M-TYPE PREMIUM

COMMANDER

TECHNICIAN COURSE

Agenda Technician Training - 1 day

09:00 - 09:15	**Introduction, Training overview**
09:15 - 09:30	**Access to technician level**
	• Access password
	• Introduction of settings
09:30 - 10:00	**Machine configuration**
	• Explication of parameters
	• Emphasize importance of settings when replacing equipment: maximum speed, maximum stitch length, foot lift, edge guide
	• Exercises: test the settings in operator mode
	• Input/Output configuration
10:00 - 10:30	**Break**
10:30 – 10:45	**Definition of default program parameters**
	• Explication of parameters
	• Exercises: test the settings in operator mode

Agenda Technician Training - 1 day

10:45 - 12:15	**User configuration**
	• Explication of parameters
	• Lock: block/restrict functions for operator
	• Screen settings: contrast, brightness
12:15 - 13:15	**Lunch**
13:15 - 14:45	**Manual data transfer**
	• Explications of transfer modes
	• Exercises: save/upload parameters, calibration data and programs
	Perform software update
14:45 - 15:00	**Break**
15:00 – 15:30	**Service routines**
	• Test equipment, adjustments of equipment, calibration
	• Exercises: Multi-test, calibration of stitch length, guide, pedal
	Reset data

Agenda Technician Training - 1 day

15:30 - 16:30   Information

                       • Explications of information modes

                       Perform software update

                       Mechanical

                       • Setting the stroke movement for the feeding foot

                       • Setting the sewing foot pressure and sewing foot lift

                       • Setting the mechanical stitch adjustment

16:30 - 16:45   Conclusion, Questions

M-TYPE PREMIUM
Programmable sewing machine

- Installation of stepper motors to provide the following adjustments:
  - Programmable setting of the stitch length
  - Programmable adjustment of the alternating sewing feet
  - Sewing foot lift controlled by stepper motor
  - Programmable needle thread tension (electromagnetically) with speed compensation
  - Programmable sewing foot pressure

- Creation of programs
  - Reuse and reproduce parameter settings
  - Automatize the seam sections

- Control DAC comfort with the control panel Commander Basic / Pro, software production done by Dürkopp Adler

- Distribution of programs and update of software via USB stick

Overview technician level

- Service adjustments via software settings
  - General machine configuration
  - Test functions for machine elements
  - Calibration functions
  - Pre-setting of default parameter values in programs
  - Manual data transfer
  - Creating users and roles in the user management

Calling up the technician level

- Login
  - Click on the logout button
  - Username: Technician
  - Password: **25483**

- Technician menu items:
  - Machine configuration
  - Program defaults
    (program pre-setting's)
  - User configuration
  - Manual data transfer
  - Service
  - Information
  - Software update
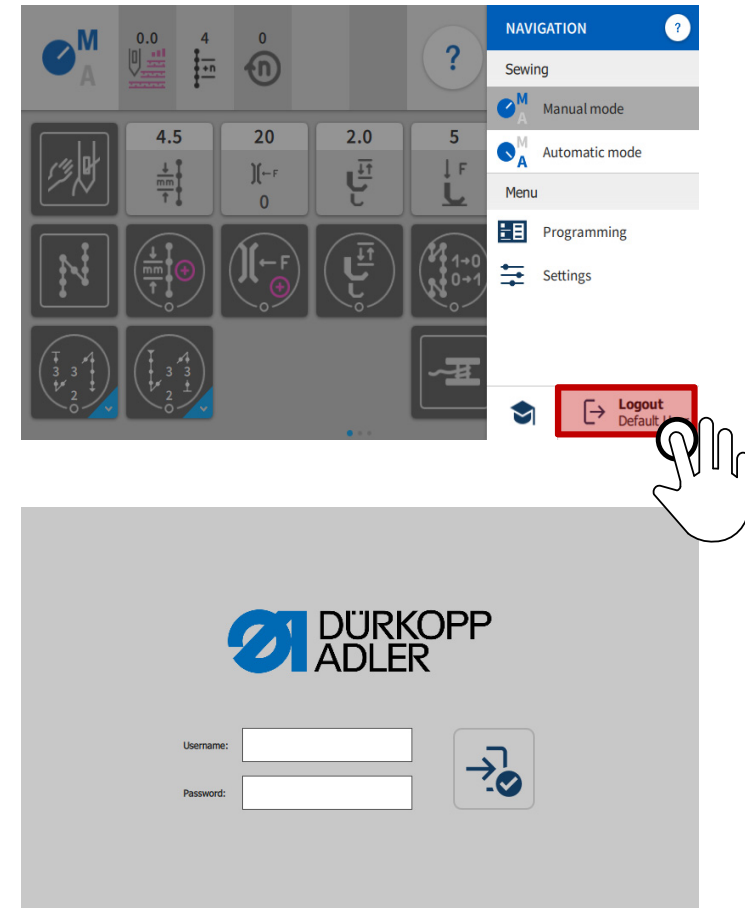
Attention! Priority technician mode

!

The settings of the technician level have the **priority**

↓

Define parameters and default values with care

Machine configuration ⚙
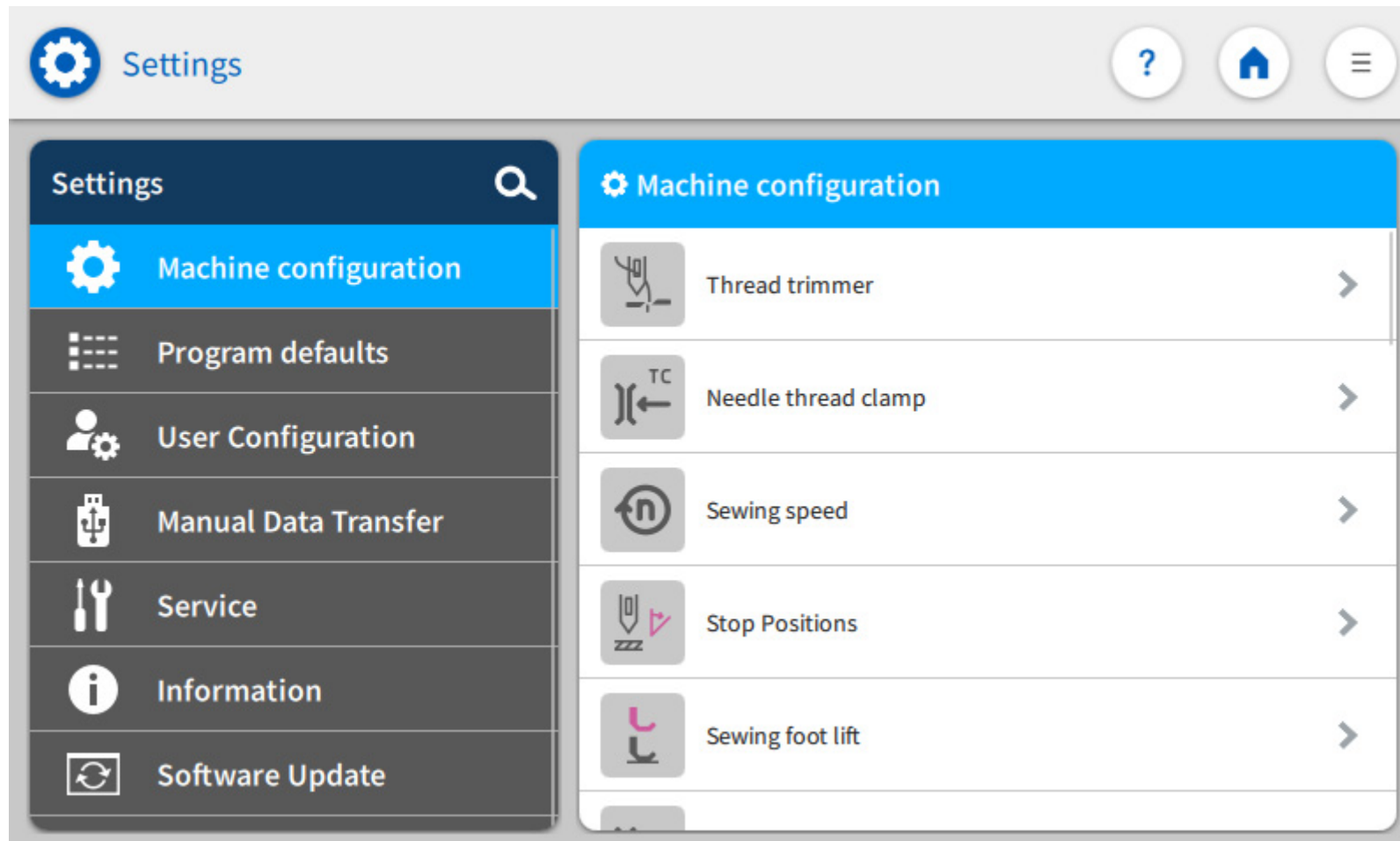
Machine configuration ⚙

Thread trimmer >	Adjust parameters of the thread trimmer	On/Off, speed, needle position,..
Needle thread clamp >	Adjustments for thread clamp	Angles, options, PWM, NSB
Sewing speed >	Speed settings for particular conditions	Max./Min. speed, soft start
Stop Positions >	Needle positions at stop, treading or at cutting	
Sewing foot lift >	Maximum height and speed of the foot lift	
Needle thread tension >	Behaviour of the thread tension during intermediate foot lift and after trim	
Sewing foot stroke >	Couple the 2nd thread tension with the 2nd foot stroke	
Stitch length >	Limit the maximum stitch length	
RFW / SSD >	Adjust parameter of the bobbin monitor, bobbin rotation monitor and loop control	

Machine configuration ⚙

F / M Holding force >	Adjustment parameter of the motor holding force	
Pedal steps >	Settings for pedal behaviour, response times	
Needle cooling >	Adjust parameter of the needle cooling	Speed, lag time/deley
Seam Center Guide >	Adjust parameter of the seam center guide	
Puller >	Adjust parameter of the puller feeding	
Edge Guide >	Adjust parameter of the edge guide	Travel speed, min. gap
Material thickness detection >	Adjust parameter of the material thickness detection	
Correction speed effect >	Correction effects of high speed	Hysterese
Light barrier >	Adjust parameter of the light barrier	

Machine configuration ⚙

Mode segment size	›	Counting method of seam sections: no. of stitches or the length in mm
Threading mode	›	Position of needle and sewing foot if threading mode is active/during threading mode
Machine Blockage	›	Adjust parameter for machine blockage (running lock)
Manual Backtack	›	Adjust parameter for manual backtack
Jog-Dial	›	Activates the handwheel (Jog-Dial) to be used as input instrument
Referencing	›	Menu for referencing adjustments
Scanner	›	Configuration of a connected scanner
Interface	›	Definition of interface at DAC comfort (e. g. which scanner is connected)
Input/Output Configuration	›	Configuration and allocation of inputs and outputs
Additional I/O Configuration	›	Sub menu for additional I/O´s (Input / Output)

Input signals of the machine

Input signal	Input	Input functions
S1 Sew backwards	X120T.3	3
S2 Needle position	X120T.16	4
S3 Bartack	X120T.4	2
S4 2nd stitch length	X120T.17	12
S5 2nd thread tension	X120T.5	11
S6 Change to next seam section	X120T.18	23
Knee button S1	X120T.15	21
Knee button S2	X120T.2	21
Jog-Dial (handwheel)	X100B.15	6

Output signals of the machine

Output signal	Output
ML (X22)	X120B.9
NK (X22)	X120B.10
RA (X16)	X120B.12
STL (X17)	X120B.22
STL (FA) (X18)	X120B.23
FL (X15) (X22)	X90.12
FF3 OUT (X22)	X90.15

Output functions (extract)
0 = free
1 = Needle cooling
2 = Remaining thread monitor
3 = Pos 1
4 = Pos 2
5 = Motor running signal
6 = Seam Center Guide
7 = Signal foot lift
8 = Puller

Machine configuration (Notes)

Program defaults

Program defaults

T 07 20	Stitch length default	4.5	mm	−	+	Stitch length used as default value in programming mode	[0.0 – 12.0 mm]
T 07 22	Sewing foot pressure default	5		−	+	Sewing foot pressure used as default value in programming mode	[1 – 20]
T 07 23	Needle thread tension default	20	%	−	+	Needle thread tension used as default value in programming mode	[1 – 99 %]
T 07 28	Sewing foot stroke	2.0	mm	−	+	Sewing foot stroke used as default value in programming mode	[0.5 – 9.0 mm]
T 07 30	Backtack at seam begin			(Off)		Setting whether the backtack at seam begin is automatically activated in a new programm (On/Off). The parameters are taken from the manual mode	
T 07 31	Backtack at seam end			(Off)		Setting whether the backtack at seam end is automatically activated in a new programm (On/Off). The parameters are taken from the manual mode	
T 07 32	Thread trimmer			(On)		Setting whether the thread trimmer is automatically activated in a new program (On/Off)	
Σ·0000	Daily piece counter			>		Can be set to count either up or down	

Program defaults

Stitch functions

T 07 07	Count stitches	☑ On	Count manually implementetd stitches by hand switch (On/Off)
T 07 08	Correction of backward stitches	☑ On	Manual backward stitches will be corrected in terms of necessary forward stitches by using the stitch count function (On/Off)

Default Program Parameters

T 07 02	Forward Sound	☑ On	Acoustic signal at segment switch (On/Off)
T 07 06	Segment switch by pedal	✘ Off	Move one segment forward by pedal -2 (On/Off)

Program Abort

T 07 05	Mode	**Position**	Abort direct at current position or after processing seam end functions (e. g. backtack)
T 07 04	Thread trimmer	☑ On	The thread trimmer becomes active or remains inactive when a seam section is canceled (On/Off)
T 07 00	Pedal Abort	☑ On	Abort a program by pressing the pedal in position -2 twice (On/Off)
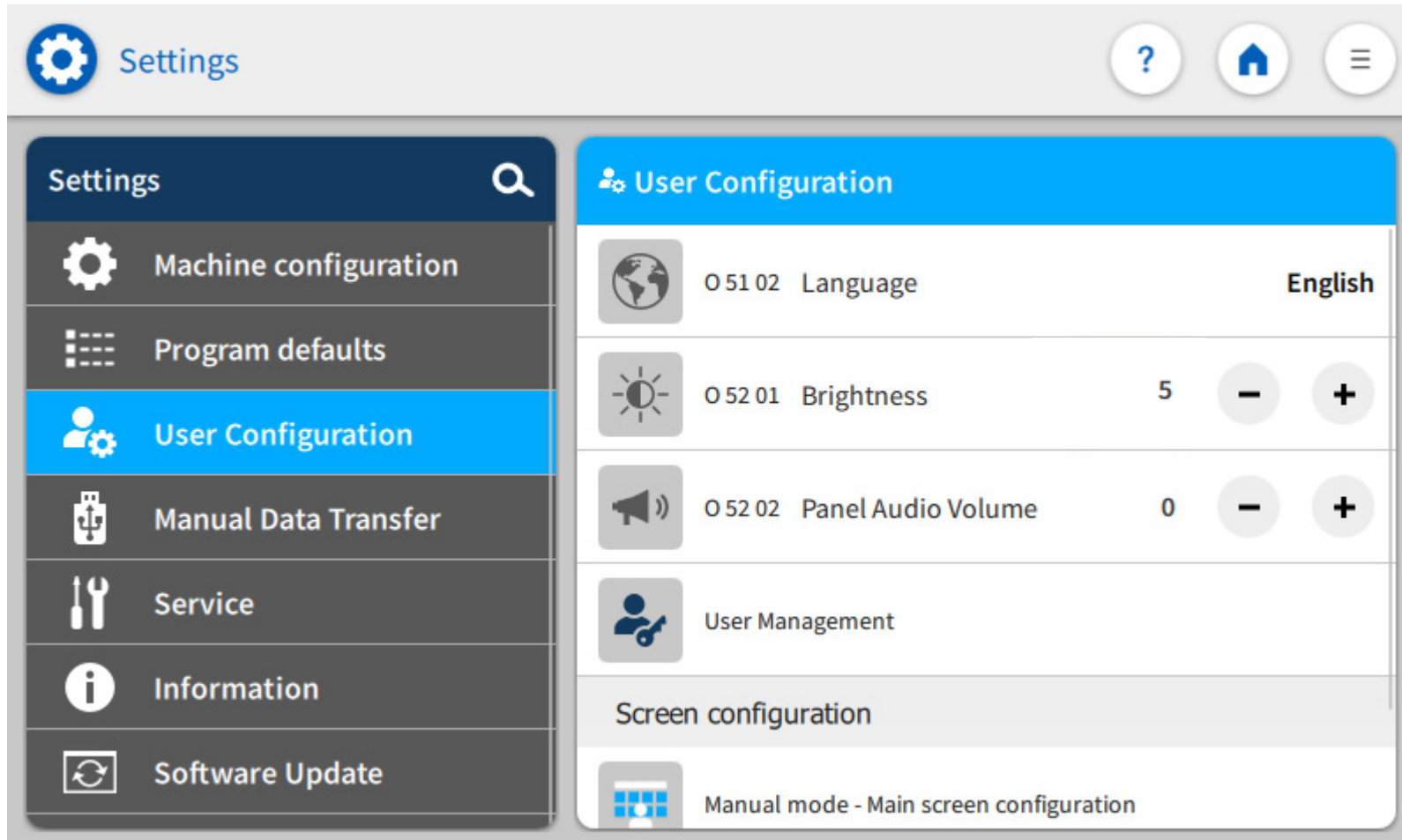
Program defaults (Notes)

User configuration

User configuration

Icon	Code	Setting	Value			Description
🌐	O 51 02	Language	English			Language selection
☀	O 52 01	Brightness	5	−	+	This function adjusts the brightness of the control panel
📢	O 52 02	Panel Audio Volume	0	−	+	This function allows to adjust the volume of the audio output
👤		User Management				Sub Menu for user management

Screen configuration

| Icon	Setting	Description
	Manual mode - Main screen configuration	Sub menu manual mode – Main screen configuration
	Manual mode - Status bar configuration	Sub menu for manual mode – Status bar configuration

User management

- Authorization concept with roles and users
- Each user is assigned a role
- For each function, you can determine whether the respective role has access to this function and whether it is allowed to edit it.
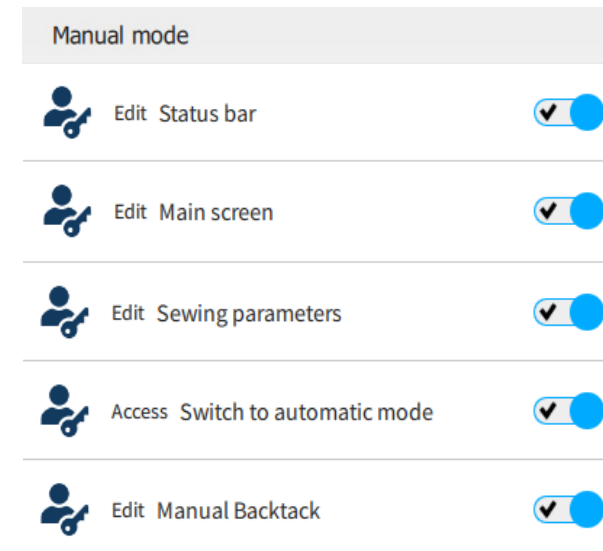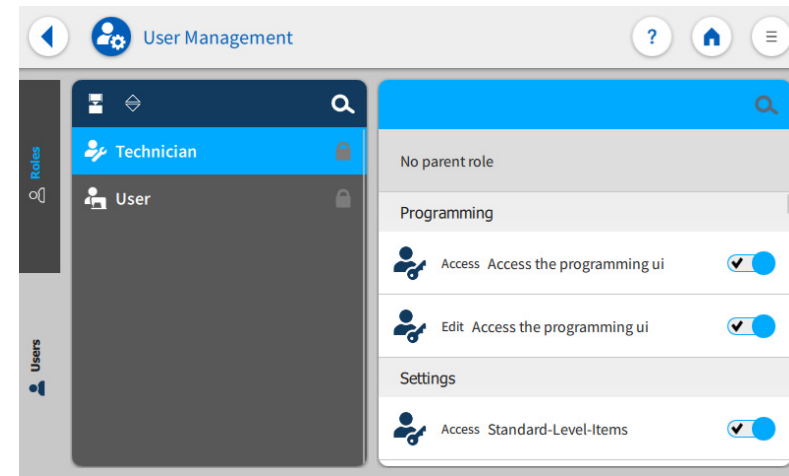
User management ⚙

- There are several ways to login. With name and password, with an NFC token or with an USB stick.

- Each user can be assigned one or more roles

User management (Notes)

User management (Notes)

Manual data transfer
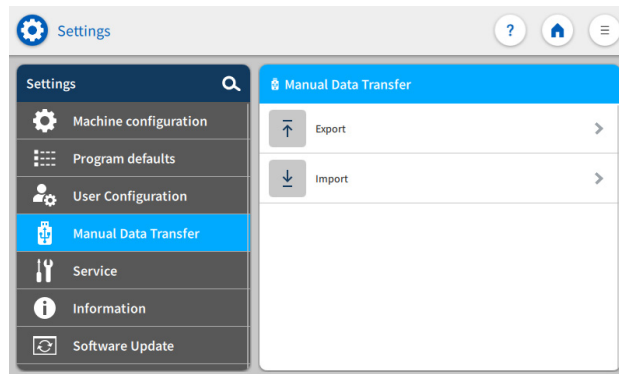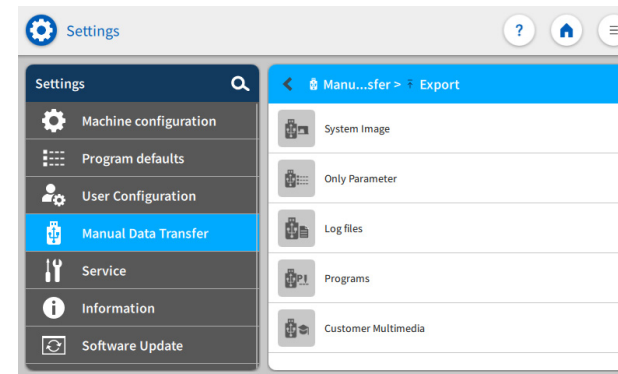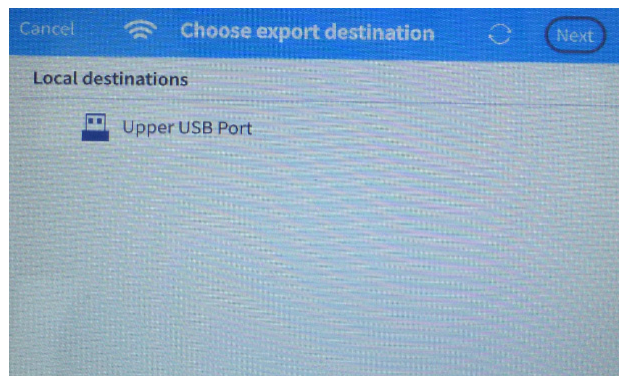
1. Insert the USB-Stick into one of the two ports
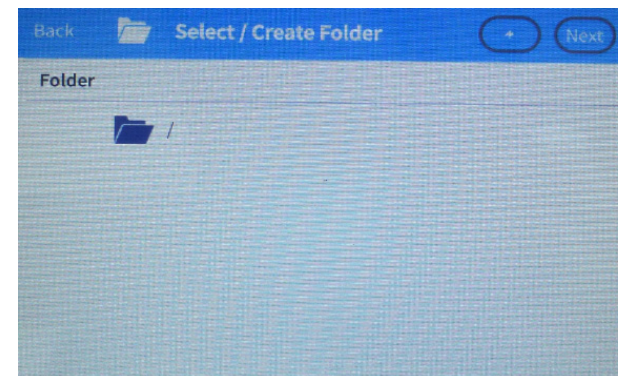

2. Choose between import and export
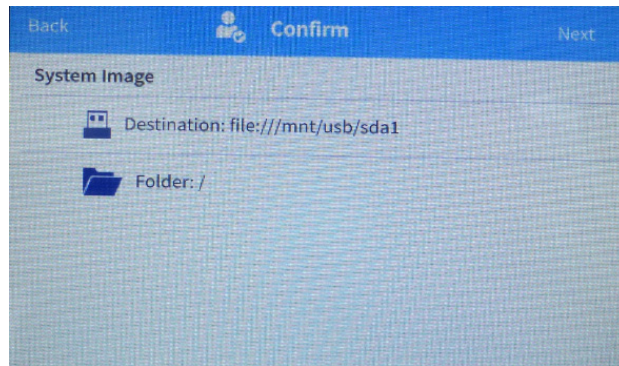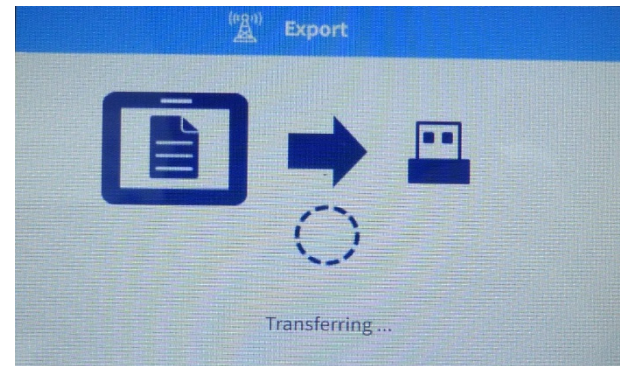

3. Choose the export destination

4. Select a folder

Manual data transfer

5. Confirm the destination

6. Transferring

7. Transfer complete

Manual data transfer (Notes)

Service

Service ⚒

▯	Calibration	>

Setting the calibration parameter (e. g. stitch length forward / backwards, manual hand lever, material thickness detection, etc.)

⚙	Adjustments	>

Submenu for special settings of the feed dog, hook-needle, sewing foot stroke and needle thread tension

📋	Multitest	>

This parameter makes it possible to test whether, for example, magnets, drives and inputs or outputs are functioning correclty

Q	QONDAC	>

Machines can be interlinked to allow for networked operation. Various settings can be made for the networking of the machines.

↻	Reset	>

Use this submenu to reset the data of the machine. Various settings can be made for resetting the data
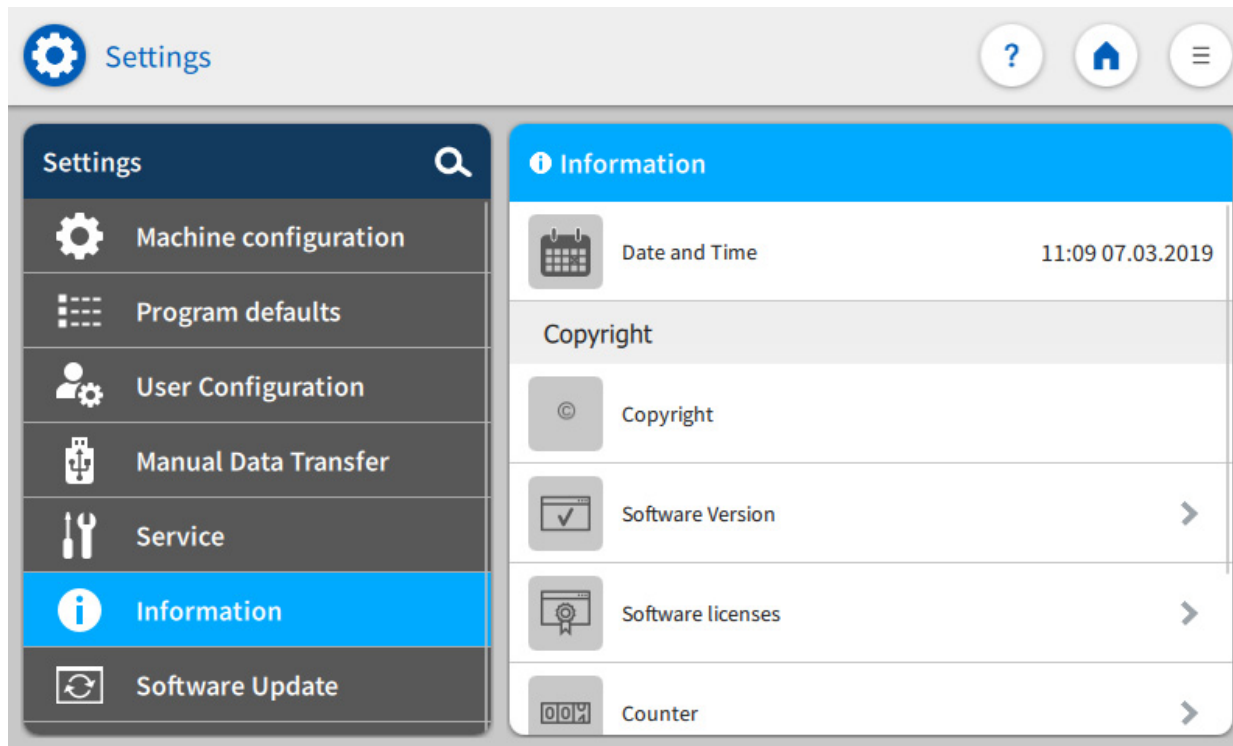
|		
📝	Logging	

Activities Log

Service (Notes)

Information ⓘ

Here you can find information about the current software version, the counter, the control panel and about the machine.
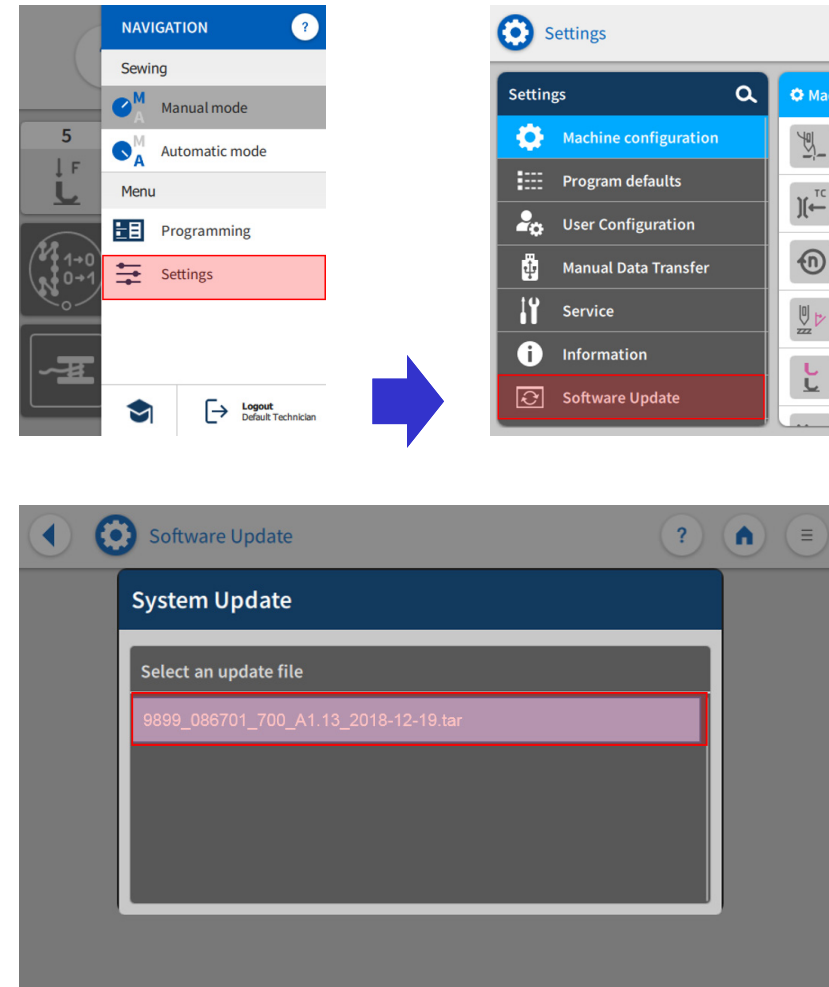
Software update

1. Log in to the Commander as a user with the access rights required for execution.

2. Download the latest software version from the Internet (www.duerkopp-adler.com) and save it on a USB stick.

3. Insert the USB stick into the USB port provided on the control panel.
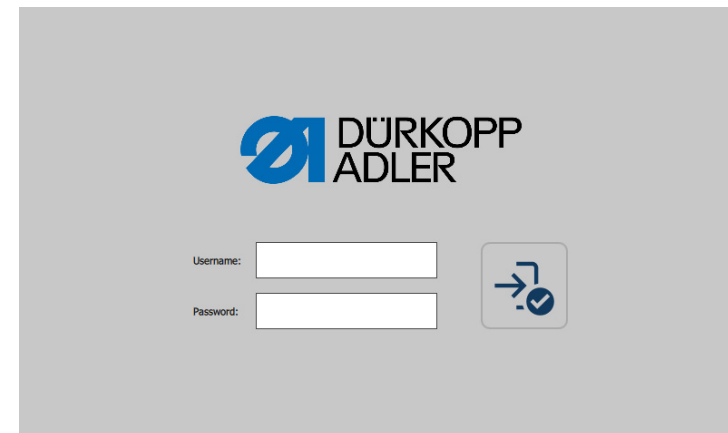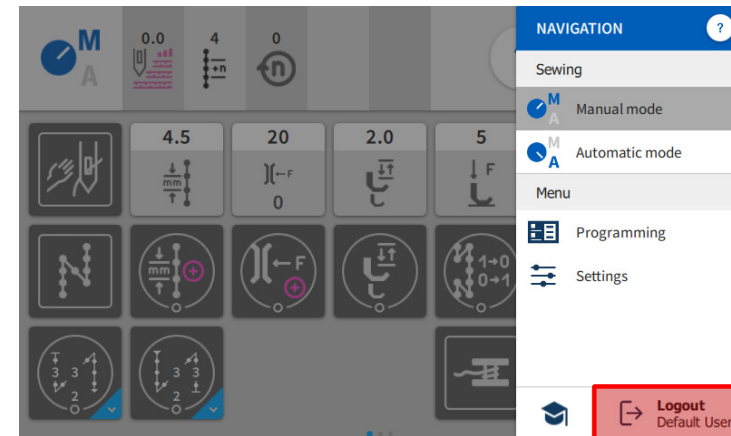
Software update

4. Open the Burger menu and select *Settings > Software update*.
   ➔ A window with the data stored on the USB stick opens.

5. Select the file that contains the software update.
   ➔ Another screen opens

6. Start the software update by tapping the *Start Update* button.
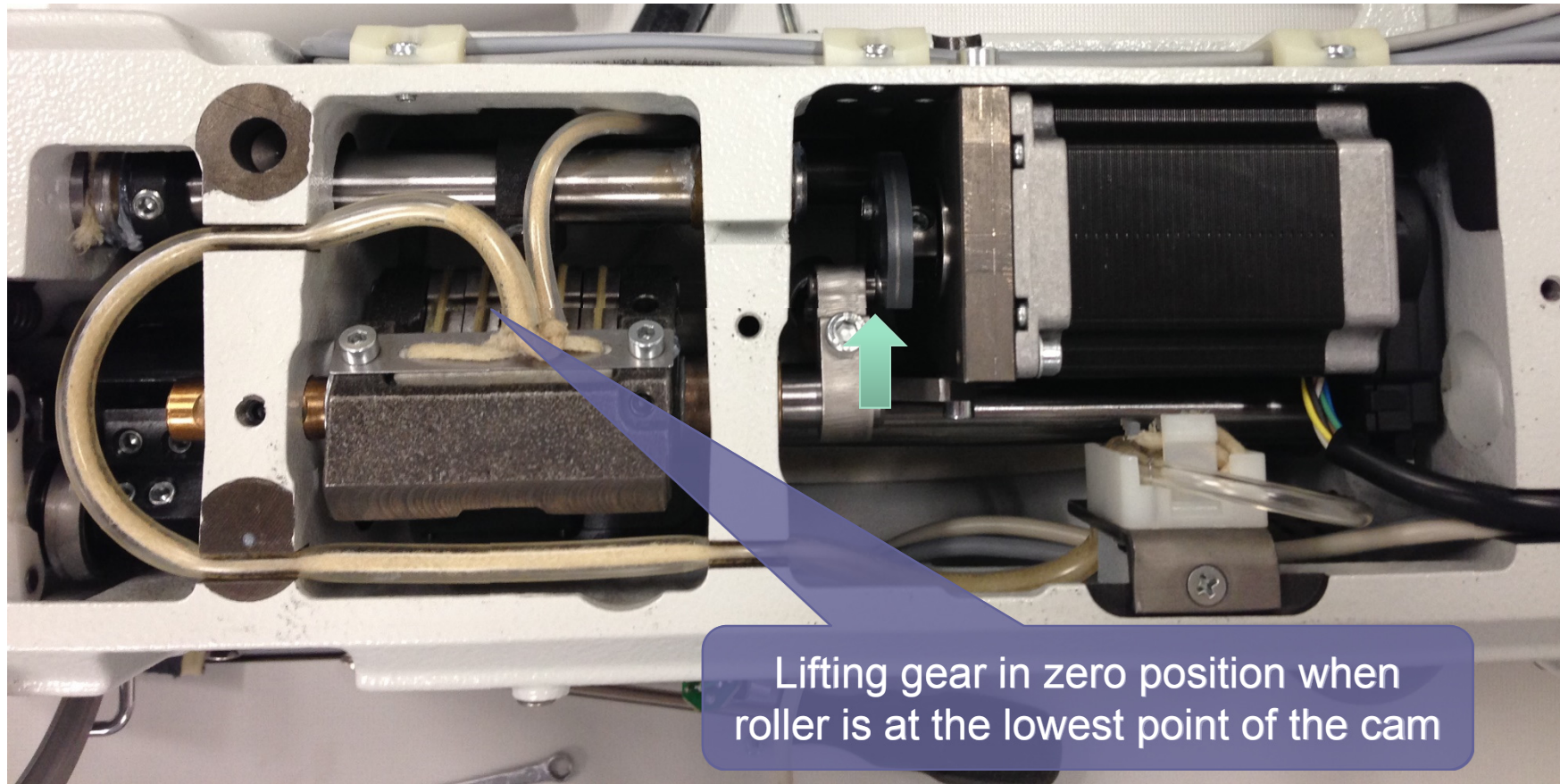
Software update

7. Wait until you are informed that the USB stick can be removed OR that the control panel has been restarted.

8. After updating and restarting the control panel, the machine can be used as usual.

9. The USB stick can now be removed, if not already done.
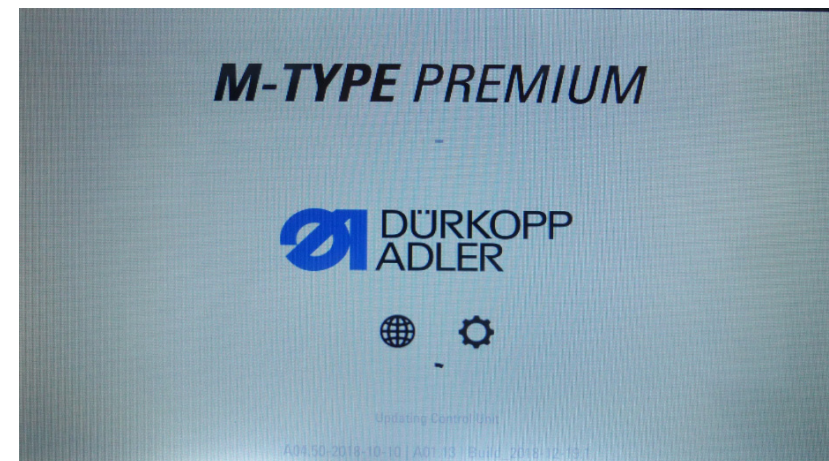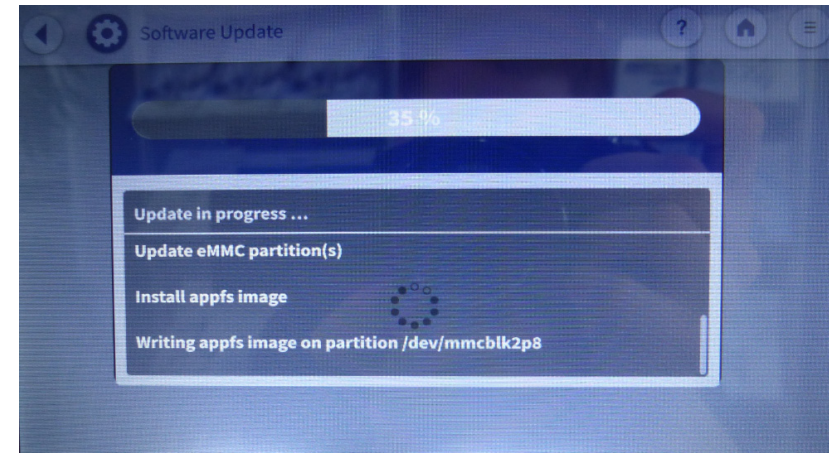
Software update (Notes)

Specific Mechanical Adjustments PREMIUM: Setting the sewing foot lifting gear

Lifting gear in zero position when roller is at the lowest point of the cam

Specific Mechanical Adjustments PREMIUM:
Setting the sewing foot pressure and sewing foot lift

Place a 5 mm pin between the presser foot and throat plate.
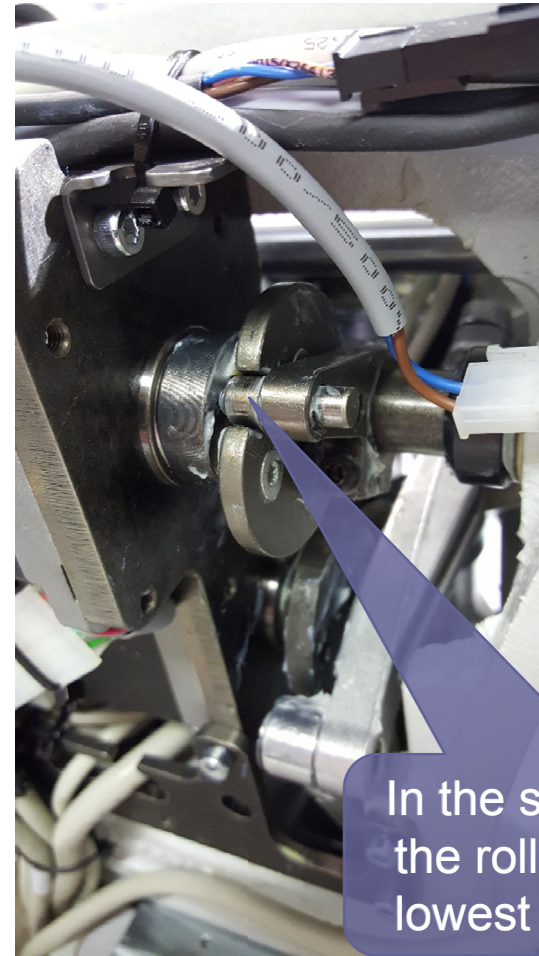
In the stake-out position, the roller must be at the lowest point of the cam.
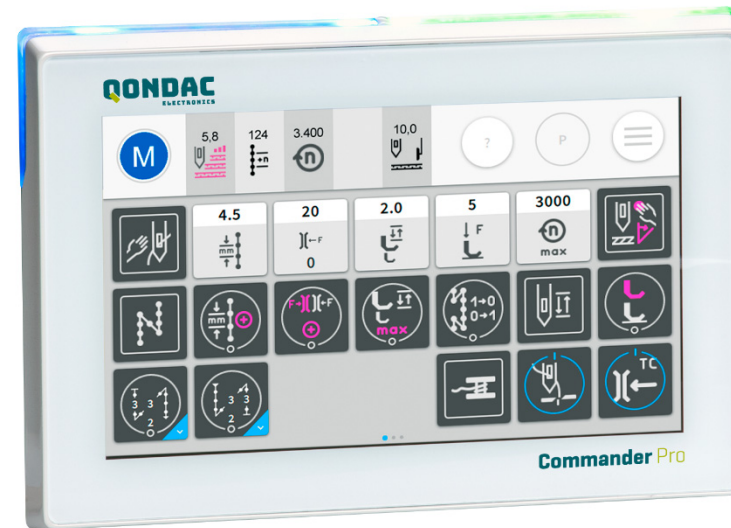
Specific Mechanical Adjustments PREMIUM: Setting the mechanical stitch adjustment

- Insert the locking pin into the hole on the bearing bracket and into the recess in the control cam.
- Manually position the plates so that they are parallel.
- Press the white plastic bar against the control cam without play.

QUESTIONS?

THANK YOU
FOR YOUR ATTENTION

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