

To increase the license plate recognition accuracy, you need to install the LPR camera in the proper way to capture the qualified plate images. When you install the LPR camera, there are certain criteria to meet, including the plate size, the lighting condition and the angle of the camera. In this document, we provide the qualified image examples, and the unqualified image examples, which are generated when the LPR camera is set in an improper way. We also provide the easy installation instructions on how to fix those unqualified plate images.

## ***The qualified image examples***

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You should capture and fill the image with a full width of vehicle. In this way, the height of the captured plate characters would approximately fall between 30 and 35 pixels.

### **Day**

Example



### **Night**

Example



## ***The unqualified image examples***

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**The plate is the hollow-letter type:**

Example



**Try to:**

Reduce the illumination.

**The image is unclear:**

Example



**Try to:**

Adjust the focus or the shutter speed of the camera.

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**The image is overexposed:**

Example



**Try to:**

Reduce the illumination, or adjust the angle or the setup direction of the camera.

**The image is interfered by the headlight:**

Example



**Try to:**

Use the professional LPR camera to avoid the headlight interference.

**The plate size is too small:**

Example



**Try to:**

Zoom in the camera or reduce the distance between the camera and the vehicle. You should capture and fill the image with a full width of vehicle.

**The plate size is too big:**

Example

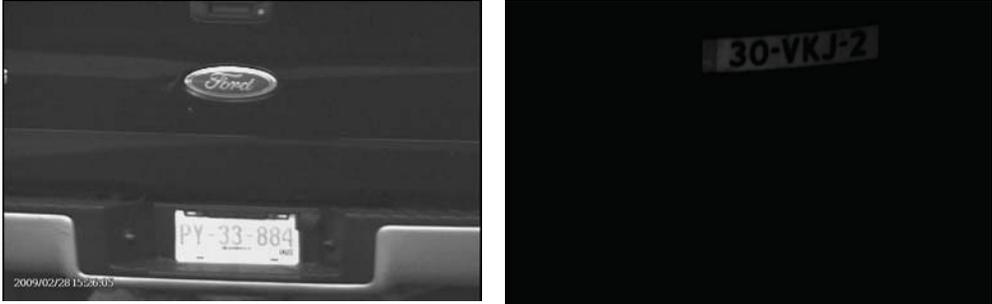


**Try to:**

Zoom out the camera or enlarge the distance between the camera and the vehicle. You should capture and fill the image with a full width of vehicle.

**The image contrast is low:**

Example



**Try to:**  
Improve the lighting condition.

**The plate is slanted:**

Example



**Try to:**  
Adjust the camera setup angle and make sure the angle of deviation in the captured license plate is within eight degrees.

*Continued on the reverse* > >>>>

**The plate is in shadow:**

Example



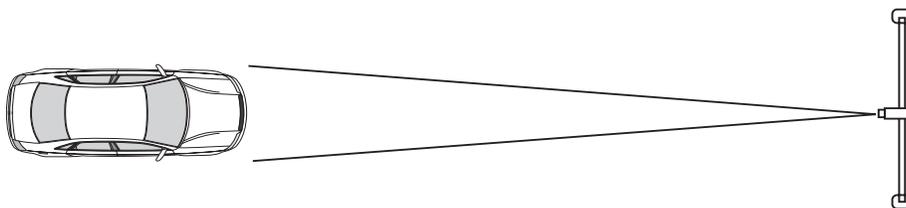
**Try to:**

Avoid placing the camera where it can be subjected to direct sunlight or reflections. Visible shadow edges in the camera view may degrade the recognition accuracy.

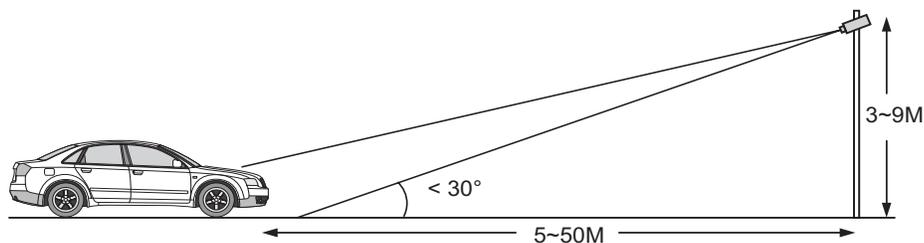
## LPR Camera Installation Guidelines

### Camera Installation

- **Installing the camera in the front (Recommended):** Install the camera in the upper front of the vehicle as shown below. Ensure to install the camera to meet the following conditions. In this way, the height of the captured plate characters would approximately fall between 30 and 35 pixels.
  - The captured image should be filled with a full width of the vehicle.



- The distance between the vehicle and the camera should be within 5 to 50 meters; the camera height should be within 3 to 9 meters; the camera setup angle should be within 30 degrees.



- **Installing the camera on the side:** Install the camera in the side front of the vehicle as shown below. To avoid capturing unnecessary contents in the image, the camera should be installed in a higher position to capture the front part of the vehicle only. The camera setup angle should also be within 15 degrees.

