



UNIQUE
BY SWISS DESIGN

#rondamovement

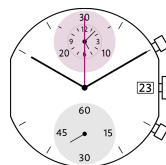
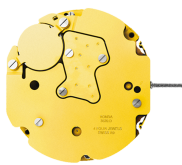
 **RONDA**

Quartz Movements

计时功能

朗达 明星系列

型号 3520.D - 10□x 11□'



产品规格

指针式石英机芯

系列

明星系列

型号

3520.D

尺寸

10□x 11□'

版本 瑞士制造

4 钻石 / 金色

版本 瑞士零件 远东组装

4 钻石 / 银色

电池寿命

54 月

标准针高

1

特点

- 金属机芯，可修理
- 拉停把心省电功能：节省大概70%耗电
- 两个按掣简易操作

功能

- 30分钟 / 12小时计时小眼
- 中心大秒计时（1/1秒）
- 12小时计时小眼
- 积累及分段计时
- 计时
- 日历
- 小秒针

Quartz Movements

计时功能

朗达 明星系列

型号 3520.D - 10□x 11□'

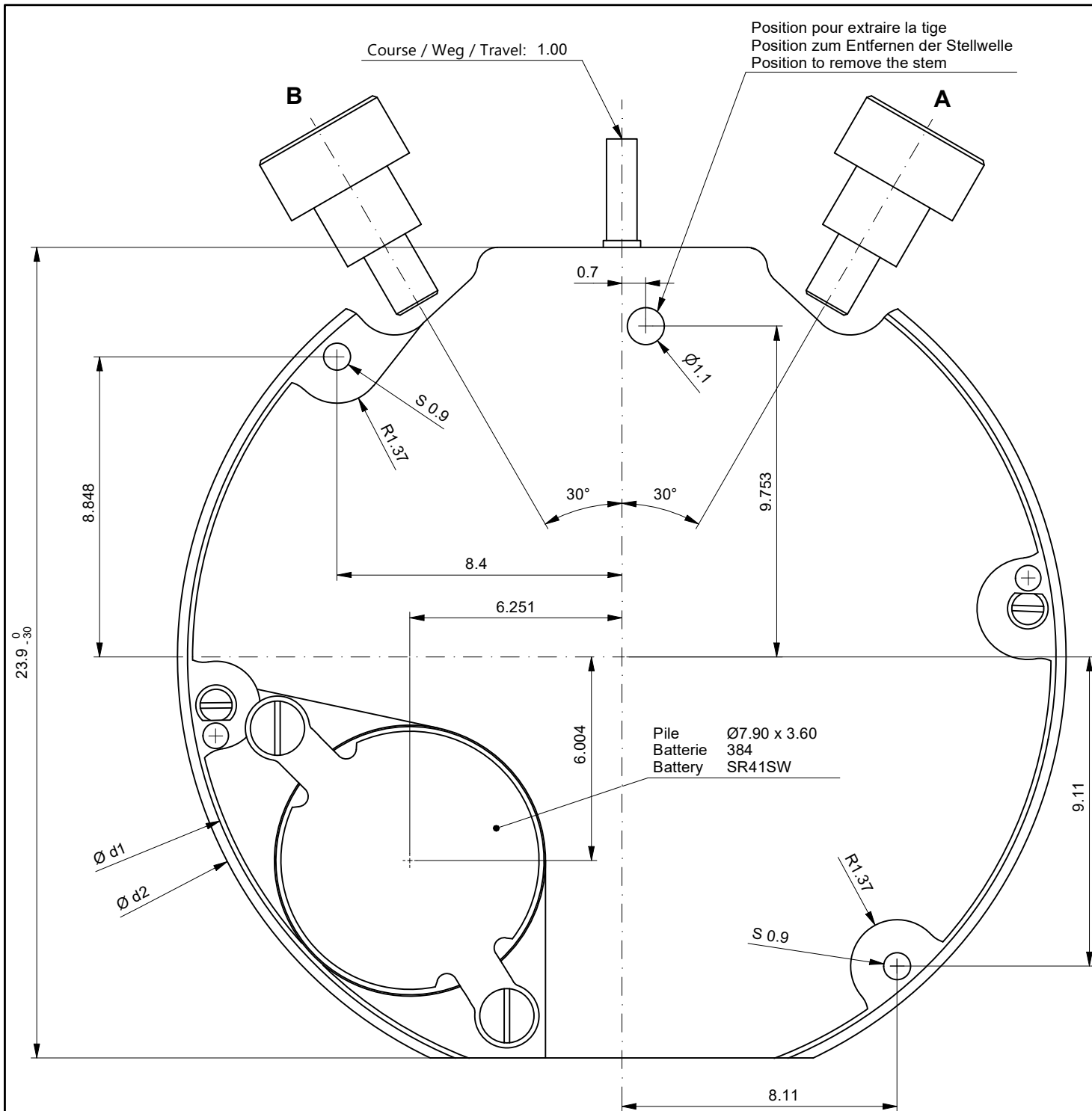
技术规格

机芯直径	26.20 mm
内罩座位直径	23.90 mm
机芯厚度	4.90 mm
电池以上厚度	4.90 mm
机芯座位	0.80 mm
把中	1.70 mm
把心行程	1.00 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
计时大秒针运行扭力 - 一般情况下	6 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

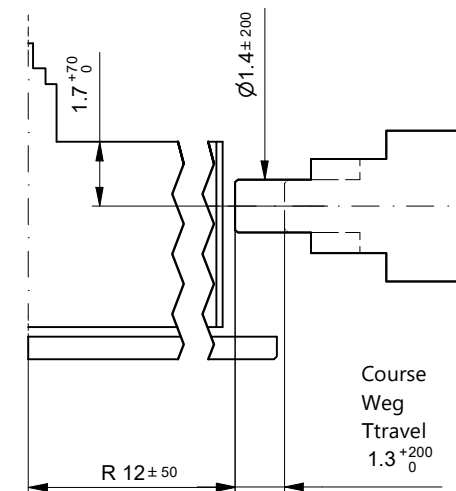


电池规格

电池类型	型号 384
电池寿命	54 月
电压	1.5 V
电耗 - 一般情况下	1.14 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)



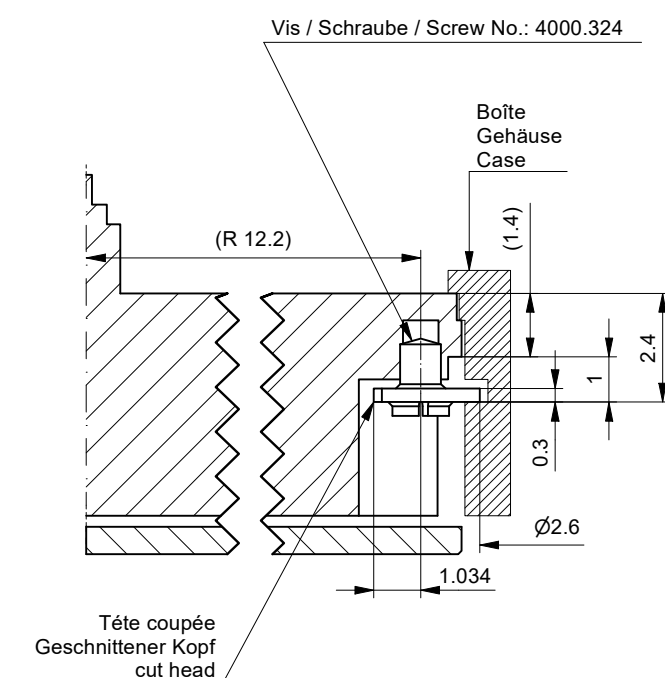
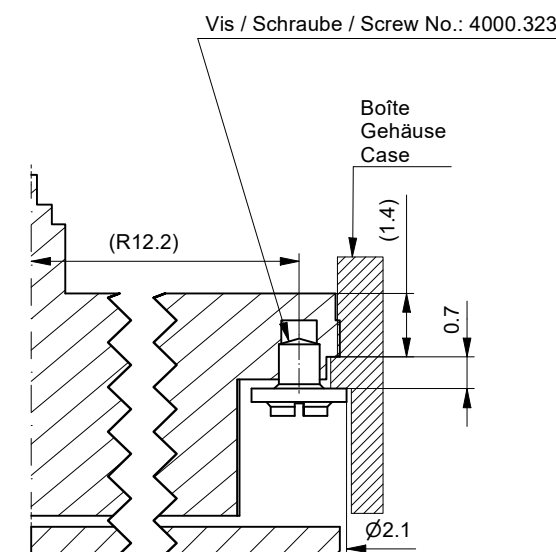
Poussoir / Drücker / Pusher A & B



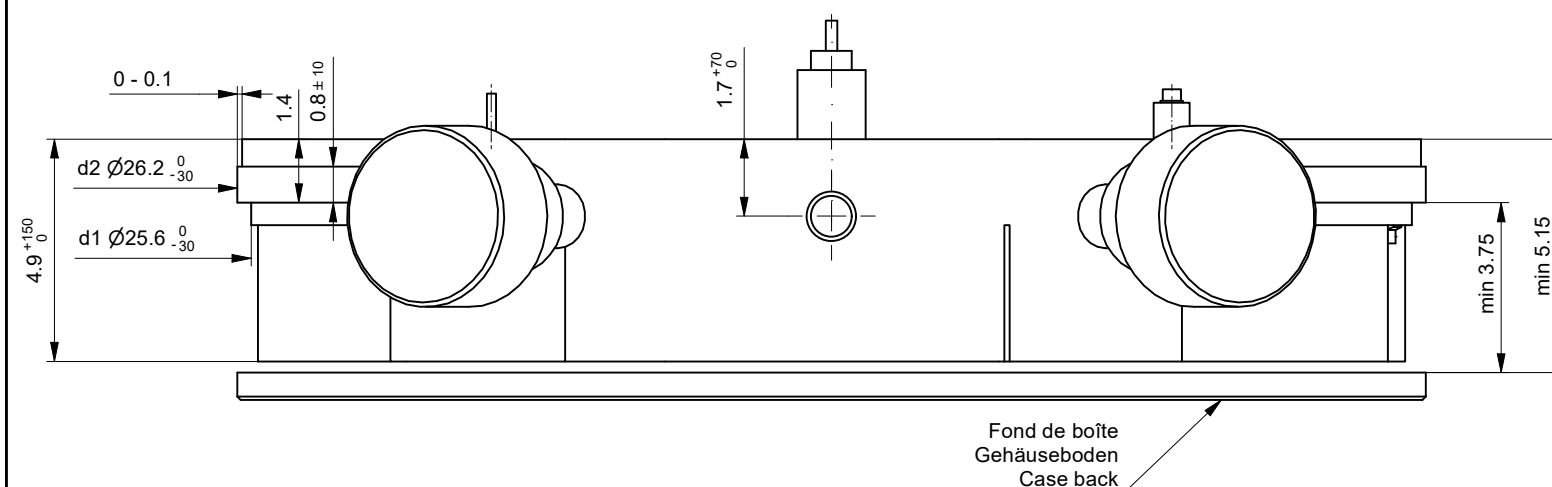
L'angle indiqué pour la direction du poussoir et la position doivent être respectés. pour un autre angle des poussoirs A et B, voir plan 5000.384.

Der angegebene Winkel für die Drückerrichtung und die Position müssen eingehalten werden. Für weitere Drückerwinkel A und B, siehe Zeichnung 5000.384.

The indicated angle of the pusher direction and the position must be fulfilled. For further angles of the pusher A and B, see drawing 5000.384.



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

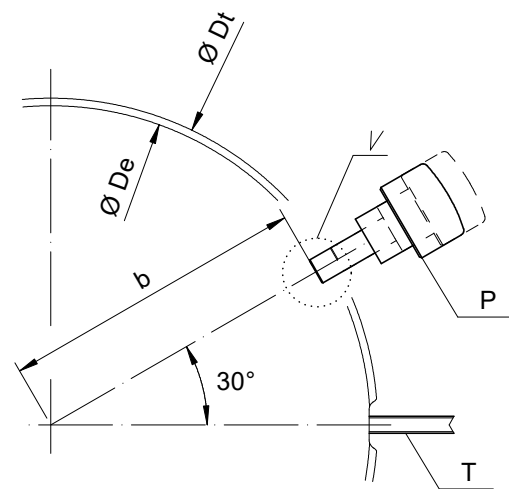


Cage Uhrwerkgestell 11½" X 10½" Frame

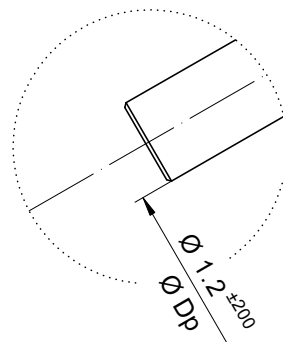
RONDA 3520.D

Issued	18.05.2009	mg5227
Modified	11.05.2022	dh5221
Released	YES	
Mod. No.	45310	
Tolerance	±20 µm	
Scale	6:1	Page 1 / 1 A3
Sous réserve de modifications Änderungen vorbehalten Modifications reserved		
No.	5000.385	02

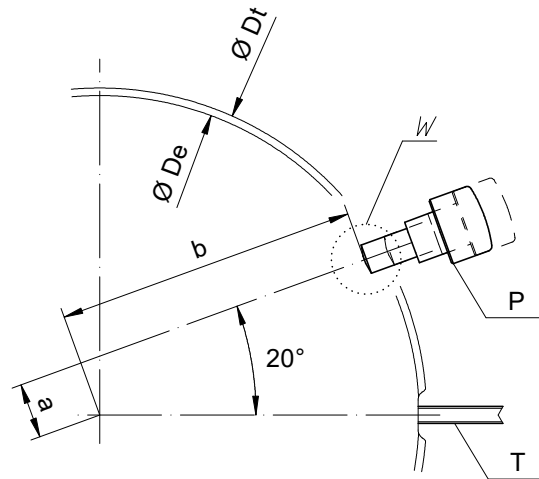
Angle Winkel Angle	30°	
Ø Dp	b	
1.00	11.95	
1.10	11.95	
1.20	11.95	
1.30	11.95	
1.40	11.95	



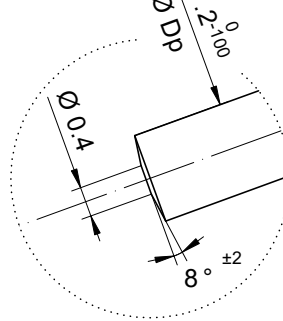
Detail V



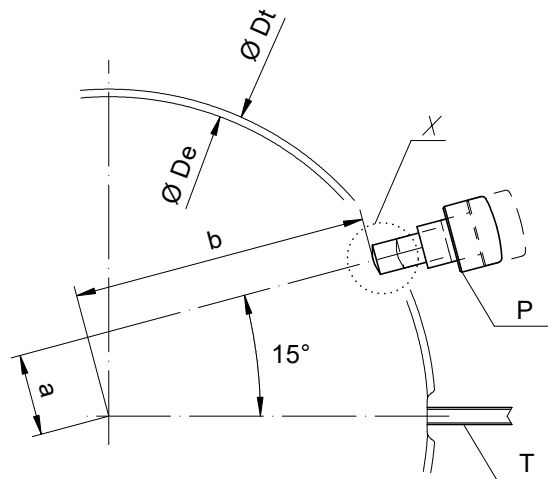
Angle Winkel Angle	20°	
Ø Dp	a	b
1.10	1.94	11.84
1.20	1.99	11.84



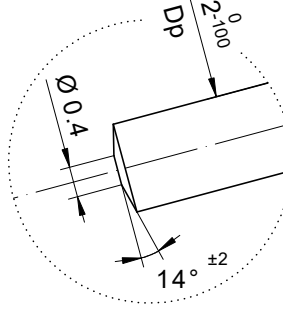
Detail W



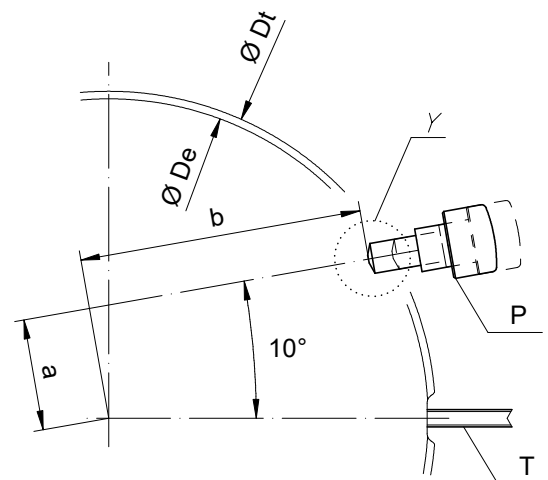
Angle Winkel Angle	15°	
Ø Dp	a	b
1.10	2.97	11.64
1.20	3.02	11.63



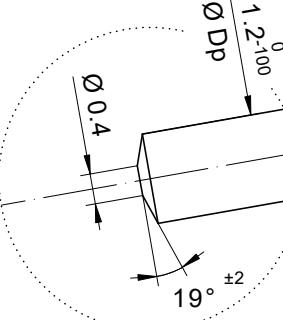
Detail X



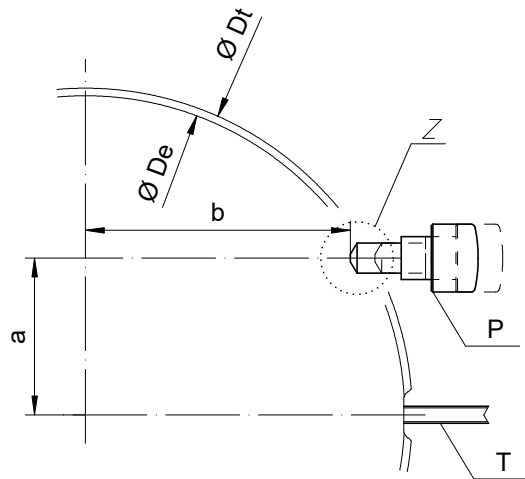
Angle Winkel Angle	10°	
Ø Dp	a	b
1.10	3.98	11.35
1.20	4.03	11.33



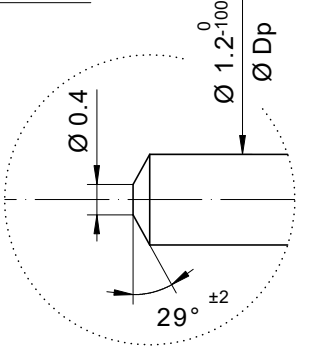
Detail Y



Angle Winkel Angle	0°	
Ø Dp	a	b
1.10	5.92	10.51
1.20	5.97	10.48



Detail Z



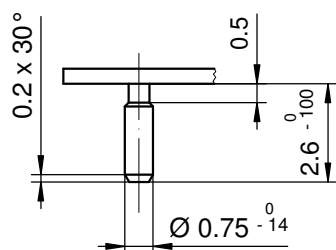
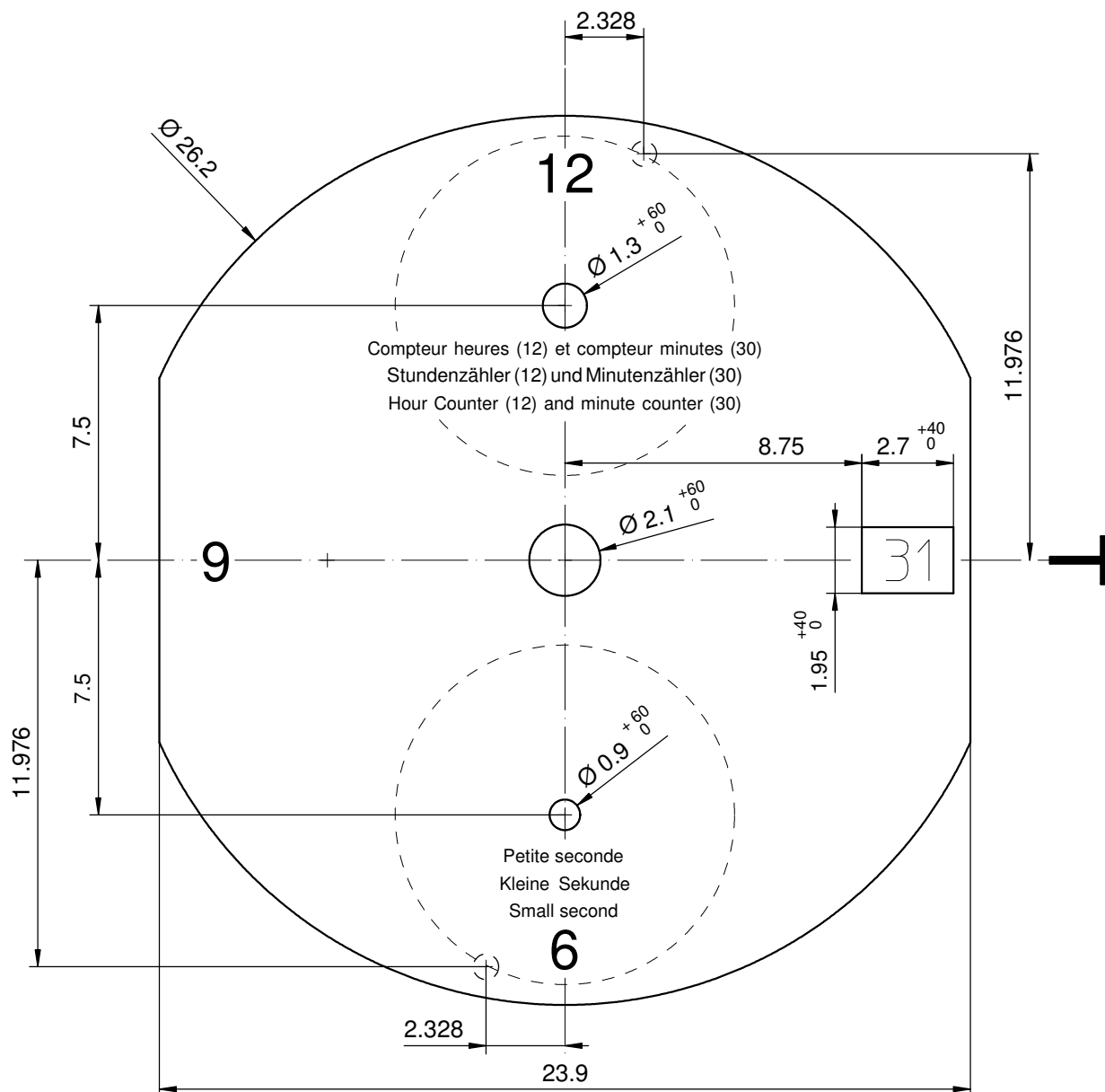
- Ø De: diamètre d'encageage
Durchmesser der Gehäusepassung
fitting-diameter
- Ø Dp: diamètre du poussoir
Drückerdurchmesser
pusher-diameter
- Ø Dt: diamètre total
Totaldurchmesser
total-diameter
- P: poussoir en position poussée
Drücker in gedrückter Stellung
pusher in pressed position
- T: tige de mise à l'heure
Stellwelle
stem

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

RONDA

35xx.x

Issued	02 Feb 2010	mK
Modified	03 Feb 2011 ÄA 6970	mK
Released	YES	
Tolerance	+/- 20 µm	
Scale	2.5 : 1 (10 : 1) (A3H)	
Sous réserve de modifications Äenderungen vorbehalten Modifications reserved		
No.	5000.384	00



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	3H

Cadran
Zifferblatt
Dial

11½ x 10½"

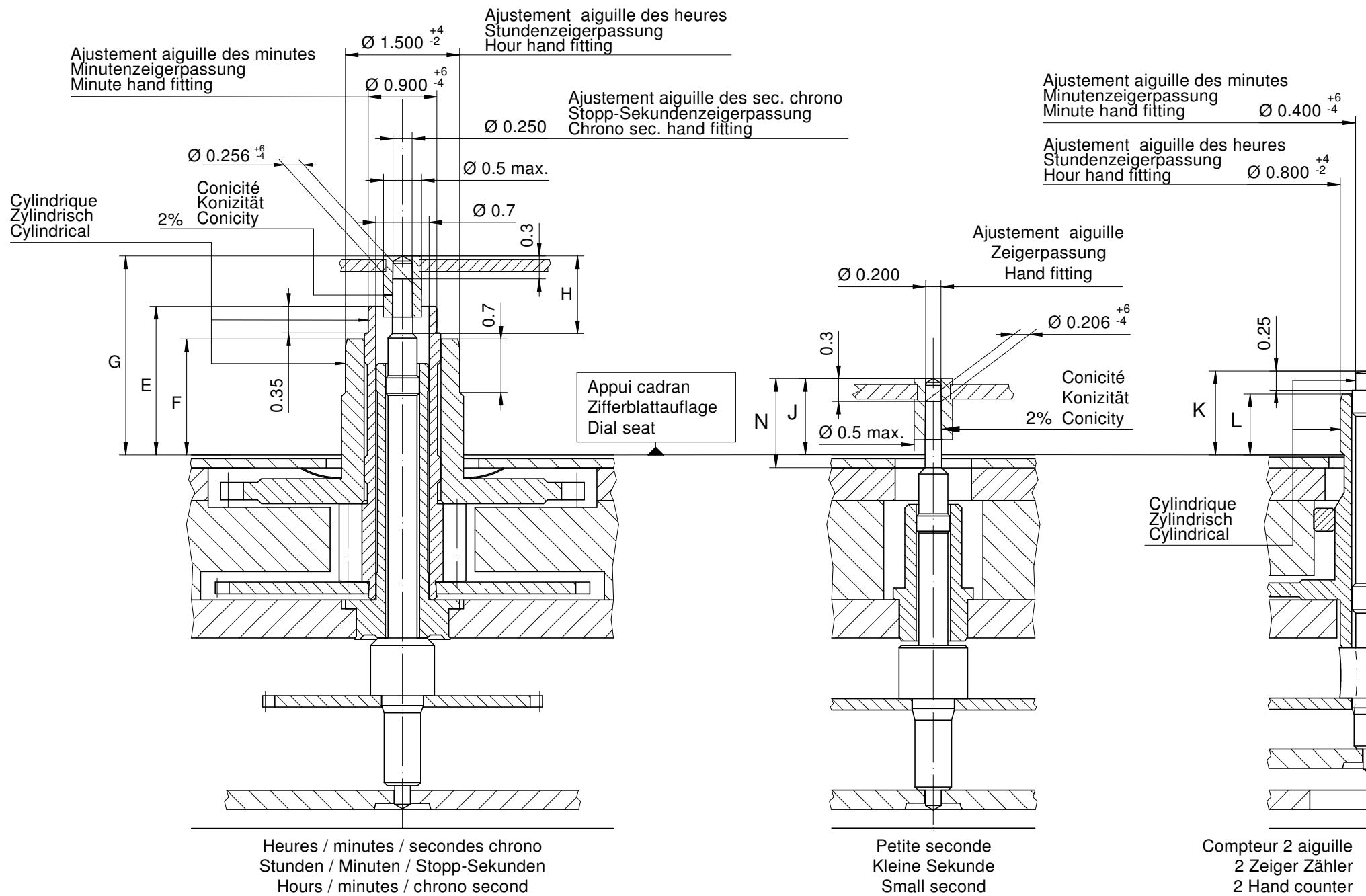
Issued	18 Mai 2009	mg
Modified	03 Feb 2011 ÄA 6970	mK
Released	YES	
Tolerance	+/- 20 µm	
Scale	5 : 1 (A4V)	

RONDA

3520.D

Sous réserve de modifications
Änderungsvorbehalten
Modifications reserved

No.	5010.671	00
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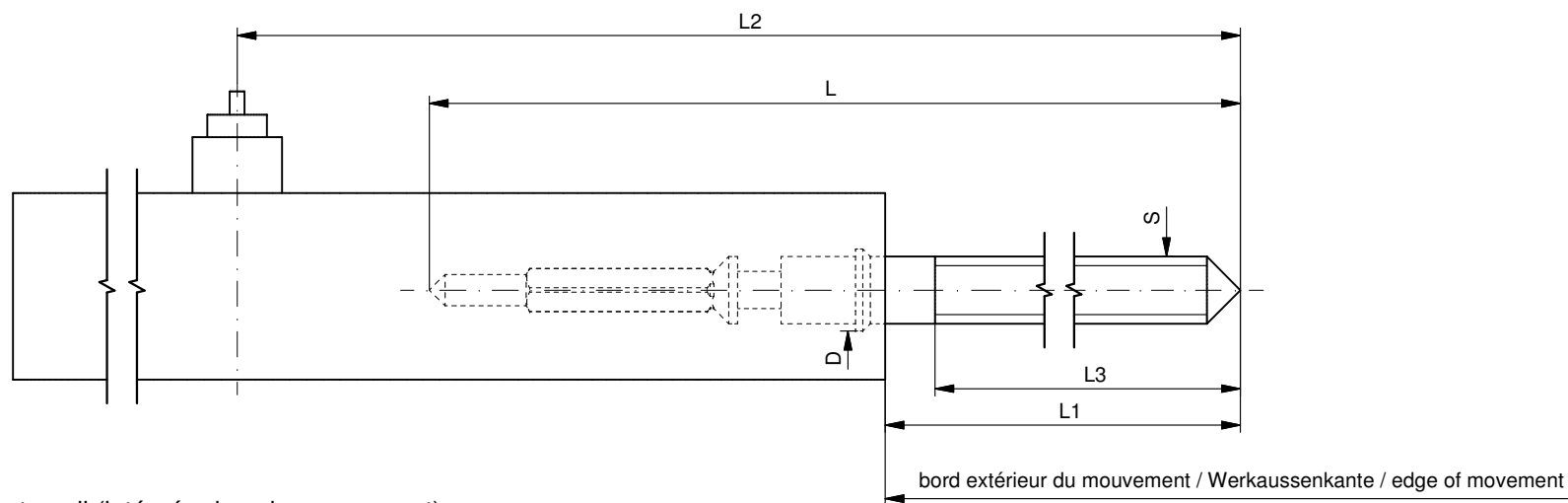
Aiguillages Zeigerwerkhöhe Hand fitting height								
Dépassement Höhe über Zifferblattauflage Height over dial seat								
No	Pignon des secondes chrono Stopp-Sekundentrieb Chrono second pinion	Chaussée Minutenrohr Cannon-pinion	Roue des heures Stundenrad Hour wheel			Compteur 2 aig. 2 Zeiger Zähler 2 Hand counter		
						Chaussée Minutenrohr Cannon-pinion	Roue des heures Stundenrad Hour wheel	Petite seconde Kleine Sekunde Small second
	G	E	F	H	N	K	L	J
1	2.61	1.95	1.52	1.00	1.15	1.10	0.80	1.00
-								

Aiguillages Zeigerwerkhöhe Hand fitting height								
Peinture comprise / inkl. Farbe / Paint included								
Epaisseur maximum du cadran Maximale Zifferblattstärke Maximum dial thickness								
No	Sous l'aiguille des secondes chrono Unter Stopp-Sekundenzeiger Under chrono second hand	Sous l'aiguille des minutes Unter Minutenzeiger Under minute hand	Sous l'aiguille des heures Unter Stundenzeiger Under hour hand	Compteur 2 aig. 2 Zeiger Zähler 2 Hand counter		Sous l'aiguille de petite seconde Unter kleine Sekundenzeiger Under small second hand		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			
1	2.00	1.45	1.00	0.70	0.40	0.40		0.15
-								

		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		Aig. petite secondes Kleine Sekundenzeiger Small second hand	Lors de la pose d'aiguilles, le mouvement doit être soutenu. Beim Zeigersetzen muss das Werk abgestützt werden. The movement needs to be supported for hand setting.
					Aig. des minutes Minutenzeiger Minute hand	Aig. des heures Stundenzeiger Hour hand		
mg	max.	10	30	30	10	10	10	Masse / Masse / Weight *
μNm	max.	0.06	0.8	0.8	0.03	0.03	0.07	Balourd / Unwucht / Unbalance *
gmm ²	max.	1.0	-	-	1.0	-	0.4	Inertie / Massenträgheit / Inertia *
N	max.	30	40	40	30	30	30	Force de chassage / Aufpresskraft / Force

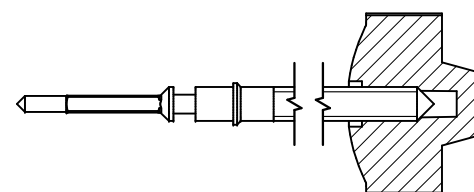
Aiguillages Zeigerwerkhöhen 11½" Hand fitting heights		Issued	30 Apr 2009	mg
		Modified	15 Okt 2014 ÄÄ 13275	dh
		Released	YES	
		Tolerance	μm	
		Scale	15 : 1 (A3H)	
		Sous réserve de modifications Änderungen vorbehalten Modifications reserved		
		No.	3316.130	01

* 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)

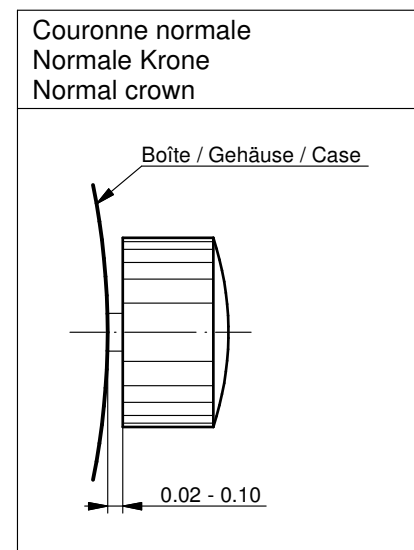
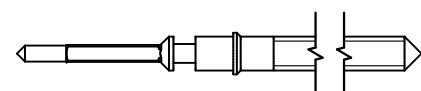
No. d'article Artikelnummer Part number	L	L1	L2	L3	S	D
3000.205.CO	19.24	10.95	22.90	10.15	0.90	1.10



Couleur de la couronne Kronenfarbe Crown color	gris clair hellgrau light grey
Code	UN 7014

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

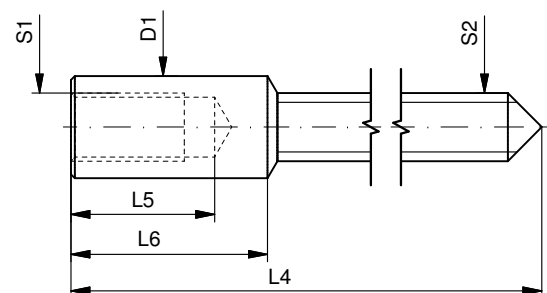
No. d'article Artikelnummer Part number	L	L1	L2	L3	S	D
3000.205	19.24	10.95	22.90	10.15	0.90	1.10
3000.210	32.00	23.71	35.66	22.91	0.90	1.10



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

3520.D, 3540.D

Issued	07 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.	5030.024	01



Movement holder
Removing setting stem
H35XX.1T



Movement holder
Setting hands
H35XX.1A

Fitting dial and hands

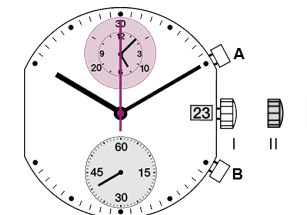
- Crown in position III
- Wind hour hand forwards, until date changes
- Remove working hand
- Position friction spring 3315.016 on hour wheel, if not already in place
- Fit dial
- Point all hands towards 12 o'clock
- Set time
- Zero the Chronograph hand*
- Crown in position II
- Set date
- Crown in position I

Date switching duration:

~1¼hrs

*Zeroing the Chronograph hand

- Push correctors A and B at the same time for 2 seconds
(Chrono-seconds hand rotates once)
- Pusher A → to correct chrono seconds
- Pusher B → to make minute and hour counters jump
- Pusher A → to correct counter 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.

朗达 明星系列 - 机芯型号 3520.D

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

显示项目

控制按钮

分针

分钟计

小时计

中心秒针

时针

秒针

日历

按钮 A

把的

按钮 B

01

计时器(基本功能)

(开始 / 停止 / 还原)

例子:

1 开始: 按下按钮 A.

2 停止: 再按下按钮 A 停止计时, 然后阅读计时计: 4小时 / 20 分 / 38 秒

3 返回零位置: 按下按钮 B. (计时指针会还原到零位置).

05

计时器: 计算累积时间

例子:

1 开始: (开始计时)

2 停止: (例子: 15分 5秒 1 后)

3 再开始: 继续计时

4 停止: (例子: 5分 12秒 3 后) = 20分 17秒 (显示累积计算时间)

5 还原: 计时指针会还原到零位置.

注意: * 步骤 4 后, 可再按下按钮 A 继续计算累积时间 (再开始 / 停止, 再开始 / 停止, ...)

06

设定时间

1 把的拉至位置 III (腕表停止运行).

2 转动把的至正确时间 8:45.

3 推把的回位置 I

注意: 为了设定准确的秒数, 1 当秒针指向 „60“. 拉把的设定至小时及分钟后, 2 必须在正确的秒数将把的推回位置 I

02

计时器: 计算分段时间

例子

1 开始: (开始计时)

2 显示分段时间: 例子 20 分钟 17 秒 (指针停止, 计时器仍然在背 后 运行)

3 追时: (计时指针会迅速到达持续计算的时间).

4 停止: (显示最后的时间)

5 还原: 计时指针返回零位置

注意: * 步骤 4 后, 可再按下按钮 B 继续计算分段时间 (显示分段时间 / 追时, ...)

07

设定日期 (快速模式)

1 把的拉至位置 II (腕表继续运行).

2 转动把的至正确日期 I

3 推把的回位置 I

注意: 8:30 PM 至 12 PM 为日历转换时段, 若在这时段内设定日期, 必须比正确日期多转一天.

03

调较计时指针到零位置

例子: 当有时计指针不在零位置时, 便需要调较指针 (例如: 更换电池后).

1 把的拉至位置 III (计时指针在 / 不在零位置).

2 同时及持续按下按钮 A 及 B 最少 2 秒 (中心秒针会转动 360° → 修正模式启动).

08

更换电池后设定日期/时间

例子: - 腕表上的日期/时间 17 / 1:25 AM - 现在的日期/时间 14 / 8:30 PM

1 把的拉至位置 II (腕表继续运行).

2 转动把的至昨日日期 III.

3 把的拉至位置 III (腕表停止运行).

4 继续转动把的至正确日期 I.

5 继续转动把的至正确时间 8:30 PM

6 将把的推回位置 I

注意: * 为了设定至准确的秒数 请参阅步骤 « 设定时间 » ** 请注意腕表上的 AM/PM 模式

04

调较中心秒针

单步前进 1 x 短按

连续前进 长按

调较下一支指针 B

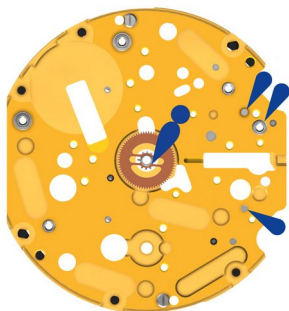
调较分钟计及小时计指针 (机械连结)




单步前进 1 x 短按

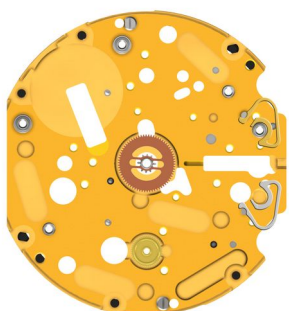
连续前进 长按

推把的回位置 I 结束调较计时指针 (在何时候执行).

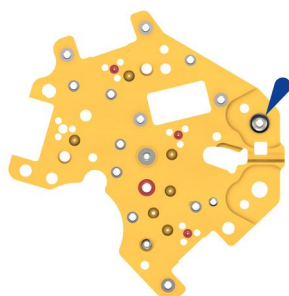
08



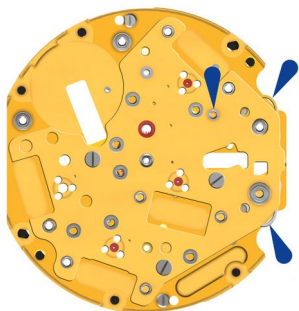
- | | | | |
|---|---|--|---------------------------|
| 1 |  | 2000.703.G | Main plate |
| 2 |  | 3305.357.CO | Cannon pinion (Aig.) |
| 3 |  | 8200 / J124
1x Jismaa 124 / 3x Moebius 8200 | Moebius 8200 / Jismaa 124 |








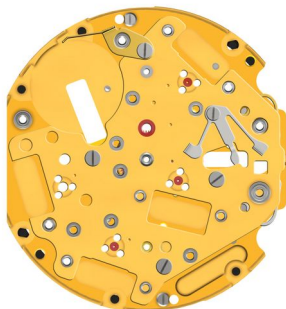
- | | | | |
|---|--|----------|---|
| 4 |  | 3406.030 | Push jumper B
Put the grey jumper between the two pillars. |
| 5 |  | 3406.038 | Pusher jumper A
Put the yellow jumper between the two pillars. |
| 6 |  | 3301.318 | Hour wheel counter (Aig.) |



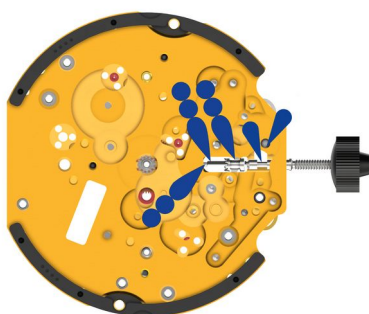
- | | | | |
|---|---|------|---|
| 7 |  | 8200 | Moebius 8200
Das folgende Bauteil vor der Montage rückseitig fetten. |
|---|---|------|---|






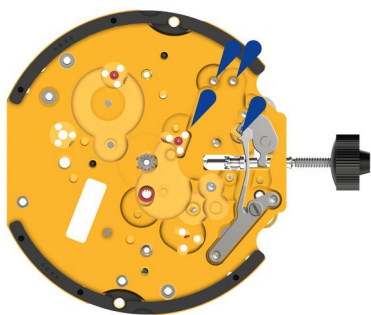
8		2030.035.CO	Center bridge
9		4000.250	Schraube
10		4000.250	Schraube
11		4000.250	Schraube
12		8200	Moebius 8200







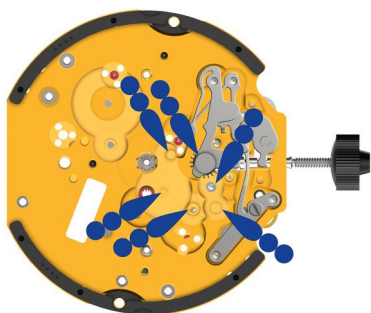
13		3016.030	Stop lever
14		4000.305	Screw
15		3601.140.G	Lateral bridle
16		4000.250	Schraube






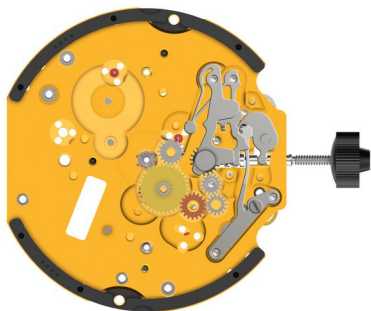
17		3000.205.CO	Working stem (dual)
18		3001.066.FI	Sliding pinion
19		8200 / 9020 2x Moebius 8200 / 3x Moebius 9020	Moebius 8200 / Moebius 9020



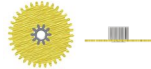




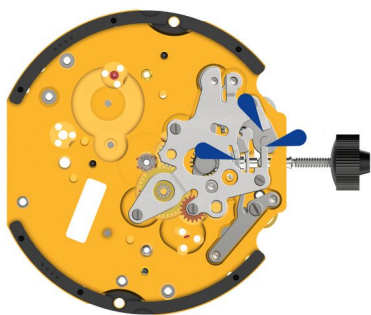
- | | | | |
|----|---|-------------|----------------------|
| 20 |  | 3017.061.CO | Setting lever |
| 21 |  | 3905.078 | Setting lever jumper |
| 22 |  | 4000.304 | Screw |
| 23 |  | 8200 | Moebius 8200 |




- | | | | |
|----|--|-------------|--------------------|
| 24 |  | 3015.092 | Yoke |
| 25 |  | 3015.093.CO | Setting wheel yoke |
| 26 |  | 9020 | Moebius 9020 |





- | | | | |
|----|---|-------------|------------------------------|
| 27 |  | 3004.200 | Corrector setting wheel |
| 28 |  | 3004.200 | Corrector setting wheel |
| 29 |  | 3007.090.CO | Minute wheel |
| 30 |  | 3004.234.TA | Date corrector setting wheel |
| 31 |  | 3004.233 | Intermediate setting wheel |





32  2130.215 Setting mechanism cover

33   4000.336 Screw

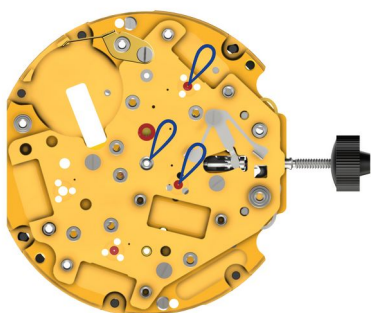
34   4000.336 Screw

35   4000.336 Screw

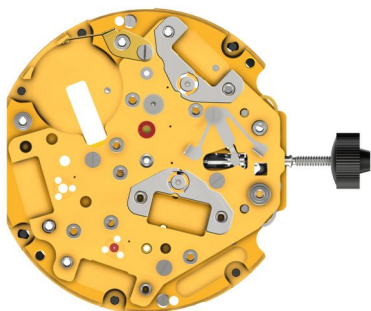
36   4000.336 Screw


37   4000.336 Screw


38  8200 Moebius 8200







39  9014 Moebius 9014



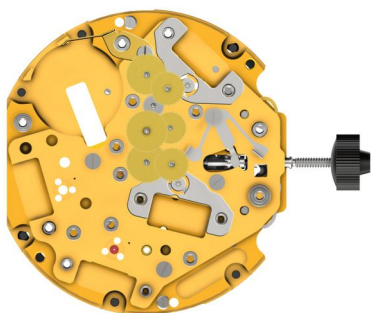
40  3622.057 Stator
Mark 1 / 2 on stator.













41  3622.057 Stator
Mark 1 / 2 on stator.

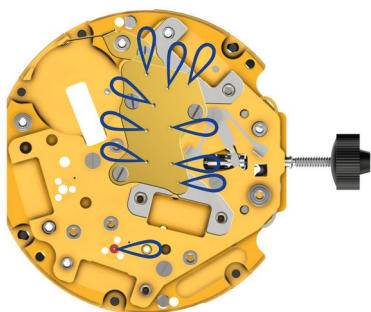
42   3715.124.RK Rotor









43   3715.124.RK Rotor

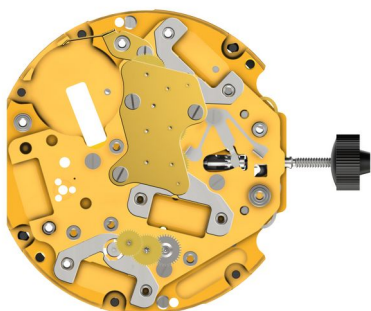
44   3004.229 Second intermediate wheel










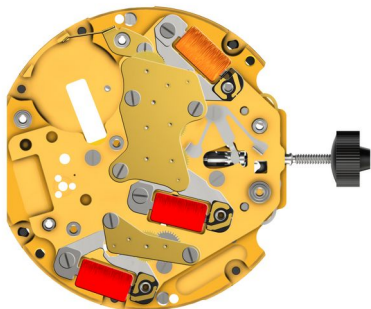
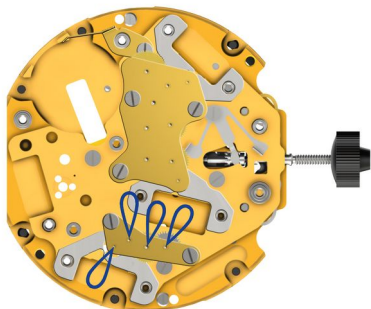
45			3136.197.CO	Small second wheel (Aig.)
46			3147.079.CO	Intermediate wheel
47			3136.198.CO	Second wheel (Aig.)
48			3136.199.CO	Chronograph wheel (Aig.)
49			3147.079.CO	Intermediate wheel
50			3122.069.CO	Third wheel

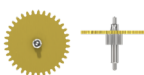


51			2020.199.G	Train wheel bridge
52			4000.282	Screw
53			4000.282	Screw
54			4000.282	Screw
55			9014	Moebius 9014





56			3622.058 Mark 3 on stator.	Stator
57			3715.125.RK	Rotor
58			3007.091.CO	Minute wheel (counter)
59			3402.048.CO	Minute-counting wheel



60  3147.083.CO Intermediate wheel

61  2020.201.G Counter train wheel bridge


62  4000.282 Screw


63  4000.282 Screw

64  9014 Moebius 9014


65  3621.080.RK Coil
Attention: Please hold the coil only on the grey coil core.

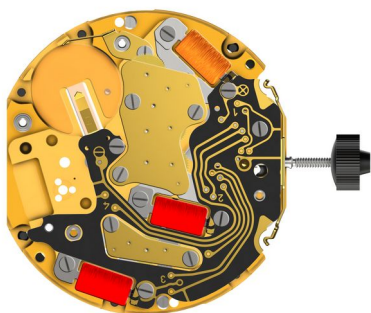
66  3621.054.RK Coil
Attention: Please hold the coil only on the grey coil core.









67  3621.054.RK Coil
Attention: Please hold the coil only on the grey coil core.

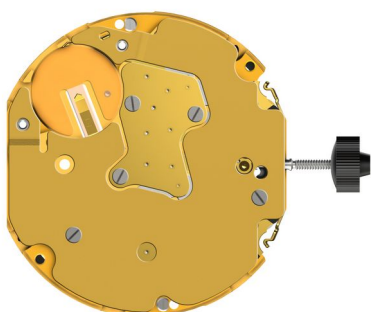
68  4000.250 Schraube


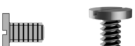

69  4000.250 Schraube

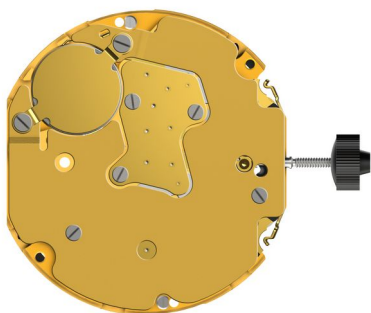
70  4000.250 Schraube




71		3603.092	Battery insulator
72		3601.141.G	Contact spring for pusher
73		3612.244.RK.3520	Electronic module
74		4000.248	Screw
75		4000.248	Screw
76		4000.248	Screw
77		4000.248	Screw
78		4000.248	Screw





79		2130.212.G.M01.3520D	Electronic modul cover
80		4000.250	Schraube
81		4000.250	Schraube

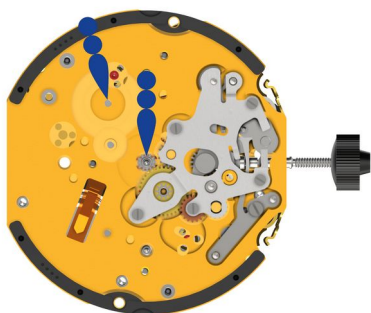



82  3600.011.HGF Battery 384 (Ø 7.90 x 3.60)

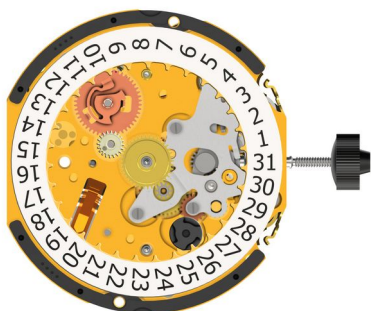
83  3601.139.G Bridle +


84  4000.335 Screw


85  4000.335 Screw



86  9020 Moebius 9020




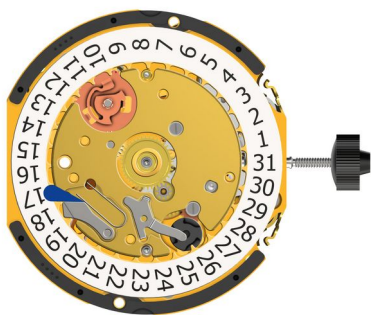
87  3301.317 Hour wheel (Aig.)







88  3507.062 Date corrector

89  3004.230.CO Date indicator driving wheel







90  3147.082 Intermediate date wheel

91  3504.238.AA.1.A Date indicator (T3, G3)
Nick of the indicator at 3 o'clock.

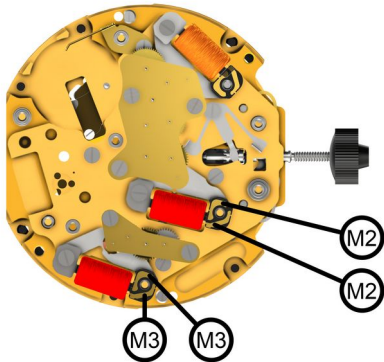


92		2130.213	Date indicator maintaining plate
93		3315.016	Friction spring
94		3905.079	Date corrector spring
95		3500.076	Date jumper
96		3905.077	Date jumper spring
97		8200	Moebius 8200

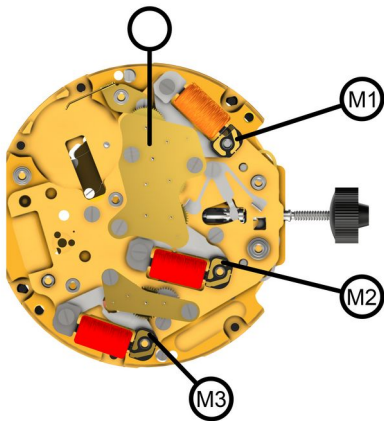


98		2130.214	Date mechanism maintaining plate
99		4000.337	Screw
100		4000.337	Screw
101		4000.337	Screw
102		4000.337	Screw
103		4000.337	Screw

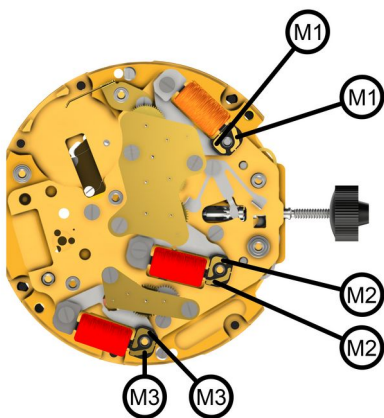
Measurement



Signal generator (4.9ms, 8Hz)
< 1.20 V



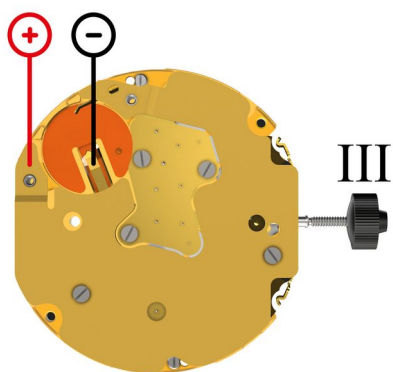
Coil isolation M1 - M3
infinite



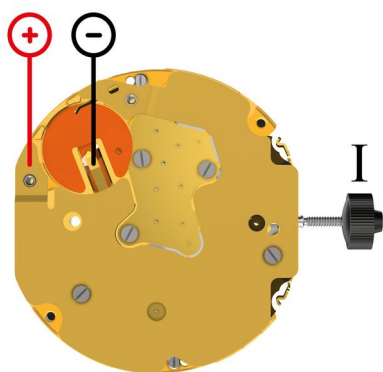
Coil resistance M3
(min./max.) 1680 - 1880 Ohm

Coil resistance M2
(min./max.) 1680 - 1880 Ohm

Coil resistance movement
(min./max.) 2200 - 2400 Ohm



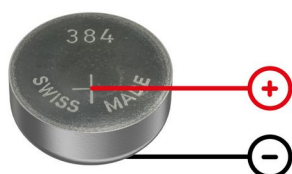
Setting stem in position III, 60 s measuring interval.
(typ./max.) 0.10 / 0.30 μ A



Lower working voltage limit
<1.20 V

60s measuring interval
-10 .. +20s/mth

Setting stem in position I, calendar not in gear, 60s measuring interval.
(typ./max.) 1.48 / 2.00 μ A



Voltage
typ. 1.5 V