

Features of Kinetic Direct Drive



SEIKO Kinetic Direct Drive is an embodiment of the SEIKO's 'emotional technology'. It offers new and valuable benefits to the ecological and convenience advantages of every SEIKO Kinetic watch.

Two winding functions

As in all existing Kinetic calibers, the wearer automatically generates the electrical energy by her/his wrist movement. With Kinetic Direct Drive, however, the wearer can also generate energy by winding the crown.

Two indicator functions

Kinetic Direct Drive shows not only the power held in reserve but also the level of power generation when the wearer hand-winds the crown. The wearer can see and feel, in real time, the direct transfer of power from his or her winding of the crown to the reserve.

Kinetic Direct Drive creates a direct interaction between the human being and the watch!

1) Real-time Power Indicator function

The more power you generate, the more the hand moves!

The Direct Drive hand starts moving when the winding starts. The hand directly indicates the amount of the power generated. If you wind the crown in short strokes or gently, the hand only moves a little. But if you wind it in long strokes or with sufficient speed, the hand makes a large move across the indicator dial. Its motion is just like the movement of the hand on a tachometer of a car when you accelerate.

As you wind the crown, the starting point of the move gradually goes up according to the amount of power generated in the winding sequence. In that way, the wearer who winds the watch can check, during the winding process, how much power has been generated up to that point. When the winding is halted, the hand also stops to show how much power is generated until them.

Direct Drive is a new function, unique to Kinetic Direct Drive, designed as an "emotional technology" to bring more enjoyment and a deeper emotional bond between the watch and its wearer.



In this picture's case, the hand shows that the power has been generated to the full scale in the Real-time Power Indicator function which can be translated to 6 hours of power.

Note: This doesn't refer to the power reserve duration but to the power generation level.

2) Power reserve indicator function

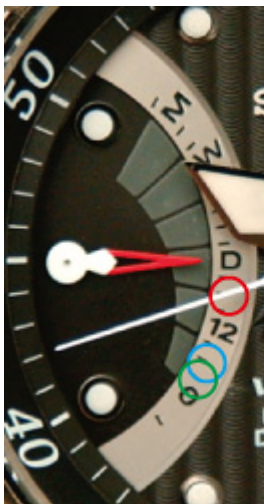
After the winding is complete, the hand pauses at the Real-time Power Indicator function for 4 seconds, then it goes back down to the zero position and moves up again to show the total amount of power reserve, which is now the sum of the original power reserve amount and the newly generated amount.



12 hours

18 hours

So in this picture's case, the original power reserve was 12 hours and now the newly generated 6 hours amount of power is added to make a total of 18 hours. The total power reserve in Kinetic Direct Drive is one month



Hand position	1	2	3	4	5	6	7	8	9	10	
Indication on Dial	-	0	-	-	-	12	-	-	-	D	
Generated power status	Duration of generated power	Initial setting position	0 Hour	0.3 Hour	0.7 Hour	1 Hour	1.3 Hour	1.7 Hour	2 Hours	2.3 Hours	2.7 Hours
	Estimated time required for winding		0	1.5 Sec.	3.5 Sec.	5 Sec.	6.5 Sec.	8.5 Sec.	10 Sec.	11.5 Sec.	13.5 Sec.

11	12	13	14	15	16	17	18	19	20
-	-	-	-	-	W	-	-	M	-
3 Hours	3.3 Hours	3.7 Hours	4 Hours	4.3 Hours	4.7 Hours	5 Hours	5.3 Hours	5.6 Hours	6 Hour+
15 Sec.	16.5 Sec.	18.5 Sec.	20 Sec.	21.5 Sec.	23.5 Sec.	25 Sec.	26.5 Sec.	28 Sec.	30 Sec.

This chart above shows the indication of generated power status when winding. The time scale is different from that of the power reserve indicating status. If you wind for 5 seconds, you generate power for 1 hour, 15 seconds gives 3 hours, and 30 seconds gives 6 hours.

The power reserve indicator: The first column shows the hand position within the 20 steps marked on the indicator. The second column shows the indication of the dial.

The chart below shows the indication of the power reserve. The first column shows the hand position within the 20 steps marked on the indicator. The second column shows the indication on the dial.



When it is fully charged, the hand points to "M." "M" means 1 month. "W" means 1 week, "D" means 1 day and "12" means 12hours. The bottom column is the estimated time required for winding by hand and automatic. If you wind for 2 minutes, power for 1 day is generated.