Panasonic

Operating Instructions

Air Conditioner



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Indoor Unit	Outdoor Unit
muoor omit	
CS-Z20TKR	CU-Z20TKR
CS-Z25TKR	CU-Z25TKR
CS-Z35TKR	CU-Z35TKR
CS-Z42TKR	CU-Z42TKR
CS-Z50TKR	CU-Z50TKR
CS-Z60TKR	CU-Z60TKR
CS-Z71TKR	CU-Z71TKR
CS-Z80TKR	CU-Z80TKR

Operating Instructions Air Conditioner

Before operating the unit, please read these operating instructions thoroughly and keep them for future reference. The included Installation Instructions should be kept and read by the installer before installation.

Remote control is packaged in the indoor unit and removed by the installer before installation.





Provides maximum comfort and clean air with optimal energy saving methods.

Human activity sensor

- Area Search
- Activity Detection
- Absence Detection

Sunlight sensor and remote control receiver **Econavi**

The intelligent human activity and sunlight sensors monitor human location, movements, absence and sunlight intensity.

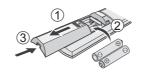
See "To learn more..." for details.

Use remote control within 8 m from the remote control receiver of the indoor unit.



Quick Guide

Inserting the batteries

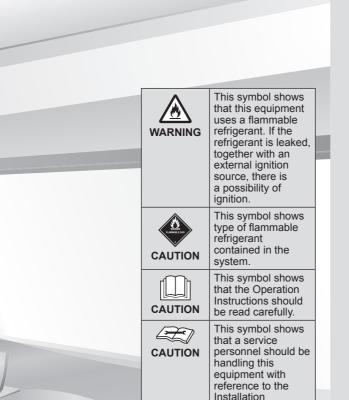


- 1 Pull out the back cover of remote control.
- 2 Insert AAA or R03 batteries.
- ③ Close the cover.

A Clock setting



- 1 Press and set the time.
 - Press and hold for approximately
 5 seconds to show time in 12-hour (am/pm) or 24 hour indication.
- 2 Confirm SET.



CAUTION

Thank you for purchasing Panasonic Air Conditioner.

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Accessories

- Remote control
- AAA or R03 batteries × 2
- Remote control holder
- Screws for remote control holder × 2

The illustrations in this manual are for explanation purposes only and may differ from the actual unit. They are subject to change without notice for future improvement.

Basic operation

1 Press MODE to select the desired mode.

AUTO -> HEAT -> COOL

② Press to to start/stop the operation.

Instructions.

This symbol

shows that there is information included

in the Operation

Instructions and/

or Installation

Instructions



 Please note that the OFF indication is on display to start the unit. 3 Select the desired temperature.



Selection range: 16.0 °C ~ 30.0 °C / 60 °F ~ 86 °F.

 Press and hold for approximately 10 seconds to switch the temperature indication in °C or °F.

Safety precautions

To prevent personal injury, injury to others or property damage, please comply with the following: Incorrect operation due to failure to follow instructions below may cause harm or damage, the seriousness of which is classified as below: This appliance is not intended for accessibility by the general public.



For appliance filled with R32 (mild flammable refrigerant). If the refrigerant is leaked and exposed to an external ignition source, there is a risk of fire.



This sign warns of death or serious injury.



This sign warns of injury or damage to property.

The instructions to be followed are classified by the following symbols:



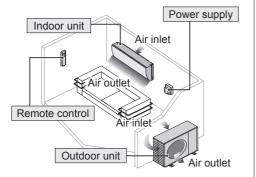
This symbol denotes an action that is PROHIBITED.







These symbols denote actions COMPULSORY.



WARNING

Indoor unit and outdoor unit



This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

The appliance shall be installed and operated in a room with floor area larger than 2.06m² and keep away from ignition sources (such as heat/sparks/openflame) or, hazardous areas (such as gas appliances, gas cooking, reticulated gas supply systems, or electric cooling appliance, etc.

Be aware that refrigerant may not contain an odour, highly recommended to ensure suitable flammable refrigerant gas detectors are present, operating and able to warn of a leak.

Please consult authorised dealer or specialist to clean the internal parts, repair, install, remove and reinstall the unit. Improper installation and handling will cause leakage, electric shock or fire.

Confirm with authorised dealer or specialist on usage of any specified refrigerant type. Using refrigerant type other than the specified may cause product damage, burst and injury etc.



Do not use means to accelerate the defrosting process or to clean, other than those recommended by manufacturer. Any unfit method or using incompatible material may cause product damage, burst and serious injury.

Do not pierce or burn as the appliance is pressurized. Do not expose the appliance to heat, flame, sparks, or other sources of ignition. Else it may explode and cause injury or death.

Do not install the unit in a potentially explosive or flammable atmosphere. Failure to do so could result in fire.

Do not insert your fingers or other objects into the air conditioner indoor or outdoor unit, rotating parts may cause injury.



Do not touch the outdoor unit during lightning, it may cause electric shock.

Do not expose yourself directly to cold air for a long period to avoid excess cooling.

Do not sit or step on the unit, you may fall down accidentally.



Remote control



Do not allow infants and small children to play with the remote control to prevent them from accidentally swallowing the batteries.

Power supply



Do not use a modified cord, joint cord, extension cord or unspecified cord to prevent overheating and fire.







To prevent overheating, fire or electric shock:

- Do not share the same power outlet with other equipment.
- Do not operate with wet hands.
- •Do not over bend the power supply cord.
- Do not operate or stop the unit by inserting or pulling out the power plug.



If the supply cord is damaged, it must be replaced by the manufacturer, service agent or similarly qualified persons in order to avoid a hazard.

It is strongly recommended to be installed with Earth Leakage Circuit Breaker (ELCB) or Residual Current Device (RCD) to prevent electric shock or fire.

To prevent overheating, fire or electric shock:

- •Insert the power plug properly.
- Dust on the power plug should be periodically wiped with a dry cloth.

Stop using the product if any abnormality/failure occurs and disconnect the power plug or turn off the power switch and breaker.

(Risk of smoke/fire/electric shock)

Examples of abnormality/failure

- The ELCB trips frequently.
 Burning smell is observed.
- Abnormal noise or vibration of the unit is observed.
- Water leaks from the indoor unit.
- Power cord or plug becomes abnormally hot.
- Fan speed cannot be controlled.
- The unit stops running immediately even if it is switched on for operation.
- •The fan does not stop even if the operation is stopped. Contact your local dealer immediately for maintenance/ repair.

Safety precautions



This equipment must be earthed to prevent electrical shock or fire.



Prevent electric shock by switching off the power supply and unplug:



- -Before cleaning or servicing, -When extended non-use, or
- -During abnormally strong lightning activity.



WARNING

Precaution for appliance filled with R32

Pay careful attention to the following points when operating the appliances and dealing with different refrigerants.



The appliance shall be installed, and/or operated in a room with floor area larger than Amin (m²) and keep away from ignition sources, such as heat/sparks/open flame or hazardous areas such as gas appliances, gas cooking, reticulated gas supply systems or electric cooking appliances, etc. (Refer to Table A of Installation instructions table for Amin (m²))

Be aware that refrigerant may not contain an odour, highly recommended to ensure suitable flammable refrigerant gas detectors are present, operating and able to warn of a leak.



Since the working pressure is higher than that of refrigerant R22 models, some of the piping and installation and service tools are special.

Especially, when replacing a refrigerant R22 model with a new refrigerant R32 model, always replace the conventional piping and flare nuts with the R32 and R410A piping and flare nuts on the outdoor unit side.

The R32 flare nut and pipe on the outdoor unit side can also be used for a R410A model.

Models that use refrigerant R32 and R410A have a different charging port thread diameter to prevent erroneous charging with refrigerant R22 and for safety. Therefore, check beforehand. [The charging port thread diameter for R32 and R410A is 12.7 mm (1/2 inch).]

Be extra careful so that foreign matter (oil, water, etc.) does not enter the piping. Also, when storing the piping,

Also, when storing the piping, securely seal the opening by pinching, taping, etc. (Handling of R32 is similar to R410A.)

This appliance shall be stored in a well ventilated area.

This appliance shall be stored in a room without continuously operating open flames and ignition sources.

This appliance shall be stored so as to prevent mechanical damage from occurring.



Do not use means to accelerate the defrosting process or to clean, other than those recommended by manufacturer. Any unfit method or using incompatible material may cause product damage, burst and serious injury.



Do not pierce or burn as the appliance is pressurized. Do not expose the appliance to heat, flame, sparks, or other sources of ignition. Else it may explode and cause injury or death.



CAUTION

Indoor unit and outdoor unit



Do not wash the indoor unit with water, benzine, thinner or scouring powder to avoid damage or corrosion at the unit.

Do not use for preservation of precise equipment, food, animals, plants, artwork or other objects. This may cause quality deterioration, etc.

Do not use any combustible equipment in front of the airflow outlet to avoid fire propagation.

Do not expose plants or pet directly to airflow to avoid injury, etc.

Do not touch the sharp aluminium fin, sharp parts may cause injury.



Do not switch ON the indoor unit when waxing the floor. After waxing, aerate the room properly before operating the unit.

Do not install the unit in oily and smoky areas to prevent damage to the unit.

Do not dismantle the unit for cleaning purpose to avoid injury.

Do not step onto an unstable bench when cleaning the unit to avoid injury.



Do not place a vase or water container on the unit. Water may enter the unit and degrade the insulation. This may cause an electric shock.

Do not open window or door for long time during operation, it may lead to inefficient power usage and uncomfortable temperature changes.



Prevent water leakage by ensuring drainage pipe is:

- -Connected properly,
- -Kept clear of gutters and containers, or
- -Not immersed in water

After a long period of use or use with any combustible equipment, aerate the room regularly.

After a long period of use, make sure the installation rack does not deteriorate to prevent the unit from falling down.

Remote control



Do not use rechargeable (Ni-Cd) batteries. It may damage the remote control.



To prevent malfunction or damage of the remote control:

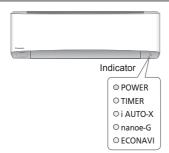
- Remove the batteries if the unit is not going to be used for a long period of time.
- New batteries of the same type must be inserted following the polarity stated.

Power supply



Do not disconnect the plug by pulling the cord to prevent electric shock

How to use

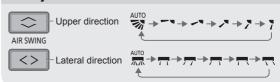




Not used in normal operations.

Press to restore the remote control to default setting.

To adjust airflow direction



•Do not adjust the flap by hand.



- For AUTO, the indoor fan speed is automatically adjusted according to the operation mode.
- If i AUTO-X mode is set, fan speed is fixed to AUTO. To adjust fan speed, cancel i AUTO-X mode.

To switch between powerful/quiet



POWERFUL:

To reach the preset temperature quickly

• This operation stops automatically after 4 hours.

QUIET:

To enjoy quiet operation

This operation reduces airflow noise.

To improve humidity and moisture level



- This operation reduces air dryness and provides you with a comfortable living environment during COOL mode only.
- When vertical airflow direction is set to AUTO, it stops at lower position to avoid cold air contact.
 However, you can adjust the flap direction manually.

To save energy



•When manual AIR SWING Selected, the ECONAVI operations will be cancelled.

To reach temperature quickly



- The unit controls set temperature according to room temperature to accelerate room cooling.
- After max 4 hours, the set temperature is shifted according to activity detection.
- Fan speed is fixed at AUTO, fan speed selection is prohibited.
- During unit is off, press | Will turn on the unit with i AUTO-X mode.
- •i AUTO-X mode can be cancelled by pressing the respective button again.

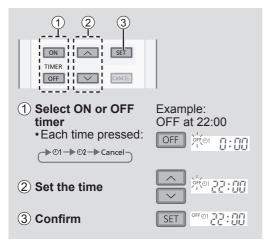
To purify the air



- •nanoe-G starts automatically when the unit is turned on with
- •nanoe-G will not start automatically during ON timer if the unit has been turned off by
- Can be activated even when the unit is turned off. In this condition, the unit will operate as a fan with AUTO fan speed and flap swing.

To set the timer

2 sets of ON and OFF timers are available to turn ON or OFF the unit at different preset times.



- To cancel ON or OFF timer, press on or off to select respective @1 or @2 then press [awata].
- If timer is cancelled manually or due to power failure, you can restore the timer again by pressing ON or OFF to select respective O1 or O2 then press SET.
- The nearest timer setting will be displayed and will activate in sequence.
- Timer operation is based on the clock set in the remote control and repeats daily once set. For clock setting, please refer to Quick Guide.

Note



mode and can be cancelled by pressing the respective button again.

To learn more...

Operation mode

AUTO: During operation mode selection the POWER indicator blinks.

• Unit selects operation mode every 10 minutes according to setting temperature

and room temperature.

HEAT: Unit takes a while to warm up. The POWER indicator blinks during this

operation.

COOL: Provides efficient comfort cooling to suit your needs.

DRY: Unit operates at low fan speed to give a gentle cooling operation.

FAN: To circulate air in the room.

i AUTO-X: The fast cooling is ideal when you come home on a hot day.

Energy saving temperature setting

Operating the unit within the recommended temperature range may save energy.

HEAT: 20.0 °C ~ 24.0 °C / 68 °F ~ 75 °F. **COOL**: 26.0 °C ~ 28.0 °C / 79 °F ~ 82 °F.

Air flow direction

In COOL/DRY mode:

If AUTO is set, the flaps swings left/right and up/down automatically.

In i AUTO-X mode:

If AUTO is set, the horizontal flap is fixed at the lower position and shift to the upper position after reaches set temperature and the vertical flap swing according to activity detection. If manual is set, the horizontal flap and vertical flap are fixed at the predetermined position.

In HEAT mode:

If AUTO is set, the horizontal flap is fixed at the predetermined position. The vertical flap swings left/right after the temperature rises.

Auto restart control

If power is resumed after a power failure, the operation will restart automatically after a period of time with previous operation mode and airflow direction.

• This control is not applicable when TIMER is set.

nanoe-G in-filter deactivation

Depending on the unit's accumulated operation time, nanoe-G in-filter deactivation may activate only once a day after the unit turned off.

To remove the moisture left in the internal parts, the fan will operate for 30 minutes with flap opened slightly. This process only applicable when the unit is operated in COOL/DRY mode before turned off. Then, nanoe-G deactivates viruses/bacteria on the filter for 2 hours with fan stopped and flap closed.

Do not turn off the power supply during this operation. After power failure, this operation will not resume.

ECONAVI

■ Econavi with intelligent eco sensors

Intelligent eco sensors detect potential waste of energy using the human activity sensor and sunlight sensor.

The human activity sensor scans areas of heat source and movement in a room.

- · Based on area activeness, flap will adjust its position automatically.
- The human activity sensor is influenced by the location of the indoor unit, the movement speed of human/non-human activity, temperature range, etc.
- The human activity sensor may mistakenly detect non-human activity and source of heat, such as pets, or may not detect the human activity or source of heat if the person stays motionless.
- Do not place large objects near the sensor and keep away heating units or humidifier from the sensor's detections area.

The sunlight sensor detects changes in sunlight intensity in the room. It reduces the waste of energy under less sunlight conditions.

5 Features

1 Temperature wave



Rhythmic temperaturecontrolled pattern to save energy without sacrificing comfort.

②Area search ③Activity 120° 7_m

detection



(4) Absence

Human activity sensor detects presence/absence of human beings and the movement speed of human activities minimising the required amount of energy.

5 Sunlight detection



Adjusts power to changes in sunlight intensity.

Operating conditions

Use this air conditioner in the temperature range indicated in the table.

Temperature °C (°F)		Indoor		Outdoor	
		DBT	WBT	DBT	WBT
COOL	Max.	32 (89.6)	23 (73.4)	46 (114.8)	26 (78.8)
	Min.	16 (60.8)	11 (51.8)	5 (41.0)	-
HEAT -	Max.	30 (86.0)	-	24 (75.2)	18 (64.4)
	Min.	16 (60.8)	-	-15 (5.0)	-

DBT: Dry bulb temperature, WBT: Wet bulb temperature

Cleaning instructions

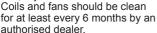
To ensure optimal performance of the unit, cleaning has to be carried out at regular intervals. Dirty unit may cause malfunction and you may see nanoe-G indicator blinks or error code "H99". Please consult authorised dealer.

- Switch off the power supply and unplug before cleaning.
- Do not touch the aluminium fin, sharp parts may cause injury.
- Do not use benzine, thinner or scouring powder.
- Use only soap (\simeq pH 7) or neutral household detergent.
- Do not use water hotter than 40 °C / 104 °F.

Indoor unit

Wipe the unit gently with a soft, dry cloth.

Coils and fans should be clean



Human activity sensor

Do not hit or violently press or poke it with a sharp object. This can lead to damage and malfunction.

Outdoor unit

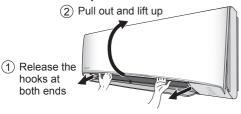
Clear debris that surround the unit. Clear any blockage from drain pipe.



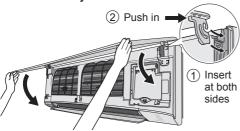
Front panel

Wash gently and dry.

Remove the front panel

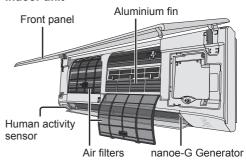


Close it securely



- (3) Close down
- 4 Press both ends and center of the front panel

Indoor unit



nanoe-G Generator

Once every 2 weeks

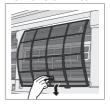
- Clean with dry cotton bud.
- Do not touch during operation.

Air filters

Once every 2 weeks

- Wash/rinse the filters gently with water to avoid damage to the filter surface.
- Dry the filters thoroughly under shade, away from fire or direct sunlight.
- Replace any damaged filters.

Remove air filter



Attach air filter



Insert into the unit

Troubleshooting

The following symptoms do not indicate malfunction.

The following symptoms do not indicate in	
Symptom	Cause
POWER indicator blinks before the unit is switched on.	This is a preliminary step in preparation for the operation when the ON timer has been set.
	When ON Timer is set, the unit may start earlier (up to 35 minutes) before the actual set time in order to achieve the desired temperature on time.
POWER indicator blinks during HEAT mode with no warm air supply (and flap is closed).	•The unit is in defrost mode (and AIR SWING is set to AUTO).
TIMER indicator is always on.	The timer setting repeats daily once set.
Operation is delayed a few minutes after restarting.	•The delay is a protection to the unit's compressor.
Indoor fan stops occasionally during heating operation.	•To avoid unintended cooling effect.
Indoor fan stops occasionally during automatic fan speed setting.	•This helps to remove the surrounding odour.
Airflow continues even after operation has stopped.	Extraction of remaining heat from the indoor unit (maximum 30 seconds).
The room has a peculiar odour.	•This may be due to damp smell emitted by the wall, carpet, furniture or clothing.
Cracking sound during operation.	Changes of temperature caused the expansion/ contraction of the unit.
Water flowing sound during operation.	Refrigerant flow inside the unit.
Mist emerges from indoor unit.	Condensation effect due to cooling process.
Outdoor unit emits water/steam.	Condensation or evaporation occurs on pipes.
Louder noise at outdoor unit during early operation of i AUTO-X.	• The compressor and fan rotate at higher speed to boost cooling performance during initial operation.
Discoloration of some plastic parts.	Discoloration is subject to material types used in plastic parts, accelerated when exposed to heat, sun light, UV light or environmental factor.

Check the following before calling for servicing.

Symptom	Check
Operation in HEAT/COOL mode is not	Set the temperature correctly.
working efficiently.	Close all doors and windows.
	Clean or replace the filters.
	Clear any obstruction at the air inlet and air outlet vents.
Noisy during operation.	Check if the unit has been installed at an incline.
	Close the front panel properly.
Remote control does not work.	Insert the batteries correctly.
(Display is dim or transmission signal is weak.)	Replace weak batteries.
The unit does not work.	Check if the circuit breaker is tripped.
	Check if timers have been set.
The unit does not receive the signal from	Make sure the receiver is not obstructed.
the remote control.	Certain fluorescent lights may interfere with signal transmitter. Please consult authorised dealer.

Troubleshooting

When...

■The remote control is missing or a malfunction has occurred



- 1.Raise the front panel.
- 2.Press the button once to use in i AUTO-X mode.
- Press and hold the button until you hear 1 beep, then release to use in forced COOL mode.
- 4.Repeat step 3. Press and hold the button until you hear 2 beeps, then release to use in forced HEAT mode.
- 5. Press the button again to turn off.

■The indicators are too bright

•To dim or restore the unit's indicator brightness, press and hold for 5 seconds.

■Conducting a seasonal inspection after extended non-use

- Check the remote control batteries.
- Check that there is no obstruction around the air inlet and outlet vents.
- Use Auto OFF/ON button to select COOL/HEAT operation. After 15 minutes of operation, it is normal to have the following temperature difference between the air inlet and outlet vents:
 [COOL: ≥ 8 °C / 14.4 °F] | HEAT: ≥ 14 °C / 25.2 °F|

■The units are not going to be used for a long period of time

- Activate HEAT mode for 2~3 hours to remove moisture left in the internal parts thoroughly to prevent mould growth.
- Turn off the power supply and unplug.
- Remove the remote control batteries.

NON SERVICEABLE CRITERIAS

TURN OFF THE POWER SUPPLY AND UNPLUG then please consult an authorised dealer when in following conditions:

- Abnormal noise during operation.
- Water/foreign particles have entered the remote control.
- · Water leaks from Indoor unit.
- · Circuit breaker switches off frequently.
- Power cord becomes unnaturally warm.
- Switches or buttons are not functioning properly.

How to retrieve error codes

If the unit stops and the TIMER indicator blinks, use the remote control to retrieve the error code.



- ②Press until you hear beep sound, then write down the error code
- 4 Turn the unit off and reveal the error code to authorised dealer
- For certain errors, you may restart the unit for limited operation if there are 4 beeps when operation starts.

Diamaratia	Aliman III (Durata atlam
Diagnostic display	Abnormality/Protection control
H 00	No memory of failure
H 11	Indoor/outdoor abnormal communication
H 12	Indoor unit capacity unmatched
H 14	Indoor intake air temperature sensor abnormality
H 15	Outdoor compressor temperature sensor abnormality
H 16	Outdoor current transformer (CT) abnormality
H 17	Outdoor suction temperature sensor abnormality
H 19	Indoor fan motor mechanism lock
H 21	Indoor float switch operation abnormality
H 23	Indoor heat exchanger temperature sensor 1 abnormality
H 24	Indoor heat exchanger temperature sensor 2 abnormality
H 25	Indoor ion device abnormality
H 26	Minus ION abnormality
H 27	Outdoor air temperature sensor abnormality
H 28	Outdoor heat exchanger temperature sensor abnormality
H 30	Outdoor discharge pipe temperature sensor abnormality
H 31	Abnormal swimming pool sensor
H 32	Outdoor heat exchanger temperature sensor 2 abnormality
H 33	Indoor/outdoor misconnection abnormality
H 34	Outdoor heat sink temperature sensor abnormality
H 35	Indoor/outdoor water adverse current abnormality
H 36	Outdoor gas pipe temperature sensor abnormality
H 37	Outdoor liquid pipe temperature sensor abnormality
H 38	Indoor/outdoor mismatch (brand code)

Diagnostic display	Abnormality/Protection control
H 39	Abnormal indoor operating unit or standby units
H 41	Abnormal wiring or piping connection
H 50	Ventilation fan motor locked
H 51	Ventilation fan motor locked
H 52	Left-right limit switch fixing abnormality
H 58	Indoor gas sensor abnormality
H 59	Eco sensor abnormality
H 64	Outdoor high pressure sensor abnormality
H 67	nanoe abnormality
H 70	Light sensor abnormality
H 71	DC cooling fan inside control board abnormality
H 72	Abnormality tank temperature sensor
H 97	Outdoor fan motor mechanism lock
H 98	Indoor high pressure protection
H 99	Indoor operating unit freeze protection
F 11	4-way valve switching abnormality
F 16	Total running current protection
F 17	Indoor standby units freezing abnormality
F 18	Dry circuit blocked abnormality
F 87	Control box overheat protection
F 90	Power factor correction (PFC) circuit protection
F 91	Refrigeration cycle abnormality
F 93	Outdoor compressor abnormal revolution
F 94	Compressor discharge pressure overshoot protection
F 95	Outdoor cooling high pressure protection
F 96	Power transistor module overheating protection
F 97	Compressor overheating protection
F 98	Total running current protection
F 99	Outdoor direct current (DC) peak detection

^{*} Some error code may not be applicable to your model. Consult authorised dealer for clarification.

Information

Information for Users on Collection and Disposal of Old Equipment and used Batteries



[Information on Disposal in other Countries outside the European Union] These symbols are only valid in the European Union. If you wish to discard these items, please contact your local authorities or dealer and ask for the correct method of disposal.



Note for the battery symbol (bottom two symbol examples):

This symbol might be used in combination with a chemical symbol. In this case it complies with the requirement set by the Directive for the chemical involved.

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