DÜRKOPP ADLER

745-35

Instructions for Programming

Table of Contents

Instructions for Programming DACIII - Class 745-35

Table of Contents

1 General

This manual contains important information on the safe and correct use of the “**DACIII**” (Dürkopp Adler Control) new-generation controller.

Screen images in this brief description

The symbol display on the various screens depends on the sewing machine’s equipment and settings. The screen images illustrated in this brief description may therefore not always correspond exactly with the screens appearing in the controller display.

Operating terminal with graphic user guide

The operating terminal is fitted with an LCD display and a keyboard. The user guide employs only internationally intelligible symbols, supplemented with textual information in the selected language. The various symbols are arranged in groups in the menu structure of the sewing and test programs.
Simplicity of operation ensures rapid familiarization.

Ease of programming

99 freely programmable pocket programs are available to the user, which can be combined with any number of seam patterns.
20 pocket sequences.
Each pocket sequence can be composed of a maximum of 8 pocket programs in any order.
On the “slanting-pocket version” of the class 745-35 all practical angles can be programmed by the operator,
who can thus dispense with the need to spend time and effort readjusting the corner blades and programming seam displacements.

Setting and test programs

The **MULTITEST** comprehensive testing and monitoring system is integral to the **DACIII** control.
A microcomputer carries out the control functions, monitors the sewing process and displays incorrect operations and faults.

Errors and test results are shown in the LCD display.
If the machine is operating normally the display shows information relating to operation and sewing.
In the event of an operating error or fault the function sequence is interrupted. The display indicates the cause by means of the appropriate error symbol.
In most cases the error symbol disappears once the error has been rectified.
In some cases the main switch must be switched off for safety reasons when the error is rectified.

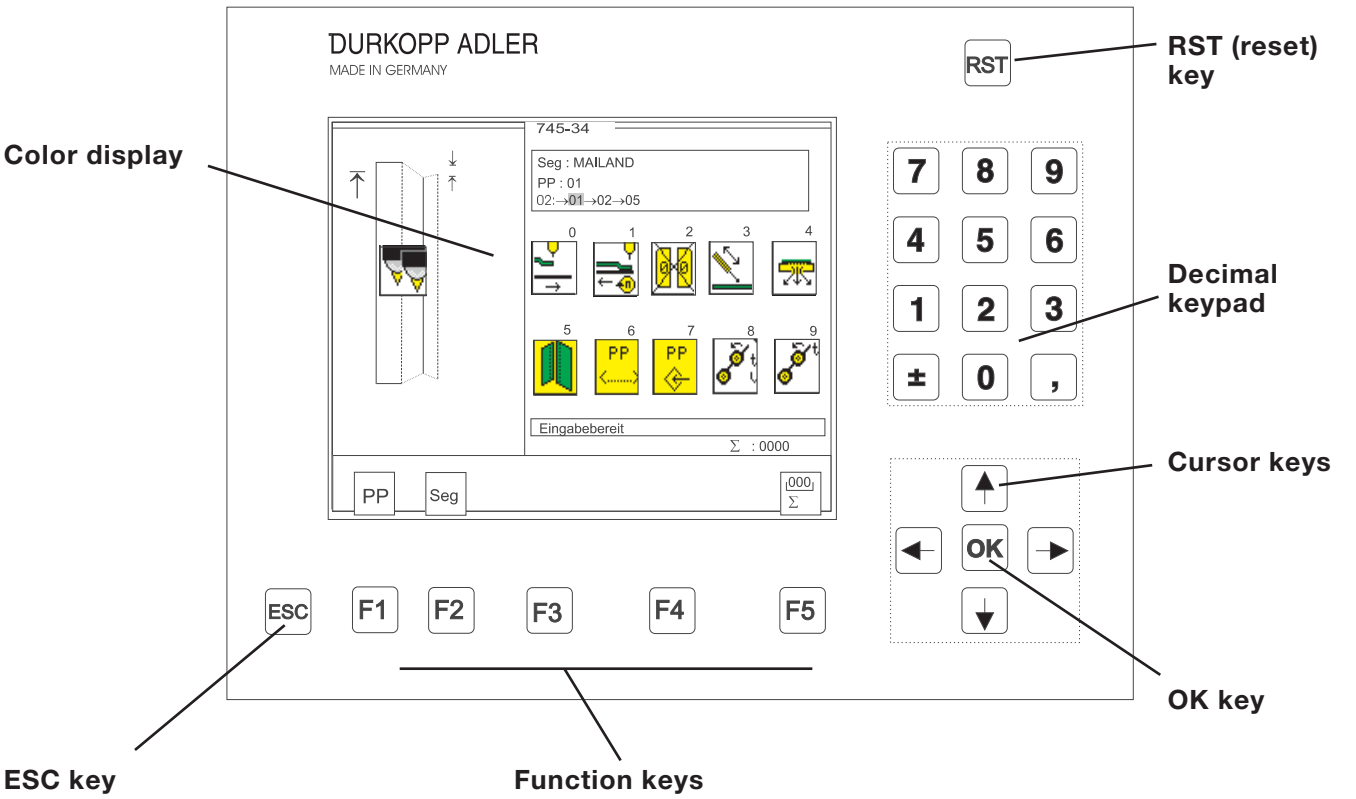
Special programs facilitate mechanical settings and enable receiver and transmitter elements to be rapidly tested without additional measuring devices.

Memory dongle

The dongle is used to memorize sewing programs and machine parameters and to transfer these data to other sewing units.

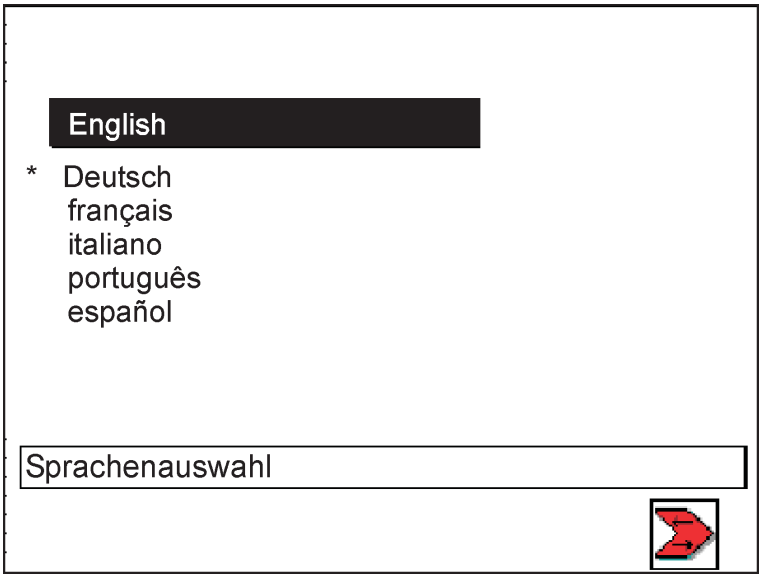
2 Operating terminal

Data input and output is done via an operating terminal with a color LCD display and a multipurpose keyboard.



Key/key group	Function
Function keys	Call sewing-program parameter screens (from the main screen). Call test programs (after pressing the RST key) Switch functions on and off. Leave test programs and parameter screens.
Cursor keys	Change parameter values. Change parameter values. ⇦, ⇨ : select the symbol of the required parameter ⇧, ⇩ : switch the parameter function on and off, select the previous/next parameter-value stage, activate the test program
Decimal keypad	Enter parameter values. ± : change the parameter-value sign
Escape key	Display the old parameter value again.
OK key	Open window to set the selected parameter. Accept the set parameter value.
RST key	Leave machine program. Halt current program.

3 Selecting the language



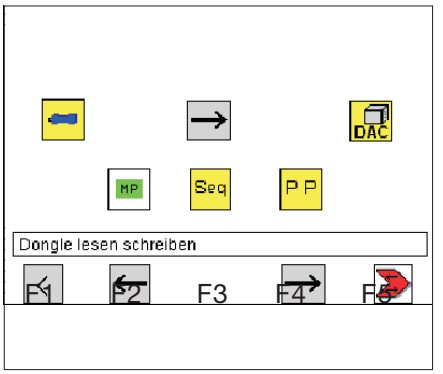
- Switch on the main switch and keep pressing the “⇧” key or
- Press the keys “**RST**” and “⇧” in order to activate the language selection
- The different languages are memorized in the control.
- By pressing the cursor keys “⇧“ or ”⇩” the desired language can be selected (it will appear white on black).
- With the “**F5**” key the language that will be activated when switching on the automat the next time is marked with an asterisk.

4 Memory dongle

The dongle is used to memorize sewing programs and machine parameters and to transfer these data to other sewing units.

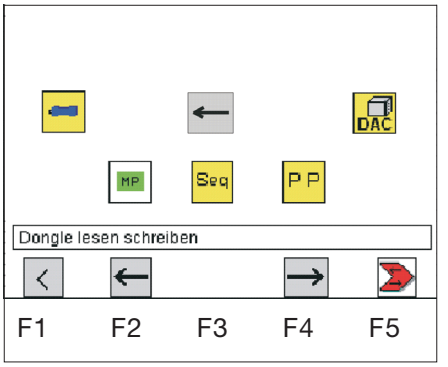
The transfer direction is selected with the keys ”**F2**” and “**F4**”. The data transfer is started with the “**F5**” key.

4.1 Transferring data from the memory dongle to the control

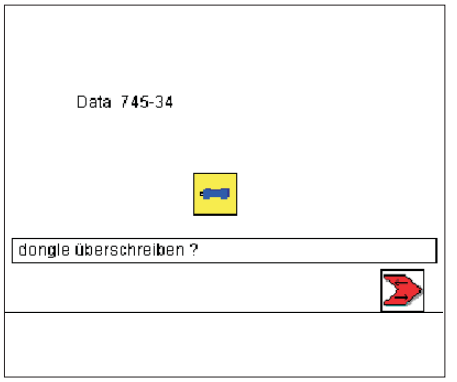


- Use the “⇨ ” or “⇦” cursor keys, to select the required parameter (machine parameter, sequences or seam program).
- The pictogram representing the required parameter will then appear white on black.
- Start the data transfer by pressing the “**F5**” key.

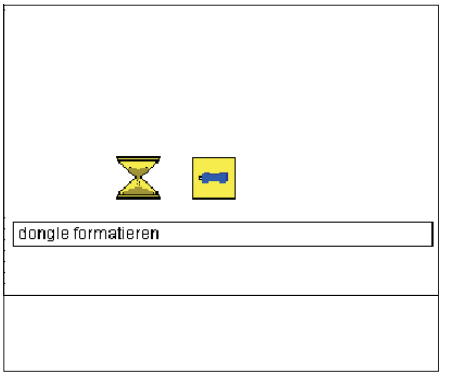
4.2 Transferring data from the control to the memory dongle



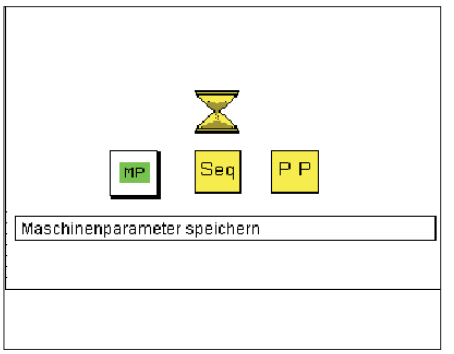
- When saving data on the dongle, all parameters, machine parameters, sequences and seam programs are memorized.
- After pressing the “**F5**” key, appears the question whether the dongle is to be overwritten.



- The current type of the dongle being plugged in is determined and indicated on the display.
- Data transfer can be started by pressing the “**F5**” key and stopped with the “**ESC**” key.
- If no data dongle 745-35 is indicated but e. g. Boot 745-35, the dongle will first be formatted after pressing the “**F5**” key before the data are saved on the dongle.



– The dongle is formatted



– The data is saved onto the dongle

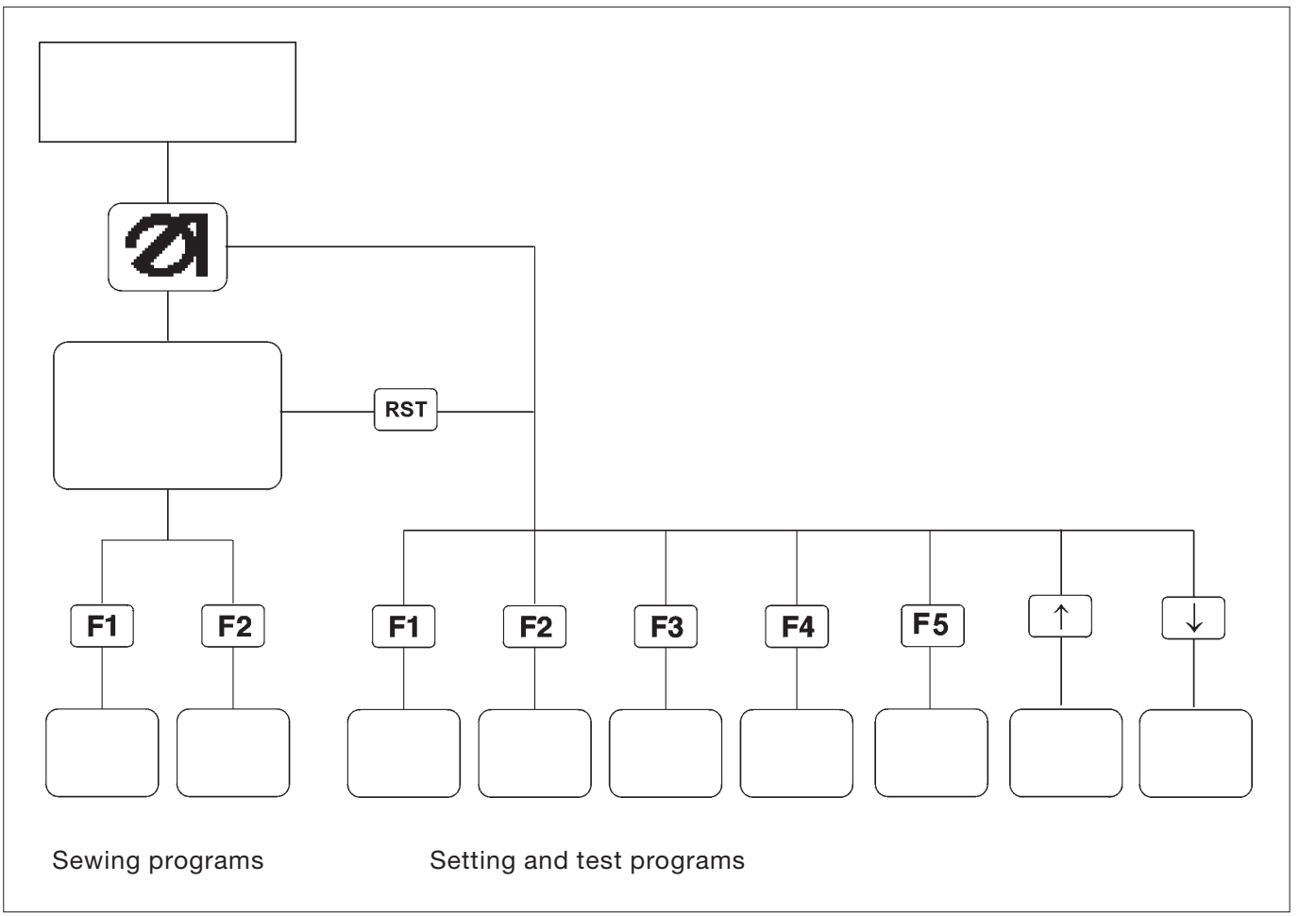
5 Main operating screen

5.1 Sewing and test programs: menu structure

The user interface exclusively employs internationally intelligible symbols.

In addition each function is briefly explained in an information line.

The individual parameters and setting and test programs are arranged in various groups.



Calling sewing programs

– Turn on the main switch.
  The controller is initialized.
  The DÜRKOPP-ADLER logo briefly appears in the display.
– The display switches to the main screen.
  Sewing-program parameter menus are called by pressing one of the function keys **F1** and **F2**.

Calling setting and test programs

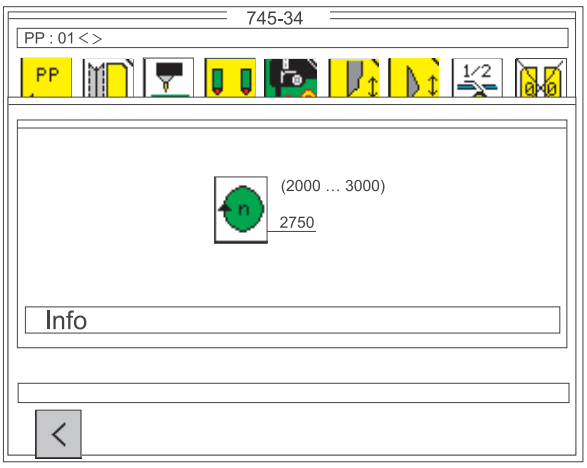
– Turn on the main switch.
  The controller is initialized.
  The DÜRKOPP-ADLER logo briefly appears in the display.
– **While the logo is displayed** press one of the function keys **F1** to **F5** or **cursor up**, **cursor down**.

or with the machine switched on:

– press the **RST** key, then hold down one of the function keys **F1** to **F5** or **cursor up**, **cursor down**.
  The display switches to the corresponding group of setting or test programs.

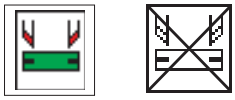
5.2 Changing parameter values

Parameter values are changed in the individual parameter screens.

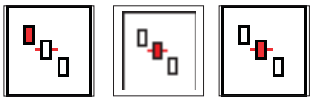


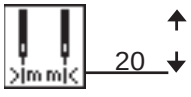
- Select the required parameter with the “⇦” or “⇨” cursor keys. A black background appears behind the symbol of the selected parameter.
- Press the **OK** key.
  The settings window appears with the current values or to enable values to be entered.
- Change the parameters as described under 1 to 4 below.
- Press the **OK** key.
  The new parameter settings are saved.

When changing parameter values we must distinguish among four groups of parameters:

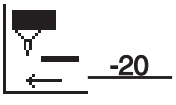


(on) (off)





Entry:
10, 12, 14, 16, 18, 20, 22, 24, 26, 30



[-20 ...+20]

1. Functions that are switched on and off

- Switch the parameter function on and off with the “⇨” or “⇦” cursor keys.

2. Parameters with various functions

- Set the required parameter function with the “⇨” or “⇦” cursor keys.

3. Parameters whose values are changed in stages

- Select the previous or next parameter-value stage with the “⇧” or “⇩” cursor keys.

4. Parameters whose values are entered with the decimal keypad

- Enter the required parameter value on the decimal keypad.
  CAUTION:
  The value must be within the set limits.
  If the value entered is too large or too small, the upper or lower limit is displayed when the Enter key is pressed.

- If a plus or minus sign appears in front of the parameter value, it can be changed with the “ ± ” key.

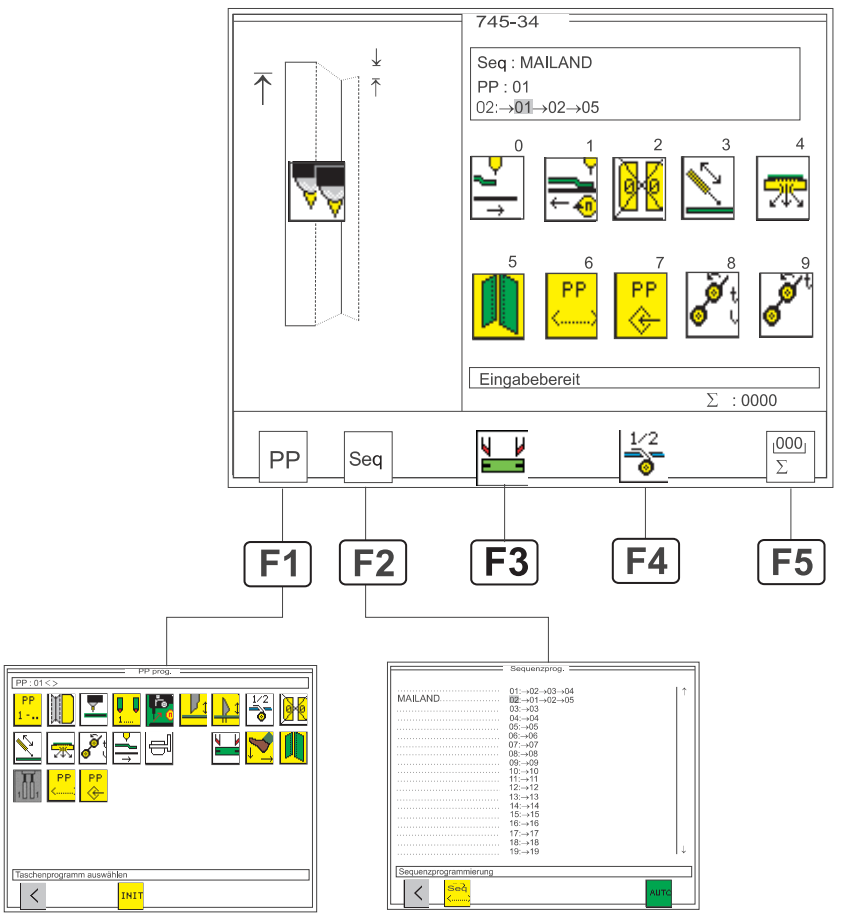
6 Sewing programs

With Class 745-35 you can program up to 99 different sewing programs.
The individual sewing programs (pocket programs) are freely programmable.

20 independent pocket sequences are available. Each pocket sequence can be composed of a maximum of 8 pocket programs in any order.

6.1 Calling sewing-program parameter screens

You can switch from the main screen to the various sewing-program parameter screens with function keys **F1** and **F2**. Function key **F5** resets the piece counter to “0". Press **F4** for the tape feed (if present).



Piece counter

Pocket Program
PP

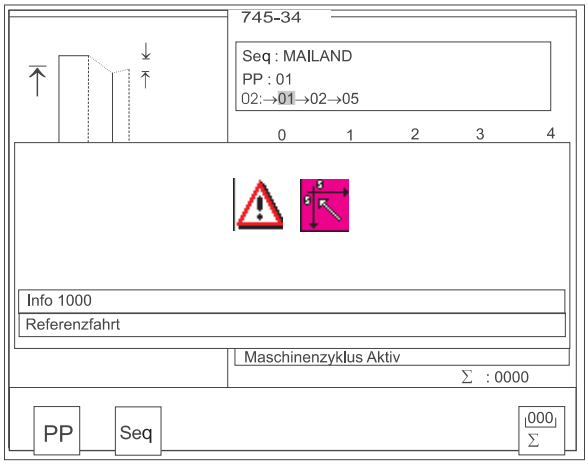
Sequence
Seq

Parameters and sewing-program parameter screens

Pocket Program	(PP)	:	parameters for programming the seam and the associated additional functions.
Sequence	(Seq)	:	programming pocket sequences
Piece counter		:	daily piece counter

6.2 Running a machine program

– Turn on the main switch.
  The controller is initialized.
– The Dürkopp Adler Logo briefly appears in the display.
– The controller checks the position of the transport carriage.
  The following display appears:

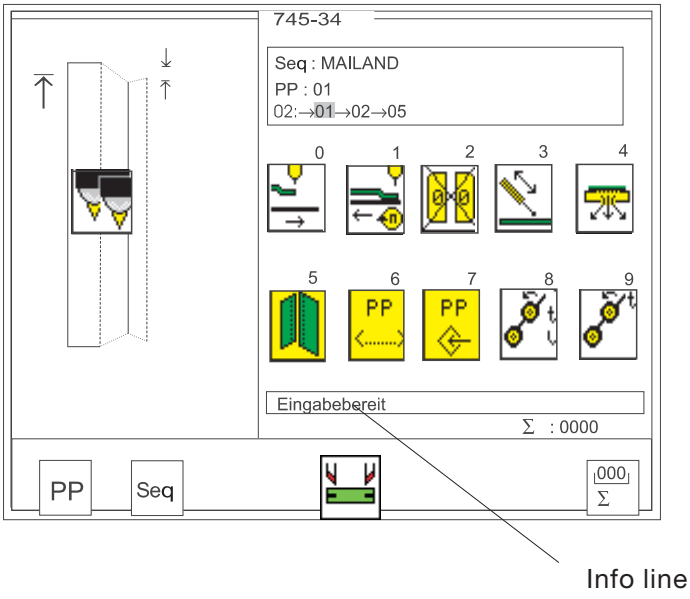


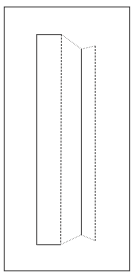
Info line:
Reference run

– Start the reference run by pushing the left pedal back.
– The display switches to the main screen of the sewing unit.
  You can switch from the main screen to the various parameter screens with function keys **F1** or **F2**.
– Press the **RST** key to leave the machine program.
  The controller is re-initialized.

6.3 Main screen

The main screen displays the seam pattern, sewing program, selected pocket sequence and important parameters.
Parameters can be individually selected by the user.





Seam pattern

The left half of the display shows the seam pattern of the selected pocket program.

Seq : MAILAND

Sequence

A box indicating the sequence appears in the top right-hand corner.

PP: 01
02:→01→02→05

Selecting program number and pocket sequence

The selected pocket sequence is displayed in the top right-hand corner.
If automatic pocket-program switching is on, arrows are displayed between the individual pocket programs of the sequence.

– Select a pocket sequence with cursor keys “⇧” or “⇩”.

“⇩” : select next pocket sequence
“⇧” : select previous pocket sequence.

02:→01→02→05

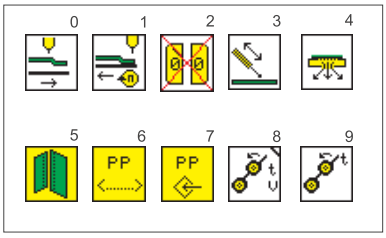
Selecting a pocket program in the current pocket sequence

In the pocket sequence the selected pocket program is shown in reverse video.

– Select a pocket program with cursor keys “⇨” or “⇦”.

“⇨” : select next pocket program

“⇦” : select previous pocket program.



Parameters

The symbols in the center of the right half of the display give rapid access to important parameters.
Up to ten parameters can be selected by the operator for display on the main screen (see also section 6.7).

Parameters can be changed directly on the decimal keypad.
The number of the key to be pressed is displayed to the right of the parameter symbol.

Example:

0: carriage-return to stand-by position

1: slide-in velocity

2: flap sequence

3: holder

4: vacuum

5: breast welt

6: pocket-program name

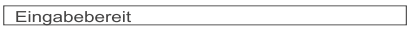
7: save pocket program

8: smoother

9: smoother time

The functions and settings of individual parameters are described in more detail in section 5.4: Pocket programs.

The selection of the parameter symbols is described in section 6.7.



Info line

Text explaining the selected function is displayed in the information line.

Piece counter

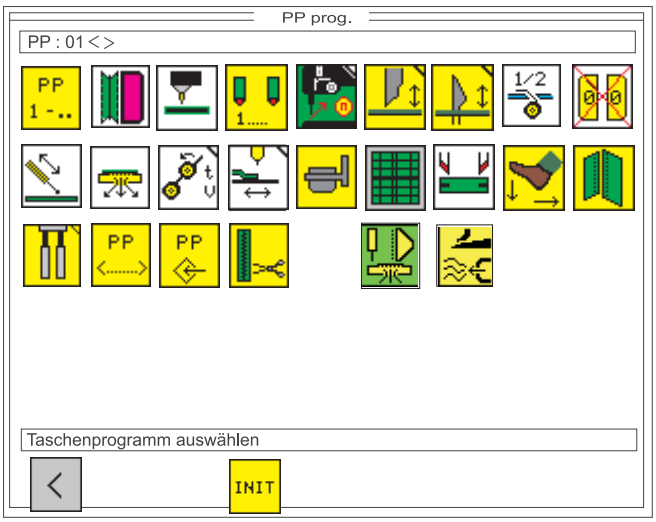
The current piece count is displayed at bottom right (e.g. Σ:0100).

The piece counter shows the number of pieces completed since the counter was last reset.
The piece counter can be reset to “0" by pressing function key **F5**.

6.4 Pocket programs (F1)

This menu item contains the parameters for programming the various pocket programs.

They are used to program the seam and its associated additional functions.



Info line:

Select pocket program

- While the main screen is displayed press function key **F1**.
  The display switches to the pocket-program screen.
- The pocket program currently selected is shown in the upper part of the display (e.g. “**PP : 01**”).
  The program name, if any, appears behind it (e.g. “**<SAKKO>**”).
- Select the required parameter with cursor keys “⇦” or “⇨”.
  A black box appears under the symbol of the selected parameter.
- Change the selected parameter as described in section 4.2.
- Press function key **F1** to switch back to the main screen.

Pocket-program number

This parameter selects the pocket program that is to be changed.

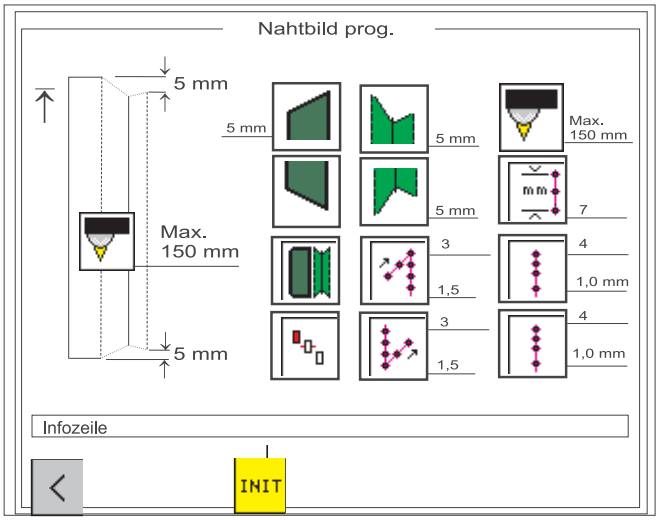
On completion of the entry the new pocket program and its program name appear in the top left-hand corner of the display.

Entry: 1 .. 99

Programming the seam pattern

The actual pocket form is programmed under this menu item. The programmed pocket is shown with the corresponding information in the left half of the display.

The corresponding parameter symbols appear in the right half.



– Select the required parameter with cursor keys “⇦”, “⇨”, “⇧” or “⇩”.
  The symbol of the parameter selected appears in reverse video.
– Press the OK key.
  The corresponding submenu is called.

Seam-start flap shape

This parameter is used to select the shape of the flap at the seam start. Three variants are available:

Straight flap

Slanting flap (left)

Slanting flap (right)

– Select the required flap shape with cursor keys “⇦”or “⇨”.
– Press the “**OK**” key.
  The flap-angle entry window appears.

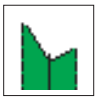
Flap angle

Entry: 01 ... 13 [mm]

Seam-start pattern

This parameter selects the form of the seam pattern at the seam start.

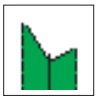
Straight seam pattern



Slanting seam pattern (left)

Slanting seam pattern (right)

- Select the required seam form with cursor keys “⇦”or “⇨”.
- Press the “**OK**” key.
  The seam-angle entry window appears:



Seam angle

Entry: 01 … 13 [mm]

Seam-end flap shape

This parameter selects the form of the flap at the seam end. Three variants are available:

Straight flap

Slanting flap (left)

Slanting flap (right)

- Select the required flap shape with cursor keys “⇦”or “⇨”.
- Press the “**OK**” key.
  The flap-angle entry window appears:

Flap angle

Entry: 01 … 13 [mm]

Seam-end pattern

This parameter selects the form of the seam pattern at the seam end.

Straight seam pattern

Slanting seam pattern (left)

Slanting seam pattern (right)

– Select the required seam form with cursor keys “⇦”or “⇨”.
– Press the “**OK**” key.
The seam-angle entry window appears:

Seam angle

Entry: 01 … 13 [mm]

NB:

The seam-angle entry is checked.
If the fixed sewing length and the values entered cannot be sewn on the machine, an automatic adjustment of the seam angle is carried out for the seam end.

Sewing-length measurement

Three different possibilities can be selected.
Distance measurement, automatic recognition by light barrier and automatic recognition of the flap angle.
An interlock system prevents more than one possibility from being selected. The other are blocked.

Distance measurement

In distance measurement the sewing length is displayed on the main screen.

Automatic recognition of flap beginning and flap end

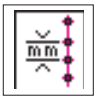
In this setting the reflecting light barrier for the recognition of the flap beginning and flap end is switched on for sewing with flaps.

Maximum flap length
Entry: 020 … 180 [mm] optional 220 mm

Automatic flap-angle recognition

Sewing with two light barriers for automatic flap-angle recognition.

Maximum flap length
Entry: 020 … 180 [mm] optional 220 mm



Stitch length

Entry: 2.0 … 3.0 [mm]

Select flap side

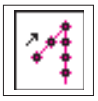
The sewing length is equipped with a reflecting light barrier for the recognition of the seam start and end when sewing with flaps.
The parameter indicates which side the flap is attached.
When the parameter is changed the flap side of the seam pattern automatically switches in the display.

Flap left

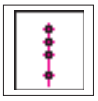
Flap right

Seam-start mode left/right needle

Four different seam locks are available for the seam start. They can be set separately for the right and left needles.



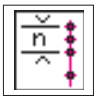
Single bartack



Stitch compaction

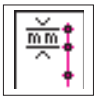
Number of bartack stitches

Entry: 01 ... 05 [stitches]



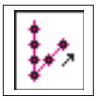
Number of stitch-compaction stitches

Entry: 01 ... 10 [stitches]



Stitch-compaction stitch length / or bartack

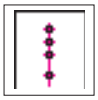
Entry: 0.5 ... 3.0 [mm]



Seam-end mode left/right needle

Four different seam locks are available for the seam end. They can be set separately for the right and left needles.

Single bartack



Stitch compaction

Number of bartack stitches

Entry: 01 ... 05 [stitches]

NB:

In zip-fastener mode the bartack length at the seam end is limited to a maximum of 3 mm.

Number of stitch-compaction stitches

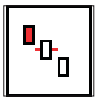
Entry: 01 ... 10 [stitches]

Stitch-compaction stitch length/ bartack

Entry: 0.5 ... 3.0 [mm]

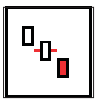
NB:

In a straight seam pattern only the left seam lock needs to be changed.



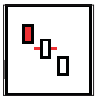
Selecting the positioning point

Depending on the type of piece being sewn, positioning takes place at the rear, center or front positioning point.



Rear positioning point (with respect to the operator)

Center positioning point



Front positioning point (with respect to the machine)

Distance from the center positioning point to the rear positioning point

Entry: 10 ... 170 [mm]

NB:

The entry is checked.
If the fixed sewing length and the value entered cannot be sewn on the machine, suitable values are automatically used.

Initializing program memory

The program function is to load standardized factory setting for the seam-pattern parameters.

– Press function key **F3**.
  "**Initialize sewing program?**" appears in the display.
– Press function key **F5**.
  The parameters are reset to the factory-set values.

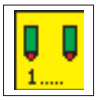
Light-barrier adjustment

This parameter is used to adjust the light barrier for the seam start and seam end.

Seam-start adjustment

Seam-end adjustment

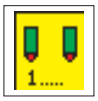
Entry: -20.0 ... + 20.0 mm



Selecting laser markings

A maximum of 16 lasers can be assigned to each pocket program.

With the number keys 1 to 8 on the numerical display the respective laser (1-8) can be switched on (with asterisk) or off (no asterisk).

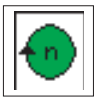


With the "**+**" key and the number keys 1 to 8 on the number keypad the respective laser (+1-+8) can be switched on (with asterisk) or off (no asterisk).

1 = *	+ 1 = *
2 = *	+ 2 = *
3 =	+ 3 =
4 =	+ 4 =
5 =	+ 5 =
6 = *	+ 6 =
7 =	+ 7 =
8 =	+ 8 =

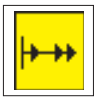
Sewing head

This parameter is used to change values affecting the sewing head.



Sewing speed

Entry: 2000 ... 3000 [rpm]

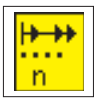


Soft start

Entry: on/off

Soft-start speed

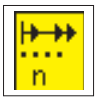
Entry: 0500 ... 900 [rpm]



Number of soft-start stitches

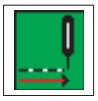
Entry: 01 ... 20 [stitches]

Reselect icon

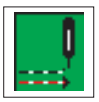


Thread-clamp release stitches

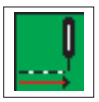
Entry: 01 - 99



Sewing mode



Intermittent sewing



Continuous sewing

Center blade

Center blade

Entry: on/off

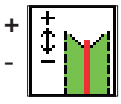
CAUTION:

Switching off the center blade automatically switches off the corner blades too.
However, switching the center blade back on does not automatically switch the corner blades back on again. They must be switched on separately.

Center-blade rpm

Entry: 1700...3000 [rpm]

Select with the “⇧” or “⇩” keys.

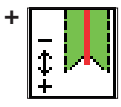


Adjusting the center-blade incision at the seam start

Changing this value carries out the fine adjustment of the center-blade incision at the seam start.

Entry: - 9.9 ... + 9.9

0 = no adjustment
\+ = switch on center blade sooner
\- = switch on center blade later



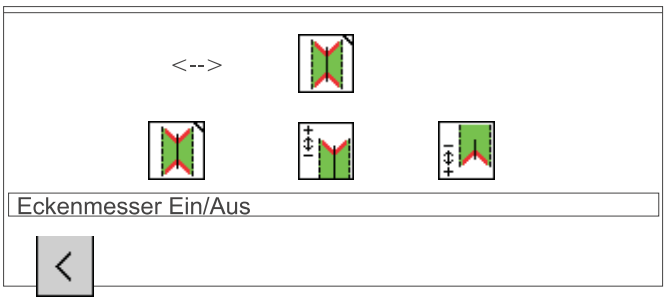
Adjusting the center-blade incision at the seam end

Entry: - 9.9 ... + 9.9

0 = no adjustment
\+ = switch off center blade sooner
\- = switch off center blade later

Corner blades

Manual corner-blade station



Switching corner blades on/off

Entry: on/off

Info line:

Corner blades on/off

All four corner blades on/off

Left corner-blade incision at seam start on/off

Right corner-blade incision at seam start on/off

Left corner-blade incision at seam end on/off

Right corner-blade incision at seam start on/off

Adjusting the corner-blade incision at the seam start

Changing this value carries out the fine adjustment of the corner-blade incision at the seam start.

Entry: -20,0 ... +20,0

0 = no adjustment
+ = corner-blade position sooner
- = corner-blade position later

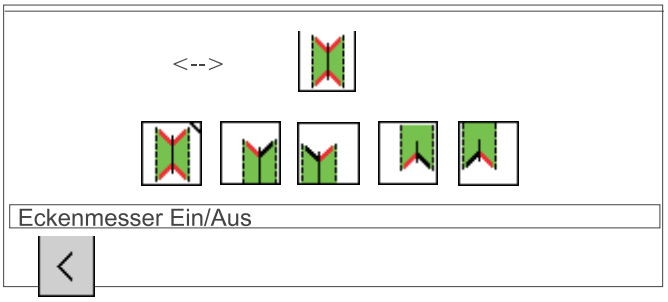
Adjusting the corner-blade incision at the seam end

Changing this value carries out the fine adjustment of the corner-blade incision at the seam end.

Entry: -20,0 ... +20,0

0 = no adjustment
+ = corner-blade position sooner
- = corner-blade position later

Automatic corner-blade station



Switching corner blades on/off

Entry: on/off

Info line:

Corner blades on/off

All four corner-blades on/off

Left corner-blade incision at seam start on/off

Right corner-blade incision at seam start on/off

Left corner-blade incision at seam end on/off

Right corner-blade incision at seam end on/off

+ 

Adjusting the left-corner-blade incision at the seam start

Changing this value carries out the fine adjustment of the left-corner-blade incision at the seam start.

Entry: - 20.0 ... + 20.0

0 = no adjustment
\+ = corner-blade position sooner
\- = corner-blade position later

+ 

Adjusting the right-corner-blade incision at the seam start

Changing this value carries out the fine adjustment of the right-corner-blade incision at the seam start.

Entry: - 20.0 ... + 20.0

0 = no adjustment
\+ = corner-blade position sooner
\- = corner-blade position later

+ 

Adjusting the left-corner-blade incision at the seam end

Changing this value carries out the fine adjustment of the left-corner-blade incision at the seam end.

Entry: - 20.0 ... + 20.0

0 = no adjustment
\+ = corner-blade position sooner
\- = corner-blade position later

+ 

Adjusting the right-corner-blade incision at the seam end

Changing this value carries out the fine adjustment of the right-corner-blade incision at the seam end.

Entry: - 20.0 ... + 20.0

0 = no adjustment
\+ = corner-blade position sooner
\- = corner-blade position later

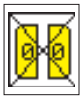
Tape feed

Switching the tape feed on/off
Entry: on/off

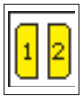
Seam-start tape-length
Entry: 00.0 ... 99.9 mm

Seam-end tape-length
Entry: 00.0 ... 99.9 mm

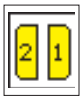
Flap sequence



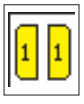
No flap clamps



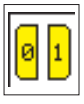
Close left flap clamp first, then right



Close right flap clamp first, then left



Close both flap clamps simultaneously

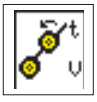


Only right flap clamp present

Only left flap clamp present

Switching the holder on/off
Entry: on/off

Switching the vacuum on/off
Entry: on/off



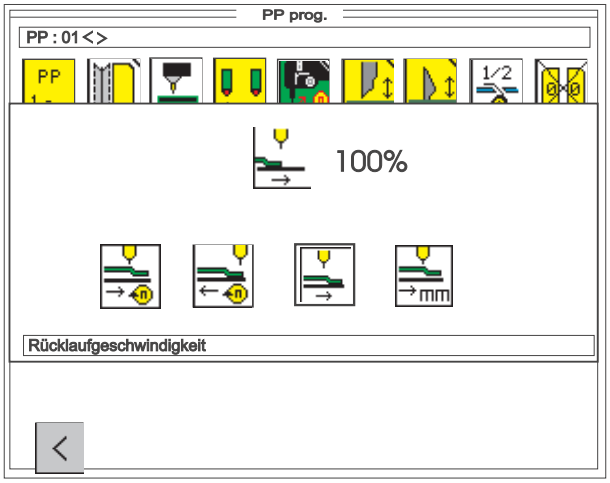
Smoother

Switching the smoother on/off
Entry: on/off

Smoother time
Entry: 010 ... 1000 [strokes]
1 stroke = 0.001 s

Smoother velocity
Entry: 1 ... 15
1 = minimum
15 = maximum

Transport-carriage settings



Info line:

Return velocity

Return velocity (after sewing)

The return velocity from the needles to the insertion station can be reduced.

Entry: 010 ... 100 %]

NB:

Even if work is interrupted the carriage moves backwards at the same velocity.

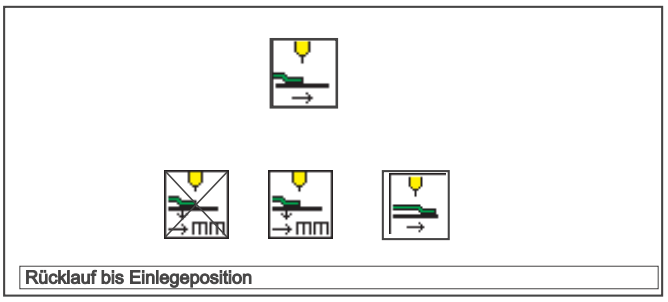
Slide-in velocity

The slide-in velocity from the insertion station to the needle and corner station can be reduced.

Entry: 010 ... 100 %]

Carriage return with material feed

After the return of the workpiece, make sure that the operator removes the material and make free the safety area before actuating the left pedal releasing and returning the transport unit.



Info line:

Carriage return to insertion position

No material feed after corner incision

Material feed/ Stacker position
After the corner incision the
feed clamps transport the material to the set position.

Entry: 001 - 100 [mm]

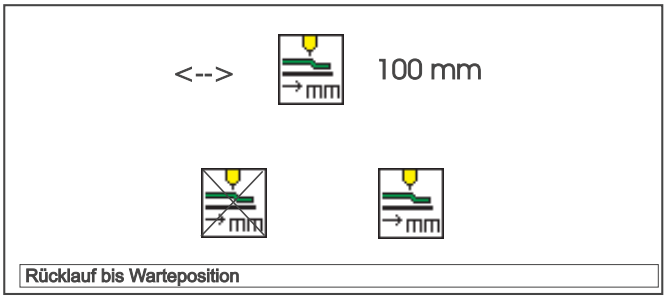
Hint:

The smaller the entry, the further the carriage moves to the rear.
1 = rear position
100 = cutting position

Carriage return with material feed
After the corner incision the feed clamps automatically transport the material back to the positioning area.

Hint:

The icon is only active when the stacker/smoother is switched off.



Info line:
Return to insertion position

Carriage return to stand-by position
measured from the rear reference switch
Entry: 001 - 515 [mm]

No carriage return

Switching the flap feed on/off (versions B and F only)

Entry: on/off

Mode 1

Flap feeders swivel out, without lowering.

Mode 2

Flap feeders remain swivelled in, without lowering.

Mode 3

Flap feeders are lowered before the flap clamps are closed. Flap feeders remain swivelled in.

Mode 4

Flap feeders are lowered after the flap clamps are closed. Flap feeders remain swivelled in.

Mode 5

Flap feeders are lowered before the flap clamps are closed. Flap feeders are swivelled out.

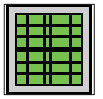
Mode 6

Flap feeders are lowered after the flap clamps are closed. Flap feeders are swivelled out.

Switching off/Disabling

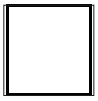
Flap feeder are not activated.

Notes:

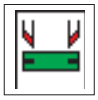


Sewing patterned or plain material (versions “D” and “F” only)

Patterned material



Plain material



Switching the piping blade on/off (versions B and F only)

Entry:

on/off

Cutting depth at the seam beginning

Cutting depth at the seam end

Selecting pedal mode

Two different variants of the insertion process with vacuum and / or holder can be selected.

Pedal mode 1

In this mode the insertion process is carried out by pressing and holding down the left pedal while operating the right pedal.

Pedal mode 2

For insertion, the pedal must be brought to its initial position, between the steps.

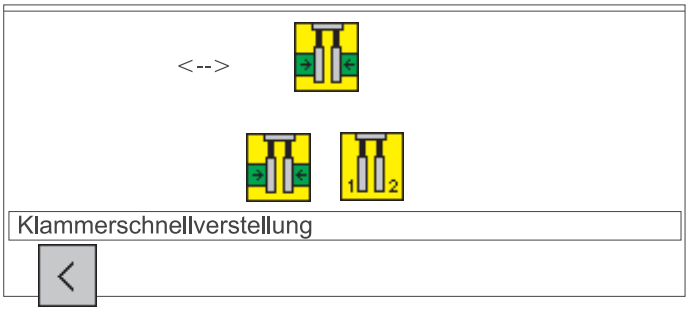
Pedal mode 3

The clamp goes in sewing position after actuating the pedal.

Breast-welt mode

Entry: on/off

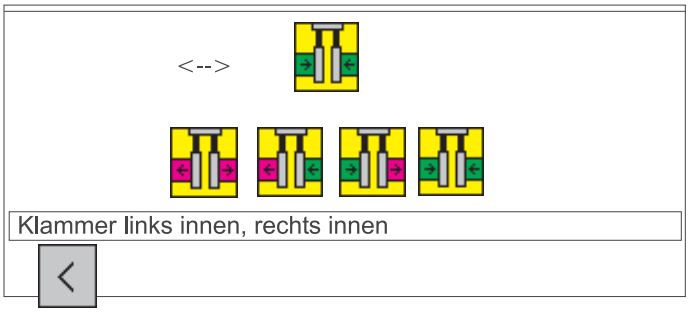
Rapid clamp adjustment

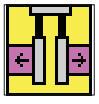


Info line:

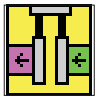
Rapid clamp adjustment

Rapid clamp adjustment

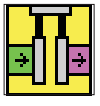




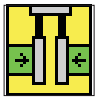
Clamp left outer, right outer



Clamp left outer, right inner



Clamp left inner, right outer



Clamp left inner, right inner

CAUTION: danger of breakage

If the single-piping folder is fitted ***do not*** select a double-piping program, i.e. do ***not*** select clamp left inner and right inner.

Feed-clamp sequence right/left

Both clamps descend simultaneously

Lower left clamp first

Lower right clamp first

Entering the program name

This parameter assigns a name to any pocket program.
The program name is limited to 18 letters.

- Select the parameter with cursor keys “⇨” or “⇦”.
- Function keys **F2** and **F3** browse the alphabet.
  F2: forwards
  F3: backwards
  0 .. 9: digit entry
- Pressing cursor keys “⇦” or “⇨” moves the cursor one place to the left or right.
- Press the “**OK**” key
  to terminate entry.
  The program name entered is assigned.
  Press the “**ESC**” key to use the old program name again.
  Press **F5** to delete the name.

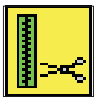
Copying pocket programs

This parameter is used to copy the selected pocket program into another program.

The number that must be entered is that of the sewing program into which the selected pocket program is to be copied.

On completion of the entry the number and name of the pocket program appear in the display.

Entry: 1 ... 99



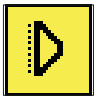
Switching the zip-fastener scissors on/off

Entry: on/off

Initializing program memory

The program loads a standardized factory setting, including seam pattern, for the sewing-program parameters.

– Press function key **F3**.
  "**Initialize sewing program?**" appears in the display.
– Press function key **F5**.
  The parameters are restored to the factory settings.

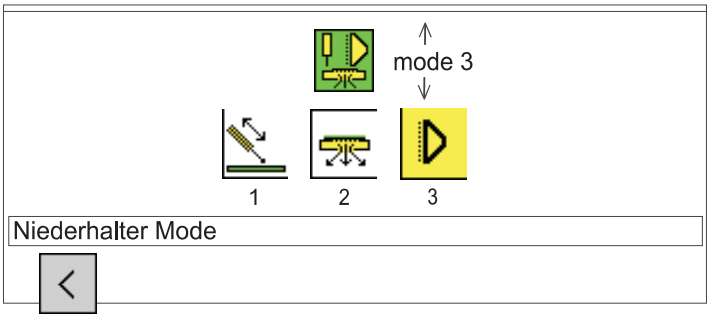


Switching the waistband clamp on/off

Entry: on/off

Fabric holder mode (versions A and B only)

The choice of fabric holder, vacuum and waistband clamp sequence is selected when loading the fabric holder mode.



Mode	Fabric Holder	Vacuum	Waistband clamp
1	1	2	1
2	1	1	2
3	1	2	3
4	1	1	0
5	1	3	2
6	2	3	1
7	2	1	2
8	2	2	1

6.5 Blower mode

Entry:
0, 1, 2, 3, 4. 5. 6, 7

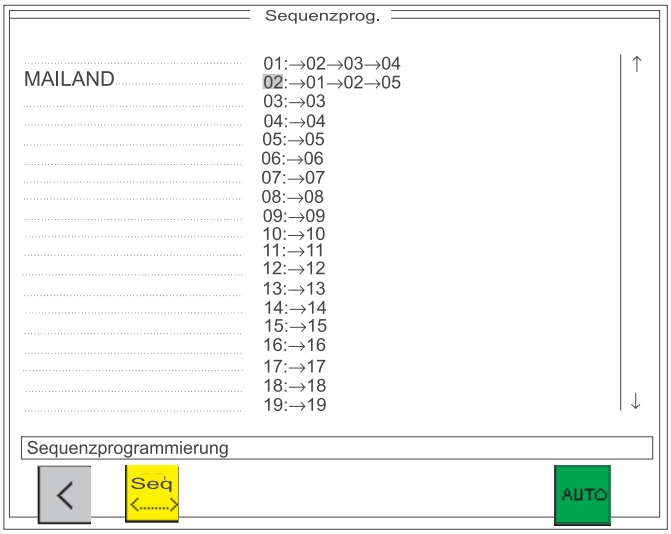
	Valve YC108			Valve YC109			Application
	Position	blowing on	blowing off	Position	blowing on	blowing off	
Mode 0		-	active		-	active	function off
Mode 1	blower pipe in flap clamps	flap clamps closed	needles on	blower pipe in the folding sheet	folding sheet closed	needles on	Blow pocket bag and/or piping to the seam beginning simultaneously
Mode 2	blower pipe in flap clamps	flap clamps closed	needles on	blower pipe in the folding sheet	folding sheet closed	flap clamp closed	Blow pocket bag and piping to the seam beginning alternately
Mode 3	blower pipe in flap clamps	flap clamps closed	10 mm after the loading position	blower pipe in the folding sheet	Stamp sink up	10 mm after Feeding-position	Shortly blow pocket bag and/or piping simultaneously. Blow piping during the lowering of the stamp already
Mode 4	blower pipe in flap clamps	flap clamps closed	needles on	blower pipe in the folding sheet	Stamp sink up	flap clamp closed	Blow pocket bag and piping to the seam beginning alternately. Blow piping during the lowering of the stamp already
Mode 5	Short blower pipe in left flap clamp	5 mm after the loading position	needles on	blower pipe in right flap clamp	flap clamp closed	needles on	Blow pocket bag on flap
Mode 6	blower pipe in flap clamps	flap clamps closed	needles on	blower pipe in the folding sheet	folding sheet closed	180 mm after Feeding-position	Blow pocket bag and/or piping simultaneously. Blow piping after path.
Mode 7	blower pipe in flap clamps	10 mm after the loading position	180 mm after the loading position	blower pipe in the folding sheet	20 mm after the loading position	180 mm after Feeding-position	Blow pocket bag and/or piping after paths.

Notes:

6.6 Pocket sequence (F2)

This menu item is used to assemble individual pocket programs into callable sequences.

A total of 20 independent pocket sequences are available.
Each pocket sequence can consist of up to 8 pocket programs in any order.



Info line:

Sequence programming

Programming a pocket sequence

- When the main screen is displayed press function key **F2**.
  The display switches to the pocket-sequence screen.
- Move the cursor to the required pocket sequence with the "⇧" or "⇩" keys.
  The number of the selected pocket sequence appears in reverse video.
- Programming a pocket sequence.
  Enter the numbers (01 ...99) of the required pocket programs one after another using the decimal keypad.
  Single-digit pocket-program numbers must be preceded by a zero.

  Once the eighth pocket program has been entered the programmed pocket sequence is automatically stored.
- Press the "**OK**" key
  to store the pocket sequence.
  Pressing the "**ESC**" key during programming restores the old pocket sequence.
- Press function key **F1**.
  The display switches back to the main screen.

AU

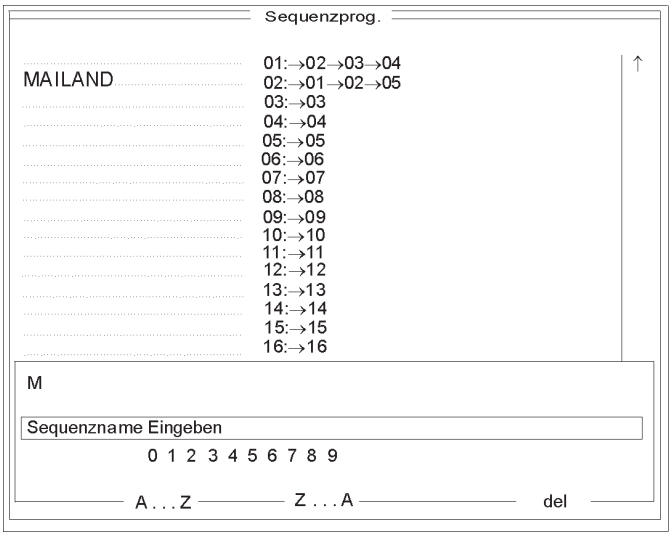
Switching automatic pocket-program sequencing on/off

If this function is switched on, when one pocket program has been completed the controller automatically moves to the next pocket program in the sequence.

- Automatic pocket-program sequencing is switched on and off by pressing function key **F5**.
  Automatic sequencing is indicated in the display by arrows between the individual pocket programs of the sequence.

Entering a sequence name

– While the sequence screen is displayed press function key “**F2**”. The display switches to the sequence-name screen.



Info line:
Entering sequence name

– Press function key “**F2**” or “**F3**” to enter the first letter.
– Press the “⇨” key to move to the next position.
– Press function key “**F2**” or “**F3**” to enter the next letter.
– Press “**OK**” to store the name.

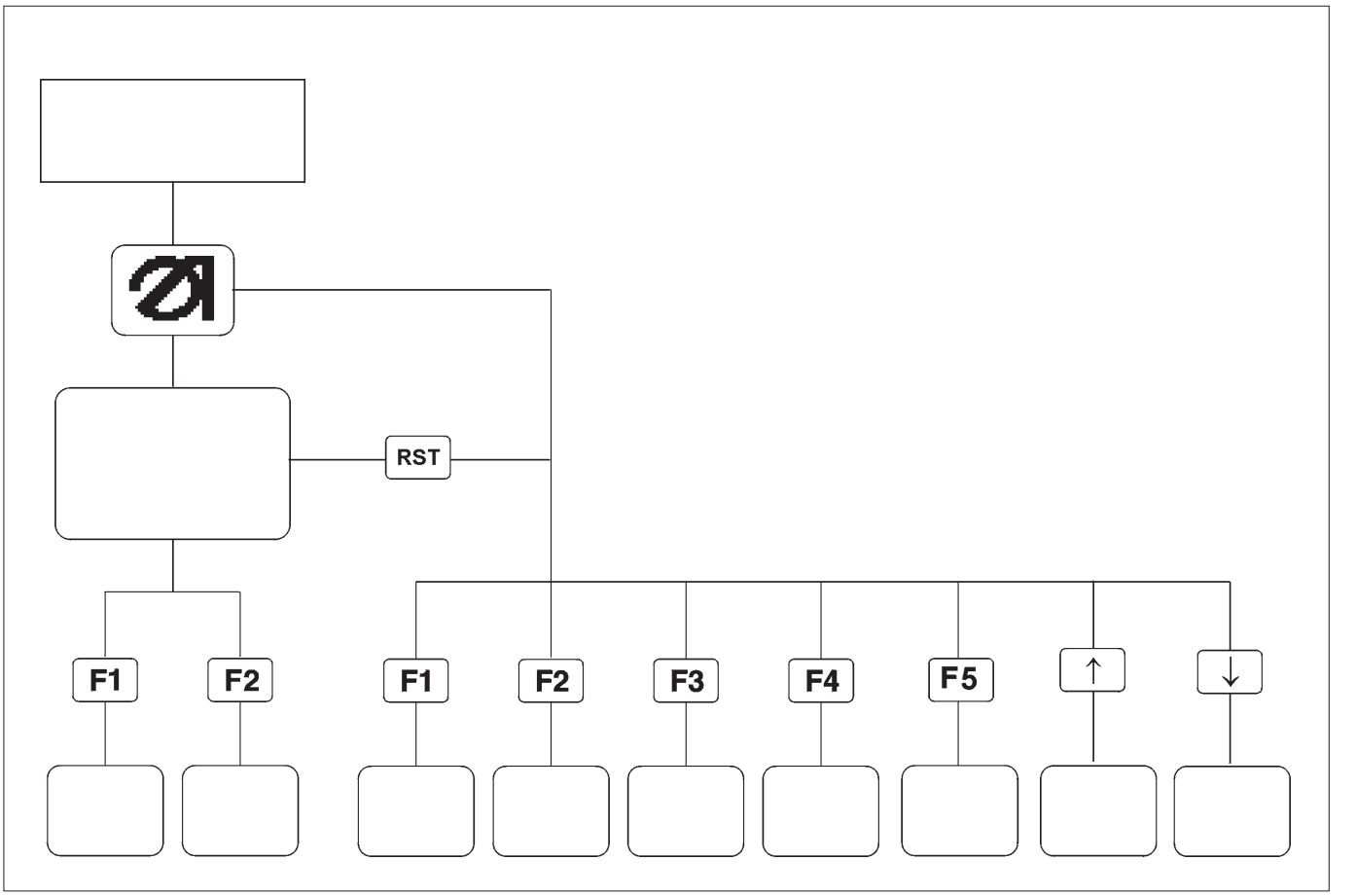
Pressing function key “**F5**” erases the whole name.

7 Setting and test programs

The machine software includes various machine-specific setting and test programs, together with the well-known MULTITEST system.
A terminal self-test checks the individual components of the operating terminal.

7.1 Calling setting and test programs

Once the machine has been switched on, pressing certain keys opens the various groups of setting and test programs.



Functions when keys are pressed and held down:

“**F1**”	Machine parameters
“**F2**”	Machine test and setting programs
“**F3**”	MULTITEST
“**F4**”	Terminal self-test
“**F5**”	Contrast value of the display
“**Cursor-up**”	Language selection
“**Cursor-down**”	Edit menu

– The key for the required setting or test program should be pressed and held down.
– Turn on the main switch.
  The controller is initialized.
  The DÜRKOPP-ADLER logo briefly appears in the display.
  The display switches to the corresponding group of setting and test programs.

or

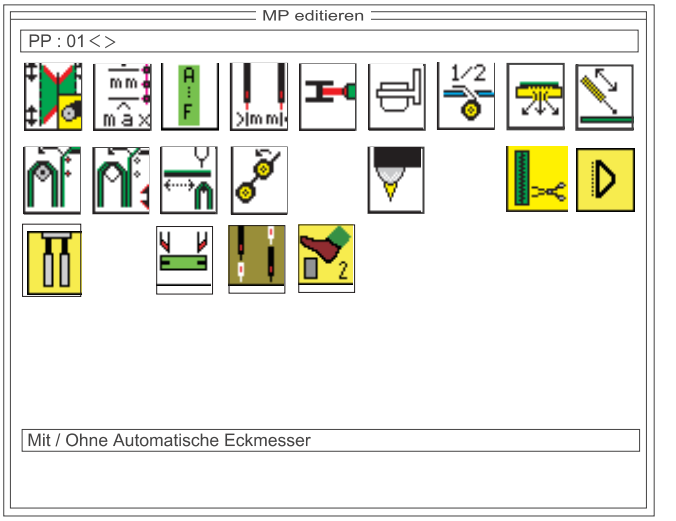
– Press the “**RST**” key.
– Press and hold down the key for the required setting or test program.

7.2 Machine parameters (RST + F1 or main switch on + F1)

The machine parameters describe the machine's technical configuration as well as its settings and their adjustment values.

CAUTION:

Changes to machine settings usually entail mechanical conversion. For this reason this program section is only accessible after the entry of code number "**25483**".



Info line:

with/without automatic corner blade

- Press the "**RST**" key or turn the main switch on and press function key "**F1**".
  The code-number entry box appears in the display.
- Enter code number "**25483**" on the decimal keypad.
  Once the correct code number has been entered the display switches to the machine-parameter screen.
  If an incorrect code number is entered the display switches to the main screen.
- Select the required parameter with cursor keys "⇨", "⇦", "⇩" or "⇧".
  A black background appears behind the symbol.
- Activate the selected parameter with the "**OK**" key.
- Change the selected parameter as described in section 4.2.
- To leave machine parameters press the "**RST"** key or turn off the main switch.

Corner-blade settings for angles

This parameter indicates to the control unit whether the corner blades are to be set manually or automatically.

Manual corner-blade positioning

Automatic corner-blade positioning

Maximum sewing length

Entry: 180, 200, 200, 220 [mm]

Select with the “⇩” or “⇧” keys.

Folder unit

Entry: A, B, D, F

A: piped pockets,
manual positioning of piping strip,
flaps and other items

B: piped pockets,
automatic piping-strip feed
with incision of the ends

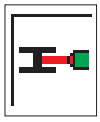
D: breast-welt pockets,
automatic breast-welt feed and alignment

F: piped pockets,
automatic piping-strip feed,
automatic flap feed and alignment,
incision of piping ends

Needle distance

Entry: 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30 [mm]

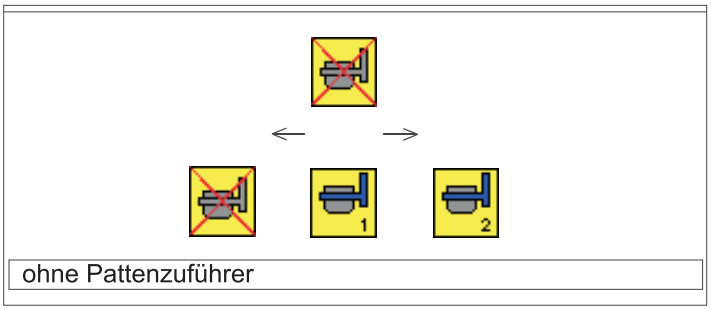
Switching the thread monitor on/off



This parameter switches the needle-thread and looper-thread monitor on and off.

Entry: on/off

Selecting the flap feed mode (versions B and F only)



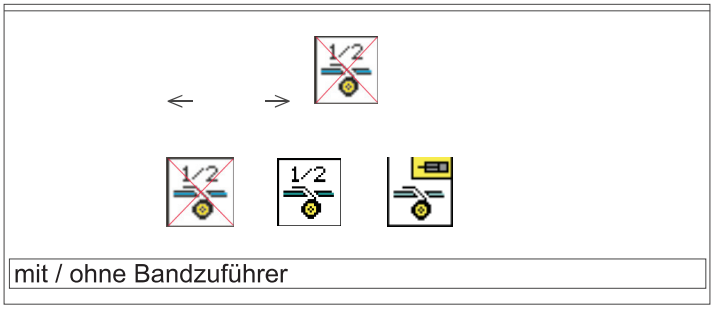
Info line:
without flap feed

without Flap Feed
Flap Feed switched off

Flap Feed Mode 1
Step forward on the right pedal,
left flap feed opens.
Step back on the right pedal,
right flap feed opens.

Flap Feed Mode 2
Step forward on the right pedal,
flap feed on both sides open.
Step back on the right pedal,
right flap feed opens.

Tape Feed



Info line:
with/without tape feed

without Tape Feed

Tape feeding switched off

Tape Feed with Step Motor

Equipment: electromotor driven tape feeder

Electro-pneumatic Tape Feeding

Equipment: electro-pneumatic driven tape feeder

Switching the vacuum system on/off

This parameter indicates to the control unit whether the machine is fitted with a vacuum system.
The vacuum system is switched on and off in the pocket-program menu item (**F1**) on the main screen.

Entry: on/off

Switching the holder on/off

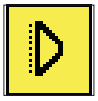
This parameter indicates to the control unit whether the machine is fitted with a holder.
The holder is switched on and off in the pocket-program menu item (**F1**) on the main screen.

Entry: on/off

Switching the stacker/blower pipe on/off

This parameter indicates to the control unit whether the machine is fitted with a stacker/ blower pipe.
The stacker/ blower pipe is switched on and off in the pocket-program menu item (**F1**) on the main screen.

Entry: on/off

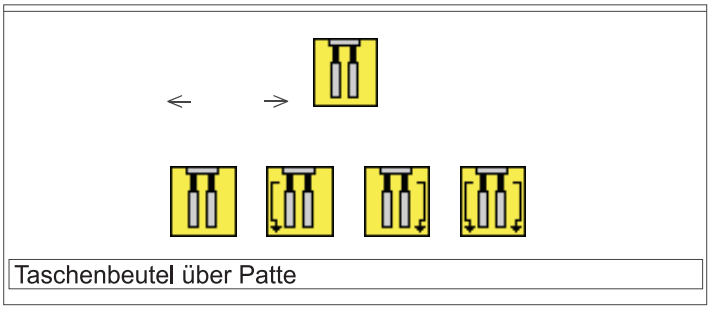


Switch waistband clamp on/off

This parameter indicates to the control unit whether the sewing unit is equipped with a waistband clamp or not.

Pocket bag over flap mode

Any change concerning the pocket bag over flap mode should be done here i.e. in which position the raised feed clamp goes for the inserting position.

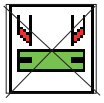


Info line:

Pocket bag over flap

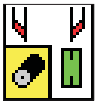
Switch piping cutter on/off

This parameter indicates to the control unit whether the sewing unit is equipped with a piping incision device.



on/off

left piping cutter, with motor



right piping cutter, with motor

Equipment sewing machine head

This parameter indicates to the control unit whether the sewing machine head is equipped with separate needle switching.

without separate needle switching (only straight pockets)

with separate needle switching (straight and slanted pockets)

Pedal configuration

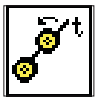
This parameter indicates to the control unit whether the sewing unit is equipped with one or two pedals.

Sewing unit has two pedals

Sewing unit has only one pedal

Sewing unit has two pedals and their mode of functioning has been inversed

Notes:

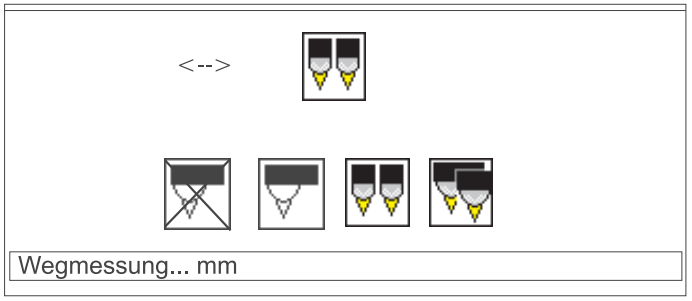


Activating the smoother

This parameter tells the controller whether the machine is fitted with a smoother.
The smoother is switched on and off in the pocket-program menu item (**F1**) on the main screen.

Entry: on/off

Selecting light barriers for flap scanning



Info line:

distance measurement... mm

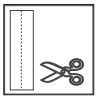
No light barrier present

Flap scanning with one light barrier

Two light barriers for flap side left/right

NB:
Flap side left/right is determined by the seam program.

Automatic angle recognition

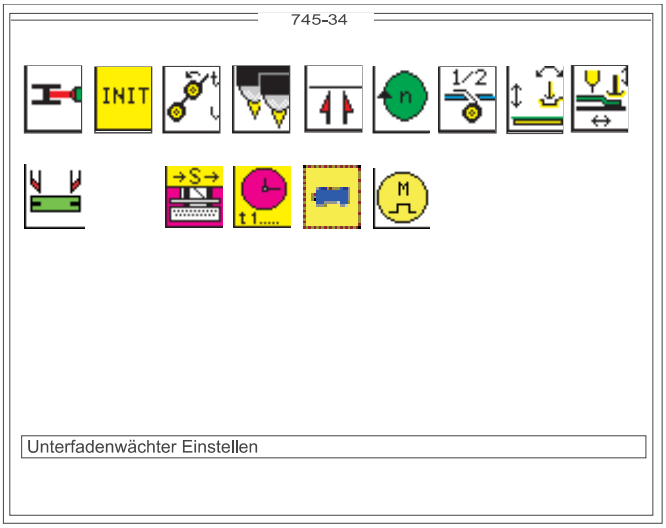


Tape cutter present

Entry: on/off

7.3 Machine-specific setting and test programs (RST + F2 or main switch on + F2)

The machine-specific test programs test and adjust individual machine components.

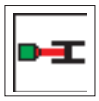


Info line:

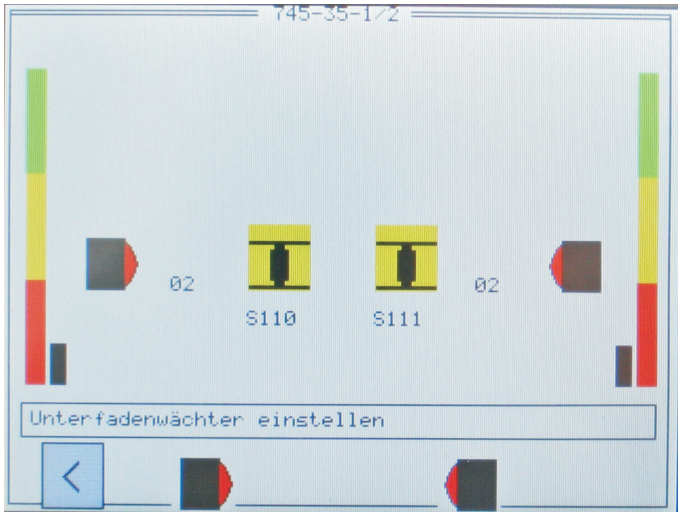
Adjusting the looper-thread monitor

- Press the “**RST**” key or turn the main switch on and press function key “**F2**”.
  The display switches to the machine-specific test-program screen.
- Select the required test program with cursor keys “⇨”, “⇦”, “⇩” or “⇧”.
  A black background appears behind the symbol.
- Press “**OK**” to run the selected test program.
- Change the selected parameter as described in section 4.2.
- To leave machine parameters press the “**RST**” key or turn off the main switch.

7.3.1 Adjusting the looper-thread monitor



This program aligns the reflecting light barriers of the looper-thread monitor.



Info line:

Adjusting the looper-thread monitor

1. Press **OK** to run the test program.

Two looper-thread bobbins and the light barrier reflecting heads appear on the display.

If the light barriers have been correctly aligned, a reflection will occur on the reflecting surfaces of the revolving empty bobbin.

The intensity of the reflection is indicated by a black bar and a figure between 1 and 15.

If the value is above 8 (=minimal value), an arrow will appear between the reflecting head and the looper-thread bobbin. At the same time you will hear a beep.

Hint:

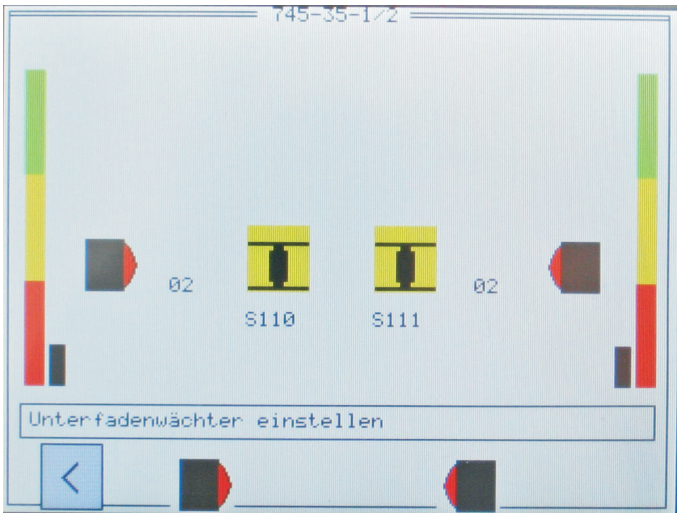
If the light barrier is set correctly, the maximum value of 15 should be attained when the infrad beam hits the blank surface of the empty bobbin (black bar in the green zone).

2. Press the function key F1 to quit the test program.

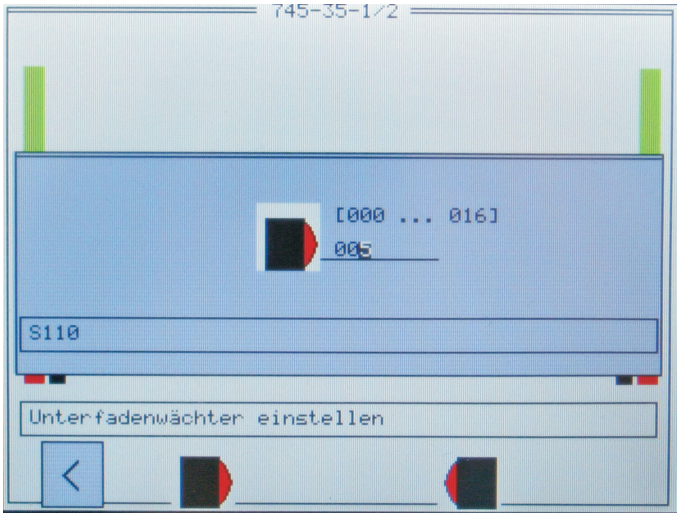
Hint:

If the transmission power is too high, that is if the looper-thread monitor is already triggered when the looper is hit by the light beam, the intensity can be decreased (or increased, if the intensity is too low).

In the lower half of the display two symbols indicate the setting of the transmission power. As already mentioned, the black bar should attain the value of 15.



This is how you set the transmission power of the sensor for the looper-thread monitor:

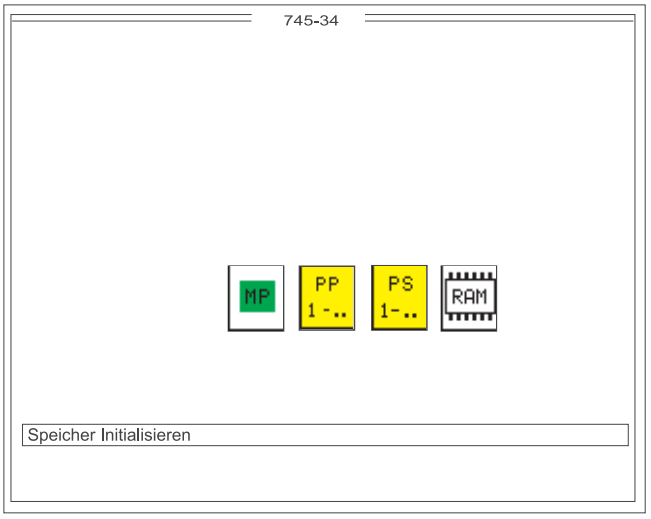


1. Press **F2** to change the value of the intensity of the left looper-thread monitor.
   15 = high transmission power
   1 = low transmission power
2. Adjust the value between 1 and 15.
3. Press **OK** to confirm the value.
4. Make the bobbin with the reflecting surface revolve in front of the sensor.
5. Check the value of the black bar.
6. If the transmission power is not yet sufficient, you have to adjust the value once more. Repeat the steps 1 to 5.
7. Press **ESC** to return to the previous level.
8. Follow the same procedure for the right looper-thread monitor, but press the key **F4**.

Notes:

7.3.2 Initializing memory

The program loads a standardized factory setting for the sewing-program parameters,
e.g. for a new controller:



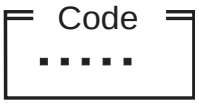
Info line:

Initializing memory

CAUTION:

Once one of these three programs has been run the parameters set are overwritten with a standardized factory setting.

For this reason this program section can only be run after the entry of code number “**25483**”.

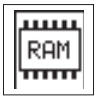


– Press OK to run the test program.
  The code-number entry box appears in the display.
– Enter code number “**25483**” on the decimal keypad.
  Once the correct code number has been entered the display switches to the four parameters listed below.
  If an incorrect code number is entered, the display switches to the machine-specific parameter screen.

Initializing the machine parameters

Initializing pocket programs

Initializing pocket sequences



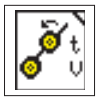
Initializing **all** programs and parameters

Hint:

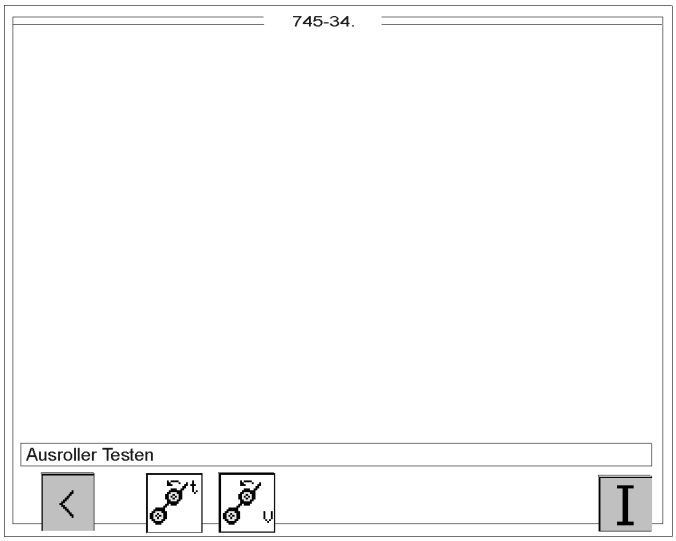
After initialization, the machine parameters (**RST** + **F1**) must be rechecked.

– Select the required test program with cursor keys “⇦” or “⇨”.
  A black background appears behind the symbol.
– Press OK to run the selected program.
– To leave machine parameters press the “**RST”** key or turn off the main switch.

7.3.3 Checking the smoother function

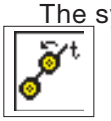


This program tests the function of the smoother.



Info line:
Testing smoother

– Press OK to run the test program.
  The symbol appears with the entry fields.



smoother time (t)

smoother velocity (v)

– Enter the required values for “**t**” and “**v**”.

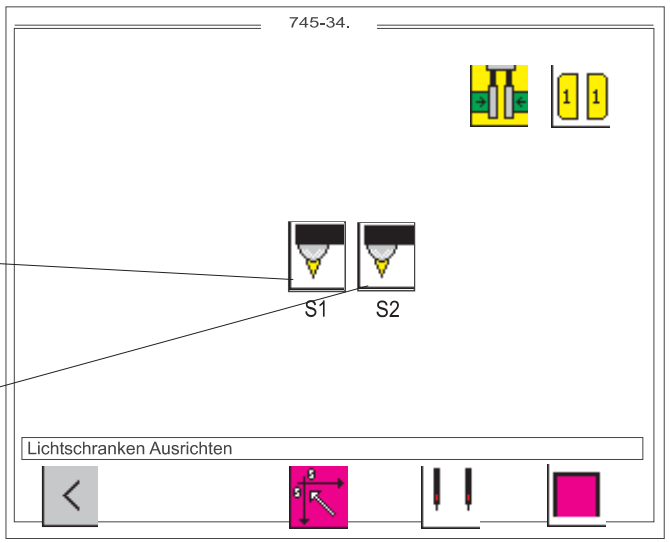
  Entry:

Active period:	t = 10...1000 Increment: 1 stroke = 0.001 s
Velocity stage:	v = 1...15

– Press the “**F5**“ key.
  The smoother runs for the selected period at the set velocity.
– To leave the test program press function key **F1**.

7.3.4 Aligning the light barriers

This program aligns the reflecting light barriers for recognition of the seam start and end.



First light barrier

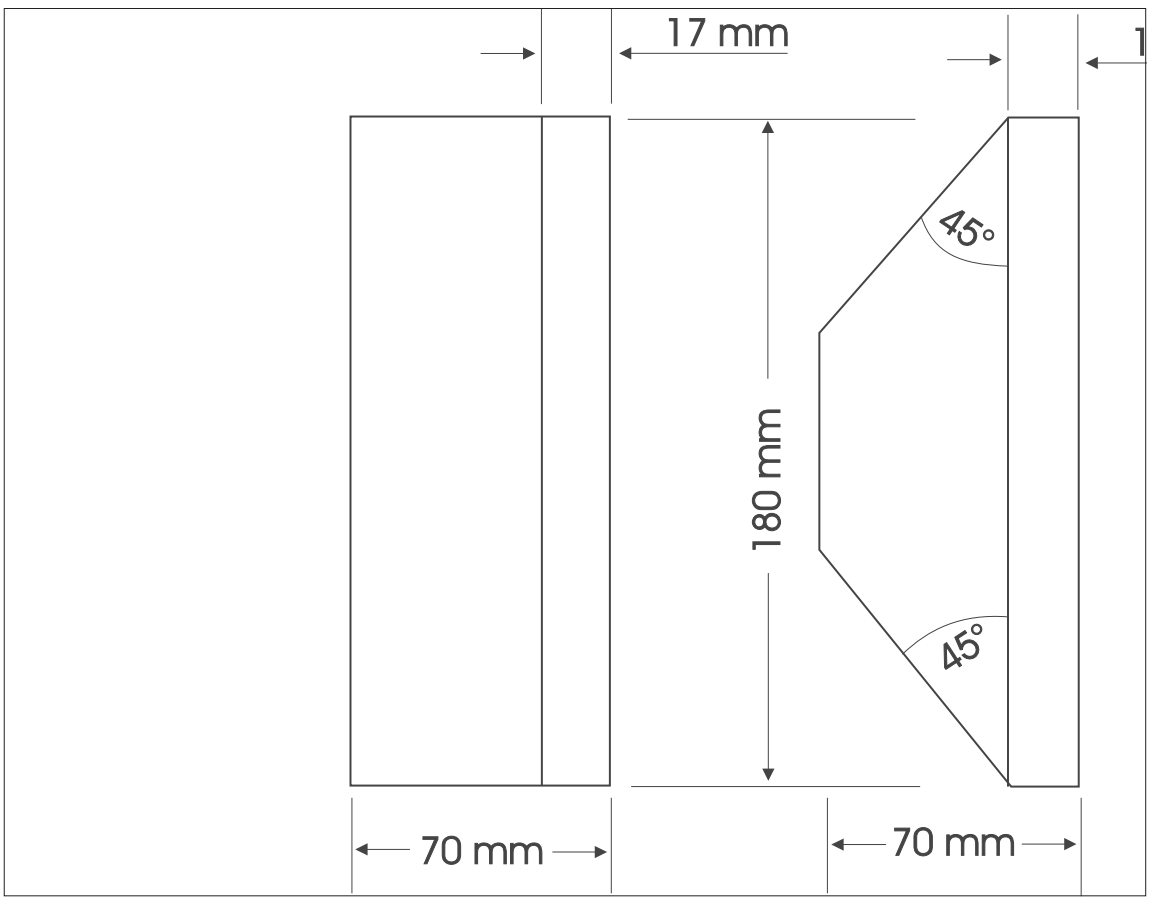
Second light barrier for flap scanning

Info line:
Aligning the light barriers

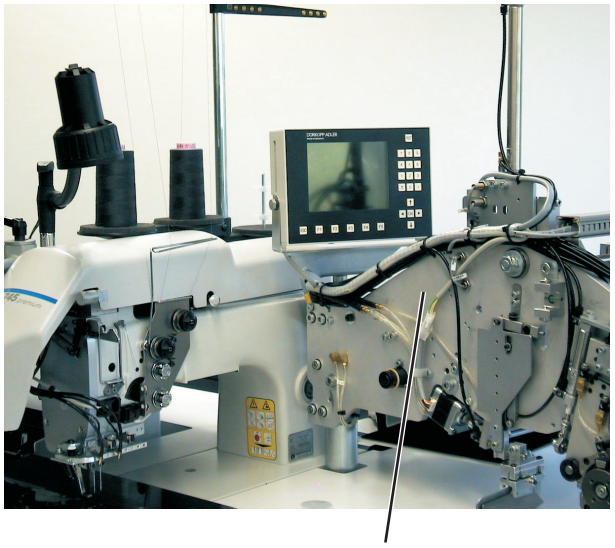
The light barriers are adjusted with two templates.

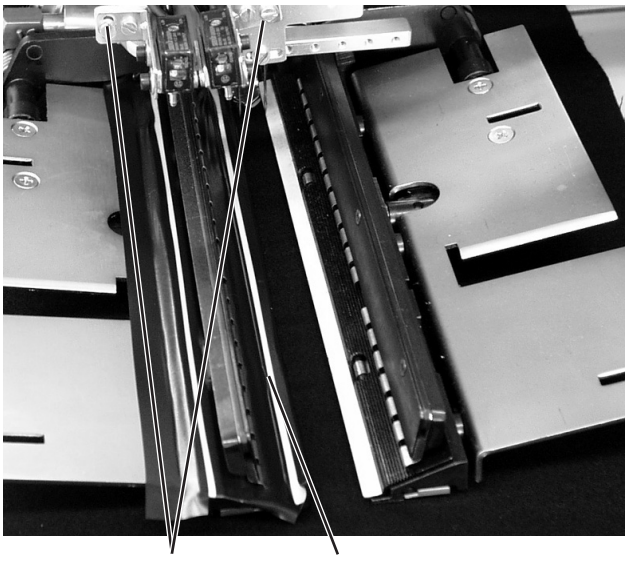
Left template = for straight pockets.

Right template = for slanting pockets.



7.3.4.1 Preparing the sewing unit and feed clamps





1 *3* *2*

Caution: danger of injury

The light barriers are adjusted with the machine switched on.

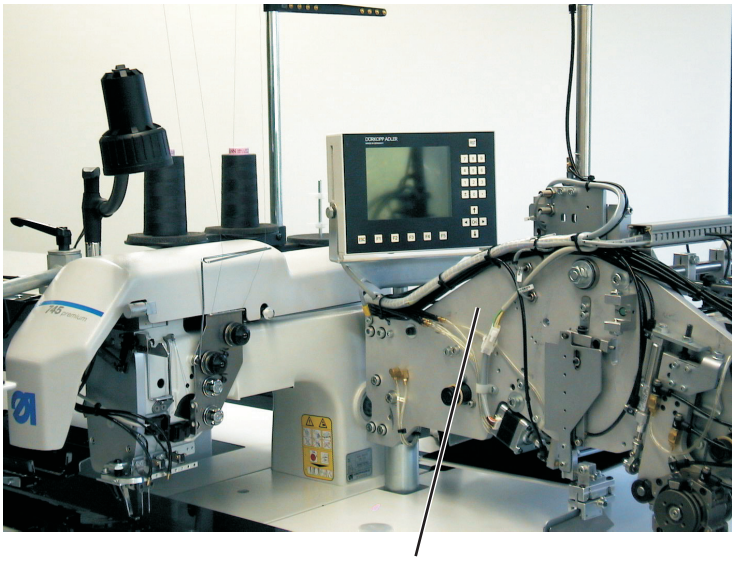
The utmost care must be taken when carrying out adjustments and function-testing.

CAUTION: danger of breakage

It is essential for the folder station to be swivelled out for the light barriers to be adjusted.

- Swivel out the folder station 1.
- **Lay material under the feed clamps.**
- Run the test program.
  Close the flap clamp and folding plates,
  the feed clamps descend.
- Pull the feed clamps forwards.
- Align the light barriers to the center of the reflecting foils 2.
  The area from seam start to seam end must be checked on the clamp.
  Orange LED: on = reflection available
  off = no reflection
  Green LED: on = stable switching signal
  If the green LED does not shine, the light-barrier should be cleaned, readjusted, replaced or a new reflecting foil should be fitted.

  Proceed as follows:
  - Attach a reflecting strip 2 on the left and on the right over the whole length so that a strip of approx. 2 mm remains uncovered in the middle.
  - Push the feeding clamps to the back until they are centrally underneath the light barriers.
  - Loosen screws 3 and align the light barriers to the strip of the reflecting foils 2. Tighten screws 3.
  - Push the feeding clamps in the rear and front position and check the alignment of the light barriers.



1

Check of the light barrier position with swung-in folder

- When the feeding clamps are in the rear position, swing the folding station 1 in.
- Press key “**7**“.
  Folder (A) or pick-up folder (B/F) are made pressure less.
- Press the folder on the sliding sheet manually and pull the feeding clamps to the front.
  Make sure that the folder sole is guided under the folding sheets.
- Check switching of the light barriers with swung-in folder.
- Swing the folding station out again.

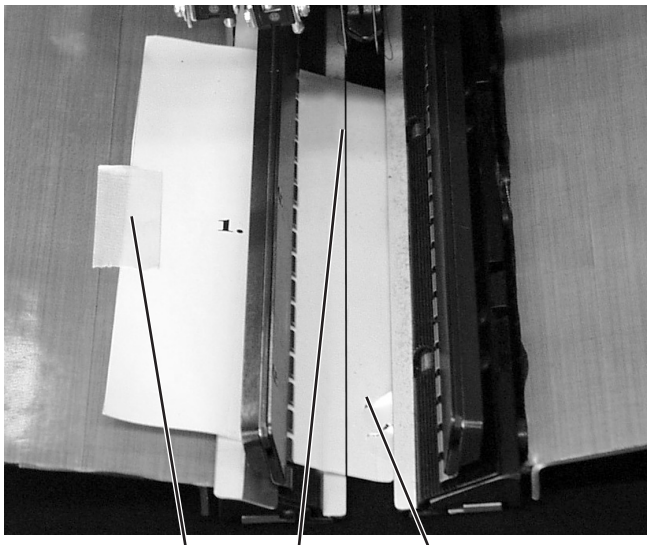
  Hint:
  If the light barriers do not switch at the seam beginning and seam end, the parallel position of the feeding clamps has to be checked (see Service Instructions).

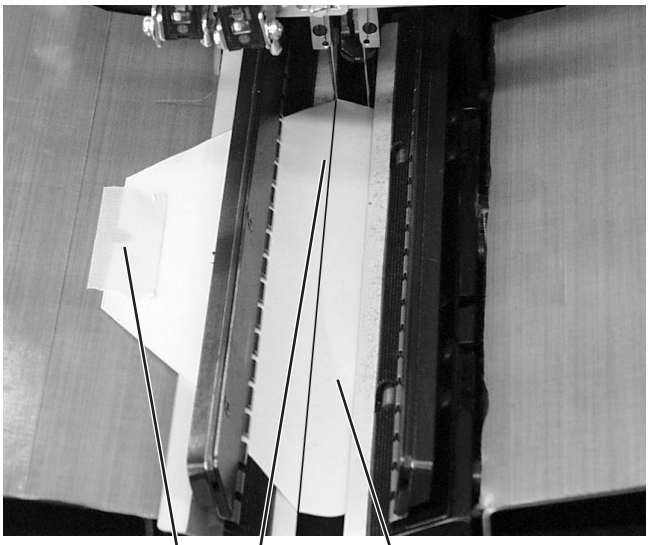
- Remove adhesive tapes from the reflecting strips.

Danger of breakage !

When the light barrier adjustment has been finished, the folding station has to be swung out again in any case.

7.3.4.2 Sewing unit with two light barriers for automatic angle recognition

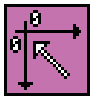




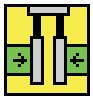
Caution: danger of injury

During the reference run the feed clamps move forwards or back and forth several times.

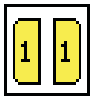
Do not reach into the path of the feed clamps.
Folding station must be swung out



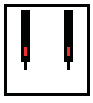
– Press function key “**F3**”.
The reference run is carried out.



– Press “**8**” and select clamp position (see page 33).
Hint:
The light barriers must be aligned to the clamp position.

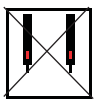


– Press “**9**”.
The flap clamp opens.



– Press function key “**F4**”.
The needles are switched on.

– Turn the hand-wheel in the direction of rotation to lower the needles to about 2 mm above the material.
– Insert the straight-pocket template 1 so that line 2 points to the left needle and is parallel to the right feed clamp.
– Press “**9**” to close the flap clamp.
– Stick the left, proud side of the template to the clamp with a strip of adhesive tape 3.
– Press function key “**F4**”.
The needles are switched off.

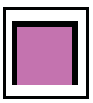


– Turn the handwheel in the ***opposite*** direction to the direction of rotation to bring the needle back to top dead center.

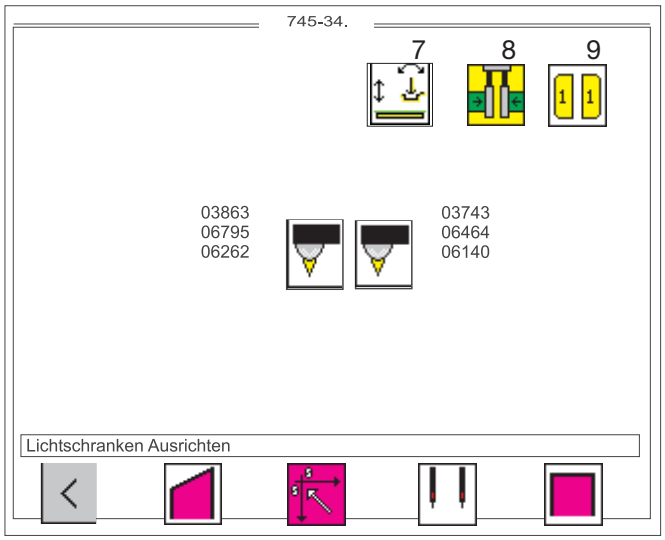
Caution: danger of injury

During template scanning the feed clamps move back and forth several times.

Do not reach into the path of the feed clamps.

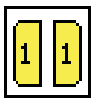


– Press function key “**F5**”.
The straight-pocket template is scanned.
The scanned parameters appear in the display. They are automatically passed to the controller.



Info line:

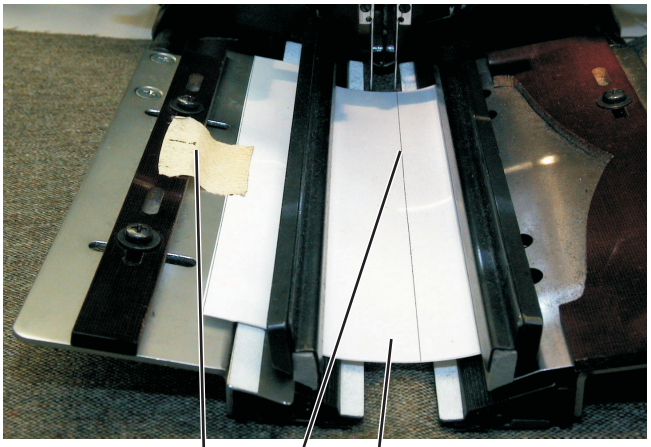
Aligning light barriers



– Press “**9**”.
The flap clamp opens.
– Remove the straight-pocket template.
Insert the slanting-pocket template 4 so that line 5 points to the left needle and is parallel to the right feed clamp.

– Press “**9**”.
The flap clamp closes.
– Stick the left, proud side of the template to the clamp with a strip of adhesive tape 3.
– Press function key “**F2**”.
The slanting-pocket template is scanned.
The scanned parameters appear in the display. They are automatically passed to the controller.
– Press “**9**”.
The flap clamp opens.
– Remove the slanting-pocket template.
– Press function key “**F1**” to terminate the test program.
– Push feed clamps backwards by hand.
– Swivel folding station back and lock in place.
– Press the “**RST**” key or switch the machine off and on again.

7.3.4.3 Sewing unit with two light barriers, left or right flap positioning

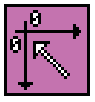


Caution: danger of injury

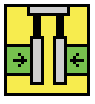
During the reference run the feed clamps move forwards or back and forth several times.

Do not reach into the path of the feed clamps.

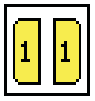
Folding station must be swung out



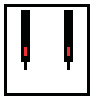
– Press function key “**F3**”.
The reference run is carried out.



– Press “**8**” and select the clamp position (see page 33).
Hint:
The light barriers must be aligned to the clamp position

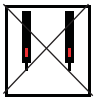


– Press “**9**”.
The flap clamp opens.



– Press function key “**F4**”.
The needles are switched on.

– Turn the hand-wheel in the direction of rotation to lower the needles to about 2 mm above the material.
– Insert the straight-pocket template 1 so that line 2 points to the left needle and is parallel to the right feed clamp. Both reflecting foils must be covered.
– Press “**9**” to close the flap clamp.
– Stick the left, proud side of the template to the clamp with a strip of adhesive tape 3.



– Press function key “**F4**”.
The needles are switched off.

– Turn the hand-wheel in the ***opposite*** direction to the direction of rotation to bring the needle back to upper dead center.

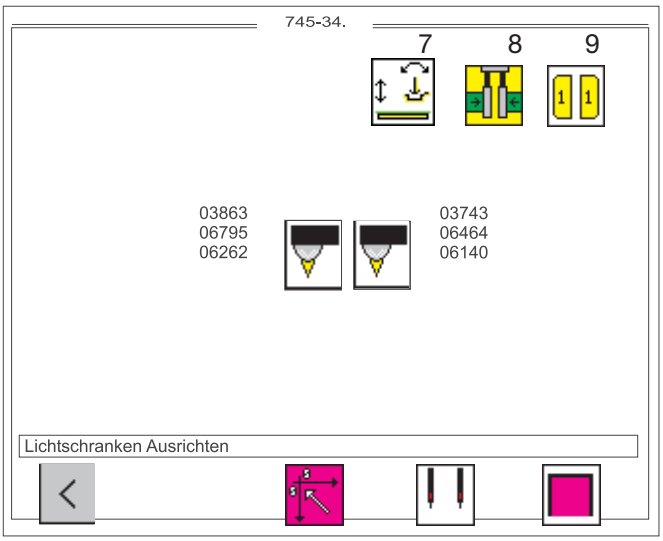
Caution: danger of injury

During template scanning the feed clamps move back and forth several times.

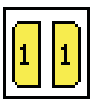
Do not reach into the path of the feed clamps.

Folding station must be swung out

– Press function key “**F5**”.
The template is scanned.
The scanned parameters appear in the display. They are automatically passed to the controller.



Info line:
Aligning light barriers



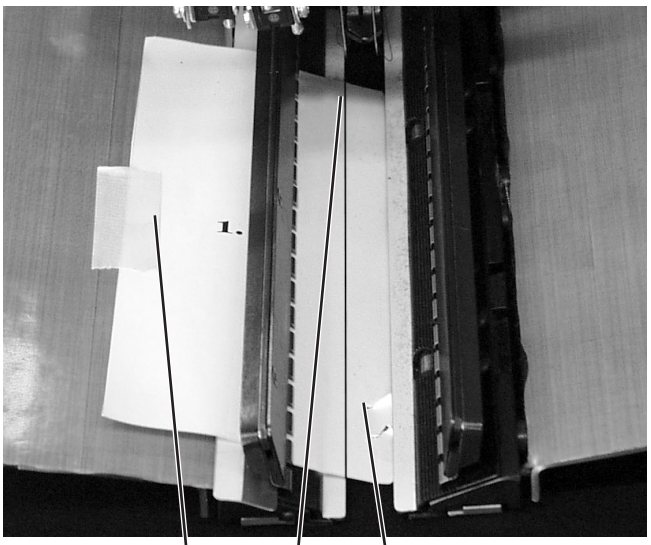
– Press “**9**”.
The flap clamp opens.
– Remove the template.
– Press function key “**F1**” to terminate the test program.
– Push feed clamps backwards by hand.
– Swivel folding station back.
– Press the “**RST**” key or switch the machine off and on again.

Hint:

Light barrier S1 for left clamp

Light barrier S2 for right clamp

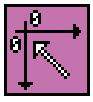
7.3.4.4 Sewing unit with one light barrier



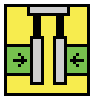
Caution: danger of injury

During the reference run the feed clamps move forwards or back and forth several times.

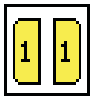
Do not reach into the path of the feed clamps.
Folding station must be swung out



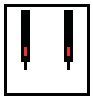
– Press function key “**F3**”.
The reference run is carried out.



– Press “**8**” and select the clamp position (see page 33).
Hint:
The light barriers must be aligned to the clamp position



– Press “**9**”.
The flap clamp opens.



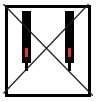
– Press function key “**F4**”.
The needles are switched on.

– Turn the hand-wheel in the direction of rotation to lower the needles to about 2 mm above the material.

– Insert the straight-pocket template 1 so that line 2 points to the left needle and is parallel to the right feed clamp. Both reflecting foils must be covered.
Hint:
Place the template under the clamp on which the light barrier is mounted, left or right.

– Press “**9**” to close the flap clamp.

– Stick the left, proud side of the template to the clamp with a strip of adhesive tape 3.



– Press function key “**F4**”.
The needles are switched off.

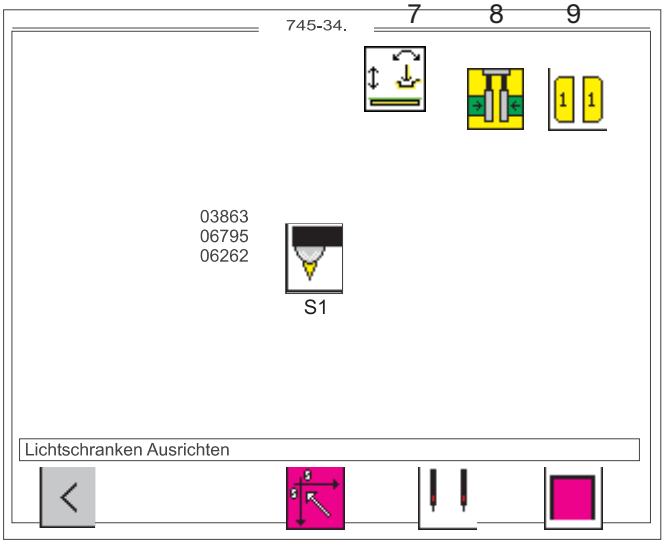
– Turn the hand-wheel in the ***opposite*** direction to the direction of rotation to bring the needle back to upper dead center.

Caution: danger of injury

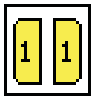
During template scanning the feed clamps move back and forth several times.

Do not reach into the path of the feed clamps.
Folding station must be swung out

– Press function key “**F5**”.
The template is scanned.
The scanned parameters appear in the display. They are automatically passed to the controller.



Info line:
Aligning light barriers



– Press “**9**”.
The flap clamp opens.
– Remove the template.
– Press function key “**F1**” to terminate the test program.
– Push feed clamps backwards by hand.
– Swivel folding station back.
– Press the “**RST**” key or switch the machine off and on again.

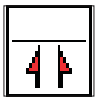
7.3.4.5 Error Display

Error 1:
– Incorrect alignment of the light barrier.
– Incorrect sensitivity setting.
– Template inserted in a wrong way.

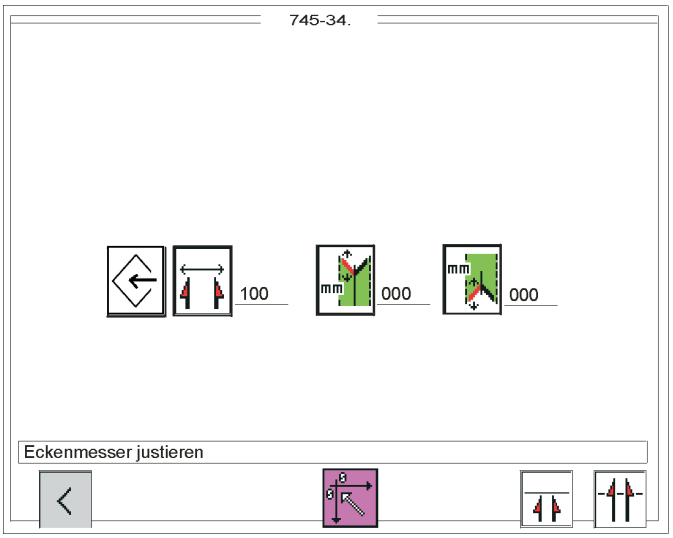
Error 2:
– Wrong / Damaged template for “straight pockets”.

Error 3:
– Wrong / Damaged template for “slanting pockets”.

7.3.5 Checking the corner-blade settings



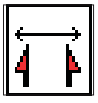
This program checks the corner-blade distances.



Info line:
Adjusting corner blades

– Select the required parameter with cursor keys “⇦” or “⇨” .
  A black background appears behind the symbol.
– Press OK to run the selected program.

Corner-blade machine parameters



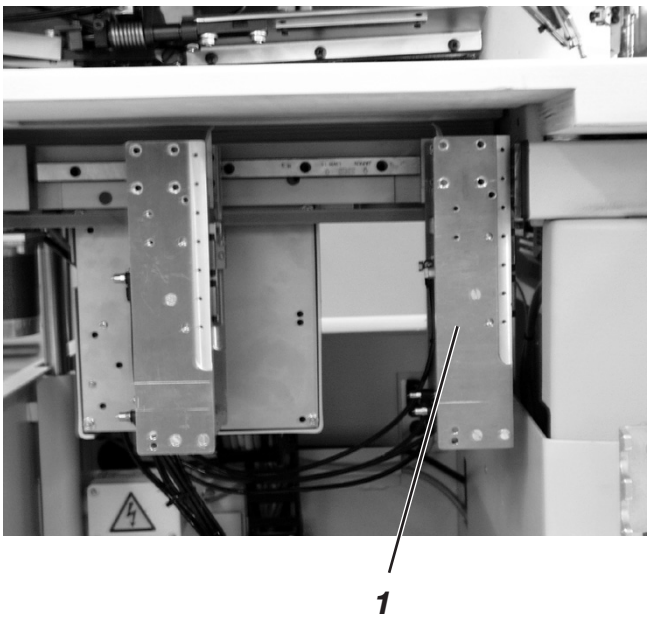
Corner-blade distance

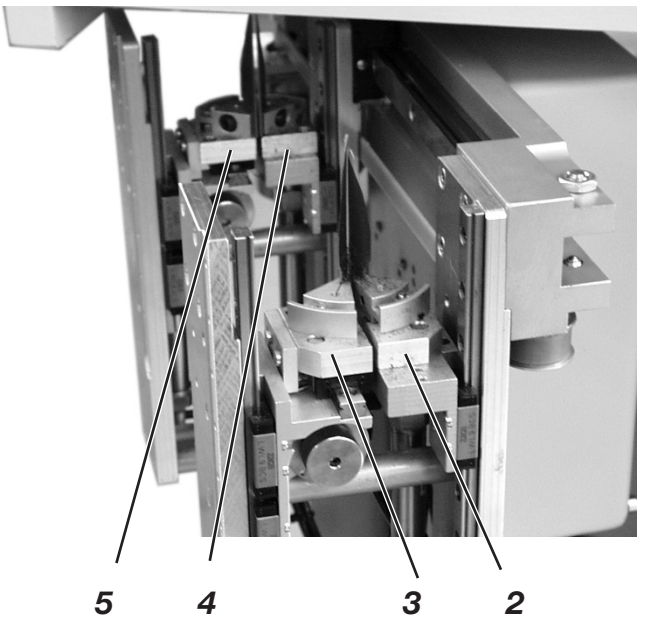
Seam-start corner-blade adjustment (automatic corner-blade station only)

Seam-end corner-blade adjustment (automatic corner-blade station only)

Corner-blade frames reference run

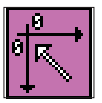
7.3.5.1 Checking the corner-blade station

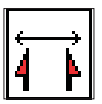




Caution: danger of injury

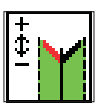
Serious cuts may result from reaching into the vicinity of the corner blades.
The utmost care must be taken when carrying out tests on the machine when it is running.





- Press function key “**F3**”.
  The corner-blade frames carry out a reference run.
- Select the “**corner-blade distance**” symbol with cursor keys “⇦” or “⇨” .
- Enter a corner-blade distance and press the “**OK**” key to move the corner blade.
  Example:
  corner-blade distance entry = 100 mm.
- Check the distance between the corner-blade frames 1 and 6.

7.3.5.2 Checking the front left corner blade (automatic corner-blade station only)



- Select the “**seam-start corner-blade correction**” symbol with cursor keys “⇦” or “⇨”.
- Enter a correction value (+ or -) and press the “**OK**” key to move the corner blades.
- Check the distance between corner blades 2 and 3.

7.3.5.3 Checking the rear left corner blade (automatic corner-blade station only)

- Select the “**seam-end corner-blade correction**” symbol with cursor keys “⇦” or “⇨”.
- Enter a correction value (+ or -) and press the “**OK**” key to move the corner blades.
- Check the distance between corner blades 4 and 5.

7.3.5.4 Checking corner-blade motion

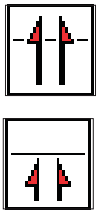
Caution: danger of injury

Do not reach into the vicinity of the corner blades.
When rising they can inflict serious cuts.
The utmost care must be taken when testing the corner blades when the machine is in operation.

The individual corner blades are tested in sequence.

The test sequence is commenced by pressing function key “**F5**” and then continued by pressing it again.

Pressing function key “**F4**” moves back one step in the test sequence.

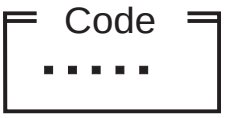


– Press function key “**F5**”.
  The following steps are carried out:

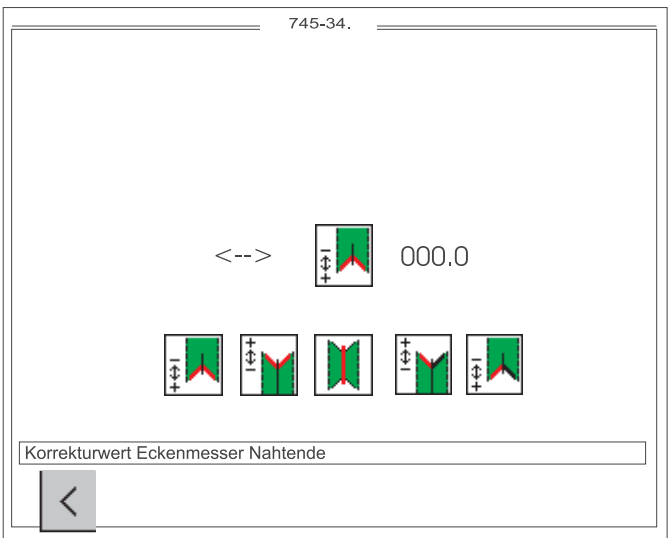
- step 1 = front corner blades rise and stay up
- step 2 = rear corner blades rise and stay up
- step 3 = only front left corner blade rises and stays up
- step 4 = front right corner blade rises and stays up
- step 5 = rear left corner blade rises and stays up
- step 6 = rear right corner blade rises and stays up
- step 7 = complete cut with all four blades

7.3.5.5 Corner-blade machine parameters

Basic positioning of the corner blades to the seam is carried out in the machine-parameter program.



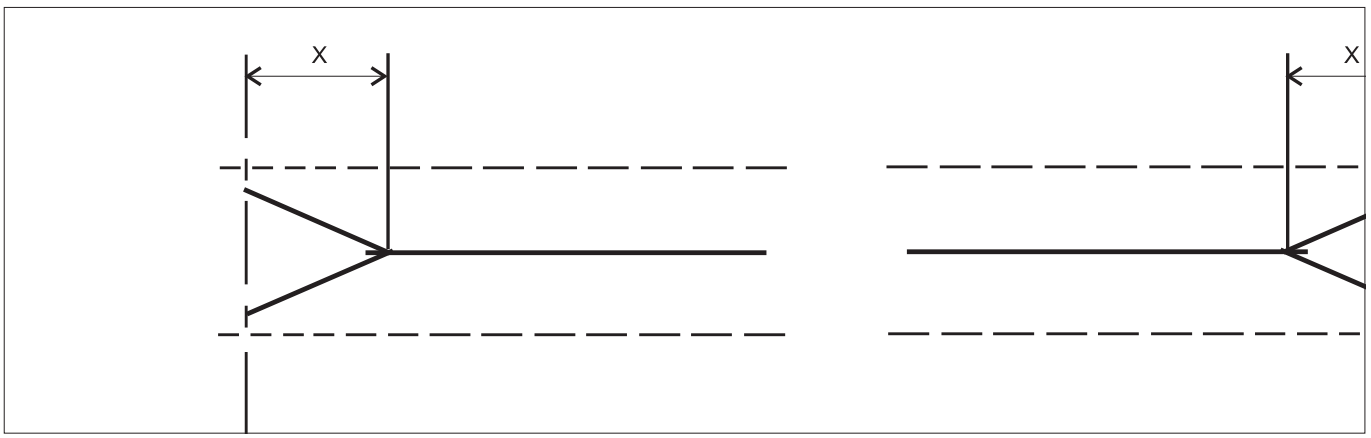
– Select “**corner-blade machine parameters** ” with cursor keys “⇦” or “⇨”.
A black background appears behind the symbol.
– Press **OK** to start the program.
The code-number entry box appears in the display.
– Enter code number “**25483**” on the decimal keypad.
The corner-blade correction screen appears.



Info line:
Seam-end corner-blade correction value

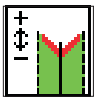
To correct the corner incisions and the center-blade cut a sewing piece should first be prepared and sewn. The procedure is as follows:

– Set up a test program on the controller and set all corner- and center-blade corrections to “0".
– Iron a piece of Vlieseline onto the sewing piece.
This shows up the corner incisions better.
– Sew a test seam.
– Check the seam and cut pattern.
– To leave the test program press function key **F1**.



Seam-end corner-blade correction value

Entry: -99.9 ... 99.9



Seam-start corner-blade correction value

Entry: -99.9 ... 99.9

Hint:

The value entered is valid for all pocket programs.

If the seam-end value is changed, the seam-start value is automatically corrected.

Distance from the center-blade incision to the seam ends (x)
(see the illustration at the foot of page 62)

Entry: - 99.9 ... 99.9

Hint:

This value depends on the needle distance and the relevant corner blade.

Left-corner-blade seam-start zero-point correction (automatic corner-blade station only)

Entry: -13 ... 13

Hint:

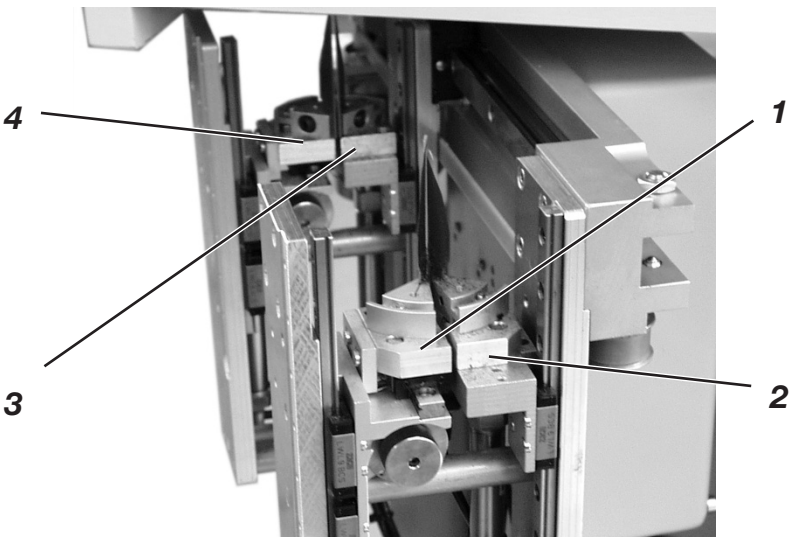
The blade brackets 1 and 2 must be parallel.

Left corner blade seam-end zero-point correction (automatic corner-blade station only)

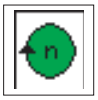
Entry: - 13 ... 13

Hint:

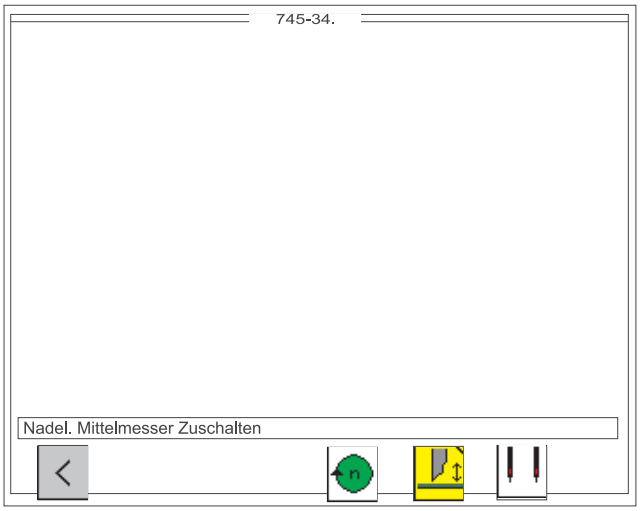
The blade brackets 3 and 4 must be parallel.



7.3.6 Testing needle and center-blade activation



This program tests the activation of the needles and the center blade with the machine running.



Info line:

Activating needle, center blade

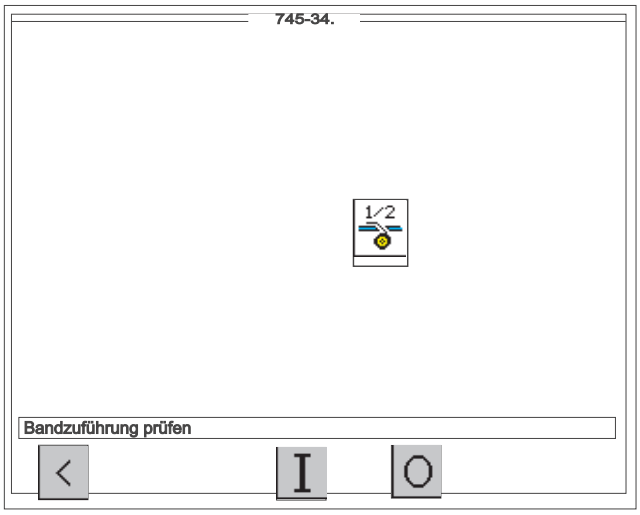
- Press **OK** to start the program.
- Press function key **F3**:
  once to start the sewing drive at 1000 rpm,
  a second time to increase the sewing-drive speed to 3000 rpm
  and a third time to stop in position 2 (thread lever up)
- The center blade is switched on and off with function key **F4**.
- The needles are switched on and off with function key **F5**.
- Press function key **F1** to leave the test program.

CAUTION:

Before leaving the program the machine head must be run for a short time with the needles and center blade switched off
otherwise the next seam will not be properly executed.

7.3.7 Checking the tape feed

This program tests the feed and trimming function of the tape feed



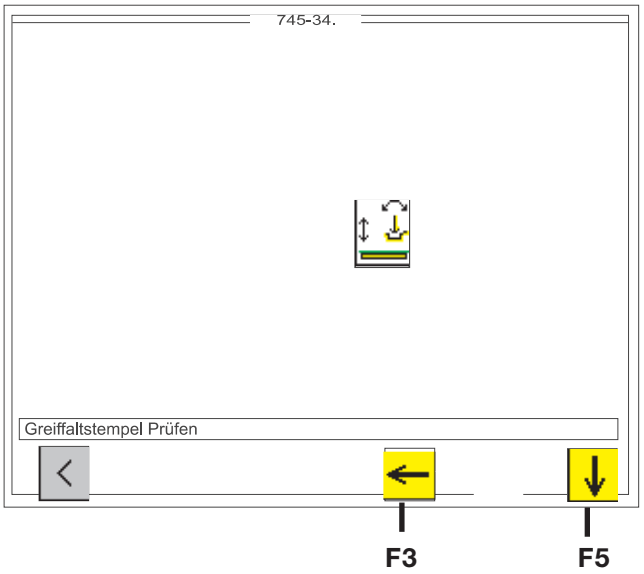
Info line:

Checking tape feed

- Press **OK** to run the test program.
- Press function key **F4**.
  The tape feed starts.
  The tape is fed and the brake released.
  The  key is blocked.
- Press function key **F5**.
  The tape is automatically cut, advanced and clamped.
- Press function key **F1** to leave the test program.

7.3.8 Checking the gripper folder without feed clamp (versions B and F only)

This program tests the function of the gripper folder.
The feed clamps remain in their rear end position.



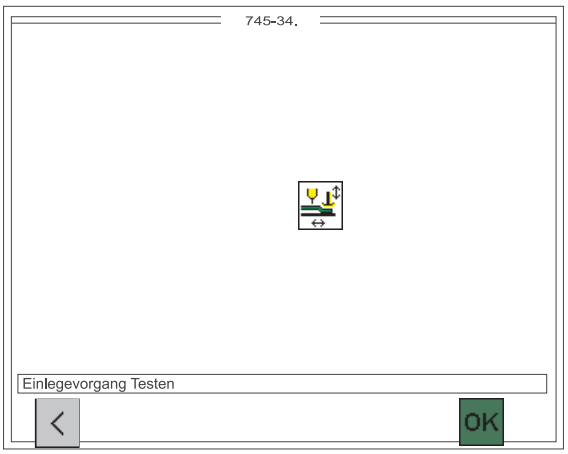
Info line:

Testing gripper folder

- Press **OK** to run the test program.
- Press function key **F3**.
  The gripper folder swivels to the vertical position.
- Press function key **F5**.
  The gripper folder swivels to the vertical position and descends onto the material slide plate.
- For setting purposes, the gripper folder can be swayed to the vertical position, pivoted and depressurized above the piping support table, through the key **9**.
- Press function key **F1** to leave the test program.

7.3.9 Checking the insertion process with feed clamp

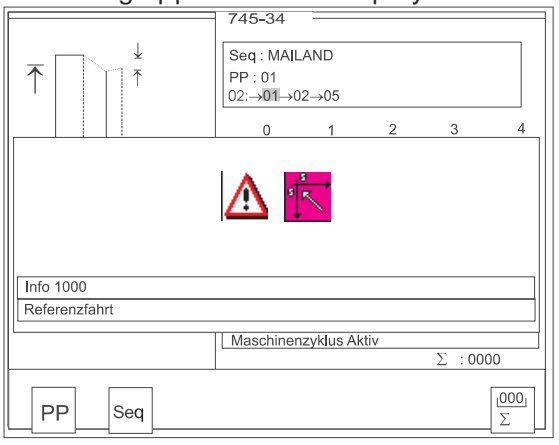
This program tests the insertion process.



Info line:

Testing insertion process

– Press **OK** to run the test program.
A reference run must be executed.
The following appears in the display:

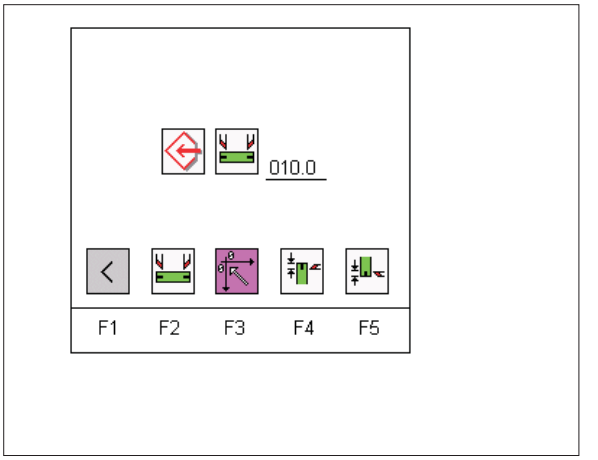


– Push the left pedal down.
The feed carriage moves to the insertion station.
The insertion process is executed as in a sewing program.
After the last pedal stage has been completed an arrow appears in the display.

– Push down the right pedal in inching mode.
The feed carriage moves to its rear position.
The feed carriage waits in this position until the pedal is in its rest position.
The feed clamps rise, the flap clamps open.
– Push the left pedal down.
The program restarts.
– To leave the test program press the **RST** key or switch the machine off.

7.3.10. Checking and adjusting the piping knives

In the test program “Checking and adjusting the piping knives” you can check the knife and step motor motion and adjust the reference position of the piping knives.



- Press key “**F3**“ :
  Make reference run.
  The reference run has to be made before the further functions are accessible.
- Press key “**F1**“ :
  Quit the test program for piping knives.

7.3.10.1 Checking the piping knife motion

Caution: Danger of injury !

Danger of cuts !

Do not reach in the piping knife zone.
Exercise utmost caution when making tests with the machine running.

Check the knife motion

- Press key “**F2**“ :
  Switch both piping knives on and off again.
- Press key “**F4**“:
  Switch the piping knife for the seam beginning on and off again.
- Press key “**F5**“:
  Switch the piping knife for the seam end on and off again

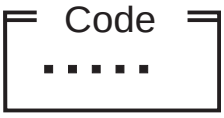
Check the step motor

- Press key “**F3**“:
  The reference run is carried out.

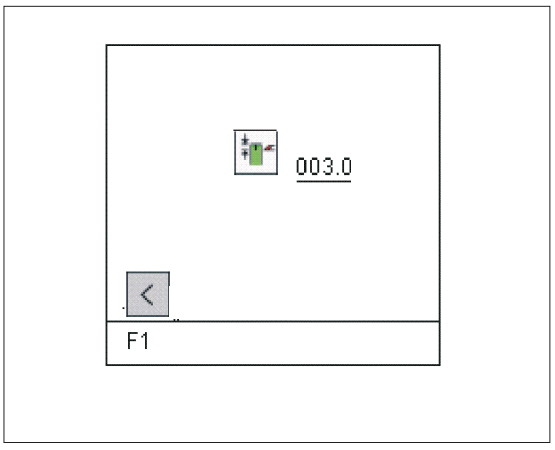
Select the symbol  with the cursor keys “⇦” and “⇨”
Enter the path (max. 120 mm) via the numeric keyboard and confirm with the “**OK**” key.
The cutting unit moves to the entered position.

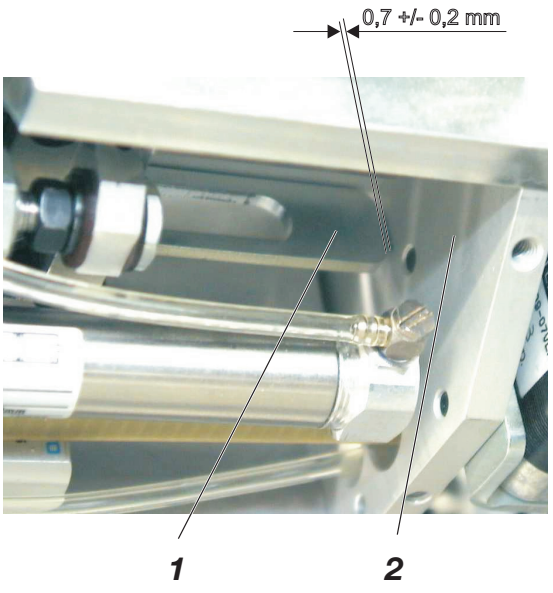
7.3.10.2 Setting the piping knife reference position

– Select the symbol  with the cursor keys “⇦” and “⇨”
– Start the program with the “**OK**” key.
The display shows the input prompt for the code number.



Enter the code number “25483" via the numeric keyboard.
The screen menu for the piping knife reference position appears.





– Loosen 4 screws and remove the lower cover at the piping cutter.

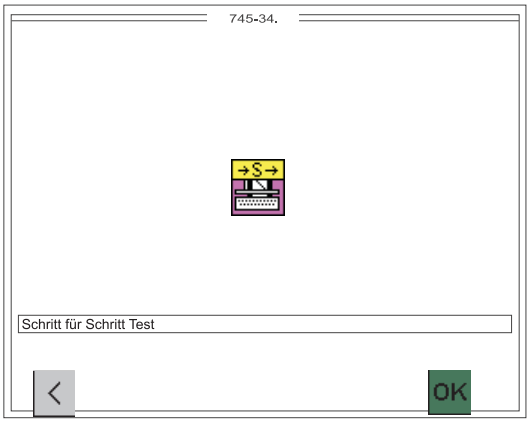
Select icon  , enter the correction value “Piping knife reference” via the numeric keyboard and confirm with the “**OK**” key. The cutting unit moves to the entered reference position.

Set the reference position in such a way that the distance between roller guide 1 and plate 2 is **0.7 +/- 0.2 mm** (measure with feeler gauge).

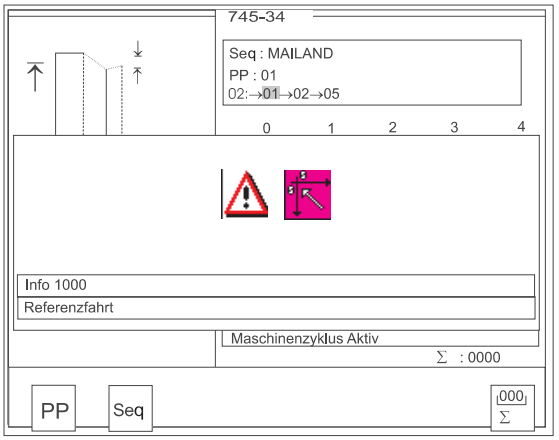
– Quit the menu (key F1), move the cutting unit by 120 mm (see chapter 6.3.12.1 “Checking the step motor”) and check the distance between the roller guide and the plate at the opposite.
– Fasten the lower cover at the piping cutter again.

7.3.11 Step-by-step mode

In the step-by-step mode the sewing cycle is halted at important positions so that individual processes can be checked.



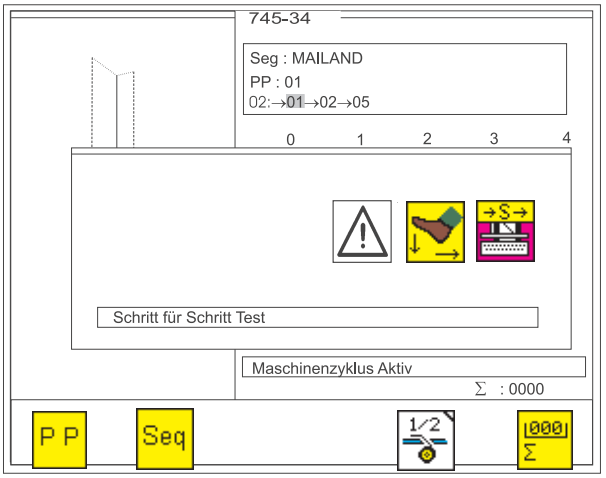
– Press **OK** to run the test program.
The main screen appears with a reminder to execute a reference run.



Info line:

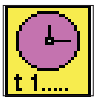
Reference run

– Push the left pedal down.
The feed carriage moves to the insertion position.
– The insertion process is completed as in the set program. After the final stage of the insertion process the following screen appears.

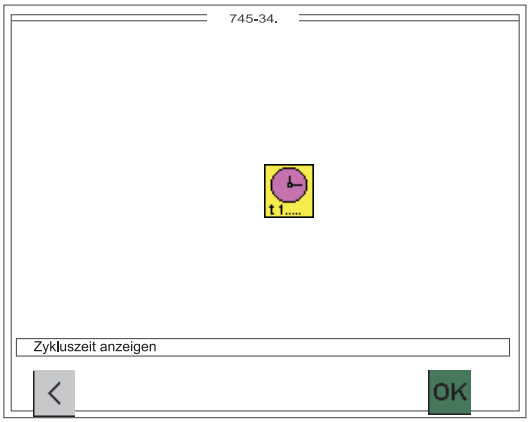


– Press the right pedal to call the next step. After the final step in inching mode the program can be restarted with the left pedal.
– To leave the test program press the **RST** key or switch the machine off.

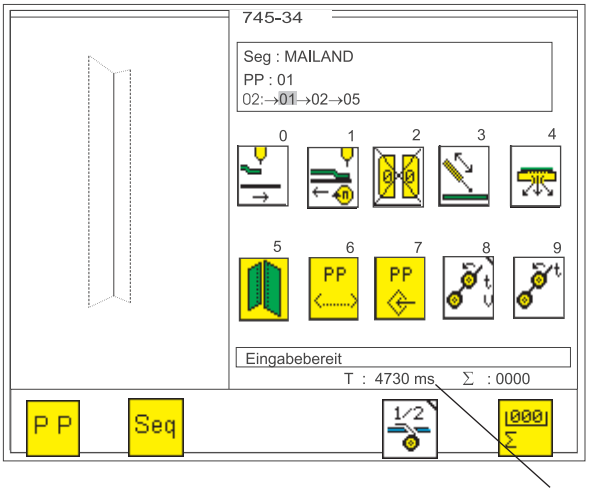
7.3.12 Determining the cycle time



This program determines the machine's cycle time.



– Press **OK** to run the test program.
  The cycle time appears on the main screen.

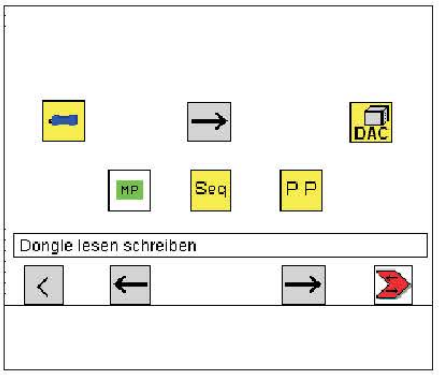


Info line: Cycle time

Reference run

– Execute a reference run.
– When the set sewing program has been completed the cycle time appears in the display.
– To leave the test program press the **RST** key or switch the machine off.

7.3.13 Dongle-Menu



The dongle is used to memorize sewing programs, sequences and automat parameters and to transfer these data to other sewing automats.

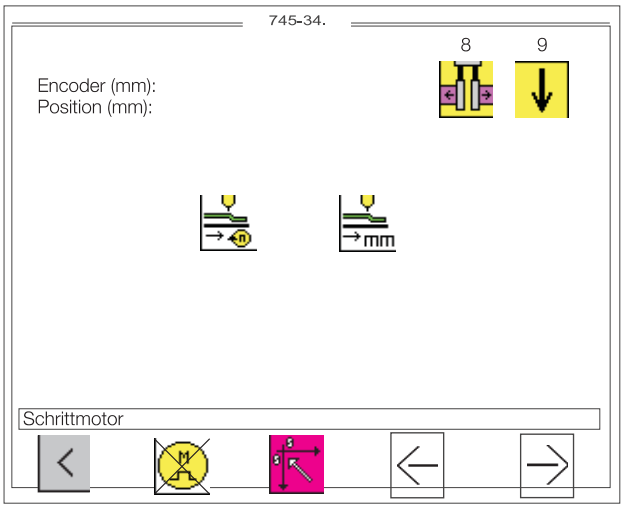
The transfer direction is selected with the keys ”**F2**” and “**F4**”.

The data transfer is started with the “**F5**” key.

The exact procedure is described in chapter 4 “Memory dongle”.

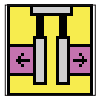
7.3.14 Testing the incremental encoder

This program checks the proper functioning of the incremental encoder.



- Start the test program with the OK key.
- Press the “F3" key.
  A reference run will be executed
- Press the “F5" key.
  The feed clamp drives to the 2nd position. After the run the target position (Position (mm): __) and the effective value of the incremental encoder (Encoder (mm): __) are displayed.
- Press the “F4" key.
  The feed clamp goes to the first position.
- In order to leave the test program press the “F1" key.

By pressing the “F2" key the motor is switched off and feed clamp can be moved manually (the effective value of the incremental encoder is displayed).



The feed clamps are lifted or lowered by effectuating the key “9".

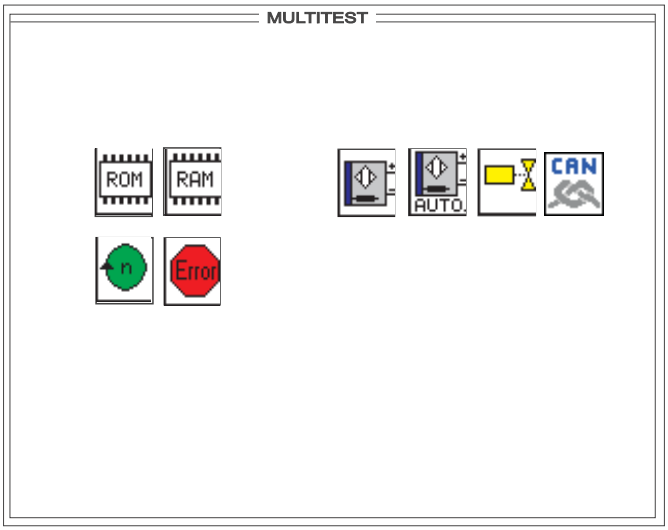
The position of the feed clamps can be altered after effectuating the key “8".

The speed of the feed clamp can be altered.

The positions 1. and 2. of the feed clamp can be altered.

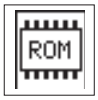
7.4 MULTITEST system (RST + F3 or main switch on + F3)

The MULTITEST system programs enable input and output elements to be tested quickly.
No additional instruments are required.

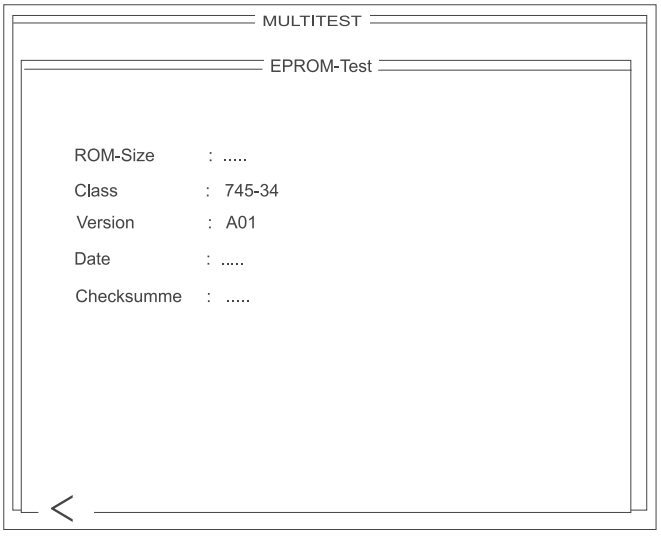


- Press and hold down key “**F3**”.
- Press the “**RST**” key.
  The controller is re-initialized and the MULTITEST system screen is loaded.
- Select the required test program with cursor keys “⇦” or “⇨”.
  A black background appears behind the symbol.
- Press “**OK**” to run the selected test program.

7.4.1 Displaying the program version and checksum



This program tests the microcomputer's read-only memory (ROM).



Program version

Where program versions are of the same class and have the same code letter the higher version replaces all lower versions.

Checksum

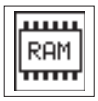
The checksum is only intended for factory servicing.
It enables our specialists to establish whether the controller's program memory (EPROM) contains the whole program with no errors.

– To leave the test program press function key **F1**.

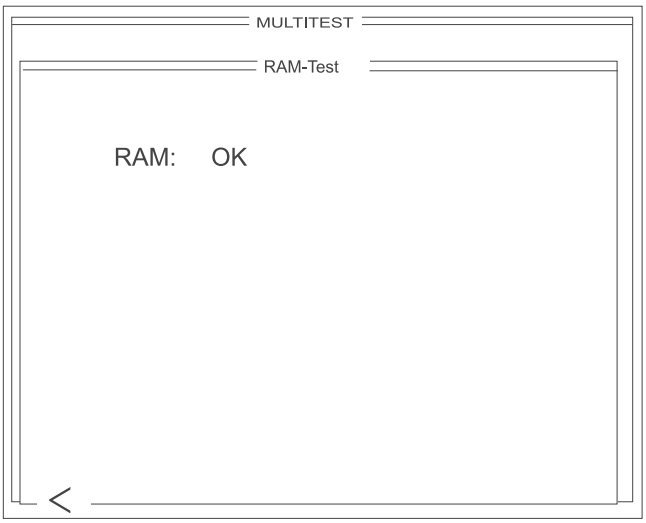
Hint:

Verifying the checksum takes some considerable time.

7.4.2 Testing RAM (Random-Access Memory)



This program tests the microcomputer's working memory (RAM).



– Press OK to run the test program.
  The test result appears in the display.

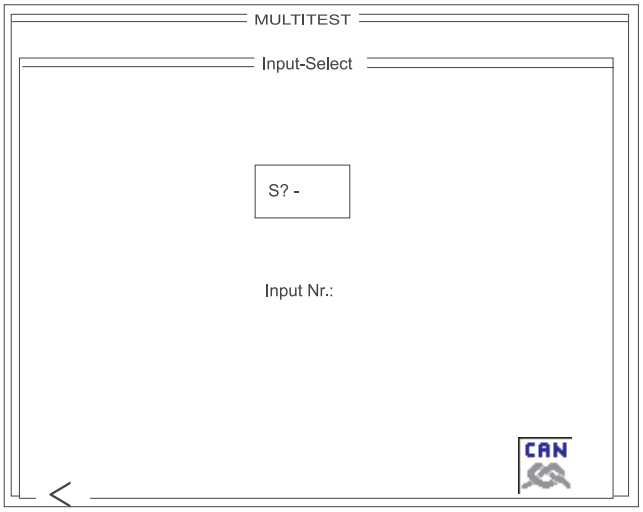
Display	Explanation
RAM OK	random-access memory is operating perfectly
RAM ERROR	error in random-access memory

Hint:

If the message RAM ERROR occurs during the RAM test, the control must be replaced.

7.4.3 Selecting input elements

This program adjusts the input elements.



CAUTION:

The input elements are factory-set with great care.
Adjustment and correction may only be undertaken by trained service personnel.

Press **OK** to run the test program.

Use the 

key to select between the basic module and the CAN node.

Enter the code number of the required input element on the decimal keypad.

The code numbers are the abbreviations used in the circuit diagram (see table below).

The display shows the circuit diagram designation and the switching status of the selected input element (e.g. “+S17”).
The display changes when the switching status of the input element is altered.

The switching status “-” signals:

proximity switch= metal in front of the switch

reflecting light barrier= reflection

Adjust the input element until the display shows the required switching status.

Press **F1** to quit the test program.

Input elements DACIII

Input element	Function	Insertion method A	B	D	F
S1	Needle-thread monitor left	X	X	X	X
S2	Needle-thread monitor right	X	X	X	X
S3	Folder down	X	X	X	X
S4	Folding station swung in	X	X	X	X
S5	Corner-knife swung in	X	X	X	X
S6	Light barrier push-back blocking	X	X	X	X
S7	Left pedal forward	X	X	X	X
S8	Left pedal back	X	X	X	X
S9	Right pedal forward	X	X	X	X
S10	Right pedal back	X	X	X	X
S11	Right clamp adjustment	X	X	X	X
S12	Left clamp adjustment	X	X	X	X
S13	Pressure monitor	X	X	X	X
S15	DC module (DATAOUT)	X	X	X	X
S17	Light barrier flap scanning 1	X	X	X	X
S20	Light barrier flap scanning 2	X	X	X	X
S21	Tape control (tape feeder)	X	X	X	X
S24	Light barrier flap scanning 3	X	X	X	X
S100	Sewing motor reference	X	X	X	X
S101	Feed-device reference (X)	X	X	X	X
S102	Seam-start corner-blade reference (Y)	X	X	X	X

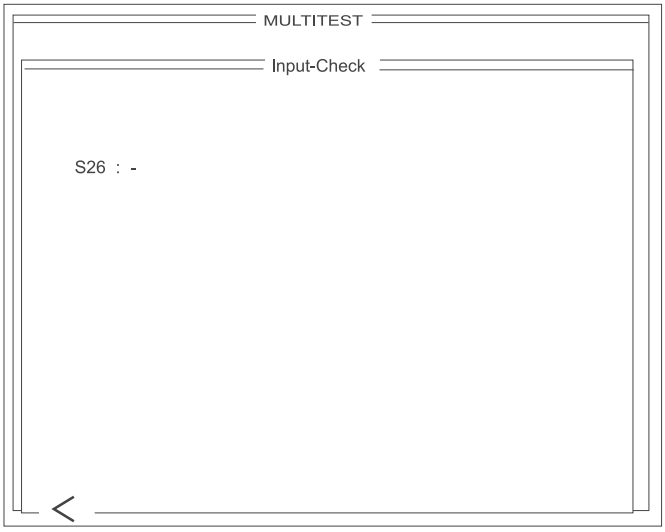
*) Input elements can only be tested by means of the test program 6.3.1 “Adjusting the looper-thread monitor”

Input elements CAN node 1

Input element	Function	Insertion method A	B	D	F
SC101	Folder on top		X		X
SC102	Folder on piping table		X		X
SC103	Folder vertical		X		X
SC104	Folder inclined		X		X

7.4.4 Checking the input elements

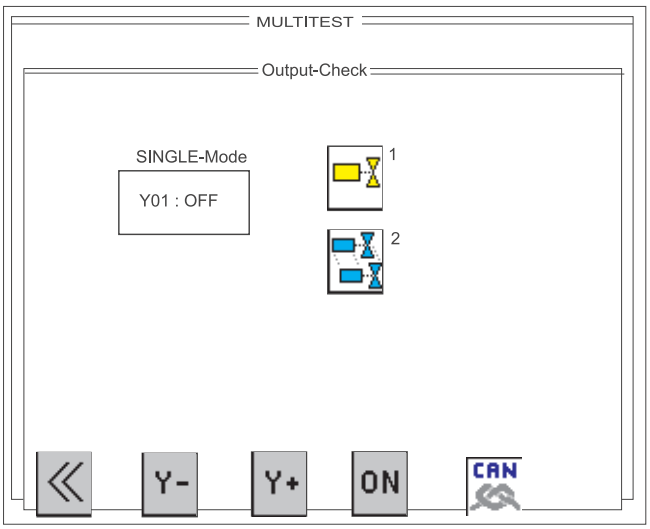
This program automatically tests the input elements.



- Press **OK** to run the test program.
- Select the input element to be tested.
- The display shows the circuit diagram designation and the switching status of the input element selected (e.g. "**+s17**"). The display changes if the switching status is altered or another input element is changed. A change in the switching status is indicated by an audible signal.
- Press **F1** to quit the test program.

7.4.5 Selecting the output elements

This program checks the function of the output elements.
One (single mode) or **several** (multi-mode) output elements can be tested simultaneously.



Caution: danger of injury !
Do not reach into the machine while it is running and the function of the output elements is under test.

- Press Enter to run the test program.
- Use the decimal keypad to select between single mode and multi-mode .

  1 = single mode: only one output element is tested.
  2 = multi-mode: a group of output elements is tested.

- Press the “**F5**” key to switch from DACIII control to the output elements of the CAN node.

DACIII = maximum of 16 outputs from YC001 to YC016
CAN 1 = maximum of 56 outputs from YC101 to YC156

- Enter the code number of the required output element with “**F3**” (forwards) or “**F2**” (backwards).
  The code numbers are the abbreviations used in the circuit diagram (see tables below).
- The display shows the switching status (**ON/OFF**) of the output element selected.
- Switch the selected output element on (**ON**) and off (**OFF**) by pressing function key “**F4**”.
- To leave the test program press function key **F1**.

Output elements DAC

Output element	Function	Insertion method A	B	D	F
Y1 Y2	Upper thread cutter on Center blade on	X X	X X	X X	X X
Y3	- Blow bobbin-thread monitor - Advance thread - Advance tape	X	X	X	X
Y4	Open lower thread clamp	X	X	X	X
Y5	Lower thread cutter on	X	X	X	X
Y6	Thread tension on	X	X	X	X
Y7	Left feed clamp lowered	X	X	X	X
Y8	Right feed clamp lowered	X	X	X	X
Y9	Folder lift off	X	X	X	X
Y10	Folder lowered	X	X	X	X
Y11	Folding plated close	X	X	X	X
Y12	Left flap clamp open	X	X	X	X
Y13	Right flap clamp open	X	X	X	X
Y14	Stacker on (pincer stacker: stacking pincer forward)	X	X	X	X
Y15	Left needle on	X	X	X	X
Y16	Right needle on	X	X	X	X
Y17	Loosen tape	X	X	X	X
Y18	Close tape cutter	X	X	X	X
Y19	Open waistband clamp Lower flap turning device	X	X	X	 X
Y20	Close waistband clamp Close flap turning device	X	X	X	 X
Y21	Lift left flap clamp	X	X	X	X
Y22	Lift right flap clamp	X	X	X	X
Y24	(Pincer stacker: swing out bracket)	X	X	X	X
Y25	DC-module (DATAIN)	X	X	X	X
Y26	DC-module (Clock)	X	X	X	X
Y27	Knife bracket seam-start left	X	X	X	X
Y28	Knife bracket seam-end left	X	X	X	X
Y29	Knife bracket seam-start right	X	X	X	X
Y30	Knife bracket seam-end right	X	X	X	X

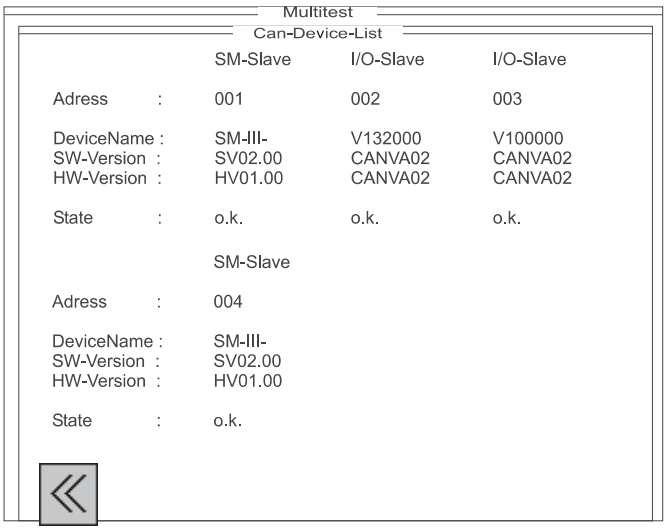
Output element	Function	Insertion method A	B	D	F
YC101	Spread needle		X	X	X
YC102	Lift folding stamp		X	X	X
YC103	Swivel folder		X		X
	Swivel positioning device			X	
YC104	Blow tube		X		X
	Turn positioning device			X	
YC105	Swing in flap feed		X		X
	Lift pocket bag			X	
YC106	Open left flap feed		X		X
	Feed pocket bag			X	
YC107	Open right flap feed		X		X
	Clamp breast welt			X	
YC108	Close left flap feed		X		X
YC109	Close right flap feed		X		X
YC110	Lift flap feed		X		X
YC111	Lift stop motion device		X		X
YC112	Left piping knife forward		X		X
YC113	Right piping knife forward		X		X
YC114	Flap feed stop motion device lowered		X		X
YC133	Left feed clamp inside	X	X	X	X
YC134	Right feed clamp inside	X	X	X	X
YC135	Vacuum on	X	X	X	X
YC136	Smoother lowered	X	X	X	X
YC137	Down holder lowered	X	X	X	X
YC138	Blowing on (flap clamp)	X	X	X	X
YC139	Blowing on (folding plate)	X	X	X	X
YC140	Needles waistband clamp	X	X	X	
	Swivel flap turning device				X

Output element laser lamp

Output element	Function	Insertion method A	B	D	F
YC141 - YC142	Laser lamp	X	X	X	X

7.4.6 CAN test

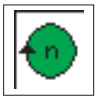
Press “**OK**” to run the test program.



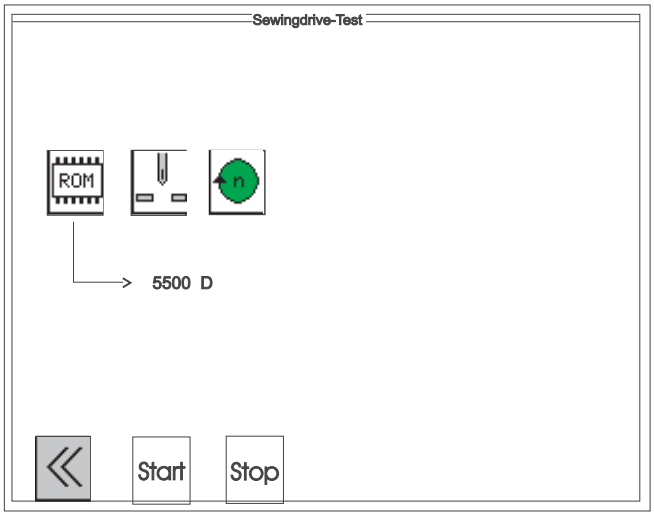
Hint:

Displaying the OK message takes some considerable time.
CAN modules work with no errors.

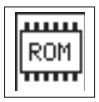
7.4.7 Checking the sewing drive



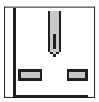
This program tests the needle position and the various speed stages of the sewing drive.



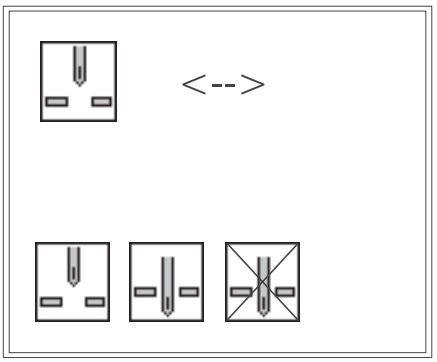
- Press OK to run the test program.
- Select the required parameter with cursor keys “⇦” or “⇨”. A black background appears behind the symbol.
- Set the parameter with cursor keys “⇧” or “⇩”.



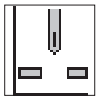
Show sewing-drive program version.



Select needle position

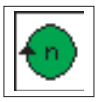


Needle in down position

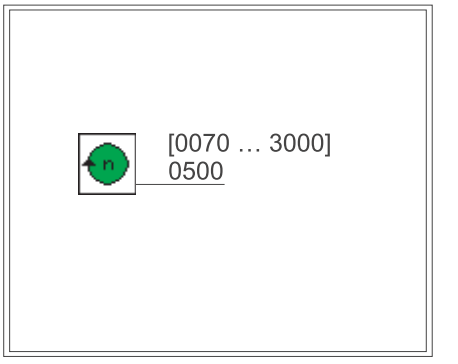


Needle in up position

Needle in any position



Set sewing-drive speed



minimum = 70 rpm
maximum = 3000 rpm

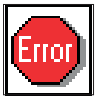
Checking the sewing drive

key F2 = start

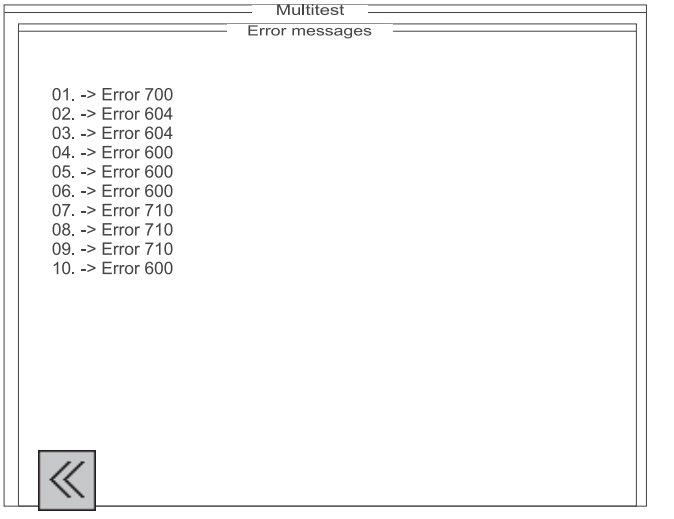
key F3 = stop

– To leave the test program press function key **F1**.

7.4.8 Error list



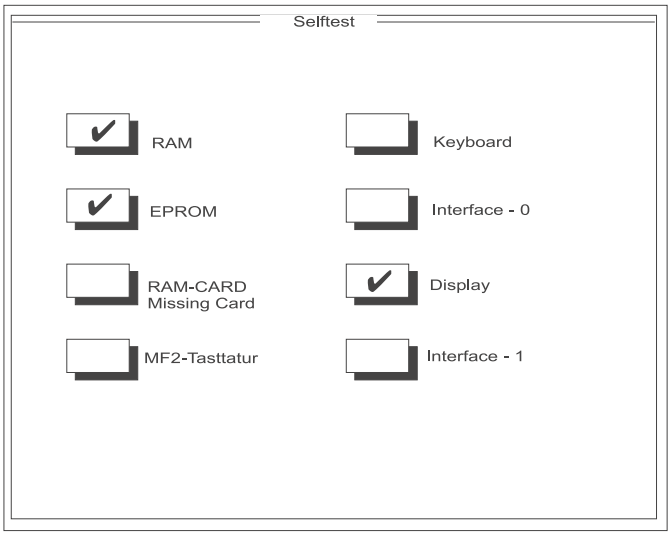
The program shows the 10 last error messages.



– Press OK to run the test program.
– To leave the test program press function key **F1**.

7.5 Terminal self-test (RST + F4 or turn on main switch + F4)

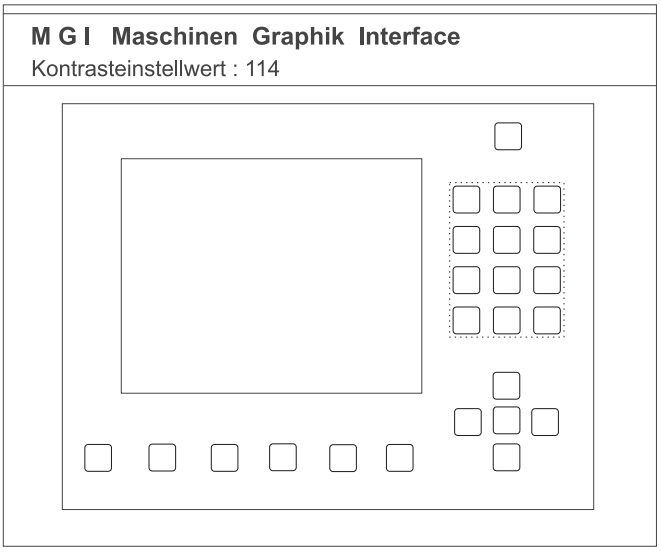
Service personnel use the terminal self-test to check the individual components of the operating terminal.



- **RAM test**
  The RAM test checks the operating terminal's working memory ("video RAM").
  On completion of the RAM test the self-test automatically switches to the EPROM test.
- **EPROM test**
  The EPROM test checks the controller's program memory.
- **RAM-card test**
  RAM-cards are no longer used with the present machine.
- **Keyboard test**
  The keyboard test checks the operating terminal's keyboard.
  Press any key, and if it is working properly a tick appears beside it in the display.
  Pressing the "ESC" key terminates the keyboard test.
  The display switches to the interface test.
- **Interface test**
  The interface test checks the operating terminal's interface (a special cable is required!)
  On completion of this test the self-test automatically switches to the display test.
- **Display test**
  The display test shows the available character set and graphics.
  Pressing function key **F2** switches the display to the main screen of the terminal self-test (see illustration above).
- **Main screen**
  When the main screen is displayed pressing function key **F2** generates a full test report.
  To leave the terminal self-test press the "**RST**" key.

7.6 Display contrast value (RST + F5 or turn on main switch + F5)

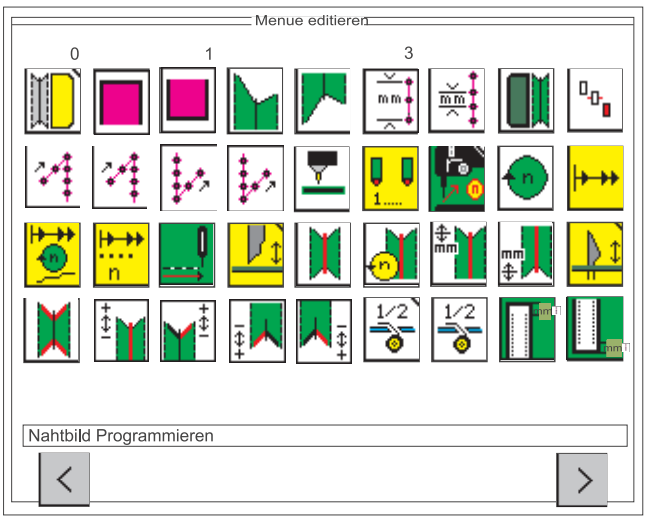
This program sets the contrast value of the display.



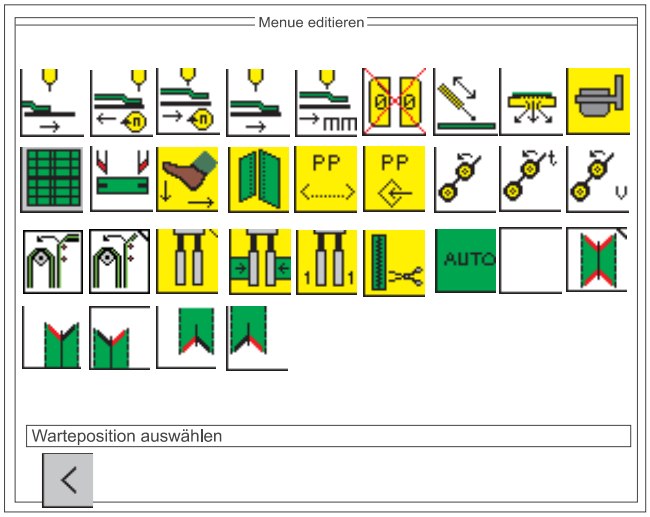
- Set the contrast value with cursor keys “⇧” or “⇩”.
- Press the “**ESC**” key to store the value and leave the program.

7.7 Editing menus (RST + ↓ or turn on main switch + ↓)

This determines which parameters can be directly edited on the main screen with keys 0 to 9.



– Pressing function key **F5** switches to the next screen with other parameters.



– Select the required parameter with cursor keys "⇦", "⇨", "⇧" or "⇩".
  A black background appears behind the symbol.
– Select the required position by pressing keys **0** to **9**.
– Select the next parameter.
– To leave the menus press function key **F1**.

Hint:

Do not define a symbol twice with the numeric keys.

7.8 Adjusting the serial interface (RST + ESC)

This test program sets the correct transfer speed (baud rate) for the serial interface.

```
BF1C V2.21 <Datum  Zeit>
VRAM        = 8Seiten
SRAM-Clear  = 256KByte
SW-Ioons    = 25 Color-Ioons = 200
Vt100------> COM0
COM0        = n,8,WA,1 - 125K Baud
COM1        = n,8,1    - 19,2K Baud
ext Keybord= no
I2C-EEPROM  = detected -> 80 00 00 00
PCM_CARD    = not dectected
```

```
Dürkopp Adler AG
www.duerkopp-adler.com

R U N  . . .
```

The correct baud rate for the serial interface is:

Com 0 = n, 8, WA, 1 - 125 K Baud

CAUTION:

If the machine is switched on with one of the following keys pressed, baud rates incompatible with the operating panel of the controller will be set:

key “0"
key ”1"
key “2"
key ”3"
key “4"
key ”5"
key “6"
key ”7"
key “8"
key ”9".

8. Error messages

In the event of an error in the control system or the machine program the error number appears in the display.

The following tables will enable the cause of the error to be identified and remedied.

8.1 Sewing motor controller error messages

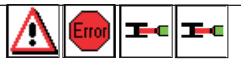
Error number	Meaning	Remedy
Error 1051 	Sewing motor timeout - Faulty cable to the sewing motor reference switch - Faulty reference switch	 - Replace the cable - Replace the reference switch
Error 1052 	Sewing motor excess current - Faulty sewing motor cable - Faulty sewing motor - Faulty control	 - Replace the sewing motor cable - Replace the sewing motor - Replace the control
Error 1053 	Too high mains voltage	Check the mains voltage
Error 1055 	Sewing motor overload - Sewing motor blocked / seized up - Faulty sewing motor - Control faulty	 - Eliminate the blocking / seizing - Replace the sewing motor - Replace the control
Error 1056 	Sewing motor overheat - Sewing motor seized up - Faulty sewing motor - Faulty control	 - Eliminate seizing - Replace sewing motor Replace control
Error 1058 	- Sewing motor speed - Faulty sewing motor	- Replace sewing motor
Error 1062 	- Failure sewing motor IDMA Autoincrement	- Switch the machine off/on again
Error 1302 	Sewing motor error - Control receives no impulse from the impulse transmitter in the motor	- Check the cable from the impulse transmitter in the motor to the control
Error 1342  - Error 1344	Sewing motor error Internal error	- Switch the machine off/on again - Software update - Inform the DA-Service

8.2 Stepping motors error messages

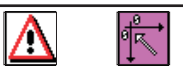
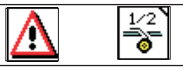
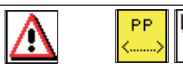
Error number	Meaning	Remedy
Error 2101 	Step motor feed clamp timeout reference - Faulty cable to the reference switch - Faulty reference switch	 - Replace cable - Replace reference switch
Error 2103 	Step motor feed clamp has step loss	- Check seizing of the feed clamp
Error 2152 	Step motor feed clamp excess current	- Replace step motor feed clamp - Replace control
Error 2153 	Step motor feed clamp excess voltage - Too high mains voltage	 Check the mains voltage
Error 2156 	Step motor feed clamp overheat - Step motor feed clamp seized up - Faulty step motor feed clamp - Faulty control	 - Eliminate seizing - Replace step motor feed clamp - Replace control
Error 2201 	Step motor corner-blade frames timeout reference - Faulty cable to the reference switch - Faulty reference switch	 - Replace cable - Replace reference switch
Error 2253 	Step motor corner-blade frames excess voltage - Too high mains voltage	 Check the mains voltage
Error 2256 	Step motor corner-blade frames overheat - Step motor corner-blade frames seized up - Faulty step motor corner-blade frames - Faulty control	 - Eliminate seizing - Replace step motor corner-blade frames - Replace control
Error 2353 	Step motor tape feeder excess voltage - Too high mains voltage	 Check the mains voltage
Error 2356 	Step motor tape feeder overheat - Step motor tape feeder seized up - Faulty step motor tape feeder - Faulty control	 - Eliminate seizing - Replace step motor tape feeder - Replace control
Error 2401 	- Failure step motor seam-start corner-blade	Faulty cable to the reference switch Faulty reference switch Faulty step motor, seized up.
Error 2501 	- Failure step motor seam-end corner-blade	Faulty cable to the reference switch Faulty reference switch Faulty step motor, seized up.
Error 2601 	- Failure step motor piping cutter	Faulty cable to the reference switch Faulty reference switch Faulty step motor, seized up.

8.3 Operating indicator error messages

Error number	Meaning	Remedy
Error 3100 	Machine Control Voltage - Temporary mains voltage drop	 - Check the mains voltage
Error 3101 	Machine Power Voltage - Temporary mains voltage drop	 - Check the mains voltage
Error 3102 	Machine Voltage Sewing Motor - Temporary mains voltage drop	 - Check the mains voltage
Error 3103 	Machine Voltage Step Motors - Temporary mains voltage drop	 - Check the mains voltage
Error 3107 	Machine Temperature - Vent holes closed - Ventilation grid soiled	 - Check the vent holes - Clean the ventilation grid

Error number		Meaning	Remedy
Error 3121		Insufficient or missing compressed air pressure	Increase the flow or stabilize the air pressure
Error 3210		Thread breakage	Re-thread the machine again
Error 3220		Empty bobbin	Insert full bobbin
Error 3500 - 3507 3520 - 3530 3540 3545 3721 3722		Error Command Interpreter / Motor synchronization Internal error	- Switch the machine off/on again - Software update - Inform the DA-Service
Info 4301		No dongle plugged in	
Info 4304		Wrong dongle type	
Error 6551 - 6554 6651 - 6653 6751 - 6761		Error machine head position / AD-Converter / Processor error Internal error	- Switch the machine off/on again - Software update - Inform the DA-Service
Error 6952		Error step motor driver Internal error	- Switch the machine off/on again - Software update - Inform the DA-Service
Error 7200		Error in the CAN - Module Knife-bracket unit (AC001). No module has been recognized at the address.	Check cable, jumper setting, power supply
Error 7201		Error in the CAN - Module Knife-bracket unit (AC001). Power-fail.	Check cable, jumper setting, power supply
Error 7202		Error in the CAN - Module Knife-bracket unit (AC001). Power amplifier overheating.	Check cable, jumper setting, power supply, motors and power amplifier.
Error 7209		Error in the CAN - Module Knife-bracket unit (AC001). Wrong module has been recognized at the address.	Check jumper setting/DIP switches
Error 7210		Error in the CAN - Module Transport unit (AC101). No module has been recognized at the address.	Check cable, jumper setting, power supply
Error 7211		Error in the CAN - Module Transport unit (AC101). Power-fail.	Check cable, jumper setting, power supply
Error 7215		Error in the CAN - Module Transport unit (AC101). Output: Overload / Short circuit	Check the output cable / plug.
Error 7219		Error in the CAN - Module Transport unit (AC101). Wrong module has been recognized at the address.	Check jumper setting/DIP switches
Error 7260		General error in the CAN - Modules	Check cable
Error 7551 - 7555 7558 7559		Communication Control Panel interface - Internal error	- Switch the machine off/on again - Software update - Inform the DA-Service

Error number	Meaning	Remedy
Error 7556 7557 	Communication Control Panel interface - Interference - Faulty control panel interface cable	 - Switch off the source of interference - Replace the cable
Error 8151 8156 - 8159 	IDMA error - Failure - Faulty control	 - Switch the machine off/on again - Replace the control
Error 8152 - 8154 	IDMA error - Internal error	- Switch the machine off/on again - Software update - Inform the DA-Service
Error 8151 8155 	Error booting ADSP / Booting Xilinx / Booting	- Switch the machine off/on again - Software update - Inform the DA-Service
Error 8252 8257 8258 / 8253 8254 8256 	Booting ADSP / Booting Xilinx / Booting Failure	 - Switch the machine off/on again
Error 8351 8801 - 8805 8806 8890 8891 	Error Testpins / Signals / Event processing / Memory Wrapper / List of functions Internal error	- Switch the machine off/on again - Software update - Inform the DA-Service

Error number	Meaning	Remedy
Info 9000 	Reminder to execute the reference run after switching on	Push left pedal backwards
Info 9001 	Corner-blade station is swivelled out	Swivel corner-blade station in
Error 9001 	Corner-blade station swivelled out during sewing. Push the left pedal backwards: the feed carriages moves backwards and a reference run is executed.	Check/adjust the fastening of the corner-blade station.
Info 9002 	Folder station is swivelled out	Swivel folder station in
Error 9002 	Folder station swivelled out during sewing. Push the left pedal backwards: the feed carriage moves backwards and a reference run is executed.	Check/adjust the fastening of the folder station.
Info 9013 	Tape missing	Insert tape
Info 9014 	The adjusted position for the feed clamp does not fit the built-in stamp.	Adjust the position of the feed clamp to match the one displayed in the pocket parameters.
Info 9015 	Incorrect setting of the flap scanning in the pocket program	Correct the pocket program
Error 9601 	Left pedal pushed backwards during sewing	To clear this error, operate the pedal again; the feed clamp then moves to its rear position
Error 9604 	Light barrier (s10) for material removal not active	Adjust the light barrier (s10) for material removal
Error 9700 	Folder not up	Correct the folder setting (mechanical collision; check switch)
Error 9701 	Folder not down	Correct the folder setting (mechanical collision; check switch)
Error 9702 	Folder not vertical	Correct the folder setting (mechanical collision; check switch)
Error 9703 	Folder not slanted	Correct the folder setting (mechanical collision; check switch)
Error 9704 	Folder not on piping table	Correct the folder setting (mechanical collision; check switch)

Error number	Meaning	Remedy
Info 9720 	Error at the light barrier for flap scanning	Check the reflecting foil; Check the alignment of the light barriers
Info 9721 	Flap has been positioned in front of the front positioning point	Position the flap correctly
Info 9722 	Flap protrudes from the maximum sewing area (behind the rear positioning point)	Check the flap size; Position the flap correctly
Info 9723 	Fluff at the flap beginning	Feed flaps with smooth edges; Check the reflecting foil
Info 9725 	Flap angle is too great / Flap minimum size	Check flap angle; Check light barrier alignment; Adjust the seam parameters (eventually the seam protection too long for small flaps).
Info 9726 	Flap too large or reflecting foil dirty or faulty	Check the flap size and reflecting foil
Info 9727 	Stop section insufficient for the flap angle	Reduce the slide-in speed
Error 9800 	Center blade not ready for use	Check cable
Error 9810 	Smoother not ready for use	Check cable
Error 9900 	Defective Machine Parameters (Checksum error)	Re-initialize machine parameters (test program); Set machine parameters or read them from the RAM-Card / Dongle.
Error 9901 	Defective Pocket Sequences (Checksum error)	Re-initialize pocket sequences (test program); Set pocket sequences or read them from the RAM-Card / Dongle.
Error 9902 	Defective Pocket Programs (Checksum error)	Re-initialize the defective pocket programs (test program); Set pocket programs or read them from the RAM-Card / Dongle.

Input Elements DAC3

Input Element	Function	Insertion Method			
		A	B	D	F
S1	Thread monitor left	X	X	X	X
S2	Thread monitor right	X	X	X	X
S3	Folder below	X	X	X	X
S4	Folding station in initial position	X	X	X	X
S5	V-knife swiveled in	X	X	X	X
S6	Light barrier fabric taken / cover check	X	X	X	X
S7	Left pedal forward	X	X	X	X
S8	Left pedal backward	X	X	X	X
S9	Right pedal forward	X	X	X	X
S10	Right pedal backward	X	X	X	X
S11	Clamp adjustment right	X	X	X	X
S12	Clamp adjustment left	X	X	X	X
S13	Pressure monitor	X	X	X	X
S15	DC Module (DATAOUT)	X	X	X	X
S17	Flap scanning 1	X	X	X	X
S20	Flap scanning 2	X	X	X	X
S21	Tape check	X	X	X	X
S24	Flap scanning 3	X	X	X	X
S100	Ref. sewing motor	X	X	X	X
S101	Ref. transport unit	X	X	X	X
S102	Ref. knife support seam beginning	X	X	X	X

Input Elements CAN

Input Element	Function	Insertion Method			
		A	B	D	F
SC101	Folder up		X		X
SC102	Folder on the piping table		X		X
SC103	Folder vertical		X		X
SC104	Folder transversal		X		X

Output Elements Head Unit (DAC3)

Output Element	Function	Insertion Method			
		A	B	D	F
Y1	Needle thread cutter on	X	X	X	X
Y2	Center knife on	X	X	X	X
Y3	Blow out lint (bobbin thread monitor)	X	X	X	X
Y4	Open the bobbin thread clamp	X	X	X	X
Y5	Bobbin thread cutter on	X	X	X	X
Y6	Thread tension on	X	X	X	X

Output Element	Function	Insertion Method			
		A	B	D	F
Y7	Lower the left transport clamp	X	X	X	X
Y8	Lower the right transport clamp	X	X	X	X
Y9	Folder lifting off	X	X	X	X
Y10	Lower the folder	X	X	X	X
Y11	Close the folding sheets	X	X	X	X
Y12	Open the left flap clamp	X	X	X	X
Y13	Open the right flap clamp	X	X	X	X
Y14	Stacker on	X	X	X	X
Y15	Left needle on	X	X	X	X
Y16	Right needle on	X	X	X	X
Y17	Release the tape	X	X	X	X
Y18	Close the tape cutter	X	X	X	X
Y19	Open the waistband clamp	X	X	X	
Y20	Close the waistband clamp	X	X	X	
Y19	Lower flap turning device				X
Y20	Close flap turning device				X
Y21	Lift the left transport clamp	X	X	X	X
Y22	Lift the right transport clamp	X	X	X	X
Y24	Swivel out the stacker shackle	X	X	X	X
Y25	DC Module (DATAIN)			X	X
Y26	DC Module (Clock)			X	X
Y27	Left corner blade up seam start			X	X
Y28	Left corner blade up seam end			X	X
Y29	Right corner blade up seam start			X	X
Y30	Right corner blade up seam end			X	X

Output Elements Transport Unit (DAC3)

Output Element	Function	Insertion Method			
		A	B	D	F
YC101	Zipper carrier / Spread the needles		X	X	X
YC102	Swivel the zipper trimmer / Lift the folder		X	X	X
YC103	Zipper trimmer cut / Swivel the folder		X	X	X
YC104	- / Turn the positioning device / Blow pipe		X	X	X
YC105	- / Lift the pocket bag / Swivel the flap feeders in		X	X	X
YC106	- / Feed the pocket bag / Open the left flap feeder		X	X	X
YC107	- / Clamp the breast welt / Open the right flap feeder		X	X	X
YC108	- / Lateral offset on / Close the left flap feeder			X	X
YC109	Close the right flap feeder		X		X
YC110	Lift the flap feeder		X		X
YC111	Lift the stop		X		X
YC112	Left piping knife forward		X		X
YC113	Piping knife backward		X		X
YC114	Lower the flap feeder		X		X

Output Element	Function	Insertion Method			
		A	B	D	F
YC133	Left transport clamp inward	X	X	X	X
YC134	Right transport clamp inward	X	X	X	X

Output Elements Transport Unit (DAC3)

Output Element	Function	Insertion Method			
		A	B	D	F
YC135	Vacuum on	X	X	X	X
YC136	Lower the roll-off device	X	X	X	X
YC137	Lower the down holder	X	X	X	X
YC138	Blowing on (flap clamp)	X	X	X	X
YC139	Blowing on (folding sheet)	X	X	X	X
YC140	Needles of the waistband clamp	X	X	X	
YC140	Swivel flap turning device				X
YC141	Laser light	X	X	X	X
YC142	Laser light	X	X	X	X
YC143	Laser light	X	X	X	X
YC144	Laser light	X	X	X	X
YC145	Laser light	X	X	X	X
YC146	Laser light	X	X	X	X
YC147	Laser light	X	X	X	X
YC148	Laser light	X	X	X	X

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