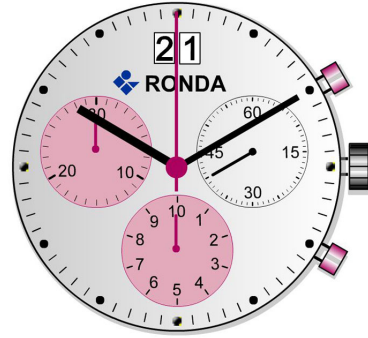




به سفارش دقت زمان
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12 ½"



Technical Specifications

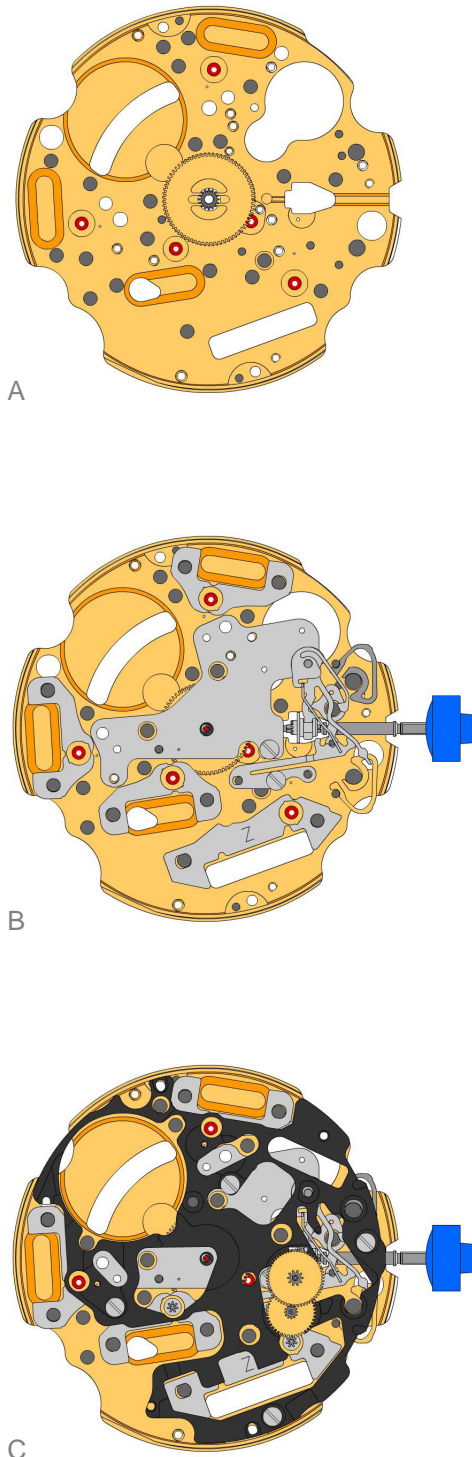
مشخصات فنی
















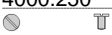
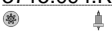

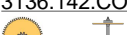
∅ Total	28.60 mm
∅ Case fitting	28.00 mm
Movement height	4.40 mm
Movement over battery	4.40 mm
Movement rest	0.60 mm
Height of stem	1.90 mm
Stem: thread / travel	0.90 mm / 0.90 mm
Battery / Voltage	Nr. 395 / 1.5 V
Autonomy (theoretical)	54 months
Instantaneous rate (25°C)	-10/+20 sec/month
Current cons. (typical)	1.32 µA (date mechanism not in gear)
Current cons. (max.)	1.65 µA
Torque sec.	6 µNm (typ.)
Torque minute	300 µNm (typ.)
Torque center sec.	7 µNm (typ.)
Operating temperature	0°C - 50°C
Resist. to magn. fields	18.8 Oe = 1500 A/m
Resistance to shock	NIHS 91 - 10

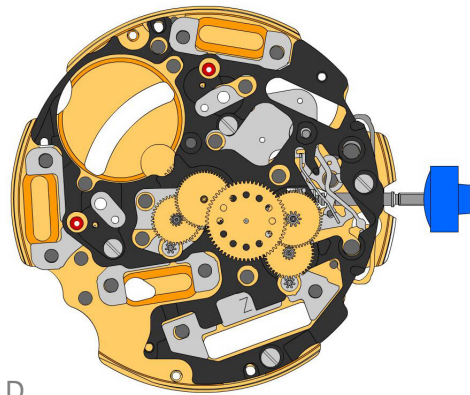
Functions





کارکردها

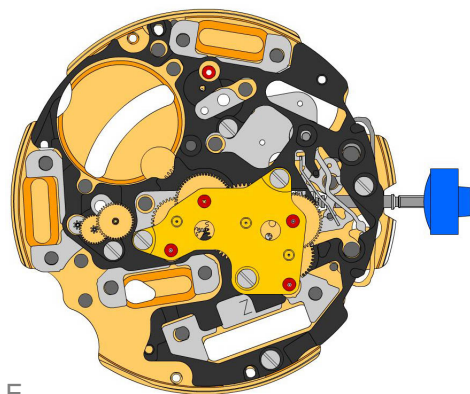
Position I (crown)	Neutral
Position II (crown)	Setting the date (quick mode)
Position III (crown)	Setting time and adjusting chrono hands
Pusher A	START / STOP / ADD
Pusher B	ZERO POSITIONING / SPLIT


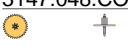
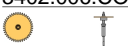



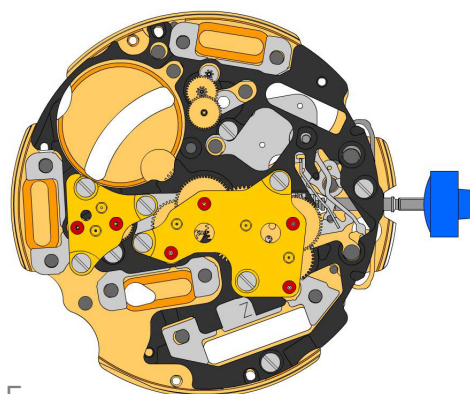
1. 2000.574.CO Main plate

2. 3305.275.CO Cannon pinion with driver (Aig 1)
Moebius 8200 greace must be placed between the steel tube and the brass wheel. The steel tube must be placed into the center hole of the main plate.

3. 2030.017.CO Centre bridge
Use one screw 4000.250 to fix the center bridge.

4. 3001.041 Sliding pinion
The sliding pinion must be holded using a tweezers, untill the stem is inserted.

5. 3000.177.CO Handsetting stem
Prior to the insertion of the stem, some greace must be placed on the square part of the stem.

6. 3017.049 Setting lever
The cam on the setting lever must be inserted into the cut out on the stem. (the setting lever must be greaced)

7. 3905.049 Setting lever jumper (3 positions)
The setting lever jumper (3 positions) must be tensioned and inserted into the setting lever. Use one screw 4000.250 to fix the setting lever.

8. 4000.250 Screw

9. 3015.081 Yoke (3 positions)
IMPORTANT: Parts 3015.081 and 3905.067 must be exchanged together. The yoke must be inserted, into the cut-out on the sliding pinion.

10. 3905.067 Yoke spring
IMPORTANT: Parts 3015.081 and 3905.067 must be exchanged together. The yoke spring is positioned over the yoke placed behind the pillar. Greasing with Moebius 8200.

11. 3406.030 Pusher jumper
Use Jismaa 124 to greace the (steel) pusher jumper.

12. 3406.038 Pusher jumper
Use Jismaa 124 to greace the (yellow) pusher jumper.

13. 3622.040 Stator

14. 3622.039 Stator (centre 6h and 9h and chrono)
3 pieces

15. 3603.079 Plastic bracket
Use 4 screws 4000.250

16. 4000.250 Screw

17. 3715.094.RK Rotor (centre and chrono)
Use an antimagnetic tweezers to place the 2 rotors.

18. 3147.046.CO Intermediate wheel

19. 3136.142.CO Second wheel (long)



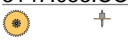


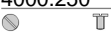


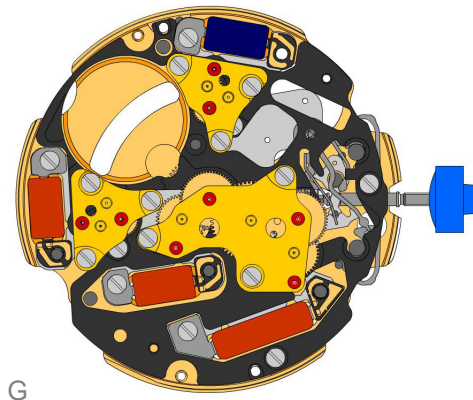
- 20. 3147.047.CO Intermediate wheel (chrono)

- 21. 3136.143.CO Chronograph wheel (Aig 1)

- 22. 3122.056.CO Third wheel

- 23. 2020.148 Train wheel bridge
 Attention: Prior to the fastening process of the bridge, all 7 pins of the wheels must be visible in the 7 holes in the bridge. Use 3 screws 4000.250.




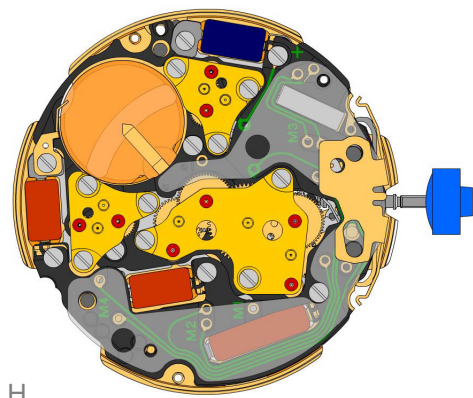
- 24. 3715.095.RK Rotor (counter 6h and 9h)
 Use an antimagnetic tweezers to place the rotor.

- 25. 3147.048.CO Intermediate wheel (counter)

- 26. 3402.006.CO Minute counting wheel

- 27. 2020.149 Counter train wheel bridge
 Attention: Prior to the fastening process of the bridge, all 4 pins of the wheels must be visible in the 4 holes of the bridge. Use 3 screws 4000.250.




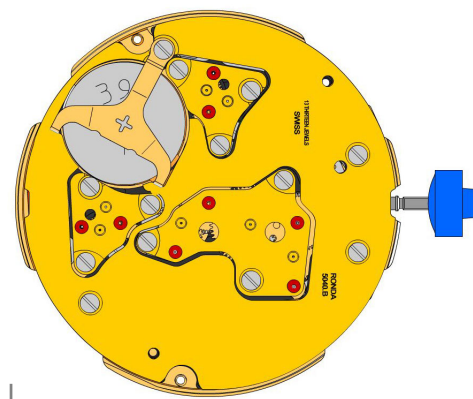
- 28. 3715.095.RK Rotor (counter 6h and 9h)
 Use an antimagnetic tweezers to place the rotor.

- 29. 3147.053.CO Intermediate wheel (counter 1/10sec)

- 30. 3402.009.CO Counting wheel 1/10 sec

- 31. 2020.149 Counter train wheel bridge
 Attention: Prior to the fastening process of the bridge, all 4 pins of the wheels must be visible in the 4 holes of the bridge. Use 3 screws 4000.250.

- 32. 4000.250 Screw




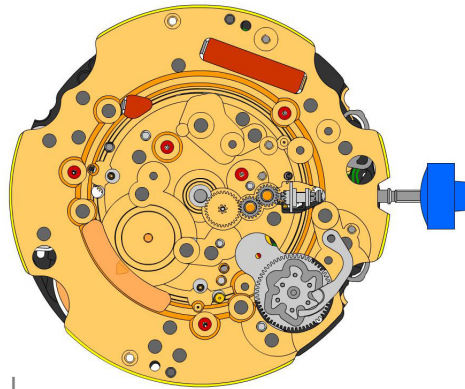
- 33. 9014.000 **Moebius 9014**
Use Moebius 9014 on bearing of all rubis
- 34. 3621.053.RK **Coil**
The wire of the coil (red area) is very sensitiv to mechanical impacts. Hold the coil only outside the red area. Fix the coil by 1screw 4000.250.
- 35. 3621.054.RK **Coil (counter 9h and chrono)**
The wire of the coil (red area) is very sensitiv to mechanical impacts. Hold the coil only outside the red area. Fix each of the 2 coils by 1screw 4000.250.
- 36. 3621.055.RK **Coil (counter 6h)**
The wire of the coil (blue area) is very sensitiv to mechanical impacts. Hold the coil only outside the blue area. Fix the coil by 1screw 4000.250.
- 37. 4000.250 **Screw**



- 38. 3601.118 **Contact strip**
- 39. 3603.034 **Battery insulator**
- 40. 3612.144.5040 **Electronic module**
After assembly of the electronic module it is the best time to perform the electrical measurements. Use 5 screws 4000.248 to fix the electronic module.
- 41. 4000.248 **Screw**
- 42. 3603.069 **Circuit insulator**
- 43. 3601.107 **Pusher contact spring**
Make shure, that the pusher contact spring is placed correctly onto the pillars.

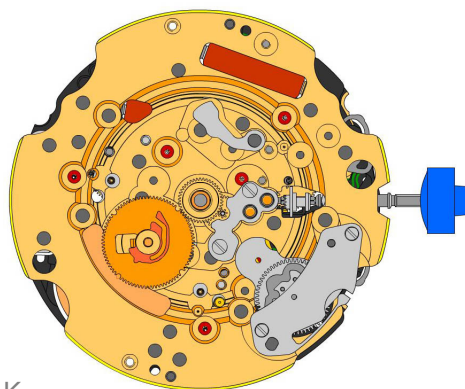


- 44. 2130.137.5040.B **Electronic module cover (counter 6h/9h)**
Make shure, that the pusher contact spring is not displaced during attachment of the electronic module cover. Use 3 screws 4000.250 to fix the electronic module cover
- 45. 3600.010 **Battery**
Use a plastic tweezers to place the battery (to avoid short circuit of battery).
- 46. 3601.109 **Bridle +**
Insert the two brackets of the battery bridle under the electronic module cover and fasten the battery bridle by 1 screw 4000.250.
- 47. 4000.250 **Screw**



J

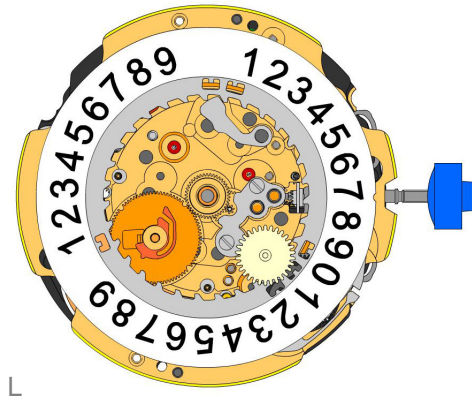
- 48. 2000.574.CO Main plate
- 49. 9014.000 Moebius 9014
Use Moebius 9014 on bearing of all rubis
- 50. 3004.164 Setting wheel
Use Moebius 9020 on both setting wheels
- 51. 3007.054.CO Minute wheel
Use Moebius 9020
- 52. 2130.143 Minute train bridge
Use 2 screws 4000.305
- 53. 4000.305 Screw



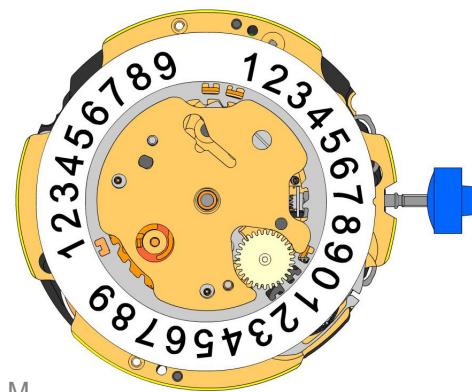
K

- 54. 3004.223 Tens indicator driving wheel
IMPORTANT: Parts 3004.223 (grey = new) and 3500.75 must be exchanged together. The short tooth of the tens indicator driving wheel must point to the center of the movement.
- 55. 3500.075 Tens jumper
IMPORTANT: Parts 3004.223 (grey = new) and 3500.75 must be exchanged together. Moebius 8200 grease must be placed between the tens jumper and the tens indicator driving wheel.












- 56. 2130.142 Tens jumper maintaining plate
Make shure, that the tens indicator driving wheel is not blocked prior to the fastening process. Use 2 screws 4010.306. Place the spring loaded bracket outside of the tens jumper.
- 57. 4010.306 Screw
- 58. 3301.241 Hour wheel (Aig 1)
Use Moebius 9020
- 59. 3315.016 Hour wheel friction spring
Must be placed onto the hour wheel
- 60. 3004.224.CO Date indicator driving wheel
Moebius 9020 must be used in the center of this wheel
- 61. 3500.049 Date jumper
Moebius 8200 grease must be placed between the date jumper and the date jumper spring



L

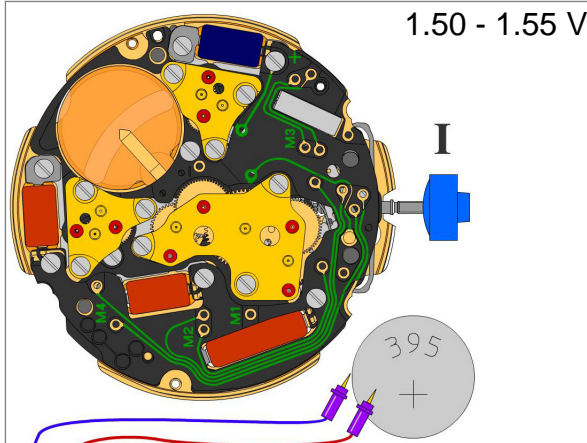


M

- 62. 3504.214.AF **Units indicator**

 Teeth must be greaced using Moebius 8200. The "half moon" cut out on the unit indicator must point to the stem (position 3h).
- 63. 3147.054 **Tens intermediate wheel**

- 64. 2130.141 **Date indicator maintaining plate**

 Use 1 screw 4000.250
- 65. 3905.070 **Date jumper spring**

 Insert the spring into the opening of the date indicator maintaining plate
- 66. 3504.216.AF **Tens indicator (T3/G12)**

 The "half moon" cut out on the tens indicator must point to the stem (position 3h).
- 67. 2130.140 **Date mechanism maintaining plate**

 Assure that the tens intermediate wheel is not blocked, prior to the fastening process. Use 2 screws 4000.250 to fix the date indicator maintaining plate
- 68. 3506.072 **Dial support**

- 69. 4000.250 **Screw**

- 70. 9010.000 **Moebius 8200**

 Microgliss D5 can be used
- 71. 9018.000 **Jismaa 124**

 Greace Moebius or Microgliss D5 an be used
- 72. 9020.000 **Moebius 9020**


Voltage of battery

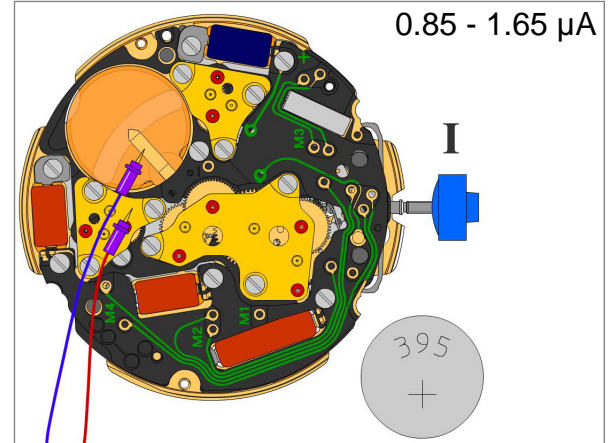
1.50 - 1.55 V



Battery test
 Battery must be removed from movement

Consumption (M1) of movem. (Pos. I)

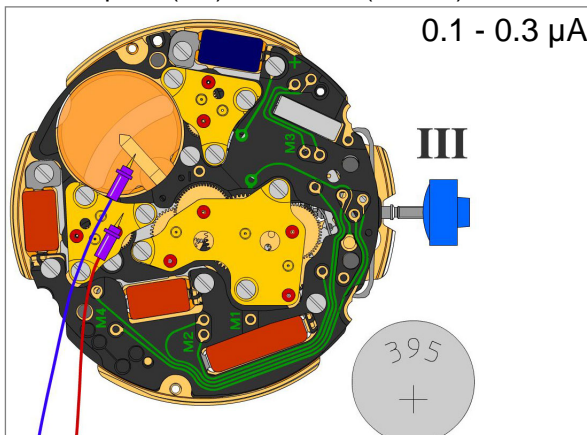
0.85 - 1.65 μ A



Supply power from measurement equipment (1,55 V)

Consumption (M1) of movem. (Pos. III)

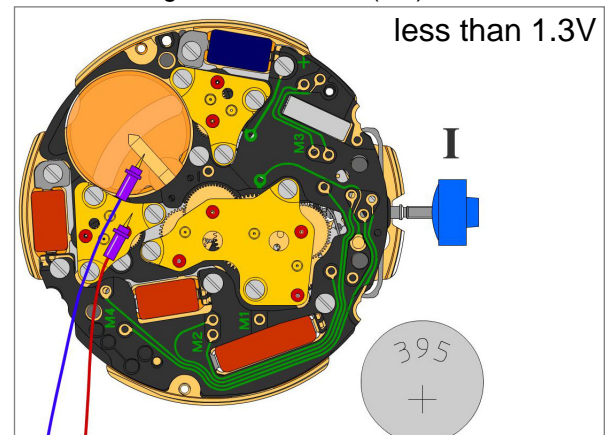
0.1 - 0.3 μ A



Supply power from measurement equipment (1,55 V)

Lowest voltage for movement (M1)

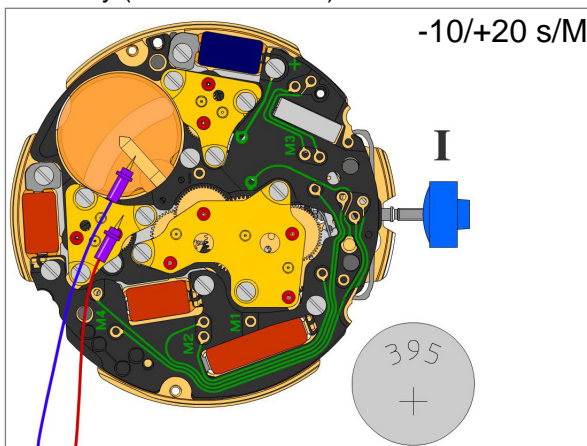
less than 1.3V



Lower limit for operation of movement
 Adjust voltage on the measuring equipment to 1.55 V. The slowly reduce the tension until the movement stops

Accuracy (seconds / month)

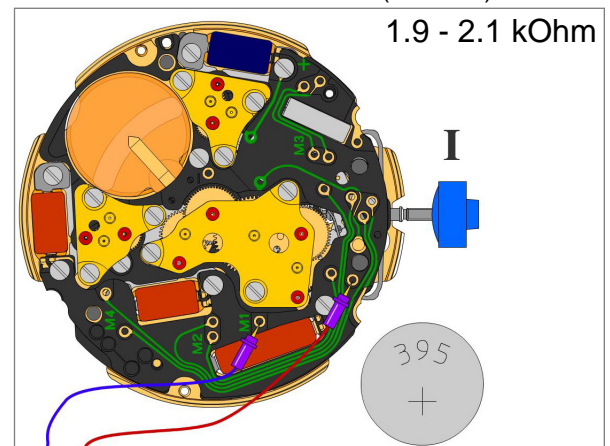
-10/+20 s/M



Check for a time of minimal 60 seconds

Resistance of the coil: motor 1 (movem.)

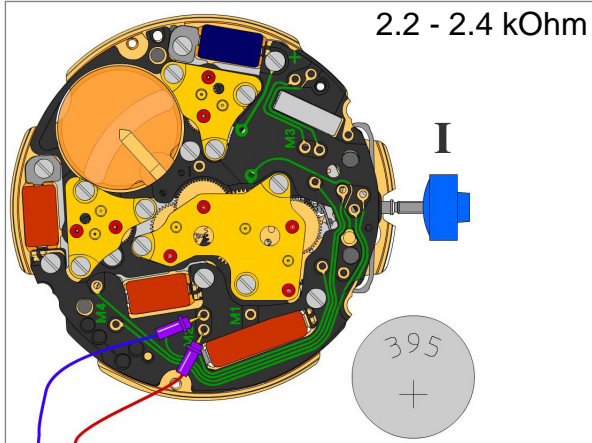
1.9 - 2.1 kOhm



Ref. 3621.053.RK
 The resistance of the coil can be measured on the electronics (M1) or directly on the coils (electronic module must be removed).

Resistance of the coil: motor 2 (counter)

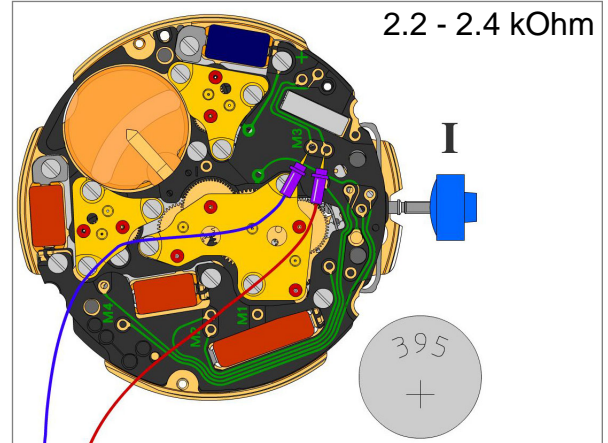
2.2 - 2.4 kOhm



Ref. 3621.054.RK
 The resistance of the coil can be measured on the electronics (M2) or directly on the coils (electronic module must be removed).

Resistance of the coil: motor 3 (counter)

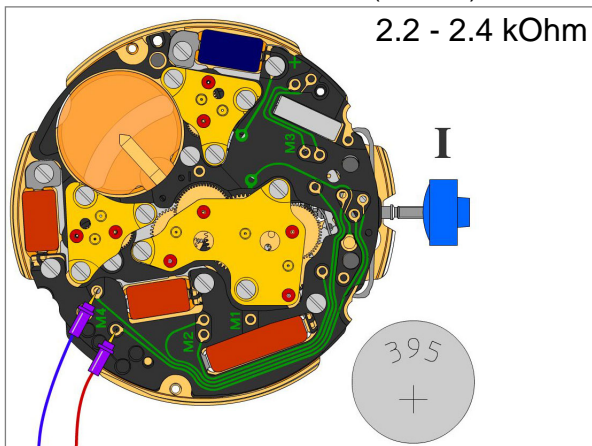
2.2 - 2.4 kOhm



Ref. 3621.055.RK
 The resistance of the coil can be measured on the electronics (M3) or directly on the coils (electronic module must be removed).

Resistance of the coil: motor 4 (counter)

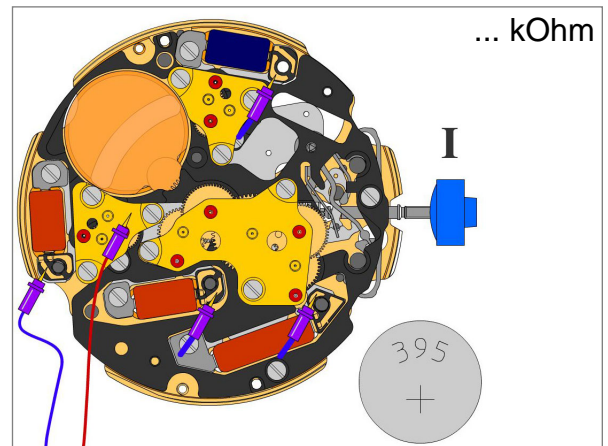
2.2 - 2.4 kOhm



Ref. 3621.054.RK
 The resistance of the coil can be measured on the electronics (M4) or directly on the coils (electronic module must be removed).

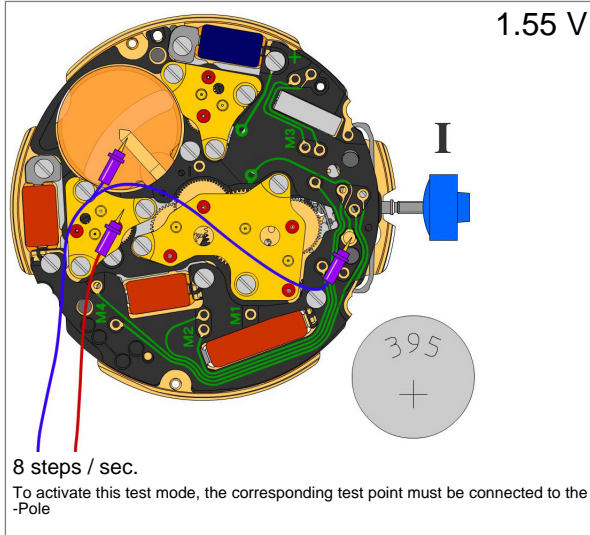
Coil insulation: motor 1, 2, 3 and 4

... kOhm

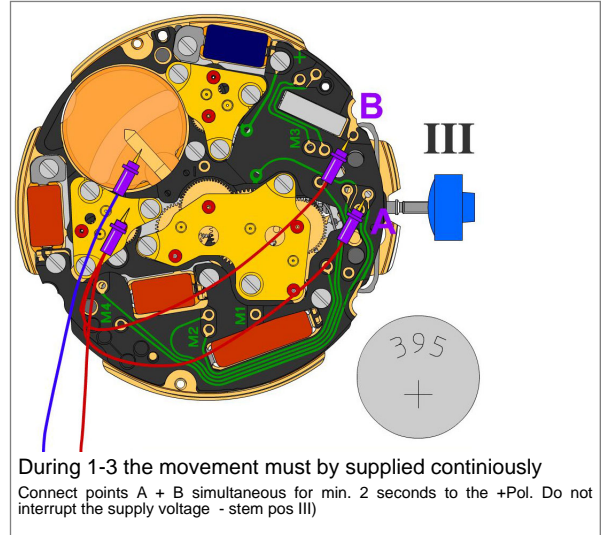


indefinite high
 The resistance between each coil and +pole must be measured (electronic module must be removed)

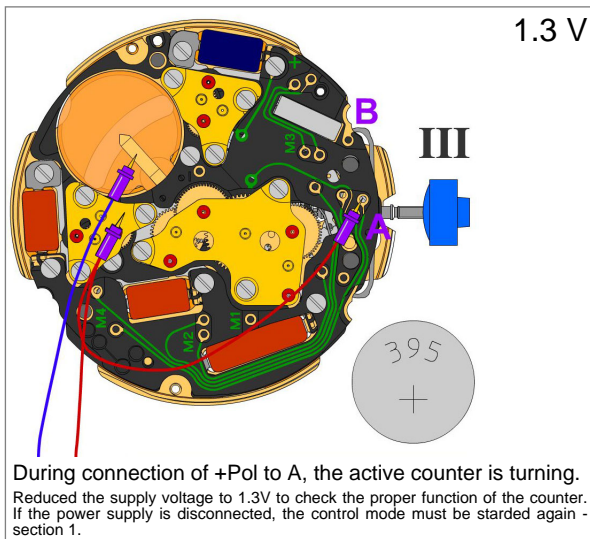
Accelerated test of movement (M1)



1. Activation of control mode (pos III)



2. Check of active counter



3. Change to the next counter

