Programming field for writing and modifying sewing programs for the PFAFF 3568-12/21 and -12/22
When using the programming field, the instruction manuals of the PFAFF 3568-12/22 and -12/22 respectively, and the notes on safety contained within them are to be observed.
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Explanatory notes

Display field

a = coordinates of the “X” or “Y” axis in 1/10 mm relative to the reference point of the coordinates.
b = section number
c = section type
d = text number of the displayed text
e = operator prompt/menu control/error messages

Modes of operation

Ins = Insert
  not pressed (diode off)
  = basic status
  pressed (diode on)
  = Betriebsart "Einfügen"

Alter*

Del = Delete

Direct functions

Cycle sectionwise forwards through pattern*

Cycle sectionwise backwards through pattern*

Presser foot up/down

Carriage movement buttons
Dialogue buttons

- Error Reset
- Diode lights when error message*

- Finish programming/modifying

- Enter
  - Enter (confirm input)

- Esc
  - Stop a chosen function or mode which has not yet been processed.

- Raise input values
  - Answer dialogue questions with “yes”
  - Scroll forwards in menu guide

- Lower input values
  - Answer dialogue questions with “no”
  - Scroll backwards in menu guide

Block and pattern manipulations

- Block *

- Displace pattern*

- Manipulate pattern, rotate/mirror/locate up*

- Reference point for coordinates

Insert “functions”

- Line (straight line between two points)*
  - The stitch length must be defined in order to input a.

- Stitch/feed (max. 6 mm)*
  - Input of a single stitch regardless of stitch length.

- Curve *

Graphic menu: *

- Standard stitch-length
- Stitch length
- Stitch width
- Circle
- Arc
- Curve end

- Moves carriage quickly *

- Start sewing

- Thread trim

- Load point program end
  (not applicable to PFAFF 3568)

Machine function menu: *

- Speed
  - Reduced speed on
  - Reduced speed off
  - Zigzag on
  - Zigzag off
  - Secondary tension on
  - Secondary tension off
  - Set output
  - Reset output
  - Programmed stop
  - Wait for input high
  - Wait for input low
  - Wait for time
  - Shift parameter

* = function active when diode lit
Connecting and starting the programming field

Connect the programming field on the front left hand side of the machine with the transmission cable.
Start machine
- Operating mode: ready.

<table>
<thead>
<tr>
<th>CHOOSE FUNCTION OR SCROLL</th>
<th>#250</th>
<th>Display: machine</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Choose Menu 2 (= #261), confirm with</td>
<td>Enter</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>2. MENU</th>
<th>#300</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>1 - PROGRAM MANAGEMENT</th>
<th>#301</th>
<th>Display: machine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scroll in the main functions till</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>2 - SEAM PATTERN PROGR. / CORRECT</th>
<th>#302</th>
<th>Display: machine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WHICH PROGRAM NUMBER: 99</th>
<th>#520</th>
<th>Display: machine</th>
</tr>
</thead>
</table>

Enter program number:
- a new number that is not yet in the machine's memory for a program to be written
- a number from the machine's memory for a program modification

| Enter |

<table>
<thead>
<tr>
<th>PRESS HOME KEY</th>
<th>#007</th>
<th>Display: machine</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>PROGRAMMING FIELD ENABLED</th>
<th>#521</th>
<th>Display: machine</th>
</tr>
</thead>
</table>

Programming field

<table>
<thead>
<tr>
<th>JIG CODE NOT PROGRAMMED</th>
<th>PROGRAM NUMBER AFTER CORRECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display: Programming field when writing a new program (see section 8)</td>
<td>Display: Programming field when correcting an existing program (see section 9)</td>
</tr>
</tbody>
</table>
4 Modes of operation

4.1 Basic status = (when diode in the Ins key is not lit)

The following functions are possible in this mode:

- cycle forwards sectionwise through pattern =

- cycle backwards sectionwise through pattern =

- presser foot up/down =

- manipulate block =

- displace pattern =

- manipulate pattern =

- coordinate reference point =

- change to insert mode = Ins (diode lit)

- call up alter mode =

- call up delete mode = Del

- end programming/correction =

4.2 Insert = (when the diode in the Ins key is lit)

In the INSERT mode new sections can be inserted into the pattern. Frequently required functions can be selected directly via the keys. Less common functions are summarized in menus and can be selected via the F1 and F2 keys.

Direct functions:

- straight line =

(straight line between two points)
The stitch length must be defined to input a straight line.
- Single stitch/feed = 

Input of a single stitch regardless of the inputted stitch length. (single stitch max. 6 mm)

- curve =

Any number of points can be placed on the curve (curve points may not be end points). The control calculates the curve with regard to a defined stitch length. The more points entered on the curve, the more exact the curve will be.

- fast slew =

Enables the fast movement of the X-Y carriage. Both axes are driven independently to the endpoint as fast as possible. The resulting route is not a straight line (care to be taken when hindrances on sewing jig).

⚠️ Sewing in fast slew mode is not allowed.

- start sewing =

This function starts the sewing process. All following sections will be sewed until function cut thread.

- cut thread =

This function starts the thread-cutting process. (start sewing function must be active).

- block =

A marked block can be inserted forwards or backwards at the current position.

- presser foot up/down =

- coordinate reference point =

This function resets the coordinate values at “0” thus creating a new coordinate reference point.

- end programming/correction =
4.2.1 Graphic functions

- standard stitch-length

This function sets a stitch length that is most commonly needed in the pattern. This stitch length is displayed in the machine's display and can be influenced subsequently with the alter stitch length key (œ_\[\frac{1}{10}\]).

- stitch length

This function sets a stitch length for a pattern. This stitch length is not displayed in the machine's display and cannot be altered by the alter stitch length key (œ_\[\frac{1}{10}\]).

- stitch width

This function superimposes a zigzag onto an outline with the X-/Y- carriage. The stitch length represents here the feed along the outline from stitch to stitch and is to be selected accordingly. Position of the stitch width in relation to the outline can be selected (symmetrical, left, right, 1st stitch right, 1st stitch left). Switch of the stitch width with “0”.

- circle

To make a circle the control requires three points on the circumference. The first point is automatically the start point of the circle. A stitch length must be defined.

- arc

To make an arc, the control requires an arc point at the beginning of the arc and at its end. A stitch length must be defined.

- Curve end

This function turns a curve point into a curve end point.
4.2.2 Machine functions = F2

4.2.2.1 - speed

The speed for the pattern can be selected (max. 4100 RPM). The value entered can only be reduced via the max. speed input on the machine.

4.2.2.2 - reduced speed on, reduced speed off

Specific parts of the pattern which are to be sewed at reduced speed can be selected. Input RPM at the machine.

4.2.2.3 - zigzag on, zigzag off

Specific parts of the pattern can be selected in which the mechanical zigzag of the sewing machine is to be switched on and off. This function can be influenced additionally at the machine.

4.2.2.4 - secondary tension on, secondary tension off

Specific parts of the pattern can be selected in which the secondary tension is to be switched on and off.

4.2.2.5 - set output, reset output

Freely programmable outputs can be set and reset via the pattern program.

4.2.2.6 - programmed stop

A machine stop at a specific point in a pattern (without thread trim) can be programmed.

4.2.2.7 - wait for input high, wait for input low

This function causes the machine to wait until an input (switch, proximity switch) has reached a certain level. Here the following is meant: high = input LED lit, low = input LED not lit.

4.2.2.8 - wait for time

This function allows the input of a waiting time. The machine stops at this point until the waiting time is over.

4.2.2.9 - shift parameters

These can be moved in order to activate programmed functions from F2 at a particular point in a pattern. This displacement can be placed before i.e. minus x-stitches or after i.e. plus x-stitches.

(x = number of stitches)
4.3 Alter = 📌

Alterations are possible in modes "basic status" (sec. 4.1) and "insert" (sec. 4.2).

The current section will be altered, e.g.:
- coordinate point
- machine function
- program number
- jig code
- hindrances

The subsequent sections are not influenced by a section of a pattern being moved.

4.4 Delete = Del

Delete is possible in modes "basic status" (sec. 4.1) and "insert" (sec. 4.2).

The current value will be deleted.

In circle (arc) the complete circle must be deleted. Individual points cannot be deleted.
5 Description of functions

5.1 Direct functions

- Cycle sectionwise forwards through pattern.
- Cycle sectionwise backwards through pattern.

With both functions the following appears in the display:
- X-/Y- coordinates
- Current section number
- Section type and, if applicable, parameter.

- Presser foot up/down

- Carriage movement keys

The X-/Y- carriage can be moved with these keys when inputting carriage positions in 1/10 mm steps.

Attention: direction of arrow = direction of movement of the needle to the pattern.

Current coordinates are displayed.

5.2 Dialogue functions

- Reset error
  (erase error message after invalid input)

- Finish programming/correction

- Confirm input

- Abort a selected function

- Raise input values
  Answer dialogue questions with "yes"

- Scroll forwards in menu guide

- Lower input values
  Answer dialogue questions with "no"

- Scroll backwards in menu guide
5.3 Block

Note: block functions are only possible in the "basic status" mode, (diode of key not lit).

Within the main function "Block" (=) the following sub functions are possible:
- mark block-beginning
- mark block-end
- manipulate block

Within the sub function "manipulate block" the following functions are possible:
- scale-up block
- rotate block
- mirror block
- shift block
- delete block.

5.3.1 Mark block-beginning

Cycle to the place in the pattern where the block is to begin, with the key.

Press the key and select the sub function "mark block-beginning" with or 

confirm with

5.3.2 Mark block-end

Cycle to the place in the pattern where the block end is to be with the key.

Press and select the sub function "mark block-end" with or 

confirm with

The block is now marked.

While cycling through the pattern, the marked block can be recognized by the asterisk (*) in the display.
5.3.3 Block manipulations

This function alters a marked block. This can be a complete sewing program or part of a sewing program. After selecting the function "block manipulation" the message appears:

MOVE TO BEGIN OF BLOCK WITH ENTER  #110

After pressing the X-/Y- carriage goes automatically to the block beginning.

All subsequent block commands refer to this point.

5.3.3.1 Scale up block
(The marked block or part of a block can be scaled up or down with this function).
After selecting the function the message appears:

ENTER FACTOR FOR X-AXIS: 1.00  #453

input the desired factor (0.20 to 9.99).
input value: 0.20 to 0.99 = scale down X-axis,
1.00 bis 9.99 = scale up X-axis.

confirm input with The message appears

ENTER FACTOR FOR Y-AXIS: 1.00  #454

input the desired factor (0.20 to 9.99).
input value: 0.20 to 0.99 = scale down Y-axis,
1.00 bis 9.99 = scale up Y-axis.

confirm input with

The marked block has been scale up/down as selected.

Example of a scale-up block:

beginning of block          end of block
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5.3.3.2 Rotate block

After selecting this function the message appears:

ENTER ROTATION ANGLE: #455

Select the desired rotation angle with $+$ or $-$

rotate clockwise = negative angle-value (e.g.-10 deg.)
rotate anticlockwise = positive angle-value (e.g. 10 deg.)

confirm input with Enter

The marked block has been rotated as selected.

5.3.3.3 Mirror block

After selecting this function the message appears:

MIRROR WITH + #456

The block is mirrored at the that passes through the block beginning and which lies parallel to the Y-axis.
5.3.3.4 Move block

After selecting this function the message appears:

ENTER NEW POINT #552

Move to the new point with

confirm input with

The new point is selected and the block is moved to it.

```
beginning of block          end of block
X                           X
```

5.3.3.5 Delete block

After selecting this function the marked block is deleted by pressing the Enter key.
5.4 Displace pattern

With the key move to the point in the pattern which is to be displaced.

Press the message appears:

ENTER DISPLACEMENT #350

with the keys , , and move the carriage to the new point. The current coordinates will be displayed.

confirm input with .

Example of pattern displacement: The point in the illustration is displaced to 2'.

Starting with point 2' all of the subsequent coordinates are displaced in the same way.
Pattern manipulation

Within the main function "pattern manipulation" (=) the following sub functions are possible:

- scale-up factor X-axis
- scale-up factor Y-axis
- rotation angle
- mirror

The sub functions can be selected with + or -.

After selecting pattern manipulation (press key) the message appears:

ENTER SYMMETRY POINT #450

The pattern manipulation will be carried out based on this point.

There are two types of symmetry point input:

1. Input with carriage movement.

   Move the carriage to the symmetry point with the keys ←, →, ↓ and ↑.
   The current coördinates will be displayed.

2. Input without moving the carriage.

Press + or - the message appears:

SYMOMETRY POINT X-AXIS XXX #451

The coordinate value can be changed with + and -.

Confirm input with Enter, the message appears:

SYMOMETRY POINT Y-AXIS XXX #452

The coordinate value can be changed with + and -.

Confirm input with Enter, the message appears:

SCALE-UP FACTOR FOR X-AXIS #470

The desired sub functions can be selected with + or -.
5.5.1 Scale-up factor X-axis. After selection the message appears:

ENTER FACTOR X-AXIS  #453

input the desired factor (0.20 to 9.99).
input value:  0.20 to 0.99  = scale down X-axis,
             1.00 to 9.99  = scale up X-axis.

confirm input with Enter

5.5.2 Scale-up factor Y-axis. After selection the message appears:

ENTER FACTOR FOR Y-AXIS: 1.00  #454

input the desired factor (0.20 to 9.99).
input value:  0.20 to 0.99  = scale down Y-axis,
             1.00 to 9.99  = scale up Y-axis.

confirm input with Enter

5.5.3 Rotation angle. After selection the message appears:

ENTER ROTATION ANGLE:  #455

select desired rotation angle with the + and - keys.

Rotate clockwise  = negative angle value (e.g. -10 deg.)
Rotate anticlockwise  = positive angle value (e.g. 10 deg.)

The rotation is effected around the selected symmetry point.

5.5.4 Mirror. After selection the message appears:

MIRROR WITH +  #456

after pressing + the pattern will be mirrored at the which runs parallel to the Y-axis through the symmetry point.

Note:  pattern manipulations are only carried out after pressing the key.
5.5 Scale up factor X-Y-axis

rotation angle

= symmetry point

5.6 Coordinate reference point

With the \( L_x \) key the coordinate values in the display are set at \( X \) 0 - \( Y \) 0. Thus a new coordinate reference point is created.

The function can be carried out in the following operation modes:

- **basic status** = \( \) not pressed (diode not lit)
- **insert** = \( \) pressed (diode lit)
- **alter** = \( \) pressed (diode lit)
Jig monitor/-code
(additional equipment)

.1 For the jig monitor the sewing jig is fitted with a code by attaching magnets. This code allows
the control to read the code via the additional equipment.

.2 If you wish to work with the function JIG MONITOR this must be switched on (see instruction
manual for Pfaff 3568-2/21 or -1/22 or -2/22 4.4.3 jig monitor).

.3 A jig code must be programmed in the sewing program.

.4 The jig code is a value from (0-99).
Behind the entered value, the corresponding order of the magnets appears in binary code.
Here the last four places represent the correspond to the digit in the ones column and the front
four places correspond to the digit in the tens column.

JIG CODE: 25 (---*---*---)

Conversion table

<table>
<thead>
<tr>
<th>number</th>
<th>ones (tens)</th>
<th>Bit3 (Bit 7)</th>
<th>Bit2 (Bit 6)</th>
<th>Bit1 (Bit 5)</th>
<th>Bit0 (Bit 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1</td>
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</tr>
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<td>2</td>
<td></td>
<td>-</td>
<td>-</td>
<td>*</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>-</td>
<td>-</td>
<td>*</td>
<td>*</td>
</tr>
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<tr>
<td>5</td>
<td></td>
<td>-</td>
<td>*</td>
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<tr>
<td>6</td>
<td></td>
<td>-</td>
<td>*</td>
<td>*</td>
<td>-</td>
</tr>
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</tr>
<tr>
<td>8</td>
<td></td>
<td>*</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>*</td>
<td>-</td>
<td>-</td>
<td>*</td>
</tr>
</tbody>
</table>
.5 display of the magnet positions when entering code

JIG CODE: 25

- = no magnet
* = magnet

.6 order of the magnets on the underside of the jig.
(jig shown here from above)

o = no magnet
* = magnet
order of the magnets on the underside of the jig. (jig shown here from above)

Note: In the program which follows, the initial description only shows the pattern form without the machine functions such as "reduce speed", "secondary tension" etc. The shift parameters are not considered. These extras are described in section 8 "pattern proofing".
Write sewing program (see pattern example in section 7)

program model: sketch with coordinate values:
Max. pattern size = 220 x 250 mm.

Note: Requirement for using the existing sewing program is the identity of the sewing jig and the corresponding form-related folder-part-set.

Connect and switch on the programming device in accordance with section 2.

0 0 / 2: JIG CODE #640
JIG CODE NOT PROGRAMMED #100

+ or -

0 0 / 2: JIG CODE #640
JIG CODE: 99 ++ #101

select desired jig code (0-99) with + or - (see page 22)

Enter

0 0 / 3: HINDRANCES #603
HINDRANCES YES "Y", NO "N" #102

for sewing jig without hindrances

0 0 / 3: HINDRANCES #603
JIG WITHOUT OBSTACLES #103

fast slew

0 0 / 3: HINDRANCES #603
INSERT FAST SLEW #183

Move to Y-coordinate -362 (=36.2 mm) (pattern zero-point) with carriage movement key

0 -362 / 3: HINDRANCES #603
ENTER FAST SLEW END POINT #163

The coordinate reference-point becomes the new pattern zero-point (X = 0, Y = 0).
-This simplifies the inputting of the coordinates.

Move to X-coordinate -610 (=61 mm) with the carriage movement key ←.

-610 0 / 3: HINDRANCES #603
ENTER FAST SLEU END POINT #163

start sewing

-610 0 / 5: FAST SLEU #614

graphic menu

-610 0 / 6: START SEWING #606
STANDARD STITCH LENGTH #200

select desired standard stitch length (in example 3.4 mm) with + or -.

-610 0 / 6: START SEWING #606
CHOOSE STANDARD STITCH LENGTH 3.00 MM #160

straight line
-610 0 / 7:ST. STITCH LENGTH #611
INSERT LINE #180

Move to new X-value -546 (=54.6 mm) with the carriage movement key →.

-546 0 / 8:LINE #616
LINE END POINT #151

machine function menu

-546 0 / 8:LINE #616
SPEED #240

Press + or - till "zigzag".

-546 0 / 8:LINE #616
ZIGZAG #242

-546 0 / 8:LINE #616
START ZIGZAG WITH ENTER #169

graphic menu

-546 0 / 9:ZIGZAG ON #636
INSERT LINE #180

-546 0 / 9:ZICK-ZACK EIN #636
Press + or - till "stitch length"

```
-546 0 / 9:ZIGZAG ON #636
STITCH LENGTH #201
```

Select desired length for zigzag bar with + oder - key.

\[
\text{value} = \frac{\text{bar length}}{\text{stitch total}}
\]

(in example \( \frac{6.4}{28} = 0.23 \))

```
-546 0 / 10:STITCH LENGTH #612
INSERT LINE #160
```

Move to x-value -610 with carriage movement key ←.

```
-546 0 / 10:STITCH LENGTH #612
ENTER LINE END POINT #150
```

```
-610 0 / 11:LINE #616
LINE END POINT #151
```

machine function menu

```
-610 0 / 11:LINE #616
SPEED #240
```

Press + or - till "zigzag"
-610 0 / 11 LINE #616
ZIGZAG #242

Enter

-610 0 / 11 LINE #616
STOP ZIGZAG WITH ENTER #170

Enter

-610 0 / 12 ZIGZAG OFF #637
INSERT LINE #180

F1

graphic menu

610 0 / 12 ZIGZAG OFF #637
STANDARD STITCH LENGTH #200

Enter

standard stitch length is set at 3.40 mm.

-610 0 / 13:ST. STITCH LENGTH #611
INSERT LINE #180

Move to Y-coordinate -1270 with carriage movement key ↓.

Enter

-610 -1270/ 14 LINE #616
LINE END POINT #151

Move to Y-coordinate -1340 and X-coordinate 0 with the carriage movement keys ↓ and →.
Move to Y-coordinate -1270 and X-coordinate 610 with the carriage movement keys \( \uparrow \) and \( \rightarrow \).

Move to Y-coordinate 0 with the carriage movement key \( \uparrow \).

Move to X-coordinate 546 with the carriage movement key \( \leftarrow \).

Press \( + \) or \( - \) till "zigzag".
Enter

**F1**

graphic menu

Enter

Press \( + \) or \( - \) till “stitch length”.

Enter

Select stitch length for zigzag bar with \( + \) or \( - \).

Value = \( \frac{\text{bar length}}{\text{stitch total}} \)  

(in example \( \frac{6.4}{28} = 0.23 \))

Enter
Move to X-coordinate 610 with carriage movement key →.

- **610 0 / 20 STITCH LENGTH #612**
- **ENTER LINE END POINT #150**

**machine function menu**

- **610 0 / 21 LINE #615**
- **SPEED #240**

Press + or - till "zigzag".

- **610 0 / 21 LINE #615**
- **ZIGZAG #242**

- **610 0 / 21 LINE #615**
- **STOP ZIGZAG WITH ENTER #110**

- **610 0 / 22 ZIGZAG OFF #637**
- **INSERT LINE #180**

- **cut thread**
- **610 0 / 23 CUT THREAD #607**
- **INSERT LINE #180**
fast slew

610 0 / 23: CUT THREAD #607
INSERT FAST SLEW #183

Move to x-coordinate with carriage movement key ←.

Enter

0 0 / 24: FAST SLEW #614

fast slew

0 0 / 24: FAST SLEW #614
INSERT FAST SLEW #183

Move to Y-coordinate +362 with carriage movement key ↑.

Enter

0 362 / 25: FAST SLEW #614

finish programming.

0 362 / 25: FAST SLEW #614
CREATE STITCH DATA WITH "+" #400

+ 362 / 25: FAST SLEW #614
STITCH GENERATION IN PROGRESS #401

PROGRAMMING DISPLAY SWITCHED OFF #106
*Note:  A data record can only be created with  \( + \). Only the geometrical data record is saved with  \( - \) or  \( \text{Enter} \).

After inputting this program number, the message appears:

\[ \text{PROGRAM INCOMPLETE} \quad \#175 \]

This program can be worked on within the function “correct sewing program”.
Correct sewing program

This function serves to modify patterns or to insert or delete already programmed graphic functions or machine functions (see section 3 diagram "writing/correcting programs". In the following example, the inserting of machine functions into the existing sewing program from section 8 is described.)

The programming device is ready to make a correction in accordance with section 2.

If the displayed program is to remain unchanged after carrying out the correction, a new program number must be entered for the program which is to be altered.

Press \(\text{Enter}\) till "zigzag on"

Press \(\text{Ins}\) (diode lights)

= insert mode

\(\text{F2}\)

machine function menu

Press \(+\) or \(-\) till "shift parameter"

\(\text{Enter}\)

\(\text{Enter}\)
Press \[ \text{——} \] till -2 ST (=2 stitches)\[ \text{——} \]

Note: A shift parameter of -7 stitches is to be entered when creating a double seam in the functions “zigzag on” and “zigzag off”.

In the example shown, the function “zigzag on” is at the beginning of the seam. As the sewing machine has not yet reached max. speed at this stage, a shift parameter of -2 stitches is sufficient.

```
-546   -362 / 9:ZIGZAG ON #636
SHIFT PARAMETER: -2 STITCHES #144
```

machine function menu

```
546   -362 / 9: ZIGZAG ON #636
SPEED #240
```

Press \[ \text{——} \] or \[ \text{——} \] till “reduced speed”

```
-546   -362 / 9: ZIGZAG ON #636
REDUCED SPEED #241
```

```
546   -362 / 9: ZIGZAG ON #636
START REDUCED SPEED WITH ENTER #161
```

```
-546   -362 / 10: REDUCED SPEED ON #636
```

machine function menu

```
-610   -362 / 13: ZIGZAG OFF #637
SHIFT PARAMETER #248
```

PFAFF 37
Press \( + \) or \( - \) till "shift parameter"

-546  -362 / 10: REDUCED SPEED ON #638
SHIFT PARAMETER: 0 STITCHES #744

Enter

Press \( - \) till -5 ST (= -5 stitches)

Enter

-546  -362 / 10: REDUCED SPEED ON #638
VERSCHIEBE-PARAMETER: -5 ST #744

Press \( \text{ins} \) (diode off)
= basic status mode

Press \( \Rightarrow \) till "zigzag off"

-610  -362 / 13: ZIGZAG OFF #637

Press \( \text{ins} \) (diode lights)
= insert mode

Press \( \text{F2} \) machine function menu

-610  -362 / 13: ZIGZAG OFF #637
SPEED #248

Press \( + \) or \( - \) till "shift parameter"

-610  -362 / 13: ZIGZAG OFF #637
SHIFT PARAMETER #248
Enter

-610 -362 / 13: ZIGZAG OFF #637
ENTER SHIFT PARAMETER: STITCHES #179

Press — till -7 ST (-7 stitches)

Enter

-610 -362 / 13: ZIGZAG OFF #637
SHIFT PARAMETER: -7 STITCHES #744

machine function menu

-610 -362 / 13: ZIGZAG OFF #637
SPEED #240

Press + or — till "reduced speed"

-610 -362 / 13: ZIGZAG OFF #637
REDUCED SPEED #241

Enter

-610 -362 / 13: ZIGZAG OFF #637
STOP REDUCED SPEED WITH ENTER #168

Enter

-610 -362 / 14: REDUCED SPEED OFF #639

Press (diode off)
= basic status mode
Press \[\text{[z]}\] till "line" with the displayed coordinates.

\[-610 \ -1632/ \ 16:\text{LINE} \ #616\]

Press \[\text{ins}\] (diode lights)

= insert mode

Press \[\text{F2}\] machine function menu

\[-610 \ -1632/ \ 16:\text{LINE} \ #616\]

\[\text{SPEED} \ #240\]

Press \[\text{+}\] or \[-\] till "secondary tension"

\[-610 \ -1632/ \ 16:\text{LINE} \ #616\]

\[\text{SECONDARY TENSION} \ #243\]

\[\text{Enter}\]

\[-610 \ -1632/ \ 16:\text{LINE} \ #616\]

\[\text{SECONDARY TENSION ON WITH ENTER} \ #165\]

\[\text{Enter}\]

\[-610 \ -1632/ \ 17:\text{SECONDARY TENSION ON} \ #629\]

\[\text{F2}\]

\[-610 \ -1632/ \ 17:\text{SECONDARY TENSION ON} \ #629\]

\[\text{SPEED} \ #240\]

Press \[\text{+}\] or \[-\] till "shift parameter"

\[-610 \ -1632/ \ 17:\text{SECONDARY TENSION ON} \ #629\]

\[\text{SHIFT PARAMETER} \ #248\]
Enter

-610  -1632/17:SECONDARY TENSION ON #629
ENTER SHIFT PARAMETER: STITCHES #179

Press + or - till "5 ST (=5 stitches)

Enter

-610 -1632/17:SECONDARY TENSION ON #629
SHIFT PARAMETER -5 STITCHES #144

machine function menu

-610 -1632/17:SECONDARY TENSION ON #629
SPEED #240

Enter

-610 -1632/17:SECONDARY TENSION ON #629
SPEED: 4100 RPM #164

Press + or - till 3100 RPM (= 75% of max. speed)

Enter

-610 -1632/18:SPEED #610
SPEED: 3100 RPM #740

machine function menu

-610 -1632/18:SPEED #610
SPEED #240

PFAFF 41
Press (↑ or ↓) till "shift parameter"

```
-610  -1632/  18:SPeed  #610
  SHIFT PARAMETER  #248
```

Enter

```
-610  -1632/  18:SPeed  #610
ENTER SHIFT PARAMETER: STITCHES  #179
```

Press (↓) till -5ST (= -5 stitches)

Enter

```
-610  -1632/  18:SPeed  #610
  SPEED: 3100 RPM / SHIFT PAR: -5 ST.  #740
```

F2  machine function menu

```
-610  -1632/  18:SPeed  #610
  SPEED  #240
```

Enter

```
-610  -1632/  18:SPeed  #610
  SPEED: 3100 RPM  #164
```

Press (↑ or ↓) till 4100 RPM

Enter

```
-610  -1632/  19:SPeed  #610
  SPEED: 4100 RPM  #740
```
Press (diode off) = basic state mode

Press (diode lights) = insert mode

machine function menu

Press + or — till 3100 RPM (=75% of max. speed)

Press + or — till "shift parameter"
-1702/ 21: SPEED #610
ENTER SHIFT PARAMETER: STITCHES #740

Press \( \downarrow \) till -5ST (=5 stitches)

-1702/ 21: SPEED #610
SPEED 3100 RPM SHIFT PARAMETER -5 STITCHES #740

machine function menu

-1702/ 21: SPEED #610
SPEED #240

Press \( \uparrow \) or \( \downarrow \) till 4100 RPM

-1702/ 22: SPEED #610
SPEED 4100 RPM #740

Press \( \text{dio}\) (diode off)
= basic status mode

Press \( \text{coordinate}\) till coordinate X 610; Y -1632.
Press \( \text{ins} \) (diode lights) = insert mode

machine function menu

Press \( + \) or \( - \) till 3100 RPM (75% of max. speed)

machine function menu

Press \( + \) or \( - \) till "shift parameter"

ENTER SHIFT PARAMETER: STITCHES # 179
Press + or - till -5ST (= -5 stitches)

machine function menu

Press + or - till 4100 RPM

machine function menu

Press + or - till “secondary tension”
610 -1632/ 25: SPEED #610
STOP SECONDARY TENSION WITH ENTER #366

Press \(\text{on}^\text{on}\) (diode off)
  = basic status mode

Press \(\rightarrow\rightarrow\) till coordinates x 546; Y-362.

546 -362 / 29.ZIGZAG ON #636

Press \(\text{on}^\text{on}\) (diode lights)
  = insert mode

machine function menu

546 -362 / 29.ZIGZAG ON #636
SPEED #240

Press ++ or -- till "shift parameter"

546 -362 / 29.ZIGZAG ON #636
SHIFT PARAMETER #248

Enter

546 -362 / 29.ZIGZAG ON #636
ENTER SHIFT PARAMETER: STITCHES #179

Press \(\rightarrow\rightarrow\) till -7ST (= -7 stitches)
machine function menu

Press \( \frac{+}{-} \) or \( \frac{-}{+} \) till "reduced speed"

machine function menu

Press \( \frac{+}{-} \) or \( \frac{-}{+} \) till "shift parameter"
Press \( \text{-} \) till -5ST (= -5 stitches)

Press \( \text{on} \) (diode off)
   = basic status mode

Press \( \rightarrow \) till coordinate X 610.

Press \( \text{on} \) (diode lights)
   = insert mode

machine function menu

Press \( + \) or \( \text{-} \) till "reduced speed”
Press \[ \text{on} \] (diode off)
- basic status mode

finish programming

610 -362 / 34: REDUCED SPEED OFF #639
CREATE STITCH DATA WITH "+" #400

STITCH GENERATION IN PROGRESS #401

PROGRAMMING DISPLAY SWITCHED OFF #106
Change jig code

For changing a code number which is in an existing sewing program without changing the program number.

The programming device is ready for corrections in accordance with section 2.

Press  till "jig code:0 (*.--* *-**)"

change jig code with  or  .

CREATE STITCH DATA WITH "+"  #400
STITCH GENERATION IN PROGRESS  #401

PROGRAMMING DISPLAY SWITCHED OFF  #106
Programming example of a complex seam

programming pattern: sketched pattern (1:1) or drawing with coordinates of machine zero point.

In the example shown, a complex seam will be programmed into the pattern programmed in section 8 and then copied in the menu "block" and added to the right hand side of the pattern.

The programming field is switched on and the applicable program number is entered.

cycle through the pattern with \( \Rightarrow \) until you reach section number 35: cut thread.

\[
610 \quad -362 \quad / \quad 35.CUT.THRD \quad \#601
\]

Press \( \text{Ins} \) (diode on)

\( \Rightarrow \text{ insert mode} \)

\( \Rightarrow \) insert fast slew

With \( \text{Enter} \), \( \text{Forward} \), \( \text{Down} \) and \( \text{Up} \) move to the beginning of the complex seam

(in example X= -553, Y= -517)

\[
-553 \quad -517 \quad / \quad 35.CUT.THRD \quad \#601
\]

ENTER FAST SLEU END POINT \( \#63 \)

\[
-553 \quad -517 \quad / \quad 6.FAST.SLEU \quad \#614
\]

start sewing

\[
-553 \quad -517 \quad / \quad 37.START.SEWING \quad \#606
\]

graphic menu

\[
-553 \quad -517 \quad / \quad 37.START.SEWING \quad \#606
\]

STANDARD STITCH LENGTH \( \#200 \)

Press \( \text{+} \) or \( \text{-} \) till "stitch length"
select desired stitch length of the complex seam with \( + \) or \( - \) (e.g. 2.00 mm)

Move to line end point 1 seam with \( \leftarrow \), \( \rightarrow \), \( \downarrow \) and \( \uparrow \). (in example X= -513, Y= -447)

Move to line end point 2 seam with \( \leftarrow \), \( \rightarrow \), \( \downarrow \) and \( \uparrow \). (in example X= -553, Y= -437)
Move to line end point 3 seam with ⬅️➡️⬇️↑️.
(in example X = -593, Y = -477)

Move to line end point 4 seam with ⬅️➡️⬇️↑️.
(in example X = -553, Y = -517)

LINE END POINT

-593  -477 / 41:LINE  #616
#151

-553  -477 / 42:LINE  #616
#151

line off (diode off)

graphic menu

Press ➕ or ➖ till “circle”

-553  -477 / 42:LINE  #616
CIRCLE  #203

Move to circle point 1 with ⬅️➡️⬇️↑️.
(in example X = -513, Y = -557)
Move to circle point 2 with ←, →, ↓, and ↑. (in example X = -553, Y = -597)

carriage moves to circle end point (= circle start point)

cut thread

Press (diode off) = basic status mode

Cycle complex seam backwards till section number 36: fast slew with .

block

Press (diode off) = basic status mode

Cycle complex seam backwards till section number 36: fast slew with .

block
Cycle complex seam forwards till section number 46: cut thread with block.

Press + or - till "mark end of block"

The block is marked.

When cycling through the pattern, the marked block can be recognized by the asterisk (*) in the display.

Press \[ \text{insert mode} \]

Insert fast slew

Move to seam start of the opposite complex seam with \[ \text{and } \]

(in example X= -553, Y= -517)

block
Cycle through pattern till section number 60: end of program with 🔄

Press 💯 (diode off)
= basic status mode

stop programming

CREATE STITCH DATA WITH "*" #400

STITCH GENERATOR IN PROGRESS #401

PROGRAMMING DISPLAY SWITCHED OFF #106