MODEL **T2** (EZM15)

GB

Sinn

SPEZIALUHREN ZU FRANKFURT AM MAIN

CONTENTS

DEAR CUSTOMER,

Since the company was founded in 1961, we have focused on the creation of high-quality mechanical watches. Nowadays, watch lovers associate innovation and patents with the name of Sinn Spezialuhren. And it's not just our diving watches that stand for high performance, robustness, and durability, quality and precision.

These watches do, however, constitute an outstanding example of how we repeatedly push the limits of what can be achieved physically in development.

We are driven by the question of which new technologies and materials can be used to make diving watches safer and more suitable for everyday use.

It is often worth indulging in a little lateral thinking to see what is going on in other industrial sectors or fields of science. It is therefore no coincidence that the series U1, U2, U200, U212, U1000 and UX are made from high-strength, seawater-resistant German Submarine Steel. The T1 and T2 models are another example. All case parts for these mission timers are made from high-strength titanium. Both submarine steel and high-strength titanium predestine our diving watches for use in salt water.

Fittingly, we work closely with an independent company specialising in technical maritime security. The world's largest classification society DNV GL (formerly Germanischer Lloyd, Hamburg) checks and certifies the diving-watch data – including compliance with European diving device standards, which is unique in the watch industry.

I am delighted that you have decided to buy a SINN diving watch and hope that it will continue to give you pleasure for many years to come.

Yours sincerely,

Lothar Schmidt

SINN SPEZIALUHREN ZU FRANKFURT AM MAIN

It was back in 1961 that pilot and blind-flying instructor Helmut Sinn founded the company. Since then, we have been committed to producing high-specification mechanical watches. In 1994, the graduate engineer Lothar Schmidt took over the company. This marked the beginning of a new era for the SINN brand, because the new owner took a decisive step towards more innovation. Under his leadership, new technologies and materials were introduced, thus providing the crucial incentives for our company's evolution and gradual emergence as an insider's tip for lovers of fine watches. Today, our name stands for technical innovations – much to the delight of both the trade and our customers alike.

Advancements in endurance testing

Take, for example, the absolutely condensation-free, anti-reflective, German Submarine Steel diving watch – made possible by HYDRO Technology. Other examples include a chronometer chronograph fashioned from a 22-carat gold alloy that is as hard as stainless steel and a chronometer with a magnetic resistance of up to 80,000 A/m. There are also watches with a clockwork mechanism optimally protected from aging by an inert gas and integrated dehumidifying capsule. The list would not be complete without mentioning the development of mission timers (Einsatzzeitmesser or EZM in German) for firefighters, for special police units and border patrol guards as well as Temperature Resistance Technology to keep mechanical watches performing at temperatures ranging from −45 °C to +80 °C. This technology has proven its worth in the EZM 10 TESTAF model, for example, used as part of the official approvals procedure for Airbus Helicopters (formerly Eurocopter) EC 145 T2 high-performance helicopter. Hot and cold climate tests and high-altitude experiments were carried out in the deserts of the USA, the Rocky Mountains and the frozen wastes of Canada. The watch was worn unprotected, outside the pilot's overall, during cold climate tests at temperatures reaching −45 °C.

Innovations and certifications

The world's largest classification society for maritime safety DNV GL (formerly Germanischer Lloyd, Hamburg), has been testing our diving watches for pressure and water resistance since 2005. As part of DNV GL's official certification process, our diving watches have been treated as part of diving equipment since 2006 and tested and certified in accordance with European diving equipment standards. This is unparalleled in the watch industry.

We have had selected pilot's watches tested and certified to the technical standard for pilot watches (Technischer Standard Fliegeruhren – TESTAF) by Aachen University of Applied Sciences since 2012. The TESTAF, the result of a research project at the initiative of Sinn Spezialuhren, ensures that a pilot's watch meets all timekeeping requirements during flight operations in accordance with visual and/or instrumental flight regulations and is suitable for professional use.

DIAPAL is one of our most important technological developments, with oiling no longer needed for the most important functions in the watch thanks to the materials we select. This technology was first used in 2001. With the aid of TEGIMENT Technology, we achieve greatly increased scratch resistance through surface hardening.

Ongoing advancement in technology and quality

Our top priority has always been to develop watches that offer superior performance – both in daily and in professional use. Which is why our engineers are working continually to identify which innovative methods, materials and technologies are best suited for optimising our watches. Each new development has to first undergo rigorous practical tests before being incorporated. And no watch leaves our workshops before it has been subjected to thorough checking and fine adjustment by our master watchmakers.

Workshop modifications and hand-engraving

From the robust case and the polished crystal through to elaborate refinements: we make sure that each and every detail of our watches is fit for purpose. The same applies to our workshop modifications. Only the perfect interaction of all components and technologies ensures that our watches can meet all their design specifications in full. Take for example the SZ02 calibre of our U1000 diving chronograph. The 60-minute scale of the stopwatch minute counter is much simpler and more intuitive to read than the 30-minute scale commonly found on other watches. The hand-engraving represents a highly personal form of refinement. If required, our specially trained engraver can etch a name, initials, monograms or symbols onto the rotor, movement bridge and case back.

PERFECT DIVING WATCHES

Our watches are famous for their outstanding functionality. We consistently implement this principle in our accurate timepieces for pilots as well as in our diving watches. The technical development of such perfect time-keeping instruments is one of the greatest challenges for our engineers and watchmakers. During a dive, absolute water resistance, perfect readability in all lighting and water conditions and extreme durability are of life-saving importance.

This is due to the fact that we develop these watches exclusively for their intended purpose – with the consequence that the form follows the primary function. Thus we ensure an extremely high standard of reliability, safety and practicality in everyday use.

DNV GL CERTIFIES SINN DIVING WATCHES

So what does DNV GL (formerly Germanischer Lloyd) have to do with a watch manufacturer from Frankfurt am Main? The renowned company tests and certifies our diving watches according to a variety of criteria. One test focuses on water resistance and pressure resistance, while a second test procedure covers something never done before in the watchmaking industry: certification in accordance with the European standards for diving equipment!

Testing for water resistance and pressure resistance

In each dive, time plays a crucial role in survival on every dive. Diving watches must therefore be water-resistant, reliable and durable, and guarantee perfect readability in all lighting and water conditions. The information we provide about our diving watches is thus not merely captured in words, but proven in practice as well. Since 2005, DNV GL has been testing our diving watches for water resistance and pressure resistance. In accordance with these certification standards, the EZM 3 and EZM 13 are pressure-resistant to 50 bar, the T1, U1, U212 and the U1000 series are pressure-resistant to 100 bar, while the T2, U2 and U200 series are pressure-resistant to 200 bar and the UX series is actually pressure-resistant to any accessible diving depth. For this series, DNV GL has confirmed the pressure resistance of the case to 12,000 m and of the movement to 5,000 m diving depth. The tests are repeated at regular intervals on all of these watches in order to document the consistency of the quality.

Certificate
No. 55478-13 HH

This is to certify that at request of Messrs. Sinn Spezialuhren zu Frankfurt am Main, Im Filzlochen 5-7, 60489 Frankfurt,

a hydraulic pressure test on

4 diving watches

of type line Sinn T2

representing serial number lot

1015.0001-1015.1000

has been performed on November 12th, 2013 with a nominal pressure of 200 bar, corresponding to a diving depth of 2000 m for a testing time of one hour. Additionally, a testing with a test pressure of 250 bar and a testing time of 15 minutes has taken place. The tests have been performed under survey of Germanischer Lloyd with officially calibrated pressure measuring devices.

There were no housing deformations noticed. The proper function of the watches has been determined and a subsequent examination has proofed the leak tightness of the tested specimen.

Hamburg, 2013-11-29

Dr.-Ing. Robert Sumna

Germanischer Lloyd (now DNV GL) has confirmed and certified the pressure resistance.

A premiere: certification in accordance with European diving device standards

In a standardised test situation, will a diving watch deliver the same reliable performance as, say, a breathing apparatus? To answer this question, we were the first who have watches tested and officially certified according to the European standards for diving equipment. Also these tests are performed at regular intervals for all these watches. The testing and certification according to the European standards EN250 and EN14143 was completely new territory for both sides. This was the case because the standards for diving equipment cannot be applied to watches without modification. The experts at DNV GL thus adapted the standards appropriately and defined two series of tests. In the first of the two, they put the timepieces in a test cabinet for three hours at –20°C, then for three more hours at +50°C. The timepieces were subsequently checked for accuracy and functional reliability at both temperatures. In a second test, the watches had to withstand three hours at –30°C and 3 hours at +70°C with 95% humidity. The result: Temperature resistance and perfect functioning were documented and certified for the watches in the U1, U1000 (since 2007), U2, U200 (since 2009), T1, T2, U212 (since 2013), EZM 13 (since 2014) and EZM 3 series after both tests. The UX series watches were also certified; however, these were subjected to a modified test involving temperatures between –20°C and +60°C due to their battery operation and oil filling.

Certificate

Nr. 55487-13 HH

This is to certify that at request of Messrs. Sinn Spezialuhren zu Frankfurt am Main, Im Fläschchen 9-7, 60489 Frankfurt,

temperature and functional tests on

4 diving watches

of type line Sinn T2

representing serial number lot

1015.0001-1015.1000

were performed on November 5th and 6th, 2013. The examinations were based on the requirements of the European Standards EN250:2000 and EN14143:2003 for type-examination of diving equipment and were performed at the Zentrum für Sicherheitstechnik of BG Bau in Hiam.

The proper function of the watches has been determined directly after 3 hours conditioning at -30°C and +70°C with 95% relative humidity.

Hamburg, 2013-12-16

Dr.-Ing. Robert Sturma

Germanischer Lloyd (now DNV GL) has confirmed and certified the type-based test of temperature resistance and functionality in accordance with the European diving device standards EN250:2000 and EN14143:2003.


Sinn
T2

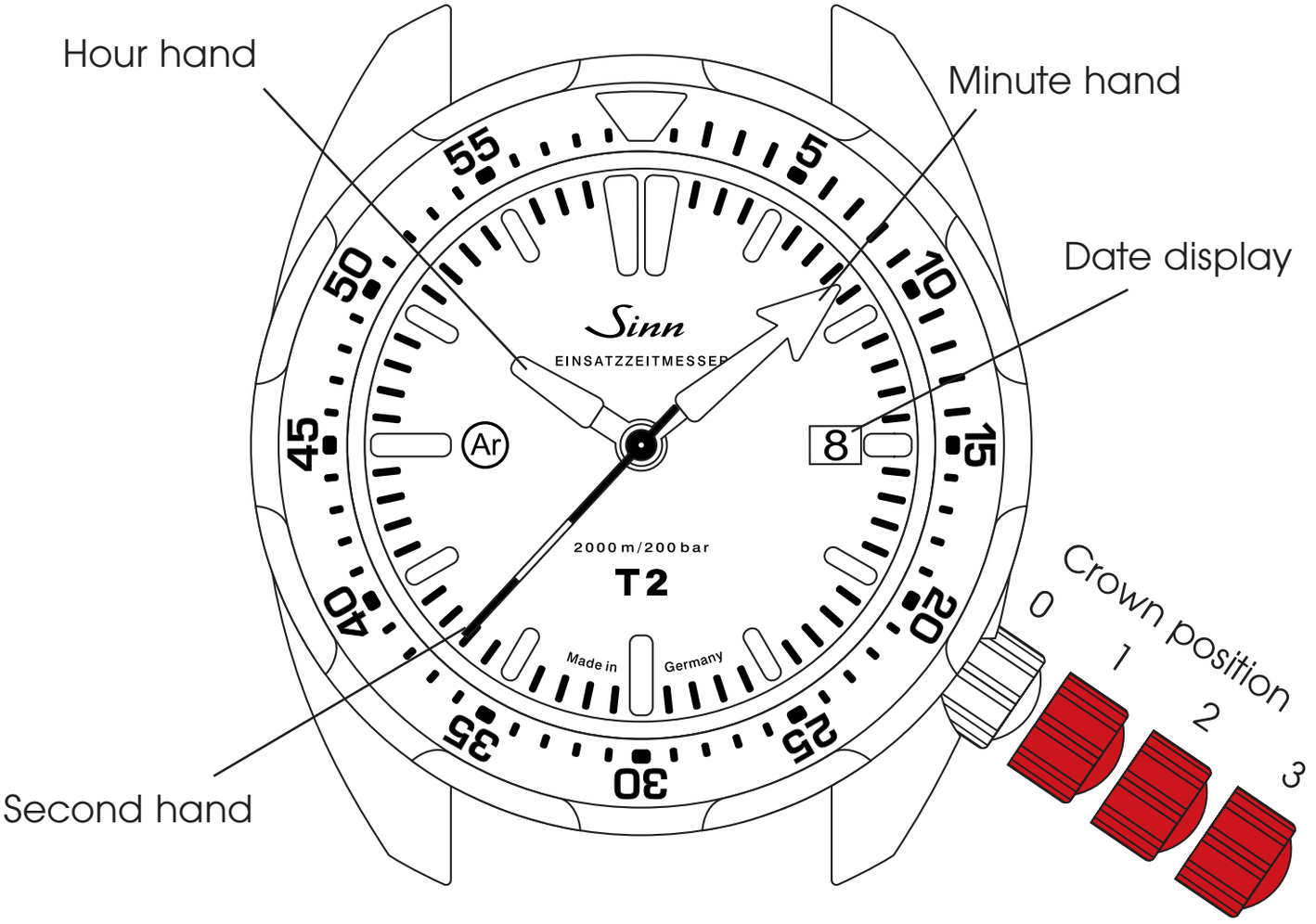
T2 (EZM15)
THE HIGH-STRENGHT TITANIUM DIVING WATCH

Safety is of prime importance for professional divers. For this reason the T2 is equipped with a captive safety diver's bezel which is distinguished by two basic components: its secure attachment and rotation protection.

The arrow-shaped minute hand is being used here for the first time in one of our diver's watches. The set time is especially easy to read thanks to the different shapes of the hour and minute hands. To ensure that this is also possible in the dark or in adverse viewing conditions, the T2 also features colour-differentiated luminous paint for the minute hand and key mark on the bezel for clear reading of set time.

A further unique feature is the fact that all the parts of the T2 case are made from high-strength titanium, bead-blasted. The metal is light yet extremely strong. Titanium is almost entirely resistant to weathering, making it ideally suitable for use in seawater. Titanium also offers a high degree of wearing comfort as it causes no allergies.

INSTRUCTIONS FOR USE



Winding the watch (crown position 1)
The crown is screwable (crown position 0). To loosen the crown, turn it *counter-clockwise* (crown position 1). The movement is wound by turning the crown *clockwise*. About 40 winds of the crown are generally enough to ensure reliable functionality. Under normal circumstances, simply wearing the watch every day should suffice to keep the self-winding mechanism wound. The power reserve allows you to take off your watch overnight without having to re-wind it.

Time adjustment (crown position 3)
In crown position 3, the motion is paused. This helps you to set the watch precisely. Please make sure the date changes at midnight and not at midday. Just move the hands forward until the date changes. Afterwards you attempt to set the time. We recommend moving the hands past the desired minute marker and then adjusting it backwards. The movement restarts as soon as the crown is no longer in position 3.

Quickset date adjustment (crown position 2)
Set the crown in position 2 and turn it *counter-clockwise* until the correct date appears in the date display window.

Please take care to fasten the crown after making adjustments.

Ar-DEHUMIDIFYING TECHNOLOGY

Indication colours of the drying capsule

Pale blue

Up to 25% saturation

Initial condition

Light blue

Up to 50% saturation

Medium blue

Up to 75% saturation

Dark blue

Up to 100% saturation

Drying capsule saturated

The colour scale for the Ar-Dehumidifying Technology: the capsule continues to absorb moisture until the darkest colouration is reached.

Perfect freedom from fogging

All the watches in this series meet the technical requirements for waterproofness, as set out in standard DIN 8310. But even with watertight instruments, the air enclosed in the case contains water in a gaseous state. And air can also penetrate the seals. When the water vapour in the case condenses into liquid, the instruments are impossible to read. To prevent this from happening, we have developed the Ar-Dehumidifying Technology. The combination of a special drying capsule, EDR seals (**e**xtreme **d**iffusion **r**eduction) and a filling of protective gas guarantee that the crystal remains free from fogging, even in difficult conditions.

Longer service intervals

The sophisticated Ar-Dehumidifying Technology considerably slows the aging process of the watch's inner workings and keeps the movement functioning properly for longer. That is why we issue a three-year warranty on all our watches featuring Ar-Dehumidifying Technology. When the drying capsule is saturated, as indicated by a deep blue colour (refer to picture on the left side), we recommend you have it exchanged so you can continue to enjoy all the advantages of the Ar-Dehumidifying Technology (enhanced reliability, longer intervals between maintenance).

THE CAPTIVE DIVER'S SAFETY BEZEL

The construction of the rotating bezel is extremely important in terms of safety. To prevent any risks to the life and health of the diver, the solution we use for the captive diver's bezel is based on two elements.

One is the captive design of the rotating bezel, which differs greatly from that of conventional snap-in mechanisms. A special design prevents the rotating bezel from becoming detached as the result of catching or being accidentally knocked, causing the set time to be lost.

In addition to the captive design of the captive diver's bezel, it is also protected against accidental rotation – a feature which goes beyond the specifications laid down in DIN 8306. This standard stipulates that it should only be possible to adjust the set time of a diver's watch by turning the bezel anti-clockwise on one side.

A sophisticated mechanism prevents the safety bezel from being unintentionally rotated. This makes it impossible for the set time to be accidentally knocked and changed.

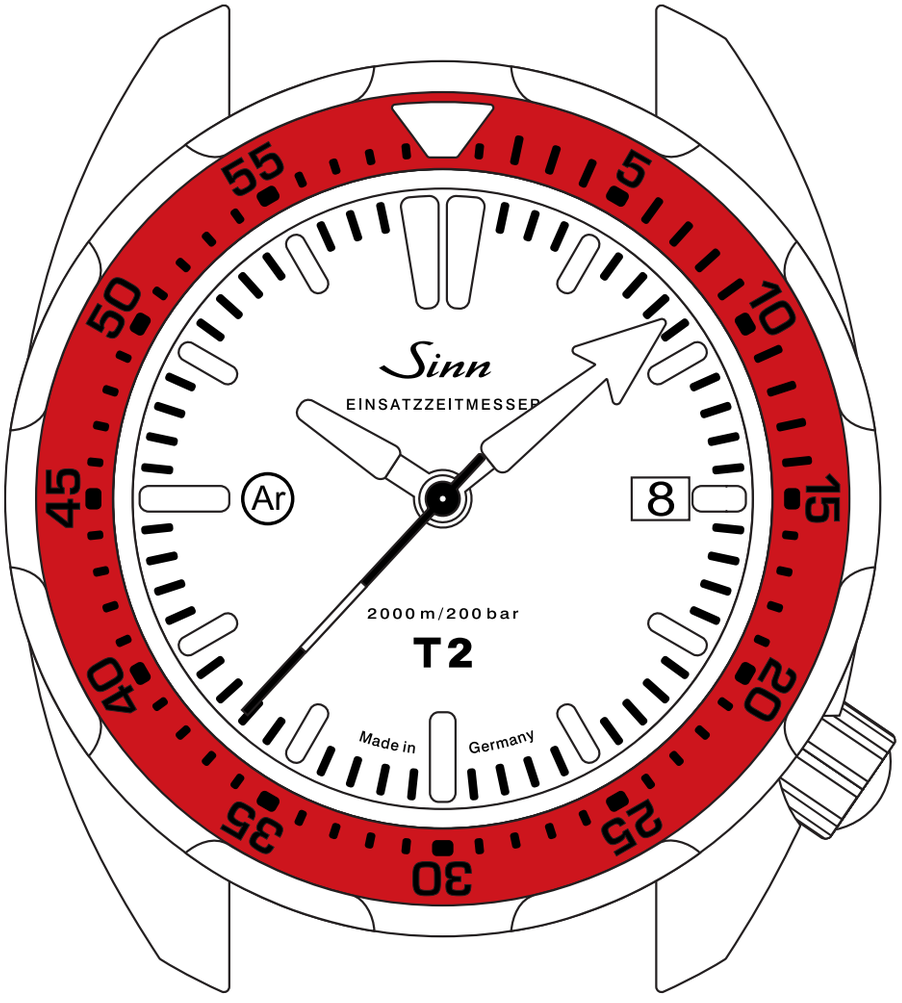
How to adjust the set time using the captive safety bezel

1. To adjust the set time, first unlock the bezel. Press it down on opposite sides using two fingers. It is not possible to unlock the bezel using just one finger.

2. Hold down the bezel and turn it anti-clockwise to the desired set time. Once you release the bezel, the rotation protection is reapplied and the bezel is once again prevented from being accidentally adjusted.

Using the diver's bezel to measure time

The diver's bezel is a rotatable bezel that can be set to the minute and only be rotated in one direction to prevent accidental adjustment. It has a luminous main marker which can be used in various ways. It can be used to highlight important time periods. Use it, for example, to mark the start of a period of time; the elapsed time can then be read off at a glance at any time.



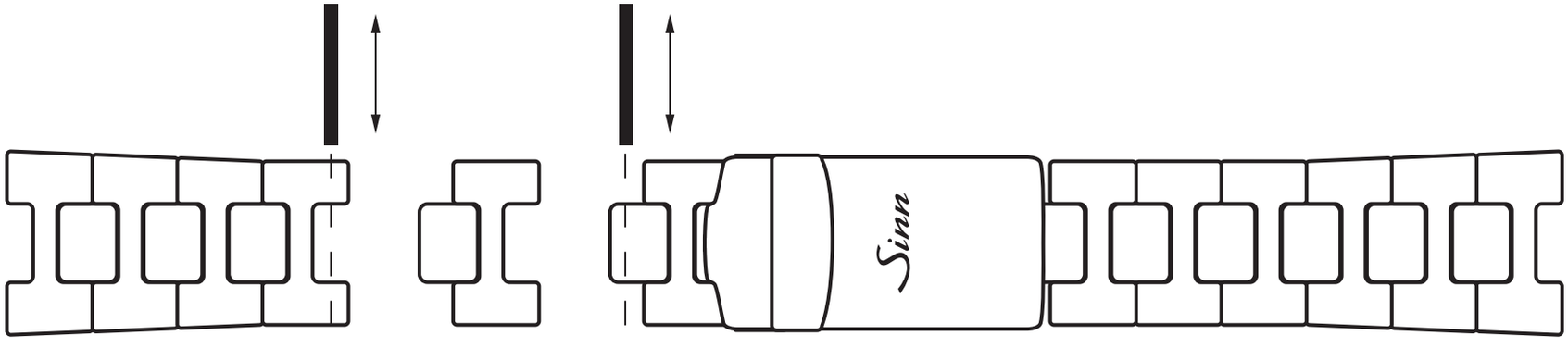
ADJUSTING THE LENGTH OF THE WATCH STRAPS

If you don't know how to shorten or lengthen the solid bracelet, please contact your SINN dealer or the watchmakers in our customer service department in Frankfurt am Main. Our customer service employees are also happy to help you over the telephone.

Adjusting the length of the solid bracelet
Determine the relative lengths of the two sides before adjusting the length of the bracelet. To ensure maximum comfort, both sides of the bracelet should contain the same number of links. If this is not possible, the top bracelet strap (above the 12 on the clock) should be longer.

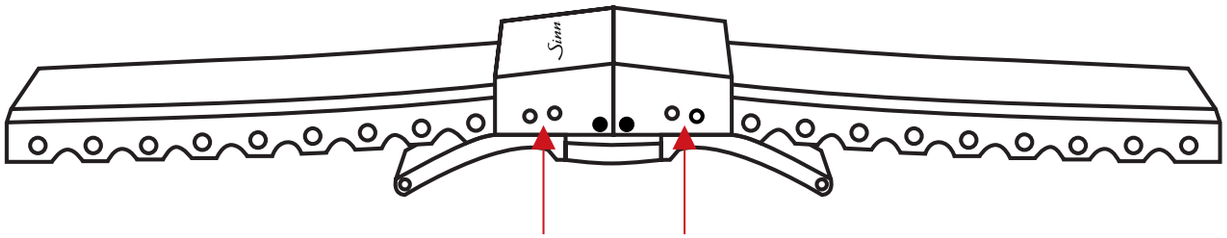
It is not necessary to detach the solid bracelet from the watch or the clasp.

1. Loosen the screws on the side of the bracelet link which is to be removed or added.
2. Remove the superfluous bracelet link or insert a new one.
3. Before screwing tight, add a small drop (no more!) of thread-locker (AN 302-42 medium-tight) to the thread of the bracelet screw.

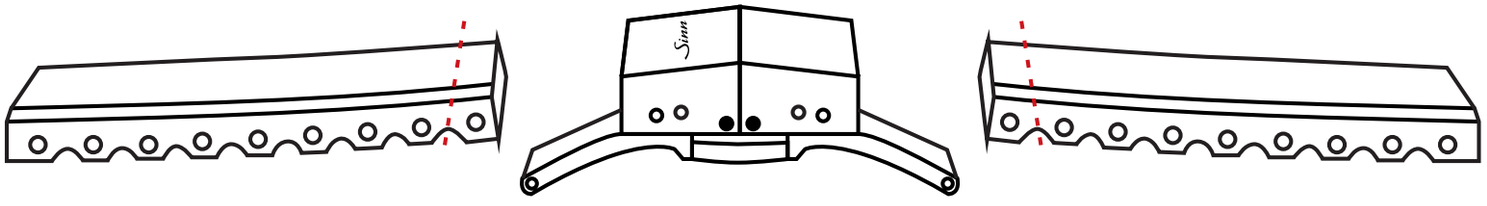


Adjusting the length of the silicone strap

1. Release the silicone band from the clasp. To do so, use the pointed end of the band replacement tool to push the spring bar out of the fastener. The other side of the spring bar can be removed while the fastener is open, enabling you to remove the silicone band.

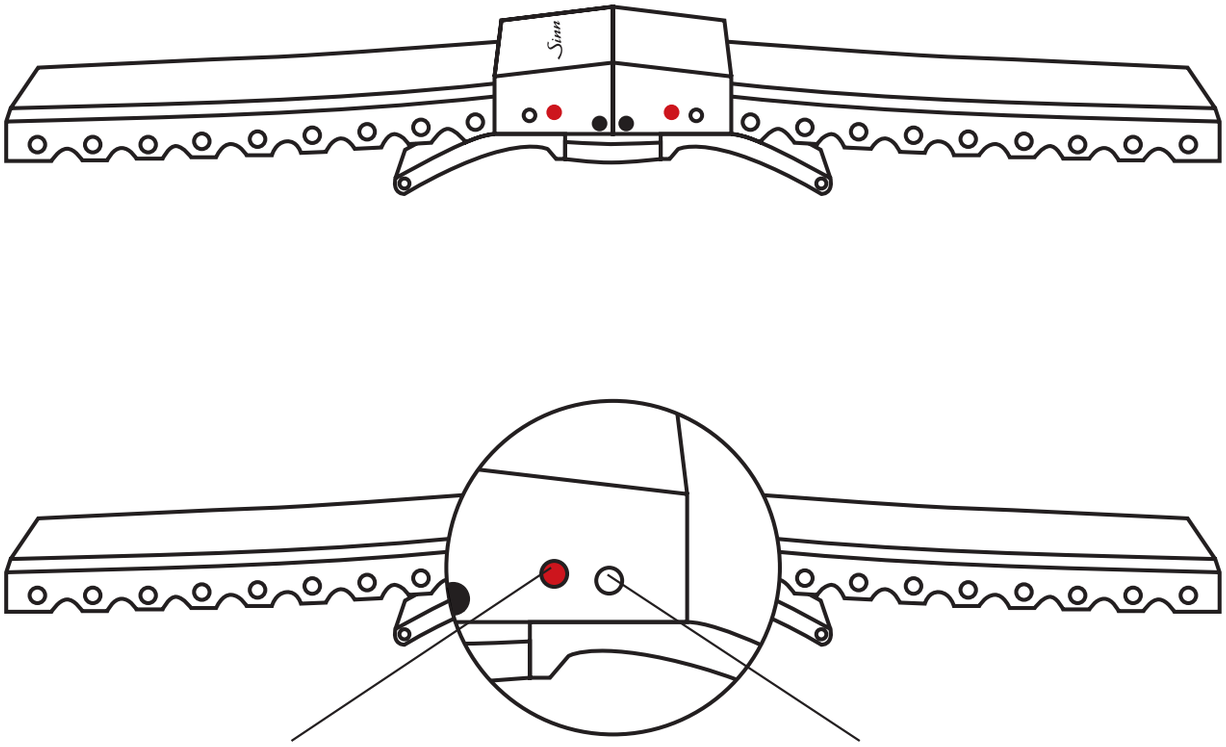


2. Using a knife or scissors, cut the silicone band in the middle between two metal pins. You should shorten the band symmetrically and little by little, starting from the clasp, until you have reached the desired length. Test the length from time to time before proceeding. Shortening both ends by the length of one metal pin results in a total difference of 10 mm in the length of the strap; shortening one end reduces the length by 5 mm.



3. Remove the first metal pin and replace it with the spring bar. Then reattach the clasp to the band.

4. Attach the butterfly folding clasp as follows:
We recommend first inserting the bar at the red marker, as per the illustration. If the silicone strap is too tight, use the option shown in the illustration by the white marker.



Hole for spring bar:
Tight-fitting strap

Hole for spring bar:
Extend strap

If you want to shorten the overall length of the silicone strap, refer to steps 1 to 3.

Colour-differentiated luminous paint for minute hand and key mark on the rotating bezel for clear reading of set time.

TECHNICAL DETAILS

Mechanical Movement
- SOP A10-2
- Self-winding mechanism
- 25 bearing jewels
- 28,800 semi-oscillations per hour
- Seconds stop function
- Shock resistant as per DIN 8308
- Anti-magnetic as per DIN 8309

Functions
- Hours, minutes, seconds
- Date display
- Diver's bezel with minute ratcheting
- Arrow-shaped minute hand for clear reading of set time

SINN Technologies / Special Features
- Bezel with TEGIMENT Technology, therefore especially scratch-resistant
- Captive safety bezel
- Ar-Dehumidifying Technology enhances functional reliability and freedom from fogging
- Temperature Resistance Technology, therefore functionally reliable at temperatures from −45 °C up to +80 °C

Watch Case
- Case made of titanium, bead-blasted
- Sapphire crystal glass in front
- Case back screw-fastened, nickel-free
- Crown screwable
- Water-resistant as per DIN 8310
- Water-resistant and pressure resistant up to 200 bar, certified by DNV GL
- According to the technical demands for the diving norm DIN 8306
- Low pressure resistant
- Tested based on European diving equipment standards EN250 / EN14143 and certified by DNV GL
- Low pressure resistant
- Band lug width: 20 mm
- Case diameter: 41 mm

SERVICE

General advice
To preserve the water resistance for as long as possible, the watch should be rinsed whenever it has been in contact with seawater, chemicals, etc. If your watch is frequently worn in water or underwater, we recommend having its water resistance checked at yearly intervals.

The watch is designed to withstand high levels of mechanical wear and tear and is shock resistant as per DIN 8308. Nevertheless, it goes without saying that continual mechanical stress in the form of impacts or vibration will affect its durability.

Care should therefore be taken to protect your watch from unnecessary wear and tear. It is only possible to judge how well the watch keeps time after it has been in operation for approximately eight weeks, since it takes that long for the working mechanism to become adjusted, especially in view of the fact that everybody has different lifestyles and habits. In the event of any excessive deviation, please keep a day-to-day record of its timekeeping over a period of about one week, for example.

Does your SINN watch need an inspection, repair, retrofitting or reconditioning?
If possible, please use our service order form. For information about our service order form, please refer to the section entitled “Customer Service” on our website www.sinn.de/en and to the section entitled “Servicing and repairs” in our general terms and conditions at www.sinn.de/en. We would be happy to send you a copy of the general terms and conditions.

Our international partners generally offer on-site service. However, should they be unable to provide a certain service, they will organise the safe dispatch and return of the SINN watch to our manufactory in Germany. Please be aware that our partners will wait until they have a sufficient number of SINN watches before they post a shipment, in order to keep transport costs and customs duties to a minimum. This will increase the processing time.

Alternatively, you can send your SINN watch to us directly. You will be required to cover the postage costs for the delivery and return shipment, which vary depending on the country. For insurance reasons, we strongly recommend sending us any return goods by registered parcel post. We regret that we are unable to accept deliveries with unpaid postage!

In case you have a chance to drop off your watch directly at our office in Frankfurt am Main we look forward to your visit. Please make a note of our opening times.

Send your SINN watch by insured post to:
Sinn Spezialuhren GmbH
Kundendienst
Im Füldchen 5–7
60489 Frankfurt am Main
Germany

Do you have any questions?
Our employees will be pleased to advise you.
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Sinn

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