SURVLtest

Multi-function CCTV Tester

User Manual

（V01.00）

Thank you for purchasing the SURVLtest. Please read the manual before using SURVLtest and use properly. For using SURVLtest safely, please first read the「Safety Information」carefully in the manual. The manual should be kept well in case of reference. Keep the S/N label for after-sale service within warranty period. Product without S/N label will be charged for repair service. If there is any question or problem while using SURVLtest, or damages occurred on the product, please contact our distributors.

Content

1 .Safety information 1

2. SURVLtest Introduction 2

2.1 General 2

2.2 Packing list 2

2.3 Function interface 3

3. Operation 6

3.1 Installing the Battery 6

3.2 Instrument connection 7

3.2.1 IP camera connection 7

3.2.2 Analog camera connection 8

3.2.3 HD Coaxial camera connection 9

3.2.4 HDMI IN 10

3.3 OSD menu 10

3.3.1 Lite mode 11

3.3.2 Drop-down Menu 12

3.3.3 Short cut-menu 13

3.3.4 Screen capture 14

3.3.5 TesterPlay 14

3.3.6 Rapid video 16

3.3.7 IP discovery 17

3.3.8 Rapid ONVIF test 18

3.3.9 IP camera test 31

3.3.10 HDMI IN 34

3.3.11 Video monitor test 38

3.3.12 Color-bar generator (TV OUT) 46

3.3.13 CVI camera test 48

3.3.14 TVI camera test 55

3.3.15 AHD camera test 57
3.3.16 Network tool 58
（1）IP address scan 58
（2）PING Test 59
（3）Network test (Ethernet bandwidth test) 60
（4）Port Flashing 63
（5）DHCP server 65
（6）Trace route 65
（7）Link monitor 66
3.3.17 Rapid IP Discovery 67
3.3.18 PoE power / DC12V 3A and DC 5V 2A USB power output 67
3.3.19 Cable Test 68
3.3.20 RJ45 cable TDR test 69
3.3.21 PoE Voltage test 72
3.3.22 12V power input test 73
3.3.23 Audio Record 74
3.3.24 Data monitor 75
3.3.25 Audio player 75
3.3.26 Media Player 75
3.3.27 RTSP Player 76
3.3.28 Hik test tool 78
3.3.29 Dahua test tool 82
3.3.30 Update 87
3.3.31 Office 88
3.3.32 LED Flashlight 89
3.3.33 Browser 89
3.3.34 Notepad 90
3.3.35 System Setting 91
3.3.36 File explorer 95

3.4 Audio test....97
3.5 HDMI output....97
3.6 PoE power output....97
3.7 DC12V 3A power output....98
3.8 USB 5V 2A power output....99
4. Specifications....100
4.1 General Specifications....100

1 .Safety information

- The tester is intended to use in compliance with the local rules of the electrical usage and avoid to apply at the places which are inapplicable for the use of electrics such as hospital, gas station etc.
- To prevent the functional decline or failure, the product should not be sprinkled or damped.
- The exposed part of the tester should not be touched by the dust and liquid.
- During transportation and use, it is highly recommended to avoid the violent collision and vibration of the tester, lest damaging components and causing failure.
- Don't leave the tester alone while charging and recharging. If the battery is found severely hot, the tester should be powered off from the electric source at once. The tester should not be charged over 8 hours.
- Don't use the tester where the humidity is high. Once the tester is damp, power off immediately and move away other connected cables.
- The tester should not be used in the environment with the flammable gas.
- Do not disassemble the instrument since no component inside can be repaired by the user. If the disassembly is necessary indeed, please contact with the technician of our company.
- The instrument should not be used under the environment with strong electromagnetic interference.
- Don't touch the tester with wet hands or waterish things.
- Don't use the detergent to clean and the dry cloth is suggested to use. If the dirt is not easy to remove, the soft cloth with water or neutral detergent can be used. But the cloth should be tweaked sufficiently.

2. SURVLtest Introduction

2.1 General

The 7 inch touch screen SURVLtest Multi-function CCTV tester is designed for maintenance and installation of IP cameras, analog cameras, TVI, CVI, AHD cameras, as well as testing 4K H.264 /4K H.265 camera by mainstream, The 1920x1200 resolution enables it to display network HD cameras and analog cameras in high resolution. The unit supports many ONVIF PTZ and analog PTZ control. The combination of touch screen and key buttons make SURVLtest very user- friendly.

SURVLtest is also a great tool for Ethernet network testing. It can test PoE power voltage, PING, and IP address searching. You can use the digital cable tracer to locate individual connected cables from a bundle of cables. Test LAN cable for proper connection termination. Other functions include providing 24W PoE power to your camera, HDMI IN and out, CVBS loop test, testing IP and analog at the same time, LED Flashlight, DC 12V 3A power output and much more. Its portability, user-friendly design and many other functions make the SURVLtest an essential tool for all installers or technicians.

2.2 Packing list

1). HST319 (SURVLtest)

2). DC12V 2A power adapter

3) Cable Tracer Probe

4) Polymer lithium ion battery (7.4V DC 5000mAh)

5). BNC cable

6). RS485 cable

7). Output Power cable

8). Audio cable

9). Safety cord

10). Tester pouch

11). User Manual

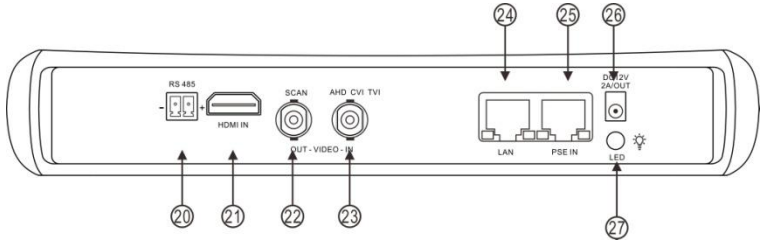
12).8GB SD card

2.3 Function interface

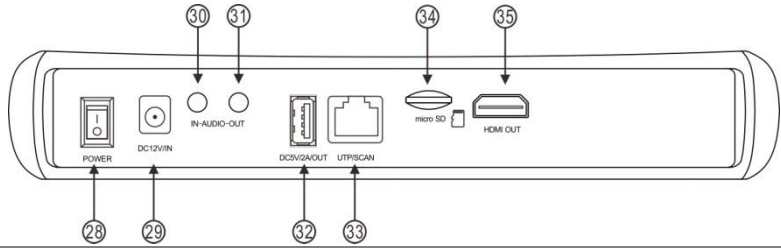
1	⏻	Press more than 2 seconds, turn on or off the device, short press to turn on or off the menu display
2	MENU	Menu key. Press it to call shortcut- menu
3	🔍	4X zoom the image displays.
4	FAR+	Far focus: Focus the image far away
5	NEAR-	Near focus: Focus the image nearby
6	TELE+	TELE: Zoom in the image
7	WIDE-	WIDE: Zoom out the image

8		Open/set, confirm the setting of parameters, open or enlarge the aperture
9		Return/Close : Return or cancel while setting parameters of the menu, close or decrease the aperture
10		Upward, set function or add parameter. Tilt the PTZ upward
11		Rightward, select the parameter whose value will be changed. Add the value of the parameter. Pan the PTZ right
12		Leftward, select the parameter whose value will be changed
13		Downward, set function or reduce the value of the parameter. Tilt the PTZ downward
14		Confirm key (Long press it to capture screen interface)
15		Return/Close: Return or close
16		The charge indicator: It lights red while the battery is being charged. As the charging is complete, the indicator turns off automatically
17		The RS485 data transmission indicator: It lights red while the data is being transmitted
18		The data received indicator: It lights red while the data is being received
19		The power indicator: It lights green while the tester is powered on by the adapter

Top interface



Bottom interface



20	RS485 Interface: RS485communication for the PTZ
21	HDMI IN
22	Video signal output（BNC interface）/ cable tracer interface
23	CVBS input /AHD /TVI/CVI Coaxial interface
24	PoE power supply output or LAN test port (Use to test PoE or non-PoE IP camera)
25	PSE power sourcing equipment. Tests PoE voltage
26	DC 12V 3A power output, for provisional DC power supply
27	LED lamp
28	Power battery switch
29	DC 12V 2A charging interface
30	Audio input
31	Audio output and earphone interface

32	USB 5V 2A power output (used only for power, not data)
33	UTP cable port: UTP cable tester port/ Cable tracer port
34	Micro SD card moveable, (comes with 8GB, supports up to 32GB)
35	HDMI output interface

3. Operation

3.1 Installing the Battery

The battery main switch at the right-bottom corner of tester bottom。

“0”: Battery power off

“1”: Battery power on

The tester has built-in lithium ion polymer rechargeable battery, the tester’s power switch on the bottom should turn to “0” for safety during transportation (the factory default is “0”)

Using the instrument, please turn on the power switch to “l”, then press the ⏻ several seconds can turn on/off tester. In general, user no need to turn on battery switch if don’t use the instrument in long time, please turn off the switch.

Notice: Please use the original adaptor and connected cable of the device!

When the battery icon is full or the charge indicator turns off automatically, indicate the battery charging is completed

Notice: When the Charge Indicator turns off, the battery is approximately 90% charged.

The charging time can be extended for about 1 hour and the charging time within 12 hours will not damage the battery.

Notice: Press the key ⏻ several seconds to restore the default settings when the instrument works abnormally.

Warnings: Instrument communication port is not permitted access circuit voltage over 6V, otherwise damage the tester.

3.2 Instrument connection

3.2.1 IP camera connection

Power an IP camera with an independent power supply, then connect the IP camera to the SURVLtest's LAN port, if the link indicator of the tester's LAN port is green and the data indicator flickers, it means the IP camera and SURVLtest are communicating. If the two indicators don't flicker, check if the IP camera is the powered on or the network cable is not functioning properly.

Note:

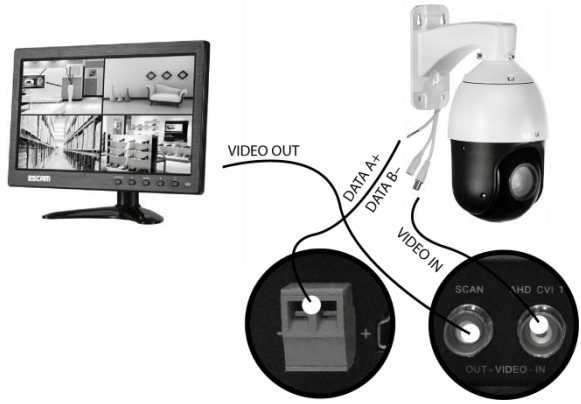
1) If the IP camera requires PoE power, then connect the IP camera to the SURVLtest's LAN port. The tester will supply PoE Power for the IP camera. Click on the icon labeled POE to turn the PoE Power on or off.

2) If use the tester's menu to turn off the tester's PoE power supply, the PoE switch and the power

sourcing equipment are allowed to connect to the tester's PSE port, and the PoE power will be supplied to the IP camera by the tester's LAN port. In this condition, the tester cannot receive data from IP camera, but the computer connected to the PoE switch can receive the data via the tester.

Warning: PoE switch or PSE power sourcing equipment can only be connected to tester "PSE IN" port, otherwise will damage the tester.

3.2.2 Analog camera connection



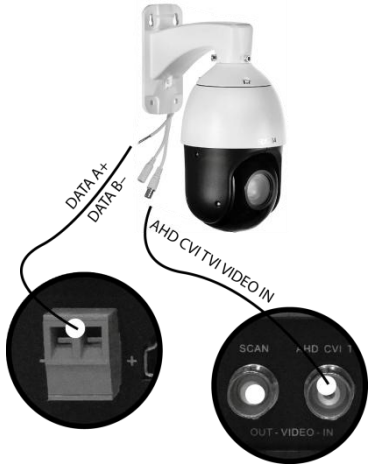
(1) Connect the camera's video output to the IP tester's VIDEO IN. The image will display on the tester after pushing the PTZ icon.

(2) CCTV IP Tester "VIDEO OUT" interface connect to the Video input of monitor and optical video transmitter and receiver, the image display on the tester and monitor.

(3) Connect the camera or the speed dome RS485 controller cable to the tester RS485 interface, (Note: positive and negative connection of the cable).

3.2.3 HD Coaxial camera connection

* CVI, TVI, AHD camera are classified as HD coaxial cameras. Hereby the following instruction of how to connect CVI camera to the tester is also applied to TVI and AHD camera.



(1) Connect the CVI camera's video output to the IP tester's "HD IN" interface, the image will display on the tester. The tester only come with HD input interface. There is no HD output interface.

(2) Connect the HD camera or the speed dome RS485 controller cable to the tester RS485 interface, (Note: positive and negative connection of the cable).

3.2.4 HDMI IN

DVR or other device's HDMI out port connect to tester's HDMI in port, the meter will display input image.

3.3 OSD menu

Press and hold the key ⏻ for 6 seconds to turn on the tester

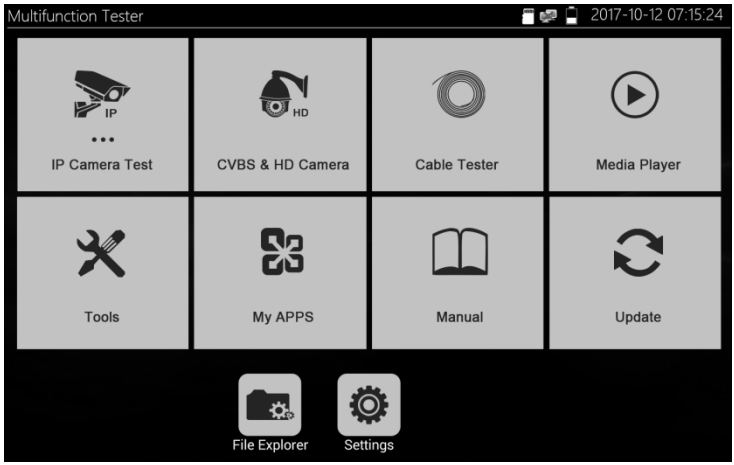
Press and hold the key ⏻ again to turn off or reboot the tester

Short press the key ⏻ to enter sleep mode, press it again to turn on from sleep mode

If tester works abnormally and cannot be turned off, long press and hold the key ⏻ for several seconds to turn off, the tester should reset

Lite mode

Lite mode: You can easy find corresponding APPS



In Lite mode, click the finger icon in the top right corner to yellow, long press the icon to move the function icon to other items. Do not click the finger icon and long press the application icon because it can move the icon to folder.

Drop-down Menu

Press and slide at right top right corner twice to open shortcut menu. The shortcut menu includes PoE power output, IP settings, Wi-Fi, HDMI IN, CVBS, TV OUT, LAN INFO, brightness settings etc.

HDMI: Click HDMI to enter HDMI IN mode, it can converts test from analog to digital with dual test window IP & HDMI IN or Analog & HDMI IN.

CVBS: Click icon "CVBS "to enter, you can test IP and analog camera at the same time.

TV OUT: Click TV OUT to enter floating window, connecting the BNC cable to tester and appears analog video monitor interface, it can test circuit and BNC cable whether normal or not.

LAN INFO: Display network port or WIFI connection the real-time upload and download speeds and other network parameters.

BRIGHTNESS: Set the display brightness.

SETTINGS: Enter settings interface.

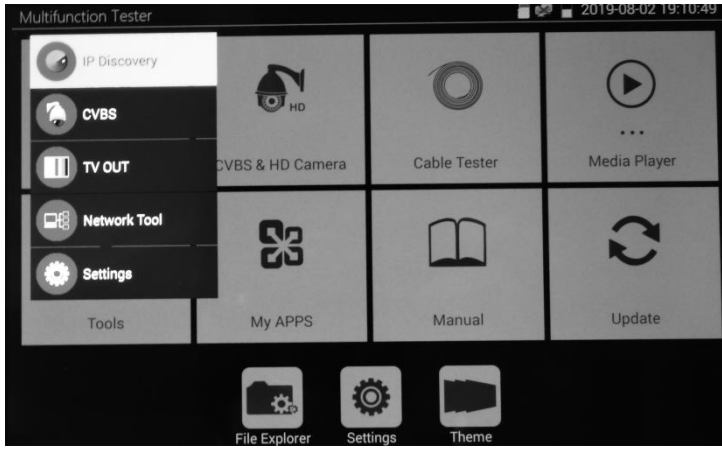
IP: Enter IP Settings interface.

POWER OUTPUT: Turn on or off the tester "PoE power" APP.

WI-FI ON/OFF: Enter the WLAN in Settings to turn on/off the Wi-Fi.

Short cut-menu

You can call shortcut menu by press tester's "menu" key, you can self-define shortcut menu.

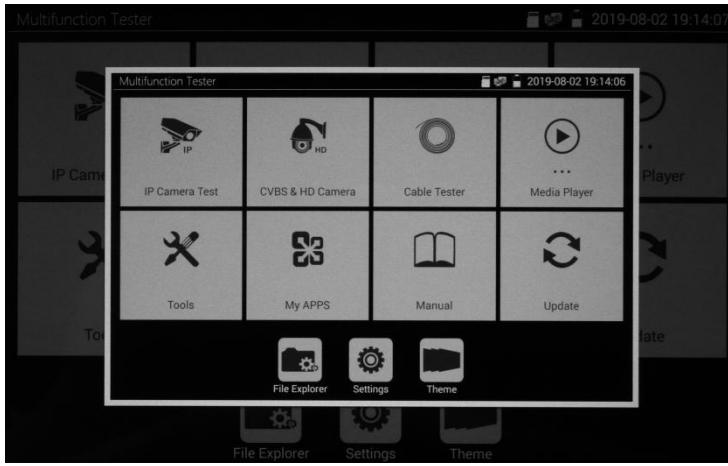


Press the key" MENU " to open shortcut menu and switch functions, then press to enter app, tap other area on the screen, to exit the menu.

Short cut-menu setting, you can long press any APP in the All Application list, it will auto move to shortcut menu. To delete any APP in the shortcut menu, please select an APP and press several seconds.

Screen capture

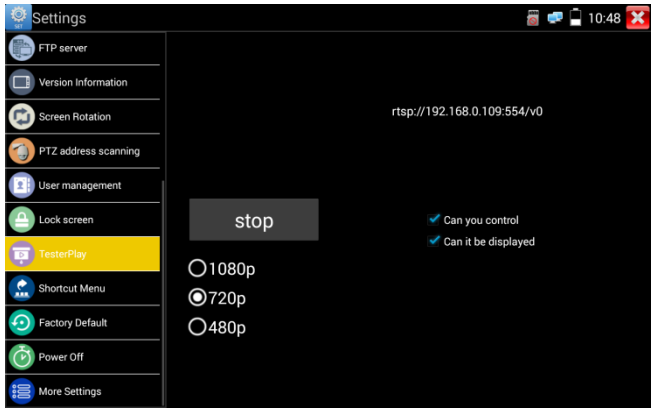
Long press the key “ENTER” can capture screen interface and save it in any time.



You can go File Explorer – sdcard or internal_sd – Screenshots to view your screen shots pictures.

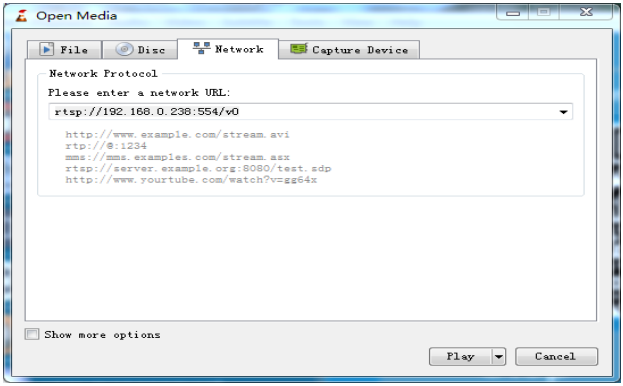
TesterPlay

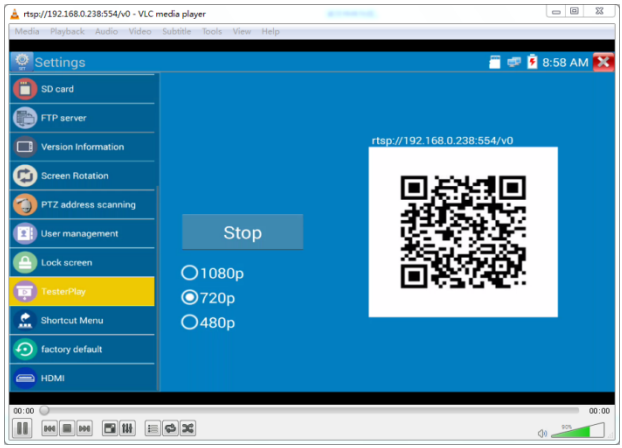
To connect mobile phone to the tester’s WIFI hotspot, or the tester and mobile phone connect to the same Wi-Fi network. Tap the icon “ ”, then select “TesterPlay” to enter and click “Start” button to generates two-dimensional code. Please use mobile phone scan it, then download and install the client software, you can view the screen real-time projection.



PC screen projection：

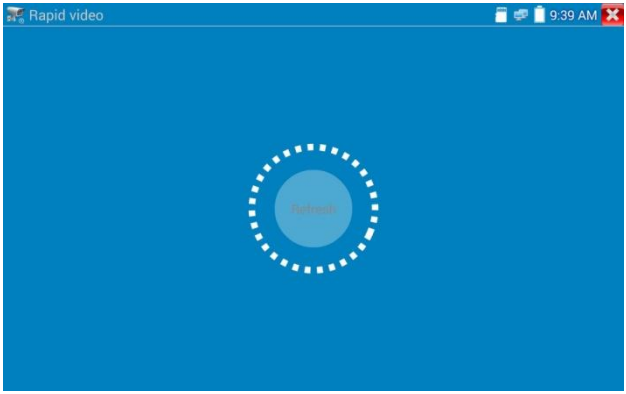
Install VLC player in the PC, turn on the VLC player "Media - Open Network Streaming", and input the RTSP address of on the top instrument two-dimensional code, click "play" to view the screen real-time projection. (You also can install “VLC player” in the mobile phone, tester and mobile phone display at the same time)



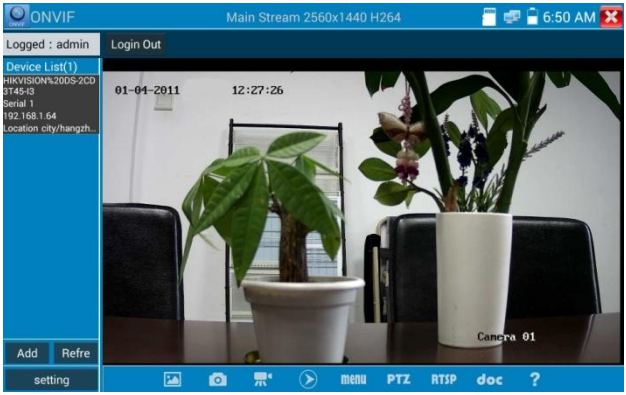


Rapid video

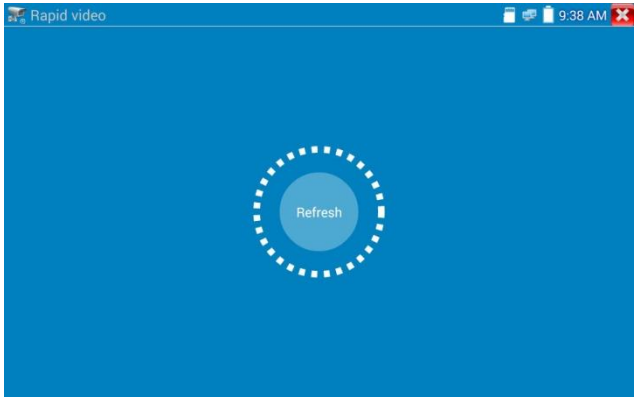
Press and enter function, one key to detect all network cameras and auto play the images.



Auto log in and display camera image. Detailed operations refer to ONVIF function.

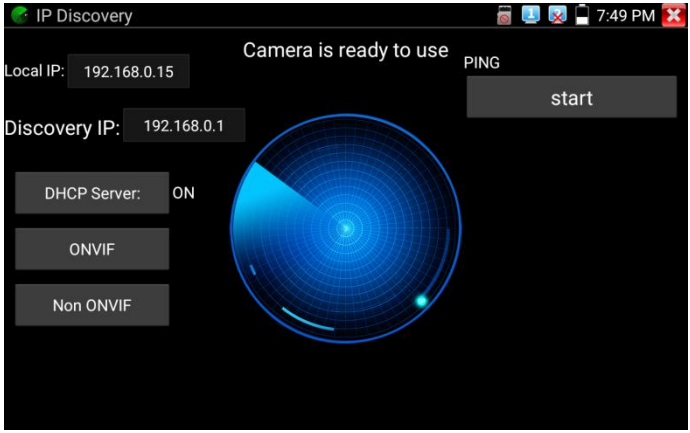


After exit ONVIF app, Click Refresh to search IP address.



IP discovery

Press IP discovery , tester auto-scan the whole network segment IP, as well as auto-modify the tester‘s IP to the same network segment with the scanned camera's IP.



Local IP： Tester’s IP address, Tester can auto-modify the tester‘s IP to the same network segment with the scanned camera's IP.

Discovery IP： Connected tester equipment’s IP address. If the camera connected to the tester directly, tester will display the camera’s IP address, if tester connects to Local Area Network, it displays the current IP address.

Temp IP： After searching IP address, the modified tester’s IP address will not be saved, if you do not select “Temp IP,” the modified tester’s IP address will auto-save after searching.

Start： PING function, Click "Start" can PING camera’s IP.

Rapid ONVIF: Rapid ONVIF Quick link

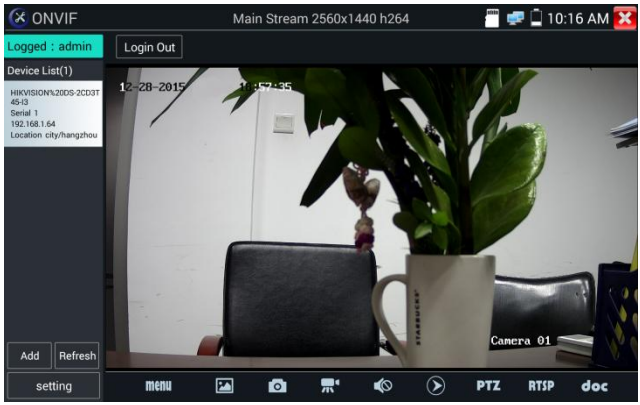
Non ONVIF: Non ONVIF quick link

Applicability： Using IP discovery APP, you don’t need to know the first two digits of camera’s IP address, it can auto-scan the whole network segment IP, and auto-modify tester’s IP address, greatly improved engineering efficiency.

Rapid ONVIF test

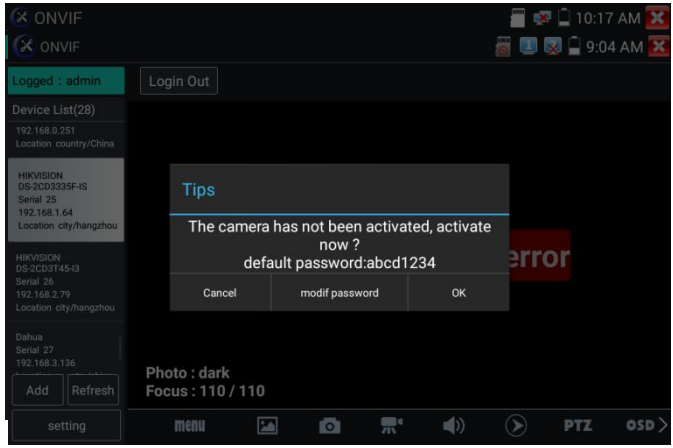
Rapid ONVIF can display 4K H.265/H.264 camera image by tester mainstream, one key to activate Hikvision camera.

Press enter ONVIF function, the meter auto scan all ONVIF cameras in different network segments. It lists cameras name and IP address on the left of screen. Tester can auto login camera and display camera image. Factory default use admin password to auto login, if you modified the password, then default use the modified password to log in. If you select ONVIF Rapid mode, the tester automatically scan different network segments for ONVIF cameras. It lists the camera name and IP address on the Device List. Tester can auto login camera and display camera image.

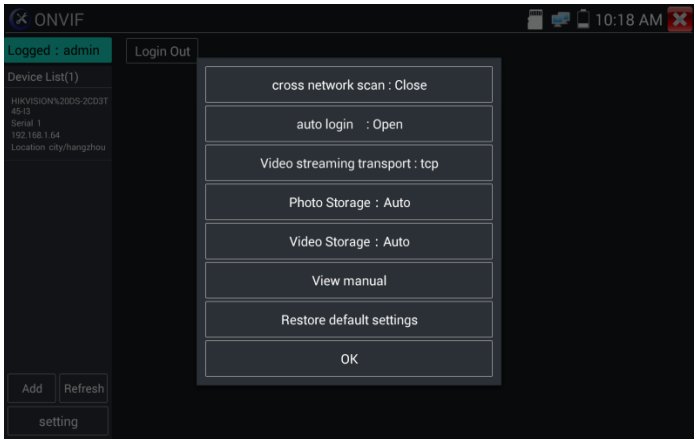


Click the button “Refresh”, tester will scan the ONVIF camera again. Click the newly displayed ONVIF camera on the “Device List“. The tester will show the IP camera’s relative information and settings.

Activate camera: When connected un-activated camera, tester can auto recognized, and prompt "The camera is not active, you need to activate it", click "OK" to start activate.



Pop-up settings menu when click the “ONVIF setting” icon on the upper left corner



Across network segments scan: After open this function , enter “Setting - IP Settings - Advanced” to add other network segments IP, Rapid ONVIF function can across network segments to scan camera’s IP.

Auto Login: After open this function, tester can auto login camera and display camera image. (The login password is the same with last time, the first time using password is the default password "admin")

Video streaming transport: UTP and TCP protocol.

Photo Storage: To set photo storage in Auto or Manual

View Storage: To set view storage in Auto or Manual

Show focusInfo: To set the display focus information open or close

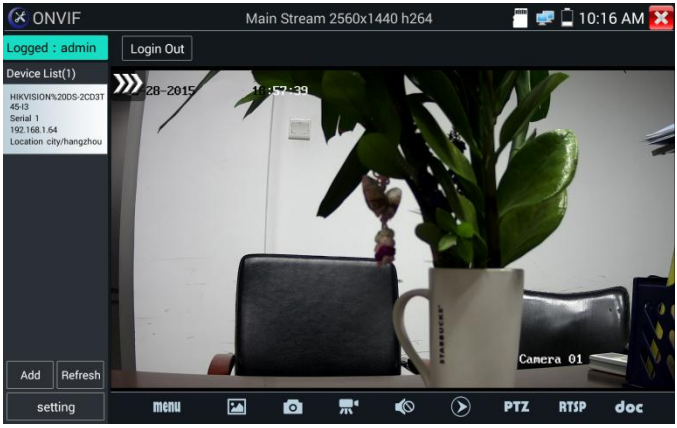
Restore Defaults: Revert “Rapid ONVIF” to default settings.

OK: Save the modified parameters.

Click “MENU” icon to open camera setting.

While in the “Live video” menu, click “Video Menu” at the top right of the image to access the following tools: Snapshot, Record, Photo, Playback, PTZ and Settings.

ONVIF PTZ control: Tap the image in the direction you want the PTZ camera to move. Tap the left side of the image to move left, right to go right, up to go up and down to go down. Compatible IP PTZ cameras will rotate accordingly. PTZ rotation direction is displayed on top left corner of the image.



IP camera video settings: Click “Video Set” to enter the IP camera’s encoder and resolution settings. Make the desired changes and click “OK “to save.

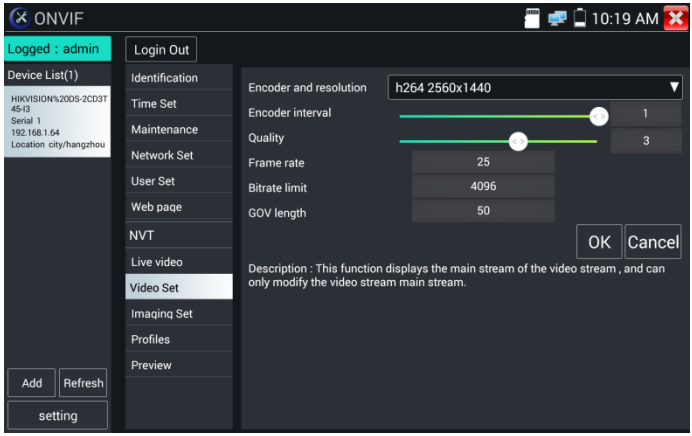
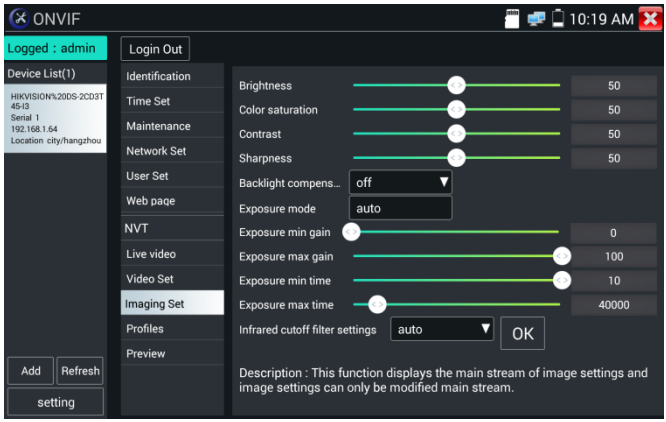
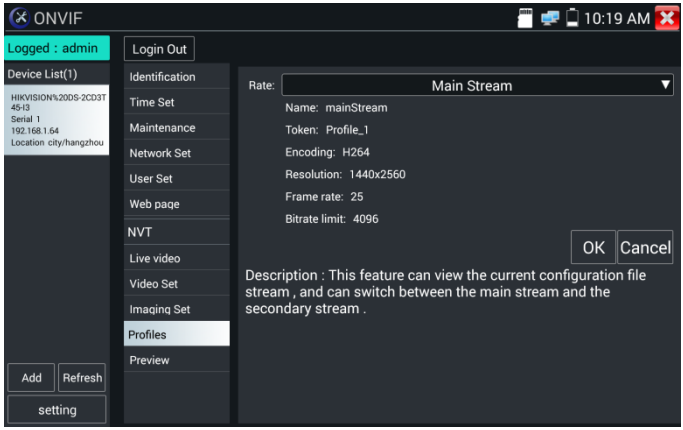


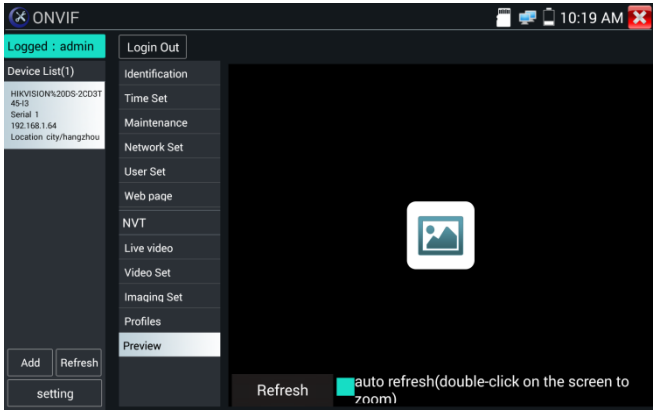
Image setting: Click “Imaging Set” to adjust image brightness, saturation, contrast, sharpness and backlight compensation mode.



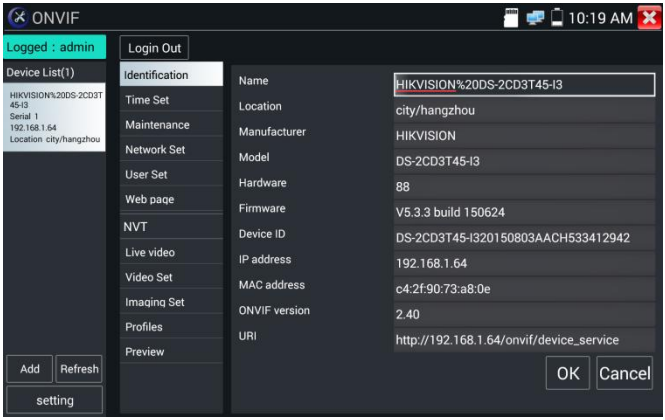
Profiles：Click “profiles"，can view video streaming current configuration files, as well as switch between Major stream and minor stream.



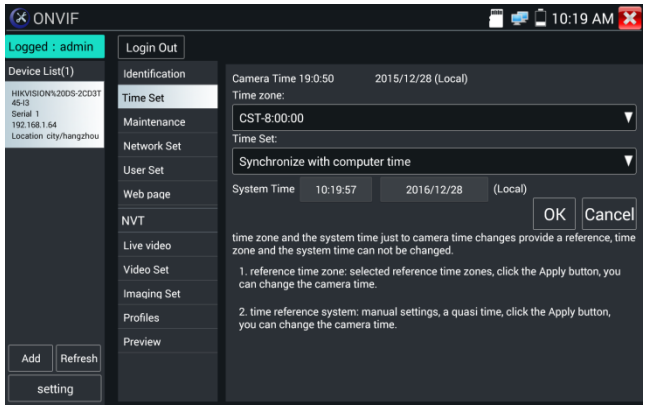
Preview pictures：Quickly preview and zoom in or out pictures, automatically and manual refresh.



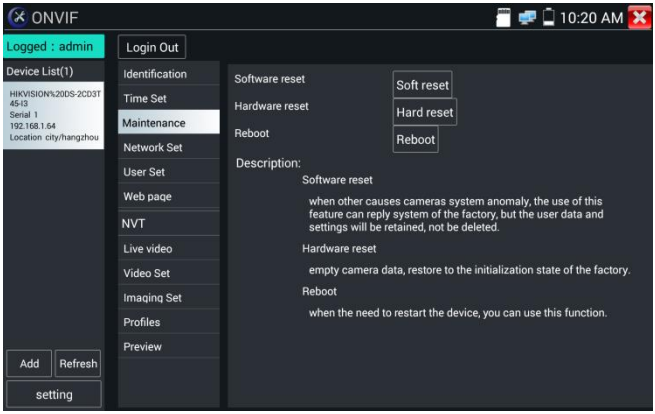
Identification: Click “Identification” to view information of the camera.



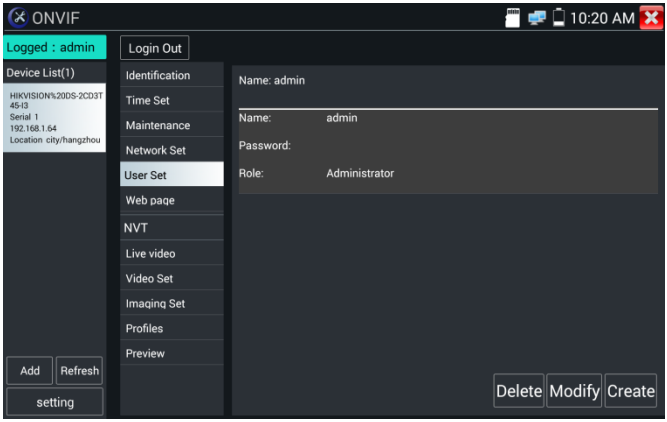
Time set: Click “Time set”, select "Manual set" to set up the time of camera.



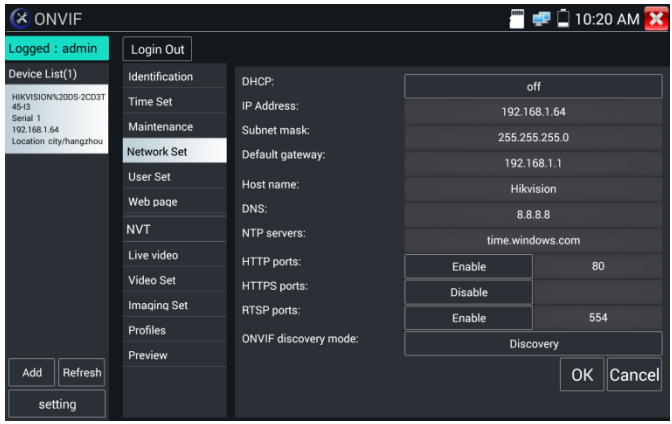
Maintenance: For camera software reset or restore to factory settings.



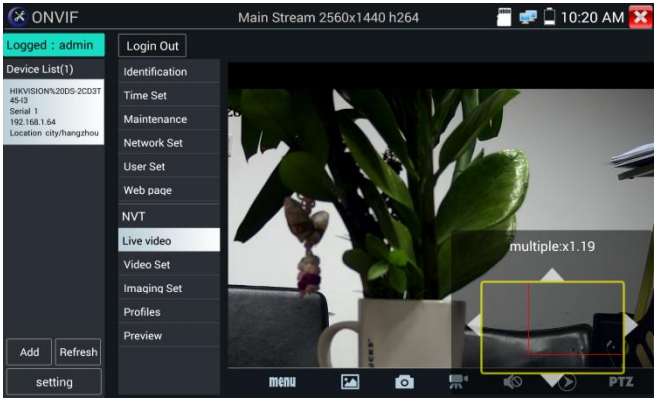
User Set: Modify camera user name, password etc parameters.



Network set: Click “Network Set “to change the IP address. Some cameras cannot support change IP address, so there is no change after saving.



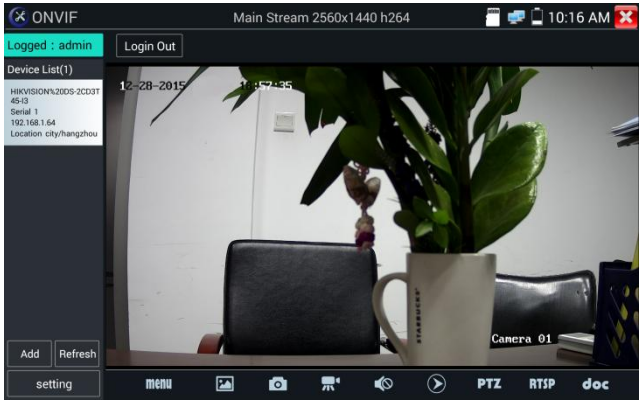
Zoom in image: Press the key to enter the zoom mode. Press it again to exit zoom mode. When the image is enlarged tap left, right, up or down on the image to move the whole image on the screen.



When the image is enlarged, if not operate on touch screen, it can operate by the keyboard, press the key (TELE+) to zoon in, press the key (WIDE-) to zoom out, press upward and downward key to move image. If it is network video input to the tester, as the tester supports resolution up to 1080p, the input image will be very clear after it is enlarged. This is greatly helpful for the installers to ensure the IP camera's video coverage and decide the IP camera's install site.

Image can only be enlarged on SD mode (The icon "ONVIF" is SD mode.)

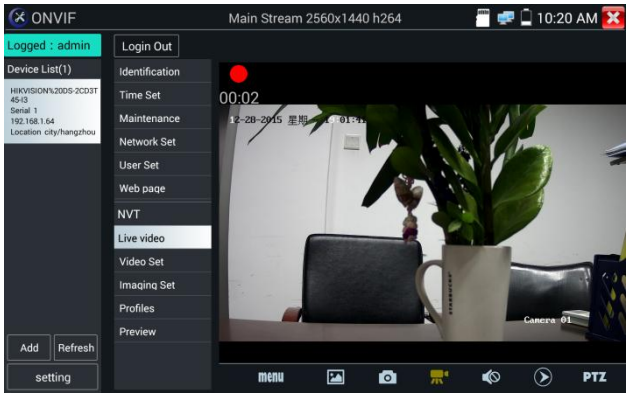
Select relative function on the bottom Toolbar to operate, "Snapshot", "Record", "Photos", "Video playback", "Storage set", "PTZ control" etc.



Snapshot: Click Snapshot icon bottom to screenshot the image and store it to SD card.

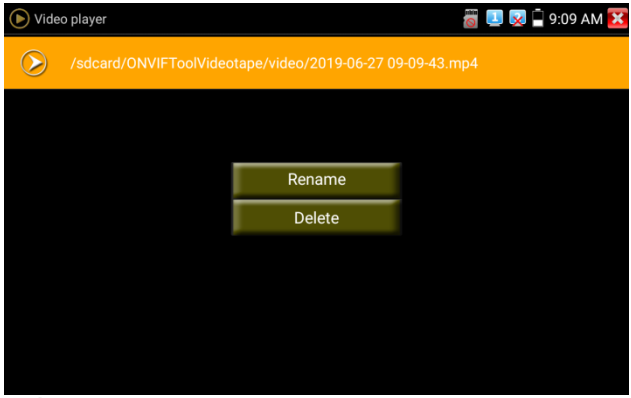
If select manual storage, appears dialog box "Input Name", user-defined the files name (by Chinese character, English letter or digit) to save in SD card, if select "Auto- storage", the tester auto stores the files after snapshot.

Record: When you click Record icon bottom, video starts recording. A red recording icon appears on the screen and begins to flash and a timer appears indicating the time elapsed for the video. Click on the "Stop" icon to stop recording and save the video file to the SD card.



Playback： Click the “Playback” icon to view the saved videos. Double click the video you want to play. Click to return to the last menu.

To rename or delete a photo, click and hold on the file until this screen appears:



Video files can play in the Video player on the main menu.

PTZ

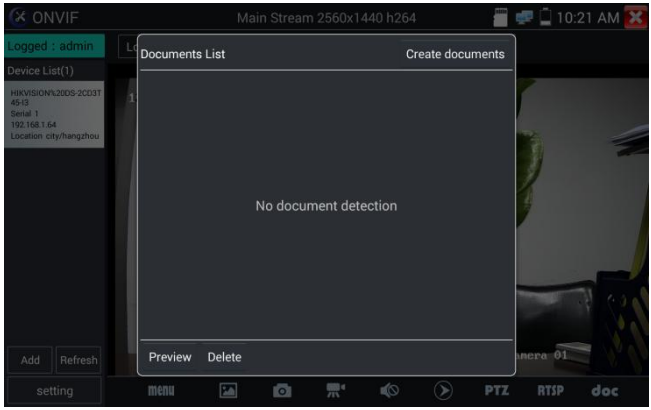
Set preset position: Move the camera to preset position, enter the preset number on the Bottom right corner to complete position preset.

Call the preset position: Select the preset number on the left, click "Call" to call preset.

PTZ Speed set: Horizontal and Vertical Speed set.

RTSP: Get RTSP address of the current camera.

Doc: Auto create testing reports document of camera, click "Create document". Click Preview to view the report document.



Enter the camera test information, click "Create Document" to complete the report.

Click “Doc” menu again, you can preview the report document.

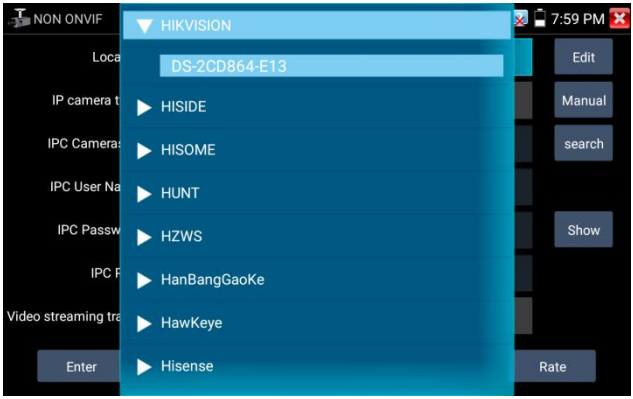
Note: Currently, the IPC Test APP only supports some brands’ IP cameras, these include specific models made by ACTI, AXIS, Dahua, Hikvision, Samsung, and many more. If the camera is not fully integrated, please use the ONVIF or RTSP APPs.

IPC test interface

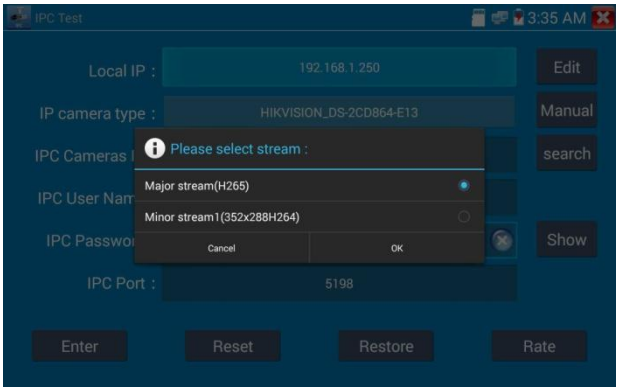
Local IP: This is the tester’s IP address. Click “Edit“ to enter “IP setting“ and change the tester ‘s IP address settings.

IP camera type: Click on the IP Camera type to select the Manufacturer and model number of the integrated IP camera.

"Manual"： Click IP camera type, list Honeywell, Kodak, Tiandy, Aipu-waton, ACTi, WoshiDA IP camera etc. If the brand has offered official original protocols, please select camera type, input IP camera address, user name and password, click" official" to enter the camera image display interface (Currently, only support DAHUA official protocols).



Stream code: When test camera via RTSP, you can select mainstream or sub stream to test (if camera's RTSP have not been start or without, it will tip). If auto match fail, please switch to manually selecting.



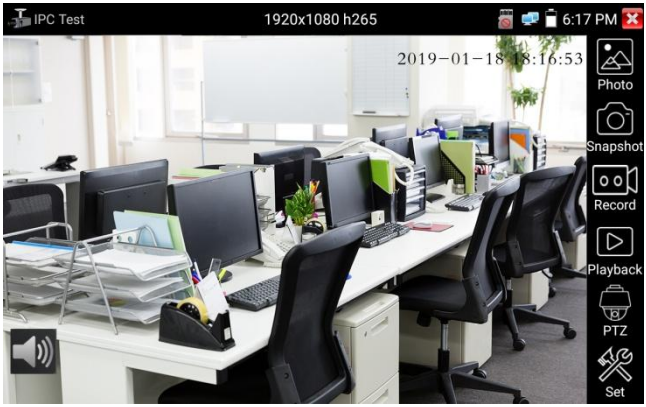
IP Camera's IP: Enter the IP camera's IP address manually or click "Search" to auto-scan for the IP camera's IP address. It is better to directly connect the IP camera to the tester so the search results will only display the camera's IP address. If the tester is connected to a PoE switch, it will find and display several IP address.

IPC User Name: Enter IP camera's user name.

IPC Password: Enter IP camera's login password.

IPC Port: When you select the IP camera type, it will default the camera's port number and doesn't need to be changed.

After all settings are completed, click "Enter" to view the live video.



If IP address setting has error or IP camera is not connected. The tester prompts "Network Error". Click to quit from image display and return to IP camera test interface.

Once you are viewing video on the SURVLtest APP, you will see the "Video Menu" icon on the top right. This button will give you access to Snapshot, Record, Photo, Playback, PTZ, and Set. Please refer to the ONVIF section to use these functions.

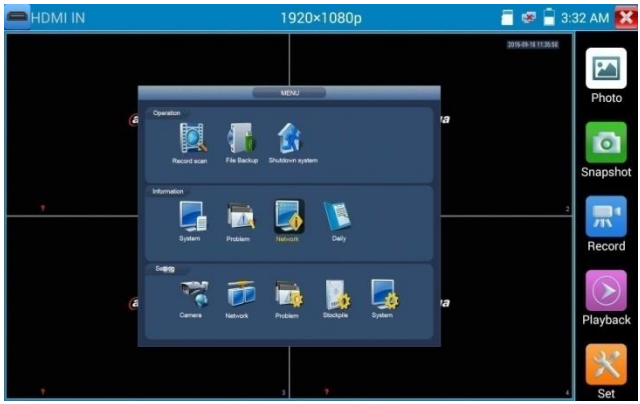
HDMI IN

HDMI in HD signal test, Tap icon “ ”to enter

When tester receives HDMI in image, the top tool bar shows the resolution of this image. You can select “resolution” to set resolution in the setting menu. Tap screen by twice, full image display.

Support resolution below

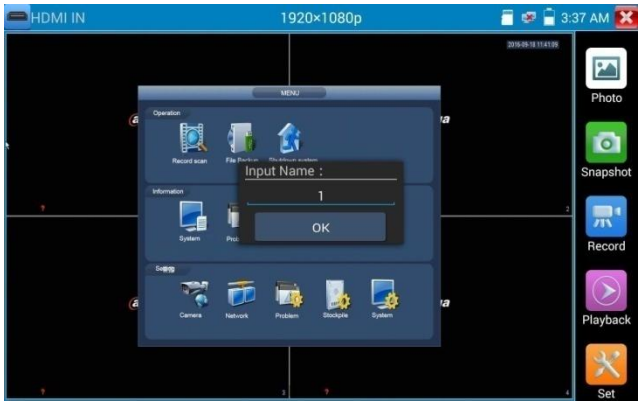
720×480p /720×576p /1280×720p /1920×1080p /1024×768p/1280×1024p /1280×900p /1440×900p



(1) Snapshot

Click the icon “Snapshot “, when the video in, to take a picture and save the current video frame in the SD card as JPEG file.

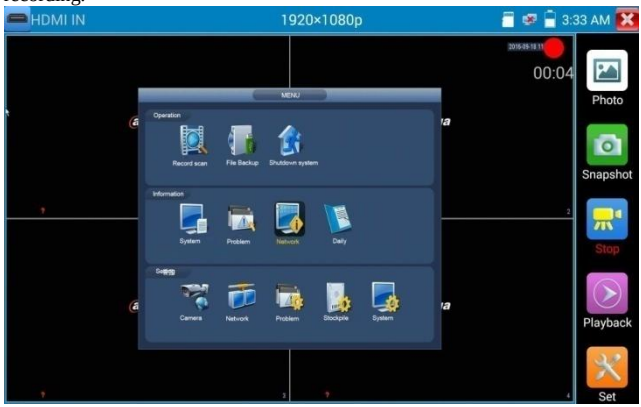
If the unit is set to the manual mode an “Input Name” pop up box will appear and you can enter a title for the snapshot. If the unit is set up to automatically set file names, this box will not pop up.



(2) Video record

When you click the “Record” icon, video starts recording. A red recording icon appears on the screen and begins to flash and a timer appears indicating the time elapsed for the video. Click on the “Record” icon again to stop recording and save the video file to the SD card.

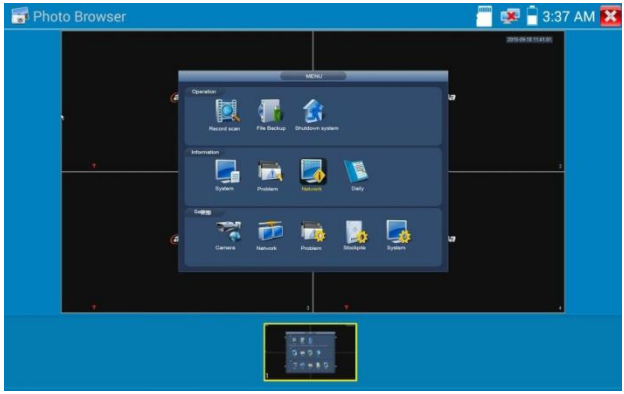
If select manual storage, go to dialog box “Input Name”, user-defined the files name (by Chinese character, English letter ,or digit) to store in SD card before recording, tester will hereby store the files in SD card after recording. If select “Auto-storage, tester will auto store the files in SD card after recording.



(3) Photo

Click the icon “photo” to enter, click the selected thumbnail photo to display it on the screen.

Double-tap the image can view full screen. Double-click again the photo to return.

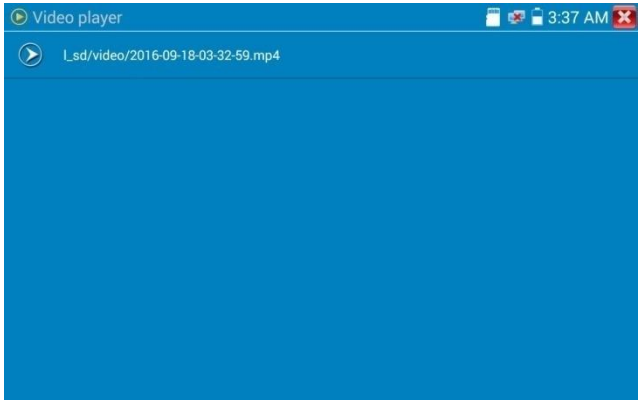


To rename or delete an image, click and hold on the file until this screen below appears

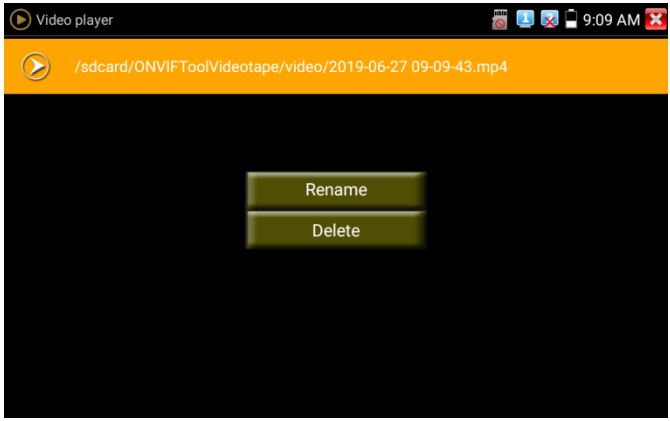
Click to close and return to PTZ controller.

(4) Recorded video playback

Click the “Playback” icon to view your recorded videos. Tap on the video file image you want to watch.



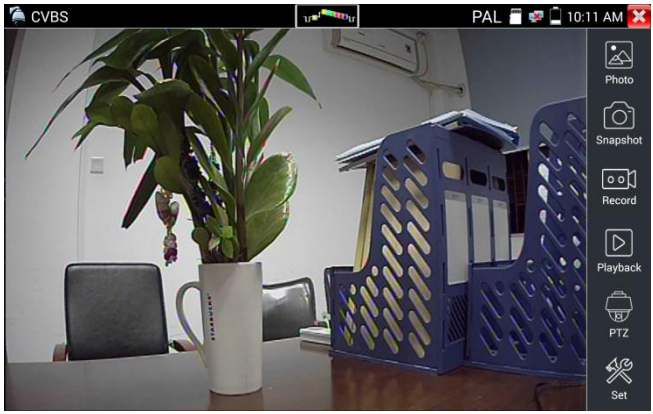
To rename or delete a video, click and hold on the file until this screen appears:



Video files also can play in the main menu “Video Player".

Video monitor test

Analog camera test and PTZ control, click icon to enter



Display the input video image, click the top menu bar icon to enter video level meter (PEAK level, SYNC level, COLOR BURST measurement)

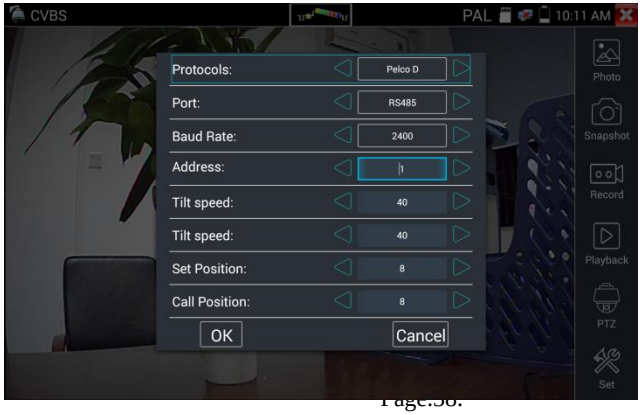
Select relative function on the right side Toolbar to operate , functions including “Photos”, “Snapshot” , “Record” , “Playback” , “PTZ” , “Set” ,

Click , or press to quit.

Click the screen twice quickly, can be full zoom in on the touch screen.

(1) PTZ controller parameter setting

Select and click icon “PTZ” to enter PTZ setting:



A. Protocol

Use the up and down arrow keys to move the yellow cursor to the "protocol ", set corresponding Protocol and support more than thirty PTZ protocols. Such as Pelco-D, Samsung,Yaan, LiLin, CSR600, Panasonic, Sony-EVI etc.

B. Port

Click and move, to "port" Select the communication port for the PTZ camera controlling (RS485)

C. Baud

Move the yellow cursor to "Baud", Select the baud rate according to baud rate of the PTZ camera. (150/300/600/1200/2400/4800/9600/19200/57600/115200)

D. Address

Set the ID according the ID of PTZ camera (0~254), the setting address data must be consistent the speed dome address.

E. Pan speed: Set the pan speed of PTZ camera (0~63)

F. Tilt speed: Set the tilt speed of PTZ camera (0~63)

G. Set preset position (Set PS)

Click and select "Set PS", set and save preset position number (1~128).

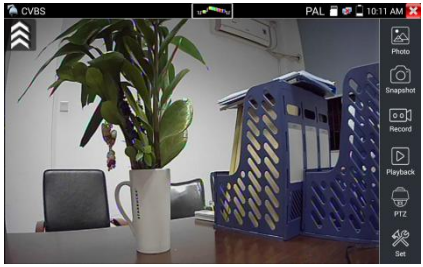
H. Call the preset position (Go ps)

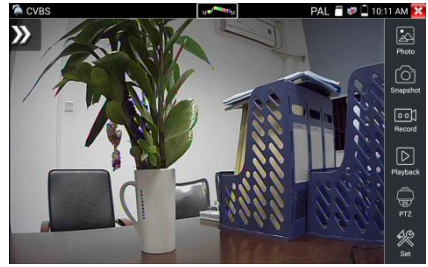
Click and select "Set PS", set and save preset position number (1~128), click "sure" to save,
Call some special preset number, can call the dome camera menu.

Check and set the protocols, address, interface and baud, all must be consistent with the dome camera then the SURVLtest can test. After setting the parameter, the tester can control the PTZ and lens.

I. To control PTZ by screen touch:

Tap left, right, upward and downward on the touch screen to control the PTZ rotation direction. By two fingers move outward and inward on the touch screen to zoom in and out the PTZ.





PTZ Control:

Press the key control the PTZ direction of rotation

Press the key OPEN or CLOSE , to switch on or turn off the aperture.

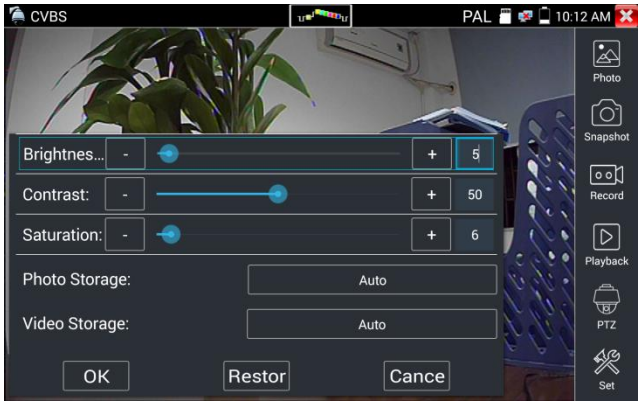
Press the key FAR+ or NEAR- , adjust the focus manually

Press the key TELE+ or WIDE- , manually adjust the zoom

(2) Video and storage setting

Click icon “set”, to enter and set analog video image brightness, contrast, color saturation, as well as the file storage way after snapshot and recording, support auto-storage and manual storage.

When select manual storage, user can name and store the files.



(3) 4X zoom image display and Video out

When image input, press to enter “zoom”, press it again to quit.

Using the touch screen to control PTZ camera movement:

Tap left, right, upward or downward on the video image to move the PTZ camera in a desired direction.

Stretch two fingers outward or inward on the touch screen to zoom the image in or out.

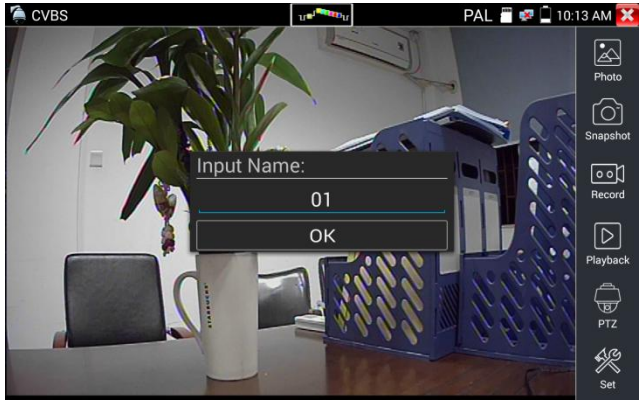
If not use touch screen to operate, press the key to zoom out, press the key to zoom in, press upward and downward key to move the image.

For analog video input, as the resolution is 720*480, it is normal that the zoom in image is not clear. But for network digital video input, as it supports resolution up to 1280*960, the zoom in image is still very clear. This is very helpful for IP camera installation.

(4) Snapshot

Click the icon “Snapshot “, when the video in, to take a picture and save the current video frame in the SD card as JPEG file.

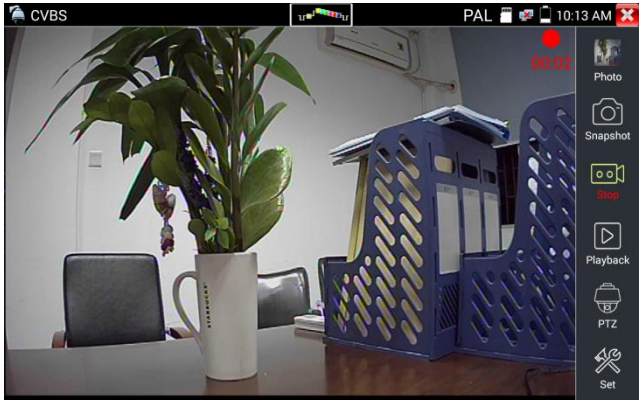
If the unit is set to the manual mode an “Input Name” pop up box will appear and you can enter a title for the snapshot. If the unit is set up to automatically set file names, this box will not pop up.



(5) Video record

When you click the “Record” icon, video starts recording. A red recording icon appears on the screen and begins to flash and a timer appears indicating the time elapsed for the video. Click on the “Record” icon again to stop recording and save the video file to the SD card.

If select manual storage, before recording begins, go to dialog box “Input Name”, user-defined the files name (by Chinese character, English letter, or digit) to store in SD card, tester will hereby store the files in SD card after recording. If select “Auto-storage, tester will auto store the files in SD card after recording.

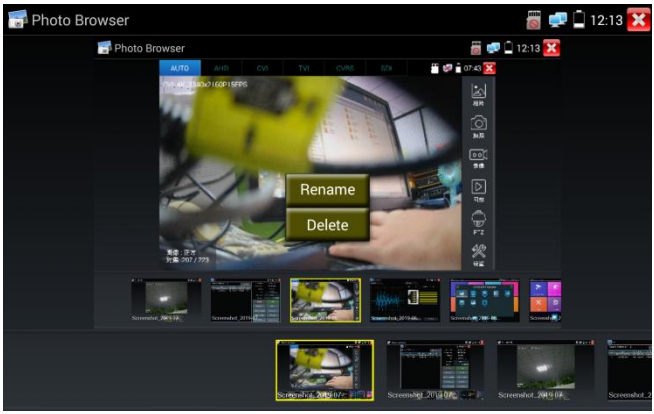


(6) Photo

Click the icon “photo” to enter, click the selected thumbnail photo to display it on the screen.

Double-tap the image you want to view to make it full screen. Double-click again the photo to return.

To rename or delete an image, click and hold on the file until this screen below appears

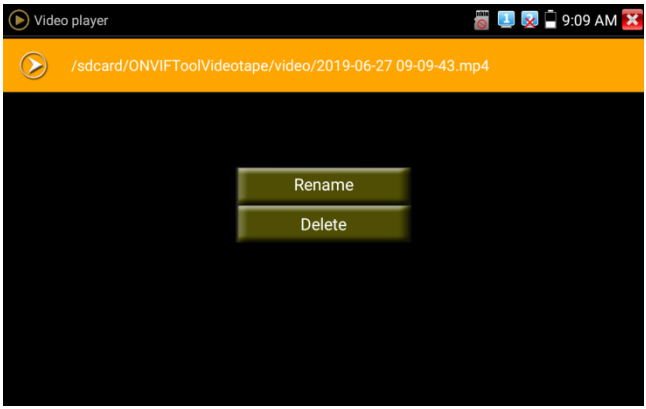


Click to close and return to PTZ controller.

(7) Recorded video playback

Click the “Playback” icon to view your recorded videos. Tap on the video file image you want to watch.

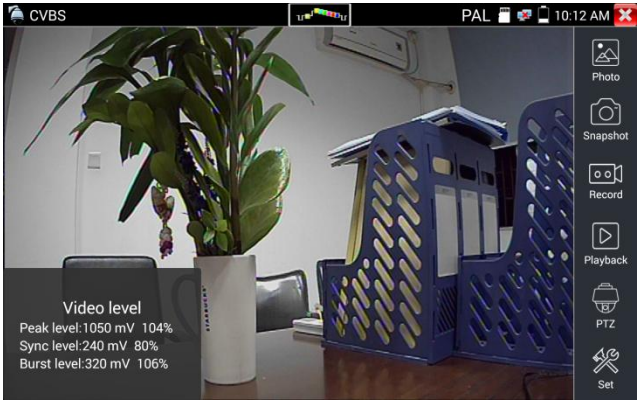
To rename or delete a video, click and hold on the file until this screen appears:



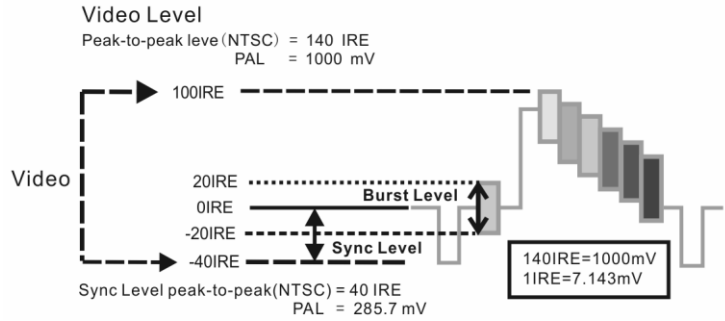
Video files also can play in the main menu “Video Player".

(8) Video level meter

Click the icon to enter, the IP camera tester has adopted hardware high-speed sampling and processing technology, can perform both NTSC and PAL video amplitude signal measurements for PEAK to PEAK, SYNC levels and COLOR BURST Chroma level. When an analog signal is fed into the meter, the tester displays the measurements on the bottom left corner of the screen



While in PAL format, the unit will be mV, While in NTSC format, it will be IRE.



NTSC	Video signal level	140±15IRE
	Chroma level(COLOR BURST)	40±5IRE
	SYNC signal level	40±5IRE
PAL	Video signal level	1000±200mV
	Chroma level(COLOR BURST)	300±35mV
	SYNC signal level	300±35mV

Video signal PEAK to PEAK level:

For NTSC format, the video signal level is 140±15IRE

For PAL format, the video signal level is 1000±200mV

If the level is too low, it will cause the image to lose quality and limit the distance it will travel over cable. If the level is too high, it will distort the image.

SYNC level: Tests the amplitude of the video sync pulse to verify if the video level is correct.

For NTSC format, the SYNC level is 40 ± 5IRE

For PAL format, the SYNC level is 300 ± 35mV

If the level is too low, it will cause the image to not frame out properly. If the level is too high, it will lead to a poor quality image.

COLOR BURST level: Testing the color burst level will determine the burst signal if is sufficient to trigger the displays color producing circuit. Burst will diminish in amplitude over longer cable runs and

can get fall below the threshold for the video display to show a color image.

For NTSC format, the Chroma standard level is 40 IRE

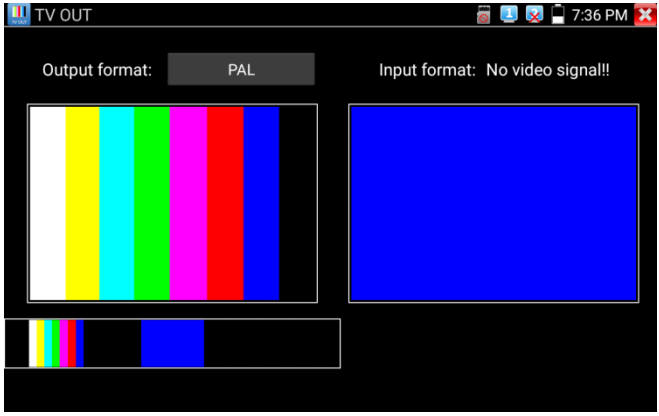
For PAL format, the Chroma standard level is 280mV

If the Chroma level is too low, the color will not be as deep, and some details of the image will become lighter. If the Chroma level is too high, there will be distortions on the image. If the coaxial cable is too long, it will reduce the Chroma level.

Image loop test： Test video optical transmitter and receiver and video cable, connect one end to the tester “VIDEO OUT” port, and the other end connected to “VIDEO IN” port, the signal send via “VIDEO OUT” port, and received via “VIDEO IN” port, If the testing is ok, the tester displays several gradually dwindling photos on the desktop.

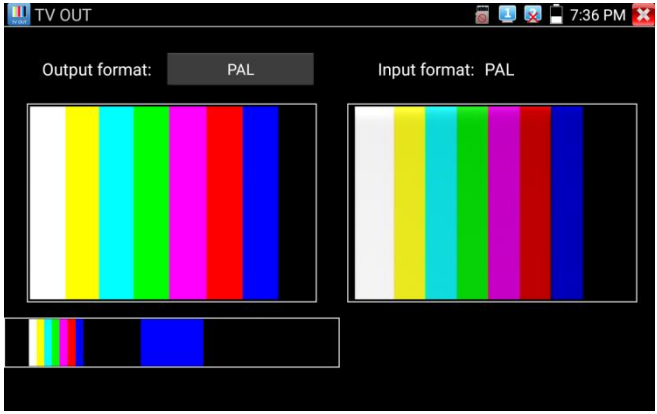
Color-bar generator (TV OUT)

Click to enter, the tester sends the color bars from the “Video out” port, Click the icon “PAL”, and select “PAL/NTSC” output formats



Click the selected color-bars, testing image or single bar (red, green, blue, white or black). Double click to full display on the screen and output, click to return main menu.

Application



BNC loop test: Tester can send and receive color bar generator through the tester's "video out and video in" port, it is for testing transmission channels, such as video Optical, video cables etc. The tester "VIDEO OUT" port to connect optical terminal's sending port, and "VIDEO IN" Port to optical terminal' s connect its receiving port.

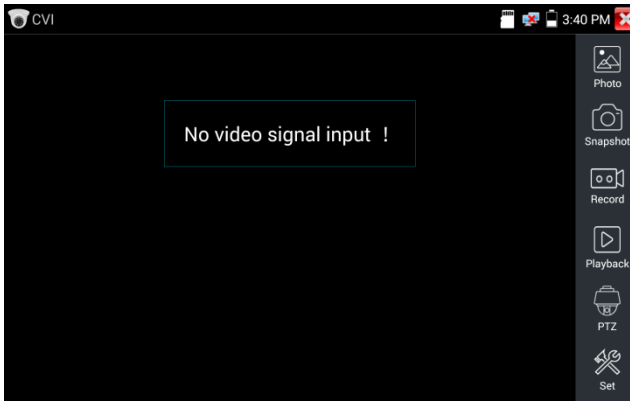
A. When maintaining the dome camera, the tester sends out the color bar by its BNC output to the monitor at the monitoring center. If the monitor receive the color bar, it means the video transmit channel works normally. Meanwhile on the basis of the received color bar, the monitoring center can judge if transmission has loss or interference.

B. The tester sends out the pure color bar (such as white and black color), to test the monitor whether has bright or black dots

C. The tester sends out video signal image to test if the image received by the monitor has excursion.

CVI camera test

HD CVI camera, CVI dome camera test and PTZ control, click icon to enter

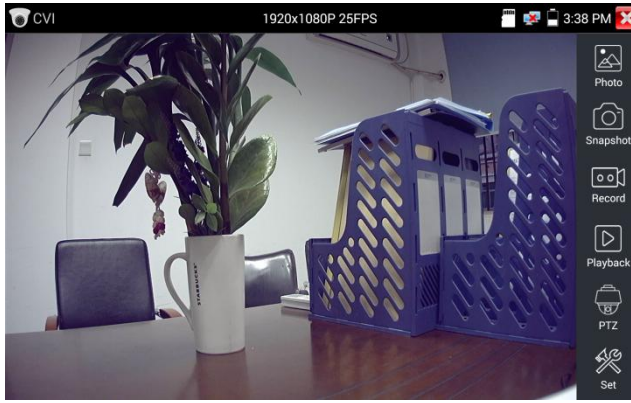


When HD CVI signal input, the tester will display the image resolution on the top bar. Double-taps on the screen to make the image displayed full screen.

The tester supports resolution as follows

1280x720P 25FPS / 1280x720P 30FPS / 1280x720P 50FPS / 1280x720P 60FPS

1920x1080P 25FPS / 1920x1080P 30FPS/2560x1440P 25FPS/2560x1440P 30FPS./ 3840 x 2160 12.5/15 FPS

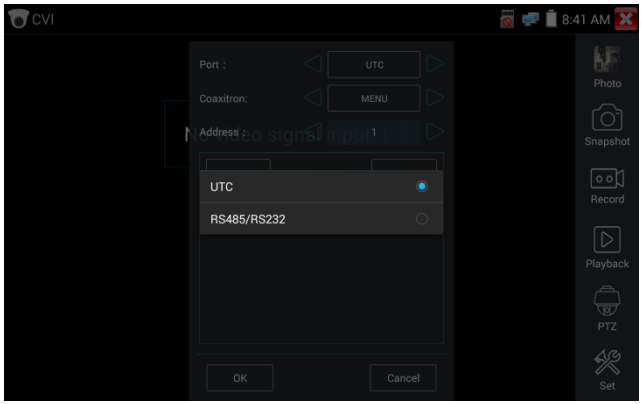


（1）**PTZ control**

1.1 Coaxial PTZ control

Click the icon “PTZ” on the right toolbar to do the corresponding setting.

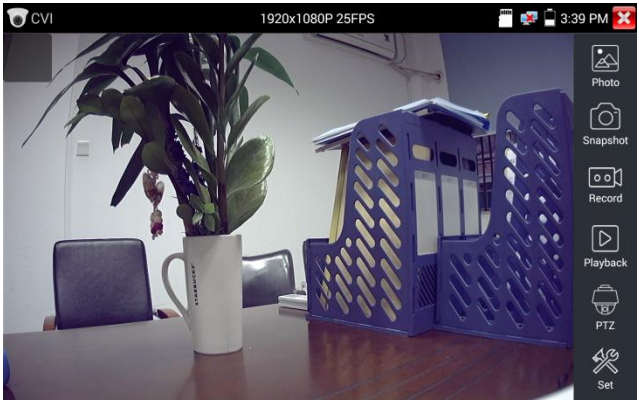
“Port”: select coaxial control



Enter PTZ address to perform parameters setting.

Operation instructions, please refer to “3.3.1 PTZ (1) Video monitor test”.

The PTZ address in the tester must be consistent with the dome camera or decoder, then the SURVLtest can test .After setting the parameter, the tester can control the PTZ and lens.



To control PTZ by touch screen:

Tap left, right, upward and downward on the touch screen to control the PTZ rotation direction, PTZ cameras will rotate accordingly. By two fingers move outward and inward on the touch screen to zoom in and out the PTZ.

To control PTZ by key buttons

Press the key control the PTZ direction of rotation

Press the key OPEN or CLOSE , to switch on or turn off the aperture.

Press the key FAR+ or NEAR- , adjust the focus manually

Press the key TELE+ or WIDE- , manually adjust the zoom

Set preset position

Setup preset position: move the PTZ camera to the pre-set position, then Tap it and input pre-set position number. Tap “Set position” to complete set pre-set position.

Tap the preset position:

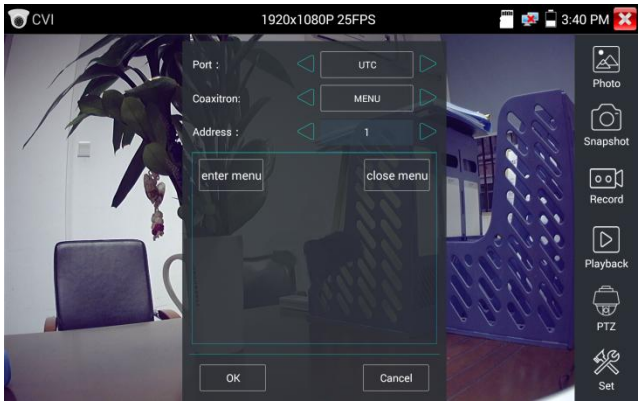
Tap the preset position area, input preset position number. Tap “call position” to complete call preset position.

1.2 RS485 control

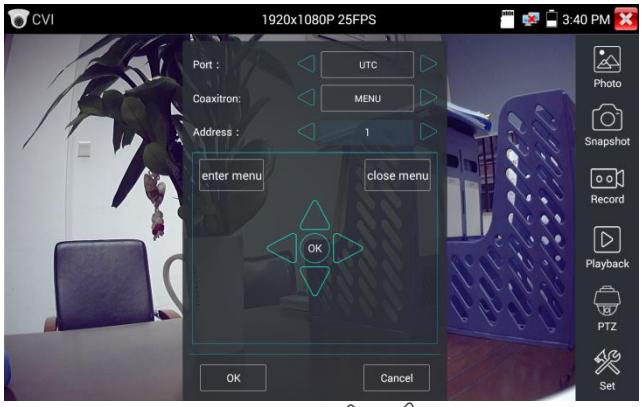
Operation instructions, please refer to “3.3.1 PTZ (1) PTZ control parameters setting”.

（2）Coaxial camera menu setting

Tap icon “UTC”, select “menu setting” to enter the dome camera menu.



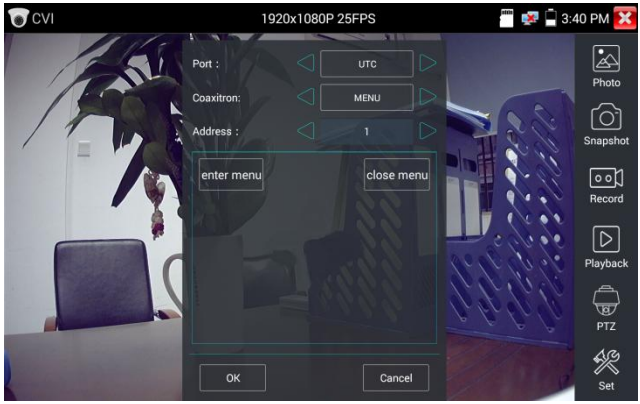
Input calling dome camera menu address code, after finishing the parameter settings, you can press the key ENTER or click the icon to call the dome camera menu.



Press arrow keys to set.

(3) Snapshot, record, photo viewer and video play back, please refer to "3.3.1 PTZ (1) Video monitor test".

Tap "close menu" or press the key " ENTER "to close camera menu.

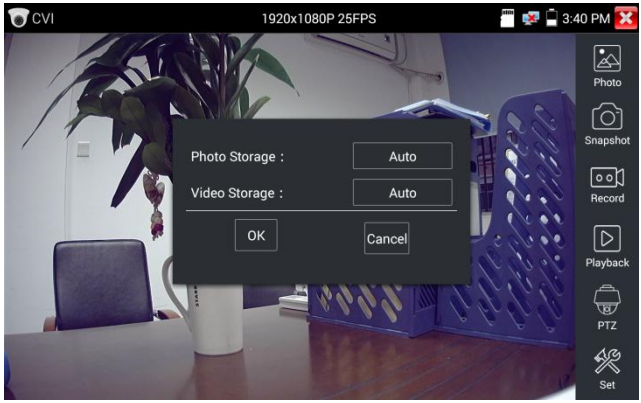


(4) Save setting

Click icon "Set" on the right toolbar to enter storage setting.

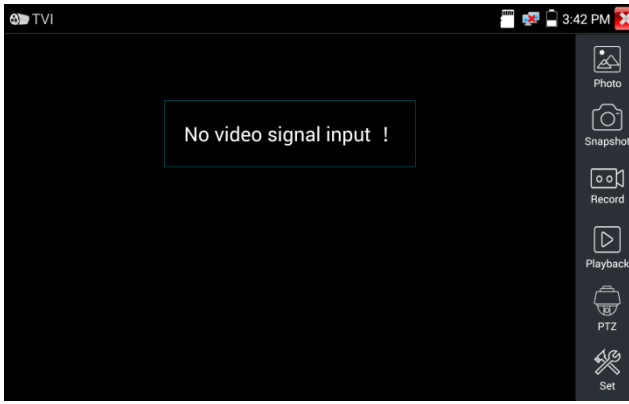
Support auto-storage and manual storage.

When select manual storage, user can name and store the files.



TVI camera test

HD TVI camera, TVI dome camera test and PTZ control, Click icon to enter

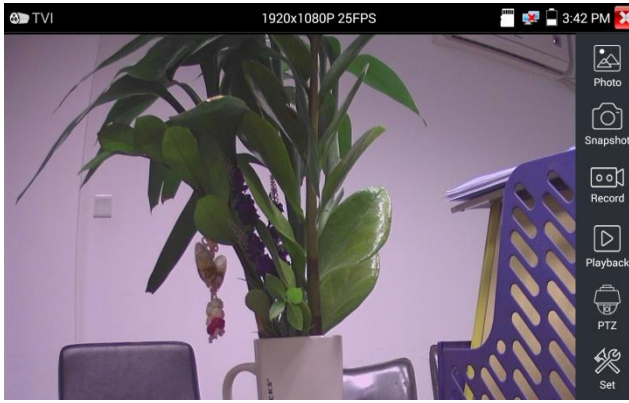


When HD TVI signal input, the tester will display the image resolution on the top bar. Double-taps on the screen to make the image displayed full screen.

The tester supports resolution as follows:

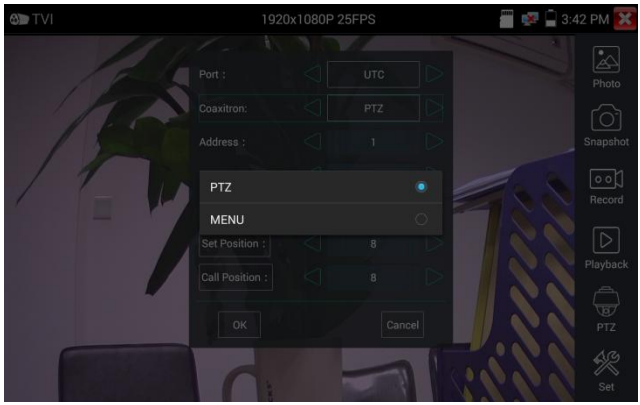
1280x720P 25FPS / 1280x720P30FPS / 1280x720P 50FPS / 1280x720P 60FPS

1920x1080P 25FPS / 1920x1080P 30FPS / 1920x1080P 50FPS / 1920x1080P 60FPS /2048x1536P 18FPS/2048x1536P 25FPS/2048x1536P 30FPS /2560x1440P 15 FPS/2560x1440P 25 FPS/2560x1440P 30 FPS/2688x1520P 15FPS/2592x1944P 12.5FPS/2592x1944P 20FPS/ 3840 x 2160 12.5/15 FPS

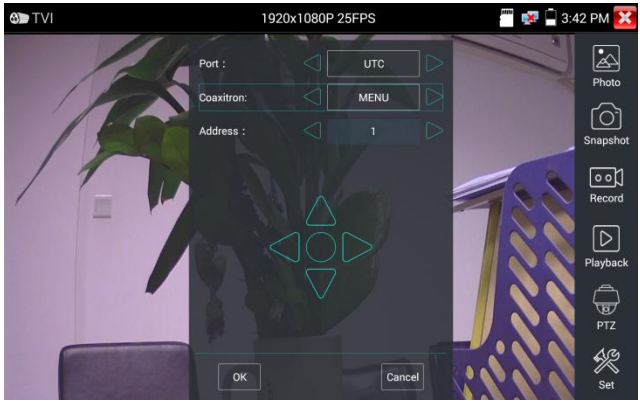


Coaxial camera menu settings

Tap icon “UTC”, select “menu setting” to enter the dome camera menu.



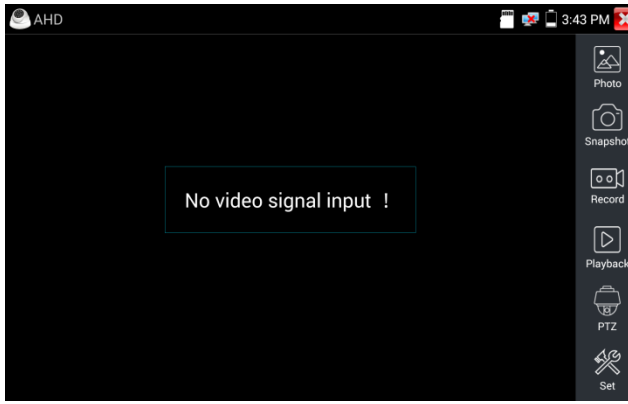
Input calling dome camera menu address code, after finishing the parameter settings, you can press the key (ENTER) or click the icon to call the dome camera menu.



More operation instructions (such as PTZ control, coaxial camera menu setting, snapshot, recording and playback etc), please refer to“3.3.6 CVI camera test”.

AHD camera test

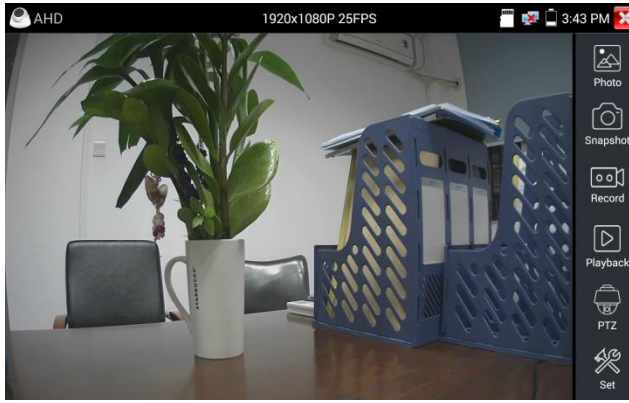
AHD camera, AHD dome camera test and PTZ control, Click icon to enter



When AHD signal input, the tester will display the image resolution on the top bar. Double-taps on the screen to make the image displayed full screen.

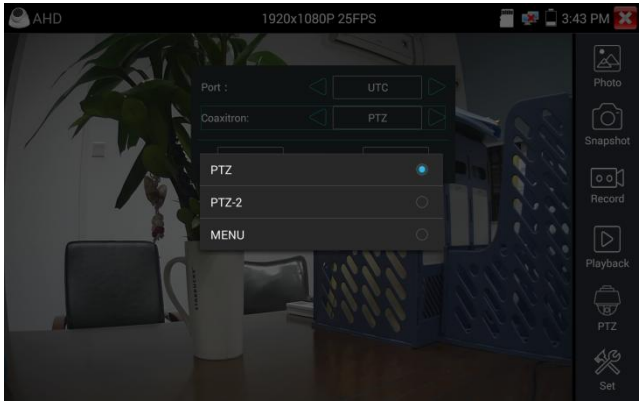
The tester supports resolution as follows:

1280x720P 25FPS / 1280x720P 30FPS / 1920x1080P 25FPS / 1920x1080P 30FPS/2048x1536P 18FPS/2048x1536P 25FPS/2048x1536P 30FPS /2560x1440P 15 FPS/2560x1440P 25 FPS/ 2560x1440P 30 FPS/2592x1944P 12.5FPS/2592x1944P 20FPS, 3840x2160P 15FPS



(1) Coaxial PTZ control

UTC control: select “PTZ control or PTZ control-2” (AHD camera has two different order, if select “PTZ” cannot control, please go “PTZ-2”)



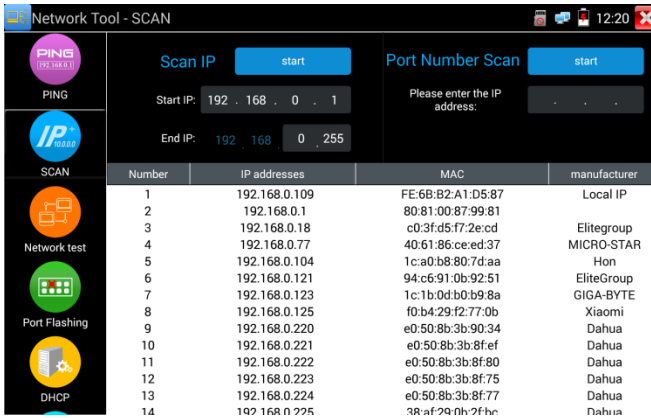
If to coaxial PTZ control the AHD camera, no parameters setting is needed.

More operation instructions please refer to “3.3.6 CVI camera test”.

Network tool

（1）IP address scan

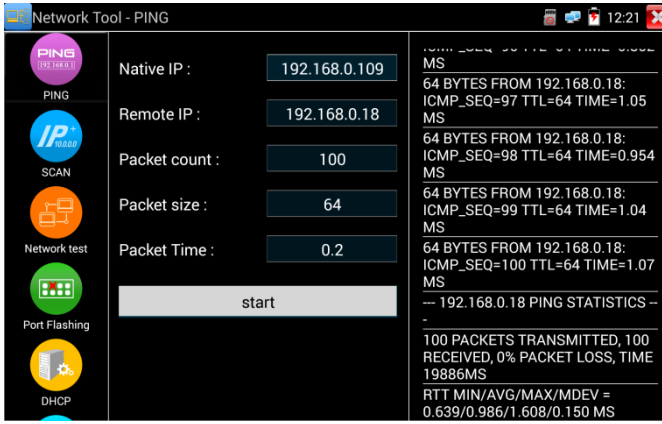
Connect the cable to the LAN port, click icon to enter, Set your IP address search range by changing the Start and End IP addresses. Click the “Start” button to scan the IP address range. You can also input an IP address in the Port Number Scan to scan for open ports.



（2）PING Test

PING is the most conventional network debugging tool; it is used for testing if the connected IP camera or other network equipment's Ethernet port is working normally and the IP address is correct.

Connect a network cable to the LAN port and click the icon to open the PING tool. You can set your LOCAL (native) IP address, Remote IP address (e.g. IP camera), Packet count, Packet Size, Packet time and Timeout. Press "Start" to start pinging. If the IP camera or network device is not configured properly or not plugged in, it will say "Destination host unreachable," or have 100% packet loss. Once the tester connects to the device successfully, the send and receive packets will have a 0% packet loss.

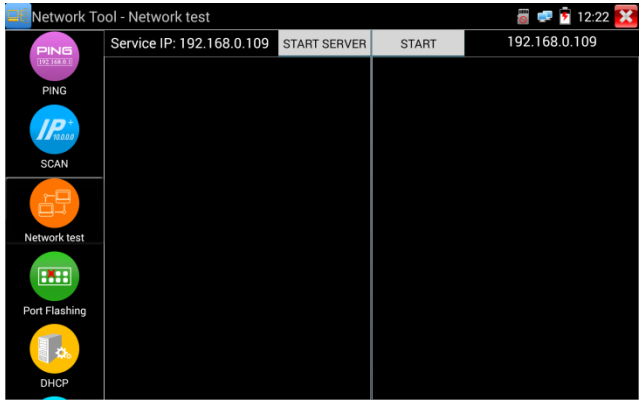


Application: PING testing is the most conventional network debugging tools. It is used for testing if the connected IP camera or other network equipment's Ethernet port is working normally and the IP address is correct. It's normal that the first data packet will be lost when test start.

（3）Network test (Ethernet bandwidth test)

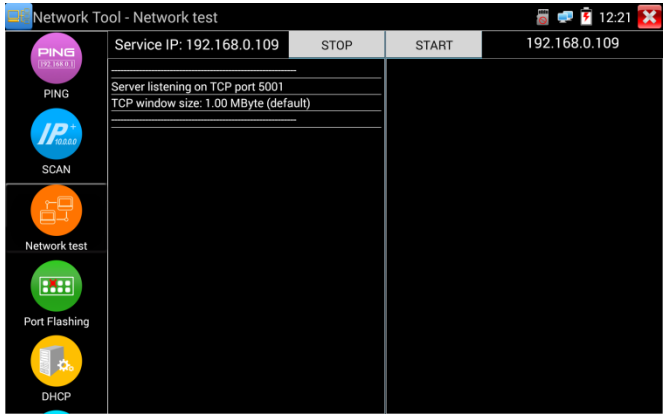
Network test (Ethernet bandwidth test)

To use Network test, you will need two SURVLtest. One is used as a Server and the other as a Client. Both devices must be on the same network segment in order to communicate. Click the icon to open the Network Tester APP.

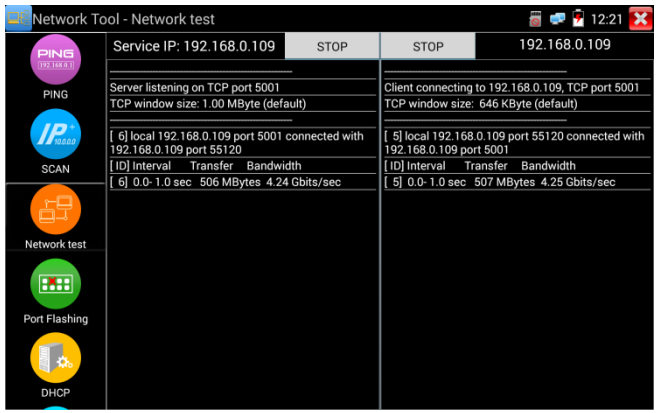


When test, need a tester or a computer installed Network Test Software as the Server, the other tester sends packet test. The two testers must be in the same network segment.

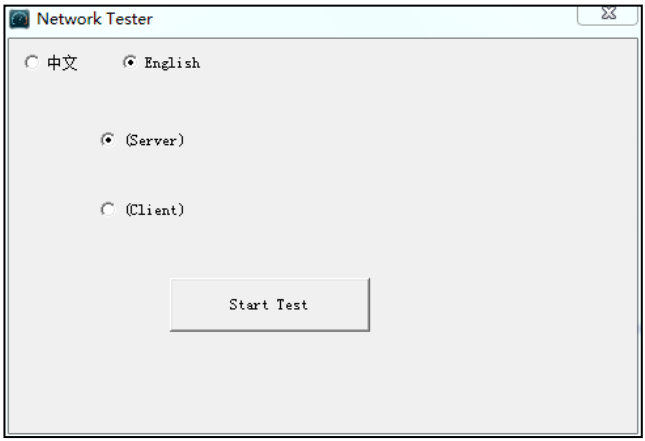
a) **Start the server:** Click "Start Server" button to use the tester as a Server. It will display its IP address at the top of the screen.



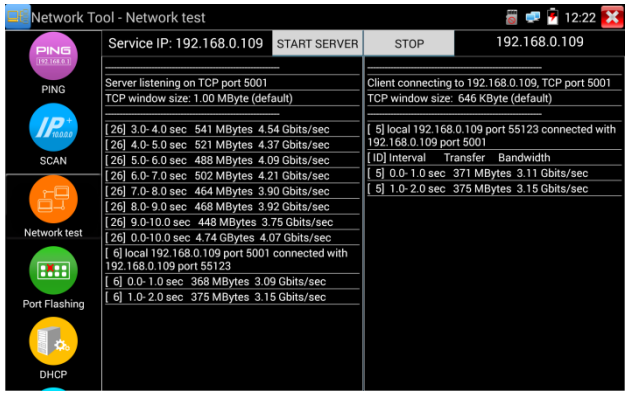
b) Start send packet test: Using the other SURVLtest, type in the Server's IP address at the top right corner of the screen. This APP is used to send packets for network speed testing. Click the “Start” button to send the packets and start testing.



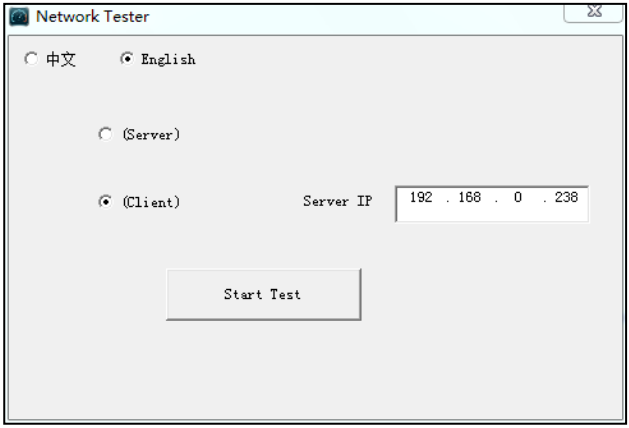
Network bandwidth testing can also be tested with a computer using compatible network bandwidth testing software. Install network bandwidth testing software on a computer, as a test Client or Server, to do the mutual testing with the tester. If use computer as the server, the computer IP address is: 192.168.0.39



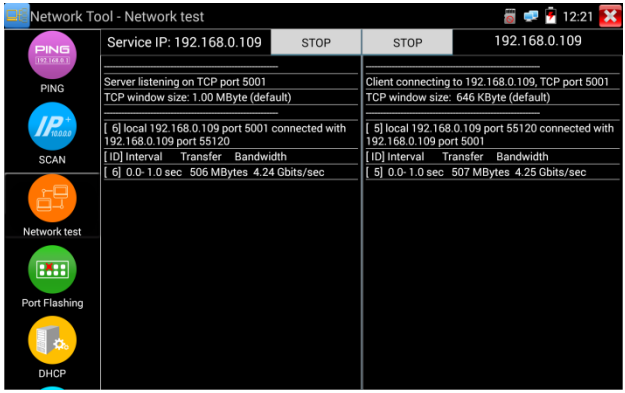
Tester as Client, tester's IP address is: 192.168.0.238. The Server and the Client are at the same network segment, but with different IP address. Input Server's IP address 192.168.0.39 in the tester and click "Start" to test network bandwidth.



Or use tester as a Server, computer as test Client（select Client, input tester's IP address to test）

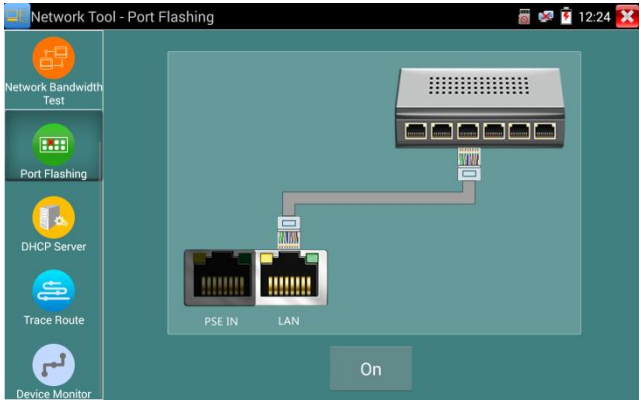


When use tester as Server, it shows results:

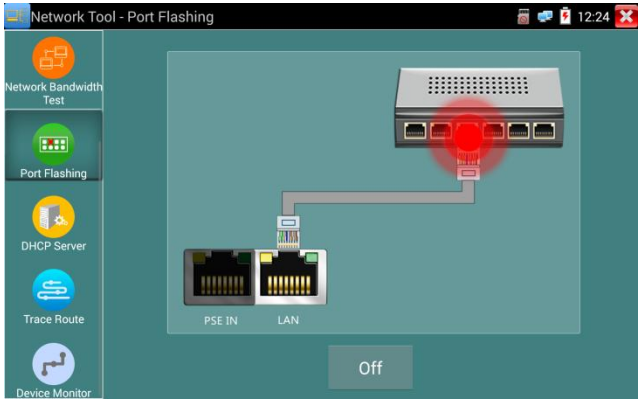


（4）Port Flashing

Connect a network cable to the meter's "LAN" port, click the icon to open the Port Flashing APP. Click "Start". The IP tester sends a unique signal to make the connected LAN port of the switch flash.



If the tester and PoE switch are connected well, the LAN port of PoE switch flashes at special frequency, if not, there's no any changes on the LAN port.

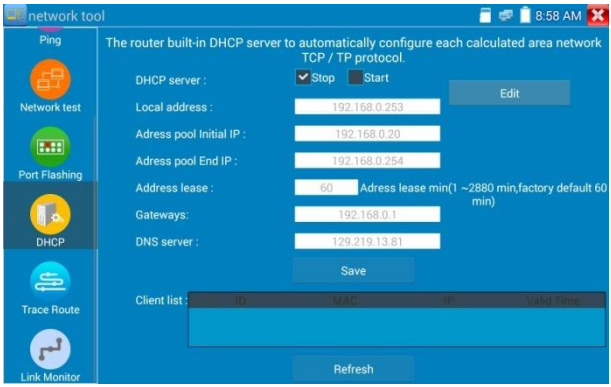


Application:

The tester will send special signals to make the connected LAN port flicker at special frequency, which will enable the installers to easily and quickly find the connected Ethernet cable. This function can prevent mistakenly insertion or disconnection non-corresponding cable to artificially interrupt network connection.

（5）DHCP server

Click on the DHCP icon to open the DHCP server APP. Select the “Start” check box at the top and make any desired changes to the network settings. Click “Save” to start assigning dynamic IP addresses for IP cameras and other networked devices. Click the “Refresh” button to check your Client

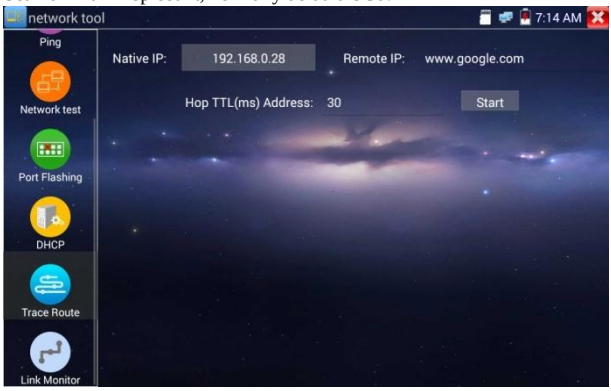


（6）Trace route

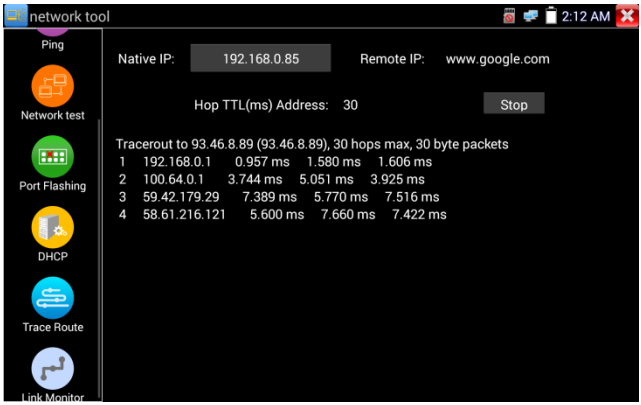
It is used to determine path of the IP packet access target.

Note: Trace route testing results only for reference, for accurate test route tracking, please use professional Ethernet tester.

Click to enter trace route. Input tracking IP address or domain name in the Remote Host IP. Set maximum hop count, normally default is 30.



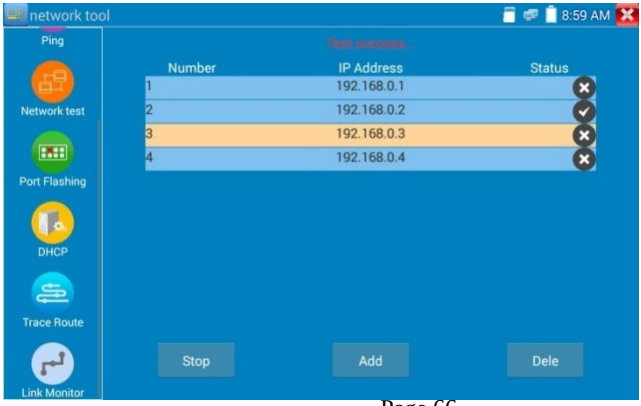
Click “start” to trace the goal address.



（7）Link monitor

Click the icon to open the Link Monitor APP. This APP is used to see if an IP address is occupied by other network devices. This will avoid new address conflicts.

Click “Add” and enter the desired IP address. To test different network segments, click the “Settings” icon on the main menu and go to IP Settings and make the desired changes. Once the desired IP addresses are added to the Link Monitor list, click “Start”. If the IP address status shows a check mark the IP address is occupied. If the IP address status shows an X the IP address is available. Click “Stop” to stop the testing.



Application:

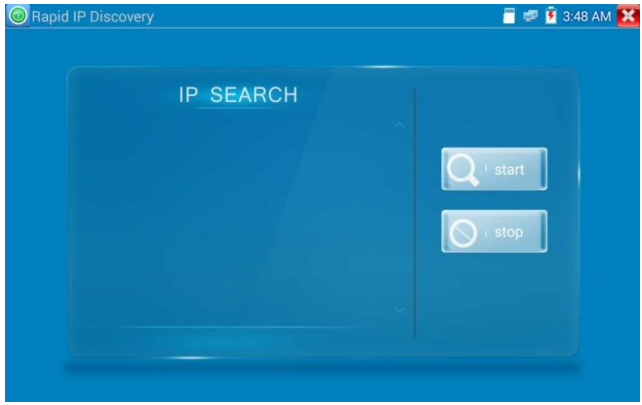
Add an IP camera or other network device to the current network group, the new IP address must not be occupied, otherwise it will cause IP conflicts and stop the equipment normal working. Link monitor can check if the new setting IP address is occupied.

Rapid IP Discovery

Connect the cable to tester's LAN port. Press to enter Rapid IP Discovery APP.

Click "Start "to search all IP address of connected equipments in whole network segment.

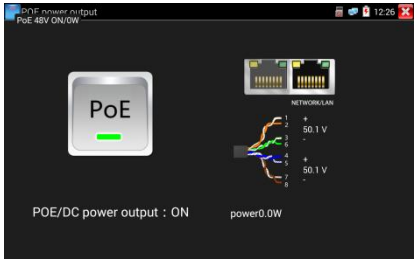
Click "Stop "to stop work.



PoE power / DC12V 3A and DC 5V 2A USB power output

When the tester is turned on, the 12VDC and 5VDC power output functions are automatically turned on. If SUVLtest is turned off, the 5VDC USB can still be used to power an external USB device.

To use the PoE Power Output function, click on the icon and change the switch “ON” or “OFF”. The IP camera needs to be connected to the LAN port before you turn PoE Power on. If the IP camera Supports PoE, the PoE power is delivered via pins 1, 2, 3, and 6 on the LAN port. SURVLtest will display “48V ON” at the top of the screen when the PoE power is still on.



Note:

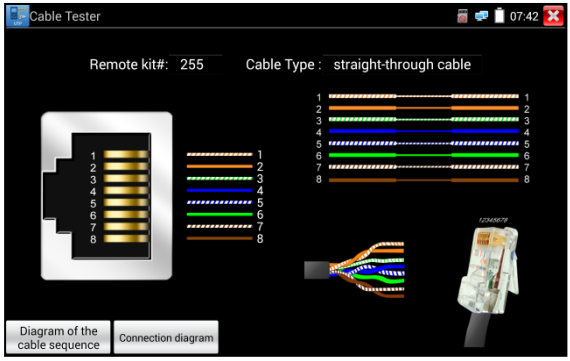
1. Don’t input power into the “DC12/3A OUTPUT” port.
2. Don’t output DC12V/3A power to the DC12V/IN port of tester in order to avoid tester damaged.
3. The SURVLtest power output is close to 3A, if the IP camera’s power is over 3A, the tester will auto enter protection mode. Disconnect all the connections of the tester and then connect the tester with power adaptor to resume the tester.
4. Before turning on the PoE power output, please make sure the IP camera supports PoE power. Otherwise it may damage the IP camera.

5 Make sure you plug in your IP camera to the LAN port prior to turning on PoE power.

6. Make sure the tester is full charged or more than 80% charged, otherwise the tester will shows “low power”, “not able to supply power”.

Cable tes

Click icon to enter



Test LAN cable or telephone cable.

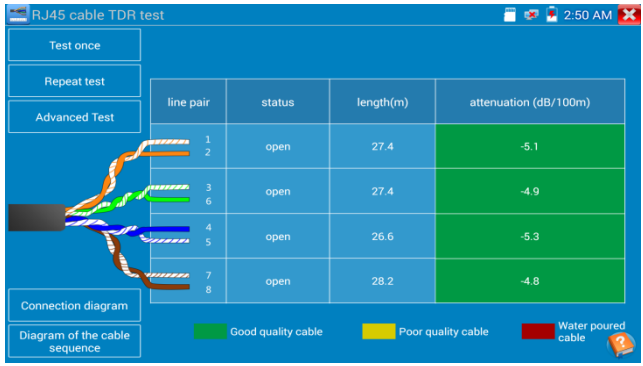
Connect LAN cable or telephone cable with the CCTV tester and cable tester. And then the connection status, cable type and the sequence of wires as well as the serial number of the cable tester kit will be displayed. The number of the cable tester is 255

Cable test

Tap "cable test sketch map", pop up Straight-through cable and crossover cable sketch, It is for line sequence reference.

RJ45 cable TDR test

Connect cable to tester's LAN port, click icon to enter RJ45 cable TDR test APP.



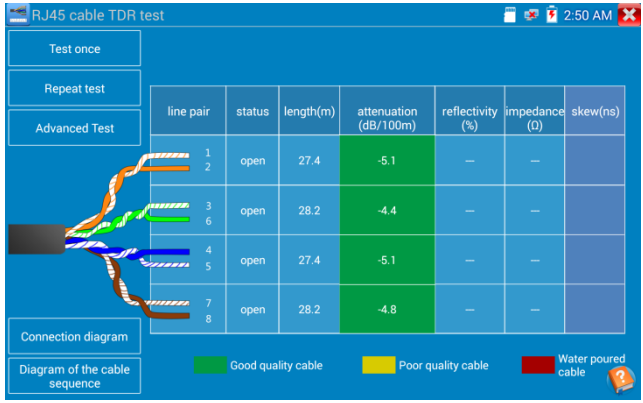
Single test: Test cable status, length and attenuation.

Repeat test: Continue to test cable status, length and attenuation.

Status: After link up, screen display “online”, if not link up or open circuit, screen display ”open circuit”, if cable pair is short circuit, screen display “short circuit”.

Length: The max test length is 180 meters, when cable is open circuit or short circuit, can test the cable length, if screen display “online”, the testing result would be not accurate.

Cable quality test: Green is good quality cable, Yellow is Poor quality cable, Red is water poured cable, the attenuation value will be displayed when cable over 10 meters

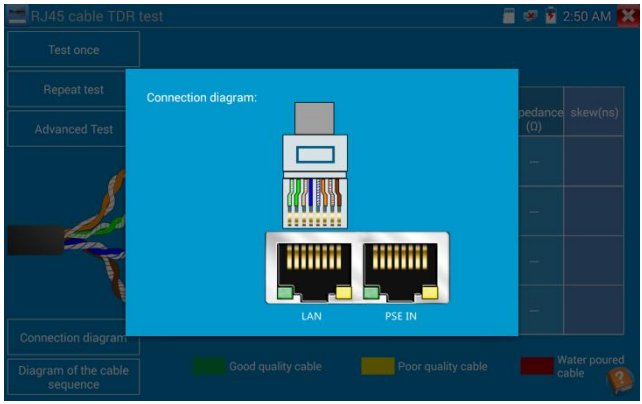


Advanced Test: Under RJ45 cable TDR test, it is able to test cable pair status, length, attenuation, reflectivity, impedance, skew and other parameters.

Attenuation reflectivity: After link up, if reflectivity value is 0, it is the best quality communication.

Impedance: After link up, if the impedance value is 100 Ω, it is the best quality communication, the range is generally in 85-135 Ω.

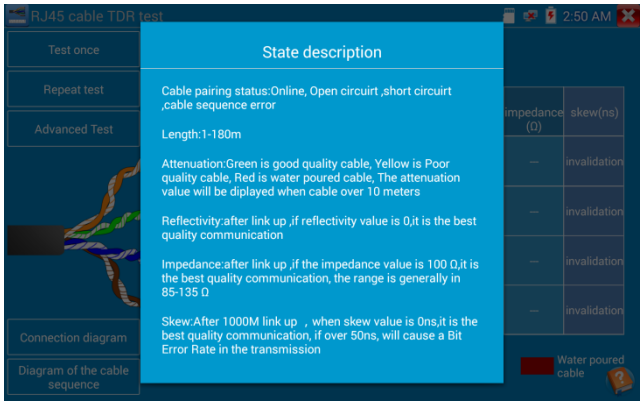
Skew: After 1000M link up, when skew value is 0ns, it is the best quality communication, if over 50ns, will cause a Bit Error Rate in the transmission.



Connection diagram:

Cable sequence diagram:

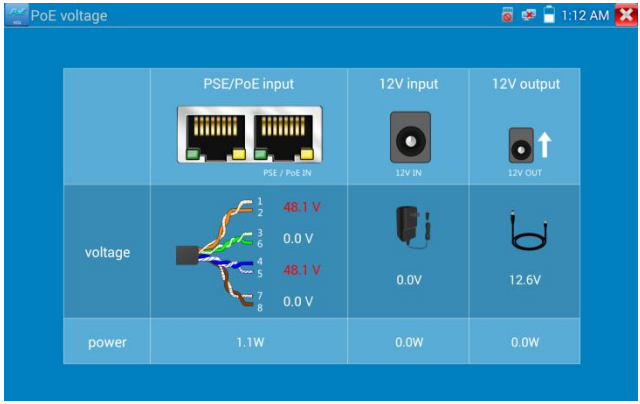
It shows a straight-through and cross-over cable diagram, the cable sequence display for reference.



Click “Help”, check the instruction of all parameters.

PoE voltage test

Click icon to enter PoE voltage measurement



Connect a network cable from a PoE switch to the IP tester’s PSE IN port. Connect an IP camera or other PoE using node to IP tester’s LAN port, the PoE voltage and the cable’s pin connection status show on the screen.

Note: This test if for measuring the voltage being drawn by the PoE node and SURVLtest must be between the PoE switch and the PoE node for this test to work.

Note: The PoE switch must be connected to the PSE IN port. The powered device such as IP camera or other PoE node must be connected to the LAN port.

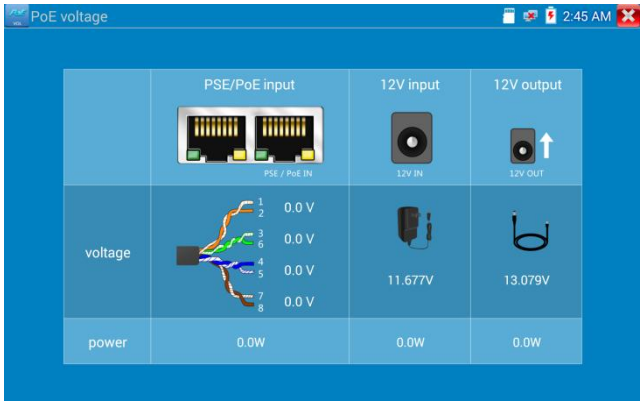
Note: Do not connect PoE power supply equipment (such as a PoE switch) to the tester's UTP/SCAN port; otherwise it will damage the tester.

PSE transmission

When PoE/PSE voltage testing, PoE/PSE connected to the tester's PSE "IN" port, the camera connected to tester's LAN port, tester not only can transmit voltage to supply power for camera, but also transmit data at the same time. As well as the computer connect to the PoE/PSE, it can log in connected tester's PoE camera.

12V power input test

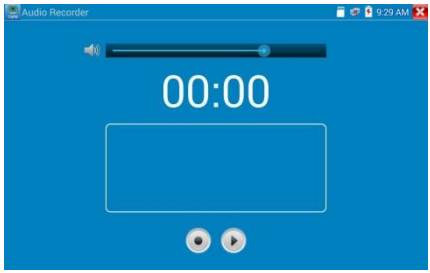
Connect 12V power adaptor to tester's charging port, then click icon "PoE" to enter voltage measurement APP, screen shows the current adaptor input voltage and power. Note: the current 12V input measured power is the battery charging power and the device working powered, the measured power will change depending on the different of battery power and backlight brightness.

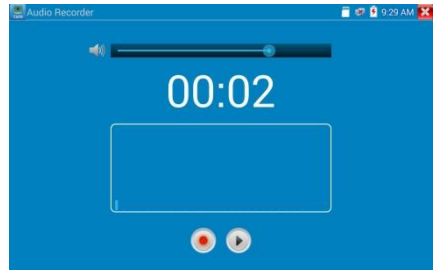


Warning: Not allow connect device with input power over 17V to tester "12V IN" port, otherwise it will damage the tester.

Audio record

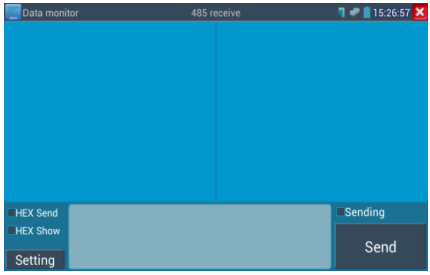
Connect an audio device to the SURVLtest audio input port. Click the icon to enter the Audio Recorder APP. Click the red button to stop, and the unit will prompt you to save the recording.

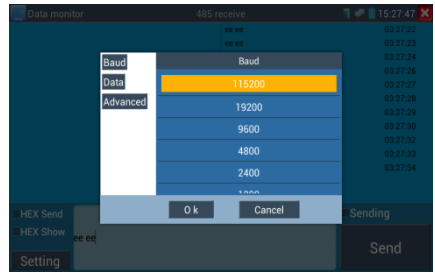




Data monitor

Please click icon to enter.





Click “Setting” to choose the baud rate of RS485; it must be the same as the DVR or the control keyboard. The DVR or Control keyboard send the code to the tester, if it can be read, the protocol will shown on the upper right, like Pelco D, if not, like P:---

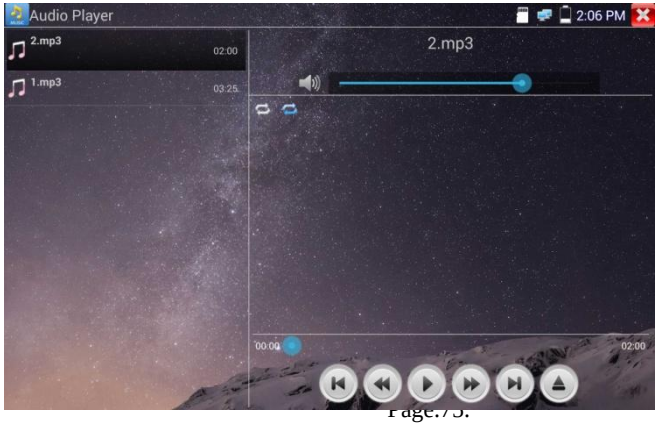
While the tester receives the code, press the **key to empty.**

Though the RS485 port, display the PTZ control code of the multifunctional keyboard or the DVR. Controller can check the status of the RS485 transmission through the code on the display. (The RS485 communication rate must be the same.)

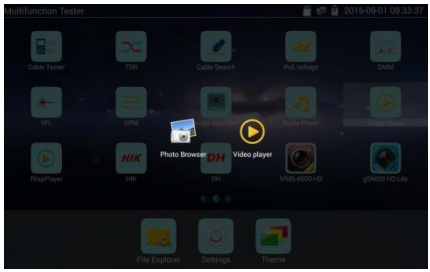
Application: Check the RS485 communication states of the video optical transmitter whether normal. Engineer can analyze the protocol and check the data through the displayed code.

Audio player

Click the icon to enter. The audio player only supports MP3 format audio files.

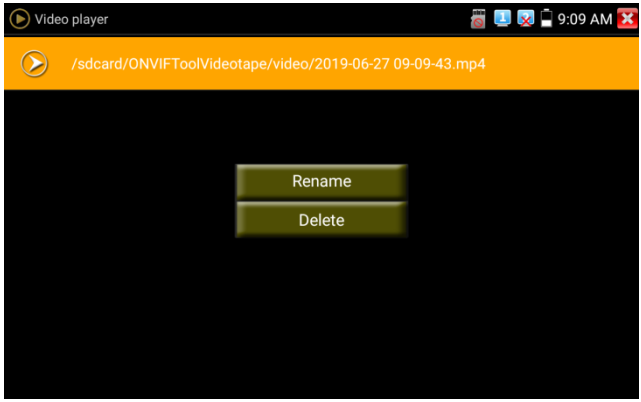


Click the icon to enter



The Media player can browse video and image files. It supports the video formats of MP4, H.264, MPEG4, and MKV. The SURVLtest recorded files can play directly via the Media player. The Media player will automatically display the video files from the SD card. Click on the desired file to play. Click RETURN to exit.

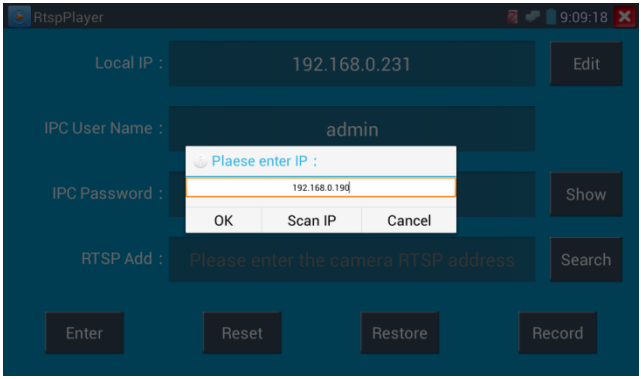
To rename or delete an existing file, press the file name for a few seconds until the screen below appears. You can then rename or delete the file by pressing the desired option.



RTSP Player

The RTSP Player APP will allow you to view the RTSP video stream from an IP camera. If you were unable to view your camera via the ONVIF or SURVLtest APPs, it is possible your camera will have an RTSP stream and you can view live video.

From the main menu, select the “APP Tool” folder and then select the “RTSP Player” to open the APP. If the IP camera uses MJPEG, select the RTSP icon. If the IP camera uses H.264, select the “RTSP HD” icon.



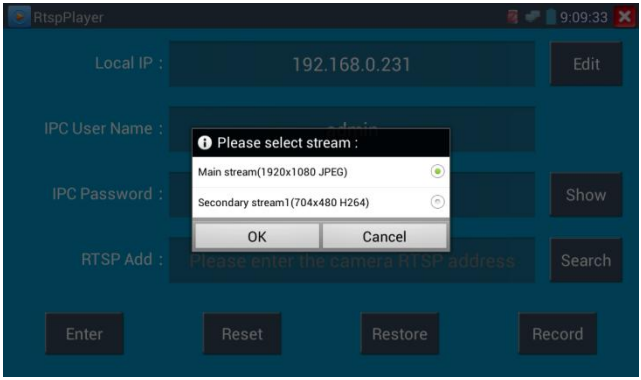
Local IP: This is the IP testers IP address.

RTSP Add: This is where you can manually enter the IP camera’s RTSP URL or click on Search to search the network for cameras that use an RTSP stream.

IPC Username: Enter the IP camera’s user name.

IPC Password: Enter the IP camera’s password.

Once you have entered all the necessary information, select Enter at the bottom left to view the RTSP stream.



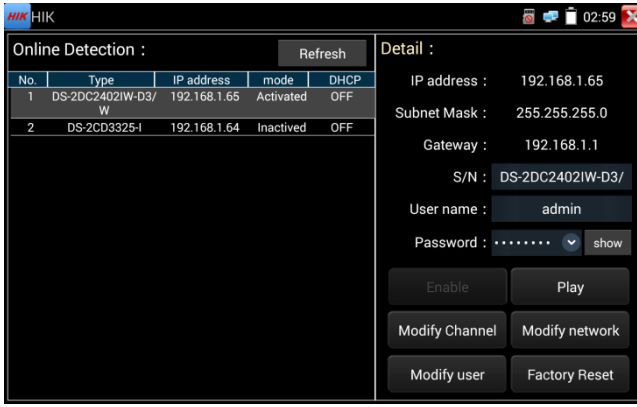
Note: In the event the SURVLtest does not auto detect the RTSP stream, refer to the specific camera manufacturer for the specific RTSP stream URL. You may find this on line with a search of the camera model number and the word RTSP.

Hik test tool

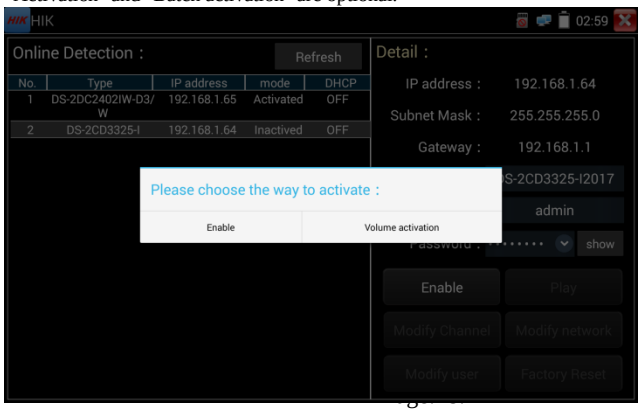
Hik test tool APP is designed for activating and debugging Hikvision camera, can auto-identify

Un-activated Hikvision camera, also can display image from the Hikvision camera.

1. **Activation:** select left [online detection] to display the "un-activated" camera and click activate.

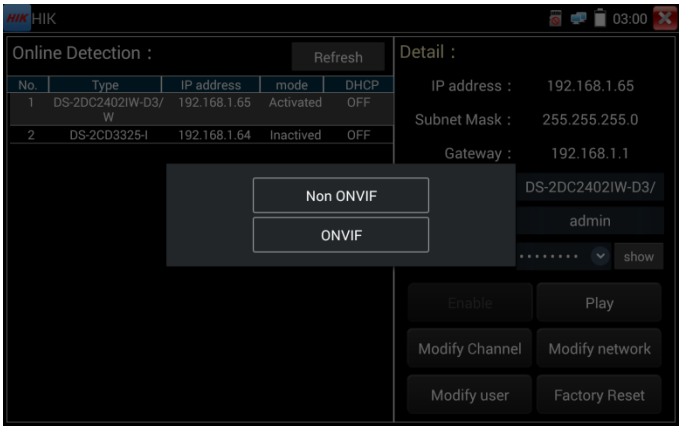


"Activation" and "Batch activation" are optional.



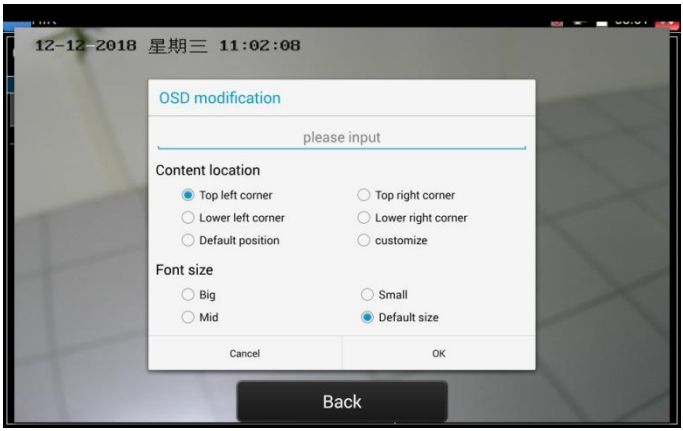
Auto open ONVIF protocol: After activation, the new HIK cameras click "play, modify the channel name, modify network information, modify user information" to open the selected camera ONVIF protocol.

Play: Security status shows the "activated" camera. Enter the correct camera password in the right [password] and click [play] to pop up the "private protocol" or "speed ONVIF" two options. Select the protocol you need to see the camera images.

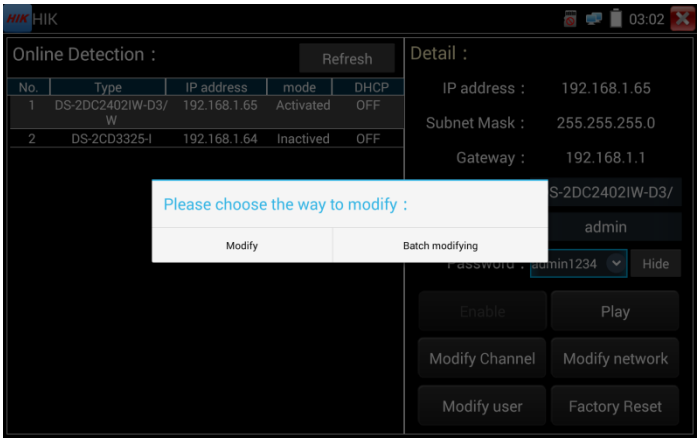


Modify channel name: clicking "Modify the channel name" will pop up OSD settings, including time, channel name and other optional items.

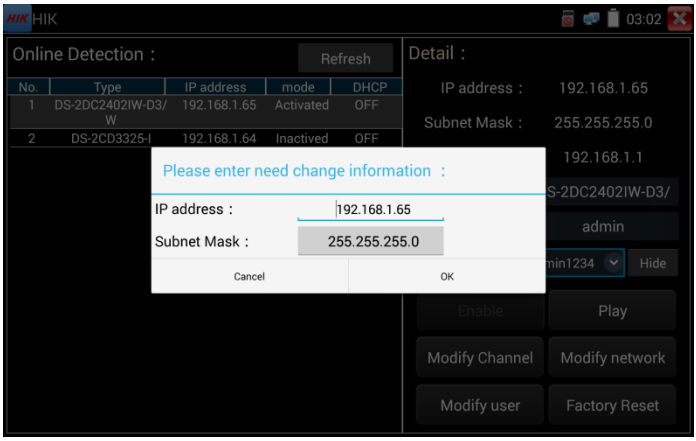
After channel selecting, you can edit the channel name, modify the display position, and switch the font size. Select “default location” in “content location” is without modification. Select “Customization” to arbitrarily adjust the channel name and display location. Click“OK”and the effects will appear. Press return key or click any area of the screen to return to the upper layer of the interface.



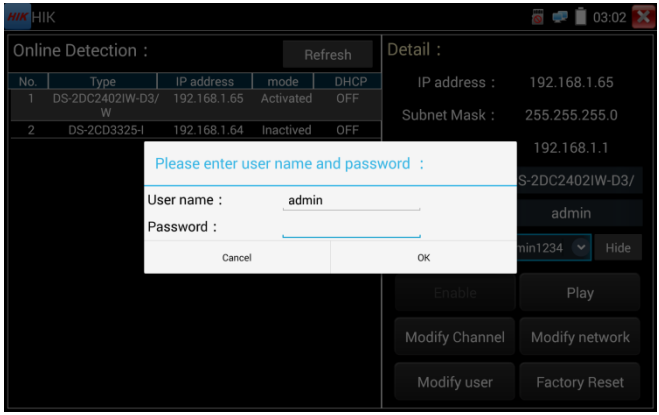
Modify network information: Support "modify" and "batch modify" camera IP address, subnet mask and other parameters modification.



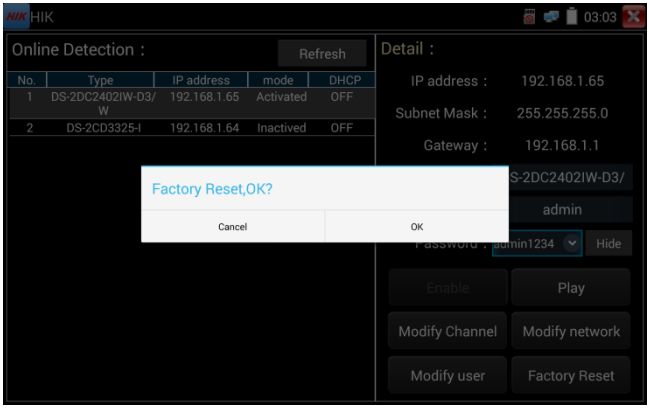
Enter a new IP address and subnet mask, the default gateway will be auto modified according to the IP address. Click "OK" to save the changes.



Modify user information: Modify the camera's user name and password.



Factory reset: Camera factory reset

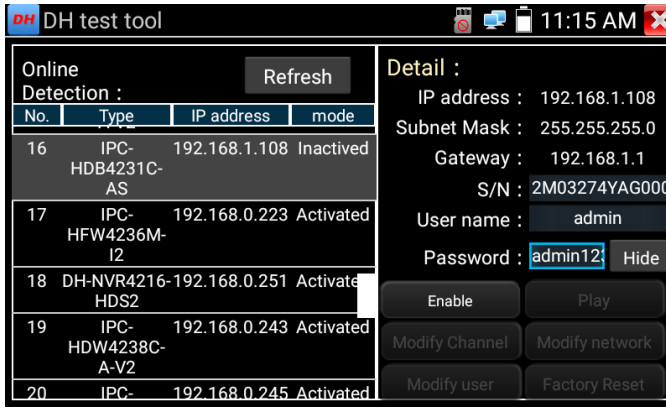


Dahua test tool

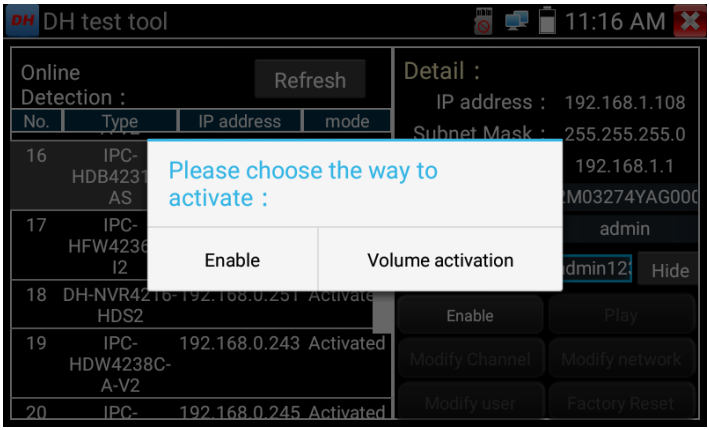
Dahua test tool is developed for installation and debugging of the Dahua IP camera, it can display image, and modify IP, user name and password etc. Making Dahua camera test more convenient and quickly.

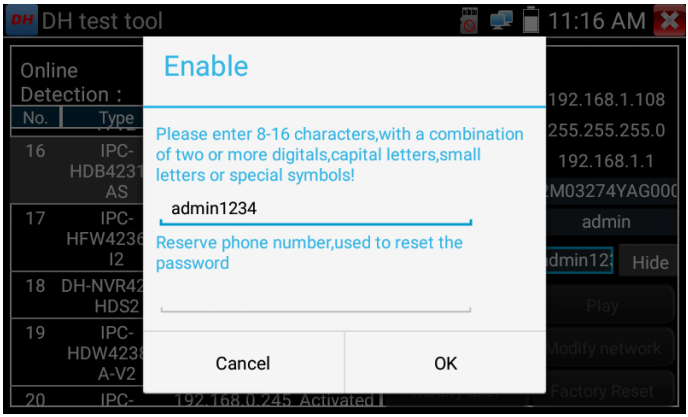
Click “DH” icon , to enter Dahua test tool.

Activation: select left [online detection] to display the "un-activated" camera and click activate.



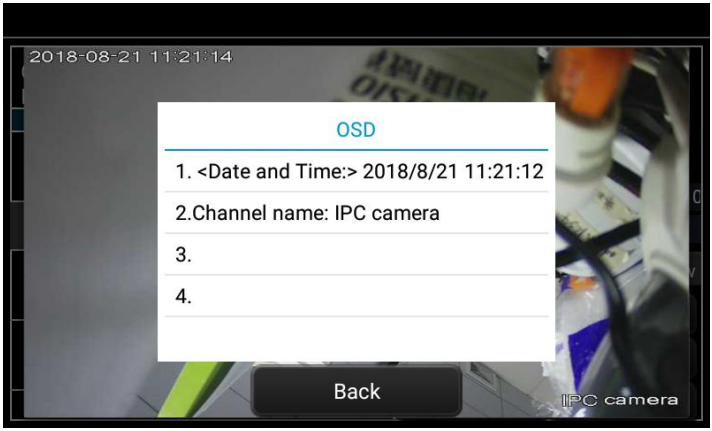
Activate and Batch activate are optional, support reserved phone number for resetting password.



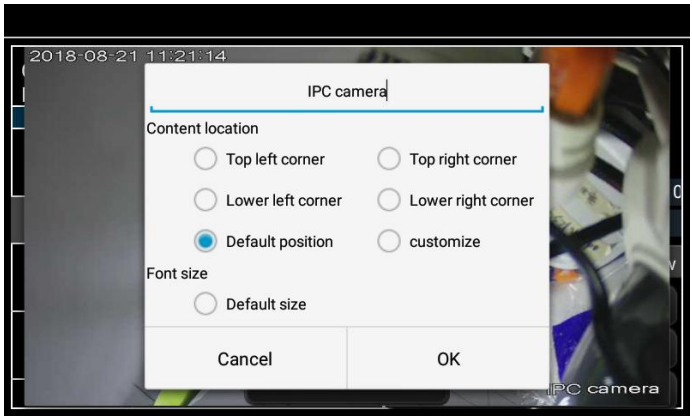


Play: When mode display “activated” camera, input correct password, click “Play” pop up “private protocol” and “ONVIF”, select correspond protocol to view the camera image.

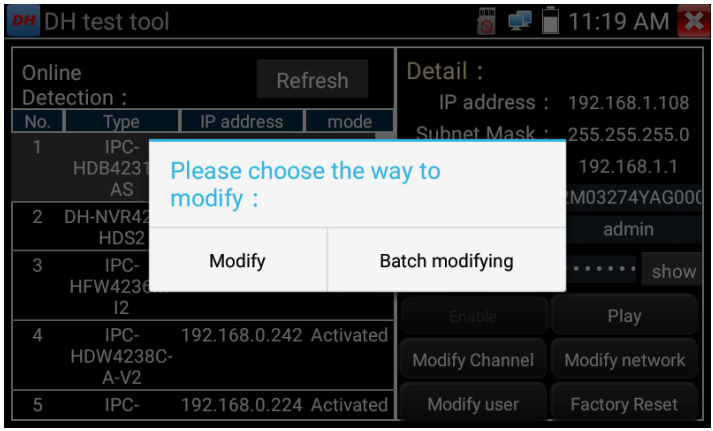
Modify channel: Click “Modify channel”, will pop up OSD setting, includes time, channel name, etc



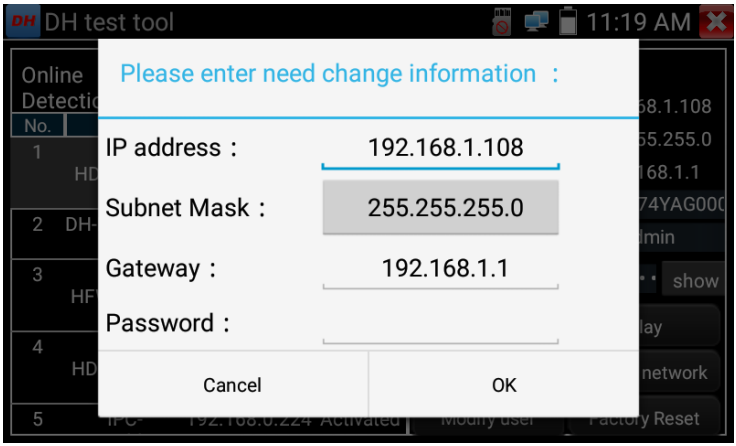
After selected channel name, can edit channel name, modify the display position and font size. If select “Default position”, then no need to modify. If select “customize”, then can modify channel name and display position, click “OK” to view the image. Click “Back” or “Return” button to return previous interface.



Modify Network: Support Modify and batch modify two ways, user can modify camera IP address, Subnet mask, and Gateway.

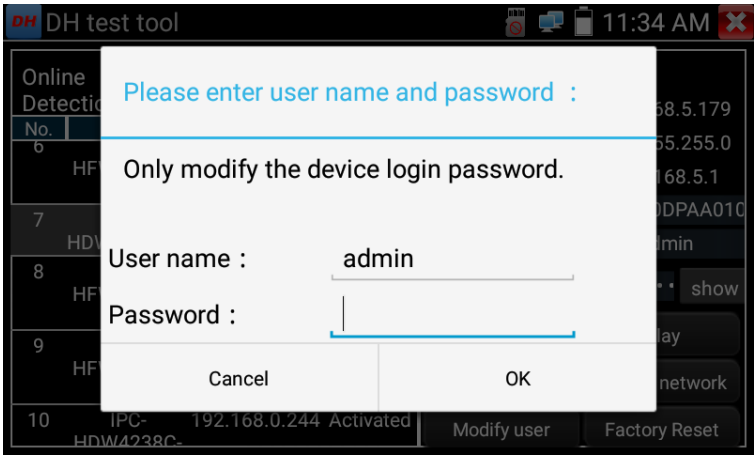


Input new IP address, need to input password, click “OK” to save the modification.

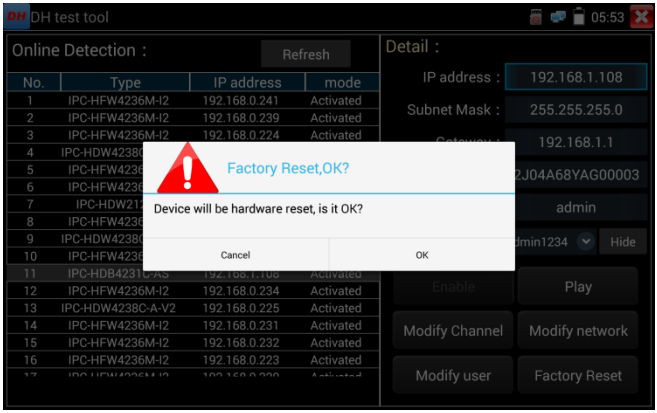


Modify user information: Modify camera user name and password, which are ONVIF, Dahua test tool,

SURVLtest user name and password, not web user name and password.



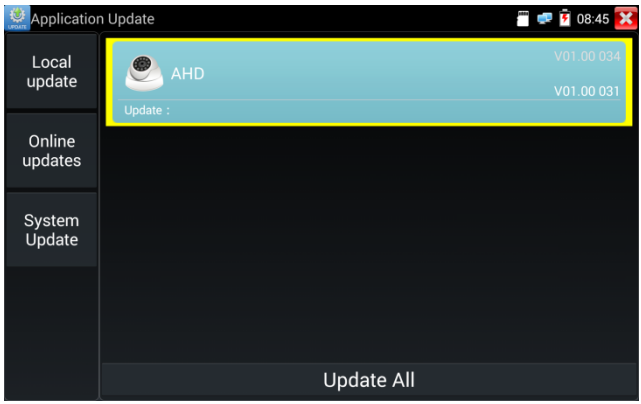
Factory reset setting: Camera will be soft reset, and the device's user name, password and network set be saved. Other settings information is factory reset.



Update

Copy the downloaded update file to SD card "update" directory, if no directory, please create one.

Click the icon to open the Update menu. Select "Local Update" to update via the SD card or select "Online Update" to check for updates on the internet. If there are applications that need updating, the applications will be displayed on the screen.



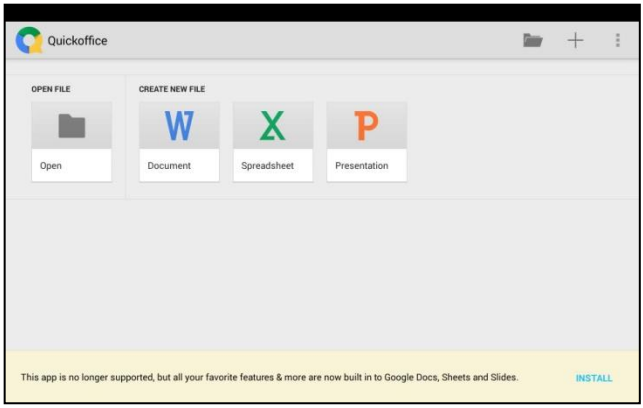
If there are update programs, applications will be listed in the interface, click related applications, update to the latest version.

Update online: Before using online update, need enter settings-user management to register first.

System update: Connect the Internet to update systems.

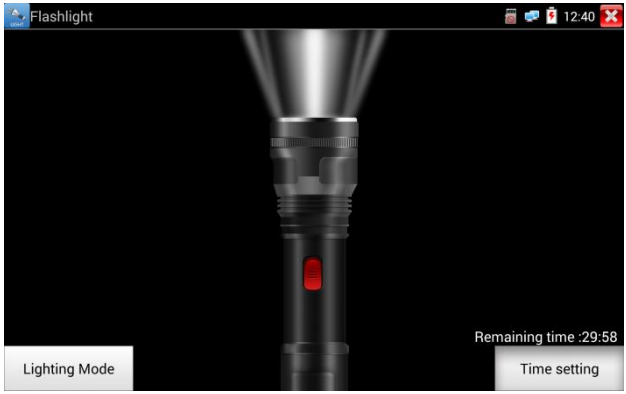
Office

Quick office APP (support excel, word, ppt format) doc. editable



LED flashlight

It is convenient for the installation or maintenance in the evening or in the dark. Click icon to enter.

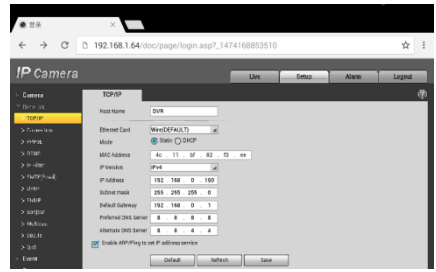


While in the flashlight app, click the red button to turn on the LED lamp. Press it again to turn it off. If you don't press the red button to shut off the lamp and press the button to exit the APP, the lamp will stay on. Click the Time Setting button to set a timer that will shut off the lamp.

Browser

Click icon to enter. Type in the camera's IP address and press "Go" to access the IP camera's interface.

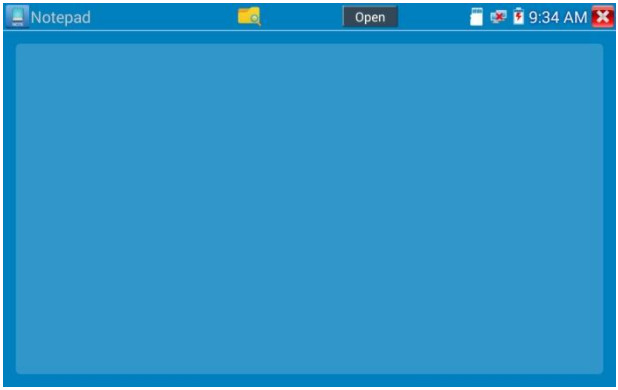
NOTE: You will not be able to view live video in the web browser. For viewing video, use the SURVLtest's Live Camera view APPs.



The IP camera and SURVLtest should be on the same network segment for the browser to interface with the camera. If they are not in the same segment, click the button or press “RETRUN” to exit. Open the “Settings” APP from the main menu to change the SURVLtest’s network settings to match those of the IP camera.

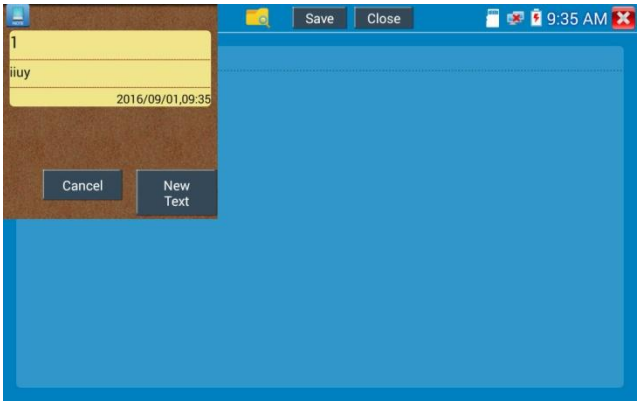
Notepad

Notepad can be used to record the important testing results, click the key “Save” to save the contents. Notepad can auto record the storage date and time.



Click the

icon to view the Notepad, all saving contents display. Click each record bar to show the details. Press the record bar for several seconds, prompt whether delete it.



System setting

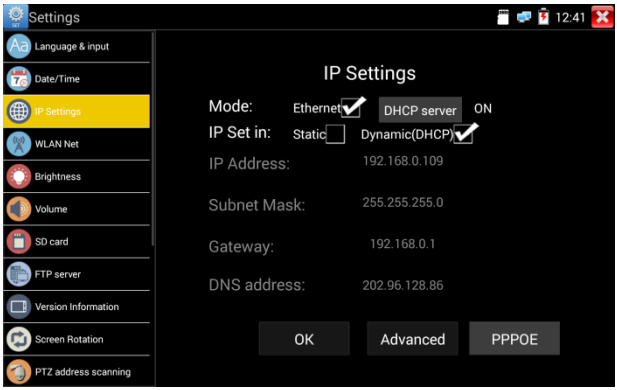
Click icon to enter

Language: Select your desired language: English, Traditional Chinese, Simplify Chinese, Korean, Russian, Italian, Polish, Spanish, French, Japanese or Deutsche.

Typewriting: You can select typewriting or install other typewriting:

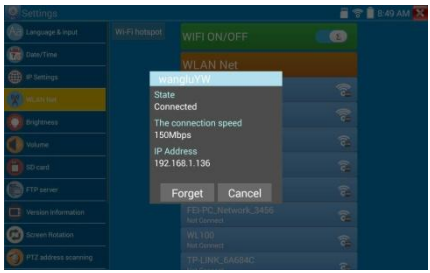
Date/Time: Set the Date/time of SURVLtest.

IP setting: Manually set the IP address, Sub-net Mask, Default Gateway and DNS address or select "Dynamic allocation" to use DHCP. To test multiple network segments, click "Advanced" and then click "Add" to enter another IP address for the tester.

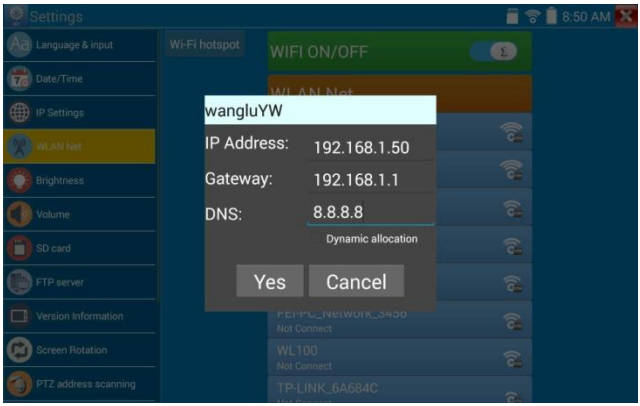


After setting an advanced IP address (refer to the photos above), the unit can test two network segments (192.168.5.0) and (192.168.1.0).

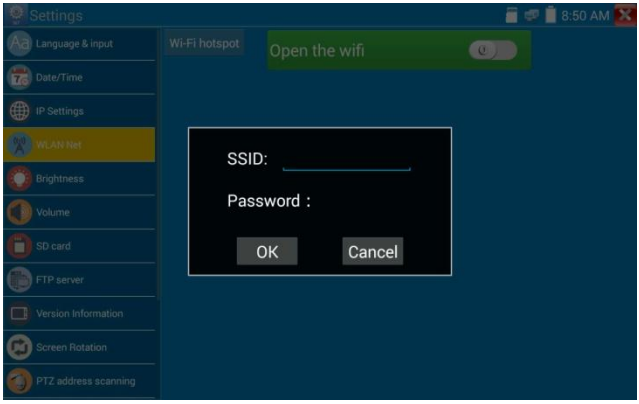
WLAN net: Turn the Wi-Fi off or on by pressing the "Open the WIFI" button. Once Wi-Fi is turned on, and click connected WIFI, it will scan for wireless networks in your area.



Select and press “WIFI” several seconds, to set static IP address.



Wi-Fi hotspot: input “SSID” name and “password”, and then click “ok” to create Wi-Fi hotspot.



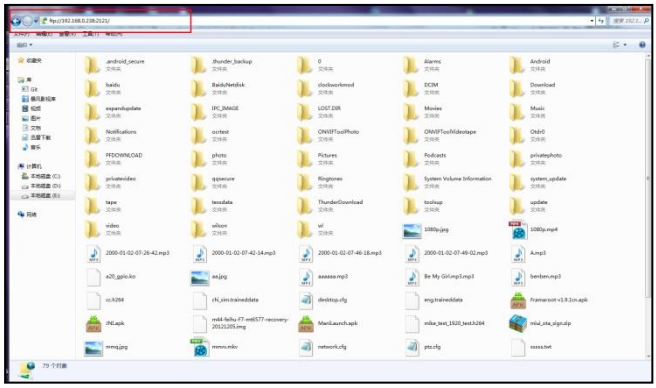
Brightness: Set the desired brightness of the IP tester and adjust the sleep time settings.

Volume: Set volume level.

SD Card: Displays SD Card Capacity. You can also format the SD card or un-mount it before removing it.

FTP server: Once the IP tester connects to a network, a computer can be used to read the SD card files via FTP.

Start the FTP server and then input the tester's FTP address in the PC's address bar. This will enable the PC to reads, copy and edit the files from the SD card without the use of SD card reader.



Version information: Shows applications version information, if press any APPs icon several seconds to uninstall.

Screen display rotation: Click on "Screen Rotation" to flip the IP tester's display 180 degrees. This function is very convenient for the user to connect the LAN cable on the bottom of the unit without having to flip the unit itself.

PTZ address scan: You can toggle the PTZ address scan off or on before entering the "PTZ controller" APP. This needs to be turned on in order to use the PTZ Scan feature of the PTZ APP.

Online Registration: Online update need register first, after the tester connect to network, then fill

registration information to register.

User Feedback: if you have any comments or suggestions for the tester, please connect it to network and write your feedback.

Lock Screen: The tester default is not locked. You can choose password Lock screen, pattern Lock screen or “NO”.

Password Lock Screen: Set password, you can input digitals, letters or characters as password, input it again to confirm. When the tester is in standby mode or turn it on, you can input your password to enter.

Pattern Lock Screen: Drawing a pattern to lock. While the meter is in standby mode or turn it on, you can input your pattern to enter.

Modify Lock screen password, you need input lock password again. Select password Lock screen or pattern Lock screen to reset lock screen password. After reset pattern lock screen, you need to draw a new lock pattern.

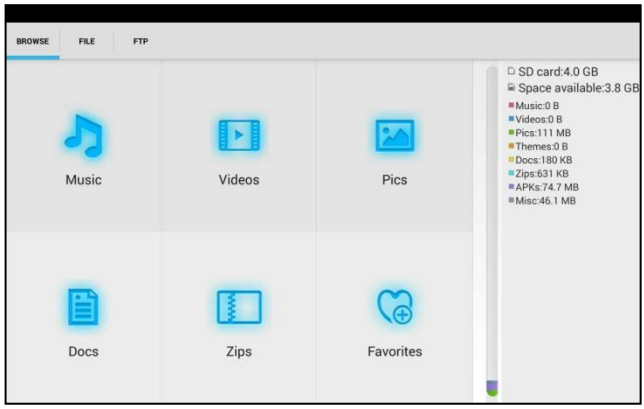
Restore the factory settings: If the tester to restore factory settings, all your personal files and APPs will be removed.

File explorer

Click “File “on the top bar tool, can select internal or external storage. Click on the upper right corner icon”... “.will pop-up menu, you can select other operation or exit.

Browse

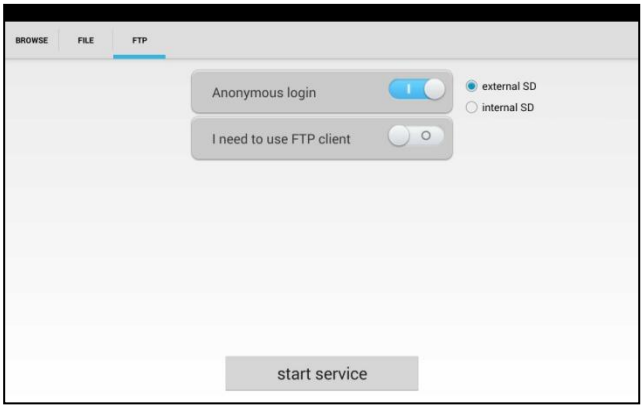
It includes Music, Videos, Pictures, Documents, zip file etc. It is convenient to view and manage.



FTP server

You can choose internal or external SD card.

Other operations details, Please refer to FTP settings.



3.4 Audio test

You can test the audio input from audio pickup devices by connecting the audio pickup device to the tester with the supplied audio cable.

3.5 HDMI output

The built in HDMI output port can output live video from an analog or IP camera, recorded files, media files and images to HDTV monitors. Connect an HDMI cable from SURVLtest to an HDTV monitor at any time. It supports up to 1080P resolution.

3.6 PoE power output

The IP tester supports PoE (Power over Ethernet) output to an IP camera via the LAN port. Data transmission and 48VDC use the network cable's 1, 2, 3, and 6 pins to deliver power. If the IP camera supports PoE, you can directly connect to the camera without the use of an external power supply.

Notice

a. Please make sure the cable connected to the tester's LAN port is straight-line cable and has no short circuit, otherwise will damage the tester

b. Before using PoE power output, please check the IP camera whether supports PoOE powered.

Otherwise it will damage the IP camera.

c. The instrument's PoE maximum power output is 24W. If Ultra- high-power load happens, the tester will enter protection mode.

3.7 DC12V 3A power output

When the SURVLtest is turned on, the DC 12V power output is also ON by default. The smaller end of the supplied converter cable connects to the tester's DC12V/3A OUTPUT and the other end connects to the camera's power input.

Application

Power output function is mainly used in the camera field demonstration and testing, meanwhile, for some cameras installation sites, if there is no power outlet for the adapter to power the camera, the tester can offer temporary power for it. But we do not suggest tester supply power for a long time.

Notice:

a. Don't input any power into the "DC12/3A OUTPUT" port of the tester.

b. Improper use damage is not within our company's warranty.

c. The tester power output capacity is 3A. If the IP camera uses more than 3A, the tester will automatically enter a protection mode.

d. Disconnect all cables from the tester and reboot it to resume using the tester.

The SURVLtest power output is close to 3A, if the IP camera's power is over 3A, the tester will auto enter protection mode. Disconnect all the connections of the tester and then connect the tester with power adaptor to resume the tester.

e. Make sure the tester has been sufficient charged, otherwise tester can't provide enough output power.

3.8 USB 5V 2A power output

When the tester is turned on, the DC 12V and DC 5V power output functions are automatically turned on. If the tester is turned off, the DC 5V USB can still be used to power an external USB device.

NOTE: The USB port is for power only and not data.

4. Specifications

4.1 General Specifications

Model	HST319
Display	New 7 inch retina touch screen Multi-function CCTV tester, 1920*1200 resolution
Network port	10/100/1000M auto adjust, RJ45
Wi-Fi	Built in Wi-Fi, speeds 150M, allows you to connect to a wireless network and view IP cameras
H.265 Mainstream test	New hardware decoding, 4K, H.265/H.264 camera image display by mainstream testing
RJ45 cable TDR test	RJ45 cable TDR test and cable quality test, to test cable pair status, length, attenuation, reflectivity, impedance, skew and other parameters
HDMI IN	HDMI IN，Support 720×480p /720×576p /1280×720p /1920×1080p /1024×768p/1280×1024p /1280×900p /1440×900p
HDMI output	1 channel HDMI output, supports up to 3840*2160p
IP discovery	auto-scan the whole network segment camera IP
Rapid ONVIF	Search camera quickly, auto log in and display image from the camera, activate Hikvision camera
Hik test tool	Activate Hikvision camera, display image from the camera, modify IP, user name and password parameters etc
DH test tool	Active Dahua camera, modify IP, user name and password parameters etc
IP camera type	ONVIF, ONVIF PTZ, Dahua IPC-HFW2100P, Hikvision DS-2CD864-E13, Samsung SNZ-5200, Tiandy TD-NC9200S2, Kodak IPC120L, Honeywell HICC-2300T, RTSP Viewer
CVI video signal test	1 channel CVI input（BNC interface, resolution support 720p 25,30,50,60fps/ 1080p 25,30fps/2560x1440p 25fps,30fps/ 3840 x 2160 12.5/15 FPS，UTC control and call OSD menu

TVI video signal test	1 channel TVI input（BNC interface, resolution support 720p 25,30,50,60fps/ 1080p 25,30fps /2048x1536p 18,25,30fps , 2560x1440p 15,25,30fps/ 2688x1520p 15fps , 2592x1944p 12.5,20fps/ 3840 x 2160 12.5/15 FPS，UTC control and call OSD menu
AHD video signal test	1 channel AHD input （BNC interface）, resolution support 720p 25,30fps / 1080p 25,30fps/2048x1536p 18,25,30fps , 2560x1440p 15,25,30fps/ 2592x1944p 12.5/20fps，3840x2160p 15FPS, UTC control and call OSD menu
Analog video test	1 channel BNC Input & 1 channel BNC Output, NTSC/PAL (Auto adapt)
Video level meter	PEAK video signal level, SYNC signal level, COLOR BURST Chroma level measurement for CVBS camera.
Zoom Image	Supports Analog and IP camera image zooming & movement
Snapshot, Video record and playback	Capture current images and record live video as JPG file. Media player will view photos and playback video
12V/3A power output	Output DC12V/3A power to camera
USB 5V power output	5V 2A power output, NO data transmit
PoE power output	48V IEEE 802.3af, IEEE802.3at PoE power output
Screen management	Lite mode and normal model available. Under normal mode, you can change icons sequence and self-define the number of icons in each page
Drop-down menu	PoE power switch, IP setting, WLAN switch, HDMI IN functions, screen lock, password lock screen or pattern lock
Audio test	1 channel audio signal input and 1 channel audio signal output to connect headphones
PTZ control	Support RS485 control, Baud 600-115200bps, Compatible with more than 30 protocols such as PELCO-D/P, Samsung, Panasonic, Lilin, Yaan, etc
Color bar generator	Output one channel PAL/NTSC color bar video signal for testing monitor or video cable. (red, green ,blue, white and black color)
UTP Cable tester	Test UTP cable connection status and display on the screen. Read the

	number on the screen
Data monitor	Captures and analyzes the command data from controlling device, also can send hexadecimal
Network test	IP address scan, LINK scan, and Ping test. Quickly search the IP camera's IP address on your network
Cable tracer	Find a connected cable from a bundle of cables using digital audio tones
PoE /PSE voltage test	Measures PoE switch voltage and displays pin configuration
POWER	DC 12V 2A
External power supply	
Battery	Built-in 7.4V Lithium polymer battery ,5000mAh
Rechargeable	Fast charging, after charging 2.5 hours, normal working time 10 hours
Operation setting	
Auto off	1-30 (mins)
General	Capacitive touch screen, OSD menu, select your desired language: English, Traditional Chinese, Simplify Chinese, Korean, Japanese, Russian, Italian, Polish, Spanish, French, or Deutsche
Working Temperature	-10℃ to 50℃
Working Humidity	30%-90%
Dimension/Weight	255mm x 160mm x 46mm / 0.95Kg