

HIKVISION



Hikvision iDS-TCV9(5)07 Breve Manual (Radar trigger)

User Manual

COPYRIGHT ©2017 Hangzhou Hikvision Digital Technology Co., Ltd.

ALL RIGHTS RESERVED.

Any and all information, including, among others, wordings, pictures, graphs are the properties of Hangzhou Hikvision Digital Technology Co., Ltd. or its subsidiaries (hereinafter referred to be “Hikvision”). This user manual (hereinafter referred to be “the Manual”) cannot be reproduced, changed, translated, or distributed, partially or wholly, by any means, without the prior written permission of Hikvision. Unless otherwise stipulated, Hikvision does not make any warranties, guarantees or representations, express or implied, regarding to the Manual.

About this Manual

This Manual is applicable to the intelligent transportation system.

The Manual includes instructions for using and managing the product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please use this user manual under the guidance of professionals.

Trademarks Acknowledgement

HIKVISION and other Hikvision’s trademarks and logos are the properties of Hikvision in various jurisdictions. Other trademarks and logos mentioned below are the properties of their respective owners.

Legal Disclaimer

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THE PRODUCT DESCRIBED, WITH ITS HARDWARE, SOFTWARE AND FIRMWARE, IS PROVIDED “AS IS”, WITH ALL FAULTS AND ERRORS, AND HIKVISION MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY, SATISFACTORY QUALITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT OF THIRD PARTY. IN NO EVENT WILL HIKVISION, ITS DIRECTORS, OFFICERS, EMPLOYEES, OR AGENTS BE LIABLE TO YOU FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, OR INDIRECT DAMAGES, INCLUDING, AMONG OTHERS, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, OR LOSS OF DATA OR DOCUMENTATION, IN CONNECTION WITH THE USE OF THIS PRODUCT, EVEN IF HIKVISION HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

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.

Contents

CHAPTER 1	OVERVIEW	4
1.1	OBJECTIVE	4
1.2	TARGET READER.....	4
1.3	SAFETY PRECAUTIONS	4
CHAPTER 2	DEVICE ACTIVATION	5
CHAPTER 3	CAMERA CONFIGURATION	8
3.1	UPGRADING PROGRAM AND RESTORING DEFAULT SETTINGS.....	8
3.2	MODIFYING TIME ZONE	8
3.3	SET LICENSE PLATE RECOGNITION PARAMETERS.....	9
3.4	CHECKING SERIAL PORT	9
3.5	CONFIGURING APPLICATION MODE PARAMETER.....	10
3.6	CONFIGURING FLASH LIGHT PARAMETERS	12
3.7	CONFIGURING IMAGE PARAMETERS.....	12
3.8	CONFIGURING TEXT OVERLAY PARAMETERS	12
CHAPTER 4	RADAR DETECTION.....	13

Chapter 1 Overview

1.1 Objective

This manual is designed to provide standard engineering guidelines for the construction and configuration of the All-in-one Traffic Camera.

1.2 Target Reader

This manual is written for implementation and maintenance personnel who will install and configure the All-in-one Traffic Camera.

1.3 Safety Precautions

- Road in construction should be semi-closed to avoid risk. And the construction area should be surrounded with enough reflective cones as cautions.
- Constructors should wear reflective vests on site.
- Constructors must fasten safety lines when working at high places, and wear hardhats when working on scaffold or portal frame.
- Do not rise or fall the ladder truck sharply during operation.
- Be sure to cut off the power supply before installing devices or connecting wires.

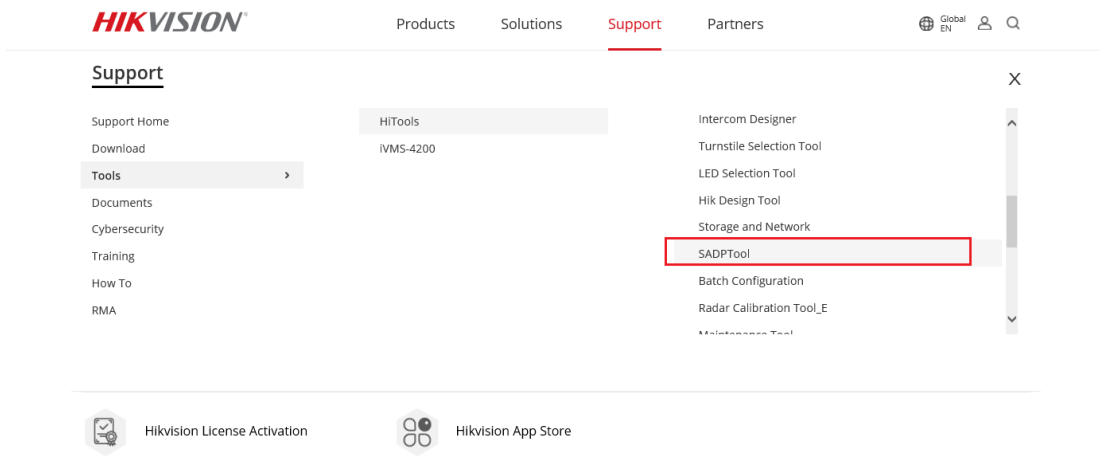
Chapter 2 Device Activation

Purpose:

For the first use of the camera, you need to activate the device by setting an admin password. No operation is allowed before activation. You can activate the device via SADP.

Steps:

1. Download SADP from the official website ‘<https://www.hikvision.com/en/>’.



2. Run the software.

SADP will automatically search all online devices in LAN. The results are displayed in sheet, with device type, IP address, security status, device serial No. and many other information, as shown in the figure below.

ID	Device Type	Security	IPv4 Address	Port	Software Version	IPv4 Gateway	HTTP Port	Device Serial No.	Subnet Mask	MAC Address	Encry
001	IDS-2CD9022-SZ	Active	10.5.0.206	8000	V4.1.1build 1603...	10.5.0.254	80	IDS-2CD9022-SZ 0120170309B0CCR...	255.255.255.0	18-68-cb-0a-db-...	1
002	IDS-2CD9131-S	Active	10.5.0.203	8000	V4.1.2build 1605...	10.5.0.254	80	IDS-2CD9131-S 0120170308B0CCR...	255.255.255.0	18-68-cb-0a-db-...	1
003	IDS-2CD9371-IS	Active	10.5.0.202	8000	V4.1.1build 1612...	0.0.0.0	80	IDS-2CD9371-IS 0120170505B0CCR...	255.255.255.0	18-68-cb-63-cb-f4	1
004	IDS-2CD9131-IS	Active	10.5.0.201	8000	V4.1.1build 1703...	10.5.0.254	80	IDS-2CD9131-IS 0120160319B0CCR...	255.255.255.0	bc-ad-28-07-53...	1
005	IDS-2CD9371-S	Inactive	192.0.0.64	8000	V4.1.1build 1603...	0.0.0.0	80	IDS-2CD9371-S 0120160711B0CCR...	255.255.255.0	bc-ad-28-c6-fc-58	1
006	IDS-2PT9122IX-D/S	Active	10.5.0.66	8000	V5.4.7build 1703...	10.5.0.254	80	IDS-2PT9122IX-D/S20170605CCWR...	255.255.255.0	18-68-cb-b7-0c-c6	0
007	DS-IE6332-E/FA	Active	10.5.0.220	8088	V1.1.0build 1703...	10.5.0.254	80	DS-IE6332-E/FA20170331CH740824...	255.255.255.0	54-c4-15-df-11-c6	0
008	DS-2CD6362F-IVS	Active	10.5.0.15	8000	V5.4.41build 170...	10.5.0.254	90	DS-2CD6362F-IVS20150321CCWRS...	255.255.255.0	c0-56-e3-7c-68-b9	0
009	DS-2CD2T85FWD-IS	Active	10.5.0.2	8000	V5.4.5build 1701...	10.5.0.254	80	DS-2CD2T85FWD-IS20170420AAWR...	255.255.255.0	18-68-cb-4e-35...	0

Figure 2-1 SADP Search Interface

3. Check the capture camera to be activated to pop up the **Activate the Device** window on the right.
4. Set capture camera password in the popup window.
5. Click **Activate** to complete activation.

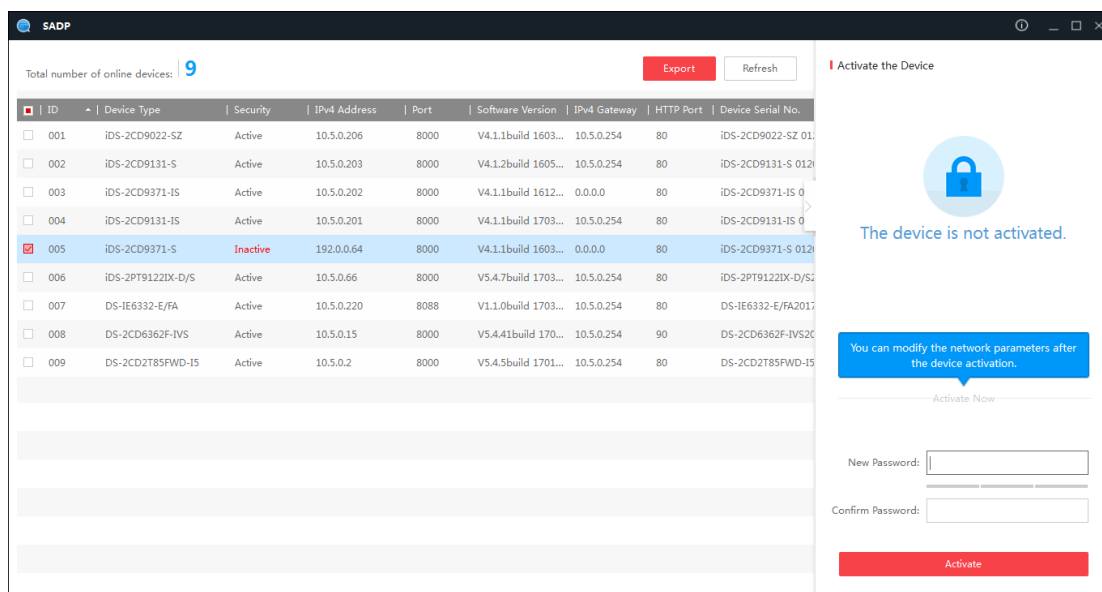


Figure 2-2 Activate the Capture Camera

- Check the activated camera to pop up the **Modify Network Parameters** window on the right.
- Enter camera IP address, subnet mask and admin password.
- Click **Modify** to finish IP settings.

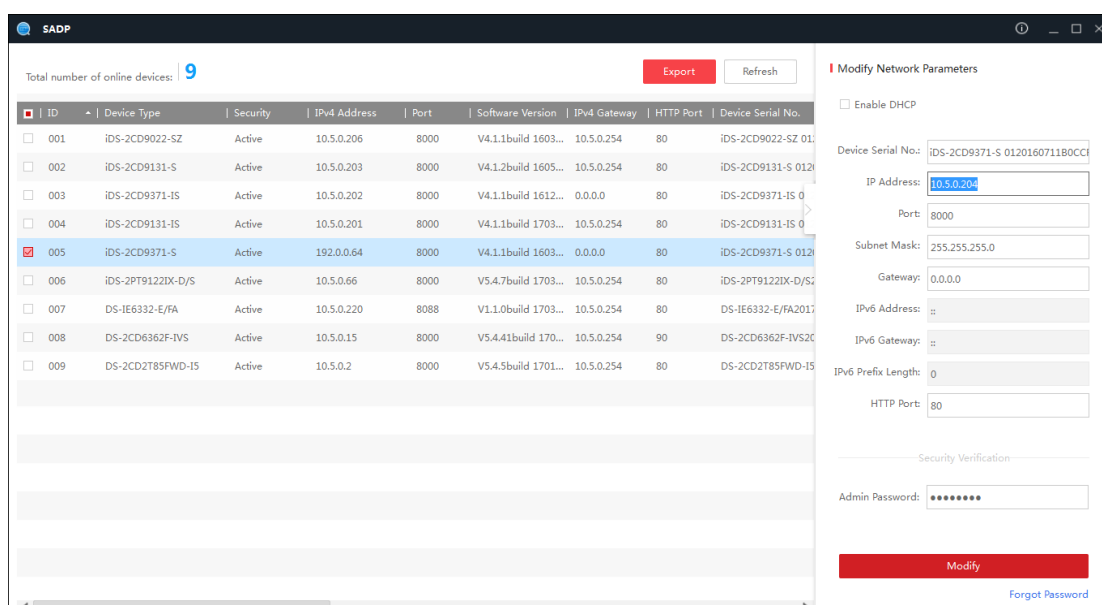


Figure 2-3 Modify Camera IP Address

- Modify the computer's IP address to be in the same network segment as the camera.

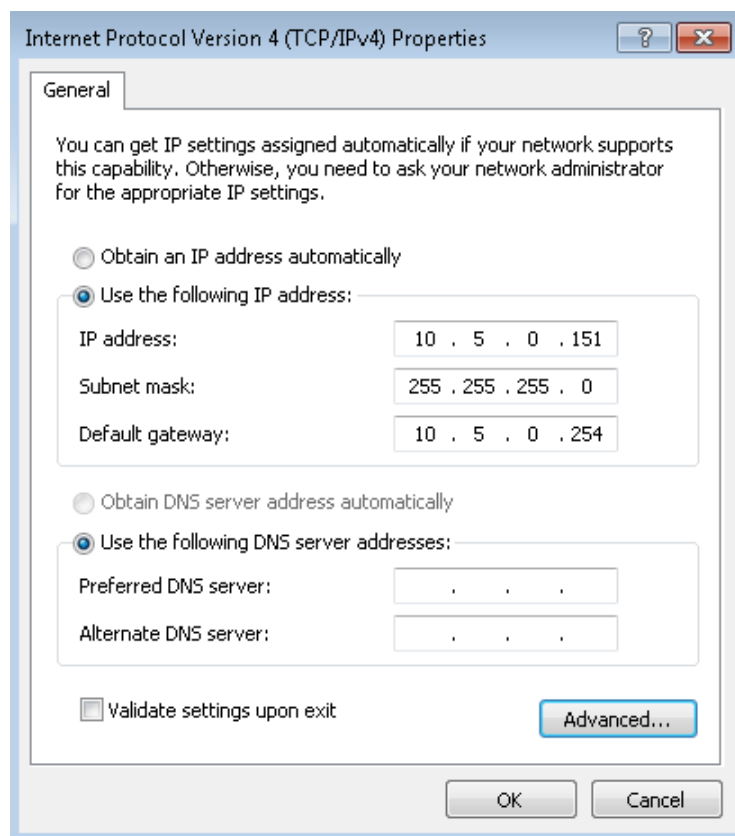


Figure 2-4 Modify Computer IP Address

10. Using Chrome or IE browser to login the camera.

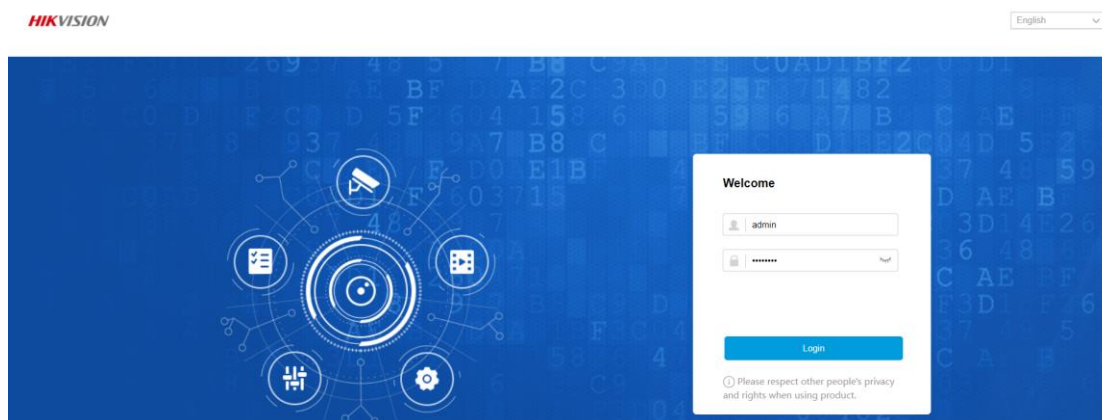


Figure 2-5 Login

Chapter 3 Camera Configuration

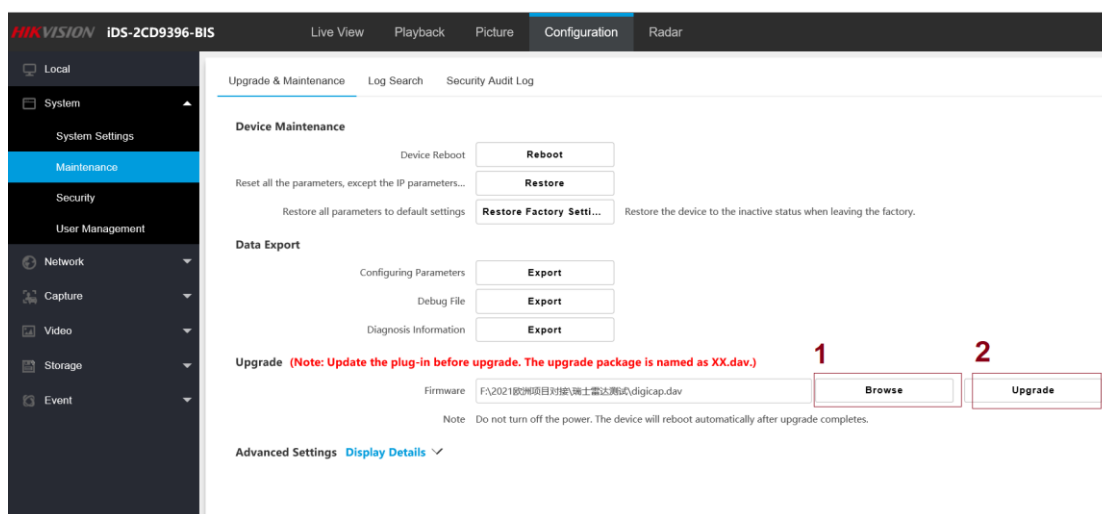
3.1 Upgrading Program and Restoring Default Settings

Steps:

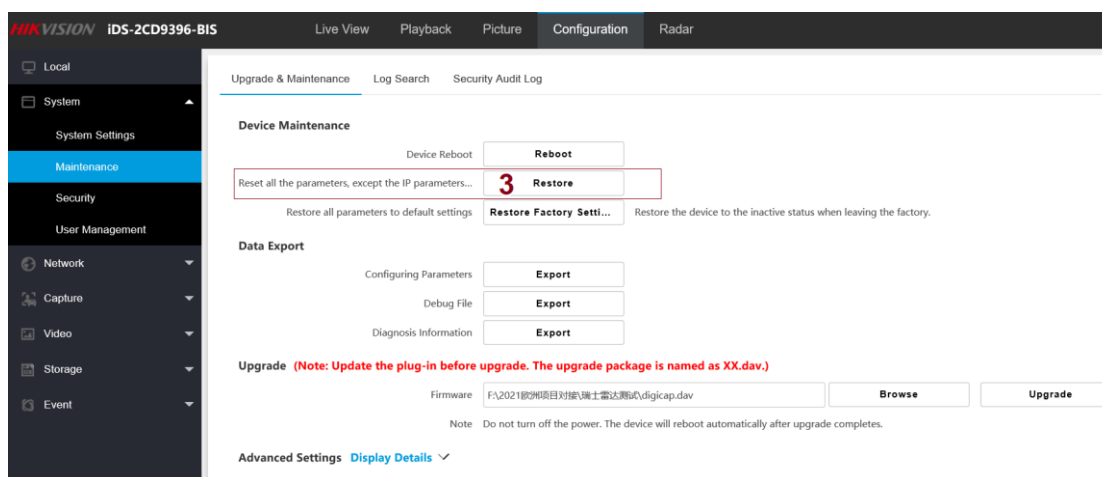
Go to **Configuration > Capture Maintenance**.

Steps:

1. Choose Firmware.
2. Click Upgrade.



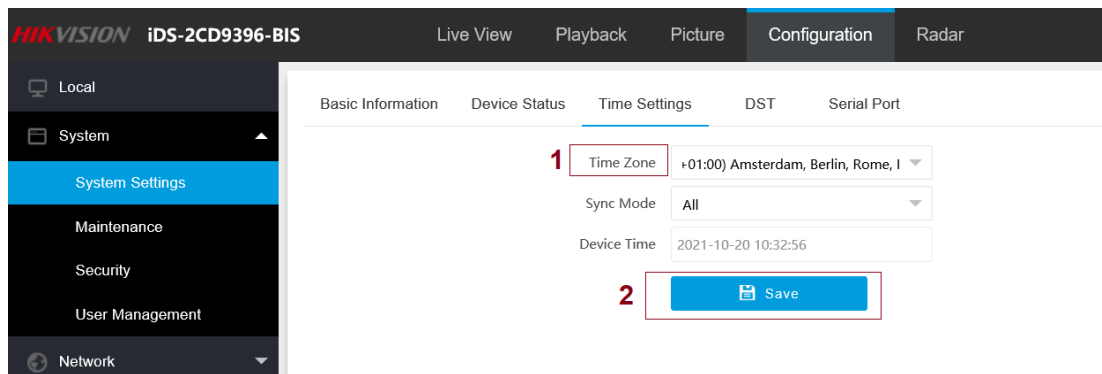
3. Restore the camera.



3.2 Modifying Time Zone

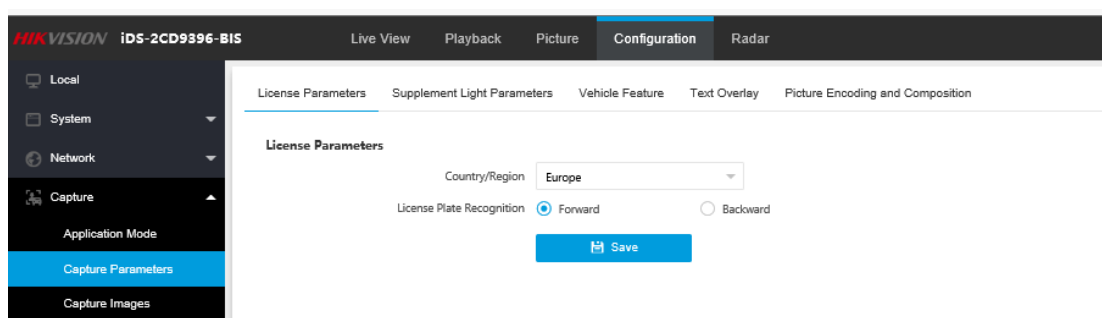
Steps:

1. Go to **Configuration > System Setting > Time Settings**.
2. Select **Time Zone**.

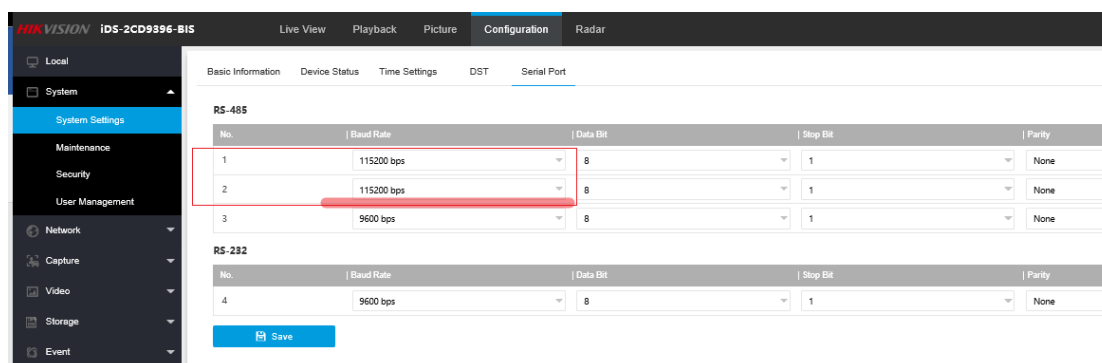
3. Click **Save**.

3.3 Set License Plate Recognition Parameters

1. Go to Configuration → Capture → Capture Parameters → License Parameters.
2. Set Country/Region according to the actual needs.
3. Select License Plate Recognition.
 - Select **Forward** when license plates of vehicles from the approaching direction need to be recognized.
 - Select **Backward** when license plates of vehicles from the leaving direction need to be recognized.



3.4 Checking Serial port

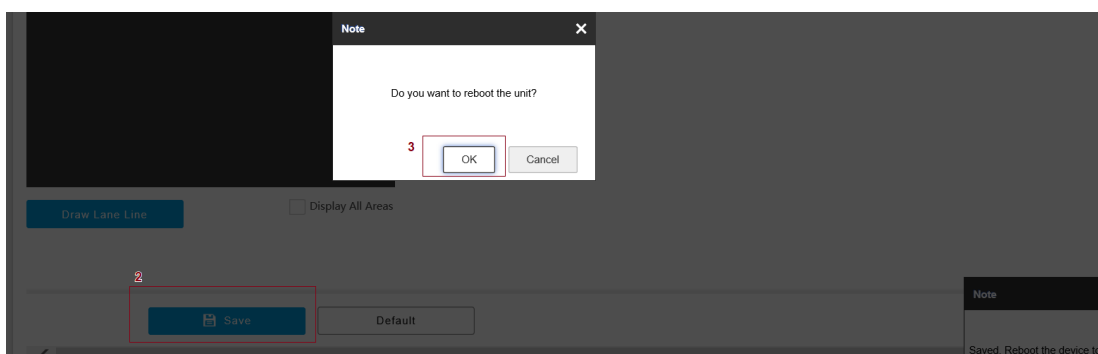
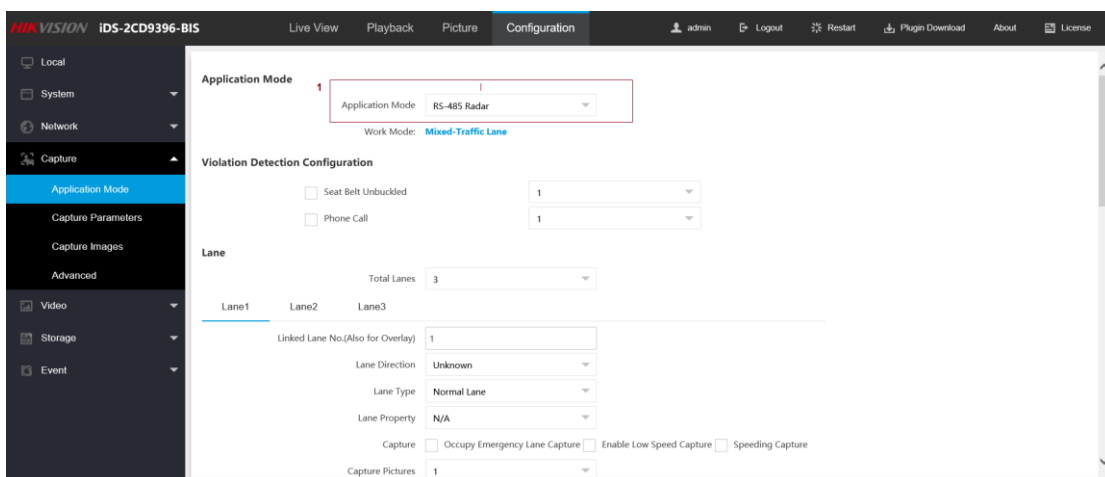


3.5 Configuring Application Mode Parameter

Go to **Configuration > Capture > Application Mode**.

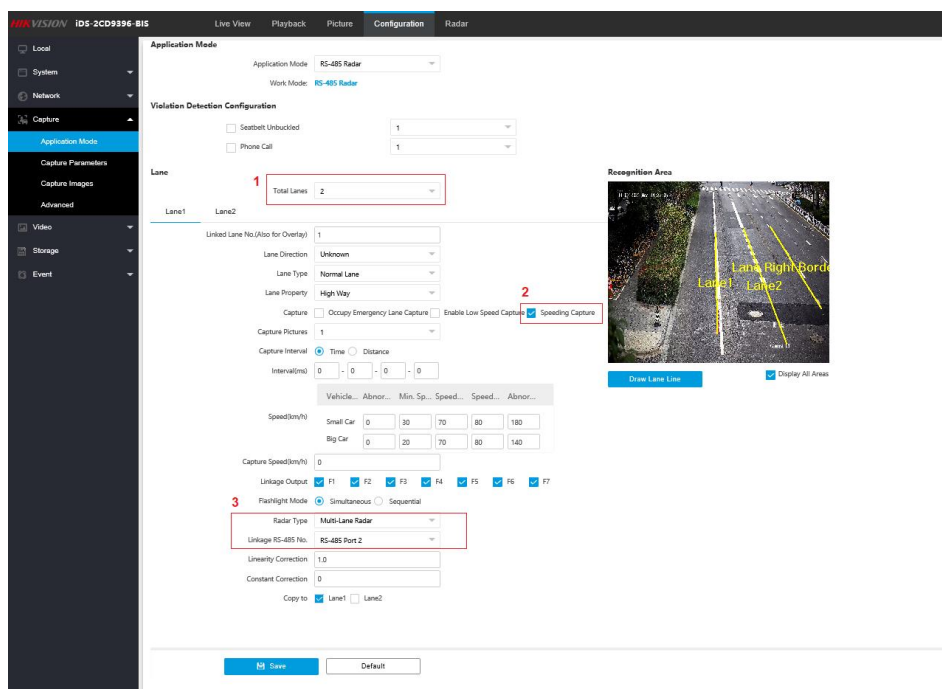
Steps:

1. Click RS-485 Radar.
2. Scroll down to save.
3. Reboot the camera.



4. Total Lanes

The sum of the linked lane(s) under the current application mode.



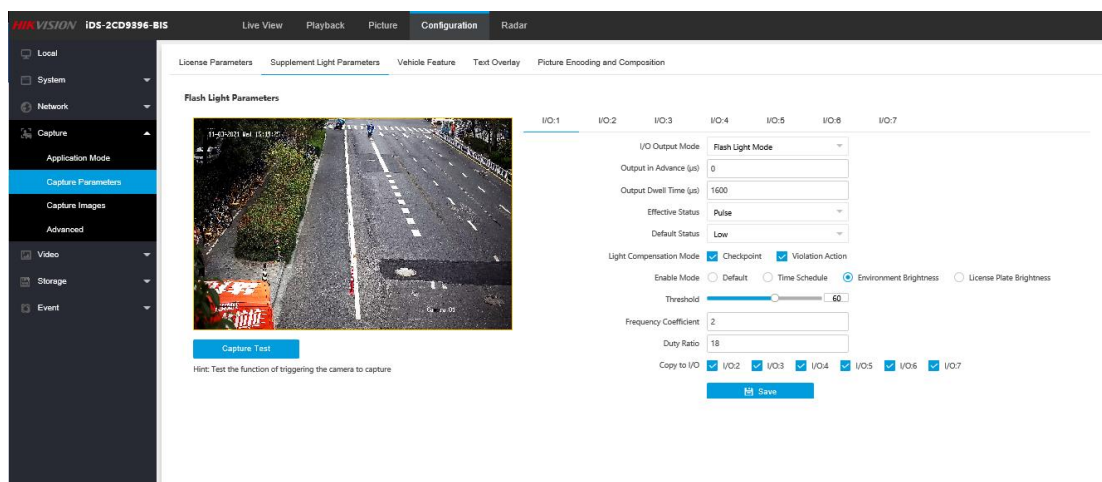
Select the connected radar type and choose RS-485 port2, because the radar's RS485 wire was connected with port2.

- Click "Draw Lane line".



- Click Save.

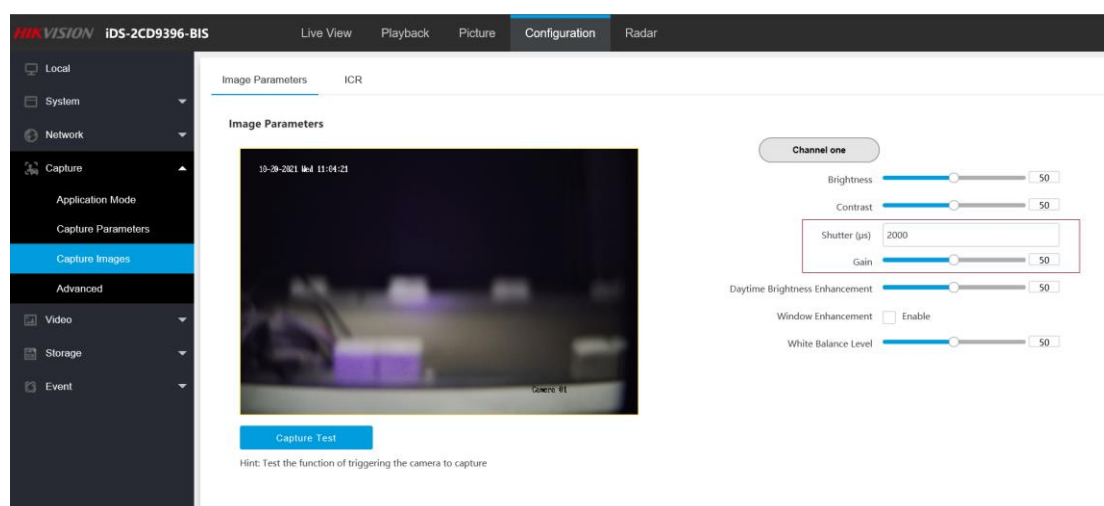
3.6 Configuring Flash Light Parameters



3.7 Configuring Image Parameters

Steps:

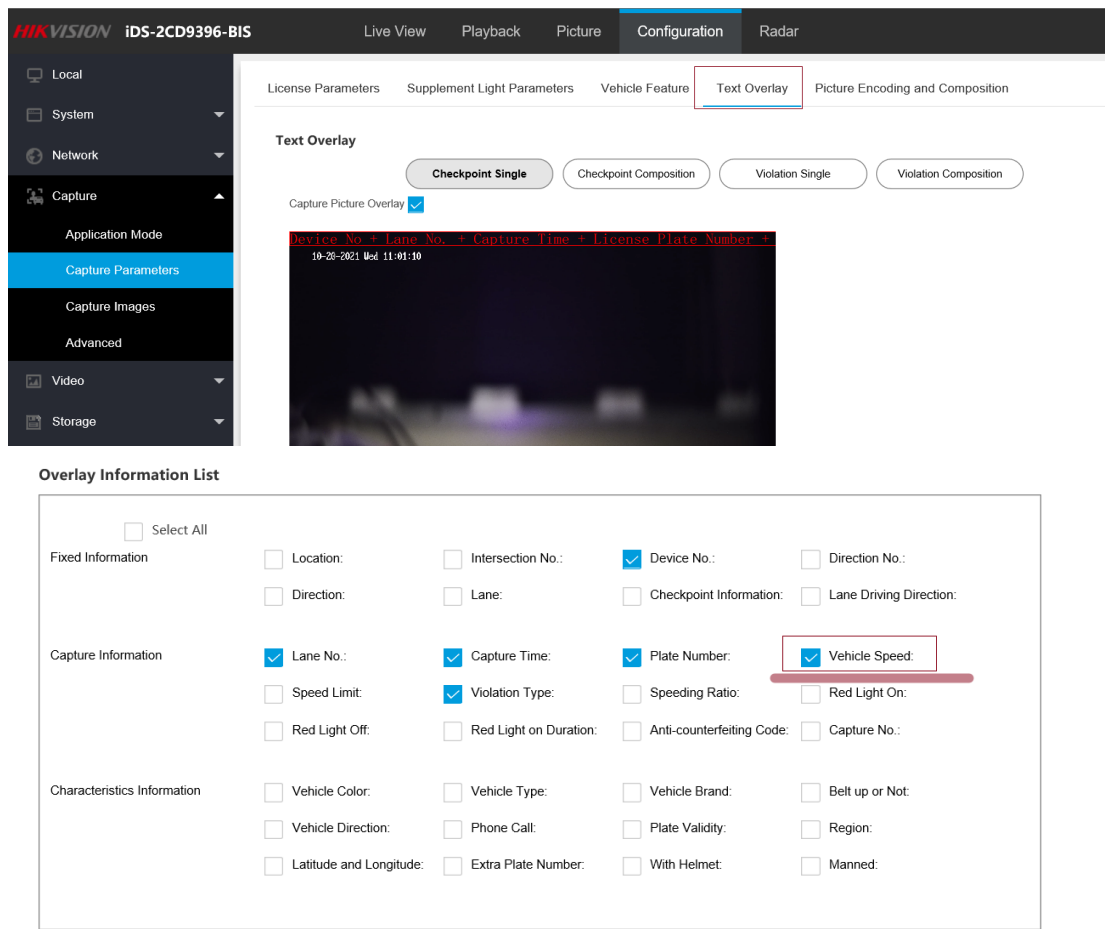
1. Keep parameters as default. If necessary, you can adjust **Shutter and Gain**.
2. **Shutter** should be in the range of 800~4000. Normally set it as default 2000.
3. Change **Gain** value according to the captured picture brightness. The bigger the value is, the brighter the picture will be. The recommended value is between 40 and 70.



3.8 Configuring Text Overlay Parameters

Steps:

1. Go to Configuration > Text Overlay
2. Enable Vehicle Speed.



Chapter 4 Radar Detection

Before You Start

Select the application mode as **RS-485 Radar**, and select **Radar Type** as **Multi-Lane Radar**.

Steps

Note

The function varies with different models. The actual device prevails.

1. Click **Radar**.
2. View the radar information.

Software Version

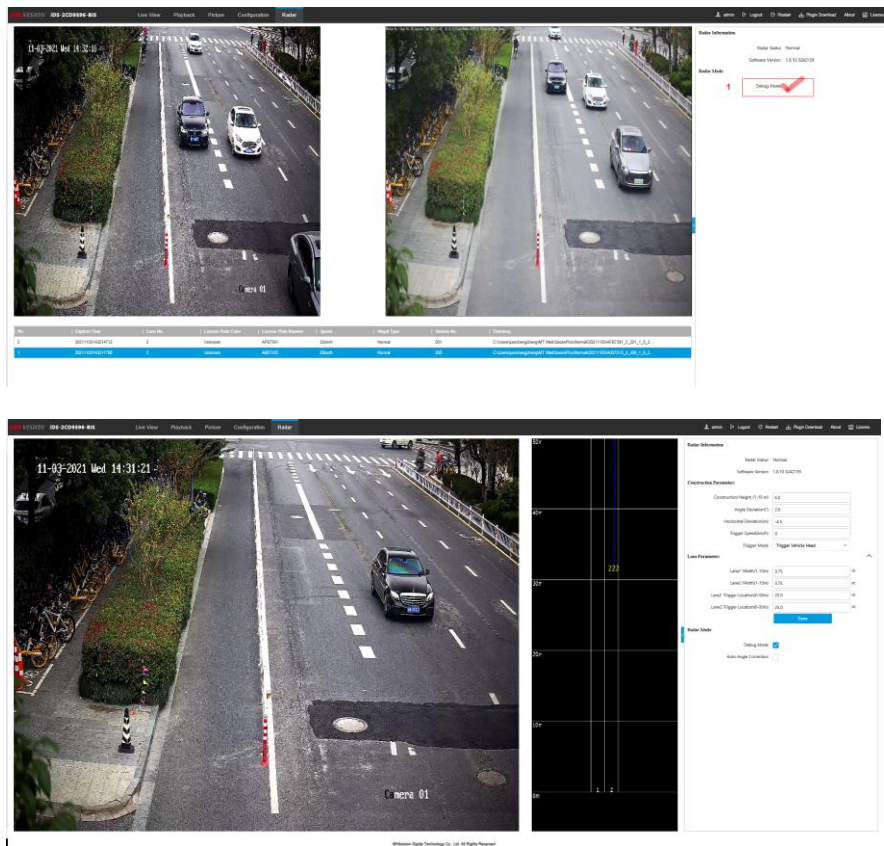
The software version of the radar.

Radar Status

The current radar status. The radar can be normally used in normal status. If the radar is in upgrading status, do not reboot the device. Refresh the interface every one minute, and the

status can be restored to normal.

3. Check **Debug Mode** to set the parameters.



- 1) Set construction parameters.

Construction Height

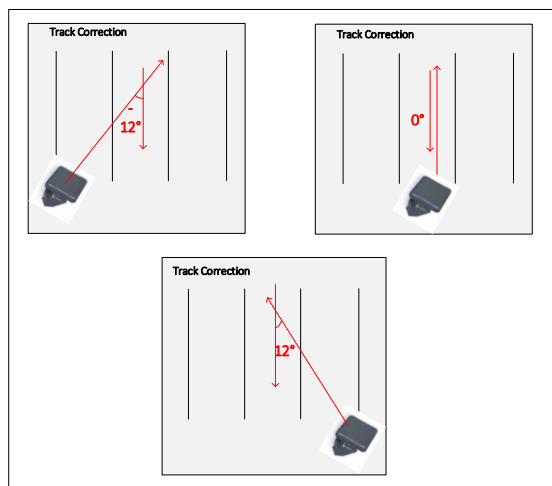
Set the construction height of the radar according to construction at the actual scene.

Angle Deviation

Set the angle compensation according to the target moving track detected by the radar. The value is to adjust the deflection angle between the radar track and the vehicle direction to guarantee that the radar track of the vehicle driven along the lane line is parallel to the lane line. Refer to the diagram below for the settings.

Note:

Make sure angle deviation between -12° to 12° .

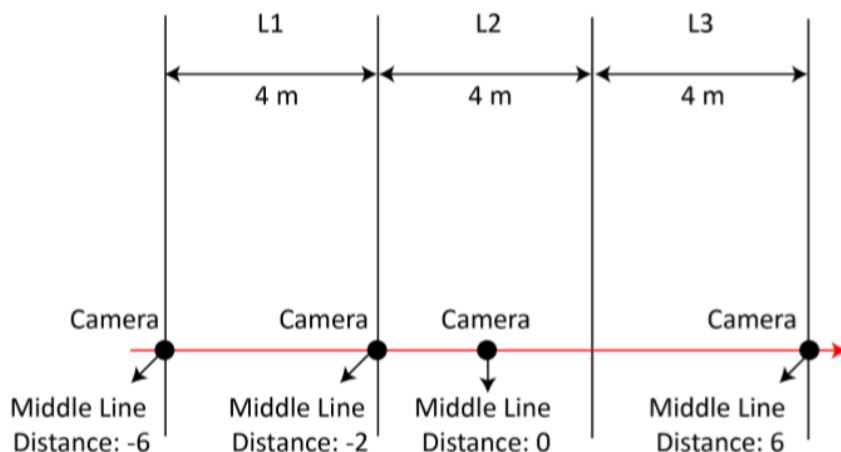


Horizontal Deviation

The Horizontal Deviation is to guarantee that the radar track will not be too left or too right deviated from the lane lines.

Set the deviation between the radar construction position and the horizontal central position. The center of all the lanes is 0. Horizontal left deviation is a minus value, and horizontal right deviation is a positive value. If the radar is constructed on the left lane, the horizontal deviation should be a minus value. If the radar is constructed on the right lane, the horizontal deviation should be a positive value.

Refer to the diagram below for the settings.



Trigger Speed

If the vehicle speed exceeds the set value, capture will be triggered.

Trigger Mode

Trigger Vehicle Head

Capture is triggered by the vehicle head. The vehicles from the approaching direction will be detected.

Trigger Vehicle Tail

Capture is triggered by the vehicle tail. The vehicles from the leaving direction will be detected.

Trigger Vehicle Head and Tail

Capture can be triggered by the vehicle head or tail. The vehicles from both the approaching and leaving directions will be detected.

2) Set lane parameters.

Lane X Width

Enter the lane width according to the actual condition.

Lane X Trigger Location

The speed information of the detected targets on each lane will be uploaded by the radar once they are at the set location.

Note

- The number of lanes is consistent with the total lanes in the application mode settings.
- After setting the construction and lane parameters, observe the real-time vehicle condition in the middle window of the interface. The target track should be straight. The initial position of the target should be larger than the trigger distance, or the vehicle targets may be missed. For example, if the trigger distance is 28 m from the approaching direction, the initial position of the target should be approximately 35 m. The target track should correspond to the actual lane, or the lane No. cannot be corresponded to when the data is uploaded. Adjust **Angle Deviation** and **Horizontal Deviation** to guarantee the vehicle target is on the corresponding lane.

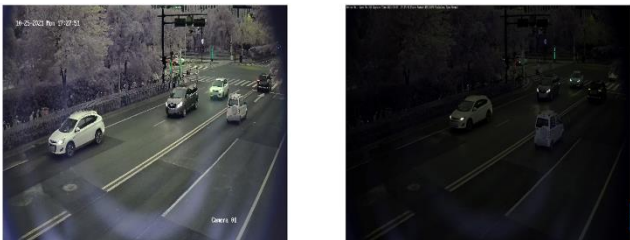
3) Click **Save**.

4) Optional: Check **Auto Angle Correction**.

The radar will adjust the angle deviation automatically according to the target track.

4. Uncheck **Debug Mode** to detect the vehicle speed.

You can view the captured vehicle information such as the license plate color, license plate number, speed, and illegal type in real time.






The interface displays two camera views of a road with vehicles. Below the views is a table showing captured vehicle information in real time.




No.	Capture Time	Lane No.	License Plate Color	License Plate Number	Speed	Illegal Type	Vehicle No.	Directory
5	2021102517275...	2			18km/h	Normal	204	
4	2021102517274...	3			18km/h	Normal	1369	
3	2021102517274...	1			18km/h	Normal	20	
2	2021102517274...	3			34km/h	Normal	1367	
1	2021102517274...	2			18km/h	Normal	393	




On the right side, there is a 'Radar Information' panel with the following details:

- Radar Status: Normal
- Software Version: 1.0.7.324217
- Radar Mode:
 - Debug Mode: ☐

Grupo Instaladores

 ventas@rosarioseguridad.com.ar
 [rosarioseguridadok](https://www.instagram.com/rosarioseguridadok)
 <https://www.facebook.com/groups/591852618012744/>

 +54 9 341 6708000
  Rosario Seguridad
  +54 9 341 6591429

 +54 9 341 6799822
  Rosario Seguridad
  +54 9 341 4577532

Avenida Presidente Perón 3998 - Rosario - Santa Fe - Argentina