

Installation and Commissioning to  
Entrance Management System With LPR Camera Unit

---

uni**view**

# Contents

1



Engineering Guide

2



Configuration Guide

3



Recorder Guide

4



Notice

TIPS:

updates:

[7. Configuration Guide](#)–Config-Management-Photo Server

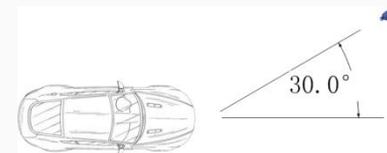
[11. Configuration Guide](#)–Smart-Snapshot Handling

[12. Configuration Guide](#)–Whitelist

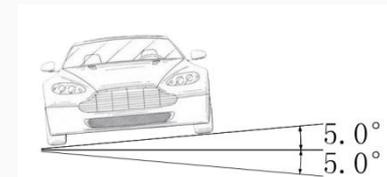
[13. Configuration Guide](#)–Blacklist

## Notice

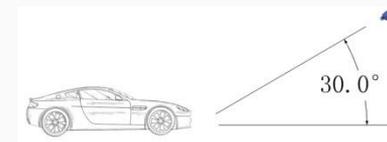
- Make sure the view of camera is not blocked.
- Make sure the license plate is horizontal in the detection area.
- Make sure the camera focus's on the license plate.
- The horizontal pixel count of the license plate should be between 100 to 300.



VERTICAL ANGLE IS LESS THAN  $30^{\circ}$



TILT ANGLE IS LESS THAN  $5^{\circ}$

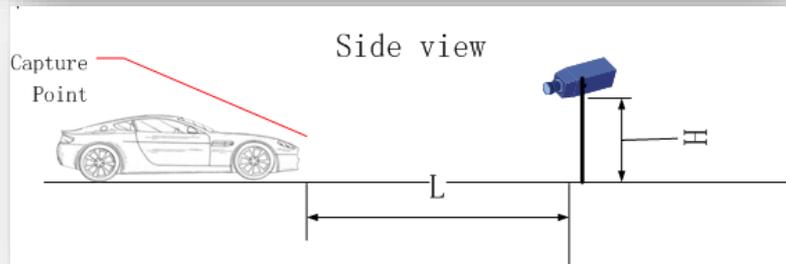
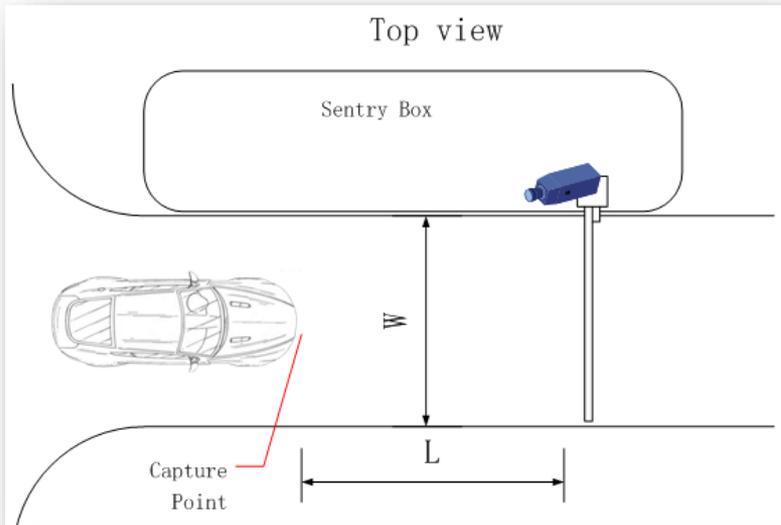


HORIZONTAL ANGLE IS NO MORE  $30^{\circ}$



LICENSE PLATE IS BETWEEN 100-300PX IN WIDTH

## Engineering Solution



- It's better to install the camera on the height between 1.5m and 4m.
- The detection range(L) can be calculated by the installation height(H) with a simple equation  $L = H/\tan 30^\circ$ .
- The view angle of the camera should be within 30 degrees to the path of movement, that is,  $W = L \cdot \tan 30^\circ$ .
- The bollards can be used to control the width.



## Engineering Installation



- Fasten the clamp to the pillar;
- Connect the tail cables, and protect the cables using insulating tapes.



- Lead cables out through hole in the clamp and pillar.

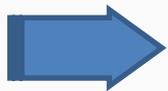


- Mount the camera onto the clamp.



- Adjust the monitoring direction.

## Scene and Focus Adjustment



ZOOM

Focus

Zoom the camera in to a suitable focal range .Making sure the pixel count of license plate is appropriate.  
The image should be like the sample and the car plate should follow the requirement we shared on page 3.

## Config-Management-Photo Server

Time	DST	Photo Server	FTP	Serial Port	Storage
Server IP		<input type="text" value="0.0.0.0"/>			
Server Port		<input type="text" value="5073"/>			
Platform Communication Type		<input type="text" value="GA/T1400"/>			
LPR ID		<input type="text" value="34020000001211000001"/>			
Device ID		<input type="text" value="34020000001191000001"/>			
Username		<input type="text" value="admin"/>			
Platform Access Code		<input type="password" value="....."/>			

**Note:**To transfer images by FTP, you need to add server information on the FTP setting page.

Server IP : IP address of the server ;

Server Port : NVR uses 5073 as default , pls make sure the NVR and IPC use the same port ;

Platform Communication Type : GA/T1400 ;

LPR ID : 1-32 bit , should be the same with the ID on the NVR ;

Device ID : 20 bit in total , bit 11-13 should be "119" , bit 14-20 is up to the user but the whole string should be the same with the Device ID on the NVR ;

Username : camera username ;

Platform Access Code : password to the platform ;

return 

# Configuration Guide

## Exposure :

Custom as default with shutters from 1/100000 to 1/250s, gain automatically sets from 0-10;

**Compensation** : 0 as default. When camera is facing with strong light issue we recommend you use this function to match up scene switch. You may increase compensation when the light goes across to the camera.

**WDR** : enable as default, level 5

Notice: Keep default and most of the scenes are suitable for use. All LPR needs is a bright and clear plate image.

**Smart Illumination**

Smart Illumination  On  Off

Lighting Type

Control Mode

Near-illumination Level

Far-illumination Level

**Image Enhancement** Default

Brightness

Saturation

Contrast

Sharpness

2D Noise Reduction

3D Noise Reduction

**Exposure**

Exposure Mode

Shutter(s)  ~

Gain  ~

Slow Shutter  On  Off

Slowest Shutter

Compensation

Metering Control

Day/Night Mode  Automatic  Day  Night

Day/Night Sensitivity

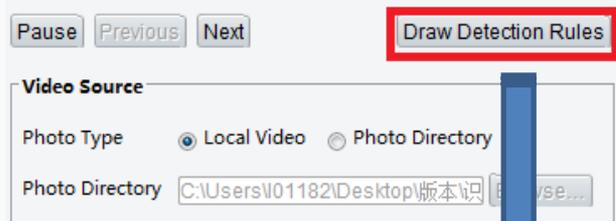
Day/Night Switching(s)

WDR

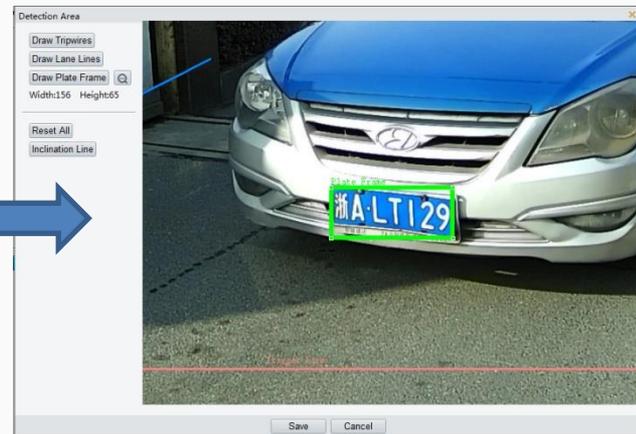
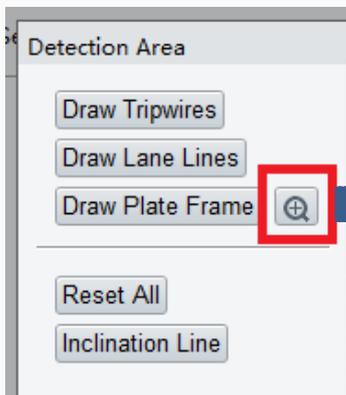
WDR Level

Suppress WDR Stripes  Off  On

## Intelligent Configuration - Detection Area



Choose **Setup > Smart > Smart**, or click **Smart** in the upper-right corner of the homepage to access the smart service page. Click **Draw Detection Rules**.



## Intelligent Configuration - Detection Area

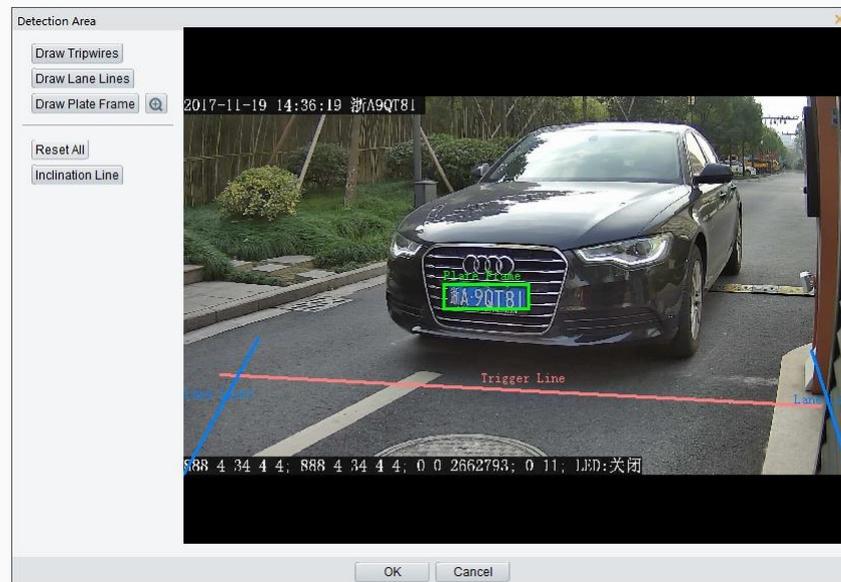
**Draw Tripwires** : the trigger line should be near the bottom of the image, about one meter away from the capture point.

**Draw Lane Lines** : The lane lines constitute a quadrangle within which camera will only do LPR. It should be less than half of the whole image.

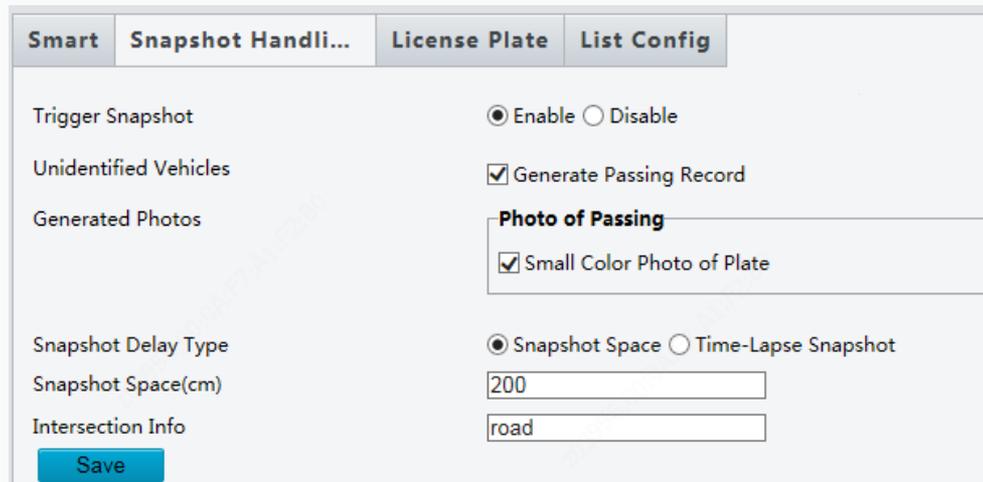
**Draw Plate Frame** : follow the margin of the plate and you can see the pixel number in the enlargement frame.

### Notice:

The detection area is invisible until you enable it in the "Debug-Common". However when the tripwire and lane line are above half of the image, we will give you an error hint.



## Smart-Snapshot Handling



The screenshot shows a configuration interface with four tabs: "Smart", "Snapshot Handli...", "License Plate", and "List Config". The "Snapshot Handli..." tab is active. The configuration options are as follows:

- Trigger Snapshot:**  Enable  Disable
- Unidentified Vehicles:**  Generate Passing Record
- Generated Photos:**
  - Photo of Passing:**  Small Color Photo of Plate
- Snapshot Delay Type:**  Snapshot Space  Time-Lapse Snapshot
- Snapshot Space(cm):**
- Intersection Info:**

A blue "Save" button is located at the bottom left of the configuration area.

**Unidentified Vehicles :** For unidentified vehicles, you may choose to generate passing record or not. Enabled as default.

**Generated Photos :** you may see a small color photo of plate.

return 

## Whitelist

Smart Snapshot Handli... License Plate List Config

**Let Through Policy**

Control Mode  Server Control Mode  Offline Control Mode  Camera Control Mode

Identified Vehicle  Let Through All  Let Through Whitelist Vehicle  Let Through Non-Blacklist Vehicle

Unidentified Vehicle  Let Through  Not Let Through

**Entrance&Exit Whitelist**

Import List  Browse... Import

Export List  Browse... Export

Matching Mode  Exact Ma

Example:



GateWhitelist

- If **Smart > List Config>Let Through Policy** is **Server Control Mode** , the system will follow the strategy of the sdk server without comparing the list inside the camera;
- If **Smart > List Config>Let Through Policy** is **Offline Control Mode** and the SDK server is online, the system will follow the strategy of the sdk server without comparing the list inside the camera. If the SDK server is off-line, the system will follow the control mode.
- If **Smart > List Config>Let Through Policy**为**Camera Control Mode** 时, the system will let vehicle pass through if the LPR result and the whitelist are coincident
- If **Identified Vehicle** is **Let Through All**, the system will let vehicle pass through only when the sdk server is out off line
- If **Identified Vehicle** is **Let Through Whitelist Vehicle**, the system will let vehicles on the list pass through when the sdk server is off-line or you choose **Camera Control Mode**
- If **Unidentified Vehicle** is **Let Through**, the system will let unidentified vehicle pass through. **Not Let Through** will be opposite
- Enable Entrance&Exit Whitelist, use Browse to choose plate list.csv( GateWhitelist.csv for example), Import
- choose Matching>Exact Matching when you need exact match

return

## Blacklist



**Entrance&Exit Blacklist**

Import List  **Browse...** **Import**

Export List  **Browse...** **Export**

Matching Mode

Trigger Boolean  Enable  Disable

Example:



GateBlacklist

- Choose **Smart > List Config**
- Enable **Entrance&Exit Blacklist**, use **Browse** to choose plate list.csv (**GateBlacklist.csv**), **Import**
- Enable **Matching>Exact Matching** when you need exact match
- If **Identified Vehicle** is **Let Through Non-Blacklist Vehicle** and trigger Boolean is enabled, the system will let vehicle beyond the blacklist pass through when the sdk server is offline or the system is under camera control mode.

return



## ■ ■ setup-Events-Alarm Input

The screenshot shows the configuration interface for an alarm input. The left sidebar contains a menu with options: Local Settings, Config Management, Network, Image Setting, Video, Smart, Events (selected), and OSD. The main area has two tabs: 'Alarm Input' (highlighted with a red box) and 'Alarm Output'. Under the 'Alarm Input' tab, there are several fields: 'Select Alarm' (dropdown menu showing 'Alarm Input 1'), 'Alarm Name' (text box with '1'), 'Alarm Type' (dropdown menu showing 'N.O.'), and 'Alarm Input' (radio buttons for 'On' and 'Off', with 'Off' selected). Below these is the 'Trigger Actions' section with checkboxes for 'Alarm Output' and 'Recording'. A 'Save' button is located at the bottom left. To the right of the main form, two dropdown menus are shown with red arrows pointing to them from the main form. The top dropdown menu is for 'Select Alarm' and shows 'Alarm Input 1' selected. The bottom dropdown menu is for 'Alarm Type' and shows 'N.O.' selected.

**When you wish to use an alarm signal to link the capture like using a I/O car detection, here are the parameters you need to setup.**

**Select Alarm :** 1 as default, depends on which alarm signal interface you choose

**Alarm Name :** useless here

**Alarm Type :** Keep same with the trigger device, N.O. for normally open, N.C. for normally closed

**Alarm Input :** disabled as default, do not change.

## Setup-Events-Alarm Output

The screenshot shows the 'Alarm Output' configuration page. On the left is a navigation menu with options: Local Settings, Config Management, Network, Image Setting, Video, Smart, Events, and OSD. The main area has two tabs: 'Alarm Input' and 'Alarm Output' (the latter is highlighted with a red box). Below the tabs are the following fields:

- Select Alarm: Alarm Output 1 (dropdown)
- Alarm Name: 2 (text input)
- Default Status: N.O. (dropdown, with a red arrow pointing to an expanded menu showing N.O., N.O., and N.C.)
- Delay(ms): 500 (text input)
- Save (button)

Below the main configuration area, there are two checked checkboxes:

- Entrance&Exit Whitelist
- Extrance&Exit Blacklist

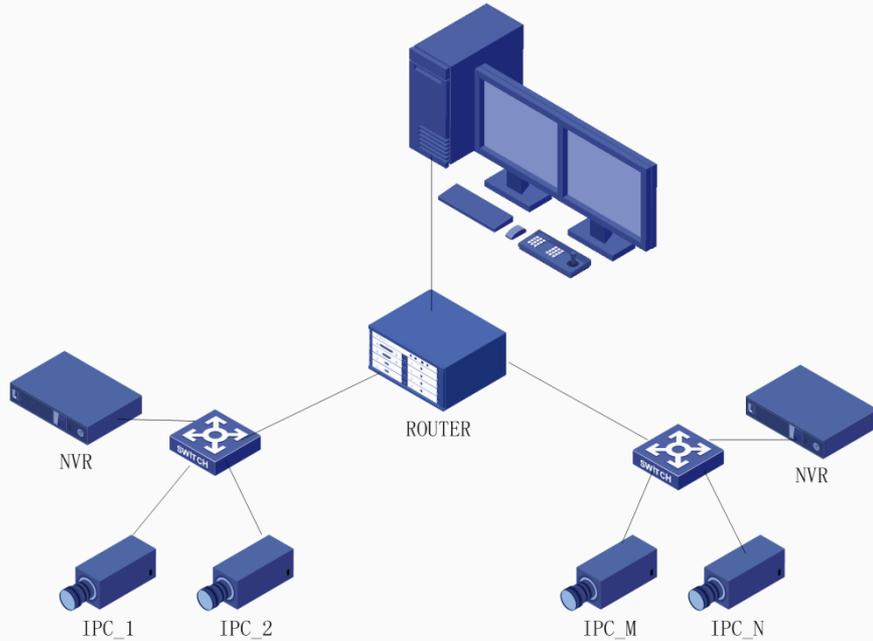
**Alarm Output** : Cooperate with white/black list function.

**Default Status** : N.O/N.C. , keep same as the barrier.

return



## Video Storage

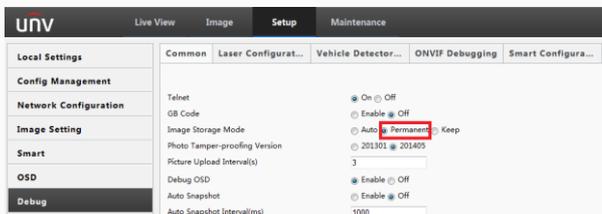
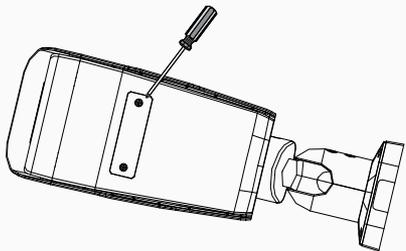


- Add the camera to NVR and set the record schedule for the camera.
- The camera complies with ONVIF standard.

## Photo Storage

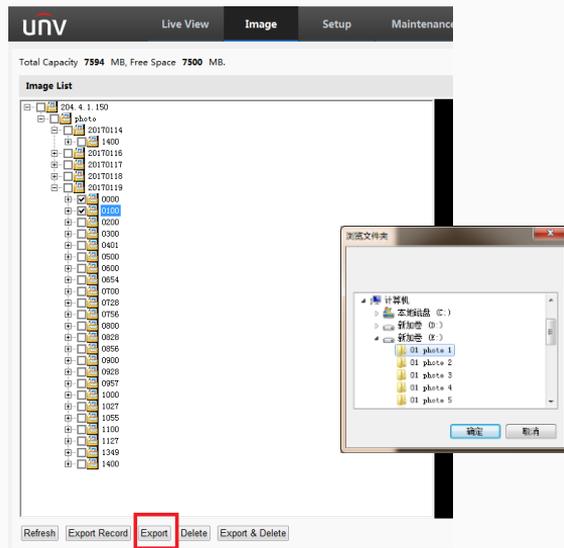
### 1 Insert the micro SD card.

- Loosen screws using a Phillips screwdriver to remove the Micro SD card cover. Insert the SD card and then fasten the screws.



### 2 Export photos

- Choose **Image**, Check multiple files, than, click **Export** in the lower-left corner of the homepage to export photos.



## Diagnosis Info

- Choose **Maintenance > Maintenance**.
- Click **Download** Diagnosis Info.

**Software Upgrade**

Upgrade File

---

**Device Restart**

Restart the device.

Enable Auto Restart

---

**Config Management**

Restore all settings to defaults without keeping current network and user settings.

Importing

Exporting

---

**Focus**

Min. Focus Distance(cm)

Max. Zoom Ratio

## Notice

- □ At night, the plate number will be easily over exposed. After you set everything up , you need to double check how its going at night. Set the “Gain”, “Shutters” and “Day/Night Sensitivity” correctly .
- □ If you can see the plate number clearly in the live view , the accuracy of recognition should be over 95%. If the accuracy is not good enough . Check the following things one by one ,”firmware of the camera ”, height of camera ”, “pixel of the plate number”. “plate number is horizontal or not ”. Collect the video, photo ,and diagnosis info. Feedback these records to our staff.

## The recommended car plate image

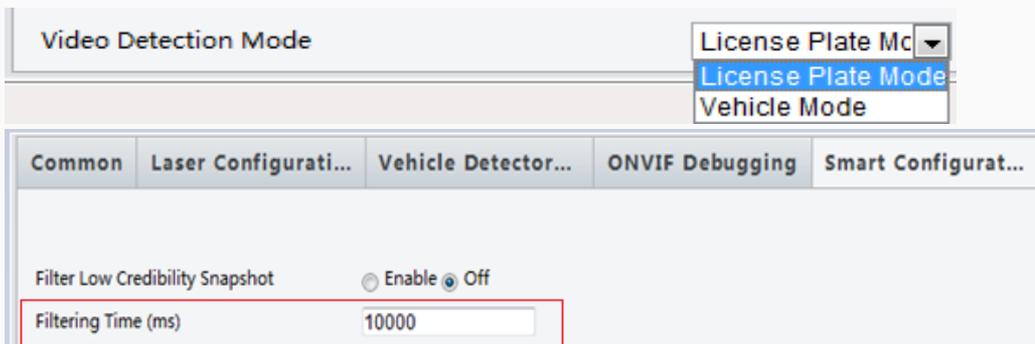


uniview

---

THANKS

## Setup-Debug



### 该页面重点配置项描述：

进入配置-调试功能界面-视频检测模式

**视频检测模式：**当前ME标准款支持车牌模式与车辆模式切换，默认为 车牌模式。当选择车牌模式检测时，支持识别外国车牌；

当选择车辆模式时，采用视频捕获车辆算法，不建议在出入口场景中使用。

-A款型相机目前仅支持**车辆模式**检测。

**多拍过滤时间：**默认启用，优化同一车道内车辆多拍问题。在设置的多拍过滤时间内，若再收到相同车道的相同车牌照片时，则认为多拍直接过滤，若不相同则保留。