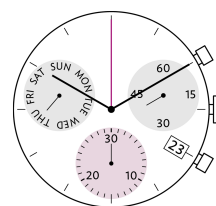
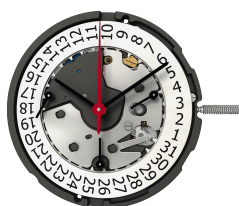


RONDA xtratech Z Series

13¼" Chronos with 2 & 3 eyes

Caliber Z60 – 13¼"



Product Specifications

Analog quartz movement

Line xtratech

Caliber Z60

Size 13¼"

Version Swiss Made 0 Jewels / nickel plated
Swiss Parts 0 Jewels / nickel plated

Standard battery life 50 months

Hand fitting height 1

Features

- Very long battery life
- Repairable movement with metal main plate and bridges
- Power saving mechanism with pulled out stem: Reduction of consumption approximately 70%
- Very easy handling by two pushers

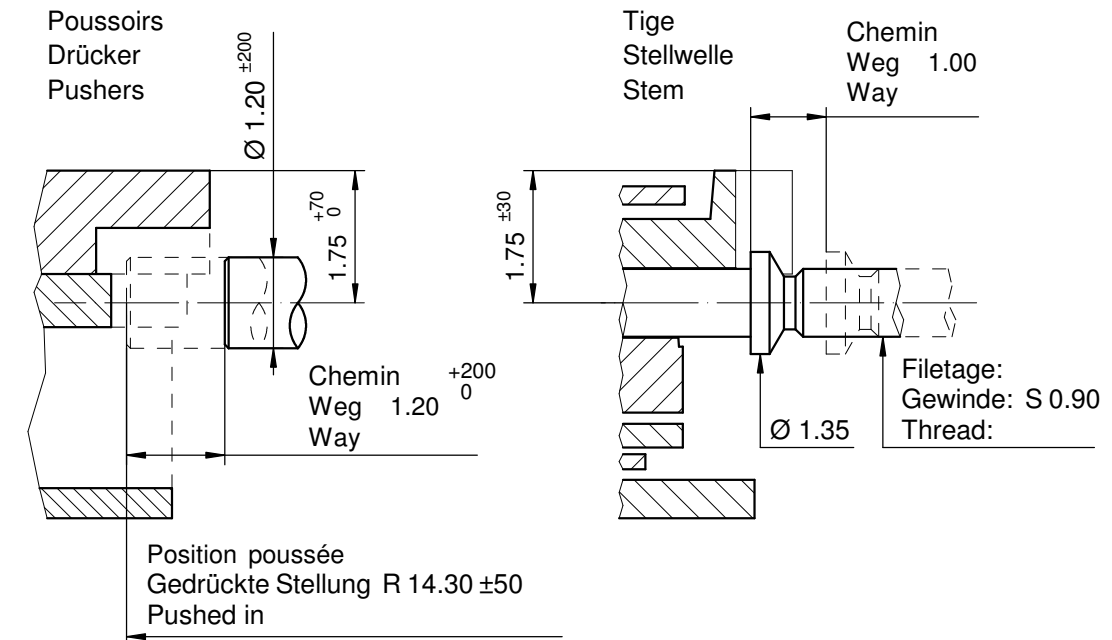
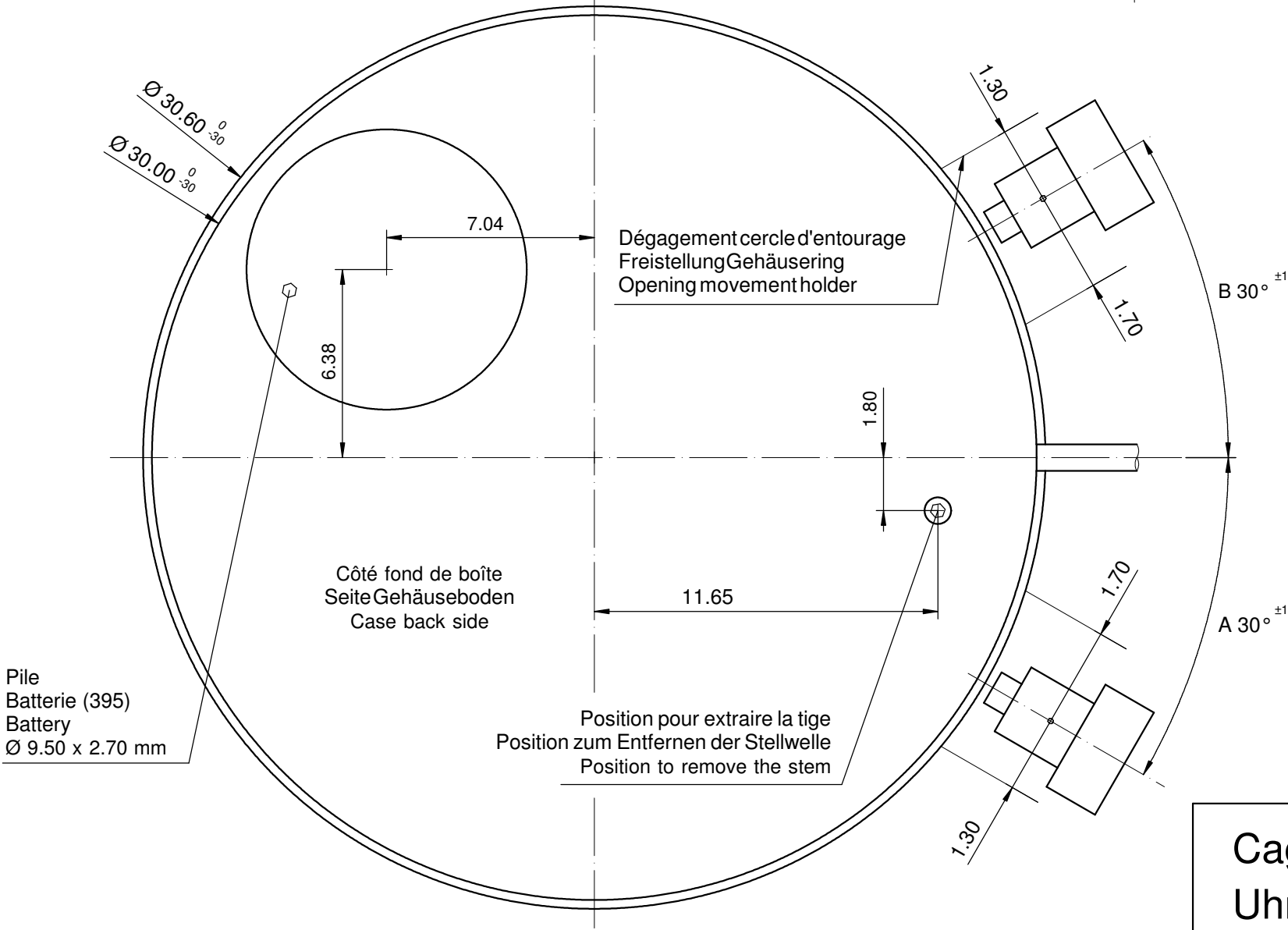
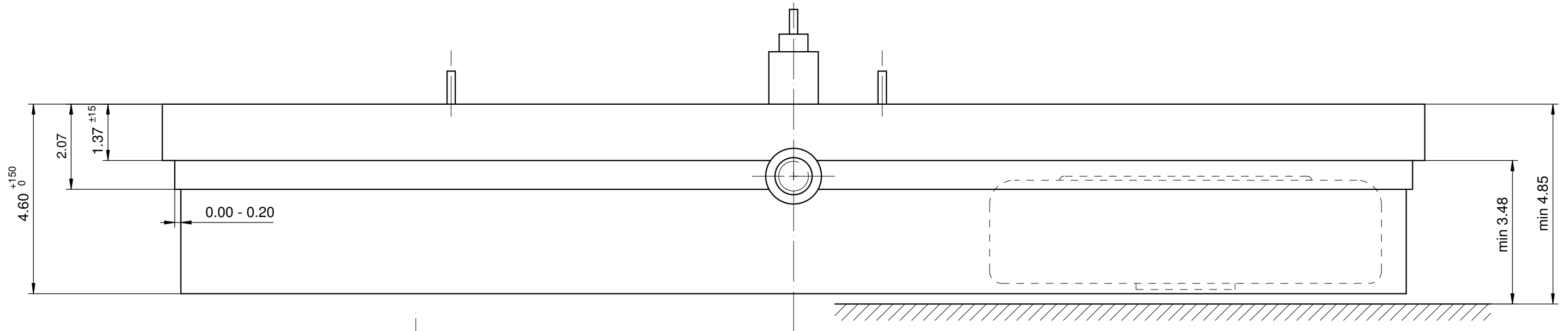
Functions

- Chronograph
- Center stop second (1/1 sec)
- 30 minute counter
- ADD and SPLIT functions
- 3 eyes
- Day indicator
- Small second
- Date

Technical Specifications

Diameter Total	30.60 mm
Case fitting	30.00 mm
Movement height	4.60 mm
Height over standard battery	4.60 mm
Movement rest	1.37 mm
Height over stem	1.75 mm
Length of stem travel	1.00 mm
Stem thread	0.90 mm
Standard battery	395
Standard battery life	50 months
Battery voltage	1.5 V
Current consumption – typical	1.42 µA (Date Mechanism not in Gear)
Current consumption – maximum	3 µA (Date Mechanism not in Gear)
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

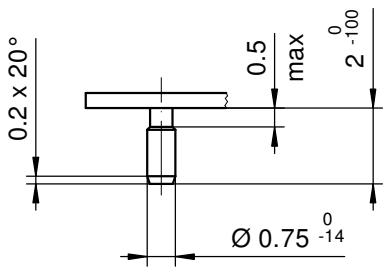
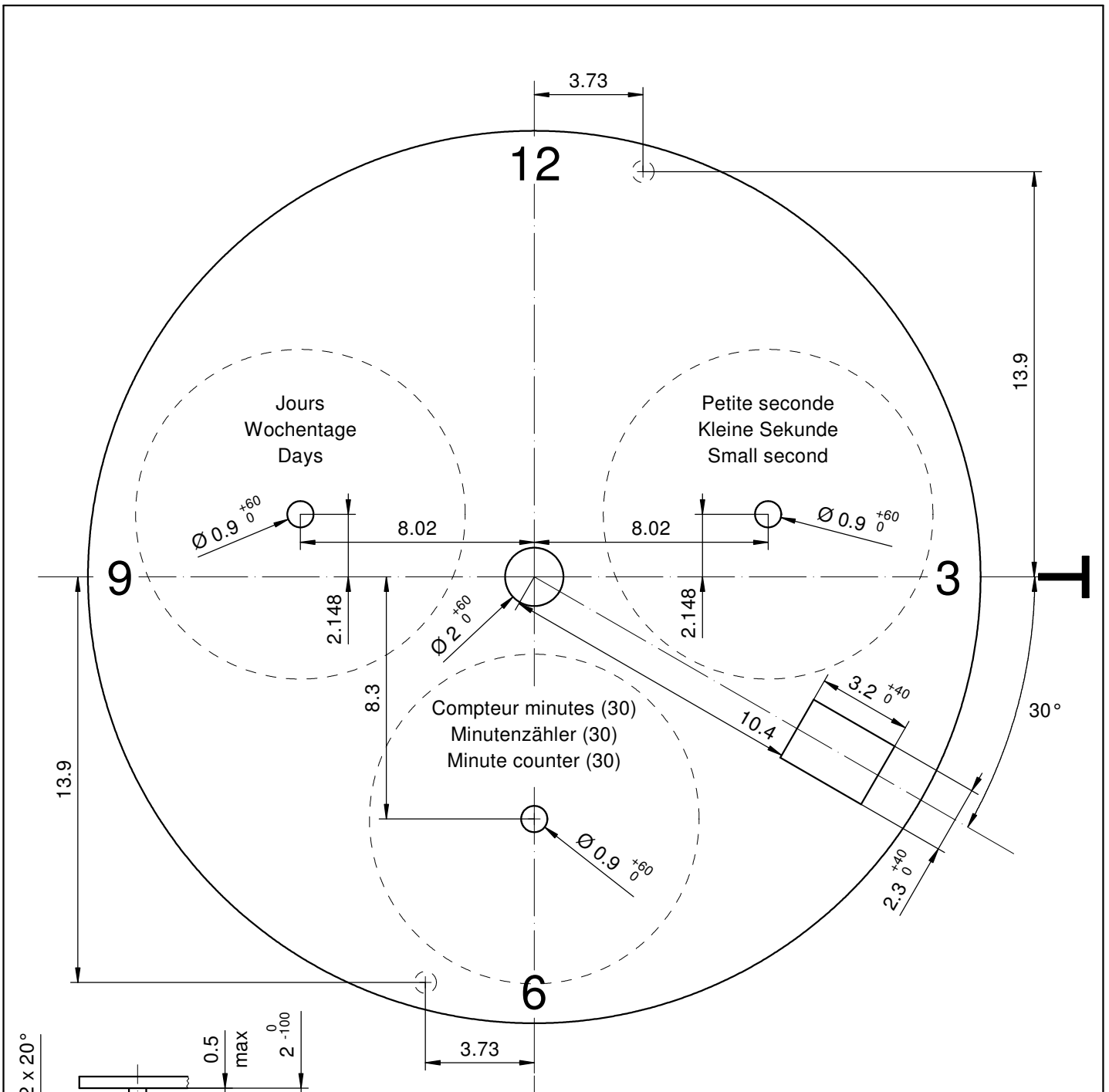




La course du poussoir doit être limitée dans le poussoir lui-même. Sa position poussée doit être contrôlée.
 Die Weglänge des Drückers ist im Drücker selbst zu begrenzen. In der gedrückten Stellung ist seine Position zu kontrollieren.
 The way of the pusher has to be limited in the pusher itself. Its position must be checked while pushed in.

Sécurité entre l'aiguille des secondes et le verre:
 Sicherheit zwischen Sekundenzeiger und Glas: 0.50 mm
 Security between second hand and glass:

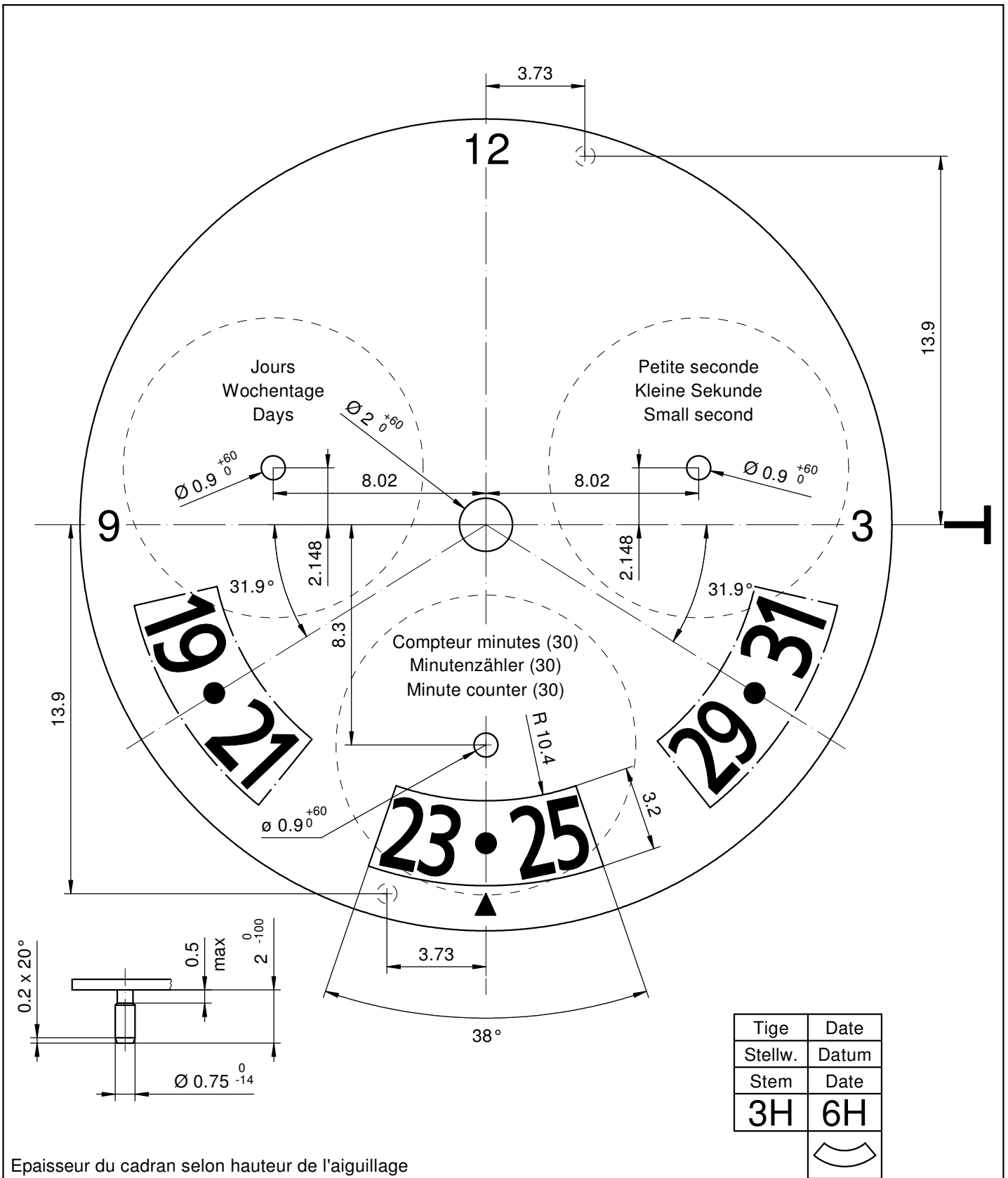
Cage Uhrwerkgestell 13¹/₄" Frame		Issued	04 Nov 2010	mg
		Modified	13 Mär 2013 ÄA 10036	fl
		Released	Yes	
		Tolerance	+/- 20 µm	
		Scale	10 : 1 (5 : 1) (A3H)	
RONDA	Z 60	Sous réserve de modifications Änderungsvorbehalten Modifications reserved		
		No.	5000.406	02



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

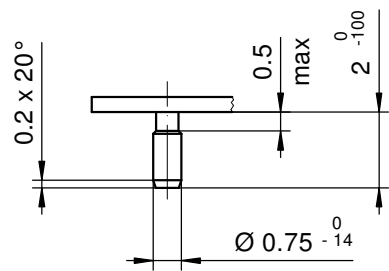
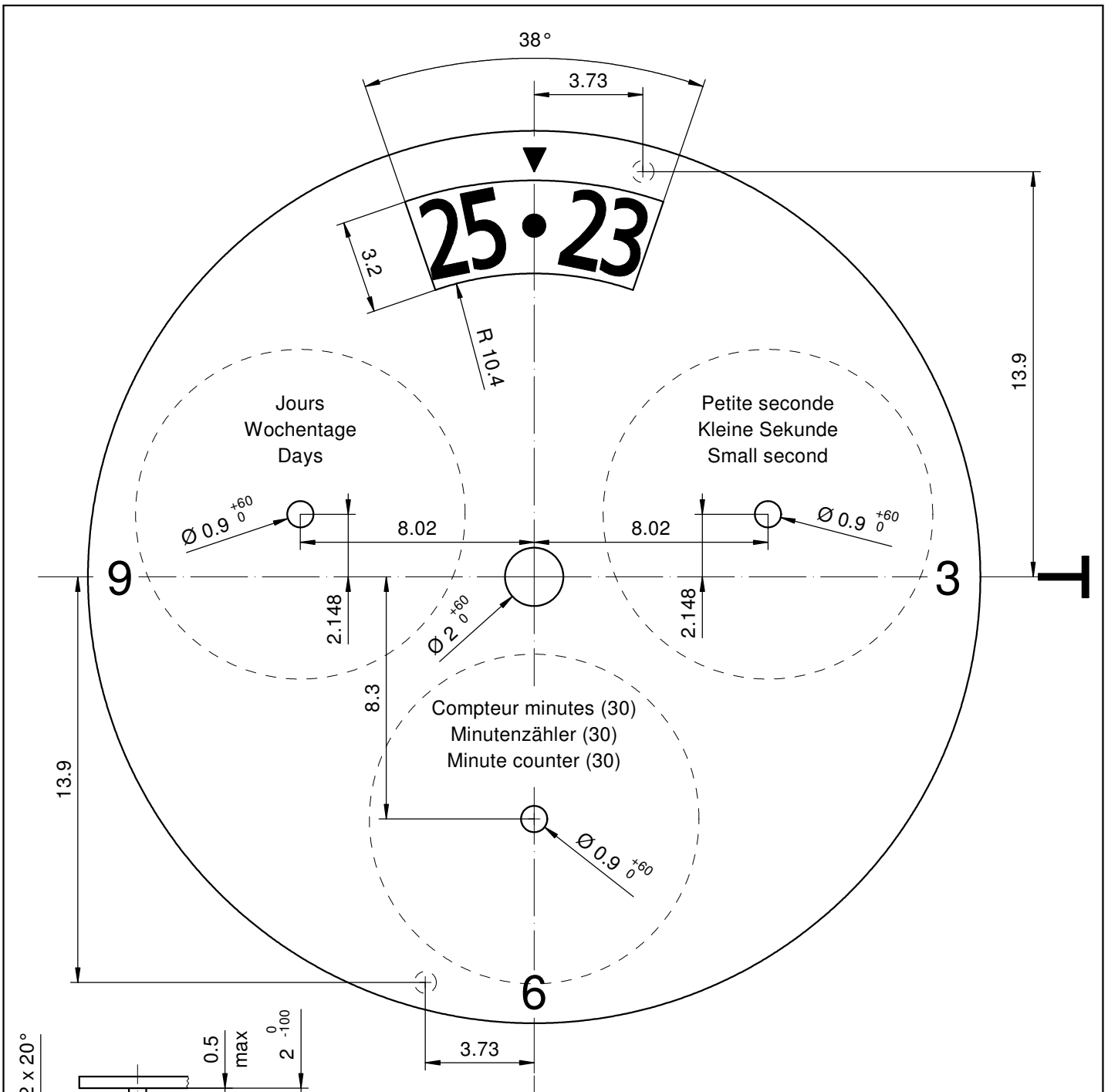
Cadran Zifferblatt 13$\frac{1}{4}$" Dial	Issued	08 Nov 2010	mg
	Modified	23 Mär 2017 ÄA 35959	di
	Released	YES	
	Tolerance	+/- 20 μ m	
	Scale	5 : 1 (A4V)	
RONDA	Z 60	Sous réserve de modification Änderungen vorbehalten Modifications reserved	
		No.	5010.675




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	6H

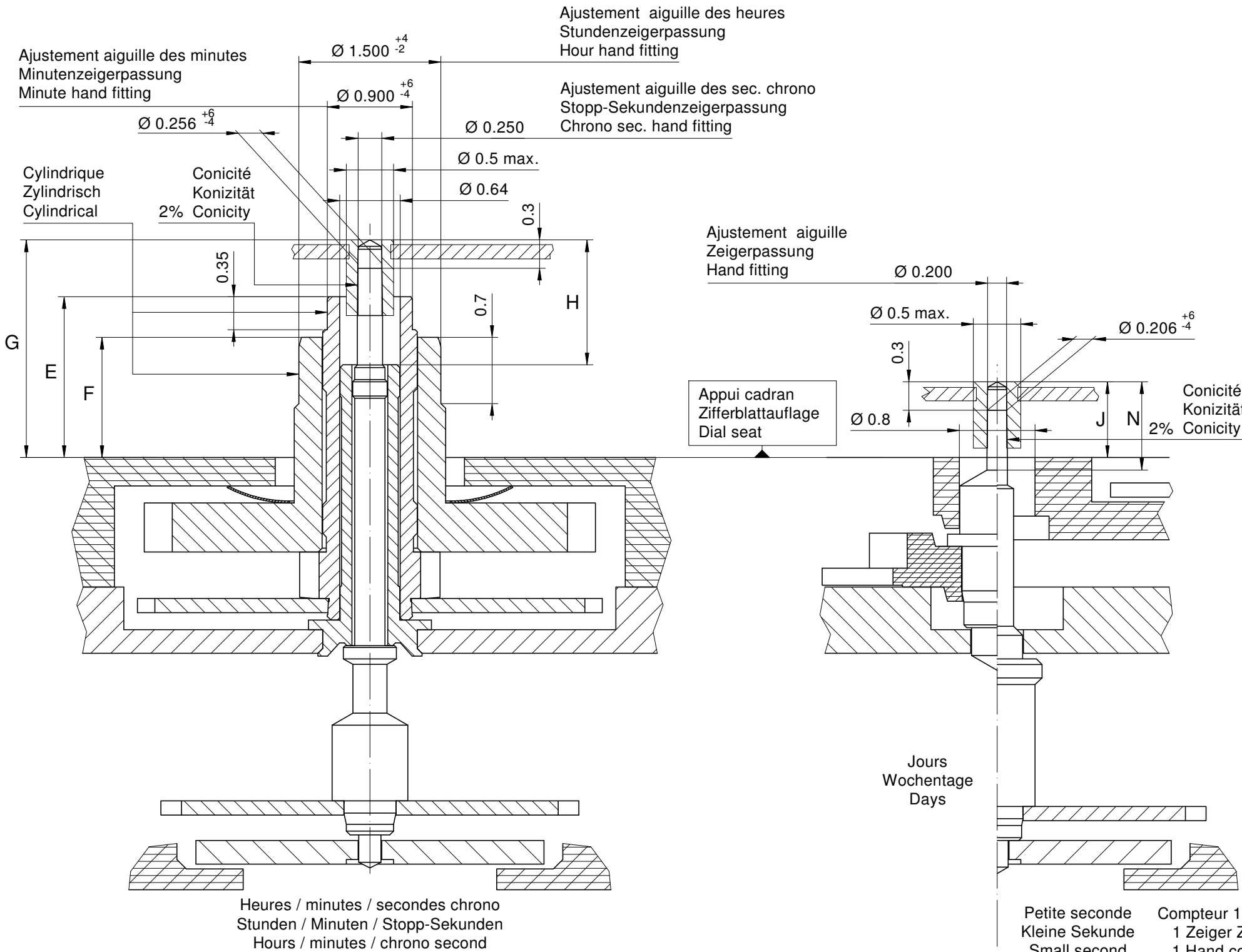
Cadran Zifferblatt 13¼" Dial	Issued	22 Sep 2015	di
	Modified	22 Mär 2017 ÄA 35959	di
	Released	YES	
	Tolerance	+/- 20 µm	
	Scale	5 : 1 (A4V)	
RONDA	Z 60	Sous réserve de modification Änderungen vorbehalten Modifications reserved	
		No.	5010.756



Tige	Date
Stellw.	Datum
Stem	Date
3H	12H
	

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

Cadran Zifferblatt 13¼" Dial	Issued	22 Sep 2015	di
	Modified	22 Mär 2017 ÄA 35959	di
	Released	YES	
	Tolerance	+/- 20 µm	
	Scale	5 : 1 (A4V)	
RONDA	Z 60	Sous réserve de modification Änderungen vorbehalten Modifications reserved	
		No.	5010.760



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	Route des heures Stundenrad Hour wheel			Petite seconde Kleine Sekunde Small second	Pignon compteur Zählertrieb Counter pinion	Pignon des jours Tagesantrieb Day pinion
No	G	E	F	H	N	J	J	J
1	2.30	1.70	1.27	1.32	0.90	0.80	0.80	0.80

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	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	Sous l'aiguille des jours Unter Tageszeiger Under days hand	Epaisseur des aiguilles Zeigerdicke Hands thickness
1	1.80	1.30	0.85	0.40	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	Aig. petite secondes Kleine Sekundenzeiger Small second hand	Aiguille compteur (1 aig.) Zähler Zeiger (1 Zeiger) Counter hand (1 hand)	Aig. des jours Tageszeiger Day 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	10	Masse / Masse / Weight *
µNm max.	0.06	0.70	0.70	0.06	0.03	0.05	Balourd / Unwucht / Unbalance *
gmm ² max.	1.0	-	-	0.4	1.0	1.0	Inertie / Massenträgheit / Inertia *
N max.	30	40	40	30	30	30	Force de chassage / Aufpresskraft / Force

Aiguillages Zeigerwerkhöhen 13¼" Hand fitting heights

	Issued	08 Nov 2010	mg
	Modified	15 Okt 2014 ÄÄ 13275	dh
	Released	YES	
	Tolerance	µm	
	Scale	20 : 1 (A3H)	
Sous réserve de modifications Änderungen vorbehalten Modifications reserved			
	No.	3316.141	03

* 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



Movement holder
Removing setting stem
H ZXX.1T



Movement holder
Setting hands
H ZXX.2A

Fitting dial and hands

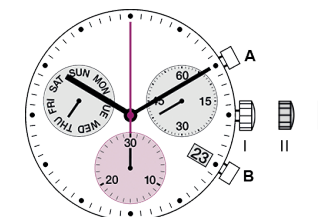
- Crown in position III
- Wind hour hand forwards, until date changes
- Remove working hand
- Fit dial
- Place all hands towards 12 o'clock except the day hand
- Setting the hands on 1:30 a.m.
- Place the day hand
- Wind hands forwards to set actual time
- Zero chronograph hand*
- Crown in position II
- Set date
- Crown in position I

Date switching duration:

~1¼hrs

*Zeroing the Chronograph hand

- Press pushers A and B for 2 seconds at the same time (Chrono seconds hand rotates once)
- Pusher A - to correct chrono seconds hand
- Pusher B - to jump to minute hand
- 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.

Complement for T2 instructions Z50/Z60

It might be possible that the date jump will not be finalized when the date is set manually. In that case the movement will be adjusted automatically at the next date jump.

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.

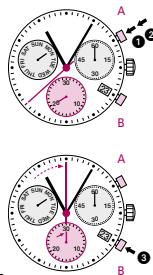
In case of repairs, guarantee claims and questions concerning the functioning of a watch, purchasers and consumers should contact their retailer or the watch manufacturer, for which the relevant information can be found in the sales or guarantee documentation provided with the watch.

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: **20 min / 38 sec**
- Zero positioning:** Press push-button B. (The chronograph hands will be reset to their zero positions.)



05

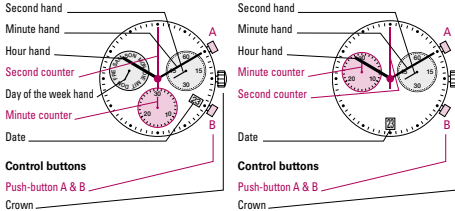
Description of the display and control buttons

Display elements

Z60

Display elements

Z50



01

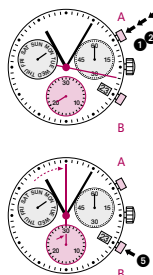
Chronograph: Accumulated timing

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.

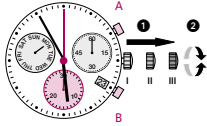
Please note:

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

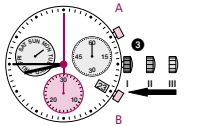


06

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

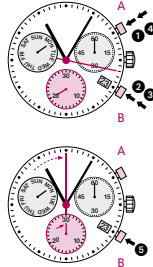
Chronograph: Intermediate or interval timing

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

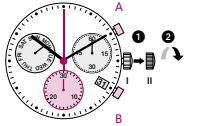
Please note:

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

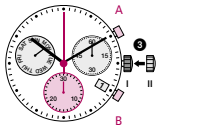


07

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 [] appears.



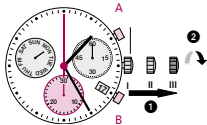
- Push the crown back into position I.

Please note:

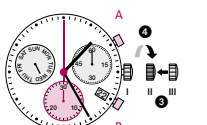
- During the date changing phase between approx. 09:45 PM and 12 PM, the date must be set to the date of the following day.

03

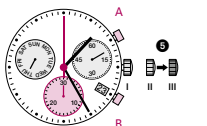
Setting the date, day of the week (Z60) and time



- Example:
- Date / time on the watch: 17 / 01:25 / MON
- Present date / time: 23 / 20:35 / THU



- Pull out the crown to position III (the watch stops).
- Turn the crown anticlockwise until yesterday's day of the week WED appears.
- Push the crown to position II.
- Turn the crown until yesterday's date appears 22.



- * Pull out the crown to position III (the watch stops).
- Turn the crown anticlockwise until the correct date 23 and day of the week THU appears.
- * Continue to turn the crown anticlockwise until the correct time 8:35 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.

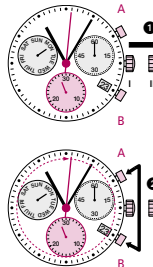
04

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.)



Adjusting the second counter hand

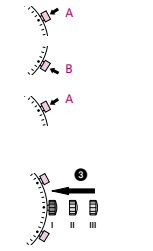
- Single step: A 1 x short
- Continuous: A long

Adjusting the next hand B

- Single step: A 1 x short
- Continuous: A long

Adjusting the minute counter hand (position 6h)

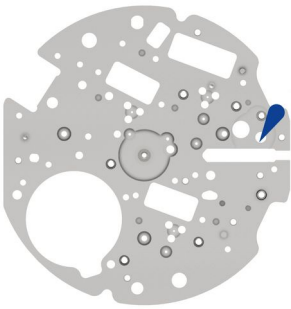
- Single step: A 1 x short
- Continuous: A long





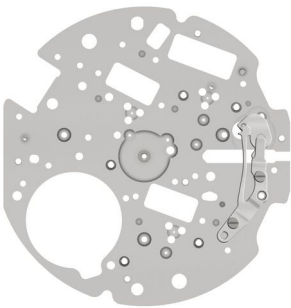
- Returning the crown to position I
Termination of the chronograph hands adjustment (can be carried out at any time).





08

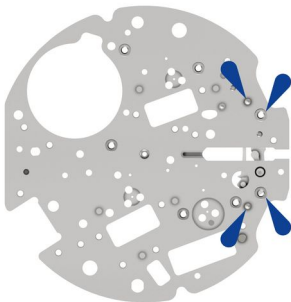





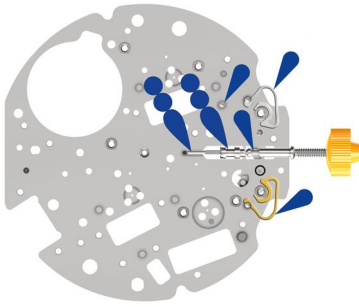
- | | | | |
|---|---|----------|--------------|
| 1 |  | 2000.708 | Main plate |
| 2 |  | 8200 | Moebius 8200 |








- | | | | |
|---|---|-------------|--|
| 3 |  | 3017.064.CO | Setting lever |
| 4 |  | 3905.083 | Setting lever jumper
Tensioning the spring arm. |
| 5 |  | 4000.342 | Screw |
| 6 |  | 4000.342 | Screw |













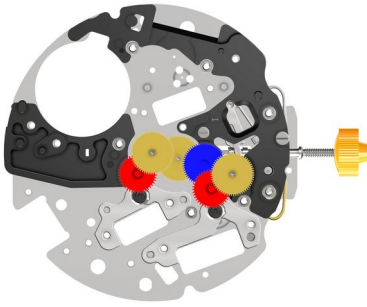
- | | | | |
|---|---|------|--------------|
| 7 |  | 8200 | Moebius 8200 |
|---|---|------|--------------|

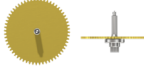
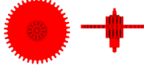

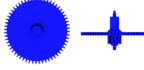
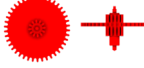



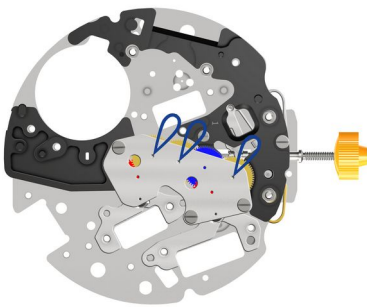
- | | | | |
|----|---|-------------|---|
| 8 |  | 3406.043 | Pusher jumper A
Put the yellow jumper between the two pillars. |
| 9 |  | 3406.042 | Pusher jumper B
Put the grey jumper between the two pillars. |
| 10 |  | 3000.208.CO | Working stem (dual) L22mm |
| 11 |  | 3001.072.FI | Sliding pinion |
| 12 |  | 8200 / 9020 | Moebius 8200 / Moebius 9020
4x Moebius 8200 / 2x Moebius 9020 |








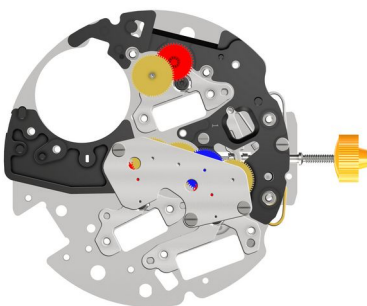
- | | | | |
|----|---|-------------|--------------------------|
| 13 |  | 3016.034 | Stop lever |
| 14 |  | 3603.098 | Electronic modul support |
| 15 |  | 4000.248 | Screw |
| 16 |  | 4000.343 | Screw |
| 17 |  | 3603.099 | Battery support |
| 18 |  | 3622.070 | Stator |
| 19 |  | 3622.071 | Stator (counter) |
| 20 |  | 3715.132.RK | Rotor |
| 21 |  | 3715.132.RK | Rotor |
| 22 |  | 9014 | Moebius 9014 |


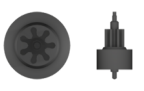
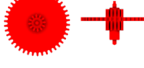



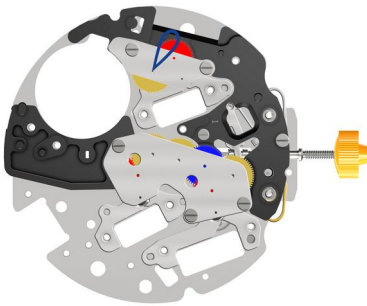
23		3122.073.CO	Third wheel
24		3147.089	Intermediate wheel
25		3136.215.CO	Chronograph wheel (Aig.)
26		3136.214	Second wheel (Aig.)
27		3147.089	Intermediate wheel
28		3136.216.CO	Small second wheel (Aig.)




29		2020.210.M01.Z60	Train wheel bridge
30		4000.248	Screw
31		4000.248	Screw
32		4000.248	Screw
33		9014	Moebius 9014




34		3622.071	Stator (counter)
35		3715.132.RK	Rotor
36		3147.089	Intermediate wheel
37		3136.216.CO	Small second wheel (Aig.)

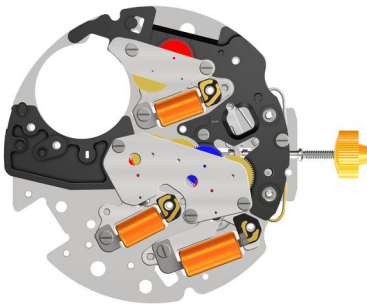



38  2020.211 Counter train wheel bridge

39  4000.248 Screw


40  4000.248 Screw


41  9014 Moebius 9014



42  3621.078.RK Coil
Attention: Please hold the coil only on the grey coil core.

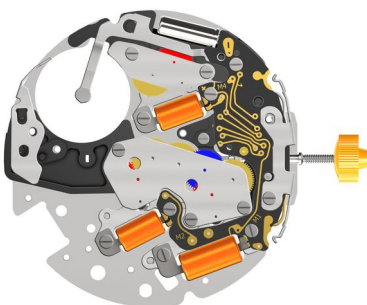
43  3621.054.RK Coil
Attention: Please hold the coil only on the grey coil core.


44  3621.054.RK Coil
Attention: Please hold the coil only on the grey coil core.

45  4000.248 Screw


46  4000.248 Screw


47  4000.248 Screw




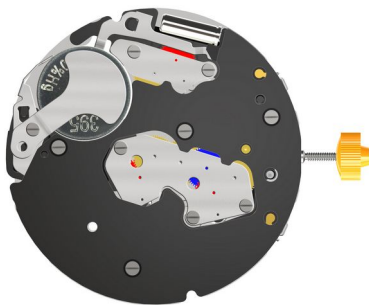
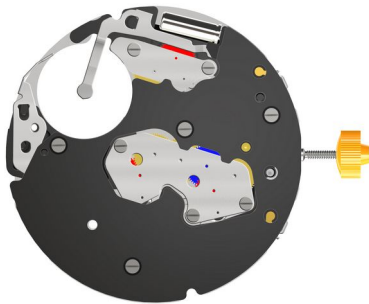
48  3601.153 Bridle -















49  3612.246 Electronic module

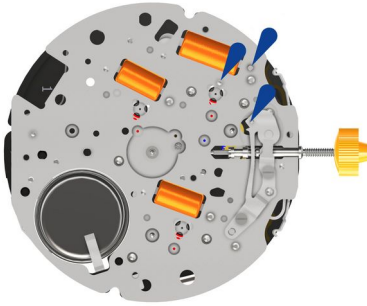
50  4000.341 Screw
1:2

51  4000.341 Screw
1:2

52  4000.341 Screw
1:2



53	 1:2	4000.341	Screw
54		3601.151	Contact spring for pusher
55	 	4000.248	Screw
56		3601.154	Lateral bridle
57		2130.230	Electronic module cover
58	 	4000.248	Screw
59	 1:2	4000.341	Screw
60	 1:2	4000.341	Screw
61	 1:2	4000.341	Screw
62		3600.010.HGF	Battery 395 (Ø 9.50 x 2.70)
63		3601.152	Bridle +
64	 1:2	4000.341	Screw

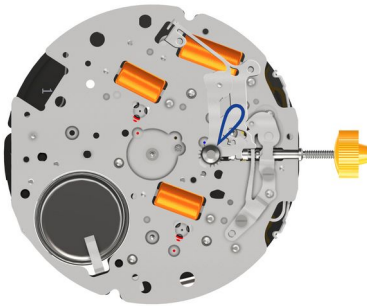


65



8200

Moebius 8200



66



3015.095

Yoke

67



3015.096.CO

Setting lever yoke

Tensioning the spring arm.

68



9014

Moebius 9014

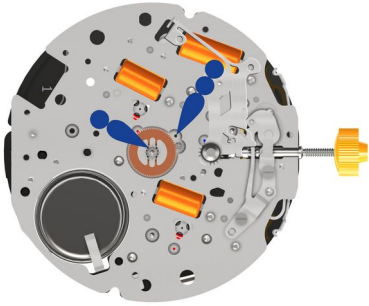


69




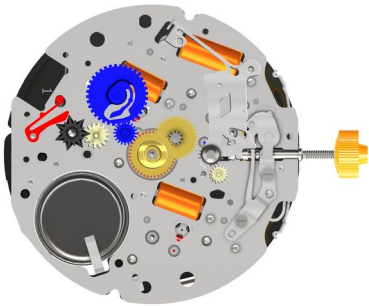
9020



Moebius 9020







70  3305.370.CO Cannon pinion (Aig.)

71  J124 / 9020 Jismaa 124 / Moebius 9020
1x Jismaa 124 / 1x Moebius 9020



72   3007.092.CO Minute wheel



73   3301.332.TA Hour wheel (Aig.)


74   3315.003 Friction spring



75  3004.264 Date indicator driving wheel

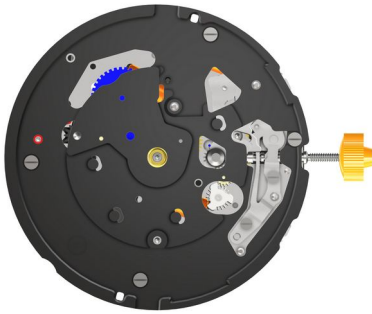
76   3147.091 Intermediate date wheel

77   3004.247 Days driving wheel


78   3401.087.CO Day wheel


79  3500.082 Day jumper
Tensioning the spring arm.


80   3004.245 Date setting wheel





81  2130.231 Setting mechanism cover

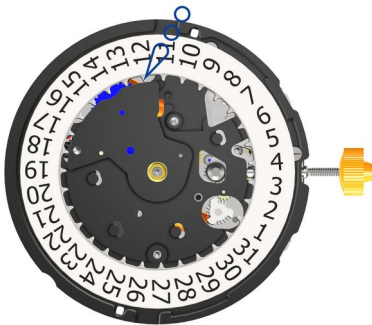
82  4000.248 Screw


83  4000.248 Screw

84  4000.248 Screw

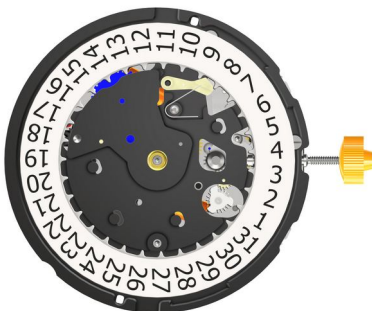
85  4000.248 Screw


86  3507.067 Date corrector




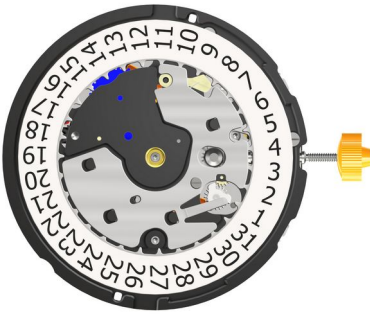
87  3504.243.AB.1.A Date indicator (T3, G4)



88  I-4 Moebius I-4



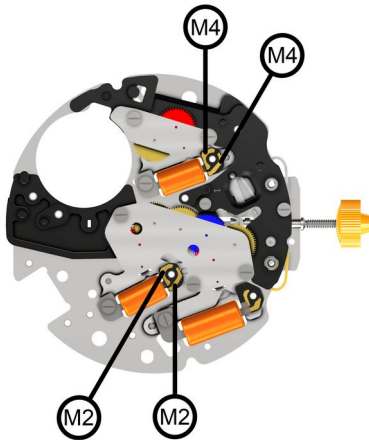
89  3500.081 Date jumper

90  3905.084 Date jumper spring
Lube and insert the spring.

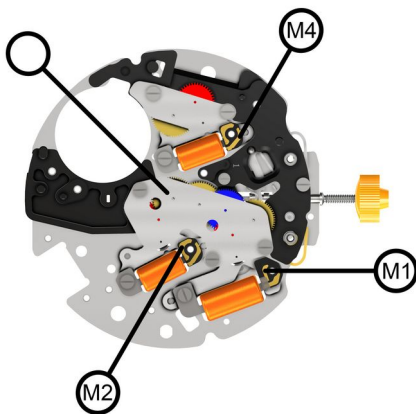


91		2130.229	Date mechanism maintaining plate
92		4000.343	Screw

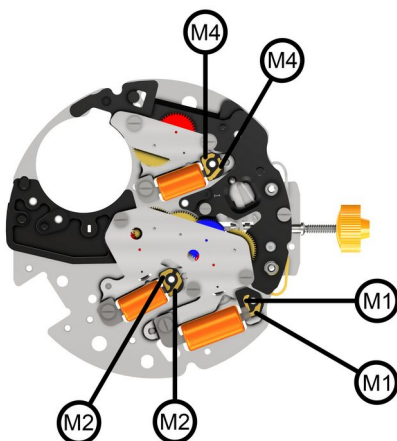
Measurement



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



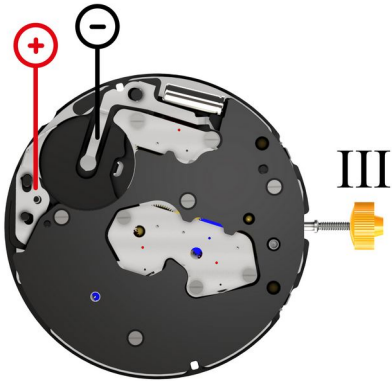
Coil insulation M2 / M4
infinite



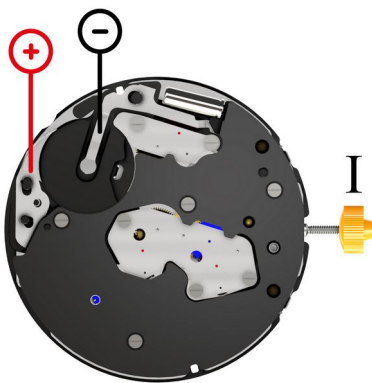
Coil condition movement
(min./max.) 1500 - 1700 Ohm (3621.078.RK - Spule)

Coil condition M2
(min./max.) 1680 - 1880 Ohm (3621.054.RK - Spule)

Coil condition M4
(min./max.) 1680 - 1880 Ohm (3621.054.RK - Spule)



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.) 1.42 / 3 μ A

60s measuring interval.

-10 .. +20s/mth

Lower working voltage limit

<1.20 V



Battery tension

typ 1.5V (3600.010.HGF - Batterie)