

Precision intelligent shooting control system



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—、Precautions for the Use of KIND Precision Intelligent Shooting Control System

- When cleaning the equipment, gently wipe the outer shell and panel with a dry cloth. If the equipment is very dirty, wipe it with a cloth soaked in a small amount of neutral detergent and then dry it. Do not use alcohol, thinners, pesticides or other volatile solvents, as doing so may deform the casing or damage the surface;
- When transporting, loading the equipment in its original packaging box or a similar one can reduce the strong vibration it receives;
- Thank you very much for using our company's precision intelligent shooting control system. To reduce the risk of fire or electric shock, please do not expose this equipment to rain or moisture. Do not disassemble the casing. Maintenance matters should only be carried out by qualified maintenance personnel. To avoid misoperation;
- According to the provisions of the Copyright Law, without the permission of the copyright owner, the recorded video or audio may not be used for purposes other than personal appreciation. Please note that even your personal entertainment photography may be restricted for on-site performances, shows and exhibitions。
- Before use, please read this manual carefully and keep it properly ;
- Do not use this product near water;
- Avoid placing the product on beds, sofas, blankets or other objects. Do not place this product near fire sources, radiators or hot air vents unless it is confirmed that there are appropriate ventilation openings;
- The power supply used for this product should be in accordance with the indication on the power converter;
- When using an extension cord, please confirm the total power consumption/total ampere factor. Do not exceed the total ampere factor that the extension cord is loaded with;
- If any of the following situations occur, please unplug this product and consult a qualified technician:
 - ①The power cord or plug is damaged or has come loose and peeled off;
 - ②Liquid has seeped into this product;
 - ③If this product has been exposed to rain or splashed with water;
- When transporting, loading the equipment in its original packaging box or a similar one can reduce the strong vibration it receives;

Product and Service Disclaimer

The information provided in this manual is for reference only. All along, KIND has been striving to offer correct, complete and appropriate information. However, KIND cannot rule out the possibility that some information in this manual may be incorrect or incomplete. This manual may contain typing errors, information omissions or inaccuracies. KIND recommends that you recheck the accuracy of the information in this document. KIND is not responsible for any omissions or errors, or for any loss or damage caused by the information provided in this manual at any time. For further information about the content of this manual or the product, please contact your local office or KIND headquarters.

二、Product Overview



The precision intelligent shooting control system is a wireless controller that integrates manual and automatic control and adjustment of camera parameters.

This system features high stability and an industrial-grade wireless data transmission station. It adopts Lora spread spectrum transmission, RS232 and RS485 interfaces. By adopting an efficient cyclic error correction algorithm, it features high coding efficiency and strong error correction capability, significantly enhancing the radio's anti-interference performance and high stability.

Dimensions: (L*W*H) 325mm*198mm*64mm

Power supply: 12V;

Applications: 4K video shooting, studio, live media streaming, multi-camera shooting;

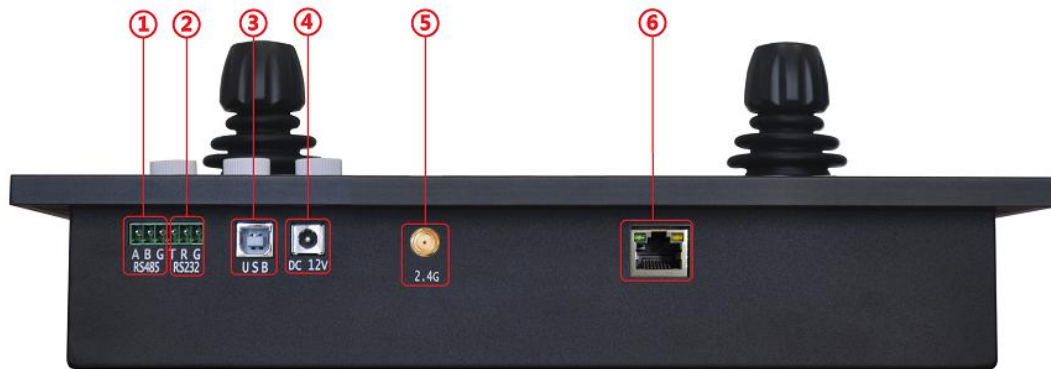
Camera control: It can control the camera's push, pull, pan, tilt, and tilt, as well as camera Settings such as white balance, auto white balance, one-key white balance, manual focus, manual shutter adjustment, manual aperture adjustment, and menu operation. It can also control the camera's zoom, focus, aperture, and video recording functions;

Slide rail vehicle control: Control the forward and backward movement, acceleration and deceleration of the rail vehicle, track cruise, preset position, and smooth start and stop;

Elevator control: Control the ascent and descent of the elevator, as well as its speed and direction;

Preset shooting trajectory: The lifting system, the sliding track pulley system and the camera PTZ system control form an integrated multi-axis synchronous automatic shooting system, which can achieve multi-axis repetitive trajectory shooting. And it can adjust the speed and switch directions. It can achieve multi-axis synchronous automatic control of pan-tilt units, track vehicles and lifting systems. Through the built-in encoder of the servo motor, the position of the track vehicle's operation can be precisely recorded. Based on this, on the control console, two virtual start and end points can be set for the track vehicle. Whether it is acceleration and deceleration, constant speed cruise or course switching, it can operate within a safe range between these two points, achieving automatic cruise shooting。

三、Interface Description of the Precision Intelligent Shooting Control System



① : (AB) Terminal 485 interface, through which the camera can be connected to achieve individual control of the camera.

② : (TRG) Terminal 232 interface, TR respectively sends and receives, G is grounded, and the camera can be connected through the 232 interface to achieve individual control of the camera.

③ : After connecting the virtual recording and broadcasting device via the B-type USB interface, the real-time trajectory of the rail vehicle can be viewed on the software.

④ : DC 12V power interface. It needs to be connected to a 12V power supply. Do not use a power supply with excessively high voltage.

⑤ : A 2.4G antenna can enhance the control signal of the rail vehicle.

⑥ : Connect the keyboard to the network and use the FREED function

四、Function Description of the Precision Intelligent Control System

1.Menu Introduction



①: Record the trajectories of the track car and the camera. When the indicator light is on, start recording; when it is off, stop recording;

②: Play the recorded tracks of the track car and the camera. When the indicator light is on, the playback starts. When the indicator light is off, the playback is completed;

③: Start or stop all camera recordings;

④: The camera at the current position starts recording;

⑤: Stop the recording of the current camera position;

⑥: Camera position address, capable of simultaneously connecting 10 groups of cameras;

⑦: Control the forward, backward and lifting functions of the track vehicle;

⑧: The display shows the status of the NDI camera and its memory capacity;

⑨: The preset positions of the camera can enable the camera to quickly return to the previously set position. There are a total of 9 groups available for use;

⑩: (SET) The confirmation key for the preset point of the camera. After adjusting the position of the camera, you need to press this key to confirm for a successful setting;

⑪: (FAST/SLOW) Adjust the speed of the camera and the track car. The speed

when the indicator light is on is fast, and the speed when the indicator light is off is slow.;

⑫: (FOCUS AUTO) When the indicator light is on, the focal length of the camera can be automatically adjusted;

⑬: (IRIS PRI) When the indicator light is on, aperture priority is given;

⑭: (SHUTTER PRI) When the indicator light is on, the shutter takes priority;

⑮: (WB AUTO) When the indicator light is on, the white balance is automatically adjusted;

⑯: (ONE PUSH) One-click adjustment of white balance;

⑰: (IRIS) Manually adjust the aperture. You can adjust the aperture by rotating the knob;

⑱: (SHUTTER PRI) When the indicator light (SHUTTER) is on, the shutter can be adjusted. The shutter can be adjusted through the knob. The light-off adjustment adjusts the movement speed of the track car and the camera, which is divided into a total of 8 gears;

⑲: (FOCUS) Manual focus adjustment can be achieved by using the knob;

⑳: The PTZ controls the left, right, up, up and focal length of the camera (the focal length of the camera can be adjusted by rotating the joystick);

Note: ⑫⑬⑭⑰⑱⑲ are respectively automatic and manual. In automatic mode, the manual knob cannot be used.

The usage method of the keyboard menu

To turn off the autofocus button ⑫, press and hold the ⑲ key for 4 seconds to open the keyboard menu as shown in the following figure

Operation: Rotate the button up and down to select the menu, and press it again to confirm the function

First-level menu	Secondary menu
SEARCH	The found IP address can be displayed and new IP addresses can be added
CAMERA LIST	Display all the cameras found. DEL: The camera address can be selected through the knob
NET SETTING	Display the IP address, subnet mask and gateway of this machine
BAUD RATE	Set the baud rate of this machine: 9600 and 115200
FREED	Set the switch, IP address and port for this

	function
REVERSE	Set the running directions of the track car and the camera according to the on-site conditions

Keyboard working mode Settings

Connection method	FREED Switch	Baud rate	Explanation
Wireless connection	OFF	9600	Return location information via the USB interface via the USB Private Location Protocol
Wireless connection	OFF	115200	Invalid. The keyboard cannot control the rail car. Wireless shutdown is available. It can only control Camera No. 1 and query the recording status of Camera No. 1
Wireless connection	ON	9600	Return location information through the USB interface and network port, FREED protocol
Wireless connection	ON	115200	Invalid. The keyboard cannot control the rail car. Wireless shutdown is available. It can only control Camera No. 1 and query the recording status of Camera No. 1
Wired connection	OFF	9600	No location information
Wired connection	OFF	115200	Return location information through the USB interface, private location protocol, can only control Camera No. 1 and query the recording status of Camera No. 1
Wired connection	ON	9600	No location information
Wired connection	ON	115200	Return location information through the USB interface and network port, FREED protocol. Only control Camera No. 1 and query the recording status of Camera No. 1

Note: The VISCA OVER IP protocol is always valid

2.Usage of the recording function



Record/Stop track button

❶ Track recording using rail cars (using the first set of preset points as an example) :

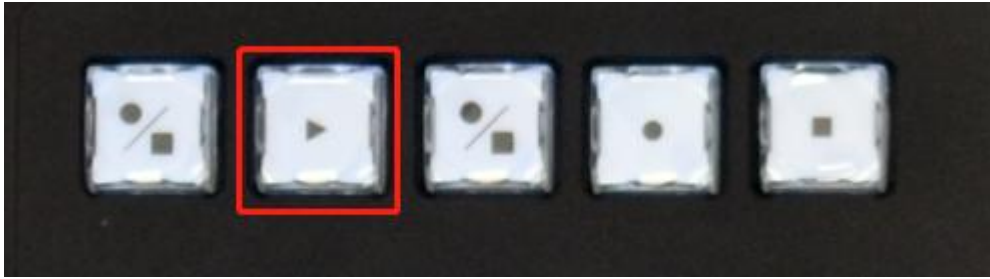
(1).First click the first set of preset points (if the indicator is on, the selection is successful).

(2).Move the rail to the starting point (the starting point can be arbitrarily moved as needed).

(3).After the trolley moves to the starting point, click the "Record" button (❶) to start recording (the indicator light is recording).

(4).the recording begins by ⑦ and ⑳ to move the car direction, focal length, height, and adjust the camera position, controlled by a handle ⑦rail cars moving backward, rocker to control the rise and fall of the rail cars up and down, up and down through the joystick (㉔) to control the direction of the camera, the left-right rotating joystick to control the focal length of the camera.

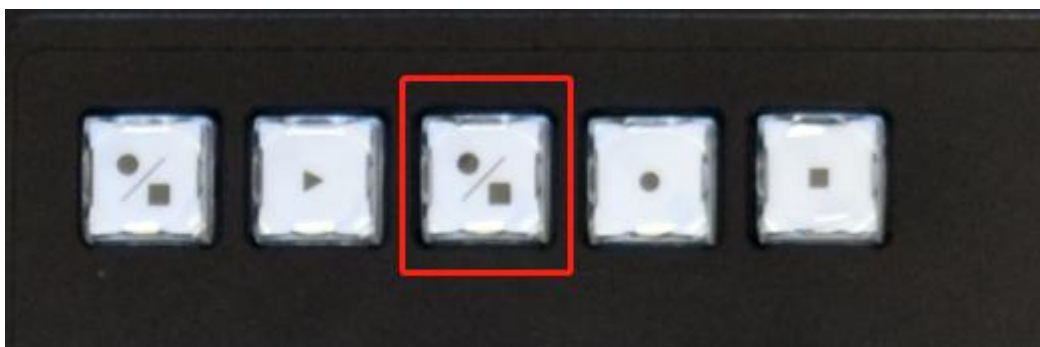
(5).After the recording is complete, press the ❶ key to turn off the indicator.



Play track button recorded by rail car

② Using rail cars to play recorded tracks (using the first set of preset points as an example) :

- (1).First press the first set of preset points to return the rail car and camera to the starting position before recording.
- (2).After returning to the starting point, press the play button (②), and the indicator will light up and start playing.
- (3).During playback, the rail car will follow the previously recorded trajectory
- (4) .After the playback is complete, the indicator of the playback button automatically turns off.



Stop button for recording on all stations

③ Press ③ for all cameras to start recording at the same time. If the indicator is on, it indicates that recording is underway. Hold down the indicator for 3 seconds to off

and stop recording.



Single bit recording and stop button

④ The keyboard (④) and (⑤) are used together. (④) is the recording button, and (⑤) is to stop recording. (Take camera location 1 and 2 as an example.

(1).First, select camera position 2 (the indicator light of camera position 2 is on).

(2).Press ④ to start recording. At this time, only the camera in position 2 is recording.

(3).Then select camera 1 and press the ④ key to start recording. Video is being recorded in camera 1.

(4).⑤ To stop recording, you can select the camera you want to stop recording. You can press ⑤ to stop the camera in your own camera.



Camera control address

⑤ Camera position ⑥ Application (Take 10 groups of cameras as an example) :

(1).There are 10 groups of camera stands, which can control 10 groups of cameras respectively.

(2).It needs to match the address of the camera.

(3).After finishing, press camera position 1-10 respectively. The indicator of which key will light up. You can use PTZ to control the camera of which position.



Preset point setting

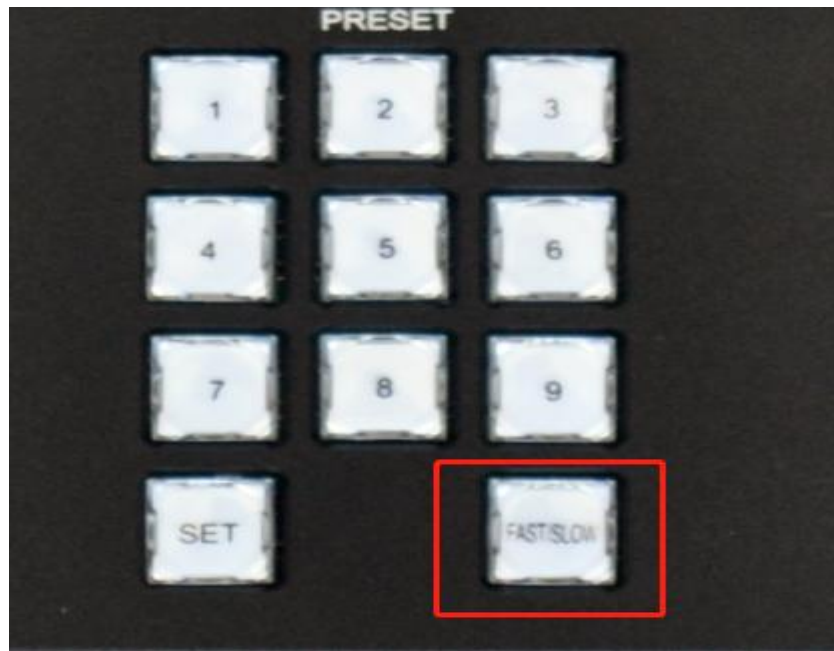
⑥ Preset point Settings

(1).There are nine groups of preset points. Nine preset points can be set at the same time (take 1 as an example).

(2).First, press button 1 of the preset point to make its key indicator light up.

(3).Then press SET (⑩) before moving the rail car and lens to the starting point. The SET key will light up to indicate that the setting has been successful.

(4).Remove the rail car and press preset point 1. The rail car and lens will return to the starting point set earlier.



FAST/SLOW Speed switching

⑦ FAST/SLOW key: Controls the speed of the rail car and camera :

- (1).When controlling the rail car, the indicator light of the button is fast, and the speed of the control rail car and the camera will be relatively fast.
- (2).When the indicator light of the button is off, the control speed of the rail car and the camera will be slower.

Note: When switching to fast mode, due to the inertia of the equipment, beware of the rail car rushing out of the track and damaging the equipment.

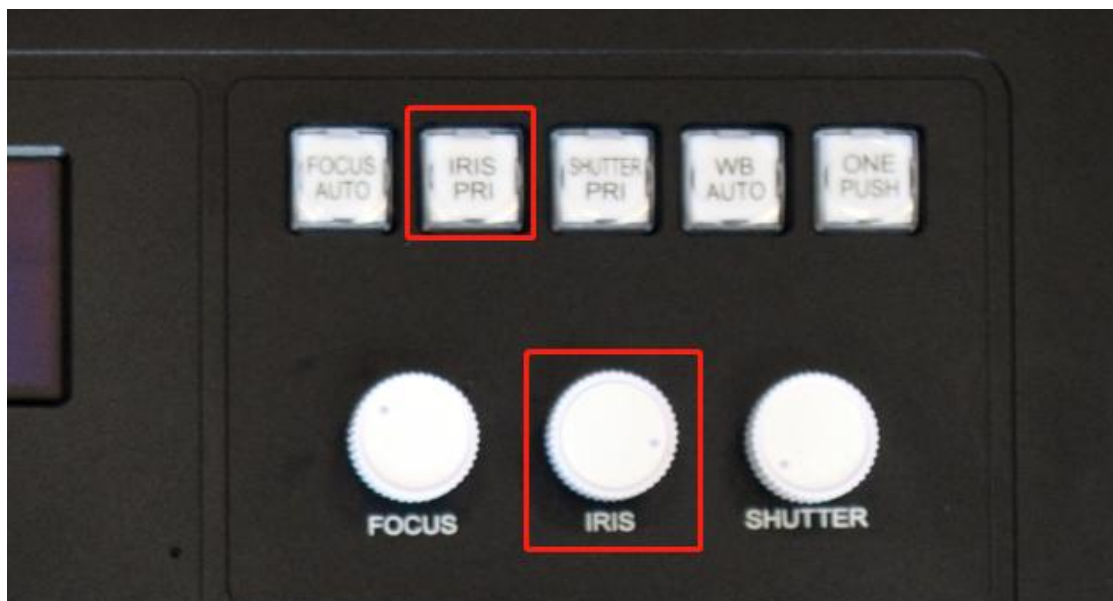


Auto focus versus manual focus

⑧ How to use autofocus and manual focus :

- (1).The FOCUS AUTO button indicator lights up to automatically focus on the camera in the current position.
- (2).The FOCUS knob can be turned left and right to focus.

Note: Manual FOCUS cannot be used after the FOCUS AUTO indicator is on.



Aperture priority and manual aperture

⑨ Aperture priority button and manual aperture use method :

(1).IRIS PRI key indicator light is aperture priority. Is to adjust exposure to the standard aperture.

(2).IRIS can adjust exposure manually with a knob.

Note: Manual adjustment of IRIS PRI key after the light is on cannot be used.



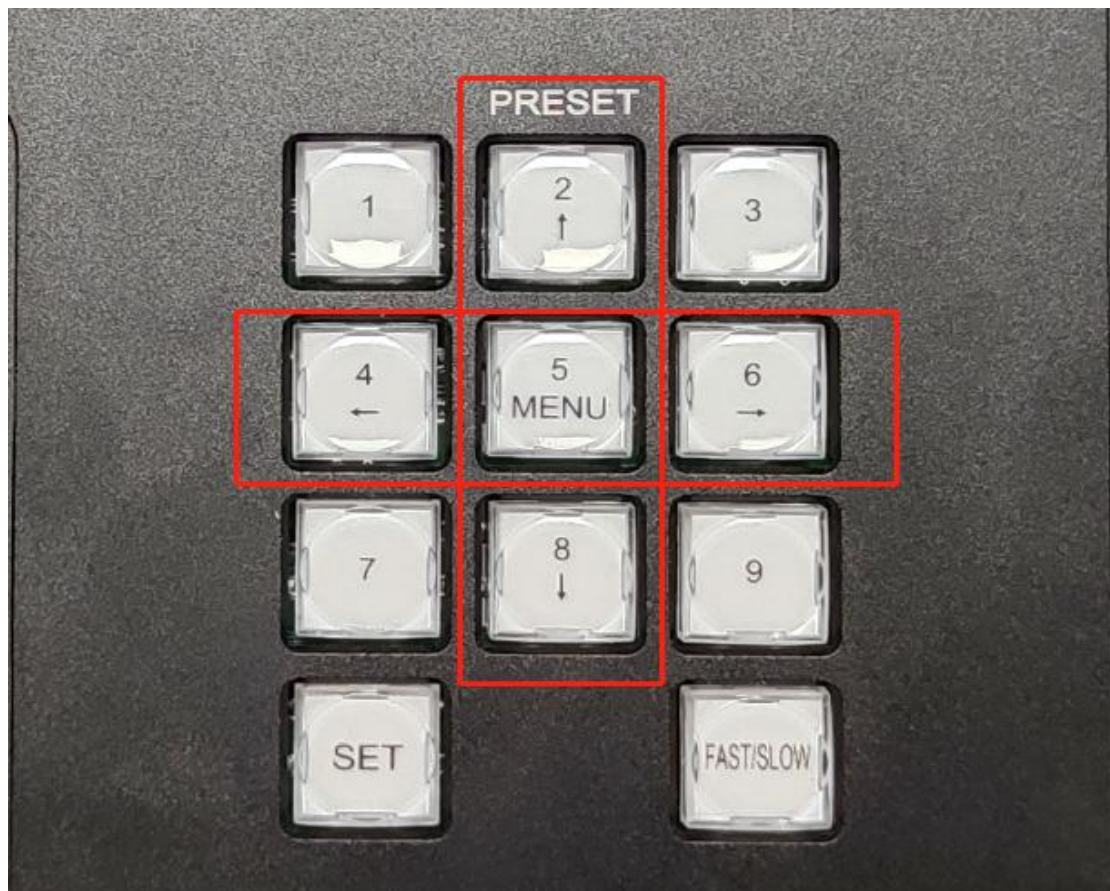
Shutter priority with shutter knob

⑩ Shutter priority with manual shutter adjustment method :

(1).The SHUTTER PRI indicator light is on, and the exposure is adjusted according to the shutter as the standard.

(2).SHUTTER knob to manually adjust the exposure.

Note: Manual knobs cannot be used after the SHUTTER key indicator lights up.



Camera menu shortcut key

3. Use the intelligent shooting control system to debug the camera menu

(1). Press and hold the MENU (5) key for 3 seconds. The indicator of 2.4.5.6.8 will light up, and the Camera menu page is displayed.

(2). Using the 2.4.6.8 Key Selection menu, press 5 to enter the OK key.

(3). Long press 5 again to exit the menu.



The rocker that controls the rail car

4. Rail car operation procedure

- (1) First, ensure that the device is properly connected and connected to the power supply.
- (2) Move the rocker left and right up and down in the above picture to control the advance, retreat, rise and fall of the rail car.
- (3) The rocker tosses the rail car forward to the left, backward to the right, upward to lift, and downward to lift down.

5. Camera control operation procedure

- (1) The camera is connected to the rail car and the control system.



Camera address

(2) .Select the camera address through the above picture (select the camera position to be controlled).



The red box automatically adjusts the focus and exposure of the camera

The yellow box is for manually adjusting the focus and exposure of the camera

(3) Adjust camera exposure by manually turning the knob or automatic button on the above picture.



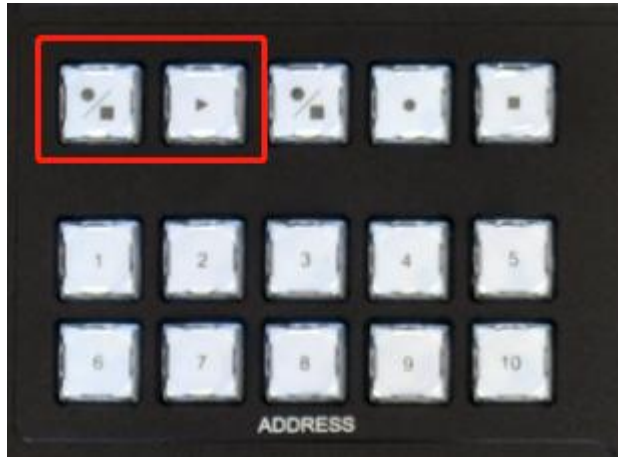
The picture shows automatic white balance and one - button white balance

(4).Adjust the camera by using the key automatic white balance and one key white balance in the pictures above.



PTZ

(5).After adjusting the camera, the left, right and focal length of the camera can be controlled by the PTZ in the above figure. The left and right azimuth of the camera can be controlled by the left and right toggle, and the pitch Angle of the camera can be controlled by turning the rocker to the left and right.



Rail car records and plays keys

6.Track recording and playback of rail cars

- (1).Firstly, select the camera position (there are 10 groups of camera positions in total. Select the one you want to record and control it according to the actual camera position)..
- (2).Select preset points of rail car (9 groups of preset points can be selected according to site requirements).
- (3).The position of the railcar camera is adjusted by controlling the rocker and PTZ rocker of the railcar.



- (4).Press the SET button after the adjustment Set preset point.



- (5).Select record button Start recording track, track made by rail car and camera will be recorded after the record button indicator lights up, which can be controlled by PTZ and rail car rocker.



- (6).Press the key once The record track stops, and the indicator of the key

turns off.

(7).After recording, press the preset point of the previous recording (press 1 if the previous recording was made with the first group). The rail car will return to the starting point before recording, and when the rail car stops, click the play button



, At this time, the key is on, the light is off, and the playback is finished.

Different tracks can be recorded in nine groups.

五、 Packing list

USB-B cable *1set

2.4G antenna *1set

485/232 terminal *1set

12V power cable *1set

specification *1set

六、 Contact US

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