

Outdoor High-Speed Pan/Tilt

User's Manual

(V4.2)

Pleased read the manual carefully before using the product

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Notes for Attention

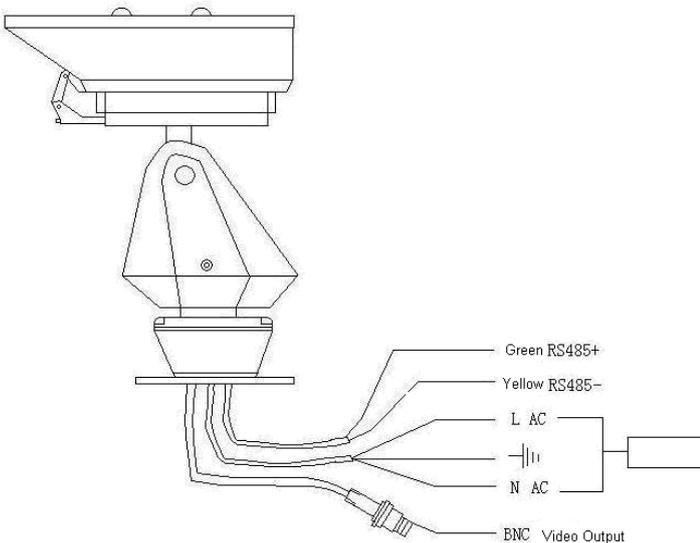
1. Read the manual carefully before installing the product.
2. Please do not dismount components inside the product to avoid occurrence of trouble. There is no part inside the product, which needs repair by customer himself.
3. Clean out dirt with special lens tissue if dust is stuck on the lens.
4. Do not aim the camera at the sun or very bright object, aim or monitor bright and still object for a long time whether the power supply of the camera is switched on or off.
5. Do not apply the product under the state exceeding limited temperature, humidity or specifications of power supply.
6. Carefully use camera. Do not shock and strike it.
7. Please install the speed pan/tilt in the wall or horizontal. Do not be bottom up.
8. Observe all electric safety standards in application and adopt special power supply attached the product. RS-485 control signal and video signal should be kept enough distance with the high voltage devices and cables during the course of transmission, and take protection measures such as anti-lightning and surging etc. if necessary.

Introduction

Description of Functions

- 10 inches Weather proof design, Dust-proof, antifogging, frost protection function. protection grade IP66
- Support OSD Menu function.
- 360° Continuously rotation, Rotation rate can reach 80° /s
- Horizontal Resolution 480TVL, privacy Zone masking.
- It will show the angle exactness 0.1° by 0.1°, when the exactness angle is jump phasing.
- 128 presets. 6 tracks and show preset track No.
- RS485 serial control
- Integrated multiple protocols.

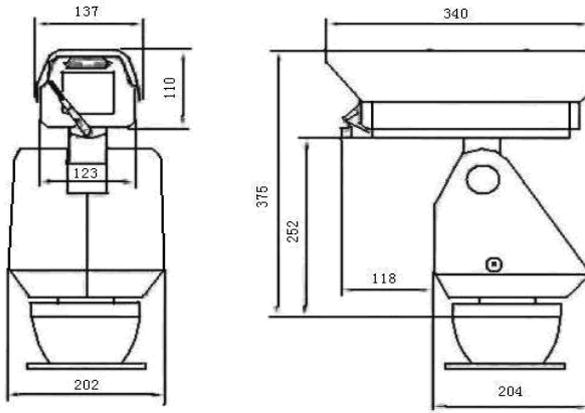
Instruction of Main Part



Specification

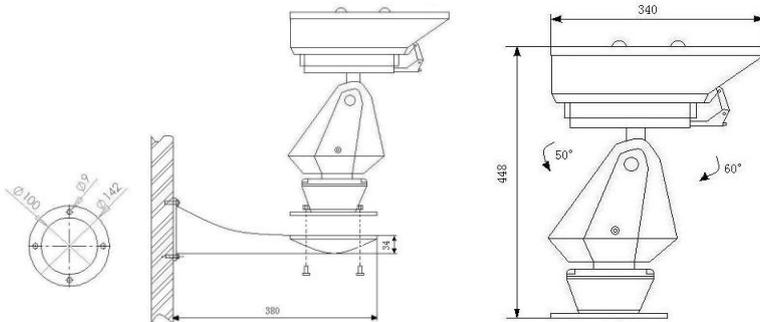
Effective Pixels	752 (H) x582 (V)
Image Inductor	3.6mm (H) x21.7mm (V); 1/4inch
Video Output	1.0Vp-p
Horizontal Resolution	480TVL
Signal/Noise Ratio	≥50dB
Lowest LUX	1Lux/0.01Lux
Iris	Auto
Focus	Auto
Focusing Range	f4.1-73.8mm
Zoom	18x12/27x8
White Balance	Auto
BLC	ON/OFF
Panning Range	360°Continuously rotation
Pan speed	0.5°~ 80°/s
Tilt speed	+60°~ -50°
Tilt Speed	0.5°~ 60°/s
Communication	RS485
Preset Position	128 positions in maximum
Scanning	ON/OFF
Tracks	4 cruising tracks
Power	AC24V /AC220V 70W ±10%
Power Consumption	60W ±10%
Operating temperature	-30°C~+50°C
Size	340x202x448mm (H)
Weight	10Kg

Drawing



Installation

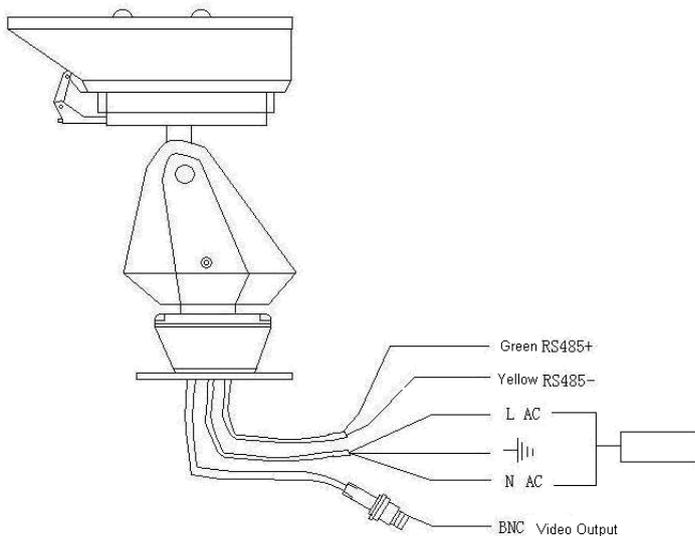
1. Installing speed P/T to the bracket.



Connection

Precautions

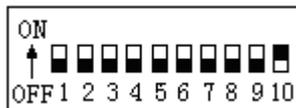
- The following connections should be made by qualified service personnel or system installers in accordance with all local codes.



Note: When powered up, the speed P/T performs a self-check (including one panning, tilting, zooming and focusing operation).

NOTE: If the Control Wire parallel connection many high speed P/T , you should setting the tenth ID code on of the farest P/T (as the picture). If the distance is very far ,you also should do as above operation .

As following:



4 Protocol Setting

Protocol of this speed P/T could transfer and freedom option by 6 digits switch, below is the detail of setting protocol:

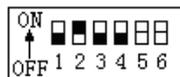
Note: Please power- off before setting



B01



ALEC



Pelco P



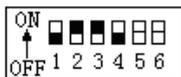
WJ-FS616



Pelco D



A01



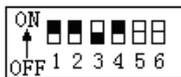
Santachi 6



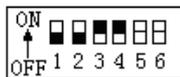
Samsung



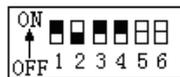
Red Apple



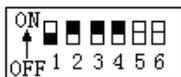
HD 600



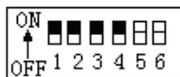
Lilin



Kalate



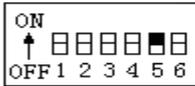
VCL



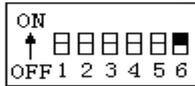
Panasonic 850

5. Setting Baud Rate of High-speed P/T

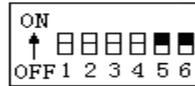
Baud Rate setting of this Speed P/T by last 2 digits of sixth digits switch. Setting as below pictures.



2400bps



4800bps



9600bps

Common Baud Rate as below (bps): B01/9600; ALEC/4800; VCL/4800; PelcoP/4800/9600; PelcoD/2400; A01/4800; Santanchi/9600.

For Example

Protocol: Pelco D, Baud Rate: 2400bps, As follow picture Key of No.3, No.5 are in ON



6. SETTING PROTOCOL OF ZOOM CAMERA

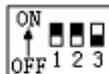
Note: The setting should be coincident the zoom camera



SONY



HITACHI



LG



SAMSUNG

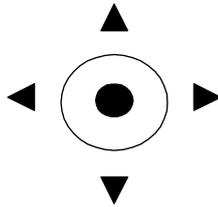
7. OPERATION (Default protocol PELCO-D/2400)

The speed P/T can be controlled remotely horizontal and vertical movement. It is used with a system controller, separately. It is controlled remotely from the controller through a serial connection to the RS-485 connector using a twisted-pair cable.

Conventional Function

1. Pan / Tilt Function

The pan function will move the camera on all horizontal planes, to surveillance position. The tilt function will move the camera on a vertical plane, to surveillance position. The speed is variable according to the angle of joystick.



2. Zoom Function

2.1 The filming range can be set using the zoom function.

Press **TELE** the LCD displays Zoom Tele

Press **WIDE** the LCD displays Zoom Wide

Note: the bigger zoom is the slower of joystick speed is.

2.2 Iris Function

Normally, Focus is AUTO.

Focus level can be adjusted by pressing **[NEAR]** and **[FAR]**

Move the joystick, focus will be auto.

3. Preset Memory

The preset memory function will memories camera positions and zoom, focus, etc. Setting up to 128 preset camera positions can be memorized. Later, you can easily recall any of the preset camera positions by entering its corresponding number, and the camera will move the memorized position with all the preset settings.

3.1 To set a preset position

SET + **N** + **ENTER**

N: the number of preset position: 1~128

3.2 To call a preset position

When camera positions have been set, you can enter a memorized camera position number.

Preset + **N** + **ENTER**

N: the number of preset position: 1~128

4. Delete a preset position

[PRESET]+[N]+[OFF]

N: the number of preset position: 1~128

5. To call cruise tracks:

[PRESET]+32+[ENTER]

This command can call the No.1cruise tracks. It can scan preset points no.1~16.

[PRESET]+53+[ENTER]

This command can call the No.2cruise tracks. It can scan preset points no.17~31.

[PRESET]+49+[ENTER]

This command can call the No.3cruise tracks. It can scan preset points no.33~48.

[PRESET]+50+[ENTER]

This command can call the No.1cruise tracks. It can scan preset points no.65~80.

Note: If some points are not been set or delete, it will not scanning these points when cruising. Resort 3 seconds in every preset point.

6. Setting scanning track

Method 1:

1. Setting begin scanning track point

[SET] + [51] + [ENTER]

Adjust the position of Speed P/T which you need.

2. Setting finished scanning track point:

[SET] + [52] + [ENTER]

Adjust the position of Speed P/T which you need.

3. Calling scanning:

[PRESET]+51+[ENTER]

Note: Setting begins and finished scanning track point first.

4. Stop scanning

[PRESET]+52+[ENTER]

(Move Joystick also can stop scanning)

When Speed P/T scanning, default state following

- a. Speed P/T scan between two points.
- b. Scan “begin-point” and “end-point” and resort 3 seconds
- c. If “begin-point” and “end-point” superpose, Speed P/T horizontal 360°rotation.

Method 2:

Call scanning

[AUTO]+[ON]

The Speed P/T scanning 360 degree. Need not to set scanning track point.

Note: Above operation use for our company's suited keyboard by example, detail operation do as your keyboard menu

(N)	Control object	The definition of key	
		PRESET+N+ENTER	SET+N+ENTER
54	Power supply	Come back Initial value	/
55	Backlight compensation	ON	OFF
56	Min. illumination	ON	OFF
57	Menu/ Screen Display	ON	OFF
58	Digital Zoom	ON	OFF
59	Focus	AUTO	MANUAL
60	IRIS	AUTO	MANUAL
61	White Balance	AUTO	MANUAL
62	Static image	Image congeal	Normal image
63	Mirror image	Image mirror	Normal image
64	Color/black & white	Color	B/W

Operation of camera

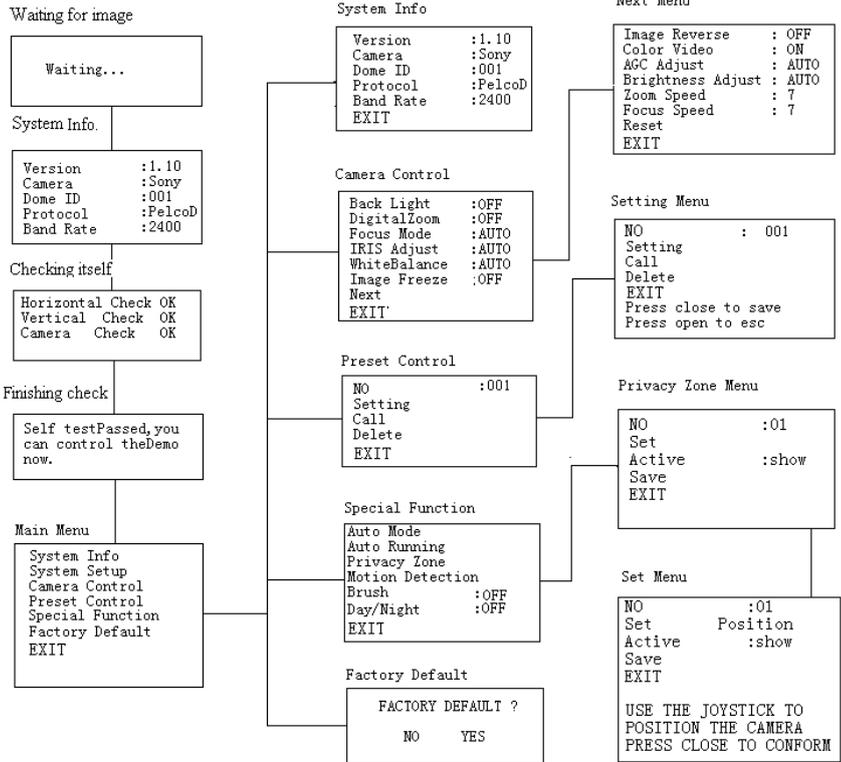
Note: some cameras don't support the above function of them.

Power-off memory

Provide setting of scanning track and select scanning track function. Self-test can allow to store track that user edits arbitrarily and information power-off memory.

8. Index Diagram of the Screen Menu

Index Diagram of the Screen Menu



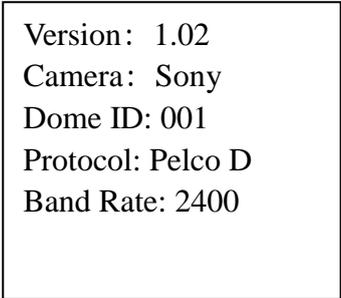
This is the camera's OSD function, which include the menu while opening and the menu while operating.

Open it, and see the start of image, the order of showing is:

Waiting for image



The image of system information



The information of checking itself

Horizontal Check OK
Vertical Check OK
Camera Check OK

The finished information of checking itself

It's passed start to
operate the speed P/T

The Menu Setting

● The major menu setting

After checking itself, please PRESET+8+ENTER, then it will show the image as the No.1-0-1:

System Info	→ (Pic.1-1-1)
System Setup	
Camera Control	→ (Pic.1-2-1)
Preset Control	→ (Pic.1-3-1)
Special Function	→ (Pic.1-4-1)
Factory Default	
EXIT	→ (Pic.1-5-1)

1-0-1 System information

On the menu of 1-0-1, turn up or down the rocker to point to system info (or click the up or down key of controlling system), then turn right to enter to system info (or click the right key of control system)

As per the image 1-1-1:

Version: 1.02
Camera: Sony
Dome ID: 001
Protocol: Pelco D
Baud Rate: 2400
EXIT

Pic.1-1-1

The last pages all show the system settings; the consumer can't operate any

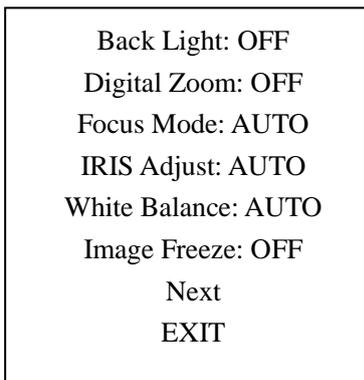
item of setting the function of system.

- System setting

No this function.

- **Camera function setting**

On the image 1-0-1, turn up or down the rocker to point to the camera control, then turn right to enter to the function menu of camera.



Pic. 1-2-1

Remark: The menu of this page is to set the function of integration camera.

- ◆ Black Light: to set back light, default “OFF”, choose “ON” if you need.
- ◆ Digital Zoom: to set digital zoom, default ”OFF”, choose ”ON” if you need;
- ◆ Focus Mode: to set focus mode, default ”AUTO”, choose “MANU” if you need;

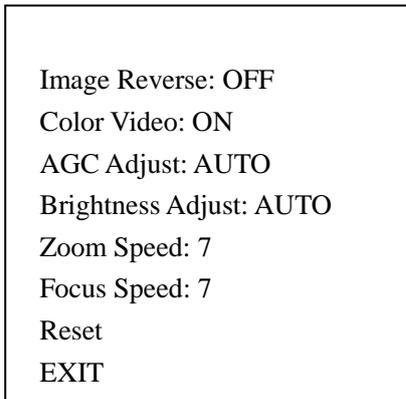
- ◆ IRIS Adjust to set iris adjust , default ”AUTO”, choose “MANU” if you

need;

- ◆ White Balance: to set the model of white balance , show "AUTO", choose "MANU" if you need;
- ◆ Image Freeze: to set the switch of image freeze, default "OFF", choose "ON" if you need;
- ◆ Next: enter to next menu of function

The step is as following:

- 1) Turn up or down the rocker to point to the choice item, and then turn right to enter to input area. Turn up or down the rocker to amend the input value while the on/off is flashing;
- 2) Set the rest item as step 1;
- 3) All finished , turn up or down the rocker to point to exit, then turn right the rocker and exit if it point to next , turn right and enter to next image, it will show as Pic.1-2-2:



Pic.1-2-2

Note: This menu is to set the remind information of screen showing

(Pic.1-2-2)

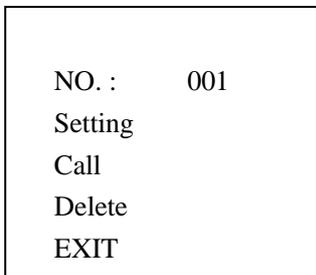
- ◆ Image Reverse: Default OFF, select ON;
- ◆ Color Video: Default setting ON (Color), select OFF (BW) .
- ◆ AGC Adjust: Default AUTO
- ◆ Brightness Adjust: Default AUTO;
- ◆ Zoom Speed: Default 7;
- ◆ Focus Speed: Default 7;
- ◆ Reset: Select this setting , **Come back initial producer setting**

Steps of setting same as above setting:

Note: Maybe some cameras have no full functions of above menu. Please according to actual functions set camera.

● **Setting Preset Position**

The menu of Pic. 1-0-1, move down or up by rocker to let cursor points “Preset Control” ,then move right by rocker to come into menu of setting preset position (Pic.1-3-1) :



Pic. 1-3-1

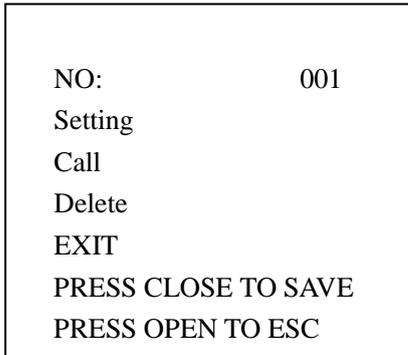
Explain: Above menu is used to set, call and delete preset positions.

(Pic.1-3-1):

- ◆ NO.: Display the No. of preset position. (No.:1-128);
- ◆ Setting: Setting preset position
- ◆ Call: Call preset position (Pic.1-3-2)
- ◆ Delete: Delete preset position

Setting steps as follow:

- 1) In menu of Pic. 1-3-1, move down or up by rocker to let cursor points “NO.” , then move right by rocker to come into the area of input. Character blink, move down or up by rocker to change the data and move right by rocker to save and exit. No. range is 1 to 128.
- 2) Move down or up by rocker to let cursor points “setting” , then move right by rocker to come into the area of setting. The screen displays the state of setting (Pic.1-3-2).Control the dome camera by keyboard. After setting, press “close” to save. The screen will display Pic.1-3-1, cursor points “setting” , Setting is finish. You can call this position to confirm it is saved.



Pic.1-3-2

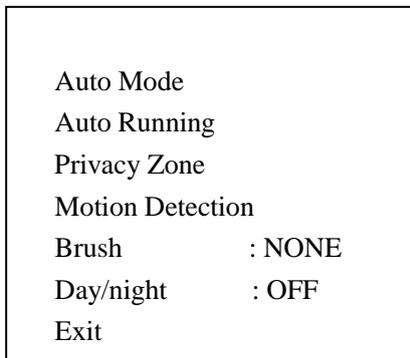
- 3) Select the No. of preset position before Call preset position, move down

or up by rocker to let cursor points “call” , then move right by rocker to confirm, the camera will adjust to the preset position (**Note:** If the No. of preset position haven’t been settled. Call this No. the camera will not adjust.)

4) After all setting, move down or up by rocker to let cursor points “EXIT” , then move right by rocker to exit setting menu

●. Special Function

5) In menu of Pic. 1-0-1, move down or up by rocker to let cursor points “Special Function” , then move right by rocker to come into the menu of special function (Pic.1-4-1).



Pic.1-4-1

Note: Brush (Function of rain strip): If system have this function, Default display “OFF”; Elect “ON” (Using).

Explain: The menu of Pic.1-4-1 is setting function. Move down or up by rocker to select function, and then move right by rocker to come in the area of input. Character blink, move down or up by rocker to change the data and move right by rocker to save and exit.

●**Privacy Zone**

Select in menu of Pic.1-4-1, Move down or up by rocker to select “Privacy Zone”, then move right by rocker to come into the menu of privacy zone (Pic.1-4-11).

NO :	001	No. of privacy zone, (Select NO.: 1-12) .
Set		Enter setting menu.→ (1-4-11)
Active :	show	Select to open or close privacy function.
Save		Save privacy zone.
EXIT		Exit this menu.

Pic.1-4-11

Setting steps as follow:

1) Move down or up by rocker to let cursor points “NO.”, then move right by rocker to come into the area of input. Character blink, move down or up by rocker to change the data, and move right by rocker to save and exit. No. range is 1 to 12.

2) Move down or up by rocker to let cursor points “set”, then adjust the

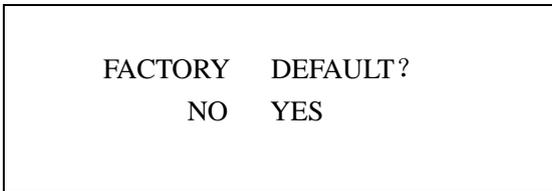
cover positions and press “Close” to save and exit, next set up adjust the range of privacy and press “Close” to save and exit.

- 3) If “Active ON” can setting above steps.;
- 4) Move down or up by rocker to let cursor points “Save” to save privacy zone.

Note: After setting privacy zone must save it. If not the speed P/T will be not memory.

5. Recovery Function

In menu of Pic. 1-0-1, Move down or up by rocker to let cursor points “Factory Default” , then move right by rocker to come into the menu of recovery function (Pic.1-5-1).



Pic. 1-5-1

Explain: Pic.1-5-1, There is a reminder that is recovery factory setting or not. Default setting is NO. If recovery factory setting, you can Move down or up by rocker to choose “YES” , then move right by rocker to confirm it. After 5 seconds, automatically return main menu.

●Exit the Screen Menu

After setting, SET+8+ENTER, exit the screen menu.

General Failure Analysis Table

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”	Mechanical failure	Examine and Repair
	Video camera is slantwise	Put right
	Power supply not enough	Change power that meets requirements. It is recommended to place the power switch near the Speed P/T.
Self-test is normal, but have no image	Video line is connected mistakenly.	Correct
	Video line is poor contact.	Eliminate
	Video camera is damaged.	Change
Self-check ok but cannot control	Control signal line is connected mistakenly.	Correct
	Position of Speed P/T does not match.	Reselect
	Protocol setting is wrong	Reset and on power again
Vague image	Video line is poor contact.	Eliminate
	Power supply not enough	Change
P/T is not controllable.	Too much load or communication distance is too long.	Confirm terminal resistance Add code distributor
	Self-test is exceptional	On power again
	Bad connection of control	Press to full connect
	Operation of Host has problem.	On power again

RS485 and Terminal resistance

When communication of RS485 connected by star type, If use 120 Ω resistor to connect the two fairest equipments. It will not fit for the RS485 Industrial standard. It’s easy to be out of control. So advise to use RS485 code drivers.