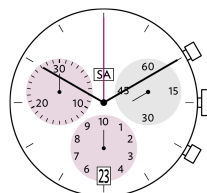
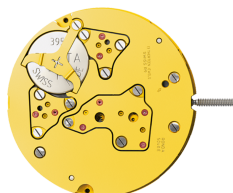


## Caliber 5040.E – 12½"



### Product Specifications

Analog quartz movement

Line startech

Caliber 5040.E

Size 12½"

Version Swiss Made 13 Jewels / gold plated

Standard battery life 54 months

Standard hand fitting height 1

### Features

- Repairable metal watch movement
- Power saving mechanism with pulled out stem:  
Reduction of consumption approximately 70%
- Very easy handling by two pushers

### Functions

- 30 minute counter
- Center stop second (1/1 sec)
- 10 hour counter
- 1/10 seconds up to 30 minutes
- ADD and SPLIT functions
- Chronograph
- Day indicator
- Small second
- Date

# Quartz Movements

## Chronographs

### RONDA startech

## Caliber 5040.E – 12½"

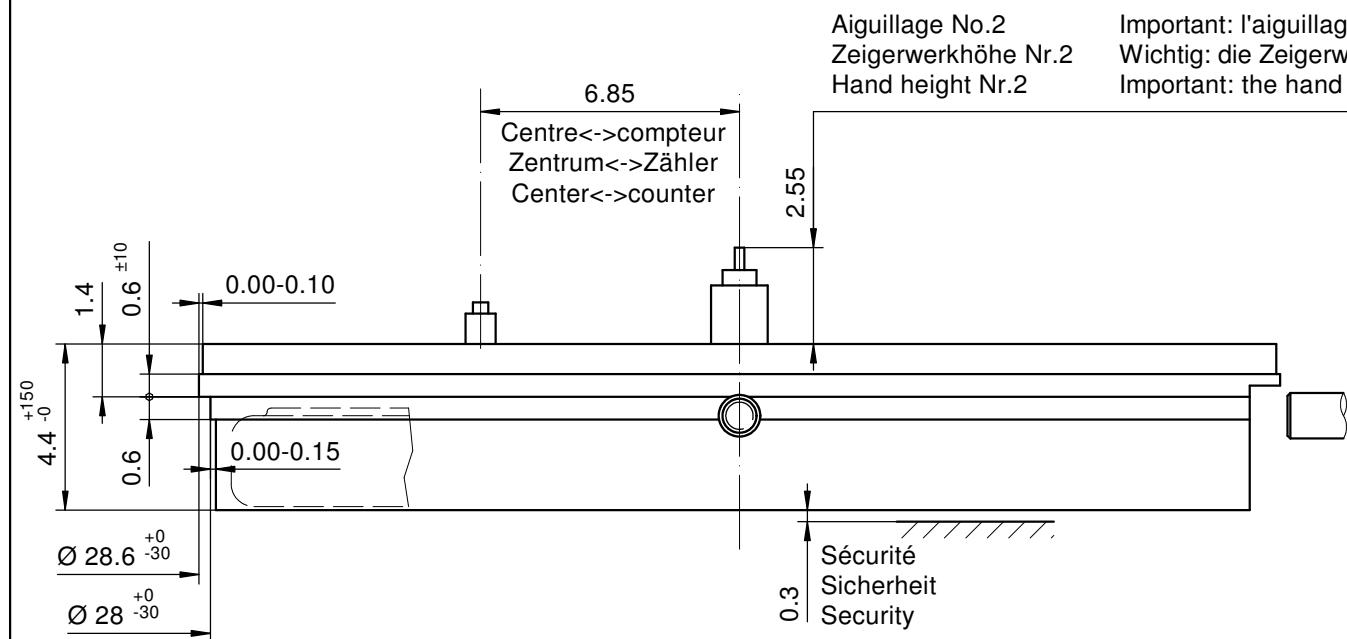
### Technical Specifications

Diameter Total	28.60 mm
Case fitting	28.00 mm
Movement height	4.40 mm
Height over standard battery	4.40 mm
Movement rest	0.60 mm
Height over stem	1.90 mm
Length of stem travel	0.90 mm
Stem thread	0.90 mm
Useful torque second – typical	6 µNm
Useful torque minute – typical	300 µNm
Useful torque center stop second – typical	7 µNm
Operating temperature	0 - 50 °C
Instantaneous rate	-10/ +20 sec/month
Resistance to magnetic fields	18.8 Oe
Resistance against shock	NIHS 91-10



### Battery Specifications

Standard battery	No. 395
Standard battery life	54 months
Battery voltage	1.5 V
Current consumption – typical	1.32 µA (Date Mechanism not in Gear)
Current consumption – maximum	1.65 µA (Date Mechanism not in Gear)



Important: l'aiguillage peut varier selon le modèle  
Wichtig: die Zeigerwerkhöhe kann bei verschiedenen Modellen unterschiedlich sein  
Important: the hand height can vary between different models

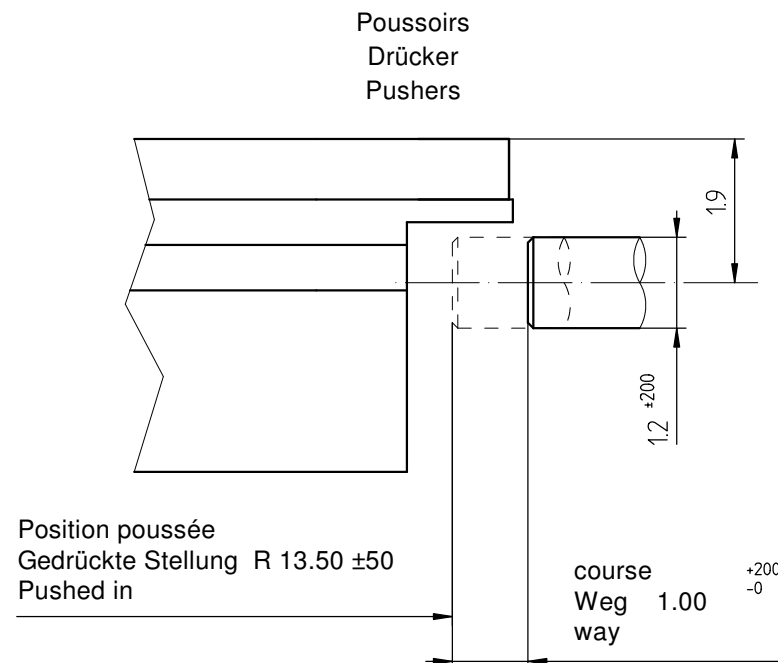
Sécurité entre l'aiguille des secondes et le verre:  
Sicherheit zwischen Sekundenzeiger und Glas: 0.30mm  
Security between second hand and glass:

Le cadran doit être tenu par la boîte  
Das Zifferblatt muss durch die Schale gehalten werden  
The dial must be hold by the case

La course du poussoir doit être limitée dans le poussoir lui-même. Sa position poussée doit être contrôlée.

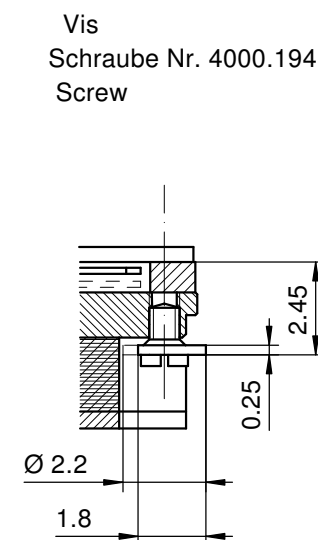
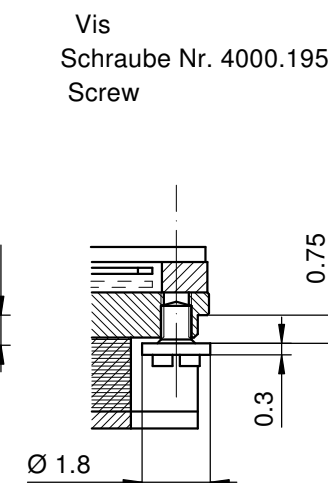
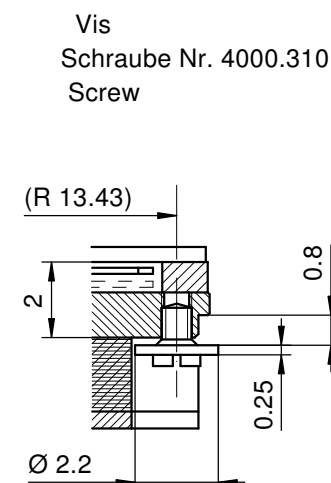
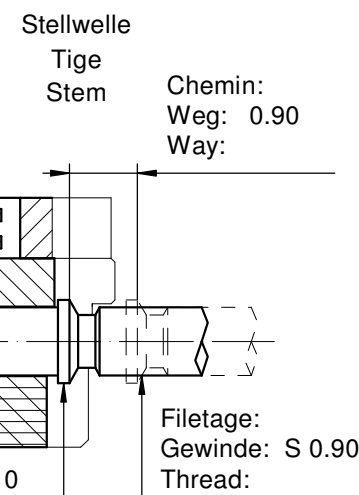
Die Weglänge des Drückers ist im Drücker selbst zu begrenzen. In der gedrückten Stellung ist seine Position zu kontrollieren

The way of the pusher has to be limited in the pusher itself. Its position must be checked while pushed in.



Côté fond de boîte  
Seite Gehäuseboden  
Case back side  
Position pour extraire la tige  
Position zum Entfernen der Stellwelle  
Position to remove the stem

Pile  
Batterie (395) Ø 9.50 x 2.60mm  
Battery



Dégagement cercle d'entourage pour poussoir  
Freistellung Gehäuse ring für Drücker  
Opening movement holder for pusher



L'angle indiqué pour la direction du poussoir et la position doivent être respectés.  
Pour un angle de 0° des poussoirs A et B, voir plan 5000.345

Der angegebene Winkel für die Drückerrichtung und die Position müssen eingehalten werden.  
Für einen Drückerwinkel von 0° bei A und B, siehe Zeichnung 5000.345

The indicated angle of the pusher direction and the position must be fulfilled. For pusher angles of 0° (pusher A and B), see drawing 5000.345.

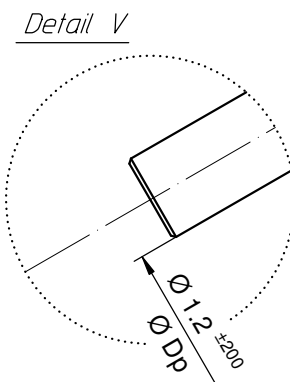
Cage  
Uhrwerkgestell 12½"  
Frame

RONDA

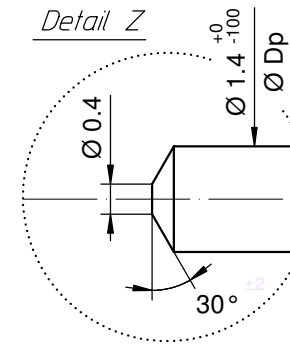
5040.B, 5040.D, 5030.D, 5021.D, 5040.E

Issued	08 Jan 2001	mg
Modified	31 Aug 2016 ÄA 34777	dh
Released	YES	
Tolerance	+/- 20 µm	
Scale	10 : 1 (5 : 1) (A3H)	
Sous réserve de modifications Äenderungen vorbehalten Modifications reserved		
No.	5000.315	10

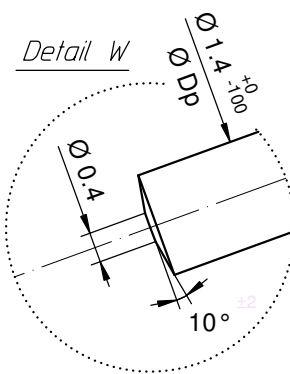
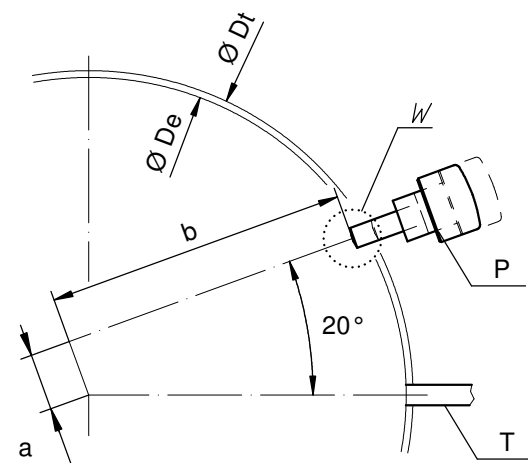
Angle Winkel Angle	30°	
Ø Dp	b	
1.00	13.50	
1.10	13.50	
1.20	13.50	
1.30	13.50	
1.40	13.50	



Angle Winkel Angle	0°	
Ø Dp	a	b
1.30	7.40	11.43
1.40	7.45	11.40



Angle Winkel Angle	20°	
Ø Dp	a	b
1.30	2.57	13.22
1.40	2.59	13.21



Ø De: diamètre d'encageage  
Durchmesser der Gehäusepassung  
fitting-diameter

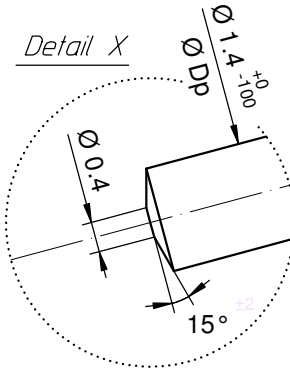
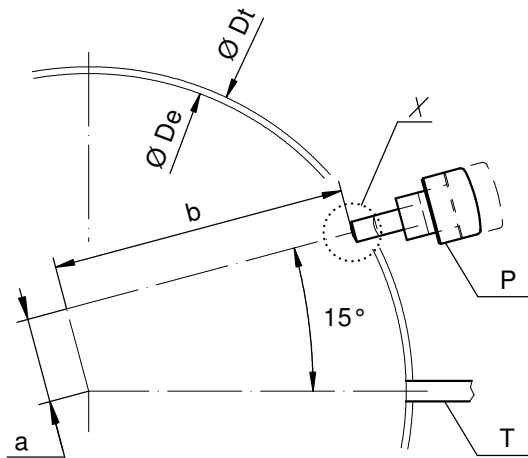
Ø Dp: diamètre du poussoir  
Drückerdurchmesser  
pusher-diameter

Ø Dt: diamètre total  
Totaldurchmesser  
total-diameter

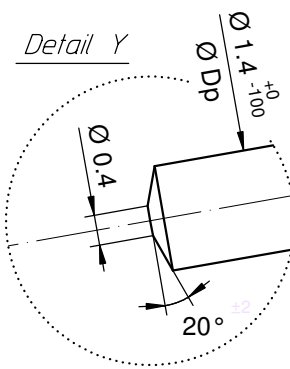
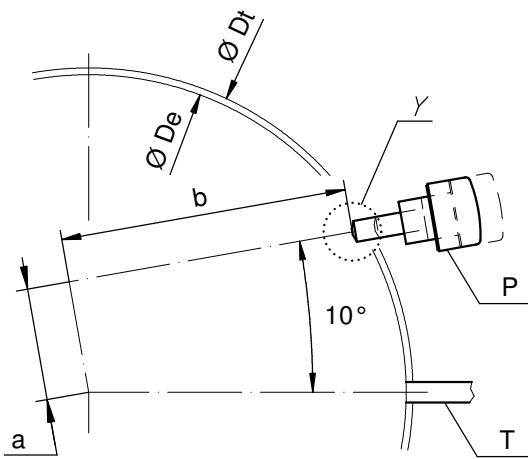
P: poussoir en position poussée  
Drücker in gedrückter Stellung  
pusher in pressed position

T: tige de mise à l'heure  
Stellwelle  
stem

Angle Winkel Angle	15°	
Ø Dp	a	b
1.30	3.83	12.92
1.40	3.86	12.91



Angle Winkel Angle	10°	
Ø Dp	a	b
1.30	5.06	12.52
1.40	5.10	12.50



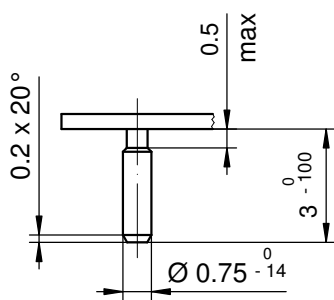
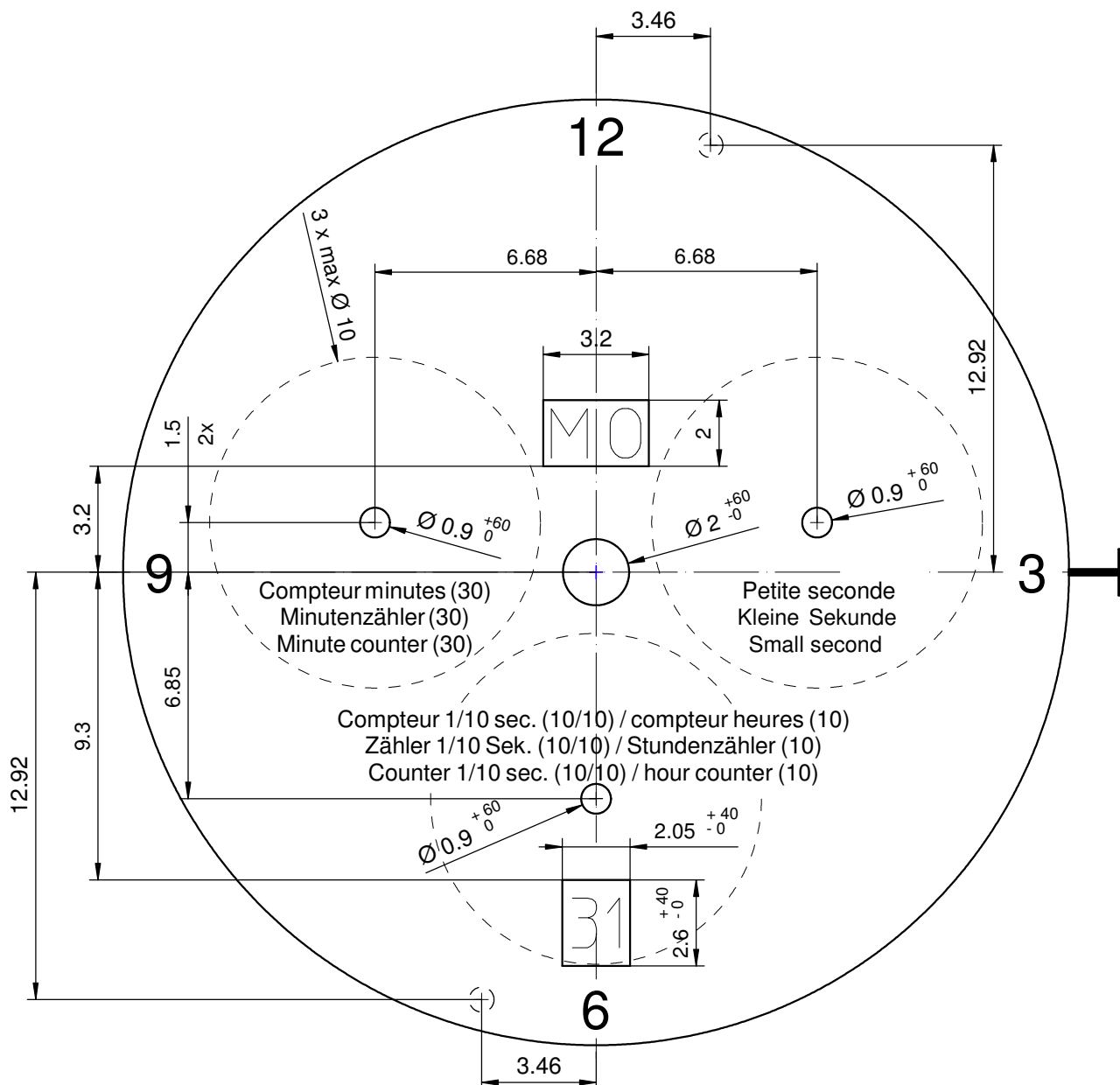
Angle des poussoirs A et B  
Winkel der Drücker A und B  
Angle of pusher A and B

RONDA

4xxx.x, 5xxx.x

Issued	06 Sep 2004	mk
Modified	30.März 2005 ÄA 1784	mk
Released	YES	
Tolerance	+/- 20 µm	
Scale	10 : 1 (5 : 1) (A3H)	
Sous réserve de modifications Äenderungen vorbehalten Modifications reserved		
No.	5000.345	01





Epaisseur du cadran selon hauteur de l'aiguillage  
Zifferblattdicke gemäss Zeigerwerkhöhen  
Dial thickness according to hand fitting heights

Tige	Date	Jour
Stellw.	Datum	Tag
Stem	Date	Day
3H	6H	12H

Cadran  
Zifferblatt  
Dial

12 1/2"

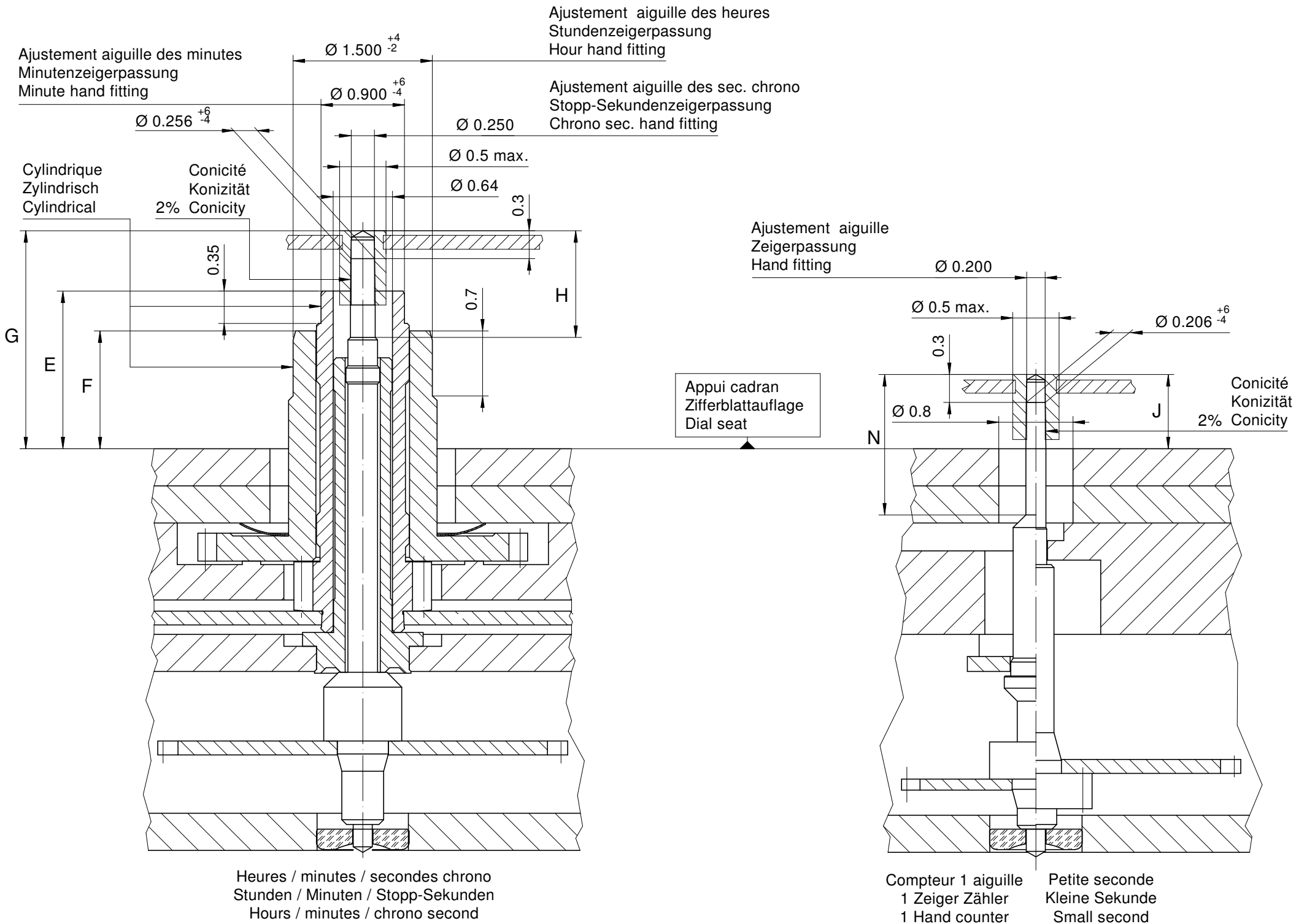
Issued	14 Nov 2011	dh
Modified	08 Mär 2011 ÄA 11867	dh
Released	YES	
Tolerance	+/- 20 µm	
Scale	5 : 1 (A4V)	

RONDA

5040.E

Sous réserve de modifications  
Änderungenvorbehalten  
Modifications reserved

No.	5010.027	00
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Aiguillages Zeigerwerkhöhe Hand fitting height							
Dépassement Höhe über Zifferblattauf­lage Height over dial seat							
No	Pignon des seconds chrono Stopp-Sekundentrieb Chrono second pinion	Chaussée Minutenrohr Cannon-pinion	Roue des heures Stundenrad Hour wheel			Petite seconde Kleine Sekunde Small second	1 aig. 1 Zeiger 1 Hand
1	G	E	F	H	N	J	J
2	2.35	1.70	1.27	1.37	1.50	0.80	0.80
2	2.85	2.20	1.77	1.87	1.05	1.30	1.30

Aiguillages Zeigerwerkhöhe Hand fitting height						
Peinture comprise / inkl. Farbe / Paint included						
Epaisseur maximum du cadran Maximale Zifferblatt­dicke Maximum dial thickness						
No	Sous l'aiguille des seconds chrono Unter Stopp-Sekundenzeiger Under chrono second hand	Sous l'aiguille des minutes Unter Minutenzeiger Under minute hand	Sous l'aiguille des heures Unter Stundenzeiger Under hour hand	Sous l'aiguille de petite seconde Unter kleine Sekundenzeiger Under small second hand	Sous l'aiguille compteur 1 aiguille Unter Zeiger 1 Zeiger Zähler Under hand 1 hand counter	Epaisseur des aiguilles Zeigerdicke Hands thickness
1	1.85	1.30	0.85	0.40	0.40	0.15
2	2.35	1.80	1.35	0.90	0.90	0.15

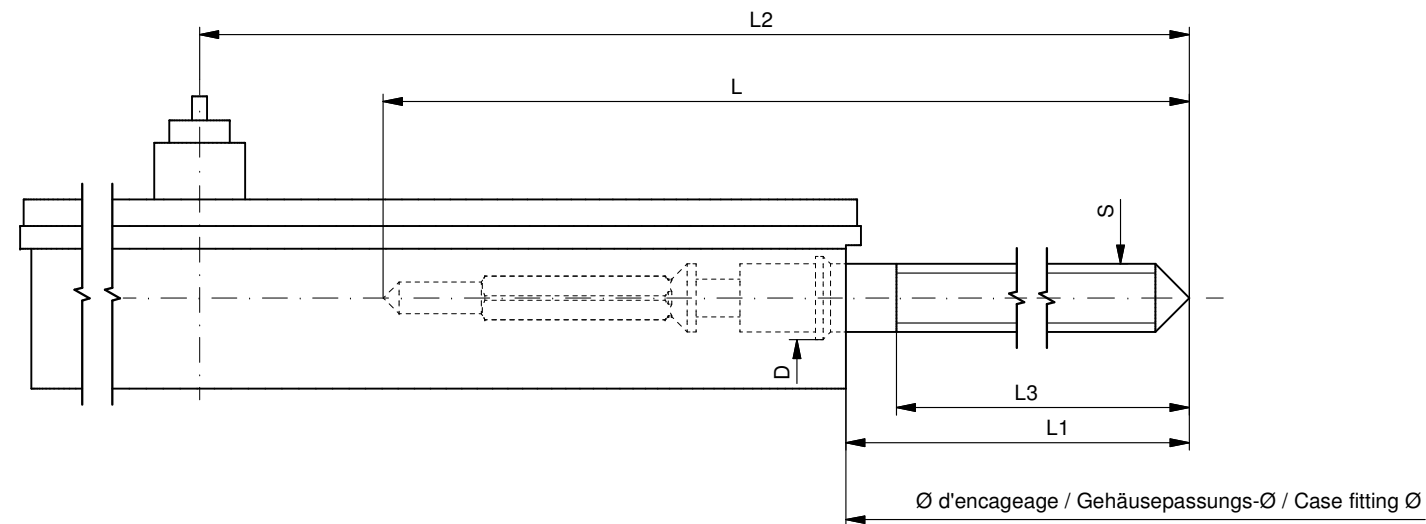
		Aig. des sec. chrono Stopp-Sekundenzeiger Chrono second hand	Aig. des minutes Minutenzeiger Minute hand	Aig. des heures Stundenzeiger Hour hand	Aig. petite secondes Kleine Sekundenzeiger Small second hand	Aiguille compteur (1 aig.) Zähler Zeiger (1 Zeiger) Counter hand (1 hand)	Lors de la pose d'aiguilles, le mouvement doit être soutenu. Beim Zeigersetzen muss das Werk abgestützt werden. The movement needs to be supported for hand setting.
mg	max.	10	30	30	10	10	Masse / Masse / Weight *
µNm	max.	0.06	0.80	0.80	0.07	0.02	Balourd / Unwucht / Unbalance *
gmm <sup>2</sup>	max.	1.0	-	-	0.4	1.0	Inertie / Massenträgheit / Inertia *
N	max.	30	40	40	30	30	Force de chassage / Aufpresskraft / Force

Aiguillages Zeigerwerkhöhen 12½" Hand fitting heights		Issued	30 Sep 2002	mg
		Modified	15 Okt 2014 ÄA 13275	dh
		Released	Yes	
		Tolerance	µm	
		Scale	20 : 1 (A3H)	
RONDA	5040.B, 5040.D, 5040.E	Sous réserve de modifications Änderungen vorbehalten Modifications reserved		
		No.	3316.075	08

\* En cas de données différentes, veuillez contacter le service après-vente

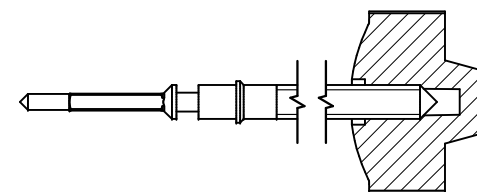
\* Bei abweichenden Werten, bitte technischen Kundendienst anfragen

\* In case of different values, please contact the customer service



Tige de travail (intégrée dans le mouvement)  
Arbeitsstellwelle (im Werk eingebaut)  
Working stem (implemented in the movement)

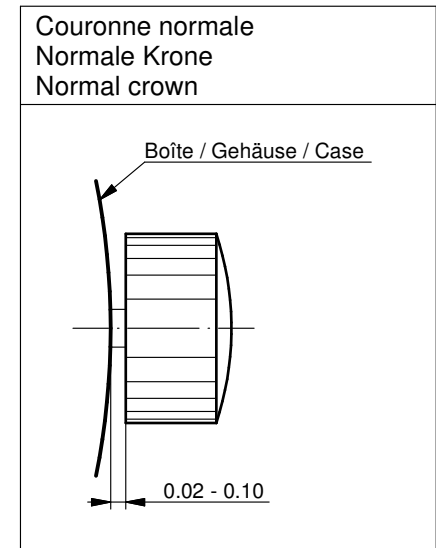
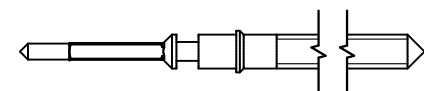
No. d'article Artikelnummer Part number	L	L1	L2	L3	S	D
3000.177.CO	20.00	10.23	24.23	10.15	0.90	1.10



Couleur de la couronne Kronenfarbe Crown color	bleu foncé dunkelblau dark blue
Code	UN 5002

Tige (normale) / Stellwelle (normal) / Stem (normal)

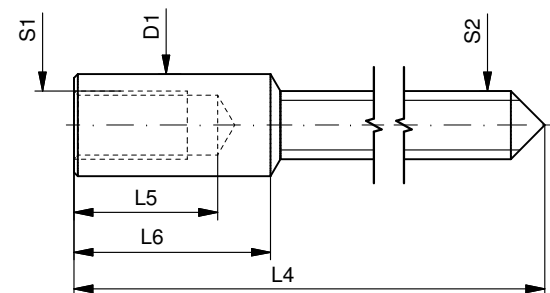
No. d'article Artikelnummer Part number	L	L1	L2	L3	S	D
3000.177	20.00	10.23	24.23	10.15	0.90	1.10
3000.191	32.00	22.23	36.23	22.15	0.90	1.10



Couronne vissée Geschraubte Krone Screwed crown	
Force ⇐ min. Kraft ⇐ min. Force ⇐ min.	10 N
Force ⇐ max. Kraft ⇐ max. Force ⇐ max.	15 N

Rallonge de tige / Stellwelle Verlängerung / Stem extension

No. d'article Artikelnummer Part number	L4	L5 (min)	L6	S1	S2	D1
3000.040	12.00	1.90	2.60	0.90	0.90	1.35



Tige (dimensions / forces)  
Stellwelle (Dimensionen / Kräfte)  
Stem (dimensions / forces)

RONDA

5010.B, 5020.B, 5021.D, 5030.D,  
5040.B, 5040.D, 5040.E, 5040.F,  
5050.B, 5050.C, 5051.C, 5130.B, 5130.D

Issued	05 Sep 2012	ds5222
Modified	17 Mär 2017 ÄA 34582	mg5224
Released	YES	
Tolerance	---	
Scale	10:1 (A3)	
Sous réserve de modifications Änderungen vorbehalten Modifications reserved		
No.	5030.019	01



**Movement holder**  
*Removing setting stem*  
H5XXX.1T



**Movement holder**  
*Setting hands*  
H5XXX.1A

## Fitting dial and hands

- Crown in position III
- Wind crown forwards, until date changes
- Remove working stem
- Fit dial
- Point all hands towards 12 o'clock
- Set time
- Zero chronograph hand\*
- Crown in position II
- Set date
- Crown in position I

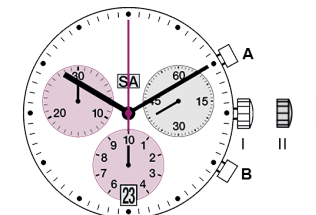
## Date switching duration

*First and tenth digit discs*  
*Weekday*

~2hrs  
~3½hrs

## \*Zeroing the Chronograph hand

- Activate pusher A and B for 2 seconds at the same time  
(Chrono seconds hand rotates once)
- Pusher A → to correct chrono seconds hand
- Pusher B → to jump to hour hand
- Pusher A → to correct hand position
- Pusher B → to jump to minute hand
- Pusher A → to correct hand position



## General Instructions

*Removing the setting stem can only be effected in Pos. I.*

*The use of supporting screws is essential when mounting the hands.*

*Permitted hand setting strengths:*

*Hr / min. hands: <40N*

*Other hands: <30N*

*During quick date correction (setting stem in position II), a date switching speed of 5 d/s must not be exceeded.*

## Weekday setting tip

*In order to avoid damage, the weekday disc should only be set with the setting stem in position III.*

You have decided to buy a watch, which was assembled by a watchmaker using a Ronda movement. Please note that no watches are produced or distributed under the Ronda brand.

**In case of repairs, guarantee claims and questions concerning the functioning of a watch, purchasers and consumers should contact their retailer or the watch manufacturer, for which the relevant information can be found in the sales or guarantee documentation provided with the watch.**

### Description of the display and control buttons

**Display elements**

Second hand

Minute hand

Weekday

Hour hand

Second counter

Minute counter

1/2 second counter (running for the first 30 sec.)

Hour counter after 30 min.

**Control buttons**

Push-button A

Crown

Push-button B

01 Date \_\_\_\_\_

### Setting the time

1\* Pull out the crown to position III (the watch stops).

2 Turn the crown until you reach the correct time 8:45.

3\* Push the crown back into position I.

**Please note**

\* In order to set the time to the exact second, 1 must be pulled out when the second hand is in position «60». Once the hour and minute hands have been set, 3 must be pushed back into position I at the exact second.

02

### Setting the date (quick mode)

1 Pull out the crown to position II (the watch continues to run).

2 Turn the crown until the correct date 11 appears.

3 Push the crown back into position I.

**Please note**

The date can be changed during the date changing phase between approx. 9:00 PM and midnight; please note that the date must be set to the date of the following day in this case the automatic date changing does not occur at midnight.

03

### Setting the date, weekday and time

Example:

– Date / time on the watch: 17 / 01:25

– Present date / time: 23 / 20:35

1 Pull out the crown to position III (the watch stops).

2 Turn the crown until yesterday's weekday WE appears.

3 Push the crown to position II.

4 Turn the crown until yesterday's date appears 22.

5\* Pull out the crown to position III (the watch stops).

6 Turn the crown until the correct date 23 and weekday TH appears.

7\*\* Continue to turn the crown until the correct time 8:35 PM appears.

8 Push the crown back into position I.

**Please note**

\* To set your watch to the exact second, please refer to the chapter entitled «setting the time».

\*\* Please observe the AM/PM clock rhythm.

04

### Chronograph: Basic function

(Start / Stop / Reset)

Example:

1 Start: Press push-button A.

2 Stop: to stop the timing, press push-button B once more and read the chronograph counters: 4 min / 38 sek / 1/2 sec

3 Zero positioning: Press push-button B. (The chronograph hands will be reset to their zero positions.)

05

### Chronograph: Accumulated timing

Example:

1 Start: (start timing)

2 Stop: (e.g. 15 min 5 sec following 1)

3 Restart: (timing is resumed)

4 Stop: (e.g. 5 min 12 sec following 3) = 20 min 17 sec (The accumulated measured time is shown)

5 Reset: The chronograph hands are returned to their zero positions.

**Please note**

\* Following 4, the accumulation of the timing can be continued by pressing push-button A (Restart / Stop, Restart / Stop, ...).

06

### Chronograph: Intermediate or interval timing

Example:

1 Start: (start timing)

2 Display interval: e.g. 20 minutes 17 seconds (timing continues in the background)

3 Making up the measured time: (The chronograph hands are quickly advanced to the ongoing measured time.)

4 Stop: (Final time is displayed)

5 Reset: The chronograph hands are returned to their zero position

**Please note**

\* Following 2, further intervals or intermediates can be displayed by pressing push-button B (display interval / make up measured time, ...).

07

### Adjusting the chronograph hands to zero position

Example:

One or several chronograph intermediates can be displayed by pressing push-button B (display interval / make up measured time, ...).

1 Pull out the crown to position III (all chronograph hands are in their correct or incorrect zero position).

2 Keep push-buttons A and B depressed simultaneously for at least 2 seconds (the second counter hand rotates by 360° → corrective mode is activated).

08

### Adjusting the second counter hand

Single step A 1 x short

Continuous A long

### Adjusting the next hand B

### Adjusting the 1/2 second counter hand (position 6h)

Single step A 1 x short

Continuous A long

### Adjusting the next hand B

### Adjusting the minute counter hand (position 9h)

Single step A 1 x short

Continuous A long

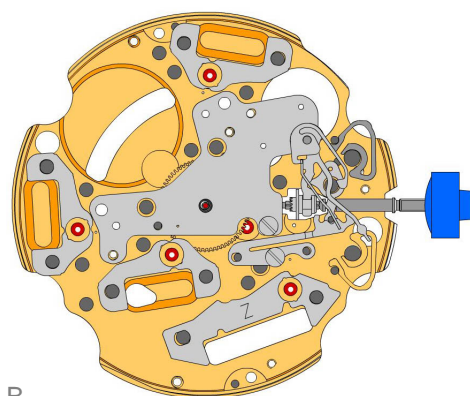
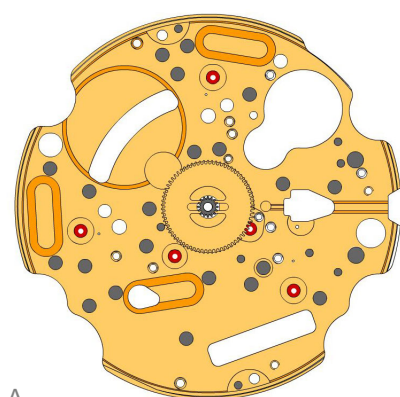
3 Returning the crown to position I


















Termination of the chronograph hands adjustment (can be carried out at any time).

Battery type: 395 / SR927SW

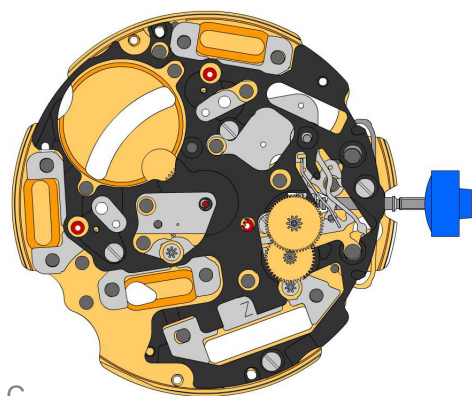
Accuracy: +20 / -10 seconds per month

11/2022



2000.574.G 1.		Main plate
3305.275.CO 2.		Cannon pinion with driver (Aig.1)
2030.039.CO 3.		Centre bridge Centre bridge held by 1 screw 4000.250.
4000.250 4.		Screw
3001.055.FI 5.		Sliding pinion
3000.177.CO 6.		Setting stem
3017.049 7.		Setting lever
3905.049 8.		Setting lever jumper (3 positions) Setting lever jumper held by 1 screw 4000.250.
4000.250 9.		Screw
3015.081 10.		Yoke (3 positions) Parts 3015.081 and 3905.067 must be exchanged together.
3905.067 11.		Yoke spring Tensioning the spring arm.
3406.030 12.		Pusher jumper B Put the grey jumper between the two posts on the further side.
3406.038 13.		Pusher jumper A Put the yellow jumper between the two posts on the closer side.
3622.040 14.		Stator Mark [Z] on stator.
3622.039 15.		Stator (counter 6h, 9h, chrono)
3622.039 16.		Stator (counter 6h, 9h, chrono)
3622.039 17.		Stator (counter 6h, 9h, chrono)





C


3603.079  
18.  Plastic bracket  
Plastic bracket held by 4 screws 4000.250.

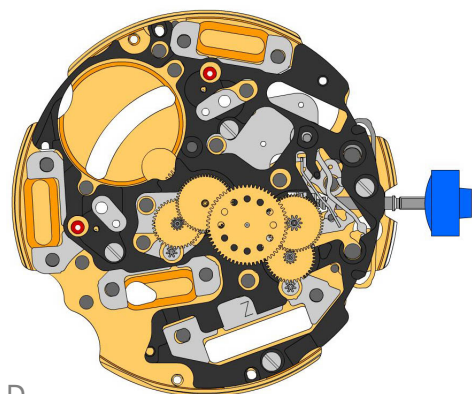
4000.250  
19.  Screw

3715.094.RK  
20.  Rotor


3715.094.RK  
21.  Rotor


3147.046.CO  
22.  Intermediate wheel

3136.142.CO  
23.  Second wheel (long)

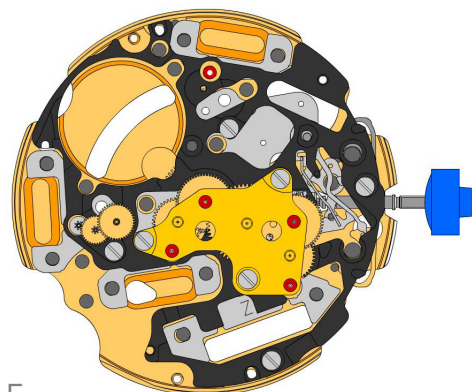


D


3147.047.CO  
24.  Intermediate wheel (chrono)

3136.143.CO  
25.  Chronograph wheel (Aig.1)

3122.056.CO  
26.  Third wheel



E

2020.148.G  
27.  Train wheel bridge  
Train wheel bridge held by 3 screws 4000.250.

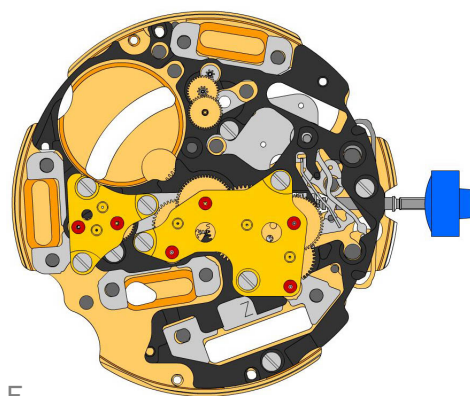
4000.250  
28.  Screw

3715.095.RK  
29.  Rotor






3147.048.CO  
30.  Intermediate wheel (counter)

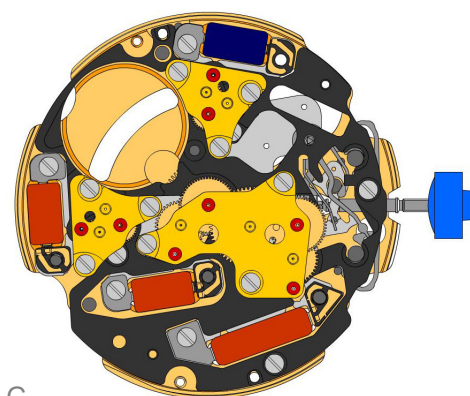
3402.006.CO  
31.  Minute counting wheel












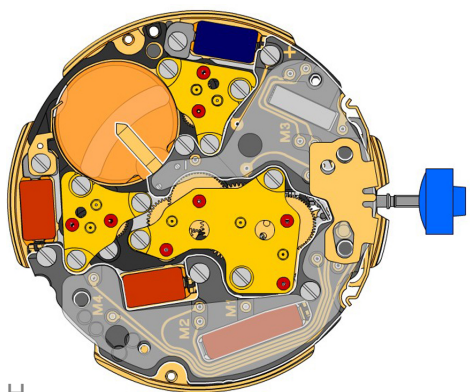
F

2020.149.G 32.		Counter train wheel bridge Counter train wheel bridge held by 3 screws 4000.250.
4000.250 33.		Screw
3715.095.RK 34.		Rotor
3147.053.CO 35.		Intermediate wheel (counter 1/10sec)
3402.016.CO 36.		Counting wheel 1/10 sec










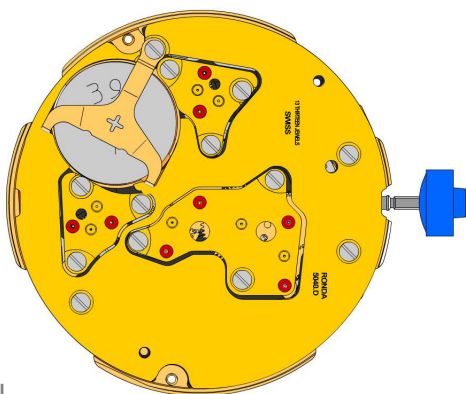
G

2020.149.G 37.		Counter train wheel bridge Counter train wheel bridge held by 3 screws 4000.250.
4000.250 38.		Screw
3621.053.RK 39.		Coil Attention: Please hold the coil only on the grey coil core. Coil held by 1 screw 4000.250.
3621.054.RK 40.		Coil (counter 9h, chrono) Attention: Please hold the coil only on the grey coil core. Coil held by 1 screw 4000.250.
3621.054.RK 41.		Coil (counter 9h, chrono) Attention: Please hold the coil only on the grey coil core. Coil held by 1 screw 4000.250.
3621.055.RK 42.		Coil (counter 6h) Attention: Please hold the coil only on the grey coil core. Coil held by 1 screw 4000.250.
4000.250 43.		Screw



H

3601.118 44.		Contact strip Contact strip held by 1 screw 4000.250.
4000.250 45.		Screw
3603.034 46.		Battery insulator
3612.144.5040 47.		Electronic module Electronic module held by 5 screws 4000.248. Electronic measurements may be realised now.
4000.248 48.		Screw
3603.069 49.		Circuit insulator
3601.107.G 50.		Pusher contact spring



2130.137.G.M01.5040E  
51.



**Electronic module cover**  
Electronic module cover held by 3 screws 4000.250.

3600.010.HGF  
52.



**Battery 395**

3601.109.G  
53.

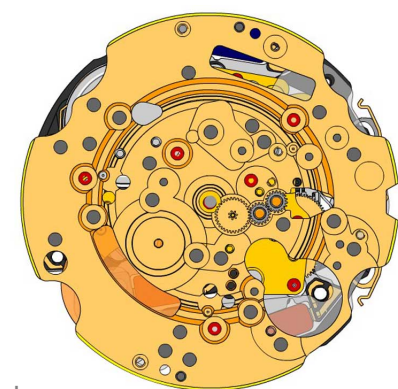


**Bridge +**  
Bridge held by 1 screw 4000.250.





4000.250  
54.

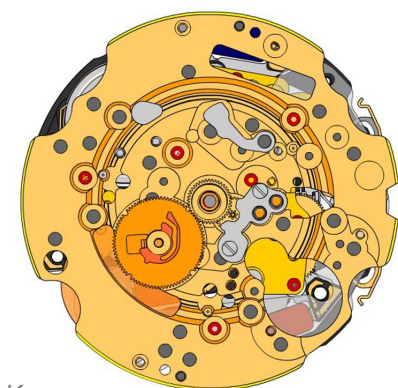


**Screw**









J

2000.574.G 55.		Main plate
3004.164 56.		Setting wheel
3004.164 57.		Setting wheel
3007.054.CO 58.		Minute wheel







K

2130.143 59.		Minute train bridge Minute train bridge held by 2 screws 4000.305.
4000.305 60.		Screw
3301.241 61.		Hour wheel (Aig.1)
3315.016 62.		Hour wheel friction spring
3004.224.CO 63.		Date indicator driving wheel
3500.049 64.		Date jumper

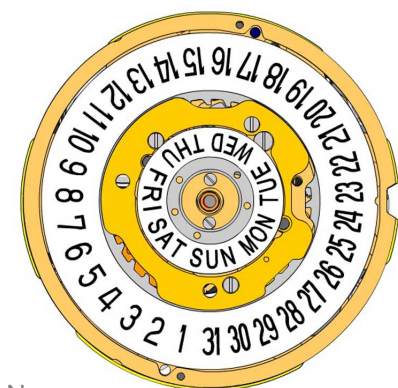


L














3504.208.AB.1.A 65.		Date indicator (standard) Nick of the indicator at 3 o'clock.
2130.163 66.		Minute train bridge Minute train bridge held by 2 screws 4000.282.
4000.282 67.		Screw
3905.070 68.		Date jumper spring Insert the date jumper spring in the provided opening.



M

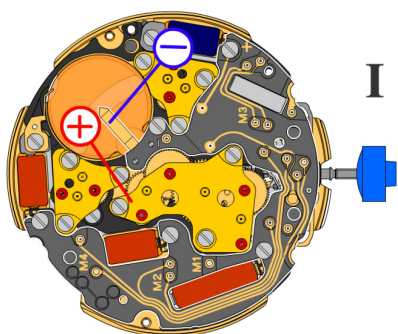


N

3500.055 69.		Day jumper
3004.175 70.		Day finger
2130.162 71.		Date indicator maintaining plate Date indicator maintaining plate held by 1 screw 4000.250.
4000.300 72.		Screw
4000.312 73.		Screw
3508.155.G 74.		Day indicator (standard)
2130.164.G 75.		Day indicator maintaining plate Day indicator maintaining plate held by 2 screws 4000.311.
4000.311 76.		Screw
3506.072.G 77.		Dial support
8200 78.		Moebius 8200
9014 79.		Moebius 9014
124 80.		Jismaa 124
9020 81.		Moebius 9020

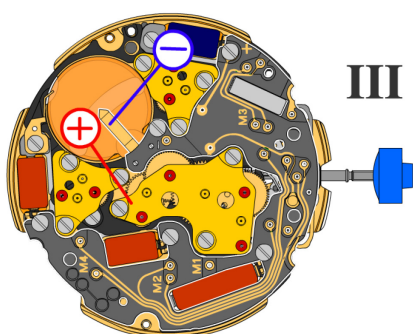


Battery	<b>395</b>
Voltage	<b>1.55 V</b>



*Setting stem in position I, calendar not in gear,  
60 s measuring interval for rate and consumption:*

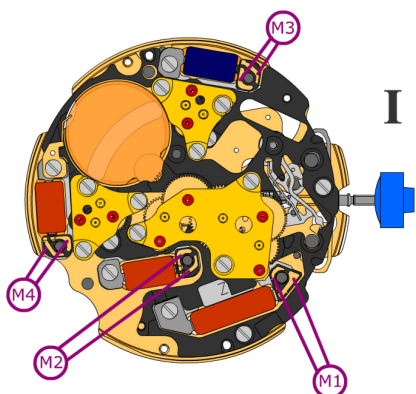
Typical consumption	<b>1.32 <math>\mu</math>A</b>
Maximal consumption	<b>1.65 <math>\mu</math>A</b>
Rate	<b>-10s/M. .. +20s/M.</b>
Lower working voltage limit	<b>1.20 V</b>



*Setting stem in position III, 60 s measuring interval:*

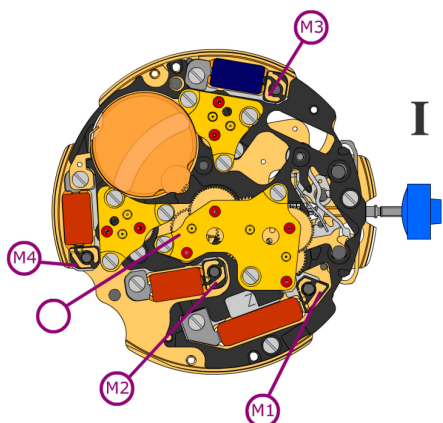
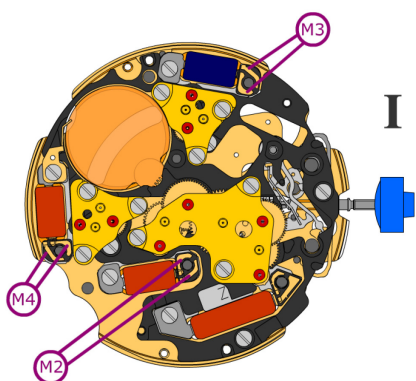
Typical consumption	<b>0.10 <math>\mu</math>A</b>
Maximal consumption	<b>0.30 <math>\mu</math>A</b>




Coil resistance M1 **1.90 k $\Omega$  .. 2.10 k $\Omega$** 

Coil resistance M2 **1.68 k $\Omega$  .. 1.88 k $\Omega$** 

Coil resistance M3 **1.68 k $\Omega$  .. 1.88 k $\Omega$** 

Coil resistance M4 **1.68 k $\Omega$  .. 1.88 k $\Omega$** 

Coil isolation M1/M2/M3/M4  **$\infty$  k $\Omega$** 

*Signal generator (4.9 ms, 8 Hz):*

Lower working voltage limit  
M2/M3/M4 **1.20 V**