



High-Density 25000 \*1

Device of this mark is a trademark of Sharp Corporation.

Plasmacluster is a registered trademark or a trademark of Sharp Corporation.

## Plasmacluster Ion Generator OPERATION MANUAL

ENGLISH

# IG-BC2J



Read and keep this manual carefully.

\*1 The figure on this technical mark is the approximate number of ions per cubic centimeter released into the air as measured at specific point with the unit placed on a specific car and operating with the maximum fan speed.

- The unit is designed for ordinary passenger cars with DC 12V batteries. It cannot be used in vehicles with DC 24V batteries (buses, trucks, etc.).



## CONTENTS

<b>IMPORTANT SAFETY INSTRUCTIONS</b> .....	E-2
• WARNING .....	E-2
• CAUTIONS CONCERNING OPERATION .....	E-3
<b>PARTS NAME</b> .....	E-4
• MAIN UNIT • CONTROL PANEL/DISPLAY .....	E-4
• BACK .....	E-4
<b>INSTALLATION GUIDANCE</b> .....	E-5
<b>OPERATION</b> .....	E-7
<b>CLEANING AND MAINTENANCE</b> .....	E-8
• FILTER .....	E-8
• MAIN UNIT .....	E-9
<b>PLASMACLUSTER ION GENERATING UNIT REPLACEMENT</b> ..	E-10
<b>REPLACING THE FUSE</b> .....	E-11
<b>SPECIFICATIONS</b> .....	E-11
<b>TROUBLESHOOTING</b> .....	E-12
<b>INFORMATION ON DISPOSAL</b> .....	E-13
<b>FOR CUSTOMER ASSISTANCE(U.K.,Ireland)</b> ..	E-14
<b>FOR CUSTOMER ASSISTANCE(Australia, New Zealand)</b> ..	E-15

- While IG-BC2J can remove suspended viruses and other contaminants, it cannot create a completely sterile environment. SHARP does not guarantee its ability to prevent microbial infection.
  - To enable stable emission of high-density Plasmacluster ions, the Plasmacluster Ion Generating Unit mounted in IG-BC2J will need to be replaced periodically\*.
  - The unit is designed for ordinary passenger cars with DC 12V batteries. It cannot be used in vehicles with DC 24V batteries (buses, trucks, etc.).
- \*Replacement is required approximately every 6 years (17,500 hours) when operated 8 hours a day. IG-BC2J will stop operating after about 6 years and 6 months (19,000 hours) if the Plasmacluster Ion Generating Unit is not replaced.

Thank you for purchasing this SHARP Plasmacluster Ion Generator. Please read this manual carefully before using Plasmacluster Ion Generator.

After reading, keep the manual in a convenient location for future reference.

# IMPORTANT SAFETY INSTRUCTIONS

Please read instructions carefully before using this unit as below.

When using electrical appliances, basic safety precautions should be followed, including the following:

## **WARNINGS - To reduce the risk of electric shock, fire or injury :**

- Do not operate switches while driving. (Doing so could lead to accidents.)
- Do not install the unit in places where it could hamper visibility to the front or driving operations, or in places where it could be dangerous to passengers. (Doing so could lead to accidents or injury.)
- Do not put in places exposed to direct sunlight. (Do so could cause warping or malfunction.)
- This unit is designed exclusively for use in vehicles with 12V batteries. Do not use it in other vehicles. Do not use the unit in large trucks, buses or other vehicles with 24V batteries. (Doing so could lead to fire or electric shock.)
- Do not damage or modify the cord. Also, do not use the cord if it is damaged. (The damaged section could cause short-circuiting and the cord could melt, leading to fire.) If the cord is damaged, contact your store of purchase.
- Do not pull on the cord when unplugging the cigar plug or the unit connection plug. (Doing so could damage the cord, leading to fire or electric shock.)
- Do not plug in or unplug the cigar plug or the unit connection plug with wet hands. (Doing so could cause electric shock.)
- When transporting, be careful not to drop the unit or subject it to shocks. (Doing so could cause injury or damage.)  
If the unit should drop or get damaged, contact your store of purchase.  
Continued usage as such could lead to fire or electric shock.
- Do not modify the unit. Also, no one other than an authorized repairman should take apart or repair the unit. (Doing so could lead to fire, electric shock or injury.)  
Contact your store of purchase for repairs.
- Do not spill beverages or drop cigarette ashes, metal objects, easily burnable objects, etc., into the unit through the air outlet or air intake.  
Be particularly careful if there are small children in your family. If water or foreign substances should get inside the unit, unplug the cigar plug from the cigar lighter socket. (Continued usage as such could lead to fire or electric shock.)  
Contact your store of purchase.
- Do not wipe the unit with oils, alcohol, benzene or thinner, or spray hairspray or insecticides on the unit.  
If such substances should get on the unit, wipe them off immediately. (Such substances could lead to cracking or electric shock or could catch fire.)
- Use the car adapter designed exclusively for this unit, and insert the cigar plug securely all the way in until it stops.  
(If the cigar plug is not inserted securely until it stops, it could heat up, deforming the cigar lighter socket, and this could lead to fire.)
- If the fuse should blow, be sure to replace it with a 5A glass tube fuse (commercially available). Never use a piece of wire, etc., in place of the fuse.  
(Using anything other than the specified type of fuse could cause heating, leading to fire.)
- Be sure to unplug the cigar plug from the cigar lighter socket when cleaning. (Failure to do so could cause electric shock or injury.)

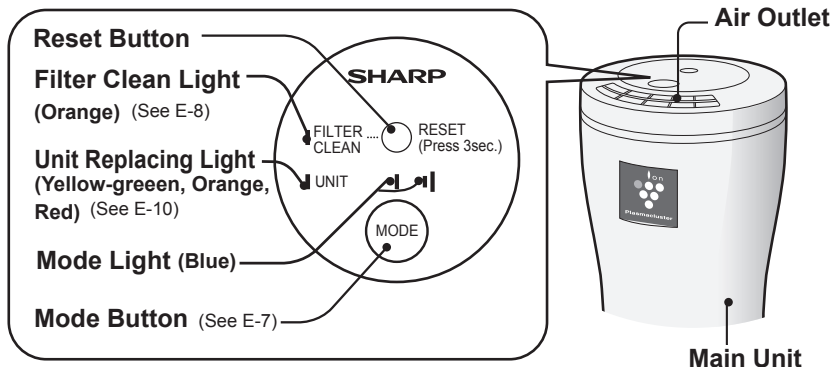
- Be sure to unplug the cigar plug from the cigar lighter socket when not using the unit for long periods of time. (Failure to do so could lead to electric shock or fire caused by short-circuiting.)
- If the cigar lighter socket is integrated into the ashtray, be sure that cigarettes are completely put out before using.  
When leaving the vehicle, unplug the cigar plug and close the ashtray's lid.  
(Failure to do so could lead to fire caused by the smoldering cigarettes.)

#### CAUTIONS CONCERNING OPERATION:

- Do not touch the metal parts of the car adapter's cigar plug (or of the cigar lighter socket).  
(The metal parts of the cigar plug could be hot directly after the car is stopped, and could cause burns if touched.)
  - Do not use the unit in commercially available cup holders, on shaky or non-level surfaces or in other unstable places. (The unit could fall, resulting in injury or damage.)
  - Move the unit out of the car when using room fumigating type insecticides or deodorizers.  
If not, the chemicals could get inside the unit and later be ejected from the air outlet, possibly harming your health.
  - If the unit risks falling out of the cup holder (when driving on rough roads, over bumps, etc.), either slow down or remove the unit from the cup holder beforehand.  
(Failure to do so could cause injury or damage to the unit.)
  - Do not use items of silicone-containing products\* near the unit.  
The fluoro-resin or silicone could get stuck inside the unit, preventing it from producing plasmacluster ions.  
If this happens, remove the dust from the electrode section of the Plasmacluster Ion Generating Unit. (See E-9)
- \* Hair care products (split end coatings, hair mousses, hair treatments, etc.), cosmetics, antiperspirants, antistatic agents, waterproofing sprays, polishes, glass cleaners, chemical-impregnated clothes, wax, etc.

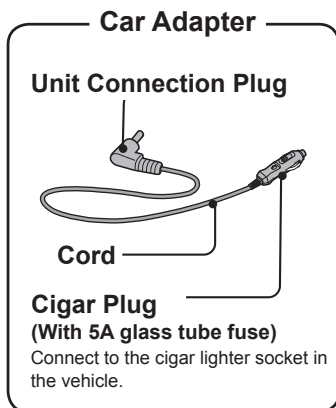
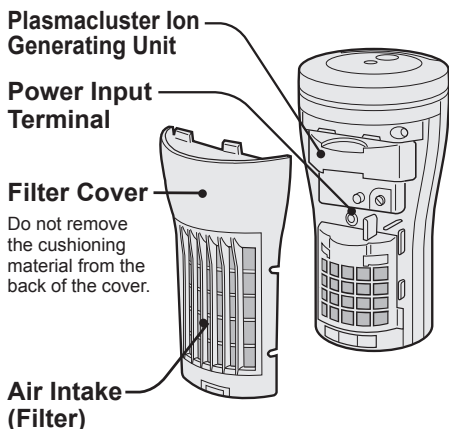
# PARTS NAME

## MAIN UNIT • CONTROL PANEL/DISPLAY



The Unit Replacing Light is always lighting during operation.

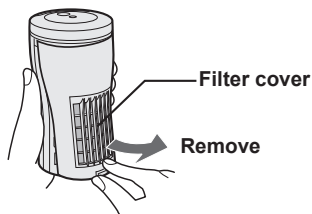
## BACK



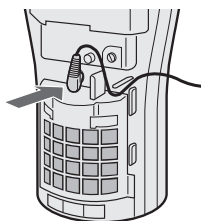
# INSTALLATION GUIDANCE

## Connecting the car adapter and installing the unit

- 1** Remove the filter cover.

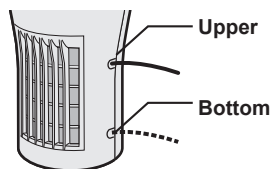
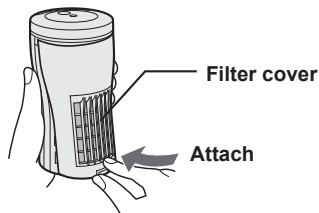
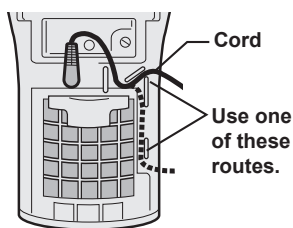


- 2** Insert the car adapter's unit connection plug securely into the unit power input terminal.

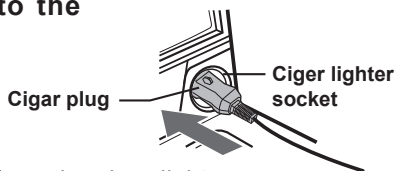


- 3** Route the cord in one of the ways shown in the diagram, according to the place of installation, then attach the filter cover.

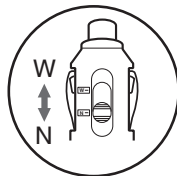
- Be careful the cord does not get caught in the filter cover.



## 4 Insert the cigar plug into the cigar lighter socket.



- Be sure to remove any dirt from the cigar lighter socket. Failure to do so could cause faulty contact.
- When using, connect with the selector switch set to "N", and if the plug is loose, connect with the switch set to "W".  
(The width between electrodes (the metal parts) differs at the N and W positions.)
- The socket may not fit by the type of car.



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## 5 Set the unit in the cup holder with its air outlets facing in the desired direction.



### Cautions on wiring the car adapter

- Do not let the cord touch or get caught in the seat rails, shift lever or other moving parts.
- Wire in such a way that the cord does not get in the way of the driver.
- Consider the movement of the seats (forward/backward, swiveling or reclining) when wiring.

### Cautions on installation

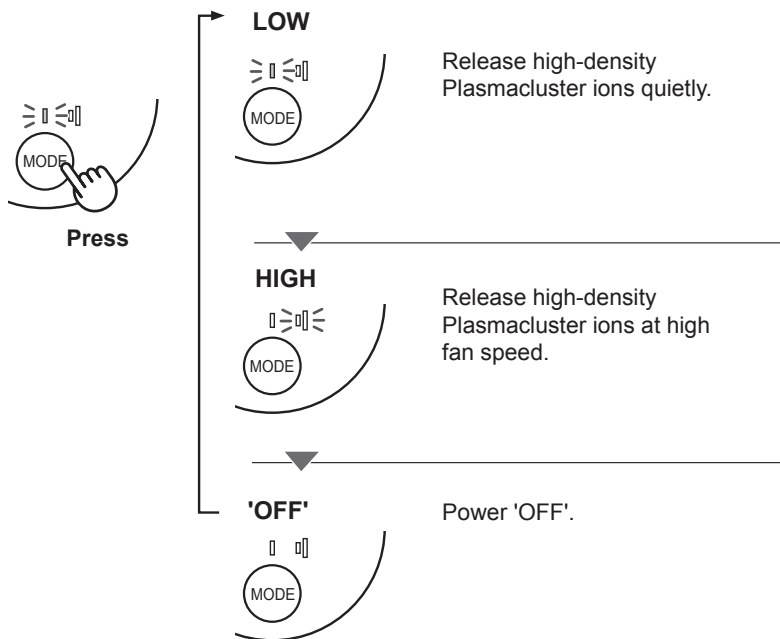
- Be sure to place on a stable location. (Do not put in a commercially available cup holder or other unstable place.)
- Do not obstruct the air inlet or outlet.
- Keep the unit and the vehicle's electronic key away from each other. The unit's radio waves could cause interference, causing warnings to sound or warning indicators to light.
- Keep the unit away from the vehicle's in-glass antenna. Failure to do so could cause noise in the radio.
- If there should be noise in a TV or radio located in the same car, or if an atomic clock in the car should not display the time properly, move the unit away from the TV, radio, atomic clock, etc.
- If the unit is installed directly in front of the car climate control's outlets, the unit could get hot when the climate control is operating in the heating mode.
- The unit could get scratched by the vibrations of the vehicle, etc.



# OPERATION

When a car's climate control is used, the wind from the climate control spreads the high density plasmacluster ions throughout the cabin effectively.

## To select the preferred mode



If the vehicle's engine is turned off and the vehicle is stopped while the unit is operating, the unit resumes operating in the same mode when the vehicle's engine is started back up.

- If the unit operates even when the vehicle's ignition key is removed or the engine switch is set to OFF, unplug the cigar plug to prevent the battery from going dead.

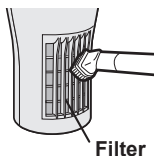
# CLEANING AND MAINTENANCE

## FILTER

Every week or more often if necessary

The filter must be cleaned regularly in order to maintain the ion density. Filter soiling depends on the usage environment, so clean the filter about once a week or whenever the filter is clogged, even if the Filter Clean Light has not turned on.

- 1 Gently remove dust from the filter of back side by using a vacuum cleaner.



### <For Stubborn Dirt>

- Remove and rinse in water. (Use a soft sponge if the dirt does not come off easily.) Be careful the cushioning material does not come off.

Rinse



Wipe with a dry cloth.



(Dry in the shade.)

Reattach

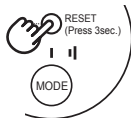


- Do not press the vacuum cleaner strongly against the filter, or the filter could be damaged.
- If using synthetic kitchen detergent, rinse well to remove all traces of the detergent. Also, be sure to dry the filter in the shade.

- 2 Press the Reset Button for at least 3 seconds.

Once cleaning is completed, connect the car adapter, then press and hold in the Reset Button for at least 3 seconds to turn off the filter clean light.

Even if the Filter Clean Light is off, press and hold in the Reset Button for at least 3 seconds after cleaning.

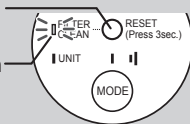


### Filter Clean Light

Filter Clean Light will be lit after approx. 3 months (approx. 720 hours), when operated 8 hours a day.

Reset Button

Filter Clean Light



When the Reset Button is pressed and held in for at least 3 seconds, the light flashes twice then turns off.

## MAIN UNIT

Every month or more often if necessary

Wipe with a dry soft cloth.

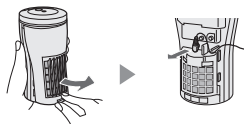
<For Stubborn Dirt>

Use water and a mild detergent. And then, wipe with a wet cloth. Make sure to dry out the main unit.

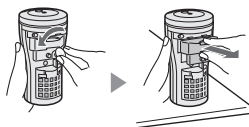
## Plasmacluster Ion Generating Unit (electrode section)

If Plasmacluster ions are not released

- 1 Remove the filter cover and a unit connection plug.



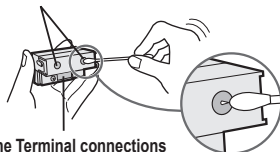
- 2 Remove a screw fixing a unit with coin etc..



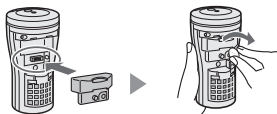
- 3 Remove the dust from the electrode section of the unit with a cotton swab.

Use caution when cleaning electrodes as their positions are fixed and any bending or changing of shape may cause irreparable damage to the Plasmacluster Ion Generating Unit.

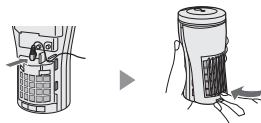
electrode section



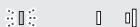
- 4 Fix it with a screw.



- 5 Connect a unit connection plug and set the filter cover.






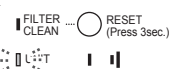
<AFTER THE UNIT MAINTENANCE>



Press the Operation Button and check the Unit Replacing Lighting.

# PLASMACLUSTER ION GENERATING UNIT REPLACEMENT

In order to release Plasmacluster Ion stably, periodical replacement of Plasmacluster Ion Generating Unit is necessary. The Unit Replacing Light will be ON as a reminder for replacement.

Elapsed Time	Display	Message
Beginning to use	Unit Replacing Light is lighting (yellow-green) 	—
Approx. 16,000 hours (Approx. 5 year and 5 months when operated 8 hours a day)	Unit Replacing Light is lighting (orange) 	Suggest replacing
Approx. 17,500 hours (approx. 6 years when operated 8 hours a day)	Unit Replacing Light is flashing (red) 	Replace the Plasmacluster Ion Generating Unit
Approx. 19,000 hours (approx. 6 years and 6 months when operated 8 hours a day)	Unit Replacing Light is flashing faster (red) 	Stop working

\* When turned back on after the unit is replaced, the Unit Replacing Light lights green.

## Replacement of Plasmacluster Ion Generating Unit

Plasmacluster Ion Generating Unit	
Model Number	IZ-CBC2A

### <For Disposal>

Please dispose the used Plasmacluster Ion Generating Unit according to any local laws and regulations.

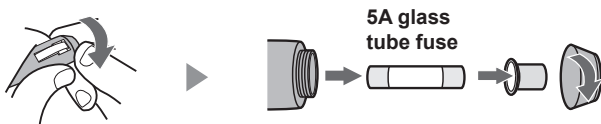
-materials-

- Case : Polycarbonate / Acrylonitrile Butadiene Styrene (PC/ABS)
- Unit : Polybutylene Terephthalate(PBT), Electric parts

# REPLACING THE FUSE

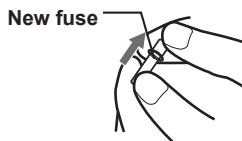
## HOW TO REPLACE

- 1 Turn the tip of the cigar plug and remove it.



- 2 Insert the new fuse, then reassemble as before.

- Be sure to replace with a 5A glass tube fuse (commercially available).



# SPECIFICATIONS

Model	IG-BC2J	
Rated voltage	DC12V	
Applicable interior volume *1	Approx. 3.6 m <sup>3</sup>	
Operation mode	HIGH	LOW
Ion density *2	Approx. 25,000 ions/cm <sup>3</sup>	Approx. 7,000 ions/cm <sup>3</sup>
Power consumption	2.3W	1.3W
Outer dimensions	Cylindrical, 80 mm upper section diameter / 65 mm lower section diameter x 150 mm height (Not including car adapter)	
Weight	Approx. 340g (Not including car adapter)	

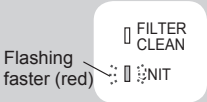


\*1 Space corresponding to a cabin measuring 1.5 (width) x 2.4 (depth) x 1.0 (height) meters

\*2 Approximate number of ions as measured from a point near the center of a space of the applicable volume (0.5 meters from the floor) when operated in the respective operating modes.

\* Some specifications may be changed for improvement purposes.

**ACCESSORIES** Car Adapter / Operation manual

# TROUBLESHOOTING

Problem	WHAT TO DO
<p>The Plasmacluster Ion Generator does not work.</p>	<ul style="list-style-type: none"> <li>Is a Car Adapter connected properly? Please be connected definitely.</li> <li>Does not a fuse blow? Replace with a new fuse. (See E-11)</li> </ul>
 <p>Flashing faster (red)</p>	<p>It is over the exchange period of Plasmacluster Ion Generating Unit. Replace with new Plasmacluster Ion Generating Unit. (See E-10)</p>
 <p>Flashing (red)      Flashing (blue)</p>	<p>Plasmacluster Ions are not released. Press the Mode Button and restart. Clean the electrode section of the unit. (See E-9)</p>
 <p>Flashing (blue)</p>	<p>Is the unit installed correctly? Remove the unit, fully inserted again and press the Mode button.</p>
<p>Other indication.</p>	<p>Failure Unplug and contact the store you purchased or Sharp Service Center.</p>
<p>A discontinuous noise is heard. A clicking or ticking sound comes from the unit.</p> <p>The air flow decreases.</p>	<ul style="list-style-type: none"> <li>Clicking or ticking sounds may be audible when the unit is generating ions.</li> <li>Dust may block the filter, clean the filter. (See E-8)</li> <li>Wind quantity sometimes becomes strong during operation with LOW mode, to confirm the condition of ion be not abnormal.</li> </ul>
<p>The discharged air has odor.</p>	<ul style="list-style-type: none"> <li>Filter is getting dirty. Clean the filter. (See E-8)</li> <li>The Plasmacluster Ion Generator releases a small trace of ozone which may produce odor. This is not detrimental to health.</li> </ul>

# INFORMATION ON DISPOSAL



**Attention: FOR EU ONLY**

Your product is marked with this symbol. It means that used electrical and electronic products should not be mixed with general household old waste.

There is a separate collection system for these products.

## A. Information on Disposal for Users (private households)

### 1. In the European Union

Attention: If you want to dispose of this equipment, please do not use the ordinary dust bin!

Used electrical and electronic equipment must be treated separately and in accordance with legislation that requires proper treatment, recovery and recycling of used electrical and electronic equipment.

Following the implementation by member states, private households within the EU states may return their used electrical and electronic equipment to designated collection facilities free of charge\*. In some countries\* your local retailer may also take back your old product free of charge if you purchase a similar new one.

\*) Please contact your local authority for further details.

If you used electrical or electronic equipment has batteries or accumulators, please dispose of these separately beforehand according to local requirements.

By disposing of this product correctly you will help ensure that the waste undergoes the necessary treatment, recovery and recycling and thus prevent potential negative effects on the environment and human health which could otherwise arise due to inappropriate waste handling.

### 2. In other Countries outside the EU

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

## B. Information on Disposal for Business Users.

### 1. In the European Union

If the product is used for business purposes and you want to discard it:

Please contact your SHARP dealer who will inform you about the take-back of the product. You might be charged for the costs arising from take-back and recycling. Small products (and small amounts) might be taken back by your local collection facilities.

### 2. In other Countries outside the EU

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

# SHARP

## WARRANTY

### *Consumer Electronic Products*

#### **Congratulations on Your Purchase!**

This Sharp product is warranted against faults in material and manufacture for the period as stated in the table below.

If service is required during the warranty period, please contact your nearest Sharp Approved Service Centre. These repairs would be carried out at no charge to the owner, subject to the conditions specified herein.

This warranty does not extend to defects or injuries caused by or resulting from causes not attributable to faulty parts or the manufacture of the product, including but not limited to, defect or injury caused by or resulting from misuse, abuse, neglect, lack of maintenance, accidental damage, improper voltage, liquid spillage, vermin infestation, software, or any alterations made to the product which are not authorised by Sharp.

Please retain your sales documentation, as this should be produced to validate a warranty claim. This warranty is in addition to and in no way limits, varies or excludes any implied rights and remedies under any relevant legislation in the country of sale.

This warranty does not cover transportation to and from the Sharp Approved Service Centre. Goods presented for repair may be replaced by refurbished goods of the same type rather than being repaired. Refurbished parts may be used to repair the goods. The repair of your goods may result in the loss of user generated data, please ensure that you have saved this data elsewhere prior to repair.

Australian customers: Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. The criteria of a major failure is defined in the Australian Consumer Law. Should you require any assistance with a major failure please contact Sharp Customer Care.

#### **WARRANTY PERIODS**

Home Theatre Projector	12 months	(excluding lamps and air filters)
Audio/Home Theatre	12 months	
Microwave / Steam Oven	12 months	
Slow Juicer	12 months	
Refrigerator	24 months	
DVD/Blu-ray	12 months	
Washing Machine	24 months	
Portable Air Conditioner	12 months	
LCD Television	12 months	
Air Purifier	12 months	
Vacuum Cleaner	24 months	

**SHARP**  
SHARP CORPORATION OF  
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Huntingwood NSW 2148  
SHARP CORPORATION OF  
NEW ZEALAND LIMITED  
59 Hugo Johnston Drive  
Penrose, Auckland

SPform 040 (SEPT 2013)

**IMPORTANT NOTICE: This warranty applies only to products sold in Australia & New Zealand**



## **SHARP**

FOR LOCATION ENQUIRIES WITHIN

### **AUSTRALIA**

REGARDING YOUR LOCAL

**SHARP APPROVED SERVICE CENTRE**

VISIT OUR WEBSITE AT

**[www.sharp.net.au](http://www.sharp.net.au)**

OR CALL SHARP CUSTOMER CARE

**1300 135 022**

(LOCAL CALL COST APPLY WITHIN AUSTRALIA)

SHARP CORPORATION OF AUSTRALIA PTY LTD

## **SHARP**

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REGARDING YOUR LOCAL

**SHARP APPROVED SERVICE CENTRE**

VISIT OUR WEBSITE AT

**[www.sharp.net.nz](http://www.sharp.net.nz)**

CONTACT YOUR SELLING DEALER/RETAILER

OR CALL

**SHARP CUSTOMER SERVICES**

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SHARP CORPORATION OF NEW ZEALAND LIMITED



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**Ireland:** 01 676 0648 (office hours)

**Website:** <http://www.sharp.co.uk/support>

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