

CONTENTS

SINN SPEZIALUHREN ZU FRANKFURT AM MAIN	6-11
SERIES 856/857	12-19
INSTRUCTIONS FOR USE 856/857	20 - 23
USING THE PILOT'S BEZEL TO MEASURE TIME	24
ADJUSTING THE LENGTH OF THE WATCH STRAPS	25 - 27
Ar-DEHUMIDIFYING TECHNOLOGY	28 - 29
TECHNICAL DETAILS 856/857	30 - 37
ADVICE	38 - 39
SERVICE	40 - 41





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. Selected pilot watches are tested and certified by independent institutions according to the DIN 8330 Horology – Aviator watches in an extensive and complex type and unit verification process. This ensures that a DIN 8330-compliant pilot watch is a suitable all-round replacement for the on-board timekeeping instruments available to pilots. 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

5



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 highspecification 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.

Technical innovations

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. 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.

Innovations in endurance testing

The world's largest classification society for maritime safety DNV GL (formerly Germanischer Llovd, 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. Selected pilot watches are tested and certified by independent institutions according to the DIN 8330 Horology - Aviator watches in an extensive and



complex type and unit verification process. This ensures that a DIN 8330compliant pilot watch is not only a suitable all-round replacement for the on-board timekeeping instruments available to pilots, but is also capable of remaining unaffected by the physical stresses of flight, posing no risk potential for the crew or aircraft, and demonstrating compatibility with other on-board instruments.

The Temperature Resistance Technology keeps mechanical watches performing at temperatures ranging from -45 °C to +80 °C. This technology has proven its worth in the EZM 10 TESTAF, for example, used as part of the official approvals procedure for Airbus Helicopters (formerly Eurocopter) EC 145 T2 high-performance helicopter. The 303 KRISTALL is impressive proof of the functional reliability of our watches under the toughest climatic conditions. Equipped with Temperature Resistance Technology, the chronograph passed the acid test at the Yukon Quest, the world's most demanding dogsled race. The 203 ARKTIS passed its Arctic endurance test on the wrist of extreme diver Mario M. Weidner, withstanding all dives in the freezing cold waters of the Arctic Ocean above 81 degrees latitude. Both watches were worn on top of protective clothing. The real test was in the extreme temperature fluctuations between water and land – a test that the 303 KRISTALL and the 203 ARKTIS passed with flying colours.

Image: All of the technical details of our watches are documented by tests. This system of assessment has been specially designed for certification of the pressure resistance of our diving watches by DNV GL (formerly Germanischer Lloyd, Hamburg), the world's largest classification society for maritime safety.

Workshop modifications

From the robust case and the polished crystal to the exquisitely decorated movement, we make sure that each and every detail in our watches is fit for purpose. In addition to our technology, the heart of any SINN watch is the fascinating mechanical movement. That is why we rely only on selected renowned manufacturers.

"SZ movements" is the name given to our movement modifications. The results are high-quality calibres characterised by impressive features. An example of this is the SZ04 with regulateur for the 6100 REGULATEUR series.

The model series 140 and EZM 10 uses our proprietary chronograph development, the SZ01. It was modelled on the Lemania 5100 calibre used in the EZM 1. One of the biggest differences between the SZ01 and the Lemania 5100 is the former's stopwatch minute display. This feature now makes it even easier and quicker to record stop times more accurately. The aim of this modification was to significantly improve the readability of the chronograph function.

The SZ calibres 02, 03, 05 and 06 are a modification of the SZ01 movement, characterized by an off-center 60-minute counter. The 60-minute scale of the stopwatch minute counter is much simpler and more intuitive to read than the 30-minute scale commonly found in other watches.





MODEL SERIES 856

Just how functional can a watch be? This is a question we've been asking ourselves since founding the company. And the answer? Our cockpit navigation clocks. Conceived for the instrument panels of aeroplanes and helicopters, and optimised to provide rapid and clear readability, they are specifically designed to offer time measurement in its purest form.

And they have now inspired us to create a watch with these same characteristics as well as Magnetic Field Protection of up to 80,000 A/m to complement our range of instrumental chronographs. The dial design ensures especially clear readability: Maximum contrast of the hands, indices and numerals against the glare-free black dial. – Extremely large numerals for intuitive orientation even in low light levels. – Striking hand profiles. – Special long-lasting, luminous paint on the minute and hour hands and indices to ensure accurate reading even in adverse conditions.



MODEL SERIES 856 UTC

The technical specifications of the 856 UTC provide impressive proof of our craftsmanship in the area of instrument watches. The second time zone on a 24-hour basis makes it ideal for people who frequently find themselves crossing time zones because of travel.

The aesthetics of this watch are determined by the striking form - a form which, as in all our watches, is dictated exclusively by the functions. The 856 UTC also features a range of technologies which, together, guarantee maximum reliability even in the most extreme of conditions. In addition, the 856 UTC has a second time zone on a 24-hour basis with a hand which helps to locate the points of the compass. The hand is designed in the form of an arrow for this very purpose. The basic principle is simple: in the northern hemisphere, you hold the watch horizontally and turn it so that the 12-hour hand is pointing towards the sun - the 24-hour hand will then be pointing North. In the southern hemisphere, on the other hand, the same procedure will cause the hand to point South.



MODEL SERIES 857

Based on the 856 series, and designed as a functional instrument watch in the tradition of our cockpit navigation clocks, this pilot's watch also features a pilot's bezel which permits its wearer to measure or check set time intervals. This is a decisive criterion particularly in aviation – reason enough for us to give this important function a superior design.

The stainless steel pilot's bezel with minute ratcheting can be rotated on both sides and features a special mechanical system developed by SINN to protect against loss. Like the case material, the base of the bezel is tempered with TEGIMENT Technology. The labelling is silver on an inset, black anodised aluminium ring to ensure optimal scale readability. A luminous triangle serves as the 0 / 60 minute mark. The pilot's bezel can be turned in both directions and clicks firmly and audibly into place at minute intervals.



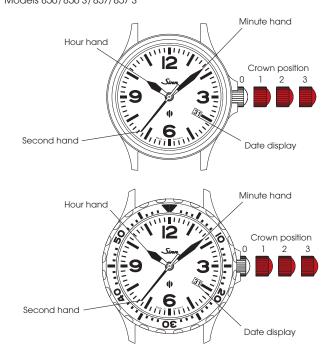
MODEL SERIES 857 UTC

The 857 UTC series pilot's watches unite all our core watchmaking competencies: these are instrument watches with a consistently functional design which honour the tradition of our navigation cockpit clocks.

The features include Magnetic Field Protection of up to 80,000 A/m, Ar-Dehumidifying Technology and pressure resistance of up to 20 bar. The pilot's bezel and the second time zone on a 24-hour basis make these watches perfect, all-purpose instruments.

The stainless steel pilot's bezel with minute ratcheting can be rotated on both sides and features a special mechanical system developed by Sinn to protect against loss. Like the case material, the base of the bezel is tempered with TEGIMENT Technology. The labelling is silver on an inset, black anodised aluminium ring to ensure optimal scale readability. A luminous triangle serves as the 0 / 60 minute mark. The rotating pilot's bezel can be turned in both directions and clicks firmly and audibly into place at minute intervals.

INSTRUCTIONS FOR USE Models 856/856 S/857/857 S



Winding the watch (crown position 1)

The crown is screwable (crown position 0). To loosen the crown, turn it *counterclockwise* (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)

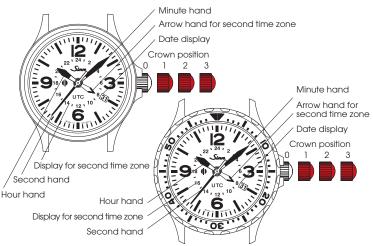
In crown position 3, the motion is paused. This helps you to set the watch precisely. Please make sure the date changes at midnight and not at midday. Just move the hands forward until the date changes. Afterwards you attempt to set the time. We recommend moving the hands past the desired minute marker 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.

INSTRUCTIONS FOR USE Models 856 UTC/856 S UTC/857 UTC/857 S UTC



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The crown is screwable (crown position 0). To loosen the crown, turn it counterclockwise (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.

Setting the second time zone (crown position 2)

The crown is screwable (crown position 0). To loosen the crown, turn it *counter-clockwise*. You can use the second time zone (UTC) display to show the time in a second location, such as New York (six hours behind Central European Time), or as an additional display the time of day. To do this, turn the crown in position 2 *clockwise* until you reach the correct time. The 24-hour arrow hand moves on the hour.

Please take care to fasten the crown after making adjustments.

USING THE PILOT'S BEZEL TO MEASURE TIME Models 857/857 S/857 UTC/857 S UTC

The pilot's bezel can be moved manually in both directions. The triangle glows in the dark. It can be used in a number of ways, including to measure important lengths of time. For example, you can set the marking to the beginning of the time span to be measured, or you can use it to indicate the end of a given span of time.



ADJUSTING THE LENGTH OF THE WATCH STRAPS

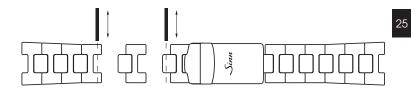
If you don't know how to shorten or lengthen the solid bracelet, please contact your SINN dealer or the watchmakers in our customer service department in Frankfurt am Main. Our customer service employees are also happy to help you over the telephone.

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.

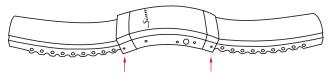
- 1. Loosen the screws on the side of the bracelet link which is to be removed or added.
- 2. Remove the superfluous bracelet link or insert a new one.
- Before screwing tight, add a small drop (no more!) of thread-locker (AN 302-42 medium-tight) to the thread of the bracelet screw.



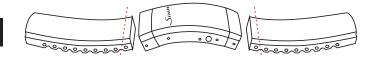
Adjusting the length of the silicone strap

26

 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.



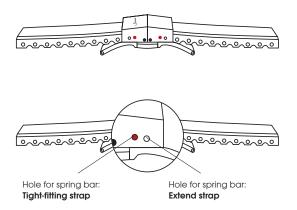
2. Using a knife or scissors, cut the silicone band in the middle between two metal pins. You should shorten the band symmetrically and little by little, starting from the clasp, until you have reached the desired length. Test the length from time to time before proceeding. Shortening both ends by the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

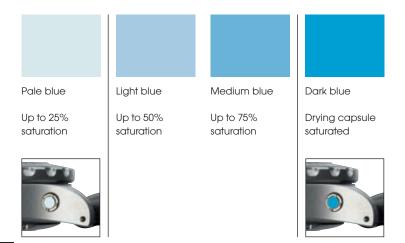
We recommend first inserting the bar at the red marker, as per the illustration. If the silicone strap is too tight, use the option shown in the illustration by the white marker.



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".



Indication colours of the drying capsule



When the drying capsule is saturated, as indicated by a deep blue colour, 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).

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 reduction) 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).



Luminous design

TECHNICAL DETAILS

856/856 S

Mechanical Movement

- Self-winding mechanism
- 28,800 semi-oscillations per hour
- Anti-magnetic as per DIN 8309

Functions

- Hours, minutes, seconds
- Date display

SINN Technologies

- Ar-Dehumidifying Technology
- Magnetic Field Protection up to 80,000 A/m
- Case made with TEGIMENT Technology
- 856 S: Case made with TEGIMENT Technology and Black Hard Coating

Watch Case

- Stainless steel
- Crown screwable
- Sapphire crystal glass in front, anti-reflective on both sides
- Case back screw-fastened, nickel-free
- Meet the technical requirements for water resistance, as set out in standard DIN 8310
- Waterproof and pressureresistant to 20 bar
- Low pressure resistant
- Band lug width 20 mm
- Case diameter 40 mm



Luminous design

TECHNICAL DETAILS 856 UTC/856 S UTC

Mechanical Movement

- Self-winding mechanism
- 28,800 semi-oscillations per hour
- Anti-magnetic as per DIN 8309

Functions

- Hours, minutes, seconds
- Second time zone on a 24-hour basis
- Date display

SINN Technologies

- Ar-Dehumidifying Technology
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TECHNICAL DETAILS 857/857 S

Mechanical Movement

- Self-winding mechanism
- 28,800 semi-oscillations per hour
- Anti-magnetic as per DIN 8309

Functions

- Hours, minutes, seconds
- Date display
- Pilot's bezel with luminescent key mark

SINN Technologies

- Ar-Dehumidifying Technology
- Magnetic Field Protection up to 80,000 A/m
- Case made with TEGIMENT Technology
- Captive bezel
- 857 S: Case made with TEGIMENT Technology and Black Hard Coating

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- Sapphire crystal glass in front, anti-reflective on both sides
- Case back screw-fastened, nickel-free
- Meet the technical requirements for water resistance, as set out in standard DIN 8310
- Waterproof and pressureresistant to 20 bar
- Low pressure resistant
- Band lug width 22 mm
- Case diameter 43 mm



Luminous design

TECHNICAL DETAILS 857 UTC/857 S UTC

Mechanical Movement

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- 28,800 semi-oscillations per hour
- Anti-magnetic as per DIN 8309

Functions

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ADVICE

Water resistance

In its original condition, your watch fulfils the technical requirements of water resistance according to DIN 8310. The static compressive stress of your watch is given in bar. Each and every one of our watches is tested for water resistance. However, in everyday use it is important to note that seals can suffer from wear and ageing over time due to a wide range of factors which arise when wearing a wristwatch. We therefore recommend having the water resistance checked at least once a year. To ensure your watch retains its water resistance for as long as possible, rinse it with tap water if it comes into contact with seawater, chemicals or the like. Continual mechanical stress in the form of shocks and vibrations can also not only reduce water resistance, but also increase wear and tear of the movement. Care should therefore be taken to protect your watch from unnecessary impacts.

Accuracy

The measured results of the watch's rate are always "snapshots" taken under laboratory conditions. For this reason, we also take each owner's individual movements into account when making a specific regulator correction. It is therefore only possible to judge the accuracy of your watch after it has been in operation for approximately eight weeks. In the event of a deviation, please keep a daily record of its timekeeping over an extended period, for example one week.

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

 Telephone:
 + 49 (0)69/97 84 14-400

 Telefax:
 + 49 (0)69/97 84 14-401

 E-mail:
 service@sinn.de



SERVICE

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.

For information about our service, please refer to the section entitled "Customer Service" on our website www.sinn.de/en or +49 (0)69/97 84 14-400.



Spezialuhren zu Frankfurt am Main

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 2 2020
 Technische Änderungen vorbehalten.
 Technical specifications are subject to changes.

