



# M-TYPE PREMIUM



# 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 - 10:30	Definition of default program parameters
	Explication of parameters
	Exercises: test the settings in operator mode
10:30 - 10:45	Break
10:45 - 12:15	Machine Configuration
	Explication of parameters
	<ul> <li>Emphasize importance of settings when replacing equipment: maximum speed, maximum stitch length, foot lift, edge guide</li> </ul>
	Exercises: test the settings in operator mode
12:15 - 13:15	Lunch





#### **Agenda Technician Training - 1 day**

13:15 - 14:45 User Configuration

Explication ParameterView

Exercise: Use of parameter codes in technician and operator level

Input/Output Configuration

Exercise: configure function button no. 6, etc.

• Configuration of program parameters:

Segment Switch, abort, Forward Sound, etc.

• Lock: block/restrict functions for operator

Screen settings: contrast, brightness

14:45 - 15:00 Break

15:00 - 16:30 Service Routines

• Test equipment, adjustments of equipment, calibration

• Exercises: Multi-test, calibration of stitch length, guide, pedal

**Configuration Counter** 

Reset data





#### **Agenda Technician Training - 1 day**

15:00 - 16:30	Data transfer
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• Explications of transfer modes

• Exercises: save/upload parameters, calibration data and programs

**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

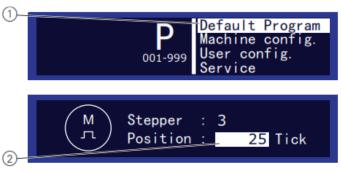
- Installation of stepper motors to provide the following adjustments:
  - programmable setting of the stitch length
  - programmable adjustment of the alternating sewing feet
  - sewing foot lift controlled by stepper motor
  - programmable needle thread tension (electromagnetically) with speed compensation
  - programmable sewing foot pressure
- Creation of Programs
  - reuse and reproduce parameter settings
  - automatize the seam sections
  - sequential mode for a maximum of 9 interlinked seam programs
- Control DAC comfort with OP3000 control panel, software production done by Dürkopp Adler
- Distribution of programs and update of software via USB stick



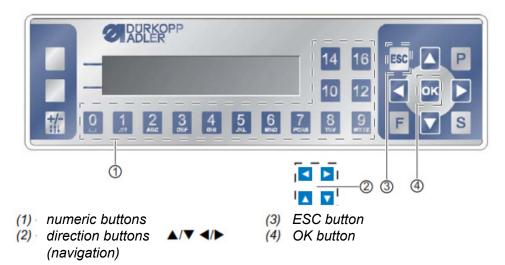


#### Overview Technician Level

- Service adjustments via software settings
  - general machine configuration
  - test functions for machine elements
  - calibration functions
  - pre-setting of default parameter values in programs
- Control Panel OP3000



- (1) activated selection in the menu item list
- (2) activated input in value field







#### Calling up the Technician Level

- Login
  - Press P an S simultaneously
  - Enter the code: **25483**
- Technician menu items:
  - Default Program (program presettings)
  - Machine config.
  - User config.
  - Service
  - Counter
  - Reset (Reset data)
  - Data Transfer









P oor-999  Default Program				
Stitchlen.	Stitch length	0.0 – 12.0 mm		
<u>t</u> Foot Press.	Sewing foot pressure	01 - 20		
<b>)(+</b> F Thr.Tens.	Needle thread tension	01 – 99 %		
<u></u> Foot Stroke	Sewing foot stroke	0.5 – 9.0 mm		
Start Tack	Start bartack	ON/OFF		
La End Tack	End bartack	ON/OFF		
La Thread Trim	Thread cutter	ON/OFF		
C Σ DailyPieces	Daily piece counter	Mode OFF/Incr./Decr.		





#### Attention! Priority Technician Mode



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



Define parameters and default values with care





#### Machine config.

<u> </u>	Thread Trim	Settings for the thread cutter tool	ON/OFF, Speed>
)(+	Thread Clamp	Adjustments for Thread Clamp	Angles, Options, PWM, NSB
<b>⊕</b>	Speed	Speed settings for particular conditions	Max/Min.,Pos.Speed, SoftStart
W.P	Stop Positions	Needle positions	at Stop, Threading, at Cutting
<u>_</u>	Foot	maximum height and speed of foot lift	
<b>]{+</b> F	Thr.Tens.	Behaviour of thread tension during intermediat	e foot lift and after trim (cutting)
<u>I</u>	Stroke	Couple the 2 <sup>nd</sup> thread tension with the 2 <sup>nd</sup> foot stroke	
**	Stitchlen.	limit the maximum stitch length.	
(M)	Holding Fore	Motor holding force	
	Puller		
<b>\$</b>	Pedal	Settings for pedal behaviour, response times	
	NeedleCooling	Needle cooling settings	speed, lag time/delay,
N P	EdgeGuide	Edge Guide	travel speed, Min. gap mm
₩ <b>-•</b>	FabricThickness	Material thickness detection	
⊕ cor.	SpeedCorr	Correction effects of high speed	Hysterese
	LightBarrier	Light Barrier settings	
* <b>‡</b>	Mode Seg.Size	Counting method of seam sections: no. of stitches or the length in mm	
	Threading	Position of the sewing foot if threading mode is	active/during threading mode





### Machine config. (Notes)

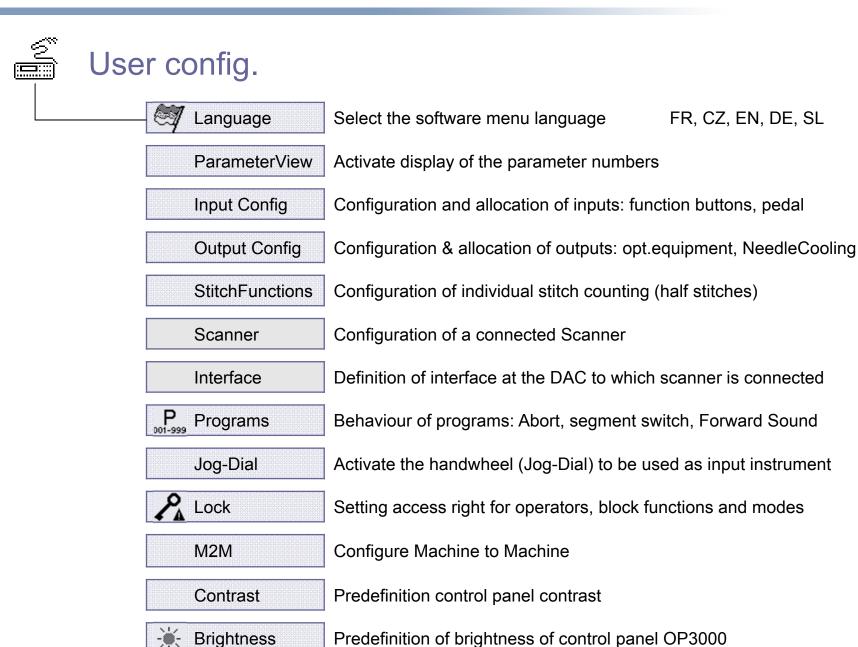




### Machine config. (Notes)











### User config. (Notes)





## 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 2 <sup>nd</sup> stitch length	X120T.17	12
S5 2 <sup>nd</sup> 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





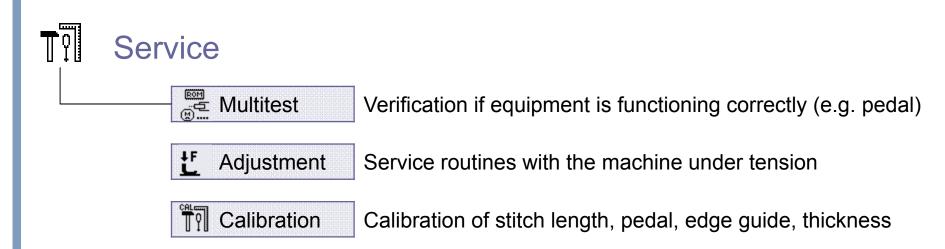
### Output Signals of the machine

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	
0	
1 = Needle Cooling	
3 = Pos 1	
4 = Pos 2	
5 = Motor Running signal	
6 = Central Guide	
7 = Signal Foot Lift	









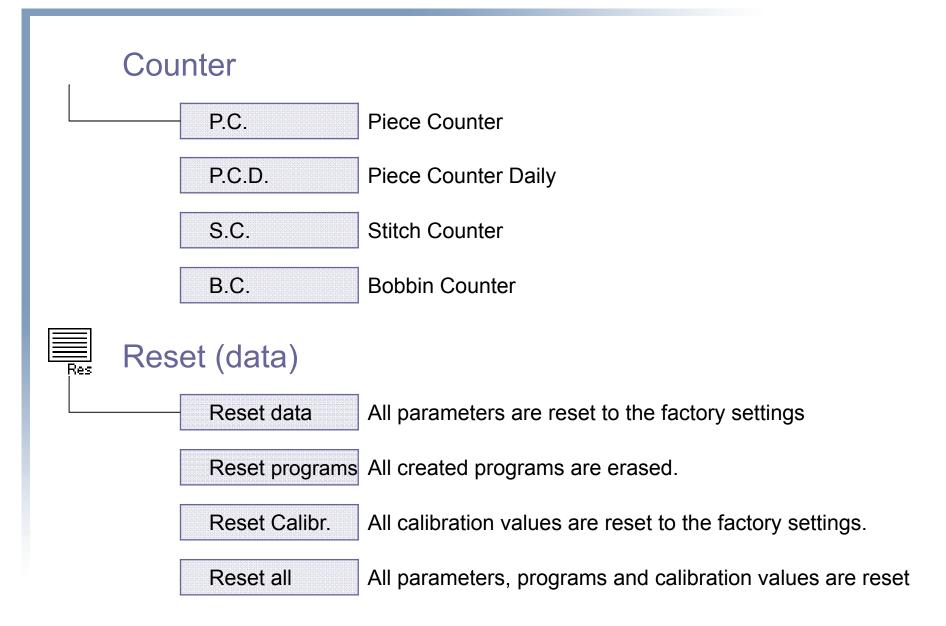




Service (Notes)

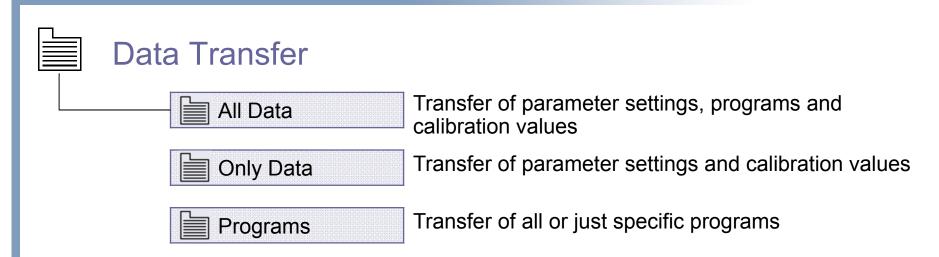
















# # 1

#### Software Update

- The file of the actual software version (\*.dacimg) can be downloaded from the Dürkopp-Adler website
- Save software version file to the root directory of USB key (no subfolder)
- Make sure you just have ONE software version file stored on USB !!!
- Update the software of the machine





#### #2 Software Update

#### Machine switched off!

 Plug the USB key into the socket on the control unit

> Insert USB key

#### Switch on the machine

- Machine start
- Automatic start of software transfer

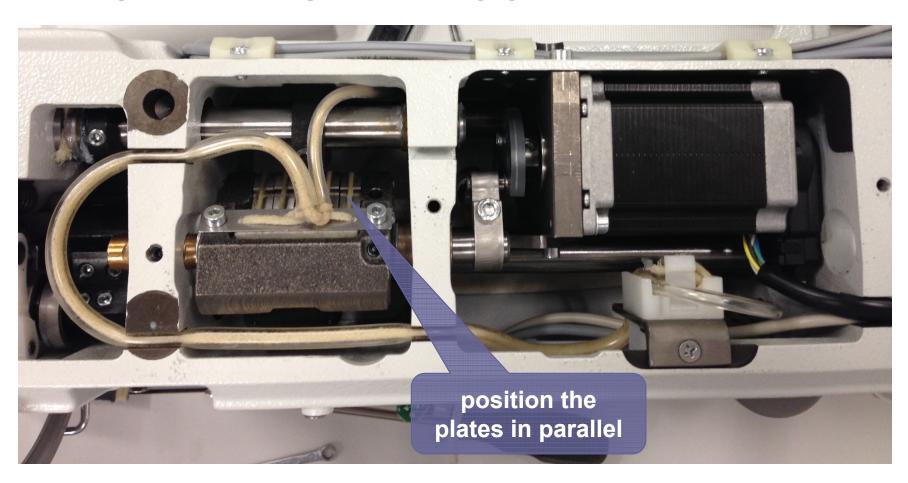
- Display of actual software version
- The machine is ready to operate

Software update complete





# Specific Mechanical Adjustments PREMIUM: Setting the sewing foot lifting gear

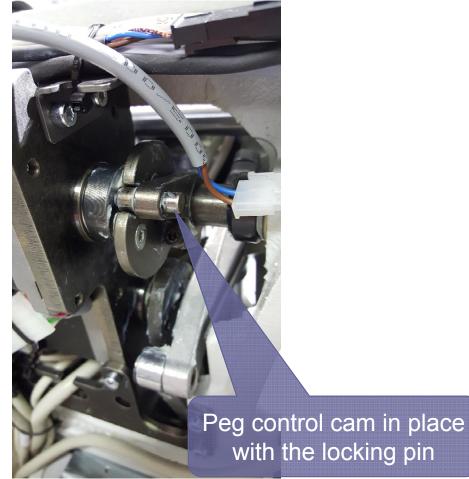






### Specific Mechanical Adjustments PREMIUM: Setting the sewing foot pressure and sewing foot lift









# 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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