

USER MANUAL
INTELLIGENCE IR MEDIUM
SPEED DOME CAMERA

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Product Features**Powerful Intelligent Function**

- Identify various control protocols automatically, such as PELCO D/P, Hikvision, Dahua, etc.

- Identify 2400, 4800, 9600 baud rate automatically

- Identify RS-485 Positive and negative connections automatically

- Support 3D Positioning of Hikvision, Dahua DVR

Powerful PAN/TILT Rotation

- Vector drive technology, Pan/Tilt function make the video image look more natural.

- Precise stepping motor subdivision technology, image stabilization if zoom in greatly

- The precise focus/rotate speed automatically matching technology

Preset, Preset Scanning, Swing, Continuous Scanning and more

- Support Preset max.80, Preset 80-255 are Special Presets. Preset info. support parameters, like PTZ units Pan/Tilt Angle, Focal Length and IR LED setup etc.

- Preset Cruise: Pre-set preset, call a special preset

- Swing: set up specified area, PTZ scan specifically

- Continuous Scanning: Call the specified special preset, PTZ scan continuously.

PTZ Control

- RS-485 Communication Protocol
- Pan 360° rotate continuously. Tilt 90° autoflip. After 180°, endless monitoring, no surveillance blind zone
- Pan speed max. 60°, Tilt speed max. 50°

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Smart Installation

2.1 Camera ID and Dip Switch Setup

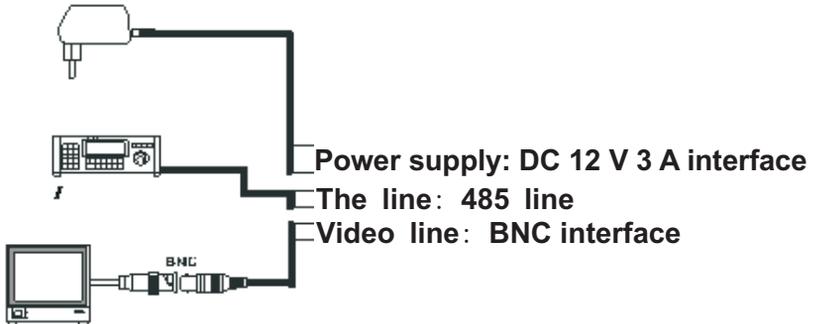
Please set up Camera ID before using camera via dip switch or soft address. (Call soft address and special preset via use the intelligent mouse controller)(软地址)

Note: Dip Switch up is "ON", down is "OFF", Dip Switch Left is Low, right is High (拨码开关低位和高位)

Set up Camera ID Code via 8 bits dip switch S1. ID setup is binary, max. 256 Camera ID Code, see the ID Code table in details.

Camera ID	Camera ID Code Table							
	1	2	3	4	5	6	7	8
0	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
1	ON	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
250	OFF	ON	OFF	ON	ON	ON	ON	ON
251	ON	ON	OFF	ON	ON	ON	ON	ON
252	OFF	OFF	ON	ON	ON	ON	ON	ON
253	ON	OFF	ON	ON	ON	ON	ON	ON
254	OFF	ON						
255	ON	ON	ON	ON	ON	ON	ON	ON

2.2 Cabling Instruction



2.2.1 Powersupply Connection

Note: please check carefully rated voltage and power supply, rated voltage and current are as follows:

rated voltage	rated voltage range	current
DC 12V	$\pm 10\%$	3A

2.2.2 Control Cable Connection

PTZ Control: RS-485 connect controller keyboard or DVR. And control one or more PTZ

camera, RS-485 control cable setup is twisted pair status.

Attention: (1) Connect RS-485 control cable, positive and negative freely

(2) Controller Keyboard or DVR protocol: PELCO D/P, Hikvision, Dahua, baud rate 2400/4800/9600bps .

(3) Multi-PTZ should set up different camera ID.

2.2.3 Video Connection

BNC Connector connect video signal lines directly

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PTZ Smart Setup

Generally, please according to system manufacturer operation manual, if there are special requirements and operation method, please contact with dealers to obtain the information. Here introduce methods of general controller keyboard control ptz dome.

3.1 Power up self test

PTZ power up and self test, firstly, rotate PAN & TILT, camera lens WIDE, stop tilTELE. Self test ensure PTZ operate well.

Control PTZ up-down, left-right rotation

After selecting one PTZ (Call special preset command, * * + CALL please check preset commands table for reference; or via mouse controller make it quickly), Controller keyboard joystick can control its up-down, left-right rotation.

3.2 Preset Setup

Set up preset as follows,

- (1) Select PTZ Dome (see controller keyboard user manual);
- (2) Use Joystick, press Zoom, Focus, Iris to adjust camera images;
- (3) Press number keys (input specified preset#) + PRESET, saving PRESET parameters

3.3 Call Preset

Call preset as follows,

- (1) Select PTZ Dome (see controller keyboard user manual);
- (2) Press number keys (input specified preset#) + CALL, PTZ will back the position that user set it up in advance.

3.4. Clear All Preset

- (1) Select PTZ Dome (see controller keyboard user manual);
- (2) CALL Preset#83, 83 + CALL, clear all preset info.

3.5. Preset Cruise

Preset Cruise:

Just call special preset or via power up/idle, PTZ automatically

move to next preset according to preset order. Call special preset#200~215, preset dwell time, the corresponding dwell time is 5, 6, 7...20 sec;

- (1) Call 99 preset , start 1 to 20 preset cruise;
- (2) Call 88 preset, start 1 ~ 10 preset cruise;
- (3) Call 89 preset, start 11 ~ 20 preset cruise;
- (4) Call 90 preset, start 21 ~ 30 preset cruise;
- (5) Call 91 preset, start 31 ~ 40 preset cruise;

3.6. Swing

PTZ is in a certain position via Controller Keyboard Joystick (User set up PAN/TILT angle according to necessity), set up Preset#65 is left boundary, then controller keyboard joystick get to right boundary, set up Preset#66 is right boundary, left-right boundary of PTZ scanning

Call preset# 82 , PTZ start point to point Swing

PTZ go to preset#66 (right boundary) firstly, then in existing 2 boundaries, scanning constantly at specified speed. Call special preset#225 ~ #229 to ensure scanning speed is level1 ~ 5;

Attention: left and right boundaris should set up at same TILT angle, namely, 2 points keep same horizontal line. If 2 boundaries setup is not at same horizontal line, Call preset#82, left-right swing, the scanning startpoint is prest#66 (right boundary)

3.7. Continuous Scanning

PTZ is in a certain position via Controller Keyboard Joystick

(User set up PAN/TILT angle according to necessity), And Call preset#98, PTZ PAN 360° scanning continuous at specified speed, Call special preset#225 ~ #229 to ensure scanning speed is level1 ~ 5;

3.8. Intermittent scanning

PTZ is in a certain position via Controller Keyboard Joystick (User set up PAN/TILT angle according to necessity), then Call preset#92; PTZ pause for 8 sec, PAN 360° scanning continuously for 2 sec. Call special preset#225 ~ #229 to ensure scanning speed is level1 ~ 5;

3.9. IR LED Control Mode

3 IR LED Control Model, system default is Auto mode.

Auto mode: Call Preset#102, auto ON/OFF IR LED via photoresistance.

Forced open mode: Call Preset#100

Forced close mode: Call Preset#101

3.10. Power up movement

It means PTZ power up and self test, no more operation after finishing for a while. Power off by accident, PTZ move specified task, each kind of power up movement should call preset #191~#199. Call preset#190, stop it.

- (1) Call preset#191, continuous scanning
- (2) Call 192 preset, Intermittent scanning
- (3) Call Preset#193, Swing

- (4) Call Preset#194, skip to Preset#1
- (5) Call Preset#195, skip to Preset#8
- (6) Call preset #196, Preset Cruise 1
- (7) Call preset#197, Preset Cruise 2
- (8) Call preset#198, Preset Cruise 3.
- (9) Call preset#199, Preset Cruise 4

3.11.Idle Action

It means PTZ hasn't any more operation, after specified waiting time, automove Idle Adtion, like continous scanning, intermittent scanning, Swing and Preset Cruise. etc via Call Preset#181~#189. It also called Watch function.

Call Preset#180, close idle

Call Preset#160~#169, #170~#179, Idle, waiting time 15, 16, 24...sec; 30, 35...75sec.

- ①Call Preset#181, continuous scanning
- ②Call Preset#182, intermittent scanning
- ③Call Preset#183, Swing
- ④Call Preset#184, skip to Preset#1
- ⑤Call Preset#185, sip to Preset#8
- ⑥Call Preset#186, Preset Cruise#1
- ⑦Call Preset#187, Preset Cruise#2
- ⑧Call Preset#188, Preset Cruise#3
- ⑨Call Preset#189, Preset Cruise#4

4 Special Presets I Function Table

Notice: XX+CALL : Call Preset#XXX+PRESET: Set XX preset

Special Preset	Functions
0~79 preset	Normal presets
95 ± call	Enter camera menu
XXX ± PRESET	Set preset XXX
XXX ± CALL	Call Preset XXX
82 ± CALL	Start scanning the current zone
83 ± CALL	Clear all presets
88 ± CALL	Start 1~10 preset cruise
89 ± CALL	Start 11~20 preset cruise
90 ± CALL	Start 21~30 preset cruise
91 ± CALL	Start 31~40 preset cruise
92 ± CALL	360° Intermittent Scanning
93 ± CALL	factory default
94 ± CALL	WDR (if cameras come with WDR)
98 ± CALL	360° Continous Scanning
99 ± CALL	Start 1~20 Preset cruise
100 ± CALL	Switch IR LED Foced ON mode
101 ± CALL	Switch IR LED Foced OFF mode
102 ± CALL	Switch IR LED auto mode (Switch ON/Off by the light intensity)
160+CALL	idle dwell time 15 sec
161+CALL	idle dwell time 16 sec
162+CALL	idle dwell time 17 sec
163+CALL	idle dwell time 18 sec

164+CALL	idle dwell time 19 sec
165+CALL	idle dwell time 20sec
166+CALL	idle dwell time 21 sec
167+CALL	idle dwell time 22 sec
168+CALL	idle dwell time 23 sec
169+CALL	idle dwell time 24 sec
170+CALL	idle dwell time 30 sec
171+CALL	idle dwell time 35 sec
172+CALL	idle dwell time 4 0sec
173+CALL	idle dwell time 45 sec
174+CALL	idle dwell time 50 sec
175+CALL	idle dwell time 55 sec
176+CALL	idle dwell time 60 sec
177+CALL	idle dwell time 65 sec
178+CALL	idle dwell time 70 sec
179+CALL	idle dwell time 75 sec
180 <u>±</u> CALL	Close Idle Action
181 <u>±</u> CALL	Start Idle action to continuous scanning
182 <u>±</u> CALL	Start idle action to Intermittent scanning
183 <u>±</u> CALL	Start idle action to area scanning
184 <u>±</u> CALL	Start idle action to Preset#1
185 <u>±</u> CALL	Start idle action to Preset#8
186 <u>±</u> CALL	Start idle action to Preset Cruise 1
187 <u>±</u> CALL	Start idle action to Preset Cruise 2
188 <u>±</u> CALL	Start idle action to Preset Cruise 3
189 <u>±</u> CALL	Start idle action to Preset Cruise 4
190 <u>±</u> CALL	Close power up action
191 <u>±</u> CALL	Start Power up action to continous scanning
192 <u>±</u> CALL	Start Power up action to Intermittent scanning

193+CALL	Start Power up action to Swing
194 + CALL	Start Power up action to Preset 1
195 + CALL	Start Power up action to Preset 8
196 + CALL	Start Power up action to Preset cruise 1
197 + CALL	Start Power up action to Preset cruise 2
198 + CALL	Start Power up action to Preset cruise 3
199 + CALL	Start Power up action to Preset cruise 4
200+call	Preset cruise dwell time 5 sec
201+call	Preset cruise dwell time 6 sec
202+call	Preset cruise dwell time 7 sec
203+call	Preset cruise dwell time 8 sec
204+call	Preset cruise dwell time 9 sec
205+call	Preset cruise dwell time 11 sec
206+call	Preset cruise dwell time 12 sec
207+call	Preset cruise dwell time 13 sec
208+call	Preset cruise dwell time 14 sec
209+call	Preset cruise dwell time 15 sec
210+call	Preset cruise dwell time 16 sec
211+call	Preset cruise dwell time 17 sec
212+call	Preset cruise dwell time 18 sec
213+call	Preset cruise dwell time 19 sec
214+call	Preset cruise dwell time 20 sec
215+call	Preset cruise dwell time 21 sec
225+CALL	Set up Preset scanning speed level 1
226+CALL	Set up Preset scanning speed level 2
227+CALL	Set up Preset scanning speed level 3
228+CALL	Set up Preset scanning speed level 4
229+CALL	Set up Preset scanning speed level 5
231~243 Preset	Set up different zoom cameras protocol

231 <u>±</u> CALL	Set up camera protocol to SONY
232 <u>±</u> CALL	Set up camera protocol to CNB
233 <u>±</u> CALL	Set up camera protocol to SANYO
234 <u>±</u> CALL	Set up camera protocol to LG
235 <u>±</u> CALL	Set up camera protocol to SAMSUNG
236 <u>±</u> CALL	Set up camera protocol to York
237 <u>±</u> CALL	Set up camera protocol to new SAMSUNG
239 <u>±</u> CALL	Set up camera protocol to Imitation of Sony
240 <u>±</u> CALL	Set up camera protocol to Imitation of CNB
241 <u>±</u> CALL	Set up camera protocol to Imitation of LG
242 <u>±</u> CALL	Set up camera protocol to Safer
243 <u>±</u> CALL	Set up camera protocol to CSJ

5 Troubleshooting and maintenance

5.1 Troubleshooting and maintenance table

Failure phenomenon	Possible reasons	Solution
no action, no image when power up	Power cable onnected by mistake	Change
	Powersupply got broken	Change
	Power cable poor connection	Clear
Cannot control or control hardly but have image and self test	Inconsistent Camera ID	Reset Camera ID
	RS-485 open circuit	Check RS-485 control cable
	RS-485 cable poor connection	Check RS-485 control cable
	One RS-485 cable is broken	Check RS-485 control cable
unstable Image	video cable poor connection	Clear
	Lack power	Change

5.2 Notice

1. Careful shipment

Please prevent the damage from heavy weight, Severe vibration and shock during shipping, keeping and installation.

2. Installing Zoom Camera carefully

Specially, handle with care. Do not oppress zoom camera and structure parts, to prevent camera failure. For safety, please don't power up before installing the camera cover.

3. Power supply, Video and control cable

Power cable, Video cable, control cable had better use shielded cable and cable alone, can not mix with other cables.

4. Electrical Safety

Must comply with the electrical safety standards, camera and signal transmission line should keep sufficient distance with high voltage equipment or cable (minimum: 50M). If necessary, should take protective measures against lightning and surge.

5. Clean

When cleaning the camera cover, please use dry and soft cloth, Please use a neutral cleaner and gently wipe. Do not use strong or abrasive cleaning agents, so as not to scratch the cover, affecting the image quality.

6. Strictly sealed to prevent the liquid spill or objects fall inside the camera, otherwise it will cause permanent damage to the equipment.

7. Don't use the speed dome camera when exceed the limit temperature, humidity state The camera using temperature is from -25°C to 50°C , humidity less than 90%

8. Don't install camera near the air conditioner outlet.

In the following cases, the lens condensation and fogging:

- Caused by the rapid temperature difference when the air conditioner turn ON and off

- Using Camera in the environment which make glasses fogging

Using in an environment full of smoke or dust

9. Don't make the camera toward strong light source for long time, such as the sun.

Spotlights and other light sources will cause the display aging, make the camera towards a strong light source for a long time, the image may lose color because the damage of CCD color filter.