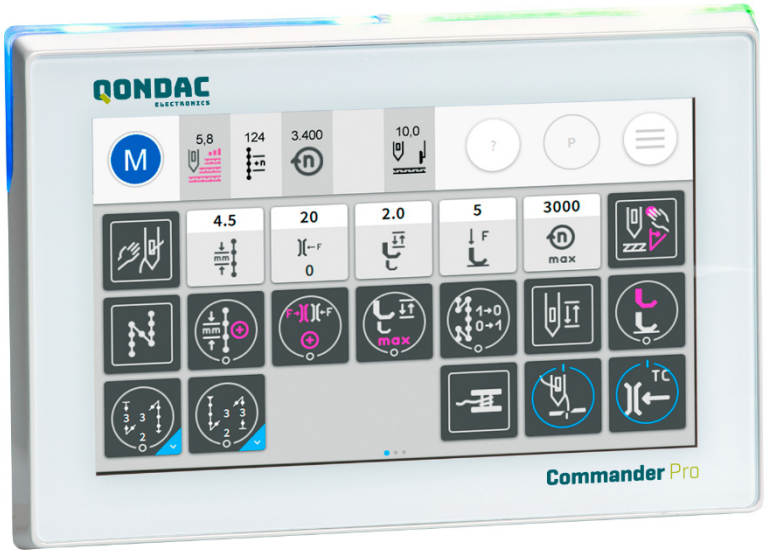
M-TYPE PREMIUM

COMMANDER



USER TRAINING

Agenda Operator Training - 2 days (DAY 1)

09:00 - 09:15	Introduction, Overview of training program
09:15 - 10:00	Presentation of advantages and differences vs traditional machine (CLASSIC)
	New features and functions
	Advantages, Opportunities for customer
10:00 - 10:30	Machine Components
	• Explication
	• Differences vs CLASSIC machine
10:30 - 10:45	Break
10:45 - 12:15	Push Buttons
	• Function Explication
	• Favourite Button
	Control Panel Commander Pro / Commander Basic
	• Navigation
	• Explication of the Main screen
	• Explication of the function tiles
12:15 - 13:15	Lunch

Agenda Operator Training - 2 days (DAY 1)

13:15 - 13:45	Operating modes, explication
	Manual Mode
	• Configuration of the main screen and status bar
	• Description of the help button
	• Explication of the parameter view
	• Explication and settings of start and end backtack
	• Exercise: Sewing in manual mode and backtack with pedal stop
14:00 - 14:45	• Explication of the function material thickness detection, specific settings
	• Exercises: Parameter settings, changing between the 1st and 2nd parameter values of base parameters
	• Explication of the navigation menu
14:45 - 15:00	Break

Agenda Operator Training - 2 days (DAY 1)

15:00 - 16:15	Automatic mode
	• Explication of mode and seam program
	• Explication of the main screen and program selection
	• Explication of the correction factors
	• Exercises: Sewing in automatic mode, select a predefined program, identify and modify parameter settings
16:15 - 16:45	Conclusion, Questions

Agenda Operator Training - 2 days (DAY 2)

09:00 - 09:30	Recapitulation of the 1st day
	Questions
09:30 - 10:30	Programming
	• Explication of program management
	• Edit a program
	• Settings of base parameters
	• Explication of global program parameters
	• Explication of specific parameters in the seam section
	• Explication of additional parameters in automatic mode (Segment end modes, stitch counting)
10:30 - 10:45	Break
10:45 - 12:15	• Automatic mode – Main screen
	• Modify a program
	• Exercises: Modification of parameter settings, sewing in automatic mode, get used to navigation in the different menu levels
12:15 - 13:15	Lunch

Agenda Operator Training - 2 days (DAY 2)

13:15 - 14:45	Programming Mode, creation of programs
	• Create a new program
	• Exercises: Creation of simple programs
14:45 - 15:00	Break
14:30 - 16:15	Programming Mode (cont.)
	Exercises: • Creation of complex programs comprising multiple seam sections, forward/backward sewing in program, parameter settings in program
16:15 - 16:45	Conclusion, Questions

Why M-TYPE PREMIUM?

- Productivity
  - Higher efficiency due to programming functionality / increased no. of operations per machine.
- Better Quality Results
  - Automatic and more precise adjustment / finer calibration tuning
  - Facility to reproduce parameter settings (more precise results)
  - Impressive new features and settings not feasible with traditional machine
- Saving Time
  - Rapid variation between programs
  - Reduced machine set-up times
- Flexibility
- Positive impact on environment
  - No compressed air needed (except some optional equipment)
- Universal and identical installation of software/programs
  - Quick and easy program transfer with USB
  - M2M (data transfer through network, LAN or WLAN)

Differences PREMIUM vs. CLASSIC

NEW

- Digital function control with panel Commander Pro
- Reproducible and reusable parameter adjustment
- Creation of automated programs
- Automation of seam sections
- End backtack settings can vary from adjustments of start backtack
- Sewing foot lift height adjustment (max. 20 mm)
- Automatic material thickness detection
- Jog Dial (electronic handwheel)

Video

Footstroke

Advantages/Opportunities

Problem:

- Small volume lot sizes
- Numerous models
- Dynamic model line

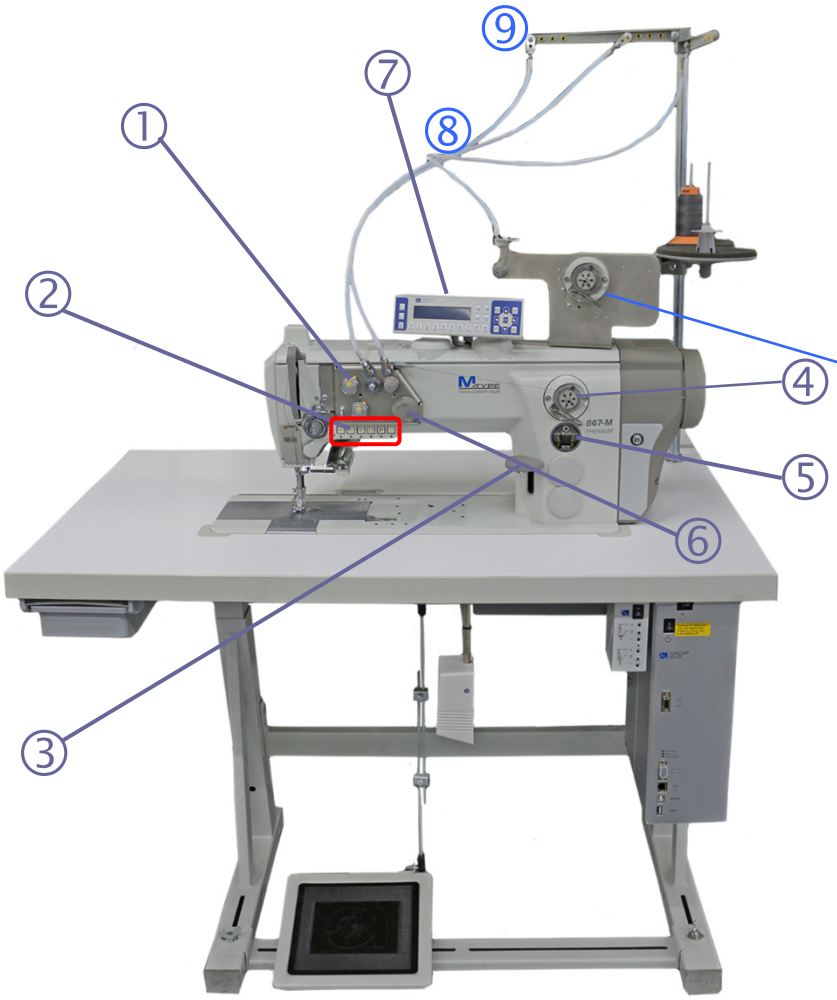
→ long setup times

Solution/Opportunity:

- Programmable sewing machine
- Execution of different seam operations using the same machine

M-TYPE PREMIUM
Operation panel Commander Basic / Commander Pro

Machine Components



(1) Programmable thread tension

(2) Push buttons

(3) Stitch adjustment lever

(4) Bobbin winder /
(4a) motorized winder

(5) Oil level indicator

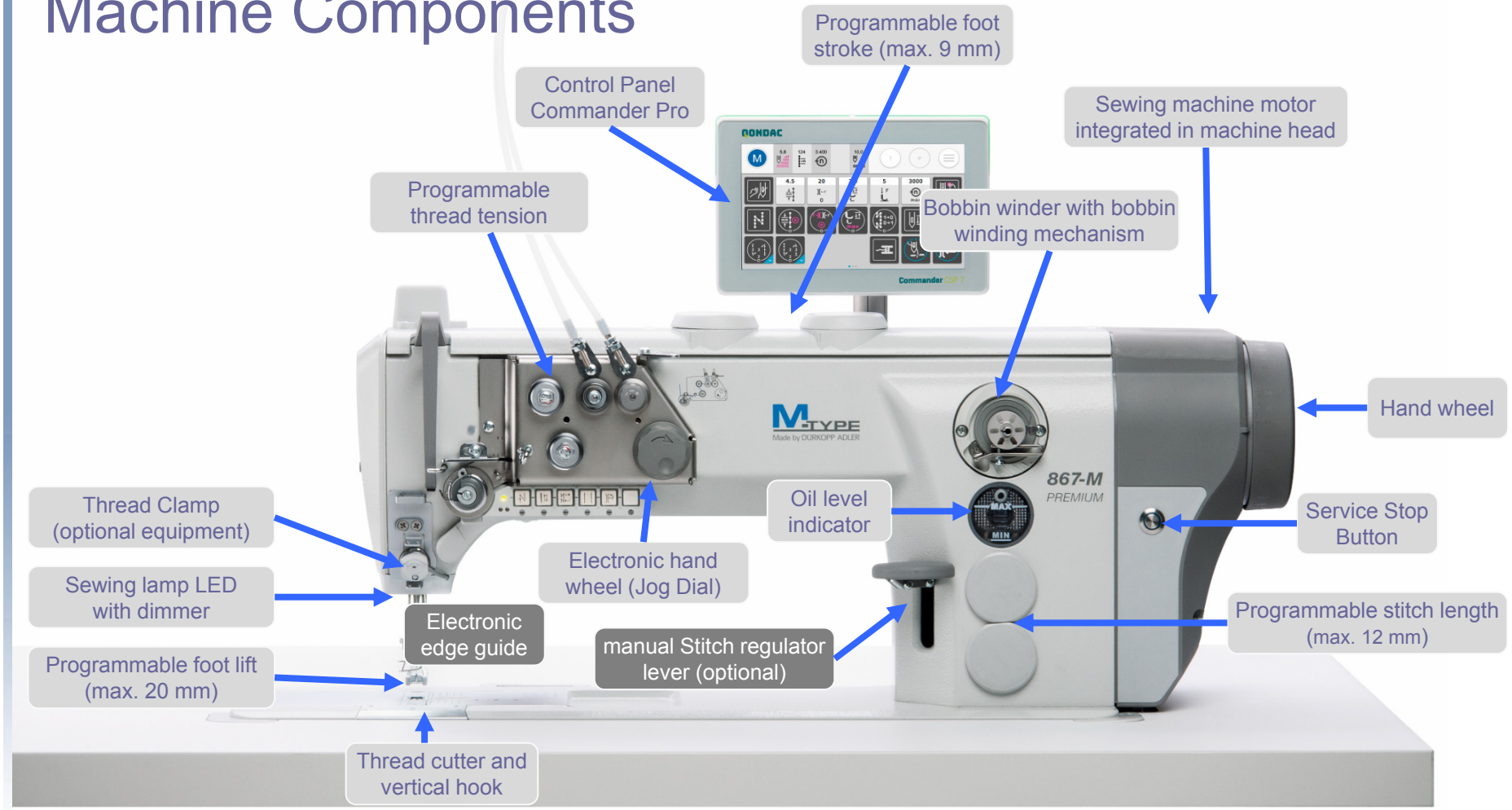
(6) Jog Dial (electronic hand wheel)

(7) Control panel OP3000 (standard)
Optional Commander Basic / Pro

(8) Hose guide

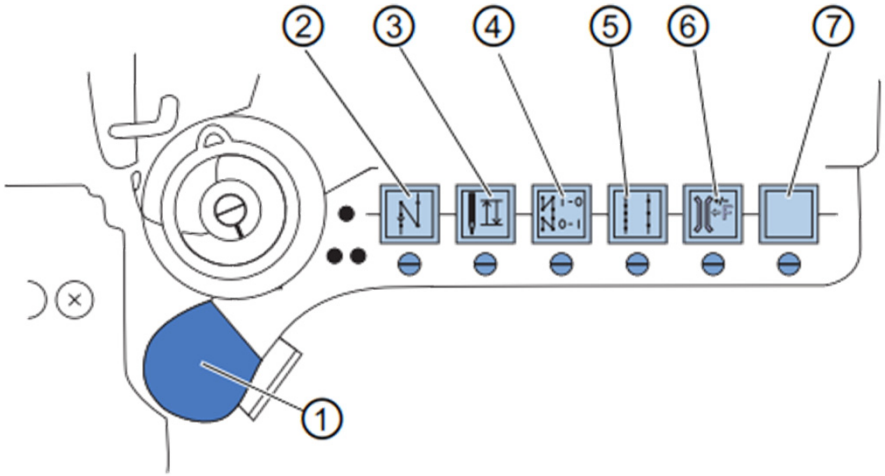
(9) Thread guide

Machine Components



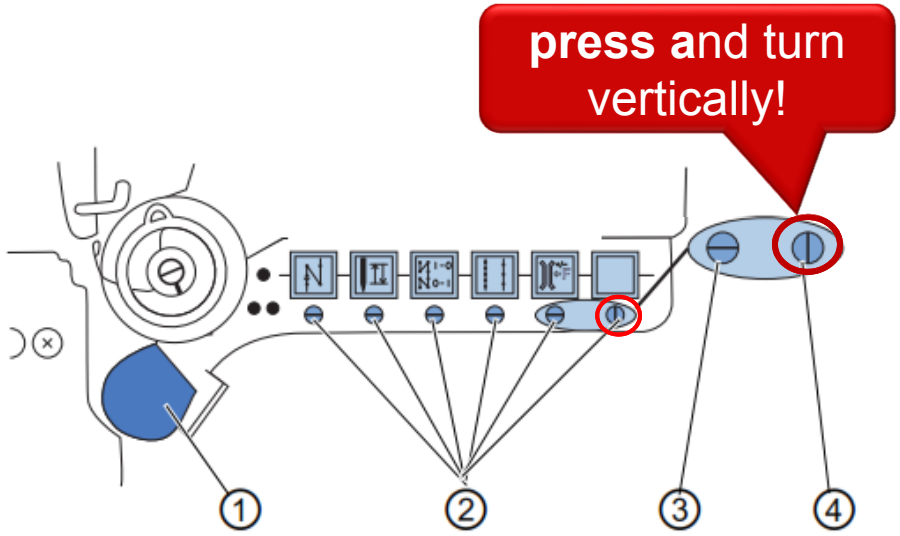
Push buttons (soft keys)

Function Buttons



(1) - Favorite button
(2) - Sewing backwards
(3) - Needle position
(4) - Start bartack/end bartack
(5) - Stitch length preselection
(6) - Auxiliary thread tension
(7) - fully customizable button

Favorite Button



(1) - Favorite button
(2) - Screws
(3) - Initial position
(4) - Screw vertical

M-TYPE PREMIUM
Operation panel Commander Basic / Commander Pro

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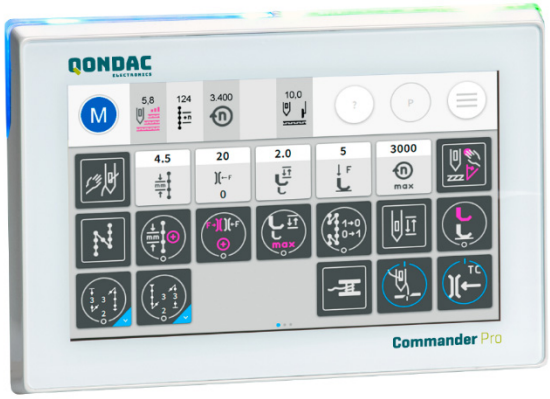
Operation panel Commander Basic / Commander Pro

Commander Basic:

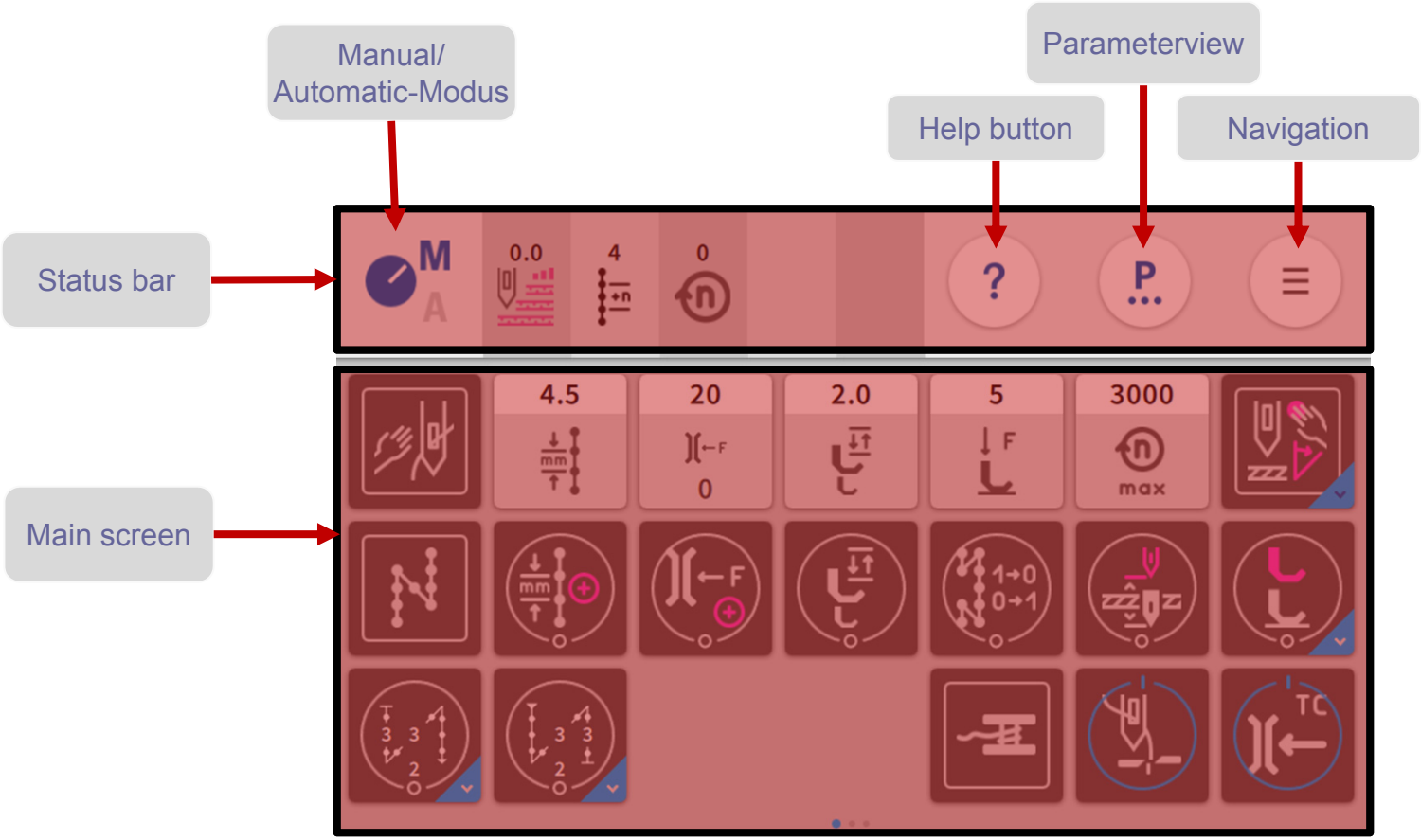
- 7” touch screen
- 4 GB Internal storage capacity
- Media formats: PDF / WebM VP8
- LED status indicator
- 2 USB ports

Commander Pro:

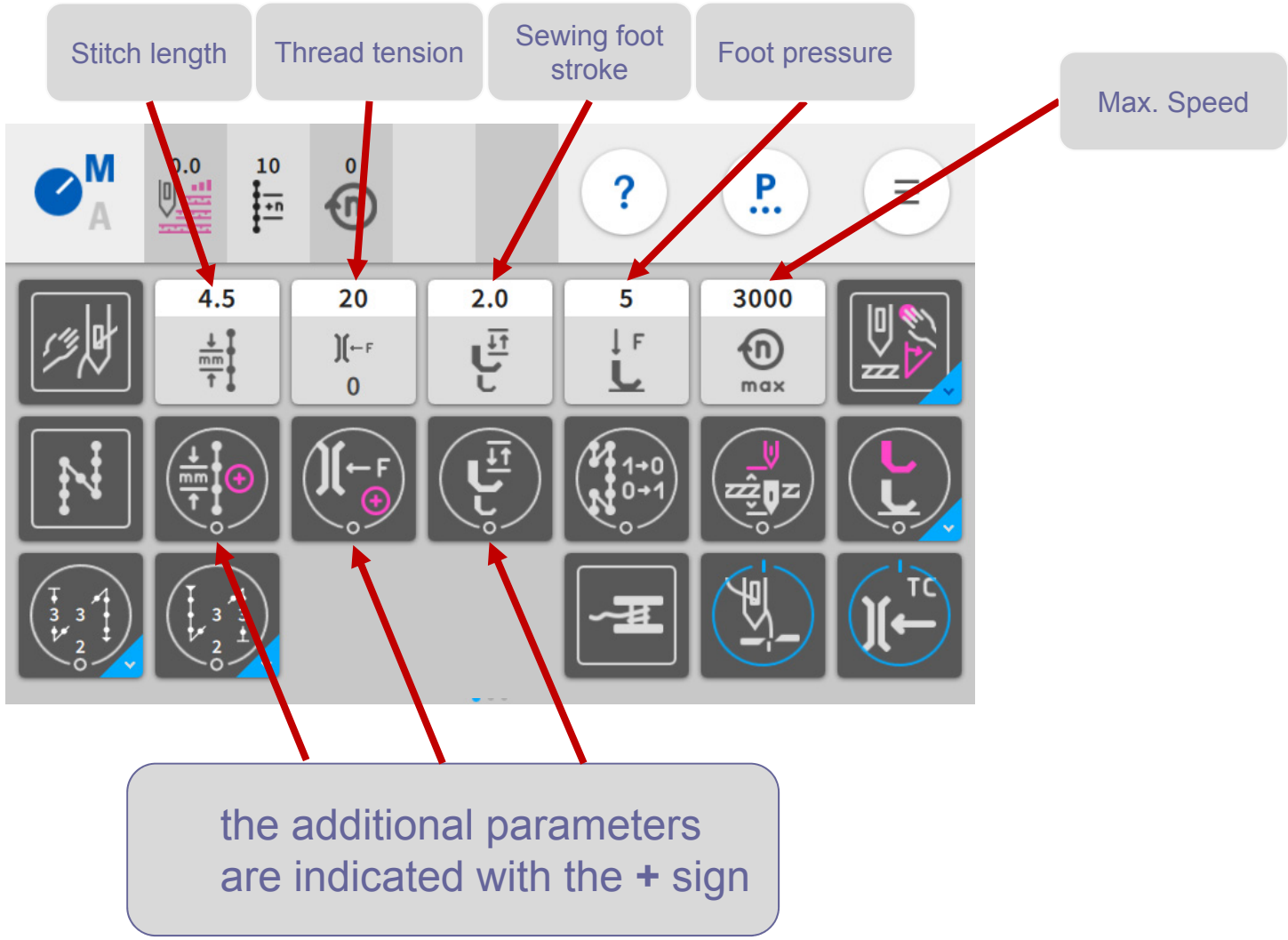
- In addition to the basic features, the Commander Pro has an Ethernet interface (for easy communication with QONDAC) and an NFC-module



Main screen – Manual Mode

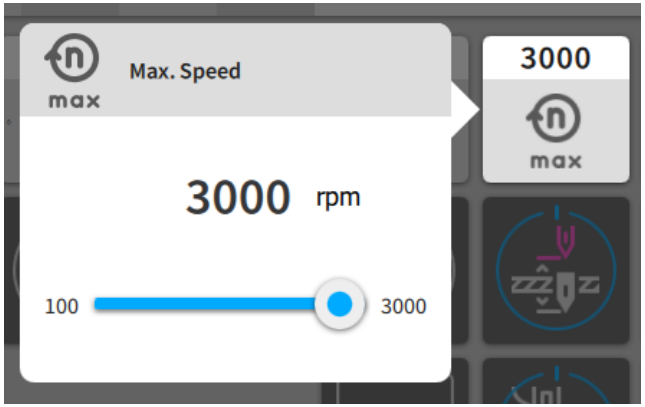


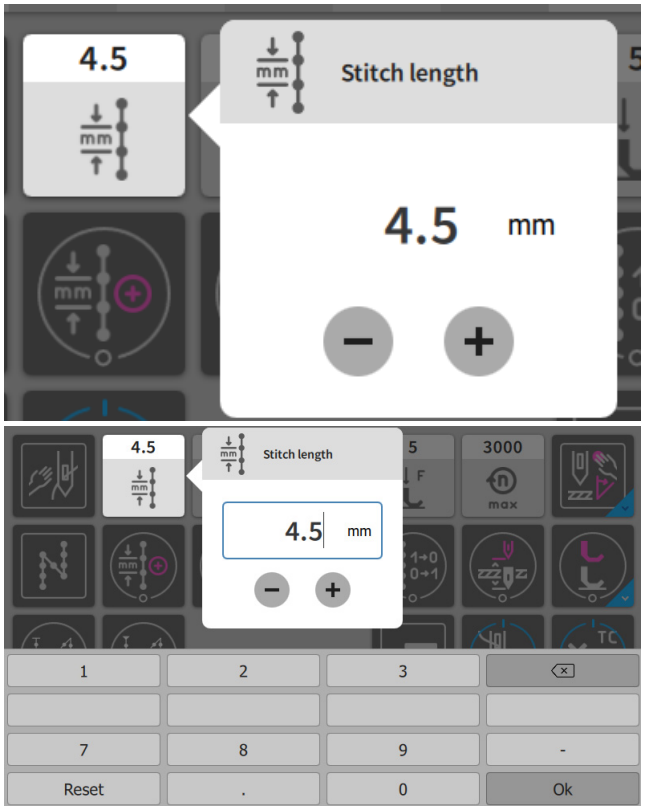
Commander Basic / Pro – Main screen



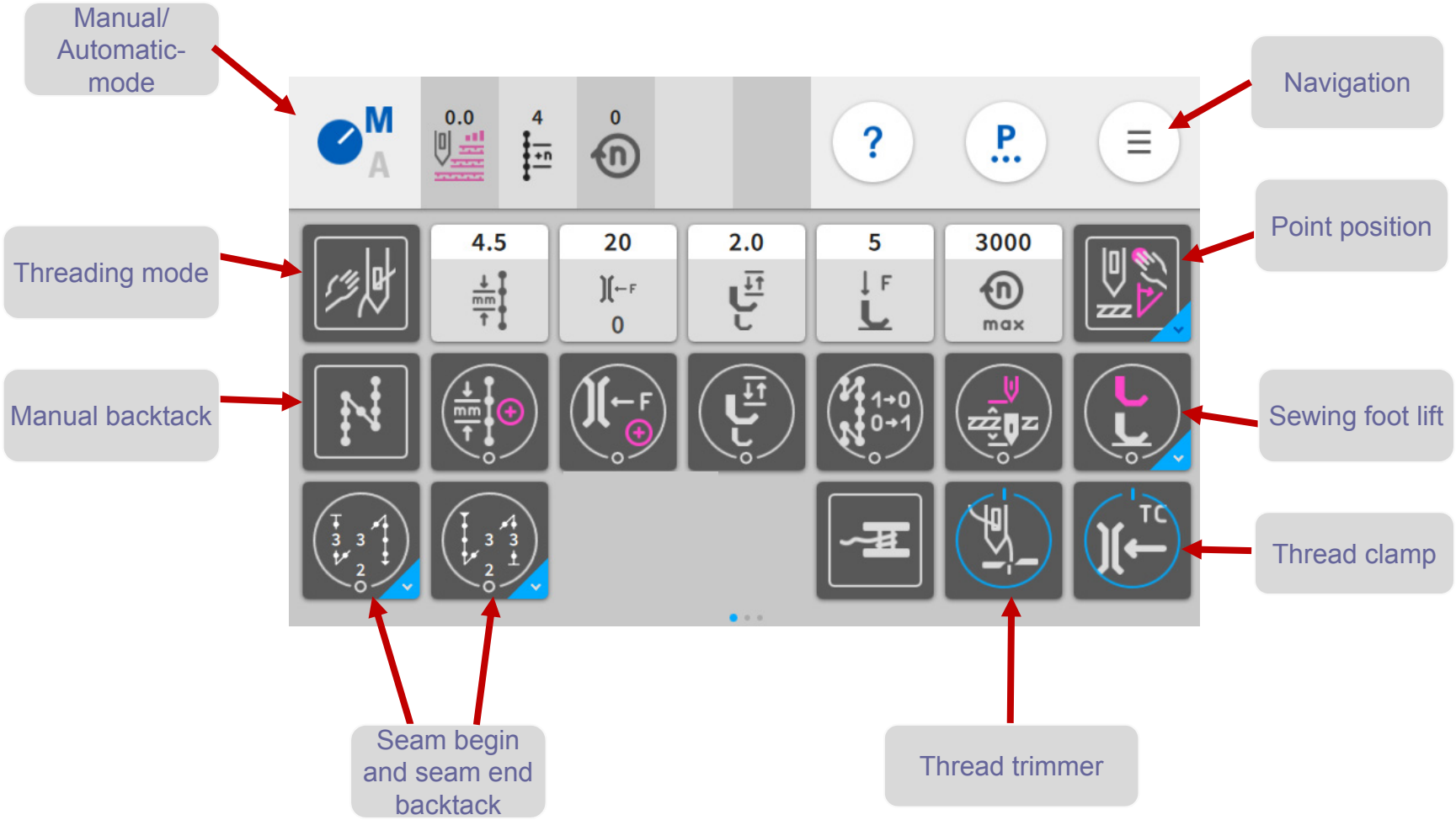
Value Tiles with popover menu

- Settings of parameters which are used often (light grey buttons)
- Adjustment in steps (plus and minus button), overwriting the value directly or continuous adjustment (Slide bar)





Functional Tiles (resting/tentative) – Freely configurable



HS1 neuer Screenshot mit 0 Stichen benötigt
Henrik Schuette; 06.02.2019

Multi-Functional Tiles with popover menu

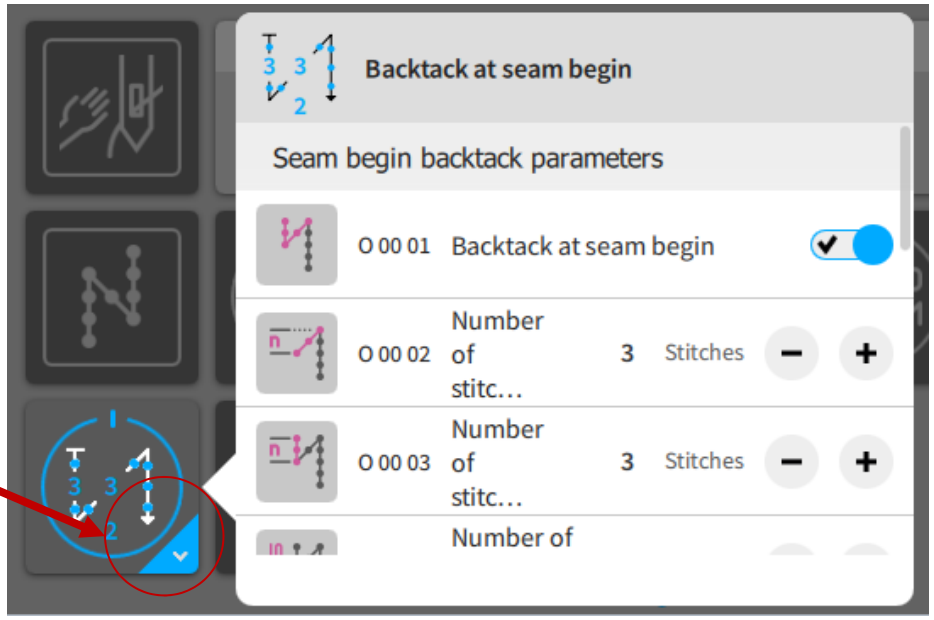
- SingleTap

On

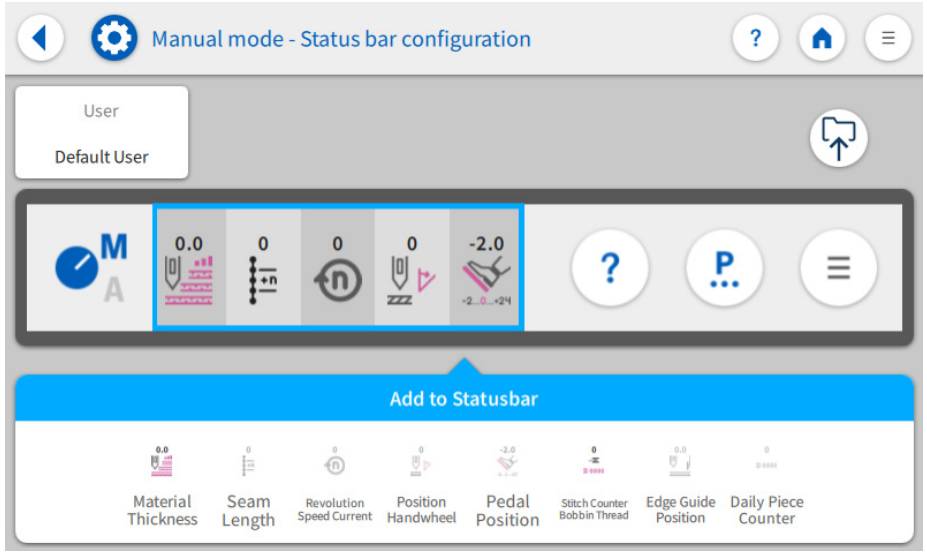
Off

- Longpress
  (1s press and hold)
  Opening of backtack popover

Indicator for Longpress-Popover



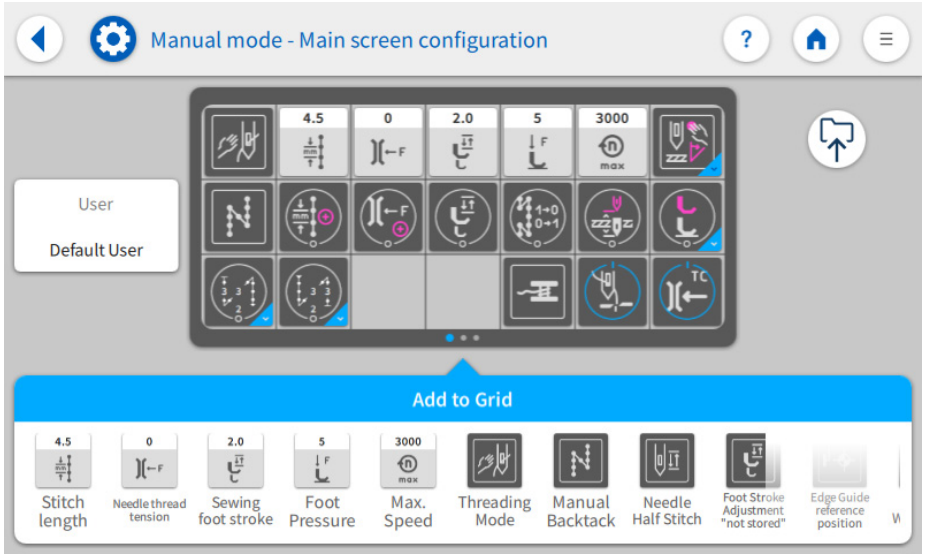
Status bar - Configuration



Select tiles via Drag and Drop

- Material thickness
- Seam length (Number of stitches)
- Speed
- Handwheel position
- Pedal position
- Stitch Counter Bobbin Thread
- Edge Guide Position
- Daily Piece Counter

Main screen - Configuration



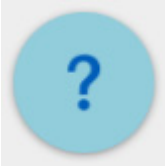
Select tiles via Drag and Drop

- Freely configurable
- 3 pages
- Every user can configure his own main screen
- Function tiles for each function

Help Button

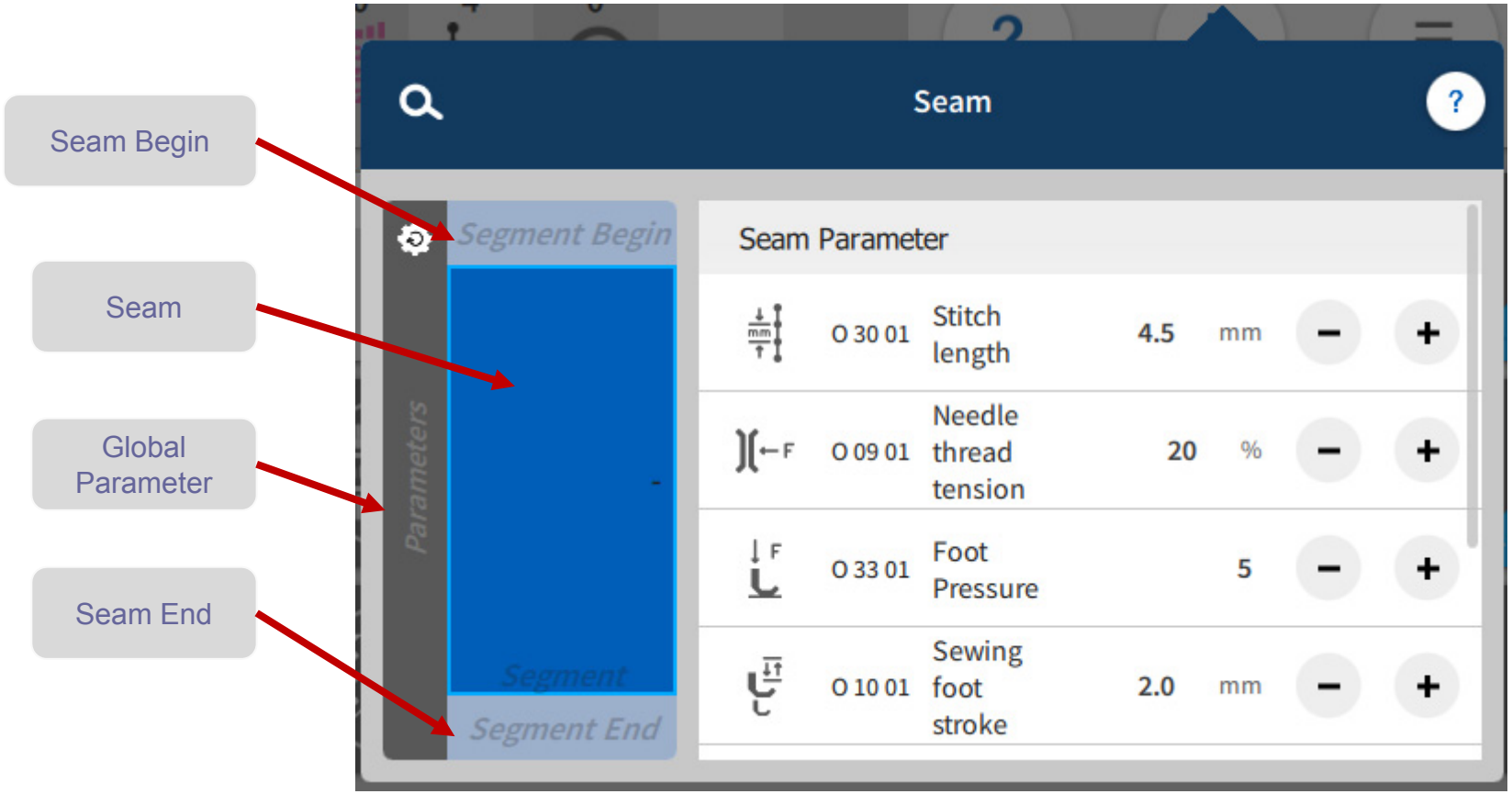
Help Button

Single Tap: Help mode is actived for single function.
Next tap opens an information advice.
Closing of the information window deactivates the help button.

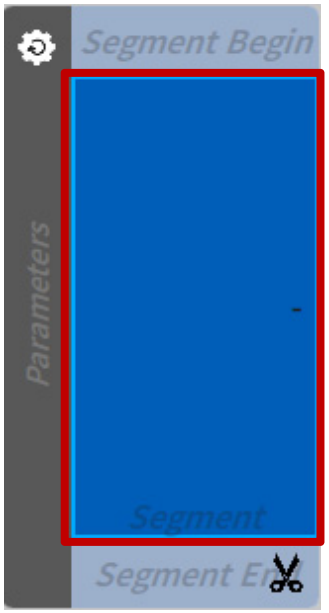


Long Press: Demo mode
No automatical deactivation of the help button after closing of information advice.
Every following tap on functions opens information advices.

Parameter view

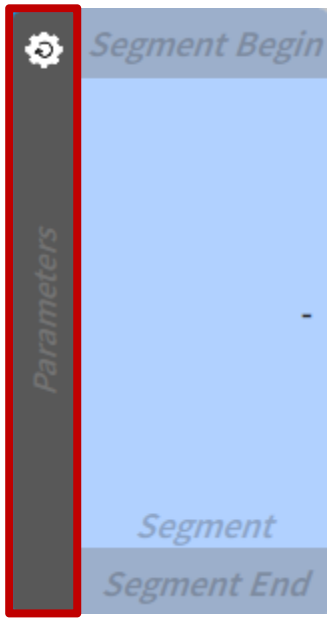


Parameter view – Segment



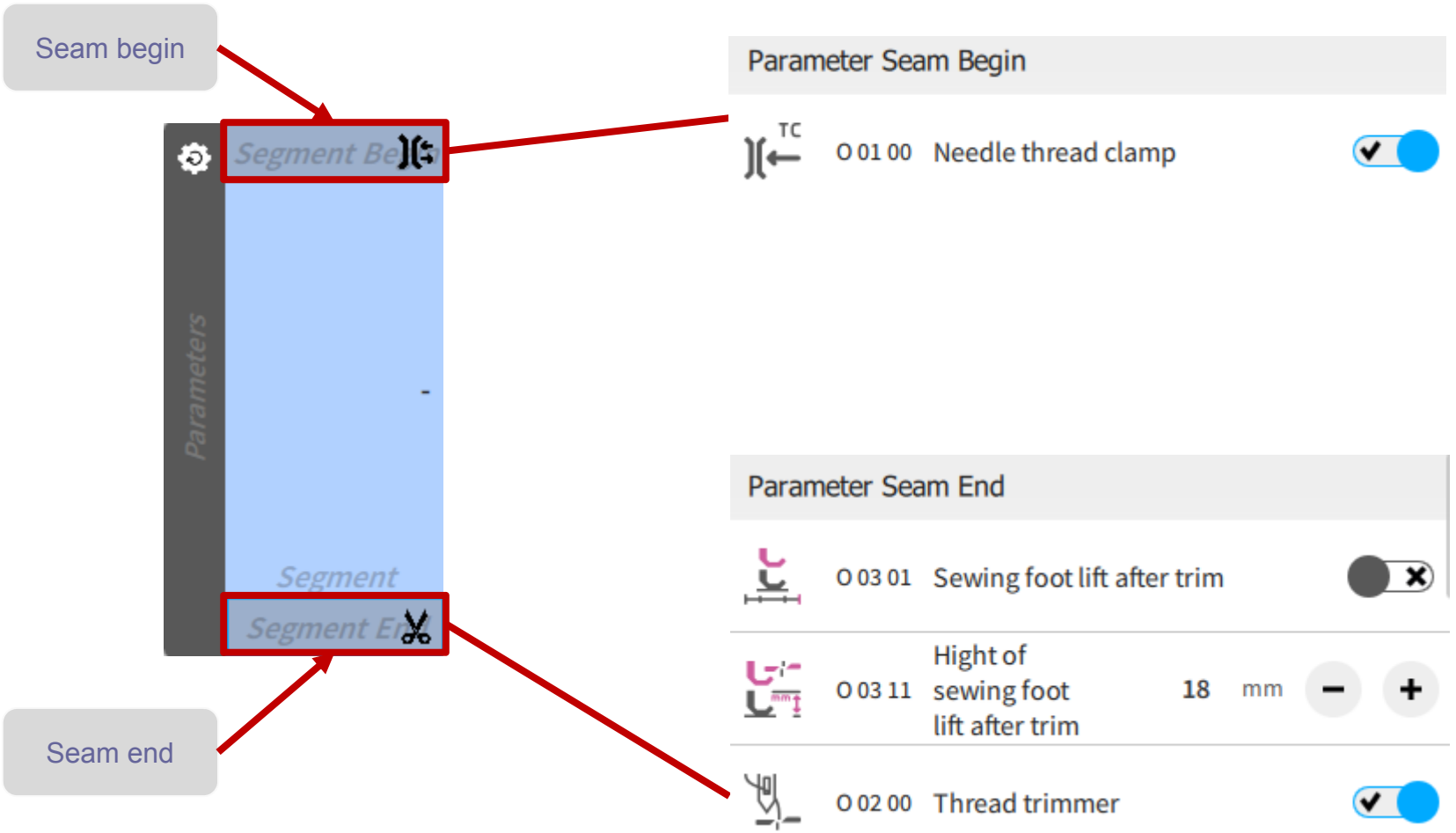
Seam Parameter					
O 30 01	Stitch length	4.5	mm	−	+
O 09 01	Needle thread tension	20	%	−	+
O 33 01	Foot Pressure	5		−	+
O 10 01	Sewing foot stroke	2.0	mm	−	+
O 08 00	Max. Speed	3000	rpm	−	+
O 03 00	Sewing foot lift at stop				
O 03 10	Hight of sewing foot lift at stop	18	mm	−	+

Parameter view – Parameter

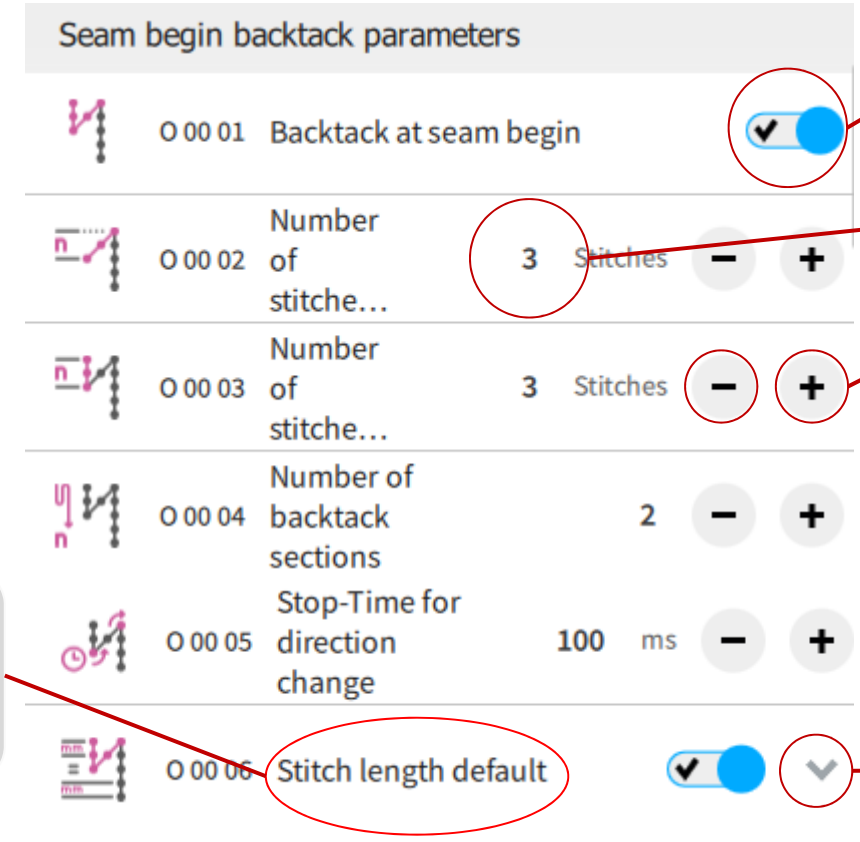


- Additional values (+)
  - Stitch length
  - Sewing foot stroke
  - Needle
- Main parameter
  - Bobbin monitor mode
  - Point position
- Correction speed effect
- Correction material thickness effect

Parameter Seam begin / Seam end



Settings seam begin backtack / seam end backtack



On/Off

Single tap onto value opens numerical keyboard

Increase or decrease value

If the function „Stitch length default“ is activated, the same stitch length is used in the backtack as in the seam

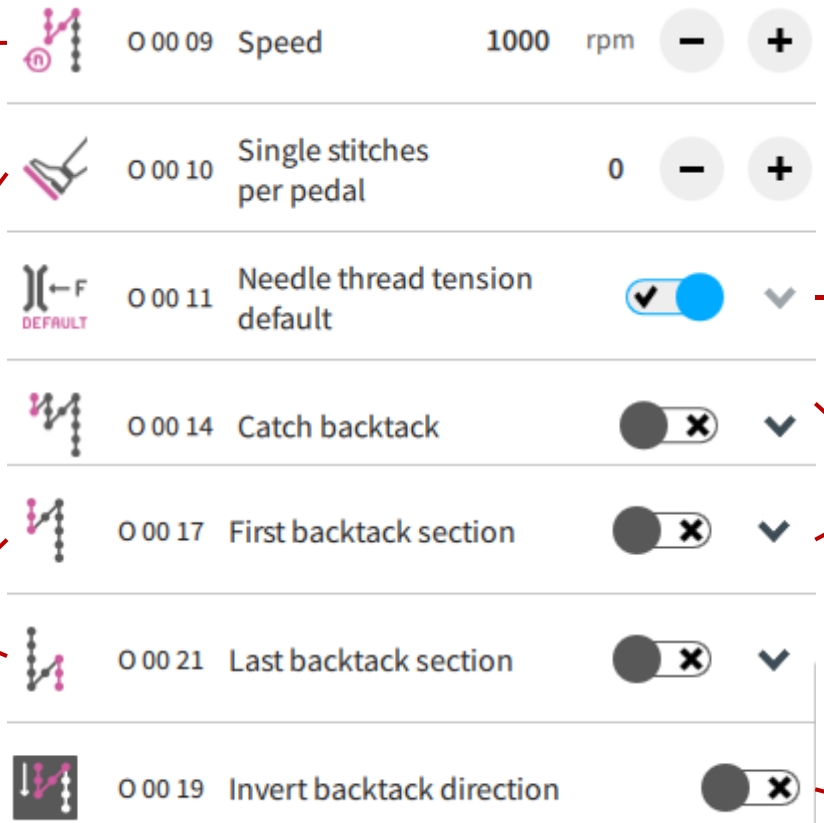
Indicator for Drop-Down menue, opens further settings

Settings backtack

Speed of automatical backtack

Single stitches per pedal during backtack
0 = Off
1 = Single stitches with backtack speed
2 = Single stitches with pedal-dependent sewing speed

Modification of number of stitches in first or last backtack section

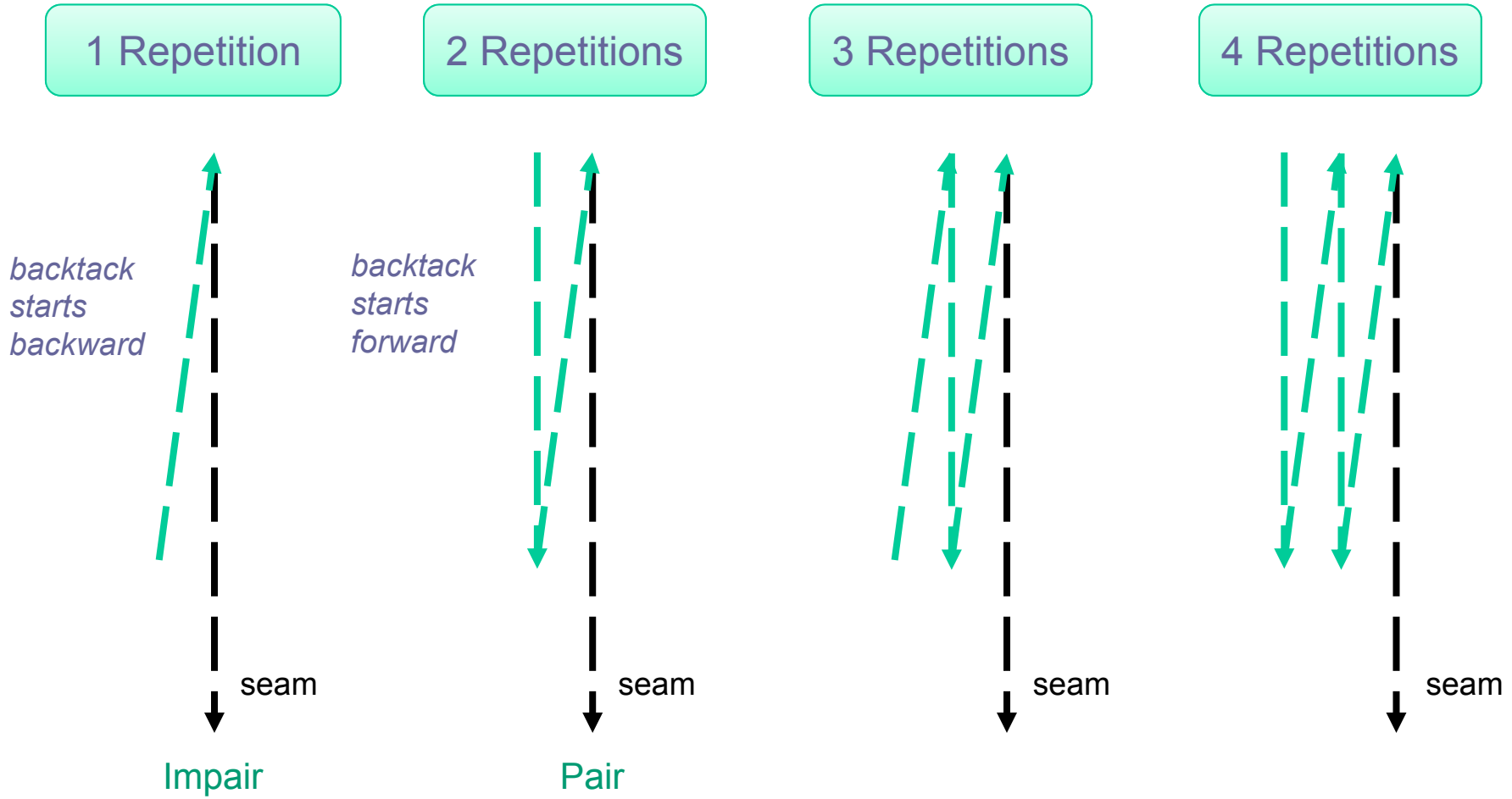


If the function „Needle thread tension default“ is activated, then the same tension is used in the backtack as in the seam

Additional backtack sequence before proper backtack

Invert the direction of the backtack

Start backtack - Repetitions



Exercise: Sewing in Manual Mode, other parameters

Pre-setting in Manual Mode

- modify the base parameters:
  - stitch length 5.0 mm
  - needle thread tension 25%
  - sewing foot pressure 5
  - sewing foot stroke 1,5 mm
- modify the other parameters
  - Thread Trim active On
  - Start bartack active (On)
    - Number of backward stitches (3 points)
    - Number of forward stitches (3 points)
    - **St.Len.Def** – Default stitch length active (On)
  - End bartack active (On)
    - Number of backward stitches (4 points)
    - Number of forward stitches (4 points)
    - **St.Len.Def** – Default stitch length inactive (Off)
      - backward stitch length (2.5 mm)
      - forward stitch lengths (2.5 mm)
  - Gap (edge guide): 10 mm

During sewing process

- start sewing
  (automatic start backtack)
- activate/deactivate the auxiliary values:
  - activate 2nd stitch length
  - activate 2nd foot stroke
  - activate 2nd thread tension
  - deactivate the secondary values
- interrupt the sewing process (pedal)
  - lift your foot from pedal
  - continue sewing process / resume
- stop sewing, end of seam (pedal -2)
  (automatic end backtack)

Exercise: Backtack with Pedal Stop

Adjustment of backtacks

- other parameters
- Start backtack active (On)
  - Number of backward stitches (3 points)
  - Number of forward stitches (3 points)
  - St.Len.Def – Default stitch length active (On)
  - reduced Speed: 200
  - Pedal Stop active (On)
- End backtack active (On)
  - Number of backward stitches (3 points)
  - Number of forward stitches (3 points)
  - St.Len.Def – Default stitch length active (Off)
    - Backward stitch length (3 mm)
    - Forward stitch length(3 mm)
  - reduced Speed: 200
  - Pedal Stop active (On)

During sewing process

- start sewing
  (automatic start backtack)
- **interrupt the sewing process** (pedal)
  - lift you foot from pedal
- **continue sewing process /** resume
- **stop sewing**, end of seam (pedal -2)
  (automatic end backtack)

With Pedal Stop you can stop sewing during bartack execution.

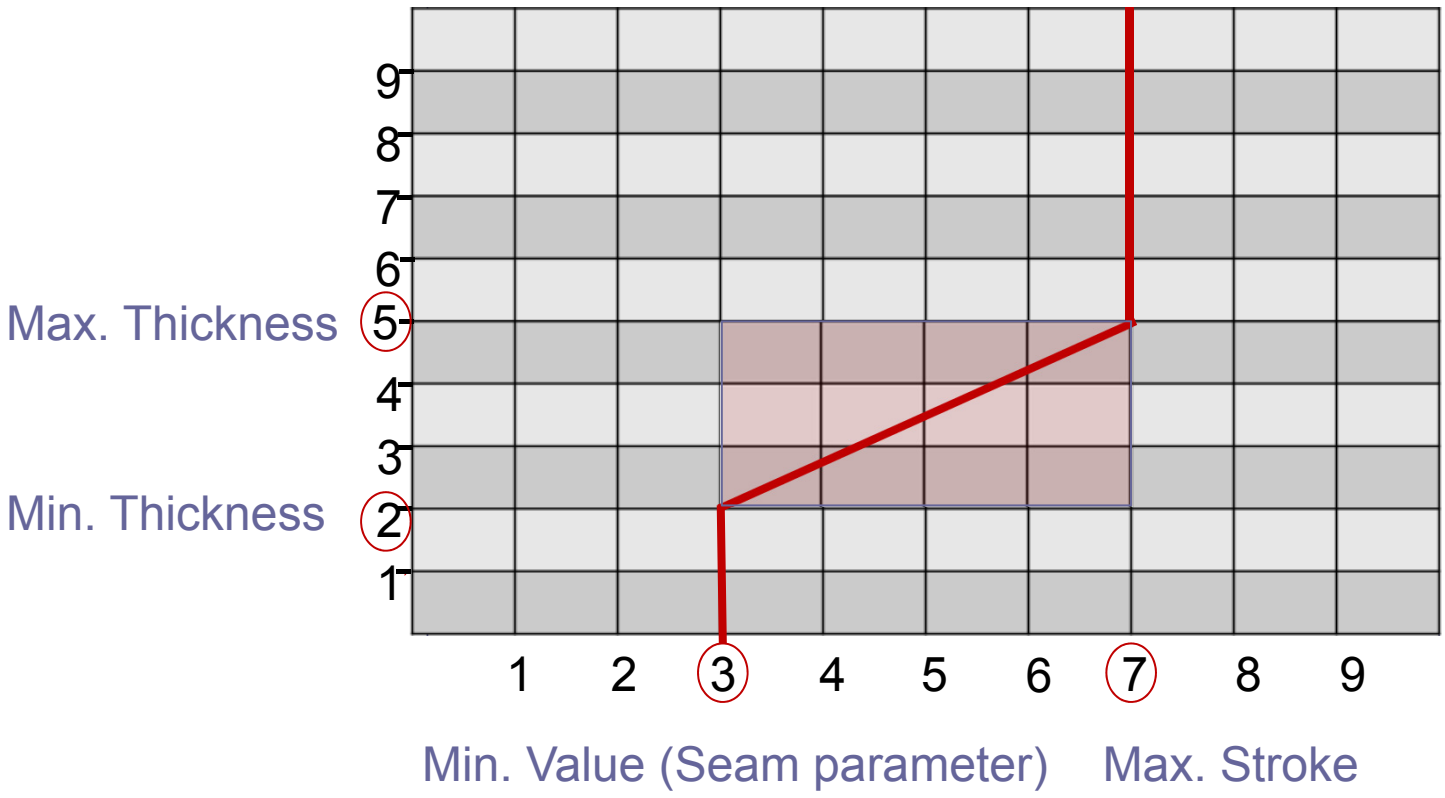
Parameter Material thickness detection

Goal:
consistent good sewing results

Material Thickness Detection

- Material thickness detection On/Off
  - Sewing foot stroke
  - Stitch length
  - Needle thread tension
  - Sewing foot pressure
  - Max. Speed – Maximum speed
- Modes
  - linear
  - 2. Value On/Off
  - 2. Value On

Example: Material thickness - Foot Stroke



Exercises: Adjustment Material thickness detection

Mode linear

- Active (On)
- **Stroke**
  - **Mode linear**
  - Sewing foot stroke 8.0
  - Min. Material thickness 2.0 mm
  - Max. Material thickness 5.0 mm
- **Stitch length**
  - **Mode linear**
  - Stitch length (10 %)
  - Min. Material thickness 2.0 mm
  - Max. Material thickness 5.0 mm

Mode 2. Value On/Off

- **Stitch length**
  - Mode 2. Value On/Off
  - Min. Material thickness 3.0 mm

Mode 2. Value On

- **Stitch length**
  - Mode 2. Value On
  - Min. Material thickness 2.0 mm

Exercise: Sewing in Manual Mode, Gap and Gap+

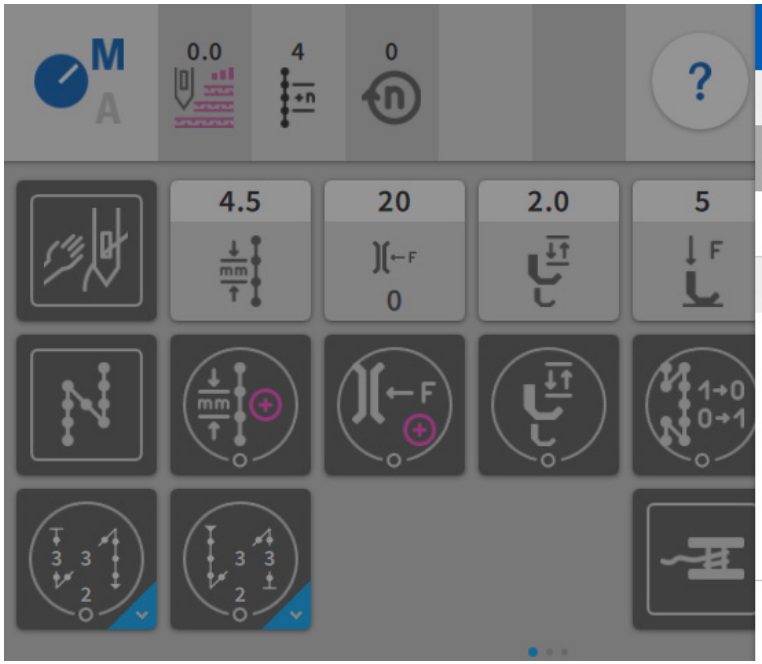
Pre-setting in Manual Mode

- modify the base parameters :
  - stitch length 3.8 mm
  - thread tension 25%
  - sewing foot pressure 5
  - sewing foot stroke 3 mm
- modify the other parameters
  - Thread trimmer active (On)
  - Backtack at seam begin active (On)
    - Number of stitches backward (3 points)
    - Number of stitches forward (3 points)
    - Stich length default active (On)
  - End backtack active (On)
    - Number of backward stitches (3 points)
    - Number of forward stitches(3 points)
    - Stich length default active (On)
  - Gap (edge guide): 10 mm
- adjust the additional values:
  - 2nd stitch length 6.0 mm
  - 2nd thread tension 30%
  - **2nd gap (edge guide distance) 20 mm**

During Sewing Process

- start sewing
  (automatic start backtack)
  - activate/deactivate the additional values
    activate 2nd stitch length
  - activate 2nd foot stroke
  - activate 2nd thread tension
  - **activate 2nd gap (gap+)**
  - deactivate the secondary values
- stop sewing, end of seam (pedal -2)
  (automatic end backtack)

Navigation Mode



Program-Management to create, delete, copy or edit programs

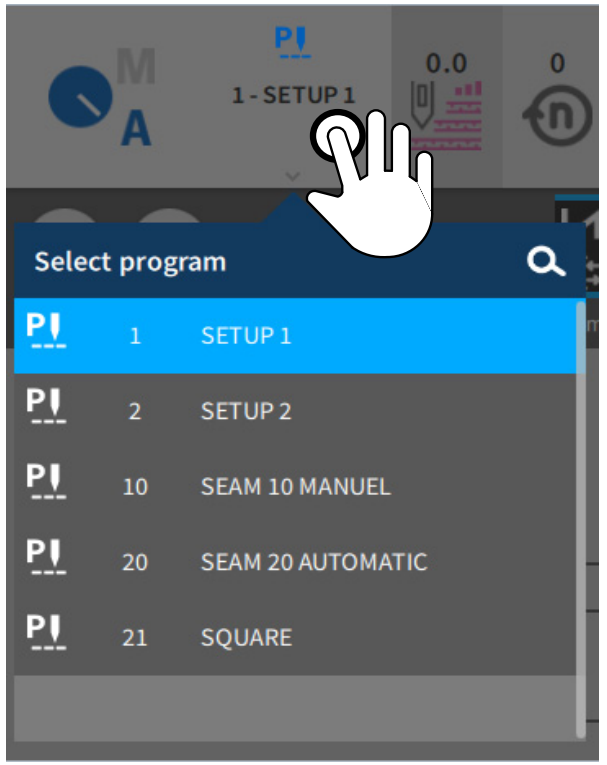
All types of settings (depends of access level)

Tutorials: PDFs and videos

Logout and opening of Login-Screens

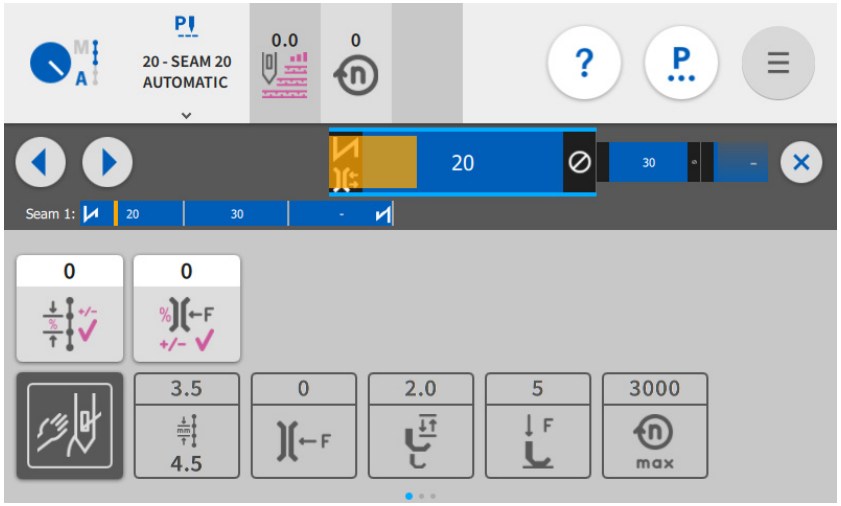
Automatic mode

- Program selection
  - Select from the program list or search for the right program by clicking on the magnifying glass.



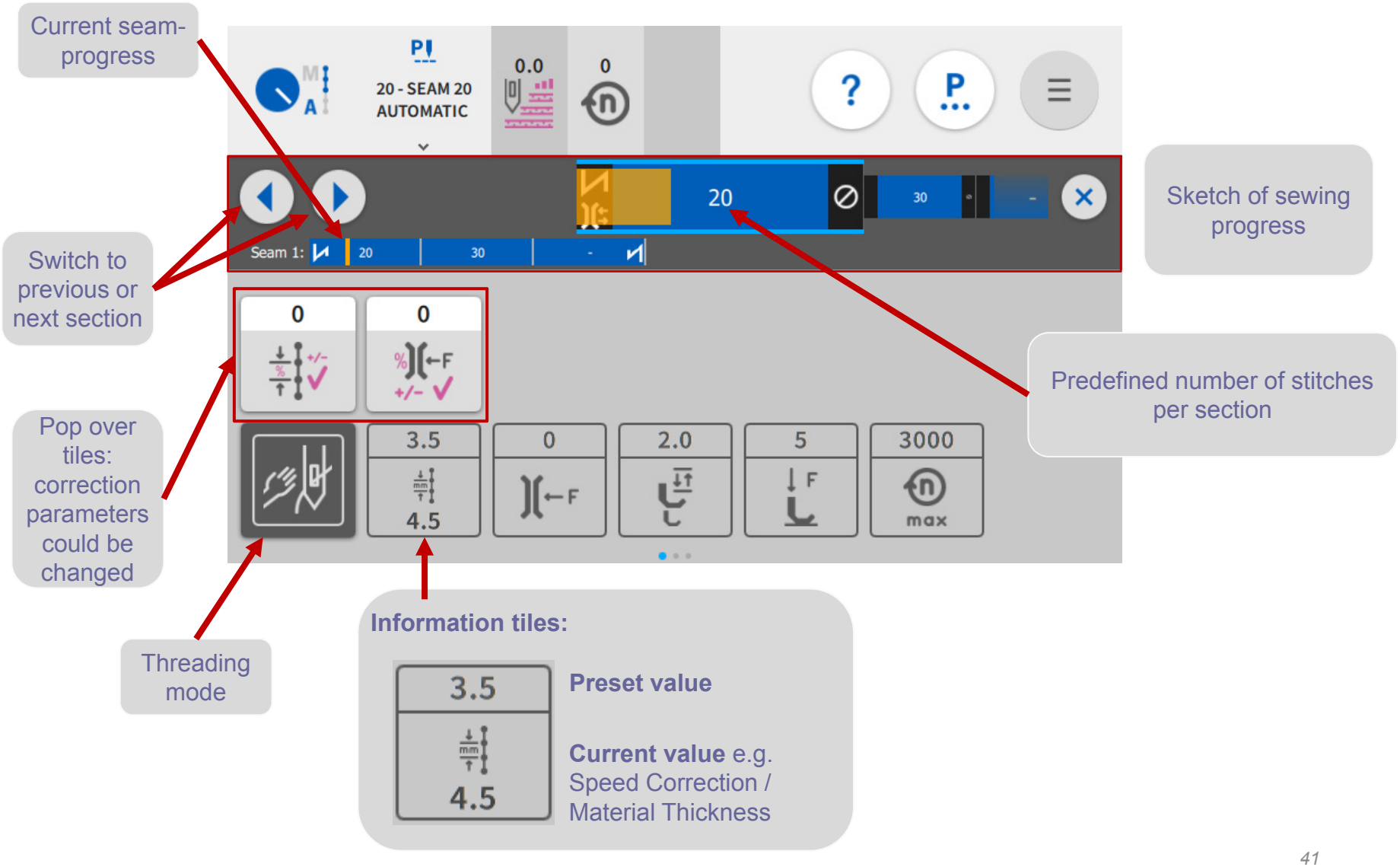
Automatic mode

- During sewing process
  - Indication of actual seam section
  - Display of parameter values defined in the seam section
  - Program progress (program bar)
  - Predefined number of stitches per section
  - Backtacks
  - Switch between two seam sections with a stop and with/without thread cutting
  - Switch between two seam sections without stopping



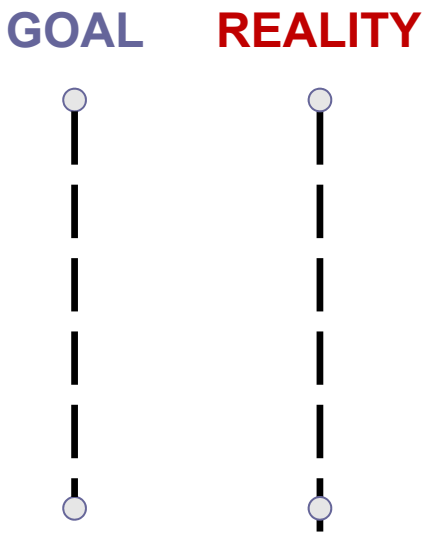
- Cut off the program (pedal fully back, Pos. -2)
  - Backtack and thread trim, if set in program

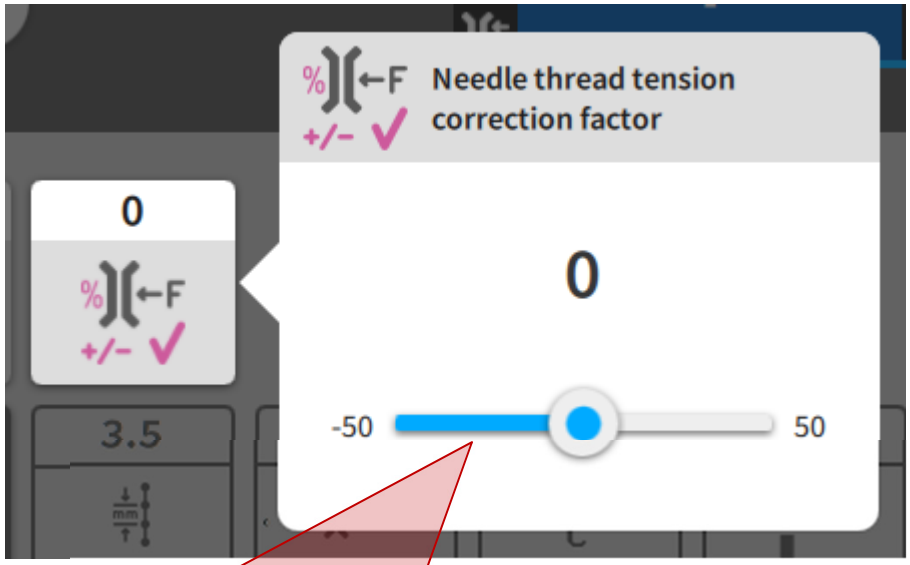
Automatic mode: Main screen



Automatic Mode: Correction actors

- correction %age for stitch length and thread tension
  - Test results
  - Due to the influence of different material





Test the correction values and adjust alteration %age

Exercise: Identify configurations / settings

- Selection of programme no.10 SEAM 10 MANUEL
- Which program settings can you identify?
  - Number of seam sections ?
  - Backtacks ?
  - Thread Trim ?
  - Stop between seam sections ?
  - Predefined number of stitches ?

Automatic Mode: Sewing a program

- Program Selection
- Start sewing process
- Switch to previous and following seam section

  - Function Button no. 6
  - USEFUL! Favourite button (assign feature of function buttons)
- Skip a seam section of the program
- Cut off or cancel the program in the seam and resume sewing process
  - Pedal -1 (program remains stopped at cut off point)
  - Pedal -2 (complete cancellation of program and return to starting point) / or switch to following seam section (program switch by pedal)

Exercise: Sewing in Automatic Mode

- Utilise a **program** consisting of several seam sections
  - Select a program using the program selection:

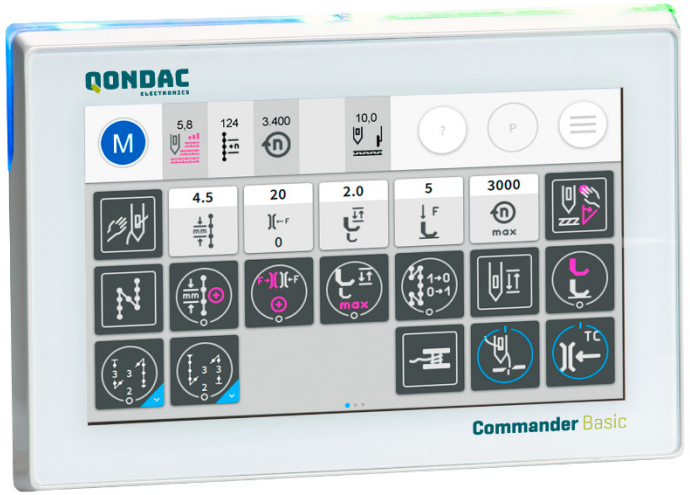
    Program 10 – SEAM 10 MANUEL
  - Sew the program
    - start backtack automatically executed
    - **switch to next seam section** (function button no. 6 or)
    - stop sewing in the program (foot lift)
    - resume sewing process / continue
  - Terminate program (Pedal -2)
    - end backtack automatically executed
    - thread trim
  - Cancel the program

Exercise: Sewing in Automatic Mode

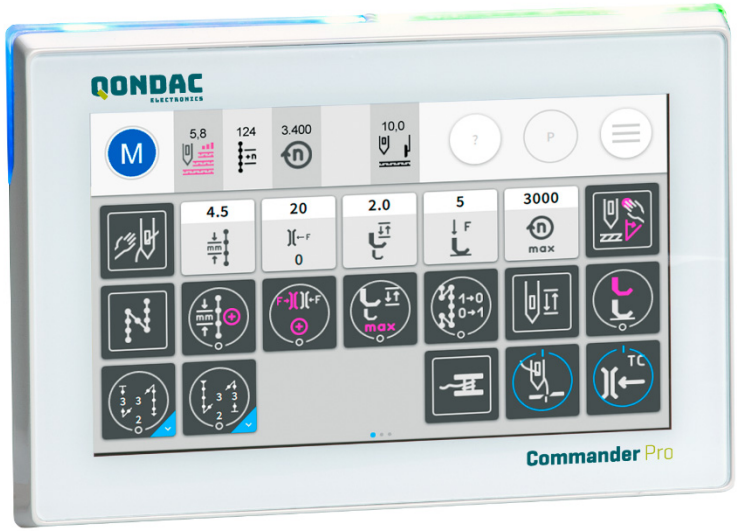
- Sewing of a program consisting of several seam sections and specific number of stitches per section
  - Select a program using the program selection: Program 20 – SEAM 20 AUTOMATIC
  - Sew the program
    - Start backtack automatically executed
    - **Automatic stop at the end of the section** (after specific number of stitches)
    - Change to next section by sewing again after stopping at end of section
  - Terminate program (pedal -2)
    - End backtack automatically executed
    - Thread trim

Conclusion Day 1

- Introduction to the M-TYPE PREMIUM machine
  - Advantages, new functions
  - Components of the machine
- Control Panel Commander Basic / Pro
- Manual Mode
  - Parameter adjustment
  - Start backtack / end backtack
  - Material thickness detection
- Automatic Mode
  - Sewing in automatic mode
  - Correction Factors



QUESTIONS?

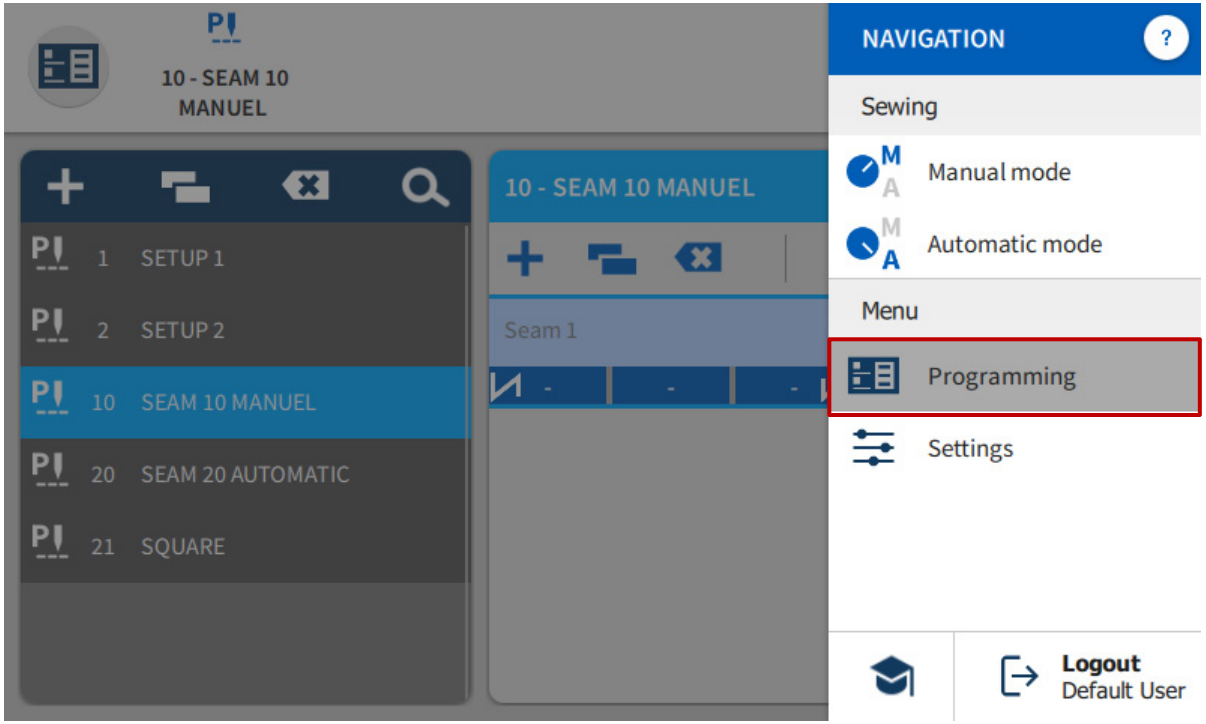


THANK YOU
FOR YOUR ATTENTION

Recapitulation of First Day

- Control panel Commander Pro
  - How to navigate in the menus
  - Use of Softkey Menu, favourite button
- Manual Mode
  - Adjustment of base parameters
  - Adjustment of other parameters
    - Thread trimmer
    - Start backtack / End backtack
    - Edge guide
    - Parameter material thickness detection
- Automatic Mode
  - Selection of a program
  - Sewing in automatic mode

Program management



Program management

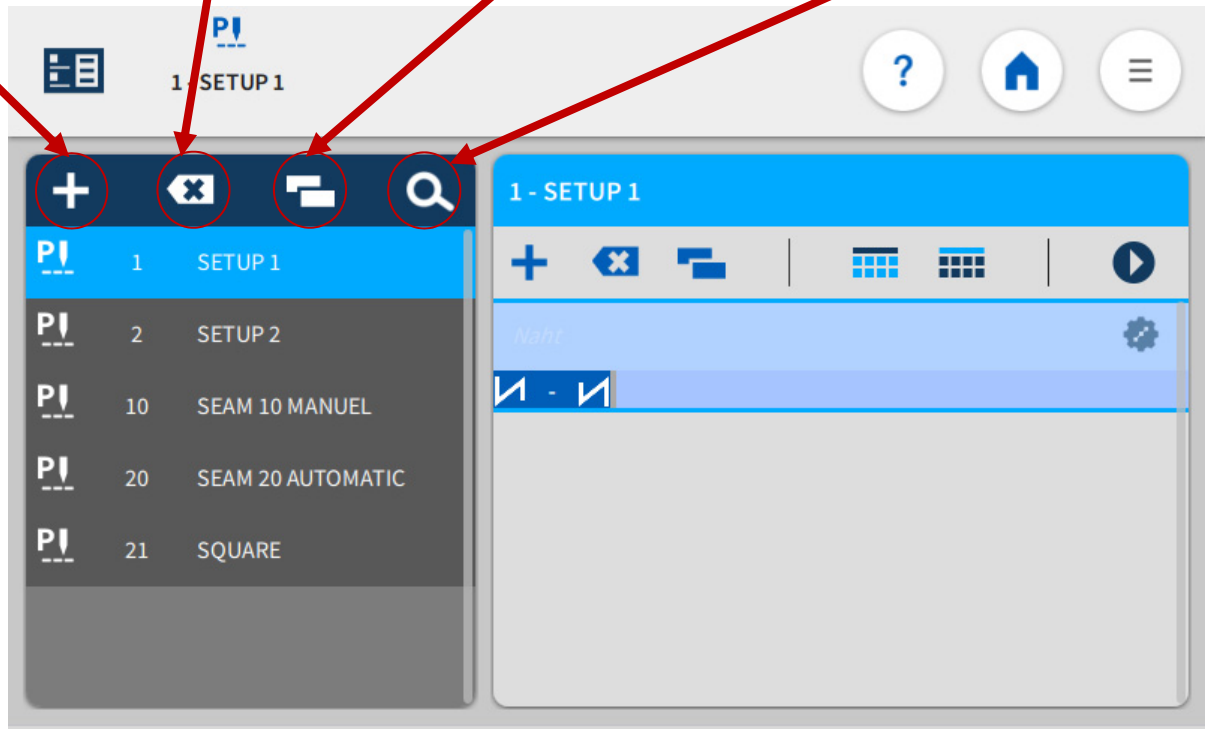
Create a new program

Delete highlighted program

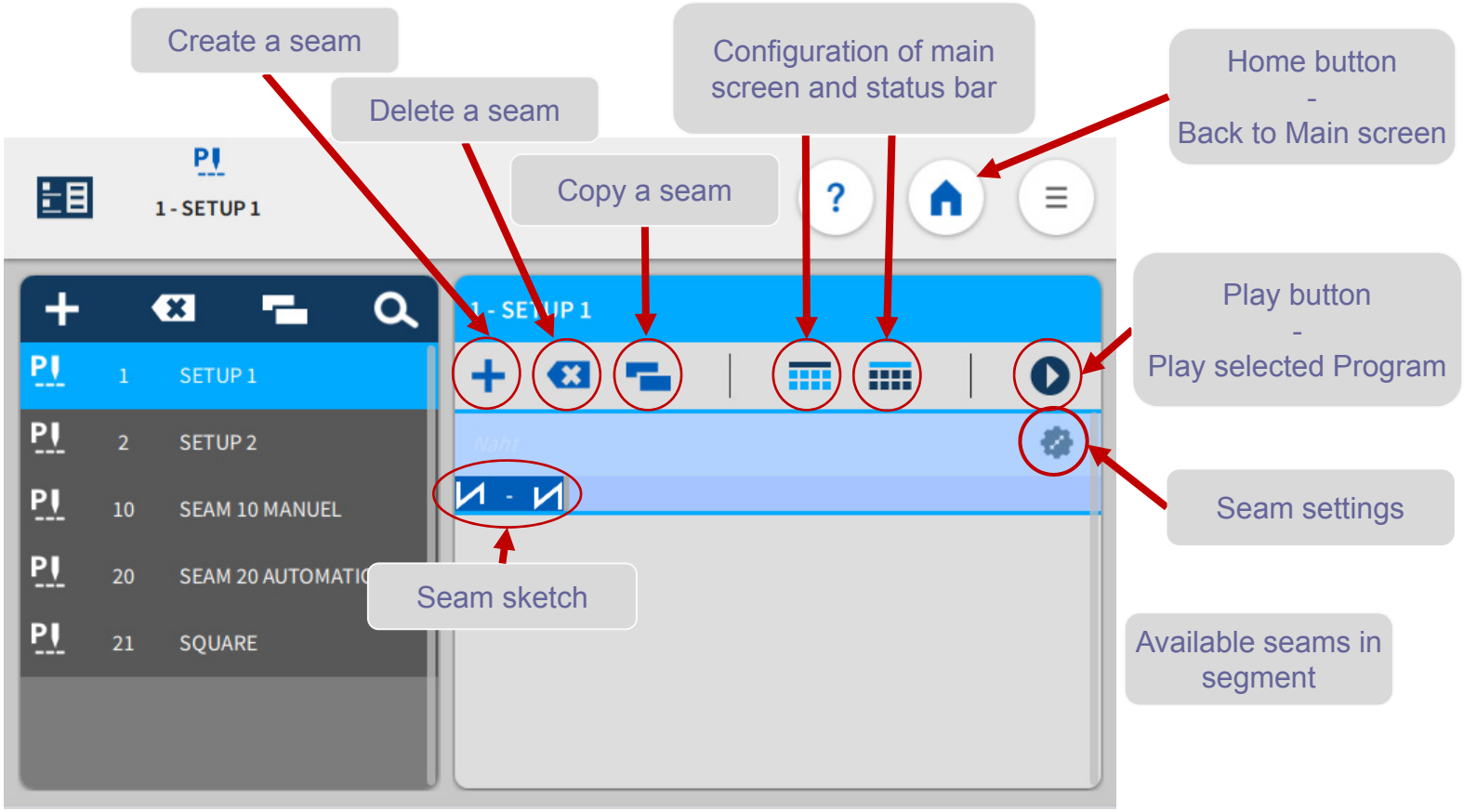
Copy highlighted program

Searching function

Available programs



Program management



Edit a program

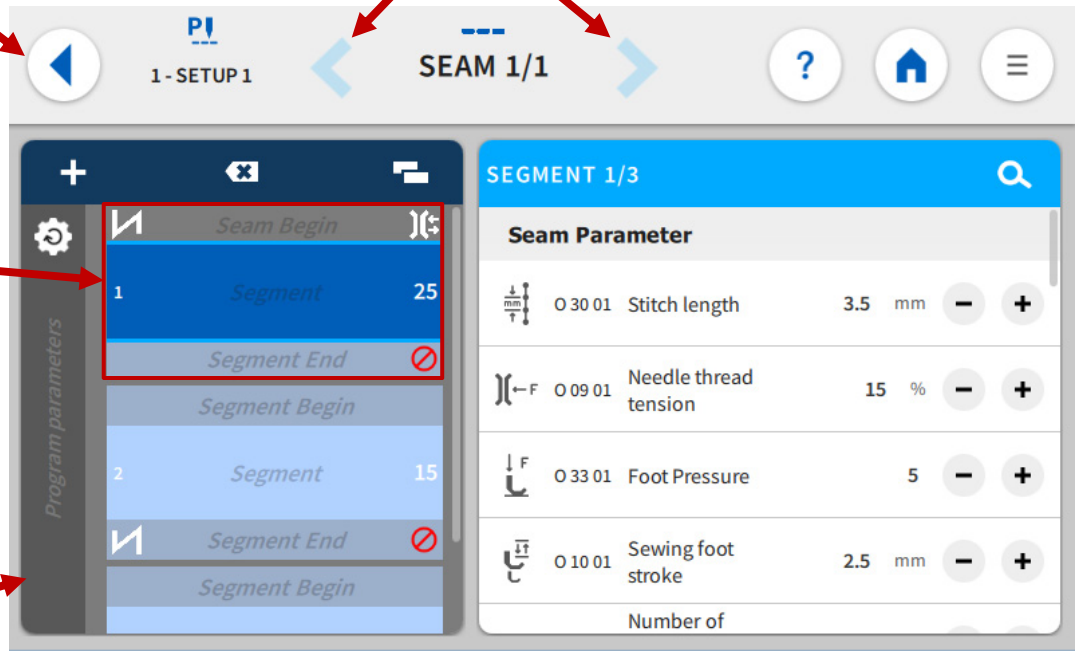
Back to program management

Switch between Seams

1. Segment (Sketch)

A seam segment consist of segment begin, segment and segment end

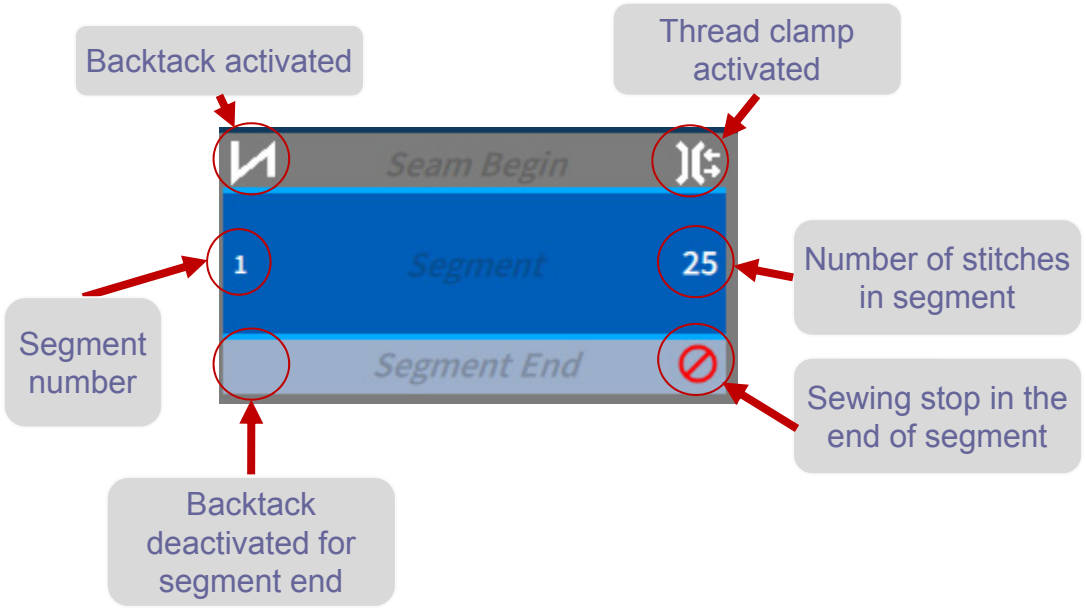
Global seam parameter



Thread cutting is only available in the end of seams

Segment parameter – Seam begin

Seam begin

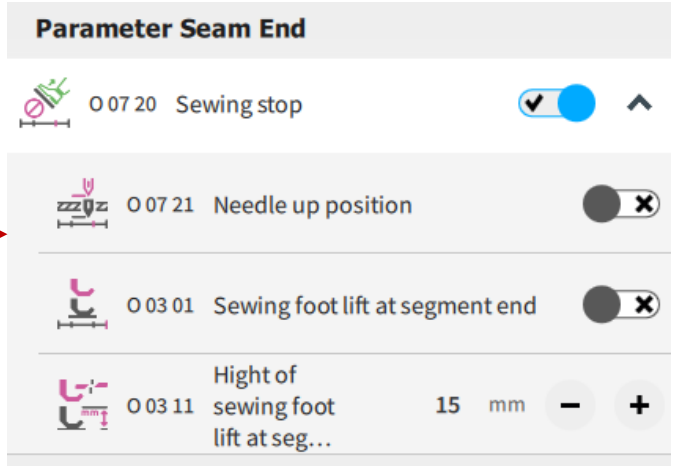


Backtack parameters are similar to manual mode

Segment parameter – Seam end – Sewing stop

Segment end

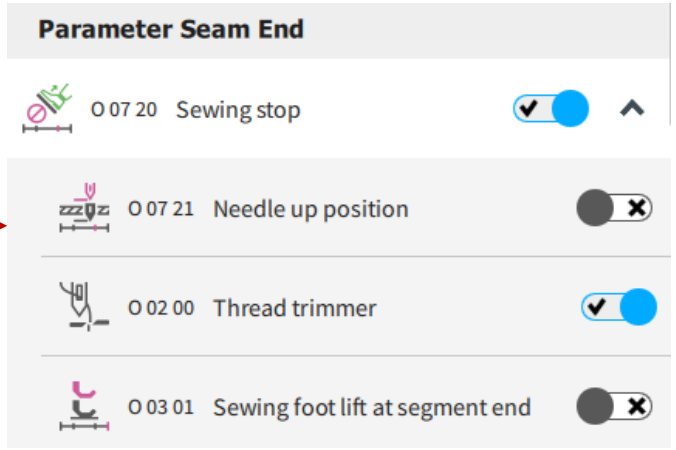
Stop at segment end
+
Function at segment end



Seam end (last segment)

Backtack activated for seam end

Sewing Stop & Thread Trimming



Segment parameter

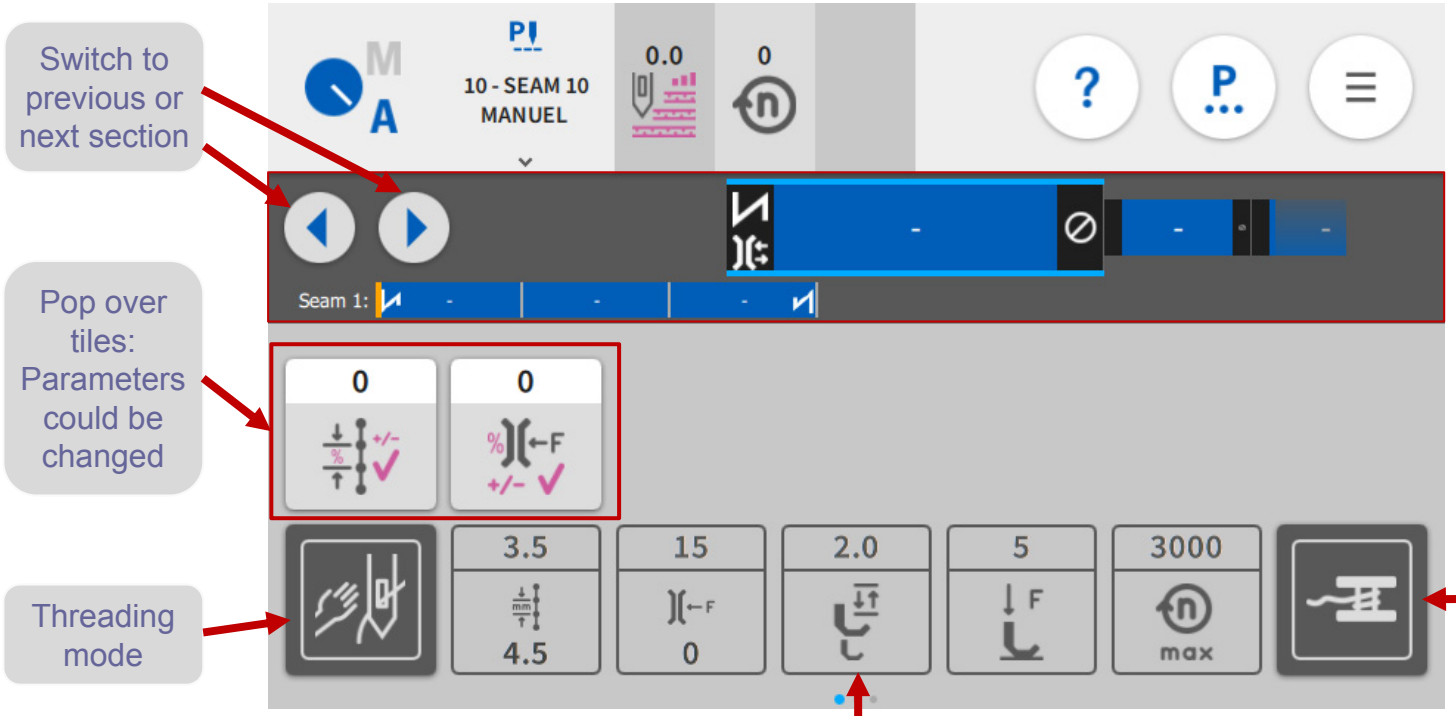
Seam Parameter

O 30 01	Stitch length	3.5	mm	−	+
O 09 01	Needle thread tension	15	%	−	+
O 33 01	Foot Pressure	5		−	+
O 10 01	Sewing foot stroke	2.0	mm	−	+
O 07 11	Number of stitche…	0	Stitches	−	+
O 08 00	Max. Speed	3000	rpm	−	+
O 08 01	Needle position				
O 03 00	Sewing foot lift at stop				
O 03 10	Hight of sewing foot lift at stop	15	mm	−	+
O 07 30	Backwards				

Global seam parameters

- Additional values(+):
  - Stitch length(+)
  - Needle Thread tension(+)
  - Sewing foot stroke(+)
- Program Cycle
  - Next program
  - Program cycle
- Main Parameters
  - Needle thread clamp
  - Bobbin monitor mode
  - Counter mode (Daily piece counter)
  - Point position
  - Correction speed effect
  - Correction material thickness

Automatic mode: Main Screen



Switch to previous or next section

Pop over tiles: Parameters could be changed

Threading mode

Sketch of sewing progress

Bobbin wind mode

Information tiles:

Preset value

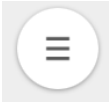
Current value e.g. Speed Correction / Material Thickness

Exercise: Edit Mode – Modify program P10

1. Select the program **P 10 – SEAM 10 Manuel** and press
2. Select segment 1.
3. Modify the following parameter settings:

- **Segment 1:**
  - stitch length 6 mm
  - sewing foot stroke 2.5 mm
  - thread tension 30
  - stitch count : mode 1 (count stitches), number of stitches 10
  - Segment End Mode : Stop active On, Thread trim inactive Off, Needle Up inactive Off, Foot lifted inactive Off
  - start backtack: inactive Off
  - end backtack: inactive Off
  - Foot lifted: when sewing stops on the seam: inactive Off
- **Segment 2:**
  - stitch length 3 mm
  - sewing foot stroke 5 mm
  - stitch count: mode 0 (not counted)
  - Segment End Mode: Stop active On, Thread trim active On, Needle Up active On, Foot lifted active On
  - start backtack: inactive Off
  - end backtack: active On
- **Global parameters of program:**
  - name of the program: TEST TRAINING
  - FabricThickness: active On
    - Sewing foot stroke: Mode 2.Value On/Off, Min. Material thickness: 3 mm
    - stitch lengths: Mode linear, Stitch Length 6mm, Min. Material thickness: 2 mm, Max.Material thickness: 5 mm

Programming Mode: Create a program

- Open the navigation  and press „Programming“
- Press in the left box
- Edit the name of the program via double tap on the name
- Press (in the right box) to edit the first seam in the program.
- Set the parameters for the seam segment (Field „Segment“)
- Adjust the global parameters of the program (Field „Program parameters“ (vertical bar)
- Add a new seam segment via pushing
- Delete a seam section with
- Press or to save program and quit programming mode.

Exercise: Create a Simple Program

Create a program consisting of one seam section only

- Create program **P 7 PROGRAM SIMPLE**
- Add a segment
- Set the **seam section parameters:**
  - stitch length 4 mm
  - sewing foot stroke 3 mm
  - needle thread tension 25
  - Segment End Modes:
    Stop active On, Thread trim active On, Needle Up inactive Off, Foot lifted inactive Off
  - start backtack: active On
  - end backtack: active On
  - Foot lifted: inactive Off
- Adjust the **global parameters** of the program:
  - Program Name: **P 7 PROGRAM SIMPLE**
  - Bobbin: Mode Software, counter 500 points, MotorStop active On, Reset necessary active On
  - Counter Mode: On, Up.
- Sew the program (test with material)
- Modify any parameter settings in the edit mode if necessary

Exercise: Create a complex Program

Create a program consisting of several seam sections

- Create the program
  P 8 COMPLEX PROGRAM
- **Segment 1:**
  - stitch length 3.8 mm
  - sewing foot stroke 1.5 mm
  - needle thread tension 25
  - stitch count: number of stitches 12
  - Seg.End Mode: Stop active On, Thread Trim inactive Off, Needle Up inactive Off, Foot lifted inactive Off
  - start backtack: active On
  - end backtack: inactive Off
  - Foot lifted: Off
    (foot lift at sewing stop on the seam)
- **Segment 2:**
  - stitch length 6 mm
  - sewing foot stroke 5 mm
  - stitch count: mode 0 (not counted)
  - Seg.End Mode: Stop active On, Thread Trim active On, Needle Up active On, Foot lifted On
  - start backtack: inactive Off
  - end backtack: active On
- **Global parameters of program:**
  - program name: **COMPLEX PROGRAM**
  - FabricThickness: active On
    - Stroke: Mode 2.Value On/Off, Min. Material thickness 3 mm
    - stitch lengths: Mode linear, Min. Material thickness: 2 mm, Max. Material thickness: 5 mm

Exercise: Create a program BACKTACK

Creation of a program with backward sewing

- Create the program **P 9 BACKTACK**
- **Segment 1:**
  - stitch length 4 mm
  - sewing foot stroke 4 mm
  - sewing foot pressure 3
  - thread tension 25%
  - maximum speed: 200
  - Foot lifted: inactive Off
  - Seg.End Mode: Stop On, Thread Trim Off, Needle Up Off, Foot lifted Off
  - number of stitches **backward**: 2 pt
- **Segment 2:**
  - Stitch count.: number of stitches 4 pt
- **Segment 3:**
  - number of stitches **backwards**: 2 pt

Exercise: Programme « Cross »

stitch length: 3,5 mm
sewing foot stroke 3 mm
sewing foot pressure 3
thread tension 20%
maximum speed: 200

Segment 1: 2 forward stitches

Segment 2: 4 backward stitches

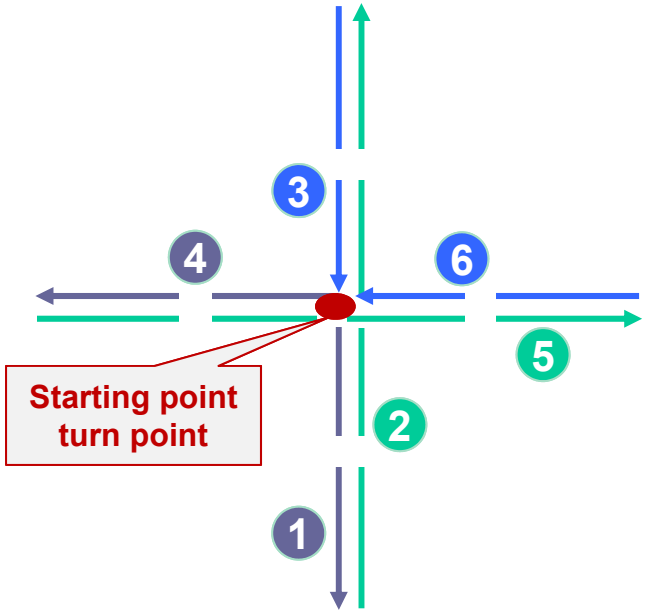
Segment 3: 2 forward stitches, **Foot lifted active On**

--> turn the material 90°

Segment 4: 2 forward stitches,
Foot lifted inactive Off

Segment 5: 4 backward stitches

Segment 6: 2 forward stitches



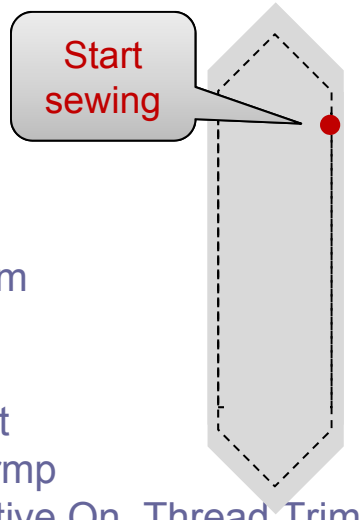
Practice various programs

- Basic parameters
  - stitch length: 3,4 mm
  - thread tension: 20
  - sewing foot pressure: 2
  - sewing foot stroke: 10
- Programs for chapes (bag handles, etc.)
- Backtacks

Exercise: Create a complex program

Create a program consisting of divers seam sections

- Create the program **P 30 SEWING TEST**



- **Section 1:**
  - stitch length 4 mm
  - sewing foot stroke 4 mm
  - sewing foot pressure 3
  - thread tension 25
  - number of stitches: 0 pt
  - maximum speed: 200 rmp
  - Segment End: Stop active On, Thread Trim inactive Off, Needle Up inactive Off, Foot lifted active On, H. Foot lifted 13 mm
  - start backtack: inactive Off
  - end backtack: inactive Off
  - Foot lifted (at stop in the seam): inactive Off
  - Guide: Gap 3 mm
- **Section 2:**
  - stitch count: number of stitches 7
- **Section 3:**
  - stitch count: number of stitches 7
- **Section 4:**
  - stitch count: number of stitches 0
- **Section 5:**
  - stitch count: number of stitches 7
- **Section 6:**
  - stitch count: number of stitches 7
- **Section 7:**
  - stitch count: number of stitches 2
  - Segment End: Thread Trim inactive Off, Needle Up inactive Off, Foot lifted inactive Off

Programming Mode: Copy / Delete a program

1. Select the program you want to copy
2. Press
3. Press to adjust a seam in the program and adjust the parameters of the selected section
4. To **delete a program** press button in the program management

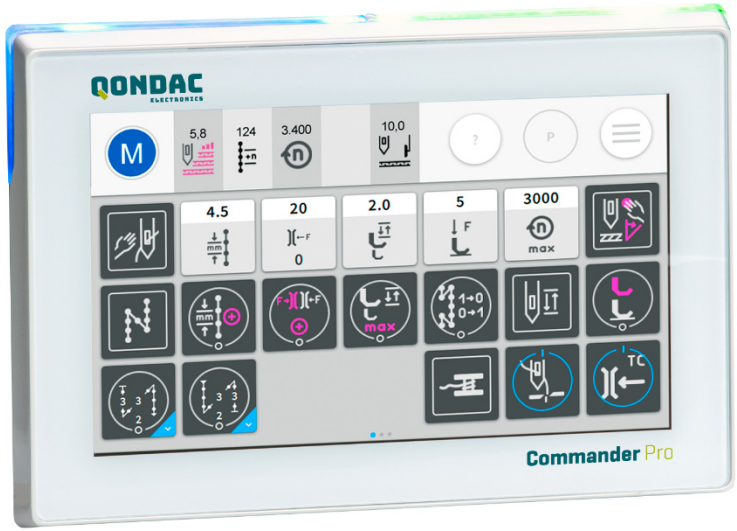
Conclusion Day 2

- Edit Mode: Modify / Edit programs
- Global program parameters
  - Parameters of seam section
- Programming Mode
  - Create programs
  - Adjust basic parameters, parameters for the seam sections and global program parameters
- Copy / Delete a program

BEST PRACTICE

- Useful sequence for creation of programs
  (Adding a new section in the program copies the values of the previous section)
- Pre-set of default values for programs in technical mode (values used for first section)
- Copy a program and modify settings

QUESTIONS?



THANK YOU
FOR YOUR ATTENTION

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