

The first part: Construction

High-speed dome is very popular now. It has high speed, low noise and long life. The good construction, convenient installations are the product's advantages. It is used in industry, business, government department and entertainment places.

1 Product introduction

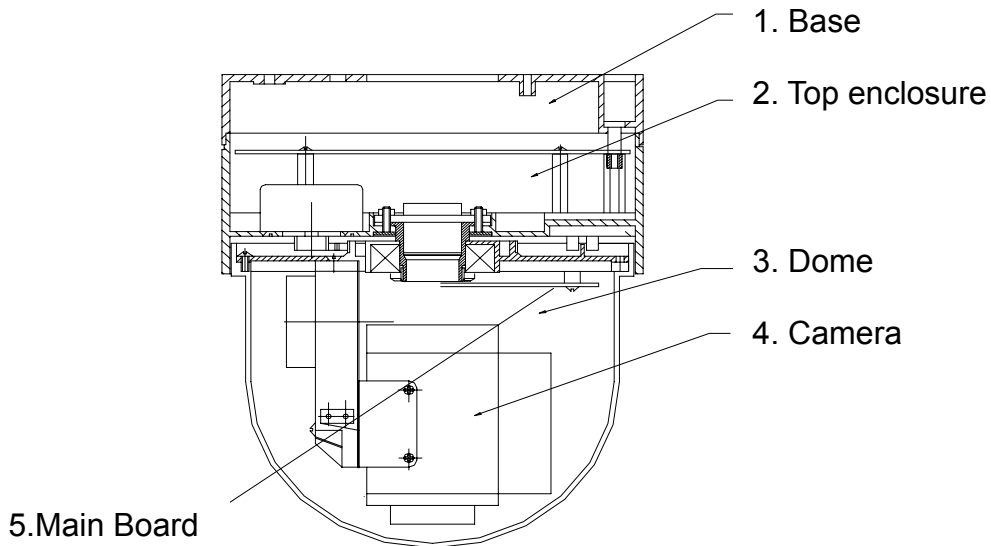


Fig. 1 Side View Figure

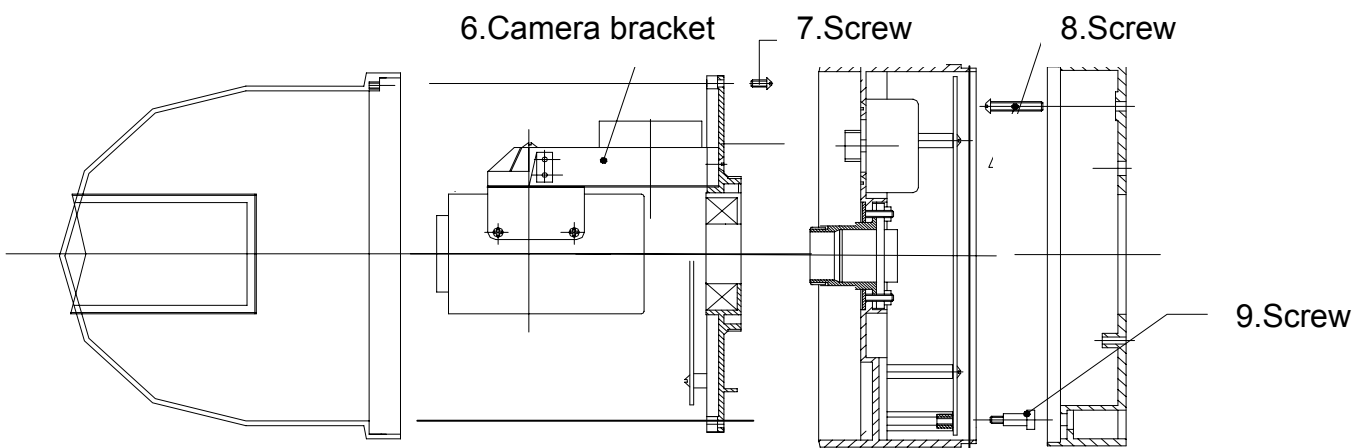


Fig. 2 Connection Figure

2 Connection Assembly

Step 1 :

Fix base 1 on the ceiling with screw 8

Step 2 :

Connect the power cable to power outlet (numbered 12) and video cable to video outlet (numbered 10)



Please connect correctly. Don't energize incorrectly, which will injure electric organ.

Step 3 :

Adjust DIP switch 11

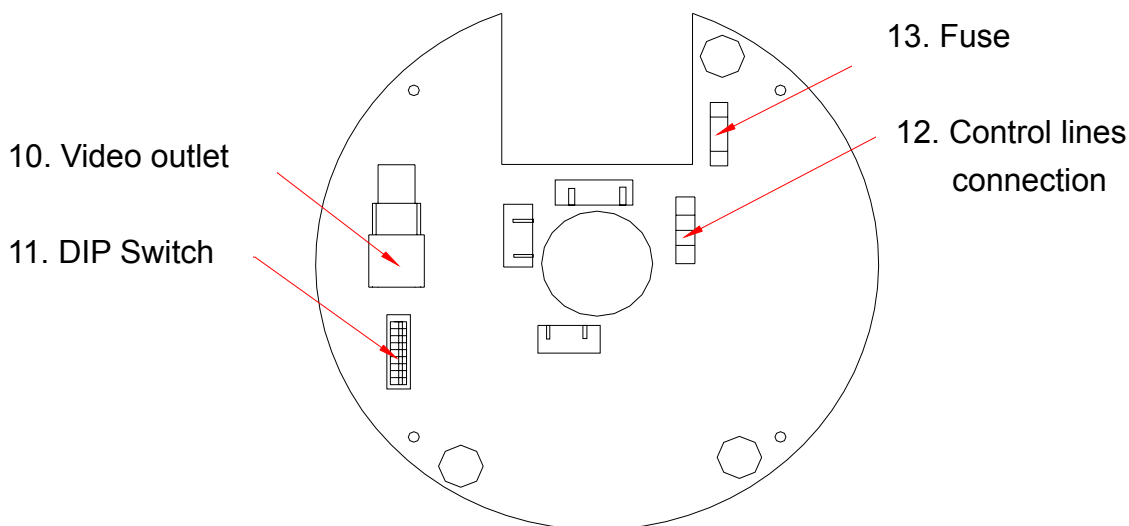


Fig 3. Base

Step 4

Mount camera on the camera bracket, then fix the camera with M2 screw numbered 6.

Step 5 :

Check every connection again to make sure everything is secured.

Step 6 :

Mount the dome, then clean it.

Dome and top housing mount.

Connect dome and top housing , Please see the connection figure .

Put the " top housing" up ,and turn the top housing slowly.

Through $\phi 11$ core and top housing core, can see camera bracket screw core.

Put 4-M3×5 into it.

After connecting the dome and top housing, put 3 screws on the dome, into the ceiling, and turn 30°.

High-speed dome is so small and it is so easy installation that it has been used in many places, such as building, bank, school, parking lot, and so on .

- Small
- ABS material
- Easy installation
- High sensitivity
- High resolution
- High speed
- Low and steady speed

The second part: Electronic Specification

1 Introductions

1.1 *Important safeguards and warning.*

Prior to installation and use of this product, the following warnings should be observed.

- 1 Installation and servicing should only be done by the qualified service personnel and confirm to the local codes.
- 2 Check this product and make sure it is used indoor or outdoor.
- 3 The installation method and material should be capable of supporting the weight of the enclosure, pan/tilt camera lens combination.



This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.



This symbol indicates that dangerous voltage that a risk of electric shock is present within this Unit.

CAUTION: Risk of electric shock. Do not open. !



Caution: To reduce the risk of electrical shock. Do not remove cover. No user-serviceable parts inside. Refer servicing to qualified service personnel.

1.2 *Regulatory Notices*

Note: This equipment has been tested and found to comply with the limits of a class 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. When this equipment generates and uses, it can radiate radio frequency energy and if it is not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communicating. Operation of this equipment is in a residential area. In case it is likely to cause harmful interference the user will be required to correct the interference at his own expense.

1.3 Instructions

This box contains one dome driver and one installation operation manual. Before you start, please inspect all parts carefully and save the shipping carton boxes and inserts.

1.4 The main features

- Pan Movement: 360°continuous pan rotation , 90°in tilt , 180° auto flip
- There are 64 programmable preset points available.
- Low speed is available for catching on the zoomed target accurately.
- Auto tour scan (call the No. preset 70)
- Camera menu can be turned on by setting 95 preset function.
- Privacy Zone Mask: 3 Rectangles could be set by setting preset point from 1th to 6th point.
- Manual zoom in/out.
- Manual/Auto focus and Iris ON/OFF by OSD menu
- Manual/Auto black and white switching
- Manual Focus & Menu Iris lens speed is adjustable
- Auto/Manual white balance
- Manual/Auto backlight compensation
- Cruise through preset points.
- Cruising speed is adjustable □ 5°/S, 60°/S, 120°/S □
- Dwell time is changeable (5S, 10S, 30S)
- Rolling speed between 1~64
- Inner mount preventing from surge or lightning strike
- Easy to install
- When power lost, auto protection function turns on immediately
- RS-485 communication port

Technical data

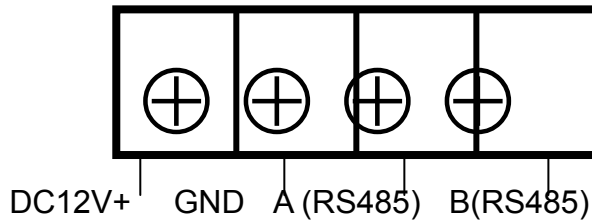
1. Voltage 12VDC(±10%) Linear power
2. Power □ ≤10W
3. Pan Turn speed □ 0.3° ~ 120° /s
4. Tilt Rotation Speed: 0.3° ~ 57° /s
5. Manual tilt scale □ ≤90°
6. Scan scale □ 360° Continuously
7. Preset □ 64 preset point
8. Preset find time □ <3S
9. Preset speed □ 120°/S
10. Zoom find time □ <1.65 S
11. Scan Precision □ 0.225°±0.03°
12. Signal Format □ PAL / NTSC
13. Picture element □ 752(H)×582(V)
14. S/N ratio □ >48dB

15. Communication port □ RS-485
16. Baud Rate □ 2400\4800\9600
17. Suitable temperature(Indoor) □ -20□~50□ for indoor, -45□~50□ for outdoor.

2 Installation

2.1 Dome installation:

There are one video connection, one power, and one communication port boards one the dome.



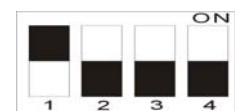
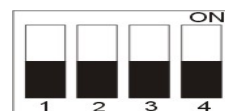
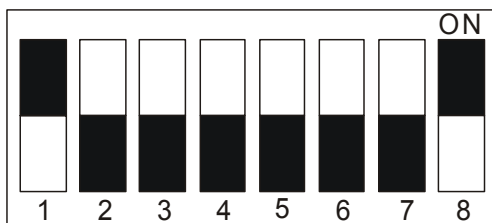
Connection: Put video cable into video outlet and connect the power cable and communication cable (see the following chart)

Cable outlet figure

Color	Function	Data
Red(DC12+)	Dome power	DC12V+
Black(GND)	Dome power	GND
Brown	RS485	A+(T+)
White	RS485	B-(T-)
Black	Video + / -	

2.2 Dome address

There are two DIP switcher on the dome base. (see the following chart)



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

1. Every dip 1 switch to ON to increase command transfer quality.

HIGH-SPEED DOME ADDRESS

1		17		33		49	
2		18		34		50	
3		19		35		51	
4		20		36		52	
5		21		37		53	
6		22		38		54	
7		23		39		55	
8		24		40		56	
9		25		41		57	
10		26		42		58	
11		27		43		59	
12		28		44		60	
13		29		45		61	
14		30		46		62	
15		31		47		63	
16		32		48		64	

Ex.: ID 1 = 1~7 DIP switch to OFF, 8 DIP switch to ON.

2.3 Set baud rate

Baud rate:2400/s, 4800/s,9600/s

Baud rate		
	K1-7	K1-8
2400/S	OFF	OFF
4800/S	ON	OFF
9600/S	OFF	ON

3 Operation



Before power on, please check the power cable connection, communication cable connections are secured.

3.1 Level and tilt control

High-speed dome, level and tilt speed is subject to the joystick, and the speed is $0.3^{\circ} \sim 120^{\circ} /s$.

3.2 Auto flip

When camera tilt down 90° , the dome rotates 180° automatically in level.

3.3 Zoom

The dome can support an object up to $128\times,64\times,32\times,16\times,8\times$ camera. Press the zoom button to zoom in the picture until the monitor display the zoomed picture that you need. Zoom speed can be controlled by remote controller.

3.4 Auto/Manual Focus

Focus speed can be controlled by remote controller

3.5 OSD FUNCTION

Set preset point 75 to turn on OSD ICON. The camera parameters will be shown on the below left side of the display point to turn OSD ICON.

3.6 Preset functions

The dome can set 64 preset positions, which are numbered 1-32 and 35-66. Refer to your control system documentation for programming presets. When doing a preset operation, the amount of error in moving to the pan and tilt positions is under 0.3° . Preset 33 is named turnover command. When using preset 33, high-speed dome circumrotate 180° in pan. Preset 34 is the "pan zero" command. When using preset 34, high-speed dome return reset position.

This function may make the camera transfer prior and defined region image. Meanwhile, it will automatically adjust the focus and zoom.

The following presets are reserved for special function.

Preset	Function
1-32	Preset
33	Turnover (Horizontal Pan 180°)
34	Pan zero
35-66	Preset
Call 75	OSD ON
Call 76	Star Auto Tour
Set 77	Clear All Preset
Set 92	left limit
Set 93	Right limit
Set 94	Camera initial data
Set 95	Enter/ESC the camera OSD Menu
Call 96	Line scan & Auto tour stop.
Call 99	Line scan

3.7 Auto scan

Call preset 99 functions to start line scanning, and the scanning stops automatically when control system runs other control commands.

Set preset 92 point, it sets the left limit, Set preset 93 point, it sets the right limit. When start to line scan, it will rotate between these two preset points. And, It automatically stops when receives the valid direction commands.

3.8 Cruise through the Presets

Our High-speed Dome support one group (16 points) cruise paths.

Cruise from 1-16 Preset .If there is the preset , which has not been deleted, it will be ignored. The pause time is 5S,10S or 30S. The cruise speed is 5°/S,60°/S,120°/S.

- Confirm the places you need, and input to 1-16 preset
- Setup the pause time

Operate	Pause Time
Setup No. 70 preset	5S
Setup No. 71preset	10S
Setup No. 72 preset	30S

- Setup cruising speed

Operate	Cruising Speed
Setup No. 73 preset	5°/S
Setup No. 74preset	60°/S
Setup No. 75 preset	120°/S

- Startup Cruise Function

3.9 Camera menu transferring

Program 95 to camera list and you can choose the list and you can press the Focus Far or Focus Near button.

When the cursor moves to some item, you can press that button to change it.

After that, you can press the Focus Near. The same as the above, you can modify other items. After that, you can press 95 preset to close it.

3.10 Day Iris & Night Use the (only for Sony camera)

Choose Auto/OFF Iris by the camera list .If choose Auto, can control the Iris by the button [OPEN] and [CLOSE] on the keyboard.

Choose Auto/Night On/Night off by the camera list. When choose Auto Night Function, the Iris must be auto. Otherwise, this function is invalid.

Camera Menu Introduction

1 Menu definition

95 & [PRESET] for two seconds :open or close the Menu

[FAR]: Setup Menu

[WIDE]: Page down

[TELE]: Page up

[OPEN]:Increase the Menu Scale

[CLOSE]: Decrease the Menu Scale

2 Use Guide

- 1 **95&[PREST]** for two seconds: Open or close the Menu, Open the menu, Page up or Page down by press [WIDE] or [TELE] Choose the item you need.
- 2 When the item with“□”,can adjust the Parameter value by Pres [OPEN]or[CLOSE]
- 3 When SAVE=YES, close the menu. The parameter value can be saved when the power is supply is off.

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

3.11 Low Lux (without CC600)

During the night, we can manual turn on B/W mode that can keep the picture more clear even in low Lux condition.

To switch mode between color mode and B/W mode, we press[turn on/off Iris] to alternate these two mode.

3.12 Back light compensation

This function can be use in the strong back light circumstance, such that the dark place of the image can have good picture quality.

3.13 Privacy Zone Mask

Privacy Zone allows a user to program specific areas that cannot be viewed by the operator of the dome system. And, the area has been masked in the picture can not be reconstructed.

Privacy Zone mask allows user to program up to 18 user-defined areas that cannot be viewed by the operator of the system. Therefore, for 6 setting point, each setting point can have 3 privacy mask zone area.

To set a privacy zone, there are four hot keys support:

Press 79: Enter the Privacy Zone Mask Mode

Press 80: Select Specific Mask Area

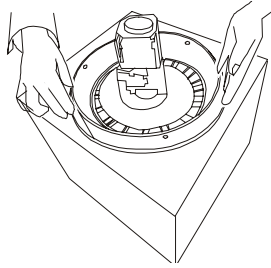
Press 81: Exit the Privacy Zone Mode

Press 81: Clear the Whole Mask Block

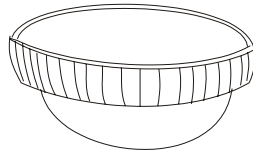
Procedure:

1. Call the Pre-Set Point (1–6) before setting the Privacy Zone Mask (Please see the Pre-Set Point Setting function).
2. Move the Joystick to bring the Camera to the desired Area.
3. Press 79 to enter the Privacy Zone Mask Mode
4. There will be a Block Mask at the Up-Left side in the Screen.
5. Move the Joystick to the Desired Start Point.
6. Press 80 to Confirm the Start Point. Move the Joystick to select the Desired Mask Area.
7. Press 81 to Exit the First Mask Area setting.
8. Repeat Procedure 3 to 7 to set up the whole Privacy Zone Mask of the Pre-Set Point.
9. Save the Setting before Exit.

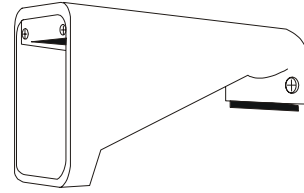
1. Speed Dome



Speed Dome



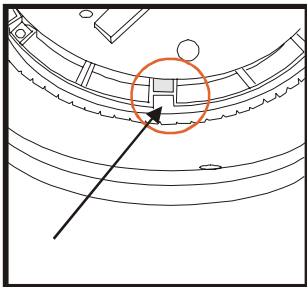
Cover



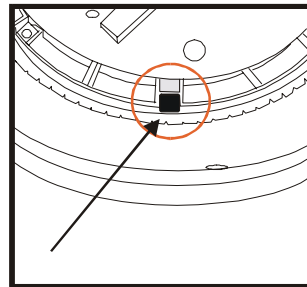
Bracket

Embedded Mounting

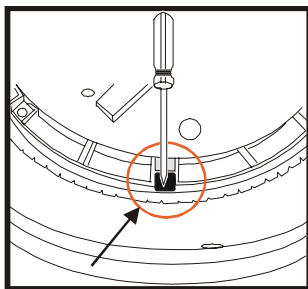
Step 1, To revolve the tray of the Camera base



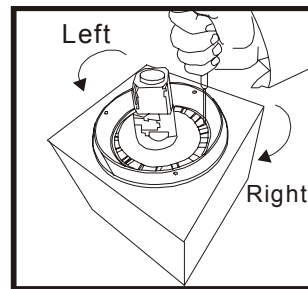
Step 2, The picture shows out the cavity of the camera base.



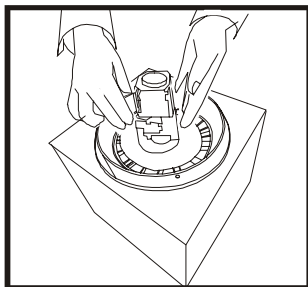
Step 3, Insert the screwdriver inside.



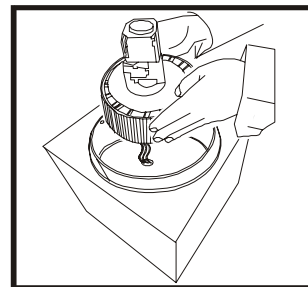
Step 4, Turn the camera body clock Wise slowly.
Clockwise: Open



Step 5, Hold the camera body to Remove.



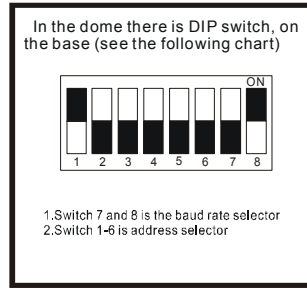
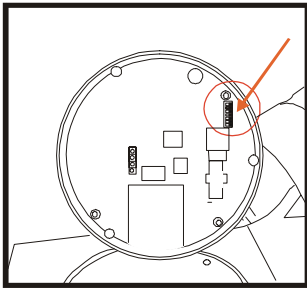
Step 6, Hold the dome body then Take it out.



Step 7, A dip switcher is on the rear panel

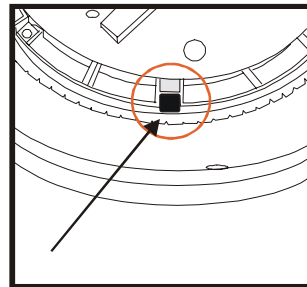
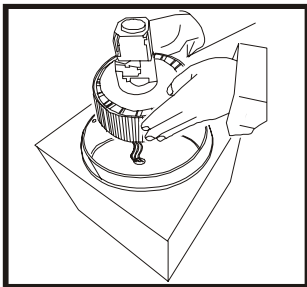
Step 8, High Speed Dome address

Of the dome base. Every speed dome must give it an ID, like we give it a name. Up to 64 ID (See page 7)



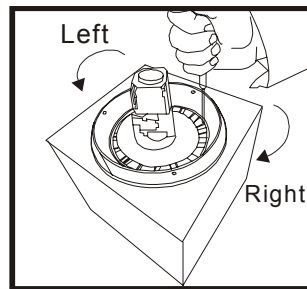
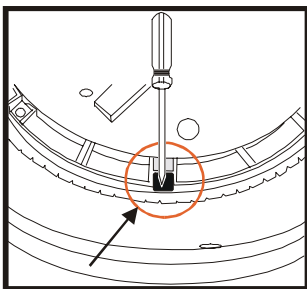
Step 9, Check the ID and then put it back, There are 3 immobile fillister for the Screw inside the dome base cover.

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



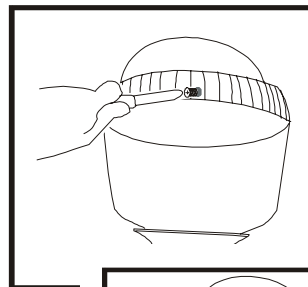
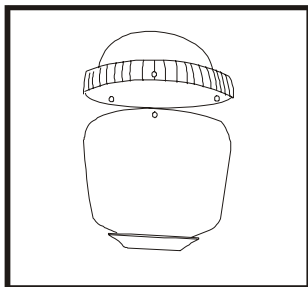
Step 11, Insert the screwdriver inside.

Step 12, Turn the camera body anti-clockwise slowly. Anti-clockwise: Close

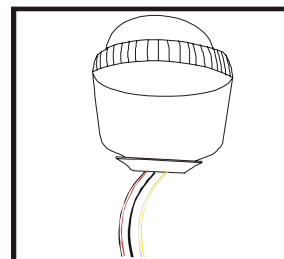


Step 13, Attach 3 screws nuts of the speed Dome and dome cover

Step 14, Tighten the 3 screws into the screw nuts setp.

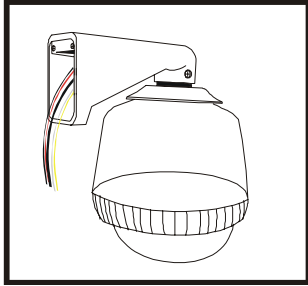


Step 15, Make sure the Speed Dome has 5 lines:

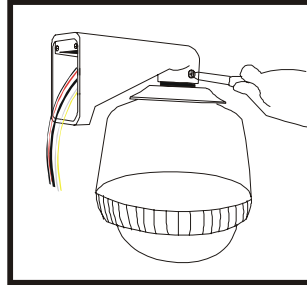


Thin lines-red(+)and black(-): power cord
-Yellow(+)and grey(-):control line
Thick line -Black line is video line

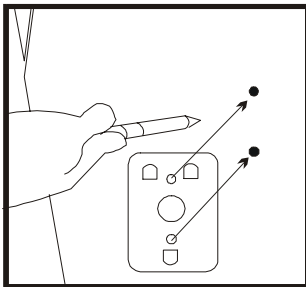
Step 16, Tighten lock the 2 holes.



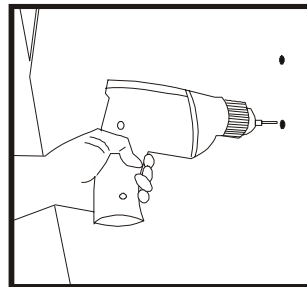
Step 17, Combine the speed dome and the bracket and make sure those lines are outside of the bracket. Then hole are aim.



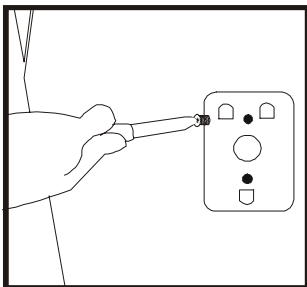
Step 18, Make sure the position then drill holes of the chosen area.



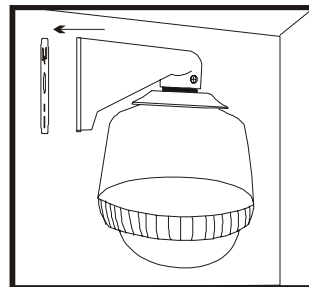
Step 19, After make sure it and drill



Step 20, Tighten the screw on the wall



Step 21, Make sure all the lines are Connecting together.



Step 22, Tighten the last screw on the

Step 23, Finish your installation

bracket.

