

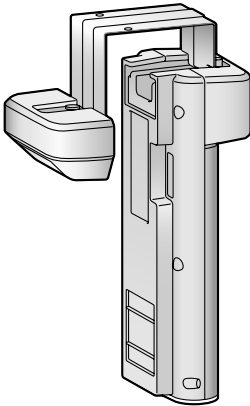
Panasonic®

Operating Instructions

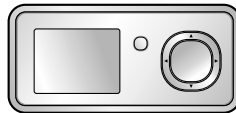
Wireless Door Camera

Model No. **VL-SDM100A**

Including: VL-CM850A
VL-DM100A



VL-CM850A



VL-DM100A

Thank you for purchasing a Panasonic product.

Please read this manual before using the unit and save for future reference.

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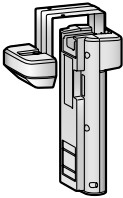

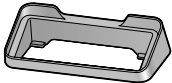
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Product descriptions

Product figure	 VL-CM850A*1	 VL-DM100A*2	
Description in this manual	Wireless Camera	Monitor	Cradle

*1 The Wireless Camera is used by attaching it to the front door of a house or apartment (page 13).

*2 With the Monitor you can easily check your front door with images from the Wireless Camera.

*3 The Cradle is used to hold the Monitor, see page 11.

Accessory information

Supplied accessories

① Double-sided tape*1 ... × 1



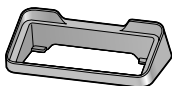
② Hex key*1 ... × 1



③ Screws*1 ... × 2



④ Cradle*2 ... × 1



⑤ Operating Instructions*3 ... × 1



*1 Used for the Wireless Camera and for installation.

*2 Used for the Monitor.

*3 Containing English Operating Instructions, French Operating Instructions, and Spanish Quick Reference Guide.

Note:

- Design and specifications are subject to change without notice.
- The illustrations in these instructions may vary slightly from the actual product.

License:

- Portions of this software are based in part on the work of the Independent JPEG Group.

Trademarks:

- All other trademarks identified herein are property of their respective owners.

Introduction

This product is not designed to be used to prevent theft or intrusions. Panasonic assumes no liability for any accidents or damages occurring in such cases.

For your safety

To prevent severe injury and loss of life/property, read this section carefully before using the product to ensure proper and safe operation of your product.

WARNING

Power connection

- Use only the power source marked on the unit. If you are not sure of the type of power supplied to your home, consult your dealer or local power company.
- Do not overload power outlets and extension cords. This can result in the risk of fire or electric shock.
- Completely insert the power plug into the power outlet. Failure to do so may cause electric shock and/or excessive heat resulting in a fire.
- Regularly remove any dust, etc. from the power plug by pulling it from the power outlet, then wiping with a dry cloth. Accumulated dust may cause an insulation defect from moisture, etc. resulting in a fire.
- If the unit emits smoke or an abnormal smell, or makes an unusual noise, immediately unplug the power plug from the power outlet. These conditions can cause fire or electric shock. Confirm that smoke has stopped and contact an authorized service center.
- Never touch the plug with wet hands. Danger of electric shock exists.

Installation

- Do not use the unit in areas that are exposed to rain, moisture, steam, or oily smoke, or areas that have excessive dust. This may cause fire or electric shock.
- Do not install or use this product near automatically controlled devices such as automatic doors and fire alarms. Radio waves emitted from this product may cause such devices to malfunction resulting in an accident.
- Do not perform any actions (such as damaging, altering, exposing to heat sources, or placing heavy objects on the electrical parts and the power plug) that may damage the electrical parts and the power plug. Using the unit with damaged electrical parts or a damaged power plug may cause electric shock, short circuits, or fire. Contact an authorized service center for repairs.

Operating safeguards

- To reduce the risk of electric shock, do not disassemble this unit. Refer servicing to an authorized service center when service is required. Opening covers may expose you to dangerous voltages or other risks. Incorrect reassembly can cause electric shock when the unit is subsequently used.
- Do not touch the Monitor, electrical parts, or the power plug during an electrical storm. There may be a remote risk of electric shock from lightning.
- Never spill any liquids on the unit or get the unit wet in any way. This may cause fire, electric shock, or injury. If the unit becomes wet, immediately unplug the power plug from the power outlet and refer servicing to an authorized service center.
- Never spill any liquids on the electrical parts or power plug, or get the electrical parts or power plug wet in any way. This may cause fire, electric shock, or injury. If the electrical parts or power plug becomes wet, immediately unplug the power plug from the power outlet and refer servicing to an authorized service center.
- Unplug this unit from power outlets and refer servicing to an authorized service center if the power cord becomes damaged or frayed.
 - If the Monitor has been exposed to rain or water, or liquid has been spilled into the unit. Do not use a microwave oven to speed up the drying process of any parts of the unit to avoid permanent damage.
 - If the unit has been dropped or physically damaged.
- Do not place the unit in a microwave oven or other devices such as electromagnetic cookers. This may cause heat or smoke to be generated, fire, or an explosion.

Important Information

Medical

- Consult the manufacturer of any personal medical devices, such as pacemakers or hearing aids, to determine if they are adequately shielded from external RF (radio frequency) energy. (The unit operates in the frequency range of 1.92 GHz to 1.93 GHz, and the RF transmission power is 115 mW (max.).)
- Do not use the unit in health care facilities if any regulations posted in the area instruct you not to do so. Hospitals or health care facilities may be using equipment that could be sensitive to external RF (radio frequency) energy.

Installation and relocation

- The power plug is used as the main disconnect device. Ensure that the power outlet is installed near the product and is easily accessible.
- Make sure to have sure footing when attaching or taking off the unit. Tripping over or falling down may cause injury.

Dry-cell battery

- Do not come into contact with the electrolyte from the batteries or let it get in your eyes if liquid is leaking from the batteries. This may cause loss of sight. Should the electrolyte from the batteries get into your eyes, do not rub your eyes. Immediately flush your eyes with clean water and see a doctor for medical treatment as soon as possible.
- In order to prevent the risk of heat generation, fire, an explosion, or leaking liquids, do not do the following.
 - Charge, heat up, or disassemble batteries, or dispose of batteries in the fire.
 - Connect metal objects to batteries' terminals.
 - Carry or store the batteries together with rings, bracelets, keys, or similar objects.
 - Use old and new batteries or batteries of different types together.
- Do not place the batteries within reach of children. There is a risk that children may swallow batteries. If you suspect that a child has swallowed a batteries immediately seek consultation with a medical practitioner.
- In order to prevent the risk of heat generation, an explosion, or leaking liquids, immediately remove batteries that cannot be used, remove batteries when not using the unit for extended periods, and do not insert batteries with incorrect polarities.

CAUTION

Installation and relocation

- In order to prevent the risk of injury from the unit falling, do the following.
 - Always follow the attachment procedures listed in this manual.
 - Attach the Wireless Camera securely to the door.
 - Remove the battery case when exchanging batteries.
 - Do not use excessive force when closing the door.
 - Never use the unit in an unstable place or a place that is exposed to strong vibrations.

Dry-cell battery

- Only use specified batteries. Using unspecified batteries may cause leaking fluids, heat generation, or an explosion.

Important safety instructions

When using this unit, basic safety precautions should always be followed to reduce the risk of fire, electric shock, or personal injury.

- Do not use this unit near water. For example, near a bathtub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like.
- Do not dispose of the batteries in a fire. They may explode. Check with local waste management codes for special disposal instructions.

SAVE THESE INSTRUCTIONS

For best performance

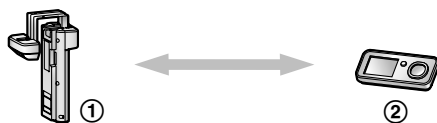
Before using

- It is prohibited to disassemble or modify this unit. Contact the dealer where you purchased this unit for repair.
- When power fails, this unit cannot be used.
- Panasonic may not be able to take liability for damages due to external factors such as power failures.

Location (Wireless Camera/Monitor)

The Wireless Camera (①) and Monitor (②) use radio waves to communicate with each other.

use within 70 m (229 ft 8 in.)
(with no obstructions)



- For maximum distance operation, we recommend the following:
Placing the Monitor away from electrical appliances such as:
 - TVs
 - Radios
 - Personal computers
 - Air conditioners
- Coverage depends on the local environmental conditions.

Environment

- Keep the unit away from electrical noise generating devices, such as fluorescent lamps and motors.
- The unit should be kept away from excessive smoke, dust, high temperature and vibration.
- The unit should not be exposed to direct sunlight.
- Do not install the Wireless Camera in areas where there is a backlight (the visitors' faces appear dark and are hard to recognize), or areas that create hydrogen sulfide (this may cause a malfunction).
- Do not install the Wireless Camera in areas where it can be directly exposed to the elements (this may cause a malfunction).
- Do not place heavy objects on top of the unit.
- When you leave the unit unused for a long period of time, unplug it from the power outlet. In this situation, we recommend that you turn the power for the Wireless Camera off in order to conserve the batteries' energy.
- The unit should be kept away from heat sources such as heaters, kitchen stoves, etc. It should not be placed in rooms where the temperature is less than 5 °C (41 °F) or greater than 40 °C (104 °F). Damp basements should also be avoided.
- Even when the Monitor and Wireless Camera are within 70 m (229 ft 8 in.), if there obstructions such as the ones below, problems such as signals becoming weak, distorted images, and slow image

Important Information

refresh rates may occur, causing the Monitor and Wireless Camera to not be able to be used together. (See page 12 for information about the signal display.)

- walls with an insulation material that contains aluminum foil
 - walls made of concrete or galvanized iron
 - when each device (Wireless Camera and Monitor) is used on a different floor
 - double insulating glass or metallic shutters
 - places where several walls are separated by open space
- Operating the product near electrical appliances may cause interference. Move away from the electrical appliances.

Other information

Caution

- Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

Privacy and rights of portrait

When installing or using the Wireless Camera, please take into consideration the rights of others with regard to privacy.

- It is generally said that “Privacy” means the ability of an individual or group to stop information about themselves from becoming known to people other than those whom they choose to give the information. “Rights of portrait” means the right to be safe from having your own image taken and used indiscriminately without consent.

Others

- Panasonic assumes no liability for injuries or property damage resulting from failures arising out of improper installation or operation inconsistent with the Operating Instructions.
- If you stop using the Wireless Camera, remove the Wireless Camera from the door to prevent them from falling off.

Requesting repairs for the unit

- During repairs the unit's settings may be changed or returned to the default settings.

Note for product disposal, transfer, or return

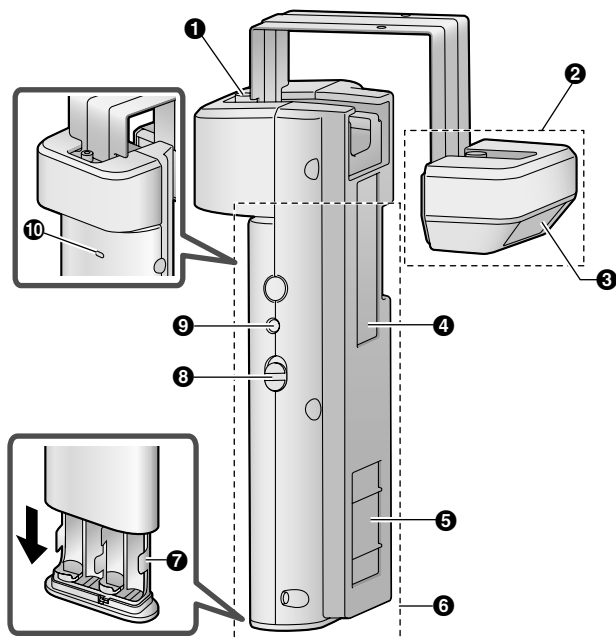
- Perform “**RESET SETTINGS**” with the Monitor before you dispose of, transfer, or return the product.

Notice (for users in the United States Only)

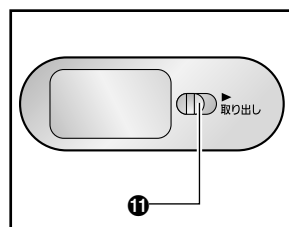
- This product is designed for use in the United States of America. Sale or use of this product in other countries may violate local laws.
- Cet appareil est conçu pour être utilisé aux États-Unis d'Amérique. La vente ou l'emploi de cet appareil dans certains autres pays peut constituer une infraction à la législation locale.
- Este producto está diseñado para usarse en los Estados Unidos de América. La venta o el empleo de este producto en ciertos países puede constituir violación de la legislación local.
- 本產品專為美國使用而設。若在其他國家銷售或使用，可能會違反當地法例。
- この製品は、日本国外での使用を目的として設計されており、日本国内での使用は法律違反となります。従って、当社では日本国内においては原則として修理などのサービスは致しかねます。

Location of controls

Wireless Camera



● Bottom view



- ❶ Fixing screw
- ❷ Camera unit
- ❸ Camera lens
- ❹ Cable protection sheet
 - Do not remove this sheet.
- ❺ Magnet/rubber
 - The magnet and rubber are used to stop the Wireless Camera from moving.
- ❻ Wireless unit
- ❼ Battery case
- ❽ Power slide switch (ON/OFF)
 - The batteries run out of power faster in the following situations. Turn the power slide switch OFF in these situations.
 - In situations such as when you are away from home for extended periods of time and you disconnect the power to the Monitor.
 - During electrical power failures.
- ❾ Pair button (Not normally used.)
 - Only used when pairing must be performed again for repairs or product exchanges (page 25).
- ❿ Pair indicator
 - Flashes/lights when pairing (not normally performed).

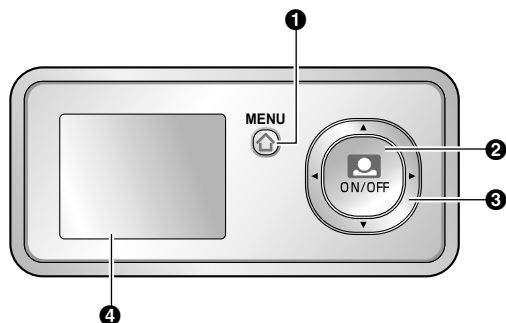
Getting Started

- When you turn the Wireless Camera's power ON, you can check the pair indicator to check if the power is actually turned on (page 15).

11 Slide lever

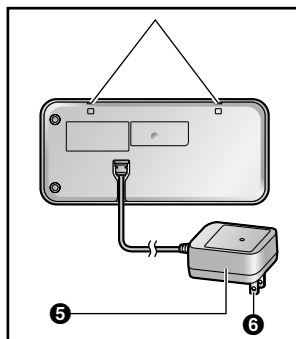
- Use the slide lever when removing the battery case.

Monitor



• Bottom view

The Monitor can be hung from a wall by passing straps through the holes.





1 Menu button

2 Monitor button

- Used to monitor the area outside the door (page 19).
- Used to perform operations displayed by the operation guidance.

3 Navigator key

Used to select items or perform operations displayed by the operation guidance.

	[▲]/[▼]	Press [▲] (up) or [▼] (down).
	[◀]/[▶]	Press [◀] (left) or [▶] (right).

4 Monitor display

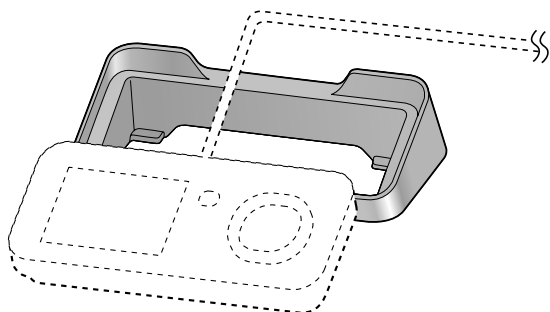
5 Electrical parts

6 Power plug

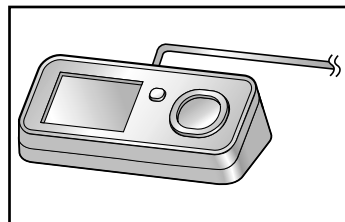
Cradle

Use the Cradle to hold the Monitor.

- Pass the power cord through the groove in the Cradle.



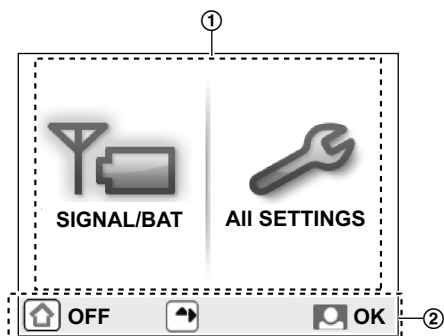
- When the Monitor is placed on the Cradle.



Monitor display

- The following display is an example for description purposes, and it may differ from the actual display.
- To display the top menu when it is off (not displayed), press **[MENU]**.

Top menu



When displaying images



- ① Displays the menu names for items that can be operated.
 “**SIGNAL/BAT**”: Use this menu to display the status of the wireless signal and batteries (page 12).
 “**ALL SETTINGS**”: Use this menu to change settings (page 21).
- ② Operation guidance
 Displays what actions the buttons can be used for and guidance for operations.
 - The operation guidance can be configured not to be displayed when monitoring (page 21).
- ③ Displays the current status with symbols.

	Displayed when displaying the Zoom display (page 19). The displayed arrows indicate which direction the Zoom position can be moved when displaying the Zoom display.
	Displayed when the signal between the Monitor and Wireless Camera is weak.

Getting Started



Displayed when there is not much power remaining in the batteries of the Wireless Camera.

Signal/battery information

You can display and check the signal and remaining battery power of the Wireless Camera and Monitor with the following operations.

- 1 Press **[MENU]**, then select “**SIGNAL/BAT**” by pressing **[◀]** or **[▶]**.
- 2 Press **[OK]** (Monitor button) (“**OK**”).
- 3 Press **[▶]** (“**RENEW**”) to display the latest signal status and remaining battery power information.
- 4 To finish the operation, press **[MENU]** 2 times.

Note:

- The **[MENU]** button will light in red to inform you when the signal is weak or if the remaining battery power is running low. If the **[MENU]** is pressed at this time, the light goes out and the signal/battery information screen is displayed.

Signal status symbols

Good



Bad



Out of range



*1 Use within this range.

Note:

- When the Wireless Camera or Monitor is out of range, move the Monitor to an area with a good signal.

Remaining battery power symbols

Lots



Little




Out of power



*1 Use within this range.

Note:

- When the batteries of the Wireless Camera run out of power, exchange them with new batteries (page 15, 22).
- When the Wireless Camera is  (Out of range), the remaining battery power symbol of the Wireless Camera is not displayed.

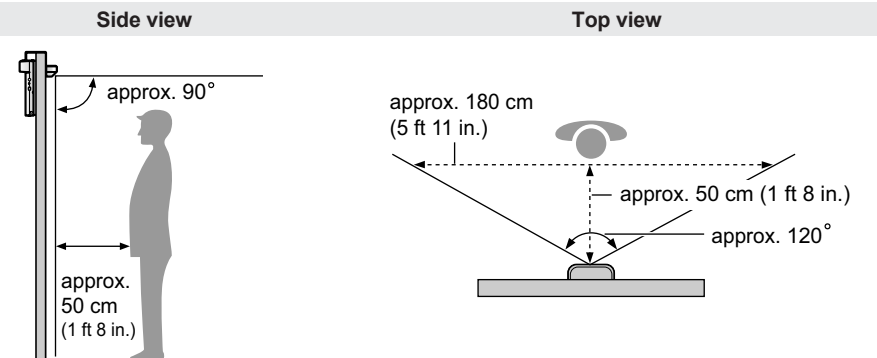
Attaching the Wireless Camera

Before attaching the Wireless Camera (Installation preparation)

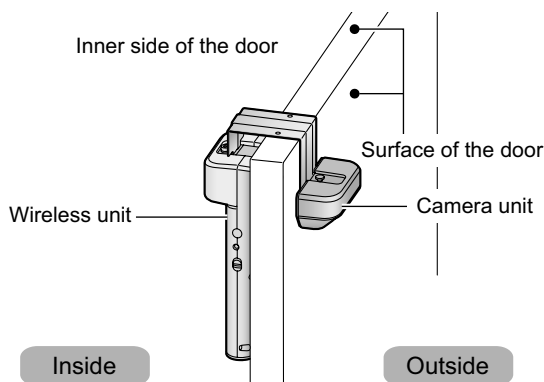
Wireless Camera range

- Views when the camera is set "WIDE" (default).

When using with a door with a height of 2 m (6 ft 7 in.)



Attaching the Wireless Camera to a door



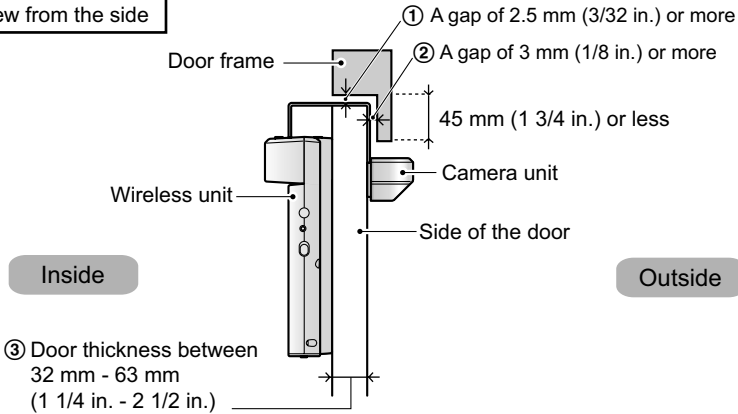
- Attach the wireless camera to a door in a protected area that is not directly exposed to the elements, such as under a roof or eave.
- Connect the Monitor to the power outlet and turn it on.
- Attach the Wireless Camera to a flat area on the surface on the door.
- Wipe dirt and moisture from the surface of the door where the Wireless Camera will be attached.
- Remove the protection film from rear side of the wireless unit.

Getting Started

Doors the Wireless Camera can be attached to

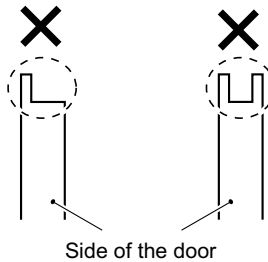
- **Steel doors that open to the inside that meet the following requirements.**
 - A gap of 2.5 mm (3/32 in.) or more for ① and 3 mm (1/8 in.) or more for ② between the door and door frame.
 - A door with a thickness of between 32 mm - 63 mm (1 1/4 in. - 2 1/2 in.) (③).

View from the side



Note:

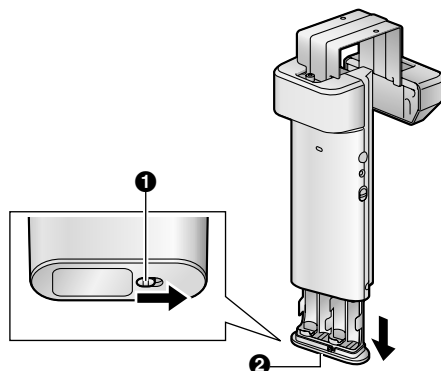
- The Wireless Camera cannot be attached to the following doors.
 - Sliding doors
 - Doors that open to the outside
 - A door with a protrusion such as a guard plate, or a cavity



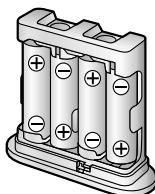
Inserting batteries into the wireless unit

Before attaching the Wireless Camera to the door, insert the batteries by performing the following procedure.

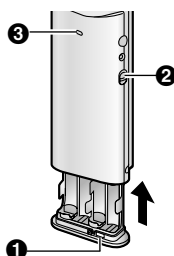
- Slide the slide lever (1) across and take out the battery case (2) from the wireless unit.
 - Be careful not to drop the battery case when taking it out.



- Insert the batteries.
 - 4 Alkaline AA (LR6) batteries
 - Do not mix old and new batteries or batteries of different types.
 - Make sure that the polarity (+, -) of the batteries is correct.



- Insert the battery case into the wireless unit.
 - Firmly push the battery case into the wireless unit until the red label (1) cannot be seen.



- Slide the power slide switch (2) for the power to ON.
 - You can check if the power is actually on by confirming that the register indicator (3) changes from flashing to not lit.

Note:

- Batteries have a shelf-life. Check the shelf-life listed on the batteries before using them.

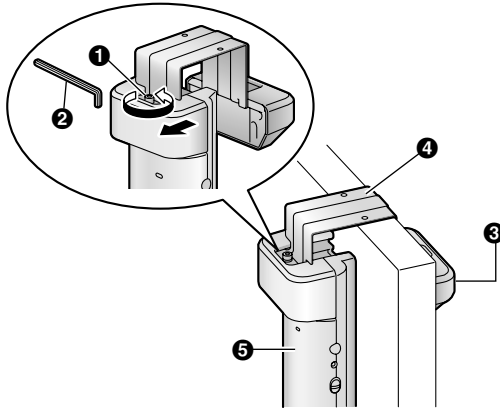
Getting Started

- Use Alkaline AA (LR6) batteries. The batteries' lifetime will be reduced if different types of batteries are used together.
- To prevent the Wireless Camera from falling down when replacing the batteries, make sure to close the door and turn off the power of the Wireless Camera before replacing batteries.

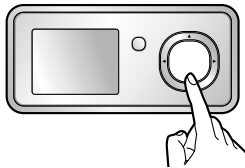
Attaching the Wireless Camera to a door

Note:

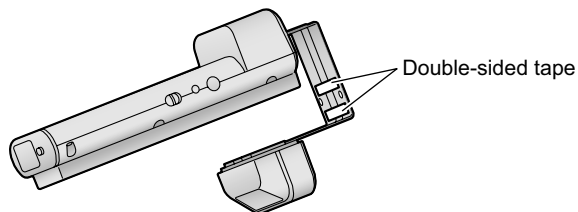
- Be careful not to get your fingers caught in the door when attaching the Wireless Camera.
- 1 Loosen the wireless unit's fixing screw (❶) with the included hex key (❷), and then hang the Wireless Camera from the door.
 - Do not take the fixing screw (❶) off, just loosen it.
 - Position the Wireless Camera so that visitors can be centrally viewed when monitoring.



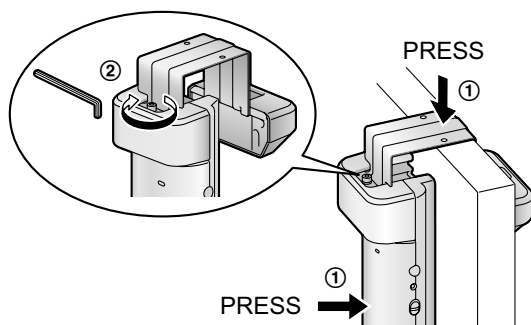
- 2 Holding the camera unit (❸), adjust the position of the metal plate (❹) so that the distance between the wireless unit (❺) and camera unit (❸) matches the width of the door, then temporarily fix the Wireless Camera into position by gently tightening the fixing screw (❶).
- 3 Check that the metal plate (❹) of the Wireless Camera does not hit against the door frame when opening or closing the door.
- 4 Check that the Wireless Camera is in a suitable position.
 - Check images from the Wireless Camera on the Monitor, and adjust the position of the Wireless Camera as necessary.



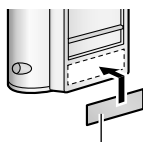
- 5** Carefully take the Wireless Camera off the door without loosening the fixing screw, and then remove the silicon paper from the double-sided tape on the back of the metal plate.
- Wipe dirt and moisture from the surface of the door, then attach the Wireless Camera to a flat area on the surface of the door.



- 6** Hang the Wireless Camera from the position confirmed in step 4, then press the Wireless Camera into the door so that the double-sided tape on the back of the metal plate and wireless unit sticks to the door (①). Make sure that there are no gaps between the top of the door and the metal plate.



- Check that the wireless unit does not easily move around when the door is closed.
- Perform the following when the double-sided tape does not stick well to the door and the Wireless Camera moves around easily.
 - Remove the Wireless Camera from the door.
 - Loosen the fixing screw, widen the distance between camera unit and wireless unit, and then stick the additional double-sided tape to the back of the wireless unit.

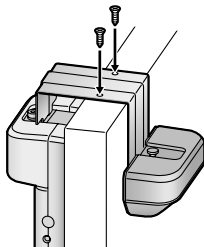


Double-sided tape (included)

- Remove the silicon paper from the double-sided tape, then hang the Wireless Camera from where it was positioned before.
 - After pressing the wireless unit into the door so that it sticks to the door, adjust the position of the metal plate so that the distance between the wireless unit and camera unit matches the width of the door while holding the camera unit.
- 7** Close the door, then firmly tighten the fixing screw (②) while holding the wireless unit to stop it from moving.
- Hold the long part of the hex key and firmly tighten the fixing screw.
 - Check that the fixing screw has not become loose at regular intervals.

Getting Started

- If the door is made of wood, make sure to use the included screws to fix the metal plate to the top side of the door. Make sure to get permission from the owner before fixing screws to the door.



Important:

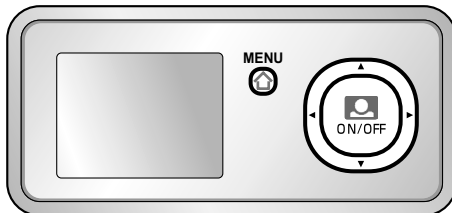
- Because the Wireless Camera uses double-sided tape with strong adhesion to prevent it from falling down, care is needed when removing the Wireless Camera from the door. (Forcibly removing the double-sided tape may damage the surface of the door.)



Monitoring the outside

You can monitor the images from outside taken by the Wireless Camera.

You can perform the following operations during monitoring:

- Switching between Wide/Zoom (page 19)
- Adjusting brightness (display) (page 19)



- 1 Press  (Monitor button).
 - The outside image will be shown on the display.
- 2 To end operations, press  (Monitor button).

Note:

- Monitoring lasts for about 20 seconds after  (Monitor button) is pressed. However, if operations are performed during monitoring, monitoring can be extended to a maximum of 3 minutes.
- At night or at other times when the area around the Wireless Camera becomes dark, the image quality may be reduced.

Adjusting brightness (display)

- 1 Press **[MENU]** while monitoring.
- 2 Press **[◀]** or **[▶]** to adjust the brightness.

Manipulating displayed images with Wide/Zoom and Pan/Tilt


During monitoring, the display can be temporarily switched between Wide/Zoom, and the Zoom position can be changed with pan/tilt operations.

Wide display
(default setting)












Zoom display

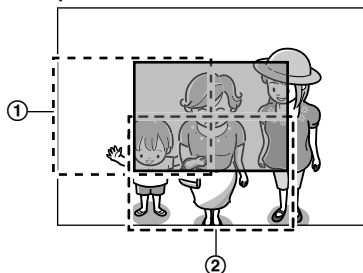


- 1 Press and hold  (Monitor button) for about 3 seconds when in the Wide display.
 - The display is switched to the Zoom display.



How to use

- To switch back to the Wide display, press and hold  (Monitor button) for about 3 seconds again.
- 2 To change the Zoom position with Pan/Tilt, press , , , or  when in the Zoom display.
- The Zoom position changes each time , , , or  is pressed.

Example:



In the illustration above, the Zoom position is shown in gray.

- Press  1 time: the Zoom position is moved to (①).
 - Press  1 time: the Zoom position is moved to (②).
- The Zoom position can be moved in the direction of the symbols shown on the screen.



Note:

- Performing the above operations only temporarily switches between Wide/Zoom displays. Therefore, images will be displayed according to the default settings the next time images are monitored. To change the default settings, change “**WIDE/ZOOM SETTINGS**” (page 21).
- When the Zoom position is changed, it is retained and used the next time images are monitored.

Programming function settings

You can change the function settings to suit your needs.

How to change the function settings

- 1 Press **[MENU]**, then select the “**ALL SETTINGS**” by pressing **[◀]** or **[▶]**.
- 2 Press **[MON]** (monitor button) (“OK”), then select the desired item by pressing **[▲]** or **[▼]**.
- 3 Press **[MON]** (monitor button) (“OK”).
- 4 Press **[▲]** or **[▼]** to select the desired setting, then press **[MON]** (monitor button) (“OK”).
 - This step may vary depending on the feature being programmed.
- 5 Press **[▲]** or **[▼]** to select the desired setting, then press **[MON]** (monitor button) (“OK”).
- 6 To finish the operation, press **[MENU]** 2 times.

Note:

- When no operation is performed for about 60 seconds during settings, the setting function quits.

Function list

In the following list, < > indicates the default settings.

Item	Function	Setting
START-UP SETTINGS	MOTTLED COLOR PREVENT	<POWER FREQUENCY (60Hz)> / POWER FREQUENCY (50Hz) ● To prevent mottled or uneven color from being displayed, set the power frequency to match the area in which you use the unit.
	LANGUAGE SELECTION	<ENGLISH> / FRENCH / SPANISH / ARABIAN
DEFAULT DISP SETTINGS	WIDE/ZOOM SETTINGS	<WIDE> / ZOOM ● Select how images are initially displayed: Wide or Zoom.
	CONTRAST	When it is difficult to see the monitor display, you can adjust the display contrast. 5 levels are available.
	OPERATION GUIDANCE	<YES> / NO ● Select NO if you do not want the operation guidance (page 11) to be displayed when viewing Wireless Camera images.
SAVE CAMERA BATTERIES	–	<OFF> / ON ● Select ON to lengthen the time that the batteries can be used for. (However, by selecting ON, the time it takes to display images when monitoring may increase.)
RESET SETTINGS	–	YES / NO ● If YES is selected, the Monitor settings are initialized. – Initialization cannot be performed when the Wireless Camera is out of range. Only perform initialization when the Wireless Camera is within signal range.

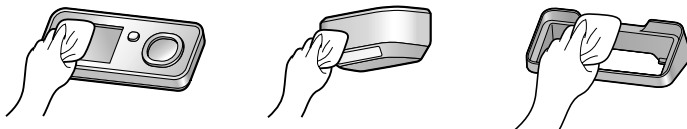
Replacing batteries

When the batteries of the Wireless Camera run out of power (), exchange them with new batteries.

- ONLY USE Alkaline AA (LR6) batteries.
- Refer to page 15 for information on how to insert batteries.
- **To prevent the Wireless Camera from falling down, make sure to close the door and turn off the power of the Wireless Camera before replacing batteries.**

Cleaning

- Clean the unit with a soft, dry cloth. For excessive dirt, wipe the unit with a slightly damp cloth.



- When cleaning the Monitor and its electrical parts and power plug, make sure to unplug the power plug from the power outlet.

Important:

- Do not use anything containing alcohol, polish powder, powder soap, benzine, thinner, wax, petroleum, or boiling water. Also do not spray with insecticide, glass cleaner, or hair spray. This could cause a change in color or quality.

Troubleshooting

Display issues

Problem	Cause & Solution	Page
Images appear slightly distorted.	<ul style="list-style-type: none"> This is a characteristic of camera lenses and is not a malfunction. 	–
The image of a person's face is dark.	<ul style="list-style-type: none"> When there is a backlight in the place where the Wireless Camera is located, the person's face becomes dark. <ul style="list-style-type: none"> Adjust the brightness of the display while monitoring. 	19
The image is not clear or is blurry.	<ul style="list-style-type: none"> The surface of the lens of the Wireless Camera is dirty. <ul style="list-style-type: none"> Clean it with a dry soft cloth. The surface of the lens of the Wireless Camera is wet with dew. Wait for the condensation to evaporate. 	22 –
The image is white or black.	<ul style="list-style-type: none"> The brightness of the display is not properly adjusted. Adjust the brightness while monitoring. 	19
The image is white, or white lines or circles are shown on the display.	<ul style="list-style-type: none"> Strong light such as sunlight is shining into the lens of the Wireless Camera. Though this may cause the display image to become difficult to see, this is not a malfunction. <ul style="list-style-type: none"> Locate the Wireless Camera away from direct sunlight. 	–
The image is flickering.	<ul style="list-style-type: none"> The MOTTLED COLOR PREVENT setting does not match the power frequency for the region that you are using the unit in. <ul style="list-style-type: none"> Matching the power frequency for the region that you are using the unit in can improve the quality of the colors displayed. When using the unit in a different region (after moving, etc.), match the settings to that region. AC (alternating current) lights such as fluorescent lights may cause flickering. This is not a malfunction. 	21 –
The image displayed on the Monitor distorts or is displayed slowly. (It takes about 5 seconds or more to be displayed.)	<ul style="list-style-type: none"> The distance between the Monitor and Wireless Camera is too far, or there is a concrete wall or other obstruction between the Monitor and Wireless Camera. <ul style="list-style-type: none"> Move the Monitor to a location closer to the Wireless Camera that has no obstructions. 	7



Monitor

Problem	Cause & Solution	Page
The Monitor is warm.	<ul style="list-style-type: none"> This is normal. (It may feel a little warmer in summer than in winter.) <ul style="list-style-type: none"> If it feels very hot, unplug the power plug from the power outlet, then contact our service personnel. 	–

Others

Problem	Cause & Solution	Page
<p>The Wireless Camera's batteries run out of power quickly.</p>	<ul style="list-style-type: none"> ● The Wireless Camera is out of range of the Monitor. <ul style="list-style-type: none"> – When the Wireless Camera is out of range of the Monitor, it repeatedly searches for the Monitor which causes the batteries' power to be consumed faster. Move the Monitor so that it is within range of the Wireless Camera. ● The power plug is unplugged from the power outlet. <ul style="list-style-type: none"> – When the Monitor is disconnected from the power outlet it causes the Wireless Camera to become out of range from the Monitor. This causes the Wireless Camera to repeatedly search for the Monitor which results in the batteries' power being consumed faster. When unplugging the power plug of the Monitor, turn the slide switch of the Wireless Camera to OFF. ● You are using rechargeable batteries. <ul style="list-style-type: none"> – Depending on the capacity of the rechargeable batteries, their life span may become shorter. This is not a malfunction. 	<p style="text-align: center;">12</p> <p style="text-align: center;">–</p> <p style="text-align: center;">–</p>
<p>There is a power failure.</p>	<ul style="list-style-type: none"> ● The unit does not work during a power failure. 	<p style="text-align: center;">–</p>
<p>The unit does not work with correct operations. (The unit does not work properly.)</p>	<ul style="list-style-type: none"> ● Perform the following operations. <p>Wireless Camera: Replace the batteries.</p> <p>Monitor: Disconnect it from the power outlet and then reconnect it after waiting for about 10 seconds.</p> <ul style="list-style-type: none"> – Program settings are not affected. 	<p style="text-align: center;">22</p> <p style="text-align: center;">–</p>

Error messages

Problem	Cause & Solution	Page
CANNOT CONNECT TO CAMERA	<p>The following may be causing the problem.</p> <ul style="list-style-type: none"> ● The Wireless Camera is turned off. <ul style="list-style-type: none"> – Turn the Wireless Camera on. ● The batteries of the Wireless Camera have run out of power. <ul style="list-style-type: none"> – Replace the batteries. ● The Wireless Camera is turned on, but the Wireless Camera is out of range from the Monitor. <ul style="list-style-type: none"> – Move the Monitor to an area close to the Wireless Camera that has no obstructions between the Wireless Camera and Monitor. (When the Wireless Camera is in range of the Monitor it can connect to the Monitor.) – Turn the power for the Wireless Camera off then on. (When the Wireless Camera is in range of the Monitor it can connect to the Monitor.) – When using a replacement Wireless Camera when servicing your original Wireless Camera, the replacement Wireless Camera must be paired to the Monitor. Refer to the following for instructions on how to pair the Wireless Camera. <p>■ How to pair Wireless Cameras After performing operations on the Monitor, perform operations on the Wireless Camera within about 2 minutes.</p> <p>Monitor operations:</p> <ol style="list-style-type: none"> ① Press [MENU], [▲], and [ (Monitor button) at the same time. (Enters CAMERA PAIRING MODE.) ② Press [ (Monitor button). <p>Wireless Camera operations:</p> <ol style="list-style-type: none"> ③ Insert the batteries (page 15). ④ Turn the power for the Wireless Camera on while pressing the pair button with a pointed object (keep pressing the pair button until the pair indicator starts flashing). <ul style="list-style-type: none"> ● The pair indicator starts flashing quickly. <ul style="list-style-type: none"> – The pair indicator changes in the following manner when pairing is successfully completed: flash quickly → light for about 10 seconds → go out – The pair indicator changes in the following manner when pairing fails (Pairing must be performed again.): flash quickly → go out 	<p>9</p> <p>22</p> <p>7</p> <p>9</p>

Specifications

Monitor (VL-DM100A)

■ Power supply:

120 V AC, 60 Hz

■ Power consumption:

During standby: approx. 1 W@

During operations: approx. 2 W@

■ Dimensions (H × W × D):

Approx. @16.5 mm (5/8 in.) × @126 mm (4 15/16 in.) × @59 mm (2 5/16 in.) @(excluding protruding sections)

– When using the Cradle: approx. @47 mm (1 7/8 in.) × @131 mm (5 3/16 in.) × @78 mm (3 1/16 in.) @(excluding protruding sections)

■ Weight:

Approx. @200 g (0.44 lb) (including the Cradle)

■ Operating temperature:

0 °C to 40 °C (32 °F to 104 °F)

■ Operating humidity:

Up to 90 % RH (Relative Humidity) non condensing

■ Display:

2.2" color TFT LCD monitor

■ Wireless transmission method:@

1.9 GHz TDMA-WB@

Wireless Camera (VL-CM850A)

■ Power supply:

Alkaline AA battery × 4

■ Battery life:

Maximum 6 months*1*2

*1 When operated under battery saving mode.

*2 When used 5 times a day (displaying images for about 20 seconds each time) with a temperature of 20 °C (68 °F).

■ Dimensions (H × W × D):**● Wireless unit:**

Approx. 190 mm (7 1/2 in.) × 165 mm (6 1/2 in.) × 38 mm (1 1/2 in.) @(excluding protruding sections)

● Camera unit:

Approx. @37 mm (1 7/16 in.) × @87.5 mm (3 7/16 in.) × @40 mm (1 9/16 in.) @(excluding protruding sections)

■ Weight:

Approx. @320 g (0.71 lb) (excluding batteries)

■ Operating temperature:**● Wireless unit:**

0°C to 40 °C (32 °F to 104 °F)

● Camera unit:

-20°C to 50 °C (-4 °F to 122 °F)

■ **Operating humidity:**

Up to 90 % RH (Relative Humidity) non condensing

■ **Installation method:**

Attached to a door

■ **Wireless transmission method:**

1.9 GHz TDMA-WB

■ **Minimum illuminance:**

3 lx

■ **Water resistant proprieties:**

IPx3 equivalent (Camera unit)*1

*1 IPX-3 specifies protection against spraying water and water spraying up to 60° from vertical.@

■ **Viewing angle:**

- Horizontal: approx. 120°
- Vertical: approx. 90°

■ **Transmission frequency:**

@19xx MHz - 19xx MHz

■ **Transmitting range:**

Approx. 70 m (229 ft 8 in.) (line-of-sight distance)

For users in the United States Only (FCC and other information)

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this device.

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC RF Exposure Warning

- This product complies with FCC radiation exposure limits set forth for an uncontrolled environment.
- To comply with FCC RF exposure requirements, the unit must be installed and operated 20 cm (8 inches) or more between the product and all person's body (excluding extremities of hands, wrist and feet).
- This product may not be collocated or operated in conjunction with any other antenna or transmitter.

Notice:

FCC ID can be found on the bottom of the Wireless Camera and on the electrical parts of the Monitor.

For users in Canada Only (Industry Canada Notices and other information)

NOTICE:

This product meets the applicable Industry Canada technical specifications.

RF Exposure Warning:

- This product complies with IC radiation exposure limits set forth for an uncontrolled environment.
- To comply with IC RF exposure requirements, the unit must be installed and operated 20 cm (8 inches) or more between the product and all person's body (excluding extremities of hands, wrist and feet).
- This product may not be collocated or operated in conjunction with any other antenna or transmitter.

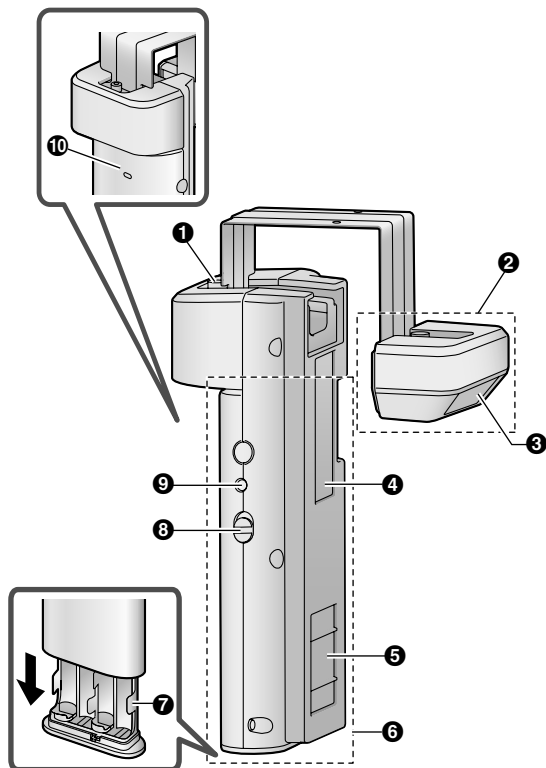
This Class B digital apparatus complies with Canadian ICES-003.

Quick Reference Guide (in Spanish)

Quick Reference Guide

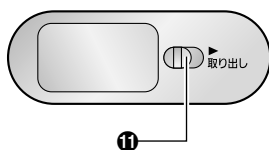
Location of controls

VL-CM850A

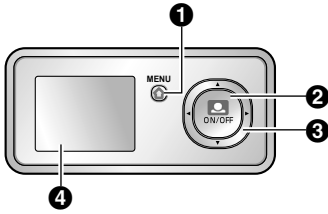


- ❶ Fixing screw
- ❷ Camera unit
- ❸ Camera lens
- ❹ Cable protection sheet
- ❺ Magnet/rubber
- ❻ Wireless unit
- ❼ Battery case
- ❽ Power slide switch (ON / OFF)
- ❾ Pair button
- ❿ Pair indicator
- ⓫ Slide lever

Bottom view

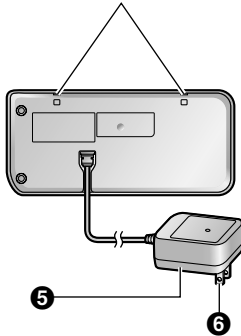


VL-DM100A



Bottom view

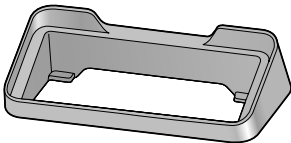
The Monitor can be hung from a wall by passing straps the holes.



- ❶ Menu button
- ❷ Monitor button
- ❸ Navigator key
- ❹ Monitor display
- ❺ Electrical parts
- ❻ Power plug

Cradle

Use the Cradle to hold the Monitor.




Basic Operations

- The number after the button shows the location of the button described in the previous page.

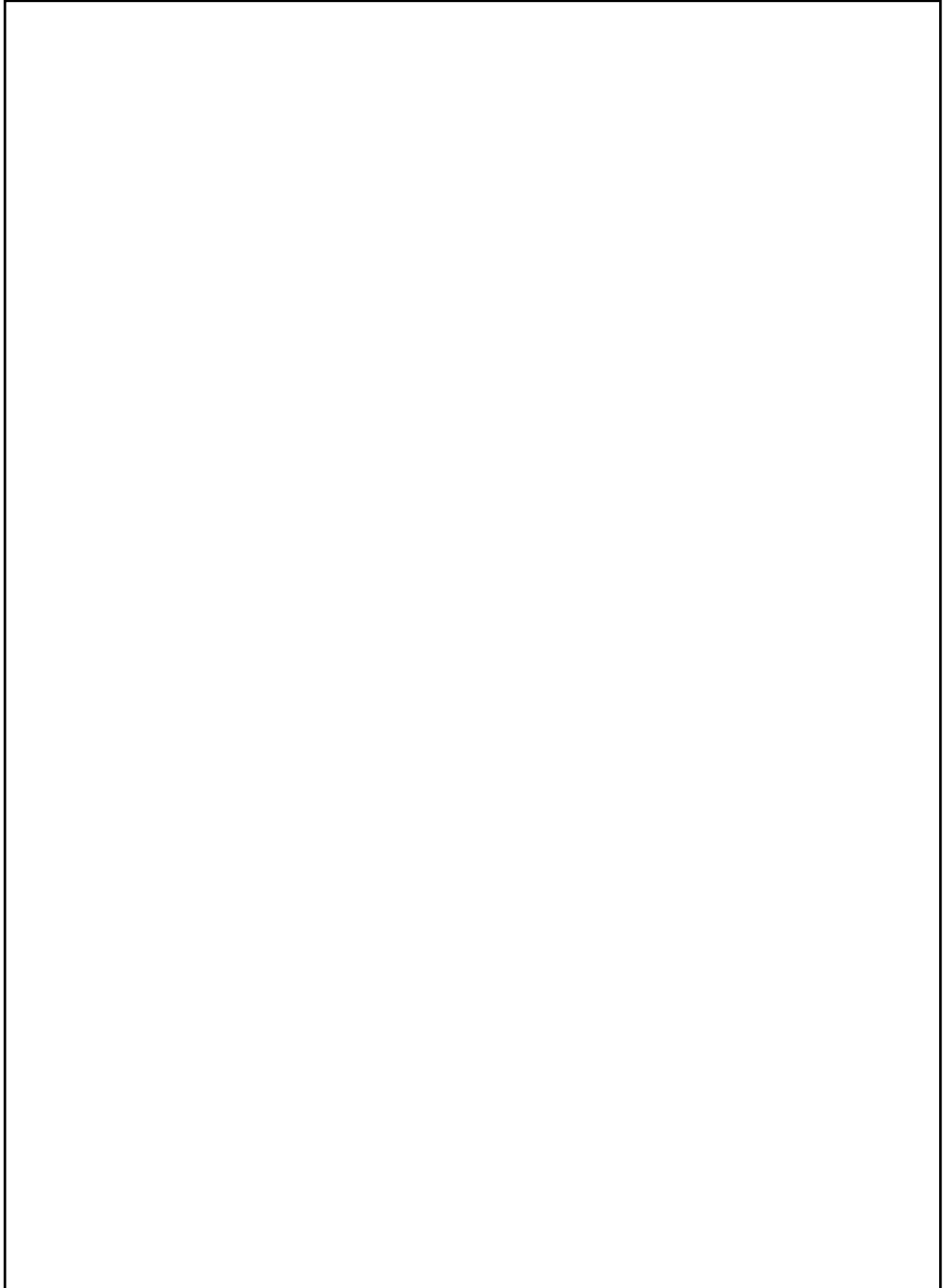
- **To monitor**

Press  (Monitor button) (2). ➔ Press  (Monitor button) to finish.

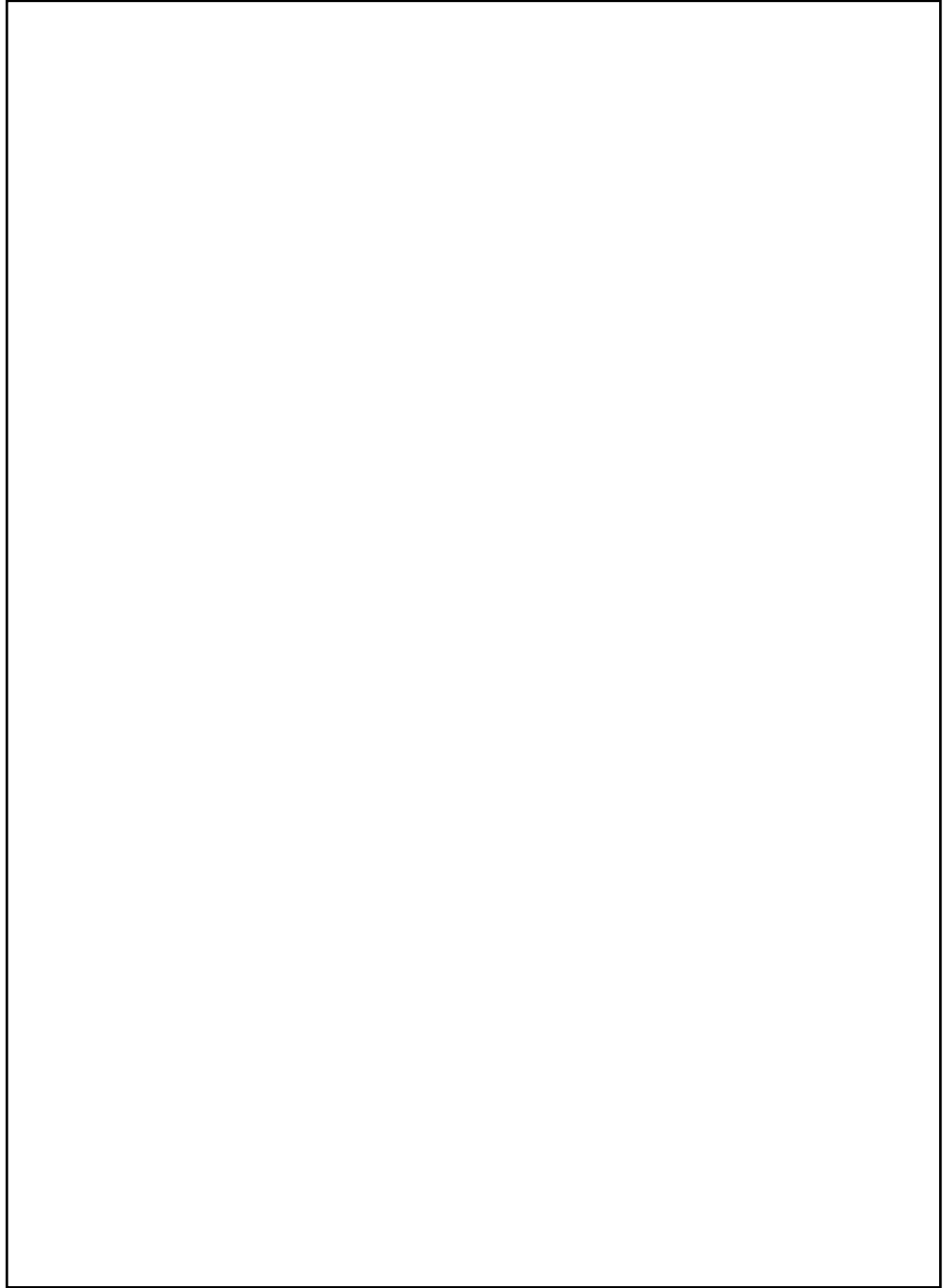
- **To switch the displayed image between Wide display and Zoom display (The default is wide.)**

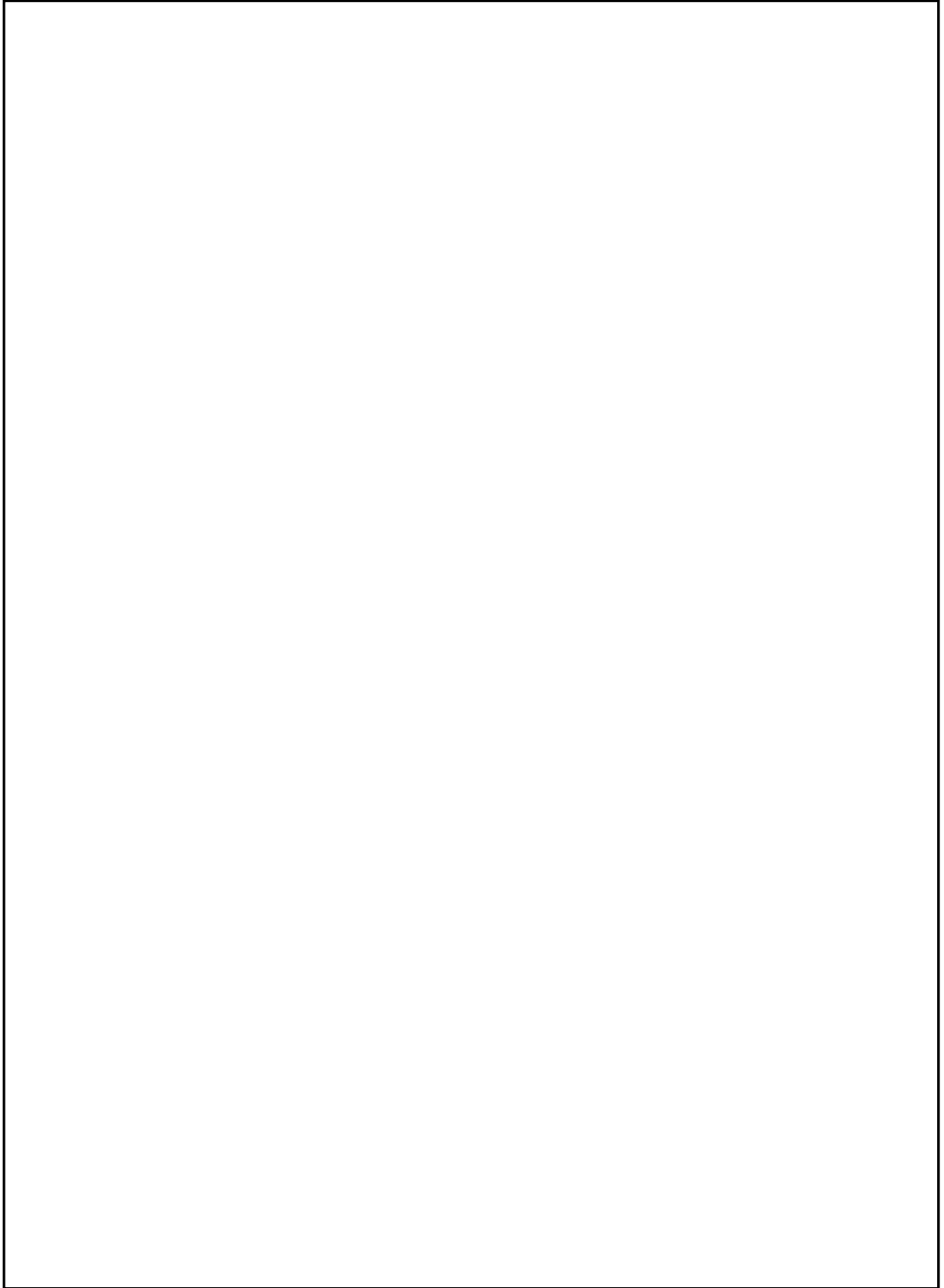
Press  (Monitor button) (2) for about 3 seconds to switch between Wide display and Zoom display.

Customer services (For United States)

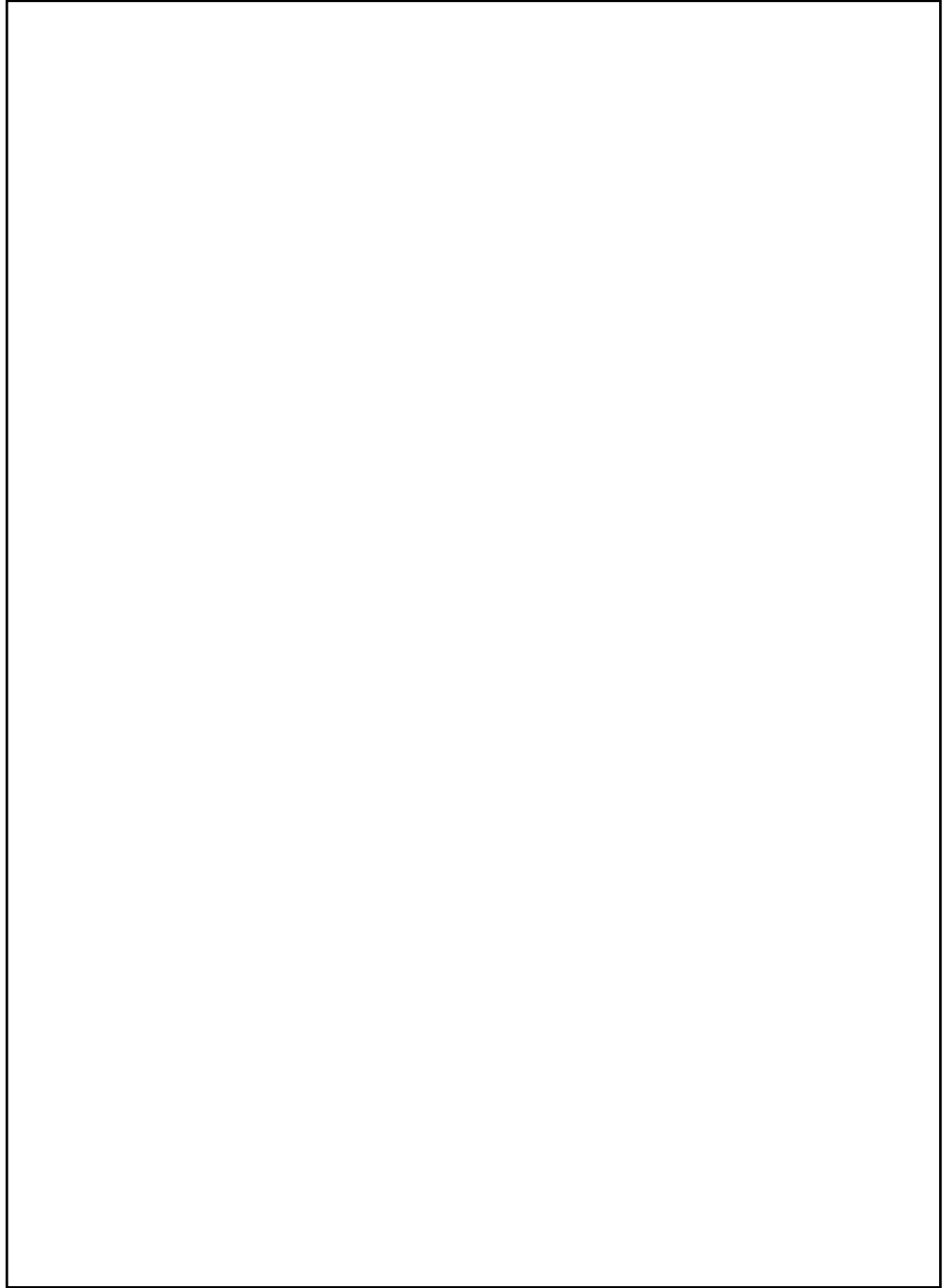


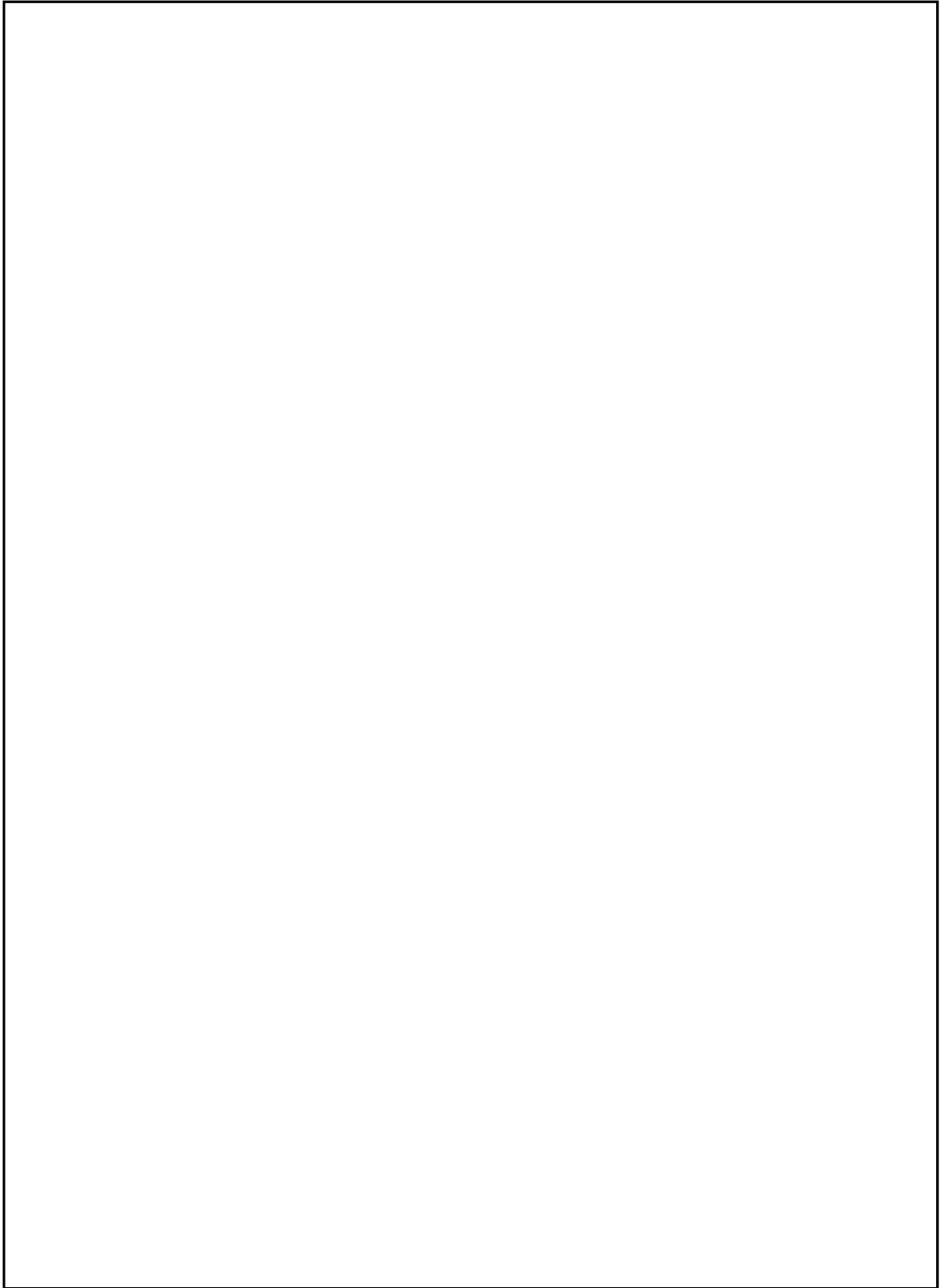
Warranty (For United States)





Warranty (For Canada)





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For your future reference

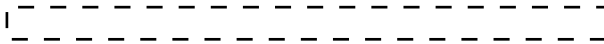
Date of purchase

Serial number (found on the bottom of the Monitor)

Dealer's name and address

Dealer's telephone number

Attach your sales receipt here.



For customers in the U.S.A.:

Panasonic Corporation of North America
One Panasonic Way, Secaucus, New Jersey 07094

For assistance, visit our website:

<http://www.panasonic.com>

for customers in the U.S.A. and Puerto Rico.

For customers in Canada:

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

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Printed in Vietnam



SDM100A

PNQX5703ZA CC0812MM0