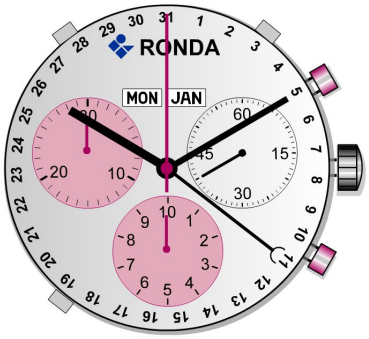
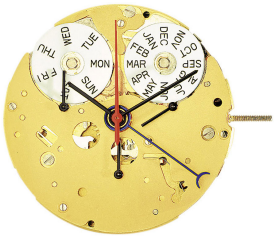
RONDA AG
Hauptstrasse 10
CH-4415 Lausen/Switzerland
Phone ++41 (0)61 926 50 00
Fax ++41 (0)61 926 50 50
www.ronda.ch • info@ronda.ch

Technical Instructions 5040.F

Specification

12 ½'''





Dimensions and battery

ø Total	28.60 mm
ø 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

Torque T	Small second (M1): 4.0 - 6.7 µNm
	Minute hand (M1): 200 - 300 µNm
	Counter (M2, M4): 3.0 - 4.6 µNm
	Counter (M3): 1.5 - 2.5 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)
Pusher A	START / STOP / ADD
Pusher B	ZERO POSITIONING / SPLIT
Pusher C, D, E	date, day of week, month

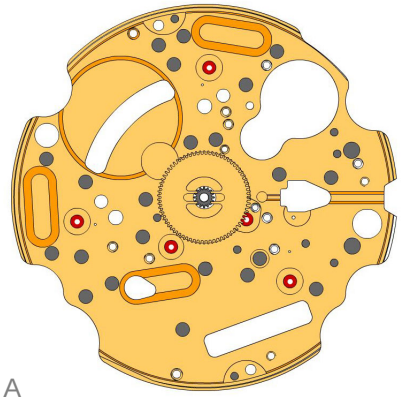
CE

RONDA

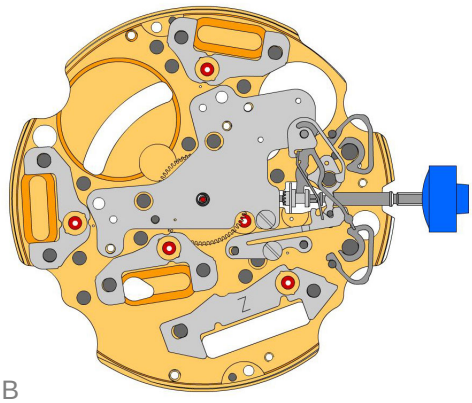
RONDA AG
Hauptstrasse 10
CH-4415 Lausen/Switzerland
Phone ++41 (0)61 926 50 00
Fax ++41 (0)61 926 50 50
www.ronda.ch • info@ronda.ch

Technical Instructions 5040.F

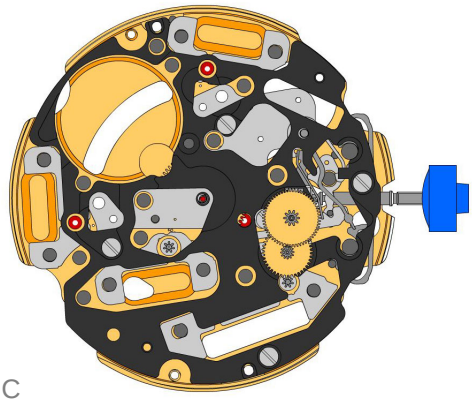
Assembling



A



B



C

1. 3305.287.CO — Cannon pinion with driver (Aig 3)

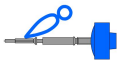
Moebius 8200 greace must be placed between the steel tube and the brass wheel. The steel tube must be placed into the center hole of the main plate.

2. 2030.017.CO — Centre bridge

Use one screw 4000.250 to fix the center bridge.

3. 3001.045 — Sliding pinion

The sliding ponion must be holded using a tweezers, untill the stem is inserted.

4. 3000.177.CO — Handsetting stem

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

5. 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)

6. 3905.053 — 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.

7. 4000.250 — Screw

8. 3015.072 — Yoke (3 positions)

The yoke must be inserted below, into the cut out of the sliding pinion.

9. 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.

10. 3406.030 — Pusher jumper

2 pieces. Use Jismaa 124 to greace the pusher jumper.

11. 3622.040 — Stator


12. 3622.039 — Stator (counter 6h and 9h and chrono)

3 pieces

13. 3603.079 — Plastic bracket

Use 4 screws 4000.250

14. 4000.250 — Screw

15. 3715.094.RK — Rotor (centre and chrono)

Use an antimagnetic tweezers to place the 2 rotors.

16. 3147.046.CO — Intermediate wheel

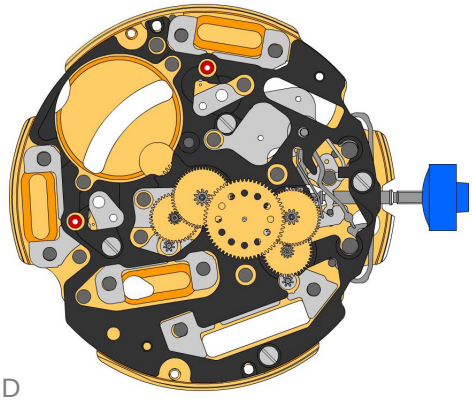

17. 3136.142.CO — Second wheel (long)


RONDA

RONDA AG
Hauptstrasse 10
CH-4415 Lausen/Switzerland
Phone ++41 (0)61 926 50 00
Fax ++41 (0)61 926 50 50
www.ronda.ch • info@ronda.ch

Technical Instructions 5040.F

Assembling



D

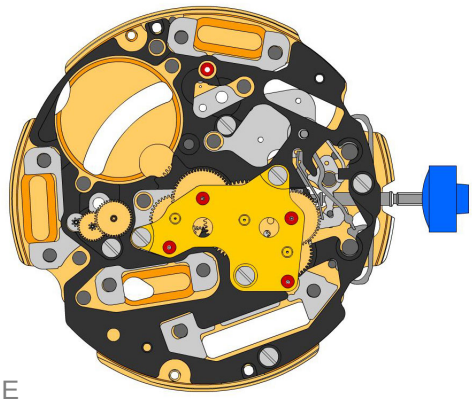
18. 3147.047.CO — Intermediate wheel (chrono)

19. 3136.150.CO — Chronograph wheel (Aig 3)

20. 3122.056.CO — Third wheel

21. 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.

22. 3715.095.RK — Rotor (counter 6h and 9h)
Use an antimagnetic tweezers to place the rotor.



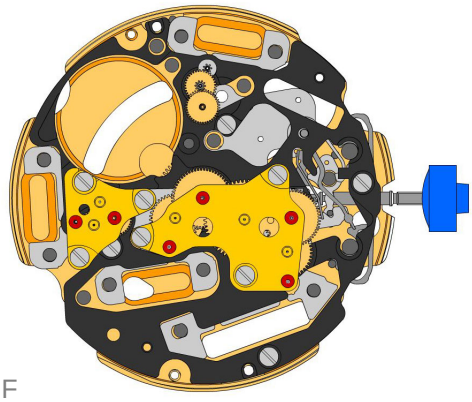
E

23. 3147.048.CO — Intermediate wheel (counter)

24. 3402.006.CO — Minute counting wheel

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



F

27. 3147.053.CO — Intermediate wheel (counter 1/10sec)

28. 3402.009.CO — Counting wheel 1/10 sec

29. 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.

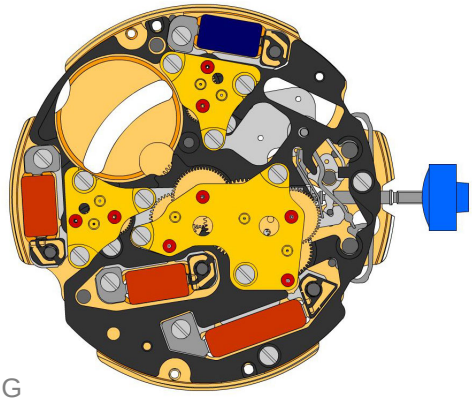
30. 4000.250 — Screw

RONDA

RONDA AG
Hauptstrasse 10
CH-4415 Lausen/Switzerland
Phone ++41 (0)61 926 50 00
Fax ++41 (0)61 926 50 50
www.ronda.ch • info@ronda.ch

Technical Instructions 5040.F

Assembling



G

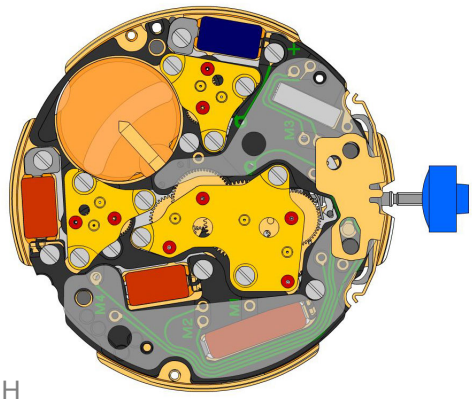
31. 9014.000 Moebius 9014
Use Moebius 9014 on bearing of all rubis

32. 3621.053.RK Coil
The wire of the coil (red area) is very sensitiv to mechanical impacts. Hold the coil only ouside the red area. Fix the coil by 1screw 4000.250.

33. 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 ouside the red area. Fix each of the 2 coils by 1screw 4000.250.

34. 3621.055.RK Coil (counter 6h)
The wire of the coil (blue area) is very sensitiv to mechanical impacts. Hold the coil only ouside the blue area. Fix the coil by 1screw 4000.250.

35. 4000.250 Screw



H

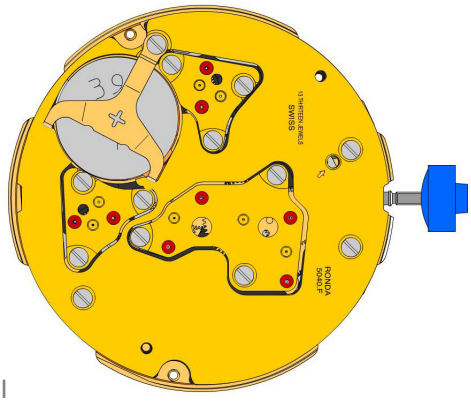
36. 3603.034 Battery insulator

37. 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.

38. 4000.248 Screw

39. 3603.069 Circuit insulator

40. 3601.107 Pusher contact spring
Make shure, that the pusher contact spring is placed correctly onto the pillars.



I

41. 2130.137.5040.F 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

42. 3600.010 Battery
Use a plastic tweezers to place the battery (to avoid short circuit of battery).

43. 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.

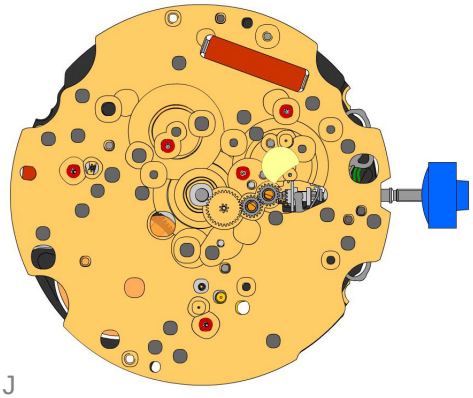
44. 4000.250 Screw

RONDA

RONDA AG
Hauptstrasse 10
CH-4415 Lausen/Switzerland
Phone ++41 (0)61 926 50 00
Fax ++41 (0)61 926 50 50
www.ronda.ch • info@ronda.ch

Technical Instructions 5040.F

Assembling



J

45. 2000.574.CO Main plate

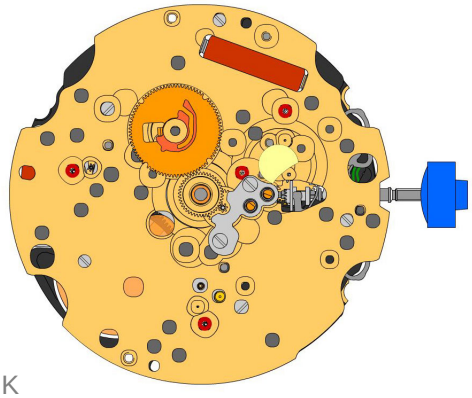
46. 9014.000 Moebius 9014
Use Moebius 9014 on bearing of all rubis

47. 3004.164 Setting wheel
Use Jismaa 124 or Moebius 8200 on both setting wheels.

48. 3007.078.CO Minute wheel
Use Moebius 9020.

49. 2130.177 Minute train bridge
Use 2 screws 4000.305.

50. 4000.305 Screw



K

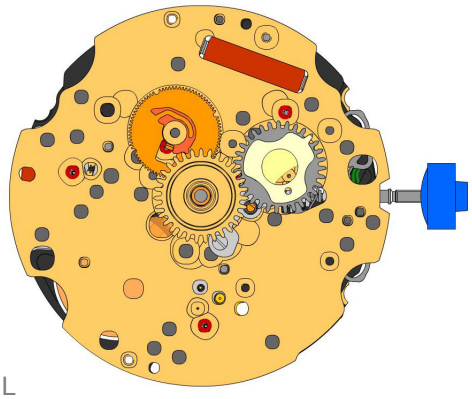
51. 3301.247 Hour wheel (Aig 3)
Use Moebius 9020.

52. 3004.171.CO Date indicator driving wheel
Moebius 9020 must be used in the center of this wheel.

53. 3004.173 Month driving wheel

54. 3004.174 Month finger
The month finger positions the month driving wheel

55. 3301.248 Date indicator wheel



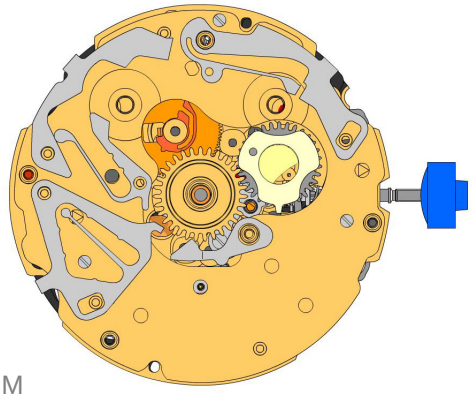
L

RONDA

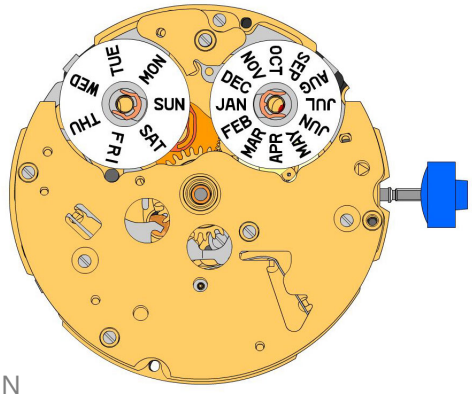
RONDA AG
Hauptstrasse 10
CH-4415 Lausen/Switzerland
Phone ++41 (0)61 926 50 00
Fax ++41 (0)61 926 50 50
www.ronda.ch • info@ronda.ch

Technical Instructions 5040.F

Assembling



M



N

56. 2130.155 Date platform
Use 3 screws 4000.282

57. 4000.282 Screw
3 pieces

58. 3507.054 Month corrector

59. 3507.055 Day corrector

60. 3507.056 Date corrector

61. 3500.053 Day jumper

62. 2130.157 Combined maintaining plate
Use 4 screws 4000.286

63. 4000.286 Screw
4 pieces

64. 2130.166 Corrector maintaining plate
Use 1 screw 4000.286

65. 3500.065 Date jumper

66. 3905.059 Date jumper spring
Push the spring behind the date jumper and clamp it under the combined maintaining plate

67. 3508.153 Day indicator
When installing the day indicator, the day jumper must be pressed outward.

68. 3508.154 Month indicator
When installing the month indicator, the month corrector must be pressed outward.

69. 3909.028 Clip
When installing the clip, pay attention to the deepening in the day and month indicator.

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

RONDA

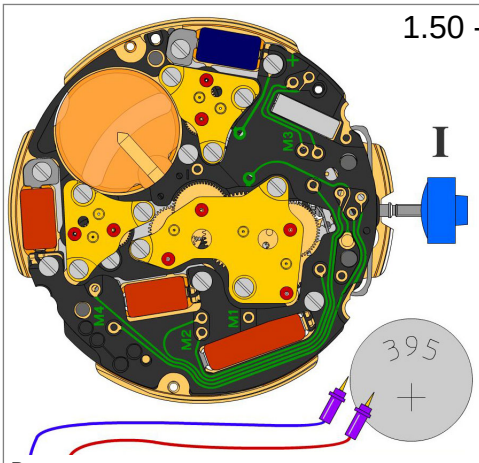
RONDA AG
Hauptstrasse 10
CH-4415 Lausen/Switzerland
Phone ++41 (0)61 926 50 00
Fax ++41 (0)61 926 50 50
www.ronda.ch • info@ronda.ch

Technical Instructions 5040.F

Electrical checking

Voltage of battery

1.50 - 1.55 V

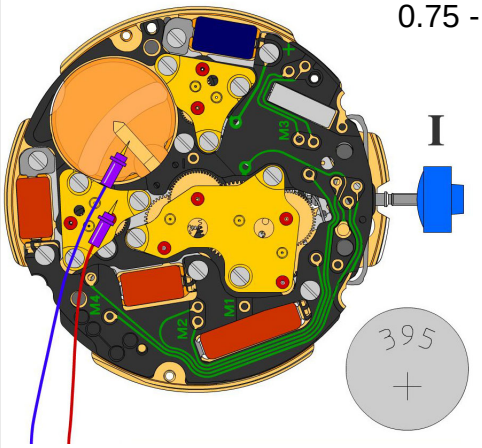


Battery test

Battery must be removed from movement

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

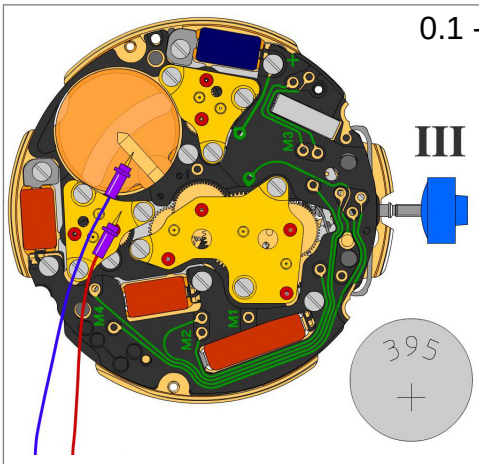
0.75 - 1.3 µA



Supply power from measurement equipment (1,55 V)

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

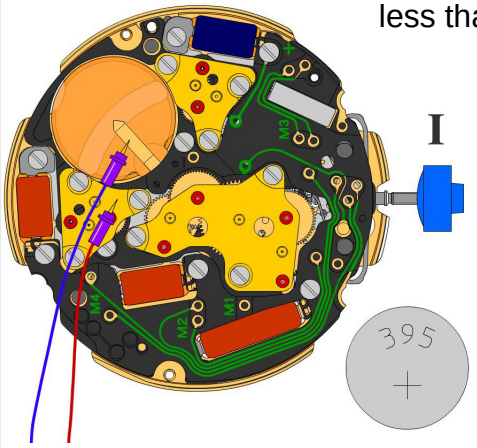
0.1 - 0.3 µA



Supply power from measurement equipment (1,55 V)

Lowest voltage for movement (M1)

less than 1.3V

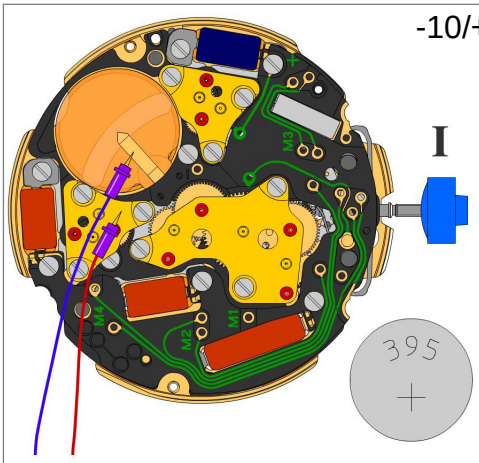


Lower limit for operation of movement

Adjust voltage on the measuring eqipement to 1.55 V. The slowly reduce the tension untill the movement stops

Accuracy (seconds / month)

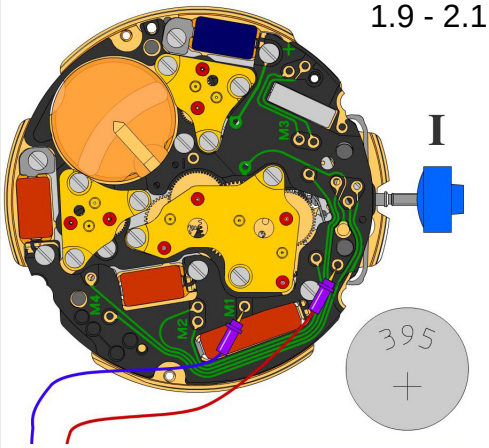
-10/+20 s/M



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).

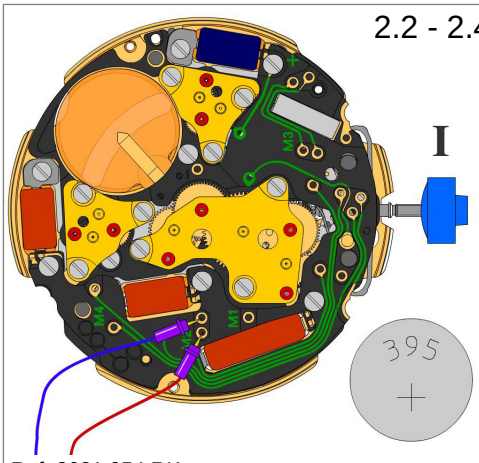
RONDA

RONDA AG
Hauptstrasse 10
CH-4415 Lausen/Switzerland
Phone ++41 (0)61 926 50 00
Fax ++41 (0)61 926 50 50
www.ronda.ch • info@ronda.ch

Electrical checking

Resistance of the coil: motor 2 (counter)

2.2 - 2.4 kOhm

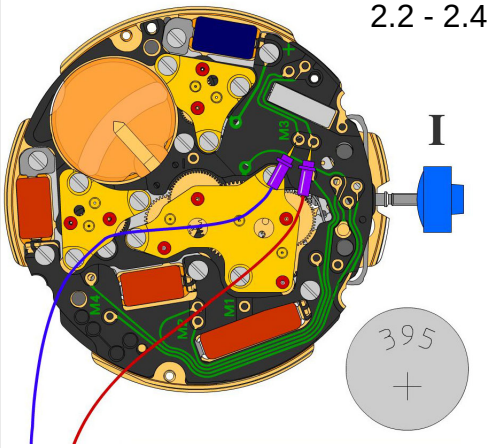


Ref. 3621.054.RK

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

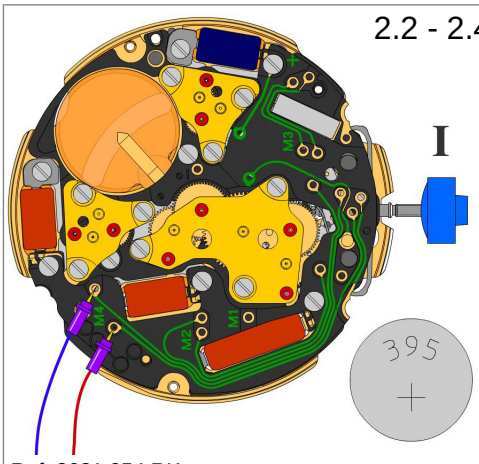


Ref. 3621.055.RK

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

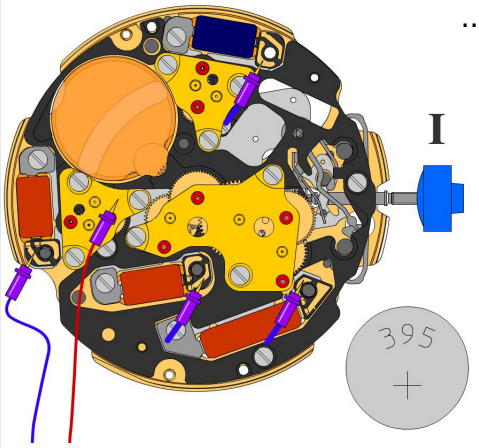


Ref. 3621.054.RK

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



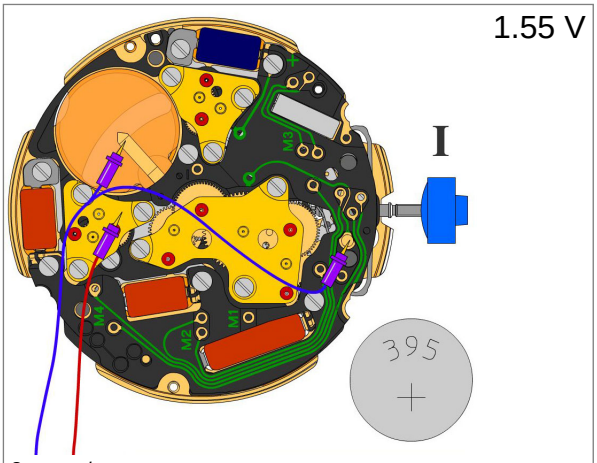
indefinite high

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

RONDA AG
Hauptstrasse 10
CH-4415 Lausen/Switzerland
Phone ++41 (0)61 926 50 00
Fax ++41 (0)61 926 50 50
www.ronda.ch • info@ronda.ch

Test of the motors

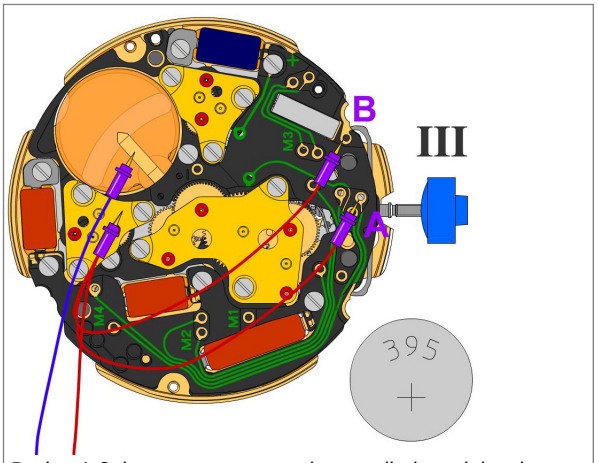
Accelerated test of movement (M1)



8 steps / sec.

To activate this test mode, the corresponding test point must be connected to the -Pole

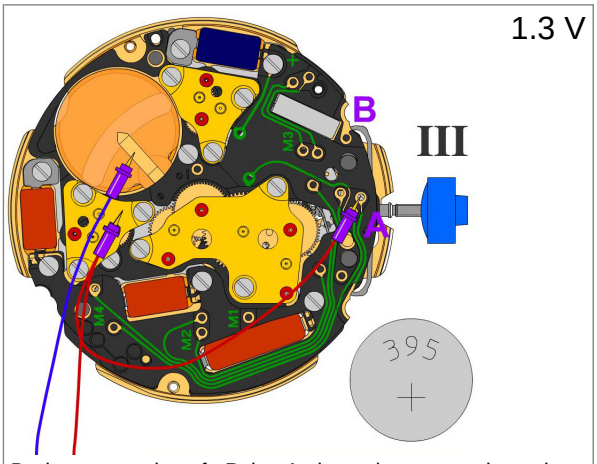
1. Activation of control mode (pos III)



During 1-3 the movement must by supplied continiously

Connect points A + B simultaneous for min. 2 seconds to the +Pol. Do not interrupt the supply voltage - stem pos III)

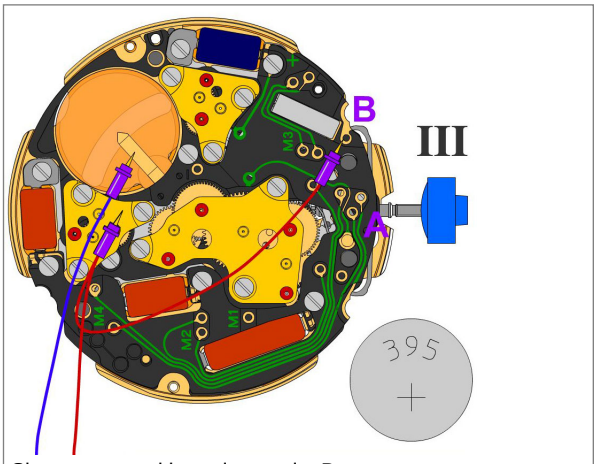
2. Check of active counter



During connection of +Pol to A, the active counter is turning.

Reduced the supply voltage to 1.3V to check the proper function of the counter. If the power supply is disconnected, the control mode must be starded again - section 1.

3. Change to the next counter



Short contact with +pole to point B

Change of active counter: M2-M3-M4-M2-M3- .After a timout of approx. 30 seconds since last contact, the control mode will be terminated.