



Configuration Guideline of License Plate Recognition Camera

Camera Specifications

- Model: TP-MMB4AV8L
- Datasheet: [TP-MMB4AV8L Data Sheet](#)
- LPR licenses not included

System Requirements

- **Compatible NVRs:**
 - TR-MRP042(4)GL-B (firmware build 250311 or later)
 - TR-MRP082G2-B
 - TR-MRP164G2-B
 - TR-MR32R-B (firmware build 250311 or later)
 - TR-MR64R-B (firmware build 250311 or later)
- **Turing Vision LPR Licenses:**

Turing Vision offers two license options for License Plate Recognition (LPR) functionality, each designed for different performance needs.

 - Core LPR (**TV-CORELPR1Y**)
 - Speed Limit: Supports accurate LPR for vehicles traveling up to 20 MPH.
 - Traffic Flow: Optimized for single-lane traffic scenarios.
 - Event Frequency: Can reliably process one vehicle event every two seconds.
 - Premium Core LPR (**TV-PREMLPR1Y**)
 - Enhanced Speed Limit: Supports accurate LPR for vehicles traveling up to 50 MPH.
 - Increased Traffic Capacity: Handles one or two lanes of traffic effectively.
 - Higher Event Frequency: Processes two vehicle events per second.
 - **Limitation:** Due to the higher anticipated bandwidth from frequent or even continuous events, especially with a Premium LPR license, no more than two LPR cameras should be on one bridge is recommended.

Recommended Installation Locations

The TP-MMB4AV8L is ideally suited for the following environments:

- Managed parking lots
- Gated communities
- Roadways with moderate traffic (up to 2 lanes)

Camera Placement Height and Distance

Road Width (W)	Camera Mount Height (H)	Plate Capture Distance (L)	Side Distance to the Center	Mount Recomm.
20~22ft	9~20ft	20~100ft	0~3ft	H = 9ft, L = 25ft H = 13ft, L = 33ft H = 16ft, L = 43ft H = 20ft, L = 52ft

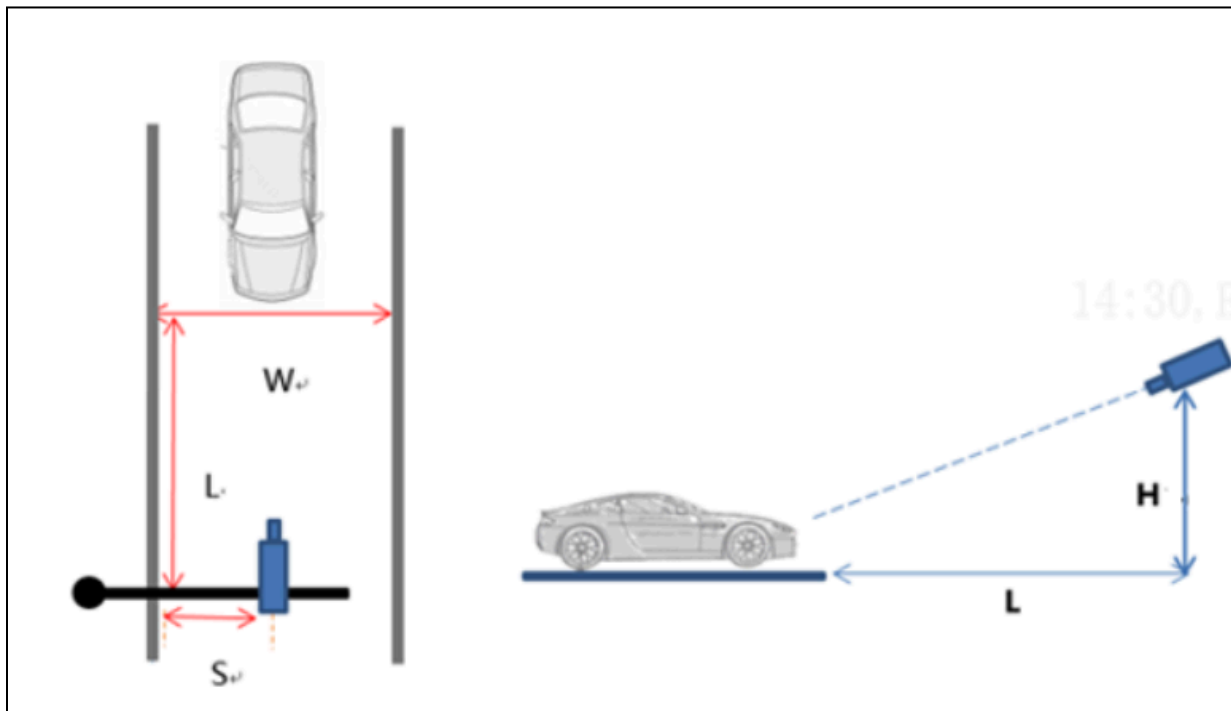
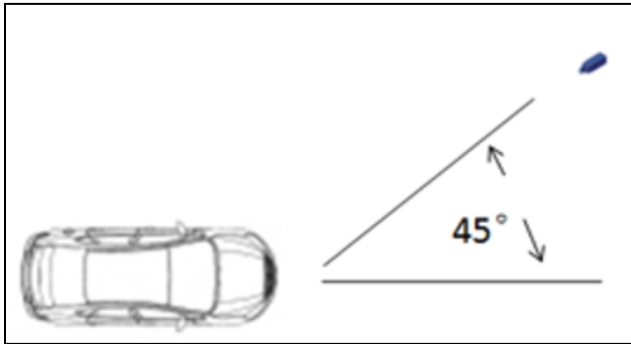
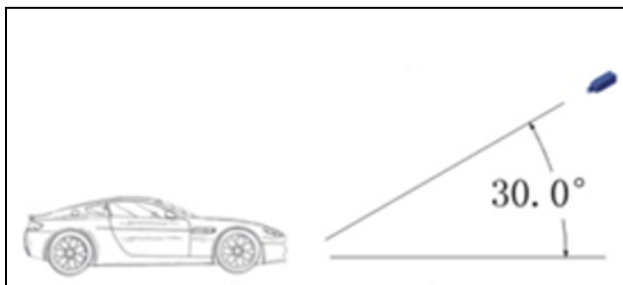


Plate Scene Angles

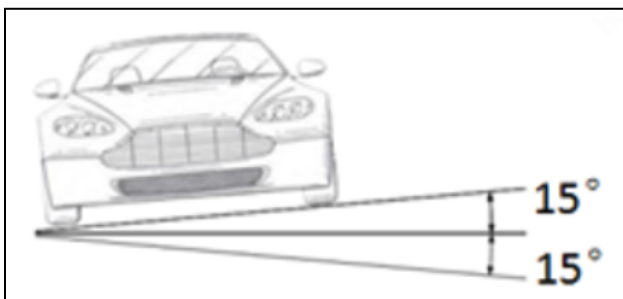
- **Horizontal Angle:** Position the camera so that the horizontal angle between the camera and the center of the license plate is no greater than 45 degrees.



- **Vertical Angle:** The vertical angle of the camera should not exceed 30 degrees. For best results, a vertical angle of approximately 20 degrees is recommended.



- **License Plate Tilt:** Ensure the license plate's horizontal tilt angle is within ± 15 degrees.

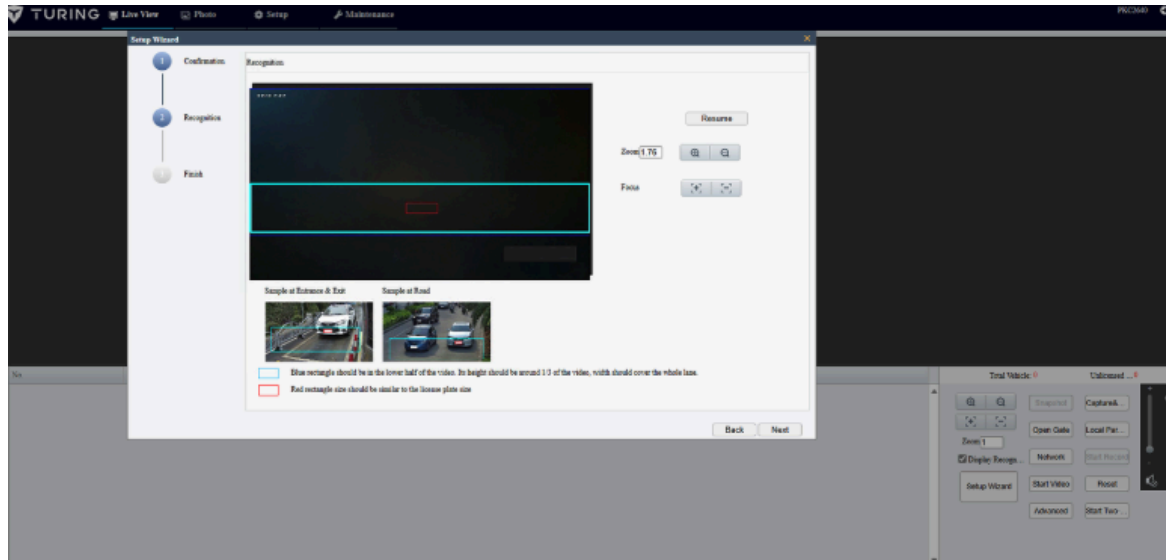


- **Pixel Size Requirements:** The pixel size of the plate should be between 90 to 300 pixels.



Camera Configuration

The license plate detection zone is pre-configured in the lower portion of the camera's field of view, encompassing approximately one-fourth of the total viewing area. Plate detection will be triggered when a vehicle's plate enters this designated zone. To streamline initial setup, a user-friendly configuration wizard is available, providing step-by-step guidance upon first-time camera access.



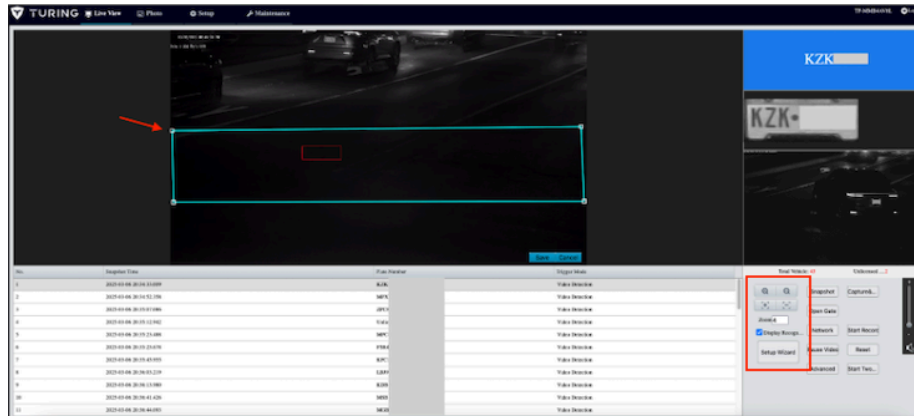
Configuring the LPR Detection Zone

To ensure accurate license plate recognition, follow these steps to configure the detection zone:

- **Adjust the Field of View (FOV):**
 - Use the zoom controls (+/-) to change the camera's field of view. This affects how large license plates appear in the image.
 - If needed, use the focus controls (+/-) to maintain image sharpness after zooming.
- **Position the Detection Zone:**
 - Blue Detection Zone: This zone triggers LPR when a plate enters it.
 - Ideally, position it in the lower half of the video feed.
 - Its height should be roughly one-third of the video's height.
 - Its width should span the entire lane of vehicle traffic.
 - Redraw or resize this zone as needed to fit the scene.



- **Set the Plate Size Reference:**
 - Red Rectangle: This box provides a visual guide for the minimum plate size needed for recognition.
 - Resize the red rectangle to match the approximate size of a license plate in the video.
 - By adjusting the FOV changes the relative size of this box.



NVR Configuration

- **Add LPR Camera:**
 - Add your LPR camera to the compatible Smart NVR as you would any other Smart camera.
- **Enable Plate Detection:**
 - Once the camera is added, access Smart / VCA settings within the NVR interface.
 - Ensure that the "Plate Detection" feature is enabled.
- **Select Camera-Side Analytic:**
 - In the camera settings, choose the "Camera Side Analytic" option. This ensures that LPR processing occurs directly on the camera for optimal performance.

Note: When adding the camera, please ensure **Private** protocol is selected. If the camera is added via ONVIF, the Plate Detection option on the NVR will be unavailable.

