



Intelligent Vision Series

INTELLIGENT NIGHT VISION DEVICE

NS7 | **Nocpix Auto**

Operation Manual

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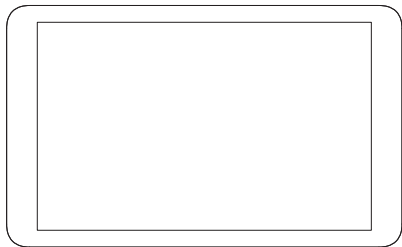
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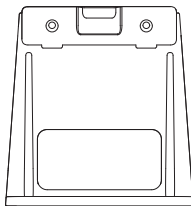
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Please read this Manual carefully before using this device

01 Product List



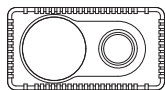
NS7 main body screen



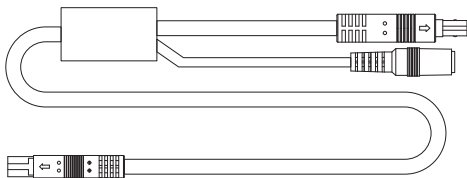
Main body screen bracket



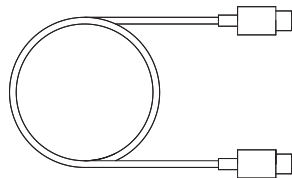
Cigarette lighter



Camera

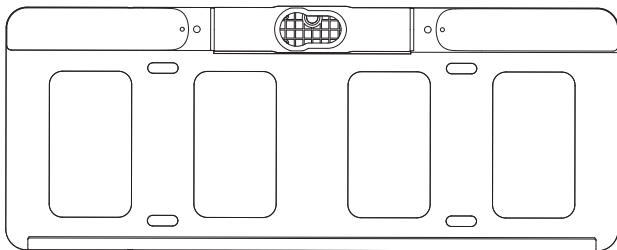


Y splitter cable

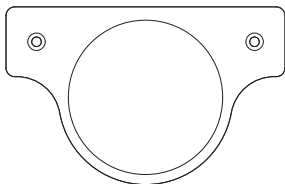


Dula Type_C cable

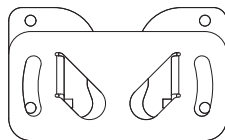
Optional Accessories



License plate bracket



Magnetic bracket

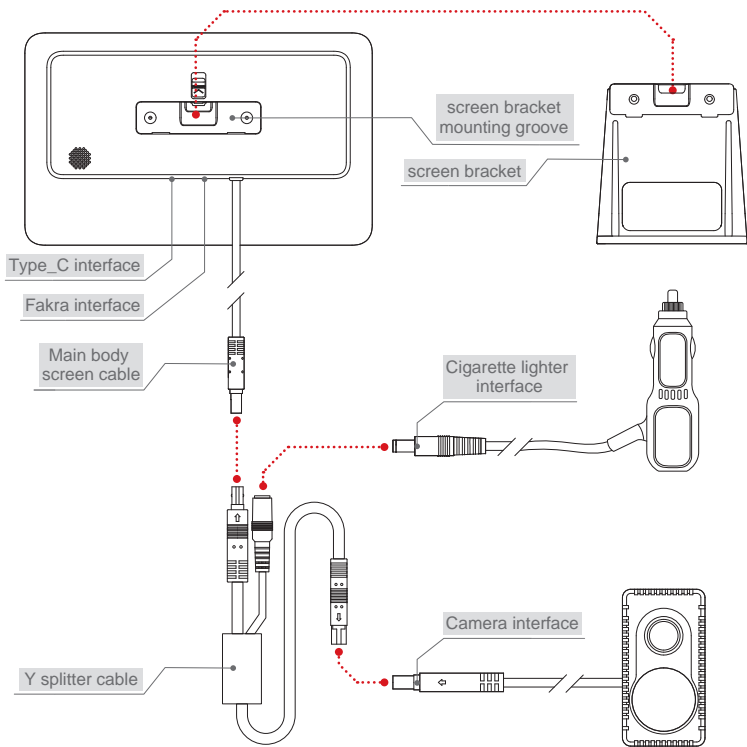


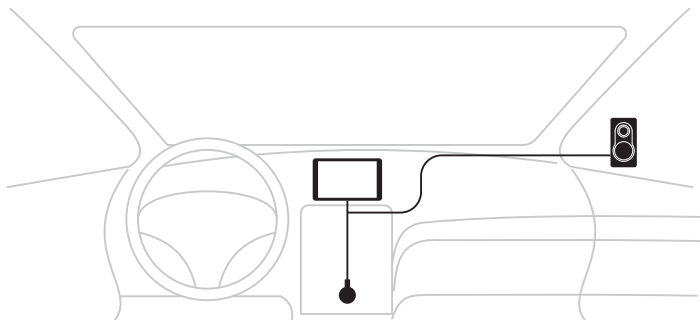
Camera bracket

02 Specifications

Model	NS7
Resolution	hermal imaging: 256×192 Visible light: 1920×1080
Field of view	Thermal imaging: H32° Visible light: H120°
Frame Rate	25Hz
AI Algorithm	R+
Warning Function	Supports FCW, PCW, LDW, WVCs, Front Vehicle Start-Up Alert, and Wildlife Crossing Warning
Operating Temperature	-20 " 70
Storage Temperature	-25 " 70
Ingress Protection Rating	Camera: IP67 Main Body: IP54
Installation	License plate holders、 Root、 Car grille
Power Supply Requirements	DC12V
Display	7-inch LCD touchscreen

03 Interface Description

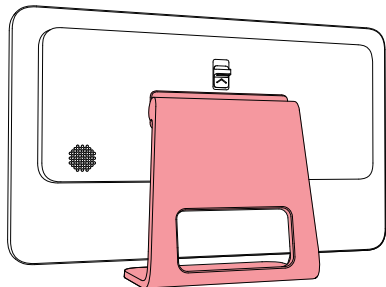




Installation
Recommendations

1. Screen Bracket Installation

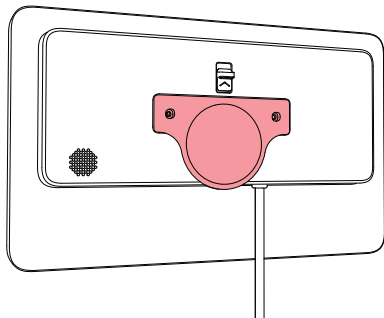
The main body of the device comes with a built-in screen bracket (see the diagram on the right for bracket details), which can be secured near the vehicle's center console (see the installation suggestion diagram for specific placement).



2. Optional Magnetic Bracket

TIPS:

The optional magnetic mounting solution includes a magnetic adhesive bracket and magnetic patch. The magnetic bracket must be purchased separately; search online for “magnetic bracket” to buy it.

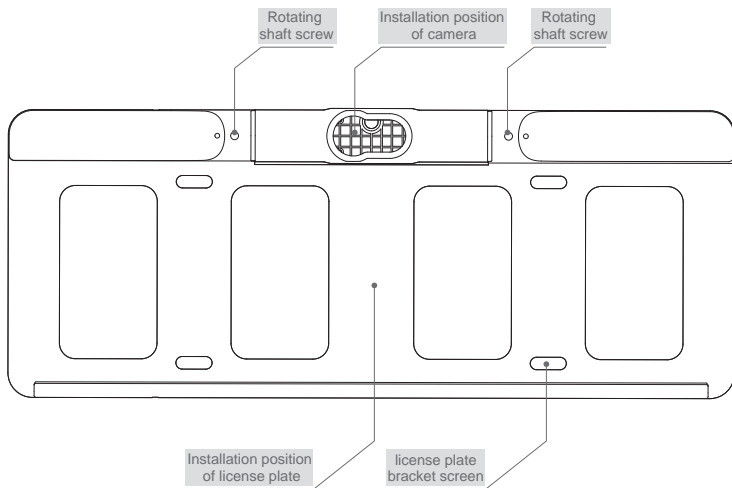


3. Alternative Installation Methods

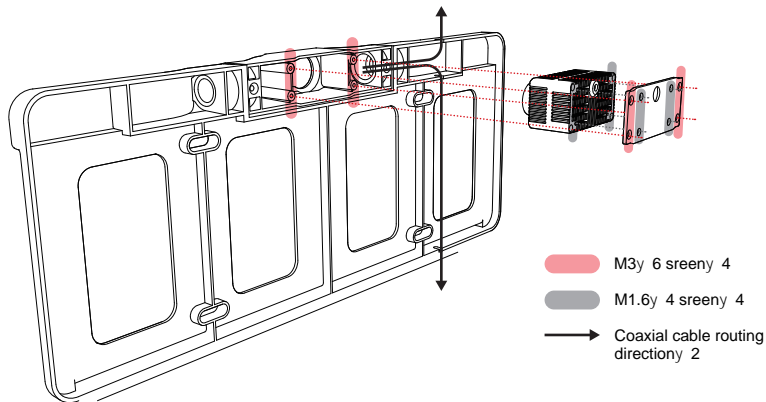
The screen bracket on the main body is detachable. If the bracket is unsatisfactory or if you prefer windshield mounting, search online for a “car tablet holder” to secure the main body.

1. Optional License Plate Bracket Installation

The camera is equipped with an optional dedicated bracket that can be mounted at the license plate area and can also serve as a license plate bracket itself. The bracket, as shown in the diagram below, includes a pivot at the camera mount, allowing angle adjustments up and down to ensure the camera faces directly forward.

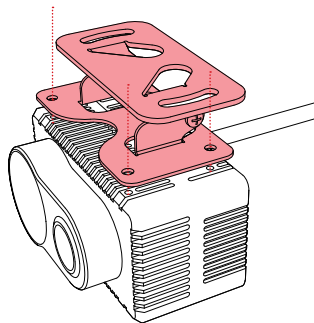


Install the camera and the camera license plate bracket (The license plate bracket is mounted at the license plate location.). See the diagram below for an illustration of the camera mounted on the license plate bracket.



2. Optional Bracket Installation

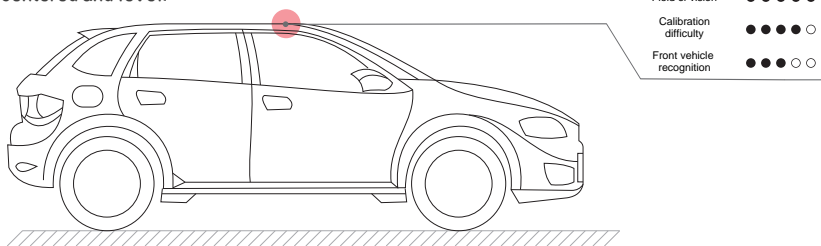
The camera bracket consists of two parts, with a pivot in the middle that enables angle adjustments to ensure forward-facing imaging. First, attach the bracket to the back of the camera using screws. Secure the other end near the front grille with 3M adhesive tape. For added stability, use both 3M adhesive and screws to fix the camera to a perforated, drillable location. Be mindful of the camera orientation to ensure it faces forward at a horizontal level.



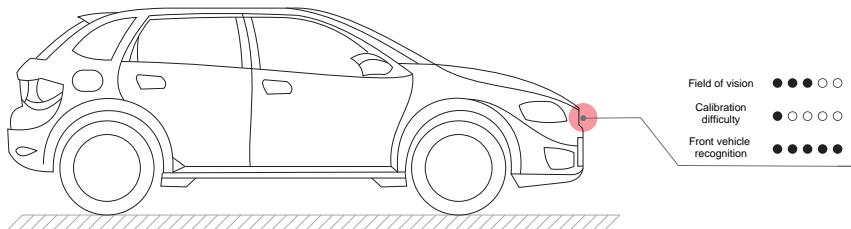
3. Alternative Installation

The camera base includes an M6 screw hole that can be used with an exterior magnetic bracket (available for purchase online). The camera can be mounted in one of the following two locations based on vehicle needs:

① Attach the camera to the center of the roof with vehicle-grade adhesive, ensuring it is centered and level.



② Attach the camera near the front grille with vehicle-grade adhesive, ensuring it is centered and level.



05 Screen Calibration

TIPS:

For accurate warning functions, carefully read the calibration steps and complete the screen calibration.

Initial setup requires calibrating the camera according to its installation position. Upon turning on the device, please perform calibration immediately.

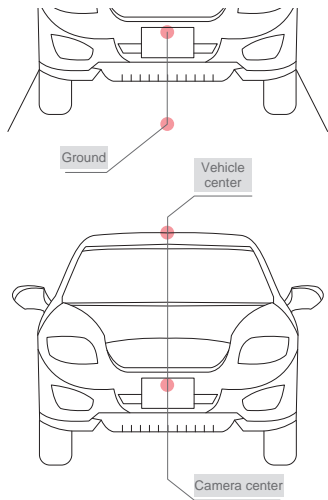
After powering on, tap anywhere on the screen to enter the main menu. Select ADAS > Calibration. You will need to input the installation distance parameters for the camera as follows:

Vertical Ground Height

The vertical height from the camera center to the ground after the camera is installed.
Reference value: 59cm.

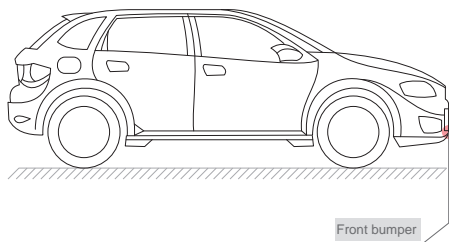
Horizontal Center Distance

The horizontal distance between the centers of the two lenses and the vehicle center after the camera is installed.
If the camera center is to the left of the vehicle center, the distance value is negative, with a negative sign; if it is to the right, the value is positive. As shown in the diagram below, if the center aligns, the value is 0; reference value: 0cm.

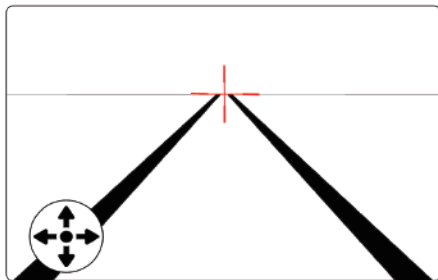


Distance to Bumper

The distance between the camera and the front bumper after the camera is installed. As shown in the diagram on the right, if the camera and bumper are aligned, the value is 0; (Reference value: 0cm)



After entering the location information, tap Confirm to proceed. A crosshair will appear on the screen. Position the vehicle in the center of a lane with clear lane lines. Ensure that the front and rear tires are parallel to the lane lines on a straight road, and align the crosshair with the point where the lane lines converge in the distance (as shown in the diagram below). Use the directional keys in the bottom-left corner to make fine adjustments, and tap Confirm in the bottom-left corner once complete to finish calibration.



Forward Collision Warning (FCW)

Monitors road conditions ahead in real-time, identifies potential collision risks in advance, and issues timely warnings for possible front-vehicle collisions, prompting the driver to take emergency actions.

Person Collision Warning (PCW)

Detects the presence of pedestrians in front of the vehicle in real-time, issues timely warnings for potential pedestrian collision risks, and prompts the driver to take emergency actions.

Lane Departure Warning (LDW)

Monitors the vehicle's position on the road in real time, and identifies whether the driver is deviating from their lane, helping to reduce unintentional lane departures due to distraction or fatigue.

Wildlife Vehicle Collision Warning (WVCs)

Detects the presence of large animals in front of the vehicle in real-time, issues timely warnings for potential large animal collision risks, and prompts the driver to take emergency actions.

Wildlife Crossing Warning

Detects large animals crossing the road ahead, issues timely warnings for potential large animal collision risks, and prompts the driver to take emergency actions.

Front Vehicle Start-Up Alert

When the vehicle is stationary and the front vehicle transitions from a stopped to a moving status, this function will alert the driver if their vehicle remains stationary for over 2 seconds after the front vehicle starts moving. This ensures the driver responds promptly and avoids delayed starts.

06

Product Functions

Video Switching Function

The device features a 7-inch large display with touch operation, allowing easy mode switching among Infrared, Visible Light, and PIP modes by swiping left or right. These modes, accessible with a dual-spectrum camera, display either infrared, visible light, or a PIP image on the 7-inch screen.

06

Product Functions

Recognition Frame Function

In Infrared Mode, when people, vehicles, or animals are detected in front, they will appear within a recognition frame on the display.

06

Product Functions

Video Mode

The device includes 16GB of internal storage for real-time video recording. Videos can be exported to a smartphone or computer and used as a dashcam.

06

Product Functions

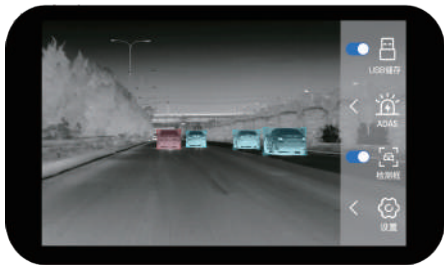
Upgrade Function

The device can be upgraded by connecting to a smartphone.

The USB storage function enables firmware upgrades and video export.

Upgrade

1. After receiving an upgrade notification, download the upgrade file from the provided link (to be added) and save it to any directory on your smartphone.
2. Connect the device to your smartphone smartphone via a Type-C cable, open the main menu, and activate the USB Storage function on the device. Your smartphone will recognize the device as a USB drive (View it under the storage section on your smartphone.).
3. Copy the downloaded upgrade file to the root directory of the USB drive. Power off and restart the device; it will automatically detect and install the upgrade file. After completing the upgrade, the device will reboot. You can verify the update by checking Menu > Settings > Info (For example, if the previous version was V1.0.0, it will update to V1.0.1.).



TIPS:

- ① Do not disconnect power or the Type-C connection during the upgrade.
- ② If the upgrade file cannot be copied in Step 3, navigate to 【Menu】>【Settings】>【Format】to format the device, and then restart from Step 2.
- ③ The host cannot receive the upgrade push, please check the latest firmware update information infrayoutdoor@infray.cn the service support on the official website.

Video Export

1. Connect the device to your smartphone via a Type-C cable, open the main menu, and activate the USB Storage function on the device. Your smartphone will recognize the device as a USB drive (View it under the storage section on your smartphone).
2. Access the NOMAL folder on the USB drive, select the desired videos, and save them to your smartphone or computer (Each video segment is 1 minute).

07 Product Operation ADAS

Tap the screen to access the right-side menu options and adjust the ADAS settings:

Sensitivity

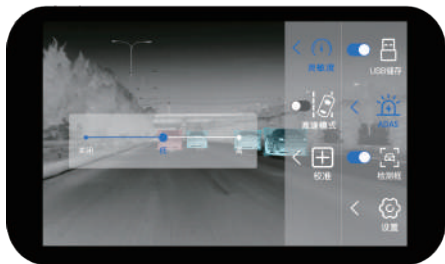
Set warning sensitivity to low, high, or off (The default is High; it is recommended to set high sensitivity for new drivers).

High-Speed Mode

Turn on/off the lane line departure warning. It is recommended to turn it when driving on highways.

Calibration

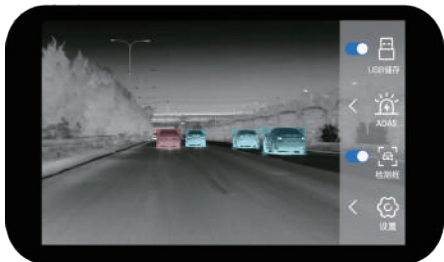
Complete calibration before using the device; see Screen Calibration for details.



07 Product Operation / Detection Frame

In Infrared Mode, a recognition frame will appear on-screen when people, vehicles, or animals are detected. You can turn this feature on or off. Different frame colors help the driver quickly identify objects and respond promptly:

- Red** Potential hazards
- Blue** Vehicles
- Orange** Pedestrians/cyclists
- Yellow** Animals



07 Product Operation / Settings

Tap the screen to display the function options on the right. Tap on Settings to adjust time synchronization, language settings, view device information, and format storage.

🕒 Data

Set the current time to sync with video timestamps.



Language

Switch between Chinese and English.



Information

View device version information.



🔄 Formatting

Formatting will delete all stored videos; please use it cautiously.

TIPS:

Some smartphones may not recognize the upgrade file or retrieve videos immediately. Try formatting and restarting the device, then reconnect.



07

Product Operation

Video switching

You can switch between infrared/visible/picture-in-picture modes (external dual-light camera) by sliding left and right to touch the operation.



07

Product Operation

Volume and Brightness

Swipe up or down on the right side of the home screen to adjust volume, and on the left to adjust brightness; both have four levels.



08

Maintenance

Firmware upgrades

The device can be connected to the mobile phone through the host screen to upgrade the firmware, please go to "USB Storage" in Chapter 7 for the specific upgrade steps.

Cleaning precautions

1. The camera of this device is waterproof but the host is not waterproof. Please use a cleaning cloth to clean the main unit, do not touch the main unit with any liquid or use any liquid with cleaning function on it;
2. If there is a foreign object outside the protective window of the camera, it is recommended to rinse with water or use a lens cloth and other tools to clean it, and do not wipe it with your fingers.

Installation precautions

1. When installing the camera, do not touch the lens with your fingers. If there are foreign objects on the surface of the lens, including but not limited to fingerprints, oil stains, and stains, the warning part of the device may fail.
2. There can be no glass, acrylic lamp transparent objects or non-transparent objects in front of the infrared camera, and infrared rays cannot penetrate;
3. The user of the main engine in the car can choose the installation location by himself, and it is recommended to install it near the central control.

Precautions for use

1. When parking in a highly hot area in summer, try to avoid long-term exposure of the host;
2. For very special vehicles, including but not limited to some three-wheeled models, modified models, and bizarre models, the equipment may not be able to accurately identify;
3. Ensure that the equipment is used in a normal and legal driving environment;
4. This equipment is an auxiliary product, and can not replace the driver's attention, please keep an eye on the road and traffic conditions at all times to avoid accidents.

name	Hazardous substances					
	Pb	Hg	Cd	Cr(VI)	PBB	PBDE
Circuit components	×	○	○	○	○	○
Metal parts	×	○	○	○	○	○
Plastic parts	○	○	○	○	○	○
Glass parts	×	○	○	○	○	○
Ceramic parts	○	○	○	○	○	○
power supply	×	○	○	○	○	○
annex	×	○	○	○	○	○

Note: This form has been prepared in accordance with SJ/T 11364-2014.

○: Indicates that the content of the hazardous substance in all homogeneous materials of the part is below the limit requirements specified in GB/T 26572-2011.

X: It means that the content of the hazardous substance in at least one of the homogeneous materials of the part exceeds the limit requirements specified in GB/T 26572-2011. The components marked as "x" are not able to be replaced by hazardous substances due to the limited level of global technological development.

1. Unauthorized maintenance, misuse, collision, negligence, abuse, liquid ingress, accident, alteration, incorrect use of non-product accessories, or tearing or altering labels;
2. The validity period of the three guarantees has been exceeded;
3. Damage caused by force majeure;
4. It does not conform to the performance failure listed in the "Product Performance Failure Table";
5. The product and its accessories have the performance failures listed in the "Product Performance Failure Table" due to human reasons.

1. Within 7 days from the day after signing, if the product has the performance failure listed in the "Product Performance Failure Table", it will be determined by after-sales service testing, and you can enjoy free return or exchange services.
2. Within 8 to 15 days from the day after receipt, if the product has the performance failure listed in the "Product Performance Failure Table", it will be confirmed by after-sales service testing, and you can enjoy free replacement or maintenance services.
3. Within 12 months from the day after signing, if the product has the performance failure listed in the "Product Performance Failure Table", it will be confirmed by after-sales service testing, and you can enjoy free maintenance services.

name		Performance failure (not caused by human damage)
Camera		Broken, unable to start properly
		The functions listed in the manual are invalid
Mainframe		The screen does not appear
		The screen touch function is not working
	名称	Unable to start the machine properly
fittings		Breakage, damage

Product model		Warranty	
Product PN code		Product SN code	
Date of sale			
User's name			
Contact		Contact number	
User's address			
Repair instructions			



Product model		Warranty	
Product PN code		Product SN code	
Date of sale			
User's name			
Contact		Contact number	
User's address			
Repair instructions			

Inlumen Technologies Co., Ltd.

Website: www.nocpixauto.com

Email: info@nocpixauto.com

Address: North 6F, Building B3, Hefei Software Park, No.800 Wangjiang West Road, Hefei
National High-tech Industry Development District, Anhui, China.