## Panasonic 🚽



### Model: CQ-RX450U **Operating Instructions**

WMA MP3 CD Plaver/Receiver

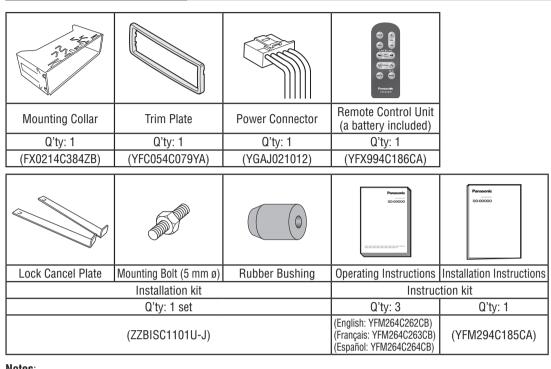
### **□** iPod **□** iPhone



WMA MPJ

 Please read these instructions (including "Limited Warranty" and "Customer Services Directory") carefully before using this product and keep this manual for future reference.

### Accessories



- The number in parentheses underneath each accessory part name is the part number for maintenance and service • Accessories and their part numbers are subject to modification without prior notice due to improvements. Mounting Collar and Trim Plate are mounted on the main unit at shipment.

lest for use of the Removable Face Plate Case

• To avoid trouble and ensure safety, use the optional Removable Face Plate Case (YFC054C061ZB).



## Specifications

| General                        |   | FM radio                                     |                                       |
|--------------------------------|---|--|---------------------------------------|
| Power supply:                  | 12 V DC (11 V - 16 V) test volt-                        | Frequency range:                             | 87.9 MHz – 107.9 MHz                  |
|                                | age 14.4 V, Negative ground                             | Usable sensitivity:                          | 10.2 dBf (0.9 μV, 75 Ω)               |
| Current consumption:           | Less than 2.5 A (CD mode,                               | 50 dB quieting sensitivity                   | :15.2 dBf (1.6 $\mu$ V, 75 $\Omega$ ) |
| N.A                            | 0.5 W x 4 channels)                                     | Frequency response:                          | 30 Hz – 15 kHz (±3 dB)                |
| waximum power output:          | 50 W x 4 channels (at 1 kHz),<br>Volume control maximum | Alternate channel selectivity                |                                       |
| Tone/SQ adjustment range       |   | Stereo separation:<br>Image rejection ratio: | 35 dB (at 1 kHz)<br>55 dB             |
| TOTHE/SQ aujustitient range    | (at 60 Hz, 80 Hz, 100 Hz, 200 Hz)                       | IF rejection ratio:                          | 100 dB                                |
|                                | SQ Mid: ± 12 dB   | Signal to noise ratio:                       | 62 dB                                 |
|                                | (at 500 Hz, 1 kHz, 2 kHz, 3 kHz)                        | •  | 02 UD                                 |
|                                | SQ High/Treble: $\pm 12 \text{ dB}$                     | AM radio                                     |                                       |
|                                | (at 10 kHz, 12 kHz, 15 kHz, 18 kHz)                     | Frequency range:                             | 530 kHz – 1 710 kHz                   |
| Speaker impedance:             | $4 - 8 \Omega$  | Usable sensitivity:                          | 27 dB/µV (22 µV, S/N 20 dE            |
|                                | 2.0 V (CD mode, 1 kHz, 0 dB)                            | CD player                                    |                                       |
| Pre-amp output impedance       | :200 Ω  |  |                                       |
| Dimensions (W x H x D):        | 178 mm x 50 mm x 158 mm                                 | Sampling frequency:                          | 8 times oversampling                  |
|                                | {7" x 1 15/16" x 6 1/4"}                                | DA converter:                                | 1 bit DAC System                      |
| Weight:                        | 1.3 kg {2 lbs. 14 oz}                                   | Pick-up type:<br>Light source:               | Astigma 3-beam<br>Semiconductor laser |
| USB connector                  |   | Wavelength:                                  | 790 nm                                |
| USB standard                   | 1 1/0 0 full aread                                      | Frequency response:                          | 20 Hz – 20 kHz (±1 dB)                |
| compatibility:                 | 1.1/2.0 full speed<br>FAT12/16/32                       | Signal to noise ratio:                       | 96 dB                                 |
| File system:<br>Maximum supply | FAT12/10/32   | Total harmonic distortion                    |                                       |
| current:                       | 1 A   | Wow and flutter:                             | Below measurable limits               |
| Playable audio format:         |   | Channel separation:                          | 75 dB                                 |
| Recommended                    |   |  |                                       |
| capacity:                      | Less than 4 GB (1 partition)                            | Above specifications com                     | ply with EIA standards.               |
| Front AUX input                |   |  |                                       |
| Input impedance:               | 10 kΩ   | Dower Output                                 | GOMBE                                 |
| Maximum input level:           | 2.0 V   | Power Output:<br>16 W RMS x 4 Channels       | a at 4 Q and a 19/                    |
| Connector:                     | 3.5 mm ø Stereo mini pin                                | THD+N  | S at 4 S2 at $10 \le 1\%$             |
| Input sensitivity:             | 200 mVrms   | Signal to Noise Ratio:                       | CEA-20                                |
|                                |   | 85 dBA (reference: 1 W                       | into $4 \Omega$ )                     |
|                                |   |  |                                       |
|                                |   | Mata   |                                       |
|                                |   | Notes:                                       |                                       |

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

**Safety Information** 

Read the operating instructions for the unit and all other
This manual uses pictographs to show you how to use components of your car audio system 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 this

This pictograph intends to alert you to the presence of important operating instructions and installation instructions. Failure to heed Warning the instructions may result in severe injury or death.

🛝 Warning

Observe the following warnings when using this

- The driver should neither watch the display nor operate the system while 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
- 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
- Keep batteries and insulation film out of reach of infants. Batteries and insulation film can be ingested, so keep them out of the reach of infants. If an infant ingests a battery or insulation film, please seek im-
- mediate medical attentio Protect the Deck Mechanism.
- 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 product yourself. If the product needs to be repaired, consult your dealer or an authorized
- Panasonic Servicent 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 (ha
- foreign objects in it, is exposed to water, is smoking, or smells), turn it off immediately and consult your dealer or an authorized Panasonic Servicenter The remote control unit should not lie about in the car. If the remote control unit lies about, it could fall on the floor while driving, get
- wedged under the brake pedal, and lead to a traffic accident. 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 to the product.

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 this manual and the system

This pictograph intends to alert you to the presence of important operating instructions and in stallation instructions. Failure to heed the instruc-**Caution** tions may result in injury or material damage.

Observe the following warnings when installing. Disconnect the lead from the negative (–) battery terminal before installa

- Viring and installation with the negative (–) battery terminal connected m cause electrical shock and injury due to a short circuit. Some cars equipped with the electrical safety system have specific procedures of battery terminal
- AILURE TO FOLLOW THE PROCEDURE MAY LEAD TO THE UNINTEND D ACTIVATION OF THE ELECTRICAL SAFETY SYSTEM RESULTING IN DAMAGE TO THE VEHICLE AND PERSONAL INJURY OR DEATH. ❑ Never use safety-related components for installation, grounding, 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 product or its
- ☐ Installing the product on the air bag cover or in a location where it interferes with airbag operation is prohib Check for piping, gasoline tank, electric wiring, and other items before
- stalling the product. If you need to open a hole in the vehicle chassis to attach or wire the prod uct, first check where the wire harness, gasoline tank, and electric wiring are
- located. Then open the hole from outside if possibl Never install the product in a location where it interferes with your field of
- Never have the power cord branched to supply other equipment with
- After installation and wiring, you should check the normal operation of other electrical equipment. he continuation of their using in abnormal conditions may cause fire,
- ectrical shock or a traffic accident. □ In the case of installation to an airbag-equipping car, confirm warnings and cautions of the vehicle manufacturer before instal
- ❑ Make sure the leads do not interfere with driving or getting in and out of
- □ Insulate all exposed wires to prevent short circuiting. Keep accessories out of reach of infants.
- Accessories can be ingested, so keep them out of the reach of infants. If an infant ingests accessories, please seek immediate medical attention.

## **Before Reading These Instructions**

Panasonic welcomes you to our constantly growing family of electronic products owners.

We endeavor to give you the advantages of precise electronic and mechanical engineering, manufactured with carefully selected components, and assembled by people who are proud of the reputation their work has built for our company. We know this product will bring you many hours of enjoyment, and after you discover the guality, value and reliability we have built into it, you too will be proud to be a member of our family.

Customer Services Director Customer Services Director

### (United States and Puerto Rico Product Information and Operating Assistance; locate your nearest

ealer or Servicenter; purchase Parts and Accessories; or make Customer Service and Literature requests by visiting our Web Site at: http://www.panasonic.com/suppor

r, contact us via the web at:

http://www.panasonic.com/contactinf 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
- or hearing or speech impaired TTY users, TTY : 1-877-833-8855

### ccessory Purchases

- (United States and Puerto Rico) Purchase Parts, Accessories and Instruction Books online for all Panasonic Purchase Parts, Accessories and Instruction Books online for all Panasonic Products by visiting our Web Site at:
- 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 able to acts of God.
- Panasonic Services Compar 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

### Limited Warran Limited Warranty

(For USA and Puerto Rico Only) PANASONIC AUTOMOTIVE SYSTEMS COMPANY OF AMERICA, DIVISION OF PANASONIC CORPORATION OF NORTH AMERICA 76 HIGHWAY 74 SOUTH, PEACHTREE CITY, GA 30269

### PANASONIC AUTO PRODUCTS

LIMITED WARRANTY

LIMITED WARBANTY COVERAGE

If your product does not work properly because of defects in materials and Panasonic Automotive Systems Company of America (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.

o Components (except items listed below) One (1) Year One (1) Year One (1) Year Not Applicable Defective Car Audio Speakers under warranty nust be exchanged at the place of purchase

Contact your Dealer for details inety (90) Days Not Applicabl cessories (in exchange for defective items)

During the "Labor" warranty period, there will be no charge for labor. During he "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 nor rechargeable batteries are included, they are not warranted. This warranty

Panasonic Web Site: http://www.panasonic.com LIMITED WARBANTY LIMITS AND EXCLUSIONS This warranty ONLY COVERS failures due to defects in materials and orkmanship, 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

the original purchase date is required for warranty service.

CARRY-IN OR MAIL-IN SERVICE

1-800-211-PANA (7262) or visit

ly applies to products purchased and serviced in the United States o

For Carry-In or Mail-In Service in the United States and Puerto Rico, call

uerto 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

warrantor, failures which result from accident, misuse, abuse, neglect, bug improper antenna, inadequate signal reception or pickup, power line surge, mproper voltage supply, lightning, modification, commercial use (such as use in hotels, offices, restaurants, or other business uses) or rental use of ne product, or service by anyone other than the technician from Factory ervicenter or other authorized service centers, or damage that is attribut-

THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED LINDER "LIM ITED WARRANTY COVERAGE". THE WARRANTOR IS NOT LIABLE FOR IN IDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE O THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY (As examples, this excludes damages for lost time, cost of having someone remove or re-install an installed unit if applicable, travel to and from the sevicer, and loss of media, data or other memory contents. The items listed e not exclusive, but are for illustration only.) ALL EXPRESS AND IMPLIED ANTIES. INCLUDING THE WARRANTY OF MERCHANTABILITY, ARE LIMITED TO THE PERIOD OF THE LIMITED WARRANTY.

Some states do not allow the exclusion or limitation of incidental or conse quential damages, or limitations on how long an implied warranty lasts, so e 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 produc develops during or after the warranty period, you may contact your dealer or ervicenter. 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 WAR BANTY ARE YOUR RESPONSIBILITY

### Customer's Record

| Customer's Record |  |  |
|-------------------|--|--|
| Model             |  |  |
| No.               |  |  |
| Serial            |  |  |
| No.               |  |  |
| Dealer's          |  |  |
| No.               |  |  |
| Code              |  |  |
| No.               |  |  |
| Dealer's          |  |  |
| Address           |  |  |
| Date of           |  |  |
| Purchase          |  |  |

Panasonic Automotive Systems Company of America, Division of Panasonic Corporation of North America 776 Highway 74 South, Peachtree City, GA 30269

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### /!\ Caution

- Observe the following cautions when using this unit. □ Keep the sound volume at an appropriate level. Keep the volume level low enough to be aware of road and traffic conditions
- This unit is designed for use exclusively in automobiles. Do not operate the unit for a prolonged period with the engine turned off. erating the audio system 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. Otherwise these will raise the interior temperature of the unit, and it may lead
- to smoke, fire, or other damage to the unit. Do not use the product where it is 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 unit. Make especially sure that the unit does not get wet device. in car washes or on rainy days.
- Set the volume level to low enough before the AUX connection is completed ailure to observe this, the loud noise may come out and damage your speakers and your hearing. Direct connection of the speaker/headphone output of an external device without any attenuator may distort sound or damage the connected external device
- Observe the following cautions when installing. Refer wiring and installation to gualified service personnel.
- Installation of this unit requires special skills and experience. For maximum safety, have it installed by your dealer. Panasonic is not liable for any problems resulting from your own installation of the unit. Follow the instructions to install and wire the product
- Not following the instructions to properly install and wire the product could cause an accident or fire.
- ) Take care not to damage the leads When wiring, take care not to damage the leads. Prevent them from getting caught in the vehicle chassis, screws, and moving parts such as seat rails. Do not scratch, pull, bend or twist the leads. Do not run them near heat sources or place heavy objects on them. If leads must be run over sharp metal edges. protect the leads by winding them with vinyl tape or similar protection.
- Use the designated parts and tools for installation Use the supplied or designated parts and appropriate tools to install the product. The use of parts other than those supplied or designated may result in internal damage to the unit. Faulty installation may lead to an accident, a
- malfunction or fire. Do not block the air vent or the cooling plate of the unit Blocking these parts will cause the interior of the unit to overheat and will result in fire or other damage.
- Do not install the product where it is exposed to strong vibrations or is Avoid slanted or strongly curved surfaces for installation. If the installation
- is not stable, the unit may fall down while driving and this can lead to an accident or injury.

## 🔨 Caution

File search function

PC are opened in order.

Front AUX terminal

to this unit without any difficulty.

THIS PRODUCT IS A CLASS I LASER PRODUCT **USE OF CONTROLS OR ADJUSTMENTS OR PERFOR-**MANCE OF PROCEDURES OTHER THAN THOSE SPECI-FIED HEREIN MAY RESULT IN HAZARDOUS RADIATION FYPNSIIRI DO NOT OPEN COVERS AND DO NOT REPAIR BY YOUR-

SELF. REFER SERVICING TO QUALIFIED PERSONNEL.

A file in a USB device can be searched for as if folders in a

### Installation Angl

- he product should be installed in a horizontal position with the front end up a convenient angle, but not more than 30°. The user should bear in mind that in some areas there may be restrictions on how and where this unit must be installed. Consult your dealer for further
- Wear gloves for safety. Make sure that wiring is completed before instal-
- To prevent damage to the unit, do not connect the power connector until
- the whole wiring is completed. Do not connect more than one speaker to one set of speaker leads. (except for connecting to a tweeter)

### Observe the following cautions when using USB

- Do not connect a USB device directly to this unit. If the USB device is connected directly to this unit and an accident occurs, or if the brakes are applied suddenly, the driver or passenger may bump into the USB device and may get injured
- Position the USB device and USB extension cable so that they do not obstruct your driving.
- Do not connect any USB device other than USB memory or a USB audio player. Do not connect multiple USB devices to the USB connector. Drawing power for multiple USB devices from the connector could cause overheating and smoking.

### Observe the following cautions when handling the battery for the remote control unit.

- Use only specified battery (CR2025). Match the polarity of the battery with the (+) and (-) marks in the battery
- Replace a dead battery as soon as possible.
- Bemove the battery from the remote control unit when not using it for an extended period of time. Insulate the battery (by placing them in a plastic bag or covering them with
- vinvl tape) before disposal or storage. Dispose of the battery according to the local regulations
- Do not disassemble, recharge, heat or short the battery. Do not throw a battery into a fire or water.

Part 15 of the FCC Rules

he user's authority to operate this device.

nectable devices

**Compatible USB devices** 

erchlorate Material - special handling may apply.

ee www.dtsc.ca.gov/hazardouswaste/perchlorate

the USB memory/USB Audio manufacturer

FCC Warning:

- In case of battery leakage
- Thoroughly wipe the battery liquid off the battery case and insert new bat-

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

- If any part of your body or clothing comes into contact with battery liquid. wash it with plenty of water.
- If battery liquid comes into contact with your eyes, wash them with plenty of water and get immediate medical attention.

y unauthorized changes or modifications to this equipment would void

This product contains a CR Coin Cell Lithium Battery which contains

## Notes on Discs

### How to hold the disc

- Do not touch the underside of the disc. Do not scratch the disc.
- Do not bend disc.



### nusable discs

Do not use discs that fit any of the descriptions given below. Using these discs may damage the discs or cause the unit to malfunction. • Special discs in a shape which is not round











Disc with adhered stickers Labels created by a printer or tape



Protective films or sheets Disc accessories (stabilizers, etc.)

Damaged or deformed discs



Discs with cracks, scratches or parts missing

• This player does not play CD-R/RW discs which contain other than CD-DA or MP3/WMA data.

Disc insert

Direct sunlight

Near heaters

until it is loaded properly.

Do not leave discs in the following places:

Do not write on the disc label in a heavy pen or ballpoint

Dirty, dusty and damp areas

On seats and dashboards

<Correct>

tes on CD-Rs/RWs

scratches, etc. on the disc surface.

and make playback impossible.

patible with one another

 $\mathcal{O}$ Discs with burrs

Shoddily made discs

Please remove the burrs before use

## **Remote Control Unit**

• This instruction manual explains operations for use with the buttons on the main unit. (Different operations excluded) • When using the remote control unit, aim the remote control unit at the remote sensor and operate it.

| [PWR] (Power)  | PWR +                             |   |
|--|-----------------------------------|---|
| toggles power on/off.  | VOL                               | [ <b>VOL</b> ] (Volume)   |
| [ <b>SRC</b> ] (Source)<br>selects a source.                                   |                                   | adjusts the volume<br>etc.  |
|  |                                   | [IIII] [IIII] (TUN<br>decreases/increase                          |
| [V] [A] (FOLDER)<br>skips to the previous/next folder<br>in the player source. | Folder                            | hold it down for m<br>skip to the previou<br>(For fast reverse/fa |
| [MUTE]<br>toggles mute on/off.   | MUTE BAND                         | [BAND] (Ⅲ/►)<br>selects a band in the player sourc                |
|  | Panasonic<br><sub>CAR AUDIO</sub> | Memory) in the so<br>than 2 seconds).                             |

### Battery replacement

- **1** Remove the battery holder from the remote control unit
- placed on a flat surface. ①Stick your thumbnail into the
- groove, and push the holder in
- the direction of the arrow. 2 Pull it out in the direction of the arrow using your thumbnail and Back side another finger.
- **2** Insert a battery in the case with (+) side facing up.
- 3 Put the case back.

### **Warning** Keep batteries and insulation film out of reach of

Batteries and insulation film can be ingested, so keep them out of the reach of infants. If an infant ingests a battery or insulation film, please seek immediate medical attention.

### $\land$ Caution

- Remove and dispose of the discharged battery im-
- Do not disassemble, heat or short a battery. Do not throw a battery into a fire or water.
- Follow local regulations when disposing of a battery. Improper use of batteries may cause overheating,
- an explosion or ignition, resulting in injury or a fire.

**Note:** Battery Information: Battery Type: Lithium battery (CR2025) (Included in the remote control unit) Battery Life: Approximately 6 months under normal use (at room temperature)

 iPod nano (4th generation)/ver. 1.0.4 iPod nano (3rd generation)/ver. 1.1.3 Made for

- able at the end of January, 2011. We do not guarantee the operation with our future products or upgraded software.

Sound control SQ (Sound Quality) You have 6 preset modes (FLAT, ROCK, POP, VOCAL, JAZZ, CLUB). You can customize your setting for these (except FLAT) and save them for instant recall SO3 (3-Band Sound Quality)

Center frequency and level are adjustable in each of 3 bands. This lets you fine-tune sound quality for each 

### **USB** connector

The USB connector is equipped on the front panel. By connecting a USB memory (not included) to the USB connector via a USB extension cable (USB 2.0, not included), you can enjoy MP3/WMA files stored on the USB memory (not included) in your vehicle.

By connecting for iPod<sup>®</sup> devices/iPhone<sup>®</sup> models to USB connector via a USB extension cable for iPod devices and • iPod classic (160 GB only)/ver. 2.0.4 iPhone models (USB 2.0, not included), you can enjoy music • iPod classic (120 GB only)/ver. 2.0.1 files stored on the compatible with iPod devices and iPhone • iPod classic/ver. 1.1.2 models in your vehicle. Further information about the com- • iPod with video/ver. 1.3 patible with iPod devices and iPhone models is described on • iPod nano (6th generation)/ver. 1.0 back side of this sheet.

\*iPhone, iPod, iPod classic, iPod nano, iPod shuffle, and iPod touch are trademarks of Apple Inc., registered in the • iPod nano (2nd generation)/ver. 1.1.3 U.S. and other countries. iPad is a trademark of Apple Inc. • iPod nano (1st generation)/ver. 1.3.1

"Made for iPod" and "Made for iPhone" mean that an elec- • iPhone 4/ver. 4.2.1 tronic accessory has been designed to connect specifically • iPhone 3GS/ver, 4.2.1 to iPod or iPhone and has been certified by the developer to • iPhone 3G/ver. 4.2.1 meet Apple performance standards. Apple is not responsible • iPhone/ver. 3.1.3 for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this \* Operation check has been completed with software availaccessory with iPod or iPhone may affect wireless performance

### Your mobile audio player and other devices are connectable • USB Standard Compatibility 1.1/2.0 Full Speed File System FAT12/16/32 Maximum current less than 1 A Capacity less than 4 GB (1 partition) is recommended

USB Mass Storage Class

 We do not guarantee all of the USB devices (USB memory/USB audio device... etc) sold on market are compatible with this head unit, please contact the USB device manufacturer when such USB device compatible problem occurs.

For details as to whether your USB memory/USB Audio is

compatible with USB Mass Storage Class, please contact

### Compatible with iPod devices/software version (USB connector)

This unit is capable of controlling and playing music for iPod. (video playback is not feasible)

### Made for.

- iPod touch (4th generation)/ver. 4.2.1 • iPod touch (3rd generation)/ver. 4.2.1
- iPod touch (2nd generation)/ver. 4.2.
- iPod touch (1st generation)/ver. 3.1.3

iPod nano (5th generation)/ver. 1.0.2

## Notes on MP3/WMA

Note: Each of encoding software is not included with this unit.

itions as to compressed audio files

• High bit rate and high sampling frequency are recom-

• The playback sound quality differs depending on the

encoding circumstances. For details, refer to the user

Selecting VBR (Variable Bit Rate) is not recommended

The surfaces of new discs tend to be slippery. Therefore, when using such a disc for the first time, it may not load satisfactorily even when it has been inserted into the unit. At

a time like this, insert the disc into the unit as far as it will go When inserting a disc into or ejecting and removing it

from the unit, insert it straight in or elect and remove it straight out in parallel with the unit. Otherwise, the disc may be scratched or marked in the process. When inserting a disc, do not put one disc on another. Failure to observe this may cause the discs to be

Use a dry, soft cloth to wipe from the center outward. Do not attach any seals or labels to your discs.



<Wrong>

• You may have trouble playing back some CD-R/RW discs recorded on CD recorders (CD-R/RW drives), either due to their recording characteristics or dirt, fingerprints,

 CD-R/RW discs are less resistant to high temperatures and high humidity than ordinary music CDs. Leaving them inside a vehicle for extended periods may damage

- The unit may not successfully playback a CD-R/RW that was made by the combination of writing software, a CD recorder (CD-R/RW drives) and a disc if they are incom-
- This player does not play CD-R/RW discs if the session is

• Be sure to observe the handling instructions of CD-R/RW

ts the volume, selects the value in the audio menu, [►►] (TUNE/TRACK) / [<] [>] (FILE) ases/increases the frequency. (For seek tuning t down for more than 0.5 seconds and release it.

o the previous/next track/file in the player source. ast reverse/fast forward, hold down either of them.) s a band in the tuner source, toggles pause/play

player source, executes the APM (Auto Preset ory) in the source (by holding it down for more

F- M I F: F: Munute entered

• "CLK ADJUST" is displayed before adjusting the clock.

- cannot be adjusted.
- When you want to readjust the clock, repeat steps 2 to 6.

### MP3

Both of MP3 (MPEG Audio Layer-3) and WMA (Windows Media™ Audio) is a format for compressed audio file. These

formats allow users to save all the files contained in approximately 10 pieces of existing CDs on one piece of CD-R/RW.

- It is recommended to set the bit rate to "128 kbps or more" and "fixed' WMA
- because playing time is not displayed properly and sound
   It is recommended to set the bit rate to "64 kbps or
  - more" and "fixed" • Do not set the copy protect attribute on the WMA file to enable this unit to play back

manual of your own encoding software and writing soft-• Be sure to put an extension compatible with the format.

\*MPEG Layer-3 audio coding technology licensed from Fraunhofer IIS and Thomson.

### **Compression formats**

mended for high guality sounds

Common

may be skipped

| Compression method                   | Bit rate        | VBR | Sampling frequency |
|--------------------------------------|-----------------|-----|--------------------|
| MPEG 1 audio layer 3 (MP3)           | 32 k – 320 kbps | Yes | 32, 44.1, 48 kHz   |
| MPEG 2 audio layer 3 (MP3)           | 8 k – 160 kbps  | Yes | 16, 22.05, 24 kHz  |
| MPEG 2.5 audio layer 3 (MP3)         | 8 k – 160 kbps  | Yes | 8, 11.025, 12 kHz  |
| Windows Media Audio Ver. 2, 7, 8, 9* | 64 k – 160 kbps | Yes | 32, 44.1, 48 kHz   |

\* WMA 9 Professional/LossLess/Voice are not supported

### $\setminus$ Caution

Never put an extension indicating compressed audio (such as ".mp3" and ".wma") to files other than compressed audio files. This may not only produce noise from the speaker damage, but also damage your hearing.

ASCII character set

ware to be used.

into an asterisk (¥).

Clock Display at Power Off

Press [DISP] to change the display.

**↓↓** 

Clock Display Setting

| | |< \_\_|- |

display setting mode.

hours and "PM" during PM hours.

reqular mode.

just.

-: I'-: I'-: I'-' Clock display (Default)

1 Hold down [VOL] (PUSH SEL: Select) for more than

2 seconds to open the clock display setting display.

**Note:** If no operation takes place for more than 5 seconds

in the clock display setting, the display returns to the

2 Turn [VOL] clockwise or counterclockwise to ad-

the 12-hour system used (default)

 $\Box \Box H = \frac{1}{2} H = \frac{1}{2}$ 

• The clock display setting (12-hour/24-hour) is activated

is corresponded to your setting after exiting the clock

• Selection of the 12-hour system displays "AM" during AM

once the rotary selection is made, the clock display

• To exit from the clock display setting, press [DISP].

A to Z, digits 0 to 9, and the following symbols:

(space) ! " # \$ % & ' ( ) \* + , - . / : ; < = > ? @ [ \ ] ^\_` { |

• Characters may be garbled depending on encoding soft-

Undisplayable characters and symbols will be converted

### Cautions as to the display of this unit

| Display Information |                 |
|---------------------|-----------------|
| • CD-TEXT           | • MP3 (ID3 tag) |

- Track title Title name/artist name • MP3/WMA • WMA (WMA tag) Folder name. Album name.
- File name

### Displayable characters

 Displayable length of file name/folder name: within 64 characters. (Unicoded file and folder names are reduced by half in the number of displayable characters.)

Title name/artist name

ACC

- Name files and folders in accordance with the standard of each file system. Refer to the instructions of writing software for details
- ASCII character set and special characters in each language can be displayed.

| Preparation |
|-------------|
|-------------|

### First Time Power On

**1** Set your car's ignition switch to the ACC or ON position.

**2** Press [SRC] (PWR: Power).

### **Battery Installation**

Pull the insulation film out from the backside of the remote control unit gently.

Insulation film Note: Battery Information: Battery Type: Lithium battery (CR2025) (Included in the

remote control unit) Battery Life: Approximately 6 months under normal use (at room temperature)

### Clock Setting

1 Press [DISP] (Display).

- $\Box \downarrow \downarrow \downarrow \leftarrow \Box \Box \downarrow \downarrow \downarrow \Box \Box \downarrow \Box \Box \Box (clock display)$ 2 Hold down [DISP] for more than 2 seconds.

### 3 Adjust the hour.

- F-M I F-I: F-IM Hour entered
- [►►]: sets the hour ahead.
- [I=]: sets the hour back. **4** Press [**DISP**].

### F-M I F#][]- F-M Minute blinks. **5** Adjust the minute.

### [►►]: sets the minute ahead. [IMM]: sets the minute back. 6 Press [DISP].

### F- M | F: IS- F-IM Completed

- Hold down [H-] or [>>] to change numbers rapidly.
- When "NO DISC" or "NO USB" is displayed, the clock

- observe this may result in difficulty in playing. If compressed audio files formatted with two or more types are saved on the same disc, each format shall have a different folder.
  - Do not write files other than compressed audio files Playability may depend on the combination of writing software and disc writer to be used.

• Do not save an audio file (CD-DA file) and a com-

pressed audio file on the same disc. Failure to

Compressed audio file writing

Recording MP3/WMA Files on a CD-Media/USB-Device

- This unit does not support the play list function. Write files in a disc-at-once manner unless otherwise
- You can shorten the duration between data read and playback by decreasing the quantity of files or folders,

### or the depth of the hierarchy. Supported file systems

- CD-media
- ISO 9660 Level 1/Level 2, Apple Extension to ISO 9660, Joliet. Romec **Note:** Apple HFS, UDF 1.50, Mix CD and CD Extra are
- not supported. USB-device
- File system is FAT12/16/32.

Maximum number of files/folders

- Maximum depth of trees: 8
- Maximum number of files CD-media: 512
- USB device: 65 535 • Maximum number of files in one folder
- CD-media: 512 USB device: 999
- Maximum number of folders:
- CD-media: 128 (Root folder is included.) USB device: 256 (Root folder is included.)
- Notes You can shorten the duration between data read and playback by decreasing the quantity of files or folders.
- or the depth of the hierarchy. This unit counts the number of folders irrespective of
- the presence or absence of an MP3/WMA file.
- If the selected folder does not contain any MP3/WMA files, the nearest MP3/WMA files in the order of playback will be played.

### Gopyright

Face Plate Removin

**3** Pull it out toward you.

**2** Press [1]. The face plate will open.

Maintenance/Fuse

exterior cleaning. Never use benzine, thinner, or other

minimum of maintenance. Use a dry, soft cloth for routine Panasonic Servicenter.

aning the Unit

solvents.

**1** Turn off the power.

It is prohibited by copyright laws to copy, distribute and Above description complies with our investigations as of deliver copyrighted materials such as music without the January 2011. It has no warranty for reproducibility and approval of copyright holder except enjoying yourself personally.

**Anti-Theft System** 

### No warranty

displayability of MP3/WMA

Face Plate Mounting

\land Warning

included in the folder count

in which the files were stored

-73

-4

Tree 3

(Root Directory)

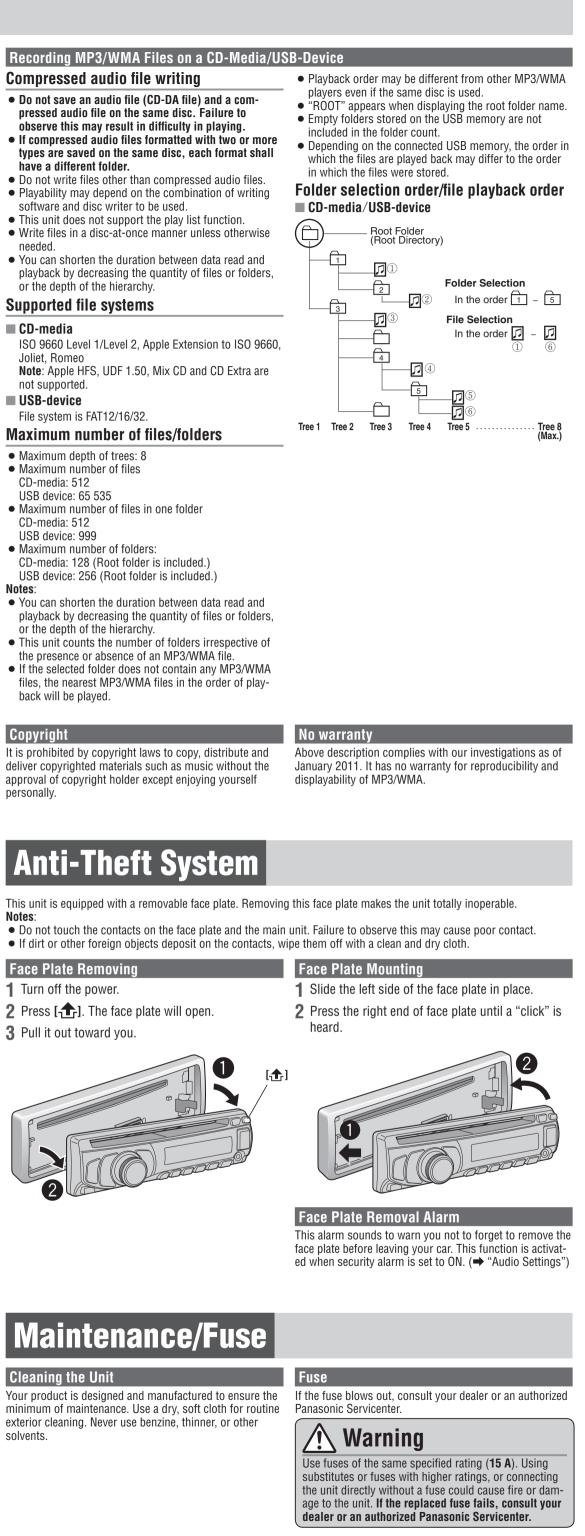
\_\_\_\_2

**\_**\_\_

5

CD-media/USB-device

— († † †



### 🔨 Caution 🔨 Cautio To ensure safety, never attempt to preset sta-Set the volume level to low enough before the AUX connection is completed Failure to observe this may generate loud noise and accordingly damage your speakers and your hearing. tions while you are driving. AUX Connector (3.5 mm ø stereo) From line output of external sound/audio device Remote Control Sensor (ex. Silicon audio player, HDD player, etc.) [SRC] (Source) selects a source. [BAND] -----nasonic CQ-RX450U MP3 WM. selects a band in the radio source. [SRC] (Source) (APM) (Auto Preset Memory) selects a source executes APM in the radio source [PWR] (Power) (by holding it down for more than 2 toggles power seconds). on/off. [VOL] (Volume) Power On/Off peration Flow ume Adius Set your car's ignition switch to the ACC or ON position. (Setting Range: 0 to 40, Default: 18) **1** Press **[SRC]** to select the radio source. Power on: Press [SRC] (PWR). Turn **[VOL]** clockwise to increase the volume, and **2** Press **[BAND]** to select a band. counterclockwise to decrease the volume. WELENMEY EM I→EM2→EM3→AM **Power off:** Hold down **[SRC] (PWR)** for more than 1 Volume level (0 to 40) (default: 18) second. **3** Select a station. Note: To mute the sound, set the volume level to 0. **Frequency Adjustment** Press [SRC] to change the source. [H]: Lower [►►]: Higher 1 Note: For station search, hold down either of the buttons fo H Disc playe more than 0.5 seconds and release it. Preset Station Selection • Press the corresponding preset button from [1] + through [6] to tune in a preset station. Radio Source Display When a device connected to the front AUX terminal of this Frequency Preset Number Band (Return to "RADIO")

## Radio (AM/FM)

lights while receiving an FM stereo signal.

[DISP] (Display)

decreases/increases the frequency. (For seek tuning, hold it down for more than 0.5 seconds and release it.)



Preset buttons [1] through [6]

switches the information select a preset station in the radio source, preset the

### on the display. current station (by holding it down for more than 2 seconds). splay Change Press [DISP] to change the display. -- M | -- | -- Radio mode display (Default) F-M | E: IS F-M Clock display Station Preset Up to 6 stations can be preset in each of AM, FM1, FM2, and Preset stations can be simply called up by pressing [1] through **[6]**. Auto Preset Memory (APM) With this operation, stations with good receiving conditions can be automatically stored in the preset memory. Select a band. 2 Hold down [BAND] (APM) for more than 2 sec-

The preset stations under best receiving conditions are received for 5 seconds each after presetting the stations (SCAN). To stop scanning, press one of the buttons from [1] through [6].

### **Note**: New stations overwrite existing saved stations.

Manual Station Preset

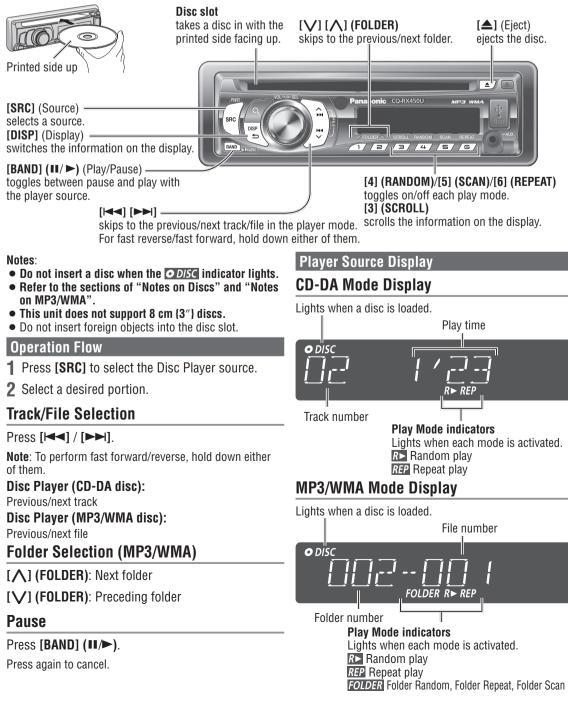
Tune into a station.

**2** Hold down one of the preset buttons from **[1]** through [6] for more than 2 seconds.

-- M | ------ [---] M [+ (blinks once) Note: New stations overwrite existing saved stations.

## Disc Playe

• The power will be turned on automatically when a disc is loaded. • A disc which has both CD-DA data and MP3/WMA data on it may not be reproduced normally.



| Display Change   | R             |
|--|---------------|
| Press [DISP].  | R             |
| Disc Player (CD-DA disc):                              | Pr            |
| <i>□                                    </i>           | tir           |
|  | Fs            |
| THE BEST OF Disc title                                 | All<br>se     |
| L [] // E- ME- F- [] F- Track title                    |               |
|  | <br>(0)       |
| <u>[]]</u> []: [] [-] [/] Clock time                   | (o<br>All     |
| (Return to "Track/Play time")                          | rai           |
| Disc Player (MP3/WMA disc):                            | $F_{\Lambda}$ |
| Folder/File  | Re            |
| +  | S             |
| Play time  | Pr            |
| THE REST OF Folder name/ Album*                        | ſ             |
|  | <br>Th        |
| L C F ME F C F F C F C F C F C F C F C F C F C         | in            |
| ₩<br>₩₽∃ 🛱 15 ₽₩Clock time                             | <i>[</i>      |
| <b>↓</b>   | (oi<br>Fre    |
| (Return to "Folder/File")                              | ea            |
| *ID3/WMA Tag Setting                                   | ſ             |
| Hold down <b>[3] (SCROLL)</b> for more than 2 seconds. | Re            |
|  |               |

 $T = \frac{1}{2} \int F = F = \frac{1}{2} \int F = \frac{1}{2$ When a folder name is displayed: TAG ON: The album title is displayed. TAG OFF: The folder name is displayed.

TAG ON: The title/artist name is displayed.

- To have another circle scroll while a text is displayed,
- ters is 11 or less, the characters do not scroll. "NO TEXT" is displayed when no information exists on the disc
- ID3/WMA tag information is displayed for the album

### indom, Scan, Repeat Play andom Play Setting

Press [4] (RANDOM) to select the random play set-

### -s/--1N\_1 LIN Random play All the available songs (tracks/files) are played in a random sequence. (R► lights.)

 $- - R R M = \prod N$  Folder random play (only for MP3/WMA) All the available files in the current folder are played in a

andom sequence. (*FOLDER* **R**► lights.)

### Scan Play Setting

Press [5] (SCAN) to select the scan play setting.

The first 10 seconds of each song (each track/file) is played n sequence. 1

## 

rom the next folder, the first 10 seconds of the first file in each folder is played in sequence. (*FOLDER* lights.)

Return to regular play.

Press [6] (**REPEAT**) to select the repeat play setting.

### (only for MP3/WMA)

The current folder is repeated. (FOLDER REP lights.)

 
 Image: Image scale in the second s Return to regular play.

### //-/<u>|-</u>/\_/N **+**+

### When a file name is displayed:

TAG OFF: The file name is displayed.

- press [3] (SCROLL). If the number of displayed charac-
- name and title/artist name.

{eturn to regular play.

5[FIN []N Scan play

(only for MP3/WMA)

**Repeat Play Setting** 

Repeat play

The current song (track/file) is repeated. (*REP* lights.)

## USB (MP3/WMA)

### Notes for USB device

- This unit plays back MP3/WMA files stored on a USB
- Back up any important data beforehand. We cannot ac- **2** Open the USB connector cover.
- cept responsibility for any lost data Refer to the section on "Compatible USB devices"
- ( → below)
- Refer to the section on "Notes on MP3/WMA".
- Connect your USB device to your car audio using a standard USB extension cable. Use of a 2 m or shorter USB 2.0 cable is recommended.

### **Caution for USB Device**

- Do not connect a USB device directly to this unit. If the USB device is connected directly to this unit and an accident occurs, or if the brakes are applied suddenly the driver or passenger may bump into the USB device and may get injured.
- Position the USB device and USB extension cable/ optional adaptor so that they do not obstruct your • Do not connect any USB device other than a USB
- memory or a USB audio player. Do not connect multiple USB devices to the USB connector. Drawing power for multiple USB devices from the connector could cause overheating and smoking.

### Compatible USB devices

- USB Mass Storage Class This refers to a type of USB device, which when connected to a PC can be used as a storage device without the need for specialized drivers or software
- For details as to whether your USB memory/USB Audio is [1] (FOLDER): Next folder compatible with USB Mass Storage Class, please contact [V] (FOLDER): Preceding folder the USB memory/USB Audio manufacturer.
- USB Standard Compatibility 1.1/2.0 Full Speed • File system is FAT12/16/32
- Maximum current less than 1 A
- Capacity less than 4 GB (1 partition) is recommended.
- MP3/WMA stored is not recommended.
- Playback or display may not be possible depending on the Pause type of the USB device or the condition of the recording. Press [BAND] (Ⅲ/►). Even if PC playback is possible, it may not be possible on
- this product, because some USB devices are not compli- Press again to cancel. ant with the USB standard. Even with a USB device in the Mass Storage Class, play-
- back may not be possible in some cases.

For use with iPod

Note: If playback does not start, press [BAND] (Ⅲ/►).

• When fast forward comes to the end of a file or fast

reverse comes to the beginning of a file, regular play-

back starts even if the fast forward or reverse button is

**1** Press **[Q]** to activate the Playing Mode Selection

2 Turn [VOL] clockwise or counterclockwise to ad-

**PLAYLIST:** Playback by playlist (Default)

**ARTIST:** Playback by artist

**GENRE**: Playback by genre

ALBUM: Playback by album

[Imm]: Beginning of the current file

For the preceding file, press twice.

Hold down for fast forward/reverse.

### Operation Flow

Press [SRC] to select the USB mode.



3 Using a USB extension cable, connect the USB memory to this unit.

- When connecting (disconnecting) the USB memory, turn down the volume of the unit.
- When connecting the cables, make sure the connector is pushed all the way into the socket.
- This unit may not operate correctly, depending on USB cable's quality and length. Use of a 2 m or shorter USB 2.0 cable is recommended.

USB extension cable (USB 2.0, not included)

USB memory (not included)

USB (Universal Serial Bus)

Connector (inside of the

cover)

[4] (RANDOM)/[6] (REPEAT)



Type A Male Note: MP3/WMA files recognized by the unit are played back automatically.

Select a desired portion.

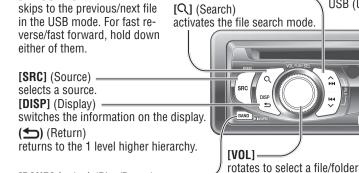
### Folder Selection

File Selection

### [►►]: Next file

[**I**]: Preceding file (press twice) • The use of USB devices that contain data files other than Note: For fast forward/reverse, hold down either of them.





in the file search mode.

push to determine the selec- [V] [ $\Lambda$ ] (FOLDER)

cable.

tion in the file search mode. skips to the previous/next folder.

USB Disconnect

NO US3

(PUSH SEL: Select)

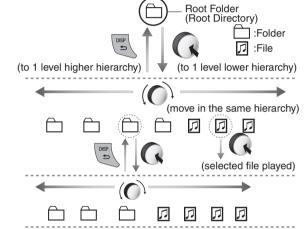
[BAND] (Ⅱ/►) (Play/Pause) toggles between pause and play with the USB source.

### File search

**1** Press **[Q]** to activate the file search mode.

- (root folder displayed) Press again to exit from the file search mode.
- **2** Select a file for play. Turn [VOL] clockwise or counterclockwise: Selects a
- folder or a file in the same hierarchy. Push [VOL] (PUSH SEL): Determines the selection.
- When a folder is selected, the folder is opened and a file/folder inside becomes selectable. Proceed to turn [VOL] clockwise or counterclockwise to select a file/
- When a file is selected, the file is played. Press []: Returns to the 1 level higher hierarchy. Note: Press [Q] for more than 2 seconds to active the

quick return function, selection returns to the 1st file or 1st folder respectively within same hierarchy.



Notes: • Do not leave the USB device for long periods of time in places inside the car where temperature becomes excessively high • To prevent dirt and dust from adhering to the USB connector, close the cover of this unit when not in use. USB Mode Display Lights when the USB device is loaded. File number Folder number

1/2/13/4/5/6/

[3] (SCROLL)

scrolls the information on the display.



R Random play EP Repeat play FOLDER Folder Random, Folder Repeat, Folder Scan

### By connecting compatible with iPod devices to USB connector via a USB extension cable for iPod (USB 2.0, not included), you can enjoy music files stored on the compatible with iPod devices in your vehicle. Note: Refer to the section on "USB (MP3/WMA)" for connection. skips to the previous/next track/file in the player mode. For fast reverse/fast forward, hold down either of them. activates the Playing Mode Selection [SRC] (Source) =

selects a source. [DISP1 (Display) switches the information on the display [BAND] (III/►) (Play/Pause) toggles between pause and [VOL]-

Operation Flow

Connect a iPod.

back starts.

File Selection

[►►]: Next file

Notes<sup>.</sup>

pressed.

mode.

Press [BAND] (Ⅲ/►).

Press again to cancel.

**Playing Mode Selection** 

Pause

selects a value in the Playing Mode Selection mode. toggles on/off each play mode. play with the iPod source. (PUSH SEL :Select) selects items in the Plaving Mode Selection mode

### scrolls the inform 3 Press [VOL] (PUSH SEL) to determine the selec-

27 3 4 5 6

2 Press [SRC] to select the iPod (USB) mode. Play- 4 Turn [VOL] clockwise or counterclockwise to select

[3] (SCROLL)

- a portion to be played. 5 Press [VOL] (PUSH SEL) to determine the selec-
- **Note**: To select a playing mode in step 2, press [Q].
- To return to the previous screen, press [DISP]. • Files without an album name or an artist name are not
- playable in the playing mode of the album or artist display respectively.

### iPod Mode Display

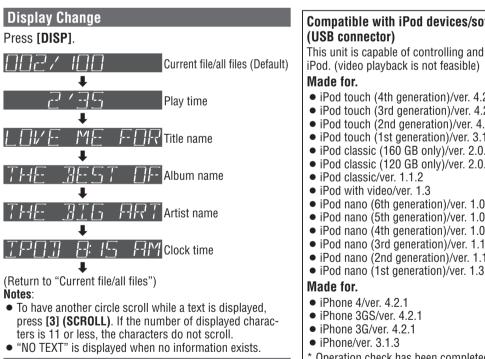
Current file

lights when a USB extension cable for iPod and iPod devices is connected with USB connector and the USB source is selected.

> All files (A number up 🚽 to 999 is displayable.)



Play Mode indicators ights when each mode is activated. **REP** Repeat play *R*► Shuffle play (songs) Blinks when each mode is activated. R► Shuffle play (albums)



### Repeat, Shuffle Play

- One Song Repeat Play Setting Press [6] (REPEAT) to select the repeat play setting.
- $F_{i} = F_{i} = \prod_{i=1}^{N}$  One song repeat play The current file is repeated. (*REP* lights.)

**†** Note: The "Repeat All Songs" function of an iPod is always activated and cannot be canceled from this unit.

### Shuffle Play Setting The shuffle function of an iPod corresponds to the RANDOM

function of this unit. Press [4] (RANDOM) to select the shuffle play setting.

### RANI ON Songs

All the available files are played in a random sequence. (R► lights.) 

### 년--문년N]] []N Albums

All the playable albums are played in a random sequence. (R► blinks.) 

RAND DF-F- Shuffle off Return to regular play.

- Compatible with iPod devices/software version (USB connector) This unit is capable of controlling and playing music for
- iPod touch (4th generation)/ver. 4.2.1 iPod touch (3rd generation)/ver. 4.2.1
- iPod touch (2nd generation)/ver. 4.2.1 iPod touch (1st generation)/ver. 3.1.3
- iPod classic (160 GB only)/ver. 2.0.4
- iPod classic (120 GB only)/ver. 2.0.1
- iPod classic/ver. 1.1.2 • iPod with video/ver. 1.3
- iPod nano (6th generation)/ver. 1.0
- iPod nano (5th generation)/ver. 1.0.2 • iPod nano (4th generation)/ver. 1.0.4
- iPod nano (3rd generation)/ver. 1.1.3
- iPod nano (2nd generation)/ver. 1.1.3 • iPod nano (1st generation)/ver. 1.3.1
- iPhone 4/ver. 4.2.1
- iPhone 3GS/ver. 4.2.1 iPhone 3G/ver. 4.2.1
- iPhone/ver. 3.1.3
- Operation check has been completed with software available at the end of January, 2011. We do not guarantee the operation with our future products or upgraded software.

which may result in battery depletion.

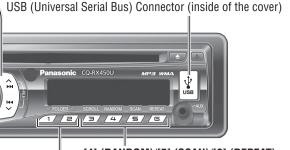
DOM function of this unit.

operate correctly.

wrong with the main unit.

the iPod.

with this unit.



[4] (RANDOM)/[5] (SCAN)/[6] (REPEAT) toggles on/off each play mode.

Disconnect the USB memory and USB extension



| Display Change   |
|--|
| Press [DISP].  |
| Folder/File  |
| Play time  |
| <b>↓</b>   |
| THE BEST DF Folder name/ Album*                          |
| <b>↓</b>   |
| $[ \square / F M F F \square R$ File name/Title, artist* |
| +  |
| 日53 日:15 月州 <mark>Clock time</mark>                      |
| T  |

(Return to "Folder/File")

\*ID3/WMA Tag Setting Hold down [3] (SCROLL) for more than 2 seconds.

TAG ON +∔ TF-15 DF-F- (Default) When a folder name is displaved: TAG ON: The album title is displayed.

TAG OFF: The folder name is displayed When a file name is displayed: TAG ON: The title/artist name is displayed. TAG OFF: The file name is displayed.

- To have another circle scroll while a text is displayed, press [3] (SCROLL). If the number of displayed characters is 11 or less, the characters do not scroll.
- "NO TEXT" is displayed when no information exists on the USB device.
- ID3/WMA tag information is displayed for the album name and title/artist name.

### Random, Scan, Repeat Play

### **Random Play Setting**

Press [4] (RANDOM) to select the random play set-

HALL Random play All the available files are played in a random sequence. (R> lights.)

All the files in the current folder are played in a random sequence. (FOLDER R► lights.)

Random off Return to regular play.

### Scan Play Setting

Press [5] (SCAN) to select the scan play setting.

 $\Box \Box \Box N$  Scan play The first 10 seconds of each file is played in sequence.

From the next folder, the first 10 seconds of the first file in each folder is played in sequence. (**FOLDER** lights.)

Scan off Return to regular play.

### **Repeat Play Setting**

Press [6] (REPEAT) to select the repeat play setting. Repeat play

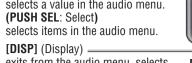
The current file is repeated. (*REP* lights.) ---FrEF- [IN Folder repeat play

The current folder is repeated. (FOLDER REP lights.) .

Fr/F-F-' []F-F- Repeat off Return to regular play.

## Audio Settings

 $[\bigvee] [\land]$  adjust the sound level in the SQ setting mode. [VOL] selects a value in the audio menu.





select a SQ setting in the SQ selection mode or preset the current SQ adjustment in the SQ adjustment mode (by holding down one of the buttons for more than 2 seconds). **1** Press **[VOL] (PUSH SEL)** to open the audio menu.

1/2/3/4/5/6

| Note: If no operation takes place for more than 5 seconds in audio setting ( | (2 sec | conds in the volume adjustment), the display |
|--|--------|--|
| 2 Press [VOL] (PUSH SEL) to select a mode to be                              | 3      | Turn <b>[VOL]</b> clockwise $(1)$ or c       |
| adjusted.  | I<br>I | (2) to adjust.                               |

| adjusted.   | (2) to adjust.  |
|---|---|
| Volume         (Setting Range: 0 to 40, Default: 18)  | / [] [ [] []<br>① / ② : Adjustment  |
| Bass<br>(Setting Range: -12 dB to +12 dB by 2 dB, Default: 0 dB)  | 과무도구 두금권<br>①/②:Adjustment  |
| TRE     Treble       (Setting Range: -12 dB to +12 dB by 2 dB, Default: 0 dB)   | TRE+ Ed∄<br>①/@:Adjustment  |
| SQ is a function that can call up various sound types in accordance with your listening music type.<br>(Selectable setting: FLAT/ROCK/POP/VOCAL/JAZZ/CLUB default: FLAT)  | <ul> <li>I → F ↓ F K M →</li> <li>① / ② : Selection</li> <li>or</li> <li>[1]: FLAT/[2]: ROCK/[3]: POP/[4]: VOCAL/[5]</li> <li>Note: To return an adjusted SQ to the default set to be returned to the default setting, then hold de 2 seconds.</li> </ul> |
| SQ Adjustment           (Tone/SQ adjustable range : -12 dB to +12 dB (by 2 dB))           Setting range:           SQ Low/Bass: ±12 dB (at 60 Hz, 80 Hz, 100 Hz, 200 Hz)           SQ Mid: ±12 dB (at 500 Hz, 1 kHz, 2 kHz, 3 kHz)           SQ High/Treble: ±12 dB (at 10 kHz, 12 kHz, 15 kHz, 18 kHz) | Adjust each band.<br>(1) / (2) : center frequency up/down<br>[DISP] : Band selection<br>[V] [] : Level up/down<br>[V] [] : Level up/down<br>[V] [] through [6]  |

| · · · · · · · · · · · · · · · · · · ·   | Note: Only SQ presetting value cannot be save |
|---|---|
| Setting Range: 15 levels each, Default: CNT (center))   | ]] L  L  -<br>①/②: Adjustment                 |
|   | <b>[ [-] ]]                             </b>  |
| F-1       F-1       Security Alarm Setting         (Selectable setting: ALARM ON/ALARM OFF, default: ALARM OFF) | [-][_ [-][-][/] [][-][-]<br>① / ② : Selection |

• The volume can also be adjusted directly using [VOL] on the main unit. (+ "General")

• Do not activate SQ and Bass/Treble at the same time to avoid causing sound distortion.

• If the fader is set to front, the pre-amp. output (rear) is decreased.

## **Troubleshooting**

### 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 the checking and the 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

Never take measures especially those other than indicated by *italic* letters in "Possible Solution" described below because those are too dangerous for users to handle themselves

# Trouble Possible Solution Common No power • Start the engine. (Alternatively, turn the ignition switch to the ACC position.)

| Display   | Possible Solution   |
|---|---|
| Radio   |   |
| TUNERE-3  | <ul> <li>No operation by some cause.</li> <li>Switch the power or ACC ON/OFF. If this does not solve the problem or the consult your dealer or an authorized Panasonic Servicenter to ask for rep.</li> </ul>   |
| Disc Player                                       |   |
| []][- [   | (The disc is ejected automatically.)<br>The disc is dirty or upside down.<br>• Check the disc.  |
| []]E2   | (The disc is ejected automatically.)<br>The disc has scratches.<br>• <i>Check the disc.</i>   |
| []][:]  | <ul> <li>No operation by some cause</li> <li>If normal operation is not restored, consult your dealer or an authorized F<br/>for repairs.</li> </ul>  |
| []][  | Cannot read the file<br>• Check the disc.   |
| []E5  | The WMA file can be copyrighted.<br>• The file protected by copyright is not playable.  |
| USB (MP3/WMA)                                     | 1   |
| NO US3  | <ul> <li>A USB device is not connected or the connected device cannot be recognized</li> <li>Use a USB memory that is suitable for this unit.</li> </ul>  |
| US3 -E (-   | No playable files exist.<br>An unsupported USB device is connected.<br>• Use a USB memory that is suitable for this unit.<br>• Record files that can be played back on this unit onto the USB memory.   |
| 453 -62-  | <ul> <li>A USB device that exceeds the current capacity that can be supplied is conner over-current was detected.</li> <li>Use a USB memory that has a consumption current of less than 1 A.</li> <li>Switch the Source, and select the USB (MP3/WMA) mode again.</li> <li>Switch the power off/on, and select the USB (MP3/WMA) mode again.</li> <li>Check that the USB connector section is not dirty, and that there is no foreig</li> </ul> |
| US] -E]-  | No operation by some cause<br>• Switch the power on or set ACC to ON. If this does not solve the problem<br>and plug it in again (→ Installation Instructions). In case the unit is still of<br>dealer or an authorized Panasonic Servicenter.  |
| (After 5 seconds)<br>→ To next file automatically | The player cannot read the file you are trying to play for some reason. (File re<br>file system, compression scheme, data format, file name extension, damaged<br>• Confirm that the USB extension cable is firmly connected, and reconnect<br>player can read. Check the type of data stored in the USB memory. Forma<br>sary.   |
| (After 5 seconds)<br>→ To next file automatically | <ul><li>The WMA file can be copyrighted.</li><li>The file protected by copyright is not playable.</li></ul>   |
| For use with iPod                                 |   |
| NO IPOJ   | The iPod is not recognized correctly.<br>• Some time could be taken for the iPod to be recognized.<br>• Check the connection.<br>• Reset the iPod, and then connect it again.   |
| NO SONGS  | <ul> <li>Your iPod has no playable music.</li> <li>Download playable music to your iPod.</li> </ul>   |

on recognize the unsupported disc and display the proper error messages. At the same time, the iPod device occurs with ter econnection interruptions (display blinks) several time Please notice this phenomenon indicate there is nothing wrong with the main unit and your iPod device. When above pheno a while for operation.

|   | <ul> <li>Verify the wiring. (Battery lead, power lead, ground lead, etc.)</li> <li>Fuse blown (Consult your dealer or an authorized Panasonic Servicenter.)</li> <li>Ask a professional for fuse replacement.</li> <li>Be sure to use the same rated fuse.</li> </ul> |
|---|---|
| No sound  | <ul> <li>Disable the mute function.</li> <li>Verify the wiring.</li> <li>Wait until the dew disappears before turning on the unit.</li> </ul>   |
| Noise   | • Make sure that grounding is established properly.   |
| No sound from left, right, front, or rear speaker | <ul> <li>Adjust the balance and fader.</li> <li>Verify the wiring.</li> </ul>   |
| Left and right sounds are reversed                | Connect the speaker lead correctly.   |
| Disc Player                                       |   |
| No sound, or disc is automatically ejected        | <ul> <li>Load the disc correctly.</li> <li>Clean the disc.</li> </ul>   |
| Sound skip, poor sound quality                    | • Clean the disc.   |
| Sound skip due to vibration                       | <ul> <li>The maximum permissible tilt angle is 30°.</li> <li>Secure the unit.</li> </ul>  |
| Disc not ejectable                                | • Press [ <b>▲</b> ]. If the disc is still not ejected, consult your dealer or an authorized Panasonic Servicenter.   |
| Radio   |   |
| Frequent noise                                    | <ul> <li>Tune in to another station of high-intensity waves.</li> <li>Make sure that the antenna mounted point is grounded properly.</li> </ul>   |
| Preset data deleted                               | • The preset memory is cleared to return to the original factory setting when the power connector or battery is disconnected.   |
| USB (MP3/WMA)                                     |   |
| Music is not played back even if a                | Connect the USB device and USB extension cable correctly.   |

• Use a USB device with a FAT12/16/32 file system.

taken to read all the files.

• Use a USB device with a current consumption lower than 1 A

• Check if there is any music data that can be played stored on the USB device.

• When the USB device contains a number of folders/files, a long time may be

• The shuffle function for iPod corresponds to the RAN-

Please make sure to detach the iPod after turning off the vehicle engine (turning the ACC to OFF). The iPod devices may not shut down while still connected,

 Please do not connect for iPod accessories such as for iPod remote control unit or headphones while connecting for iPod with the unit. The unit may not • Connect this unit after turning down the volume for

• "PAUSE" appears until for iPod is recognized after connecting for iPod. This indicates there is nothing

• We do not guarantee all the operations of connectable • The SCAN function of this unit is not feasible to operate for iPod. (Because of the SCAN function is not capable of iPod). This indicates there is nothing wrong

USB device is connected.

is not played back.

**"READING"** is displayed but music • Do not use a USB Hub.

### which can cause ignition or electric shock. Immediately stop using the unit and consult your dealer. Never try to repair the unit by yourself because it is dangerous to do so.

**Warning** 

• Do not use the unit in an irregular condition, for ex-

ample, without sound, or with smoke or a foul smell.



y returns to the regular mode counterclockwise [5]: JAZZ/[6]: CLUB setting, select the SQ which d down [BAND] for mote than 2 Hold down the numeric button [2] through [6] for more than 2 seconds aved in [1] button.

| unit is still out of order,<br>irs.  |
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| nasonic Servicenter to ask   |
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| ted. For some reason, an   |
| objects.   |
| unplug the power cord<br>It of order, consult your   |
| corded in an unsupported<br>data, etc.)<br>not. Select a file that the<br>the USB memory if neces- |
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|  |
| c player will take a long time<br>mporary disconnection and  |
| omenon occurs, please wait   |