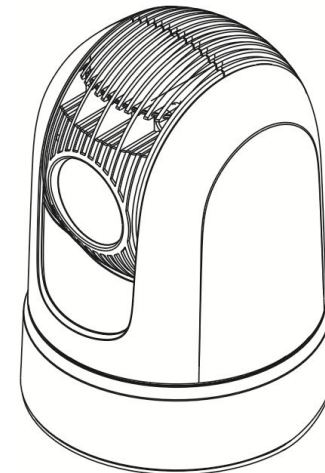# HD-SDI Rugged PTZ Cameras

User Manual V1.0

The user manual is only for a reference, if there are any changes or differences, please ask for the latest version from your supplier

CA/YF-AC3H-ZD-015

Y06020502007

Safety Notes

Thank You for Choosing Our Weather-proof Vehicle PTZ Camera!

When you open the box:

- Check that the packing and the contents are not visibly damaged. Contact the retailer immediately if any parts are either missing or damaged.

- Make sure if the contents are all included as per the packing list.

- Do not attempt to use the device with missing or damaged parts. Send the product back in its original packing if it is damaged.

> **[Note]** The information contained in the document is subject to change without notice.

Modification History

Version	Date of Release	Modified Contents	Number
Ver 1.0	Feb 17 2017	Official release of first version	Y06020502007

Trouble Shooting

Problems	Possible Causes	Solutions
No action when powered on	Power supply failure	Replace power supply
	Wrong connection of the power	Check & reconnect the cables
Abnormal self-test with motor noise	Mechanical failure	Repair
	Camera inclined	Reinstall the camera
	Inadequate power supply	Replace the power supply
Normal self-test but no images	Video signal failure	Reinstall camera
	Wrong connection of the video	Check & reconnect the cables
	Camera damaged	Replace the camera
Normal self-test but out of control	Wrong connection of RS485 cable	Check and reconnect the cable
	Wrong camera ID set	Check and reset the Switches
	Wong baud rate set	Check and reset the Switches
Vague image	Bad connection of the video	Check and reconnect the cables
	Inadequate power supply	Replace the power supply
Dome camera out of control	Self test error	Restart the camera
	Wrong connection of RS485 cable	Check and reconnect the cables

Table of Contents

be frozen at point A till Point B. At Point B, the video will be displayed normally.

Digital Image Stabilization (DIS)

The function is off as default. It can be turned on/off by calling preset 29.

It is used when the camera is used in a vibration environment, to compensate the vibration in video.

Soft Address

The camera address can be changed via presets 62 and 63. The new address will take effect after the camera is rebooted.

Operation Explanation

As the baud rate and protocol are self-adaptive, the PTZ cameras may not response for seconds on power up. It is recognizing the commands and adapting the setting.

IR / White Light

Auto Mode (For IR Version Only):

Default IR mode is auto. Auto mode can also be activated via calling preset 22. At this mode, the

commands of preset 30, 31 are disabled.

When the module is in color mode, the camera will automatically turn off IR lights.

Manual Mode:

Call Preset 21 to turn on the manual mode. The module will be switched between color and mono mode. And lights can be controlled via the commands of presets 30, 31.

> **[Note]** When the ambient temperature is above +50℃, the aux lighting system is suggested
> to be turned off to protect the camera.

Digital Noise Reduction

The function is off as default.

When the camera is in color mode, it is recommended to turn off DNR, or there will be video trails.

When the camera is in mono mode, call preset 27 to turn on/off this function. There are 1~5 steps from low to high. The higher the level is, the better the image quality is, but there will be   more video trails.

Image Freeze

Call Preset 28 to turn on/off this function. When it is on, during a regular preset call, the video will

The following important notes must be followed carefully to run the camera and respective accessories in total safety. The camera and relative accessories are called video system in this section.

■ Before installing the camera, please read this manual carefully; when installing please follow instructions of installation indicated in this manual. Please keep this manual for future use.

■ The following installation should be performed by qualified service personnel or system installers in accordance with all local rules.

■ Before powering on the camera, please check the power voltage carefully. Make sure that you are using the right power source.

■ Please put the power cable, video cable and control cable in safe place.

■ Do not operate the camera beyond the specified temperature and humidity. The camera's working temperature range is between -25℃ and +65℃. The ambient humidity range is less than 95％.

■ When transporting, avoid violent shake or force to the camera.

■ To prevent electric shock, do not remove screws or covers of the camera. There are no self-serviceable parts inside. Refer to qualified service personnel for servicing.

■ Video cable and RS485 cable should be far away from other cables. Shielded and independent wiring is necessary for video and control cables.

■ Never aim the lens of the camera at the sun or other extremely bright objects. Otherwise, it may cause damage.

■ When cleaning the camera, please use soft cloth. If the camera is very dirty, wipe it off gently with a soft cloth moistened with a weak solution of water and a neutral kitchen detergent. Wring all liquid from the cloth before wiping the camera, then wipe off all remaining dirt with a soft, dry cloth. Use lens cleaning paper to clean the lens.

■ Do not move the camera module manually. In doing so would result in malfunction of the camera. Do not hold the camera module when carrying the video camera.

■ Make sure the camera is far away from area where radiation, X-rays, strong electric waves, or magnetism is generated.

Special Control Commands

The camera can be programmed and operated using various quick control commands listed as

below.

Preset Number	Function	Default Value
21	Manual switch between color mode and mono mode	-
22	Auto switch between color mode (with IR off) and mono mode (with IR on), for IR Version only	√
23	Turn on/off Wide Dynamic Range (WDR)	Off
24	Auto WDR	Off
25	Turn on/off Back Light Compensation (BLC)	Off
26	Turn on/off Image Flip	Off
27	Turn on/off Digital Noise Reduction (DNR, 1-5steps)	Off
28	Turn on/off image freeze	Off
29	Turn on/off DIS(It must be supported by the 30X zoom module.)	Off
30	Turn on lights only (only for IR)	-
31	Turn off lights only (only for IR)	√
39	Turn on/off digital zoom	Off
40	Turn on/off on screen display	On
42	Set Left Boundary Of Frame Scan	-
43	Set Right Boundary Of Frame Scan	-
48	Turn on random scan	-
49	Turn on frame scan between two set presets	-
50	Turn on cruise 1	-
51	Turn on Auto Scan(360° Scan)	-
52	Clear all Presets	-
53	Restore factory default and reboot the camera	-
57	Turn On/Off Screen Tips / Page Down Of Screen Tips	-
59	PTZ Speed - Fast	-
60	PTZ speed - Normal	√
61	PTZ speed - Slow	-
62	Decrease the camera Address By -1	-
63	Increase the camera Address By +1	-
67	Activate cruise 2	-
68	Activate cruise 3	-
69	Activate cruise 4	-
95	Enter Menu	-

About The Product

Options		Available Values	Explanations
ADDRESS		0~255	Suggested to call presets to change camera's address, new address will take into effect after camera is rebooted.
PROTOCOL			Displays current protocol, camera supports PELCO P/D protocols, and the camera can detect protocols automatically.
BAUD RATE			Displays current baud rate.
FORMAT			Displays current video output format
MOUNT MODE		CEILING STAND	Flip the image 180 degree vertically.
DISPLAY INFO		ON, OFF	Enable or disable the display information on the image.
SOFTWARE VER			-

REBOOT

Under main menu, navigate up or down to choose <REBOOT>，press Iris Open to get into the
menu shown as below:

```
<REBOOT>
CONFIRM REBOOT
CLICK IRIS OPEN

CANCEL REBOOT
CLICK IRIS CLOSE
```

RESTORE FACTORY DEFAULTS

Under main menu, navigate up or down to choose <FACTORY DEFAULTS>，press Iris Open to
get into the menu shown as below:

```
< RESTORE FACTORY DEFAULTS>
   CLICK IRIS OPEN TO CONFIRM
   RESTORE FACTORY DEFAUITS

   CLICK IRIS CLOSE TO CANCEL
```

Menu Operations: Press Iris Open will resume camera's settings to factory default

About The Product

About The Product

The HD-SDI rugged PTZ camera is designed for mobile video surveillance, marine, security and

etc, it consists of a HD-SDI PTZ camera, powerful lighting system, and high precision mechanical

part.

Features

■ 1/2.8 inch CMOS, 30X /20X optical zoom;

■ Support to output both HD (up to 1080P30) and SD images simultaneously;

■ Powerful lighting system, rang up to 60 meter;

■ With WDR, True D/N;

■ Camera address is easily changeable via controller, baud rate and protocol is self-adaptive;

■ 10.8-28V voltage input;

■ Auto power-off with low power supply;

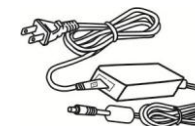■ Support image stabilization;

■ IP66 waterproof.

List Of Parts & Accessories

When you open the box, check all accessories according to the packing list.
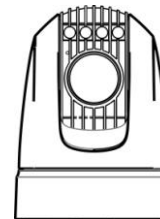
Camera (1)   **Power Adapter (1)**

Functions

Soft Address

Camera address can be changed via calling specific presets.

Baud Rate and Protocol Self-adaptive

Camera can detect PELCO-D and PELCO-P protocols and 2400bps, 4800bps, 9600bps and 19200bps baud rate automatically.

Set Camera Address, Baud Rate and Protocol

Every camera needs to have its own address, baud rate and protocol, the camera only responses to the commands sent with the same settings, please refer to DIP settings for more information about setting address, baud rate and protocol.

Proportional Pan

Proportional pan automatically reduces or increases the pan and tilt speeds in proportion to the zooming times. At telephoto zoom settings, the pan and tilt speeds will be slower for a given amount of joystick deflection then at wide zoom settings. This keeps the image from moving too fast on the monitor when there is a large amount of zoom.

Auto Flip

When the camera tilts downward and goes just beyond the vertical angle, the camera rotates 180º. When the camera rotates (flips), the camera starts moving upward as you continue to hold joystick in the down position. Once you let go of the joystick after the dome rotates, joystick control returns to normal operation. The auto-flip feature is useful for following a person who passes directly beneath the camera.

Save/Call Preset

Preset function is that camera saves current horizontal angle and title angle of pan/tilt, zoom and position parameters into memory. When necessary camera calls these parameters and adjusts Pan/Tilt and camera to that position. User can save and call presets easily and promptly by using keyboard controller or other controller. The camera supports up to 256 presets.

Zoom control

User can adjust zoom wide or tele by controller and get desired image.

📖 **If the two limits within the horizontal 360 degree is in the same zone, in default the camera will choose the shortest zone.**

PARK ACTION

```
<PARK>
☞ ACTION                        NONE
    TIME H                          0
         M                          5
         S                          0
```

Option	Value	Explanation
ACTION		The action to be execute by the PTZ camera
TIME		Set duration interval (Hour, Minute and Seconds) when the PTZ stands by. After this interval, the PTZ camera will execute the action.

SYSTEM

Under main menu, navigate up or down to choose <SYSTEM> , press Iris Open to get into the menu shown as below:

```
<SYSTEM>
— ADDRESS                            1
   PROTOCOL              PELCO-D/P
   BAUD RATE                     9600
   FORMAT                     1080P30
   MOUNT MODE                   STAND
   DISPLAY INFO                     ON
   SOFTWARE VER               V1.0.0
```

```
<PRESET EDIT>
CLICK IRIS OPEN CONFIRM
CLICK IRIS CLOSE CANCEL
```

DELETE Operations

Under <PRESET> menu, navigate up or down to choose <DELETE>，use Right control arrow to get into <DELETE> menu, choose <YES>, press Iris Open to delete preset or Iris Close to cancel operation.

FRAME SCAN

```
<FRAME SCAN>
-INTERVAL/S                    4
   EDIT                       NO
   DELETE                     NO
```

Options	Available Values	Explanation
INTERVAL/S	4~13S	Set interval of frame scan
EDIT	YES, NO	Edit presets of current frame scan
DELETE	YES, NO	Delete current frame scan

EDIT Operations

Under <FRAME SCAN> menu, use Right / Left control arrow to move the camera to a required left limit of the frame scan, press Iris Open to confirm; then use Right / Left control arrow to move the camera to a required right limit of the frame scan, press Iris Open to confirm.

```
<FRAME SCAN EDIT>
CLICK IRIS OPEN CONFIRM LEFT
CLICK IRIS CLOSE CANCEL
```

Focus control

System defaults Auto Focus mode, that is, the lens and camera will automatically adjust the focus to get the best image.

Focus can also be controlled manually from the controller if required. Press Focus Near or Focus Far key to manually focus. Focus can be manual via keyboard or matrix, please refer to control keyboard or matrix operation manual for detailed operation. When adjusting position is set with focus status, it goes back to auto focus.

■ The camera will NOT auto focus in the following status.

■ Target is not in the center of image.

■ Targets are in near and far at the same time.

■ Target is of strong light object. Such as spotlight etc.

■ Target is behind the glass with water drop or dust.

■ Target moves too fast.

■ Large area target such as wall.

■ Target is too dark or vague.

Iris Control

System defaults Auto IRIS. Camera can adjust immediately according to the alteration of back ground illumination so that a lightness steady image can be achieved.

You may adjust IRIS by controller to get required image brightness, and call back Auto IRIS by controlling the joystick.

Back Light Compensation (BLC)

If a bright backlight presents, the subjects in the picture may appear dark or as a silhouette. Backlight compensation enhances objects in the center of the picture. The camera uses the center of the picture to adjust the IRIS. If there is a bright light source outside this area, it will wash out to white. The camera will adjust the IRIS so that the object in the sensitive area is properly exposed.

Auto White Balance

Camera can automatically adjust white balance (WB) according to the alteration of background

lightness to give a true color image.

Auto Cruise

The preset position is programmed to be recalled in sequence.

Auto Scan

Make the camera scan continuously starting from current position.

Random Scan

Make the camera scan from current position, pause at specific positions.

Frame Scan

Make the camera scan between two set positions.

AUTO FLIP		ON, OFF	Set auto flip On or Off.
PARK ACTION…			When the PTZ stands by for some interval, the PTZ will execute the park action.

PRESET

```
<PRESET>
┌ NUM                        1
    PAN
    TILT
    ZOOM
    LABEL
    EDIT                   NO
    DELETE                 NO
```

Options		Available Values	Explanation
NUM		0~255	Preset Number (Expect special commands presets)
PAN			Pan angle of current preset
TILT			Tilt angle of current preset
ZOOM			Zoom times of current preset
LABEL			Description of current preset
EDIT		YES, NO	Edit current preset
DELETE		YES, NO	Delete current preset

 EDIT Operations

Under   <PRESET> menu, navigate up or down to choose <EDIT>，use Right control arrow to get
into <EDIT> menu, choose <YES>, then move the camera to the right position, adjust zoom and
focus values, finally press Iris Open to confirm or Iris Close to cancel.

IRIS Values: F14, F11, F9.6, F8, F6.8, F5.6, F4.8, F4, F3.4, F2.8, F2.4, F2, F1.6, CLOSE。

PAN TILT

PAN/TILT is used to change pan/tilt/zoom value; available options are shown as below:

```
<PAN TILT>
─LIGHT                        OFF
  DAY/NIGHT               AUTO
  PRESET...
  CRUISE...
  FRAME SCAN...
  RANDDM SCAN INTERFALS /S 6
  POWER UP ACTION        NONE
  PAN/TTILT SPEED             2
  AUTO FLIP                   ON
  PARK ACTION...
```

Options		Available Values	Explanation
LIGHT		ON, OFF	This option sits under manual DAY/NIGHT. It's only available when DAY/NIGHT is set as DAY or NIGHT.
DAY/NIGHT		AUTO, DAY, NIGHT	"AUTO" camera changes to color /B/W automatically based on working environment. "DAY / NIGHT" force the camera to change to color / B/W mode.
PRESET…		-	Preset parameter submenu.
CRUISE…		-	Limited to preset number 1~20, values used to change switching intervals among presets.
FRAME SCAN…		-	
RANDOM SCAN INTERVAL /S		4, 5, 6, 7, 8, 9, 10, 11, 12, 13	Used to change scanning intervals.
POWER UP ACTION		PRESET 1~9, NONE, HOME Position	After camera is powered up, if there is no command received, the camera will perform the power up action chosen. HOME position is preset 0.
PAN/TILT SPEED		1, 2, 3	Set camera's Pan / Tilt speeds.

Technical Data

Camera		
Image Sensor	1/2.8 inch CMOS, 2.14megapixel	
Effective Pixel	1920(H) x 1080(V)	
HD Video Format	1080i60,1080i50,1080P30,1080P25, 720P60,720P50,720P30,720P25	
SD video	NTSC / PAL	
Min. Illumination	0.0013Lux(color)，0.0008Lux(B/W)	
White Balance	Auto	
Focus	Auto/Manual	
Exposure	Auto/Manual	
S/N Ratio	More than 50dB	
BLC	On/Off	
WDR	On/Off	
DNR	1-5 Steps/Off	
Day / night	Manual / Auto	
Lens		
Optical Zoom	30x	20x
Digital Zoom	12X	
Focal Length	F=4.3mm-129mm	F=4.7mm-94mm
Iris	F1.6-F4.7	F1.6-F3.5
Angle of field	63.7°-2.3°	59.5°-3.3°
PTZ		
Pan Range	360°Continuous	
Pan Speed	0.1° ~ 60°/s, adjustable	
Tilt Range	-15°-90° with auto flip	
Tilt Speed	0.2° ~ 60°/s, adjustable	
Preset Number	256	
Preset Precision	±0.2°	
Light		
IR Wave Length	850nm	
IR Range	60m	
IR Switch	Auto/Manual	
General		
OSD Language	English	
Comm. Interface	RS-485	
Address	0-255	
HD Video Output	HD-SDI	
SD Video Output	CVBS 1.0V[p-p] / 75Ω, PAL or NTSC	
Protocol	PELCO-P/PELCO-D(self-adaptive)	
Baud Rate	2400/4800/9600/19200bps(self-adaptive)	
Power Supply	DC10.8-28V	

Power Consumption	Min:9W Max:20W
Work Temperature	-25℃~+65℃
IP Protection	IP66
Other Protection	TVS
Dimension	Standard: Φ136(mm)×185(mm)
Weight	Standard：2.1（±0.2）kg

EXPOSURE

```
<EXPOSURE>
─ MODE                FULL AUTO
      SLOW SHT.LIMIT           OFF



`
```

Options		Available Values	Explanation
MODE		FULL AUTO MANUAL SHUTTER PRI IRIS PRI)	Switch among exposure modes.

FULL AUTO: Gain, Shutter Speed and Iris value are adjusted automatically accordingly to working environment.

SLOW SHT. LIMIT: this option sits under "Full Auto", there are On and Off options.

MANUAL: manually adjust Gain, Shutter Speed and Iris.

　GAIN Values: -3, 0, +2, +4, +6, +8, +10, +12, +14, +16, +18, +20, +22, +24, +26, +28.

　SPEED Values:1/1, 1/2, 1/3, 1/6, 1/12, 1/25, 1/50, 1/75, 1/100, 1/120, 1/150, 1/215, 1/300, 1/425, 1/600, 1/1000, 1/1250, 1/1750, 1/2500, 1/3500, 1/6000, 1/10000s.

　IRIS Values: F14, F11, F9.6, F8, F6.8, F5.6, F4.8, F4, F3.4, F2.8, F2.4, F2, F1.6, CLOSE.

SHUTTER PRI: Gain and Iris value are adjusted automatically according to working environment; shutter speed value is adjustable manually.

　SPEED Values:1/1, 1/2, 1/3, 1/6, 1/12, 1/25, 1/50, 1/75, 1/100, 1/120, 1/150, 1/215, 1/300, 1/425, 1/600, 1/1000, 1/1250, 1/1750, 1/2500, 1/3500, 1/6000, 1/10000s。

> 📖 **When shutter speed is set too fast, to avoid the camera from changing between Color / B/W, suggested to call preset 21 to change to manual D/N mode.**

IRIS PRI: Gain and shutter speed value are adjusted automatically according to working environment; Iris value is adjustable manually.

| Options		Available Values	Explanation
FORMAT		1080i50, 1080i60, 1080P25, 1080P30, 720P50, 720P60, 720P25, 720P30	If HD video format is set at 1080P30 or 720P30, relative SD video output is NTSC. If HD video format is set at 1080P25 or 720P25, relative SD video output is PAL.
WIDE DYNAMIC		ON, OFF, AUTO	Switch wide dynamic mode.
DNR		1, 2, 3, 4, 5, OFF	If camera displays color image, it is suggested to turn off the DNR level, otherwise, the video trails will be generated. The higher the level is, the better is the noise reduction performance, but more video trails will be generated.
FOCUS		AUTO MANUAL	AUTO: Camera is in auto focus mode. MANUAL: Change to Manual focus mode, press Focus Near / Far to adjust focus.
FREEZE		ON, OFF	When the camera is cruising among presets, if PREEZE is on, the image from first preset until the second preset will be frozen, after second preset is reached, the image will resume to normal.
DIGI ZOOM		ON, OFF	Switch digital zoom ON or OFF.
DIS		OFF	Switch digital image stabilization ON or OFF.
EXPOSURE …		-	Set Exposure values

Menu Operations

Navigate up or down to choose option, The mark☞ shows current option has been chosen, use

Right control arrow to get into menu, then use Left or Right control arrow to choose from options.

If there is no need to change, press Iris Close button to get back to the last menu.

Preparation

This section contains detailed instructions for installing the camera. These instructions assume that the installer has a good knowledge of installation techniques and is capable of adopting safe installation methods.

Dip switch settings

Before operating the camera, set the camera address, protocol, baud rate. The switches to configure the address settings are located on back panel of the camera. Pic. 1 show the switches on back panel. Default setting is address 1, baud rate 9600bps, protocol PELCO-D.
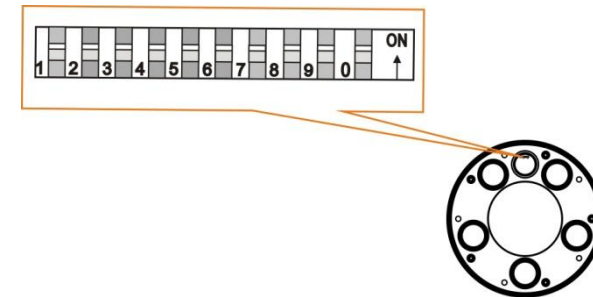
Pic. 1: DIP Switches

To change the setting, follow the below steps:

■ Remove the switch cover;

■ Change the switch settings;

■ Fix the switch cover and make sure it is well sealed.

Below chart shows how to change camera's address

Camera Address	SW1							
	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
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
…..	…..	…..	…..	…..	…..	…..	…..	…..
252	OFF	OFF	ON	ON	ON	ON	ON	ON
253	ON	OFF	ON	ON	ON	ON	ON	ON
254	OFF	ON	ON	ON	ON	ON	ON	ON
255	ON	ON	ON	ON	ON	ON	ON	ON

[Note] The camera shall be rebooted after the switches are programmed.

Menu Explanation

Main Menu

Call preset 95 to enter menu.

```
<MENU>  ─ ❶
 ─ VIDEO
    PAN TILT
    SYSTEM                ─ ❷
    REBOOT
    FACTORY DEFAULTS
```
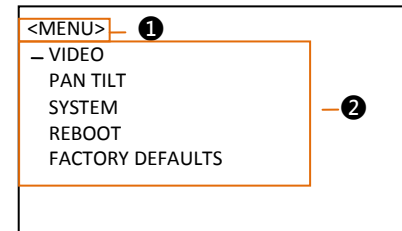
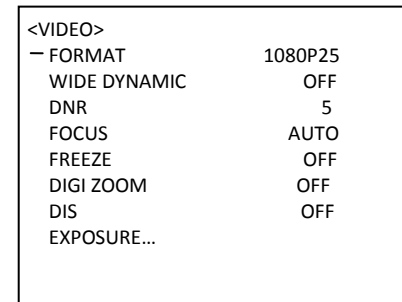❶ **Men**

It displays currently selected menu options.

❷ **Menu Operations**

It displays options under current menu.

Navigate up or down to choose option, the mark ☞ shows current option has been chosen,

press Iris Open button to get into this menu.

VIDEO

From Main menu, navigate to VIDEO option, press Iris Open to get into VIDEO menu shown as below:

```
<VIDEO>
 ─ FORMAT              1080P25
    WIDE DYNAMIC            OFF
    DNR                      5
    FOCUS                 AUTO
    FREEZE                 OFF
    DIGI ZOOM              OFF
    DIS                    OFF
    EXPOSURE…
```

<SYSTEM> ———————— ADDRESS ————————— 0~255

Refer to page
23
      ├— PROTOCOL ——————— PELCO-D/P
      ├— BAUD RATE ————————— 9600
      ├— VIDEO FORMAT ——————— 1080i50
      ├— MOUNT MODE ——————— STAND
      ├— DISPLAY INFO ——————— ON, OFF
      └— SOFTWARE VER ——————— V1.0.0

<REBOOT>
Refer to pages 24

< RESTORE FACTORY DEFAULTS >
Refer to page 24

Initial power on test

To ensure the camera works well after installation, please power on it for an initial test with the following steps:

■ Connect the camera with correct power supply;

■ Connect control cable, video cable;

■ Power on the camera;

The camera will run a calibration procedure on power up and show the following messages.

```
ADDRESS        :  001
PROTOCOL       :  PELCO-D/P
BAUD RATE      :  9600
SOFTWARE VER   :  1.0.0
```

If the camera fails at initialization, the following message will show on screen.

```
ADDRESS        :  001
PROTOCOL       :  PELCO-D/P
BAUD RATE      :  9600
SOFTWARE VER   :  V1.0.0
```

CAM FAIL

Please refer to the following code to check the failures:

PAN FAIL	Failure of pan initialization
TILT FAIL	Failure of tilt initialization
CAM FAIL	Failure of block camera initialization
P/T FAIL	Failure of pan and tilt initializations
T/Z FAIL	Failure of tilt and block camera initializations
P/T/Z FAIL	Failure of pan, tilt and block camera initializations

Check Installation Environment

Please confirm the installed place has enough room to install the camera and its relative

accessories, and the installed place must be able to stand four times the weight of the camera.

[Note] In case of P/T failure:

If the ambient temperature is below 5℃, the heater will be turned on

automatically and the PTZ camera will do the initialization again after 20 minutes.

If the ambient temperature is above 5℃, please reboot the PTZ camera.

Keep Package

After unpacking, please keep the packing stuffs in good place, in case the camera needs to be

returned, please use its original packing stuffs to send back.

Menu Settings

Menu Configuration

<VIDEO>

Refer to
Page 17

- FORMAT — 1080i50, 1080i60, 1080P25, 1080P30, 720P50, 720P60, 720P25, 720P30
- WIDE DYNAMIC — ON, OFF, AUTO
- DNR — 1, 2, 3, 4, 5, OFF
- FOCUS — MANUAL , AUTO
- FREEZE — ON, OFF
- DIGI ZOOM — ON, OFF
- DIS — OFF
- EXPOSURE…

<PAN TILT>

Refer to
page 20

- LIGHT — ON, OFF
- DAY/NIGHT — AUTO, DAY, NIGHT
- PRESET…
- CRUISE
- FRAME SCAN…
- RANDOM SCAN INTERVAL/S — 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
- POWER UP ACTION — PRESET 1~9, NONE, HOME
- PAN/TILT SPEED — 1, 2, 3
- AUTO FLIP — ON, OFF
- PARK ACTION…

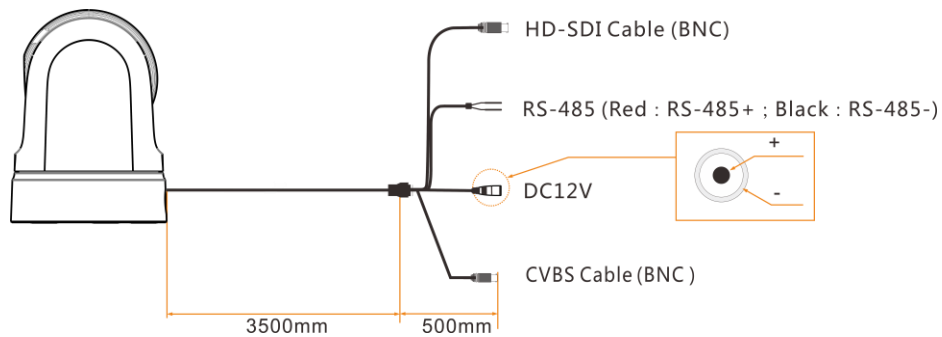3) Below picture shows the final effect after installed.
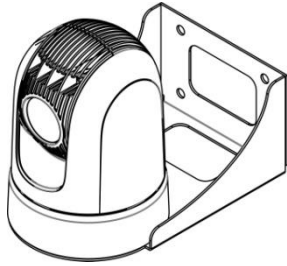
Magnetic Mounts：

Put the PTZ camera to a metal place and make sure the magnetic bottom is firmly sucked to the surface.
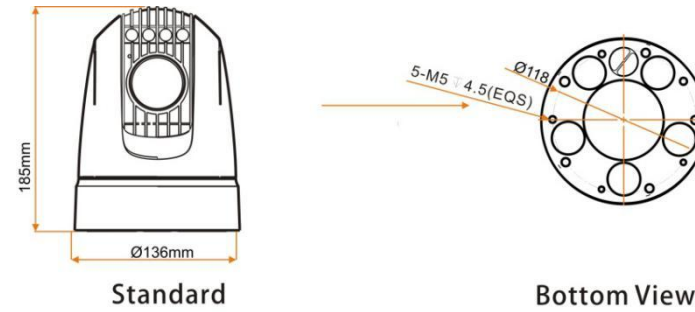
Connections

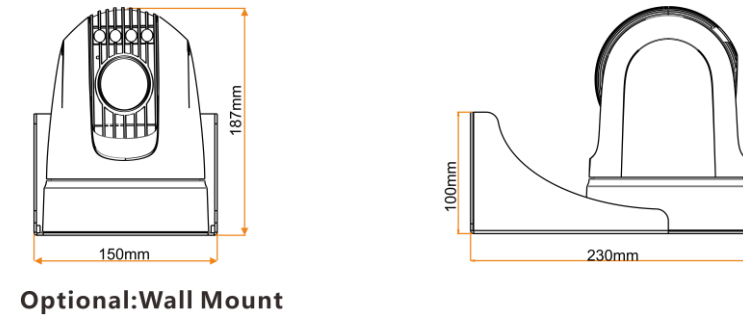Connect the cable with the right pins as per following pictures.

HD-SDI Cable (BNC)

RS-485 (Red : RS-485+ ; Black : RS-485-)

DC12V
+
-

CVBS Cable (BNC)

3500mm   500mm

Dimensions

There are three installation methods: fixed, wall and magnetic mount.

Fixed Installation

185mm
Ø136mm
Standard

5-M5 ⌐ 4.5(EQS)
Ø118
Bottom View

Pic. 1 Dimensions: Fixed Installation

Wall Installation

187mm
150mm
Optional:Wall Mount

100mm
230mm

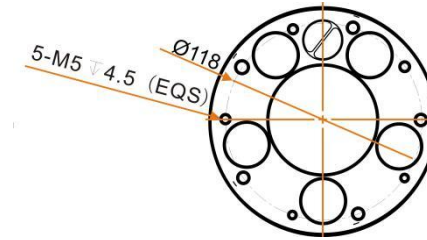Pic. 3 Dimensions: Wall Mount Installation

Magnetic Installation
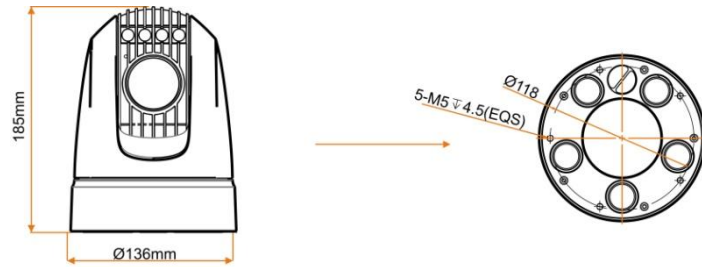
Pic. 4 Dimensions: Magnetic Installation

Installation

Fixed Mounts

1) Take the PTZ camera out of packing and fix it to the target place as per the installation dimensions with correct screws.

Wall Mounts：

1) According to diameter and position of the 4 installation holes (As shown below) on the bracket, drill 4 holes on the wall and fix the bracket onto the wall by using 4 screws which should be prepared by yourself.
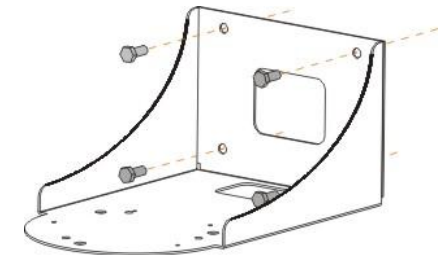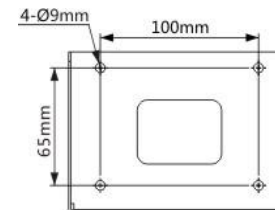
2) Use five M5x6 screws to fix the camera on the bracket, make sure the camera is tightly fixed onto the bracket before your hands leave the camera.