

User Manual

TeleEye

DM 567 / DM 569

High Speed Dome



Before attempting to install or operate on this product,
please read this manual carefully and keep it for future use.

TeleEye

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Version 1.0

Limits of Liability and Disclaimer of Warranty

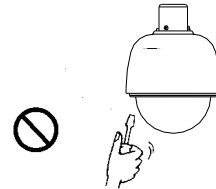
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Features and specifications are subject to change without prior notice.

1. Before installing the full-view High-Speed Dome Video Camera, please read this user's manual first.
2. **This unit should be operated only from the type of power source indicated on the marking label found at the power adapter. If you are not sure of the type of power supply you plan to use, consult your appliance dealer or local power company. For units intended to operate from battery power or other sources, refer to operating instructions.**

3. Inside the Dome device are precise optical and electrical instruments. Heavy pressure, shock and other incorrect operations should be prevented during the processes of delivery, storage and installation. Otherwise, it may cause damage on the product.

4. Please do not remove and disassemble any internal components from the Dome video camera by yourself in order to avoid normal usage being impacted. There is no parts inside the device which can be repaired by the user himself.



5. Always conform to national and local safety codes during installation. Adopt the special power provided with the Dome video camera. During transmission, RS-485 and video signal should be retained enough distance with high-voltage equipments or cables. When necessary, thunder-proof, surge-proof and other protecting measures should be carried out.

6. Please avoid exposing the Dome video camera to rain or the humidity, etc. Please do not use the product in humid place. If the video camera is installed in outdoor area, please ensure the device being protected by a weather-proof, sealed shield. Exposure to open area should be avoided.

7. Do not install this dome camera in a place exceeding the required environment conditions such as temperature, humidity and power supply specifications.

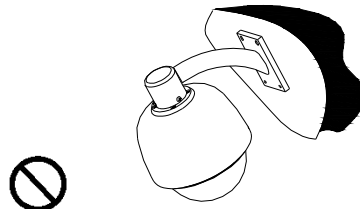
8. Whether the high-speed Dome video camera is powered on or not, avoid the video camera aiming at the sun or glary object. Lengthy exposure to static bright object is also not recommended.

9. Please do not use strong or caustic washing lotion to clean the main body of the high-speed Dome video camera. After dirt is cleaned up, please use cotton fabric to clean the product. Stubborn dirt should be cleaned up with neutral washing lotion, and then dried gently with soft cotton fabric.

10. Shall use the high-speed Dome video camera carefully and avoid being stroked or shocked. If operating is improper, the product may be damaged.

11. Install the High-Speed Dome Video Camera in a place with enough holding force.

12. If camera lens adheres with dust, please use special lens paper to clean up.

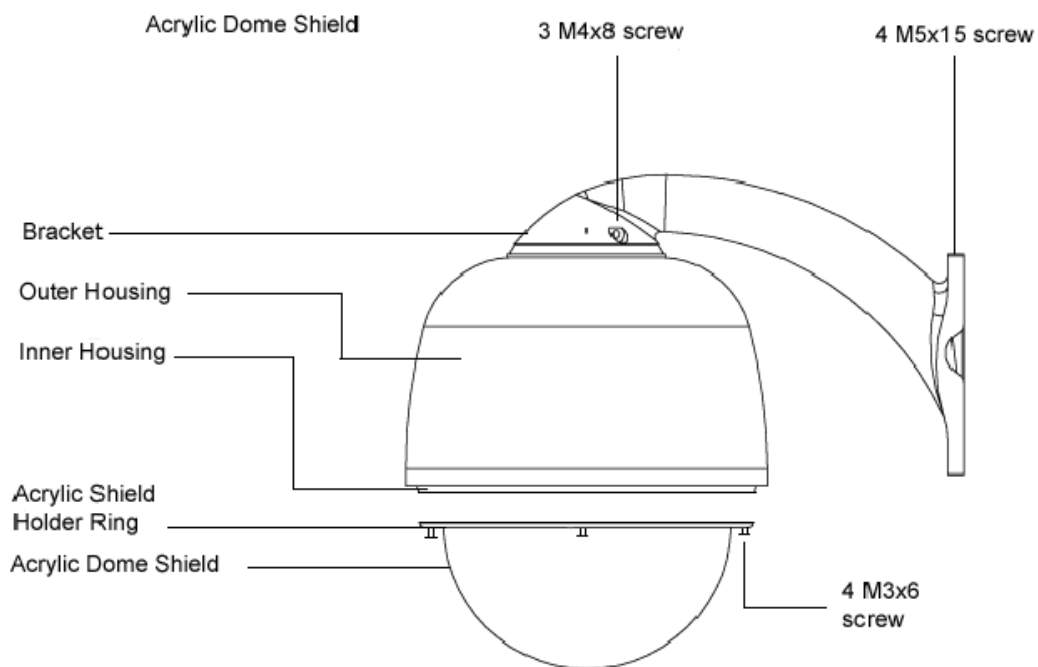


13. When disassemble the Acrylic DOME shield, please wear cotton gloves to process in order to avoid surface of the product being scraped.

II. Installation Instruction of the Acrylic Dome Shield

1. Remove Acrylic DOME shield (Please do not scrape the Acrylic shield. It is recommended to wear cotton gloves when operate).
2. As shown in the figure below, first take the flexible flat cable through connector above the base plate and buckle it on the connector. Then buckle the cable on the connection below the CAMERA.
3. Lock the CAMERA up and fix the screws.
4. Install Acrylic shield

Fig 2.1 **Installation of the Acrylic Dome Shield**



III. Install Bend-Tube-Style Bracket

Fig 3.1 Connecting the dome to the wall mount with the bracket.

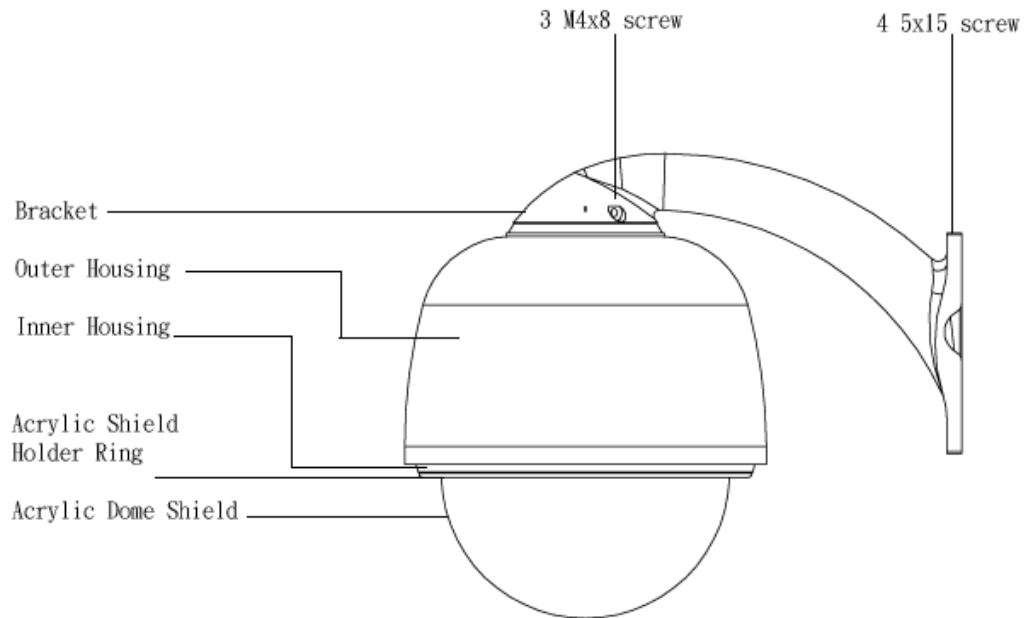
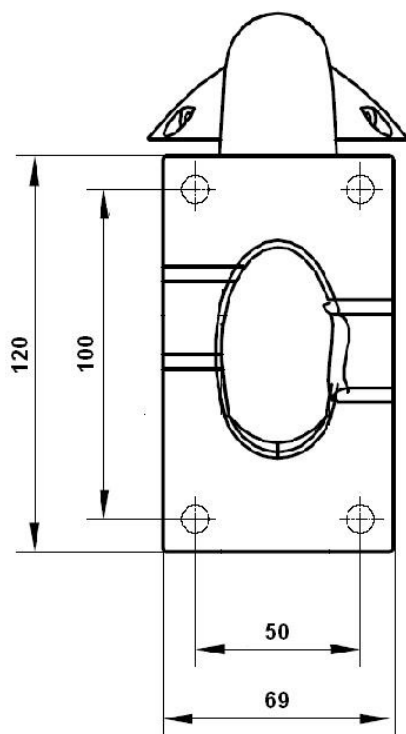
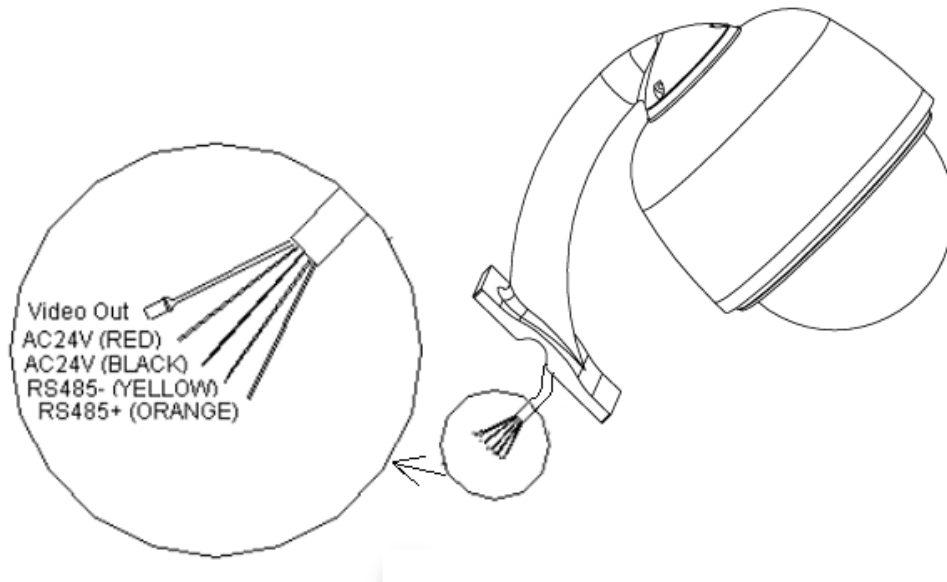


Fig 3.1 Wall mount bracket installation



IV. Description of Wiring

Figure 4.1 Color code of wiring



V. Function Description

High-Speed Dome Video Camera is an all-in-one high-tech monitoring product, which integrates high-definition color video camera, universal gear change pan-tilt and multi-function decoder. This product furthest reduces the tedious processes of connection and installation between system parts and thus increases system reliability. Also the video camera is very easy to install and maintain, has many features, such as perfect shape, short response time, fast pan / tilt, simple operation, etc.

1. Integrated multi-protocol decoder

- a. Built-in decoder consists of multi-protocol and can integrate up to 4 communications protocols. Communication serial baud rate is adjustable(2400,4800,9600 and 19200 bit per second). Using the simple finger-switch inside the Dome device, the product can be compatible with domestic and foreign main systems and has very high compatibility.
- b. RS485 serial control, address of Dome device is from 0~255.

2. Integrated full-view rotary station

- a. Horizontal 360° unlimited continuous rotation and rotation rate can be adjusted from 0.5~240 degree / sec continuously. Vertical rotation range is 0~90° and rotation rate can achieve 60 degree / sec.
- b. Low-speed operation has features of stable, ultra-low noise and image without jitter.
- c. 180° auto-reverse realizes full-view monitoring without blind area and position precision achieves $\pm 0.2^\circ$.

3. Intelligent Nonvolatile (power-off) memory operation

- a. Provides more than 50 preset points (including pan-tilt position and preset focal length) and saved in the nonvolatile memory.
- b. Support Dome device to scan between two points horizontally and the scanning speed can be adjusted.
- c. Provide setting of scanning track and select cruise track function. Self-test can allow to store track that user edits arbitrarily and information power-off memory. (depending on user's operation keyboard or DVR function)

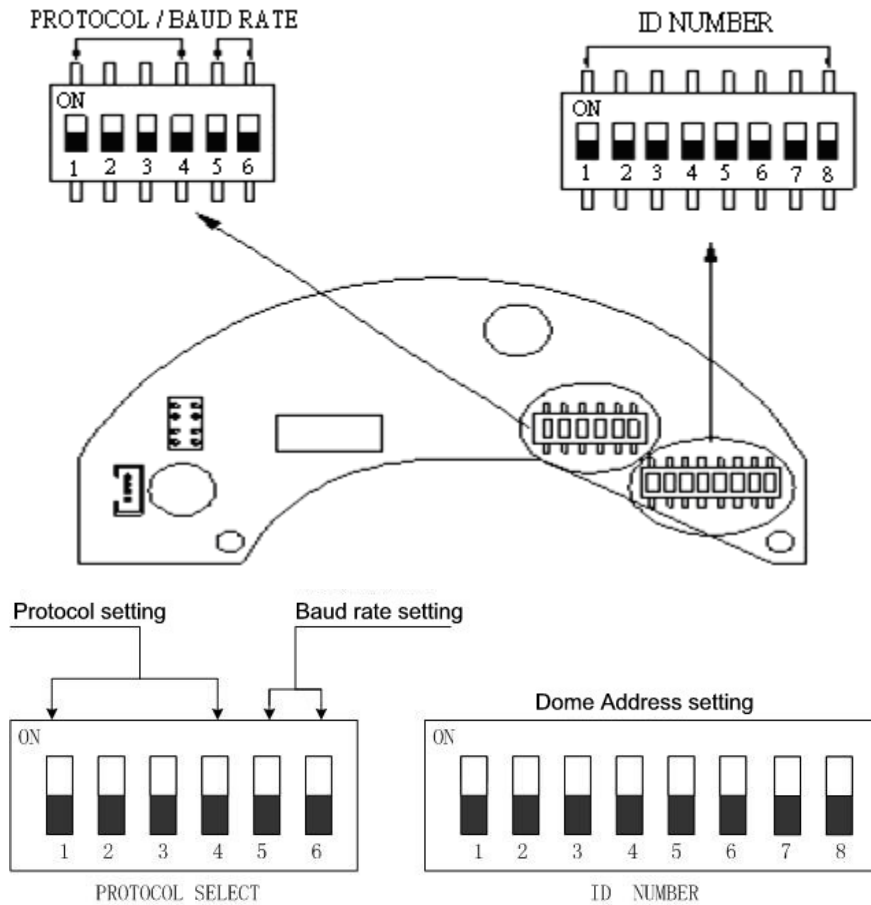
4. New-added functions

1. Long-focus speed-limited function: Dome device can auto adjusts its manual pan/tilt speed according the current focus length of video camera. Closer the object become, slower the pan/tilt speed becomes, which ensures that video camera can scan objective quickly and correctly.
2. Line-scanning position freely selectable: With different setting, Dome device can scan between arbitrary two points within less than 180°, and scanning speed is adjustable continuously (related with communication protocols).
3. Programmable six cruise tracks: Each track has 16 points preset position and the dwelling time and call speed upon each preset position can be set as well.
4. Intelligent involatile memory recording current setting and state: If the dome is line-scanning or running a track, and then power off, current setting and work states would be saved. When it is powered on again, it will be working in the same state as that before it is power off. It dispense with setting again.
6. Home position: Home function is available when it is set at ON, namely, the dome camera will return home position if user has no action for a period of time, and user can adjusts this duration time. The dome camera shall not return the home position if it is on tour state. If no home function is needed when the dome camera is stopped, set the option at OFF,i.e. Press Preset for 2 sec, key in 100 and then enter. **(The home position is First preset point)**

VI. Dome Setting

1. Before installing the dome device, set the dip-switches to match the communication protocol, transmission baud rate, and dome address ID of the control device.

Figure 6.1 Location of the ID number dip-switch and Protocol/Baud rate dip-switch.



2. Address setting of Dome device (first 8 digits of SW1):

Coding Description:

- Dome Address is represented in binary format, where ON represents "1", OFF represents "0".
- The above table only present the settings of 0-20 address code. The setting of the rest of the address code(0~255) can be deduced.
- Address coding range: 0~255

Figure 6.2 Setting of Dome Device ID

["O" represents ON]
















Dome Address (ID Number)	switch state	1	2	3	4	5	6	7	8
	ON  OFF	ON  OFF	ON  OFF	ON  OFF	ON  OFF	ON  OFF	ON  OFF	ON  OFF	ON  OFF
0									
1	O								
2		O							
3	O	O							
4			O						
5	O		O						
6		O	O						
7	O	O	O						
8				O					
9	O			O					
10		O		O					
11	O	O		O					
12			O	O					
13	O		O	O					
14		O	O	O					
15	O	O	O	O					
16					O				
17	O				O				
18		O			O				
19	O	O			O				
20			O		O				
...
255	O	O	O	O	O	O	O	O	O

Figure 6.3 Setting of Protocol and Baud Rate

On/Off Status Protocol Type	Protocol Type				Default Serial Transmission Rate	
	1 ON  OFF	2 ON  OFF	3 ON  OFF	4 ON  OFF	5 ON  OFF	6 ON  OFF
PELCO-D	<input type="radio"/>	<input type="radio"/>				
PELCO-P/4800			<input type="radio"/>			<input type="radio"/>
PELCO-P/9600					<input type="radio"/>	
TeleEye DM2	<input type="radio"/>	<input type="radio"/>				<input type="radio"/>
Baud Rate						
2400 BPS						
4800 BPS						<input type="radio"/>
9600 BPS					<input type="radio"/>	
19200 BPS					<input type="radio"/>	<input type="radio"/>

4. Coding description of protocol and serial transmission rate:

When setting communication protocol of the Dome device (first 4 bits of SW2) and default serial transmission rate of the protocol (last 2 bits of SW2), if default serial transmission rate of the protocol does not match with serial transmission rate of host, please set the default serial transmission rate of the protocol consistent with the default serial transmission rate of host according to Figure 6.3.

Figure 6.4

Operation	Key
Set Preset Point	PRESET(hold 2 sec) + N + ENTER(+N+Enter+N+Enter+...)+SET 1) Press and hold PRESET key for 2 seconds. 2) Adjust the camera to the desired direction and focus. 3) Input the preset number. 4) Press ENTER. 5) Repeat step 2 to step 4 if you want to set more preset point. 6) Press set key to exit
Call Preset	N + PRESET 1) Input the preset number 2) Press ENTER
Set Home Position	T + DWELL + N + PRESET 1) Input a number T(a value between 1 and 255). T represents the time between stopping operation to the camera and the camera's automatically turning back to the home position.

	<p>2) Press DWELL.</p> <p>3) Input a preset number which you want to be your home position.</p> <p>4) Press PRESET.</p>
Delete Home Position	0 + DWELL + 0 + PRESET
Set Preset Tour Sequence	<p>TOUR(hold 2 sec) + S + Enter + N + Enter(+N+Enter+N+Enter+...)+ Set</p> <p>1) Press and hold TOUR for 2 seconds.</p> <p>2) Input the sequence number(from 1 to 4)</p> <p>3) Press ENTER.</p> <p>4) Input the preset number representing the first tour point.</p> <p>5) Press ENTER.</p> <p>6) Repeat step 2 and step 3 for other tour point.</p> <p>7) Press SET to exit.</p>
Activate Preset Tour	<p>T + DWELL + S + TOUR</p> <p>1) Input a number T, where T represent how much second the camera rest on one tour point before it move to another tour point.</p> <p>2) Press DWELL.</p> <p>3) Input S where S is the tour sequence number</p> <p>4) Press TOUR.</p>
Delete Preset Tour	<p>TOUR + S + DEL</p> <p>1) Press TOUR.</p> <p>2) Input the number S where S represents the tour sequence number.</p> <p>3) Press DELETE.</p>
Auto Pan	<p>SCAN + 0 + ENTER : Set auto pan left limit</p> <p>SCAN + 1 + ENTER : Set auto pan right limit</p> <p>S + SCAN : Activate auto pan.</p> <p>If S is within 1 – 80, the scan rate is slow.</p> <p>If S is within 81-160, the scan rate is medium.</p> <p>If S is within 161-250, the scan rate is high.</p>
Focus Control	<p>Generally the camera will automatically adjust the focus to get clearer image based on the distance of the camera.</p> <p>But you can manually adjust the focus by pressing FAR, NEAR as you wish.</p> <p>The camera will switch back to automatically when you conduct other operations such as moving the joystick.</p>
Iris Control	<p>Generally the camera will automatically adjust the iris to get clearer image based on the illumination.</p> <p>But you can manually adjust the iris by pressing OPEN, CLOS as you wish.</p> <p>The camera will switch back to automatically when you conduct other operations such as moving the joystick.</p>

VII. General Failure Analysis Table

Fig 7.1 Troubleshooting List

Problem Description	Possible Reason	Troubleshooting
After power on, no motion and no image.	Power supply module is damaged or power is not enough.	Change
	Power cable is connected improperly.	Correct
	Failure occurs on engineering line.	Eliminate
Self-test is exceptional, there is image but with motor noise “wu”.	Mechanism failure.	Examine and repair
	Video camera is slantwise.	Put right
	Power is not enough.	Change power that meets requirements. It is recommended to place the power switch near the Dome device.
Self-test is normal, but there is no image.	Video line is connected mistakenly.	Correct
	Video line is poor contact.	Eliminate
	Video camera is damaged.	Change
Self-test is successful, but can't control.	Control signal line is connected mistakenly.	Correct
	Position of Dome device does not match.	Re-select
	Protocols are not matched.	Adjust the protocols being match with the controller. Re-power on.
Image is not stable.	Video line is poor contact.	Eliminate
	Power is not enough.	Change
Dome device is not controllable.	Self-test is exceptional.	Re-power on
	Control signal line is poor contact.	Eliminate
	Operation of Host has problem.	Re-power the host on
	Too much load or communication distance is too long.	1. Confirm terminal resistance 2. Add code distributor
Iris of the Dome device is not controllable.	Iris is in manual status.	Use control command to set iris to manual status and iris can be controlled.

VIII. Main Technical Indexes

Specification	Power	AC24V 2A
	Weight	3.5Kg
	Installation Method	Wall, Pendant, Pole, Corner Mount
	Operating Temperature	0℃~50℃ (normal range)
Basic Function of Dome	Horizontal	0~240°s
	Vertical	0~60°s
	Preset position	50
	Scanning Function	tracks (depending on different protocols)