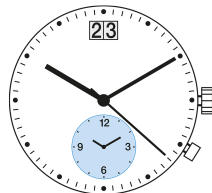


Quartz Movements

特别功能

朗达 超值系列

型号 4210.B - 12□"



产品规格

指针式石英机芯

系列

超值系列

型号

4210.B

尺寸

12□"

版本 瑞士制造

8 钻石 / 金色

版本 瑞士零件 远东组装

4 钻石 / 银色

电池寿命

50 月

标准针高

2

特点

- 金属机芯，可修理
- 拉停把心省电功能：节省大概70%耗电
- 一个按掣简易操作
- 大日历可快调

功能

- 两地时间
- 特别功能
- 大日历
- 三针

Quartz Movements

特别功能

朗达 超值系列

型号 4210.B - 12□”

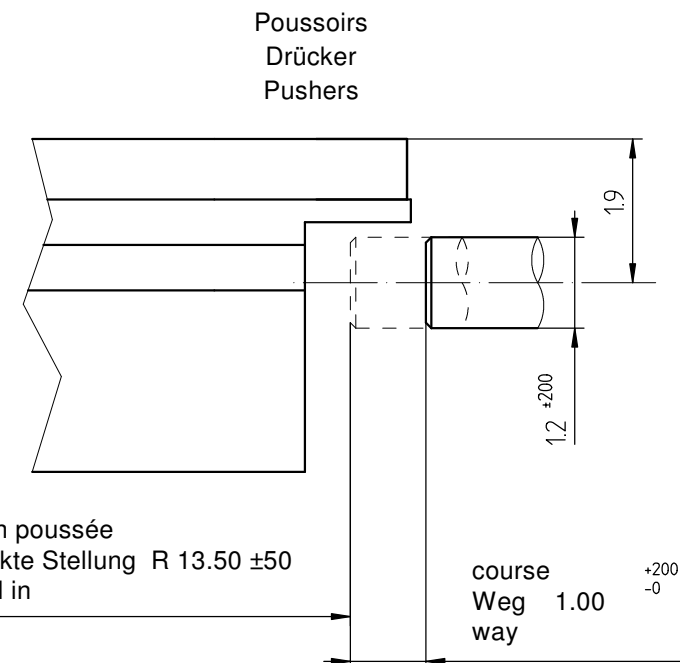
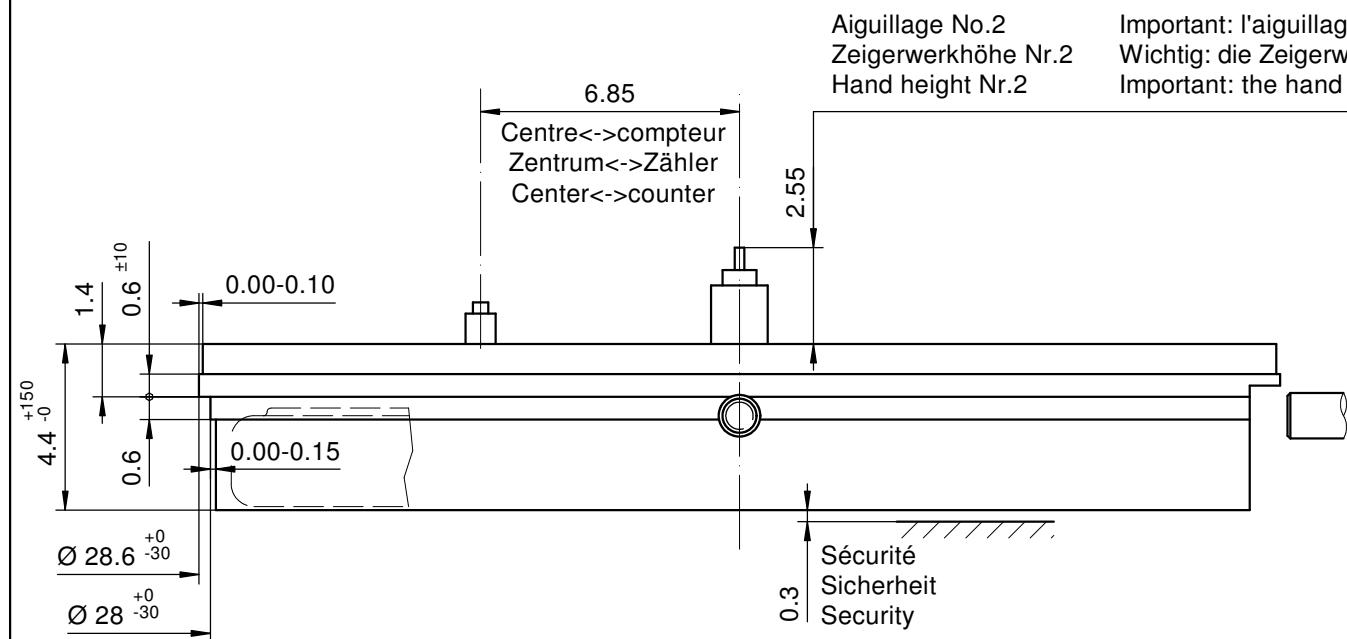
技术规格

机芯直径	28.60 mm
内罩座位直径	28.00 mm
机芯厚度	4.40 mm
电池以上厚度	4.40 mm
机芯座位	0.60 mm
把中	1.90 mm
把心行程	0.90 mm
把心螺纹直径	0.90 mm
秒针运行扭力 - 一般情况下	6 μ Nm
分针运行扭力 - 一般情况下	300 μ Nm
运作温度	0 - 50 ° C
误差率	-10/ +20 秒/月
防磁度	18.8 Oe
防震度	NIHS 91-10



电池规格

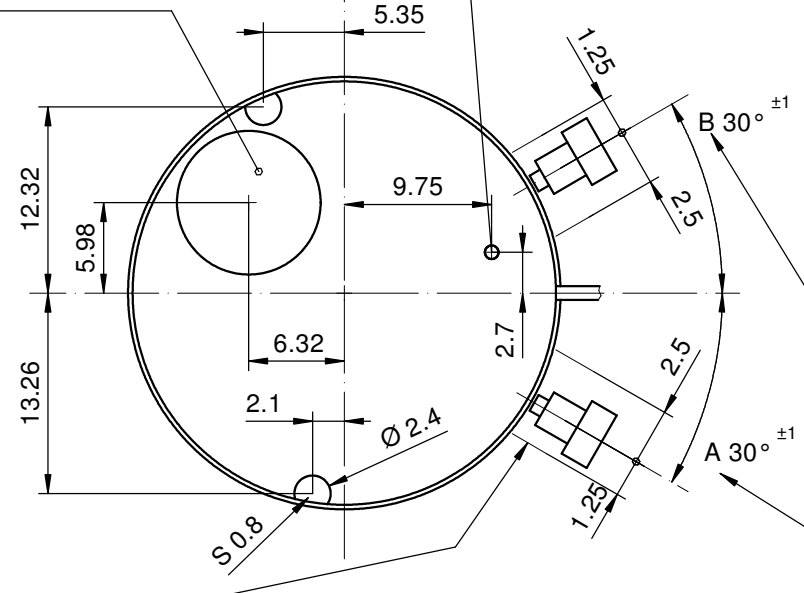
电池类型	型号 395
电池寿命	50 月
电压	1.5 V
电耗 - 一般情况下	1.32 μ A (日历不在跳动当中)
电耗 - 上限	1.65 μ A (日历不在跳动当中)



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

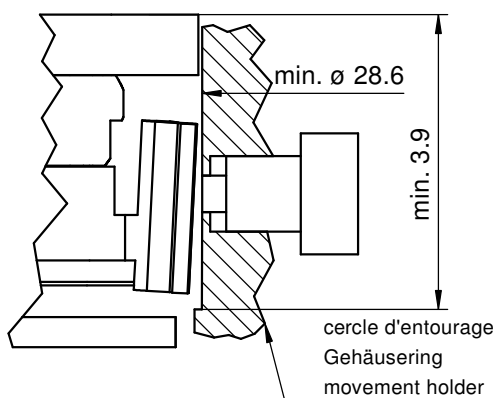


Seulement 1 poussoir
est nécessaire

Nur 1 Drücker
wird benötigt

Only 1 pusher
is required

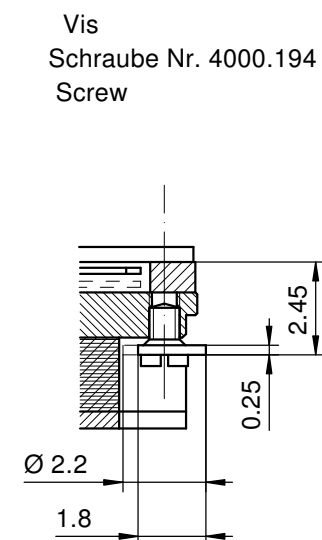
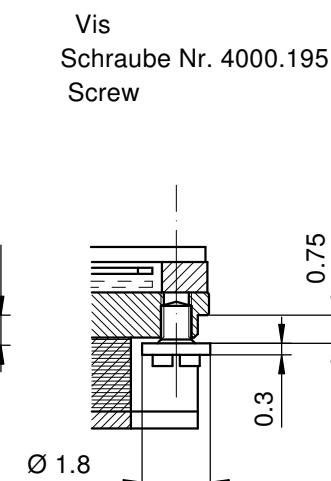
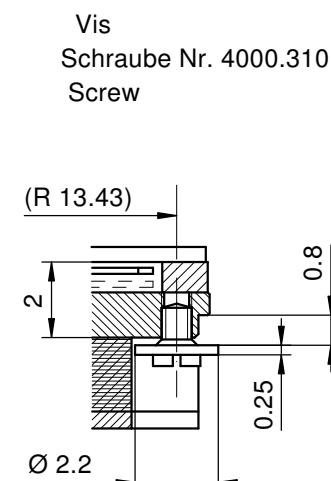
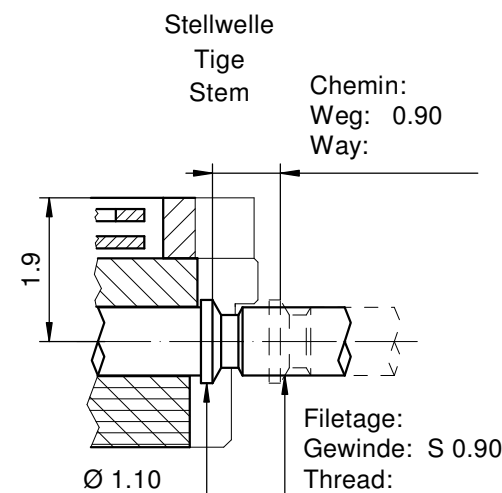
Dégagement cercle d'entourage pour poussoir
Freistellung Gehäuse ring für Drücker
Opening movement holder for pusher



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

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

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



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.

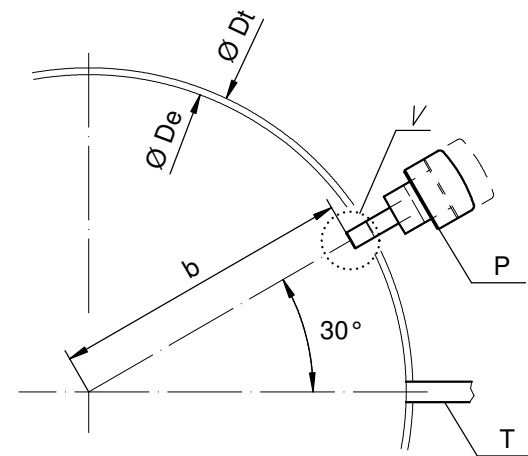
Cage
Uhrwerkgestell 12½"
Frame

RONDA

4210.B

Issued	02 Mär 2004	mg
Modified	05 Sep 2016 ÄÄ 34777	dh
Released	YES	
Tolerance	+/- 20 µm	
Scale	10 : 1 (5 : 1) (A3H)	
Sous réserve de modifications Äenderungen vorbehalten Modifications reserved		
No.	5000.331	04

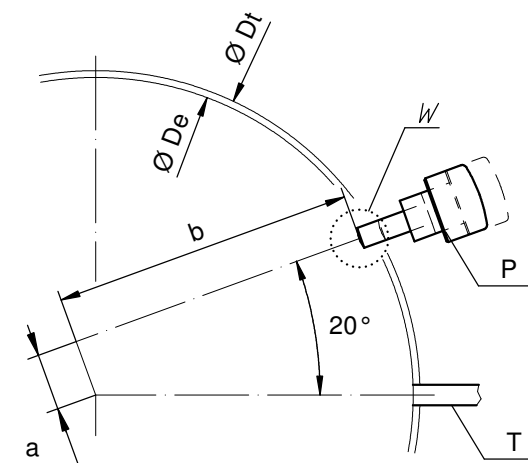
Angle Winkel Angle	30°	
Ø Dp	b	
1.00	13.50	
1.10	13.50	
1.20	13.50	
1.30	13.50	
1.40	13.50	



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

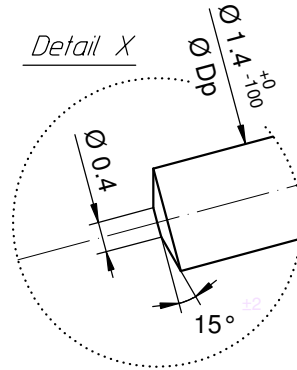
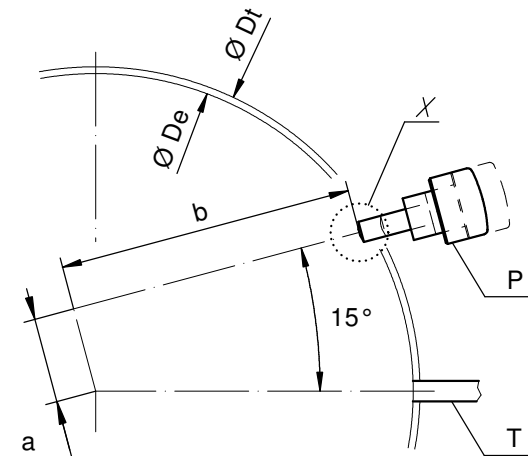
Ø Dp: diamètre du poussoir
Drückerdurchmesser
pusher-diameter

Ø Dt: diamètre total
Totaldurchmesser
total-diameter

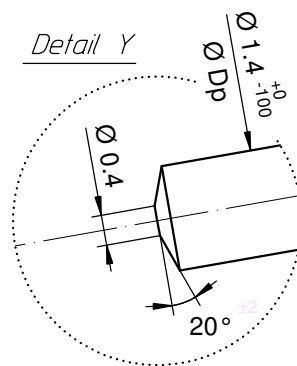
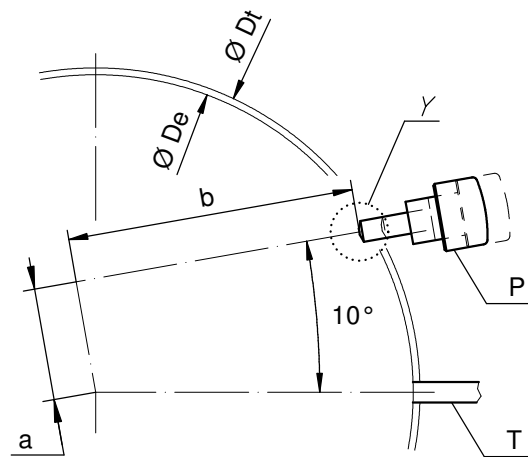
P: poussoir en position poussée
Drücker in gedrückter Stellung
pusher in pressed position

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



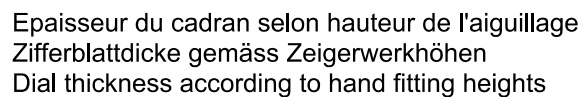
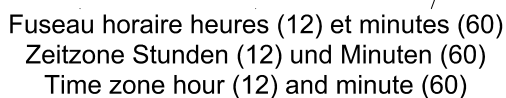
Angle Winkel Angle	10°	
Ø Dp	a	b
1.30	5.06	12.52
1.40	5.10	12.50



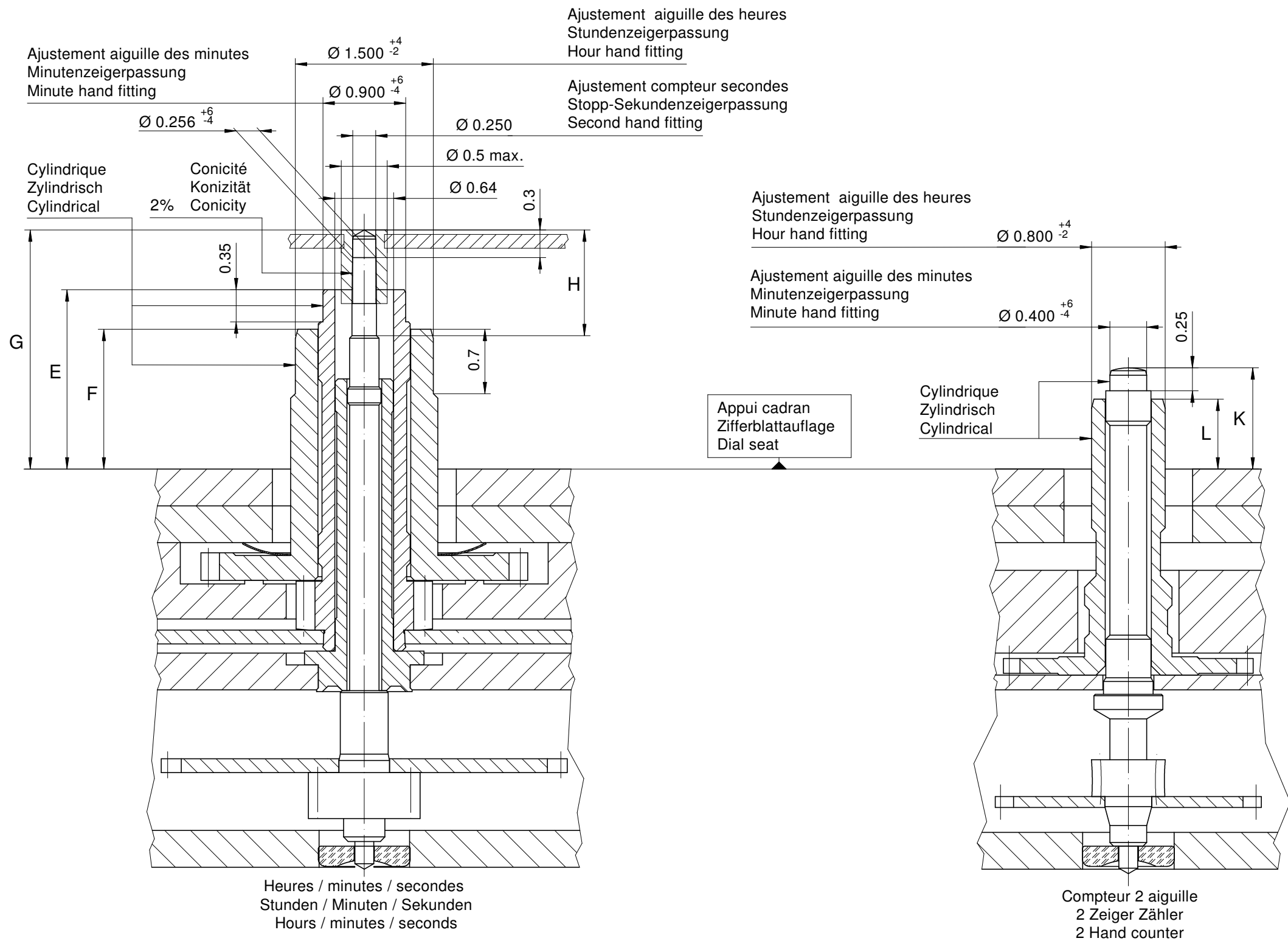
Angle des poussoirs A et B
Winkel der Drücker A und B
Angle of pusher A and B

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



Issued	13 Dez 2006	cw
Modified	15.Dez.2006 ÄÄ ----	cm
Released	YES	
Tolerance	+/- 20 µm	
Scale	5 : 1 (A4V)	
Sous réserve de modifications Änderungen vorbehalten Modifications reserved		
No.	5010.696	03



Heures / minutes / secondes
Stunden / Minuten / Sekunden
Hours / minutes / seconds

		Aig. des secondes Sekundenzeiger 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.	0.07	0.80	0.80	0.03	0.03				Balourd / Unwucht / Unbalance *
gmm ²	max.	0.4	-	-	1.0	-				Inertie / Massenträgheit / Inertia *
N	max.	30	40	40	30	30				Force de chassage / Aufpresskraft / Force

* 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

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

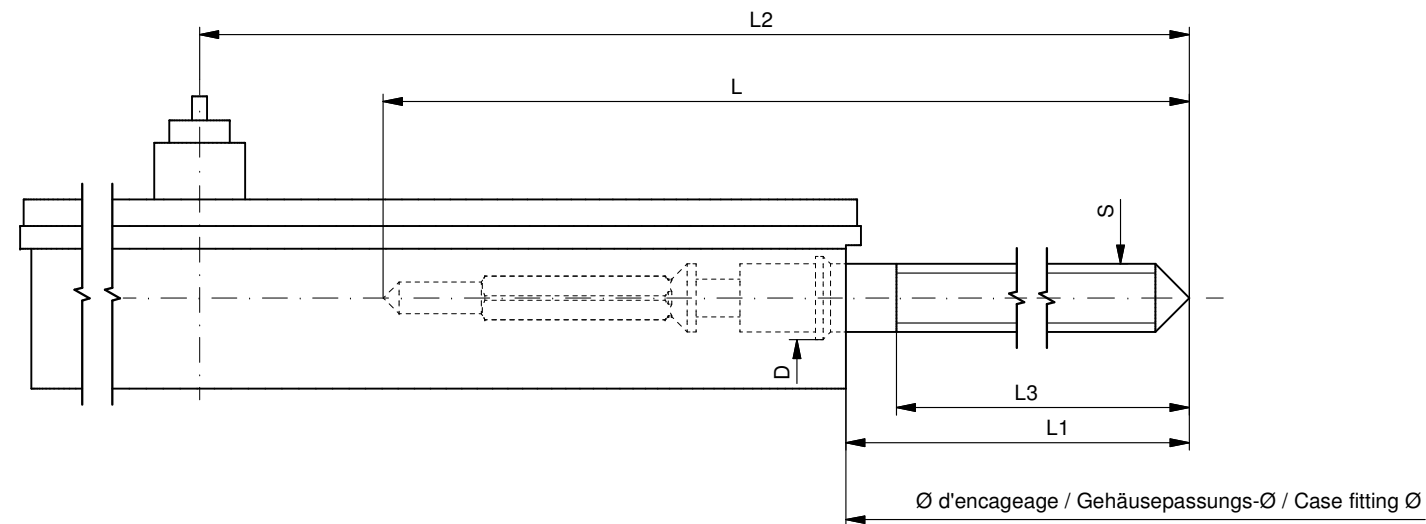
Aiguillages Zeigerwerkhöhe Hand fitting height						
Peinture comprise / inkl. Farbe / Paint included						
Epaisseur maximum du cadran Maximale Zifferblattdicke Maximum dial thickness						
No	Sous l'aiguille des secondes Unter Sekundenzeiger Under second hand	Sous l'aiguille des minutes Unter Minutenzeiger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

Aiguillages Zeigerwerkhöhen 12½" Hand fitting heights

RONDA

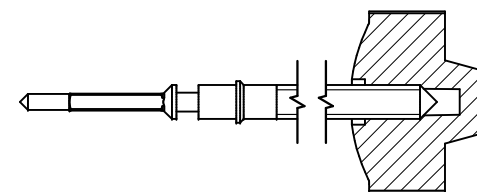
4210.B

Issued	14 Nov 2003	mk
Modified	15 Okt 2014 ÄÄ 13275	dh
Released	Yes	
Tolerance	µm	
Scale	20 : 1 (A3H)	
Sous réserve de modifications Änderungen vorbehalten Modifications reserved		
No.	3316.084	03



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

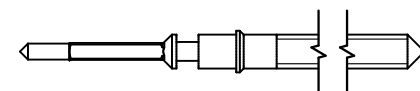
No. d'article Artikelnummer Part number	L	L1	L2	L3	S	D
3000.177.CO	20.00	10.23	24.23	10.15	0.90	1.10



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

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

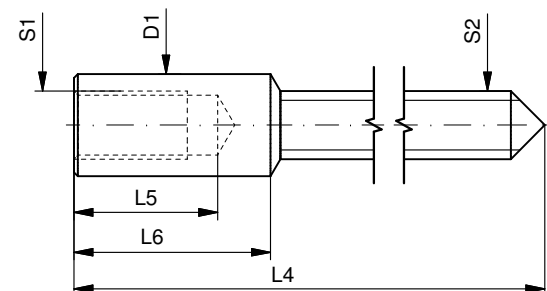
No. d'article Artikelnummer Part number	L	L1	L2	L3	S	D
3000.177	20.00	10.23	24.23	10.15	0.90	1.10
3000.191	32.00	22.23	36.23	22.15	0.90	1.10



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

4002.B, 4003.B, 4120.B,
4210.B, 4220.B

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.	5030.018	02



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
- Crown in position II
- Set date
- Install second time zone**
- Crown in position I

Date switching duration:

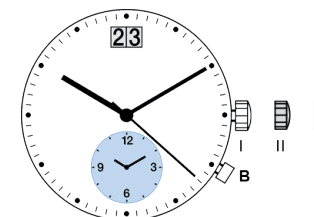
First and tenth digit discs

~2hrs

**Installing second time zone

- Activate pusher B for at least 2 seconds
(You are in active mode, if small minute hand jumps forward 1 min.)
- Install second time zone, using pusher B:
 - Short press (< 1 sec.) → +1 minute
 - Medium press (1-2 secs.) → +1 hour
 - Long press (> 2 secs.) → continuous time display

Details: See Instruction Manual



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.

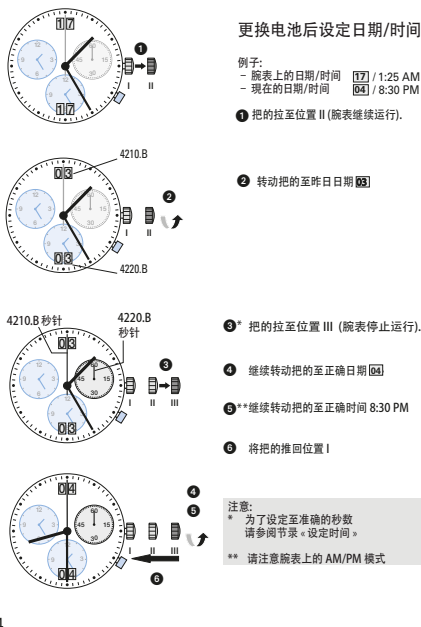
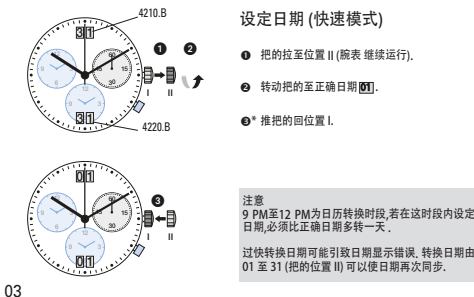
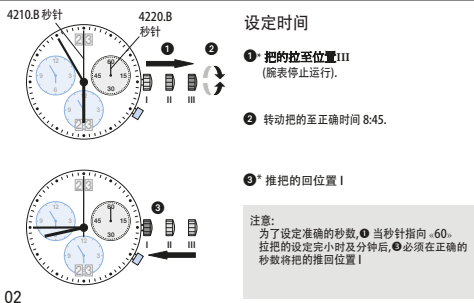
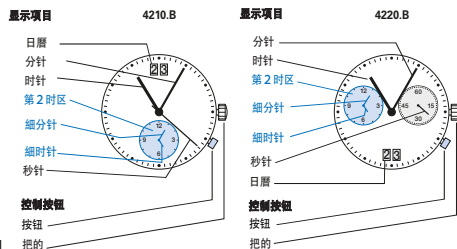
朗达 明星系列 - 机芯型号 4210.B & 4220.B

中文使用手册

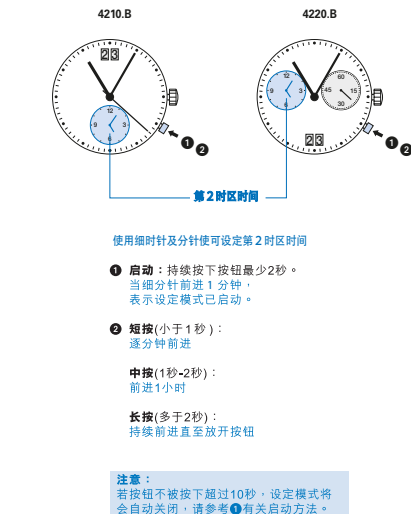
瑞士朗达是一个机芯供应商, 没有参与制造或分销成表。

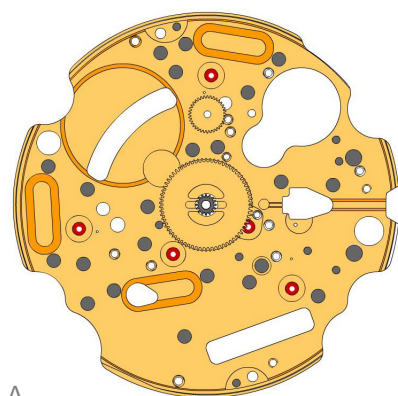
若有任何手表相关之疑问, 如维修、保证期内投诉或手表功能问题, 请联络手表零售商、服务中心或制造商。所有联络资料可向您的销售员查询或参考保证文件。

显示和控制按钮描述

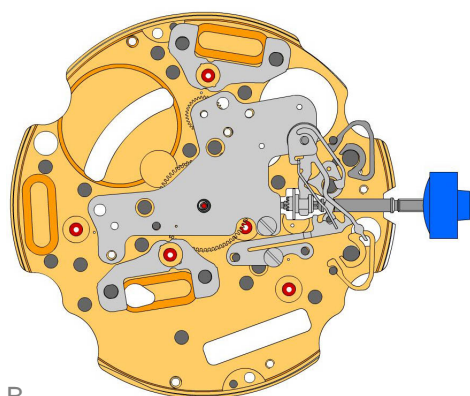


设定第2时区时间

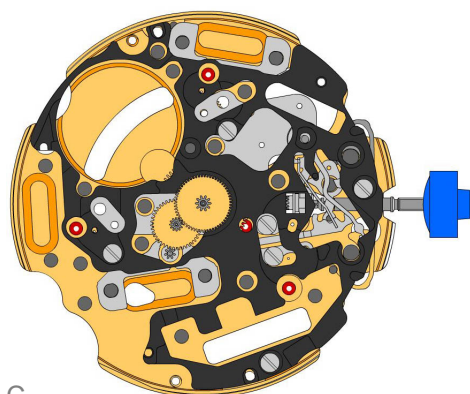























A

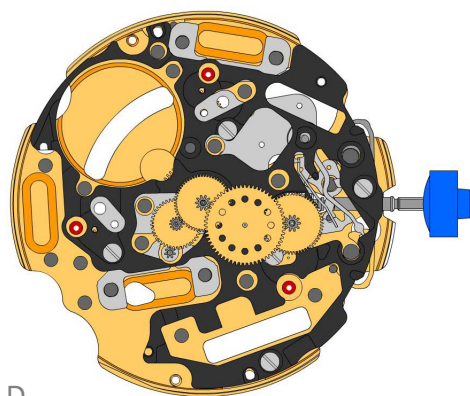


B

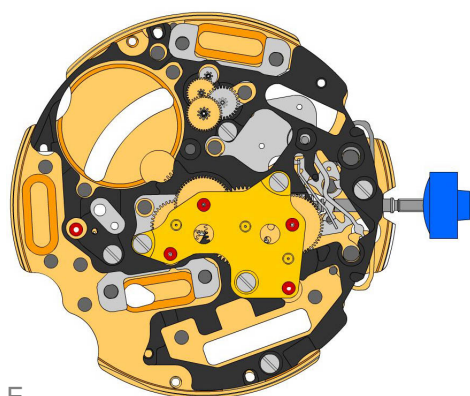


C

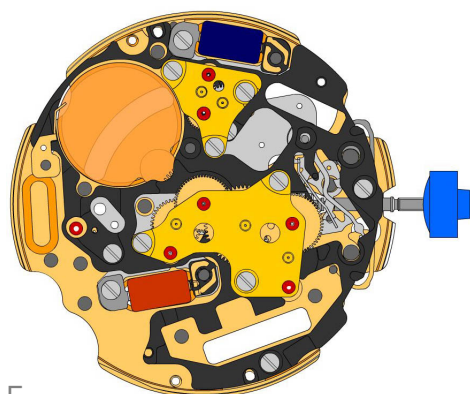
2000.574.G 1.		Main plate
3305.282.CO 2.		Cannon pinion with driver (Aig.2)
3301.243 3.		Hour wheel (counter 12h)
2030.017.CO 4.		Centre bridge Centre bridge held by 1 screw 4000.250. Parts 2030.017.CO, 3004.223 and 3500.059 must be exchanged together.
3001.055.FI 5.		Sliding pinion
3000.177.CO 6.		Setting stem
3017.049 7.		Setting lever
3905.049 8.		Setting lever jumper (3 positions) Setting lever jumper held by 1 screw 4000.250.
4000.250 9.		Screw
3015.081 10.		Yoke (3 positions) Parts 3015.081 and 3905.067 must be exchanged together.
3905.067 11.		Yoke spring Tensioning the spring arm. Parts 3015.081 and 3905.067 must be exchanged together.
3406.030 12.		Pusher jumper B Put the grey jumper between the two posts on the further side.
3406.038 13.		Pusher jumper A Put the yellow jumper between the two posts on the closer side.
3622.039 14.		Stator (6h, 9h, chrono)
3603.079 15.		Plastic bracket Plastic bracket held by 4 screws 4000.250.
4000.250 16.		Screw
3715.094.RK 17.		Rotor
3147.047.CO 18.		Intermediate wheel (chrono)
3136.156.CO 19.		Second wheel (Aig.2)




D




E



F


3136.148.CO
20.  Chronograph wheel (Aig.2)

3122.056.CO
21.  Third wheel

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


4000.250
23.  Screw

3715.095.RK
24.  Rotor


3147.048.CO
25.  Intermediate wheel (counter)


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

3402.007.CO
27.  Minute counting wheel (12h)

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

4000.250
29.  Screw

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

3621.079.RK
31.  Coil (center)
Attention: Please hold the coil only on the grey coil core.

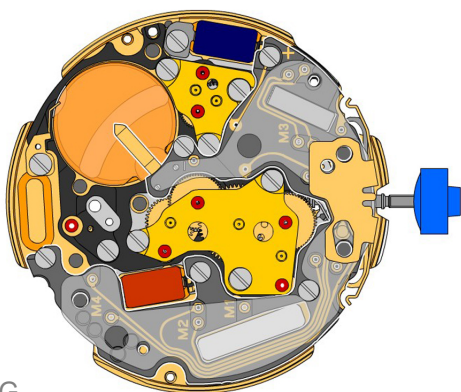
3503.071
32.  Tube

3601.118
33.  Contact strip
Contact strip held by 1 screw 4000.250.





4000.250
34.  Screw

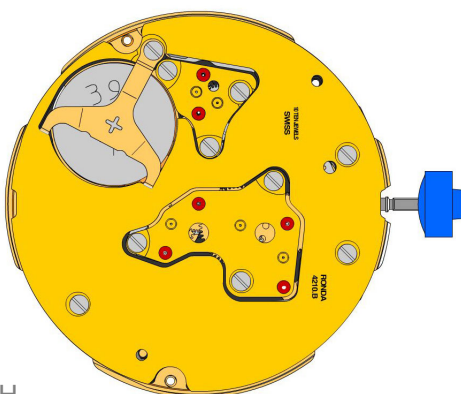
3603.034
35.  Battery insulator

3503.054
36.  Tube







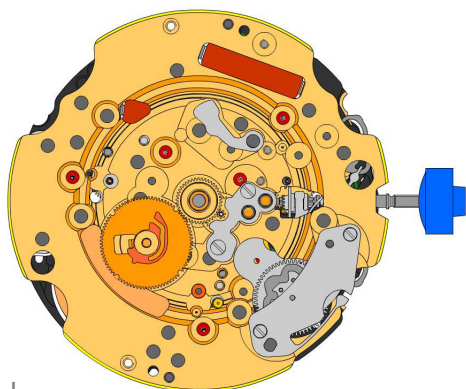
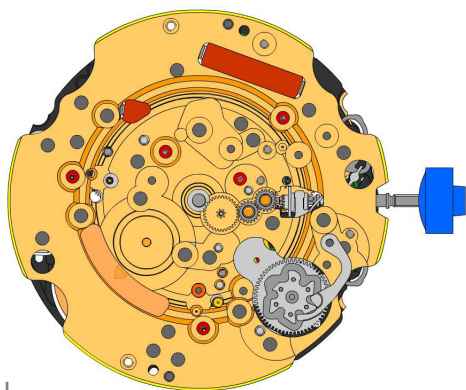
G














3612.146.4210 37.		Electronic module Electronic module held by 5 screws 4000.248. Electronic measurements may be realised now.
4000.248 38.		Screw
3603.069 39.		Circuit insulator
3601.107.G 40.		Pusher contact spring

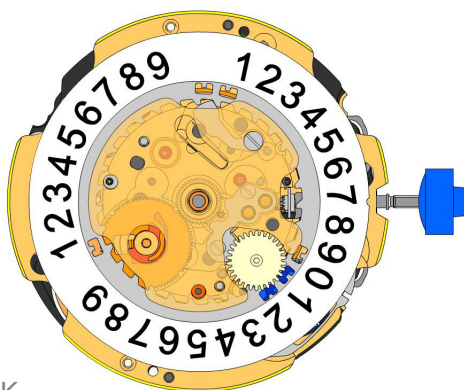


H

2130.139.G.M01.4210B 41.		Electronic module cover Electronic module cover held by 3 screws 4000.250.
3600.010.HGF 42.		Battery 395
3601.109.G 43.		Bridle + Bridle held by 1 screw 4000.250.
4000.250 44.		Screw



2000.574.G 45.		Main plate
3004.164 46.		Setting wheel
3007.054.CO 47.		Minute wheel
2130.143 48.		Minute train bridge Minute train bridge held by 2 screws 4000.305.
4000.305 49.		Screw
3004.223 50.		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 51.		Tens jumper Parts 2030.017.CO, 3004.223 and 3500.059 must be exchanged together.
2130.142 52.		Tens jumper maintaining plate Tens jumper maintaining plate held by 2 screws 4000.306. Tensioning the spring arm.
4010.306 53.		Screw
3301.242 54.		Hour wheel (Aig.2)
3315.016 55.		Friction spring
3004.224.CO 56.		Date indicator driving wheel
3500.049 57.		Date jumper



K

3504.214.AF.1.A
58. Units indicator (standard)
Nick of the indicator at 3 o'clock.



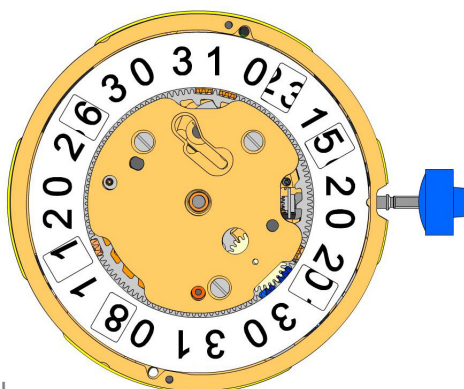
3147.054
59. Tens intermediate wheel



2130.141
60. Date indicator maintaining plate
Date indicator maintaining plate held by 1 screw 4000.250.



3905.070
61. Date jumper spring
Insert the date jumper spring in the provided opening.



L

3504.216.AF.1.A
62. Tens indicator (standard)
Nick of the indicator at 3 o'clock.



2130.140.G
63. Date mechanism maintaining plate
Date mechanism maintaining plate held by 2 screws 4000.250.



4000.250
64. Screw



3506.072.G
65. Dial support



8200
66. Moebius 8200



9014
67. Moebius 9014

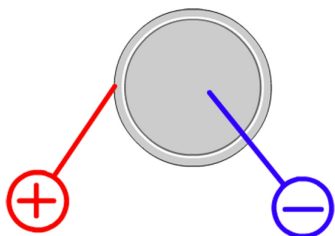


124
68. Jismaa 124

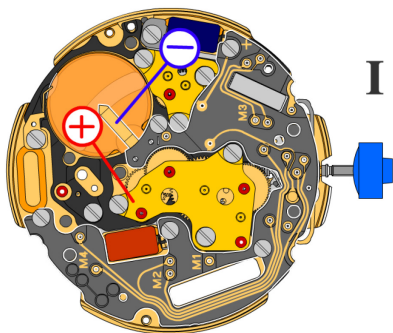


9020
69. Moebius 9020



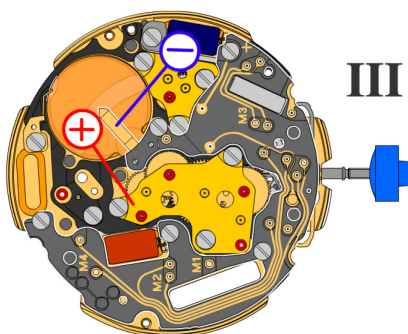


Battery	395
Voltage	1.55 V



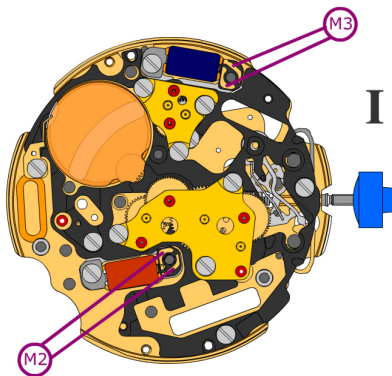
*Setting stem in position I, calendar not in gear,
60 s measuring interval for rate and consumption:*

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:

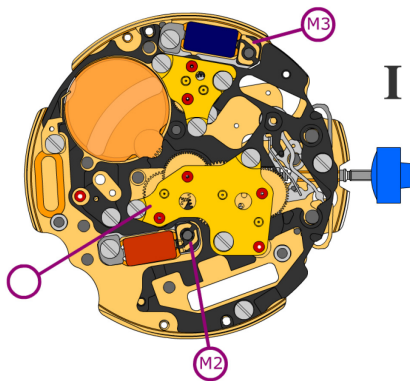
Typical consumption	0.10 μA
Maximal consumption	0.30 μA



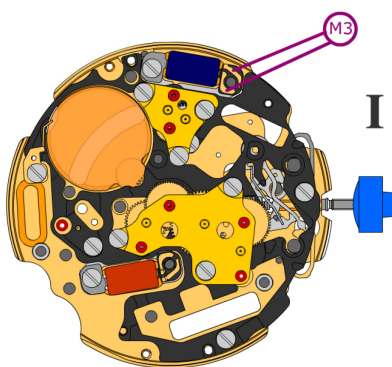
Coil resistance M2

2.20 k Ω .. 2.40 k Ω

Coil resistance M3

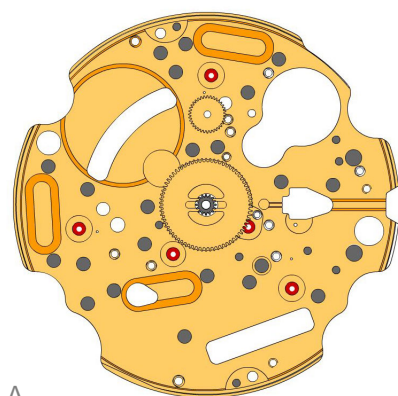
1.68 k Ω .. 1.88 k Ω


Coil isolation M2/M3

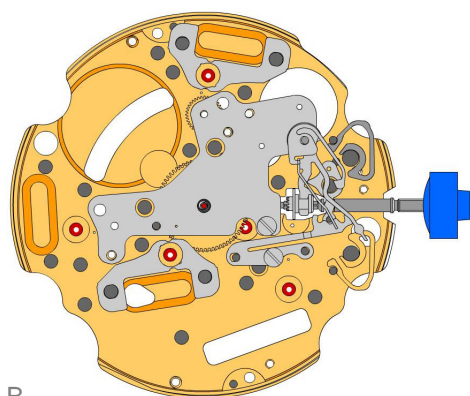
 ∞ k Ω

Signal generator (4.9 ms, 8 Hz):

Lower working voltage limit M3

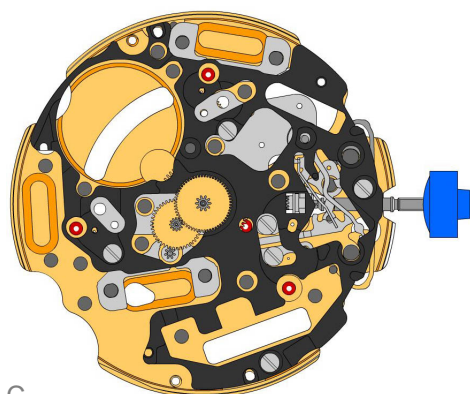
1.20 V








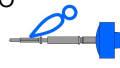













A

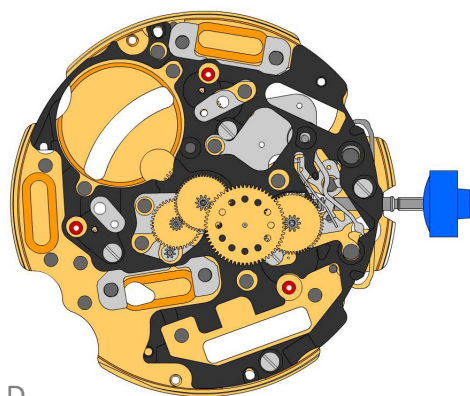


B

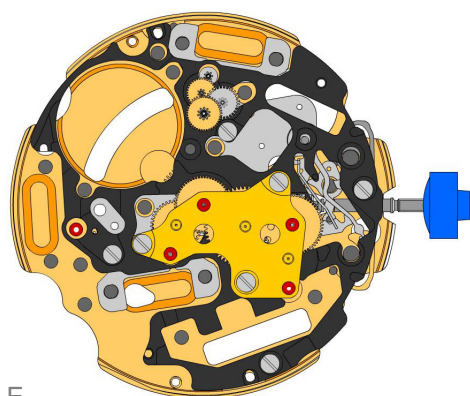


C

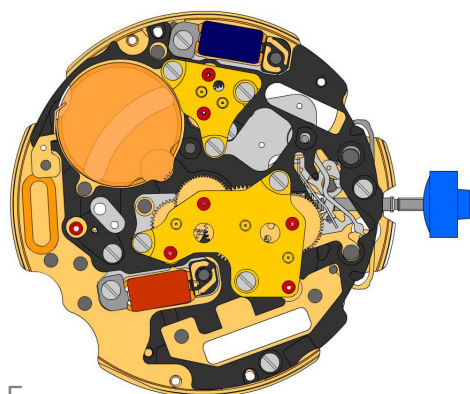
2000.574.G 1.		Main plate
3305.282.CO 2.		Cannon pinion with driver (Aig.2)
3301.243 3.		Hour wheel (counter 12h)
2030.024.CO 4.		Centre bridge Centre bridge held by 1 screw 4000.250.
3001.055.FI 5.		Sliding pinion
3000.177.CO 6.		Setting stem
3017.049 7.		Setting lever
3905.049 8.		Setting lever jumper (3 positions) Setting lever jumper held by 1 screw 4000.250.
4000.250 9.		Screw
3015.081 10.		Yoke (3 positions)
3905.067 11.		Yoke spring Tensioning the spring arm.
3406.030 12.		Pusher jumper B Put the grey jumper between the two posts on the further side.
3406.038 13.		Pusher jumper A Put the yellow jumper between the two posts on the closer side.
3622.039 14.		Stator (6h, 9h, chrono)
3603.079 15.		Plastic bracket Plastic bracket held by 4 screws 4000.250.
4000.250 16.		Screw
3715.094.RK 17.		Rotor
3147.047.CO 18.		Intermediate wheel (chrono)
3136.156.CO 19.		Second wheel (Aig.2)




D




E



F


3136.148.CO
20.  Chronograph wheel (Aig.2)

3122.056.CO
21.  Third wheel

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


4000.250
23.  Screw

3715.095.RK
24.  Rotor


3147.048.CO
25.  Intermediate wheel (counter)


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

3402.007.CO
27.  Minute counting wheel (12h)

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

4000.250
29.  Screw

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

3621.079.RK
31.  Coil (center)
Attention: Please hold the coil only on the grey coil core.

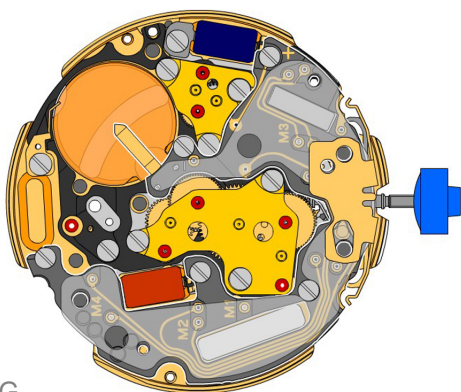
3503.071
32.  Tube

3601.118
33.  Contact strip
Contact strip held by 1 screw 4000.250.





4000.250
34.  Screw

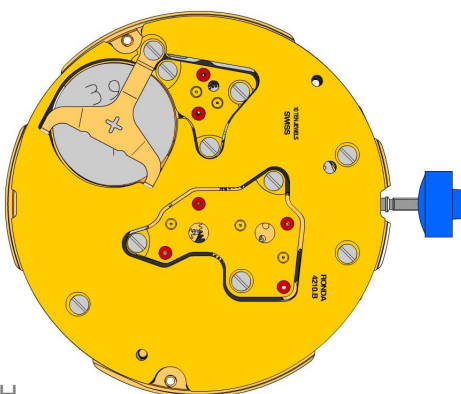
3603.034
35.  Battery insulator

3503.054
36.  Tube







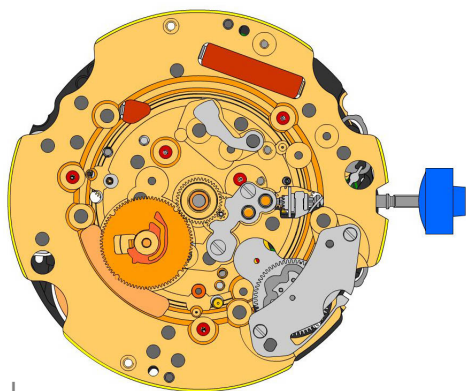
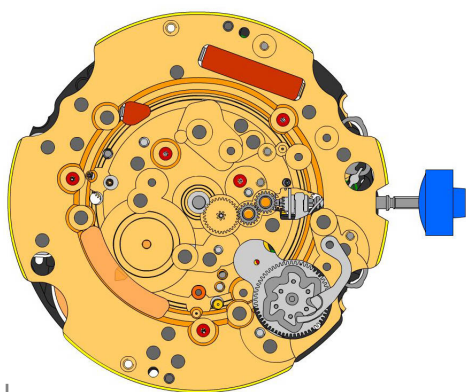
G














3612.146.4210 37.		Electronic module Electronic module held by 5 screws 4000.248. Electronic measurements may be realised now.
4000.248 38.		Screw
3603.069 39.		Circuit insulator
3601.107.G 40.		Pusher contact spring

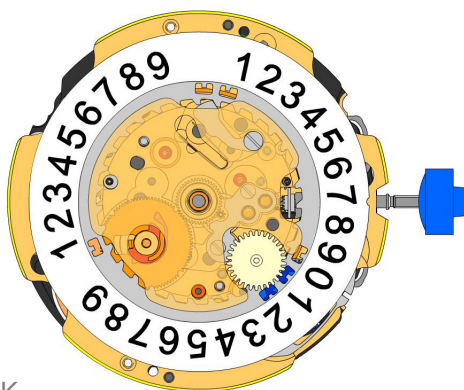


H

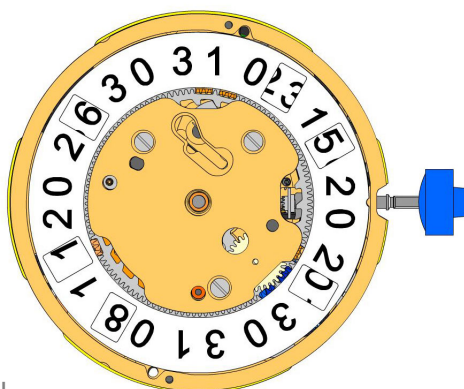
2130.139.G.M01.4210B 41.		Electronic module cover Electronic module cover held by 3 screws 4000.250.
3600.010.HGF 42.		Battery 395
3601.109.G 43.		Bridle + Bridle held by 1 screw 4000.250.
4000.250 44.		Screw



2000.574.G 45.		Main plate
3004.164 46.		Setting wheel
3007.054.CO 47.		Minute wheel
2130.143 48.		Minute train bridge Minute train bridge held by 2 screws 4000.305.
4000.305 49.		Screw
3004.227 50.		Tens indicator driving wheel The short tooth of the tens indicator driving wheel must point to the center of the movement.
3500.075 51.		Tens jumper
2130.142 52.		Tens jumper maintaining plate Tens jumper maintaining plate held by 2 screws 4000.306. Tensioning the spring arm.
4010.306 53.		Screw
3301.242 54.		Hour wheel (Aig.2)
3315.016 55.		Friction spring
3004.224.CO 56.		Date indicator driving wheel
3500.049 57.		Date jumper



K



L

3504.214.AF.1.A
58. Units indicator (standard)
Nick of the indicator at 3 o'clock.



3147.054
59. Tens intermediate wheel



2130.141
60. Date indicator maintaining plate
Date indicator maintaining plate held by 1 screw 4000.250.



3905.070
61. Date jumper spring
Insert the date jumper spring in the provided opening.



3504.216.AF.1.A
62. Tens indicator (standard)
Nick of the indicator at 3 o'clock.



2130.140.G
63. Date mechanism maintaining plate
Date mechanism maintaining plate held by 2 screws 4000.250.



4000.250
64. Screw



3506.072.G
65. Dial support



8200
66. Moebius 8200



9014
67. Moebius 9014



124
68. Jismaa 124

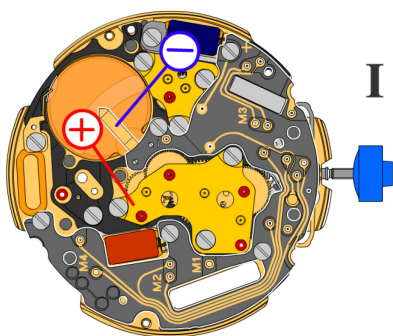


9020
69. Moebius 9020



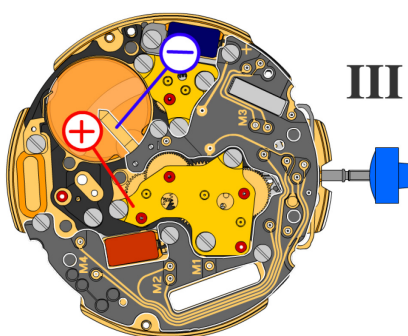


Battery	395
Voltage	1.55 V



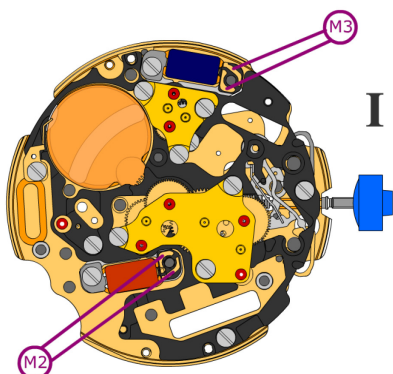
*Setting stem in position I, calendar not in gear,
60 s measuring interval for rate and consumption:*

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:

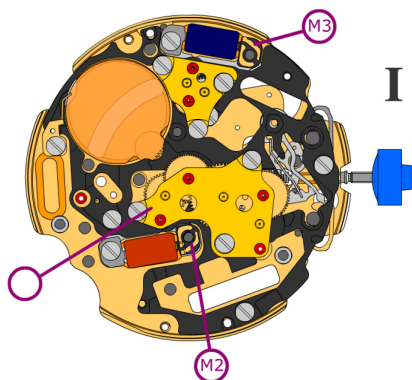
Typical consumption	0.10 μA
Maximal consumption	0.30 μA



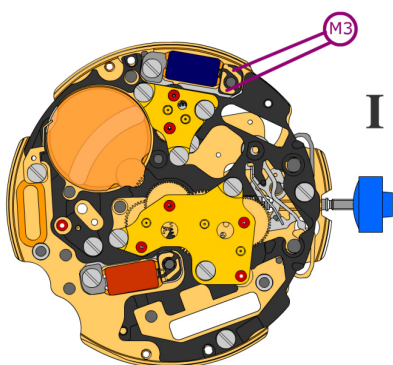
Coil resistance M2

2.20 k Ω .. 2.40 k Ω

Coil resistance M3

1.68 k Ω .. 1.88 k Ω


Coil isolation M2/M3

 ∞ k Ω

Signal generator (4.9 ms, 8 Hz):

Lower working voltage limit M3

1.20 V