



906/911-210

## Additional Instructions

Fitting the remaining thread monitor

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

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## 1 Components of the parts set

Check whether the scope of delivery of the parts set **0911 597754** is correct prior to installation.

### Components of the parts set

Part no.	Quantity	Description
0791 911713 EN	1	Additional Instructions
0667 155824	1	RTM carrier
0667 155840	1	Holder
0699 979265	1	Hose 1.5 m
0867 150560	3	Bobbin
9202 001667	2	Cylinder-head bolt M3x8
9202 002077	1	Cylinder-head bolt M4x10
9204 201647	2	Pan-head screw M4x6
9710 061200	1	Valve, magnet
9731 005004	1	Hose 0.04 m
9790 000220	1	Plug nipple
9815 925012	1	Light barrier
9830 501010	4	Spacer
9840 121002	4	Cable tie
9840 120025	2	Mounting clamp
9850 867003	1	Circuit board

## 2 Fitting the remaining thread monitor

### WARNING



**Risk of crushing and puncture injuries from sharp and moving parts!**

Serious injuries may occur.

The remaining thread monitor may only be fitted by qualified specialists.

### 2.1 Fitting the light barrier

Fig. 1: Holder



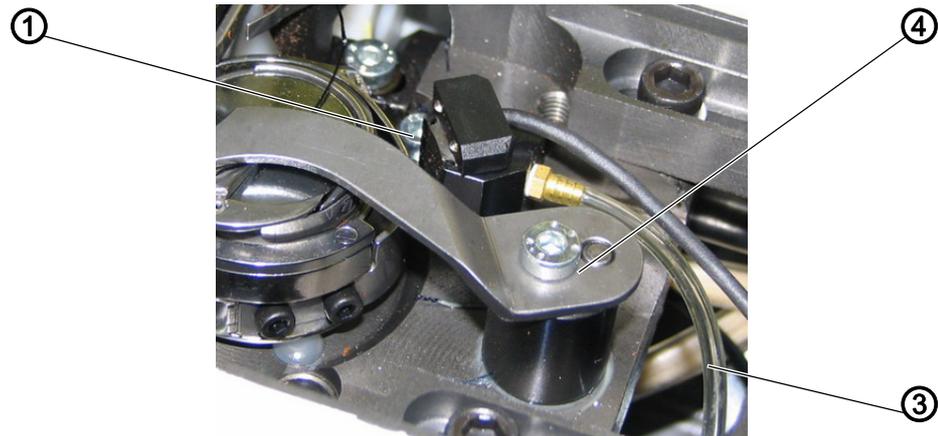
(1) - Screw

(2) - Bracket



1. Press the Safe Stop switch ( *Operating Instructions, Switching on Safe Stop*).
-  The cover plate pivots to the side.  
The sewing feet are moved to the lower position.  
The lighting is switched on.
2. Loosen the screw on the thread-pulling knife (4).
3. Use the screw (1) to tighten the pre-installed bracket (2).
4. Set the light barrier to a position that allows the light beam to pass through the slot of the bobbin capsule, hit the reflecting surface and return to the light barrier.  
This position requires that the front edge of the light barrier be installed parallel to the front edge of the bracket (2).
5. Connect the hose (3) used for the blower.
6. Tighten the screw on the thread-pulling knife (4).

Fig. 2: Fitting the remaining thread monitor (final state)



(1) - Screw  
(3) - Hose

(4) - Thread-pulling knife

## 2.2 Laying the cables



1. Remove the cover on the right.
2. Swivel up the machine head ( *Operating Instructions*).



3. Insert the light barrier cable (5) and the air hose (6) through the clips and attach them with cable ties to the available lines (electric cables, pneumatic and oil hoses).

Fig. 3: Laying the cables (1)



(5) - Light barrier cable

(6) - Air hose

4. Feed the light barrier cable (7) on the right from the machine arm to the right mounting bracket.

*Fig. 4: Laying the cables (2)*



(7) - Light barrier cable

5. Feed the air hose (6) on the left from the machine arm to the left mounting bracket.
6. Swivel down the machine head.

### 2.3 Pre-installing, connecting and tightening the circuit board

#### **NOTICE**

#### **Property damage from electrostatic charging!**

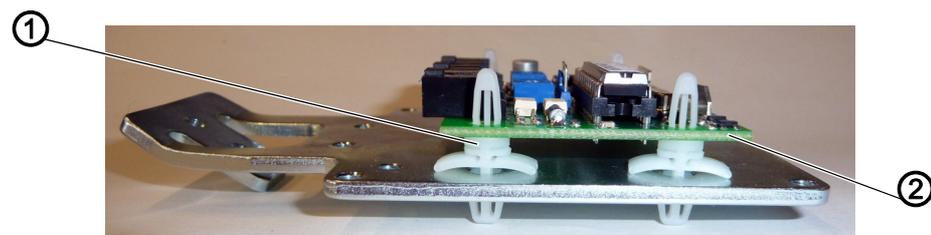
Electrostatic discharges may occur during the connection of the circuit board.

Switch off the machine.



1. Insert 4x spacers (1) into the holes on the holder of the remaining thread monitor.
2. Attach the circuit board (2).

*Fig. 5: Pre-installing the circuit board*

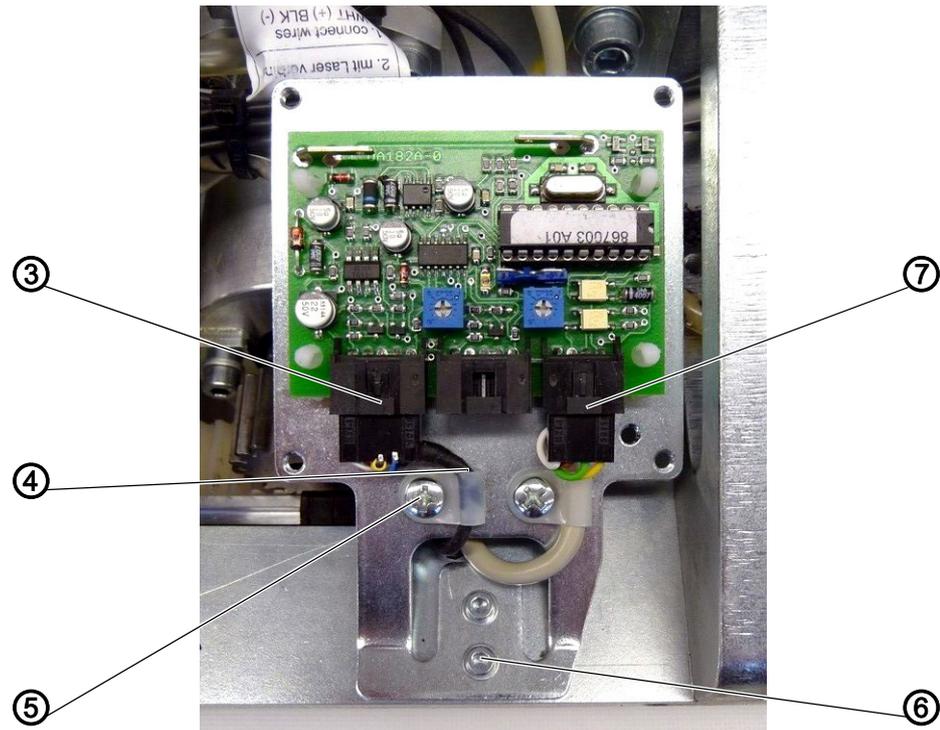


(1) - Spacer

(2) - Circuit board

3. Connect the cables to the remaining thread monitor circuit board:
  - Plug connector X625 of cable harness to position (3)
  - Plug connector X623 of light barrier cable to position (7)
4. Tighten the cables to the holder of the remaining thread monitor using the mounting clamps (4) and 2 pan-head screws **M4x6** (5).
5. Use 2 pan-head screws **M3x8** (6) to tighten the holder of the remaining thread monitor to the right mounting bracket.

Fig. 6: Tightening the circuit board



- (3) - Plug connector X625  
 (4) - Mounting clamp  
 (5) - Pan-head screw

- (6) - Cylinder-head bolt  
 (7) - Plug connector X623



### Information

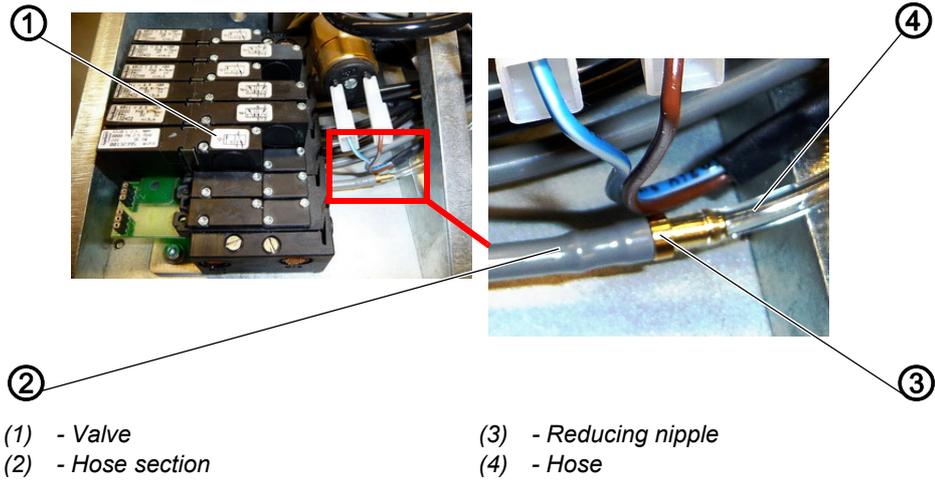
You may have to rework 2 M3 screw holes on the mounting bracket (( S. 13)).

## 2.4 Fitting and connecting the valve



1. Remove the dummy plate.
2. Fit 3/2-way valve (1) to position 6 of the valve unit.
3. Connect the hose (4) previously fed from the light barrier to the left mounting bracket with the reducing nipple (3).
4. Connect the hose section (2) to the reducing nipple (3) and the connection at the bottom of the valve block.

*Fig. 7: Fitting and connecting the valve*



## 3 Operation

### 3.1 Activating the remaining thread monitor



1. Tap on *Machine parameters* (*Machine parameters*).
2. Tap on *MP1 - Configuration* (*MP1 - Configuration*).
3. Tap on *Options* (*Options*).
4. Activate *Residual thread monitor* (*Residual thread monitor*).
5. Confirm with *OK*.

### 3.2 Setting the sensitivity

The remaining thread monitor is delivered with basic settings.

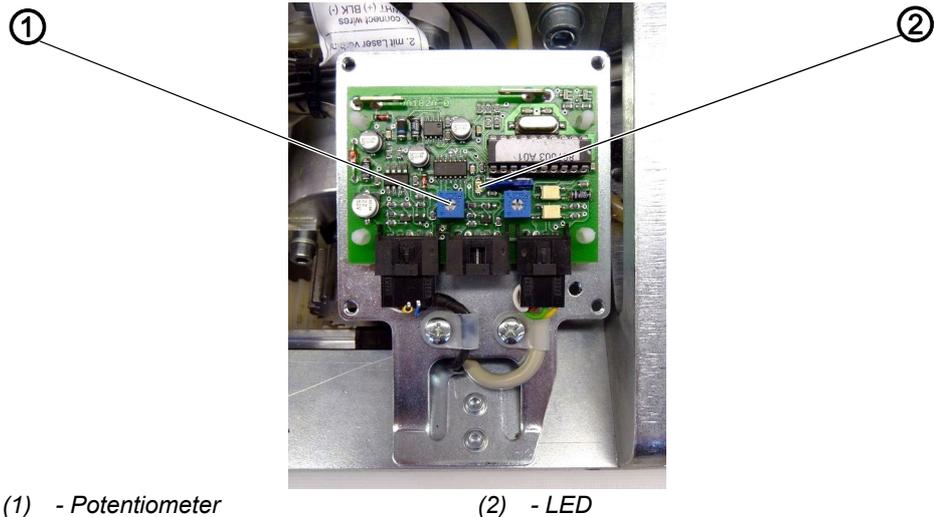
As a rule, the sensitivity of the remaining thread monitor does not have to be set.

The pre-set sensitivity may only be changed if the remaining thread monitor is not working properly.

You use the potentiometer (1) to set the sensitivity for plug connection X625:

- turn clockwise = increase sensitivity
- turn counterclockwise = reduce sensitivity

Fig. 8: Setting the sensitivity



To set the sensitivity:



1. Insert the empty bobbin in the hook.
2. Set the hook to a position that affords the light barrier an unimpeded view of the bobbin through the slot in the hook housing.
3. Set the potentiometer (1) to the highest sensitivity.
4. Manually turn the bobbin on the hook until a reflecting surface is found.
- ↳ LED (2) (V10) illuminates, and the output to the control unit and the auxiliary output are switched on.
5. Reduce the sensitivity with the potentiometer (1) until the reflection off the bobbin can just be detected.
6. Insert a full bobbin in the hook ( *Operating Instructions, Replacing the hook thread bobbin*).



7. Re-tighten the cover.
8. Release the Safety Stop button.

### 3.3 Using the remaining thread monitor



#### Important

The bobbin must be inserted correctly to allow the remaining thread monitor to function properly!

The remaining thread monitor reports that the hook thread bobbin is empty. The time of the notification varies with the machine used. There are 2 possibilities:

- In the middle of the seam
- At the end of the seam

#### In the middle of the seam

If the notification is given in the middle of the seam, the display indicates the following incident:

*3220:*

*Empty bobbin*

*Continue sewing?*

*(Empty bobbin*

*Continue sewing?)*

You now have two options:

- Tap on *OK* (= *continue sewing*) or
- *Cancel* (= *cancel sewing*).

If the remaining seam segment is short:



1. Tap on *OK*.

↘ The sewing program is completed.  
After the thread is cut, the display shows the following message:

- *Empty bobbin (residual thread monitor)*  
(*Empty bobbin (residual thread monitor)*)



2. Perform standard bobbin change.

If the remaining seam segment is long:



1. Tap on *Cancel*.

↘ The thread is cut.  
Once the thread is cut, the controller switches to repair mode  
(📖 *Operating Instructions*).



2. Perform standard bobbin change.

3. Complete the remainder of the seam in repair mode.

### **At the end of the seam**

If the notification is given at the end of the seam, the display indicates the following incident:

*3220:*

*Insert full bobbin*

(*Insert full bobbin*)



1. Press *OK* or *Cancel* to confirm.



2. Perform standard bobbin change.



# 4 Appendix

Fig. 9: Circuit diagram

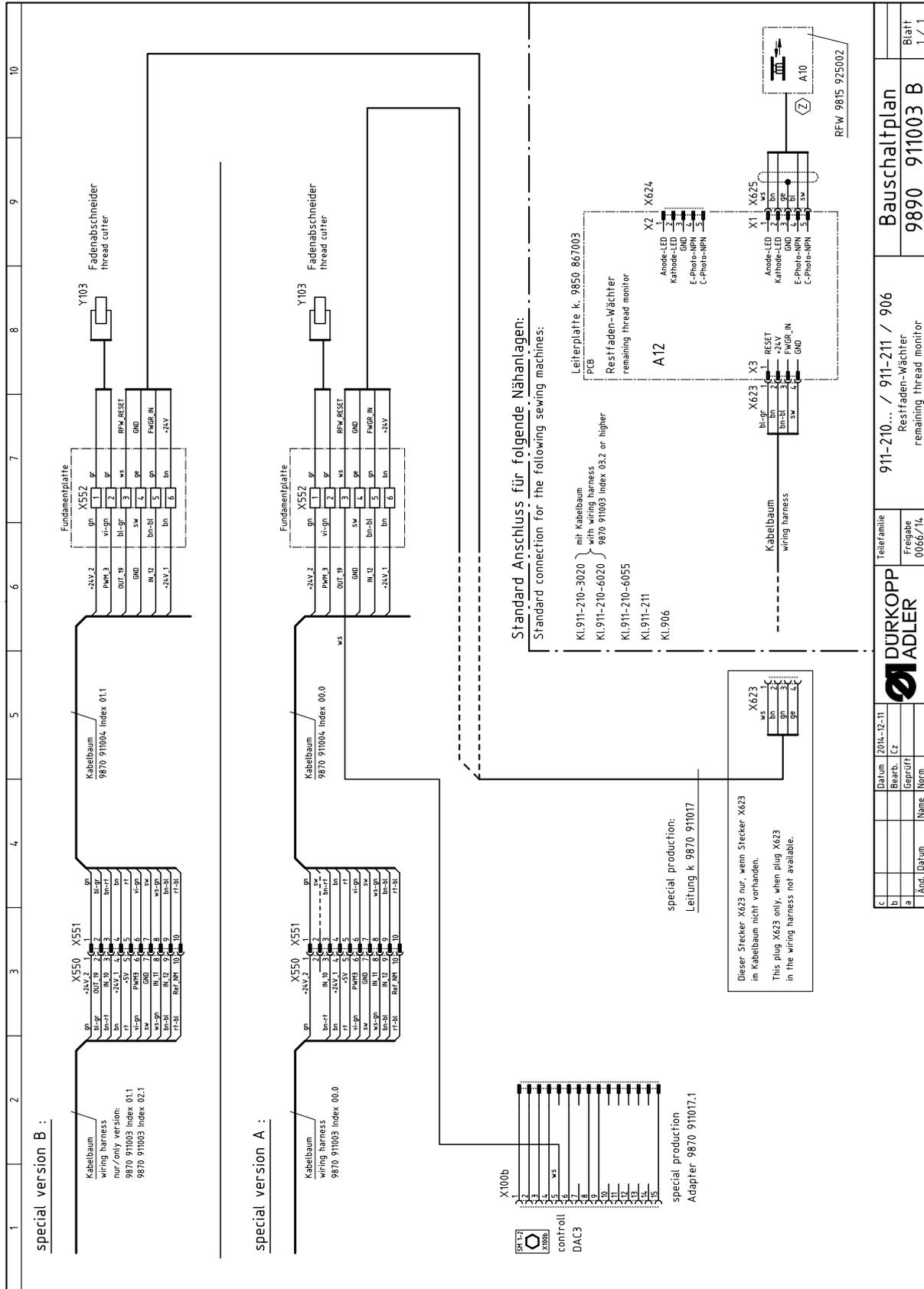
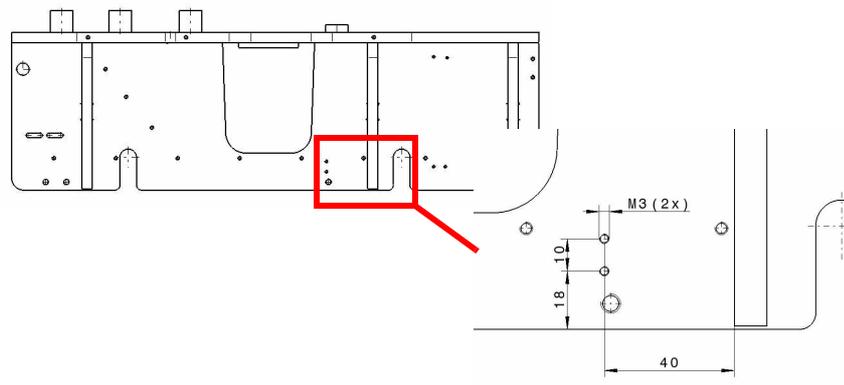


Fig. 10: Screw holes - mounting bracket











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