

KENWOOD

STZ-RF200WD

Motorsports CAM

INSTRUCTION MANUAL MANUEL D'INSTRUCTIONS MANUAL DE INSTRUCCIONES

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- Updated information (the latest Instruction Manual, etc.) is available from <https://www.kenwood.com/cs/ce/>.

For your records

Record the serial number, found on the back of the unit in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you can upon your Kenwood dealer for information or service on the product.

Model STZ-RF200WD

Serial Number _____



US Residents Only

Register Online

Register your KENWOOD product at www.kenwood.com/usa

- Des informations mises à jour (le dernier Manuel d'instructions, etc.) sont disponibles sur <https://www.kenwood.com/cs/ce/>.

Pour vos enregistrements

Enregistrez le numéro de série qui se trouve à l'arrière de l'unité, dans les espaces désignés sur la carte de garantie et dans l'espace prévu ci-dessous. Reportez-vous aux numéros de modèle et de série à chaque fois que vous le pouvez auprès de votre revendeur Kenwood pour obtenir des informations ou des services sur le produit.

Modèle STZ-RF200WD

Numéro de série _____



Résidents des États-Unis uniquement

Enregistrer en ligne

Enregistrez votre produit KENWOOD sur www.kenwood.com/usa

- La información actualizada (el manual de instrucciones más reciente, etc.) está disponible en <https://www.kenwood.com/cs/ce/>.

Para sus registros.

Registre el número de serie, situado en la parte posterior de la unidad en los espacios designados en la tarjeta de garantía, en el espacio provisto a continuación. Consulte el modelo y los números de serie siempre que pueda con su distribuidor Kenwood para obtener información o servicio sobre el producto.

Modelo STZ-RF200WD

Número de serie _____



Solo residentes de EE. UU.

Registro en línea

Registre su producto KENWOOD en www.kenwood.com/usa

Motorsports CAM

STZ-RF200WD INSTRUCTION MANUAL

Read this manual thoroughly before installation wiring and use. Install and wire the unit correctly in accordance with the Safety Precautions (p.4 - p.7).

Please store this manual in a secure location and refer to it as needed.

In the event of an accident or damage to the motorsports vehicle which the unit is installed

Turn the unit off and remove the SD card to prevent important videos and recording files from being overwritten. (→p.11)


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Safety Precautions

These symbols denote explanations to prevent injuring yourself and others, and prevent damage to property.

■ Safety icons used in this guide

 **Warning** Describes information that could result in death or serious injury if not followed.

 **Caution** Describes information that could result in bodily injury or damage to property.



This icon indicates important cautions (and warnings).



This icon indicates actions to avoid (prohibited actions).



This icon indicates actions that must be taken (mandatory and indicated actions).

Warning

Installation and Wiring



- Do not install equipment in locations that interfere with line-of-sight or vehicle operations or in locations that pose a danger to passengers
- Do not install equipment in locations subject to high temperatures, such as close to the engine, muffler, etc.
- Ensure that installed equipment and the ground wire do not use a nut or bolt from the vehicle's safety systems (handlebar, brakes, gas tank, etc.)
- Do not let water or foreign matter enter the unit



- Ask a specialist to install and wire the unit for safety
- Install and wire the unit as described in this instruction manual
- Install wires so that they do not interfere with steering the vehicle
- Use tape to insulate any bare sections on wires
- Check that the vehicle's electronic components operate properly after installation and wiring



- **Store SD cards, packing materials or unused accessories such as screws in a location away from small children.**
- **Plug in the power cable correctly**
- **Hold the in-line connectors when unplugging the power cable**
- **Disconnect the in-line connector for power cable when not using the Motorsports CAM for extended periods of time**
- **Make sure to use the included parts and specified components**
- **Clean the power cable at the battery connection point periodically**

Use



- **Do not remove the SD card or disconnect in-line connectors with wet hands.**
It could result in fire, electric shocks, or malfunction.
- **Do not disassemble repair or try to modify the unit.**
It could result in traffic accidents, fire, electric shock, or malfunction.
Modifying the unit or using a modified unit is also a violation of the Radio Act and the Telecommunications Business Act.
- **This unit is intended only for vehicles with a DC 12V power supply.**
Using this unit in any other voltage environment besides 12V DC such as 6V, 24V or other could result in fire and/or damage.
- **Do not use if damaged or malfunctioning.**
If foreign matter enters the unit, or if it produces smoke, abnormal noise, or peculiar odors, stop use immediately and disconnect the power cable.
- **Never use the associated cell phone app while driving.**
Only use it once you have parked in a safe location.
- **Can we say use caution when using the switch or the need to glance at the status indicator.**
Driving safely should be prioritized.
- **Do not conduct risky behavior, such as sudden starts or braking, to test whether the unit is working.**
- **Do not use the unit if there is condensation on it.**
It could result in malfunctions, heat buildup, or electric shocks.
- **Do not subject the unit to strong impacts, like drops, hits, etc.**
It could result in malfunctions or damage.
- **Do not place items with strong magnetic fields near the unit**
It could result in a malfunction.
- **Do not let the unit come into contact with gasoline, liquids, organic solvents, brake fluids, etc.**
It could result in malfunctions or damage.
- **Do not wash the unit or camera when cleaning your vehicle with a pressure washer**
It could result in a malfunction.



- **Secure disconnected in-line connectors with tape to prevent water or foreign matter from entering**
It could result in a malfunction.
- **Always use fuses of the specified capacity and ask a specialist to replace them.**
If a fuse above the specified capacity is used, it could result in fire or malfunction.

Handling near electronic medical equipment



If used near electronic medical equipment such as implantable pacemakers or implantable cardioverter-defibrillators, keep the unit at least 22 cm (8.664") from such equipment. The radio waves may negatively affect the operations of medical devices.

Contact for malfunctions



If a malfunction occurs, stop use immediately and contact the office listed in this manual. Continued use may result in unanticipated accidents, fires, or electric shocks.



Caution

Installation and Wiring



Do not install in locations subject to high-pressure water or locations with high levels of humidity, dust, or soot

Water, soot, etc. entering the unit could result in smoke, fire, or malfunction.



Do not place items on top of the unit or that cover the unit.

Heat trapped inside the unit could result in fire or malfunction.



Cautions when handling cables

Make sure cables have sufficient slack so that they are not subject to excessive force, and install them so that any sections that move do not bend beyond a radius of 40 mm (1.57"). Prevent cables from becoming damaged, pulled excessively, bent, twisted, modified, pressed upon, installed near high-temperature equipment, etc. It could result in fires, electric shocks, and malfunctions from disconnections or shorts.



Cautions against deteriorated paint on the installation surface

Please check the paint on installation surfaces where included double-sided tape will be affixed for deterioration.

Deteriorated paint could reduce adhesion power and cause the unit to fall off.

The adhesion power of double-sided tape may affect the external appearance of the motorcycle.

Use



Do not use the unit for any non-vehicle use.

It could result in smoke, fire, or electric shock.



Check the installation before driving

A loose unit or connected component of the unit could fall or interfere with driving cause an injury, traffic accident or malfunction of this unit.

If you notice malfunctions in the unit

If you notice that the unit is malfunctioning in any way, refer to the Troubleshooting section (→p.20) to see if a solution is listed there. If you cannot find a solution, disconnect the power cable and restart the unit. If operations do not return to normal after restarting, contact the office listed in this manual.

The unit is equipped with a GPS device.

Recorded drive data includes location information.

Precautions for Use

Installation

- Only install the unit with the key removed from the vehicle's ignition so that the engine does not start unexpectedly.
- Install the unit in a location that will not interfere with vehicle operations.
- Event recording may not work properly if a mistake is made during installation. Refer to the instruction manual for directions, the angle of installation, etc. to install the unit properly. (→p. 12)
- Before using included double-sided tape to install the unit, remove dirt and fingerprints from the installation location using a commercial cleaning cloth and wait for the location to dry before proceeding. Reusing tape, using general purpose double-sided tape, etc. for the installation will result in weaker adhesion power and presents a risk of the unit falling off. Use cable ties as needed to secure the camera in place.
- Wrap cables using cable ties or commercial soft edge masking tape so that they do not interfere with driving.
- Do not install in locations that will be subject to high temperatures (near the engine, muffler, etc.) or high pressures (when the suspension bottoms out while someone is on the bike).
- Disconnect the in-line connectors on the power cable when not using the unit for extended periods of time. It could drain the battery. Secure disconnected in-line connectors with tape to prevent water or foreign matter from entering.

Use

- Do not block or dirty the camera lens or place reflective material near the lens.
- LED signs may flicker or blink in recordings. There is no guarantee that traffic lights will be identifiable and recorded.

- Our company bears no responsibility for the accuracy, completeness, or suitability of recorded content.
- Please regularly check that the unit is recording normally, including confirming that no malfunctions have occurred in the unit or SD card.
- Always check that the indicator is not producing any abnormal displays when the unit is powered on.
- Always check the installation prior to use.

Copyrights

- In some instances, video, images, and audio content may not be recorded without permission from the copyright holder, even if used for personal enjoyment.
- Even if permission is obtained from the copyright holder for video, images, and audio content, in some instances, use may not be allowed for viewing outside of personal enjoyment.

Caring for the unit

- Wipe the unit gently with a dry silicone or soft cloth if it becomes dirty. If the unit is very dirty, wipe away the dirt with a cloth moistened with a neutral cleaner, then wipe off the cleaner. Wiping the unit with a hard cloth or volatile substance such as paint thinner or alcohol could result in scratches, deformations, deterioration, or malfunction.
- Images may not record clearly if the lens is dirty. Check the lens for dirt before driving. If the lens is dirty, gently wipe away the dirt using a soft cloth moistened with water. Wiping forcefully with a dry cloth may scratch the lens.

Recommended SD cards

Type	microSDHC microSDXC
Capacity	16 GB to 256 GB
Speed class	Class 10 UHS-I
File system	FAT32
Allocation size	64 KB

- We cannot guarantee the operations of every SD card.
- We recommend using a high-durability SD that is suited for repeated recording (dashcam).
- When using an SD card in the unit for the first time, the Status LED may show an error warning. An SD Card may need to be re-formatted by the App or computer for normal operation.

Precautions when using SD cards

- When using a commercially available SD card, read the instruction manual included with the card.
- Always have the unit powered off when inserting or removing an SD card. If the unit is powered on, there is a risk of damage to data or the SD card.
- Always format new SD cards in the unit before using them.
- Always check whether video is recording properly after inserting an SD card.
- Make sure to push or pull SD cards in the proper direction and do not bend, force, or hit them. Do not touch terminal pins directly with your hands or let them get into contact with metal objects. There is a risk of data being damaged or lost due to electric shock.

- Always make sure to back up (copy) important files saved on SD cards to a computer or other unit as soon as possible. Data may be lost depending on how SD cards are used. Please be aware that our company is in no way responsible for compensating any damages caused from the loss of stored data.
- Formatting SD cards or deleting data using the unit or formatting SD cards on a computer only changes the file management information and does not completely erase all data stored in SD cards. When an SD card will no longer be used, we recommend using commercially available data deletion software for computers to completely erase all data in the SD card. Data inside SD cards is managed at the responsibility of the customer.
- SD cards are consumable products. We recommend periodically replacing them with new ones depending on how they are used.
- You may not be able to overwrite or delete data on SD cards, even when used normally.
- As a rule, format your SD cards once a month.
- Do not place objects on top of SD cards, drop them, or use force on them. Store them in a clean, dry place with low humidity.
- The warranty does not cover equipment malfunctions caused by SD cards.



FCC WARNING

This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

FCC NOTE

- This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.
- This equipment may cause harmful interference to radio communications, if it is not installed and used in accordance with the instructions. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
 - Reorient or relocate the receiving antenna.
 - Increase the separation between the equipment and receiver.
 - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
 - Consult the dealer or a professional installation technician for help.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

CAN ICES-3(B) / NMB-3(B)

IC (Industry Canada) Notice

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

CAUTION

This equipment complies with FCC/IC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines and RSS-102 of the IC radio frequency (RF) Exposure rules. This equipment has very low levels of RF energy that is deemed to comply without maximum permissive exposure evaluation (MPE). But it is desirable that it should be installed and operated keeping the radiator at least 20 cm (7.874") or more away from a person's body.

Supplier's Declaration of Conformity

Trade Name: KENWOOD
Product: Dashboard Camera
Model Name: STZ-RF200WD
Responsible Party:
JVCKENWOOD USA CORPORATION
2201 East Dominguez Street,
Long Beach, CA 90810, U.S.A.
PHONE: 310 639-9000

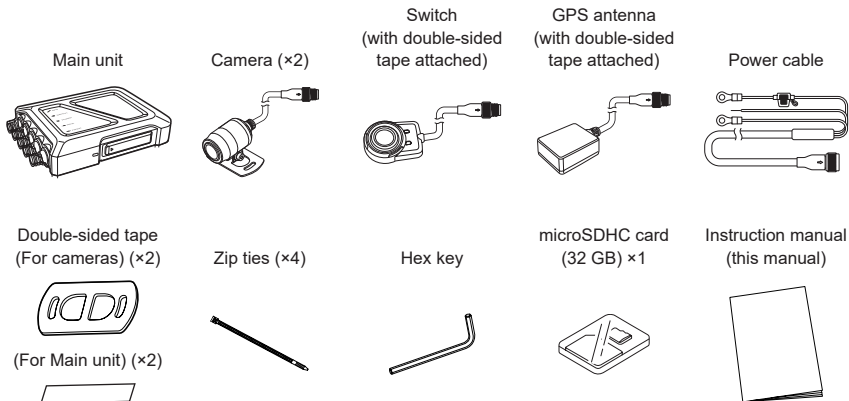
**Complies with
IMDA Standards
DB02771**

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:

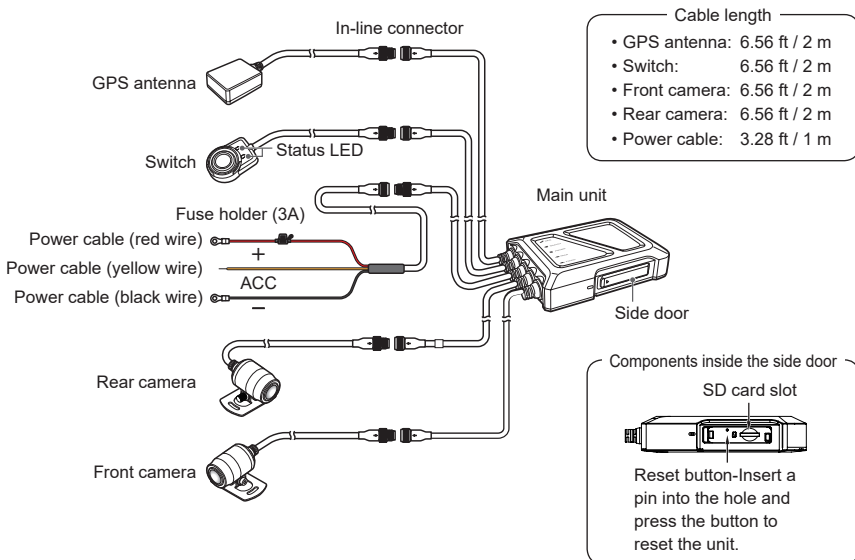
1. THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND
2. THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRE OPERATION.

Check the Items Included in the Package

Check that all items are included before installing the unit.



Name and Function of Each Part

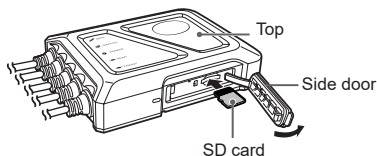


Installation

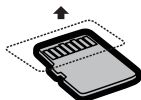
Inserting and removing the SD card

Inserting an SD card

1. Open the side door to access the SD card slot.
2. Press the SD card into the SD card slot until you hear a click, then close the side door.



Insert the SD card with the pins facing the top of the unit.



-
- Always turn the unit off before inserting or removing an SD card.
 - We strongly recommend using the unit to format SD cards before using them. See the KENWOOD Motorsports CAM Operations Guide when formatting an SD card.
 - * You can read the KENWOOD Motorsports CAM Operations Guide on our company website.
<https://www.kenwood.com/cs/ce>
-

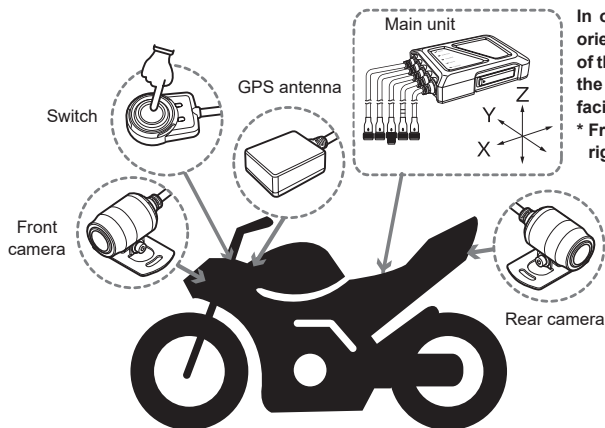
Removing an SD card

1. Open the side door to access the SD card slot.
2. The SD card will pop out a little when pressed gently.
Close the side door after removing the SD card.

-
- Close the side door properly so that it latches fully and there are no gaps. Otherwise, water or foreign matter could enter and cause a malfunction.
-

Installing the unit

Installation layout



In order to correctly display the orientation of the G sensor chart of the PC viewer software*, attach the main unit with the cable side facing the front of the vehicle.

* Front and back (GX), left and right (GY), top and bottom (GZ).



• This installation layout is for reference. Actual installations will vary by motorcycle model.

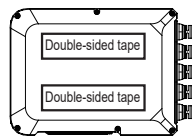
• Main unit

Install the main unit underneath the seat.

⇒ When fastening the main unit to the vehicle, check that there is adequate room to open the SD card slot side door.

⇒ The included double-sided tape must be used when fastening the main unit to the vehicle.

• The included double-sided tape must be affixed to the bottom (the flat surface) of the main unit as shown in the image on the right.

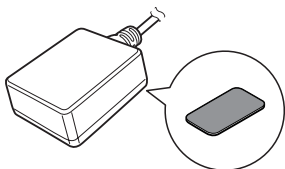


• Before installing the unit with the included double-sided tape, select a flat location on the vehicle, wipe away any dirt or grease on the installation location with a commercially available cleaning cloth, and install the unit after the location has dried. Reusing tape or using general purpose double-sided tape for installation will provide less adhesive power and presents a risk of the unit falling off.

• Do not install in locations that will be subject to high temperatures (near the engine, muffler, etc.) or high pressures (when the suspension bottoms out while someone is on the bike).

- GPS antenna

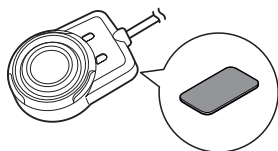
Install the GPS device in a location where it can easily receive satellite signals, such as near the handlebars or on top of the gas tank. Remove the release paper from the double-sided tape before installing.



- Switch

Install the switch in a location that is easy to operate and will not interfere with safe operation of the motorcycle, such as on or nearby the left handlebar.

⇒ Remove the release paper from the double-sided tape before installing.

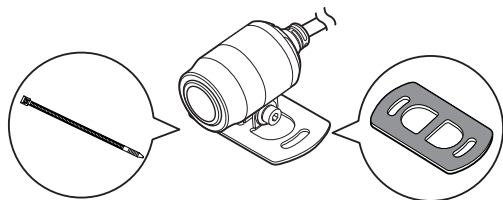


- Front and rear cameras

Install the cameras in locations where the field of view will not be affected by the motorsports vehicle itself.

⇒ Remove the protective film from the double-sided tape before installing. Use screws, nuts (not included), and cable ties as needed to secure the cameras in place.

⇒ After installation, use the KENWOOD Motorsports CAM App to check the video feed and adjust the camera. See → p.18 "Adjusting the field of view" for more details.



- When using double-sided tape to install the unit, remove dirt and fingerprints from the installation location using a commercial cleaning cloth and wait for the location to dry before proceeding. Re-using tape or using general purpose double-sided tape for installation will provide less adhesive power and presents a risk of the unit falling off.
- Use cable ties to secure cables so that they do not droop. Improper wiring or securing could result in wires falling, malfunctions, fires, or accidents.

• Power cable

Each wire in the power cable assembly connects to the bike battery.

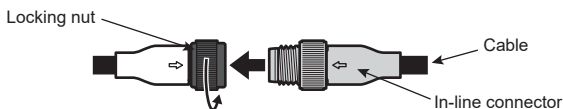
- ⇒ Unscrew the battery's negative/ground terminal. Then unscrew the positive terminal.
- ⇒ Place the round terminal on the power cable (red wire) on the battery's positive terminal, then tighten with the original terminal screw.
Next, place the round terminal on the power cable (black wire) on the battery's negative terminal, then tighten with the original terminal screw.
- ⇒ When connecting the power cable's yellow wire, make sure that it is connected properly to the ACC power supply.

- When unscrewing battery terminals, remove the negative one first, check that no cables are contacting the terminal, and then remove the positive terminal. Connecting starts with the positive terminal.
- Remove the key from the ignition to prevent short circuiting the unit.
- Consult a professional installation technician if wire connections are causing problems. Incorrect installation or wiring may severely damage the motorcycle or cause an accident.
- Install the fuse holder in a location where it will not come into contact with water.

• Connecting cables

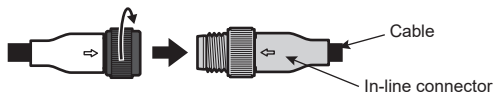
Connecting cables

1. Check the pin layout of the in-line connectors and align the pins when connecting them.
2. Tighten the locking nut to secure the connection.



Disconnecting cables

1. Loosen the locking nut.
2. Hold the cable by the in-line connector and disconnect it.



- Holding the cable when disconnecting could damage the cable. Always hold the in-line connectors to release a connection.
- Be careful to not mix up the cables for the front and rear cameras. Cables for the rear camera have a white marker tube.

• Securing cables

Secure each cable to the motorcycle using cable ties or electrical tape. Make sure they do not interfere with the rider's ability to control the bike.

- Check that the handlebar can rock back and forth and that the wires do not interfere with operations when the suspension bottoms out.

Powering the unit

When the bike's ignition is set to ACC or ON and the unit is switched on, the unit will start continuous recording after completing a system check. When the ignition is turned to OFF, the unit will automatically power off.

* The LED lights may illuminate for approximately 30 seconds while powering down which is normal.

Motorsports CAM Functions

The unit records videos and saves them to the microSD card.

Always insert an SD card into the SD card slot before using the unit.

See → p. 11 for details.

Function settings

You can change the function settings for the unit using the KENWOOD Motorsports CAM App. See the KENWOOD Motorsports CAM App Guide for details.

Recording functions

Continuous recording

The unit will start continuous recording when it powers on. The default setting is for each recorded minute to be saved as a separate video file. The recording time can be changed with the KENWOOD Motorsports CAM App.

Event recording

Event recording will start if a sudden force is detected during continuous recording. The unit will record from 10 seconds before a large force affects the bike until 5 seconds after. The unit will return to continuous recording after event recording has finished.

Manual recording

Manual recording will start if the switch button is pressed during continuous recording.

Saving and overwriting recorded files

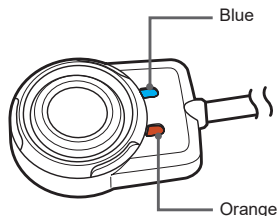
Recorded files are saved separately as continuous recordings, event recordings, and manual recordings. If the save region on the SD card becomes full, files on the SD card will be overwritten beginning with the oldest file. See "Recording time" and "Possible number of files" (→ p. 24) for details.

























Audio settings

Audio recording can be set to ON or OFF.

You can change the setting with the KENWOOD Motorsports CAM App.

LED status display



State		LED display pattern	
System check at start-up (from startup to the start of recording)		Blue  Orange 	Blue lit and orange blinks once per second
<ul style="list-style-type: none"> Continuous recording (unsynchronized time) Continuous recording (synchronized time) 		Blue  Orange 	Blue lit, orange unlit
<ul style="list-style-type: none"> Wireless LAN (waiting for connection) Wireless LAN (connected) 		Blue  Orange 	Orange lit, blue blinks once per second
<ul style="list-style-type: none"> Event recording Manual recording 		Blue  Orange 	Blue and orange lit
Error (press the switch to display error details)		Blue  Orange 	Orange lit, blue unlit
Error details	Updating firmware	Blue  Orange 	Orange lit, blue unlit
	SD card error* (displayed for 5 seconds)	Blue  Orange 	Blinks for 0.5 seconds over 5 seconds
	Front camera error* (displayed for 5 seconds)	Blue  Orange 	Blue blinks for 0.5 seconds and orange is lit over 5 seconds
	Rear camera error* (displayed for 5 seconds)	Blue  Orange 	Blue is lit and orange blinks for 0.5 seconds over 5 seconds
	GPS error* (displayed for 5 seconds)	Blue  Orange 	Blue is lit, orange will blink twice every 0.5 second with a 0.2 second interval between each blink for 5 seconds
	High temperature error* (displayed for 5 seconds)	Blue  Orange 	Blue will blink twice every 0.5 second with a 0.2 second interval between each blink and orange is lit for 5 seconds
	Wired switch error* (displayed for 5 seconds)	Blue  Orange 	Blue and orange will both blink twice every 0.5 second with a 0.2 second interval between each blink for 5 seconds

Using the Cell Phone App

You can use the KENWOOD Motorsports CAM App to view and download videos recorded and saved to the SD card. You can also change the unit settings.

Installing the KENWOOD Motorsports CAM App

Minimum system requirements (cell phone)

- Android 7.0 or later
- iOS 11 or later

Search for the KENWOOD Motorsports CAM App on the Google Play Store or the App Store. Then download and install the app on your cell phone.



- Check that your cell phone is connected to the internet (either via mobile data or WiFi).
-

Connect your cell phone to the unit using a wireless LAN connection

1. Press and hold the switch button on the unit for 3 seconds to switch to wireless LAN mode.
The orange status LED will light up and the blue one will blink. This shows that the unit is preparing to connect to your cell phone.
2. Open the settings on your cell phone.
3. Set WiFi to ON.
Bring up the list of available networks.
4. Tap STZ_RF200WD_(serial number).
5. Enter the password, tap connect, and it will connect with the unit.



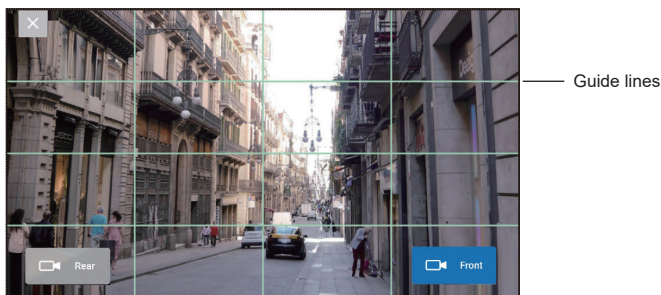
- The default password is "12341234".
 - You will only need to input the password the first time. Subsequent connections will be automatic.
-

Check the KENWOOD Motorsports CAM Operating Guide on our company website for more detailed operating instructions.

<https://www.kenwood.com/cs/ce>

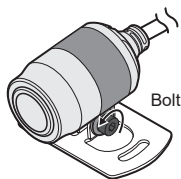
Adjusting the field of view

1. Open the KENWOOD Motorsports CAM and tap "Image angle adjustment" on the main menu.
It will start with the live feed from the front camera.

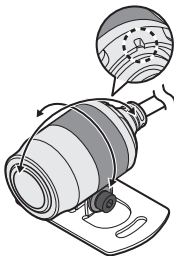


- Tap "Rear" to switch to the live feed from the rear camera.
- Tap "X" when you are finished with the screen.
- If it starts with the live feed from the rear camera, the front and rear camera connections are incorrect. Check the camera cable connections.

2. Use the included hex key to loosen the bolt on the installation bracket.



3. Rotate the camera while checking the live feed and adjust the camera to your preferred field of view.
Make sure that the indentation on the back of the camera is facing up.
4. Once the adjustment is complete, tighten the bolt and lock the camera in place.



Using the Computer Viewing Program

The KENWOOD Motorsports CAM Viewer is a computer program designed for viewing video recorded by the unit.

The program can be downloaded from our company website.

Check the product page for details.

Installing the software

Double-click the program installer downloaded to your computer and follow the directions on your screen to install the program.

Operating environment

Windows

Compatible OS	Windows 10 (32-bit/64-bit)
CPU	Intel Core i3 2GHz or better
Memory	2 GB or more
Display	1280 × 800 or greater
Sound	Functions that can playback PCM sound in Windows

Mac OS X

Compatible OS	MAC OS 10.14 or later
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Check the KENWOOD Motorsports CAM Viewer Operating Guide on our company website for more detailed operating instructions.

<https://www.kenwood.com/cs/ce>

Updating the Firmware

The unit's firmware may need updating to improve performance and fix bugs.

We recommend always using the latest firmware version.

1. Download the latest version from our company website and copy it to an SD card.
* Unzip any files downloaded as zip files before copying them to an SD card.
2. Insert the SD card with the copy of the firmware into the Motorsports CAM and power the unit on.
3. The Motorsports CAM will check the SD card when it starts up.
It will update itself if it finds a new version of the firmware.
The orange status LED will light up when the update starts.
4. The unit will automatically restart once the update is complete and the blue LED will light up.
5. Check the firmware version.
Connect to the unit with your cell phone, go to "Settings" ⇒ "Firmware" from the KENWOOD Motorsports CAM main menu, and check that the latest version is installed.



- Never power the unit off or remove the SD card during a firmware update.
-

Troubleshooting

Issue	Cause / Solution
The indicator does not light up even though the vehicle ACC is ON.	<ul style="list-style-type: none"> • Is the fuse blown? <ul style="list-style-type: none"> ✓ Address the cause of the blown fuse and replace the fuse. (Always use fuses of the specified capacity) • Is the in-line connector for the power cable or switch cable disconnected? <ul style="list-style-type: none"> ✓ Check the connections of the in-line connectors.
The orange status LED is blinking. (see p. 16)	<ul style="list-style-type: none"> • Press the switch and the status LEDs will inform you of the error details.
The display indicates an SD card error. (see p. 16)	<ul style="list-style-type: none"> • Is the SD card inserted correctly? <ul style="list-style-type: none"> ✓ If there is no change after the SD card is inserted correctly, format the SD card or replace it with a new one.
The display indicates a front camera error. (see p. 16)	<ul style="list-style-type: none"> • Is the in-line connector for the front camera disconnected? <ul style="list-style-type: none"> ✓ Check the connections of the in-line connectors. (see p. 14)
The display indicates a rear camera error. (see p. 16)	<ul style="list-style-type: none"> • Is the in-line connector for the rear camera disconnected? <ul style="list-style-type: none"> ✓ Check the connections of the in-line connectors. (see p. 14)
The display indicates that the camera is not connected while adjusting the recording angle. (see p. 16)	<ul style="list-style-type: none"> • Is the in-line connector for the camera cable disconnected? <ul style="list-style-type: none"> ✓ Check the connections of the in-line connectors. (see p. 14)
The display indicates a GPS error. (see p. 16)	<ul style="list-style-type: none"> • Is the in-line connector for the GPS device disconnected? <ul style="list-style-type: none"> ✓ Check the connections of the in-line connectors. (see p. 14)
The display indicates that the temperature is high. (see p. 16)	<ul style="list-style-type: none"> • The unit is hot. Turn off image stabilization and temporarily reduce the frame rate to prevent heat from generating and continue recording. Stop recording if the temperature does not drop.
The display indicates a switch error. (see p. 16)	<ul style="list-style-type: none"> • Is the in-line connector for the switch disconnected? <ul style="list-style-type: none"> ✓ Check the connections of the in-line connectors. (see p. 14)
The camera and main unit will generate heat during use.	<ul style="list-style-type: none"> • Is it too hot to touch? <ul style="list-style-type: none"> ✓ It will heat up during use. Stop use immediately if it is too hot to touch and contact the office listed in this manual.
The time displayed on recorded video is incorrect.	<ul style="list-style-type: none"> • Is the top of the GPS antenna covered by metal or something with a metal coating? <ul style="list-style-type: none"> ✓ Remove the item covering it. Or move the GPS antenna to a location where nothing will cover it. If the issue is not resolved, use a dedicated cell phone app to synchronize the time.

Issue	Cause / Solution
Recorded video isn't clear.	<ul style="list-style-type: none"> • Is video quality set to FINE? ✓ Change the video quality setting to FINE. • Is the camera lens dirty? ✓ Wipe the lens with a lens cleaner or soft cloth dampened with water.
Video from the front and rear camera are swapped.	<ul style="list-style-type: none"> • Are the camera cables connected to the correct connection points on the main unit? ✓ Disconnect the in-line connectors and connect them to the correct connection points.
The G-sensor does not match vehicle movement (up/down, forward/backward, left/right)	<ul style="list-style-type: none"> • Is the unit oriented (X, Y, Z) to the vehicle's longitudinal, lateral, and vertical axes? ✓ Align the main unit and vehicle axes as best as you can. * This will not affect impact notification sensitivity.
Event recording does not work.	<ul style="list-style-type: none"> • Is impact notification sensitivity turned off or set low? ✓ Gradually increase the impact notification sensitivity setting and check again.
Event recording starts frequently.	<ul style="list-style-type: none"> • Is the unit fixed securely to the vehicle? ✓ Secure the unit so that it does not move. • Is impact notification sensitivity set high? ✓ Gradually decrease the impact notification sensitivity setting and check again.
GPS location data is not being received. Or the location is incorrect.	<ul style="list-style-type: none"> • Is the top of the GPS antenna covered by metal or something with a metal coating? ✓ Remove the item covering it. Or move the GPS antenna to a location where nothing will cover it. • Were you driving through a tunnel, a ravine, among high-rise buildings, through an underpass, or something similar? ✓ The surrounding environment may make it hard to receive GPS signals in some places. Change locations and check whether location information is received correctly.
My cell phone won't connect to the unit over a wireless LAN connection.	<ul style="list-style-type: none"> • Did you switch the unit to wireless LAN mode? ✓ Press and hold the switch for 3 seconds to switch to wireless LAN mode. (See p.16 for details) • Was the password entered correctly? ✓ Enter the correct password. ✓ Reset the wireless LAN password using the Motorsports CAM App and enter the default password, "12341234".
The wireless LAN connection is good, but the app can't connect with the main unit.	<ul style="list-style-type: none"> • Is the main unit already connected to another cell phone? ✓ It cannot connect to multiple cell phones at the same time. Disconnect the other cell phone.
Video from the rear camera is not recording.	<ul style="list-style-type: none"> • Is the rear camera set to OFF? ✓ Set the rear camera to ON.

Appendix

Wireless Link Specifications

Standard	IEEE802.11ac (Default Settings)	IEEE802.11n (Optional Settings)
Security	WPA2	WPA2
Frequency Range	5735-5835 MHz	2400-2473 MHz
Transfer Rate	433 Mbps (802.11ac)	150 Mbps (802.11n)
Output Power	12 dBm \pm 2 dB (802.11ac)	12 dBm \pm 2 dB (802.11n)

On Wireless Link Security

Since the Wireless Link communicates over radio waves, there is the benefit that you are able to access the Link freely as far as the radio waves reach. On the other hand, without proper security settings there may be a risk of hacking or abusive invasion by malignant third parties. We recommend that you use Wireless Link after setting up proper security of the devices connected.

Please note that we are not liable for any damage or troubles pertaining to security when using this function.

Radio Interference with Bluetooth Devices

With the Wireless Link in use, if Bluetooth devices are in operation nearby, there may be radio interference causing reduced transmission speeds or disconnections. In this case, please do not use the devices simultaneously.

Receiving positioning satellite (GPS, GLONASS) information

- Positioning will begin when the unit powers on. Positioning may take 5 minutes to complete depending on the positioning status of satellites.
- Satellite signals cannot pass through solid matter (except for glass). Positioning will not work inside tunnels or buildings. Bad weather and dense overhead objects (e.g., trees, tunnels, viaducts, skyscrapers, etc.) may affect signal reception.
Speed, location, and other information will not display properly if satellite signals cannot be properly received.
- Positioning data are reference values.

Important trademarks and software notifications

- microSDXC and microSDHC are trademarks of SD-3C, LLC.
- OpenStreetMap is a registered trademark of the OpenStreetMap Foundation.
- Windows is a registered trademark of Microsoft Corporation in the USA and other countries.
- Mac and OS X are trademarks of Apple, Inc. registered in the USA and other countries.
- Intel Core is a trademark or registered trademark of Intel Corp.
- WiFi is a registered trademark of Wi-Fi Alliance.
- QR code is a registered trademark of Denso Wave, Inc.
- This product is licensed under the AVC Patent Portfolio License for the following purposes only.
 - 1) When customers record videos for personal and non-commercial purposes that comply with the MPEG-4 standard (hereafter, AVC Video).
 - 2) When playing back AVC Video (recorded by customers themselves for non-commercial purposes or recorded by a provider licensed through MPEG LA)

See the MPEG, LLC website for details.

<http://www.mpegla.com>

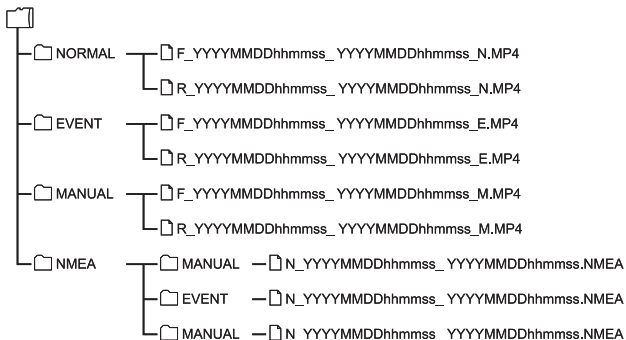
File and folder organization

Files saved on SD cards are saved in individual folders.

File names are automatically created based on the date and time of the video or recording.



- Do not use computers, etc. to change or delete files on SD cards. Files may not play correctly in the unit or the computer program.



Recording time

Video quality	SD card capacity				
	16 GB	32 GB	64 GB	128 GB	256 GB
Fine	93 minutes	190 minutes	384 minutes	772 minutes	1,547 minutes
Normal	170 minutes	348 minutes	703 minutes	1,414 minutes	2,837 minutes

- The above recording times are the total (maximum) time of continuous recording.
- Recording times are approximate. Recording times may be less depending on the image being recorded.

Possible number of files

Recording type	SD card capacity				
	16 GB	32 GB	64 GB	128 GB	256 GB
Event recording	10	20	40	80	160
Manual recording	10	20	40	80	160

- The number of continuous recording files may change depending on the number of event videos and manual videos recorded.

Important Software Notifications

The software license for this product

The software included in this product consists of multiple software components, each of which is copyrighted by JVCKENWOOD or a third party. This product uses software components (hereafter, "Licensed Software") based on software license agreements specified by JVCKENWOOD and third parties.

Some of the Licensed Software is free software and is used under a GNU General Public License or Lesser General Public License (hereafter "GPL/LGPL"). As a result, the source code of those software components must be made available when distributing them in an executable format. Please visit the following website for information on distributing this source code.

Website

<https://www.kenwood.com/gpl/>

Please be aware that we cannot answer questions regarding the source code.

Please be aware that source code will not be provided for Licensed Software not covered by GPL/LGPL.

Software components distributed under GPL/LGPL are licensed to customers free of charge and such software components are provided with no warranty, express or implied, within the scope of applicable laws.

Except for as determined by applicable laws or provided via written agreement, the copyright holder and any person who changes or redistributes the software components are in no way liable for any damage caused through use or not being able to use said software components.

See each GPL/LGPL for details on terms of use and matters that must be observed for the software component.

Read the applicable licenses for software components covered by GPL/LGPL included in this equipment carefully when using the unit.

Each license is regulated by a third party other than JVCKENWOOD, and the original text (English) can be viewed using the cell phone app for this product.

KENWOOD Motorsports CAM licensee information

1. Open KENWOOD Motorsports CAM
2. Press the "Menu" button on the main menu
3. Select "Guide"⇒"License information"

Motorsports CAM license information

1. Open KENWOOD Motorsports CAM
2. Press the "Settings" button on the main menu
3. Select "Drive recorder license information"

Specifications

Water-proofing, Dustproofing	Main unit	IP55
	Cameras	IP66/67
	GPS	IP66/67
	Switch	IP66/67
Front and rear camera units	Image sensors	2 megapixels (effective pixels: 1.86 megapixels)
	Lens viewing angle	195° diagonal (effective angle: 181°)
	Frame rate	27.5 fps
	F-number	2.2
Recording resolution	1920 × 1080	
Video quality	FINE / NORMAL	
Video file format	MP4 (video format: H.264 audio format: AAC)	
Recorded file length	30 seconds / 1 minute / 3 minutes (recording time for one file)	
Recording modes	Continuous recording, event recording, manual recording	
Data recorded	Video file, time and date, speed, location information	
Audio recording	ON / OFF	
HDR	Yes	
G-sensor	Yes (5 impact sensitivity settings / OFF)	
GPS	Yes	
Electric image stabilization	Yes	
Positioning satellites	GPS / GLONASS	

Storage media	microSDHC, microSDXC Class 10 UHS-I	
	16 GB to 256 GB	
Recorded video playback methods	KENWOOD Motorsports CAM App	
	- iOS 11 or later	
	- Android 7 or later	
	KENWOOD Motorsports CAM Viewer	
Power supply	DC 12V	
	Power consumption	
		0.48 A
Measurements	Main unit	79 (W) × 104 (D) × 22.5 (H) mm 3.110 (W) × 4.094 (D) × 0.886 (H) inches
	Cameras	23.5 (Φ) × 34.4 (D) mm 0.925 (Φ) × 1.354 (D) inches
	GPS	27.4 (W) × 33 (D) × 13 (H) mm 1.097 (W) × 1.299 (D) × 0.514 (H) inches
	Switch	25.8 (W) × 36.9 (D) × 9.5 (H) mm 1.016 (W) × 1.453 (D) × 0.374 (H) inches
Weight	Main unit	105 g (0.2315 lb)*
	Cameras	42 g (0.0926 lb)*
	GPS	14 g (0.0309 lb)*
	Switch	9 g (0.0918 lb)*
Operating temperature	-20 °C to +60 °C (-4 °F to 140 °F)	

* Excluding cable.

KENWOOD WARRANTY

JVCKENWOOD Canada Inc. (hereinafter called "KENWOOD"), gives the following written warranty to the original customer of each new Kenwood product distributed in Canada by KENWOOD and purchased from a dealer authorized by KENWOOD.

KENWOOD warrants that each new Kenwood product, under normal use, is free from any defects, subject to the terms and conditions set forth below. If a defect should occur within the warranty period, repairs will be made free of charge for parts and labour when such defects are determined by KENWOOD or its authorized service centres to be attributable to faulty materials or workmanship at time of manufacture. Please contact KENWOOD to confirm if a dealer or service centre is authorized by KENWOOD.

WARRANTY PERIOD

This Kenwood product is warranted for parts and labour for a period of one (1) year from the date of original purchase, lease or rental, except for products which are used in a professional or commercial application, which are warranted for a period of ninety (90) days for parts and labour and are subject to the terms and conditions of the warranty.

WARRANTY EXCLUSIONS

This warranty excludes:

- (a) Products purchased in a foreign country or purchased in Canada and taken to a foreign country.
- (b) Products purchased from a dealer not authorized by KENWOOD.
- (c) Products with the serial number defaced, altered or missing.
- (d) Periodic check-ups which do not disclose any defects covered by this warranty.

GARANTIE KENWOOD

JVCKENWOOD Canada Inc. (ci-après appelée "KENWOOD"), donne par écrit la garantie suivante à l'acheteur original de chaque nouveau produit Kenwood distribué au Canada par KENWOOD et acheté à un concessionnaire autorisé par KENWOOD.

KENWOOD garantit, sous réserve des termes et des conditions énoncés ci-dessous, que chaque nouveau produit Kenwood, dans des conditions d'emploi normales, est exempt de tous défauts. Si l'un défaut se produit pendant la période de garantie, KENWOOD s'engage à assumer le coût des pièces défectueuses et de la main-d'œuvre nécessaires pour effectuer les réparations pourvu que de tels défauts sont attribuables à des pièces défectueuses employées lors de la fabrication du produit Kenwood ou à la main-d'œuvre tel qu'établi par KENWOOD ou par l'un de ses centres de service autorisés. Appelez KENWOOD pour vérifier si un concessionnaire ou un centre de service est autorisé par KENWOOD.

PÉRIODE DE GARANTIE

Les pièces et la main-d'œuvre nécessaires pour la réparation des produits Kenwood sont garanties pendant la période d'un (1) an à compter de la date d'achat, de bail ou de location originale, sauf dans les cas où les produits Kenwood sont employés dans un but professionnel ou commercial, où la garantie des pièces et de la main-d'œuvre demeure en vigueur pendant une période de quatre-vingt-dix (90) jours sous réserve des termes et des conditions de la garantie.

EXCLUSIONS DE GARANTIE

Cette garantie ne couvre pas:

- (a) les produits achetés à l'étranger ou achetés au Canada et transportés à l'étranger;
- (b) les produits achetés à un concessionnaire non autorisé par KENWOOD;
- (c) les produits dont le numéro de série manque, a été effacé ou modifié;
- (d) les services d'entretien périodiques qui n'indiquent aucun défaut couvert par cette garantie;

- (e) Defects resulting from disaster, accident, abuse, misuse, lightning, power surges, neglect or lack of periodic maintenance, unauthorized modification or failure to follow instructions in the owner's manual.
- (f) Defects or damage as a result of repairs performed by a person or party not authorized by KENWOOD.
- (g) Defects resulting from the use of parts or devices that do not conform to KENWOOD specifications.
- (h) Damage or deterioration occurring to any exterior finishes, cosmetic parts, tape heads, adaptors, antennas, cables, tapes, discs or faults or damage caused by defective or leaking batteries.
- (i) Defects or damage occurring during shipping (claims should be presented to the shipping company).
- (j) Product voltage and/or line frequency conversions.
- (k) Product installation or removal charges.

TO OBTAIN WARRANTY SERVICE

Should your Kenwood product require warranty service, deliver it to any authorized KENWOOD service centre and present the original copy of your bill of sale and this warranty card as proof of warranty, or send your product fully insured and freight prepaid to the nearest authorized KENWOOD service centre. To avoid possible shipping damage, make sure the product is properly packed. Include a copy of your original bill of sale and this warranty card as proof of warranty along with your name, home and/or work telephone number(s), a complete return address and a detailed description of the fault(s). Products repaired within warranty will be returned freight prepaid to destinations within Canada. The customer is responsible for all freight and related costs for the return of product(s) to destinations outside Canada.

- (e) les défauts causés par les désastres, les accidents, les abus, les emplois incorrects, les éclairs, les surtensions de courant, les manques de soins ou d'entretiens périodiques, les modifications non autorisées ou les manques de respect du mode d'emploi;
- (f) les défauts ou les dommages causés lors de réparations effectuées par une personne ou par une partie non autorisée par KENWOOD;
- (g) les défauts causés par l'emploi de pièces ou de dispositifs qui ne se conforment pas aux exigences de KENWOOD;
- (h) les finitions extérieures, les pièces cosmétiques, les têtes de bandes, les adaptateurs, les antennes, les câbles, les bandes, les disques endommagés ou déperis, ni les défauts ou dommages causés par des piles défectueuses ou qui fuient;
- (i) les défauts ou dommages qui se produisent pendant l'expédition des produits Kenwood (On devrait déposer de telles réclamations auprès des compagnies de transport);
- (j) les conversions de tension et/ou de fréquence du produit;
- (k) les frais d'installation ou d'enlèvement du produit.

COMMENT OBTENIR DU SERVICE SOUS GARANTIE

Au cas où un service sous garantie de votre produit Kenwood s'avère nécessaire, veuillez livrer le produit à n'importe quel centre de service KENWOOD et présenter la copie originale du contrat de vente et cette carte de garantie en tant que preuve de garantie ou veuillez faire parvenir votre produit assuré et porté payé au centre de service KENWOOD autorisé le plus proche. Pour éviter toutes possibilités de dommages pendant le transport, veuillez bien emballer le produit. Veuillez inclure une copie du contrat de vente original et cette carte de garantie en tant que preuve de garantie aussi bien que votre nom, numéros de téléphone au poste de travail et/ou au domicile, votre adresse et une description détaillée des défauts. Les produits sous garantie réparés seront retournés port payé aux destinations à l'intérieur du Canada. Le consommateur sera responsable de tous frais de transport et d'autres frais qui s'y rapportent pour faire expédier les produits à destinations à l'extérieur du Canada.

ENTIRE WARRANTY

This warranty constitutes the entire written warranty given by KENWOOD. No person, party, dealer or service centre or their agents or employees are authorized to extend or enlarge this warranty on behalf of KENWOOD by any written or verbal statement or advertisement or promotion, including any extended warranty program or plan that may be offered by the dealer or service centre, unless approved in writing by KENWOOD.

DISCLAIMER

KENWOOD disclaims any responsibility for loss of time or use of the product or any other indirect, incidental or consequential damage to other products or goods, inconvenience or commercial loss.

NOTICE TO CONSUMER

The provisions contained in this written warranty are not intended to limit, modify, take away, disclaim or exclude any warranties or rights you may have which are set forth in any applicable provincial or federal laws or legislation.

IMPORTANT

This warranty card by itself is not considered by KENWOOD as a valid proof of purchase. When applying for warranty repairs, you must present the original copy of your bill of sale and this warranty card as proof of warranty, so we recommend that they be kept in a safe place, should they be required in the future.

JVCKENWOOD Canada Inc.
6070 Kestrel Road, Mississauga,
Ontario, Canada L5T 1S8
Tel.: (905) 670-7211
Fax: (905) 670-7248

L'ENTIERE GARANTIE

Cette garantie représente l'entière garantie donnée par écrit par KENWOOD. KENWOOD ne se tient aucunement responsable de toutes extensions ni de toutes augmentations de cette garantie faites ou entreprises par toutes personnes, parties, concessionnaires ou centres de service ou par leurs agents ou employés au nom de KENWOOD au moyen d'affirmations verbales ou écrites, d'annonces ou de promotions, y inclus tous programmes ou plans de garantie étendue que puissent offrir les concessionnaires ou les centres de service, à moins que KENWOOD n'y ait consenti par écrit d'avance.

RENONCIATION

KENWOOD renonce à toutes responsabilités de perte de temps, d'emploi du produit, de tous dommages indirects ou accessoires causés à d'autres produits ou biens, de tous inconvénients ou de toutes pertes commerciales.

AVIS AUX CONSOMMATEURS

Les stipulations contenues dans la présente garantie écrite n'ont pas pour but de limiter, de modifier, de diminuer, de rejeter ni d'exclure d'autres garanties ni droits énoncés dans n'importe quelles lois ou législations provinciales ou fédérales.

IMPORTANT

KENWOOD ne considère pas cette garantie toute seule comme étant une preuve d'achat valide. Lorsqu'on demande du service sous garantie, il faudra présenter la copie originale du contrat de vente aussi bien que cette carte de garantie en tant que preuve de garantie. On recommande de les conserver dans un lieu sûr au cas où elles s'avèraient nécessaires à l'avenir.

JVCKENWOOD Canada Inc.
6070 Kestrel Road, Mississauga,
Ontario, Canada L5T 1S8
Téléphone: (905) 670-7211
Télécopieur: (905) 670-7248

Warranty Card

Identification du produit
 Modelo y Número de serie
 Model number & serial number

Revendeur & cachet
 Distribuidor y sello
 Dealer & stamp

Date d'achat
 Fecha de compra
 Purchase date

Nom & adresse du client
 Nombre y dirección del cliente
 Name & address of customer

Attention:

This card and receipt (or invoice) are necessary to purchase a new panel in case of theft or damage.

Attention:

Vous aurez besoin de cette carte et du reçu (ou de la facture) pour acheter un nouveau panneau en cas de vol ou d'endommagement.

Atención:

Esta tarjeta y un recibo (o factura) son necesarios para adquirir una carátula nueva en caso de robo o daño de la misma.

Dear Customer,

Thank you for purchasing this Kenwood product. As mentioned in the pages of this booklet, our warranty is only valid in the countries listed. If your country is not listed please contact your retailer for information on warranty procedure, or write to:

JVC KENWOOD Customer Information Center

3-12, Moriyacho, Kanagawa-ku, Yokohama-shi, Kanagawa 221-0022, Japan

The warranty will only be honored in the country in which the unit was originally purchased.

EXPRESS WARRANTY STATEMENT FOR Motorsports CAM

JVCKENWOOD AUSTRALIA PTY. LTD. ("JVCKENWOOD") is proud of the quality and workmanship of its Motorsports CAM. This unit has been properly designed, tested and inspected before it was shipped to you. If properly installed and operated in accordance with instructions furnished, it should give optimum reliable performance.

For Australian Customers

Our goods comes with guarantees that cannot be excluded under the Australian Consumer Law. Under Australian Consumer Law, you are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

The benefits of this warranty are in addition to any rights and remedies imposed by Australian State and Federal legislation that cannot be excluded. Nothing in this warranty is to be interpreted as excluding, restricting or modifying any State or Federal legislation applicable to the supply of goods and services which cannot be excluded, restricted or modified.

For New Zealand Customers

The benefits of the express warranty described below are in addition to your statutory rights and remedies under the Consumer Guarantees Act 1993 that cannot be excluded. If you are acquiring Product for the purposes of a business, to the extent permitted by law, the Consumer Guarantees Act 1993 does not apply. Otherwise nothing in this warranty is to be interpreted as excluding, or restricting, the Consumer Guarantees Act 1993. To the extent permitted by law, all other warranties, guarantees or representations (whether implied by statute, common law or custom of the trade or otherwise) in respect of the Product, not expressly included in this warranty, are excluded.

SCOPE OF EXPRESS WARRANTY

Subject to the "EXCLUSIONS", "PROCEDURE WHEN REQUESTING SERVICE UNDER THE EXPRESS WARRANTY" and "LIMITATIONS" below, each of the KENWOOD brand products ("Products") is expressly warranted under normal installation and use against defects in material and workmanship during the Warranty Period.

This warranty is not transferable to a subsequent customer if the Product is sold by the original purchaser during the Warranty Period. During the Warranty Period, JVCKENWOOD will cause the Product or the defective part of the Product to be repaired by providing to any JVCKENWOOD Authorized Service Centre in Australia or New Zealand (as applicable to country of purchase) free of charge parts necessary to correct any defect in material or workmanship. JVCKENWOOD reserves the right to replace defective parts of the Product with parts and components of similar quality, grade and composition where an identical part or component is not available. Products presented for repair may be replaced by refurbished products of the same type rather than being repaired. Refurbished parts may be used to repair the goods.

WARRANTY PERIOD

The KENWOOD brand car stereo is expressly warranted for a period of **ONE YEAR** from the date of the original purchase.

CONDITIONS OF THE EXPRESS WARRANTY

The following are not covered by this express warranty:

1. Voltage conversions;
2. Cabinets, grilles, other exterior finishes, belts, tape heads, and other nondurable parts and accessories;
3. Any fault caused by faulty installation, water damage, the vehicle (including its electronically system) or connection to an incorrect power supply;
4. Periodic check-ups which do not disclose any defects covered by this warranty;
5. Products on which the serial number has been defected, modified or removed;
6. Products that have been subject to abnormal conditions, including environment, temperature, water, fire, humidity, pressure, stress or similar;
7. Alleged defects that are within acceptable industry variances;
8. Damage or deterioration:
 - a. Resulting from installation and/or removal of the product.
 - b. Resulting from accident, misuse, abuse, neglect, unauthorized product modification or failure to follow instructions contained in the Owner's Manual.
 - c. Resulting from installation of parts or accessories that do not conform to the quality or specifications of the original parts or accessories.
 - d. Occurring during shipment (claims must be present to shipper); and
9. Damaged magnetic tapes.

The warranty does not extend to:

1. Installation and removal charges; or
2. Shipping charges to or from an authorised JVCKENWOOD Service Centre.

PROCEDURE WHEN REQUESTING SERVICE UNDER THE WARRANTY

1. When requesting service under JVCKENWOOD warranty, preferably make your Product available for inspection and testing to the dealer from whom you made the purchase, or to the nearest Authorised JVCKENWOOD Service Centre for KENWOOD products, or ship your Product in its original packaging, or equivalent, with shipping charges and insurance prepaid, to the Authorised JVCKENWOOD Service Centre for KENWOOD products. Otherwise, contact JVCKENWOOD at the contact address listed below.
 - Attach the following to the Product:
 - the warranty record in the back of this page together;
 - a valid purchase docket attached; and
 - detailed description of the problem encountered, including details of any problems which relate to associated equipment.
2. If such inspection and testing find no defect in the Product, the purchaser, at JVCKENWOOD's discretion must pay JVCKENWOOD's cost of service work, evaluation and testing.
3. Make sure you recover this card, your purchase docket and repair docket when accepting the equipment back after repair or after your claim is rejected.

IMPORTANT NOTICE

1. Proper maintenance and use are important to the performance level of all KENWOOD brand products. Therefore, you should read your instruction manual.
2. Retain your purchase docket together with this warranty record in a safe place, and present them both to prove your eligibility for warranty service.
3. We recommend that you keep all the original packaging as it provide the best protection you can have for transportation of your equipment in the future.
4. Location of nearest JVCKENWOOD Service Centre can be obtained from the dealer.

LIMITATIONS

To the extent permitted by law, JVCKENWOOD makes no express warranties or representations other than set out in this warranty. The repair or replacement of the unit or part of the unit is the absolute limits of JVCKENWOOD's liability under this express warranty.

JVCKENWOOD AUSTRALIA PTY. LTD.

4 TALavera ROAD, NORTH RYDE

N.S.W. 2113, AUSTRALIA

TEL. (02) 8879-2211

FAX. (02) 8879-2255

svcdept@jvckenwood.com.au

This warranty will be honored only in the U.S.A.

KENWOOD LIMITED WARRANTY FOR Motorsports CAM

HOW LONG IS THE WARRANTY

JVCKENWOOD USA Corporation ("Kenwood") warrants this product for a period of one (1) year from the date of original purchase.

WHAT IS COVERED AND WHAT IS NOT COVERED

Except as specified below, this warranty covers all defects in material and workmanship in Kenwood Motorsports CAM. The following are not covered by the warranty:

1. Any product which is not distributed in the U.S.A. by Kenwood or which is not purchased in the U.S.A. from an authorized Kenwood car stereo dealer or an automobile dealer, unless the product is purchased through the U.S.A. Military Exchange Service.
2. Any product on which the serial number has been defaced, modified or removed.
3. Damage, deterioration or malfunction resulting from:
 - a. Any shipment of the product (claims must be presented to the carrier).
 - b. Installation or removal of the product.
 - c. Accident, acts of nature, misuse, abuse, neglect, unauthorized product modification or failure to follow instructions supplied with the product.
 - d. Repair or attempted repair by anyone not authorized by Kenwood.
 - e. Any other cause which does not relate to a product defect.

WHO IS PROTECTED

This warranty is enforceable only by the original purchaser.

WHAT WE WILL PAY FOR

We will pay for all labor and material expenses for covered items. Payment of shipping charges is discussed in the next section of this warranty.

HOW TO OBTAIN WARRANTY SERVICE

If your KENWOOD product ever needs service:

1. Take or ship it to any KENWOOD Authorized Service Center in the U.S.A. along with a complete description of the problem. (If you are uncertain as to whether a Service Center is authorized, please call 1-800-KENWOOD for the nearest Service Center. 1-800-536-9663).
2. Although you must pay any shipping charges if it is necessary to ship the product for warranty service, we will pay the return shipping charges if the repairs are covered by the warranty within the United States.
3. Whenever your units are taken or sent for warranty service, you must include a copy of the original dated sales receipt as proof of warranty coverage.

LIMITATION OF IMPLIED WARRANTIES

ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE LENGTH OF THIS WARRANTY.

EXCLUSION OF DAMAGES

KENWOOD'S LIABILITY FOR ANY DEFECTIVE PRODUCT IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE PRODUCT AT YOUR OPTION. KENWOOD SHALL NOT BE LIABLE FOR: 1. INSTALLATION OR REMOVAL CHARGES, DAMAGE TO OTHER PROPERTY CAUSED BY ANY DEFECTS IN KENWOOD Motorsports CAM, DAMAGES BASED UPON INCONVENIENCE, LOSS OF USE OF THE PRODUCT; OR

2. ANY OTHER DAMAGES, WHETHER INCIDENTAL, CONSEQUENTIAL OR OTHERWISE.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS AND/OR DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS AND EXCLUSIONS MAY NOT APPLY TO YOU.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

If a problem develops during or after the Limited Warranty Period, or if you have any questions regarding the operation of the product, you should contact your KENWOOD Authorized Dealer or Authorized Service Center. If the problem or your question is not handled to your satisfaction, please contact our Customer Relations Department at the address listed below:

JVCKENWOOD USA Corporation
PO Box 22745, 2201 E. Dominguez St.
Long Beach, CA 90810-9745
Tel: (800) 536-9663
www.us.jvckenwood.com