

Panasonic®

Portable Navigation System



 **Strada**

Model: **CN-GP50U**

Important Information

English

Français

Español

- Please read these instructions (including “Limited Warranty” and “Customer Services directry”) carefully before using this product and keep this manual for future reference.
- Read the “Safety information” presented in this manual before mounting or connecting this product.

Structure of instructions

The instructions consist of the following items.
First, read "Safety information" in "Important Information".
Then, read each of the instruction manuals as necessary.

Important Information

- Safety information
- Notes on use
- Limited warranty
- Customer service directry
- About the data of the map
- Troubleshooting
- Maintenance
- What is a navigation system?
- Specification

Installation Instructions

- Examples of mounting
- Components
- Mounting the Mounting Bracket
- Mounting CN-GP50U
- Removing
- Cigarette Lighter Adapter connection
- AC Charger connections
- External unit connection

Quick Reference Guide

- Name of controls and function
- Turn on the power
- Basic map operation
- Basic menu operation
- Create a route
- Picture Viewer
- Hands-Free

DVD ROM

- Restore Applications
- Restore Maps
- Install Radar Warner
- Read manual
 - Navigation device
 - Picture Viewer/Phone (Hands-Free)
- Language Selection

Operating Environment

- OS:
 - Windows 2000 (Service Pack 4),
 - Windows XP (Service Pack 2),
- DVD-ROM drive
- USB port (USB 1.1)
- SD Memory Card reader/writer

Notes:

- Do not duplicate this disc.
- You need Acrobat Reader (free) to read the Operating Instructions. Install Acrobat Reader from this DVD-ROM.
- This disc is used to recover important information such as the unit's programs and maps. Keep it in a safe place.

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Safety information

- Read the operating instructions for the unit and all other components carefully before using the system. They contain instructions about how to use the system in a safe and effective manner. Panasonic assumes no responsibility for any problems resulting from failure to observe the instructions given in the manuals.
- Panasonic assumes no responsibility for any problems resulting from failure to observe the precautions given in this manual. Handling of the system in a manner that is, for example, incorrect or exceeds the bounds of common sense is not covered by the warranty. Use the system correctly in accordance with the manuals.
- The manuals uses pictographs to show you how to use the product safely and to alert you to potential dangers resulting from improper connections and operations. The meanings of the pictographs are explained below. It is important that you fully understand the meanings of the pictographs in order to use the manuals and the system properly.



Warning

This pictograph alerts you to the presence of important operating instructions.

Failure to heed the instructions may result in severe injury or death.



Caution

This pictograph alerts you to the presence of important operating instructions. Failure to heed the instructions may result in injury or property damage.

Warning

Observe the following warnings when using this unit.

- The driver should neither watch the display nor operate the system while driving.**

Watching the display or operating the system will distract the driver from looking ahead of the vehicle and can cause accidents. Always stop the vehicle in a safe location and use the parking brake before watching the display or operating the system. In some states and countries, passengers are also prohibited from watching the display.

- Do not operate while walking. Furthermore, do not glance at the display.**

Be sure to stop in a safe location before using. Failure to do so may cause an accident or injury.

- Follow actual traffic regulations while driving.**

Even while following route guidance, always obey road signs and abide all traffic laws. Failure to do so could cause an accident or injury.

- Use the proper power supply.**

This product is designed for operation with a negative grounded 12 V DC battery system. Never operate this product with other battery systems, especially a 24 V DC battery system. If it is used in the wrong type of car, it may cause a fire or an accident.

- Protect the slot.**

Do not insert any foreign objects into the slot of this unit.

- Do not disassemble or modify the unit.**

Do not disassemble, modify the unit or attempt to repair the unit yourself. If the product needs to be repaired, consult your dealer or authorized Panasonic Servicenter.

 **Warning****Observe the following warnings when using this unit.** **Do not use the unit when it is out of order.**

If the unit is out of order (no power, no sound) or in an abnormal state (has foreign objects in it, is exposed to water, is smoking, or smells), turn it off immediately and consult your dealer or authorized Panasonic Servicercenter.

 Do not use the unit as a substitute for the navigation equipment of a boat, ship or aircraft, or a map for mountain climbing.

Measurement errors may occur because there are few landmarks at sea, in the air, or on a mountain, and the battery may run out of power, resulting in an accident or you finding yourself in distress.

Furthermore, if the unit is used at sea, salt may cause an electric leakage, resulting in a fire or electric shock.

 Refer fuse replacement to qualified service personnel.

When the fuse blows out, eliminate the cause and have it replaced with the fuse prescribed for this unit by a qualified service engineer. Incorrect replacement of the fuse may lead to smoke, fire, and damage of the product.

 Keep away from medical devices.

This unit and mobile phones can interfere with the functioning of medical devices such as hearing aids or pacemakers.

 Keep the SD Memory Cards out of the reach of children.

There is a risk that it could be swallowed accidentally. If the card is swallowed, seek medical attention immediately.

Observe the following warnings when handling Cigarette Lighter Adapter and AC Charger. **Do not touch the plug if you hear or see thunder.**

A thunderbolt may cause an electric shock.

 Do not use the AC Charger (option) in such a way that it will exceed the ratings of the outlet or wiring accessories, or be out of the 100 to 240 V AC range.

Exceeding the ratings by, for example, overloading the power outlet may cause the generation of heat resulting in a fire.

This AC Charger (option) operates on AC between 100 V and 240 V.

But

- In the U.S.A. and Canada, the AC Charger (option) must be connected to a 120 V AC power supply only.
- When connecting to an AC supply outside of the U.S.A. or Canada, use a plug adapter to suit the AC outlet configuration.
- When connecting a separately purchased AC charger (option) to a power supply outside of the U.S.A., use an attachment adapter that is shaped to fit the power supply outlet.

 Do not remove the power plug with a wet hand.

Doing so may cause an electric shock.

Warning

Observe the following warnings when handling Cigarette Lighter Adapter and AC Charger.

- Securely insert the power plug all the way up to its base.**
Failure to insert it all the way may cause an electric shock, or the generation of heat resulting in a fire.
 - Do not use a damaged plug or loose outlet.
- Routinely remove dust from the plug of the AC Charger (option).**
The accumulation of dust or other dirt on the plug may cause an insulation failure due to humidity or the like, resulting in a fire or electric shock.
 - Remove the power plug and wipe it with a dry cloth.
- Do not use a cigarette lighter power supply for multiple devices.**
If multiple devices are connected to the socket of the cigarette lighter power supply or an accessory power supply, the rating of the vehicle may be exceeded, resulting in, for example, a fire or malfunction, or a fuse of the vehicle blowing.
- Do not damage the Cigarette Lighter Adapter (included) or AC Charger (option).**
Do not damage or modify the cord, place it near hot tools, bend, twist, or pull it forcefully, place heavy objects on it, or bundle it tightly. Continuing to use a damaged cord may result in fire, short circuit, or electric shock.
- Use only specified Cigarette Lighter Adapter (included) or AC Charger (option).**
Using an AC Charger (option) other than one specified may result in a fire.

Observe the following warnings when handling the internal lithium battery.

- This unit contains an internal Lithium Ion battery that can not be replaced by the user.**
Ask your dealer or authorized Panasonic Servicenter to replace the battery.
- If battery liquid comes into contact with your eyes, wash them with plenty of water and get immediate medical attention.**
- If any parts of your body or clothing comes into contact with battery liquid, wash with plenty of water.**

Warning

Observe the following warnings when installing the product.

- Never use safety-related components of the vehicle for installation, wiring, and other such functions.**
Do not use safety-related vehicle components (fuel tank, brake, suspension, steering wheel, pedals, airbag, etc.) for wiring or fixing the unit or accessories of this product.
- Installing the product on the airbag cover or in a location where it interferes with airbag operation is prohibited.**
- Check for piping, gasoline tank, electric wiring, and other items before installing the product.**
If you need to open a hole in the vehicle chassis to attach or wire the product, first check where the wire harness, gasoline tank, and electric wiring are located.
- Never install the product in a location where it interferes with your field of vision.**
- Never have the Cigarette Lighter Adapter branched to supply other equipment with power.**
- Make sure the wires do not interfere with driving or getting in and out of the vehicle.**
- Insulate all exposed wires to prevent short circuiting.**
- To reduce the risk of fire, electric shock or annoying interference, use only the included components.**
- This unit operates with a 12 V DC negative ground auto battery system only. Do not attempt to use it with any other system.**
- Do not install the unit in a location which obstructs driving, visibility or which is prohibited by applicable laws and regulations.**
If the unit is installed in a location which obstructs forward visibility or operation of the airbag or other safety equipment or which interferes with operation of the car, it may cause an accident.
- Never use bolts or nuts from the car's safety devices for installation. If bolts or nuts from the steering wheel, brakes or other safety devices are used for installation of the unit, it may cause an accident.**
- Attach the wires correctly. If the wiring is not correctly performed, it may cause a fire or an accident. In particular, be sure to run and secure the lead wire so that it does not get tangled with a screw or the moving portion of a seat rail.**

Caution

Observe the following cautions when using this unit.

- Do not operate the unit for a prolonged period with the engine turned off.**
Operating the unit for a long period of time with the engine turned off will drain the battery.
- Do not expose the unit to direct sunlight or excessive heat.**
This will raise the interior temperature of the unit, and may lead to smoke, fire, or other damage to the unit.
- Do not use the product where it will be exposed to water, moisture, or dust.**
Exposure of the unit to water, moisture, or dust may lead to smoke, fire, or other damage to the product. Make especially sure that the product does not get wet in car washes or on rainy days.
- Do not expose to strong impact.**
Impact such as dropping or hitting the unit may cause breakdown or a fire.
- Keep the volume at an appropriate level.**
Keep the volume level low enough to be aware of road and traffic conditions while driving.
- If an external GPS Antenna (option) is attached to the exterior of the vehicle, be sure to remove it before using a car wash.**
It may fall off, causing an accident or injury.
Exposure to water from a high pressure hose or impact from a brush may cause the antenna to fall resulting in accident or injury.

Observe the following cautions when handling Cigarette Lighter Adapter and AC Charger.

- Do not touch the unit and AC Charger (option) for a long period while they are being used.**
Directly touching hot parts for a long period of time may result in low-temperature burns.
- Hold the plug portion when removing the Cigarette Lighter Adapter (included) and AC Charger (option).**
Pulling the cord may damage the cord, resulting in a fire or electric shock.
- Do not use the AC Charger (option) while it is covered by a towel or other item.**
Doing so may cause the AC Charger to generate heat, resulting in a malfunction or fire.

Observe the following cautions when handling the internal lithium battery.

- Dispose of the battery according to the local regulation.**

 **Caution****Observe the following cautions when installing the product.** **Use the designated parts and tools for installation.**

Use the included or designated parts and appropriate tools to install the product. The use of parts other than those included or designated may result in internal damage to the unit. Faulty installation may lead to an accident, a malfunction or fire.

 Do not install the product where it is exposed to strong vibrations or is unstable.

If the installation is not stable, the unit may fall down while driving and this can lead to an accident or injury.

 Make sure that wiring is completed before installation. **To prevent damage to the unit, do not connect the power connector until all wiring is completed.** **To reduce the risk of fire or electric shock or product damage, do not expose this product to rain, splashing, dripping or water.**

Be sure to always use the specified fuse. If a fuse other than the one specified is used, it may cause a fire or an accident.

Do not damage the cord by pinching or pulling it. Do not pull or damage the cord. If the cord is not treated properly, it will short out or be severed and may cause a fire or an accident.

Run the cords avoiding the spots where the temperature can be extremely high.

 Route the cables of the External GPS Antenna (option) attached to the outside of the vehicle to the inside the vehicle correctly, to avoid water seeping in.

If water seeps in the vehicle during rain or car washing, it could cause fire or electric shock.

 Mount the navigation unit and the External GPS Antenna (option) securely, so that they won't come off and fall.

Wipe the mounting area clean of dirt, wax etc., then fasten the unit and the External GPS Antenna securely in place.

Check the state of bonding or mounting occasionally.

 **CAUTION:**

- PLEASE FOLLOW THE LAWS AND REGULATIONS OF YOUR STATE, PROVINCE OR COUNTRY FOR INSTALLATION OF THE UNIT.

Safety information (continued)

The following applies only in the U.S.A.

CAUTION:

● NOTICE TO DRIVERS IN CALIFORNIA AND MINNESOTA:

State law prohibits drivers in California and Minnesota from using mounts on their windshields while operating motor vehicles.

Panasonic does not take any responsibility for any fines, penalties, or damages that may be incurred as a result of disregarding this notice.

(See California Vehicle Code Section 26708(a); Minnesota Statutes 2005, Section 169.71)

Declaration of conformity

Trade Name:	Panasonic
Model No.:	CN-GP50U
Responsible Party:	Panasonic Corporation of North America One Panasonic Way, Secaucus, NJ 07094
Support Contact:	Panasonic Consumer Electronics Company 1-800-211-PANA (7262)

This device complies with Part 15 of FCC Rules. Operation is subject to the condition that this device may not cause harmful interference.

Any unauthorized changes or modifications to this equipment would void the user's authority to operate this device.

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

This product complies with FCC radiation exposure limits set forth for uncontrolled equipment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65. This equipment has very low levels of RF energy that it deemed to comply without maximum permissive exposure evaluation (MPE). But it is desirable that it should be installed and operated with at least 20 cm and more between the radiator and person's body (excluding extremities: hands, wrists, feet and legs).

NOTICE

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 generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

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 (An experienced radio/ TV technician for help).

The following applies only in Canada

This Class B digital apparatus complies with Canadian ICES - 003.

- The technology and software contained in this system cannot be taken out of the country without permission from the US Government.
- Use by government agencies and government-related bodies is deemed to involve “corporation rights” requiring use under “DFARS 252.227.7013”.
- This Category II radiocommunication device complies with Industry Canada Standard RSS-310.
- Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.
- It is strictly prohibited to reproduce and use this map in any form without permission from the copyright owner.
- The traffic regulation data used in the map database applies only to passenger cars. Note that regulations for larger vehicles, motorcycles, and other non-standard cars are not included in the database.
- The marks of companies displayed by this product to indicate business locations are the marks of their respective owners.
The use of such marks in this product does not imply any sponsorship, approval, or endorsement by such companies of this product.

Liquid crystal display

- Do not strongly impact the Liquid crystal display.
- Do not operate the Liquid crystal display with a hard pointed or sharp object, such as a ballpoint pen, or the tip of your fingernail.
- Usage temperature range:
0 °C to 40 °C (32 °F to 104 °F)
When the temperature is very cold or very hot, the image may not appear clearly or may move slowly. Also, movement of the image may seem to be out of synchronization or the image quality may decline in such environments. Note that this is not a malfunction or problem.
- In order to protect the Liquid crystal display, keep it out of direct sunlight while the unit is not in use.

- Sudden changes in the temperature inside the car such as those which occur immediately after the car's air conditioner or heater has been turned on may cause the inside of the Liquid crystal display to cloud over due to water vapor or it may cause condensation (droplets of water) to form and, as a result, the display may not work properly. Do not use the unit with these symptoms but leave the unit for about an hour, and then resume or start to use.

Limitation of liability

- If malfunction or damage occurs due to fire not caused by this product, earthquake, third-party action, other accident, error or intent by the customer, misoperation, or use under other improper conditions, resulting repairs will, as a general rule, require payment.
- Panasonic shall not be liable for any incidental losses resulting from the use of this product, or from inability to use this product (loss of business profits, change or loss of memory contents, etc.).
- The warranty certificate for this product is invalidated in the event that it is installed in a commercial vehicle (bus, truck, taxi, commercial car, etc.).
- When disposing of this unit or transferring it to a third party, the customer is responsible for the handling and management (deletion, etc.) of personal information stored in the unit (such as addresses and telephone numbers of Address Book) for privacy protection. Panasonic shall not be liable for such information.
- **No compensation will be provided for alteration or loss of map data or basic programs in the unit, caused by improper operation of the unit by yourself or a third party, or by the effects of static electricity or electrical noise.**
- **No compensation will be provided for content in case of alteration or loss of information stored in the unit (such as Address Book) caused by improper operation of the unit by yourself or a third party, the effects of static electricity or electrical noise, or breakdowns or repairs.**
The user is advised to make a note of important information (such as Address Book) in case of accidental loss.

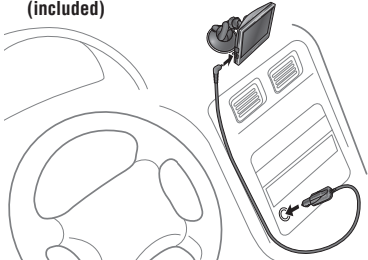
Notes on power supply

Charging Procedure

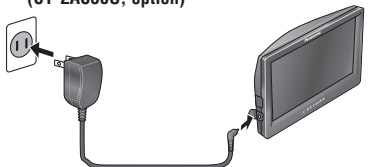
The unit contains a lithium ion battery. You can use the following procedures to charge the battery.

- Charging takes approximately 6 hours when the main power is off. (When charging the battery from empty to full in room temperature [10°C to 35°C (50°F to 95°F)])

■ Charging with the Cigarette Lighter Adapter (included)



■ Charging with the AC Charger (CY-ZAC50U, option)



■ Charge indicator



The charge indicator on the side of the unit is lit during charging. (It goes out when charging is complete.)

Notes:

- You can also turn on the power of the unit and charge the battery during use. If you charge the battery during use, the charging time becomes longer than usual.
- The battery is also charged while the unit is connected to a PC with the USB cable. (Charging takes approximately 7.5 hours when the main power is off.)
- You cannot charge the battery when the temperature is extremely high or low. (The charge indicator goes out.) Be sure to charge the battery at room temperature.

Notes on Lithium Ion Battery

- The battery is not sufficiently charged when you purchase the unit. Be sure to charge the battery prior to using the unit for the first time.
- Once the battery is charged, you can use the unit continuously for approximately 4 hours.
- There is no need to fully discharge the battery before charging. You can charge the battery before it is discharged.
- Recharging will not commence if internal temperature of the battery is outside of allowable temperature range. [10°C to 35°C (50°F to 95°F)]
- The life of the battery can be assumed to be over when usage time becomes extremely short despite the battery being charged correctly. (Estimated number of charges: Approximately 300 times) In such a case, consult the dealer.
- If you will not use the unit for a long period of time, be sure to fully charge the battery at least once every two weeks. Over discharge of the battery can affect the charging performance.

A lithium ion/polymer battery that is recyclable powers the product you have purchased. Please call 1-800-8-BATTERY for information on how to recycle this battery.



Notes on Cigarette Lighter Adapter

- For a vehicle in which the power supply of the cigarette lighter is not turned off when ACC of the vehicle is set to the OFF position, disconnect the cigarette lighter adapter when not using the unit. Failure to do so may cause the battery to go flat.

Notes on AC Charger

- The unit consumes approximately 0.25 W of power while turned off. If you will not use the unit for a long period of time, we recommend removing the power plug from the outlet in order to save power.
- Be careful that no metal objects enter inside the AC plug adapter. Otherwise, a short may result in a malfunction.

Handling the unit

Do not drop the unit or hit it against anything while carrying it.

Furthermore, be careful not to subject the unit to strong pressure.

- Do not sit down while the unit is in your pants pocket, and do not force the unit into a bag that is already full.
- Be careful even when the unit is in a bag, because if you drop the bag or hit it against something it will subject the unit to a strong impact.
- A strong impact could break the liquid crystal display or the exterior, resulting in a malfunction.

Turn off the main power of the unit while carrying it.

- Otherwise, the battery may run out of power, because the unit still uses a small amount of power while in standby.

When using insecticide or volatile substances nearby, be careful not to expose the unit to them.

- If you expose the unit to insecticide or volatile substances, the exterior may degrade or the paint may peel.
- Do not let the unit make contact with rubber or plastic products for a long time. It may affect the exterior of the unit and degrade it.

Notes on SD Memory Card

The unit supports SD Memory Cards of up to 2 GB. Cards of 4 GB or above (SDHC memory card) cannot be used, because the standard is different.

Observe the following cautions in order to prevent damage to data or an SD Memory Card, or a malfunction of the unit.

(Panasonic assumes no responsibility whatsoever for damage resulting from loss of data.)

- Do not turn off the power of the unit while writing data to an SD Memory Card.
- Do not touch the contacts on the back of an SD Memory Card with a hand or metal object, or allow them to get dirty.
- Do not remove the label affixed to an SD Memory Card.
- Do not affix a sticker or label on top of another one.
- Do not subject an SD Memory Card to a strong impact, or bend, drop, expose it to water, etc.

Notes:

- An SD Memory Card may become hot after it is used for a long period of time, but this does not indicate a malfunction.
- A card has a limited life. Operations such as writing and deleting may become no longer possible after the card is used over a long period.
- An SD Memory Card may not work properly if it is defective.
- The recommended product number may change without notice.
- When an SD Memory Card is not working properly, remove and re-insert the SD Memory Card.
- When you want to use a mini SD card or micro SD card with the unit, be sure to attach the dedicated adapter (supplied with the mini SD card or micro SD card).
Make sure the adapter is ejected and inserted together with the card to ensure just the adapter is not left inside the unit.

■ List of supported SD Memory Cards

SD Memory Card (Recommended Product)

Capacity	Product Number
512MB	RP-SDR512U1A
1GB	RP-SDR01GU1A
1GB	RP-SDV01GU1A
2GB	RP-SDM02GU1A
2GB	RP-SDV02GU1A

(As of September 2007)

Notes on Bluetooth®

■ Frequency Band Used

The unit uses the 2.4 GHz frequency band, but other wireless devices may also use the same frequency. Note the following to prevent radio waves interfering with other wireless devices.

Microwave ovens and other industrial, scientific, and medical equipment, in-plant radio stations used for mobile object identification on, for example, the production lines of factories, specified low power radio stations that do not require a license, amateur radio stations, and the like (hereafter abbreviated as "other radio stations") operate in the same frequency band as this product.

■ Usage Limitations

- The unit is not guaranteed to be able to perform wireless communication with all Bluetooth® compatible devices.
- Bluetooth® compatible devices for wireless communication comply with the standard defined by Bluetooth SIG, Inc., and need to receive certification. However, even if a Bluetooth® compatible device complies with the standard, a connection may not be possible, or the operating procedure, display, or operation may differ because of the specifications or settings of the device.
- The unit includes support for security functions compliant with the Bluetooth® standard, but security may sometimes be insufficient depending on the operating environment and settings.
Be careful during wireless communication.
- Panasonic assumes no responsibility whatsoever for data generated or information leaked during wireless communication.

■ Influence from Other Devices

- If this device is used near another Bluetooth® compatible device or a device that uses the 2.4 GHz frequency band, problems such as the device not working properly and noise generation are likely to occur because of radio wave interference.
- The unit may not work properly if there is a broadcasting station or the like nearby, and the surrounding signal is too strong.

■ Application Limitations

- To use the unit for listening to music or for a Hands-Free call, the Bluetooth® compatible device needs to support the following Bluetooth® version.
 - Bluetooth® Standard Ver.1.2
- To use the unit for calling with a mobile phone, the mobile phone needs to support the Hands Free Profile.
- To transfer the contacts of a mobile phone to the navigation system, the mobile phone needs to support the Object Push Profile.
- A connection may not be possible, or the operating procedure, display, or operation may differ because of the specifications or settings of the Bluetooth® compatible device.
- Even if the unit and Bluetooth® compatible device are close to each other, sound may be intermittent or affected by noise because of the state of the signal.

Still image data can be saved to an SD Memory Card and then played with the unit. The unit can play JPEG and BMP files.

■ What is JPEG?

An acronym for Joint Photographic Experts Group. It is one of the standards for compressing and expanding color still images.

A feature of JPEG is that when it is selected as the save format of still image data, the data is compressed to a size 1/10 to 1/100 that of the original data but image quality deteriorates very little considering the compression ratio.

■ JPEG Files Playable on the Unit

- Number of pixels: Up to 10 million pixels [up to 6 400 pixels x 4 800 pixels (W x H)]
- Some JPEG files that do not comply with the DCF standard cannot be played.
- Motion JPEG cannot be played.

■ File, Folder, and Album Number/Size Limitations

- Number of folders in an SD Memory Card: Up to 300
- Number of albums that can be saved to the unit: Up to 300
- Number of files that can be saved to the unit: Up to 300 per album
- Size: Up to 5 MB per file

Notes:

- A picture that is larger than the screen is reduced to fit the screen.
- A picture that is smaller than the screen is displayed at actual size.
- If the picture of the file set as the opening picture is larger than the screen, the opening picture is displayed after trimming some of the picture of the file.

■ What is BMP?

In this manual, BMP refers not to a bitmap image in the broad sense of a general raster image, but to DIB (Device Independent Bitmap: Extension BMP), which is one of the file formats for still images. A feature of BMP is that an image with up to approximately 16 million colors is saved without being compressed.

■ BMP Files Playable on the Unit

- Number of pixels: Up to 10 million pixels (up to 5 000 pixels on one side)

File, Folder, and Album Number/Size Limitations

- Number of folders in an SD Memory Card: Up to 300
- Number of albums that can be saved to the unit: Up to 300
- Number of files that can be saved to the unit: Up to 300 per album
- Size: Up to 5 MB per file

Notes:

- A picture that is larger than the screen is reduced to fit the screen.
- A picture that is smaller than the screen is displayed at actual size.
- If the picture of the file set as the opening picture is larger than the screen, the opening picture is displayed after trimming some of the picture of the file.

■ About Copyrights

The duplication, distribution, or delivery of copyrighted materials, such as still images, for other than personal use without the permission of the copyright holders is prohibited by copyrights laws.

Limited warranty

U.S.A.

PANASONIC CONSUMER ELECTRONICS COMPANY,
DIVISION OF PANASONIC CORPORATION OF NORTH
AMERICA

One Panasonic Way, Secaucus, New Jersey 07094

PANASONIC SALES COMPANY,
DIVISION OF PANASONIC PUERTO RICO, INC.
Ave. 65 de infantería, Km. 9.5, San Gabriel Industrial Park
Carolina, Puerto Rico 00985

PANASONIC AUTO PRODUCTS LIMITED WARRANTY

LIMITED WARRANTY COVERAGE

If your product does not work properly because of defects in materials and workmanship.

Panasonic Consumer Electronics Company or Panasonic Sales Company (collectively referred to as "the warrantor") will, for the length of the period indicated in the chart below, which starts with the date of original purchase ("warranty period"), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or refurbished product. The decision to repair or replace will be made by the warrantor.

Categories	Parts	Labor
Audio Components (except items listed below)	One (1) Year	One (1) Year
MXE Series Audio Components (except items listed below)	Two (2) Years	Two (2) Years
Speakers Defective Car Audio Speakers under warranty must be exchanged at the place of purchase. Contact your Dealer for details.	One (1) Year	Not Applicable
Accessories (in exchange for defective items)	Ninety (90) Days	Not Applicable

During the "Labor" warranty period, there will be no charge for labor. During the "Parts" warranty period, there will be no charge for parts. You must carry in or mail in your product prepaid during the warranty period. If nonrechargeable batteries are included, they are not warranted. This warranty only applies to products purchased and serviced in the United States or Puerto Rico. This warranty is extended only to the original purchaser of a new product which was not sold "as is". A purchase receipt or other proof of the original purchase date is required for warranty service.

CARRY-IN OR MAIL-IN SERVICE

For Carry-In or Mail-In Service in the United States, call 1-800-211-PANA (7262) or visit

Panasonic Web Site: <http://www.panasonic.com>

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LIMITED WARRANTY LIMITS AND EXCLUSIONS

This warranty ONLY COVERS failures due to defects in materials and workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage. The warranty

ALSO DOES NOT COVER damages which occurred during shipment, failures which are caused by products not supplied by the warrantor, failures which result from accident, misuse, abuse, neglect, bug infestation, mishandling, misapplication, alteration, faulty installation, set-up adjustment, maladjustment of consumer control, improper maintenance, improper antenna, inadequate signal reception or pickup, power line surge, improper voltage supply, lightning, modification, commercial use (such as use in hotels, offices, restaurants, or other business uses) or rental use of the product, or service by anyone other than the technician from Factory Servicenter or other authorized Servicenters, or damage that is attributable to acts of God.

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Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the 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 with this product develops during or after the warranty period, you may contact your dealer or Servicenter. If the problem is not handled to your satisfaction, then write to warrantor's Consumer Affairs Department at the addresses of the warrantor.

PARTS AND SERVICE WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY ARE YOUR RESPONSIBILITY.

Customer's Record

Model
No. _____

Serial
No. _____

Dealer's
No. _____

Code
No. _____

Dealer's
Address _____

Date of
Purchase _____

CANADA

Panasonic Canada Inc.
5770 Ambler Drive, Mississauga Ontario L4W 2T3

PANASONIC PRODUCT LIMITED WARRANTY

Panasonic Canada Inc. warrants this product to be free from defects in materials and workmanship and agrees to remedy any such defect for a period as stated below from the date of original purchase.

CAR AUDIO PRODUCT – ONE (1) YEAR, PARTS AND LABOUR
(The labour to install or remove the product is not warranted)
ACCESSOIRES - NINETY (90) DAYS, (IN EXCHANGE FOR DEFECTIVE ITEMS)

LIMITATIONS AND EXCLUSIONS

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U.S.A.

Obtain Product Information and Operating Assistance; locate your nearest Dealer or Servicenter; purchase Parts and Accessories; or make Customer Service and Literature requests by visiting our Web Site at:

<http://www.panasonic.com/support>

or, contact us via the web at:

<http://www.panasonic.com/contactinfo>

You may also contact us directly at:

1-800-211-PANA (7262),

Monday-Friday 9 am-9 pm; Saturday-Sunday 10 am-7 pm, EST.

For hearing or speech impaired TTY users,
TTY : 1-877-833-8855

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<http://www.pasc.panasonic.com>

or, send your request by E-mail to:

npcparts@panasonic.com

You may also contact us directly at:

1-800-332-5368 (Phone) 1-800-237-9080 (Fax Only)

(Monday-Friday 9 am to 8 pm, EST.)

Panasonic Services Company

20421 84th Avenue South, Kent, WA 98032

(We accept Visa, MasterCard, Discover Card, American Express, and Personal Checks)

For hearing or speech impaired TTY users,
TTY : 1-866-605-1277

CANADA

WARRANTY SERVICE

FOR PRODUCT OPERATION ASSISTANCE, please contact:

Our Customer Care Centre:

Telephone #: (905) 624-5505

1-800 #: 1-800-561-5505

Fax #: (905) 238-2360

Email link: "Contact Us" on www.panasonic.ca

FOR PRODUCT REPAIRS, please locate your nearest Authorized Servicentre at www.panasonic.ca:

Link : "Servicentres™ locator" under "Customer support"

IF YOU SHIP THE PRODUCT TO A SERVICENTRE

Carefully pack and send prepaid, adequately insured and preferably in the original carton.

Include details of the defect claimed, and proof of date of original purchase.

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NAVTEQ

If you suspect something wrong

Check and take steps as described below.

If the described suggestions do not solve the problem, it is recommended to take the unit to your nearest authorized Panasonic Servicenter. The product should be serviced only by qualified personnel. Please refer checking and repair to professionals.

Panasonic shall not be liable for any accidents arising out of neglect of checking the unit or your own repair after your checking.

Warning

- If the unit is out of order (no power, no sound) or in an abnormal state (has foreign objects in it, is exposed to water, is smoking, or smells), turn it off immediately and consult your dealer or authorized Panasonic Servicenter.
- Do not disassemble, modify the unit or attempt to repair the product yourself. If the product needs to be repaired, consult your dealer or authorized Panasonic Servicenter.

Common

Problem	Presumable cause ⇒ Suggested solution
No power to the unit Nothing is displayed on the monitor. Navigation images are not displayed.	<ul style="list-style-type: none">● CN-GP50U is in standby mode. ⇒ Press [⏻].● The main power of CN-GP50U is off. ⇒ Turn the main power on.● The Cigarette Lighter Adapter (included) or AC Charger (option) is not connected properly. ⇒ Check the connection.● Fuse is blown. ⇒ Consult your dealer or authorized Panasonic Servicenter.● The internal battery has run out of power. ⇒ Use CN-GP50U connected to the Cigarette Lighter Adapter (included) or AC Charger (option). ⇒ When using the unit with the internal battery, charge the battery.
Operating time is extremely short even if the battery is charged.	<ul style="list-style-type: none">● The life of the battery is over. (Estimated number of charges: Approximately 300 times) ⇒ Consult your dealer or authorized Panasonic Servicenter.
Sound is not generated.	<ul style="list-style-type: none">● Turn the volume up.


Common

Problem	Presumable cause ⇒ Suggested solution
Noise	<ul style="list-style-type: none"> ● There is an electromagnetic-wave generator such as a cellular phone near the unit or Cigarette Lighter Adapter (included) or AC Charger (option). <ul style="list-style-type: none"> ⇒ Keep the electromagnetic-wave generator such as a cellular phone away from the unit and the wiring of the unit. In case the noise cannot be eliminated due to the wiring harness of the car, consult your dealer or authorized Panasonic Servicenter.
Some operations are not executable.	<ul style="list-style-type: none"> ● Some operations are not executable in particular modes such as menu mode. <ul style="list-style-type: none"> ⇒ Read the Operating Instructions carefully and cancel the mode. If the unit is still out of order, consult your dealer.
The power of the unit fails unintentionally.	<ul style="list-style-type: none"> ● The safety device works. <ul style="list-style-type: none"> ⇒ Consult your dealer or your nearest Panasonic Servicenter.
The navigation unit is warm.	<ul style="list-style-type: none"> ● It has been running for a long period. <ul style="list-style-type: none"> ⇒ If the navigation is functioning normally, this is not a problem.
The unit does not work properly.	<ul style="list-style-type: none"> ⇒ Turn off and on the main power of the unit.

Display Settings

Problem	Presumable cause ⇒ Suggested solution
The picture is dark. The picture is whitish.	<ul style="list-style-type: none"> ● Brightness setting is not adjusted properly. <ul style="list-style-type: none"> ⇒ Readjust the brightness setting.

Car navigation

Problem	Presumable cause ⇒ Suggested solution
The navigation does not work even when the power of the unit is turned on.	<ul style="list-style-type: none"> ● The SD Memory Card on which the map is recorded has not been inserted. ⇒ Insert the SD Memory Card on which the map is recorded.
Vehicle position is not displayed.	<ul style="list-style-type: none"> ● The display is not in current position screen. ⇒ Select .
Vehicle position is not displayed correctly. GPS mark is not displayed.	<ul style="list-style-type: none"> ● The vehicle location may have been changed while the power was off. Movement of the vehicle by ferry or car train, rotation by parking lot turntable, towing, etc. ⇒ Drive for a while on a road with good reception. ● The GPS signals cannot be received due to obstructions. ⇒ GPS signals will be received when the obstruction is no longer in the way. ● The GPS antenna (option) is mounted in a wrong position. ⇒ Mount antenna in a position where it can receive GPS signals easily. ● The GPS antenna cable is not connected properly. ⇒ Check the wiring. ● There is an error with the magnetic compass. ⇒ Calibrate the magnetic compass.
Registered points are not stored. Settings do not change. Searched route was deleted.	<ul style="list-style-type: none"> ● The power was turned off immediately after a registered points were stored or a setting was changed. ⇒ Register the points again. ⇒ Change the setting again. ● Power was turned off immediately after searching for a route. ⇒ Search for the route again.
The desired road is not included in the route.	<ul style="list-style-type: none"> ● A road away from the start location and destination was specified. ⇒ Add a destination close to the specified road.
There is no voice guidance.	<ul style="list-style-type: none"> ● The volume is set to "0" under Guide Speaker setting. ⇒ Adjust the volume under Guide Speaker.

Car navigation

Problem	Presumable cause ⇒ Suggested solution
The route uses toll roads even when ordinary road search is prioritized.	<ul style="list-style-type: none">● Even when ordinary road search is prioritized, the route may employ toll roads due to the current position and the destination. ⇒ This is not a malfunction. When making a route on ordinary roads, add a destination on the road you want to use.
A route is created on roads other than the specified road.	<ul style="list-style-type: none">● A route is created if it is not possible to reach the destination without taking a road other than the one specified.● Depending on the current position and the destination, a route may be created on roads other than those intended for use. ⇒ This is not a malfunction. To set a route on the specified roads, add a destination on the road you wish to use.

Troubleshooting (continued)

Picture Viewer

Problem	Presumable cause ⇒ Suggested solution
A picture cannot be played.	<ul style="list-style-type: none">● An attempt was made to play a file of a format that cannot be played by the unit. ⇒ Confirm the file format of the picture.

Bluetooth Hands-Free

Problem	Presumable cause ⇒ Suggested solution
Unable to register, connect, or call.	<ul style="list-style-type: none">● The mobile phone does not support HFP (Hands Free Profile). ⇒ A mobile phone that does not support HFP cannot be registered.⇒ With some models, registration is possible even if HFP is not supported, but a connection is not possible if HFP is not supported.● The mobile phone is not registered on the unit. ⇒ Connecting and calling with an unregistered mobile phone is not possible. Register the mobile phone on the unit.● The mobile phone is not connected. ⇒ Calling is not possible if the mobile phone is not connected to the unit. Connect the mobile phone to the unit.

English

Product servicing

If the suggestions in the charts do not solve the problem, we recommend that you take it to your nearest authorized Panasonic Servicer. The product should be serviced only by a qualified technician.

Replacing the Fuse

Use fuses of the same specified rating (**2 A**). Using different substitutes or fuses with higher rating, or connecting the product directly without a fuse, could cause fire or damage to this unit.

Consult your dealer or your nearest Panasonic Servicer.

If the unit does not work properly, restore the application and map of the unit.

Restore requirements

- PC
- SD Memory Card reader/writer
- CN-GP50U (included)
- SD Memory Card (included)
- USB Cable (included)
- DVD-ROM (included)

Application Restore

Preparation

- Install ActiveSync and the driver onto your PC from the DVD-ROM.
- Connect the unit to the PC with the USB cable and turn on the power of the unit.

- 1 Insert the DVD-ROM in a PC.**
 - The program starts automatically.
- 2 Select [Restore Applications] from the Main menu.**
- 3 Select [ActiveSync].**
 - After this, install by following the instructions on the screen.

Note:

- Do not cancel the operation on the unit or PC or disconnect the connection while data is being transferred.

Map Restore

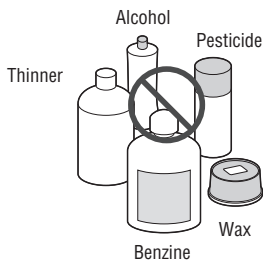
Preparation

- Connect the SD Memory Card reader/writer to the PC and insert the SD Memory Card.

- 1 Insert the DVD-ROM in a PC.**
 - The program starts automatically.
- 2 Select [Restore Maps] from the Main menu.**
- 3 Select [SD Card].**
 - After this, install by following the instructions on the screen.

Caution on cleaning

Your product is designed and manufactured to ensure a minimum of maintenance. Use a dry soft cloth for routine exterior cleaning. Never use benzene, thinner or other solvents.



Cleaning this unit

When the unit is dirty, wipe the surface of the display using a soft cloth.

- ① Moisten the soft cloth in dishwashing soap diluted with water and wring well.
- ② Wipe lightly. Go over the same surface with a dry cloth.



Notes:

- If water drops or similar wet substances get inside the monitor, it may cause a malfunction.
- Since there is the possibility of water drops getting inside of the unit, do not directly apply cleanser to the surface.
- Do not scratch the screen with your nails or other hard objects. The resulting scratches or marks will obscure the images.

What is a navigation system?

A navigation system marks a route to a destination or destinations on a map, guiding the user along the route to the destination.

Vehicle positioning system

■ GPS (Global Positioning System)

The positioning system uses communications satellites launched by the US Department of Defense. Signals are received from three or more satellites orbiting at 21 000 km altitude, and the principle of triangulation is used to find the position.

By receiving GPS signals, this system can position the vehicle within a margin of error of 30 to 200 m.

Time before the current position is found

When this system is used for the first time, or if it has not been used for an extended period, it may take as much as 5 minutes to find the current position. In normal conditions, at a location with good reception, positioning takes around 2 minutes.

Starting to move the vehicle immediately after turning on the power causes it to take longer to find the position, so the user is advised to remain parked in a location with good reception (with no buildings or trees to block the signals from GPS satellites) until the current position is found.

■ Locations where GPS signal reception is difficult

Reception may not be possible in locations such as the following:

- In tunnels
- Between tall buildings
- Under elevated roads
- Between trees

■ Map matching

This function displays the current position of your vehicle on the map. That position is acquired using GPS, gyro sensors, magnetic sensors, etc.

■ Electric compass

This unit incorporates a magnetic sensor that uses the slight geomagnetism in the earth to detect the bearing of the unit like a compass.

Therefore, the position and bearing of your vehicle can be corrected for display even in locations where the GPS signal does not reach.

* Vehicle positioning is not displayed perfectly in locations where the GPS signal cannot be received.

Vehicle positioning precision

The vehicle mark position may not be displayed correctly due to the driving environment and the GPS satellite status.

Continue driving without taking further action, and the map matching function and GPS satellite data will be used to automatically correct the vehicle mark position.

- When a highway and an ordinary road are close together
- When driving through a fork junction with a narrow angle between roads
- When driving on roads in a block grid pattern
- After moving on a ferry, car transporter, etc.
- When driving on steep mountain roads
- When driving on winding roads
- When turning right or left after driving on a straight road for a long period
- When driving in a weaving motion on a wide road

The vehicle mark position may not be displayed correctly in the following additional situations:

- Between turning the ignition switch on (after turning the power on) and receiving GPS signals.
- When driving for the first time after installing this system.
- After changing a tire, particularly when driving on an emergency tire.
- When driving on roads that are slippery due to snow, gravel etc., or when driving with tire chains.
- When the vehicle emerges onto a normal road after driving on a spiral route out of an underground or multi-story parking lot, or when the vehicle was turned on a turntable after stopping the engine (turning the power off).
- GPS satellites are under the control of the US Department of Defense, which may deliberately reduce positioning precision. In such situations, the vehicle mark not reflect the actual position of the vehicle.

Route searching

The following situations do not indicate a malfunction:

- Some roads may be impassable, such as roads closed in winter or temporarily closed for pedestrians.
- When searching for a route through narrow streets, the route may include impassable footpaths or stairs.
- Some roads may be impassable, due to the opening of a new road.
- Roads may be displayed which are not actually passable.
- The route may not change even when the search is repeated.
- The route may be congested.
- If there is no road or only very narrow roads to the destination, the route may only be displayed to a point some distance from the destination.
- Guidance may lead to an ordinary road under an elevated road. The reverse can also happen.
- A route may be displayed which makes a U-turn.

Route guidance

The following situations do not indicate a malfunction:

- Guidance may not be displayed even though a turn is required at an intersection. Guidance of the name of the intersection may not be provided.
- Guidance for left or right turns may not match the actual shape of the road.
- Voice guidance may be provided when the vehicle deviated from the guidance route, for example, turning before the guided intersection.
- It may not be possible to display/provide audio direction guidance on some highways and toll roads.
- The Enlarged intersection map may not match the actual road shape.
- The guidance distances may be slightly inaccurate.

Specification

Power		
Power Supply	5 V DC, 2 A, negative ground	
Current consumption		
When using the internal lithium ion battery	Less than 300 mA	
When the internal lithium ion battery is fully charged and using the Cigarette Lighter Adapter	600 mA	
When the internal lithium ion battery is charging and using the Cigarette Lighter Adapter	750 mA to 430 mA	
Internal lithium ion battery		
Charging time ● When charging the battery from empty to full in room temperature [10 °C to 35 °C (+50 °F to +95 °F)] ● When the main power is off.	Cigarette Lighter Adaptor	Approximately 6 hours
	USB cable	Approximately 7.5 hours
Continuous operating time ● At room temperature [10 °C to 35 °C (+50 °F to +95 °F)] when the battery is fully charged	Approximately 4 hours	
Continuous standby time ● At room temperature [10 °C to 35 °C (+50 °F to +95 °F)] when the battery is fully charged	Approximately 8 days	
Operating conditions	When the main power is on	-10 °C to +60 °C (+14 °F to +140 °F)
	When the main power is off and the battery is charging	+10 °C to +35 °C (+50 °F to +95 °F)
Navigation unit		
Dimensions (W x H x D)	129 mm x 87 mm x 31 mm (5 ⁵ / ₆₄ " x 3 ²⁷ / ₆₄ " x 1 ¹⁵ / ₆₄ "	
Weight	275 g (9.7 oz)	
Liquid Crystal Display		
Screen dimensions	5" wide (12.7 cm)	
Number of pixels	391 680 pixels (272 vertical x 480 horizontal x 3)	
Valid pixel ratio	Over 99.99 %	
Display method	Transparent color filter format	
Drive method	TFT (Thin Film Transistor) active matrix format	
Light source	LED backlight	
Touch panel	Resistance type with film and glass	
Internal speaker		
Maximum power output	1.5 W	
Internal speaker dimensions	36 mm (round)	

Internal GPS antenna	
Type	Patch antenna
Frequency range	1 575.42 MHz (C/A code)
Receiver sensitivity	with 2 level LNA -157 dBm to -159 dBm SiRF Star III standard
Receiving method	Parallel 20 ch
Bluetooth	
Communication Frequency	2 402 MHz to 2 480 MHz
Number of Channels	79 Channels
Communication Mode	Frequency Hopped Spread Spectrum Communication
RF Output	-1 dBm (0.8 mW)
Service Area	Within 10 m
Applicable Bluetooth Version	Ver1.2
Cigarette Lighter Adapter	
Input	12 V DC (11 V to 16 V), test voltage 14.4 V, negative ground

Above Specifications comply with EIA standards.

Notes:

- Specifications and the design are subject to modification without notice due to improvements in technology.
- Some figures and illustrations on this manual may be different from your product.

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