

755 S

**Operating Instructions** 

# IMPORTANT READ CAREFULLY BEFORE USE KEEP FOR FUTURE REFERENCE

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#### 1 About these instructions

These instructions have been prepared with utmost care. They contain information and notes intended to ensure long-term and reliable operation.

Should you notice any discrepancies or if you have improvement requests, then we would be glad to receive your feedback through **Customer Service** ( $\square$  *p. 223*).

Consider the instructions part of the product and store them in a place where they are readily available.

#### 1.1 For whom are these instructions intended?

These instructions are intended for:

• Operators:

This group is familiar with the machine and has access to the instructions. Specifically, chapter **Operation** ( $\square$  *p. 15*) is important for the operators.

· Specialists:

This group has the appropriate technical training for performing maintenance or repairing malfunctions. Specifically, the chapter **Setup** ( $\square$  *p. 203*) is important for specialists.

Service Instructions are supplied separately.

With regard to minimum qualification and other requirements to be met by personnel, please also follow the chapter **Safety** ( $\square$  *p.* 7).

#### 1.2 Representation conventions – symbols and characters

Various information in these instructions is represented or highlighted by the following characters in order to facilitate easy and quick understanding:



#### **Proper setting**

Specifies proper setting.



#### **Disturbances**

Specifies the disturbances that can occur from an incorrect setting.



#### Cover

Specifies which covers must be disassembled in order to access the components to be set.





Steps to be performed when operating the machine (sewing and equipping)



Steps to be performed for service, maintenance, and installation



Steps to be performed via the software control panel

#### The individual steps are numbered:

- First step
- Second step
- ... The steps must always be followed in the specified order.
- Lists are marked by bullet points.

#### Result of performing an operation

Change to the machine or on the display/control panel.



#### **Important**

Special attention must be paid to this point when performing a step.



#### Information

Additional information, e.g. on alternative operating options.



#### Order

Specifies the work to be performed before or after a setting.

#### References

Reference to another section in these instructions.

#### Safety

Important warnings for the user of the machine are specifically marked. Since safety is of particular importance, hazard symbols, levels of danger and their signal words are described separately in the chapter **Safety** ( $\square$  p. 7).

### Location information

If no other clear location information is used in a figure, indications of **right** or **left** are always from the user's point of view.



#### 1.3 Other documents

The machine includes components from other manufacturers. Each manufacturer has performed a hazard assessment for these purchased parts and confirmed their design compliance with applicable European and national regulations. The proper use of the built-in components is described in the corresponding manufacturer's instructions.

#### 1.4 Liability

All information and notes in these instructions have been compiled in accordance with the latest technology and the applicable standards and regulations.

Dürkopp Adler cannot be held liable for any damage resulting from:

- Breakage and damage during transport
- Failure to observe these instructions
- Improper use
- · Unauthorized modifications to the machine
- Use of untrained personnel
- · Use of unapproved parts

#### **Transport**

Dürkopp Adler cannot be held liable for breakage and transport damages. Inspect the delivery immediately upon receiving it. Report any damage to the last transport manager. This also applies if the packaging is not damaged.

Leave machines, equipment and packaging material in the condition in which they were found when the damage was discovered. This will ensure any claims against the transport company.

Report all other complaints to Dürkopp Adler immediately after receiving the product.





#### 2 Safety

This chapter contains basic information for your safety. Read the instructions carefully before setting up or operating the machine. Make sure to follow the information included in the safety instructions. Failure to do so can result in serious injury and property damage.



#### 2.1 Basic safety instructions

The machine may only be used as described in these instructions.

These instructions must be available at the machine's location at all times.

Work on live components and equipment is prohibited. Exceptions are defined in the DIN VDE 0105.

For the following work, switch off the machine at the main switch or disconnect the power plug:

- Replacing the needle or other sewing tools
- Leaving the workstation
- · Performing maintenance work and repairs
- Threading

Missing or faulty parts could impair safety and damage the machine. Only use original parts from the manufacturer.

#### **Transport**

Use a lifting carriage or forklift to transport the machine. Raise the machine max. 20 mm and secure it to prevent it from slipping off.

#### Setup

The connecting cable must have a power plug approved in the relevant country. The power plug may only be assembled to the power cable by qualified specialists.

### Obligations of the operator

Follow the country-specific safety and accident prevention regulations and the legal regulations concerning industrial safety and the protection of the environment.

All the warnings and safety signs on the machine must always be in legible condition. Do not remove!

Missing or damaged warnings and safety signs must be replaced immediately.

#### Requirements to be met by the personnel

Only qualified specialists may:

- set up the machine
- perform maintenance work and repairs
- perform work on electrical equipment

Only authorized persons may work on the machine and must first have understood these instructions.



#### Operation

Check the machine during operating for any externally visible damage. Stop working if you notice any changes to the machine. Report any changes to your supervisor. Do not use a damaged machine any further.

### Safety equipment

Safety equipment should not be removed or deactivated. If it is essential to remove or deactivate safety equipment for a repair operation, it must be assembled and put back into operation immediately afterward.

#### 2.2 Signal words and symbols used in warnings

Warnings in the text are distinguished by color bars. The color scheme is based on the severity of the danger. Signal words indicate the severity of the danger.

#### Signal words

Signal words and the hazard they describe:

Signal word	Meaning
DANGER	(with hazard symbol) If ignored, fatal or serious injury will result
WARNING	(with hazard symbol) If ignored, fatal or serious injury can result
CAUTION	(with hazard symbol) If ignored, moderate or minor injury can result
CAUTION	(with hazard symbol) If ignored, environmental damage can result
NOTICE	(without hazard symbol) If ignored, property damage can result

#### **Symbols** The following symbols indicate the type of danger to personnel:

Symbol	Type of danger
	General
4	Electric shock



Symbol	Type of danger
	Puncture
	Crushing
	Environmental damage

#### **Examples** Examples of the layout of warnings in the text:

#### **DANGER**



#### Type and source of danger!

Consequences of non-compliance.

Measures for avoiding the danger.

This is what a warning looks like for a hazard that will result in serious injury or even death if ignored.

#### **WARNING**



#### Type and source of danger!

Consequences of non-compliance.

Measures for avoiding the danger.

This is what a warning looks like for a hazard that could result in serious or even fatal injury if ignored.

#### CAUTION



#### Type and source of danger!

Consequences of non-compliance.

Measures for avoiding the danger.

This is what a warning looks like for a hazard that could result in moderate or minor injury if the warning is ignored.



#### **CAUTION**



### Type and source of danger!

Consequences of non-compliance.

Measures for avoiding the danger.

This is what a warning looks like for a hazard that could result in environmental damage if ignored.

#### **NOTICE**

#### Type and source of danger!

Consequences of non-compliance.

Measures for avoiding the danger.

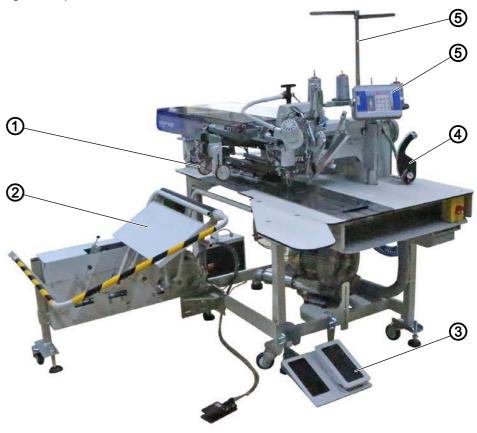
This is what a warning looks like for a hazard that could result in property damage if ignored.



### 3 Machine description

#### Components of the machine

Fig. 1: Components of the machine



- (1) Outfeed roller(2) Stacker(3) Pedal

- (4) Winder
- (5) Control panel OP7000(6) Reel stand



#### 3.2 Proper use

The machine may only be used with sewing material that satisfies the requirements of the specific application at hand.

The needle thicknesses permissible for the machine are listed in the **Technical data** ( $\square$  *p. 241*) chapter.

The machine is intended only for use with dry sewing material. The sewing material must not contain any hard objects.

The seam must be completed with a thread that satisfies the requirements of the specific application at hand.

The machine is intended for industrial use.

The machine may only be set up and operated in dry conditions on well-maintained premises. If the machine is operated on premises that are not dry and well-maintained, then further measures may be required which must be compatible with DIN EN 60204-31.

Only authorized persons may work on the machine.

Dürkopp Adler cannot be held liable for damages resulting from improper use.

#### WARNING



Risk of injury from live, moving and cutting parts as well as from sharp parts!

Improper use can result in electric shock, crushing, cutting and punctures.

Follow all instructions provided.

#### **NOTICE**

Non-observance will lead to property damage!

Improper use can result in material damage at the machine.

Follow all instructions provided.



### 3.3 Declaration of Conformity

The machine complies with European regulations ensuring health, safety, and environmental protection as specified in the declaration of conformity or in the declaration of incorporation.







### 4 Operation

The operating sequence consists of several different steps. Fault-free operation is necessary in order to achieve a good sewing result.

#### 4.1 Preparing the machine for operation

#### **WARNING**



### Risk of injury from moving, cutting and sharp parts!

Crushing, cutting and punctures are possible.

If possible, make preparations only when the machine is switched off.

Complete the following steps in preparation of sewing before starting to work:

- Inserting/changing the needle
- Threading the needle thread
- Inserting and winding on the hook thread
- Setting the thread tension

#### 4.2 Switching on the machine

Fig. 2: Switching on the machine





To switch on the machine:

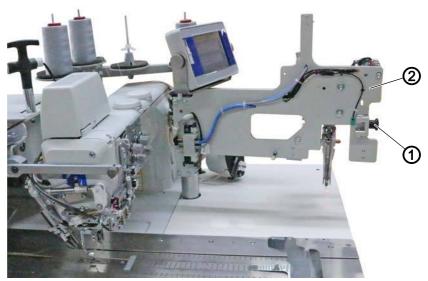
- 1. Turn the main switch from position **0** to position **I**.
- The machine starts up.
  The control panel starts up.



#### 4.3 Swiveling out the folding station

The entire folding station including folder and light barriers can be swiveled out of the way to the right in order to gain access for work in the sewing area (threading the needle thread, changing the needle, etc.).

Fig. 3: Swiveling the folding station out



(1) - Handle

(2) - Folding station



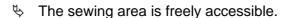
To swivel the folding station to the side:

- 1. Pull the handle (1) out to loosen the locking mechanism.
- 2. Swivel the entire folding station (2) including folder to the right.



#### Information

If the machine is switched on, the display of the control panel will show a safety message: *Info* 9002 .





#### 4.4 Swiveling in the folding station

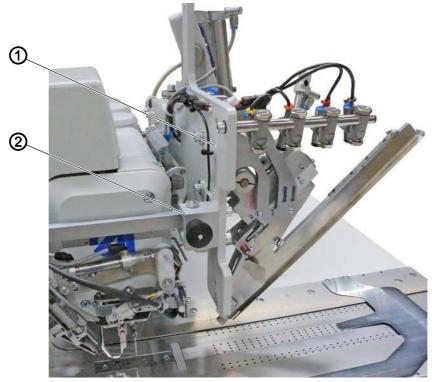
#### **NOTICE**

#### Property damage may occur!

If the folding station is not fully swiveled in, the machine can be damaged when sewing starts.

Lock the folding station in place inside the locking mechanism.

Fig. 4: Swiveling in the folding station



(1) - Folding station

(2) - Locking mechanism



To swivel in the folding station:

- 1. Swivel down the folding station (1).
- 2. Lock the folding station in place inside the locking mechanism (2).



#### 4.5 Changing needles

#### **CAUTION**



#### Risk of injury from sharp parts!

Punctures or cutting possible.

Only change needles with the main switch turned off

When changing the needles, NEVER reach into the area of the middle knife.

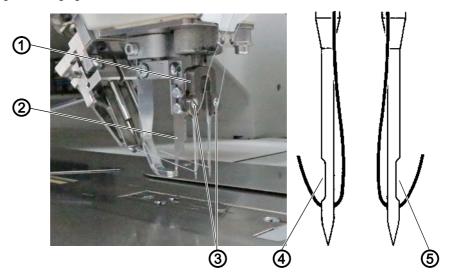
#### **NOTICE**

#### Property damage may occur!

When switching to needles with a different thickness, the needle can be damaged by the hook.

Readjust the needle guard at the hook.

Fig. 5: Changing needles



- (1) Needle holder
- (2) Middle knife
- (3) Screws

- (4) Needle groove left needle
- (5) Needle groove right needle



#### To change the needles:

- 1. Swivel the folding station to the side ( $\square$  *p. 16*).
- The needles are freely accessible.
- 2. Loosen the screws (3) and remove the needles from the needle holders (1).



3. Insert new needles into the holes of the needle holders (1) until they reach the stop.



#### **Important**

The groove of the left needle (4), as viewed from the operator side of the machine, must point to the left, while the groove of the right needle (5) must point to the right (see diagram).

4. Tighten the screws (3).

#### 4.6 Threading the needle thread

#### **CAUTION**

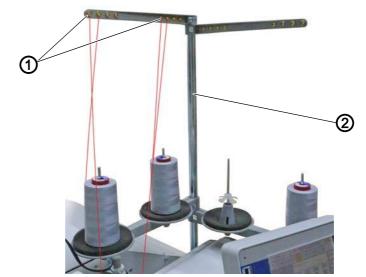


#### Risk of injury from sharp parts!

Punctures possible.

Only thread the needles with the machine switched off.

Fig. 6: Threading the needle thread (1)



(1) - Holes

(2) - Thread reel holder

#### Left needle thread



To thread the left needle thread:

- 5. Swivel the folding station to the side ( $\square$  *p. 16*).
- 6. Fit the thread reel on the thread reel holder (2).
- 7. Feed the needle thread from the thread reel through the holes (1) of the thread reel holder (2).



Fig. 7: Threading the needle thread (2)

- (1) Thread lever
- (2) Thread advancing device
- (3) Needle thread monitor
- (4) Guide
- (5) Guide
- (6) Hole

(7) - Thread tension spring

 $\bigcirc$ 

- (8) Tensioner
- (9) Additional thread tensioner
- (10) Guide

6

(11) - Holes



- 8. Insert the needle thread in a wavelike manner through the left holes (11) in the mounting plate, as shown above.
- 9. Feed the needle thread around the guide (10).
- 10. Guide the needle thread counterclockwise through the additional thread tensioner (9).
- 11. Feed the needle thread clockwise through the tensioner (8).
- 12. Feed the needle thread through the thread tension spring (7).
- 13. Insert the needle thread through the hole (6) in the mounting plate.
- 14. Insert the needle thread through the upper hole in the thread lever (1).
- 15. Feed the needle thread through the thread advancing device (2).
- 16. Feed the needle thread through the needle thread monitor (3).
- 17. Feed the needle thread through the guide (4).
- 18. Feed the needle thread through the guide (5).
- 19. Thread the needle thread through the left needle eye.



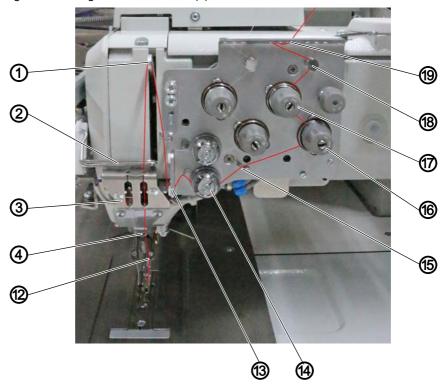
#### Right needle thread



To thread the right needle thread:

- 1. Swivel the folding station to the side ( $\square$  *p. 16*).
- 2. Fit the thread reel on the thread reel holder (1).
- 3. Feed the needle thread from the thread reel through the hole (2) of the thread reel holder.
- 4. Feed the needle thread through the guide (1).

Fig. 8: Threading the needle thread (3)



- (1) Thread lever
- (2) Thread advancing device
- (3) Needle thread monitor
- (4) Guide
- (12) Guide
- (13) Hole

- (14) Thread tension spring
- (15) Guide
- (16) Tensioner
- (17) Additional thread tensioner
- (18) Guide
- (19) Holes



- 5. Insert the needle thread in a wavelike manner through the right holes (19) in the mounting plate, as shown above.
- 6. Feed the needle thread through the guide (18).
- 7. Guide the needle thread counterclockwise around the additional thread tensioner (17).
- 8. Guide the needle thread counterclockwise around the tensioner (16).
- 9. Feed the needle thread through the guide (15).
- 10. Feed the needle thread through the thread tension spring (14).
- 11. Feed the needle thread through the hole (13).

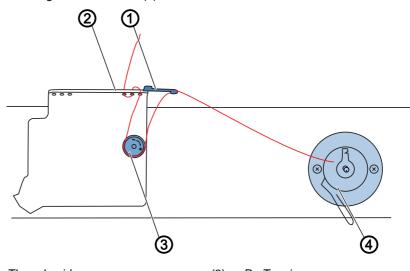


- 12. Insert the needle thread through the lower hole in the thread lever (1).
- 13. Feed the needle thread through the thread advancing device (2).
- 14. Feed the needle thread through the needle thread monitor (3).
- 15. Feed the needle thread through the guide (4).
- 16. Feed the needle thread through the guide (12).
- 17. Feed the needle thread into the right needle.

#### 4.7 Winding the hook thread

#### 4.7.1 Winding the hook thread (integrated winder)

Fig. 9: Winding the hook thread (1)



- (1) Thread guide
- (2) Thread guide

- (3) PreTension
- (4) Winder

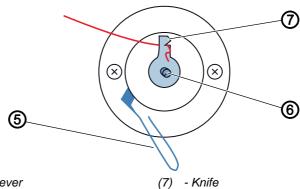


#### To wind the hook thread:

- 1. Insert the hook thread in a wavelike manner through the 3 right holes of the thread guide (2): from top to bottom through the left hole, from bottom to top through the hole in the middle and, finally, from top to bottom through the right hole.
- 2. Guide the hook thread counterclockwise around the pre-tensioner (3).
- 3. Insert the hook thread in a wavelike manner through the 2 holes of the thread guide (1): from bottom to top through the left hole and from top to bottom through the right hole.
- 4. Guide the hook thread to the winder (4).



Fig. 10: Winding the hook thread (2)



- (5) Winder lever
- (6) Bobbin shaft



- 5. Clamp the hook thread behind the cutter (7) and tear off the loose end behind it.
- 6. Fit the bobbin on the bobbin shaft (6).
- 7. Turn the bobbin clockwise until it locks audibly into place.
- 8. Pull the bobbin lever (5) up.
- 9. Switch on the machine.
- 10. Sew.
- While sewing, the machine winds the hook thread from the thread reel onto the bobbin.

When the bobbin is full, the machine automatically stops winding. The winder lever (5) moves back down.

The cutter (7) is automatically moved to its vertical initial position.

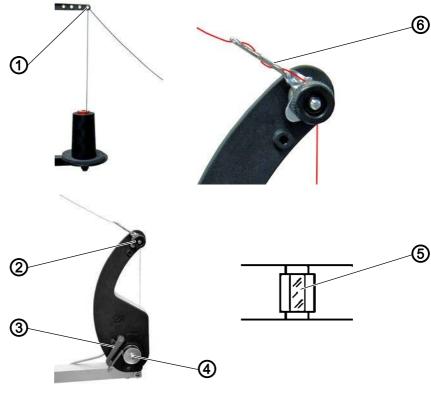
- 11. Remove the full bobbin from the bobbin shaft (6).
- 12. Tear off the thread behind the cutter (7).
- ♦ You can now insert the full bobbin into the hook.

#### 4.7.2 Winding the hook thread (separate winder)

The separate winder makes it possible to wind the hook threads separately from the sewing process.



Fig. 11: Winding the hook thread



- (1) Hole
- (2) Hook thread tensioner
- (3) Bobbin flap

- (4) Bobbin hub
- (5) Reflecting surface
- (6) Guide



#### To wind the hook thread:

- 1. Remove any thread remnants from the bobbin hubs prior to winding.
- 2. Fit the thread reel on the thread reel holder (1).
- 3. Insert the hook thread through the hole (1) of the take-up arm.
- 4. Insert the hook thread in a wavelike manner through the guide (6).
- 5. Feed the hook thread clockwise through the hook thread tensioner (2).
- 6. Wind some of the hook thread clockwise into the front and rear reserve grooves of the bobbin hub (4).



#### Information

With the thread supply in the reserve grooves it is ensured that the pocket opening can be safely finished after the remaining thread monitor has

produced the message Error 3220 1







(bobbin empty).



#### **Important**

The reflecting surface (5) of the bobbin hub (4) must be kept clean.



- 7. Press the bobbin flap (3) against the bobbin hub (4).
- ♦ The winder starts up.



#### Information

The winder stops automatically when the configured bobbin filling volume has been reached. The setting of the bobbin filling volume is described in the Service Instructions.

#### 4.8 Changing the bobbins

Fig. 12: Changing the bobbins (1)



(1) - Bobbin case upper section

(2) - Bobbin case retainer

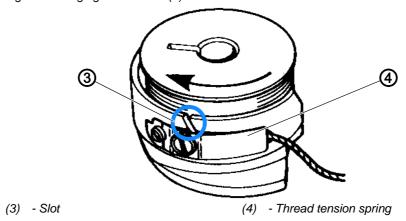


#### To change the bobbins:

- 1. Switch off the machine.
- 2. Swivel the folding station to the side ( $\square$  *p. 16*).
- 3. Raise the fabric sliding plate and swivel it to the left ( $\square$  *p. 29*).
- 4. Lift the bobbin case upper section (1). The bobbin case retainer (2) will be lifted as well.
- 5. Remove the bobbin case upper section (1) together with the empty bobbin.
- 6. Remove the empty bobbin from the bobbin case upper section (1).



Fig. 13: Changing the bobbins (2)





- 7. Insert the full bobbin into the bobbin case upper section (1).
- 8. Pull the hook thread through the slot (3) under the thread tension spring (4).
- 9. Pull the hook thread approx. 4 cm out of the bobbin case upper section (1).
  - The bobbin must rotate in the direction of the arrow when pulling out the thread (against the rotational direction of the hook).
- 10. Insert the bobbin case upper section (1) with the full bobbin into the bobbin case bottom section.
- 11. Close the bobbin case retainer (2).
- 12. Replace the fabric sliding plate.
- 13. Switch on the machine.
- 14. Start a new sewing process.

#### 4.9 Thread tension

Together with the hook thread tension, the needle thread tension influences the final seam pattern.

The needle thread tension is defined by the pre-tensioner, the main tensioner and the additional tensioner.



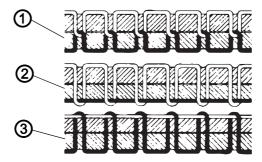
#### **Proper setting**

If the tension of needle thread and hook thread is identical, the thread interlacing lies in the middle of the sewing material.

Set the needle thread tension so that the desired seam pattern is achieved with the lowest possible tension.



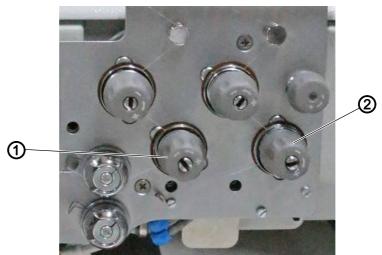
Fig. 14: Thread tension



- (1) Identical needle thread and hook thread tension
- (2) Hook thread tension higher than needle thread tension
- (3) Needle thread tension higher than hook thread tension

#### 4.9.1 Setting the needle thread tension

Fig. 15: Setting the needle thread tension



- (1) Knurled nut left needle thread
- (2) Knurled nut right needle thread



To set the needle thread tension:

- 1. Set the needle thread tension so that an even stitch pattern is achieved.
- Set the main tension of the needle threads using knurled nut (2) (right needle thread) and knurled nut (1) (left needle thread).
  - Increase the needle thread tension: Turn clockwise
  - Reduce the needle thread tension: Turn counterclockwise



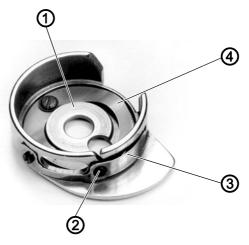


#### Information

The additional thread tensioner is used to ensure seam securement at seam beginning and seam end.

#### 4.9.2 Setting the hook thread tension

Fig. 16: Setting the hook thread tension



- (1) Flat
- (2) Adjusting screw

- (3) Leaf spring
- (4) Braking spring

#### Setting the braking spring

In case of a positioned stop of the machine head the braking spring avoids an after-run of the hook thread bobbin.



To set the braking spring:

- 1. Set the braking spring (4) by alignment.
- The brake power is set properly when the brake spring (4) protrudes from the flat (1) by approx. 1 mm.
- 2. When setting the leaf spring (3) take the brake power into consideration.

#### Setting the leaf spring



To set the leaf spring:

- 1. Start by setting the tension of the leaf spring (3) to a minimum level using the adjusting screw (2).
  - Increase the hook thread tension: Turn clockwise
  - Reduce the hook thread tension: Turn counterclockwise
- With the bobbin inserted and the hook thread threaded through the throat plate a uniform and easy pull-off must be assured.



## 4.10 Sliding back the hood and removing the fabric sliding plate

To provide for easier access to the transport clamps, the hood can be moved out of the way.

#### CAUTION

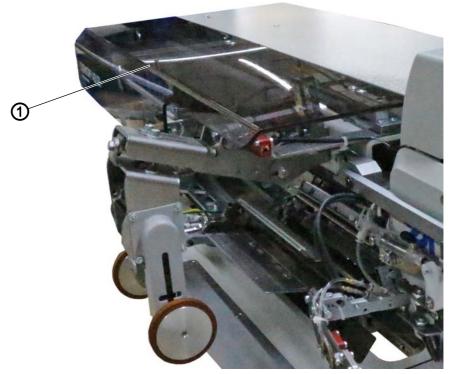


#### Risk of injury from moving parts!

Crushing possible.

Switch off the machine. Do not slide the hood back and remove the fabric sliding plate back UNLESS the machine is switched off.

Fig. 17: Sliding back the hood and removing the fabric sliding plate (1)



(1) - Hood



To slide back the hood:

- 1. Switch off the machine.
- 2. Slide the hood (1) to the left.
- You can now access the transport clamps.
- 3. Slide the hood (1) back to the right until it locks audibly into place.



(2) - Fabric sliding plate
(3) - Pin

Fig. 18: Sliding back the hood and removing the fabric sliding plate (2)



To remove the fabric sliding plate:

- 1. Lift the fabric sliding plate (2) off the pin (3) and swing it out to the left.
- 2. Pull out and lift the fabric sliding plate (2) at the pin (4).

#### 4.11 Swiveling up the machine head

The machine head can be swiveled up for maintenance work. This requires that the transport carriage be in its rear position.

#### **WARNING**



#### Risk of injury from moving parts!

Crushing possible.

Switch off the machine.

Swivel up the machine head using the utmost caution



Fig. 19: Swiveling up the machine head (1)



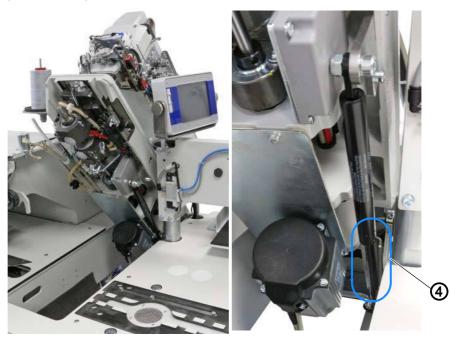
- (1) Lever
- (2) Fabric sliding plate

(3) - Folding station

#### To swivel up the machine head:

- 1. Swivel the folding station (3) out by 90° ( $\square$  *p. 16*).
- Remove the fabric sliding plate (2).
- Swivel the lever (1) up.

Fig. 20: Swiveling up the machine head (2)



(4) - Latch



Q

4. Lift and carefully swivel up the machine head. The latch (4) locks into place as well.

#### 4.12 Swiveling down the machine head

#### **WARNING**



#### Risk of injury from moving parts!

Crushing possible.

Switch off the machine. Swivel up the machine head using the utmost caution

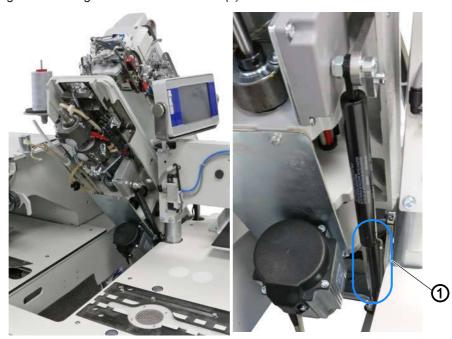
#### **NOTICE**

#### Property damage may occur!

Damage to the machine head.

Hold on to the machine head until it is completely at rest when lowered.

Fig. 21: Swiveling down the machine head (1)



(1) - Latch



To swivel down the machine head:

1. Hold the machine head in place.



- 2. Release the latch (1).
- 3. Swivel down the machine head carefully.

Fig. 22: Swiveling down the machine head (2)



- (2) Lever
- (3) Fabric sliding plate
- (4) Folding station



- 4. Insert the fabric sliding plate (3).
- 5. Swivel the lever (2) down.
- 6. Swivel down the folding station (4).

#### 4.13 Remaining thread monitor

The remaining thread monitor together with the infrared reflected light barriers (1) and (2) monitors the left and the right bobbin.

Fig. 23: Remaining thread monitor



- (1) Light barrier 1
- (2) Light barrier 2

(3) - Reflecting surface



To operate the remaining thread monitor:

- When the bobbin is empty, the light beam transmitted by the light barrier (1) or (2) is reflected by the exposed reflecting surface (3) of the bobbin hub.
- If the remaining thread monitor is switched on, the control panel displays the message: Error 3220 .
- The pocket opening is safely finished with the remaining thread in the reserve groove of the bobbin hub. The transport carriage stops at its rear end position. It cannot be started again until the bobbin has been changed.

#### Cleaning the remaining thread monitor

#### **CAUTION**



Risk of injury from sharp and moving parts!

Puncture or crushing possible.

Do not clean the lenses of the light barriers unless the machine is switched off.



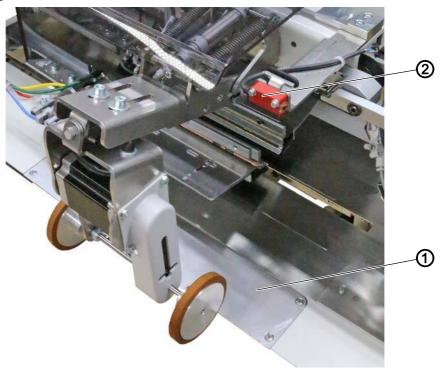
To clean the remaining thread monitor:

- 1. Switch off the machine.
- 2. Clean the lenses of the light barriers with a soft cloth every time you change the bobbin.
- 3. Switch on the machine.
- 4. Start a new sewing process.



#### 4.14 Stacker control

Fig. 24: Stacker control



(1) - Reflecting sheet

(2) - Reflected light barrier

The reflected light barrier (2) monitors how the sewn pieces are stacked and blown out. The transport carriage is not returned until the workpiece has been moved out correctly.



#### **Important**

For a secure function of the stacking control clean the lens of the reflected light barrier with a soft cloth once a day.

#### Workpiece is not conveyed out correctly

If the workpiece is not moved out correctly, the light beam between the reflected light barrier (2) and the reflecting sheet (1) remains interrupted. Renewed starting is not possible.

#### CAUTION



# Risk of injury from moving parts!

Crushing possible.

Do not reach into the movement area of the transport carriage when removing the workpiece.

Do not clean the lenses of the light barriers unless the machine is switched off.





To correct faulty stacking or blowing out:

- 1. Remove workpiece from the light beam.
- You can start a new sewing process.

# 4.15 Fastening the folder

Fig. 25: Fastening the folder



(1) - Lever (2) - Holder (3) - Folder





# To fasten the folder:

- 1. Loosen lever (1).
- 2. Push the folder (3) into the holder (2) as ar as it will go.
- 3. Clamp lever (1).



#### 4.16 Corner knife station

# 4.16.1 Swiveling the corner knife station in and out

#### **CAUTION**



# Risk of injury from sharp parts!

Cutting possible.

Swivel out the corner knife station only when the machine is switched off.

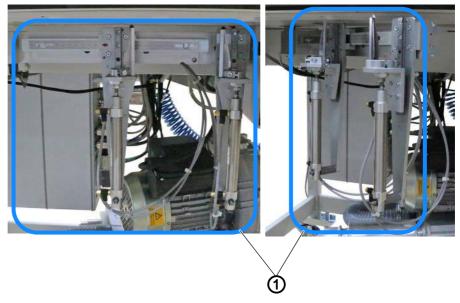
# **NOTICE**

#### Property damage may occur!

Unless swiveled in all the way, the corner knife station can damage the machine.

When swiveled in, the corner knife station engages audibly.

Fig. 26: Swiveling the corner knife station in and out



(1) - Corner knife station



To swivel the corner knife station in and out:

- 1. Swivel the corner knife station (1) to the left.
- ♦ The knives are accessible for setup and service work.
- 2. Swivel down and engage the corner knife station under the machine.



# 4.16.2 Setting corner knife

# **CAUTION**



# Risk of injury from sharp parts!

Cutting possible.

Adjust the corner knife station only when the machine is switched off.

Fig. 27: Setting corner knife



- (1) Knife holder
- (2) Screw

- (3) Knife holder
- (4) Screw

# Setting the angle of the corner knife station



To set the angle of the corner knife station:

- 1. Swivel out the corner knife station ( $\square$  *p.* 37).
- 2. Loosen screws (2) and (4).
- 3. Turn the knife holders (1) and (3) evenly.



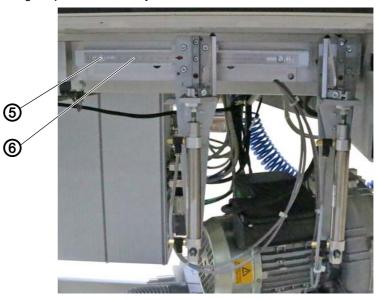
- 4. Tighten screws (2) and (4).
- 5. Set the angle at the other pair of knives accordingly.
- 6. Swivel in the corner knife station.

#### Setting the height of the corner knives

The height of the corner knives cannot be adjusted. The knives always cut through completely.

#### Setting the position of the adjustable knife block

Fig. 28: Setting the position of the adjustable knife block



(5) - Screw (6) - Scale

The position of the adjustable corner knife block corresponds to the corner knife distance that has been set in the Global parameters.



To set the position of the adjustable corner knife block:

1. Set the desired corner knife distance in the menu Service > Global parameters > Adjust corner knife distance ( p. 131). The corner knife distance corresponds to the reference seam length.



- 2. Use the scale (6) to set the corner knife block to the same value.
- To check if the scale (6) is positioned correctly at the corner knife block, perform a sewing test and check if the corner knife cut coincides with the seam beginning.
- 4. If the corner knife cut does not coincide with the seam beginning:
  - Set the corner knife block accordingly
  - Loosen the screw (5), position the scale (6) correctly, and tighten the screw (5)



# 4.17 Moving to the reference position

The reference position is necessary in order to obtain a defined initial position.



To move to the reference position:

- 1. Switch on the machine.
- The control is initialized.

  The control checks whether the transport carriage is at its rear end position. If not, the display shows the message Reference run:

Info 9000





- 2. Press the pedal back.
- The reference run starts.
  The transport carriage moves to its rear end position.

# 4.18 Performing a quick stop



To perform a quick stop:

- 1. Press the pedal back.
- The current step of the positioning sequence or the sewing cycle is stopped immediately.

The display shows the following message:

Error 9601





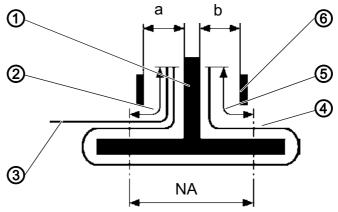
- 2. Press the pedal back again.
- The transport carriage moves out of the loading area.



# 4.19 Flap and piping projection

Unhindered passage of the workpieces at the folder/pick-up folder requires that the maximum projections of piping, flap and material thickness (see diagram) not exceed the permissible limit. For the maximum allowable piping strip widths for the respective sewing equipment (E-No.), refer to the Equipment Sheets of the 755.

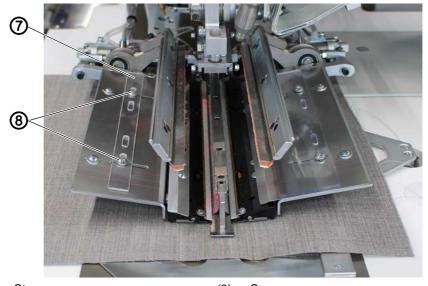
Fig. 29: Flap and piping projection



- (1) Folder
- (2) Flap projection
- (3) Flap
- (4) Piping strip
- (5) Piping projection max. 60 mm.
- (6) Guide plate at the folder
- NA: Seam projection a, b: Material passage at the folder

# Setting the sewing depth of the flap (manual feed only)

Fig. 30: Setting the sewing depth of the flap



(7) - Stop

(8) - Screws

Q

To set the sewing depth of the flap:

1. Loosen the screws (8).



- 2. Shift the position of the stop (7) in the slotted hole.
- 3. Tighten the screws (8).

# **Piping strip length**

The length of the piping strip must be dimensioned in such a way that it projects approx. 20 mm beyond seam beginning and seam end. The length of the piping strip is calculated as follows:

Piping strip length = sewing length + 2 x 20 mm

# 4.20 Additional equipment

#### 4.20.1 Downholder and pocket bag clamp

This equipment is used to safely hold hind trousers and pocket bags when the fullness caused by the dart is smoothed out.

The equipment consists of the following components:

- Downholder (1)
- Pocket bag clamp (2)

#### **CAUTION**



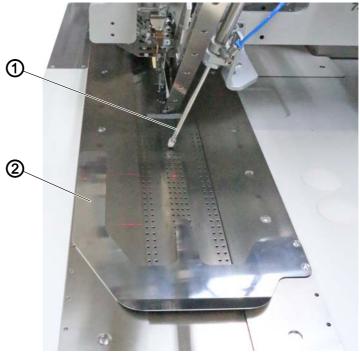
# Risk of injury from moving parts!

Crushing possible.

Do NOT reach under the downholder during the positioning process.



Fig. 31: Downholder and pocket bag clamp



(1) - Downholder

(2) - Pocket bag clamp



To operate the downholder and the pocket bag clamp:

- 1. Push the pocket bag under the pocket bag clamp (2) and align.
- 2. Position the hind trousers and align.
- 3. Press the left pedal forward.
- The downholder (1) lowers and clamps the hind trousers in their position.
- 4. Smooth out the clamped hind trousers laterally and to the front.



#### 4.20.2 Blow-out device

The blow-out device (1) is used in conjunction with the bundle clamp. The blow tube conveys the workpiece out of the sewing area.

Fig. 32: Blow-out device



(1) - Blow-out device



To switch on the blow-out device:

- 1. Switch on the blow-out device (1) in the *Machine configuration* menu item ( $\square$  *p. 120*).
- 2. Set blowing mode ( $\square$  *p. 116*).



#### Information

The blow tube continues to blow until the light barrier used for stacker control is clear.



#### 4.20.3 Bundle clamp

The bundle clamp including rest table are suitable for the production of trousers. The bundles are placed on the table and clamped in the bundle clamp. After sewing they are removed with the help of the outfeed roller or the blow-out device and descend while being held by the bundle clamp.

#### CAUTION

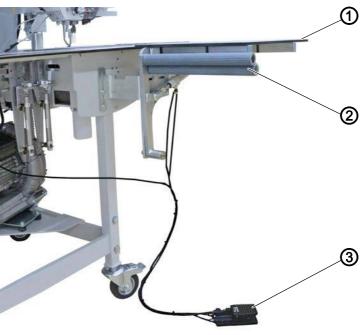


# Risk of injury from moving parts!

Crushing possible.

NEVER reach between the arms of the bundle clamp.

Fig. 33: Bundle clamp



- (1) Table extension
- (2) Bundle clamp

(3) - Pedal



To operate the bundle clamp:

- 1. Press the pedal (3) and hold it down.
- ♦ The bundle clamp (2) opens.
- 2. Insert the hind trousers parts into the bundle clamp (2).
- 3. Release the pedal (3).
- ♦ The bundle clamp (2) closes.

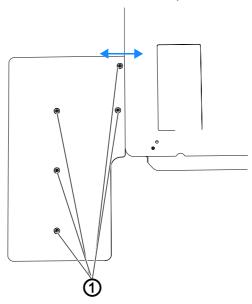


- 4. Deposit the clamped hind trousers parts on the table extension (1).
- With the lifting of the transport clamps after the sewing and cutting sequence, the transport rollers lower.
- The transport rollers convey the hind trousers part out of the machine. The hind trousers part will then dangle from the bundle clamp (2).

# 4.20.4 Setting the table extension of the bundle clamp (optional)

The table extension of the bundle clamp can be set flush with the tabletop or with a gap relative to the tabletop.

Fig. 34: Setting the table extension of the bundle clamp



(1) - Screws



To set the table extension:

- 1. Loosen the screws (1) on the table extension.
- 2. Set the table extension to the desired distance from the tabletop.
- 3. Tighten the screws (1).



#### 4.21 Sewing

#### 4.21.1 Start sewing



To start the sewing process:

- 1. Press the pedal forwards.
- The various steps of the positioning sequence are triggered successively by actuating the left pedal several times.
- 2. For positioning corrections:
  - Press the pedal back.
- The last step of the positioning sequence is canceled. The workpiece can be positioned again.
- 3. Press the pedal forwards.
- ♦ The sewing procedure is started.

The following is a brief description of the machine's working methods:

Working method	Explanation
S	<ul> <li>Piped pockets</li> <li>manual positioning of the piping strips, flaps and all additional parts</li> </ul>

The individual working methods are described on the pages below. The description is structured as follows:

#### **Positioning points**

This item indicates the positioning points used for the different workpieces (e.g. left and right parts).

#### Aligning the positioning aids

This section describes how to adjust and align the positioning aids (e.g. positioning marks, marking lamps, stops, etc.).

#### Positioning and starting sewing process

This item includes a list of the individual positioning steps illustrated by typical examples.

#### 4.21.2 Working method S (production of trousers)

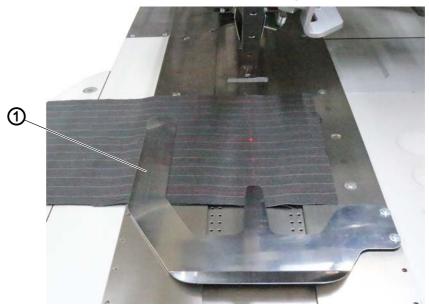
#### Possible processing variants

- Front trousers pockets with underlaid pocket bag
- Hind trousers pockets with or without flap, with underlaid pocket bag
- Hind trousers pockets with or without flap, with automatically fed reinforcement strip



#### **EXAMPLE:** Hind trousers without flap, with underlaid pocket bag





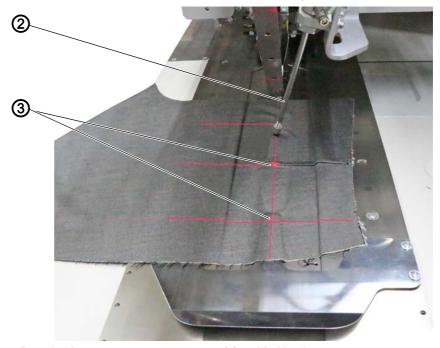
(1) - Pocket bag clamp



To sew a pair of hind trousers without flap and with underlaid pocket bag:

- 1. Select pocket program on the control panel ( $\square$  *p.* 76).
- 2. Push the pocket bag under the pocket bag clamp (1). Use markings, e. g. strips of adhesive tape attached to the fabric sliding plate.

Fig. 36: Hind trousers without flap, with underlaid pocket bag (2)



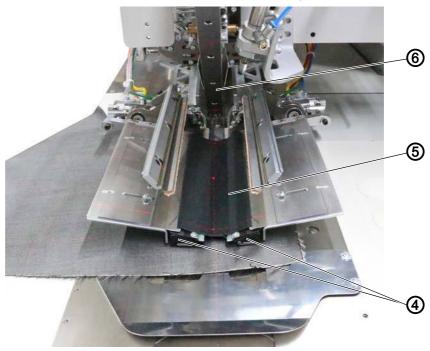
(2) - Downholder

(3) - Marking lamps



- C
- 3. Align the hind trousers with the marking lamps (3).
- 4. Tap the pedal / left pedal.
- The hind trousers are clamped in position by the downholder (2).
- 5. Smooth out the clamped hind trousers in the dart area.
- 6. If additionally equipped with vacuum: Tap the pedal.
- The vacuum is switched on.

Fig. 37: Hind trousers without flap, with underlaid pocket bag (3)



- (4) Front edges
- (5) Piping strip

(6) - Folder

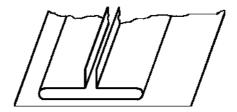


- 7. Tap the pedal.
- The transport clamps move to the front and lower onto the workpiece.
- 8. Position the piping strip (5) on the transport clamps flush with the front edges (4).
  - The alignment of the different types of piping on the transport clamps is described in more detail below.
- 9. Tap the pedal / left pedal.
- ♦ The folder (6) lowers.
- 10. Tap the pedal again.
- ♦ The sewing process starts.



# Positioning the piping strip Double pipe

Fig. 38: Double pipe



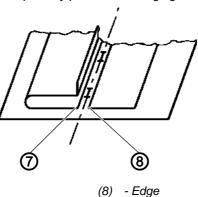
d

To position the double pipe:

1. Position the piping strip centered on the transport clamps and flush with the front edges.

# Single pipe left with separately positioned facing right

Fig. 39: Single pipe left with separately positioned facing right



(7) - Edge



To position a single pipe with separately positioned facing on the right:

- 1. Position the piping strip on the left transport clamp flush with the cutting line
- Position the facing on the right transport clamp.
   This positioning method requires the Flap clamp right, which is available as additional equipment.
- The edges (7) and (8) must be sufficiently seized by the needle, but must not be cut by the middle knife.



#### Single piping left with grown-on facing

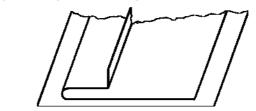
#### NOTICE

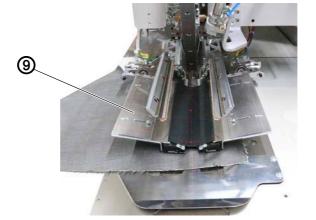
## Property damage may occur!

Damage to the machine caused by the folding plate.

With grown-on facing the right folding plate must not close. Pull the hose coupling off the right transport clamp.

Fig. 40: Single piping left with grown-on facing





(9) - Stop



To position a single pipe left with grown-on facing:

1. Position the piping strip at the stop (9) on the left folding plate.

# Sewing with flap

Depending on the area of application, the following additional equipment is required for the simultaneous sewing-in of flaps or other additional parts:

• Production of trousers: Flap clamp right

• Production of jackets: Flap clamp left

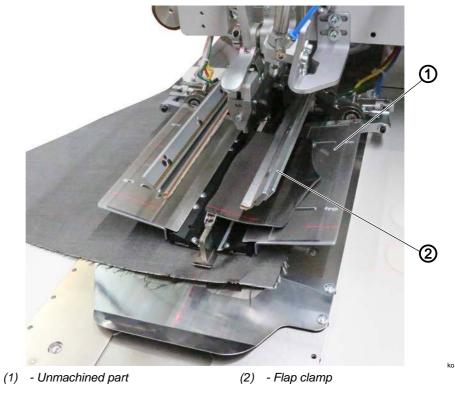


# Selecting the closing order of the flap clamps

Area of application	Mounting plate	Closing order of the flap clamps
Production of trousers	Right	Flap clamp on the right closes first
Production of jackets	Left	Flap clamp on the left closes first

# Shaped guide for flap

Fig. 41: Shaped guide for flap



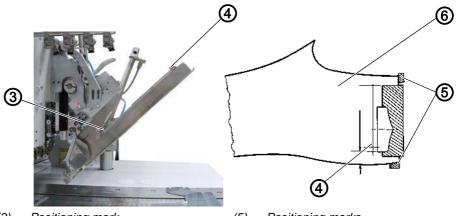
The flap clamp (2) delivers the unmachined part (1). It has to be machined as a shaped guide that corresponds to the flap used.

When sewing in flaps, the seam beginning and seam end are recognized by the light barrier.



# Positioning the flap

Fig. 42: Sewing with light barrier



- (3) Positioning mark
- (4) Light spot

- (5) Positioning marks
- (6) right hind trousers part

The positioning marks (3) on the folder limit the sewing area for the attachment of flaps.

• Always position the flaps within the marked area



#### Information

If the flap is positioned outside of the marked area, the display shows the

following error message: Info 9721





OR

Info 9722



# Correction of seam beginning and seam end



To correct seam beginning (NA) and seam end (NE) when sewing with light barrier:

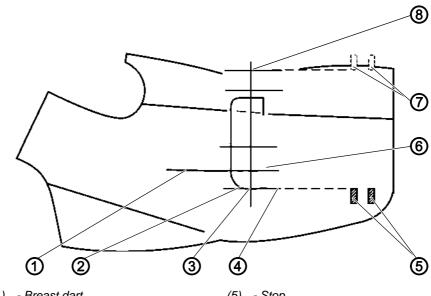
1. Select pocket program Correction light barrier ( p. 100).



# 4.21.3 Working method S (production of jackets)

# Positioning points for left or right jacket front parts

Fig. 43: Positioning points for left or right jacket front parts



- (1) Breast dart
- (2) Flap edge
- (3) Light spot
- (4) Light spot

- (5) Stop
- Light spot (6)
- Stop
- (8) Light spot



To position left or right jacket front parts:

1. Position the left jacket front parts at the rear positioning point (light spot (4)).

#### OR

1. Position the right jacket front parts at the front positioning point (light spot (8)).



# **Proper setting**

When the parts are positioned at light spot (6), the distance between breast dart (1) and flap edge (2) will always be the same.



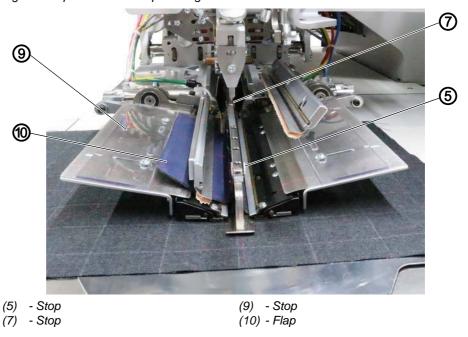
#### Information

We recommend that you create a pocket program for left jacket front parts (rear positioning point selected) and a pocket program for right jacket front parts (front positioning point selected). This will save you the trouble of altering the pocket program on the start screen when changing between left and right jacket front parts.



#### Stops for manual flap feeding

Fig. 44: Stops for manual flap feeding





To set the stop for feeding the flap manually:

- 1. Adjust the stops (7) and (5) on the folder according to the light spots (8) and (3).
- 2. Set the sewing depth of the flap (10) by inserting the stop (9) in the corresponding pair of slotted holes.



#### Information

If the flap (10) is positioned outside the dotted lines (outside of the sewing area), the function sequence will be interrupted. The display shows the

following error messages: Info 9721





OR









# Positioning and starting sewing process

# **CAUTION**

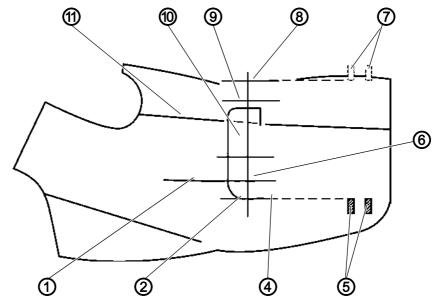


# Risk of injury from moving parts!

Crushing possible.

Do NOT reach into the working area of the positioning device when triggering the individual steps of the positioning process.

Fig. 45: Positioning and starting sewing process (1)



- (1) Breast dart
- (2) Flap edge(4) Light spot
- (5) Stop
- (6) Light spot

- (7) Stop(8) Light spot(9) Light spot
- (10) Flap
- (11) Side seam



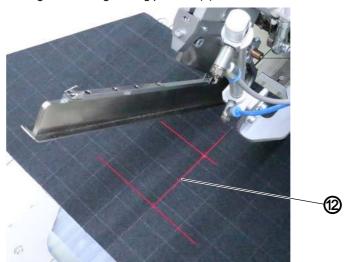


Fig. 46: Positioning and starting sewing process (2)

(12) - Pocket opening



To position the sewing material when sewing **Plain goods**:

- 1. Position the jacket front part on the fabric sliding plate.
  - Left jacket front parts: Position the jacket front part with the breast dart (1) at the light spot (6)
  - Right jacket front parts: Position the jacket front part with the breast dart (1) at the light spot (9)
- 2. Align the pocket opening (12) at the vertical lines of the light spots (middle knife incision).
- The pocket opening (12) is situated between breast dart (1) and side seam (11).
- 3. If additionally equipped with vacuum: Press the pedal forwards and release it.
- ♥ The vacuum is switched on.
- 4. Press the pedal forwards.
- The transport carriage moves to the loading position. The transport clamps lower onto the jacket front part.



To position the sewing material when sewing **Patterned goods**:

- 1. Mark the flap edge (2) on the jacket according to the pattern.
  - Left jacket front parts: Position the jacket front part with the marking at light spot (4)
  - Right jacket front parts: Position the jacket front part with the marking at light spot (8)
- 2. Align the pocket opening (12) at the vertical lines of the light spots (middle knife incision).
- The pocket opening (12) is situated between breast dart (1) and side seam (11).



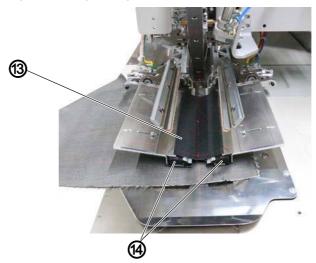
- 3. If additionally equipped with vacuum: Press the pedal forwards and release it.
- ♦ The vacuum is switched on.
- 4. Press the pedal forwards.
- The transport carriage moves to the loading position. The transport clamps lower onto the jacket front part.

# C

# To make **positioning corrections**:

- 1. Press the pedal back.
- ♦ The transport clamps lift.
- 2. Press the pedal back again.
- ♦ The transport carriage returns to its waiting position

Fig. 47: Positioning and starting sewing process (3)



(13) - Piping strip

(14) - Front edges



# To position a piping strip:

- 1. Position the piping strip (13) on the transport clamps.
  - Left jacket front parts: Position the piping strip (13) flush at the front edges (14)
  - Right jacket front parts: Position the piping strip (13) approx. 20 mm behind the light spot (8)



(5) - Stop (16) - Flap clamp

Fig. 48: Positioning and starting sewing process (4)



(7) - Stop

(10) - Flap

(15) - Stop

To position a **flap** and to start the sewing process:

- 1. Press the pedal forwards.
- ♦ The folder (17) lowers.
- 2. Position the flap (10) on the left transport clamp at the stop (15) and align in sewing direction.
  - Left jacket front parts: Position the flap (10) at the rear stop (5) of the folder (17)

(17) - Folder

(18) - Flap clamp

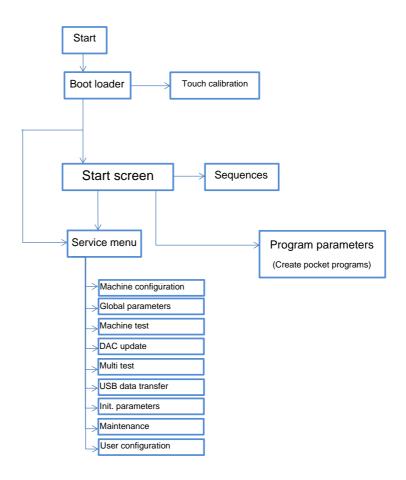
- Right jacket front parts: Position the flap (10) at the front stop (7) of the folder (17)
- 3. Press the pedal forwards.
- ♦ The flap clamp (16) closes.
- 4. Press the pedal forwards.
- The flap clamp (18) closes. The sewing process starts.





# 5 Programming

# Structure of the software



# Software quick access

The numbering of the software quick access corresponds to the numbering on the display of the OP7000.

Menu item	Option/described on page
1.0 Machine configuration	
1.1 Select working method	🖺 p. 125
1.3 Select needle distance	🖺 p. 126
1.13 Select stacker/smoother	🖺 p. 124
1.16 Roll-off On/Off	🖺 p. 124
1.17 Select flap clamps	Ш р. 124
1.18 Light barrier scan	🖺 p. 128
1.23 Pedal operation	☐ p. 124
1.25 Toolbox configuration	🖺 p. 129



Menu item	Option/described on page
Hook thread monitor On/Off	□ p. 124
Vacuum On/Off	□ p. 115
Downholder On/Off	□ p. 115
Additional thread tensioner On/Off	□ p. 125
Shims On/Off	□ p. 125
2.0 Machine test	
2.1 Test bobbin thread monitor	🕮 р. 138
2.2 Test roll-off device	□ p. 139
2.3 Align light barriers	□ p. 140
2.4 Adjust corner knife	□ p. 142
2.4.1 Test corner knife	□ p. 144
2.5 Test sewing motor	□ p. 145
2.5.1 Adjust sewing motor	□ p. 146
2.7 Machine workflow test	□ p. 147
Loading process test	□ p. 148
Test step by step	□ p. 149
Test cycle time	□ p. 150
2.8 Test step motor	□ p. 151
2.11 Adjust and test control panel	□ p. 153
2.13 Test middle knife	□ p. 157
2.13.1 Adjust middle knife	□ p. 158
USB_Logging	□ p. 137
3.0 Multi test	
3.3 Internal devices	Ш р. 167
3.4 External devices	Ш р. 169
3.5 Input/output test	□ p. 165
3.6 Sewing drive test	Ш р. 171
3.7 Error messages	🕮 р. 164
RAM test	□ p. 168
ROM test	🕮 р. 170



Menu item	Option/described on page
4.0 User configuration	
4.1 Language selection	🕮 p. 186
User password setup	Ш р. 187
Button beep On/Off	🕮 p. 185
5.0 Start screen	
5.0.2 Overview of sequences	□ p. 77
5.0.2.1 Copy sequence	□ p. 83
5.0.2.0 Select source of sequence	🕮 p. 83
5.0.2.3 Select program	🕮 p. 76 , 🕮 p. 77
Piece counter	□ p. 72
Activate automatic sequence process	□ p. 86
<b>5.1</b> Program parameters	
5.1.1 Select pocket program	🖺 p. 89
5.1.2 Enter name of pocket program	₽ p. 90
<b>5.1.3</b> Copy pocket program	🖺 р. 90
5.1.3.1 Select source	🖺 р. 90
5.1.3.2 Select destination	🖺 р. 90
5.1.4 Create a seam program	□ p. 92
5.1.4.5 Set securement seam beginning left needle	Ш р. 94
5.1.4.6 Set securement seam beginning right needle	□ p. 95
5.1.4.7 Set securement seam end left needle	□ p. 95
5.1.4.8 Set securement seam end right needle	□ p. 96
5.1.4.9 Select flap right/left	□ p. 92
5.1.4.10 Select positioning points	□ p. 93
5.1.4.11 Set stitch length main seam	□ p. 93
5.1.4.12 Set flap scan	🕮 p. 98
5.1.5 Correction light barrier	🕮 p. 100
5.1.5.1 Correction seam begin.	🕮 p. 100
5.1.5.2 Correction seam end	🕮 p. 100
5.1.6.1 Marking lamps 1-16 On/Off	🖺 p. 102



Menu item	Option/described on page
5.1.7 Sewing head parameters	□ p. 103
5.1.7.1 Set sewing speed	🕮 p. 103
5.1.7.2 Set soft start parameters	🕮 p. 104
Continuous or intermittent transport	🖺 p. 103
5.1.7.5 Seam securement	🕮 p. 105
5.1.8 Middle knife parameters	🕮 p. 106
Middle knife On/Off	🕮 p. 106
5.1.8.2 Speed middle knife	🕮 p. 106
<b>5.1.8.3</b> Set middle knife correction seam begin.	🕮 p. 106
5.1.8.4 Set middle knife correction seam end	🕮 p. 106
5.1.8.5 Set loading position	□ p. 106
5.1.9 Corner knife	🕮 p. 108
5.1.9.2 Corner knife correction seam begin.	🕮 p. 108
5.1.9.3 Corner knife correction seam end	🕮 p. 108
5.1.11 Transport clamp	🖺 p. 110
5.1.11.1 Set return speed	□ p. 110
<b>5.1.11.2</b> Set insertion speed	🕮 p. 110
<b>5.1.11.3</b> Softstart for insertion speed	🕮 p. 110
5.1.11.4 Return of transport clamp	🕮 p. 111
<b>5.1.11.5</b> Waiting position of transport clamp	🖺 p. 112
<b>5.1.12</b> Process of transport clamp	🕮 p. 113
<b>5.1.13</b> Program loading process	🕮 p. 115
5.1.13.1 Select flap clamps	🕮 p. 115
Vacuum On/Off	🕮 p. 115
Downholder On/Off	🕮 p. 115
<b>5.1.13.7</b> Select blowing mode	🕮 p. 116
5.1.13.10 Select pedal mode	🕮 p. 119
5.1.15 Stacker/smoother/blow-off/roll-off	🕮 p. 120
5.1.15.1 Select clamping time	□ p. 120
<b>5.1.15.4</b> Lift transport clamp after corner cut	🕮 p. 120
<b>5.1.15.6</b> Outfeed roller: Time after corner cut	□ p. 121
5.1.15.7 Time after roll-off until lift-up	□ p. 121
5.1.15.8 Roll-off Time	□ p. 121
5.1.15.9 Roll-off Speed	□ p. 121



Menu item	Option/described on page	
5.2 Global parameters		
5.2.1 Set positioning point seam begin./center/end	Ш р. 132	
<b>5.2.1.1</b> Set positioning point seam begin.	Ш р. 132	
5.2.1.2 Set positioning point seam center	Ш р. 132	
5.2.1.3 Set positioning point seam end	🖺 р. 132	
5.2.2 Adjust transport clamp	Ш р. 133	
5.2.2.2 Clamp down: Time to next action	🕮 p. 133	
5.2.2.3 Speed to corner knife position	🕮 p. 133	
5.2.2.4 Speed to waiting position	🖺 p. 133	
5.2.2.6 Delay till clamp moves to seam begin.	🖺 p. 133	
5.2.3 Set needle thread-clamp/-catcher/-tension	🕮 p. 134	
5.2.3.1 Time: Thread clamp open	🖺 p. 134	
5.2.3.2 Seam end: mm till thread clamp opens	🖺 p. 134	
5.2.3.3 mm with needle thread catcher open	🖺 p. 134	
5.2.5 Adjust corner knife distance	🕮 p. 132	
5.2.6 Adjust corner knife	□ p. 132	
5.2.6.1 Duration of corner knife On	□ p. 132	
5.2.7 Maximum hook thread counter	□ p. 132	
5.2.7.2 Set remaining thread counter	🕮 p. 132	
Hook thread monitor On/Off	🕮 p. 136	
5.2.11 Set machine process speed	🖺 p. 132	
5.2.18 Set password protection	🕮 p. 135	
Set counting direction of piece counter	🕮 p. 132	
6.0 DAC internal	For DA staff only	
7.0 DAC update	□ p. 160	
8.0 USB data transfer		
8.1 Data transfer to USB	🖺 p. 174	
8.2 Data transfer from USB	□ p. 177	



Menu item	Option/described on page
9.0 Init. parameters	
Initialize machine configuration	🕮 p. 180
Initialize global parameters	🕮 p. 180
Initialize all seam programs	□ p. 180
Initialize all sequences	□ p. 180
Initialize RAM	□ p. 180
10.0 Maintenance	
10.3 Display software version	🕮 p. 183
10.4 Enter date and time	🖺 p. 183
Internal information (password-protected) (for DA staff only)	
Update machine software	<b>L</b> p. 189

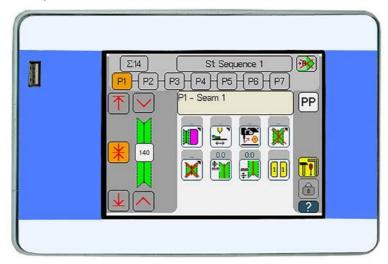


#### **Control panel OP7000**

All settings for the machine are performed using the OP7000 control panel.

The activation of the sewing motor and the step motors is performed by the DAC comfort control in conjunction with the OP7000 control panel with the user interface in symbolic representation.

Fig. 49: Control panel OP7000



#### Switching on the machine

After the machine has been switched on, the control and the OP7000 control panel will start up. Next, the machine prompts the user to start the reference run on the control panel.

The user must enable the machine for use after the display of the welcome message goes out. Follow the instructions shown on the display for this purpose:



To switch on the machine:

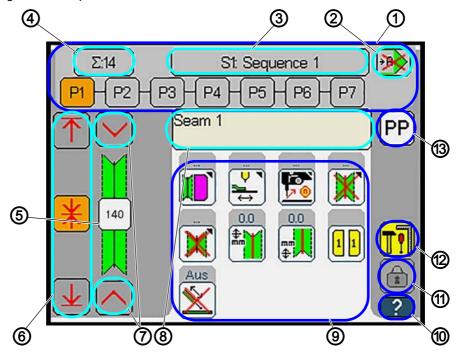
- 1. Press the pedal.
- ♦ The control panel is enabled.



# **Basic operation**

The menu items of the software are numbered. For a quick overview, refer to the table included in the chapter **Software quick access** ( $\square$  *p. 61*).

Fig. 50: Basic operation



- (1) Pocket programs in sequence
- (2) Automatic seam sequence
- (3) Overview of seam sequences
- (4) Piece counter
- (5) Seam pattern
- (6) Positioning points
- (7) Quick selection corner knife correction
- (8) Info field
- (9) Toolbox
- (10) Help
- (11) User password
- (12) Service menu
- (13) Program parameters

The control panel is controlled via a touch pad. The start screen is divided into the areas below:

No.	Control panel	Description	
1	P1 - P2 - P3	Display of pocket programs in sequence	
2	<del>1</del>	Automatic seam sequence On/Off	□ p. 86
3	St: Sequence 1	Edit seam sequence	🖺 р. 73
4	Σ159	Piece counter	🖺 р. 72



No.	Control panel	Description	
<b>⑤</b>	140	Display of selected seam pattern  • the display changes with the setting of the pocket program (with/without flap).	
6	<u> </u>	Positioning point seam begin.	🖺 р. 93
	*	Positioning point seam center	
	<u></u>	Positioning point seam end	
Ø	$\overline{V}$	Quick selection corner knife correction seam begin.	🖺 р. 108
		Quick selection corner knife correction seam end	🖺 p. 108
8		Info field displaying current status information / program name	
9		Toolbox	🕮 p. 129
100	?	Help	🕮 p. 69
111	(i)	User password	🖺 p. 187
@	TŢ	Service menu	□ p. 122
13	[PP	Program parameters  Configuring pocket programs	□ p. 87



# **Important**

Some settings via software are protected with a password.

Password-protected settings are used to set up the basic machine configuration and may only be adjusted by qualified personnel.

The password is 25483.

# **Displaying Help**



To display Help:

- 1. Press the **Help** button.
- The button is highlighted with a red circle (2).





- 2. Press the desired button for which you wish to display a Help text.
- The selected button and a Help text are displayed.
- 3. Press on the Help text.
- ♦ The Help text disappears.



#### Information

To activate Help permanently, press and hold the **Help** button for approx. 3 seconds. The button is highlighted with a red circle and dots on the side.

Help is activated permanently. A Help text is displayed for every button you press.

Press the **Help** button again to deactivate this mode. Help is deactivated automatically when the user exits the menu level.

#### Home button and Return button

Many menus allow the user to exit with a press of the Home button



or the **Return button** 

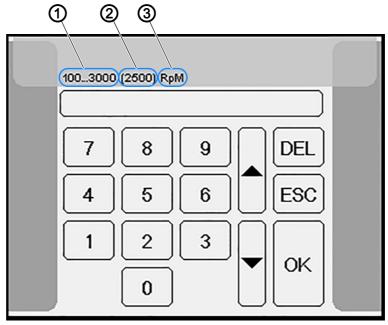


Button	Function
	Home button • saves the settings in the menu • Return to the start screen
<b>5</b>	Return button  • saves the settings in the menu  • Return to next higher menu level



# Entering values using the numeric keypad

Fig. 51: Entering values using the numeric keypad



- (1) Value range
- (2) Preset value

(3) - Unit



To enter values using the numeric keypad:

- 1. Enter the desired value.
- 2. Confirm with **OK**.



To enter a negative value on the numeric keypad:

- 1. Enter the desired value.
- 2. Press the +/- button.
- ♦ The value is given a sign and becomes negative.
- 3. Confirm with **OK**.

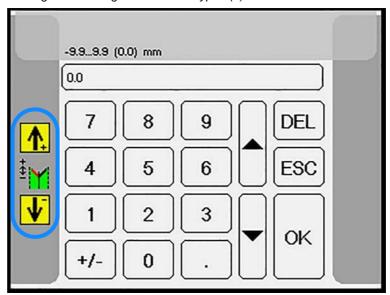




#### Information

For values corrected relative to the sewing field, the system will show a correction aid in the left half of the display. The correction aid indicates the direction in which the correction will take effect.

Fig. 52: Entering values using the numeric keypad (2)



#### Piece counter

# Resetting the piece counter



To reset the piece counter:

- 1. Press the button Σ159 briefly.
- ♦ The piece counter is reset to 0.

# Setting initial piece counter value



To set the initial piece counter value:

- 1. Press and hold the button  $\boxed{\Sigma169}$  for approx. 2 seconds.
- ♦ The display switches to Edit mode.
- 2. Use the numeric keypad to set the desired number of pieces (0-10000).
- 3. Confirm with **OK**.
- The display returns to the start screen.



# Creating or changing a seam sequence

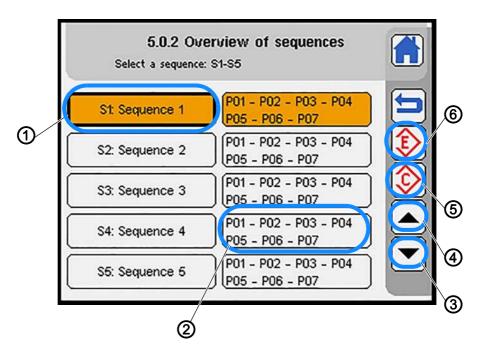
The user can save different seam programs in the same seam sequence. The seam programs will be sewn in the order in which they have been saved.



To create or change a seam sequence:

- 1. Press the **Seam sequence** St Sequence 1 button.
- The display switches to Overview of sequences.

Fig. 53: Creating or changing a seam sequence (1)



- (1) Selected seam sequence
- (2) Display of pocket programs in the sequence
- (3) Scroll down seam sequences
- (4) Scroll up seam sequences
- (5) Copy seam sequence
- (6) Create seam sequence
- (7) Save settings and return to previous level
- (8) Save settings and return to start screen

No.	Symbols	Description
1	Varies with the programming	Selected seam sequence
2	Varies with the programming	Display of pocket programs assigned to the seam sequence
3	<b>T</b>	Call up additional seam sequences • in steps of 5



No.	Symbols	Description
4	_	Call up additional seam sequences • in steps of 5
(5)	<b>③</b>	Copy seam sequence
6	<b>(1)</b>	Create and change seam sequence



- 2. Select the desired seam sequence from the list.
- To scroll up and down the list of sequences, press the buttons and .
- 3. Press the desired seam sequence.
- The selected seam sequence is highlighted with a bold frame and the color orange (1).
- 4. Press the button.
- The display switches to Create sequence via drag/drop.

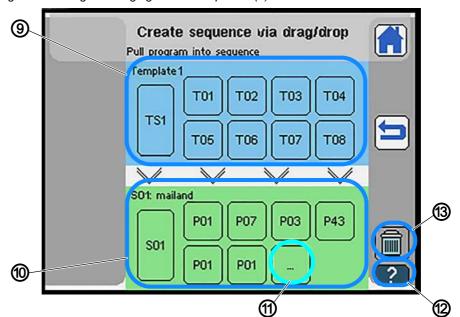


Fig. 54: Creating or changing a seam sequence (2)

- (9) Seam sequence template
- (10) Seam sequence to be created
- (11) Available pocket program slot
- (12) Help
- (13) Delete pocket program



No.	Symbols	Description
9	Vorlage 1	Seam sequence template  • Sequence template has been selected (blue)
	S01: Sequence 1 P01 P02 P03 P04 S01 P05 P06 P07	Call up a previously created seam sequence (yellow)
(0)	S02: Sequence 2	Seam sequence to be created
11)	<u></u>	Available pocket program slot     Quick access to pocket programs     Pocket programs already in use are highlighted in blue
12	?	Help
(3)		<ul> <li>Delete a pocket program from seam sequence: via drag and drop</li> <li>Delete all pocket programs: with a tap</li> </ul>



#### Information

The programs in the seam sequence template (9) contain programs that represent common seam patterns.

A seam sequence can contain up to 8 seam programs. Once a seam sequence is full, the arrows  $\checkmark$  between seam sequence template and seam sequence to be created will disappear.

At least one pocket program MUST remain in the seam sequence.

If a pocket program is positioned via *Drag and Drop*, the left half of the display will show the seam pattern of the pocket program.

The pocket programs will be stored in the seam sequence in the order in which they were added to the seam sequence.



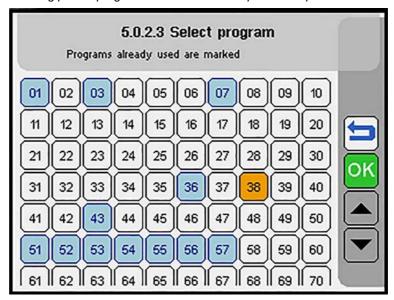
# Selecting pocket programs from the seam sequence template



To select a pocket program from the seam sequence template:

- 1. Use *Drag and Drop* to drag any pocket programs you do not need from the sequence to be created (10) to the trash or tap on the trash to delete all pocket programs.
- The pocket programs are deleted from the sequence.
- 2. Use *Drag and Drop* to drag the desired pocket program from the template to an available pocket program slot.
- The display switches to Select program.

Fig. 55: Selecting pocket programs from the seam sequence template





- 3. Select the desired pocket program slot.
- To scroll up and down the list of pocket programs, press the buttons and .
- 4. Press the button to save the setting and return to the previous level.



# **Important**

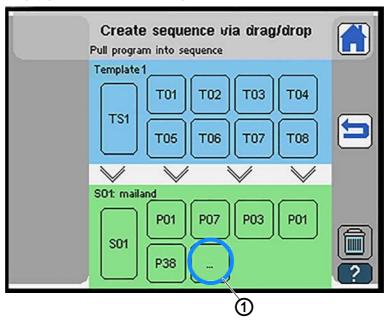
The preset program is copied to the selected pocket program slot, **deleting the previous program**.

5. Select additional preset programs as described above and add them to the sequence.



#### Assigning an available pocket program slot

Fig. 56: Assigning an available pocket program slot (1)



(1) - Available pocket program slot



# To create a seam sequence:

- Use Drag and Drop to drag any pocket programs you do not need from the sequence to be created (10) to the trash OR tap on the trash to delete all pocket programs.
- ♦ The pocket programs are deleted from the sequence.
- 2. Press the button (1).
- ♦ The display switches to Select program.



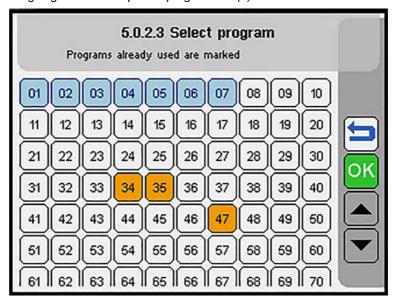


Fig. 57: Assigning an available pocket program slot (2)



#### Information

Pocket programs highlighted in blue are already in use in other seam sequences.

The currently selected pocket program is highlighted in orange.

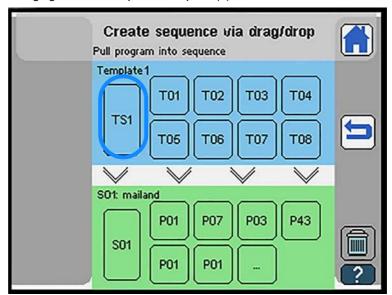


- 3. Select the desired pocket program.
  - You can select no more pocket programs than there are available pocket program slots (up to 8).
  - The order in which they are selected corresponds to the order of the programs in the seam sequence.
- ♦ To scroll up and down the list of pocket programs, press the buttons and .



# Changing the seam sequence template

Fig. 58: Changing the seam sequence template (1)

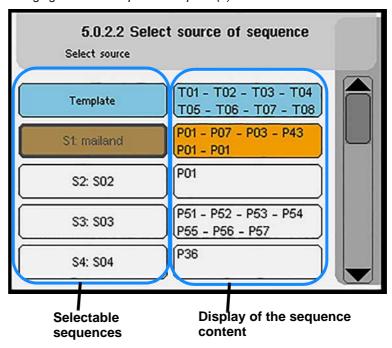




To change the seam sequence template:

- 1. Press the **S01** button.
- ♦ The display switches to Select source of sequence.

Fig. 59: Changing the seam sequence template (2)



The destination sequence is grayed out and cannot be selected.





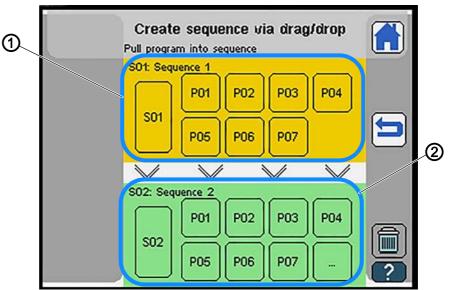
- 2. Select the desired seam sequence from the list.
- To scroll up and down the list of sequences, press the buttons and OR drag the bar up or down.
- 3. Press the desired seam sequence.
- ♦ The display returns to Create sequence via drag /drop.

# i

#### Information

Cancel the selection by pressing the same sequence again.

Fig. 60: Changing the seam sequence template (3)



- (2) Seam sequence template
- (3) Sequence to be created



- 4. Use *Drag and Drop* to drag any pocket programs you do not need from the sequence to be created (3) to the trash or trash to delete all pocket programs.
- ♦ The pocket programs are deleted from the sequence.



Create sequence via drag/drop Pull program into sequence S03: S03 P51 P54 P52 P53 S03 P55 P56 140 S01: mailand P01 P07 P03 P01 **S01** P38 P56 P57

Fig. 61: Changing the seam sequence template (4)



 Use *Drag and Drop* to drag the desired pocket program from the seam sequence template (1) to an available pocket program slot.
 OR

Press the button to select the desired pocket program from the list.

- 6. Press the button to save the setting and return to the previous level.
- The display returns to Overview of sequences.

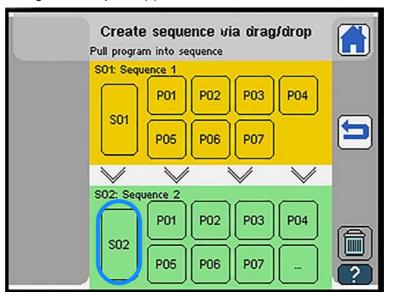
### OR

- 7. Press the houtton to save the setting and return to the start screen.
- ♦ You can start sewing with the new seam sequence right away.



# Naming a seam sequence

Fig. 62: Naming a seam sequence (1)

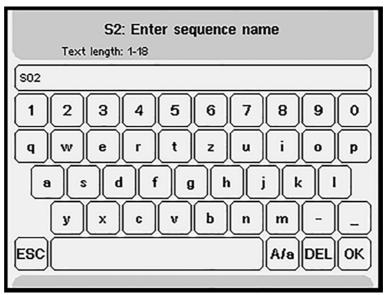




To enter a name for a seam sequence:

- 1. Press the button **S02-S20** (depending on which seam sequence you have selected).
- ♦ The display switches to a keypad.

Fig. 63: Naming a seam sequence (2)





- 2. Enter the desired sequence name. You can enter up to 18 characters. Every sequence must be given a name.
- 3. Confirm with OK.



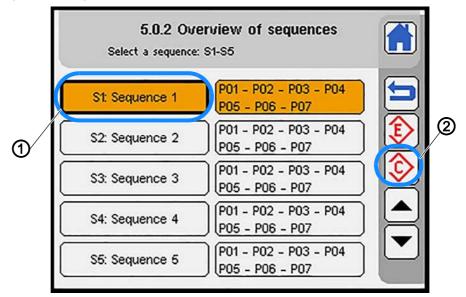
#### Copying a seam sequence



To copy a seam sequence:

- 1. Press the **Seam sequence** button.
- ♦ The display switches to Overview of sequences.

Fig. 64: Copying a seam sequence (1)



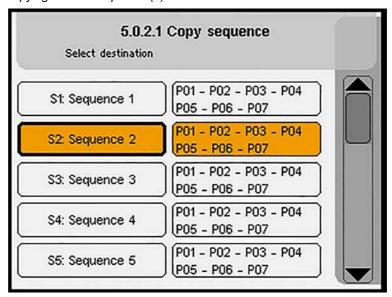
- (1) Selected seam sequence
- (2) Copy seam sequence



- 2. Select the seam sequence you wish to copy from the list.
- To scroll up and down the list of sequences, press the buttons and .
- 3. Press the desired seam sequence.
- The selected seam sequence is highlighted with a bold frame and the color orange (1).
- 4. Press the button.
- ♦ The display switches to *Copy* sequence.



Fig. 65: Copying a seam sequence (2)



The source sequence is highlighted with a bold frame and the color orange.



- 5. Select the seam sequence you wish to overwrite from the list.
- To scroll up and down the list of sequences, press the buttons and OR drag the bar up or down.



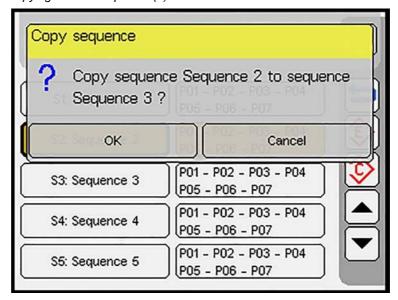
### Information

Cancel the selection by pressing the same sequence again.

- 6. Press the desired seam sequence.
- ♦ The display shows an info field.



Fig. 66: Copying a seam sequence (3)

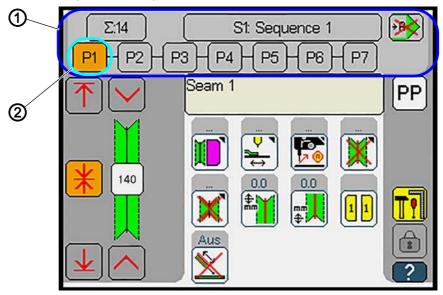


- To copy, press **OK** to confirm
- To cancel, press the **Cancel** button
- ♦ The display returns to Overview of sequences.

# Activating a pocket program from the seam sequence

You can activate a single pocket program stored in the seam sequence if you wish to sew a specific pocket program that is not up next in the sequence.

Fig. 67: Activating a pocket program from the seam sequence



- (1) Pocket programs in sequence
- (2) selected pocket program





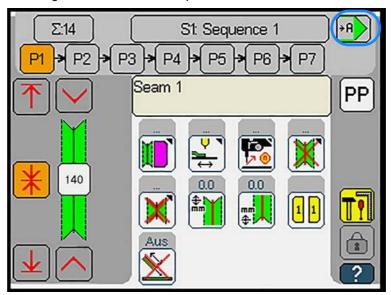
To activate a pocket program in an active seam sequence:

- 1. Press the desired pocket program in the sequence (1) shown on the pocket program display.
- The selected pocket program (2) is highlighted in orange.
  The machine always sews using the selected pocket program.

# Activating the automatic seam sequence

If the automatic seam sequence is activated, the machine will automatically sew the next pocket program in the sequence after completing the current pocket program.

Fig. 68: Activating the automatic seam sequence





To activate the automatic seam sequence:

- Press the → button.
- The start screen shows arrows between the seam sequences.

  The arrows indicate that the automatic seam sequence has been activated.





# **Program parameters**

The *Program parameters* menu allows you to configure, name and save up to 99 different pocket programs.



#### Information

If an option is not available or grayed out, it must be set up in the  $Machine\ configuration$  menu ( $\square$  p. 123). Otherwise, the option will be unavailable in this class.



To configure pocket programs:

- 1. Press the **Program parameters** PP button.
- ♦ The display switches to Configure pocket programs.

Fig. 69: Program parameters



Symbols	Meaning
PP 1	Select pocket program 🚇 p. 89
PP <>	Enter name of pocket program 🕮 p. 90
PP <del>\$</del>	Copy pocket program 🕮 p. 90
	Create or change seam program 🚨 p. 92



Symbols	Meaning
<b>\</b>	Correction light barrier 🕮 p. 100
1	Marking lamps 1-16 ☐ p. 102
<b>6</b>	Sewing head parameters 🚨 p. 103
	Middle knife parameters 🕮 p. 106
×	Corner knife ☐ p. 108
<b>→</b>	Transport clamp 🖺 p. 110
TT	Process of transport clamp  p. 113
	Program loading process @ p. 115
<b>96</b>	Stacker/smoother/blow-off/roll-off  p. 120
INIT P	Reset seam program to default values



- 2. Press the desired button.





#### Selecting a pocket program



#### Information

By default, the seam program currently selected will be active on the start screen.

You can use the option **Select pocket program** to quickly configure several pocket programs in a row.



To select a pocket program:

- 1. Use the numeric keypad to set the desired pocket program (1-99).
- 2. Confirm with **OK**.
- The display switches to the selected pocket program.

  You can configure the selected pocket program as described below.



#### **Important**

When you return to the start screen after configuring the selected pocket program, the previous pocket program will be active again. To activate the pocket program you configured, you must add it to the seam sequence  $(\square p. 73)$ .

If the pocket program has already been copied to the selected seam sequence, you can activate it in the seam sequence ( $\square$  *p. 85*).





# Entering the name of a pocket program



To enter the name of a pocket program:

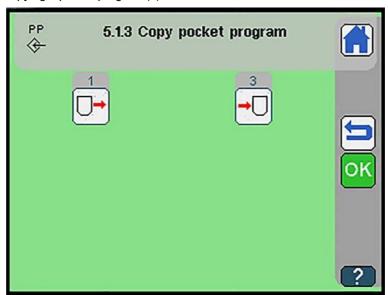
- 1. Use the letter and numeric buttons to enter the desired name of the pocket program.
- 2. Confirm with **OK**.
- ♦ The display switches to the selected pocket program.



# Copying a pocket program

The display switches to Copy pocket program.

Fig. 70: Copying a pocket program (1)



Symbols	Meaning
<b>□</b> →	Select source  • Select the pocket program you wish to copy
<b>→</b> □	Select destination • Select the pocket program you wish to overwrite
ок	Save settings



To copy a pocket program:

1. Press the button.





#### Information

The active pocket program has been set as the source.

- 2. Enter the source using the numeric keypad.
- 3. Confirm with **OK**.
- ♦ The display returns to Copy pocket program.
- 4. Press the → button.
- 5. Enter the destination using the numeric keypad.



#### **Important**

The destination program will be overwritten during the copying process. If necessary, you will have to make additional adjustments in the software. If selecting a destination that is already used in another sequence, you will be shown a safety check message prompting you to confirm that you really want to overwrite the sequence:

Fig. 71: Copying a pocket program (2)



- 6. Confirm with **OK**.
- The selected pocket program is copied.

  The message Copy was successful is displayed.
- 7. Confirm with **OK**.
- ♦ The display switches to the selected seam program.

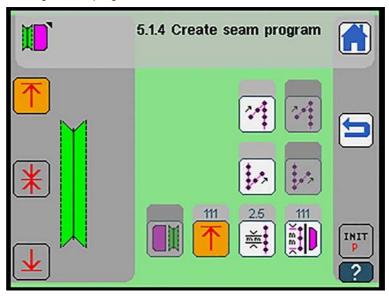




# Creating a seam program

♥ The display switches to Create seam program.

Fig. 72: Creating a seam program



Press a button to either open another submenu or enter the desired values directly using the numeric keypad.

Symbols	Meaning
• • • • • • • • • • • • • • • • • • •	Securement seam beginning left/right needle  Stitch condensing OR  Single tack OR  Double tack
	Securement seam end left/right needle • Stitch condensing OR • Single tack OR • Double tack
	Flap left  OR Flap right



Symbols	Meaning
<b></b>	Set correction value of positioning point at seam beginning - 100 mm - 100 mm
*	Set correction value of positioning point in the middle of the seam  - 100 mm - 100 mm
<u>↓</u>	Set correction value of positioning point at seam end - 100 mm - 100 mm
	• The basic values for the positioning points seam beginning/middle of the seam/seam end are set in the Global parameters   p. 132
<b>₩</b>	Set stitch length main seam • 1.5 mm - 4.5 mm
mm	Set flap scan  • Fixed seam length  • 1 light barrier  • Automatic flap scan left
INIT P	Reset seam program



# To create a seam program:

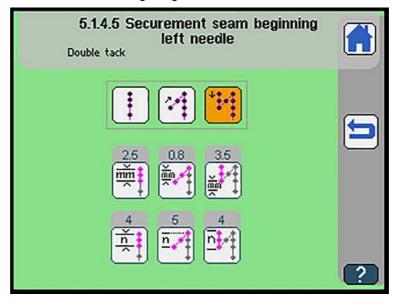
- 1. Press the desired button.
- 2. Enter the desired value using the numeric keypad.
- 3. Confirm with **OK**.



# Set securement seam beginning left needle

♦ The display switches to Securement seam beginning left needle.

Fig. 73: Set securement seam beginning left needle



Symbols	Meaning
**************************************	Select stitch condensing  Set stitch length for stitch condensing at seam beginning (0.5 - 4.5 mm)  Set number of stitches for stitch condensing at seam beginning (0 - 10)
7,90	Select single tack  Set stitch length for single tack at seam beginning  (0.5 - 4.5 mm)  Set number of stitches for single tack at seam beginning  (0 - 10)
<b>***</b>	Select double tack  Set stitch length for double tack at seam beginning (0.5 - 4.5 mm)  Set number of stitches for double tack at seam beginning (0 - 10)



To set the securement of the left seam beginning:

- 1. Press the desired button.
- 2. Enter the desired value using the numeric keypad.
- 3. Confirm with OK.





#### Information

If the seam pattern is straight, you only have to set the left seam securement. The setting for the right needle is adopted.

Set securement seam beginning right needle



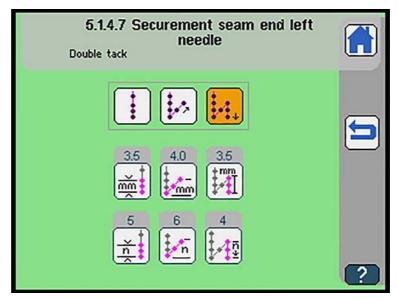
#### Information

The settings in subitem Securement seam beginning right needle are adopted automatically from the settings for the Securement seam beginning left needle ( $\square$  p. 94).

# Set securement seam end left needle

The display switches to Securement seam end left needle.

Fig. 74: Set securement seam end left needle



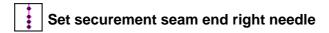


Symbols	Meaning
•	Select stitch condensing  • Image: Set stitch length for stitch condensing at seam end (0.5 - 4.5 mm)  • Image: Set number of stitches for stitch condensing at seam end (0 - 10)
•	Select single tack  Set stitch length for single tack at seam end  (0.5 - 4.5 mm)  Set number of stitches for single tack at seam end  (0 - 10)
**************************************	Select double tack  • Set stitch length for double tack at seam end (0.5 - 4.5 mm)  • Set number of stitches for double tack at seam end (0 - 10)



To set the securement of the right seam end:

- 1. Press the desired button.
- 2. Enter the desired value using the numeric keypad.
- 3. Confirm with OK.





#### Information

The settings in subitem Securement seam end right needle are adopted automatically from the settings for the Securement seam end left needle ( $\square$  p. 95).



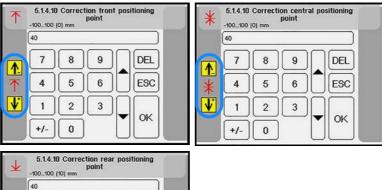




# Set correction values of the positioning points

The display switches to Set positioning point correction value.

Fig. 75: Set correction values of the positioning points







#### Information

The arrows in the left half of the display indicate the correction direction:



Correction inward



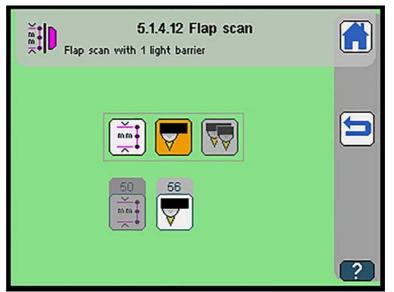
Correction outward



# Activating the flap

The display switches to Flap scan.

Fig. 76: Activating the flap (1)



Symbols	Meaning
mm	Activate fixed seam length  Output  Ou
<b>▼</b>	Activate flap scan with 1 light barrier     Set maximum flap length     Not available unless Activate flap scan has been selected
<b>₹</b>	Activate automatic flap scan left • not available for 755S



# To activate the flap:

- 1. Press the desired button.
- 2. Enter the desired value using the numeric keypad.
- 3. Confirm with OK.



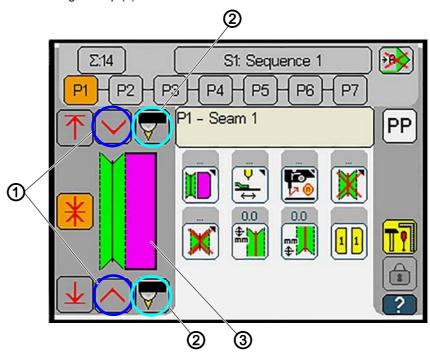


# Information

If flap scan has been set, the display will switch from the seam program to the start screen.

The display shows the flap, and the flap scan and corner knife correction can be set via the quick access menu.

Fig. 77: Activating the flap (2)



- (1) Quick access corner knife correction
- (2) Quick access flap correction
- (3) Display of flap





# **Correction light barrier**

♥ The display switches to Correction light barrier.

Fig. 78: Correction light barrier.



Symbols	Meaning
<b>—</b>	Set correction light barrier seam begin.  - 20 mm - +20 mm
-→•	Set correction light barrier seam end20 mm - +20 mm



To make a correction to the light barrier:

- 1. Press the desired button.
- 2. Enter the desired value using the numeric keypad.
- 3. Confirm with **OK**.





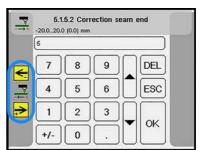


# Set correction light barrier seam begin./end

The display switches to Correction light barrier seam begin./end.

Fig. 79: Set correction light barrier seam begin./end







#### Information

The arrows in the left half of the display indicate the correction direction:

# Seam beginning



Correction outward



Correction inward

#### Seam end



Correction outward



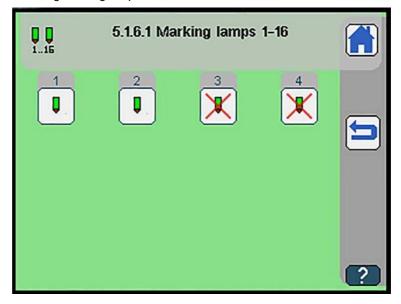
Correction inward





# **Activating marking lamps**

Fig. 80: Activating marking lamps



Symbols	Meaning
U	Marking lamp activated
	Marking lamp deactivated



To activate the marking lamps:

- 1. Press the button of the desired marking lamp.
- ♦ The marking lamp is (de)activated.



#### Information

The default option allows you to switch 4 marking lamps on/off.

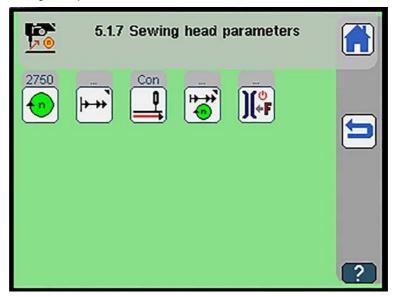




# Sewing head parameters

♥ The display switches to Sewing head parameters.

Fig. 81: Sewing head parameters



Press a button to either open another submenu or enter the desired values directly using the numeric keypad.

Symbols	Meaning
<u>••</u>	Set sewing speed • 100 RPM - 3200 RPM
<b> </b>	Set soft start parameters Soft start On/Off Soft start speed Number of stitches soft start Number of stitches needle thread clamp open
	Activating continuous transport  OR  Activate intermittent transport
<b>→→</b>	Set seam securement  R.p.m seam begin.  R.p.m seam end
)(°F	Additional thread tensioner  • Additional thread tensioner seam beginning On/Off  • Additional thread tensioner seam end On/Off





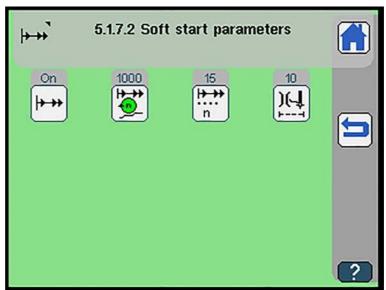
To edit the sewing head parameters:

- 1. Press the desired button.
- ♥ The user interface for setting the desired item is displayed.

# Set soft start parameters

♦ The display switches to Soft start parameters.

Fig. 82: Set soft start parameters



Symbols	Meaning
<b> + ++</b>	Soft start On/Off
•••	Set soft start speed  • 100 RPM - 1500 RPM
<b>→→</b> n	Set number of stitches for soft start  • 1 - 20
)( <u> </u>	Number of stitches for loosening the needle thread clamp  • 1 - 20



To edit the soft start parameters:

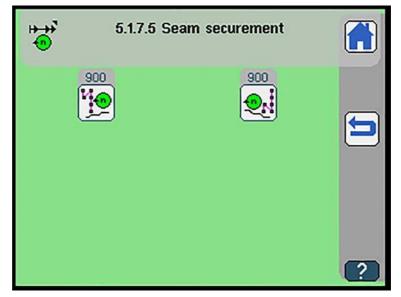
- 1. Press the desired button.
- 2. Enter the desired value using the numeric keypad.
- 3. Confirm with OK.



# Setting seam securement

♦ The display switches to Seam securement.

Fig. 83: Setting seam securement.



Symbols	Meaning
! <u>:</u>	Set r.p.m. seam begin. • 100 RPM - 1500 RPM
<b>•</b>	Set r.p.m. seam end • 100 RPM - 1500 RPM



To set the speed of the seam securement:

- 1. Press the desired button.
- 2. Enter the desired value using the numeric keypad.
- 3. Confirm with **OK**.

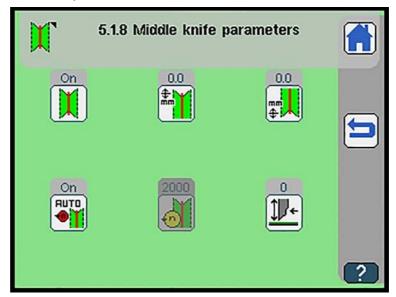




# Middle knife parameters

The display switches to Middle knife parameters.

Fig. 84: Middle knife parameters



Symbols	Meaning
<b>X</b>	Middle knife On/Off
	Set middle knife correction seam begin.  • -9.9 mm - 9.9 mm
mm #	Set middle knife correction seam end -9.9 mm - 9.9 mm
RUTO ◆ M	Automatic speed adjustment On/Off  • if automatic speed adjustment is enabled, the option Set speed middle knife is not available
ð	Set speed middle knife  • 100 RPM - 2000 RPM  • if this option is enabled, the option Automatic speed adjustment on/off is not available
<u> </u>	Set loading position of middle knife during insertion  • 0 mm - 30 mm



To set the middle knife parameters:

- 1. Press the desired button.
- 2. Enter the desired value using the numeric keypad.
- 3. Confirm with **OK**.

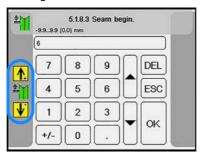


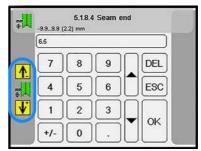


# Setting middle knife correction seam begin./seam end

The display switches to Set middle knife correction seam begin./ seam end:

Fig. 85: Setting middle knife correction seam begin./seam end







#### Information

The arrows in the left half of the display indicate the correction direction:

# Seam beginning



1 Correction outward



Correction inward

#### Seam end



Correction inward



Correction outward

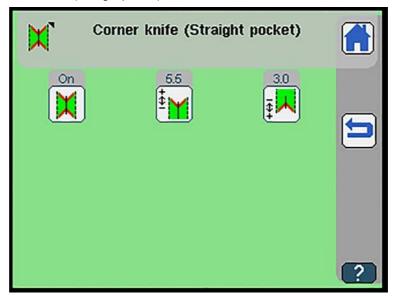




# Corner knife (straight pocket)

♥ The display switches to Corner knife (Straight pocket).

Fig. 86: Corner knife (Straight pocket)



Symbols	Meaning
X	Corner knife On/Off
<b>*</b>	Set corner knife correction seam begin.  -9.9 mm - 9.9 mm
<b>₽</b>	Set corner knife correction seam end -9.9 mm - 9.9 mm



#### To set the corner knife:

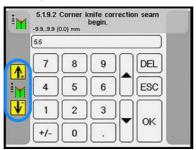
- 1. Press the desired button.
- 2. Enter the desired value using the numeric keypad.
- 3. Confirm with **OK**.

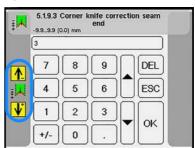




# Setting corner knife correction seam begin./seam end

Fig. 87: Setting corner knife correction seam begin./seam end







#### Information

The arrows in the left half of the display indicate the correction direction:

# Seam beginning



1 Correction outward



Correction inward

#### Seam end



Correction inward



Correction outward

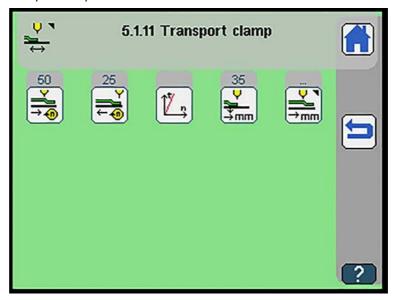




# **Transport clamp**

The display switches to Transport clamp.

Fig. 88: Transport clamp



Press a button to either open another submenu or enter the desired values directly using the numeric keypad.

Symbols	Meaning
<b>→</b>	Set return speed • 10% - 100%
<b>→</b>	Set insertion speed • 10% - 100%
<u></u>	Set softstart for insertion speed  Insertion speed fast  Insertion speed middle  Insertion speed slow
<b>=</b>	Set return of transport clamp  • Without transport  • Transport up to stacking position  • Transport up to loading position
—————————————————————————————————————	Set waiting position of transport clamp





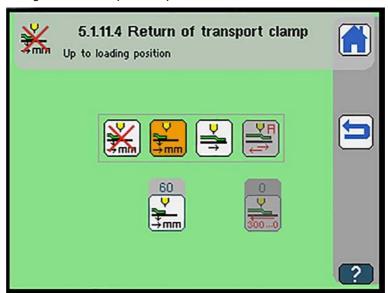
To set the transport clamps:

- 1. Press the desired button.
- ♥ The user interface for setting the desired item is displayed.

# Setting return of transport clamp

♥ The display switches to Return of transport clamp.

Fig. 89: Setting return of transport clamp



Symbols	Meaning
<b>*</b>	Activate without transport
→ → mm	Set transport up to stacking position  1 mm - 100 mm
<b>&gt;</b>	Activate transport up to loading position
₩ <del>P</del>	<ul> <li>not active unless the option has been activated in the Global parameters p. 133</li> <li>The transport clamp automatically moves to the loading position after sewing before returning to its waiting position</li> <li>0 mm - 300 mm (set position of the loading position)</li> </ul>





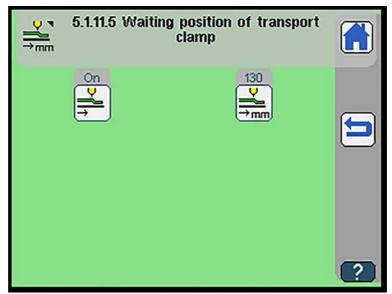
To set the transport clamp return:

- 1. Press the desired button.
- 2. Enter the desired value using the numeric keypad.
- Confirm with OK.

# Setting waiting position of transport clamp

♦ The display switches to Waiting position of transport clamp.

Fig. 90: Setting waiting position of transport clamp



Symbols	Meaning
<b>V</b>	Waiting position of transport clamp On/Off
	Set up to waiting pos. of transport clamp  • 1 mm - 515 mm



To set the waiting position of the transport clamp:

- 1. Press the desired button.
- 2. Enter the desired value using the numeric keypad.
- 3. Confirm with OK.

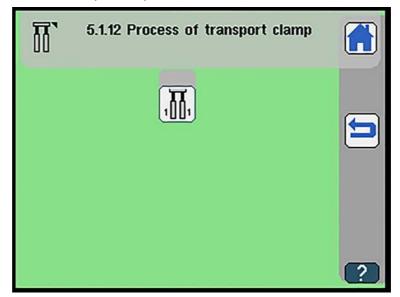




# **Process of transport clamp**

♥ The display switches to Process of transport clamp.

Fig. 91: Process of transport clamp





To set the process of the transport clamp:

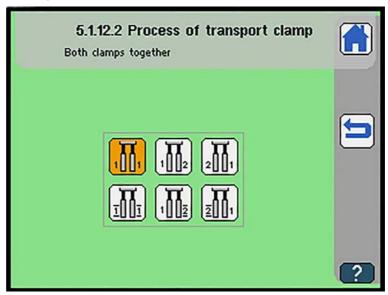
- 1. Press the desired button.
- ♦ The user interface for setting the desired item is displayed.



# Selecting process of transport clamp

The display switches to Select process of transport clamp.

Fig. 92: Selecting process of transport clamp



Symbols	Meaning
, III,	Lower both transport clamps together
1002	Lower left transport clamp first
2001	Lower right transport clamp first
<b>T</b>	Depressurize both transport clamps together
1002	Lower left transport clamp first, depressurize right transport clamp
2001	Lower right transport clamp first, depressurize left transport clamp



To select the process of the transport clamp:

1. Press the desired button.

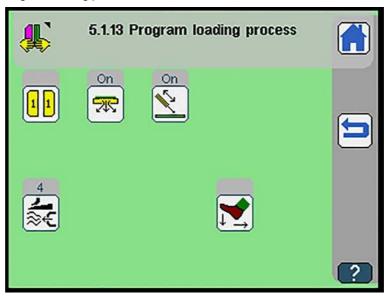




# **Programming loading process**

♥ The display switches to Program loading process.

Fig. 93: Program loading process



Press a button to either open another submenu or enter the desired values directly using the numeric keypad.

Symbols	Meaning
13.6	Select flap clamps
	Both flap clamps close together
	Left flap clamp closes first
	Right flap clamp closes first
<del>***</del>	Vacuum On/Off
	Downholder On/Off
<b>≱</b> ≋€	Select blowing mode
	Select pedal mode





To program the loading process:

- 1. Press the desired button.
- ♥ The user interface for setting the desired item is displayed.



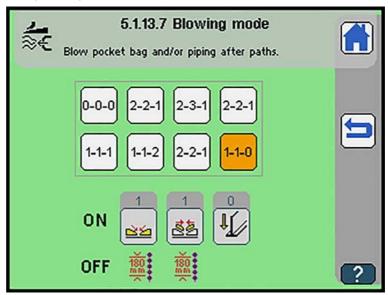
#### Information

If vacuum and downholder are activated in the  ${\it Machine\ configuration},$  these functions must be activated / deactivated together.

# Setting blowing mode

♦ The display switches to Blowing mode.

Fig. 94: Setting blowing mode



Symbols	Meaning
0-0-0	Function off
2-2-1	Lower pickup folder     Blowing ON at flap clamp + folding plate
2-3-1	1: Lower pickup folder 2: Blowing ON at folding plate 3: Blowing ON at flap clamp
2-2-1	Lower pickup folder     Blowing ON at flap clamp, blowing ON at folding plate for 10 mm seam path



Symbols	Meaning
1-1-1	1: Lower pickup folder, blowing ON at flap clamp + folding plate
1-1-2	1: Blowing ON at flap clamp + folding plate 2: Lower pickup folder
2-2-1	Lower pickup folder     Blowing ON at folding plate 180 mm + blowing ON at flap clamp
1-1-0	1: Blowing ON at flap clamp, blowing ON at folding plate for 180 mm seam path



To select blowing mode:

1. Press the desired button.



### Information

The numbering of the buttons folding plate [ ], flap clamp and lower pickup folder in the lower half of the display changes with the selected setting.



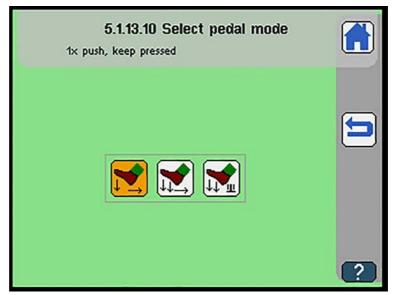
			Valve Y32			Valve Y124		
Mode	Method	Position	Blowing ON	Blowing OFF	Position	Blowing ON	Blowing OFF	Sequence
Mode 0			1	active			active	Function off
Mode 1 2-2-1	A-B-F	Blow tube in folding plate	Folding plate closed	Needles ON	Blow tube in flap clamps	Flap clamps closed	Needles ON	Blow pocket bag and/or piping to the seam beginning simultaneously.
Mode 2 2-3-1	A-B-F	Blow tube in folding plate	Folding plate closed	Flap clamps closed	Blow tube in flap clamps	Flap clamps closed	Needles ON	Blow pocket bag and piping alternately up to seam beginning.
Mode 3 2-2-1	R F	Blow tube in folding plate	Lower pickup folder	10 mm after loading position	Blow tube in flap clamps	Flap clamps closed	10 mm after loading position	Blow pocket bag and/or piping briefly. Blow piping already while folder is lowering.
Mode 4	B-F	Blow tube in folding plate	Lower pickup folder	Flap clamps closed	Blow tube in flap clamps	Flap clamps closed	Needles ON	Blow pocket bag and piping alternately up to seam beginning. Blow piping already while folder is lowering.
Mode 5 1-1-2	В	Blow tube in flap clamp right	Flap clamp closed	Needles ON	Blow tube in flap clamp left	5 mm after loading position	Needles ON	Blow pocket on flap.
Mode 6 2-2-1	A-B-F	Blow tube in folding plate	Folding plate closed	180 mm after loading position	Blow tube in flap clamps	Flap clamps closed	Needles ON	Blow pocket bag and/or piping at the same time. Blow piping after path.
Mode 7 1-1-0	A-B-F	Blow tube in folding plate	20 mm after loading position	180 mm after loading position	Blow tube in flap clamps	10 mm after Ioading position	180 mm after loading position	Blow pocket bag and/or piping after paths.



# Selecting pedal mode

The display switches to Select pedal mode

Fig. 95: Select pedal mode



Symbols	Meaning
	Press pedal 1 x and keep it there  the loading process is completed without stop
	Push pedal after each step  Vacuum, downholder and transport clamp are each triggered with one step during the loading process  the sewing process starts after the transport clamps have been triggered
	Transport clamp start after pushing pedal  Vacuum, downholder and transport clamp are each triggered with one step during the loading process  The flap clamps can be opened or closed again after the transport clamps have been triggered, and the sewing process can be started.



# To select pedal mode:

1. Press the desired button.

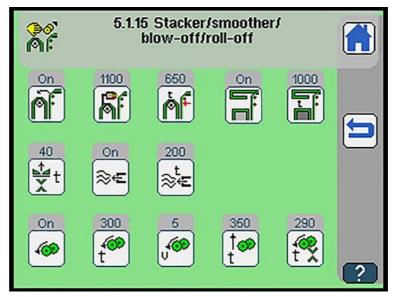




### Stacker/smoother/blow-off/roll-off

The display switches to Stacker/smoother/blow-off/roll-off.

Fig. 96: Stacker/smoother/blow-off/roll-off



Symbols	Meaning
<u>r</u>	Stacker On/Off • only with active throw-over stacker or pincer stacker \( \mathref{\textit{L}} \) p. 124
<b>F</b> f	Set the duration grip stacker signal  • only with active pincer stacker  p. 124  • 0 ms - 2000 ms
<b>Þ</b> f	Select earlier clamping time  • 0 ms - 1000 ms
I	Smoother On/Off • only with active smoother   p. 124
F	Set smoother: Start after corner cut  • only with active smoother  p. 124  • 0 ms - 1000 ms
<b>‡</b> t	Set delayed lifting of transport clamp after corner cut  • 0 ms - 1000 ms
<b>≋</b> €	Blow-off On/Off • only with active blow-off   p. 124
t ⊗€	Set the duration for which the blow-off will be blowing  • only with active blow-off  p. 124  • 0 ms - 1000 ms
<b>4</b>	Roll-off On/Off



Symbols	Meaning
t	Set roll-off time  • 0 ms - 3000 ms
J.	Set roll-off speed  • 1 - 15
↑ t	Set time after roll-off until lift-up  • 0 ms - 1000 ms
t ×	Outfeed roller: Set time after corner cut  • 0 ms - 1000 ms



To set the stacker, the smoother, the blow-off, and the outfeed roller:

- 1. Press the desired button.
- 2. Enter the desired value using the numeric keypad.
- 3. Confirm with **OK**.





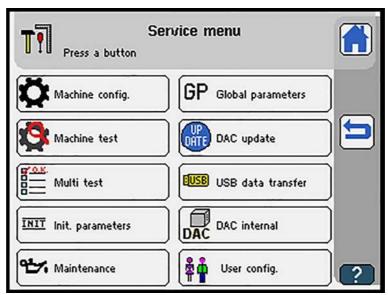
### Service menu



To access the service menu:

- 1. Press the **Service menu** button ...
- ♦ The display switches to the Service menu.

Fig. 97: Service menu



Button	Meaning
Maschinenkonfig.	Configure machine settings 🕮 p. 123
GP Globale Parameter	Set basic machine parameters 🕮 p. 131
Maschinentest	Test individual machine functions ☐ p. 136
DAC -Update	Perform system updates 🛄 p. 160
Multitest	Test machine settings ☐ p. 163
USB USB-Datentransfer	Read/write data to/from a USB key 🚨 p. 173
INIT Peremeter init.	Initialize machine parameters 🕮 p. 180



Button	Meaning
DAC DAC-intern	Only available to Dürkopp Adler  • Set internal machine parameters
Wertung	Show software version, set date/time, show internal information 🕮 p. 182
Genutzerkonfig.	Set language, button beep and user password 🕮 p. 185



To set the parameters in the service menu:

- 1. Press the desired button.
- The user interface for setting the desired item is displayed.



# **Machine configuration**

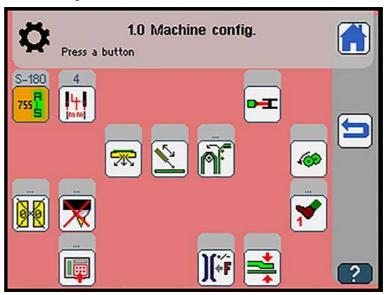


### **Important**

The *Machine configuration* menu is protected with a password. You use this menu to adjust basic machine parameters. The password is 25483.

♦ The display switches to Machine config.

Fig. 98: Machine configuration



Press a button to either open another submenu or select the desired options directly.



Symbol	Description
5	Select working method  p. 125  Machine class  Working method  Maximal sewing length
10 m m	Select needle distance ☐ p. 126
<b>₽-∄</b>	<ul> <li>Hook thread monitor On/Off</li> <li>If activated, the hook thread monitor does not appear in the Global parameters  p. 131</li> <li>If the hook thread monitor is deactivated, the maximum bobbin thread counter appears in the Global parameters and must be configured manually  p. 131</li> </ul>
<del></del>	Vacuum On/Off
	Downholder On/Off
<u>P</u>	Select stacker/pincer stacker/smoother/blow-off  Stacker not available  Throw-over stacker  Pincer stacker  Smoother  Blow-off  Roll-off On/Off
11	Select flap clamps  • Property of the select flap clamp  • I Property of the select flap clamp only  • Property of the select flap clamp only  • I I left and right flap clamp
×	Light barrier scan ☐ p. 128
<b>*</b>	Pedal operation 🕮 p. 127



Symbol	Description
·	Toolbox configuration 🚨 p. 129
)(÷F	Additional thread tensioner On/Off
<b>*</b>	Kit Shims On/Off



To set the machine configuration:

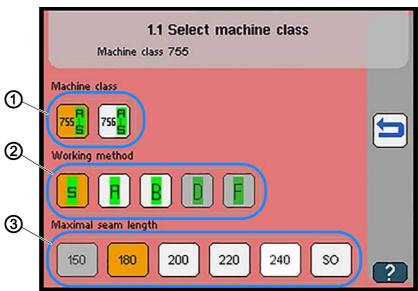
- 1. Press the desired button.
- The user interface for setting the desired item is displayed.



#### Select machine class

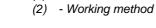
The display switches to Select machine class:

Fig. 99: Select machine class



(1) - Machine class

(3) - Maximal seam length





To select the machine class and the matching seam length:

- 1. Select the desired machine class (1).
- 2. Select the desired working method (2).
- 3. Select the desired maximal seam length (3).





#### Information

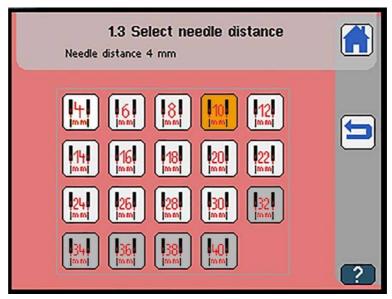
When you switch to another class, tools that are not available for the selected class may be removed from the toolbox on the start screen.



#### Select needle distance

♦ The display switches to Select needle distance:

Fig. 100: Select needle distance





To select the needle distance:

1. Select the desired needle distance.

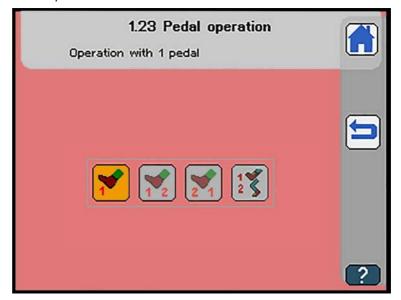




# **Pedal operation**

♥ The display switches to Pedal operation.

Fig. 101: Pedal operation



Symbol	Meaning
<b>*</b>	Operation with 1 pedal
21	Operation with 2 pedals  • 1st pedal right (function pedal)  • 2nd pedal left  • not active in 755 S
1/2	Operation with 2 pedals  1st pedal left (function pedal)  2nd pedal right not active in 755 S
1 2 3	Operation with pedal and knee lever  1st Pedal 2nd knee lever not active in 755 S



To set the pedal operation:

1. Press the desired button.

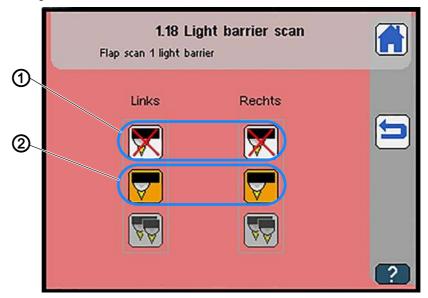




### Light barrier scan

♦ The display switches to Light barrier scan:

Fig. 102: Light barrier scan



- (1) Light barrier scan Off
- (2) Flap scan with 1 light barrier left/right



To set the light barrier scan:

- 1. Press the desired button.
- The settings for the left and the right light barrier can be configured separately.



# Information

You can configure no more than 2 light barriers at a time.

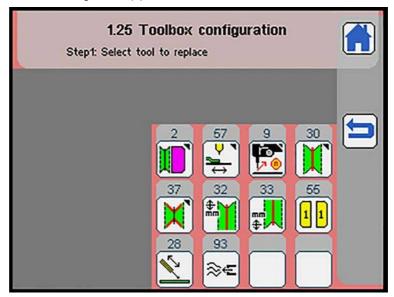




#### **Toolbox configuration**

♦ The display switches to Toolbox configuration.

Fig. 103: Toolbox configuration (1)



The toolbox can be loaded with 12 tools.

These 12 tools are linked in a quick-access menu on the start screen. Empty fields indicate that no tool has been selected for this position yet. Depending on the class and method, the display will only show the tools available for that class and method.



To configure the toolbox:

1. Press on a blank field to assign an available position.

#### OR

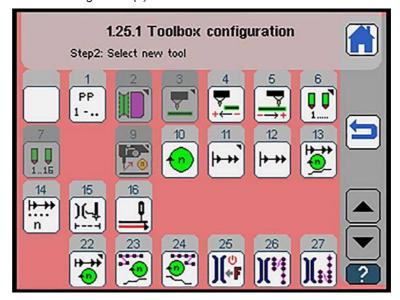


- 1. Press on a position that has already been assigned in order to change the setting.
- The display switches to an overview of the possible tools. Tools that have already been selected are highlighted in gray.

  The display will only show the tools available for the selected class.



Fig. 104: Toolbox configuration (2)





#### Information

You can use the button to remove a previously selected tool from the toolbox again.

Tools already in use are grayed out.



2. To navigate up and down the list, use the arrow buttons .



- 3. Press the selected tool to select it.
- ♦ The display returns to Machine config..





#### **Global parameters**



#### **Important**

The *Global parameters* menu is protected with a password. You use this menu to adjust basic machine parameters. The password is 25483.

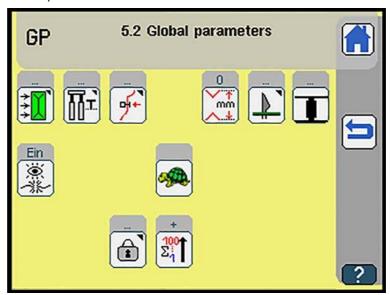


#### Information

If an option is not available or grayed out, it must be set up in the  $Machine\ configuration\ menu\ (\square\ p.\ 123)$ . Otherwise, the option will be unavailable in this class.

♦ The display switches to Global parameters.

Fig. 105: Global parameters



Press a button to either open another submenu, enter the desired values directly using the numeric keypad or select the desired options directly



Symbol	Description
**************************************	Set positioning point seam begin./center/end  Set positioning point seam begin. (100 mm - 300 mm)  Set positioning point seam center (100 mm - 300 mm)  Set positioning point seam end (100 mm - 300 mm)
<b>F</b>	Adjust transport clamp 🚨 p. 133
<b>F</b>	Set needle thread-clamp/-catcher/-tension 🕮 p. 134
V∓ mm ∧±	Adjust corner knife distance (reference pocket length)  • 20 mm - 240 mm
	Adjust corner knife  400  • Land Set cutting duration (0 ms - 1000 ms)
	<ul> <li>set maximum hook thread counter</li> <li>only visible in global parameters if hook thread monitor is deactivated in the machine configuration  p. 124</li> <li>Maximum hook thread counter On/Off</li> <li>Use the numeric keypad to enter the length of the hook thread in meters which will fit on the bobbin</li> </ul>
<u>``</u>	Needle thread monitor On/Off
<b>*</b>	Set machine process speed  Set machine process speed  If a slow  fast
î	Set password protection 🕮 p. 135
100 \(\S_1^{100}\) \(\S_1^{100}\) \(\S_1^{100}\)	Set counting direction of piece counter UP  OR  Set counting direction of piece counter DOWN





To set the global parameters:

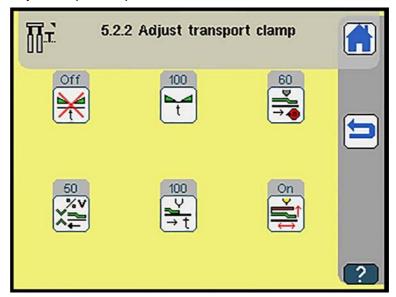
- 1. Press the desired button.
- The user interface for setting the desired item is displayed.



# Adjust transport clamp

 $\$  The display switches to Adjust transport clamp.

Fig. 106: Adjust transport clamp



Symbol	Meaning
1	Lower transport clamp automatically On/Off
t	Set delayed lifting of transport clamp  • 0 ms - 1000 ms
<b>=</b> ₹	Set transport clamp speed to waiting position • 10% - 100%
X≅	Set transport clamp speed to corner knife • 10% - 100%
<u>→</u> t	Set waiting time until transport clamp moves to seam begin.  Return transport delayed  o ms - 1000 ms
	Automatic transport clamp return On/Off  • is set in the program parameters   □ p. 111



To set the transport clamp:

1. Press the desired button.



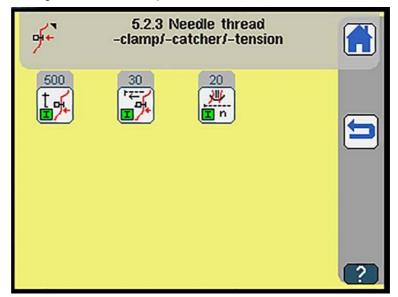
- 2. Enter the desired value using the numeric keypad.
- 3. Confirm with OK.



### Setting needle thread-clamp/-catcher/-tension

The display switches to Needle thread-clamp/-catcher/-tension.

Fig. 107: Setting needle thread-clamp/-catcher/-tension



Symbol	Meaning
t "	Set time: loosen needle thread clamp (seam beginning)  • 0 ms - 1000 ms
	Set seam end: mm till thread clamp opens  • 0 mm - 100 mm
<mark>運</mark> n	Set mm with needle thread catcher open  • 0 mm - 50 mm



To set the needle thread clamp, the needle thread catcher and the needle thread tension:

- 1. Press the desired button.
- 2. Enter the desired value using the numeric keypad.
- 3. Confirm with OK.



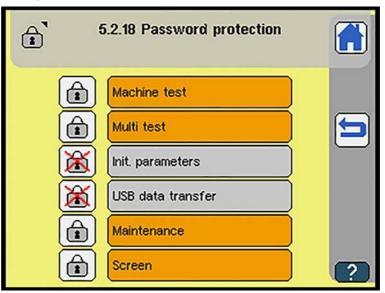


### Setting password protection

You use this menu to switch the default passwords for the levels listed below on or off.

♦ The display switches to Set password protection:

Fig. 108: Setting password protection





To set password protection:

1. Press the button in front of the desired area to enable or disable password protection.



#### Information

Locking the screen requires that you assign a user password ( p. 187).





### **Machine test**

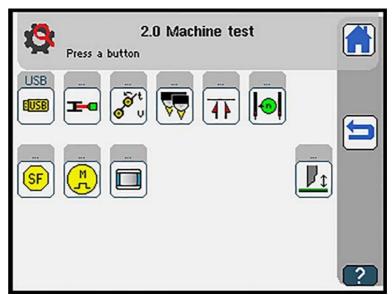
# Ţ

# **Important**

The *Machine test* menu is protected with a password. You use this menu to adjust basic machine parameters. The password is 25483.

♦ The display switches to Machine test.
The display varies with the machine configuration (□ p. 123).

Fig. 109: Machine test



Symbol	Description
IUSB	USB_Logging @ p. 137
<b>E-</b> 0	Set and test hook thread monitor $\square$ p. 138
ø <sup>©</sup> ↓	Test roll-off device ☐ p. 139
\$	Set and align light barriers 🚨 p. 140
<b>₩</b>	Adjust and test corner knife 🚨 p. 142
	Test sewing motor ☐ p. 145
SF	Machine workflow test ☐ p. 147



Symbol	Description
<b>E</b>	Test step motor ☐ p. 151
	Adjust and test control panel @ p. 153
<u> </u>	Test and set middle knife ☐ p. 157



#### To test the machine:

- 1. Press the desired button.
- The user interface for setting the desired item is displayed.



### **USB\_Logging**

USB\_Logging is used to perform on error analysis of the OP7000.



To carry out USB Logging:

- 1. Create a Log. txt file on a computer.
- 2. Load the Log. txt file onto a USB key.
- 3. Plug the USB key with the Log. txt file into the USB port.
- 4. Confirm with **OK**.
- USB\_Logging automatically writes all status messages of the OPO7000 to the Log. txt file until the machine is switched off.





#### Setting and testing hook thread monitor

♥ The display switches to Test bobbin thread monitor.



#### Information

When the light barriers are correctly aligned, a reflection occurs when an empty bobbin is turned.

The intensity of the reflection is illustrated by a black bar and a number between **1** and **15**.

If the value is above the minimum value of **8**, the display shows an arrow between reflecting head and hook thread bobbin. A signal tone will sound at the same time.

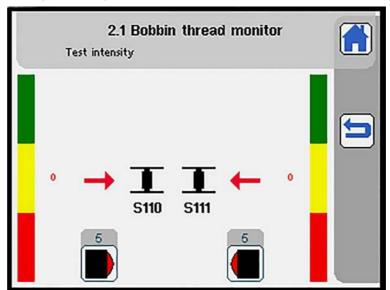


#### **Important**

If the light barrier setting is correct, the maximum value of **15** must be reached when the infrared beam hits the area of the reflecting surface of the bobbin.

♦ The black bar is within the green range.

Fig. 110: Setting and testing hook thread monitor



Symbols	Meaning
	Set sensitivity left • 0 - 15
	Set sensitivity right • 0 - 15



To set the hook thread monitor:

1. Press the desired button.



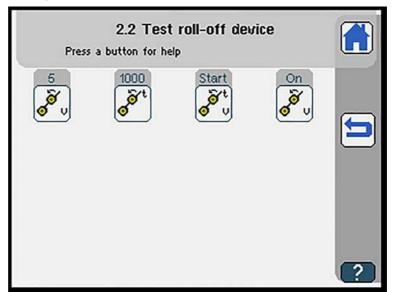
- 2. Enter the desired value using the numeric keypad.
- 3. Confirm with **OK**.



### Test roll-off device

 $\$  The display switches to  $Test\ roll-off\ device.$ 

Fig. 111: Testing roll-off device



Symbols	Meaning
6 J	Set roll-off speed  • 1 - 15
j t	Test duration of roll-off device  • 0 ms - 1000 ms
o v	Start roll-off test
و ق	Roll-off On/Off



To test the roll-off device:

- 1. Press the desired button.
- 2. Enter the desired value using the numeric keypad.
- 3. Confirm with **OK**.





### Test the light barriers

#### **CAUTION**



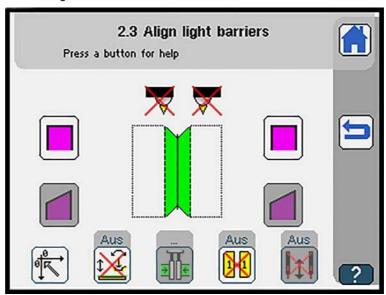
# Risk of injury from moving parts!

Crushing possible.

Do NOT reach into the moving part of the machine.

♦ The display switches to Align light barriers.

Fig. 112: Test the light barriers





#### Information

Refer to the Service Instructions for instructions on how to align the light barriers with the help of templates.

For information on how to connect the light barriers, see the wiring diagram included in the **Appendix** ( $\square$  *p. 243*).



To test the light barriers:

- 1. Press the toutton.
- Reference run is carried out.



The following table lists the items that can be set in the  ${\tt Align\ light}$  barriers menu item.

Symbol	Meaning
<b>K</b>	Reference
<b>₩</b>	Lift pick-up folder/lower pick-up folder depressurized
<b>∌</b> ∏•	Transport clamp quick adjustment  • not available for 755S
1 1	Open/Close flap clamp
Itl	Split needle bar On/Off • not available for 755S
	Scan straight flap
	Scan slanted flap • not available for 755S



2. Press the desired button.





# Adjusting and testing corner knife

### **CAUTION**

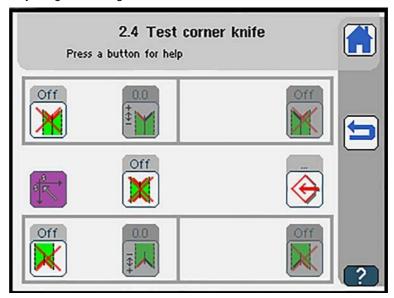


Risk of injury from moving parts! Crushing.

Do NOT reach into the moving part of the machine.

♥ The display switches to Test corner knife.

Fig. 113: Adjusting and testing corner knife





To adjust the corner knife station:

- 1. Press the toutton.
- Reference run is carried out.

The following table lists the items that can be set in the *Test corner* knife menu item.

Symbols	Meaning
<b>(</b>	Adjust corner knife
<b>*</b>	Adjust knife block seam begin. left  • not available for 755S
<b>E</b>	Adjust knife block seam end left  not available for 755S



Symbols	Meaning
M	Test corner knife function seam begin. left On/Off • not available for 755S
M	Test corner knife function seam begin. right On/Off • not available for 755S
M	Test corner knife function seam beginning
	Test corner knife function seam end
	Test corner knife function seam end left On/Off • not available for 755S
<b></b> ✓	Test corner knife function seam end right On/Off • not available for 755S
X	Test corner knife function of all corner knives On/Off



- 2. Press the desired button.
- 3. Enter the desired value using the numeric keypad.
- 4. Confirm with **OK**.

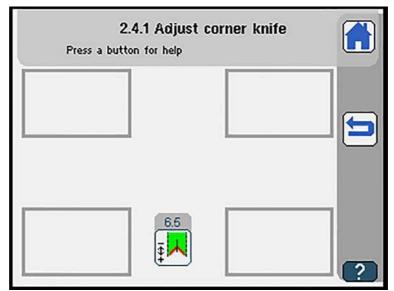


# Adjust corner knife

This setting is protected with a password. The password is 25483.

The display switches to Adjust corner knife.

Fig. 114: Adjust corner knife



Symbols	Meaning
<b>₽</b>	Set corner knife correction seam end - 99.9 mm - 99.9 mm



To adjust the corner knives:

- 1. Press the desired button.
- 2. Enter the desired value using the numeric keypad.
- 3. Confirm with **OK**.





### **Test sewing motor**

# **NOTICE**

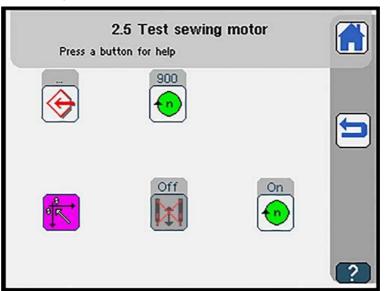
### Property damage may occur!

Jamming of the machine.

Unthread the needle thread before starting the sewing motor.

♥ The display switches to Test sewing motor.

Fig. 115: Test sewing motor



Symbols	Meaning
<b>⊕</b>	Adjust sewing motor
•	Adjust sewing motor speed • 100 RPM - 3200 RPM
术	Reference
Itl	Switch split needle bar On/Off • not available for 755S
Ein	Sewing motor On/Off





#### To test the sewing motor:

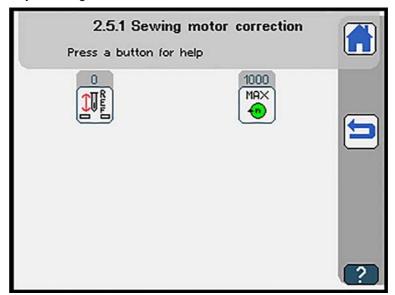
- 1. Press the button.
- Reference run is carried out.
- 2. Press the desired button.
- ♥ The user interface for setting the desired item is displayed.

# $\Leftrightarrow$

# Adjust sewing motor

 $\$  The display switches to Adjust sewing motor.

Fig. 116: Adjust sewing motor



Symbols	Meaning
	Set the position of the sewing motor • 70°70°
MRX ••	Set the maximum sewing motor speed • 100 RPM - 3200 RPM



#### To adjust the sewing motor:

- 1. Press the desired button.
- 2. Enter the desired value using the numeric keypad.
- 3. Confirm with OK.

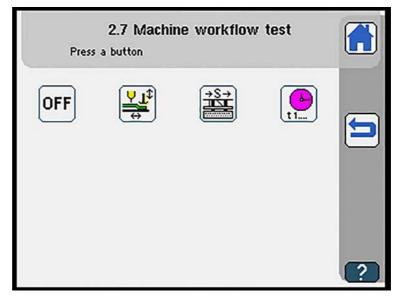




#### **Machine workflow test**

The display switches to Machine workflow test.

Fig. 117: Machine workflow test



Symbols	Meaning
OFF	Exit machine test, return to start screen
¥± <sup>±</sup>	Loading process test, test loading process step by step
→ S → INT	Test step by step
1	Display cycle time



To perform a machine workflow test:

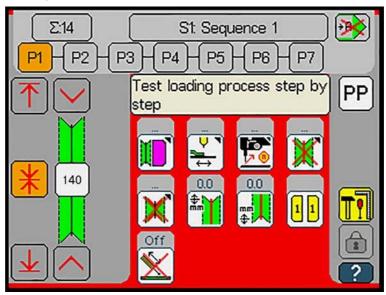
- 1. Press the desired button.



# Loading process test

♦ The display switches to Loading process test.

Fig. 118: Loading process test



The sewing material is fed through the sewing path without sewing including all functions stored in the seam program.

The loading process test is designed to check if the flaps and piping strips are transported correctly through the sewing path.



#### Information

To monitor the transport path of the sewing material, we recommend that you reduce the insertion speed prior to the loading process test  $(\square p. 110)$ .



To perform a loading process test:

- 1. Press the **Loading process test** button.
- ♦ The machine boots up.
- 2. Perform a reference run.
- ♦ The insertion mode is active.
- 3. Insert the sewing material.
- 4. Press the pedal to close the transport clamp.
- ♦ The display shows the message





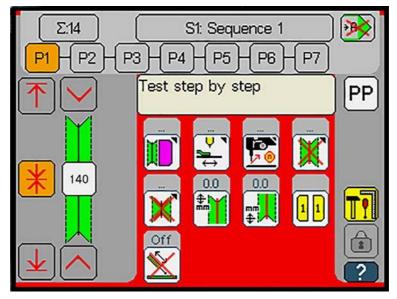
- 5. Press the right pedal.
- The loading process is completed without sewing by performing pedal strokes.
- 6. To exit the test: access the menu again and press the **OFF** button.



# Test step by step

The display switches to Test step by step.

Fig. 119: Test step by step





To carry out a step-by-step test:

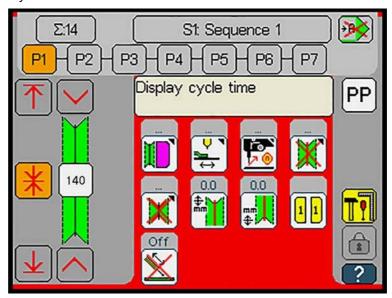
- 1. Press the **Test step by step** button
- 2. Press the pedal after every single work step.
- The step by step test allows you to test the machine workflow.
- 3. To exit the test: access the menu again and press the **OFF** button.



# Cycle time

The display switches to Cycle time.

Fig. 120: Cycle time





### To test the cycle time:

- 1. Sew.
- The display shows the time in ms.
  The cycle time allows you to optimize the machine settings.
- 2. To exit the test: access the menu again and press the **OFF** button.





#### **Testing step motor**

#### **CAUTION**



### Risk of injury from moving parts!

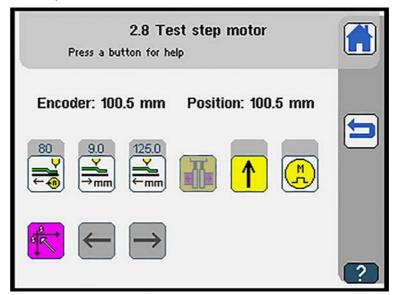
Crushing possible.

When you advance the transport clamp, the transport clamp will start at the set speed. Do NOT reach into the movement area of the transport clamp.

Do not place any objects in the movement area of the transport clamp.

The display switches to Test step motor.

Fig. 121: Test step motor





To test the step motor:

- 1. Press the button
- Reference run is carried out.



The following table lists the items that can be set in the Test step motor menu:

Symbol	Meaning
<b>~</b>	Adjust clamp speed • 10% - 100%
	Adjust step motor pos. 1  • 0 - 517.5 mm  • Starting position transport clamp
	Adjust step motor pos. 2  • 0 - 517.5 mm  • End position transport clamp
	Transport clamp quick adjustment  • not available for 755S
<b>↑</b>	OR Lower transport clamp  • When lowered, the transport clamp must rest on fabric as the machine will otherwise sustain damage
<b>E</b>	Switch step motor current-free On/Off  The transport clamp can be moved manually
*	Carry out a reference run
<del>-</del>	Insertion of transport clamp • Caution! Transport clamp moves forward
$\rightarrow$	Revers of transport clamp



- 2. Press the desired button.
- 3. Enter the desired value using the numeric keypad.
- 4. Confirm with **OK**.



#### Information

When the transport clamps are moved, the *Encoder* and *Position* values must not deviate from one another by more than 0.2. There is a risk of step losses if the value changes exceed the permissible limit when the transport clamps are moved.

If there is a difference between the *Encoder* and *Position* values, you can reset the values by carrying out a reference run.

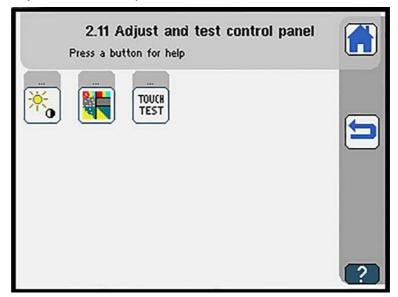




### Adjust and test control panel

♥ The display switches to Adjust and test control panel.

Fig. 122: Adjust and test control panel



Symbol	Meaning
*•	Adjusting brightness and contrast
	Touch calibration
TOUCH	Touch test



To adjust and test the control panel:

- 1. Press the desired button.
- ♥ The user interface for setting the desired item is displayed.

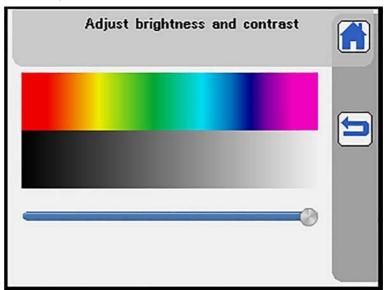


# ❈

# Adjust brightness and contrast

♥ The display switches to Adjust brightness and contrast.

Fig. 123: Adjust brightness and contrast





To adjust the brightness of the display:

- 1. Move the controller.
  - Increase brightness: Slide the controller to the right
  - Reduce brightness: Slide the controller to the left





# Touch calibration

The display switches to Touch calibration.

Fig. 124: Touch calibration





To carry out the touch calibration:

- 1. Successively press on the places indicated by the green arrow.
- Touch calibration is carried out. The display returns to Adjust and test control panel.

#### OR:



- 1. Press Cancel.
- Touch calibration is canceled. The display returns to Adjust and test control panel.



#### Information

Another option is to perform the touch calibration using the boot loader.

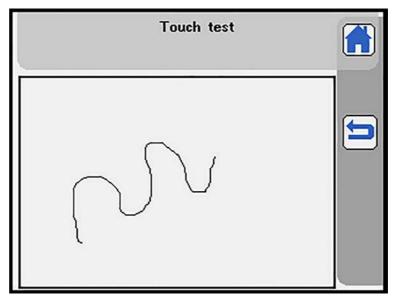
To do so, press your finger on the control panel while the control panel boots up.



# TOUCH test

 $\$  The display switches to  $Touch\ test.$ 

Fig. 125: Touch test



The Touch test menu item allows you to draw on the touch screen.

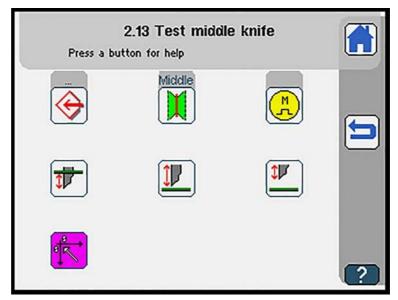




# Test middle knife

The display switches to Test middle knife.

Fig. 126: Test middle knife



Symbol	Meaning
<b>↔</b>	Adjust middle knife
X	Middle knife On/Off
(L)	Step motor On/Off
<b>T</b>	Move middle knife to lower position (cutting position)
<u> </u>	Move to height of stroke
\$₩	Move middle knife to upper position
<b>*</b>	Reference



To test the middle knife:

- 1. Press the toutton.
- Reference run is carried out.
- 2. Press the desired button.

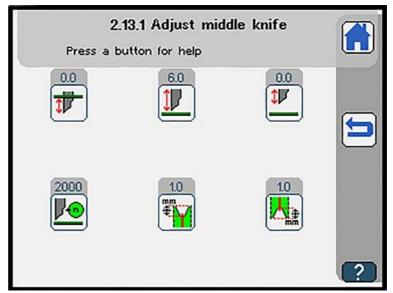


# $\odot$

# Adjust middle knife

The display switches to Adjust middle knife.

Fig. 127: Adjust middle knife



Symbol	Meaning
<b>□</b>	Set correction lower position (cutting position)  -10 mm - 10 mm
	Set height of stroke  • 1 mm - 10 mm
<b>1</b>	Set correction upper position  -10 mm - 10 mm
	Set maximum speed limit middle knife  • 100 RPM - 2000 RPM
# <b>*</b>	Set the distance of the middle knife incision to the seam beginning  - 99 mm - 99 mm
<mark>\\\</mark>	Set the distance of the middle knife incision to the seam end -99 mm - 99 mm



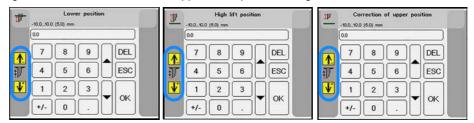
### To adjust the middle knife:

- 1. Press the desired button.
- 2. Enter the desired value using the numeric keypad.
- 3. Confirm with OK.





Fig. 128: Middle knife correction upper/lower position, height of stroke





#### Information

The arrows in the left half of the display indicate the correction direction:



Correction upward (middle knife less deep)



Correction downward (middle knife deeper)

The values produced by the test are used as reference values for all programs.

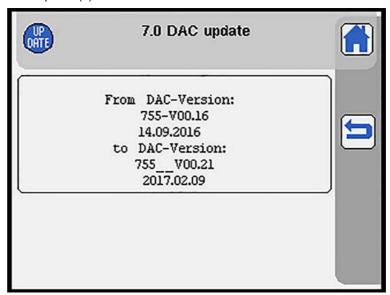




#### **DAC** update

♦ The display switches to DAC update.

Fig. 129: DAC update (1)



# 

### **Important**

While booting up, the machine will compare the software version of control panel and control.

If the software versions do not match, the system will suggest an update. This submenu allows the user to trigger the update of the control again.

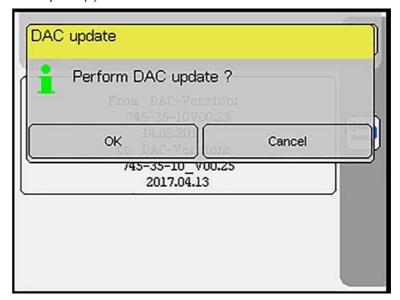


To perform an update:

- 1. Press on the screen.
- A prompt appears on the display asking if you wish to perform the update.



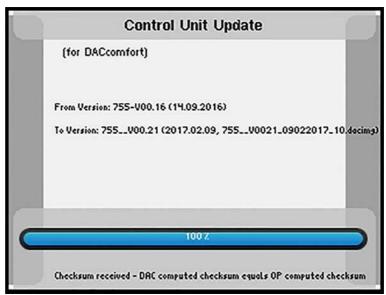
Fig. 130: DAC update (2)





- 2. Confirm with OK.
- ♦ The update is carried out.

Fig. 131: DAC update (3)



# V

### **Important**

Do not switch off the machine while the update is in progress!

♥ The display shows notice 8408: Waiting for Reset by machine.



Fig. 132: DAC update (4)



♦ The machine restarts automatically.

After restarting, the machine loads the start screen and is ready for operation.

The progress of the update is indicated by a progress bar. When the update is complete, the control panel will perform a restart.





#### Multi test

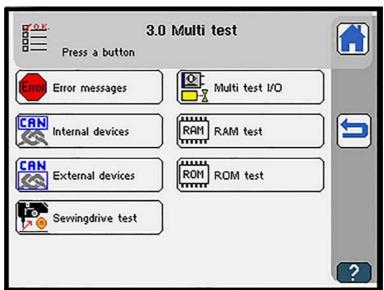


### **Important**

The *Multi test* menu is protected with a password. You use this menu to check the basic machine functions. The password is 25483.

♦ The display switches to Multi test.

Fig. 133: Multi test



Symbols	Meaning
Error messages	A press on the button will bring up a list.  The last 10 error messages  Date of the error  Time of the error
Multitest I/O	Test inputs and outputs
Interne Geräte	Display of the internal devices
RAM RAM-Test	Test the working memory RAM
EXTENSE Geräte	Display of the external devices
ROM ROM test	Test the read-only memory ROM
Nähantrieb testen	Sewing drive test





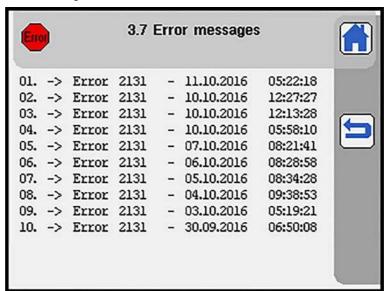
To carry out the individual tests:

- 1. Press the desired button.
- The user interface for setting the desired item is displayed.



The display switches to Error messages.

Fig. 134: Error messages



The list contains the last 10 error messages as well as the date and time of each error.



#### Information

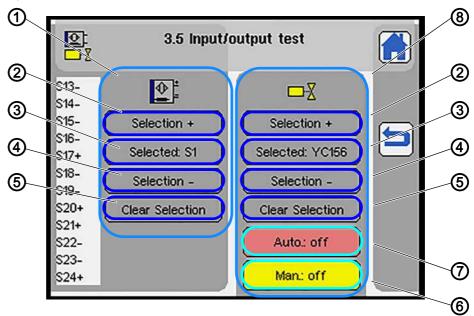
The correct display of date and time requires that you set date and time in the Maintenance menu item ( $\square$  p. 182).





♦ The display switches to Multi test I/O.

Fig. 135: Multi test I/O



- (1) Input
- (2) Increase selection by 1
- (3) Display of the selected input
- (4) Reduce selection by 1
- (5) Clear selection
- (6) Manual test On/Off
- (7) Automatic test On/Off
- (8) Output



To carry out an input and output test:

1. Select an input in the left area:

#### Inputs 755 S

S1	Needle thread monitor left
S2	Needle thread monitor right
S3	Pressure monitor
S4	Corner knife station latched
S5	Material removal
S8	Oil monitoring
S9	Lower pickup folder
S10	Folding station in initial position
S17	Flap scan
S20	second light barrier
S101/Ref X	Transport drive





# 2. Select an output in the right area:

# Outputs 755 S

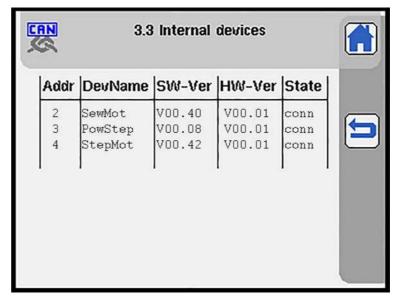
	<del>-</del>
Y1	Needle thread cutter
Y2	Hook thread cutter
Y3	Needle thread tension on
Y4	Additional thread tensioner
Y5	Thread advancing device + blowing
Y9	Lift folder off
Y10	Lower folder
Y11	Vacuum on
Y12	Lower downholder
Y17	Lower left transport clamp
Y18	Lower right transport clamp
Y19	Lift left transport clamp
Y20	Lift right transport clamp
Y21	Close folding plates
Y22	Open left flap clamp
Y23	Open right flap clamp
Y24	Blowing On (flap clamp)
Y25	Stacker on / stacker tongs forward
Y26	Stacker bracket swivelled out
Y27	Corner knife up (seam beginning)
Y28	Corner knife up (seam end)
Y31	Lower outfeed roller
Y32	Blowing on (folding plate)
H13	Laser 1
H14	Laser 2
H15	Laser 3
H16	Laser 4





The display switches to Internal devices.

Fig. 136: Internal devices



Addr	DevName	Meaning
2	SewMot	Sewing motor
3	PowStep	Motor transport axis
4	StepMot	Middle knife motor

The area State can display 3 different status messages:

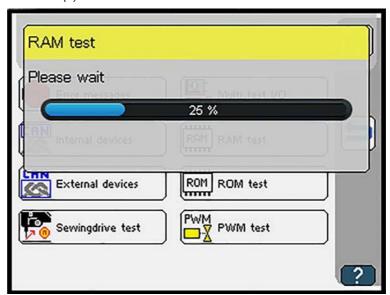
- conn = connected
- nc = not connected
- err = error



RAM test

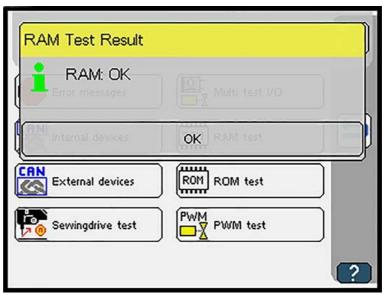
The RAM test of the control is carried out. The progress of the test is indicated by a progress bar

Fig. 137: RAM test (1).



The test result is displayed.

Fig. 138: RAM test (2)





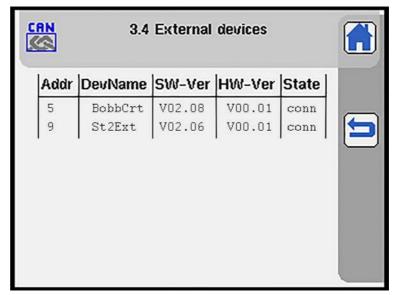
- 1. Confirm with OK.
- ♦ The display returns to Multi test.





 $\$  The display switches to External devices.

Fig. 139: External devices



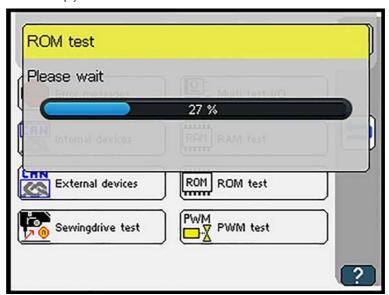
Addr	DevName	Meaning
5	BobbCrt	Remaining thread monitor
9	St2Ext	Outfeed roller



ROM test ROM test

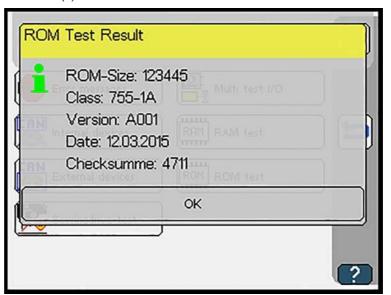
The ROM test of the control is carried out. The progress of the test is indicated by a progress bar.

Fig. 140: ROM test (1)



The test result is displayed. ROM error-free **OR** ROM defective.

Fig. 141: ROM test (2)





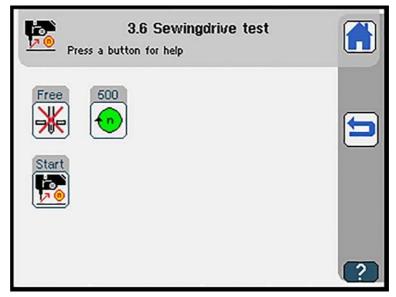
- 1. Press the **OK** button to confirm.
- $\$  The display returns to Multi test.





The display switches to Sewing drive test.

Fig. 142: Sewing drive test



Symbols	Meaning
<b>**</b>	Select needle position  Needle not positioned  Needle down  Needle up
<u>•</u>	Setting the speed • 70 RPM - 3200 RPM
<u>&gt; 0</u>	Start sewing drive



To test the sewing drive:

- 1. Press the desired button.
- 2. Enter the desired values using the numeric keypad.
- 3. Confirm with **OK**.



# Start sewing drive

#### **CAUTION**



# Risk of injury from sharp or moving parts!

Puncture or crushing possible.

Do NOT reach into the moving part of the machine.

### **NOTICE**

# Property damage may occur!

Jamming of the machine.

Unthread the needle thread before starting the sewing drive.

♥ The sewing drive starts at the set speed.

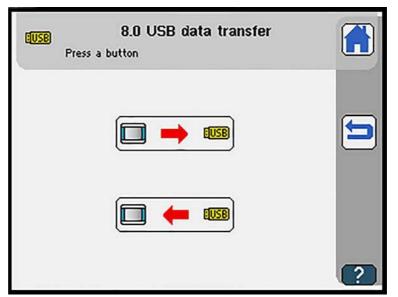


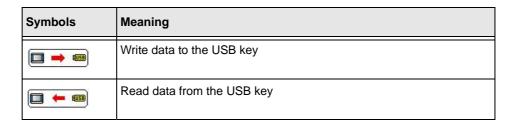


#### **USB** data transfer

 $\$  The display switches to  $\$  USB data transfer.

Fig. 143: USB data transfer







To read and write data to and from the USB key:

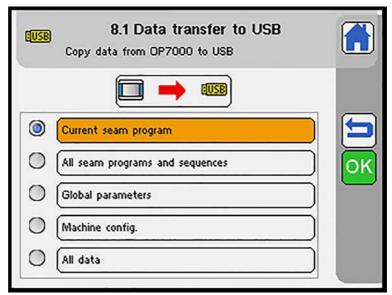
- 1. Press the desired button.
- The user interface for setting the desired item is displayed.



# ■ ➡ ■ Writing data from the system to the USB key

♥ The display switches to Data transfer to USB.

Fig. 144: Data transfer to USB (1)



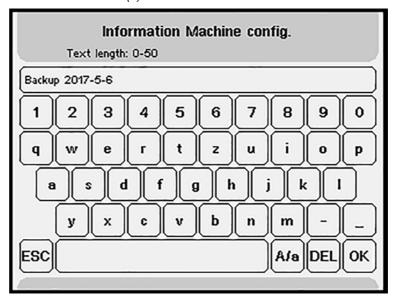


To write data from the system to the USB key:

- 1. Select which data you wish to store on the USB key:
  - Current seam program
  - All seam programs and sequences
  - · Global parameters
  - · Machine config.
  - All data
- ♦ The selected option is highlighted in orange.
- 2. Press the OK button to confirm.
- ♦ The display switches to a keypad.



Fig. 145: Data transfer to USB (2)





- You can use the keypad to enter an information text about the backup.
   The information text is displayed again the next time the backup is loaded.
  - If you do not wish to enter an information text, press the **ESC** button.
- 4. Confirm with **OK**.
- The software checks the USB key.
  The selected option is written to the USB key.

  Depending on the amount of data selected, the process may take anywhere from a few seconds to approx. 2 minutes.





#### Information

You can cancel the USB data transfer with a press on the | button.



The following notice will appear if the selected data has already been stored on the USB key: Already existing on USB: XY. Write? YES/NO.

- Press YES: Data on the USB key is overwritten.
- Press NO: The display returns to USB data transfer.

The write process can take between a few seconds and several minutes depending on which write option has been selected.

When the data has been written to the USB key, the display shows the message Data successfully written: XY.

Fig. 146: Data transfer to USB (3)





- 5. Press OK.
- The display returns to USB data transfer.



# ■ ← ■ Reading data from the USB key to the system

#### **NOTICE**

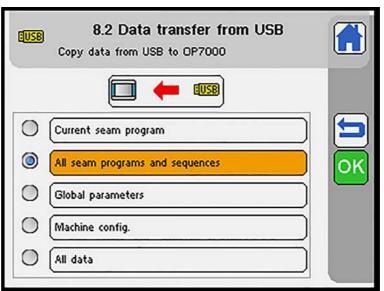
#### Property damage may occur!

The machine will not work if you load data from a wrong class. Loading data from an incorrect class will generate irregular error messages.

Check the class before loading *Machine configuration* or *All data*. After loading *Machine configuration* or *All data*, check the class and the configuration in the *Machine configuration* menu.

♦ The display switches to Data transfer from USB.

Fig. 147: Data transfer from USB





To read data from the USB key to the system:

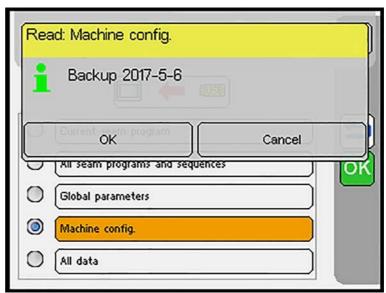
- 1. Select which data you wish to store in the control:
  - Current seam program
  - All seam programs
  - All seam programs and sequences
  - · Global parameters
  - · Machine config.



- 2. Press the OK button to confirm.
- The software checks the USB key.

  If you saved an information text for this option, the text will be displayed.

Fig. 148: Data transfer from USB





- 3. Confirm with OK.
- ♦ The selected option is written to the OP7000.



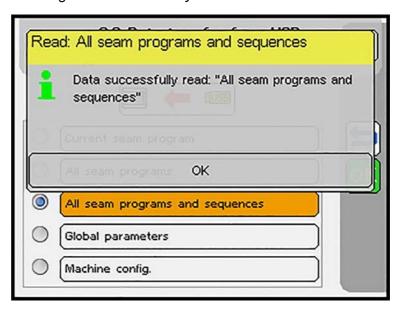
#### Information

You can cancel the USB data transfer with a press on the button.

The write process can take between a few seconds and several minutes depending on which write option has been selected.



When the data has been written to the OP7000, the display shows the message *Data successfully read: XY.* 





- 4. Press OK.
- $\$  The display returns to  $\$  USB data transfer.





## Init. parameters

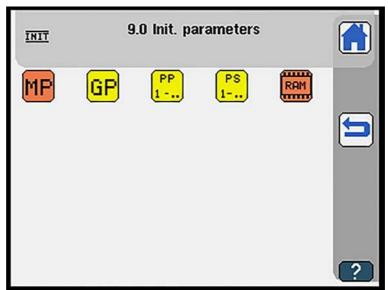


## **Important**

The Parameter init. menu is protected with a password. You use this menu to adjust basic machine parameters. The password is 25483.

♦ The display switches to Init. parameters.

Fig. 149: Init. parameters



Symbols	Meaning	
MP	Initialize machine configuration  • All stored data will be lost  • Machine parameters will be reset to the factory default settings	
GP	Initialize global parameters  • All stored data will be lost  • Global parameters will be reset to the factory default settings	
PP 1	Initialize all seam programs  • All stored data will be lost  • All seam programs will be reset to the factory default settings	
PS 1	Initialize all sequences  • All stored sequences will be lost  • All sequences will be reset to the factory default settings	
RRM	Initialize RAM  • All stored data will be lost  • All settings will be reset to the factory default settings	





To initialize the parameters:

- 1. Press the desired button.
- 2. Press **OK** to reset the values to their factory settings.
- 3. Press Cancel to cancel the initialization.



## Information

New reference data will be loaded internally from the control or, if available, from the machine ID.

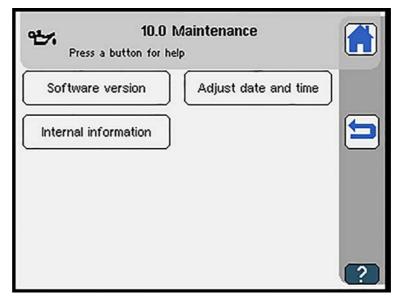




## Maintenance

The display switches to Maintenance.

Fig. 150: Maintenance



Symbols	Meaning
Softwareversion	Displays the current software version
Datum	Enter date and time
Interne Informationen	for DA service staff only



To edit the parameters in the  ${\it Maintenance}$  menu item:

- 1. Press the desired button.
- ♦ The user interface for setting the desired item is displayed.





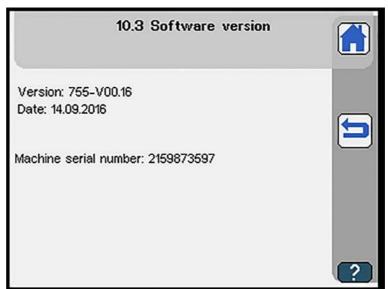


To display the software version:

- 1. Press the **Software version** button.
- The display shows the current software version.

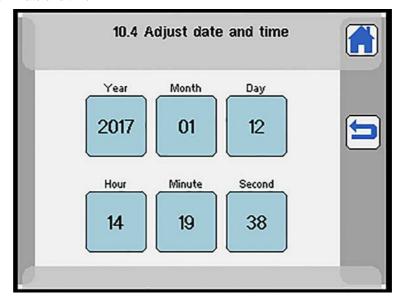
  You will need this information when contacting the DA service department for assistance.

Fig. 151: Software version



Date and time

Fig. 152: Date and time







To enter date and time:

- 1. Press the **Date** button.
- 2. Use the numeric keypad to enter the desired date.
- 3. Use the numeric keypad to enter the desired time.

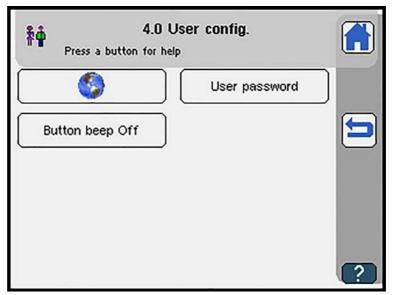




## **User configuration**

♥ The display switches to *User config.* 

Fig. 153: User configuration



Symbols	Meaning
<b>(</b> )	Language selection
Benutzer Passwort	Set user password
Testenton I/0	Button beep On/Off



To set the user configuration:

- 1. Press the desired button.





## Language selection

The display switches to Language selection.

Fig. 154: Language selection





To select the language:

- 1. Select the desired language.
- The system restarts with the new language setting.



Benutzer Passwort User password setup



### Information

To set up a user password, the user password option must be activated in the Global parameters ( $\square$  *p. 135*).

If a user password already exists, you need to enter this password before you can create a new user password.

To activate password protection, you need to restart the machine. When the machine starts up, you will be prompted to enter the user password you created.

Fig. 155: User password setup (1)





To set up a user password:

- 1. Enter the desired 4-digit PIN.
- 2. Confirm with **OK**.
- 3. Re-enter the password (password check)
- 4. Confirm with **OK**.





## Information

After setting up a user password, you can lock the start screen for other operators with a press on the button.

Fig. 156: User password setup (2)





### **Update machine software**



#### Information

There is a .zip file (9899\_DAC001\_000\_A01.27\_2016-02-14.jcbi) containing

- the update file for the control panel
- the update file for the control

The update is performed in 2 steps.

The control panel OP7000 is updated first. In a second step, a software update is performed for the control (DAC comfort).



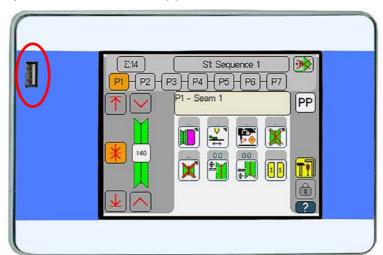
To perform an update of the machine software:

Download the update file from Dürkopp Adler's website.
 The file is named, for example:

9899\_DAC001\_000\_A01.27\_2016-02-14.jcbi

2. Copy the update file to a blank Dürkopp Adler USB key (part number 9835 301003).

Fig. 157: Update the machine software (1)





- 3. Switch off the machine and wait for approx. 15 seconds.
- 4. Connect the Dürkopp Adler USB key to the OP7000.
- 5. Restart the machine.
- ♦ The OP7000 boot loader appears:



Fig. 158: Update the machine software (2)



The OP7000 detects the USB key and updates the operating software first.

Fig. 159: Update the machine software (3)



♦ The update will take approx. 2 minutes.



### **Important**

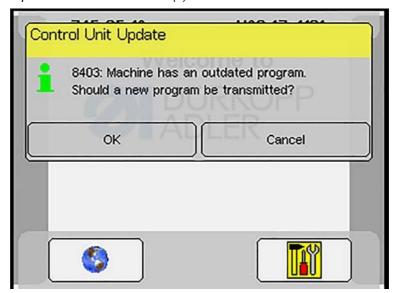
Do not switch off the machine while the update is in progress!



- 6. Remove the USB key when prompted to do so.
- The machine restarts automatically.
  The display shows notice 8403: Machine has an outdated program.
  Should a new program be transmitted?
- 7. If the machine fails to restart: Switch off and on the machine again.



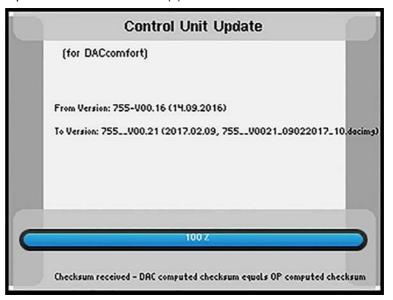
Fig. 160: Update the machine software (4)





- 8. Confirm with **OK**.
- ♦ The update is carried out.

Fig. 161: Update the machine software (5)



# V

## **Important**

Do not switch off the machine while the update is in progress!

♦ The display shows notice 8408: Waiting for Reset by machine.



Fig. 162: Update the machine software (6)



The machine restarts automatically. After restarting, the machine loads the start screen and is ready for operation.

### OR



- 9. Press CANCEL to cancel the update.
- ♦ The following warning appears:

Fig. 163: Update the machine software (7)



After confirming with **OK**, you can continue working with the old control software.





## Information

If the update fails, you can restart it in the service menu under DAC update ( $\square$  *p. 160*).





### 6 Maintenance

This chapter describes maintenance work that needs to be carried out on a regular basis to extend the service life of the machine and achieve the desired seam quality.

Advanced maintenance work may only be carried out by qualified specialists, ( Service Instructions).

### **WARNING**



## Risk of injury from sharp parts!

Punctures and cutting possible.

Prior to any maintenance work, switch off the machine or set the machine to threading mode.

### **WARNING**



## Risk of injury from moving parts!

Crushing possible.

Prior to any maintenance work, switch off the machine or set the machine to threading mode.

### **Maintenance intervals**

Work to be carried out		Operating hours			
	8	40	160	500	
Removing lint and thread remnants					
Clean the lenses of the light barriers					
Checking the water level					
Top off the oil reservoir					
Check the pneumatic system					



## 6.1 Cleaning

### WARNING



## Risk of injury from flying particles!

Flying particles can enter the eyes, causing injury.

Wear safety goggles.

Hold the compressed air gun so that the particles do not fly close to people.

Make sure no particles fly into the oil pan.

## **NOTICE**

## Property damage from soiling!

Lint and thread remnants can impair the operation of the machine.

Clean the machine as described.

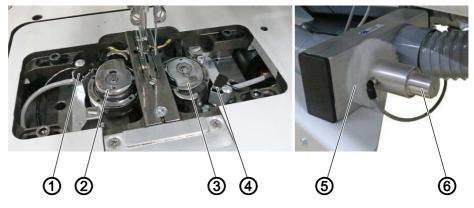
### **NOTICE**

### Property damage from solvent-based cleaners!

Solvent-based cleaners will damage paintwork.

Use only solvent-free substances for cleaning.

Fig. 164: Cleaning



- (1) Light barrier
- (2) Hook
- (3) Hook

- (4) Light barrier
- (5) Filter ring
- (6) Vacuum valve



### Check and clean daily

- Use a compressed air gun to clean the areas of hook (2) and (3).
- Clean the lenses of light barriers (1) and (4) at the remaining thread monitor with a soft cloth every time you change the bobbin.
- To clean the filter ring (5) at the vacuum valve (6): Blow out the filter using a compressed air gun.

## 6.2 Lubricating

### **CAUTION**



### Risk of injury from contact with oil!

Oil can cause a rash if it comes into contact with skin.

Avoid skin contact with oil. If oil has come into contact with your skin, wash the affected areas thoroughly.

### NOTICE

### Property damage from incorrect oil!

Incorrect oil types can result in damage to the machine.

Only use oil that complies with the data in the instructions.

### **CAUTION**



### Risk of environmental damage from old oil!

Incorrect handling of old oil can result in severe environmental damage.

ALWAYS observe the legally prescribed regulations for handling and disposal of mineral oil. Take care to ensure that oil is NEVER spilled.

For topping off the oil reservoir, use only lubricating oil **DA 10** or oil of equivalent quality with the following specifications:

• Viscosity at 40 °C: 10 mm<sup>2</sup>/s

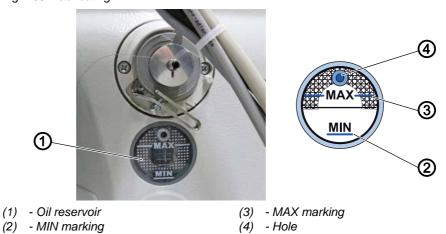
Flash point: 150 °C



You can order the lubricating oil from our sales offices using the following part numbers:

Container	Part no.
250 ml	9047 000011
11	9047 000012
21	9047 000013
51	9047 000014

Fig. 165: Lubricating





## **Proper setting**

The oil level must not raise above the MAX marking (3) or drop below the MIN marking (2).



To top off the oil:

- 1. Swivel up the machine head ( $\square$  *p. 30*).
- 2. Refill oil through the hole (4) in the inspection glass until the oil level reaches the MAX marking (3).



## 6.3 Servicing the pneumatic system

## 6.3.1 Setting the operating pressure

## **NOTICE**

### Property damage from incorrect setting!

Incorrect operating pressure can result in damage to the machine.

Ensure that the machine is only used when the operating pressure is set correctly.

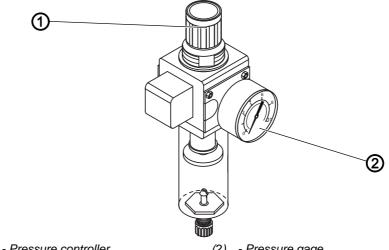


## **Proper setting**

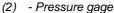
Refer to the **Technical data** ( p. 241) chapter for the permissible operating pressure. The operating pressure cannot deviate by more than ± 0.5 bar.

Check the operating pressure on a daily basis.

Fig. 166: Setting the operating pressure



(1) - Pressure controller





To set the operating pressure:

- 1. Pull the pressure controller (1) up.
- 2. Turn the pressure controller until the pressure gage (2) indicates the proper setting:
  - Increase pressure = turn clockwise
  - Reduce pressure = turn counterclockwise
- 3. Push the pressure controller (1) down.



### 6.3.2 Draining the water condensation

### **NOTICE**

### Property damage from excess water!

Excess water can cause damage to the machine.

Drain water as required.

Water condensation accumulates in the water separator (2) of the pressure controller.

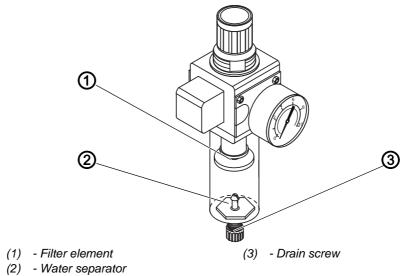
# **✓**

## **Proper setting**

Water condensation must not rise up to the level of the filter element (1).

Check the water level in the water separator (2) on a daily basis.

Fig. 167: Draining the water condensation





To drain water condensation:

- 1. Disconnect the machine from the compressed air supply.
- 2. Place the collection tray under the drain screw (3).
- 3. Loosen the drain screw (3) completely.
- 4. Allow water to drain into the collection tray.
- 5. Tighten the drain screw (3).
- 6. Connect the machine to the compressed air supply.



### 6.3.3 Cleaning the filter element

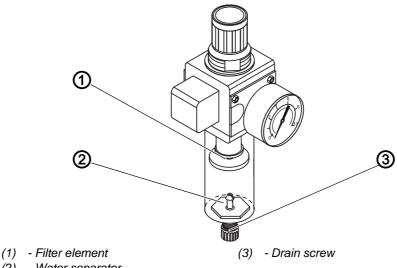
### NOTICE

### Damage to the paintwork from solvent-based cleaners!

Solvent-based cleaners damage the filter.

Use only solvent-free substances for washing out the filter tray.

Fig. 168: Cleaning the filter element



- (2) Water separator





### To clean the filter element:

- 1. Disconnect the machine from the compressed air supply.
- 2. Drain the water condensation ( $\square$  *p. 200*).
- 3. Loosen the water separator (2).
- 4. Loosen the filter element (1).
- 5. Blow out the filter element (1) using the compressed air gun.
- 6. Wash out the filter tray using benzine.
- 7. Tighten the filter element (1).
- 8. Tighten the water separator (2).
- 9. Tighten the drain screw (3).
- 10. Connect the machine to the compressed air supply.



## 6.4 Parts list

A parts list can be ordered from Dürkopp Adler. Or visit our website for further information at:

www.duerkopp-adler.com





## 7 Setup

### **WARNING**



# Risk of injury from a lack of specialist knowledge!

Inadequate specialist knowledge can result in serious injuries when setting up the machine.

Allow ONLY trained personnel to setup the machine.

### **DANGER**



## Risk of injury from electricity!

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

Work on the electrical system must ONLY be carried out by qualified electricians or appropriately trained and authorized personnel.

ALWAYS pull the power plug before working on the electrical equipment.

## 7.1 Scope of delivery

The scope of delivery depends on your specific order. Check that all parts required are present before setting up the machine:

- Basic equipment
- Additional equipment
- Small parts in an accessory pack



## 7.2 Setting up the machine

### 7.2.1 Transport

### **WARNING**



Risk of injury due to incorrect transport! Crushing.

Do NOT lift the machine at the tabletops. ALWAYS use lifting carriage or forklift.

### **WARNING**



Risk of injury due to unstable footing! Crushing.

Before commissioning the machine, screw out the stand feet until a secure footing is achieved.

## 7.2.2 Lifting the machine



### **Important**

When lifting the stand without castors, ONLY use a lifting carriage or forklift.

## 7.2.3 Rolling the machine

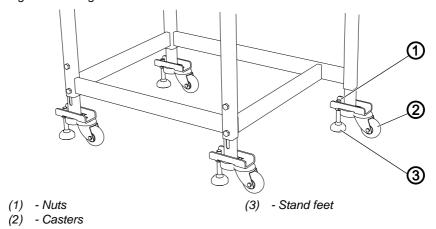


### Information

For in-house transport the stand can be equipped with 4 casters.



Fig. 169: Rolling the machine





To roll the machine:

- 1. To transport the machine on casters, loosen the nuts (1) of the stand feet (3) and screw in the stand feet (3).
- 2. When transport is complete, loosen the stand feet (3) until the casters (2) lift off the ground.
- 3. Tighten the nuts (1).

### 7.2.4 Removing the transport locks

Remove all transport locks before setting up the machine.

All moving parts must be unlocked:

- Transport carriage
- Method plate
- Corner knife station
- Feeder
- Assembly groups, e. g. stacker



### **Important**

If you wish to transport the machine to a different location, you have to attach the transport locks again.

When removing/fitting the transport locks, also observe the information given in the supplementary sheet included with the machine.



### 7.2.5 Setting the working height

The working height can be adjusted between 797 mm and 1138 mm (measured to the upper edge of the tabletop).

The sewing unit has been set to the lowest working height of 797 mm at the factory.

### **WARNING**

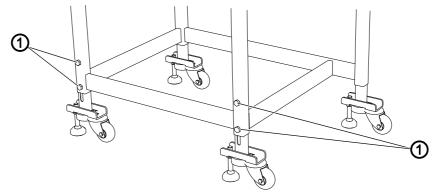


## Risk of injury due to unstable footing!

Tipping of the machine.

Use caution when loosening the screws.

Fig. 170: Setting the working height



(1) - Screws



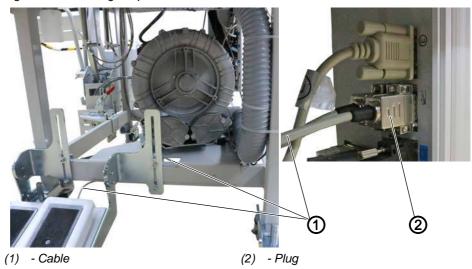
To set the desired working height:

- 1. Loosen the screws (1).
- 2. Set the tabletop to the desired working height.
- 3. To avoid jamming, slide the stand tubes in or out evenly on both sides.
- 4. Tighten the screws (1).



## 7.2.6 Connecting the pedals

Fig. 171: Connecting the pedals





## To connect the pedals:

- 1. Lay the cable (1) in such a way that it cannot be damaged when the stand is lifted with a forklift.
- 2. Connect the plug (2) with the control.



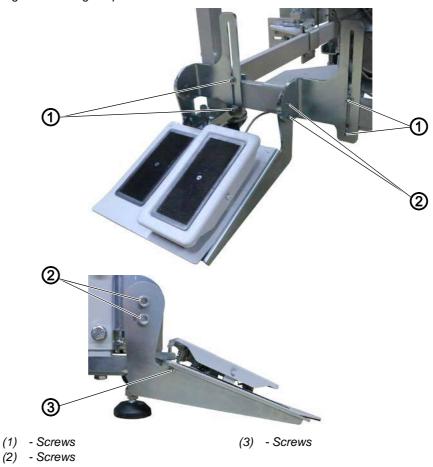
## 7.2.7 Setting the pedals



### Information

The pedals can be set in height, angle of inclination, lateral position and alignment towards the front or rear.

Fig. 172: Setting the pedals





To set the **height** of the pedals:

- 1. Loosen the screws (1).
- 2. Shift the position of the screws (1) in the slotted hole. Make sure the height of the pedal is even.
- 3. Tighten the screws (1).



To set the pedals' **angle** of inclination:

- 1. Loosen the screws (2).
- 2. Swivel the pedal.
- 3. Tighten the screws (2) at the pedals' desired angle of inclination.





## To set the **lateral position** of the pedals:

- 1. Loosen the screws (1).
- 2. Shift the pedal laterally on the stand bar.
- 3. Tighten the screws (1).



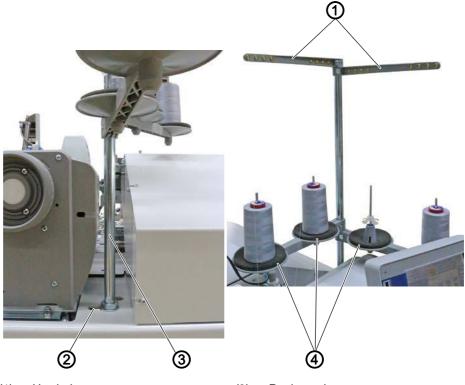
To shift the position of the pedals to the front or the rear:

- 1. Loosen the screws (3).
- 2. Slide the pedals forward or backward.
- 3. Tighten the screws (3).

## 7.3 Assembling the machine parts removed for shipping

## 7.3.1 Assembling the reel stand

Fig. 173: Assembling the reel stand



- (1) Unwinder arms
- (2) Slotted hole

- (3) Reel stand
- (4) Reel plate



### To assemble the reel stand:

- 1. Insert the reel stand (3) into the slotted hole (2) in the tabletop and assemble it with washer and nut below the tabletop.
- 2. Mount and align the reel plate (4) and the unwinder arms (1) as shown in the figure.



## 7.3.2 Assembling the control panel

Fig. 174: Assembling the control panel



- (1) Control panel(2) Screws





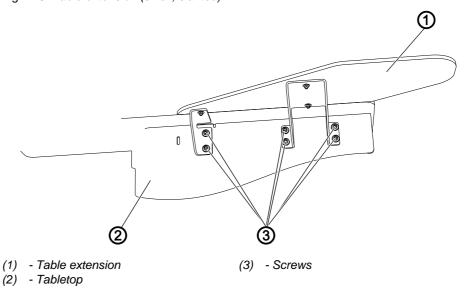
## To assemble the control panel:

- Tighten the control panel (1) to the control panel holder using the screws (2).
- Insert and tighten the plug (3).

## 7.3.3 Mounting the table extensions (additional equipment)

## Table extension (small, slanted)

Fig. 175: Table extension (small, slanted)





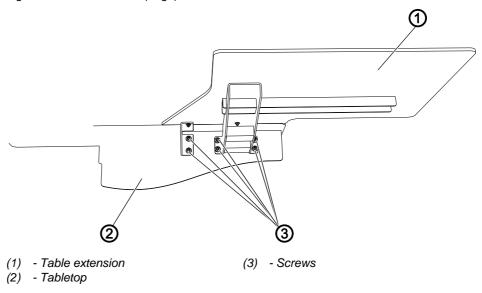


To assemble the table extension (small, slanted):

1. Screw the table extension (1) to the left side of the tabletop (2) using the screws (3).

## **Table extension (large)**

Fig. 176: Table extension (large)



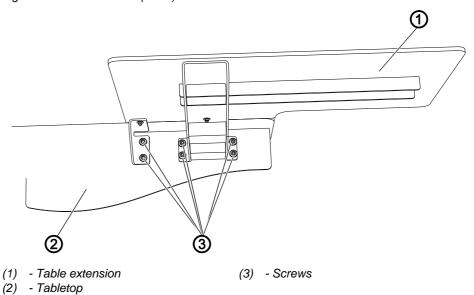


To assemble the table extension (large):

 Screw the table extension (1) to the left side of the tabletop (2) using the screws (3).

## Table extension (small)

Fig. 177: Table extension (small)







To assemble the table extension (small):

Screw the table extension (1) to the left side of the tabletop (2) using the screws (3).

### 7.4 Electrical connection

## **DANGER**



## Risk of injury from electricity!

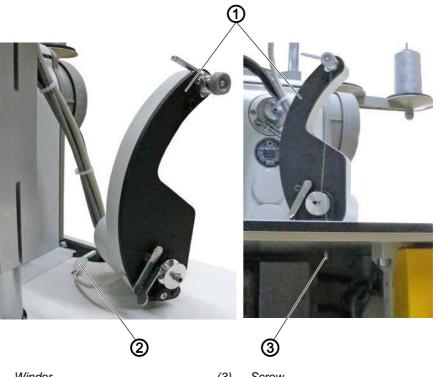
Unprotected contact with electricity can result in serious injuries or death.

Work on the electrical system must ONLY be carried out by qualified electricians or appropriately trained and authorized personnel.

ALWAYS pull the power plug before working on the electrical equipment.

## Connecting the winder

Fig. 178: Connecting the winder



- (1) Winder
- (2) Plug





To connect the winder:

- 1. Tighten the winder (1) with the screw (3) on the tabletop.
- 2. Connect the plug (2).

### 7.5 Pneumatic connection

The pneumatic system of the machine and of the additional equipment must be supplied with dry and oil-free compressed air. The supply pressure must lie between 8 and 10 bar.

### **NOTICE**

### Property damage from oily compressed air!

Oil particles in the compressed air can cause malfunctions of the machine and soil the sewing material.

Ensure that no oil particles enter the compressed air supply.

### **NOTICE**

### Property damage from incorrect setting!

Incorrect system pressure can result in damage to the machine.

Ensure that the machine is only used when the system pressure is set correctly.

## 7.5.1 Assembling the compressed air maintenance unit

To assemble the compressed air maintenance unit:



 Connect the connection hose to the compressed air supply using a hose coupling R 1/4".



### 7.5.2 Setting the operating pressure

### NOTICE

### Property damage from incorrect operating pressure!

Incorrect operating pressure can result in damage to the machine.

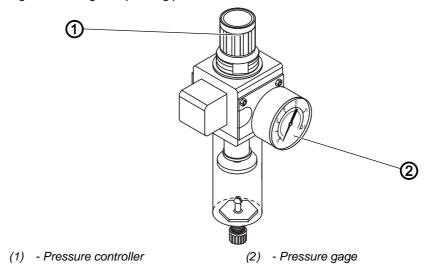
Ensure that the machine is only used when the operating pressure is set correctly.



### **Proper setting**

Refer to the **Technical data** ( $\square$  *p. 241*) chapter for the permissible operating pressure. The operating pressure cannot deviate by more than  $\pm$  0.5 bar.

Fig. 179: Setting the operating pressure





To set the operating pressure:

- 1. Pull the pressure controller (1) up.
- 2. Turn the pressure controller until the pressure gage (2) indicates the proper setting:
  - Increase pressure = turn clockwise
  - Reduce pressure = turn counterclockwise
- 3. Push the pressure controller (1) down.



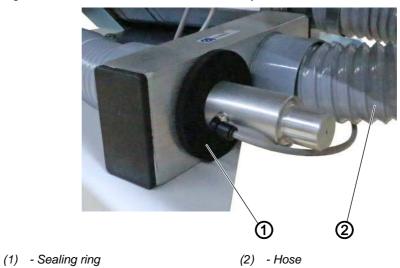
# 7.6 Connection to the in-house vacuum system



#### Information

If no in-house vacuum system is available, you will have to order the vacuum device in addition.

Fig. 180: Connection to the in-house vacuum system





To connect the in-house vacuum system:

- 1. Connect the hose (2) to the in-house vacuum system.
- 2. Fit the sealing ring (1).



# 7.7 Connecting the vacuum compressor in the machine

## **NOTICE**

## Property damage may occur!

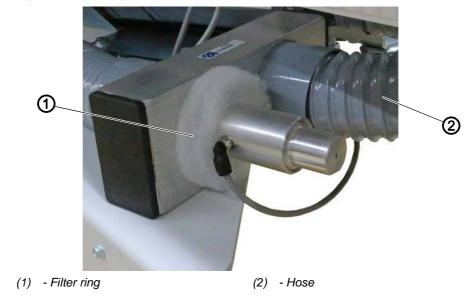
The blower overheats.

The motor winding becomes damaged.

When mounting the vacuum device (side-channel blower), you MUST replace the sealing ring (black) with a filter ring (1) (white).

The filter ring (1) is included in the accessory pack.

Fig. 181: Connecting the vacuum compressor in the machine





To connect the vacuum compressor in the machine:

- 1. Connect the hose (2) of the vacuum compressor.
- 2. Fit the filter ring (1).



#### 7.8 Commissioning

You should perform a sewing test when finished setting up the sewing unit.

#### **WARNING**



## Risk of injury from sharp parts and laser light!

Puncture or blindness.

Turn off the main switch before threading needle thread and hook thread.

Do NOT look directly into the light source of the laser beam.

#### **NOTICE**

#### Property damage may occur!

Moving the transport carriage without sewing material damages the transport clamp coating.

Before starting to sew, make sure there is sewing material under the transport clamps.

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To perform a sewing test:

- 1. Insert the power plug.
- 2. Thread the needle threads ( p. 19).
- 3. Insert the bobbins ( $\square$  *p. 35*).
- 4. Switch on the machine.
- ♥ The control is initialized.
- 5. Press the pedal back.
- The reference run starts.
  The transport carriage moves to its rear end position.

The reference run is necessary in order to obtain a defined starting position of the transport carriage.

- 6. Select the seam program ( p. 85).
- 7. Insert sewing material ( p. 47).
- 8. Press the pedal.
- The different steps of the positioning procedure are triggered one after another.

The sewing procedure is started.





# 8 Decommissioning

#### WARNING



#### Risk of injury from a lack of care!

Serious injuries may occur.

ONLY clean the machine when it is switched off. Allow ONLY trained personnel to disconnect the machine.

#### CAUTION



## Risk of injury from contact with oil!

Oil can cause a rash if it comes into contact with skin.

Avoid skin contact with oil. If oil has come into contact with your skin, wash the affected areas thoroughly.



#### To decommission the machine:

- 1. Switch off the machine.
- 2. Unplug the power plug.
- 3. If applicable, disconnect the machine from the compressed air supply.
- 4. Remove residual oil from the oil pan using a cloth.
- 5. Cover the control panel to protect it from soiling.
- 6. Cover the control to protect it from soiling.
- 7. Cover the entire machine if possible to protect it from contamination and damage.





# 9 Disposal

#### **CAUTION**



# Risk of environmental damage from improper disposal!

Improper disposal of the machine can result in serious environmental damage.

ALWAYS comply with the national regulations regarding disposal.



The machine must not be disposed of in the normal household waste.

The machine must be disposed of in a suitable manner in accordance with all applicable national regulations.

When disposing of the machine, be aware that it consists of a range of different materials (steel, plastic, electronic components, etc.). Follow the national regulations when disposing these materials.





# 10 Troubleshooting

#### 10.1 Customer Service

Contact for repairs and issues with the machine:

# Dürkopp Adler GmbH

Potsdamer Str. 190 33719 Bielefeld, Germany

Tel. +49 (0) 180 5 383 756 Fax +49 (0) 521 925 2594

Email: service@duerkopp-adler.com Internet: www.duerkopp-adler.com



# 10.2 Messages of the software

Please contact customer service if an error occurs that is not described here. Do not attempt to correct the error yourself.

Error code	Symbol	Meaning	Remedial action
Error code 0-	1999: Error messages sew	ring motor control	
0000		Unknown error	Switch off and on the machine again
1000	<u> </u>	Encoder cable not connected     Encoder cable defective     Encoder defective	Check encoder cable     Replace encoder cable
1001		Sewing motor plug (AMP) not connected	<ul> <li>Connect sewing motor cable</li> <li>Check sewing motor cable</li> <li>Test sewing motor phases (R= 2.8 Ohm, high impedance to PE)</li> <li>Replace sewing motor cable</li> <li>Replace encoder</li> <li>Replace sewing motor</li> <li>Replace control</li> </ul>



Error code	Symbol	Meaning	Remedial action
1002		Sewing motor insulation fault	Check motor phase and PE for low-impedance connection     Replace sewing motor encoder     Replace sewing motor
1004	Error (no	Sewing motor error: Incorrect direction of rotation	<ul> <li>Replace encoder</li> <li>Check plug assignment and change, if necessary</li> <li>Check wiring in machine distribu- tor and change it, if necessary</li> <li>Test motor phases and check for correct value</li> </ul>
1005		Sewing motor blocked     Encoder cable not connected     Encoder cable defective     Encoder defective	Remove blockage     Check encoder cable and replace, if necessary     Replace sewing motor
1006		Sewing motor error: Maximum speed exceeded     Sewing motor cable defective     Sewing motor defective	Switch off and on the machine again     Check class     Replace encoder     Replace sewing motor
1007		Error in the reference run	Replace encoder     Eliminate stiff movement in the sewing machine
1008	<u> </u>	Fault in sewing motor encoder	Replace encoder
1010		Cable to sewing motor reference switch defective     Reference switch defective	Replace cable     Replace reference switch     (part number 9815 935006)
1011		Sewing motor synchronization error (encoder Z pulse missing)	Switch off the control, use hand- wheel to turn, and switch on the control again. If error is not corrected, check encoder
1012	<u> </u>	Sewing motor synchronization error	Replace synchronizer
1051		Sewing motor timeout  Cable to sewing motor reference switch defective  Machine head not moving freely  excessively high toothed belt tension	<ul> <li>Replace cable</li> <li>Replace reference switch</li> <li>Eliminate seizing</li> <li>Check toothed belt tension</li> </ul>
1052		Sewing motor excess current, internal current increase to over 25 A	Replace sewing motor cable     Replace encoder     Replace sewing motor     Replace control
1053		Mains voltage too high	Check mains voltage



Error code	Symbol	Meaning	Remedial action
1054	<u> </u>	Internal short circuit	Replace control
1055	<u> </u>	Sewing motor overload     Sewing motor blocked/not moving freely     Sewing motor defective     Control defective	<ul> <li>Eliminate seizing/stiff movement</li> <li>Replace sewing motor</li> <li>Replace control</li> </ul>
1056		Sewing motor overtemperature  Sewing motor not moving freely Sewing motor defective Control defective	Eliminate seizing
1058		Sewing motor speed • Sewing motor defective	Replace sewing motor
1060	<u> </u>	Sewing motor excess current/ excess voltage     Encoder defective	<ul> <li>Replace sewing motor cable</li> <li>Replace encoder</li> <li>Replace sewing motor</li> <li>Replace control</li> </ul>
1061	<u> </u>	Encoder defective     Sewing motor excess current/ excess voltage	<ul> <li>Replace sewing motor cable</li> <li>Replace encoder</li> <li>Replace sewing motor</li> <li>Replace control</li> </ul>
1120	<u> </u>	Software error: Parameter not initialized	<ul> <li>Perform software update</li> <li>p. 189</li> <li>Check class</li> </ul>
1203	<u> </u>	Sewing motor: Position not reached	<ul> <li>Check mechanical changes to the machine (e.g. thread cutting setting, belt tension)</li> <li>Check position of thread lever at top dead center</li> </ul>
1302	<u> </u>	Sewing motor current feed fault     Sewing motor blocked     Encoder cable not connected or defective     Encoder defective	<ul> <li>Remove blockage</li> <li>Check encoder cable and replace, if necessary</li> <li>Replace sewing motor</li> </ul>
1330	<u> </u>	No answer from sewing motor	<ul> <li>Switch off and on the machine again</li> <li>Perform software update</li> <li>p. 189</li> <li>Replace control</li> </ul>
1342-1344	<u> </u>	Internal sewing motor error	<ul> <li>Switch off and on the machine again</li> <li>Perform software update</li> <li>p. 189</li> <li>Replace control</li> </ul>



Error code	Symbol	Meaning	Remedial action
Error code 2	000-2999: Error messages	motors	
2101		Step motor transport clamp timeout reference     Faulty cable to the reference switch     Reference switch defective	Replace cable     Replace reference switch
2102	⚠ Error (L)	Step motor transport clamp overload  • blocked/sluggish, defective  • Control defective	Fix blockage     Check encoder cable and replace, if necessary     Replace step motor
2103		Step motor transport • Step motor transport clamp (transport clamp) has step loss	Check seizing of the transport clamp
2121		Transport clamp step motor:  • Encoder plug (Sub-D, 9-pin) not connected or defective  • Encoder defective	Check the encoder cable connection and replace encoder cable, if necessary
2122		Pulse-wheel search time out	Check connection cables     Check step motor for stiff movement
2130		Transport clamp step motor not responding Step motor card defective	<ul> <li>Perform software update</li> <li>□ p. 189</li> <li>Replace step motor card</li> <li>Replace control</li> </ul>
2152		Step motor transport clamp excess current	Replace transport clamp step motor     Replace control
2153		Step motor transport clamp excess voltage	Check mains voltage
2155	⚠ Emo (L)	Step motor transport clamp overload  • defective/seized up  • defective  • Control defective	Eliminate seizing/stiff movement     Replace step motor     Replace control
2156	<u>A</u>	Step motor transport clamp overheat  Step motor transport clamp seized up Faulty step motor transport clamp Control defective	Eliminate seizing     Replace transport clamp step motor     Replace control



Error code	Symbol	Meaning	Remedial action
2201		Step motor middle knife timeout reference • Faulty cable to the reference switch • Reference switch defective	Replace cable     Replace reference switch
2202		Step motor middle knife overload  • blocked/sluggish  • defective  • Control defective	<ul> <li>Eliminate seizing/stiff movement</li> <li>Check encoder cable and replace, if necessary</li> <li>Replace step motor</li> </ul>
2230		Ste motor middle knife drive not responding Step motor card defective	<ul> <li>Perform software update</li> <li>p. 189</li> <li>Replace step motor card</li> <li>Replace control</li> </ul>
2252		Step motor middle knife excess current	Replace step motor corner knife     Replace control
2253		Step motor middle knife excess voltage  • Mains voltage too high	Check mains voltage
2255		Step motor middle knife overload     blocked/sluggish     defective     Control defective	Eliminate seizing/stiff movement     Replace step motor     Replace control
2256	<u>A</u> <u>• • • • • • • • • • • • • • • • • • •</u>	<ul> <li>Step motor middle knife over- temperature</li> <li>Step motor corner knife seized up/defective</li> <li>Control defective</li> </ul>	Eliminate seizing     Replace step motor corner knife     Replace control
2301		Step motor corner knife timeout reference Faulty cable to the reference switch Reference switch defective	<ul><li>Replace cable</li><li>Replace reference switch</li></ul>
2302		Step motor tape feeder overload	<ul> <li>Eliminate seizing/stiff movement</li> <li>Check encoder cable and replace, if necessary</li> <li>Replace step motor</li> </ul>
2330		Step motor corner knife not responding: Step motor card defective	<ul> <li>Perform software update</li> <li>p. 189</li> <li>Replace step motor card</li> <li>Replace control</li> </ul>



Error code	Symbol	Meaning	Remedial action
2353		Step motor tape feeder excess voltage - mains voltage too high	Check mains voltage
2355		Stroke position step motor over- load	Eliminate seizing/stiff movement     Replace step motor     Replace control
2356		Step motor tape feeder overtemperature     seized up     defective     Control defective	<ul><li> Eliminate seizing</li><li> Replace step motor tape feeder</li><li> Replace control</li></ul>
2401		Step motor error at corner knife, seam begin.  • Faulty cable to the reference switch  • Reference switch defective	Check reference switch and replace, if necessary
2430		Step motor needle transport not responding: Step motor card defective	<ul> <li>Perform software update</li> <li>□ p. 189</li> <li>Replace step motor card</li> <li>Replace control</li> </ul>
2501		Reference time out step motor transport clamp adjustment left	<ul> <li>Eliminate blockage or seizing</li> <li>Replace step motor, check reference switch</li> <li>Adjust transport clamp  p. 133</li> </ul>
2505	<u>A</u> • <u></u>	Error step motor transport clamp adjustment left	<ul> <li>Eliminate blockage or seizing</li> <li>Adjust transport clamp  p. 133</li> </ul>
2530		Step motor quick clamp adjust- ment left not responding: Step motor card defective	<ul> <li>Perform software update</li> <li>□ p. 189</li> <li>Replace step motor card</li> <li>Replace control</li> </ul>
2601		Reference time out step motor transport clamp adjustment right	<ul> <li>Eliminate blockage or seizing</li> <li>Replace step motor, check reference switch</li> <li>Adjust transport clamp \(\supersquare\) p. 133</li> </ul>
2605		Error step motor transport clamp adjustment right	<ul> <li>Eliminate blockage or seizing</li> <li>Adjust transport clamp  p. 133</li> </ul>
2630		Step motor quick clamp adjust- ment right not responding: Step motor card defective	<ul> <li>Perform software update</li> <li>p. 189</li> <li>Replace step motor card</li> <li>Replace control</li> </ul>



Error code	Symbol	Meaning	Remedial action
2901	<u>A</u> <u>••</u> <u>4</u>	Referencing timeout	
Error code 30	000-3999: Error messages	machine	
3010		Control: 100V voltage error	Check connections     Replace control
3011		Control: 100V voltage error	Check connections     Replace control
3012		Control: Voltage error 100V (I2T)	<ul> <li>Switch off and on the machine again</li> <li>Check connections</li> <li>Replace control</li> </ul>
3020		Short circuit at Input or output 24V	Check connections     Replace control
3021		Short circuit at Input or output 24V	Check connections     Replace control
3022		Control: Voltage error 24V (I2T)	Switch off and on the machine again     Check connections     Replace control
3030		Sewing motor: Phase error	<ul> <li>Test sewing motor phases (R=2.8 OHM, high impedance to PE)</li> <li>Replace encoder</li> <li>Replace sewing motor</li> <li>Replace control</li> </ul>
3040	⚠ 🕡 🗖	Line voltage drop	Check mains voltage
3100	⚠ 📵 🗖	Control voltage: Temporary mains voltage interruption	Check mains voltage
3101	⚠ 📵 💂	Power voltage: Temporary mains voltage interruption	Check mains voltage
3102	⚠ [m] DAC	Voltage sewing motor: Temporary mains voltage interruption	Check mains voltage
3103	⚠ 📵 DAC	Voltage step motors: Temporary mains voltage interruption	Check mains voltage
3104		Pedal not in rest position     Setpoint device defective	Do not press the pedal when starting up the machine     Replace setpoint device



Error code	Symbol	Meaning	Remedial action
3107		Machine temperature  • Ventilation openings closed  • Ventilation grille dirty	Check ventilation openings     Clean ventilation grille
3108		Speed limited due to insufficient mains voltage	Check mains voltage
3109	⚠  □	Safety stop active	Switch the Safe stop off
3121	<u>A</u> 📾 🐉	Compressed air missing     Compressed air insufficient	Turn on compressed air     Stabilize compressed air
3123		Oil level too low	Top off the oil Dp. 197
3210	<u> </u>	Thread broken	Insert thread 🕮 p. 19
3220	⚠ Emor	Empty bobbin	Change bobbin 🚇 p. 25
3500	⚠ Emp DAC	Error Command Interpreter/Motor synchronization Internal error	<ul> <li>Switch off and on the machine again</li> <li>Perform software update  p. 189</li> <li>Feedback to Dürkopp Adler Service</li> </ul>
3501		The X and Y position are out of min/max range	Change the contur program.
3502		The X and Y position are within forbidden area.	Change the contur program.
3503-3507, 3520-3530	⚠ € DAC	Error Command Interpreter/Motor synchronization Internal error	<ul> <li>Switch off and on the machine again</li> <li>Perform software update</li></ul>
3540, 3545	⚠ 😡 DAC	Error Command Interpreter/Motor synchronization Internal error	<ul> <li>Switch off and on the machine again</li> <li>Perform software update  p. 189</li> <li>Feedback to Dürkopp Adler Service</li> </ul>
3721, 3722	⚠ Emp Dac	Error Command Interpreter/Motor synchronization Internal error	<ul> <li>Switch off and on the machine again</li> <li>Perform software update  ☐ p. 189</li> <li>Feedback to Dürkopp Adler Service</li> </ul>



Error code	Symbol	Meaning	Remedial action		
Error code 40	Error code 4000-4999: Error messages USB				
4200	MP □	Machine configuration adopted from the USB file	Check machine configuration		
4301	IUSE IUSE	No USB key at the control unit	Insert USB key		
4304	IUSB IUSB	Wrong USB key	Replace USB key		
		1. 6			
Error code 50	000-5999: Error messages	machine configuration			
5108		-	Use USB file from this machine.		
5201		Error step motor corner knife, slanted seam end	Check cable to reference switch Check reference switch Check motor for stiff movement		
5202		Error step motor corner knife, slanted seam begin	Check cable to reference switch     Check reference switch     Check motor for stiff movement		
5203		Error step motor corner knife, angle seam begin right	Check cable to reference switch     Check reference switch     Check motor for stiff movement		
5204		Error step motor corner knife, angle seam begin left	Check cable to reference switch     Check reference switch     Check motor for stiff movement		
5205		Error step motor corner knife, angle seam end right	Check cable to reference switch     Check reference switch     Check motor for stiff movement		
5206		Error step motor corner knife, angle seam end left	Check cable to reference switch     Check reference switch     Check motor for stiff movement		
5209		Error horizontal step motor laser marking lamp	Check cable to reference switch     Check reference switch     Check motor for stiff movement		



Error code	Symbol	Meaning	Remedial action
5210		Error vertical step motor laser marking lamp	Check cable to reference switch     Check reference switch     Check motor for stiff movement
Error code 60	000-6999: Error messages	control	
6000		Internal error	<ul> <li>Switch off and on the machine again</li> <li>Perform software update  p. 189</li> <li>Inform Dürkopp Adler Customer Service</li> </ul>
6301	MP □	Data loaded from the machine ID	Check machine configuration
6351	⚠ 📵 🗖	Control error (I2C)	Replace control
6353	MP 💂	Internal EEprom communication error	Switch off the control, wait until the LED has gone out, and then switch on the machine again
6354	MP □	Machine ID communication error	Switch off the control, check the connection to the machine ID
6360	MP □	Data of machine ID not valid for this machine	Connect correct machine ID
6361	MP □	No machine ID connected	Connect machine ID
6400	⚠ 🐽 DAC	Internal error	<ul> <li>Switch off and on the machine again</li> <li>Perform software update</li></ul>
6401	MP □	Default data loaded	Check machine configuration
6408	MP □		Use USB data from this machine
6551-6554		Error in machine head position  • AD converter  • internal process error	<ul> <li>Switch off and on the machine again</li> <li>Perform software update</li></ul>



Error code	Symbol	Meaning	Remedial action
6651-6653		Error in machine head position  • AD converter  • internal process error	<ul> <li>Switch off and on the machine again</li> <li>Perform software update</li></ul>
6751-6761		Error in machine head position  • AD converter  • internal process error	<ul> <li>Switch off and on the machine again</li> <li>Perform software update</li></ul>
6952		Internal error step motor driver	<ul> <li>Switch off and on the machine again</li> <li>Perform software update         <ul> <li>□ p. 189</li> </ul> </li> <li>Inform Dürkopp Adler Customer Service</li> </ul>
Error code 70	000-7999: Error messages	communication	
7200	Error ERN	Failure in CAN - Module corner knife (AC001)	Check the CAN-Module corner knife
7201	<b>⚠</b> Emo CRN	Failure in CAN - Module corner knife (AC001), power failure	Check cable     Check jumpers     Check voltage supply
7202		Failure in CAN - Module corner knife (AC001), excess temperature at step motor output stage	Check cable Check jumpers Check voltage supply Check output stage Check motors
7203, 7204		Voltage error in the I/O CAN module	Check cable     Check jumpers     Check voltage supply
7205		Voltage error in the hook monitor CAN module	Check cable     Check jumpers     Check voltage supply
7206		Voltage error in the knife block Inclined CAN module	Check cable     Check jumpers     Check voltage supply
7207		Voltage error in the cutter block Angle of seam beginning CAN module	Check cable     Check jumpers     Check voltage supply
7208	Error CRN	Voltage error in the cutter block Angle of seam end CAN module	Check cable     Check jumpers     Check voltage supply



Error code	Symbol	Meaning	Remedial action
7209	⚠ ERN	Voltage error in roller/tape feed seam end CAN module	<ul><li>Check cable</li><li>Check jumpers</li><li>Check voltage supply</li></ul>
7210		Voltage error in the laser CAN module	<ul><li>Check cable</li><li>Check jumpers</li><li>Check voltage supply</li></ul>
7211		Failure in CAN - Module transport unit (AC101), power failure	<ul><li>Check cable</li><li>Check jumpers</li><li>Check voltage supply</li></ul>
7215		Failure in CAN - Module transport unit (AC101), outputs overload/ short circuit	Check output cable and output plug
7219		Failure in CAN - Module transport unit (AC101), wrong module recognized at address	Check jumpers/DIP switch
7260		General error CAN modules	<ul><li>Check set class</li><li>Check working method</li><li>Check cable</li></ul>
7303	<b>⚠ E</b>	Internal error in the I/O CAN module	<ul><li>Check cable</li><li>Check jumpers</li><li>Check voltage supply</li></ul>
7304	<b>⚠ Env</b>	Error in the I/O CAN module	<ul><li>Check cable</li><li>Check jumpers</li><li>Check voltage supply</li></ul>
7305	<b>⚠ E</b>	Error in the hook monitor CAN module	<ul><li>Check cable</li><li>Check jumpers</li><li>Check voltage supply</li></ul>
7306	<b>⚠ E</b>	Error in the knife block Inclined CAN module	<ul><li>Check cable</li><li>Check jumpers</li><li>Check voltage supply</li></ul>
7307	<b>⚠ E</b>	Error in the knife block Angle seam beginning CAN module	<ul><li>Check cable</li><li>Check jumpers</li><li>Check voltage supply</li></ul>
7308	<b>⚠ Em En N</b>	Error in the knife block Angle of seam end CAN module	Check cable Check jumpers Check voltage supply
7309	⚠ Em En En	Error in the roller/tape feed CAN module	<ul><li>Check cable</li><li>Check jumpers</li><li>Check voltage supply</li></ul>
7310	⚠ Em Enn	Error in the laser CAN module	<ul><li>Check cable</li><li>Check jumpers</li><li>Check voltage supply</li></ul>
7403, 7404	<b>⚠</b> Error ERN	Error in the I/O CAN module: wrong module at the address	Check jumpers/DIP switch



Error code	Symbol	Meaning	Remedial action	
7405	<b>⚠  CRN</b>	Error in the hook monitor CAN module: wrong module at the address	Check jumpers/DIP switch	
7406	<b>⚠ ERN</b>	Error in the knife block Inclined CAN module: Wrong module at the address	Check jumpers/DIP switch	
7407	<b>⚠ ERN</b>	Error in the knife block Angle seam beginning CAN module: wrong module at the address	Check jumpers/DIP switch	
7408	<b>⚠ ERN</b>	Error in the knife block Angle of seam end CAN module: wrong module at the address	Check jumpers/DIP switch	
7409	<b>⚠ ERN</b>	Error in the roller/tape feed CAN module: wrong module at the address	Check jumpers/DIP switch	
7410		Error in the laser CAN module: wrong module at the address	Check jumpers/DIP switch	
7500	<b>⚠ ERN</b>	General error CAN modules	<ul><li>Check set class</li><li>Check working method</li><li>Check cable</li></ul>	
7503, 7504	<b>⚠ ERN</b>	Error I/O module not present	Check cable Check jumpers Check voltage supply	
7505	<b>⚠ ERN</b>	Error in the CAN module bobbin thread monitor	<ul><li>Check cable</li><li>Check jumpers</li><li>Check voltage supply</li></ul>	
7506		Error stepper motor card knife block  Angled seam beginning / seam end not available	Check cable Check jumpers Check voltage supply	
7507		Error stepper motor card knife block  • Angle seam beginning not available	Check cable Check jumpers Check voltage supply	
7508		Error stepper motor card knife block  • Angle seam end not available	Check cable Check jumpers Check voltage supply	
7509		Error stepper motor card  Roller/tape feeder not available	<ul><li>Check cable</li><li>Check jumpers</li><li>Check voltage supply</li></ul>	
7510		Error stepper motor card     Laser longitudinal/transverse not available	<ul><li>Check cable</li><li>Check jumpers</li><li>Check voltage supply</li></ul>	



Error code	Symbol	Meaning	Remedial action
7551-7555		Control panel interface communication: internal error	<ul> <li>Switch off and on the machine again</li> <li>Perform software update</li></ul>
7556, 7557		Control panel interface communication  Cable disturbance  Cable to control panel interface defective	Eliminate source of disturbance     Replace cable
7558, 7559		Control panel interface communication: internal error	<ul> <li>Switch off and on the machine again</li> <li>Perform software update         <ul> <li>□ p. 189</li> </ul> </li> <li>Inform Dürkopp Adler Customer Service</li> </ul>
7801		Control panel interface communication  Cable disturbance  Cable to control panel interface defective	Eliminate source of disturbance     Replace cable
Error code 80	000-8999: Error messages	displays	
8151-8154, 8156-8159	Information	ADSP Boot/Xilinx Boot/ Boot error: internal error	<ul> <li>Switch off and on the machine again</li> <li>Perform software update  p. 189</li> <li>Inform Dürkopp Adler Customer Service</li> </ul>
8252-8254, 8256-8258	Information	ADSP Boot/Xillinx Boot/ Boot error: Disturbance	Switch off and on the machine again
8351	Information	Error in test pins, signal processing, event processing, memory wrapper, list functions: internal error	<ul> <li>Switch off and on the machine again</li> <li>Perform software update</li></ul>
8400	Information	No readable update-program for the control panel available. The control panel program should be updated as soon as possible. Continue with OK.	
8401	Information	No valid program for the machine available. Should a new program be transmitted?	
8402	Information	Machine has a program for another class. Should a new program be transmitted?	
8403	Information	Machine has an outdated program. Should a new program be transmitted?	



Error code	Symbol	Meaning	Remedial action	
8404, 8405	Information	Update failed! Eventually the control panel program has to be reloaded. Should the program be retransmitted nevertheless?		
8406	Information	Update failed! Please check the interface to the machine. Should a new update be tried nevertheless?		
8407	Information	Update failed! Should the progran	n be retransmitted?	
8408	Information	Waiting for RESET by machine.		
8409	Information	Switch off and on the machine ag	ain.	
8410	Information	Update failed! Should the progran	n be retransmitted?	
8411	Information	Machine checks new program. Th	is process can take up to 30 sec.	
8412, 8413	Information	Update failed! Should the progran	n be retransmitted?	
8414	Information	Update completed!		
8415	Information	Continue with old software. (Use r	may result in serious problems!)	
8801-8806, 8890, 8891	Information	Error in test pins, signal processing, event processing, memory wrapper, list functions: internal error	<ul> <li>Switch off and on the machine again</li> <li>Perform software update         <ul> <li>□ p. 189</li> </ul> </li> <li>Inform Dürkopp Adler Customer Service</li> </ul>	
Error code 9	000-9999: Error messages	general machine-specific errors		
9000	<u>^</u>	Reminder to execute the reference run after switching on	Press the left pedal backwards	
9001	<u>A</u>	Corner knife station swiveled out during sewing	Check/set fastening of corner knife station	
9002	<u>A</u> • <del>[</del>	Folding station swiveled out during sewing	Check/set fastening of folding station	
9003		Wrong needle position	Manually turn the handwheel to the upper position of the thread lever (top dead center)	
9005		Waiting for RESET	Push the RESET-Switch	
9006		RESET-Switch activ	Solve the RESET-Switch	
9007		Test the loading process	Resuming the process after pushing the start pedal	
9013		Tape missing	Insert tape	
9014	PP	Position of transport clamp doesn't match the installed die	Correct position of transport clamp in the program parameters  p. 110	



Error code	Symbol	Meaning	Remedial action
9015	PP PP	Wrong setting of flap scanning in the seam program	Correct seam program
9016		Seam program not active	Activate seam program     select a different seam program
9100		Piece counter has reached the preset value.	Reset counter value
9500		Test loading process step by step	Resuming the process after pushing the start pedal
9501		Test step by step	Use pedal for progress
9601		Pedal was pressed backwards during sewing	Press pedal again
9602		Empty bobbin	Change bobbin 🕮 p. 25
9603		Thread breakage	Insert thread 🕮 p. 19
9604	<u>∧</u> • ⊽	Light barrier for sewing material removal not active	Set light barrier for sewing material removal
9605		Transport clamp moves	
9700	<u> </u>	Folder not up	Correct folder setting
9701		Folder not down	Correct folder setting
9702	<u> </u>	Folder not vertical	Correct folder setting
9703	<u> </u>	Folder not slanted	Correct folder setting
9704	<u> </u>	Folder not on the pipe table	Correct folder setting
9705		Front corner knife not down	Correct the corner knife setting
9706		Rear corner knife not down	Correct the corner knife setting
9707	<u>A</u> •••	Scissors not down	Correct the scissors setting
9708	<u> </u>	Scissors not up	Correct the scissors setting



Error code	Symbol	Meaning	Remedial action
9709	<u> </u>	Downholder not up	Correct the downholder setting
9710		Switch S05 for the folding station does not react	Adjust the switch S05 for the folding station
9720	<b>⚠</b> ▼	Error during flap scanning with light barrier	Check reflecting foil     Check alignment of the light barriers
9721	<u> </u>	Flap has been positioned in front of the front positioning point	Insert the flap correctly
9722	<b>⚠</b> ▼	Flap projects beyond the maximum sewing area (behind the rear positioning point)	Check flap size     Insert the flap correctly
9723	<b></b> ▼	Fluff at the flap beginning	Insert flaps with smooth edges     Check reflecting foil
9725	<u> </u>	Flap angle too great     Flap too small	Check flap angle Check alignment of the light barriers Adjust seam parameters (seam securement possibly too long for small flaps)
9726	<b>⚠</b> ▼	Flap too large     Reflecting foil dirty/damaged	Check flap size     Check reflecting foil
9727	<b>∧</b>	Stop section insufficient for the flap angle	Reduce the insertion speed 🕮 p. 64
9728	<b>№</b>	Flap too small	Check the flap size; insert a larger flap
9730		Corner knife cut impossible	Increase seam length     Change positioning point
9800		Middle knife not ready for use	Check cable
9810		Smoother not ready for use	Check cable
9900	<u>∧</u> • MP	Defective machine parameters (Checksum error)	Initialize machine parameters again
9901	⚠ 📵 Seq	Defective pocket sequence (checksum error)	Initialize pocket sequences again
9902	PP	Defective pocket programs (Checksum error)	Initialize pocket programs again



Error code	Symbol	Meaning	Remedial action
9920		Serial number active	
9921		Serial number not accepted	Re-enter serial number
9999		Machine configuration has been changed	Switch off and on the machine again



# 11 Technical data

## **Noise emission**

Workplace-specific emission value as per DIN EN ISO 10821:

 $L_{pA} = 77 \text{ dB (A)}; K_{pA} = 0.33 \text{ dB (A) bei}$ 

Stitch length: 2,5 mmSpeed: 3200 rpmSeam length: 180 mm

# Data and characteristic values

Technical data	Unit	755 S
Machine type		Sewing unit
Hook type		Vertical hook, large (26 mm)
Type of stitches		Double lockstitch 301
Number of needles		2
Needle system		134-35
Needle strength	[Nm]	80-110
Thread strength	[Nm]	75-120
Stitch length	[mm]	0.5 - 4.5
Max. speed	[min <sup>-1</sup> ]	3200
Speed on delivery	[min <sup>-1</sup> ]	2750
Seam clearance	[mm]	4,8; 6; 8;10; 12; 14;16; 18; 20; 22; 24; 26; 28; 30
Max. pocket length	[mm]	220
Mains voltage	[V]	1x 190 - 240
Mains frequency	[Hz]	50/60
Operating pressure	[bar]	6
Length	[mm]	1500
Width	[mm]	750
Height	[mm]	1250
Weight	[kg]	240 (including corner knife station) 260 (including corner knife station and vacuum fan)



#### **Characteristics**

- Double-needle double lockstitch version
- Large vertical hooks
- Externally powered middle knife; speed and switch actuation point can be programmed
- Thread cutter for needle threads and hook threads
- Needle thread monitor
- Hook thread monitor
- Sewing motor as DC direct drive
- Integrated bobbin, optional external winder
- DAC comfort control
- Color control panel OP7000
- 3 marking lamps, optional: 1 additional marking lamp
- Light barrier for flap length scanning



# 12 Appendix

Fig. 182: Wiring diagram

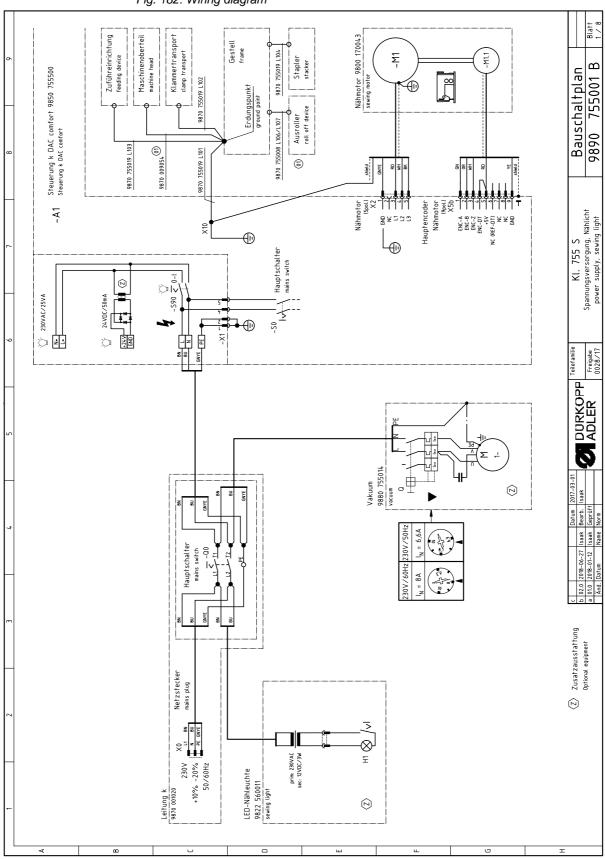




Fig. 183: Wiring Diagram

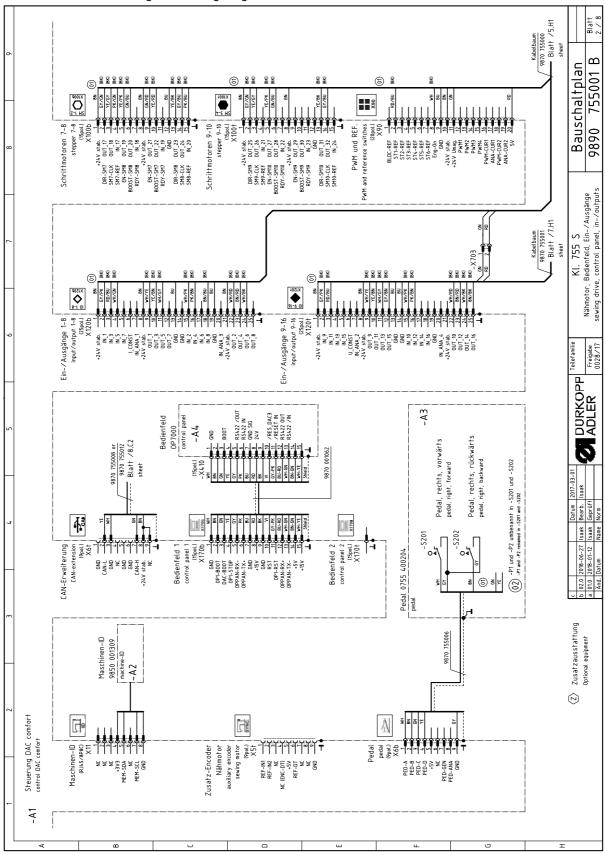
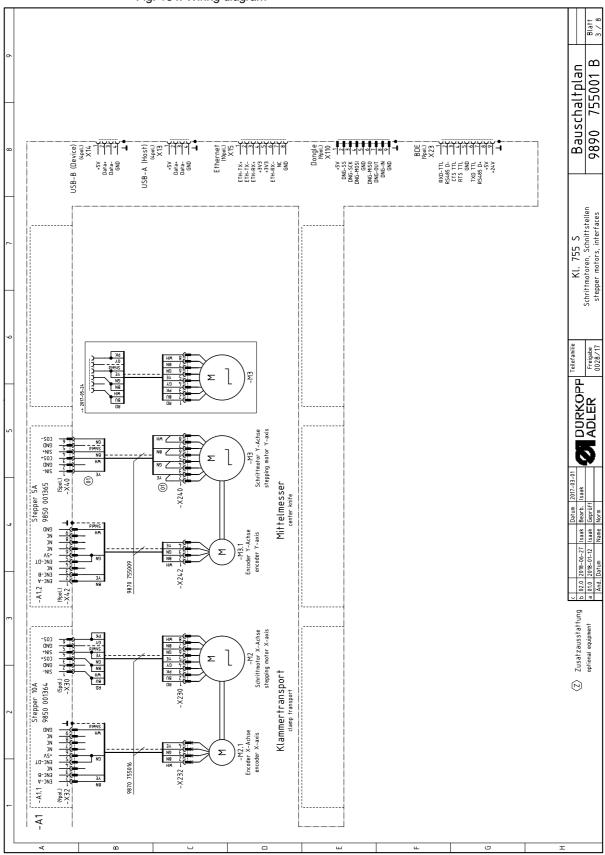




Fig. 184: Wiring diagram





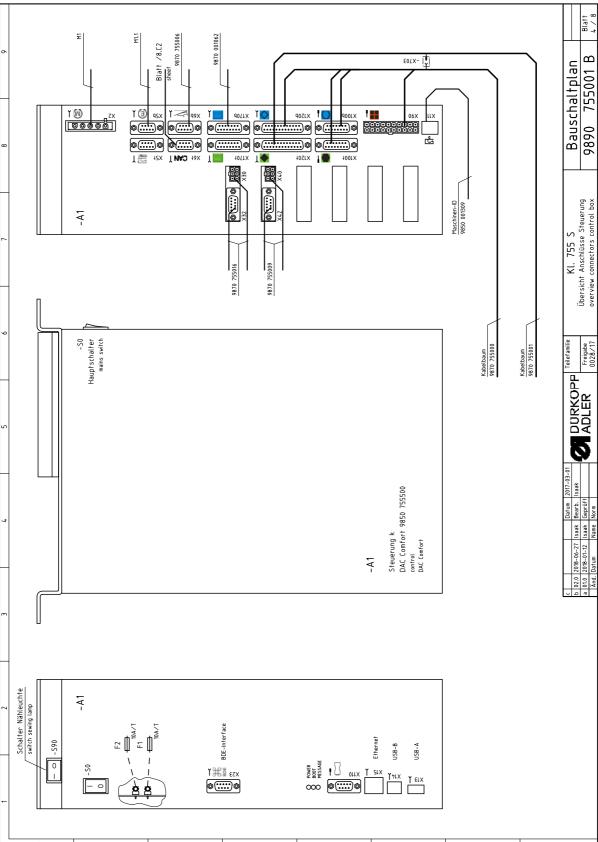


Fig. 185: Wiring diagram



Fig. 186: Wiring diagram Kabelbaum 9870 755000 Blaft /6.H1 മ Bauschaltplan Nadelfadenwächter rechts needle thread monitor right 755001 Nadelfadenwächter links needle thread monitor left Nadelfaden-Spannung ein I thread tension on Nadelfaden–Spannung ein thread tension on Greiferfaden-Schneider bobbin thread cutter Flusen ausblasen RFW blow out lint (BTM) Nadelfaden–Schneider needle thread cutter 9890 Fadenvorzieher thread puller -52 F. M. - ×-88 ₹ 8 = <u>\*</u> (01) ab Kabelbaum Index 04.0 ohne Adapter Kl. 755 S Oberteil sewing head 2018-01-10 mit Adapter 9870 755022 (Kabelbaum bis Index 03.0) -X810 -X815 -X811 -X812 -X813 -X814 -X801 -X802 -X801/802 WH/GN YE/BN Teilefamilie O DURKOPP ADLER -A7 Ölstand-Anzeige 9850 867021 oil tevel gauge RFW 9815 925002 Subbbin thread monitor right -A9 Ħ Ħ Pattenabtastung  $^2$   $^{\bigcirc}$ Kabelbaum 9870 755003 Pattenabtastung 1 flap scanning 1 20000 **8** Isaak B -X804 1 wh 2 8N 3 GN S17 \$**□**> Anode-LED -Kathode-LED -GND -E-Photo-NPN -C-Photo-NPN -Anode-LED -Kathode-LED -GND -E-Photo-NPN -C-Photo-NPN --A6 (24pol.) -X800 PCB 9850 755001 bobbin thread monitor Zusatzeinrichtung optional equipment Leiterplatte k 9850 911000 PCB cpl. ₹ (7 фф 9850 867003 1 PWM1 2 +24.V 2 × - 2 - 4 (3pol.) -X807  $\bigcirc$ 9870 755012 Blatt /8.F4 = Blatt /8.C6 sheet Blatt /2.H9 • sheet



Fig. 187: Wiring diagram

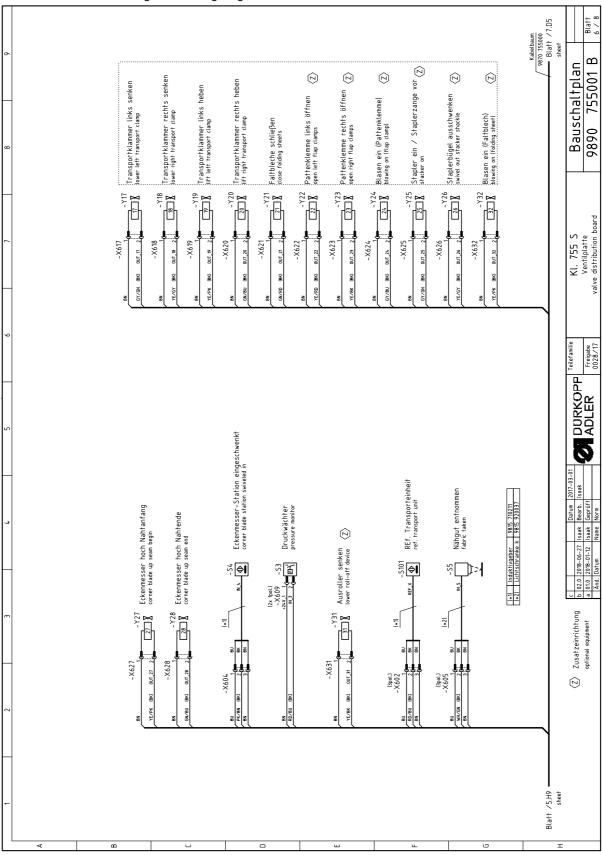
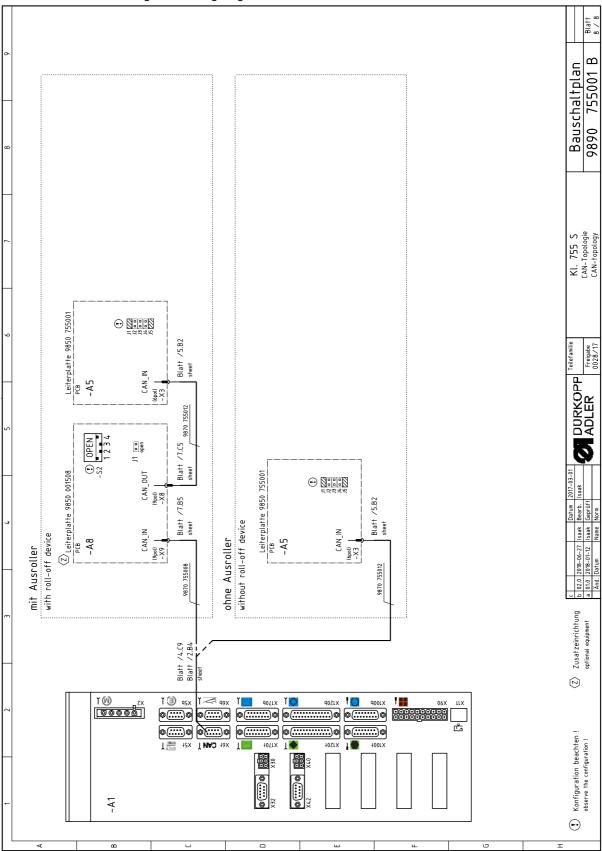




Fig. 188: Wiring diagram Blatt 7 / 8 0 മ Bauschaltplan 755001  $\bigcirc$ -X607 0686 9870 755008 × III KI. 755 S Zuführeinrichtung, Ausroller feeding device, roll-off device 0 -X3 -X4V GND 2 N 1 -X11 SM2\_A 2 SM2\_/A 3 SM2\_B 4 SM2\_B 4 <u>\* 1,11,</u> Leiterplatte k 9850 001508 PCB \*24V GND IN\_2 9870 001044 B 9850 001508 Spuler 0755 590754 bobbin winder CAN\_OUT CAN\_IN -X6 (2pol.) -X1 -X1 -X1 6ND (2pol.) -X2 -X2 -2 GND -A8 (1-9) -X9 (1-9) ×- X8  $\bigcirc$ 609X--X608 DURKOPP ADLER Blatt /8.C4 == 9870 755008 9870 755012 Blatt /8.C4 Kabelbaum 9870 755000 Blaft / 6.H9 -X702 -H13 bis -H16 umbenannt in -Y13 bis -Y16 -H13 to -H16 renamed in -Y18 to -Y16 Kabelbaum 9870 755001 Faltstation in Grundstellung folding station in initial position  $\bigcirc$ 9835 501012 Faltstempel unten folder below Laserleuchte 3 laser light 3  $\bigcirc$ Laserleuchte 1 laser light 1 Laserleuchte 2 laser light 2 Laserleuchte 4 laser light 4 Isaak Isaak Name Faltstempel heben aus folderliffing off Niederhalter senken Jower the down holder Faltstempel senken lower the folder  $\bigcirc$ (\*1) Laser k - ×13 -Y16 -Y15 -\14 ## \$\ \$\ \$\ (2) S **♦** Zusatzeinrichtung optional equipment %--√-- Y10 F. 7 -Y12 3 (\*5 (\*5) 3 3 3 -X711 -X712  $\bigcirc$ -X716 -X705 (BK) (BK WH/YE (BK) Blatt /2.H7 -



Fig. 189: Wiring diagram





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