# **Contents**

1.	Installat	tion guide(3 axis)	1
	1.1	Installation Steps	1
	1.2	Micro SD Card Installation	3
2.	Browse	r support	3
3.	Webrec	/plugin	4
4.	How to	change password	5
	4.1	Change the password when login in	5
	4.2	Change the password in Account	5
5.	Preview	page	6
	5.1	Encode setup bar	6
	5.2	System menu	7
	5.3	Window function option bar	7
	5.4	Window adjust bar	8
6.	Playbac	k page	10
	6.1	How to download a clip of recording	11
7.	Camera	setting(encode/image)	11
	7.1	How to set D/N profile	11
	7.2	How to set image flip and mirror	11
	7.3	How to set encode(recommended bitrate/frame rate)	12
	7.4	What is I-frame	12
	7.5	How to set image SPL	12
	7.6	How to set privacy masking	13
	7.7	How to set text overlay and picture overlay	14
	7.8	What is I-frame	15
	7.9	How to change Snapshot/recording path	16
	7.10	How to record audio and talkback	16
	7.11	How to set corridor mode	17
8.	Network	<b>{</b>	18
	8.1	How to check ONVIF version and enable ONVIF	18
	8.2	How to set DDNS	19
	8.3	How to set IP Filter	19
	8.4	How to set WIFI(WPS,PIN)	20
	8.5	How to set SMTP(Email)	21
	8.6	Bonjour	23
	8.7	How to set Multi-cast	23
	8.8	How to use P2P	24
9.	EVENT.		25
	9.1	How to set multiple detection area	25
	9.2	How to set IVS rules	26
	9.3	How to set Face Detect	28
	9.4	How to use Audio Detect	28

	9.5 How to set people counting	29
	9.6 How to set heap map	30
	9.7 How to connect Alarm input and output	31
10.	How to record video/snapshot to FTP	32
11.	How to set overwrite when SD card is full	33
12.	How to synchronize time with PC/NVR/NTP	33
13.	How to import/Export config	34
14.	How to set SD card storage	35
15.	How to reset the camera	36
	15.1 IPC 8/5 series	36
	15.2 IPC 4 series	38
	15.3 IPC 2/1 series	41
16.	How to upgrade firmware	42
	16.1 ConfigTool	42
	16.2 Website	44
	16.3 NVR	44
17.	Goods Checking	45
	17.1 Accessory checking	45
	17.2 Unit checking	47
18.	How to set panorama mode	47
19.	How to set wiper schedule/manual	50
20.	How to adjust focus length	50
21.	How to set laser length	51
22.	How to set IVS tracking	51
	22.1 Single-Scene Track	51
	22.2 Multiple-scene Track	54
	22.3 Panorama-Scene Tracking-Alarm Activation	56
	22.4 Panorama-scene Tack-Manual Activation	56
23.	How to set tour/preset/pan/	58
	23.1 Preset Setup	58
	23.2 Pan	59
	23.3 Tour	59
24.	Alarm activation (preset/pan/tour)	60
25.	RS485 address/protocol	62
	25.1 RS485 address/protocol set on NVR	62
	25.1.1 Interface Setting	62
	25.2 RS485 address/protocol set on Keyboard	64
26.	How to set OSD menu	64
	26.1 Menu Operation	66
	26.2 System Setting	66
	26.3 Display Setting	67
	26.4 Camera Setting	68
	26.5 Function Setting	72
	26.6 Wiper Setting	78

	26.7 Las	er Setting	.78
27.	How to	connect IP cameras in Smart PSS	.79
	27.1 Aut	o Add	.79
	27.2 Ma	nually Add	.80
28.	How to	connect IP cameras in DMSS	.83
	28.1	Add device by P2P	.84
	28.2	Add device by Quick DDNS	.85
	28.3	Add device by Dahua DDNS	.85
	28.4	Add device by IP/Domain	.86
	28.5	Add IP camera by WIFI Configuration	.87

# 1. Installation guide(3 axis)

### 1.1 Installation Steps

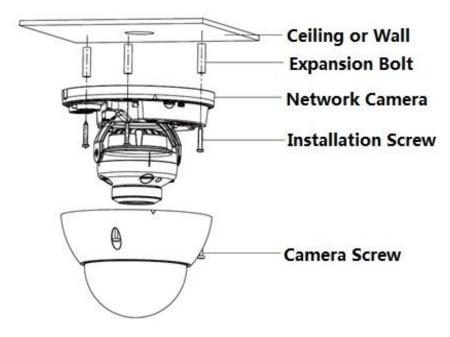


Figure 1-1

#### Important:

Before the installation, please make sure the installation surface can at least support 3x weight of the camera and the bracket.

Please follow the steps listed below to install the device.

- 1) Click Use star-shaped wrench in the accessories bag to unscrew the three star-shaped screws on the dome enclosure, and then open the dome enclosure.
- 2) Please take out the installation position map in the accessories bag, and then paste it on the ceiling or the wall according to your monitor area requirements.
- 3) Find "cross" signs on the map, and dig three plastic expansion bolts holes on the installation surface and then insert three expansion bolts into the holes. Secure these three bolts firmly.
- 4) Adjust the device installation pedestal to the proper position and then pull cable through the exit hole on the installation surface. Line up the three screw holes in the device pedestal to the three plastic expansion bolt holes in the installation position. Put the three installation screws into the three plastic expansion bolts and secure them firmly. Fix the pedestal on the installation surface.
- 5) Adjust the lens to the needed angle according to the application requirements of the location. Hold the screw location of the rotation bracket on both sides, turn the rotation bracket horizontally, adjust the lens direction horizontally to the targeted position; unscrew the two locking screws on both sides (do not remove them completely, just make them loose), hold the IR light decoration cover to make the lens rotate vertically, adjust the vertical direction of lens to a proper monitoring angle, then tighten the locking screws on both sides; Hold the IR light decoration cover to rotate horizontally, adjust the image and

adjust the lens horizontal direction to the targeted location; Range of adjusting lens angle: vertical  $(0^{\circ} \sim +65^{\circ})$ , horizontal  $(0^{\circ} \sim +355^{\circ})$ .

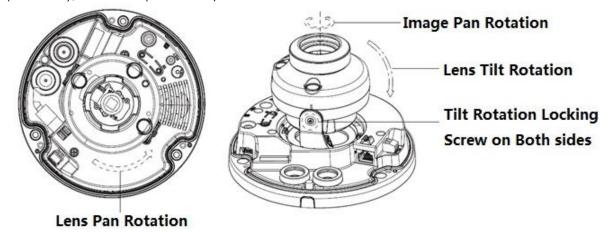


Figure 1-2

6) Take up the dome enclosure; aim the location of side cable exit and cover the enclosure, use inner hex wrench to secure three camera screws firmly. So far, the installation is completed.

#### **Side Wiring**

When cable installation adopts side wiring, it needs to pull out the plastic decoration plug on the lateral side of the device pedestal, and then the cable can be pulled out through the lateral side of the pedestal.

#### **Cable Connection**

The device reserves two wiring holes, and supports the pin whose diameter is less than 15mm to pass.

The device is equipped with two waterproof sealing plugs. The waterproof sealing plug can be used to block wiring hole and threading, which supports the cable whose diameter is between 4.0mm ~ 6.0mm to pass. It also makes it convenient for the users to operate waterproof work for leading wire by themselves.

Please refer to the following steps for the exact use:

1) Take out the waterproof sealing plug, and pull the cable with 4.0mm~6.0mm diameter through the sealing plug according to the direction shown in the following figure.

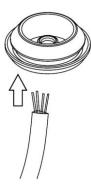


Figure 1-3

- 2) Before step 4 of device installation, install the cable with waterproof sealing plug on the pedestal through the installation hole under the device pedestal, and assemble the cable pin.
- 3) Connect the pin accessed with cable to the device, then install the device according to the normal steps.

### 1.2 Micro SD Card Installation

#### Note:

Some series products do not support the Micro SD card storage function, which can't be applied to the following chapter.

Please shut down the power and then turn off the device before you install the Micro SD card.

- 1) Open the device enclosure according to the step 1 in the device installation.
- 2) Find the "Micro SD" sign in the device; adjust the direction of Micro SD card according to the direction shown on the device, insert the card into the slot and install the Micro SD card well.

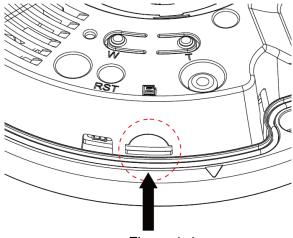


Figure 1-4

## 2. Browser support

IE and Firefox are available for IPC devices, Chrome and EDGE are not yet, but will be soon.

Enter the IP address of the device in the browser, and the interface is as follows, the default username is admin and the password is admin. See Figure 2-1.



Figure 2-1

# 3. Webrec/plugin

Webrec /Plugin is necessary to view the IPC through the net.

The interface appears as follows after login first time, see Figure 3-1, click it to download and install the plug-in, the default folder which the plug-in locates is C:\Program Files\webrec or C:\Program Files (x86) \webrec, then it will show the images, see Figure 3-2.

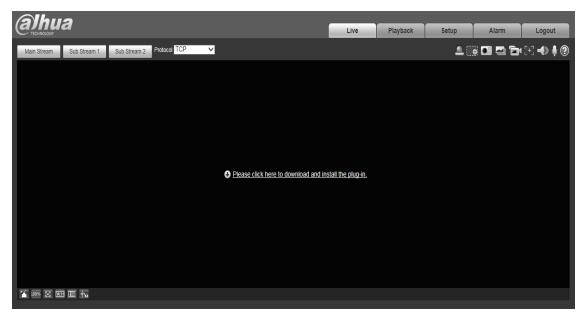


Figure 3-1

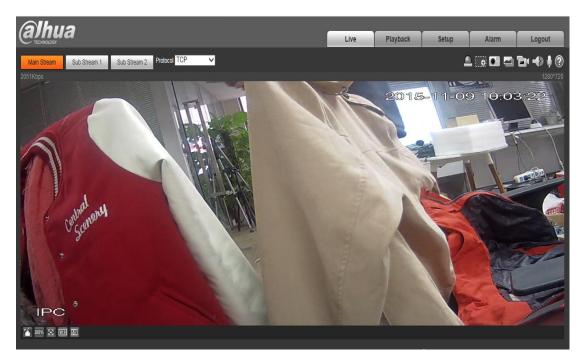


Figure 3-2

# 4. How to change password

# 4.1 Change the password when login in



Figure 4-1

Change the password in login page after inputting the default username and password, then click 'OK'.

# 4.2 Change the password in Account

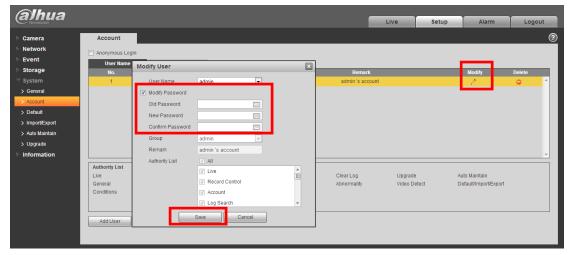


Figure 4-2

- 1) Go to Setup-System-Account, modify the account
- 2) Check Modify password, then modify the password.
- 3) Save

# 5. Preview page

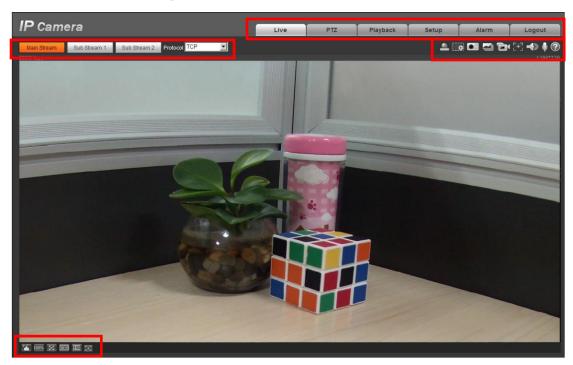


Figure 5-1

- ① Encode setup bar
- ② System menu
- ③ Window function option bar
- 4 Window adjust bar

# 5.1 Encode setup bar



Figure 5-2

Parameter	Function
Main stream	Get the main stream in preview page
Sub (Extra) stream 1	Get the sub stream1 in preview page
Sub (Extra) stream 2	Get the sub stream2 in preview page
Protocol	You can select stream media protocol from the dropdown list. There are three options: TCP/UDP/Multicast

# 5.2 System menu



Figure 5-3

Go to the page for detail setup.

# 5.3 Window function option bar

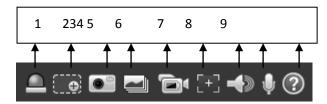


Figure 5-4

SN	Parameter	Function	
1	Alarm on/off	Click on the button to trigger alarm:	
		Red: Alarm output is triggered and alarm output is	
		forced be on.	
		Grey: no alarm output and alarm is forced to be off.	
2	Zoom in	Click to enable digital zoom, then you can zoom in the	
		preview by choose one area, and drag to move.	
3	Snapshot	Click on the button to snapshot, save picture to path you set	
	·	in Ch 7.9	
4	Triple snap	Click it, system can snap at 1f/s. All images are saved to path	
		in Ch 7.9	
5	Record	Click it, system can record. All images are saved to path in Ch 7.9.	

6	Easy focus	Click it, you can see there are two parameters on the preview video: AF Peak and AF Max.	
		AF Peak: It is to display the video definition during the focus process.	
		AF Max: It is the most suitable value for the video definition.	
		The close the AF Peak and AF Max is, the better the focus effect is.	
7	Audio output	Turn on or off audio when you are monitoring.	
8	Bidirectional talk	Click it to start or end bidirectional talk.	
9	Help	Click it to open help file.	

# 5.4 Window adjust bar

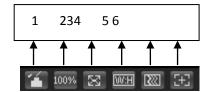


Figure 5-5

### 1) Image Adjustment

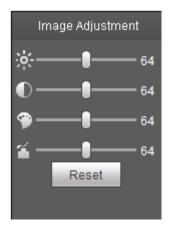


Figure 5-6

Click to open/shutdown the image Adjustment page.

Please refer to the following sheet for detailed information.

Parameter		Function		
Video setup	※	brightness	Note:  • All the operations here	
	•	contrasts	apply to WEB end only.  ● Please go to	
	9	hue	Setup->Camera->Condition s to adjust corresponding	
	<b>4</b>	saturation	items.	
	Res et	Restore brightness, contrasts saturation and hue to default.		

### 2) Original Size

Click to go to original size.

### 3) Full Screen

Click it to go to full-screen mode. Double click the mouse or click the Esc button to exit the full screen.

- 4) Width and Height Ratio
- 5) Click it to restore original ratio or suitable window.
- 6) Fluency Adjustment

There are three levels of fluency to select (real-time, normal, fluent). The default is normal.

### 7) Focus zoom

Click this button and the focus zooming interface appears on the right of preview interface.



Figure 5-7
Click left mouse button to adjust focus zooming configuration.

### Note:

Only electric zoom equipment has focus zoom button. Auto-focus after zoom focus adjustment.

Parameter	Function	
Zoom	Adjust the focal length of the lens by clicking or long pressing "+""-"buttons.	
200111	Step length is used to adjust the length of one step with one click.	
Focus	Adjust the sharpness of the lens by clicking or long pressing"+" \ "-" buttons.	
rocus	Step length is used to adjust the length of one step with one click.	
	Click to adjust the image definition automatically.	
Auto-focus	Note:	
	Other lens operations are not allowed during the process of auto-focus.	
	Reset the lens to zero position to eliminate the accumulative error of lens.	
Reset	Note:	
	Please reset when the image adjustment is not clear or operating zoom focus many times.	
Refresh	Synchronize the location of drag slider of lens and zoom focus after hardware zoom	
Nerrestr	focusing.	

# 6. Playback page

How to download a clip of recording

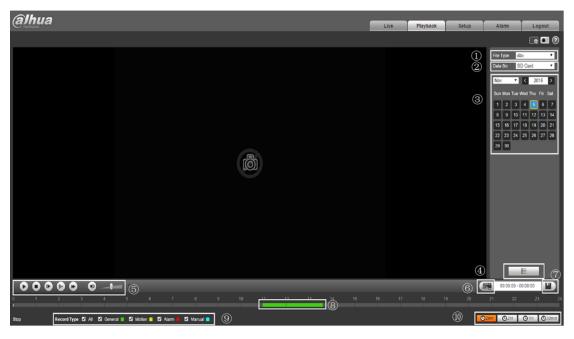


Figure 6-1

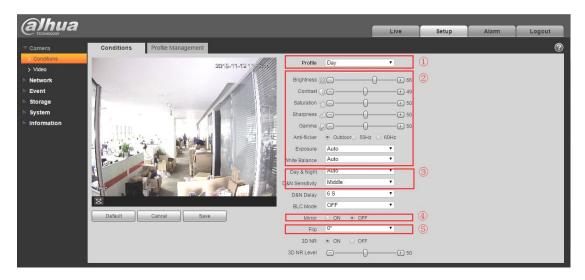
The figure 6-1 is the Playback page ①dav for recording, pic for snapshot

- ② Storage path selection
- 3 Date selection
- 4 Switch to video/picture list page
- 6 Play, Stop, slow play, next frame, fast forward, volume adjust
- 78 clip and save a video
- 9 Time line
- ① Record type selection
- (11) Duration of timeline

### 6.1 How to download a clip of recording

- 1) Click the start time on 9
- 2) Click clip button ⑦
- 3) Click the end time on (9)
- 4) Click save button ®

# 7. Camera setting(encode/image)



## 7.1 How to set D/N profile

Go to Setup -> Camera -> Conditions

- ① Day, Night and Normal
- 2 Adjust image as customer requirement
- 3 Auto: adjust D/N automatically

Color: always keep color and IR off.

Black and white: always black and white image and keep IR on.

# 7.2 How to set image flip and mirror

4 Mirror on/off

Flip: select a degree, and then the image will rotate corresponding degree.

### 7.3 How to set encode(recommended bitrate/frame rate)



Figure7-3

Go to Camera -> Video, change the resolution and Frame rate as you want, and the recommended Bit Rate will be automatically changed. Please see Reference Bit Rate, the total bandwidth is within that range and floats as per the activity in the scene.

#### 7.4 What is I-frame

An I-frame is an 'Intra-coded picture', in fact a fully specified picture, like a conventional static image file. P-frames and B-frames hold only part of the image information, so they need less space to store than an I-frame and thus improve video compression rates.

# 7.5 How to set image SPL



Figure 7-5-1

1) Go to Camera -> Video -> Snapshot, choose Snapshot Type general, choose the picture quality and time interval between 1 to 16 seconds. Click save button to apply.

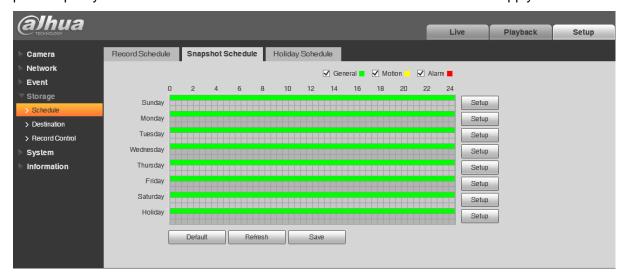


Figure 7-5-2

2) Go to Storage -> Schedule -> Snapshot Schedule, tick the general box and set up the schedule the snapshot works. Click Save to apply.

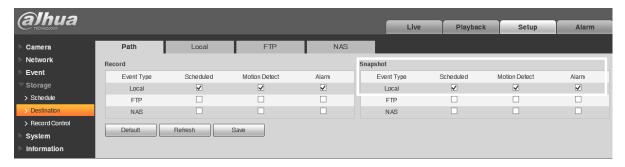


Figure 7-5-3

3) Go to Storage -> Destination -> Path, tick the scheduled box in snapshot and click Save to apply. Here we use Local(SD card) as an example, FTP and NAS is also viable for this function.

# 7.6 How to set privacy masking

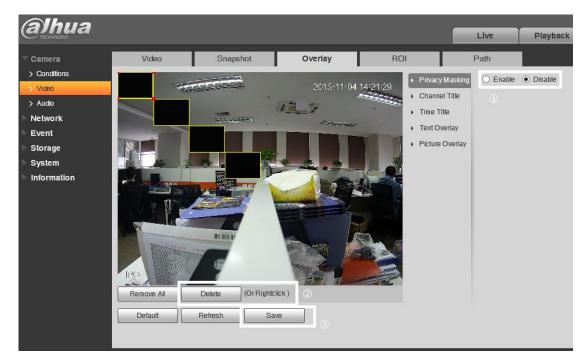


Figure 7-6

- 1) Go to Camera -> Video -> Overlay, tick the Enable option.
- 2) 4 different privacy masking area is listed on picture by default, please put them in the place you want to cover and make them to be a proper size. Delete those spare privacy masking you don't want by click the delete button or right click your mouse.
  - 3) Click Save button to apply the settings.

### 7.7 How to set text overlay and picture overlay

### 7.7.1 Test overlay



Figure 7-7-1

1) Go to Camera -> Video -> Overlay -> Text Overlay, tick the enable option.

- 2) Enter the text in the 5 blank boxes, each line is limited for 15 letters.
- 3) Choose the text aligning on right or on left and then put the text overlay in a right place as you want
  - 4) Click Save to apply the settings.

### 7.7.2 Picture overlay



Figure 7-7-2

- 1) Go to Camera -> Video -> Overlay -> Picture Overlay, tick the enable option.
- 2) Upload picture, please notice the requirement for picture upload.
- 3) Put the yellow overlay box in the place you want and click save to apply the settings

#### Note:

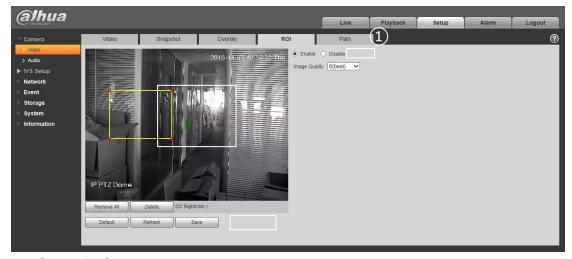
Requirement for picture upload

- 1. Max size is 64k.
- 2. Max resolution is 128x128 pixels.
- 3. bmp format.

Please notice that picture overlay function is only supported on IPC 4020 5020 8000 series.

### 7.8 What is I-frame

From Setup->Camera->Video->ROI, ROI menu is shown as below.



### Operation Steps:

- 1) Click "Enable" button.
- 2) Select the area to enable or disable ROI.
- 3) Click "Save" to save settings.

### 7.9 How to change Snapshot/recording path

From Setup->Camera->Video->Path, snapshot/recording path menu is shown as below.



### Operation Steps:

- 1) Click "Browse" to select the path that you want to save to.
- 2) Click "Save" to save settings.

### 7.10 How to record audio and talkback

From Setup->Camera->Audio, audio menu is shown as below.



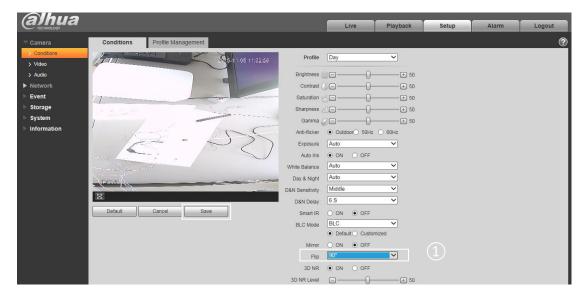


### Operation Steps:

- 1) Click "Enable" button.
- 2) Select the type of Encode Mode.
- 3) Select the type of Sampling Frequency.
- 4) You can setup the sub stream as the main stream.
- 5) Click "Save" to save settings.
- 6) Click the icon as 6, you can use the talkback.

### 7.11 How to set corridor mode

From Setup->Camera->Conditions, corridor menu is shown as below.



### Operation Steps:

- 1) Click "Flip" to select the angle you want to rectify.
- 2) Click "Save" to save settings.

### 8. Network

### 8.1 How to check ONVIF version and enable ONVIF

ONVIF (Open Network Video Interface Forum), this standard describes network video mode, interface, data type and data interaction mode. ONVIF Standard's aim is to achieve a network video frame agreement and makes the network video products (including video front-end, video equipment, etc.) from different manufacturers completely compatible.

Check the ONVIF version, Figure 8-1
 From main menu->Setup->System->Version, you can find "ONVIF Version".



Figure 8-1

### 2) Enable ONVIF

ONVIF function default is closed.

From main menu->Setup->Network->Connection->ONVIF, You can refer to the Figure 8-2



Figure 8-2

### 8.2 How to set DDNS

The DDNS is to set to connect the various servers so that you can access the system via the server. Please go to the corresponding service website to apply a domain name and then access the system via the domain. It works even your IP address has changed. When the device connects to WLAN, you should disable UPnP.

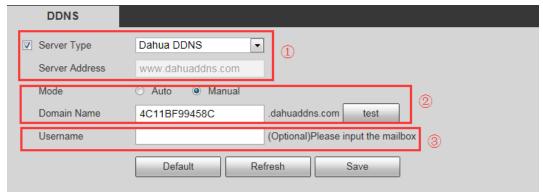


Figure 8-3

- 1) Server Type: You can select DDNS protocol from the dropdown list: CN99 DDNS, NO-IP DDNS, Dyndns DDNS, Dahua DDNS, the default is Dahua DDNS.
  - 2) Server Address: DDNS server IP address,

Dahua DDNS: www.dahuaddns.com

CN99 DDNS: www.3322.org

NO-IP DDNS: dynupdate.no-ip.com Dyndns DDNS: members.dyndns.org

- 3) Mode: Default is auto, you can set to manual.
- 4) Domain name: For Dahua DDNS, Both auto and manual are "MAC Address dahuaddns.com" by default, able to set prefix manually.
  - 5) Username: The user name you input to log in the server, optional.

#### 8.3 How to set IP Filter

The IP filter interface is shown as in Figure 8-4.

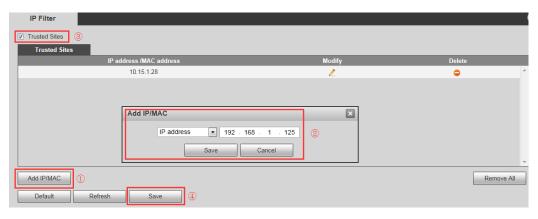


Figure 8-4

You can enable IP filter function so that some specified IP/MAC user can access the network camera.

You can add IP address or IP address section.

If you do not check the box here, it means there is on access limit.

Here you can add IP address and MAC address. You must add these addresses before enabling the trusted sites.

Note: You must set MAC address in the same network segment.

After enabled, IP or MAC users who are not in the trusted list can't access the network camera

### 8.4 How to set WIFI(WPS,PIN)

Note: Some series devices don't support WIFI and WPS function.

WIFI work information column can show the name, status, IP information of the Current Hot Spot. Usually please "refresh" WIFI work information after reconnection to ensure the real-time display of the work status, because it often takes some time to connect WIFI Hot Spot, which depends on the network signal strength.

WIFI setting method is as follows:

- 1) Click Enable, show as Enable, means enabling WIFI function.
- 2) Click "wireless network ID search", and shows the wireless network hot spot of the current network camera environment in the list.



Figure 8-5

3) Click "Add SSID" when need to add a wireless network manually pop out an interface, and enter network ID in the dialog box.

Click "Search SSID", if you can search the wireless network hot spot, it means the network ID is available.

- 4) Double click on one can pop out the signal intensity and authentication of the hot spot.
- Please enter the password if necessary. Please keep the choice of password index number same as the router when entering password.
  - Please click "connect" if it is unnecessary to enter the password.
  - 5) WPS



Figure 8-6

PIN Number and SSID are both acquired from the router, please "refresh" the work information of WIFI to ensure the real-time display of work state after filling in correctly.

## 8.5 How to set SMTP(Email)

The SMTP interface is shown as in Figure 8-7

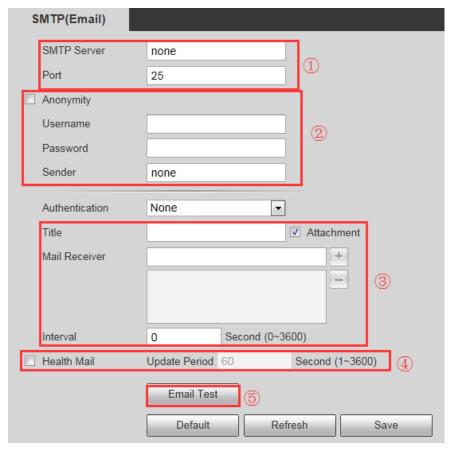


Figure 8-7

1) Choose a SMTP server which you want to use. For example, my e-mail is xxxxxx@hotmail.com, so the SMTP server is <a href="www.hotmail.com">www.hotmail.com</a>. Ping <a href="www.hotmail.com">www.hotmail.com</a> to get the IP(65.55.157.188). Port is default 25, you can modify it if necessary.

```
C:\Windows\system32\cmd.exe

C:\Users\28582\ping www.hotmail.com

正在 Ping dispatch.kahuna.glbdns2.microsoft.com [65.55.157.188] 具有 32 字节的数据:
来自 65.55.157.188 的回复: 字节=32 时间=297ms TTL=236
来自 65.55.157.188 的回复: 字节=32 时间=334ms TTL=236
来自 65.55.157.188 的回复: 字节=32 时间=378ms TTL=236
来自 65.55.157.188 的回复: 字节=32 时间=378ms TTL=236
```

Figure 8-8

- 2) Anonymity: For the server supports the anonymity function. You can auto login anonymously. You do not need to input the user name, password and the sender information.
  - 3) Input Username and password of your account. For example,

Username: Victor\_Gu Password: xxxxxxxx

Input "Sender", must be your whole e-mail address, e.g.: Victor\_Gu@hotmail.com

4) Authentication (Encryption mode): You can select SSL, TLS or none.

Title (Subject): Input email subject here.

Attachment: System can send out the email of the snapshot picture once you check the box here.

Mail receiver: Input receiver email address here. Max three addresses.

Title (Subject): Input email subject here.

Attachment: System can send out the email of the snapshot picture once you check the box here.

Mail receiver: Input receiver email address here. Max three addresses.

- 5) Interval: The send interval ranges from 0 to 3600 seconds. 0 means there is no interval. Please note system will not send out the email immediately when the alarm occurs. When the alarm, motion detection or the abnormity event activates the email, system sends out the email according to the interval you specified here. This function is very useful when there are too many emails activated by the abnormity events, which may result in heavy load for the email server.
  - 6) Health mail enable: Please check the box here to enable this function.

Email test: The system will automatically sent out a email once to test the connection is OK or not .Before the email test, please save the email setup information.

### 8.6 Bonjour



Figure 8-9

The Bonjour interface is shown as above. See Figure 8-9

Bonjour is based on the multicast DNS service from the Apple. The Bonjour device can automatically broadcast its service information and listen to the service information from other device. You can use the browse of the Bonjour service in the same LAN to search the network camera device and then access if you do not know the network camera information such as IP address. You can view the server name when the network camera is detected by the Bonjour. Please note the safari browse support this function.

- 1) Click the "Display All Bookmarks;
- 2) open the Bonjour, system can auto detect the network camera of the Bonjour function in the LAN.
  - Click to access the corresponding web page.

### 8.7 How to set Multi-cast

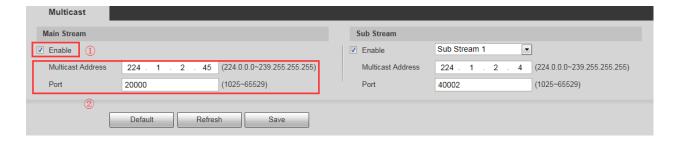


Figure 8-10

The multicast interface is shown as in Figure 8-10

Multicast is a transmission mode of data packet. When there is multiple-host to receive the same data packet, multiple-cast is the best option to reduce the broad width and the CPU load. The source host can just send out one data to transit. This function also depends on the relationship of the group member and group of the outer.

Default is RTP multicast,

- 1) Input Multicast Address : Main/sub stream multicast default address is 224.1.2.4 and its range is  $224.0.0.0\sim239.255.255.255$ . Multicast port. Main stream is 40000, sub stream is 40002 and the range is  $1025\sim65534$ .
  - 2) Enable
  - 3) Go to Preview select Multicast mode. you can get stream via Multicast.



Figure 8-11

Note: Need your router support and turn on Multicast.

### 8.8 How to use P2P

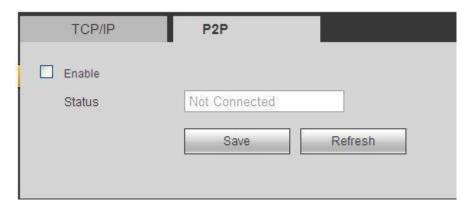


Figure 8-12

- 1) Login the WEB, from Setup->Network->TCP/IP->P2P; you can go to the following interface. See Figure 8-12
  - 2) Check the box here to enable P2P function.

- 3) Click Save button.
- 4) Then you can get access to Camera via P2P.

### 9. EVENT

## 9.1 How to set multiple detection area

Motion detection function is the basic function of IPC as below



Figure 9-1

- 1) Enable it and set Working Period, Anti-dither and Area.
- 2) When detect object moving, camera can active to record/get snapshot/send email/enable alarm-out etc



Figure 9-2

- 1) You could set 4 independent detection areas here
- 2) Sensitivity means sensitivity of brightness as motion detection is more possible to be trigger with high sensitivity. You can set up to four areas. The range is 0~100. The recommenced value is 30~70.

Threshold is to check target object area related to detection area. The lower the area threshold, the easier to trigger motion detection. You can set up to four areas. The range is  $0\sim100$ . The recommended value is  $0\sim10$ .

### 9.2 How to set IVS rules

### 9.2.1 How to set Tripwire

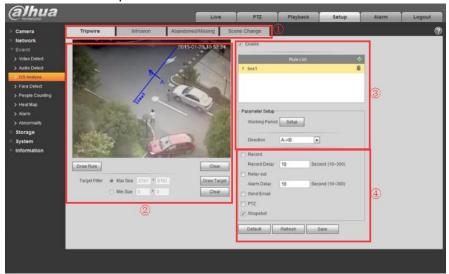


Figure 9-3

- 1) Enter tripwire interface
- 2) Draw the rule you want with one line and the arrow
- 3) Enable it and set the Working Period and Direction
- 4) When someone passes the line via the correct direction, he would trigger the rule.

Camera is active to record/get snapshot/send email/enable alarm-out etc

#### 9.2.2 How to set Intrusion

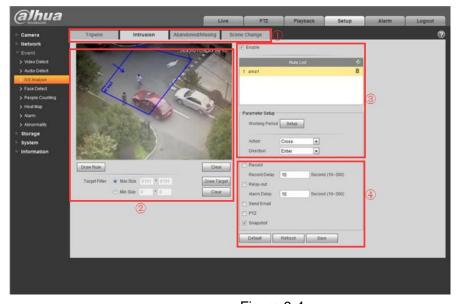


Figure 9-4

- 1) Enter the Intrusion interface
- 2) Draw the rule you want with one polygon and the arrow
- 3) Enable it and set the Working Period, Action and Direction
- 4) When someone enters the area via the correct direction, he would trigger the rule. Camera is active to record/get snapshot/send email/enable alarm-out etc

### 9.2.3 How to set Abandoned/Missing

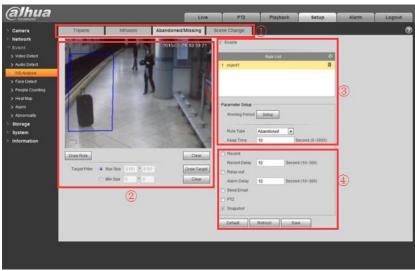


Figure 9-5

- 1) Enter Abandoned/Missing interface
- 2) Draw the rule you want within a square
- 3) Enable it and set the Working Period, Rule type and Keep time
- 4) While in Abandoned mode, object is entered in and stay in the area for the Keep time you set, it would trigger the rule. Camera is active to record/get snapshot/send email/enable alarm-out etc. In Missing mode, there is an object which being put in the area when you draw the rule. if someone takes it away, it will be triggered the rule. Camera is active to record/get snapshot/send email/enable alarm-out etc.

### 9.2.4 How to set Scene Change

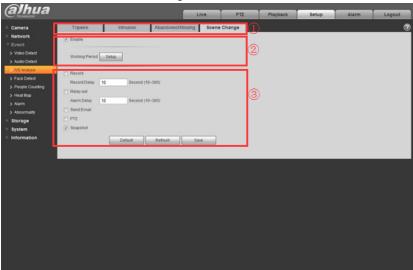


Figure 9-6

- 1) Enter Scene Change interface
- 2) Enable it and set Working Period
- 3) When the camera detects the scene change, it would trigger the rule. Camera is active to record/get snapshot/send email/enable alarm-out etc

### 9.3 How to set Face Detect

Some camera support Face detection function, such as UltraSmartIPC ,Eco-savvy2.0 IPC, as below shows.



Figure 9-7

- 1) Enable face detection and face enhancement, set well working period
- 2) Draw the face size you would like to detect, Max size and Min size, suggest in default value.
- 3) When detect face,camera is active to record/get snapshot/send email/enable alarm-out etc

### 9.4 How to use Audio Detect

Some camera models have audio input, audio detect which means when audio input is abnormal, camera alarm is activated, please see setting as below

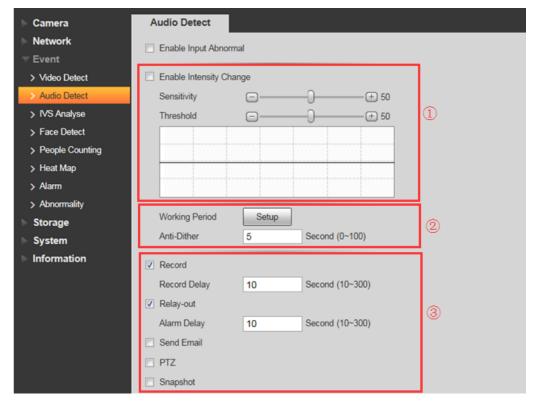


Figure 9-8

1) Set correct intensity for video detect according to your environment, there are two parameters

Sensitivity: 1~100 level adjustable, only when the volume input sound surpass the volume of continuous environment, then it can be judged as audio abnormity when the value is smaller. Users need to adjust according to the actual environmental test.

Threshold: 1~100 level adjustable, it can be used to set the intensity of filtered environmental sound. If the environmental noise is louder, then it needs to set the value higher. Users need to adjust according to the actual environmental test.

- 2) Setup working period, default value of anti-Dither is 5 seconds(range is from 0-100s), means in 5 seconds, if there occurs two abnormal audio inputs, camera consider they are the same one
- 3) When audio alarm happens, camera is active to take different actions, record/relay-out/send emal//Snapshot/PTZ(only for PTZ or PT camera, start presets/tour/pan etc)

# 9.5 How to set people counting

9.5.1 Entrance/Exit setting as below

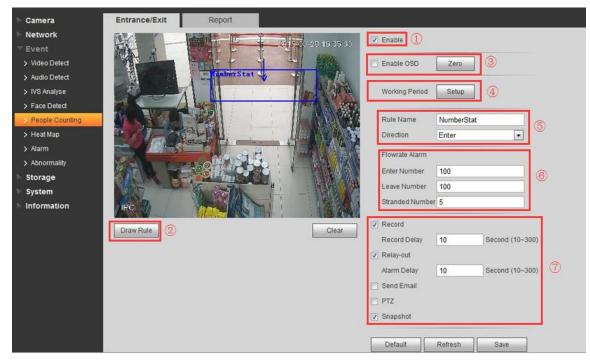


Figure 9-9

- 1) Enable setting
- 2) Enable OSD menu
- 3) Set Working period
- 4) Set direction, leave or enter
- 5) Draw Rule
- 6) Flowrate Alarm: It will trigger alarm when the number is entered, leave number and stranded number exceed the limited amount.
- 7) When Flowrate alarm is triggered, camera will be actived to take actions set before. For example record. Relay-out SendEmail etc.

### 9.5.2 People counting report

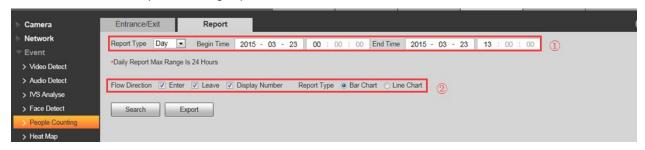


Figure 9-10

- 1) Report type: Select day report, month report and year report; also can select bar chart or line chart to display the report., then set the begin /end time within the range of statistics time
- 2) Flow Direction: It can select enter, leave and display number; the data of checked item can be displayed in the report.
  - 3) Search or Export report you want

### 9.6 How to set heap map

Please see setting as below figure shows



Figure 9-11

Statistics of the monitoring view heat, which can form report. The color range is from blue to red, blue means the min heat value; red means the max heat value. Original data of the heat map will be removed if mirror, angle of view changes.

- 1) Enable Heatmap
- 2) Set working period

Also it's possiable to search and export by time, export with excel file



Figure 9-12

## 9.7 How to connect Alarm input and output

Setting as below figure 9-13

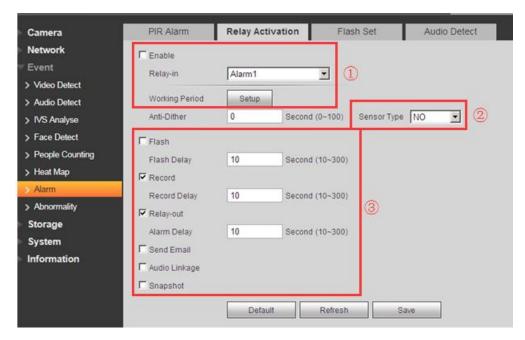


Figure 9-13

- 1) Enable alarm and set well working period, select rely-in ,some models have Alarm 2
- 2) Two types of sensor which are normally open (NO) and normally closed (NC), switch from normally open to normally closed, open the alarm. Switch normally closed to normally open, shut the alarm
  - 3) When alarm-in occurs, camera will be active to take actions

Flash: Light will flash, such as cube camera

Recording or snapshot to SD card, NAS, FTP etc.

Relay-out: Camera will be triggered some alarm equipment which is connecting to alarm out port, remind security persons there is alarm.

Send Email with attachment

Audio Linkage if there is speaker

Usually camera alarm will be linked to HCVR/NVR/SMARTPSS/DMSS/ etc. Please refer to Strorage device training paragraph 9.1.1

# 10. How to record video/snapshot to FTP

1) Enter 'Setup-Storage-Destination-Path' as Figure 10-1, enable FTP checkbox in Record/Snapshot

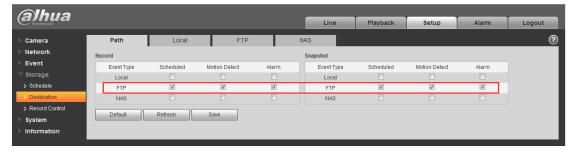


Figure 10-1

2) Enter 'Setup-Storage-Destination-FTP' as Figure 10-2

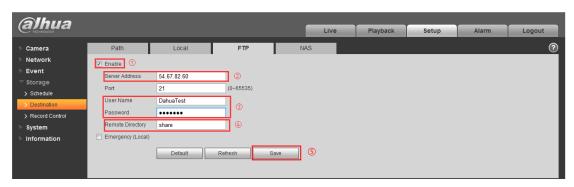


Figure 10-2

- a) Enable 'Enable' Checkbox
- b) Input the 'Server Address' which is the FTP address you want to upload
- c) Input the correct 'UserName'/'Password', which has the uploading right
- d) Input the 'Remote Directory' which is the folder name of the uploaded Record/Snapshot
  - e) Then 'Save'

# 11. How to set overwrite when SD card is full

1) Enter 'Setup-Storage-Record Control' as Figure 11-1, Choose 'Disk Full' as 'OverWrite'



Figure 11-1

2) Then 'Save'

## 12. How to synchronize time with PC/NVR/NTP

1) Enter 'System-General-Date&Time' as Figure 12-1, Click 'Sync PC', then 'Save'

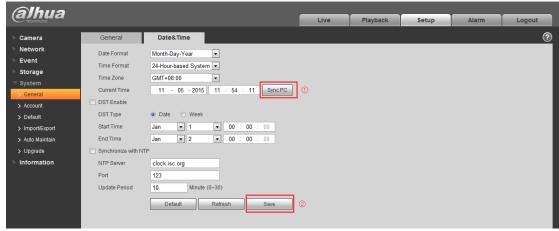


Figure 12-1

2) Enter NVR local menu - 'SETTING-SYSTEM-GENERAL-General' page as , enable the "IPC Time Sync" checkbox which can sync IPC's time with NVR



Figure 12-2

3) Enter 'System-General-Date&Time' as Figure 12-3

#### Figure 12-3

- a) Enable 'Synchronize with NTP' Checkbox
- b) Input the 'NTP Server' & 'Port' & 'Upload Period'
- c) Then 'Save'

# 13. How to import/Export config

1) Enter 'System-Import/Export' as Figure 13-1



Figure 13-1

2) After setting the IP camera, click 'Export' and choose the path to restore the Config backup, as shown in figure 13-2, operate succeeded.



Figure 13-2

3) Go to the path you choose, you can find the Config backup file as Figure 13-3.



Figure 13-3

4) Click 'Import' and choose the Config backup file you want, it will import the setting of IP camera, As shown in figure 13-4, save succeeded.



Figure 13-4

# 14. How to set SD card storage

Before saving the setting, you need follow the Quick Start Guide of the IPC model you got, insert the SD card

1) Enter 'Storage-Destination-Local' as Figure 14-1



Figure 14-1

- ① read only
- 2 read and write
- ③ click Hot Swap before pull out the card
- 4 refresh
- (5) format the SD cards
- 2) After setting the SD card, go to 'Storage-Destination-Path', Choose 'Local' in record/snapshot as shown in figure 14-2



Figure 14-2

## 15. How to reset the camera

### 15.1 IPC 8/5 series

### 1. HF81200/8331/8281/8231E





Figure 15-1

- 1) Reset: Press the reset button for 5 seconds.
- 2) Serial port connection: Please use connector (1.2.17.12.0011) and weld it on the package of the serial port.

### 2. HFW81200/8331/8281/8231E-Z





Figure 15-2

- 1) Reset: Press the reset button for 5 seconds.
- 2) Serial port connection: Please use connector(1.2.17.12.0011) and weld it on the package of the serial port.

### 3. HDBW81200/8331/8281/8231E-Z





Figure 15-3

- 1) Reset: Press the reset button for 5 seconds.
- 2) Serial port connection: Please use connector(1.2.17.12.0011) and weld it on the package of the serial port.

### 15.2 IPC 4 series

### 1. HFW4421/4221/4220/4120S





Figure 15-4

- 1) Reset: Make short circuit between two small holes on the PCB for 5 seconds.
- 2) Serial port connection: Please use connector(1.2.17.12.0011) and weld it on the package of the serial port.

#### 2. HFW4421/4221/4220/4120E





Figure 15-5

- 1) Reset: Make short circuit between two small holes on the PCB for 5 seconds.
- 2) Serial port connection: Please use connector(1.2.17.12.0011) and weld it on the package of the serial port.

### 3. HDBW4421/4221/4220/4120E





Figure 15-6

- 1) Reset: Press the reset button for 5 seconds.
- 2) Serial port connection: Please use connector(1.2.17.12.0011) and weld it on the package of the serial port.

### 4. HDBW4421/4221/4220/4120F





Figure 15-7

- 1) Reset: Press the reset button for 5 seconds.
- 2) Serial port connection: Please use connector(1.2.17.12.0011) and weld it on the package of the serial port.

#### 5. HDW4421/4221/4220/4120E





Figure 15-8

- 1) Reset: Make short circuit between two small holes on the PCB for 5 seconds.
- 2) Serial port connection: Please use connector(1.2.17.12.0011) and weld it on the package of the serial port.

#### 6. HDW4421/4221/4220/4120M



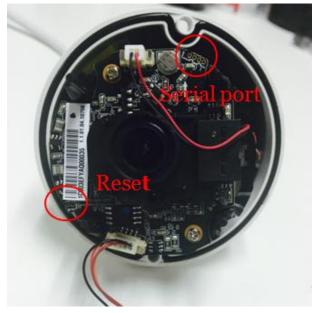


Figure 15-9

- 1) Reset: Make short circuit between two small holes on the PCB for 5 seconds.
- 2) Serial port connection: Please use connector(1.2.17.12.0011) and weld it on the package of the serial port.

### 15.3 IPC 2/1 series

### 1. HDW2320/2220/2120R-Z



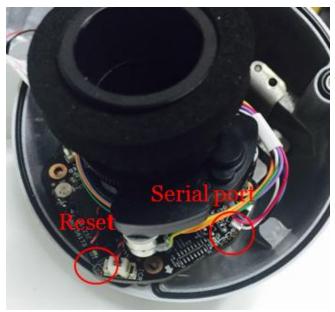


Figure 15-10

- 1) Reset: Make short circuit between two small holes on the PCB for 5 seconds.
- 2) Serial port connection: Please use connector(1.2.17.12.0011) and weld it on the package of the serial port.

#### 2. HDW2320/2220/2120R-Z





Figure 15-11

- 1) Reset: Make short circuit between two small holes on the PCB for 5 seconds.
- 2) Serial port connection: Please use connector(1.2.17.12.0011) and weld it on the package of the serial port.

#### 3. HDW1320/1220/1120/1020S





Figure 15-12

- 1) Reset: Make short circuit between two small holes on the PCB for 5 seconds.
- 2) Serial port connection: Please use connector(1.2.17.12.0011) and weld it on the package of the serial port.

# 16. How to upgrade firmware

# 16.1 ConfigTool

Operation steps are as below.

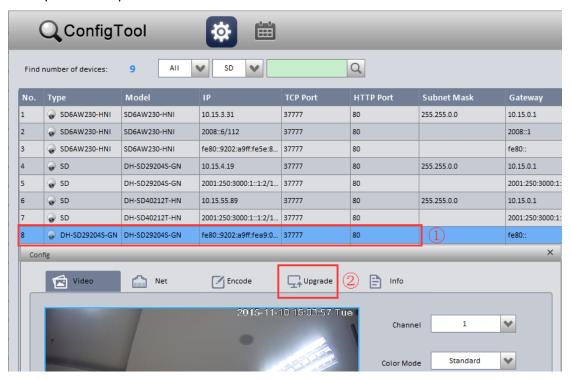


Figure 16-1

- 1. After installing the config tool. Open and search the IPC you want to upgrade.
- 2. Open the config menu of the IPC and choose the upgrade submenu.

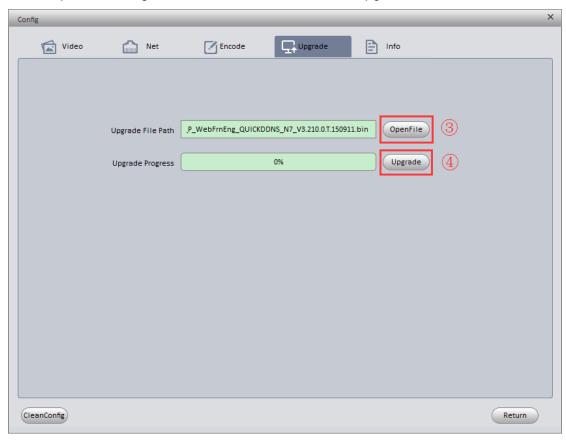


Figure 16-2

- 3. Choose the upgrade firmware.
- 4. Click "Upgrade".

## 16.2 Website

Operation steps are as below.

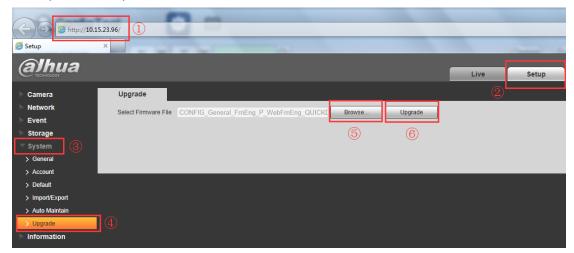


Figure 16-3

- 1. Open the website of the IPC.
- 2. Setup->System->Upgrade.
- 3. Select the upgrade firmware and click "Upgrade".

## 16.3 NVR

Operation steps are as below.

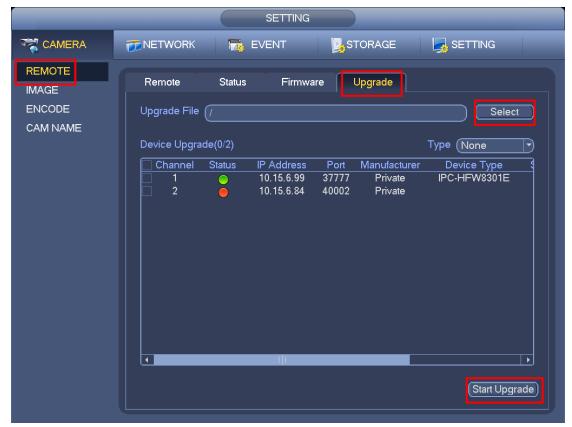


Figure 16-4

- 1. Main Menu->Setting->Camera->Remote->Upgrade.
- 2. Select the upgrade firmware in the USB device.
- 3. Start Upgrade.

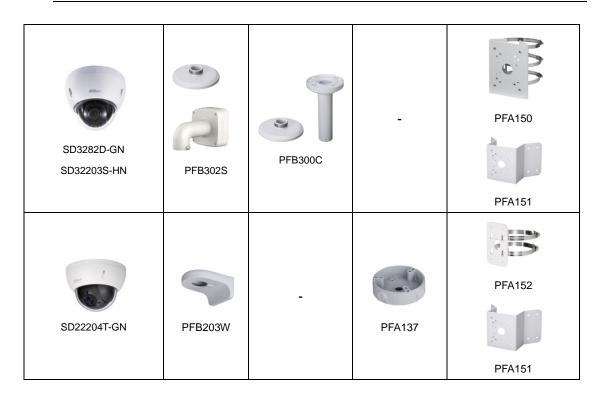
# 17. Goods Checking

# 17.1 Accessory checking

PTZ dome cameras have the standard configurations, and the configurations have been as follows.

Model	Wall Mount	Ceiling Mount	Junction Box	Corner/Pole Mount
		(Optional)	(Optional)	(Optional)
SD5923C/23E/36E-H SD59112/120/212/220/230I-HC SD59120/212/220/230S-HN	PFA110 PFB300S	PFA110 PFB300C	PFA120	PFA150 PFA151







For more information, check

# 17.2 Unit checking

PTZ unit includes User manual, Bracket, Power cable, Power adapter, CD, Network cable, Screw package. (Take SD6AL230F-HNI as an example)

Make sure the power supply and device is matched.

# 18. How to set panorama mode

Panorama Function on Web

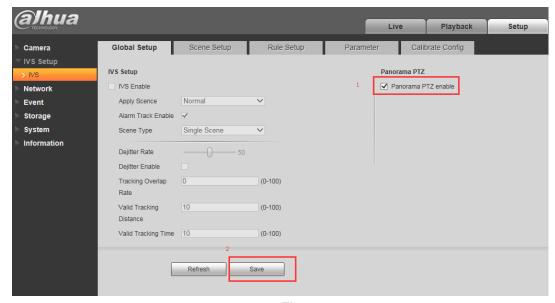


Figure 18-1

When you login in web interface, you can see the function in Setup-> IVS->Global Setup,

check the Panorama PTZ enable and then click save. See as Figure 18-1 shows.

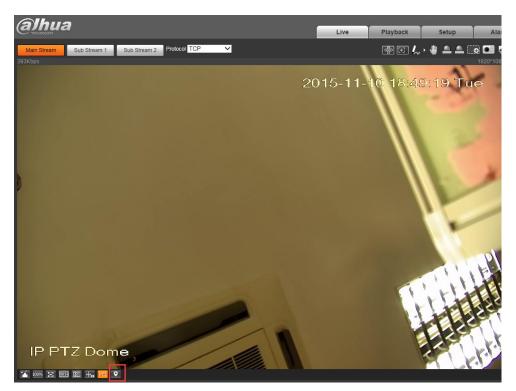


Figure 18-2

Then you can go to the Live page, and click the button as a drop in left corner. Figure 18-2.

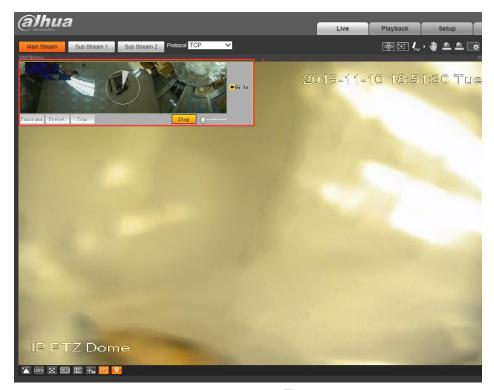


Figure 18-3

You 'll see interface in left corner and the speed dome will rotation Horizontal 360°, Vertical -10°- 90 °.It will show the process in circle and you can stop at any time. Figure 18-3.

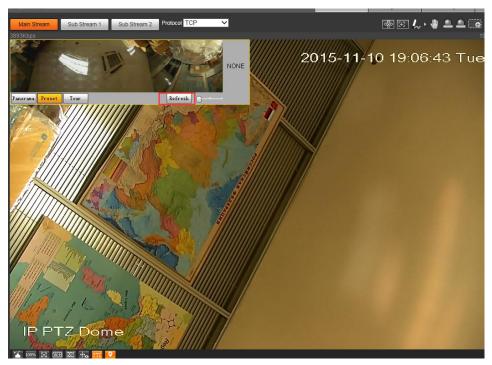


Figure 18-4

Last, when it finished, the word "refresh" will appear. You can click it and restart.

# 19. How to set wiper schedule/manual

Wiper setting

WIPER MODE : TIME
START TIME : 07H 00M
STOP TIME : 19H 00M
INTERVAL : 10S
WIPER CTRL : STOP
SAVE
BACKEXIT

Figure19-1

Move the cursor to highlight WIPER SETTING button and then click confirm button.

- WIPER MODE: set the zoom camera to wiper mode. It includes two modes: Manual/schedule. Use the left/right button to set.
  - START TIME: set wiper to enable start time. Use the left/right button to set.

Please note this function is only valid when the wiper mode is schedule.

- END TIME set wiper to enable end time. Use the left/right button to set. Please note this function is only valid when the wiper mode is schedule.
- INTERVAL: It is to set the period between two operations. Use the left/right button to set.
- WIPER CONTROL: set wiper operation. It includes: enable/stop/once only. Use the left/right button to set.
  - SAVE: Save current settings.
  - BACK: Go back to the previous menu.
  - EXIT: Log out the system menu.

#### Note:

The wiper function only available in a model with "L".

# 20. How to adjust focus length

Focus Setup

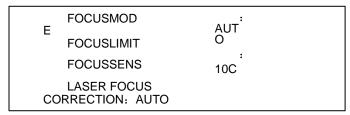


Figure 20-1

FOCUS MODE: set the camera focus mode. It includes several modes such as auto, manual, semiautomatic.

- FOCUS LIMIT: set the camera focus limit. Please use the left/right button on the keyboard or in the speed dome terminal menu toset.
- FOCUS SENSITIVITY: set the camera focus sensitivity. Please use the left/right button on the keyboard or in the speed dome terminal menu toset.

- ZOOM TRACKING: it is to set the camera zoom tracking, click the left/right button on the keyboard or in the speed dome terminal menu to set.
- LASER FOCUS CORRECTION: It is to set the camera laser focus correction.
   Please use the left/right button on the keyboard or in the speed dome terminal menu to set.
- BACK: Go back to previous menu.
- EXIT: Log out system menu.

# 21. How to set laser length

Laser Setting

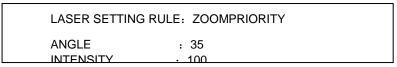


Figure 21-1

Move the cursor to the LASER SETTING button and then click confirm button to set.

- LASER SETTING RULE: It is to set the laser setting rule, there are two options: zoom priority and manual. Click "left", "right" button to set.
- ANGLE: It is to set the laser angle, click "left", "right" button to set.
  - Note: It is valid only when laser setting rule is set as manual mode.
- INTENSITY: it is to set the laser intensity, click "left', "right" button to set.
  - **Note:** It is valid only when the laser setting rule is set as manual mode.
- BACK: Go back to the previous menu.
- EXIT: Log out the system menu.

# 22. How to set IVS tracking

# 22.1 Single-Scene Track

It is suitable for the single-scene monitor zone. You can set the corresponding alarm activation rule here.

Once an object is entering the monitor zone and activate the selected rule, system can enable auto track function. For example, you want to set one prohibited area in the monitor zone; you can use the "Cross warning zone" rule. Please follow the steps listed below.

- 1) Login the Web and then click the Set button. Select IVS in the menu tree on the left pane. You can go to the following interface.
- 2) Set track parameter. Click the Save button to complete the setup. You can see system prompts a dialogue box "Save succeeded" to remind you.

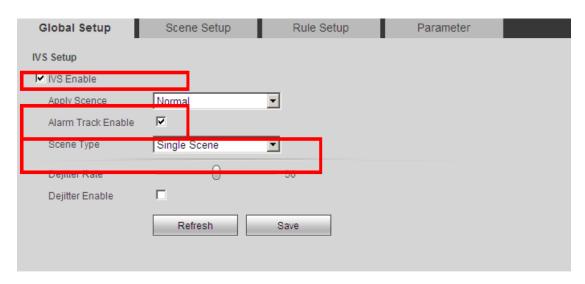


Figure 22-1

3) Set scene. Please go to the Scene setup interface, click button to add a scene. System saves current monitor area as the new scene by default. You can use the PTZ to adjust the monitor area and click scene Setup button to set a new scene too. Use the button to adjust the PTZ zoom position. Select a proper zoom rate and the click set Track Rate button; you can set the track process in current scene at the reference rate you set here. Move your mouse to the Scene name, track time, you can edit them. Click the Save button to complete the setup. See Figure 22-2.

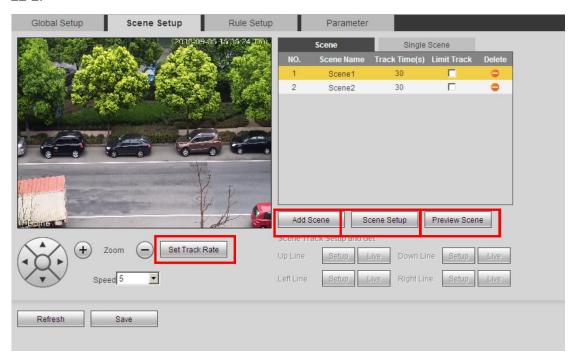


Figure 22-2

4) Set limited scene (Optional): Please check the corresponding box to enable the limited track function. Please select the track line at the right pane of the interface. Please use the PTZ direction and zoom button to set the up/down/left/right line. Click the save button to complete setup. See Figure 22-3.

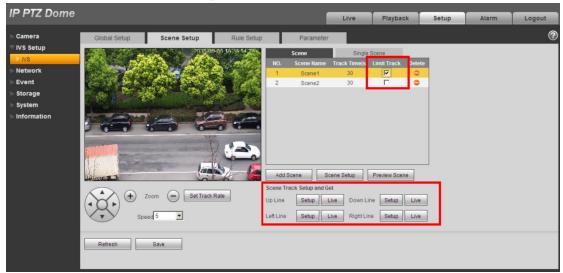


Figure 22-3

5) Select track scene. Go to the single-scene track interface and select the monitor scene you want. Click the save button to complete the setup. See Figure 22-4.

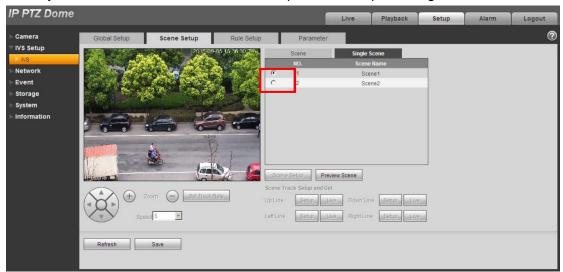


Figure 22-4

6) Set intelligent rule: Go to the Rule setup interface to set the monitor scene of the rule. Click to add a rule. System enables the rule by default. Move the mouse to the Rule name; you can edit a customized name here. Move the mouse to the Rule type; you can select a rule (Crossing warning zone) from the dropdown list. Click

, you can draw the rule in the preview interface at the bottom left panel. Select both from the direction dropdown list. Click the save button to complete the setup. See Figure 22-5.

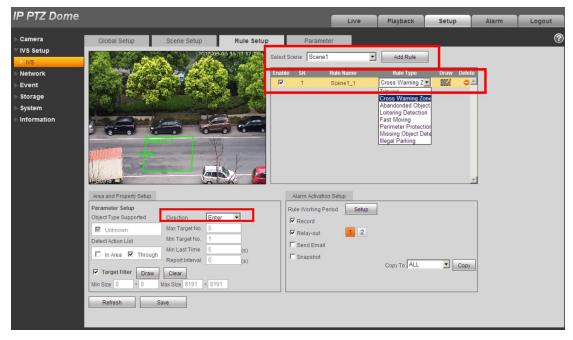


Figure 22-5

7) Click the Live button. Please note, when you switch to a new scene, system needs to wait for about 3 seconds to enable the auto track function. Now the speed dome can enable single-scene track function in the specified monitor zone.

#### Note:

- Click to draw the rule. In the live pane at the left bottom corner of the interface, left click mouse to begin the draw. Right click mouse to complete. When you draw the area such as a round or a polygon, you can right click the mouse to allow the system auto closes current draw area. When you draw in the perimeter protection rule interface, please draw the fence at the top first and then draw the fence at the bottom.
- Click to draw the target filter. In the live pane at the left bottom corner of the interface, left click mouse to begin the draw. Adjust the area to the specified size and then right click mouse to complete. The green pane is the max size and red pane is the min size. Click the green pane and then drag the four acmes to set the zone size. Click the Save button, you can see system prompts a dialogue box "Save succeeded" to remind you.

# 22.2 Multiple-scene Track

It is for the monitor of several scenes. You can set alarm activation rule for each scene. Once an object entered current monitor area and activate the specified rule, the system can auto track. For example, you want to use one speed dome to monitor three scenes via tour function: The loitering object around the door, the object crossing the perimeter, the object cross the tripwire of the walkway. For the first scene, we can use

loitering detection rule. For the second scene, we use perimeter protection rule and for the third scene, we use tripwire rule.

- 1) Login the Web and then click the Set button. Select IVS in the menu tree on the left pane. You can go to the following interface.
- 2) Please set the track parameter. See Figure 22-6. Click the save button to complete the setup. You can see system prompts a dialogue box "Save succeeded" to remind you.

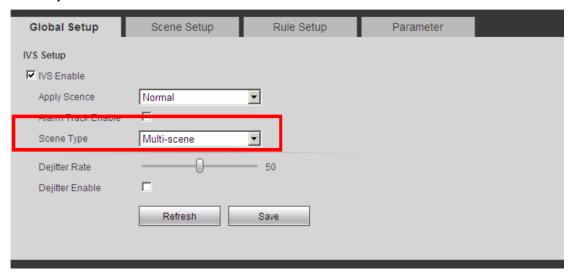


Figure 22-6

3) Set scene. In the following figure, you can add the path for the multiple-scene track. The stay time is 30s, 40s, and 50s respectively. See Figure 22-7. Click the save button to complete the setup. You can see system prompts a dialogue box "Save succeeded" to remind you.

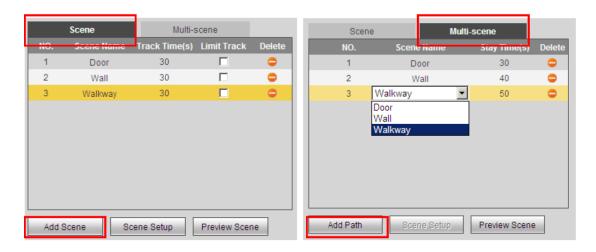


Figure 22-7

- 4) Set rule. Please refer to step 6 in chapter 3.3 Single-scene Track for detailed information. You can see system prompts a dialogue box "Save succeeded" to remind you.
- 5) Click the Live button; you can use the PTZ to set the monitor scene. Please note, when you switch to a new scene, system needs to wait for about 3 seconds to enable the

auto track function. Now the speed dome can enable multiple-scene track function in the specified monitor zone.

### 22.3 Panorama-Scene Tracking-Alarm Activation

System can auto track the object when there is any object entering the monitor zone. For example, when there is an object entering the monitor zone, you can set the speed dome to enable auto tracking function after it recognized the object 1 second. You can set it to track the object for 30 seconds and the tracking rate is auto. You can follow the steps listed below to set.

- 1) Login the Web and then click the Set button. Select IVS in the menu tree on the left pane. You can go to the following interface.
- 2) Check the corresponding box to enable IVS track function and alarm track function. Select panorama scene from the track type dropdown list. Set trigger delay time as 1 second and track time as 30 seconds. See Figure 22-8.

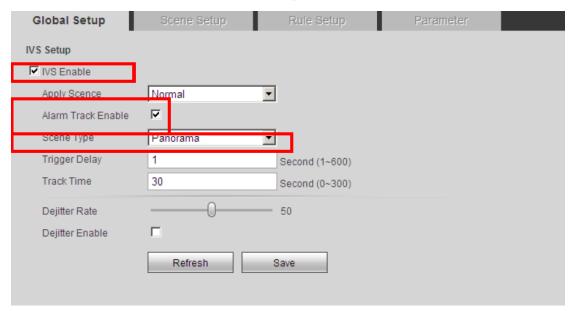


Figure 22-8

- 3) Click the Save button to complete the setup. You can see system prompts a dialogue box "Save succeeded" to remind you.
- 4) Click the Live button; you can use the PTZ to set the monitor scene. Please note, when you switch to a new scene, system needs to wait for about 3 seconds to enable the auto track function. Now the speed dome can enable Panorama-scene track function in the specified monitor zone.

#### Important:

The so called panorama-scene is the current monitor zone of the camera. The default activation rule of the panorama-scene is "Cross Warning zone", usually you do not need to set.

### 22.4 Panorama-scene Tack-Manual Activation

System can track the object once there is any object entering the monitor zone. For example, you can set the speed dome to track once the object is entering the monitor zone. After the system recognized the object 1 second, you can see the object frame and rule became red and flashes. Now it records the alarm event. You can set to track object manually. Please follow the steps listed below.

- 1) Login the Web and then click the Set button. Select IVS in the menu tree on the left pane. You can go to the following interface.
  - 2) Set the parameters. See Figure 22-9.

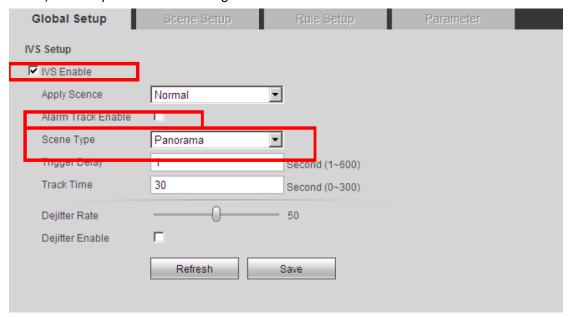


Figure 22-9

- 3) Click the Save button to complete the setup. You can see system prompts a dialogue box "Save succeeded" to remind you.
- 4) Click the Live button; you can use the PTZ to set the monitor scene. Please note, when you switch to a new scene, system needs to wait for about 3 seconds to enable the

auto track function. Click the button and select an object in the scene, now the speed dome can enable track function in the specified monitor zone. See Figure 22-10.

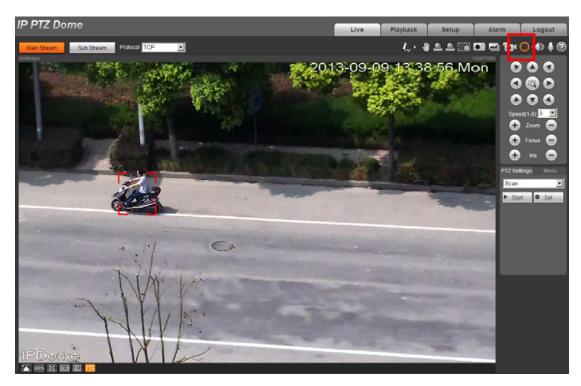


Figure 22-10

#### **Important**

In any track type, once there are several objects appearing at the same time, you

can click to select the new tracking object manually. During the intelligent auto-tracking enable process, the PTZ needs to stop intelligent track. System can enable the intelligent track automatically once the PTZ is idle for a period of time.

# 23. How to set tour/preset/pan/...

# 23.1 Preset Setup

PRESET NO: 001
TITLE: PRESET001
SETTING
CALL
BACK EXIT

Figure 22-11

Move the cursor to PRESET button and then click confirm button to go to set interface.

- PRESET NO: Please use left/right key to modify preset number. The different protocols support different preset values.
- TITLE: Title text is the label used for you to identify the camera. System will automatically name a title for the camera.

- SETTING: Please input preset number first and then select the monitor zone. Please move the cursor to setting and click confirm button. The system will pop up a message: PRESET: \*\*\*. Here \*\*\* means preset number. And the SETTING column pops up an OK. Now you successfully added a preset. Please note, you need to enable display preset title function first (Main menu->display setting->preset title). Repeat the above procedures to set more presets. Once you want to modify a preset, you can input the preset number you want to modify and then follow the above steps to set the preset. You can successfully modify a preset content.
- CALL: Here is to recall preset. Move the cursor to PRESET NO and then input corresponding preset value. Then move the cursor to CALL and then click confirm button to go to a preset.
- BACK: Go back to previous menu.
- EXIT: Log out system menu.

#### 23.2 Pan

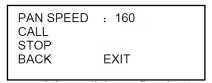


Figure 22-12

Move the cursor to PAN button and then click confirm button to go to setup interface.

- PAN SPEED: Set dome rotation speed. Please use the left/right button on the keyboard or in the speed dome terminal menu to set.
- CALL: Move the cursor to call item and then click confirm button. The dome begins 360 degrees continuous rotation.
- STOP: Highlight stop item and then click confirm button. The dome stops rotation.
- BACK: Go back to previous menu.
- EXIT: Log out system menu.

#### 23.3 Tour

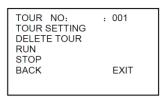


Figure 22-13

Move the cursor to highlight TOUR item and then click confirm button to go to set interface.

 TOUR NO: Here is to ser tour number. Please use the left/right button on the keyboard or in the speed dome terminal menu to set. TOUR SETTING: Move the cursor to tour setting item and then click confirm button.
 You can see the following interface. Here you can add or remove the preset, and set the corresponding dwell time and call speed.

NO 01 02 03	PRESET 000 000 000	DWELL 005 005 005	SPEED 013 013 013
32			013

**Figure 22-14** 

- DWELL: Here is t set dwell time. Please use the left/right button on the keyboard or in the speed dome terminal menu to set.
- SPEED: Here you can set the speed value.
   When you move the cursor to one tour number, you can use left/right button to turn the page.

When you move the cursor to one tour number, please click confirm button to set the tour. Please use up/down button to set preset number, dwell time and speed. Use the left/right button to go to the next tour. Click confirm button you can exit the setup. After you completed the setup, move the cursor to back button to go to the previous interface.

- DELETE TOUR: Here is to delete a tour. Input tour number in TOUR NO and then move the cursor to DELETE TOUR, click confirm button to delete.
- CALL: Here is to activate tour. Input tour number in tour NO and highlight CALL, click confirm button to activate touring.
- STOP: Here is to terminate touring.
- BACK: Go back to previous menu.
- EXIT: Log out system menu.

# 24. Alarm activation (preset/pan/tour)

In the web page of our device, click Setup->Event->Alarm, then we can set the Alarm function as Figure 24-1 shows.

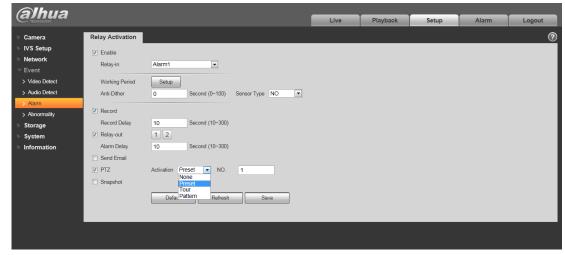


Figure 24-1

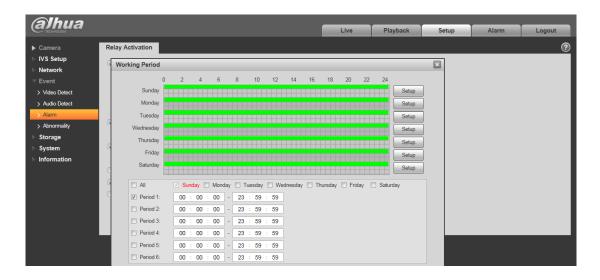


Figure 24- 2

Parameter	Function		
Enable	Before set, we must enable this function.		
Working Period	Click setup, we can get the page as Figure24-2 shows.  This function becomes activated in the specified periods.  There are six periods in one day. Please draw a circle to enable corresponding period.  Select date. If you do not select, current setup applies to today only. You can select all week column to apply to the whole week.		
	<ul> <li>Click OK button, system goes back to motion detection interface; please click save button to exit.</li> </ul>		
Anti-dither	System only memorizes one event during the anti-dither period. The value ranges from 0s to 100s.		
Sensor type	type There are NO/NC can be choose.		
Relay out	<ul> <li>Enable alarm activation function. You need to select alarm output port so that system can activate corresponding alarm device when alarm occurs.</li> <li>Please note the relay output number here is for reference only. The alarm</li> </ul>		
Alarm Delay	output number may vary due to different series products.  System can delay the alarm output for specified time after alarm ended. The value ranges from 10s to 300s.		
Record Channel  System auto activates motion detection channel to record once alarm of (working with motion detection function). Please note you need to go to Storage-> Schedule to set current channel as general record.			

Parameter	Function	
Record Delay	System can delay the record for specified time after alarm ended. The value ranges from 10s to 300s.	
Send Email	If you enabled this function, System can send out email to alert you when alarm occurs and ends.	
PTZ	<ul> <li>Here you can set PTZ movement when alarm occurs. Such as go to preset x when there is an alarm, start tour x or start pattern x.</li> <li>The event type includes: preset, tour and pattern.</li> </ul>	
Snapshot	You need to input capture channel number so that system can backup motion detection snapshot file.	

Note: please click Save button to exit.

# 25. RS485 address/protocol

All our SD-HNI series has RS485 port, here we will talk about how to set RS485 address/protocol on NVR and on Key board.

### 25.1 RS485 address/protocol set on NVR

RS485 is a single-direction protocol; the PTZ device can't return any data to the unit. To enable the operation, connect the PTZ device to the RS485 (A,B) input on the NVR.

#### Cable Connection

Please follow the procedures below to go on cable connection

- (1) Connect RS485 A, B on the NVR rear panel.
- (2) Connect dome video output cable to NVR video input port.
- (3)Connect power adapter to the dome.

А	RS485 (RS-485)	RS485_A port. It is the cable A. You can connect to the control devices such as speed dome PTZ.
В	communication port	RS485_B.It is the cable B. You can connect to the control
		devices such as speed dome PTZ.

#### 25.1.1 Interface Setting

In the main menu, from Setting->System->PTZ, you can see an interface is shown as in Figure 25-. Here you can set the following items:



Figure 25-1

- (1) Channel: Select the current camera channel.
- (2)PTZ type: There are two types: local/remote. Please select local mode if you are connect RS485 cable to connect to the PTZ, please select remote mode if you are connecting to the network PTZ camera.
- (3)Protocol: we can select corresponding PTZ protocol (such as DH-SD1/DH-SD2/PELCOD...Note: different device support different protocol).
  - (4)Address: Default address is 1.
  - (5)Baud rate: Select corresponding baud rate. Default value is 9600.
  - (6) Data bit: Select corresponding data bits. Default value is 8.
  - (7)Stop bit: Select corresponding stop bits. Default value is 1.
  - (8) Parity: There are three options: odd/even/none. Default setup is none.

**Note:** If you are connecting to network PTZ, the PTZ type shall be remote. Show as Figure 25-2.



Figure 25-2

### 25.2 RS485 address/protocol set on Keyboard

Here are the steps about how to set RS485 address/protocol on KB.

- (1)Please make sure keyboard A/B line and speed dome A/B line connection is right.
- (2)Set speed dome address so that the speed dome address and the keyboard RS485 address are the same.
  - (3)Go to the zones interface of the keyboard.

#### **Note**

- Please select protocol according to the speed dome type. The default setup is DH-SD.
- Please login WEB of the speed dome, from main interface->Setup->System->PTZ to view speed dome address, protocol, COM setup and etc.
- (4)After the setup, click 【ESC】 to exit control point control interface. System pops up a dialogue box you can click 【ENTER】 to save data or click 【ESC】 to cancel setup.

### 26. How to set OSD menu

Firstly, we must ensure our device can support OSD menu and support these follow functions, then get the website of our PTZ Camera, as Figure 26-1 shows.

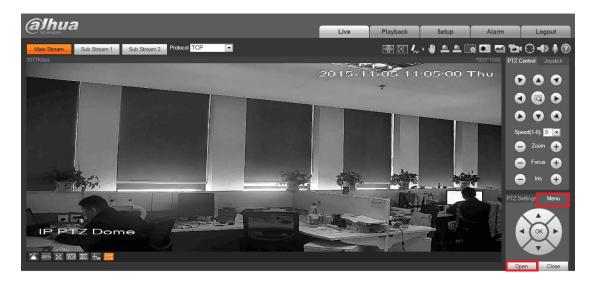
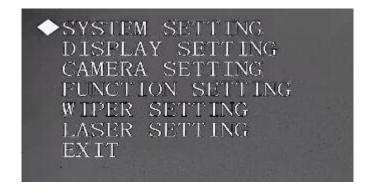


Figure26-1

In Figure 26-1 Click —> Open , we can get the OSD menu as Figure 26-2 shows.



Figure26- 2



- SYSTEM SETTING: Display speed dome system information, address information. Here you can set north direction, language, factory default setup, reboot and so on.
- **DISPLAY SETTING**: Display dome preset title, azimuth display, time, direction, dome internal temperature, title information, zoom information and etc.
- **CAMERA SETTINGS**: Set dome white balance, camera parameter, day/night setup and etc.
- **FUNCTION SETTING**: Set preset, pan, auto scan, auto tour, pattern, idle function, time task and privacy mask function.
- **IR LIGHT SETTING**: Set dome IR sensitivity, IR control principle, medium and far light bright, far light bright, IR light compensation and etc.
- WIPER SETTING: It is to set wiper mode, start time, end time, interval, wiper control and etc.
  - LASER SETTING: It is to set LASER mode, angle and intensity.
  - **EXIT**: Log out the system menu.

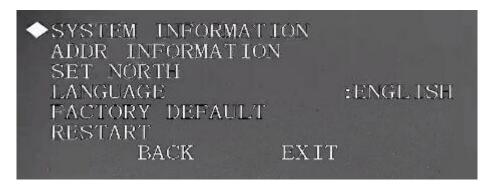
### 26.1 Menu Operation

In the speed dome main menu, you can use the left/right button on the keyboard or in the speed dome terminal menu to configure the system menu. Before setup, please move the cursor to the current item you want to configure.



- In main menu, please click confirm button to go to the sub menu or use left/right key to configure setup.
- Use up/down button to select back option and then click confirm button to go back to the previous menu.
- Use up/down button to select exit option and then click confirm button to log out system menu.
  - All setup here will not lose when encounter power failure.

## 26.2 System Setting



 SYSTEM INFORMATION: Move the cursor to SYSTEM INFORMATION and then click confirm button, you can see the above interface. Here you can view dome basic information.



 ADDR INFORMATION: Move the cursor to SITE INFORMATION and then click confirm button you can see the above interface.



**ADDR TYPE:** System supports software address only.

**ADDR-SOFT:** It is to display speed dome software address. Please use the left/right button on the keyboard or in the speed dome terminal menu to set. The value ranges from 1 to 255.

- SET NORTH DIRECTION: Set dome benchmark direction so that you can know the
  angel between the benchmark and then current location. Please move the cursor to
  the option and then click confirm button until you see O.K. Now you have set north
  direction.
- LANGUAGE: Click it you can set the dome menu language.
- FACTORY DEFAULT: IP dome begin rebooting to restore factory default setup.
- **RESTART:** Reboot the speed dome.

# 26.3 Display Setting

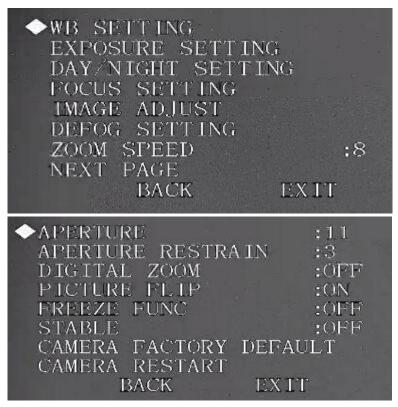
Before the operation, please make sure you purchased camera supports zoom function.

```
PRESET TITLE
                        :ON
AZIMUTH DISP
                        :OFF
POSITION
                        :OFF
ZOOM DISP
                        :OFF
INSIDE TEMP
                        :0FF
PATTERN DISP
                        :ON
RS485 DETECT
                        :ON
                   EXIT
       BACK
```

- PRESET TITLE: Display dome preset title or not.
- AZIMUTH DISP: Display dome current coordinates or not.
- **POSITION:** Display the angel between the benchmark and then current location.
- **ZOOM DISP**: Display speed dome optical zoom speed or not.
- **INSIDE TEMPERATURE:** Display dome internal temperature or not.
- PATTERN DISP: It is to set to display speed dome current pattern percentage or not.

### 26.4 Camera Setting

Before the operation, please make sure your camera supports the corresponding function.



### • WB (WHITE BALANCE) SETUP: Set white balance adjustment mode.

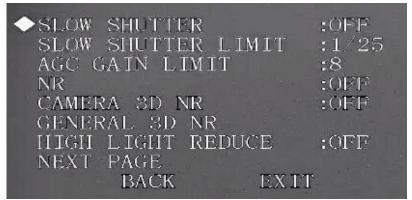
There are several modes such as auto, auto trace white balance, indoor, outdoor, and manual and etc.

Before you set R GAIN/ B GAIN option, please note the mode shall not be auto.



#### EXPOSURE SETTING





### (1) AE MODE

Auto: The gain, iris and shutter is under auto setup mode

Manual: You need to set gain, iris and shutter manually.

AV: You can set iris manually. Gain and shutter is under auto setup mode.

TV: You can set shutter manually. Gain and iris is under auto setup mode.

(2) GAIN SETTING

It is to set camera gain.

(3)SHUTTER

It is to set camera shutter speed.

(4)IRIS SETTING

It is to set camera iris value

(5) EXPOSURE COMP

It is to set camera exposure compensation.

#### (6)SLOW AE

In the strong light environment, you can lower the camera exposure speed to capture the image and enhance the definition.

### (7)BLC

It is to compensate the luminance of the video captured in the backlight environment, and at the same time the luminance of the video sequence should be guaranteed to be stable.

#### (8) SLOW SHUTTER

In lower illumination environment, you can lower the cameras auto exposure time to capture the image and enhance the definition.

## (9) SLOW SHUTTER LIMIT

Please click the left/right button to set.

## (10)AGC GAIN LIMIT

Please click the left/right button to set.

(11)NR

There may noise when the camera is monitoring the low illumination environments. You can use the digital filter to process the noise to guarantee the clear video.

#### (12)CAMERA 3D DNR

It is to set the speed dome 3D noise reduction setup. Please move the light to highlight current item and then click the OK button to go to the next level menu.

#### (13) GENERAL 3D NR

It is to set the speed dome 3D noise reduction setup. You can set control mode, 3D noise TNF, 3D noise SNF. Please move the light to highlight current item and then click the OK button to go to the next level menu.

#### (14)HIGH LIGHT REDUCE

It is to reduce the abruptly strong video on the video in case it affects the video quality. Please click the left/right button to set.

#### DAY/NIGHT SETTING



### (1)DAY/NIGHT

It is to set camera day/night switch mode.

#### (2)TYPE

There are electric and mechanism can be choosed.

## (3)DAY TIME

Current setup becomes valid when day/night mode is Time.

#### (4)NIGHT TIME

Current setup becomes valid when day/night mode is Time.

(5)SENSITIVITY

Choose the sensitive level that you want to set.

#### FOCUS SETTING

It is to set the camera focus mode, focus limit and etc.

```
◆FOCUS MODE :SEMIAUTO
FOCUS LIMIT :5M
AF SENSITIVITY :MID
AF TRACE :ON
LASER CORRECTION :AUTO
BACK EXIT
```

## (1)FOCUS MODE

It is to set the camera focus mode. It includes several modes such as auto, manual, semiautomatic.

(2)FOCUS LIMIT

It is to set the camera focus limit.

(3) AF SENSITIVITY:

It is to set the camera focus sensitivity.

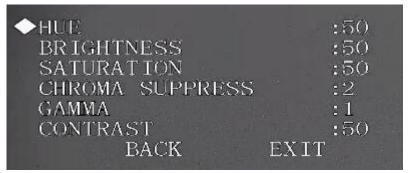
(4)AF TRACE

It is to set the camera focus on/off.

(5) LASER CORRECTION:

It is to set the laser correction on/off.

## IMAGE ADJUST



(1)HUG:

It is to set the image hue.

(2) BRIGHTNESS

It is to set the image brightness.

(3)CHROMA SUPPERNESS

It is to set the image color control.

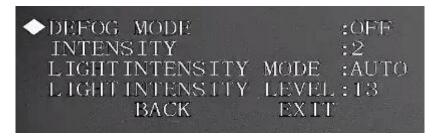
(4) GAMMA:

It is to set the image gamma.

(5)CONTRAST

It is to set the image contrast.

#### DEFOG SEETING



## (1) DEFOG MODE

It is to set camera defog mode. It includes: manual/auto/off and etc.

## (2) INTENSITY

It is valid when the defog mode is manual.

## (3) LIGHT INTENSITY MODE:

It is to set air light intensity mode.

## (4) LIGHT INTENSITY LEVEL

It is to set air light intensity value.

## ZOOM SPEED

The bigger the value, the faster the zoom speed.

#### APERTURE

It is to adjust the lens to achieve clear video.

#### APERTURE RESTRAIN

System can auto reduce the aperture to lower the video noise when it is in low illumination environment.

#### • DIGITAL ZOOM:

You can use the left/right button to enable/disable the digital zoom function.

## • FREEZE FUNCTION

This function allows the system from one preset to another preset, without showing the video during the PTZ movement. There are two options: on/off.

### STABLE

It is to reduce the effect of the vibration on the camera

## • CAMERA FACTORY DEFAULT SETTING

Move the cursor to current item and then click confirm button to restore factory default setup.

#### CAMERE RESTART

Move the cursor to current item and then click confirm button to reboot the camera.

## 26.5 Function Setting



```
◆PRIVACY MASKING
PTZ SPEED :2
SET ZERO
POWER UP
MENU PASSWORD
MENU IDLE :1MIN
PTZ AUTO STOP :15S
PTZ CORRECTION :OFF
BACK EXIT
```

#### PRESET

By this way, we can also set preset as we need.



## (1)PRESET NO

Please use left/right key to modify preset number. The different protocols support different preset values.

#### (2)TITLE

Title text is the label used for you to identify the camera. System will automatically name a title for the camera.

### (3)SETTING

Please input preset number first and then select the monitor zone. Please move the cursor to setting and click confirm button. The system will pop up a message: PRESET: \*\*\*. Here \*\*\* means preset number. And the SETTING column pops up an OK. Now you successfully added a preset. Please note, you need to enable display preset title function first (Main menu->display setting->preset title). Repeat the above procedures to set more presets. Once you want to modify a preset, you can input the preset number you want to

modify and then follow the above steps to set the preset. You can successfully modify a preset content.

(4)CALL

Here is to recall preset. Move the cursor to PRESET NO and then input corresponding preset value. Then move the cursor to CALL and then click confirm button to go to a preset.

#### AUTO PAN



### (1)PAN SPEED

Set dome rotation speed.

(2)CALL

Move the cursor to call item and then click confirm button. The dome begins 360 degrees continuous rotation.

(3)STOP

Select stop item and then click confirm button. The dome stops rotation.

#### PATTERN



Pattern function can memorize PTZ operation and camera focus zoom in or out.

From the start position, dome begins auto movement repeatedly.

(1)PATTERN NO

Here is to set pattern number.

(2)PROGRAM START

Here is to memorize pattern starting point. An OK icon will pop up in screen to prompt you that system will begins memory pattern.

(3)PROGRAM STOP

Here is to set pattern stop point. After all the movement, move the cursor to PROGRAM STOP and then click confirm button. Now you have set one pattern. System pops up an OK icon to prompt you system has memorized one pattern.

(4)CALL

Here is to activate pattern. Input a pattern number, move the cursor to CALL and click confirm button, system begins to runn a pattern.

(5)STOP

Here is to stop current pattern. Input pattern number, move the cursor to STOP and click confirm button. System stops the current pattern.

#### Note:

- --The dwell time between two orders should be less than one minute, otherwise system will set to default value as one minute.
- --After click PROGRAM STOP, do not click CALL button before icon "●" disappears completely.
- --Any manual operation during the pattern procedure will terminate current dome pattern operation.

#### IDLE MOTION



When there is no effective command for specified time, dome automatically goes on the previous set functions.

(1)IDLE FUNCTION

There are two modes ON/OFF.

(2)IDLE TIME

System idle period.

(3)IDLE ACTION

There are several functions you can select:

NONE/PRESET/SCAN/TOURING/PATTERN. Please use the left/right button on the keyboard or in the speed dome terminal menu to set.

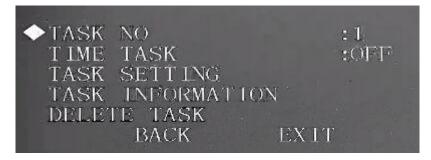
(4)PARAMETER

It is to set idle motion SN. System can implement the corresponding action when it is idle for the specified period.

(5)SAVE

Move the cursor to SAVE and click confirm button to save current setup.

### AUTO RUN



#### (1)TASK NO

Here you can set task number. Please use the left/right button to set.

#### (2)TIME TASK

The schedule task allows the speed dome to implement corresponding setup during the specified time. There are two options: on/off.

### (3)TASK SETTING

Here you can set task time, operation, operation SN and etc. Please click the confirm button to go to the fourth menu to set.

### (4)TASK INFORMATION

Here you can view the corresponding task information. Please click the confirm button to go to the further menu to set.

## (5) DELETE TASK

Please input the task number to be deleted in the TASK NO, and then move the cursor to the current item. Click the confirm button, you can remove all the setups in the current schedule task.

#### PRIVACY MASKING



#### Note:

- --For security reasons, please set privacy zone a little bit larger than the privacy object size.
- --Each time, after modifications you need to move the cursor to SAVE button and then click confirm button to get all setup activated. Otherwise, privacy zone may not move correspondingly with the object.

#### (1)PRIVACY NO

Here is to set privacy mask zone. Please use the left/right button on the keyboard or in the speed dome terminal menu to set. You can call corresponding privacy mask zone number if you have successfully set one.

#### (2)PRIVACY MASKING:

There are two settings: on and off. Please go to the corresponding privacy mask zone and click left/right button to set.

## (3)RESIZE

It is to adjust the privacy zone size. Move the cursor to current item and use the left/right button on the keyboard or in the speed dome terminal menu to set .Please continue pressing direction button to widen or narrow zone size.  $\leftarrow$  is to narrow the horizontal width and  $\rightarrow$  is to widen the horizontal width.  $\uparrow$  is to widen vertical height and  $\downarrow$  is to narrow the vertical height.

(4)SAVE

Here is to save the setup.

#### PTZ SPEED

It is to set the PTZ speed. Please move the PTZ to the corresponding position and then click the confirm button to complete the setup.

#### SET ZERO

It is to set the PTZ initial position. Please move the PTZ to the corresponding position and then click the confirm button to complete the setup.

#### POWER UP



#### (1)POWER UP

It is to set the PTZ operation when the speed dome boots up. The option includes: NONE/AUTO/SCAN/PRESET/PATTERN/TOUR and etc. Please use the left/right button to select.

### (2)PARAMTER

Here you can set the serial number of the corresponding operation such as the scan, preset, pattern, tour. Please use the left/right button to select.

## MENU PASSWORD



#### (1)PASSWORD

Enable this function here so that you set password is valid. This function will work by default after you set password.

#### (2)SETTING

Click the confirm button to go to the password setup interface.



#### MENU IDLE

If current setup is ON, once you open the menu and leave it idle for specified period, the menu may automatically disappear. If current setup is OFF, the menu is always there and will not disappear. Please use the left/right button to set.

#### PTZ AUTO STOP

The speed dome will stop all the PTZ operations when there is no command for the specified time. It includes various setups. Please use the left/right button to set.

#### PTZ CORRECTION

It is to set speed dome self-diagnosis. Please use the left/right button to set.

## 26.6 Wiper Setting

**NOTE**: Please confirm the device supported wiper function



#### • WIPER MODE:

It is to set the zoom camera wiper mode. It includes two modes: Manual/schedule. Use the left/right button to select.

## • START TIME

It is to set wiper enable start time. Use the left/right button to set. Please note this function is only valid when the wiper mode is in schedule.

## STOP TIMEL

It is to set wiper enable end time. Use the left/right button to set. Please note this function is only valid when the wiper mode is in schedule.

#### INTER TIME

It is to set the period between two operations. Use the left/right button to set.

## • WIPER CTRL

It is to set wiper operation. It includes: enable/stop/once only. Use the left/right button to select.

## 26.7 Laser Setting

NOTE: Please confirm the device supported laser function



• LASE CTRL: There are ZOOM PRIO and MANUAL can be choosed.

## 27. How to connect IP cameras in Smart PSS

## 27.1Auto Add

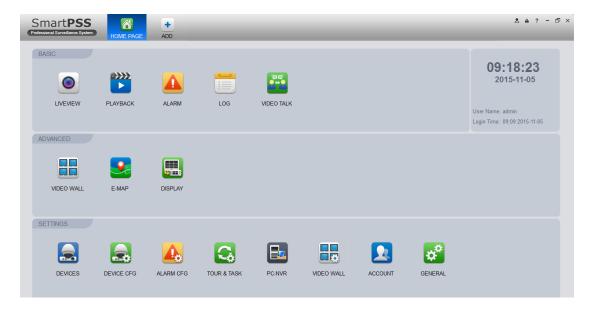


Figure27-1

Figure 27-1 is the Home Page of our Smart PSS, when click page as Figure 27-2 shows.

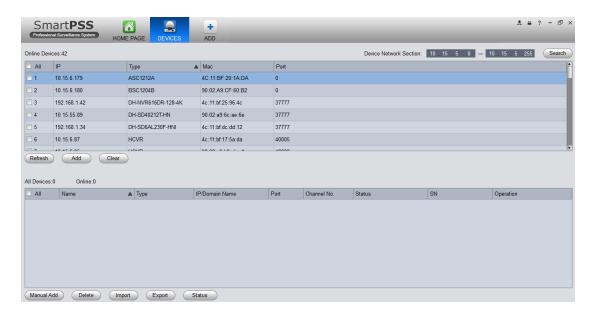


Figure27-2

- (1) Click Refresh, search device within the LAN.
- (2) Choose the device you want to add, click Add as auto add device. You also can double click the device you want to add. The added device will be shown in list below (as Figure 27-3 shows) where you can view device type, channel and status. You can also modify, logout and delete the device.

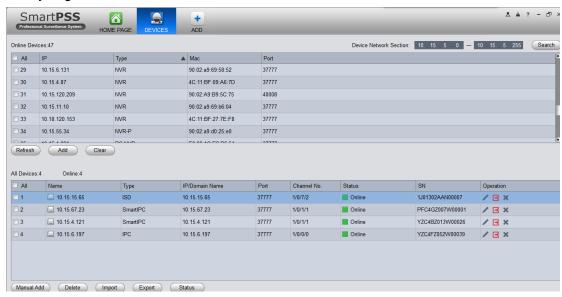


Figure27-3

# 27.2Manually Add

Click Manual Add button, the interface is shown as Figure 27-4. Please input the corresponding information and then click Add button.

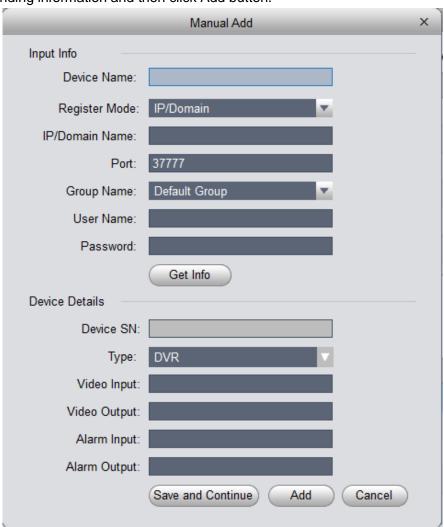


Figure27-4

Please refer to the following sheet for detailed information.

Item	Function
Device name	Please input a device name here.
Register Mode	By IP/domain and SN.
IP/Domain name	Device IP address or domain name.
SN	Device SN.
	Note: For P2P device only.
Port	Device IP port.
	It is 37777 by default.
Group Name	You can choose one group.
User name	The user name you login the device.
Password	The password you login the device.

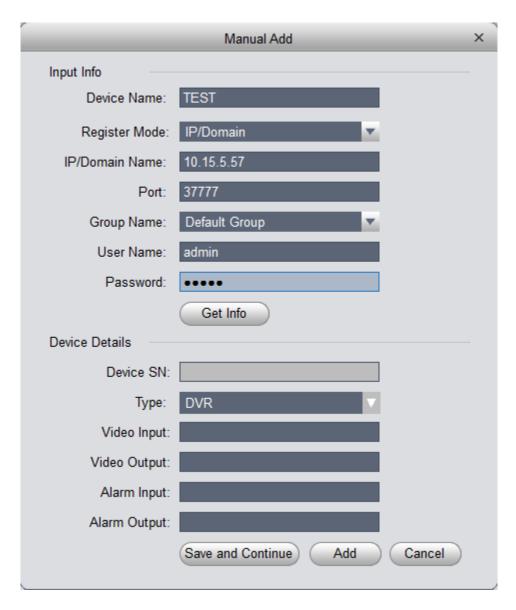


Figure27-5

Config device input info, and click on Get Info. System auto gets device info as Figure 27-6 shows.

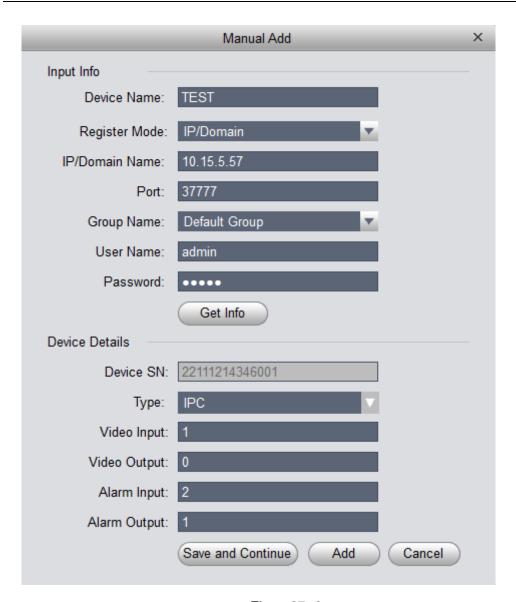


Figure27-6

Click Save and Continue, we can add the device as Figure 27-7 shows.

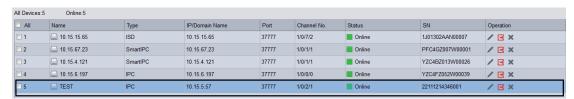


Figure 27-7

## 28. How to connect IP cameras in DMSS

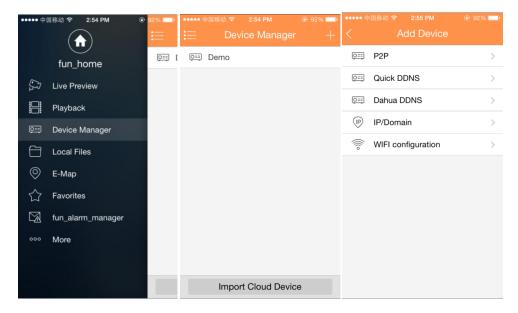


Figure 28- 2 Figure 28- 3

## 28.1 Add device by P2P

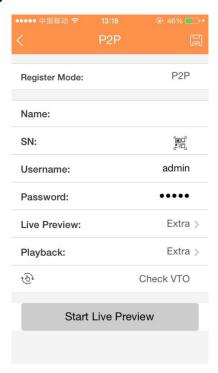


Figure 28-4

- (1) Register Mode: P2P is for network environment, add device by scanning QR code, inputting SN.
  - (2) Name: Device name.
  - (3)SN: input SN or scan QR code.
- (4) Username/Password: Device username and password are both "admin". If changed, please input new username and password.

(5) Live Preview/Playback: Select main stream or extra stream for live preview and playback.

Fill in parameter, and click on to save

# 28.2 Add device by Quick DDNS

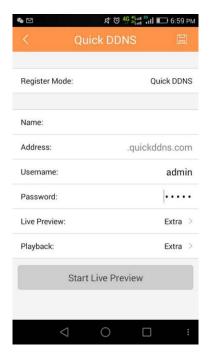


Figure 28-5

- (1) Register Mode: Quick DDNS is for network environment, add device by inputting complete domain name address, and analysis is done by Quick DDNS.
  - (2) Name: Device name.
  - (3)SN: input complete domain name.
- (4) Username/Password: Device username and password are both "admin". If changed, please input new username and password.
- (5) Live Preview/Playback: Select main stream or extra stream for live preview and playback.

Fill in parameter, and click on to save

## 28.3 Add device by Dahua DDNS

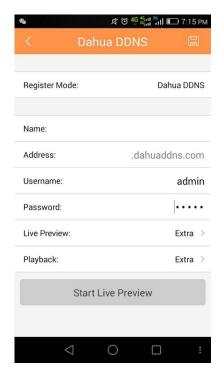


Figure 28-6

- (1) Register Mode: Dahua DDNS is for network environment, add device by inputting complete domain name address, and analysis is done by Dahua DDNS.
  - (2) Name: Device name.
  - (3)SN: input complete domain name.
- (4) Username/Password: Device username and password are both "admin". If changed, please input new username and password.
- (5) Live Preview/Playback: Select main stream or extra stream for live preview and playback.

Fill in parameter, and click on to save

## 28.4 Add device by IP/Domain

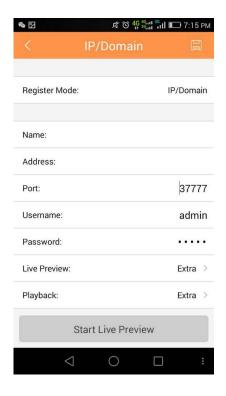


Figure 28-7

- (1) Register Mode: IP/Domain is for normal environment, add device by inputting its IP address or third-party domain name.
  - (2) Name: Device name.
  - (3) Address: input IP address or complete third-party domain name.
  - (4)Port: input the Port.
- (5) Username/Password: Device username and password are both "admin". If changed, please input new username and password.
- (6) Live Preview/Playback: Select main stream or extra stream for live preview and playback.

Fill in parameter, and click on to save

# 28.5 Add IP camera by WIFI Configuration

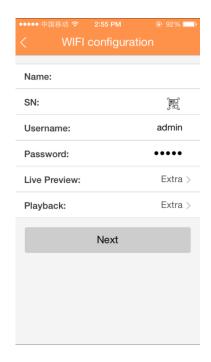


Figure 28-8

- 1) Input the device name.
- 2) User click 🗒 , and it shows QR code box, as in Figure .



Figure 28-9

3) Scan the QR code of WIFI device, when complete, return to device adding interface. SN will be automatically filled in as in Figure 28-10.

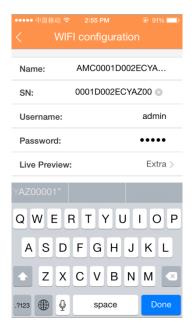


Figure 28-10

- 4) When you scan QR code, click back to return to device adding interface.
- 5) Input SN, click input field to input device SN, see Figure .



Figure 28-11

6) After you complete inputting, click next, see Figure .

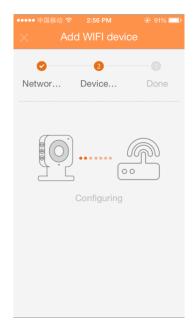


Figure 28-12

- 7) System parity user by checking input WIFI password and click next.
- 8) System auto configure (wait).
- 9) If failed, then try again or repeat the above steps.
- 10) Save data if all config are correct, go to live preview interface, see Figure .

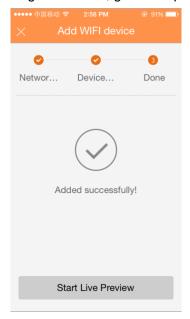


Figure 28-13

- 11) When user completes inputting, click to save.
- 12) Save data if parity is correct, go to device list interface.