# STAR JEWELRY \* E C O \*

- Before using the watch, read this instruction manual carefully to ensure correct use.
- · After reading, be sure to store this manual in a safe place should it be needed for future reference.

# Safety precautions (IMPORTANT)

This manual contains instructions that should be strictly followed at all times not only for optimal use, but to prevent any injuries to yourself, other persons or property.

Safety advisories are categorized and depicted in this manual as follows:

**WARNING** Can cause serious injury or death.

**CAUTION** Can or will cause minor or moderate injury or damage.

Important instructions are categorized and depicted in this manual as follows: (The following are samples of depictions.)



Warning (caution) symbol followed by instructions that should be followed or precautions that should be observed.

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### **Features**

This watch is an analog solar-powered watch that has solar cells under the dial and the watch is powered by the electrical energy converted from the light energy using the

Charge the watch by exposing the dial to the bright light before using.

\* If the watch has stopped from the insufficient charge, expose the dial to the strong light such as direct sunlight.

This watch uses a built-in rechargeable cell to store electrical energy. The rechargeable cell used is a clean energy battery that does not use any harmful substances such as mercury.

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# Before using this watch

#### ■ Protective Stickers

Be sure to remove any protective stickers that may be on your watch (case back, band, clasp, etc.). Otherwise, perspiration or moisture may enter the gaps between the protective stickers and the parts, which may result in a skin rash and/or corrosion of the metal parts.

#### ■ Band adjustment

We recommend seeking the assistance of an experienced watch technician for sizing of your watch. If adjustment is not done correctly, the bracelet may unexpectedly become detached leading to loss of your watch or injury.

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**■** For optimal performance

To ensure optimal watch performance, be sure to charge your watch frequently. This watch has an overcharging prevention function that will stop charging when the rechargeable cell is fully charged. You do not have to worry about overcharging. Always make sure to recharge the watch everyday.

Set the time.

#### **■E01**\*



1. Pull the crown out to position 2 when the second hand points to 12:00 (0 second). The second hand stops

D—D—D 2. Rotate the crown to set the time.

Push the crown in to position 10 in accordance with a reliable time source.

The second hand starts moving

**■ B035** 



1. Pull the crown out when the second hand points to 12:00 (0 second).

The second hand stops

**1**— **2.** Rotate the crown to set the time.

 $\textbf{3.} \ \ \textbf{Push the crown in in accordance with a reliable time}$ 

The second hand starts moving.

#### ■G62\*/G67\*/B023



- 1. Pull the crown out. The second hand stops.
- 2. Rotate the crown to set the time.
- 3. Push the crown in.

The second hand starts moving.

# Setting the date indication (E01\*)

- Do not adjust between 9:00 PM and 1:00 AM. Otherwise the date indication may change incorrectly.
- Date indication adjustment is required on the first days of the following months: March, May, July, October and December.



- 1. Pull the crown out to position 1.
- 2. Rotate the crown counterclockwise to adjust the date indication.
  - Clockwise rotation moves nothing.
- 0 1 2 3. Push the crown in to position 0.

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# **Functions of Solar Powered Watch**

# ■ Insufficient Charge Warning Function

The second hand changes to a two second interval movement to indicate insufficient recharging. Immediately charge your watch by exposing the dial to light. The minute hand moves in a minute interval with models without second hands.

# Overcharging Prevention Function

Once the rechargeable cell is fully charged, the overcharging prevention function comes into operation and prevents over-charging of the rechargeable cell. The watch and its rechargeable cell will not get damaged even if the watch is overcharged.

#### ■ Quick Start Function (E01\*)

When the watch has stopped by the insufficient charge, the watch will start operating

10 seconds after it is exposed to light.
(The time that the watch will start operating after recharging depends on watch models and the intensity of the light to expose.)

# ■ Time Setting Warning Function (G62\*/G67\*/B023)

As the watch is exposed to light sufficient for charging and begins re-charging after it has stopped, the minute hand moves with a hitch to indicate that the time is incorrect

After the time is reset, the minute hand will move normally.

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# **Charging your watch**

#### ■ Charging time by environment (E01\*)

Below are the approximate times required for charging when exposing the watch dial to light continuously. Please use this table as a reference only.

		Charging time (approx.)		
Environment	Illuminance (lx)	To work for one day	To start working normally when the cell is discharged	To become fully charged when the cell is discharged
Outdoors (sunny)	100,000	2 minutes	18 minutes	11 hours
Outdoors (cloudy)	10,000	12 minutes	3 hours	40 hours
20 cm (7-7/8 inches) from a fluorescent lamp (30W)	3,000	40 minutes	8 hours	_
Interior lighting	500	4 hours	60 hours	-

It is recommended to expose the dial to direct sunlight.

#### ■ Charging time by environment (B035)

Below are the approximate times required for charging when exposing the watch dial to light continuously. Please use this table as a reference only.

	Charging time (approx.)				
Environment	Illuminance (lx)	To work for one day	To start working normally when the cell is discharged	To become fully charged when the cell is discharged	
Outdoors (sunny)	100,000	2 minutes	30 minutes	11 hours	
Outdoors (cloudy)	10,000	12 minutes	4 hours	60 hours	
20 cm (7-7/8 inches) from a fluorescent lamp (30W)	3,000	40 minutes	14 hours	_	
Interior lighting	500	4 hours	-	-	

It is recommended to expose the dial to direct sunlight.

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### ■ Charging time by environment (G62\*/G67\*)

Below are the approximate times required for charging when exposing the watch dial to

light continuously. Please use this table as a reference only.					
		Charging time (approx.)			
Environment	Illuminance (Ix)	To work for one day	To start working normally when the cell is discharged	To become fully charged when the cell is discharged	
Outdoors (sunny)	100,000	2 minutes	13 minutes	6 hours	
Outdoors (cloudy)	10,000	8 minutes	1.5 hours	35 hours	
20 cm (7-7/8 inches) from a fluorescent lamp (30W)	3,000	30 minutes	5 hours	_	
Interior lighting	500	3 hours	35 hours	-	

<sup>•</sup> It is recommended to expose the dial to direct sunlight

# ■ Charging time by environment (B023)

Below are the approximate times required for charging when exposing the watch dial to light continuously. Please use this table as a reference only.

		Charging time (approx.)		
Environment	Illuminance (lx)	To work for one day	To start working normally when the cell is discharged	To become fully charged when the cell is discharged
Outdoors (sunny)	100,000	1 minute	45 minutes	11 hours
Outdoors (cloudy)	10,000	6 minutes	6.5 hours	60 hours
20 cm (7-7/8 inches) from a fluorescent lamp (30W)	3,000	18 minutes	25 hours	_
Interior lighting	500	2 hours	_	_

<sup>•</sup> It is recommended to expose the dial to direct sunlight

# Solar-power watch handling precautions

#### <Always Make Sure to Recharge Frequently>

- Please note that if you wear long sleeves, the watch may stop as a result of being covered by your sleeve and blocked from the light.
- When you take off the watch, try to place it in as bright a location as possible. This will ensure optimal operation.



# **CAUTION** Recharging Precautions

• Do not charge the watch at a high temperature (about 60°C (140°F) or higher) as doing so may cause the movement to malfunction

#### Examples:

- Charging the watch too close to a light source which generates a large amount of heat such as an incandescent lamp or halogen lamp.\* When charging under an incandescent lamp, be sure to leave 50 cm or more between the lamp and the watch to avoid exposing the watch to excessive heat.
- Charging the watch in a location where the temperature may become extremely high such as on the dashboard of a vehicle.

# **Water resistance**

Everyday-use water resistant watch



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### WARNING Water resistance

- Refer to the watch dial and the case back for the indication of the water resistance of your watch. The following chart provides examples of use for reference to ensure that your watch is used properly. (The unit "1bar" is roughly equal to 1 atmosphere.)

  • WATER RESIST(ANT) ××bar may also be indicated as W.R.××bar.

- Non-water resistant models are not designed to come into contact with any moisture.
   Water resistance for daily use (to 3 atmospheres) means the watch is water resistant for occasional accidental splashing.

Indication

Dial or Case back

WATER RESIST(ANT)

WATER RESIST(ANT) 5 bar

#### < Replacement of Rechargeable Cell>

 This watch utilizes a special rechargeable cell that does not require regular replacement. However power
consumption may increase after using the watch for a number of years due to wear of internal components and deterioration of oils. This may cause stored power to be depleted at a faster rate. For optimal performance, we recommend having your watch inspected (chargeable to the owner) to ensure operation is within factory specifications.



#### WARNING Handling of Rechargeable Cell

- The rechargeable cell should never be removed from the watch. If for any reason it becomes necessary to remove the rechargeable cell from the watch, keep out of the reach of children to prevent accidental swallowing. If the rechargeable cell is accidentally swallowed, consult a doctor immediately.
- Do not dispose of the rechargeable cell with ordinary garbage. Please follow the instructions of your municipality regarding collection of batteries to prevent the risk of fire or environmental contamination.

#### **WARNING** Use Only the Specified Battery

• Never use a battery other than the rechargeable cell specified for use in this watch. Although the watch structure is designed so that it will not operate when another type of battery is installed, if a silver battery or other type of battery is installed in the watch and the watch is recharged, there is the risk of overcharging which may cause the battery to rupture. This can cause damage to the watch and injury to the wearer. When replacing the rechargeable cell, always make sure to use the designated rechargeable

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• Upgraded water resistance for daily use (to 5 atmospheres) means that the watch may be worn while swimming, but is not to worn while skin diving.

• Upgraded water resistance for daily use (to 10/20 atmospheres) means that the watch may be worn

Water-related use

:: 6/00

while skin diving, but not while scuba or saturated diving using helium gas

OK	OK	NO	NO	NO
OK	NO	NO	NO	NO
Minor exposure to water (washing face, rain, etc.)	Swimming and general washing work	Skin diving, marine sports	Scuba diving using an air tank	Operate the crown or button when the watch is wet

Upgraded everyday use water-resistant watch Water resistant to WATER RESIST(ANT) 10/20 bar OK OK OK NO NO 10 or 20 atmospheres 19

Specification

Water resistant to 3 atmospheres

Water resistant to 5 atmospheres

# **Precautionary items and usage limitations**



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#### **CAUTION** To Avoid Injury

- Be particularly careful when wearing your watch while holding a small child, to avoid injury.
- Be particularly careful when engaged in strenuous exercise or work, to avoid injury to yourself and
- Do NOT wear your watch while in a sauna or other location where your watch may become excessively hot, since there is the risk of burns
- Be careful when putting on and taking off your watch, since there is a risk of damaging your fingernails, depending on the manner in which the band is fastened.
- Take off your watch before going to bed. An unexpected injury or rash may be caused.

#### **CAUTION** Precautions

- Always use the watch with the crown pushed in (normal position). If the crown is of the screw lock-type, make sure it is securely locked.
- Do NOT operate the crown or any push buttons when the watch is wet. Water may enter the watch causing damage to vital components.
- If water enters the watch or the watch fogs up and does not clear up even after a long time, consult the shop you purchased the watch for inspection and/or repair.
- Even if your watch has a high level of water resistance, please be careful of the following.
   If your watch is immersed in sea water, rinse thoroughly with fresh water and wipe with a dry cloth.
- Do Not pour water from a tap directly onto your watch
- Take off your watch before taking a bath.

   If seawater enters the watch, place the watch in a box or plastic bag and immediately take it in for repair. Otherwise, pressure inside the watch will increase, and parts (crystal, crown, push button, etc.) ma

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#### **CAUTION** When Wearing Your Watch

- Leather bands and rubber (urethane) bands will deteriorate over time due to perspiration dirt. Be sure
- to replace the band periodically.
   The durability of a leather band may be affected when wet (fading, peeling of adhesive), owing to the properties of the material. Moreover, wet leather may cause a rash.
- It is recommended to take off the watch if it gets wet, even if the watch itself is water resistant.
   Do not wear the band too tightly. Try to leave enough space between the band and your skin to allow adequate ventilation.
- The rubber (urethane) band may be stained by dyes or soil present in or on clothing or other accessories. Since these stains may not be removable, caution is required when wearing your watch with items that tend to easily transfer color (articles of clothing, purses, etc.). In addition, the band may be deteriorated by solvents or moisture in the air. Replace with a new one when it has lost elasticity or become cracked.
- Please request adjustment or repair of the band in the following cases:
  - You notice an abnormality with the band due to corrosion.
- The pin of the band is protruding.

   We recommend seeking the assistance of an experienced watch technician for sizing of your watch. If adjustment is not done correctly, the bracelet may unexpectedly become detached leading to loss of your watch or injury.

#### <Temperature>

• The watch may stop or the function of the watch may be impaired in extremely high or low temperature. Do not use the watch in places where the temperature is outside the operating temperature range as stated in the specifications

#### <Magnetism>

Analog quartz watches are powered by a step motor that uses a magnet. Subjecting the watch to strong
magnetism from the outside can cause the motor to operate improperly and prevent the watch from

Do not allow the watch to come into close proximity to magnetic health devices (magnetic necklaces, magnetic elastic bands, etc.) or the magnets used in the latches of refrigerator doors, clasps used in handbags, the speaker of a cell phone, electromagnetic cooking devices and so on.

#### <Strong Shock>

Avoid dropping the watch or subjecting it to other strong impact. It may cause malfunctions and/ or performance deterioration as well as damage to the case and bracelet.

#### <Static Electricity>

• The integrated circuits (IC) used in quartz watches are sensitive to static electricity. Please note that the watch may operate erratically or not at all if exposed to intense static electricity.

#### <Chemicals, Corrosive Gases and Mercury>

• Do not use your watch in chemicals or corrosive gas environment. If paint thinner, benzene or other solvents or products containing these solvents (including gasoline, nail-polish remover, cresol, bathroom cleaners and adhesives, water repellent, etc.) are allowed to come into contact with the watch, they may discolor, dissolve or crack the materials. Be careful when handling these chemicals. Contact with mercury such as that used in thermometers may also cause discoloration of the band and case.

• Be sure to remove any protective stickers that may be on your watch (case back, band, clasp, etc.). Otherwise, perspiration or moisture may enter the gaps between the protective stickers and the parts, which may result in a skin rash and/or corrosion of the metal parts.

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# /! CAUTION Always Keep Your Watch Clean

- Rotate the crown while it is pressed in fully and press the buttons periodically so they do not become
- stuck due to accumulations of foreign matter. Wipe off dirt stuck around the crown.

   The case and band of the watch come into direct contact with the skin in the same manner as undergarments. Corrosion of the metal or unnoticed soiling such as that caused by perspiration and
- dirt can soil sleeves and other portions of clothing. Keep your watch clean at all times.

   The case and band of the watch come into direct contact with the skin. If you think there is something wrong, discontinue wearing the watch immediately and consult your physician. In the case of accumulation of sweat or dirt on a metal band or case, clean thoroughly using a brush and neutral
- In the case of a leather band, wipe clean using a dry cloth. For a leather band, wipe off dirt using a dry
- Leather bands may become discolored by perspiration or dirt. Always keep your leather band clean by wiping with a dry cloth.

#### Caring for Your Watch

- Wipe any dirt or moisture such as perspiration from the case and crystal with a soft cloth.
- · For a metallic, plastic or rubber (urethane) watchband, wash any dirt off with water.
- Remove the small amounts of dirt trapped between the crevices of the metallic band with a soft brush.
- For a leather band, wipe off dirt using a dry cloth.
  If you will not be using your watch for an extended period of time, carefully wipe off any perspiration, dirt or moisture and store in a proper location, avoiding locations subject to excessively high or low temperatures and high humidity.

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### <When Luminous Paint is used for your watch>

The paint on the dial and hands helps you with reading the time in a dark place. It is free from any national cut and and manus heigh you with reading the time in a dark place. It is free from any radioactive substance or any other material harmful to a human body or environment. The luminous paint stores light (daylight or artificial light) and glows in a dark place.

• The light emission gradually becomes weaker as time passes.

• The duration of the light ("glow") will vary depending on the brightness, types of and distance from

- a light source, exposure time, and the amount of the paint.
- The paint may not glow and/or may dissipate quickly if exposure to light was not sufficient.

# **Periodic Inspection (Charge Basis)**

As the water resistance will be reduced over time, you should have your watch inspected and its water resistance verified every 2-3 years (charge basis) to extend its life and ensure safety To maintain its water resistance, it is recommended to request us to replace the packings and other parts of your watch

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# **Specifications**

Model	E01*		
Туре	Analog solar-powered watch		
Quartz oscillator frequency	32,768 Hz (Hz = frequency of vibration in a second)		
Timekeeping accuracy	Within ±15 seconds per month when worn at normal operation temperatures (between +5°C and +35°C (between 41°F and 95°F))		
Operating temperature range	-10°C/14°F to+60°C/140°F		
Display functions	Hours, minutes, seconds, dates		
Additional functions	Insufficient charge warning function / Quick start function / Overcharging prevention function		
Maximum run time Fully charged to fully discharged Approx. 6 m		Approx. 6 months	
from full charge Insufficient charge warning to fully discharged Appro		Approx. 4 days	
Battery	Rechargeable cell (lithium button cell), 1pc.		

\* Specifications are subject to change without prior notice

Model	B035			
Туре	Analog solar-powered watch	Analog solar-powered watch		
Quartz oscillator frequency	32,768 Hz (Hz = frequency of vibration in a second)			
Timekeeping accuracy	Within ±15 seconds per month when worn at normal operation temperatures (between +5°C and +35°C (between 41°F and 95°F) )			
Operating temperature range	-10°C/14°F to+60°C/140°F			
Display functions	Hours, minutes, seconds			
Additional functions	Insufficient charge warning function / Overcharging prevention function			
Maximum run time Fully charged to fully discharged Approx. 7		Approx. 7 months		
from full charge	Insufficient charge warning to fully discharged	Approx. 4 days		
Battery	Rechargeable cell (lithium button cell), 1pc.			

<sup>\*</sup> Specifications are subject to change without prior notice.

Model	G62*/G67*/B023			
Туре	Analog solar-powered watch			
Quartz oscillator frequency	32,768 Hz (Hz = frequency of vibration in a second)			
Timekeeping accuracy	Within ±15 seconds per month when worn at normal operation temperatures (between +5°C and +35°C (between 41°F and 95°F) )			
Operating temperature range	-10°C/14°F to+60°C/140°F			
Display functions	Hours, minutes			
Additional functions	Insufficient charge warning function / Overcharging prevention function / Time setting warning function			
	Fully charged to fully discharged	G62*/G67*	Approx. 8 months	
Maximum run time from full charge		B023	Approx. 1 year	
	Insufficient charge warning to fully discharged	G62*/G67*	Approx. 8 days	
		B023	Approx. 14 days	
Battery	Rechargeable cell (lithium button cell), 1pc.			

<sup>\*</sup> Specifications are subject to change without prior notice.