



887/888 M-TYPE

## Additional Instructions

Needle area cover interrogator

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

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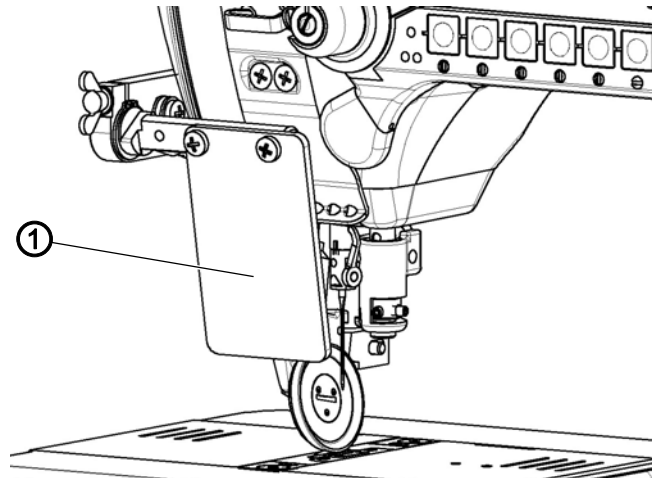
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## 1 General information

Fig. 1: General information (1)



(1) - Cover

This kit has been designed for shoe machines of the M-TYPE series with minimotor and direct drive.

During sewing, the cover (1) in front of the needle is at its regular position (see figure). When the cover (1) is swiveled upwards, e.g. during a needle change, the proximity switch will detect this condition and lock the machine. On CLASSIC machines, the display will show the message 3109. Sewing is not possible during this time. The machine will remain locked even if you press the pedal forward (position 1) or press a button. This lock is an additional measure intended to prevent injuries.

### Components of the kit

Check whether the scope of delivery for kit **0867 592214** is correct prior to installation.

#### Kit **0867 592214**

Part number	Quantity	Description
0667 105164	1	Head cover
0888 110650	1	Mounting bracket
9217 000157	1	Screw
9330 000087	3	Washer
1001 009243	4	Disk
0888 110640	1	Holder
9204 211997	1	Pan-head screw
9204 212057	2	Pan-head screw
0888 110630	1	Cover

Part number	Quantity	Description
9204 201667	2	Pan-head bolt
9352 000140	2	Retaining ring
9202 002107	2	Cylinder-head bolt
9815 710221	1	Inductive transmitter
9840 120026	1	Mounting clip
9204 201657	1	Pan-head screw
9204 201657	3	Pan-head screw



### Important

To install the interrogator for the needle area cover on the machine, you will need another kit: Adapter **0867 592224**.

The circuit board included in the kit can accommodate up to 4 interrogator units (the needle area cover interrogator is one of them).

## 2 Setting up the needle area cover interrogator

### 2.1 Preparing assembly

#### WARNING



##### Risk of injury!

Crushing, cutting and punctures are possible.  
Do not assemble the needle area cover interrogator unless the machine is switched off.

#### NOTICE




##### Property damage may occur!

The cables may be crushed, kinked and cut.

Make sure not to guide the cables over sharp edges and moving parts and do not kink or crush the cables.



#### Order

1. **Prepare assembly.**
2. Assemble the needle area cover interrogator ( p. 9).
3. Connect the needle area cover interrogator ( p. 13).
4. Test functionality ( p. 18).



To prepare the assembly of the needle cover area interrogator:

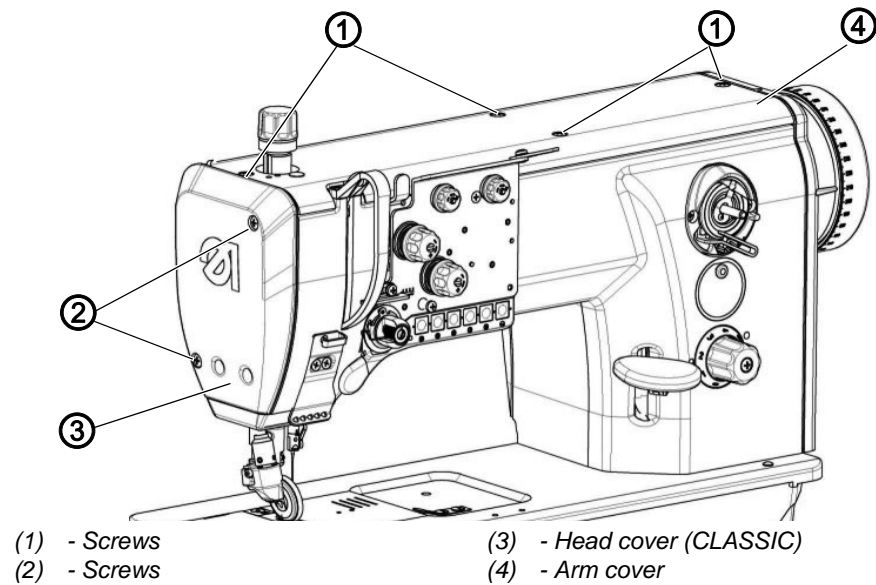
### Replacing the head cover



#### Information

CLASSIC machines are missing the two holes in the head cover that are needed for the assembly of the needle area cover interrogator. This is why the kit 0867 592214 includes a new head cover.

Fig. 2: Preparing assembly (1)



1. Loosen the 2 screws (2).
2. Remove the head cover (3).
3. Tighten the new head cover using 2 screws.

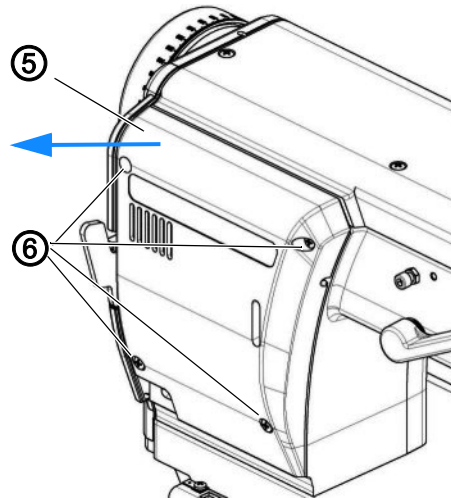
#### Removing the arm cover

4. Loosen the screws (1).
5. Remove the arm cover (4).



## Removing the valve cover (minimotor and direct drive)

Fig. 3: Preparing assembly (2)



(5) - Valve cover

(6) - Screw



6. Loosen the screws (6).
7. Remove the valve cover (5).

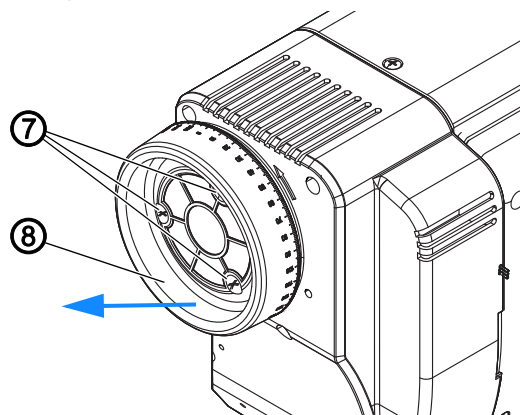


### Information

The circuit board to which the needle area cover interrogator is connected is found behind the valve cover and behind the cover on the side, respectively, on machines with the minimotor and with the direct drive.

## Removing the handwheel (direct drive)

Fig. 4: Preparing assembly (3)

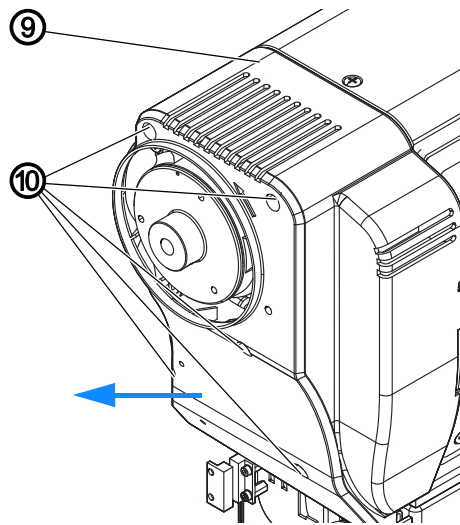


(7) - Screw

(8) - Handwheel



8. Loosen the screws (7).
9. Remove the handwheel (8).

**Removing the cover on the side (direct drive)***Fig. 5: Preparing assembly (4)*

(9) - Cover on the side

(10) - Screw



10. Loosen the screws (11).

11. Remove the cover on the side (10) and set it down carefully on the tabletop next to the machine.

You can now assemble the needle area cover interrogator (📖 p. 9).

## 2.2 Assembling the needle area cover interrogator

### WARNING



#### Risk of injury!

Faulty wiring can cause the entire machine to malfunction.

Only qualified specialists may assemble the needle area cover interrogator.

Do not assemble the needle area cover interrogator unless the machine is switched off.

### NOTICE

#### Property damage may occur!

The cables may be crushed, kinked and cut.

Make sure not to guide the cables over sharp edges and moving parts and do not kink or crush the cables.



### Order




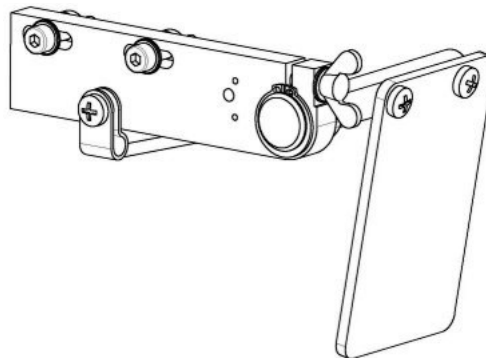
1. Prepare assembly ( p. 5).
2. **Assemble the needle area cover interrogator.**
3. Connect the needle area cover interrogator ( p. 13).
4. Test functionality ( p. 18).

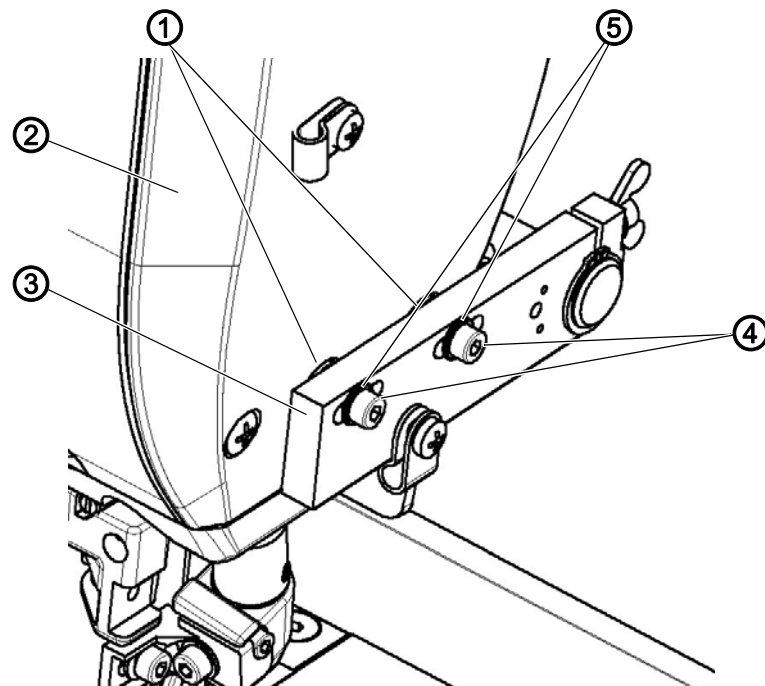
Fig. 6: Assembling the needle area cover interrogator (1)



The needle area cover interrogator ships fully pre-assembled (see figure above).

Only the parts necessary for assembling the head cover are included as loose single items.

Fig. 7: Assembling the needle area cover interrogator (2)



- (1) - Disk (not all visible)  
(2) - Head cover  
(3) - Holder

- (4) - Screw  
(5) - Washer



To assemble the interrogator of the needle area cover:

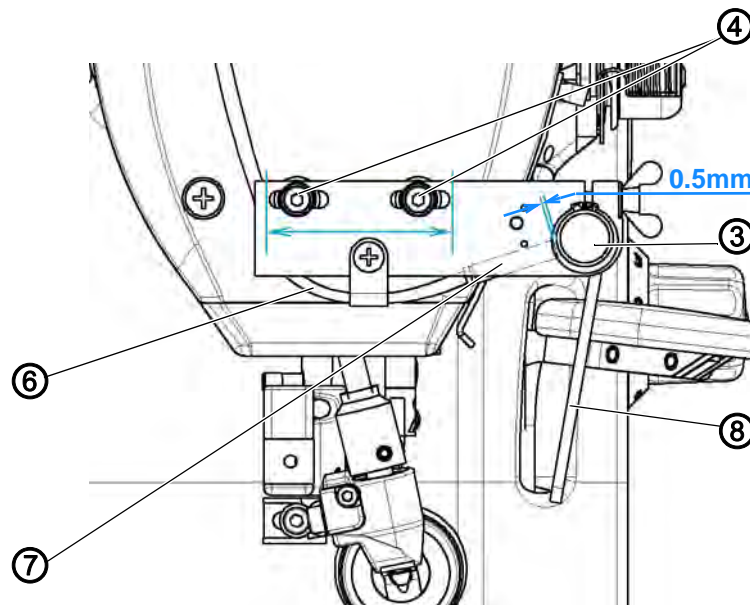
1. Assemble the holder (3) to the head cover (2) using 4 disks (1), 2 screws (4) and 2 washers (5) (see figure).



#### Information

Do not tighten the screws (4) all the way yet to ensure that you can still align the needle area cover interrogator.

Fig. 8: Assembling the needle area cover interrogator (3)



(3) - Holder  
(4) - Screw  
(6) - Cable

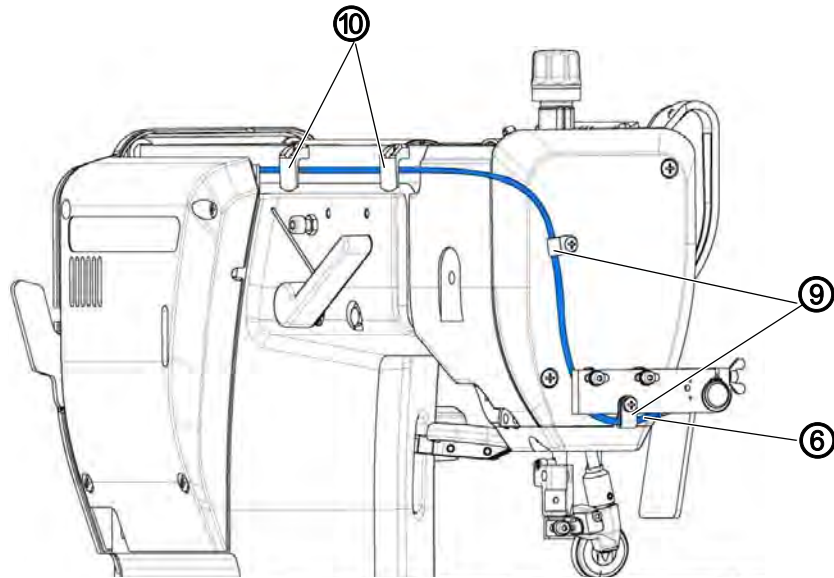
(7) - Proximity switch  
(8) - Cover



2. Align the needle area cover interrogator in such a way that it does not come into contact with any other part of the machine when swung open and closed.
3. Tighten the screws (4).
4. Carefully remove the protective film from the cover (8).
5. Check if the distance between the proximity switch (7) and the holder (3) is approx. 0.5 mm.

This distance has been preset at the factory.

Fig. 9: Assembling the needle area cover interrogator (4)



(6) - Cable

(9) - Mounting clip

(10) - Cable clamp

6. Lay the cable (6) to the circuit board by inserting it through the (adhesive) clip (9) and the cable clamps (10) and guiding it up and towards the rear.

👉 You have successfully assembled the needle area cover interrogator.

You can now connect the needle area cover interrogator (📖 p. 13).

## 2.3 Connecting the needle area cover interrogator

### WARNING



#### Risk of injury from moving parts!

Crushing, cutting and punctures are possible.

Do not connect the needle area cover interrogator unless the machine is switched off and de-energized.

Disconnect the machine from the power supply before connecting the interrogator.

### NOTICE




#### Property damage may occur!

The cables may be crushed, kinked and cut.

Make sure not to guide the cables over sharp edges and moving parts and do not kink or crush the cables.



### Order

1. Prepare assembly ( p. 5).
2. Assemble the needle area cover interrogator ( p. 9).
- 3. Connect the needle area cover interrogator.**
4. Test functionality ( p. 18).



### Information

If not yet present on the machine, the adapter (part no. **0867 592224**) must be assembled first.

The plug connection **X6** (IN) of the circuit board **MUST ALWAYS** be connected to the machine distributor. The corresponding cable is included.

Depending on the type of machine distributor, the plug connection and setting must be established:

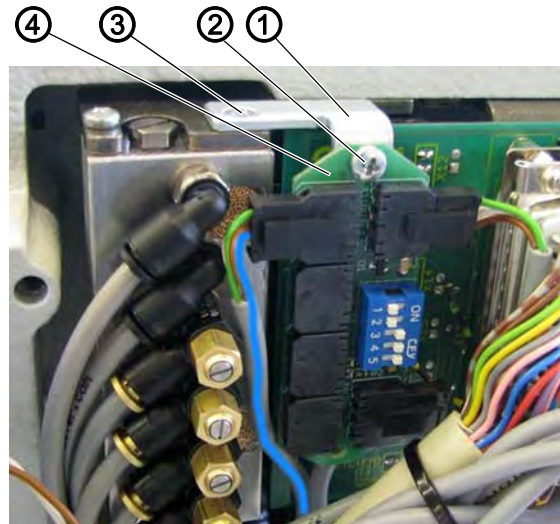
Machine distributor	Plug	Comment
9850 688001 (DA178)	X15	J1 must be open (OFF)
9850 867000 (DA174)	X26	J2 must be open (OFF)
9850 867020 (DA289)	X29	S2 must be open (OFF)
9850 838000 (DA199)	X23	S2 in position 1-OFF; 2-ON; 3-OFF



To connect the interrogator of the needle area cover:

### Assembling the circuit board (minimotor, pneu)

Fig. 10: Connecting the needle area cover interrogator (1)



(1) - Bracket  
(2) - Screw

(3) - Screw  
(4) - Circuit board

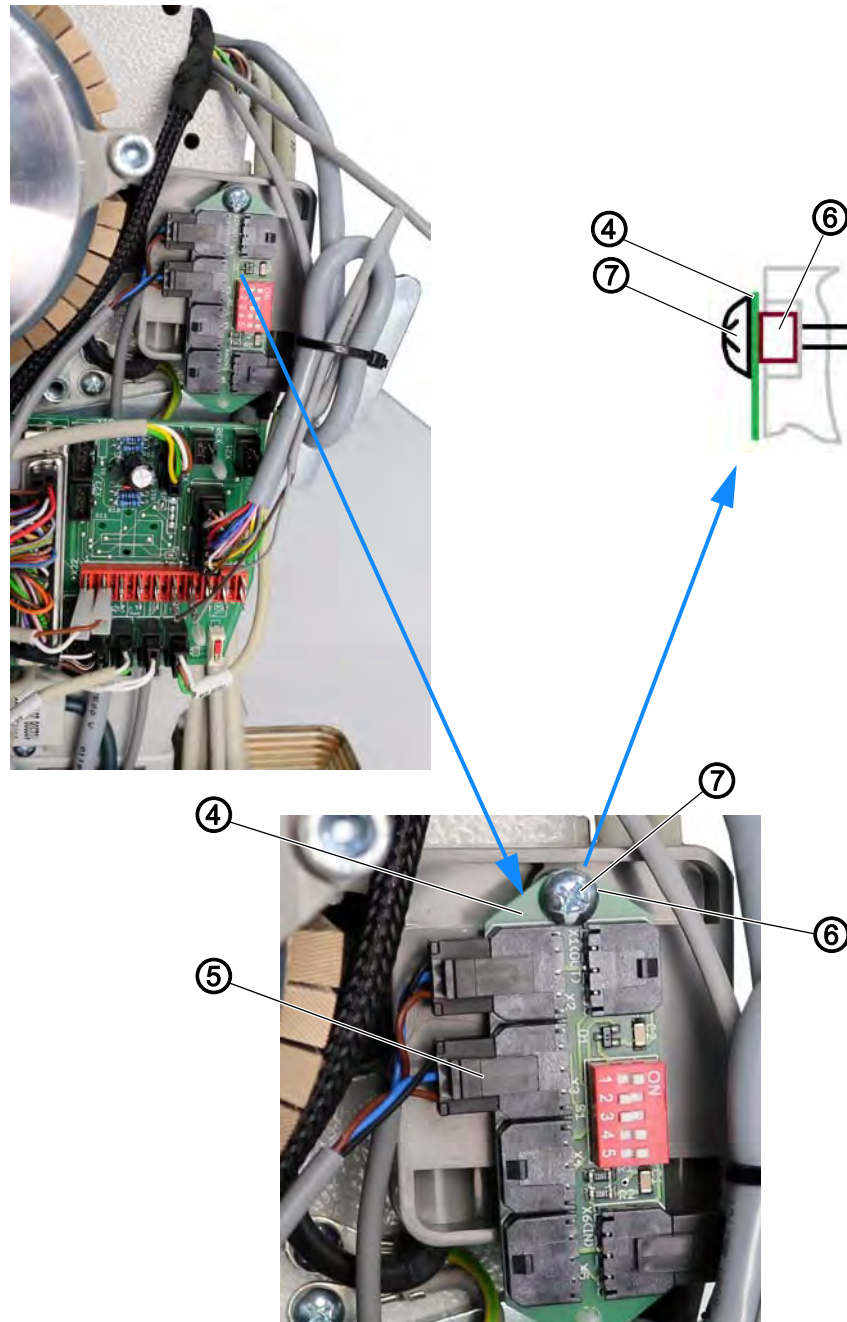


1. Loosen the screw (3).
2. Tighten the bracket (1) as shown using screw (3).
3. Tighten the circuit board (4) to the bracket (1) using screw (2).



## Assembling the circuit board (direct drive)

Fig. 11: Connecting the needle area cover interrogator (2)



(4) - Circuit board

(5) - Plug (of interrogator cable)

(6) - Socket (not visible)

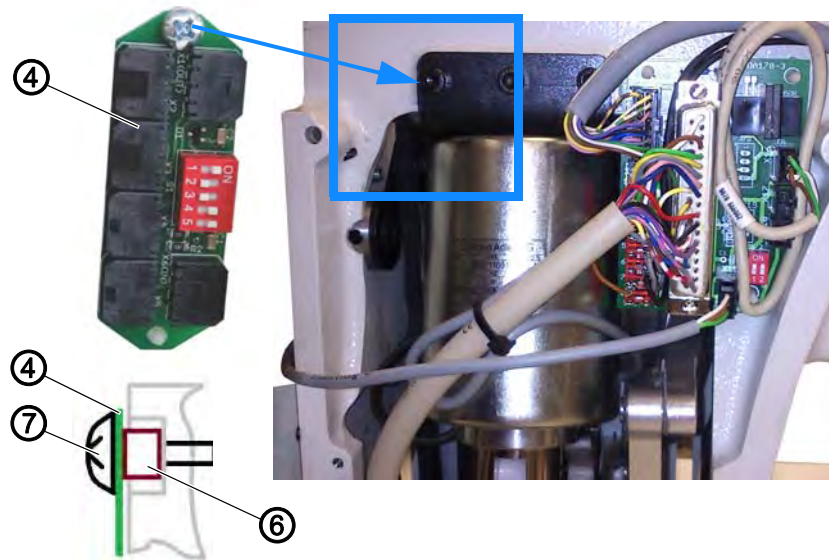
(7) - Screw



4. Position the socket (6) on the plastic housing (behind the cover on the side and next to the sewing motor).
5. Position the circuit board (4) over top.
6. Tighten the circuit board (4) through the plastic housing using the screw (7) and the socket (6).

### Assembling the circuit board (minimotor without pneu)

Fig. 12: Connecting the needle area cover interrogator (3)



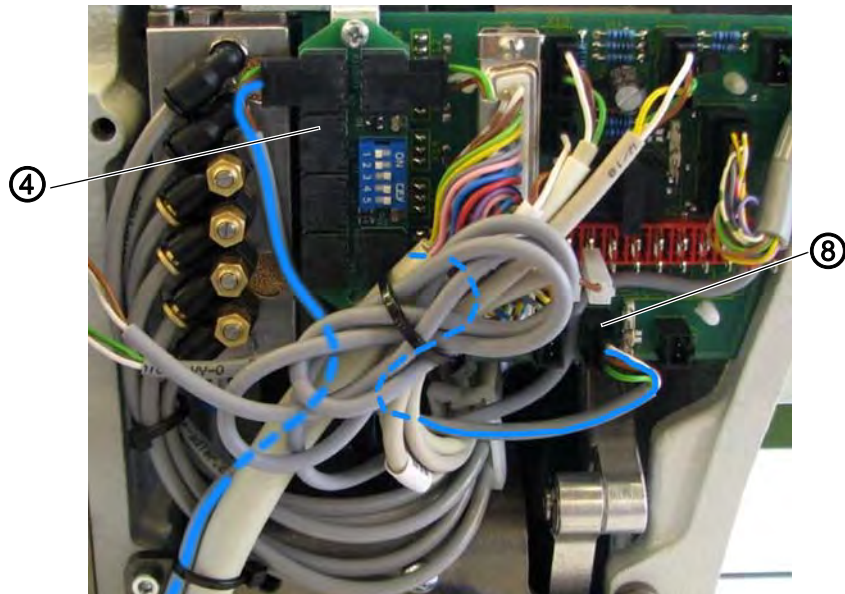
(4) - Circuit board



7. Assemble the circuit board (4) at the top left on the back of the machine arm using the socket (6) and the screw (7).

### Connecting the needle area cover interrogator

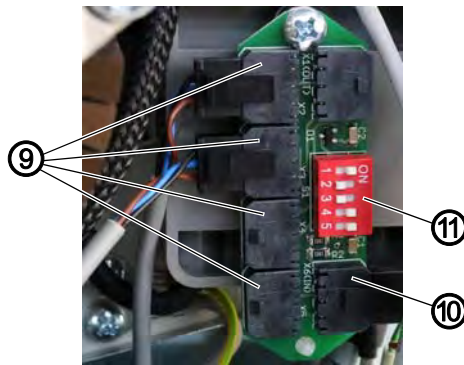
Fig. 13: Connecting the needle area cover interrogator (4)



(4) - Circuit board

(8) - Slot on the machine distributor

Fig. 14: Connecting the needle area cover interrogator (5)



(9) - Plug connection **X2-X5**

(11) - DIP switch 1-5

(10) - Plug connection **X6 (IN)**



8. Connect the cable of the needle area cover interrogator at any available slot **X2/X3/X4/X5** (9).
9. Connect the corresponding slot on the machine distributor (depending on the machine) to plug connection **X6** (10).
10. Set all DIP switches (11) whose slots **X1-X5** are NOT occupied to position **ON**.



#### Information

The **ON** position of the DIP switches signifies that no interrogator is connected at the corresponding slot or that the function of the respective interrogator is switched off.

↪ The DIP switches (11) shown in the figure below **MUST** be set to the following position:

- DIP switch **1: ON**
- DIP switch **2: OFF**
- DIP switch **3: OFF**
- DIP switch **4: ON**
- DIP switch **5: ON**




↪ The needle area cover interrogator has been successfully assembled and connected.

Proceed by testing the functionality of the needle area cover interrogator (📖 p. 18).

## 2.4 Testing the functionality





### Order

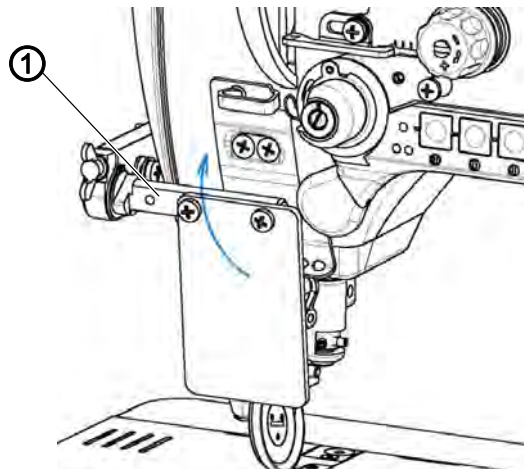
1. Prepare assembly ( p. 5).
2. Assemble the needle area cover interrogator ( p. 9).
3. Connect the needle area cover interrogator ( p. 13).
- 4. Test functionality.**



To test the functionality of the needle area cover interrogator:


1. Direct drive: Place the cover on the side and the handwheel.
2. Place the valve cover.
3. Place the arm cover.
4. Connect the machine to the power supply.
5. Set the main switch on the control to position **1**.
-  The machine is switched on.
6. Press the pedal to position **1** with the needle area cover interrogator closed.
-  The machine sews.

*Fig. 15: Testing the functionality*



(1) - Needle area cover interrogator



7. Open the needle area cover interrogator (1).
-  The machine is now locked and not sewing.  
The display of the corresponding control panel shows the following message:
  - 3109 (operation lock)
 You have successfully set up the needle area cover interrogator (1).





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