

# Quartz Movements

## Multifunctions

### RONDA xtratech

Caliber X20 – 13¼"



## Product Specifications

Analog quartz movement

Line xtratech

Caliber X20

Size 13¼"

Version Swiss Made 0 Jewels / nickel plated

Version Swiss Parts 0 Jewels / nickel plated

Standard battery life 60 months

Standard 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%

## Functions

- Multifunction
- Day indicator
- Small second
- Date
- 2 hands

# Quartz Movements

## Multifunctions

### RONDA xtratech

## Caliber X20 – 13¼"

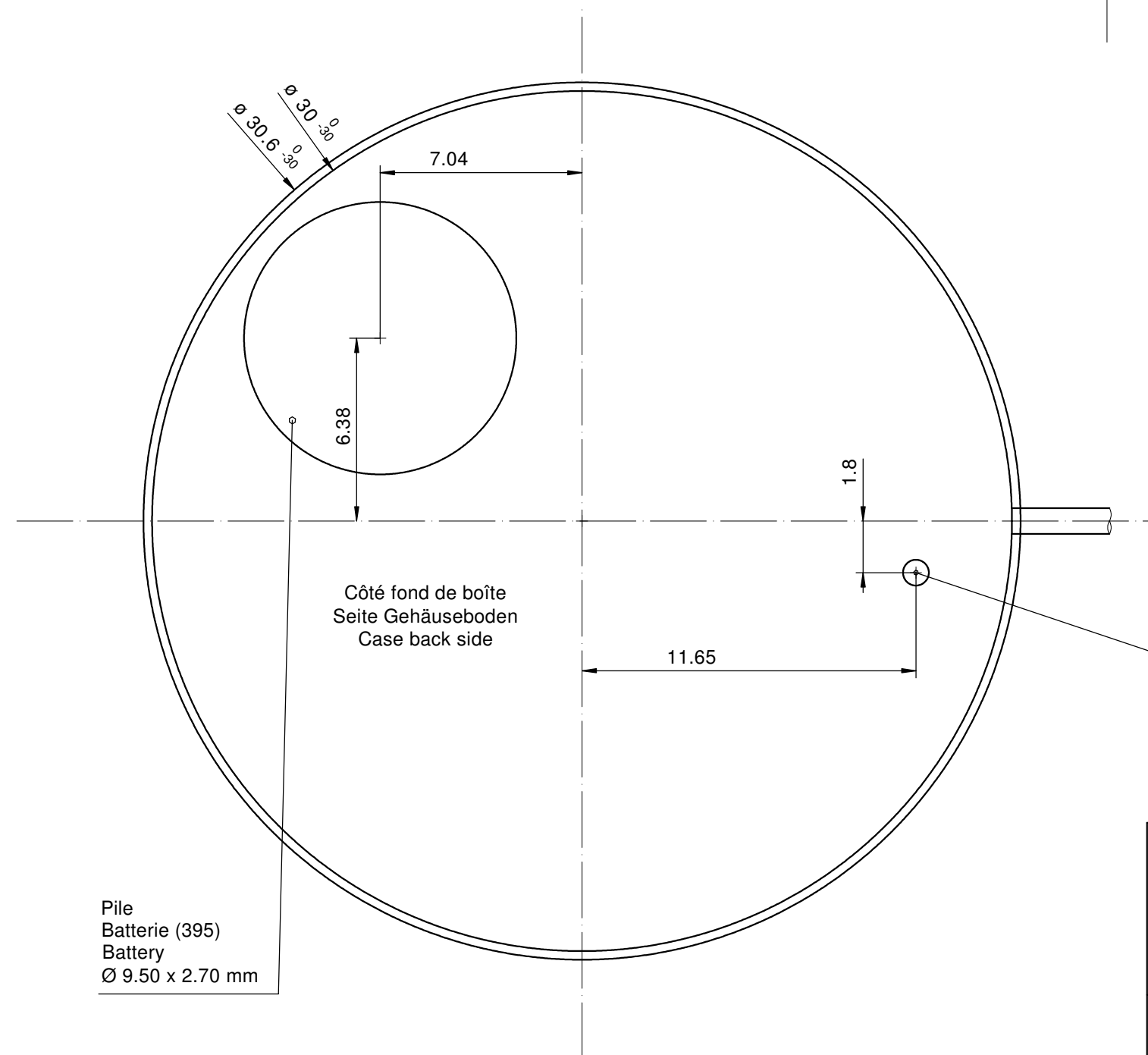
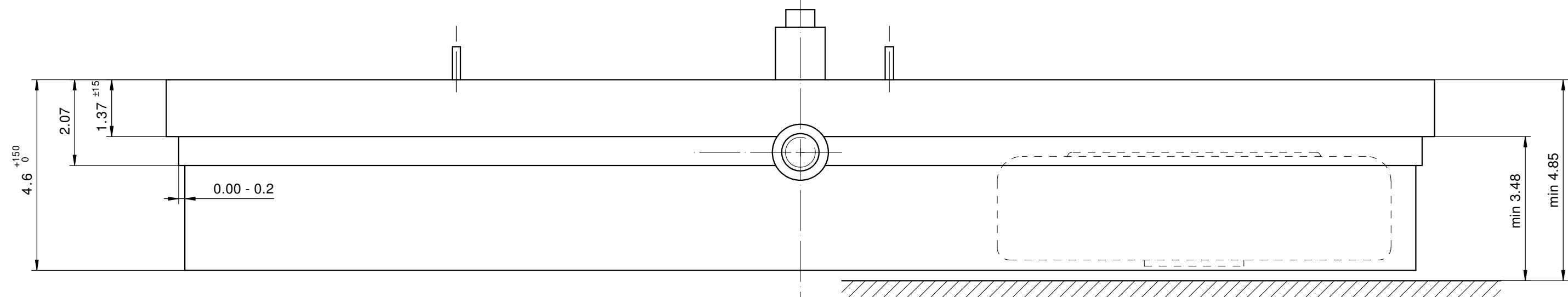
### Technical Specifications

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
Useful torque second – typical	6 µNm
Useful torque minute – typical	300 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



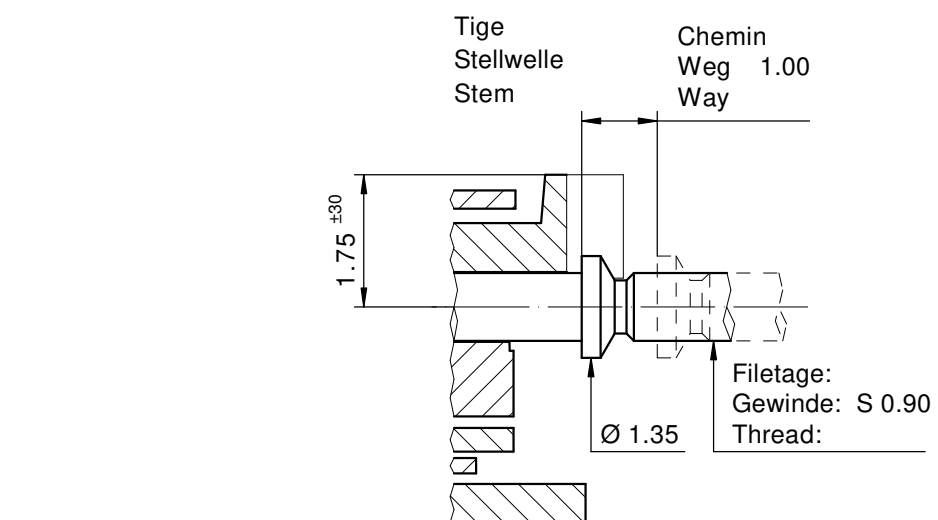
### Battery Specifications

Standard battery	No. 395
Standard battery life	60 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)



Côté fond de boîte  
Seite Gehäuseboden  
Case back side

Pile  
Batterie (395)  
Battery  
Ø 9.50 x 2.70 mm



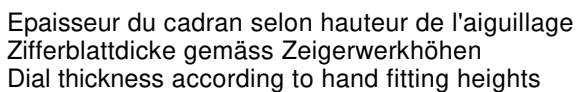
Position pour extraire la tige  
Position zum Entfernen der Stellwelle  
Position to remove the stem

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

Cage  
Uhrwerkgestell 13¼"  
Frame

RONDA X20, X30

Issued	04.11.2010	mg5227
Modified	04.08.2019	jk5228
Released	YES	
Mod. No.	41339	
Tolerance	±20 µm	
Scale	10 : 1	Page 1/1 A3
Sous réserve de modifications Aenderungen vorbehalten Modifications reserved		
No.	5000.408	01



Cadran  
Zifferblatt 13¼"  
Dial

RONDA X 20

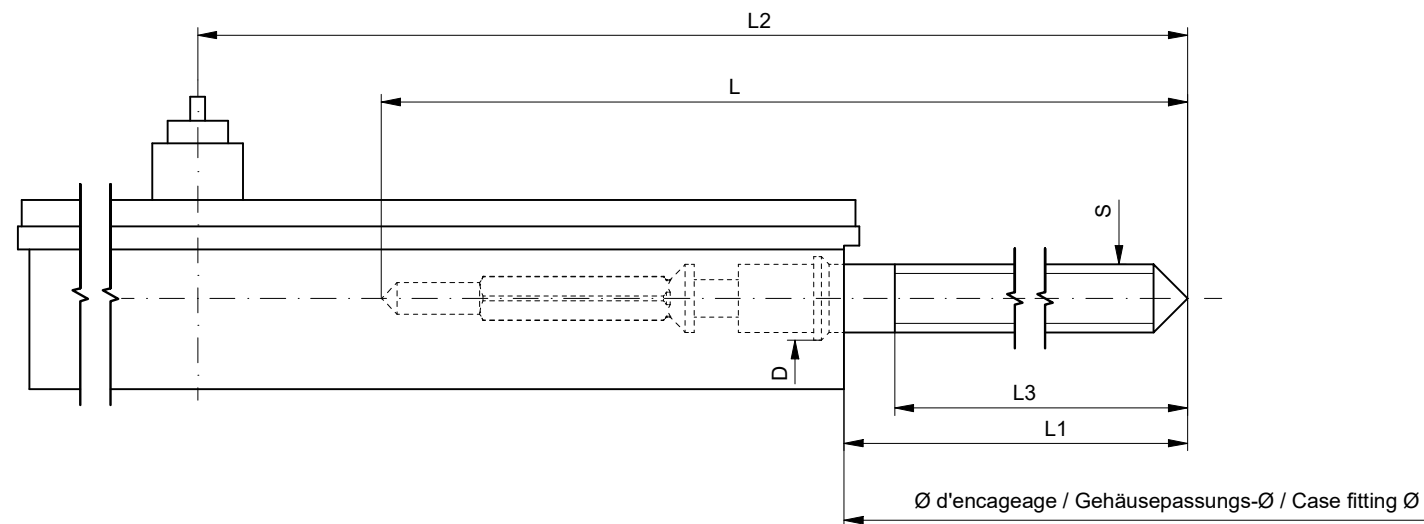
No.	5010.842	00
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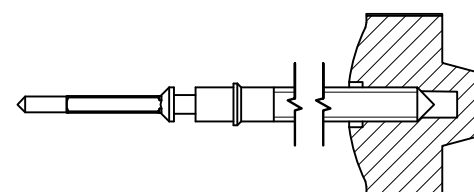
Aiguillages Zeigerwerkhöhe Hand fitting height					
Peinture compr. / inkl. Farbe / Paint incl.					
Epaisseur maximum du cadran Maximale Zifferblattdicke Maximum dial thickness					
No	Sous l'aiguille des minutes Unter Minutenzeiger Under minute hand	Sous l'aiguille des heures Unter Stundenzeiger Under hour hand	Sous l'aiguille de petite seconde Unter kleine Sekundenzeiger Under small second hand	Sous l'aiguille des jours Unter Tageszeiger Under days hand	
1	1.30	0.85	0.40	0.40	Epaisseur des aiguilles Zeigerdicke Hands thickness

<p>Aiguillages</p> <p>Zeigerwerkhöhen 13¼"</p> <p>Hand fitting heights</p>		Issued	02.09.2019	jk5228
		Modified	03.09.2019	jk5228
		Released	YES	
		Mod. No.	41339	
		Tolerance	µm	
		Scale	10 : 1	Page 1/1    A3
RONDA	X 20	<p>Sous réserve de modifications</p> <p>Aenderungen vorbehalten</p> <p>Modifications reserved</p>		
		No.	3316.188	00



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

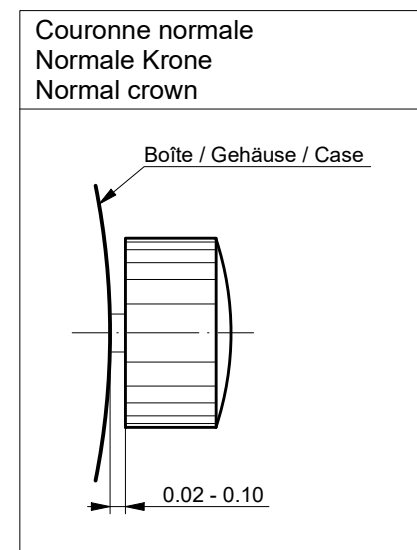
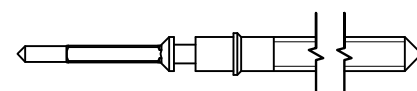
No. d'article Artikelnummer Part number	L	L1	L2	L3	S	D
3000.208.CO	21.85	11.15	26.15	10.85	0.90	1.35



Couleur de la couronne Kronenfarbe Crown color	jaune foncé dunkelgelb dark yellow
Code	UN 1509

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

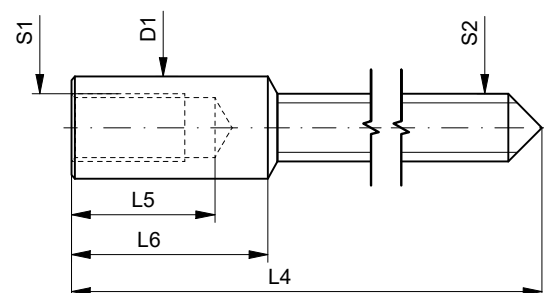
No. d'article Artikelnummer Part number	L	L1	L2	L3	S	D
3000.208	21.85	11.15	26.15	10.85	0.90	1.35



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 (Dimesionen / Kräfte)  
Stem (dimensions / forces)

RONDA Z60, Z50, X30, X20

Issued	11.02.2013	f15223
Modified	03.09.2019	jk5228
Released	YES	
Mod. No.	41339	
Tolerance	---	
Scale	---	Page 1 / 1 A3
Sous réserve de modifications Aenderungen vorbehalten Modifications reserved		
No.	5030.026	04



**Movement holder**  
*Removing setting stem*  
H ZXX.1T



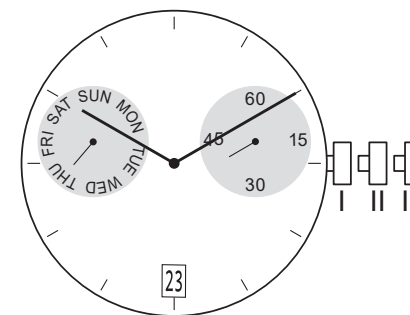
**Movement holder**  
*Setting hands*  
H ZXX.2A

## Fitting dial and hands

- Crown in position III
- Wind hour hand forward, until date changes
- Remove working hands
- Fit dial
- Place the hands of the hour, minute and second towards 12 o'clock
- Set the hands forward towards 1:30 a.m.
- Set hand of the weekday at 12 o'clock
- Wind hands forward to set actual day of the week and time
- Crown in position II
- Set date
- Crown in position I

**Date switching duration:**

~1¼hrs



## General Instructions

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

*The use of supporting screws at pos. 3h and in the centre is essential when mounting the hands (no support possible at 9h!).*

*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

*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.*

# RONDA xtratech – Movement cal. X20 / X30

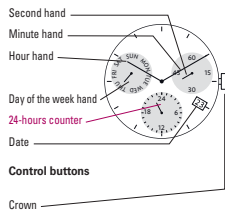
## User's Manual English

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

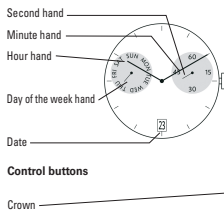
**In case of repairs, guarantee claims and questions concerning the functioning of a watch, purchasers and consumers should contact their retailer or the watch manufacturer, for which the relevant information can be found in the sales or guarantee documentation provided with the watch.**

### Description of the display and control buttons

#### Display elements X30

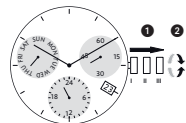


#### Display elements X20



01

### Setting the time



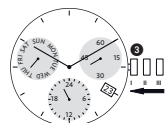
- 1\* Pull out the crown to position III (the watch stops).

- 2 Turn the crown until you reach the correct time.

- 3\* Push the crown back into position I.

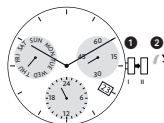
#### Please note:

\* In order to set the time to the exact second, 1 must be pulled out when the second hand is in position «60». Once the hour and minute hands have been set, 3 must be pushed back into position I at the exact second.

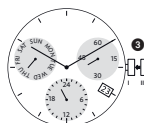


02

### Setting the date (quick mode)



- 1 Pull out the crown to position II (the watch continues to run).



- 2 Turn the crown anticlockwise until the correct date appears.

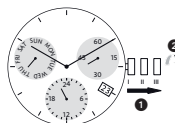
- 3 Push the crown back into position I.

#### Please note:

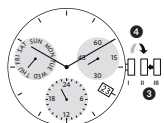
During the date changing phase between approx. 09:45 PM and midnight; the date must be set to the date of the following day.

03

### Setting the date, day of the week and time



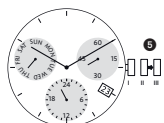
- 1 Pull out the crown to position III (the watch stops).



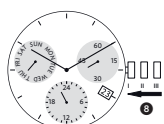
- 2 Turn the crown anticlockwise until yesterday's day of the week appears.

- 3 Push the crown to position II.

- 4 Turn the crown until yesterday's date appears.



- 5\* Pull out the crown to position III (the watch stops).



- 6 Turn the crown anticlockwise until the correct date and day of the week appears.

- 7\*\* Continue to turn the crown anticlockwise until the correct time appears.

- 8 Push the crown back into position I.






#### Please note:

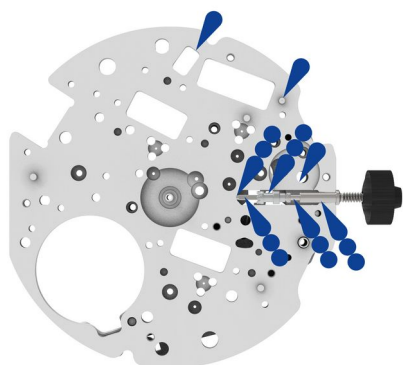
\* To set your watch to the exact second, please refer to the chapter entitled «setting the times».




\*\* Please observe the AM/PM clock rhythm.

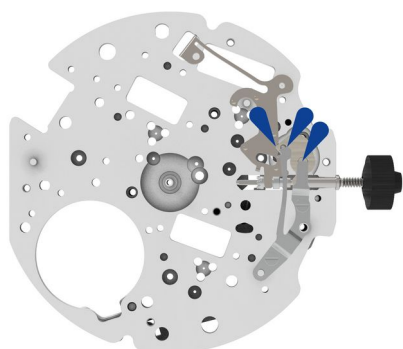
04









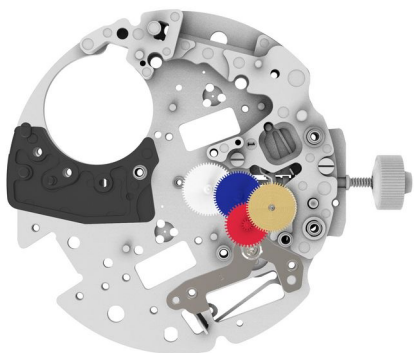
- |   |   |          |                          |
|---|---|----------|--------------------------|
| 1 |  | 2000.709 | Main plate               |
| 2 |  | 3016.034 | Stop lever               |
| 3 |  | 3603.098 | Electronic modul support |
| 4 |  | 4000.248 | Screw                    |
| 5 |  | 4000.343 | Screw                    |





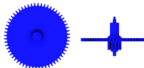
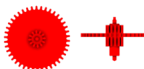



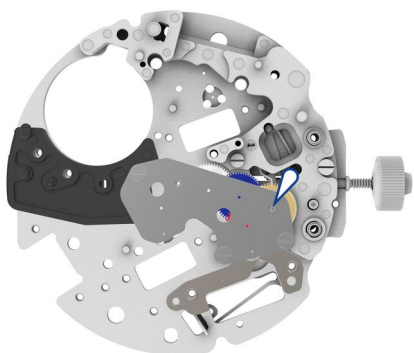
- |   |   |             |                             |
|---|---|-------------|-----------------------------|
| 6 |    | 3001.072.FI | Sliding pinion              |
| 7 |  | 3000.208.CO | Working stem (dual)         |
| 8 |  | 8200 / 9020 | Moebius 8200 / Moebius 9020 |








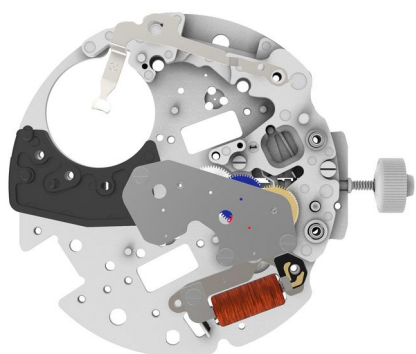
- |    |   |             |                      |
|----|---|-------------|----------------------|
| 9  |  | 3015.095    | Yoke                 |
| 10 |  | 3017.064.CO | Setting lever        |
| 11 |  | 3905.083    | Setting lever jumper |
| 12 |  | 4000.342    | Screw                |
| 13 |  | 4000.342    | Screw                |
| 14 |  | 8200        | Moebius 8200         |






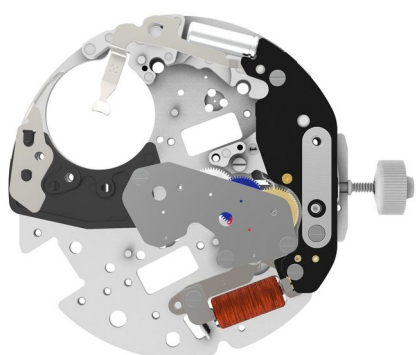
15		3603.099	Battery support
16		3622.070	Stator
17		3715.132.RK	Rotor
18		3122.072	Third wheel
19		3136.214	Second wheel (Aig.)
20		3147.089	Intermediate wheel
21		3136.216.CO	Small second wheel (Aig.)









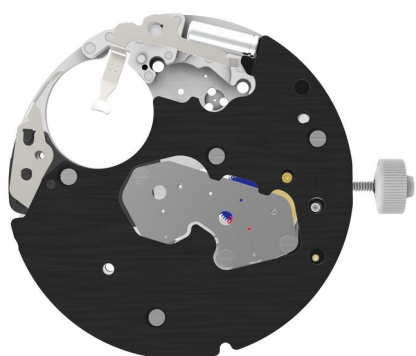
22		2020.210.M01.X20	Train wheel bridge
23		4000.248	Screw
24		4000.248	Screw
25		4000.248	Screw
26		9014	Moebius 9014








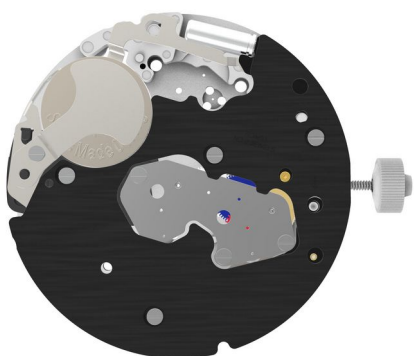
- |   |   |             |          |
|---|---|-------------|----------|
| 27  |  | 3601.153    | Bridle - |
| 28  |  | 3621.078.RK | Coil     |
| Attention: Please hold the coil only on the grey coil core. |   |             |          |
| 29  |  | 4000.248    | Screw    |




- |    |   |             |                         |
|----|---|-------------|-------------------------|
| 30 |          | 3612.236.RK | Electronic module       |
| 31 | <br>1:2  | 4000.341    | Screw                   |
| 32 | <br>1:2 | 4000.341    | Screw                   |
| 33 |        | 4000.248    | Screw                   |
| 34 |        | 2130.233    | Setting mechanism cover |
| 35 |        | 3601.154    | Lateral bridle          |




- |    |  |          |                         |
|----|--|----------|-------------------------|
| 36 |         | 2130.230 | Electronic module cover |
| 37 |         | 4000.248 | Screw                   |
| 38 | <br>1:2 | 4000.341 | Screw                   |
| 39 | <br>1:2 | 4000.341 | Screw                   |
| 40 | <br>1:2 | 4000.341 | Screw                   |

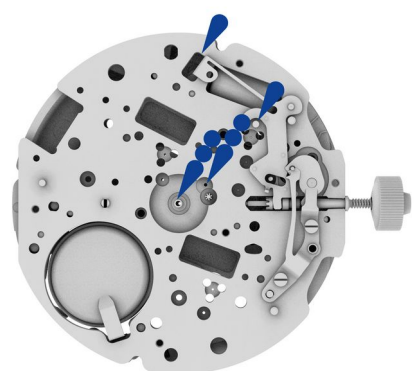



41  3600.010.HGF Battery 395 (Ø 9.50 x 2.70)


42  3601.152 Bridle +

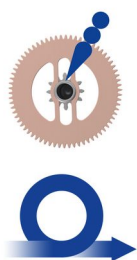
43  4000.341 Screw

1:2

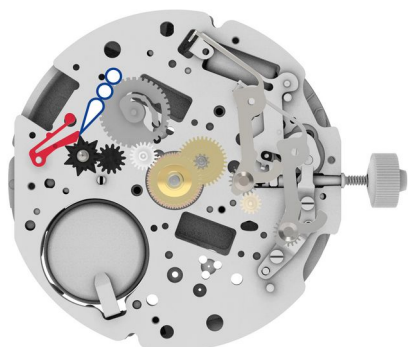






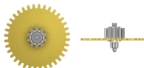



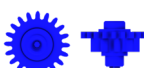




44  8200 / 9020 Moebius 8200 / Moebius 9020

45  9020 Moebius 9020
















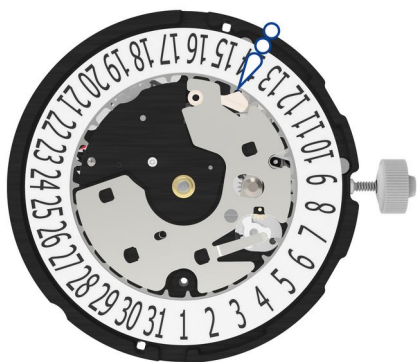
46		3015.096.CO	Setting lever yoke
47		3004.245	Date setting wheel
48		3015.096.CO	Setting lever yoke
49		3305.371.CO	Cannon pinion (Aig.)
50		3007.092.CO	Minute wheel
51		3301.332.TA	Hour wheel (Aig.)
52		3315.003	Friction spring
53		3004.264	Date indicator driving wheel
54		3147.091	Intermediate date wheel
55		3004.247	Days driving wheel
56		3401.087.CO	Day wheel
57		3500.082	Day jumper
58		I-4	Moebius I-4






59		2130.231	Setting mechanism cover
60		4000.248	Screw
61		4000.248	Screw
62		4000.248	Screw
63		4000.248	Screw

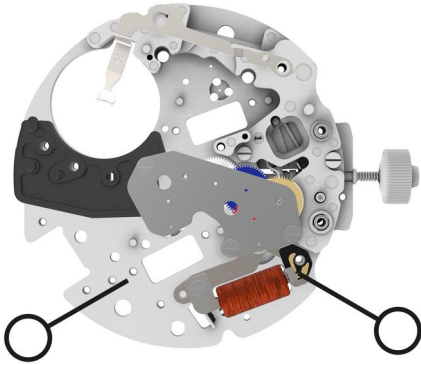


64		3504.243.AP.3.A	Datumanzeiger (T3/G6)
65		3507.067	Date corrector
66		3500.081	Date jumper
67		3905.084	Date jumper spring

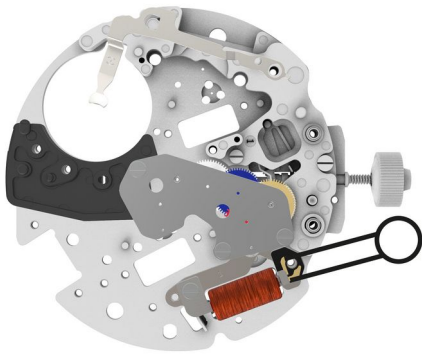


68		2130.229	Date mechanism maintaining plate
69		4000.343	Screw
70		I-4	Moebius I-4

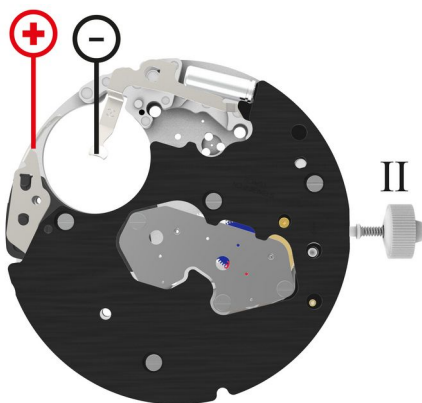
## Measurement



Coil insulation  
infinite

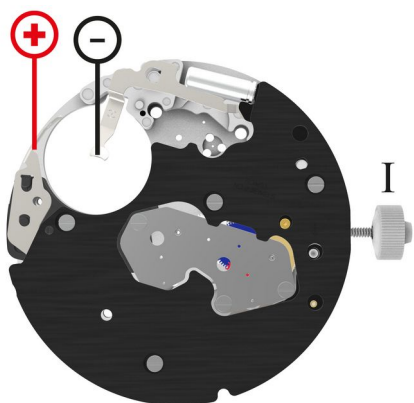


Coil resistance movement  
(min./max.) 1500 - 1700 Ohm



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

Lower working voltage limit  
<1.20 V



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

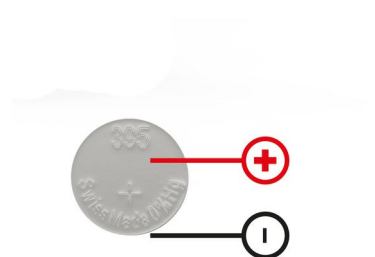
(typ./max.) 1.42 / 3.00 $\mu$ A

Lower working voltage limit

<1.20 V

60s measuring interval

-10 .. +20s/mth



Voltage

typ. 1.5 V