User Manual

Professional-Grade Video PTZ Controller
with Built-in VISCA, SONY VISCA, PELCO P/D Multiple protocols
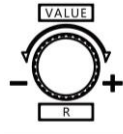
MaximusControl

Content

1. Specifications

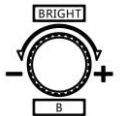| Communication Interface(All of Communication Port can working at the same time)	
RS422/RS485 Interface	4Pin Terminal
RS232C Interface	DB 9Pin Male Interface
LAN Interface	RJ45 Female Interface
Power Interface	JEITA type4 Female
Upgrade Interface	Micro USB Female Interface
Camera Control	
Max Support	255pcs PTZ Camera
Control Protocol	VISCA , PELCO P/D
Display Screen	OLED Screen
Camera Channels	7
Knobs	3
Control Signal Format	
Baud Rate	2400bps、4800bps、9600bps、19200bps、38400bps
Data Bit	8bits
Stop Bit	1bit
Parity Bit	NONE
Ethernet Protocol	UDP / TCP /IP
Power	
Rated Voltage	DC 12V
Rated Current	0.3A max
Power Consumption	3.6W
Physical	
Working Temperature	0℃～40℃（32℉～104℉）
Storage Temperature	-20℃～+60℃（-4℉～140℉）
Working temperature	Indoor
Dimension Size (L*W*H)	350mm x 173mm x 99mm
G.W（kg）	2.5kgs
Packing Accessories	User Manual / RS422 4PIN Terminal / Power Adapter

➢ 2. Key Functions

1) VALUE/R-Knobs

This knob is used for adjusting the camera's Exposure parameters, Clockwise increase the value, Counterclockwise reduces the value.

2) BRIGHT/B- Knobs

This knob is used for adjusting camera's Exposure parameters, Clockwise increase the value, Counterclockwise reduces the value.

3) FOCUS Knobs

This knob is used for adjusting camera's focal length, clockwise will adjust focus length near, Counterclockwise will adjust focus length Far; (When using this function, the keyboard's Focus mode will be changed to MANUAL, It wasn't available on AUTO Mode)
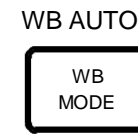
4) FOCUS Function Area

AUTO MANUAL』 Key is used for adjustment Camera's Focus Mode, When AUTO indication light is ON, then it means current model is AUTO MODE,

『ONE PUSH AF』 Key is used for trigger one time Auto FOCUS, Each time you press it, the camera focuses once, also the camera enters into AUTO FOCUS Mode;

5) WB Mode Keys   WB AUTO

This key is used to modify the camera White balance mode. Each time its pressed, it will change a to different mode. Under the different White balance modes, the R-Knobs and B-Knobs have different functions; detailed information please refer to Sheet I, When the indication light of WB Mode key is ON, Then Knob-R and Knob-B only available for white balance mode.

WB Mode	R-Knobs Function	B-Knobs Function
Auto	None	None
Manual	Red Gain	Blue Gain

Sheet I

6) AE Mode Keys   AE AUTO

This key is used to modify the Auto Exposure mode. Each time it's pressed, it will change to a different mode. Under the different exposure modes, VALUED-Knobs and BRIGHT- Knobs have different functions. The Knobs function has been displayed on the LED Screen, detail functions please refer to Sheet II

When AE Mode indication Light is ON, That means Knobs-R & Knobs -B application for Exposure parameter adjustment.

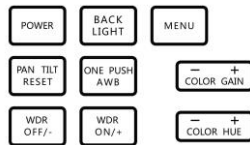| Exposure Mode	VALUE-Knobs Function	BRIGHT-Knobs Function
AUTO	None	Gain Compensation
MANUAL	Shutter	IRIS
Shutter Priority	Shutter	Gain Compensation
Iris Priority	IRIS	Gain Compensation
Brightness Priority	None	Brightness

Sheet II

7 **2.1 PRESETS Function Area**

『PRESET』Key is used to Save and Call Presets；
    SAVE Preset: Press『PRESET』Button & Relax, the light
of『PRESET』 keys starting twinkling, After that press the number of
Preset position to save the presets, e.g
『PRESET』+『1』『2』『0』, to set the number of 120 Preset.
Call Presets: Preset Number
keys+『PRESET』e.g.Press『1』+『2』+『0』, after that press
『PRESET』, then Call 120 Preset.
『RESET』Key is to clean out the Presets；
    Press 『RESET』button and relax, the light of 『RESET』key startd
twinkling, after that press the number of preset position to Clean current preset.
E,g Clean 25 presets, 『RESET』+『2』+『5』, then 25 preset is clean.

8)   **2.2 Camera function Area**

『POWER』key is to check the power status of all of the channel on
the camera, Press this key to indicate light of『CAM1』~『CAM7』
status means Camera Power status,
Green means this channel of camera is powered on, White means this
channel of camera is in standby status, No light means this channel of the
camera doesn't have connection or can't get the camera's power status.

Meanwhile press 『POWER』+『CAM1』~『CAM7』, means Turn
ON/OFF Corresponding Channel of camera Power

『BACK LIGHT』 Key is to Turn ON/OFF Back light；
『MENU』 Key is for open or closed camera or keyboard menu,
Long press『MENU』enter to Keyboard menu setting；
『PAN TILT RESET』Key is used to Reset the Pan/Tilt Position
of Camera
『ONE PUSH AWB』Key is used to trigger one time white balance,
Each time you press it the camera will calibrate White balance one time,
and the camera enters White balance Mode；
『WDR OFF/-』 Key is to Turn OFF WDR Function or reduced
Dynamic Grade Only available for Multi-grade WDR Camera）
『WDR ON/+』 Key is to Turn on WDR Function or Increased
Dynamic Grade（Only available for Multi-grade WDR Camera）
『COLOR GAIN+』Key is to increase the value of COLOR GAIN；
『COLOR GAIN-』Key is to reduce the value of COLOR GAIN
『COLOR HUE+』Key is to increase the value of COLOR
HUE 『COLOR HUE-』Key is to reduce the Valued of
COLOR HUE

9) 3-Axis Joystick

    The joystick can support Up/down, left/right and clockwise/
Counterclockwise direction rotation, It can control PTZ Camera
UP/DOWN, LEFT/Right Moving and Zoom in/Out, Clockwise rotation is
Zoom in(TELE), Counterclockwise direction rotation is Zoom out(WIDE).
Enter the camera or keyboard menu, Joystick can move cursor and
modify parameters.

10)   2.3 Channel short Keys Area

    『CAM1』~『CAM7』is the short key to switch the channel of camera.
When you press 『 CAM1』Button, the indication of light of keys is green,
then now all of the keyboard display information is means Camera1, All of
the channel of camera can working with different communication protocol
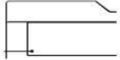& COMM Parameters.

11) 『CAM2』~『CAM7』The function & Operation is the same to above.
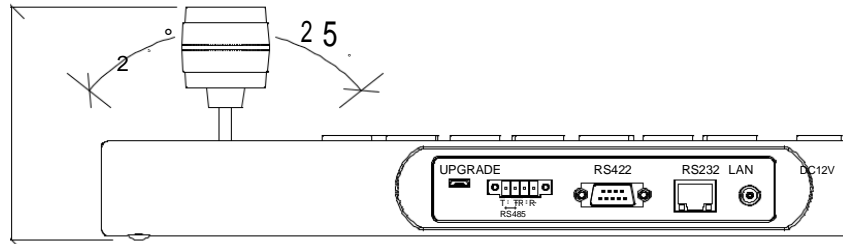   **Display Screen**

It can display current real time Keyboard status information (Including IP Address\ Port Number\COMM ID\Communication Protocol\ Baud Rate etc) and Keyboard Menu, The brightness of Display screen can be set by Keyboard Menu.

12) Light Sensor

Light Sensor is detecting the current environmental brightness. When the keyboard back light setting is AUTO, Then the keyboard will adjust it according to the environments brightness.

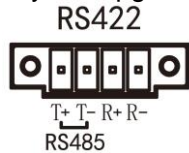- **3) Interface Function & Connection Diagram**
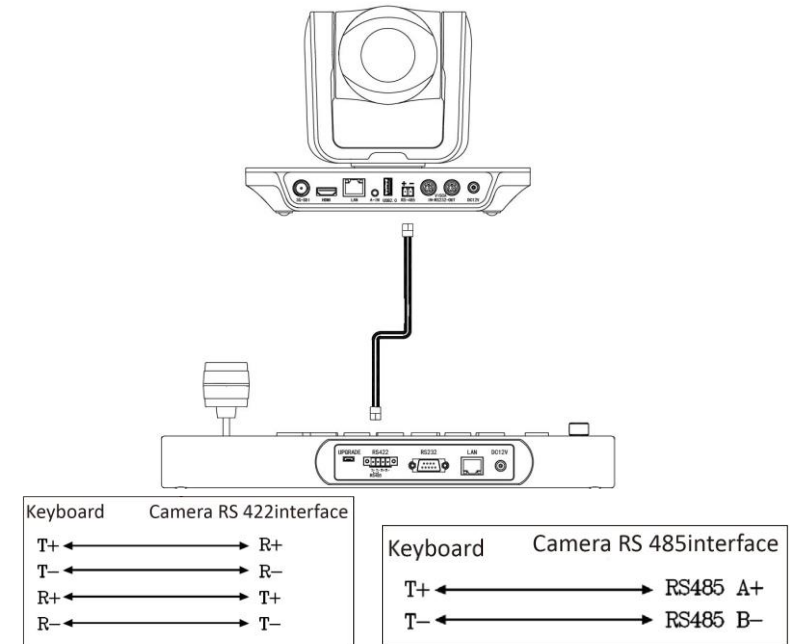

13) Upgrade Interface UPGRADE

The interface of Number 13 is for upgrading Hardware of the Control keyboard by Laptop. Using Micro USB Cable direct connection with PC, And Upgrade by our upgrade tools software.

14) RS422/RS485 Interface

This Interface is using to Connection with Camera by RS422 or RS485, detail connection diagram as follows pictures：

Keyboard	Camera RS 422interface
T+ ⟷	R+
T− ⟷	R−
R+ ⟷	T+
R− ⟷	T−

Keyboard	Camera RS 485interface
T+ ⟷	RS485 A+
T− ⟷	RS485 B−

15 **RS232 Interface** RS232

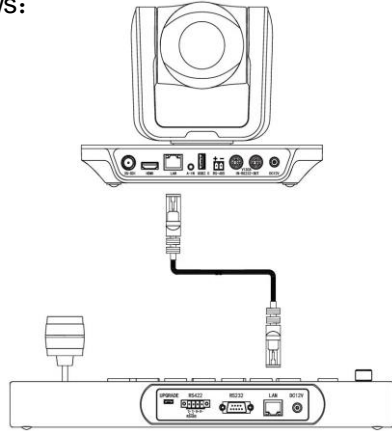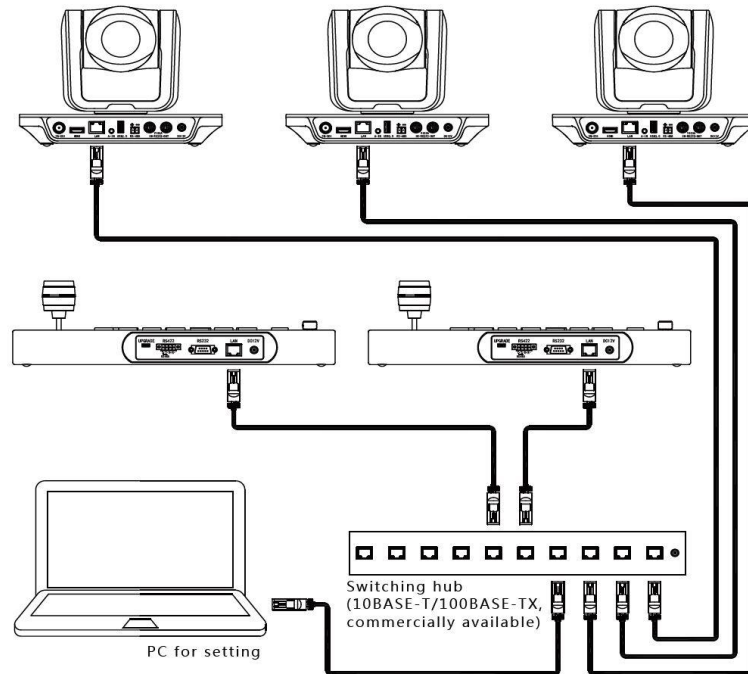For using the connection with Camera, detailed connection as follows

16) LAN Port

The LAN Interface is used for connecting with a Network switch or other Network PTZ Camera.

（1）Connect with Single Unit Network PTZ Camera connection diagram as follows：

（2）Connect with multiple cameras by LAN interface detail connection diagram as follows: (When connecting multiple cameras, you need to set the IP of each camera separately with a computer)

Switching hub
(10BASE-T/100BASE-TX,
commercially available)

PC for setting

17) 12V Power Interface DC12V

This interface is the Power supply interface, you can direct connect it with the Power adapter; please don't using non-original Power adapter.

➢ 3.1Keyboard Menu Operation

● Long Press『MENU』keys over 3secs enters Keyboard Menu.

● Swinging joystick Left & right, to Control the Cursor up/down moving or changed current menu parameter；

● Joystick turned to the right: it means enter current menu/Saved & Exit Current Menu

● Joystick turned to the left: it means exit current menu/Not saved current menu

● Press『MENU』key: It means Exit current Menu/Not saved current menu

● Press Number keys『0』～『9』：Input Number value（Only valid for menu items that require input numbers）

● Press『PRESET』key：Backspace/Return to previous input number value（Only valid for menu items that require input number）

● Press『RESET』key：To confirm current input value/ Enter to next input item（Only valid for menu items that require input number）

4. Main Menu

1. Long press【MENU】Key over 3secs, to enter Main Menu；

2. Up-Down Moving Joystick to control Cursor up-down moving

| 1. System Setting |
| 2. Com Setting |
| 3. Ethernet Setting |
| 4. Password Setting |

4.1 System Setting

Moving Cursor to 【System Setting】,Joystick toward-right to enter 【Language】

Move cursor to 【Language】, Joystick toward-right to enter language setting status,

Now the parameter options, up/down

| 1. Language   English |
| 2. LED Brightness：Normal |
| 3. Back light：   Mid |
| 4.Joystick Sensitivity：Normal ↓↓↓↓ |

【LED Screen Brightness】

Setting LED Screen Brightness, for selecting: Low\ Normal\ High

【Button Back Light】

Setting the brightness of button back lights, to select: OFF-LOW-MID-HIGH-AUTO；

When selecting "AUTO", the keyboard will adjust to environmental brightness to AUTO adjust. E.g. In the day time, it will closed the back light, when changed to night time, it will AUTO open back light

●【Joystick Sensitivity】

Setting Joystick sensitivity, for options of Low-Normal-High；

【AUTO STANDBY】

To setting keyboard enter to standby mode within limited time Wwithout any operation, it will standby after

1mins、2mins、5mins、10mins

Keyboard IP】

```
5. Auto Standby ON  ↑↑↑↑
6. Itself IP：192.168.1.88:5000
7. About Keyboard
```

Keyboard IP Address & Port Number, Default IP: 192.168.1.88, default Port: 5000

●【About Keyboard】

To check the keyboard information, including Keyboard Model No\ Version\ S/N No#

Noted：【↓↓↓↓】Indicates the menu can page down，【↑↑↑↑】Indicates the menu can page up；

➢ 4.2 COM Setting

Move the cursor to 【COMM SETTING】, Joystick toward Right to enter；

```
1. Channel:   CAM1
2. ID:            1
3. BaudRate:  9600
4. Protocol:  VISCA
```

●【CHANNEL】

To select Channel CAM1 ~ CAM 7, corresponding keyboard Keys 『CAM1』~『CAM7』；

●【ID】

Setting Communication ID Address according to corresponding Channel, If Current Communication Protocol is VISCA, Then the ID only available of 1~7

If current Communication Protocol IS PELCO P/D, then Communication ID can be optional 1~7、Others；

When the ID Settings to others, after you Exit the Menu, you can revise the Communication ID according to the Number Keys+ Corresponding Channel Keys, (e.g The ID of Channel CAM1 has been set to others, Then Press 『1』+『2』+『CAM1』, The ID of Communication of Channel CAM1 has been changed to 12

●【Baud Rate】

To set Corresponding CAM Channel setting Baud Rate, to selection 2400、4800、9600、19200、38400；

●【PROTOCOL】

To set Corresponding Channel of PROTOCOL, to select: VISCA、Pelco-D、Pelco-P

➢ 4.3 ETHERNET SETTING

Moving Cursor to 【Network Setting】, Joystick toward right to enter

●【CHANNEL】

To select the corresponding Channel 『CAM1』~『CAM7』

```
1. Channel1：CAM1
2. Cam IP ：192.168.1.160
3. Port    ：08090
```

●【IP Address】

Setting corresponding channel of Cam IP Address. It can be directly input by Digital Buttons. When the number input is 3 bits, the cursor will Auto enter next item, When the input number less than 3 bits, Press 『RESET』to confirm and enter next items; when you input wrong number, which can press 『PRESET』 to backspace;

●【PORT】

Setting UDP Communication PORT OF Corresponding Channel Camera.

➢ 4.4 Passwords Setting

Moving Cursor to 【Password Setting】, Joystick toward Right to enter

●【Password Enable】

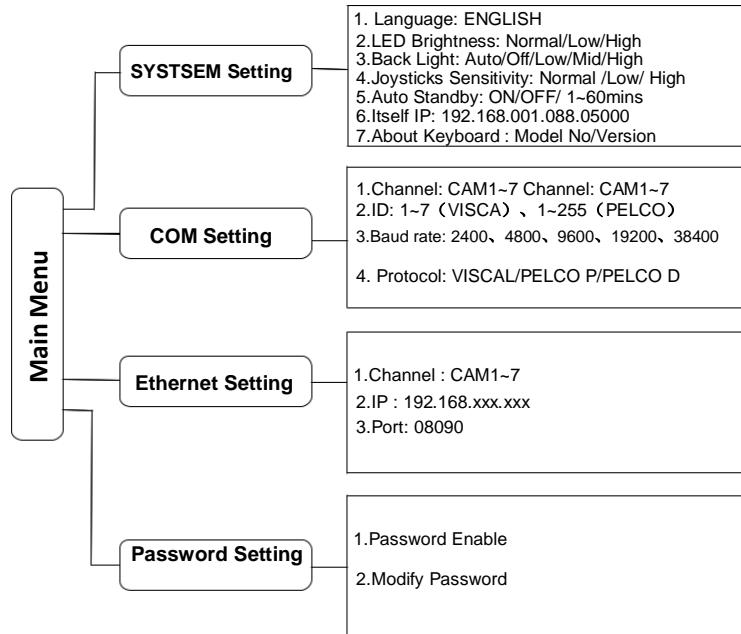Setting whether open the Passwords function, to Selection: Disable / Enable When open the Password function, Enter Menu will be need PASSWORD

Default Password : 8888
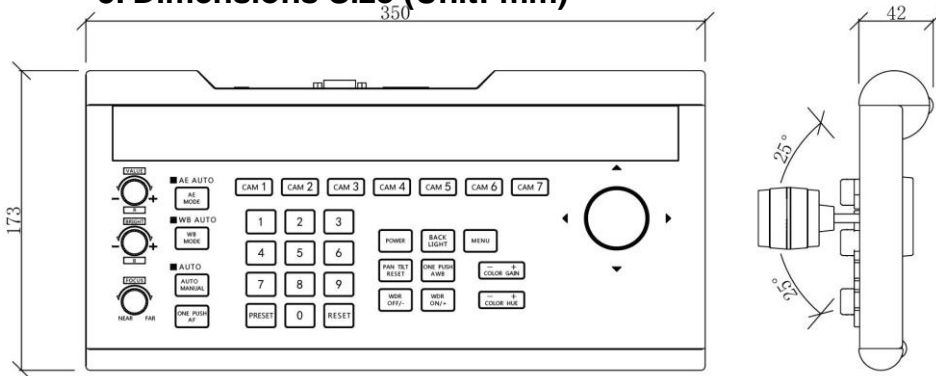
```
1. Password Enable：Disable / Enable
2. Modify Password
```

●【Modify Password】

The User can modify password, If you don't revise it, then it is the default Password

➤ 4.5 Menu Guide

Main Menu

SYSTSEM Setting
1. Language: ENGLISH
2. LED Brightness: Normal/Low/High
3. Back Light: Auto/Off/Low/Mid/High
4. Joysticks Sensitivity: Normal /Low/ High
5. Auto Standby: ON/OFF/ 1~60mins
6. Itself IP: 192.168.001.088.05000
7. About Keyboard : Model No/Version

COM Setting
1. Channel: CAM1~7 Channel: CAM1~7
2. ID: 1~7（VISCA）、1~255（PELCO）
3. Baud rate: 2400、4800、9600、19200、38400
4. Protocol: VISCAL/PELCO P/PELCO D

Ethernet Setting
1. Channel : CAM1~7
2. IP : 192.168.xxx.xxx
3. Port: 08090

Password Setting
1. Password Enable
2. Modify Password

5. Dimensions Size (Unit: mm)

6. Warranty & Maintain Service Terms
6.1 Warranty Range

● One-year Free Warranty period.

● Due to force majeure reasons (such as war, earthquakes, lightning, etc.), improper use, installation errors and other non-normal operation or accident caused by failure is not covered by the free warranty;

● During transportation and storage, prevent the product from being damaged by heavy pressure, violent vibration and rain soaking. Therefore, the damage caused is not covered by the free warranty;

● This product must be adopt split package and the original packaging materials transport, if use overall assembly packaging Damage caused by the type of product or did not use the original packaging transport, does not belong to the scope of free warranty;

● Prohibit the user without permission to disassemble the machine, the user to disassemble the repaired product, is not within the scope of free warranty. For the fault products over the warranty period, the company implemented lifetime provide paid maintenance services;