Zenty | Professional A/V Solution Provider

User Manual [V1.0]

PTZ Camera IP Controller w/ Joystick

ZT-156 | ZT-CC200-IP

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HDMI™ HIGH DEFINITION MULTIMEDIA INTERFACE RoHS compliant CE FC

Table of Contents

1. Key Functions

- **What is the function of CAM NUM when adding a network device?**

CAM NUM will be associated and bound with the currently entered IP and port information. It will quickly switch to the **CAM NUM** bound device when adding a device with **CAM** button.

- **How to enter English letters when setting the username, password, and custom keys of F1/F2?**

For example: to enter letter C, simply press the number key "2" three times continuously in the input interface.

- **How the enter the IP address?**

The camera controller doesn't have "." button, so enter the IP address with four segments:

Take IP address 192.168.0.1 for example, when finished inputting 192 and 168, after inputting 0, move the joystick rightward to switch to the next segment input.

- **How to clear in input mode?**

Move the joystick leftward to clear the input information.

- **The home page of each mode refers to the displayed page when controller initialization is complete.**

In IP VISCA and ONVIF mode, if you see the prompts of "Visca!" and "Onvif!", the IP address displayed on the screen is the local IP address of the controller. While the prompts of "Visca:" and "Onvif:" shown on the page, the IP address displayed on the screen belongs to the connected device.

2. Product Overview

2.1 Product Features:

There are four control modes: Two IP control modes (IP VISCA and ONVIF); Two analog control modes (RS422 and RS232)

There are three control protocols: VISCA, ONVIF, and PELCO.

2.2 Wiring Diagram

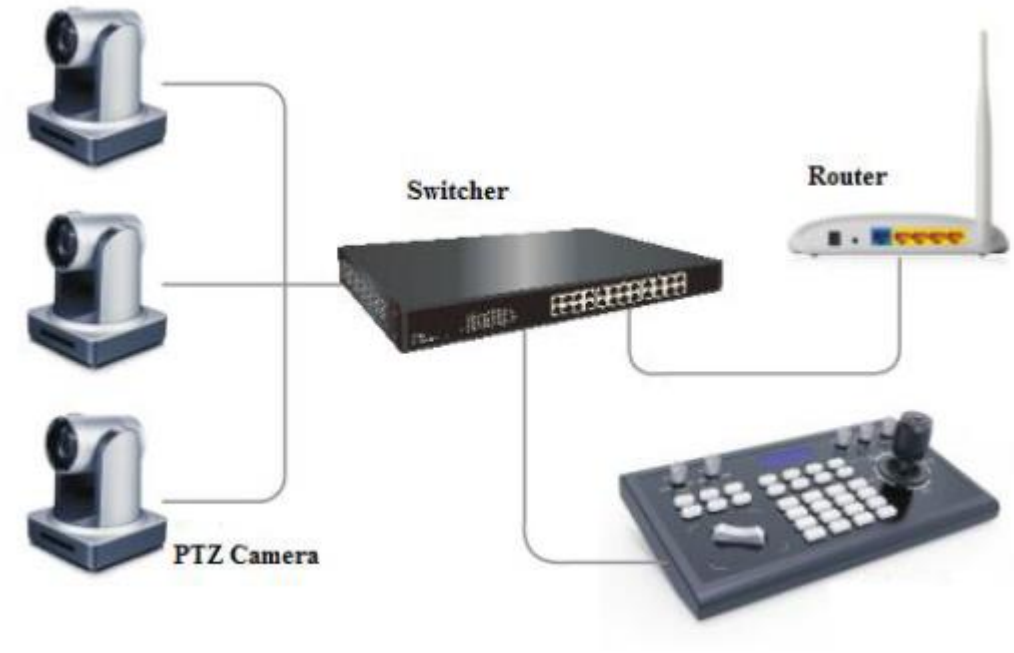
The controller and PTZ camera must be connected to the same LAN, and the IP addresses must be at the same segment.

For example:

192.168.1.123 is at the same segment with 192.168.1.111

192.168.1.123 is not at the same segment with 192.168.0.125

The default setting for IP controller is obtaining IP address automatically.



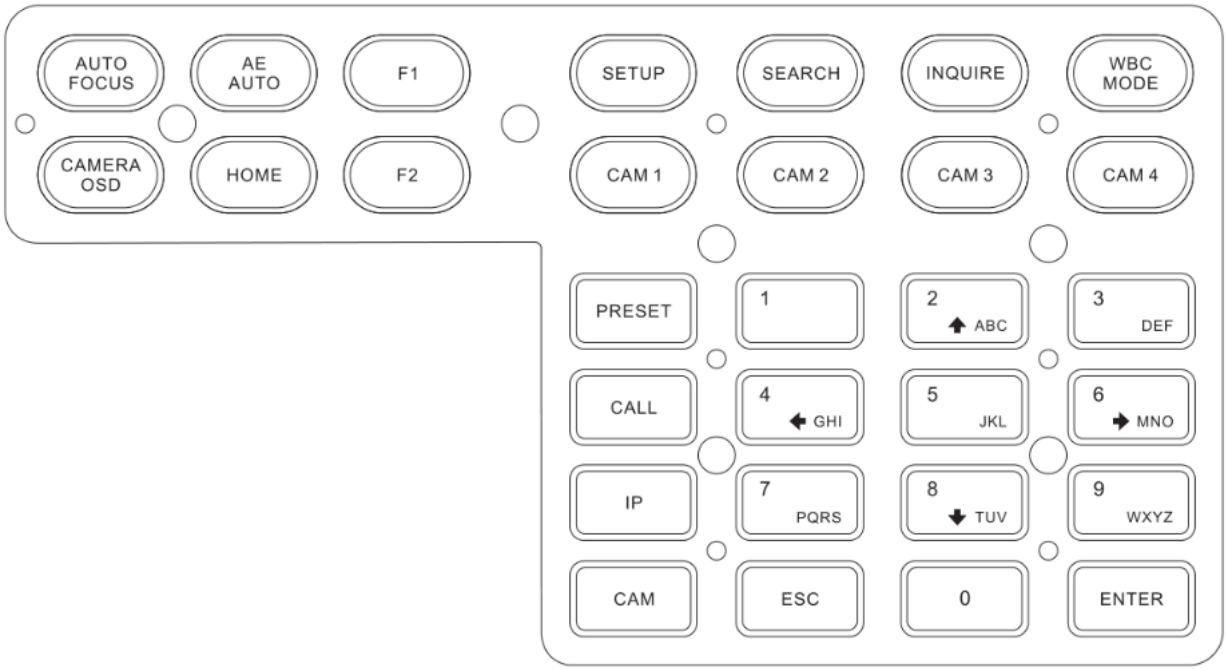
2.3 Technical Specifications

Ethernet	1 x Ethernet Port
Joystick	Four-dimensional (up, down, left, right), joystick control and clock, zoom tele/wide
Connection	Lead
Display	LCD
Prompt Tone	Button sound prompt on/off

Power Supply	DC 12V/1A
Power Consumption	0.6W Max
Operating Temperature	0°C ~ 50°C
Storage Temperature	-20° ~ 70°C
Dimensions(mm)	320 * 180 * 100

3. Function Description

3.1 Button Description



【AUTO FOCUS】

Auto Focus button: Set the camera in auto focus mode with this button. It will light up when camera is in manual focus mode.

【AE AUTO】

Auto Aperture button: Set the camera in automatic aperture mode with this button. It will light up when camera is in manual aperture mode.

【CAMERA OSD】

Camera OSD button: call/Close the camera OSD

【HOME】

HOME button: The camera will back to home position if camera OSD is off. While when the camera OSD is called out, the home button is confirm function of camera OSD.

【F1】~【F2】

Custom function buttons: Custom functions in VISCA and IP VISCA modes.

【SETUP】

Controller local Settings button: Modify and view local settings.

【SEARCH】

Search button: Search for all available devices with ONVIF protocol in the LAN (only in ONVIF Mode)

【INQUIRE】

Inquire button: Check added devices

【WBC MODE】

Auto white balance button: Set the camera in auto white balance mode. It will light up when camera is in manual white balance mode.

【CAM1】~【CAM4】

Quickly switch device button: Quickly switch to CAM NUM 1-4 devices (ONVIF, IP VISCA), or to address code 1-4 devices (VISCA, PELCO)

【PRESET】

Short press to set presets; long press to delete presets setting.

It needs to work with the number keys and "enter" button, for setting or deleting presets.

【CALL】

Call preset button: It needs to work with the number keys and ENTER button.

【IP】

Manually add network device button:

Manually add network devices (only in ONVIF and IP VISCA modes)

【CAM】

In IP VISCA and ONVIF modes, it will quickly switch to the CAM NUM bound device when adding a device via CAM.

In VISCA and PELCO modes, it will switch to the address code when entering a certain address.

It needs to work with the number keys and "enter" button.

【1】~【9】

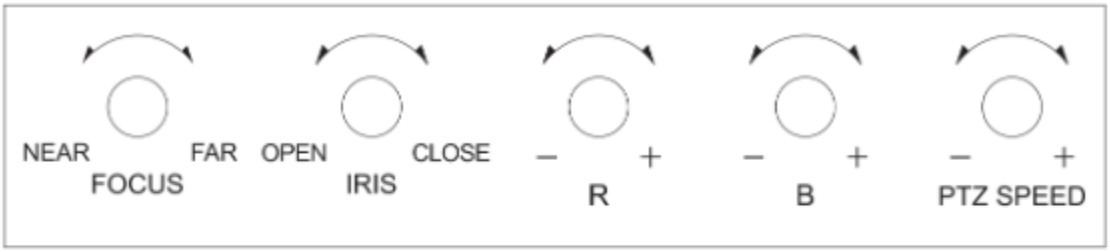
Number keys of 0,1,2,3,4,5,6,7,8,9.

2,4,6,8 serve as direction keys as well, which could control pan and tilt rotation, and camera OSD.

【ESC】Return

【ENTER】Confirm Button

3.2 Rocker Switch and Knob



【NEAR】【FAR】Manually adjust the focal length.

【OPEN】【CLOSE】Manually adjust the aperture, OPEN(Aperture Plus)/CLOSE(Aperture minus)

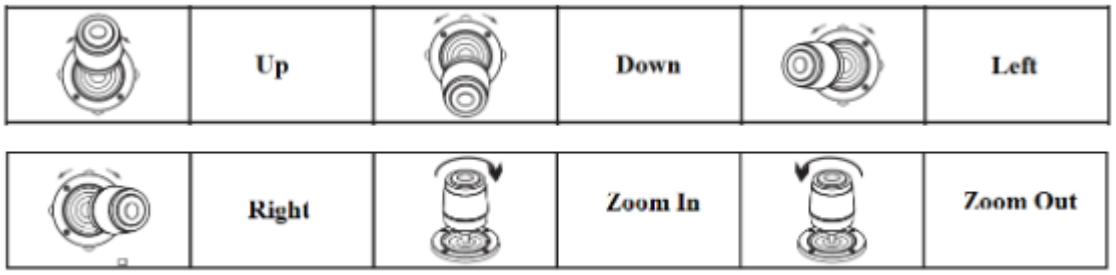
【R-】【R+】Manually adjust the Red Gain

【B-】【B+】Manually adjust the Blue Gain

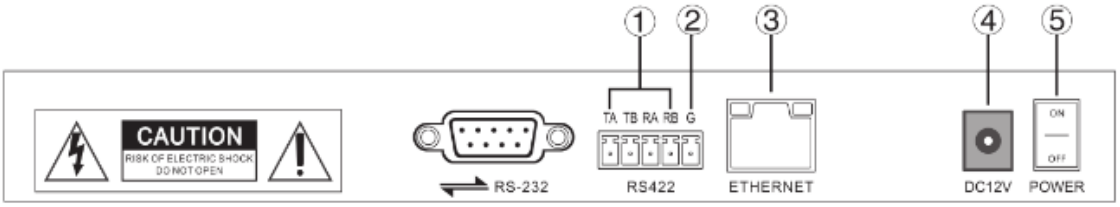
【PTZ SPEED-】【PTZ SPEED+】Adjust PTZ Speed, Gears 1 (Slow)- 8(Fast)

【T-ZOOM-W】Zoom Tele and Zoom Wide.

3.3 Joystick Control



3.4 Terminal Description of Back Panel Interfaces



Number	Label	Physical interface	Description
①	RS422	Control Output (TA, TB, RA, RB)	1. Connect to RS422 bus of the camera: TA to camera RA; TB to camera RB; RA to camera TA; RB to camera TB.
②	Ground	Control line ground (G)	Control signal Line ground
③	ETHERNET	**Ethernet port**	Network connection
④	DC-12V	Power input	DC 12V Power input
⑤	POWER	Power switch	Power on/ off

4. Local Settings (Setup)

4.1 Basic Settings

Move the joystick up and down to switch 1 to 2, and 2 to 3 settings. Move the joystick left and right to switch the button sound prompts on and off. Confirm with the **Enter** button.

(1) Delete device

(2) Network Type: dynamic and static

(3) Button sound prompt: on and off

(4) Language setting: Chinese and English

(5) Mode: VISCA, IP VISCA, ONVIF, PELCO

(6) Local IP

(7) Version information

(8) Restore factory settings

4.2 VISCA and IP VISCA Mode Shared Setting

(1) F1: Custom function for F1 button (VISCA command)

(2) F2: Custom function for F2 button (VISCA command)

Input custom name -> Enter -> Input VISCA command

For example: the command is 8101040702FF, then input 01040702 (0 can't be omitted).

4.3 IP VISCA Mode Setting

Delete the saved device:

Move the joystick up and down to view devices. Move the joystick rightwards to view the device's port information. Move the joystick leftwards to view the IP, CAM NUM information, Enter to delete the selected device.

4.4 VISCA Mode Setting

Control settings (set the baud rate for a certain address code):

Move the joystick up, down, left, and right to switch addresses (1-7) -> Enter -> Move the joystick left and right to switch baud rate -> Enter

For example: Select the address: 1 -> Enter -> Select the baud rate: 9600 -> Enter

When the controller switches to address 1, the control baud rate is 9600.

4.5 PELCO Mode Setting

Control settings (set the baud rate for a certain address code):

Move the joystick up, down, left, and right to switch addresses (1-255) -> Enter -> Move the joystick left and right to choose protocols -> Enter - > Move the joystick left and right to switch baud rate -> Enter

For example: Select the address: 1 -> Enter -> Select the protocol: PELCO-D -> Enter -> Select the baud rate: 9600 -> Enter

When the controller switches to address 1, the control baud rate is 9600, protocol is PELCO-D.

4.6 ONVIF Mode Setting

Delete saved device:

Move the joystick up and down to view devices. Move the joystick rightwards to view the device's port information. Move the joystick leftwards to view the IP, CAM NUM information. Enter to delete the selected device.

5. Connection and Control

5.1 Connection and Control in ONVIF Mode

Search and add:

In ONVIF mode, follow the steps below to add a LAN device to the PTZ controller:

(1) After the controller has obtained the IP address, simply press the Search button

(2) All available devices with ONVIF protocol in the LAN will be displayed on the controller when search process is complete

(3) Move the joystick up/down to select the device, press the Enter button to confirm

(4) It's required to enter the device's username, password, and CAM NUM information when

adding a device

(5) Press the Enter button to save

(6) Alternatively, to add a device via [I] button manually

(7) Press the Inquire button to view the added device. Move the joystick up/down to view the saved device (move the joystick rightwards to view the port). Press the Enter button to select a camera to control, or use the CAM button to connect and control

5.2 Connection and Control in IP VISCA Mode

Searching function is not available in IP VISCA mode, but to manually add a device, follow these steps:

(1) Manually add a device via the [IP] button

(2) Press the Inquire button to view the added device/ Move the joystick up/down to view the saved device (move the joystick rightwards to view the port). Press the Enter button to select a camera to control, or use the CAM button to connect and control.

5.3 Control in VISCA and PELCO Mode

Simply set the address code and baud rate to control.

In PELCO mode, correctly set the PELCO-D or PELCO-P protocol is required.

6. Web Page Confirmation

6.1 Home Page

(1) Connect the controller and computer to the same LAN and enter the controller's IP address in the browser

(2) Default username: **admin** | password: **empty**

(3) Home page is as below:

(4) Home page consists of three segments: Search Device List (green), Added Device List (blue), or Manually Add (yellow), Device Details (orange)

(5) Click “Search” button to find ONVIF devices in the LAN, which will be displayed in the green frame automatically

(6) Select the device in the “Search Device List”, and click “Add” to complete. Press “Ctrl” for multiple selections

(7) Select the device in the “Added Device List”, and click “Delete” to complete. Press “Ctrl” for multiple selections

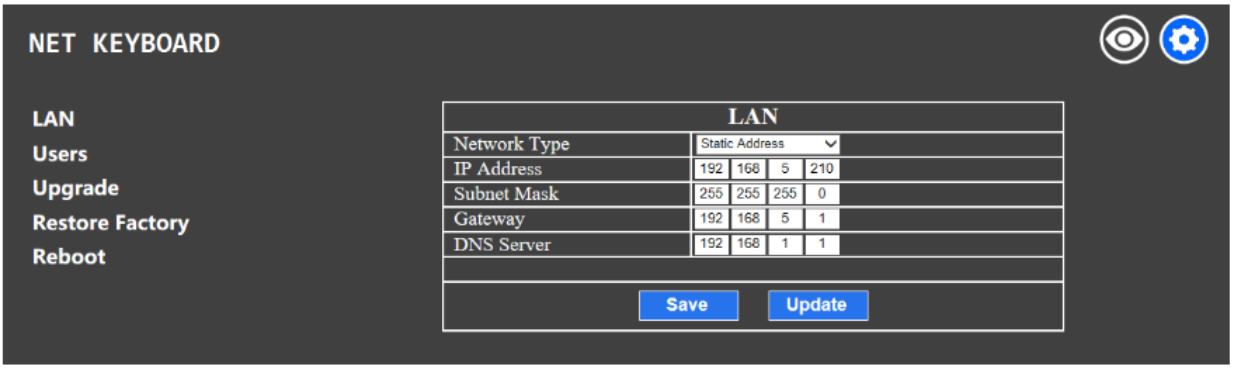
(8) After successfully adding a device, click the IP address in the “Added Device List” to edit the account and port information of the device

(9) After addition, deletion, and modification, click “Save” button for changes to take effect

Note: Any modification to the configuration on home page needs to be saved by clicking “Save” button, otherwise the modification won’t be saved.

6.2 LAN Settings

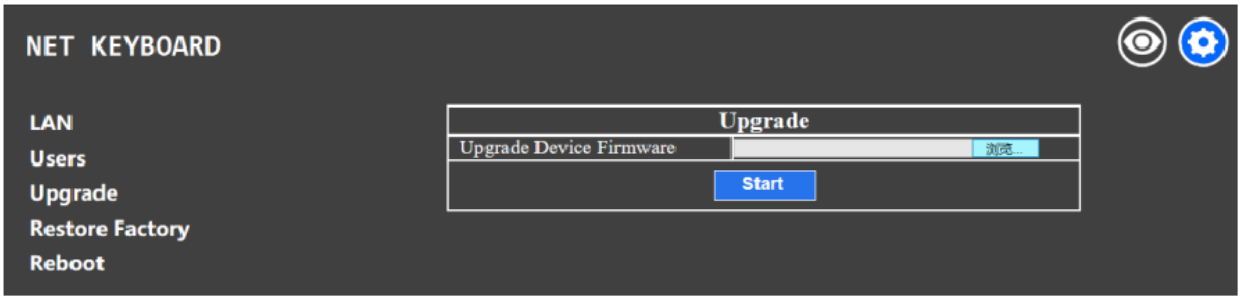
Modifying the device IP access way and port parameters in LAN settings is shown below:



Dynamic address (default access way): the controller will automatically acquire IP address from the router

Static address: Change the network to static address when necessary. Simply input the network segment information to modify.

6.3 Upgrade



The upgrade function is applied for maintenance and updates.

Chose the right upgrading file and click “start” to update the controller. It will auto reboot after updating.

Note: Do not operate the controller during the upgrade process. Do not power off or disconnect the network.

6.4 Reboot

Click “Reboot” for maintenance if the controller runs for a long time.

7. Maintenance

Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner, or benzine to clean.

8. Warranty

If your product does not work properly because of a defect in materials of workmanship, our company (referred to as “the warrantor”) will, for the length of the period indicated as below, “Parts and Labor (5) Years”, which starts with the date of original purchase (“Limited Warranty period”), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or a refurbished product. The decision to repair or replace will be made by the warrantor.

During the “Labor” limited warranty period, there will be no charge for labor. During the “Parts” warranty period, there will be no charge for parts. You must mail-in your product during the warranty period. This Limited Warranty is extended only to the original purchaser and only covers products purchased as new. A purchase receipt or other proof of original purchase date is required for Limited Warranty service.

9. Mail-In Service

When shipping the unit, carefully pack and send it prepaid, adequately insured, and preferably in the original carton. Include a letter detailing the complaint and provide a day time phone and/or email address where you can be reached.

10. Limited Warranty Limits and Exclusions

This Limited Warranty ONLY COVERS failures due to defects in material or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage. The Limited Warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, mis-adjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, or service by anyone other than a Factory Service center or other Authorized Servicer, or damage that is attributed to acts of God.

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