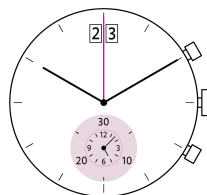


Caliber 5010.B – 12½"



Product Specifications

Analog quartz movement

Line startech

Caliber 5010.B

Size 12½"

Version Swiss Made 10 Jewels / gold 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

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

Quartz Movements

Chronographs

RONDA startech

Caliber 5010.B – 12½"

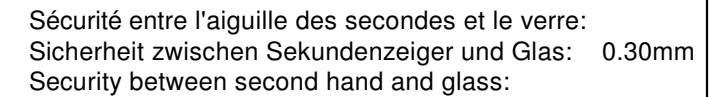
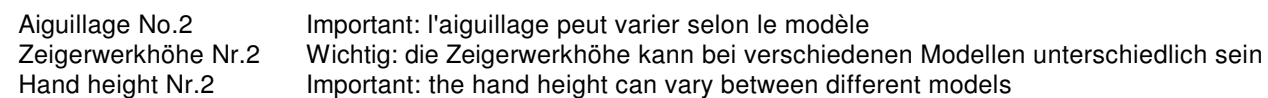
Technical Specifications

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 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)

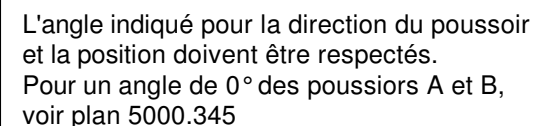
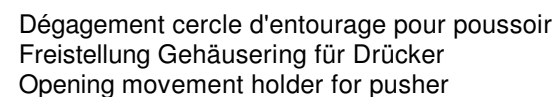
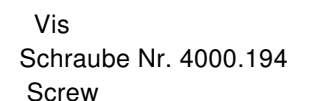
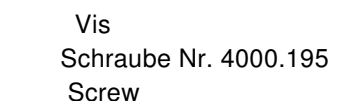
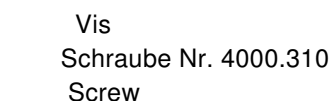
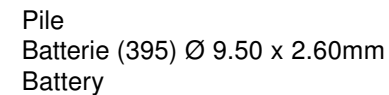


Le cadran doit être tenu par la boîte
Das Zifferblatt muss durch die Schale gehalten werden
The dial must be hold by the case

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.



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.

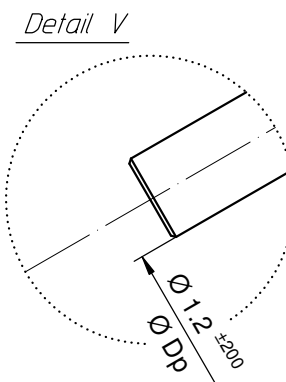
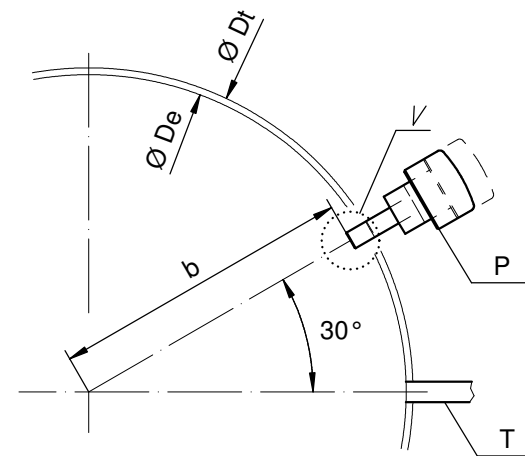
Cage
Uhrwerkgestell 12½"
Frame

RONDA

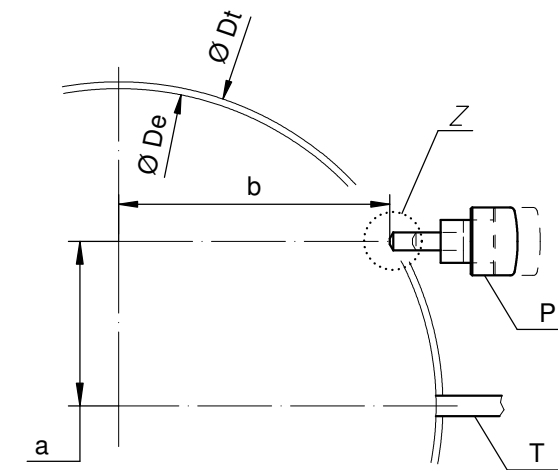
5010.B

Issued	08 Jan 2001	mg
Modified	05 Sep 2016 ÄÄ 34777	dh
Released	YES	
Tolerance	+/- 20 µm	
Scale	10 : 1 (5 : 1) (A3H)	
Sous réserve de modifications Änderungen vorbehalten Modifications reserved		
No.	5000.316	07

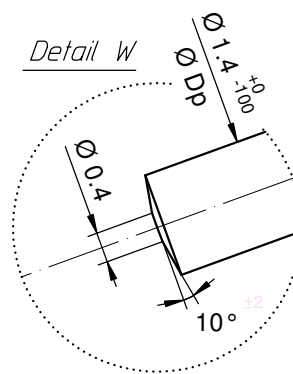
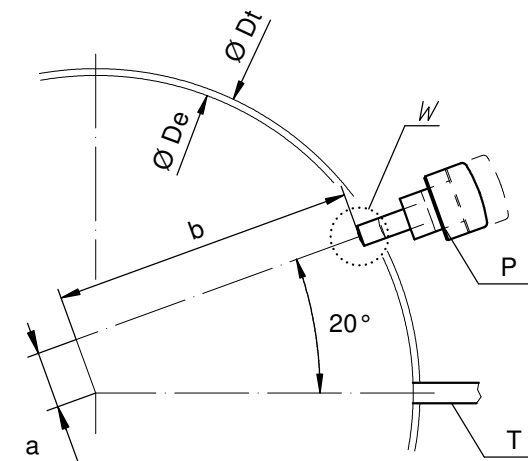
Angle Winkel Angle	30°	
Ø Dp	b	
1.00	13.50	
1.10	13.50	
1.20	13.50	
1.30	13.50	
1.40	13.50	



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

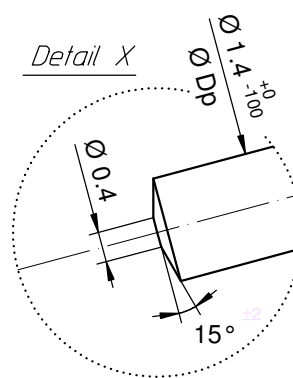
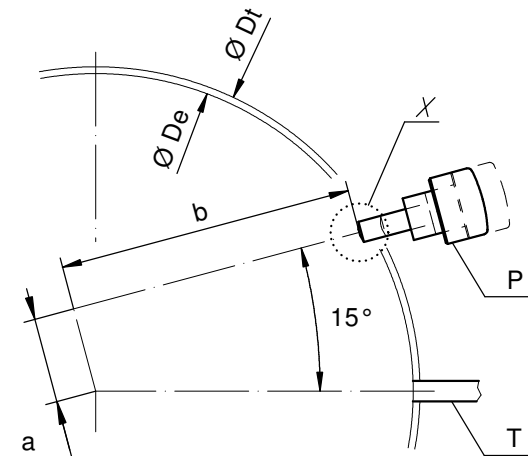
Ø Dp: diamètre du poussoir
Drückerdurchmesser
pusher-diameter

Ø Dt: diamètre total
Totaldurchmesser
total-diameter

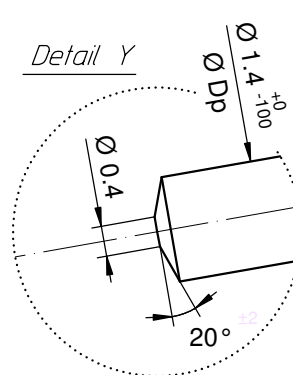
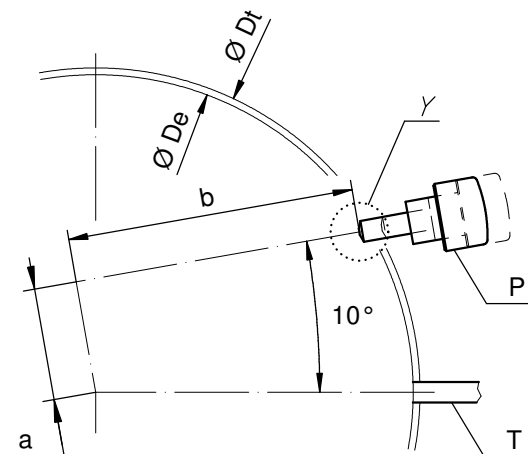
P: poussoir en position poussée
Drücker in gedrückter Stellung
pusher in pressed position

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

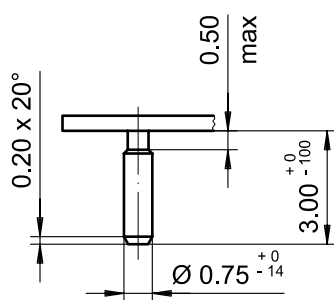
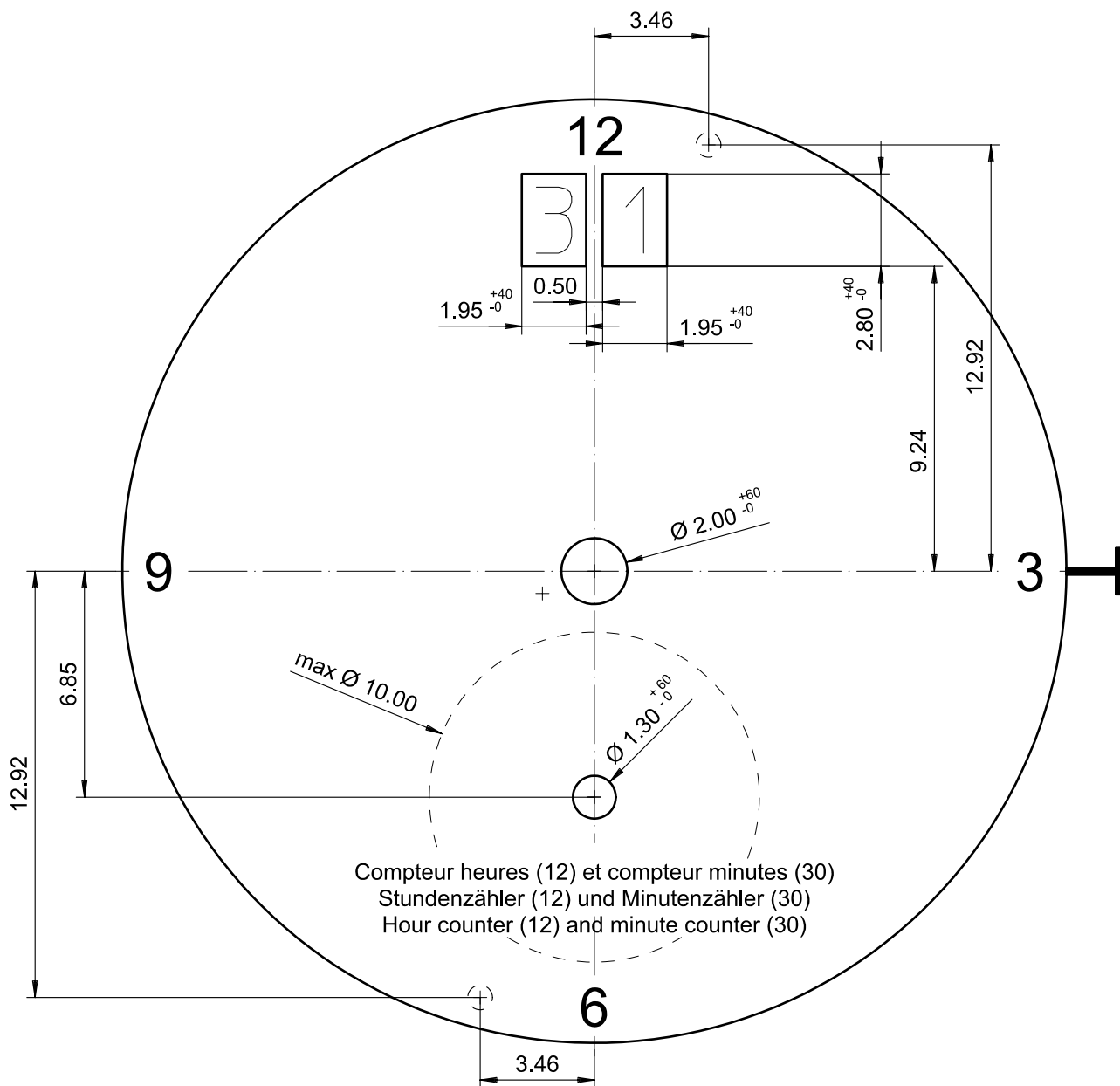


Angle des poussoirs A et B
Winkel der Drücker A und B
Angle of pusher A and B

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
Stellw.	Datum
Stem	Date
3H	12H

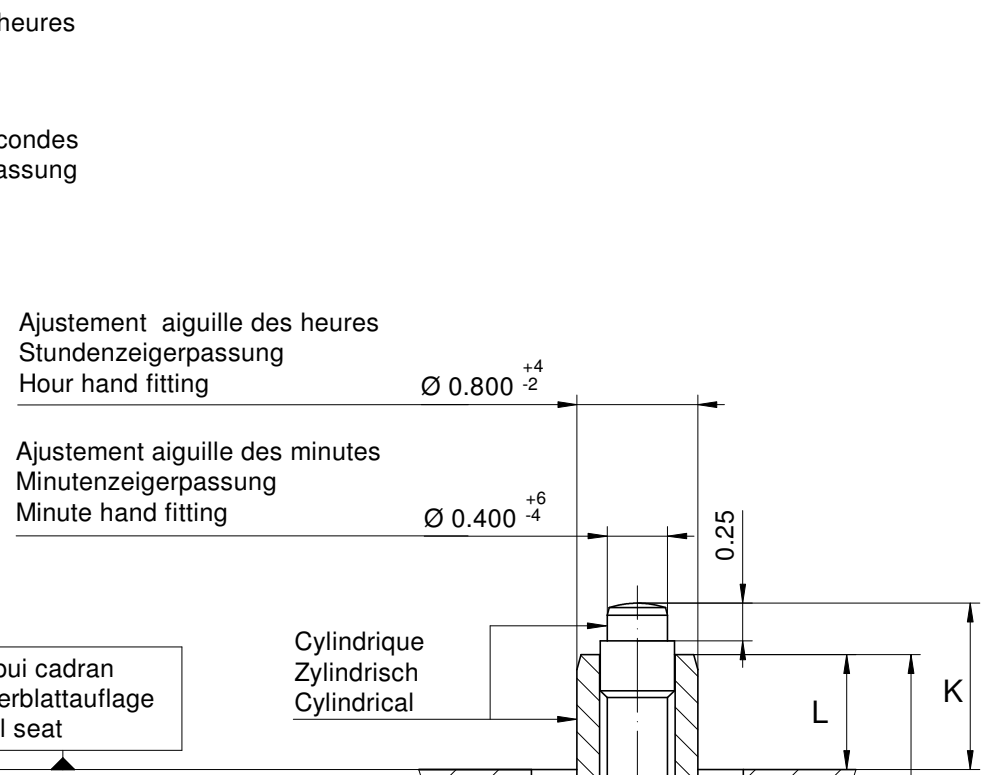
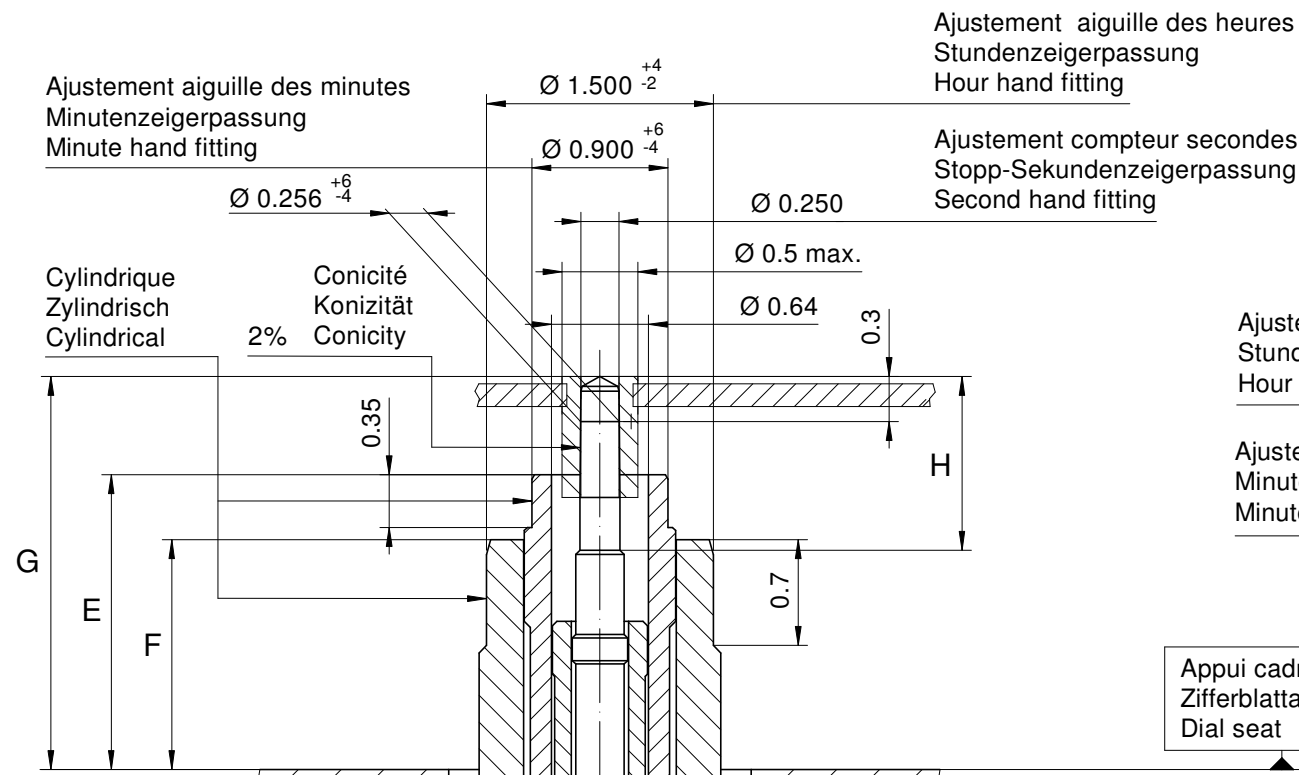
Cadran
Zifferblatt
Dial

12 1/2"

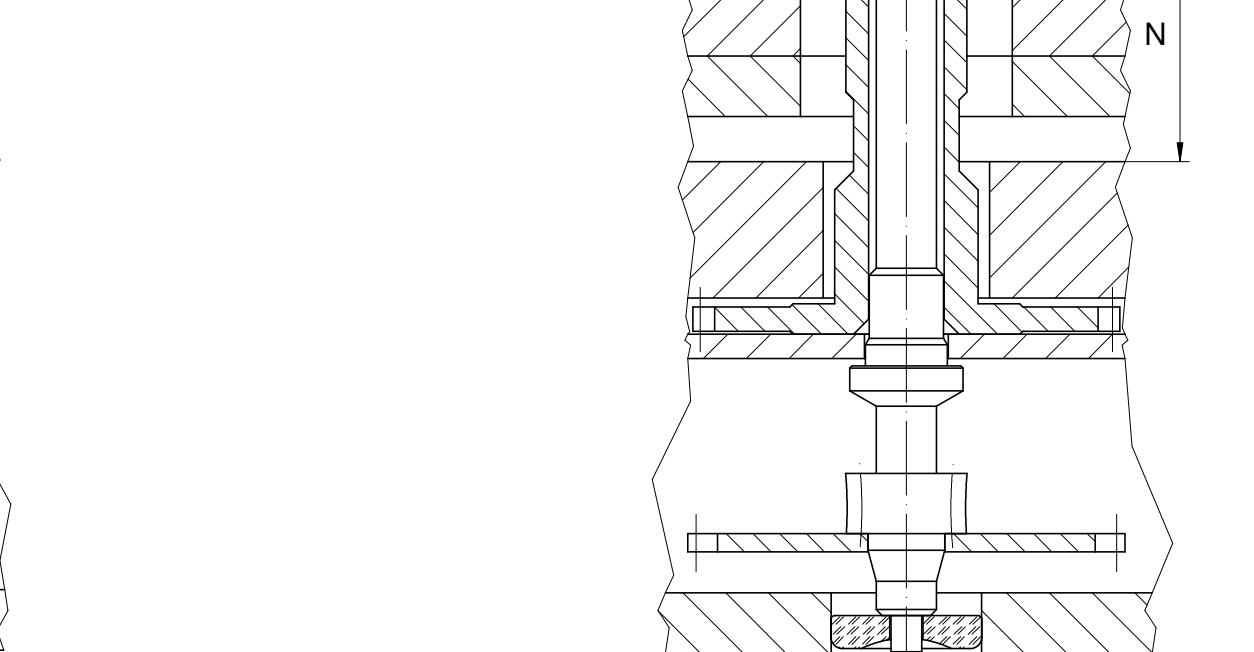
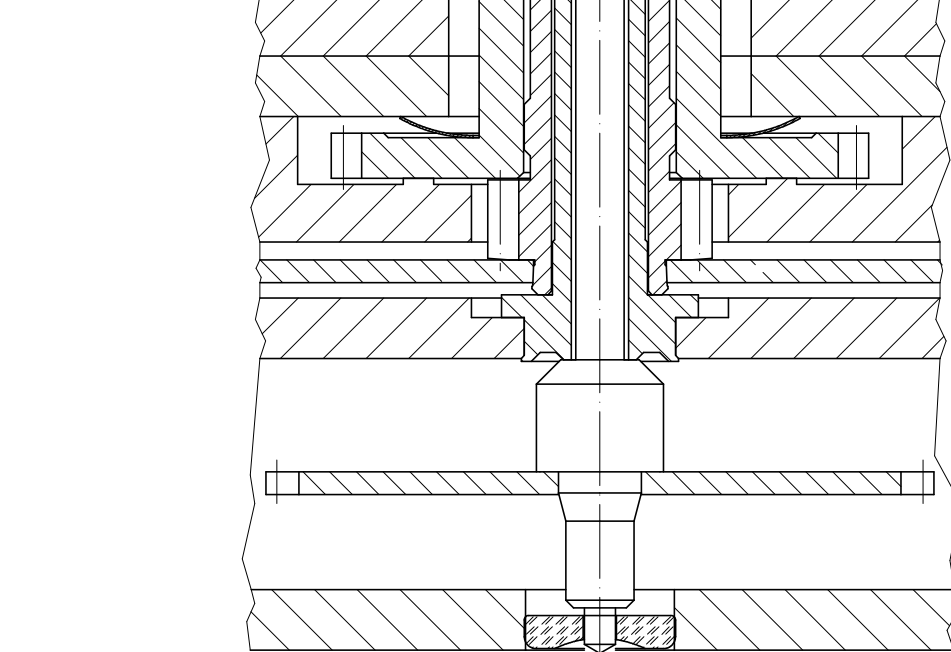
Issued	13 Dez 2006	cw
Modified	15.Dez.2006 ÄA ----	cm
Released	YES	
Tolerance	+/- 20 µm	
Scale	5 : 1 (A4V)	
Sous réserve de modifications Äenderungen vorbehalten Modifications reserved		
No.	5010.690	03

RONDA

5010.B



Aiguillages Zeigerwerkhöhe Hand fitting height							
Dépassement Höhe über Zifferblattauflage Height over dial seat							
No	G	E	F	H	N	Compteur 2 aig. 2 Zeiger Zähler 2 Hand counter	
						Chaussée Minutenrohr Cannon-pinion	Roue des heures Stundenrad Hour wheel
2	2.60	1.95	1.52	1.15	1.85	1.10	0.76
-							



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 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 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	Compteur 2 aig. 2 Zeiger Zähler 2 Hand counter		
2	2.10	1.55	1.10	0.70	0.40	0.15	0.15
-							

Heures / minutes / secondes chrono
Stunden / Minuten / Stopp-Sekunden
Hours / minutes / chrono second

Compteur 2 aiguille
2 Zeiger Zähler
2 Hand counter

		Aig. des sec. chrono Stopp-Sekundenzeiger Chrono second hand	Aig. des minutes Minutenzeiger Minute hand	Aig. des heures Stundenzeiger Hour hand	Compteur 2 aiguille 2 Zeiger Zähler 2 Hand counter		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.
					Aig. des minutes Minutenzeiger Minute hand	Aig. des heures Stundenzeiger Hour hand	
mg	max.	10	30	30	10	10	Masse / Masse / Weight *
μNm	max.	0.06	0.80	0.80	0.03	0.03	Balourd / Unwucht / Unbalance *
gmm ²	max.	1.0	-	-	1.0	-	Inertie / Massenträgheit / Inertia *
N	max.	30	40	40	30	30	Force de chassage / Aufpresskraft / Force

Aiguillages Zeigerwerkhöhe 12½" Hand fitting heights		Issued		30 Sep 2002	mg
		Modified		15 Okt 2014 ÄA 13275	dh
		Released		Yes	
		Tolerance		μm	
		Scale		20 : 1 (A3H)	
		Sous réserve de modifications Änderungen vorbehalten Modifications reserved			
RONDA		5010.B		No. 3316.076	06

* 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



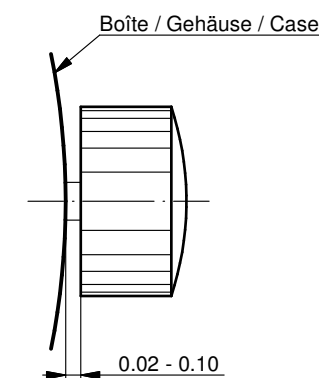
Couleur de la couronne Kronenfarbe Crown color	bleu foncé dunkelblau dark blue
Code	UN 5002

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 normale
Normale Krone
Normal crown

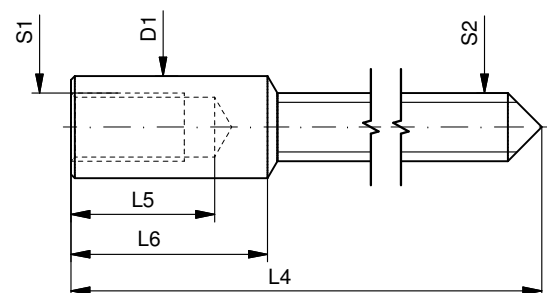


Couronne vissée
Geschraubte Krone
Screwed crown

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 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

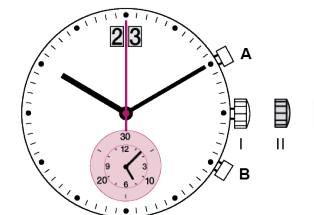
Date switching duration:

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 make minute and seconds hand jump
- 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 watch-maker 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

Control buttons

01

Setting the time

02

Setting the date (quick mode)

03

Setting the date/time

04

Chronograph: Basic function
(Start / Stop / Reset)

05

Chronograph: Accumulated timing

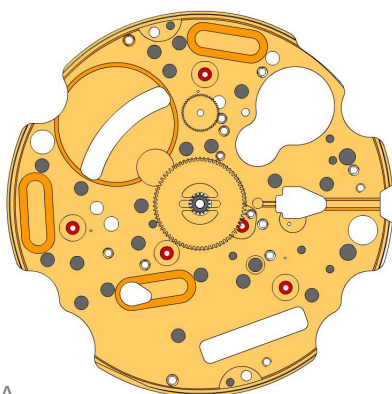
06

Chronograph: Intermediate or interval timing

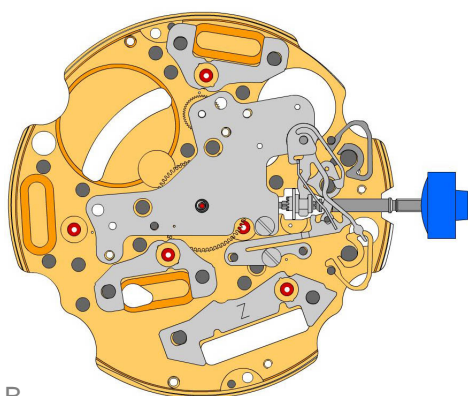
07

Adjusting the chronograph hands to zero position












08

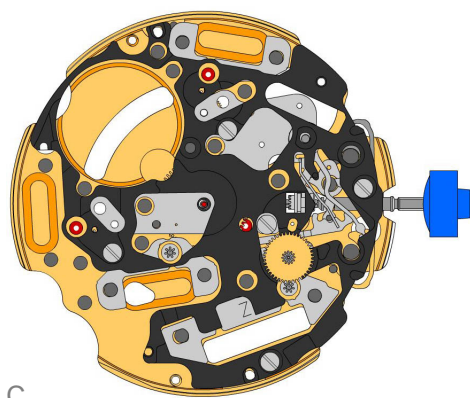


A




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, 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)



C

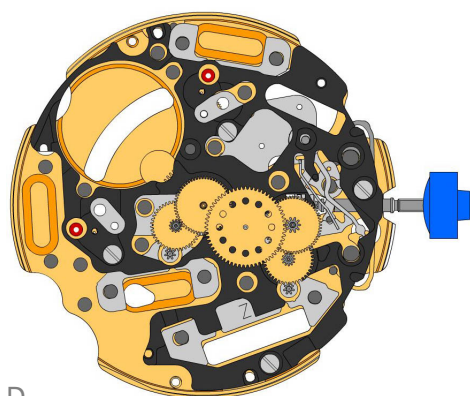
3603.079
18.  Plastic bracket
Plastic bracket held by 4 screws 4000.250.

4000.250
19.  Screw


3715.094.RK
20.  Rotor


3715.094.RK
21.  Rotor


3147.046.CO
22.  Intermediate wheel



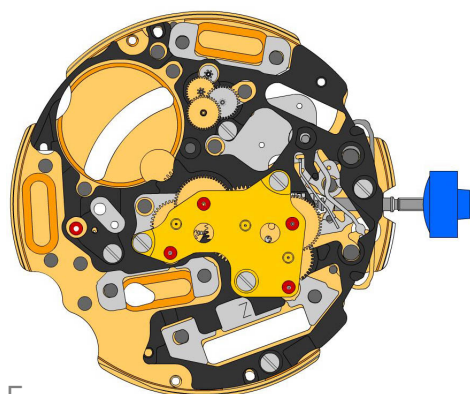
D

3136.148.CO
23.  Second wheel (short)


3147.047.CO
24.  Intermediate wheel (chrono)

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

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

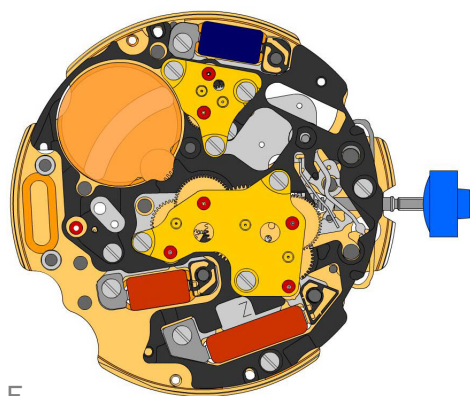
3147.048.CO
30.  Intermediate wheel (counter)

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

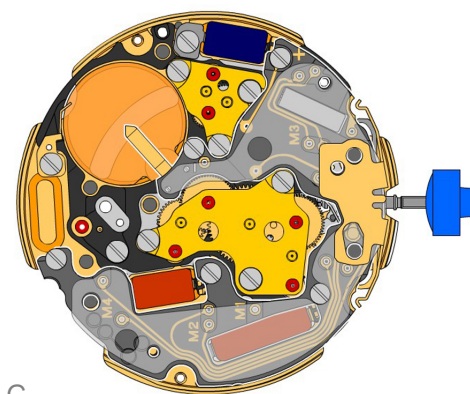
3402.008.CO
32.  Minute counting wheel (24h)

2020.149.G
33.  Counter train wheel bridge
Counter train wheel bridge held by 3 screws 4000.250.

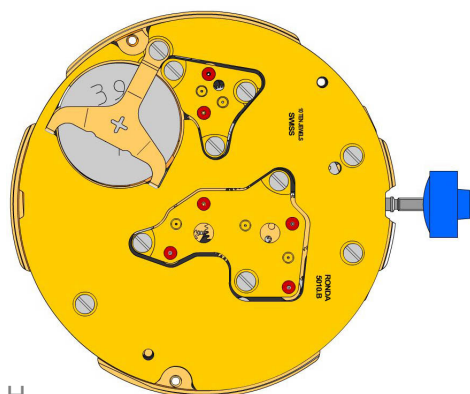
4000.250
34.  Screw




F





G



H

3621.053.RK
35.  **Coil**
Attention: Please hold the coil only on the grey coil core. Coil held by 1 screw 4000.250.

3621.079.RK
36.  **Coil (centre)**
Attention: Please hold the coil only on the grey coil core. Coil held by 1 screw 4000.250.

3621.055.RK
37.  **Coil (counter 6h)**
Attention: Please hold the coil only on the grey coil core. Coil held by 1 screw 4000.250.

4000.250
38.  **Screw**


3603.034
39.  **Battery insulator**

3503.071
40.  **Tube**

3503.054
41.  **Tube**

3601.118
42.  **Contact strip**
Contact strip held by 1 screw 4000.250.

4000.250
43.  **Screw**

3612.144.5010
44.  **Electronic module**
Electronic module held by 5 screws 4000.248. Electronic measurements may be realised now.

4000.248
45.  **Screw**

3603.069
46.  **Circuit insulator**

3601.107.G
47.  **Pusher contact spring**

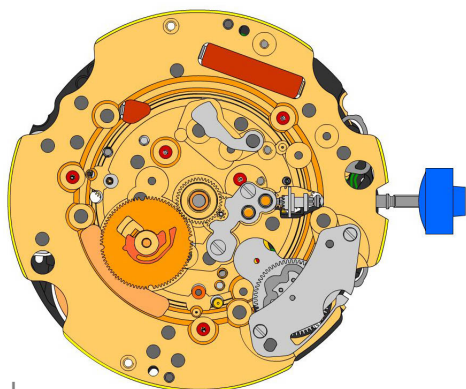
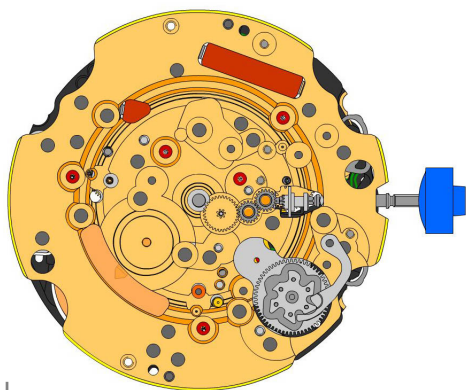
2130.139.G.M01.5010B
48.  **Electronic module cover**
Electronic module cover held by 3 screws 4000.250.







4000.250
49.  **Screw**









3600.010.HGF
50.  **Battery 395**

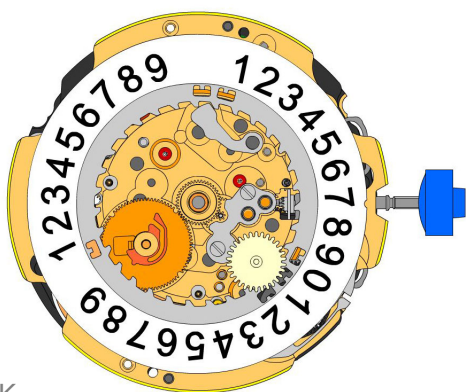
3601.109.G
51. **Bridle +**
Bridle held by 1 screw 4000.250.

4000.250
52.  **Screw**



2000.574.G 53.		Main plate
3004.164 54.		Setting wheel
3004.164 55.		Setting wheel
3007.054.CO 56.		Minute wheel
2130.143 57.		Minute train bridge Minute train bridge held by 2 screws 4000.305.
4000.305 58.		Screw

3004.223 59.		Tens indicator driving wheel Parts 2030.017.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 60.		Tens jumper Parts 2030.017.CO, 3004.223 and 3500.059 must be exchanged together.
2130.142 61.		Tens jumper maintaining plate Tens jumper maintaining plate held by 2 screws 4000.306. Tensioning the spring arm.
4010.306 62.		Screw
3301.242 63.		Hour wheel (Aig.2)
3315.016 64.		Friction spring
3004.224.CO 65.		Date indicator driving wheel
3500.049 66.		Date jumper



K

3504.214.AF.1.A
67.



Units indicator (standard)
Nick of the indicator at 3 o'clock.

3147.054
68.



Tens intermediate wheel

2130.141
69.

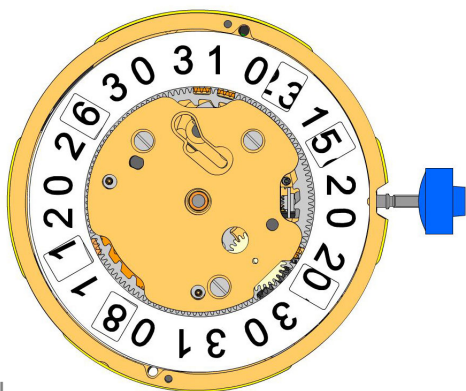


Date indicator maintaining plate
Date indicator maintaining plate held by 1 screw 4000.250.

3905.070
70.



Date jumper spring
Insert the date jumper spring in the provided opening.



L

3504.216.AF.1.A
71.



Tens indicator (standard)
Nick of the indicator at 3 o'clock.

2130.140.G
72.



Date mechanism maintaining plate
Date mechanism maintaining plate held by 2 screws 4000.250.

4000.250
73.



Screw

3506.072.G
74.



Dial support

9010.000
75.



Moebius 8200

9014.000
76.



Moebius 9014

9018.000
77.

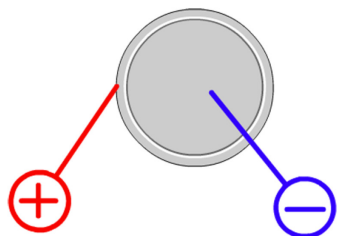


Jismaa 124

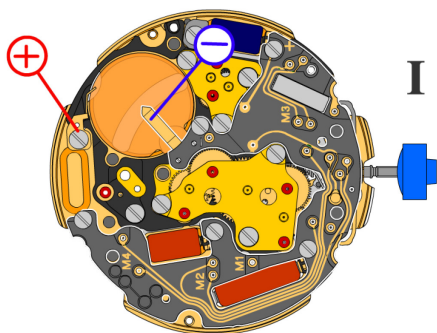
9020.000
78.



Moebius 9020

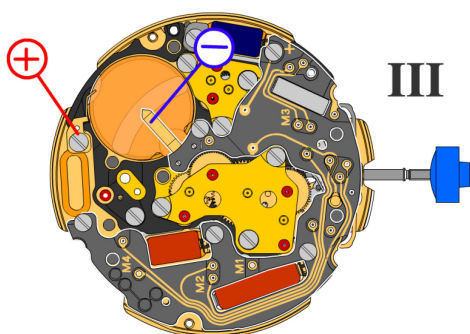


Battery	395
Voltage	1.55 V



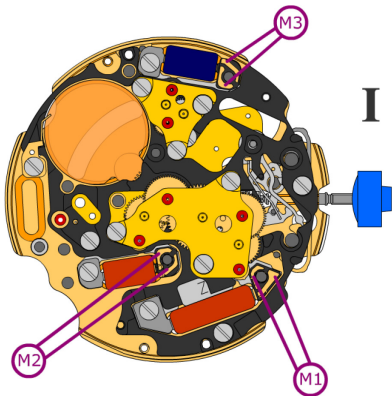
*Setting stem in position I, calendar not in gear,
60 s measuring interval for rate and consumption:*

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:

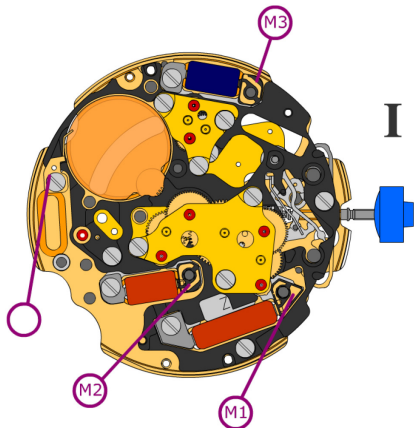
Typical consumption	0.10 μA
Maximal consumption	0.30 μA



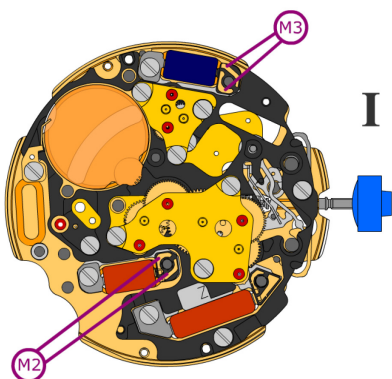
Coil resistance M1 **1.90 k Ω .. 2.10 k Ω**

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

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

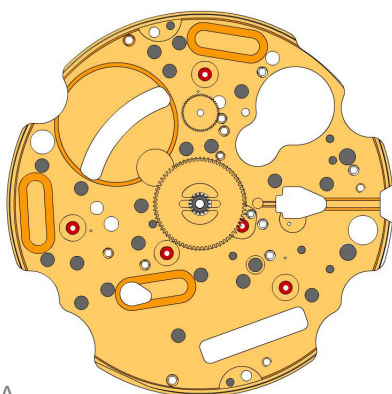


Coil isolation M1/M2/M3 **∞ k Ω**

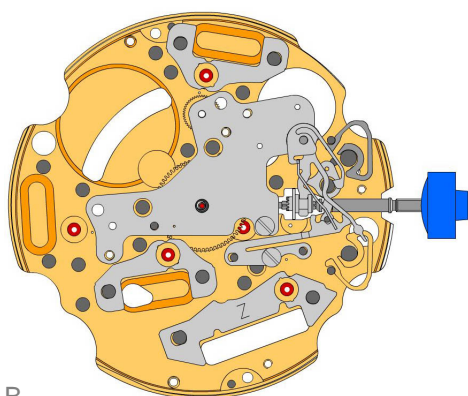


Signal generator (4.9 ms, 8 Hz):

















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

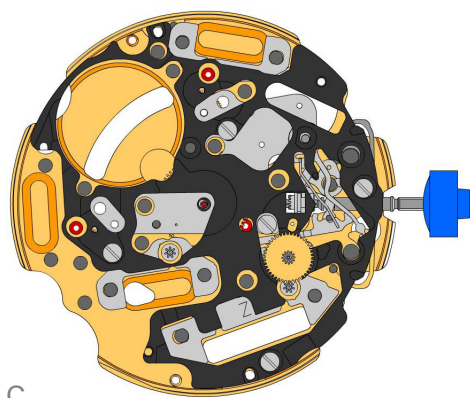


A



B

2000.574.G 1.		Main plate
3305.282.CO 2.		Cannon pinion with driver (Aig.2)
3301.244 3.		Hour wheel (counter 24h)
2030.024.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)



C

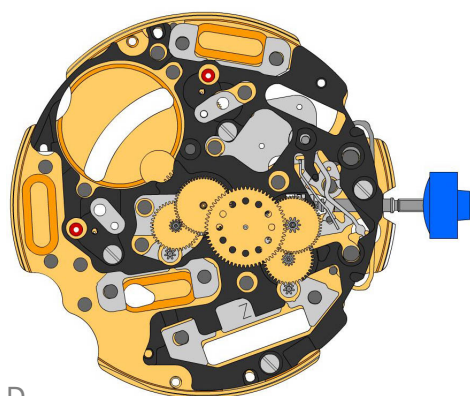
3603.079
18.  Plastic bracket
Plastic bracket held by 4 screws 4000.250.

4000.250
19.  Screw

3715.094.RK
20.  Rotor


3715.094.RK
21.  Rotor


3147.046.CO
22.  Intermediate wheel



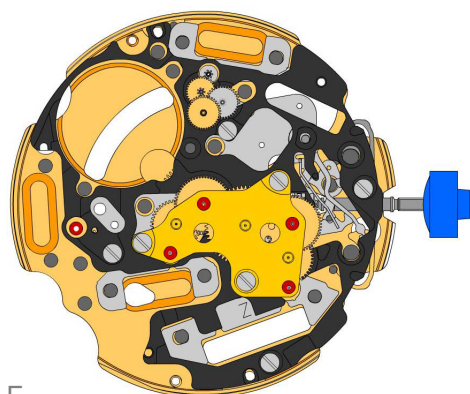
D

3136.148.CO
23.  Second wheel (short)


3147.047.CO
24.  Intermediate wheel (chrono)

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

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

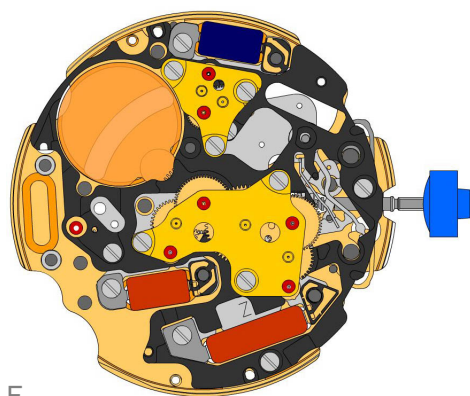
3147.048.CO
30.  Intermediate wheel (counter)

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

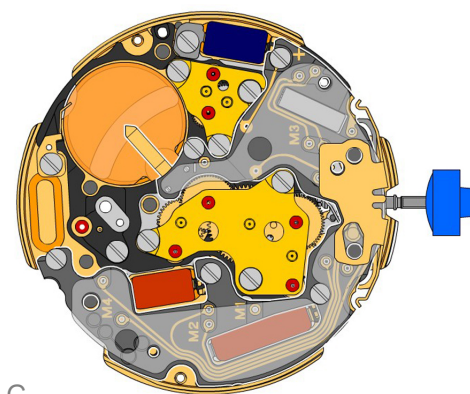
3402.008.CO
32.  Minute counting wheel (24h)

2020.149.G
33.  Counter train wheel bridge
Counter train wheel bridge held by 3 screws 4000.250.

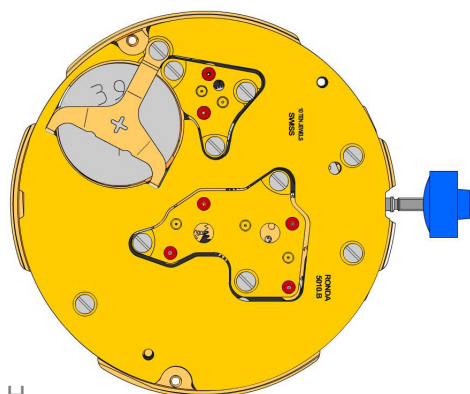
4000.250
34.  Screw




F





G



H

3621.053.RK
35.  **Coil**
Attention: Please hold the coil only on the grey coil core. Coil held by 1 screw 4000.250.

3621.079.RK
36.  **Coil (centre)**
Attention: Please hold the coil only on the grey coil core. Coil held by 1 screw 4000.250.

3621.055.RK
37.  **Coil (counter 6h)**
Attention: Please hold the coil only on the grey coil core. Coil held by 1 screw 4000.250.

4000.250
38.  **Screw**


3603.034
39.  **Battery insulator**

3503.071
40.  **Tube**

3503.054
41.  **Tube**

3601.118
42.  **Contact strip**
Contact strip held by 1 screw 4000.250.

4000.250
43.  **Screw**

3612.144.5010
44.  **Electronic module**
Electronic module held by 5 screws 4000.248. Electronic measurements may be realised now.

4000.248
45.  **Screw**

3603.069
46.  **Circuit insulator**

3601.107.G
47.  **Pusher contact spring**

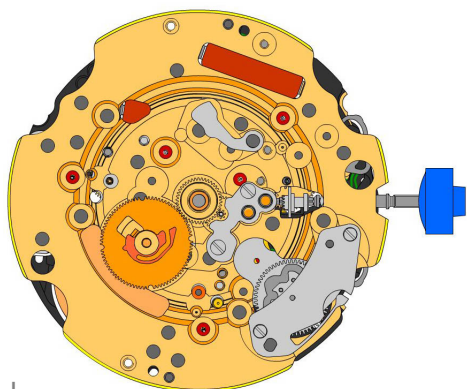
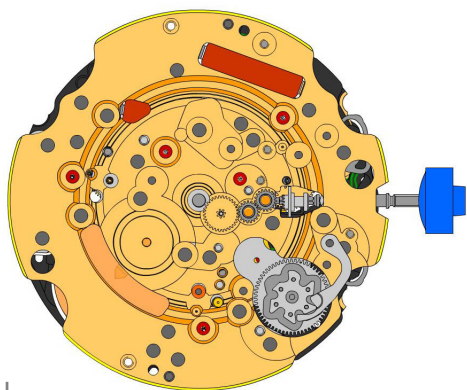
2130.139.G.M01.5010B
48.  **Electronic module cover**
Electronic module cover held by 3 screws 4000.250.







4000.250
49.  **Screw**









3600.010.HGF
50.  **Battery 395**

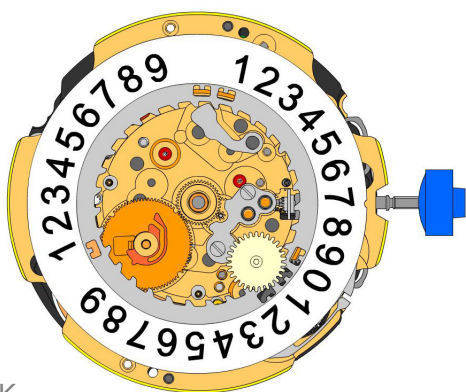
3601.109.G
51.  **Bridle +**
Bridle held by 1 screw 4000.250.

4000.250
52.  **Screw**

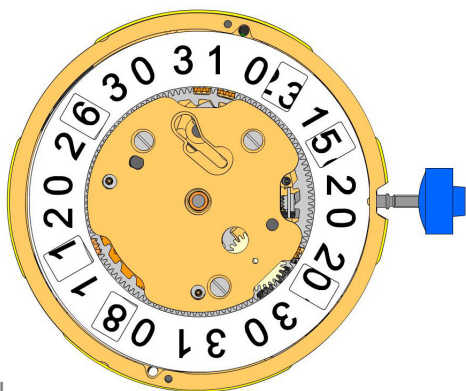


2000.574.G 53.		Main plate
3004.164 54.		Setting wheel
3004.164 55.		Setting wheel
3007.054.CO 56.		Minute wheel
2130.143 57.		Minute train bridge Minute train bridge held by 2 screws 4000.305.
4000.305 58.		Screw





3004.227 59.		Tens indicator driving wheel The short tooth of the tens indicator driving wheel must point to the center of the movement.
3500.075 60.		Tens jumper
2130.142 61.		Tens jumper maintaining plate Tens jumper maintaining plate held by 2 screws 4000.306. Tensioning the spring arm.
4010.306 62.		Screw
3301.242 63.		Hour wheel (Aig.2)
3315.016 64.		Friction spring
3004.224.CO 65.		Date indicator driving wheel
3500.049 66.		Date jumper











K

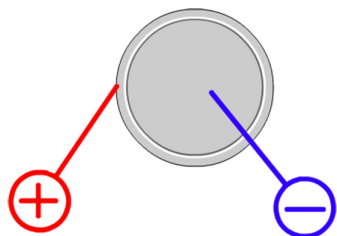


L

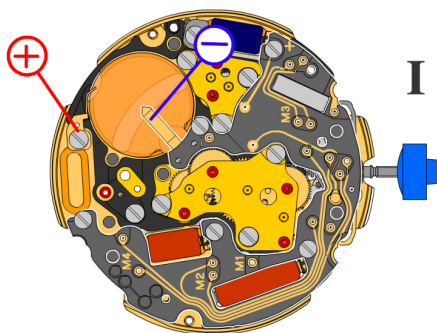
3504.214.AF.1.A 67.		Units indicator (standard) Nick of the indicator at 3 o'clock.
3147.054 68.		Tens intermediate wheel
2130.141 69.		Date indicator maintaining plate Date indicator maintaining plate held by 1 screw 4000.250.
3905.070 70.		Date jumper spring Insert the date jumper spring in the provided opening.

3504.216.AF.1.A 71.		Tens indicator (standard) Nick of the indicator at 3 o'clock.
2130.140.G 72.		Date mechanism maintaining plate Date mechanism maintaining plate held by 2 screws 4000.250.
4000.250 73.		Screw
3506.072.G 74.		Dial support

9010.000 75.		Moebius 8200
9014.000 76.		Moebius 9014
9018.000 77.		Jismaa 124
9020.000 78.		Moebius 9020

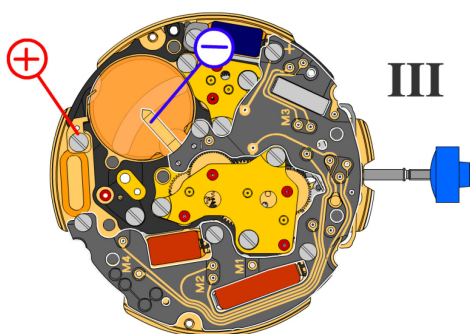


Battery	395
Voltage	1.55 V



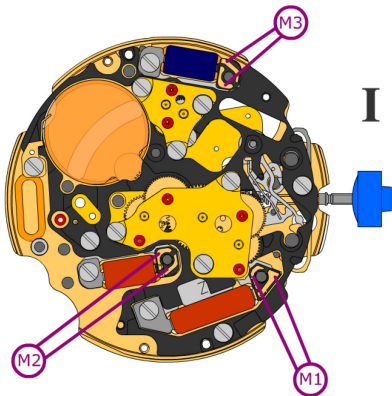
*Setting stem in position I, calendar not in gear,
60 s measuring interval for rate and consumption:*

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:

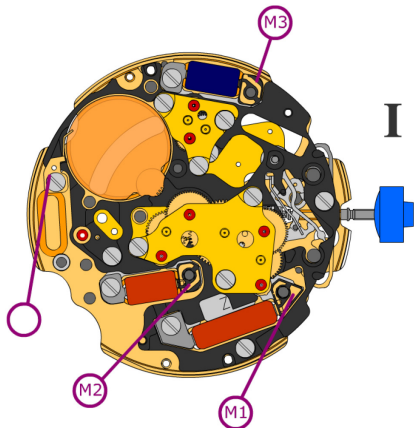
Typical consumption	0.10 μA
Maximal consumption	0.30 μA



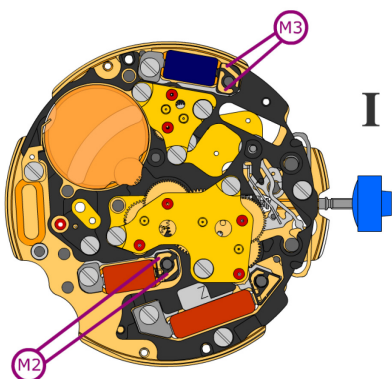
Coil resistance M1 **1.90 k Ω .. 2.10 k Ω**

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

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



Coil isolation M1/M2/M3 **∞ k Ω**



Signal generator (4.9 ms, 8 Hz):

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