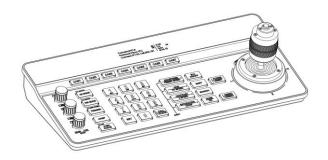
IP&Serial Joystick Remote Control Keyboard



User Manual V1.2

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1. Security Guidance



- Before using the product, please read this safety instruction carefully, operate strictly in accordance with the instruction manual, and keep this manual properly for future reference.
- The standard power supply voltage is DC 12V and the rated current is 1A. It is recommended to use with the power adapter that comes with the product.
- Please place the power cable and control cable in a place where they will not be trampled on, and protect the cable, especially the connection part must be firm.
- Please use this product within the allowable temperature and humidity range. Operating temperature: -10°C~50°C, humidity ≤ 80%.
- Do not spill liquids, especially corrosive liquids, on this product to prevent danger.
- Please don't put heavy pressure, violent vibration and immersion during transportation, storage and installation to avoid damaging the product.
- Please do not disassemble this product without permission, there are no parts inside the machine that can be repaired by the user, please leave the work to qualified maintenance personnel.
 - Power supply polarity:



1.2 Notice:

- Please refer to the actual product, the user manual is for reference only.
- Please contact our Customer Service Department for the latest procedures and additional documentation.
- In case of doubt or dispute in the user manual, the final interpretation of the company shall prevail.

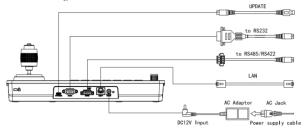
2. Check Before Using

2.1 Packing List

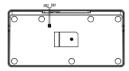
When opening the package, please check and confirm all the accessories that should be provided.

Control keyboard	··· 1PCS
Power Adapter · · · · · · · · · · · · · · · · · · ·	··· 1PCS
Power Cord	··· 1PCS
RS232 Cord	··· 1PCS
User Manual · · · · · · · · · · · · · · · · · · ·	··· 1PCS
Certificate of Conformity · · · · · · · · · · · · · · · · · · ·	··· 1PCS
Warranty Card · · · · · · · · · · · · · · · · · · ·	
Onick Guide	1PCS

2.2 The Wiring



2.3 Bottom Dialing Switch



Bottom dial control					
Mode	SW-1	SW-2	Description		
1	*	OFF	ARM Upgrade Mode		
2 * ON Normal Working Mode					
SW-1 is reserved, no function defined					

===== 3. Keyboard Description **=====**

3.1 Functional Features:

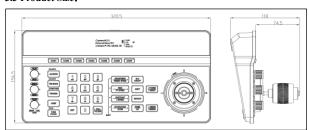
- ★ Support network interface, RS232 interface, RS422 interface and RS485 interface for control.
- ★ Supports VISCA Serial, Pelco-P, Pelco-D, VISCA over IP, VISCA TCP, VISCA UDP, ONVIF, and NDI protocols for control. (NDI protocol is optional.)
- ★ With seven camera shortcut control buttons, to improve the speed of multiple cameras control switching, convenient and fast.
- ★ Support setting different protocols to control multiple cameras with different protocols.
- ★ Support one keyboard to control multiple cameras, also support multiple keyboards to control a camera through the network interface.
- ★ Adapts four-dimensional joystick to enable the control of the video camera PTZ movement smoothly and flexibly.
 - ★ Support to set different levels of operation permission via OSD menu.
- ★ Support button keys backlight, enable users to choose automatic backlight in low light or dark environment.
 - ★ Support set, call and clear presets.
- ★ Support camera PT speed and zoom speed adjustment, while supporting preset position PT speed and zoom speed adjustment.
 - ★ Support daisy chain function. (Max 7 cameras are available)
 - ★ Support camera OSD menu setting.
 - ★ Supports standard POE (Power Over Ethe).
 - ★ Support 10M, 100M adaptive network RJ45 connection.
 - ★ Support both Chinese and English menu interface.

3. Keyboard Description

3.2 Technical Specifications:

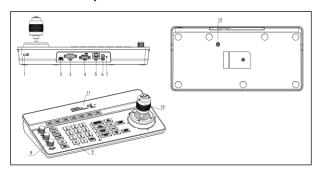
Parameters Indicators			
Control Interface	RJ45,RS232,RS422,RS485		
RJ45	Ethernet port, POE (IEEE802.3af)		
RS232	DB9 male connector		
RS422	3.81 spacing terminal, T+, T-, R+, R-		
RS485	3.81 spacing terminal, T+, T-		
Support Protocols VISCA Serial, Pelco-P, Pelco-D, VISCA or VISCA TCP, VISCA UDP, ONVIF, NDI(op			
Upgrade Interface	Type-C		
Display Screen	3.12" OLED screen, blue light, 256×64 pixels		
Working power	12V-1A		
Working Temperature	-10°C~50°C		
Working Humidity	≤80%		
Storage Temperature	-20°C~60°C		
Storage Humidity	≤90%		
Size	320.5mm×156.5mm×118mm		
Weight	1.05kg		

3.3 Product Size:



2222 3. Keyboard Description

3.4 Interface Description:

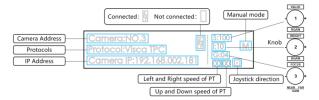


Lock hole
 S. Network interface
 9. Button
 Upgrade interface
 6. Power interface
 10. Joystick

3. RS232 interface 7. Indicator light 11. Display screen

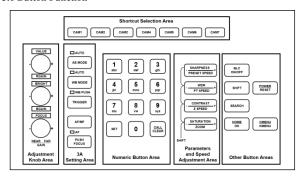
4. RS485 interface 8. Adjusting knob 12. Dial switch

3.5 Display Screen Content:



222 3. Keyboard Description

3.6 Button Function

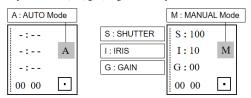


3.6.1 Shortcut Selection Area

[CAM1] ~ [CAM7] Select the corresponding camera.

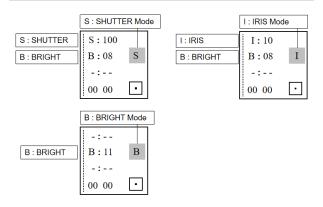
3.6.2 Adjustment Knob Area, 3A Setting Area

【AE MODE】 There is the word "AUTO" next to the button AE MODE. When the "AUTO" light is on, automatic exposure mode is triggered; when the "AUTO" light is OFF, the other modes manual exposure, shutter priority, iris priority, bright priority can be selected, and at this time, the three knobs on the left side of the keyboard can adjust the shutter, iris, gain, bright and other parameters.

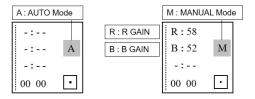


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== 3. Keyboard Description **==**



[WB MODE] There is the word "AUTO" next to the button WB MODE. when the "AUTO" light is on, it is AUTO and ATW mode; when the "AUTO" light is off, the manual, indoor and outdoor, Sodium lamps, fluorescent lamps mode can be selected, then the camera red gain and blue gain can be adjusted through the first two knobs on the left side of the keyboard.



2222 3. Keyboard Description

【TRIGGER】 In Onepush mode ("WB PUSH" light is on), the automatic white balance is triggered once.

【AF/MF】 There is the word "AF" next to the button AF/MF. When the "AF" light is on, it is the automatic focus mode; when the "AF" light is off, it is the manual focus mode, which can be adjusted by the third knob on the left side of the keyboard.

Note: When the exposure mode and focus mode are both manual, the 3rd knob gives priority to adjusting the focus.

【PUSH FOCUS】 Triggers autofocus once.

3.6.3 Numeric Button Area

- $[0\sim 9] + [SET]$ Set the presets.
- [0~9] + Short press [CALL/CLEAR] Call the presets.
- [0~9] + Long press [CALL/CLEAR] Clear the Presets.

Note: Up to 128 presets can be set and recalled.

3.6.4 Parameters and Speed Adjustment Area

[-SHARPNESS+/-PRESET SPEED+] Adjust the sharpness. / Adjust the preset speed.

【-WDR+/-PT SPEED+】 Adjust the WDR. / Adjust the camera PT speed.

[-CONTRAST+/-Z SPEED+] Adjust the contrast. / Adjust the camera zoom speed.

[-SATURATION+/-ZOOM+] Adjust the saturation. / Adjust the camera lens zoom.

Note: Press the SHIFT button to switch between parameter setting mode and speed setting mode, and the display will show "S".

When "S" is shown on the display, these 4 buttons can be used for parameter setting.

== 3. Keyboard Description **==**

When the display does not show "S", these 4 keys can be used for speed setting and zooming.

Camera:NO.3

Protocol:Visca TPC

Camera IP:192.168.002.181

S:100

I:10

M

G:04

00 00 □

3.6.5 Other Button Areas

BLC ON/OFF Backlight compensation on / off.

【SHIFT】 Switch between parameter adjustment mode and speed adjustment mode.

SEARCH Search for IP addresses.

【HOME/OK】 Return to the original position of the camera.

[POWER/RESET] Short press to control the camera power, long press to reset the camera.

【CMENU/KMENU】 Short press to open the camera menu, long press to open the keyboard menu.

3.6.6 Joystick Control

[Up] [Down] [Left] [Right] Offset the joystick to control the camera to 4 directions.

【Zoom+】 Turn the joystick clockwise to zoom in.

【Zoom─】 Turn the joystick counterclockwise to zoom out.

[Lock] When controlling the camera, press the "lock" button, the camera keeps rotating in the previous control direction until the set lock time is exceeded or the camera rotates to the limit position.

4. Menu Setting

4.1 Operating Instructions:

- Long press CMENU/KMENU to open the keyboard menu; Adjust the joystick Up and Down to view the menu options; Right to enter the next option; Left to return to the previous option, short press CMENU/KMENU can also return to the previous option; numeric keys 0-9 can set the corresponding parameters in some options.
- 2. In the keyboard menu, you need to set the corresponding protocol, address in order to control the camera properly.

4.2 Menu options:

	Language	Chinese/English
	1~15	
BackLight AUTO/ON/OFF		AUTO/ON/OFF
System	Screen Prt	10s~180s
setting	DHCP	OFF/ON
	Locol IP	192.168.001.180 (Can be set)
	Mask	255.255.255.000
	Gateway	192.168.001.001

	Camera	The keyboard can be set with 7 addresses: CAM1~CAM7		
	Protocol	VISCA Serial, Pelco-P, Pelco-D, VISCA over IP, VISCA TCP, VISCA UDP, ONVIF, NDI(optional)		
	TD 4 11 / 4 11			
Camera IP Addr / Address		Set the camera IP address or camera address.		
setting	Port / Baundrate	Set the port or baud rate. Default port numbers for each IP protocol: ONVIF: 8000, NDI: 5961, VISCA: 52381		
	Username	Username setting, default: admin		
	Password	Password setting, default: admin		

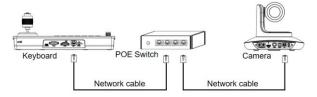
	Pan Reverse	The left and right direction of the keyboard control can be switched.
	Tilt Reverse	The up and down direction of the keyboard control can be switched.
PTZ	Preset PT Spd	Set preset PT speed: 5~24
setting	Preset Z Spd	Set preset Zoom speed: 1~7
	Foucs Speed	Set focus sensitivity: 0~7
	Lock Time	Set of lock time: 2~20(s)

	Set a new password to access the keyboard menu	
setting Enable Password switch to access the keyboard menu		Reconfirm the new password to access the keyboard menu
		Password switch to access the keyboard menu
		Keyboard program version number and update date

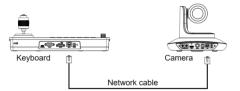
📕 5. Wiring diagram 🔼

5.1 Connection in network mode:

5.1.1 The keyboard is on the same LAN as the camera: The keyboard connects to the switch through the network cable, and the camera connects to the switch through the network cable. In the same LAN, set the same network segment, and set the corresponding protocol, IP address and port number, you can control the camera through the keyboard.



5.1.2 The keyboard is directly connected to the camera: The keyboard is connected to the camera through the network cable, set the same network segment, and set the corresponding protocol, IP address and port number, you can control the camera through the keyboard.

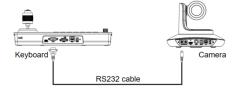


1

== 5. Wiring diagram

5.2 Connection in RS232 mode:

The keyboard connects to the camera via RS232 cable, set the corresponding protocol, address and baud rate, and you can control the camera via the keyboard.



Line Sequence: Using the RS232 connection, pin 1 RXD of the keypad is connected to the camera input interface TXD, pin 2 TXD of the keypad is connected to the camera RXD and pin 3 of the keypad is connected to the camera GND. (It is also possible to use the standard RS232 interface of the control keypad to connect to the camera



Keyboard	Camera
RXD <	> TXD
TXD <	> RXD
GND <	> GND

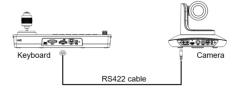
	Pin Number	2	3	5	1,4,6	7,8
DB9 Male (Pin type)	Signal Definition	RXD	TXD	GND	Internal connection	Internal connection

1

💶 5. Wiring diagram 🔼

5.3 Connection in RS422 mode:

The keyboard connects to the camera via RS422 cable, set the corresponding protocol, address and baud rate, and you can control the camera via the keyboard.



Line Sequence: Using the RS422 bus connection, the keyboard pin 1 TXD + connects to the camera's RXD-, the keyboard pin 2 TXD - connects to the camera's RXD +, the keyboard pin 3 RXD + connects to the camera's TXD -, the keyboard pin 4 RXD - connects to the camera's TXD+.

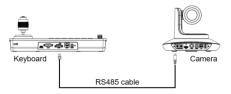
Keyboard (Camera
TXD+ <>	RXD +
TXD- <>	RXD-
RXD+ <>	TXD +
RXD- <>	TXD-

Note: Some cameras do not support RS422 control.

5.4 Connection in RS485 mode:

The keyboard connects to the camera via RS485 cable, set the corresponding protocol, address and baud rate, and you can control the camera via the keyboard.

5. Wiring diagram



 $\label{lem:Line Sequence: Using the RS485 bus connection, the keyboard pin 1 TXD + connected to the camera RXD-, the keyboard pin 2 TXD- connected to the camera RXD +. \\$

Keyboard (Camera
TXD+ <>	RXD +
TXD- <>	RXD-

5.5 Cascade in RS232, RS422, RS485 mode:

The keyboard connects the RS232-IN port of camera No. 1 through RS232, RS422, RS485 lines, and then connects the RS232-IN port of camera No. 2 through the RS232-OUT port of camera No. 1 with a cascade line, and finally sets the corresponding protocol, address and baud rate on the keyboard to control camera No. 1 or camera No. 2 through the keyboard.

== 5. Wiring diagram **==**



Line Sequence: Using RS232 cascade connection, the output of the keyboard is connected to the input of camera No. 1, the output of camera No. 1 is connected to the input of camera No. 2, and so on.

Keyboar	rd C	amera NO.1	L C	amera NO.2	Camera NO.3
RXD	<>	TXD IN		RXD OUT	
TXD	<>	RXD IN		TXD OUT	
		TXD OUT	<>	RXD IN	
		RXD OUT	<>	TXD IN	
GND	<>	GND	<>	GND	

The connection method using RS422 and RS485 cascade is roughly the same as that of RS232.

== 6. WEB Configuration

6.1 Login WEB

The keyboard and computer connected to the same LAN, open the browser, enter the IP address (default IP address is 192.168.1.188), enter the login interface, you can choose the language (Chinese or English), enter the username and password to login, as shown on the right.

Keyboard Control



(Default username: admin Default password: admin)

After successful login, you will be taken directly to the system configuration screen, as shown below.



6.2 Device Control

6.2.1 Device Search

Search for IP addresses and protocols of cameras on the same LAN and add them to the keyboard configuration; you can also add camera IP addresses and protocols manually.

6.2.2 Device Configuration

Modify and delete the IP address, protocol and port number of the already configured camera.

== 6. WEB Configuration **==**

Device Search

All	~	Search	Manually Ac	id	
Index		IP		Protocol	Actions
0		192 168 3	2.101	Onvif	Add

Device Configuration

ID	IP	Protocol	Actions
1	192.168.1.128	VISCATCP	Config Del

6.3 Ethernet Parameter

Set the network parameters of the keyboard, including DHCP switch, IP Address, Netmask, Gateway, DNS,



IP Address Netmask Gateway DNS



HTTP Port

Save

6.4 Firmware Upgrade

HTTP Port

Check the keyboard device name and version information, and also, you can upload files to upgrade the keyboard system. Please do not power off during the upgrade process.

| Firmware Upgrade

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 Control Version
 1.0.0.1

 Device Name
 TV3308 Camera

 Bootloader Version
 V1.0.0

 System Version
 V1.0.0

 APP version
 V263

 Upgrade
 Isselect File

6.5 Reset Options

Perform a complete reset or reboot of the keyboard.

Reset/Reboot: Resets all parameters and reboots the device.

Reboot: Reboot the device.

| Reset Options

Reset/Reboot

Reset all camera setting to their default values and reboot



22222 6. WEB Configuration	=====	6. WEB Configuration	
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6.6 Account

Set the login and password of the	Account Sett	ings
keyboard.	Account	
First enter the Account number that	Password	
needs to be set, then enter the password	Confirm Password	
4b-4		Save

Confirm Password), and then click "Save".

After setting the account number and password, please remember the account number and password, otherwise you will not be able to log in the WEB side interface.



Frequently Asked Questions				
Adverse Description	Solution Ideas			
	Check if the network cable is connected properly.			
	Check whether the camera supports the set protocol.			
	Check if the keyboard screen shows connected. The display of			
	indicates a successful connection.			
The keyboard cannot control the camera in network mode.	Check whether the IP address, protocol and port number set on the			
	keyboard are consistent with those of the camera.			
	Check if the keyboard and the camera are on the same LAN.			
	Check whether the keyboard's local IP address and the camera's IP			
	address are in the same network segment.			
	Check whether the RS232, RS422, RS485 cables are good and			
	whether the interface is loose.			
The keyboard cannot control the camera in RS232,	Check whether T+, T-, R+, R- of RS422 are connected wrongly;			
RS422, RS485 mode.	check whether T+, T- of RS485 are connected backwards.			
K5422, K5463 IIIode.	Check that the address, protocol and baud rate set on the keyboard			
	are consistent with those of the camera.			
Some cameras can be	Check if the wiring of each part is normal.			
controlled, some cameras	Check that the parameters of each address code of the keyboard are			
cannot be controlled.	consistent with those of the respective camera.			
When controlled with the keyboard, multiple cameras are controlled together.	Check that the protocols and addresses of the cameras being controlled together are consistent.			