# Installation & Configuration Guidance of H8 ANPR Camera

# Preface

(1) Product Portfolio:

**IP Camera:**

iDS-2CD7A26G0/P-IZHSY (C) --Support Wiegand
iDS-2CD7A46G0/P-IZHSY (C) --Support Wiegand
iDS-2CD7026G0/EP-IHSY(C)
iDS-2CD7046G0/EP-IHSY(C)

**DVR:**

iDS-72XXHUHI-M/S

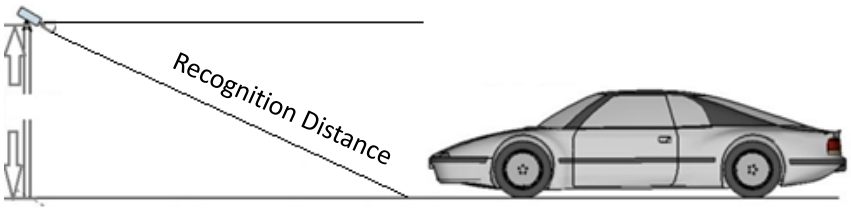
**NVR:**

DS-xxxxNI-I
iDS-xxxxNXI-I

# Chapter 1 Installation

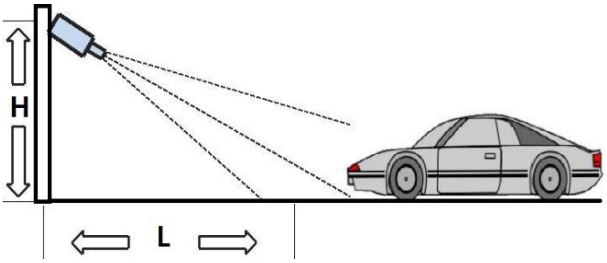
(1) It is recommended to cover no more than 2 lanes for each ANPR camera;

(2) Select the appropriate lens according to following table:



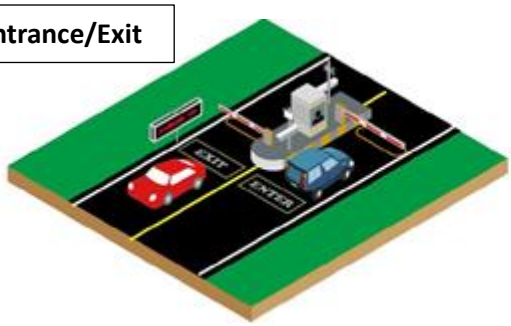

| Lens (mm) | Min recognition distance (m) | Max recognition distance (m) |
|---|---|---|
| 2.8~12 | 2 | 18 |
| 8~32 | 6 | 48 |
| 3.8~16 | 3 | 24 |
| 11~40 | 8 | 60 |

(3) Choose installation height accordingly **(when pitch angle is 30°** ):

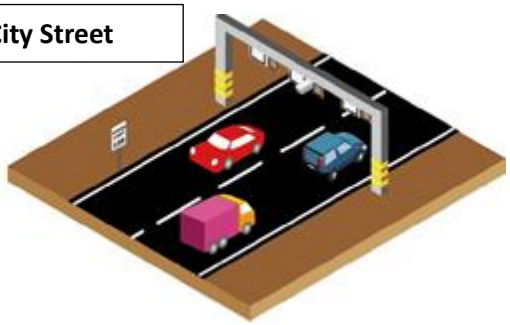


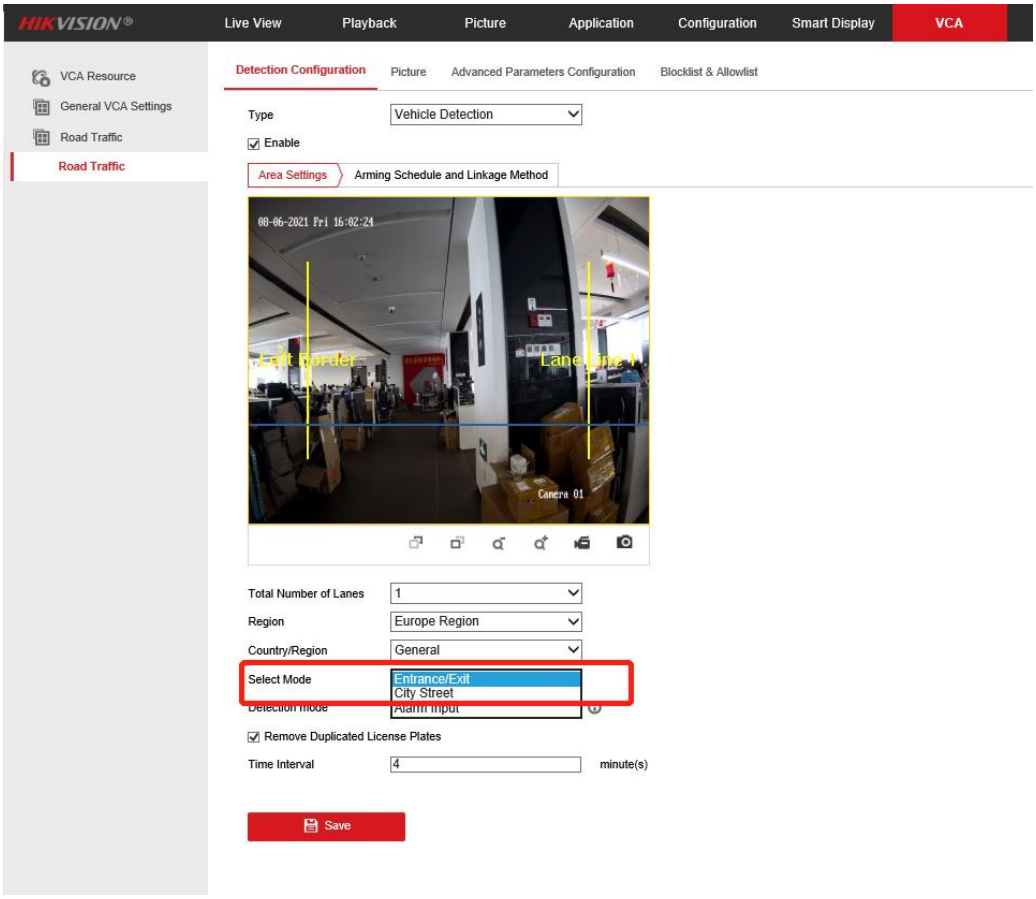

| Type | Height(m) | Min L (m) |
|---|---|---|
| Entrance/Exit | 1.5 | 2.5 |
| | 2 | 3.5 |
| City Street | 3 | 5 |
| | 4 | 7 |
| | 5 | 8.5 |
| | 6 | 10 |

**Entrance/Exit**

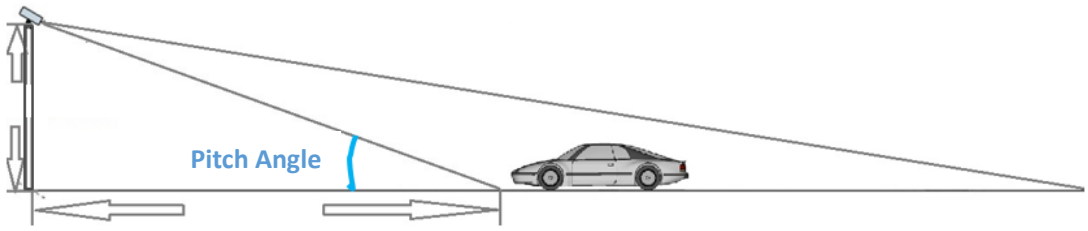



**City Street**





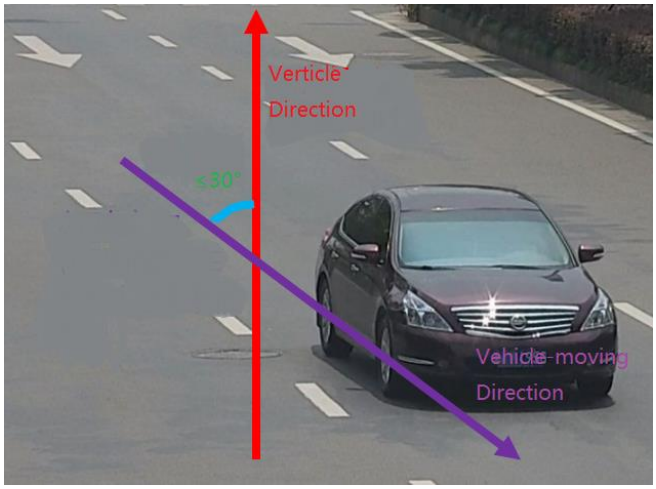

(4) The pitch angle (the angle between camera-vehicle line and the road) should be larger than 15° and less than 30°



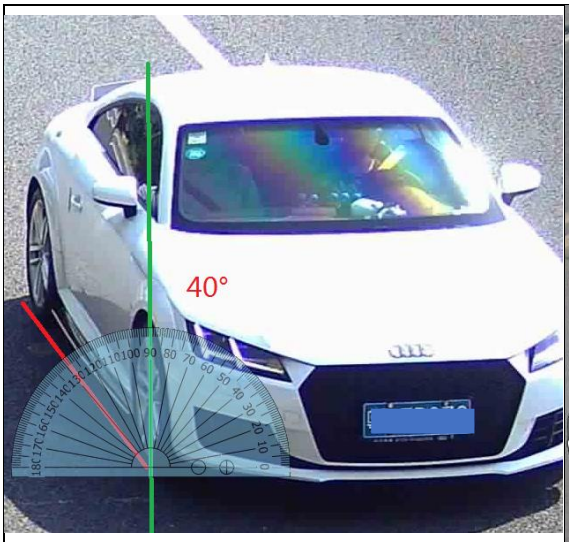
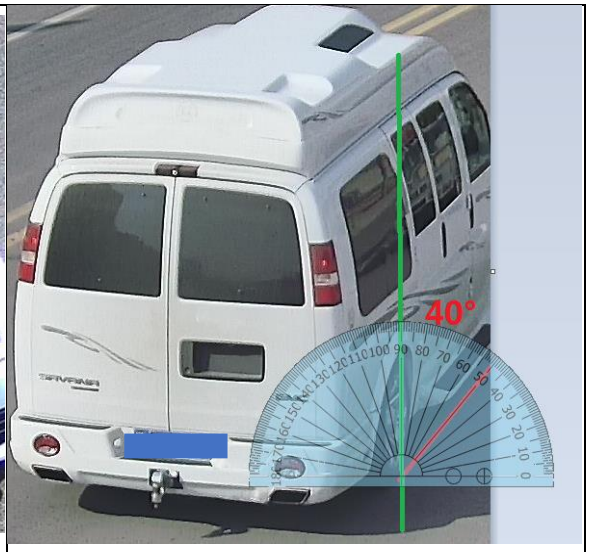

*Example:*

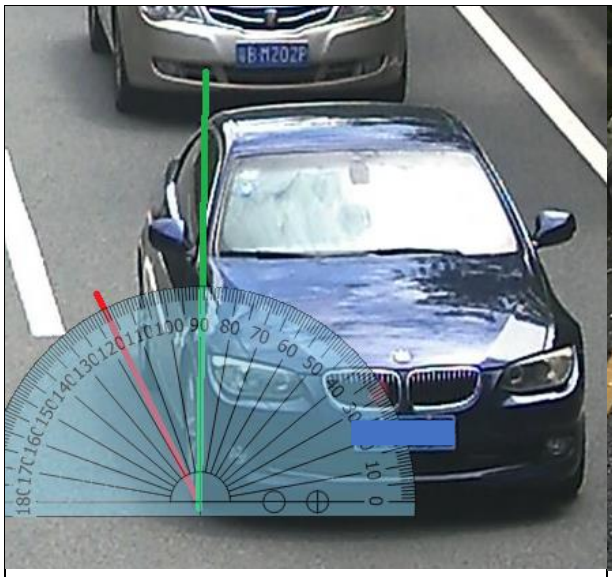
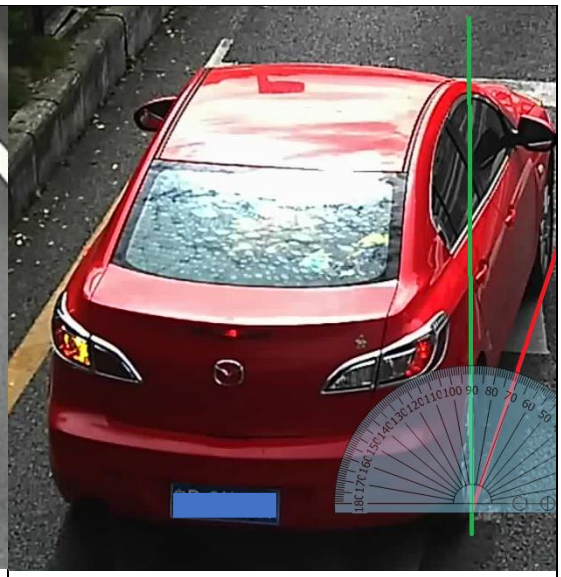
| *Too small* | *Too large* | *OK* |
|---|---|---|

(5) The angle between the vehicle-moving direction and the vertical direction should be less than 30°




*Example:*

| | |
|---|---|
|  |  |
| *>30°， too large* | *>30°， too large* |

| | |
|---|---|
|  |  |
| *<30° OK* | *<30° OK* |

(6) The pixels of following objects need to satisfy:

| | Plate Characters Recognition |
|---|---|
| 2 MP Camera | 20<Height<30<br>100<Width<200 |
| 4 MP Camera | 27<Height<40<br>135<Width<270 |

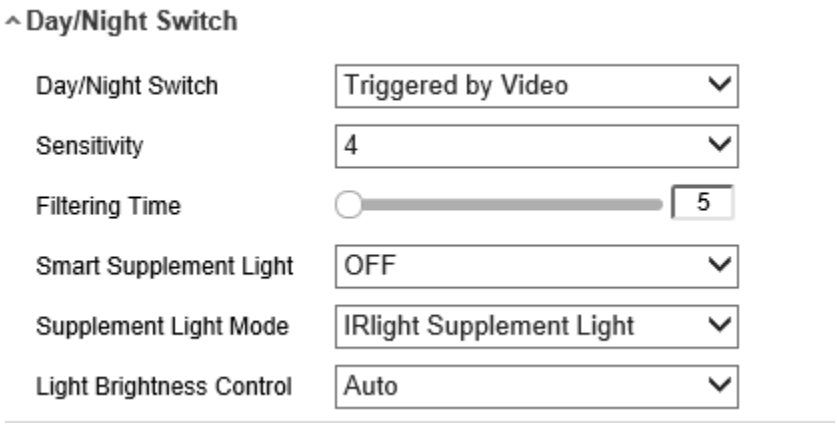
## Chapter 2 Confi

circumscribed rectangle

(1) Go to Image>Display Settings>Day/Night Switch and set the Day/Night Switch to the “Triggered by Video”;



short edge



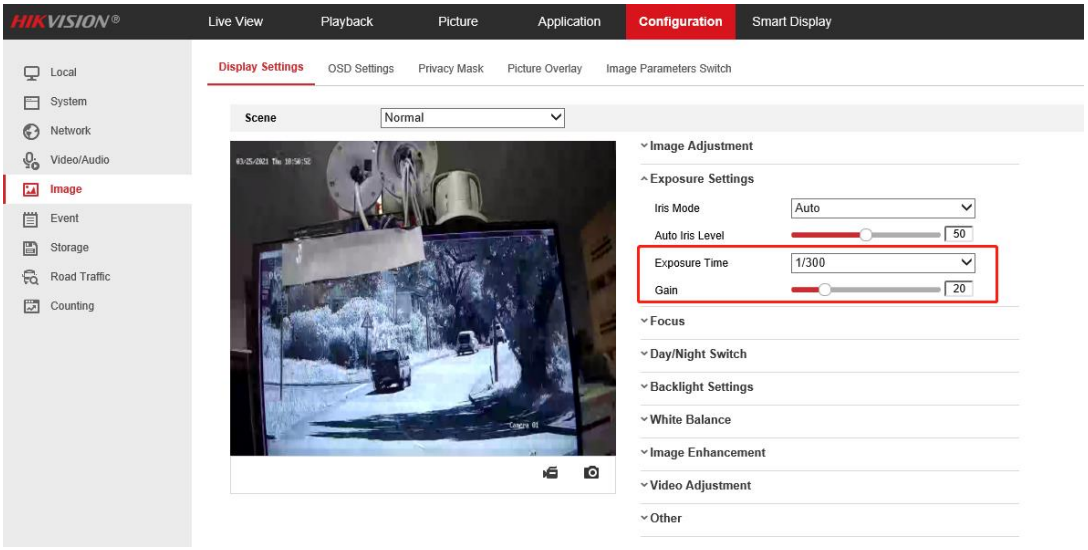

(2) Go to Image>Display Settings to change Exposure Time and Gain according to the standard below (the Gain control can be operated only after step 1 is finished ):

Speed < 30km/h — Exposure Time : **1/150-1/200**;

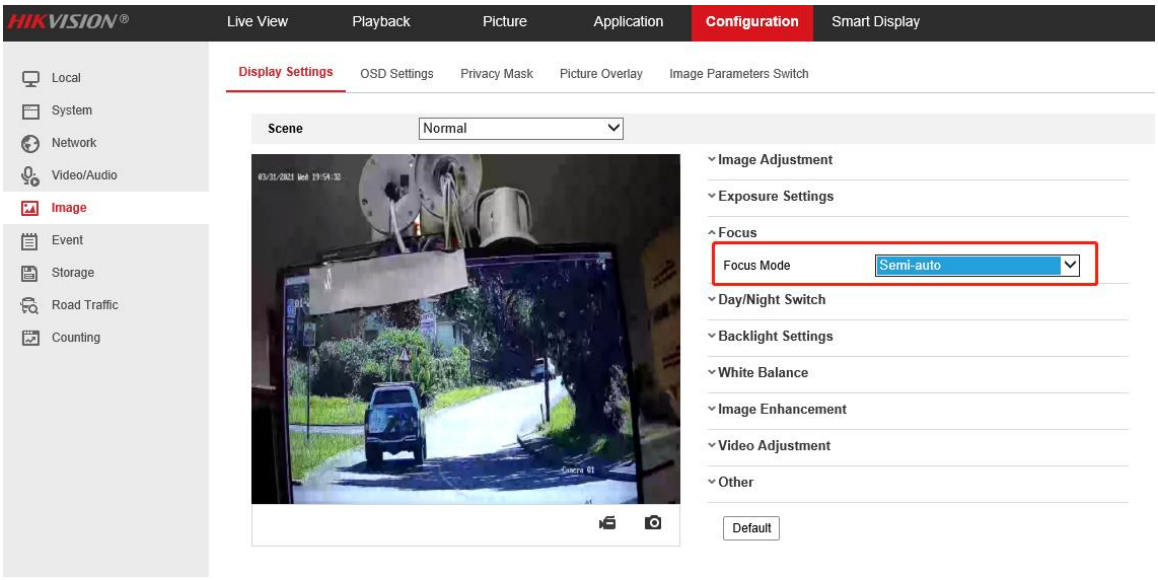
30km/h < Speed < 60km/h — Exposure Time : **1/250-1/500**;

60km/h < Speed — Exposure Time : **1/500-1/1000**

Gain : Generally set as **20** and we usually don't change this.

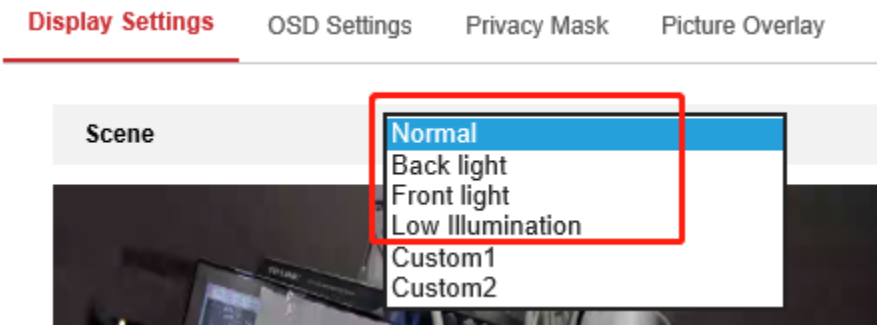



(3) Make sure the Focus Mode is semi-auto.

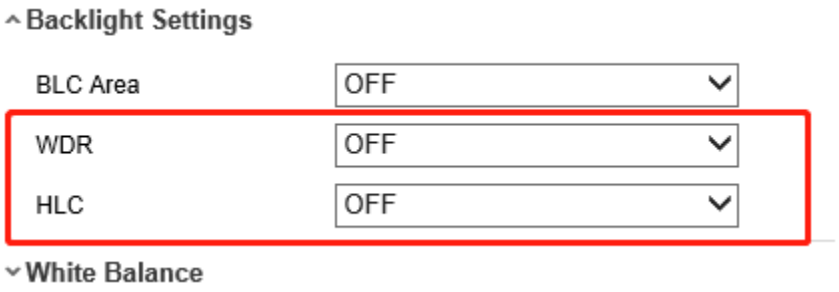



If the image effect is not satisfied:

a. Choose the pre-settings Scene and the referring using scenario to try whether the effect is getting better.



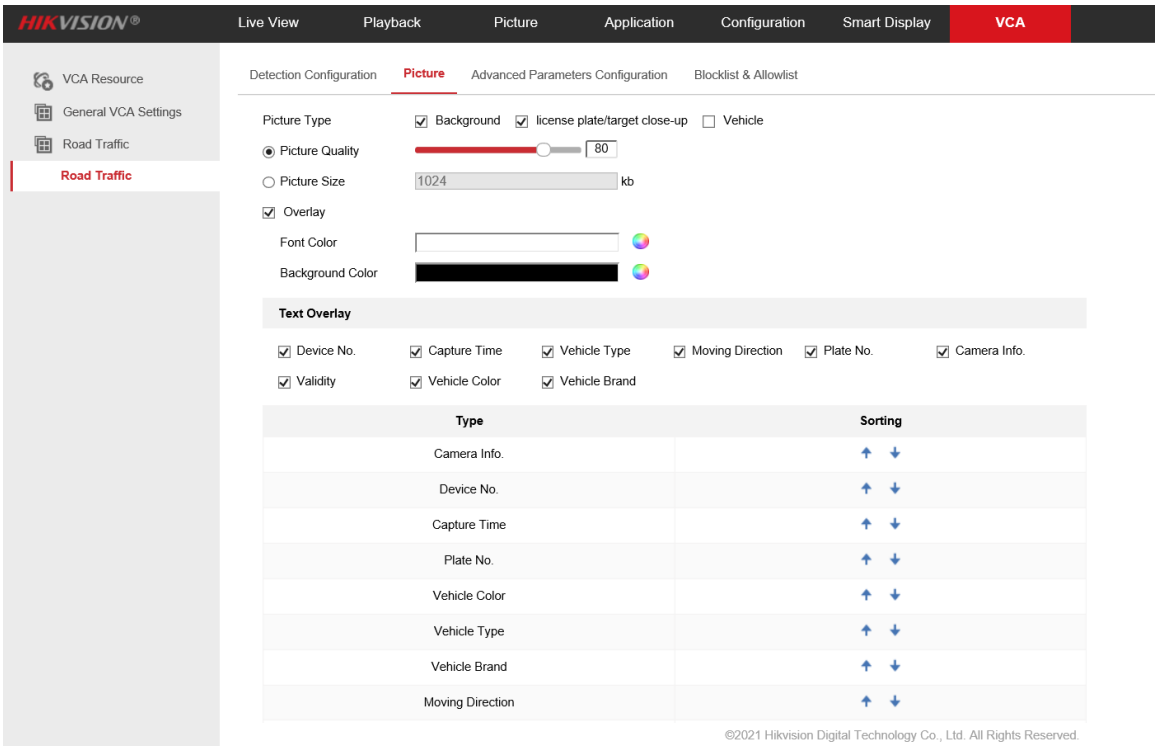

b. WDR or HLC will make the image easier to perform the “ghost image” or detail lost. So if the strong light can be solved by the exposure and gain settings, we don’t recommend you enable these to counter strong lights.



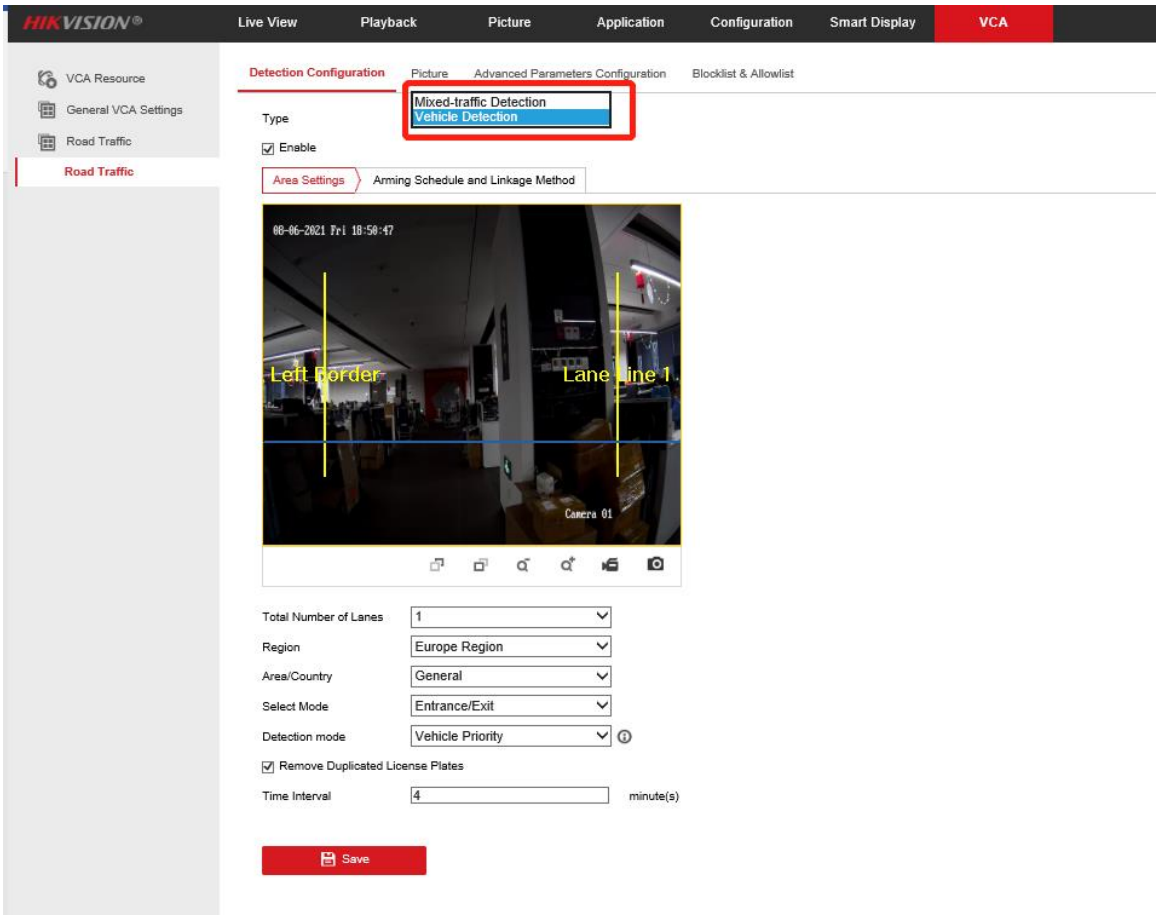

c. Double check whether the installation angle is smaller than 30° and the

installation height satisfy the full observation of full scale of vehicle.

(4) Go to Picture to choose the text overlay on the picture as the scenario needs;



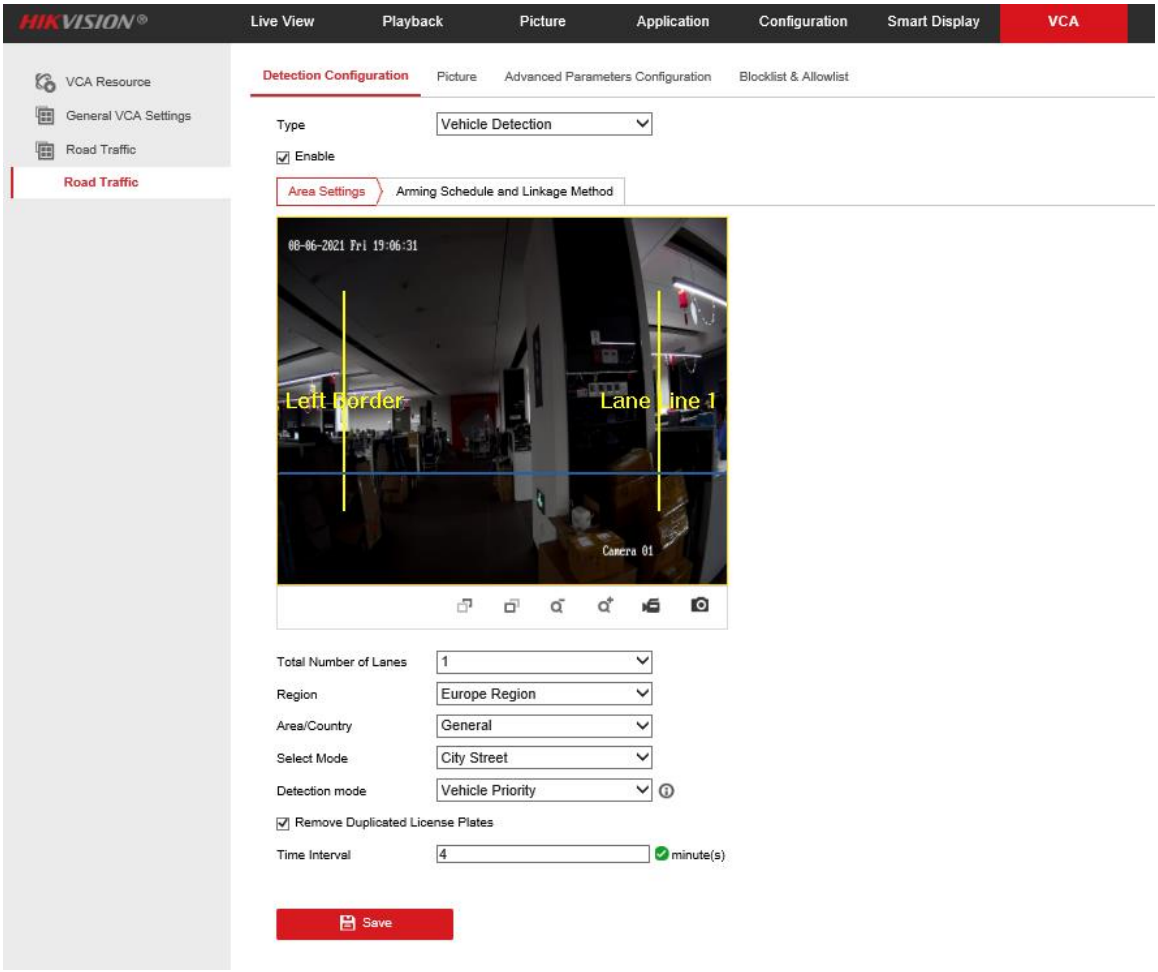

(5) Go to Road Traffic to select detection type;




Detection type can be set as Vehicle detection or Mixed-traffic Detection.

- **Vehicle detection**: the passed vehicle can be detected and the picture of its license plate can be captured.
- **Mixed-traffic Detection**: motor vehicle and non-motor vehicle can be detected, and the picture of the object or license plate can be captured

(6) Go to Road Traffic to select lane numbers (1~2) and traffic mode;




(7) Area Settings:

*Blue Detection Line*: Mainly used for Entrance/Exit with a purpose of improving the capture efficiency. The line is the trigger line of license plate and we highly recommend you put it middle-lower of the screen to make sure the car can pass it with the plate and the full scale.

*Detecting Area: The Actual detect area is the 2 yellow lane and the square they seized.*

(8) Select Mode:

*Entrance/Exit:* It means the camera is set to monitor the Entrance & Exit and will get a better performance at this scenario. Also, E&E mode only supports 1 lane.

*City Street:* It means the license plate information of the detected vehicle will

be uploaded when the vehicle passes the detection area and triggers the detection. City Street can support 2 lanes.

*Alarm Input:* It means the input alarm will trigger a license plate capture and recognition action.

(9) Detection Mode:

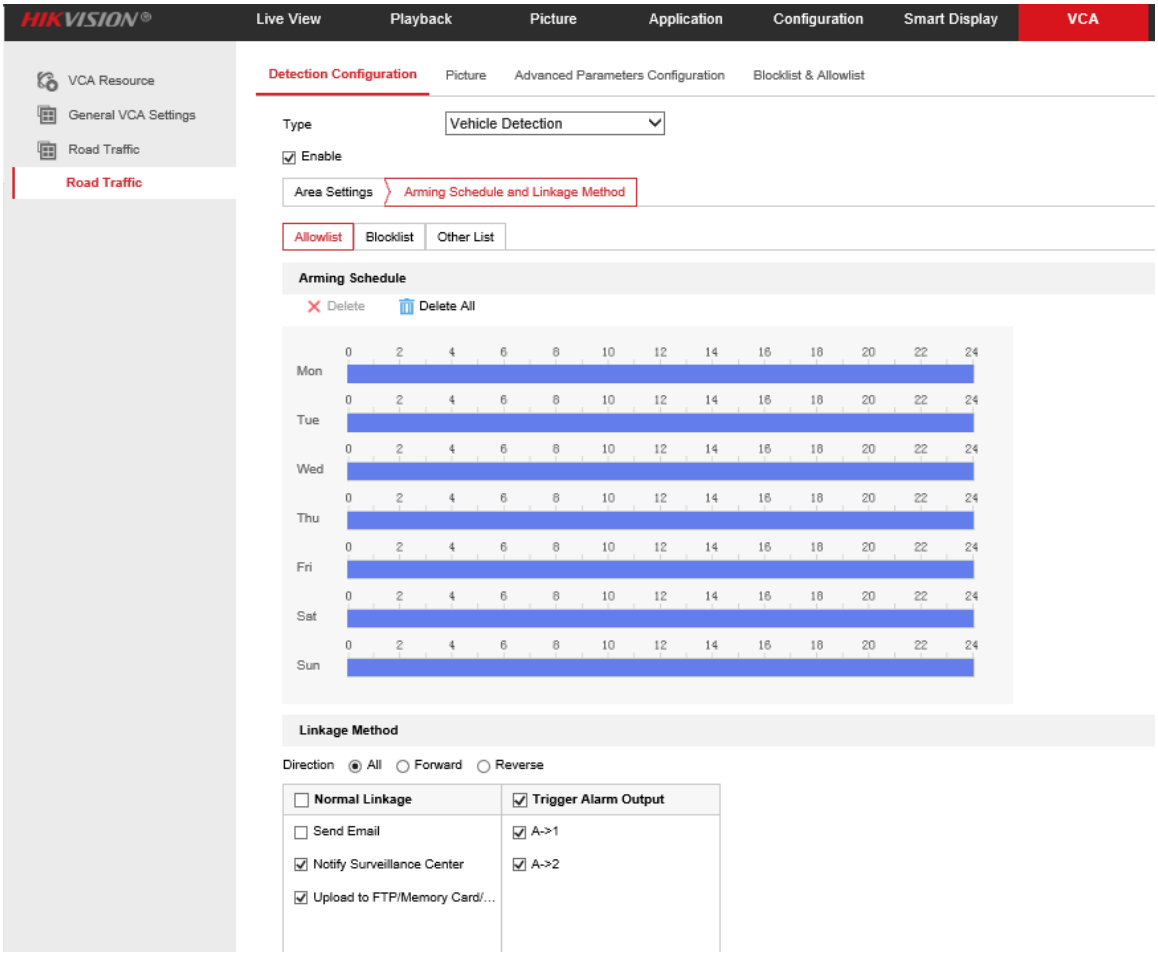
*Vehicle priority mode*: the classic mode of the ANPR camera, it will detect the vehicle scale first, then catch the plate out to make the analysis. It will get the better accuracy but sometimes it will lose some results in the not-satisfied installation scenario. When choosing this mode, the City Street mode is recommended.

*License plate or Vehicle mode*: this mode will allow the ANPR camera to capture the vehicle plate simultaneously with the scale of vehicle is detected. This mode will greatly improve the recognition at some not-satisfied installation scenario. When choosing this mode, the Entrance/Exit mode is recommended.

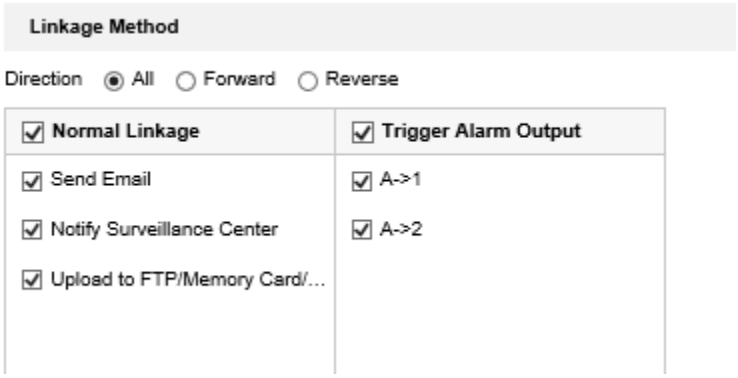
*So we recommend you to use **Vehicle priority mode first** if there is no issues on installation and filling lights. After the issues of plate recognition is carried out, you can **switch the mode to License plate & Vehicle mode.***

(10) Go to Arming Schedule and Linkage Method to continue:

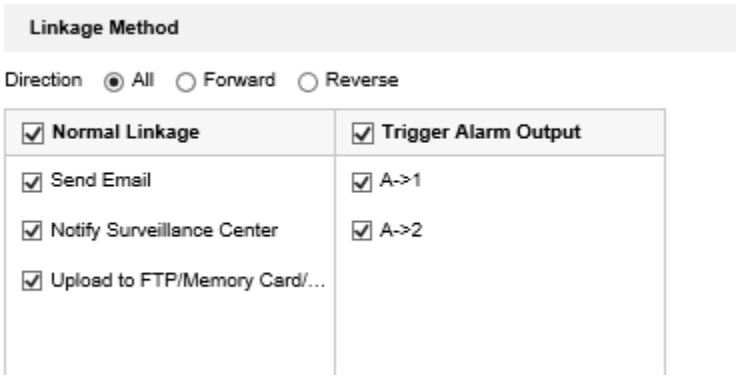
Here you can set the arming schedule and linkage action independently for allow list, block list and other list, so you need to set them one by one;



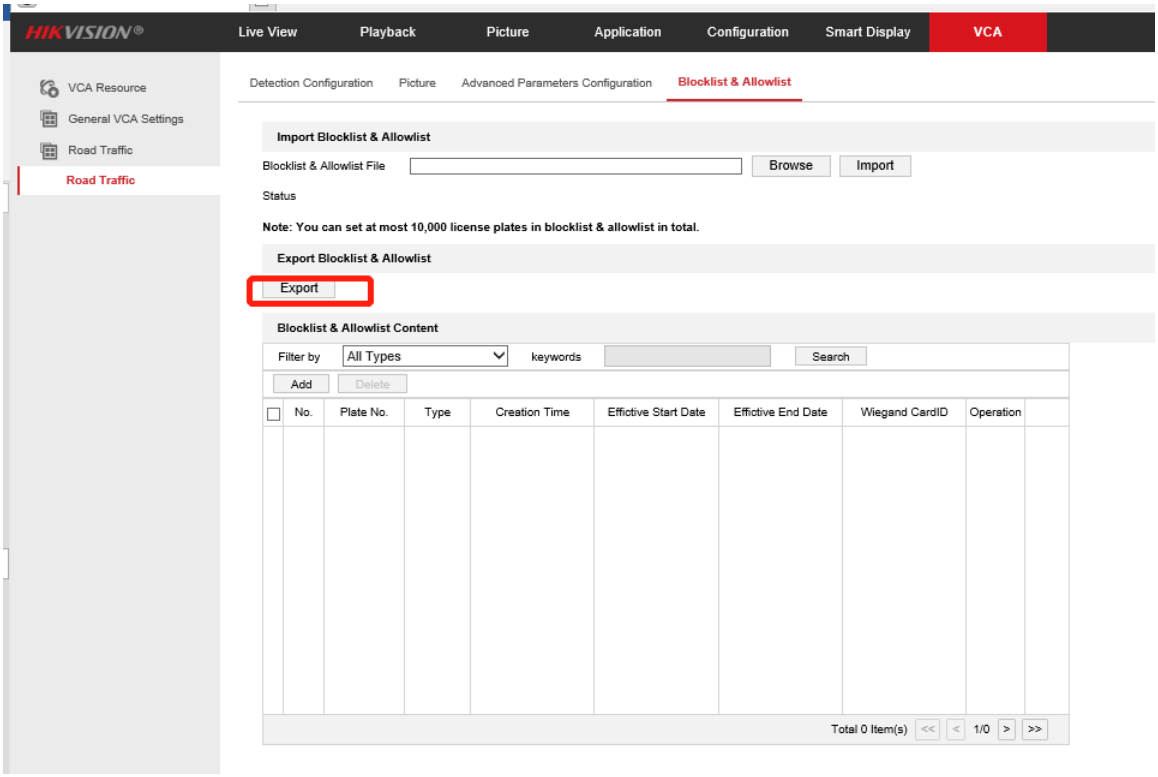

(11) Select a direction here. The Forward means vehicle moves toward the camera; Reverse means vehicle moves away from the camera. Only the vehicles moving as the selected direction can trigger selected linkage methods. We highly recommand you choose All if there is no special use;




(12) You can set linkage here, including Send Email, Notify Survelliance Center or Upload to FTP/xxxx;

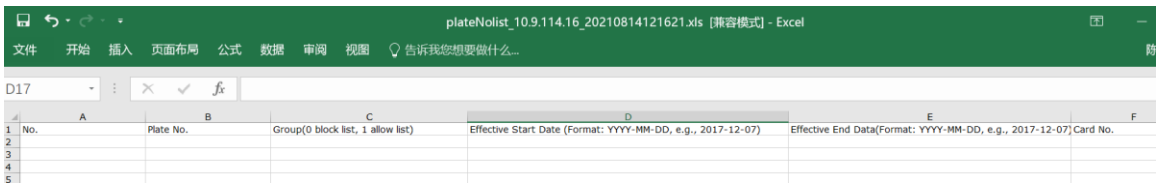



(13) The last part is to import the blocklist and allowlist. If you don't have such a list in advance, export the template first to make one;




The template looks like this:

(when inputting the plate number, input several consecutive numbers/letters with no blank included.)



(14) After the configuration is done, when there are vehicles passing, you can check the real-time plate recognition results on [Smart Display] on the camera's web page.