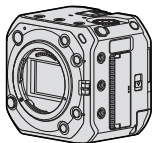


Panasonic[®]



Operating Instructions <Quick Start Guide>

Digital Camera

Model No. **DC-BS1H**

Please read these instructions carefully before using this product, and save this manual for future use.

More detailed operating instructions are available in “Operating Instructions <Complete Guide>” (HTML format / PDF format).

<https://panasonic.jp/support/dsc/oi/BS1H/index.html>



Dear Customer,

We would like to take this opportunity to thank you for purchasing this Panasonic Digital Camera. Please read this document carefully and keep it handy for future reference. Please note that the actual controls and components, menu items, etc. of your Digital Camera may look somewhat different from those shown in the illustrations in this document.

Carefully observe copyright laws.

Recording of pre-recorded tapes or discs or other published or broadcast material for purposes other than your own private use may infringe copyright laws. Even for the purpose of private use, recording of certain material may be restricted.

Before Use

- **No Compensation Regarding Recording**

Please note that compensation cannot be provided in the event that recording could not be performed due to a problem with the camera or a card.

- **Be Careful with Regard to Copyrights**

Under copyright law, you may not use the images and audio you have recorded for other than personal enjoyment without the permission of the copyright holder. Be careful because there are cases where restrictions apply to recording even for the purpose of personal enjoyment.

- **Also Refer to the Cautions for Use in the “Operating Instructions <Complete Guide>”**

About This Camera

This unit does not have a monitor.

To check the menu settings or recording screen, connect an external monitor or use a PC software "LUMIX Tether" below.

- For details on the connection cables, please check the interface of the "Specifications". (→ 17)



Remote Control Software/App

<https://panasonic.jp/support/global/cs/dsc/> (English only)



LUMIX Tether

This is a PC software that allows you to record and make settings while controlling the camera and checking the live view. (You can record photos (still images) using this software.)

LUMIX Sync

This is a smartphone app that allows you to perform remote recordings as well as check/save images that are saved in the camera with a smartphone.



Contents

Before Use.....	2
Information for Your Safety	4
Cautions for Use.....	7
Standard Accessories	9
Names of Parts	11
Getting Started.....	14
Power supply	14
Connecting the external monitor.....	14
Menu Operation Methods	15
Troubleshooting	15
Specifications	16
Trademarks and Licenses.....	20

Information for Your Safety

WARNING:

To reduce the risk of fire, electric shock or product damage,

- Do not expose this unit to rain, moisture, dripping or splashing.
- Use the recommended accessories.
- Do not remove covers.
- Do not repair this unit by yourself. Refer servicing to qualified service personnel.

The socket outlet shall be installed near the equipment and shall be easily accessible.

■ Product identification marking

Product	Location
Digital Camera	Rear (Battery installing place)
AC adaptor	Bottom

For Singapore only

Complies with
IMDA Standards
DB01017

For Thailand only

This telecommunication equipment conforms to NTC/NBTC technical requirement.

■ About the battery pack

- Always use genuine Panasonic batteries (AG-VBR59E, AG-VBR89G, AG-VBR118G).
- If you use other batteries, we cannot guarantee the quality of this product.

CAUTION

- Danger of explosion if battery is incorrectly replaced. Replace only with the type recommended by the manufacturer.
 - When disposing of the batteries, please contact your local authorities or dealer and ask for the correct method of disposal.
-
- Do not heat or expose to flame.
 - Do not leave the battery(ies) in a car exposed to direct sunlight for a long period of time with doors and windows closed.
 - Do not expose to low air pressure at high altitudes.
 - Do not expose to extremely low air pressure, as this may result in explosions or leakage of flammable liquids and gases.

Warning

Risk of fire, explosion and burns. Do not disassemble, heat above 60 °C or incinerate.

■ About the AC adaptor (supplied)

CAUTION!

To reduce the risk of fire, electric shock or product damage,

- Do not install or place this unit in a bookcase, built-in cabinet or in another confined space. Ensure this unit is well ventilated.

- The AC adaptor is in the standby condition when the mains plug is connected. The primary circuit is always "live" as long as the mains plug is connected to an electrical outlet.

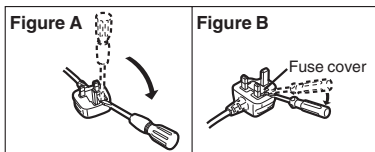
For the AC cable plug of three pins

■ How to replace the Fuse

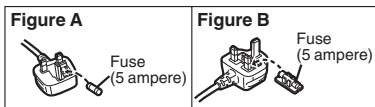
The location of the fuse differ according to the type of AC cable (figures A and B). Confirm the AC cable fitted and follow the instructions below.

Illustrations may differ from actual AC cable.

- 1 Open the fuse cover with a screwdriver.



- 2 Replace the fuse and close or attach the fuse cover.



Cautions for Use

- Do not use any other AC cables except the supplied one.
 - Use a Premium High Speed HDMI cable (Type A-Type A plug).
 - For the USB connection cable, use one that is a shielded product with a ferrite core compliant to USB Type C (USB3.1) that is less than 1.5 m (4.9 feet).
 - It is recommended to use a double shielded BNC cable equivalent to 5C-FB.
 - For the cable that connects to the LAN terminal, use the one below.
LAN cable (STP (Shielded Twisted Pair), category 5e or above, maximum 100 m (328 feet))
 - Do not use the Headphone cables with the length of 3 m (9.8 feet) or more.
 - Do not use the Stereo microphone cables with the length of 3 m (9.8 feet) or more.
 - Use a PoE+ (IEEE 802.3at compliant) compatible switching hub or power supplying device.*1
- *1 Make sure it complies with the safety standards IEC 60950-1 or IEC 62368-1.
If you are uncertain on whether or not it complies with the safety standards,
please contact the manufacturer of the switching hub or power supplying device.

Keep this unit as far away as possible from electromagnetic equipment (such as microwave ovens, TVs, video games etc.).

- If you use this unit on top of or near a TV, the pictures and/or sound on this unit may be disrupted by electromagnetic wave radiation.
- Do not use this unit near cell phones because doing so may result in noise adversely affecting the pictures and/or sound.
- Recorded data may be damaged, or pictures may be distorted, by strong magnetic fields created by speakers or large motors.
- Electromagnetic wave radiation may adversely affect this unit, disturbing the pictures and/or sound.
- If this unit is adversely affected by electromagnetic equipment and stops functioning properly, turn this unit off and remove the battery or disconnect AC adaptor. Then reinsert the battery or reconnect AC adaptor and turn this unit on.

Do not use this unit near radio transmitters or high-voltage lines.

- If you record near radio transmitters or high-voltage lines, the recorded pictures and/or sound may be adversely affected.
-

- To clean your camera, remove the battery or a card, or disconnect the power plug from the outlet, and wipe with a soft, dry cloth.
 - Do not press the lens with excessive force.
 - Do not allow camera to come into contact with pesticides or volatile substances (can cause surface damage or coating to peel).
 - Do not keep rubber or plastic products in contact with the camera for a long period of time.
 - Do not use solvents such as benzine, thinner, alcohol, kitchen detergents, etc., to clean the camera, since it may deteriorate the external case or the coating may peel off.
 - Do not leave the camera with the lens facing the sun, as rays of light from the sun may cause it to malfunction.
 - Always use the supplied cords and cables.
 - Do not extend the supplied cord or cable.
 - The data on the card may be damaged or lost due to electromagnetic waves, static electricity or breakdown of the camera or the card. We recommend storing important data on a PC etc.
 - Do not leave any metal items (such as clips) near the contact areas of the power plug or near the batteries.
 - Do not keep objects that may be influenced magnetically close to this unit.
-

-If you see this symbol-



Disposal of Old Equipment and Batteries

Only for European Union and countries with recycle systems

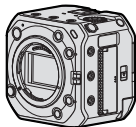
These symbols are only valid in the European Union and countries with recycle systems.

If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

Standard Accessories

Digital camera body

(Digital camera body is referred to as **camera** in this document.)

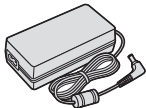


Check that all the accessories are supplied before using the camera.
(Product numbers correct as of October 2021.)



AC adaptor

- This is used for power supply.
SAE0011A



AC cable

- In Saudi Arabia, always use (A).
- (A) (B) (C) : For GC
- (D) : For GW



(A) : K2CT3YY00034

(B) : K2CQ2YY00082



(C) : K2CJ2YY00152

(D) : K2CP2YY00122

Cable lock band

1AC1MC551Z



Body cap*1

1HE1MC891Z



Hot shoe cover*1

DVYE1121Z



BNC terminal cover*1

DVKJ1044Z/K

HDMI terminal cover*1

DVKJ1045Z/K

AUDIO terminal cover*1

DVKJ1046Z/K

DC IN terminal cover*1

DVKJ1047Y/K

REMOTE terminal cover*1

DVKJ1048Z/K

*1 This is attached to the camera at the time of purchase but it's removable.

- **The battery pack is optional.**

The battery that can be used with the camera is AG-VBR59E/AG-VBR89G/AG-VBR118G. (As of October 2021)

- **The memory card is optional.**

Keep the memory card out of reach of children to prevent swallowing.

- **The Interchangeable lens is optional.**

- **Refer to catalogues/websites for the information regarding supported lenses/ accessories.**

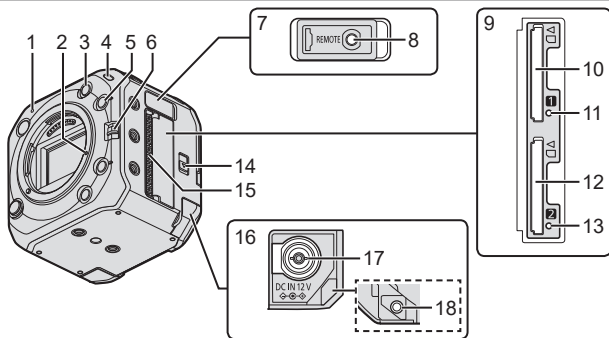
<https://panasonic.jp/support/global/cs/dsc/connect/index.html>

(English only)

– Attaching commercially available accessories that do not comply with the L-Mount standard may lead to operation failure or malfunction of the camera. (If a failure or malfunction occurs due to this cause, the warranty will be void.)

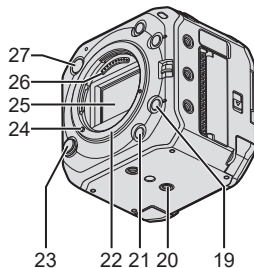
- Consult the dealer or Panasonic if you lose the supplied accessories. (You can purchase the accessories separately.)
- Please dispose of all packaging appropriately.
- Keep small parts in a safe place out of the reach of children.

Names of Parts



1	Status indicator
2	Screw hole for function expansion
3	Fn button (Fn2)
4	Front tally lamp
5	Fn button (Fn3)
6	Operation lock switch
7	REMOTE terminal cover • Keep the REMOTE terminal cover out of reach of children to prevent swallowing.
8	[REMOTE] terminal
9	Card door
10	Card slot 1
11	Card access light 1
12	Card slot 2
13	Card access light 2
14	Card door release lever

15	Fan outlet (the left side is the inlet) • The fan outlet for the cooling fan. Do not block this while the unit is being used.
16	DC IN terminal cover • Keep the DC IN terminal cover out of reach of children to prevent swallowing.
17	[DC IN 12 V] terminal
18	Cable lock band attachment part



19 Fn button (Fn4)

Tripod mount

- There are a total of 11 places for the tripod mount wherein there are 3 on the top, the right and the left and 2 on the bottom.
- The size of the mounting screw is 1/4-20 UNC (Screw length is 5.5 mm (0.22 inch) or less)
- If you attempt to attach a screw longer than 5.5 mm (0.22 inch), you may not be able to securely fix it in place or it may damage the camera.

20

21 Fn button (Fn5)

22 Mount

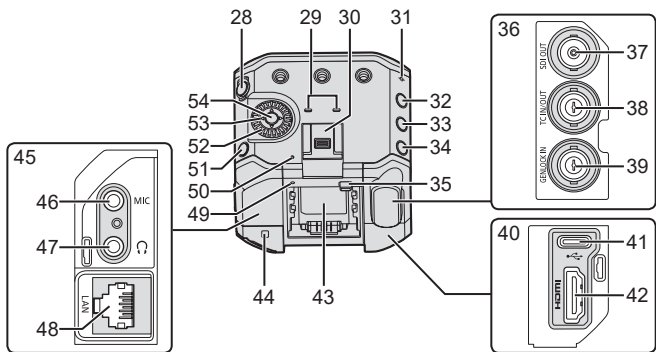
23 Lens release button





24 Lens lock pin

25 Sensor

26 Contact points

27 [⏻/⏻] Camera ON/OFF button



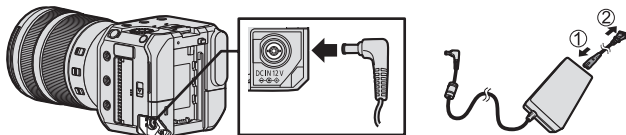
28	Video rec. button		
29	Stereo microphone		
	• Do not block the microphone with a finger. Audio will be difficult to record.		
30	Hot shoe (hot shoe cover)		
	• Keep the hot shoe cover out of reach of children to prevent swallowing.		
31	[] (Recording distance reference mark)		
32	Fn button (Fn1)		
33	[Q.MENU] button		
34	[] (Playback) button		
35	Battery release button		
36	BNC terminal cover		
37	[SDI OUT] terminal		
38	[TC IN/OUT] terminal		
39	[GENLOCK IN] terminal		
40	HDMI terminal cover		
41	[USB] terminal		
42	[HDMI] terminal		
43	Battery attachment part		
		44	Security Slot
			• Attaching anti-theft equipment can prevent theft. We are not liable for damages that may occur resulting from theft.
		45	AUDIO terminal cover
		46	[MIC] terminal
		47	Headphone terminal
			• Excessive sound pressure from earphones and headphones can cause hearing loss.
		48	[LAN] terminal
		49	Rear tally lamp
		50	[NETWORK] connection lamp
		51	[] (Delete) button / [] (Cancel) button
		52	Control dial
		53	Cursor buttons
		54	[MENU/SET] button

Getting Started

Power supply

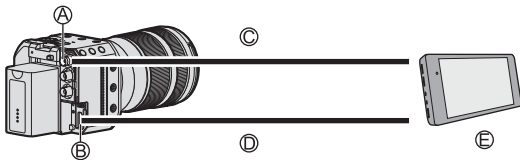
You can supply power to the camera using an AC adaptor (supplied), a PoE+ compatible switching hub or PoE+ compatible injector (commercially available), and a battery pack (optional).

Example: Supplying power with an AC adaptor



- Do not use any other AC adaptors except the supplied one. This may cause malfunction.
- Do not use any other AC cables except the supplied one. This may cause malfunction.

Connecting the external monitor



- (A) [SDI OUT] terminal
- (B) [HDMI] terminal
- (C) BNC cable (commercially available)
- (D) HDMI cable (commercially available)
- (E) External monitor or external recorder (commercially available)

- It is recommended to use a double shielded BNC cable equivalent to 5C-FB.
- Use a Premium High Speed HDMI cable (Type A-Type A plug).

Menu Operation Methods

In this camera, the menu is used for setting a wide variety of functions and performing camera customizations.

- ① Press [MENU/SET] to display the menu.
- ② Use cursor buttons/control dial to select the menu item.
- ③ Press [↵] several times to close the menu.

- The date and time are not set when turning the camera on for the first time. Be sure to set the clock and time zone before use.

Troubleshooting

The camera does not turn on.

- Power may not be supplied if the total power limit is exceeded on power supply devices that allow connections to multiple PoE+ terminals. Refer to the operating instructions of the PoE+ power supply device.

The images are not output to the external monitor or external recorder.

The recording information or menu screen is not displayed on the external monitor or external recorder.

- Refer to “Troubleshooting” in the “Operating Instructions <Complete Guide>” which describes the solution according to the situation.

Refer to the “Operating Instructions <Complete Guide>” for details about the following information (→1):

- Message Displays
- Troubleshooting

Specifications

- Please also refer to the “Operating Instructions <Complete Guide>”, which lists more items.

The specifications are subject to change for performance enhancement.
It is possible to record photos (still images) using software “LUMIX Tether”.

Digital camera body (DC-BS1H):

Information for your safety

Power source:	12 V ===
Power consumption:	8.1 W (when recording), 6.9 W (when playing back) <When using the interchangeable lens (S-R24105)>

Type

Type	Digital Single Lens Mirrorless camera
Recording media	SD memory card / SDHC memory card*1 / SDXC memory card*1 *1 Compliant with UHS-I/UHS-II UHS Speed Class 3, UHS-II Video Speed Class 90 Double slot recording function is available.
Lens mount	Leica Camera AG L-Mount

Image sensor

Image sensor	35 mm full-frame (35.6 mm×23.8 mm) CMOS sensor, a total of 25,280,000 pixels, primary color filter
Effective number of pixels of the camera	24,200,000 pixels

Latitude

14+ stops ([V-Log])

Recording format for video	
Video format	MP4 (H.264/MPEG-4 AVC, H.265/HEVC) MOV (H.264/MPEG-4 AVC, H.265/HEVC)
Audio format	MP4: AAC (2ch) MOV: LPCM (2ch, 48 kHz/16-bit)*2 *2 When an XLR Microphone Adaptor (DMW-XLR1E: optional) is attached, LPCM (2ch, 48 kHz/24-bit, 96 kHz/24-bit) can be selected
Image quality for video	Refer to "Operating Instructions <Complete Guide>" (→1).
Interface	
[REMOTE]	Ø2.5 mm jack Terminal for generic remote control unit (A Panasonic shutter remote control (DMW-RS2) cannot be used.)
[DC IN 12 V]	DC 12 V (11.4 V to 12.6 V) EIAJ Type 4
[MIC]	Ø3.5 mm stereo mini jack
Headphones	Ø3.5 mm stereo mini jack
LAN connector	LAN terminal (RJ-45) for remote control ×1, compatible with power supply by PoE+ (IEEE 802.3at compliant)
[SDI OUT]	BNC terminal×1, 0.8 V [p-p], 75 Ω, 3G-SDI Level-A / HD-SDI compatible
[TC IN/OUT]	BNC terminal ×1, Input: 1.0 V to 4.0 V [p-p], 10 kΩ, Output: 2.0 V ±0.5 V [p-p], low impedance
[GENLOCK IN]	BNC terminal ×1, BBS (Black Burst sync) signal and tri-level sync signal compatible
HDMI	HDMI Type A
USB	USB Type-C™, SuperSpeed USB3.1 GEN1



External dimensions / Mass	
External dimensions	Approx. 93.0 mm (W)×93.0 mm (H)×78.8 mm (D) (3.66" (W)×3.66" (H)×3.1" (D)) (excluding the projecting parts)
Mass (Weight)	Approx. 585 g / 1.29 lb (only camera body)
Operating environment	
Recommended operating temperature	-10 °C to 40 °C (14 °F to 104 °F) <ul style="list-style-type: none"> • Battery performance temporarily worsens at low temperatures (-10 °C to 0 °C (14 °F to 32 °F)), reducing the available recording time. • When using in low temperatures (-10 °C to 0 °C (14 °F to 32 °F)) <ul style="list-style-type: none"> – Before use, attach a Panasonic lens with a minimum recommended operating temperature of -10 °C (14 °F).
Permissible relative humidity	10%RH to 80%RH
Wi-Fi	
Compliance standard	IEEE 802.11b/g/n (standard wireless LAN protocol)
Frequency range used (central frequency)	2412 MHz to 2462 MHz (1 to 11ch)
Encryption method	Wi-Fi compliant WPA™/WPA2™
Access method	Infrastructure mode
Bluetooth	
Compliance standard	Bluetooth Ver. 4.2 (Bluetooth Low Energy (BLE))
Frequency range used (central frequency)	2402 MHz to 2480 MHz

AC adaptor (Panasonic SAE0011A):

Information for your safety

Input:	100 V–240 V \sim 50/60 Hz 1.2 A 79 VA (100 V \sim) - 99 VA (240 V \sim)
Output:	12 V --- 3.0 A

The symbols on this product (including the accessories) represent the following:

\sim	AC
---	DC
	Class II equipment (The construction of the product is double-insulated.)
I	ON
	Stand-by

This camera complies with the “Design rule for Camera File system” (DCF) and “Exchangeable Image File Format” (Exif) standards established by “Japan Electronics and Information Technology Industries Association” (JEITA). The camera cannot play back files that do not comply with the DCF standard. Exif is a file format for pictures which allows recording information, etc. to be added.

Trademarks and Licenses



- L-Mount is a trademark or registered trademark of Leica Camera AG.
- SDXC Logo is a trademark of SD-3C, LLC.
- The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc. in the United States and other countries.
- USB Type-C™ and USB-C™ are trademarks of USB Implementers Forum.
- The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Panasonic Corporation is under license. Other trademarks and trade names are those of their respective owners.
- The Wi-Fi CERTIFIED™ Logo is a registered trademark of Wi-Fi Alliance®.
- The Wi-Fi Protected Setup™ Logo is a trademark of Wi-Fi Alliance®.
- “Wi-Fi®” is a registered trademark of Wi-Fi Alliance®.
- “Wi-Fi Protected Setup™”, “WPA™”, and “WPA2™” are trademarks of Wi-Fi Alliance®.



- QuickTime and the QuickTime logo are trademarks or registered trademarks of Apple Inc., used under license therefrom.
 - This product uses “DynaFont” from DynaComware Corporation. DynaFont is a registered trademark of DynaComware Taiwan Inc.
 - Other names, company names, and product names mentioned in these instructions are trademarks or registered trademarks of the companies concerned.
-

At least three (3) years from delivery of this product, Panasonic Corporation will give to any third party who contacts us at the contact information provided below, for a charge no more than our cost of physically performing source code distribution, a complete machine-readable copy of the corresponding source code covered under GPL V2.0 or LGPL V2.1, as well as the respective copyright notice thereof.

Contact Information: oss-cd-request@gg.jp.panasonic.com

The source code and the copyright notice are also available for free in our website below.

<https://panasonic.net/cns/oss/index.html>

This product is licensed under the AVC Patent Portfolio License for the personal use of a consumer or other uses in which it does not receive remuneration to (i) encode video in compliance with the AVC Standard (“AVC Video”) and/or (ii) decode AVC Video that was encoded by a consumer engaged in a personal activity and/or was obtained from a video provider licensed to provide AVC Video. No license is granted or shall be implied for any other use. Additional information may be obtained from MPEG LA, L.L.C.

See <http://www.mpegla.com>

Panasonic Warranty

1. Subject to the conditions of this warranty Panasonic or its Authorised Service Centre will perform necessary service on the product, without charge for parts or labour, if in the opinion of Panasonic the product is found to have a manufacturing defect within one (1) year or (12 months) (the "warranty period") from the date of purchase appearing on your purchase receipt.
2. This warranty only applies to Panasonic products purchased in Australia and sold by Panasonic Australia, its Authorised Distributors, or Dealers, and only where the products are used and serviced within Australia or its territories. Warranty cover only applies to the services that are carried out by a Panasonic Authorised Service Centre and only if valid proof of purchase is presented when the warranty service is requested.
3. This warranty only applies if the product has been installed and/or used in accordance with the manufacturer's recommendations (as noted in the operating instructions) under normal use and reasonable care (in the opinion of Panasonic). The warranty does not cover damage, malfunction or failure resulting from use of incorrect voltages, incorrect installation, accident, misuse, neglect, build-up of dirt or dust, abuse, maladjustment of customer controls, mains supply problems, thunderstorm activity, infestation by insects or vermin, tampering or repair by unauthorised persons (including unauthorised alterations), exposure to abnormally corrosive conditions, or any foreign object or matter having entered the product.
4. This warranty does not cover the following items unless the fault or defect existed at the time of purchase:
 - (a) Consumable parts
 - (b) Cosmetic parts
 - (c) Worn or damaged parts
 - (d) Information stored on Hard Disk Drives, Optical Discs, USB Devices, SD Cards, Tapes
 - (e) DTV reception issues caused by TV Aerial / Cabling / Wall socket(s)
5. Some products may be supplied with Ethernet connection hardware. The warranty is limited on such products and will not cover:
 - (a) Internet and or DLNA connection / setup related problems
 - (b) Access fees and or charges incurred for internet connection
 - (c) Incompatible software or software not specifically stipulated in the product operations manual; and
 - (d) Any indirect or consequential costs associated with the incorrect use or misuse of the hardware, its connection to the internet or any other device.
6. To claim warranty service, when required, you should:
 - Contact Panasonic's Customer Care Centre on 132 600 for Service Centre information.
 - Confirm the opening and acceptance times with the Authorised Service centre that you choose.
 - Then send or take the product to a Panasonic Authorised Service Centre together with your proof of purchase receipt.
 - Any freight and insurance costs associated with the transport of the product to and/or from your nearest Authorised Service Centre must be arranged and paid for by you.

7. The warranties hereby conferred do not extend to, and exclude, any costs associated with the installation, de-installation or re-installation of a product, including costs related to the mounting, de-mounting or remounting of any screen, (and any other ancillary activities), delivery, handling, freighting, transportation or insurance of the product or any part thereof or replacement of and do not extend to, and exclude, any damage or loss occurring by reason of, during, associated with, or related to such installation, de-installation, re-installation or transit.

Panasonic Authorised Service Centres are located in major metropolitan areas and most regional centres of Australia, however, coverage will vary dependant on product. For advice on exact Authorised Service Centre locations for your product, please telephone our Customer Care Centre on 132600 or visit our website and use the Service Centre Locator.

In addition to your rights under this warranty, Panasonic products come with consumer guarantees that cannot be excluded under the Australian Consumer Law. If there is a major failure with the product, you can reject the product and elect to have a refund or to have the product replaced or if you wish you may elect to keep the goods and be compensated for the drop in value of the goods. You are also entitled to have the product repaired or replaced if the product fails to be of acceptable quality and the failure does not amount to a major failure.

If there is a major failure in regard to the product which cannot be remedied then you must notify us within a reasonable period by contacting the Panasonic Customer Care Centre. If the failure in the product is not a major failure then Panasonic may choose to repair or replace the product and will do so in a reasonable period of time from receiving notice from you.

THIS WARRANTY CARD AND THE PURCHASE DOCKET (OR SIMILAR PROOF OF PURCHASE) SHOULD BE RETAINED BY THE CUSTOMER AT ALL TIMES

If you require assistance regarding warranty conditions or any other enquiries, please visit the Panasonic Australia website **www.panasonic.com.au** or contact by phone on **132 600**
If phoning in, please ensure you have your operating instructions available.

Panasonic Australia Pty. Limited

ACN 001 592 187 ABN 83 001 592 187
1 Innovation Road, Macquarie Park NSW 2113
www.panasonic.com.au

PRO-031-F11 Issue: 5.0

23-01-2018

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

© Panasonic Corporation 2021

