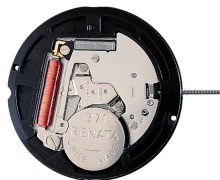
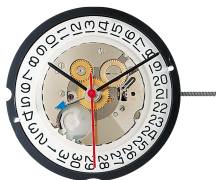


## Quartz Movements

### 特别功能

#### 朗达 超值系列

型号 515.24H - 11□'



### 产品规格

指针式石英机芯

系列

超值系列

型号

515.24H

尺寸

11□'

版本 瑞士制造

1 钻石 / 银色

版本 瑞士零件 远东组装

1 钻石 / 银色

电池寿命

45 月

标准针高

1

### 特点

- 金属机芯，可修理
- 拉停把心省电功能：节省大概70%耗电
- 所有11□' 机芯具相同厚度 3.00 mm 及把中1.50 mm：可共用配件
- 特强步进马达
- 两地时间可独立快调

### 功能

- 特别功能
- 指针式24小时两地时间功能
- 日历
- 三针

# Quartz Movements

## 特别功能

### 朗达 超值系列

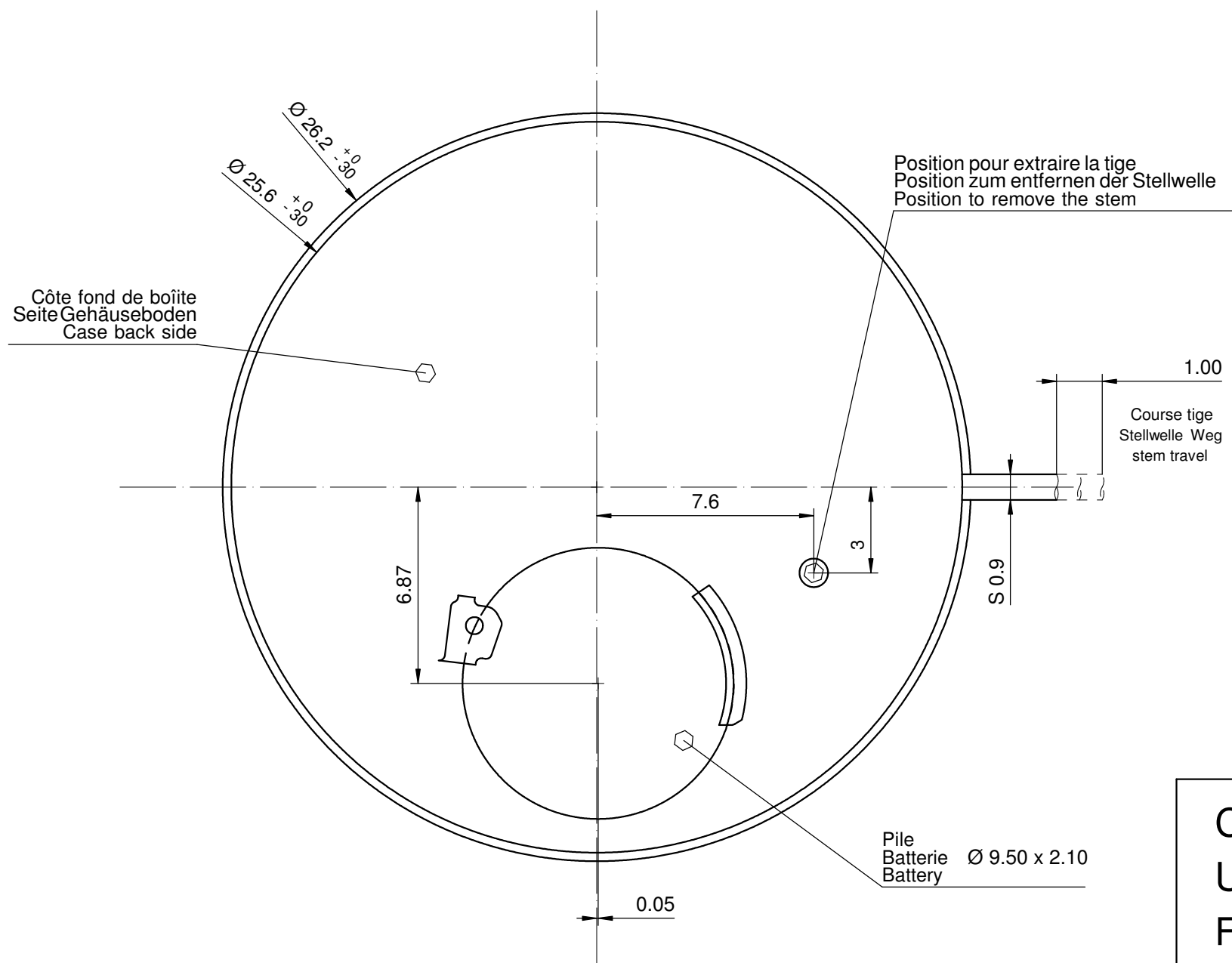
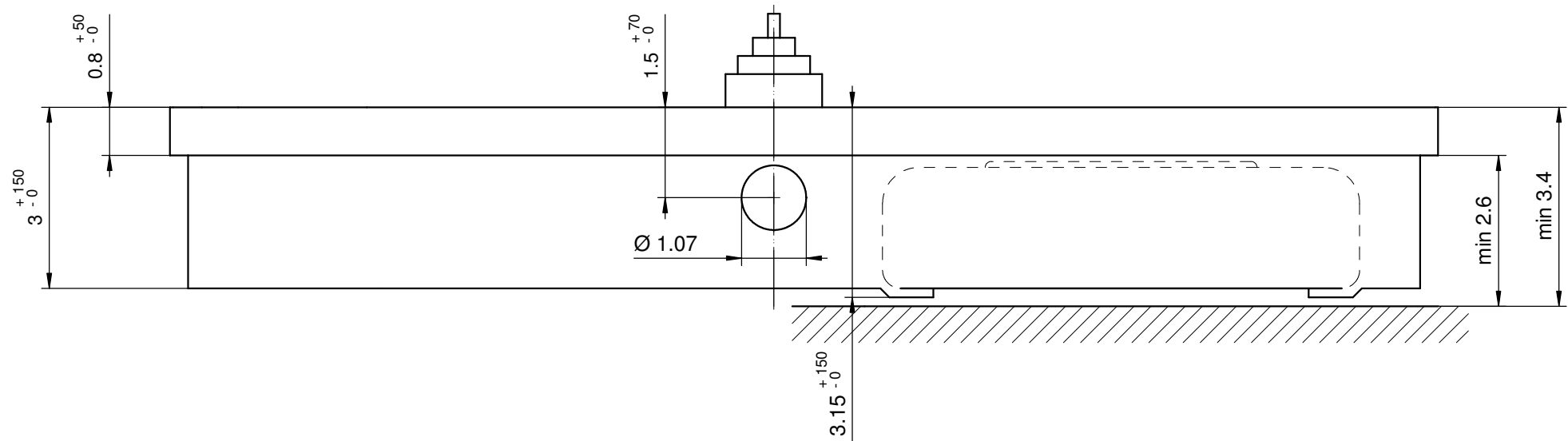
型号 515.24H - 11□'

#### 技术规格

|                |              |
|----------------|--------------|
| 机芯直径           | 26.00 mm     |
| 内罩座位直径         | 25.60 mm     |
| 机芯厚度           | 3.00 mm      |
| 电池以上厚度         | 3.25 mm      |
| 机芯座位           | 0.80 mm      |
| 把中             | 1.50 mm      |
| 把心行程           | 1.00 mm      |
| 把心螺纹直径         | 0.90 mm      |
| 秒针运行扭力 - 一般情况下 | 11 $\mu$ Nm  |
| 分针运行扭力 - 一般情况下 | 550 $\mu$ 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

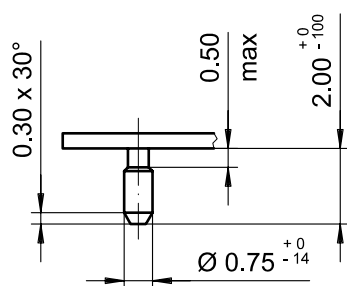
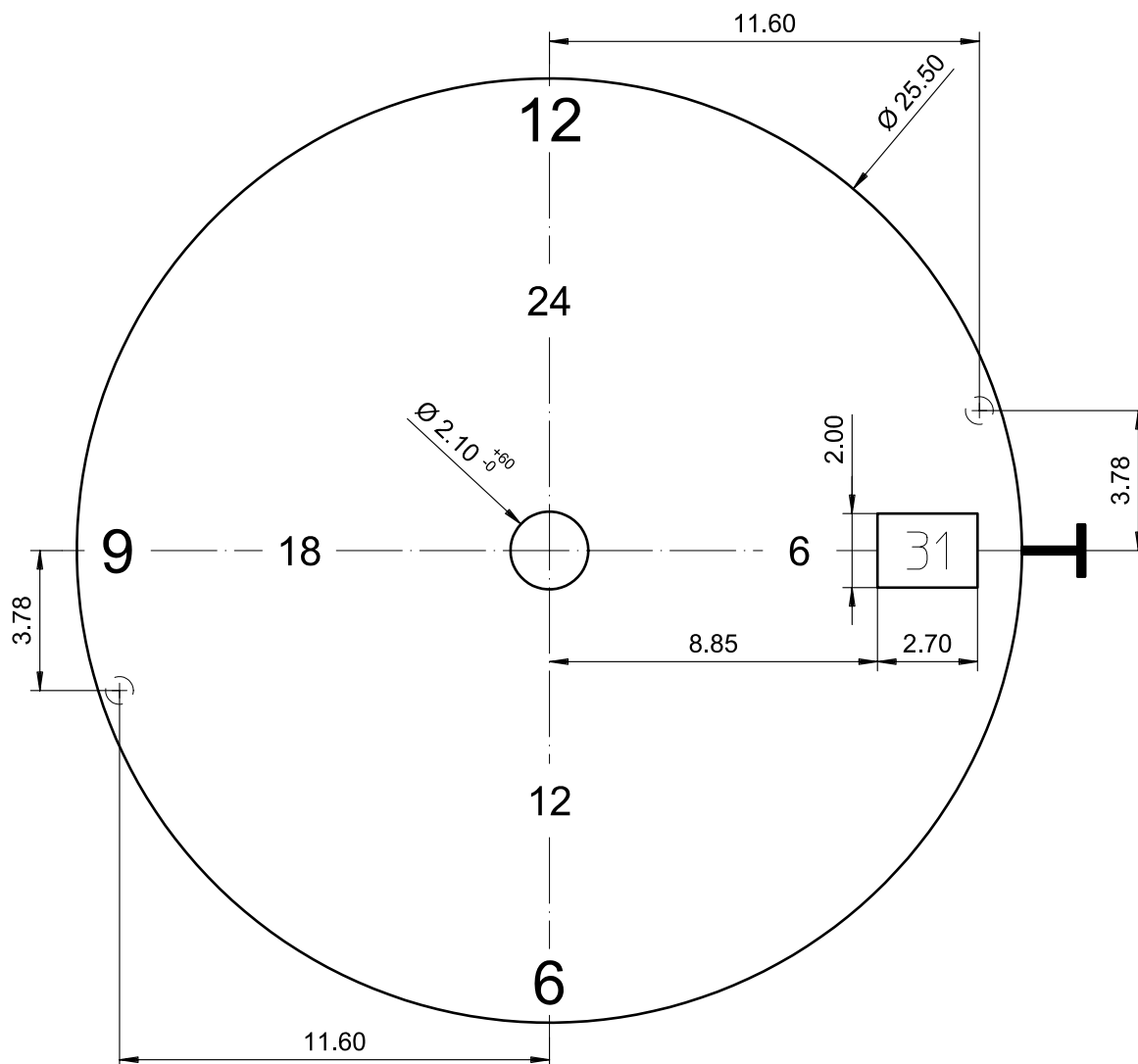
|            |                         |
|------------|-------------------------|
| 电池类型       | 型号 371                  |
| 电池寿命       | 45 月                    |
| 电压         | 1.5 V                   |
| 电耗 - 一般情况下 | 1.28 $\mu$ A (日历不在跳动当中) |
| 电耗 - 上限    | 1.85 $\mu$ A (日历不在跳动当中) |



Sécurité entre aiguille seconde et verre : min 0.30 mm  
Sicherheit zwischen Sekundenzeiger und Glas : min 0.30 mm  
Security between second hand and glass : min 0.30 mm

Le cadran doit être maintenu en hauteur par la boîte.  
Das Zifferblatt muss in der Höhe vom Gehäuse festgehalten werden.  
The dial must be held in the height by the case.

|                                 |         |   |           |                         |    |
|---------------------------------|---------|---|-----------|-------------------------|----|
| Cage<br>Uhrwerkgestell<br>Frame |         | 11 1/2"   | Issued    | 10 Mrz 1999             | gd |
|                                 |         |   | Modified  | 23 Jun 2011<br>ÄA 11169 | dh |
|                                 |         |   | Released  | YES                     |    |
|                                 |         |   | Tolerance | +/- 20 µm               |    |
|                                 |         |   | Scale     | 10 : 1 (5 : 1) (A3H)    |    |
| RONDA                           | 515.24H | Sous réserve de modifications<br>Änderungenvorbehalten<br>Modificationsreserved |           |                         |    |
|                                 |         | No.   | 5000.288  | 05                      |    |



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      | 3H    |
|         |       |

Cadran  
Zifferblatt  
Dial

11 1/2"

|  |                        |    |
|--|------------------------|----|
| Issued   | 14 Dez 2006            | cw |
| Modified   | 15.Mai.2007<br>ÄA ---- | cm |
| Released   | YES                    |    |
| Tolerance  | +/- 20 µm              |    |
| Scale  | 5 : 1 (A4V)            |    |
| Sous réserve de modifications<br>Äenderungen vorbehalten<br>Modifications reserved |                        |    |
| No.  | 5010.496               | 02 |

RONDA

515.24H

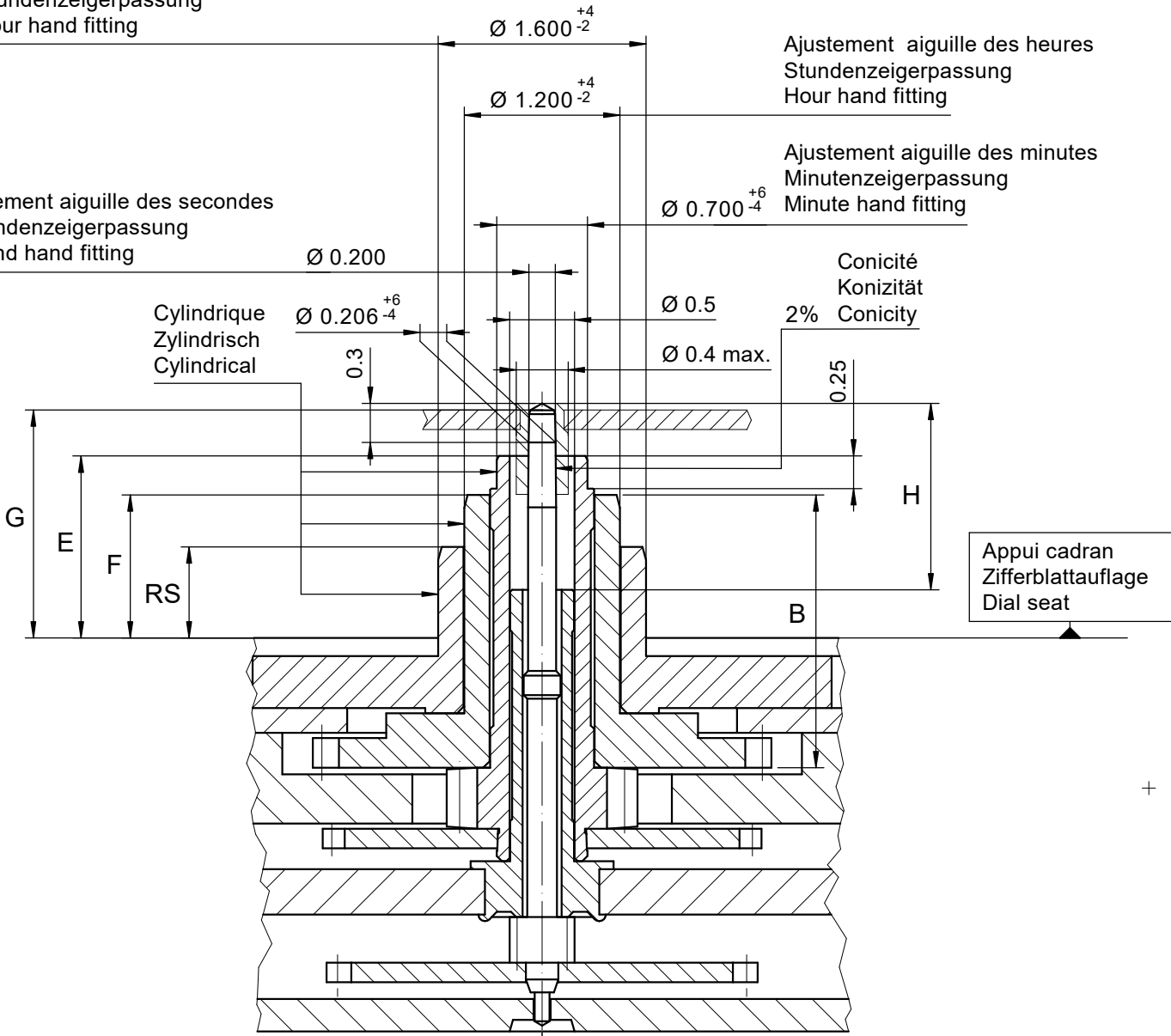


Ajustement aiguille des 24 heures  
24 Stundenzeigerpassung  
24 Hour hand fitting

Ajustement aiguille des secondes  
Sekundenzeigerpassung  
Second hand fitting

Ajustement aiguille des heures  
Stundenzeigerpassung  
Hour hand fitting

Ajustement aiguille des minutes  
Minutenzeigerpassung  
Minute hand fitting



Heures 24H / Heures / minutes / secondes  
Stunden 24H / Stunden / Minuten / Sekunden  
Hours 24H / Hours / minutes / seconds

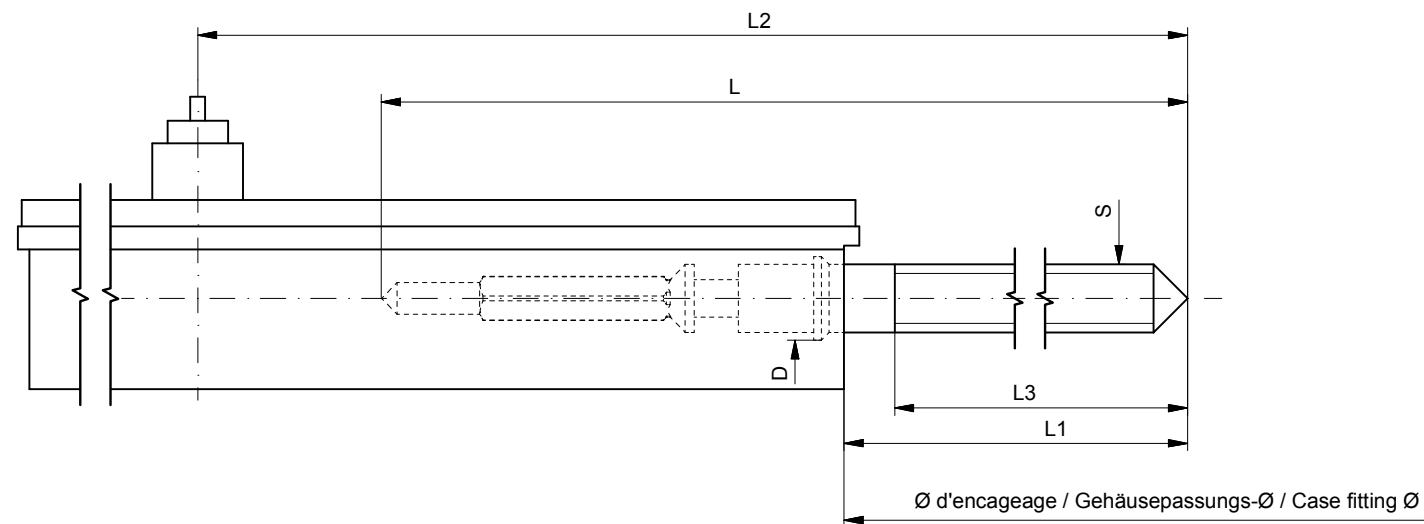
|                  |      | Aig. des secondes<br>Sekundenzeiger<br>Second hand | Aig. des minutes<br>Minutenzeiger<br>Minute hand | Aig. des heures<br>Stundenzeiger<br>Hour hand | Aig. des heures 24H<br>Stundenzeiger 24H<br>Hour hand 24H | Lors de la pose d'aiguilles, le mouvement doit être soutenu.<br>Beim Zeigersetzen muss das Werk abgestützt werden.<br>The movement needs to be supported for hand setting. |
|------------------|------|--|--|---|---|--|
| mg               | max. | 10   | 30   | 30  | 30  | Masse / Masse / Weight *   |
| µNm              | max. | 0.08   | 0.70   | 0.70  | 1.00  | Balourd / Unwucht / Unbalance *  |
| gmm <sup>2</sup> | max. | 0.4  | -  | -   | -   | Inertie / Massenträgheit / Inertia *   |
| N                | max. | 30   | 40   | 40  | 40  | Force de chassage / Aufpresskraft / Force  |

| Aiguillage no<br>Zeigerwerkhöhe Nr.<br>Hand fitting height No | Dépassement<br>Höhe über Zifferblattauflege<br>Height over dial seat |  |   |   | Longueur<br>Länge<br>Length |   | Epaisseur max. (peinture comprise)<br>Max. Dicke (inkl. Farbe)<br>Max. thickness (paint included) |   |  |  |                              |
|---|--|--|---|---|-----------------------------|---|---|---|--|--|------------------------------|
|   | Pignon des secondes<br>Sekundentrieb<br>Second pinion                | Chaussée<br>Minutenrohr<br>Cannon-pinion | Roue des heures<br>Stundenrad<br>Hour wheel | Roue des heures 24H<br>Stundenrad 24H<br>Hour wheel 24H |                             | Roue des heures<br>Stundenrad<br>Hour wheel | Cadran<br>Zifferblatt<br>Dial   |   |  |  | Aiguilles<br>Zeiger<br>Hands |
|   |  |  |   |   |                             |   | Sous l'aiguille des secondes<br>Unter Sekundenzeiger<br>Under second hand                         | Sous l'aiguille des minutes<br>Unter Minutenzeiger<br>Under minute hand | Sous l'aiguille des heures<br>Unter Stundenzeiger<br>Under hour hand | Sous l'aiguille des heures 24H<br>Unter Stundenzeiger 24H<br>Under hour hand 24H |                              |
|   |  |  |   |   |                             |   |   |   |  |  |                              |
| 1   | 1.80   | 1.40                                     | 1.10  | 0.70  | 1.44                        | 2.10  | 1.30  | 1.00  | 0.70   | 0.40   | 0.15                         |
| 2   | 2.15   | 1.75                                     | 1.45  | 1.05  | 1.79                        | 2.45  | 1.65  | 1.35  | 1.05   | 0.75   | 0.15                         |

Aiguillages  
Zeigerwerkhöhen 10½", 11½"  
Hand fitting heights

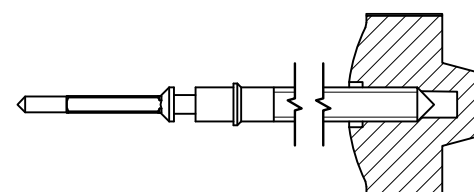
RONDA 505.24H, 515.24H

|   |            |             |
|---|------------|-------------|
| Issued  | 10.03.1999 | gd          |
| Modified  | 27.06.2022 | nk5222      |
| Released  | YES        |             |
| Mod. No.  | 45427      |             |
| Tolerance   | µm         |             |
| Scale   | 20 : 1     | Page 1/1 A3 |
| Sous réserve de modifications<br>Änderungen vorbehalten<br>Modifications reserved |            |             |
| No.   | 3316.061   | 08          |



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

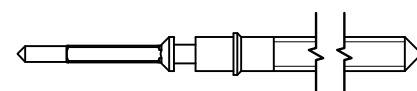
| No. d'article<br>Artikelnummer<br>Part number | L     | L1   | L2    | L3    | S    | D    |
|---|-------|------|-------|-------|------|------|
| 3000.164.CO                                   | 20.50 | 9.92 | 22.72 | 11.83 | 0.90 | 1.05 |



|  |                        |
|--|------------------------|
| Couleur de la couronne<br>Kronenfarbe<br>Crown color | brun<br>braun<br>brown |
| Code   | UN 8052                |

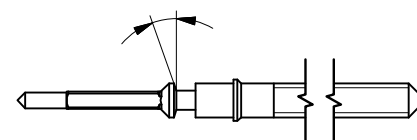
Tige (normale) / Stellwelle (normal) / Stem (normal)

| No. d'article<br>Artikelnummer<br>Part number | L     | L1    | L2    | L3    | S    | D    |
|---|-------|-------|-------|-------|------|------|
| 3000.164                                      | 20.50 | 9.92  | 22.72 | 11.83 | 0.90 | 1.05 |
| 3000.171                                      | 32.50 | 21.92 | 34.72 | 23.83 | 0.90 | 1.05 |



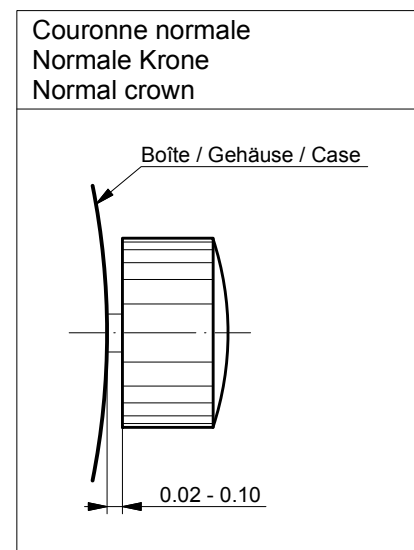
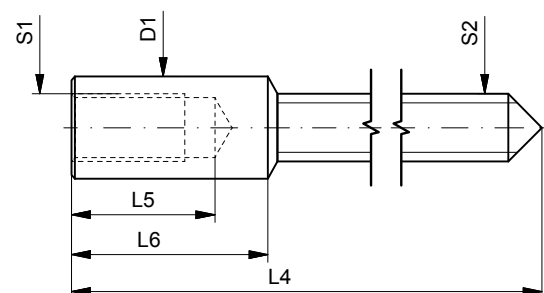
Tige (à arracher)  
Stellwelle (Ausreissversion)  
Stem (extractable version)

| No. d'article<br>Artikelnummer<br>Part number | L     | L1    | L2    | L3    | S    | D    |
|---|-------|-------|-------|-------|------|------|
| 3000.163                                      | 20.50 | 9.92  | 22.72 | 11.83 | 0.90 | 1.05 |
| 3000.196                                      | 32.50 | 21.92 | 34.72 | 23.83 | 0.90 | 1.05 |



Rallonge de tige / Stellwelle Verlängerung / Stem extension

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



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

|                            |  |
|----------------------------|--|
| Tige<br>Stellwelle<br>Stem | (dimensions / forces)<br>(Dimensionen / Kräfte)<br>(dimensions / forces) |
| RONDA                      | 512, 513, 513S, 515, 515S, 515.24H,<br>515.24D, 517, 517S, 519, 519S     |

|  |            |               |
|--|------------|---------------|
| Issued   | 15.08.2012 | ds5222        |
| Modified   | 29.06.2018 | ds5222        |
| Released   | YES        |               |
| Mod. No.   | 38099      |               |
| Tolerance  | ---        |               |
| Scale  | ---        | Page 1 / 1 A3 |
| Sous réserve de modifications<br>Aenderungen vorbehalten<br>Modifications reserved |            |               |
| No.  | 5030.002   | 02            |

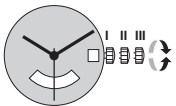
中文 使用手册  
机芯型号

朗达 强力系列

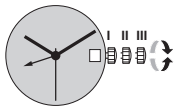
- 505.24D/515.24D
- 505.24H/515.24H
- 507/517
- 509/519

瑞士朗达是一个机芯供应商, 没有参与制造或分销成表。

若有任何手表相关之疑问, 如维修、保证期内投诉或手表功能问题, 请联络手表零售商、服务中心或制造商。所有联络资料可向您的销售员查询或参考保证文件。

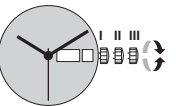


Cal. 505.24D / 515.24D



Cal. 505.24H / 515.24H

- 把的位置. I 空檔位置 (腕錶運行)
- 把的位置. II 日期速調模式
- 以上型号机芯可以在日历转换时段(10:00 PM至12 PM)速调日历, 若在这时段内设定日期, 必须比正确日期多转一天. 因机芯在12PM后不再自动转换日期.
- 把的拉至位置 II (腕表继续运行).
  - 顺时针转动把的至正确日期
  - 推把的回位置 I
- 24小时显示速調模式
- 把的拉至位置 II (腕表继续运行).
  - 逆时针转动把的至期望的时间显示
  - 推把的回位置 I
- 把的位置. III 设定时间
- 把的拉至位置 III (腕表停止运行).
  - 转动把的至正确时间 (留意24小时之上 / 下午时段).
  - 推把的回位置 I

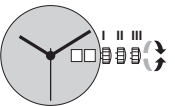


Cal. 507 / 517

- 把的位置. I 空檔位置 (腕錶運行)
- 把的位置. II 日期速調模式
- 以上型号机芯可以在日历转换时段(10:00 PM至12 PM)速调日历, 若在这时段内设定日期, 必须比正确日期多转一天. 因机芯在12PM后不再自动转换日期.
- 把的拉至位置 II (腕表继续运行).
  - 转动把的至正确日期
  - 推把的回位置 I
- 星期速調模式
- 以上型号机芯不能在星期日历转换时段(10:00 PM至12 PM)速调星期
- 次选语言通常会在24小时后约两小时显示, 直至显示转换至所需的语言
  - 把的拉至位置 II (腕表继续运行).
  - 逆时针转动把的至正确的星期显示
  - 推把的回位置 I

Cal. 507 / 517

- Pos. III Setting the time
- Pull the crown out to position III (watch stopped).
  - Turn the crown, until the current time is displayed (remember the 24-hour cycle).
  - Push the crown back into position I.



Cal. 509 / 519

- Pos. I Position of rest (watch running)
- Pos. II Quick-change correction for date
- The date display comprises a 2-disc system. For construction reasons, on the first day of a new month, the date must be set on 01 via the quick-change method passing through 31-39.
- The date can also be changed during the day-changing phase between approx. 10 pm and midnight. The date of the following day has to be set, because no automatic date change takes place at midnight.
- Pull the crown out to position II (watch still running).
  - Turn the crown clockwise until the required date appears.
  - Push the crown back into position I.
- Pos. III Setting the time
- Pull the crown out to position III (watch stopped).
  - Turn the crown, until the current time is displayed (remember the 24-hour cycle).
  - Push the crown back into position I.

Applies to all calibers:  
Battery type: 371/SR920SW (Ø 9.5 mm x 2.05 mm)

Precision: +20/-10 seconds per month

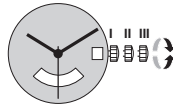
User's Manual English  
Movements Caliber

RONDA powertech

- 505.24D/515.24D
- 505.24H/515.24H
- 507/517
- 509/519

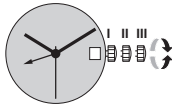
You have decided to buy a watch, which was assembled by a watchmaker using a Ronda movement. Please note that no watches are produced or distributed under the Ronda brand.

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.

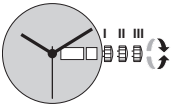


Cal. 505.24D / 515.24D

- Pos. I Position of rest** (watch running)
- Pos. II Quick-change correction for date**  
*The date can also be corrected during the day-changing phase between 10 pm and midnight. The date of the following day has to be set, because no automatic date change takes place at midnight.*
- Pull the crown out to position II (watch still running).
  - Turn the crown clockwise until the required date appears.
  - Push the crown back into position I.
- Quick-change correction for 24-hour display**
- Pull the crown out to position II (watch still running).
  - Turn the crown anticlockwise until the desired time appears.
  - Push the crown back into position I.
- Pos. III Setting the time**
- Pull the crown out to position III (watch stopped).
  - Turn the crown, until the current time is displayed (remember the 24-hour cycle).
  - Push the crown back into position I.



Cal. 505.24H / 515.24H

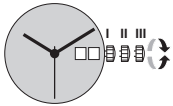


Cal. 507 / 517

- Pos. I Position of rest** (watch running)
- Pos. II Quick-change correction for date**  
*The date can also be corrected during the day-changing phase between 10 pm and midnight. The date of the following day has to be set, because no automatic date change takes place at midnight.*
- Pull the crown out to position II (watch still running).
  - Turn the crown until the required date appears.
  - Push the crown back into position I.
- Quick-change correction for day of the week**  
*The blocking time for the day of the week quick-change correction is from approx. 10 pm and midnight.*
- The second language always first appears around 24.00hrs for about 2 hours, until the display changes to the required language.
  - Pull the crown out to position II (watch still running).
  - Turn crown anticlockwise until the desired day of the week appears in the required language.
  - Push the crown back into position.

Cal. 507 / 517

- 把的位置. III 设定时间**
- 把的拉至位置III (腕表停止运行).
  - 转动把的至正确时间 (留意24小时之上 / 下午时段).
  - 推把的回位置 I

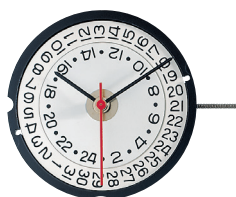


Cal. 509 / 519

- 把的位置. I 空槽位置** (腕表運行)
- 把的位置. II 日期速調模式**  
*此日期显示由 2 盆系统所组成. 由于结构的原因, 在每一个月的开始, 必须使用速调模式去调走 31–39 号, 直至显示 01。*
- 机芯可以在日历转换时段(10:00 PM至12 PM)速调日历, 若在这时段内设定日期, 必须比正确日期多转一天. 因机芯在12PM后不再自动转换日期.*
- 把的拉至位置 II (腕表继续运行).
  - 顺时针转动把的至正确日期
  - 推把的回位置 I
- 把的位置. III 设定时间**
- 把的拉至位置III (腕表停止运行).
  - 转动把的至正确时间 (留意24小时之上 / 下午时段).
  - 推把的回位置 I

以上所有型号:  
电池种类: 371/SR920SW (Ø 9.5 mm x 2.05 mm) 误差规格: +20 / -10 秒(每月)

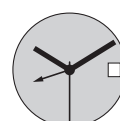




11 1/2<sup>mm</sup>



515.24D



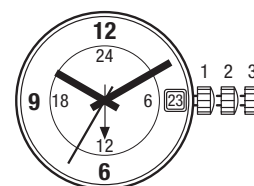
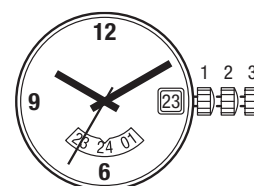
515.24H

## Funktionen

## Fonctions

## Functions

| Kaliber | Stellwellenpos. | Funktionen  |
|---------|-----------------|---|
| Calibre | Pos. de tige    | Fonctions   |
| Caliber | Stem position   | Functions   |
| 515.24  | 1               | Normale Position / Position normale / Running position  |
|         | 2               | Datumkorrektur / 24-Stundenkorrektur<br>Correction de la date / Correction 24 heures<br>Date correction / 24 hours correction   |
|         | 3               | Zeiger stellen, Sekunden-Stopp mit Unterbruch der Motorimpulse<br>Mise à l'heure, stop-seconde avec interruption des impulsions moteur<br>Hand setting, stop-second with interruption of motor pulses |
|         |                 |   |



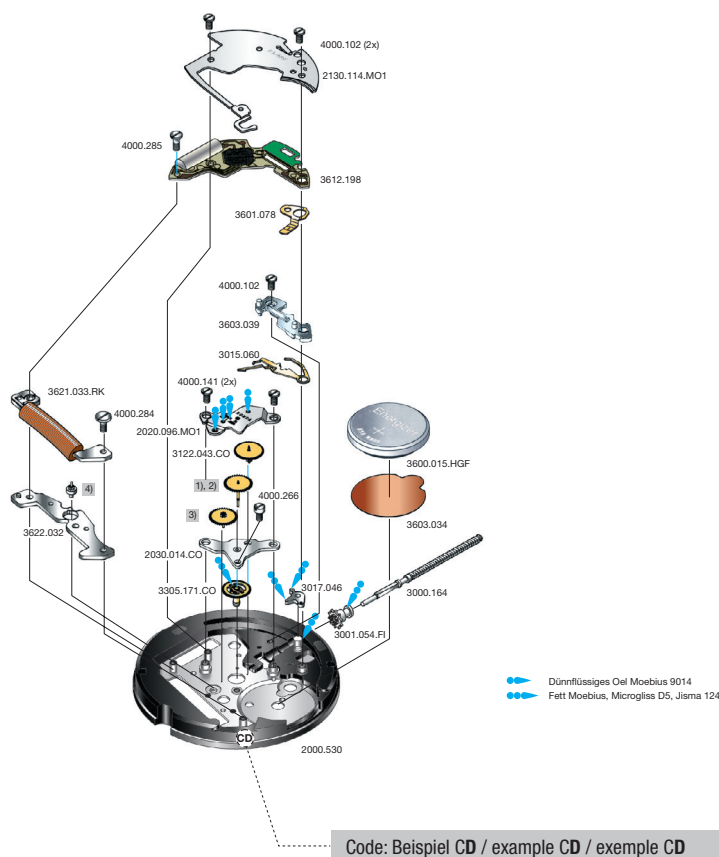
## Batterie

## Pile

## Battery

| Kaliber | Batterie      | Spannung | Artikelnummer RONDA    |
|---------|---------------|----------|------------------------|
| Calibre | Pile          | Voltage  | Numero d'article RONDA |
| Caliber | Battery       | Tension  | Part number RONDA      |
| 515.24  | 371 / SR920SW | 1.55 V   | 3600.015.HGF           |

11 1/2''' 515.24H, 515.24D



| Cal. 515.24D | Werkseite / Côté mouvement / Movement side |                |                    |
|--------------|--|----------------|--------------------|
| Plan No.     | Bestandteile                               | Fournitures    | Spare Parts        |
| 2000.530     | Werkplatte                                 | Platine        | Main plate         |
| 2020.096.MO1 | Räderwerkbrücke                            | Pont rouage    | Train w. bridge    |
| 2030.014.CO  | Zentrumbrücke                              | Pont centre    | Centre bridge      |
| 2130.114.MO1 | Modul-Abdeckp.                             | Couvre module  | Module cover pl.   |
| 3000.164     | Stellwelle                                 | Tige           | Stem               |
| 3001.054.FI  | Kupplungstrieb                             | Pignon coulant | Sliding pinion     |
| 3015.060     | Kuppl.-triebhebel                          | Bascule        | Yoke               |
| 3017.046     | Winkelhebel                                | Tirette        | Setting lever      |
| 3122.043.CO  | Kleinbodenrad                              | Roue moyenne   | Third wheel        |
| 1)           | Sekundenrad                                | Roue secondes  | Second-wheel       |
| 3)           | Zwischenrad                                | Roue interméd. | Intermed. wheel    |
| 3305.171.CO  | Minutenrohr                                | Chaussée       | Cannon pinion      |
| 3600.015.HGF | Batterie                                   | Pile           | Battery            |
| 3601.078     | Batterie-Kontakt                           | Bride contact  | Battery contact    |
| 3603.034     | Batterie-Isolation                         | Isolateur pile | Battery insulation |
| 3603.039     | Deckplatte/ Ste.                           | Couvre mécan.  | Setting lev. cover |
| 3612.198     | Modul                                      | Module         | Module             |
| 3621.033.RK  | Spule                                      | Bobine         | Coil               |
| 3622.032     | Stator                                     | Stator         | Stator             |
| 4)           | Rotor                                      | Rotor          | Rotor              |
| 4000.102     | Schraube                                   | Vis            | Screw              |
| 4000.141     | Schraube                                   | Vis            | Screw              |
| 4000.266     | Schraube                                   | Vis            | Screw              |
| 4000.284     | Schraube                                   | Vis            | Screw              |
| 4000.285     | Schraube                                   | Vis            | Screw              |

#### Abweichungen / Divergences / Deviations

| Cal. 515.24H | Werkseite / Côté mouvement / Movement side |               |               |
|--------------|--|---------------|---------------|
| Plan No.     | Bestandteile                               | Fournitures   | Spare Parts   |
| A)           | Sekundenrad                                | Roue secondes | Second-wheel  |
| 3305.180.CO  | Minutenrohr                                | Chaussée      | Cannon pinion |

| Cal. 515.24D   |   |   |
|--|---|---|
| Bis Juni 2015<br>Jusqu' en Juin 2015<br>Untill June 2015 |   | Ab Juli 2015<br>A partir de Juillet 2015<br>From July 2015  |
| Code   | 2. Buchstabe ... <b>C</b><br>Second letter ... <b>C</b><br>2 <sup>ème</sup> chiffre: ... <b>C</b> | 2. Buchstabe: ab <b>D</b><br>Second letter: from <b>D</b><br>2 <sup>ème</sup> chiffre: à partir de <b>D</b> |
| 1)   | 3136.090.CO   | 3136.194.CO   |
| 3)   | 3147.019.CO   | 3147.092.CO   |
| 4)   | 3715.089.RK   | 3715.144.RK   |

Die obigen 3 Teile bilden jeweils eine Gruppe. Deshalb sind die 3 Teile jeder Gruppe nicht einzeln gegeneinander austauschbar.

Les 3 fournitures ci-dessous forment un groupe individuel. C'est pourquoi les 3 fournitures de chaque groupe ne sont pas interchangeables.

The 3 parts mentioned above are forming an individual group. Therefore the 3 parts of each group are not interchangeable.

| Cal. 515.24H   |   |   |
|--|---|---|
| Bis Juni 2015<br>Jusqu' en Juin 2015<br>Untill June 2015 |   | Ab Juli 2015<br>A partir de Juillet 2015<br>From July 2015  |
| Code   | 2. Buchstabe ... <b>C</b><br>Second letter ... <b>C</b><br>2 <sup>ème</sup> chiffre: ... <b>C</b> | 2. Buchstabe: ab <b>D</b><br>Second letter: from <b>D</b><br>2 <sup>ème</sup> chiffre: à partir de <b>D</b> |
| 2)   | 3136.095.CO   | 3136.218.CO   |
| 3)   | 3147.019.CO   | 3147.092.CO   |
| 4)   | 3715.089.RK   | 3715.144.RK   |

Die obigen 3 Teile bilden jeweils eine Gruppe. Deshalb sind die 3 Teile jeder Gruppe nicht einzeln gegeneinander austauschbar.

Les 3 fournitures ci-dessous forment un groupe individuel. C'est pourquoi les 3 fournitures de chaque groupe ne sont pas interchangeables.

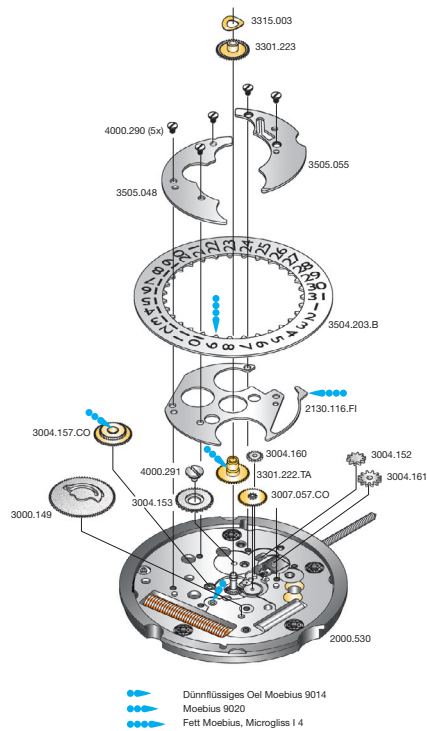
The 3 parts mentioned above are forming an individual group. Therefore the 3 parts of each group are not interchangeable.

# Werkaufbau

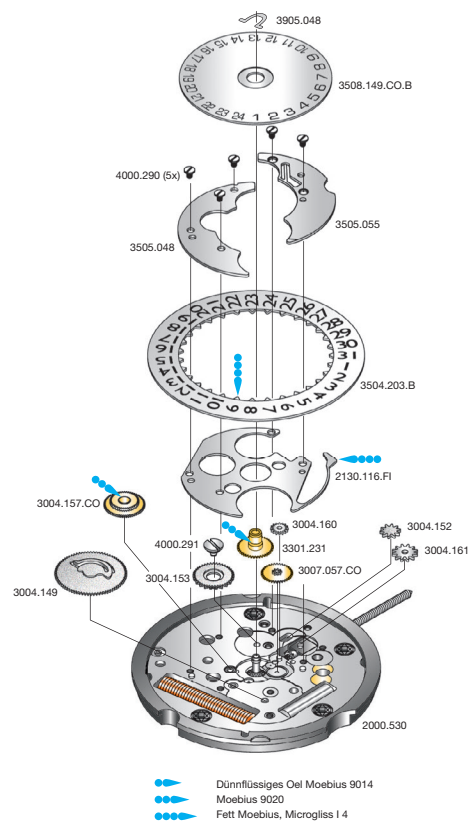
# Assemblage

# Assembling

11 1/2''' 515.24H

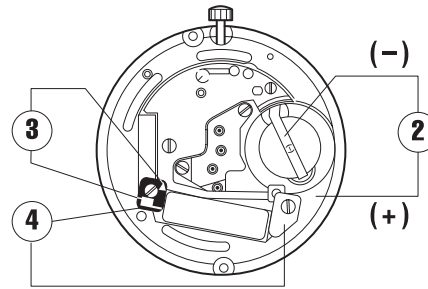
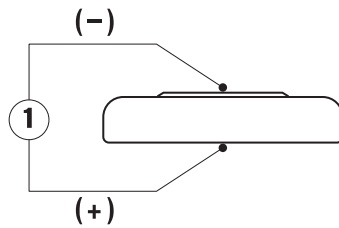


11 1/2''' 515.24D



| Cal. 515.24H | Zifferblattseite / Côté cadran / Dial side |                              |                      |
|--------------|--|------------------------------|----------------------|
| Plan No.     | Bestandteile                               | Fournitures                  | Spare Parts          |
| 2130.116.FI  | Kalenderplatte                             | Plaque calendrier            | Date ind. plate      |
| 3004.160     | Zeigerstellrad                             | Renvoi minuterie             | Setting wheel        |
| 3004.149     | Datummitn.-rad                             | Renvoi entraîin.             | Ind. driving wheel   |
| 3004.161     | Verbindungsrad-Kupplungtrieb               | Renvoi pig. coulant          | Slid. pin. sett. wh. |
| 3004.152     | Umkehrad                                   | Baladeur                     | Correction wheel     |
| 3004.153     | Korrekturrad                               | Roue correcteur              | Correcteur wheel     |
| 3004.157.CO  | Friktionsrad                               | Friction                     | Friction wheel       |
| 3007.057.CO  | Wechselrad                                 | Minuterie                    | Minute wheel         |
| 3301.222.TA  | Stundenrad                                 | Canon                        | Hour wheel           |
| 3301.223     | Stundenrad                                 | Canon                        | Hour wheel           |
| 3315.003     | Spreizfeder                                | Clinquant                    | Washer               |
| 3504.203.B   | Datumsanzeiger                             | Baque                        | Date indicator       |
| 3505.055     | Kalender-Abdeckplatte (Nr. 2)              | Couvercle calendrier (no. 2) | cover (no. 2)        |
| 3505.048     | Kalender-Abdeckplatte (Nr. 1)              | Couvercle calendrier (no. 1) | cover (no. 1)        |
| 4000.290     | Schraube                                   | Vis                          | Screw                |
| 4000.291     | Schraube                                   | Vis                          | Screw                |

| Cal. 515.24D  | Zifferblattseite / Côté cadran / Dial side |                              |                             |
|---------------|--|------------------------------|-----------------------------|
| Plan No.      | Bestandteile                               | Fournitures                  | Spare Parts                 |
| 2130.116.FI   | Kalenderplatte                             | Plaque calendrier            | Date indicator pl.          |
| 3004.160      | Zeigerstellrad                             | Renvoi minuterie             | Setting wheel               |
| 3004.149      | Dat.-Mitn.rad                              | Renvoi entraîneur            | Ind. driving wh.            |
| 3004.161      | Verbindungsrad-Kupplungtrieb               | Renvoi pig. cou.             | Sliding pin. set.           |
| 3004.152      | Umkehrad                                   | Baladeur                     | Sliding gear                |
| 3004.153      | Korrekturrad                               | Roue corr. disque            | Correcteur wheel            |
| 3004.157.CO   | Friktionsrad                               | Friction                     | Friction wheel              |
| 3007.057.CO   | Wechselrad                                 | Minuterie                    | Minute wheel                |
| 3301.231.TA   | Stundenrad                                 | Canon                        | Hour wheel                  |
| 3504.203.B    | Datumanzeiger                              | Baque                        | Date indicator              |
| 3505.048      | Kalender- Abdeckplatte (Nr. 1)             | Couvercle calendrier (no. 1) | Date indicaor cover (no. 1) |
| 3505.055      | Kalender- Abdeckplatte (Nr. 2)             | Couvercle calendrier (no. 2) | Date indicaor cover (no. 2) |
| 3508.149.CO.B | 24 Std.-Scheibe                            | Disque 24 h                  | 24 h indicator              |
| 3905.048      | Klemmfeder für Tagesscheibe                | Clavett disque               | Disc spring clip            |
| 4000.290      | Schraube                                   | Vis                          | Screw                       |
| 4000.291      | Schraube                                   | Vis                          | Screw                       |



| Kaliber<br>Calibre<br>Caliber | Pos.<br>Pos.<br>Pos. | Einheit<br>Unité<br>Unit              | Messwerte<br>Valeurs mesurées<br>Measured values | Kontrolle<br>Contrôle<br>Check  | Bemerkungen<br>Remarques<br>Remarks   |
|-------------------------------|----------------------|---------------------------------------|--|---|---|
| 515.24H<br>515.24D            | 1                    | V                                     | 1,55   | Batterie-Spannung<br>Tension de la pile<br>Battery voltage  | Batterie herausnehmen und messen<br>Enlever et mesurer la pile<br>Remove battery for measuring                              |
| 515.24H<br>515.24D            | 2                    | µA                                    | 1,10–1,85  | Stromaufnahme<br>Consom. de courant<br>Power consumption  | Ohne Batterie, mit externer Speisung<br>Sans pile, avec alimentation externe<br>Without battery, with external power supply |
| 515.24H<br>515.24D            | 2                    | V                                     | ≤ 1,30   | Funktionskontrolle bei Minimalspannung<br>Contrôle de fonctionnement à tension minimale<br>Check with lowest possible voltage | Ohne Batterie, mit externer Speisung<br>Sans pile, avec alimentation externe<br>Without battery, with external power supply |
| 515.24H<br>515.24D            | 3                    | KΩ                                    | 1,90–2,10  | Spulenwiderstand<br>Résistance de la bobine<br>Resistance of the coil   | Ohne Batterie<br>Sans pile<br>Without battery   |
| 515.24H<br>515.24D            | 4                    | KΩ                                    | ∞  | Spulenisolation<br>Isolation de la bobine<br>Coil insulation  | Ohne Batterie<br>Sans pile<br>Without battery   |
| 515.24H<br>515.24D            |                      | Sek./Monat<br>sec./mois<br>sec./month | - 10/+ 20  | Induktivsonde 60 Sek.<br>Senseur inductif 60 sec.<br>Inductive sensor 60 sec.   | Mit Batterie<br>Avec pile<br>With battery   |

## Einschalen / Werkzeuge

## Emboîtage / outils

## Casing / tools

Nr. H 51X.1A



Nr. H 51X.1T



|                          | SWISS MADE & SWISS PARTS |
|--------------------------|--------------------------|
| Schraube<br>Vis<br>Screw |                          |

## Zeigersetzen

Maximale Aufpresskraft:

- Stunden und Minutenzeiger: max. 40N
- Sekundenzeiger: max. 30N

Beim Zeigersetzen muss das Werk abgestützt werden.

## Poser les aiguilles

Force de chassage maximale:

- Aiguilles des heure et des minutes: max. 40N
- Aiguille des secondes: max. 30N

Lors de la pose d'aiguilles, le mouvement doit être soutenu.

## Hand setting

Maximal force:

- Hour and minute hands: max. 40N
- Second hand: max. 30N

The movement needs to be supported for hand setting.

Kal. 515.24H, 515.24D  
Stellwelle entfernen

Beim Entfernen der Stellwelle muss sich die Stellwelle in **Position 2** befinden, bevor auf den Winkelhebel gedrückt wird.

Cal. 515.24H, 515.24D  
Enlever la tige

En enlevant la tige, la tige doit se trouver en **position 2**, avant de pousser sur la tirette.

Cal. 515.24H, 515.24D  
Stem removal

For removal of the stem, the stem must be in **position 2** prior to apply pressure to the setting lever.