

# CAMERA SETUP CHECKLIST FOR AUTOTRASSIR

WHO THIS CHECKLIST IS FOR  
Installers, system integrators, and technical specialists  
designing License Plate Recognition systems

For stable and accurate license plate recognition  
in TRASSIR video surveillance system

Use this checklist before installation and commissioning

## 1 Camera hardware requirements

- Resolution: Recommended 2 MP; higher resolution only if needed; avoid excessive resolution
- DORI / PPM: Minimum 250 PPM; Recommended up to 500 PPM
- License plate size in frame: 120–140 pixels width horizontally
- Matrix (Sensor) Size: Minimum 1/2.8"; Recommended 1/1.8" for low light
- Aperture: Minimum F1.6; Recommended F1.2 in low light
- Lens: Varifocal,  $\geq 4\times$  optical zoom; focal length must ensure plate occupies 120–140 pixels
- Dynamic Range: HLC support; WDR recommended if needed
- Standards: ONVIF Profile S

## 2 Image requirements

- License plate must be clearly readable, not blurred, not overexposed, fully visible
- Plate contrast sufficient; no glare or heavy shadows

## 3 Camera installation rules

- Angles: Vertical 15°, Horizontal 15°; Max 30°
- Positioning: Capture vehicles from stable approach; avoid extreme side angles

## 4 Shutter speed requirements

- Manual shutter control required
- Shutter speed fixed depending on vehicle speed and angle
- Too low shutter speed causes blurred plates and recognition failure

## 5 Camera settings

- Codec: H.264
- Bitrate: Sufficient for resolution, FPS, motion; stable image
- Autofocus: Disable
- OSD: Disable all overlays
- Image Enhancements: Disable software enhancements; HLC allowed if needed; hardware WDR only if necessary

## 6 Lighting requirements

- Scene evenly illuminated, free from reflections and glare
- Night conditions: No overexposure, no IR reflection
- Avoid mixed lighting, backlight behind vehicle, strong sunlight reflection on plate

## 7 Common installation mistakes

- Plate <120 px
- Angle >30°
- Autofocus enabled
- Shutter speed too low
- Excessive compression
- Overexposed plates at night
- Incorrect focal length

## 8 Final validation checklist (before go-live)

- Plate width 120–140 px
- PPM  $\geq 250$
- Angles  $\leq 15^\circ$  ( $\leq 30^\circ$  max)
- Fixed shutter speed configured
- Autofocus disabled
- Stable bitrate and compression
- Even lighting without glare
- Plate clearly readable by eye

**If all boxes are checked — system is ready for production deployment.**

For complex scenes, short paths, or wide entrances, consult a TRASSIR Presales Engineer.