HIKVISION

Security Radar

User Manual

Legal Information

About this Manual

This Manual is subject to domestic and international copyright protection. Hangzhou Hikvision Digital Technology Co., Ltd. ("Hikvision") reserves all rights to this manual. This manual cannot be reproduced, changed, translated, or distributed, partially or wholly, by any means, without the prior written permission of Hikvision.

Please use this user manual under the guidance of professionals.

Trademarks

HIKVISION and other Hikvision marks are the property of Hikvision and are registered trademarks or the subject of applications for the same by Hikvision and/or its affiliates. Other trademarks mentioned in this manual are the properties of their respective owners. No right of license is given to use such trademarks without express permission.

Disclaimer

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, HIKVISION MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, REGARDING THIS MANUAL. HIKVISION DOES NOT WARRANT, GUARANTEE, OR MAKE ANY REPRESENTATIONS REGARDING THE USE OF THE MANUAL, OR THE CORRECTNESS, ACCURACY, OR RELIABILITY OF INFORMATION CONTAINED HEREIN. YOUR USE OF THIS MANUAL AND ANY RELIANCE ON THIS MANUAL SHALL BE WHOLLY AT YOUR OWN RISK AND RESPONSIBILITY.

REGARDING TO THE PRODUCT WITH INTERNET ACCESS, THE USE OF PRODUCT SHALL BE WHOLLY AT YOUR OWN RISKS. HIKVISION SHALL NOT TAKE ANY RESPONSIBILITIES FOR ABNORMAL OPERATION, PRIVACY LEAKAGE OR OTHER DAMAGES RESULTING FROM CYBER ATTACK, HACKER ATTACK, VIRUS INSPECTION, OR OTHER INTERNET SECURITY RISKS;

HOWEVER, HIKVISION WILL PROVIDE TIMELY TECHNICAL SUPPORT IF REQUIRED.

SURVEILLANCE LAWS VARY BY JURISDICTION. PLEASE CHECK ALL RELEVANT LAWS IN YOUR JURISDICTION BEFORE USING THIS PRODUCT IN ORDER TO ENSURE THAT YOUR USE CONFORMS THE APPLICABLE LAW. HIKVISION SHALL NOT BE LIABLE IN THE EVENT THAT THIS PRODUCT IS USED WITH ILLEGITIMATE PURPOSES.

IN THE EVENT OF ANY CONFLICTS BETWEEN THIS MANUAL AND THE APPLICABLE LAW, THE LATER PREVAILS.

Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
⚠ **Danger**	Indicates a hazardous situation which, if not avoided, will or could result in death or serious injury.
⚠ **Caution**	Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
🛈 **Note**	Provides additional information to emphasize or supplement important points of the main text.

Contents

1 Access to iVMS-4200 Client Software/Web Client

You can login the iVMS-4200 Client Software or the web client to configure the device's parameters. You can also configure the radar's network parameters, alarm, permission, system, log search via the web client.

[i] **Note**

You should activate the device the first time you access it to the network for safety reasons. For details, see **Device Activation**.

Access to iVMS-4200 Client Software

Download and install the software. Register to the software and add device in **Control Panel → Device Management → Device for Management**

[i] **Note**

- You should set the device port No. as 80.
- The user name and password when adding device are the activation user name and password.

After the device is completely added, click **Remote Configuration** to enter the device configuration page. You can configure the device parameters in this page.

Access to Web Client

After the device is connected to the network, you can search the device IP address via the iVMS-4200 client software and the SADP software. Input the searched IP address in the address bar in the web page and press **Enter**. Use the activation user name and password to login. You can configure the device parameters in the web page.

2 Activation

In order to protect personal security and privacy and improve the network security level, you should activate the device the first time you connect the device to a network.

You can create an activation password to protect your device from logging in by other persons.

2.1 Activate Device via iVMS-4200

iVMS-4200 is a PC client to manage and operate your devices. Security control panel activation is supported by the software.

Before You Start

- Get the client software from the supplied disk or the official website ***http:// www.hikvision.com/en/*** . Install the software by following the prompts.

- The device and the PC that runs the software should be in the same subnet.

Steps

1. Run the client software.

2. Enter **Device Management** or **Online Device**.

3. Check the device status from the device list, and select an inactive device.

4. Click **Activate**.

5. Create and confirm the admin password of the device.

   ⚠️ **Caution**

   STRONG PASSWORD RECOMMENDED-We highly recommend you create a strong password of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.

6. Click **OK** to start activation.

   Device status will change to **Active** after successful activation.

7. Edit IP address of the device.

1) Select a device and click **Modify Netinfo** at **Online Device**.

2) Change the device IP address to the same subnet with your computer by either modifying the IP address manually or checking **DHCP**.

3) Input the admin password of the device and click **OK** to complete modification.

2.2 Activate via SADP

SADP is a tool to detect, activate and modify the IP address of the device over the LAN.

Before You Start

- Get the SADP software from the supplied disk or the official website ***http://www.hikvision.com/en/*** , and install the SADP according to the prompts.

- The device and the PC that runs the SADP tool should be within the same subnet.

The following steps show how to activate a device and modify its IP address. For batch activation and IP addresses modification, refer to *User Manual of SADP* for details.

Steps

1. Run the SADP software and search the online devices.

2. Find and select your device in online device list.

3. Input new password (admin password) and confirm the password.

   ⚠ **Caution**

   STRONG PASSWORD RECOMMENDED-We highly recommend you create a strong password of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.

4. Click **Activate** to start activation.
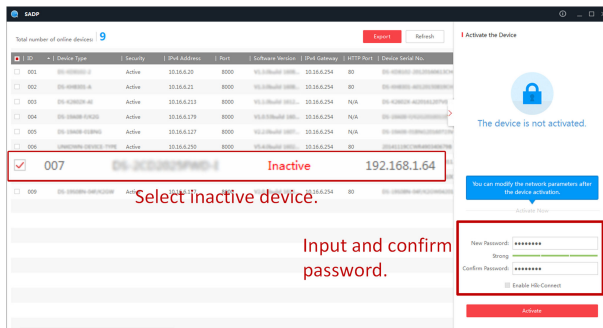
Status of the device becomes **Active** after successful activation.

5. Modify IP address of the device.

   1) Select the device.

   2) Change the device IP address to the same subnet as your computer by either modifying the IP address manually or checking **Enable DHCP**.

   3) Input the admin password and click **Modify** to activate your IP address modification.

2.3 Activate Device via Web Browser

Use web browser to activate the device. Use SADP software or PC client to search the online device to get the IP address of the device, and activate the device on the web page.

Before You Start
Make sure your device and your PC connect to the same LAN.

Steps

1. Open a web browser and input the IP address of the device.

   ⓘ **Note**

   If you connect the device with the PC directly, you need to change the IP address of your PC to the same subnet as the device. The default IP address of the device is 192.0.0.64.

2. Create and confirm the admin password.

⚠ **Caution**

STRONG PASSWORD RECOMMENDED-We highly recommend you create a strong password of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.

3. Click **OK** to complete activation and enter **Live View** page.
4. Edit IP address of the device.
   1) Enter IP address modification page. **Configuration → Network → TCP/IP**
   2) Change IP address.
   3) Save the settings.

3 Wired Network

If the device is linked to the wired network, you can set the wired network parameters when you want to change the device IP address and other network parameters.

Steps

ℹ️ Note

The function is not supported by some device models.

1. Click **Communication Parameters → Wired Network Parameters** to enter the Wired Network Parameters page.

Wired Network Settings

Network Card Type	Self-Adaptive ▾
DHCP	🟢
IPV4 Address	
Subnet Mask	
Gateway	
DNS1	
DNS2	
HTTP Port	80

Save

Figure 3-1 Wired Network Settings Page

2. Set the parameters.
   - Automatic Settings: Enable **DHCP** and set the HTTP port.
   - Manual Settings: Disabled **DHCP** and set **IP Address**, **Subnet Mask**, **Gateway Address**, **DNS Server Address**.

   ℹ️ Note

   By default, the HTTP port is 80, which is not editable.

3. **Optional:** Set correct DNS server address if the device needs to visit Hik-Connect server via a domain name.
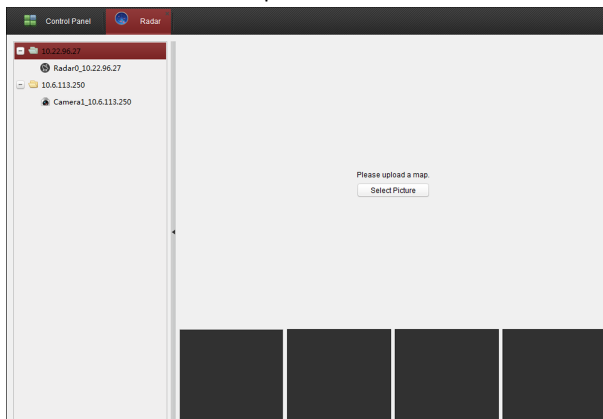
4. Click **Save**.

4 Radar Settings

You can add zones, and set camera tracking parameters for the radar in the **Radar Module** of the iVMS-4200.

Click **Control Panel → Custom function** , check Radar, and click **OK**.

4.1 Add Map and Radar

Steps

1. Click **Control Panel → Radar** to enter the page.
2. Click **Select a Picture** to load a map.

Figure 4-1 Add a Map

3. Enter the actual width and the length of the area showed in the map.
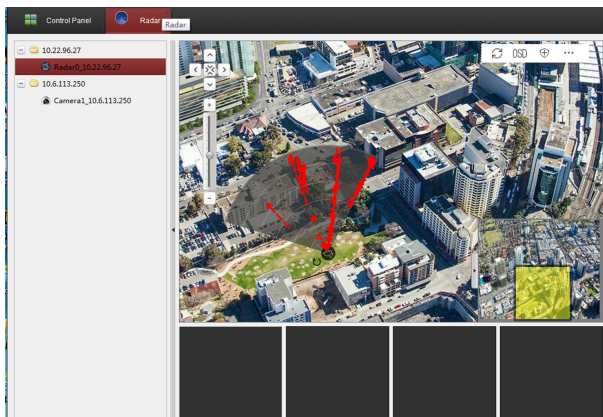4. Click and drag the radar onto the map.

Figure 4-2 Add Radar on the Map

4.2 Add Radar Zone

Before You Start

You need to disarm the radar before the operation. Click ⊕ to disarm the radar.

4.2.1 Add Radar Zone(Manually)

Steps

1. Click **Control Panel → Radar** to enter the page.

2. Click **… → Draw Zone Manually** , and click the mouse to draw a zone on the radar field.

ⓘ Note

Slide the block on the Zoom in/out bar on the left to adjust the size of the displayed radar area.

3. Enter the zone name, and select **Early Warning Zone**, **Warning Zone**, or **Disabled Zone** as the zone type.

Note

- Early Warning Zone: When the zone is an early zone, target entering the zone will be identified in advance.

- Warning Zone: When the zone is an warning zone, the target entering the zone will be identified and alarm occurred.

- Disabled Zone: When the zone is an disabled zone, the track of the target entering the zone will be disabled.

4. Click **OK**.

Figure 4-3 Add Radar Zone(Manually)

4.2.2 Add Radar Zone (Automatically)

Steps

1. Click **Control Panel → Radar** to enter the radar settings page.

2. Click **… → Draw Zone Automatically** .

Note

Slide the block on the Zoom in/out bar on the left to adjust the size of the displayed radar area.

3. Move in the radar filed by a closed-loop path to draw a zone.

Figure 4-4 Add Radar Zone (Automatically)

4. Enter the zone name, and select **Early Warning Zone**, **Warning Zone**, and **Disabled Zone** as the zone type.

5. Click **OK**.

5 Camera Linkage Settings

The radar can work with cameras such as speed dome and box camera for target tracking and video recording.

5.1 Link the Camera to the zone

Before You Start

You need to disarm the radar before the operation. Click ⊕ to disarm the radar.

Steps

1. Click **Control Panel → Device Management** , click **Add Device**, enter the device IP address and port NO., enter the username and password, click **OK** to add the camera.

2. Select a radar added before in the device list, click **Remote configuration Camera Linkage Settings → Smart Rule Configuration → Linkage Settings** .
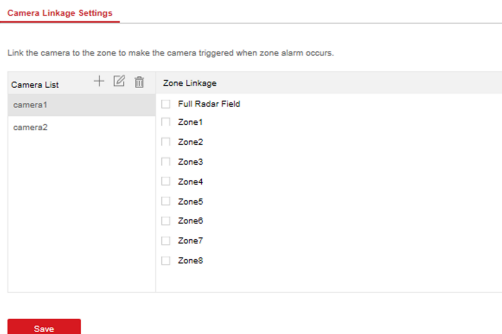

Figure 5-1 Link the Camera to the zone

3. Click **+** in the camera list, enter the username and password, click **OK** to add the camera to the radar.

ⓘ Note

- At least four cameras can be added to the radar.
- Enter the radar IP address in the web browser, and you can also manage the camera linkage by entering **Smart Rule Configuration → Camera Linkage Settings**

4. Select a camera in the camera list, select one zone, multiple zones, or full radar field, and click **Save** to link the camera with the selected zone.

5.2 Set Speed Dome Initial Position

Set the initial position of the speed dome to ensure the tracking accuracy.

Steps

1. Select a reference object about 50 m away from the speed dome, and select a point (on the reference object) whose altitude is the same as the speed dome's.

2. Enter the IP address of the speed dome in the web browser to enter the web client. Adjust the PTZ and make sure the reference point is displayed in the frame. Click **3D Zoom** and then click the reference point and the point will be in the middle of the frame.
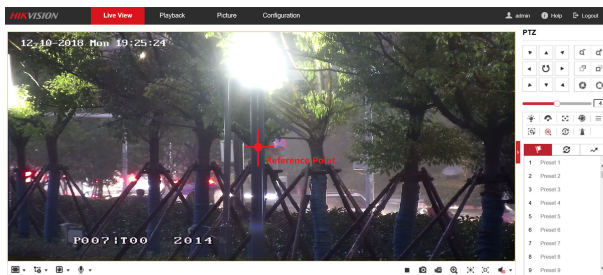
Figure 5-2 Reference Point Position

ⓘ Note

- If the speed dome is installed tilted, after you click the 3D zoom button, you may find the reference point is above the center of the frame or it is outside the frame. In this case, you should adjust the maximum elevation angle of the speed dome. For detail adjustment method, please refer to *How to Solve*

the Problem that No Reference Point on the Frame While Setting the Speed Dome Initial Position?

- if the maximun elevation angle of the speed dome is adjusted, the reference point needs to be adjusted to the center of the frame again.

- **PTZ**: Pan /tilt /zoom.

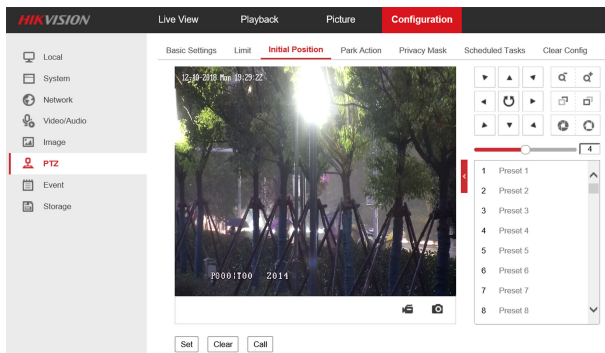3. Enter the **Configuration → PTZ → Initial Position** page, and click **Set** to set the initial position.

Figure 5-3 Set Initial Position

5.3 Calibrate Camera

Calibrate the linked camera to ensure the accuracy of camera tracking.

Before You Start

- You need to disarm the radar before the operation. Click ⊕ to disarm the radar.

- You need to link the speed dome to the zone before calibration, and set the speed dome initial position.

- The installation height of the linked speed dome should to be more than 3 m.

- Set the scene mode as **Open Mode** (refer to **Set Scene Mode and Sensitivity** for details) and make sure that there is only one target (staff for calibration) in the detection area.

Steps

1. In iVMS-4200, click **Control Panel → Radar** .

2. Click **… → Master-Slave Tracking Settings** on the upper-right corner of the page.
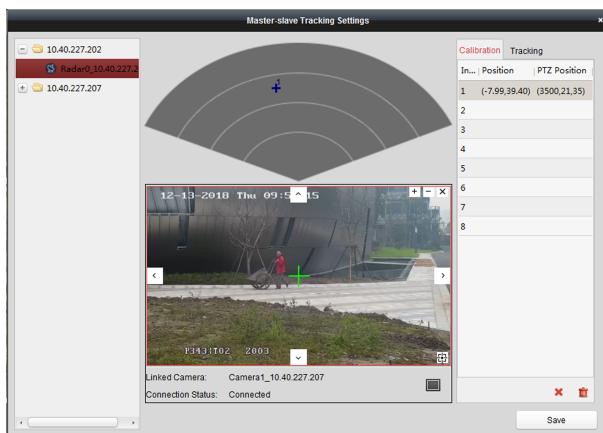
Figure 5-4 Calibrate Camera

3. Double click the radar and the linked camera in the device list on the left. The real-time scene of the camera will be displayed under the radar field diagram.

ℹ Note

You can select a real-time scene of the camera and click 🖥 to zoom in the real-time scene.

4. Select a schedule for calibration point selection. According to the relative installation position of the radar and the speed dome, it is necessary to select a schedule for the calibration point selection (One point calibration or multi-point calibration).

ℹ Note

- One point calibration: Applicable to the scene where the radar and the speed dome are installed on the same pole or the speed dome is installed within a radar-centered range of 2 m (regardless of the height difference between the speed dome and the radar).

- Multi-point calibration: The scene where is not applicable to the one point calibration need to adopt the multi-point calibration method.

Figure 5-5 Installation Scene for One Point Calibration
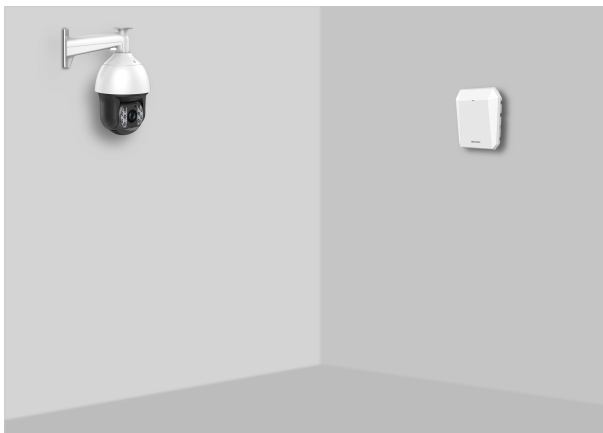
Figure 5-6 Installation Scene for Multi-Point Calibration

5. Calibrate the selected calibration coordinate point. According to the selected schedule, you can calibrate the calibration coordinate point by one point calibration or multi-point calibration method.

5.3.1 One Point Calibration

Steps

1. Ask the calibration staff to move in the radar detection area to produce a valid track, and then to stand at the calibration position within 20 to 40 m directly in front of the radar.

ⓘ Note

- Radar can only detect one target when calibrating. If there are multiple targets within the radar detection area, there is no guarantee that the detected target track is a valid track produced by the calibration staff. Therefore, the moving track on the map and the moving target in the camera live view page of the calibration page need to be matched at the same time to ensure the track is valid.

- Under calibration mode, it takes 10 s to upload a new track after the moving track disappears on the map page.
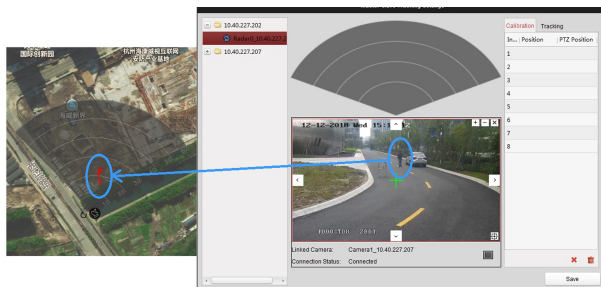
Figure 5-7 Valid Track

2. When the calibration staff keeps standing at the calibration point, click and select a coordinate in the **Calibration Position** list on the right. The radar coordinate of the target and the current PTZ position of the speed dome show in the list , and a target sign **+** shows on the radar field diagram.
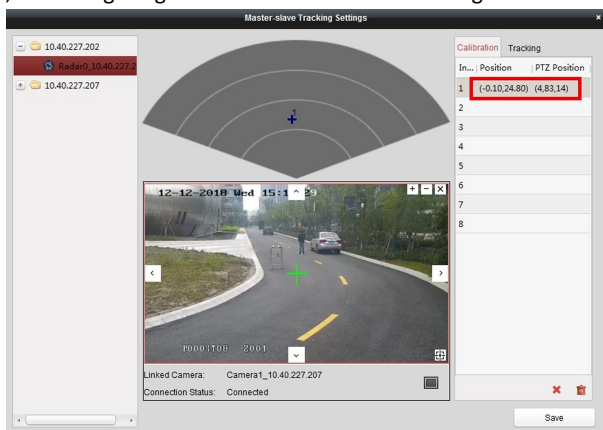
Figure 5-8 Acquire the Current Coordinate Position

3. In the real-time scene of the speed dome, adjust the altitude of the target to two-thirds of the height of real-time scene by clicking **+** and **-** on the upper right corner, and then click the direction buttons to align the central sign **+** with the calibration staff in the scene.
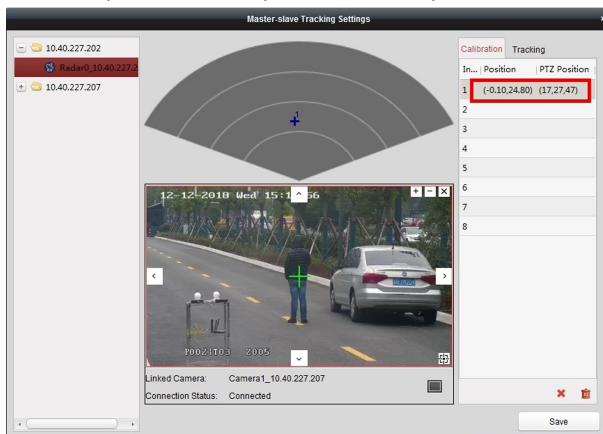
Note

If the central sign **+** cannot be aligned with the calibration target by the direction buttons, you can click ⊞ to enable 3D location, and then click the center of the target to automatically align the central sign with the target.

4. After adjusting the target location in the real-time scene of the speed dome, you need to click the coordinate again in the **Calibration Position** list on the right, and then the PTZ position of the speed dome will update.

Figure 5-9 One Point Calibration

Note

Please check if the radar coordinate is changed when locating the coordinate, the radar coordinate of target should not be changed if the target does not move. If the radar coordinate updates, check if there are more targets in the real-time scene of the speed dome and the track is produced by the calibration staff, and then re-calibrate the calibration point from step 1.

5. Click **Save** to save the calibration point.

Note

Before the calibration point is saved, the calibration staff needs to stand still and does not move (moving will change the radar coordinate, and results in calibration error).

5.3.2 Multi-Point Calibration

Steps

1. Select calibration positions (equally distributed) in the radar detection area, you can refer to the following figure to select positions.

**Figure 5-10 Multi-Point Distribution Instance**

> **⌷ Note**
>
> It is required to set at least four calibration positions (equally distributed) when you are setting multi-point calibration.

2. According to the calibration positions, ask the calibration staff to move to the first calibration position to produce a valid track. Standing at the first calibration position, refer to step 2 ~ step 4 in *One Point Calibration* to calibrate the first calibration point.

3. After calibrating the first calibration point, you need to click the next coordinate in the **Calibration Position** list on the right, and then the calibration staff moves to the second calibration position to produce a valid track. Standing at the second calibration position, you can calibrate the second calibration point. Follow this process to complete all calibration point positioning in turn.
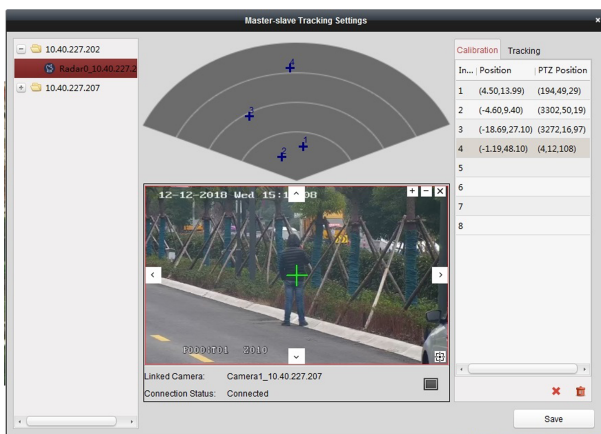
Figure 5-11 Multi-Point Calibration

Note

The radar coordinate of the current coordinate point in **Calibration Position** list changes as the calibration staff moves and produces a valid track. Therefore, every time a calibration point is calibrated completely, the calibration staff must stand in place. When the next coordinate point is selected in **Calibration Position** list, the calibration staff can move again.

4. After all calibration points is calibrated completely, click **Save**.

Note

If click **Save** when only 2 or 3 calibration points is completed, there will be a pop-up box indicating that the calibration points are illegal.

5.4 Enable Camera Tracking

Enable the tracking function after calibration to make the linked camera be able to track with the detected target.

Steps

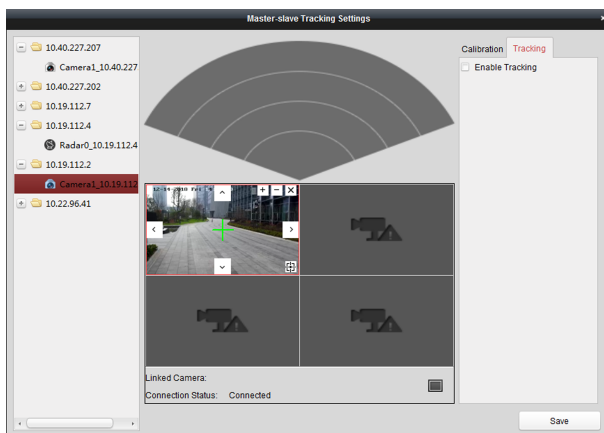1. In iVMS-4200, click **Control Panel → Radar → ... → Master-Slave Tracking Settings → Tracking** to enter the page.

Figure 5-12 Enable Camera Tracking

2. Check **Enable Tracking**.

3. Click **Save**.

5.5 Set Tracking Strategy

Steps

1. Select the radar and click **Remote Configuration** in iVMS-4200, or enter the radar IP address in the address bar of the web broswer. Click **Smart Rule Settings → Tracking Strategy** to enter the page.

2. Select **Time Priority**, **Range Priority**, or **Multi-Target Auto Switch** as the strategy. The camera will record the intrusion till the target leave warning zone.
   Time Priority

   Record the first target that intrude the zone.

   Range Priority

   Record the target that has the shortest distance away from the radar.

   Multi-Target Auto Switch

   Switch the target automatically when there are multiple targets in the zone.

3. Click **Save** to complete.

5.6 Set Storage Schedule

Before You Start

- Make sure your computer has already installed the **Storage Server** that should be selected as the component when installing client.

- Activate and add the storage server to the client before setting storage schedule, you can refer to *User Manual of iVMS-4200 Client Software*.

Steps

1. In iVMS-4200, click **Tool → Storage** to enter the page.

2. Select the camera in the Camera Group list.

3. Select a storage server from the **Storage Server** drop-down list.

4. Set **Recording Schedule** switch to ON to enable storing the vedio files.

5. Select the schedule template for recording from the drop-down list.

6. Click **Save**.

   🛈 **Note**

   For detailed settings, please refer to *User Manual of iVMS-4200 Client Software*.

6 Alarm Settings

6.1 Alarm Center

You can set the alarm center's parameters and all alarms will be sent to the configured alarm center.

Steps

1. Click **Communication Parameters → Alarm Center Parameters** to enter the Alarm Center Settings page.

Figure 6-1 Alarm Center Parameters

2. Select a protocol type from the drop-down list, select a server address type from the drop-down list, set the server address, port No., and the user name.

ⓘ Note

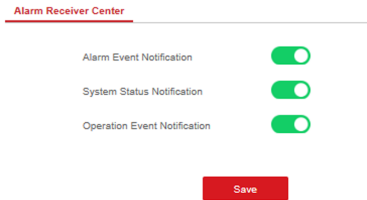The protocol type HTTP is the Hikvision private protocol.

3. Click **Save**.

6.2 Notification Push

When an alarm is triggered, if you want the send the alarm notification to the client, alarm center, cloud or mobile client, you can set the notification push parameters.

Steps

1. Click **Communication Parameters → Message Notification** .

Figure 6-2 Notification Push

2. Enable the target notification.

Alarm Event Notification

> The device will push notifications when the zone alarm is triggered or restored.

System Status Notification

> The device will push notifications when any status in the system is changed.

Operation Event Notification

> The device will push notifications when the user operate the device.

3. Click **Save**.

6.3 Set Zone

Steps

1. Select the radar and click **Remote Configuration** in iVMS-4200, or enter the radar IP address in the address bar of the web browser. Click **Alarm Module Parameters → Zone** to enter the page.

Figure 6-3 Set Zone

2. Select a zone, and click the configuration icon to edit the zone name and zone type.

3. Click **OK** to complete.

6.4 Set Alarm Output

Steps

1. Select the radar and click **Remote Configuration** in iVMS-4200, or enter the radar IP address in the address bar of the web browser. Click **Alarm Module Parameters → Alarm Output** to enter the page.

| Relay	Relay Name	Output Time	Configuration
1	test1	0	⚙
2	hikvisiontestcenter	300	⚙
3	test2	60	⚙
4	test3	180	⚙

Figure 6-4 Alarm Output

2. Select an alarm output, and click the configuration icon to enter the page.

3. Edit the alarm output name, and output time.

4. Set alarm output linkage. Link the alarm output with zone event, system event, and arming/disarming operation.

5. Click **OK** to save.

6. Click **Delete** to delete a selected period. Click **Delete All** to delete all periods in the time table.

6.5 Set Arming/Disarming Schedule

Steps

1. Select the radar and click **Remote Configuration** in iVMS-4200, or enter the radar IP address in the address bar of the web browser. Click **Smart Rule Settings → Arming/ Disarming Schedule** to enter the page.
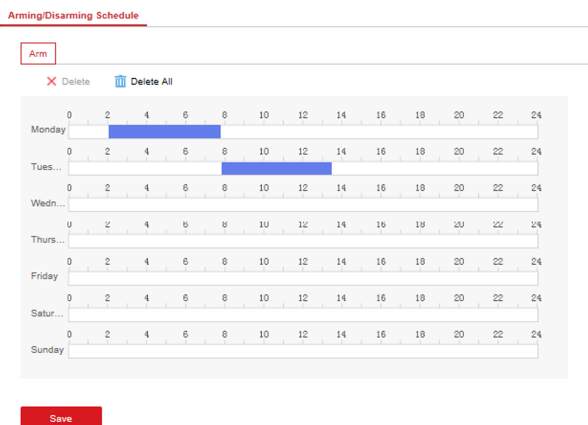
Figure 6-5 Arming/Disarming Schedule

2. Drag the mouse to draw the period bar on the time table, or click the period bar and enter the start and end time.

ⓘ Note

You can set two arming/disarming periods each day.

3. Click **OK** to save.
4. Click **Delete** to delete a selected period. Click **Delete All** to delete all periods in the time table.

7 Set Radar Advanced Function

7.1 Set Detection Angle and Range

Steps

1. Select the radar and click **Remote Configuration** in iVMS-4200, or Enter the radar IP address in the address bar of the web browser. Click **Radar Settings →** **Detection Angle and Range** to enter the page.
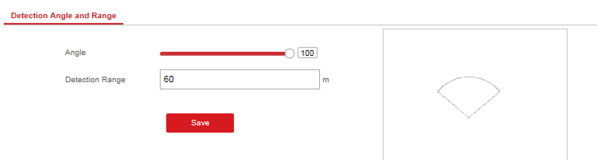

Figure 7-1 Set Detection Angle and Range

2. Slide the block to set the radar angle, and enter the detection range.

3. Click **Save** to complete.

7.2 Set Scene Mode and Sensitivity

Steps

1. Select the radar and click **Remote Configuration** in iVMS-4200, or Enter the radar IP address in the address bar of the web browser. Click **Radar Settings →** **Sensitivity Settings** to enter the page.
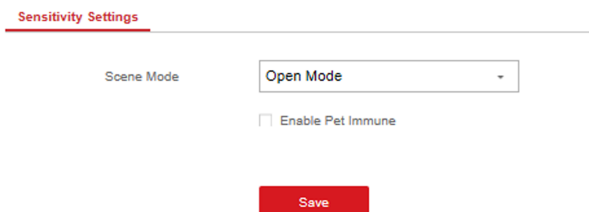

Figure 7-2 Sensitivity

2. Select **Open Mode**, **Shrub Mode**, or **Expert Mode** as the radar sensitivity mode.
Open Mode

> There are no large objects in the radar detection area.

Shrub Mode

> There are shrubs and other objects that are likely to swing in the radar detection area. The shrub mode can also used to decrease the interference of rainstorm.

Expert Mode (Custom Mode)

> You can set tracking sensitivity, swing sensitivity, and signal sensitivity according to actual scenario requirements.

3. Click **Save** to complete.

7.3 Set Environment Learning

To ensure the accuracy of radar detection, if there are large objects in the detection area, you need to remove the objects and make the radar complete the environment learning.

Steps

1. Select the radar and click **Remote Configuration** in iVMS-4200, or enter the radar IP address in the address bar of the web browser. Click **Radar Settings → Environment Learning** to enter the page.

Environment Learning

Manual Learning   Mandatory Manual Learning

Figure 7-3 Environment Learning

2. Click **Mandatory Manual Learning** to complete.

8 System Management

8.1 Set Time

Steps

1. Select the radar and click **Remote Configuration** in iVMS-4200, or enter the radar IP address in the address bar of the web browser. Click **System → Time Management** to enter the page.

Figure 8-1 Time

2. Set the time zone and synchronization method.
3. Click **Save**.

8.2 Manage User

Steps

1. Select the radar and click **Remote Configuration** in iVMS-4200, or enter the radar IP address in the address bar of the web browser. Click **System → User** to enter the page.

User Management

Edit Default Password

No.	User Name	User Type
1	admin	Administrator

Figure 8-2 User

2. Select the admin account, and click **Edit** to edit the admin information.

8.3 System Maintenance

You can reboot the device, restore default settings, import/export configuration file, or upgrade the device remotely.

Select the device and click **Remote Configuration** in iVMS-4200, or enter the device IP address in the address bar of the web browser. Click **System → Maintenance** to enter the Upgrade and Maintenance page.

Figure 8-3 System Maintenance

Restart

Click **Reboot** to reboot the device.

Restore Default Settings

Click **Partly Restore** to restore all parameters except for admin user information, wired network, Wi-Fi network, detector information, and peripheral information to default ones.

Click **Restore All** to restore all parameters to the factory settings.

Import Parameters

Click **View** to select configuration file from the PC and click **Import Configuration File** to import configuration parameters to the device.

Export Parameters

Click **Export Configuration File** to export the device configuration parameters to the PC.

Upgrade File

Click **View** to select an upgrade file from the PC and click **Upgrade** to upgrade the device remotely.

⌊ⅈ⌋ Note

Do not power off when the device is upgrading.

8.4 View Device Information

Select the device and click **Remote Configuration** in iVMS-4200, or Enter the device IP address in the address bar of the web broswer. Click **System Device →Information** to enter the page.

8.5 Search Log

Steps

1. Select the device and click **Remote Configuration** in iVMS-4200, or enter the device IP address in the address bar of the web browser. Click **System → Local Log Search** to enter the page.
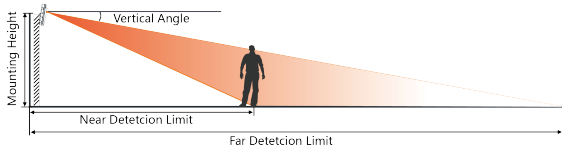

Figure 8-4 Log

2. Select **Log Type** and **Time**, and click **Search** to get the log list.

A. Radar Mounting Height Recommendation

The recommended installation height is 2 to 3 m.

The following table shows the detection range at different mounting heights.

Figure A-1 Radar Mounting Height and Detection Range
Table A-1 Radar Mounting Height and Detection Range

Mounting Height	Vertical Angle	Far Detction Limit	Near Detection Limit
1.5 m	0°	59 m	1.91 m
1.5 m	3°	59.2 m	1.98 m
1.5 m	6°	59.4 m	1.87 m
1.5 m	9°	52 m	2.3 m
2.0 m	0°	59.4 m	1.8 m
2.0 m	3°	59.4 m	2.19 m
2.0 m	6°	59 m	1.72 m
2.0 m	9°	59.62 m	2.2 m
3.0 m	0°	58.4 m	4.62 m
3.0 m	3°	59.6 m	4.21 m
3.0 m	6°	59.51 m	3.42 m
3.0 m	9°	58 m	2.9 m

Mounting Height	Vertical Angle	Far Detction Limit	Near Detection Limit
3.5 m	0°	57.17 m	5.5 m
3.5 m	3°	59.5 m	3.9 m
3.5 m	6°	58.51 m	3.86 m
3.5 m	9°	56.25 m	3.8 m
4.0 m	0°	58 m	7.36 m
4.0 m	3°	59.4 m	5.7 m
4.0 m	6°	58.5 m	5.6 m
4.0 m	9°	59.79 m	4.4 m

B. Formatting Description

You can restore all parameters to default settings for formatting the security radar by the reset button.
You can format the device as follows.

Steps

1. Power off the radar, and then hold the reset button while powering the radar on.

2. Keep holding until the red and green LED flashes for six times, then release the reset button and the radar will restart again.

3. All parameters will be restored to default values after the radar restarts, and you need to reactivate the radar.

C. Indicator Description

The indicator status description of the radar:

Table C-1 Indicator Description

Indicator	Status
Solid Green	Radar Powered on
Solid Red	Zone Alarm Occurred
Flashing Red and Green	Radar Network Disconnection/Radar Exception

D. FAQ

D.1 How to Achieve an Optimum Detection Range?

Answer:

You can refer to *Radar Mounting Height Recommendation* for installation of radar, and you should test the radar after installation to make sure it is properly mounted. The far detection limit of the radar should be more than 58 m, and the near detection limit should be no more than 8 m. The test method is as follows:

The near detection distance: Arrange a tester to move directly below the radar installation position towards the radar detection area. When the target track first appears in the detection area, the tester stops moving. The radial distance between the current tester and the radar installation position is measured and recorded, which is the near detection distance.

The far detection distance: Arrange a tester to move from the directly ahead of the radar and far away from the radar installation position (outside the radar detection area) to the radar detection area. When the target track first appears in the detection area, the tester stops moving. The radial distance between the current tester and the radar installation position is measured and recorded, which is the far detection limit.

ⓘ Note

- Make sure that there is only one target (tester) in the detection area.
- When testing the far detection distance, the tester is required to move along the center normal of the detection area, to ensure optimum far detection distance.

According to the tested near detection distance and far detection distance, and refer to *Table A-1 Radar Mounting Height and Detection Range* to adjust the radar mounting angle. The radar mounting angle can be adjusted in the following ways:

- If the radial distance between the radar and the target (track) is more than 8 m, you should adjust the radar downward for about 3°.
- If the farthest radial distance of the radar is less than 58 m, you should adjust the radar upward for about 3°.

D.2 How to Adjust the Sensitivity to Avoid False Alarm?

Answer:

- If there are shrubs in the radar filed, set the radar sensitivity mode as **Shrub Mode**, which helps avoid the false alarm caused by gale, storm, or shrub swing.
- If **Shrub Mode** is not satified, set the sensitivity mode as **Expert Mode** (Custom Mode). Set the **Signal Sensitivity** less than or equal to two, the **Swing Sensitivity** less than five, and the **Tracking Sensitivity** less than or equal to five.

D.3 How to Raise the Precision of Camera Tracking?

Answer:

- Check if the speed dome initial position is set, if not, please set the speed dome initial position.
- Check if the calibration points are correct. Pay attention to the situation that the target is intercepted when calibrating. If the calibration points are error, please calibrate again.
- Check if the calibration positions is equally distributed when you set the multi-point calibration.
- Do not move the speed dome manually after the calibration. If the speed dome is manually moved, please reset the initial position of the speed dome and then calibrate again.

D.4 How to Solve the Problem that No Reference Point is on the Frame While Setting the Speed Dome Initial Position?

Answer:

If the speed dome is tilted, it may cause that the reference point is above the center of the frame or outside the frame while setting the speed dome initial position. In this case, you should adjust the maximum elevation angle of the speed dome as follows.

Steps

1. Enter the IP address of the speed dome in the web browser to enter the web client.
2. Click ▌to expand the PTZ list on the **Live View** page, and then click ☰ to enter the main menu of the speed dome.
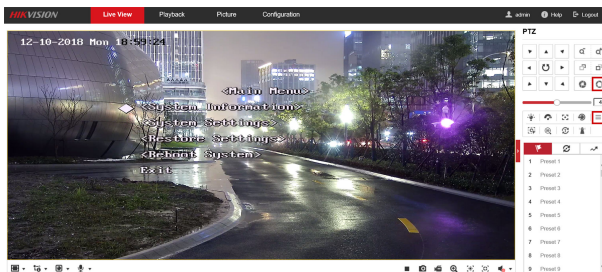
Figure D-1 The Main Menu of Speed Dome

☐ⁱ Note

You can adjust the cursor for menu selection by clicking the up and down direction keys in the PTZ list, and click ⟳ to enter the selected item.

---

3. Adjust the cursor to **System Settings** in the main menu and click ⟳ . And then adjust the cursor to **Motion** and click ⟳ to enter the page.
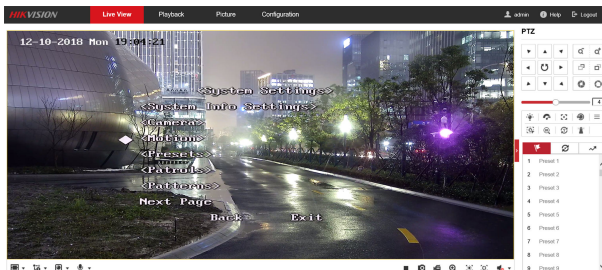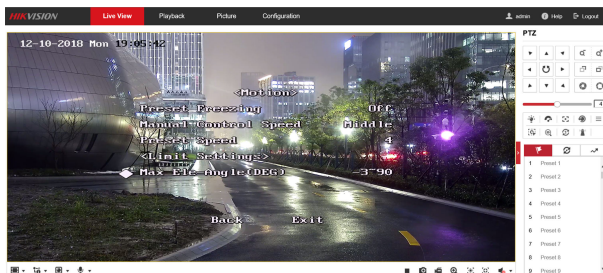

Figure D-2 Motion

4. Adjust the cursor to **Next Page** in the sport mode menu and click ⟳ . And then adjust the cursor to **Max Ele Angle (DEG)** and click ⟳ to enter the page.

Figure D-3 Maximum Elevation Angle Adjustment

5. Click up and down direction keys in the PTZ list to adjust the maximum elevation angle, and then you need to click ⟳ to save the settings.

6. Adjust the cursor to **Exit** to exit the menu.

⍰ Note

You need to reset the speed dome initial position after the maximum elevation angle adjustment.

D.5 What is the Reason that Failed to Draw a Zone Automatically?

Answer:

- The main reason is that the moving target (with track) does not form a closed-loop. You can check if there is a clear intersection of the track in the zone drawing page. If the track does not closed, the drawn zone will be recognized as an invalid zone.

- When the object is moving for drawing a zone, if the track of the target is lost and then appear again on the zone drawing page, and the distance between lost position and the position the target appeared again is too far, the settings will be failed.

D.6 What Makes a Failed Arming?

Answer:

The following two conditions will make a failed arming:

- There are moving objects in the warning zone of radar.
- The current status of radar is offline.

D.7 Why Is It Required to Remove Reflective Objects from the Radar Area?

Answer:

- When there are reflective objects in the radar application scene, such as flat glass or large-area metal objects, the radar will produce multipath effects, that is, the people reflect the signal from the radar to the large-area metal objects or flat glasses, and the large-area metal objects or flat glasses reflect the signal again to the receiving end of the radar, thus there will be a false alarm. Since the glasses are flat and the reflection is concentrated, there may be a false alarm when there are glasses in the radar scene.
- The higher the sensitivity, the more probability to trigger a false alarm.

See Far, Go Further