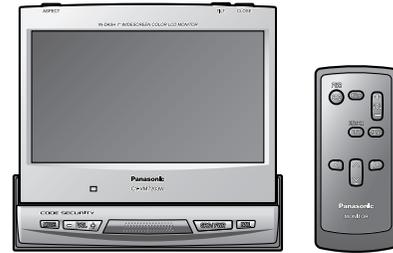


Panasonic

In-dash 7" Widescreen Color LCD Monitor
인대쉬 7" 와이드스크린 컬러 LCD 모니터

CY-VM7203W

Operating Instructions
사용 설명서



- Please read these instructions carefully before using this product and keep this manual for future reference.
- 본 제품의 바른 사용을 위해, 이 사용설명서를 잘 읽어 주십시오.
잘 보관하시어 필요하실 때마다 읽어주시기 바랍니다.

Safety Information

1

- ❑ Read the operating instructions for the unit and all other 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 manual.



Warning

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

- ❑ This manual 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 meaning 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 properly.



Caution

This pictograph intends to alert you to the presence of important operating instructions. Failure to heed the instructions may result in injury or material damage.

This unit is designed for users to connect one or more system upgrading devices to Panasonic car audio/AV unit at the same time. For more details about safety information, refer to the operating instructions for the connected devices.

Warning

Observe the following warnings when using the 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.
- ❑ **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 system, especially a 24 V DC battery system.
- ❑ **Keep a battery away from children to avoid the risk of accidents. If an infant ingests a battery, please seek immediate medical attention.**
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.
- ❑ **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 authorised Panasonic Service Center.
- ❑ **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.
- ❑ **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.
- ❑ **Do not touch the unit while the display is moving. Inserting hands, fingers or foreign objects into the unit can cause injuries and damage to the unit.**
- ❑ **Keep babies and children away from the unit.**
- ❑ **When you connect external devices to Video Input Terminal (AV-IN/VIDEO 1-IN/VIDEO 2-IN), be sure to connect the parking brake (side brake) connection lead.**

2

Warning

Observe the following warnings when installing.

- ❑ **Disconnect the lead from the negative (–) battery terminal before installation.**
Wiring and installation with the negative (–) battery terminal connected may cause electrical shock and injury due to a short circuit.
Some cars equipped with the electrical safety system have specific procedures of battery terminal disconnection.
FAILURE TO FOLLOW THE PROCEDURE MAY LEAD TO THE UNINTENDED 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, airbags, etc.) for wiring or fixing the product or its accessories.
- ❑ **Installing the product on the air bag 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. Then open the hole from outside if possible.
- ❑ **Never install the product in a location where it interferes with your field of vision.**
- ❑ **Never have the power cord branched to supply other equipment with power.**
- ❑ **After installation and wiring, you should check the normal operation of other electrical equipment.**
The continuation of their using in abnormal conditions may cause fire, electrical shock or a traffic accident.
- ❑ **In the case of installation to an airbag-equipped car, confirm warnings and cautions of the vehicle manufacturer before installation.**
- ❑ **Make sure the leads do not interfere with driving or getting in and out of the vehicle.**
- ❑ **Insulate all exposed wires to prevent short circuiting.**

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 while driving.
- Do not insert or allow your hand or fingers to be caught in the unit.**
To prevent injury, do not get your hand or fingers caught in moving parts. Especially watch out for infants.
- This unit is designed for use exclusively in automobiles.**
- Do not operate the unit for a prolonged period with the engine turned off.**
Operating 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 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 unit. Make especially sure that the unit does not get wet in car washes or on rainy days.
- Record your registered ID code and keep it in a secure location. (Fill in the ID code memo. (page 9))**
If you forget it, you will be unable to use the unit. In case you forget the ID code, please consult your nearest Panasonic Service Center.
- Be sure to select OFF when your car has no ACC position in the ignition switch. Failure to do this could cause the battery to go dead.**
- If water drops or similar wet substances get inside the monitor, it may cause a malfunction.**

Caution

Observe the following cautions when installing.

- If your car is equipped with air bag and/or anti-theft systems specific procedures may be required for connection and disconnection of the battery to install this product.**
- FAILURE TO FOLLOW THE PROCEDURE MAY RESULT IN THE UNINTENDED DEPLOYMENT OF AIR BAGS OR ACTIVATION OF THE ANTI-THEFT SYSTEM RESULTING IN DAMAGE TO THE VEHICLE AND PERSONAL INJURY.**
- Refer wiring and installation to qualified 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 unstable.**
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.
- Installation Angle**
The product should be installed in a horizontal position with the front end up at 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 details.

- Deeper installation method for fixing the mounting spring is not available in some types of cars.**
- When bending the mounting tab of the mounting collar with a screwdriver, be careful not to injure your hands and fingers.**
- Wear gloves for safety. Make sure that wiring is completed before installation.**
- To prevent damage to the unit, do not connect the power connector until the whole wiring is completed.**

Observe the following cautions of the wiring diagram

- To prevent damage to the unit, be sure to follow the connection diagram.
- Be sure to insulate any exposed wires to prevent short circuiting with the car chassis. Bundle all cables, and prevent cable terminals from touching any metal parts.
- Note that if your car has a driving computer or a navigation computer, disconnecting the cable from the battery may clear the memory.
- Run the cords avoiding the spots where the temperature can be extremely high.

Observe the following cautions of the display

- Avoid physical shock on the display.
- Do not place any object on the display unit, or subject it to undue force.
- Do not move the display forcibly.
- The monitor movable range may be limited by a type of car, a position where the display is mounted. etc.

Observe the following cautions of the aspect ratio

- This is to remind you that compression or extension of the screen using the aspect ratio (screen mode) changing function of this product for commercial purpose of profit making or viewing/listening by the public could infringe on the rights of the author protected by the copyright law.
- If you expand normal picture (4 to 3) by using "CINEMA", "ZOOM" or "FULL" aspect to the full of the screen, you might not see the periphery of the picture, or you might see a distorted picture. Therefore, use the "NORMAL" mode to see the original pictures as the author intended it.

Caution

Observe the following cautions when handling the batteries for the remote control unit.

Proper Use of the Batteries

- Use only specified battery (CR2025).
- Match the polarity of the battery with the (+) and (–) marks in the battery case.
- Replace a dead battery as soon as possible.
- Remove 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 vinyl tape) before disposal or storage.
- Do not disassemble, recharge, heat or short the battery. Do not throw a battery into a fire or water.
- Follow local regulations when disposing of a battery.
- Improper use of a battery may cause overheating, an explosion or ignition, resulting in injury or a fire.

In case of battery leakage

- Thoroughly wipe the battery liquid off the battery case and insert new battery.
- 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.

Safety Information (continued)

5

Please follow the laws and regulations of your province or country for installation of the unit.

Connection of Side Brake Connecting Lead

WARNING

TO AVOID RISK OF SERIOUS INJURY OR POSSIBLE VIOLATION OF LAWS, NOT FOR USE WHERE VISIBLE TO DRIVER FOR ANY PURPOSE OTHER THAN NAVIGATION OR USE WITH REAR VIEW CAMERA.

This system is designated so that you cannot see moving pictures while you are driving.

- Park your car in a safe and pull the side brake (parking brake) lever before watching the monitor.
- If a rear monitor (option) is connected to this unit, you can continually see the rear monitor image even if the parking brake (side brake) has not been pulled on.

⚠ Warning

When you connect external devices to Video Input Terminal (AV-IN/VIDEO 1-IN/VIDEO 2-IN), be sure to connect the parking brake (side brake) connection lead. (page 31)

Notes on Use

Liquid Crystal Panel

- Storage temperature range: $-20\text{ }^{\circ}\text{C}$ to $80\text{ }^{\circ}\text{C}$
When the liquid crystal panel reaches high temperatures or low temperatures, chemical changes occur within the liquid crystal panel which may cause malfunctions.
- Do not strongly impact the liquid crystal panel.
- 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 is not a malfunction or problem.
- Usage temperature range: $0\text{ }^{\circ}\text{C}$ to $40\text{ }^{\circ}\text{C}$
There may be red spots, blue spots and green spots on the panel surface. This is a characteristic of liquid crystal panels and is not a problem. The liquid crystal panel is built with very high precision technology and has at least 99.99 % effective image pixels. Be aware that on 0.01 % of the panel there may be missing pixels or constantly light pixels.
- In order to protect the liquid crystal panel, 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 over due to water vapor or it may cause condensation (droplets of water) to form and, as a result, the panel may not work properly. Do not use the unit while these symptoms are in evidence but leave the unit standing for about hour, and then resume or start use.

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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 enjoyments, and after you discover the quality, value and reliability we have built into it, you too will be proud to be a member of our family.

CY-VM7203W

In-dash 7" Widescreen Color LCD Monitor

7-inch wide LCD (Liquid Crystal Display)

Delivers images of high quality and superb color reproduction.

Multi-standards (PAL, NTSC and SECAM)

Automatically switching to PAL, NTSC and SECAM allows you to use a connected device without concern for its video standard.

Note:

- It is not possible to check the video format just by looking at the image on the screen. The format cannot be checked from the OSD display either, but that does not indicate a malfunction. Check the disc format of the image displayed on this monitor through menu operations on the device connected to the monitor. For details, refer to the instruction manual of the connected device.

Fully powered display positioning mechanism

Positioning of the display unit is fully power driven. This includes extending the unit, raising it to upright position, adjusting its vertical (tilt) angle.

Built-in automatic dimmer

The brightness of the screen is automatically adjusted in response to surrounding brightness.

To enjoy the TV broadcast

Connect Panasonic TV tuner (CY-TUP133W/TUN133W, option) and TV antenna.

3 video input terminals (2 video and 1 set of AV), 1 set of AV output terminal and RGB input connector

A DVD player/receiver, TV tuner or Rear View Camera can be connected to the video input terminals, a second monitor, can be connected to the video output terminals, and a Panasonic Car Navigation System can be connected to the RGB input connector.

ID Code

4-digit ID code for increased security.

Fill in the ID code memo. (page 9)

In Case You Forget the ID Code...

In case you forget the ID code, please consult your nearest Panasonic Service Centre.

ID code memo

Copy the memo below, fill in the ID code, and keep it in a secure location.

Model No. CY-VM7203W

ID CODE

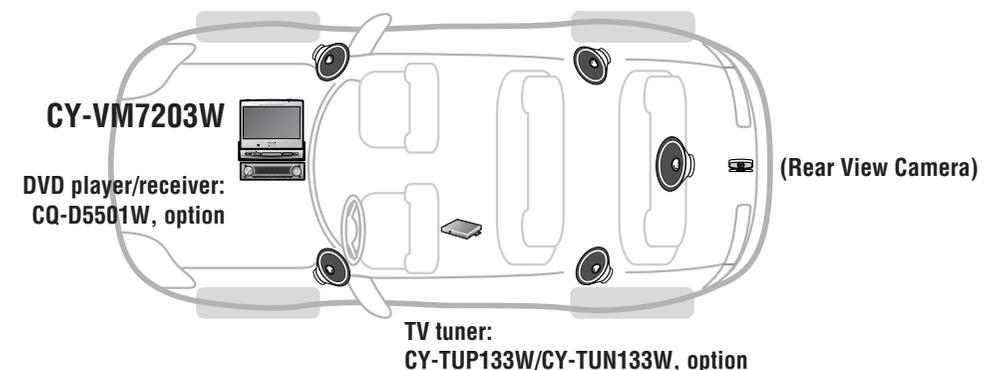
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System Connection Example

This unit can be combined with other components like shown below. For more details, refer to the operating instructions for the connected devices.

Note:

- It is not possible to check the video format just by looking at the image on the screen. The format cannot be checked from the OSD display either, but that does not indicate a malfunction. Check the disc format of the image displayed on this monitor through menu operations on the device connected to the monitor. For details, refer to the instruction manual of the connected device.
- Market conditions regarding optional devices vary with countries and regions. For further information, consult your dealer.



Preparation

9

Settings (Only by Remote Control Unit)

ACC selection ON/OFF

- Execute "ACC SELECT" setting. (page 24)

ID Code

- Execute "ID-CODE" setting. (page 24)



Screen

- Execute "DIMMER", "CONTRAST", "BRIGHT", "COLOR" or "TINT" setting. (page 18)

Monitor

- Execute "TILT" (tilt angle adjustment) setting. (page 22)
- Execute "OPEN/CLOSE" (monitor setting when power on) setting. (page 22)

You may need to set the following depending on the devices to be connected.

Car Navigation

- Execute "NAVI INPUT" (Navigation Input Selection) setting. (page 20)

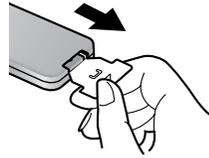
Rear View Camera

- Execute "CAMERA SETUP" (Rear View Camera Setup) setting. (page 20)

Remote Control Unit

Preparation Before Initial Use

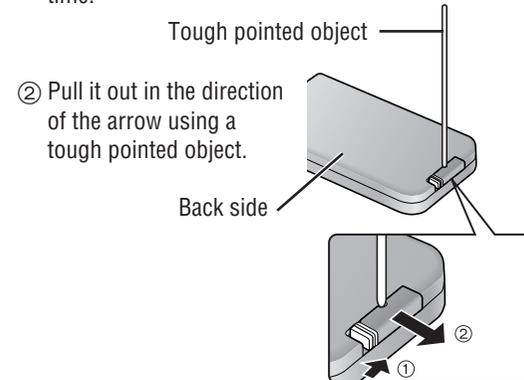
Pull the insulation film out from the backside of remote control gently.



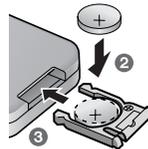
Battery Replacement

- Remove the battery holder with the remote control unit placed on a flat surface.

- Stick your thumbnail into the groove, and push the holder in the direction of the arrow at the same time.



- Put a battery in the case with (+) side facing up.
- Put the case back.



Note:

- Battery Information:
 - Battery Type: Panasonic lithium battery (CR2025) (Included in the remote control)
 - Battery Life: Approximately 6 months under normal use (at room temperature)

Warning

- Keep a battery away from children to avoid the risk of accidents. If an infant ingests a battery, please seek immediate medical attention.

Caution

- Remove and dispose of an old battery immediately.
- 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 a battery may cause overheating, an explosion or ignition, resulting in injury or a fire.

Components

10

Item	Diagram	Qty
Color LCD Monitor		1
Remote Control Unit (EUR7641050)		1
Lithium Battery for Remote Control Unit (Included in the remote control) <CR2025/1F>		1
Power Connector (YAJ024C119CA)		1
Wiping Cloth (YEFX9991793)		1
Operating Instructions (YFM284C544ZA)		1
Installation Hardware (screws, cords, etc.) (page 27)		

Note:

- The number in parenthesis underneath each accessory part name is the part number for maintenance and service.
- Accessories and their parts numbers are subject to modification without prior notice due to improvements.

Names of Controls and Functions

Display Unit (Display Raised)

11

[ASP] (ASPECT)

- Selects the aspect ratio. (page 17)

[TILT]

- Adjusts the monitor position. (page 15)
- Tilts the monitor temporarily. (page 15)

[OPEN] (CLOSE)

- Opens/closes the monitor. (page 14)

7 inches Wide LCD Display

Dimmer sensor

Built-in speaker

[MUTE]

- Mutes the sound temporarily. (page 14)

[VOL +] [VOL -]

- Adjusts the sound volume. (page 14)

[SRC/PWR] (Source/Power)

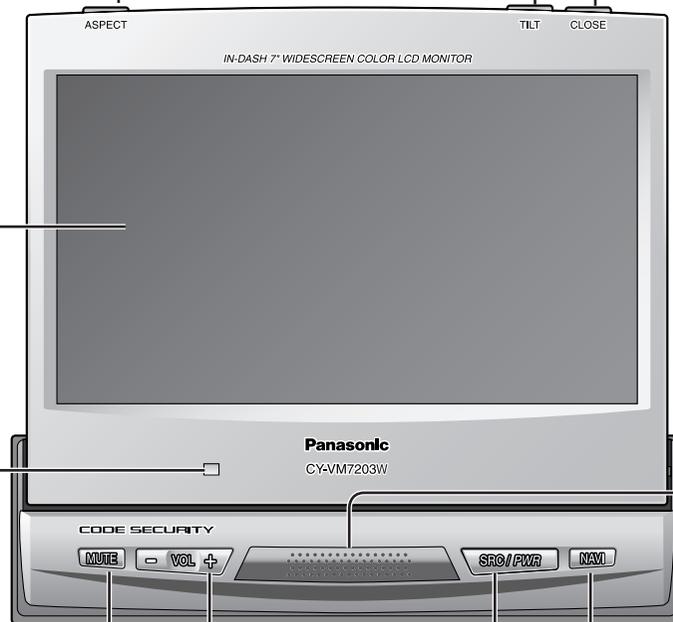
- Switches on/off the power. (page 14)
- Changes the source such as sound and picture. (page 14)
- Closes the menu. (page 19)

[NAVI] (Navigation)

- Put navigation screen on the display. (page 17)

Note:

- [NAVI] button is the only for Car Navigation System that connected to this unit.



Display Unit (Display Closed)



Remote control sensor

Remote Control Unit

Aim the remote control at the remote control sensor of the Display Unit and operate it. (previous page)

12

[MUTE]

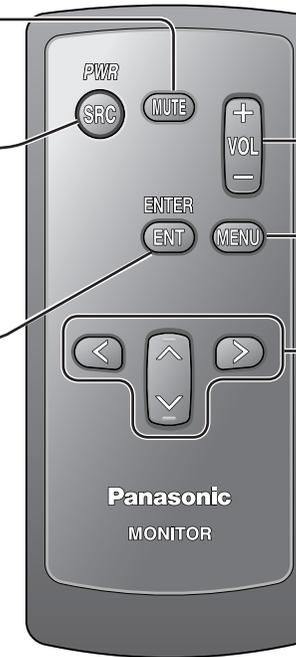
- Mutes the sound temporarily. (page 14)

[SRC/PWR] (Source/Power)

- Switches on/off the power. (page 14)
- Changes the source such as sound and picture. (page 14)
- Closes the menu. (page 19)

[ENT] (ENTER)

- Determines an operation or item. (page 18)



[VOL +] [VOL -]

- Adjusts the sound volume. (page 14)

[MENU]

- Shows the menu screen. (page 18)

[^] [v]

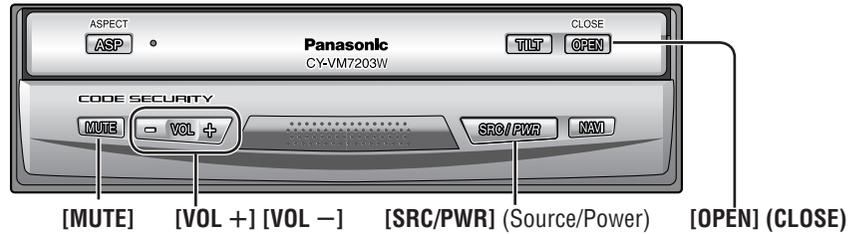
- Selects (vertically) or adjusts an operation or item. (page 18)

[<] [>]

- Selects (horizontally) or adjusts an operation or item. (page 15, 18)

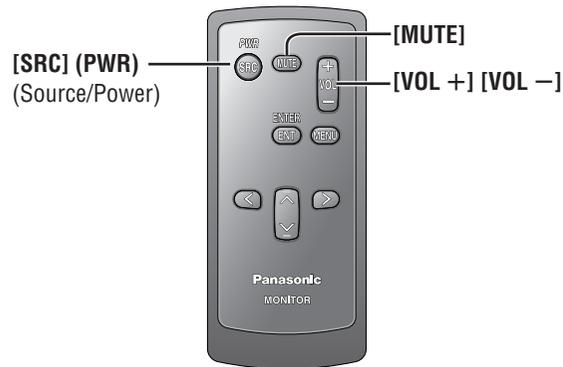
Note:

- Menu-related operations (DISPLAY/USER settings) can only be carried out from the remote control unit. They are not possible from the buttons on the monitor. Other operations can be performed from the unit.



Warning

- Do not touch the unit while the display is moving. Inserting hands, fingers or foreign objects into the unit can cause injuries and damage to the unit.
- Keep babies and children away from the unit.



Display Open/Close

OPEN: Press [OPEN] (CLOSE).
CLOSE: Press [OPEN] (CLOSE) again.

Note:

- When the display unit is opened, "TILT" indicator lights.
- If the unit stops halfway, press [OPEN] (CLOSE) again and draw it all the way in.
- Opening/closing the display can also be done when the power is off (ACC ON).

Power

Turn your car's ignition key to the ACC or ON position.

ON: Press [SRC/PWR] on the display unit.

Press [SRC] (PWR) on the remote control.

OFF: Press and hold [SRC/PWR] again for more than 1 seconds on the display unit.

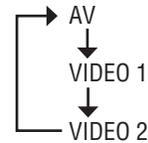
Press and hold [SRC] (PWR) again for more than 1 seconds on the remote control.

Note:

- You cannot turn on the power via the remote control when "OFF" is selected in "ACC SELECT". (page 24)

Source (page 16)

Press [SRC/PWR] to change the source.



Note:

- Select the same source (AV/VIDEO 1/VIDEO 2) as the terminal that is connected to the optional external device (AV-IN/VIDEO 1-IN/VIDEO 2-IN).

Volume

[VOL +]: Increase

[VOL -]: Decrease

Setting Range: 0 to 30

Note:

- The sound level for each source is stored in memory.
- The volume setting must be balanced with the connected device. Adjust volume from the device side.
- Use this unit at close to the default volume level, rather than at maximum or minimum volume.



Mute

MUTE ON: Press [MUTE].

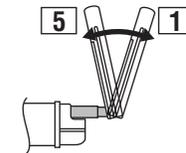
MUTE OFF: Press [MUTE] again.

Display Position Adjustment

Tilt Angle Adjustment (TILT)

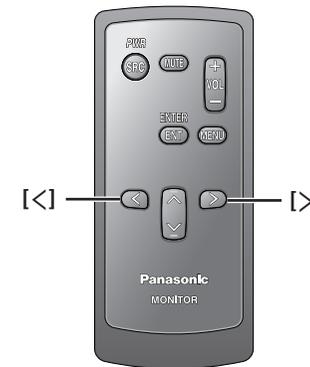
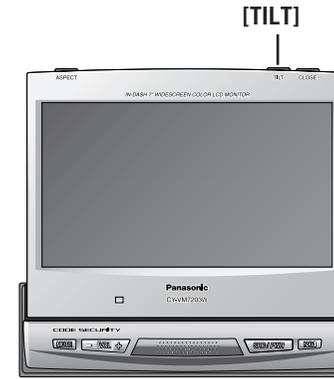
- Adjustment is operated only by the remote control unit.

- Press and hold [TILT] on the display unit for more than 2 seconds.
- Press [<] or [>] to adjust.
The setup is the same as from MENU. (page 22)



Notes:

- Adjust the angle from "Display Unit Adjustment (DISPLAY UNIT)" of "User Settings (USER)". (page 22)
- Vertical angle (TILT) is saved in the memory, so when the display unit is drawn out next, it is automatically set at the angle and in the position adjusted before.
- After adjusting its angle, also adjust the brightness as well. (page 18)
- The car model and installation condition may impose some restrictions on the adjustment of the monitor's angle.



Folding Down the Display Temporarily

Tip the monitor forward temporarily to operate the switches and other controls on the back of the monitor.

Fold Down: Press [TILT] on the display unit.

Raise: Press [TILT] again on the display unit.

Note:

- Even when the unit is power off, you can fold down the display temporarily.

Caution

- Avoid physical shock on the display.
- Do not place any object on the display unit, or subject it to undue force.
- Do not move the display forcibly.
- The monitor movable range may be limited by a type of car, a position where the display is mounted, etc.

AV/VIDEO 1/VIDEO 2

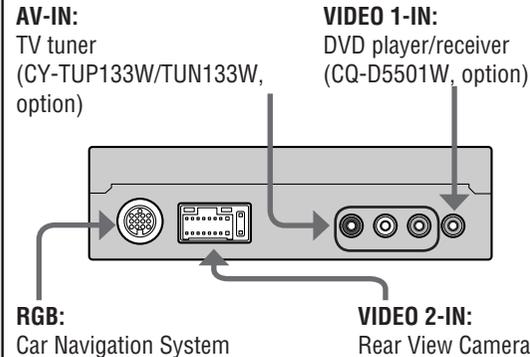
15

You can view the images and listen to the sounds from the connected external devices (option) in the AV, VIDEO 1 and VIDEO 2 source respectively.

Preparation:

- Connect an optional external device to the unit.

Recommended example:

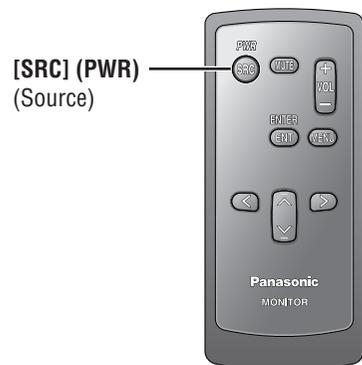


[ASP] (ASPECT)



[SRC/PWR] (Source)

[NAVI] (Navigation)

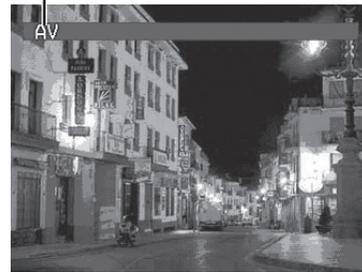
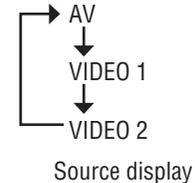


Warning

When you connect external devices to Video Input Terminal (AV-IN/VIDEO 1-IN/VIDEO 2-IN), be sure to connect the side brake (parking brake) connection lead. (page 31)

AV/VIDEO 1/VIDEO 2

Press [SRC/PWR] to change the source.



Panasonic TV Tuner (CY-TUP133W/TUN133W, option)

Select AV source.

Connect a Panasonic TV tuner to AV-IN connectors. (page 35)

DVD Player/Camcorder

Recommended source: VIDEO 1

Select the same source (VIDEO 1 or VIDEO 2) as the terminal that is connected to a DVD player or camcorder (VIDEO 1-IN or VIDEO 2-IN).

Rear View Camera

Recommended source: VIDEO 2

Select the same source (VIDEO 1 or VIDEO 2) as the terminal that is connected to a Rear View Camera (VIDEO 1-IN or VIDEO 2-IN).

- Execute "CAMERA SETUP" (Rear View Camera Setup) setting. (page 20)

Car Navigation System

Select the same source (VIDEO 1 or VIDEO 2) as the terminal that is connected to a Car Navigation System (VIDEO 1-IN or VIDEO 2-IN).

- Execute "NAVI INPUT" (Navigation Input Selection) setting. (page 20)

Car Navigation System

Preparation:

- Specify the correct terminal that is connected to the car navigation system in the "NAVI INPUT" operation on the "User Settings (USER)". (page 20)

Press [NAVI] to change to the car navigation source. Press [NAVI] again to cancel.

Note:

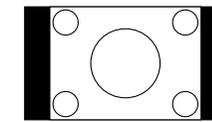
- If the navigation source is ON, only the audio signal is switched while the video signal remains as it is and the image is shown on the "FULL" screen only.
- The source can be changed even when the display unit is in the retracted position.

Aspect Ratio

Default: NORMAL

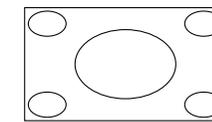
Mode: 4 types

Press [ASP] (ASPECT) on the display unit to change the aspect ratio as follows.



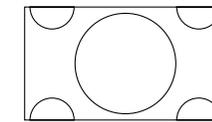
NORMAL

- The conventional display image has a 4 to 3 ratio of horizontal to vertical.
- In this case, a blank area remains on the right and left sides of the display.



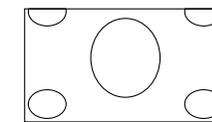
FULL

- The screen is extended horizontally as a whole to the aspect ratio of 16 to 9.
- The extension ratio is the same at any point of the screen.



ZOOM

- The screen is fully extended at the normal aspect ratio of 4 to 3.
- The top and bottom of the screen are slightly cut.



CINEMA

- The display is only zoomed vertically.
- The top of the screen will be cut off, but the bottom will not be.

Note:

- When the Rear View Camera is in operation with the transmission gear shift in the reverse position, the image is shown on the "FULL" screen only.
- In some cases, the picture looks different from the original one due to your selection of aspect.

Caution

- This is to remind you that compression or extension of the screen using the aspect ratio (screen mode) changing function of this product for commercial purpose of profit making or viewing/listening by the public could infringe on the rights of the author protected by the copyright law.
- If you expand normal picture (4 to 3) by using "CINEMA", "ZOOM" or "FULL" aspect to the full of the screen, you might not see the periphery of the picture, or you might see a distorted picture. Therefore, use the "NORMAL" mode to see the original pictures as the author intended it.

16

Display Settings (SCREEN)

17



[SRC/PWR] (Source)

Note:

- Only English is displayed on SCREEN/USER settings.
- Menu-related operations (DISPLAY/USER settings) can only be carried out from the remote control unit. They are not possible from the buttons on the monitor.

Dimmer (Adjust the Brightness)

Default: AUTO
Setting range: AUTO, 1 to 4

Adjust the Image Contrast

Default: ±0
Setting range: -15 to +15

Adjust the Image Brightness

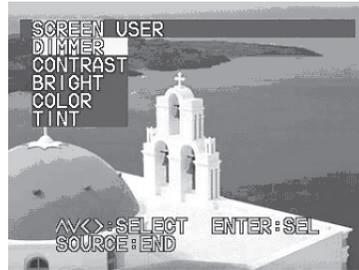
Default: ±0
Setting range: -15 to +15

Adjust the Image Color Depth

Default: ±0
Setting range: -15 to +15

Adjust the Image Tone or Tint

Default: ±0
Setting range: -15 to +15



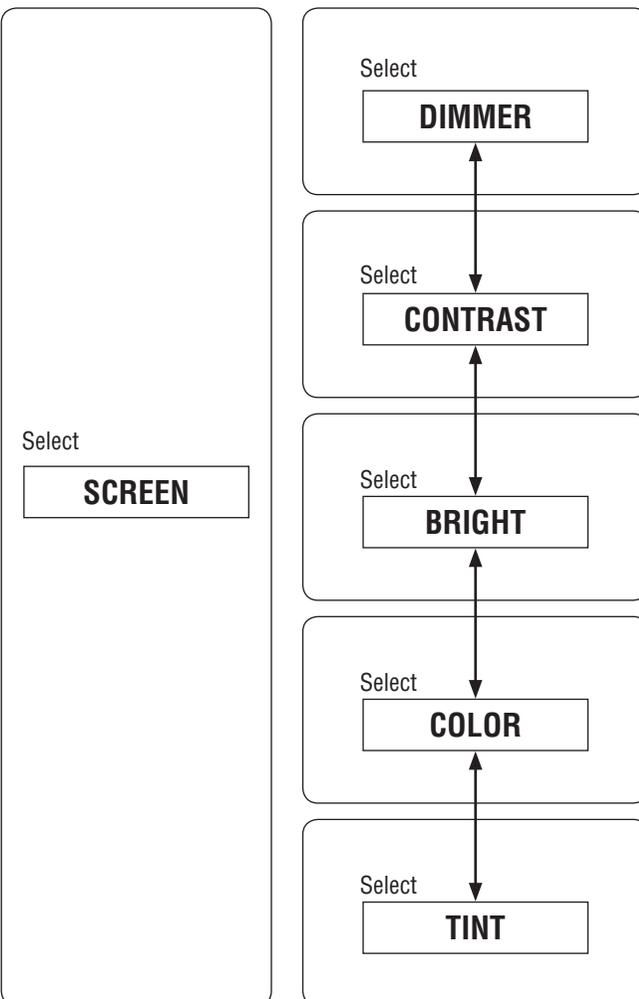
Menu display (SCREEN)

1 Menu

- ① Press [MENU] to display the menu.
- ② Press [←] or [→] to select "SCREEN".

2 Submenu

- ① Press [^] or [v] to select the item.
- ② Press [ENT] (ENTER).



3 Setting

- ① Press [←] or [→] to adjust.
- ② Press [ENT] (ENTER) to set (Dimmer setting only).
- ③ Press [SRC/PWR] to exit the menu.

AUTO : automatically adjusted according to ambient light intensity.

1 2 3 4
← Darker Brighter →

[>]: Increases the contrast between black and white.
[<]: Decreases the contrast between black and white.

[>]: Lightens.
[<]: Darkens.

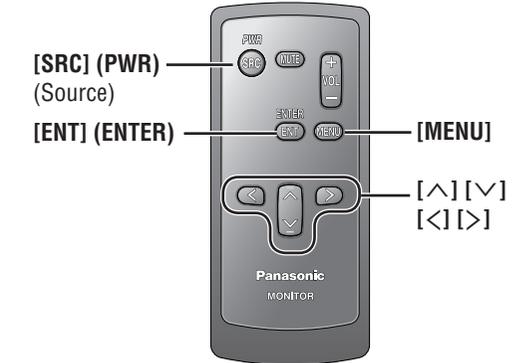
[>]: Deepens the depth of color on the display.
[<]: Lightens the depth of color on the display.

[>]: Emphasizes green in the color image.
[<]: Emphasizes red in the color image.

Note:

- Press [MENU] in the setting display to return to the menu display (SCREEN).

18



User Settings (USER)

19



[SRC/PWR] (Source)

Note:

- Only English is displayed on SCREEN/USER settings.
- Menu-related operations (DISPLAY/USER settings) can only be carried out from the remote control unit. They are not possible from the buttons on the monitor.

Built-in Speaker Output Selection

Default: AUTO
Setting range: OFF, AUTO, NAVI

NAVI INPUT (Navigation Input Selection)

Default: RGB
Setting range: RGB, AV, VIDEO 1, VIDEO 2

CAMERA SETUP (Rear View Camera Setup)

CAMERA INPUT (Rear View Camera input selection):
Default: OFF
Setting range: OFF, AV, VIDEO 1, VIDEO 2

SCALE (Rear View Camera scale):
Default: OFF
Setting range: OFF, ON

SCALE ADJUST (Scale adjustment):



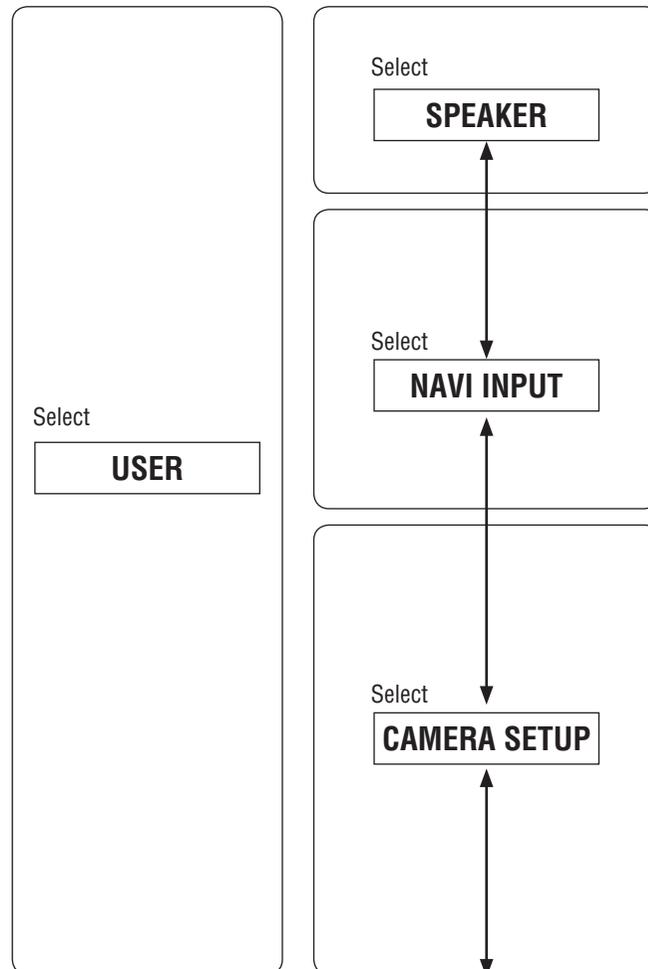
Menu display (USER)

1 Menu

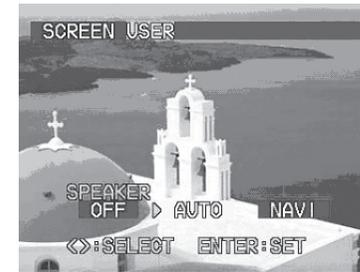
- ① Press **[MENU]** to display the menu.
- ② Press [**<**] or [**>**] to select "USER".

2 Submenu

- ① Press [**^**] or [**v**] to select the item.
- ② Press **[ENT] (ENTER)**.



(Page 22, 24)



3 Setting

- ① Press [**<**] or [**>**] to adjust.
- ② Press **[ENT] (ENTER)** to set.
- ③ Press **[SRC/PWR]** to exit the menu.

OFF: No sound of built-in speaker is output.
AUTO: Sound of the external device shown on the display is output.
NAVI: Sound of the car navigation system is output.

NAVI INPUT: sets the terminal to which a Car Navigation System is connected.
Note:
• Set to "AV" when connecting to a non-Panasonic Car Navigation System. (page 34)

RGB: Connected to the RGB input cord or a Car Navigation System not connected.
AV: Connected to the AV-IN.
VIDEO 1: Connected to the VIDEO 1-IN.
VIDEO 2: Connected to the VIDEO 2-IN.

Press [**^**] or [**v**] to select the item.

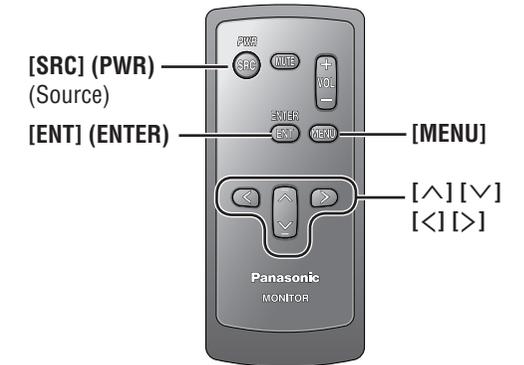
CAMERA INPUT: sets the terminal to which a Rear View Camera is connected.

OFF: Unconnected.
AV: Connected to the AV-IN.
VIDEO 1: Connected to the VIDEO 1-IN.
VIDEO 2: Connected to the VIDEO 2-IN.

SCALE: Images through the Rear View Camera can be shown in scale display mode.

OFF: scale display off.
ON: scale display on.

SCALE ADJUSTMENT:
[**<**] or [**>**]: adjust.



20

User Settings (USER) (continued)

21



[SRC/PWR] (Source)

Note:

- Only English is displayed on SCREEN/USER settings.
- Menu-related operations (DISPLAY/USER settings) can only be carried out from the remote control unit. They are not possible from the buttons on the monitor.



Menu display (USER)

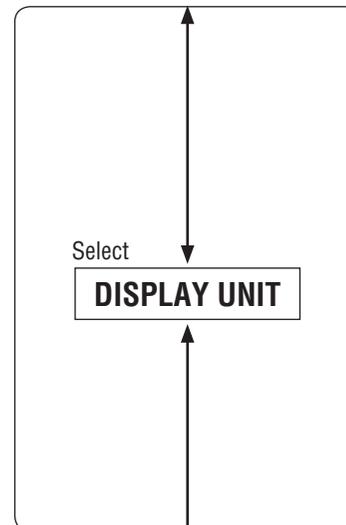
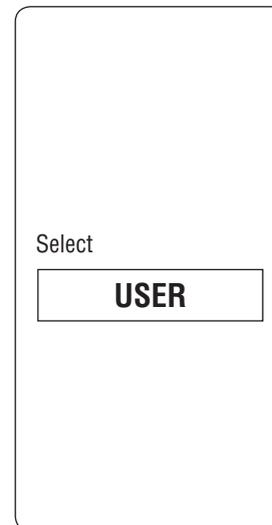
1 Menu

- ① Press **[MENU]** to display the menu.
- ② Press [**<**] or [**>**] to select "USER".

2 Submenu

- ① Press [**^**] or [**v**] to select the item.
- ② Press **[ENT] (ENTER)**.

(Page 20)



(Page 24)

Display Unit Adjustment**TILT (Tilt angle adjustment):**

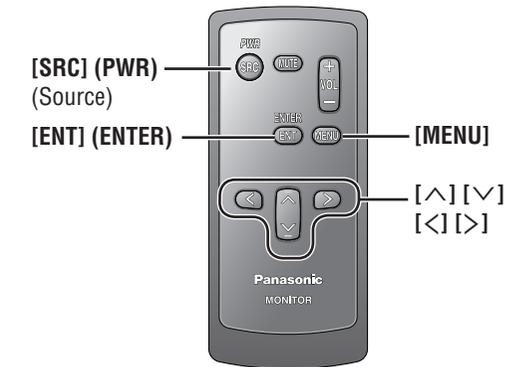
Default: 5
Setting range: 1 to 5

OPEN/CLOSE (Monitor setting when power on):

Default: MANUAL
Setting range: MANUAL, AUTO

**3 Setting**

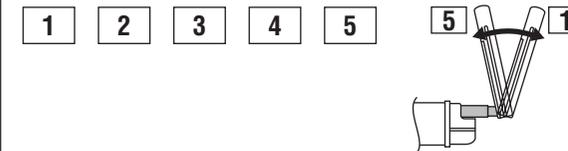
- ① Press [**<**] or [**>**] to adjust.
- ② Press **[ENT] (ENTER)** to set.
- ③ Press **[SRC/PWR]** to exit the menu.



22

Note:

- Press **[MENU]** in the setting display to return to the menu display (USER).

TILT:**Note:**

- The monitor position setting menu can also be displayed by pressing **[TILT]** on the display unit for more than 2 seconds. (page 15)
- The car model and installation condition may impose some restrictions on the adjustment of the monitor's angle.

OPEN/CLOSE:

- AUTO:** The monitor is opened automatically when turning ON ACC.
MANUAL: The monitor is not opened automatically.

User Settings (USER) (continued)

23



[SRC/PWR] (Source)

Note:

- Only English is displayed on SCREEN/USER settings.
- Menu-related operations (DISPLAY/USER settings) can only be carried out from the remote control unit. They are not possible from the buttons on the monitor.



Menu display (USER)

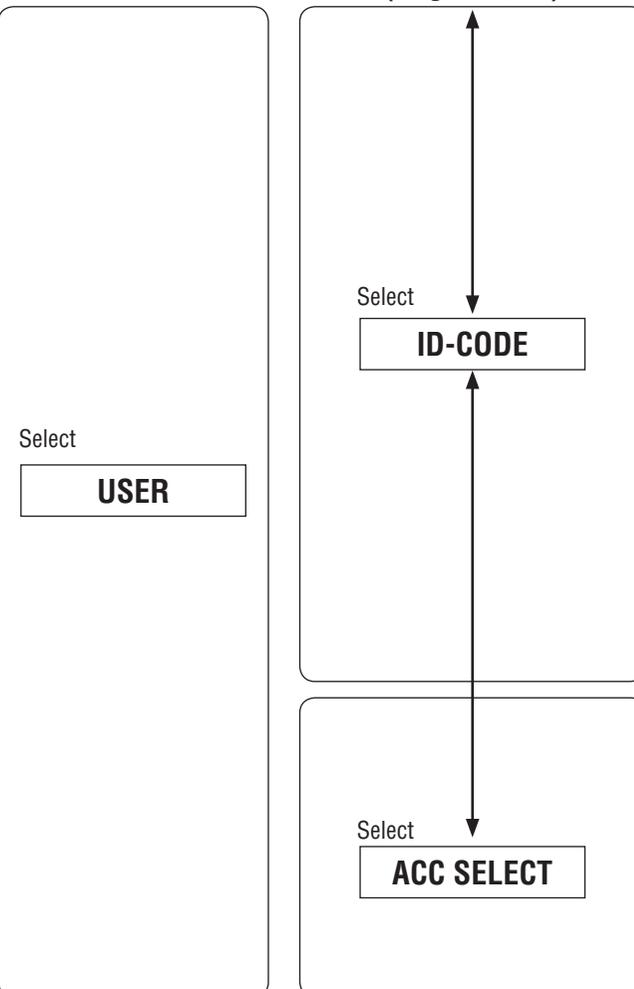
1 Menu

- ① Press [MENU] to display the menu.
- ② Press [←] or [→] to select "USER".

2 Submenu

- ① Press [^] or [v] to select the item.
- ② Press [ENT] (ENTER).

(Page 20, 22)

**ID Code Setting**

Prior to operating this unit, it is advisable to assign a 4-digit ID code for security. Once the ID code has been set, the unit cannot be operated if the main power supply is disconnected then re-connected. It is electrically locked so that a thief cannot use the stolen unit unless that person knows the code you have set. The ID code operation must be performed only by the person to whom the unit begins.

Generally, it is not necessary to enter the ID code each time when using the unit if it has not been disconnected from the main power supply (car battery).

Default: none

ACC Selection ON/OFF

Default: ON

**3 Setting**

- ① Press [←] or [→] to adjust.
- ② Press [ENT] (ENTER) to set. See below to set the ID code.
- ③ Press [SRC/PWR] to exit the menu.

How to set your ID code (for the first time)

- ① Press [^], [v], [←] or [→] to enter a 4 digit code.
- ② Press [ENT] (ENTER) to set.
- ③ Press [^], [v], [←] or [→] to enter a 4 digit code again. "Complete!" is displayed. The ID code setting is completed.

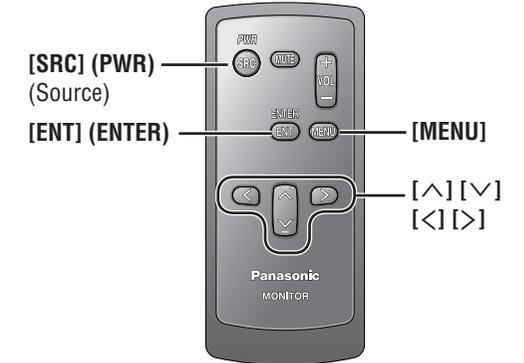
How to change your ID code

- ① Press [^], [v], [←] or [→] to enter the preset (old) 4 digit code.
- ② Press [^], [v], [←] or [→] to enter a new 4 digit code.
- ③ Press [ENT] (ENTER) to set.
- ④ Press [^], [v], [←] or [→] to enter a 4 digit code again.

OFF: set to OFF if your car has no ACC position.
ON: set to ON if your car has ACC position.

Note:

- You cannot turn on the power via the remote control when "OFF" is selected in "ACC SELECT".



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Note:

- Press [MENU] in the setting display to return to the menu display (USER).

How to cancel the known ID code

- ① Press [^], [v], [←] or [→] to enter the preset (old) 4 digit code. If the wrong ID code is entered, it is not possible to cancel the ID code setting display.
- ② Press and hold [ENT] (ENTER) to cancel the known ID code.

Note:

- Should your unit ever require service, cancel your ID code before sending for repair.
- The inputted code is not displayed for your security.

⚠ Caution

- Record your registered ID code and keep it in a secure location. (Fill in the ID code memo. (page 9))

If you forget it, you will be unable to use the unit. In case you forget the ID code, please consult your nearest Panasonic Service Center.

⚠ Caution

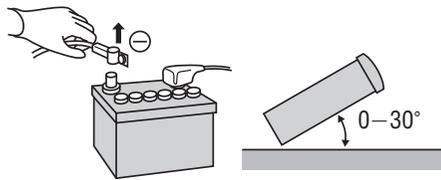
- Be sure to select OFF when your car has no ACC position in the ignition switch. Failure to do this could cause the battery to go dead.

Preparation

⚠ Caution

- Please follow the laws and regulations of your province or country for installation of the unit.
- When bending the mounting tab of the mounting collar with a screwdriver, be careful not to injure your hands and fingers.
- We strongly recommended you to wear gloves for installation work to protect yourself from injuries.

- Disconnect the cable from the negative (–) battery terminal (see caution below).
- The unit should be installed in a horizontal position with the front end up at a convenient angle, but not more than 30°.



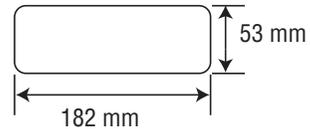
⚠ Caution

- If your car is equipped with air bag and/or anti-theft systems specific procedures may be required for connection and disconnection of the battery to install this product.
- Before attempting installation of this electronic component contact your car dealer or manufacturer to determine the required procedure and strictly follow their instructions.
- FAILURE TO FOLLOW THE PROCEDURE MAY RESULT IN THE UNINTENDED DEPLOYMENT OF AIR BAGS OR ACTIVATION OF THE ANTI-THEFT SYSTEM RESULTING IN DAMAGE TO THE VEHICLE AND PERSONAL INJURY.

Dashboard Installation

Installation Opening

This unit can be installed in any dashboard having an opening as shown below. The dashboard should be 4.5 mm–6 mm thick in order to be able to support the unit.



Installation Precautions

This unit should be installed by a professional installer.
In case of difficulty, please consult your nearest authorized Panasonic Service Center.

- 1 This system is to be used only in a 12 V DC battery system (car) with negative ground.
- 2 Follow the electrical connections carefully (page 32). Failure to do so may result in damage to the unit.
- 3 Connect the power lead after all other connections are made.
- 4 Be sure to connect the battery lead (yellow) to the positive terminal (+) of the battery or fuse block (BAT) terminal.
- 5 Insulate all exposed wires to prevent short circuiting.
- 6 Secure all loose wires after installing the unit.
- 7 Please carefully read the operating instructions of the respective equipment before connecting it to this unit.

Installation Hardware (For Installation)

No.	Item	Diagram	Qty.
①	Trim Plate (YFC054C087CA)		1
②	Mounting Collar (YFX214C433CA)		1
③	Mounting Spring (YFX054C077CA)		2
④	Mounting Bolt (5 mmφ)		1
⑤	Tapping Screw (5 mmφ×16 mm)		1
⑥	Hex. Nut (5 mmφ) (ZZBISVD7001A)		1
⑦	Rear Support Strap (YFG044C002ZA)		1
⑧	Round Head Screw (5 mmφ×6 mm)		2
⑨	Flat-Head Screw (5 mmφ×6 mm)		4
⑩	Round Head Screw (4 mmφ×3 mm) (ZZBISVD7001B)		4

No.	Item	Diagram	Qty.
⑪	Spacer (ZZBISVD7001E)		2
⑫	Double-Faced Adhesive Tape		1 set

Installation Hardware (For Wiring)

No.	Item	Diagram	Qty.
⑬	Power Connector (YAJ024C119CA)		1
⑭	Reverse Extension Cord (WAVS05M6000T)		1
⑮	Clip Connector (YEAT034C012)		1

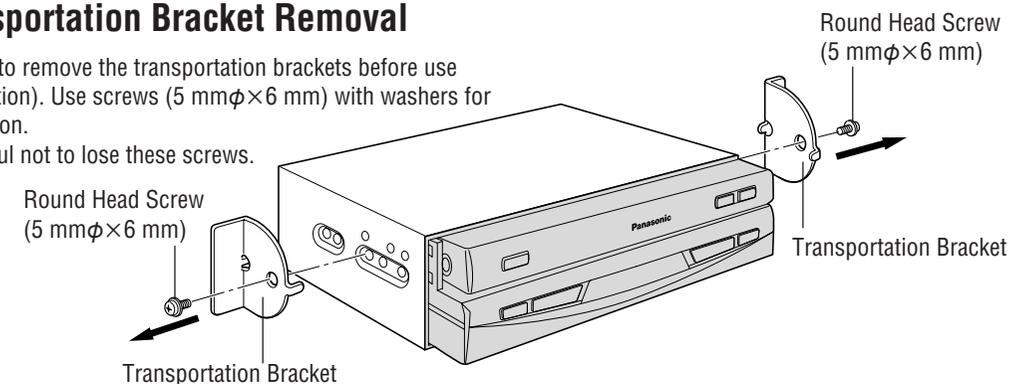
Note:

- The number in parenthesis underneath each accessory part name is the part number for maintenance and service.
- Accessories and their parts numbers are subject to modification without prior notice due to improvements.
- Use the supplied screws for installation exclusively. In case of losing any of them, please order the specific screw.

Transportation Bracket Removal

Be sure to remove the transportation brackets before use (installation). Use screws (5 mmφ×6 mm) with washers for installation.

Be careful not to lose these screws.



Mounting the Unit

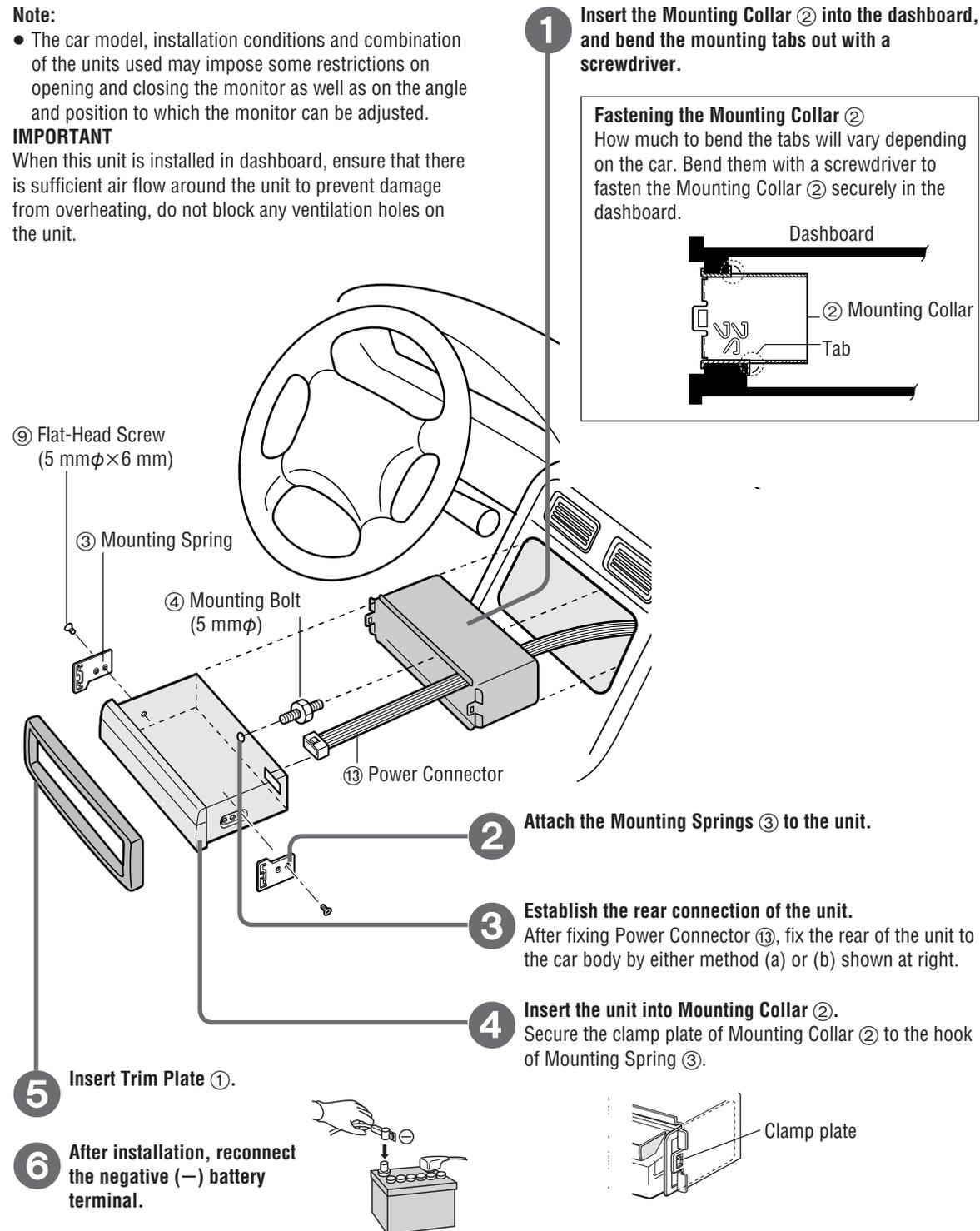
Installation Procedures (When Using Mounting Collar ②)

Note:

- The car model, installation conditions and combination of the units used may impose some restrictions on opening and closing the monitor as well as on the angle and position to which the monitor can be adjusted.

IMPORTANT

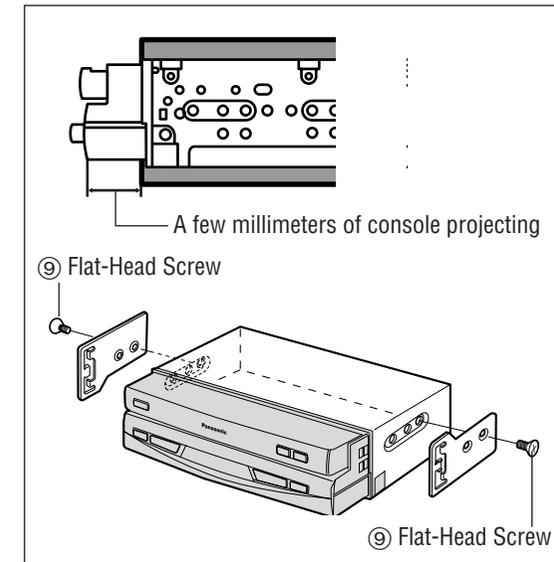
When this unit is installed in dashboard, ensure that there is sufficient air flow around the unit to prevent damage from overheating, do not block any ventilation holes on the unit.



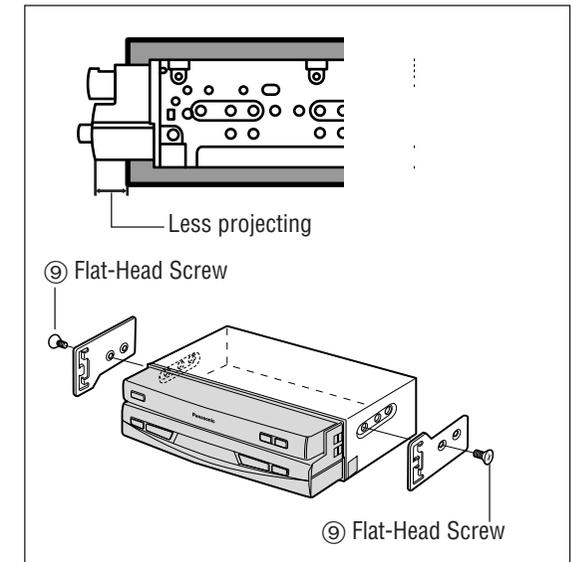
Method for Fixing the Mounting Spring

Two holes of the mounting spring allow you to select between two mounting types as shown below.

(A) Regular Installation Method



(B) Deeper Installation Method

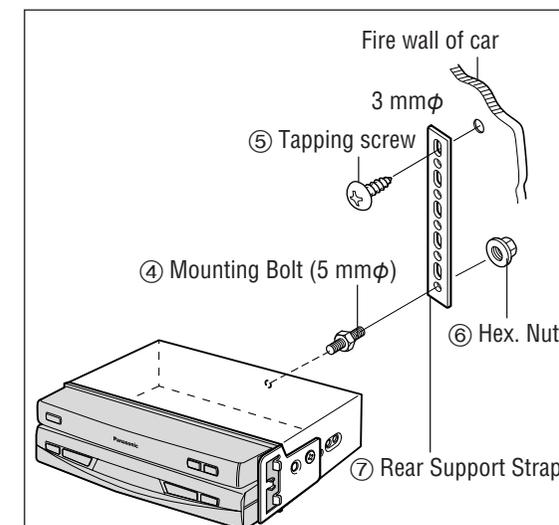


⚠ Caution

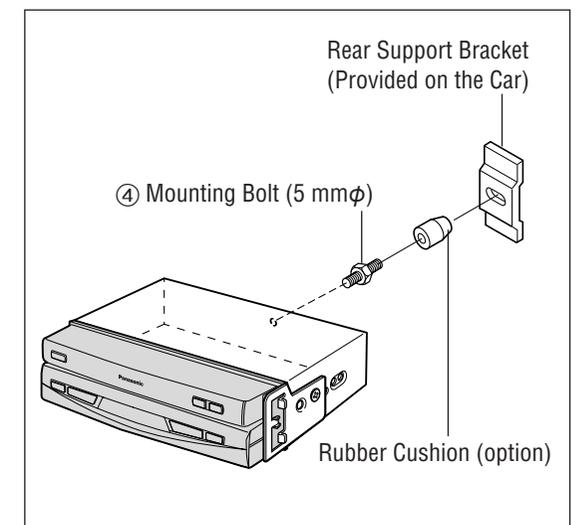
- Method (B) is not available in some types of cars.

Method for Fixing the Rear of the Unit

(a) Using the Rear Support Strap



(b) Using the Rubber Cushion (Option)



Installation Procedures (When Using Mounting Collar ②)

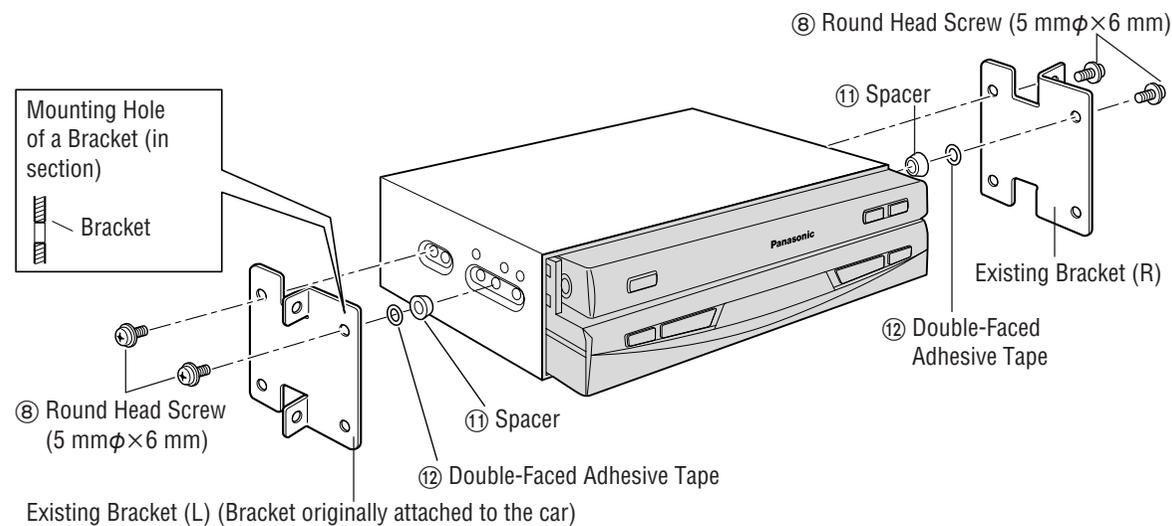
29

Use the brackets supplied with your car when mounting this unit. The bracket shape and mounting method vary with car manufacturers, car types and manufacturing year. Please consult your nearest dealer or installer.

Select mounting screws according to the hole positions and hole shape of the bracket.

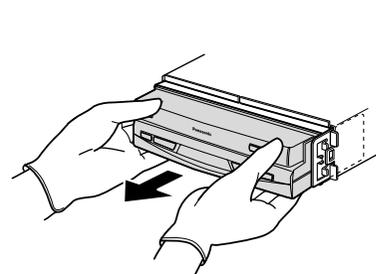
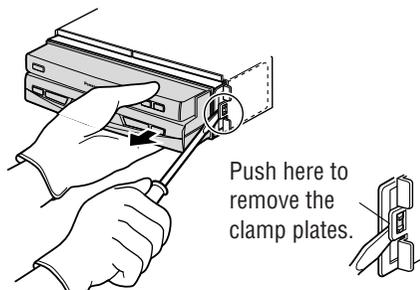
	⑧ Round Head Screw (5 mmφ×6 mm) Recycle the Round Head Screws that fixed the transportation brackets for two more positions.	2 pieces
	⑩ Round Head Screw (4 mmφ×3 mm) 4 pieces	When using these mounting holes
	⑨ Flat-Head Screw (5 mmφ×6 mm)	4 pieces

Use the supplied Spacer ⑪ if mounting hole of your car is shaped like below.



To Remove the Unit

- 1 Push the right and left clamp plates outward, one at a time, and pull the unit toward yourself.
- 2 After removing the right and left clamp plates, pull the unit with both hands till it comes out.



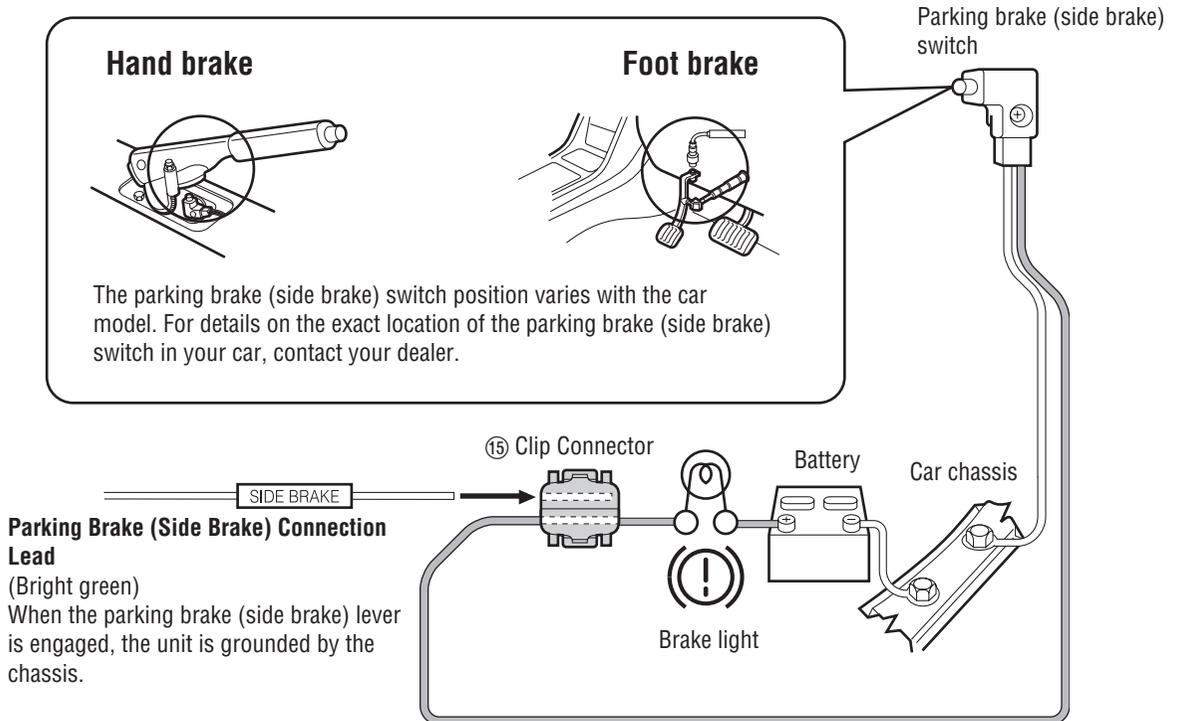
- To remove Trim Plate ①, pull it from right side to left side.

Connecting the Parking Brake (Side Brake) Connection Lead

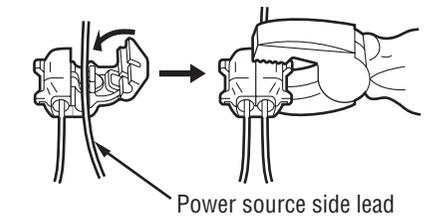
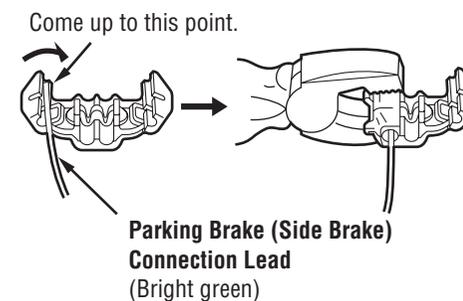
30

⚠ Caution

- For safety, be sure to ask your nearest professional installer to do this connection.



- 1 Attach a Clip Connector ⑮ to the end of the parking brake (side brake) connection lead.
- 2 The Clip Connector ⑮ is connected to the power source side lead of the parking brake (side brake) lever.



Wiring Diagram

31

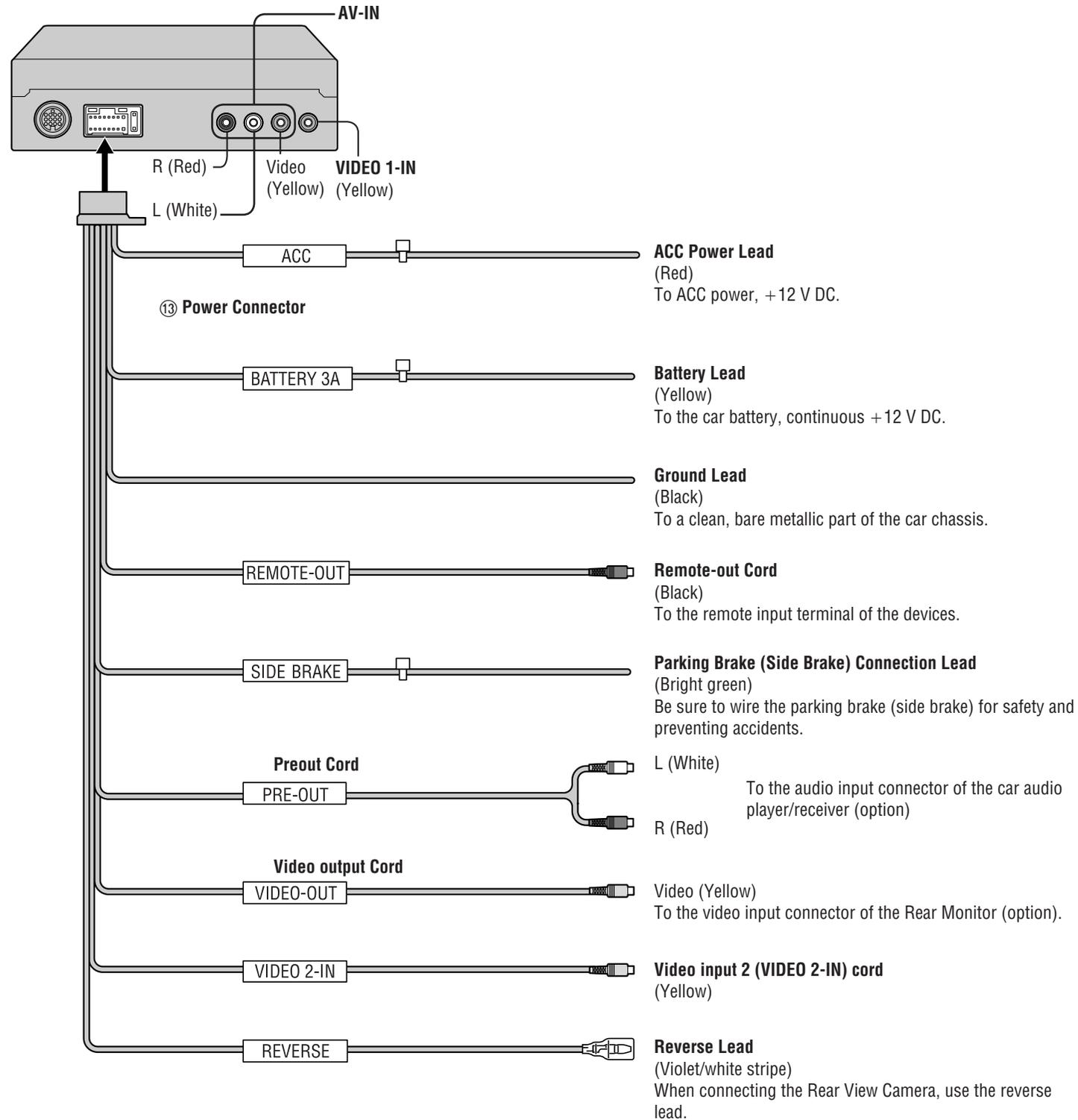
⚠ Caution

- This unit is designed for use in a car having a 12 V negative ground battery system.
- To prevent damage to the unit, be sure to follow the connection diagram.
- Do not insert the power connector into the unit until the wiring is completed.
- Be sure to insulate any exposed wires to prevent short circuiting with the car chassis. Bundle all cables, and prevent cable terminals from touching any metal parts.
- Note that if your car has a driving computer or a navigation computer, disconnecting the cable from the battery may clear the memory.
- Run the cords avoiding the spots where the temperature can be extremely high.

Note:

- Strip about 5 mm of the lead ends for connection.
- Be sure to fully plug in the connectors. Secure them with clamps and tapes.
- All other installation methods require the use of dedicated metal fittings. Consult with a qualified servicing engineer or your dealer if other methods are required.

CY-VM7203W (Rear)



32

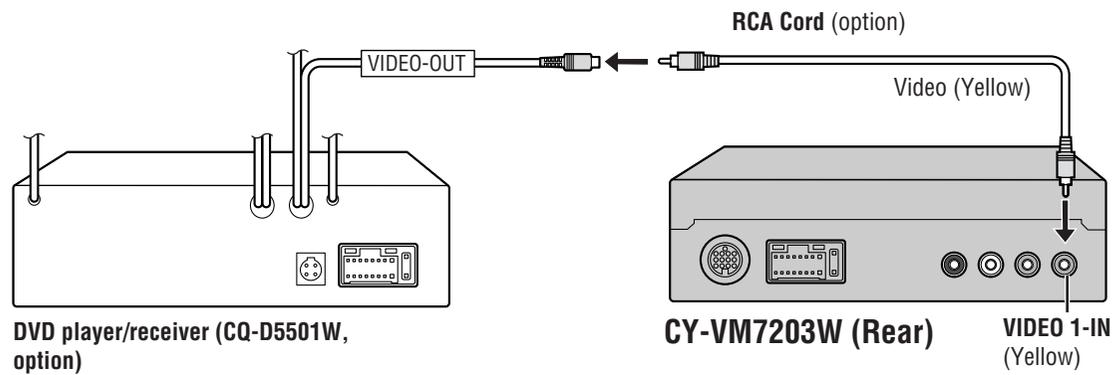
Electrical Connections (continued)

33

Connecting with DVD Player/Receiver (CQ-D5501W)

Note:

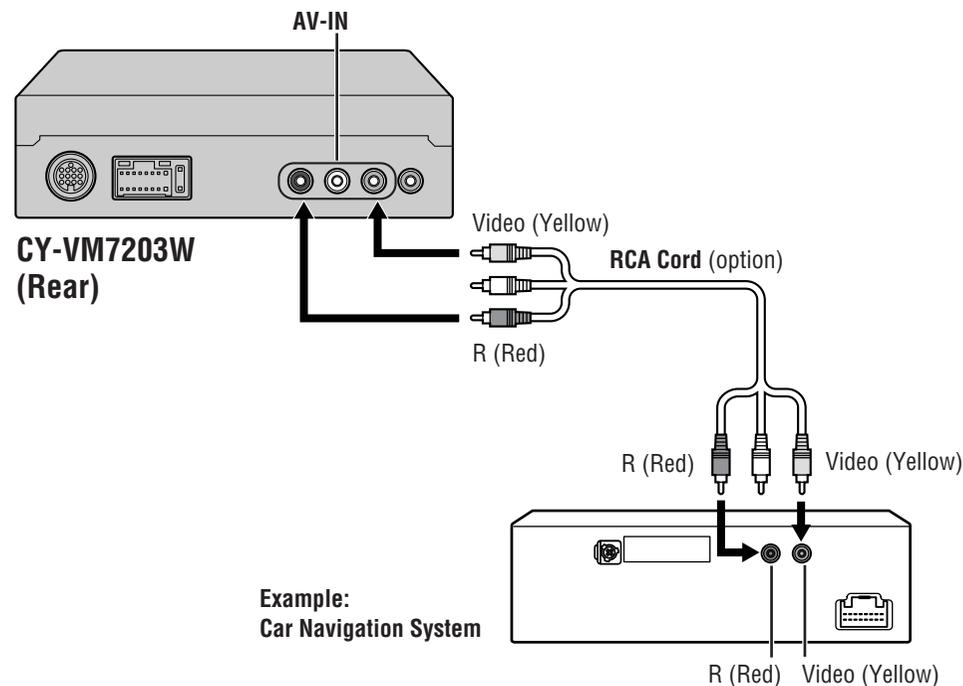
- Refer to the operating instructions for the connected devices, in addition.



Connecting with Car Navigation System

Note:

- Refer to the operating instructions for the connected devices, in addition.
- Set to "AV" when connecting to a non-Panasonic Car Navigation System. (page 21)



34

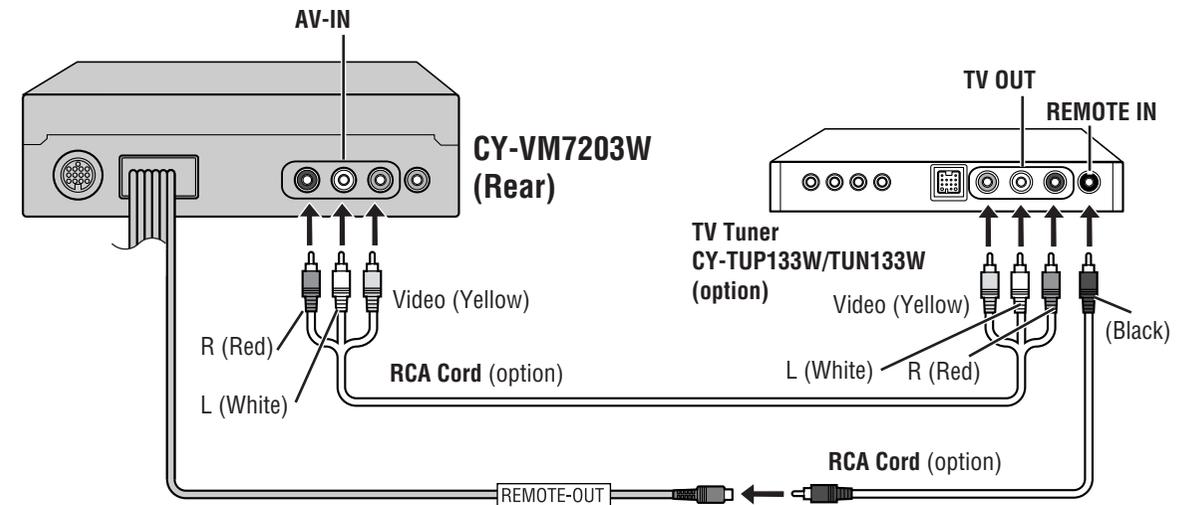
CY-VM7203W

34

Connecting with TV Tuner (CY-TUP133W/TUN133W)

Note:

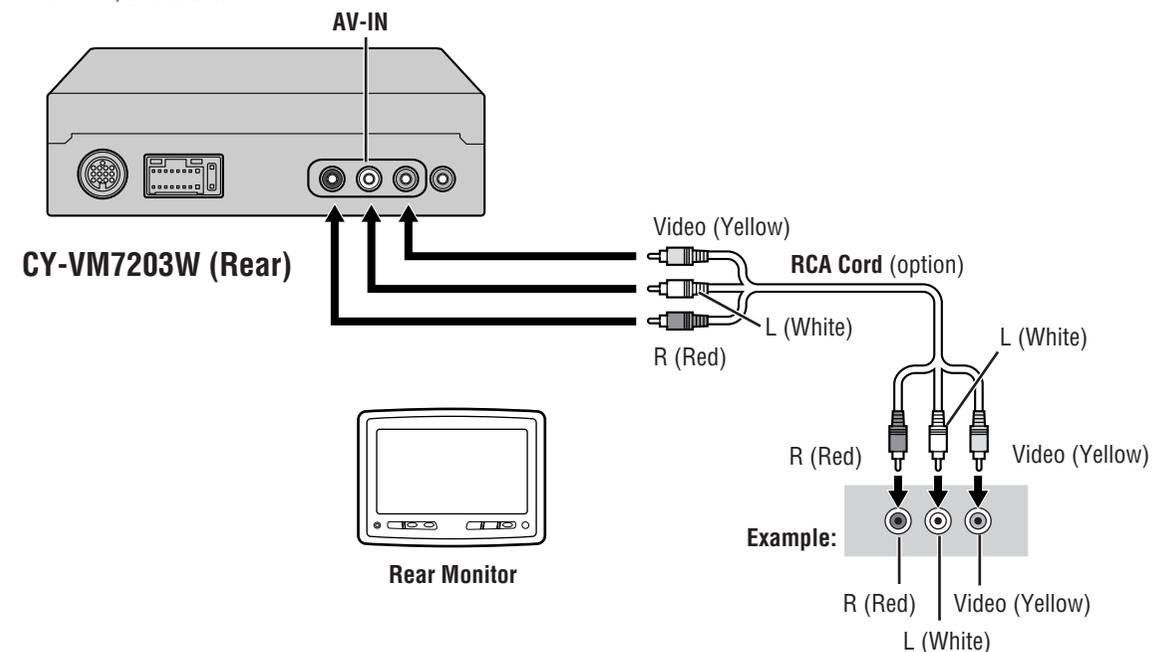
- Refer to the operating instructions for the connected devices, in addition.
- Connect this unit to the TV tuner (CY-TUP133W/TUN133W) with RCA cord (video, audio, remote).
- Before turning off the car engine, first use the remote control to turn off the power for the TV tuner (CY-TUP133W/TUN133W) before turning off the power for this monitor.



Connecting with Rear Monitor

Note:

- Refer to the operating instructions for the connected devices, in addition.



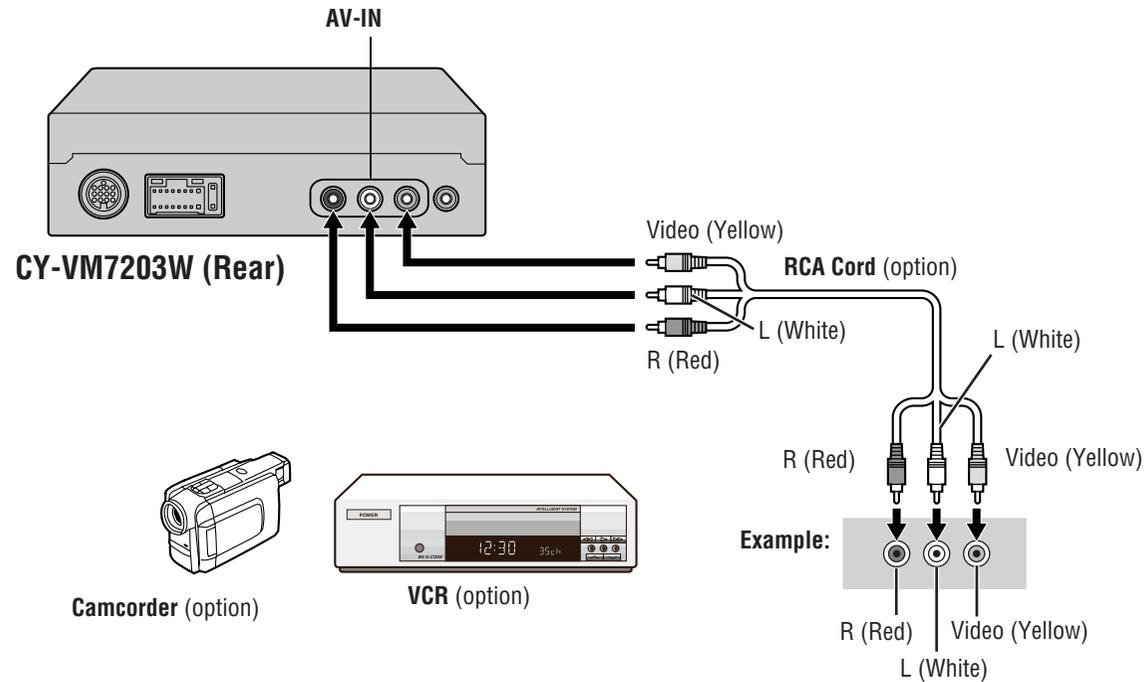
CY-VM7203W

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Connecting with VCR or Camcorder

Note:

- Refer to the operating instructions for the connected devices, in addition.
- Please observe what shapes the connectors of the connecting devices are and where each of them is connected to in order to establish a proper connection.



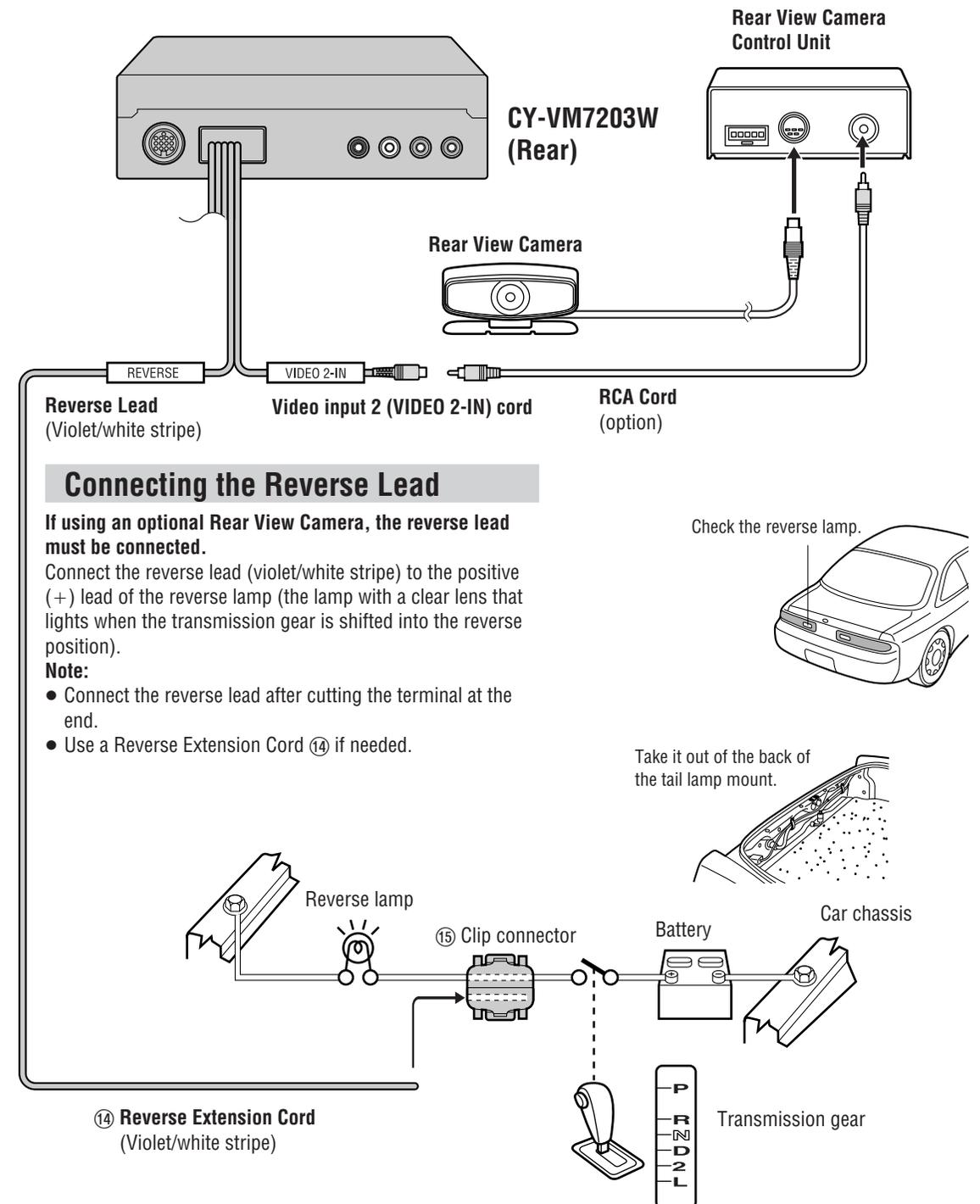
Camcorder (option)

VCR (option)

Connecting with Rear View Camera

Note:

- Refer to the operating instructions for the connected devices, in addition.



Troubleshooting

If You Suspect Something Wrong

37 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 Service Center. 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.

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.

Common

Problem	Possible cause → Possible solution
No power to the unit.	The power cord (battery, power and ground) is connected in the wrong way. → Check the wiring.
	Fuse blows out. → Eliminate the cause of fuse blowout and replace the fuse with new one. Consult your dealer.
Sound is not generated.	MUTE is set to ON. → Set MUTE to OFF.
	The speaker setting is set to “OFF”. → Set the speaker setting to “AUTO” or “NAVI”.
Noise.	There is an electromagnetic-wave generator such as a cellular phone near the unit or its electrical lines. → Keep the electromagnetic-wave generator such as a cellular phone away from the unit and the wiring of the unit. If noise cannot be eliminated due to the wiring harness of the car, consult your dealer.
	The contact of the ground lead is poor. → Make sure that the ground lead is connected to an unpainted part of the chassis securely.
Noise is made in step with engine revolutions.	Alternator noise comes from the car. → Change the wiring position of the ground lead. → Mount a noise filter on the power supply.
Some operations are not executable.	Some operations are not executable in particular modes such as menu mode. → 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.	The safety device works. → Consult your dealer, or your nearest Panasonic Service Center.

Warning

- Do not use the unit in abnormal condition, for example, without sound, or with smoke or foul smell, 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.

Car Navigation, VCR, Camcorder, Rear View Camera, Rear Monitor

The picture from a Car Navigation System is not displayed.	The connection of a Car Navigation System is not correct. → Connect it correctly.
	Input setting of a Car Navigation System is not correct. → Correct the input setting.
The picture from a VCR or Camcorder is not displayed.	A VCR or a Camcorder is not connected correctly. → Connect a VCR or Camcorder correctly.
The picture from a Rear View Camera is not displayed.	Rear View Camera is not connected correctly. → Connect a Rear View Camera correctly.
	Input setting of a Rear View Camera is not correct. → Correct the input setting.

Display Settings

The brightness of the screen is not stable.	“AUTO” dimmer is selected. → Select one of the dimmer levels from among 1 to 4 to make the dimmer adjustment become free from light intensity.
The picture is dark. The picture is whitish. Something is wrong with the picture. The picture is light in color.	The screen is not adjusted properly. → Make every adjustment of the screen.
The display does not go back into the unit.	The monitor stops on the way to the home position. → Press [OPEN] [CLOSE].
Red, blue, or green spots appears.	This is a characteristic of liquid crystal panels and is not a problem.

Remote Control Unit

No response to pressing buttons.	The battery is inserted in the wrong direction. A wrong battery is inserted. → Insert a correct battery in the correct direction.
	The battery is weak. → Replace the battery with new one.
	The aiming direction of the remote control unit is wrong. → Aim the remote control unit at the sensor of the unit and press buttons.
	The sensor is exposed to direct sunlight. (The remote control unit may not be operable when the sensor is exposed to direct sunlight. In such a case, the system is not faulty.) → Block off sunlight to the sensor.

Troubleshooting (Continued)

Product Servicing

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

Replacing the Fuse

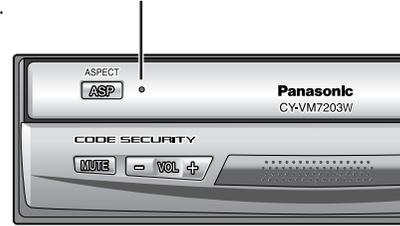
Use fuses of the same specified rating (**3 A**). Using different substitutes or fuses with higher ratings, or connecting the unit directly without a fuse, could cause fire or damage to the unit.

If the replacement fuse fails, contact your nearest Panasonic Service Center for service.

If the Unit Fails to Operate

Reset switch

Insert a hard, slender stick into the hole and push the switch.



IMPORTANT

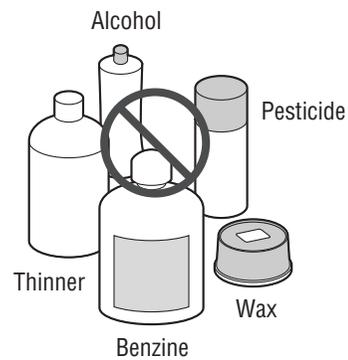
Press the switch only when the unit fails to operate with any buttons. (Stored settings and adjustments are not cleared.) If the unit fails to return to normal condition, call the nearest Panasonic Service Center and ask for repairs.

Note:

- If the ID-CODE has been already set, you will be asked to enter the ID-CODE right after the unit is restarted.

Maintenance

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 benzine, thinner or other solvents.

Cleaning this Unit

When the unit is dirty, wipe the surface of the display using the Wiping Cloth (supplied).

Cleaning without the supplied 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.



Note:

- 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.

⚠ Caution

- If water drops or similar wet substances get inside the monitor, it may cause a malfunction.

Specifications

General

Power supply:	DC 12 V (11 V–16 V), test voltage 14.4 V, negative ground
Current consumption:	Less than 1.0 A
Maximum power output (For built-in speaker):	0.7 W
Video input signal:	Composite video signal, 1.0 Vp-p (75 Ω)
Audio input sensitivity:	2 Vrms
Video output signal:	Composite video signal, 1.0 Vp-p (75 Ω)
Dimensions (W×H×D):	178×50×165 mm
Weight:	1.6 kg

Monitor

Liquid crystal panel:	7 inches wide
Screen dimensions (W×H×D):	143×79×163 mm
Number of pixels:	336 960 pixels (234 vertical×480 horizontal×3)
Valid pixel ratio:	Over 99.99 %
Display method:	Transparent color filter format
Drive method:	TFT (Thin Film Transistor) active matrix format
Light source:	Internal light (Built-in small fluorescent lamp)

Note:

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

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