VETRON

PROGRAMMING MANUAL

10/2020

VETRON

PROGRAMMING MANUAL

10/2020

© **VETRON | TYPICAL GmbH**

Clara-Immerwahr-Str. 6
67661 Kaiserslautern, Germany
Tel.: +49 6301 320 75 - 0
Fax: +49 6301 320 75 - 11
info@vetrontypical.com
www.vetrontypical.com

All rights reserved.
The instructions for use, service instructions, parts lists are protected by copyright. Any reuse of the content outside the copyright is without the written consent of VETRON | Typical GmbH inadmissible and punishable.

VETRON | Typical GmbH is only liable for damage caused by intent or gross negligence on the part of the manufacturer. Otherwise, liability is excluded.

Reserve technical changes!
The contents were carefully prepared and checked by the publisher. Due to continuous development, illustrations, functional steps and technical data may differ slightly.

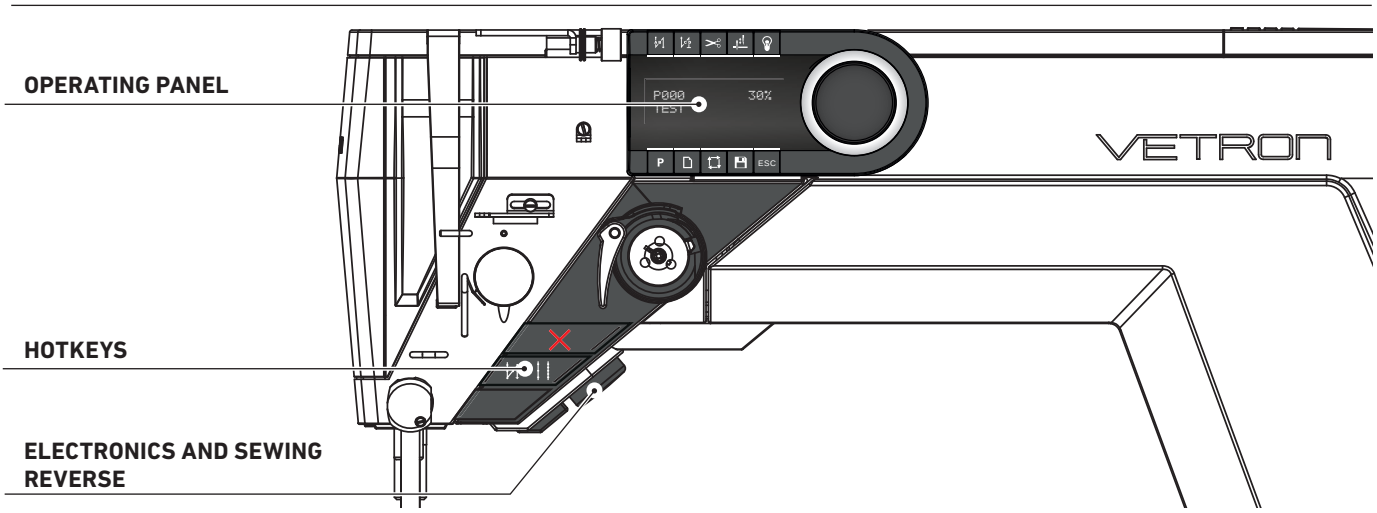
Updating the documentation
If you have suggestions for improvement or have detected any irregularities, please contact us.

ⓘ The documents for the machines can be accessed by logging on **https://www.vetrontypical.com/** downloaded for free.

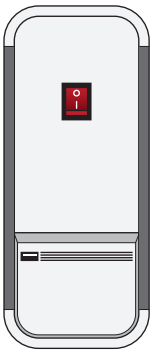
CE marked after §7 Prod SG

PROGRAMMING MANUAL

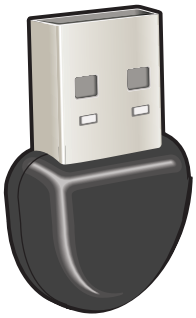
05	**01.** OVERVIEW
06	**02.** OPERATING PANEL
07	**03.** HOTKEYS
08	**04.** ELECTRONIC HANDWHEEL & REVERSE SEWING
09	**05.** CONTROL & MAIN SWITCH
10	**06.** PEDAL
11	**07.** LIGHT
12	**08.** GENERAL INFORMATION IMPORTANT FOR SAFETY
13	**09.** GENERAL
14	**10.** CREATE PROGRAMNAME AND STORING
15	**11.** CHANGE PROGRAM NAME
16	**12.** PROGRAM PARAMETER
30	**13.** CREATE PROGRAM CHAIN
34	**14.** PROGRAM ADMINISTRATION WITHOUT USB DONGLE
36	**15.** PROGRAM ADMINISTRATION WITH USB DONGLE
41	**16.** UPDATE THE OPERATING PROGRAM



CONTROL



USB-DONGLE



PEDAL

The operating field indicates the current operating states.

Operation takes place via continuous dialog between control and operator.
Depending on the operating state, different texts are displayed.

The following functions are assigned to the **BUTTONS ABOVE AND BELOW THE DISPLAY**:

1 **BACKTACK** (from left to right):
A Start backtack
B End backtack

2 **THREAD TRIMMING**

3 **NEEDLE UP/DOWN AFTER STOP**

4 **LIGHT ON/OFF**

5 **PARAMETERS**

6 **NEW PROGRAM**

7 **PROGRAMMED SEAM**

8 **SAVE**

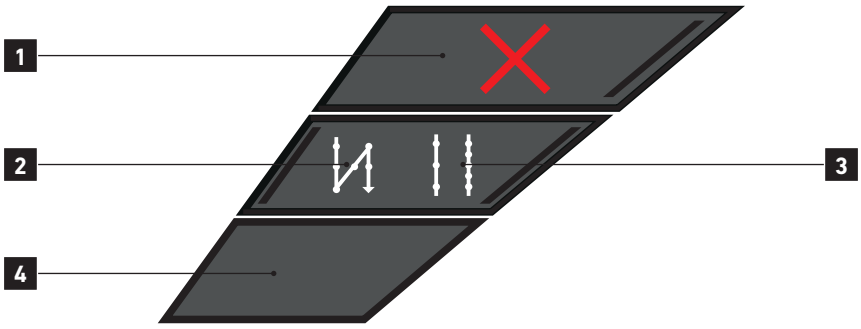
9 **CANCEL**

If a function is activated, this is indicated by illuminating the corresponding LED.

In order to **CHANGE OR SET VALUES**, use the **JOG KEY** (**10**):
Turning changes the values; pressing the **JOG KEY** enters the value.
In the following, the operating type is indicated by the following icons:

Input = Press the **JOG KEY:**

Change = Turn the **JOG KEY**:



1 **SAFETY SWITCH**
If the safety switch is triggered, all functions are locked. The LED lights up red.
The **"BLOCKED MODE"** is active.

CAUTION:
Before activating the machine by the X-button make sure to remove **sewing material** or **other items** below the sewing feet if necessary and follow the instructions displayed in the control panel.

2 **SINGLE BACKTACK SUPRESSION**
If the backtack function is activated, the following backtack is switched off once by pushing the key.

3 **2ND STITCH LENGTH**
If the second stitch length is activated, the corresponding LED is lit up.

4 **CUSTOMIZABLE BUTTON**
Default: Toggle foot stroke level
(see parameter M085)

NOTE!
The electronic handwheel is not active unless the machine has performed at least one stitch.

For safety reasons it is necessary during "**BLOCKED MODE**" to push and hold the programmable button (the lowest button) **3** to activate the electronic handwheel.

1 ELECTRONIC HANDWHEEL – FUNCTION

By turning the handwheel, you can move the needle bar up or down.

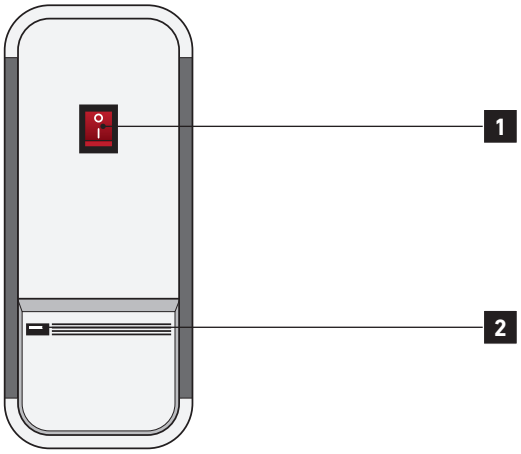
In the following, the operating type is indicated by the following icons:

Pressing the handwheel: stitch-for-stitch function / needle positioning

Turning the handwheel:

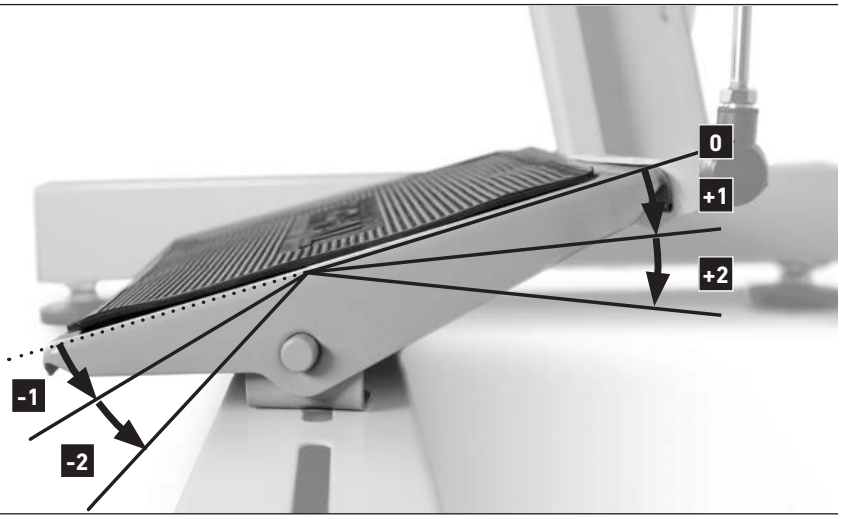
2 REVERSE SEWING

Pulling the button changes the sewing direction.



1 **MACHINE MAIN SWITCH ON/OFF**

2 **USB-PORT**
Identify yourself using the provided USB dongle.



0 **IDLE POSITION**

+1 **CONSTANT SEWING SPEED** (adjustable via parameter M502)

+2 **VARIABLE SEWING SPEED FROM 0-100%
OF THE CHOSEN MAXIMUM SPEED** (depending on sewing program)

-1 **SEWING FEET LIFT**

-2 **SEAM END PROCEDURE ACTIVATION** (depending on sewing program)

	DISPLAY	STEP	DESCRIPTION
»	LIGHT ON/OFF		
			The VETRON head module is equipped with LED lighting.
		Press the **LIGHT** button	The corresponding LED on the display lights up.
»	ADJUST LIGHT INTENSITY		
01		Press the **LIGHT** button	Die entsprechende LED leuchtet auf dem Display.
02	100% ADJUST LIGHT	Change **LIGHT INTENSITY**	Percentage on the display and light intensity of the light are changed.
03	060% ADJUST LIGHT		After 2 seconds without further input, the value is set and the current program number is shown.
04	P123 W12345 PROGRAM NAME	Machine is ready for operation.	

General Safety Instructions

This manual and the warning symbols on the machine should ensure the safe use of the machine, so that no accidents and injuries may occur to you and others. Please read this instruction and also the safety instructions of the motor manufacturer carefully.

» The machine must only be operated in accordance with its intended purpose (for example, sewing medium to heavy materials such as jeans, leather, etc. NO tin!) and with the associated protective equipment. The relevant country-specific safety regulations and technical data must also be observed.

» The machine should only be used in accordance with its intended purpose (eg sewing medium to heavy materials such as jeans, leather, etc.) and with the associated protective equipment. The relevant country-specific safety regulations and the technical data must also be observed.

» The machine should only be set up and operated in dry and well-kept rooms.

» Do not place the machines outdoors, next to radiators or heat source. The ambient temperature should not be lower or higher than between 0° C to 45° C.

» The machine must only be commissioned after the relevant operating instructions have been taken into consideration and by appropriately instructed operators.

» These instructions are to be stored at hand.

» The connection cable must be provided with a country-specific approved mains plug. The mains plug must only be connected to grounded sockets. Here a qualified specialist is necessary.

» The machine must always have a grounding. Only over this is a normal operation of the machine to ensure.

» The danger and safety instructions attached to the machine must be followed.

» When replacing sewing tools such as needle, sewing foot, stitch plate, feed dog or bobbin, when threading, when leaving the workplace and during maintenance, etc., the machine must be disconnected from the mains.
➔ Press the main switch or pull out the mains plug.

» Machines with compressed air components must be disconnected from the compressed air supply and the residual pressure released before repair or maintenance work. Exceptions to this are performance tests or specific settings.

» Repairs and all maintenance work should only be carried out by qualified personnel or appropriately instructed persons.

» Work on electrical equipment must only be carried out by qualified specialists.
➔ If errors are detected, stop the machine immediately.

» Work on parts and equipment that are live is not permitted. The machine must be disconnected from the mains.

» Modifications or modifications to the machine must be carried out in compliance with all relevant safety regulations. The manufacturer assumes no responsibility for damage caused by changes or modifications.

» For repairs, only spare parts approved by VETRON may be used. In case of infringement the guarantee expires.

» The machines are to be used only for the purpose intended.

» If oils, greases, etc., used for the machines and accessories, get in your eyes or on your skin, or should you swallow any of these fluids, wash them immediately and thoroughly, or seek medical attention immediately.

» Commissioning of the machine is prohibited until it has been determined that the entire sewing unit complies with the provisions of the EC directive and the declaration of conformity has been created.

Advice to the Owner

» As part of the machine, this operating manual must be available to operating personnel at all times. Before using the machine for the first time, the operator must read this operating manual.

» The operator has to ensure that the machine is only operated in perfect condition.

» The operator must ensure that no safety devices are removed or disabled.

» The operator must ensure that only authorized or properly instructed persons work on the machine.

» The operator must therefore ensure that the workstations according to ASR lux. 4 are adequately illuminated (min. 750 lux).

Operators and Technical Staff

» The operating personnel are responsible for setting up, operating and cleaning the machine and responsible for the elimination of faults.

» Qualified personnel include people with specialist training in electrical / electronics, pneumatics and mechanics.
➔ Lubrication, maintenance, repair and adjustment are your responsibilities.

» The operator must refrain from any operation that impaires the safety on the machine.
1. Jewelry, chains and rings - must not be worn.
2. The clothes should be tight
3. Only authorized persons may enter the danger area.

» If changes occur to the machine that affect safety, they must be reported immediately to the operator.

» The specialist personnel - persons with training in electrical/ electronics and mechanics - are responsible for the lubrication, maintenance, repair and adjustment of the machine.

» Before starting adjustment and repair work, the main switch must be switched off and secured against reclosing.

» Work on parts that are under tension should be avoided. Exceptions are regulated by EN 50110. After maintenance and repair work, the protective covers must be replaced.

» Operating and specialist personnel are obliged to observe the safety instructions given in the instructions for use during all work.

Basically

The adjustments for e.g. stitch length, thread tension, foot pressure and other settings are made with equipment like knobs, switches and dials on conventional sewing machines. These settings are not accurately reproducible after changing them.

With the VETRON, these settings are made by step motors, they can exactly reproduce the desired setting. All settings for e.g. stitch length, thread tension and foot pressure are adjusted with parameters on the controller.

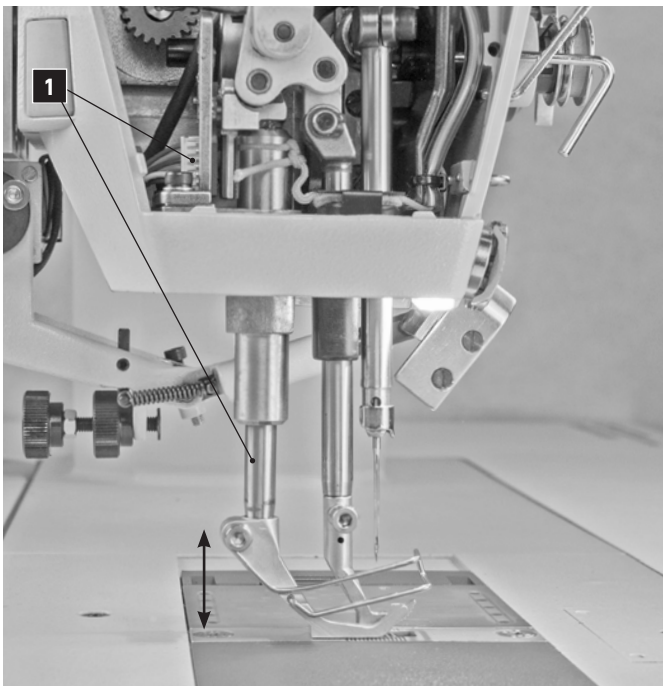
Single- and Chainprograms

A complete setting of the machine is called a program and can be stored under a name or a number. A change of progam can be done with the push of a button and all adjustments are carried out. Multiple settings of different machines can be united in one machine. It is also possible to concatenate several programs. They will run automatically one after another. This is called a chain program.

A progam can be used as a **single program**, or be linked in a **chain program.** Changes in a program will be active in a **chain program**. For this reason it is advisable to store the parts of a **chain progam** separately e.g. with a number higher than 50 upwards.

Measurement of the material thickness

The machine is fitted with a electronic device **1** that can register the thickness of the material. This device enables the machine to react independently to different requirements within one seam, depending on the configuration. The thread tension, foot pressure and stitch length are adjusted with increasing material thickness.



Notice when switching on machine

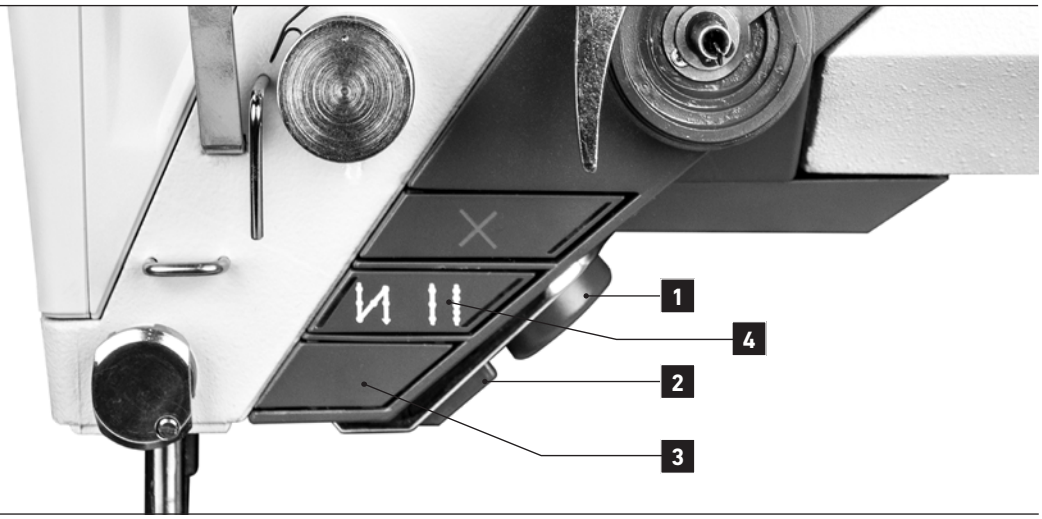
The system will calibrate itself every time you switch the machine on. Also after pushing the safety switch (X-Key) calibration will take place. Calibration must take place without material under the sewing foot. The needle plate surface is 0mm material thickness.

	DISPLAY	STEP	DESCRIPTION
»	CREATE PROGRAM NAME AND STORING		
1		Push the key **NEW PROGRAM** (6) ▶	
2	P003) CREATE PROGRAM		The next empty program space will be shown on the display.
3		▶ Push the **JOG KEY** (10)	
4	_ ENTER PRG NAME		Program name or number can be entered on the display.
5		▶ Push the **JOG KEY** again	
6	A ENTER PRG NAME		The cursor on the display will flash. You can select a number or letter by turning the **JOG KEY**. Push the **JOG KEY** to confirm selection. The cursor will move to the position for the next number or letter. You can enter a maximum of 15 digits.
7	VETRON 1) ENTER PRG NAME		Move the cursor below the righthand arrow when the name is complete.
8	P001 VETRON	▶ Push the **JOG KEY** to confirm your entry.	The display will now show your selected name.

ADVICE!
Turn the **JOG KEY** to select the desired parameter. Push the **JOG KEY**. The parameter will flash and can be changed by turning the **JOG KEY**. Pushing the **JOG KEY** again will store your input.

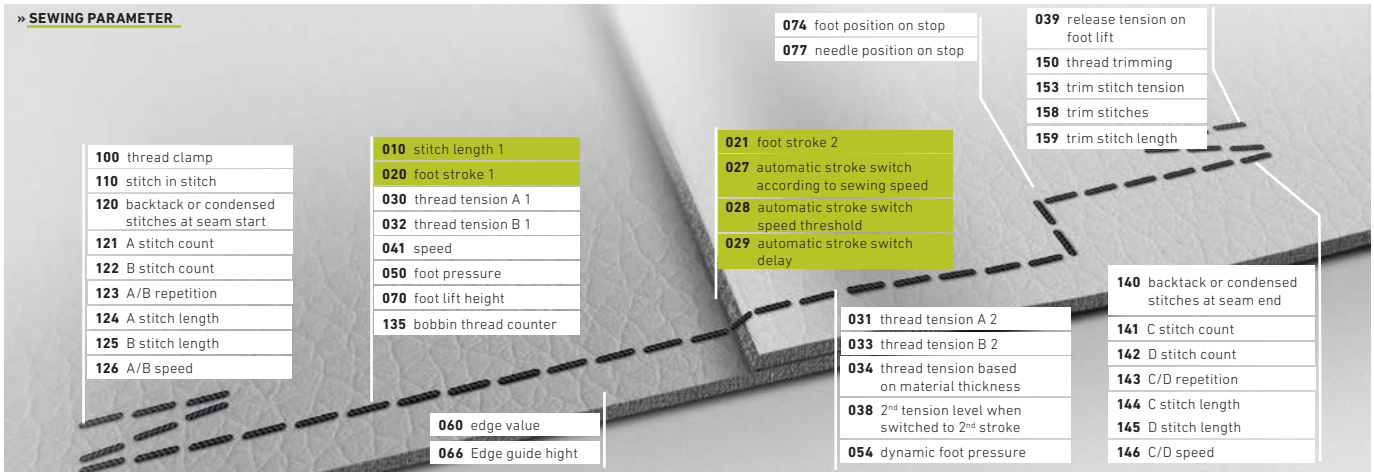
	DISPLAY	STEP	DESCRIPTION
»	CHANGE PROGRAM NAME		
1		Push the **P** button (**5**). ► **P**	The appropriate LED will shine on the display.
2	001 VETRON 1 Programname		Parameter 1 appears on the display. Now you can change the name.
3		► Turn the **JOG KEY** to the right.	You are directed to the program parameters.

ADVICE:
A seam program can be created with the following parameters. When a function is deactivated the according parameter will not be displayed. To select a progam parameter you have to turn the JOG KEY and push it when the desired parameter appears. It will now flash. Now you can select the desired parameter setting by turning the JOG KEY. The new setting will be stored by pushing the JOG KEY again.



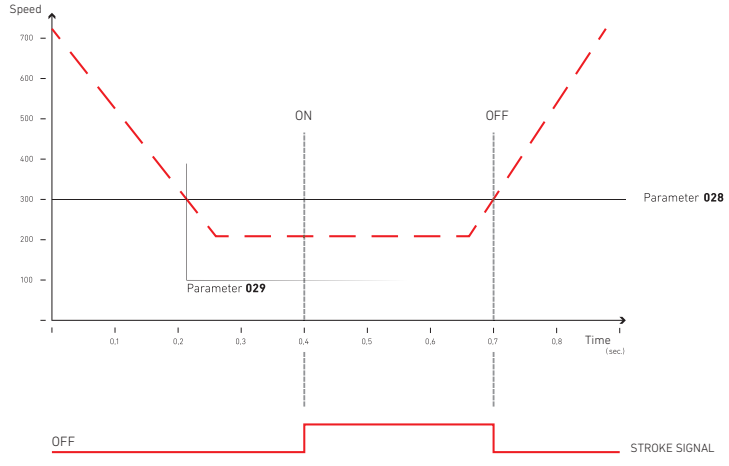
NR.	PARAMETER	DESCRIPTION
»	STITCH LENGTH IN THE SEAM	
010	Stitch length 1	Main stitch length in mm in the seam. The stitch length can also be entered in the negative range. The seam will be done in reverse.
011	Stitch length 2	Second stitch length, which can be selected by pushing button **4** (parameter **018**). The stitch length can also be entered in the negative range. The seam will be done in reverse.
018	Button **4** Stitch length trigger function	Select function with button **4**. **OFF** Without function **SWITCH** Stitch length will change to 2nd stitch length as long as you hold it. When button is released 1st stitch length is back. **TOGGLE** Stitch length will change when button is pressed. When it is pressed a second time, it will change back to 1st stitch length.

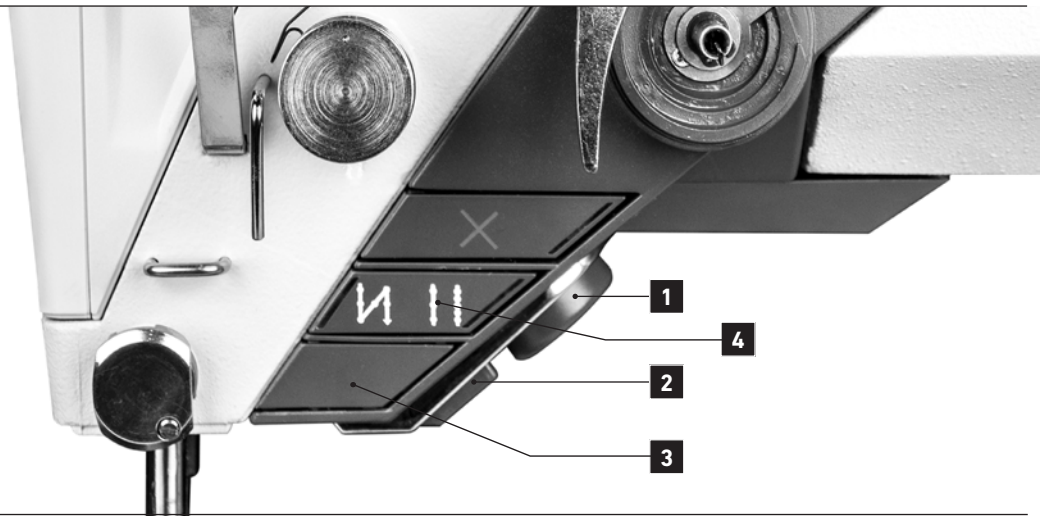
NR.	PARAMETER	DESCRIPTION
»	FOOT STROKE	
020	Foot stroke 1	Stroke in mm during normal sewing. The value must be set depending on the thickness and texture of the material to achieve a correct material feed.
021	Foot stroke 2	2nd stroke in mm. Can be switched on when reaching thick joints in the seam. Switching over can be done with key **3** or the electronic handwheel **1** . It can also be done with a knee lever (optional) or with the automatic switch parameter **027**.



NR.	PARAMETER	DESCRIPTION
»	FOOT STROKE	
027	Automatic stroke switch	The machine will switch over to a higher stroke automatically after a certain time and revolution speed. **ADVICE!** **Automatic stroke switch parameter 027** The stroke on an alternate machine are normally changed by pressing a button or with a knee lever. The VETRON can do this also automatically with the foot pedal. By activating parameter **027** it will activate the facility. When the machine is run a certain time on the 1st step of the foot pedal it will automatically change to a higher stroke setting. When you sew faster than the 1st step the machine will return back to the lower stroke. The time and revolution is adjustable (parameter **028**, **029**).
028	Automatic stroke switch speed threshold	Rotation per minute when switch should take place.
029	Automatic stroke switch delay	Delay time until stroke switch will occur.

Parameter **027** Automatic stroke switch

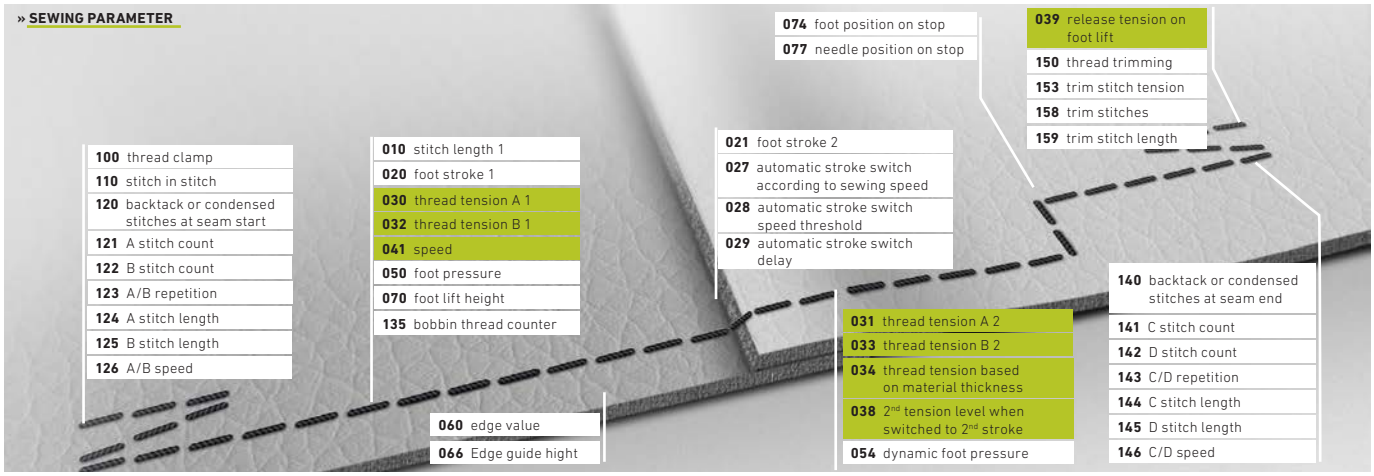




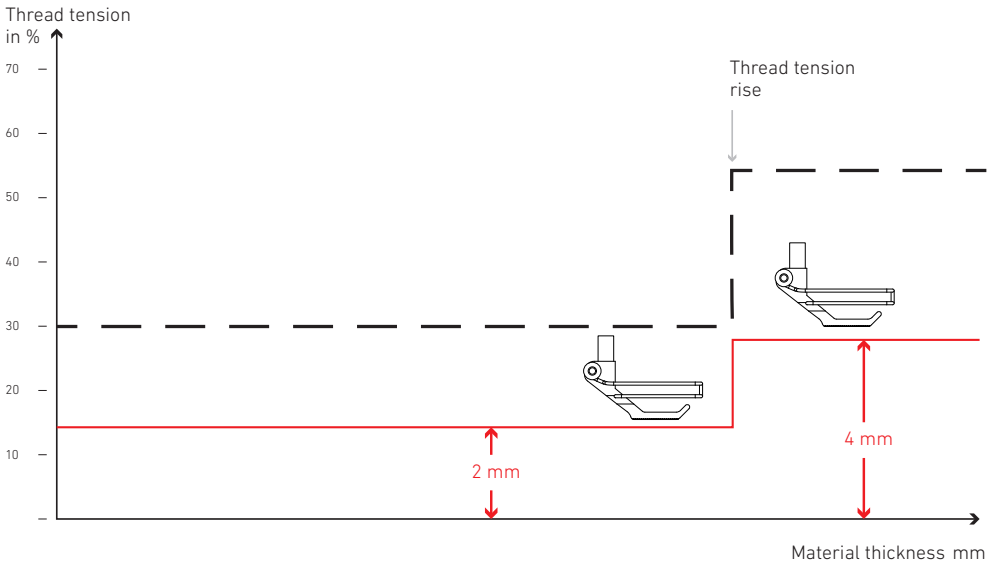
NR.	PARAMETER	DESCRIPTION
»	THREAD TENSION	

ADVICE!
Thread tension
The thread tension on conventional machines is adjusted with a spring. The reproduction of the desired thread tension is difficult. The VETRON sets the thread tension with a step motor. The task of the tension spring is taken over by a elastomer. A second thread tension on conventional machines needs an additional tension unit.
The VETRON accomplish the 2nd thread tension by increasing the tension.

030	Thread tension A 1	Main thread tension in program. Setting range 0 to 100 %.
031	Thread tension A 2	Higher thread tension than the main program. Setting range 0 to 100 %. The connection with the higher thread tension can be done by pushing button **3**, or **1** or when the 2nd top feed stroke is activated.
032	Thread tension B 1 (Two needle machine)	Main thread tension in program. Setting range 0 to 100 %.
033	Thread tension B 2 (Two needle machine)	Higher thread tension than the main program. Setting range 0 to 100 %. The connection with the higher thread tension can be done by pushing button **3**, or **1** or when the 2nd top feed stroke is activated.
034	Thread tension level increase / decrease based on material thickness	Two function are available. Function 1 = OFF (no change on different material thickness) Function 2 = **%** (lower percentage = less thread tension increase) (higher percentage = more thread tension increase) **Automatic thread tension adjustment depends on material thickness** The tension will be adjusted with the information received from the material thickness recognition. You can activate this function with the parameter **034**. With a lower percentage the increase will be less than with a higher percentage.

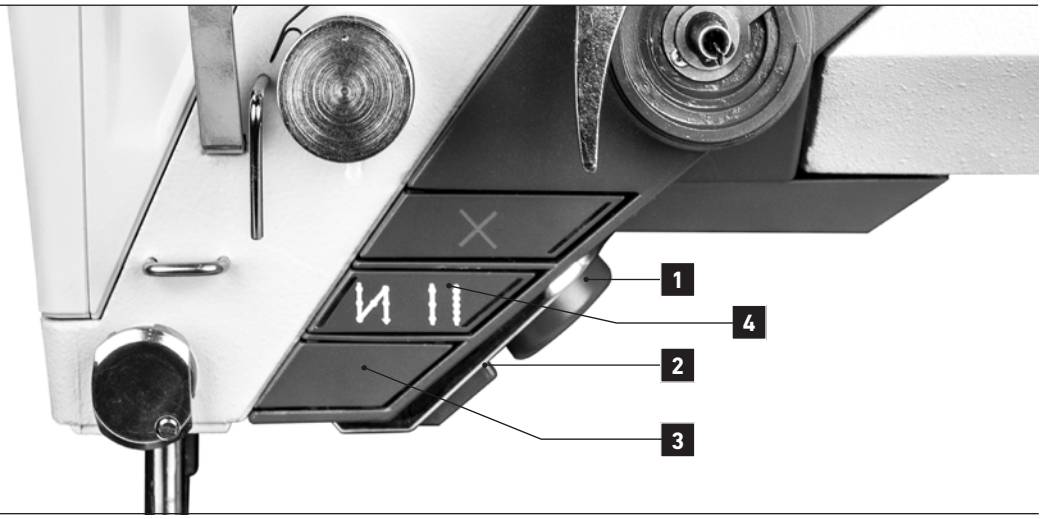


Automatic tension adjustment when material thickness changes



NR.	PARAMETER	DESCRIPTION
»	THREAD TENSION	
038	2nd tension level when switched to 2nd stroke	Two functions are available. Function 1 = **OFF** Thread tension will not change over. Function 2 = **ON** Thread tension will change over.
039	Release tension on foot lift	Three functions are available. Function 1 = **OFF** (No tension release when foot is lifted) Function 2 = **END** (Tension release when thread is cut) Function 3 = **ALWAYS** (Tension release when foot is lifted)

NR.	PARAMETER	DESCRIPTION
»	MAXIMUM ROTATION SPEED	
040	Speed mode	You can chose between two versions: Function 1 = **PEDAL** Sewing speed will be regulated by the posititon of the pedal. Function 2 = **CONSTANT** Constant sewing speed as selected in parameter **041**.



NR.	PARAMETER	DESCRIPTION
»	MAXIMUM ROTATION SPEED	
041	Maximum speed	The maximum speed will be entered here.
042	Softstart stitch count	Here the stitches are set which are required for a soft start.

NR.	PARAMETER	DESCRIPTION
»	FOOT PRESSURE CONTROL	

ADVICE!
Automatic foot pressure control
On conventional machines the foot pressure is generated by a spring and will be adjusted seldom. The VETRON also generates the foot pressure with a spring, but the spring is pre-stressed by a step motor with gear (parameter **050**). In different programs can different foot pressure be applied. You have the choice between three operation modes (parameter **054**).

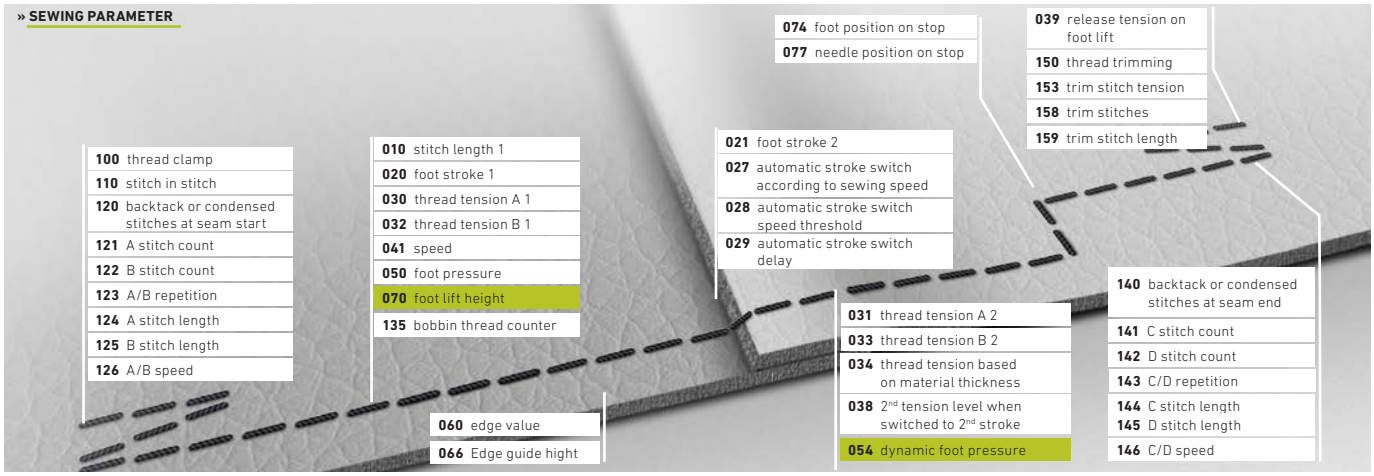
Operation mode: 1 = **OFF** Foot pressure is generated like on a conventional machine. Can be different depending on the program.

2 = **CONSTANT** The foot pressure will be constant on all material thicknesses. The material thickness recognition will make sure that the foot pressure control that you have a constant foot pressure.

3 = **1-100%** The foot pressure will be increased with increased sewing speed. Low percentage will increase the pressure only weak. High percentage will increase the pressure stronger.

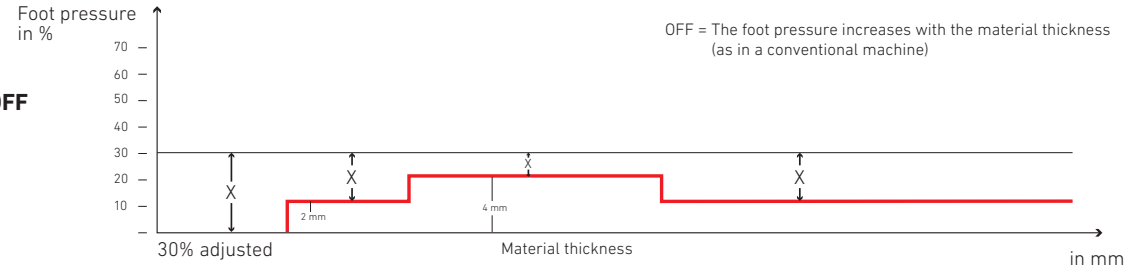
ADVICE!
When sewing operations are done where the foot pressure is used to keep the material in position (e.g. piping), it is advisable to use operation mode 1 (**OFF**). Operation mode 2 (**CONSTANT**) will lead to a negativ result. The material thickness recognition will prevent positioning the piping.

050	Foot pressure	You can set the foot pressure for the program here. Comparable to a conventional machine.
054	Dynamic foot pressure	The following functions are available: Function 1 = **OFF** Function 2 = **CONST** Function 3 = **%**

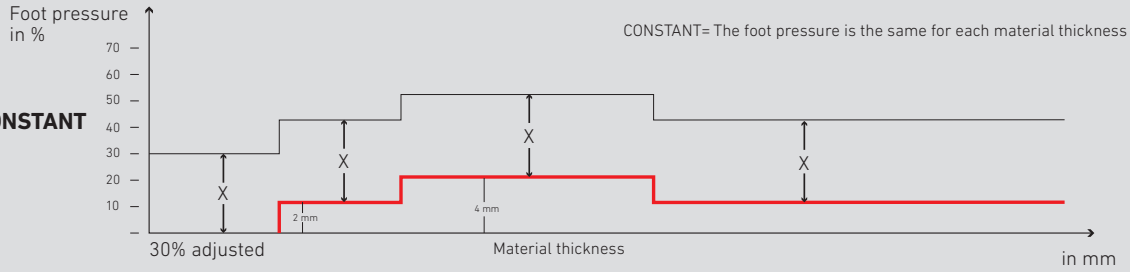


Automatic foot pressure

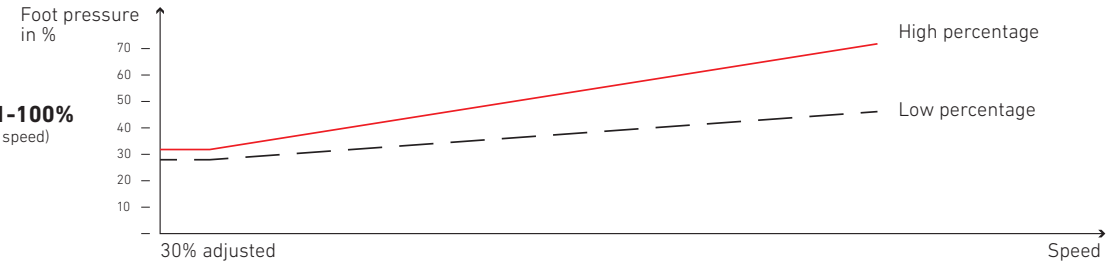
Operation mode **OFF**

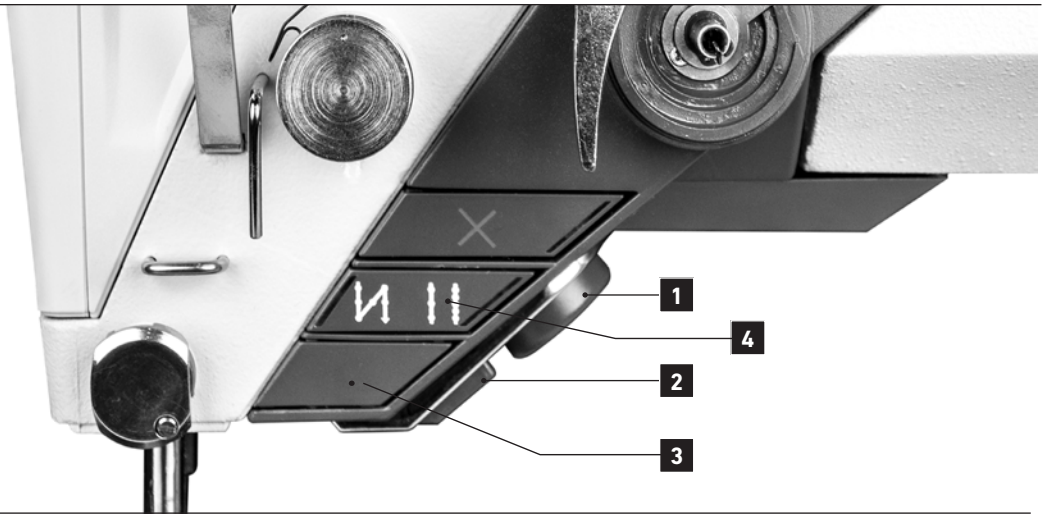


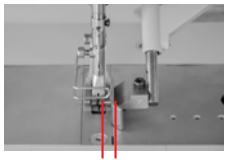
Operation mode **CONSTANT**



Operation mode **1-100%**
(Pressure increase over speed)

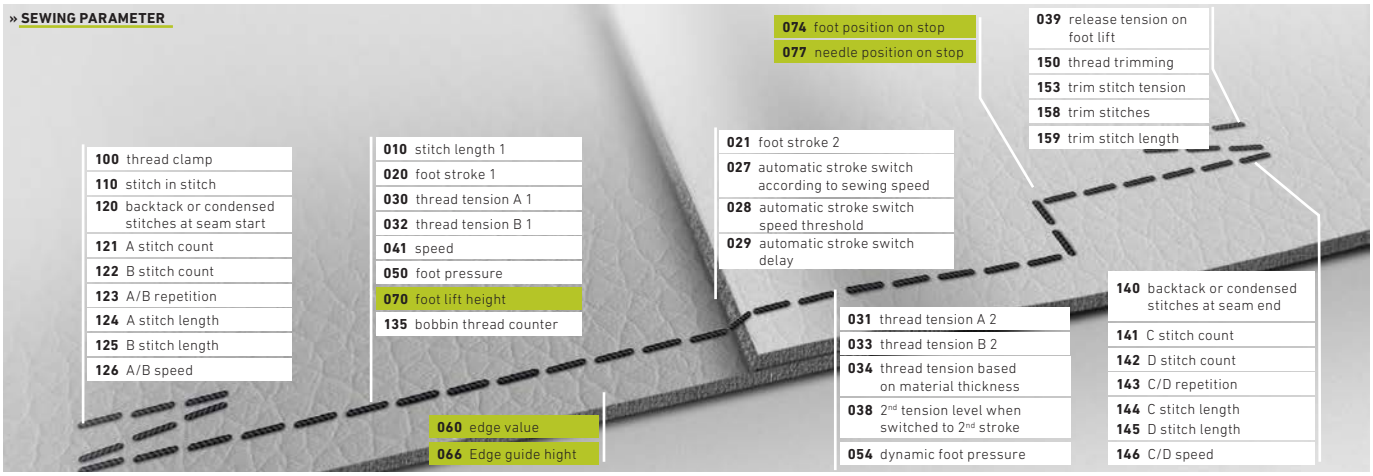




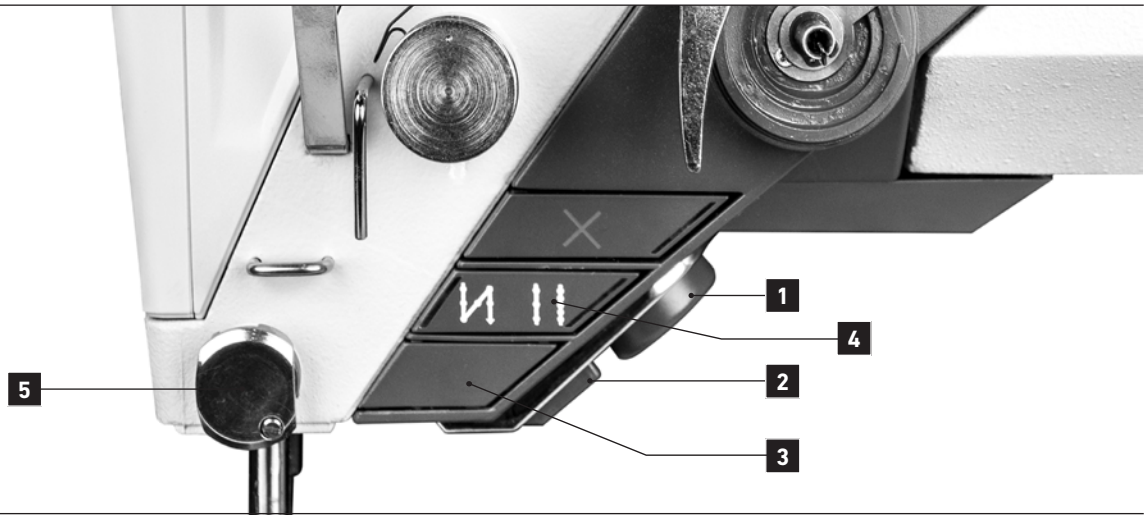
NR.	PARAMETER	DESCRIPTION
»	ELECTRONIC RULER FOR EDGE DISTANCE (OPTIONAL)	
060	Edge value 	Following functions are available: OFF = Edge ruler is deactivated. 0.1–35.0 mm = Edge ruler is activated (Edge distance e.g. 10 mm). The distance from the needle to the edge can be entered directly in mm. It can´t be set below the right edge of the presser foot. This setting can only be done by a service technican.
066	Edge guide height adjustment	The setting for the desired height of the 2-axial edge guide is entered here in %.

NR.	PARAMETER	DESCRIPTION
»	PRESSER FOOT HEIGHT, PRESSER FOOT POSITION, NEEDLE POSITION	
070	Foot lift height	The setting for the desired hight of presser foot lift is entered here (in mm) for the program in question.
071	Foot lift maximum for operator	You can restrict the maximum foot heigth (mm) for the operator here.
074	Foot position on stop	Two positions are available (Pedal in 0-position): UP or DOWN.
075	Foot position on seam end	Two positions are available (Pedal in 0-position): UP or DOWN.
077	Needle position on stop	Two positions are available (Pedal in 0-position): POS1 or POS2.

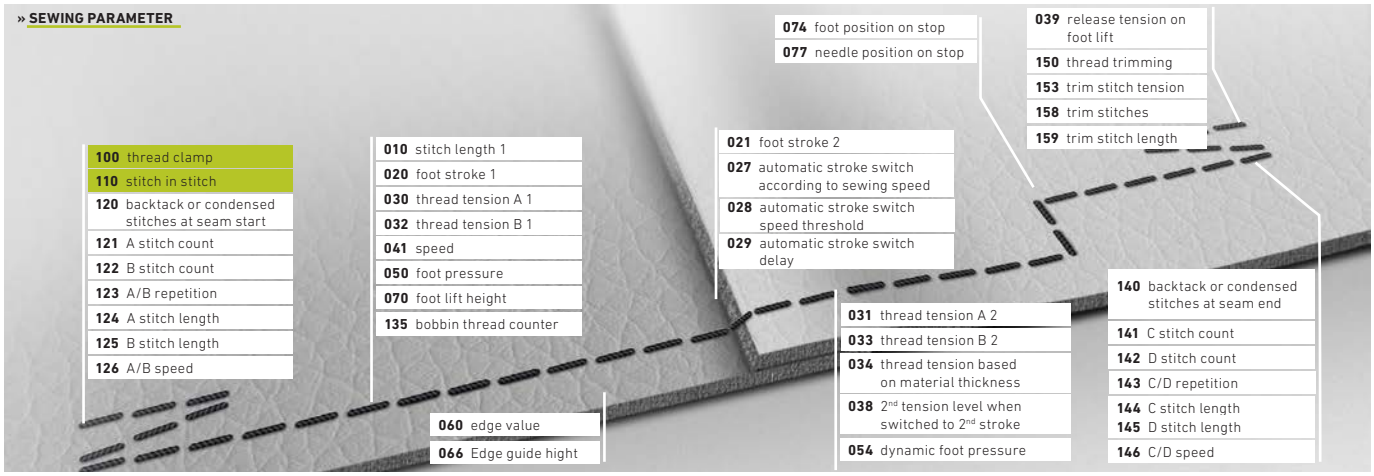
NR.	PARAMETER	DESCRIPTION
»	TARGET STITCH FUNCTION	
078	Target stitch position	**ADVICE!** Parameter **078** can only be selected when the position of stitch placing is activated in parameter **085**, **086** or **087**. The position of the needle point above the material is set with this parameter.



NR.	PARAMETER	DESCRIPTION
»	ALLOCATION OF HOTKEYS	
080	Direct parameter access	With this parameter you can select which functions will be shown on the display in the top right position. The value can be changed with the **JOG KEY** at any time. You can choose between: OFF = No access TENSION = Thread tension LENGTH = Stitch length SPEED = Sewing speed STROKE = Foot stroke PRESSURE = Foot pressure BOBBIN = Number of stitches remaining until bobbin thread is empty EDGE = Edge distance - ruler ASPEED = Actual speed is shown in the display NEEDLE P = Needle position COUNTER = Stitch count MULTIPLE 1 = Selectable: change program; stitch length; tension A
085	Key function (Key **3**)	With this parameter you can select the function for the key **3** in this program. You can choose between: OFF = No access TACKSW = In between tack for this program. (By pressing the key the machine will sew backwards as long as you hold it). TACKTG = In between tack for this program. (By pressing the key the machine will sew backwards. When pressing the key again it will sew forwards again). STROSW = Foot stroke for this progam. (By pressing the key you will switch to the 2nd stroke value. By releasing the key it will go back to the 1st stroke value). STROTG = Foot stroke for this program. (By pressing the key you will switch to the 2nd stroke. Pressing it again will change back to the 1st stroke).

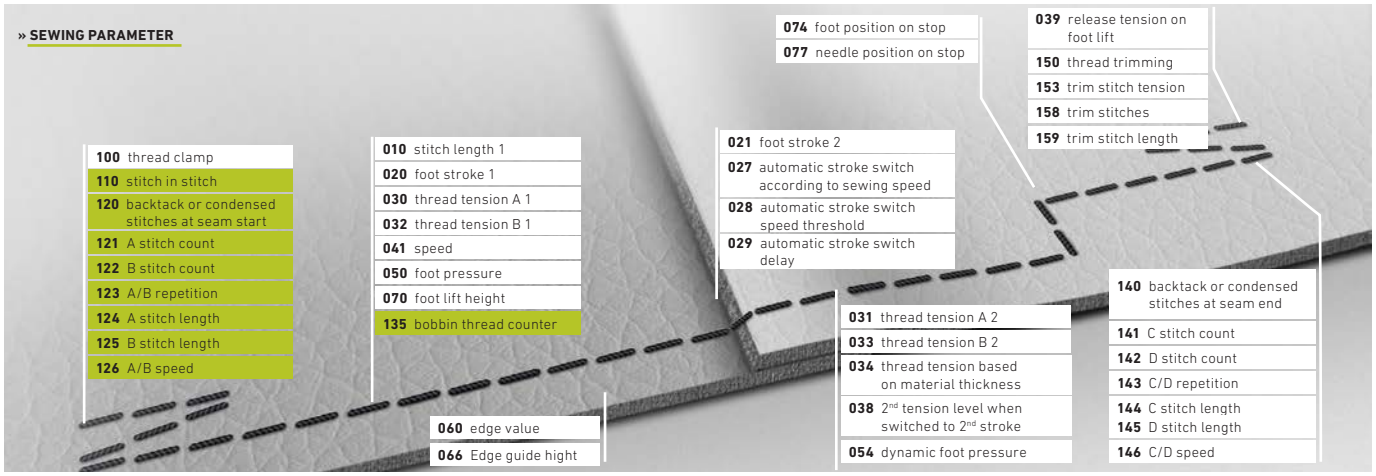


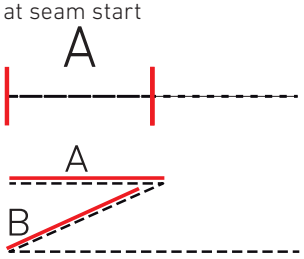
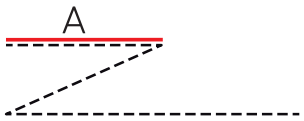
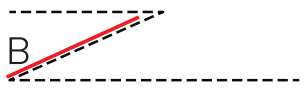
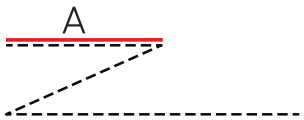
NR.	PARAMETER	DESCRIPTION
»	ALLOCATION OF HOTKEYS	
085		TENSSW = Thread tension switch from A1 to A2 for this program. (By pressing and holding the key you will switch to the 2nd tension as long as you hold the key. You will go back to the 1st tension setting by releasing the button) (also for two-needle machines B1and B2). TENSTG = Thread tension switch from A1 to A2 for this program. (By pressing the key you will switch to the 2nd tension. By pressing it again it will switch back to the 1st tension setting. (also for two-needle machines B1to B2). NEEDLE = By pressing the key the machine will switch to the 2nd needle position (needle up). By pressing it again it will switch back to the 1st position (needle down). TARGET = By pressing the key the machine will go to the target stitch position. Needle point just above the material. (Target stitch position parameter **078**). SCENTER = For the machines with two-needles, this signal for seam middle guide can be switched off. TACKTYPE = With this function you can switch in the seam between stitch in stitch and normal back tack. POST BED = By pressing the key the post bed can be moved in or out. PULLER = By pressing the key the puller wheel can be moved up or down.
086	Handwheel function (**1**)	Same functions as parameter **085**, when the electronic handwheel is pushed **1** .
087	Knee switch function	You have the same function as parameter **085**, when the knee switch is pushed.

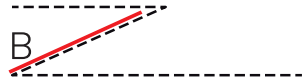


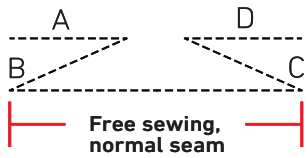
NR.	PARAMETER	DESCRIPTION
»	THREAD CLAMP	
100	Thread clamp (5)	The following functions are available: OFF = Out of action. ON = In action. The function of the thread clamp is equal to a thread wiper function. When the point of the hook catches the thread loop the clamp will close. The hook will pull the beginning of the thread down through the material.

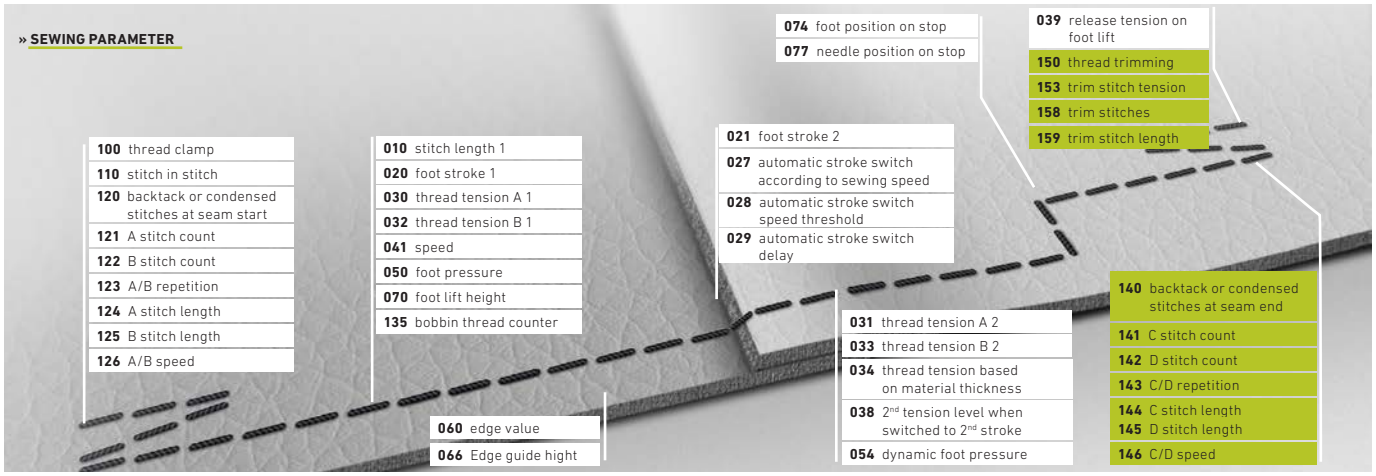
NR.	PARAMETER	DESCRIPTION
»	BACKTACK TYPE	
110	Stitch in stitch backtack	You can choose between: OFF = Out of action, normal backtack. ON = In action stitch, in stitch backtack. With a normal backtack the direction is changed while feeding. The penetration of the needle is not perfectly on top of each other. This is used for not visible seams. The stitches will be exactly in the same position with the stitch in stitch backtack. The feeding will be switched when the machine is standing still. It is used for visible backtacks with high quality.

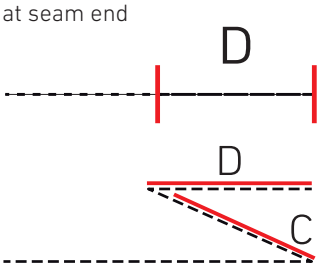
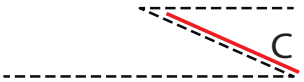
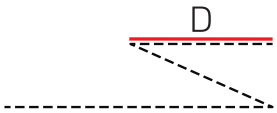
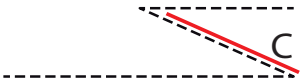


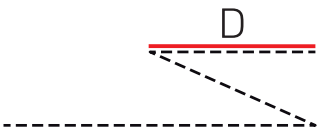
NR.	PARAMETER	DESCRIPTION
»	START BACKTACK	
120	Backtack or condensed stitches at seam start 	You can choose between: OFF = No backtack at seam start. STCONDS = Condensed stitches at seam start. The distance A will be used for the condensed stitches. The stitch length will be set with parameter **124** (Distance B is suppressed). BACKTACK = Backtack with distance A and B. BACKTACK B = Backtack with distance A and B and A. Use/Advantage: for different backtack length to stitch length.
121	A stitch count 	Can be set from 0 to 100 stitches.
122	B stitch count 	Can be set from 0 to 100 stitches.
123	AB repetition	Can be set from 0 to 100 stitches. Repeats the start backtack depending on adjustment.
124	A stitch length 	You can choose between: STD = Stitch length for A in backtack same as length set in parameter **010** (Main stitch length). 4.0 mm = Stitch length for A in backtack can be choosen irrespective of the main stitch length (parameter **010**) (e.g. 4.0 mm). -4.0 mm = When the stitch length for A in backtack is entered in the minus range this part of the backtack will be done in reverse.

NR.	PARAMETER	DESCRIPTION
»	START BACKTACK	
125	B Stitch length 	You can choose between: **STD** = Stitch length for B in backtack same as length set in parameter **010** (main stitch length). **4.0 mm** = Stitch length for B in backtack can be choosen irrespective of the main stitch length (parameter **010**) (e.g. 4.0 mm). **-4.0 mm** = When the stitch length for B in backtack is entered in the minus range this part of the backtack will done in reverse.
126	AB Speed	You can choose between: **PEDAL** = The speed for sewing the backtack will be regulated with the foot pedal. **800 S/min** = You can select a speed of 50 – 2000 S/min.

NR.	PARAMETER	DESCRIPTION
»	IN THE SEAM	
130	Stitch counted seam track 	You can choose between: **OFF** = The seam is done manually. Free sewing, normal seam. **1 – 20.000** = Stitch counted seam. The seam will be ended automatically when the entered amount of stitches is done (e.g. 30 stitches).
135	Bobbin thread counter	You can choose between: **OFF** = The bobbin thread counter is switched off. **50 – 20.000** = You can enter the amount of back counting stitches here (max. 20.000 stitches). **INFO!** The red LED in the safety switch (X Key) will flash when the entered amount of back counting stitches has been reached. The machine will continue work until the next thread cut. The machine is blocked after the thread cut and on the display you will see the request to change the bobbin. After changing the bobbin you have to press the safety switch (X Key) to reset the bobbin thread counter.



NR.	PARAMETER	DESCRIPTION
»	END BACKTACK	
140	Backtack or condensed stitches at seam end 	You can choose between: OFF = No tack on end of seam. STCONDS = Condendsed stitches at end of seam. The distance D will be used for the backtack. The stitch length will be set in parameter **145** (Distance C will be suppressed). BACKTACK = End backtack with distances C and D.
141	C Stitch count 	Can be set between 0 and 100 stitches.
142	D Stitch count 	Can be set between 0 and 100 stitches.
143	CD repetition	Can be set between 0 and 100 stitches. Repeats the complete backtack depending on setup.
144	C Stitch length 	You can choose between: STD = Stitch length for B in backtack same as length set in parameter **010** (Main stitch length). 4.0 mm = Stitch length for B in backtack can be choosen irrespective of the main stitch length (parameter **010**) (e.g. 4,0mm). -4.0 mm = When the stitch length for B in backtack is entered in the minus range this part of the backtack will done in reverse.

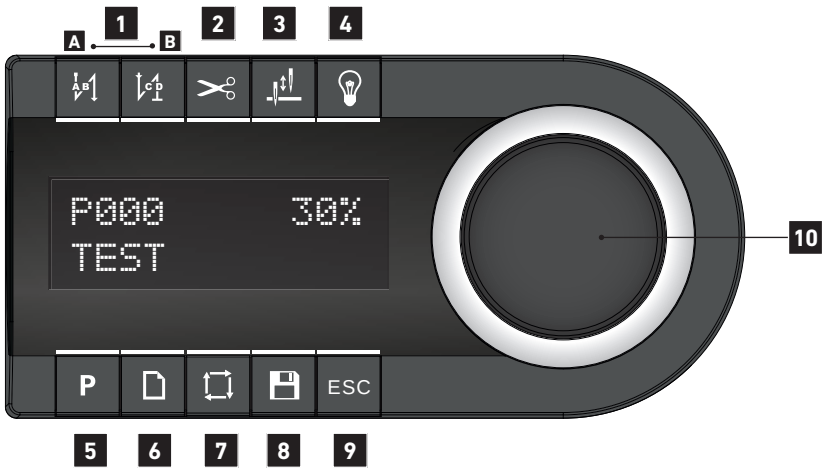
NR.	PARAMETER	DESCRIPTION
»	END BACKTACK	
145	D Stitch lenght 	You can choose between: STD = Stitch length for B in backtack same as length set in parameter **010** (Main stitch length). 4.0 mm = Stitch length for B in backtack can be choosen irrespective of the main stitch length (parameter **010**) (e.g. 4.0 mm). -4.0 mm = When the stitch length for B in backtack is entered in the minus range this part of the back tack will done in reverse.
146	CD speed	800 S/min = Can be set between 50 – 2000 S/min (e.g. 800 S/min)

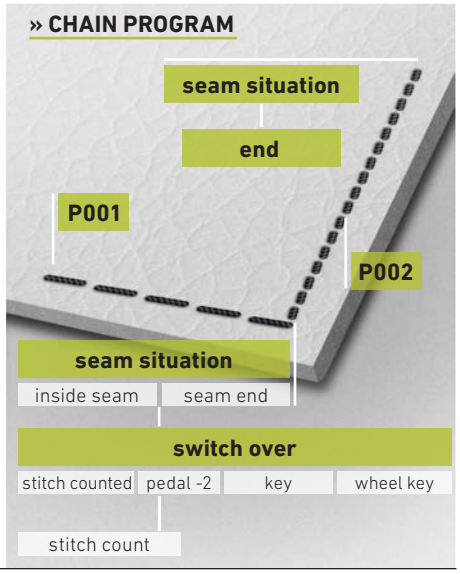
NR.	PARAMETER	DESCRIPTION
»	SEAM END	
150	Thread trimming	You can choose between: OFF = Thread trimmer is inactive. ON = Thread trimmer is active.
153	Trim stitch tension (Only for Sub Class -11)	You can choose between: -1 = Thread tension by trimming 0-100% = Thread tension released Thread tension value
157	Reserved (Only for Sub Class -11)	Thread trimming tension, adjustable: -2 = The same thread trimming tension as the sewing thread tension -1 = Released thread tension 0-100 = Thread trimming tension in %
158	Trim stitches	Extra stitches before thread trimming, released by trimming. Adjustable between OFF and 100 stitches
159	Trim stitch length	Stitch length setting for the setted trim stitch.
160	Backturn	You can choose between: OFF = Backturn is inactive. ON = Backturn is active.

NR.	PARAMETER	DESCRIPTION
»	CHAIN PROGRAM	
999	Chain program	This parameter will show if a progam is used in a chain program. **INFO!** A chain program can be used when different operations on a work piece are done one after the other. The machine will set itself automatically for the next work step.

PROGRAMMING MANUAL

13. CREATE PROGRAM CHAIN
-1-4



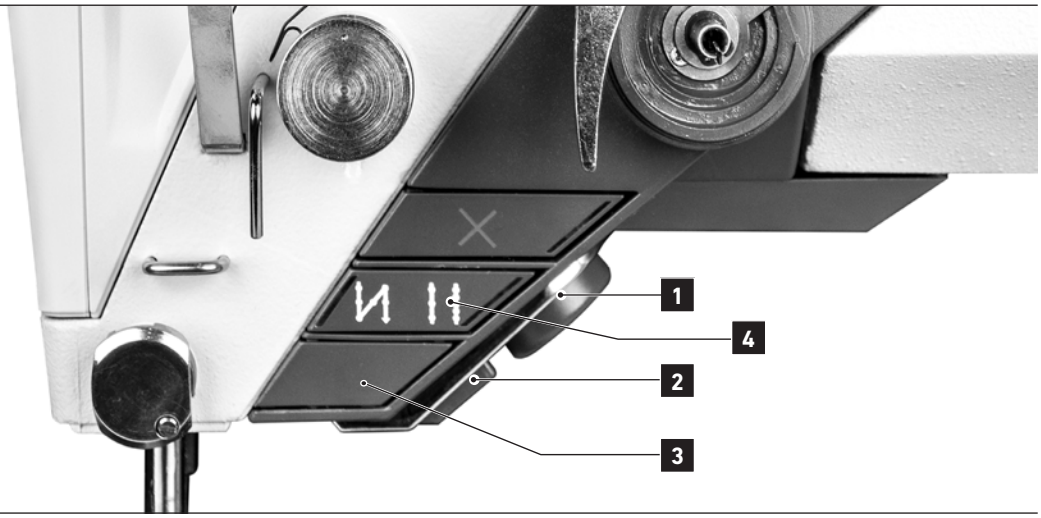


INFO!
A chain program consist of several programs which a run one after the other. The switch to the next work step can be chosen differently. It can be done e.g. after a stitch counted seam or by pressing a key. The next step can also be initiated by the thread cut or the PEDAL -2 position. A chain program will be shown by a diode above the chain program key.

	DISPLAY	STEP	DESCRIPTION
»	CREATE PROGRAM CHAIN		
1		Press the **CHAIN PROGRAM** Key (7) ▶	
2	SCH 01--> P001 Progname		A sequence of progams will be shown on the display.
3		▶ Turn the **JOG KEY** (10) to the right to select the 1st program.	
4		▶ Turn the **JOG KEY** (10) to store.	
5	STCOUNTED Switchtype		You can chose on the display the way to switch over to the next program.

The following selection of switch over are available (see next page below point 6):

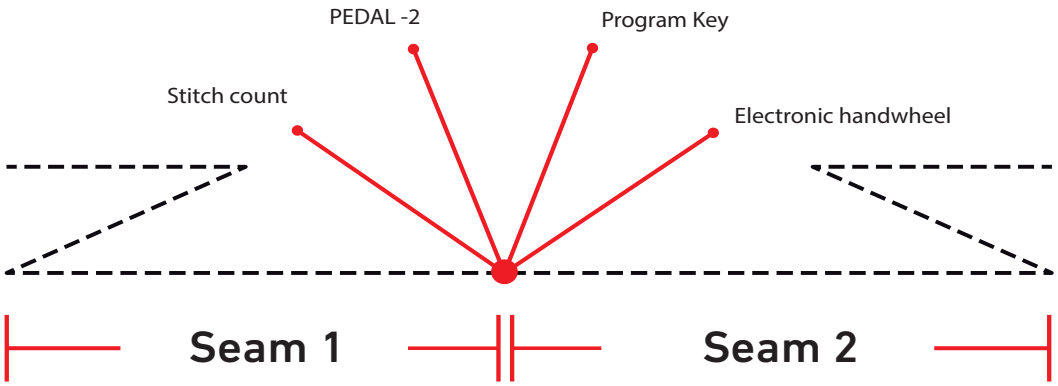
Stitch count	= A certain amount of stitches for the seam sequence will be entered (e.g. 30 stitches). The machine stop after this work step is done. Bring the foot pedal in the centre position to switch to the next seam sequence.
PEDAL -2	= The seam sequence is done manually. By bringing the foot pedal in position –2 at the end of the seam the sequence is ended and switches to the next work step. This can be done with thread trimming or "continue sewing" depending on the program.
Program Key	= The next work step is initiated by pressing the key 3. (see next page)
Electronic handwheel	= The next work step is initiated by pressing the electronic handwheel 1. (see next page)



DISPLAY	STEP	DESCRIPTION

» CREATE PROGRAM CHAIN

6



7 ▶ Turn the **JOG KEY** (10) to store.

8

```
INSIDE SEAM
Seam situation
```

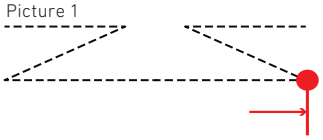
You can enter the postion in the seam for the switch over here.

You can choose between the following types of switch over:

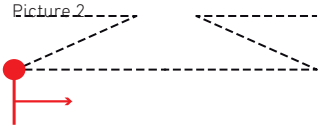
In the seam = Switch will occure before backtack and thread trimming e.g. if you want to join two pieces with a chain on a program with start and end backtack it will switch to the next sequence before the end backtack (picture 1). Backtack and thread trimming will be deactivated. The next sequence starts after the start backtack (picture 2). The start backtack is deactivated.

9

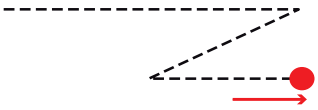
Picture 1



Picture 2

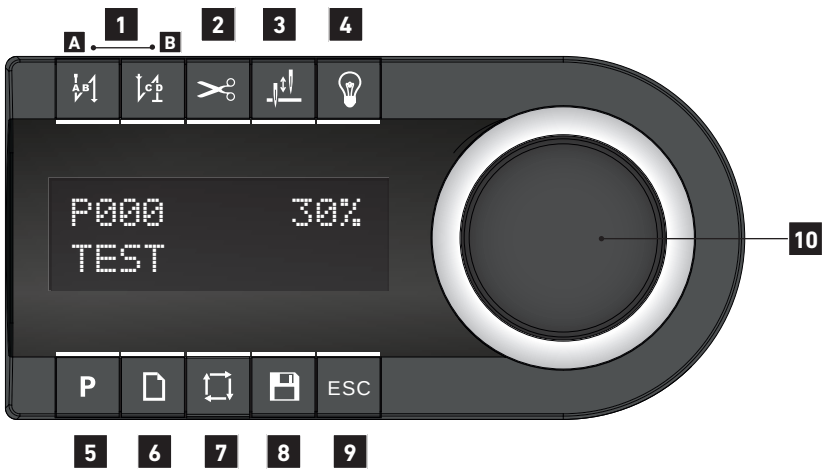


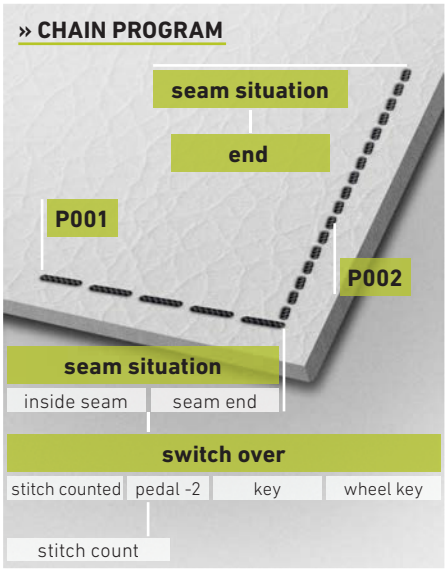
Seam end = The switch will take place (if part of the program) after the end backtack and thread trimming (picture 3). The next seam starts with a backtack (picture 4) (if part of the program).



Picture 3

Picture 4

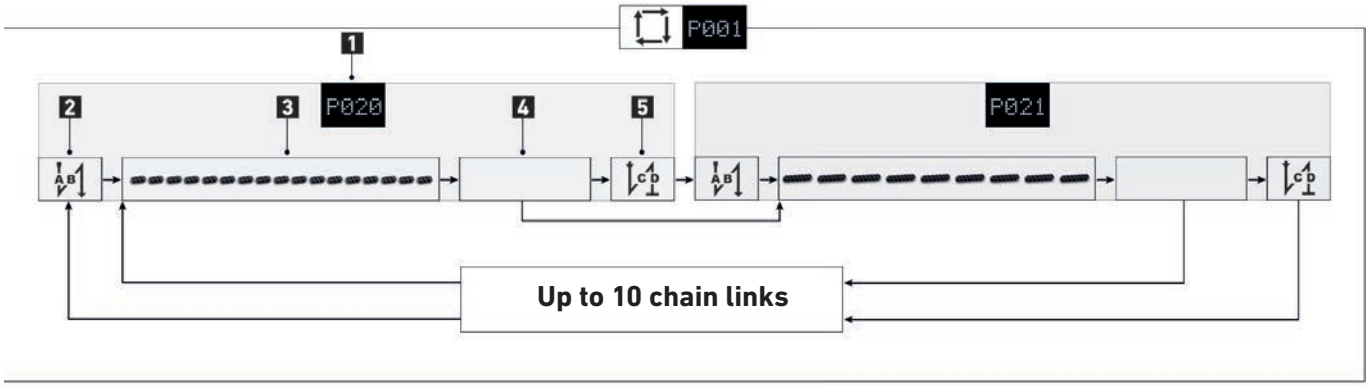




	DISPLAY	STEP	DESCRIPTION
»	CREATE PROGRAM CHAIN		
10		▶ Push the **JOG KEY** (10) to set your selection.	
11		**INFO!** After setting all the different programs you have to select the chain program end on the last sequence of the program chain.	
12	SCH--> END		Select **PROGRAM END**.
13		▶ Push the **JOG KEY** (10) to accept your selection.	
14	OFF Bobbin counter		You will see **BOBBIN** on the display.
15		You can choose between: OFF = No stitch count of remaining stitches. 4300 = Number of remainings stitches until bobbin thread is empty (see parameter **135**).	
16		▶ Push the **JOG KEY** (10) to accept your selection.	
17	P003) CREATE PROGRAM		Choose number for this program.
18		▶ Push the **JOG KEY** (10) to accept your selection.	
19	_ ENTER PRG NAME		Enter program name or number on the display.

	DISPLAY	STEP	DESCRIPTION
»	CREATE PROGRAM CHAIN		
20	VETRON 1 >_ ENTER PRG NAME		When the complete name is entered, move the cursor below the right arrow.
21		► Push the **JOG KEY** (10).	
22	P003 > 01/03 VETRON		The program name and number for the chain program appear on the display and can be used now.

Summary chain program:



1 PROGRAMM
2 SEAM START
3 SEAM
4 SWITCH OVER OPTION
5 END OF SEAM

PROGRAMMING MANUAL

14. PROGRAM ADMINISTRATION WITHOUT USB DONGLE
-1-2

	DISPLAY	STEP	DESCRIPTION
»	PROGRAM ADMINISTRATION WITHOUT USB DONGLE		
1		Push the **PARAMETER** key (5): » **P**	The associated LED on the display shines.
2	001 VETRON FAZER PROGRAMA	▶ go to the **PROGRAM ADMINISTRATION**.	Turn the **JOG KEY** to the left!
3	Data Management manager		The LED **PARAMETER** shines.
4		▶ Push the **JOG KEY** (10).	
		YOU CAN CHOOSE BETWEEN:	
	A Single program Copy	**B** Single program Delete	**C** All programs Delete
A	COPY PROGRAM		
5A	Single program Copy	▶ Push the **JOG KEY** (10).	
6A	P001 VETRON	▶ Turn the **JOG KEY** (10) to the program you want to copy. ▶ Push the **JOG KEY** (10).	**DEFAULT SETTING:** The current program will be displayed. If you want to copy a different program, turn the **JOG KEY**.
7A	P003) CREATE PROGRAM	▶ Push the **JOG KEY** (10).	The next free program space will be shown on the display.
8A	_) ENTER PRG NAME	▶ Push the **JOG KEY** (10).	Program name or number can be entered.

	DISPLAY	STEP	DESCRIPTION
»	PROGRAM ADMINISTRATION WITHOUT USB DONGLE		
9A	A) ENTER PRG NAME	► Turn the **JOG KEY** (10) to select a letter or number. ► Push the **JOG KEY** (10) to jump to the next free space.	Up to 15 letters or numbers can be entered.
10A	VETRON 1) ENTER PRG NAME	Move the cursor below the right arrow, after entering the complete name or number. ► Push the **JOG KEY** (10).	
	Single program Copy	**COPY PROGRAM** will appear on the display.	
B	DELETE ONE PROGAM		
5B	Single program Delete	► Push the **JOG KEY** (10).	
6B	P001 VETRON	► Turn the **JOG KEY** (10) to select the program to be deleted. ► Push the **JOG KEY** (10).	**DEFAULT SETTING:** The current program will be displayed. If you want to delete a different program, turn the **JOG KEY**.
7B	YES/NO Delete	► Turn the **JOG KEY** (10) to select **YES** or **NO**. ► Push the **JOG KEY** (10) to confirm your selection.	
	Single program Copy	The display will show **COPY PROGRAM**.	
C	DELETE ALL PROGRAMS		
5C	All programs Delete	► Push the **JOG KEY** (10).	
6C	YES/NO Delete	► Turn the **JOG KEY** (10) to select **YES** or **NO**. ► Push the **JOG KEY** (10) to confirm selection.	
	Single program Copy	The display will show **COPY PROGRAM**.	

PROGRAMMING MANUAL

15. PROGRAM ADMINISTRATION WITH USB DONGLE
-1-5

INFO!
Once the dongle is inserted into the USB-Port, a file with the serial number of the machine will be opend automatically. In this way you can transfer program from one machine to another. Serial number and program can be selected and transfered to the appropriate machine. Please use only VETRON USB Dongles to secure a safe transfer of data.

	DISPLAY	STEP	DESCRIPTION
»	PROGRAM ADMINISTRATION WITH USB DONGLE		
1		Switch the machine on and insert the USB dongle.	
2		Push the **PARAMETER** key (5): » **P**	The LED on the display is on.
3	001 VETRON Program name	► Turn the **JOG KEY** (10) and select **PROGRAM ADMINSTRATION**.	Turn the **JOG KEY** to the left.
4	Data Management manager		The LED **PARAMETER** shines.
5		► Push the **JOG KEY** (10).	

YOU CAN CHOOSE BETWEEN THE FOLLOWING 9 OPTIONS:

A	Single program Copy	**B**	Single program Machine --> USB	**C**	Single program USB --> Machine
D	Single program Delete	**E**	All programs Machine --> USB	**F**	All programs USB --> Machine
G	All programs Delete	**H**	Configuration Machine --> USB	**I**	Configuration USB --> Machine

A	COPY ONE PROGRAM		
6A	Single program Copy	► Push the **JOG KEY** (10).	

	DISPLAY	STEP	DESCRIPTION
»	PROGRAM ADMINISTRATION WITH USB DONGLE		
7A	P001 VETRON	► Turn the **JOG KEY** (10) to the program you want to copy. ► Push the **JOG KEY** (10).	**DEFAULT SETTING:** The current program will be displayed. If you want to copy a different program, turn the **JOG KEY**.
8A	P003) CREATE PROGRAM	► Push the **JOG KEY** (10).	The next free program space will be shown on the display.
9A	_) ENTER PRG NAME	► Push the **JOG KEY** (10).	Program name or number can be entered.
10A	A) ENTER PRG NAME	► Turn the **JOG KEY** (10) to select a letter or number. ► Push the **JOG KEY** (10) to jump to next free space.	Up to 15 letters or numbers can be entered.
11A	VETRON 1) ENTER PRG NAME	Move the cursor below the right arrow when you finished entering the name or number. ► Push the **JOG KEY** (10).	
	Single program Copy	**COPY PROGRAM** will appear on the display.	
B	COPY ONE PROGRAM FROM MACHINE TO USB		
6B	Single program Machine --> USB	► Push the **JOG KEY** (10).	
7B	P001 VETRON	► Turn the **JOG KEY** (10) to select the desired program. ► Push the **JOG KEY** (10).	
8B	Single program Machine --> USB	Display will show **SINGLE PROGRAM MACHINE ---> USB**.	
C	COPY ONE PROGRAM FROM USB TO MACHINE		
6C	Single program USB --> Machine	► Push the **JOG KEY** (10).	
7C	(M00310) SEL. MACHINE NR	**YOUR MACHINE NUMBER WILL BE SHOWN IN BRACKETS ON THE DISPLAY.**	
8C	(M01184) SEL. MACHINE NR	► Turn the **JOG KEY** (10) to select the relevant machine. ► Push the **JOG KEY** (10).	
9C	USB: 004 SEL. PROGR NR	► Turn the **JOG KEY** (10) to select the desired program. ► Push the **JOG KEY** (10).	

	DISPLAY	STEP	DESCRIPTION
»	PROGRAM ADMINISTRATION WITH USB DONGLE		
10C	P003) CREATE PROGRAM P005 OVERWRITE	▶ Turn the **JOG KEY** (10) to find a program space for your new program. ▶ Push the **JOG KEY** (10).	You can use a new program place, or can overwrite a existing one.
11C	VETRON 1) ENTER PRG NAME	▶ If you want to change the program name, move the cursor by turning the **JOG KEY** (10) below the part you want to change. ▶ Push the **JOG KEY** (10) to make a change or to confirm it.	
12C	VETRON 1) ENTER PRG NAME	Move the cursor below the right arrow once you completed the name or number. ▶ Push the **JOG KEY** (10).	
D	DELETE ONE PROGRAM		
6D	Single program Delete	▶ Push the **JOG KEY** (10).	
7D	P001 VETRON	▶ Turn the **JOG KEY** (10) to the program to be deleted. ▶ Push the **JOG KEY** (10).	**DEFAULT SETTING:** The current program will be shown. If you want to delete another program, turn the **JOG KEY**.
8D	YES/NO Delete	▶ Turn the **JOG KEY** (10) to select **YES** or **NO**. ▶ Push the **JOG KEY** (10) to confirm your selection.	
	Single program Copy	The display will show **COPY PROGRAM**.	
E	COPY ALL PROGRAMS FROM MACHINE TO USB		
6E	All programs Machine --> USB	▶ Push the **JOG KEY** (10).	
7E	YES/NO OVERWRITE	▶ Turn the **JOG KEY** (10) to select **YES** or **NO**. ▶ Push the **JOG KEY** (10) to confirm your selection.	
F-1	COPY ALL PROGRAMS FROM USB TO MACHINE (AVAILABLE FOR VERSIONS 1.29 AND OLDER/LOWER)		
6F	All programs USB --> Machine	▶ Push the **JOG KEY** (10).	
7F	(M00310) SEL. MACHINE NR	**YOUR MACHINE NUMBER WILL BE SHOWN ON THE DISPLAY IN BRACKETS.**	
8F	(M01184) SEL. MACHINE NR	▶ Turn the **JOG KEY** (10) to select desired machine. ▶ Push the **JOG KEY** (10).	

	DISPLAY	STEP	DESCRIPTION
»	PROGRAM ADMINISTRATION WITH USB DONGLE		
9F	YES/NO OVERWRITE	▶ Turn the **JOG KEY** (10) to select **YES** or **NO**. ▶ Push the **JOG KEY** (10) to confirm your selection.	
F-2	!	**NOTICE!** The following has changed COPY ALL PROGRAMS FROM USB TO MACHINE (AVAILABLE FOR VERSIONS 1.29 AND UP)	
7F		Copy all sewing programs from the desired sewing machine (for example with serial number 1667) to a USB dongle.	
8F		Insert the USB dongle into the appropriate sewing machine (for example with machine number 1399). ➜ USB recognizes machine and automatically creates a folder 1399 on the USB dongle.	
9F		Plug the USB dongle into a computer: All data (sewing programs) from the sewing machine folder (serial number 1667) on the USB dongle must be copied to the new folder of the sewing machine (serial number 1399).	
10F		Now all newly copied sewing programs can be copied from the USB dongle to the corresponding sewing machine (serial number 1399).	
		NOTE: For reasons of technical feasibility, the procedure „Copy all programs from USB dongle to machine" as of software version 1.30 and up, must be carried out in this way.	
G	DELETE ALL PROGRAMS		
6G	All programs Delete	▶ Push the **JOG KEY** (10).	
7G	YES/NO Delete	▶ Turn the **JOG KEY** (10) to select **YES** or **NO**. ▶ Push the **JOG KEY** (10) to confirm your selection.	
	All programs Delete	Display will show **DELETE ALL PROGRAMS**.	
H	ADJUSTMENTS FROM MACHINE TO USB		
	!	**ADVICE!** All the basic parameter settings can be stored on the USB-dongle. The original settings can be re-established fast after repair work or exchange of parts.	
6H	Configuration Machine --> USB	▶ Push the **JOG KEY** (10).	All data will be transferred to the USB dongle.
7H	YES/NO OVERWRITE	▶ Turn the **JOG KEY** (10) to select **YES** or **NO**. ▶ Push the **JOG KEY** (10) to confirm your selection.	

	DISPLAY	STEP	DESCRIPTION
»	PROGRAM ADMINISTRATION WITH USB DONGLE		
I	ADJUSTMENTS FROM USB TO MACHINE		
6I	Configuration USB --> Machine	► Push the **JOG KEY** (10).	All data will be tranfered to the machine.
7I	Processing... PLEASE WAIT	**NEVER** remove the USB dongle while data is being transferred.	
	Configuration USB --> Machine	Display will show **CONFIGURATION USB ---> MACHINE**.	

Program updates are available for download on our website under www.vetrontypical.com.
Copy the current software update onto your USB dongle and proceed as follows:

	DISPLAY	STEP	DESCRIPTION
»	UPDATE THE OPERATING PROGRAM		
1		Insert your DONGLE, with the current status, into the USB port. **ADVICE** Machine must be turned off!	
2		Turn the machine on and press the **JOG KEY** a second later.	
3	Initialising...	» Confirm.	
4	Typical Europa Basica	Press the "**PARAMETER**" button: » P	
5	PROGRAMMING 1/5 PROGRESS 10%	Appears. Machine automatically updates the 5 steps.	1/5: Update 1of 5
6	PROGRAMMING 5/5 VERIFY OK	Update completed.	
7	Update success Please reboot!	Appears.	
8		Turn machine off!	
9		Turn machine on again. Now the machine with the new update can be operated on.	
	Error: 2008 No type info	**INFO:** If there is no information on DONGLE, „Error" appears!	

VETRON TYPICAL EUROPE GmbH
Clara-Immerwahr-Str. 6
67661 Kaiserslautern, Germany
Tel.: +49 6301 320 75-0
Fax: +49 6301 320 75-11

info@vetrontypical.com
www.vetrontypical.com

VETRON TYPICAL EUROPE GmbH
Clara-Immerwahr-Str. 6
67661 Kaiserslautern, Germany
Tel.: +49 6301 320 75-0
Fax: +49 6301 320 75-11

E-mail: info@vetrontypical.com
www.vetrontypical.com