

DÜRKOPP 745-5, -7 and -15

Operating and checking elements of the control unit

Note: It is only when the transportation carriage stands in the cutting position above the corner knives or in the rear final position that the tripping values are memorized in the microcomputer. After changing the programme number the activation must be done by the STOP button or by the main switch OFF/ON.

b100/101 Programme preselectors.

Activation by STOP button b135 or by main switch OFF-ON. If a non admissible programme No. is memorized the display will show P?

P01-P08 Sewing programmes

P50-P58 Programmes for adjustment aids

P59-P69 Test programmes

For adjusting and checking see the brief description of the DÜRKOPP-microcontrol in the appendix of the instructions.

P01 = Sewing with flap with 745-5, -7 and -15.

The position and the length of the pocket opening are determined automatically by scanning the flap by the light barrier. Seam length 75-180 mm.

Also for breast welt positioning device

The switch b128 on the back of the control unit must stand on 1.

P02 = Sewing without flap, without additional parts

Three seam lengths between 40 and 180 mm can be preselected by the three-digit selectors L1, L2 and L3. Select the sewing length and one of the different sequences of sewing and stacking by b104.

P03 = Sewing without flap, with additional parts

Selection of seam length as with P02. Sewing equipment (E-No.) with flap clamp is required.

P04 = Sewing with or without flap with automatic change

For sewing without flap use only the symmetrical or rear positioning point (b129/1 or 3). Will sew with flap after operating the main switch or "Stop". When sewing without flap, the diodes n4, n5 or n6 will show which of the seam lengths L1, L2 or L3 have been selected. Manual change with or without flap by b133.

P05 = Sewing without flap, without automatic picking up of the piping

P06 = Cutting functions for zipper scissors

Sewing without flap, without automatic picking up of the piping.

P07 = Sewing pockets without piping, with cutting function for zipper scissors.

P08 = Sewing with flap with 745-2.

b111/112 Preselector of "seeam patterns". Only effective DÜRKOPP 745-7 for straight and slanted pockets.

For the figure to be selected see the special seam pattern table.

b131 Manual seam pattern change.

(e.g. slanted pocket on the left – slanted pocket on the right).

n2–n3 The luminous diodes „left needle“ and „right needle“ show the staring needle when sewing slanted pockets.

n2 bright = left needle first (e.g. right jacket front)

n3 bright = right needle first (e.g. left jacket front)

n2 and n3 bright = both needles are engaged simultaneously but they are disengaged at different times

n2 and n3 dark = both needles are engaged and disengaged simultaneously.

b132 Resetting the displayed counter state to 0000. The counter state will not change when turning off the main switch.

The programme 54 must memorize the number of pieces that can be sewn with one bobbin filling, e.g. 300. Otherwise there will be a premature interruption <H> = bobbin empty. When fitted with thread monitor, set for "0000". See also the brief description of the DÜRKOPP-microcontrol.

b135 STOP key for interrupting the operation. Move the carriage in its final position by an intermittent operation of b134. Remove the parts, cut threads b y hand, if any.

b102 Special function

	Corner knives	Middle knife	Piping knife	Tape feed
0				
1	●	●		●
2	●	●		●
3	●	●		●
4	●	●	●	●
5	●	●	●	●
6	●	●	●	●

b104 Selection of seam lengths by the progr. P02, P03, P04 and P05

1 = L1, 2 = L2, 3 = L3
Figures 4-9 in diff. sequences for sewing and stacking.
See the table in brief description.

b105-110 For correcting of pocket opening see the symbol on the face plate. Before taking into service the preselectors A, C, D and F must have basic adjustment 5.

For 10 mm seam distance B on 2 and E on 9. Larger seam distances, like 12, 14 mm etc. are accordingly nearer to the basic adjustment 5. In case of DÜRKOPP 745-7 the basic adjustment 5 applies to all seam distances.

A = Seam beginning

D = Seam end

B = Beginning of the middle knife incision

E = End of the middle knife incision

C = Corner knife incision at seam beginning

F = Corner knife incision at seam end

n4, n5, n6 LED's show which seam lengths L1, L2, L3 will be sewn next.

Preselectors for different seam lengths when sewing without flap

b116, 117, 118 = L1

b119, 120, 121 = L2

b122, 123, 124 = L3

b130 for flap feed from left or right, manual or automatic and for closing first the left or the right flap clamp (2nd pedal step)

b129 for the piping or fabric positioning point when sewing without flap.

1. Symmetrical positioning against a light mark or ref. mark. e.g. for diff. sizes of trouser hip pockets with loop.
The distance to the rear positioning point can be modified by b127. See brief description of DÜRKOPP-microcontrol.

2. Placing against front positioning point (towards machine head)
Diode n1 lights up.

3. Placing against rear positioning point (towards operator). Diode n1 dark.

4. Alternate positioning. Select the starting positioning point by b133, then automatic change.

b134 "Carriage to the rear". With fabric under lowered clamps.

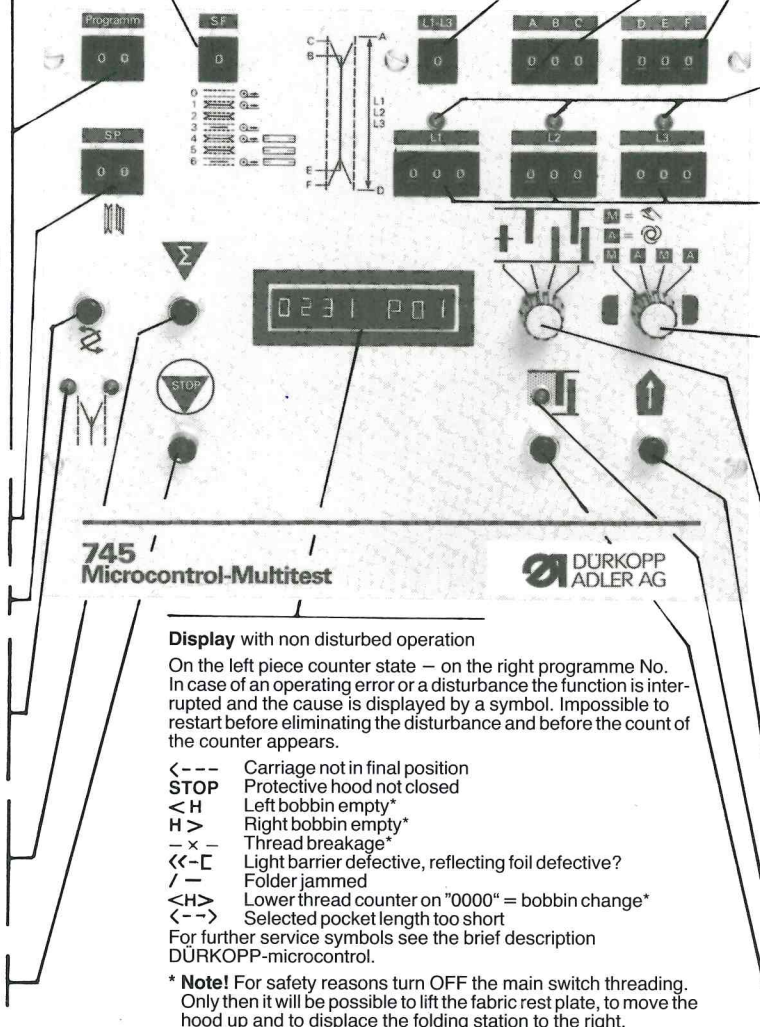
If symbol <- - does not light up, operate first Stop key. Furthermore for pos. corrections: Lifting the clamps and the fabric holder and stopping the folding process.

n1 LED shows the pos. point the for the next part.

Diode lights up = Front positioning point (towards machine)

Diode dark = Rear positioning point (towards operator)

b133 Changing the positioning point.
Changing from sewing with to sewing without flap with programme P04.



Display with non disturbed operation

On the left piece counter state – on the right programme No.
In case of an operating error or a disturbance the function is interrupted and the cause is displayed by a symbol. Impossible to restart before eliminating the disturbance and before the count of the counter appears.

< - - - Carriage not in final position

STOP Protective hood not closed

< H Left bobbin empty*

H > Right bobbin empty*

- x - Thread breakage*

<< - Light barrier defective, reflecting foil defective?

/ - Folder jammed

< H > Lower thread counter on "0000" = bobbin change*

< - - - Selected pocket length too short

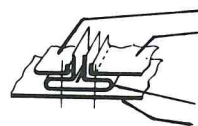
For further service symbols see the brief description

DÜRKOPP-microcontrol.

* **Note!** For safety reasons turn OFF the main switch threading. Only then it will be possible to lift the fabric rest plate, to move the hood up and to displace the folding station to the right.

Sewing pocket openings with or without flap in jacket fronts according to the examples E3, E7, E5 and E9 with 745-5

A. Bilateral piping



Flap
Pocket bag

Double piping
Jacket

For automatically feeding of the flap or the flap and pocket bag there are feeding equipments additional available.

In case of sewing of outer pockets in left and right jacket fronts the positioning is done by the aid of a 3rd marking lamp, no. 7943001.

After exchanging the parts specified on the right a unilateral r/h piping, under B., can be produced.

Readjust accordingly the lateral distance of the r/h clamp!
See chapter 6.3. of the instructions.

Required sewing equipment

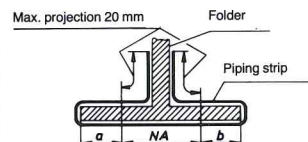
for 10 mm
seam distance

for 12 mm
seam distance

E 3 measure a 4
measure b 4

E 7 measure a 5
measure b 5

For this E-No. right and the left feeding clamp is fitted with flap clamp.



The measure a or b plus the fabric thickness produce the exact piping width. Other piping widths at request.

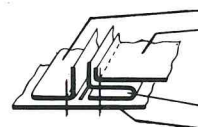
S 28
Folder
79325477
Grip folder
79325473

S 32
Folder
79325517
Grip folder
79325513

A 2

Piping rest 74641481

B. Unilateral piping on the right



Flap
Pocket bag

Welt
Jacket

See the remark under A.

Required sewing equipment

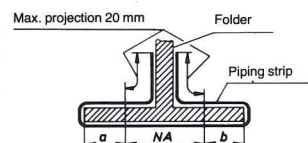
for 10 mm
Seam distance

for 12 mm
Seam distance

E 5 measure b 8.5

E 9 measure b 10.5

For this E-No. the right and the left feeding clamp is fitting with flap clamp.



The measure b plus fabric thickness produce the exact piping width. Other piping widths at request.

S 26
Folder
79325457
Grip folder
79325453

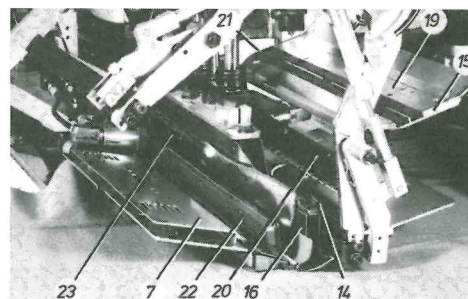
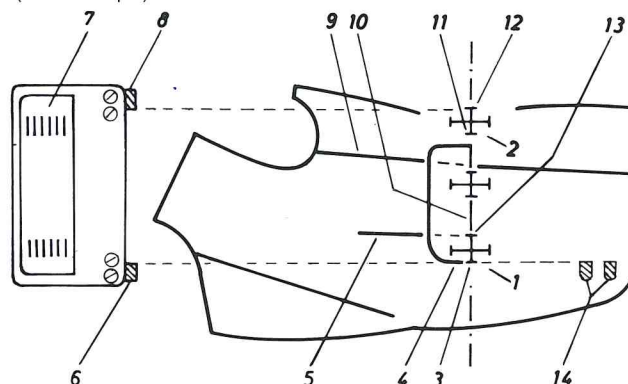
S 30
Folder
79325497
Grip folder
79325493

A3

Piping rest: 79324001

Loading position jacket fronts

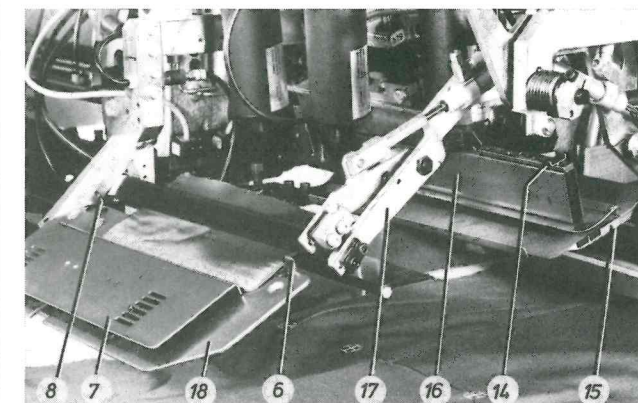
- Place left jacket front against light mark 1 and right jacket front against light mark 2.
- When **sewing without flap** select the positioning point by switch b129 on the control unit as follows:
Left part = rear positioning point (towards operator) diode dark.
Right part = front positioning point (towards machine) diode bright.
Left and right hand parts alternately = for automatic change of the positioning point.
Select the starting positioning point by the b133.
- The are different possibilities of placing against light marks:
a) breast dart 5 in alignment with the inner cross line 13
or
b) in case of striped fabric, mark the flap edge on the jacket according to the pattern. This mark at the outer cross line 3 at the light mark.
- When positioning against cross line 13, the distance between breast dart 5 and flap edge 4 will be always equal.
In the factory this distance has been set by adjusting the small H light mark for 10 mm.
For distances up to 15 mm set the marking lamps higher.
For distances 15 to 25 mm turn the marking lamps by 90° on the large H light mark.
- Note:** For not exceeding the maximum sewing area in case of increased distances, the marking lamps must be set inwards and must be aligned according to the adjustment pattern 791745008.
See chapter 6.5 of the Instructions.
- Adjust the stops 14 and 23 for manual positioning and the stops 6 and 8 for automatic flap feeding with respect to the cross lines 3 or 12. When exceeding the sewing area the function will be interrupted.
- Adjust the stop 7 with respect to the pocket opening by introducing it into the respective pair of longitudinal holes. Note the maximum flap projection (insertion depth).



Loading and starting

- Place the piping on the preparation table 19 and the flap on the feeder 18 as follows:
When sewing left jacket parts place against front edge 15 or against front stop 6.
When sewing right jacket parts place against rear edge 21 or against rear stop 8.
- Clamp the flap by operating r/h pedal.
Manual clamping is only required after starting the sewing unit or for correcting the positioning. When loading in due time according to item 1. this is done automatically during the sewing process.
- Align jacket parts according to method a) or b).
a) The breast dart 5 of the left jacket part must coincide with the inner cross line 13 of the front light mark.
The breast dart of the right jacket front must coincide with the inner cross line 11 of the rear light mark.
b) The mark of the left jacket part must coincide with the outer cross line 3 of the front light mark.
The mark on the right jacket parts must coincide with the outer cross line 12 of the rear light mark.
- Align the pocket opening 10, located between breast dart 5 and side seam 9, with the longitudinal lines of the light mark.
- Operate pedal step 1. The carriage will advance to the operator, the clamps will descend automatically (switch b128/position 3).
The folding and the introduction of the flap without interruption. For correcting the positioning with the pedal not operated actuate the button b134 "carriage to the rear".
1st key operation = folding sheets and opened, feeder 17 and grip folder 16 return to their initial position.
2nd key operation = the clamps are lifted.
For returning the carriage, first operate the STOP key and then b134.
- If there is no feeder, place the flap under left clamp 22 on the stop 14 or 23.
If a pocket bag is to be inserted, place it under the right flap clamp 20.
- Operate 2nd pedal step = left flap clamp will be closed.
- Operate 3rd pedal step = right flap clamp will be closed and the sewing will be started.

The pedal can be lowered quickly, because the functions are tripped gradually by the control unit.



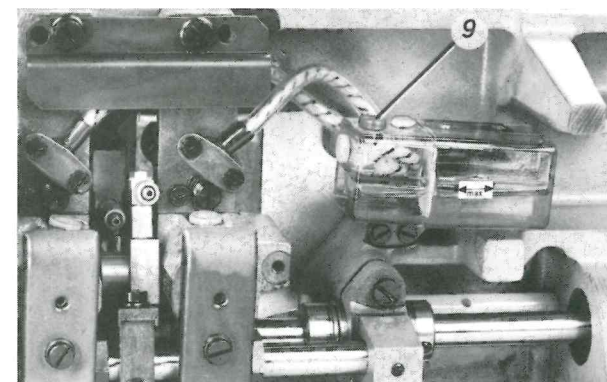
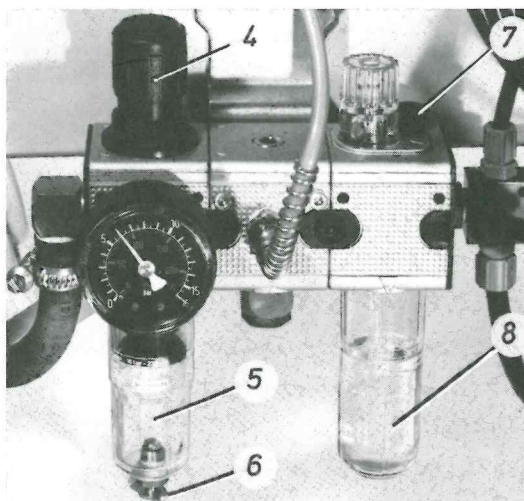
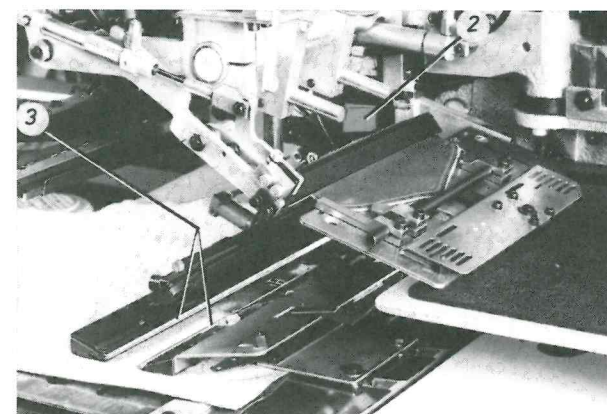
Maintenance

Note:

For cleaning, lubricating and threading the machine turn OFF the main switch.
Only then it will be possible to lift the fabric sliding sheet, to swing up the covering hood and folding station and to swing out the folder after pulling up the handles 10.

Daily cleaning and checking

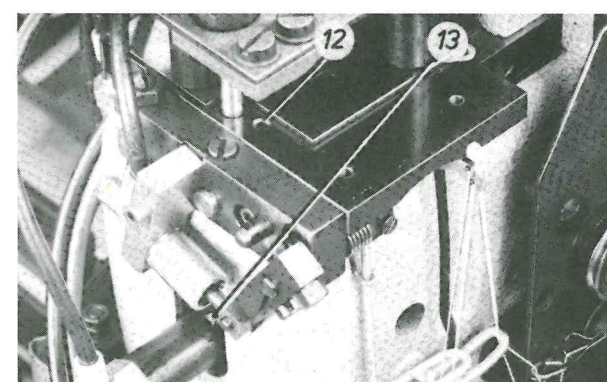
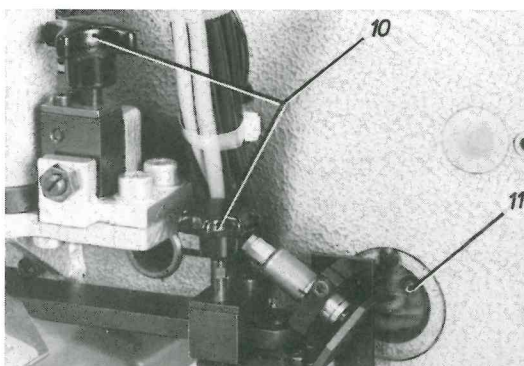
- a) The vicinity of the hook by a compressed air pistol.
- b) The lens 1 of the thread monitor each time when changing the bobbin.
- c) The motor fan sieve.
- d) The lens of the light barrier 2 and the reflecting foil 3 for the flap scanning 2–3 times by a soft rag.
Reflecting foil damaged?
Reflecting foil, ref. no. 74640027, is included in accessories.
If <<-[- is displayed, see chapter 6.4. of the Instructions.
- e) Water in the separator 5 of the conditioning unit?
Tighten screw 6. Drain water under pressure.



Weekly lubrication

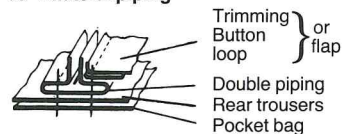
Use SP-NK 10 or an equivalent quality.

- a) Fill oil supply container 9 for hook lubrication under machine head up to the mark "max." after tilting the machine according to chapter 4.5. of the Instructions.
- b) Fill oil supply container 11 for the machine head lubrication. The level should not drop below "Min.".
- c) Lubrication point 12 for coulisse suspension.
- d) Lubrication point 13 for the knife engaging cylinder.
- e) Fill oil supply container 8 for conditioning unit up to "Höchster Ölstand" (max. oil level).
Stop the supply of compressed air by turning the wheel 4 counter-clockwise. For filling, remove screw 7.
Reset service pressure for 6 bar.



Sewing rear trouser openings with button loops or flaps according to examples E4, E8, E6 and E10 with 745-5

A. Bilateral piping



Alternate attaching of loops and flaps

The loop must be backtacked at the ends or tacked at the trimming.

For sewing this pocket type it is necessary to have the automatic feeder "rechts" (right), no. 7944001.

The loop and the trimming or flap can be prepared on the table of the feeder already during the sewing process.

After exchanging the parts specified on the right, a unilateral r/h piping, under B., can be produced.

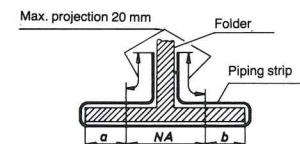
Readjust accordingly the lateral distance of the r/h clamp.
See chapter 6.3. of the instructions.

Required sewing equipment (E-No.)

for 10 mm seam distance	for 12 mm seam distance
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E 4 measure a 4 measure b 4	E 8 measure a 5 measure b 5
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For this E-No. the right feeding clamp is fitted with flap clamp.



The measure a or b plus fabric thickness produce the exact piping width.
Other piping widths at request.

S 29 Folder 79325487 Grip folder 79325483	S 33 Folder 79325527 Grip folder 79325523
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A 2
Piping rest 74641481

Loading position for trouser back parts

Place trouser back parts as far as possible towards the operator. After positioning they can be kept smoothed while the clamp is advancing.

Therefore, align the pocket opening end 2 always according to the light mark 1. There are different possibilities of loading trouser parts.

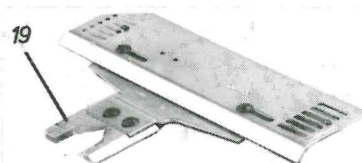
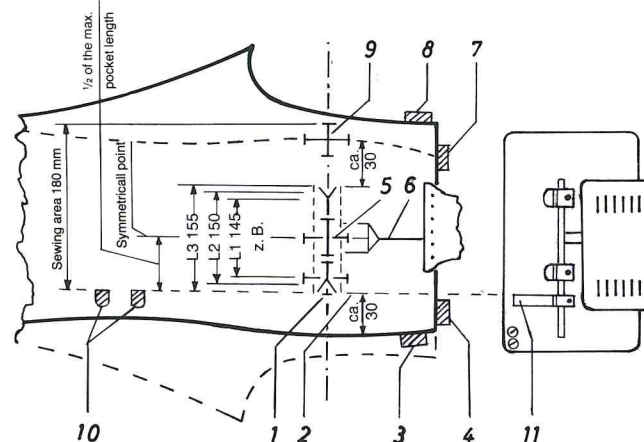
- symmetrically according to the light mark 5 (selector b129/1) or
- according to positioning marks 3 and 8 (selector b129/3).

Aligning the loading position:

- Place the pocket opening against longitudinal lines of the light marks 1 and 9. Produce two positioning marks 4 and 7 on the waistband edge and on the fabric rest sheet.
- Align the pocket opening end 2 of the greatest pocket length (L3) with the front cross line of the light mark 1.
- Re. a) Align the light mark 5 so that it is above the dart 6. 1/2 of the maximum pocket length. For this purpose it is possible to advance the rear marking lamp 9 or to fit a 3rd marking lamp, ref. no. 7943001.
Re. b) Apply the positioning mark 3 (thin adhesive tape) against the hip bow of the rear trouser.
The distance of about 30 mm must be maintained also when sewing the left trouser part. For ensuring this, position a left part and apply the positioning mark 8 so that between it and the light mark 1 there is a distance of about 30 mm + the maximum pocket length.

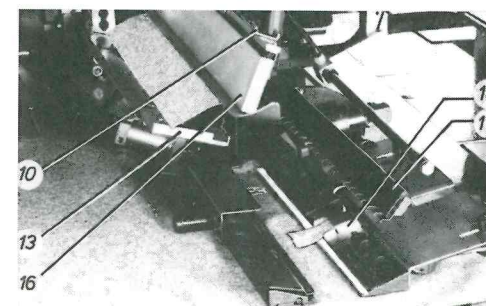
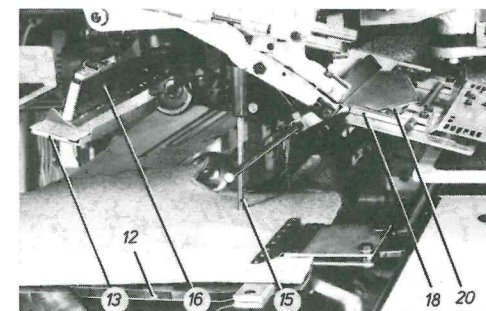
- Adjust the stop 10 for manual loading and the stop 11 for automatic loading of the flap with respect to the pocket opening end 2.

Note: The function will be interrupted if the sewing area is exceeded.
In case of symmetrical positioning according to the darts (light mark 5) position the flaps for shorter pocket lengths in the sewing area accordingly deeper.
5. Adjust the holder 19 for loops and the stop 20 for flaps with respect to the pocket opening. Note the maximum admissible projection of the loop and of the flap. Adapt the reception 14 of the loop width.

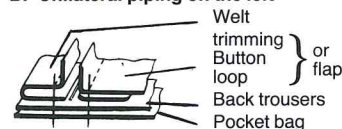


Loading and starting

- Place the piping against front edge 13 of the preparation table and the flap on the feeder device 18.
In case of **bilateral piping of pockets** position also the loops and the trimming on the feeder.
 - Clamp the parts by operating the right pedal.
Manual clamping is only required after starting the sewing unit or for correcting the positioning. When loading in due time according to item 1. this is done automatically during the sewing process.
 - Place pocket bag under clamp 12, align according to positioning marks or together with the rear trouser part according to the method a) or b).
 - Keep the fabric holder 15 lowered by the knee switch. Smooth rear trouser part sideways and to the front.
 - In case of **pocket with unilateral piping on the left** with loop operate slightly only the pedal step 1.
The carriage advances to the operator, the clamps descend automatically (selector b128/ pos. 3).
Place the loop in reception 14. Operate pedal step 1. If there is no loop to be placed into reception 14, keep the pedal step 1 operated until the clamps descend.
The returning of carriage and the folding process will not be interrupted until the feeder is in position.
For correcting the positioning operate b134:
1st key operation = the folding sheets are opened, the feeder and the grip folder 16 return to their initial position.
2nd key operation = the clamps are lifted.
For returning the carriage, operate first the STOP key and then b134 key.
 - If there is no feeder, place the flap under clamp 17 at the stop 10.
 - Operate pedal step 2 = right flap clamp will be closed.
 - Operate pedal step 3 = the left flap clamp, if any, will be closed and the sewing will be started.
- The pedal can be lowered quickly, because the functions are tripped gradually by the control unit.



B. Unilateral piping on the left



Alternate attaching of loops and flaps

Only one bartack at the loop point is required.

No tacking of the loop to the trimming.

The loop is placed manually into reception 14. During sewing it lies under the folder and it is cut off by middle knife.

Loop length should be such that it is not inserted into left seam.

This is the best method for pocket openings unilateral piping on the left.

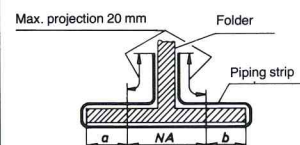
In machines with feeder the loops and the trappings or flaps can be also automatically.

Required sewing equipment (E-No.)

for 10 mm seam distance	for 12 mm seam distance
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E 6 measure a 8.5	E 10 measure a 10.5
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For this E-No. the right feeding clamp is fitted with flap clamp and with separate loop reception, but without folding sheet.



The measure a plus fabric thickness produce the exact piping width.
Other piping widths at request.

S 27 Folder 79325467 Grip folder 79325453	S 31 Folder 79325507 Grip folder 79325493
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A3
Piping rest: 79324001

K 2
Right clamp 7928203

After exchanging the parts specified on the right, a bilateral piping, shown under A, can be produced.

Readjust accordingly the distance of the left clamp.
See chapter 6.3. of the Instructions.

DÜRKOPP 745-7		"Seam pattern" table for DÜRKOPP 745-7 Note: The luminous diode shows whether the seam pattern is started by the left or by the pocket on the right needle. (e.g. the pocket on the right or left). In case of seam patterns with automatic change, the starting needle can be selected by b131.									
Seam pattern No. on b111/112	22	23	24	25	26	27	28	29	30	31	32
Lumin. diodes n2–n3											
Seam beginning						25			28		
Seam pattern											
Seam end						26 automatic change			29 automatic change		
Seam pattern No. on b111/112	33	34	35	36	37	38	39	40			
Lumin. diodes n2–n3											
Degree	0°	12°	12°		0°	12°	12°				
Seam beginning				34				38			
Seam pattern											
Seam end				35 automatic change				39 automatic change			
	x = 11 mm	x = 11 mm	x = 11 mm		x = 15 mm	x = 15 mm	x = 15 mm				
Degree	0°	12°	12°		0°	12°	12°				

DÜRKOPP 745-7

“Seam pattern“ table for DÜRKOPP 745-7

Note: The luminous diode shows whether the seam pattern is started by the left or by the pocket on the right needle. (e. g. the pocket on the right or the left). In case of seam patterns with automatic change, the starting needle can be selected by b131.

Seam pattern No. on b111/112	00	01	02	03	04	05	06	07	08	09	10
Lumin. diodes n2–n3											
Degree	0°	12°	12°		24°	24°		12°	24°	12°	0°
Seam beginning				01 			04 				
Seam pattern											
Seam end	with and without flap			02 auto- matic change			05 auto- matic change				
Degree	0°	12°	12°		24°	24°		12°	24°	0°	12°
Seam pattern No. on b111/112	11	12	13	14	15	16	17	18	19	20	21
Lumin. diodes n2–n3											
Degree		24°	0°		0°	12°	12°		24°	24°	
Seam beginning	09 			12 				16 			19
Seam pattern											
Seam end	10 auto- matic change			13 auto- matic change				17 auto- matic change			20 auto- matic change
Degree		0°	24°		0°	12°	12°		24°	24°	