



550-867

## Additional Instructions

SSD

**IMPORTANT**  
**READ CAREFULLY BEFORE USE**  
**KEEP FOR FUTURE REFERENCE**

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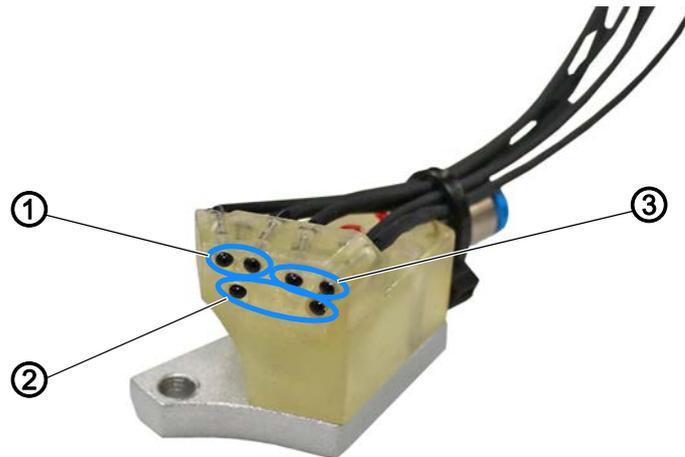
## 1 General information

### 1.1 Sensor block

Sensor block offering the following functions:

- Remaining thread monitor (RFW/RTM)
- Skip stitch detection SSD composed of enlacement check (UK/LC) and bobbin rotation monitor (SDÜ/BRM)

Fig. 1: General information, sensor block

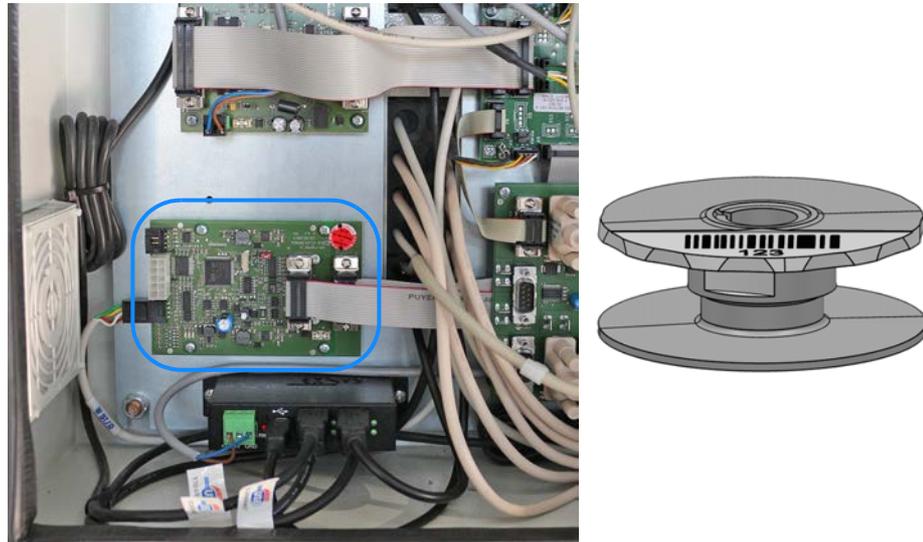


(1) - Sensor - enlacement check  
(2) - Sensor - remaining thread monitor

(3) - Sensor - bobbin rotation monitor

## 1.2 Prerequisites for operation of the SSD kit

Fig. 2: General information, prerequisites



Using the SSD kit requires that you install the latest generation of the FSPMG PCB (A24) shown above plus software version **V54-16.5.18**. The machine software version must be **V18.2** or later. The control software version must be **DA321GM\_y1\_5331C\_18071909** or later. You need to use the SSD bobbins.



### Important

If your machine does NOT meet the requirements specified above, perform the necessary software updates. If the proper FSPMG PCB is NOT fitted, you need to install the new PCB including BTR sensor and certificate (part number: 9835 200345 VES).

### 1.3 Components of the kit

Check whether the scope of delivery for kit 0867 591434 is correct prior to installation.

Part number	Quantity	Description
0867 151210	3	SSD bobbin
0867 151114	1	Bobbin case
0867 151060	1	Compression spring (spare part)
0867 591354	1	SSD sensor
9202 002077	1	Screw M4x10
9330 000087	1	Washer
9850 001504	1	PCB
9870 867060	1	Cable
0667 155840	1	Holder
0667 155930	1	Cover
9830 501014	4	Spacer
9204 201667	6	Screw M4x6
9710 061412	1	Solenoid valve
9870 867065	1	Cable
0867 591390	1	Holder
9790 060102	1	WI-E coupling DA4/6
B1300260.00	1	Double screw connection
B1100192.01	1	Reducer plug
9731 005004	1	Hose D4, 2.2 m
9731 006004	1	Hose D6, 1 m
9840 120025	3	Clip
9840 120106	3	Cable holder
9840 121002	6	Cable tie
9204 201667	4	Screw M4x10-H
0791 550704 EN	1	Additional Instructions

## 2 Assembly

### DANGER



#### **Risk of death from live components!**

Unprotected contact with electricity can result in serious injuries or death.

Only qualified specialists may perform work on electrical equipment.

### NOTICE

#### **Property damage may occur!**

The operation of the sensor may be impaired by a damaged bobbin.

Do NOT damage the bobbin when removing it. Do not use any metal objects to remove it. Use your fingers to remove the bobbin in order to avoid damage.

### NOTICE

#### **Property damage may occur!**

Cables may sustain damage and impair the operation of the machine.

Always lay the cables so as not to create any chafing or pinching points.

These instructions are intended for specialists. This group has the appropriate technical training for performing modifications or repairing malfunctions.

## 2.1 Tools required for assembling the kit

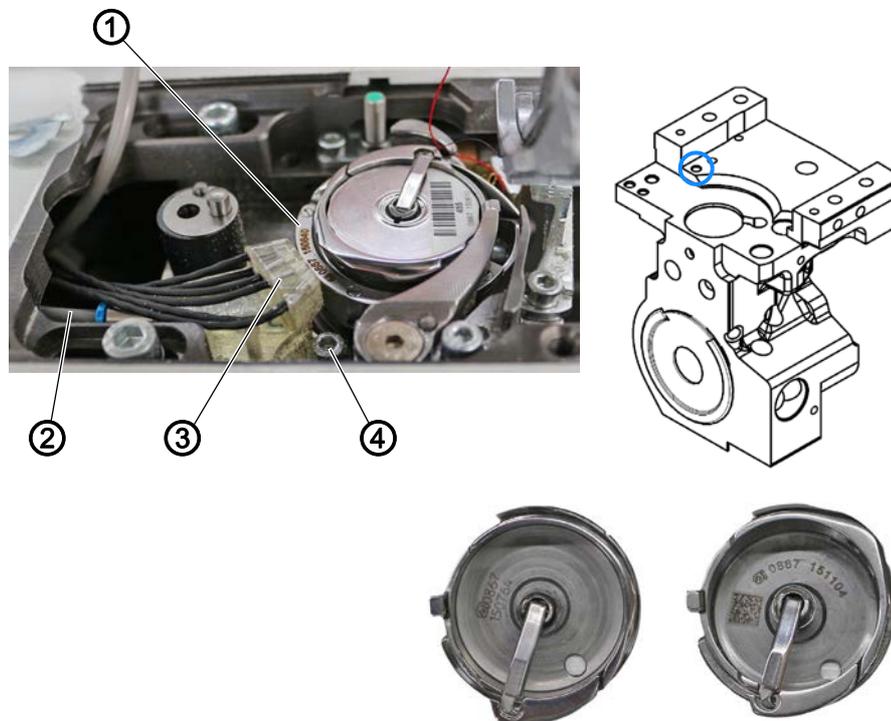
Fig. 3: Required tools



- Screw driver, cross-head
- Screw driver, flat-head
- Allen key, size 3
- Allen key, size 5
- Wrench, size 14
- Wire cutter

## 2.2 Assembling the sensor block

Fig. 4: Assembling the sensor block (1)



- (1) - Cover ring  
 (2) - Hose

Bobbin case old

Bobbin case new

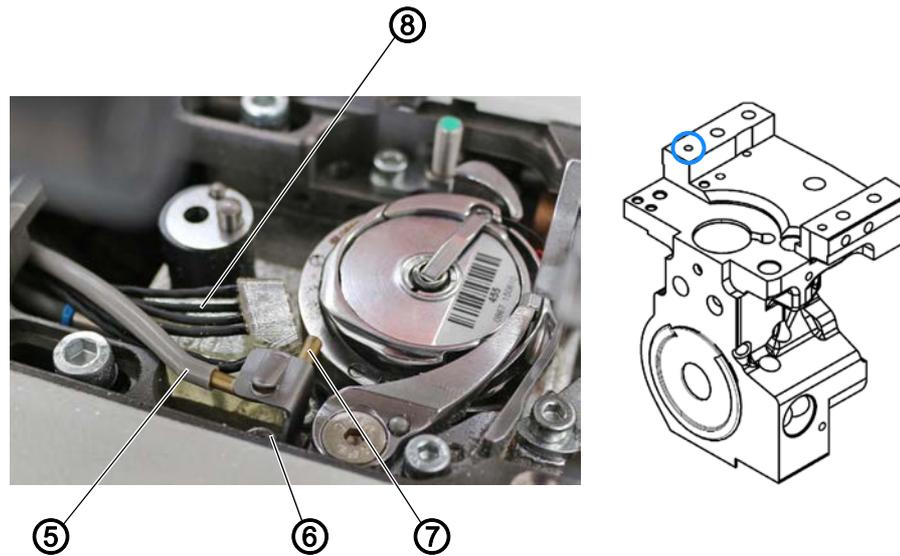
- (3) - Sensor block  
 (4) - Screw



To assemble the sensor block:

1. Switch off the machine and disconnect it from the power supply.
2. Open the throat plate slide.
3. Disassemble the throat plate.
4. Disassemble the feed dog.
5. Disassemble the knife.
6. Disassemble the remaining thread monitor.
7. Seal the remaining thread monitor connection on the valve block using the sealing plug.
8. Disassemble the cover ring (1).
9. Replace the old bobbin case with the new bobbin case.
10. Assemble the cover ring (1).
11. Insert the hose (2).
12. Tighten the sensor block (3) with screw (4) and washer.  
While doing so, press the sensor block (3) against the casting to position it correctly.

Fig. 5: Assembling the sensor block (2)



(5) - Hose  
(6) - Screw

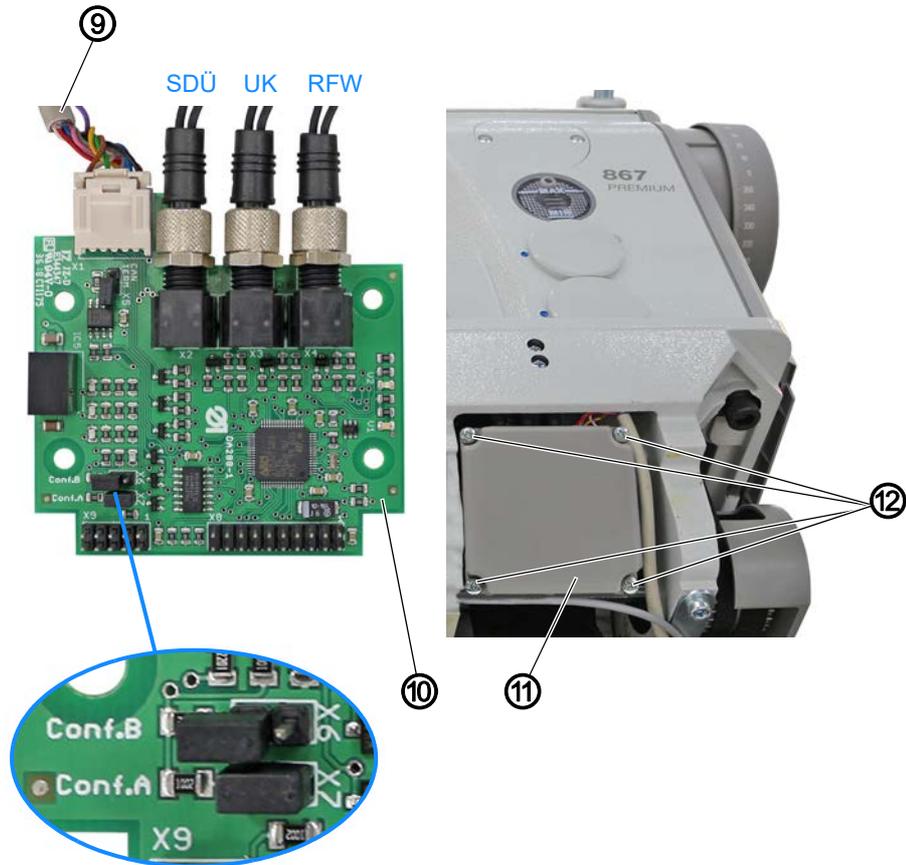
(7) - Blow tube  
(8) - Cables of the light conductors



13. Slip the hose (5) onto the blow tube (7).
14. Tighten the blow tube (7) using the screw (6).  
While doing so, align the blow tube (7) such that the flow of air hits the nose of the bobbin case.
15. Lay hoses (2) and (5) and the cables of the light conductors (8) downwards into the oil pan.
16. Assemble the knife.
17. Assemble the feed dog.
18. Assemble the throat plate.

19. Close the throat plate slide.

Fig. 6: Assembling the sensor block (3)



(9) - Cable  
(10) - PCB

(11) - Cover  
(12) - Screws



20. Tilt the machine head.

21. Loosen the screws (12).

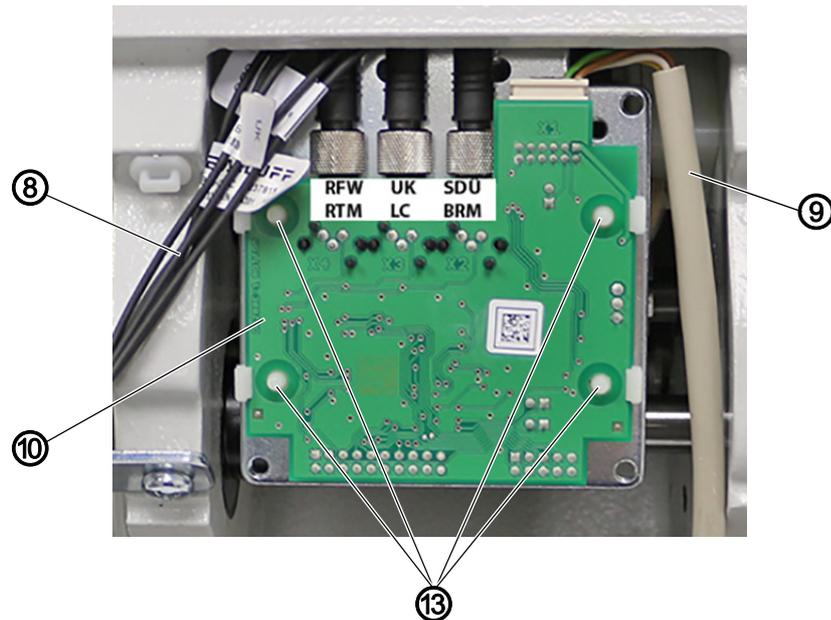
22. Disassemble the cover (11).

23. Remove the old PCB.

24. Fit the PCB (10) with the following components:

- Insert jumpers (**X6, X7**) as shown above
- Plug of cable (9): Slot **X1**
- Light conductor SDÜ: Slot **X2**
- Light conductor UK: Slot **X3**
- Light conductor RFW: Slot **X4**

Fig. 7: Assembling the sensor block (4)

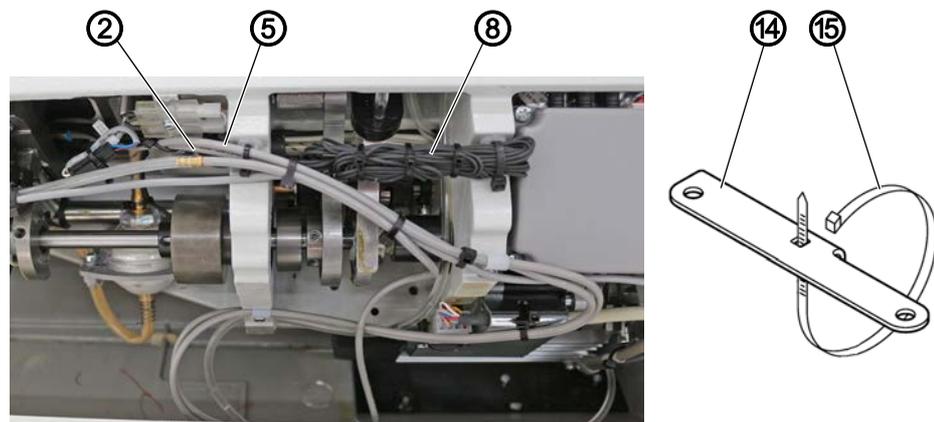


- |                                      |                      |
|--------------------------------------|----------------------|
| (8) - Cables of the light conductors | (10) - Circuit board |
| (9) - Cable                          | (13) - Spacers       |



25. Slip the new PCB (10) onto the spacers (13). While doing so, make sure to lay the cables of the light conductors (8) and cable (9) towards the front.
26. Assemble the cover (11).
27. Tighten the screws (12).

Fig. 8: Assembling the sensor block (5)



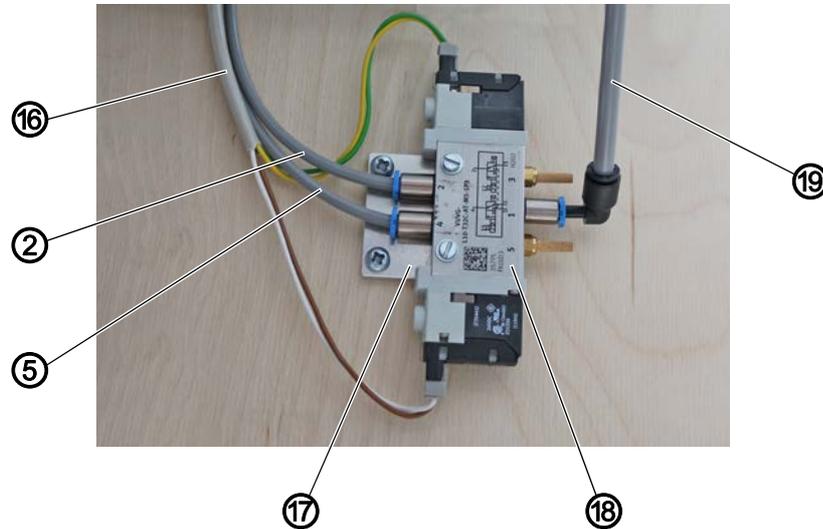
- |                                      |                  |
|--------------------------------------|------------------|
| (2) - Hose                           | (14) - Holder    |
| (5) - Hose                           | (15) - Cable tie |
| (8) - Cables of the light conductors |                  |



28. Feed the cable (9) through the slot in the oil pan and attach it to the holder (14) on the right of the base plate using the cable tie (15). Next, feed the cable (8) to the control cabinet.
29. Use cable ties to install hoses (2) and (5) in the base plate in such a way that they cannot be crushed when the machine head is erected and tilted.

30. Attach the cables of the light conductors (8) (SDÜ, UK, RFW) using cable ties, making sure that the cables cannot be crushed when the machine head is erected and tilted.

Fig. 9: Assembling the sensor block (6)



(2) - Hose  
(5) - Hose  
(16) - Cable

(17) - Plate  
(18) - Solenoid valve  
(19) - Hose



31. Screw the solenoid valve (18) to the plate (17).
32. Screw the plate (17) with the solenoid valve (18) in place under the tabletop.
33. Slip hoses (2) and (5) onto connectors **2** and **4** of the solenoid valve (18).
34. Connect the plug of the cable (16) with the solenoid valve (18).
- Plug yellow/green: Slot for connector **2** of the solenoid valve
  - Plug brown/white: Slot for connector **4** of the solenoid valve
35. Feed the cable (16) to the control cabinet.
36. Slip the hose (19) onto connector **1** of the solenoid valve (18).

Fig. 10: Assembling the sensor block (7)



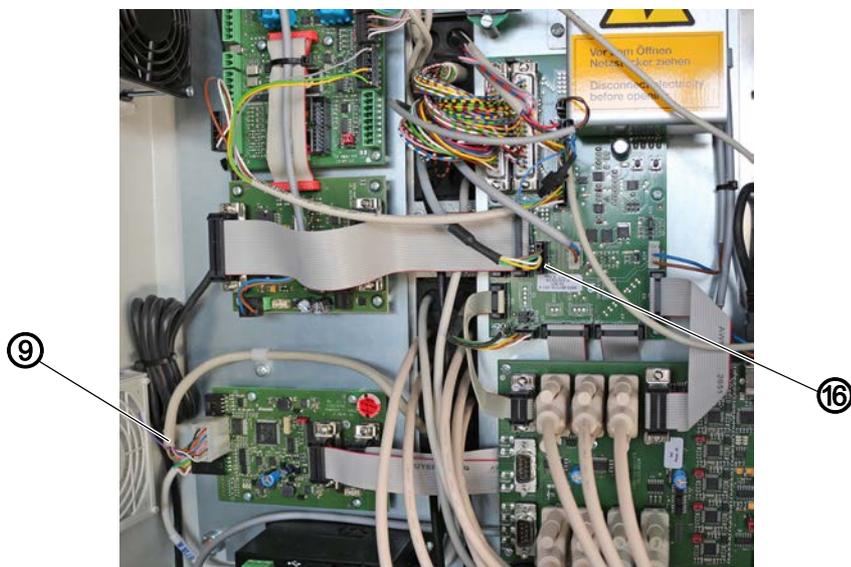
(19) - Hose

(20) - Screw connection



37. Assemble the screw connection (20) to the compressed air maintenance unit.
38. Connect the main air supply and the hose (19) to the screw connection (20).

Fig. 11: Assembling the sensor block (8)



(9) - Cable

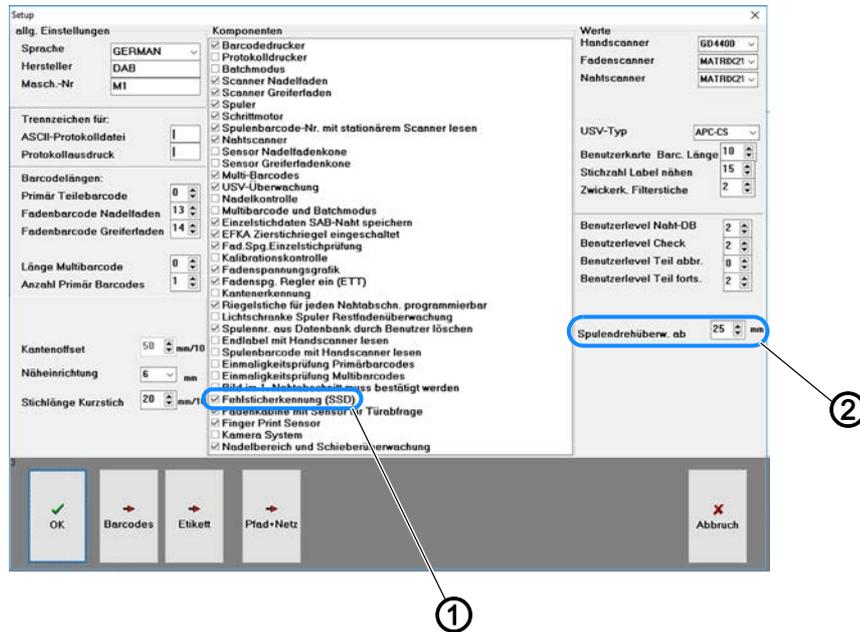
(16) - Cable



39. Connect the plug of cable (9) with the FSPMG PCB (A24).
40. Connect the plug of cable (16) at slot **X16** of the main circuit board (A20).
41. Restore the power supply and the compressed air supply.

## 2.3 Software settings

Fig. 12: Software settings



- (1) - Skip Stitch Detection (SSD)                      (2) - Bobbin observance from



To activate the SSD in the software:

1. Perform a software update.
2. In the menu *Setup* > *Components* the check box *Skip Stitch Detection* (1) must be turned on.
3. Set the mm value in the section *Bobbin observance from* (2) starting with which the SDÜ sensor will be active (the bobbin will not start rotating immediately even though the machine is already sewing). The value is based on experience and may vary with the bobbin, the thread and the thread tension (preset value = 25).

### 3 Troubleshooting

If experiencing problems with the sensor block, please turn to Dürkopp Adler Customer Service:

#### Dürkopp Adler AG

Potsdamer Str. 190  
33719 Bielefeld, Germany

Tel. +49 (0) 180 5 383 756  
Fax +49 (0) 521 925 2594  
Email: [service@duerkopp-adler.com](mailto:service@duerkopp-adler.com)  
Internet: [www.duerkopp-adler.com](http://www.duerkopp-adler.com)



Fig. 13: Troubleshooting

```
Options.txt - Editor
Datei Bearbeiten Format Ansicht Hilfe
-----
*
* File to switch various options for Sab_XE6.exe on and off
*
* When you put a "*" as first character into a line,
* the option is switched off, when you remove the "*"
* the option is switched on again.
*
-----
*
RS232DUMP          DUMP-Files RS232 on / Dump files werden mitgeschrieben
*STICHECK          Stich counter check DA-board on / Stichzähler Check ein
*DEMOHIDE          Demo-Made on / Demo Version aktiv
WITHOUTCN         Single stitch data file without "cn" / Einzelstich Daten ohne "CN" in Datenbank
LOGBOOK          write logbook file on / Logbuch Daten werden mitgeschrieben
*LPTDUMP          write Printer port dump file / Dump files vom Drucken werden mitgeschrieben
*STATEDUMP        write software state change dump file / Dump files über Software Status werden mitgeschrieben
ALLOWSECBEG      allow second begin in first free seam / Erneuter Nahtbeginn in der ersten freien Naht erlaubt
*ACOUSTICSCAN     akoustic Signal Seam scanner / Akustisches Signal für Nahtscanner
*ACOUSTICSEAM     akoustic Signal Begin and End of SAB seam / Akustisches Signal zum Anfang und Ende der SAB Naht
NOPCSZAEINDB     do not write PC stitch counter in protocol database / Stichzähler vom PC werden nicht in die Datenbank geschrieben
NOPCSZAEPLAUSICHECK do not check plausibility of PC stitch counter / Kein Plausibilitätscheck der Stichzählung zwischen Efka und PC
NOSTARTUPPRINT   printing label on startup / Kein Label wird beim starten der Software gedruckt
NOPCSITCHCNTINTFILE don't store PC Stitchcounter in Thread Tension file / keine PC Stichzählung in Datenbank
*NOPCSITCHCNTGREENBAR don't show stitch count in green bar during sewing / Keine Stichanzeige im grünen Balken sichtbar
*NOYACKCONTROL    do not check tackline / Keine Riegelüberwachung
*NOBOBBINTURNDETECTION do not check bobbin turn / keine Spulendrehüberwachung
*NOBOBBITICHDETECTION do not check bad stitches / keine Fehltickererkennung
*NOBOBBINTHREADDETECTION do not check bobbin thread / keine Restfadenüberwachung
NOPROTOINDEX     do not write protocol index in database / Paradox (PX) files werden nicht in Datenbank geschrieben
*ACBCANDPALTERNATIVE User barcode and Fingerprint active / Bedienerbarcode und Fingerprint sind beide aktiv
STITCHINTARNING  Stitchcount control in the critical seam / Stichzahlüberwachung in der SAB Naht
*NAEHTDEBUG      only SSD test / Nähtechnik Debug
SHOWINVALUEINGRAPH show actual Thread Tension value in graphic / Fadenspannungsanzeige im Nahtprogramm
*INPUTBATCHSIZEPARAM Input batch size manually by user / Eingabe der Batchgröße durch den Bediener
*ELTEXADWITHCN  show thread tension in cn ( in menue Adjustment) /Fadenspannungsanzeige im Menü Einrichtung in cn
```



#### Information

If one of the sensors (SDÜ, UK, RFW) does not work as desired, you can deactivate the corresponding sensor without deactivating the entire SSD component.



To disable individual sensors:

1. Access the folder *SabSoft* on the hard drive and open the *Options.txt* file.
2. Delete the \* in front of the corresponding sensor's description and save the file.

↪ The sensor has been deactivated.









DÜRKOPP ADLER GmbH  
Potsdamer Str. 190  
33719 Bielefeld  
Germany  
Phone: +49 (0) 521 925 00  
Email: [service@duerkopp-adler.com](mailto:service@duerkopp-adler.com)  
[www.duerkopp-adler.com](http://www.duerkopp-adler.com)