

Note:

When program functions must be selected using multiple keys (e.g. F + 0), then proceed as follows:

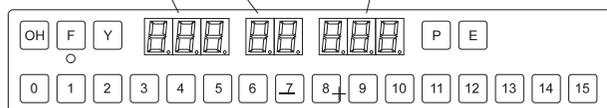
- Press the first key mentioned down
- Briefly tap the second key.

Program capacity:

15 sewing programs, consisting of 60 sizes with 2 times 13 work steps each.

Key panel

display: Bunching value (3-digit)
Step display (2-digit)
Program number (2-digit)



Fullness / Bunching value

Key	Function
F	Supplementary thread tension on/ off
F + 0	Needle up / down
Y	Bartack inversion
OH	Manual reverse bartack
0...15	Bunching values
P	not assigned
E	not assigned

Status after the machine is turned on:

(The machine class is shown briefly.)

The machine starts in "Automatic Operation" and shows the program last worked.

Manual sewing:

Soft key "F1" - MAN	Selecting the manual sewing operation mode.
Key "1"-Numeric keypad	Seam length measurement ON / OFF
0...15	Bunching value
Additional pedal	Bunching value / or correction value
F	Supplementary thread tension on/ off
F + 0	Needle up / down
Y	Bartack inversion
OH	Manual reverse bartack
Soft key "F1"	Exit the manual sewing operation mode.

Automatic operation:

0...15	Bunching value
Additional pedal	Bunching value correction (+ 0.5/ -0.5)
F	Supplementary thread tension on/ off
F + 0	Needle up / down
Y	Bartack inversion
OH	Manual reverse bartack
F1	Manual sewing - MAN
F2	Base settings - BASIC
F3	Global parameters - GP
F4	Programming mode - TEACH
F5	Program sequence - PS

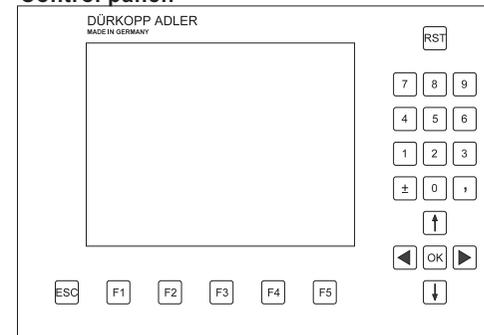
Knee switch and left pedal

Knee switch	Advance to the next step
Left pedal	Change the bunching value

Foot pedal modes for bunching value change-Left pedal

- The bunching value is continuously adjustable with the left pedal. (NOTE: The 0 - 15 keys of the key panel are blocked)
- Setting the pedal mode in the global parameters. (F3 - GP)
- The bunching value can be changed directly with the 0 - 15 keys of the key panel or with the left pedal in steps of (0.5).
- Setting the pedal mode in the global parameters. (F3 - GP)

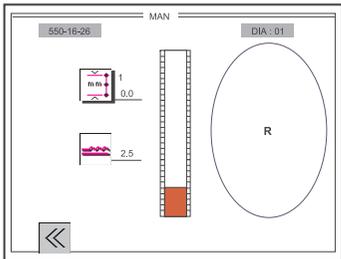
Control panel:



Key	Function
ESC	"ESC"key
F1	Soft key "F1"
F2	Soft key "F2"
F3	Soft key "F3"
F4	Soft key "F4"
F5	Soft key "F5"
0...9	Numeric keypad-Keys 0...9
,	Comma
+/-	Sign Plus / Minus
↑ ↓	Cursor keys "Up" and "Down"
← →	Cursor keys "Left" and "Right"
OK	"OK" key
RST	Reset key. Machine is restarted.

Manual sewing

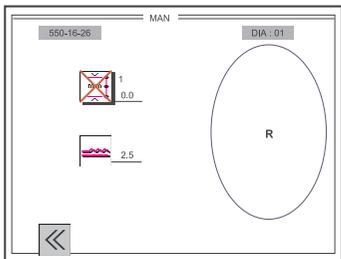
- Press the “F1” soft key in automatic operation (MAN)
- Change to the “Manual Sewing” screen display
- a) (Setting-Pedal mode  in the global parameters “F3”)



- Select the bunching value with the left pedal and hold.
- Insert the piece and start the sewing cycle. The bunching value (KW) can be changed at any time.

Or:

- b) (Setting-Pedal mode  in global parameters “F3”)



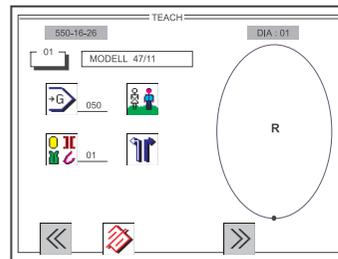
- Select bunching values with the 0 - 15 keys or the left pedal. e.g. bunching value 2.5  (Press the “2” + “3” keys of the key panel).
- Insert the piece and start the sewing cycle. The bunching value (KW) can be changed at any time. If necessary, change the KW via the 0 - 15 keys of the key panel or increase or decrease KW in steps of (0.5 with the left pedal
- Return to automatic operation with the “F1” soft key 

Programming mode

Changing an existing program

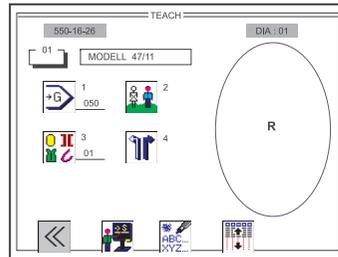
(Presetting: Base size and right sleeve)

- Press the soft key “F4” in automatic operation (TEACH)
- Change to the “Programming Mode” screen display



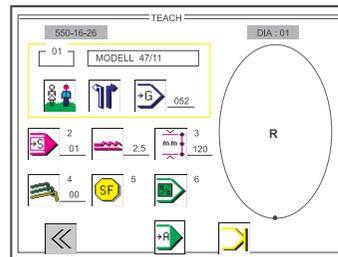
“Presetting - TEACH”

- Press the soft key “F4”  (Symbol for CONTINUE)
- Change to the “Programming Mode” screen display



“Preselection - TEACH-SELECT”

- Press soft the key “F2”  (Symbol for TEACH-IN)
- Change to the “Programming Mode” screen display



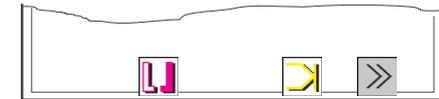
“Entry mode - TEACH-IN”

- Press the key “2” of the numeric keypad or the knee switch repeatedly

in order to advance to the step  to be changed. e.g. from step 01 to step 03 (press key “2” twice).

- Enter the bunching value (KW) directly with the 0 - 15 keys of the key panel or with the left pedal in steps of (0.5. e.g. Bunching value  7.0 ⇒ Press the “7” key of the key panel
- Change to the last step of the right sleeve. Press key “2” of the numeric keypad or the knee switch until the last step  of the first piece is reached.

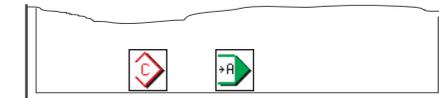
- Confirm the end of the piece  with soft key “F4”.
- Change of the soft key functions to “MIRROR-END-CONTINUE”



- The left sleeve program is mirrored by pressing the soft key “F2” ¹.

The graphic changes to the mirrored sleeve program.

- Change of the soft key functions to “COPY-AUTOMATIC”



- Copy changes to all sizes with the soft key “F2” . The program altered in the base size is transferred to all sizes of the size table taking into account the set gradation values. During the  procedure the wait symbol,

hourglass  is shown. Then one moves automatically to automatic operation.

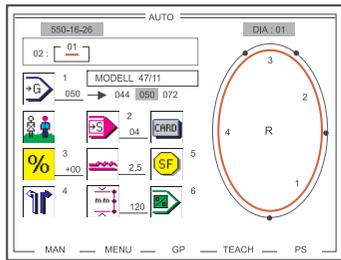
The generated sleeve program is active.

¹: If one mirrors the data set of a right sleeve, a data set for a left sleeve is automatically generated. This is also possible the other way around.

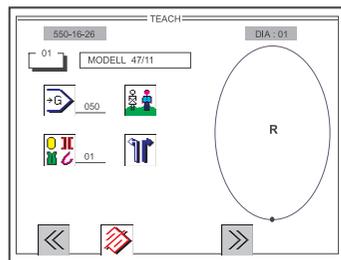
Programming mode

Generating a new program

- "Automatic Operation" is active



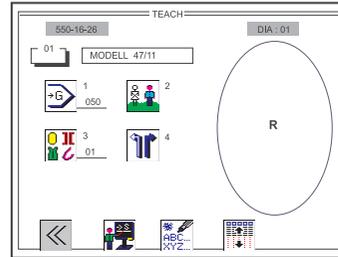
- By pressing the "Cursor Right" key one advances from program number 01 to 02.
- Press soft key "F4" in automatic operation (TEACH)
- Change to the "Programming Mode" screen display



"Presetting - TEACH"

- Press the soft key "F2" (Symbol DELETE). Current sleeve program is deleted.
- Check of the correct base parameters:
Base size and country-specific size table
- False \Rightarrow Abort procedure with soft key "F1" and correct the settings.
- Correct \Rightarrow Continue with the next point.
- Press soft key "F4" (Symbol CONTINUE).

- Change to the "Programming Mode" screen display



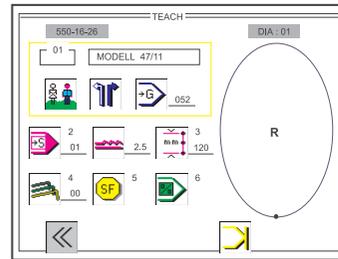
"Preselection - TEACH-SELECT"

- Check the parameters and change as required.

Size Application area

Sewing graphic Starting piece

- Press soft key "F2" (Symbol TEACH-IN)
- Change to the "Programming Mode" screen display



"Entry mode - TEACH-IN"

- Current step 01 is set. Insert the piece.
- Enter the bunching value KW directly with the 0 - 15 keys of the key panel or with the left pedal in steps of (0.5).
e.g. KW 0.5 \Rightarrow Press the "0"+"1" keys of the key panel.
- Sew to the first "marker".
The automatic seam length measurement in mm is active.
Display of the seam length e.g. 075 mm
- Advance a step from 01 to 02 by operating the knee switch or by pressing the "2" key of the numeric keypad.

- Enter the bunching value (KW) directly with the 0 - 15 keys of the key panel or with the left pedal in steps of (0.5).

e.g. KW 3.0 \Rightarrow Press key "3" of the key panel.

- Sew to the second "marker".
The automatic seam length measurement in mm is active.

Display of the seam length e.g. 097 mm

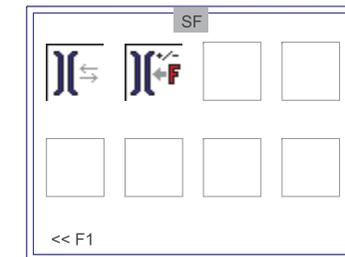
- Advance a step from 02 to 03 by pressing the knee switch or the "2" key of the numeric keypad.
- Enter the bunching value (KW) directly with the 0 - 15 keys of the key panel or with the left pedal in steps of (0.5).

e.g. KW 8.0 \Rightarrow Press key "8" of the key panel.

- Select gradation with the "4" key of the numeric keypad. The entry mode is active. Enter the desired gradation in mm with the numeric keypad.

e.g. Gradation 5 mm (Press key "5" of the numeric keypad and confirm with the OK key.

- With a high bunching value (8), turn on supplementary thread tension.
Select special functions with key "5" of the numeric keypad. The special functions display window is opened.



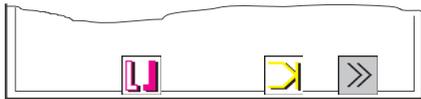
- The supplementary thread tension parameter is selected by pressing the "Cursor Right" key .
- The function is activated by pressing the OK key.
- Close the display window with soft key "F1" (<<)

- The activated supplementary thread tension is signaled by the glowing of a green LED in the key panel field.
- Sew to the third "marker".

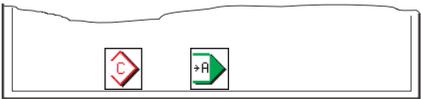
- The automatic seam length measurement in mm is active.

Display of the seam length e.g. 050 mm

- Advance a step  from 03 to 04 by pressing the knee switch or the key "2" of the numeric keypad.
- Enter the bunching value (KW) directly with the 0 - 15 keys of the key panel or with the left pedal in steps of (0.5).
z. B. KW  2.5 (Press the "2"+"3" keys of the key panel.
- .
- etc.
- .
- Sew the last step until the beginning seam is reached.
- Confirm the end of the piece with soft key "F4" .
- Change of the soft key functions to "MIRROR-END-CONTINUE"

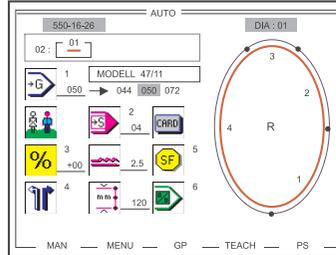


- The right or left sleeve program is generated by pressing the soft key "F2"  Mirror)¹. The graphic changes to the mirrored sleeve program.
- Change of the soft key functions to "COPY-AUTOMATIC"



- Start the copying to all sizes with soft key "F2"  . The program altered in the base size is transferred to all sizes of the size table taking into account the set gradation values. During the copy procedure the wait symbol, hourglass  is shown. (If no gradation values were entered, the base program is copied to all other sizes without alteration.)

- Then one moves automatically to automatic operation. The generated sleeve program is active.

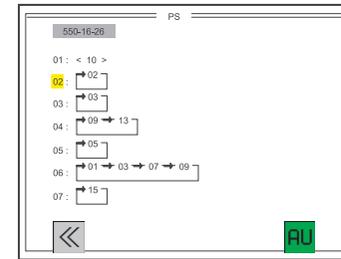


- Sew seam overlapping.
- Operate the thread trimmer.
- Once after program generation, press key "4" of the numeric keypad in order to change to the left sleeve  of the sewing program.
- Remove the right sleeve. Examine the quality. If the right sleeve is ok, sew in the left sleeve with the generated sleeve program.

¹: If one mirrors the data set of a right sleeve, a data set for a left sleeve is automatically generated. This is also possible the other way around.

Program sequence

- Press soft key "F5" in automatic operation (PS)
- Change to the "Program Sequence" screen display



- Select the program sequence to be altered with the "Cursor Up"  and "Cursor Down" keys .
- Enter two-digit program numbers with the "0" - "9" keys of the numeric keypad (a max. of 6 programs can be programmed within a sequence).
- End the entry of a program sequence with the "OK" key.

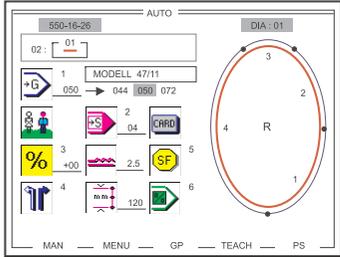
Special case: - Program sequence 01 -

The program sequence 01 contains all 15 programs, but only shows the currently selected program number. In automatic operation, however, one can very quickly change to all valid program numbers 01 - 15 with the "Cursor Left"  or "Cursor Right"  keys.

- Changes in the program sequences remain in memory after the machine is turned off.
- Return to automatic operation with soft key "F1" .

Sewing with a program

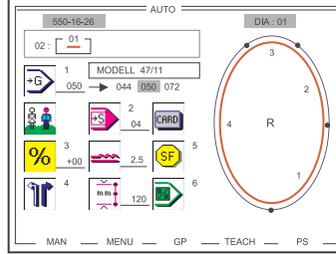
- “Automatic Operation” is active



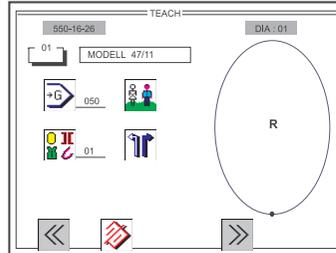
- If necessary, change the program sequence or program number (program may not be empty !)
- The program is shown underlined in red (1st step, right sleeve, if present). One can alternate between the right and left sleeves by pressing the “4” key of the numeric keypad. (if a program with right and left sleeves was selected)
- Sew the first step.
- Automatic advance to the 2nd step when the partial seam run length in mm is reached. The display shows the bunching value and the partial seam run length of the 2nd step in mm.
- Sew the 2nd step.
- .
- etc.
- .
- The last step present in the program is reached.
- If in the last step, after finishing sewing the partial seam run, the thread trimmer is operated, the program automatically changes to the 1st step of the other side sleeve or to the 1st step of the same sleeve (if a program with only one sleeve is present), otherwise the seam length measurement is turned off in the last step.
- The knee switch can also be operated in order to move from the last step to the first.

Program deletion

- “Automatic Operation” is active



- Press soft key “F4” in automatic operation (TEACH)
- Change to the “Programming Mode” screen display

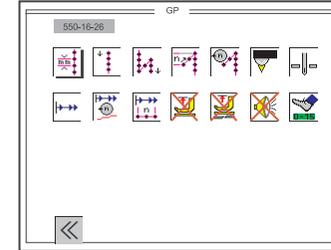


“Presetting -
TEACH”

- If necessary, enter the 2-digit program number to be deleted via the numeric keypad. (Program may not be empty)
- Press soft key “F2” (Symbol DELETE). The current sleeve program is deleted.
- Then press the “OK” key. The sleeve program is permanently deleted.
- Return to automatic operation with soft key “F1”
- The empty sleeve program is shown.

Global parameters:

- Press soft key “F3” in automatic operation (GP)
- Change to the “Global Parameters” screen display



- Select the parameter to be changed with the keys and activate with the “OK” key.
- Change the parameter and confirm with the “OK” key

Symbol Parameter name Works setting

	Base stitch length (1.5 - 5.5 mm)	2.5 m
	Needle position at stop in the seam (Pos 1 / Pos 2)	Pos 1
	Auto. foot lift at stop in the seam (ON/OFF)	OFF
	Auto. foot lift after FA (ON / OFF)	OFF
	Type of beginning bartack (without, single, double)	without
	Type of end bartack (without, single, double)	without
	Number of bartack stitches (1 - 9)	5
	Bartack speed (500 - 2000 1/min)	1000
	Softstart (ON/ OFF)	OFF
	Number of softstart stitches (1 - 20)	2
	Softstart speed (200 - 1800 1/min)	1000
	Acoustic signal for step advance (ON / OFF)	OFF
	Fullness pedal mode (±0.5 / 0-15 / 0-7 / 7.5-15)	0-15

Changes to the parameters remain in memory after the machine is turned off.

- Return to automatic operation with soft key “F1”