

InfiRay On-Board Assistant Software (For Android)

User Manual
(V1.0.1)

InfiRay Technologies Co., Ltd.

Usage

The InfiRay On-Board Assistant app connects with the main body to display real-time high-definition video on your mobile device, supporting visible light, infrared night vision, and picture-in-picture (PIP) modes, as well as real-time recording, photo taking, and more, providing users with a more comprehensive product experience.

Currently, only Android 8.0

and above systems are supported

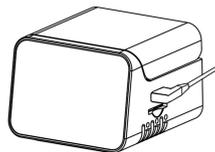


APP download is also available here:

<https://infray-1308317278.cos.ap-nanjing.myqcloud.com/apk/adas.apk>

InfiRay On-Board Assistant – App Connection

Connect the mobile phone using the provided dual Type-C cable (connect the bent end to the main body, as shown below). Upon powering on and connecting the app, an authorization prompt will automatically pop up. Confirm to complete the connection successfully.



If the authorization prompt does not pop up automatically after opening the app, try the following methods:

1. Unplug and replug the Type-C cable for re-recognition.
2. Exit the app, clear the background, and re-enter the app.
3. Open the mobile phone settings, search for "OTG" settings, and turn on the OTG option if it is off; if you cannot find it, there are no OTG settings by default, and you need to try another method.
4. Replace the Type-C cable if it is damaged.
5. If the authorization prompt pops up but is accidentally canceled, exit the app, clear the background, or replug the cable and try connecting again.
6. For a very few phone models that are not compatible, try using a different mobile phone.

InfiRay On-Board Assistant – Functions and Usage

App Home Screen Functions

When the video window shows a logo/black screen (Figure 1.1), it indicates that the app is not connected to the main body or the connection has failed. Please check the connection status as per the app connection instructions. When the video window displays a normal video (Figure 1.2), it indicates the app is successfully connected to the main body. When the mobile phone is placed horizontally, the video will automatically switch to landscape mode (Figure 1.3).

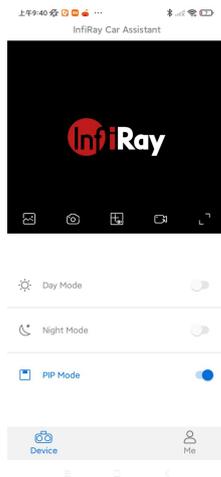


Figure 1.1

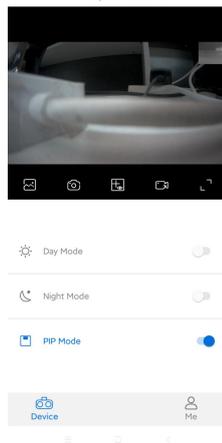


Figure 1.2



Figure 1.3

 Day Mode: Visible-light-only video mode.

 Night Vision Mode: Infrared-only video mode.

 Picture-in-Picture (PIP) Mode: Dual-spectrum video mode.

 Album: Manages photos and videos taken with the phone and On-Board Assistant.

 Photo Taking: Click to take a photo.

 Horizontal Calibration: Used to determine if the current screen is level during camera installation.

 Recording: Click to start recording.

Note: The functions of the landscape mode buttons are consistent with those of the portrait mode.

App Sub-Screen Functions

ADAS Settings

The main body functions are set in the app. The function screen cannot be accessed when the phone is not connected to the main body.

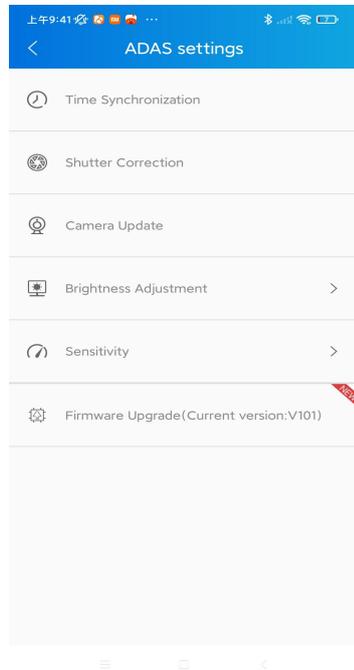


Figure 2.1

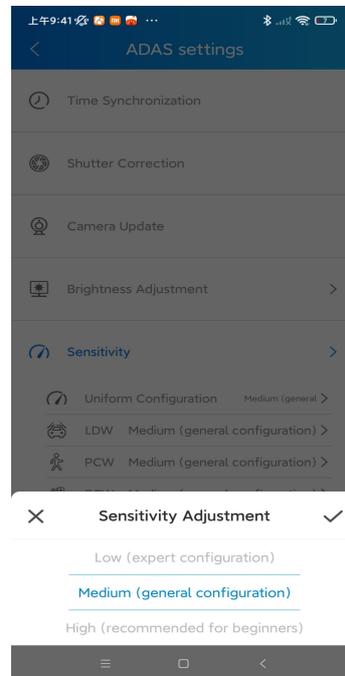


Figure 2.2

 Time Sync: Synchronizes time with the main body. Mainly used for time calibration when there is a time deviation in the videos stored on the SD card.

 Shutter Calibration: Fixes anomalies in infrared videos.

 Camera Update: After replacing the camera, click this function to re-match the camera with the main body before calibrating the screen (not required for first-time use).

 Brightness Adjustment: Actively adjusts the screen brightness of the main body.

 Sensitivity: Adjusts the alarm sensitivity of the main body, including unified adjustment and detail fine-tuning (Figure 2.2).

 Firmware Upgrade: Updates the main body program. When there is the word **NEW** in the firmware upgrade badge, it indicates that an upgrade is available. Detailed steps are explained on the next page.

Firmware Update

Step① Click on **Firmware Upgrade**, and wait for the file to download (Figure 2.3). Once the download reaches 100%, the system will pop up a window allowing app access to MSC (Figure 2.4). Click **Confirm**.

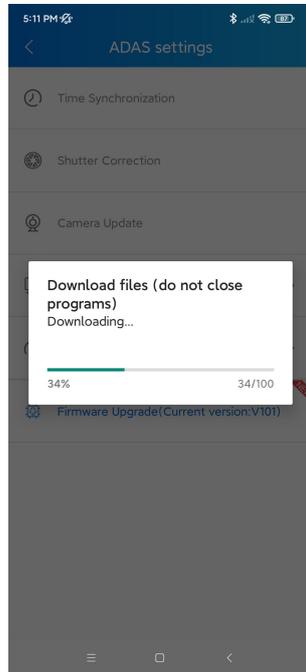


Figure 2.3

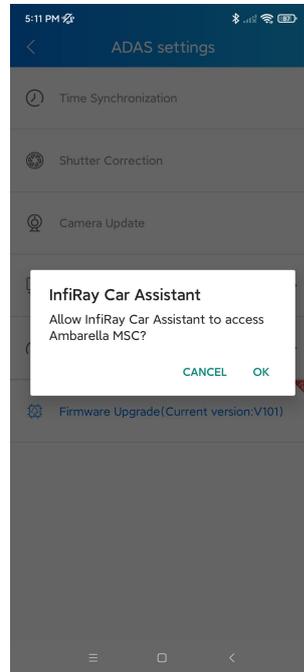


Figure 2.4

Step② After confirmation in the previous step, a **Please click Confirm to start transferring files to the device** button will pop up (Figure 2.5). 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 (Figure 2.6), and the authorization window will pop up again, indicating a successful upgrade.

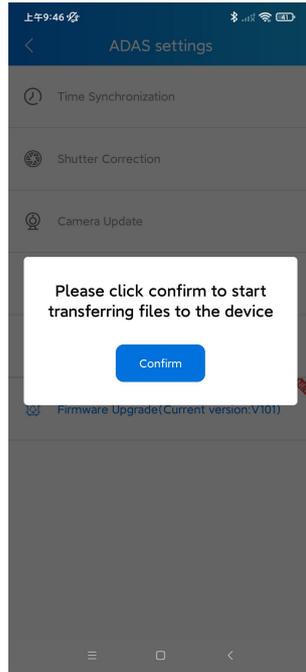


Figure 2.5

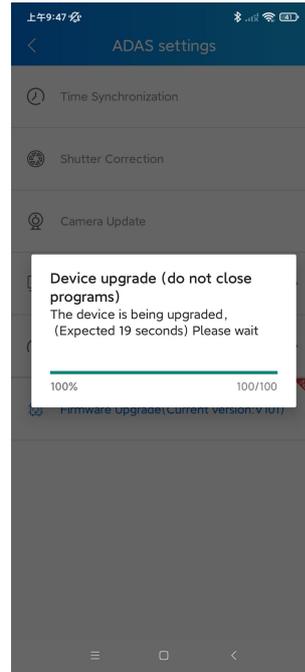


Figure 2.6

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 clicked 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.

App Settings

When there is the word **NEW** in the app update badge, it indicates that an app upgrade is available.

Screen Calibration

Screen calibration is needed in the following cases:

1. 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.
2. For product updates with a new original camera, click on the **Camera Update** function before performing screen calibration.

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

Click on **Screen Calibration** and enter, then input the specific values of the camera installation position according to the prompt (Figure 2.7).

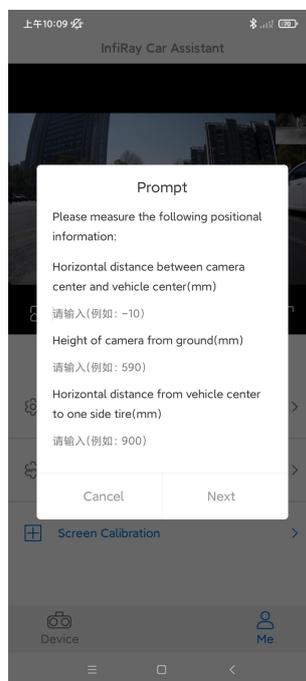
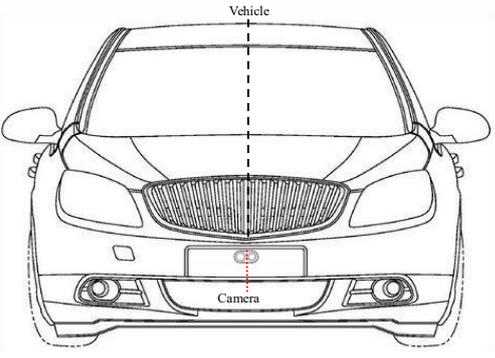
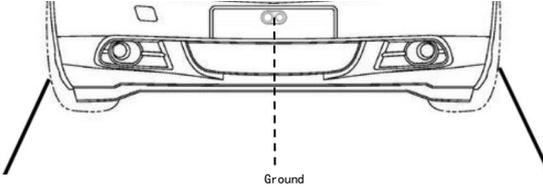
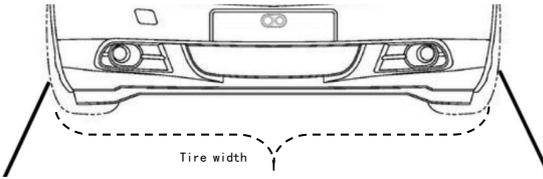


Figure 2.7

Refer to the following for detailed installation position:

<p>Horizontal distance between the camera center and vehicle center</p> <p>This refers to the horizontal distance between the centers of the two lenses and the center of the vehicle after the camera is installed.</p> <p>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.</p> <p>(Reference value: 0)</p>	
<p>Camera height above the ground</p> <p>This refers to the vertical height from the camera center to the ground after the camera is installed.</p> <p>(Reference value: 540)</p>	
<p>Horizontal distance from vehicle center to the side tire</p> <p>This refers to half of the horizontal distance between the two vehicle's outer tires.</p> <p>(Reference value: 875)</p>	

Step ②

Dragging the cross cursor with one finger allows for its movement. Cross cursor selection rule: The point where the road lane lines converge and disappear at the end of the road (Figure 2.11). If you do not select it correctly the first time, when you release your finger, the app will pop up asking if you want to confirm the selection. Choose **Reselect** to drag and reselect the cross cursor position. If you confirm the selection, click **Next**.

(To stop calibration and return to the home screen in the point selection screen, click the **Horizontal Calibration** button below the video.)

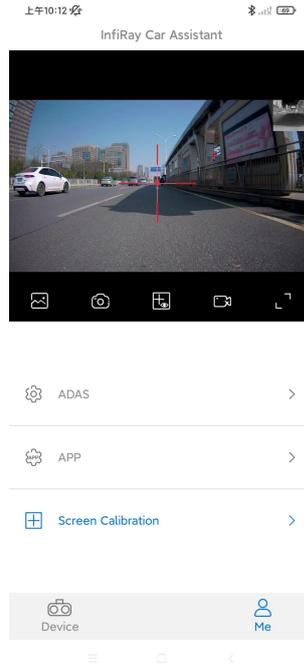


Figure 2.11

Step ③

When the prompt **Please drive on a flat road with clear lane lines for 3 minutes or more** (or the main body voice prompt) appears, begin driving. The app's prompt window will automatically close after three minutes (Figure 2.12). After the main body voice prompts "Calibration successful," it will automatically switch to the default screen, indicating that 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.

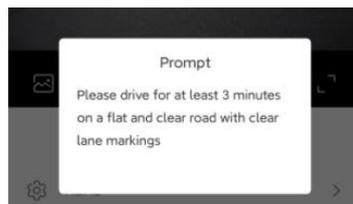


Figure 2.12