

ALIKE-C ANTI-COLLISION DEVICE

All-Weather AI Collision Avoidance Device | User
Manual V1.0 Jan, 2024



Welcome

Thank you for choosing our advanced driving assistance product – Alike-C All-Weather AI Collision Avoidance Device. This product is designed to enhance the driving experience, reduce accident risks, and make your driving smarter and safer.

The User Manual provides a comprehensive overview of the Alike-C All-Weather AI Collision Avoidance Device, including detailed information on installation, operation, configuration, and frequently asked questions. Please read the User Manual carefully before using the product to ensure correct installation and use.

If you have any questions or need further assistance, please feel free to contact our customer service team. We are committed to providing support to ensure you fully utilize all the functions of Alike-C.

Thank you for choosing our product. We look forward to enhancing your driving experience with more convenience and safety.

Wish you a pleasant and safe journey!

InfiRay On-Board Assistant – App Download

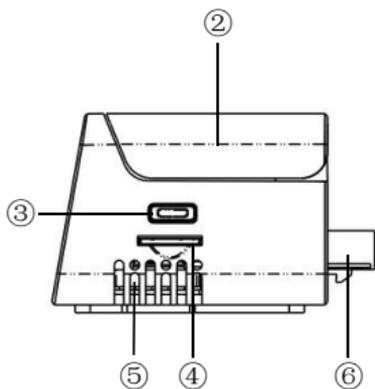
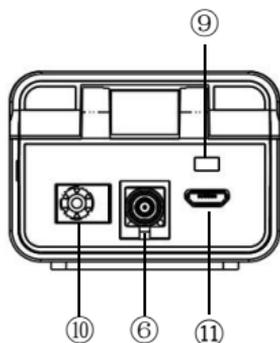
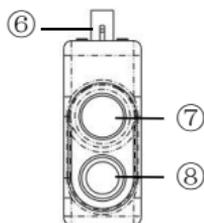
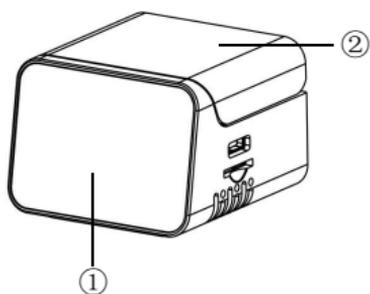
Users can scan the QR code on the right to download the InfiRay On-Board Assistant app and complete operations and configurations on the main body.

Currently, only Android 8.0 and above systems are supported



App download is also available here: <https://infi-ray-1308317278.cos.ap-nanjing.myqcloud.com/apk/adas.apk>

Product Appearance



① Touchscreen

⑥ Fakra interface

⑪ GPS interface

② Rotating support cover

⑦ Infrared lens

③ Type-C port

⑧ Visible light lens

④ microSD card slot

⑨ Light sensor

⑤ Heat dissipation window ⑩ Power

Product and Accessories List

Name	Quantity	Name	Quantity
Alike-C Main Body	1	Coaxial cable	1
Alike-C Dual-Spectrum Camera	1	Dual Type-C Data Cable	1
GPS	1	Card Ejector	1
Cigar lighter	1	Magnetic plate	1
License plate frame	1	License Plate Fixing Screw Pack	1



Main body



Camera



GPS



Cigar lighter



Coaxial cable



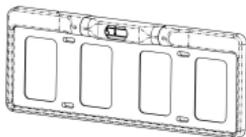
Dual Type-C cable



Ejector



Magnetic plate



License plate frame

Product Installation

To ensure optimal functionality of the main body, please ensure to meet the following requirements:

Power Supply

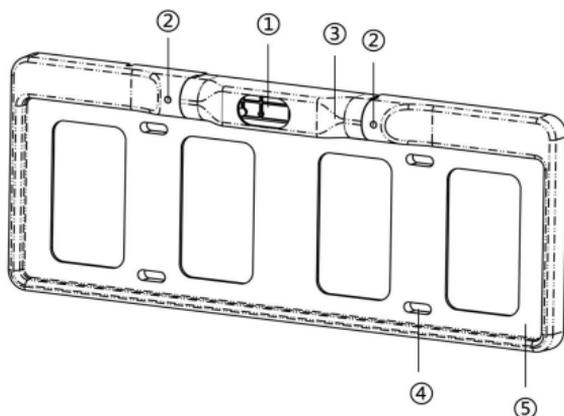
The Alike-C main body requires 12V on-board power (cigar lighter), and the camera is powered through the coaxial cable connected to the main body.

Operating Temperature

Operating Temperature: $-20^{\circ}\text{C} - 60^{\circ}\text{C}$

Installation steps (Detailed installation video is available on the official website)

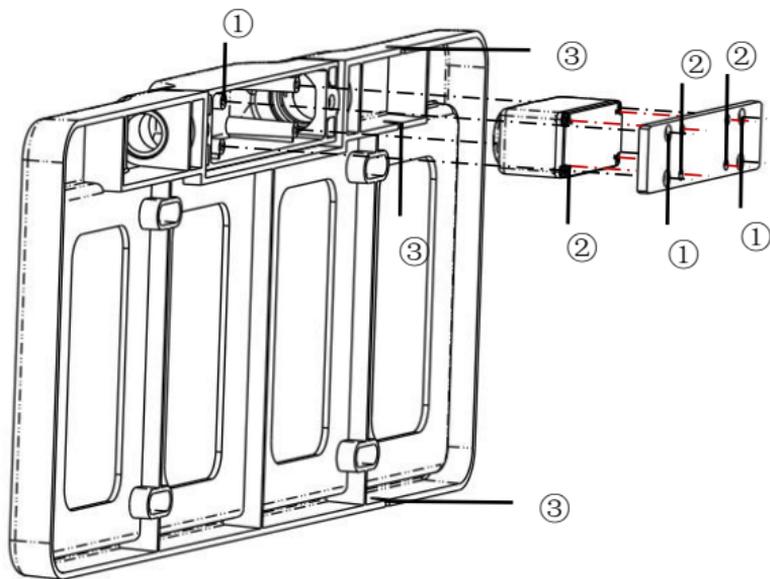
The camera part comes with a mounting support (installed at the license plate frame, and can be used as a license plate frame support). The bracket is as shown below (the camera mounting support has a pivot for up/down angle adjustment to ensure the imaging direction is facing straight forward).



- ① Camera installation position
- ② Pivot screw
- ③ Camera support (can be slightly rotated)
- ④ License plate frame screw installation position
- ⑤ License plate installation position

Step ①

Before installing the camera support, connect the camera to the coaxial cable and then install the camera on the support. The license plate frame, support, and camera installation are illustrated in the following figure:



① M3*6 screw installation position ② M1.6*4 screw installation position

③ Coaxial cable wiring channel

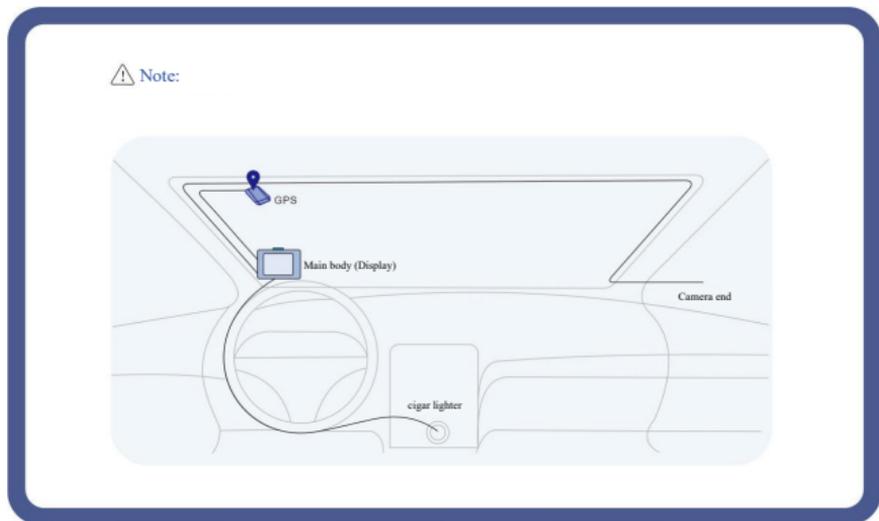
Step ②

Route the coaxial cable down, through the engine guard bar, then into the vehicle from the front engine hood; or route it up, through the center guard bar, then into the vehicle from the front engine hood.

Step ③

Connect the coaxial cable (short end), GPS, and power cable to the main body; connect the cigar lighter to the on-board 12V power supply.

The recommended in-vehicle wiring installation is shown below:



1. The waterproof end (long end) of the coaxial cable connects to the camera, and the short end exits from the license plate frame support into the vehicle to connect to the main body. The coaxial cable can be routed through wiring channels, with three channels available, top and bottom. It is recommended to run the cable downwards for a hidden and neater appearance;
2. There should be no glass, acrylic, transparent, or opaque objects obstructing the field of view in front of the infrared camera, as infrared cannot penetrate them;
3. The position of the main body inside the vehicle can be chosen by the user. It is recommended to install it on the upper surface of the A-pillar for easier concealed wiring.



Product Functions

1. ADAS Function

(FCW, Forward Collision Warning)

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.

(PCW, Person Collision Warning)

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

(LDW, Lane Departure Warning)

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.

Front Vehicle Start-Up Alert

Provides alerts when the front vehicle resumes moving, ensuring the driver responds promptly to avoid start-up delays.

Pedestrian Proximity Alert

Issues alert when the vehicle approaches a pedestrian, enhancing the driver's awareness of the surrounding environment and reducing the potential risk of collisions with pedestrians.

Front Vehicle Approaching Alert

Monitors the distance and speed of the front vehicle and alerts the driver to the approaching vehicles, helping to prevent potential rear-end collisions and enhancing driving safety.

2. Night Vision Function

Starlight visible light and true infrared capabilities. Utilize a VOx uncooled thermal detector that is designed for the night, glare, fog, and other special conditions; both the mobile phone app and the main body (touchscreen) provide video display function.

3. Recording Function

The main body includes an SD card slot. Inserting an SD card enables automatic recording, with the footage saved on the SD card, functioning as a dashcam.

4. Phone Charging

The main body's support features a magnetic suction function and a Type-C port, which can be used to connect a mobile phone for image and video display, serving as a phone stand and charger as well.

3. Product Operation

First-Time Use

① Check the SD Storage

Alike-C has no built-in storage and requires an SD card to store recorded footage. The main body comes with a 64G microSD card. If users opt to replace it with another SD card, it should be 64G or larger.

Note: Upon first power-up after replacement, the SD card system format will be automatically verified, and a restart is normal.

② Power On

For the first-time use, screen calibration of the current camera installation position is required. Upon starting, a screen calibration pop-up will appear, restricting other operations, along with a voice prompt "Please go to the app for screen calibration." Once the user completes the screen calibration in the app, the restriction pop-up will automatically disappear.

You can visit the official website to view a detailed video of the screen calibration process or scan the QR code in the app User Manual to view the detailed mobile operation process.

Note: For accurate warning functions, carefully read the calibration steps and complete the screen calibration following the main body prompts.

Park the vehicle on a flat surface with clear lane lines, and try not to straddle the lines. The app includes a level calibration function to determine if the current surface is inclined.

Step ①

After powering on and connecting the main body to the app, and once the **Connection Successful** authorization prompt is displayed, click **My** in the bottom right of the home screen, then click **Screen Calibration** in the operation bar to proceed with the calibration.

Step ②

Input the specific values of the camera installation position according to the prompt and click **Next**.

Refer to the following for detailed installation position:

- Horizontal distance between the camera center and vehicle center:

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. If the centers overlap as shown in the right figure, it is zero.

(Reference value: 0)

- Camera height above the ground:

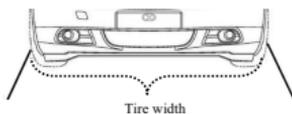
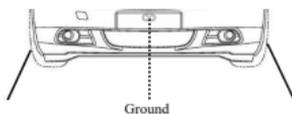
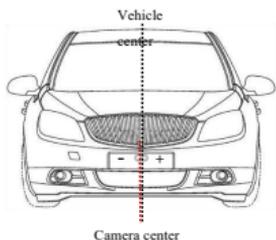
The vertical height from the camera center to the ground after the camera is installed.

(Reference value: 540)

- Horizontal distance from vehicle center to the side tire:

Half of the horizontal distance between the two vehicle outer tires.

(Reference value: 875)

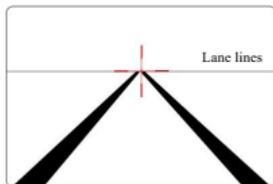


Note: The reference values are measured based on a typical sedan installation position, all in millimeters, and are for reference only. Please measure and enter the actual camera installation position information.

Step ③

When a red cross cursor appears on the video screen, drag the cursor with your finger to select a point and click **Next**.

Cross cursor selection rule: The point where the road lane lines converge and disappear at the end of the road, as shown in the right figure.



Step ④

Follow the main body's voice prompts to **drive straight** along a road with clear lane lines until the voice prompts "Calibration Successful," indicating screen calibration is complete. If the main body voice prompts "Calibration failed," please follow the prompt to go to the app and repeat the above steps.

Reasons for calibration failure:

- No lane lines or unclear lane lines.
- Inaccurate point selection (refer to Step ③).
- Camera replacement (If the camera is not the one originally purchased with the product, it is necessary to select **Camera Update** before proceeding with screen calibration. Refer to the app User Manual for details).

Note: If any changes or maintenance work affect the camera's position, connect to the app and click **Camera Update**, and then reperform **Screen Calibration** before use.

Scene Screen – Default Screen

After powering on, the system enters the Scene Mode – Normal Mode animation screen by default.



1. GPS Signal Strength

GPS signal strength is divided into five levels: disconnected, no signal, low signal, medium signal, and full signal status.

Note: Disconnected status indicates a poor GPS contact or damage. Please check and replace if necessary.

2. Own Vehicle Indicator

Recognizes the target vehicle and lane lines, using your own vehicle as a fixed reference point.

Scene Screen – Visible Light/Infrared Screen

After powering on, from the system's default screen, swiping left accesses the visible light-only video display screen, while swiping right enters the infrared-only video display screen. Swiping left and right under the video display screen allows for toggling between dual-spectrum modes.



Menu Screen – Home Screen

Click anywhere on the default scene screen to enter the main menu.



Menu Screen – Mode Screen

The mode functions include Normal Mode and Special Mode, which the user can choose from.

Normal Mode: Designed for clear daytime and sunny conditions.

Special Mode: Designed for night, rainy, foggy, and other visibility-impeded conditions.



Click a specific mode. After the icon lights up, a pop-up window will appear. Click **Enable** to automatically return to the home screen, indicating a successful setting. If the pop-up displays **This function is already enabled**, it means the current mode is already active, and no further setting is needed. To cancel a specified mode and restore the automatic mode, click **Disable**.

The main body features an adaptive mode-switching function. It automatically adjusts its mode based on the current environment's "brightness level" when the user does not switch manually. However, during foggy or rainy days, users must select the mode for daytime scenes manually.

Menu Screen – Sensitivity Screen

The sensitivity screen allows for the uniform setting of sensitivity for all alarm functions, with three levels: High, Medium, and Low. Clicking a specific level, the corresponding icon lights up for 2 seconds and then automatically returns to the home screen, indicating a successful setting.

High: Suitable for novice drivers. The alarm mechanism is more sensitive. Alarms are issued earlier, leaving a longer reaction time, and the alarm frequency is higher.

Medium: Suitable for most drivers. The alarm mechanism is moderate, leaving an appropriate reaction time, and the alarm frequency is moderate.

Low: Suitable for experienced drivers. The alarm trigger conditions are stricter, leaving an appropriate reaction time, and the alarm frequency is low.



Note: Connection to the app allows for the synchronized setting of unified sensitivity, and the app also allows for setting the sensitivity of individual alarm functions.

Menu Screen – Settings Screen

The Settings Screen includes the on/off settings for the lane departure function and the phone charging function.

Lane Departure: Allows the user to quickly enable or disable the lane departure alarm function.

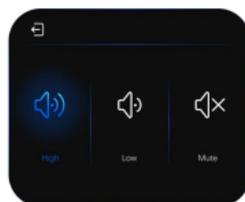
Phone Charging: When the main body is connected to a mobile phone, the phone charging function is disabled by default. Users can choose to enable the charging function to charge their mobile phone.



Note: Connecting to the app allows synchronizing the settings. However, due to restrictions of different mobile operating systems, some phones may not recognize the app when the charging function is enabled.

Menu Screen – Volume Screen

The volume function allows setting the main body volume uniformly to High, Low, or Mute. Clicking a specific level, the corresponding icon lights up for 2 seconds and then automatically returns to the home screen, indicating a successful setting.



Warning Screen – Front Vehicle/Pedestrian Collision Prevention

Real-time monitoring of vehicles/pedestrians ahead; assessing the distance, position, and relative speed between your own vehicle and the front vehicle/pedestrian; providing auditory "beep" and visual alerts when potential collision risks are detected.



Warning Screen – Vehicle/Pedestrian Distance Alarm, Lane Departure Alarm

Real-time monitoring of front vehicles/pedestrians/lane lines. When the distance between the front vehicle/pedestrian and your vehicle is too close, or lane departure occurs, the system issues audible warnings "Watch the distance," "Watch for pedestrians," "Lane departure," and visual alerts.



Warning Screen – Front Vehicle Start-up Function

Real-time monitoring of the driving state of the front vehicle. When the front vehicle starts and travels a certain distance while your vehicle remains stationary, the system issues an audible "Front vehicle started" warning and a visual alert.



Maintenance and Care

Firmware Upgrade Function

The Alike-C firmware is upgraded through the InfiRay On-Board Assistant app.

Before upgrading, check that the SD card is in the slot and ensure the phone is connected to the internet. After connecting the powered-on main body to the app, click **My** in the bottom right corner of the home screen, then click **ADAS Settings** in the operation bar. When there is the word **NEW** in the firmware upgrade badge, it indicates that an upgrade is available. The firmware upgrade process takes approximately two minutes but may be slower due to network speed.

Step ①

Click on **Firmware Upgrade**, and wait for the file to download. Once the download reaches 100%, the system will pop up a window allowing app access to MSC. Click **Confirm**.

Step ②

After confirmation in the previous step, a **Please click Confirm to start transferring files to the device** button will pop up. Follow the prompt and click **Confirm** to begin the upgrade. Please wait patiently during the upgrade process without any manual intervention. Once the progress bar reaches 100% and the countdown is zero, the main body will automatically restart, and the authorization window will pop up again, indicating a successful upgrade.

Upgrade Precautions:

1. During the upgrade, do not power off the main body, keep the Type-C connected, do not close the app, and avoid running it in the background.
2. If no pop-up window appear or an upgrade failure is indicated, investigate the cause using the following methods:
 - I. SD card not inserted in the slot. Check if the SD card is properly inserted and not loose.
 - II. Try manually clearing some cache videos on the SD card.
 - III. If you click **Cancel** for "Allow app to access MSC" during the upgrade process, clicking **Firmware Upgrade** again may not show a pop-up window. Wait for the main body to automatically restart before trying to upgrade again.
 - IV. If the prompt **.../ADAS/FirmwareUpdate/SvcSysFW.bin open failed** pops up, check if the phone has granted file management permissions to the app. If not, please enable the permissions.
 - V. For some incompatible phone models, please try using a different phone.

Usage Notice

1. When installing the camera, avoid touching the lens with your fingers. Foreign substances on the lens surface, including but not limited to fingerprints, oil stains, and dirt, may cause partial failure of Alike-C's warning functions.
2. During the use of Alike-C, please keep the area in front of the main body's GPS interface clear of obstructions. The light sensor within the product can capture light in real time. Obstructions may cause deviations in the mode auto-adaptation and screen brightness auto-adaptation functions.
3. During the use of the Alike-C, do not cover the main body's heat dissipation window with any objects to prevent burns. In summer, when parking in highly hot areas, try to avoid prolonged exposure of the main body to direct sunlight.
4. In special environments where the GPS cannot find a signal, the lane departure function (excluding novice mode or manual disabling) will be ineffective.
5. For certain special vehicle types, including but not limited to certain tricycle models, modified vehicles, and unusual car models, Alike-C may not be able to accurately identify them.
6. Alike-C may not accurately recognize vehicles that cross in front of the moving vehicle or those too close to be displayed on the screen.
7. The Alike-C camera is waterproof, but the main body is not. Wipe the main body with a clean cloth, and avoid exposing it to any liquids or using any cleaning fluids.
8. Ensure that the Alike-C is used in a normal and legal driving environment.
9. Alike-C is an assistance product and should not replace the driver's attention. Please always remain vigilant of road and traffic conditions to prevent accidents.

Product Warranty

Warranty Period

1. Within 7 days from the day after receipt, if the product exhibits performance failures listed in the *Product Performance Failure Table*, as verified by after-sales service, it can be returned or exchanged free of charge.
2. From the 8th to 15th day after receipt, if the product exhibits performance failures listed in the *Product Performance Failure Table*, as verified by after-sales service, it can be exchanged or repaired free of charge.
3. Within 12 months from the day after receipt, if the product exhibits performance failures listed in the *Product Performance Failure Table*, as verified by after-sales service, it can be repaired free of charge.

Product Performance Failure Table

Name	Performance Failure
Main body	Functions listed in the User Manual not working
	No screen display
	Touchscreen function not working
	Unable to start the device properly

Non-Warranty Clause

1. Unauthorized repairs, misuse, collision, negligence, abuse, liquid ingress, accidents, modifications, incorrect use of non-original accessories, or tearing and altering of labels;
2. Expiry of the warranty period;
3. Damage caused by force majeure;
4. Conditions not listed in the *Product Performance Failure Table*;
5. Performance failures of the product and its accessories caused by human factors listed in the *Product Performance Failure Table*.



This manual is for reference only. Specific functions and images may differ from the actual product. Please refer to the actual product for accuracy.

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