ROTATE

WATCH KITS

Watchmaking Guide
Seiko NH36 Edition

The Marco
The Cabot

ROTATE
WATCH KITS

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Based on the PDF page number***

PARTS

Movement: Mechanical/automatic, 24 jewels, Japanese Seiko movement
Hands
Case: Sapphire glass, stainless steel, 43mm diameter 22mm lug size, exhibition case back, 10 ATM waterproof
Straps: Stainless steel links, 22*20mm width, easy-open spring bars, adjustible length
Dial: glowing lume
Others: watch stem, crown

TOOLS

Screwdriver (2mm)
Tweezers
Spring bar tool
Pliers
Glue
Strap adjustment tool
Gloves

Welcome to Rotate's assembly guide! We're so excited for you to get started building your watch.

Watchmaking is a careful and patient craft. To ensure an accurate and functional watch, please follow the below guidelines:

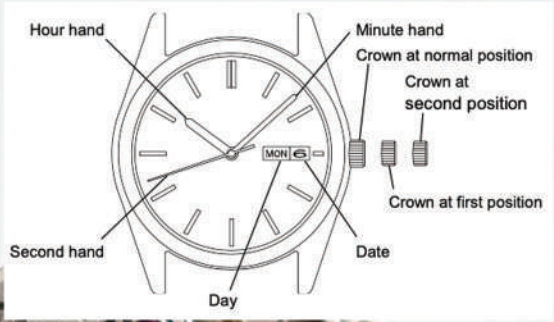
- Wear gloves at all times.
- Handle pieces with care and set them down gently.
- Take small steps to ensure you don't overcut , overturn, scratch, or smudge the pieces.
- Be patient and take your time. If you struggle, take a deep breathe and revisit it at a later time.

Most importantly, don't forget to enjoy the process! Watchmaking is a beautiful, dying craft. Take the time to learn about each piece, and how they contribute to a fully analog, mechanical watch!

For any struggles building your watch, we're here for you. Please email details and photos to: hello@rotatewatches.com.

LET'S GET STARTED!

About Seiko's NH36 Automatic Movement



The Seiko NH36 is an automatic hand-wound mechanical movement that belongs in Seiko's Cal.NH3 series. It features quick day/date setting and 3 hands (hour, minute, second).

About Seiko

Seiko began over 130 years ago in 1881 when founder Kintaro Hattori first opened shop at 21 years old. Seiko is now one of the most famous movement companies, and known for countless innovations over the years. Seiko rigorously tests each movement for features and functions. Seiko movements are made in Japan for the most part, or in other Asian subsidiaries with strictly controlled and licensed production.

About Automatic Movements

Automatic movements are mechanical movements that run without batteries. They harness energy through natural motion on the wearer's wrist. A rotor enables power to be stored in a 'self-winding' way so the wearer doesn't need to worry about winding the watch daily for constant operation.

Size	**29.36 mm (with spacer)**
Height	**5.32 mm**
Accuracy (per day)	**-20~+40 sec**
Running time	**>41 hours**
Vibration Frequency (per hour)	**21,600**
Jewels	**24**
To fully wind	**Turn the crown 55 times**

A Brief History of Watchmaking

Forms of timekeeping have been in our history for thousands of years with sundials dating back to the 4th millennium BC in Ancient Egypt. Since then, we have come a long way in time-keeping. Now, we can easily keep track of time with the various devices inhabiting our lives. Due to this shift, one would think that clocks and watches would become near to obsolete. Yet, this is far from the truth. Although our devices have the capability to tell time, they do not provide the background of rich culture and artistry that is backed by clock and watchmaking.

Image: The Melanchthon's Watch (dated 1530)

This image depicts the oldest dated watch on Earth created by German locksmith Peter Henlein. Although more than 500 years old, the basic mechanics of this watch still remains the same in mechanical watches today. In fact, Rotate's watches also use the same fundamental spring movement to make the wondrous piece of technology come to life. So as you dive deeper in the art of watchmaking through this kit, you are helping to keep the antique craft of watchmaking alive and appreciated.

The First Wristwatch

The first wristwatch was created in 1868 by the Swiss watch company Patek Philippe for Countess Koscowicz of Hungary. Although perfectly capable of telling time, wrist watches were created as women's jewelry and status symbols. Interestingly, even though it was common practice for men to carry around pocket watches, wrist watches did not catch on initially because of the femininity attached to it. It was only until the first world war that men started wearing wrist watches due to the practical value that it provided as a hands-free time-telling device.

Image: Courtesy of Patek Philippe

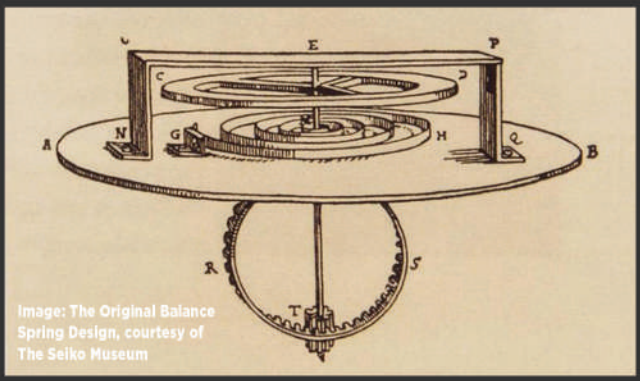
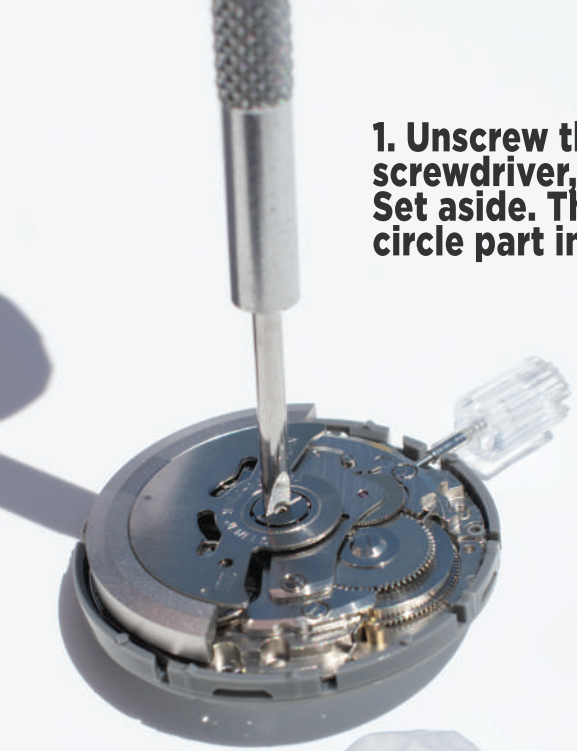


Image: The Original Balance Spring Design, courtesy of The Seiko Museum

The Balance Spring

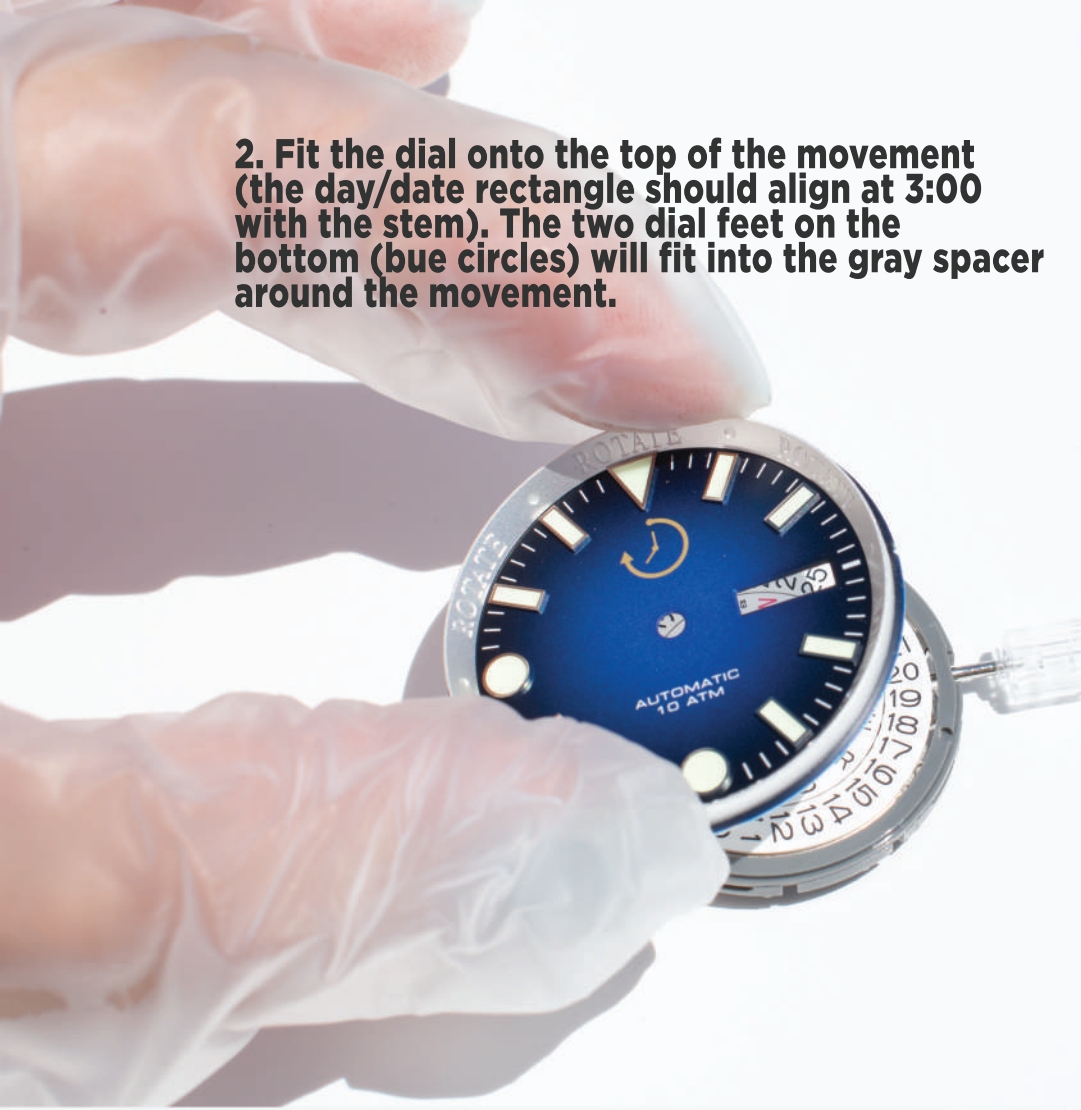
One of the most notable steps in timekeeping and watchmaking history is the invention of the balance spring commonly attributed to British physicist Robert Hooke and Dutch scientist Christiaan Huygens. This addition, in collaboration with the balance wheel, created a harmonious oscillator that ensured oscillation at a precise period, which increased accuracy of watches greatly. Thus, the balance spring shifted the role of pocket watches as decorative novelties to essential timekeepers.

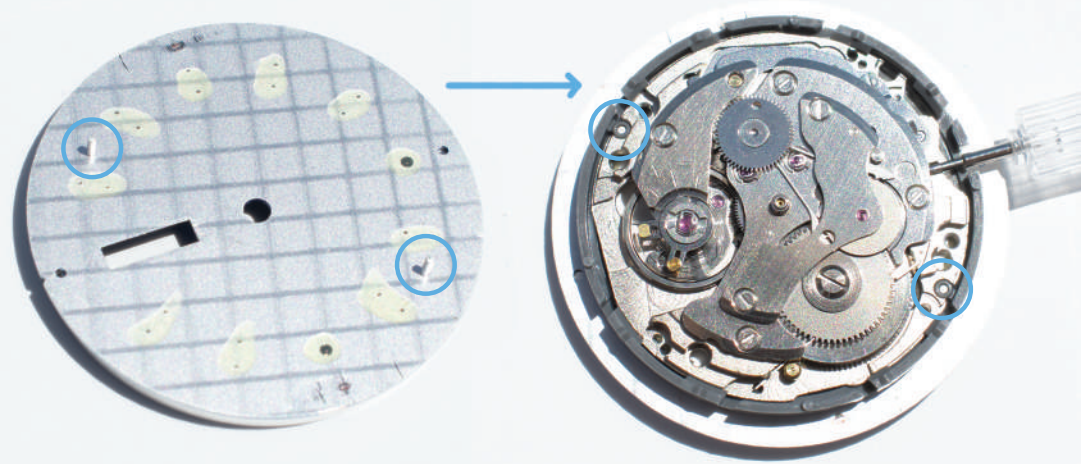
1. Unscrew the rotor using your screwdriver, and remove with tweezers. Set aside. The rotor is the shaded half-circle part in the top right image.



Hand positioning for screw-driver: Hold the screwdriver with your dominant hand, and put your pointer finger over the top. Use your thumb and middle finger to rotate the screwdriver.

2. Fit the dial onto the top of the movement (the day/date rectangle should align at 3:00 with the stem). The two dial feet on the bottom (bue circles) will fit into the gray spacer around the movement.





Wrong

Correct

Ensure the hands are installed with the correct side facing upwards. The lume covering will be on the underside and the top of the hand should be flat.

3. Use tweezers to first place the hour hand over the center pinion, and then to push it down.
TIP: Press down on either side of the center pinion firmly to secure the hand. It's a friction fit (you won't hear a click).

4. Push the minute hand on with the same end, making sure to align the hands at a proper time angle (ex. 4 o'clock).

5. Push the second hand on using the blunt end of the same tool. Gently tap the end with the tweezers to fasten it in place.

Completed hands

Additional tips for hands

Make sure not to bend the hands, and that once in place, they're pressed securely in place parallel to the dial.

The hands will push into place. There won't be a click, and the hands should tick and stay on their perch.

POSITIONING: Pop the stem time-setting position and turn until the date marker goes to the next date. This is where hands should hit 12:00. Make sure to also install hands at an angle that properly tells time (ex. if the hour hand points directly at a tickmark, so does the minute hand.

Note: The hands should be spaced like in the above snapshot. If the hands' bases are flush against each other, the hands were either pushed in too hard, or not hard enough. This buffer space is necessary for the hands not to jam against each other.

Caution: The second hand perch (part of the movement) can snap off if the second hand is forced on while not aligned properly OR if the hand is removed from an angle. Be gentle to avoid this! Contact us if the perch does snap.

6. Remove the stem by pushing on this button located right next to the stem (circled below) while simultaneously pulling the stem outwards.

7. Unscrew the case back from the case counter-clockwise

8. Fit the case over the movement

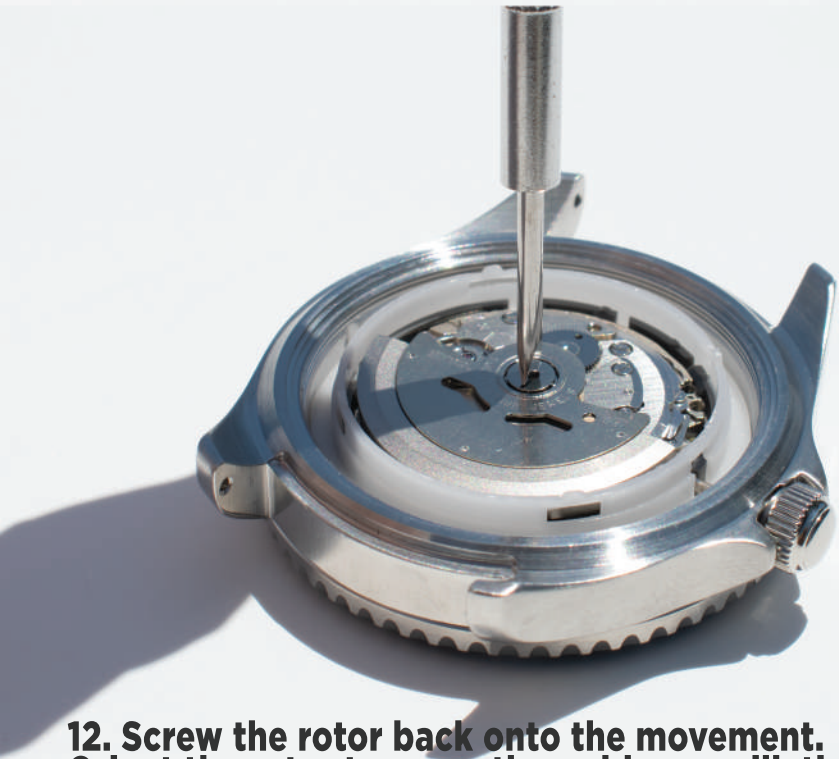
(remove the plastic white case ring from the case first)

9. Flip the watch around

10. Screw the case crown onto the same stem so it looks like the image on the right:

Then, insert this stem into the movement. Optional: Apply some glue to the stem prior to screwing the crown on to secure.

11. Slip the white movement ring around the movement. The slot in the ring should go over the stem.



12. Screw the rotor back onto the movement. Orient the rotor to cover the golden, oscillating balance wheel during this step for maximum protection.

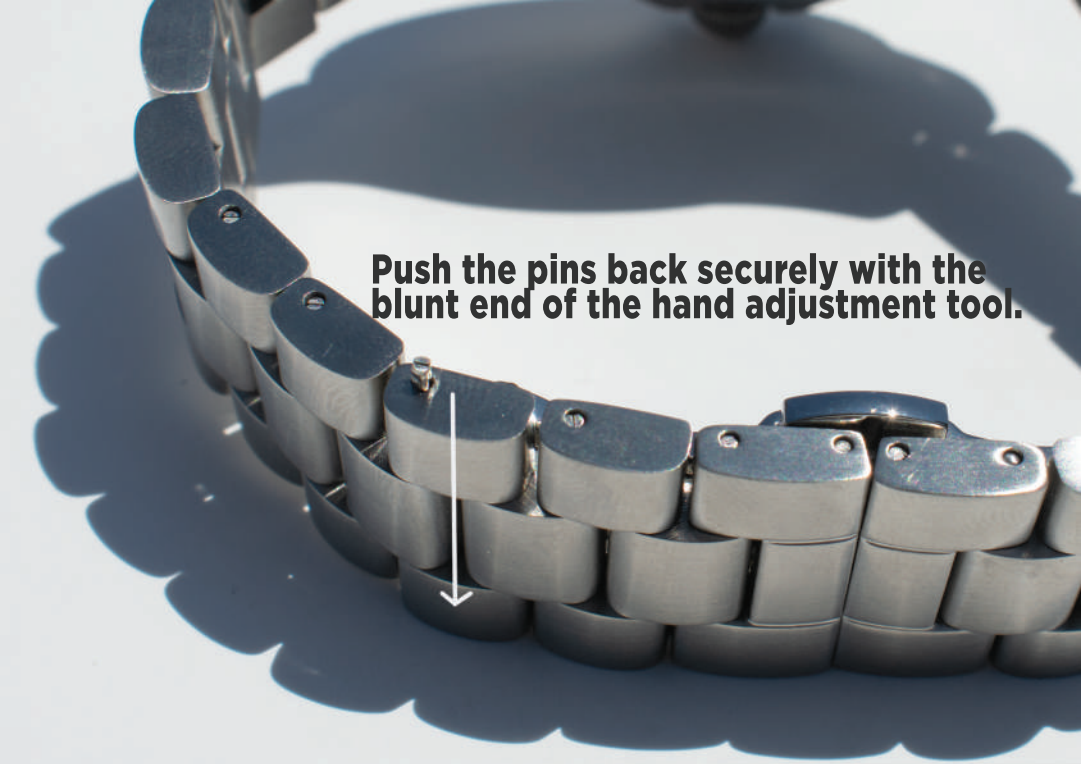
13. Screw the case-back on clockwise

14. Connect the endlinks of the straps to the rest of the strap by moving the endlink into position and slipping the spring bar through to connect.

15. Attach the straps to the watch by pushing the spring bars inward to compress and pushing into place. Use the large end of the silver spring bar tool for this step.

16. If needed: Adjust the length of the straps.

Using the strap adjustment tool, push the pins out of the strap in the direction of the engraved arrows. Remove as many links as necessary, and reinsert the pins joining a shorter or longer length of chain.



Push the pins back securely with the blunt end of the hand adjustment tool.

Finished watch!

Final Check

Since our movements are mechanical, they rely on both winding and kinetic energy. To test your movement, simply wind the watch a few twists, then move the movement around to mimic natural hand gestures. The seconds hand is the easiest indicator to tell if the movement is running.

To set the time, pop out the stem to the third position, configure the time, and pop the stem back into the first position. The date is set in the second stem position. The first position is the correct default position for the watch to run.

Our movements have a power reserve of 40+ hours when wound. In other words, wind every 40 hours. Mechanical movements also rely on the kinetic energy of everyday movement, so if it's idle for a while, make sure to adjust the time.

Tips on Maintaining the movement

- Avoid extended exposure to direct sunlight
- Be cautious when using the watch underwater
- Every couple of months, clean the outside of the watch, ensuring to get grime off the straps and case.
- Avoid chemicals
- Avoid magnets
- If you open the watch again, be sure to use the same precautions as the beginning of this guide. Wear gloves, handle pieces with care, and work carefully.

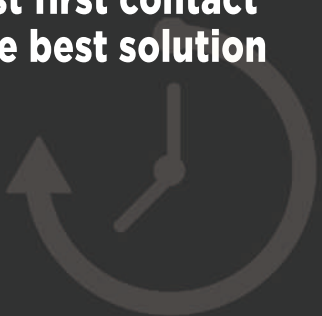
Warranty Information

Thank you for your interest in Rotate Watches' Watch Kits! This warranty applies to all watch kits purchased from Rotate Watches.

What does the warranty cover?
The warranty will replace all damaged parts EXCLUDING the movement and case pieces free-of-charge if proof of damage is received. Please send photos/videos to hello@rotatewatches.com with the part/tool name and color (if applicable).

The warranty also partially covers movements and case pieces, including the movement, stem, case front, case middle, case back, and crown. If any component is damaged by the customer, we can offer factory prices for those pieces.**
Please email us photos/videos of the damage to hello@rotatewatches.com. We'll attempt to help repair the damage with you, but if unsuccessful, we can supply a discount code for the factory price.

To obtain warranty service, you must first contact us to determine the problem and the best solution for you: hello@rotatewatches.com.

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TUE 24
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CONGRATULATIONS, YOU
JUST ASSEMBLED A WATCH!
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FRI 13
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