



Integrated Speed Dome Cameras

User Manual

BN-5606H0/M0 Series

BN-5606H2/M2 Series

BN-5606H3/M3 Series

Please read this User Manual carefully to ensure that you can use the device correctly and safely.

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■ PRECAUTIONS ■

Before attempting to connect or operate this product, please read these instructions completely:

- 1) Installed and maintained by qualified person as well as meet local codes.
- 2) Indoor designed dome camera must be used indoors but not outdoors of rainy, moist, etc).
- 3) Reinstalled or repaired over, must check resistance whether correct between circuit and shell part to confirm insulation in order to avoid short-circuit.
- 4) Installing holder should withstand four dome units weight.

Product and instruction includes below marks:



This mark refers to the dangerous voltage



This mark refers to the operations & maintains must be directed

CAUTION:
RISK OF ELECTRIC SHOCK
DO NOT OPEN

■ WIRES SUGGESTED ■

- 1) 24V power line distance & requirements:

Diameter of Line	0.5mm ² (20#)	1.0mm ² (18#)	1.5mm ² (16#)	2.5mm ² (14#)
72W Power-supply (indoor dome)	25M(94ft)	45M(150ft)	70M(238ft)	110M (380ft)
72W Power-supply (outdoor dome)	10M(37ft)	18M(60ft)	28M(95ft)	45M (152ft)

- 2) Video cable requirements:

Cable Models	Max. Distance	Cable Models	Max. Distance
75-2	150M	75-5	≈370M
75-3	≈200M	75-7	≈500M
75-4	≈270M	75-9	≈700M

Notes: same model cables have differences by manufacturers, above numbers are the commons.

■ INTRODUCTIONS ■

These serial integrated dome cameras apply for bank, airport, traffic, government, electric power, prison, hostel, commercial building, plant, school, museum, etc.

■ FEATURES ■

- High-performance DSP designs with strong stability.
- Built-in lossless data setting of power-off
- RS-485 bus control
- Manual/auto tour control coordinates with camera zoom ratio, proportional speed-down, stable operation, exact position.
- 128(255) preset positions randomly store, exactly position.
- 6 tour routes, preset-points interval time adjustable (adjusted by customer, high speed domes fitted).
- Horizontal 360° endless rotate no blind zone.
- Automatically vertically 180° endless flip. (High speed domes fitted)
- Auto iris, auto focus and auto white balance
- WDR function: suit complex light environments. (Some models support this function)
- Night vision function: automatically adjust CCD luminance according to ambient light intensity changes (day/night models fitted).
- Backlight compensation function: in strong light conditions can see all objects.
- Precise motor drives, operate stably, control sensitively, low consumption, low noise.
- Standard alarm-in/out port, preset position links alarm-in.
- All-in-one design, concise structure, high reliable

■ DOME SPECIFICATIONS ■

Models	High speed dome	Middle speed dome
Pan Rotation Range	360° random	
Pan Speed	0.5~300°/s	0.5~180°/s
Tilt Rotation Range	0~90°; 180° auto flip	0~90°
Tilt Speed	0.5~300°/s	0.5~100°/s
Communication	RS485	
Preset Positions	128(255) units	
Tour routes	6 defaults routes	
Power Supply	AC24V	
Power Consumption	20W(indoor models) / 40W(outdoor models)	
Operation Temperature	-30~55°C(Indoor Types)/ -30~65°C(Outdoor Types)	

Notes:we stress development, parameters upgrade without notification

■ OPERATION ■

- **Fitted cameras:**

SONY, CANON, CNB, SAMSUNG

- **Preparation:**

At 8-digit and 6-digit switchers set dome ID, baud rate and control protocol; Connect 485 line and AC wire.

- **Power-on for self test:**

Virgin dome is powered-on, motherboard indicator light flickers fast, then shut, horizontally (pan) rotate 2 circles, vertical (tilt) rotate and stop at 0° position, till now the motherboard indicator light shines, dome camera enters normal work state (light flickers every 2 minute).

- **Control dome full directions rotation:**

After selecting one dome, can manually control dome rotation by joystick on keyboard. Joystick lead dome rotating with three kinds of moving: up-down, left-right, diagonal line

- **Preset position setting (1#~64#; 101#~255#):**

Step by the below:

- 1) Use keypad input camera number of preset position, press CAMERA to select camera.
- 2) Operate joystick, zoom button, focus button to adjust image.
- 3) Input specified preset position number, press SET button to save preset scene parameters.

- **Call preset positions (1#~64#; 101#~255#):**

Keyboard CALL button allows you call out and see preset cameras image. The follow steps show how to view these preset positions:

- 1) Use keypad input camera number of the called, press CAMERA button to select camera.
- 2) Input number of preset position of the called, press CALL button, camera turns to the specialized position. Lens zoom, focus and iris auto convert to the preset parameters. The image of preset camera displays on monitor.

- **Long-focus lens and wide angle lens (zoom control):**

Zoom-in or zoom-out lens to get featured images or wide-angle images. Hold on pressing TELE button, objects being closer, object image larger gradually. Hold on pressing WIDE button, objects being farther, object image smaller gradually.

If you quickly press and release zoom button, monitor image only changes a little. Image changes degree depends on the lasting time of holding zoom button.

- **Lens focus control:**

Focus is a process of adjusting image clarity. Hold on pressing FAR button, far objects turn clear, and near objects turn vague. Hold on pressing NEAR button, near objects turn clear, far objects turn vague. Adjust focus buttons until monitor image turns clear. The same with ZOOM button, focus changes degree depends on the lasting time of holding focus buttons.

● **92# menu operation:**

Set 92#, screen displays camera menu; call 92# or select EXIT button leaving menu. In menu state, WIDE, TELE, NEAR and FAR means up, down, enter submenu and go back higher level menu. For setting parameter, NEAR and FAR can increase or decrease numeral value. For Samsung cameras, OPEN and CLOSE are confirm buttons.

● **Proportional speed-shift:**

In accordance with current lens multiples auto adjust speed of rotation.

● **Alarm linkage: (optional function)**

High speed domes support 8-channel alarm input and 2-channel alarm output (middle speed dome serials cameras support 2-channel alarm-input and 1-channel alarm-output). 1# alarm matches with 101# preset position; 2# alarm matches with 102# preset position; 8# alarm matches with 108# preset position. Any channel alarms, 2 channels relays alarm; call 100# preset position, then relays stop outputting.

● **Point-to-point constant scanning:**

After settling start-point and end-point, scan begins with clockwise direction until to the end-point, then scan back from end-point to start-point. By this way scanning till receiving any command (as sheet below):

Attached chart: command list for dome and camera (all dome models fitted)

Notes: "□" means this function Available; " NA "means Not Available

Preset Position Number	Dome/Camera Control Content	Call Preset Positions	Set Preset Position
65	Run first route (Sequential scan of 1#~16# preset positions)	□	NA
66	Run second route (Sequential scan of 17#~32# preset positions)	□	NA
67	Run third route (Sequential scan of 33#~48# preset positions)	□	NA
68	Run fourth route (Sequential scan of 49#~64# preset positions)	□	NA
69	Run fifth route (Sequential scan of 101#~128# preset positions)	□	NA
70	Run all sequential scans of confirmed preset positions	□	NA
71	Clockwise 360°scan (low speed)	□	NA
72	Clockwise 360°scan (middle speed)	□	NA
73	Clockwise 360°scan (high speed)	□	NA
74	Anti-clockwise 360°scan (low speed)	□	NA
75	Anti-clockwise 360°scan (middle speed)	□	NA
76	Anti-clockwise 360°scan (high speed)	□	NA
77	Set duration time of preset position	□	□
78	Zero calibration	□	NA
79	Mirror	Off	On
80	Screen Display	Off	On
81	Digital zoom	Off	On
82	Color	Off	On
83	Backlight compensation	Off	On
84*	Manually switch ICR	Off	On
85	Negative image	Off	On
86*	Auto switch ICR	Off	On
87	White balance mode	Manual	Auto
88	View state of dome	□	NA
89	Exposure mode	Manual	Auto
90	Focus mode	Manual	Auto
91	Back to Factory Settings	□	NA
92	Call menu	□	□
93	View version of dome	□	NA
94	Eliminate single preset position (Once more within 5 seconds)	□	NA
95	Eliminate all preset positions (Once more within 5 seconds)	□	NA
96	Run linear scan / Set start of linear scan	□	□
97	Set end of linear scan	NA	□
100	Shut alarm-output (be sure alarm-output exists)	□	NA

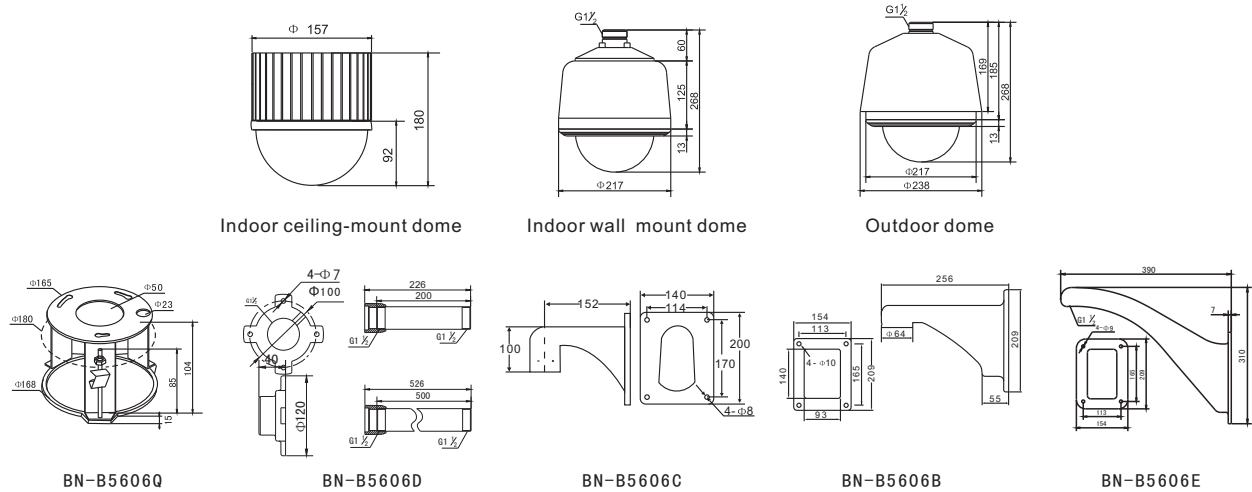
Supplement:

Items	SONY	CANON	CNB	SAMSUNG
Preset Position Range	1~255	1~128	1~255	1~255
Preset Position Lasting Period Setting	√ (92#command)	√ (77#command)	×	77#command)
Image Vertical-Flip(V-FLIP)	√	×	×	×
91#Command	×	√	×	×

77# detention-time setting is similar to 92#

Cautions: This manual does not introduce setting methods of detail camera menus. If you want to change camera parameters, please contact to dealer and ask for setting instructions of menus.

■ Dimensions ■



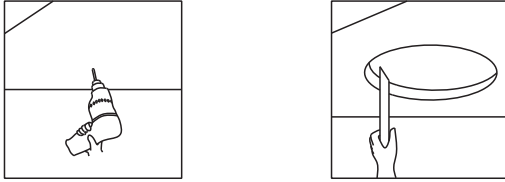
■ Integrated Speed Dome Camera Specifications ■

Built-in Module	CANON	SONY FCB-EX45CP	SONY FCB-EX480CP	SONY FCB-EX980P	SONY FCB-EX1010P
Indoor Ceiling-mount Dome (High speed)	BN-5606HH0	BN-5606LH0	BN-5606XH0	BN-5606NH0	BN-5606EH0
Indoor Wall mount Dome (High speed)	BN-5606HH2	BN-5606LH2	BN-5606XH2	BN-5606NH2	BN-5606EH2
Outdoor Wall mount Dome (High speed)	BN-5606HH3	BN-5606LH3	BN-5606XH3	BN-5606NH3	BN-5606EH3
Indoor Ceiling-mount Dome (Middle speed)	BN-5606HM0	BN-5606LM0	BN-5606XM0	BN-5606NM0	BN-5606EM0
Indoor Wall mount Dome (Middle speed)	BN-5606HM2	BN-5606LM2	BN-5606XM2	BN-5606NM2	BN-5606EM2
Outdoor Wall mount Dome (Middle speed)	BN-5606HM3	BN-5606LM3	BN-5606XM3	BN-5606NM3	BN-5606EM3
Image Sensor	1/4" SONY Super HAD CCD	1/4" SONY Super HAD CCD	1/4" SONY Ex-view CCD	1/4" SONY Ex-view CCD	1/4" SONY Ex-view CCD
Horizontal Resolution	480TV Lines	480TV Lines	480TV Lines	480TV Lines	530TV Lines
Day/Night Function	Manual/ Auto	No	Manual/ Auto (ICR Filter)	Manual/ Auto (ICR Filter)	Manual/ Auto (ICR Filter)
Min. illumination	Color:1Lux B/W:0.01Lux	Color:1Lux	Color:0.7Lux B/W:0.002Lux	Color:1Lux B/W:0.01Lux	Color:1.4Lux B/W:0.1Lux
Optical Zoom	22x,f=4~88mm	18x,f=4.1~73.8mm	18x,f=4.1~73.8mm	26x,f=3.5~91mm	36x,f=3.4~122.4mm
Digital Zoom	10x	12x	12x	12x	12x
Video System	PAL/NTSC	PAL/NTSC	PAL/NTSC	PAL/NTSC	PAL/NTSC
Wide Dynamic Range	No	No	No	No	With
Privacy Function	No	24 Zone	24 Zone	24 Zone	24 Zone
Total Pixel	795(H)×596(V)				
Effective Pixel	752(H)×582(V)				
Sync System	Internal				
Video Output	1.0V (p-p), 75 ohms, BNC				
S/N Ratio	>50dB				

Built-in Module	CNB M2760PDL	SAMSUN SDM-310	SAMSUN SDM-332	SAMSUN SDM-335	SAMSUN SDM-375
Indoor Ceiling-mount Dome (high speed)	BN-5606QH0	BN-5606TH0	BN-5606UH0	BN-5606WH0	BN-5606GH0
Indoor Wall mount Dome (high speed)	BN-5606QH2	BN-5606TH2	BN-5606UH2	BN-5606WH2	BN-5606GH2
Outdoor Wall mount Dome (high speed)	BN-5606QH3	BN-5606TH3	BN-5606UH3	BN-5606WH3	BN-5606GH3
Indoor Ceiling-mount Dome (middle speed)	BN-5606QM0	BN-5606TM0	BN-5606UM0	BN-5606WM0	BN-5606GM0
Indoor Wall mount Dome (middle speed)	BN-5606QM2	BN-5606TM2	BN-5606UM2	BN-5606WM2	BN-5606GM2
Outdoor Wall mount Dome (middle speed)	BN-5606QM3	BN-5606TM3	BN-5606UM3	BN-5606WM3	BN-5606GM3
Image Sensor	1/4" SONY Super HAD CCD	1/4" SONY Interline Transfer CCD	1/4" SONY Super HAD CCD	1/4" Double Density Interline Transfer	1/4" Double Density Interline Transfer
Horizontal Resolution	480TV Lines	Color:540TV Lines B/W:570TV Lines	Color:550TV Lines B/W:680TV Lines	Color:550TV Lines B/W:680TV Lines	Color:550TV Lines B/W:680TV Lines
Day/Night Function	Manual/ Auto (ICR Filter)	Manual/ Auto (ICR Filter)	Manual/ Auto (ICR Filter)	Manual/ Auto (ICR Filter)	Manual/ Auto (ICR Filter)
Min. illumination	Color:1Lux B/W:0.1Lux Slow Shutter: 0.001 Lux	Color:0.4Lux B/W:0.1Lux Slow Shutter: 0.0006 Lux	Color:0.4Lux B/W:0.02Lux	Color:0.7Lux B/W:0.03Lux	Color:0.7Lux B/W:0.06Lux
Optical Zoom	27x,f=3.6~97.2mm	30x,f=3.3~99mm	33x,f=3.5~115.5mm	33x,f=3.5~115.5mm	37x,f=3.5~129.5mm
Digital Zoom	10x	10x	12x	12x	12x
Video System	PAL/NTSC	PAL/NTSC	PAL/NTSC	PAL/NTSC	PAL/NTSC
Wide Dynamic Range	No	No	No	With	With
Privacy Function	No	32 Zone	8 Zone	8 Zone	8 Zone
Total Pixel	795(H)×596(V)				
Effective Pixel	752(H)×582(V)				
Sync System	Internal				
Video Output	1.0V (p-p), 75 ohms, BNC				
S/N Ratio	>50dB				

■ EMBEDDED DOME INSTALLATION ■

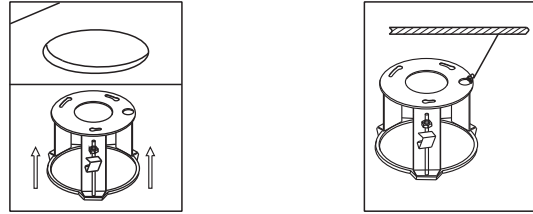
Step 1: drill a hole on ceiling



At the installation center of ceiling drill a hole of 3mm diameter, input self-trapping screw to positioning-ruler hole, and then fix it on ceiling.

Use pencil and positioning-ruler drawing a circle, dig away stuff.

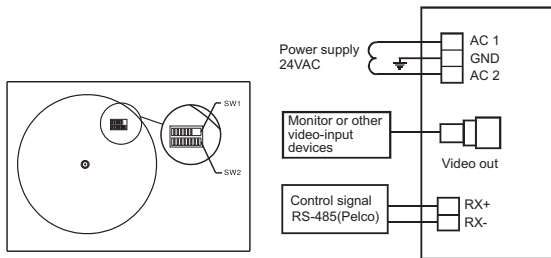
Step 2: install embedded bracket



Press embedded-bracket fixture, input fixture input hole of ceiling until wholly entering. Unwrap the three fixtures, tighten screw, and confirm that embedded-bracket has already been fixed on ceiling.

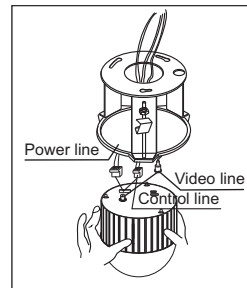
Notes: embedded-bracket and ceiling must link with steel belt so as to avoid dome dropping. The steel belt should be offered by customer.

Step 3: set dome



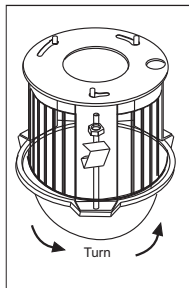
Set dome bottom DIP switcher (SW1 and SW2) to confirm control-protocol and dome address, similar with label setting or switcher setting.

Step 4: connect to mechanical module wiring



Connect video cable, power line and control line with mechanical module. As picture directing.

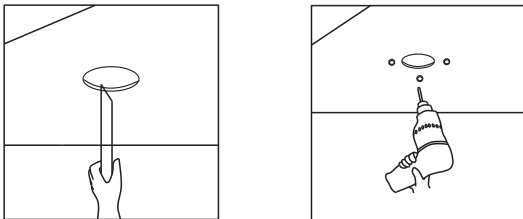
Step 5: install dome



Insert 3 screw units into the upper bracket hole, just like the picture directing, confirm all screws are tightened in locating slot.

■ CEILING MOUNT DOME INSTALLATION ■

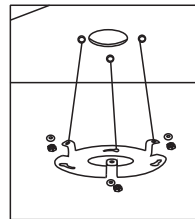
Step 1: open hole on ceiling



According to bracket hole size, use pencil and positioning-ruler drawing a circle ($\Phi 40\text{mm}$), dig away stuff.

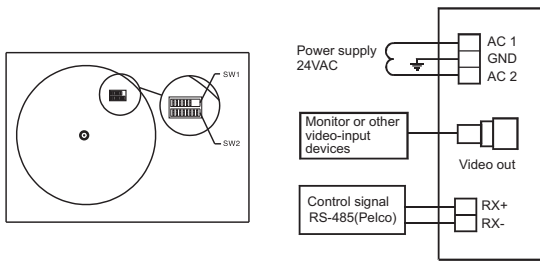
At the edge of circle, drill 3 holes ($\Phi 6\text{mm}$) matched with 3 holes of bracket, then fill M6 anchor-screws on each hole (anchor-screws are offered by customer).

Step 2: fix ceiling-mount bracket



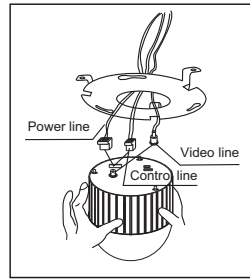
Insert anchor-screws to 3 holes and fasten them with pad & nut.

Step 3: set dome



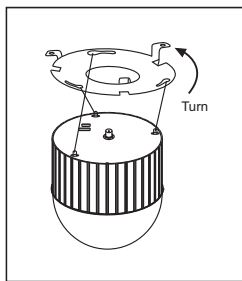
Set dome bottom DIP switcher (SW1 and SW2) to confirm control-protocol and dome address, similar with label setting or switcher setting.

Step 4: connect to mechanical module wiring



Connect video cable, power line and control line with mechanical module. As picture directing.

Step 5: install dome

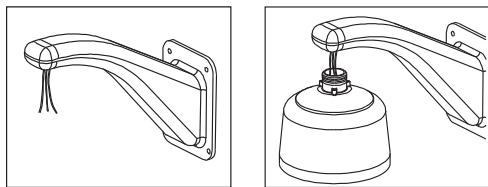


Insert 3 screw units into the upper bracket hole, just like the picture directing, confirm all screws are tightened in locating slot.

■ WALL MOUNT DOME INSTALLATION ■

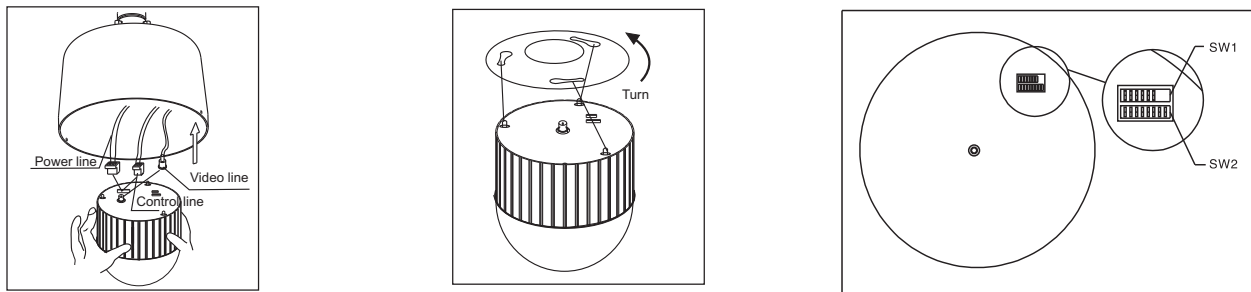
Step 1: install outer shell

Cautions: if it is outdoor installation, should confirm the sealing quality, and avoid approaching heat or moisture. As variability of bracket type & installation, here only introduce installation method and steps of dome. But for bracket installation, please refer to related instructions.



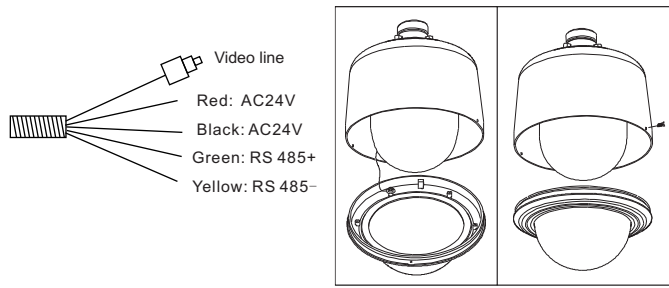
- a. Video cable, power line and control line penetrate wall-mount bracket until stretch out.
- b. Then they penetrate outer shell hole until stretch out enough length.
- c. As the picture, hang outer shell on bracket, screw-thread is sealed with waterproof materials.

Step 2: install dome



- a. Set dome bottom DIP switcher (SW1 and SW2) to confirm control-protocol and dome address, similar with label setting or switcher setting.
- b. Connect video cable, power line and control line with mechanical module. Then put and fasten mechanical module into shell. As picture directing

Step 3: install transparent cap



Bolt one end of safety rope of transparent cover to the screw bolt of outer shell. Take off 2 screws of outer shell edge. Closely connect fixing hole of transparent cover with screw hole of outer shell, confirm matched holes directing to each other exactly and transparent cover has been attached on outer shell. Finally put and fasten 2 steel screws in order to fix transparent cover.

Cautions: ahead of transparent-cover-cap covered down, must connect well the power socket of heater.

■ ERRORS & SOLUTIONS ■

Errors Descriptions	Possible Reasons	Solutions
Powered on, but no reaction, no image and no indicator shining	Power line connection incorrect	Revise
	Power source damaged	Replace
	Fuse tube broken	Replace
	Power line contact poor	Remove poor contact
Powered on, self-test well, having image, but out of control	Dome address & baud-rate setting wrong	Reset dome address code & baud rate
	Protocol wrong	Revise
	RS485 line connection inverted or open-circuit	Check connection of RS485 control line
Fail to finish self-test, having image but with motor hums	Mechanical errors	Examine & repair machine
	Camera slope	Place well
	Power inadequate	Replaced with proper power supply, near to camera for better
Image Unstable	Video circuit contact poor	Remove poor contact
	Power inadequate	Replace
Image Vague	Focus by manual	Operate dome or call any preset position
	Dome shell dirty	Clean shell
Dome control of stop failed or delayed	Dome power inadequate	Replaced with proper power supply, near to camera for better
	Check whether controlling-resistance of farthest dome is added	Add proper resistance for farthest dome
Switch image with vertical rolling on monitor	Dome phase is wrong	<p>If one power line links multiple domes (centralized power supply). 24V AC connector should be linked with same direction. Each connector end should connect to 24VAC connector terminal; so do the other end and terminal</p>

■ MAINTAIN ■

1. Please accord to operating environments.

2. Do not let dome direct to strong light objects.

No matter in working or not working, dome MUST NOT direct to the sun and other objects with strong light. Otherwise, CCD maybe damaged permanent.

3. Do not install indoor dome in outdoor environments.

4. Electric safety, lightning proof, surge proof

In process of using this products, should accord to each item of electric safety criteria. Dome and signal line must be at least 50 meters away from high voltage equipments & lines. If it is hard to meet the above requirements, please adopt steel tube to wrap signal line, besides set some grounding for steel tube;

Outdoor type speed domes can prevent equipments being destroyed by under 0 ~ ±4000W lightning strike, surge and other suchlike pulse signals.

5. Transparent cover cleaning

In order to ensure dome image clear, transparent cover should timely cleaned. When cleaning, we should only hold outer ring of transparent cover, but not directly touch the cover, otherwise acid sweat will erode the cladding material of glass surface, moreover other rigid substance can also scratch the cover, causing image vague. So you'd better use soft enough materials (i.e. cloth). As for serious stains, both neutral detergent and other high-quality personal detergents are suitable.

6. Careful transport

Transport & storage process should avoid heavy press, intense shock and soak. This product should adopt integrated packing transport, no matter dealer's shipping or return to plant repairing, the damage caused by transport method is beyond guaranty range.

7. Careful installation

Transparent cover belongs to advanced optical products, should avoid be directly touched to scratch surface and harm image quality. Before thorough installation please do not power on.

8. Do not disassemble

Inner dome there is no DIY repaired components. The repair work must be finished by our technical staff.

■ CHART OF SWITCHER SETTING ■

Chart A. Baud Rate Setting (Switcher 1)

1=ON; 0=OFF

Baud Rate	ID(SW1)
	5 6
1200BPS	0 0
2400BPS	1 0
4800BPS	0 1
9600BPS	1 1

Chart B. Protocol Setting(Switcher 1)

1=ON; 0=OFF

Protocols	ID(SW1)
	1 2 3 4
PELCO-D	0 0 0 0
PELCO-P	1 0 0 0
B01	0 1 0 0
ALEC	1 1 0 0
KALATEL	0 0 1 0
LILIN	1 0 1 0
VICON	0 1 1 0
Panasonic	1 1 1 0
DAHUA	0 0 0 1
Santachi	1 0 0 1
Philips	0 1 0 1
AD	1 1 0 1
Reserved	0 0 1 1
Reserved	1 0 1 1
Reserved	0 1 1 1
Reserved	1 1 1 1

Chart C. Address Setting(Switcher 2)

Address Number	ID(SW2) 12345678	Address Number	ID(SW2) 12345678	Address Number	ID(SW2) 12345678	Address Number	ID(SW2) 12345678
1	10000000	33	10000100	65	10000010	97	10000110
2	01000000	34	01000100	66	01000010	98	01000110
3	11000000	35	11000100	67	11000010	99	11000110
4	00100000	36	00100100	68	00100010	100	00100110
5	10100000	37	10100100	69	10100010	101	10100110
6	01100000	38	01100100	70	01100010	102	01100110
7	11100000	39	11100100	71	11100010	103	11100110
8	00010000	40	00010100	72	00010010	104	00010110
9	10010000	41	10010100	73	10010010	105	10010110
10	01010000	42	01010100	74	01010010	106	01010110
11	11010000	43	11010100	75	11010010	107	11010110
12	00110000	44	00110100	76	00110010	108	00110110
13	10110000	45	10110100	77	10110010	109	10110110
14	01110000	46	01110100	78	01110010	110	01110110
15	11110000	47	11110100	79	11110010	111	11110110
16	00001000	48	00001100	80	00001010	112	00001110
17	10001000	49	10001100	81	10001010	113	10001110
18	01001000	50	01001100	82	01001010	114	01001110
19	11001000	51	11001100	83	11001010	115	11001110
20	00101000	52	00101100	84	00101010	116	00101110
21	10101000	53	10101100	85	10101010	117	10101110
22	01101000	54	01101100	86	01101010	118	01101110
23	11101000	55	11101100	87	11101010	119	11101110
24	00011000	56	00011100	88	00011010	120	00011110
25	10011000	57	10011100	89	10011010	121	10011110
26	01011000	58	01011100	90	01011010	122	01011110
27	11011000	59	11011100	91	11011010	123	11011110
28	00111000	60	00111100	92	00111010	124	00111110
29	10111000	61	10111100	93	10111010	125	10111110
30	01111000	62	01111100	94	01111010	126	01111110
31	11111000	63	11111100	95	11111010	127	11111110
32	00000100	64	00000010	96	00000110	128	00000001

Chart C. Address Setting(Switcher 2)

Address Number	ID(SW2) 12345678	Address Number	ID(SW2) 12345678	Address Number	ID(SW2) 12345678	Address Number	ID(SW2) 12345678
129	10000001	161	10000101	193	10000011	225	10000111
130	01000001	162	01000101	194	01000011	226	01000111
131	11000001	163	11000101	195	11000011	227	11000111
132	00100001	164	00100101	196	00100011	228	00100111
133	10100001	165	10100101	197	10100011	229	10100111
134	01100001	166	01100101	198	01100011	230	01100111
135	11100001	167	11100101	199	11100011	231	11100111
136	00010001	168	00010101	200	00010011	232	00010111
137	10010001	169	10010101	201	10010011	233	10010111
138	01010001	170	01010101	202	01010011	234	01010111
139	11010001	171	11010101	203	11010011	235	11010111
140	00110001	172	00110101	204	00110011	236	00110111
141	10110001	173	10110101	205	10110011	237	10110111
142	01110001	174	01110101	206	01110011	238	01110111
143	11110001	175	11110101	207	11110011	239	11110111
144	00001001	176	00001101	208	00001011	240	00001111
145	10001001	177	10001101	209	10001011	241	10001111
146	01001001	178	01001101	210	01001011	242	01001111
147	11001001	179	11001101	211	11001011	243	11001111
148	00101001	180	00101101	212	00101011	244	00101111
149	10101001	181	10101101	213	10101011	245	10101111
150	01101001	182	01101101	214	01101011	246	01101111
151	11101001	183	11101101	215	11101011	247	11101111
152	00011001	184	00011101	216	00011011	248	00011111
153	10011001	185	10011101	217	10011011	249	10011111
154	01011001	186	01011101	218	01011011	250	01011111
155	11011001	187	11011101	219	11011011	251	11011111
156	00111001	188	00111101	220	00111011	252	00111111
157	10111001	189	10111101	221	10111011	253	10111111
158	01111001	190	01111101	222	01111011	254	01111111
159	11111001	191	11111101	223	11111011	255	11111111
160	00000101	192	00000011	224	00000111	256	00000000