

Quartz Movements

特别功能

朗达 超值系列

型号 4002.B - 12□"



产品规格

指针式石英机芯

系列

型号

尺寸

版本 瑞士制造

电池寿命

标准针高

超值系列

4002.B

12□"

5 钻石 / 金色

60 月

0

特点

- 特长电池寿命
- 金属机芯，可修理
- 拉停把心省电功能：节省大概70%耗电
- 大日历可快调

功能

- 特别功能
- 两针
- 大日历

Quartz Movements

特别功能

朗达 超值系列

型号 4002.B - 12□”

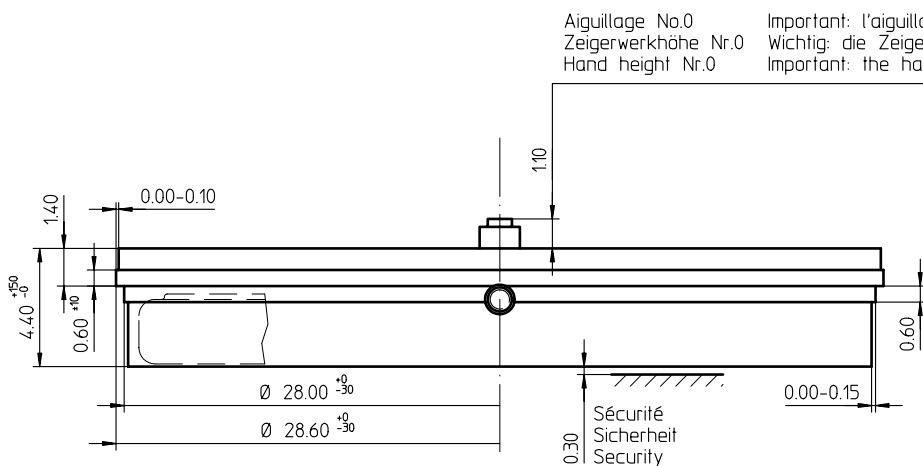
技术规格

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



电池规格

| | |
|------------|-------------------------|
| 电池类型 | 型号 395 |
| 电池寿命 | 60 月 |
| 电压 | 1.5 V |
| 电耗 - 一般情况下 | 1.19 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) |



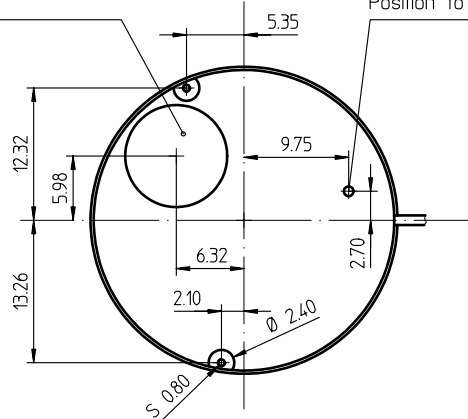
Sécurité entre l'aiguille des minutes et le verre:
Sicherheit zwischen Minutenzeiger und Glas: 0.30mm
Security between minute hand and glass:

Le cadran doit être tenu par la boîte
Das Zifferblatt muss durch die Schale gehalten werden
The dial must be hold by the case

Côté fond de boîte
Seite Gehäuseboden
Case back side

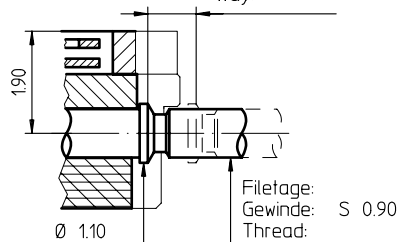
Pile
Batterie (395) Ø 9.50 x 2.60mm
Battery

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

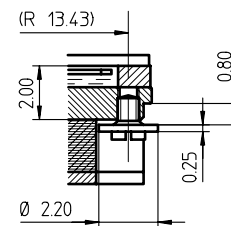


Stellwelle
Tige
Stem

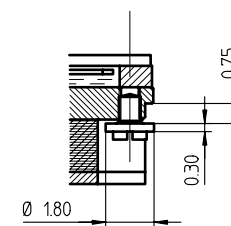
Chemin:
Weg: 0.90
Way:



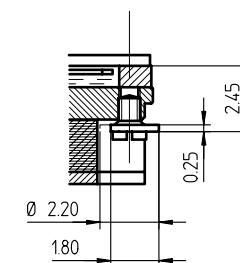
Vis
Schraube Nr. 4000.310
Screw



Vis
Schraube Nr. 4000.195
Screw



Vis
Schraube Nr. 4000.194
Screw



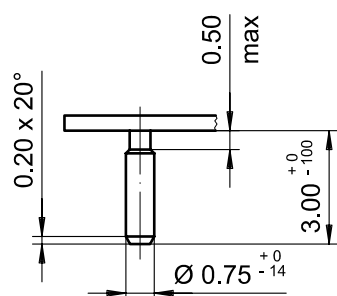
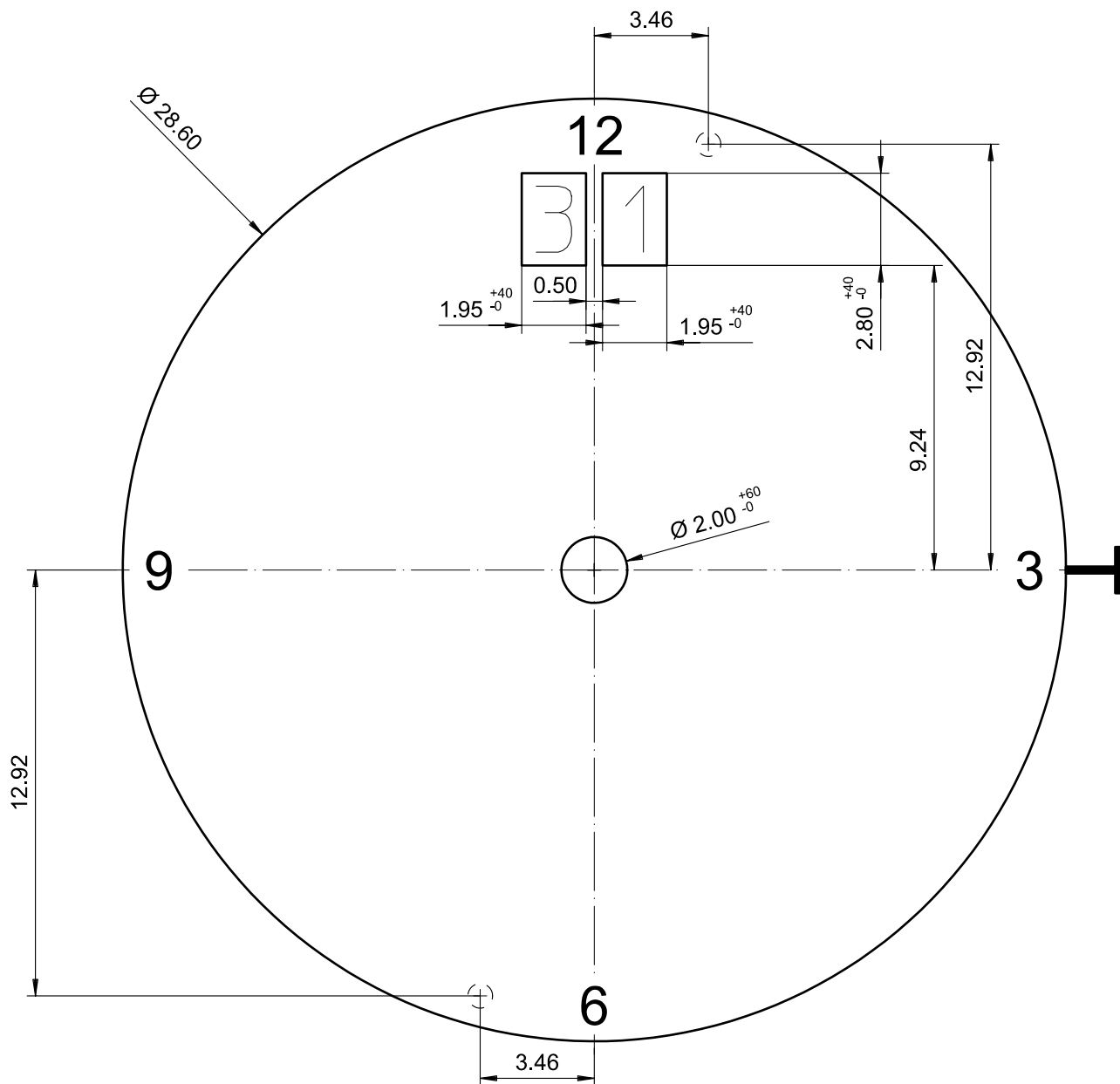
Cage
Uhrwerkgestell
Frame

12½"

RONDA

4002.B

| | | |
|---|-------------------------|----|
| Issued | 01 Nov 2004 | mk |
| Modified | 20.Juni 2007 ÅA 2180 | mk |
| Released | YES | |
| Tolerance | +/- 20 µm | |
| Scale | 10 : 1 (5 : 1) (A3H) | |
| Sous réserve de modifications Änderungen vorbehalten Modifications reserved | | |
| No. | 5000.346 | 01 |



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 | 12H |
| | |

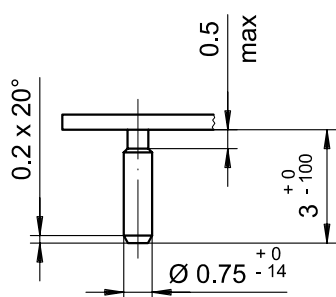
Cadran
Zifferblatt
Dial

12 1/2"

| | | |
|--|------------------------|----|
| Issued | 13 Dez 2006 | cw |
| Modified | 15.Dez.2006 ÄA ---- | cm |
| Released | YES | |
| Tolerance | +/- 20 µm | |
| Scale | 5 : 1 (A4V) | |
| Sous réserve de modifications Äenderungen vorbehalten Modifications reserved | | |
| No. | 5010.701 | 01 |

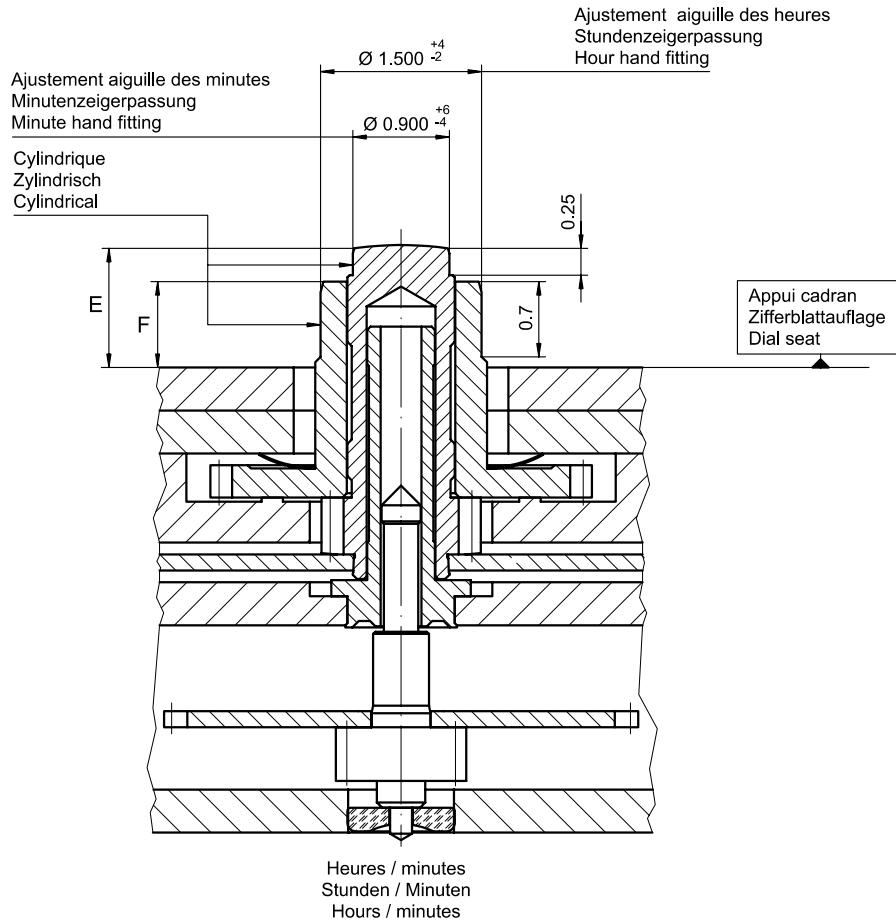
RONDA

4002.B, 4003.B



| | |
|---------|----------------------|
| Tige | Date |
| Stellw. | Datum |
| Stem | Date |
| 3H | 6H |
| | <input type="text"/> |

| | | | | |
|--|----------------|---|------------------------|----|
| Cadran Zifferblatt Dial <div style="text-align: right; font-size: 2em;">12½"</div> | | Issued | 13 Dez 2006 | cw |
| | | Modified | 15.Dez.2006 ÄÄ ---- | cm |
| | | Released | YES | |
| | | Tolerance | +/- 20 µm | |
| | | Scale | 5 : 1 (A4V) | |
| RONDA | 4002.B, 4003.B | Sous réserve de modifications Änderungen vorbehalten Modifications reserved | | |
| | | No. | 5010.702 | 01 |



| | Aig. des minutes Minutenzeiger Minute hand | Aig. des heures Stundenzeiger Hour 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. | 30 | 30 | Masse / Masse / Weight * |
| µNm max. | 0.80 | 0.80 | Balourd / Unwucht / Unbalance * |
| gmm ² max. | - | - | Inertie / Massenträgheit / Inertia * |
| N max. | 40 | 40 | Force de chassage / Aufpresskraft / Force |

| Aiguillages Zeigerwerkhöhe Hand fitting height | | |
|--|--|---|
| Dépassement Höhe über Zifferblattauflege Height over dial seat | | |
| | Chaussée Minutenrohr Cannon-pinion | Roue des heures Stundenrad Hour wheel |
| No | E | F |
| 0 | 1.10 | 0.80 |
| - | | |

| Aiguillages Zeigerwerkhöhe Hand fitting height | | | |
|---|--|------|---|
| Peinture comprise / inkl. Farbe / Paint included | | | |
| Epaisseur maximum du cadran Maximale Zifferblattstärke Maximum dial thickness | | | 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 | | |
| No | | | |
| 0 | 0.70 | 0.40 | 0.15 |
| - | | | |

Sous réserve de toutes modifications

Aenderungen vorbehalten

All modifications reserved

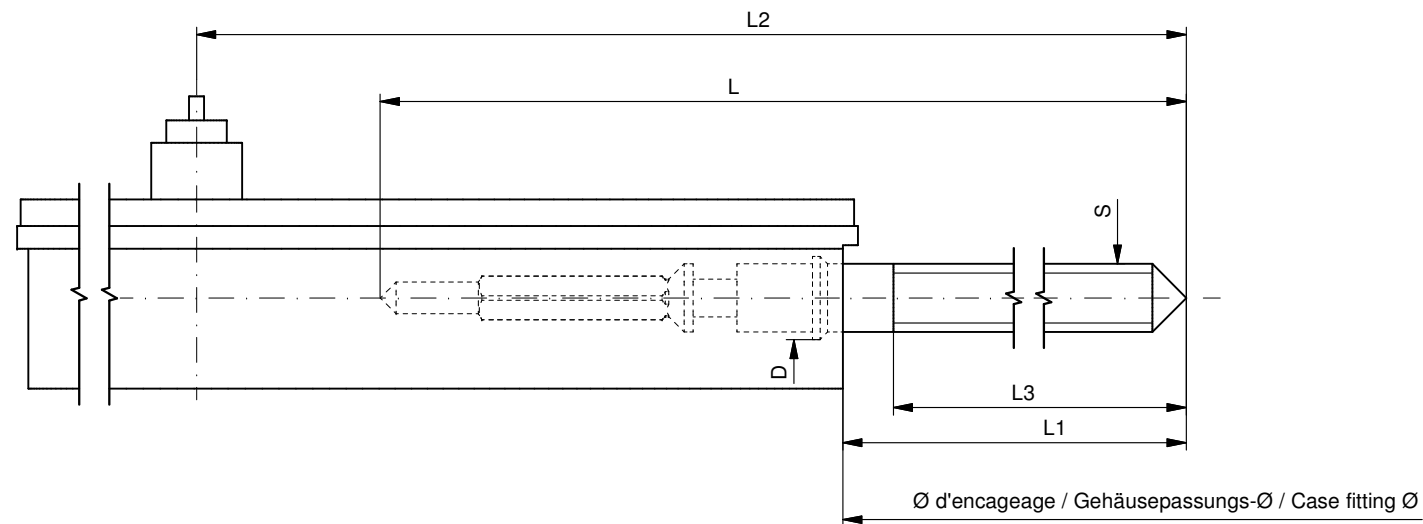
Aiguillages
Zeigerwerkhöhen
Hand fitting heights

12½"

RONDA

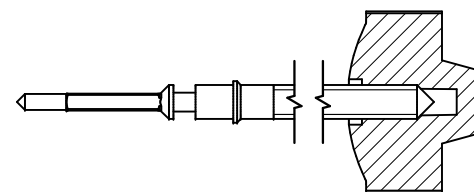
4002.B

| | | |
|--|-----------------------|----|
| Issued | 01 Nov 2004 | mk |
| Modified | 02.08.2010 ÄA 2120 | dh |
| Released | Yes | |
| Tolerance | µm | |
| Scale | 20 : 1 (A3H) | |
| Sous réserve de modifications Aenderungen vorbehalten Modifications reserved | | |
| No. | 3316.091 | 01 |



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

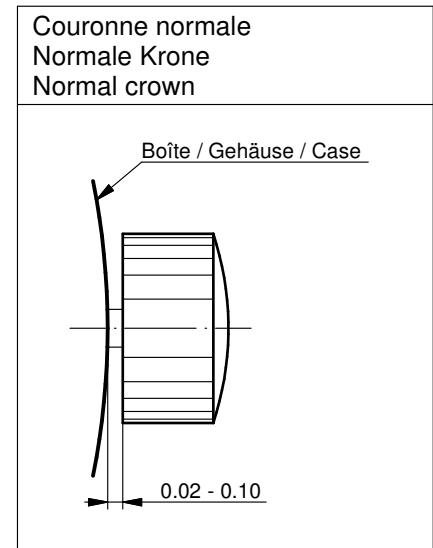
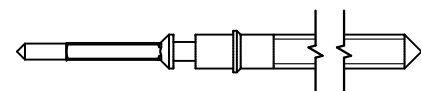
| No. d'article Artikelnummer Part number | L | L1 | L2 | L3 | S | D |
|---|-------|-------|-------|-------|------|------|
| 3000.177.CO | 20.00 | 10.23 | 24.23 | 10.15 | 0.90 | 1.10 |



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

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

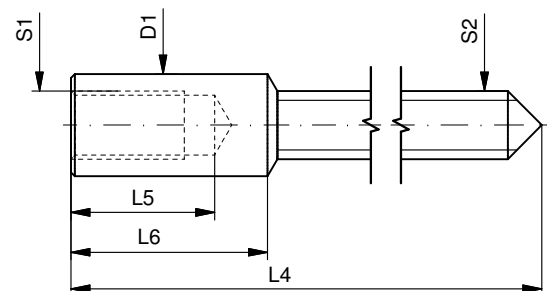
| No. d'article Artikelnummer Part number | L | L1 | L2 | L3 | S | D |
|---|-------|-------|-------|-------|------|------|
| 3000.177 | 20.00 | 10.23 | 24.23 | 10.15 | 0.90 | 1.10 |
| 3000.191 | 32.00 | 22.23 | 36.23 | 22.15 | 0.90 | 1.10 |



| | |
|---|------|
| Couronne vissée Geschraubte Krone Screwed crown | |
| Force ⇐ min. Kraft ⇐ min. Force ⇐ min. | 10 N |
| Force ⇐ max. Kraft ⇐ max. Force ⇐ max. | 15 N |

Rallonge de tige / Stellwelle Verlängerung / Stem extension

| No. d'article Artikelnummer Part number | L4 | L5 (min) | L6 | S1 | S2 | D1 |
|---|-------|-------------|------|------|------|------|
| 3000.040 | 12.00 | 1.90 | 2.60 | 0.90 | 0.90 | 1.35 |



Tige (dimensions / forces)
Stellwelle (Dimensionen / Kräfte)
Stem (dimensions / forces)

RONDA

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

| | | |
|---|-------------------------|--------|
| Issued | 05 Sep 2012 | ds5222 |
| Modified | 17 Mär 2017 ÄA 34582 | mg5224 |
| Released | YES | |
| Tolerance | --- | |
| Scale | 10:1 (A3) | |
| Sous réserve de modifications Änderungen vorbehalten Modifications reserved | | |
| No. | 5030.018 | 02 |



Movement holder
Removing setting stem
H5XXX.1T



Movement holder
Setting hands
H5XXX.1A

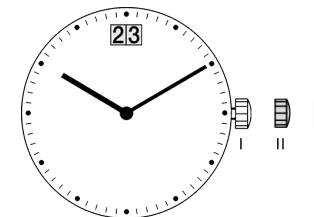
Fitting dial and hands

- Crown in position II
- Wind crown until date 02 appears
- Crown in position III
- Wind hour hand forwards until date changes to 03
- Remove working hand
- Fit dial
- Point all hands towards 12 o'clock
- Set time
- Crown in position II
- Set date
- Crown in position I

Date switching duration:

First and tenth digit discs

~2hrs



General Instructions

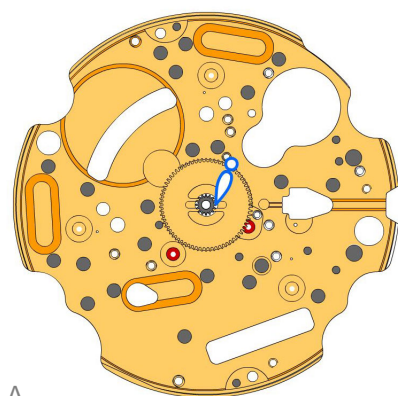
Removing the setting stem can only be effected in Pos. I.

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

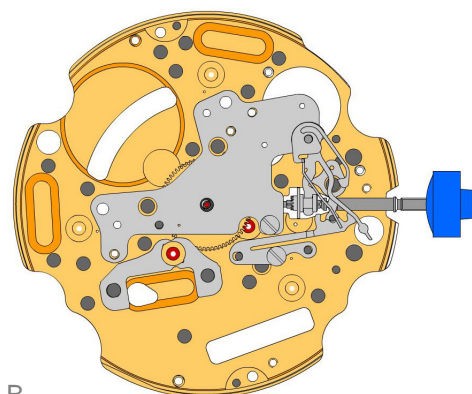
Permitted hand setting strengths:

Hr / min. hands: <40N

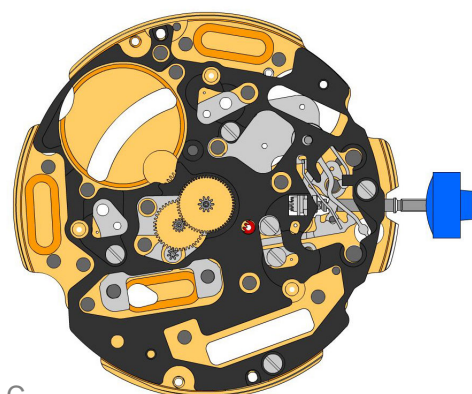
During quick date correction (setting stem in position II), a date switching speed of 5 d/s must not be exceeded.



A



B



C

2000.577.G

1.



Main plate

3305.315.CO

2.



Cannon pinion with driver (Aig.0, closed)

2030.017.CO

3.



Centre bridge

Centre bridge held by 1 screw 4000.250. Parts 2030.017.CO, 3004.223 and 3500.059 must be exchanged together.

4000.250

4.



Screw

3001.055.FI

5.



Sliding pinion

3000.177.CO

6.



Setting stem

3017.049

7.



Setting lever

3905.049

8.



Setting lever jumper (3 positions)

Setting lever jumper held by 1 screw 4000.250.

4000.250

9.



Screw

3015.081

10.



Yoke (3 positions)

Parts 3015.081 and 3905.067 must be exchanged together.

3905.067

11.



Yoke spring

Tensioning the spring arm. Parts 3015.081 and 3905.067 must be exchanged together.

3622.039

12.



Stator (counter 6h, 9h, chrono)

3603.079

13.



Plastic bracket

Plastic bracket held by 4 screws 4000.250.

4000.250

14.



Screw

3715.094.RK

15.



Rotor

3147.047.CO

16.



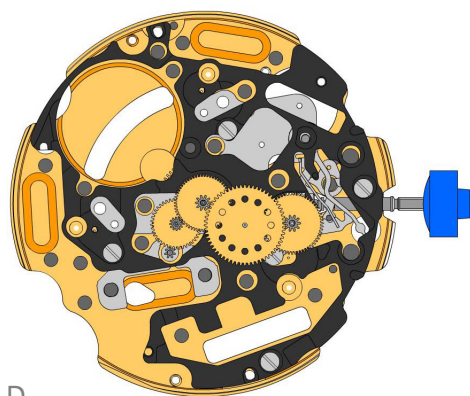
Intermediate wheel (chrono)

3136.170.CO

17.




Center second wheel (short)



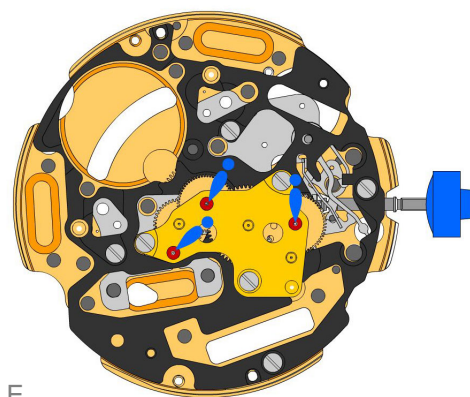
D

3136.148.CO
18.  Second wheel (short)


3122.056.CO
19.  Third wheel

2020.164.G
20.  Train wheel bridge
Train wheel bridge held by 3 screws 4000.250.

4000.250
21.  Screw



E

3621.079.RK
22.  Coil (center)
Attention: Please hold the coil only on the grey coil core. Coil held by 1 screw 4000.250.

4000.250
23.  Screw

3603.034
24.  Battery insulator

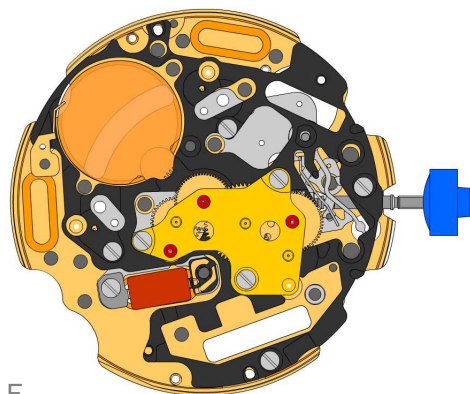
3503.071
25.  Tube

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

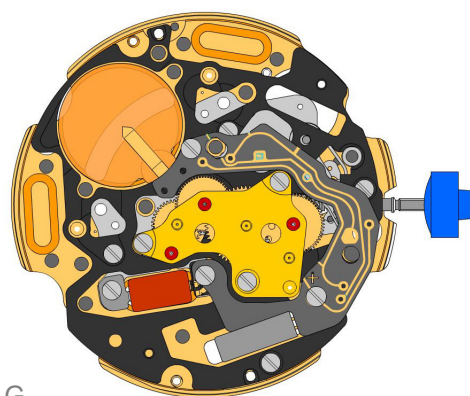
4000.250
27.  Screw

3503.059
28.  Tube

3503.068
29.  Tube



F



G

3612.147.4003
30.



Electronic module
Electronic module held by 1 screw 4000.248. Electronic measurements may be realised now.

4000.248
31.



Screw

3603.069
32.

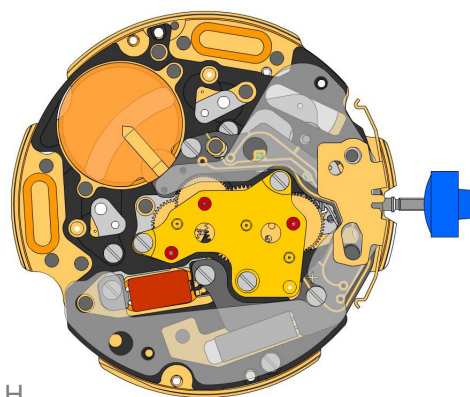


Circuit insulator

3601.107.G
33.



Pusher contact spring



H

2130.176.G.M01.4002B
34.



Electronic module cover
Electronic module cover held by 3 screws 4000.250.

3600.010.HGF
35.



Battery 395

3601.109.G
36.

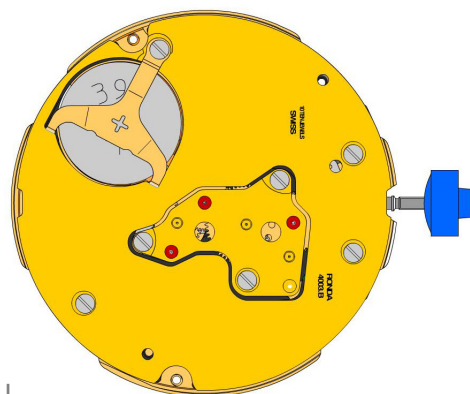


Bridge +
Bridge held by 1 screw 4000.250.

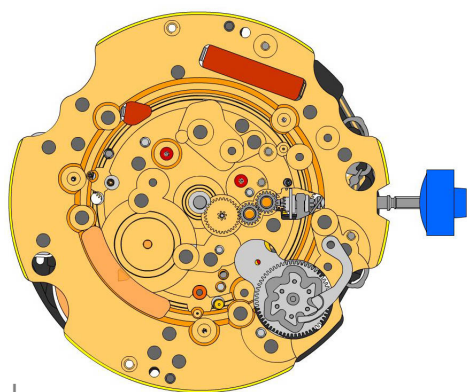
4000.250
37.



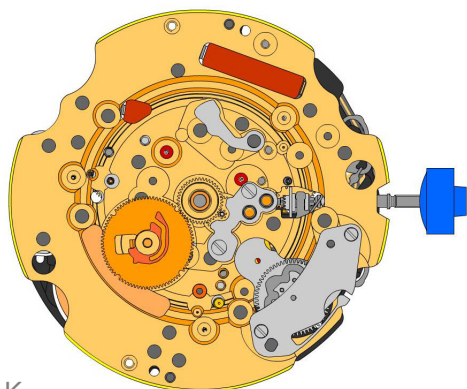
Screw

















I

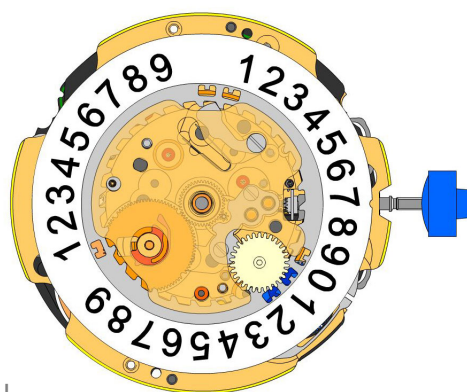


J

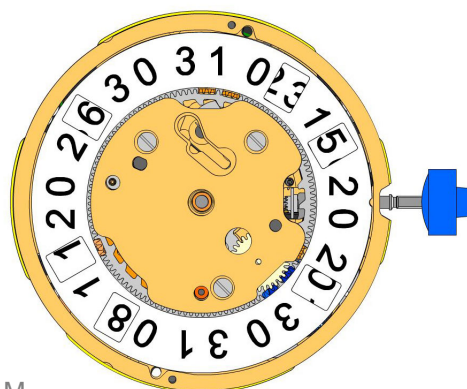


K

| | | |
|--------------------|---|---|
| 2000.577.G 38. |  | Main plate |
| 3004.164 39. |  | Setting wheel |
| 3004.164 40. |  | Setting wheel |
| 3007.054.CO 41. |  | Minute wheel |
| 2130.143 42. |  | Minute train bridge Minute train bridge held by 2 screws 4000.250. |
| 4000.305 43. |  | Screw |
| 3004.223 44. |  | Tens indicator driving wheel Parts 2030.017.CO, 3004.223 and 3500.059 must be exchanged together. The short tooth of the tens indicator driving wheel must point to the center of the movement. |
| 3500.059 45. |  | Tens jumper Parts 2030.017.CO, 3004.223 and 3500.059 must be exchanged together. |
| 2130.142 46. |  | Tens jumper maintaining plate Tens jumper maintaining plate held by 2 screws 4000.332. Tensioning the spring arm. |
| 4010.306 47. |  | Screw |
| 3301.285 48. |  | Hour wheel (Aig.0) |
| 3315.016 49. |  | Friction spring |
| 3004.224.CO 50. |  | Date indicator driving wheel |
| 3500.049 51. |  | Date jumper |



L



M

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



3147.054
53. Tens intermediate wheel



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



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



3504.215.AD.1.A
56. Tens indicator (standard)
Nick of the indicator at 3 o'clock.



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



4000.250
58. Screw



3506.072.G
59. Dial support



8200
60. Moebius 8200



9014
61. Moebius 9014

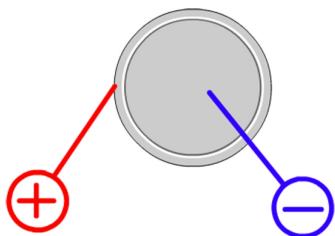


124
62. Jismaa 124

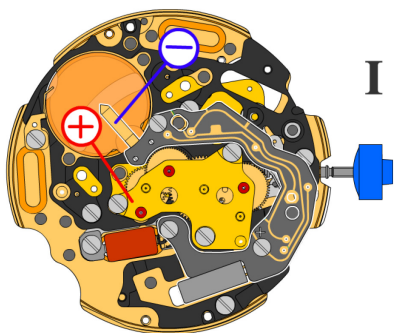


9020
63. Moebius 9020



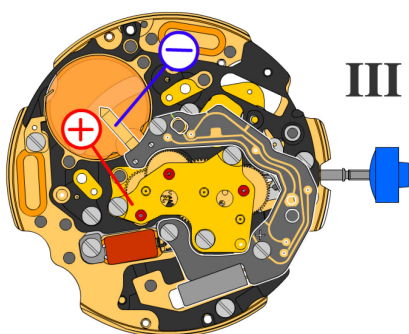


| | |
|---------|---------------|
| Battery | 395 |
| Voltage | 1.55 V |



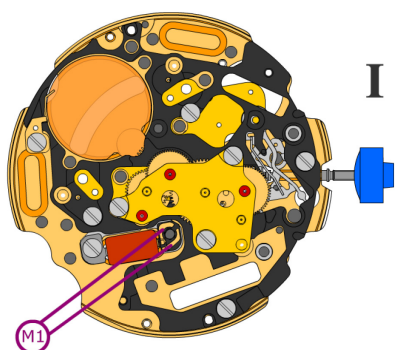
*Setting stem in position I, calendar not in gear,
60 s measuring interval for rate and consumption:*

| | |
|-----------------------------|-------------------------------|
| Typical consumption | 1.19 μA |
| Maximal consumption | 1.65 μA |
| Rate | -10s/M. .. +20s/M. |
| Lower working voltage limit | 1.20 V |

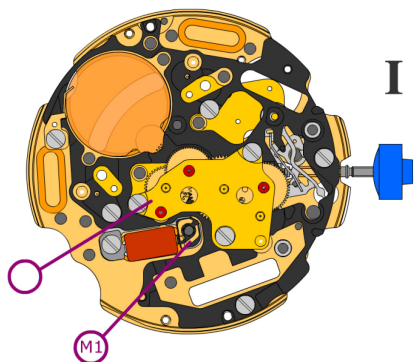


Setting stem in position III, 60 s measuring interval:

| | |
|---------------------|-------------------------------|
| Typical consumption | 0.10 μA |
| Maximal consumption | 0.30 μA |

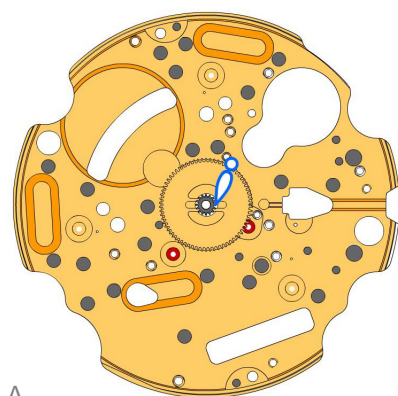


Coil resistance M1

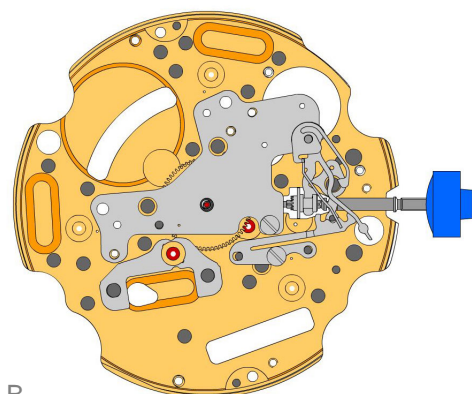
2.20 k Ω .. 2.40 k Ω


Coil isolation M1

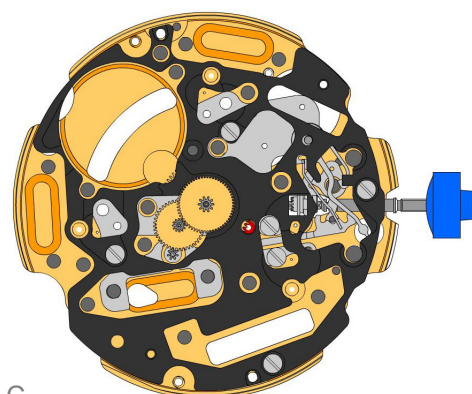
 ∞ k Ω



A



B



C

2000.577.G

1.



Main plate

3305.315.CO

2.



Cannon pinion with driver (Aig.0, closed)

2030.037.CO

3.



Centre bridge

Centre bridge held by 1 screw 4000.250.

4000.250

4.



Screw

3001.055.FI

5.



Sliding pinion

3000.177.CO

6.



Setting stem

3017.049

7.



Setting lever

3905.049

8.



Setting lever jumper (3 positions)

Setting lever jumper held by 1 screw 4000.250.

4000.250

9.



Screw

3015.081

10.



Yoke (3 positions)

3905.067

11.



Yoke spring

Tensioning the spring arm.

3622.039

12.



Stator (counter 6h, 9h, chrono)

3603.079

13.



Plastic bracket

Plastic bracket held by 4 screws 4000.250.

4000.250

14.



Screw

3715.094.RK

15.



Rotor

3147.047.CO

16.



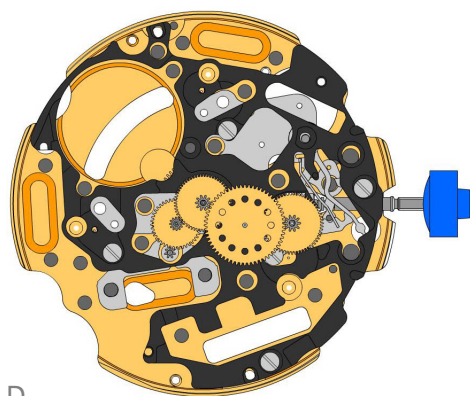
Intermediate wheel (chrono)

3136.170.CO

17.




Center second wheel (short)



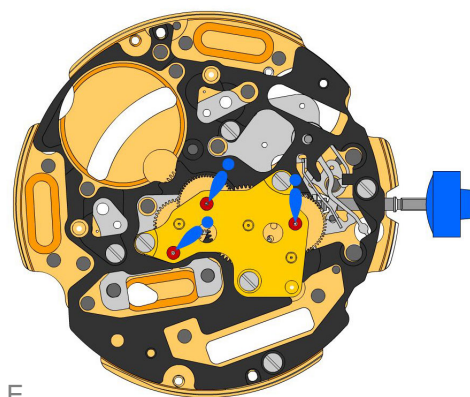
D

3136.148.CO
18.  Second wheel (short)


3122.056.CO
19.  Third wheel

2020.164.G
20.  Train wheel bridge
Train wheel bridge held by 3 screws 4000.250.

4000.250
21.  Screw



E

3621.079.RK
22.  Coil (center)
Attention: Please hold the coil only on the grey coil core. Coil held by 1 screw 4000.250.

4000.250
23.  Screw

3603.034
24.  Battery insulator

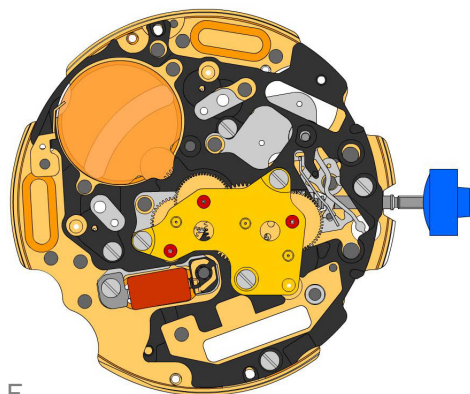
3503.071
25.  Tube

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

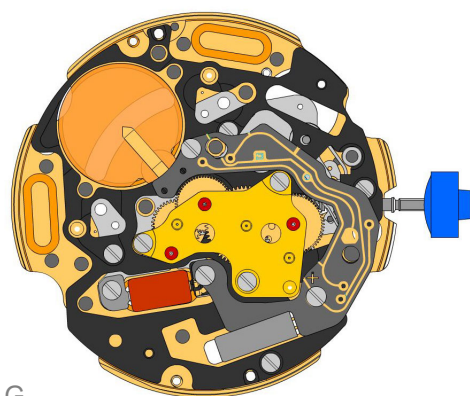
4000.250
27.  Screw

3503.059
28.  Tube

3503.068
29.  Tube



F



G

3612.147.4003
30.



Electronic module
Electronic module held by 1 screw 4000.248. Electronic measurements may be realised now.

4000.248
31.



Screw

3603.069
32.

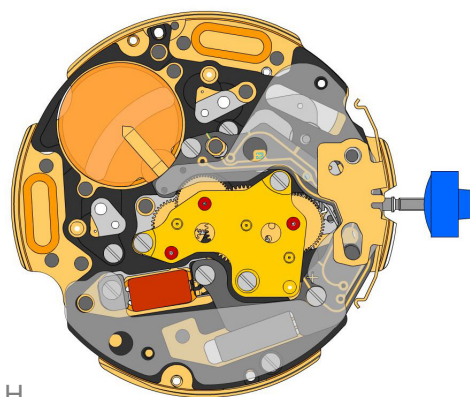


Circuit insulator

3601.107.G
33.



Pusher contact spring



H

2130.176.G.M01.4002B
34.



Electronic module cover
Electronic module cover held by 3 screws 4000.250.

3600.010.HGF
35.



Battery 395

3601.109.G
36.

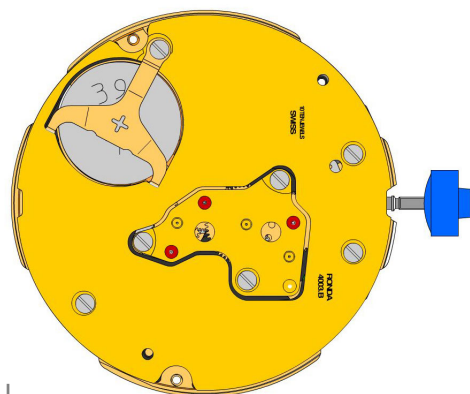


Bridge +
Bridge held by 1 screw 4000.250.

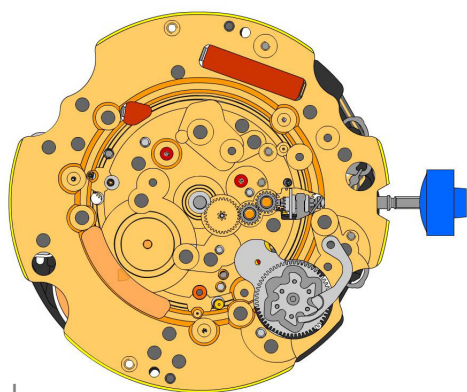
4000.250
37.



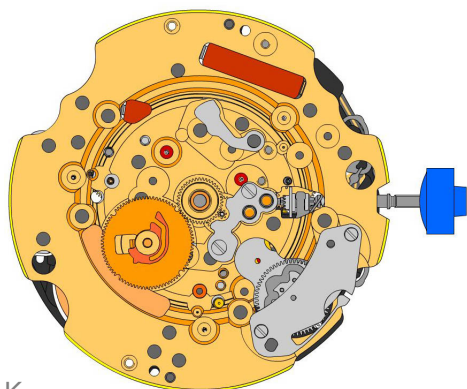
Screw

















I

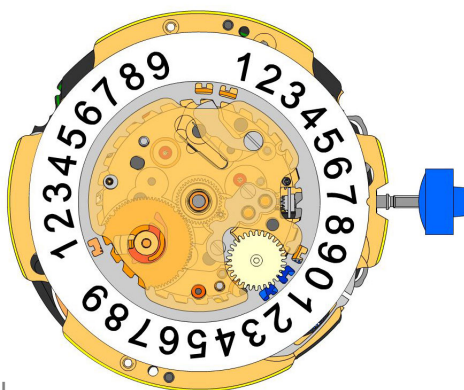


J

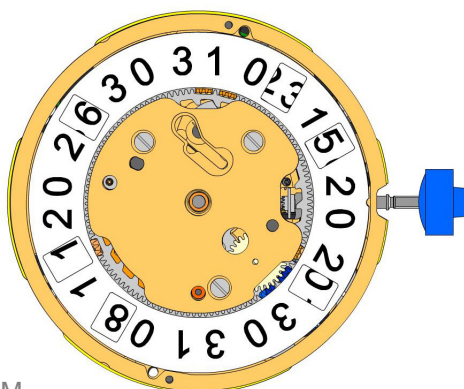


K

| | | |
|--------------------|---|---|
| 2000.577.G 38. |  | Main plate |
| 3004.164 39. |  | Setting wheel |
| 3004.164 40. |  | Setting wheel |
| 3007.054.CO 41. |  | Minute wheel |
| 2130.143 42. |  | Minute train bridge Minute train bridge held by 2 screws 4000.250. |
| 4000.305 43. |  | Screw |
| 3004.227 44. |  | Tens indicator driving wheel The short tooth of the tens indicator driving wheel must point to the center of the movement. |
| 3500.075 45. |  | Tens jumper |
| 2130.142 46. |  | Tens jumper maintaining plate Tens jumper maintaining plate held by 2 screws 4000.332. Tensioning the spring arm. |
| 4010.306 47. |  | Screw |
| 3301.285 48. |  | Hour wheel (Aig.0) |
| 3315.016 49. |  | Friction spring |
| 3004.224.CO 50. |  | Date indicator driving wheel |
| 3500.049 51. |  | Date jumper |



L



M

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



3147.054
53. Tens intermediate wheel



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



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



3504.215.AD.1.A
56. Tens indicator (standard)
Nick of the indicator at 3 o'clock.



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



4000.250
58. Screw



3506.072.G
59. Dial support



8200
60. Moebius 8200



9014
61. Moebius 9014

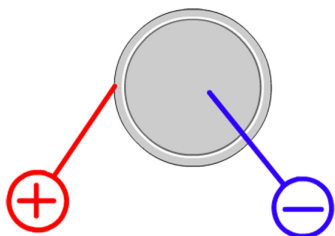


124
62. Jismaa 124

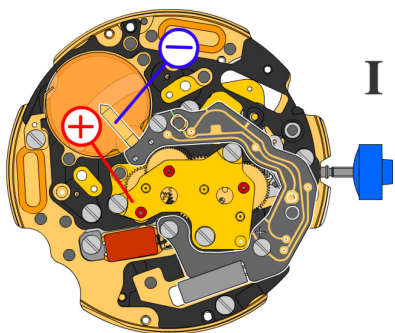


9020
63. Moebius 9020



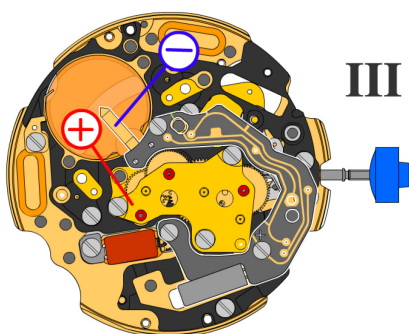


| | |
|---------|---------------|
| Battery | 395 |
| Voltage | 1.55 V |



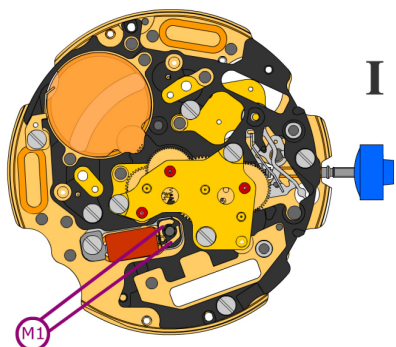
*Setting stem in position I, calendar not in gear,
60 s measuring interval for rate and consumption:*

| | |
|-----------------------------|-------------------------------|
| Typical consumption | 1.19 μA |
| Maximal consumption | 1.65 μA |
| Rate | -10s/M. .. +20s/M. |
| Lower working voltage limit | 1.20 V |

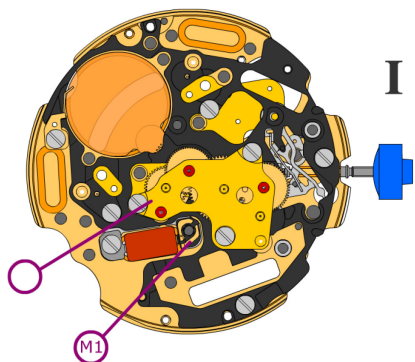


Setting stem in position III, 60 s measuring interval:

| | |
|---------------------|-------------------------------|
| Typical consumption | 0.10 μA |
| Maximal consumption | 0.30 μA |



Coil resistance M1

2.20 k Ω .. 2.40 k Ω


Coil isolation M1

 ∞ k Ω