DÜRKOPP ADLER

911-210-10

Additional Instructions

Skip Stitch Detection (SSD)
Including remaining thread monitor (RFW)

IMPORTANT
READ CAREFULLY BEFORE USE KEEP
FOR FUTURE REFERENCE

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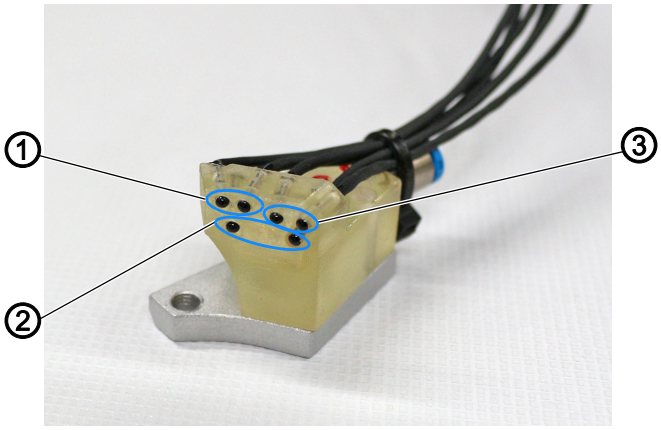
1 General information

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: Sensor block



(1) - Sensor - loop control
(2) - Sensor - remaining thread monitor
(3) - Sensor - bobbin rotation monitor

Components of the kit 0911 598064

Check whether the scope of delivery for kit 0911 598064 is correct prior to installation.

Part number	Quantity	Description
0667 155840	1	Holder
0667 155930	1	Cover
0867 151070	1	Compression spring R = 0.16
0867 151104	1	Bobbin case SSD, ∅ 32 mm
0867 151200	3	Bobbin ∅ 32 mm
0867 591354	1	Sensor block
0867 591423	1	Blow tube
0999 240384	1	Coupling R = 1/8”
9202 002057	1	Screw M4x6
9202 002077	1	Screw M4x10
9204 201667	6	Screw M4x10
9330 400017	1	Washer
9710 041003	1	Valve 6 mm
9710 061410	1	Magnet valve 3/2-way

Part number	Quantity	Description
9731 005004	2.2 m	Hose
9731 006004	1 m	Hose
9790 030640	1	Y-connection piece
9790 201000	1	Screw connection
9792 051010	1	Collar 1/8”
9830 501014	4	Spacer
9840 121002	6	Cable tie
9850 001504	1	PCB with bobbin rotation monitor
9870 911112	1	Connection cable SSD to DACcomfort
B1300260.00	1	Double screw connection
0791 911717 EN	1	Additional Instructions

2 Assembly

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 become damaged 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.

Tools required for assembling the kit

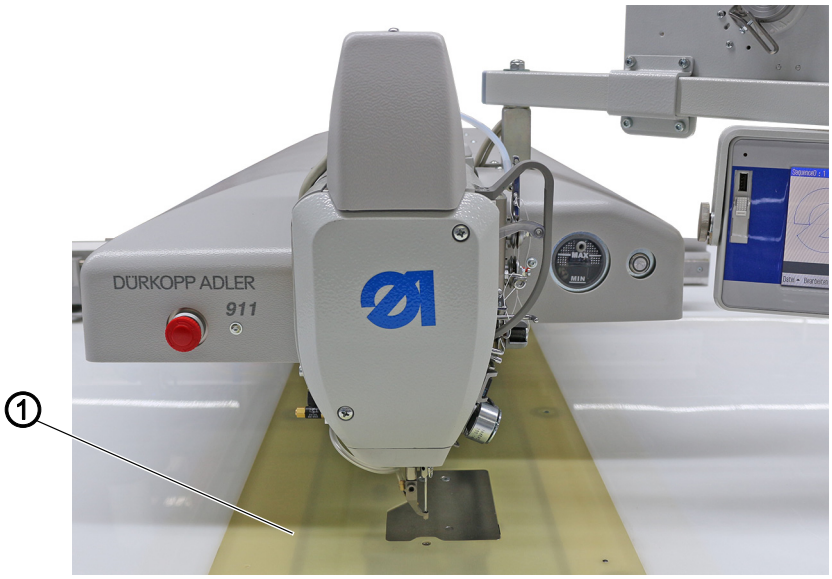
Fig. 2: Required tools

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

2.1 Assembling parts

2.1.1 Assembling the sensor block

Fig. 3: Assembling the sensor block (1)

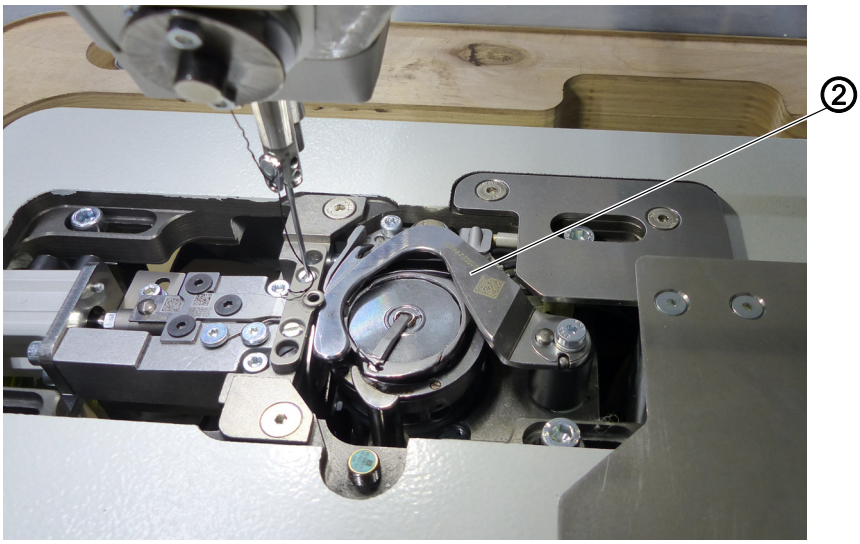


(1) - Slideway lining

To assemble the sensor block:

1. Switch off the machine and disconnect it from the power supply.
2. Disconnect the machine from the compressed air supply.
3. Remove the slideway lining (1).

Fig. 4: Assembling the sensor block (2)



(2) - Thread-pulling knife

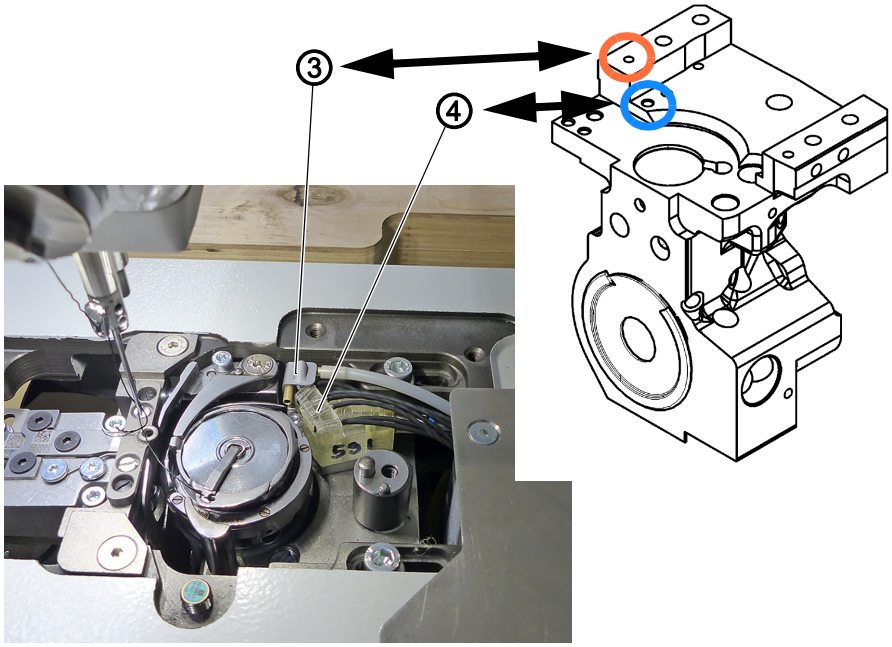
4. Disassemble the thread-pulling knife (2).
5. Disassemble any old components of the remaining thread monitor.

Fig. 5: Assembling the sensor block (3)

Bobbin case old *Bobbin case new*

6. Change the bobbin case.

Fig. 6: Assembling the sensor block (4)



(3) - Blow tube *(4) - Sensor block*

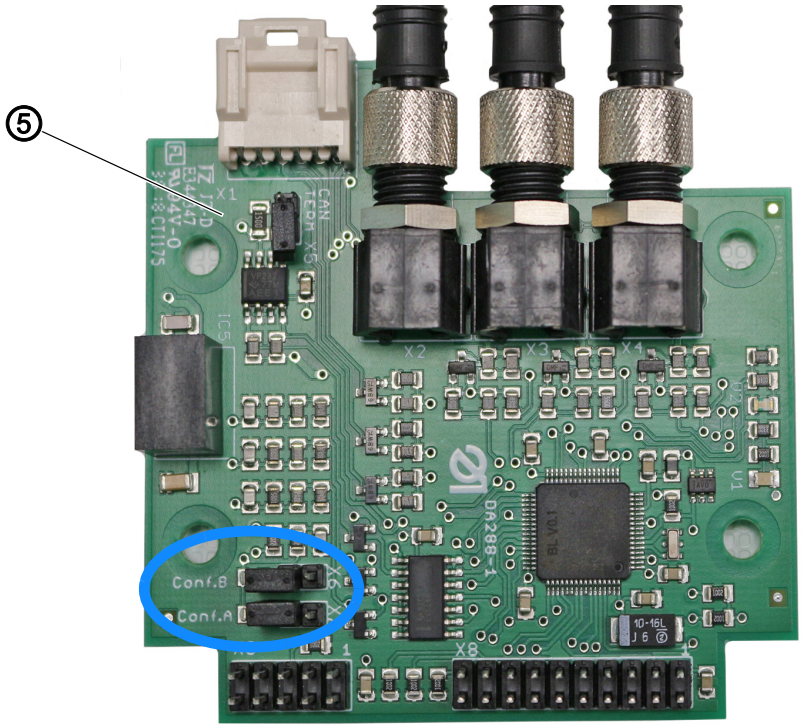
7. Cut two 50 cm sections off the pneumatic hose D4 (2.2 m).
8. Fit the pneumatic hoses onto the blow tube (3) and the sensor block (4).
9. Use an M4x10 screw and washer to assemble the sensor block (4) (hole in blue circle) - push the sensor block (4) up against the hook housing; it is must abut on the housing.
10. Assemble the thread-pulling knife with the blow tube (3) in the hole marked in orange (M4x6 screw).
11. Swivel up the machine head.
12. Pull the cables of the sensor block (4) and the pneumatic hoses of blow tube (3) and sensor block (4) through the base plate and to the underside of the machine.

2.1.2 Assembling the SSD circuit board

Important

Electrostatic sensitive components. Handling is only permitted in protected workplaces.

Fig. 7: Assembling the SSD circuit board (1)



(5) - SSD circuit board

To assemble the SSD circuit board:

1. Remove the cover on the right and the left side.
2. Correctly place the lower jumper (Conf.A) on the rear of the SSD circuit board (5): It must be open.

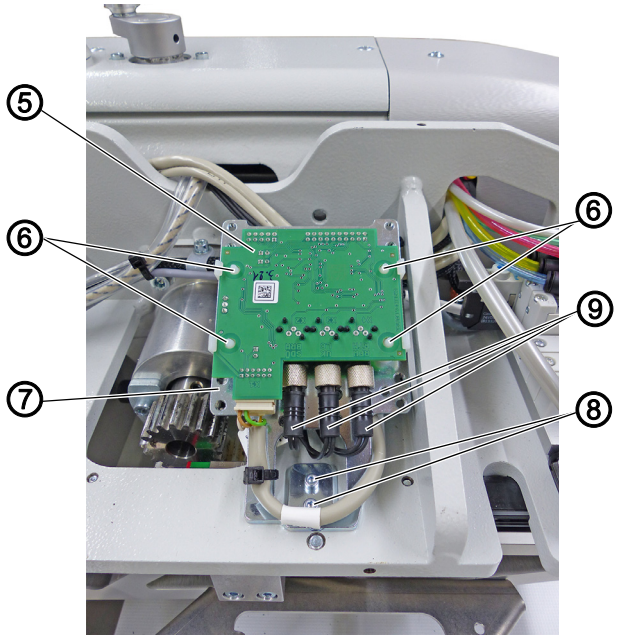
Information

The assembly of the PCB varies with the type of the machine:

- 3020, 6020: on the mounting bracket
- 6055, 8055: on the base plate from the bottom

Assembly Machine types 3020 or 6020:

Fig. 8: Assembling the SSD circuit board (2)

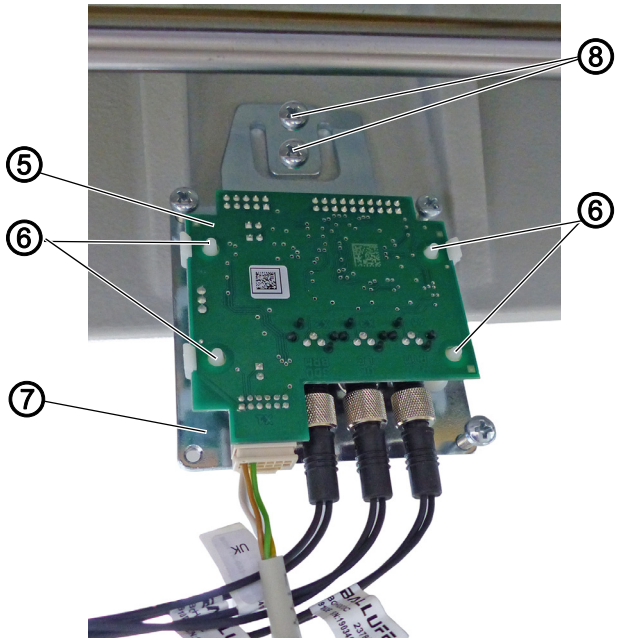


(5) - SSD circuit board
(6) - Spacer
(7) - Circuit board holder
(8) - Screws
(9) - Cables sensor block

3. Slip the spacers (6) onto the circuit board holder (7) and fix them in place by pushing them down.
4. Assemble the circuit board holder (7) to the mounting bracket using 2 screws (8).
5. Route the sensor block cables (9) up through the tabletop and feed them through the circuit board holder (7).

Assembly Machine types 6055 or 8055:

Fig. 9: Assembling the SSD circuit board (3)

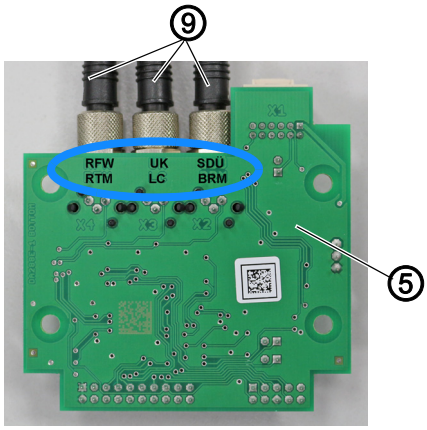


(5) - SSD circuit board
(6) - Spacers
(7) - Circuit board holder
(8) - Screws

6. Slip the spacers (6) onto the circuit board holder (7) and fix them in place by pushing them down.
7. Assemble the circuit board holder (7) to the base plate from the bottom using 2 screws (8).

Connecting the PCB

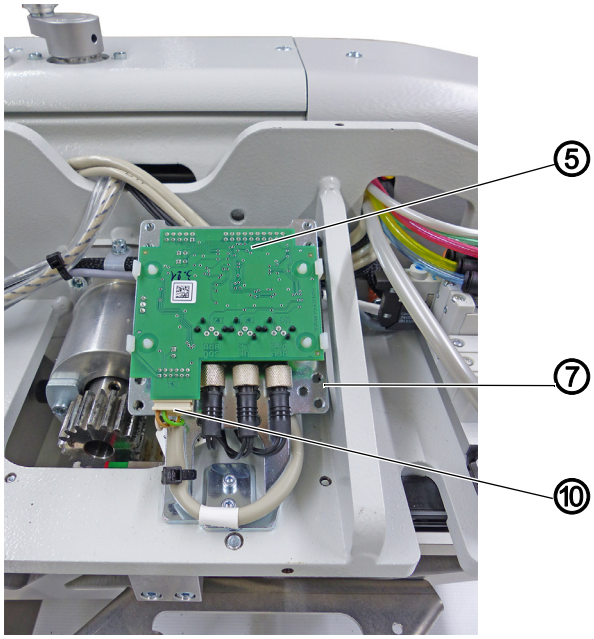
Fig. 10: Assembling the SSD circuit board (4)



(5) - SSD circuit board
(9) - Cables sensor block

8. Fit the cables (9) of the sensor block on the SSD circuit board (5) and tighten them.
   Follow the marking (RFW, UK, SDÜ) on the SSD circuit board (5).

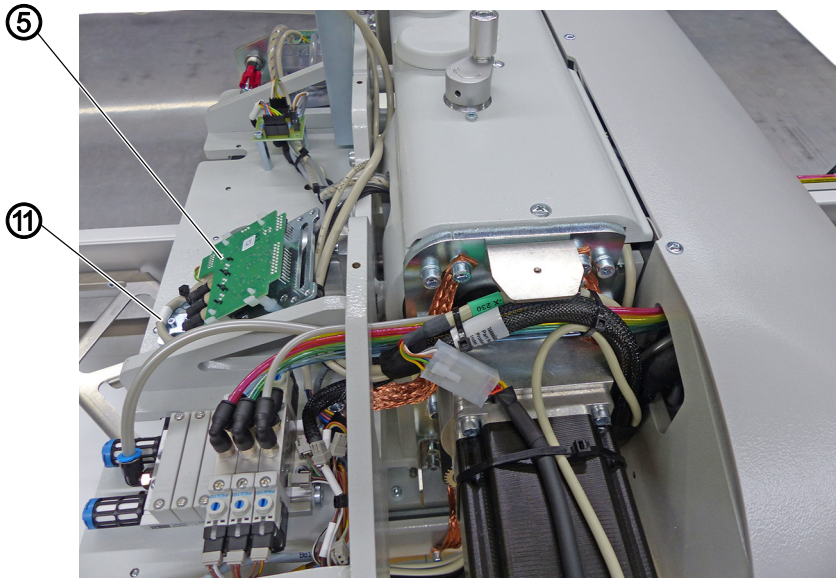
Fig. 11: Assembling the SSD circuit board (5)



(5) - SSD circuit board
(7) - Circuit board holder
(10) - Plug

9. Slip the SSD circuit board (5) carefully onto the circuit board holder (7).
10. Lay any excess cables in loops, making sure not to kink the cables.
11. Insert the plug (10) of cable X330 into the SSD circuit board (5).

Fig. 12: Assembling the SSD circuit board (6)



(5) - SSD circuit board
(11) - Cable X330

12. Feed cable X330 (11) of the SSD circuit board (5) through the mounting bracket on the cable harness / along the underside of the tabletop.

Fig. 13: Assembling the SSD circuit board (7)

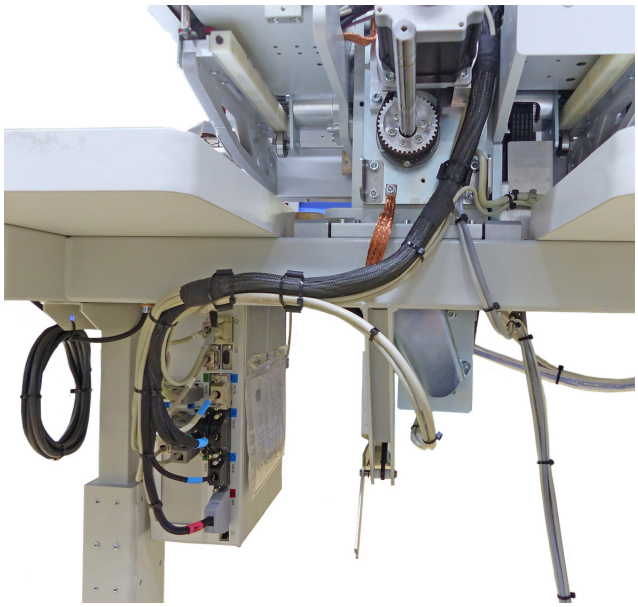
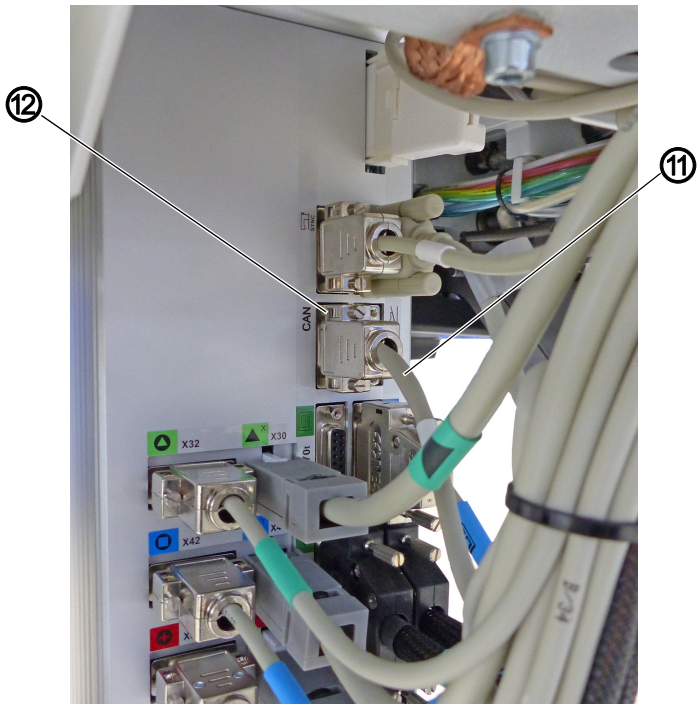


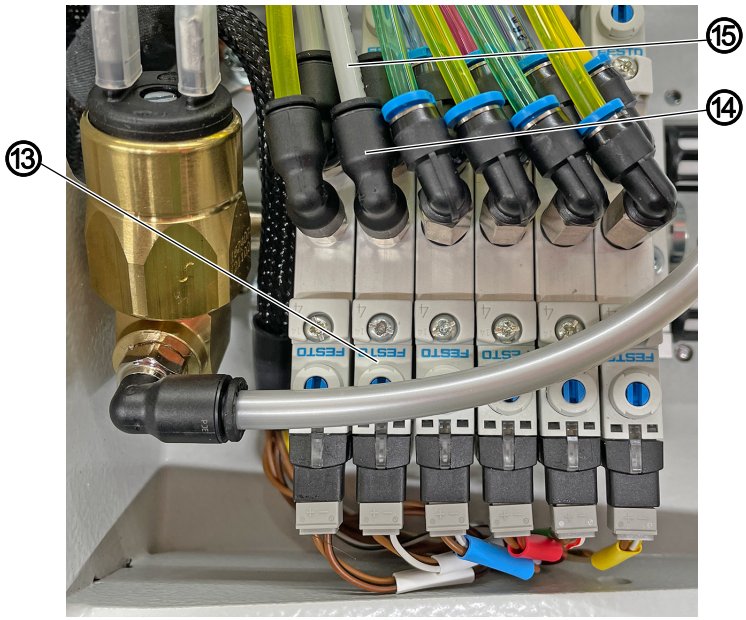
Fig. 14: Assembling the SSD circuit board (8)



(11) - Cable X330 *(12) - Slot CAN*

13. Insert the plug of cable X330 (11) into the CAN (12) slot.

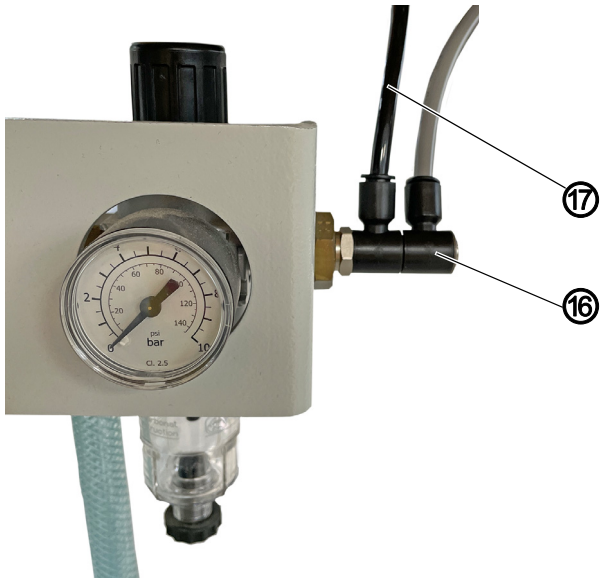
Fig. 15: Assembling the SSD circuit board (9)



(13) - Solenoid valve 6
(14) - Bracket plug-in connection
(15) - Pneumatic hose

14. Insert the new pneumatic hose (15) into the bracket plug-in connection (14) of solenoid valve 6 (13) / the cable with the marking X456.
15. Route the pneumatic hose (15) under the tabletop.

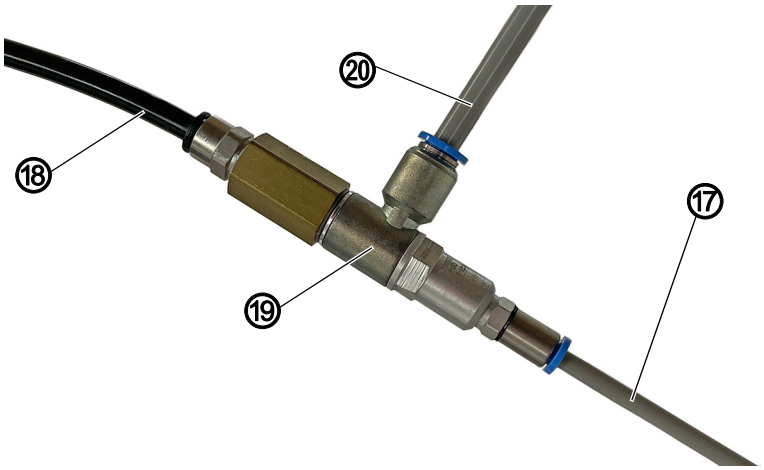
Fig. 16: Assembling the SSD circuit board (10)



(16) - Double screw connection
(17) - Pneumatic hose

16. Assemble the double screw connection (16) in the kit on the compressed air maintenance unit.
    If the machine is equipped with NSB, the screw connection has already been assembled - in that case, assemble the additional Y-piece.
17. Insert the pneumatic hose (17) into the double screw connection (16).

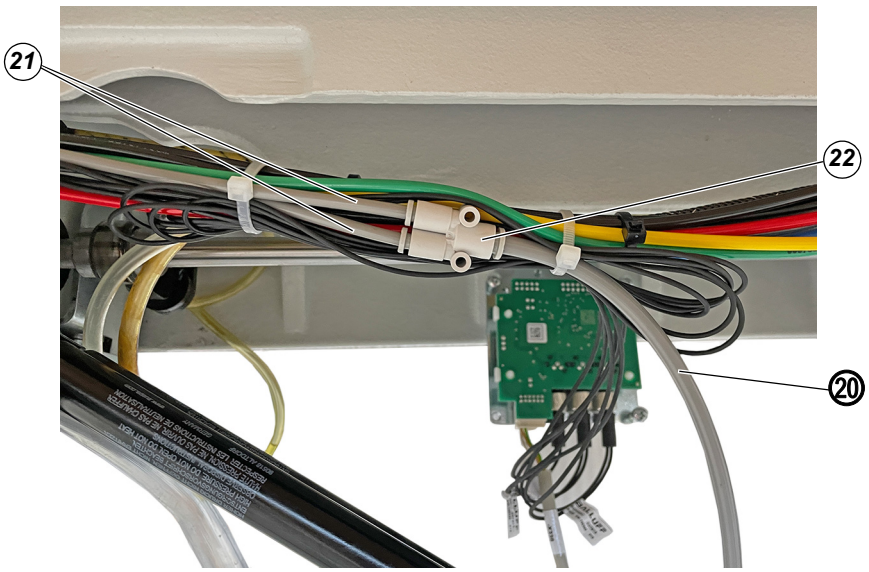
Fig. 17: Assembling the SSD circuit board (11)



(17) - Pneumatic hose
(18) - Pneumatic hose
(19) - Connecting piece
(20) - Pneumatic hose

18. Insert the pneumatic hose (17) of the solenoid valve and the pneumatic hose (18) of the compressed air maintenance unit into the connecting piece (19).
19. Insert the pneumatic hose (20) into the connecting piece (19).

Fig. 18: Assembling the SSD circuit board (12)



(20) - Pneumatic hose
(21) - Pneumatic hoses
(22) - Y-connection piece

20. Insert the pneumatic hose (20) into the Y-connection piece (22).
21. Insert the pneumatic hoses (21) of sensor block and blow tube into the Y-connection piece.
22. Attach the pneumatic hoses (21) with the Y-connection piece (22) and with additional hoses and cables below the tabletop.
23. Shorten the length of the pneumatic hoses if necessary.
24. Assemble the cover again on the right and on the left side.

25. Reconnect the power supply and the compressed air supply.
26. Switch on the machine and make adjustments in the software (📖 *p. 16*).

For machine types 6055 or 8055:

27. Tighten the cover on the circuit board holder.

3 Software settings

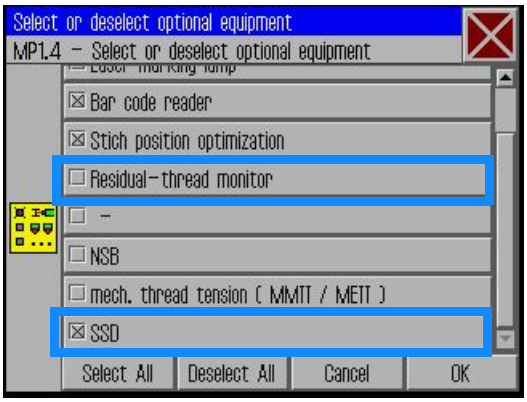
3.1 Activating the RFW/SSD function

You can adjust additional settings after activating this function.
These settings are further explained in the course of the chapter.

To activate the RFW/SSD function:

1. Go to *Machine parameters* and press *MP1.4 - Select or deselect optional equipment*.

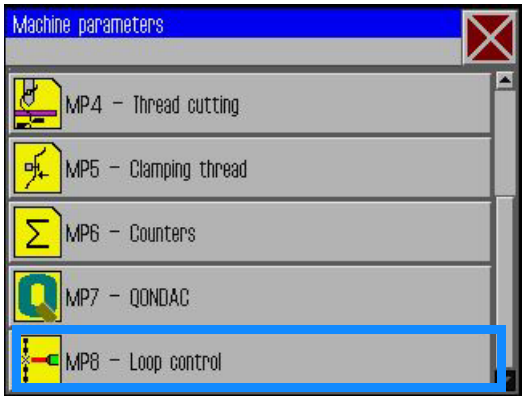
Fig. 19: Software settings (1)



2. Select the functions *Residual-thread monitor* and *SSD*.
3. Confirm with *OK*.

3.2 Defining the settings for RFW/SSD

Fig. 20: Software settings (2)

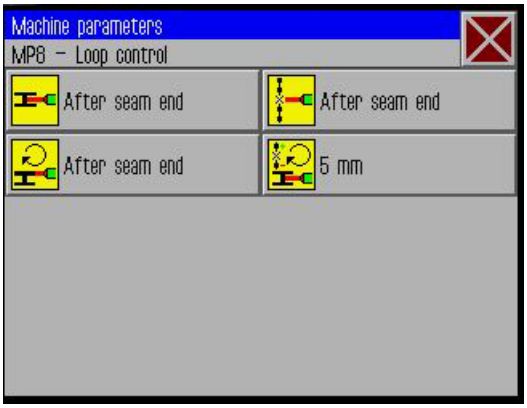


To define the settings for RFW/SSD:

1. Go to *Machine parameters* and press *MP8 - Loop control*.

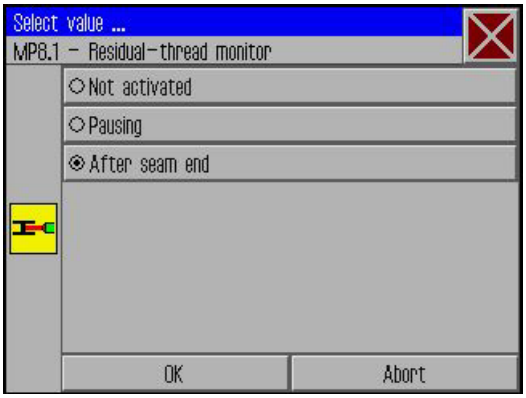
↳ The submenu *MP8 - Loop control* opens.

Fig. 21: Software settings (3)



2. To open the menu item *MP8.1 - Residual-thread monitor*, press the symbol .

Fig. 22: Software settings (4)



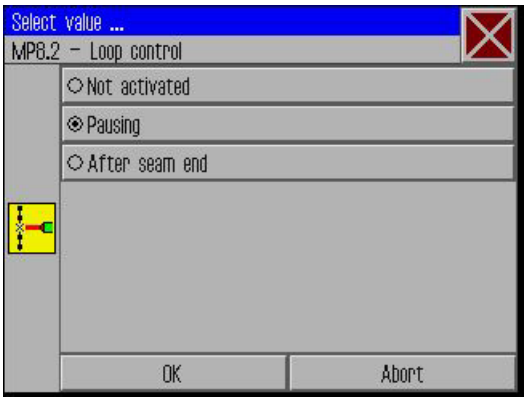
3. Select the function:

Settings MP8.1 - Residual-thread monitor

Description	Description
Not activated	Function is deactivated.
Pausing	Function triggers a sewing stop as soon as the bobbin is empty.
After seam end	Function triggers a sewing stop after the end of the seam.

4. Confirm with *OK*.
5. To open the menu item *MP8.2 - Loop control*, press the symbol .

Fig. 23: Software settings (5)



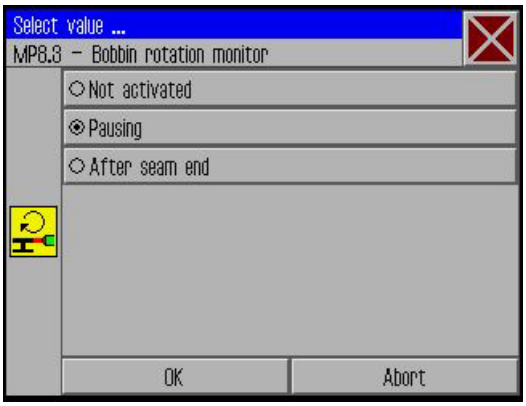
6. Select the function:

Settings MP8.2 - Loop control

Description	Description
Not activated	Function is deactivated.
Pausing	Function triggers a sewing stop when detecting a skip stitch.
After seam end	Function triggers a sewing stop after the end of the seam.

7. Confirm with *OK*.
8. To open the menu item *MP8.3 - Bobbin rotation monitor*, press the symbol .

Fig. 24: Software settings (6)



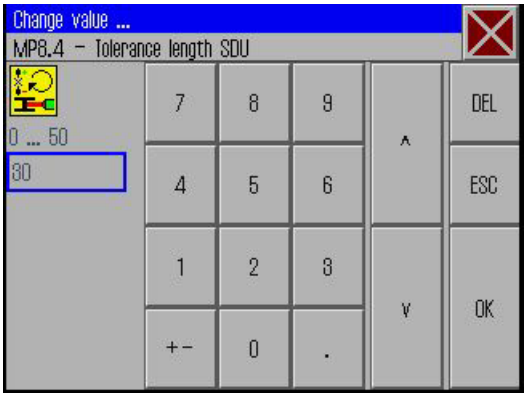
9. Select the function:

Settings MP8.3 - Bobbin rotation monitor

Description	Description
Not activated	Function is deactivated.
Pausing	Function triggers an immediate sewing stop when bobbin comes to a standstill.
After seam end	In the event of a bobbin standstill, the function does not trigger a sewing stop until after the end of the seam.

10. Confirm with *OK*.
11. To open the menu item *MP8.4 - Tolerance length SDÜ*, press the symbol .

Fig. 25: Software settings (7)



12. Enter the tolerance length in mm.
13. Confirm with *OK*.

↳ The seam is not monitored until after the tolerance length you entered has been exceeded.

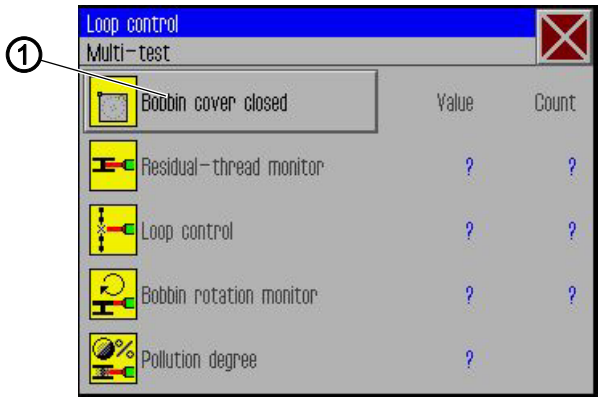
3.3 Checking the RFW/SSD function

To check the RFW/SSD function:

1. Go to *Extras - Service - Multi-test* and press *Loop control*.

↳ The submenu *Loop control* opens.

Fig. 26: Software settings (8)



(1) - Button

2. Press the button (1).

↳ The bobbin flap opens.

3. Check the desired value as described:

Menu item	Description	Value	Corrective
Residual-thread monitor	Insert an empty bobbin. Turn the bobbin to check the reflecting surface and its function.	greater than 1500	• Clean the sensor block • check if all cables are connected correctly • check if all hoses are connected correctly • Contact service department
Loop control	Turn the handwheel to form a loop.	700 to 900	
Bobbin rotation monitor	Turn the bobbin or pull the hook thread off the bobbin.	greater than 1500	
Pollution degree	Clean the sensor block and its surrounding area.	greater than 80	

4. Press the button (1).

↳ The bobbin flap closes.

5. Exit the menu to return the machine to sewing readiness.

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Subject to design changes - Part of the machines shown with additional equipment - Printed in Germany
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