

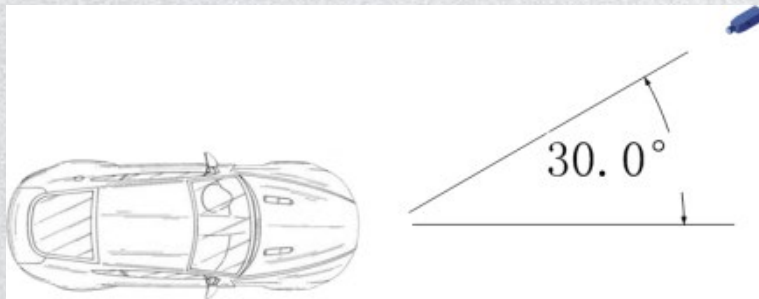


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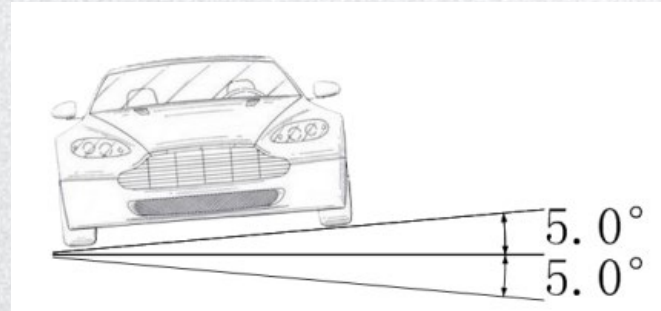
## LPR Quick Guide

# Camera Installation Guide — Precautions

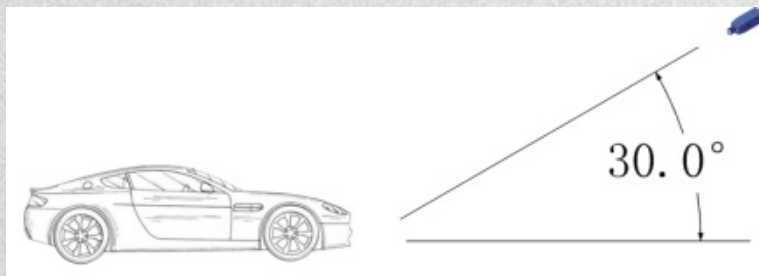
- 1: Ensure that the field of view (FOV) of the camera is not obstructed.
- 2: Ensure that the license plate keeps horizontal in the detection area.
- 3: Ensure that the camera focuses on the license plate.
- 4: Ensure that the horizontal pixel value of the license plate ranges from 100 to 300.



Vertical angle  $< 30^\circ$



Tilt angle  $< 5^\circ$



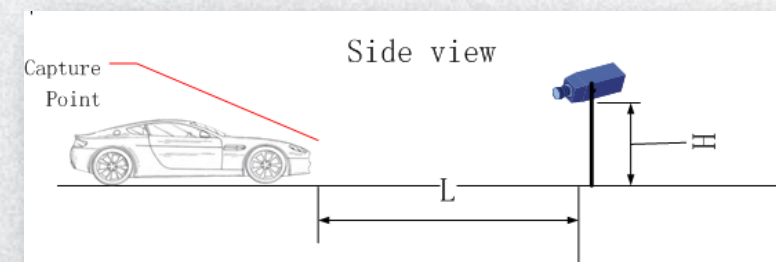
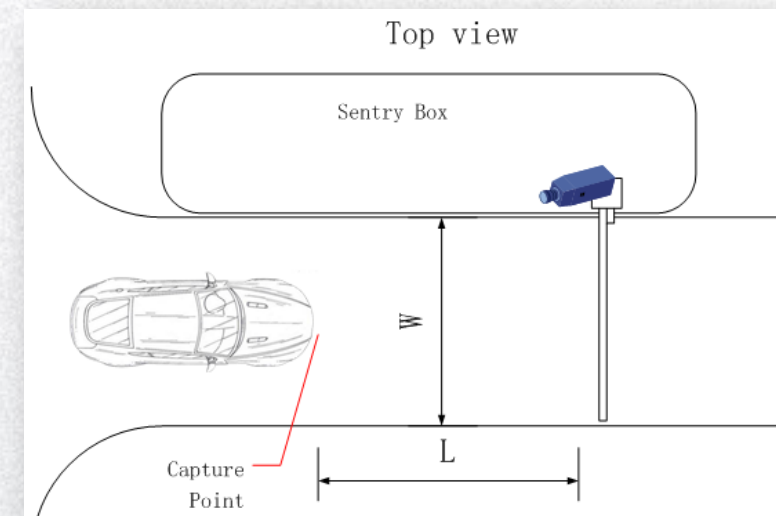
Horizontal angle  $\leq 30^\circ$



$100 <$  Horizontal pixel value of the license plate  $< 300$

# Camera Installation Guide — Installation Solution

- 1: The installation height is preferably 1.5 m to 4 m.
- 2: The detection range (L) is calculated using the formula  $L = H/\tan 30^\circ$ .
- 3: The FOV of the camera is within  $30^\circ$  for easy movement, that is, the road width (W) is equal to  $L \times \tan 30^\circ$ .
- 4: The bollards are used to control the road width.



# Camera configuration

Login camera and draw a detection area

The screenshot displays the UNV camera configuration web interface. On the left is a sidebar menu with categories: Common, Network, Video & Audio, PTZ, Image, Intelligent (highlighted with a red box), Events, Storage, Security, and System. Under the Intelligent category, the 'Traffic Monitoring' option is selected. The main content area is titled 'Smart' and contains sub-tabs for 'Snapshot Handling' and 'Photo'. The 'Photo' sub-tab is active, showing a 'Reset Flow Counting' section with a checked 'Reset Counter at 00:00:00' option and a 'Clear Counting Result' button. A 'Save' button is located below this section. A red arrow points from the text 'Detection Area' to a video preview window. The video preview shows a camera view of a desk with a monitor and keyboard, with a cyan rectangular 'Vehicle Detection Area' overlaid. The video has a timestamp of 2019-05-16 12:05:06 and a frame rate of 1.FPR. Below the video are playback controls: 'Pause', 'Previous', 'Next', and 'Draw Detection Rules'. At the bottom, the 'Video Source' section is visible, showing 'Photo Type' set to 'Local Video' and a 'Photo Directory' path of 'C:\Users\thinkcentre\Surveillance' with a 'Browse...' button.

# Camera configuration

## Intelligent Server setup

The screenshot shows the UNV camera configuration interface. The top navigation bar includes 'Live View', 'Playback', 'Photo', and 'Setup'. The left sidebar lists various configuration categories: Common, Network, Video & Audio, PTZ, Image, Intelligent, Events, Storage, Security, and System. The 'System' category is highlighted with a red box, and its sub-menu 'Server' is also highlighted with a red box. The main content area is titled 'Intelligent Server' and contains the following fields:

Server IP	<input type="text" value="192.168.6.225"/>
Server Port	<input type="text" value="5073"/>
Platform Communication Type	<input type="text" value="GA/T1400"/>
Device No.	<input type="text" value="Chan11"/>
Device ID	<input type="text" value="00000000001190000059"/>
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: NVR's IP address

Server Port: 5073 (NVR default port)

Platform Communication Type: GA/T1400

Device No.: No specific requires. Default is fine

Device ID: 20 digit number (must be unique per camera)

Username: Current Camera's username

Platform Access Code: Current camera's password

# NVR configuration

## NVR Platform Setup

The screenshot shows the UNV NVR configuration interface. The top navigation bar includes 'Live View', 'Playback', 'Setup', and 'Smart'. The left sidebar lists various configuration categories, with 'Video&Image Database' selected. The main content area shows the 'Video&Image Data...' configuration page. At the top, there are two tabs, both labeled 'Video&Image Data...'. Below the tabs, there are two input fields: 'Database ID' with the value '34020000001200000001' and 'Database Port' with the value '5073'. A 'Refresh' button is located below the input fields. A table lists 16 camera channels (D1 to D16). The 'Status' column shows 'Offline' for D1-D9 and 'Online' for D10. The 'Configure' column contains edit icons for each channel. The row for D10 is highlighted with a red box, showing its 'Camera ID' as '0000000001190000059'. A 'Save' button is at the bottom left of the configuration area.

Camera ID	Camera ID	Status	Configure
D1		Offline	
D2		Offline	
D3		Offline	
D4		Offline	
D5		Offline	
D6		Offline	
D7		Offline	
D8		Offline	
D9		Offline	
D10	0000000001190000059	Online	
D11		Offline	
D12		Offline	
D13		Offline	
D14		Offline	
D15		Offline	
D16		Offline	

Database port: 5073

Configure camera channel  
Add the Camera ID you made from camera

# Blacklist and Whitelist

UNV Live View Playback Setup Smart admin Logout Privacy...

**Plate List** **Monitoring**

Blacklist

<input type="checkbox"/>	No.	Plate Number	Type	Modify	Delete
<input type="checkbox"/>	1	ABCD123	Blacklist		

UNV Live View Playback Setup Smart admin Logout Privacy...

**Plate List** **Monitoring**

Whitelist

<input checked="" type="checkbox"/>	No.	Plate Number	Type	Modify	Delete
<input type="checkbox"/>	1	DCBA321	Whitelist		

# Monitoring Schedule



Live View



Playback



Setup



Smart



Plate List

Monitoring

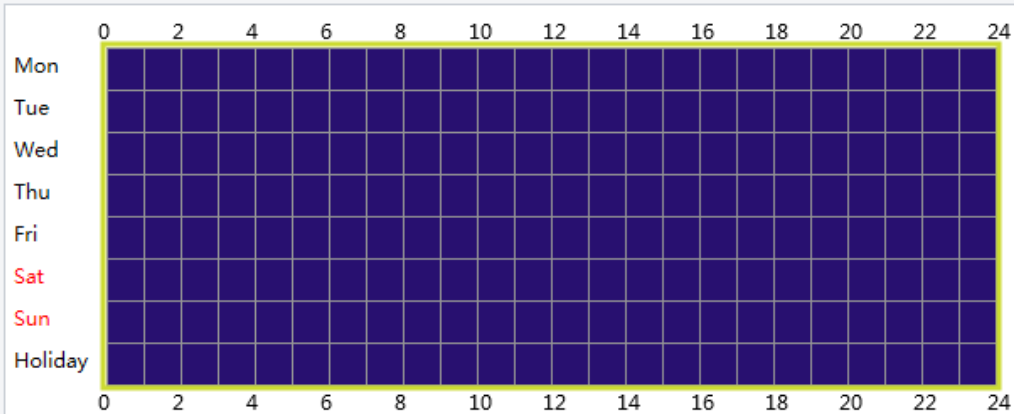
Select Camera

Enable Monitoring  On  Off

Arming Schedule

Trigger Actions

Edit



None

Blacklist

Whitelist

Copy





# Trigger Actions

The screenshot displays the 'Trigger Actions' configuration for camera D10 (LPR). The interface includes a sidebar with navigation icons, a top navigation bar with 'Plate List' and 'Monitoring' tabs, and a main content area. The 'Monitoring' tab is active, showing 'Select Camera' as 'D10 (LPR)' and 'Enable Monitoring' as 'On'. Below this, there are two tabs: 'Arming Schedule' and 'Trigger Actions'. The 'Trigger Actions' tab is selected, showing a table of actions. The table has three columns: 'Conventional', 'Alarm Output', and 'Recording'. The 'Conventional' column has 'Buzzer' and 'Send Email' checked. The 'Alarm Output' column has 'A->1' checked. The 'Recording' column has 'D1' checked. To the right of the table is a 'Goto Preset' section with a dropdown menu set to 'D10' and a 'Preset No.' field. At the bottom left, there is a 'Copy' button.

Conventional	Alarm Output	Recording	Goto Preset
<input type="checkbox"/> Buzzer	<input checked="" type="checkbox"/> A->1	<input checked="" type="checkbox"/> D1	<input type="checkbox"/> Preset No.
<input type="checkbox"/> Send Email	<input type="checkbox"/> D3->1	<input type="checkbox"/> D2	<input type="checkbox"/> Preset No.
	<input type="checkbox"/> D7->1	<input type="checkbox"/> D3	
	<input type="checkbox"/> D9->1	<input type="checkbox"/> D4	
	<input type="checkbox"/> D10->1	<input type="checkbox"/> D5	
	<input type="checkbox"/> D16->1	<input type="checkbox"/> D6	
		<input type="checkbox"/> D7	
		<input type="checkbox"/> D8	

If NVR captures the license plate number which is in the blacklist, you can enable Alarm output to open/close the gate, NVR buzzer, or send you notification email.

If NVR captures the license plate number which is **not** in the whitelist, you can enable Alarm output to open/close the gate, NVR buzzer, or send you notification email.

# Real time monitoring

The interface is divided into several sections:

- Top Navigation:** Includes 'Face Recognition' and 'Vehicle Control' tabs. Below them are 'Vehicle Control', 'Plate List', and 'Alarm Control' sub-tabs.
- Left Panel:** A list of camera models with checkboxes:
  - IPC 2222 FR
  - IPC 2125
  - IPC 3238
  - IPC 3615
  - IPC 3618
  - IPC 2128
  - IPC 868
  - Waterproof
  - Multi-Sensor
  - LPR
  - IPC6412
- Main Video Window:** Shows a live feed of a vehicle with license plate 'TGR-246'. The timestamp is '16/05/2019 12:38:24'. The text 'LPR' is overlaid on the video. A mouse cursor is visible over the video.
- Snapshots Panel (Top Right):** Displays four thumbnail images of the vehicle with their respective timestamps:
  - 2019-05-16 12:38:21
  - 2019-05-16 12:38:19
  - 2019-05-16 12:38:17
  - 2019-05-16 12:38:15
- Table (Bottom):** A table of captured snapshots with the following columns: Capture Time, License Plate No., Vehicle Color, Plate Color, Camera, and Database ID.
 

Capture Time	License Plate No.	Vehicle Color	Plate Color	Camera	Database ID
2019-05-16 12:38:21	BZHE408	Black	Other	D10	0000000001190000059
2019-05-16 12:38:19	BWNY608	Black	Other	D10	0000000001190000059
2019-05-16 12:38:17	ZZZZ777	Black	Other	D10	0000000001190000059
2019-05-16 12:38:15	TGR246	Black	Other	D10	0000000001190000059
2019-05-16 12:38:14	BYTR741	Black	Other	D10	0000000001190000059
2019-05-16 12:38:12	ZHE4DR	Black	Other	D10	0000000001190000059
2019-05-16 12:38:10	BWNY608	Black	Other	D10	0000000001190000059
2019-05-16 12:38:08	ZZZZ777	Black	Other	D10	0000000001190000059