



Super Night Vision System

AKY-NV-X

INSTRUCTION MANUAL



Thank you for choosing our product.



Please read this instruction manual, use the correct connection and usage methods.







After reading, please keep it together with the warranty, and read it again when necessary.



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Safety Precautions (please follow)




 Mandatory	Strict compliance with the matters
 Caution	Matters that must be observed to avoid danger of death or serious injury
 Notice	Precautions to avoid risk of minor injury or property damage
 Prohibition	Prohibited matters


For your safety, please be sure to follow these instructions to prevent traffic accidents.

Caution


Use the designated fuse only and ask an engineer to replace it.

-  Do not wrap the cable around the steering wheel, gearlever, brake pedal, etc. Failure to do so may result in accident or injury.


Do not use bolts for installation in vehicle operating areas.

-  Installing this product in vehicle operating areas such as steering and brakes using bolts and nuts may result in accidents.


Please make sure that the car parts are working properly after installation.

-  If car parts (brakes, lights, horn, turn signals, etc.) do not work properly, it could cause a fire or accident.


Do not install in a position that hinders driving.

-  Installing in a location that hinders driving (near the steering wheel, etc.), blocks front and rear visibility, or poses a danger to passengers may result in traffic accidents or injuries.

Drivers please do not operate the screen/monitor while driving.

-  Operating or viewing the screen/monitor while driving may result in an accident due to inattention to traffic ahead. Please stop safely before use.

Cable installation does not hinder driving or getting in and out of the car.

-  Do not wrap the cable around the steering wheel, gearlever, brake pedal, etc. Failure to do so may result in accident or injury.

Safety Precautions (please follow)



Please check the location of the vehicle pipeline, fuel tank, etc. before installation.



When drilling installation is required, please avoid places such as fuel tanks. And increase the measures to prevent the parts from rusting. Failure to do so may result in electric shock or accidents.

Only suitable for DC12/24V negative grounded vehicles.



Cannot be used for vehicles other than the above. Failure to do so may result in fire or malfunction

Do not use if the product is damaged or appears abnormal.



Using this product in an abnormal state (such as smoke or strange smell) may cause a fire, etc.
• Immediately stop using and contact the store where you purchased it.

Do not disassemble or modify.



There are high-voltage parts inside the product, which may cause fire or electric shock.
• Ask engineers to check and repair internal parts.

Please keep small parts out of reach of babies.



Small parts may be accidentally swallowed. In case of accidental swallowing, consult a doctor

Prevent water or foreign matter from entering the host.



If combustible materials such as metal or water enter the main unit, it may cause malfunction, short circuit or heat due to poor insulation, resulting in fire, smoke, etc.

Cable and host installation/removal should be done by engineers.



Wiring and installation/removal require specialized skills and experience.

Do not use for anything other than in-vehicle use.



Using the product for purposes other than inside a vehicle (such as a boat) may result in smoke, fire, injury or malfunction.

Avoid strong impact on this product.



Dropping or hitting the product may result in malfunction or fire.

Be sure to use specified accessories and parts



Use of parts other than those specified may damage the inside of the main unit and cause an accident, malfunction or fire.

Safety Precautions (please follow)



Do not install the product in a high temperature environment.



Prolonged exposure to direct sunlight or hot air may cause the internal temperature to rise, resulting in fire or malfunction.

Do not install the product in damp, water or dusty places.



If water, dust, oily smoke, etc. get inside this product, it may cause smoke, fire, electric shock, injury or malfunction.

Do not install in places with strong vibration or instability.



If it is mounted on a hard curved surface, it may come off while driving, causing an accident or injury.

Do not touch the cigar adapter during a thunderstorm.



If you hear thunder, don't touch the cigar adapter. Failure to do so may result in electric shock.

System limitations.



The camera cannot completely cover the blind spot. Before reversing, please be sure to confirm the safety of the rear and surrounding areas.

The images displayed on the LCD and the rearview mirror are different.



The images displayed on the LCD screen and the rearview mirror are different, please check the differences in advance.

Do not kink, pull or damage the power cable.



A short circuit or disconnection may cause smoke, fire or malfunction.

Do not block the ventilation holes of the host.



Otherwise heat will build up inside the main unit, resulting in fire or malfunction.

Be sure to disconnect the negative battery terminal before installation.



Installing with the negative battery terminal connected may result in electric shock or injury due to short circuit.

Points for Attention



We are not responsible for any traffic accidents or traffic violations that occur while using this machine. Please drive safely.



We are not responsible for any damages caused by corrupted images or data.



This unit does not guarantee that images can be recorded under all conditions.



We do not guarantee that the images recorded by this unit can be used as valid accident evidence.



We are not responsible for any damages caused by accidents, vehicle malfunctions, etc. caused by installing this product.



Caution

Turn off the engine while installing.



Be sure to turn off the vehicle engine before installing this unit. Failure to do so may result in electric shock or malfunction.

Keep away from magnetic objects.



Do not place magnetic objects near this product. Failure to do so may result in machine failure or failure.

Image quality may be reduced.



When entering and exiting the tunnel, if the brightness changes suddenly, the backlight is strong, or there is no light source at night, the video quality may decrease.

Clean the surface of the windshield and lens.



Cleans the surface of car windshields and dash cam lenses. Avoid refraction caused by dust and foreign matter, which cannot be recorded clearly.

May not recognize the color of traffic lights.



The screen may flicker at LED traffic lights. Colors may not be recognized.

When the memory card is full.



Please clean up the memory regularly, otherwise the file with the earliest date and time will be overwritten among the loop-recorded files.



- Depending on the environment, GPS reception time may become longer, and in rare cases, GPS reception may not be possible for a long time.

- GPS signals may not be received in tunnels, mountainous areas, etc. Depending on satellite reception conditions, there may be an error of about 50m - 100m.

- If your vehicle's windshield is coated or specially treated, GPS reception may be affected.

- In places where GPS reception is not possible, the vehicle cannot be fully positioned.

- GPS is a system for measuring the current position on the ground using satellites of the U.S. Department of Defense.

- The date and time, vehicle speed and location information recorded by this device are calculated based on GPS and may be different from the actual values.

- Do not paint or apply stickers on GPS parts. Otherwise GPS performance will degrade.

- If the front windshield of the vehicle is specially treated, GPS reception may not be possible.

- GPS reception may not be possible due to radio wave leakage from in-vehicle electronic equipment such as navigation units.

- It may take some time to receive GPS data if there is a long distance between the last time power off and the next time the power on.

- Due to different speed measurement methods, the displayed vehicle speed may be different from the speedometer. Also, even if the vehicle is stopped, the speed display may not be "0km/h", this is due to a GPS reception error and is not a malfunction.

- When GPS is installed in a vehicle equipped with various sensor devices and collision avoidance assist systems, noise may interfere with the GPS depending on the location. Orientation can become difficult.

- When installing the GPS, please keep it as far away as possible from each vehicle-mounted device (*1) and each antenna (*2). Otherwise the GPS may not work properly, or cause malfunctions of this unit and each vehicle-mounted device.

*1: Navigation units, ETC in-vehicle equipment, terrestrial digital tuners, beacon units, car audio equipment, radar detectors, etc.

*2: TV antenna, ETC antenna, etc.



About Idle Stop System

- In some vehicles when idling to a stop, the power supply voltage may drop due to voltage fluctuations that occur when restarting. In this case, the power of the unit may turn off.
- Depending on the condition of the vehicle's battery, the power may turn off when restarting the engine. In this case, check the voltage of the vehicle battery.

About Recording

- We do not guarantee the effectiveness of this device as evidence in traffic accidents.
- This unit does not guarantee recording under all conditions.
- We are not responsible for any damage to recorded images caused by malfunction or use of this unit.
- In order to maintain the operation of the machine, please do not perform dangerous driving such as sudden braking.
- Do not operate the unit or check the display while driving.
- Before operating the monitor, be sure to check that the surrounding environment is safe.
- After turning on the power, it may take some time to start recording due to reading the SD card. Please make sure the recording has started before use.
- Images taken at night may have noise or a momentary tinge of red. This is due to camera performance and is not a malfunction.
- The recording frame rate may vary depending on the recording conditions.
- If the images recorded by this camera will violate privacy, please handle them with care.



About installation

- Please install correctly according to "About Installation" in this manual.

→ **[P13 About Installation]**

- Please install it correctly so as not to conflict with the Road Traffic Law and related laws and regulations.

- Do not overlap with the vehicle inspection sticker when installing.

- Do not install it where it hinders driving.

- Do not install in a place that obstructs the line of sight.

- Use near other car equipment, wireless equipment, TV, radio, computer, etc. may affect this product.

- Install and wire at a location that does not interfere with various vehicle sensor devices and collision avoidance assist systems.

- Do not install it in a position that interferes with safety devices such as seat belts and airbags. Otherwise the safety device may not work properly, resulting in injury.

- This unit is not waterproof. Be careful not to let the unit or the cigar adapter get wet from rain, etc. Be sure to install it in the car.

- Before installing the camera, be sure to wipe off any oil or dirt on the glass surface.

- Please properly handle the wiring so as not to affect driving.

- Car roofs made of special materials may weaken the GPS signal, making it impossible to connect to the signal.

- Please do not pull hard when wiring, otherwise it may be disconnected or poor contact due to too tight, resulting in unstable operation of the host or sudden power off. Some slack is recommended when wiring.

- Do not use items other than specified accessories.

- Please install it within the wiping range of the wiper. Otherwise you won't be able to record clearly when it rains.

- The host and camera are precision instruments, please do not subject them to strong impacts. Failure to do so may result in malfunction or damage.



About LCD display

- Due to the characteristics of LCD monitors, image burn-in may occur if the same image is displayed for a long time or repeatedly. You can reduce burn-in by adjusting the brightness of your monitor.
- Although the liquid crystal display has more than 99.99% effective pixels, there may be some pixels that are not bright or always bright. Note that these are not malfunctions.
- If the temperature is lower than -10°C or higher than 60°C , the entire monitor may go black and image display may be delayed. This is a characteristic of the LCD screen and is not a malfunction. When the ambient temperature reaches the temperature at which the monitor can work stably, it will return to its original state.
- If the temperature of the main unit is too high or too low, the camera image may be distorted. Once the unit returns to the correct operating temperature range, the display will return to normal.
- Direct light such as sunlight or lamps is reflected in the camera's field of view, and the LCD monitor may become blurred.
- Noise may appear when the brightness changes suddenly, such as when moving from a bright place to a dark place, but this is a characteristic of the lens and is not a malfunction.
- Actual colors may vary in dark environments such as at night.
- When wearing polarized sunglasses, the display may not be visible.
- In dark places such as at night, the following phenomena may occur.
 - There is a color difference between the picture color and the actual color.
 - Depending on the height of the rear lights, white and haze may appear around the rear car.
 - Automatic image adjustment causes flickering
- The host may become hot, but this is not a malfunction.
- If passengers stare at the monitor, it may cause motion sickness.
- Depending on your physical condition, etc., it may take some time for the displayed image to focus.
- The image displayed on the LCD monitor may differ from the actual scene.



About LCD display

- The image displayed on the LCD monitor may be affected by the frame rate, resulting in slow response speed and unsmooth display.
- Please use the supplied cleaning cloth to clean the LCD monitor.

About the rear camera

- When wiring the rear camera, be careful not to let the cable interfere with the door switch. Otherwise, a disconnection, etc. may occur, resulting in a malfunction. ※If the wiring is difficult, please contact the engineer for installation. → **[Please refer to P40]**
- The dedicated rear camera for this product. Do not connect to other products, otherwise it may cause malfunction.

About the front camera

- Please install it where it does not obstruct the driver's field of vision.
- Installed on 20% of the windshield and within the wiping range of the wiper, or at a position that does not block the driver's front line of sight (hidden behind the rearview mirror). Please avoid the overlapping of the installation position with the vehicle detection label, etc., so as not to affect the operation of the rearview mirror. Dirt, raindrops, etc. on the glass may cause blurred images.

About the cigar adapter

- Do not connect cigar adapters with branches. Otherwise, it will not work properly due to insufficient power supply of the host, and the camera image may flicker.
- Connect the included cigar adapter directly to the car's cigar socket.
- If you will not use the unit for a long time, please disconnect the cigar lighter.



About the date and time

- If "GPS Settings" is set, the date and time will be automatically synchronized when receiving a GPS signal. ※ The date and time cannot be acquired in environments where GPS cannot be received, such as tunnels and mountains.

About lens

- Since the rear camera of this unit is not equipped with a super night vision system and uses a wide-angle lens, some images may be distorted or have shadows. ※ The characteristics of the wide-angle lens will be different from the actual viewing angle, these are normal.

- The front camera is equipped with a super night vision system and uses a narrow-angle lens.

Viewing angle:

D: 67° H: 56° V: 35°

About reversing assist

- When the vehicle is in reverse state, you can view the rear of the vehicle on the display screen of this unit (reversing assist function).

- Please note that even if you adjust the the rear camera angle on the LCD, the angle displayed on the screen will be different during reverse assist.

- The viewing range of the camera in the reverse assist function is limited.

- Do not reverse the car just by looking at the backup image.

- The vehicle width and distance guide displayed on the reverse assist screen may differ from actual ones.

- The screen displayed by the reverse assist function is only used as an auxiliary means for checking the rear.

- This auxiliary function is for reference only.

- Image quality may deteriorate due to usage conditions such as bad weather at night.









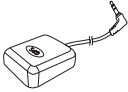



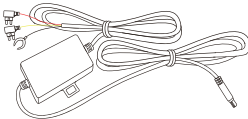
- Since the rear camera uses a wide-angle lens, there is a difference from the actual distance.

- Before adjusting the reverse assist display or angle, please ensure parking safety.

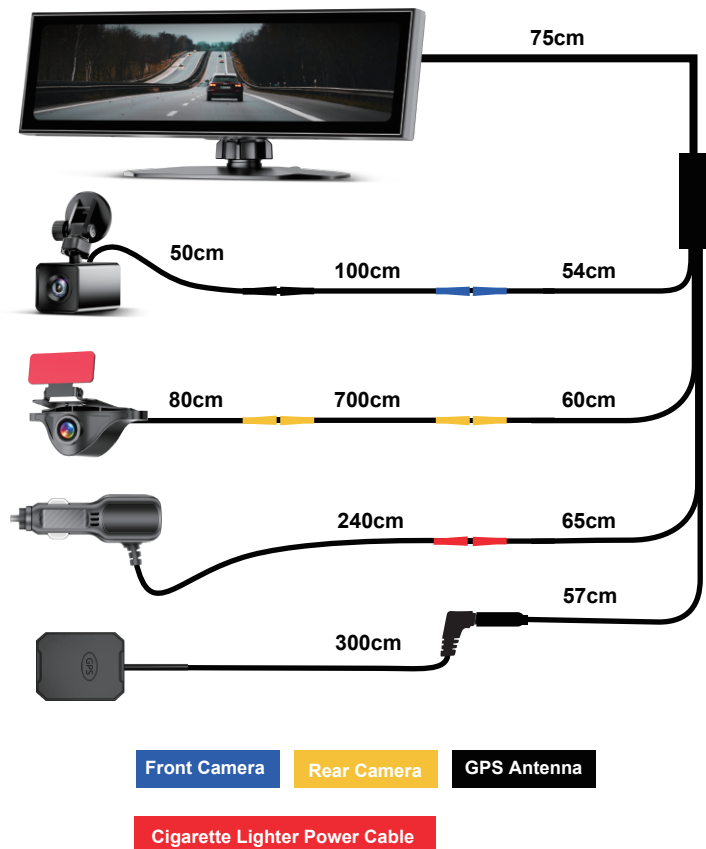


Host and Accessories

Be sure to check the following checklist before installing.

 <p>Host</p>		<p>Cigarette Lighter Charger</p> 	
<p>Host Bracket</p> 	<p>Front Camera (super night vision)</p> 	<p>Front Camera Extension Cable (1M)</p> 	
<p>Rear Camera Bracket</p> 	<p>Rear Camera</p> 	<p>Rear Camera cable (about 7M)</p> 	<p>GPS Antenna (about 3M)</p> 
<p>Crowbar</p> 	<p>Instruction Manual & Warranty Card</p> 	<p>Cleaning Cloth</p> 	
		<p>Power Cable for Parking Monitoring ※ Sold separately, please contact the after-sales email if necessary.</p>	

Wiring Connection Diagram



Name & Function of Each Part



❶ LCD Monitor

Note: A protective film is attached at the factory.

Please remove it before use.

❷ Speaker

Output sound when playing files and record sound when recording video.

❸ Vents & Radiator

Do not block the vents or heat sinks, otherwise heat may build up inside the device and cause a fire or malfunction.

❹ Host Cable

- ※ Power cable connection port
- ※ GPS antenna connection port
- ※ Rear camera connection port
- ※ Front camera connection port

❺ Memory Card Slot

Insert memory card

※ Be careful not to insert or pull out forcefully.

※ If it is difficult to insert the memory card, please check the orientation of the memory card and insert it again vertically or horizontally.

❻ Power Button

Power on/ off or screen on/ off

Long press: power on/off.

Short press: screen on/off. <When the power is turned on>

❼ Rear Camera Cable

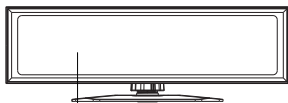
The connection terminal for connecting the rear camera cable.

❽ Rear Camera Lens

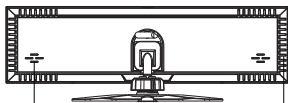
❾ Front Camera Lens

Note: A protective film is attached at the factory.

Please remove it before use.

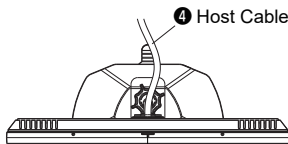


❶ LCD Monitor

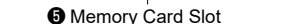


❷ Speaker

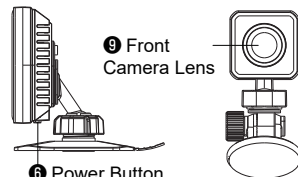
❸ Vents & Radiator



❹ Host Cable



❺ Memory Card Slot



❾ Front Camera Lens

❻ Power Button

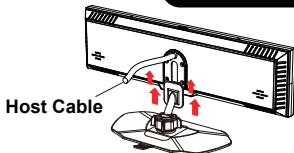


❼ Rear Camera Cable

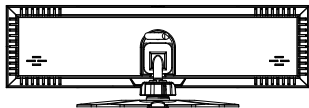
❽ Rear Camera Lens



Install the Host Bracket



Insert the host bracket into the groove on the back of the host.



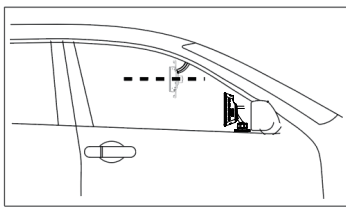
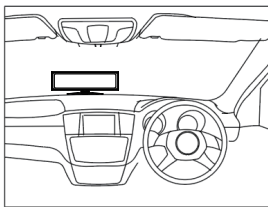
An illustration of the main frame installation completed.

Host Installation Method

- ❶ Dab a small amount of water or alcohol on a soft cloth and wipe off dirt, oil, wax and coatings.
- ❷ Check the installation position while aligning the bracket.
- ❸ Remove the protective film from the double-sided tape.
- ❹ Paste bracket.
- ❺ Hold down the stand for about 5 seconds to fix it.

- ◆ The double-sided tape is very strong, and it is not easy to tear off once it is pasted, so please park the vehicle in a safe place, adjust the angle and stick it to the installation position.
- ◆ Apply the double-sided tape in an environment between 21°C - 38°C. After installation, periodically check for weakened bond strength.

Host Installation Diagram



- ※ Sticking skills to prevent falling off--After 24 hours after installation, the adhesive strength will reach the maximum. Until then, don't get it wet.
- ※ Do not obstruct driving or airbags when installing.

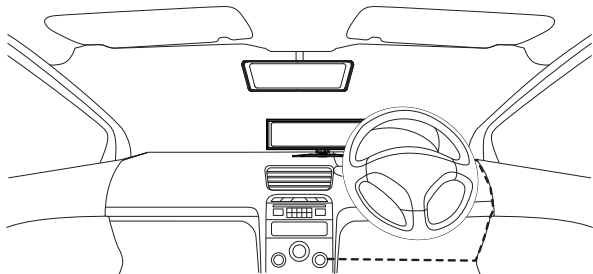


Cigarette Lighter Power Adapter

- ◆ Be sure to use the cigar power adapter included in the
 - ◆ If you use a cigarette lighter power adapter other than the accessories, it may damage the product or the vehicle. Also, even if it works, it may not be able to record or the screen may flicker due to unstable voltage.
 - ◆ Do not use the cigarette lighter in a branched state. If you use it in a branched state, you may not be able to record or the screen may flicker due to unstable voltage.
 - ◆ Just after using the cigarette lighter, the power terminals will be very hot. At this point, please wait for a while and connect the cigarette lighter power adapter after the heat cools down. Otherwise the tip may melt or short out. Please do not affect driving or interfere with driving when wiring (use cable ties, etc. if necessary).
 - ◆ If the machine will not be used for a long time, please unplug the cigarette lighter power adapter. Failure to do so may result in fire or battery discharge.
 - ◆ For models where the cigar plug is powered with the key removed or the vehicle powered off, be sure to unplug the cigar power adapter when the engine is stopped to protect the battery.
- ◆ **Plug the included cigarette lighter power adapter into the vehicle's cigarette lighter socket.**
※ Please connect when the car engine is off, otherwise it may cause damage or failure



Caution



It gets its power from the vehicle's cigarette lighter socket.



Optional Power Line

By connecting the AKY-NV-X dedicated power cord, the parking monitoring mode can be activated. When the sensor detects a collision, the device will automatically turn on and record a 30-second video, which will be saved in the **【Event】** folder.

- ◆ Be sure to set the parking monitoring mode to [ON] and the sensitivity to [High] on the main unit. Otherwise, the parking monitoring mode will not activate.
- ◆ Prolonged use of this power cord may accelerate the wear of the vehicle battery. Please use it reasonably.
- ◆ In parking monitoring mode, if the voltage of the 12V car battery drops below 11.6V, or the 24V car drops below 22V, the device will trigger the vehicle battery protection mode, and the main unit will automatically shut down and cannot be turned on.

Connect the host power



- Yellow (Battery +): Connect to the positive terminal of the battery.
- Black (GND): Connect to the GND.
- Red (ACC): Connect to the positive terminal of the engine ignition.

About Collision Detection Recording in Parking Monitor Mode

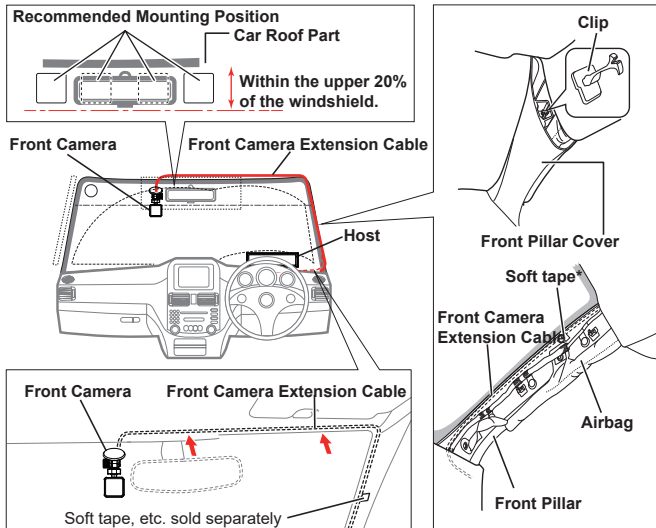
1 minute after the engine is turned off, the vehicle enters parking monitor mode. If a collision is detected by the installed G-sensor, it will automatically record for approximately 30 seconds. Note that only one 30-second recording will be made during this time, even if multiple collisions occur. After recording, it returns to parking monitor mode. Loop recording begins when the engine starts.

- ※ Recording only begins after an impact is detected.
- ※ Parking monitor mode is not supported when connected to the cigar power cord.



Front Camera Mounting Position

If you install the device in the wrong place, it may violate the Road Transport Vehicle Act or interfere with driving and cause a traffic accident.



* Secure the power cord with the separately sold soft tape.

Please install it in a place where it does not obstruct the view.

※ Do not install the unit and power cord near a TV receiving antenna or electrical equipment. This may cause reduced TV reception, flickering or noise.



Caution

The double-sided adhesive is very strong, and it is not easy to tear off once it is pasted. Please confirm the position before pasting.

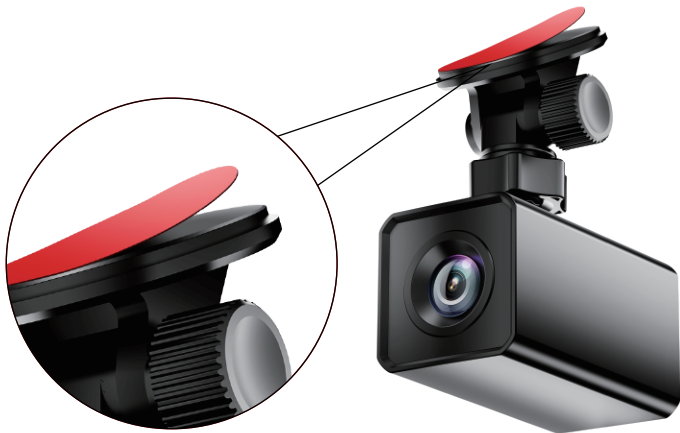


Apply double-sided tape in an environment between 21°C ~ 38°C.



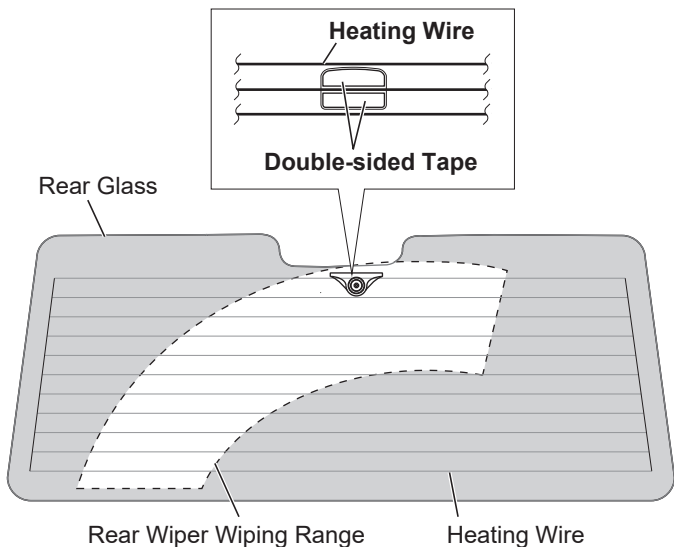
After installation, regularly check whether the adhesive strength of the double-sided tape has weakened.

- ❶ Dab a small amount of water or alcohol on a soft cloth and wipe off dirt, oil, wax and coatings.
Check the installation position while aligning the bracket.
- ❷ Peel off the protective film from the double-sided tape.
- ❸ Stick the stand to the windshield.
- ❹ Hold down the stand for about 5 seconds to fix it.
- ❺ Maximum bond strength is reached 24 hours after installation.



Rear Camera Mounting Position

If there is a heating wire on the rear glass, please do not stick the double-sided tape on the heating wire. Otherwise, the heating wire may be damaged when the double-sided tape is removed.

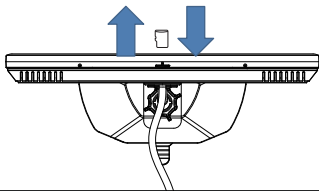


- In order for the blind spot detection system to detect correctly, it is recommended that the rear camera be installed above the rear glass in the center of the vehicle.
- If attached to the rear window, remove the film from the top. Otherwise, once applied, the film may come off on impact.



Using the Memory Card

Insert & Remove Card



Please format the card regularly for stable use.

※ **Recommended Once a Month.**

Check the orientation of the card and insert it while the power is off. Insert until you hear a click sound.

When the main unit is powered off, you can push the card in until you hear a click to remove it.

Before using the memory card, please check the following points.

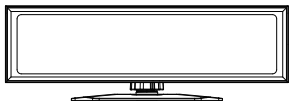


Do not use memory cards other than those specified. Failure to do so may result in data corruption or failure to record.

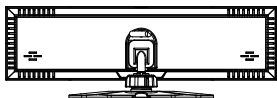
- Use a memory card with a capacity of 32 to 128 GB.
- Use a high-speed card with a speed of "UHS U1" or higher. Recording may not be performed correctly if a card of UHS U1 or lower is used.
- Format the card to FAT32 on a computer before use.
 - ※ Formatting the card will delete all recorded data. Please make a backup in advance.
- In the event of an accident, be sure to remove the memory card after turning off the power to prevent the recorded data from being damaged.



<View from the front of the host.>



<View from the back of the host.>

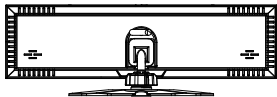


- ◆ Check the orientation of the memory card and insert it into the card slot.
- ◆ Make sure the memory card is firmly inserted into the slot.
 - ※ Insert until a "click" sound is heard.
- ◆ When taking out the memory card, first push the memory card in, and then pull it out after the memory card is ejected.
 - ※ Be careful not to lose it as it may pop violently.

<View from the front of the host.>



<View from the back of the host.>



Caution

- ◆ Check that the orientation is correct before inserting the memory card.
- ◆ Using a non-specified card may result in failure to record.
- ◆ Be careful not to lose the memory card when it pops out.
- ◆ In the event of an accident, please remove the memory card and keep it in a safe place so as not to damage the recorded video data.

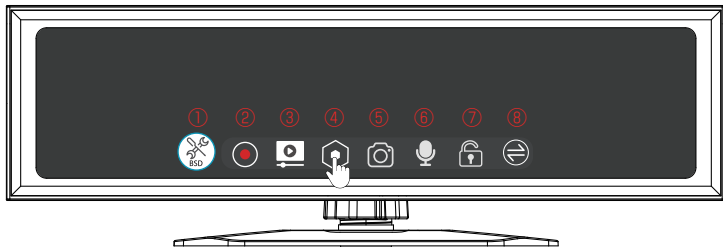


Main Screen Display

○ When the engine is started, the front and rear images are simultaneously displayed on the LCD screen.

※ It will be stored when you select the camera playback mode.

Icon Introduction



1 BSD correction settings

This icon is only visible when the rear camera is in full screen.

2 Record Icon

Select to start/ end recording.

3 Playback Method

Play back, download, delete, etc. recorded files.

4 System Setting

Enter the system settings to change the setting value.

5 Still Image Shooting

Press this icon to take a photo or screenshot.

6 Sound Recording

Start or end sound recording.

7 Lock Video

Press this icon to lock the video.

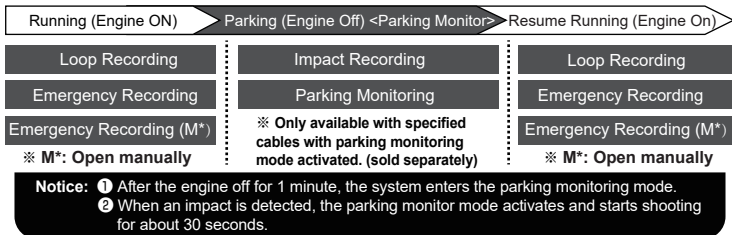
8 Screen Display Mode

There are 4 modes. Please choose according to your preference.

→ [Please refer to P24]



Recording Mode



Loop Recording

- Always record from engine start (ACC ON) to engine stop (ACC OFF).
- Set to 1 minute loop recording.
- When the memory card is full, the file with the earliest time will be auto-overwritten.

One file/ min One file/ min One file/ min One file/ min One file/ min Loop Recording

Emergency Recording

1 Emergency Recording (Impact Recording)

- In the loop recording state, when the G sensor detects an impact, the emergency recording will start automatically.
- Emergency recorded video files are protected (locked).
 - If the G-sensor sensitivity is set to off, impacts cannot be detected.

2 Manual Emergency Recording

- In the loop recording state, manually press the [⏏] icon to start emergency recording.
- If the [⏏] icon is pressed again in emergency recording state, It will revert to loop recording mode.
 - The video files recorded in impact video and manual emergency video are saved in the [Event] of the memory card.

3 Emergency Recording Save File

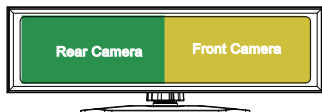
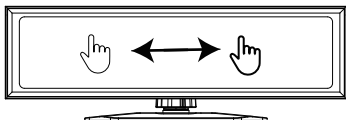
- 5 seconds of pre-accident + 25 seconds of post-collision video will be saved as one unit file (30 seconds total).



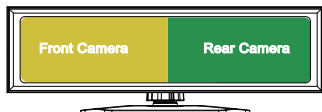
About Screen Display Mode



When recording, you can switch between the 4 screen displays by sliding the LCD screen left or right or touching the [⏮] icon on the LCD screen.



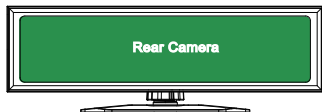
- ❶ Both the front and rear cameras are displayed.



- ❷ Both the rear and front cameras are displayed.



- ❸ Only the front camera is displayed in full screen.



- ❹ Only the Rear camera is displayed in full screen.



Note



After the screen display setting is completed, the last setting will be memorized the next time it is turned on and used.

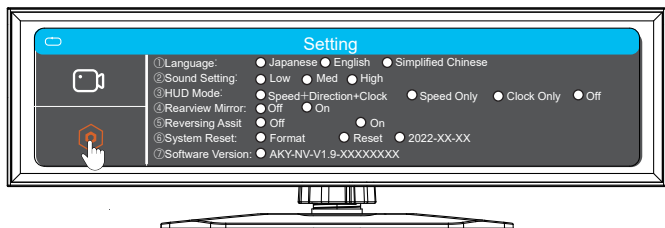


The HUD mode can be displayed by connecting a GPS device. Speed, direction and date information hover in front of your field of vision.



HUD Mode Settings

- 1 Click the [] icon on the LCD screen to switch to the menu interface, and click the [] on the left again.
- 2 Touch the icon to display the setting interface.
- 3 Select HUD mode.



- 1 If the vehicle speed is displayed as [---], it means that the GPS cannot be received and the positioning has failed.
- 2 When the vehicle speed is within the range of 1km/h~119km/h, the vehicle speed is displayed in light blue. When the vehicle speed exceeds 120km/h, the vehicle speed display turns orange. caution.

About Playback Method



Touch the icon shown on the right to display the file management menu. You can play recorded videos or view photos on the host.



Click on the video to start playing. Long press on a video to delete it.

About PC Viewer

Please download from the URL below.
[\[https://dvplayer.net/setup.html\]](https://dvplayer.net/setup.html)



QR code

- Download the dedicated player, you can play the recorded video on PC.
- If you use Windows Media Player to play, there may be no sound, please use the dedicated player in the link on the left.




Blind Spot Detection

When driving (parking: BSD Enable setting is turned on) and detects a hidden vehicle in the left/ right rear blind spot of the vehicle, the driving recorder will prompt the driver with a red warning bar and a warning sound.

Note: Objects other than cars cannot be detected. (people, bicycles, motors, etc.)

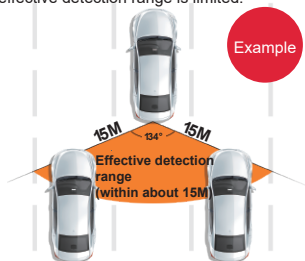
After the BSD function is set to "ON", if there is another vehicle (example) within the left/ right rear detection range, red warning bars will flash on the left and right sides of the LCD screen. A "beep" sound will be heard.



※ The [] icon will only be displayed when the rear camera is displayed in full screen on the LCD screen.

※ If the vehicle is continuously overtaken within 15m from the left/ right side, the red warning bars on the left and right sides of the LCD screen will flash continuously and a "beep" sound will be heard.

※ According to conditions such as road conditions (sharp bends, steep slopes, etc.), weather conditions (rain, snow, fog, etc.), obstacle shapes (low, small, thin, etc.), the effective detection range is limited.



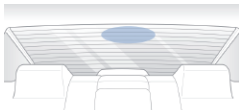
※ Recommended Rear Camera Mounting Locations

① Top Center of the License Plate



1. Install the rear camera bracket.
2. Fix the camera on the top center of the license plate with the set screw in the accessories.

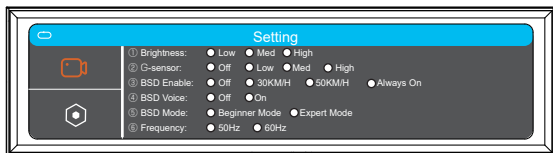
② Car Rear Glass



1. Install the rear camera bracket.
2. In order for the BSD function to be detected correctly, it is recommended to install the rear camera in the center above the rear glass.

Blind Spot Detection

BSD setting will display two setting options of automatic alarm speed [30KM/H] and [50KM/H].

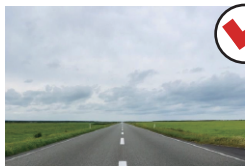


※ Automatic speed alarm, this function can be used in combination with GPS.

※ Novice mode: When overtaking or being overtaken during driving, red warning bars will flash on the left and right sides of the LCD screen and a "beep" sound will be heard.

※ Expert mode: When being overtaken while driving, red warning bars will flash on the left and right sides of the LCD screen, and a "beep" sound will be heard.

Precautions before setting BSD



Crooked Road



Complex roads (intersections)



Road without Lanes

1. Calibration is required before using the BSD function.
2. Please park your car in the middle of any road with lanes.
(Safety Note: Please stop operating when there are many cars.)
3. In order to calibrate the BSD function, we recommend doing the calibration on a straight road.

BSD Autocorrection

1



If the LCD screen displays the full screen of the rear camera, click the [BSD] icon to start BSD automatic calibration.



2



Touch **[Calibration]** to automatically calibrate the lane. **[Calibration]** automatically returns to the main interface after completion.

[Auto Calibration] If it fails, it will automatically enter the **[Manual Calibration]** interface.

※ The purple line is the dividing line at the intersection of heaven and earth.

※ If there is no operation after 5 seconds, it will automatically return to the main interface.

BSD Manual Correction

1



Set the left lane of the camera screen close to **[L]** .

Touch the left lane **[L]** and click **[Next]** to enter the calibration interface for the intersection of left and right lanes.



2



[M] setting: Refer to the icon screen on the right, and set the center **[M]** of the left and right lanes on the camera screen.

Click **[Next]** to enter the right lane calibration screen. Click **[Previous]** to return to the left lane calibration screen.

3



Setting of the right lane approach point **[R]**: Refer to the icon image, and set the right lane approach point **[R]** of the camera image. Touch **[Next]** to calibrate successfully and enter the main screen automatically. Touch **[Previous]** to return to the center **[M]** calibration screen of the left and right lanes.

4

【Calibration Success】

If the calibration is successful, it will auto-return to the main interface.

※ Touch the **[BSD]** icon again, and the left screen will display the lane that was successfully calibrated last time.

※ Automatically return to the main screen after 5 seconds of no operation.



QR Code

※ Please refer to the detailed operation video of "Blind Spot Detection" at the following URL.

<https://www.akeeyo.com/pages/bsd>



Setting Menu (Touch Screen Operation)

Recording Settings

- ① Brightness: ☐ Low ☐ Med ☐ High
- ② G-sensor: ☐ Off ☐ Low ☐ Med ☐ High
- ③ BSD Enable: ☐ Off ☐ 30KM/H ☐ 50KM/H ☐ Always On
- ④ BSD Voice: ☐ Off ☐ On
- ⑤ BSD Mode: ☐ Beginner Mode ☐ Expert Mode
- ⑥ Frequency: ☐ 50Hz ☐ 60Hz

System Setting

- ① Language: ☐ Japanese ☐ English ☐ Simplified Chinese
- ② Sound Setting: ☐ Low ☐ Med ☐ High
- ③ HUD Mode: ☐ Speed+Direction+Clock ☐ Speed Only ☐ Clock Only ☐ Off
- ④ Rearview Mirror: ☐ Off ☐ On
- ⑤ Reversing Assist: ☐ Off ☐ On
- ⑥ System Reset: ☐ Format ☐ Reset ☐ 2022-XX-XX
- ⑦ Software Version: ☐ AKY-NV-V1.9-XXXXXXXX

- Please note that all settings are factory default.
- Specifications are subject to change without prior notice to improve performance and functionality.
- Please contact customer service to download updated firmware.



● G-sensor

- ◆ Set the sensitivity (Off, High, Medium, Low) to activate impact recording.
- ◆ ※ If set to **【Off】** , the G-sensor will not activate.
- ◆ High: Impacts are detected more easily.
- ◆ Medium: Impact detection sensitivity is normal.
- ◆ Low: It becomes difficult to detect impacts.

● BSD Enable

- ◆ When set to **【On】** , the BSD starts.
- ◆ **【30KM/H】** When the vehicle speed exceeds 30KM/H, the BSD starts.
- ◆ **【50KM/H】** When the vehicle speed exceeds 50KM/H, the BSD starts.
- ◆ When set to **【Off】** , the BSD function does not start.

● BSD Voice

- ◆ When set to **【On】** , a beep will sound.
- ◆ When set to **【Off】** , it enters silent mode.

● BSD Mode → 「Please refer to P28」

- ◆ Select **【Beginner Mode】** and **【Expert Mode】** .

● Frequency

- ◆ 50Hz: Select when using in Eastern Japan.
- ◆ 60Hz: Select when using in western Japan.

● Language

- ◆ The language can be selected from Japanese/English/Simplified Chinese.

● Sound Setting

- ◆ Set the sound (high/medium/low) for touching the LCD screen.

● HUD Mode

- ◆ The selection is displayed on the upper right of the LCD screen.

● Rearview Mirror

- ◆ Select the image display of the rear camera from mirror or normal image.

● Brightness

- ◆ Adjust LCD screen brightness (high/medium/low).

● Reversing Assist

- ◆ Need to connect the reverse positive pole.

● System Rest

- ◆ Format: Format the memory card.
- ◆ Initial value: Restores the factory settings.
- ◆ Date: Set the date and time.

● Software Version: Show product version.



Model	AKY-NV-X
Product Name	Super night vision system with dashcam
Memory Card	memory card 32~128GB (※UHSI or Higher)
Front Camera	SONY super night vision sensor, 30 FPS, 2MP
	View angle D: 67°H: 56° V: 35°, 1920*1080P
Rear Camera	25 FPS, 2MP
	View angle D: 134°H: 110° V: 58°, 1920*1080P
Video Duration	1 minute
Blind Spot Detection	Support (rear camera only)
Monitor	12" IPS touch screen
Reverse Assist	Support
G-Sensor	Support
Touch Screen	Support
Parking Monitoring	Support (dedicated power cable sold separately)
GPS	Support
Microphone	Built-in high-sensitivity microphone
Voice Control	Support
Speaker	1W/8ΩX1
Recording Mode	Loop recording/ Impact recording/ Parking monitoring recording /Still image recording
File Format	Video: ts Picture: jpg
Working Temperature	-10℃~65℃
Working Voltage	DC12/ 24V

※ Specifications are subject to change without prior notice due to product improvement.

※ If you want to buy accessories, please contact customer service.



Question	Reason	Solution
Unable to Power On	Poor connection of cigar adapter.	<ul style="list-style-type: none"> • Disconnect and reconnect the cigar adapter.
	Using branch cigar sockets	<ul style="list-style-type: none"> • Using a branch socket will cause unstable voltage and can not be turned on.
	Not using the specified cigar lighter charger	<ul style="list-style-type: none"> • Please use the cigarette lighter power cable specified in the accessories
	Temperature is too high or too low	<ul style="list-style-type: none"> • Please use in the temperature of "-10°C to +60°C".
Operation Error	System may malfunction.	<ul style="list-style-type: none"> • Please reset.
Some files were not recorded	When the card is full, it will overwrite from the oldest files.	<ul style="list-style-type: none"> • Please back up and clean up memory regularly
Missing dots on the LCD	This is a characteristic of the LCD panel, not a malfunction.	—
Cannot Record	No memory card inserted.	<ul style="list-style-type: none"> • Make sure the memory card is inserted into the host.
	Memory card read error.	<ul style="list-style-type: none"> • Format the memory card or replace with a different memory card.
Cannot Receive GPS	Location where GPS signal cannot be received.	<ul style="list-style-type: none"> • It may be difficult to receive GPS signals in tunnels or tall buildings.
	The host just turned on.	<ul style="list-style-type: none"> • Wait for about 5 minutes after the host is turned on.
	The environment in the car cannot receive GPS.	<ul style="list-style-type: none"> • Depending on the car model, GPS reception may be difficult.

If you encounter problems during use, please check the above items before sending for repair.



Question	Reason	Solution
Cannot Receive GPS	Just did a factory reset.	It takes about 5 minutes to accept GPS. ※The time to receive the signal varies depending on the environment.
Auto Restart	Connect or disconnect any cables while powered on.	Do not plug or unplug cables while the power is on.
Frequent Emergency Recording	The G sensor sensitivity setting not be appropriate.	Please change the setting from "G-sensor" in the setting menu.
Rear Camera not Display	The cable is not connected properly.	Check each cable connection.
		Check if the wrong camera is connected.
Affects other on-board devices (TV cannot be played, etc.)	The installation position is within 50cm of the antenna, radar, etc.	A high-performance HD picture quality tuner may interfere with TV reception or radio reception, resulting in reduced reception sensitivity. Please install at least 50 cm away from the ETC antenna. If there are sensor devices (safety driving aids, various radars, etc.), install them so that they do not interfere.
Screen Flickering	Power supply may be unstable.	Use the specified cigarette lighter power adapter.
		Please do not use branch sockets
	The cable is not connected properly.	Check the connection of each cable.

If you encounter problems during use, please check the above items before sending for repair.



■ Disclaimer

- ❶ When using this product on the road, please obey the local road traffic laws. The user assumes all legal responsibilities when using this product, and the manufacturer, importer, and seller of this product do not assume any legal responsibility.
- ❷ The scope of warranty only covers the host and accessories of the product, and does not guarantee the loss or damage of stored data.
- ❸ We are not responsible for vehicle damage, loss of time or profits caused by accidents that occur during the use of this product.
- ❹ Without the permission of the right holder, the videos and images taken with this product shall not be used for purposes other than personal appreciation. We will not be responsible for taking pictures of others without their consent - distributing them on social media, etc.
- ❺ This product does not guarantee video recording in all situations.
- ❻ The captured video does not guarantee the effectiveness as evidence of the accident.
- ❼ To comply with the safety standards of the Road Transport Vehicle Act, install it where it will not interfere with driving or visibility.
- ❽ LED traffic lights may be photographed flashing or may not be able to distinguish colors. We are not responsible for any content related to traffic signal recognition and recording.

The following conditions are not covered by the warranty.

- ※ Use of disassembled or modified batteries. (It may explode or leak if modified.)
- ※ Failure or damage caused by fire, earthquake, flood, lightning strike, other natural disasters, pollution, salt damage, gas damage (sulfurized gas, etc.), abnormal voltage or other external factors.

■ Product Warranty

- ❶ The product warranty period is one year from the date of purchase (30 days for accessories). Failures caused by users are not covered by the warranty.
 - ❷ Be sure to read the "Safety Precautions" section of this instruction manual.
 - ❸ Be sure to inspect the product within 30 days of purchase. If the product is defective within 30 days, please use the shipping company for cash on delivery.
 - ❹ If more than 30 days have passed since the product arrived, it will be considered a repair. In this case, please buyer bear the shipping cost. We will bear the shipping cost after replacement and repair.
- ※ Free maintenance does not include consumables and limited life parts.
 - ※ Repair requires you to be responsible for the shipping cost of the product.



AKEEYO authenticity certification and after-sales service

Please be sure to check it.

Please register on the website below.

<https://www.akeeyo.com/pages/safe>



**Authentic product certification
QR Code**

You can check whether it is genuine
AKEEYO on the official website or by
scanning the QR code on the left.

PC viewer activation code for AKY-NV-X



About dedicated PC viewer

- ❶ (For download and operation instructions, please refer to P25)
Enter the above activation code in DV Player and start the program.
It can be used after successful activation.
- ❷ Each activation code corresponds to a host. Cannot be used on a second host.
- ❸ Please keep the instruction manual in a safe place.
If you forget/lose your activation code, please contact our service center.