USER MANUAL

Contents

1 What's in the box

1 x Joysticker PTZ Keyboard Controller
1 x RS232 cable 2.8 meters
1 x Power adaptor
1 x User manual

2 Function

• VISCA, Pelco-D and Pelco-P protocol support.
• Large LCD Menu display.
• Key-press "BEEP" confirmation (optional – set on or off).
• Pan, tilt, zoom, iris and focus control.
• Control of pan, tilt, zoom, focus, and presets.
• Auto/Manual Focus and Iris.
• Quick preset set & call (0 – 9)
• Preset Save, Call and Clear.
• Real time display of the current status.
• Short circuit and over current protection.
• Automatic recovery program for the communication port(s).
• Variable Baud Rate 1200 to 19200 bps.
• Maximum communication distance: RS485: More than 10m(32.8ft)
  RS232: Less than 10m(32.8ft)
• Can control maximum 255 cameras via Pelco-D/P.

3 Installation

• Power Supply Interface (5.5mm x 12mm center pin JEITA style jack):
  DC 12V/2000mA power supply.
• RS485/422 interface (5p screw terminal): 1:485+/422TxA, 2:485-
  /422TxB, 3:422RxA, 4:422RxB, 5:485/422Gnd.
• RS232 interface (DB9M port): 2:Rx, 3:Tx, 5:Gnd.

4 Connection

1 RS232 connection
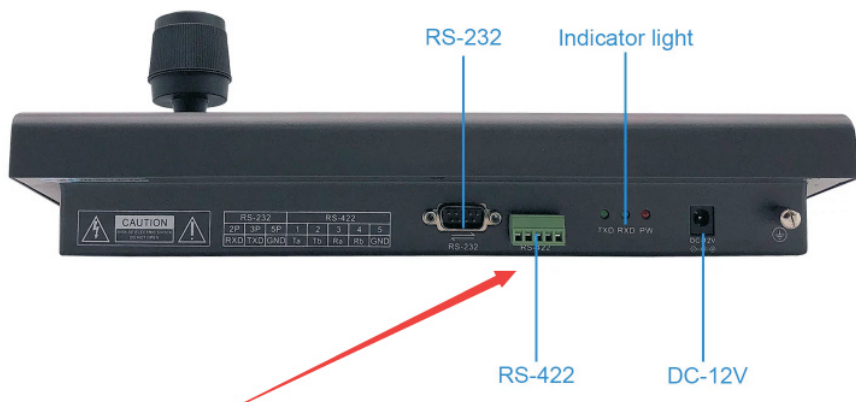
For connect the DB9 port of the KB to the mini Din8 (VISCA) port of the camera with pin-out as follows:

KB Tx – Pin 3---------- Camera Rx - Pin 5
KB Rx – Pin 2---------- Camera Tx - Pin 3
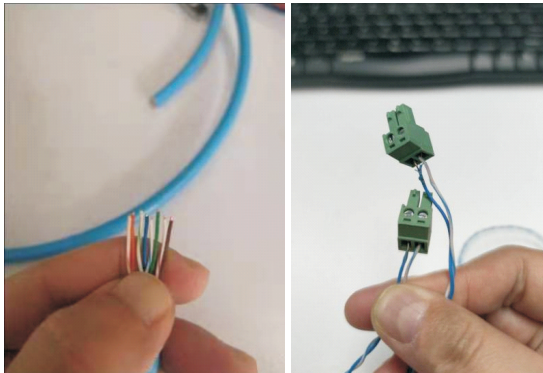KB Gnd – Pin 5---------- Camera Gnd - Pin

Note: the RS232 cable supports a maximum length of 10m. If there are interfaces of RS232 and RS485 in and out on the camera, RS232 can connect more than two cameras in series to realize that one control keyboard controls multiple cameras. If the camera only has RS232 out interface, it only supports single camera control.

2 RS485 connection

Both kinds of wires can be used as below:
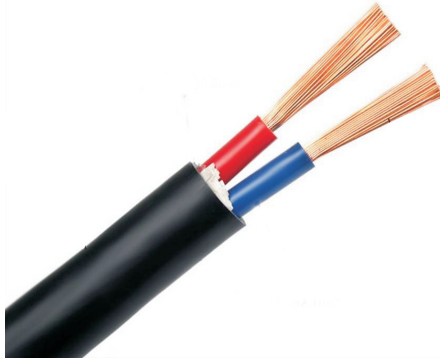
2-core oxygen free copper wire

Cat6 cable

For RS485, connect the 5p screw terminal port of the KB to the RS485 port of the camera with pin-out as follows:

KB Ta – Pin 1---------- Camera (+)

KB Tb – Pin 2---------- Camera (-)

KB Gnd – Pin 5---------- Camera (G) (if present – some cameras will not require a G

How to make the cable connected

Note: RS485 cable length supports more than 100m. RS485 can connect multiple cameras in series to realize one control keyboard to control multiple cameras.

5 How to use

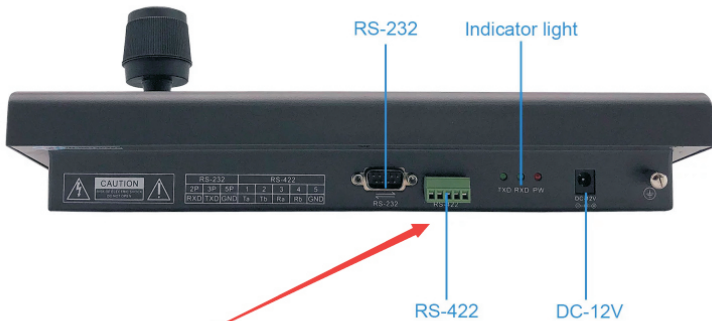5.1 Default parameters for keyboard controller and the camera:

Camera ID: 001

Protocol: VISCA

Buad: 9600

5.2 The interface of RS485 for the keyboard controller.

Note: RS485 is RS422's Ta and Tb button as below,

5.3 How to control

5.3.1. 1 keyboard controller controls 1 camera: By RS232 Control

Just connect the camera and keyboard through RS232 Cable. There is no need for any setting of the keyboard controller and camera, you can control the camera directly.

5.3.2. 1 Keyboard controller controls 2 cameras: By RS485 Control

Keyboard setting:
Camera ID: 001, 002
Protocol: VISCA
Baud: 9600
Camera setting:
Camera1: Dip setting: SW1: Dip 1----ON, others dips are off
Camera2: Dip setting: SW1: Dip 2----ON, others dips are off

5.3.3 Keyboard controller control 3 cameras : RS485 Control :
Video:https://youtu.be/srX08jmYO3U

Keyboard setting:
Camera ID: 001, 002, 003
Protocol: VISCA
Baud: 9600
Camera setting:
Camera1: Dip setting: SW1: Dip 1----ON, others dips are off
Camera2: Dip setting: SW1: Dip 2----ON, others dips are off
Camera3: Dip setting: SW1: Dip 1 and Dip 2----ON, others dips are off

5.3.4 Keyboard controller control 4 cameras: RS485 Control

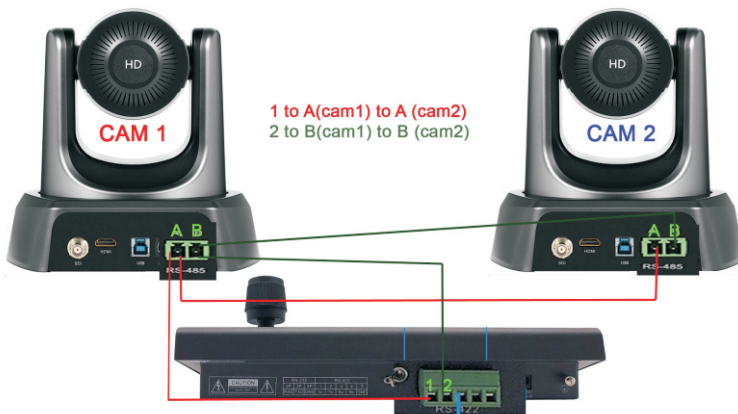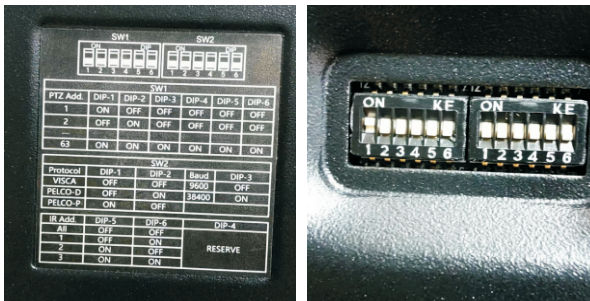Keyboard setting:
Camera ID: 001, 002, 003, 004
Protocol: VISCA
Baud: 9600
Camera setting:
Camera1: Dip setting: SW1: Dip 1----ON, others dips are off
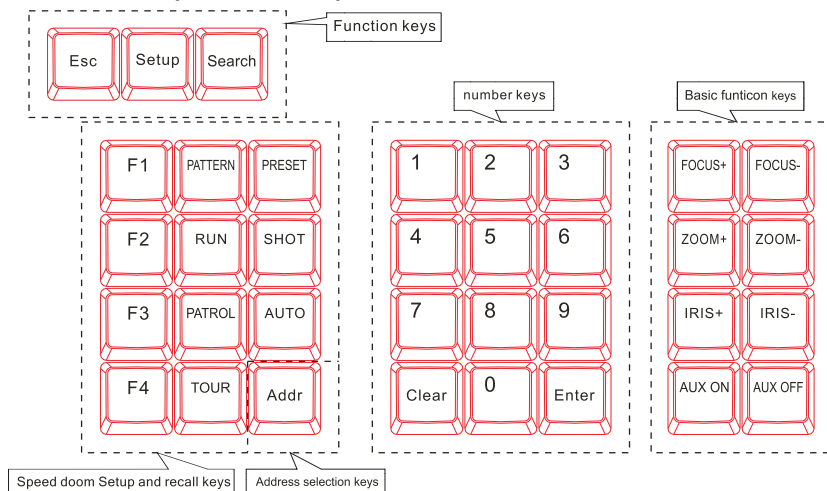Camera2: Dip setting: SW1: Dip 2----ON, others dips are off
Camera3: Dip setting: SW1: Dip 1 and Dip 2----ON, others dips are off
Camera4: Dip setting: SW1: Dip 3----ON, others dips are off
Video: https://www.youtube.com/watch?v=NkxxRAZRehw

6 Function keys

6.1 Function keys on front keyboard controller

Function keys		
Esc	Setup	Search

number keys

Basic funticon keys

F1	PATTERN	PRESET
F2	RUN	SHOT
F3	PATROL	AUTO
F4	TOUR	Addr

1	2	3
4	5	6
7	8	9
Clear	0	Enter

FOCUS+	FOCUS-
ZOOM+	ZOOM-
IRIS+	IRIS-
AUX ON	AUX OFF

Speed doom Setup and recall keys   Address selection keys

6.1.1 Function keys:

【Esc】   Back to previous menu.

【Setup】   Press for 3 secs to set up key parameters.

【Search】   Inquire The Protocol & Baud Rate Of Current Address.

6.1.2 Speed doom Setup and recall keys:

(This function might be not available for part of protocols if the speed doom does not have this function)

【F1】Auto focus,Only used in Sony camera control mode.

【F2】On/Off data screen,Only used in Sony camera control mode.

【F3】Control camera facing forward,Only used in Sony camera control mode.

【F4】On/Off power,Only used in Sony camera mode.

【PATTERN】In Sony camera control mode:manual focus;In other camera control mode:Star/Esc to pattern record of speed doom,pressing for 3S to record pattern, and end to record pattern pressed again.This key should be used

together with control knob or function key.

【RUN】   In Sony camera control mode:On/Off the backlight.In other camera control mode: Recall the stored PATTEN. This key should be used together with number key and [Enter] key.

【PATROL】   In sony camera control mode:PTZ reset.In other camera control mode:Start/Esc to patrol record of speed door,press this key to Enter patrol set, and Esc to patrol set press this key again This key should be used together with control knob or funciton key.

【PRESET】   Preset the original position of speed doom. This key should be used together with number key and [Enter] key.

【SHOT】   Recall the preset position of speed doom. This key should be used together with number key and [Enter] key. (Some special function are achieved via recalling preset, e.g. Recall speed doom menu, recall integrated menu, pattern patrol, pattern scan, linear scan, et.)

【AUTO】   Control speed doom Automatically

【Addr】   Address selection key. Select decoder address, or PTZ address.

6.1.3 Number keys:

【Clear】   Clear input.

【0】~【9】   number Key:0.1.2.3.4.5.6.7.8.9.

【Enter】   Enter confirm input.

6.1.4 Basic keys for speed doom and decoder:

【FOCUS+】   Manual focus on distant object.

【FOCUS- 】   Focus on closer object,

【ZOOM+ 】   Zoom in to object, i.e enlarge object.

【ZOOM- 】   Zoom out the lens to larger view field.

【IRIS+ 】   Increase aperture manually.

【IRIS- 】　　　Downsize aperture,

【AUX ON】　　AUX key turns on. Turn on AUX key. This key should be
　　　　　　　　used together with number key and Enter key.

【AUXOFF】　AUX key turns off. Turn off AUX key. This key should be
　　　　　　　　used together with number key and Enter key.

6.2 Keyboard controller protocol and Baud rate Setup

E.g. To set protocol of address 28 as PelcoP, Baud rate 9600.The
operations are:

In normal mode press Setup for 3sec, LCD will display:
| （KEYBOARD SET) |
| PASSWORD: |

Input password(default 8888), press 【Enter】 , LCD display :
| SET>>1 2 3 |
| CAM SET |

Press 【Enter】 , LCD display :
| SET>>CAM　　001 |
| P:PELCOD |

Press 【2】 , 【8】 and 【Enter】 key, LCD display:
| SET>>CAM　　28 |
| P:PELCOD |

Move knob leftwards, LCD display :
| SET>>CAM　　28 |
| P:PELCOP |

Press 【 Enter】 , buzzer rings, LCD display
| SET>>CAM　　28 |
| SET SUCCESS |

Move knob downwards, LCD display :
| SET>>CAM　　28 |
| BR:2400 |

Move knob rightwards twice, LCD display:
| SET>>CAM　　28 |
| BR:9600 |

Press 【Enter】 , buzzer rings, LCD display:
| SET>>CAM　　28 |
| BR:9600 |

After Setup is completed, press 【Esc】 for 3 times to back to normal
mode.

Note: To set the same protocol and baud rate for front device, Enter this
screen,
| SET>>CAM　　0-255 |
| P:PELCOD |
Then set the protocol and baud rate.

7 Keyboard/Joystick operation

7.1 Basic Control

7.1.1 Pan & Tilt Control

Joystick movement provides variable speed pan and tilt of the camera head.

7.1.2 Zoom Control

Rotation of the joystick controls variable speed zoom of the lens.
Clockwise rotation of the joystick = zoom in.
Counter-clockwise rotation of the joystick = zoom out.

7.2 PTZ Presets

7.2.1 Set a PTZ Preset

Long press "Setup" key, input password 8888, and "Enter".
Choose 2- SYS SET, ENTER, and then 2 Factory enter.
Use joystick and keyboard to set up the desired preset shot. Long Press
the "Set" key, press a "Number" key and then the "Enter" key. To leave
"Set" mode, press the "Esc" key.

7.2.2 Call a PTZ Preset

Press the "Shot" key, press a "Number" key and then the "Enter" key.
You may leave the unit in "Shot" mode and continue to enter sequential
preset calls. To leave "Call" mode, press the "Esc" key.

7.2.3 Clear a PTZ Preset

Press "Esc" key to return to main menu. Press the "Clear" key, press a "
Number" key and then the "Enter" key. To leave "Clear" mode, press the
"Esc" key.

8 Technical parameters

Model	TENVEO-KZ1
Protocol	Pelco-D, Pelco-P, VISCA
Baud rate(bps)	1200bps, 2400bps, 4800bps, 9600bps, 19200bps
Control Address	Control 255pcs PTZ at the most, address code:1-255
Communication Mode	RS485 half-duplex, RS422 full-duplex
	RS232 serial port
Communication Range	RS485, RS422: more than100m, RS232: 10m
Cascade connection number	16 sub-control at most, controller ID:0-15
Joystick	3D(control: up, down, left, right, zoom)
Interface Mode	10PIN pressing line port, DB9 connector
Display	Blue lcd
Warning Tone	Key-touch beep on/off
Power Supply	DC12V±10%
Power Consumption	6W MAX.
Working Temperature	0℃--50℃
Store Temperature	-20℃--70℃
Dimension (mm)	320×179.3×109.9
Weight （Kg）	2.8
Standard Package	5pcs/ctn
Package Weight	2.2kg/ctn

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