Clear Touch RL400 PTZ Information

The Clear Touch RL400 PTZ camera has almost nonexistent Clear Touch documentation. This document supplies information learned via experience.

A Chinese Camera

The Clear Touch RL400 camera is actually a knockoff of a Chinese product. The original company is ValueHD, and the product is the VHD-V60UL:
https://www.valuehd.com.cn/hd-camera-usb-ip-hdmi-20x-ptz-wireless-camera-for-zoom-meetings.html

The Clear Touch company appears to have simply rebranded the ValueHD product. For example, no settings have been changed. In its network settings, the camera defaults to reach out to a Network Time Procotol (NTP) address in China for correct system time. Also, the first half of the device's MAC address is assigned to the ValueHD corporation.

Clear Touch doesn't provide any documentation beyond basic specs. I reached out to Clear Touch but they never responded. The company ValueHD does supply a detailed manual that matches: https://www.manualslib.com/manual/1599582/Valuehd-Vhd-V600.html.

Initial Setup

The camera ships default with a standard infrared (IR) control via a remote, from which most (but not all) operations and configurations are accessible via its menu. The camera also ships with a default static IP of `192.168.100.88`. It has a web interface with a default username `admin` and password `admin`, and a guest account username `guest` and password `guest`. The web interface has most (but not all) operations and configurations accessible through its menus. The camera supports VISCA camera control via its RS-232 port, as well as via TCP/IP (through the standard port `5678`). The rest of the camera is standard and routine.

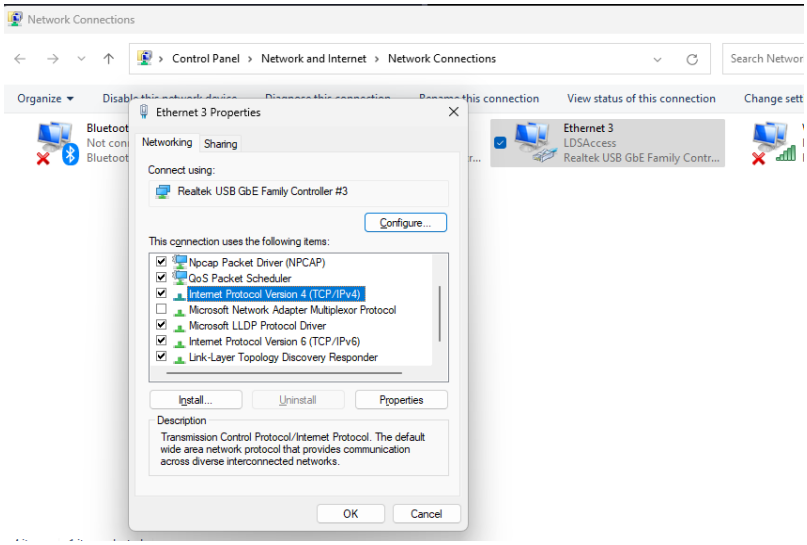
Connecting to the Web Menu via TCP/IP

As the camera is defaulted to a static IP address of `192.168.100.88`, the first step is configuring a computer to connect and then to change its IP address. I found it easiest to simply directly connect a PC into the same ethernet line as the PTZ camera, avoiding a switch in the middle. This requires setting the PC to a `192.168.100.X` address, then accessing its menu, then switching it to a dynamic address, and rebooting the camera. The following steps walk through this process demonstrated via Windows 11. These instructions also assume your network uses DHCP/dynamic address assignment. (These instructions can easily be tweaked for a different static IP assignment if desired.)

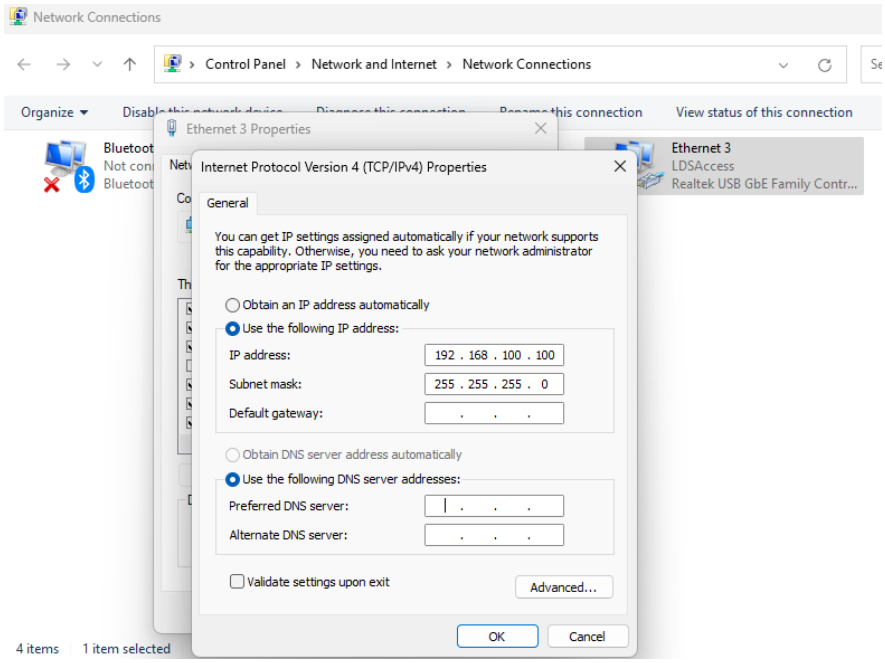
First, connect the PC to the camera via ethernet (In my case, I had an ethernet jack already labeled for this connection):



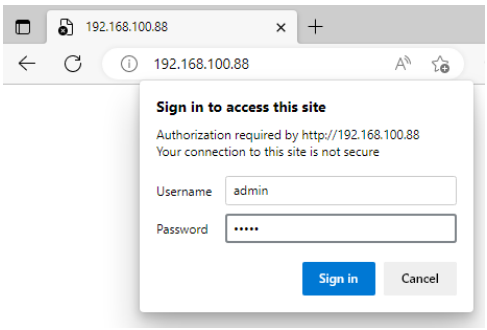
On your PC, open up Network Connections. Find the correct Ethernet Connection, right click, go to Properties.



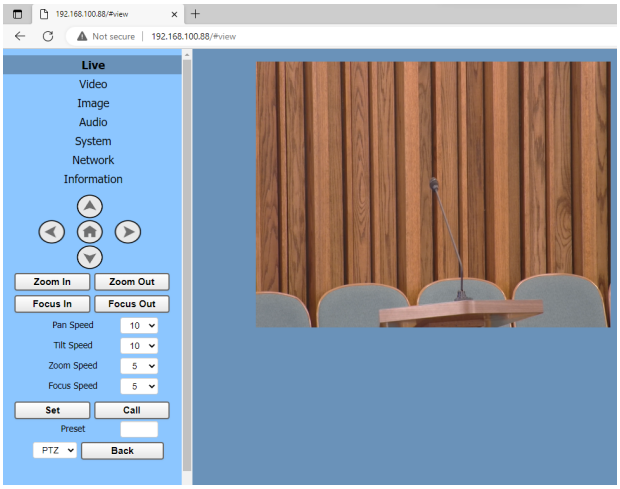
In the Networking Tab, find Internet Protocol Version 4 (TCP/IPv4). Click Properties. Set an IP address. I chose `192.168.100.100`, with a subnet of `255.255.255.0`.



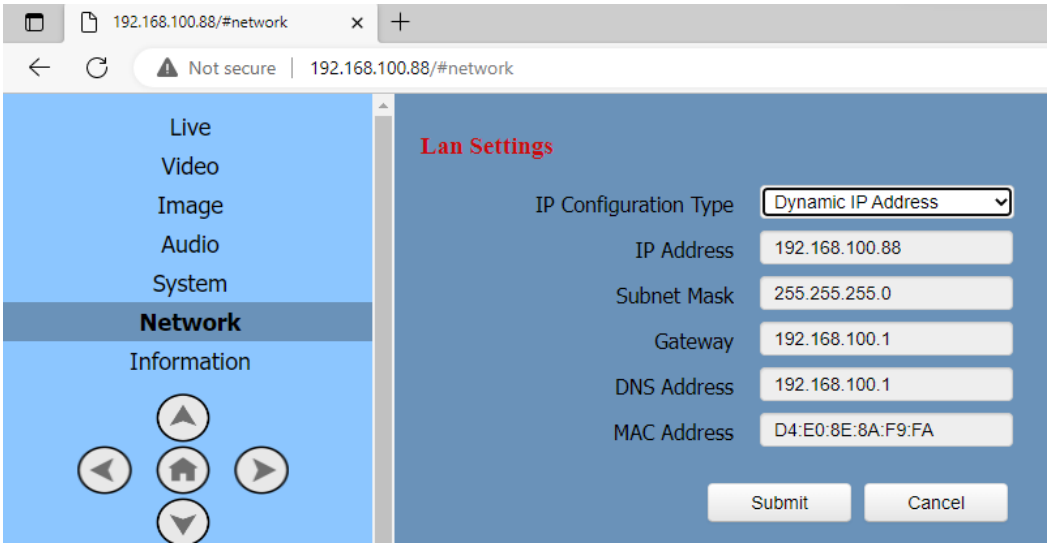
No other settings are necessary. Click OK. Click OK again. Your computer should reassign itself to that IP address. Now you are ready to connect to the camera via its web interface. Open up a web browser. Go to `192.168.100.88`. You should see a login prompt. Enter `admin` and `admin`.



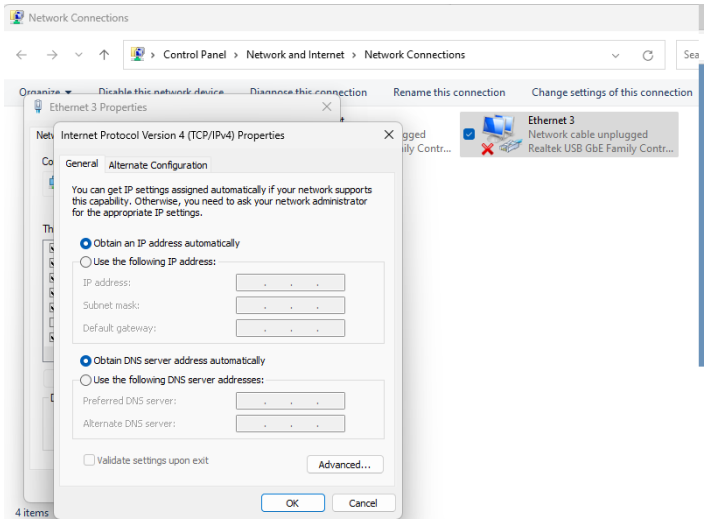
Upon successful login this should appear:



The next task is to supply a new IP address. Go to Network in the side menu. Then for IP Configuration Type select Dynamic IP Address:

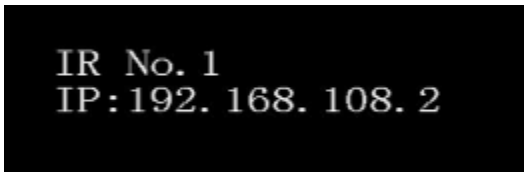


Don’t change anything else. Just click Submit. It will prompt that the camera must reboot for changes to take effect. Until that occurs, the menu interface at `192.168.100.88` still works. Do not restart the camera just yet. Unplug the ethernet cable linking the PC to the camera, and then plug the camera’s ethernet connection back to the switch or router. Also, connect your PC back to the network, using the same steps used to change your PC’s address. I switched mine back to dynamic IP assignment:

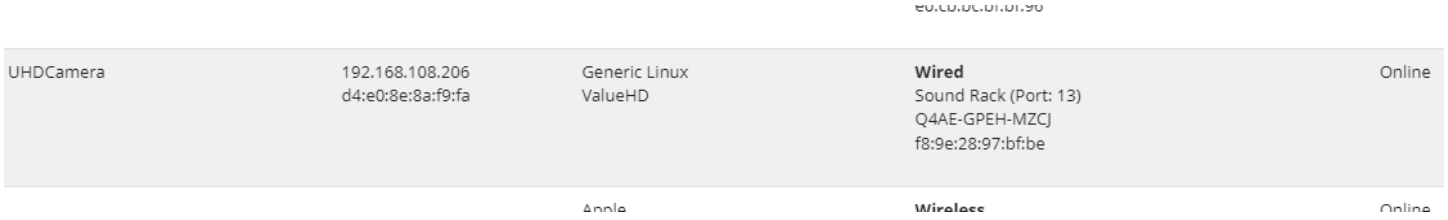


Once this is done, restart the camera. The easiest way to do this is via the IR remote control’s power button.

The camera takes about 20-30 seconds to boot. As it boots, if any display is attached to the camera, the boot process should indicate an IP address on the screen. Below is an example of what it might look like:



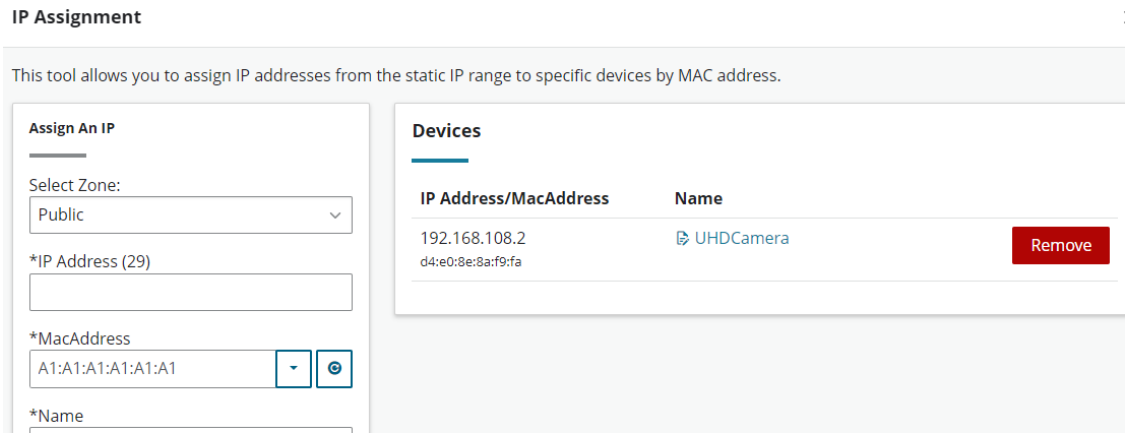
Another option to find the IP address is via an admin interface through a switch/router. I was able to find the camera’s IP this way as shown below. (Note that some switch/router web interfaces have a display delay of a few minutes and won’t instantaneously show all connected devices in its list.)



If neither approach worked to find the camera’s new IP address, worst case is using a software tool to scan the network and look for all open IP addresses.

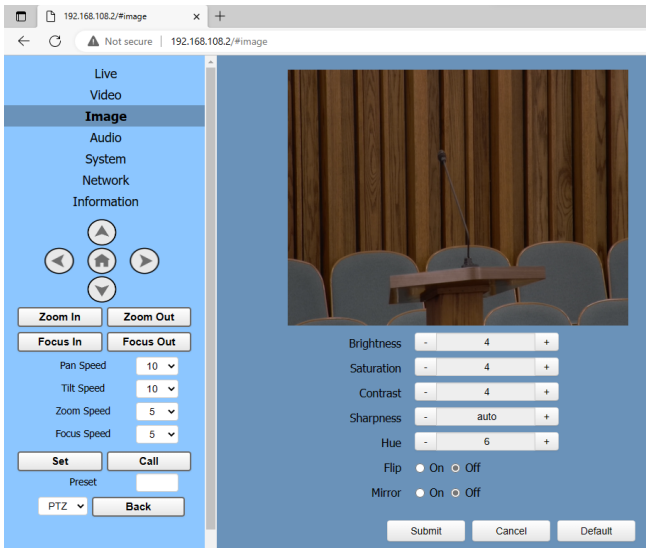
From here, connect your PC back into the network. Go to the IP address for the camera via a web browser to confirm a connection.

The following steps are optional but a good idea. The camera should be assigned to a static IP. Instead of forcing the camera itself to an IP address of its choice, it's usually better to let the switch/router assign it. If possible, access the switch or router's configuration menu, then assign the camera to an open static IP, reboot the camera again, and confirm it obtained the new IP address:

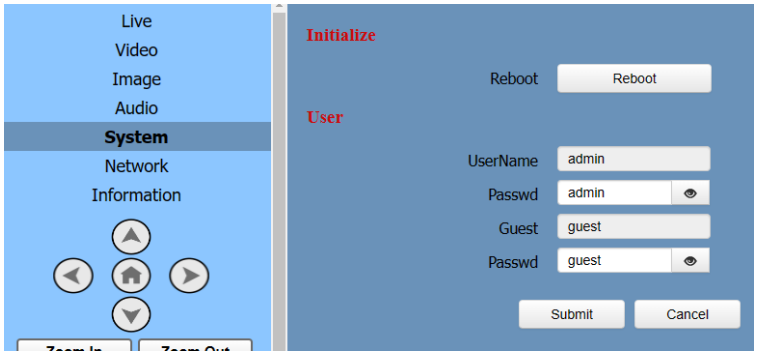


Via the camera's web interface, log in with the username and password indicated prior.

From here, I found it necessary to adjust the image, as the default was too bright and saturated. I used these settings:



Next, consider adjusting the camera's default username and password:

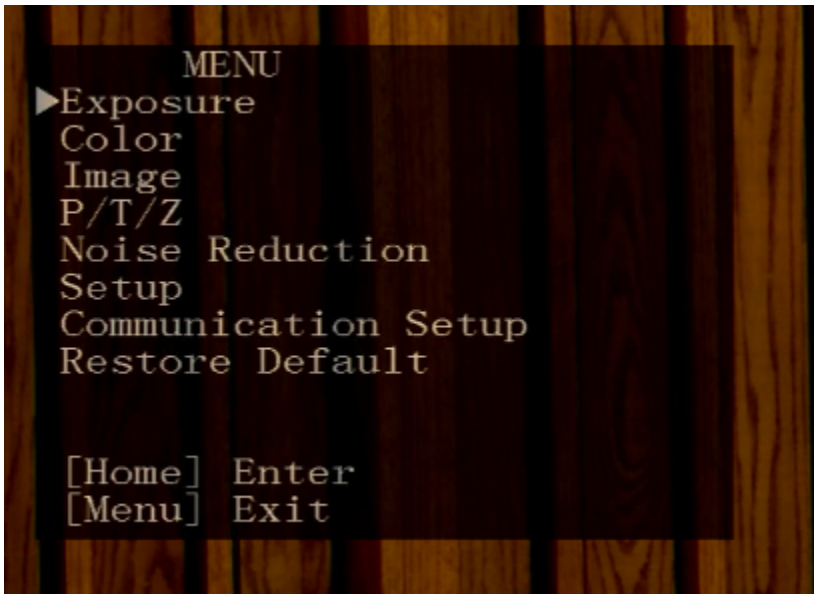


Camera IR remote control interface:

The IR remote control gives many, but not all, configuration options. Additionally, the menu gives a “Restore Default” option not available in the web menu.

On the remote control, click on the Menu button. The following should appear. Use this to adjust display settings.

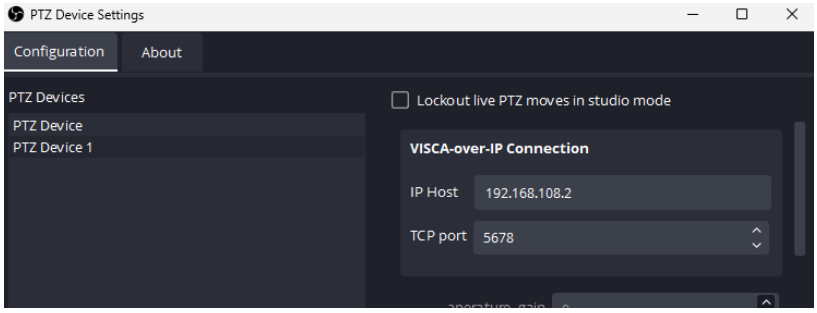
Note that I’m unsure if this Restore Default is a factory default. One time for me the “Restore Default” option appeared to fully factory reset and set the IP back to factory conditions. A second time, it did not. I’m not sure what I did differently, but perhaps I had physically unplugged the camera the first time as well?



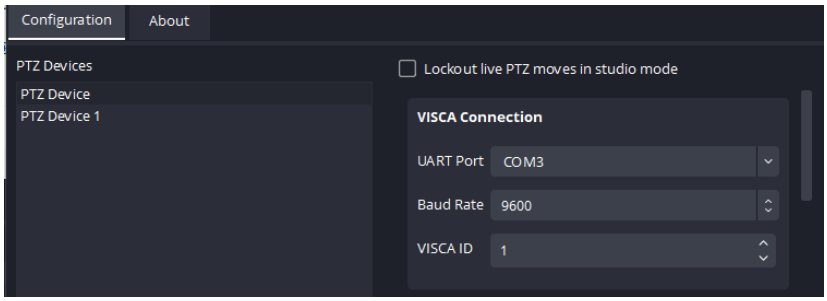
Camera PTZ Control:

This camera gives four options for PTZ control, 1) IR remote, 2) IP interface with VISCA, 3) RS-232 serial interface with VISCA, 4) web interface. I have tested and verified that all four interfaces can be used simultaneously.

1) **IR Remote -** This approach is standard. The buttons allow to pan, tilt and zoom. Additionally, presets can be loaded and recalled.
2) **IP interface with VISCA -** The default port is `5678`. I used a simple software program which sends out VISCA commands, and it worked flawlessly.



3) **RS-232 serial with VISCA -** I used the correct COM port and set a 9600 baud rate. I found that it upon starting up my software tool, it would take about 10 seconds before the commands I sent out actually controlled the PTZ camera.



4) **Using the web interface -** The guest portal gives PTZ camera actions. These work, but they tend to feel a bit sluggish, meaning that when a PTZ action is submitted, such as moving to the left, the visual interface would be about 2 seconds behind the actual camera movement. Additionally, the picture is stretched vertically, as though it is attempting to cram a wide screen image into a square.

Again, for all other documentation, refer to the Chinese product's manual:
https://www.manualslib.com/manual/1599582/Valuehd-Vhd-V600.html