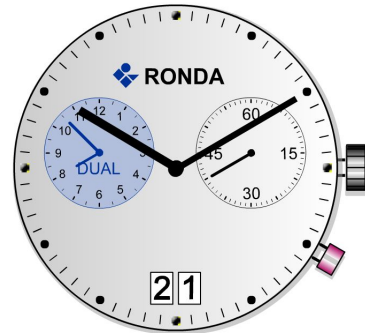


Specification

12 ½"



Dimensions and battery

| | |
|-------------------------|---------------------|
| ∅ Total | 28.60 mm |
| ∅ Case fitting | 28.00 mm |
| Movement height | 4.40 mm |
| Movement rest | 0.60 mm |
| Height of stem | 1.90 mm |
| Stem: Thread / Distance | 0.90 mm / 0.90 mm |
| Battery / Autonomy | Nr. 395 / 48 Months |

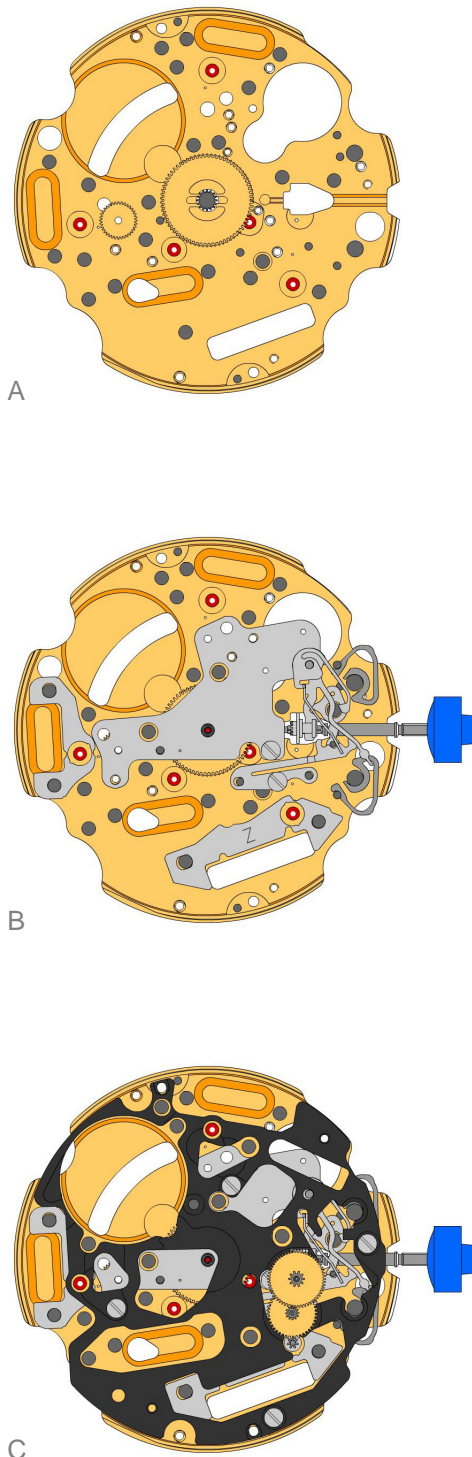
Performances


| | |
|---------------------------|----------------------------------|
| | Small second (M1): 4.0 - 6.7 µNm |
| Torque T | Minute hand (M1): 200 - 300 µNm |
| | Counter (M4): 3.0 - 4.6 µNm |
| Operating temperature | 0°C - 50°C |
| Res. against magn. fields | 18.8 Oe = 1500 A/m |
| Resistance against shock | NIHS 91 - 10 |



Functions


| | |
|----------------------|-------------------------------|
| Position I (crown) | Neutral |
| Position II (crown) | Setting the date (quick mode) |
| Position III (crown) | Setting Time |
| Pusher | Setting the 2nd time zone |


Assembling





1. **3305.290.CO** Cannon pinion with driver (Aig 2 closed)




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.
2. **3301.243** Hour wheel (counter 12h)

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)



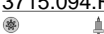
The setting lever jumper (3 positions) must be tensioned and inserted into the setting lever. Use one screw 4000.250 to fix the setting lever.
8. **4000.250** Screw

9. **3015.076** Yoke (3 positions)




The yoke must be inserted below, into the cut out of the sliding pinion.
10. **3905.058** Yoke spring


The yoke spring must be positioned on the yoke. The opposite end of the yoke must be positioned around the pillar of setting lever. Use Moebius 8200 to grease the yoke.
11. **3406.030** Pusher jumper


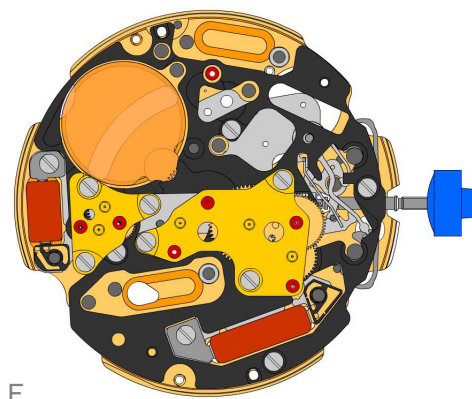
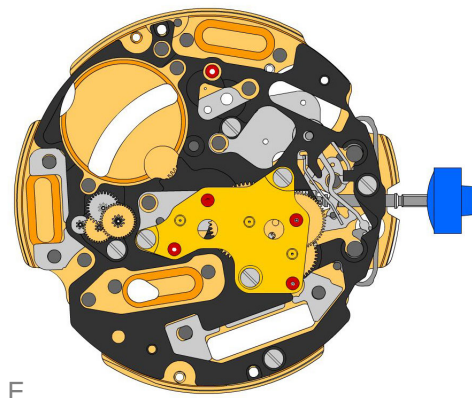
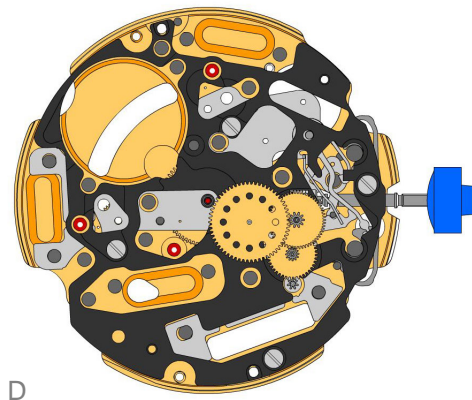
2 pieces. Use Jismaa 124 to greace the pusher jumper.
12. **3622.040** Stator

13. **3622.039** Stator (counter 6h and chrono)




1 pieces
14. **3603.065** Plastic bracket



Use 4 screws 4000.250
15. **4000.250** Screw

16. **3715.094.RK** Rotor (centre and chrono)






Use an antimagnetic tweezers to place the 2 rotors.
17. **3147.046.CO** Intermediate wheel

18. **3136.142.CO** Second wheel (long)




Assembling





- 19. 3122.056.CO Third wheel

- 20. 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.
- 21. 3715.095.RK Rotor (counter 6h and 9h)



Use an antimagnetic tweezers to place the rotor.
- 22. 3147.048.CO Intermediate wheel (counter)

- 23. 3007.055.CO Minute wheel (counter 24h)

- 24. 3402.007.CO Minute counting wheel (24h)

- 25. 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.
- 26. 4000.250 Screw

- 27. 9014.000 Moebius 9014


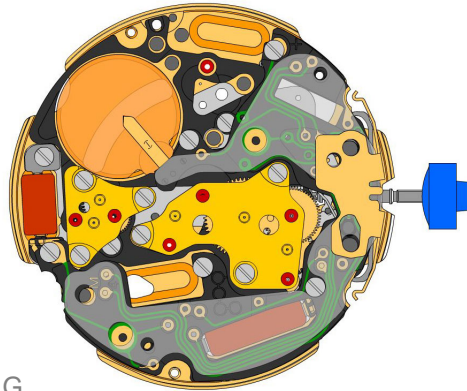
Use Moebius 9014 on bearing of all rubis
- 28. 3621.053.RK Coil


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.
- 29. 3621.054.RK Coil (counter 9h and chrono)


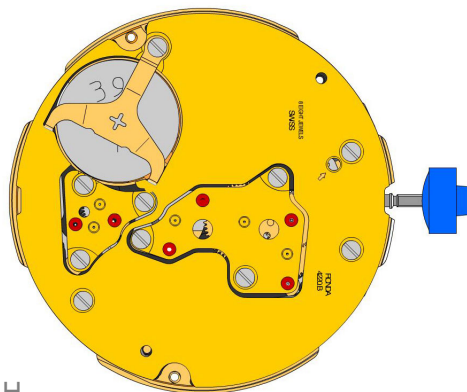
The wire of the coil (red area) is very sensitiv to mechanical impacts. Hold the coil only outside the red area.
- 30. 4000.250 Screw

- 31. 3503.054 Tube


2 pieces
- 32. 3603.034 Battery insulator









Assembling



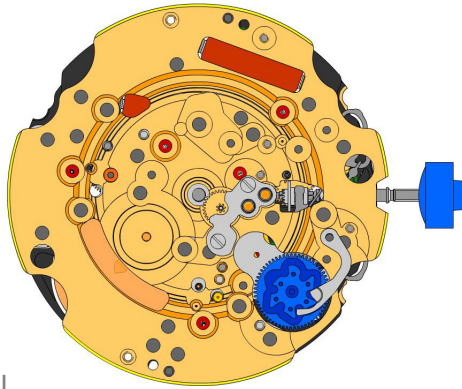
G



H

33. **3612.149.4220 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.
34. **4000.248 Screw**

35. **3603.069 Circuit insulator**

36. **3601.107 Pusher contact spring**
 Make shure, that the pusher contact spring is placed correctly onto the pillars.

37. **2130.138.4220.B Electronic module cover (counter 6h)**
 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

38. **3600.010 Battery**
 Use a plastic tweezers to place the battery (to avoid short circuit of battery).

39. **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.

40. **4000.250 Screw**


Assembling



41. 2000.574.CO Main plate



42. 9014.000 Moebius 9014
 Use Moebius 9014 on bearing of all rubis



43. 3004.164 Setting wheel
 Use Jismaa 124 or Greace Moebius on both setting wheels.



44. 3007.054.CO Minute wheel
 Use Moebius 9020



45. 2130.143 Minute train bridge
 Use 2 screws 4000.305



46. 4000.305 Screw



47. 3004.181 Tens indicator driving wheel
 The short tooth of the tens indicator driving wheel must point to the center of the movement.



48. 3500.059 Tens jumper
 Moebius 8200 greace must be placed between the tens jumper and the tens indicator driving wheel.



49. 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.



50. 4010.306 Screw



51. 3301.242 Hour wheel (Aig 2)
 Use Moebius 9020



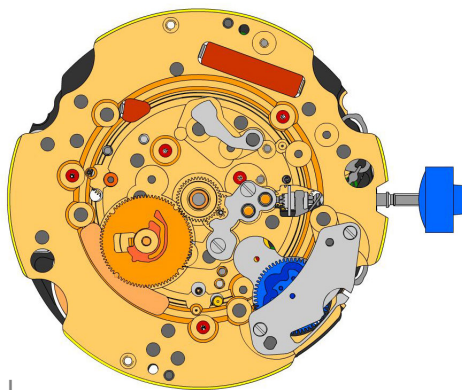
52. 3315.016 Hour wheel friction spring
 Must be placed onto the hour wheel



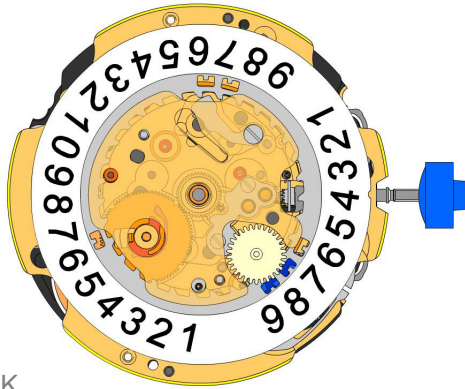
53. 3004.176.CO Date indicator driving wheel
 Moebius 9020 must be used in the center of this wheel



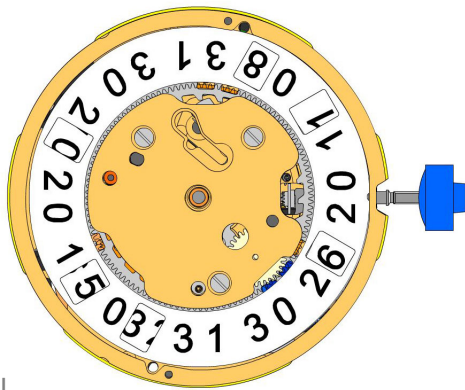
54. 3500.049 Date jumper
 Moebius 8200 greace must be placed between the date jumper and the date jumper spring














Assembling



K

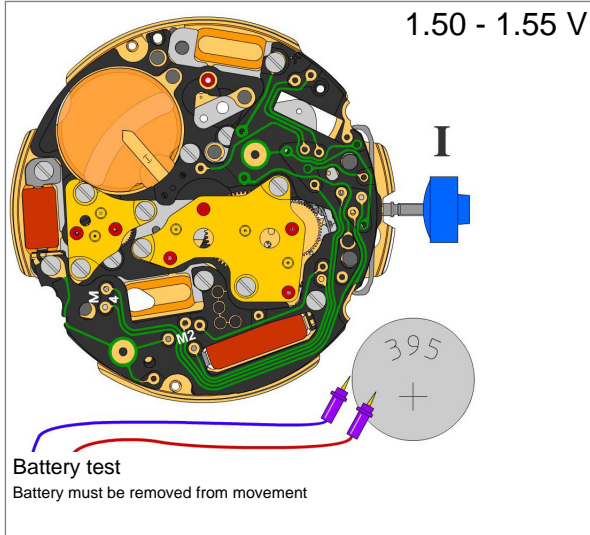


L

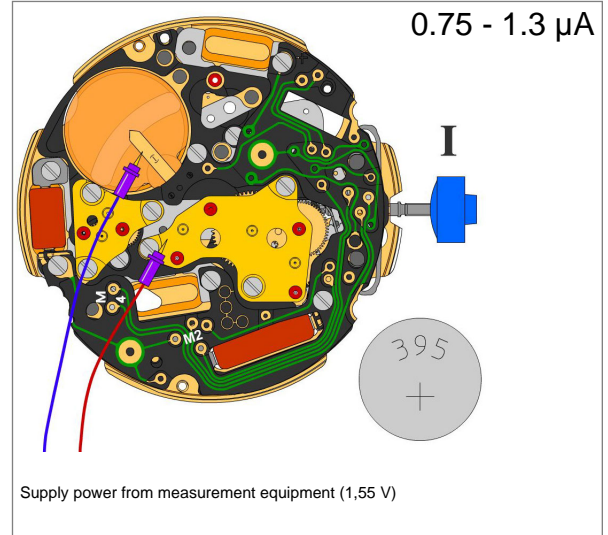
- 55. 3504.214.AD **Units indicator**

 Teaths must be greaced using Moebius 8200. The "half moon" cut out on the unit indicator must point to the stem (position 3h).
- 56. 3147.054 **Tens intermediate wheel**

- 57. 2130.141 **Date indicator maintaining plate**
 use 1 screw 4000.250

- 58. 3905.050 **Date jumper spring**
 Insert the spring into the opening of the date indicator maintaining plate

- 59. 3504.215.AD **Tens indicator (T3/G12)**

 The "half moon" cut out on the tens indicator must point to the stem (position 3h).
- 60. 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

- 61. 3506.072 **Dial support**

- 62. 4000.250 **Screw**

- 63. 9010.000 **Moebius 8200**
 Microgliss D5 can be used

- 64. 9018.000 **Jismaa 124**
 Greace Moebius or Microgliss D5 an be used

- 65. 9020.000 **Moebius 9020**


Electrical checking

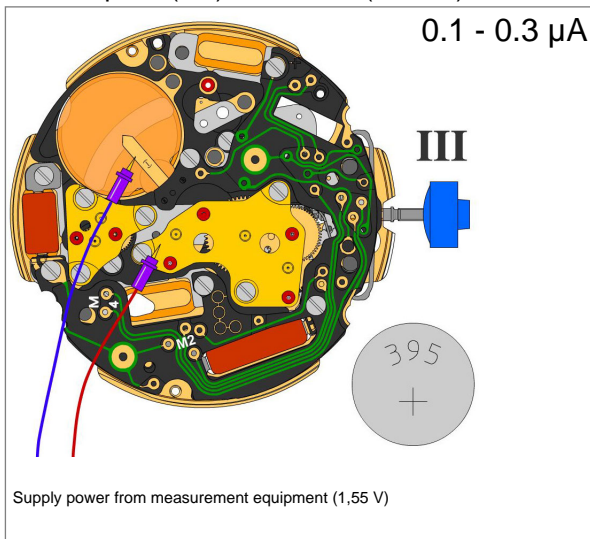
Voltage of battery



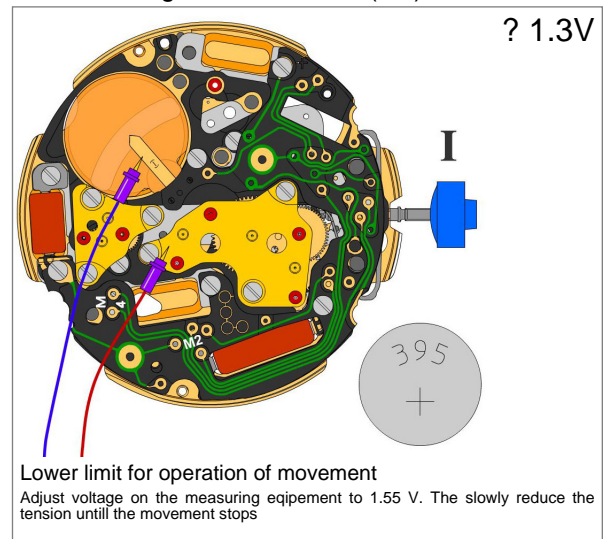
Consumption (M1) of movem. (Pos. I)



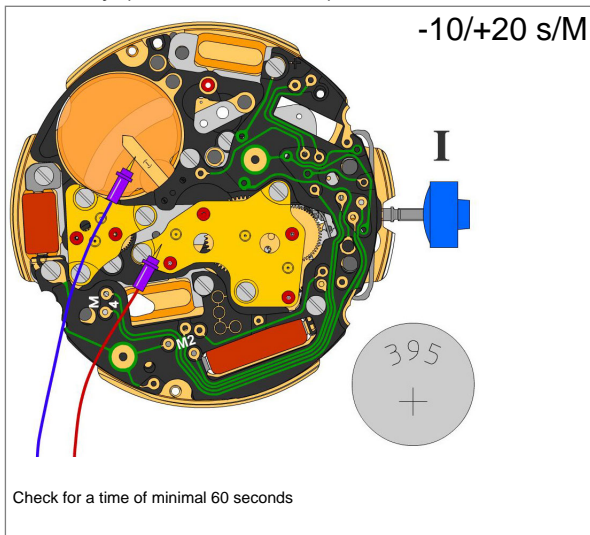
Consumption (M1) of movem. (Pos. III)



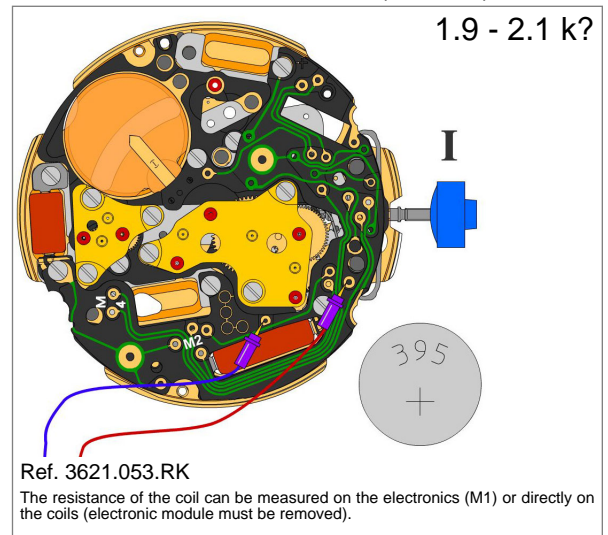
Lowest voltage for movement (M1)



Accuracy (seconds / month)



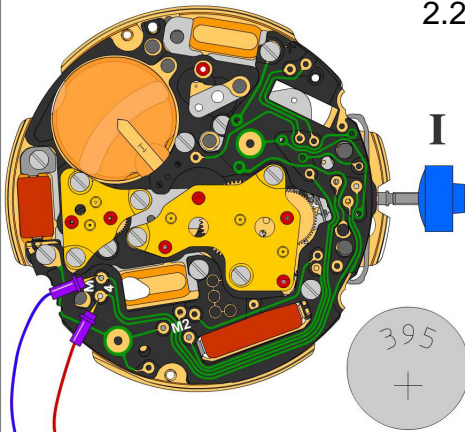
Resistance of the coil: motor 1 (movem.)



Electrical checking

Resistance of the coil: motor 4 (counter)

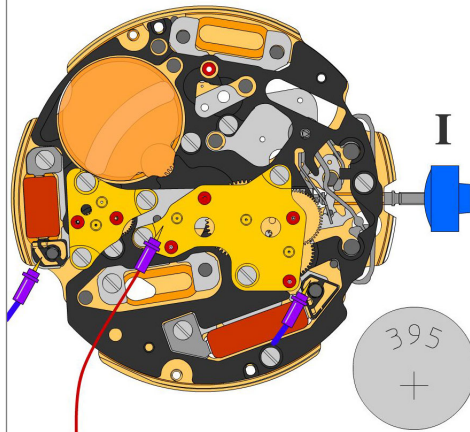
2.2 - 2.4 k?



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 and 4

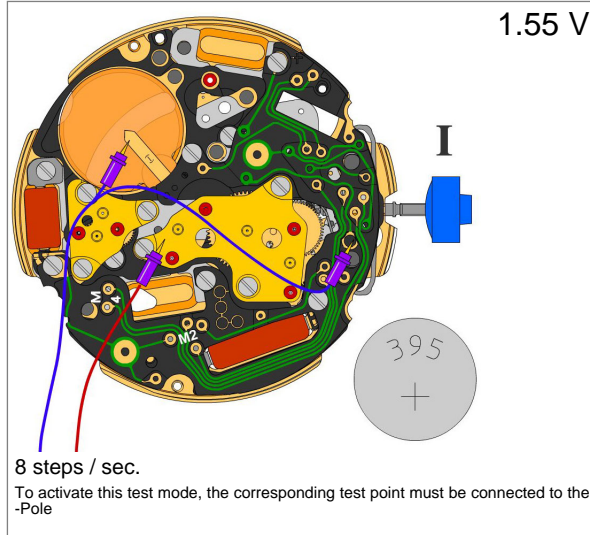
? k?



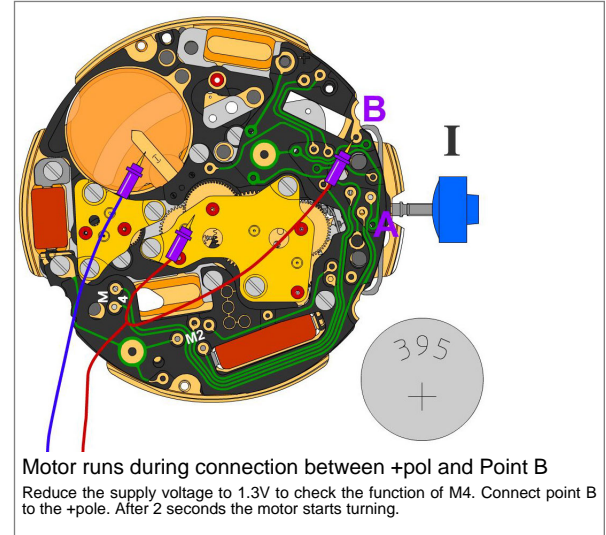
indefinite high
 The resistance between each coil and +pole must be measured (electronic module must be removed)

Test of the motors

Accelerated test of movement (M1)



Test M4 (DUAL)



1.3 V