**In the morning**

A) Timer function on device automatically starts up. When the device is ready, the light in lower right-hand side of the front of the display is lit and green - perform QC measurement.

B) a) Device is switched off overnight.
   Insert CRP reagent in the device.
   Switch on device on the back at the top right. Wait until the green light is lit on the lower right-hand side of the display - perform QC measurement.

b) If the light on the display is orange, touch screen -- startup is automatically performed - if the light is lit and green - perform QC measurement.

**Measuring specimens**

1. Press "Mode" in measurement screen
2. Select "CBC" or "CRP" - depending on the type of analysis desired
3. Press "Measure" and select User ID (manually or with Barcode reader)
4. Import "Patient-ID" and confirm with OK
5. Import "Sample-ID" or leave blank and confirm with OK
6. Mix specimen tube well by turning it upside down and right side up - place in specimen holder and close doors.

**Switch device out of sleep mode**

1. Touch screen to switch device out of sleep mode
2. Press "Recovery" button to perform measurements

**Changing reagents**

Hematology (device in measurement screen)

1. Replace empty reagent bottle with a new one
2. Press "Menu"
3. Press "Reagent Replacement"
4. Press "Reagent Status"
5. Select/press the replaced reagent
   - Minidil LMG - "Diluent LOT"
   - Lysebio - "Lyse LOT"
   - Miniclean - "Cleaner LOT"
6. Press "LOT" and import the lot no. on the reagent bottle using the barcode reader and press "OK"
7. Press "ESC" twice
8. Select "ON" for the changed reagents and press "START" to draw in the exchanged reagent

**Changing reagents**

CRP (device in "CRP" measurement screen)

1. On the right-hand side of the device, open doors and replace the CRP reagent with a new reagent (the film on the upper surface of the CRP kit must be removed carefully). Close doors.
2. "Reagent replacement screen" appears. Import the "FACTOR" barcode on the CRP reagent packaging using the barcode reader.
3. Press "Start" and the device performs the reagent blank.

**Axonlab**

Connecting ideas

Axon Lab AG

www.axonlab.com

Helpline for Switzerland: 0848 00 29 66
Helpline for Germany: 0800 01 18 811
Helpline for Austria: 0810 10 02 96
Helpline for Belgium: +32 2 311 52 62
Helpline for Netherlands: +31 40 266 85 21
Cleaning (especially if B, $ or * occur frequently)
1. Press "Menu"
2. Press “Clean Cycle”
3. Confirm with OK
4. Cleaning is performed (duration: approx. 6 min.)

Concentrated cleaning (for heavy contamination)
1. Press "Menu"
2. Press "The Other Functions"
3. Press "Maintenance"
4. Press “Concentrated Cleaning”
5. Replace Miniclean with Minoclair
6. Press “Start”
7. After 8 min., remove Minoclair bottle from the device.
   Dry straw with a cloth
8. Press “Start”
9. After 11 seconds, reinsert the Miniclean bottle.

QC target values change when batch is changed
1. Insert CF card (Compact Flash) in the PC and save the new QC file from
   the Internet on the CF card*.
   select the corresponding control and then the device and
   save on the CF card.
3. Insert the CF card in the Microsemi CRP on the front of the top of the device.
4. Press "Menu"
5. Press "Quality Control"
6. Press "New Control Setup"
7. Press "Load from CF"
8. Select all 3 levels ("Load Three Lots") or individual levels ("Control N, H or L").
9. Select corresponding lot and press "Load"

* Recommendation: Delete USB file from the old QC on the CF card. Regularly save patients and QC results from the CF card on the PC and then delete the data on the CF card (since it has limited data storage)

Information codes only 3-DIFF
$ Result under reserve, a repeat is recommended.
* Result not usable, repeat measurement.
! Perform startup, repeat measurement - perform cleaning, if applicable.
If the message persists, contact Axonlab Helpline

Information codes 3-DIFF/CRP
H/L Result is above (H) or below (L) the reference range entered.
----- D Result above the visible range. Upper threshold values of the visible range for
   CRP <230 mg/L (whole blood HCT <23.0%) or <170.0 mg/L (serum or plasma).
   Perform CRP dilution, see supplementary sheet.
   If air bubbles get into the CRP chamber, this flag may also appear.
Result + D Result above the measurement range. Upper threshold values of the measurement range for
   CRP <200 mg/L (whole blood HCT <23.0%) or <150.0 mg/L (serum or plasma).
   Perform CRP dilution, see supplementary sheet.
   If air bubbles get into the CRP chamber, this flag may also appear.
U Result is below the linearity range.

CRP information codes
F CRP measurement did not run normally. Possibly due to contamination of the measuring unit or because
   the reagent ran out or air bubbles were present. Repeat measurement, clean device, if applicable.
C CRP reagent blank is not correctly deposited in the device. Repeat CRP reagent blank measurement
   and measure specimen once again.
X CRP reagent is beyond the expiration date. Use new CRP reagent and repeat measurement.
E CRP reagent is empty. Use new CRP reagent and repeat measurement.

PLT alarms
MIC Platelet aggregation, microcytes
SCH Platelet aggregation, schistocytes, large platelets
SCL Small cells, schistocytes, fragmented erythrocytes, possible contamination

WBC alarms
L1 Indicates an unusual number of cells in comparison to the lymphocytes in the range of 30-70 fl.
   Presumed pathological elements: Platelet aggregation, nucleated erythrocytes, abnormal lymphocytes.
M2 Indicates an excessive number of cells in the range of 70-85 fl.
   Presumed pathological elements: abnormal lymphocytes, immature granulocytes, basophilia.
G1 Indicates an excessive number of cells in the range of 85-100 fl.
   Presumed pathological elements: Eosinophilia, immature granulocytes, hypersegmented neutrophils
G2 Indicates an excessive number of cells in the range of 85-210 fl.
   Presumed pathological elements: Anomalies of the granulocyte cell membrane; old, non-chilled
   blood (>8 hours); granulocyte cell size < 210 fl.
G3 Indicates an excessive number of cells which are > 300 fl.
   Presumed pathological elements: many types of large, immature cells.

Device alarms
T Temperature of the device or reagents outside of the permissible range
B Blank not OK - possibly perform cleaning - repeat blank
CRP dilution in the case of a "D" flag - Microsemi CRP

1. Dilution

100 μL EDTA whole blood / serum / plasma
Pipeette + 400 μL Minidil LMG (or NaCl 0.9%) in a specimen cup for CRP dilution (art. no. 10191K), mix and perform measurement.

or in the case of little material (micro-dilution):

50 μL EDTA whole blood / serum / plasma
Pipeette + 200 μL Minidil LMG (or NaCl 0.9%) into a specimen cup for CRP dilution (art. no. 10191K), mix and perform measurement.

2a. Calculation - EDTA whole blood

Multiply result by conversion factor from the accompanying table. The conversion factor corresponds to the hematocrit result of the undiluted specimen.

<table>
<thead>
<tr>
<th>HCT value before dilution</th>
<th>Conversion factor</th>
<th>HCT value before dilution</th>
<th>Conversion factor</th>
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<tbody>
<tr>
<td>21 - 23</td>
<td>6.1</td>
<td>43</td>
<td>8.0</td>
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<tr>
<td>24</td>
<td>6.3</td>
<td>44</td>
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<td>8.7</td>
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<td>7.9</td>
<td>60</td>
<td>11.0</td>
</tr>
</tbody>
</table>

2b. Calculation - Serum or plasma

Multiply the result of the dilution by a factor of 5 (dilution factor).
Adapter art.no. - Microsemi CRP

for Vacutainer tube

Art.no.3200165885
Adapter Standard venous

Art.no.3200239281
Adapter Standard capillary

for Sarstedt tube

Art.no.3200459402
Adapter Sarstedt venous

Art.no.3200459403
Adapter Sarstedt capillary

Art.no. 3200239AX1
Adapter Standard serum 1

Art.no. 10191K
Adapter Standard serum 2
**"Standard" Adapter - Microsemi CRP**

**Venous**
- Vacutainer
- Quality control Minotrol / Minotrol CRP

**Capillary**
- Kabe 50 uL (Art. no. 076004)
- Sarstedt Monovette 100 uL/200 uL (Art.no. 20.1288/20.1278)

**Dilution / serum**
- Specimen cup for CRP or CBC dilution (Art.no. 10191K)
- Transfer serum specimens
- Round-robin test (must be transferred)

**IMPORTANT!**
All tube types must be placed in the adapter WITHOUT tube cap!
"Sarstedt" Adapter - Microsemi CRP

**Venous**
- Sarstedt Monovette 2.6 mL/2.7 mL (Art.no. 04.1901/05.1167)
- Quality control Minotrol / Minotrol CRP

**Capillary**
- Kabe 50 uL (Art. no. 076004)
- Sarstedt Monovette 100 uL/200 uL (Art.no. 20.1288/20.1278)

**Dilution / serum**
- Specimen cup for CRP or CBC dilution (Art.no. 10191K)
- Transfer serum specimens
- Round-robin test (must be transferred)

**IMPORTANT!**
All tube types must be placed in the adapter WITHOUT tube cap!