CONTENTS

DEAR CUSTOMER,

We know from numerous conversations that the people who buy our watches do so out of conviction. This includes people with a pronounced affinity to technology who are fascinated, for example, by the solutions we have devised for protection from magnetic fields and scratch resistance. Some of our customers, such as divers, pilots and the German GSG 9 special police unit, rely on their watches in their respective careers because their lives depend on it.

They all swear by the performance, resilience and durability, as well as the quality and precision of our watches. That is why the world's largest classification society DNV GL (formerly Germanischer Lloyd, Hamburg) regularly tests and certifies the water and pressure resistance of our diving watches.

We have selected pilot's watches tested and certified to the technical standard for pilot watches (Technischer Standard Fliegeruhren – TESTAF) by Aachen University of Applied Sciences. The TESTAF 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. Functionality is our top priority and ultimately determines the design. Only the technical features that are really needed can be found on our watches. Because we believe that products have to speak for themselves.

The basic question that we ask ourselves is: which innovative technologies and materials can be employed for our craft and provide solutions for rendering our watches even more practical 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. We repeatedly go to the limits of physical resources to upgrade our watches – with the aim of making what's good even better. Most of our best developments are yet to come!

I am delighted that you have decided to buy a SINN timepiece 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.

358 DIAPAL

The large, 42 mm diameter of this chronograph and its strikingly domed sapphire crystal glass lend it its elegant form.

In terms of features, the DIAPAL Technology makes for a lubrication-free escapement, the Ar-Dehumidifying Technology for enhanced freedom from fogging and specified functional reliability at temperatures between −45 °C and +80 °C ensures maximum reliability even under extreme conditions. The display features an important additional time measurement function in the form of a second time zone on 12-hour basis. The unusual quality of this watch is also underlined by the charcoal grey electroplated dial.


MON 8
FLIEGER

358 Sa PILOT/358 PILOT

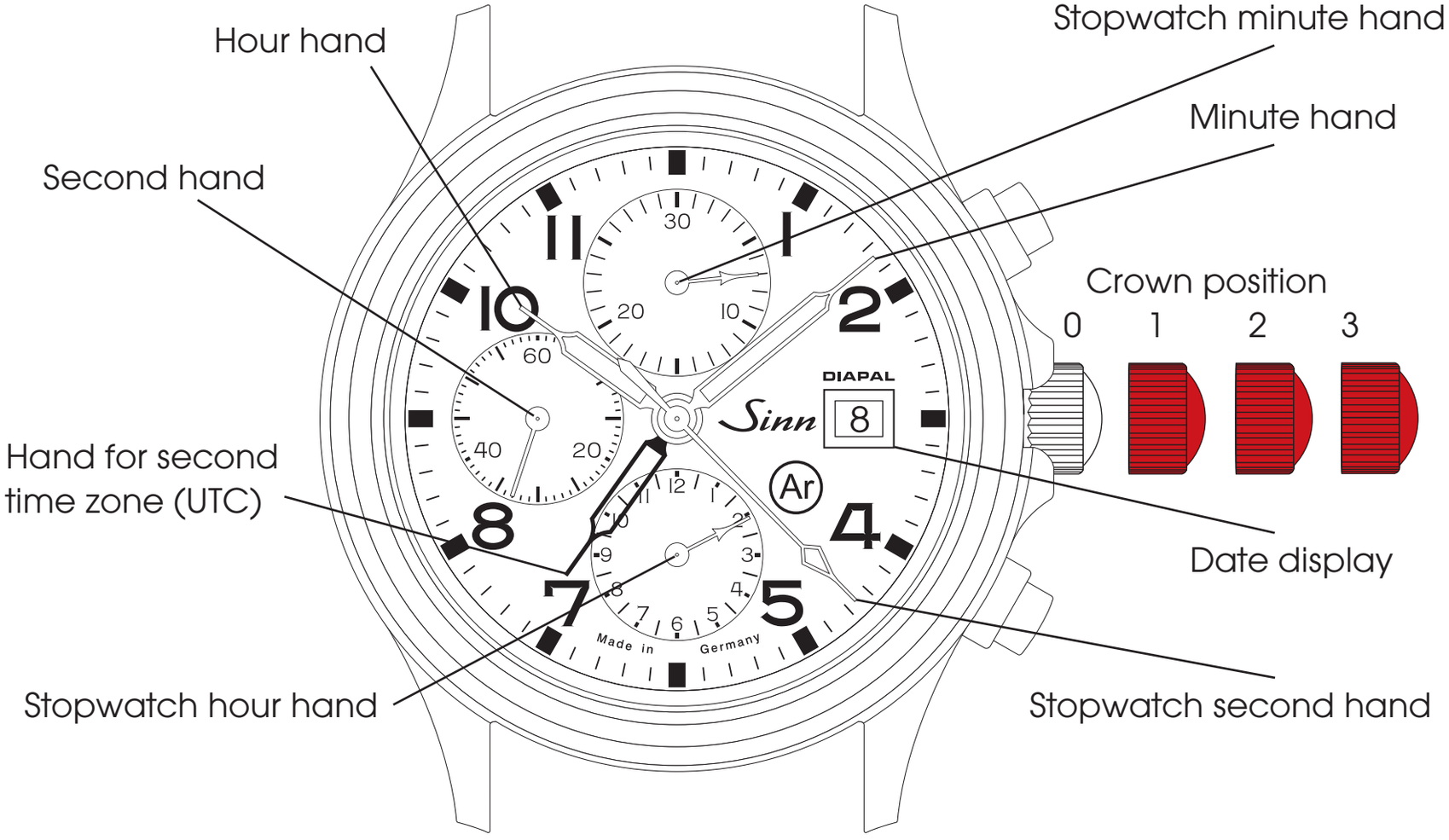
Based on the classic SINN 356 instrument chronograph, the SINN 358 series offers a 42 mm diameter case and features a combination of clarity, functionalism and elegance.

However, it is not only the size which distinguishes these chronographs but also the conspicuous domed glass. We use sapphire crystal for this and for the transparent back in the 358 Sa PILOT. Creating such glasses requires a high level of craftsmanship and represents a specialised skill within the field of fine watchmaking. The watches incorporate the Valjoux 7750 calibre and feature chronograph functions plus a date and day display.

Image: 358 PILOT

INSTRUCTIONS FOR USE

358 DIAPAL



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.

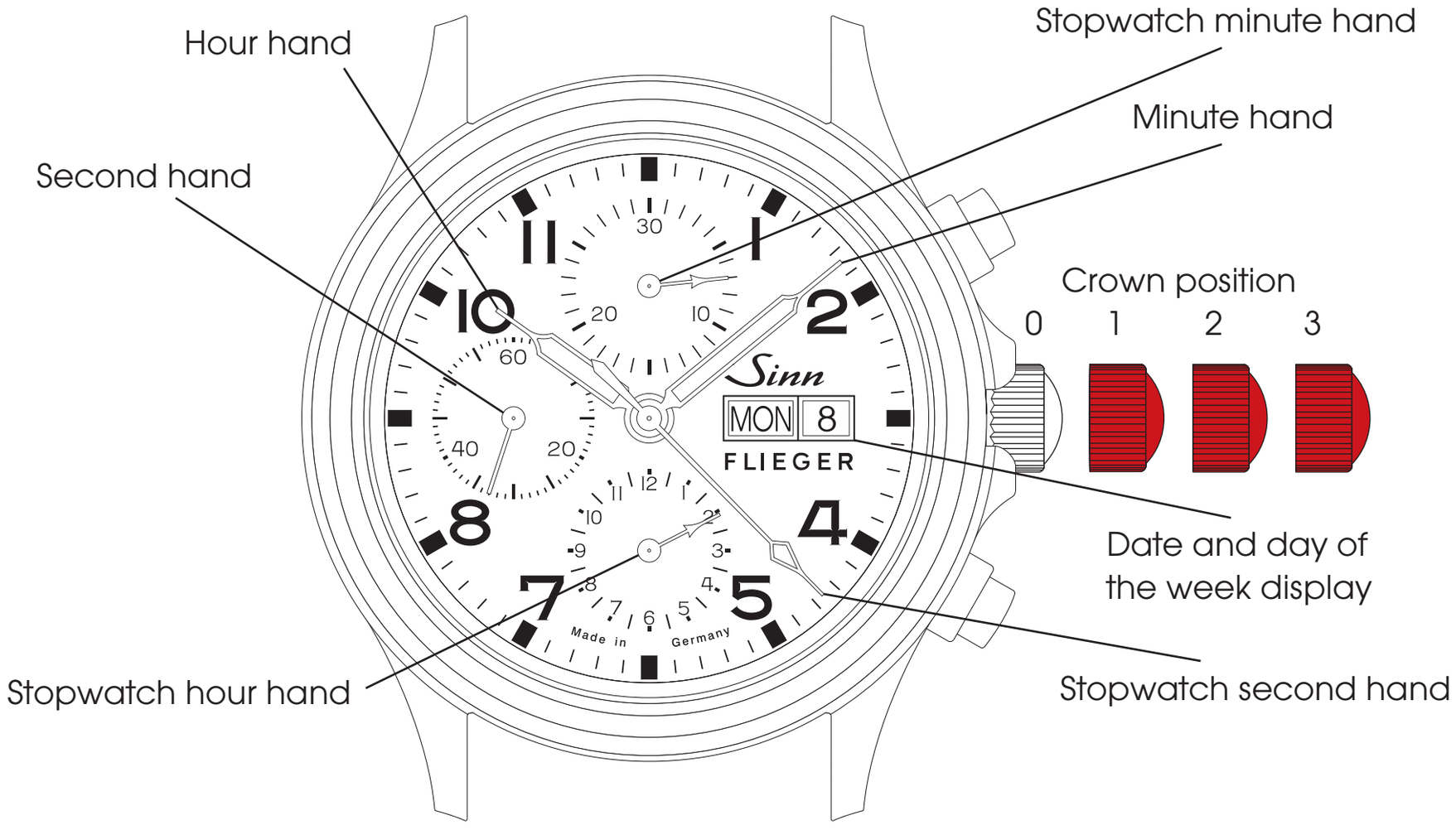
Quickset date adjustment (crown position 2)
Do not use this function between 9 p.m. and 3 a.m. Set the crown in position 2 and turn it *clockwise* until the correct date appears in the date display window. **Please do not use the date-setting function between 9 p.m. and 3 a.m.** Between these times, the gear wheels used for changing the date are engaged, and the movement could be damaged.

Adjusting the second time zone (crown position 2)
Pull the crown into position 2 and turn it *counter-clockwise* until the correct time appears. The UTC hand stops at hourly intervals. This setting may be adjusted between 9 p.m. and 3 a.m., but it is important to ensure that you are really setting the second time zone in this period by turning the crown *counter-clockwise*! Otherwise the watch could be damaged!

Please take care to fasten the crown after making adjustments.

INSTRUCTIONS FOR USE

358 Sa PILOT/358 PILOT



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 and day of the week adjustment of the week (crown position 2)
Do not use this function between 9 p.m. and 3 a.m. Crown position 2 can be used to change the date and day of the week quickly and simply. To set the date, pull the crown to the second position and turn it *clockwise* until the current date appears in the display window. To set the day of the week, turn the crown *counter-clockwise* until the desired day of the week is indicated. **Please do not use the date setting function between 9 p.m. and 3 a.m.** Between these times, the gear wheels used for changing the date are engaged, and the movement could be damaged.

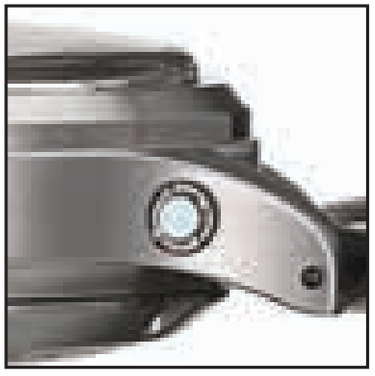
Please take care to fasten the crown after making adjustments.

(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).

USING THE CHRONOGRAPH TO MEASURE TIME

The chronograph is operated by means of buttons A and B. The measurement starts when button A is pressed once. Pressing this button again stops the measurement. The measurement is resumed by pressing button A once more. This allows you to add up and record the cumulative time. Button B resets the hands of the chronograph to zero.

ASSEMBLING AND ADJUSTING THE LENGTH OF STRAPS

If you are not sure how to assemble, shorten or lengthen the watch straps, please contact your specialist SINN retailer directly or one of our watchmakers in customer service in Frankfurt am Main. We would also be happy to help you over the telephone.

Assembling the textile strap

1. Place your watch on a soft cloth with the dial facing down.
2. Fold over the shorter side of the textile strap with the two metal loops pointing to the left. Then bring the longer side of the textile strap through the spring bars on the left and right, as illustrated in figure 1 (steps A to C).

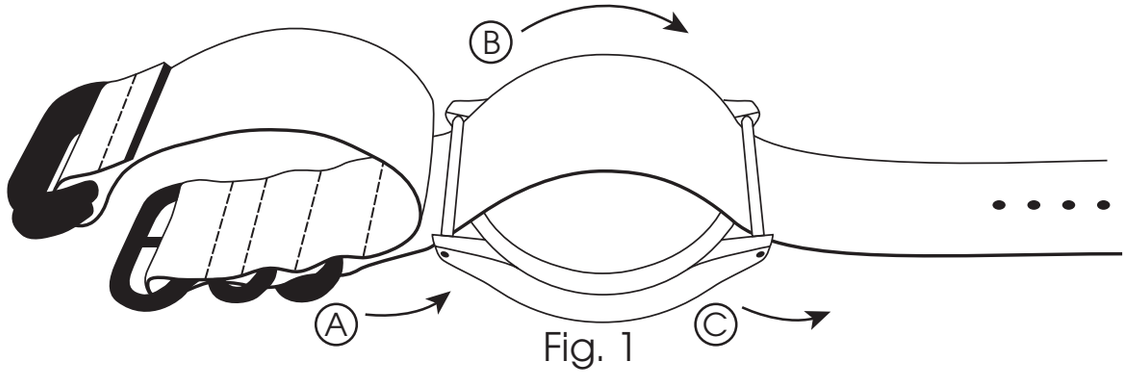


Fig. 1

3. Fold over the shorter side of the textile strap to the right over the case back and bring the longer side through the two metal loops. Tighten the textile strap carefully (figure 2).

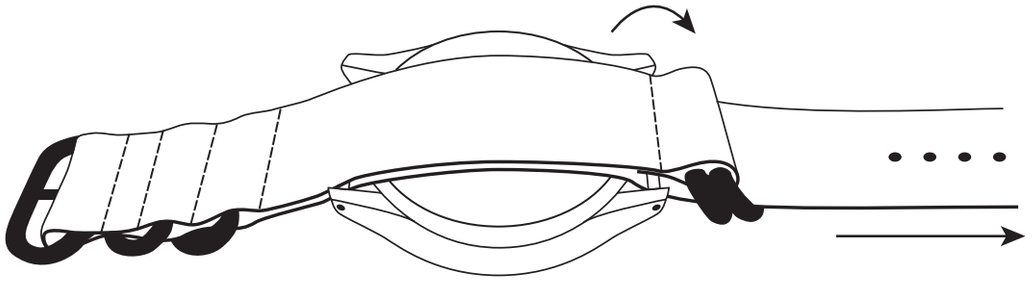


Fig. 2

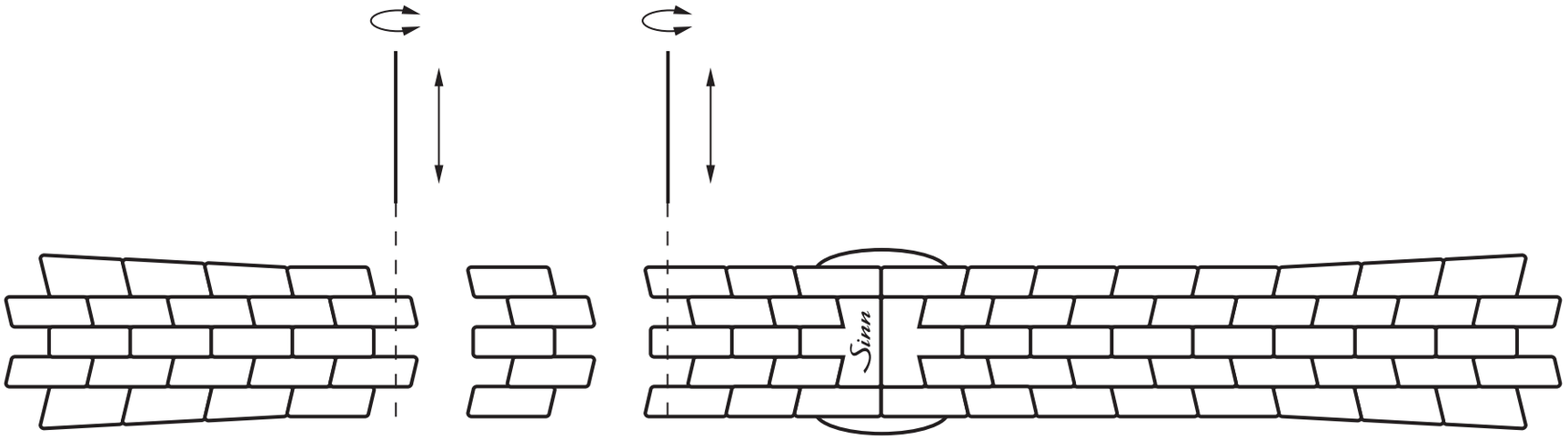
ADJUSTING THE LENGTH OF THE WATCH STRAPS

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.

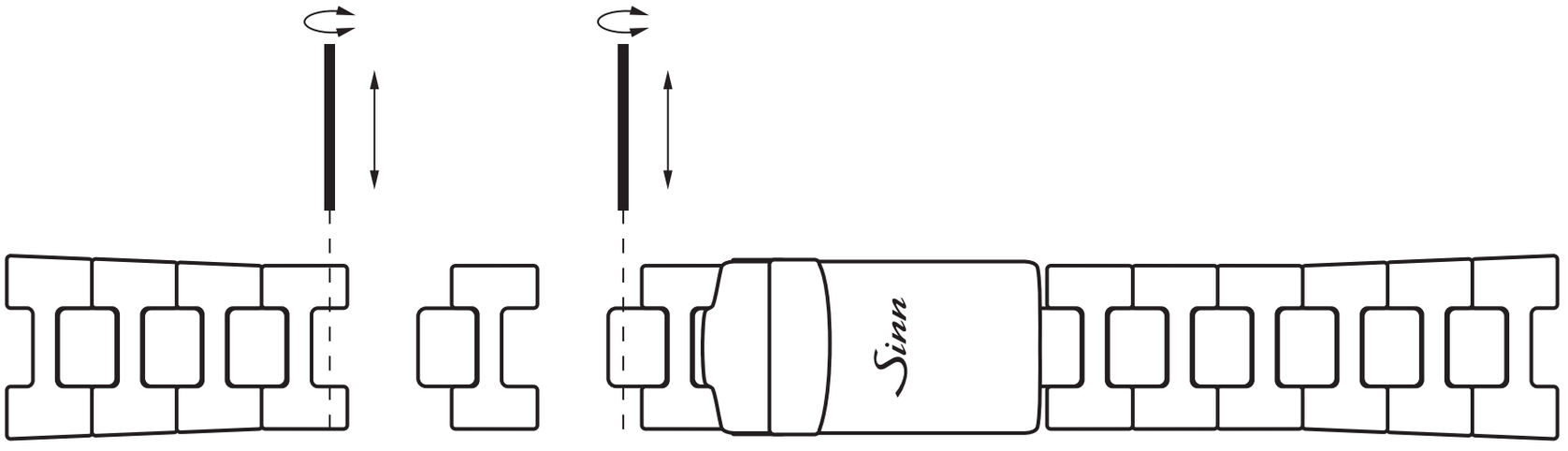
Adjusting the length of the solid bracelet
Determine the relative lengths of the two sides before adjusting the length of the bracelet. To ensure maximum comfort, both sides of the bracelet should contain the same number of links. If this is not possible, the top bracelet strap (above the 12 on the clock)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



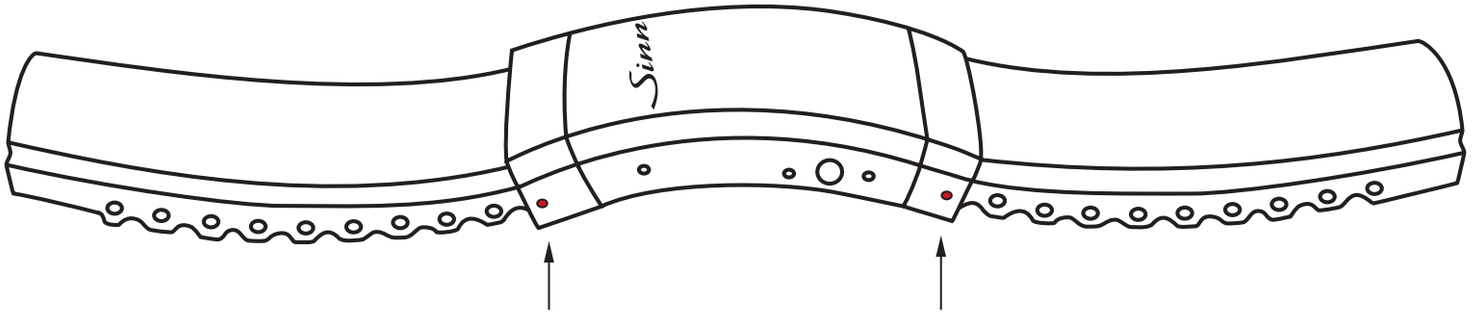
358 DIAPAL, 358 Sa PILOT



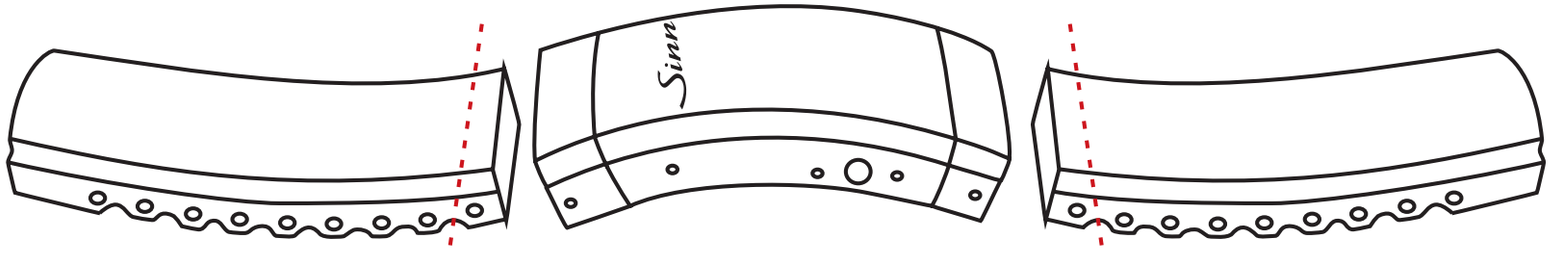
358 PILOT

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.



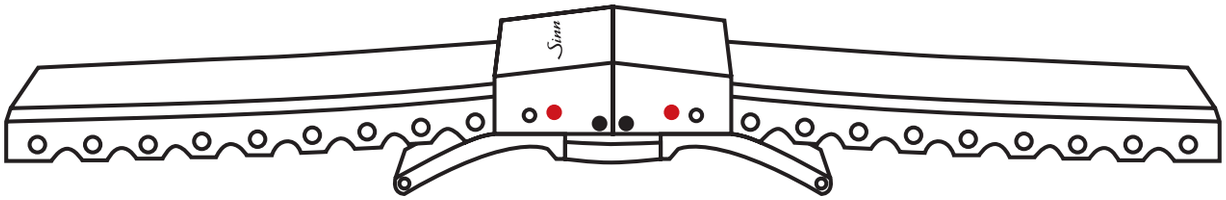
2. Using a knife or scissors, cut the silicone band in the middle between two metal pins. You should shorten the band symmetrically and little by little, starting from the clasp, until you have reached the desired length. Test the length from time to time before proceeding. Shortening both ends by the 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.

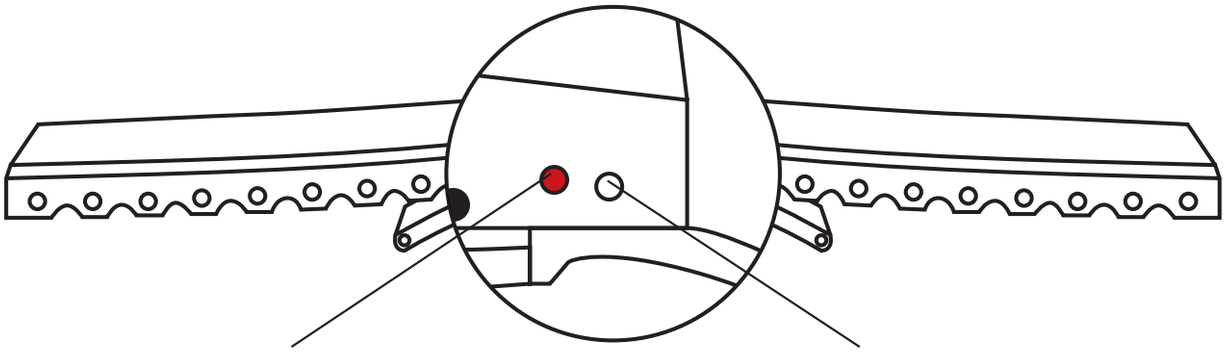


3. Remove the first metal pin and replace it with the spring bar. Then reattach the clasp to the band.

Assembling 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 in chapter "Adjusting the length of the silicone strap".

Luminous

TECHNICAL DETAILS 358 DIAPAL

Mechanical Movement

- Calibre Valjoux 7750 UTC
- Self-winding mechanism
- 25 bearing jewels
- 28,800 semi-oscillations per hour
- Hand adjustment with stop-second function
- Shock resistant as per DIN 8308
- Anti-magnetic as per DIN 8309

Watch Case

- Stainless steel, satinized
- Crown screwable
- Sapphire crystal glass in front, anti-reflective on both sides
- Transparent case back made of sapphire crystal glass, anti-reflective on the interior
- Case back screw-fastened
- Meet the technical requirements for waterproofness, as set out in standard DIN 8310
- Water-resistant and pressure resistant up to 10 bar
- Low pressure resistant
- Band lug width 22 mm
- Case diameter 42 mm

Functions

- Hours, minutes, subsidiary seconds
- Second time zone on a 12-hour basis (UTC)
- Chronograph
- Date display

SINN Technologies

- DIAPAL – lubrication-free escapement
- 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

Luminous

TECHNICAL DETAILS 358 Sa PILOT

Mechanical Movement

- Calibre Valjoux 7750
- Self-winding mechanism
- 25 bearing jewels
- 28,800 semi-oscillations per hour
- Hand adjustment with stop-second function
- Shock resistant as per DIN 8308
- Anti-magnetic as per DIN 8309

Functions

- Hours, minutes, subsidiary seconds
- Chronograph
- Date display
- Day of the week display

SINN Technologies

- Ar-Dehumidifying Technology enhances functional reliability and freedom from fogging

Watch Case

- Stainless steel, satinized
- Crown screwable
- Sapphire crystal glass in front, anti-reflective on both sides
- Transparent case back made of sapphire crystal glass, anti-reflective on the interior
- Case back screw-fastened
- Meet the technical requirements for waterproofness, as set out in standard DIN 8310
- Water-resistant and pressure resistant up to 10 bar
- Low pressure resistant
- Band lug width 22 mm
- Case diameter 42 mm


11
1
10
2
8
4
7
5

TECHNICAL DETAILS 358 PILOT

Mechanical Movement

- Calibre Valjoux 7750
- Self-winding mechanism
- 25 bearing jewels
- 28,800 semi-oscillations per hour
- Hand adjustment with stop-second function
- Shock resistant as per DIN 8308
- Anti-magnetic as per DIN 8309

Watch Case

- Stainless steel, bead-blasted
- Crown screwable
- Acrylic glass in front (sapphire crystal glass optional)
- Solid case back (transparent case back made of sapphire crystalglass optional)
- Case back screw-fastened
- Meet the technical requirements for waterproofness, as set out in standard DIN 8310
- Water-resistant and pressure resistant up to 10 bar
- Low pressure resistant
- Band lug width 22 mm
- Case diameter 42 mm

Functions

- Hours, minutes, subsidiary seconds
- Chronograph
- Date display
- Day of the week display

SINN Technologies

- Optional: Ar-Dehumidifying Technology enhances functional reliability and freedom from fogging

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.

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

Telephone: + 49 (0)69 978 414 400
Telefax: + 49 (0)69 978 414 401
E-mail: kundendienst@sinn.de

Sinn

SPEZIALUHREN ZU FRANKFURT AM MAIN

3. Auflage / 3rd Edition
01 2016

Technische Änderungen vorbehalten.
Technical specifications are subject to changes.