

Efka

dc15xx

CONTROL

AB425S5850



List of Parameters

- Connection Diagrams
- Timing Diagrams

Note
For initial operation after software updating or maintenance procedures, make sure to set parameter 467 for the specific motor to be used.
DC1500, F-467 = 1 / DC1550, F-467 = 2

No. 402327

English

Important Notes

The particulars used in various figures and tables, such as type, program number, speed, etc., serve as examples. They may differ from those in your display.

For current versions of the Instructions for Use and Lists of Parameters, necessary for operating EFKA drives in accordance with regulations, please refer to the EFKA web site www.efka.net, page "Downloads".

On our web site you will also find the following supplementary instructions for this control:

- ✘ General instructions for use and programming
- ✘ Use with USB Memory Stick
- ✘ Use of the C200 compiler
- ✘ Adapter cords

CONTENTS	Page
1 Table of Machine Functions and Adapter Cords	4
2 Putting into Service	6
3 Setting and Putting into Service with the Aid of the Fast Installation Routine (SIR)	7
4 Operating Elements and Socket Connectors	8
4.1 Positions of the Front Side	8
4.2 Positions of the Rear Side	8
4.3 Connection Diagrams	9
5 Timing Diagrams	15
6 List of Parameters	47
6.1 Preset Values Depending on Mode	47
6.2 Operator Level	54
6.3 Technician Level	56
6.4 Supplier Level	63
7 Error Displays	78

1 Table of Machine Functions and Adapter Cords



ATTENTION

Before switching functional sequences, detach cables from the inputs and outputs! Please ensure that the machine installed provides the functional sequence to be set! Then proceed with the setting using parameter 290!

Setting the functional sequence using parameter 290

			Functions / Outputs							
Power transistors →			FL	VR	M1	M2	M3	M4	M5	M6
Mode	Function / Machine	Adapter	ST2/35	ST2/34	ST2/37	ST2/28	ST2/27	ST2/36	ST2/32	ST2/30
0	Lockstitch: e. g.		FL	VR	FA1	FA2	FW	FA1+2	ML	MST/HP
	Brother (737-113, 737-913)	1113420	FL	VR	FA1 +	FA2	FW			
	Aisin (AD3XX, AD158, 3310; EK1)	1112815	FL	VR	FA1 +	FA2	FW			
	Pfaff (563, 953, 1050, 1180)	1113491	FL	VR	FA1	FA2	FW		ML	
	Dürkopp Adler (210, 270)	1112845	FL	VR	FA1 +	FA2	FW			
2	Lockstitch: e. g.		FL	VR		FA	FSPL	FL1	ML	MST/HP
	Singer (212 UTT)	1112824	FL	VR		FA	FSPL	FL1		
3	Lockstitch: e. g. Dürkopp Adler (467)		FL	VR	FA	ML	FW	FSPL	MST/HP	FF2
4	Chainstitch: e. g. Union Special		FL	FA-R	M1	FA-V	FW	STV	ML	MST/HP
	(34000 and 36200 replacement for US80A)	1112865	FL	FA-R		FA-V	FW		ML	
	(CS100 and FS100)	1112905	FL	FA-R +	M1	FA-V	FW		ML	
5	Chainstitch: parallel sequence		FL	STV	M1	M2	M3	M4	ML	MST/HP
	Bag sewing machine: Union Special		FL			IMP	BR		ML	MST
	Yamato (VC/VG series)	1113345	FL	STV	FA		FW		ML	
	Kansai (RX 9803)	1113130	FL		FA		FW		ML	
	Pegasus (W500/UT, W600/UT/MS with or without stitch condensing)	1112821	FL	STV	FA	FA	FW			
	Union Special (34700)	1112844	FL	STV	FA	FA	FW		NK/ML	
	Global (CB2803-56)	1112866	FL				FA			
	Rimoldi (F27)	1113096	FL		FW	FAO	FAU		ML	
6	Chainstitch: tape cutter/fast scissors		FL	STV	M1	M2	AH1	AH2	ML	MST/HP
7	Overlock		FL	KS	M1	M2	AH	FSPL	ML	MST/HP
8	Backlatch		FL		PD _{≤1}	PD _{≥1}	PD _{≥1} *		ML	MST/HP
	Pegasus	1113234			PD _{≤1}	PD _{≥1}				
9	Backlatch		FL		PD _{≤1}	PD _{≥1}	PD _{≥1} *		ML	MST/HP
	Yamato (ABT3)	1112826			PD _{≤1}	PD _{≥1}				
	Yamato (ABT13, ABT17)	1113205			PD _{≤1}	PD _{≥1}				
10	Lockstitch: e. g.		FL	FA-R	FSPL	FA-V	FW	VR	ML	MST/HP
	Union Special (63900AMZ replacement for US80A) and on Refrey lockstitch machines	1112823	FL	FA-R		FA-V	FW		ML	
13	Lockstitch: Pfaff (1425, 1525)	1113324	FL	FA-R	FSPL	FA-V	FW	VR	ML	MST/HP
14	Lockstitch: e. g.		FL	VR	FA1+2	FA2	FW	FA1	ML	MST
	Juki (5550-6)	1112816	FL	VR	FA1+2		FW			
	Juki (5550-7, 8500-7, 8700-7)	1112816	FL	VR	FA1+2		FW			
	Adapter for position sensors incorporated in the handwheel	1113157								
15	Backlatch: Pegasus (SSC100)		FL	KS/KB	KB	KS	FSPL	AH	ML	HP
16	Overlock: feed-off-the-arm machine e.g. Yamato (FD62)		FL	KS	RB	M2	AH	FSPL	ML	MST/HP
17	Stitchlock: Pegasus		FL	LFA		FA	STS		ML	MST/HP
20	Lockstitch: Juki (LU1510-7)	1113557	FL	VR	FA	FSPL				HP
	Lockstitch: Juki (DNU1541-7)	1113558	FL	VR	FA	FSPL				HP
	Adapter for position sensors incorporated in the handwheel	1113314								
21	Chainstitch: Yamato (stitch lock)	1113345	FL	STS	FA	STV	FW		ML	
22	Lockstitch: Brother (B-891)		FL	VR	FA	FSPL				MST
23	Lockstitch: Dürkopp Adler (271...275)		FL	VR	FA	ML	FW	FSPL	HP	MST
24	Chainstitch: Pegasus (MHG-100)	1113267	FL		FA	FA	FW			
25	Lockstitch: Juki (LU2210, LU2260)	1113526	FL	VR	FA	FSPL				HP
26	Lockstitch: e. g. Jentschmann		FL	VR	FA	ML	FW	FSPL	MST/HP	FF2
27	Lockstitch: ISM		FL	VR	FA1	FA2	FW	FA1+2	ML	MST/HP
28	Backlatch		FL	KS	KB1	KB2	KL	FSPL	ML	HP

The signals of outputs M7...M11 depend on the settings of certain parameters, in particular parameter 290!

*) The signal issued at this output is inverted!

Setting the functional sequence using parameter 290										
			Functions / Outputs							
Power transistors →			FL	VR	M1	M2	M3	M4	M5	M6
Mode	Function / Machine	Adapter	ST2/35	ST2/34	ST2/37	ST2/28	ST2/27	ST2/36	ST2/32	ST2/30
29	KMF function: synchronous operation									
30	Lockstitch: Juki LU1521N-7 with short trimmer	1113557	FL	VR	FA	FSPL				HP
	Adapter for position sensors incorporated in the handwheel	1113558								
31	Lockstitch: Brother	1113420	FL	VR	FA1	FA2	FW	FA1+2	ML	MST/HP
32	Chainstitch: Brother	1112822	FL	STV	FA	FA	FW			
33	Motion Control: Only machine run function									
35	Lockstitch: Bramac									
36	Backlatch: Rimoldi PL27									
37	Union Special bag machine									
41	Lockstitch: Juki LU2220N-7	1113704								

The signals of outputs M7...M11 depend on the settings of certain parameters, in particular parameter 290!

Explanation of letter symbols of the above table and chapter "Timing Diagrams"

Outputs:

AH	Tape cutter	HP/FF1	High lift for walking foot / flip-flop 1
AH1/AH2	Fast scissors	IMP	Impulse
BR	Hot thread chain cutting	KB (1/2)	Chain blowing
DR-UK	Reversal of motor direction	KL	Thread clamp
FA	Thread trimmer	KS	Chain suction
FA1	Thread trimmer pos. 1...1A	KS+KB	Chain suction + blowing
FA1+2	Thread trimmer pos. 1...2	LFA	Top cover thread cutter
FA2	Thread trimmer pos. 1A...2	L-STL	Indicator lamp for stitch length
FA-K	Short trimmer	ML/NK	Machine running / Needle cooling
FAO	Needle thread trimmer	MST	Machine at standstill
FA-R	Thread trimmer backward	PD≥1	Pedal steps 1...12
FAU	Bobbin thread trimmer	PD≤-1	Pedal steps -1 / -2
FA-V	Thread trimmer forward	PD=0	Pedal step 0
FF2	Flip-flop 2	PD-2	Pedal step -2
FL	Sewing foot lifting	RB	Chain blowing in opposite direction
FL1	Sewing foot lifting without pulsing	STB	Blow fabric onto stack
FSPL	Thread tension release	STS	Stitch lock
FW	Thread wiper	STV	Stitch condensing
FZ	Thread puller	VR	Backtacking

2 Putting into Service

Before putting the control into service, the following must be ensured, checked and/or adjusted:

- **The correct installation of the drive, position transmitter and accompanying devices, if necessary**
- **The correct selection of the trimming operation using parameter 290**
- **If necessary, the correct adjustment of the direction of motor rotation using parameter 161**
- **The correct selection of the functions of keys (inputs) using parameters 240...249**
- **The setting of the transmission ratio between motor shaft and machine shaft using parameter 272**
- **The setting of the type of position sensor using parameter 270**
- **If necessary, the setting of the number of angular degrees after the sensor position using parameter 271**
- **If necessary, the setting of the positions using parameter 171 (possible with all settings of parameter 270)**
- **The correct positioning speed using parameter 110**
- **The correct maximum speed compatible with the sewing machine using parameter 111**
- **The setting of the remaining relevant parameters**
- **Begin sewing in order to save the set values**

See instruction manual for details!

3 Setting and Putting into Service with the Aid of the Fast Installation Routine (SIR)

The Fast Installation Routine (SIR) passes through all parameters necessary for programming the functional sequence and the positions.

Input parameter 500

Parameter for functional sequence "thread trimming operations"

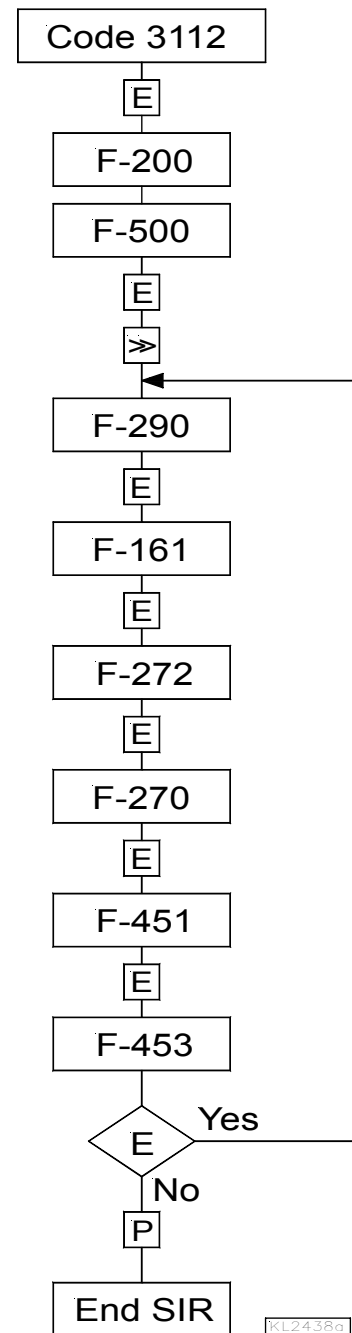
Parameter for direction of motor rotation

Parameter for transmission ratio
Important! The transmission ratio should be determined and indicated as precisely as possible.

Parameter for type of position sensor

Parameter for position 1

Parameter for position 2



The values can be varied by pressing key +/- . When the parameter is displayed on the V810 control panel, press the E key once more for the value to be displayed.

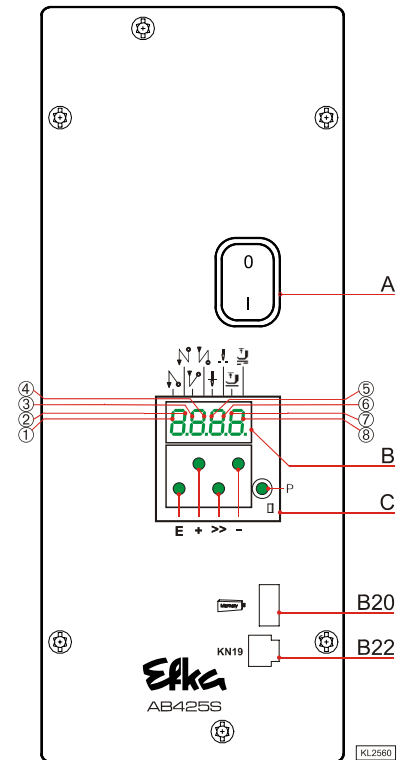
Exit the routine any time by pressing the P key once, and select a new parameter. Exit programming by pressing the P key twice, and the drive is ready for a new sewing operation.

See instruction manual for details!

4 Operating Elements and Socket Connectors

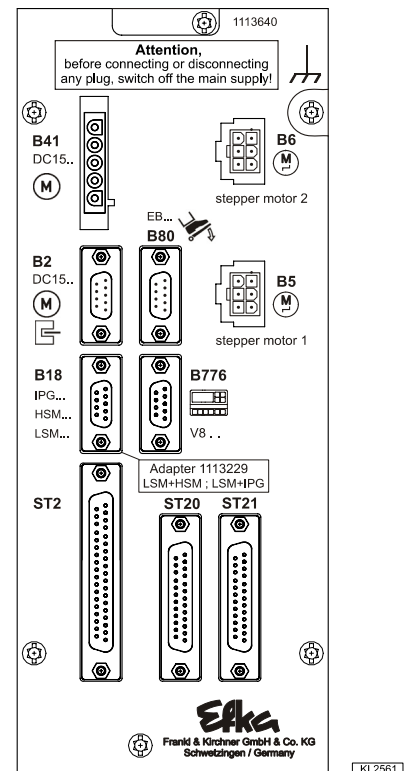
4.1 Positions of the Front Side

A	Power switch
B	Display (4 digit 7 segment display)
C	Control panel (onboard module)
Key	
P	Call or exit programming mode
E	Start backtack single / double / off
+	Enter key for modifications in the programming mode
	End backtack single / double / off
	In the programming mode - increase of the value indicated
>>	Basic position 1 or 2
	Shift key in the programming mode
-	Automatic sewing foot lifting at stop in the seam On/Off
	Automatic sewing foot lifting after thread trimming On/Off
	In the programming mode – decrease of the value indicated
The upper vertical segments of the 4 digit 7 segment display indicate the switching states of backtacking, foot lifting and basic position.	
1	Single start backtack
2	Double start backtack
3	Single end backtack
4	Double end backtack
5	Basic position "needle position 1"
6	Basic position "needle position 2"
7	Automatic sewing foot lifting at stop in the seam
8	Automatic sewing foot lifting after the thread trimming operation
Connector	
B20	USB Memory Stick
B22	Knee switch



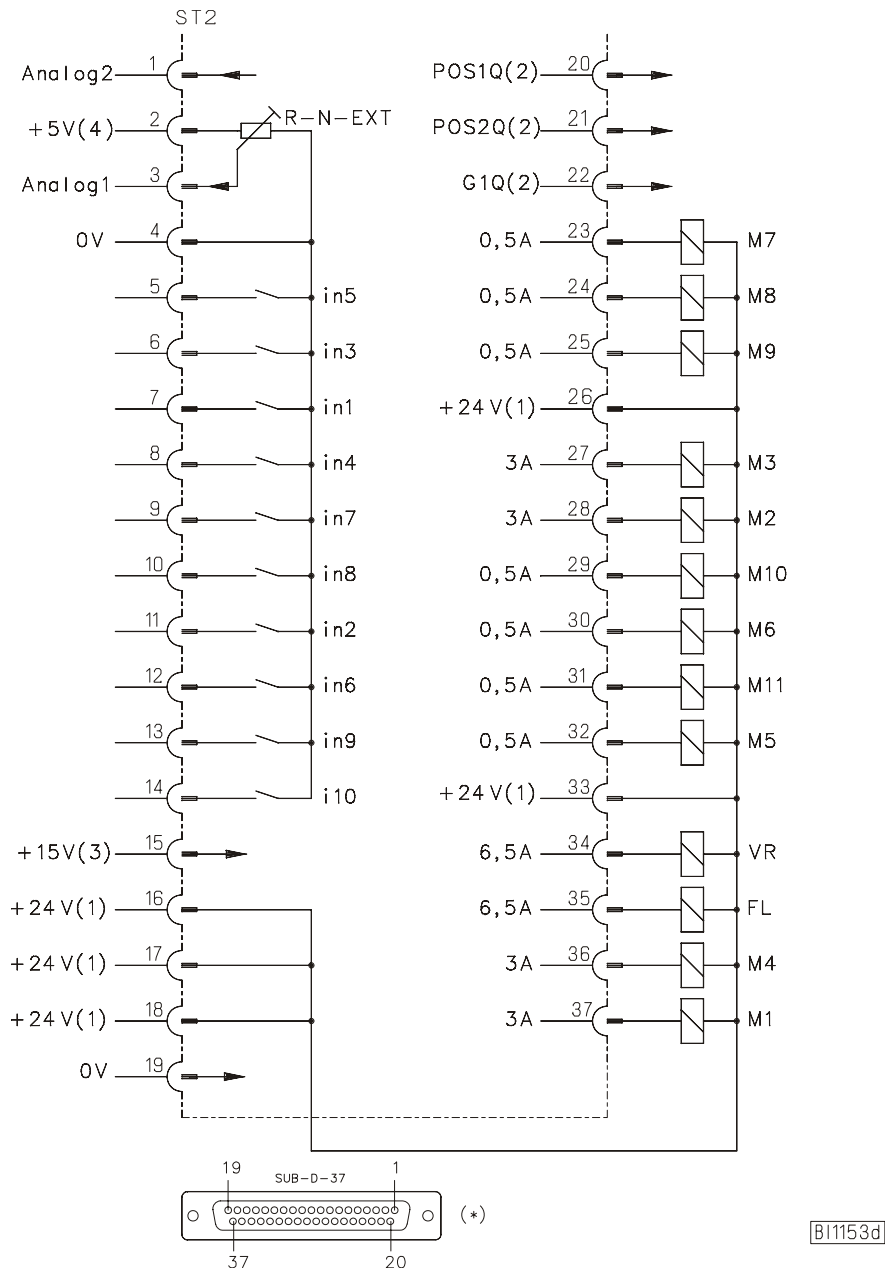
4.2 Positions of the Rear Side

Connector	
B2	Commutation transmitter
B5	Sockets for stepping motors
B6	
B18	Light barrier module LSM002 - Hall sensor module HSM001 - Pulse encoder IPG001 - EFKANET <i>(Adapter cord 1113229 in case of multiple assignment)</i>
B41	Motor power supply
B80	Actuator
B776	V810/V820/V850 control panel
ST2	Socket for inputs and outputs
ST20	e. g. solenoids, solenoid valves, displays, keys and switches
ST21	



4.3 Connection Diagrams

Inputs switched to 0V

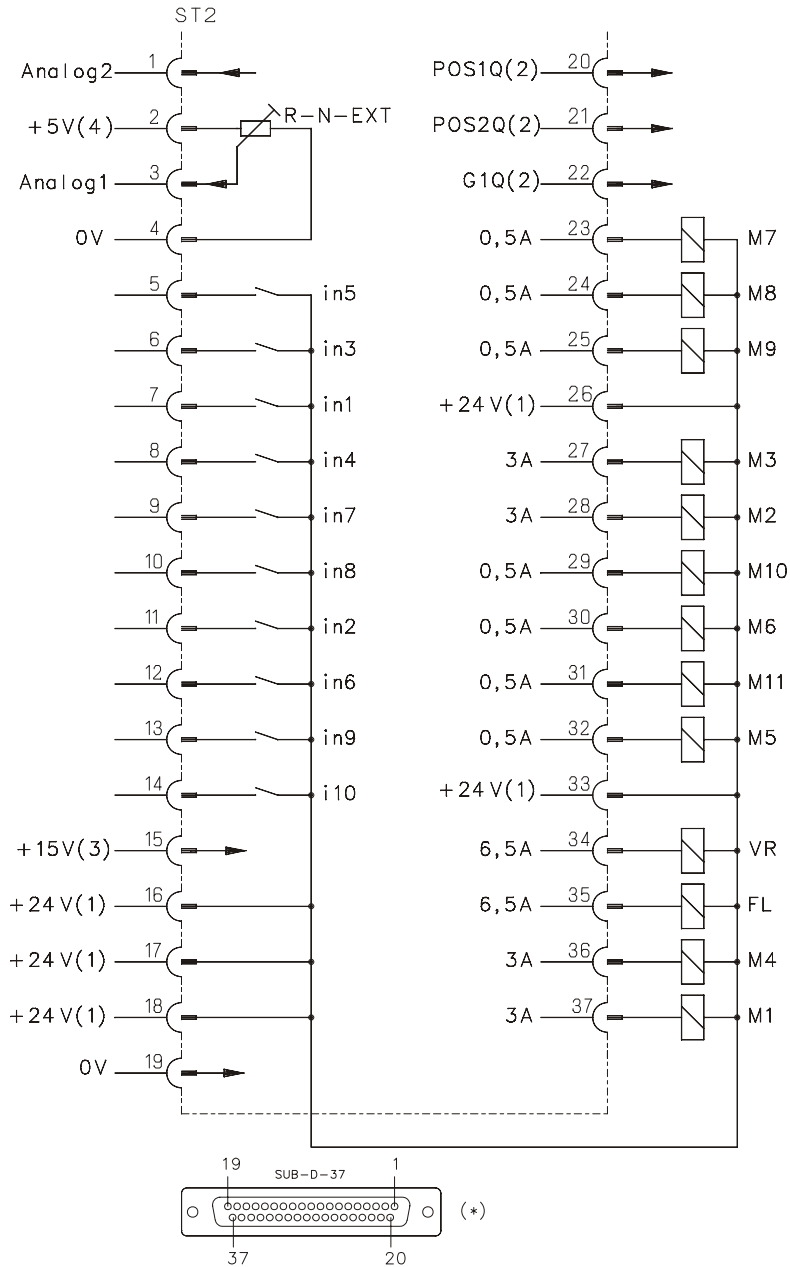


ATTENTION

When connecting the outputs, ensure that a total power of 96VA constant load will not be exceeded!

in1	Input 1	i10	Input 1	M9	Output 9
in2	Input 2	M1	Output 1	M10	Output 10
in3	Input 3	M2	Output 2	M11	Output 11
in4	Input 4	M3	Output 3	FL	Sewing foot lifting
in5	Input 5	M4	Output 4	VR	Backtacking
in6	Input 6	M5	Output 5	POS1	Position 1
in7	Input 7	M6	Output 6	POS2	Position 2
in8	Input 8	M7	Output 7	GEN	512 generator impulses
in9	Input 9	M8	Output 8	R-N-EXT	External potentiometer for speed limitation (50kΩ)

Inputs switched to +24V



B11164a



ATTENTION

When connecting the outputs, ensure that a total power of 96VA constant load will not be exceeded!

1) Nominal voltage +24V, no-load voltage max. +30V momentarily after power on

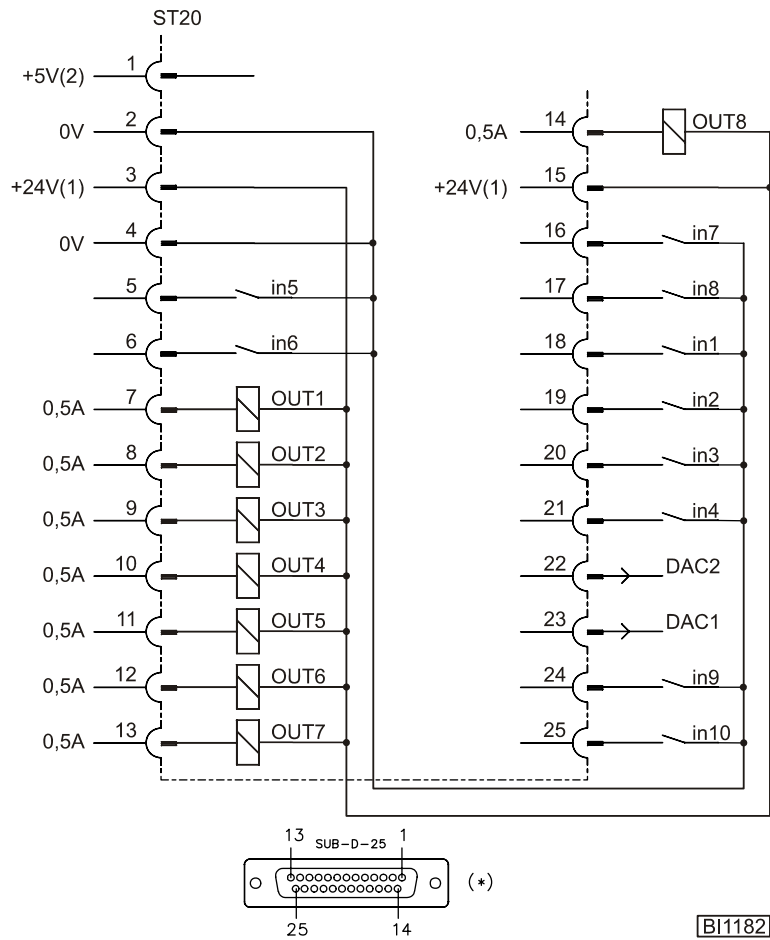
2) Transistor output with open collector max. 40V, I_{max} 10mA

3) Nominal voltage +15V, I_{max} 30mA

4) Nominal voltage +5V, I_{max} 20mA

*) Front view of the control (component side) and/or rear view of the outgoing connecting cable

Inputs switched to 0V



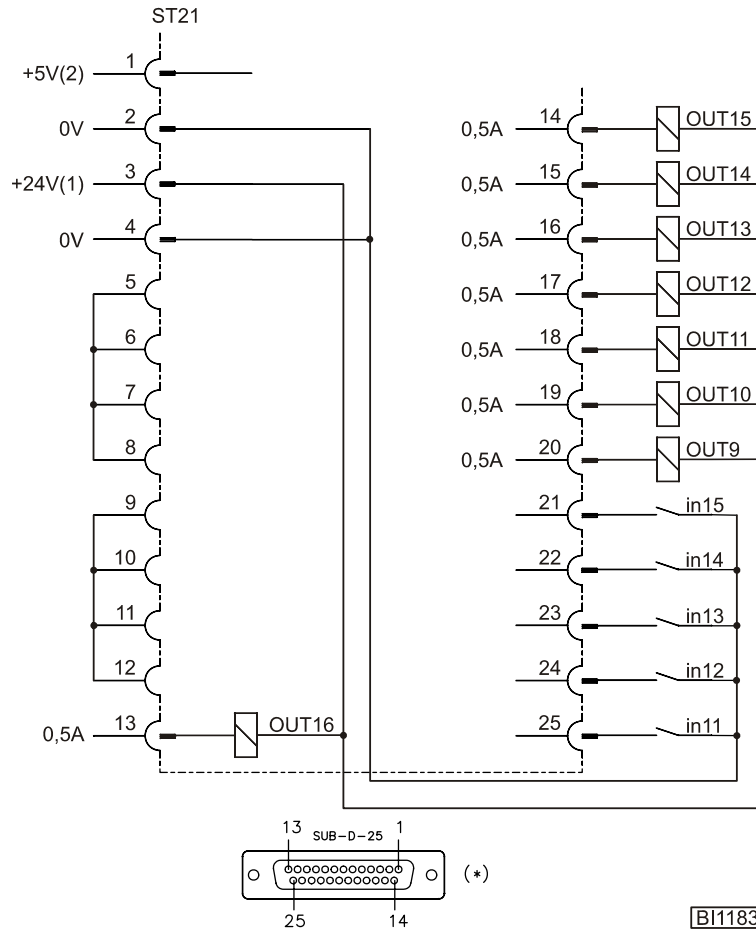
ATTENTION

When connecting the outputs, ensure that a total power of 96VA constant load will not be exceeded!

- 1) Nominal voltage +24V, no-load voltage max. +30V momentarily after power on
- 2) Nominal voltage +5V, I_{max} 20mA

*) Front view of the control (component side) and/or rear view of the outgoing connecting cable

Inputs switched to 0V



ATTENTION

When connecting the outputs, ensure that a total power of 96VA constant load will not be exceeded!

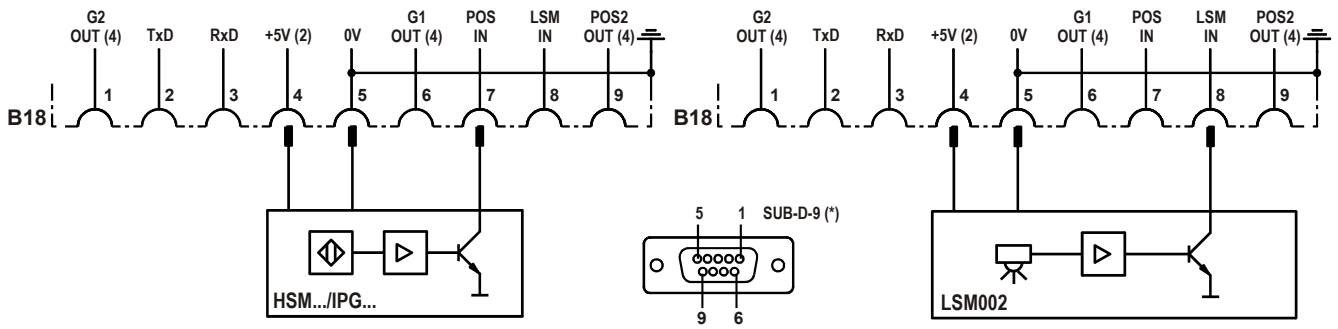
1) Nominal voltage +24V, no-load voltage max. +30V momentarily after power on

2) Nominal voltage +5V, I_{max} 20mA

*) Front view of the control (component side) and/or rear view of the outgoing connecting cable

Connection of a HSM001 Hall sensor module or an IPG001 pulse encoder

Connection of a LSM002 light barrier module

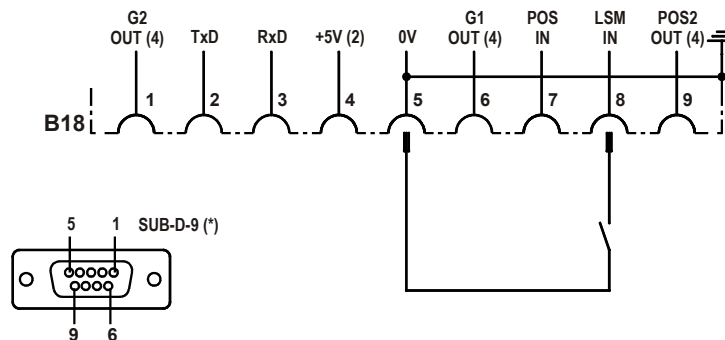


BI1174a

Adapter cord 1113229 in case of multiple assignment of socket B18!

POS2 OUT	Output for position 2	LSM IN	Possibility of connecting a light barrier module to socket B18/8
POS IN	Input for positions (e. g. connection of a sensor)	LSM002	Reflection light barrier module
G1/G2 OUT	Output of generator impulses	HSM001	Hall sensor module
TXD/RXD	Serial transmission lines	IPG...	Pulse encoder

If parameter 239 is set to >0, it is possible to operate a key at the input of the B18/8 connector.



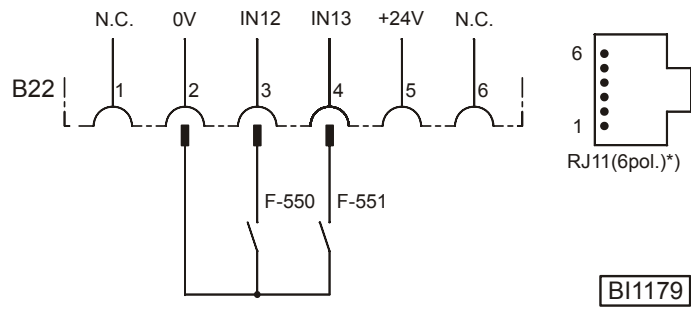
BI1159a

There is a supply voltage of +5V on the B18/4 socket for external devices. This voltage can be switched to +15V using parameter 362.

2) Nominal voltage +5V, I_{max} 100mA (switchable to +15V, 100mA)

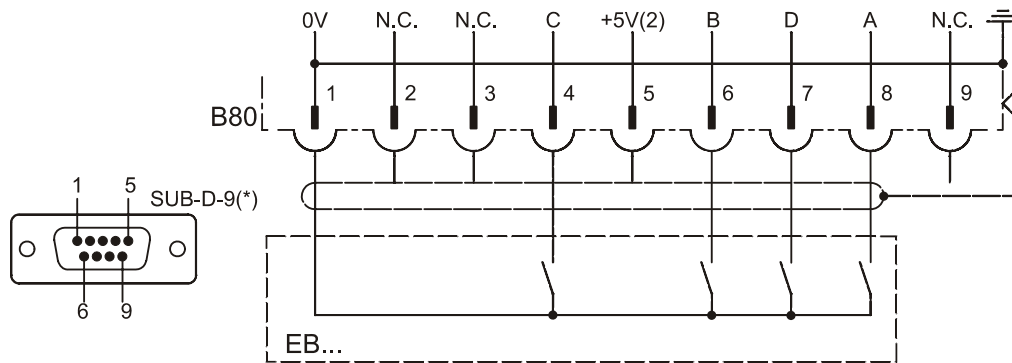
4) Logic level output +5V, I_{max} 10mA

*) Front view of the control (component side) / rear view of the outgoing connecting cable



BI1179

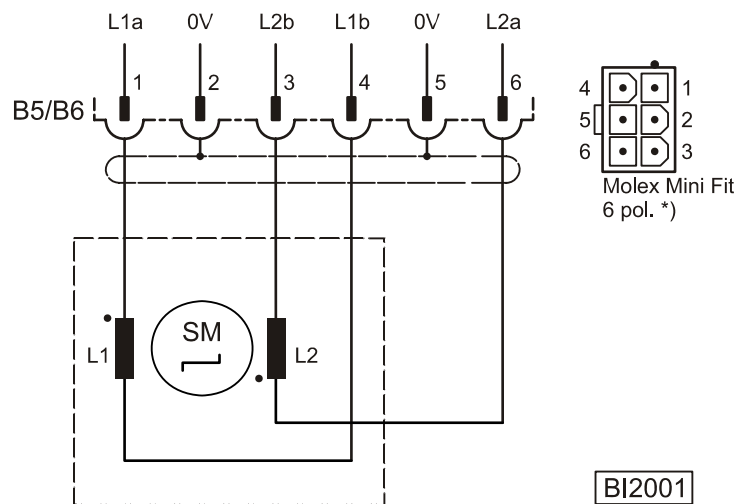
IN11	Input 11, function programmable using parameter 550	IN12	Input 12, function programmable using parameter 551
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BI2000

EB.. = Actuator

Pedal step →	-2	-1	0	½	1	2	3	4	5	6	7	8	9	10	11	12
Input A	L	L	H	H	H	L	L	H	H	L	L	H	H	L	L	H
Input B	L	H	H	L	L	L	H	H	H	H	L	L	L	L	H	H
Input C	H	H	H	H	L	L	L	L	L	L	L	L	H	H	H	H
Input D	H	H	H	H	H	H	H	H	L	L	L	L	L	L	L	L



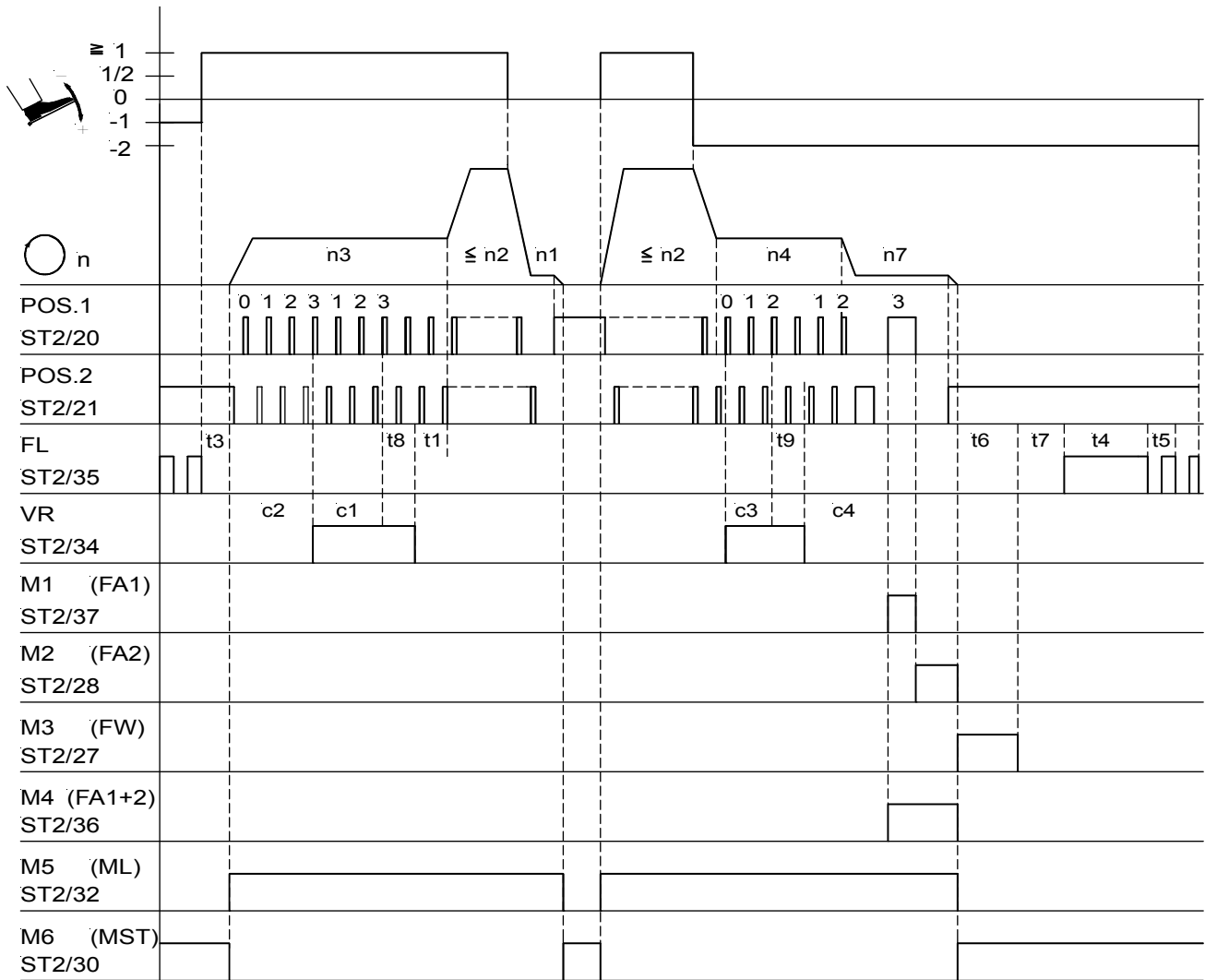
BI2001

2) Nominal voltage +5V, I_{max} 20mA

*) Front view of the control (component side) and/or rear view of the outgoing connecting cable

5 Timing Diagrams

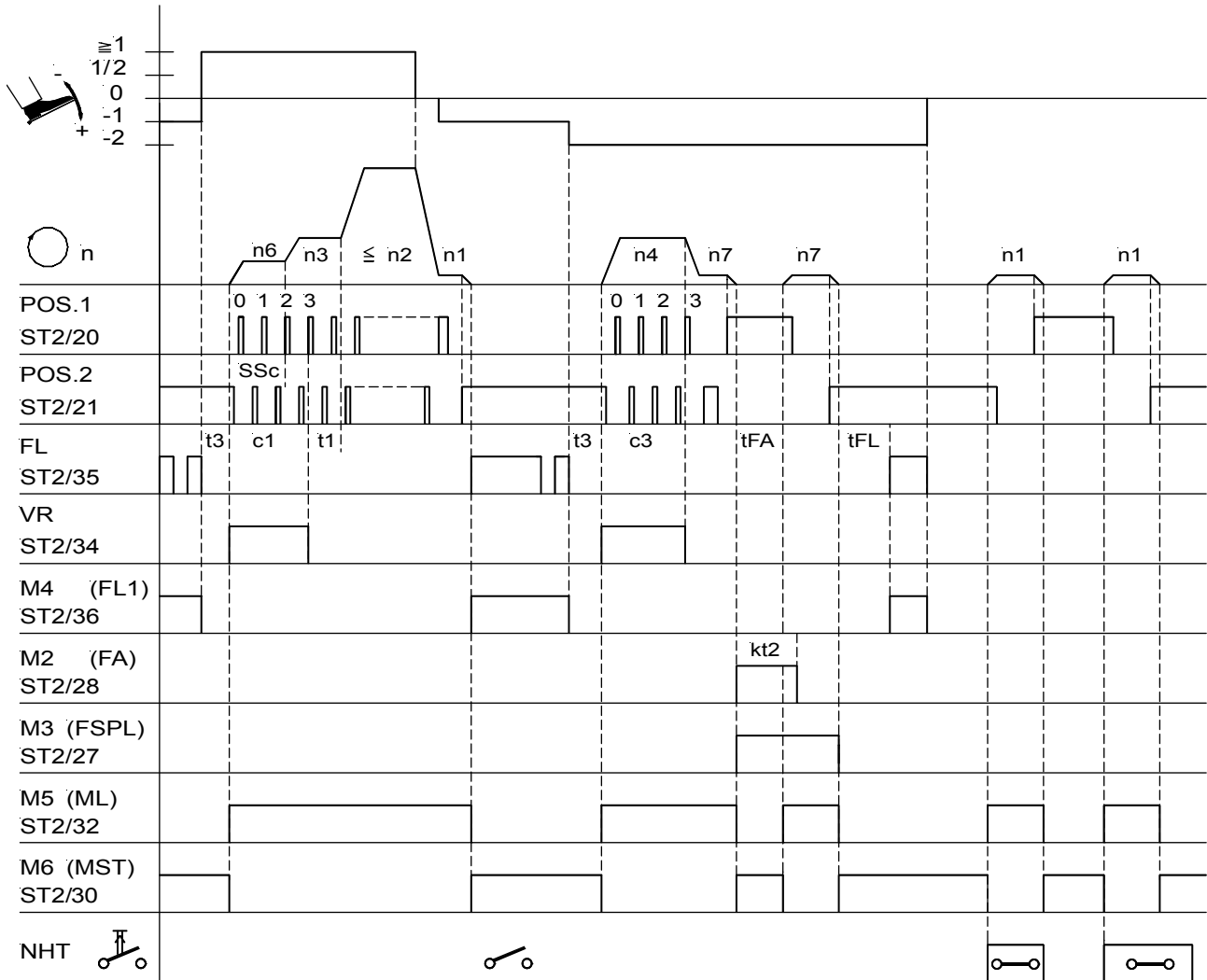
Mode 0 and/or 27 (lockstitch)



0256/MODE-0

Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 0 Double start backtack with stitch correction Double end backtack with stitch correction	290 = 0/27	Key S2 Key S3	Key 1 Key 2	Key 1 Key 4
n1	Positioning speed	110			
n2	Maximum speed	111			
n3	Start backtack speed	112			
n4	End backtack speed	113			
n7	Trimming speed	116			
c2	Start backtack stitches forward	000			
c1	Start backtack stitches backward	001			
c3	End backtack stitches backward	002			
c4	End backtack stitches forward	003			
t8	Start backtack stitch correction	150			
t9	End backtack stitch correction	151			
t1	Delay until speed release after start backtack	200			
t3	Start delay from lifted sewing foot	202			
t4	Full power of sewing foot lifting	203			
t5	Pulsing of sewing foot lifting	204			
t6	Thread wiper ON period	205			
t7	Sewing foot switch-on delay after thread wiper	206			

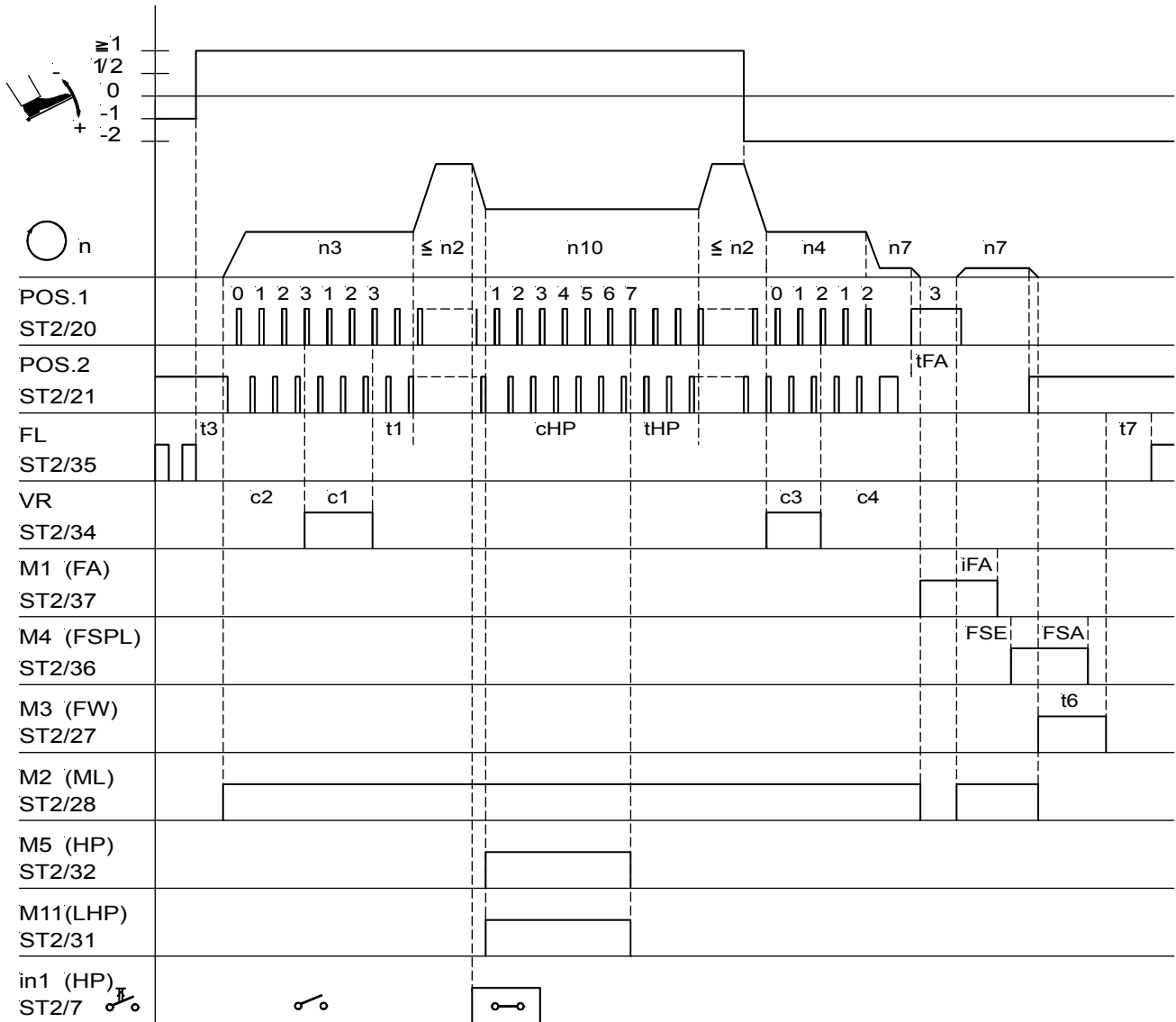
Mode 2 (lockstitch)



0256/MODE-2

Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 2	290 = 2			
SSt	Softstart	134 = 1			
	Single start backtack		Key S2	Key 1	Key 1
	Single end backtack	On	Key S3	Key 2	Key 4
n1	Positioning speed	110			
n2	Maximum speed	111			
n3	Start backtack speed	112			
n4	End backtack speed	113			
n6	Softstart speed	115			
n7	Trimming speed	116			
c1	Start backtack stitches backward	001			
c3	End backtack stitches backward	002			
SSc	Softstart stitches	100			
t1	Delay until speed release after start backtack	200			
t3	Start delay from lifted sewing foot	202			
tFL	Switch-on delay of sewing foot lifting	211			
tFA	Stop time for thread trimmer	253			
kt2	Thread trimmer ON period	283			

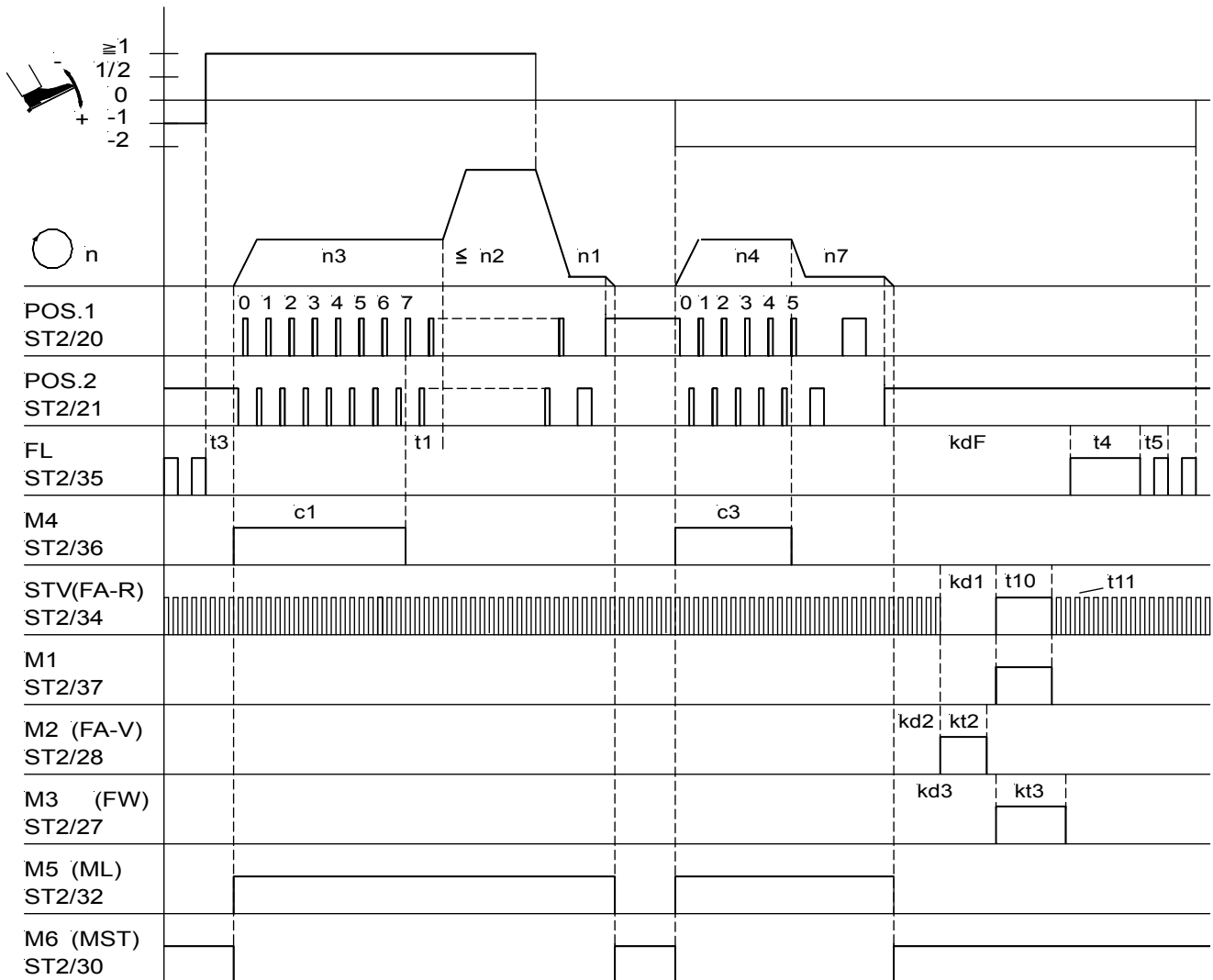
Mode 3 and/or 26 (lockstitch)



0256/MODE-3

Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 3 and/or 26	290 = 3/26			
	Double start backtack	On	Key S2	Key 1	Key 1
	Double end backtack	On	Key S3	Key 2	Key 4
hP	High lift for walking foot	137 = 1			
n2	Maximum speed	111			
n3	Start backtack speed	112			
n4	End backtack speed	113			
n7	Trimming speed	116			
n10	High lift walking speed	117			
c2	Start backtack stitches forward	000			
c1	Start backtack stitches backward	001			
c3	End backtack stitches backward	002			
c4	End backtack stitches forward	003			
tHP	High lift walking speed run-out time	152			
cHP	Stitch counting high lift for walking foot	185			
t6	Thread wiper ON period	205			
t7	Sewing foot switch-on delay after thread wiper	206			
iFA	Activation angle of the thread trimmer	250			
FSA	Switch-off delay of thread tension release	251			
FSE	Switch-on delay angle of thread tension release	252			
tFA	Stop time for thread trimmer	253			

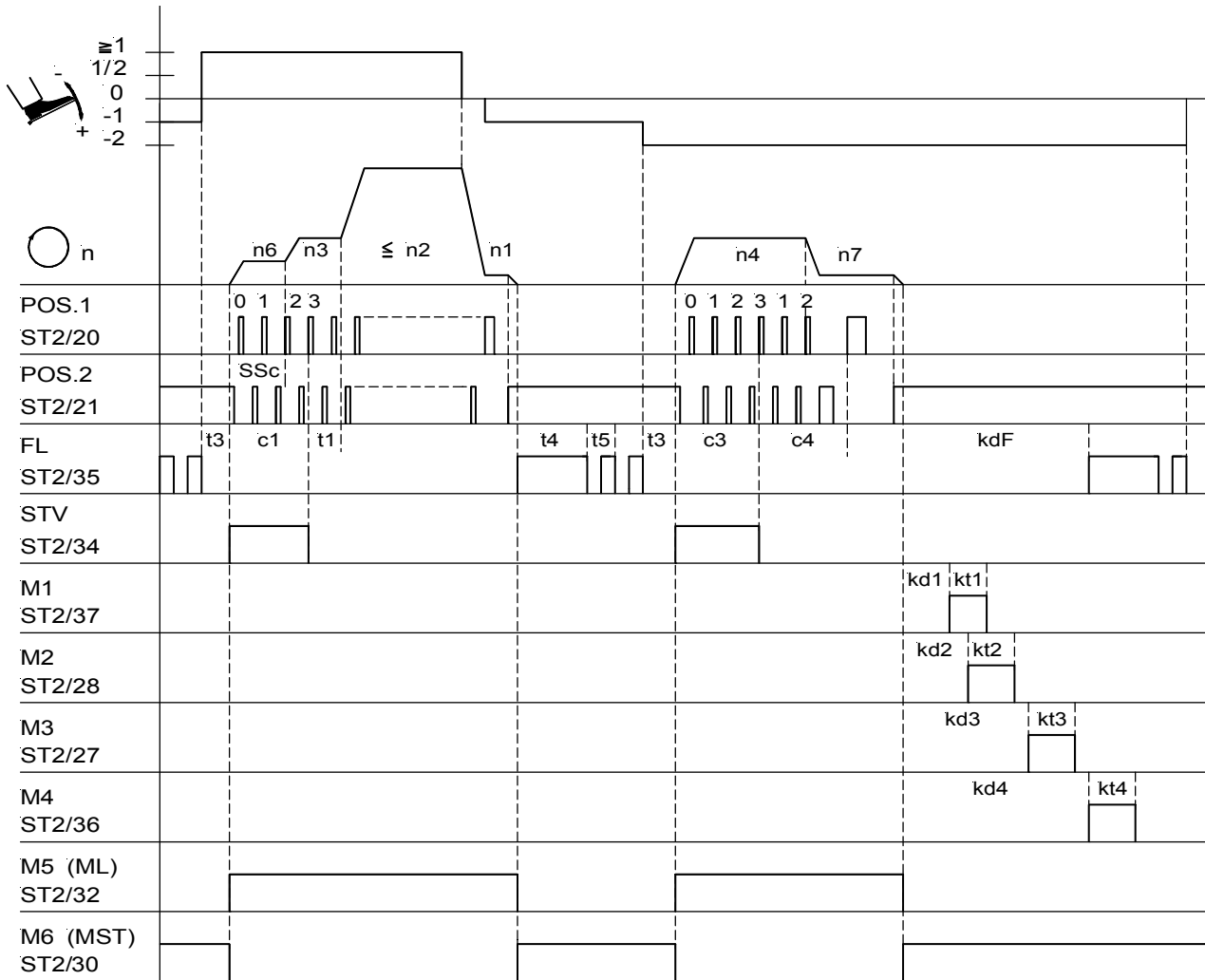
Mode 4 (chainstitch)



0256/MODE-4

Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 4	290 = 4			
	Start stitch condensing	On	Key S2	Key 1	Key 1
	End stitch condensing	On	Key S3	Key 2	Key 4
n1	Positioning speed	110			
n2	Maximum speed	111			
n3	Start backtack speed	112			
n4	End backtack speed	113			
n7	Trimming speed	116			
n12	Automatic speed	118			
c1	Stitch counting of start stitch condensing	001			
c3	Stitch counting of end stitch condensing	002			
t1	Delay until speed release after start backtack	200			
t3	Start delay from lifted sewing foot	202			
t10	Full power of thread trimmer backward	212			
t11	Holding power output "stitch condensing" of the thread trimmer backward	213			
kd1	Delay time of the thread trimmer backward	280			
kt1	ON period of the thread trimmer backward	281			
kd2	Delay time of the thread trimmer forward M2	282			
kt2	ON period of the thread trimmer forward M2	283			
kd3	Delay time of the thread wiper M3	284			
kt3	ON period of the thread wiper M3	285			
kdF	Switch-on delay of sewing foot lifting	288			

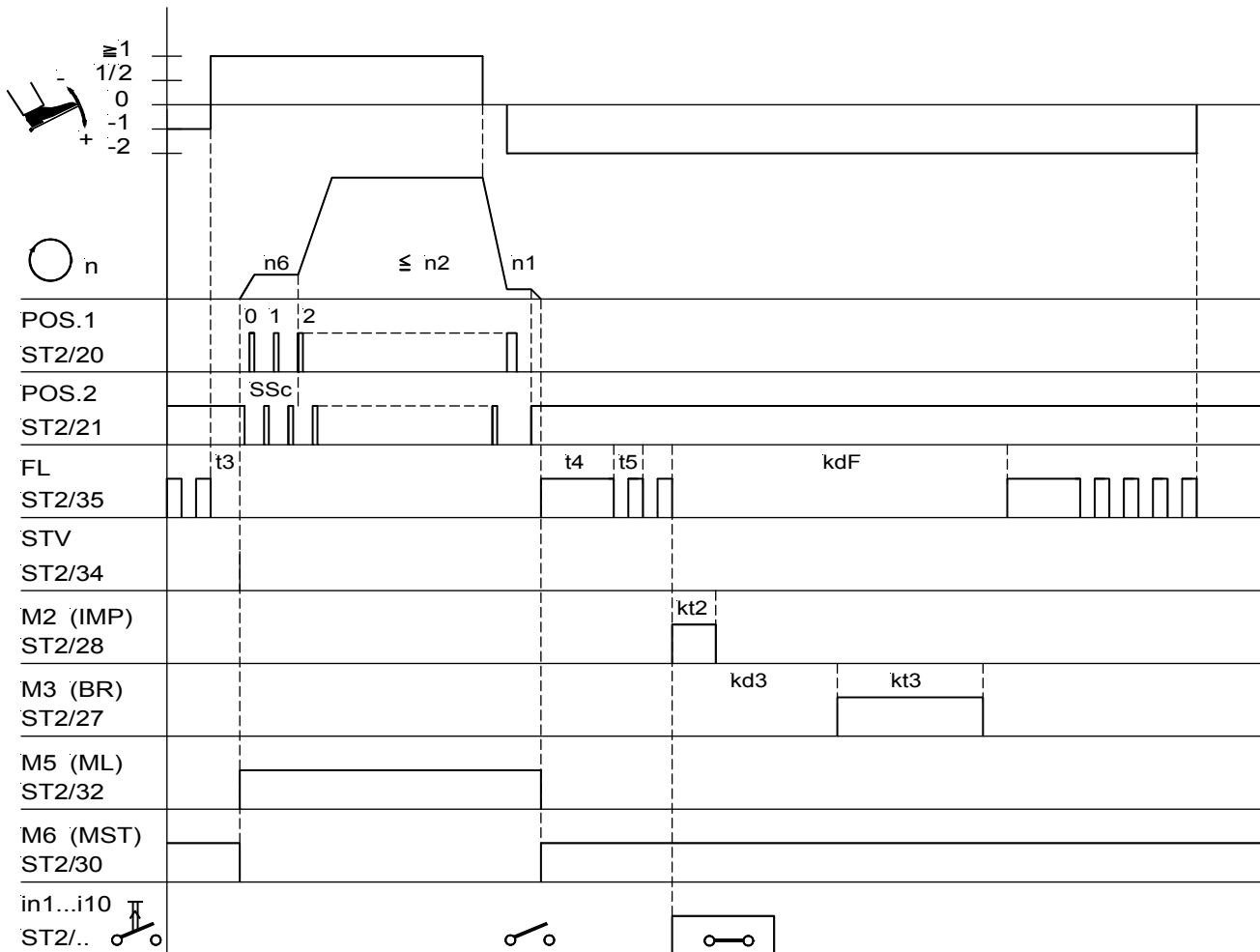
Mode 5 (chainstitch)



0256/MODE-5

Mark	Function	Parameter	Control	V810	V820/V850
	Mode 5	290 = 5			
	Softstart	134 = 1			
	Start stitch condensing	On	Key S2	Key 1	Key 1
	End stitch condensing	On	Key S3	Key 2	Key 4
n1	Positioning speed	110			
n2	Maximum speed	111			
n3	Start stitch condensing speed	112			
n4	End stitch condensing speed	113			
n6	Softstart speed	115			
n7	Trimming speed	116			
c1	Stitch counting of start stitch condensing	001			
c3	Stitch counting of end stitch condensing	002			
c4	Stitch counting at the seam end without stitch regulator	003			
SSc	Softstart stitches	100			
t1	Delay until speed release after start backtack	200			
t3	Start delay from lifted sewing foot	202			
t4	Full power of sewing foot lifting	203			
t5	Pulsing of sewing foot lifting	204			
kdF	Switch-on delay of sewing foot lifting	288			
kd1-kd4	Delay times of outputs M1...M4	280/2/4/6			
kt1-kt4	ON periods of outputs M1...M4	281/3/5/7			

Mode 5 (chainstitch) Union Special, bag sewing machine



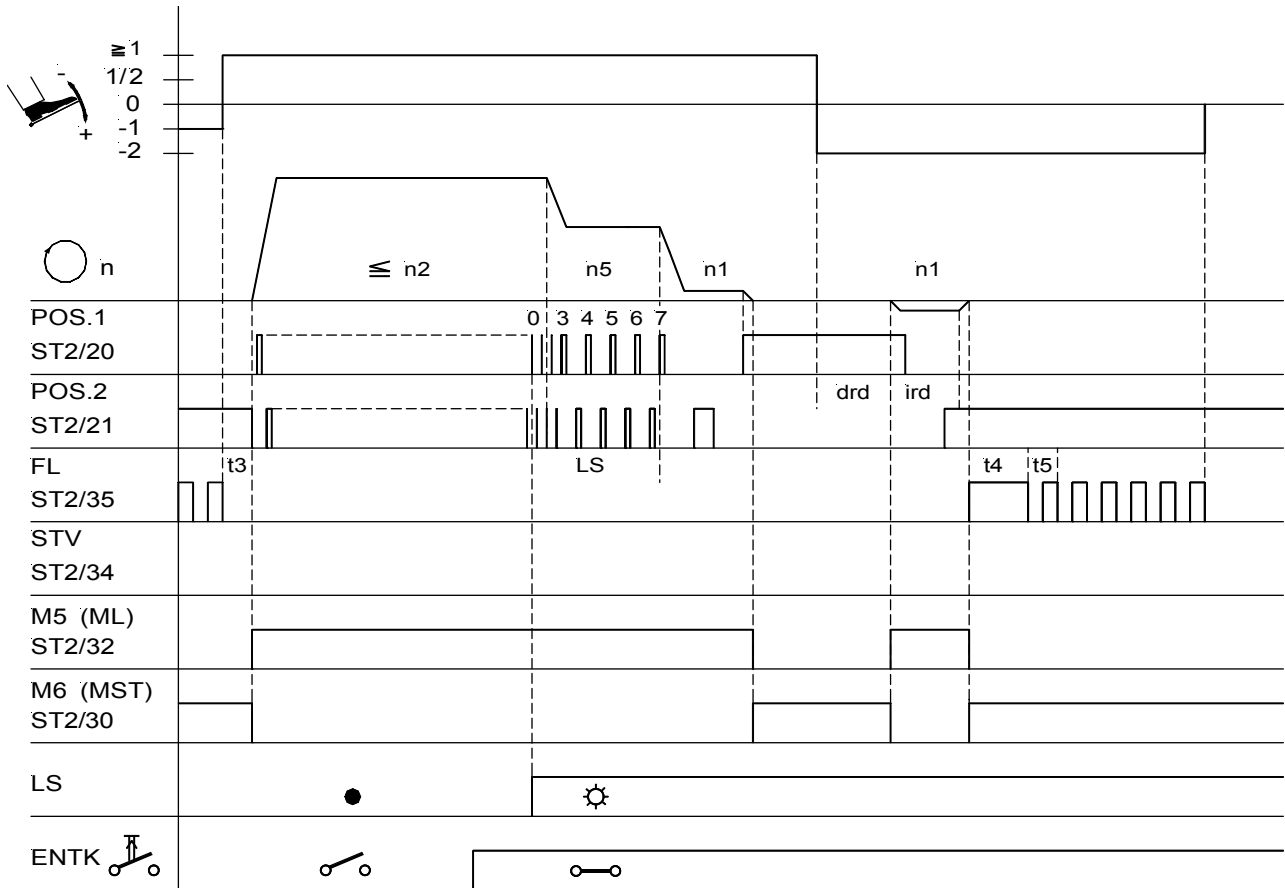
0256/MODE-5a

Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 5	290 = 5			
SSt	Softstart	134 = 1			
SAk	“Hot thread chain cutting” using knee switch, and sewing foot lift using pedal		198 = 1		
in1...i10	Function “hot thread chain cutting” (M3) using knee switch	2.. = 42			
n1	Positioning speed	110			
n2	Maximum speed	111			
n6	Softstart speed	115			
SSc	Softstart stitches	100			
t3	Start delay from lifted sewing foot	202			
t4	Full power of sewing foot lifting	203			
t5	Pulsing of sewing foot lifting	204			
kd2	Delay time for output M2	282 = 0			
kt2	ON period for output M2	283 = 50ms			
kd3	Delay time for output M3	284 = 1500ms			
kt3	ON period for output M3	285 = 1400ms			
kdF	Switch-on delay of sewing foot lifting	288 = 2550ms			

Settings using parameter 198:

- 198 = 0 The signals **hot thread chain cutting** and **sewing foot lift** are enabled using the pedal.
- 198 = 1 The signal **hot thread chain cutting** is enabled using the knee switch and **sewing foot lift** using the pedal.
- 198 = 2 The signal **hot thread chain cutting** is enabled using the pedal and **sewing foot lift** using the knee switch.

Mode 4, 5, 6 or 7 (function “unlocking the chain” with light barrier)

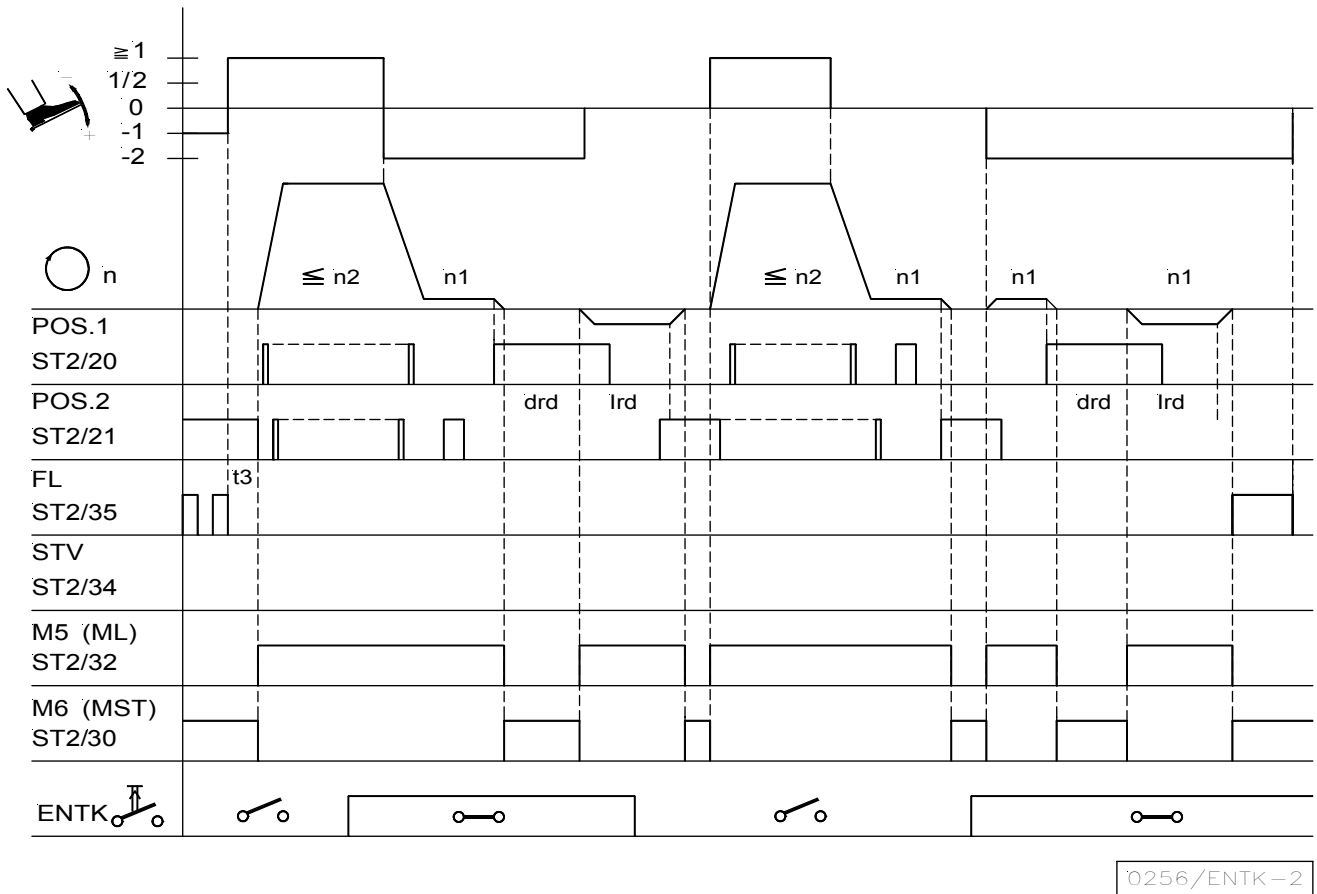


0256/ENTK-1

Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 5	290 = 5			
drE	Direction of motor rotation	Clockwise			
Frd	Reverse motor rotation	161 = 0			
	Basic position 2	182 = 1			
	End stitch condensing and thread trimmer *)	On	Key S5	Key 4	Key 7
LS	Light barrier	009 = ON			
mEk	Unlock the chain automatically with light barrier	190 = 2			
in7	Machine run blockage effective with open contact	246 = 6			
in8	Automatic speed n12 without pedal	247 = 10			
in..	Assign the function “unlocking the chain” to an output	2..			
n1	Positioning speed	110			
n2	Maximum speed	111			
n5	Speed after light barrier sensing	114			
LS	Light barrier compensating stitches	004			
ird	Number of reversing increments	180			
drd	Switch-on delay of reverse motor rotation	181			
t3	Start delay from lifted sewing foot	202			
t4	Full power of sewing foot lifting	203			
t5	Pulsing of sewing foot lifting	204			
tGn	Speed gate damping period	222			
dGF	Speed gate 2	224 = 1			
kdF	Switch-on delay of sewing foot lifting	288			

When unlocking the chain, the functions “stitch condensing” and “thread trimmer” are suppressed!

Mode 4, 5, 6 or 7 (function “unlocking the chain”)

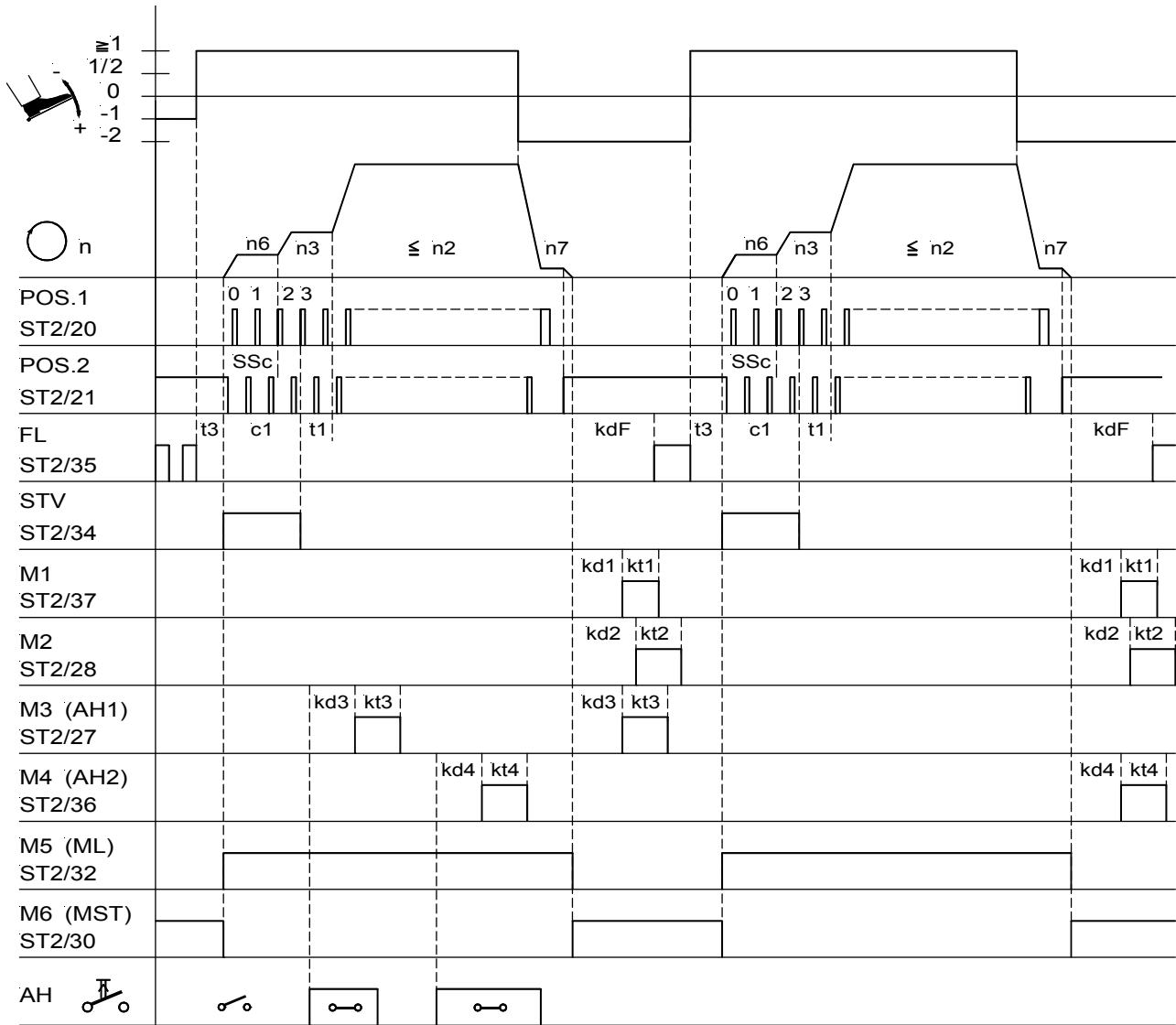


0256/ENTK-2

Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 5	290 = 5			
drE	Direction of motor rotation	Clockwise 161 = 0			
Frd	Reverse motor rotation	182 = 1			
	Basic position 2	On	Key S5	Key 4	Key 7
	End stitch condensing and thread trimmer *)	On			
in7	Machine run blockage effective with open contact	246 = 6			
in8	Automatic speed n12 without pedal	247 = 10			
in..	Assign the function “unlocking the chain” to an output	2..			
n1	Positioning speed	110			
n2	Maximum speed	111			
ird	Number of reversing increments	180			
drd	Switch-on delay of reverse motor rotation	181			
t3	Start delay from lifted sewing foot	202			
t4	Full power of sewing foot lifting	203			
t5	Pulsing of sewing foot lifting	204			
tGn	Speed gate damping period	222			
dGF	Speed gate 2	224 = 1			

When unlocking the chain, the functions “stitch condensing” and “thread trimmer” are suppressed!

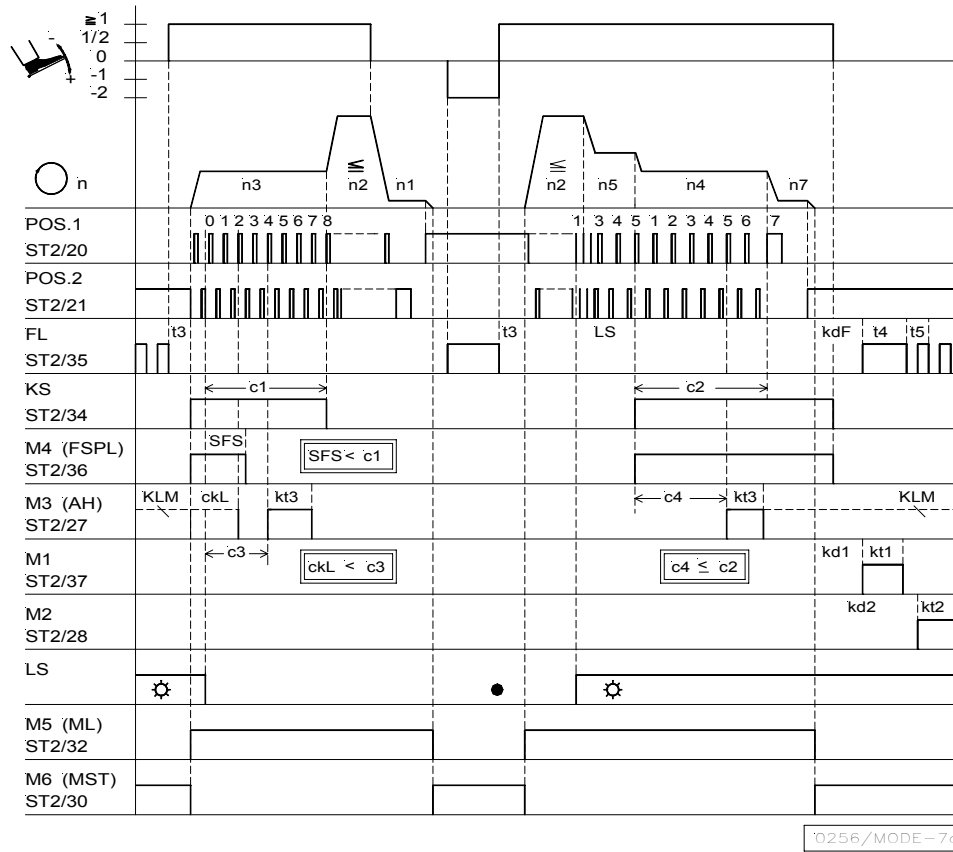
Mode 6 (chainstitch with fast scissors) parameter 232 = 1



0256/MODE-6

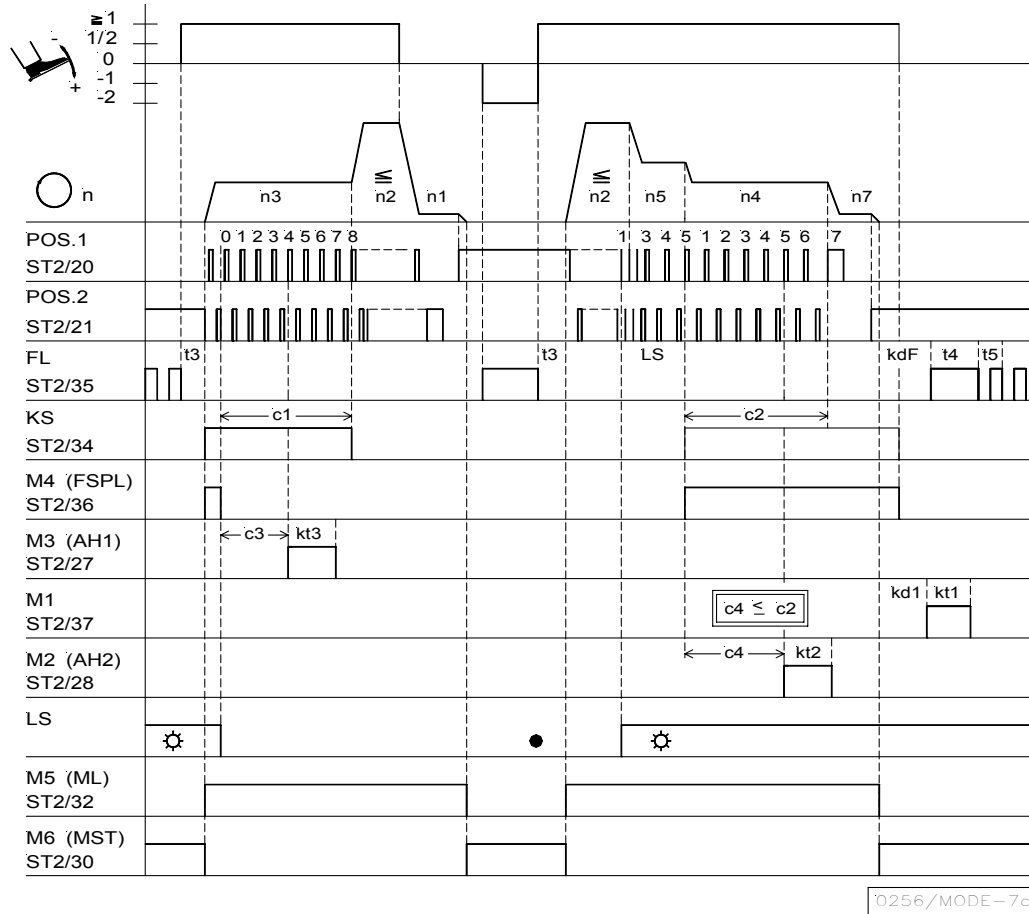
Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 6	290 = 6			
SSt	Softstart	134 = 1			
	Start stitch condensing	On	Key S2	Key 1	Key 1
USS	Chainstitch with fast scissors M3/M4	232 = 1			
n2	Maximum speed	111			
n3	Start stitch condensing speed	112			
n6	Softstart speed	115			
n7	Trimming speed	116			
c1	Stitch counting of start stitch condensing	001			
SSc	Softstart stitches	100			
t1	Delay until speed release after stitch condensing	200			
t3	Start delay from lifted sewing foot	202			
kd1/kd2	Delay times of outputs M1/M2	280/282			
kt1/kt2	ON periods of outputs M1/M2	281/283			
kd3/kd4	Delay times of outputs M3/M4 (AH1/AH2)	284/286			
kt3/kt4	ON periods of outputs M3/M4 (AH1/AH2)	285/287			
kdF	Switch-on delay of sewing foot lifting	288			

Mode 7 (overlock) parameter 232 = 0 (tape cutter) / parameter 018 = 0 (seam end with stop)



Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 7	290 = 7			
	Counts c1, c2, c3 and c4		On		
	Sewing foot lifting at the seam end		On		
LS	Light barrier	009 = 1			
UoS	Sequence "overlock mode with stop"	018 = 0			
-Pd	Function "pedal in pos. -2" blocked	019 = 2			
kLm	Clamp at the seam end	020 = 1	Key S2/3	Key 1/2	Key 1/4
SPO	Chain suction at the seam end until pedal in pos. 0	022 = 1	Key S4	Key 3	Key 6
tFS	Beginning of thread tension release at the start of the seam	025 = 0			
LSS	Start blockage with light barrier uncovered	132 = 0			
kSA	Stitch counting at the start of the seam at fixed speed n3	143 = 0			
kSE	Stitch counting at the seam end at fixed speed n4	144 = 0			
mhE	Seam end after count c2	191 = 1			
PLS	Speed n5 after light barrier sensing	192 = 0			
kSL	Chain suction On after light barrier compensating stitches	193 = 0			
USS	Tape cutter function	232 = 0			
n1	Positioning speed	110			
n2	Maximum speed	111			
n3	Speed for start counting	112			
n4	Speed for end counting	113			
n5	Speed after light barrier sensing	114			
n7	Trimming speed	116			
c2	End counting for chain suction	000			
c1	Start counting for chain suction	001			
c3	Start counting for tape cutter	002			
c4	End counting for tape cutter	003			
LS	Light barrier compensating stitches	004			
ckL	Run-out stitches clamp at the start of the seam	021			
SFS	Stitches from light barrier uncovered until end of thread tension release (M4)	157			
kd1/kd2	Delay times of outputs M1/M2	280/282			
kt1/kt2	ON periods of outputs M1/M2	281/283			
kt3	ON period of tape cutter	285			
kdF	Switch-on delay of sewing foot lifting	288			

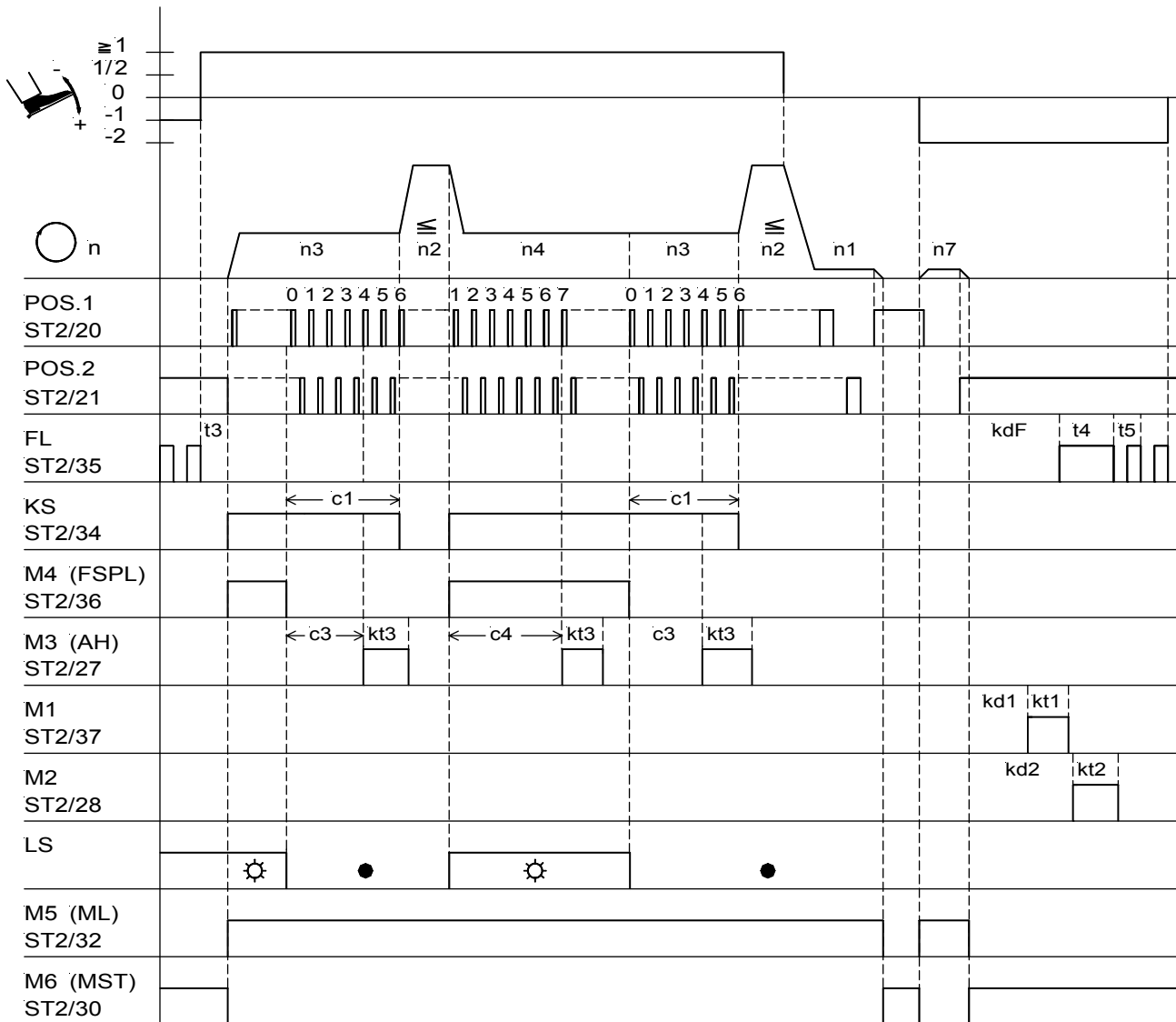
Mode 7 (overlock) parameter 232 = 1 (fast scissors) / parameter 018 = 0 (seam end with stop)



0256/MODE-7c

Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 7	290 = 7			
	Counts c1, c2, c3 and c4		On		
	Sewing foot lifting at the seam end		On		
LS	Light barrier				
UoS	Sequence "overlock mode with stop"	009 = 1	Key S2/3	Key 1/2	Key 1/4
-Pd	Function "pedal in pos. -2" blocked	018 = 0	Key S4	Key 3	Key 6
kLm	Clamp at the seam end	019 = 2			
SPO	Chain suction at the seam end until pedal in pos. 0	020 = 0			
LSS	Start blockage with light barrier uncovered	022 = 1			
kSA	Stitch counting at the start of the seam at fixed speed n3	132 = 0			
kSE	Stitch counting at the seam end at fixed speed n4	143 = 0			
mhE	Seam end after count c2	144 = 0			
PLS	Speed n5 after light barrier sensing	191 = 1			
kSL	Chain suction On after light barrier compensating stitches	192 = 0			
USS	Function "fast scissors"	193 = 0			
n1	Positioning speed	232 = 1			
n2	Maximum speed	110			
n3	Speed for start counting	111			
n4	Speed for end counting	112			
n5	Speed after light barrier sensing	113			
n7	Trimming speed	114			
c2	End counting for chain suction	116			
c1	Start counting for chain suction	000			
c3	Start counting for chain suction	001			
c3	Start counting for tape cutter	002			
c4	End counting for tape cutter	003			
LS	Light barrier compensating stitches	004			
kd1	Delay time of output M1	280			
kd2	Delay time of output M2	282 = 0			
kt1/kt2	ON periods of outputs M1/M2	281/283			
kt3	ON period of tape cutter	285			
kdF	Switch-on delay of sewing foot lifting	288			

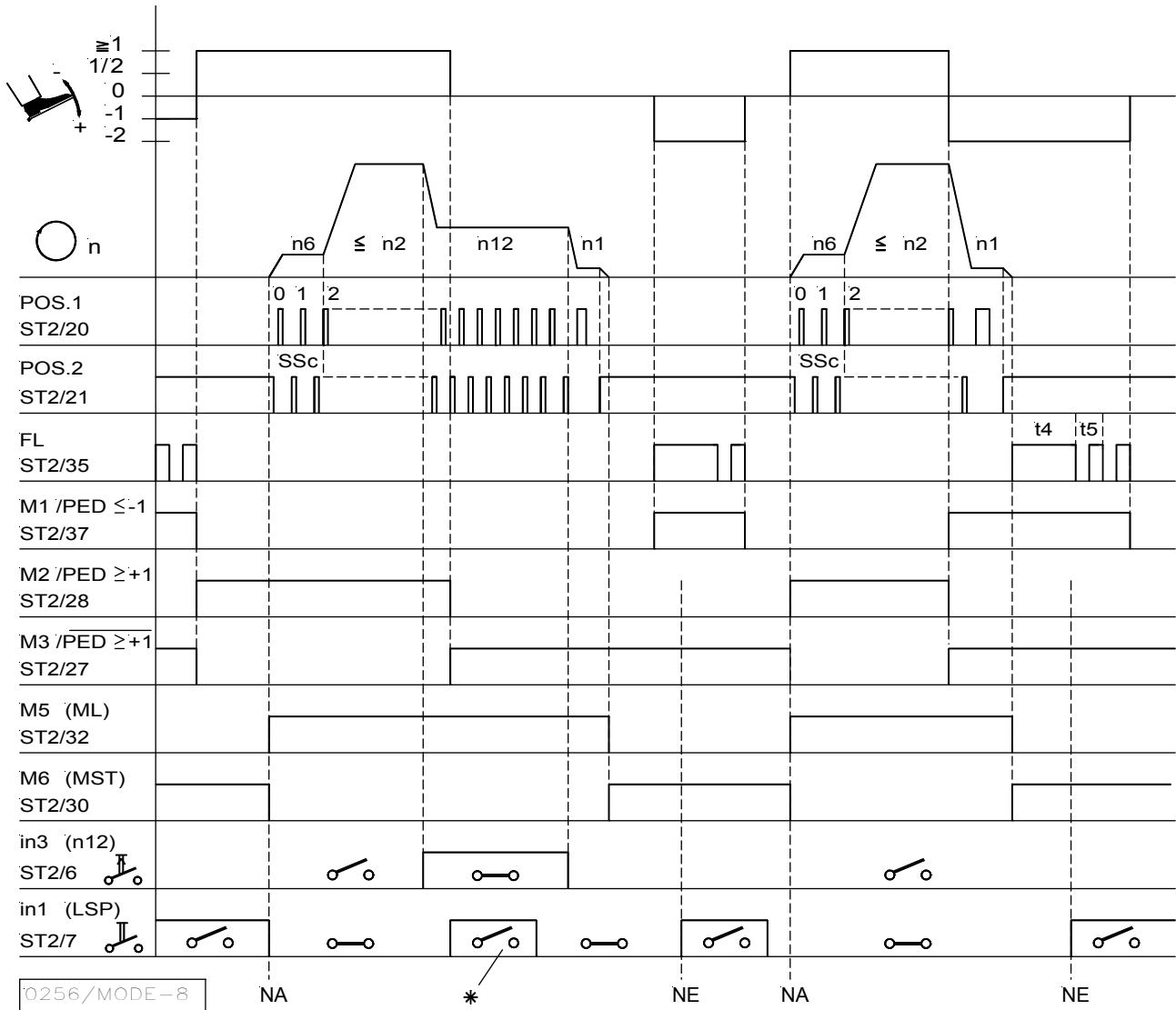
Mode 7 (overlock) parameter 232 = 0 (tape cutter) / parameter 018 = 1 (seam end without stop)



0256/MODE-7b

Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 7	290 = 7	Key S2/3	Key 1/2	Key 1/4
	Counts c1, c2, c3 and c4	On			
LS	Light barrier compensating stitches	004 = 0			
LS	Light barrier	009 = 1			
UoS	Sequence "overlock mode at the seam end without stop"	018 = 1			
-Pd	Function "pedal in pos. -1/-2" activated in the seam	019 = 3			
SPO	Chain suction at the seam end until pedal in pos. 0	022 = 1			
kSA	Stitch counting at the start of the seam at fixed speed n3	143 = 1			
kSE	Stitch counting at the seam end at fixed speed n4	144 = 1			
USS	Tape cutter function	232 = 0			
n1	Positioning speed	110			
n2	Maximum speed	111			
n3	Speed for start counting	112			
n7	Trimming speed	116			
c1	Start counting for chain suction	001			
c3	Start counting for tape cutter	002			
c4	End counting for tape cutter	003			
t3	Start delay from lifted sewing foot	202			
kd1/kd2	Delay times of outputs M1/M2	280/282			
kt1/kt2	ON periods of outputs M1/M2	281/283			
kt3	ON period of tape cutter	285			
kdF	Switch-on delay of sewing foot lifting	288			

Mode 8 (backlatch Pegasus)



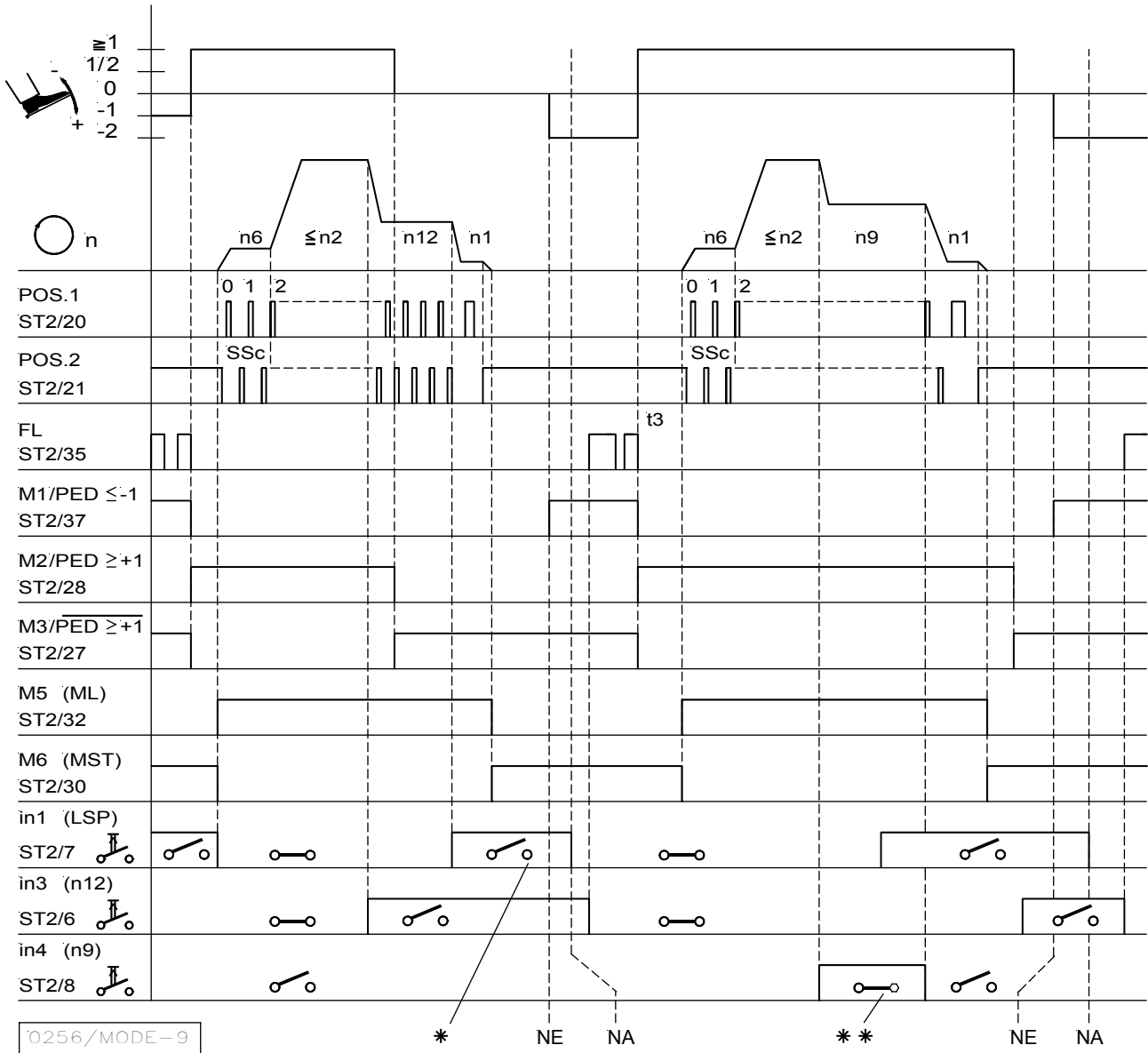
Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 8	290 = 8	Key S5	Key 4	Key 7
SSt	Basic position 2	On			
	Softstart	134 = 1			
in1	Machine run blockage activated with open switch	240 = 6			
in3	n-Auto with closed switch	242 = 10			
n1	Positioning speed	110			
n2	Maximum speed	111			
n6	Softstart speed	115			
n12	Automatic speed	118			
SSc	Softstart stitches	100			
t4	Full power of sewing foot lifting	203			
t5	Pulsing of sewing foot lifting	204			

*) When automatic speed is On, machine run blockage (safety switch) does not work!

NA Start of seam

NE Seam end

Mode 9 (backlatch Yamato)



Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 9	290 = 9			
	Basic position 2		On		
SSt	Softstart	134 = 1	Key S5	Key 4	Key 7
in1	Machine run blockage activated with open switch	240 = 6			
in3	Automatic speed with open switch (the function of input 3 is inverted in mode 9)	242 = 10			
PGm	Setting an external sensor to position 2 (A sensor must be connected!)	270 = 1			
n1	Positioning speed	110			
n2	Maximum speed	111			
n6	Softstart speed	115			
n12	Automatic speed	118			
SSc	Softstart stitches	100			
t3	Start delay from lifted sewing foot	202			
t4	Full power of sewing foot lifting	203			
t5	Pulsing of sewing foot lifting	204			

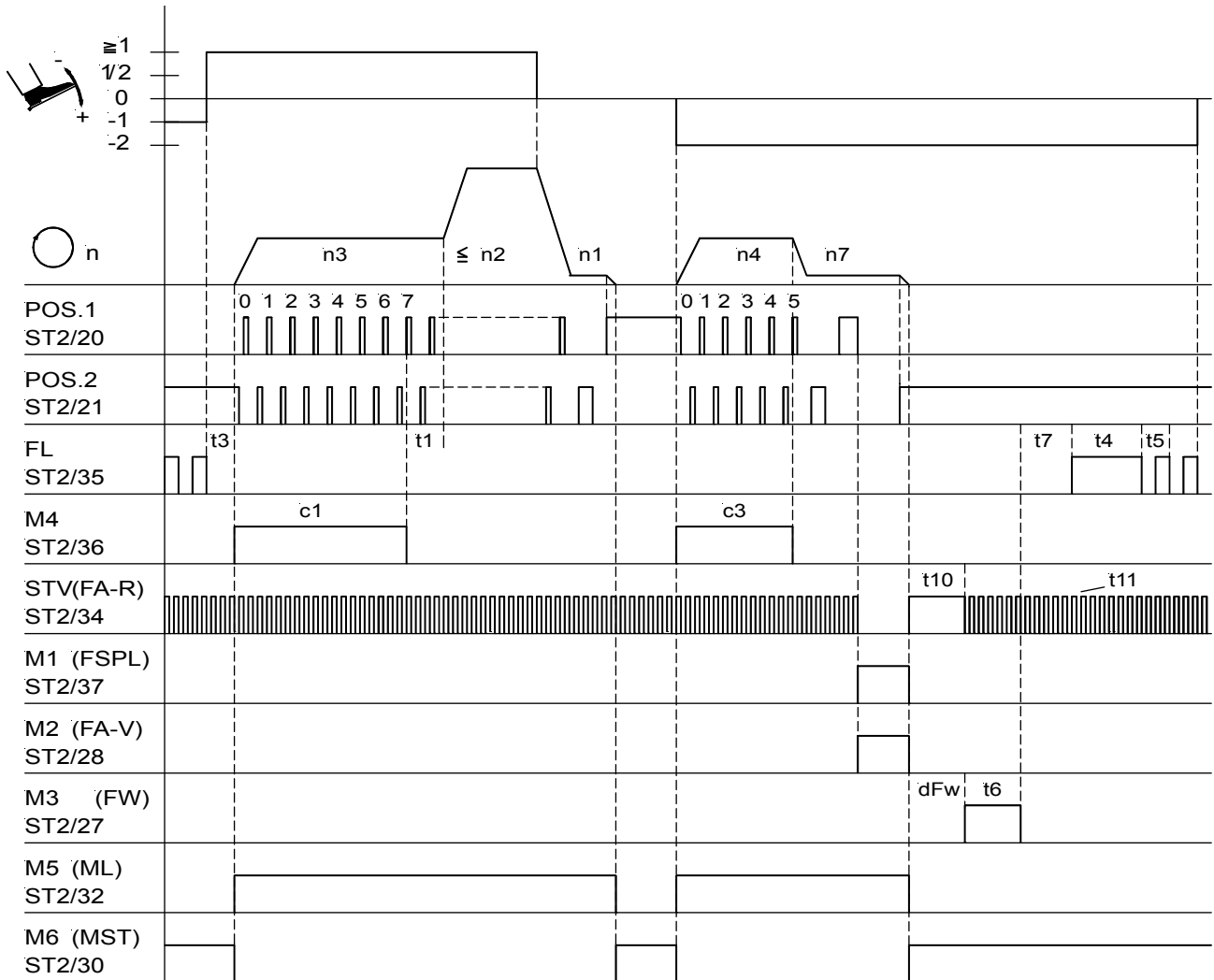
*) With this setting, machine run blockage (safety switch) takes priority over automatic speed!

**) Automatic speed n9 takes priority over machine run blockage (safety switch)!

NA Start of seam

NE Seam end

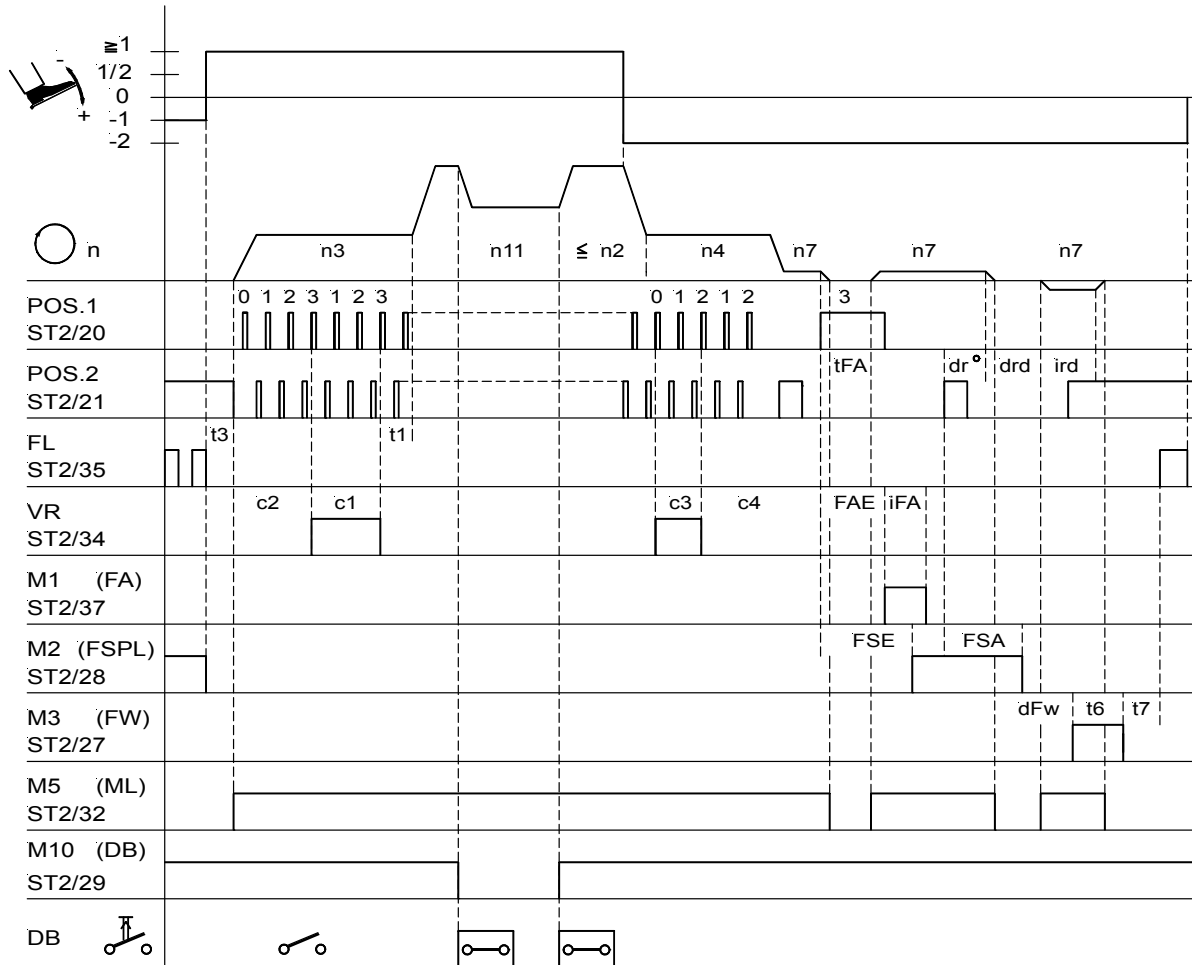
Mode 10 (lockstitch)



0256/MODE-10

Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 10	290 = 10			
	Single start backtack	On	Key S2	Key 1	Key 1
	Single end backtack	On	Key S3	Key 2	Key 4
n1	Positioning speed	110			
n2	Maximum speed	111			
n3	Start backtack speed	112			
n4	End backtack speed	113			
n7	Trimming speed	116			
c1	Start backtack stitches backward	001			
c3	End backtack stitches backward	002			
t1	Delay until speed release after start backtack	200			
t3	Start delay from lifted sewing foot	202			
t4	Full power of sewing foot lifting	203			
t5	Pulsing of sewing foot lifting	204			
t6	Thread wiper ON period	205			
t7	Switch-on delay of the sewing foot after thread wiper	206			
dFW	Switch-on delay of the thread wiper	209			
t10	Full power of thread trimmer backward	212			
t11	Holding power output "stitch condensing" of the thread trimmer backward	213			

Mode 13 (lockstitch / Pfaff 1425, 1525)

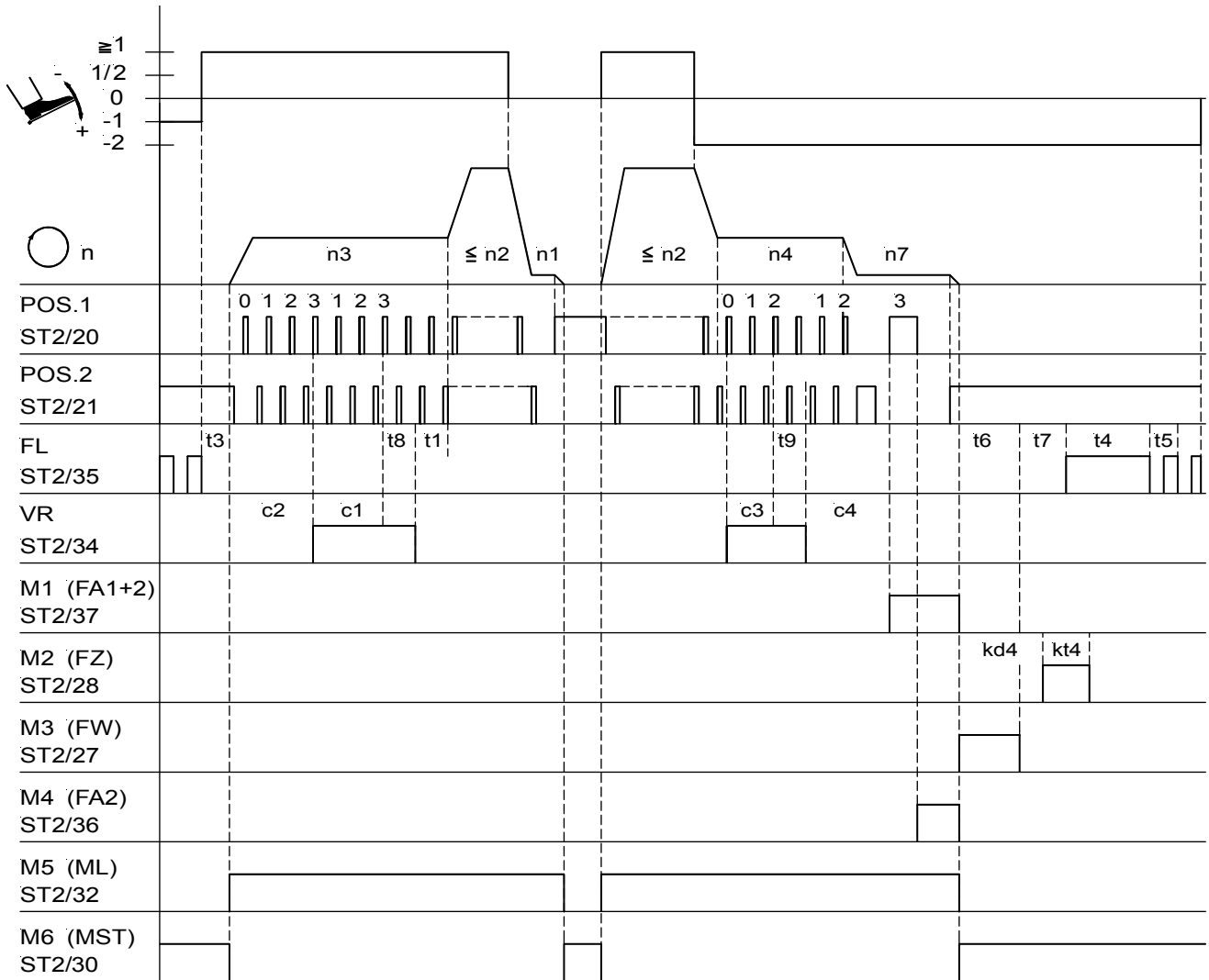


0256/MODE-13

The inverted signal from output M10 will be issued at output M4 (ST2/36).

Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 13	290 = 13			
	Double start backtack	On	Key S2	Key 1	Key 1
	Double end backtack	On	Key S3	Key 2	Key 4
FFi	Function "speed limitation n11"	186 = 1			
FFo	Function of signal M10 after power On	187 = 1			
n2	Maximum speed	111			
n3	Start backtack speed	112			
n4	End backtack speed	113			
n7	Trimming speed	116			
n11	Limikted speed n11	123			
c2	Start backtack stitches forward	000			
c1	Start backtack stitches backward	001			
c3	End backtack stitches backward	002			
c4	End backtack stitches forward	003			
ird	Number of reversing increments	180			
drd	Switch-on delay of reverse motor rotation	181			
dr°	Stop for thread trimming depending on angle	197			
t1	Delay until speed release after start backtack	200			
t3	Start delay from lifted sewing foot	202			
t6	Thread wiper ON period	205			
t7	Switch-on delay of the sewing foot after thread wiper	206			
dFW	Switch-on delay of the thread wiper	209			
iFA	Activation angle of the thread trimmer	250			
FSA	Switch-off delay of thread tension release	251			
FSE	Switch-on delay angle of thread tension release	252			
tFA	Stop time for thread trimmer	253			
FAE	Switch-on delay angle of the thread trimmer	259			

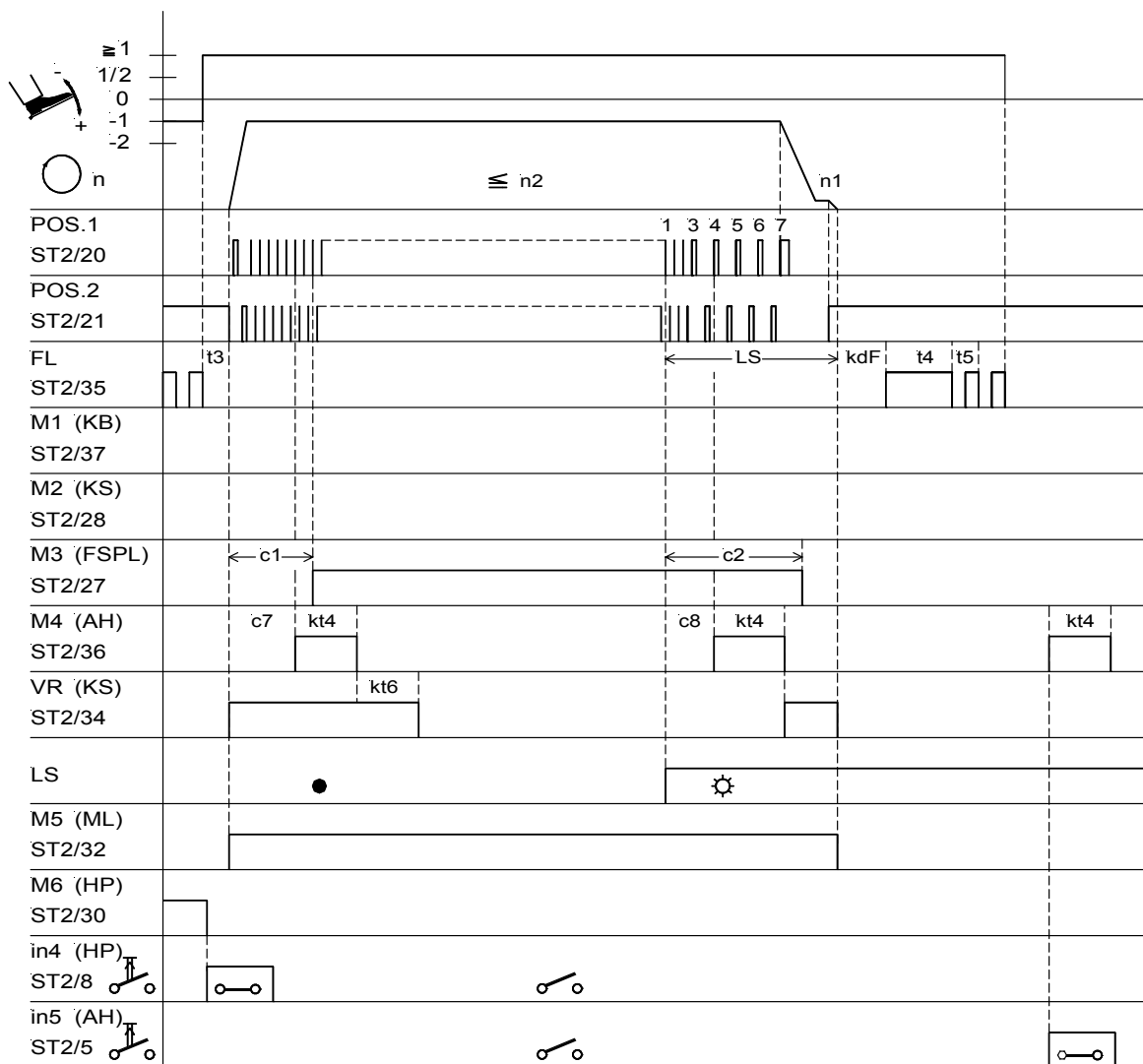
Mode 14 (lockstitch)



0256/MODE-14

Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 14	290 = 14			
	Double start backtack with stitch correction	On	Key S2	Key 1	Key 1
	Double end backtack with stitch correction	On	Key S3	Key 2	Key 4
PGm	Setting an external sensor to position 1 (An external sensor must be connected!)	270 = 3			
n1	Positioning speed	110			
n2	Maximum speed	111			
n3	Start backtack speed	112			
n4	End backtack speed	113			
n7	Trimming speed	116			
c2	Start backtack stitches forward	000			
c1	Start backtack stitches backward	001			
c3	End backtack stitches backward	002			
c4	End backtack stitches forward	003			
t8	Start backtack stitch correction	150			
t9	End backtack stitch correction	151			
t1	Delay until speed release after start backtack	200			
t3	Start delay from lifted sewing foot	202			
t4	Full power of sewing foot lifting	203			
t5	Pulsing of sewing foot lifting	204			
t6	Thread wiper ON period	205			
t7	Switch-on delay of the sewing foot after thread wiper	206			
kd4	Delay time output M2	286			
kt4	ON period output M2	287			

Mode 15 (Pegasus SSC100) sequence when high lift for walking foot is Off / start of seam with light barrier covered



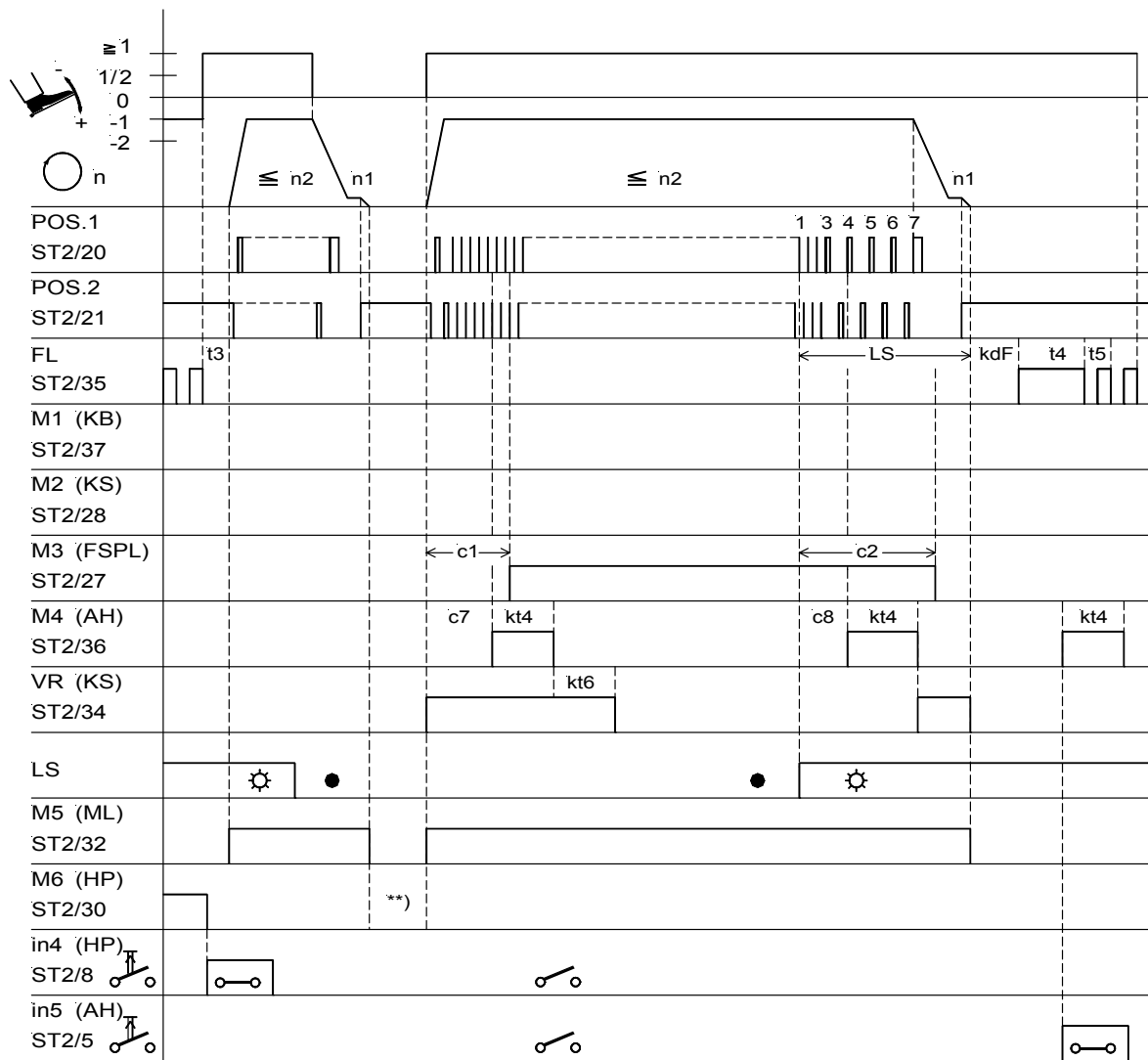
0256/MODE-15a

Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 15	290 = 15			
	Tape cutting	On		Key 2	Key 4
	Counts c1 and c2	On	Key S2/3	Key 1	Key 1/5
	Basic position 2	On	Key S5	Key 4	Key 7
LS	Light barrier	009 = 1			
PLS	Speed of the light barrier compensating stitches depending on the pedal	192 = 1			
in4	Key for high lift for walking foot operational mode stored	243 = 14			
in5	Key for manual tape cutter	244 = 15			
n1	Positioning speed	110			
n2	Maximum speed	111			
c2	Stitch counting until thread tension release	000			
c1	Stitch counting until thread tension release	001			
LS	Light barrier compensating stitches	004			
t3	Start delay from lifted sewing foot	202			
t4	Full power of sewing foot lifting	203			
t5	Pulsing of sewing foot lifting	204			
kt6 *)	Delay time of output VR (chain suction)	256			
c7	Start counting until tape cutter M4 On	257			
c8	End counting until tape cutter M4 On	258			
kt4 *)	ON period of tape cutter M4	287			
kdF	Delay time until sewing foot lifting	288			

*) The value displayed on the control unit must be multiplied by 10.

Example: The displayed value 10 corresponds to 100ms.

Mode 15 (Pegasus SSC100) sequence when high lift for walking foot is Off / start of seam with light barrier uncovered

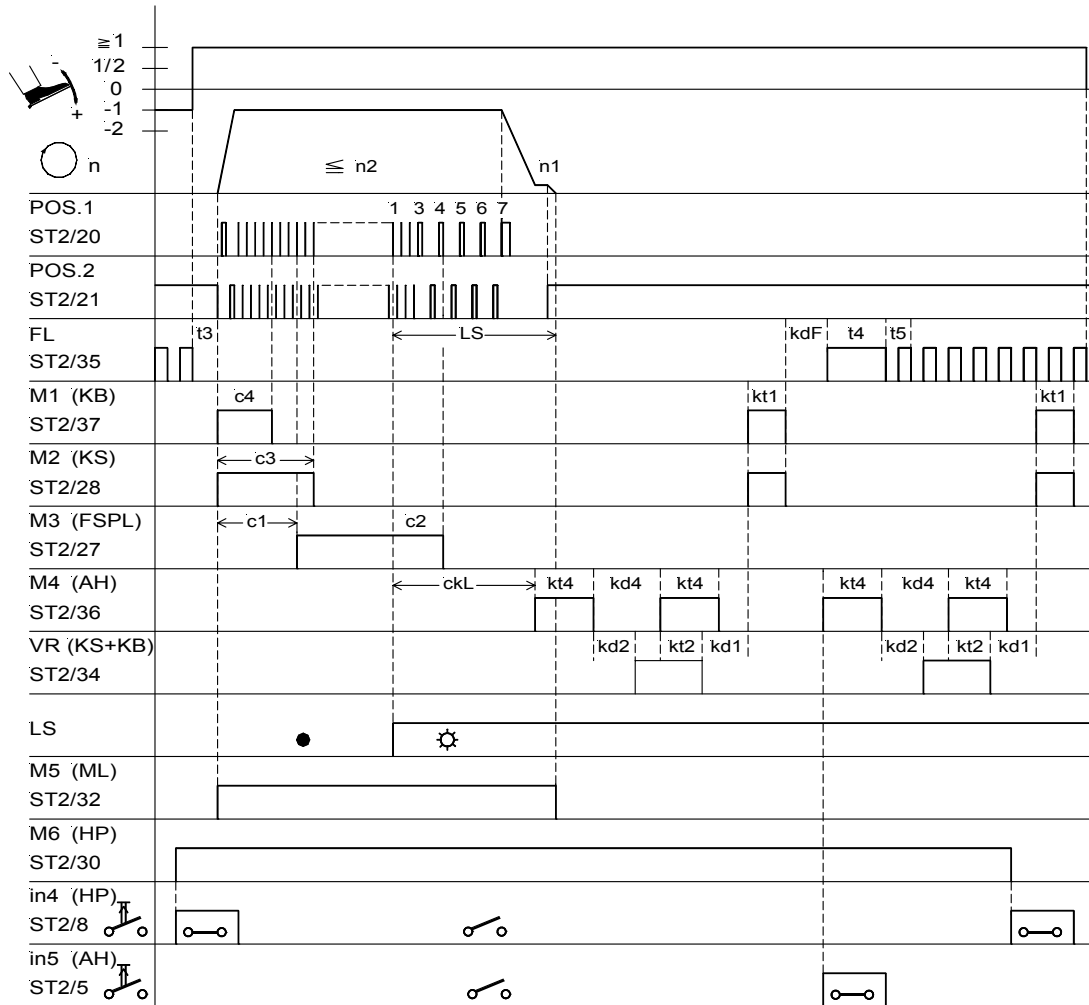


0256/MODE-15c

Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 15	290 = 15			
	Tape cutting	On		Key 2	Key 4
	Counts c1 and c2	On	Key S2/3	Key 1	Key 1/5
	Basic position 2	On	Key S5	Key 4	Key 7
LS	Light barrier	009 = 1			
PLS	Speed of the light barrier compensating stitches depending on the pedal	192 = 1			
in4	Key for high lift for walking foot operational mode stored (M6 inverted)	243 = 14			
in5	Key for manual tape cutter	244 = 15			
n1	Positioning speed	110			
n2	Maximum speed	111			
c2	Stitch counting until thread tension release	000			
c1	Stitch counting until thread tension release	001			
LS	Light barrier compensating stitches	004			
t3	Start delay from lifted sewing foot	202			
t4	Full power of sewing foot lifting	203			
t5	Pulsing of sewing foot lifting	204			
kt6	Delay time of output VR (chain suction)	256			
c7	Start counting until tape cutter M4 On	257			
c8	End counting until tape cutter M4 On	258			
kt4)	ON period of tape cutter M4	287			
kdF	Delay time until sewing foot lifting	288			

**) Programming is possible at intermediate stop before tape cutting at the start of the seam!

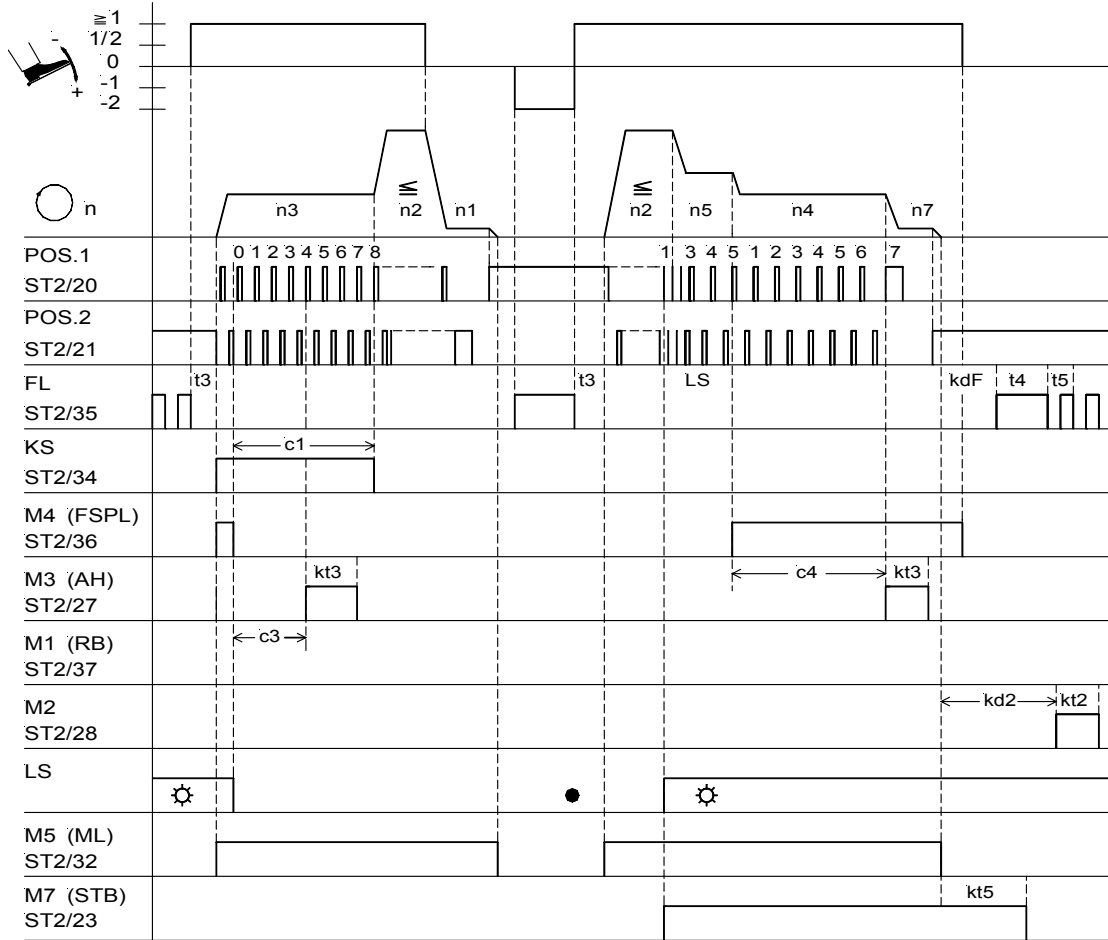
Mode 15 (Pegasus SSC100) sequence when high lift for walking foot is On



0256/MODE-15b

Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 15	290 = 15			
	Tape cutting	On		Key 2	Key 4
	Counts c1 and c2	On	Key S2/3	Key 1	Key 1/5
	Basic position 2	On	Key S5	Key 4	Key 7
LS	Light barrier	009 = 1			
PLS	Speed of the light barrier compensating stitches depending on the pedal	192 = 1			
in4	Key for high lift for walking foot operational mode stored	243 = 14			
in5	Key for manual tape cutter	244 = 15			
n1	Positioning speed	110			
n2	Maximum speed	111			
c2	Stitch counting until thread tension release	Off			
c1	Stitch counting until thread tension release	On			
c3	Counting for chain suction	002			
c4	Counting for chain blowing	003			
LS	Light barrier compensating stitches	004			
ckL	Counting after light barrier uncovered until tape cutter	On			
t3	Start delay from lifted sewing foot	202			
t4	Full power of sewing foot lifting	203			
t5	Pulsing of sewing foot lifting	204			
kd1	Delay time of output M1 and M2	280			
kt1	ON period of output M1 and M2	281			
kd2	Delay time of output ST2/34	282			
kt2	ON period of output ST2/34	283			
kd4	Delay time of output M4 (tape cutter)	286			
kt4	ON period of tape cutter M4 (tape cutter)	287			
kdF	Delay time until sewing foot lifting	On			

Mode 16 (feed-off-the-arm machine) without automatically unlocking the chain with tape cutter (232 = 0)

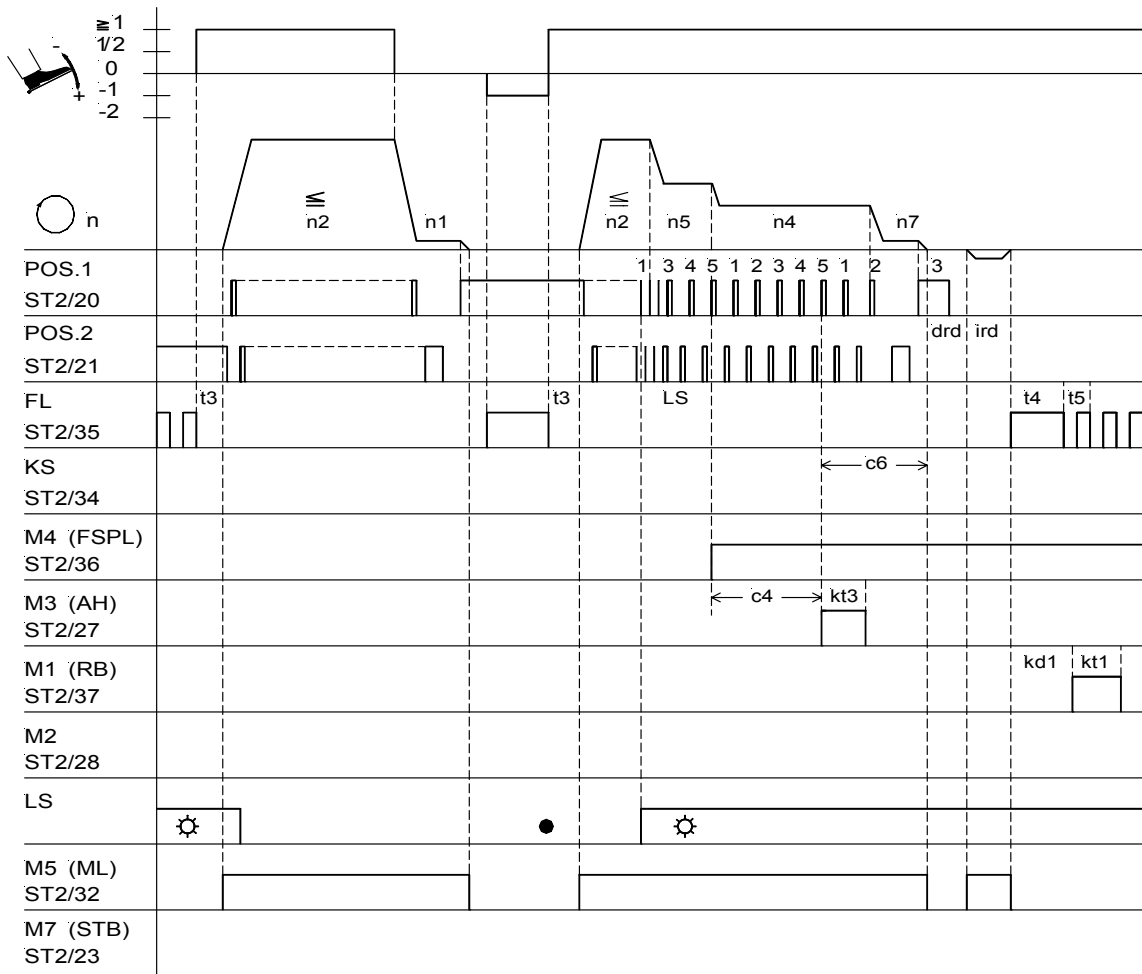


0256/MODE-16

Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 16	290 = 16			
	Counts c1, c3 and c4	On	Key S2/3	*)	Key 1/2/4
	Basic position 2	On	Key S5	*)	Key 0
	Sewing foot lifting at the seam end	On	Key S4	*)	Key 9
LS	Light barrier	009 = 1			
UoS	Sequence "overlock mode with stop"	018 = 0			
-Pd	Function "pedal in pos. -2" blocked	019 = 2			
LSS	Start blockage with light barrier uncovered	132 = 0			
kSA	Stitch counting at the start of the seam at fixed speed n3	143 = 0			
kSE	Stitch counting at the seam end at fixed speed n4	144 = 0			
PLS	Speed of the light barrier compensating stitches depending on the pedal	192 = 0			
bLA	Blow fabric onto stack M7 from light barrier uncovered onwards	194 = 1			
n1	Positioning speed	110			
n2	Maximum speed	111			
n3	Speed for start counting	112			
n4	Speed for end counting	113			
n5	Speed after light barrier sensing	114			
n7	Trimming speed	116			
c1	Start counting for chain suction	001			
c3	Start counting for tape cutter	002			
c4	End counting for tape cutter	003			
LS	Light barrier compensating stitches	004			
kd2	Delay time of output M2	282			
kt2	ON period of output M2	283			
kt3	ON period of tape cutter	285			
kdF	Switch-on delay until sewing foot lifting On	288			
kt5	Switch-off delay "blow fabric onto stack at the seam end"	289			

*) The V810 control panel cannot be used for the functions in mode 16!

Mode 16 (feed-off-the-arm machine) automatically unlocking the chain with tape cutting / key 8 on V820/V850 On

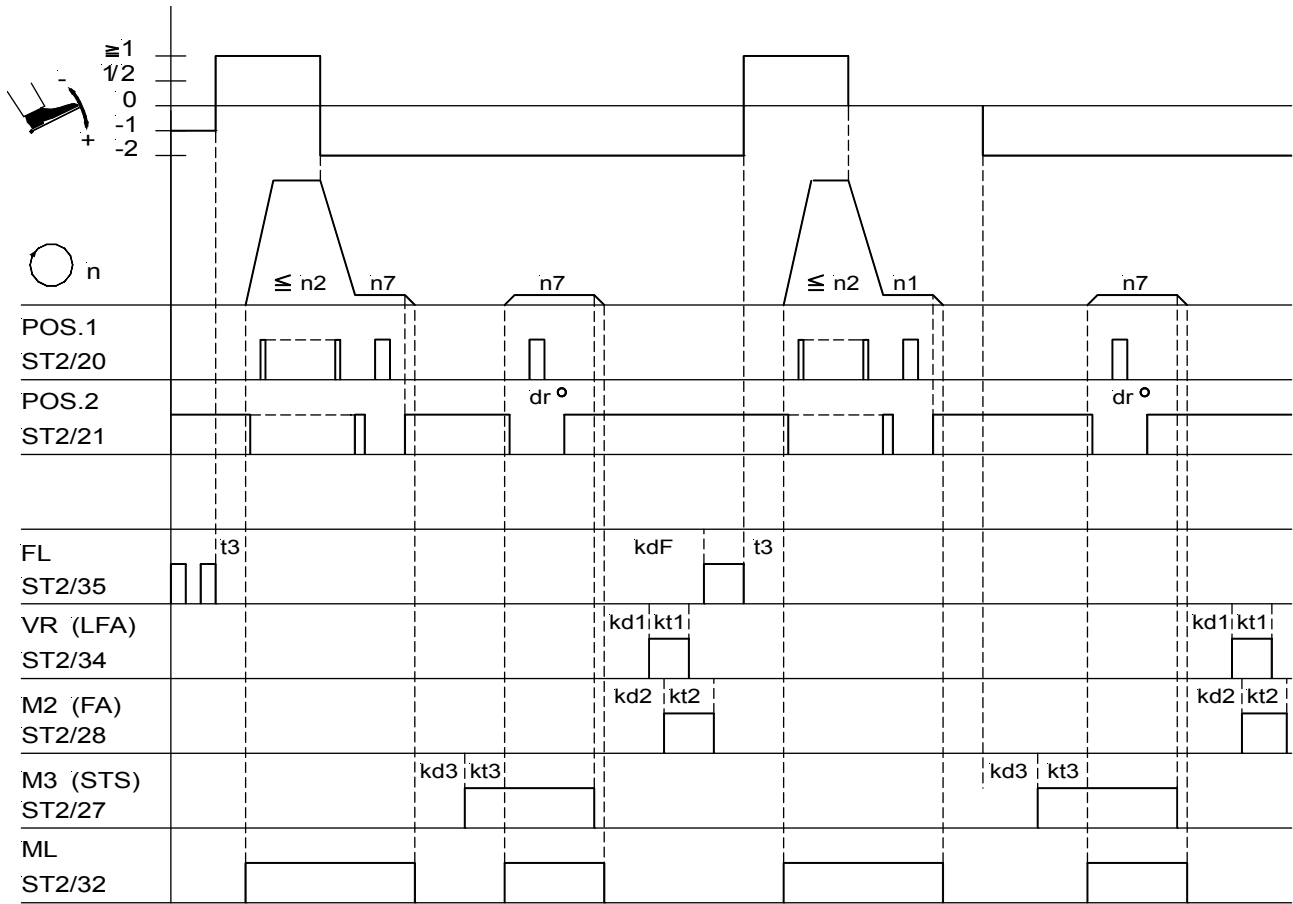


0256/MODE-16a

Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 16	290 = 16			
	Counts c4	On	Key S2/3	*)	Key 1/2/4
	Basic position 1	On	Key S5	*)	Key 0
	Unlock the chain with chain blowing in opposite direction	On		*)	Key 8
LS	Light barrier	009 = 1			
UoS	Sequence "overlock mode with stop"	018 = 0			
-Pd	Function "pedal in pos. -2" blocked	019 = 2			
LSS	Start blockage with light barrier uncovered	132 = 0			
kSA	Stitch counting at the start of the seam at fixed speed n3	143 = 0			
kSE	Stitch counting at the seam end at fixed speed n4	144 = 0			
PLS	Speed n5 after light barrier sensing	192 = 0			
bLA	Blow fabric onto stack M7 from light barrier uncovered onwards	194 = 1			
n1	Positioning speed	110			
n2	Maximum speed	111			
n3	Speed for start counting	112			
n4	Speed for end counting	113			
n5	Speed after light barrier sensing	114			
n7	Trimming speed	116			
c4	End counting for tape cutter	003			
LS	Light barrier compensating stitches	004			
ird	Number of reversing increments	180			
drd	Switch-on delay of reverse motor rotation	181			
c6	Number of run-out stitches when unlocking the chain	184			
kd1	Delay time of output M1	280			
kt1	ON period of output M1	281			

*) The V810 control panel cannot be used for the functions in mode 16!

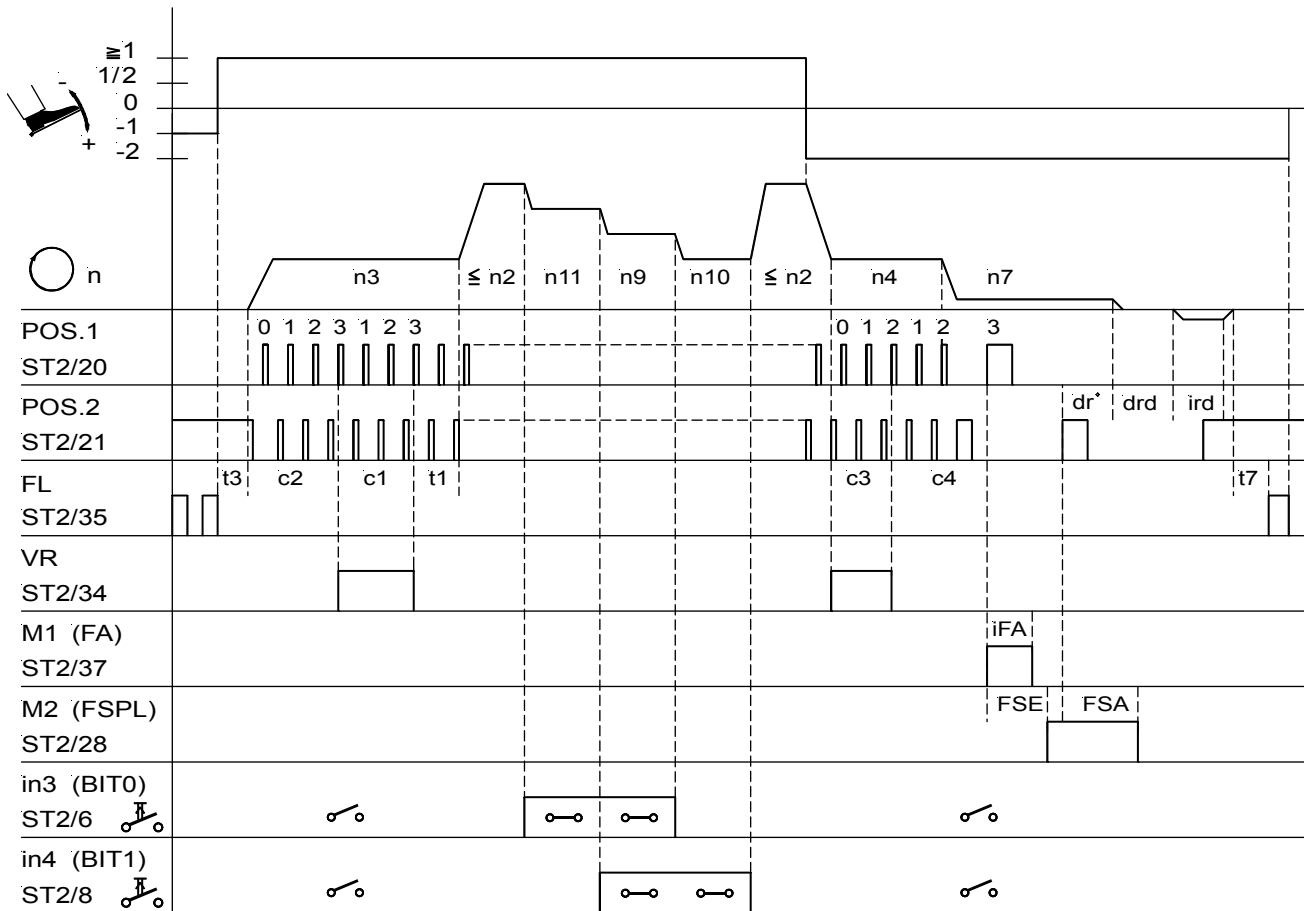
Mode 17 (stitch lock Pegasus)



0256/MODE-17

Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 17 Basic position 2 Thread trimmer and thread wiper	290 = 17	Key S5 Key S3	Key 4	Key 7 Key 5
n1	Positioning speed	110			
n2	Maximum speed	111			
n7	Trimming speed	116			
dr°	Stop for thread trimming depending on angle	197			
t3	Start delay from lifted sewing foot	202			
kd1	Delay time of the top cover thread cutter LFA	280			
kt1	ON period of the top cover thread cutter LFA	281			
kd2	Delay time of the thread trimmer FA	282			
kt2	ON period of the thread trimmer FA	283			
kd3	Delay time of the stitch lock function STS	284			
kt3	ON period of the stitch lock function STS	285			
kdF	Switch-on delay until sewing foot lifting On	288			

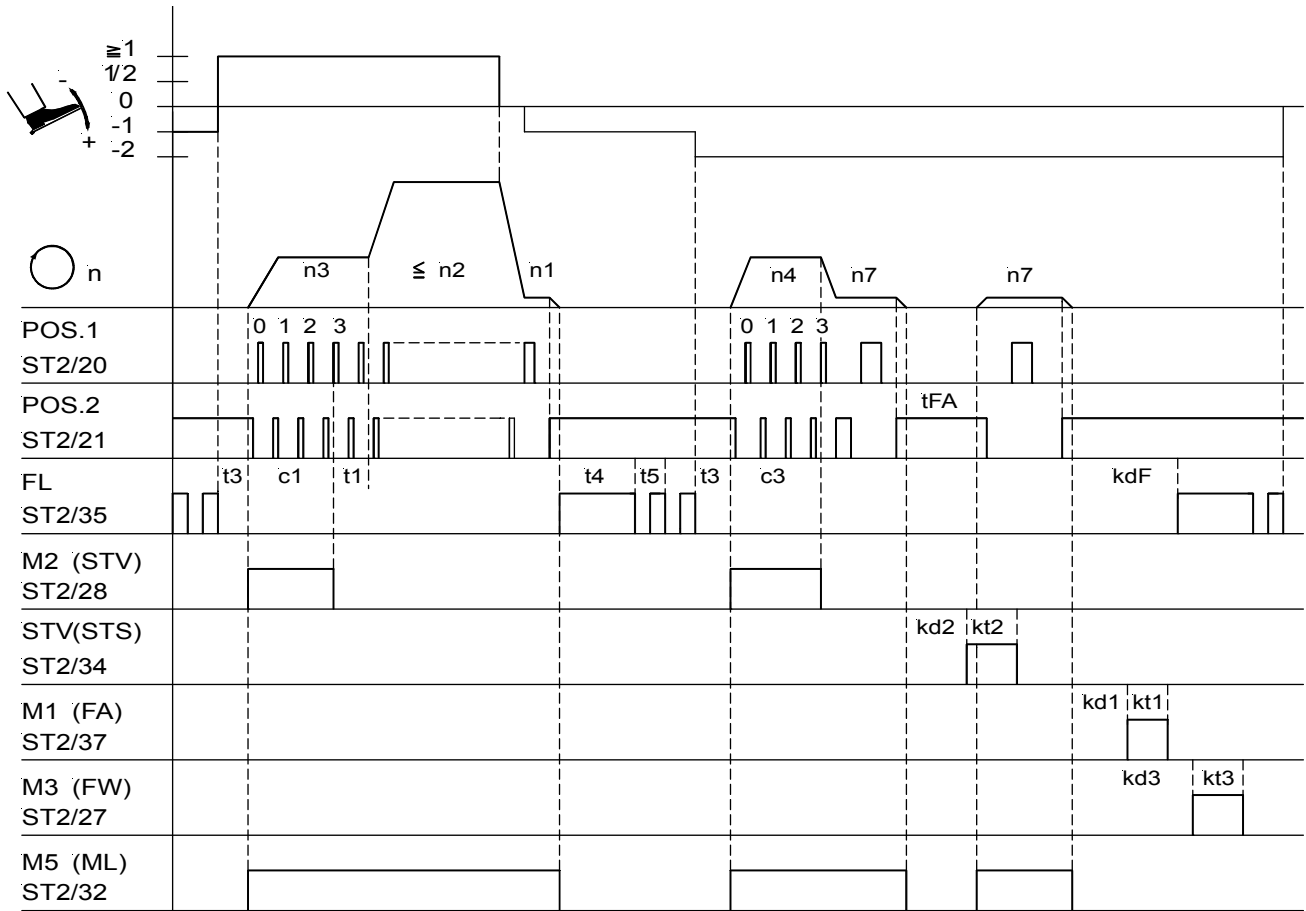
Mode 20 (lockstitch Juki LU1510-7 / DNU1541-7)



0256/MODE-20

Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 20	290 = 20			
	Double start backtack	On	Key S2	Key 1	Key 1
	Double end backtack	On	Key S3	Key 2	Key 4
Frd	Reverse motor rotation	182 = 1			
in3	Speed limitation bit 0	242 = 31			
in4	Speed limitation bit 1	243 = 32			
n2	Maximum speed	111			
n3	Start backtack speed	112			
n4	End backtack speed	113			
n7	Trimming speed	116			
n9	Automatic speed	122			
n10	Automatic speed	117			
n11	Automatic speed	123			
c2	Start backtack stitches forward	000			
c1	Start backtack stitches backward	001			
c3	End backtack stitches backward	002			
c4	End backtack stitches forward	003			
ird	Number of reversing increments	180			
drd	Switch-on delay of reverse motor rotation	181			
dr°	Stop for thread trimming depending on angle	197			
t1	Delay until speed release after start backtack	200			
t3	Start delay from lifted sewing foot	202			
t7	Switch-on delay of the sewing foot after thread wiper	206			
iFA	Activation angle of the thread trimmer	250			
FSA	Switch-off delay of thread tension release	251			
FSE	Switch-on delay angle of thread tension release	252			

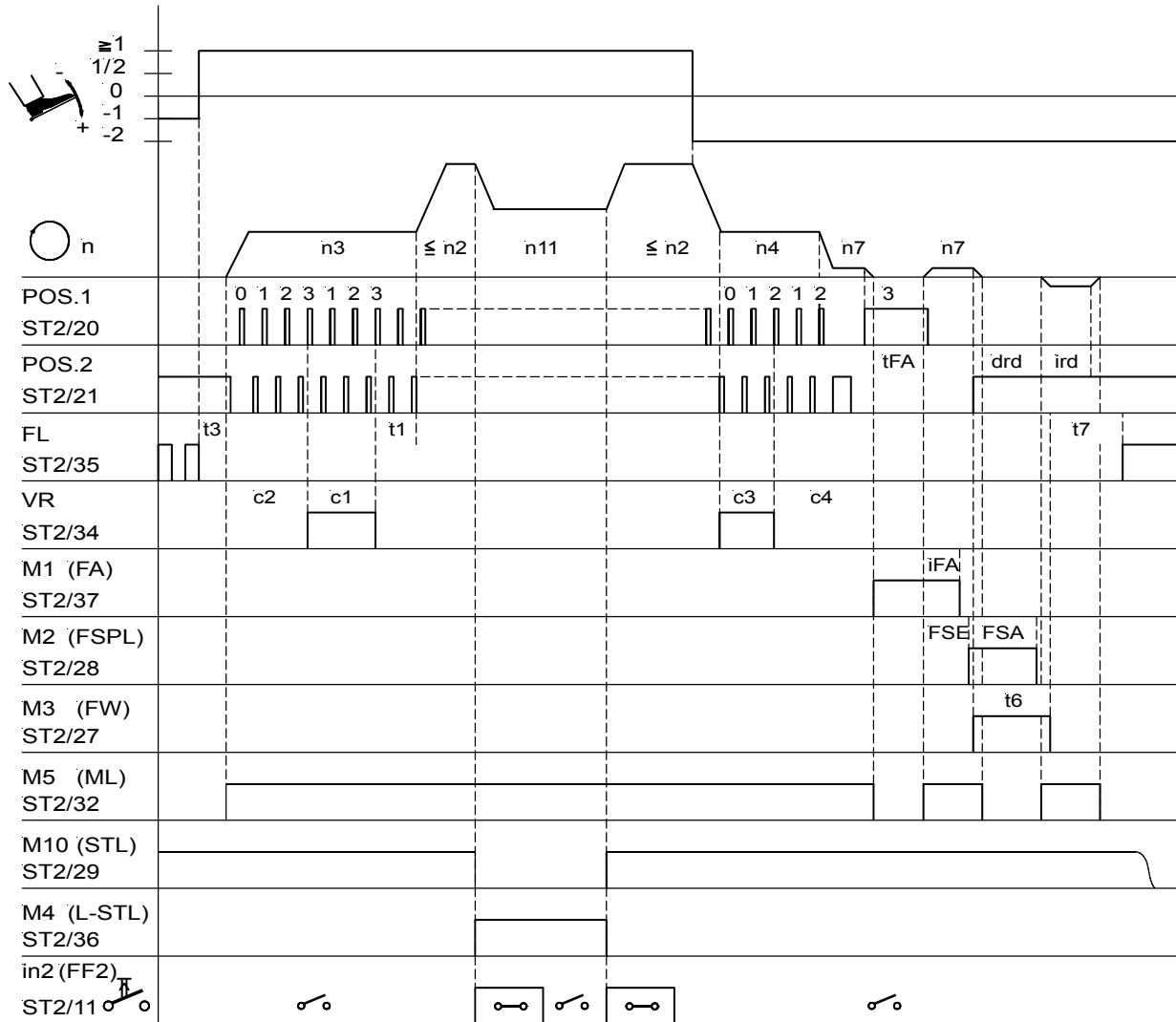
Mode 21 (stitch lock)



0256/MODE-21

Mark	Function	Parameter	Control	V810	V820/V850
FAm StL	Mode 21 Stitch lock function	290 = 21 196 = 1	Key S2	Key 1	Key 1
	Start stitch condensing	On	Key S3	Key 2	Key 4
	End stitch condensing	On			
PGm	Setting an external sensor to position 2 (A sensor must be connected!)	270 = 1			
n1	Positioning speed	110			
n2	Maximum speed	111			
n3	Speed for start stitch condensing	112			
n4	Speed for end stitch condensing	113			
n7	Trimming speed	116			
c1	Counting start stitch condensing	001			
c3	Counting end stitch condensing	002			
t1	Delay until speed release after stitch condensing	200			
t3	Start delay from lifted sewing foot	202			
t4	Full power of sewing foot lifting	203			
t5	Pulsing of sewing foot lifting	204			
tFA	Stop time for drive	253			
kd1	Delay time thread trimmer	280			
kt1	ON period thread trimmer	281			
kd2	Delay time stitch lock	282			
kt2	ON period stitch lock	283			
kd3	Delay time thread wiper	284			
kt3	ON period thread wiper	285			
kdF	Switch-on delay until sewing foot lifting On	288			

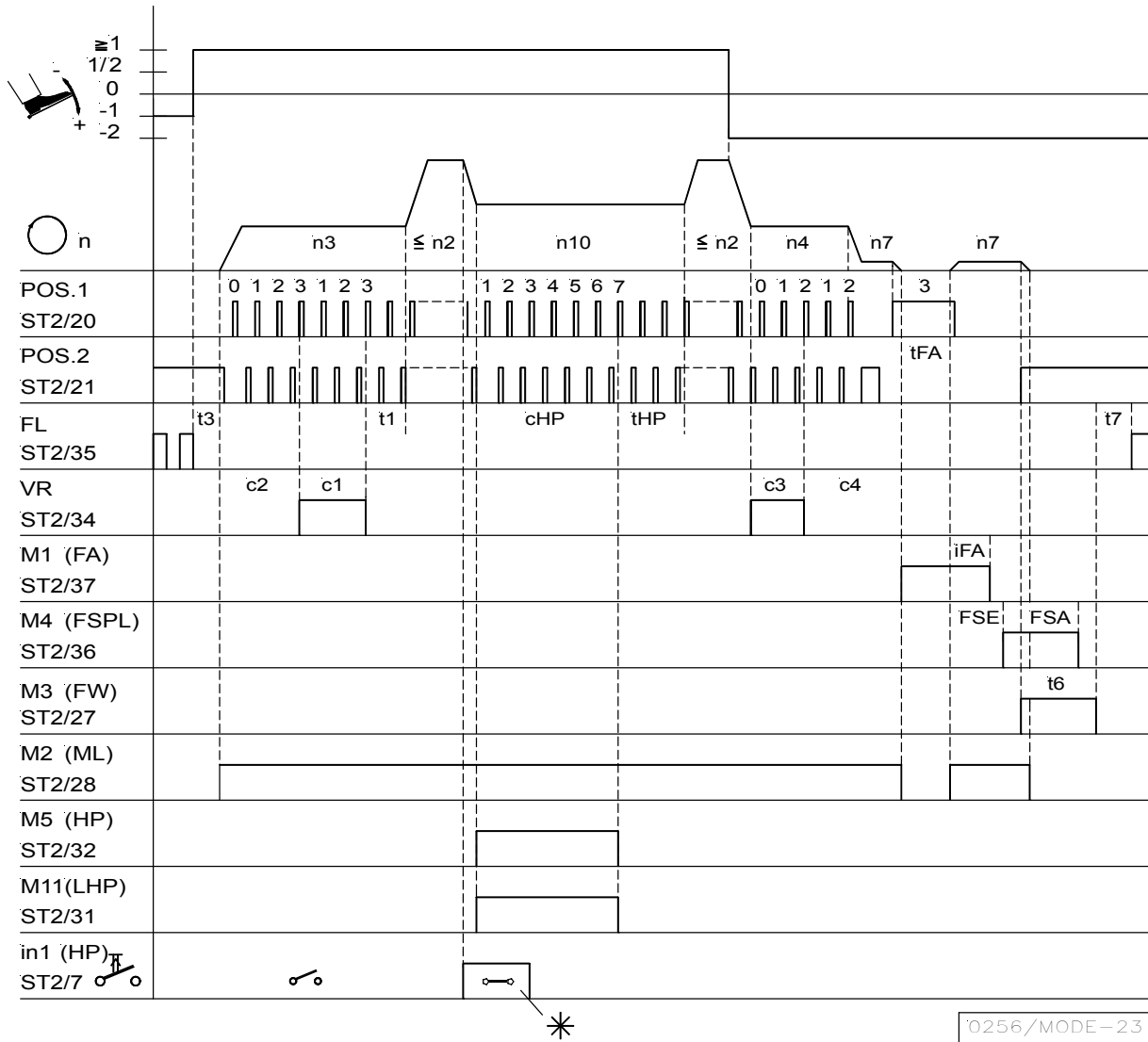
Mode 22 (lockstitch Brother B-891)



0256/MODE-22

Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 22	290 = 22			
	Double start backtack	On	Key S2	Key 1	Key 1
	Double end backtack	On	Key S3	Key 2	Key 4
Pot	External potentiometer is active	126 = 1			
FFi	Function "speed limitation"	186 = 1			
in2	Flip-flop for limited speed n11 and signal M10	241 = 22			
n2	Maximum speed	111			
n3	Start backtack speed	112			
n4	End backtack speed	113			
n7	Trimming speed	116			
n11	Limikted speed n11	123			
c2	Start backtack stitches forward	000			
c1	Start backtack stitches backward	001			
c3	End backtack stitches backward	002			
c4	End backtack stitches forward	003			
ird	Number of reversing increments	180			
drd	Switch-on delay of reverse motor rotation	181			
t1	Delay until speed release after start backtack	200			
t3	Start delay from lifted sewing foot	202			
t6	Thread wiper ON period	205			
t7	Switch-on delay of the sewing foot after thread wiper	206			
iFA	Activation angle of the thread trimmer	250			
FSA	Switch-off delay of thread tension release	251			
FSE	Switch-on delay angle of thread tension release	252			
tFA	Stop time for thread trimmer	253			

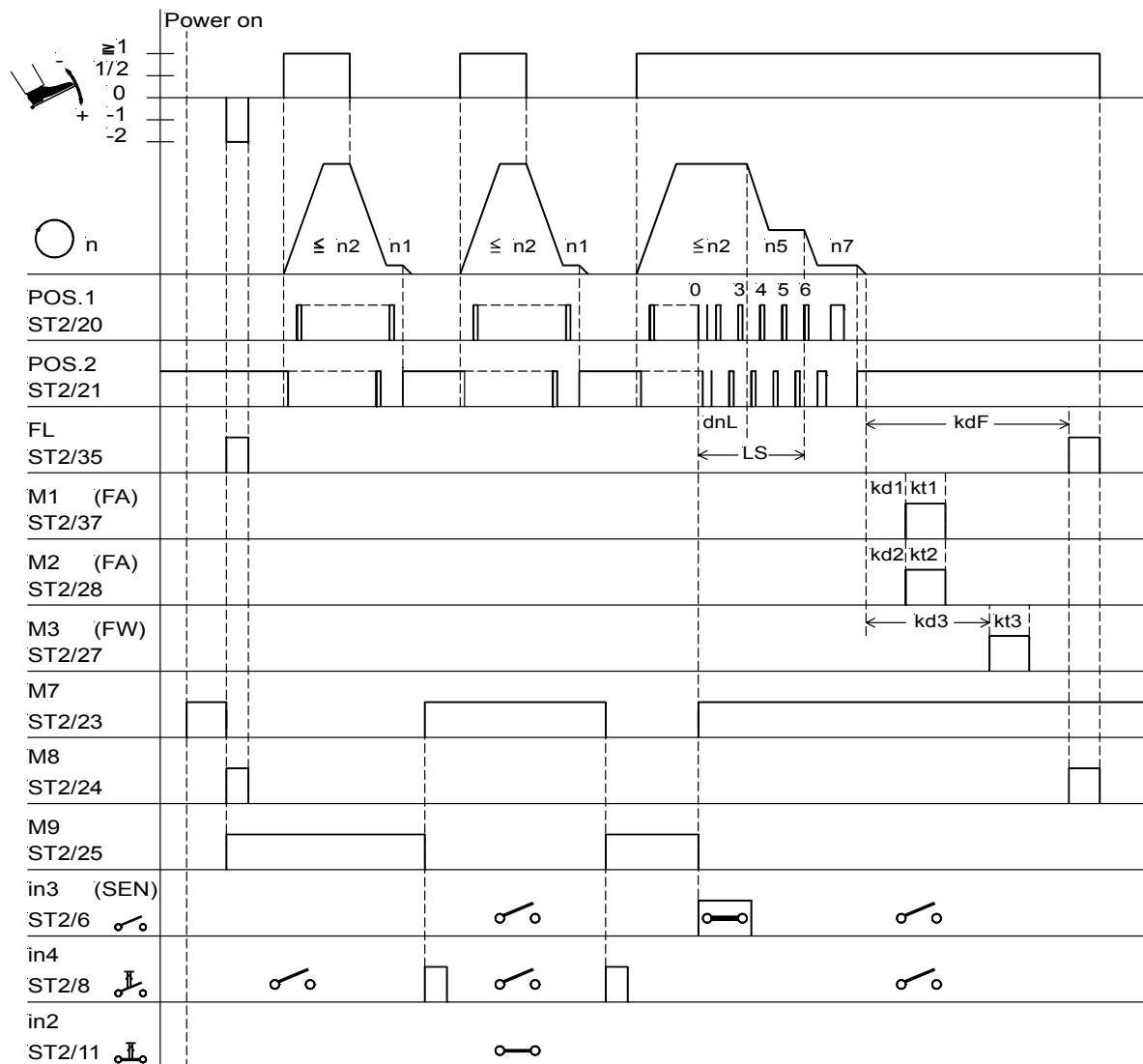
Mode 23 (lockstitch)



Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 23	290 = 23			
	Double start backtack	On	Key S2	Key 1	Key 1
	Double end backtack	On	Key S3	Key 2	Key 4
hP	High lift for walking foot	137 = 1			
n2	Maximum speed	111			
n3	Start backtack speed	112			
n4	End backtack speed	113			
n7	Trimming speed	116			
n10	High lift walking speed	117			
c2	Start backtack stitches forward	000			
c1	Start backtack stitches backward	001			
c3	End backtack stitches backward	002			
c4	End backtack stitches forward	003			
tHP	High lift walking speed run-out time	152			
cHP	Stitch counting high lift for walking foot	185			
t6	Thread wiper ON period	205			
t7	Switch-on delay of the sewing foot after thread wiper	206			
iFA	Activation angle of the thread trimmer	250			
FSA	Switch-off delay of thread tension release	251			
FSE	Switch-on delay angle of thread tension release	252			
tFA	Stop time for thread trimmer	253			

*) If the key is pressed down longer than the cHP count, high lift for walking foot remains On as well. If the key is pressed briefly, high lift for walking foot is On during counting, as shown in the timing diagram.

Mode 24 (Pegasus MHG-100) "bottom hemming" On



0256/MODE-24

Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 24	290 = 24			
	Basic position 2	On	Key S5	Key 4	Key 7
LS	Light barrier	009 = 1			
n1	Positioning speed	110			
n2	Maximum speed	111			
n5	Light barrier speed	114			
n7	Trimming speed	116			
LS	Light barrier compensating stitches	004			
dnL	Delay time until light barrier speed release	158			
kd1/kd2	Delay time of the thread trimmer M1 and M2	280/282			
kt1/kt2	ON period of the thread trimmer M1 and M2	281/283			
kd3	Delay time of the thread wiper M3	284			
kt3	ON period of the thread wiper M3	285			
kdF	Switch-on delay until sewing foot On	288			

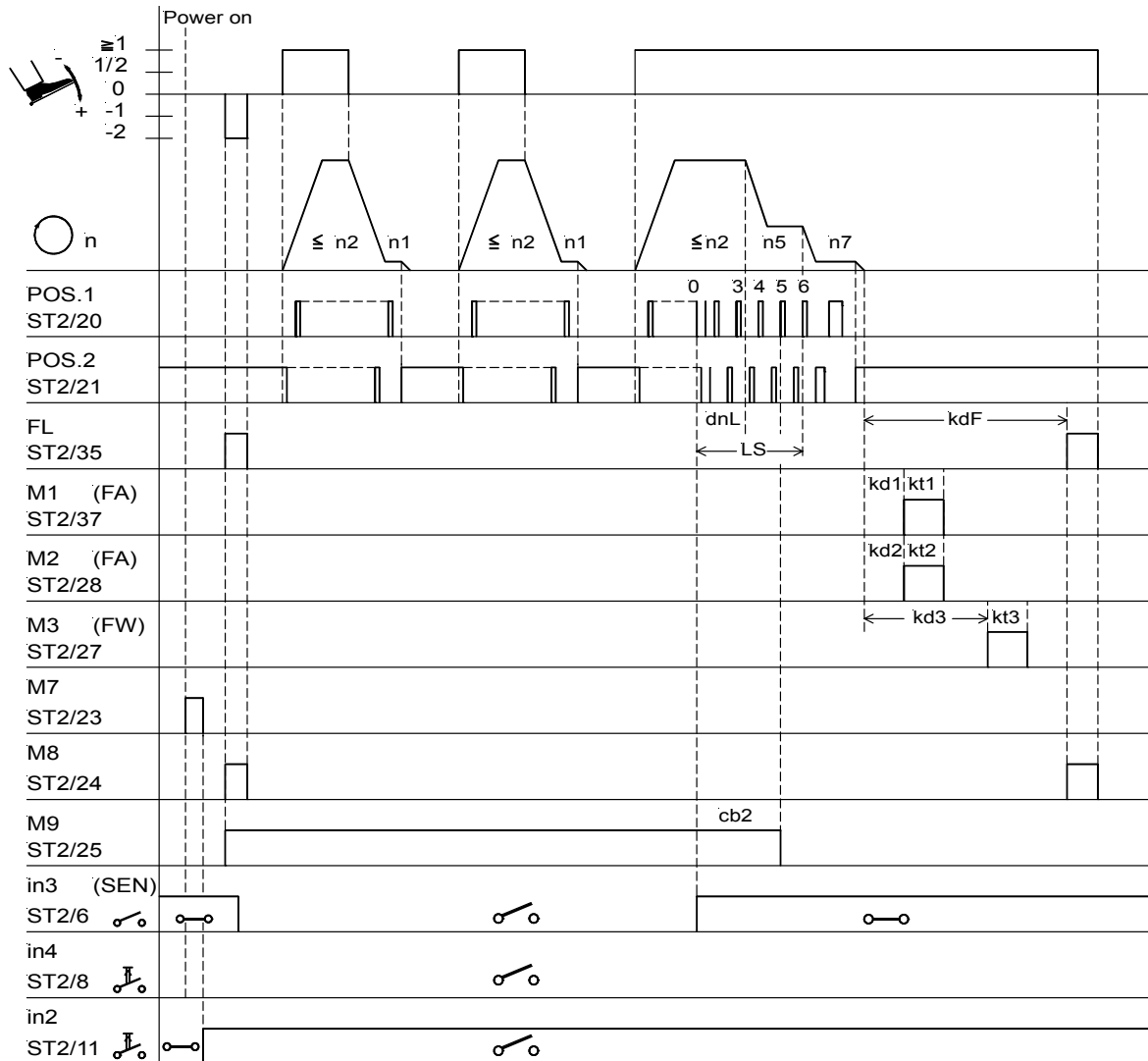
Outputs:

- FL = Sewing foot lifting
- M1/M2 = Thread trimmer
- M3 = Thread wiper
- M7 = Hemming guide
- M8 = Hemming blow 1
- M9 = Hemming blow 2
- M6 = Display "bottom/sleeve hemming"

Inputs:

- in1 = Machine run blockage Pa. 240= 6
- in2 = Switch bottom/sleeve hemming Pa. 241=14
- in3 = Sensor input Pa. 242=28
- in4 = Knee switch "hemming guide" Pa. 243=22

Mode 24 (Pegasus MHG-100) "sleeve hemming" On



0256/MODE-24a

Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 24	290 = 24	Key S5	Key 4	Key 7
LS	Basic position 2 Light barrier	009 = 1			
n1	Positioning speed	110			
n2	Maximum speed	111			
n5	Light barrier speed	114			
n7	Trimming speed	116			
LS	Light barrier compensating stitches	004			
dnL	Delay time until light barrier speed release	158			
cb2	Stitches until signal M9 "hemming blow 2" Off	159			
kd1/kd2	Delay time of the thread trimmer M1 and M2	280/282			
kt1/kt2	ON period of the thread trimmer M1 and M2	281/283			
kd3	Delay time of the thread wiper M3	284			
kt3	ON period of the thread wiper M3	285			
kdF	Switch-on delay until sewing foot On	288			

Outputs:

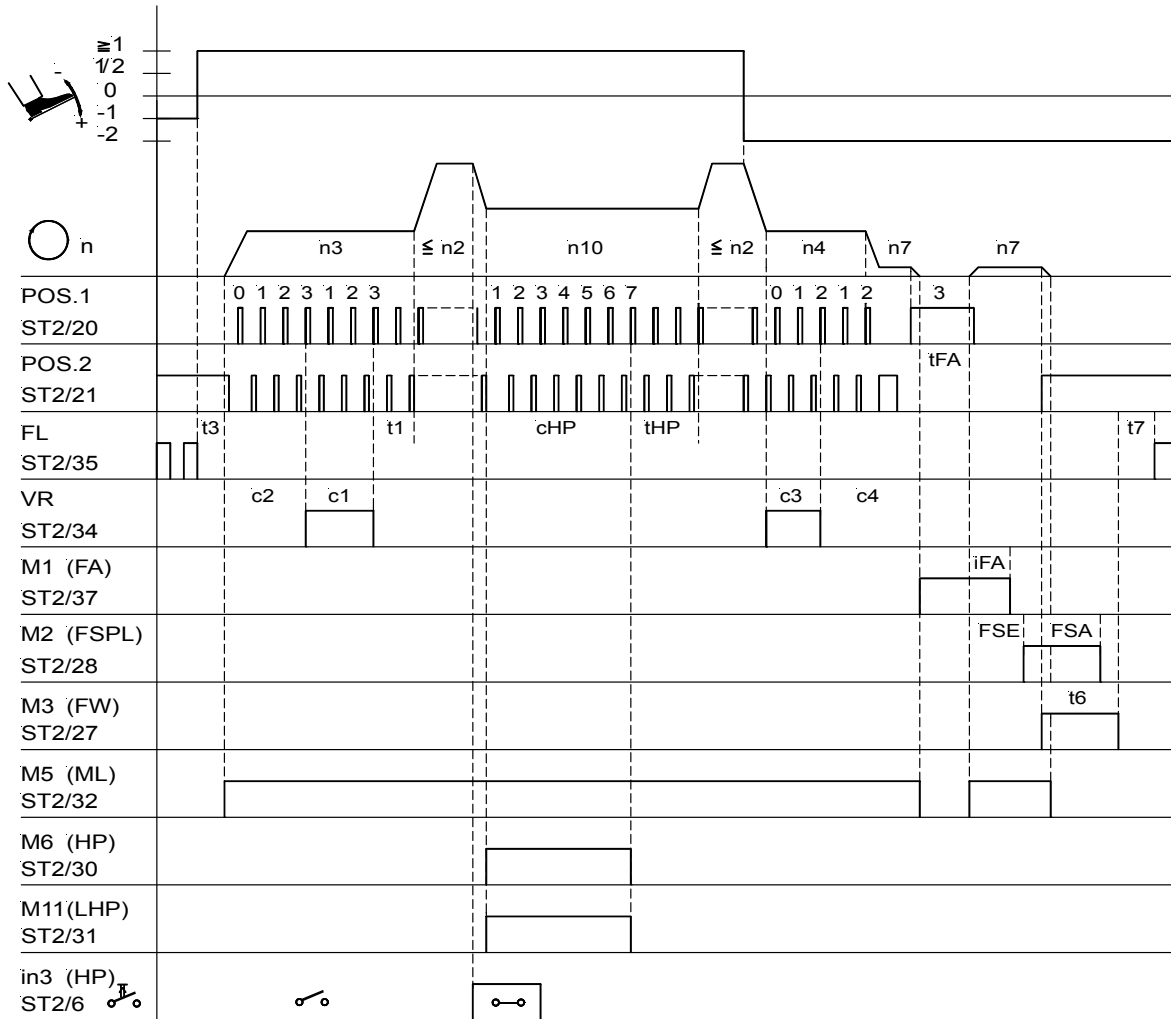
- FL = Sewing foot lifting
- M1/M2 = Thread trimmer
- M3 = Thread wiper
- M7 = Hemming guide
- M8 = Hemming blow 1
- M9 = Hemming blow 2
- M6 = Display "bottom/sleeve hemming"

Inputs:

- in1 = Machine run blockage
- in2 = Switch bottom/sleeve hemming
- in3 = Sensor input
- in4 = Knee switch "hemming guide"

- Pa. 240= 6
- Pa. 241=14
- Pa. 242=28
- Pa. 243=22

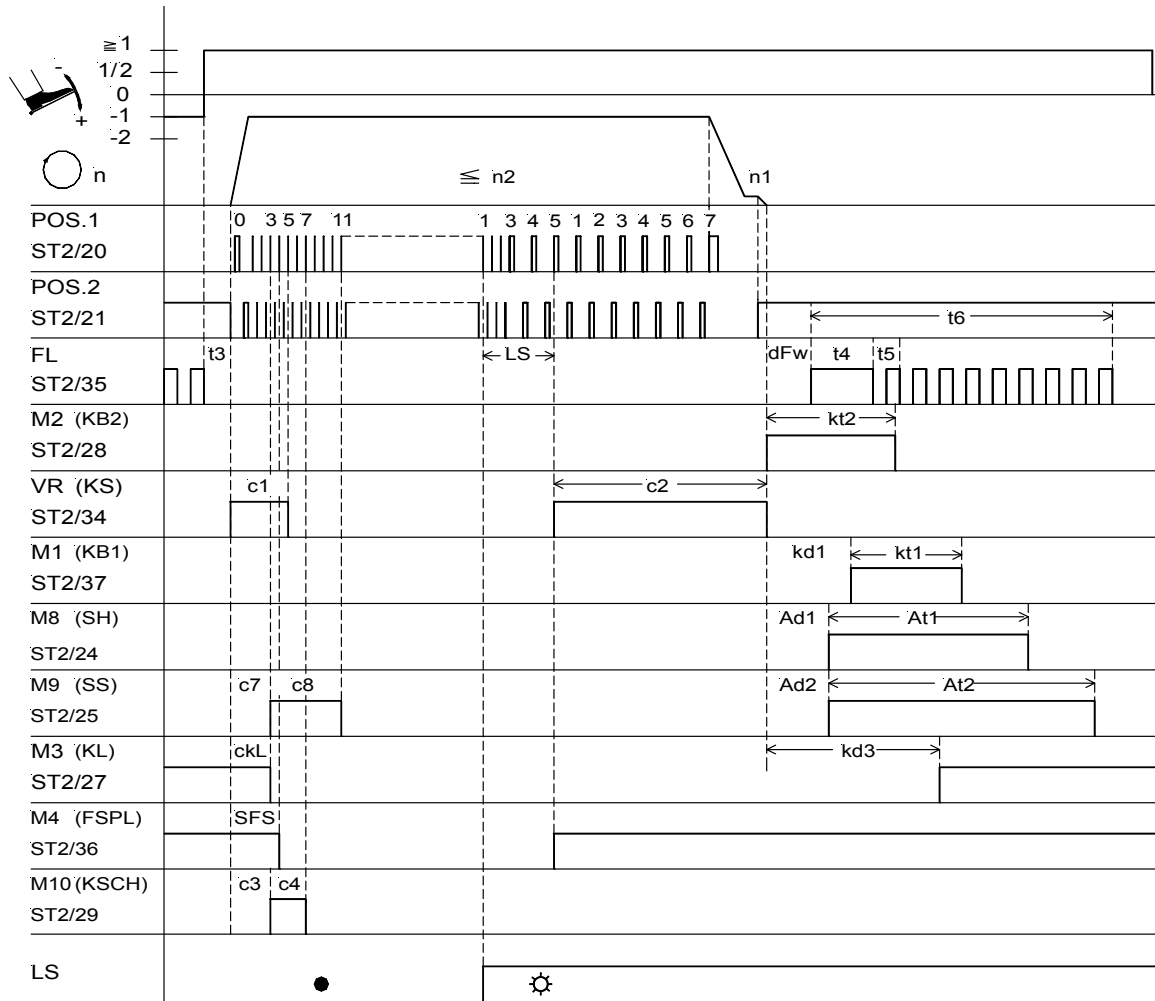
Mode 25 (lockstitch Juki LU2210/LU2260)



0256/MODE-25

Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 25	290 = 25			
	Double start backtack	On	Key S2	Key 1	Key 1
	Double end backtack	On	Key S3	Key 2	Key 4
Pot	External potentiometer is active	126 = 3			
hP	High lift for walking foot	137 = 1			
in3	High lift for walking foot with speed limitation n10	242 = 14			
PGm	Setting an external sensor to position 1 (A sensor must be connected!)	270 = 3			
n2	Maximum speed	111			
n3	Start backtack speed	112			
n4	End backtack speed	113			
n7	Trimming speed	116			
n10	High lift walking speed	117			
c2	Start backtack stitches forward	000			
c1	Start backtack stitches backward	001			
c3	End backtack stitches backward	002			
c4	End backtack stitches forward	003			
tHP	High lift walking speed run-out time	152			
cHP	Stitch counting high lift for walking foot	185			
t1	Delay until speed release after start backtack	200			
t3	Start delay from lifted sewing foot	202			
t6	Thread wiper ON period	205			
t7	Switch-on delay of the sewing foot after thread wiper	206			
iFA	Activation angle of the thread trimmer	250			
FSA	Switch-off delay of thread tension release	251			
FSE	Switch-on delay angle of thread tension release	252			
tFA	Stop time for thread trimmer	253			

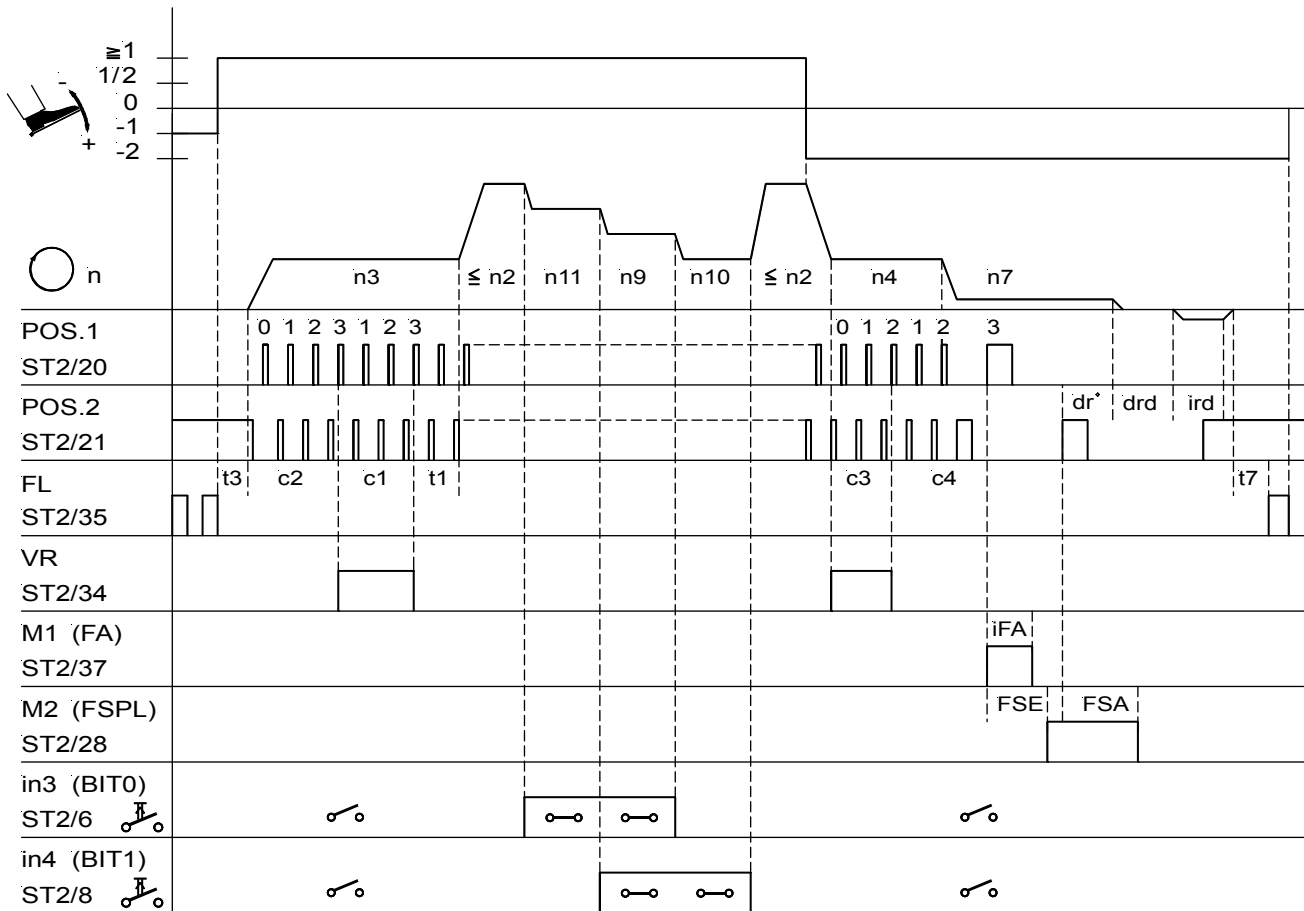
Mode 28 backlatch



0256/MODE-28

Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 28	290 = 28			
LS	Light barrier	009 = 1	Key S2/3	Key 1/2	Key 1/4
kLm	Thread clamp On	020 = 1			
n1	Positioning speed	110			
n2	Maximum speed	111			
c2	End counting for chain suction	000			
c1	Start counting for chain suction	001			
c3	Counting at the start of the seam until chain shifting device On	002			
c4	Counting at the start of the seam for chain shifting device On	003			
LS	Light barrier compensating stitches	004			
ckL	Thread clamp count at the start of the seam	021			
SFS	Counting until thread tension release at the start of the seam Off	157			
t3	Start delay from lifted sewing foot	202			
t6	Sewing foot activation during backlatching	205			
dFW	Switch-on delay of sewing foot lifting	209			
c7	Counting at the start of the seam until suction head On	257			
c8	Counting at the start of the seam determines suction head ON period	253			
Ad1	Suction head lifting delay at the seam end	274			
At1	Suction head ON period at the seam end	275			
Ad2	Suction head switch-on delay	276			
At2	Suction head ON period at the seam end	277			
kd1	Delay time for chain blowing 1 at the seam end	280			
kt1/kt2	ON periods for chain blowing 1 / 2 at the seam end	281/283			
kd3	Delay time until thread clamp On at the seam end	285			

Mode 30 (Juki LU1521N-7) short trimmer (168 = 9)



0256/MODE-20

Mark	Function	Parameter	Control	V810	V820/V850
FAm	Mode 30	290 = 30			
	Double start backtack	On	Key S2	Key 1	Key 1
	Double end backtack	On	Key S3	Key 2	Key 4
Frd	Reverse motor rotation	182 = 1			
in3	Speed limitation bit 0	242 = 31			
in4	Speed limitation bit 1	243 = 32			
n2	Maximum speed	111			
n3	Start backtack speed	112			
n4	End backtack speed	113			
n7	Trimming speed	116			
n9	Automatic speed	122			
n10	Automatic speed	117			
n11	Automatic speed	123			
c2	Start backtack stitches forward	000			
c1	Start backtack stitches backward	001			
c3	End backtack stitches backward	002			
c4	End backtack stitches forward	003			
ird	Number of reversing increments	180			
drd	Switch-on delay of reverse motor rotation	181			
dr°	Stop for thread trimming depending on angle	197			
t1	Delay until speed release after start backtack	200			
t3	Start delay from lifted sewing foot	202			
t7	Switch-on delay of the sewing foot after thread wiper	206			
iFA	Activation angle of the thread trimmer	250			
FSA	Switch-off delay of thread tension release	251			
FSE	Switch-on delay angle of thread tension release	252			

6 List of Parameters

6.1 Preset Values Depending on Mode

The preset values which are different in the various modes are listed in the table below. When switching the mode using parameter 290, these values change automatically.

Mode → Parameter	0	2	3	4	5	6	7	8	9	10	13	14	15	16	17	20
000	-	-	-	-	-	-	-	-	-	-	-	-	6	30	-	-
001	-	-	-	2	-	-	-	-	-	2	-	-	2	17	-	-
002	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	-
003	-	-	-	-	-	-	-	-	-	-	-	-	10	18	-	3
004	-	-	-	-	-	-	0	-	-	-	-	-	25	0	-	-
005	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-
007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
008	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-
009	-	-	-	-	-	-	1	-	-	-	-	-	1	1	-	-
013	-	-	-	-	-	-	-	0	0	-	-	-	0	-	-	-
014	-	0	-	-	-	-	0	0	0	-	-	-	0	0	0	0
019	-	-	-	-	-	-	2	-	-	-	-	-	2	2	1	-
021	-	-	-	-	-	-	-	-	-	-	-	-	23	-	-	-
023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
110	-	-	-	180	-	-	-	250	250	180	180	-	-	-	-	180
111	-	-	-	5000	-	-	-	-	-	4500	3000	-	7500	3800	-	2500
112	-	-	-	-	-	-	-	-	-	-	1100	-	-	3800	-	1000
113	-	-	-	-	-	-	-	-	-	-	1100	-	-	3800	-	1000
114	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	700	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	180	-	-	-	-	180
117	-	-	-	-	-	-	-	-	-	-	2000	-	9900	-	-	800
118	-	-	-	-	-	-	-	-	-	-	3000	-	-	-	-	2500
119	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
122	-	-	-	-	-	-	-	-	6000	-	1500	-	-	-	-	1400
123	-	-	-	-	-	-	-	-	-	-	2000	-	-	-	-	2000
124	-	-	-	-	-	-	-	-	-	-	2200	-	-	-	-	-
125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
126	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-
130	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-
131	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
132	-	-	-	-	-	-	0	-	-	-	-	-	0	0	-	-
133	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
134	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1
135	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
137	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-	1
145	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-
152	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
153	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	4
155	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
156	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
158	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
161	-	-	-	0	0	0	0	0	0	0	-	-	0	0	0	-
168	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-
180	-	-	-	-	-	-	-	-	-	14	3	-	-	-	-	20
181	-	-	-	-	-	-	-	-	-	230	-	-	-	-	-	-
182	-	-	-	-	-	-	1	-	-	1	1	-	-	1	-	1
184	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
186	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
187	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
190	-	-	-	0	-	-	2	-	-	-	-	-	-	-	-	-
192	-	-	-	-	-	-	1	-	-	-	-	-	1	1	-	-
194	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
196	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
197	-	-	-	-	-	-	-	-	-	-	-	-	-	-	360	50
200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
201	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-
202	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-
203	-	-	-	350	-	-	-	-	-	-	-	-	-	-	-	-
204	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	100
205	-	-	-	-	-	-	-	-	-	240	-	-	-	-	-	-
206	-	-	-	-	-	-	-	-	-	150	-	-	-	-	-	-

- = For the positions marked with "-" the preset values listed in the List of Parameters are used !

Mode → Parameter	0	2	3	4	5	6	7	8	9	10	13	14	15	16	17	20
207	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
208	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20
209	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-
210	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
211	-	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-
212	-	-	-	100	-	-	-	-	-	100	-	-	-	-	-	-
213	-	-	-	12	-	-	-	-	-	12	-	-	100	-	-	-
220	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
221	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
222	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
223	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
224	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
234	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-
235	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
239	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
240	-	-	13	6	-	-	-	6	6	-	2	-	-	15	-	14
241	-	-	7	-	-	-	-	-	-	-	16	16	-	-	-	2
242	-	-	1	3	-	-	-	10	38	-	24	-	-	-	-	31
243	-	-	22	-	-	-	-	1	34	-	11	-	14	15	-	32
244	-	-	16	-	-	-	-	-	-	-	22	-	15	-	-	17
245	-	-	19	-	-	-	-	12	12	-	-	-	-	-	-	16
246	-	-	33	-	-	-	-	-	-	-	33	-	-	-	-	14
247	-	-	31	-	-	-	-	-	-	-	14	-	-	-	-	22
248	-	-	28	-	-	-	-	-	-	-	17	-	-	-	-	57
249	-	-	17	-	-	-	-	-	-	-	25	-	-	-	-	19
250	-	-	180	-	-	-	-	-	-	-	210	-	-	-	-	-
251	-	-	-	-	-	-	-	-	-	-	110	-	-	-	-	60
252	-	-	-	-	-	-	-	-	-	-	210	-	-	-	-	150
253	-	-	70	-	-	-	-	-	-	-	0	-	-	-	0	0
254	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
255	-	-	-	25	-	-	-	-	-	25	-	-	-	-	-	-
256	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
257	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
258	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
259	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-
260	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
261	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
262	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
265	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
269	-	-	-	-	-	-	-	-	25	-	-	-	-	-	-	-
270	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
271	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-
272	-	-	-	-	-	-	-	-	-	-	-	200	-	-	-	-
274	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-
275	-	-	-	-	-	-	-	-	-	-	-	-	-	100	-	-
280	-	-	-	100	-	-	100	-	-	-	-	-	10	-	100	-
281	-	-	-	-	-	-	-	-	-	280	-	-	50	1000	100	-
282	-	0	-	0	-	-	200	-	-	-	-	-	30	200	-	-
283	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-
284	-	-	-	-	-	0	0	-	-	150	0	-	-	0	-	-
285	-	-	-	-	-	-	-	-	-	70	120	-	-	-	70	-
286	-	-	-	-	-	0	0	-	-	-	-	-	100	0	-	-
287	-	-	-	-	-	-	0	-	-	-	-	-	50	0	-	-
288	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	-
289	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
291	-	-	-	-	5	5	8	7	7	-	-	-	7	7	5	-
292	-	-	-	-	3	3	5	5	5	-	-	-	5	7	3	-
293	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
294	-	-	-	-	-	-	-	-	-	-	-	-	14	-	-	-
296	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-
297	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
299	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
303	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
313	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- = For the positions marked with "-" the preset values listed in the List of Parameters are used !

**Further Presets Depending on Mode
(Positions and Functions Switchable Using the Control Keys)**

Mode →	0	2	3	4	5	6	7	8	9	10	13	14	15	16	17	20
171/1E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
171/2E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
171/1A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
171/2A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Basic pos.	1	1	1	1	2	2	2	2	2	1	1	1	2	2	2	1
Single start	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF
backtack	ON	ON	ON	OFF	OFF	OFF	ON	OFF	OFF	ON	ON	ON	ON	OFF	OFF	ON
Double start	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF
backtack	ON	ON	ON	OFF	OFF	OFF	ON	OFF	OFF	ON	ON	ON	ON	OFF	OFF	ON
Single end	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF
backtack	ON	ON	ON	OFF	OFF	OFF	ON	OFF	OFF	ON	ON	ON	ON	OFF	OFF	ON
Double end	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF
backtack	ON	ON	ON	OFF	OFF	OFF	ON	OFF	OFF	ON	ON	ON	ON	OFF	OFF	ON

Mode →	21	22	23	24	25	26	27	28	29	30	31	32	33	35
Parameter														
000	-	-	-	-	-	4	3	30	-	-	-	-	-	-
001	-	-	-	-	-	4	0	10	-	-	05	-	-	-
002	-	-	3	-	-	5	0	10	-	-	04	-	-	-
003	-	-	3	-	-	4	0	15	-	-	04	-	-	-
004	-	-	-	35	-	18	9	10	-	-	-	-	-	-
005	-	-	0	-	-	2	0	-	-	-	-	-	-	-
007	-	-	10	-	-	0	0	-	-	-	-	-	-	-
008	-	2	2	-	-	-	-	-	-	-	-	-	-	-
009	-	-	-	1	-	1	1	1	-	-	-	-	-	-
013	-	-	-	-	-	1	-	-	0	-	-	-	-	-
014	-	-	0	-	-	1	0	0	0	0	-	-	-	-
019	-	-	-	-	-	-	-	-	-	-	-	-	-	-
020	-	-	-	-	-	-	-	1	-	-	-	-	-	-
021	-	-	-	-	-	-	0	9	-	-	-	-	-	-
023	-	-	-	-	-	-	0	-	-	-	-	-	-	-
025	-	-	-	-	-	-	1	-	-	-	-	-	-	-
100	-	-	-	-	-	-	3	-	-	-	-	-	-	-
110	-	-	180	-	-	-	-	-	-	-	-	-	-	-
111	5500	3500	4800	5000	3500	3200	2200	-	5000	2500	-	5000	-	3000
112	-	900	1700	-	-	800	-	-	-	600	-	-	-	550
113	-	900	1700	-	-	800	-	2000	-	600	-	-	-	700
114	-	-	1700	2000	-	1000	-	2000	-	-	-	-	-	-
115	-	-	800	-	-	-	350	-	-	-	-	-	-	-
116	-	-	180	-	-	180	170	-	-	-	-	-	-	-
117	-	-	2000	9900	2000	-	-	-	-	800	-	-	-	2000
118	-	-	3000	-	-	-	1200	-	-	800	-	-	-	3000
119	-	-	-	-	-	-	1	-	-	-	-	-	-	-
122	-	-	-	-	-	-	-	-	-	1400	-	-	-	1500
123	-	3500	-	9900	-	-	2000	-	-	2000	-	-	-	3000
124	-	3500	-	-	-	-	2200	-	5000	-	-	-	-	2200
125	-	2000	-	-	-	-	400	-	-	-	-	-	-	-
126	-	1	-	-	3	2	-	-	1	-	-	-	-	2
130	-	-	-	-	-	1	-	1	-	-	-	-	-	-
131	-	-	-	-	-	-	-	-	-	-	-	-	-	-
132	-	-	-	0	-	-	0	0	-	-	-	-	-	-
133	-	-	-	-	-	-	-	-	-	-	-	-	-	-
134	-	-	1	-	-	-	1	-	-	1	-	-	-	-
135	-	1	-	-	-	1	-	-	-	1	-	-	-	-
137	1	1	1	1	1	1	-	-	-	1	-	-	-	1
145	-	-	-	-	-	-	-	-	-	-	-	-	-	-
152	-	-	100	-	-	-	80	-	-	-	-	-	-	-
153	-	-	06	-	15	20	20	-	-	4	-	-	-	-
155	-	-	-	-	-	-	0	-	-	-	-	-	-	-
156	-	-	-	-	-	1000	-	-	-	-	-	-	-	-
158	-	-	-	100	-	-	-	-	-	-	-	-	-	-
161	0	-	-	0	-	-	-	0	0	-	-	0	-	-
168	-	-	-	-	-	-	-	-	-	9	-	-	-	-
180	-	40	14	-	32	6	3	-	-	70	-	-	-	3
181	-	-	0	-	-	100	50	-	-	-	-	-	-	-
182	-	1	-	-	1	1	1	-	-	1	-	-	-	-
184	-	-	-	-	-	-	0	-	-	-	-	-	-	-
186	-	1	-	-	-	-	-	-	-	-	-	-	-	1
187	-	1	-	-	-	-	-	-	-	-	-	-	-	1
190	-	-	-	-	-	-	0	-	-	-	-	-	-	-
191	-	-	-	-	-	-	-	1	-	-	-	-	-	-
192	-	-	-	-	-	-	-	1	-	-	-	-	-	-
194	-	-	-	-	-	-	-	-	-	-	-	-	-	-
196	1	-	-	-	-	-	-	-	-	-	-	-	-	-
197	-	40	-	-	40	-	-	-	-	50	-	-	-	-

- = For the positions marked with "-" the preset values listed in the List of Parameters are used.

Mode → Parameter	21	22	23	24	25	26	27	28	29	30	31	32	33	35
200	-	-	50	-	-	-	0	-	-	-	-	-	-	-
201	200	-	-	-	-	-	20	-	-	-	-	-	-	-
202	-	-	80	-	-	250	0	-	-	-	-	-	-	-
203	-	-	200	-	-	-	0	-	-	-	-	-	-	-
204	-	-	-	-	50	-	1	-	-	100	-	-	-	-
	-	-	-	-	(50)	-	-	-	-	-	-	-	-	-
205	-	-	100	-	-	250	0	900	-	-	-	-	-	-
206	-	-	50	-	-	0	0	-	-	-	-	-	-	-
207	-	-	10	-	5	-	20	-	10	5	-	-	-	-
	-	-	-	-	(42)	-	-	-	-	-	-	-	-	-
208	-	-	-	-	20	6	20	-	20	20	-	-	-	-
	-	-	-	-	(44)	-	-	-	-	-	-	-	-	-
209	-	-	-	-	-	-	-	100	-	-	-	-	-	-
210	-	-	100	-	-	-	0	-	-	-	-	-	-	100
211	-	-	0	-	-	-	0	-	-	-	-	-	-	100
212	-	-	200	-	-	-	0	-	-	-	-	-	-	-
213	-	-	50	-	50	-	1	-	-	50	-	-	-	-
	-	-	-	-	(50)	-	-	-	-	-	-	-	-	-
219	-	-	-	-	10	-	-	-	-	-	-	-	-	-
	-	-	-	-	(44)	-	-	-	-	-	-	-	-	-
220	-	-	-	-	10	8	-	-	20	-	-	-	-	-
	-	-	-	-	(25)	-	-	-	-	-	-	-	-	-
221	-	-	-	-	-	-	50	-	-	-	-	-	-	220
222	-	-	-	-	-	-	0	-	-	-	-	-	-	-
223	-	-	-	-	-	-	200	-	-	-	-	-	-	-
224	-	-	-	-	-	-	0	-	0	-	-	-	-	-
234	-	-	-	-	-	-	-	-	-	-	-	-	-	-
235	-	-	-	-	-	-	1	-	-	-	-	-	-	-
239	-	-	-	-	-	-	31	-	-	-	-	-	-	-
240	-	12	13	6	1	17	-	-	54	14	76	7	-	2
241	-	22	07	13	57	0	7	-	73	2	-	-	-	16
242	-	2	01	28	14	1	28	-	74	31	-	18	-	7
243	-	14	-	22	16	-	31	-	70	32	-	16	-	11
244	-	17	16	-	17	16	31	-	72	17	-	17	-	22
245	-	16	-	-	-	19	31	-	-	16	-	-	-	-
246	-	-	33	-	-	33	31	-	-	14	-	-	-	33
247	-	-	11	-	22	31	31	-	-	75	-	-	-	14
248	14	-	28	-	57	28	31	-	-	57	-	-	-	17
249	-	-	17	-	19	6	31	-	-	19	-	-	-	25
250	-	60	280	-	30	150	-	-	-	-	-	-	-	280
251	-	100	-	-	-	118	0	-	-	-	-	-	-	-
252	-	180	-	-	-	240	-	-	-	-	-	-	-	240
253	-	-	0	-	20	0	0	-	-	0	-	-	-	20
254	-	-	-	-	-	-	1	-	-	-	-	-	-	-
255	-	-	-	-	-	-	1	-	-	-	-	-	-	-
256	-	-	-	-	-	-	0	-	-	-	-	-	-	-
257	-	-	-	-	-	-	0	3	-	-	-	-	-	-
258	-	-	-	-	-	-	0	30	-	-	-	-	-	-
259	-	-	-	-	-	-	-	-	-	-	-	-	-	-
260	100	-	-	-	-	-	0	-	-	-	-	-	-	-
261	-	-	-	-	-	-	30	-	-	-	-	-	-	-
262	20	-	-	-	-	-	0	-	-	-	-	-	-	-
265	-	-	-	-	-	-	0	-	-	-	-	-	-	-
269	-	-	-	-	30	-	50	-	-	-	-	-	-	-
270	1	-	-	-	3	-	1	-	-	3	6	6	-	-
271	4	-	-	-	240	-	255	-	-	200	-	-	-	-
272	-	-	-	-	880	-	870	-	-	-	830	1170	-	-
274	-	-	-	-	-	-	0	50	-	-	-	-	-	-
275	-	-	-	-	-	-	0	650	-	-	-	-	-	-
276	-	-	-	-	-	-	0	100	-	-	-	-	-	-
277	-	-	-	-	-	-	0	800	-	-	-	-	-	-
278	-	-	-	-	-	-	0	0	-	-	-	-	-	-
279	-	-	-	-	-	-	0	0	-	-	-	-	-	-
280	-	-	-	100	-	-	-	-	-	-	-	-	-	-
281	250	-	-	-	-	-	250	400	-	-	-	-	-	-
282	40	-	-	-	-	-	0	0	-	-	-	-	-	-
283	80	-	-	-	-	-	0	400	-	-	-	-	-	-
284	300	-	-	230	-	-	0	500	-	-	-	-	-	-
285	680	-	-	-	-	-	0	200	-	-	-	-	-	-
286	-	-	-	-	-	-	0	-	-	-	-	-	-	-
287	-	-	-	0	-	-	0	-	-	-	-	-	-	-
288	-	-	-	-	-	-	0	0	-	-	-	-	-	-
289	-	-	-	-	-	-	0	-	-	-	-	-	-	-
291	5	-	-	5	-	-	-	-	-	-	9	5	0	-
292	3	-	-	3	-	-	-	11	-	-	12	3	0	-
293	-	-	-	-	-	-	0	71	-	-	-	-	0	-
294	-	-	-	-	-	-	0	69	-	-	-	-	0	-
296	-	-	-	-	-	-	-	-	-	-	-	-	-	-
297	-	-	-	-	-	1	-	-	-	-	-	-	-	-
299	-	-	-	-	-	-	200	-	-	-	-	-	-	-
303	-	-	-	-	-	-	0	-	-	-	-	-	-	-
313	-	-	-	-	-	-	0	-	-	-	-	-	-	-

- = For the positions marked with “-“ the preset values listed in the List of Parameters are used.
 (##) The preset values in parentheses apply when a DC1550 motor is used.

**Further Presets Depending on Mode
(Positions and Functions Switchable Using the Control Keys)**

Mode →	21	22	23	24	25	26	27	28	29	30	31	32	33	35
171/1E	-	-	-	-	-	102	-	-	180	0	190	20		35
171/2E	-	-	-	-	-	315	-	-	280	200	15	204		327
171/1A	-	-	-	-	-	162	-	-	220	60	250	80		95
171/2A	-	-	-	-	-	15	-	-	320	260	78	264		27
Basic pos.	1	1	1	2	1	1	1	2	2	1	1	1	OFF	1
Single start	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
backtrack														
Double start	ON	ON	ON	OFF	ON	ON	ON	OFF	OFF	ON	ON	ON	OFF	ON
backtrack														
Single end	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
backtrack														
Double end	ON	ON	ON	OFF	ON	ON	ON	OFF	OFF	ON	ON	ON	OFF	ON
backtrack														

Mode →	36	37
Parameter		
000	50	-
001	20	-
002	10	-
003	6	-
004	0	-
005	-	-
007	-	-
008	-	-
009	1	-
013	-	-
014	0	-
019	-	-
020	1	-
021	8	-
023	0	-
025	-	-
100	-	-
110	-	390
111	6500	1200
112	-	-
113	6500	-
114	-	-
115	-	-
116	-	-
117	-	-
118	-	-
119	-	-
122	-	-
123	-	-
124	-	-
125	-	-
126	-	-
130	-	-
131	-	-
132	-	-
133	-	-
134	-	-
135	-	-
137	-	-
145	-	-
152	-	-
153	-	-
155	-	-
156	-	-
158	-	-
161	0	-
168	-	-
180	-	-
181	-	-
182	-	-
184	-	-
186	-	-
187	-	-
190	-	-
191	1	-
192	-	-
194	-	-
196	-	-
197	-	-

- = For the positions marked with “-“ the preset values listed in the List of Parameters are used.

Mode →	36	37
Parameter		
200	-	-
201	-	-
202	-	-
203	-	-
204	-	-
205	600	-
206	-	-
207	-	-
208	-	29
209	-	-
210	-	-
211	-	-
212	-	-
213	-	-
220	-	29
221	-	-
222	-	-
223	-	-
224	-	-
234	-	-
235	-	-
239	-	-
240	-	-
241	-	-
242	-	42
243	-	-
244	-	-
245	-	-
246	-	-
247	-	-
248	-	-
249	-	-
250	-	-
251	-	-
252	-	-
253	-	-
254	-	-
255	-	-
256	-	-
257	-	-
258	-	-
259	-	-
260	-	-
261	-	-
262	-	-
265	-	-
269	-	-
270	-	-
271	-	-
272	-	540
274	-	-
275	-	-
276	-	-
277	-	-
278	-	-
279	-	-
280	-	-
281	-	-
282	-	80
283	-	120
284	-	750
285	-	2000
286	-	-
287	-	-
288	-	-
289	-	-
291	-	-
292	-	-
293	-	-
294	-	-
296	-	-
297	-	-
299	-	-
303	-	-
313	-	-

- = For the positions marked with “-“ the preset values listed in the List of Parameters are used.

Further Presets Depending on Mode (Positions and Functions Switchable Using the Control Keys)

Mode →	36	37
171/1E	-	-
171/2E	-	-
171/1A	-	-
171/2A	-	-
Basic pos.	1	1
Single start backtack	OFF	OFF
Double start backtack	ON	ON
Single end backtack	OFF	OFF
Double end backtack	ON	ON

- = For the positions marked with “-“ the preset values listed in the List of Parameters are used.

6.2 Operator Level

NOTE

The preset values indicated apply to mode 0 (parameter 290 = 0).
For preset values applicable to other modes see table in chapter 6.1 »Preset Values Depending on Mode«.

Parameter	Designation	Unit	max	min	Preset	Ind.
000 c2	- Number of stitches of start backtack forward - Number of stitches of start stitch condensing without stitch regulator - Number of stitches of end counting "chain suction"	stitches	254	0	2	
001 c1	- Number of stitches of start backtack backward - Number of stitches of start stitch condensing with stitch regulator - Number of stitches of start counting "chain suction"	stitches	254	0	4	
002 c3	- Number of stitches of end backtack backward - Number of stitches of end stitch condensing with stitch regulator - Number of stitches of tape cutter at the start of the seam	stitches	254	0	2	
003 c4	- Number of stitches of end backtack forward - Number of stitches of end stitch condensing without stitch regulator - Number of stitches of tape cutter at the seam end	stitches	254	0	2	
004 LS	Light barrier compensating stitches	stitches	254	0	7	
005 LSF	Number of stitches of the light barrier filter for knitted fabrics	stitches	254	0	1	
006 LSn	Number of light barrier seams		15	1	1	
007 Stc	Number of stitches for the seam with stitch counting	stitches	254	0	20	
008 -F-	A parameter from the technician level is assigned to key 9 on the V820/V850 control panel 1 = Softstart On/Off 2 = Ornamental backtack On/Off 3 = Start of sewing blocked with light barrier uncovered On/Off 4 = Unlocking the chain On/Off 5 = Signals A1 and/or A2 On/Off with slide-in strips 1...4 (left-hand arrow = A1, right-hand arrow = A2) 6 = Signal A1 On/Off 7 = Signal A2 On/Off 8 = Backtack repetition On/Off		8	1	1	
009 LS	Light barrier On/Off		1	0	0	
013 FA	Thread trimmer On/Off		1	0	1	
014 FW	Thread wiper On/Off		1	0	1	
015 StS	Stitch counting On/Off		1	0	0	
017 SAb	Stop when tape cutting at the seam end On/Off (function effective only in the overlock mode)		1	0	0	
018 UoS	0 = Sequence "overlock mode with stop" 1 = Sequence "overlock mode without automatic stop. When the command "run" is given, the drive runs at the pre-selected speed. With pedal in pos. 0 or light barrier covered , the program switches to the next start of a seam without issuing signals M1/M2. 2 = As with setting "1". But with pedal in pos. 0 signals M1/M2 will be issued, and the program switches to the next start of a seam. 3 = As with setting "1". But with pedal in pos. -2 signals M1/M2 will be issued, and the program switches to the next start of a seam. Intermediate stop and sewing foot lift with pedal in pos. -1 are possible. 4 = If the light barrier is covered during the end count for chain suction, the program switches immediately to the next start of a seam. If the end count has been completed and the light barrier remains uncovered, the drive stops.		4	0	0	

Operator Level

Parameter	Designation	Unit	max	min	Preset	Ind.	
019	-Pd	0 = Pedal in pos. -1 disabled in the seam. With pedal in pos. -2 in the seam, only sewing foot lifting is possible. (Function only if parameter 009 = 1) 1 = Pedal in pos. -1, sewing foot lifting disabled in the seam. 2 = Pedal in pos. -2, thread trimming disabled. (Function only if parameter 009 = 1) 3 = Pedal in pos. -1 and -2 enabled in the seam. 4 = Pedal in pos. -1 and -2 blocked in the seam. (Function only if parameter 009 = 1)		4	0	3	
020	kLM	Clamp at the seam end On/Off		1	0	0	
021	ckL	Run-out stitches clamp at the start of the seam	stitches	254	0	2	
022	SPo	0 = Chain suction until the end of count c2 1 = Chain suction at the seam end until pedal in pos. 0 (neutral) 2 = Chain suction until the drive is at standstill and the switch-off delay (parameter 237) has elapsed		2	0	0	
023	AFL	Automatic sewing foot lifting with pedal forward at the seam end, if light barrier or stitch counting is On 0 = Automatic sewing foot Off 1 = Automatic sewing foot On		1	0	1	
024	FSP	Coupled thread tension release and sewing foot lift. The function can be activated only with a thread trimmer that depends on the angle. (Modes 3, 13, 20, 22, 23, 25) 0 = No coupling 1 = Coupled thread tension release and sewing foot at the seam end with thread trimmer off. 2 = Coupled thread tension release and sewing foot in the seam and at the seam end with thread trimmer off. 3 = Coupled thread tension release and sewing foot always effective.		3	0	0	
025	tFS	Start counting (pa. 157) for thread tension release at the start of the seam 0 = Start counting at the start of the seam 1 = Start counting when the light barrier is covered		1	0	1	
030	rFw	0 = Bobbin thread monitor Off 1 = Bobbin thread monitor with stop 2 = Bobbin thread monitor without stop 3 = Bobbin thread monitor with stop and start blockage after thread trimming 4 = As 1, but display of remaining stitches 5 = As 2, but display of remaining stitches 6 = As 3, but display of remaining stitches		6	0	0	
031	cFw	Number of stitches for bobbin thread monitor	stitches	25500 ***)	0	0	
035	UFw	0 = External bobbin thread monitor Off 1 = Bobbin thread monitor with stop after stitch counting (parameter 036) 2 = Bobbin thread monitor without stop		2	0	0	
036	cUF	Number of stitches for Juki bobbin thread monitor	stitches	5000	0	0	
086	vct	Counted forward section in manual ornamental backtack On/Off		1	0	1	
087	chr	0 = Manual backtack at speed n13 (parameter 109) 1..255 = Manual ornamental backtack at speed n9 (parameter 122)	stitches	255	0	0	
088	SAM	Semiautomatic backlatch device On/Off (Only in mode 36)		1	0	0	
090	war	Double start backtack repetition		255	0	0	
091	wer	Double end backtack repetition		255	0	0	
092	Fwr	Backtack repetition On/Off		1	0	0	

***) The 3-digit value displayed must be multiplied by 100.

6.3 Technician Level

Code no. 1907

Parameter	Designation	Unit	max	min	Preset	Ind.	
100	SSc	Number of softstart stitches	stitches	254	0	2	
109	n13	Speed of manual backtack	RPM	9900	200	1500	
110	n1	Positioning speed	RPM	390	70	200	
111	n2-	Upper limit setting range of the maximum speed	RPM	9900	n2_	4000	
112	n3	Start backtacking speed	RPM	9900	200	1200	
113	n4	End backtacking speed	RPM	9900	200	1200	
114	n5	Speed after light barrier sensing	RPM	9900	200	1200	
115	n6	Softstart speed	RPM	1500	70	500	
116	n7	Trimming speed	RPM	500	70	200	
117	n10	High lift walking speed	RPM	9900	400	1000	
118	n12	Automatic speed for stitch counting	RPM	9900	400	3500	
119	nSt	Speed stage graduation 1 = linear 2 = slightly progressive 3 = highly progressive		3	1	2	
121	n2_	Lower limit setting range of the maximum speed	RPM	n2-	200	400	
122	n9	Limited speed n9	RPM	9900	400	2000	
123	n11	Limited speed n11	RPM	9900	400	2500	
124	toP	Speed limitation using ext. potentiometer (maximum value)	RPM	9900	Pa.125	4000	
125	bot	Speed limitation using ext. potentiometer (minimum value)	RPM	Pa.124	0	200	
126	Pot	Function "speed limitation using external potentiometer" 0 = Function "external potentiometer" Off 1 = External potentiometer always active 2 = External potentiometer active only if one of inputs in1...i10 has been selected and enabled 3 = Speed depending on high lift by means of potentiometer e. g. on JUKI (LU2210/ 2260) 4 = Speed depending on high lift by means of potentiometer e. g. on Dürkopp Adler (767)		4	0	0	
127	AkS	Audible signal of machine run blockage and bobbin thread monitor On/Off		1	0	0	
128	Asd	Start delay, when command "start" is given by covering the light barrier (see parameter 129)	ms	2000	0	0	
129	ALS	Machine start by covering the light barrier (only in conjunction with parameter 132 = 1) 0 = Function Off 1 = Light barrier covered → pedal forward (>1) → machine run pedal controlled 2 = Pedal forward (>1) → light barrier covered → machine run pedal controlled 3 = Light barrier covered → machine run at automatic speed n12 (without pedal) Caution! If 129 = 3, the machine starts immediately after covering the light barrier without influence by the pedal! It can be stopped only by uncovering the light barrier or by machine run blockage! If machine run blockage is disabled, the machine starts immediately even if the light barrier is still covered!		3	0	0	
130	LSF	Light barrier filter for knitted fabrics		1	0	0	
131	LSd	0 = Light barrier sensing "covered" 1 = Light barrier sensing "uncovered"		1	0	1	
132	LSS	0 = Machine start possible with light barrier uncovered or covered. 1 = Machine start blocked with light barrier uncovered if parameter 131 = 1. Machine start blocked with light barrier covered if parameter 131 = 0.		1	0	0	

Technician Level

Code no. 1907

Parameter	Designation	Unit	max	min	Preset	Ind.
133	LSE	Thread trimming operation, when completing the seam after light barrier sensing On/Off	1	0	1	
134	SSt	Softstart On/Off	1	0	0	
135	SrS	Ornamental backtack On/Off	1	0	0	
136	FAR	0 = Trimming stitch backward Off 1 = Trimming stitch backward On with single end backtack 2 = Trimming stitch or positioning stitch at the seam end always backward	2	0	0	
137	hP	High lift for walking foot On/Off	1	0	0	
139	nIS	Display of machine speed On/Off	1	0	0	
140	dnE	Delay of seam end with pedal in pos. -2	ms	2550	0	0
141	SGn	Speed status for the seam with stitch counting 0 = Speed controllable by the pedal up to the set maximum speed (parameter 111) 1 = Fixed speed (parameter 118) without influence by the pedal (machine stop by pressing the pedal to the basic position) 2 = Limited speed controllable by the pedal up to the set limit (parameter 118) 3 = At fixed speed (parameter 118) can be interrupted by full heelback 4 = At fixed speed (parameter 110) can be interrupted by full heelback.	4	0	0	
142	SFn	Speed status for the free seam and for the seam with light barrier 0 = Speed controllable by the pedal up to the set maximum speed (parameter 111) 1 = Fixed speed (parameter 118) without influence by the pedal (machine stop by pressing the pedal to the basic position) 2 = Limited speed controllable by the pedal up to the set limit (parameter 118) 3 = At fixed speed (parameter 118) can be interrupted by full heelback (only for seams with light barrier).	3	0	0	
143	kSA	Stitch counting at the start of the seam (e. g. chain suction) 0 = Speed controllable by the pedal up to the set maximum speed (parameter 111) 1 = Fixed speed (parameter 112) without influence by the pedal (machine stop by pressing the pedal to the basic position) 2 = Limited speed controllable by the pedal up to the set limit (parameter 112) 3 = At fixed speed (parameter 112), can be suspended or interrupted depending on the setting of parameter 019.	3	0	0	
144	kSE	Stitch counting at the seam end (e. g. chain suction) 0 = Speed controllable by the pedal up to the set maximum speed (parameter 111) 1 = Fixed speed (parameter 113) without influence by the pedal (machine stop by pressing the pedal to the basic position) 2 = Limited speed controllable by the pedal up to the set limit (parameter 113) 3 = At fixed speed (parameter 113), can be suspended or interrupted depending on the setting of parameter 019.	3	0	0	
145	Shv	Speed status for the manual backtack 0 = Speed controllable by the pedal up to the set maximum speed (parameter 111) 1 = Fixed speed (parameter 109) without influence by the pedal (machine stop by pressing the pedal to the basic position) 2 = Limited speed controllable by the pedal up to the set limit (parameter 109)	2	0	0	

Technician Level

Code no. 1907

Parameter	Designation	Unit	max	min	Preset	Ind.
146 FcS	Automatic speed n9 for chain shifting device count On/Off (Only in mode 28 or 36)		1	0	0	
147 tbL	Automatic switch-over time from backlatch to plain sewing mode (Only in mode 36)	min	120	0	0	
150 t8	Stitch correction of the double start backtack (prolongation of the stitch regulator ON period / not effective with ornamental backtack)	ms	500	0	0	
151 t9	Stitch correction of the double end backtack (prolongation of the stitch regulator ON period / not effective with ornamental backtack)	ms	500	0	0	
152 thP	Run-out time of the high lift walking speed	ms	500	80	150	
153 brt	Braking power at machine standstill		50	0	10	
155 LSG	Mode signal "run" 0 = Signal Off. 1 = Signal "run" On. 2 = Signal "run" enabled when the speed is >3000 RPM. 3 = Signal with pedal <> 0. 4 = Signal enabled only after motor synchronization (one rotation at positioning speed after power On)		4	0	1	
156 t05	Switch-off delay for the signal "run" or signal with pedal in pos. 0 (neutral)	ms	2550 **)	0	0	
157 SFS	Stitches until thread tension release Off after light barrier covered at the start of the seam (Only in mode 7, 16 or 28)	stitches	254	0	0	
158 dnL	Delay time until light barrier speed release	ms	500	0	0	
159 cb2	Stitches after light barrier uncovered until signal M9 "hemming blow 2" Off	stitches	254	0	10	
161 drE	Direction of motor rotation 0 = Clockwise rotation 1 = Counterclockwise rotation		1	0	1	
162 n2A	Start backtack speed whenever the backtack can be interrupted by pedal in pos. 0 (neutral) (parameter 164)	RPM	9900	200	600	
163 n2E	End backtack speed whenever the backtack can be interrupted by pedal in pos. 0 (neutral) (parameter 164)	RPM	9900	200	600	
164 StP	Start and end backtack can be interrupted by pedal in pos. 0 (neutral) On/Off		1	0	0	
168 kFA	Output selection for short trimmer 0 = Function Off 1 = Output M1 2 = Output M2 3 = Output M3 (Dürkopp/Adler model 767) 4 = Output M4 5 = Output M5 6 = Output M6 7 = Output M7 8 = Output M8 9 = Output M9 (Juki LU1521N-7) 10 = Output M10 11 = Output M11 12 = Output VR (Juki LU2210)		12	0	0	
170 Sr1	Setting the reference position: - Press the E key. - Press key >> . - Turn handwheel until symbol on display goes off. Then set the handwheel to the reference position. - Press the P key twice.					

Technician Level

Code no. 1907

Parameter	Designation	Unit	max	min	Preset	Ind.
171 Sr2	Setting the needle positions: 1E = Start position 1 2E = Start position 2 1A = End position 1 2A = End position 2	degrees	359	0	56 281 98 323	
172 Sr3	Display on the control: Pos. 1 to 1A (LED 7 lights up) Pos. 2 to 2A (LED 8 lights up)					
172 Sr3	Display on the V810 control panel: Pos. 1 to 1A (left-hand arrow above key 4 On) Pos. 2 to 2A (right-hand arrow above key 4 On)					
172 Sr3	Display on the V820/V850 control panel: Pos. 1 to 1A (left-hand arrow above key 7 On) Pos. 2 to 2A (right-hand arrow above key 7 On)					
173 Sr4	Checking of the signal outputs and inputs using the incorporated control panel or the V810/V820/V850 control panels 01 = Backtacking on socket ST2/34 02 = Sewing foot lift on socket ST2/35 03 = Output M1 on socket ST2/37 04 = Output M2 on socket ST2/28 05 = Output M3 on socket ST2/27 06 = Output M4 on socket ST2/36 07 = Output M5 on socket ST2/32 08 = Output M6 on socket ST2/30 09 = Output M7 on socket ST2/23 10 = Output M8 on socket ST2/24 11 = Output M9 on socket ST2/25 12 = Output M10 on socket ST2/29 13 = Output M11 on socket ST2/31 OFF/ON = By actuating the switches connected to the control, the function of these switches is checked and displayed on the control. OFF is displayed with open switch and the activated input in1...i10 with closed switch.					
174 LnG	Language selection 1 = German 2 = English		2	1	1	
176 Sr6	Service routine for total operating hours display. The process is as with display example of parameter 177.					
177 Sr7	Service routine for display of hours since the last service. Display example for the operator control panel: Press the E key → Display Sr7= Press key >> → Display h t Press the E key → Display 0000 Press key >> → Display h h Press the E key → Display 0000 Press the E key → Display Min Press the E key → Display 00 Press the E key → Display SEc Press the E key → Display 00 Press the E key → Display MS Press the E key → Display 000 Press the E key → Display rES Press the E key again to restart routine, or press the P key twice to return to operational status Display example for the V810 control panel: Press the E key → Display Sr7 [°] Press key >> → Display hoUr Press the E key → Display 000000 Press the E key → Display Min Press the E key → Display 00 Press the E key → Display SEc Press the E key → Display 00 Press the E key → Display MSEc Press the E key → Display 000 Press the E key → Display rES F2 Press the P key twice → Display e. g. Ab320A					

Technician Level

Code no. 1907

Parameter	Designation	Unit	max	min	Preset	Ind.
177 Sr7	<p>Display example for the V820/V850 control panel: Press the E key → Display F-177 Sr7 [°] Press key >> → Display hoUr 000000 Press the E key → Display Min 00 Press the E key → Display Sec 00 Press the E key → Display MSEc 000 Press the E key → Display rES F2 Press the P key twice → Display e. g. Ab320A</p>					
178 ci	No function				00000	
179 Sr5	<p>Display of control program number with index and more identification numbers. Upon pressing the appropriate key the data will be displayed successively.</p> <p>Display example for the operator control panel: Press the E key → Display Sr5= Press the key >> → Display e. g. 5211A (prog. no) Press the E key → Display e. g. A (index) Press the E key → Display e. g. 06 (year) Press the E key → Display e. g. 10 (month) Press the E key → Display e. g. 24 (day) Press the E key → Display e. g. 16 (hour) Press the E key → Display e. g. -- Press the E key → Display e. g. --- Press the E key again to restart routine, or press the P key twice to return to operational status</p> <p>Display example for the V810 control panel: Press the E key → Display e. g. Sr [°] Press key >> → Display e. g. 5211A Press the E key → Display e. g. 010823 Press the E key → Display e. g. 15 Press the E key → Display e. g. 1F68 Press the P key twice → Display Ab320A</p> <p>Display example for the V820/V850 control panel: Press the E key → Display F-179 Sr5 [°] Press the key >> → Display e. g. PrG 5211A Press the E key → Display e. g. dAt 01082315 Press the E key → Display e. g. chk 1F68 Press the E key → Display e. g. 132650210015 Press the E key → Display e. g. Skn 01047543 Press the P key twice → Display 4000 Ab320A</p>					
180 rd	Reversing angle	degrees	359	0	175	
181 drd	Switch-on delay of reverse motor rotation	ms	990	0	10	
182 Frd	Reverse motor rotation On/Off		1	0	0	
183 FFm	<p>Disabling of flip-flop functions at the seam end 0 = Flip-flop 1 (M6) and flip-flop 2 (M10) not disabled at the seam end 1 = Flip-flop 1 (M6) disabled at the seam end 2 = Flip-flop 2 (M10) disabled at the seam end 3 = Flip-flop 1 (M6) and flip-flop 2 (M10) disabled at the seam end</p>		3	0	0	
184 c6	Number of run-out stitches when unlocking the chain	stitches	254	0	20	
185 chP	Stitch counting high lift for walking foot	stitches	254	0	0	
186 FFi	<p>Function "speed limitation n11" 0 = Speed limitation n11 On, when signal M10 is On. Speed limitation n11 Off, when signal M10 is Off. 1 = Speed limitation n11 Off, when signal M10 is On. Speed limitation n11 On, when signal M10 is Off.</p>		1	0	0	

Technician Level

Code no. 1907

Parameter	Designation	Unit	max	min	Preset	Ind.
187 FFo	Function of signal M10 after "power On" (flip-flop 2) on socket ST2/29 0 = Signal M10 Off / speed limitation n11 according to setting of parameter 186 1 = Signal M10 On / speed limitation n11 according to setting of parameter 186		1	0	0	
188 hP	Minimum speed level for high lift for walking foot Assignment of maximum speed (parameter 111) and minimum speed (parameter 117) to the 21 speed levels depending on high lift. Display example: 2740 05 11 19 05 = Display of the level up to which the maximum speed is effective. 19 = Display of the level up to which the minimum speed is effective. 11 = Display of the speed level depending on high lift set on the potentiometer. 2740 = Corresponding speed See instruction manual on how to change the setting!		21	1		
190 MEK	Function "unlock the chain" in modes 5, 6, 7 and 16 (parameter 290) 0 = Unlocking the chain Off 1 = Unlocking the chain manually (with pedal in pos. -2 without cutting at the seam end) 2 = Unlocking the chain automatically - by means of light barrier or - pedal in pos. -2 (parameter 019) without cutting at the seam end 3 = Unlocking the chain automatically - by means of light barrier or - pedal in pos. -2 (parameter 019) with cutting and run-out stitches (parameter 184) at the seam end, then unlocking the chain (only if parameter 290 = 7) 4 = Unlocking the chain only with pedal in pos. -2. No unlocking the chain with seam end by means of light barrier, cutting and run-out stitches.		4	0	1	
191 MHE	Seam end in the overlock mode by end count c2 or c4 0 = Seam end after count c4 - tape cutter 1 = Seam end after count c2 - chain suction		1	0	0	
192 PLS	Speed of the light barrier compensating stitches 0 = Speed n5 after light barrier sensing 1 = Speed pedal controlled		1	0	0	
193 kSL	Enable chain suction signal and thread tension release 0 = Thread tension release and chain suction after the light barrier compensating stitches 1 = Chain suction from light barrier uncovered onwards and thread tension release after the light barrier compensating stitches		1	0	0	
194 Stb	Function "blow fabric onto stack" (only if parameter 290 = 16) 0 = Blow fabric onto stack at the seam end 1 = Blow fabric onto stack from light barrier uncovered onwards		1	0	0	
195 LSc	Stitches for light barrier monitoring (light barrier monitoring is off, when set to "0").	stitches	2550	0	0	

Technician Level

Code no. 1907

Parameter	Designation	Unit	max	min	Preset	Ind.
196 StL	Function "stitch lock" (parameter 290 = 21) 0 = Stitch lock Off Output ST2/34 (STV) = Stitch condensing 1 = Stitch lock On Output ST2/28 (M2) = Stitch condensing Output ST2/34 (STV) = Stitch lock Attention! Upon switching the parameter from 0 to 1 or vice versa, the output function changes accordingly!		1	0	1	
197 dr°	Stop for thread trimming depending on angle	degrees	720	0	0	
198 SAK	Functions with chainstitch machines e. g. bag sewing machine (parameter 290 = 37) 0 = Function "thread trimming" or "hot thread chain cutting" and sewing foot lift using the pedal. 1 = Function "thread trimming" or "hot thread chain cutting" using the knee switch, and sewing foot lift using the pedal. 2 = Function "thread trimming" or "hot thread chain cutting" using the pedal and sewing foot lift using the knee switch.		2	0	0	

6.4 Supplier Level

Code no. 3112

Parameter	Designation	Unit	max	min	Preset	Ind.	
200	t1	Delay until speed release after start backtack	ms	500	0	100	
201	t2	Sewing foot lift switch-on delay with half heelback	ms	500	20	80	
202	t3	Start delay after disabling the sewing foot lift signal	ms	500	0	50	
203	t4	Time of full power of sewing foot lifting	ms	600	0	500	
204	t5	Holding power for sewing foot lifting 1...100% 1% → low holding power 100% → high holding power	%	pa. 254	1	40	
205	t6	Thread wiper time	ms	2550	0	120	
206	t7	Delay from end of thread wiper until sewing foot lifting On	ms	800	0	40	
207	br1	Braking effect when modifying the preset value ≤ 4 stages (indicated values only with transmission ratio 1:1) Values for DC1500 (1550) motor		55	1	15 (20)	
208	br2	Braking effect when modifying the preset value ≥ 5 stages (indicated values only with transmission ratio 1:1) Values for DC1500 (1550) motor		55	1	35 (30)	
209	dFw	Thread wiper start delay	ms	2550	0	0	
210	tSr	Stop time for switching the stitch regulator in the ornamental backtack	ms	500	0	140	
211	tFL	Sewing foot lift switch-on delay with thread wiper off	ms	500	0	60	
212	t10	Time of full power of backtacking or thread trimmer forward	ms	600	0	500	
213	t11	Holding power for backtacking or thread trimmer backward 1...100% 1% → low holding power 100% → high holding power	%	pa. 255	1	40	
214	rAt	No function		160	040	080	
216	FLS	Fast de-excitation of foot lifting solenoid On/Off		1	0	1	
217	Sr	Number of operating hours before service in steps of 10 (operating hours recording enabled if set at "0").	hours	99900 ***)	00000	00000	
219	br3	Braking power at stop of the drive Values for DC1500 (1550) motor		55	1	10 (10)	
220	ALF	Accelerating power of the drive (indicated values only with transmission ratio 1:1) Values for DC1500 (1550) motor		55	1	10 (10)	
221	dGn	Speed gate 1	RPM	990	50	100	
222	tGn	Speed gate damping period (effective only if parameter 224 = 0)	ms	990	0	20	
223	dG2	Speed gate 2	RPM	6500	200	1600	
224	dGF	Speed gate 2 On/Off		1	0	1	
225	br4	Setting the braking curve for the light barrier and machine run blockage (values only with transmission ratio 1:1) Values for DC1500 (1550) motor		55	1	55 (55)	
231	Sn1	Execution of the first stitch after Power On at positioning speed		1	0	0	
232	USS	Overlock with fast scissors On/Off 0 = Tape cutter 1 = Fast scissors (set parameter 282 = 0)		1	0	0	
233	c	Switch-on delay of thread tension release (Only in mode 7, 16 or 28)	stitches	254	0	0	

***) The 4-digit value displayed must be multiplied by 10.

Supplier Level

Code no. 3112

Parameter	Designation	Unit	max	min	Preset	Ind.
234 PdO	New start after machine run blockage 0 = New start after disabling machine run blockage without influence by the pedal (e. g. with automats) 1 = New start after disabling machine run blockage only if pedal in pos. 0		1	0	1	
235 bkS	Braking curve in the overlock mode On/Off 0 = Braking curve Off 1 = Braking curve On for precise stop upon chain suction at the seam end		1	0	0	
236 FLP	0 = Sewing foot lift possible in all positions 1 = Sewing foot lift possible in position 2 2 = Sewing foot lift at the seam end stored with pedal backward. Storing undone with pedal slightly forward.		2	0	0	
237 tkS	Switch-off delay for chain suction at the seam end, if parameter 022 = 2.	ms	2550	0	0	
238 EnP	Software debouncing for all inputs: 0 = No debouncing 1 = With debouncing		1	0	1	
239 FEL	Selection of the input function on socket B18/5 0 = Light barrier function, if 009 = 1 All other functions as with parameter 240.		88	0	0	
240 in1	Selection of the input functions on socket ST2/7 for input 1 0 = No function 1 = Needle up/down 2 = Needle up 3 = Single stitch (basting stitch) 4 = Full stitch 5 = Needle to position 2 6 = Machine run blockage effective with open contact 7 = Machine run blockage effective with closed contact 8 = Machine run blockage unpositioned effective with open contact 9 = Machine run blockage unpositioned effective with closed contact 10 = Automatic speed n12 without pedal (N.O. contact) 11 = Limited speed n12 pedal controlled (see parameter 266) 12 = Sewing foot lifting with pedal in position 0 (neutral) 13 = High lift for walking foot with speed limitation n10 (operational mode not stored) 14 = High lift for walking foot (flip-flop 1) with speed limitation n10. Set parameter 137 to 1. 15 = Tape cutter / fast scissors, function only in chainstitch and overlock mode. Set parameter 137 to 1. 16 = Intermediate backtack / intermediate stitch condensing 17 = Stitch regulator suppression / recall 18 = Unlocking the chain, can be activated by keystroke, but will be executed only at the seam end 19 = Reset bobbin thread monitor if parameter 030 = >0 20 = Handwheel running in the direction of rotation according to the setting of parameter 161 21 = Handwheel running in the opposite direction of rotation according to the setting of parameter 161		88	0	0	

Supplier Level

Code no. 3112

Parameter	Designation	Unit	max	min	Preset	Ind.
22 =	Speed limitation n11 (flip-flop 2). Output ST2/29 is enabled according to setting of parameter 186					
23 =	No function					
24 =	Needle to position 2 (see instruction manual)					
25 =	Speed limitation with ext. potentiometer On/Off (see parameter 126)					
26 =	Manual stacker					
27 =	Unlocking the chain, function is performed upon pressing the key					
28 =	External light barrier (according to setting of parameter 131)					
29 =	"Hemmer foot" signal Off (see parameter 296), function effective only in the seam					
30 =	High lift for walking foot, if sewing foot is On					
31 =	Function "speed limitation bit0" (speed n11)					
32 =	Function "speed limitation bit1" (speed n10) (bit0 + bit1 = speed n9).					
33 =	Speed n9 pedal controlled					
34 =	Automatic speed n9 can be suspended by pressing the pedal to pos. 0 (neutral)					
35 =	Automatic speed n9 can be interrupted by pressing the pedal to pos. -2					
36 =	Automatic speed n9 without pedal					
37 =	Speed n12 pedal controlled (break contact)					
38 =	Automatic speed n12 without pedal (break contact [N.C.]					
39 =	Switch to the next pattern in TEACH IN					
40 =	Switch back to the previous pattern in TEACH IN					
41 =	Tape cutting only at machine standstill					
42 =	Enable hot thread chain cutting or sewing foot lifting. Function effective only in the chain stitch mode.					
43 =	No function					
44 =	Function like pressing the pedal to pos. -2					
45 =	Positioned stop, machine run blockage and sewing foot lifting					
46..47 =	No function					
48 =	Signal A1 is issued					
49 =	Signal A1 switchable as flip-flop					
50 =	No function					
51 =	Signal A2 is issued					
52 =	Signal A2 switchable as flip-flop					
53 =	No function					
54 =	Function like pressing the pedal to step 12. If start backtack or softstart is enabled, it will be performed.					
55 =	Reversal of the direction of rotation					
56 =	No function					
57 =	Input for Juki bobbin thread monitor. Select operating mode using parameter 035.					
58..65 =	No function					
66 =	Thread trimming is suppressed					
67 =	Thread trimming and backtacking are suppressed					
68 =	Interruption of seam in TEACH IN and switch to next seam					
69 =	Interruption of seam in TEACH IN and switch to preceding seam					
70 =	No function					
71 =	Preparation for backlatch function					
72 =	Switching of basic position see F-329					
73 =	Enable master (F-290=29)					
74 =	Enable slave (F-290=29)					
75 =	Threading					
76 =	Intermediate backtack / single stitch (correction sewing), (mode 31)					

Supplier Level

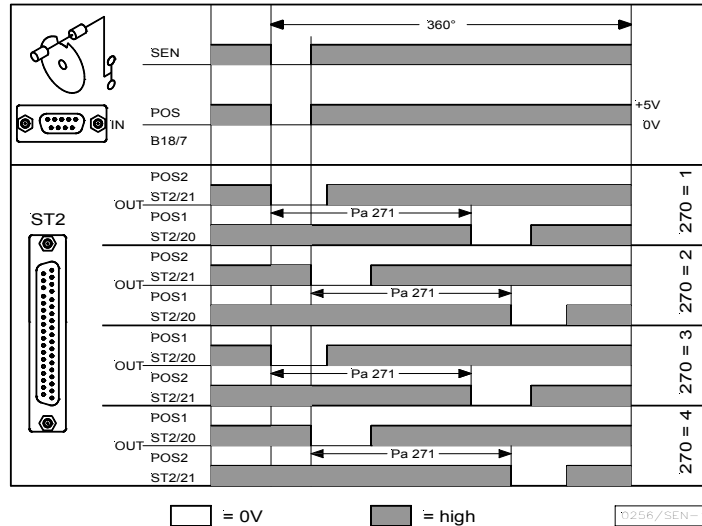
Code no. 3112

Parameter	Designation	Unit	max	min	Preset	Ind.
	77 = Switch stitch length flip-flop 78 = No function 84 = Move toward reference point 85 = Reference point reached 86 = Switching plain sewing / backlatch (F-290 = 36) 87 = Reset of main program (F-290 = 36) 88 = No function					
241	in2 Selection of input function on socket ST2/11 for input 2 0 = No function All other functions of the keys as with parameter 240		88	0	0	
242	in3 Selection of input function on socket ST2/6 for input 3 0 = No function All other functions of the keys as with parameter 240		88	0	0	
243	in4 Selection of input function on socket ST2/8 for input 4 0 = No function All other functions of the keys as with parameter 240		88	0	0	
244	in5 Selection of input function on socket ST2/5 for input 5 0 = No function All other functions of the keys as with parameter 240		88	0	0	
245	in6 Selection of input function on socket ST2/12 for input 6 0 = No function All other functions of the keys as with parameter 240		88	0	0	
246	in7 Selection of input function on socket ST2/9 for input 7 0 = No function All other functions of the keys as with parameter 240		88	0	0	
247	in8 Selection of input function on socket ST2/10 for input 8 0 = No function All other functions of the keys as with parameter 240		88	0	0	
248	in9 Selection of input function on socket ST2/13 for input 9 0 = No function All other functions of the keys as with parameter 240		88	0	0	
249	i10 Selection of input function on socket ST2/14 for input 10 0 = No function All other functions of the keys as with parameter 240		88	0	0	
250	iFA Thread trimmer activation angle	degrees	359	0	180	
251	FSA Switch-off delay of thread tension release	ms	990	0	50	
252	FSE Switch-on delay angle of thread tension release	degrees	359	0	0	
253	tFA Stop time for thread trimmer	ms	500	0	70	
254	EF- Upper limit (pa. 204) duty ratio for sewing foot lift 1...100	%	100	1	100	
255	EV- Upper limit (pa. 213) duty ratio for backtacking/ thread trimmer backward 1...100	%	100	1	100	
256	kt6 Delay time of output VR (chain suction), (function only if parameter 290 = 15)	ms	2550	0	250	
257	c7 Start counting until tape cutter M4 On (function only if parameter 290 = 15)	stitches	254	0	5	
258	c8 End counting until tape cutter M4 On (function only if parameter 290 = 15)	stitches	254	0	15	
259	FAE Switch-on delay angle of the thread trimmer	degrees	359	0	0	

Supplier Level

Code no. 3112

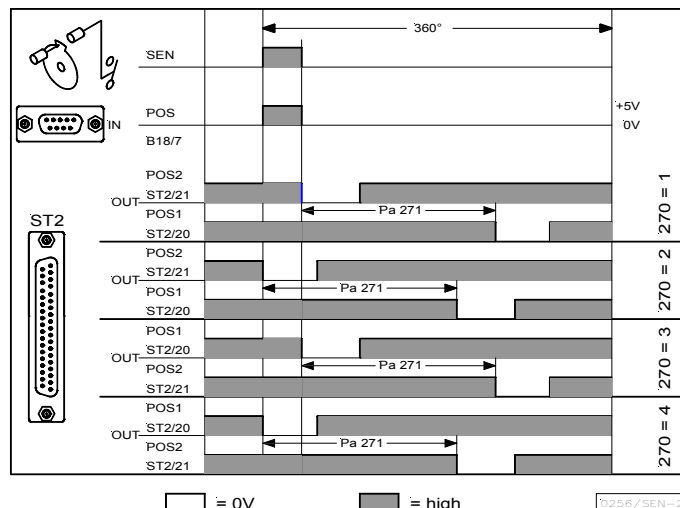
Parameter	Designation	Unit	max	min	Preset	Ind.	
260	ihR	Number of handwheel rotation steps (increments) triggered by keystroke	incr.	500	0	10	
261	nhr	Speed of handwheel rotation triggered by keystroke	RPM	150	30	50	
262	dhr	Delay time until the key is pressed down causing the handwheel to rotate continuously (in1...i10).	ms	2550	0	200	
263	ihP	0 = Signal "high lift for walking foot" (M6), when key is closed. 1 = Signal "high lift for walking foot" (M6), when key is open. (Function only if parameter 137 = 1)		1	0	0	
264	iS1	0 = Signal "manual stacker" (M7), when key is closed. 1 = Signal "manual stacker" (M7), when key is open. (Function in all modes except mode 16)		1	0	0	
265	ktS	ON period of manual stacker (M7)	ms	2550	0	500	
266	inr	0 = Limited speed n12 pedal controlled, when key is closed. 1 = Limited speed n12 pedal controlled, when key is open. (Function if parameters 240...249 = 11)		1	0	0	
267	Abc	Overlock mode: Start count cancellation and seam end initiation by light barrier uncovered		1	0	0	
268	FSE	Foot lifting with thread tension release at the seam end 0 = Foot lifting disabled 1 = Foot lifting enabled (Only in mode 36)		1	0	0	
269	PSv	Positioning shift	incr.	100	0	15	
270	PGm	Connection of a sensor e. g. light barrier sensor to light barrier socket B18/7. Selection of the desired function! 0 = The positions are generated using the transmitter incorporated in the motor and can be set using parameter 171. 1 = Setting the sensor to position 2. Set position 1 using parameter 271, starting from leading edge position 2. 2 = Setting the sensor to position 2. Set position 1 using parameter 271, starting from trailing edge position 2. 3 = Setting the sensor to position 1. Set position 2 using parameter 271, starting from leading edge position 1. 4 = Setting the sensor to position 1. Set position 2 using parameter 271, starting from trailing edge position 1. 5 = No position sensor available. The drive stops unpositioned. The thread trimmer function is suppressed with this setting. 6 = The positions are determined by preset values. If necessary, the reference position must be set and the position angle preset values corrected.		6	0	0	



Supplier Level

Code no. 3112

Parameter	Designation	Unit	max	min	Preset	Ind.
270 PGM	<p>Connection of a sensor e. g. light barrier sensor to light barrier socket B18/7. Selection of the desired function!</p> <p>0 = The positions are generated using the transmitter incorporated in the motor and can be set using parameter 171.</p> <p>1 = Setting the sensor to position 2. Set position 1 using parameter 271, starting from trailing edge position 2.</p> <p>2 = Setting the sensor to position 2. Set position 1 using parameter 271, starting from leading edge position 2.</p> <p>3 = Setting the sensor to position 1. Set position 2 using parameter 271, starting from trailing edge position 1.</p> <p>4 = Setting the sensor to position 1. Set position 2 using parameter 271, starting from leading edge position 1.</p> <p>5 = No position sensor available. The drive stops unpositioned. The thread trimmer function is suppressed with this setting.</p> <p>6 = The positions are determined by preset values. If necessary, the reference position must be set and the position angle preset values corrected.</p>		6	0	0	



Supplier Level

Code no. 3112

Parameter	Designation	Unit	max	min	Preset	Ind.	
271	PGr	Number of angular degrees after the sensor position on the machine handwheel	degrees	255	0	180	
272	trr	Transmission ratio between motor shaft and machine shaft (calculation formula see instruction manual!) The transmission ratio should be determined and indicated as precisely as possible!		9999	015	100	
273	ASi	Signals M8, M9, M10 On/Off		1	0	0	
274	Ad1	Delay time of signal M8 at the start of the seam	ms	2550	0	40	
275	At1	ON period of signal M8 at the start of the seam	ms	2550	0	150	
276	Ad2	Delay time of signal M9 at the start of the seam	ms	2550	0	50	
277	At2	ON period of signal M9 at the start of the seam	ms	2550	0	60	
278	Ad3	Delay time of signal M10 at the start of the seam	ms	2550	0	40	
279	At3	ON period of signal M10 at the start of the seam	ms	2550	0	350	
280	kd1	Delay time output M1	ms	2550	0	0	
281	kt1	ON period output M1	ms	2550	0	100	
282	kd2	Delay time output M2	ms	2550	0	100	
283	kt2	ON period output M2	ms	2550	0	100	
284	kd3	Delay time output M3	ms	2550	0	200	
285	kt3	ON period output M3	ms	2550	0	100	
286	kd4	Delay time output M4	ms	2550	0	300	
287	kt4	ON period output M4	ms	2550	0	100	
288	kdF	Delay time until sewing foot On	ms	2550	0	380	
289	kt5	ON period output M7	ms	2550	0	1000	
290	FAM	Selection of machine specific mode 0 = Lockstitch: (FA1, FA2, FA3, FA1+FA2): e. g. Brother Dürkopp Adler, Mitsubishi, Pfaff, Toyota »Slide-in strip for V810/V820(V850) = 1« 2 = Lockstitch: e. g. Singer (212 UTT) »Slide-in strip for V810/V820(V850) = 1/1« 3..= Lockstitch: e. g. Dürkopp Adler (models 767, N291) »Slide-in strip for V810/V820(V850) = 1/1« 4 = Chainstitch: e. g. (US80A) »Slide-in strip for V810/V820(V850) = 5/3« 5 = Chainstitch in general: M1, M2, M3 and M4 parallel sequence or Union Special bag sewing machine »Slide-in strip for V810/V820 = 5/3« 6 = Chainstitch with tape cutter and/or fast scissors and M1 / M2 at the seam end »Slide-in strip for V810/V820(V850) = 5/3« 7 = Overlock: e. g. (AC62AV1461) »Slide-in strip for V810/V820(V850) = 7/5« 8 = Backlatch: Pegasus »Slide-in strip for V810/V820(V850) = 7/5« 9 = Backlatch: Yamato »Slide-in strip for V810/V820(V850) = 7/5« 10 = Lockstitch: Union Special (63900AMZ »replacement for US80A«) and on Refrey lockstitch machines »Slide-in strip for V810/V820(V850) = 1/1« 13 = Lockstitch: Pfaff (1425, 1525) »Slide-in strip for V810/V820(V850) = 1/1« 14 = Lockstitch: Juki (5550-6, 5550-7) »Slide-in strip for V810/V820(V850) = 1/1« 15 = Backlatch: Pegasus (SSC100) »Slide-in strip for V810 /V820(V850) = 7/5« 16 = Overlock: feed-off-the-arm machines e. g. Yamato (FD62) »Slide-in strip for V820(V850) = 7«		37	0	5	

Supplier Level

Code no. 3112

Parameter	Designation	Unit	max	min	Preset	Ind.
17 =	Chainstitch: Pegasus (stitch lock) »Slide-in strip for V810/V820(V850) = 5/3«					
20 =	Lockstitch: Juki (LU1510-7 /DNU1541-7) »Slide-in strip for V810/V820(V850) = 1/1«					
21 =	Chainstitch with stitch lock: Yamato (VG2730-156M) »Slide-in strip for V810/V820(V850) = 5/3«					
22 =	Lockstitch: Brother (B-891) »Slide-in strip for V810/V820(V850) = 1/1«					
23 =	Lockstitch: Dürkopp Adler (271...275) »Slide-in strip for V810/V820(V850) = 1/1«					
24 =	Chainstitch: Pegasus (MHG-100) »Slide-in strip for V810/V820(V850) = 5/3«					
25 =	Lockstitch: Juki (LU2210/LU2260) »Slide-in strip for V810/V820(V850) = 1/1«					
26 =	Lockstitch: Jentschmann »Slide-in strip for V810 /V820(V850) = 1/1«					
27 =	Lockstitch: ISM, functions as with mode 0, but different preset values. »Slide-in strip for V810/V820(V850) = 1/1«					
28 =	Overlock (backlatch): Altin »Slide-in strip for V810/V820(V850) = 1/11«					
29 =	KMF function “synchronous operation” »Slide-in strip for V810/V820(V850) = 1/1«					
30 =	Lockstitch: Juki LU1521N-7 with short trimmer »Slide-in strip for V810/V820(V850) = 1/1«					
31 =	Lockstitch: Brother »Slide-in strip for V810/V820(V850) = 9/12«					
32 =	Chainstitch: Brother »Slide-in strip for V810/V820 = 5/3«					
33 =	Motion control: only machine run function »Slide-in strip for V810/V820(V850) = -/-«					
35 =	Lockstitch: Bramac »Slide-in strip for V810/V820(V850) = 1/1«					
36 =	Backlatch: Rimoldi PL27 »Slide-in strip for V810/V820(V850) = 1/13«					
37 =	Union Special bag machine »Slide-in strip for V810/V820(V850) = 1/1«					
41 =	Lockstitch: Juki LU2220N-7 »Slide-in strip for V810/V820(V850) = 1/1«					
Modes 1, 11, 12, 18, 19 are selectable, but their functions correspond to mode 0!						

NOTE

A connected V810 or V820/V850 control panel is sensed and assigned to the corresponding slide-in strip number. Should a different strip be inserted, it can be selected using parameter 291 and 292, respectively. The setting is retained until the next mode change.

Supplier Level

Code no. 3112

Parameter	Designation	Unit	max	min	Preset	Ind.
291 810	Select slide-in strip number for the V810 control panel (illustration see instruction manual Variocontrol). At setting 0 , keys 1...4 are disabled.		9	0	1	
292 820	Select slide-in strip number for the V820 control panel (illustration see instruction manual Variocontrol). At setting 0 , keys 1...0 are disabled.		12	0	1	
293 tF1	Selection of the input function using key (A) "F1" on the V810/V820/V850 control panel 0 = Key F1 is disabled 1 = Needle up/down 2 = Needle up 3 = Single stitch (basting stitch) 4 = Full stitch 5 = Needle to position 2 6...12 = No function 13 = High lift for walking foot with speed limitation n10 (operational mode not stored) 14 = High lift for walking foot with speed limitation n10 (operational mode stored) 15 = Tape cutter / fast scissors (in chainstitch and overlock mode) 16 = Intermediate backtack/intermediate stitch condensing 17 = Stitch regulator suppression / recall 18 = No function 19 = Reset bobbin thread monitor if parameter 030 = >0 20..68 = No function 69 = Return to last seam (TEACH IN) 70 = No function 71 = Preparation for backlatch in mode 28 73..74 = No function		74	0	17	
294 tF2	Selection of the input function using key (B) "F2" on the V810/V820/V850 control panel Functions of the key as with parameter 293, but at setting 0 key F2 is disabled.		74	0	1	
295 nAM	Switch proximity switches for inputs in2, in7, in8, in9		1	0	0	
296 M08	Functions of signal M8 0 = Signal M8 Off 1 = Signal hemmer foot On at the start of the seam with pedal in pos. -1 or -2 and in the seam with machine running 2 = Signal hemmer foot On at the start of the seam with pedal in pos. -1 or -2 and remains active in the seam 3 = Signal M8 as center cutter 4 = Signal M8 with needle up / down 5 = Signal M8 alternating with M3 with "fast scissors" on overlock machines in mode 16, if parameter 232=1 has been selected		5	0	0	

Supplier Level

Code no. 3112

Parameter	Designation	Unit	max	min	Preset	Ind.
297 M11	<p>Functions of signal M11</p> <p>0 = Function according to setting of parameter 290.</p> <p>1 = Signal M11 is switched on whenever the light barrier is uncovered (pa. 131 = 1) or covered (pa. 131 = 0)</p> <p>2 = Signal M11 is switched on whenever the light barrier is covered (pa. 131 = 1) or uncovered (pa. 131 = 0)</p> <p>3 = Signal M11 is switched on only after light barrier uncovered and/or covered until seam end</p> <p>4 = Signal M11 is switched on as with setting 3. Signal M5 (machine running), however, is switched off while signal M11 is issued. When signal M11 is issued, signal M6 (machine at standstill) is also immediately issued.</p> <p>5 = Signal M11 is switched on from "light barrier sensing", "pedal in pos. -2" or "hemmer foot signal" key off" onwards.</p> <p>6 = Signal M11 is On, when the key on input in 2 is open. Signal M11 is switched off after the section set using parameter 007 has been executed, when the key on input in2 is closed. At drive standstill, signal M11 is switched off immediately.</p> <p>7 = Signal M11 is issued when the operating hours counter reading (Pa. 177) has reached the value of service hours monitoring (Pa. 217).</p> <p>8 = Signal M11 is issued when machine run blockage is active.</p>		8	0	0	
298 nSo	Backtack synchronization On/Off		1	0	0	
299 nrS	Backtack synchronization speed	RPM	3000	200	400	
300 AA1	<p>Selectable power transistors for signal A1</p> <p>0 = No function</p> <p>1 = Signal on output M1</p> <p>2 = Signal on output M2</p> <p>3 = Signal on output M3</p> <p>4 = Signal on output M4</p> <p>5 = Signal on output M5</p> <p>6 = Signal on output M6</p> <p>7 = Signal on output M7</p> <p>8 = Signal on output M8</p> <p>9 = Signal on output M9</p> <p>10 = Signal on output M10</p> <p>11 = Signal on output M11</p> <p>12 = Signal on output VR</p>		12	0	0	
301 So1	<p>Issue signal A1</p> <p>0 = Signal until seam end (according to setting of parameter 320)</p> <p>1 = Signal over time</p> <p>2 = Signal until seam end and drive stops</p> <p>3 = Signal during stitch counting (according to setting of parameter 309)</p> <p>4 = Signal A1 as puller function</p>		4	0	0	
302 tr1	<p>Starting point for signal A1</p> <p>0 = Start at the beginning of the seam</p> <p>1 = Start of the signal triggered by light barrier sensing</p> <p>2 = Start of the signal when the drive stops at the seam end</p> <p>3 = Start from light barrier covered onwards at the beginning of the seam</p> <p>4 = Signal A1 switchable only manually</p>		4	0	0	

Supplier Level

Code no. 3112

Parameter	Designation	Unit	max	min	Preset	Ind.
303 do1	Delay of signal A1 0 = No delay until signal On 1 = Delay over time until signal On 2 = Delay over stitches until signal On		2	0	1	
304 dt1	Delay time until signal A1 On	ms	2550	0	0	
305 St1	ON period of signal A1	ms	2550	0	0	
306 nA1	Speed mode when signal A1 is On 0 = Pedal controlled speed 1 = Limited speed n9 2 = Limited speed n11		2	0	0	
307 A1	Signal A1 On/Off		1	0	0	
308 dA1	Stitches delaying signal A1	stitches	999	0	0	
309 cA1	Stitch counting during signal A1	stitches	999	0	0	
310 AA2	Selectable power transistors for signal A2 0 = No function 1 = Signal on output M1 2 = Signal on output M2 3 = Signal on output M3 4 = Signal on output M4 5 = Signal on output M5 6 = Signal on output M6 7 = Signal on output M7 8 = Signal on output M8 9 = Signal on output M9 10 = Signal on output M10 11 = Signal on output M11 12 = Signal on output VR		12	0	0	
311 So2	Issue signal A2 0 = Signal until seam end (according to setting of parameter 320) 1 = Signal over time 2 = Signal until seam end and drive stops 3 = Signal during stitch counting (according to setting of parameter 319) 4 = Signal A2 as puller function		4	0	0	
312 tr2	Starting point for signal A2 0 = Start at the beginning of the seam 1 = Start of the signal triggered by light barrier sensing 2 = Start of the signal when the drive stops at the seam end 3 = Start from light barrier covered onwards at the beginning of the seam 4 = Signal A2 switchable only manually		4	0	0	
313 do2	Delay of signal A2 0 = No delay until signal On 1 = Delay over time until signal On 2 = Delay over stitches until signal On		2	0	1	
314 dt2	Delay time until signal A2 On	ms	2550	0	0	
315 St2	ON period of signal A2	ms	2550	0	0	

		Parameter											
A1	301	302	303	304	305	308	309	NA	LS-D	NE	FA-E	P=0	
A2	311	312	313	314 [ms]	315 [ms]	318 [St]	319 [St]						
	0	0	0	0	0	0	0						1)
	0	0	0	0	0	0	0						2)
	1	0	0	0	100	0	0						1)
	1	0	1	100	100	0	0						1)
	3	0	0	0	0	0	10						1)
	3	0	2	0	0	10	10						1)
	3	0	1	100	0	0	10						1)
	1	0	2	0	100	10	0						1)
	2	0	0	0	0	0	0						1)
	2	0	0	0	0	0	0						2)
	0	0	1	100	0	0	0						1)
	0	0	2	0	0	10	0						1)
	1	3	0	0	100	0	0						1)
	1	3	1	100	100	0	0						1)
	3	3	0	0	0	0	10						1)
	3	3	2	0	0	10	10						1)
	3	3	1	100	0	0	10						1)
	1	3	2	0	100	10	0						1)
	2	3	0	0	0	0	0						1)
	0	3	0	0	0	0	0						1)
	0	3	1	100	0	0	0						1)
	0	3	2	0	0	10	0						1)
	2	3	1	100	0	0	0						1)
	2	3	2	0	0	10	0						1)

0256/BILD3

- NA = Start of seam
- LS = Light barrier uncovered or covered at the seam end
- LS-D = Light barrier uncovered → covered (parameter 131 = 1 and parameter 132 = 0)
- NE = Seam end
- FA-E = End thread trimming operation
- P=0 = Pedal in pos. 0 (neutral)
- St = Stitches

Parameter 320 = 0 → Signals enabled according to setting of parameter 301/311.
Parameter 320 = 1 → Signals enabled until pedal is in pos. 0 (neutral).

1) Seam end after stitch counting or light barrier sensing
 2) Seam end after pedal in pos. -2

		Parameter												
A1	301	302	303	304	305	308	309	NA	LS	NE	FA-E	P=0		
A2	311	312	313	314 [ms]	315 [ms]	318 [St]	319 [St]							
	0	1	0	0	0	0	0							
	0	1	1	100	0	0	0		100					
	0	1	2	0	0	10	0		10					
	1	1	0	0	100	0	0		100					
	1	1	1	100	100	0	0		100	100				
	3	1	0	0	0	0	10		10					
	3	1	2	0	0	10	10		10	10				
	3	1	1	100	0	0	10		100	10				
	1	1	2	0	100	10	0		10	100				
	1	2	0	0	100	0	0				100			
	1	2	1	100	100	0	0				100	100		

0256/BILD4

See above for explanation of letter symbols.

Supplier Level

Code no. 3112

Parameter	Designation	Unit	max	min	Preset	Ind.
316 nA2	Speed mode when signal A2 is On 0 = Pedal controlled speed 1 = Limited speed n9 2 = Limited speed n11		2	0	0	
317 A2	Signal A2 On/Off		1	0	0	
318 dA2	Stitches delaying signal A2	stitches	999	0	0	
319 cA2	Stitch counting during signal A2	stitches	999	0	0	
320 bP0	Switch-off time of signals A1 and A2 0 = Signals effective until seam end 1 = Signals effective until pedal is in pos. 0 (neutral)		1	0	0	
321 Std	Suppression of the seam when 0 stitches are set 0 = Suppression Off 1 = Suppression On		1	0	0	
322 dkn	0 = Correction seam Off 1 = Correction seam On 2 = Interruption of seam or pattern by thread trimmer		2	0	0	
323 FLn	0 = Sewing foot is not lifted after power On 1 = Sewing foot is lifted after power On This function is enabled only if TEACH IN is On		1	0	0	
324 ti	0 = TEACH IN Off 1 = TEACH IN On TEACH IN programming is possible only with V820/V850. Execution of pattern is possible without V820/V850.		1	0	0	

Supplier Level

Code no. 3112

Parameter	Designation	Unit	max	min	Preset	Ind.
325	cti Erasing all TEACH IN data - Input code number 3112 after power On - Press the E key - Input parameter 325 - Press the E key - Input 3112 - Press the P key - The display briefly shows "deleted", and a short acoustic signal is issued - Press the P key - all TEACH IN programs have been erased!					
326	EPE Disabling the P and E keys on the control panels and the P key on the control 0 = The P and E keys are Off 1 = The P key is On and the E key is Off 2 = The P key is Off and the E key is On 3 = The P and E keys are On		3	0	3	
327	EPm Disabling keys + / - on the control panels 0 = Keys + and - are Off 1 = Keys + and - are On		1	0	1	
328	ob Disabling keys E , +, - and >> on the control 0 = Keys E , +, - and >> are Off 1 = Keys E , +, - and >> are On		1	0	1	
329	UGr Functions of input "switching of basic position" 4 0 = Function Off 1 = If input is active, set basic position 1. If input is inactive, the control or control panel setting is effective. 2 = If input is active, set basic position 2. If input is inactive, the control or control panel setting is effective. 3 = If input is active, set basic position 1. If input is inactive, set basic position 2. 4 = The basic position changes with each keystroke.		0	0		
330	kA1 Coupled signal A1 and sewing foot lifting or backtacking 0 = Coupling off 1 = Coupling with sewing foot lifting 2 = Coupling with backtacking 3 = Coupling with sewing foot lifting and backtacking		3	0	0	
331	A1I Signal A1 inverted		1	0	0	
335	kA2 Coupled signal A2 and sewing foot lifting or backtacking 0 = Coupling off 1 = Coupling with sewing foot lifting 2 = Coupling with backtacking 3 = Coupling with sewing foot lifting and backtacking		3	0	0	
336	A2I Signal A2 inverted		1	0	0	
340	1L Lower switching threshold of input IN1	%	100	0	30	
341	1h Upper switching threshold of input IN1	%	100	0	80	
342	2L Lower switching threshold of input IN2	%	100	0	30	
343	2h Upper switching threshold of input IN2	%	100	0	80	
344	3L Lower switching threshold of input IN3	%	100	0	30	
345	3h Upper switching threshold of input IN3	%	100	0	80	
346	4L Lower switching threshold of input IN4	%	100	0	30	
347	4h Upper switching threshold of input IN4	%	100	0	80	
348	5L Lower switching threshold of input IN5	%	100	0	30	
349	5h Upper switching threshold of input IN5	%	100	0	80	
350	6L Lower switching threshold of input IN6	%	100	0	30	
351	6h Upper switching threshold of input IN6	%	100	0	80	
352	7L Lower switching threshold of input IN7	%	100	0	30	
353	7h Upper switching threshold of input IN7	%	100	0	80	
354	8L Lower switching threshold of input IN8	%	100	0	30	
355	8h Upper switching threshold of input IN8	%	100	0	80	

Supplier Level

Code no. 3112

Parameter	Designation	Unit	max	min	Preset	Ind.	
356	9L	Lower switching threshold of input IN9	%	100	0	30	
357	9h	Upper switching threshold of input IN9	%	100	0	80	
358	10L	Lower switching threshold of input IN10	%	100	0	30	
359	10h	Upper switching threshold of input IN10	%	100	0	80	
360	11L	Lower switching threshold of input LSM	%	100	0	50	
361	11h	Upper switching threshold of input LSM	%	100	0	70	
362	15V	Switch +5V/+15V on B18 0 = +5V 1 = +15V		1 0	0		
370	n2	Direct input of maximum speed	RPM	F-111	F-121	Display	
371	SOP	Speed: "move toward reference point"	RPM	1000	70	100	
372	dOP	Direction of rotation: "move toward reference point" 0 = Clockwise rotation 1 = Counterclockwise rotation		1	0	0	
373	MOP	Mode "move toward reference point" 0 = Run until input active 1 = Run until input active and again inactive 2 = Run until input active and again inactive, then move toward motor reference point		2	0	0	
396	FSL	Speed reference setting by frequency On/Off		1	0	0	
399	cFP	Delete all compiler data (code input required)					
401	EEP	Immediate storage of all changed data - Input code number 3112 after power On - Press the E key - Input parameter 401 - Press the E key - Set display from 0 to 1 - Press the E or P key - All data are stored		1	0	0	
436	An2	Activation of analog input 2 (0 = inactive, 1 = active)		1	0	1	
467	MOT	Selection of motor 1 = DC1500 2 = DC1550		2	1	1	
500	Sir	Recall of Fast Installation Routine (SIR) (see chapter "Fast Installation Routine (SIR)")					
510		Transfer parameter settings from control to Memory Stick					
511		Transfer parameter settings from Memory Stick to control					
512		Compare control and Memory Stick parameter settings					
513		Delete parameter setting file from Memory Stick					
514		Transfer array data from control to Memory Stick					
515		Transfer array data from Memory Stick to control					
516		Compare control and Memory Stick array data					
517		Delete array file from Memory Stick					
518		Transfer seam pattern from control to Memory Stick					
519		Transfer seam pattern from Memory Stick to control					
520		Compare control and Memory Stick seam pattern					
521		Delete seam pattern file from Memory Stick					
523		Transfer compiler program from Memory Stick to control					
526		Transfer control software from control to Memory Stick					
527		Transfer control software from Memory Stick to control					
528		Compare control and Memory Stick control software					
529		Delete control software file from Memory Stick					

Supplier Level

Code no. 3112

Parameter	Designation	Unit	max	min	Preset	Ind.
550 in12	Selection of input function on socket B22/3 for input 12 0 = No function All other functions of the keys as with parameter 240		88	0	0	
551 in13	Selection of input function on socket B22/3 for input 13 0 = No function All other functions of the keys as with parameter 240		88	0	0	

7 Error Displays

On the control	On the V810	On the V820/V850	Signification
General Information			
A1	InF A1	InF A1	Pedal not in neutral position when turning the machine on
A2	-StoP- blinking	-StoP- blinking + symbol display	Machine run blockage
A3	InF A3	InF A3	Reference position is not set
A4	InF A4	InF A4	Emergency run (select via parameter)
A5	InF A5	InF A5	Emergency run
A6	InF A6	InF A6	Light barrier monitoring
A7	Symbol blinking	Symbol blinking	Bobbin thread monitor
A8	InF A8	InF A8	No stepping motor control connected
A9	InF A9	InF A9	No thread trimming mode available in parameter 290
A500	FileFI	File Full	Max. number of files (99) on Memory Stick exceeded
A501	noFile	noFile	File not found on Memory Stick
A503	not EQ	not EQ	Data on Memory Stick and in the control is not equal
Programming Functions and Values (Parameters)			
Returns to 0000 or to last parameter number		Like V810 + display InF F1	Wrong code or parameter number input
Serious Condition			
E1	InF E1	InF E1	The external pulse encoder e.g. IPG... is defective or not connected.
E2	InF E2	InF E2	Line voltage too low, or time between power Off and power On too short
E3	InF E3	InF E3	Machine blocked or does not reach the desired speed. Wrong motor selected (param. 467)
E4	InF E4	InF E4	Control disturbed by deficient grounding or loose contact
E7	InF E7	InF E7	24 V power supply overload
E8	InF E8	InF E8	Too much data for the EEPROM or flash memory
E9	InF E9	InF E9	EEPROM or flash memory defective.
E10	InF E10	InF E10	Short-circuit on output (output FL, VR, M1, M2, M3, M4 or M10)
E11	InF E11	InF E11	Thermal overload of output stage transistor
E12	InF E12: 003	InF E12: 003	Short-circuit on output M5
E12	InF E12: 004	InF E12: 004	Short-circuit on output M9
E12	InF E12: 005	InF E12: 005	Short-circuit on output M11

E12	InF E12: 006	InF E12: 006	Short-circuit on output M7
E12	InF E12: 008	InF E12: 008	Short-circuit on output M8
E12	InF E12: 009	InF E12: 009	Short-circuit on output M6
Programming and Data Transfer			
F1	InF F1	InF F1	Parameter unavaliabile; wrong code number
F3	InF F3	InF F3	Wrong thread trimming mode selected in Teach In
F4	InF F4	InF F4	Invalid slide-in strip selected in Teach In
F5	InF F5	InF F5	Teach In, wrong program number when switching from one program to the next
F6	InF F6	InF F6	Teach In, too much data in EEPROM
F7	InF F7	InF F7	RS232 timeout
F8	InF F8	InF F8	RS232, error in data transfer, NAK received
Hardware Disturbance			
H1	InF H1	InF H1	Commutation transmitter cord or frequency converter disturbed
H2	InF H2	InF H2	Processor disturbed
Free Programming			
U1	InF U1	InF U1	Compiler, invalid code, unknown command
U2	InF U2	InF U2	Invalid system function
U3	InF U3	InF U3	Invalid input/output number
U4	InF U4	InF U4	Too many user variables
U5	InF U5	InF U5	Too many system variables
U6	InF U6	InF U6	User program too large for memory
U7	InF U7	InF U7	Invalid or undefined key in Variocontrol
U8	InF U8	InF U8	Unknown device address
U9	InF U9	InF U9	Fatal exception error



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