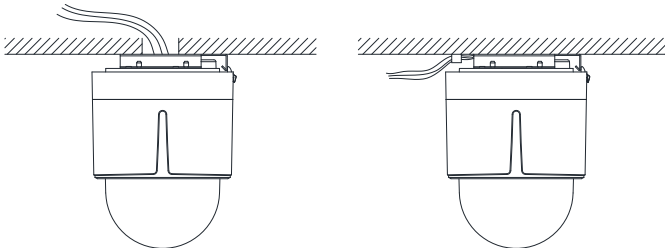


Figure 2-9 Cabling for Ceiling Mounting

**Steps:**

1. Rotate the lower dome counterclockwise to separate it from the back box.
2. Remove the protective lens cover, foam and sticker from the dome drive.
3. Set the address and baudrate for the analog speed dome. Please refer to the *Section 1.2 Setting DIP Switch* for DIP switch settings.
4. Attach lower dome to the back box, and rotate clockwise to secure it.
5. Use the mounting base as a template to mark four screw holes onto the ceiling.
6. If you route cables from the top of the back box, mark the cable hole on the ceiling and drill a hole.

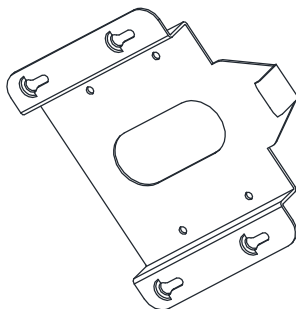


Figure 2-10 Mark the Screw Positions

7. Secure the mounting base to the ceiling with set screws.
  - If the speed dome is installed to the wooden wall, use the self-tapping screws to secure the mounting base.
  - If the dome is installed to the cement wall, drill three  $\Phi 5$  mounting holes onto the wall according to the hole locations, and then insert the cement screws into the holes and finally use self-tapping screws to secure the mounting base to the wall.

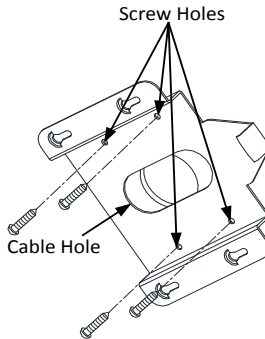


Figure 2-11 Secure the Mounting Base

8. Install the speed dome to the mounting base.

- (1) Route the cables for the speed dome. Align the bottom of the speed dome with the mounting base.
  - (2) Line up the direction of arrow with the spring end of the mounting base.
  - (3) Push the speed dome upwards and then forwards in the direction of arrow.
- When the speed dome is placed in position, the spring will automatically snap into the lock clip firmly. Refer to the following figure.

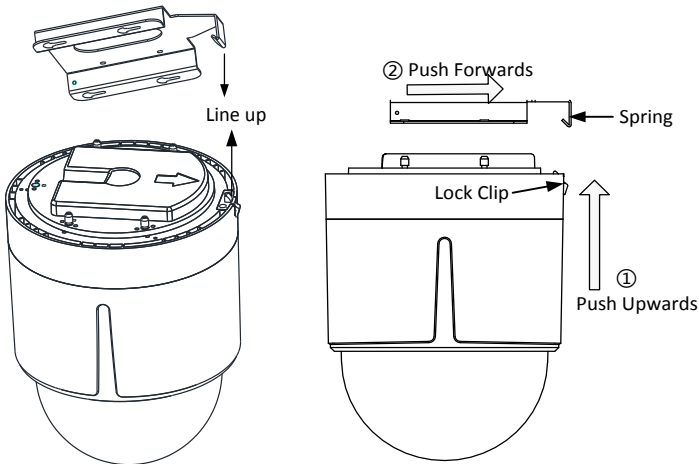


Figure 2-12 Attach the Back Box to the Mounting Base

**Notes:**

- Please remove the protective film on the lower dome after the installation is finished.
- Do not touch the bubble of the lower dome directly by hand. The image blurs otherwise.

## 3 Application and Operations

### 3.1 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.

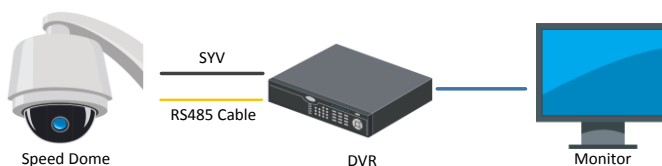


Figure 3-1 Main Menu

**Note:**

If both the speed dome and the DVR support the coaxial function, the RS485 cable is not necessary.

### 3.1 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+** and **ZOOM-** buttons to control the zooming.

**Focusing:**

Click the **FOCUS+** and **FOCUS-** buttons to adjust the focus.

**Iris:**

Click the **IRIS+** and **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 No.95 preset

The main menu interface is shown as follows:

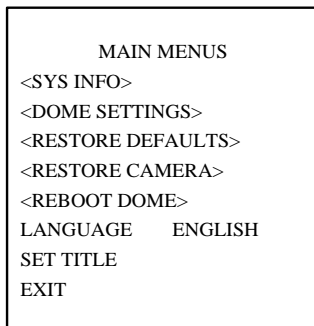


Figure 3-2 Main Menu

**Note:**


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

### 3.1.1 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. Menu > Enter the PTZ Control interface.  
Menu>Camera>PTZ>More Settings
2. Select patrol number.
3. Click  under Patrol option box to add key points for the patrol.

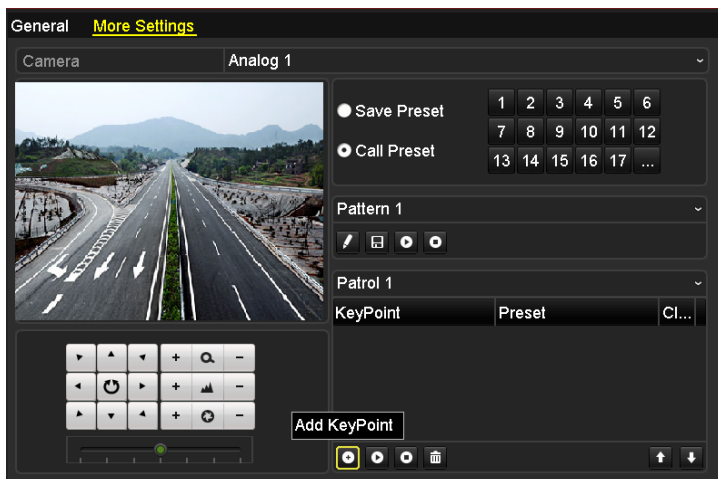


Figure 3-3 Adding Key Point

4. Configure key point parameters, such as the preset No., duration of staying for one key point and speed of patrol. The key point is corresponding to the preset. The **Preset** 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.

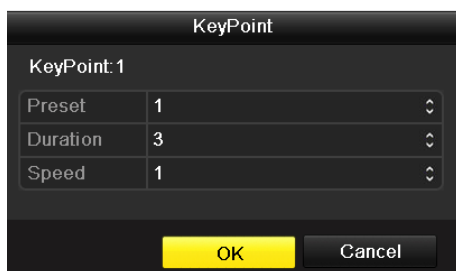




Figure 3-4 Key Point Configuration

5. Select the patrol number, and then click  to call the patrol.
6. Click  to stop it.

● **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

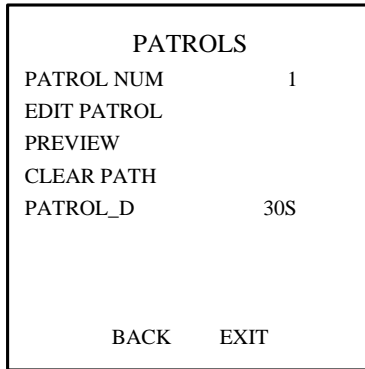


Figure 3-5 Patrol Configuration Menu

2. Choose the patrol number.
  - 1). Move the cursor to **PATROLS NUM** 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 edit mode of this column.  
**Note:** Up to 8 patrols can be configured.
3. Edit the patrol.
  - 1). Move the cursor to **EDIT PATROL** and click **IRIS+** to enter edit mode.

NUM	PRESET	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
DONE: OPEN		QUIT:CLOSE	

Figure 3-6 Edit the Patrol

- Click up/down direction buttons to choose the number and locate the preset to be edited.
- 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.

**Note:** The presets you set for a patrol should be the ones that have been pre-defined by users. The dwell time (5-800 seconds selectable) is the time that the speed dome stays on a certain preset; the patrol speed (level 1-40 selectable) is the scanning speed the speed dome switching between the presets.

- 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 35~38 stand for patrol 1~4 and presets 102~105 stand for patrol 5~8.

#### ● 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:**

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

### 3.1.2 Configuring Park by OSD Menu

**Purpose:**

This feature allows the speed dome to start a predefined action (park action: scan, preset, pattern, etc.) automatically after a period of inactivity (park time).

**Steps:**

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

MAIN MENU > DOME SETTINGS > MOTION PARAMETER

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 3-7 PTZ Configuration

2. Move the cursor to the **PARK TIME**, and set the value in the range from 5 to 720 seconds.
3. Move the cursor to the **PARK ACT**, and the action can be set as preset 1-8, pattern 1-4, patrol 1-8, pan scan, tilt scan, random scan, frame scan, panoramic scan, day mode, night mode, patrol-d or none.

**Note:** 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.

# 4 Troubleshooting

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## 4.1 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. For detailed correlation, please see “Table D” in the *Speed Dome User manual*.

## 4.2 PTZ Control Exceptions

### Question

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

### Answer

- For the 5 inch speed dome, you need to remove the protective sticker and foam of the camera module by opening the bubble, correctly install the speed dome again and then wire up.
- 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. For detailed correlation, please see “Table D” in the *Speed Dome User manual*.

## 4.3 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.

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