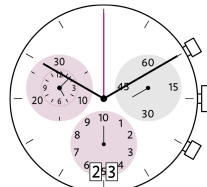
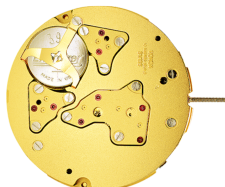


Caliber 5050.B – 12½"



Product Specifications

Analog quartz movement

Line startech

Caliber 5050.B

Size 12½"

Version Swiss Made 13 Jewels / gold plated

Version Swiss Parts 6 Jewels / nickel plated

Standard battery life 54 months

Standard hand fitting height 2

Features

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

Functions

- 1/10 second
- 30 minute / 12 hour counter
- Center stop second (1/1 sec)
- 12 hour counter
- ADD and SPLIT functions
- Chronograph
- Big date
- Small second

Quartz Movements

Chronographs

RONDA startech

Caliber 5050.B – 12½"

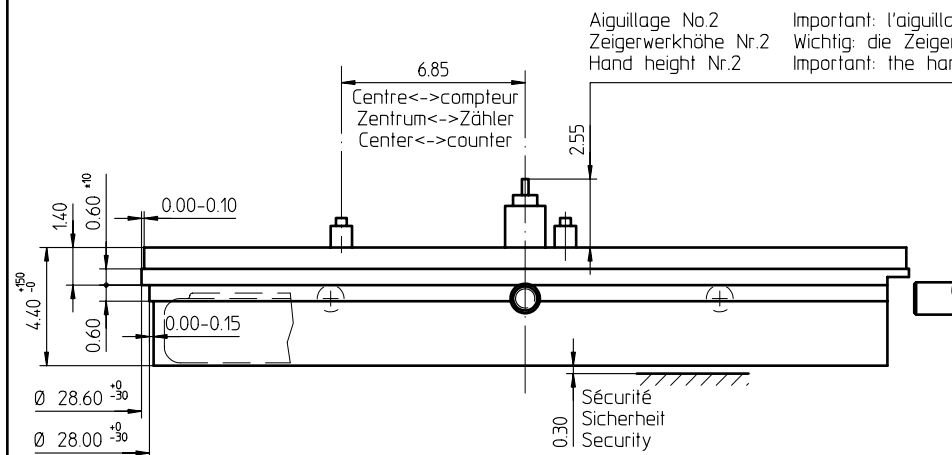
Technical Specifications

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

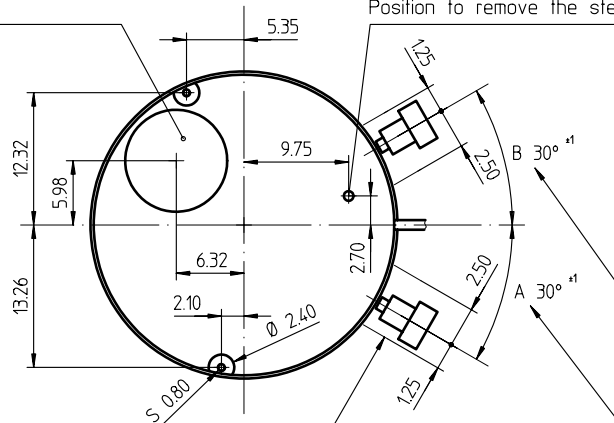
Standard battery	No. 395
Standard battery life	54 months
Battery voltage	1.5 V
Current consumption – typical	1.32 µA (Date Mechanism not in Gear)
Current consumption – maximum	1.65 µA (Date Mechanism not in Gear)



Côté fond de boîte
Seite Gehäuseboden
Case back side

Pile
Batterie (395) Ø 9.50 x 2.60mm
Battery

Position pour extraire la tige
Position zum Entfernen der Stellwelle
Position to remove the stem



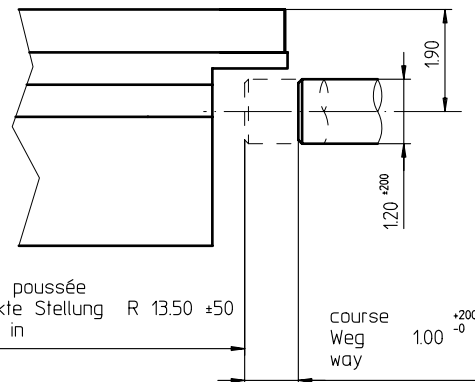
Dégagement cercle d'entourage
Freistellung Gehäuseering
Opening movement holder

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

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

Poussoirs
Drücker
Pushers



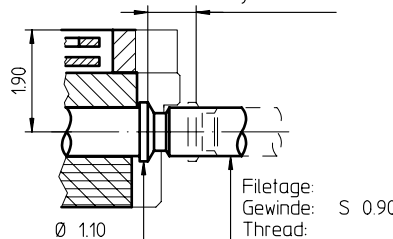
Sécurité entre l'aiguille des secondes et le verre:
Sicherheit zwischen Sekundenzeiger und Glas: 0.30mm
Security between second hand and glass:

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

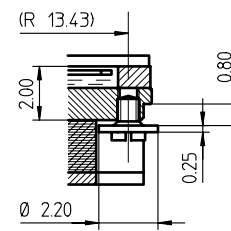
La course du poussoir doit être limitée dans le poussoir lui-même. Sa position poussée doit être contrôlée.
Die Weglänge des Drückers ist im Drücker selbst zu begrenzen. In der gedrückten Stellung ist seine Position zu kontrollieren
The way of the pusher has to be limited in the pusher itself. Its position must be checked while pushed in.

Stellwelle
Tige
Stem

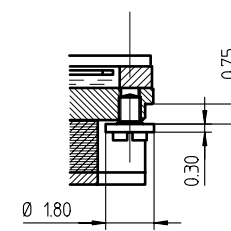
Chemin:
Weg:
Way:



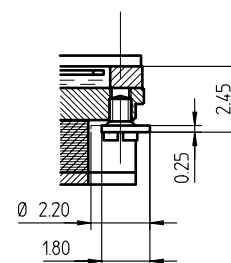
Vis
Schraube Nr. 4000.310
Screw



Vis
Schraube Nr. 4000.195
Screw



Vis
Schraube Nr. 4000.194
Screw



Cage
Uhrwerkgestell
Frame

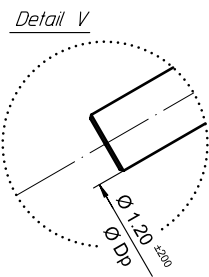
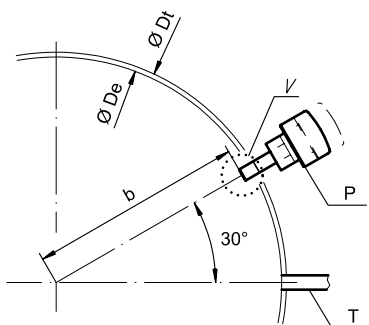
12½"

RONDA

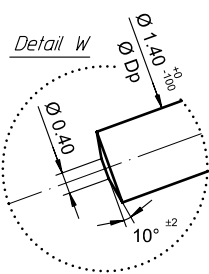
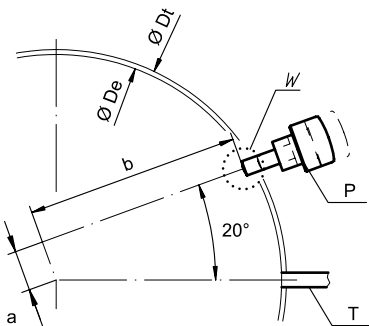
5050.B, 5050.C, 5051.C

Issued	14 Nov 2003	mk
Modified	10.Dez 2007 ÅA 3696	bk
Released	YES	
Tolerance	+/- 20 µm	
Scale	10 : 1 (5 : 1) (A3H)	
Sous réserve de modifications Änderungen vorbehalten Modifications reserved		
No.	5000.319	03

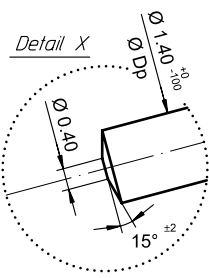
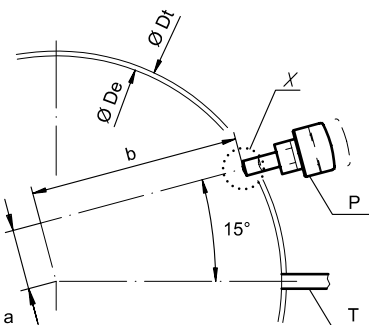
Angle Winkel Angle	30°
Ø Dp	b
1.00	13.50
1.10	13.50
1.20	13.50
1.30	13.50
1.40	13.50



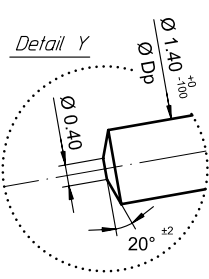
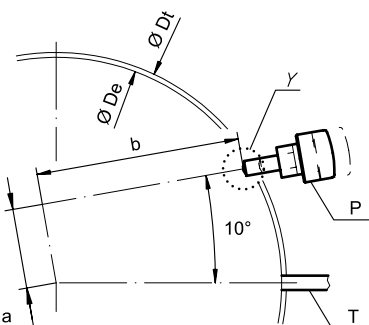
Angle Winkel Angle			20°
Ø Dp	a	b	
1.30	2.57	13.22	
1.40	2.59	13.21	



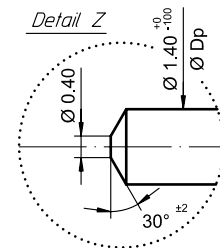
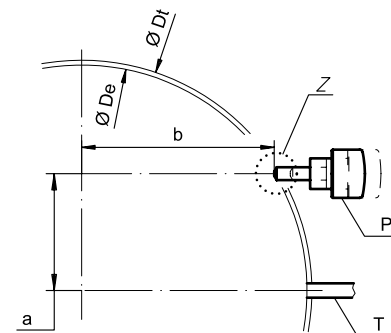
Angle Winkel Angle			15°
Ø Dp	a	b	
1.30	3.83	12.92	
1.40	3.86	12.91	



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



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



Ø De: diamètre d'encastage
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

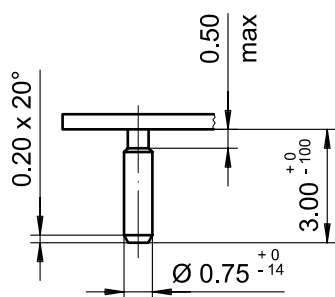
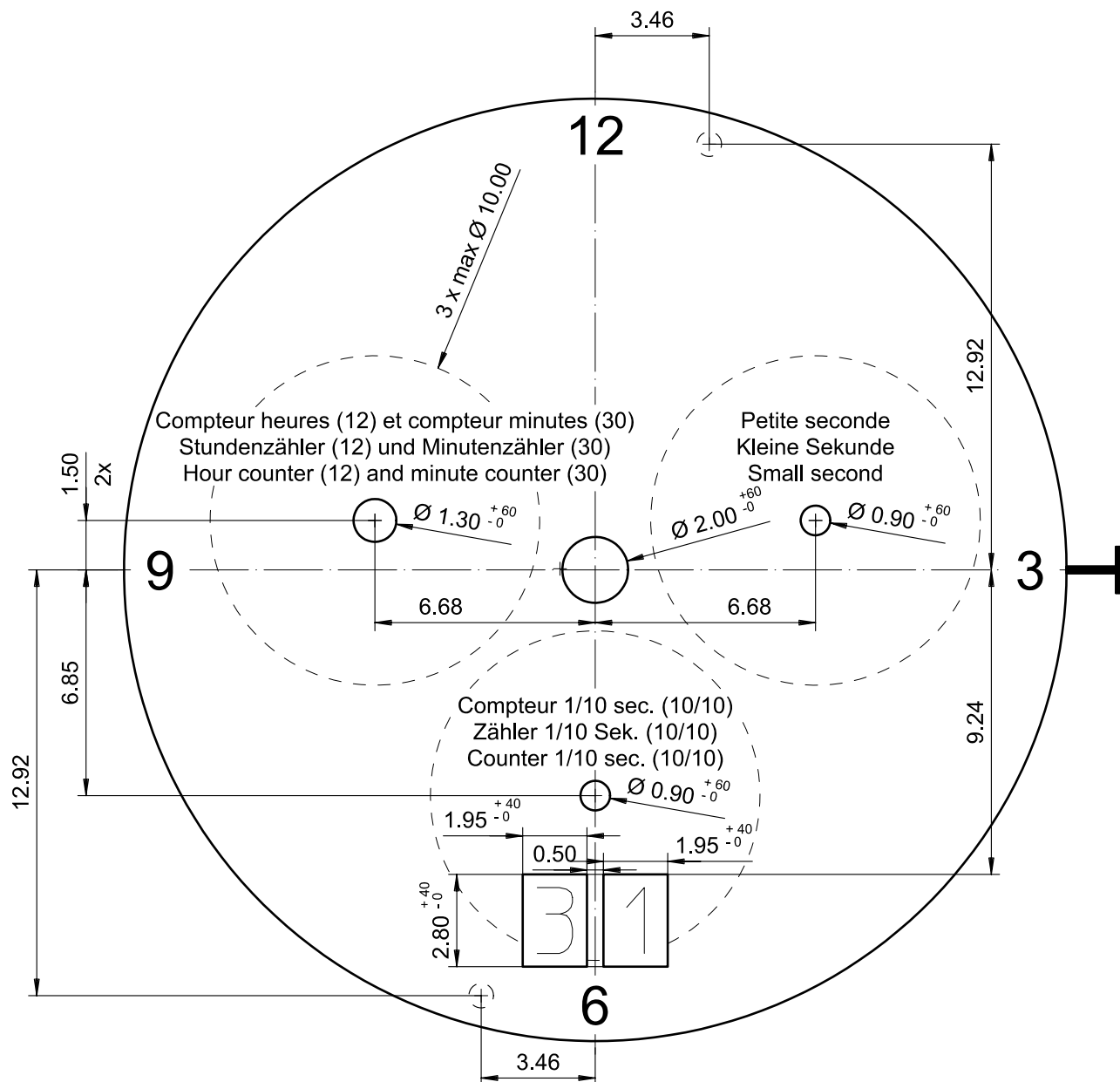
T: lige de mise à l'heure
Stellwelle
stem

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 ÄÄ 1784	mk
Released	YES	
Tolerance	+/- 20 µm	
Scale	10 : 1 (5 : 1) (A3H)	
Sous réserve de modifications Änderungen 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
Stellw.	Datum
Stem	Date
3H	6H

Cadran
Zifferblatt
Dial

12 1/2"

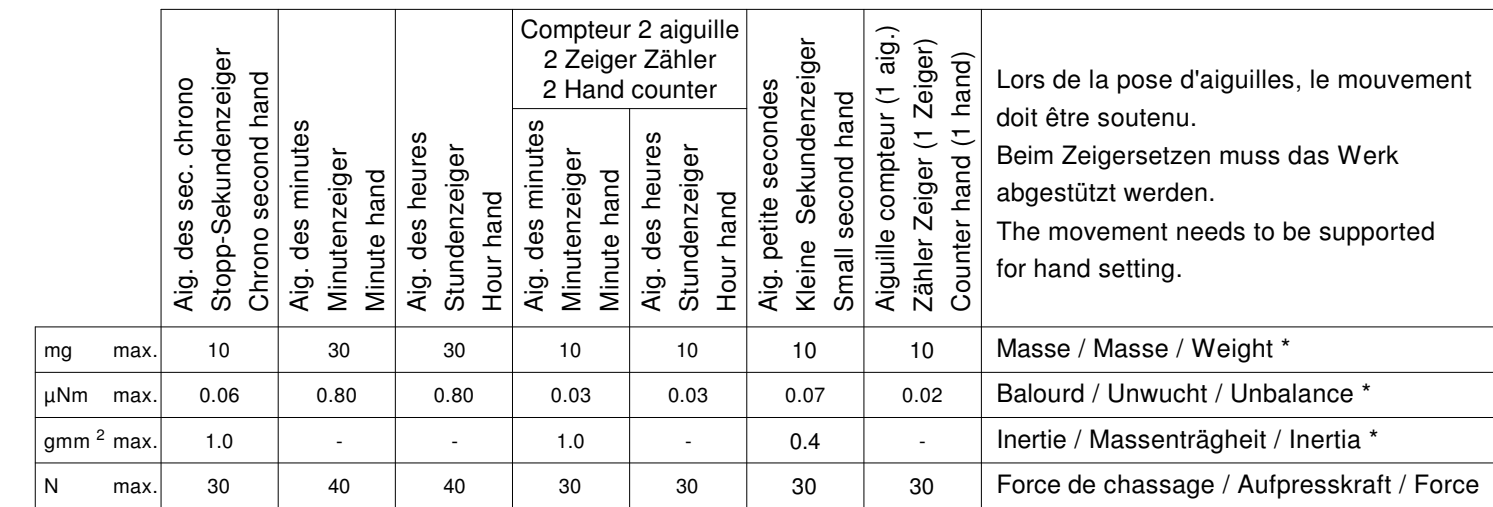
Issued	13 Dez 2006	cw
Modified	15.Dez.2006 ÄÄ ----	cm
Released	YES	
Tolerance	+/- 20 µm	
Scale	5 : 1 (A4V)	

RONDA

5050.B

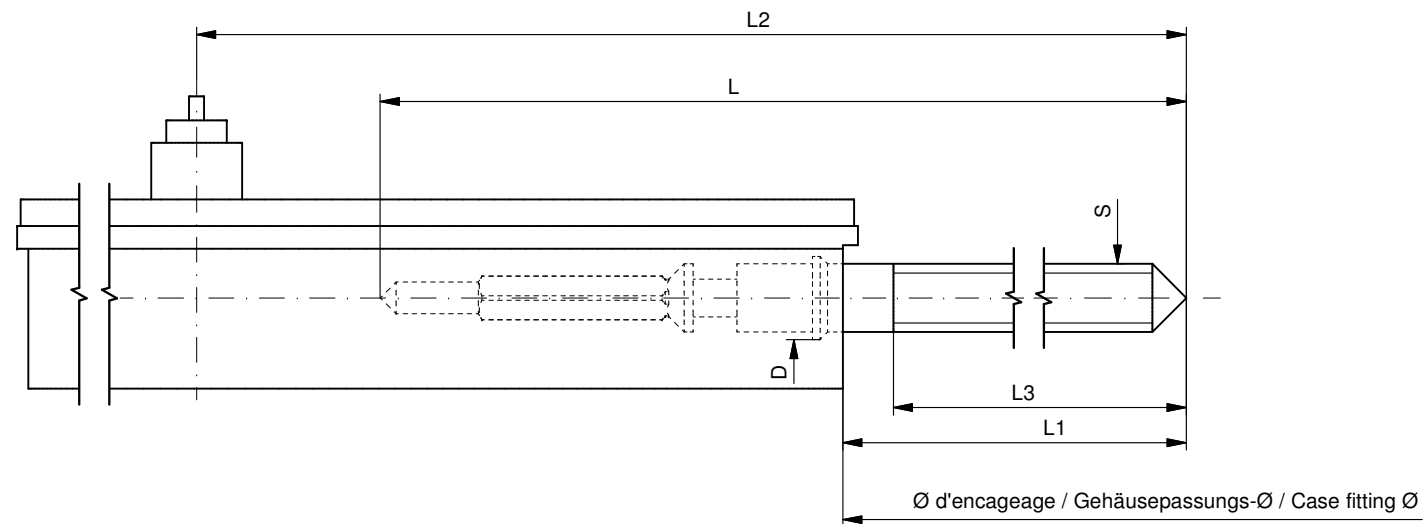
Sous réserve de modifications
Änderungen vorbehalten
Modifications reserved

No. 5010.694 03



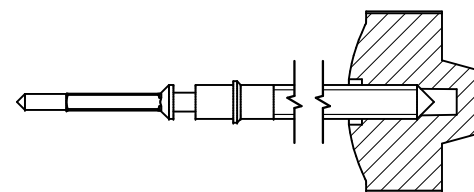
Aiguillages Zeigerwerkhöhe Hand fitting height								
Peinture comprise / inkl. Farbe / Paint included								
Epaisseur maximum du cadran Maximale Zifferblatttdicke Maximum dial thickness								
No	Sous l'aiguille des secondes chrono Unter Stopp-Sekundenzeiger Under chrono second hand	Sous l'aiguille des minutes Unter Minutenzeiger Under minute hand	Sous l'aiguille des heures Unter Stundenzeiger Under hour hand	Compteur 2 aig. 2 Zeiger Zähler 2 Hand counter		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
				Sous l'aiguille des minutes Unter Minutenzeiger Under minute hand	Sous l'aiguille des heures Unter Stundenzeiger Under hour hand			
2	2.10	1.55	1.10	0.70	0.40	0.40	0.40	0.15
-								

Aiguillages Zeigerwerkhöhe 12½" Hand fitting heights		Issued	14 Nov 2003	mk
		Modified	15 Okt 2014 ÄA 13275	dh
		Released	Yes	
		Tolerance	µm	
		Scale	20 : 1 (A3H)	
RONDA	5050.B, 5050.C, 5051.C	Sous réserve de modifications Änderungen vorbehalten Modifications reserved		
		No.	3316.082	05



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

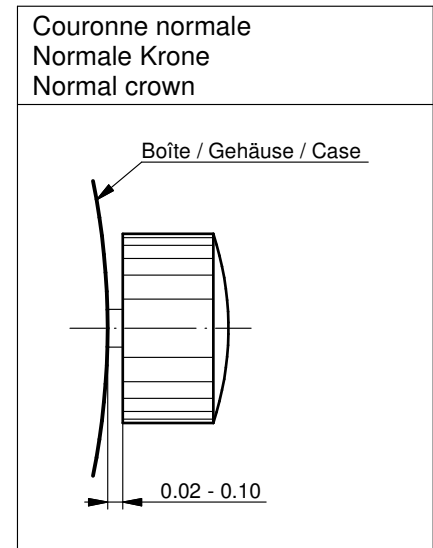
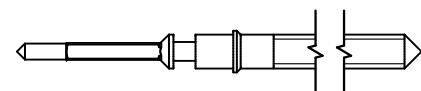
No. d'article Artikelnummer Part number	L	L1	L2	L3	S	D
3000.177.CO	20.00	10.23	24.23	10.15	0.90	1.10



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

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

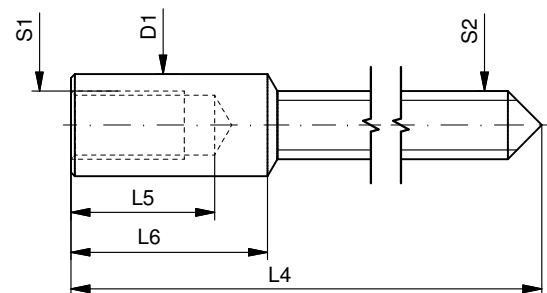
No. d'article Artikelnummer Part number	L	L1	L2	L3	S	D
3000.177	20.00	10.23	24.23	10.15	0.90	1.10
3000.191	32.00	22.23	36.23	22.15	0.90	1.10



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

Zifferblatt- und Zeigersetzen

- Crown in position II
- Wind crown, until date 02 appears
- Crown in position III
- Wind hour hand forwards, until date changes to 03
- 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

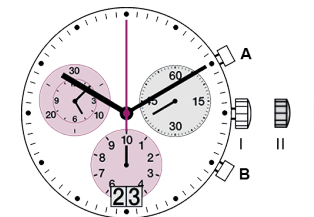
Date switching duration

First and tenth digit discs

~2hrs

*Zeroing the Chronograph hand

- Activate pushers 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.

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

Hour hand

Minute counter

Hour counter

Second counter

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

Date

Control buttons

Push-button A

Crown

Push-button B

01

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 1 appears.

3 Push the crown back into position I.

Please note:

During the date changing phase between approx. 9 PM and midnight, the date must be set to the date of the following day.

An extreme acceleration in setting the date with quick mode can induce a false date indication. The synchronization is re-established by setting the date from 01 till 31 (crown in position II).

03

Setting the date/time

Example:

– Date / time on the watch: 17 / 1:25 AM

– Present date / time: 4 / 8:30 PM

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

2 Turn the crown until yesterday's date appears 3.

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

4 Turn the crown until the correct date 4 appears.

5 Continue to turn the crown until the correct time 8:30 PM appears.

6 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 A once more and read the chronograph counters: 4h / 20 min / 38 sec / 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 hands are not in their correct zero positions and have to be adjusted (e.g. following a battery change).

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).

Adjusting the second counter hand

Single step A 1 x short

Continuous A long

Adjusting the next hand B

Single step A 1 x short

Continuous A long

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

Single step A 1 x short

Continuous A long

Adjusting the next hand B

Single step A 1 x short

Continuous A long

Adjusting the minute counter hand and the hour counter hand (mechanical coupled)

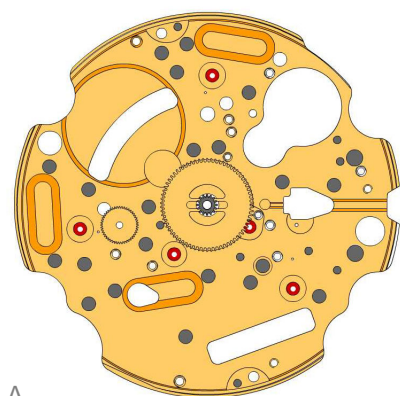
Single step A 1 x short

Continuous A long

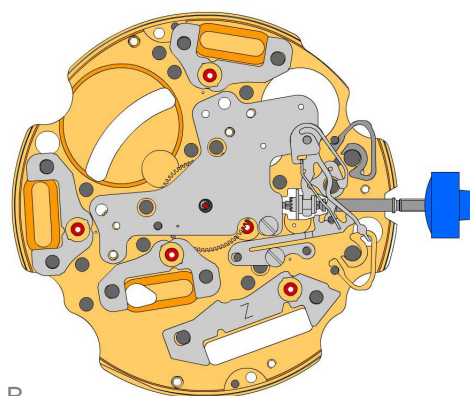
3 Returning the crown to position I

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



















08

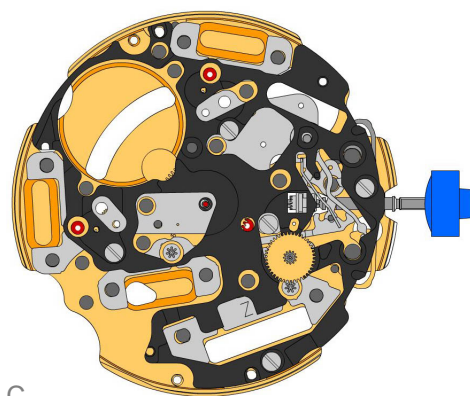


A



B

2000.574.G 1.		Main plate
3305.282.CO 2.		Cannon pinion with driver (Aig.2)
3301.244 3.		Hour wheel (counter 24h)
2030.017.CO 4.		Centre bridge Centre bridge held by 1 screw 4000.250. Parts 2030.017.CO, 3402.009.CO, 3004.223 and 3500.059 must be exchanged together.
4000.250 5.		Screw
3001.055.FI 6.		Sliding pinion
3000.177.CO 7.		Setting stem
3017.049 8.		Setting lever
3905.049 9.		Setting lever jumper (3 positions) Setting lever jumper held by 1 screw 4000.250.
4000.250 10.		Screw
3015.081 11.		Yoke (3 positions) Parts 3015.081 and 3905.067 must be exchanged together.
3905.067 12.		Yoke spring Tensioning the spring arm. Parts 3015.081 and 3905.067 must be exchanged together.
3406.030 13.		Pusher jumper B Put the grey jumper between the two posts on the further side.
3406.038 14.		Pusher jumper A Put the yellow jumper between the two posts on the closer side.
3622.040 15.		Stator Mark [Z] on stator.
3622.039 16.		Stator (counter 6h, 9h, chrono)
3622.039 17.		Stator (counter 6h, 9h, chrono)
3622.039 18.		Stator (counter 6h, 9h, chrono)



C

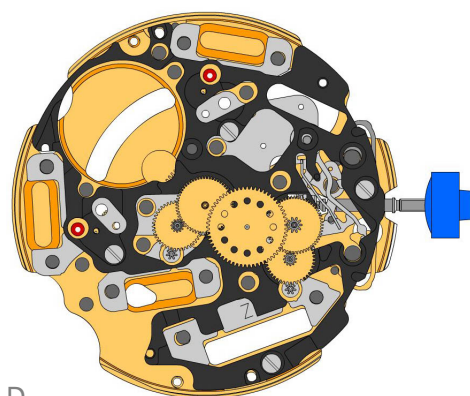
3603.079
19.  Plastic bracket
Plastic bracket held by 4 screws 4000.250.

4000.250
20.  Screw

3715.094.RK
21.  Rotor

3715.094.RK
22.  Rotor


3147.046.CO
23.  Intermediate wheel



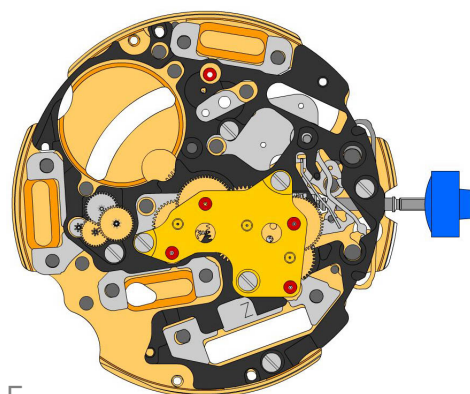
D

3136.142.CO
24.  Second wheel (long)


3147.047.CO
25.  Intermediate wheel (chrono)

3136.144.CO
26.  Chronograph wheel (Aig.2)

3122.056.CO
27.  Third wheel




E

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

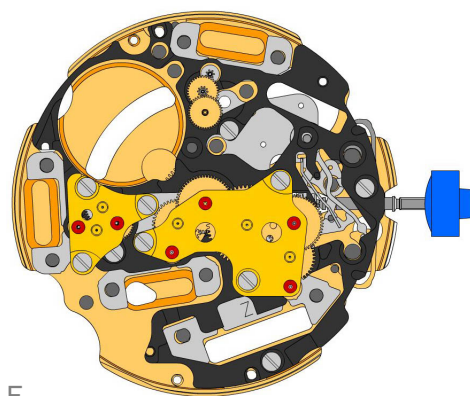
4000.250
29.  Screw

3715.095.RK
30.  Rotor

3147.048.CO
31.  Intermediate wheel (counter)

3007.056.CO
32.  Minute wheel (counter 24h)

3402.008.CO
33.  Minute counting wheel



F

2020.149.G
34.



Counter train wheel bridge
Counter train wheel bridge held by 3 screws 4000.250.

4000.250
35.



Screw

3715.095.RK
36.



Rotor

3147.053.CO
37.

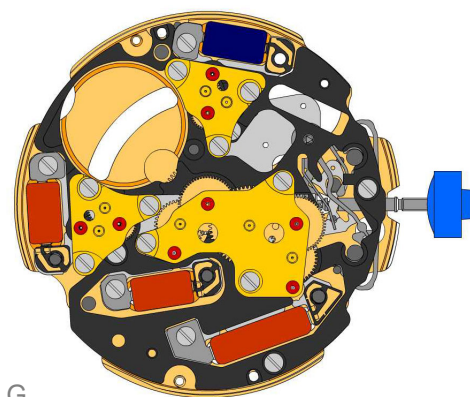


Intermediate wheel (counter 1/10sec)

3402.009.CO
38.



Counting wheel 1/10 sec
Parts 2030.017.CO, 3402.009.CO, 3004.223 and 3500.059 must be exchanged together.



G

2020.149.G
39.



Counter train wheel bridge
Counter train wheel bridge held by 3 screws 4000.250.

4000.250
40.



Screw

3621.053.RK
41.



Coil
Attention: Please hold the coil only on the grey coil core. Coil held by 1 screw 4000.250.

3621.054.RK
42.



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
43.



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
44.



Coil (counter 6h)
Attention: Please hold the coil only on the grey coil core. Coil held by 1 screw 4000.250.

4000.250
45.



Screw

3601.118
46.



Contact strip
Contact strip held by 1 screw 4000.250.

4000.250
47.

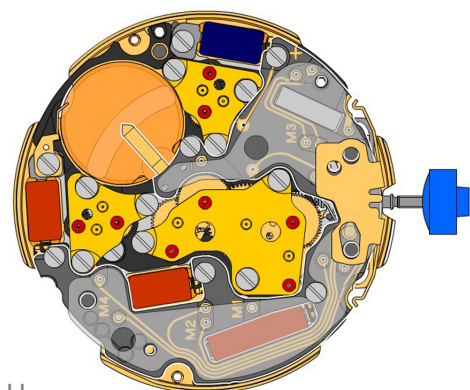


Screw

3603.034
48.



Battery insulator



H

3612.144.5050
49.



Electronic module
Electronic module held by 5 screws 4000.248. Electronic measurements may be realised now.

4000.248
50.



Screw

3603.069
51.

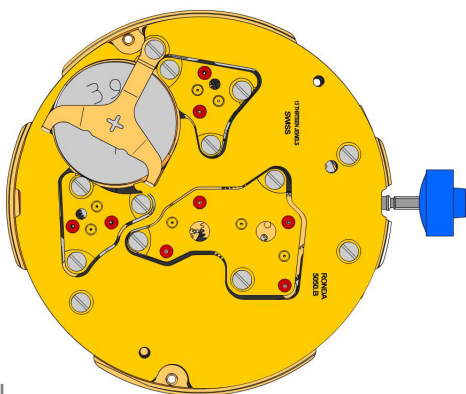


Circuit insulator

3601.107.G
52.



Pusher contact spring



2130.137.G.M01.5050B
53.



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

3600.010.HGF
54.



Battery 395

3601.109.G
55.

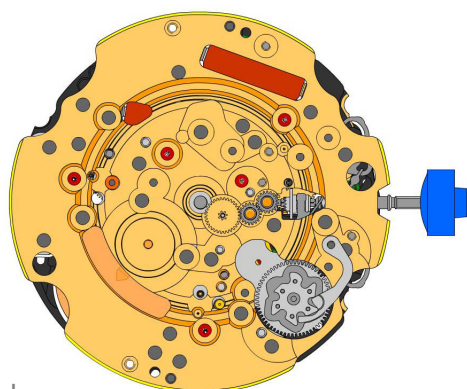


Bridge +
Bridge held by 1 screw 4000.250.

4000.250
56.



Screw



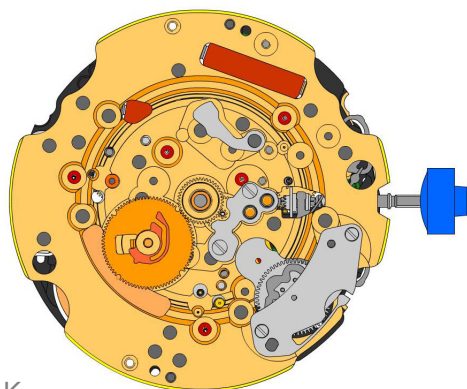
J

2000.574.G
57.  Main plate


3004.164
58.  Setting wheel

3004.164
59.  Setting wheel


3007.054.CO
60.  Minute wheel




K

2130.143
61.  Minute train bridge
Minute train bridge held by 2 screws 4000.305.

4000.305
62.  Screw

3004.223
63.  Tens indicator driving wheel
Parts 2030.017.CO, 3402.009.CO, 3004.223 and 3500.059 must be exchanged together. The short tooth of the tens indicator driving wheel must point to the center of the movement.

3500.059
64.  Tens jumper
Parts 2030.017.CO, 3402.009.CO, 3004.223 and 3500.059 must be exchanged together.

2130.142
65.  Tens jumper maintaining plate
Tens jumper maintaining plate held by 2 screws 4000.306. Tensioning the spring arm.

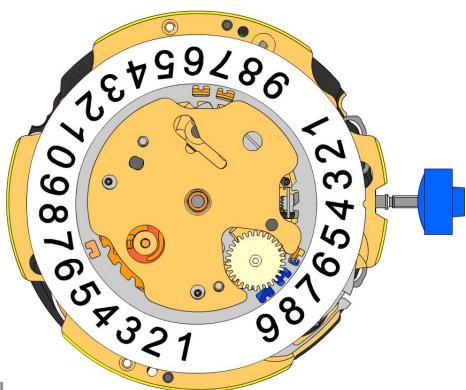
4010.306
66.  Screw

3301.242
67.  Hour wheel (Aig.2)

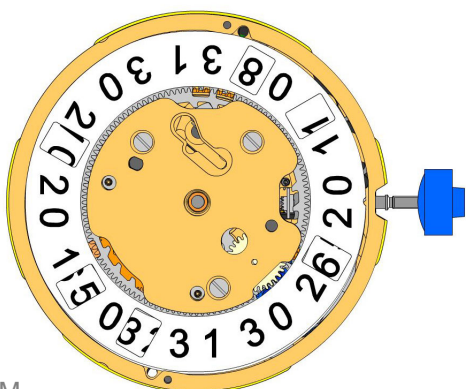
3315.016
68.  Friction spring

3004.224.CO
69.  Date indicator driving wheel





3500.049
70.  Date jumper











L

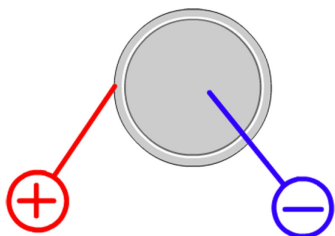


M

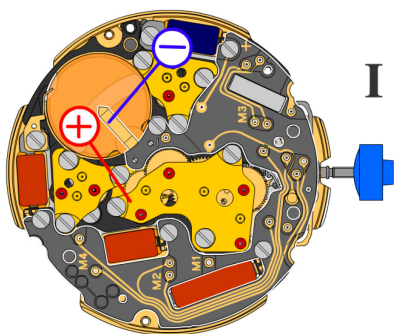
3504.214.AD.1.A 71.		Units indicator (standard) Nick of the indicator at 3 o'clock.
3147.054 72.		Tens intermediate wheel
2130.141 73.		Date indicator maintaining plate Date indicator maintaining plate held by 1 screw 4000.250.
3905.070 74.		Date jumper spring Insert the date jumper spring in the provided opening.

3504.215.AD.1.A 75.		Tens indicator (standard) Nick of the indicator at 3 o'clock.
2130.140.G 76.		Date mechanism maintaining plate Date mechanism maintaining plate held by 2 screws 4000.250.
4000.250 77.		Screw
3506.072.G 78.		Dial support

8200 79.		Moebius 8200
9014 80.		Moebius 9014
124 81.		Jismaa 124
9020 82.		Moebius 9020

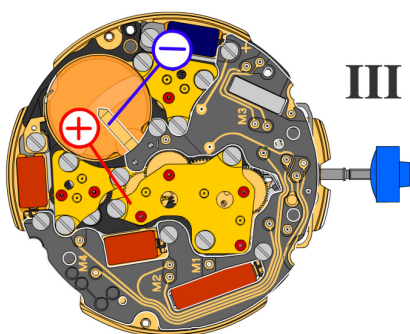


Battery	395
Voltage	1.55 V



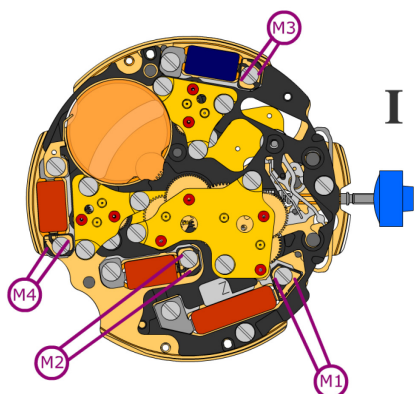
*Setting stem in position I, calendar not in gear,
60 s measuring interval for rate and consumption:*

Typical consumption	1.32 μA
Maximal consumption	1.65 μA
Rate	-10s/M. .. +20s/M.
Lower working voltage limit	1.20 V



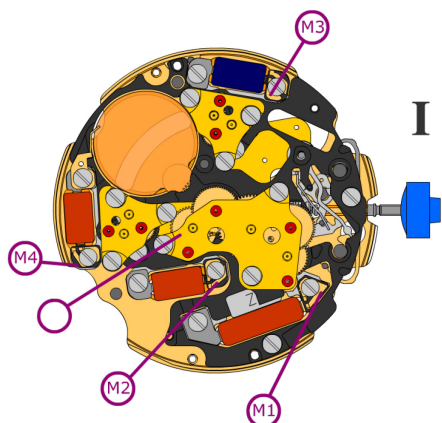
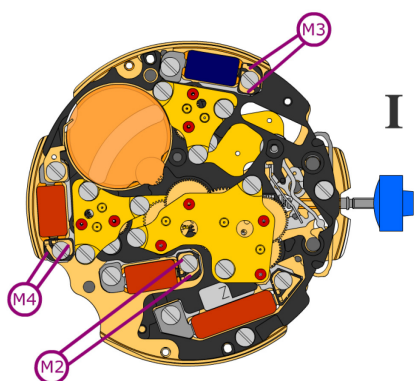
Setting stem in position III, 60 s measuring interval:

Typical consumption	0.10 μA
Maximal consumption	0.30 μA

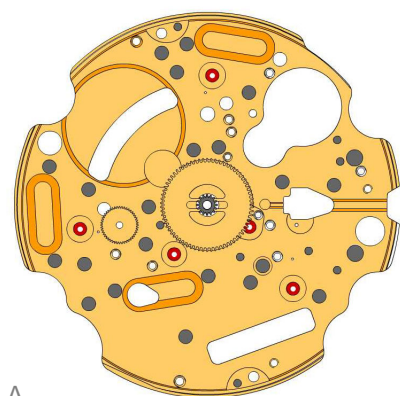

Coil resistance M1 **1.90 k Ω .. 2.10 k Ω**

Coil resistance M2 **1.68 k Ω .. 1.88 k Ω**

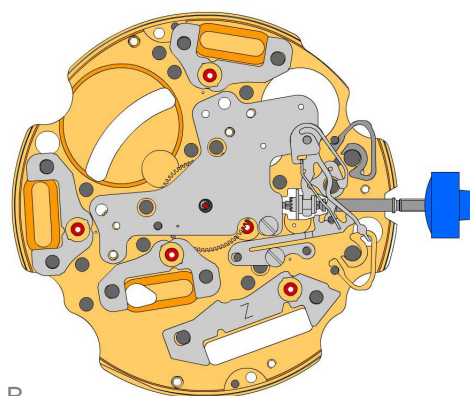
Coil resistance M3 **1.68 k Ω .. 1.88 k Ω**

Coil resistance M4 **1.68 k Ω .. 1.88 k Ω**

Coil isolation M1/M2/M3/M4 **∞ k Ω**

Signal generator (4.9 ms, 8 Hz):







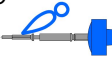











Lower working voltage limit
M2/M3/M4 **1.20 V**

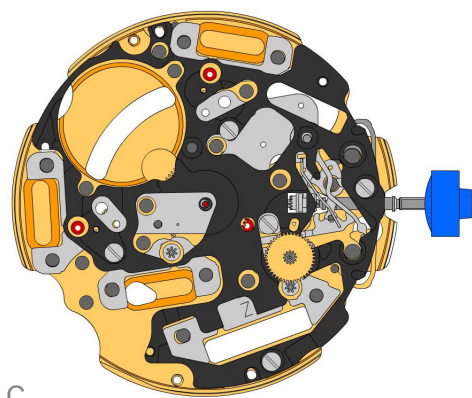


A



B

2000.574.G 1.		Main plate
3305.282.CO 2.		Cannon pinion with driver (Aig.2)
3301.244 3.		Hour wheel (counter 24h)
2030.032.CO 4.		Centre bridge Centre bridge held by 1 screw 4000.250.
4000.250 5.		Screw
3001.055.FI 6.		Sliding pinion
3000.177.CO 7.		Setting stem
3017.049 8.		Setting lever
3905.049 9.		Setting lever jumper (3 positions) Setting lever jumper held by 1 screw 4000.250.
4000.250 10.		Screw
3015.081 11.		Yoke (3 positions)
3905.067 12.		Yoke spring Tensioning the spring arm.
3406.030 13.		Pusher jumper B Put the grey jumper between the two posts on the further side.
3406.038 14.		Pusher jumper A Put the yellow jumper between the two posts on the closer side.
3622.040 15.		Stator Mark [Z] on stator.
3622.039 16.		Stator (counter 6h, 9h, chrono)
3622.039 17.		Stator (counter 6h, 9h, chrono)
3622.039 18.		Stator (counter 6h, 9h, chrono)



C

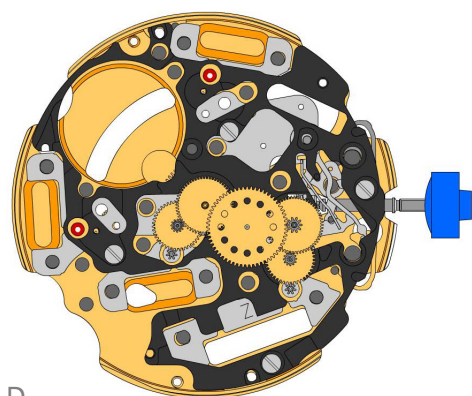
3603.079
19.  Plastic bracket
Plastic bracket held by 4 screws 4000.250.

4000.250
20.  Screw

3715.094.RK
21.  Rotor

3715.094.RK
22.  Rotor


3147.046.CO
23.  Intermediate wheel



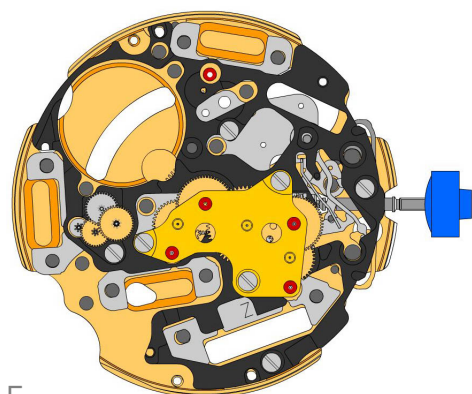
D

3136.142.CO
24.  Second wheel (long)


3147.047.CO
25.  Intermediate wheel (chrono)

3136.144.CO
26.  Chronograph wheel (Aig.2)

3122.056.CO
27.  Third wheel



E


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

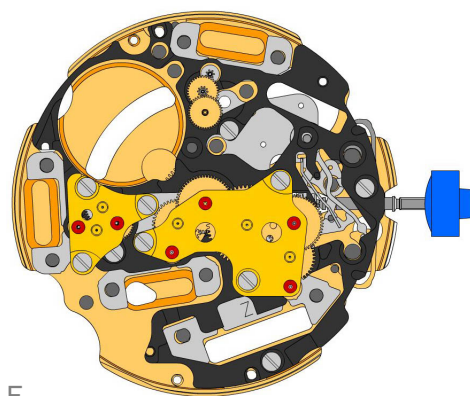
4000.250
29.  Screw

3715.095.RK
30.  Rotor






3147.048.CO
31.  Intermediate wheel (counter)

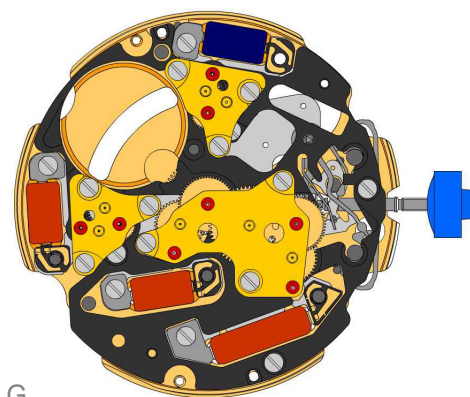
3007.056.CO
32.  Minute wheel (counter 24h)

3402.008.CO
33.  Minute counting wheel









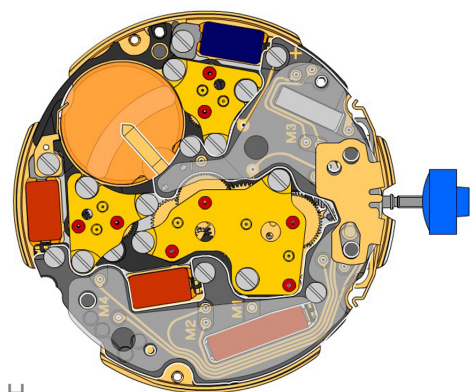
F

2020.149.G 34.		Counter train wheel bridge Counter train wheel bridge held by 3 screws 4000.250.
4000.250 35.		Screw
3715.095.RK 36.		Rotor
3147.053.CO 37.		Intermediate wheel (counter 1/10sec)
3402.016.CO 38.		Counting wheel 1/10 sec











G

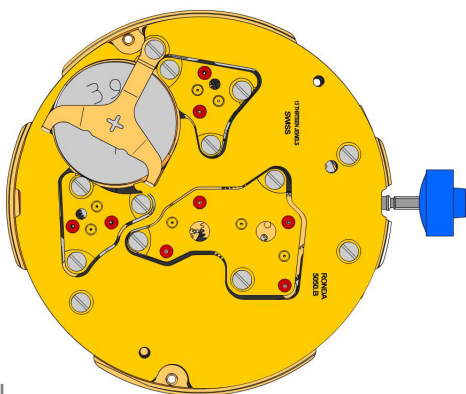
2020.149.G 39.		Counter train wheel bridge Counter train wheel bridge held by 3 screws 4000.250.
4000.250 40.		Screw
3621.053.RK 41.		Coil Attention: Please hold the coil only on the grey coil core. Coil held by 1 screw 4000.250.
3621.054.RK 42.		Coil (counter 9h, chrono) Attention: Please hold the coil only on the grey coil core. Coil held by 1 screw 4000.250.
3621.054.RK 43.		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 44.		Coil (counter 6h) Attention: Please hold the coil only on the grey coil core. Coil held by 1 screw 4000.250.



H

4000.250 45.		Screw
3601.118 46.		Contact strip Contact strip held by 1 screw 4000.250.
4000.250 47.		Screw
3603.034 48.		Battery insulator

3612.144.5050 49.		Electronic module Electronic module held by 5 screws 4000.248. Electronic measurements may be realised now.
4000.248 50.		Screw
3603.069 51.		Circuit insulator
3601.107.G 52.		Pusher contact spring



2130.137.G.M01.5050B
53.



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

3600.010.HGF
54.



Battery 395

3601.109.G
55.

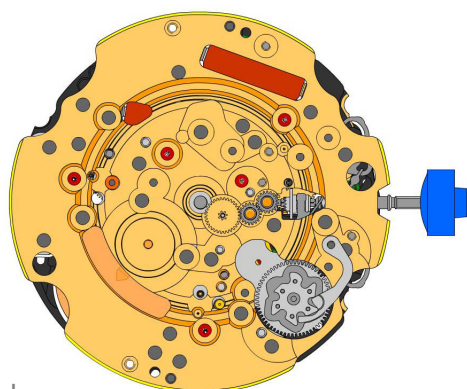


Bridge +
Bridge held by screw 4000.250.





4000.250
56.

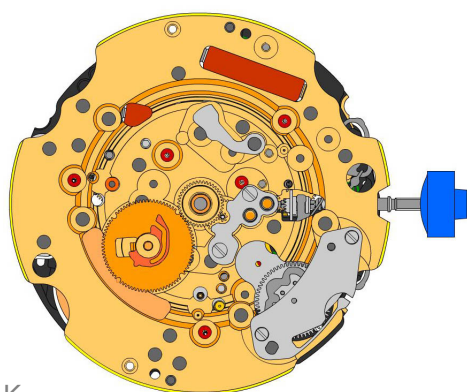


Screw













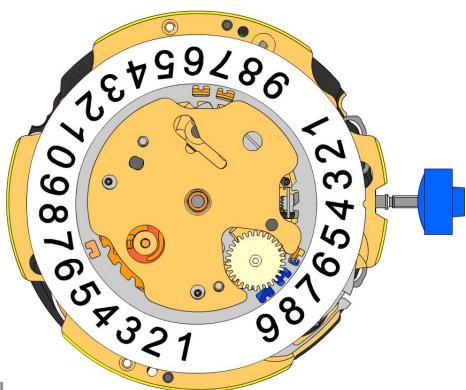
J

2000.574.G 57.		Main plate
3004.164 58.		Setting wheel
3004.164 59.		Setting wheel
3007.054.CO 60.		Minute wheel

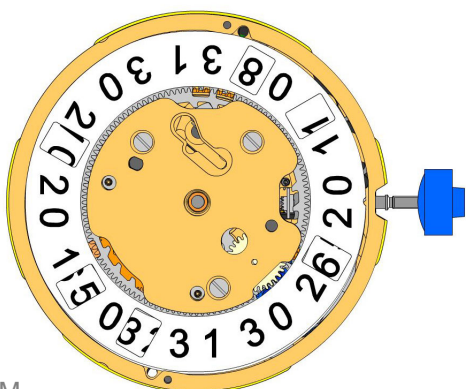


K





2130.143 61.		Minute train bridge Minute train bridge held by 2 screws 4000.305.
4000.305 62.		Screw
3004.227 63.		Tens indicator driving wheel Parts 3004.227 and 3500.075 must be exchanged together. The short tooth of the tens indicator driving wheel must point to the center of the movement.
3500.075 64.		Tens jumper Parts 3004.227 and 3500.075 must be exchanged together.
2130.142 65.		Tens jumper maintaining plate Tens jumper maintaining plate held by 2 screws 4000.306. Tensioning the spring arm.
4010.306 66.		Screw
3301.242 67.		Hour wheel (Aig.2)
3315.016 68.		Friction spring
3004.224.CO 69.		Date indicator driving wheel
3500.049 70.		Date jumper











L

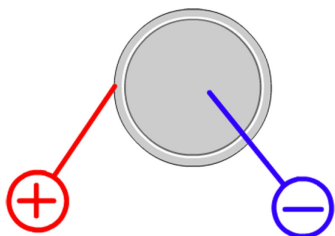


M

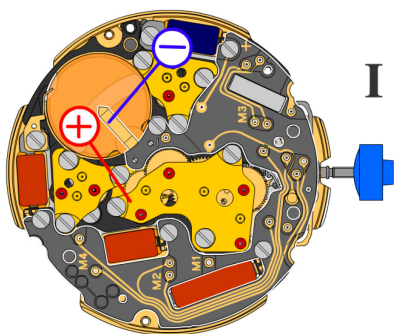
3504.214.AD.1.A 71.		Units indicator (standard) Nick of the indicator at 3 o'clock.
3147.054 72.		Tens intermediate wheel
2130.141 73.		Date indicator maintaining plate Date indicator maintaining plate held by 1 screw 4000.250.
3905.070 74.		Date jumper spring Insert the date jumper spring in the provided opening.

3504.215.AD.1.A 75.		Tens indicator (standard) Nick of the indicator at 3 o'clock.
2130.140.G 76.		Date mechanism maintaining plate Date mechanism maintaining plate held by 2 screws 4000.250.
4000.250 77.		Screw
3506.072.G 78.		Dial support

8200 79.		Moebius 8200
9014 80.		Moebius 9014
124 81.		Jismaa 124
9020 82.		Moebius 9020

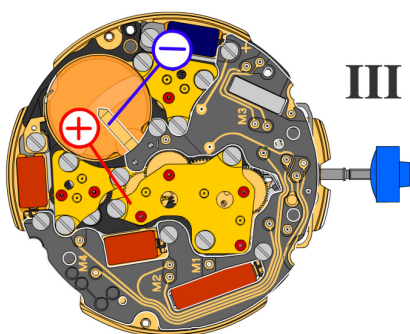


Battery	395
Voltage	1.55 V



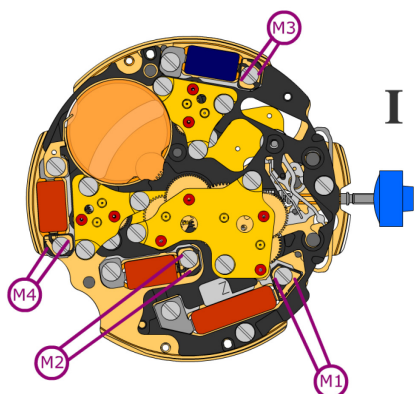
*Setting stem in position I, calendar not in gear,
60 s measuring interval for rate and consumption:*

Typical consumption	1.32 μA
Maximal consumption	1.65 μA
Rate	-10s/M. .. +20s/M.
Lower working voltage limit	1.20 V



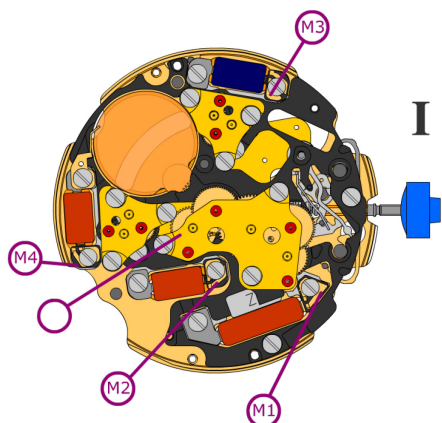
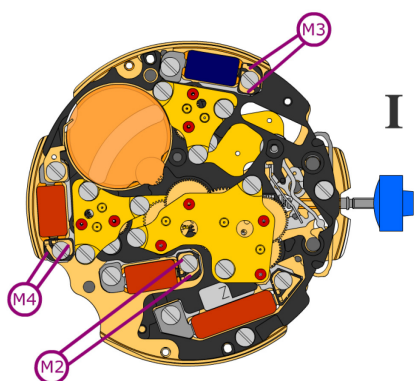
Setting stem in position III, 60 s measuring interval:

Typical consumption	0.10 μA
Maximal consumption	0.30 μA


Coil resistance M1 **1.90 k Ω .. 2.10 k Ω**

Coil resistance M2 **1.68 k Ω .. 1.88 k Ω**

Coil resistance M3 **1.68 k Ω .. 1.88 k Ω**

Coil resistance M4 **1.68 k Ω .. 1.88 k Ω**

Coil isolation M1/M2/M3/M4 **∞ k Ω**

Signal generator (4.9 ms, 8 Hz):

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