



UNIQUE
BY SWISS DESIGN

#rondamovement

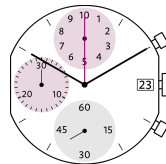
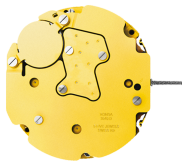
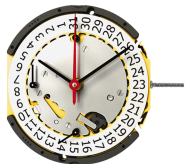
 **RONDA**

Quartz Movements

Chronographs

RONDA startech

Caliber 3540.D – 10½ x 11½"



Product Specifications

Analog quartz movement

Line	startech
Caliber	3540.D
Size	10½ x 11½"
Version Swiss Made	5 Jewels / gold plated
Version Swiss Parts	5 Jewels / nickel plated
Standard battery life	54 months
Standard hand fitting height	1

Features

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

Functions

- 30 minute counter
- Center stop second (1/1 sec)
- 10 hour counter
- 1/10 seconds up to 30 minutes
- ADD and SPLIT functions
- Chronograph
- Small second
- Date

Quartz Movements

Chronographs

RONDA startech

Caliber 3540.D – 10½ x 11½"

Technical Specifications

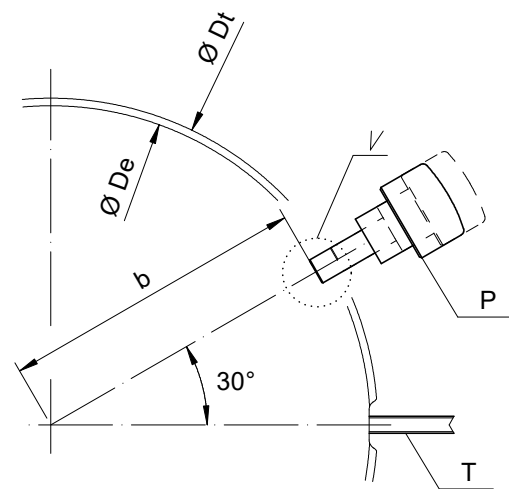
Diameter Total	26.20 mm
Case fitting	23.90 mm
Movement height	4.90 mm
Height over standard battery	4.90 mm
Movement rest	0.80 mm
Height over stem	1.70 mm
Length of stem travel	1.00 mm
Stem thread	0.90 mm
Useful torque second – typical	6 µNm
Useful torque minute – typical	300 µNm
Useful torque center stop second – typical	6 µNm
Operating temperature	0 - 50 °C
Instantaneous rate	-10/+20 sec/month
Resistance to magnetic fields	18.8 Oe
Resistance against shock	NIHS 91-10



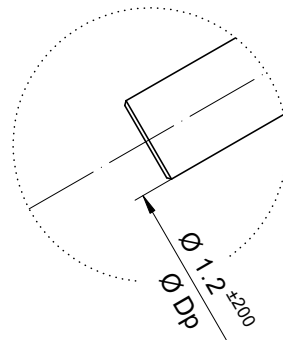
Battery Specifications

Standard battery	No. 384
Standard battery life	54 months
Battery voltage	1.5 V
Current consumption – typical	1.14 µA (Date Mechanism not in Gear)
Current consumption – maximum	1.65 µA (Date Mechanism not in Gear)

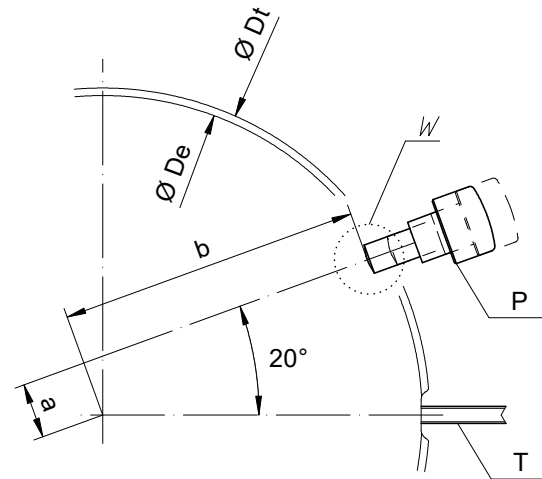
Angle Winkel Angle	30°	
Ø Dp	b	
1.00	11.95	
1.10	11.95	
1.20	11.95	
1.30	11.95	
1.40	11.95	



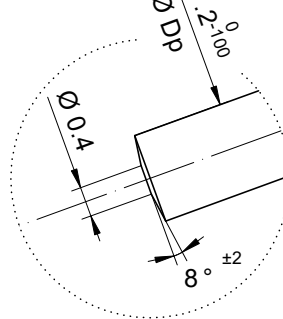
Detail V



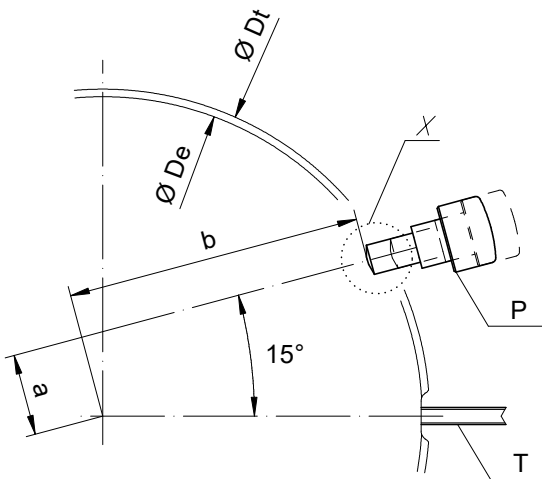
Angle Winkel Angle	20°	
Ø Dp	a	b
1.10	1.94	11.84
1.20	1.99	11.84



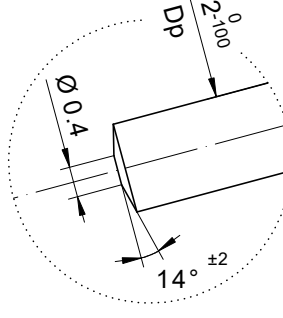
Detail W



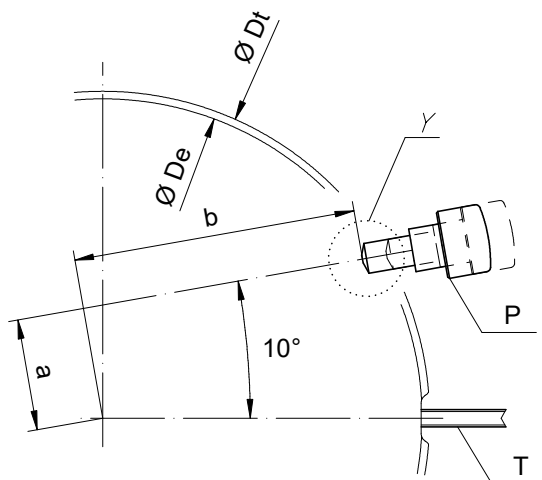
Angle Winkel Angle	15°	
Ø Dp	a	b
1.10	2.97	11.64
1.20	3.02	11.63



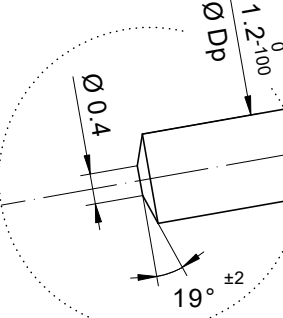
Detail X



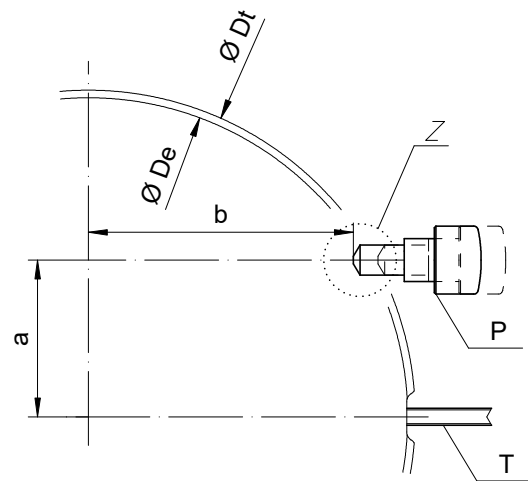
Angle Winkel Angle	10°	
Ø Dp	a	b
1.10	3.98	11.35
1.20	4.03	11.33



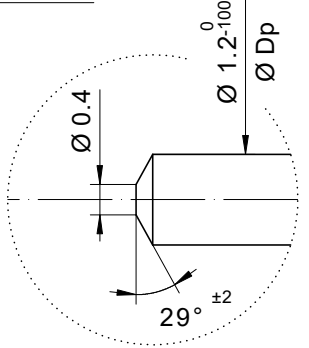
Detail Y



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

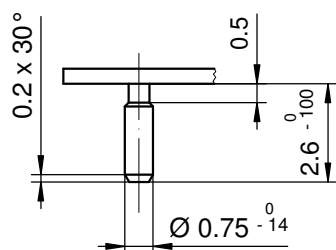
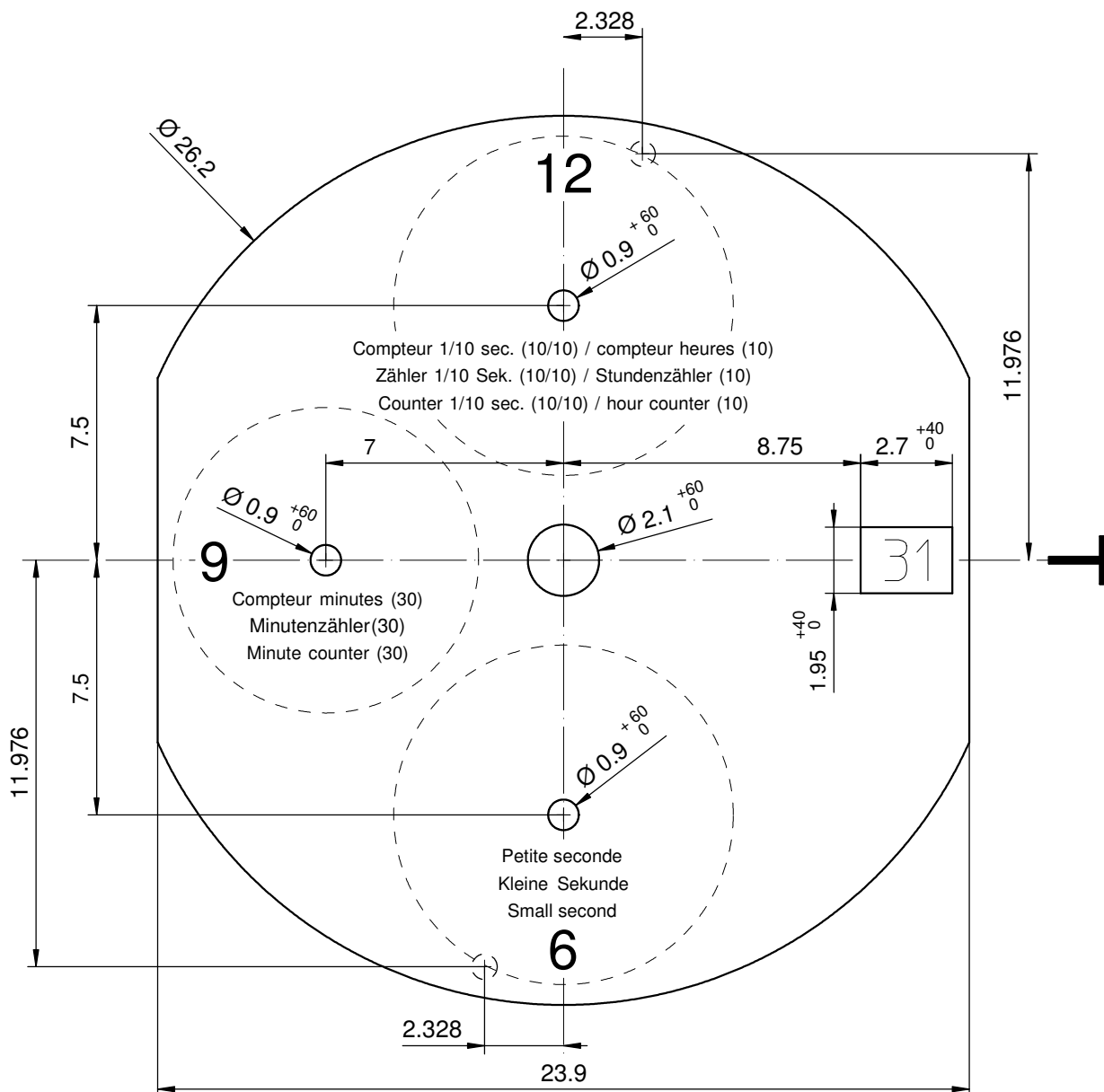


Detail Z



- 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		Issued	02 Feb 2010	mK
		Modified	03 Feb 2011 ÄA 6970	mK
		Released	YES	
		Tolerance	+/- 20 µm	
		Scale	2.5 : 1 (10 : 1) (A3H)	
RONDA	35xx.x	Sous réserve de modifications Äenderungen vorbehalten Modifications reserved		
		No.	5000.384	00

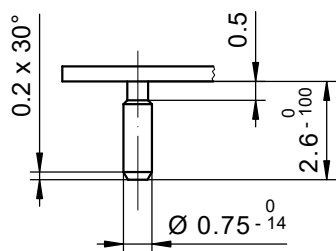
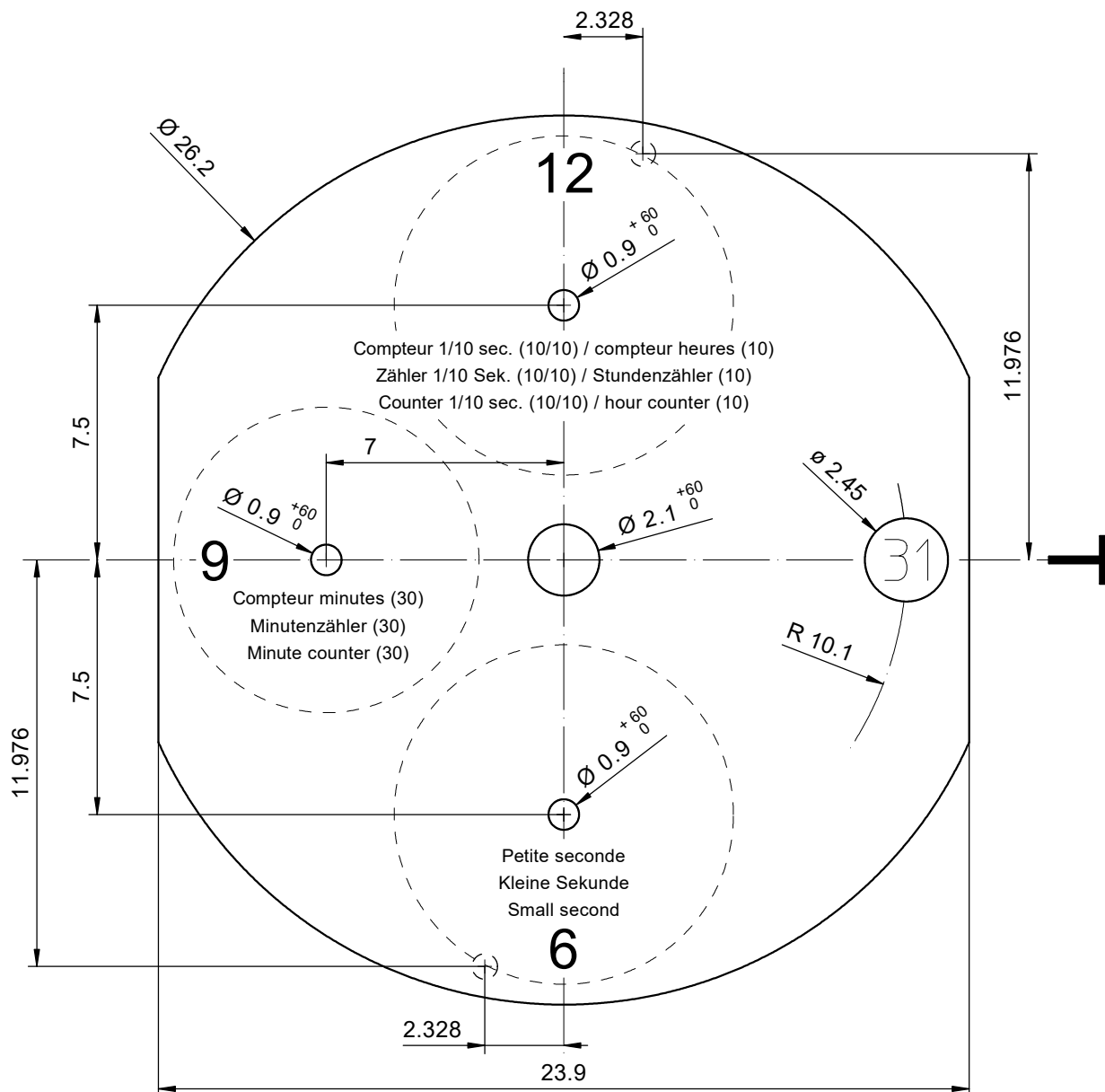


Epaisseur du cadran selon hauteur de l'aiguillage
Zifferblattdicke gemäss Zeigerwerkhöhen
Dial thickness according to hand fitting heights

Tige	Date
Stellw.	Datum
Stem	Date
3H	3H

<div>Cadran</div> <div>Zifferblatt</div> <div>Dial</div> <div>11½ x 10½"</div>		Issued		05 Mai 2009	mg
		Modified		03 Feb 2011 ÄA 6970	mK
		Released		YES	
		Tolerance		+/- 20 µm	
		Scale		5 : 1 (A4V)	
RONDA	3540.D	Sous réserve de modifications Änderungenvorbehalten Modificationsreserved			
		No.	5010.670	00	

11½ x 10½"



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
	○

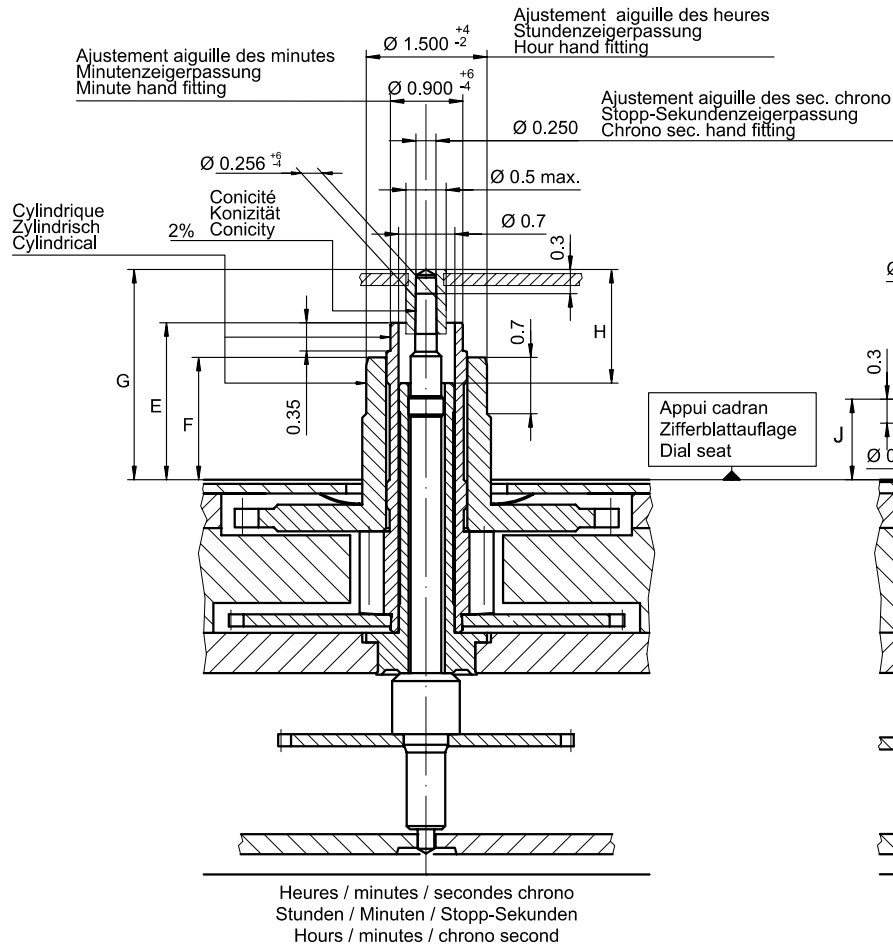
Cadran
Zifferblatt 11½ x 10½
Dial

Issued	04.10.2022	jk5228
Modified	05.10.2022	jk5228
Released	YES	
Mod. No.	45801	
Tolerance	±20 µm	
Scale	10 : 1	Page 1/1 A4

RONDA 3540.D

Sous réserve de modifications
Änderungen vorbehalten
Modifications reserved

No.	5010.857	00
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	Aig. des sec. chrono Stopp-Sekundenzeiger Chrono second hand	Aig. des minutes Minutenzeiger Minute hand	Aig. des heures Stundenzeiger Hour hand	Aig. petite secondes Kleine Sekundenzeiger Small second hand	Aiguille compteur (1 aig.) Zähler Zeiger (1 Zeiger) Counter hand (1 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.
mg max.	10	30	30	10	10	Masse / Masse / Weight *
μNm max.	0.06	0.8	0.8	0.07	0.03	Balourd / Unwucht / Unbalance *
gmm ² max.	1.0	-	-	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

Sous réserve de toutes modifications

Änderungen vorbehalten

All modifications reserved

Aiguillages Zeigerwerkhöhen Hand fitting heights

11½"

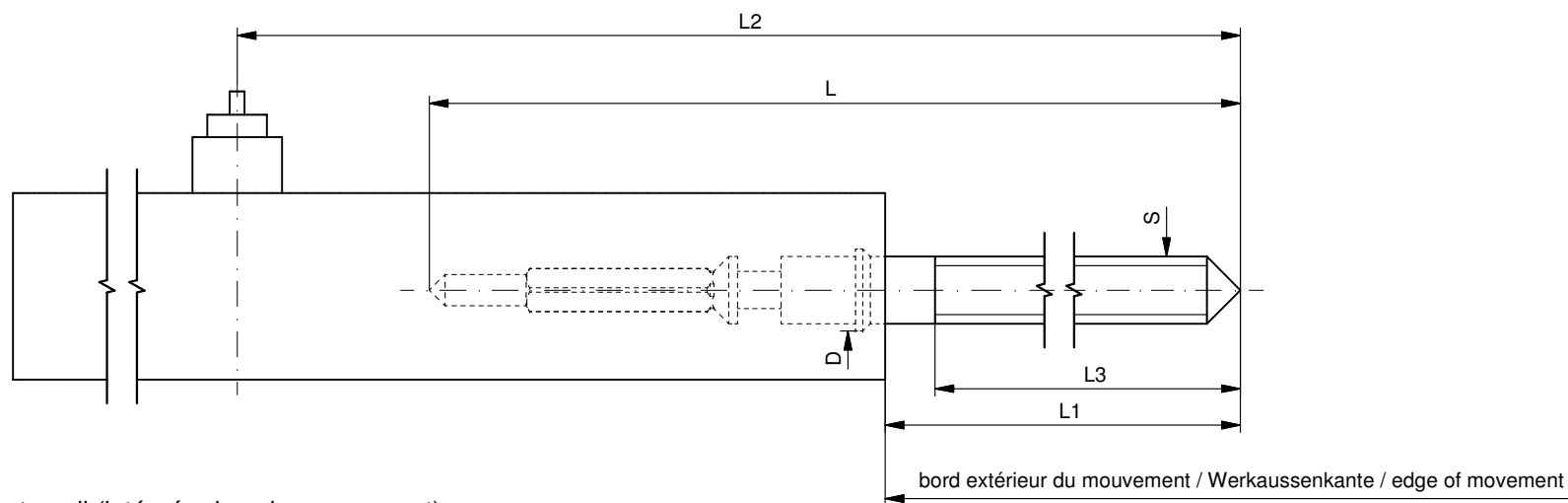
RONDA

3540.D

Issued	30 Apr 2009	mg
Modified	03 Feb 2011 ÄA 6970	mK
Released	YES	
Tolerance	μm	
Scale	15 : 1 (A3H)	
Sous réserve de modifications Änderungen vorbehalten Modifications reserved		
No.	3316.129	00

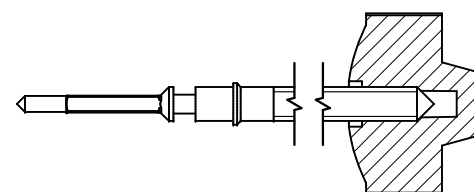
Aiguillages Zeigerwerkhöhe Hand fitting height					
Dépassement Höhe über Zifferblattauflage Height over dial seat					
Pignon des secondes chrono Stopp-Sekundentrieb Chrono second pinion	Chaussée Minutenrohr Cannon-pinion	Roue des heures Stundenrad Hour wheel		Petite seconde Kleine Sekunde Small second	1 aig. 1 Zeiger 1 Hand
No	G	E	F	H	J
1	2.61	1.95	1.52	1.41	1.00
-					

Aiguillages Zeigerwerkhöhe Hand fitting height					
Peinture comprise / inkl. Farbe / Paint included					
Epaisseur maximum du cadran Maximale Zifferblattstärke Maximum dial thickness					
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	Sous l'aiguille de petite seconde Unter kleine Sekundenzeiger Under small second hand	Sous l'aiguille compteur 1 aiguille Unter Zeiger 1 Zeiger Zähler Under hand 1 hand counter	Epaisseur des aiguilles Zeigerdicke Hands thickness
No					
1	2.00	1.45	1.00	0.60	0.15
-					



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

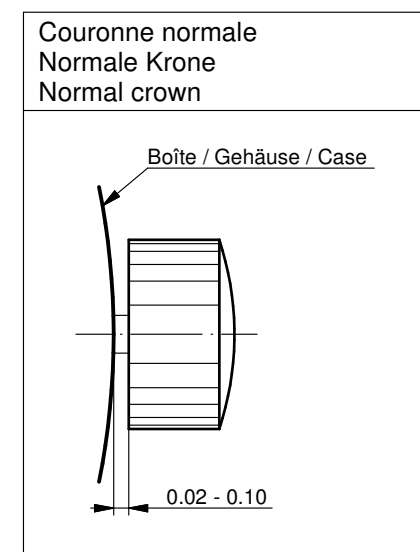
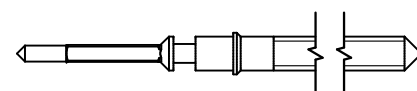
No. d'article Artikelnummer Part number	L	L1	L2	L3	S	D
3000.205.CO	19.24	10.95	22.90	10.15	0.90	1.10



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

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

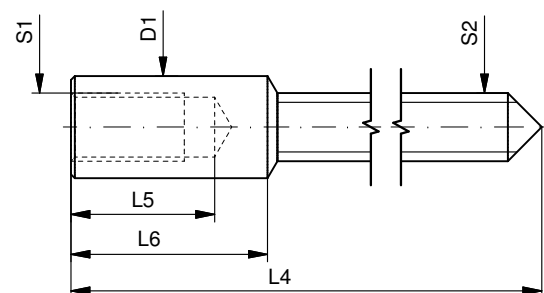
No. d'article Artikelnummer Part number	L	L1	L2	L3	S	D
3000.205	19.24	10.95	22.90	10.15	0.90	1.10
3000.210	32.00	23.71	35.66	22.91	0.90	1.10



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

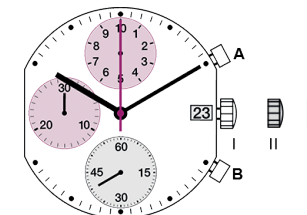
- Crown in position III
- Wind hour hand forwards, until date changes
- Remove working hand
- Place friction spring 3315.016 on hour wheel, if not already in place
- Fit dial
- Point all hands towards 12 o'clock
- Set time
- Zero chronograph hand*
- Crown in position II
- Set date
- Crown in position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

Date switching duration:

~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
- Pusher B → to make minute counter jump
- Pusher A → to correct hand position



General Instructions

Removing the setting stem can only be effected in Pos. I.

The use of supporting screws is essential when mounting the hands.

Permitted hand setting strengths:

Hr / min. hands: <40N

Other hands: <30N

During quick date correction (setting stem in position II), a date switching speed of 5 d/s must not be exceeded.

You have decided to buy a watch, which was assembled by a watchmaker using a Ronda movement. Please note that no watches are produced or distributed under the Ronda Brand.

In case of repairs, guarantee claims and questions concerning the functioning of a watch, purchasers and consumers should contact their retailer or the watch manufacturer, for which the relevant information can be found in the sales or guarantee documentation provided with the watch.

Description of the display and control buttons

Display elements

Minute hand

Second counter

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

Hour counter after 30 min.

Minute counter

Hour hand

Second hand

Date

Control buttons

Push-button A

Crown

Push-button B

01

Setting the time

- * Pull out the crown to position III (the watch stops).
- Turn the crown until you reach the correct time 8:45.
- * 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, 2 must be pushed back into position I at the exact second.

02

Setting the date (quick mode)

- Pull out the crown to position II (the watch continues to run).
- Turn the crown anticlockwise until the correct date 3 appears.
- Push the crown back into position I.

Please note:

During the date changing phase between approx. 08:30 PM and midnight, the date must be set to the date of the following day.

03

Setting the date/time

Example:

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

– Present date / time: 4 / 8:30 PM

- Pull out the crown to position II (the watch continues to run).
- Turn the crown anticlockwise until yesterday's date appears 3.
- * Pull out the crown to position III (the watch stops).
- Turn the crown until the correct date 4 appears.
- ** Continue to turn the crown until the correct time 8:30 PM appears.
- Push the crown back into position I.

Please note:

* To set your watch to the exact second, please refer to the chapter entitled «setting the time».

** Please observe the AM/PM clock rhythm.

04

Chronograph: Basic function

(Start / Stop / Reset)

Example:

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

05

Chronograph: Accumulated timing

Example:

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

Please note:

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

06

Chronograph: Intermediate or interval timing

Example:

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

Please note:

* Following 2, further intervals or intermediates can be displayed by pressing push-button B (display interval / make up measured time, ...).

07

Adjusting the chronograph hands to zero position

Example:

One or several chronograph hands are not in their correct zero positions and have to be adjusted (e.g. following a battery change).

- Pull out the crown to position III (all chronograph hands are in their correct or incorrect zero position.)
- Keep push-buttons A and B depressed simultaneously for at least 2 seconds (the second counter hand rotates by 360° → corrective mode is activated.)

08

Adjusting the second counter hand

Single step A 1 x short

Continuous A long

Adjusting the next hand B

Single step A 1 x short

Continuous A long

Adjusting the 1/2 second counter hand (position 12h)

Single step A 1 x short

Continuous A long

Adjusting the next hand B

Single step A 1 x short

Continuous A long

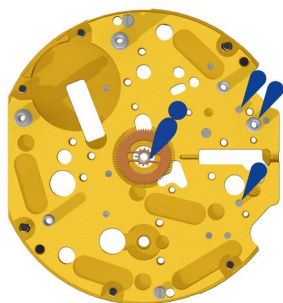
Adjusting the minute counter hand (position 9h)




Single step A 1 x short

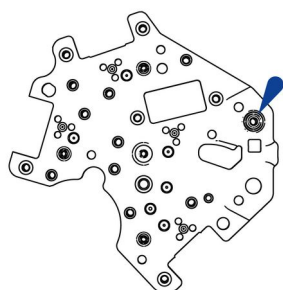
Continuous A long




Returning the crown to position I

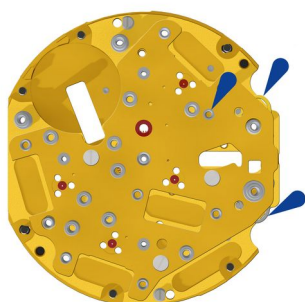
Termination of the chronograph hands adjustment (can be carried out at any time).








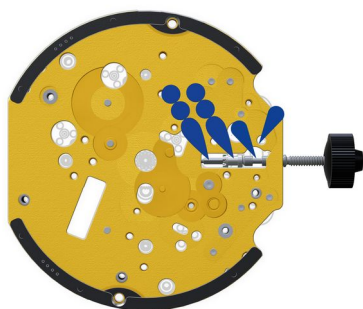
- | | | | |
|---|---|---|---------------------------|
| 1 |  | 2000.703.G | Main plate |
| 2 |  | 3305.357.CO | Cannon pinion (Aig.) |
| 3 |  | 8200 / J124
1x Jismaa 124
3x Moebius 8200 | Moebius 8200 / Jismaa 124 |








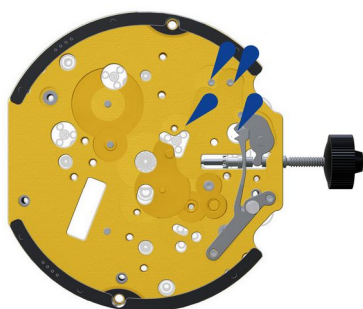
- | | | | |
|---|--|----------|---|
| 4 |  | 3406.030 | Push jumper B
Put the grey jumper between the two pillars. |
| 5 |  | 3406.038 | Pusher jumper A
Put the yellow jumper between the two pillars. |
| 6 |  | 8200 | Moebius 8200
Lubricate the following spare part before assembling. |







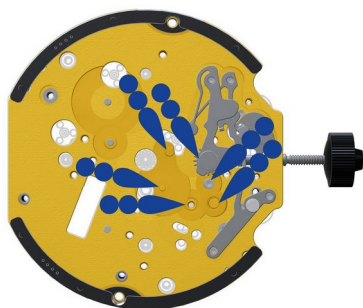
- | | | | |
|----|---|-------------|---------------|
| 7 |  | 2030.034.CO | Center bridge |
| 8 |  | 4000.250 | Screw |
| 9 |  | 4000.250 | Screw |
| 10 |  | 4000.250 | Screw |
| 11 |  | 8200 | Moebius 8200 |






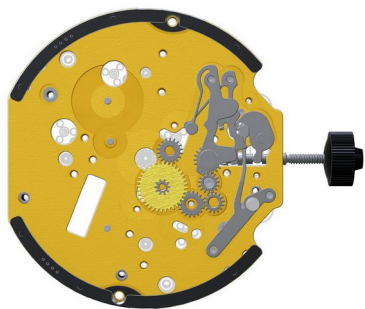
12		3016.030	Stop lever
13		4000.305	Screw
14		3601.140.G	Lateral bridle
15		4000.250	Screw
16		3000.205.CO	Working stem (dual)
17		3001.066.FI	Sliding pinion
18		8200 / 9020 2x Moebius 9020 2x Moebius 8200	Moebius 8200 / Moebius 9020








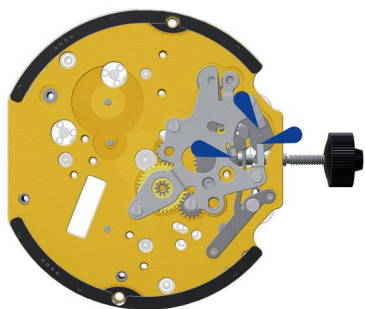
19		3017.061.CO	Setting lever
20		3905.078	Setting lever jumper
21		4000.304	Screw
22		8200	Moebius 8200










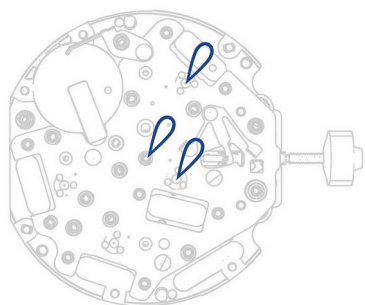
23		3015.092	Yoke
24		3015.093.CO	Setting wheel yoke
25		9020	Moebius 9020



26		3004.200	Corrector setting wheel
27		3004.200	Corrector setting wheel
28		3004.234.TA	Date corrector setting wheel
29		3007.090.CO	Minute wheel
30		3004.233	Intermediate setting wheel



31		2130.215	Setting mechanism cover
32		4000.336	Screw
33		4000.336	Screw
34		4000.336	Screw
35		4000.336	Screw
36		4000.336	Screw
37		8200	Moebius 8200

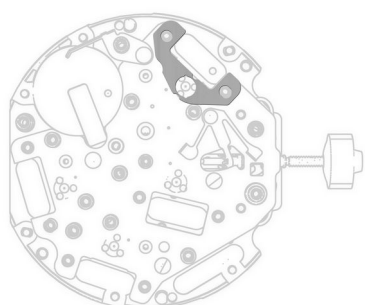


38



9014

Moebius 9014



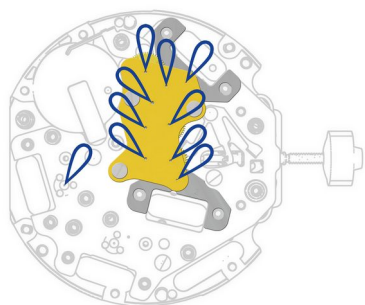
39



3622.057

Stator

Mark 1 / 2 on stator.



40



3622.057

Stator

Mark 1 / 2 on stator.

41



3715.124.RK

Rotor

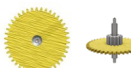
42



3715.124.RK

Rotor

43



3147.079.CO

Intermediate wheel

44



3136.199.CO

Chronograph wheel (Aig.)

45



3136.198.CO

Second wheel (Aig.)

46



3004.229

Second intermediate wheel

47




3136.197.CO

Small second wheel (Aig.)


48  3147.079.CO Intermediate wheel

49  3122.069.CO Third wheel

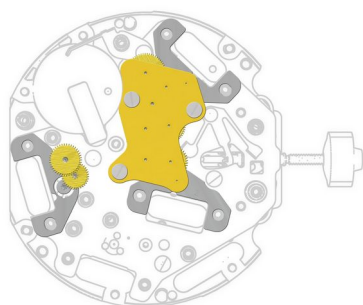
50  2020.199.G Train wheel bridge


51  4000.282 Screw


52  4000.282 Screw

53  4000.282 Screw

54  9014 Moebius 9014

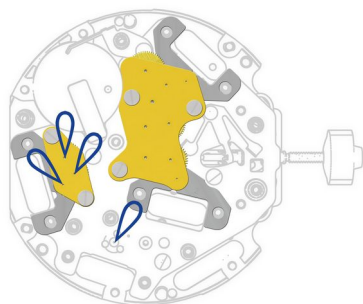


55  3622.059
Mark 4 on stator. Stator

56  3715.125.RK Rotor


57  3147.080.CO Intermediate wheel

58  3402.046.CO Minute-counting wheel

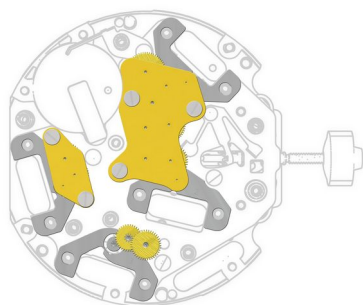




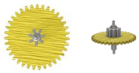
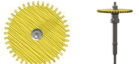
59  2020.203.G Counter train wheel bridge

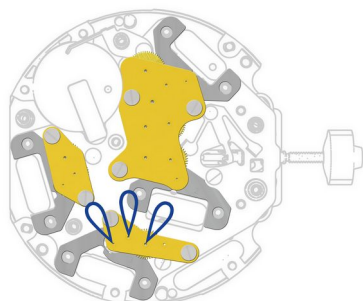
60  4000.282 Screw





61  4000.282 Screw

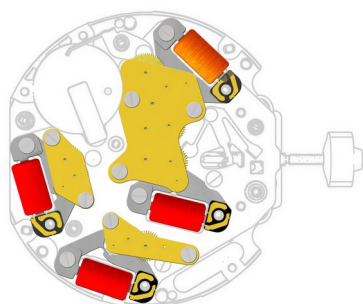
62  9014 Moebius 9014










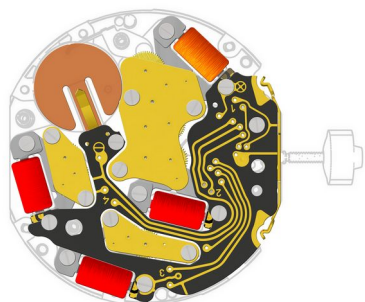
- | | | | |
|----|---|-------------------------------|----------------------------------|
| 63 |  | 3622.058
Mark 3 on stator. | Stator |
| 64 |  | 3715.125.RK | Rotor |
| 65 |  | 3147.081.CO | Intermediate wheel |
| 66 |  | 3402.047.CO | Tenth of a second counting wheel |






- | | | | |
|----|---|------------|----------------------------|
| 67 |  | 2020.201.G | Counter train wheel bridge |
| 68 |  | 4000.282 | Screw |
| 69 |  | 4000.282 | Screw |
| 70 |  | 9014 | Moebius 9014 |




- | | | | |
|----|---|--|-------|
| 71 |  | 3621.080.RK
Attention: Please hold the coil only on the grey coil core. | Coil |
| 72 |  | 3621.054.RK
Attention: Please hold the coil only on the grey coil core. | Coil |
| 73 |  | 3621.054.RK
Attention: Please hold the coil only on the grey coil core. | Coil |
| 74 |  | 3621.054.RK
Attention: Please hold the coil only on the grey coil core. | Coil |
| 75 |  | 4000.250 | Screw |
| 76 |  | 4000.250 | Screw |
| 77 |  | 4000.250 | Screw |






78	 	4000.250	Screw
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

79		3603.092	Battery insulator
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

80		3601.141.G	Contact spring for pusher
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

81		3612.244.RK.3540	Electronic module
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82	 	4000.248	Screw
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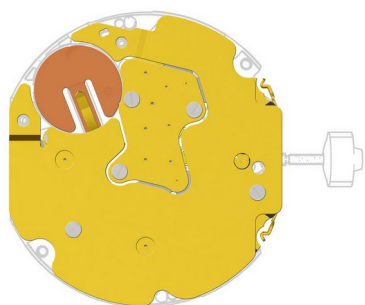
83	 	4000.248	Screw
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84	 	4000.248	Screw
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

85	 	4000.248	Screw
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

86	 	4000.248	Screw
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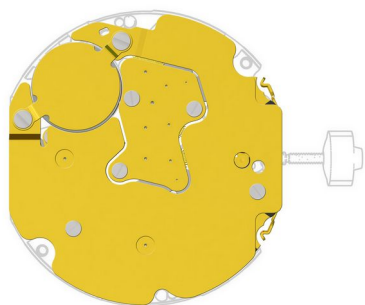
87	 	4000.248	Screw
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88		2130.212.G.M01.3540D	Electronic modul cover
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89	 	4000.250	Screw
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90	 	4000.250	Screw
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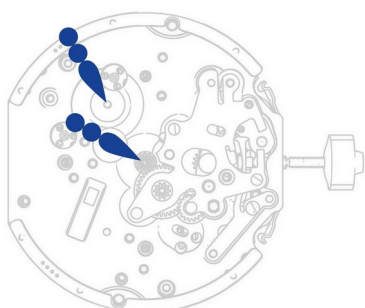



91  3600.011.HGF Battery 384 (Ø 7.90 x 3.60)

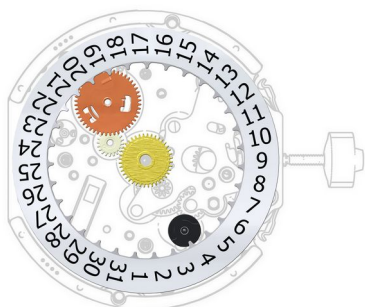
92  3601.139.G Bridle +

93  4000.335 Screw

94  4000.335 Screw




95  9020 Moebius 9020




96  3301.317 Hour wheel (Aig.)







97  3507.062 Date corrector

98  3147.082 Intermediate date wheel







99  3004.230.CO Date indicator driving wheel

100  3504.238.AA.1.A Date indicator (T3, G3)
Nick of the indicator at 3 o'clock.

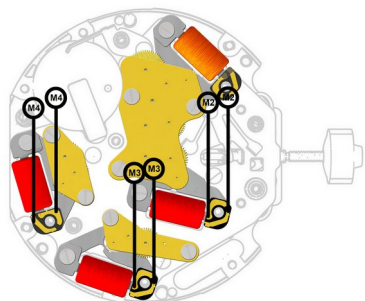


101		2130.213	Date indicator maintaining plate
102		3315.016	Friction spring
103		3905.079	Date corrector spring
104		3500.076	Date jumper
105		3905.077	Date jumper spring
106		8200	Moebius 8200

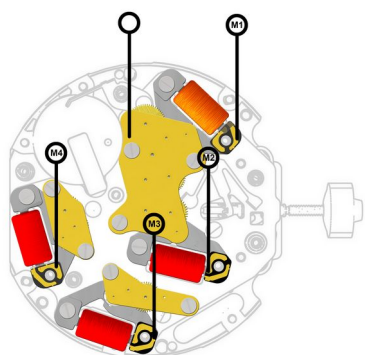


107		2130.214	Date mechanism maintaining plate
108		4000.337	Screw
109		4000.337	Screw
110		4000.337	Screw
111		4000.337	Screw
112		4000.337	Screw

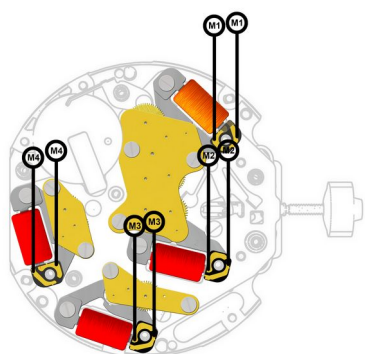
Measurement



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



Coil insulation M1 - M4
infinite

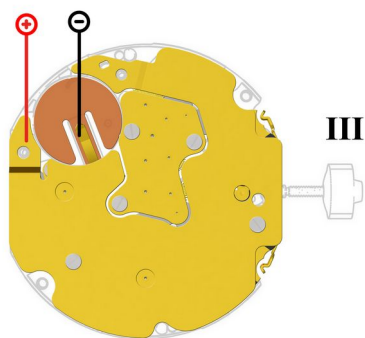


Coil resistance movement

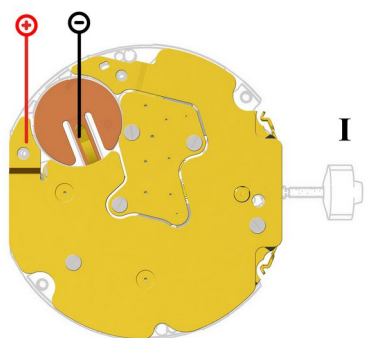
Coil resistance M2
 $1780 \pm 100 \text{ Ohm}$

Coil resistance M3
 $1780 \pm 100 \text{ Ohm}$

Coil resistance M4
 $1780 \pm 100 \text{ Ohm}$



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



Setting stem in position I, calendar not in gear, 60s measuring interval.

(typ./max.) 1.48 / 2.00 μ A

60s measuring interval

-10 .. +20 s/mth

Lower working voltage limit

<1.20 V



Voltage
typ. 1.5 V