

Instruction Manual

*G-SERIES Backup Camera System
with Navigation and Bluetooth*

RVS-776718-NAVBT





Introduction.	03
Safety Information.	04-06
Before Beginning Installation.	07
Installation Guide.	08-09
Adjustable Grid Line.	10
Installation and Wire.	11-13
GPS Navigation Menu and Function.	14-20
Bluetooth Setting and Instruction.	21-31
Monitor Specifications.	32
Camera Specification.	33
Camera Installation.	34
Troubleshooting.	35
Warranty & Disclaimer.	36-37

NOTE!

Please read all of the installation instructions carefully before installing the product. Improper installation will void manufacturer's warranty.

Congratulations on purchasing a Rear View Backup Camera System!

With this manual you will be able to properly install and operate the unit.

The Backup Camera System is intended to be installed as a supplement aid to your standard rear view mirror that already exists in your vehicle. The Backup Camera System should not be used as a substitute for the standard rear view mirror or for any other mirror that exists in your vehicle.

In some jurisdictions, it is unlawful for a person to drive a motor vehicle equipped with a TV viewer or screen located forward of the back of the driver's seat or in any location that is visible, directly or indirectly, to the driver while operating the vehicle.

Please read the entire manual and follow the instructions and warnings carefully. Failure to do so can cause serious damage and/or injury, including loss of life. Be sure to obey all applicable local traffic and motor vehicle regulations as it pertains to this product. Improper installation will void manufacturer's warranty.

USAGE:

- The Rear View Camera System is designed to help the driver safely detect people and/or objects helping to avoid damage or injury. However, you the driver, must use it properly. Use of this system is not a substitute for safe, proper or legal driving.
- Never back up while looking at the monitor alone. You should always check behind and around the vehicle when backing up, in the same way as you would if the vehicle did not have the Rear View Camera System. If you back up while looking only at the monitor, you may cause damage or injury. Always back up slowly.
- The Rear View Camera System is not intended for use during extensive back-up maneuvers or backing into cross traffic or pedestrian walkways.
- Please, always remember, the area displayed by the Rear View Camera System is limited. It does not display the entire panorama that is behind you.

INSTALLATION:

- Electric shock or product malfunction may occur if this product is installed incorrectly.
- Use this product within the voltage range specified. Failure to do so can cause electronic shock or product malfunction.
- Take special care when cleaning the monitor.
- Make sure to firmly affix the product before use.
- If smoke or a burning smell is detected, disconnect the system immediately.
- Where the power cable may touch a metal case, cover the cable with friction tape. A short circuit or disconnected wire may cause a fire.
- While installing the Rear View System be careful with the wire positioning in order to avoid wire damage.
- The Rear View System should only be used when the vehicle is in reverse.
- Do not watch movies or operate the monitor while driving; as it may cause an accident.
- Do not install the monitor where it may obstruct drivers view or obstruct an air bag device.
- Dropping the unit may cause possible mechanical failure.

If you have questions about this product, contact:

***Rear View Safety
1797 Atlantic Avenue
Brooklyn, NY 11233
Tel: 1.800.764.1028***

IN NO EVENT SHALL SELLER OR MANUFACTURER BE
LIABLE FOR ANY DIRECT OR CONSEQUENTIAL DAMAGES OF
ANY NATURE, OR LOSSES OR EXPENSES RESULTING FROM
ANY DEFECTIVE PRODUCT OR THE USE OF ANY PRODUCT.



A Safe Fleet Brand

Before drilling please check that no cable or wiring is on the other side of the wall. Please clamp all wires securely to reduce the possibility of them being damaged while vehicle is in use. Keep all cables away from hot or moving parts and electrical noisy components.

We recommend doing a benchmark test before installation to insure that all components are working properly.

Step 1: Choose the monitor and camera locations.

Step 2: Install all cables in vehicle, when necessary a 0.8 (20mm) hole should be drilled for passing camera cable through vehicles walls. Install split grommets where applicable.

Step 3: Once all cables and wiring have been properly routed, perform a system function test by temporarily connecting the system. If the system seems to not be operating properly see troubleshooting (page 35).

Replacement Monitor

The mirror monitor replaces the existing car mirror. Carefully remove the mirror off the “pin”. Slide the replacement mirror on to the pin and secure it with the screw provided (already in the screw hole). Different cars have different brackets. Depending on your vehicle make and manufacturer. There are many methods to remove the original rear-view mirror, however, please don't force the mirror off the bracket. The manufacturer will not be responsible for damage caused to your car by wrong installation of the mirror. Figure 1.1

Clip-On Monitor

1. The Mirror Monitor attaches to the existing rear view mirror in vehicle with the pressurized clips on the back of the monitor.
2. Attach monitor to existing mirror, and adjust mounting angle to allow optimum driver viewing comfort.

Camera & Cable

Be sure to position the cable properly. The aviation camera cable uses aircraft grade connectors which means the camera cable can be exposed to all weather elements. Do not run the cable over sharp edges, do not kink the cable and keep away from HOT and rotating parts. Fasten all cables and secure all excess cable. Connect camera to the camera extension cable which runs inside the vehicle. Figure 1.2

Wiring

After connecting the camera to the “camera cable” the camera should be plugged into AV2 input. Connect the RED 12V power wire to a an ignition power source and the BLACK 12V ground wire to a chassis ground. The GREEN wire is the REVERSE trigger wire. Connect this wire to the vehicle’s backup light circuit to activate the rear-view image whenever the vehicle shifts into reverse. To connect a second camera, connect it to AV1 input. It can be turned on by pressing the power button on the monitor. Figure 2.1, Figure 2.2

Precautions for use of Mirror Monitor

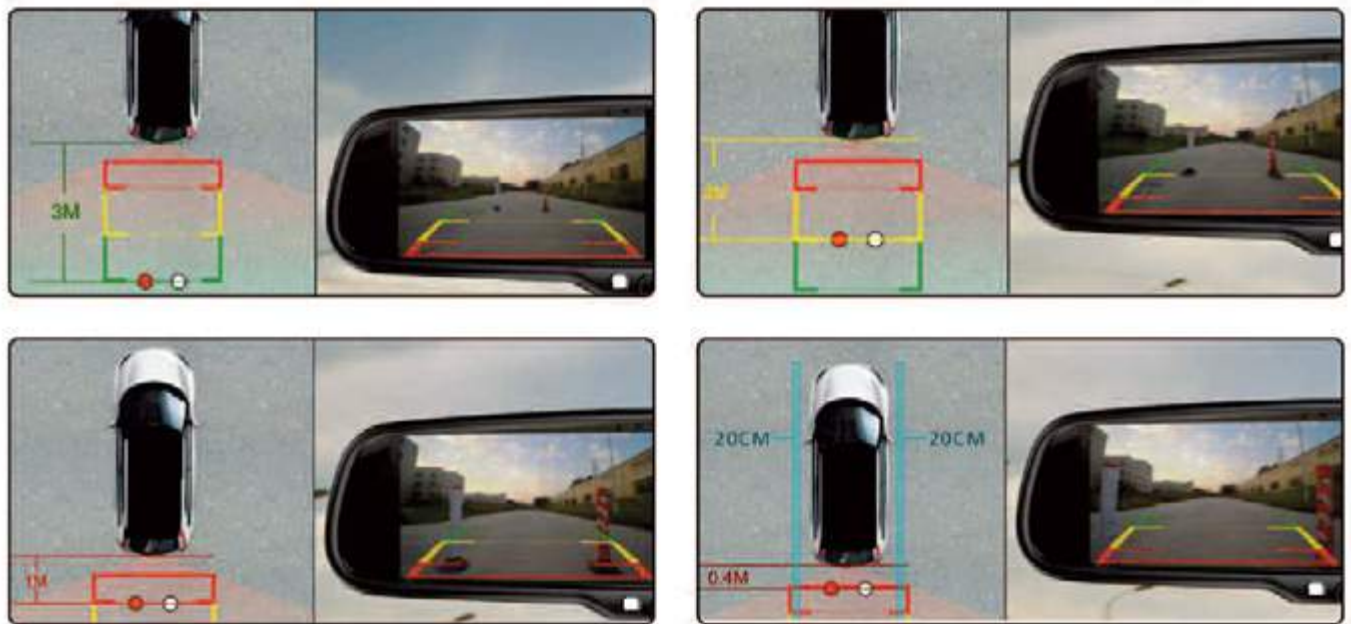
- I.** The Mirror Monitor is made of glass. Do not subject it to a mechanical shock by dropping it from a high place, etc.
- II.** Do not apply excessive force to the monitor surface or the adjoining areas since this may cause the color tone to vary.
- III.** Clean with a soft dry cloth and/or Windex only.
- IV.** Do not attempt to disassemble the mirror monitor.

Safety

- Before drilling, be sure no cable or wire is on the other side.
- Feed as much cable as possible into vehicle & clamp securely. This reduces the possibility of cable being hooked or snagged.

Grid Lines

Generally, to help drivers estimate the distance from obstacles, there are three lines for reference- red, yellow, and green. Those three lines are displayed on the monitor when car is reversing. The green line is 3M from the back of the car and the yellow line is 6.5 ft. The distant red line is 1M from the backside of car while the close red line is 0.4M. Both reference lines on the left and right should leave 0.2M space from the car.



Accuracy

The accuracy of the grid-lines can vary based on how you angle your camera. Therefore to compensate for inaccuracies, you can adjust the grid-lines to your camera angle.

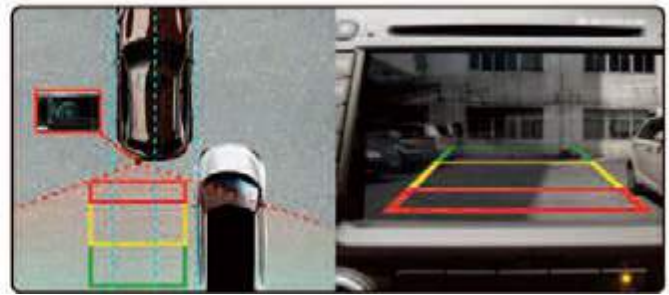
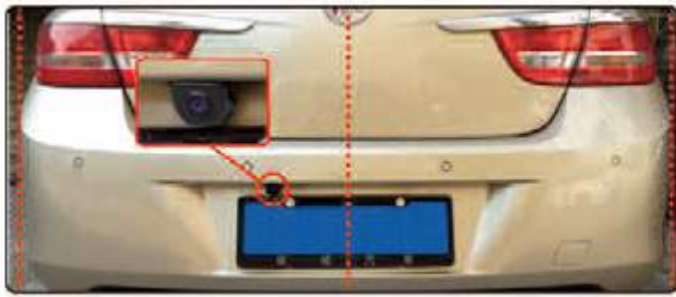


FIGURE 1.1



FIGURE 1.2

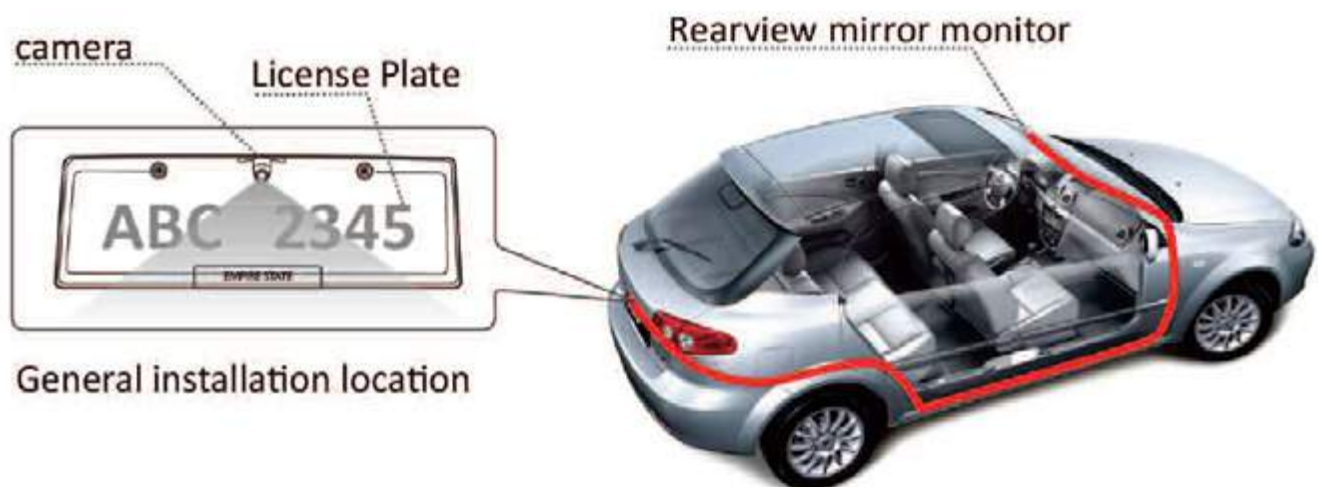
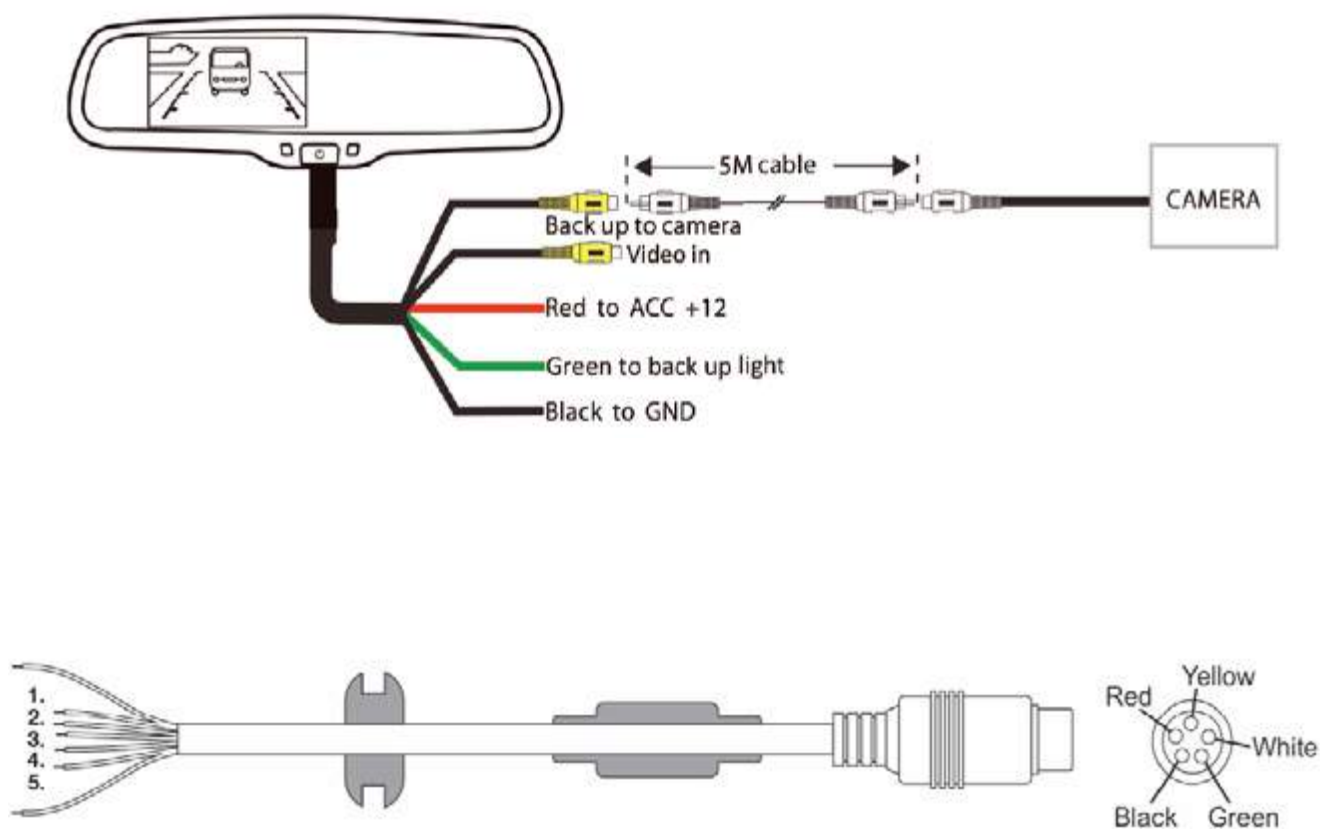
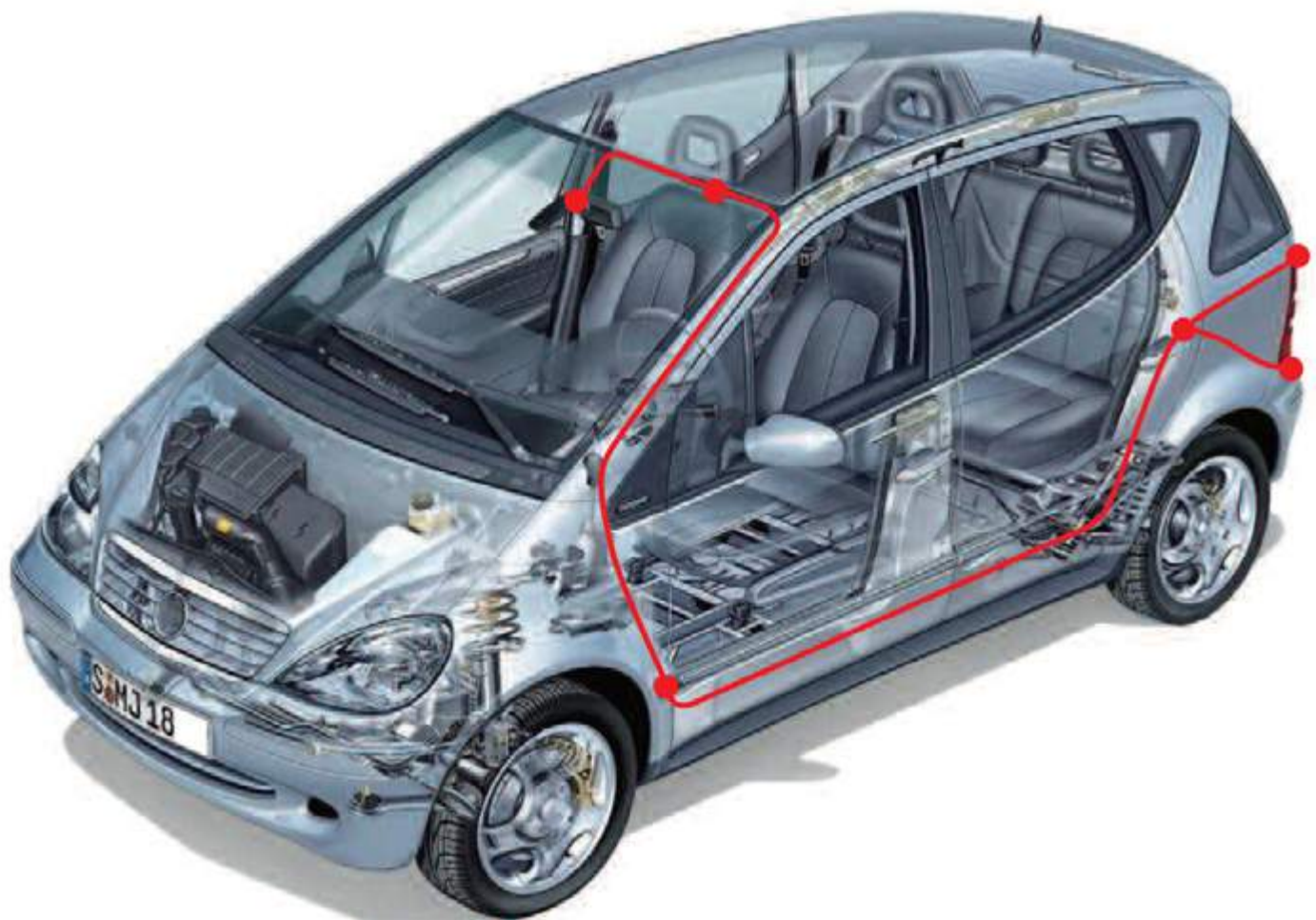


FIGURE 2.1

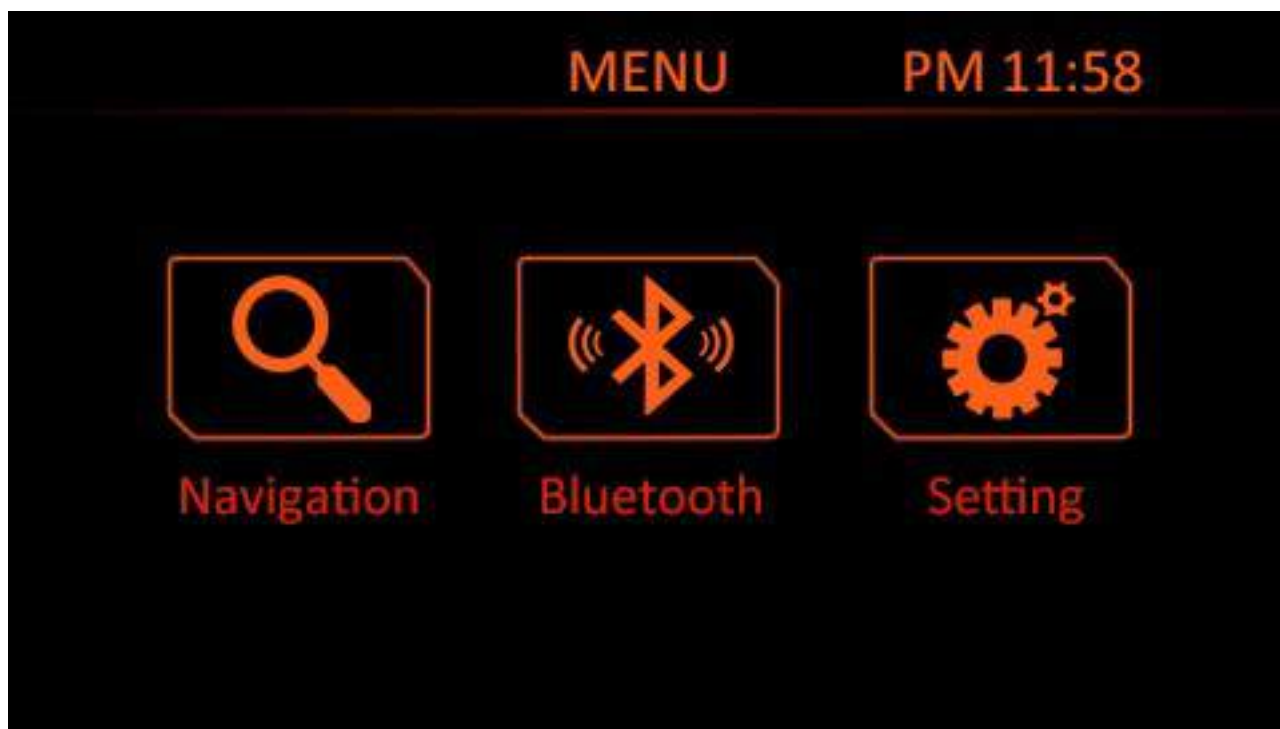


1. RED- Power (+)
2. YELLOW- Video
3. GREEN- Mirror / Normal Imaging
4. WHITE- Audio
5. BLACK- Ground (-)

FIGURE 2.2



MAIN MENU

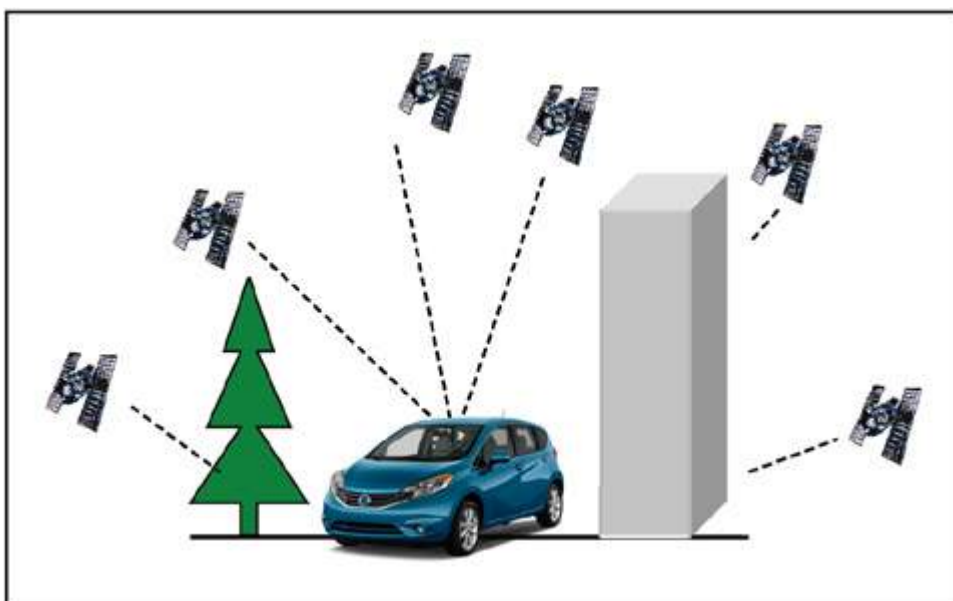


NAVIGATION FUNCTIONS AND FEATURES

Navigation	Provide navigation service
Bluetooth	This device can answer and make phone after connecting with mobile phone via Bluetooth
Setting	Brightness, Volume, Languages, Power, Time, System, Default, GPS Info, Navipath.

The GPS Navigation system uses a satellite signal to display your position on the navigation map. Set your destination, and the system will program the quickest, safest route. Enjoy your trip with navigation features that include realistic onscreen animations, as well as both voice and text indication.

1. Map information: The navigation data may not be completely accurate because of changing real time road conditions and construction. Please check road status before your trip and always obey all traffic rules.
2. Navigation: The navigation system should be only used as a reference, as the driver may be more familiar with the route than the GPS navigator in some situations.
3. Receiving Signal: Driving through tunnels, between dense, tall buildings, in underground parking lots, under bridges, or in various poor weather conditions may affect the ability of the system to receive a signal, resulting in an inaccurate position or other system errors.








VOLUME ADJUST


In the setting menu, click the icon  to enter the volume menu.

Volume options include “speaker volume adjustment” and “screen tap sound”.






	Back to the main menu
	System sound
	Sound of click on the screen
	Improve the system sound/ sound of click on the screen
	Reduce the system sound / sound of click on the screen

NAVIGATION PATH

In the setting menu, click the icon  to enter navigation path menu. Use this menu to set a navigation path, or to change the auto start option on/off.






	Back to the main menu
	Be sure of automatic run of GPS by sliding the button "open/ close"
	Click to choose gps map



LANGUAGE SETTING

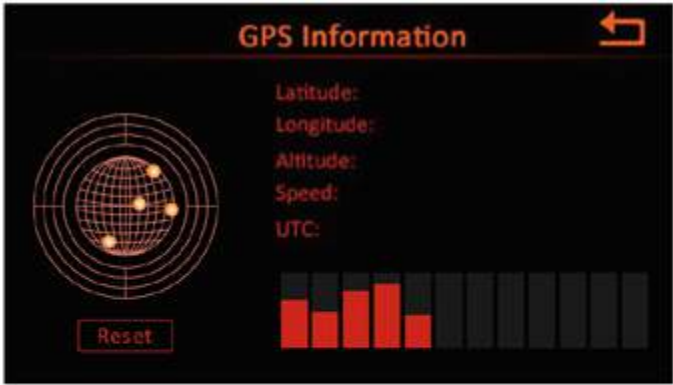
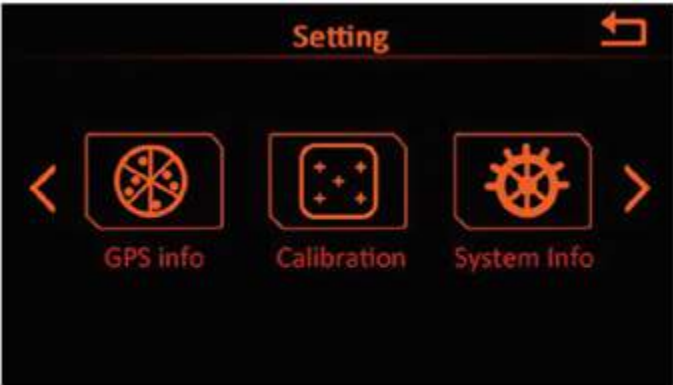
In the setting menu, click the  to enter the language menu. Twelve languages are available.





	Back to the main menu
	Choose the above language
	Choose the next language

GPS INFORMATION

Single click the  button to enter GPS menu. In this menu you can reset the GPS, or check GPS information.




	Back to the main menu
	Eliminate the current satellite signals and search new ones

SYSTEM INFORMATION




Single click the  button to access the system information menu.



DEFAULT SET

Single click  to enter the default settings menu. In this menu you can restore your system to default settings.

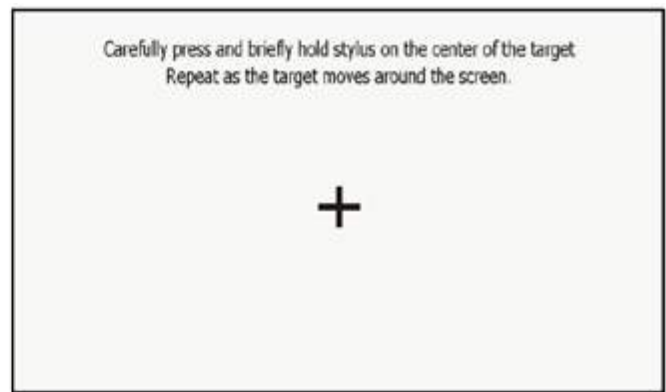






	Back to the main menu
	Confirm restore the default settings
	Cancel restore the default settings

SCREEN CALIBRATION

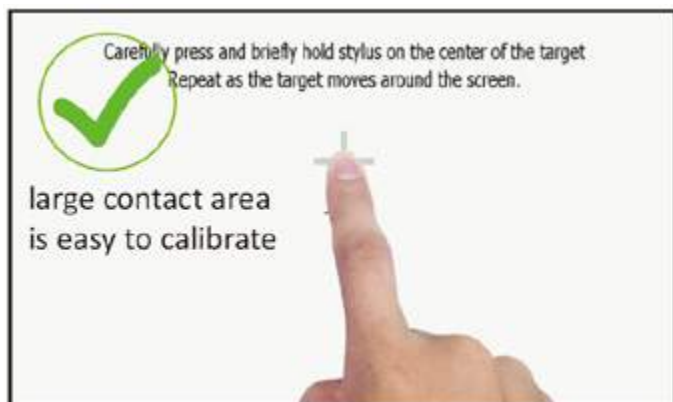
Single click the  button to enter the screen calibration menu.

Click “ok” to start the screen calibration. Follow the instructions, pressing the screen until the calibration succeeds. Click anywhere on the screen to save the calibration and exit to the main interface. If you do not want to save the calibration, wait 30 seconds to automatically exit to the main interface.



	Back to the main menu
	Proceed screen calibration
	Cancel screen calibration
	Click here to calibrate screen

When calibrating the screen, use your index finger to click the “+” on the screen. Using the index finger creates a large contact area, making it easier to calibrate.



ADJUST THE BRIGHTNESS OF MONITOR SCREEN AT NIGHT

At night, the monitor brightness adjusts automatically, depending on driving conditions. If this is too bright or too dark for the driver, the brightness can be changed manually with the remote control. Choose "MENU", then scroll "SEL/ REC" to choose "NIGHT BRIGHTNESS", and adjust the brightness of the screen with "UP/DOWN."



SD/MMC CARD


The included SD/MMC card contains navigation software, the map date and media files. Be careful to insert the card into the system in the direction the arrow sticker indicates. Do not force the card in. Inserting the card improperly may damage it. Note: Please do not take out the SD/MMC card while using the navigation system. Keep the card out of reach of small children. When removing the card, let it naturally pop out after gently pressing in.

Note: Avoid storing the card high in temperatures, humidities, or in direct sunlight. Keep the card away from all liquid and corrosive material.








BLUETOOTH SETTING AND INSTRUCTIONS

This chapter will explain how to connect a cell phone to your system with Bluetooth.

OPERATION METHOD

Single click the  button in main menu to open the Bluetooth menu as shown below.




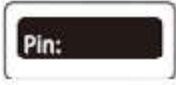
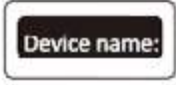








	Back	Single click to leave the current interface
	Dialing	Phone number dialing
	Phone book	Display contact list of paired cell phone
	Call history	Display current call history
	A2DP	Play music with Bluetooth through your radio
	Bluetooth setting	Set to search the phone, download the file management of the paired phone
	Open bluetooth	Bluetooth switched on and switched off

Single click



button to open the pair/connect menu as shown below.



	Back	Single click to leave the current interface
	PIN	The Bluetooth password is 1234;
	Device name	The GPS Bluetooth name is MIRROR GPS;
	Unpaired	No connection between Bluetooth and cell phone
	Modify the Device name	Single click to modify the device name
	Modify the PIN	Single click to modify the PIN
	Pairing History	Single click to display the connection history
	Search	Search for Bluetooth devices
	Connect/Disconnect	Connect/Disconnect Bluetooth
	Auto-connect	Automatic connect with mobile phone when you start the car
	Auto-Answer	Automatic-answer when incoming calls

Single click the **Modify the...** button to modify the name of the device.



Single click the **Modify the...** button to enter the modify PIN menu. Choose your new pin and choose **OK** when you are finished.



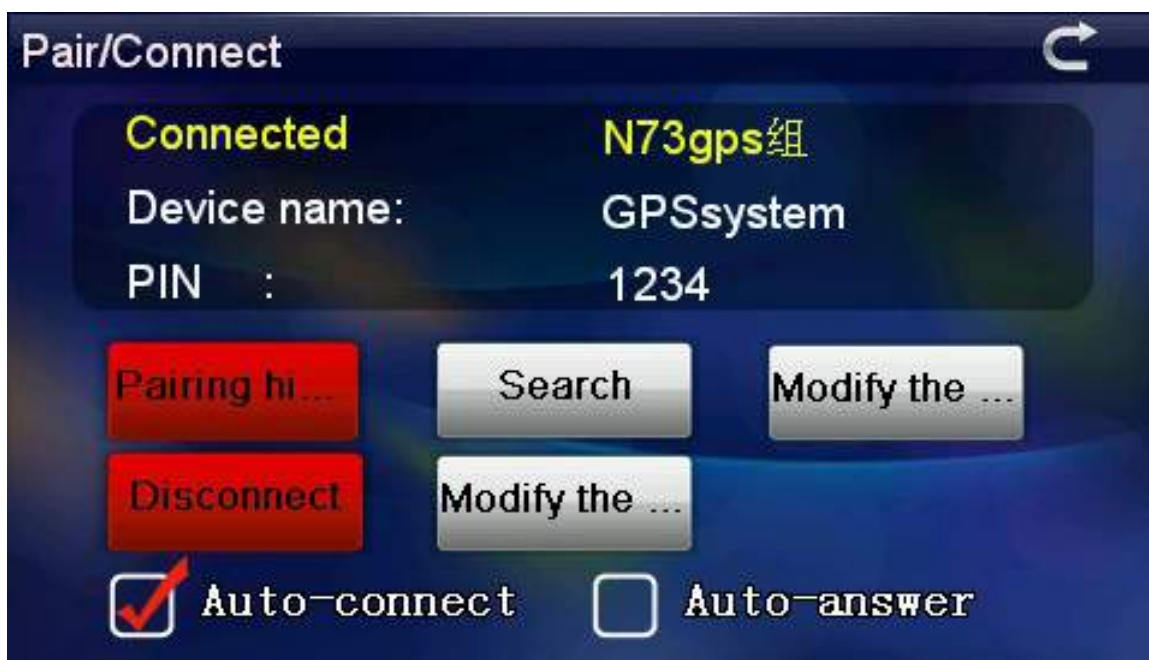
Single click the “Pairing history” button to display the pairing history.



Single click the “Search” button to search for Bluetooth devices.



Select your phone, click "Connect", and input your PIN to connect Bluetooth.



The menu shown below will appear if the connection was successful. Notice that icons are now in color and selectable.









Single click the button



to open the dial pad.



	Back	Single click to leave the current interface
	Backspace	Single click to delete the last number.
	Phone Call	Single click to make phone call
	Hang up	Single click to hang up
	Volume -/+	Decrease / increase the volume by one grade
	Sound Switch keep the current call	sound Switch, keep the current call

Single click the  button to make a call. Use the numbers to dial.




When you receive a call, it will display "Calls" and show the phone number.



Single click “HANG UP” to refuse the call or click “ANSWER” to answer.



When you answer a call, you will be able to hear the other person through the GPS navigator, and talk with them through the GPS navigator microphone. Single click the button  to switch between the GPS navigator and your phone.

Single click the  button to open the phonebook.

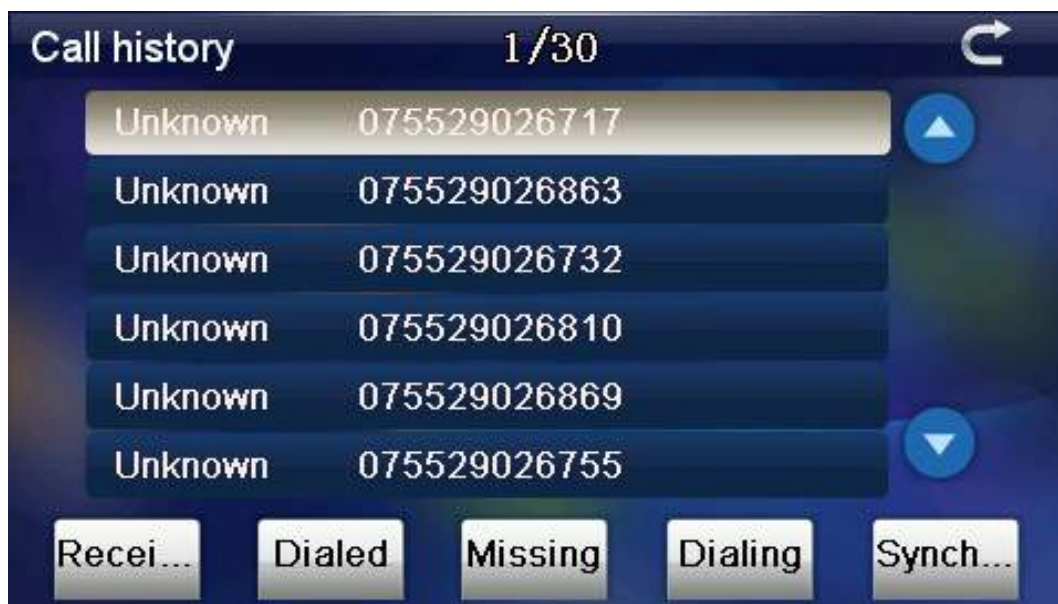


Single click the



Phone history

button to open the call history.










Single click the



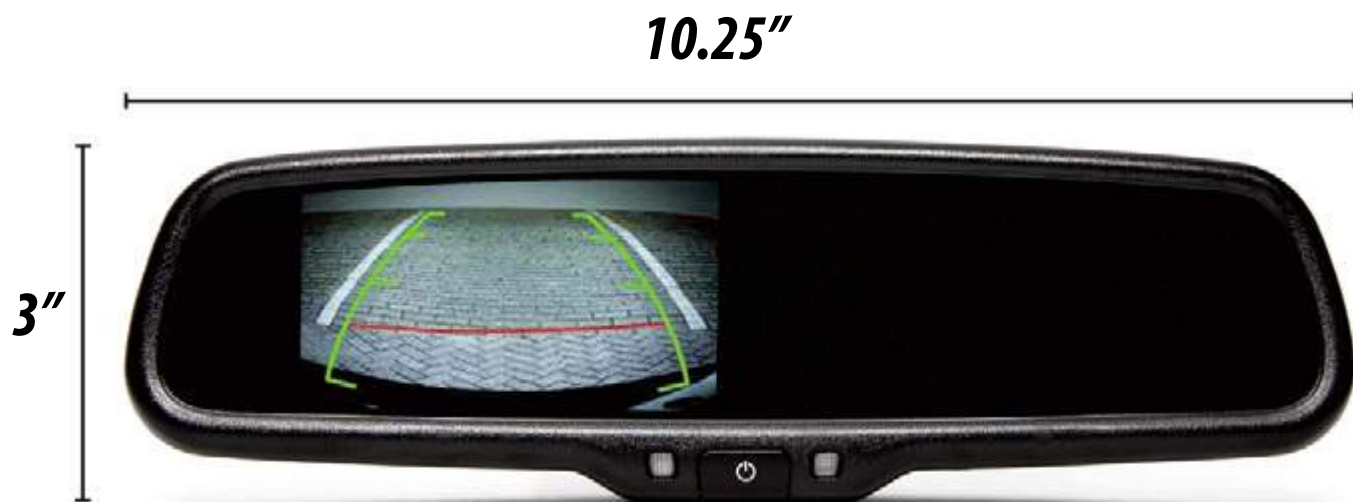
A2DP

button to open the A2DP. Use this menu to play music.



	Volume -	Single click to decrease the volume by one grade
	Volume +	Single click to increase the volume by one grade
	Volume Indicator	It shows the level of volume from 1 to 8
	Play/pause	To play and pause, single click to pause, click again to go on play
	Next song	Play the next song
	Last song	Play the last song
	Stop	Single click to stop playing

About Our Monitor



SPECIFICATIONS:

Screen Size:	4.3"
Display Screen:	TFT-LCD
Display Resolution:	400(H)x234(V)
Aspect Ratio:	16:9
Color Depth:	16.7M dithering
Pixel Pitch (mm)	0.219x0.219
Power Consumption:	8W
Working Voltage:	DC12V
Video Input:	VIDEO-IN to GPS/DVD (Default) Camera to backup camera
Signal System:	PAL/Auto/NTSC

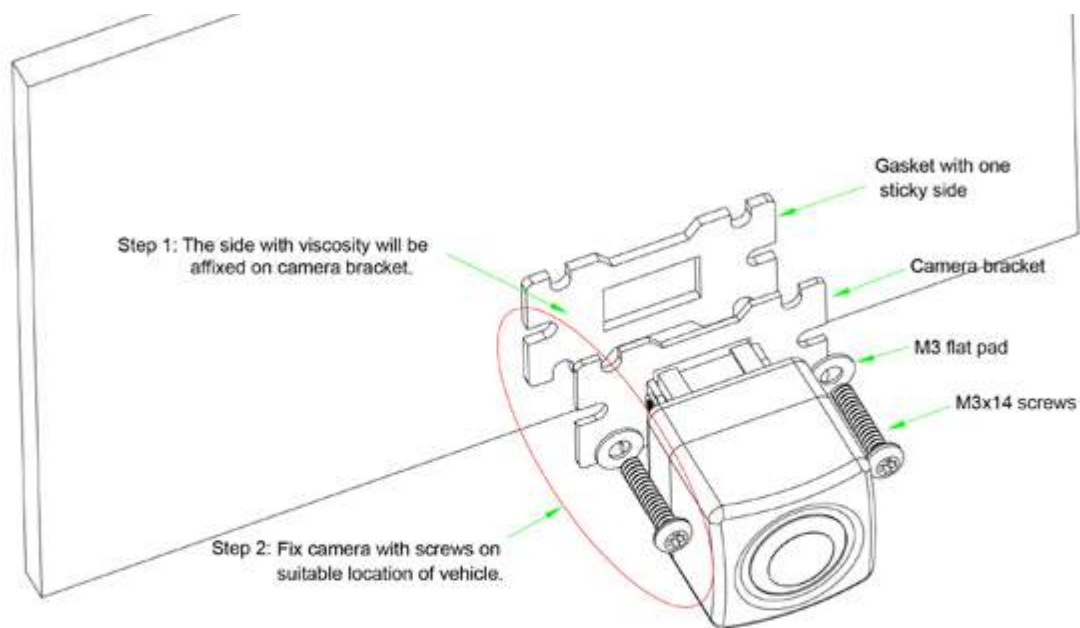
About Camera



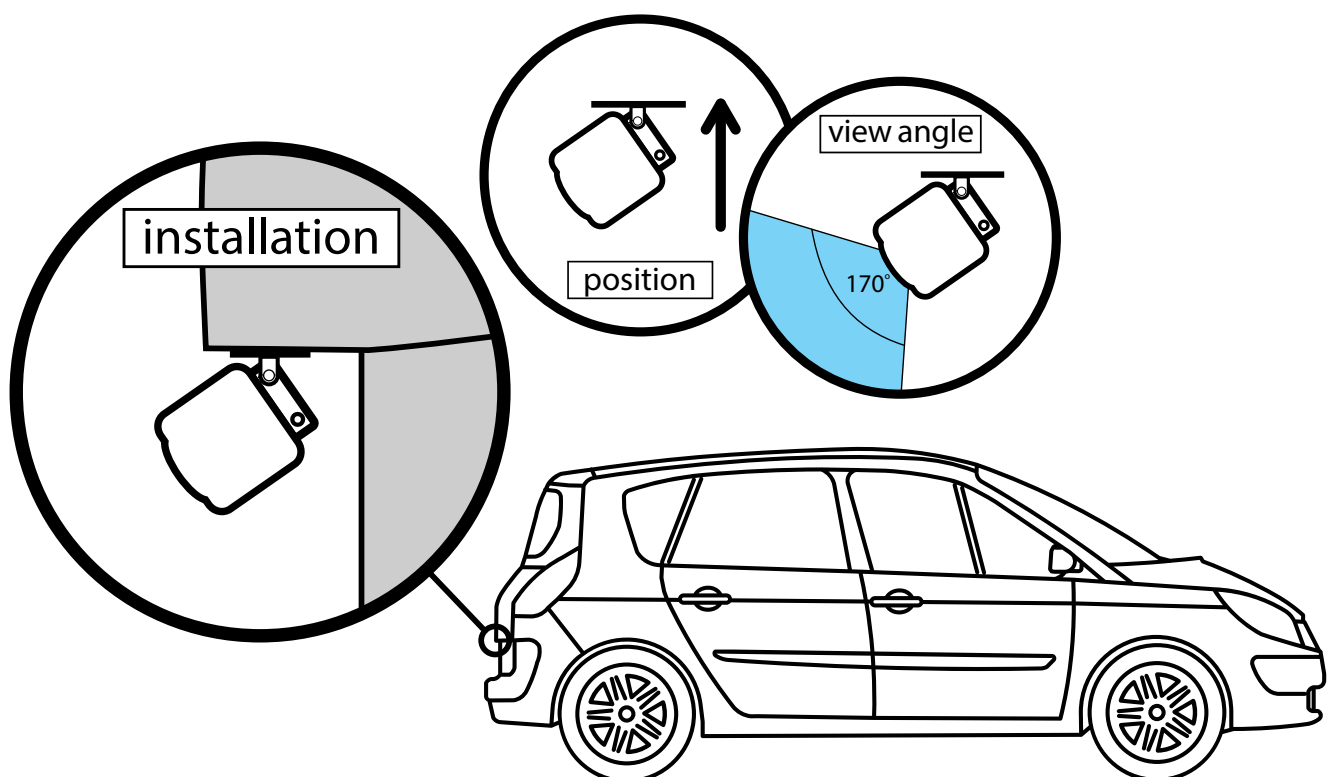
SPECIFICATIONS:

SENSOR	1/4 INCH MT9V139
SENSOR FORMAT	728 (H) X 560 (V)
TV SYSTEM	PAL 720 X 576 / NTSC 720 X 480
TV LINES	480
VIEWING ANGLE	170°
WEATHERPROOF RATING	IP68
NIGHT VISION	YES
USABLE ILLUMINATION	0.5 LUX
POWER SOURCE	DC 12V-24V (+/- 10%)
POWER	<1W
S/N RATIO	48DB
VIDEO OUTPUT	1VP - P, 75 Ω
OPERATING TEMPERATURE	-40°C ~ +70°C / RH 95% MAX
STORAGE TEMPERATURE	-40°C ~ +80°C / RH 95% MAX

Camera Installation



Mounting Position



No Image On Screen

- Do a hard reset, unplug all cables and power cables, leave out for 1 minute and then re-connect them
- Check to ensure that the connection to the camera is tight
- Verify camera cable is plugged into port labeled Backup Camera
- Verify that the green positive trigger on power harness is put to power 12v+
- Verify camera is on correct camera input
- Verify cable is connected to monitor
- Verify camera is connected to cable
- Connect known working camera and cable to monitor
- Verify Green trigger is receiving power

ONE YEAR WARRANTY

REAR VIEW SAFETY, INC. WARRANTS THIS PRODUCT AGAINST MATERIAL DEFECTS FOR A PERIOD OF ONE YEAR FROM DATE OF PURCHASE. WE RESERVE THE RIGHT TO REPAIR OR REPLACE ANY SUCH DEFECTIVE UNIT AT OUR SOLE DISCRETION. REAR VIEW SAFETY, INC. IS NOT RESPONSIBLE FOR A DEFECT IN THE SYSTEM AS A RESULT OF MISUSE, IMPROPER INSTALLATION, DAMAGE OR MISHANDLING OF THE ELECTRONIC COMPONENTS. REAR VIEW SAFETY, INC. IS NOT RESPONSIBLE FOR CONSEQUENTIAL DAMAGES OF ANY KIND.

THIS WARRANTY IS VOID IF: DEFECTS IN MATERIALS OR WORKMANSHIP OR DAMAGES RESULT FROM REPAIRS OR ALTERATIONS WHICH HAVE BEEN MADE OR ATTEMPTED BY OTHERS OR THE UNAUTHORIZED USE OF NONCONFORMING PARTS; THE DAMAGE IS DUE TO NORMAL WEAR AND TEAR, THIS DAMAGE IS DUE TO ABUSE, IMPROPER MAINTENANCE, NEGLECT OR ACCIDENT; OR THE DAMAGE IS DUE TO USE OF THE REAR VIEW SAFETY, INC. SYSTEM AFTER PARTIAL FAILURE OR USE WITH IMPROPER ACCESSORIES.

WARRANTY PERFORMANCE

DURING THE ABOVE WARRANTY PERIOD, SHOULD YOUR REAR VIEW SAFETY PRODUCT EXHIBIT A DEFECT IN MATERIAL OR WORKMANSHIP, SUCH DEFECT WILL BE REPAIRED WHEN THE COMPLETE REAR VIEW SAFETY, INC. PRODUCT IS RETURNED, POSTAGE PREPAID AND INSURED, TO REAR VIEW SAFETY, INC. OTHER THAN THE POSTAGE AND INSURANCE REQUIREMENT, NO CHARGE WILL BE MADE FOR REPAIRS COVERED BY THIS WARRANTY.

WARRANTY DISCLAIMERS

NO WARRANTY, ORAL OR WRITTEN, EXPRESSED OR IMPLIED, OTHER THE ABOVE WARRANTY IS MADE WITH REGARD TO THIS REAR VIEW SAFETY, INC. REAR VIEW SAFETY, INC. DISCLAIMS ANY IMPLIED WARRANTY OR MERCHANT-ABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE AND ALL OTHER WARRANTIES IN NO EVENT SHALL REAR VIEW SAFETY, INC. LIABLE FOR ANY INCIDENTAL, SPECIAL, CONSEQUENTIAL, OR PUNITIVE DAMAGES OR FOR ANY COSTS, ATTORNEY FEES, EXPENSES, LOSSES OR DELAYS ALLEGED TO BE AS A CONSEQUENCE OF ANY DAMAGE TO, FAILURE OF, OR DEFECT IN ANY PRODUCT INCLUDING, BUT NOT LIMITED TO, ANY CLAIMS FOR LOSS OF PROFITS.

DISCLAIMER

REAR VIEW SAFETY AND/OR ITS AFFILIATES DOES NOT GUARANTEE OR PROMISE THAT THE USER OF OUR SYSTEMS WILL NOT BE IN/PART OF AN ACCIDENT OR OTHERWISE NOT COLLIDE WITH AN OBJECT AND/OR PERSON. OUR SYSTEMS ARE NOT A SUBSTITUTE FOR CAREFUL AND CAUTIOUS DRIVING OR FOR THE CONSISTENT ADHERENCE TO ALL APPLICABLE TRAFFIC LAWS AND MOTOR VEHICLE SAFETY REGULATIONS. THE REAR VIEW SAFETY PRODUCTS ARE NOT A SUBSTITUTE FOR REARVIEW MIRRORS OR FOR ANY OTHER MOTOR VEHICLE EQUIPMENT MANDATED BY LAW. OUR CAMERA SYSTEMS HAVE A LIMITED FIELD OF VISION AND DO NOT PROVIDE A COMPREHENSIVE VIEW OF THE REAR OR SIDE AREA OF THE VEHICLE. ALWAYS MAKE SURE TO LOOK AROUND YOUR VEHICLE AND USE YOUR MIRRORS TO CONFIRM REARWARD CLEARANCE AND THAT YOUR VEHICLE CAN MANEUVER SAFELY. REAR VIEW SAFETY AND/OR ITS AFFILIATES SHALL HAVE NO RESPONSIBILITY OR LIABILITY FOR DAMAGE AND/OR INJURY RESULTING FROM ACCIDENTS OCCURRING WITH VEHICLES HAVING SOME OF REAR VIEW SAFETY PRODUCTS INSTALLED AND REAR VIEW SAFETY AND/OR ITS AFFILIATES, THE MANUFACTURER, DISTRIBUTOR AND SELLER SHALL NOT BE LIABLE FOR ANY INJURY, LOSS OR DAMAGE, INCIDENTAL OR CONSEQUENTIAL, ARISING OUT OF THE USE OR INTENDED USE OF THE PRODUCT. IN NO EVENT SHALL REAR VIEW SAFETY AND/OR ITS AFFILIATES HAVE ANY LIABILITY FOR ANY LOSSES (WHETHER DIRECT OR INDIRECT, IN CONTRACT, TORT OR OTHERWISE) INCURRED IN CONNECTION WITH THE SYSTEMS, INCLUDING BUT NOT LIMITED TO DAMAGED PROPERTY, PERSONAL INJURY AND/OR LOSS OF LIFE. NEITHER SHALL REAR VIEW SAFETY AND/OR ITS AFFILIATES HAVE ANY RESPONSIBILITY FOR ANY DECISION, ACTION OR INACTION TAKEN BY ANY PERSON IN RELIANCE ON REAR VIEW SAFETY SYSTEMS, OR FOR ANY DELAYS, INACCURACIES AND/OR ERRORS IN CONNECTION WITH OUR SYSTEMS FUNCTIONS.



A Safe Fleet Brand

If you have any questions
about this product, contact:

***Rear View Safety, Inc.
1797 Atlantic Avenue
Brooklyn, NY 11233
800.764.1028***

***Better Cameras. Better Service.
IT'S OUR GUARANTEE.***

