取扱説明書 INSTRUCTION

JCC05·V182CC· V14J·F22·F22A· F30·F31

該当機種

AS01 · AS32 · AS82 · V110 · V111 · V114 · V115 · V116 · V117 · V131 · V137 · V138 · V14J · V145 · V147 · V157 · V158 · V181 · V182 · V187 · VS15 · VS17 · VS22 · VS3J · VS37 · VS42 · VS43

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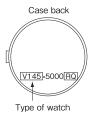
https://www.seikowatches.com/

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CHARACTERISTICS

This watch is driven by light energy:

- A solar cell under dial is used to convert light energy into electrical energy and save at the secondary battery to power the watch.
- It is different from normal quartz watch that regular battery exchange is not required.
- The charging time required depends on your type of watch. Check the case back of your watch to identify the type of watch



Several type of watch have below function too.

→※ Please refer to the "■ GUIDELINE OF CHARGING TIME/ACCURACY" for details.

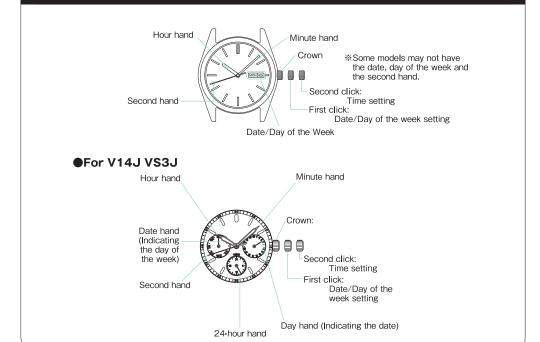
"Energy depletion forewarning function"

- · When the secondary battery begins to lose energy, the second hand will advance at two-second intervals.
- When the second hand starts advance at two-second intervals, the watch will led to stoppage within 3 days. Please kindly charge watch accordingly.

"Quick Start function"

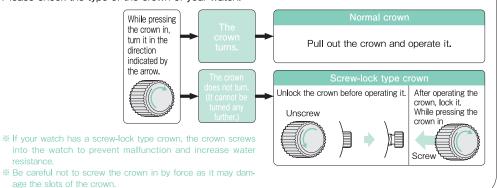
- Even after being completely drained of its energy, the watch recharges and start soon after exposed to light.
- The hour, minute, second, 24-hour, date and day are all indicated by hands. (V14J VS3J only)
 - ** As the hour hand moves, the 24-hour hand also moves correspondingly. The 24-hour hand cannot be set independently of the other hands.
 - ** The day hand cannot be adjusted independently of the other hands. Before setting the time, set the day by turning the hour and minute hands. Please refer to the "■HOW TO USE".

NAME OF PARTS & THEIR FUNCTIONS



CROWN

There are two types of crown, a normal crown and a screw-lock type crown. Please check the type of the crown of your watch.



ABOUT CHARGING

How To Charge the Watch

Expose the dial to light to charge the watch.



To ensure optimal performance of the watch, make sure that the watch is kept sufficiently charged at all time.





Under the following situations, the energy of the watch is likely to be depleted, resulting in stoppage of the watch.

- · The watch is concealed under a sleeve.
- The watch is used or stored under conditions where it cannot be exposed to light for a long time.
- ** When charging the watch, make sure that the watch is not heated to a high temperature. (Please refer to the table on the right for the operational temperature range.)
- ** When first using the watch or starting to use the watch after it has stopped because of the energy depletion, sufficiently charge the watch referring to the table on the right.

When the second hand moves in two seconds interval (models with Energy depletion forewarning function)

●Energy depletion forewarning function

- · When the energy depletion forewarning function is activated, the second hand starts moving at two-second intervals. In that case, charge the watch as soon as possible.
- To charge the watch sufficiently, refer to "■ CHARGING TIME".
- Immediately expose your watch to light, when the second hand starts moving at two-second intervals.
- · When the watch is stopped or the second hand starts moving at two-second intervals (for models with a second hand), charge the watch by exposing it to light.
- (The two-second interval movement of the second hand is a signal of energy depletion.)
- The time required for charging the watch varies depending on the calibers. Check the caliber of your watch engraved on the back cover.
- Even if the watch is partially charged for a period shorter than the time specified on the page on the left, it will start moving. However, it is recommended that the watch be charged as seen in column

2-second interval

Leave to stand irradiated until charged full.

1-second intreval

1-second intreval

HOW TO USE

Date (day of the week) setting.

Models with date/models with date and day of the week (Do not set date/day of the week between 9:00 PM and 4:00 AM)



Pull out the crown to the first click.



Turn the crown to set the date (day of

the week).



Push the crown back in to its normal position.



●Time setting

Pull out the crown to the second click when the second hand is at the 12 o'clock position.

3 After setting the day.

After setting the day, set the time.

When setting the hour hand, check that the 24-hour hand is correctly set. (The watch is so designed that the date and day change once in 24 hours.)



Turn the crown to set the time. no order to set the time accurately, turn the minute hand 4 to 5 minutes ahead and then return it to the correct time.

*The watch is designed to change the date and day once in 24

When setting the hour hand, check that AM/ PM is correctly set.

4 Push the crown back

in to the normal position in accor-

dance with a time

signal.

●Time setting

Models with two hands/models with three hands.



Pull out the crown.



Turn the crown to Push the crown set the time. back in to its normal position. ute hand 4 to 5 minutes ahead and then return it

•When date adjustment is required The date makes one round in a 31- day period. It is necessary to adjust the date at the end of the month following a month that has less than 31 days.

Note

Time period that is not good for setting the date.

For the model with the date

Between 9:00 PM and 1:00 AM

For the model with the date and day

Between 9:00 PM and 4:00 AM

The date (day of the week) may not change.)

Ploblem: Date changing by itself during the day time.

The reason it happens is AM/PM setting is incorrectly done.

Solution : Advance the hour hand by twelve hours. (Refer to "Time Setting")

- # For models with a screw lock type crown, always screw the crown up again after setting the time → CROWN * The telephone time signal service (Tel. 117) is convenient for setting the time.

Push the crown

back in to its nor-

mal position simul-taneously with a

time signal.

(FOR V14J VS3J) -

■Day and time setting

The day hand cannot be adjusted independently of the other hands. Before setting the time, set the day by turning the hour and minute hands.

Date setting

Follow the procedure below to:

• set the date after setting the time.

· adjust the date on the first day of March or a month next to a 30-day month.



Pull out the crown to the first click.



2 Turn the crown counter 3 Push the crown back to clockwise to set the date hand to the desired



the normal position.

** Turn the crown slowly to set the date hand, checking that the date hand moves properly in one-day increments.
 ** Do not set the date between 9:00 p.m. and 4:00 a.m.
 Otherwise, it may not turn properly.

Pull out the crown all the way to the sec-ond click when the second hand is at the 12 o'clock position. The second hand will stop on the spot.



2 Turn the crown clockwise to advance the hour and minute hands. When the hour and minute hands turn past the 12 o'clock marker, the day hand starts moving. Keep advancing the hour and minute hands until the day hand is set to the next.

To advance the day hand quickly, turn back the hour and minute hands 4 to 5 hours after the day changes to the next, and then advance them again until the day hand is set to the next.

Repeat the procedure above until the day hand is set to the desired day.



■ GUIDELINE OF CHARGING TIME/ACCURACY

- · The time required for charging the watch varies depending on the calibers. Check the caliber of your watch engraved on the back cover.
- It is recommended that the watch be charged for as long as the charging time "B" to assure the stable movement of the watch.

- 11	It is recommended that the waterned charged for as the drialigning time in to assure the stable movement of the watern.																								
		AS0	1/AS32/ <i>F</i>	NS82		V110		V111/V117			V114/V115/V116			V131/V137/V138			V14J			V145			V147/V157/V158		
Env	ironment/lightsource(lux)	A (minutes)	B (hours)	C (hours)	A (minutes)	B (hours)	C (hours)	A (minutes)	B (hours)	C (hours)	A (minutes)	B (hours)	C (hours)	A (minutes)	B (hours)	C (hours)	A (minutes)	B (hours)	C (hours)	A (minutes)	B (hours)	C (hours)	A (minutes)	B (hours)	C (hours)
	neral offices/ urescent light (700)	100	35	-	50	16	140	180	60	-	180	60	-	110	16	-	50	11	175	50	11	175	110	25	-
	v20cm/ urescent light (3000)	25	4	60	11	3.5	30	35	10	180	35	10	180	30	4	90	10	2	40	10	2	40	30	6	120
	udy weather/ light (10000)	8	1.5	20	3	0.9	8	12	4	60	12	4	60	8	1.2	30	3	0.5	10	3	0.5	10	10	2	35
	weather/ light (100000)	2	0.2	5	1	0.3	2	2	0.5	10	2	0.5	10	1	0.1	10	1	0.1	3	1	0.1	3	2	0.4	9
Qui	uick Start function -			-		-		-		-		0			0			0							
	Energy depletion orewarning*		0 -		0			-		0		0			0			0							
	Expected life per charge from full charge to stoppage approximately 4 months			approxi	approximately 5 months a			approximately 6 months			approximately 12 months			approximately 6 months			ap	proximate	ely 6 months			approximately 10 months		months	
Los	s/gain (montly rate)	±20 seconds				±15 seconds							±20 seconds						±15 seconds						
Op ran	erational temperature	-5°C ~ +50°C						-10°C ⁻ +60°C						-5°C ⁻ +50°C					-10°C - +60°C						

	V	181/V18	2		V187			VS15		VS17		VS22		VS3J		VS37			VS42/VS43					
Environment/lightsource(lux)	A (minutes)	B (hours)	C (hours)	A (minutes)	B (hours)	C (hours)	A (minutes)	B (hours)	C (hours)	A (minutes)	B (hours)	C (hours)	A (minutes)	B (hours)	C (hours)	A (minutes)	B (hours)	C (hours)	A (minutes)	B (hours)	C (hours)	A (minutes)	B (hours)	C (hours)
General offices/ Flourescent light (700)	75	6	82	95	8	100	180	60	-	180	60	-	110	16	-	50	11	175	110	25	-	110	25	-
30w20cm/ Flourescent light (3000)	18	1.3	20	23	1.6	25	35	10	180	35	10	180	30	4	90	10	2	40	30	6	120	30	6	120
Cloudy weather/ Sunlight (10000)	5	0.3	5	6	0.4	7	12	4	60	12	4	60	8	1.2	30	3	0.5	10	10	2	35	10	2	35
Fair weather/ Sunlight (100000)	2	0.1	2.1	3	0.1	3	2	0.5	10	2	0.5	10	1	0.1	10	1	0.1	3	2	0.4	9	2	0.4	9
Quick Start function	k Start function			0			-			-			-			0			0			0		
Energy depletion of forewarning				0				-			0		0			0			0			0		
Expected life per charge from full charge to stoppage						onths approximately 6 months																		
Loss/gain (montly rate)	±20 seconds ±15 seconds				ds	±20 seconds																		
Operational temperature	ture -5°C ~ +50°C			-10	o°C ~ +60	°C	-5°C ~ +50°C																	

A:Time to charge 1 day of power B:Time required for steady operation C:Time required for full charge

is worn on the wrist in a normal temperature range between 5°C and 35°C.

SPECIFICATIONS

1.	Frequency of crystal oscillator	32,768Hz(Hz = Hertz — Cycles per second)
2.	Loss / gain ·····	Please refer to Guideline of charging time/accuracy
3.	Operational temperature range	Please refer to Guideline of charging time/accuracy
4.	Driving system·····	Step motor
5.	Battery ·····	Secondary battery, 1 piece.
6.	Running time	Please refer to Guideline of charging time/accuracy
7.	IC	C-MOS-IC 1 Unit

* The above specifications are subject to change without notice.

Each of the calibers is prevented from overcharging.

There is no need to worry about damage caused by overcharging no matter how much the secondary battery is charged in excess of the "time required for fully charging the watch".

TO PRESERVE THE QUALITY OF YOUR WATCH

⚠ WARNING

- · Immediately stop wearing the watch in the following cases:
- O if corrosion appears on the watch body or band, etc.
- O if the pins protrude from the band
- * Immediately consult the retailer from whom the watch was purchased or a SEIKO CUSTOMER SERVICE CENTER.
- · Keep the watch and accessories out of the reach of babies and children.
- Care should be taken to prevent a baby or a child accidentally swallowing any accessories.
- · Do not remove the secondary battery from the watch.
- $\mbox{\ensuremath{\%}}\mbox{\ensuremath{About}}$ the secondary battery $\mbox{\ensuremath{\rightarrow}}$ Please refer to \blacksquare REMARKS ON THE BATTERY

Replacement of the secondary battery requires professional knowledge and skill.

Please ask a watch retailer for replacement of the secondary battery.

Installation of an ordinary silver oxide battery can generate heat that can cause bursting and ignition.

· Do not use the watch for scuba diving or saturation diving.

The various inspections under simulated harsh environments, which are usually required for watches designed for scuba diving or saturation diving, have not been conducted on a water-resistant watch with a BAR (barometric pressure) display. For diving, use special watches.

⚠ CAUTION

- · Avoid wearing or storing the watch in the following places :
- Places where volatile agents (cosmetics such as polish remover, insect repellent, thinners etc.) are vaporizing
- O Places where the temperature drops below 5 °C or rises above 35 °C for a long time
- O Places of high humidity
- O Places affected by strong magnetism or static electricity
- Dusty places
- O Places affected by strong vibrations
- · If you observe any allergic symptoms or skin irritation,
- stop wearing the watch immediately and consult a specialist such as a dermatologist or an allergist.
- · Do not let running water from a faucet hit the watch.

The water pressure of tap water from a faucet is high enough to degrade the water resistant performance of a water resistant watch for everyday use.



 Do not turn or pull out the crown when the watch is wet; water may get inside of the watch.

- If the inner surface of the glass is clouded with condensation or water droplets appear inside of the watch for a long time, the water resistant performance of the watch is deteriorated. Immediately consult the retailer from whom the watch was purchased or a SEIKO CUSTMER SERVICE CENTER.
- · Do not leave moisture, sweat and dirt on the watch for a long time.
- Be aware of the risk that a water resistant watch may have its water resistant performance lessened because of deterioration of the adhesive on the glass or gasket or the development of rust on stainless steel.
- · Do not wear the watch while taking a bath or a sauna.
- Steam, soap or some components of a hot spring may accelerate the deterioration of the water resistant performance of the watch.
- · Other cautions
- O Do not disassemble or tamper with the watch.
- O Keep the watch out of the reach of babies and children. Extra care should be taken to avoid risk of injury or allergic rash or itching that may be caused when they touch the watch.
- O When disposing of used batteries, follow the instructions of your local authorities.
- If your watch is of the fob or pendant type, the strap or chain attached to the watch may damage your clothes, or injure the hand, neck, or other parts of your body.

Magnetic resistance

Affected by nearby magnetism, a watch may temporarily gain or lose time or stop operating,

Indication on the case back	Condition of use
No indication	Keep the watch more than 10 cm away from magnetic products.
Ū	Keep the watch more than 5 cm away from magnetic products. (JIS level-1 standard)
	Keep the watch more than 1 cm away from magnetic products. (JIS level-2 standard)

If the watch becomes magnetized and its accuracy deteriorates to an extent exceeding the specified rate under normal use, the watch needs to be demagnetized. In this case, you will be charged for demagnetization and accuracy readjustment even if it happens within the guarantee period.

The reason why watch is affected by magnetism

The built-in motor is provided with a magnet, which may be influenced by a strong external magnetic field.

Examples of common magnetic products that may affect watches Cellular phone (speaker) AC adapter (with magnet buckle) AC-powered shaver cooking device (speaker) AC-powered shaver cooking device (speaker) AC-powered shaver cooking device (speaker)

Daily care

The watch requires good daily care.

- · Do not wash the watch when the crown is pull out.
- · Wipe away moisture, sweat or dirt with a soft cloth.
- · After soaking the watch in seawater, be sure to wash the watch in clean pure water and wipe it dry carefully.

* If your watch is rated as "non-water resistant" or "water resistant for daily use," do not wash the watch.

Turn the crown

- · To prevent rusting of the crown, please sometimes turning the crown.
- · Please do the same for screw-lock type crown.

Water resistance

Refer the table below for the description of each degree of water resistant performance of your watch before using,

Indication on the case back	Water resistant performance	Condition of use
No indication	Non-water resistance	Avoid drops of water or sweat
WATER RESISTANT	Water resistance for everyday use	The watch can withstand accidental contact with water in everyday life. Not suitable for swimming
WATER RESISTANT 5 BAR	Water resistance for everyday use at 5 barometric pressures.	The watch is suitable for sports such as swimming.
WATER RESISTANT 10(20)BAR	Water resistance for everyday use at 10(20) barometric pressures.	The watch is suitable for diving not using an air cylinder.

Band

The band touches the skin directly and becomes dirty with sweat or dust. Therefore, lack of care may accelerate deterioration of the band or cause skin irritation or stain on a sleeve cuff. The watch requires a lot of attention for long usage.

Metallic band

- · Moisture, sweat or soil will cause rust even on a stainless steel band if they are left for a long time.
- · Lack of care may cause a yellowish or gold stain on a sleeve cuff of shirts.
- · Wipe off moisture, sweat or soil with a soft cloth as soon as possible.
- To clean the soil around the joint gaps of the band, wipe it out and then brush it off with a soft toothbrush. (Protect the watch body from water splashes by wrapping it in plastic wrap, etc.)
- Because some titanium bracelets use pins made of stainless steel, which has outstanding strength, rust may form in the stainless steel parts.
- · If rust advances, pins may poke out or drop out, and the watch case may fall off the bracelet, or the clasp may not open.
- · If a pin is poking out, personal injury may result. In such a case, refrain from using the watch and request repair.

Leather band

- · A leather band is susceptible to discoloration and deterioration from moisture, sweat and direct sunlight.
- $\boldsymbol{\cdot}$ Wipe off moisture and sweat as soon as possible by gently blotting with a dry cloth.
- $\boldsymbol{\cdot}$ Do not expose the watch to direct sunlight for a long time.
- · Please take care when wearing a watch with a light-colored band, as dirt or stains are likely to show.
- Refrain from wearing a leather band watch other than Aqua Free bands while bathing, swimming, and when working with water even if the watch itself is water-resistant enforced for daily use (10-BAR water resistant).

Polyurethane band

- A polyurethane band is susceptible to discoloration from light, and it may be deteriorated by solvent or atmospheric humidity.
- · Especially a translucent, white, or pale-colored band easily adsorbs other colors, resulting in color smears or discoloration.
- · Wash off dirt in water and clean the band with a dry cloth.
 - (Protect the watch body from water splashes by wrapping it in plastic wrap, etc.)
- · When the band becomes less flexible, have the band replaced with a new one. If you continue to use the band as it is, the band may develop cracks or become brittle over time.

Note on skin irritation and allergy:

Skin irritation caused by a band has various reasons such as an allergy to metals or leather, or skin reactions against friction or dust or the band itself.

Notes on the length of the band

Adjust the band to allow a little clearance with your wrist to ensure proper airflow. When wearing the watch, leave enough room to insert a finger between the band and your wrist.

LUMIBRITE

If your watch has Lumibrite

Lumibrite is a luminous paint that absorbs the light energy of the sunlight and lighting apparatus in a short time and stores it to emit light in the dark.

For example, if exposed to a light of more than 500 lux for approximately 10 minutes, Lumibrite can emit light for 3 to 5 hours.

Please note, however, that, as Lumibrite emits the light it stores, the luminance level of the light decreases gradually over time. The duration of the emitted light may also dier slightly depending on such factors as the brightness of the place where the watch is exposed to light and the distance from the light source to the watch.

- ** In general, when coming from a place that is bright to a place that is dark, it takes human eyes some time to adapt to the darkness making it dicult to see objects initially. (Dark adaptation)
- Lumibrite is luminous paint that stores and emits light, which is harmless to human beings and the environment, containing no toxic materials such as radioactive substances.

Cor	Illumination						
Sunlight	Fine weather	100,000 lux					
Suringrit	Cloudy weather	10,000 lux					
	Fine weather	more than 3,000 lux					
Indoor (Window-sideduring daytime)	Cloudy weather	1,000 to 3,000 lux					
(window sideddinig ddytinie)	Rainy weather	less than 1,000 lux					
Lighting apparatus	Distance to the watch: 1m	1,000 lux					
(40-watt daylight	Distance to the watch: 3m	500 lux (average room luminance)					
fluorescent light)	Distance to the watch: 4m	250 lux					

REMARKS ON THE BATTERY

The battery used in this watch is a special secondary battery, which is totally different from ordinary silver oxide batteries.

Unlike other disposable batteries such as dry-cell batteries or button cells, this secondary battery can be used over and over again by repeating the cycles of discharging and recharging.

However, for various reasons such as long-term use or usage conditions, the capacity or recharging efficiency of the secondary battery may gradually deteriorate. Worn or contaminated mechanical parts or degraded oils may also shorten recharging cycles. If the efficiency of the secondary battery decreases, have the watch repaired.

⚠ WARNING

Remarks on replacing the secondary battery

- · Do not remove the secondary battery yourself.
- Replacement of the secondary battery requires professional knowledge and skill. Please ask a watch retailer for repair.
- · Installation of an ordinary silver oxide battery can generate heat that can cause bursting or ignition.

※Overcharge prevention function.

When the secondary battery is fully charged, the overcharge prevention function is automatically activated to avoid further charging. There is no need to worry about damage caused by overcharging no matter how much the secondary battery is charged in excess of the "time required for fully charging the watch".

**Refer to "Guideline of charging time" to check the time required for fully charging the watch.

⚠ WARNING

Notes on charging the watch

- · When recharging the watch,do not place it too close to incandescent light or other light sources as the watch temperature will become extremely high, causing damage to the parts inside the watch.
- · When exposing the watch to sunlight to recharge it, do not leave it on the dashboard of a car, etc. for a long time, as the watch temperature becomes extremely high.
- · Always keep the watch temperature under 50°C.

■ AFTER-SALES SERVICE

Notes on guarantee and repair

- · Contact the retailer the watch was purchased from or a SEIKO CUSTOMER SERVICE CENTER for repair.
- · Within the guarantee period, present the certificate of guarantee to receive repair services.
- · Guarantee coverage is provided in the certificate of guarantee. Read it carefully and retain it.
- For repair services after the guarantee period has expired, if the functions of the watch can be restored by repair work, we will undertake repair services upon request and payment.

Replacement parts

- SEIKO makes it a policy to typically keep a stock of replacement parts for this watch for 7 years. Replacement parts are those which are essential for maintaining the functional integrity of the watch.
- When repairing your watch, please keep in mind that if original parts are not available, parts may be replaced with substitutes whose outward appearance may differ from the originals. Also note that the complete set of parts with the case or band may be replaced, or if repair is difficult, the watch may be replaced with one of equal quality.