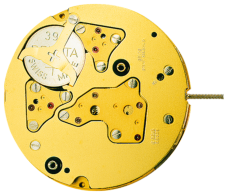
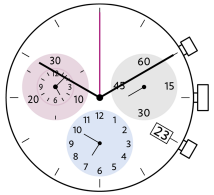
RONDA startech 5000

Chronographs, Big Date & Date, different calendar systems, Alarm

Caliber 5130.D – 12½'''





Product Specifications

Analog quartz movement		
Line		startech
Caliber		5130.D
Size		12½'''
Version	Swiss Made	13 Jewels / gold plated
	Swiss Parts	6 Jewels / nickel plated
Standard battery life		48 months
Hand fitting height		2

Features

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

Functions

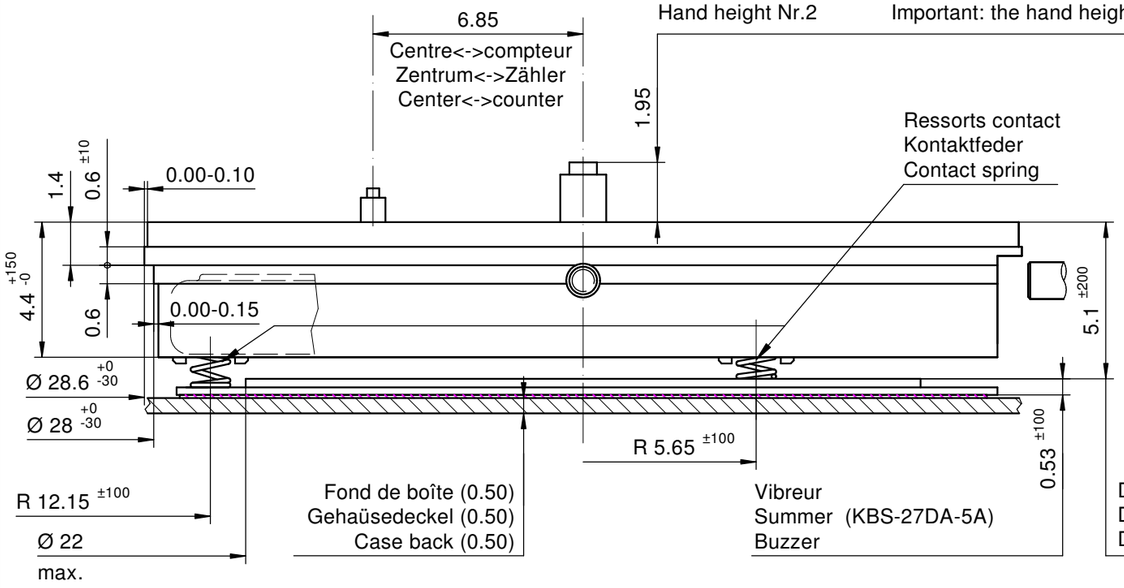
- Chronograph
- Chrono-Alarm
- Center stop second (1/1 sec)
- 30 minute / 12 hour counter
- ADD and SPLIT functions
- 3 eyes
- Alarm
- Small second
- Date

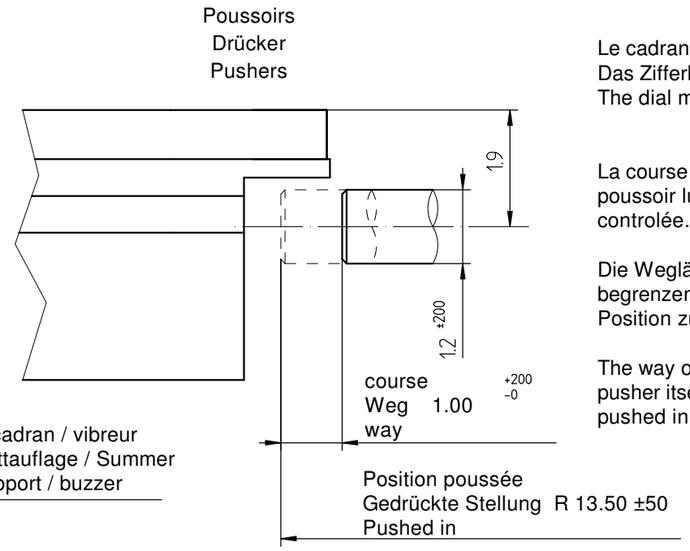
Technical Specifications

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
Standard battery	395
Standard battery life	48 months
Battery voltage	1.5 V
Current consumption – typical	1.48 µA (Date Mechanism not in Gear)
Current consumption – maximum	1.65 µA (Date Mechanism not in Gear)
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

Aiguillage No.2
Zeigerwerkhöhe Nr.2
Hand height Nr.2

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





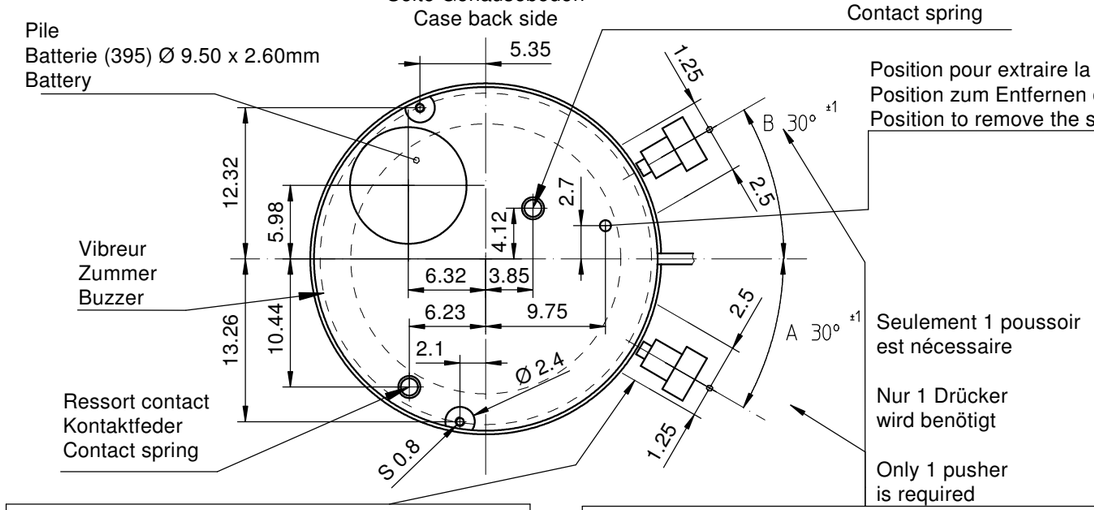
Sécurité entre l'aiguille des secondes et le verre:
Sicherheit zwischen Sekundenzeiger und Glas: 0.30mm
Security between second hand and glass:

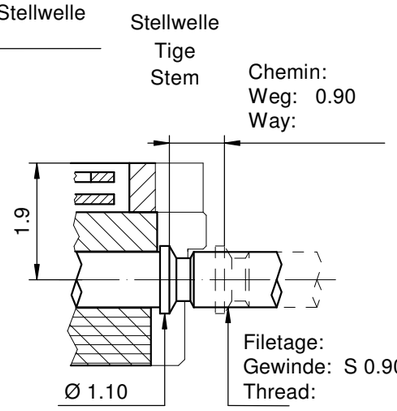
Le cadran doit être tenu par la boîte
Das Zifferblatt muss durch die Schale gehalten werden
The dial must be hold by the case

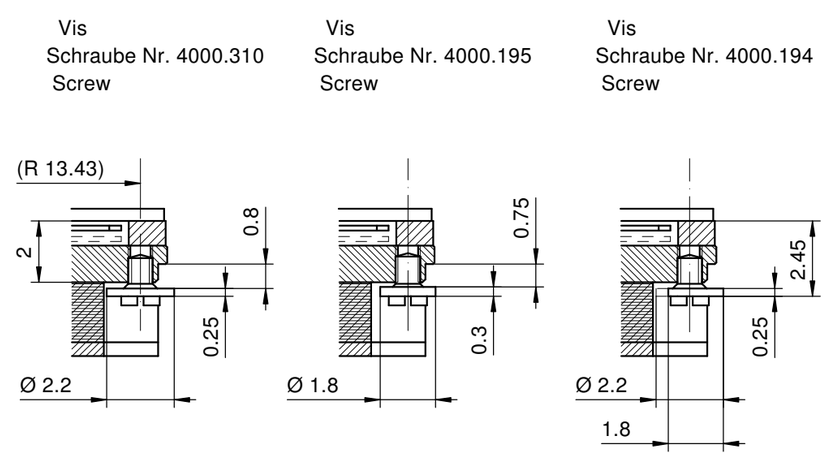
La course du poussoir doit être limitée dans le poussoir lui-même. Sa position poussée doit être controlée.

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

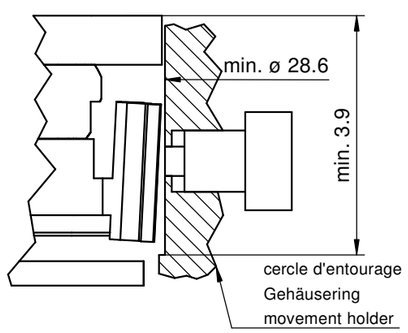
The way of the pusher has to be limited in the pusher itself. Its position must be checked while pushed in.







Dégagement cercle d'entourage pour poussoir
Freistellung Gehäusering 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 poussiors 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 fullfilled. For pusher angles of 0° (pusher A and B), see drawing 5000.345.

Cage
Urwerkgestell 12½'''
Frame

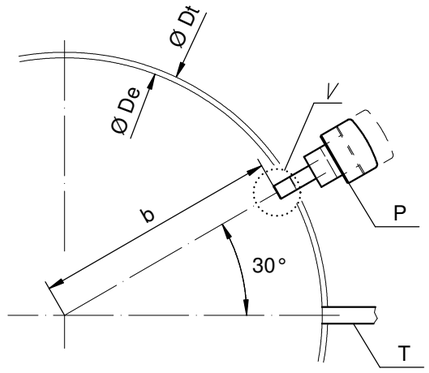
RONDA | 5130.B, 5130.D

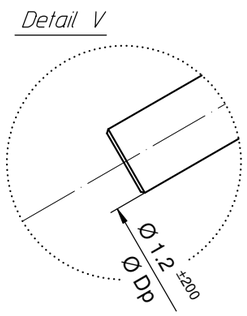
Issued	16 Jan 2006	mg
Modified	05 Sep 2016 ÄA 34777	dh
Released	YES	
Tolerance	+/- 20 µm	
Scale	10 : 1 (5 : 1) (A3H)	

Sous réserve de modifications
Aenderungen vorbehalten
Modifications reserved

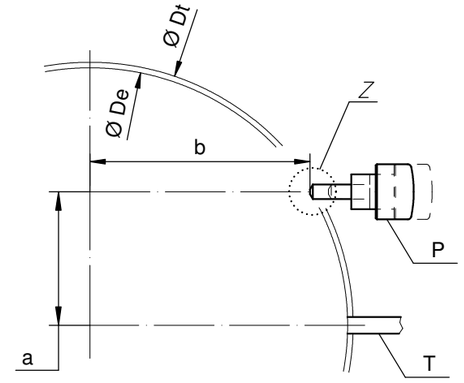
No. 5000.355 05

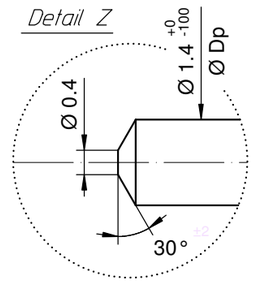
Angle Winkel Angle 30°	
Ø Dp	b
1.00	13.50
1.10	13.50
1.20	13.50
1.30	13.50
1.40	13.50



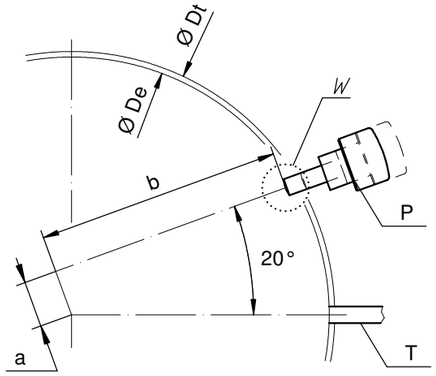


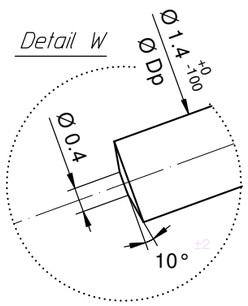
Angle Winkel Angle 0°		
Ø Dp	a	b
1.30	7.40	11.43
1.40	7.45	11.40



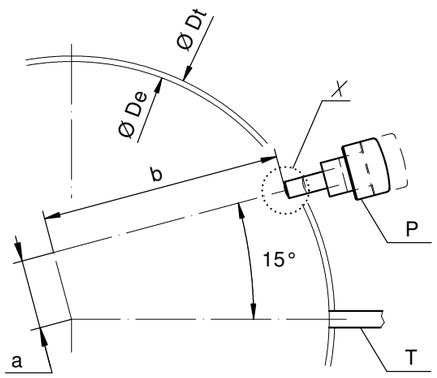


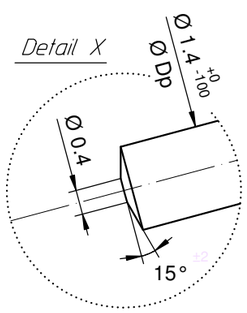
Angle Winkel Angle 20°		
Ø Dp	a	b
1.30	2.57	13.22
1.40	2.59	13.21



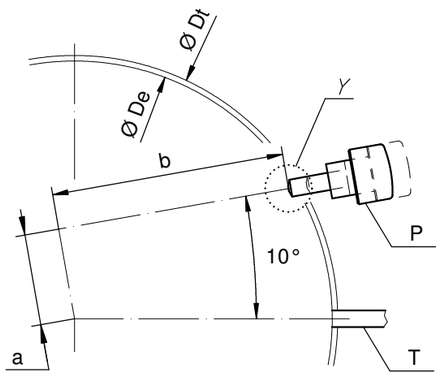


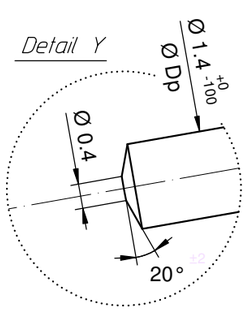
Angle Winkel Angle 15°		
Ø Dp	a	b
1.30	3.83	12.92
1.40	3.86	12.91





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





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

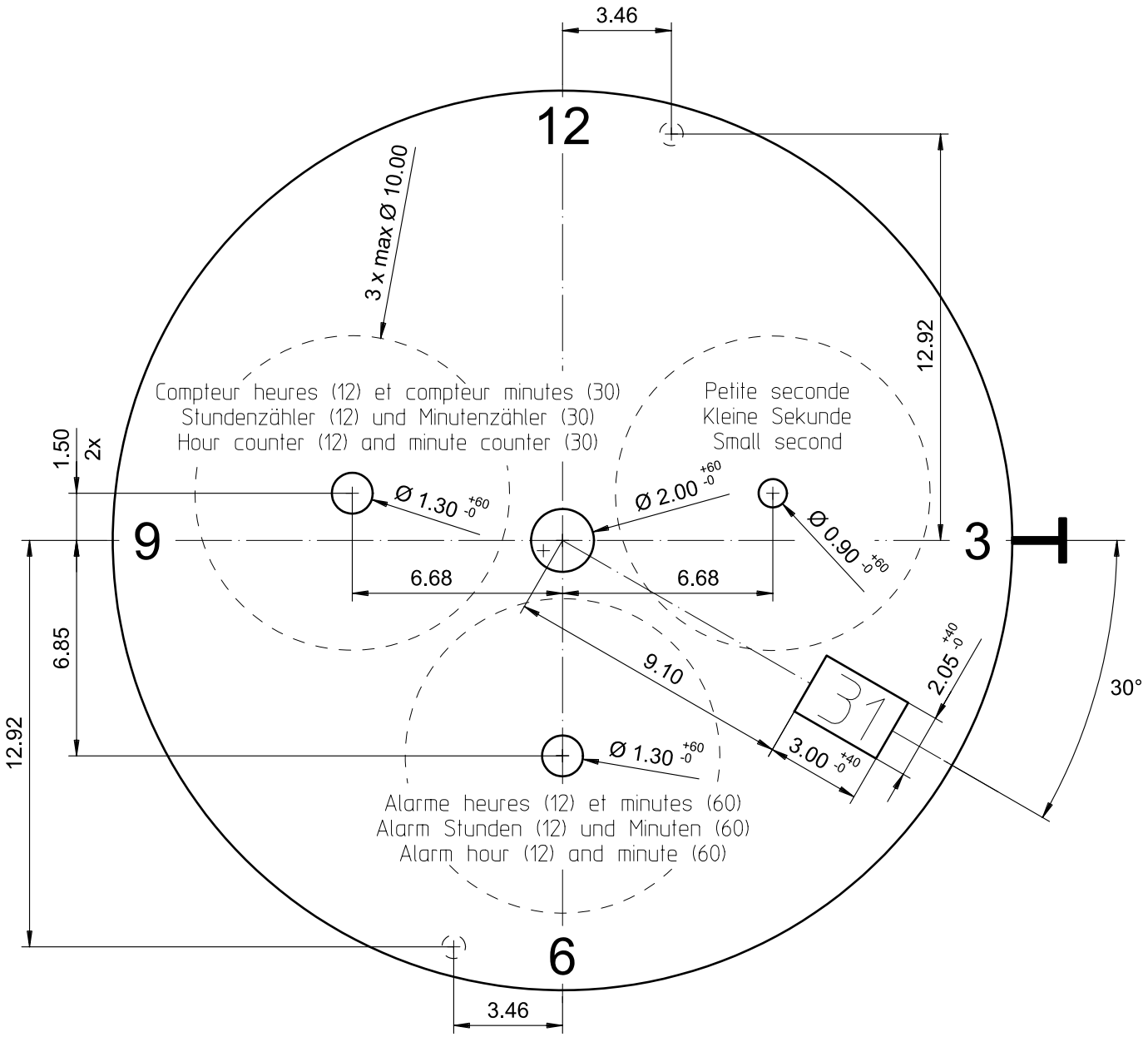
Angle des poussoirs A et B
Winkel der Drücker A und B
Angle of pusher A and B

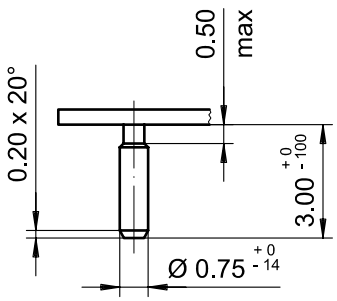
Issued	06 Sep 2004	mk
Modified	30.März 2005 ÄA 1784	mk
Released	YES	
Tolerance	+/- 20 µm	
Scale	10 : 1 (5 : 1) (A3H)	

RONDA | 4xxx.x, 5xxx.x

Sous réserve de modifications
Aenderungen 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	4H

Cadran
Zifferblatt
Dial

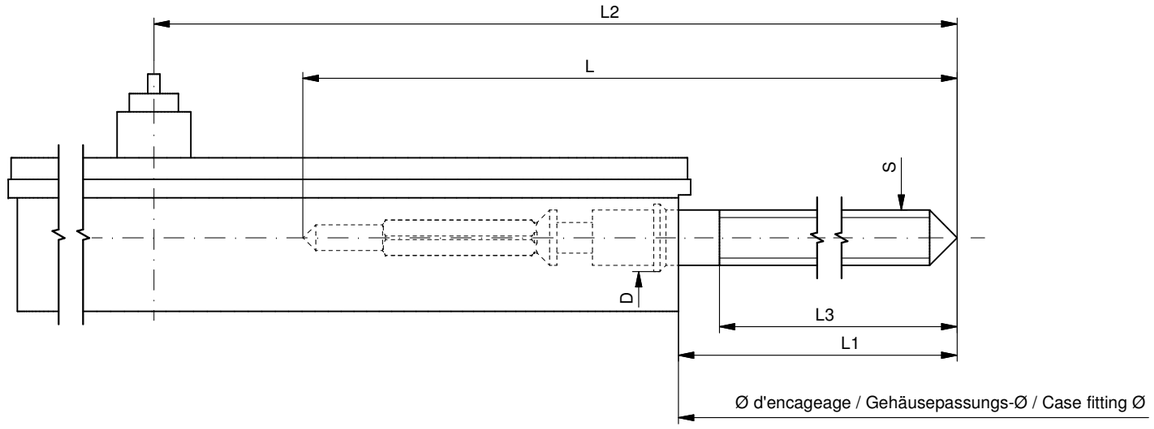
12½‴

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

RONDA | 5130.D

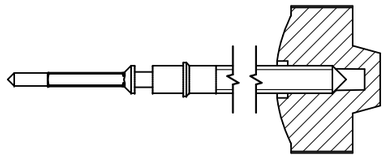
Sous réserve de modifications
Aenderungen vorbehalten
Modifications reserved

No. 5010.618 01



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

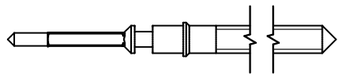
No. d'article Artikelnummer Part number	L	L1	L2	L3	S	D
3000.177.CO	20.00	10.23	24.23	10.15	0.90	1.10



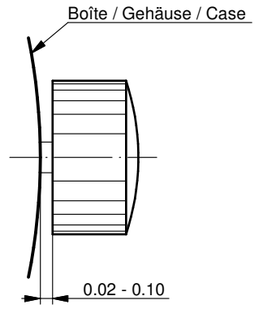
Couleur de la couronne Kronenfarbe Crown color	bleu foncé dunkelblau dark blue
Code	UN 5002

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



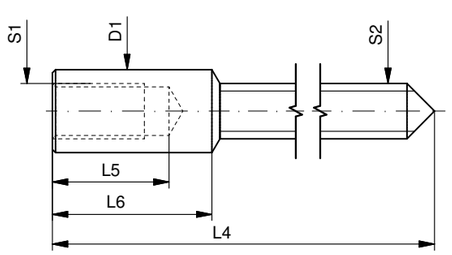
Couronne normale
Normale Krone
Normal crown



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 / Stellwelle / Stem
(dimensions / forces)
(Dimensionen / Kräfte)
(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
Aenderungen vorbehalten
Modifications reserved

No.	5030.019	01

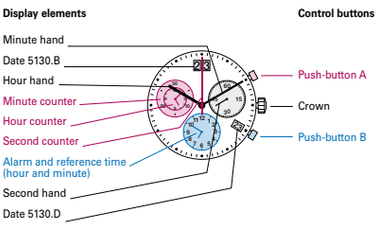
RONDA startech – Movement Cal. 5130.D & 5130.B

User's Manual English

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



01

Multifunction movement

The alarm and chronograph are combined in Cal. 5130.D and 5130.B.
All functions can be operated with the 2 push-buttons and crown.

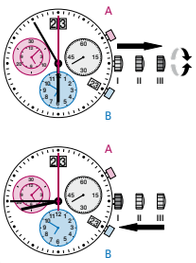
Initial status (chronograph hands at zero position)
– start the chronograph with push-button A
– switch the alarm on and off with push-button B

Chronograph active
Push-button B is also operative for the chronograph as soon as timing is started with push-button A.
At the end of timing and when the chronograph hands are reset to the zero positions the push-button functions once again assume their «initial status».

The alarm cannot be adjusted when the chronograph is active.

02

Setting the time

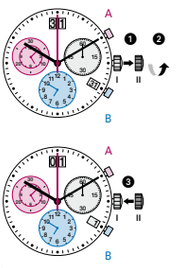


1. * Pull out the crown to position **III** (the watch stops).
2. Turn the crown until you reach the correct time **8:45**.
3. * Push the crown back into position **I**.

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.

03

Setting the date (quick mode)



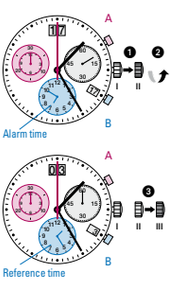
1. Pull out the crown to position **II** (the watch continues to run).
2. Turn the crown until the correct date 01 appears.
3. Push the crown back into position **I**.

Please note:
The date of the following day must be set in the calendar changing phase between approx. 9 PM and midnight.

5130.B: Setting the date too quickly in quick mode can result in the incorrect date being displayed. Switching the date between 01 and 31 (position II) restores the synchronisation.

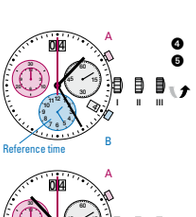
04

Setting the time and date

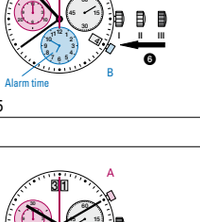


Example:
– Date / time on the watch: 17 / 1:25 AM
– Present date / time: 04 / 10:39 PM

1. Pull out the crown to position **II** (watch continues to run).
2. Turn the crown until yesterday's date appears 03.
3. Pull out the crown to position **III** (the second hand stops. The display changes from alarm time to reference time.)



4. Turn the crown until the correct date 04 appears.
5. * Continue to turn the crown until the current time 10:39 PM appears.
6. Push the crown back into position **I** (the display changes from reference to alarm time).



Please note:
Resetting the time also requires the identical correction of the reference time.
Please refer to **«setting the reference time»**.

* Please observe the AM / PM clock rhythm.

05

Setting the alarm time

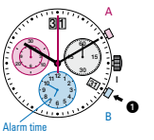
1. **Activate the setting mode**
Press the push-button B for at least 2 seconds. As soon as the small minute hand jumps forward 1 minute, this mode is active.
2. **Setting**
Short pressing (less than 1 second): the alarm time is moved forward by the minute.
Long pressing (longer than 2 seconds): the alarm time is moved forward until the push-button is released.

Please note:
If the push-button B is not activated for 10 seconds, the setting mode of the alarm time deactivates itself. At the same time, 2 beeps are emitted to indicate that the alarm is switched on.

Please note:
The alarm cannot be used as long as the chronograph is in operation.

06

Switching the alarm on / off



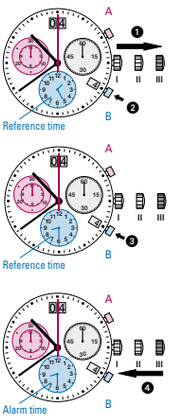
1. The alarm is switched on / off by briefly pressing the push-button B:
2 beeps → alarm switched on
1 beep → alarm switched off

Please note:
The alarm can be set maximum 12 hours before the desired alarm time.

Once the set alarm time has been reached, a signal is emitted for 20 seconds. This signal is repeated after two minutes. Following brief pressing of the push-button B, the signal is immediately switched off.

07

Setting the reference time



1. Pull out the crown to position **III** (second hand stops. The display changes from alarm time to reference time.)
2. **Activating the setting mode**
Press the push-button B for at least 2 seconds. As soon as the small minute hand jumps forwards one minute, this mode is active.
3. **Short pressing** (less than 1 second): the reference time is moved forwards by the minute.
Medium pressing: (1–2 seconds): the reference time is moved forwards by the hour.
Long pressing (longer than 2 seconds): the reference time is moved forwards until the push-button is released.
4. Push the crown back into position **I** (the display changes from reference time to alarm time).
A 1 beep signal indicates that the alarm is switched off.

Please note:
The reference time must display the same time as the current time. This means that resetting the current time also requires the identical correction of the reference time. Afterwards, the alarm time has to be reset.

What is the reference time?

The current time is displayed by means of the hour and minute hand.

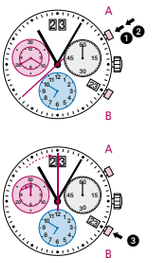
Parallel to the current time, the reference time runs in the background: the alarm time refers itself to this reference time. Thus, resetting the time also requires the identical correction of the reference time.

If the reference time is not synchronised with the current time, this results in the alarm signal being emitted at a different time to the set alarm time.

08

Chronograph: Basic function

(Start / Stop / Reset)

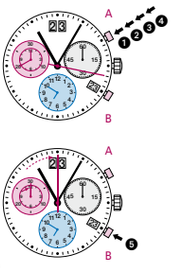


Example:
1. **Start:** Press push-button **A**.
2. **Stop:** to stop the timing, press pushbutton A once more and read the chronograph counters:
4h / 20 min / 38 sec
3. **Zero positioning:**
Press push-button **B**.
(The chronograph hands will be reset to their zero positions.)

Please note:
The alarm cannot be used as long as the chronograph is in operation.

09

Chronograph: Accumulated timing

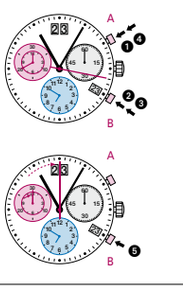


Example:
1. **Start:** (start timing)
2. **Stop:** (e.g. **15** min **5** sec following 1)
3. **Restart:** (timing is resumed)
4. * **Stop:** (e.g. **5 min 12 sec** following 3)
= **20 min 17 sec**
(The accumulated measured time is shown)
5. **Reset:**
The chronograph hands are returned to their zero positions.

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

10

Chronograph: Intermediate or interval timing

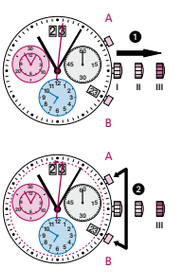


Example:
1. **Start:** (start timing)
2. **Display interval:**
e.g. **20 minutes 17 seconds** (timing continues in the background)
3. **Making up the measured time:**
(the chronograph hands are quickly advanced to the ongoing measured time).
4. **Stop:** (Final time is displayed)
5. **Reset:**
The chronograph hands are returned to their zero position

Please note:
* Following 3, further intervals or intermediates can be displayed by pressing **push-button B** *(display interval / make up measured time, ...)*.

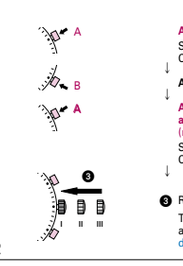
11

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. The display changes from alarm time to reference time.)
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

Adjusting the minute counter hand and the hour counter hand (mechanical coupled)
Single step A **1 x short**
Continuous A **long**

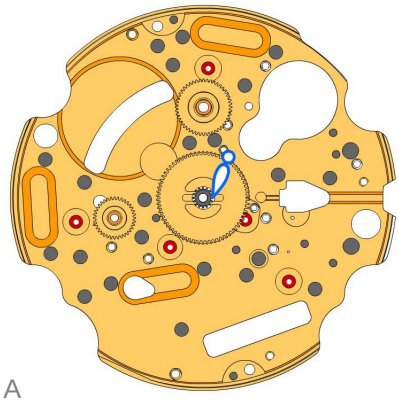
3. Returning the crown to position **I**
Termination of the chronograph hands adjustment (can be carried out at any time. The display changes from reference to alarm time.)

12

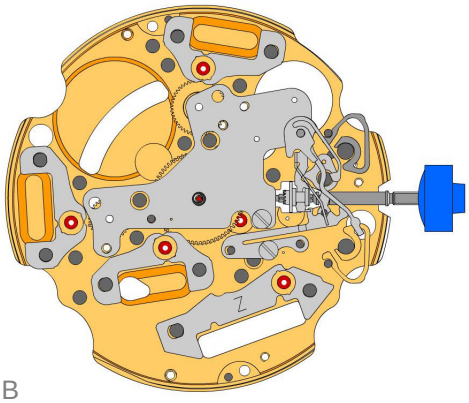
CE

09/2017

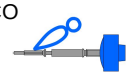
Battery type: 395 / SR927SW
Accuracy: +20 / -10 seconds per month

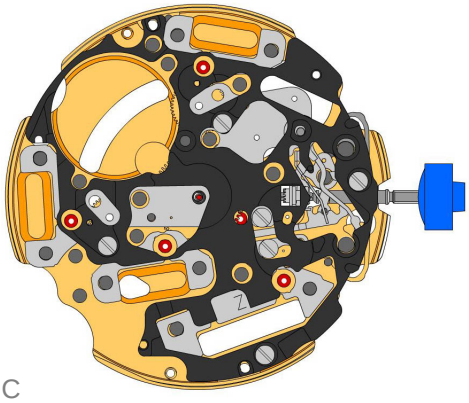


A



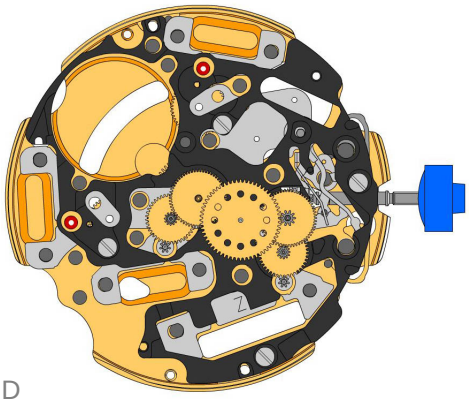
B

2000.574.G 1.		Main plate
3305.282.CO 2.		Cannon pinion with driver (Aig.2)
3301.243 3.		Hour wheel (counter 12h) (Alarm)
3301.244 4.		Hour wheel (counter 24h) (Chrono)
2030.017.CO 5.		Centre bridge Centre bridge held by 1 screw 4000.250.
4000.250 6.		Screw
3001.055.FI 7.		Sliding pinion
3000.177.CO 8.		Setting stem
3017.049 9.		Setting lever
3905.049 10.		Setting lever jumper (3 positions) Setting lever jumper held by 1 screw 4000.250.
4000.250 11.		Screw
3015.081 12.		Yoke (3 positions) Parts 3015.081 and 3905.067 must be exchanged together.
3905.067 13.		Yoke spring Tensioning the spring arm. Parts 3015.081 and 3905.067 must be exchanged together.
3406.030 14.		Pusher jumper B Put the grey jumper between the two posts on the further side.
3406.038 15.		Pusher jumper A Put the yellow jumper between the two posts on the closer side.
3622.040 16.		Stator Mark |Z| on stator.
3622.039 17.		Stator (counter 6h, 9h, chrono)
3622.039 18.		Stator (counter 6h, 9h, chrono)
3622.039 19.		Stator (counter 6h, 9h, chrono)



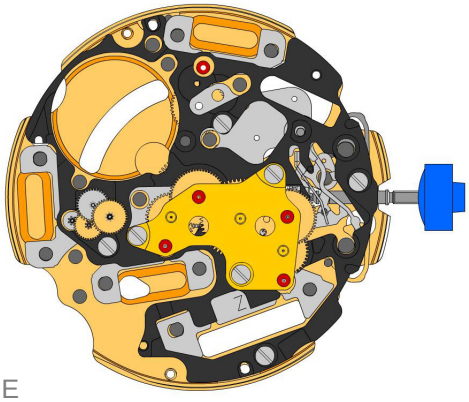
C

3603.079 20.		Plastic bracket Plastic bracket held by 4 screws 4000.250.
4000.250 21.		Screw
3715.094.RK 22.		Rotor
3715.094.RK 23.		Rotor



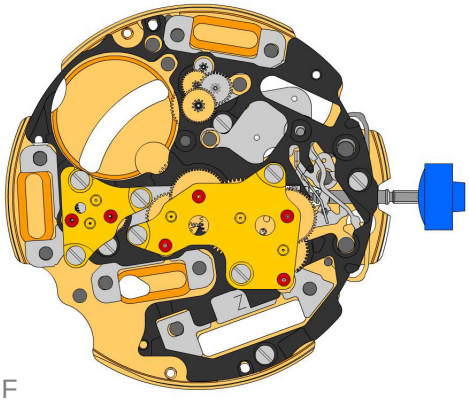
D

3147.046.CO 24.		Intermediate wheel
3136.142.CO 25.		Second wheel (long)
3147.047.CO 26.		Intermediate wheel (chrono)
3136.144.CO 27.		Chronograph wheel (Aig.2)
3122.056.CO 28.		Third wheel



E

2020.148.G 29.		Train wheel bridge Train wheel bridge held by 3 screws 4000.250.
4000.250 30.		Screw
3715.095.RK 31.		Rotor
3147.048.CO 32.		Intermediate wheel (counter)
3007.056.CO 33.		Minute wheel (counter 24h)
3402.008.CO 34.		Minute counting wheel



F

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

4000.250
36. Screw

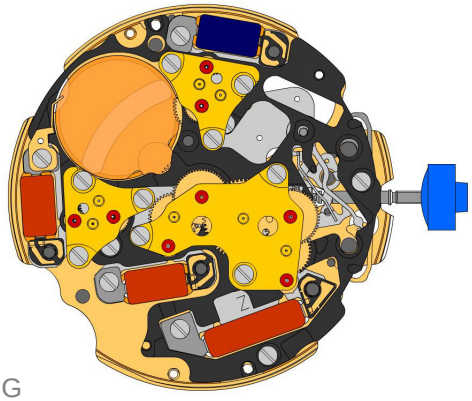
3715.095.RK
37. Rotor

3147.048.CO
38. Intermediate wheel (counter)

3007.055.CO
39. Minute wheel (counter 12h)

3402.007.CO
40. Minute counting wheel

4000.250
41. Screw



G

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

4000.250
43. Screw

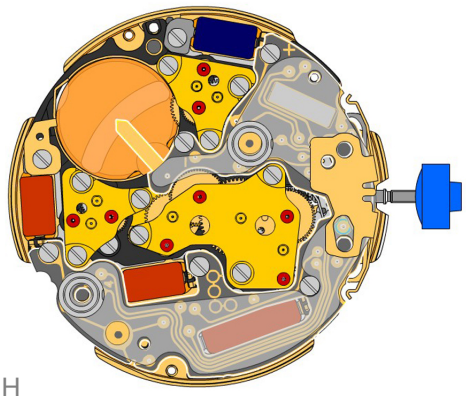
3621.053.RK
44. Coil
Attention: Please hold the coil only on the grey coil core. Coil held by 1 screw 4000.250.

3621.054.RK
45. Coil (counter 9h, chrono)
Attention: Please hold the coil only on the grey coil core. Coil held by 1 screw 4000.250.

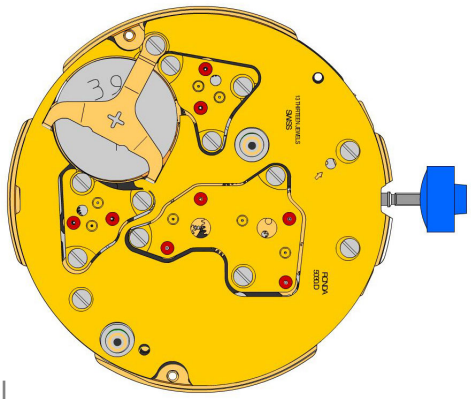
3621.054.RK
46. Coil (counter 9h, chrono)
Attention: Please hold the coil only on the grey coil core. Coil held by 1 screw 4000.250.

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

4000.250
48. Screw



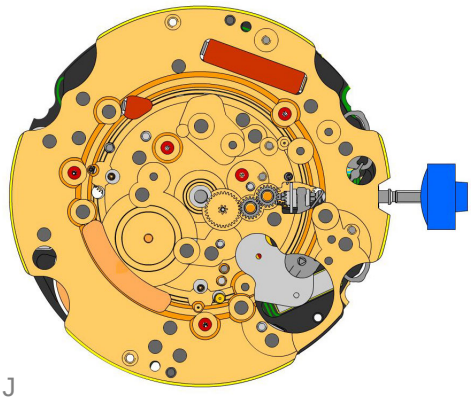
H



I

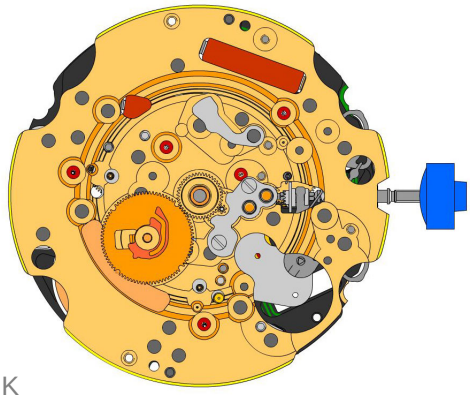
3601.118 49.		Contact strip Contact strip held by 1 screw 4000.250.
3603.034 50.		Battery insulator
3612.176.5130 51.		Electronic module Electronic module held by 5 screws 4000.250. Electronic measurements may be realised now.
4000.248 52.		Screw
3603.069 53.		Circuit insulator
3603.070 54.		Contact insulator
3603.070 55.		Contact insulator
3601.107.G 56.		Pusher contact spring

2130.159.G.M01.5130D 57.		Electronic module cover Electronic module cover held by 3 screws 4000.250.
3600.010.HGF 58.		Battery 395
3601.109.G 59.		Bridle + Bridle + held by 1 screw 4000.250.
4000.250 60.		Screw



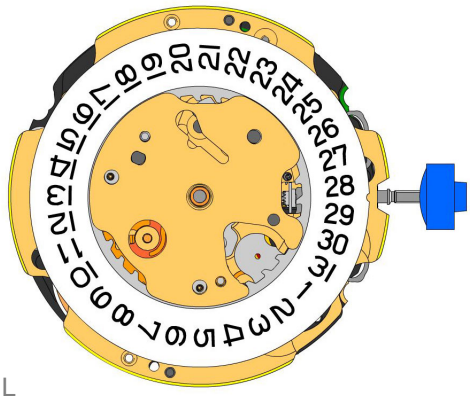
J

2000.574.G 61.		Main plate
3004.164 62.		Setting wheel
3004.164 63.		Setting wheel
3007.054.CO 64.		Minute wheel

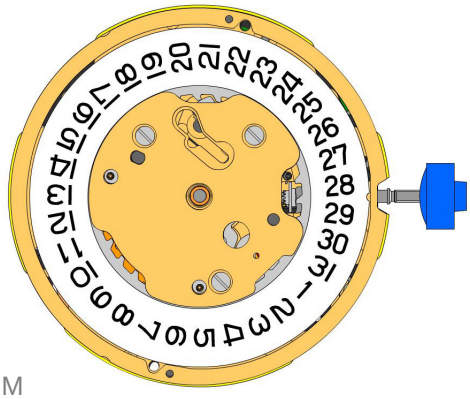


K

2130.143 65.		Minute train bridge Minute train bridge held by 2 screws 4000.250.
4000.305 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

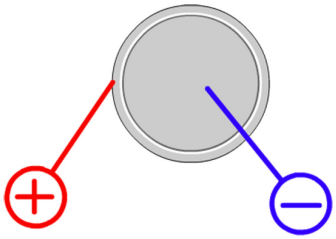


L

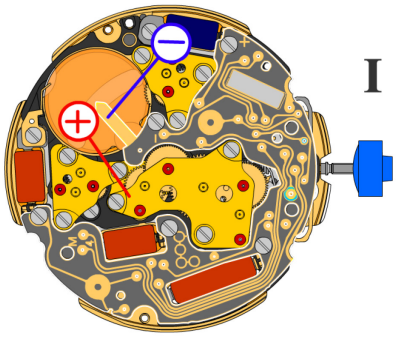


M

3504.208.AB.1.A 71.		Date indicator (standard) Nick of the indicator at 3 o`clock.
2130.141 72.		Date indicator maintaining plate Date indicator maintaining plate held by 1 screw 4000.250.
3905.070 73.		Date jumper spring Insert the date jumper spring in the provided opening.
2130.140.G 74.		Date mechanism maintaining plate Date mechanism maintaining plate held by 2 screws 4000.250.
4000.250 75.		Screw
3506.072.G 76.		Dial support
8200 77.		Moebius 8200
9014 78.		Moebius 9014
124 79.		Jismaa 124
9020 80.		Moebius 9020

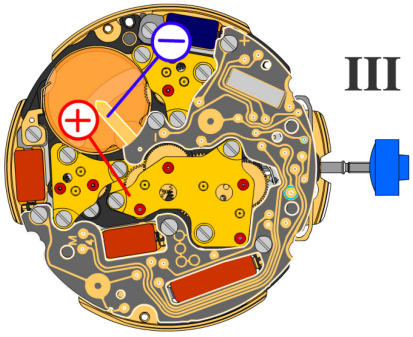


Battery	**395**
Voltage	**1.55 V**



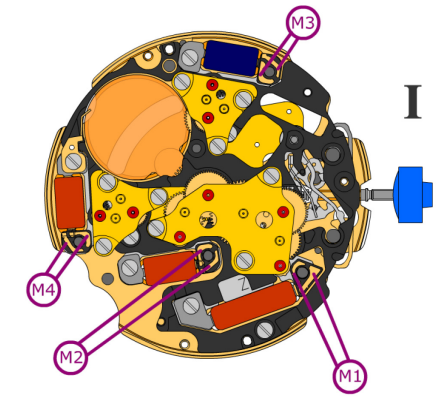
Setting stem in position I, calendar not in gear,
60 s measuring interval for rate and consumption:

Typical consumption	***1.48 µA***
Maximal consumption	***1.65 µA***
Rate	**-10s/M. .. +20s/M.**
Lower working voltage limit	**1.20 V**

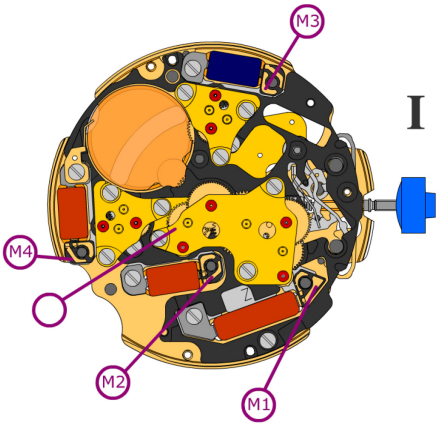


Setting stem in position III, 60 s measuring interval:

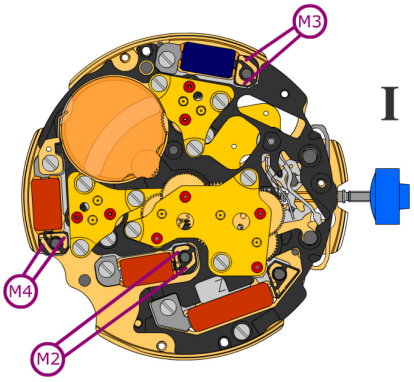
Typical consumption	***0.10 µA***
Maximal consumption	***0.30 µA***



Coil resistance M1	**1.90 kΩ .. 2.20 kΩ**
Coil resistance M2	**1.68 kΩ .. 1.88 kΩ**
Coil resistance M3	**1.68 kΩ .. 1.88 kΩ**
Coil resistance M4	**1.68 kΩ .. 1.88 kΩ**

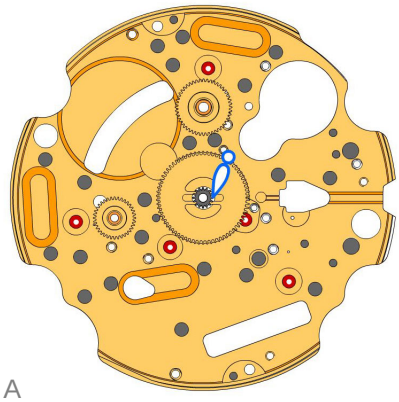


Coil isolation M1/M2/M3/M4	**∞ kΩ**

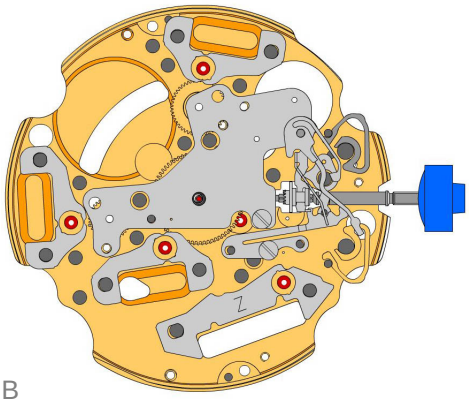


Signal generator (4.9 ms, 8 Hz):

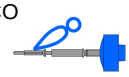
Lower working voltage limit M2/M3/M4	**1.20 V**

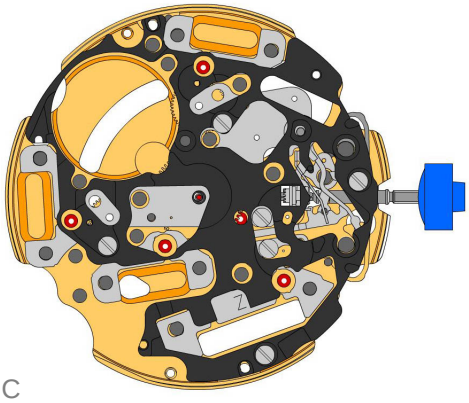


A



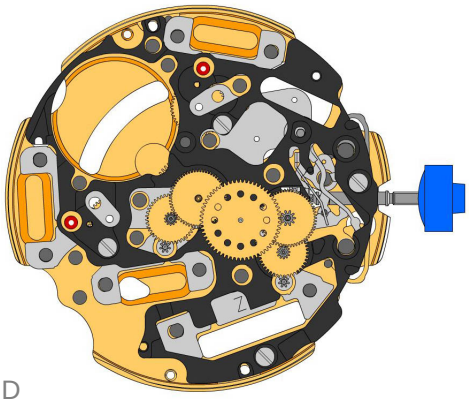
B

2000.574.G 1.		Main plate
3305.282.CO 2.		Cannon pinion with driver (Aig.2)
3301.243 3.		Hour wheel (counter 12h) (Alarm)
3301.244 4.		Hour wheel (counter 24h) (Chrono)
2030.017.CO 5.		Centre bridge Centre bridge held by 1 screw 4000.250.
4000.250 6.		Screw
3001.055.FI 7.		Sliding pinion
3000.177.CO 8.		Setting stem
3017.049 9.		Setting lever
3905.049 10.		Setting lever jumper (3 positions) Setting lever jumper held by 1 screw 4000.250.
4000.250 11.		Screw
3015.081 12.		Yoke (3 positions)
3905.067 13.		Yoke spring Tensioning the spring arm.
3406.030 14.		Pusher jumper B Put the grey jumper between the two posts on the further side.
3406.038 15.		Pusher jumper A Put the yellow jumper between the two posts on the closer side.
3622.040 16.		Stator Mark |Z| on stator.
3622.039 17.		Stator (counter 6h, 9h, chrono)
3622.039 18.		Stator (counter 6h, 9h, chrono)
3622.039 19.		Stator (counter 6h, 9h, chrono)



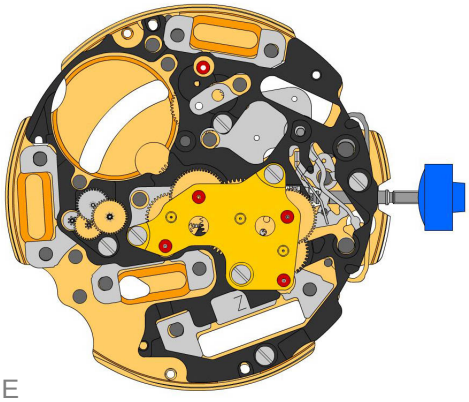
C

3603.079 20.		Plastic bracket Plastic bracket held by 4 screws 4000.250.
4000.250 21.		Screw
3715.094.RK 22.		Rotor
3715.094.RK 23.		Rotor



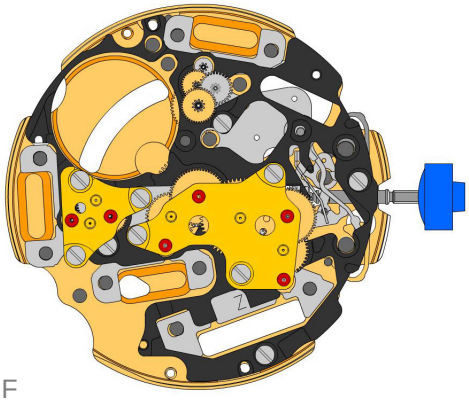
D

3147.046.CO 24.		Intermediate wheel
3136.142.CO 25.		Second wheel (long)
3147.047.CO 26.		Intermediate wheel (chrono)
3136.144.CO 27.		Chronograph wheel (Aig.2)
3122.056.CO 28.		Third wheel



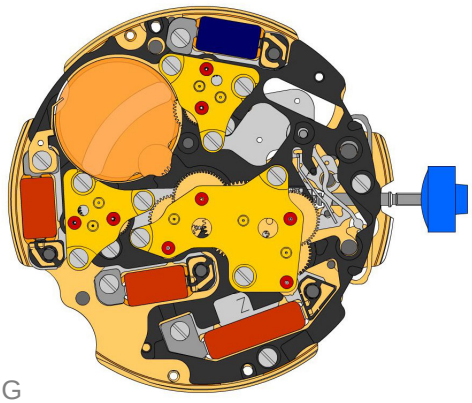
E

2020.148.G 29.		Train wheel bridge Train wheel bridge held by 3 screws 4000.250.
4000.250 30.		Screw
3715.095.RK 31.		Rotor
3147.048.CO 32.		Intermediate wheel (counter)
3007.056.CO 33.		Minute wheel (counter 24h)
3402.008.CO 34.		Minute counting wheel



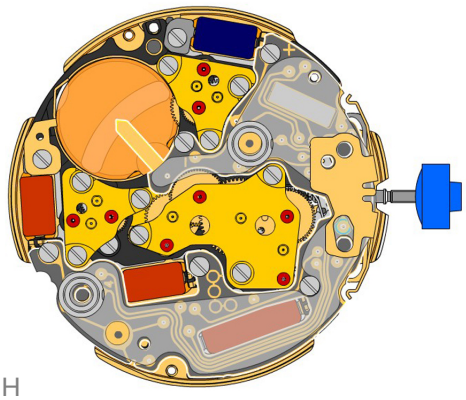
F

2020.149.G 35.		Counter train wheel bridge Counter train wheel bridge held by 3 screws 4000.250.
4000.250 36.		Screw
3715.095.RK 37.		Rotor
3147.048.CO 38.		Intermediate wheel (counter)
3007.055.CO 39.		Minute wheel (counter 12h)
3402.007.CO 40.		Minute counting wheel
4000.250 41.		Screw

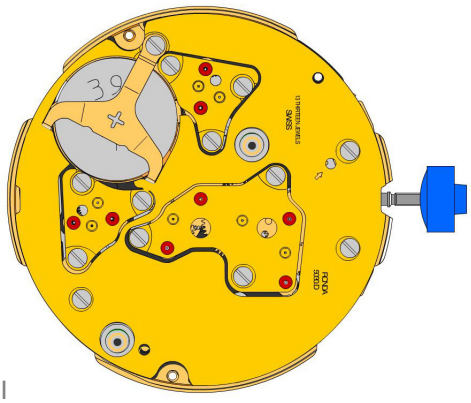


G

2020.149.G 42.		Counter train wheel bridge Counter train wheel bridge held by 3 screws 4000.250.
4000.250 43.		Screw
3621.053.RK 44.		Coil Attention: Please hold the coil only on the grey coil core. Coil held by 1 screw 4000.250.
3621.054.RK 45.		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 46.		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 47.		Coil (counter 6h) Attention: Please hold the coil only on the grey coil core. Coil held by 1 screw 4000.250.
4000.250 48.		Screw



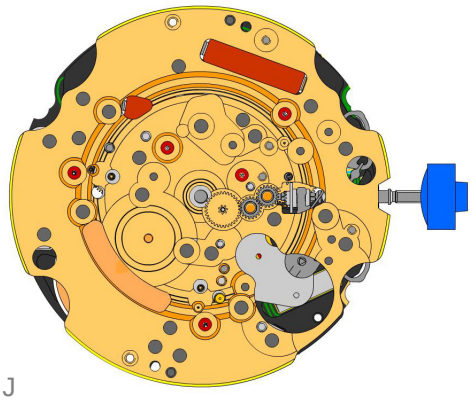
H



I

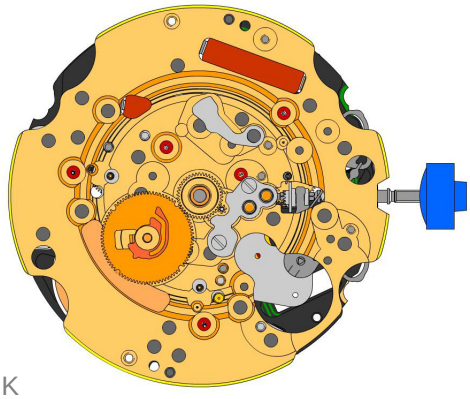
3601.118 49.		Contact strip Contact strip held by 1 screw 4000.250.
3603.034 50.		Battery insulator
3612.176.5130 51.		Electronic module Electronic module held by 5 screws 4000.250. Electronic measurements may be realised now.
4000.248 52.		Screw
3603.069 53.		Circuit insulator
3603.070 54.		Contact insulator
3603.070 55.		Contact insulator
3601.107.G 56.		Pusher contact spring

2130.159.G.M01.5130D 57.		Electronic module cover Electronic module cover held by 3 screws 4000.250.
3600.010.HGF 58.		Battery 395
3601.109.G 59.		Bridle + Bridle held by 1 screw 4000.250.
4000.250 60.		Screw



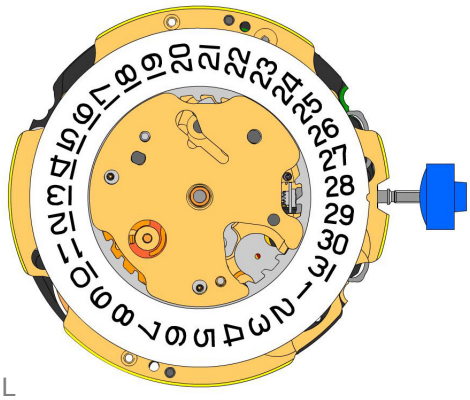
J

2000.574.G 61.		Main plate
3004.164 62.		Setting wheel
3004.164 63.		Setting wheel
3007.054.CO 64.		Minute wheel

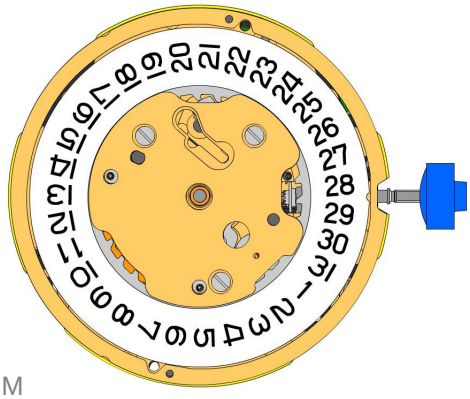


K

2130.143 65.		Minute train bridge Minute train bridge held by 2 screws 4000.250.
4000.305 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

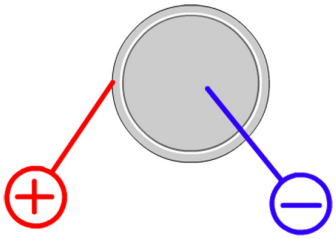


L

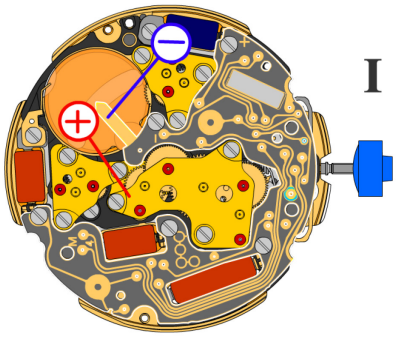


M

3504.208.AB.1.A 71.		Date indicator (standard) Nick of the indicator at 3 o`clock.
2130.141 72.		Date indicator maintaining plate Date indicator maintaining plate held by 1 screw 4000.250.
3905.070 73.		Date jumper spring Insert the date jumper spring in the provided opening.
2130.140.G 74.		Date mechanism maintaining plate Date mechanism maintaining plate held by 2 screws 4000.250.
4000.250 75.		Screw
3506.072.G 76.		Dial support
8200 77.		Moebius 8200
9014 78.		Moebius 9014
124 79.		Jismaa 124
9020 80.		Moebius 9020

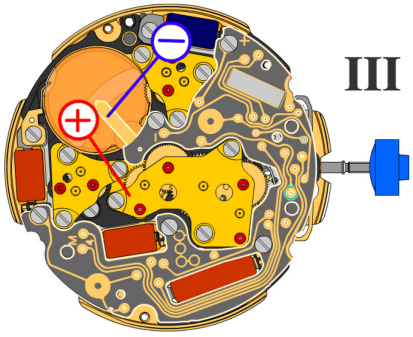


Battery	**395**
Voltage	**1.55 V**



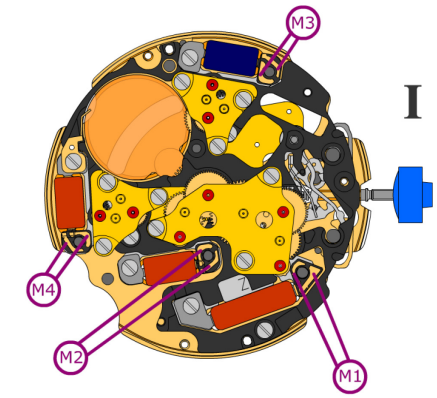
Setting stem in position I, calendar not in gear,
60 s measuring interval for rate and consumption:

Typical consumption	***1.48 µA***
Maximal consumption	***1.65 µA***
Rate	**-10s/M. .. +20s/M.**
Lower working voltage limit	**1.20 V**

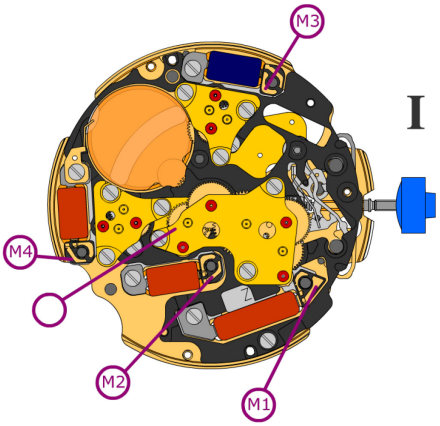


Setting stem in position III, 60 s measuring interval:

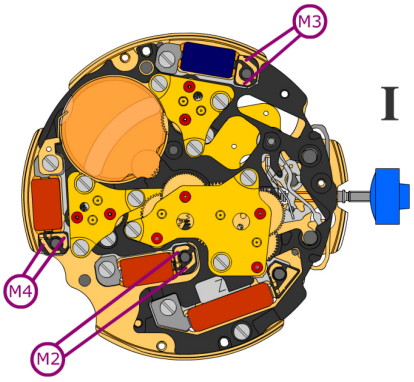
Typical consumption	***0.10 µA***
Maximal consumption	***0.30 µA***



Coil resistance M1	**1.90 kΩ .. 2.20 kΩ**
Coil resistance M2	**1.68 kΩ .. 1.88 kΩ**
Coil resistance M3	**1.68 kΩ .. 1.88 kΩ**
Coil resistance M4	**1.68 kΩ .. 1.88 kΩ**



Coil isolation M1/M2/M3/M4	**∞ kΩ**



Signal generator (4.9 ms, 8 Hz):

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