# **HOW THE SEIKO KINETIC WORKS**

#### **GENERATING UNIT**

Transforms the movement of the wearer into electricity.

1 Oscillating weight

Movement of the wearer rotates the oscillating weight.

2 Gear train

It amplifies the rotational movement of the oscillating weight 100fold and transfers it to the rotor.

3 Rotor

The heart of the SEIKO KINETIC technology. It transforms every movement of the oscillating weight into a magnetic charge. It spins at a speed of 10,000 - 100,000 rpm.

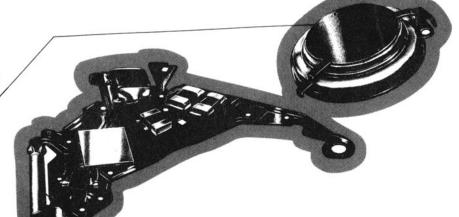
4 Generating coil block

Extremely high density coil transforms the magnetic charge into the electricity to power the watch. CHARGING UNIT

Stores and supplies the generated electricity.

(5) Kinetic Energy Storage Unit (K.E.S.U.)

It stores the generated electrical energy.



6 & 8 Circuit block

 This sophisticated electronic circuit controls voltage and amperage.

 By quartz oscillation, it produces precise watch signal. 7) Quartz crystal oscillator

When electricity is passed to it, it oscillates at a highly stable rate of 32,768 times a second.

#### **DRIVING MECHANISM OF** THE SEIKO KINETIC WATCH

	THE SEIKO KINETIC WATCH
	Movement of the wearer's arm or wrist.
1	Oscillating weight rotates.
2	Gear train amplifies the rotation.
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3	Rotor spins to transform the rotation into a magnetic charge.
4	Generating coil block generates voltage and a current flow.
	<b>V</b>
5	Electricity is stored in the K.E.S.U.
	<b>V</b>
6	Circuit block controls voltage and amperage.
7	Quartz crystal oscillator oscillates.
	<b>V</b>
8	Circuit block produces precise electric signal.
	<b>V</b>
9	The step motor converts electric signal into rotational motion.
10	Gear train transmits the rotational motion to hands.
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11	Hands move to indicate time.

## STEP MOTOR UNIT

Converts electric signal into rotational motion to move the hands.

### 9 Step motor

It converts the electrical signal into a precise rotational motion, which is transmitted to the hands INDICATION UNIT through the gear train.

Indicates the time.

Gear train