Milesight Intelligent Traffic Cameras

Installation Guide

TrafficX Series

Thank you for purchasing Milesight products. We highly recommend following the instructions for installation and positioning of this product. Proper installation is crucial for optimal recognition performance. We appreciate your cooperation and assistance!

Installation Compliance Statement

To ensure the product performs as intended, all installation steps — including mounting position, alignment angle, height, and environmental considerations — must be strictly followed according to the guidelines provided in this manual.

Improper installation or deviation from the specified parameters may lead to reduced detection accuracy, unstable system behavior, or even failure to function under certain conditions. Such issues may not be covered under warranty or after-sales support.

It is the installer's responsibility to verify that the mounting environment complies with the required conditions. The manufacturer shall not be held liable for any malfunctions, inaccuracies, or damages resulting from installation that does not conform to the specified standards.

For assistance or clarification during the installation process, please contact our technical support team.

Camera Introduction

Camera Series: Intelligent Traffic - TrafficX Series
Model: TS5510-GH / TS5511-GH
Website:
https://www.milesight.com/security/product/trafficx-camera
https://www.milesight.com/security/product/trafficx-enforcement-camera
Attached Diagram:

Minimum Image Requirements for License Plate Recognition

To ensure consistent and reliable license plate recognition performance, all deployed devices must meet the following minimum image quality standards:

1. Minimum Plate Height

The license plate must appear with a minimum height of 32 pixels in the captured image. This is the baseline requirement for effective character recognition.

2. Plate Focus and Clarity

The license plate area must be in sharp focus, with all alphanumeric characters clearly visible and legible.

Images must be free from motion blur, glare, reflections, or severe over-/underexposure.

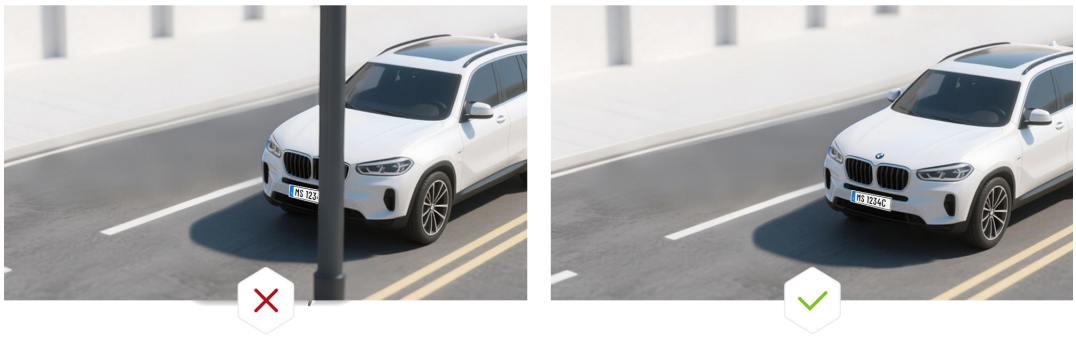
3. Plate Alignment

License plates should be horizontally aligned within the image, with minimal tilt (within ±5°). Plates that are significantly skewed may not be reliably recognized.

4. Frame Positioning

The license plate must remain within the designated recognition area throughout the monitoring process.

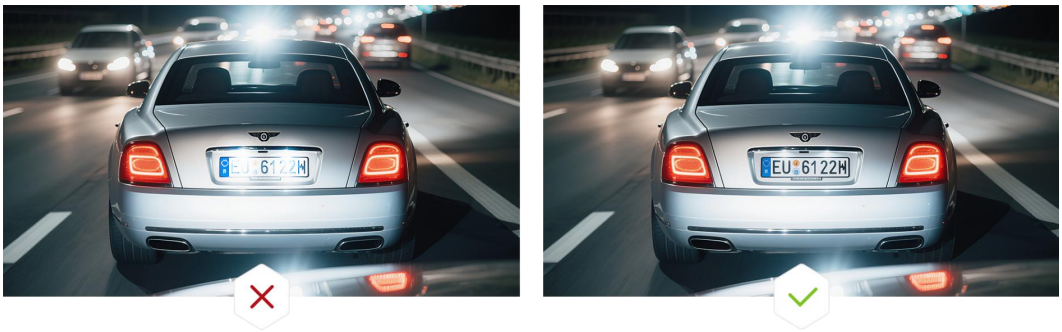
Plates should not be cut off, blocked, or positioned at the extreme edges of the frame.



5. Environmental Considerations

Avoid excessive exposure of bright sky regions or vehicle headlights, which may affect image contrast and recognition accuracy, especially under low-light conditions.

Ensure the license plate area is evenly illuminated under both daytime and nighttime conditions.



Note:

All field deployments must comply with the above specifications to maintain recognition accuracy and consistency across installations.

Recommended Installation

Model: TS5510-GH
Website:
https://www.milesight.com/security/product/trafficx-camera
Attached Diagram:

TrafficX Camera

Figure 1-1 Installation Scenario

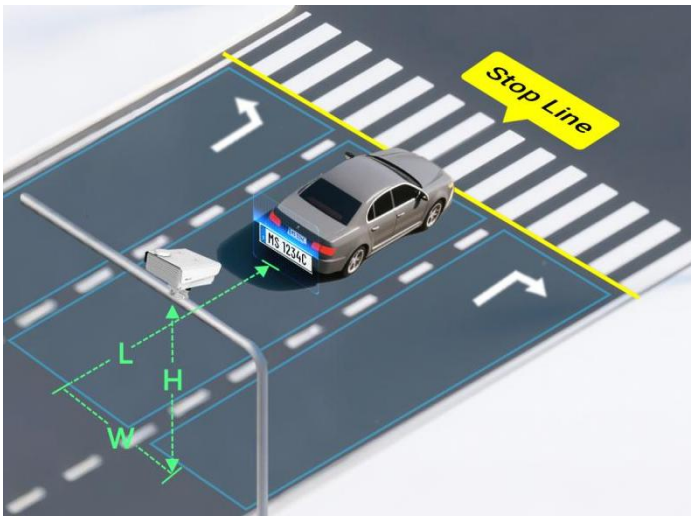


Figure 1-2 Installation Height & Width & Length

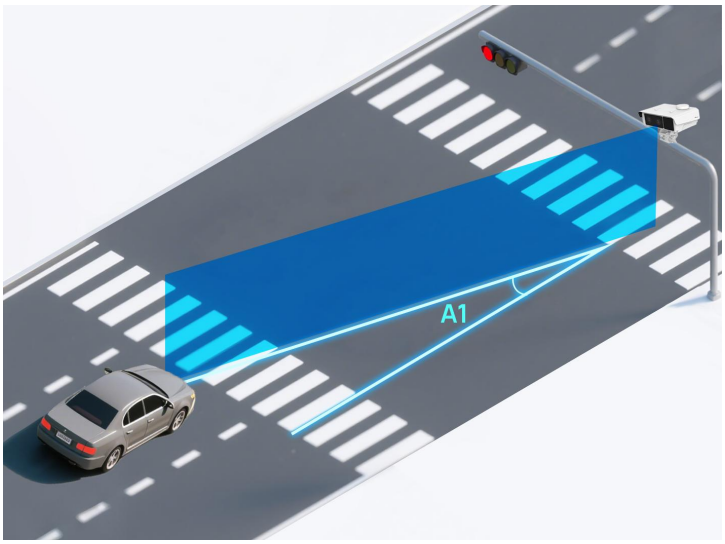


Figure 1-3 Installation Horizontal Tilt Angle

Figure 1-4 Installation Vertical Pitch Angle

	Height	Width	Length	A1 Horizontal Tilt Angle	A2 Vertical Pitch Angle
Recommended	4~8m (13.12~ 26.2 ft.)	0m (0 ft.)	/	0°	15°

Model: TS5511-GH
Website:
https://www.milesight.com/security/product/trafficx-enforcement-camera
Attached Diagram:

TrafficX Enforcement Camera

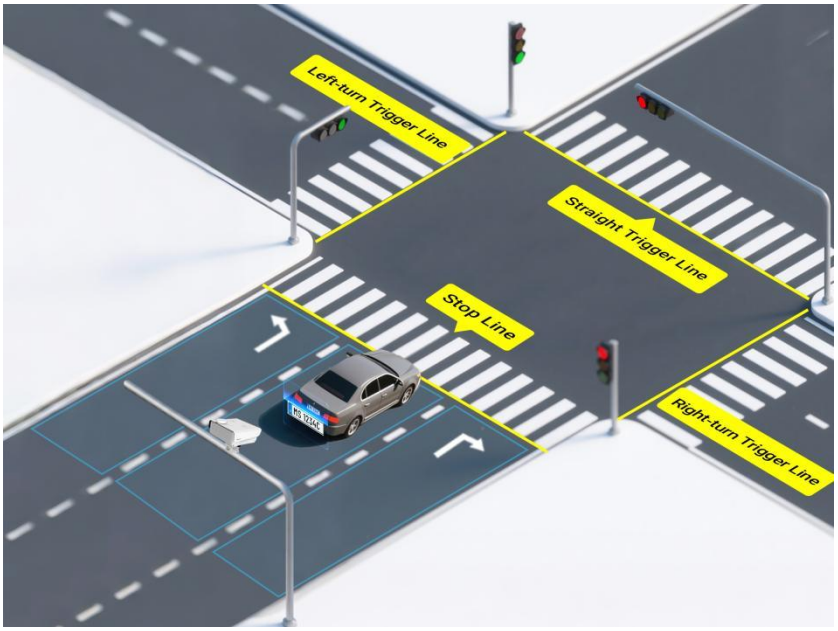


Figure 2-1 Installation Scenario

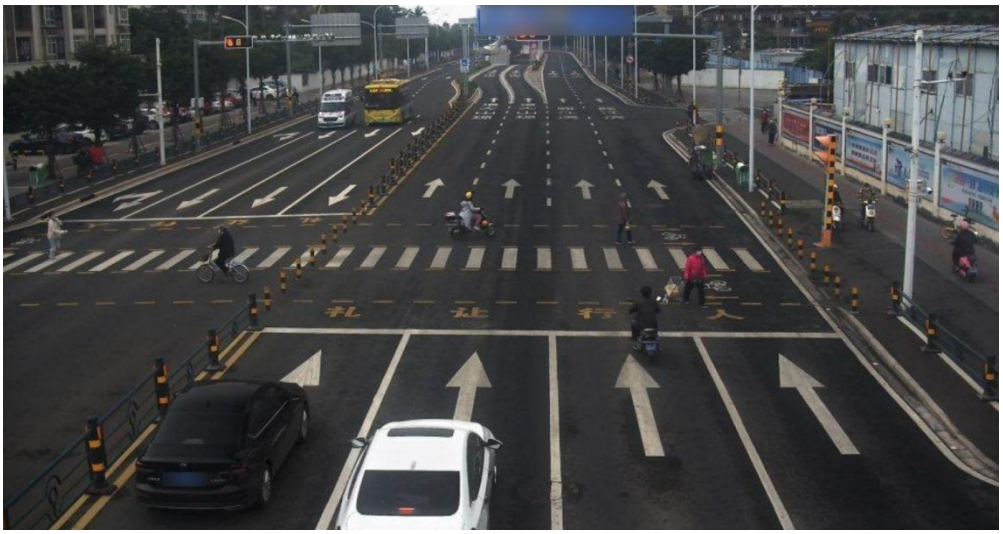


Figure 2-2 Camera View After Installation

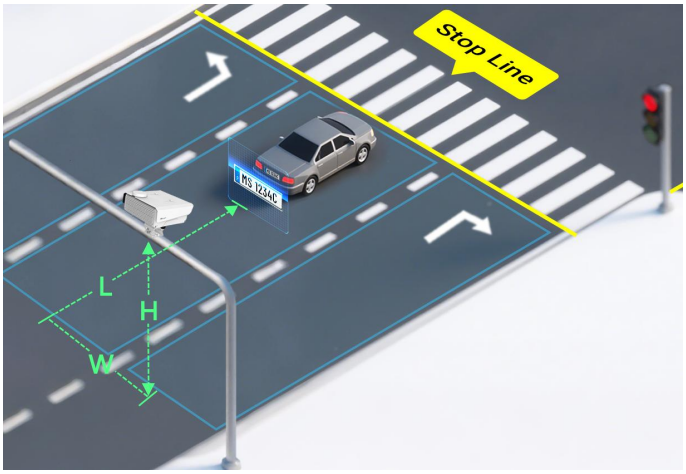


Figure 2-3 Installation Height & Width & Length

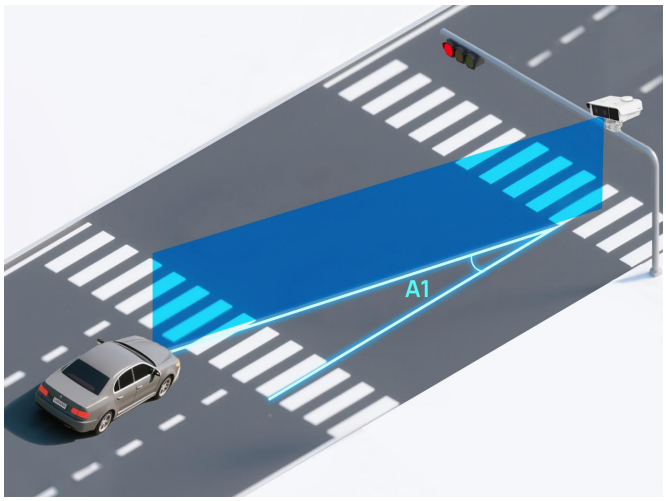


Figure 2-4 Installation Horizontal Tilt Angle

Figure 2-5 Installation Vertical Pitch Angle

	Height	Width	L from Stop Line	A1 Horizontal Tilt Angle	A2 Vertical Pitch Angle
Recommended	6~8m (19.69~ 26.2 ft.)	0m (0 ft.)	1.5 car lengths	0°	Dynamic Adjustment

Key Points for Calibration and Adjustment

Figure 2-5 Installation Adjustment

1. Field of View Selection

The **stop line** should appear approximately **one and a half car lengths** (for sedans) from the bottom edge of the image.

The top of the traffic signal light should be positioned slightly below the top edge of the image. Maintain a reasonable gap from the top edge to avoid excessive exposure of the sky, as illustrated in Figure 2-6.

The lower portion of the image should fully cover the lanes intended for monitoring as much as possible.

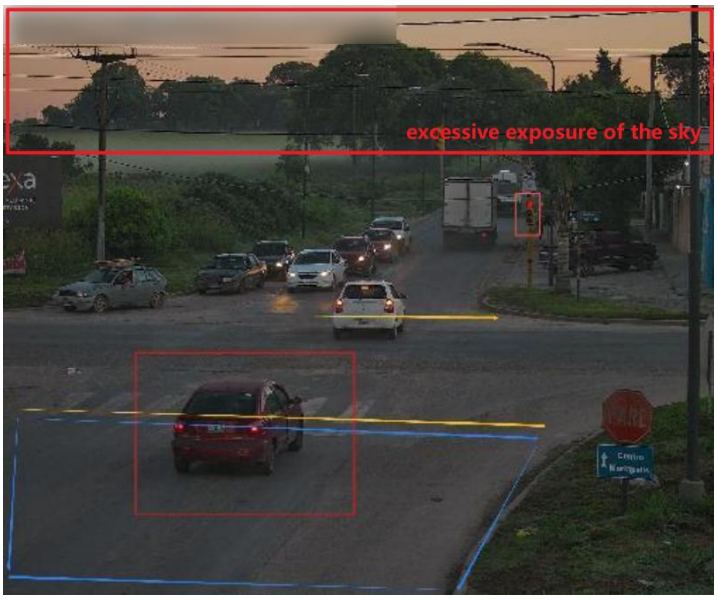


Figure 2-6 Excessive Exposure of the Sky

2. Focus Adjustment

Ensure that license plates are in sharp focus within the recognition area.

At the same time, the traffic signal light region must also be clearly visible and identifiable.

3. Level Alignment

The top and bottom edges of license plates should be parallel to the horizontal edges of the image frame to ensure proper alignment and recognition accuracy.

Figure 2-7 Correct Installation