Privacy & Terms:

Our privacy and security principles

SATIR committed to creating privacy protection technology for everyone. When developing products and services to our customers, every effort must be made to protect user privacy. This becomes even more important as technology advances and the need for privacy protection continues to rise.

1. Respect users and their privacy.

SATIR believe that these ideas are complementary and indivisible. When people use our products, they show that they trust us in how we handle their information, and we must do our best to live up to their trust. This means that we always exercise caution when deciding what data to use, how to use it, and how to protect it.

2. SATIR products will never collect customer's data.

3. SATIR will never sell your personal or company information to anyone.

4. Give users easy control over their privacy protection settings.

In terms of privacy protection, uniform settings are bound to not meet the needs of all users, so we provide data controls in SATIR software so that users can turn them on or off by themselves to choose the privacy protection settings that suit them. With the continuous development of technology, our privacy control settings are also constantly being improved to ensure that privacy protection settings are always selected by users.

5. The most powerful security technology built into our products.

Respecting the privacy of users means protecting the data that users provide to us based on trust. To ensure that all SATIR products and services are safe for users, we develop and implement the most advanced security infrastructure in the world.

GDPR: New EU regulation defines the handling of customer data

On 28 May 2018, the new General Data Protection Regulation (GDPR) will become effective. On one hand, the new set of rules determines how companies must protect personal data and on the other hand, how the free flow of data should be regulated.

GDPR supersedes the previous data protection directive (95/46/EC) from 1995. The protection of personal data was already anchored in the existing directive; but the requirements for companies were less strict. In comparison to other countries, data protection already has a particularly high significance in Germany and Switzerland. Even for companies which have implemented the "Federal Data Protection Act", urgent action is needed, as even minor changes to the regulations frequently mean that adjustments must be made to organizational processes, products, documentation obligation and IT. Existing contracts in B2B and B2C contexts must also be checked regarding GDPR and amended if necessary.

SATIR CK350-F Fever Screening System provides facial recognition functions and is the key function of the system when performing the fever screening feature, it's purpose is for medical workers or operators to control or identify a potential high fever person, it's purpose is not for data collection but a tool for quarantine applications.

A clear visible sign should be provided along with the camera, for people who entering the camera's measuring zone, their facial info with temperature data will be scan. There is a responsibility on the end-user of the CK350-F to put up a clear visible sign notifying people that their faces and body temperature are being recorded for fever screening purposes.

SATIR CK350-F

Fever Screening System

User Manual

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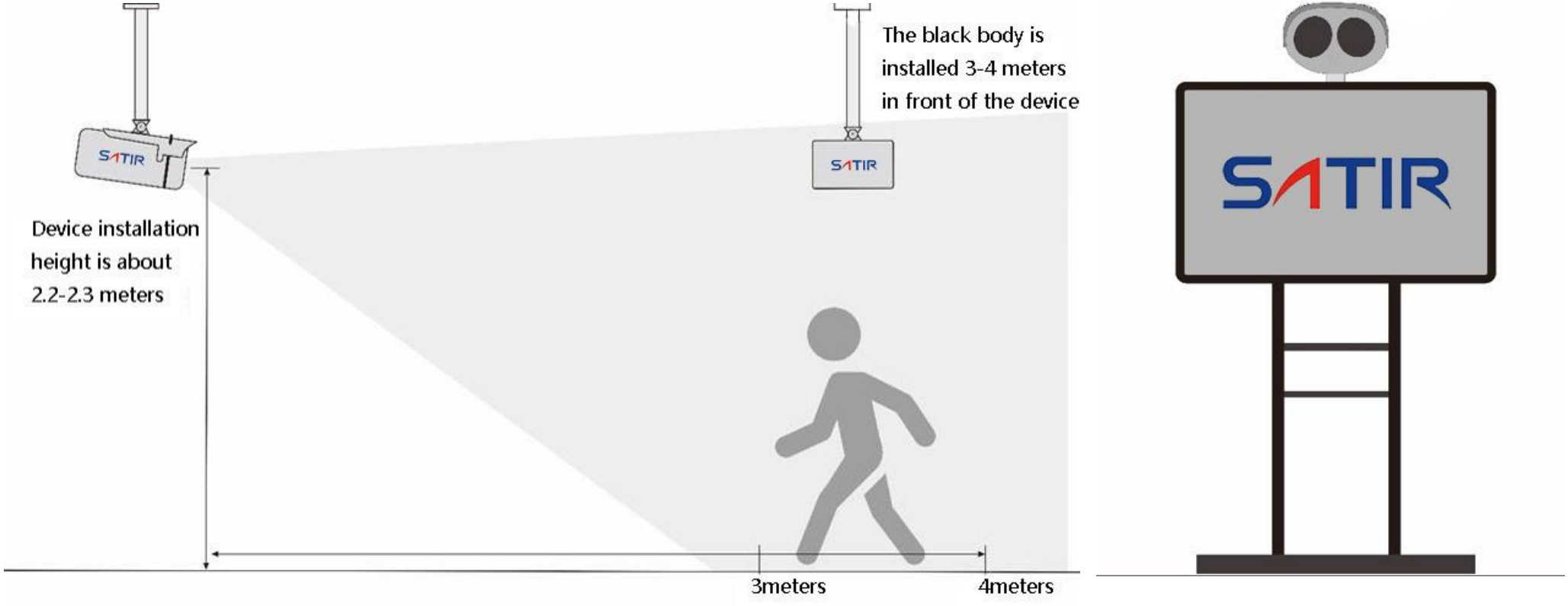
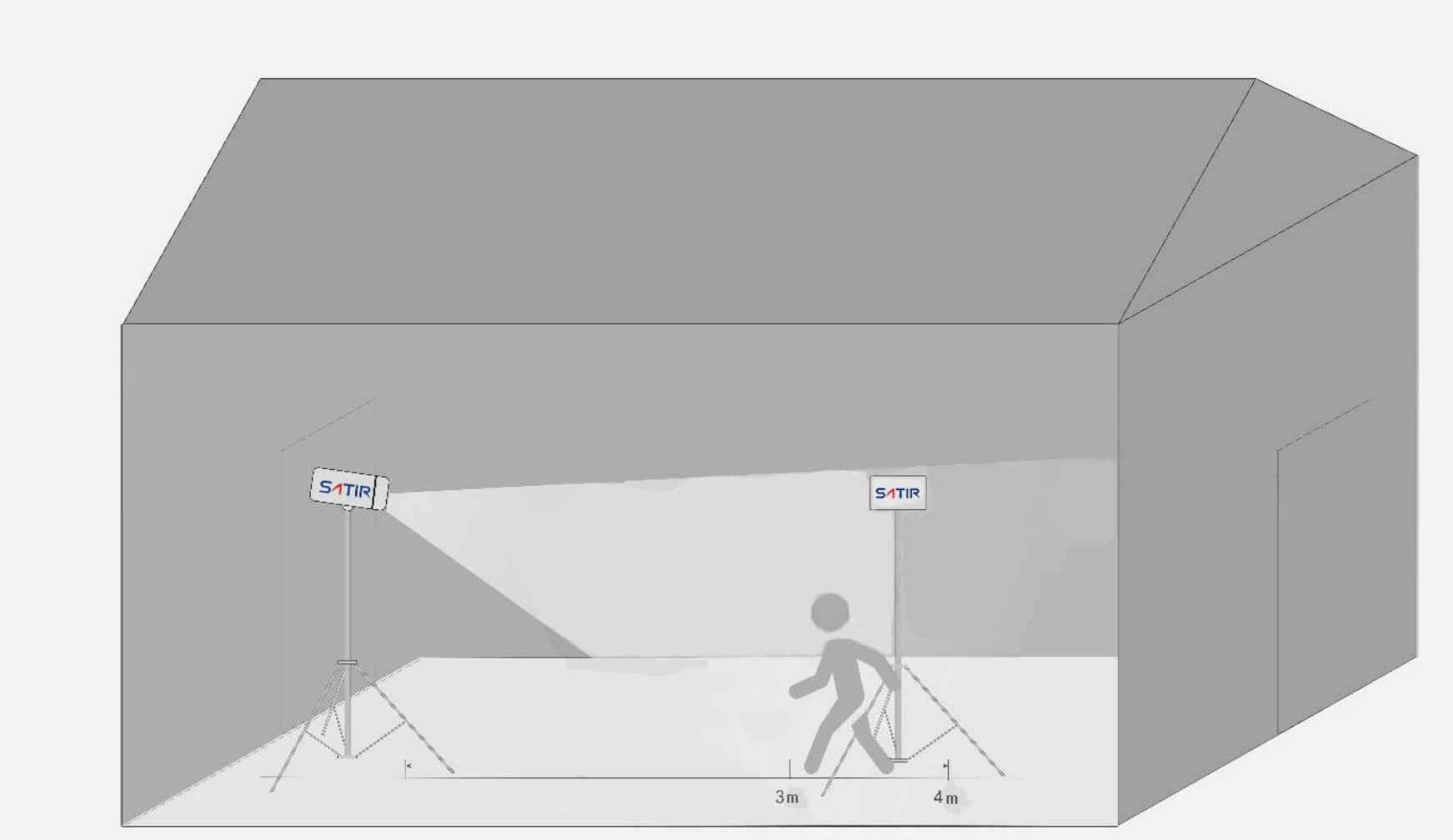
1. Camera Installation Guide

In Door:



Outdoor:



(If outdoor temperature not exceed 10℃ to 25℃(50 °F to 77°F), a shelter may not require for using the system. But the camera must out of direct to any heat targets, e.g. sun, car, power generator and avoid strong winds, rain etc.)

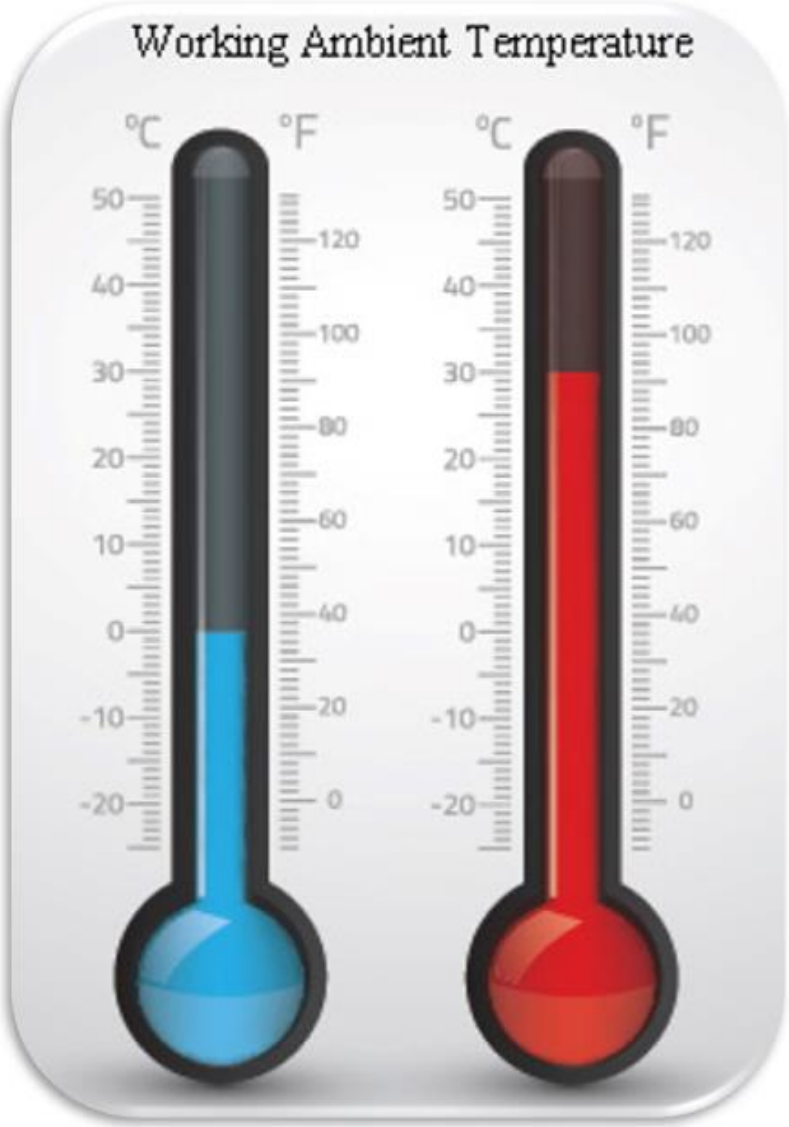
Working Environment

1. Camera and blackbody must install at indoor environment or cover with tent/shelter.

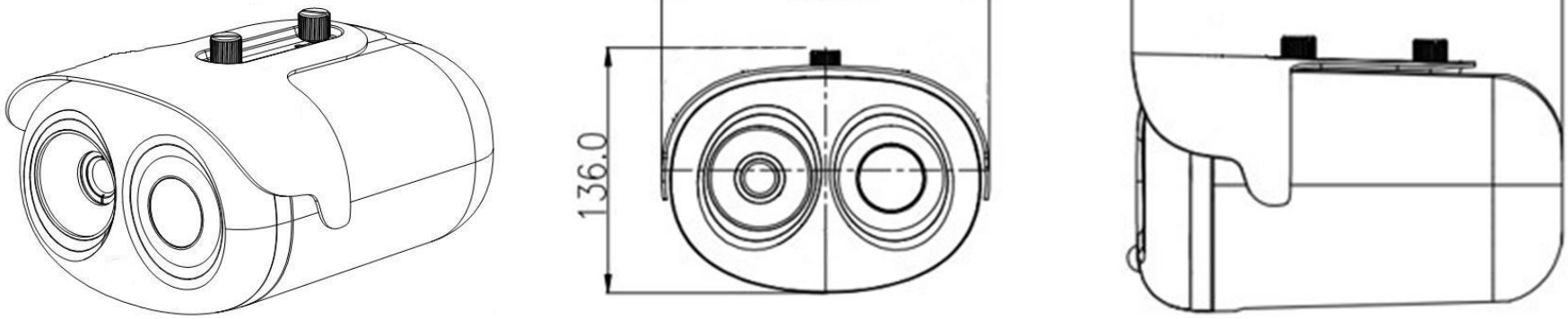
2. Working ambient temperature should not exceed 0℃ to 30℃ (32 °F to 86°F).

3. Keep the camera and optics out of direct sunlight, wind, rain or other sources of heat objects. Changing the temperature of the camera and optics will have an adverse effect on measurement uncertainty.

A stable ambient environment will ensure the accuracy of the system.

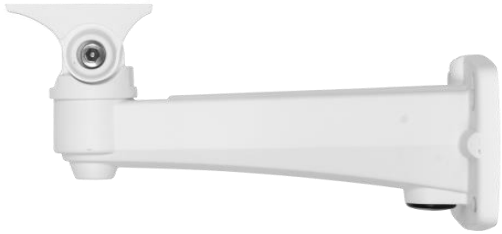


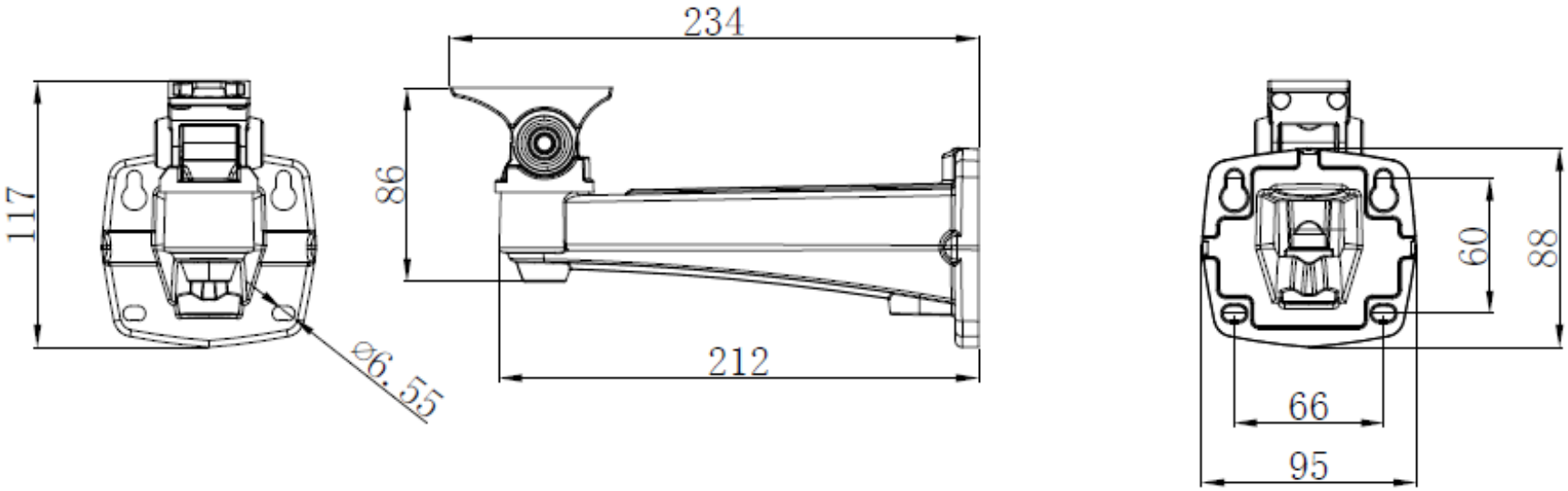
Camera body



Dimensions(mm)

Wall Bracket (Optional)

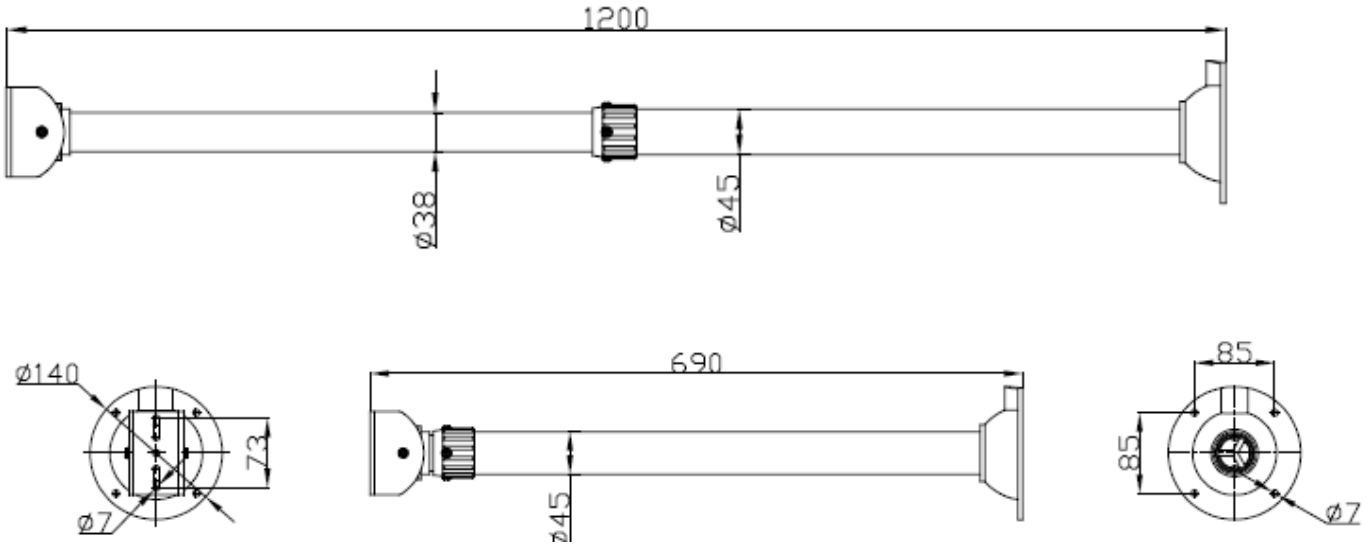




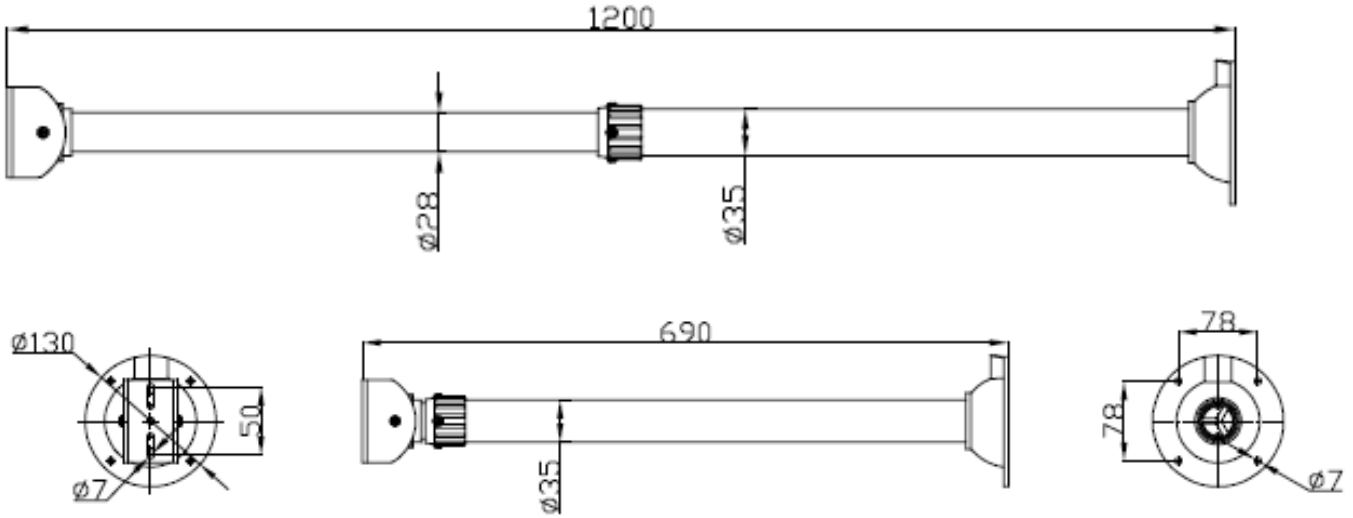
Dimensions(mm)

Ceiling Bracket (Optional)

Camera

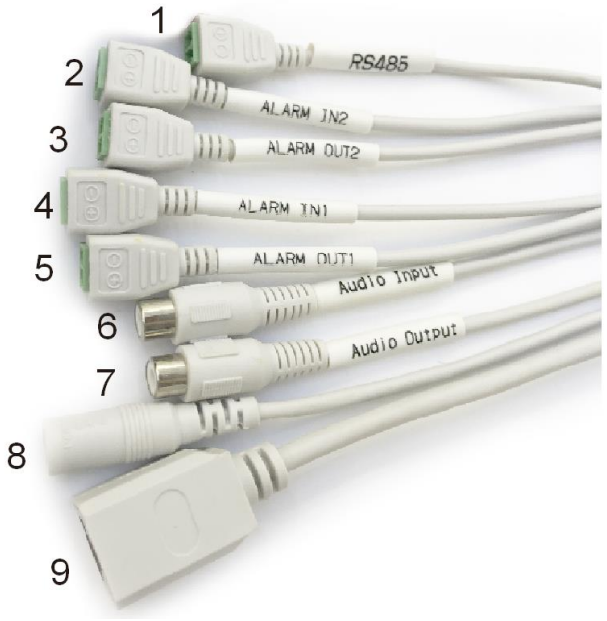


Blackbody



Dimensions(mm)

1.1 Cable Connection



ID	Core of Cable	Functions	ID	Code of Cable	Functions
1	RS485	RS485 interface connects to the external pan & tilt.	7	Audio Output	Connects to the external audio device such as the voice box.
2	ALARM IN2	Connects to the alarm device.	**8**	**DC12V (2A)**	**Power interface, connects to the 12 V DC power adapter, 110V to 240V power source.**
3	ALARM OUT2		**9**	**Network interface**	**Connects to the standard Ethernet cable (CAT5)**
4	ALARM IN1		**(For individual system operation, connect the power supply and network cable.)**		
5	ALARM OUT1				
6	Audio Input	Inputs the audio signal and receives the analog audio signals from the sound pick-up device.			

Power supply for camera and blackbody: 110V to 220V Support.

2. IP Camera Setting up.

Please use Windows Internet Explorer Browser ONLY, NO Microsoft edge/Google Chrome/Firefox etc. browser!!!

2.1 Change Windows 10 IP address to match the camera's IP address.

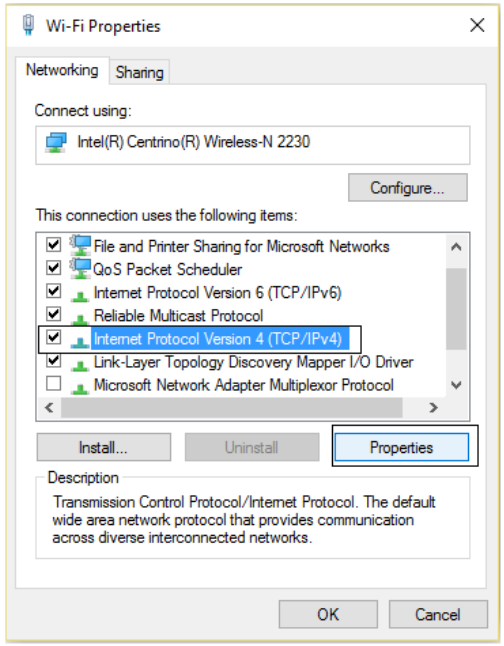
Camera default IP: **192.168.0.121**

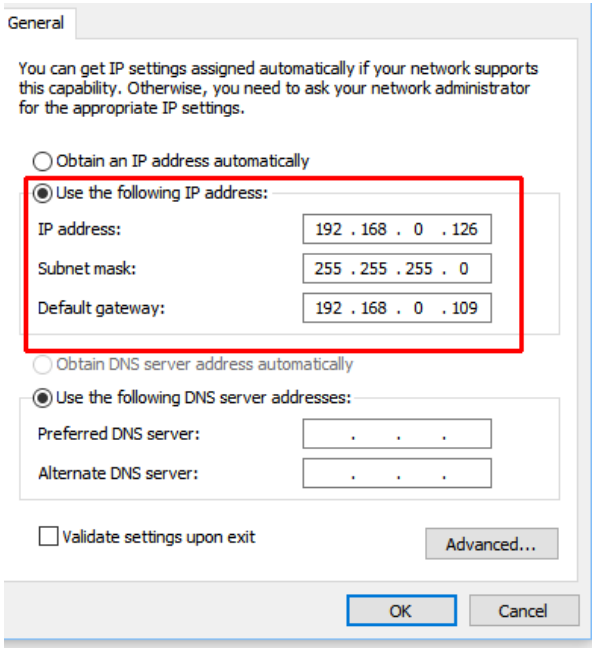
I Click on 'Network and Internet' and then on 'Network and sharing center'

II Click on 'Change adapter settings' on the left side of the window.

III Right-click on the relevant network adapter and click on properties.

IV In the networking tab, select 'Internet Protocol Version 4 (TCP/IPv4) '

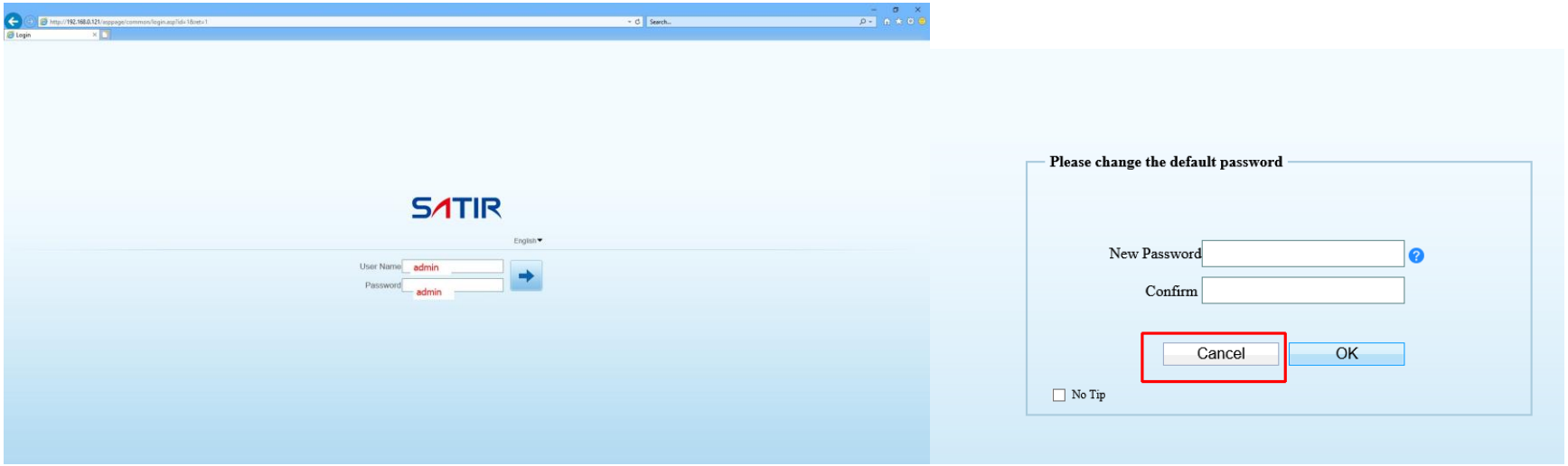




2.2 Camera set up on Browser (Internet Explorer),

Open IE browser, enter IP address: 192.168.0.121, IP Camera default Username: **admin**, Password: **admin**

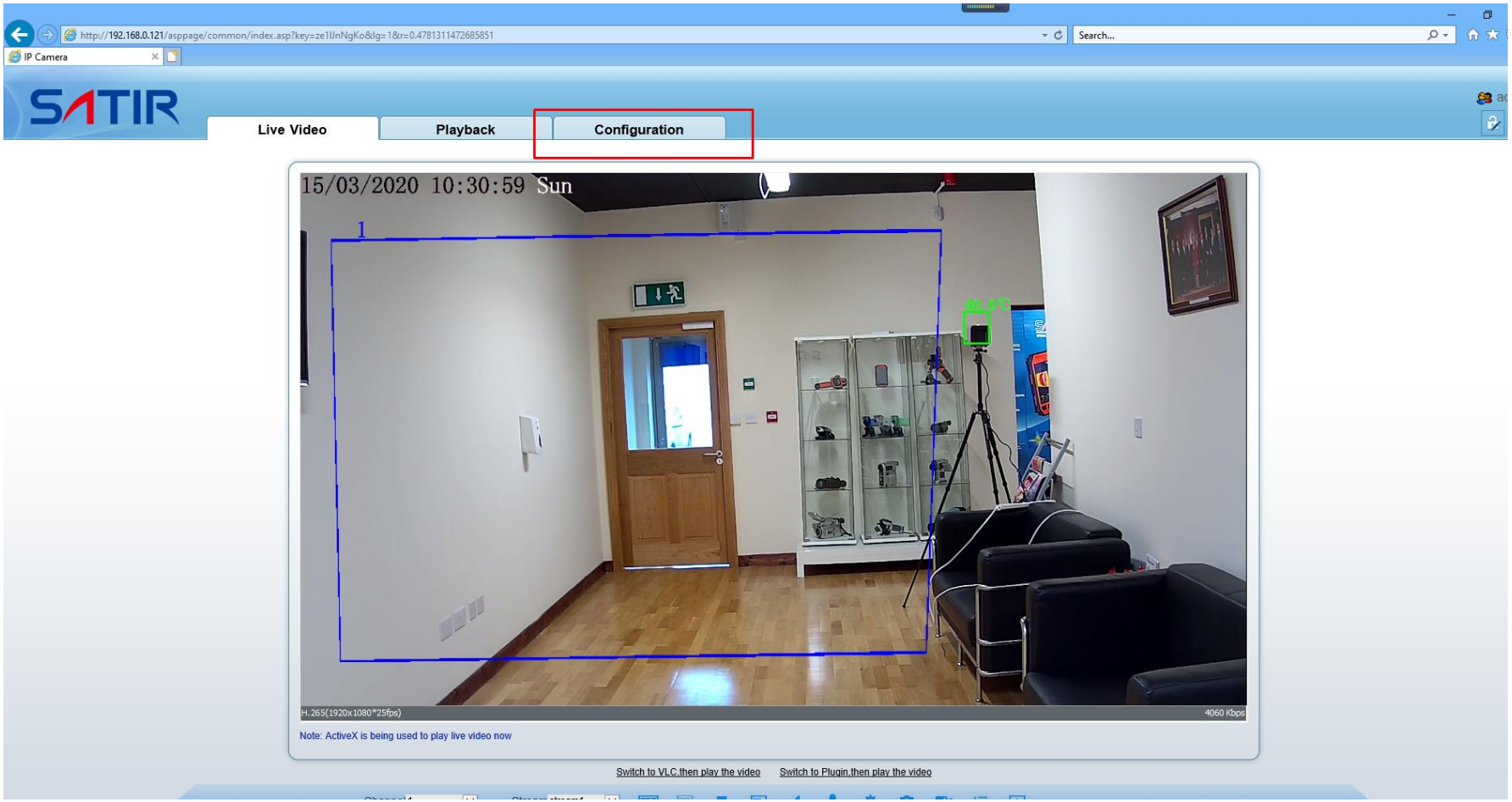
Change the password only if needed, not recommend change at first time

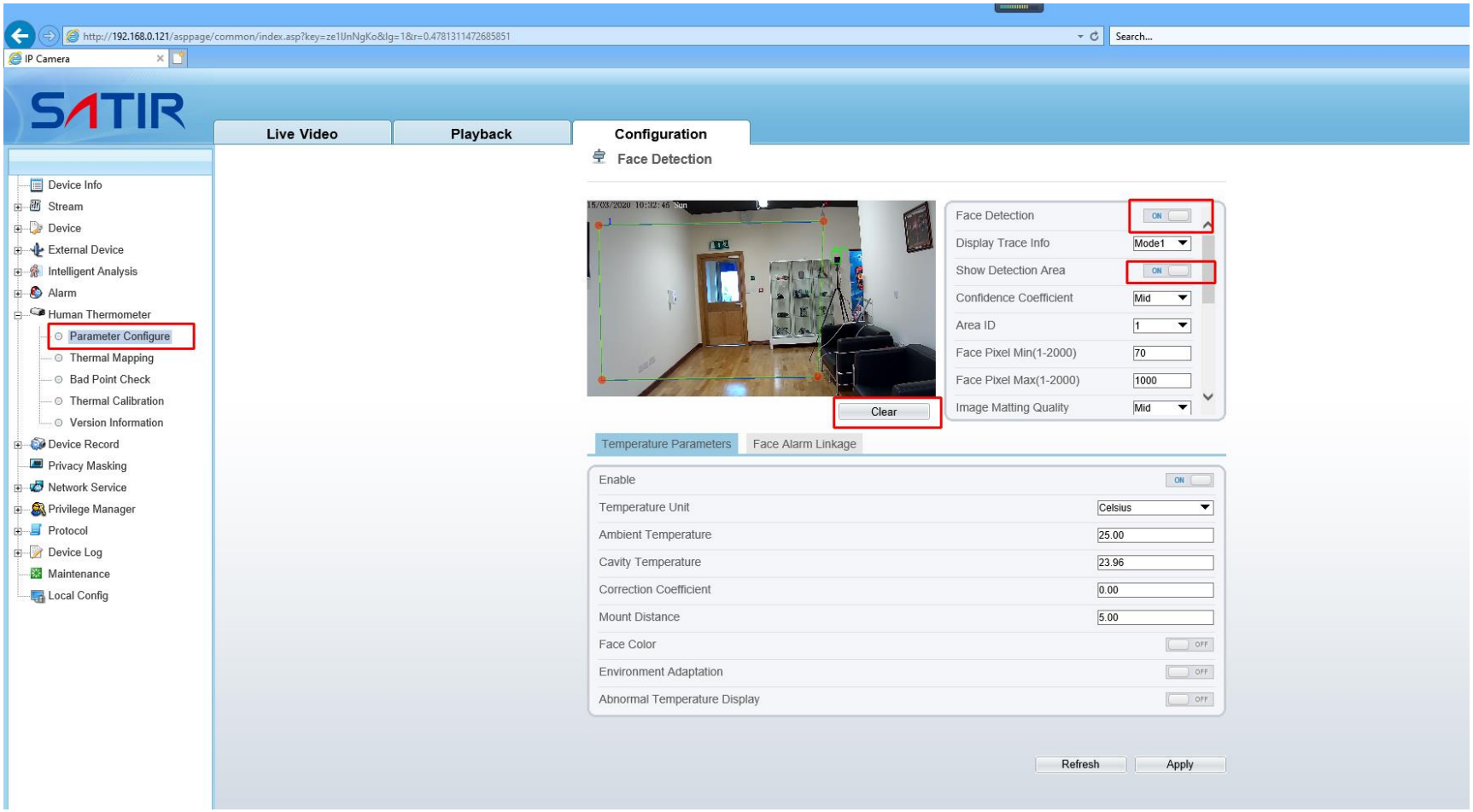


Install Plugin:

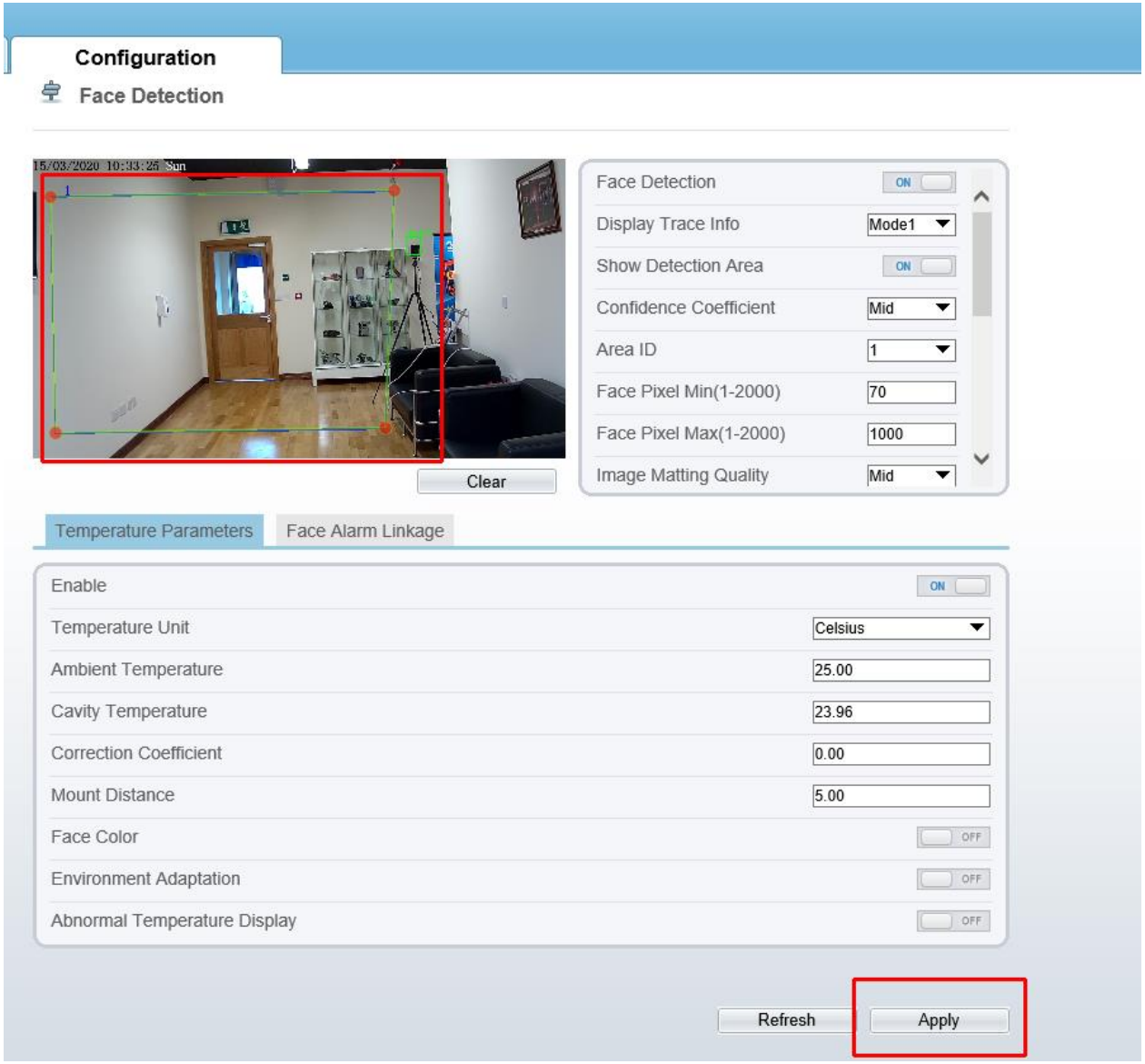
2.3Configuration

Make sure you can see the images, go to the Configuration>Human Thermometer>Parameter Configure>Turn on Face Detection>Turn on Area Detection>Clear Detection Area,



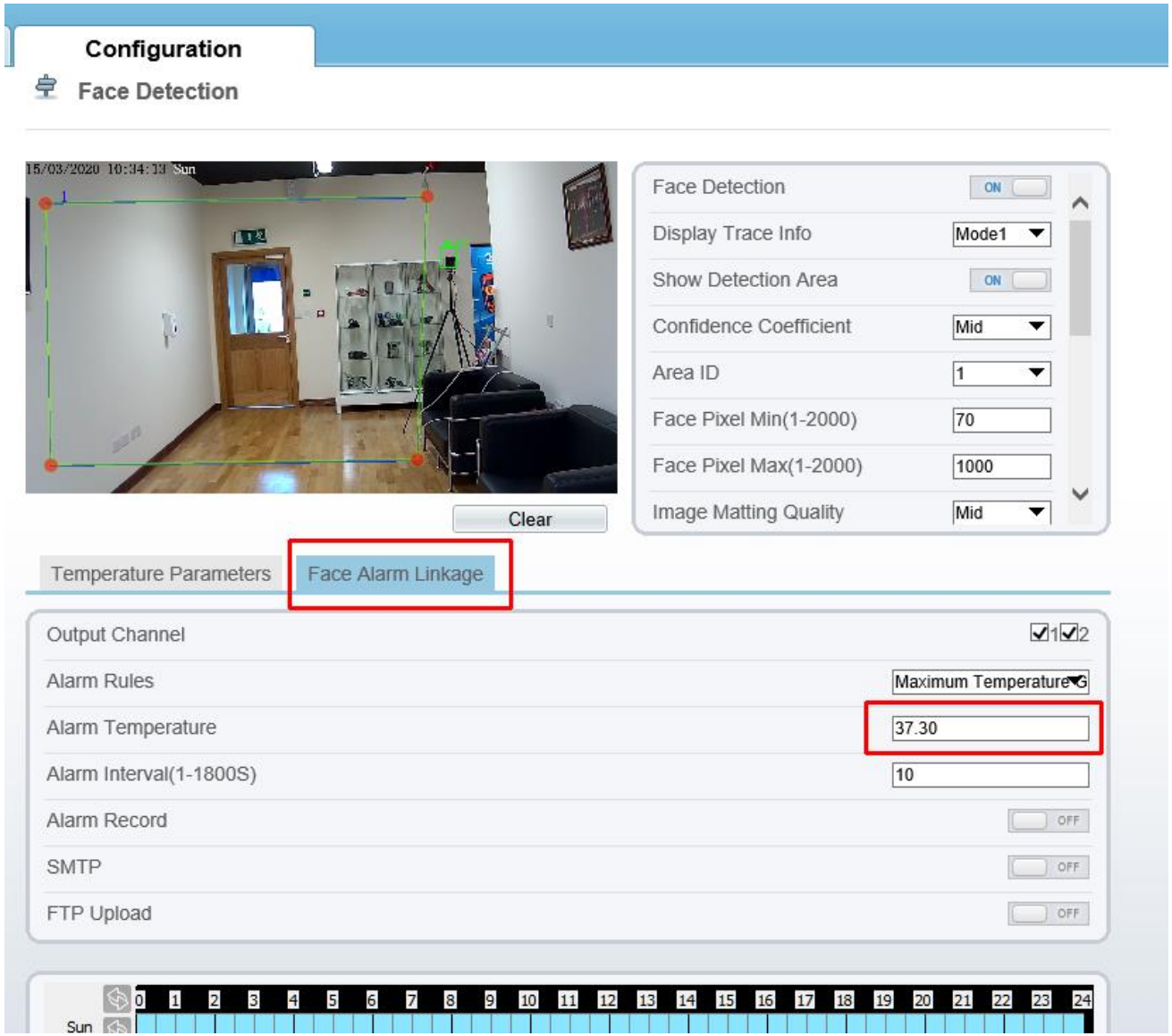

http://192.168.0.121/asppage/common/index.asp?key=ze1UnNgKo&lg=1&r=0.4781311472685851
Search...
IP Camera
SATIR
Live Video
Playback
Configuration
Face Detection
Device Info
Stream
Device
External Device
Intelligent Analysis
Alarm
Human Thermometer
Parameter Configure
Thermal Mapping
Bad Point Check
Thermal Calibration
Version Information
Device Record
Privacy Masking
Network Service
Privilege Manager
Protocol
Device Log
Maintenance
Local Config
Face Detection
Display Trace Info
Mode1
Show Detection Area
Confidence Coefficient
Mid
Area ID
1
Face Pixel Min(1-2000)
70
Face Pixel Max(1-2000)
1000
Image Matting Quality
Mid
Clear
Temperature Parameters
Face Alarm Linkage
Enable
Temperature Unit
Celsius
Ambient Temperature
25.00
Cavity Temperature
23.96
Correction Coefficient
0.00
Mount Distance
5.00
Face Color
Environment Adaptation
Abnormal Temperature Display
Refresh
Apply

2.3.1 Draw a **New Detection Area** based on the installation environment. **Apply!**

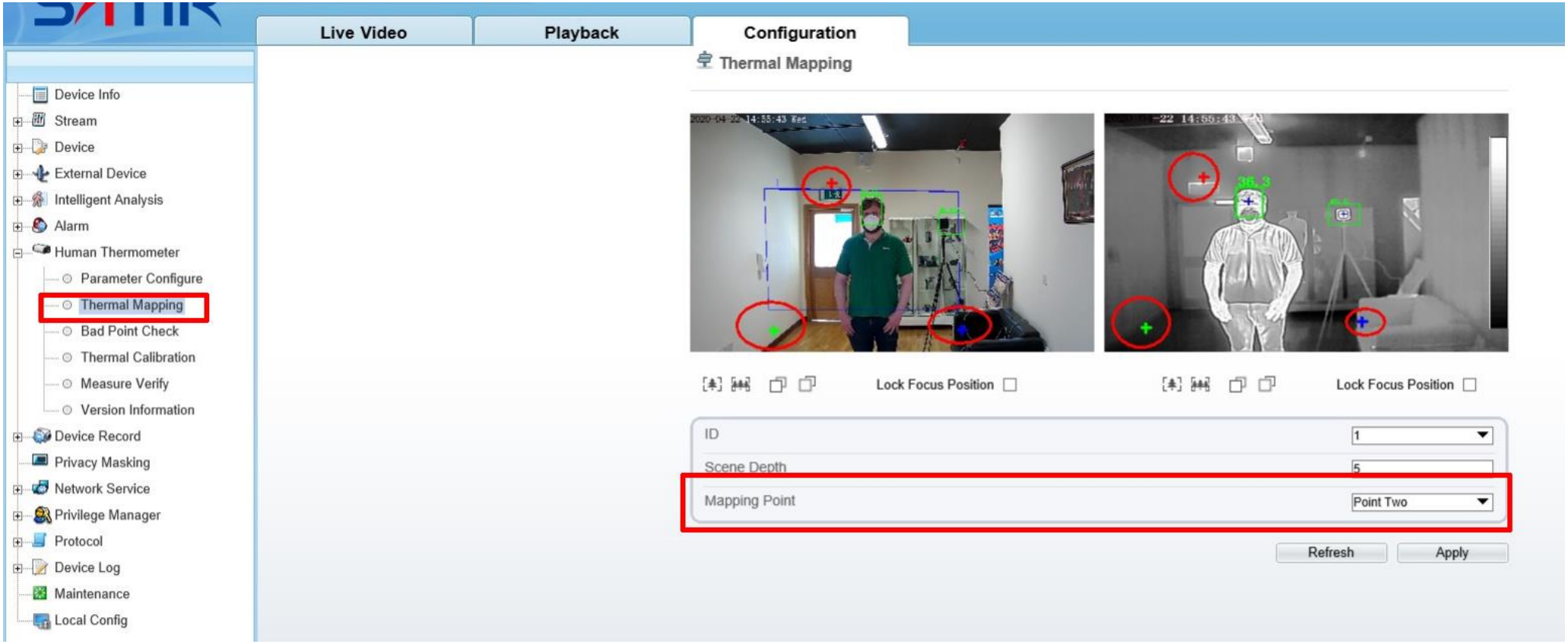


2.3.2 Alarm Temperature set up on IP camera.

Select Face Alarm Linkage>set the Alarm Temperature (Please make sure the alarm temperature is set to the same at Fever Screening Software-Normal Temperature)



2.3.3 Thermal Mapping for accurate temperature reading and facial recognition **(VERY IMPORTANT)**.



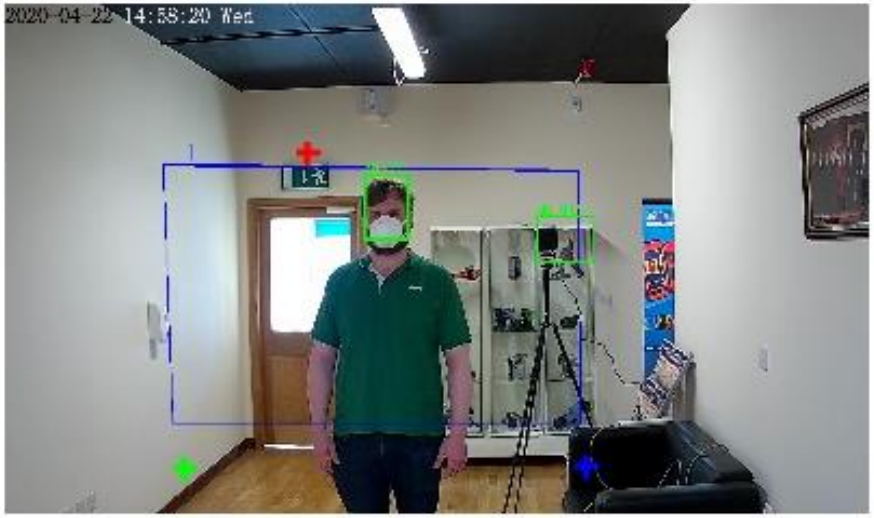
Step 1: Adjust zoom and focus on the visible lens. The angle of view should be similar to the thermal view.

Step 2: Select Mapping point (Point One, Point Two, Point Three), set three points in triangle position, similar to above picture.

Step 3: Check the thermal view, make sure the face recognition square is fully covering the whole face. If not, adjust three mapping point position.

Configuration

Thermal Mapping



Lock Focus Position ☐

Lock Focus Position ☐

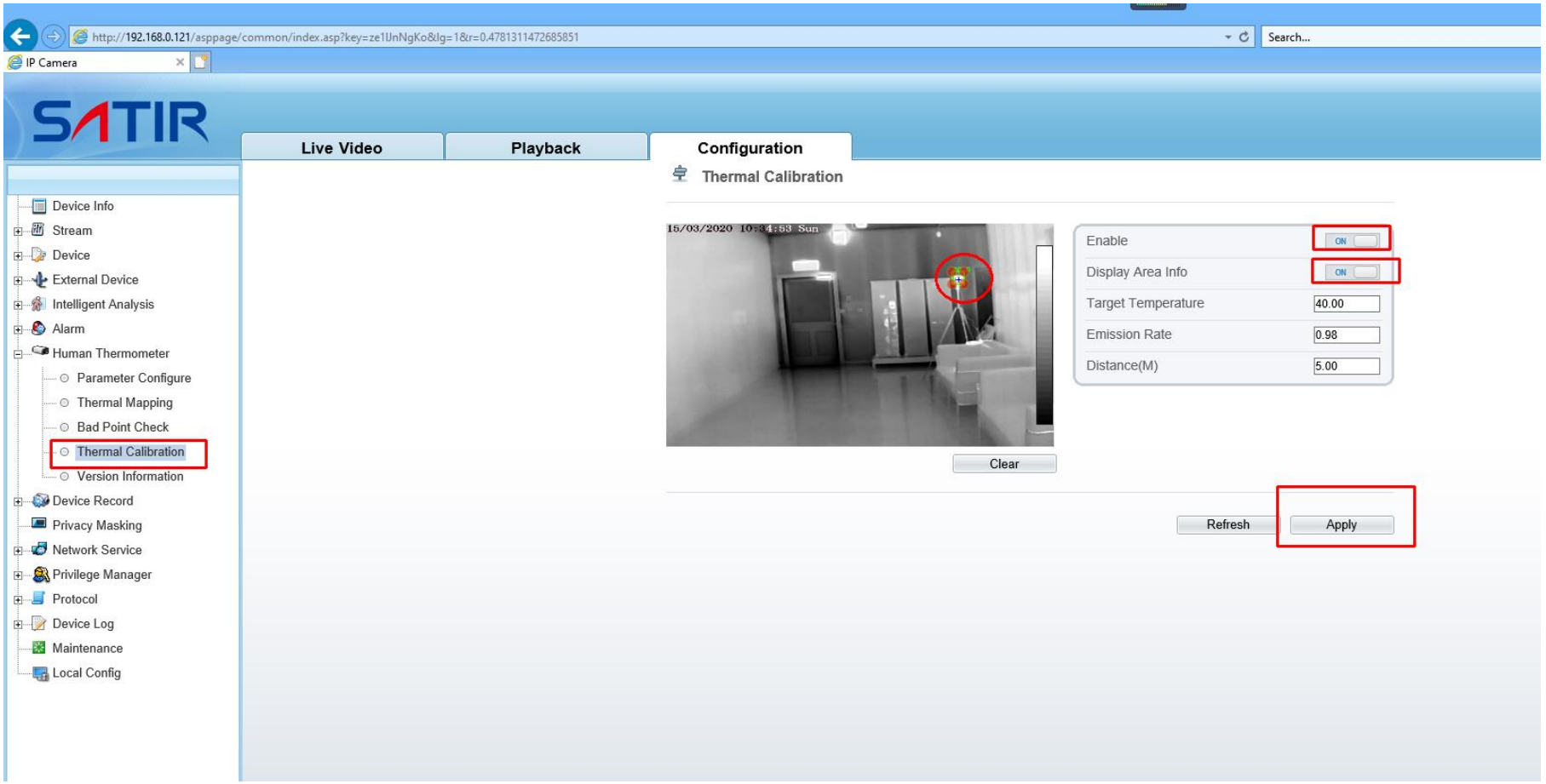
ID	1
Scene Depth	5
Mapping Point	Point Two

Refresh Apply

2.3.4 Blackbody Calibration

Select Thermal Calibration>Enable>Display Area Info-Enable

Draw a small square (size smaller than the blackbody) at the center of the Blackbody as a reference source for the camera, **Apply!**

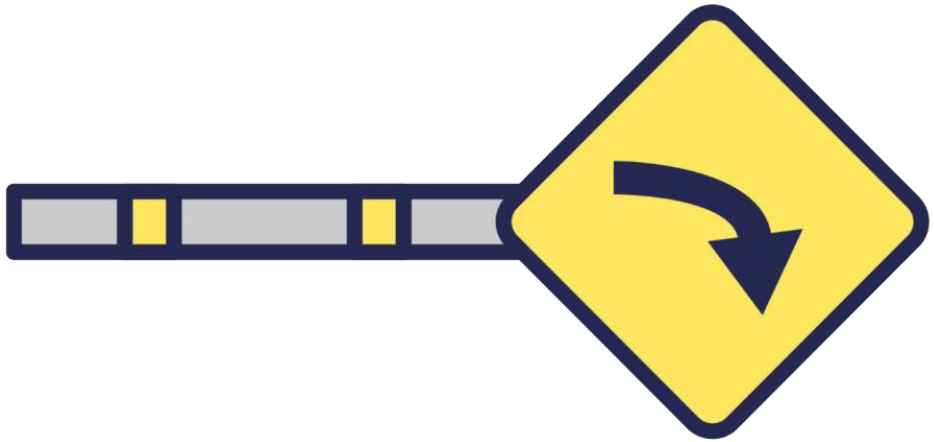


2.3.5 Close the browser after the above settings.

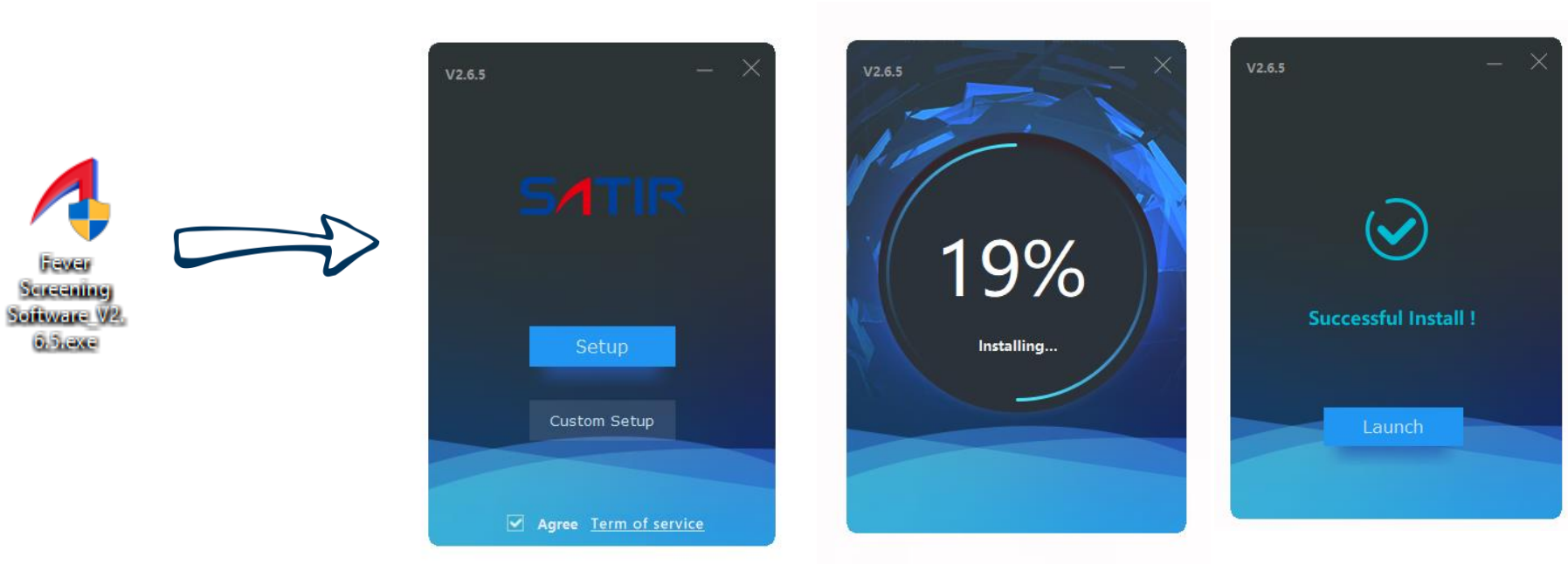
DO NOT CHANGE ANY OTHER SETTINGS IF YOU ARE NOT SURE ABOUT THE FUNCTIONS.

ANY OTHER CHANGES MAY AFFECT THE CORRECT TEMPERATURE MEASUREMENT!!!

Please contact SATIR technical support team if you have any doubts!



3 Software Installation & Settings

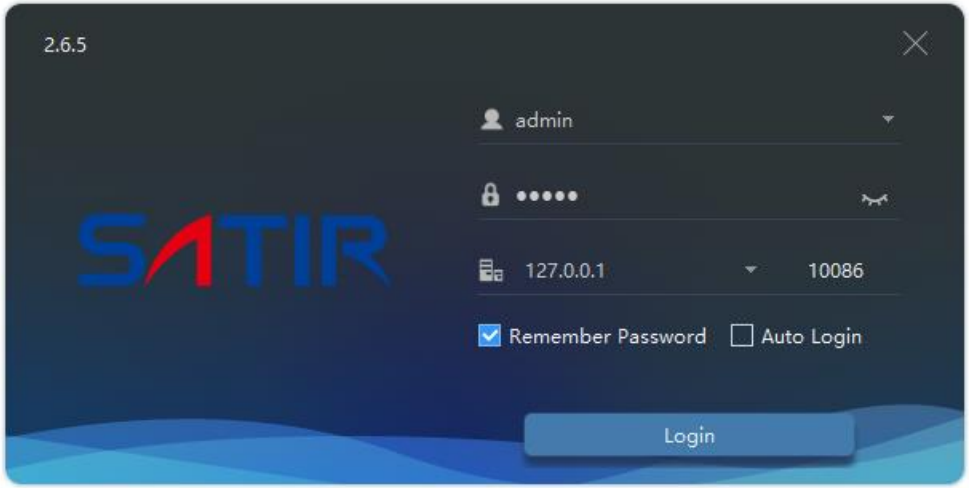


Install the Fever Screening Software on Windows 10.

Computer Recommend Configurations:
Processor (CPU): Intel Core i5 (sixth generation or newer) or equivalent, Memory:8 GB RAM, Storage:500 GB SSD internal storage drive
Or better computer for the best performance of the system.

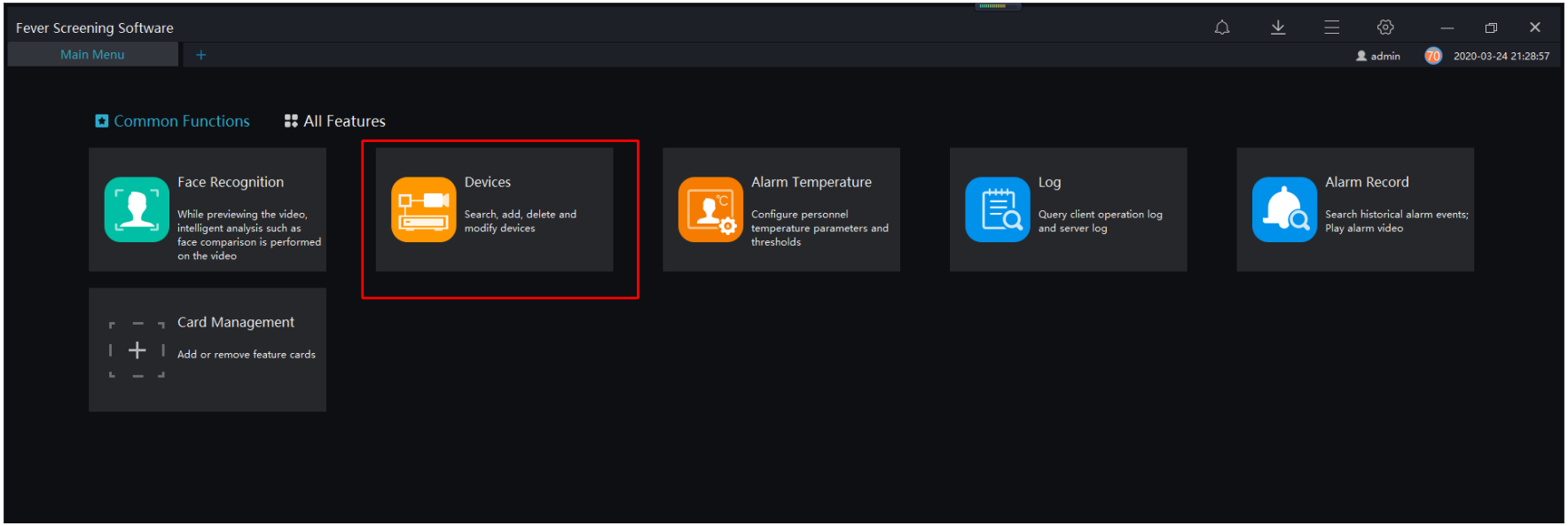
3.1 Software Setting

3.1.1 Log in to software: default username: **admin**, default password: **admin,** the username and password is auto input at the first time of software installation. Username and password can be change on the software.



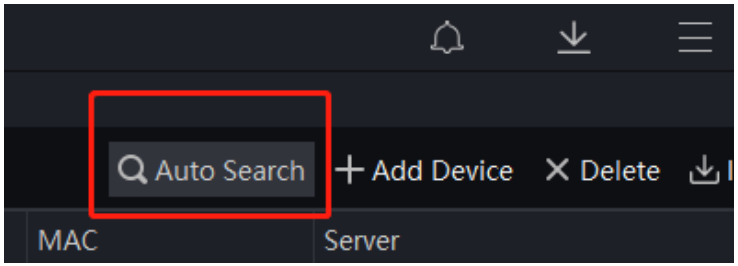
3.1.2 Operation Interface

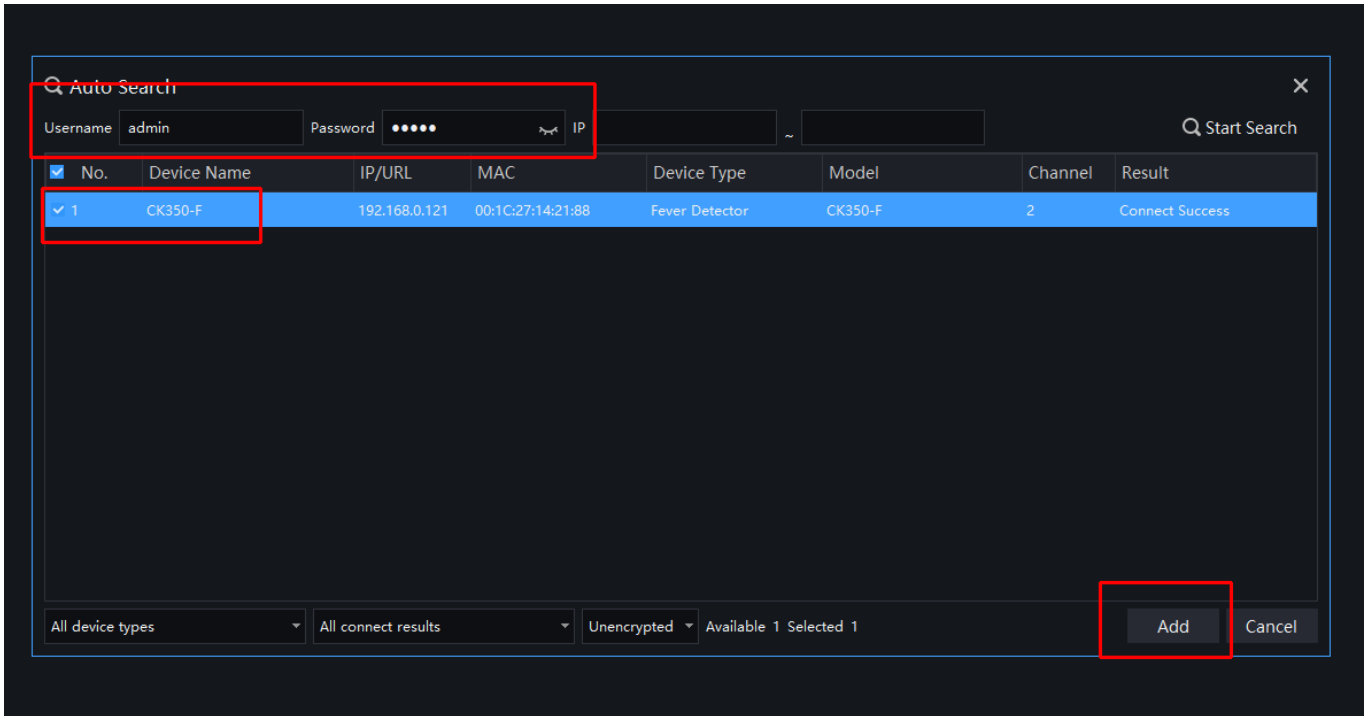
First time login to the Interface, please select **Devices**



3.1.3 Add device

Select **Auto Search>Start Search>Select>Model CK350-F>Add**



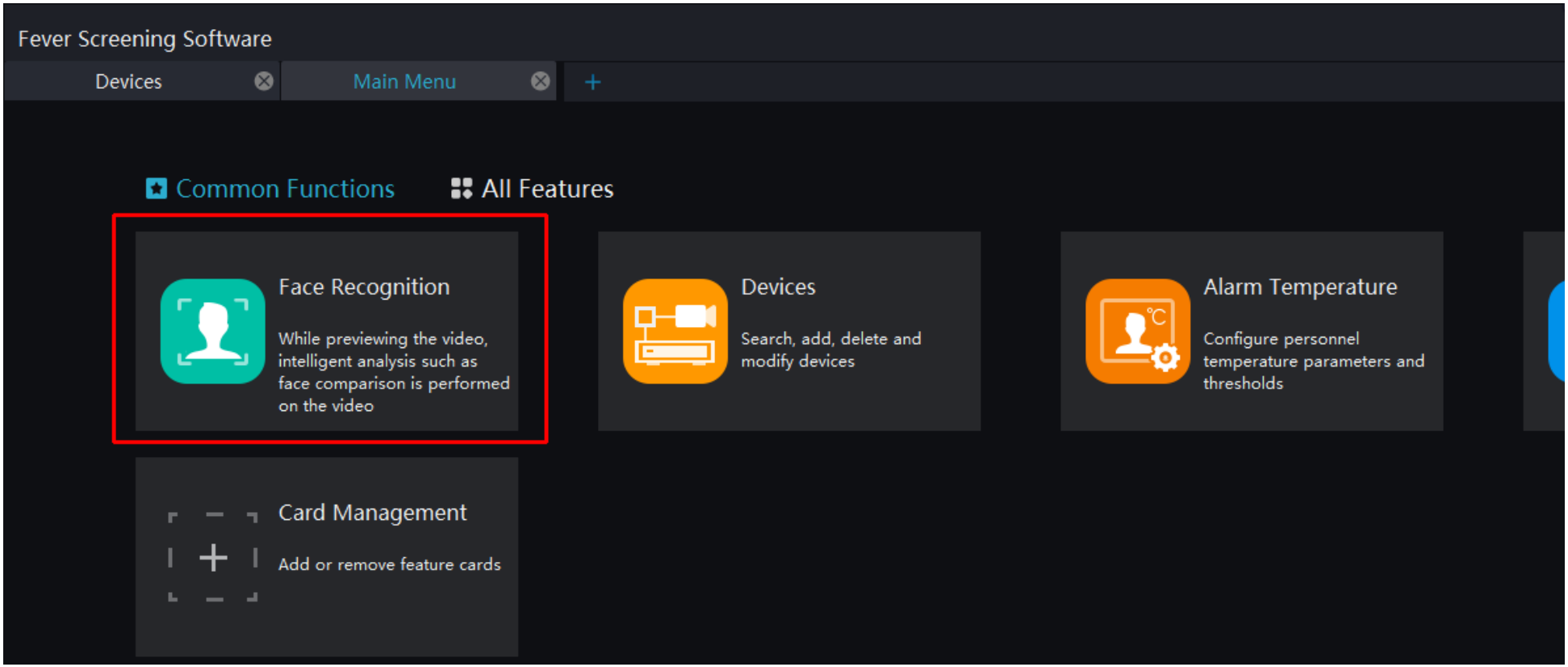


(Note: Username and Password must be the same as the IP Camera on web browser)

3.1.4 Enter the Control Interface

Back to Main Menu> Select Face Recognition

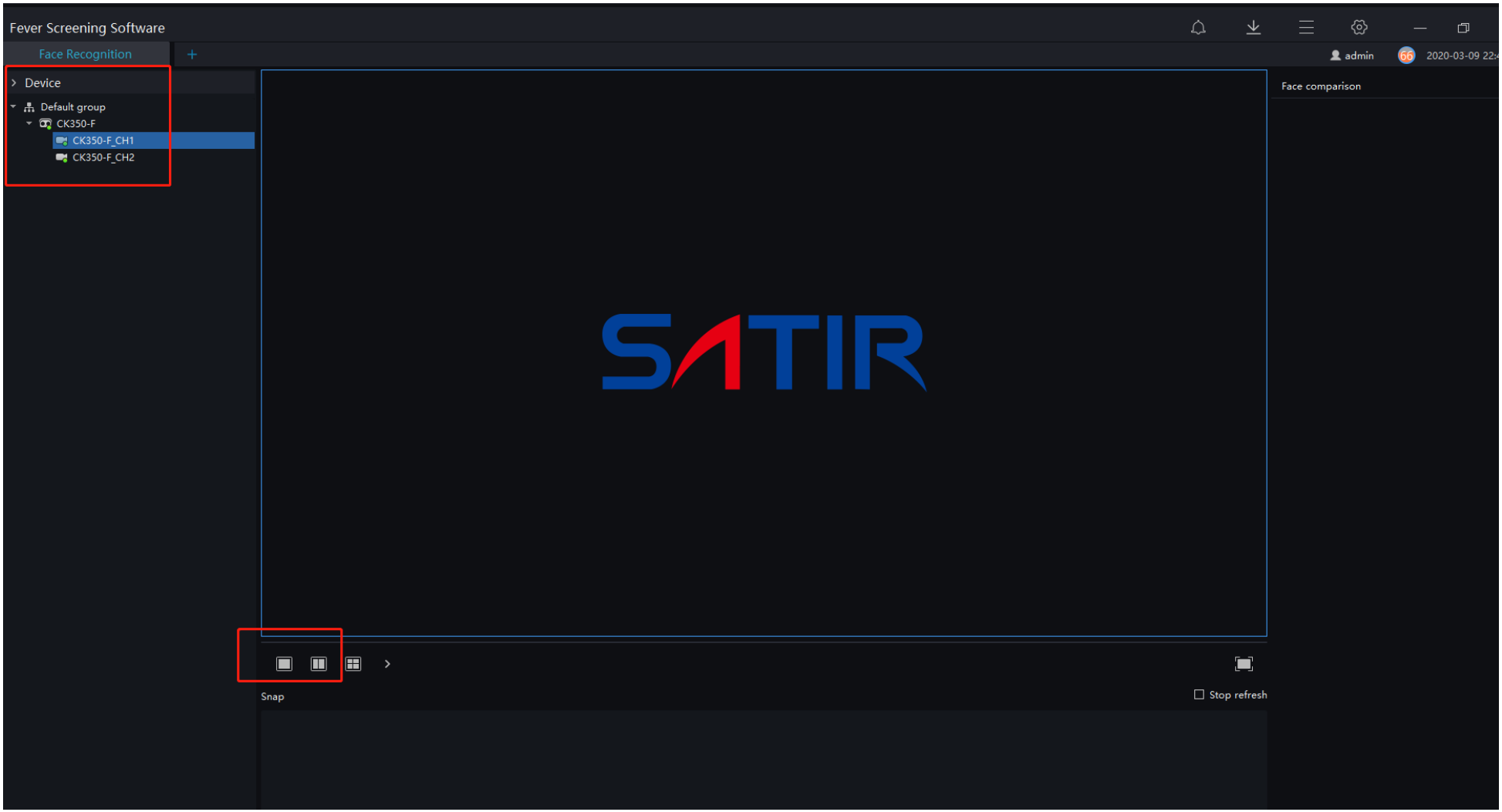
Enter the Face Recognition interface

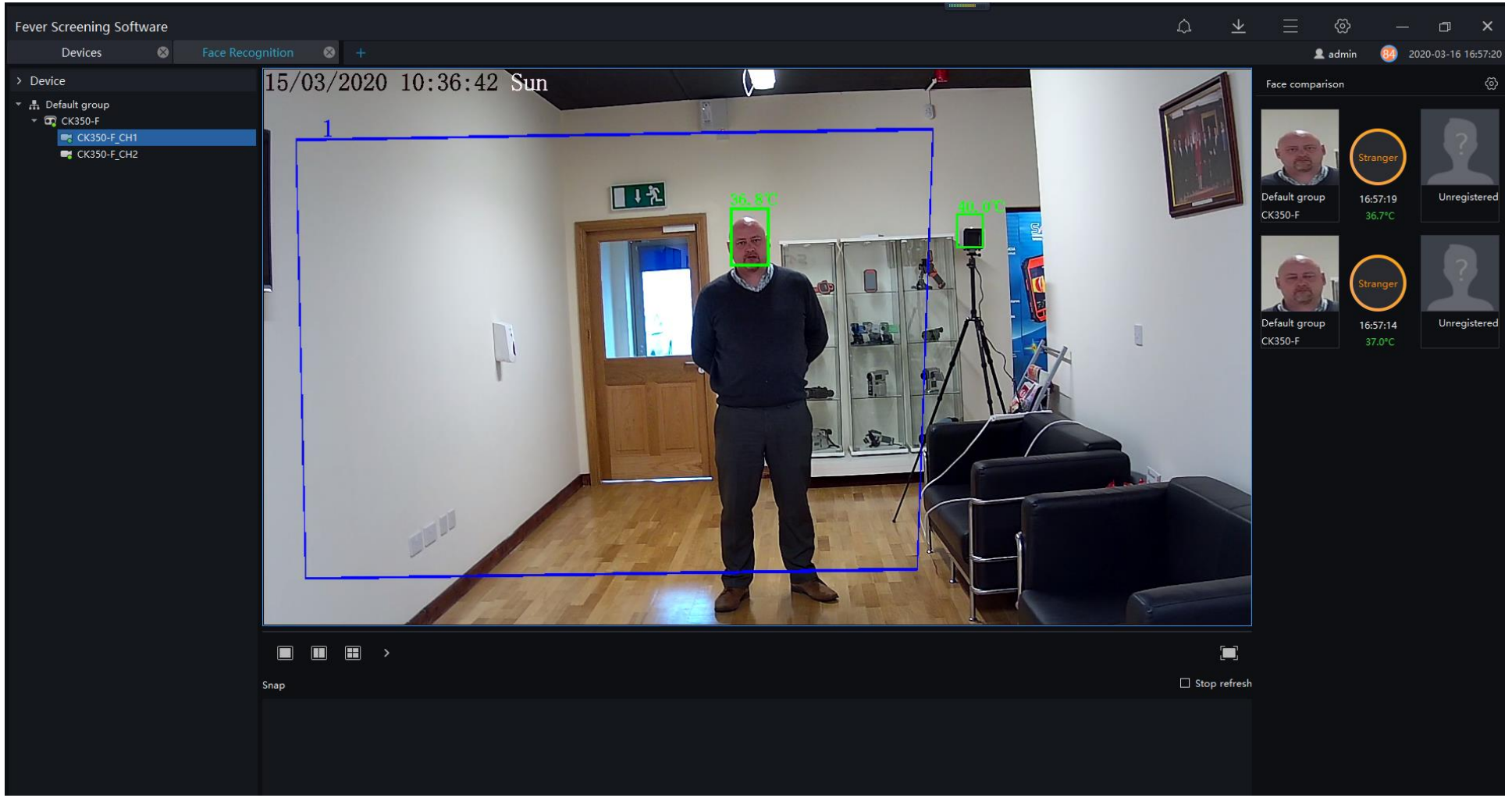


3.1.5 Software Operation

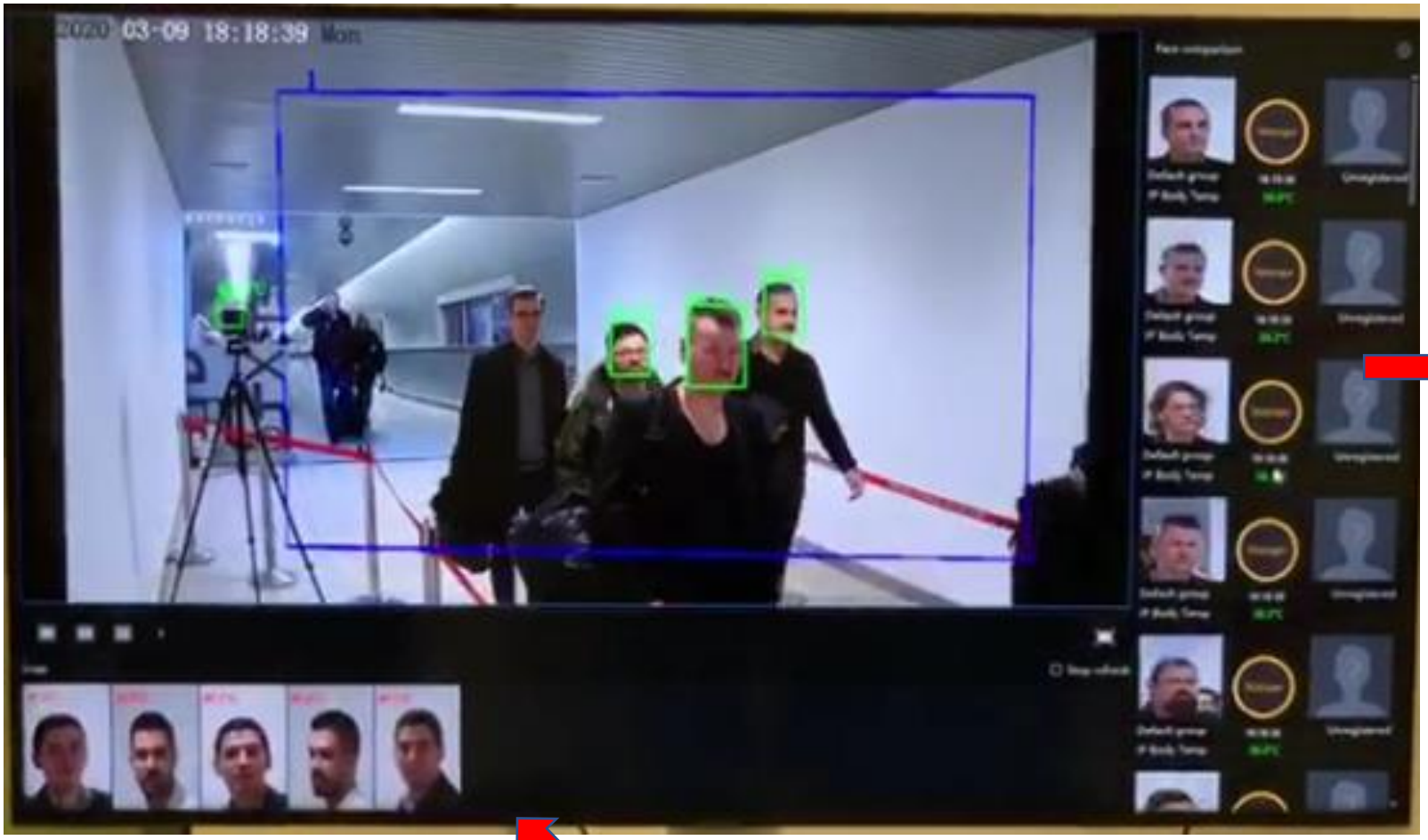
Select device, CK350-F CH1-Visual Camera, CK350-F CH2 Thermal Camera, **DOUBLE** click Select, enter the camera.

Screen can show both Visual and Thermal at the same time. Recommend use Visual Camera only.




Fever Screening Software
Devices
Face Recognition
admin
2020-03-16 16:57:20
Device
Default group
CK350-F
CK350-F_CH1
CK350-F_CH2
15/03/2020 10:36:42 Sun
1
36.8°C
40.0°C
Face comparison
Stranger
Default group
CK350-F
16:57:19
36.7°C
Unregistered
Stranger
Default group
CK350-F
16:57:14
37.0°C
Unregistered
Snap
Stop refresh

3.1.6 User Interface



Real-time face recognition and temperature data

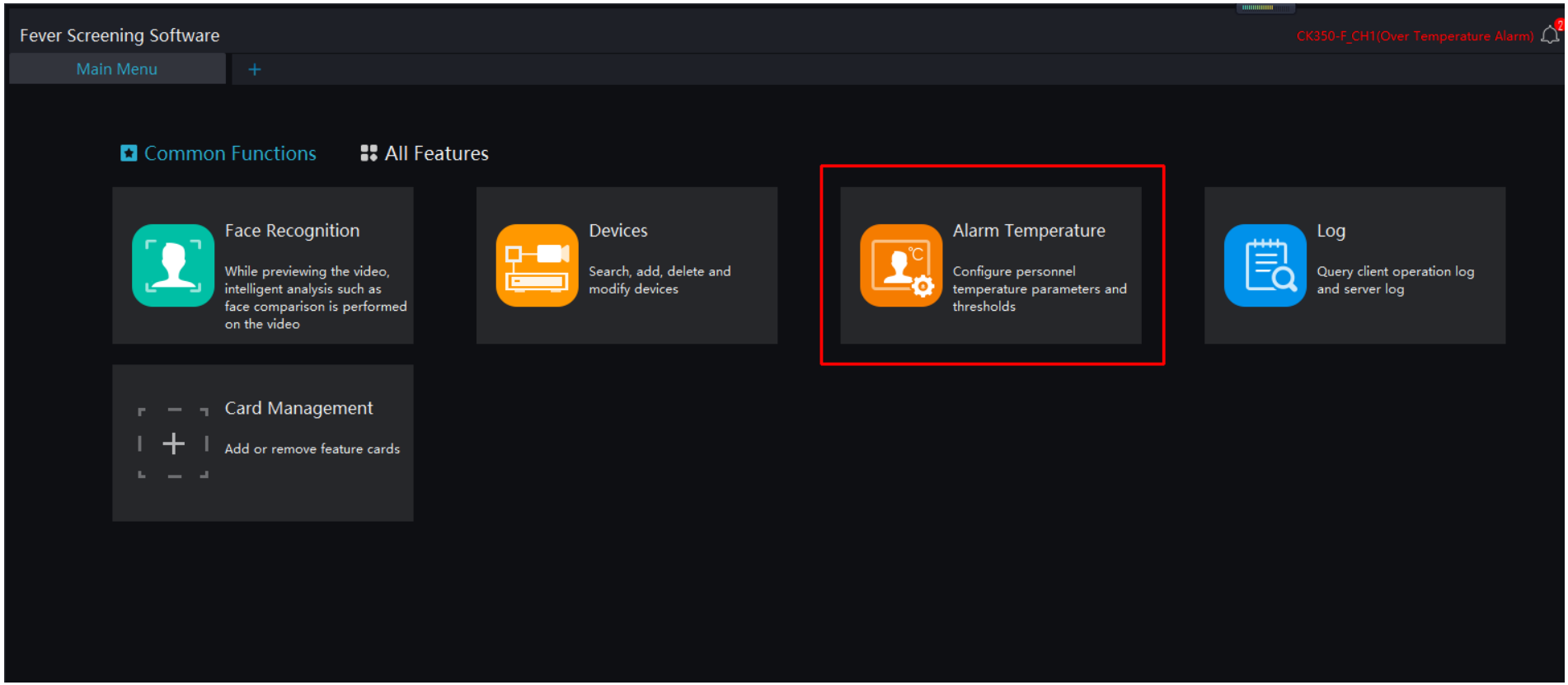
When alarm target detected, the square will turn to RED, face temperature and info will be capture.

If the square is **Blue**, it means the target is not in the measurement area.

3.1.7

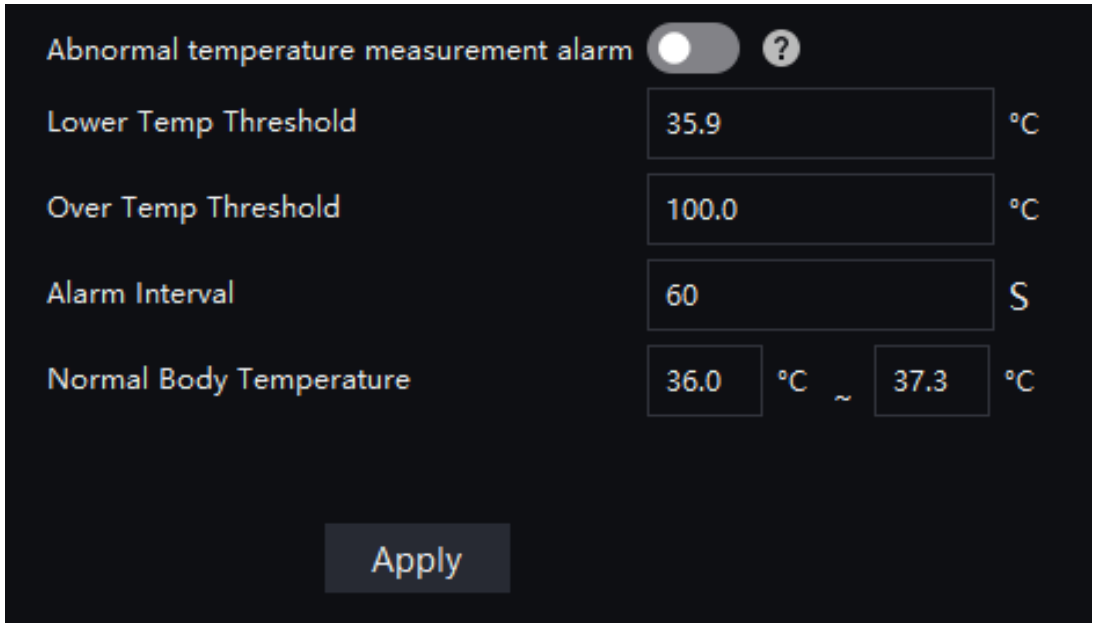
Alarm temperature setting.

Go back to Main Menu> Select Alarm Temperature



3.1.8 Alarm Temperature setting

Standard Normal Body temperature default set to **36.0℃ to 37.3 ℃**, we recommend the Alarm temperature set to **37.3 ℃,** Anyone detect temperature over **37.3 ℃,** a further Medical Mercury thermometer temperature check or quarantine action should be carrying out.

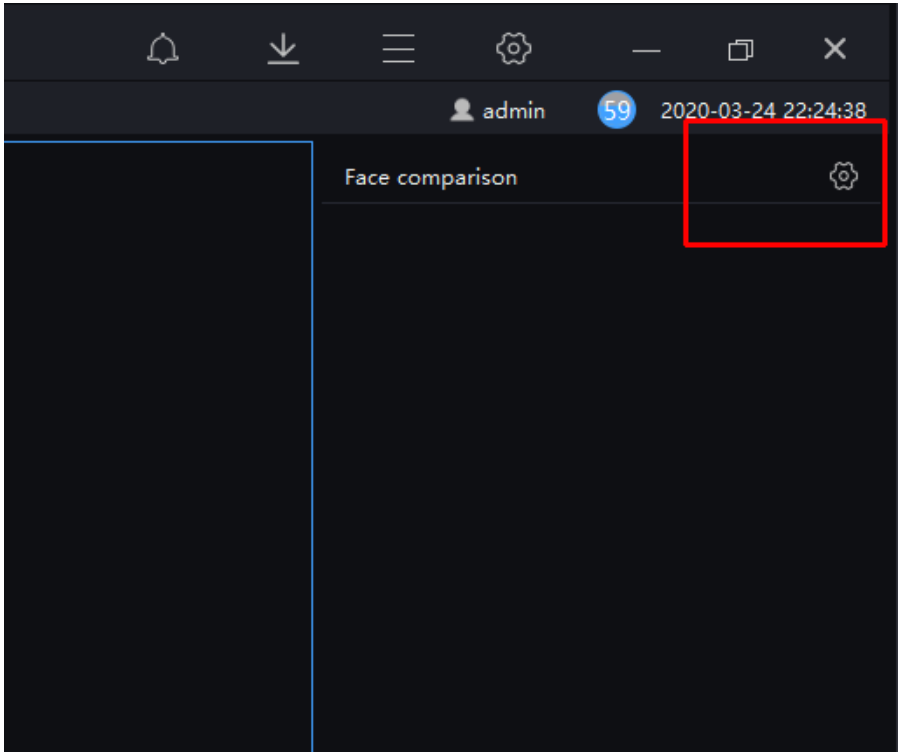


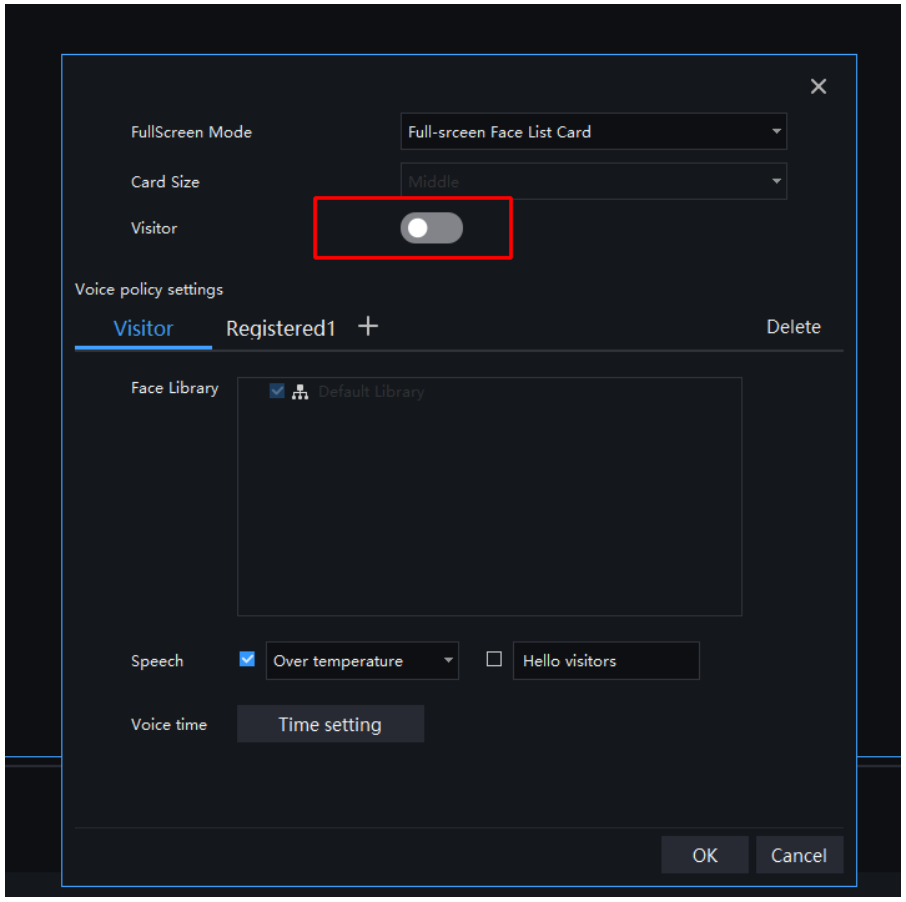
(Note: Alarm Temperature must set to the same as IP Camera!)

4. Privacy settings

For legal and privacy purpose, some organization and companies do not want to capture and store any face data on the systems.

On Face Recognition interface, select setting bottom, turn off the Visitor record function. The software will not record any face data. And there will be Audio alarms only! If Audio alarm are not required, please turn off the speaker.

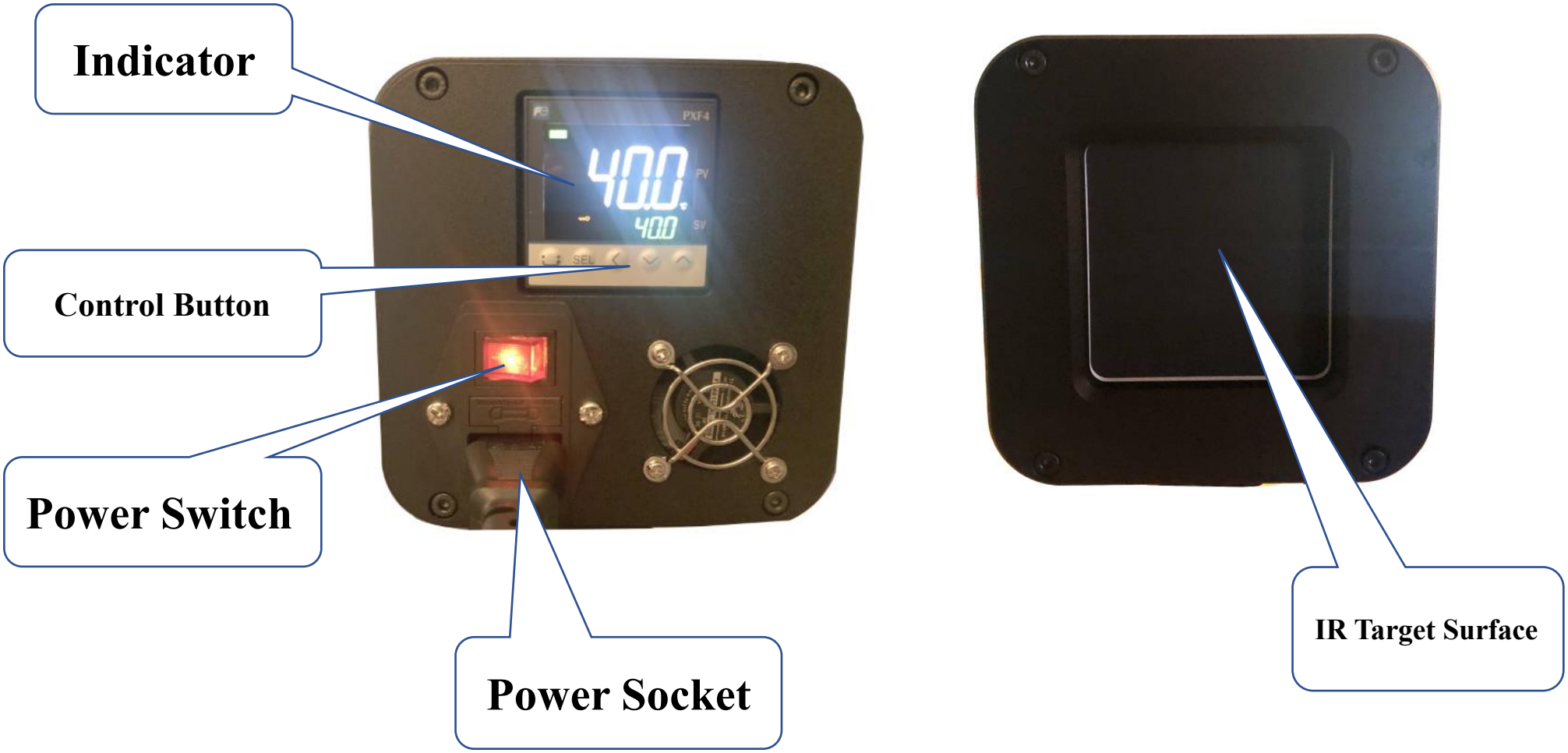




5. Blackbody

DON'T TOUCH THE SURFACE

WITH HAND OR SHARP OBJECT!



Step 1 Plug the power cord of the instrument into a mains outlet of the proper voltage, frequency, and current capability.

Step 2 Turn on the power switch on the back of the blackbody.

Step 3 The temperature controller as shown in Figure 3-1, the present temperature value (PV) Press "∧"、"∨"to set the desired set-point temperature(SV) and "SEL" to save it. The instrument starts to operate normally and heat to the designated set-point. When the PV is stable, the temperature calibration can be started. (Detail information please refers Table 3-1.

Figure 3-1 Temperature controller panel 1

Step 4 At the end of the work, turn off the power switch to shut down the blackbody

Table 3-1 Temperature controller panel 1

Parameters	Name	Description
C1	Control output indicator 1	Lamp is lit if control output 1 is ON
C2	Control output indicator 2	Lamp is lit if control output 2 is ON
AL1	Alarm lamp 1	Alarm lamp is lit if alarm output 1 is ON
AL2	Alarm lamp 2	Alarm lamp is lit if alarm output 2 is ON
SV	Show set value	Display target temperature
SEL	Set parameters	Used to select and set the parameters（For

The blackbody's temperature is set to **40℃** and calibrated as default to-each camera, **NO** further settings are requiring when setting up the system.

Parameters	Name	Description
	button	internal debugging）
∧	Increase button	Increase the SV value
∨	Reduction button	Decrease the SV value

Figure 3-2 Temperature controller panel 2

Table 3-2 Temperature controller panel 2

Parameters	Name	Description
C1	Control output indicator 1	Lamp is lit if control output 1 is ON
STBY	Standby display	This light is on when the product is in standby (not working). This machine has been parameter locked. By default, the product starts normally
	LOCK	When the product parameters are locked, this light is on. The machine is parameter locked.
PV	Show actual measured value	Display measured temperature
SV	Show set value	Display target temperature
SEL	Set parameters button	Used to select and set the parameters（For internal debugging）
<	Move button	Move the cursor
∧	Increase button	Increase the SV value
∨	Reduction button	Decrease the SV value

6. Troubleshooting

Common Trouble	Possible Cause	Solution
Unable to access the web	Network is not connected.	Connect the network cable of the camera to the PC to check whether the network cable is in good contact. Run the ping command to check the network connection and whether the device works normally. Make sure using Windows Internet Explorer only.
	IP address is occupied.	Directly connect the camera to the PC, and reset the IP address of the camera.
	The IP addresses of the PC and the device are in different networks.	Check the IP address, subnet mask and gateway setting of the camera.
The measured temperature is not accurate.	The device is just powered on, and the temperature of the cavity is unstable.	The temperature of the cavity is stable within 15 to 30 minutes after the device is powered on.
	The target configuration is incorrect.	Check whether the emission rate and distance of the target are configured correctly.
An error occurs in accessing the web of the device after the upgrade.	The data in the cache of browser is not updated in time.	Delete the cache of the Internet Explorer. The steps are as follows (taking IE9 as an example): Open the Internet Explorer. Select **Tools** > **Internet Options**. On the **General** tab, select **Delete** under **Browsing history**. The **Delete Browsing History** dialog box appears. Select all check boxes. Click **Delete**. Re-login the web page of the camera.
Upgrade failed.	No network cable is connected. The network setting is incorrect.	Ensure the upgrade network is connected. Check whether the network setting is correct.
	The upgrade package is incorrect.	Perform the correct upgrade package again.

7. Maintenances

Use the following procedures to clean the camera body, lens, blackbody and other parts.

Camera --Wipe the body clean with soft cloth or eyeglass lens wiper.

Lens--First use a lens blower to remove dust and dirt, then remove any remaining dirt by wiping the lens lightly with soft cloth.

Never use synthetic cleaners on the camera body or lens!

Never use thinners, benzene, synthetic cleaners or water to clean the camera. These substances may distort or damage the equipment.

Blackbody-- Use a lens blower brush to remove dust and dirt. If necessary, gently wipe the blackbody with soft cloth or an eyeglass lens wiper to remove stubborn dirt.

NEVER rub or press forcefully on the radiation surface. These actions may damage it or lead to other problems.

8. Technical Specifications

Thermal Camera	
Detector Type	Uncooled IRFPA Microbolometer
Effective Pixels	384(H)x288(V)
Pixel Size (Pitch)	17μm
Thermal Sensitivity (NETD)	50mK @ F1.0, 30°C
Spectral Range	8~14μm
Image Settings	Polarity LUT/DVE/Mirror/FCC/3D DNR/Brightness/Contrast/ROI
Colour Palettes	Black-Hot/White-Hot/Rainbow/Iron-Red (up to 17 modes)
Thermal Lens Characteristics	
Lens Type	Fixed
Focus Control	Manual Focus
Focal Length	8mm
F#	F1.0
Field of View	HFOV: 46° ¦ VFOV: 35.3°
Visible Camera	
Image Sensor	1/1.9" Sony CMOS
Effective Resolution	1920(H)×1080(V)
Shutter Speed	1/50 ~ 1/64,000s
Wide Dynamic Range	True WDR 120dB
Minimum Illumination	Color: 0.01Lux @ (F1.2, AGC ON) B/W: 0.001Lux @ (F1.2, AGC ON)
S/N Ratio	More than 55dB
Focal Length	2.7 ~ 12mm
Max Aperture	F1.6~ F2.9
Field of View	105°~ 32°
Focus Control	Motorized

Video & Audio	
Compression	H.265, H.264, MPEG
Frame Rate	Main-stream: *Thermal*: D1@25/30fps ¦ *Visible*: 20x1080/1280x720@25/30fps Sub-stream: *Thermal*: CIF@25/30fps ¦ *Visible*: 1/VGA/640x360/CIF/QCIF/QVGA@25/30FPS
Bit Rate Control	CBR/VBR
Bit Rate	*Thermal:* 100Kbps~6Mbps *Visible:* Main-Stream: 500Kbps~10Mbps¦Sub-stream: 100Kbps~6Kbps
Region of Interest	ON / OFF (8 Zones, Rectangle)
Digital Zoom	16x
Mirror	Supported
Defog	Supported
Motion Detection	Supported
Privacy Masking	ON / OFF (4 Areas, Rectangle)
DVE Image Enhance	Supported
Audio Compression	G.711, AMR, RAW_PCM (optional)
Smart Features	
Intelligent Functions	Motion Detection, Disk Alarm, I/O Alarm, Temperature Alarm
IVS	Smart Body Detection, Perimeter, Virtual Fences (Single & Double), Object Left, Object Removed
Smart Features	
Intelligent Functions	Motion Detection, Disk Alarm, I/O Alarm, Temperature Alarm
IVS	Smart Body Detection, Perimeter, Virtual Fences (Single & Double), Object Left, Object Removed

Temperature Detection	
Detection Mode	Body temperature monitoring
Detection Preset	Max 16 goals
Temperature Alarm	Over temperature alarm, Temperature difference alarm
Accuracy	≤ 0.3 ℃ (Emission rate, distance, ambient temperature, etc..)
Response Time	≤30ms
Temperature Measurement Range	-20 ℃ ~ 60 ℃ (-4°F ~ 140°F)
Temperature Display Mode	Temperature target ＞5℃, Display absolute temperature value; Temperature target ≤5℃, Display relative temperature value (temperature difference DEV = highest value - average)
Network	
Ethernet	RJ-45 (10/100 Base-T)
Protocols	IPv4/IPv6, HTTP, RTSP/RTP/RTCP, TCP/UDP, DHCP, DNS, PPPOE, SMTP, SIP, 802.1x
Interoperability	ONVIF, CGI, SDK
Streaming Method	Unicast
Max. User Access	10 Users
Edge Storage	NAS, Local PC for instant recording, MicroSD card (up to 128GB)
Web Viewer	IE11, Chrome, Firefox
Web Language	English, Chinese, Czech, French, Hungarian, Italian, Polish, Portuguese, Russian, Spanish
Interface	
Ethernet	1 Ethernet (10/100 Base-T) RJ-45 Connector
Audio Interface	1ch Audio In, 1ch Audio Out
Alarm	2ch Alarm In, 2ch Alarm Out
RS485	Support
BNC Output	N/A
Reset Button	Support (Built-in)

General	
Power Supply	DC12V/POE (IEEE 802.3af)
Power Consumption	Max 10W
Operating Temperature	-30°C~60°C (-22°F~140°F)
Storage Conditions	0~ 90% RH
Certifications	CE /FCC
Ingress Protection	IP66
Casing Material	Metal
Dimensions	212×182×136mm
Net Weight	2Kg

Manufacturer Information

Manufacturer

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