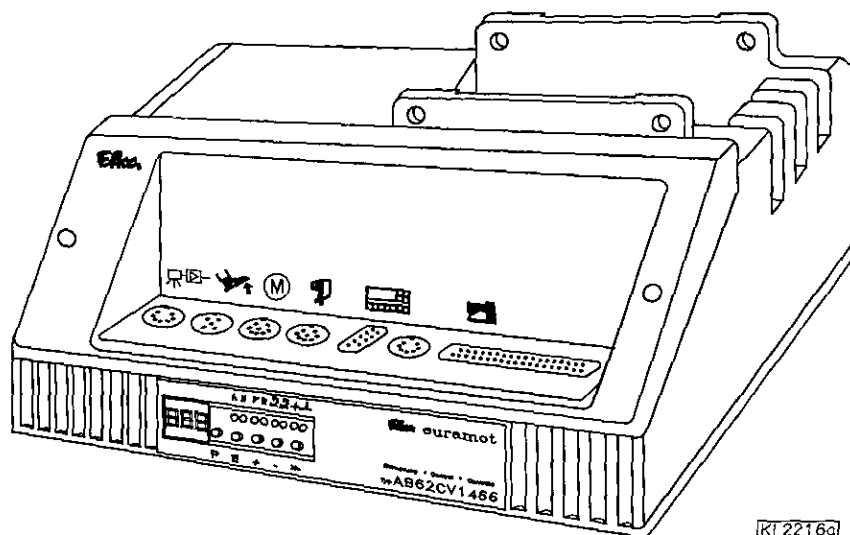


efka euramot

CONTROL

AB62CV1466



LIST OF PARAMETERS

CONNECTION DIAGRAM

TIMING DIAGRAMS

No. 402251

English

efka
FRANKL & KIRCHNER
GMBH & CO KG

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EFKA OF AMERICA INC.

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EFKA ELECTRONIC MOTORS
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1 Table of 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

Mode	Designation	Adapter	Outputs							
	Power transistors →		FL ST2/35	VR ST2/34	M1 ST2/37	M2 ST2/28	M3 ST2/27	M4 ST2/36	M5 ST2/32	M6 ST2/30
0	Lockstitch; e. g. Brother (737-113, 737-913) Aisin (AD3XX, AD158, 3310; EK1) Pfaff (563, 953, 1050, 1180) Dürkopp Adler (210, 270)	Functions 1112814 1112815 1112841 1112845	FL FL FL FL	VR VR VR VR	FA1 FA1 + FA1 FA1 +	FA2 FA2 FA2 FA2	FW FW FW FW	FA1+2	ML	MST
1	Lockstitch; e. g. Singer (591, 211U, 212U)	Functions 1112824	FL FL	VR VR		FA FA	FW FW	FL1 FL1	ML	MST
2	Lockstitch; e. g. Singer (212 UTT)	Functions 1112824	FL FL	VR VR		FA FA	FSPL FSPL	FL1 FL1	ML	MST
3	Lockstitch; e. g. Dürkopp Adler (467)		FL	VR	FA	FSPL	FW		ML	MST
4	Chainstitch; e. g. Union Special (34000 and 36200 replacement for US80A)	Functions 1112865	FL FL	FA-R FA-R	M1	FA-V FA-V	FW FW	STV	ML ML	
5	(CS100 and FS100) Chainstitch; parallel sequence Yamato (VC series) Yamato (VG series) Kansai (RX 9803) Pegasus (W500/UT, W600/UT/MS with or without stitch condensing) Brother (FD3-B257) Union Special (34700) Global (CB2803-56) Rimoldi (F27)	Functions 1112905 1112818 1113178 1113130 1112821 1112822 1112844 1112866 1113096	FL FL FL FL FL FL FL FL FL	FA-R STV STV STV STV STV STV STV STV	M1 M1 FA FA FA FA FA FA FA FA FA	FA-V M2 M2 FA FA FA FA FA FA FA FA FA	FW M3 FW FW FW FW FW FW FW FW FW FW FW	M4	ML ML ML ML ML ML ML ML ML ML ML ML ML ML	MST
6	Chainstitch; tape cutter/fast scissors		FL	STV	M1	M2	FAO	AHI	AH2	MST
7	Overlock		FL	KS	M1	M2	AH	FSPL	ML	MST
8	Backlatch Pegasus	Functions 1113234	FL		PD<1 PD<1	PD≥1 PD≥1	PD≥1*		ML	MST
9	Backlatch Yamato (ABT3) Yamato (ABT13, ABT17)	Functions 1112826 1113205	FL		PD<1 PD<1 PD<1	PD≥1 PD≥1 PD≥1	PD≥1*		ML	MST
10	Lockstitch; e. g. Union Special (63900AMZ replacement for US80A) and on Refrey lockstitch machines	Functions 1112823	FL FL	FA-R FA-R	FSPL	FA-V FA-V	FW FW	VR	ML ML	MST
13	Lockstitch; Pfaff (1425)	1113072	FL	VR	FA	FSPL	FW	L-STL	ML	HP/FF
14	Lockstitch; e. g. Juki (5550-6) Juki (5550-7)	Functions 1112816 1113132	FL FL FL	VR VR VR	FA FA1+2 FA1+2 FA1+2	FSPL FA2 FA2 FZ	FW FW FW FW	FA1	ML ML ML	MST
16	Overlock; feed-off-the-arm machine e.g. Yamato (FD62)		FL	KS	RB	M2	AH	FSPL	ML	MST
17	Chainstitch; Pegasus		FL	LFA		FA	STS		ML	
19	Lockstitch; Macofrey		FL	FA-R	FSPL	FA-V	FW	VR	ML	MST
20	Lockstitch; Juki (LU1510-7)	1113200	FL	VR	FA	FSPL			ML	MST
21	Chainstitch; Yamato (stitch lock)	1113178	FL	STS	FA	STV	FW		ML	
22	Lockstitch; Brother (B-891)		FL	VR	FA	FSPL	FW	L-STL	ML	MST

*) The signal issued at this output is inverted!

Explanation of letter symbols of the previous page and chapter "Timing Diagrams"

Outputs:

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

2 Putting into Service

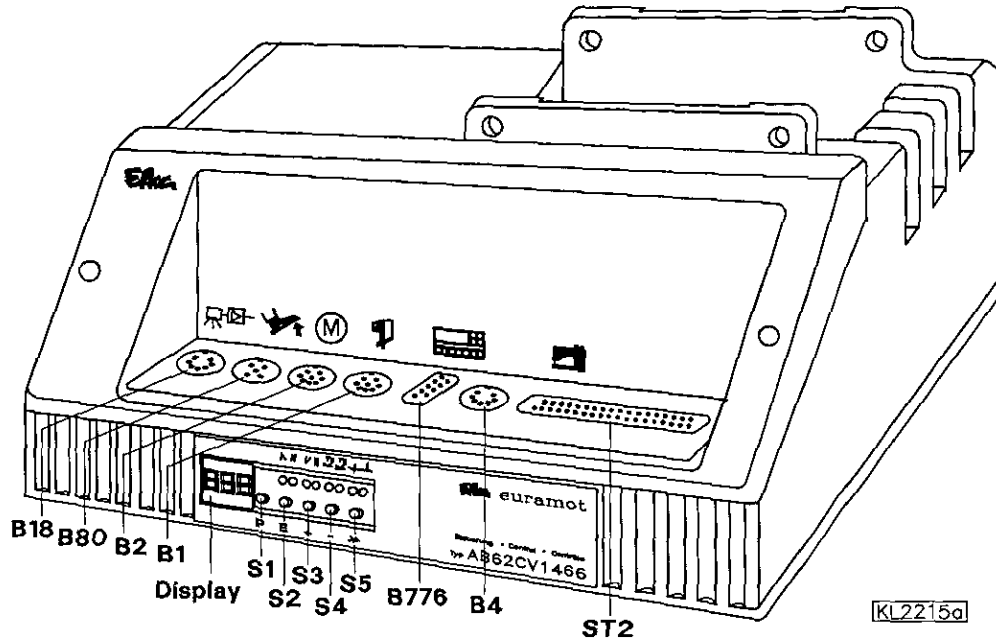
Before putting the control into service, the following must be ensured, checked and/or adjusted:

- The correct installation of the drive, position transmitter and accompanying devices, if necessary
- The correct selection of the trimming operation by means of parameter 290
- If necessary, the correct adjustment of the direction of motor rotation by means of parameter 161
- The correct selection of the functions of the keys (inputs) by means of parameters 240...249
- The correct positioning speed by means of parameter 110
- The correct maximum speed compatible with the sewing machine by means of parameter 111
- The setting of the positions
- The setting of the remaining relevant parameters
- Start sewing in order to save the set values

See instruction manual for details!

3 Operating Elements and Connectors

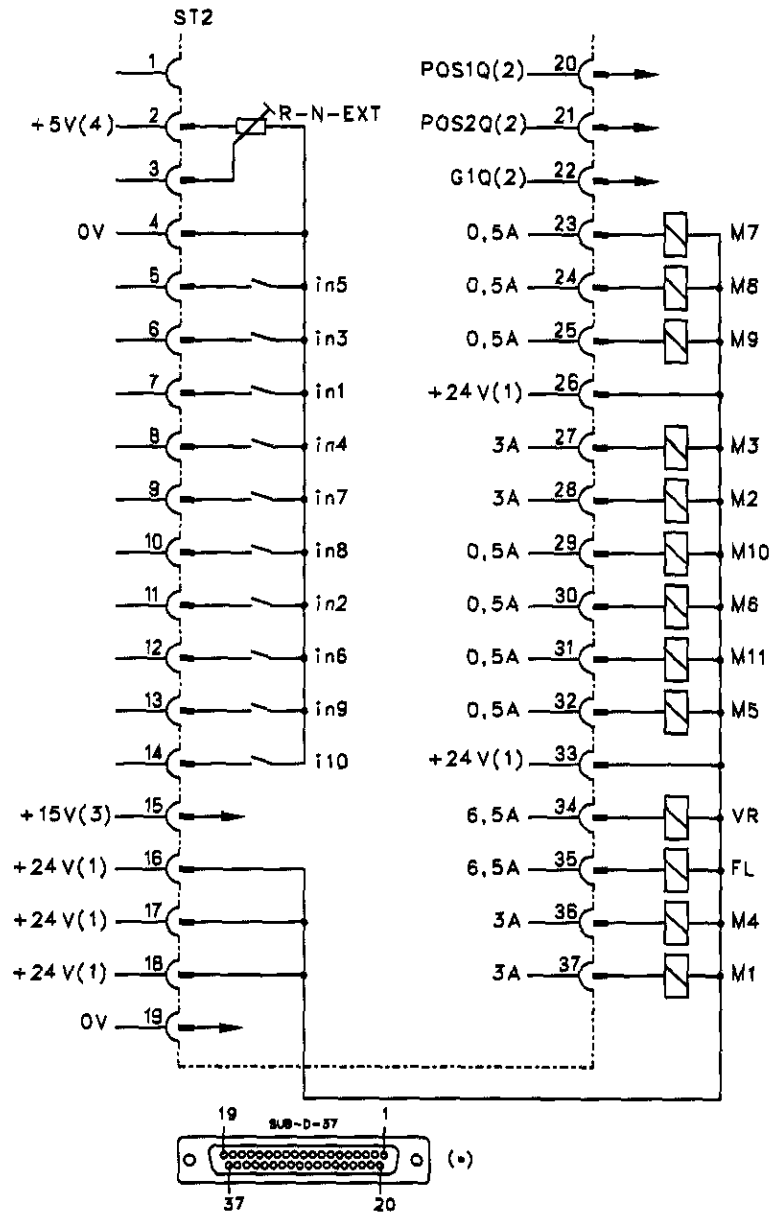
3.1 Position of the Operating Elements, Displays and Connectors



S1 P key	Call or exit of programming mode
S2 E key	Start backtack single / double / off
	Enter key for modifications in the programming mode
S3 + key	End backtack single / double / off
	Increase of the value indicated in the programming mode
S4 - key	Automatic sewing foot lift at stop in the seam On/Off
	Automatic sewing foot lift after trimming On/Off
S5 >> key	Decrease of the value indicated in the programming mode
	Basic position 1 or 2
	Shift key in the programming mode
Display	3 digits
B1	Connection of position transmitter
B2	Connection of commutation transmitter for d.c. motor
B4	Inputs for keys
B18	Connection of light barrier module
B80	Connection of actuator
B776	Connection of Varlocontrol V810/V820 control panel
ST2	Inputs and outputs for solenoids, solenoid valves, displays, keys and switches

3.2 Connection Diagram

Inputs switched to 0V

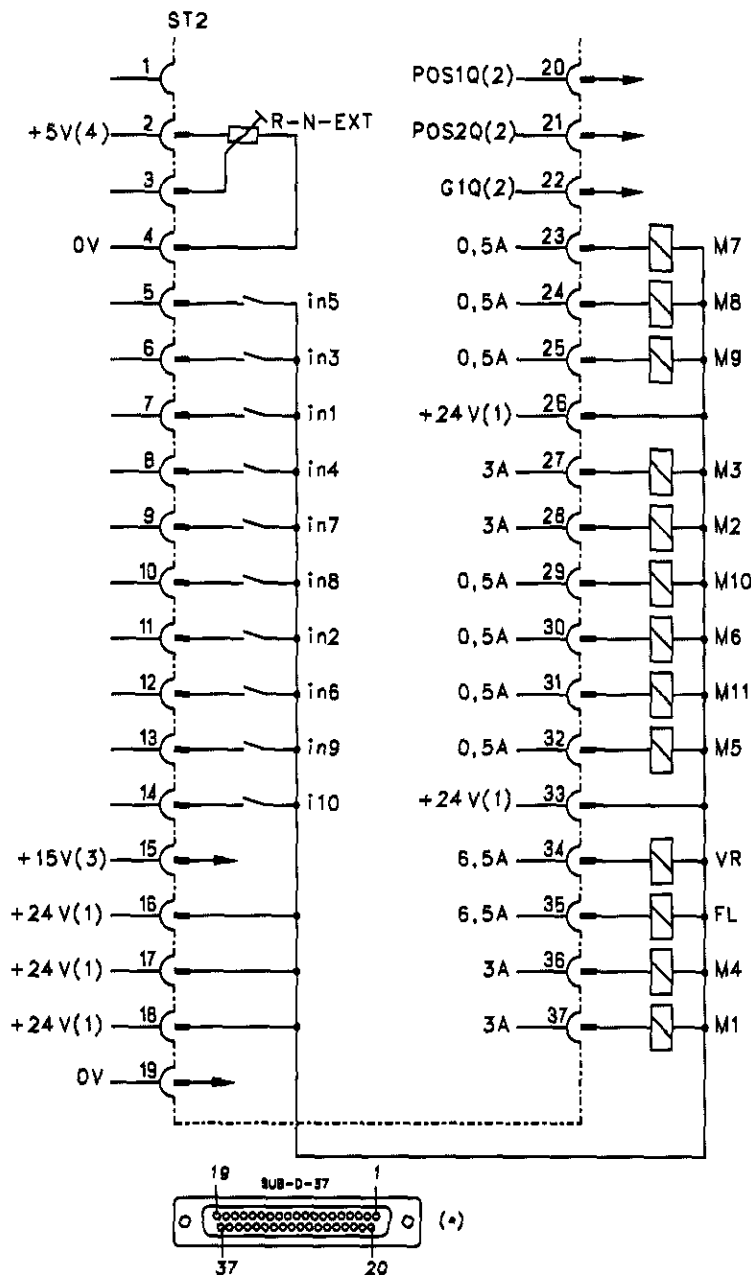


ATTENTION!

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

in1	- Input 1	i10	- Input 10	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	- Generator impulses
in9	- Input 9	M8	- Output 8	R-N-EXT	- External potentiometer for speed limitation (50kΩ)

Inputs switched to +24V



811164



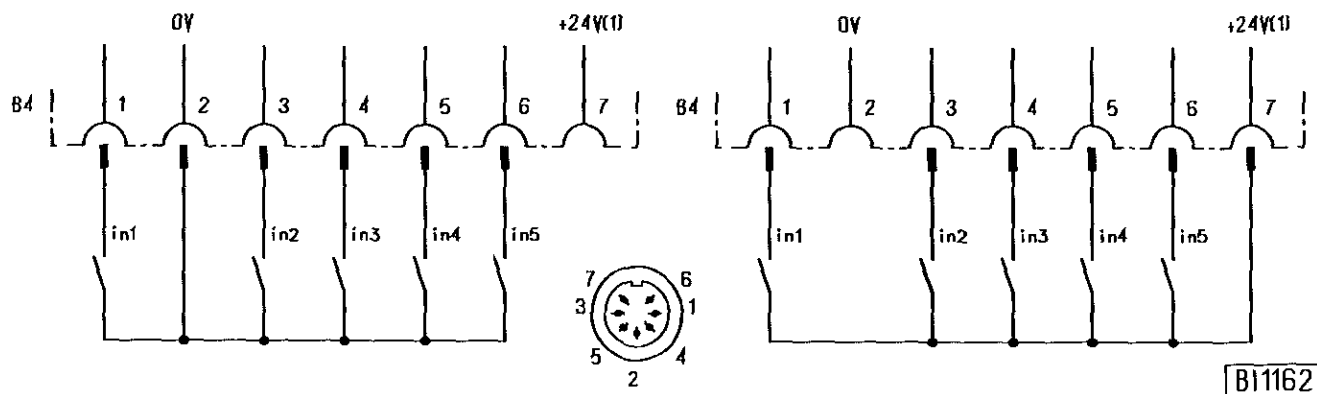
ATTENTION!

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. 36V
- 2) Transistor output with open collector max. 40V, 10mA
- 3) Nominal voltage 15V, $I_{max} = 30mA$
- 4) Nominal voltage 5V, $I_{max} = 20mA$
- *) Front view of the socket (component side) and/or rear view of the plug (soldering side)

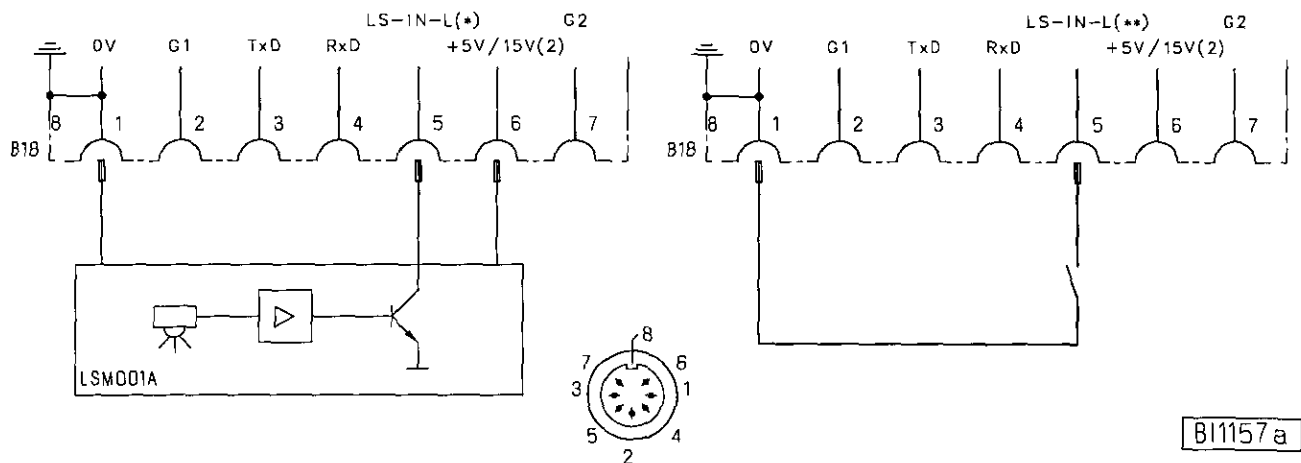
**ATTENTION!**

Difference from the AB62CV1463 control; Input in6 removed from socket B4/7.
Supply voltage +24V connected.

Inputs switched to 0V**Inputs switched to +24V**

in1 - Input 1
in2 - Input 2
in3 - Input 3
in4 - Input 4
in5 - Input 5

The functions of the keys can be selected for all inputs in1...i10 of the sockets ST2 and B4 by means of parameters 240...249.



LSM001A - Reflection light barrier module

* - Parameter 239 = 0



The light barrier function has been selected.
(Identified when switched to 0V)

** - Parameter 239 = 1...36



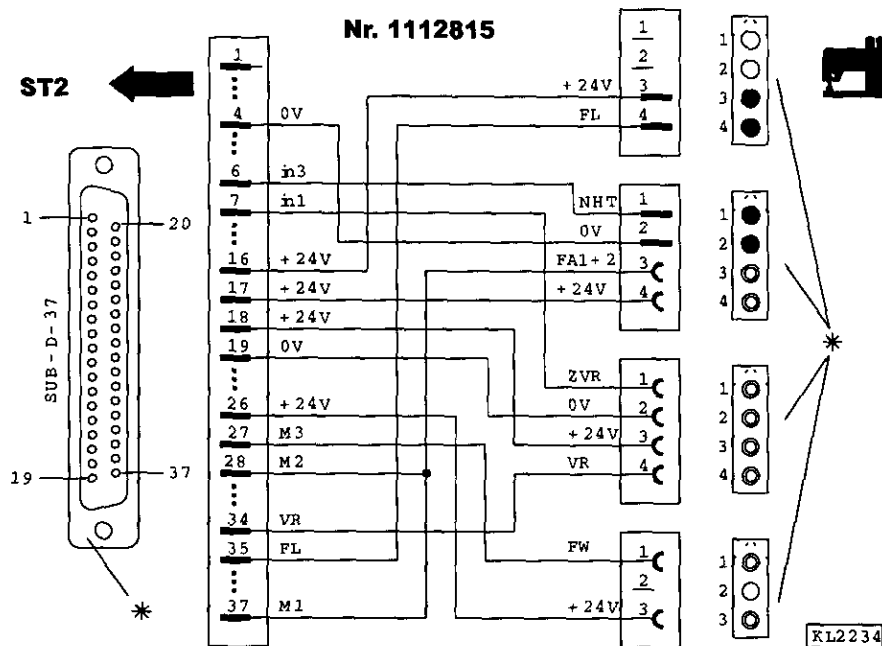
Various input functions are possible on socket B18/5

- 1) Nominal voltage +24V, no-load voltage max. 36V
- 2) Nominal voltage +5V, 100mA (repluggable to +15V, 100mA)

3.3 Adapter Cords

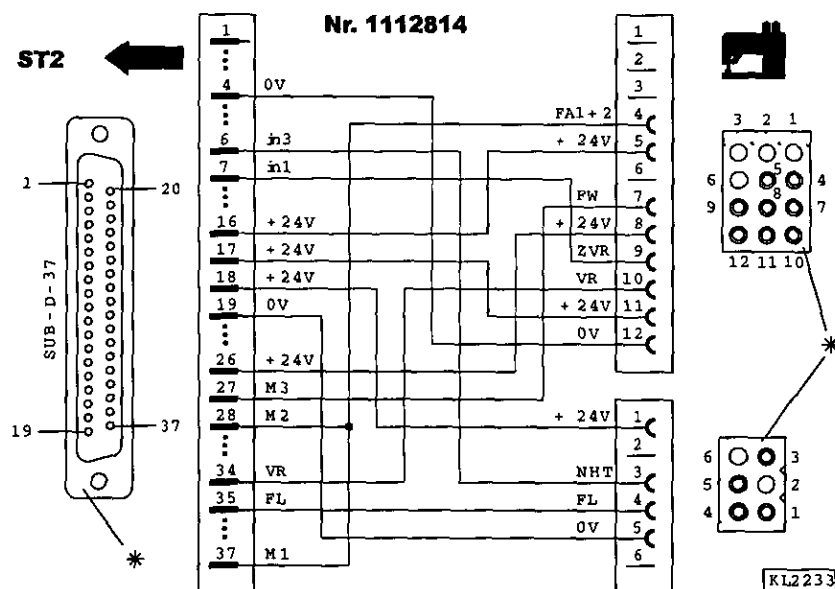
Adapter cord for AISIN models AD3XX, AD158, 3310 and EK1

Setting the functional sequence	Thread trimming mode	→	Set parameter 290 = 0
Setting the functions of the keys	Input in1	→	Set parameter 240 = 16
	Input in3	→	Set parameter 242 = 1



Adapter cord for BROTHER models 737-113 and 737-913

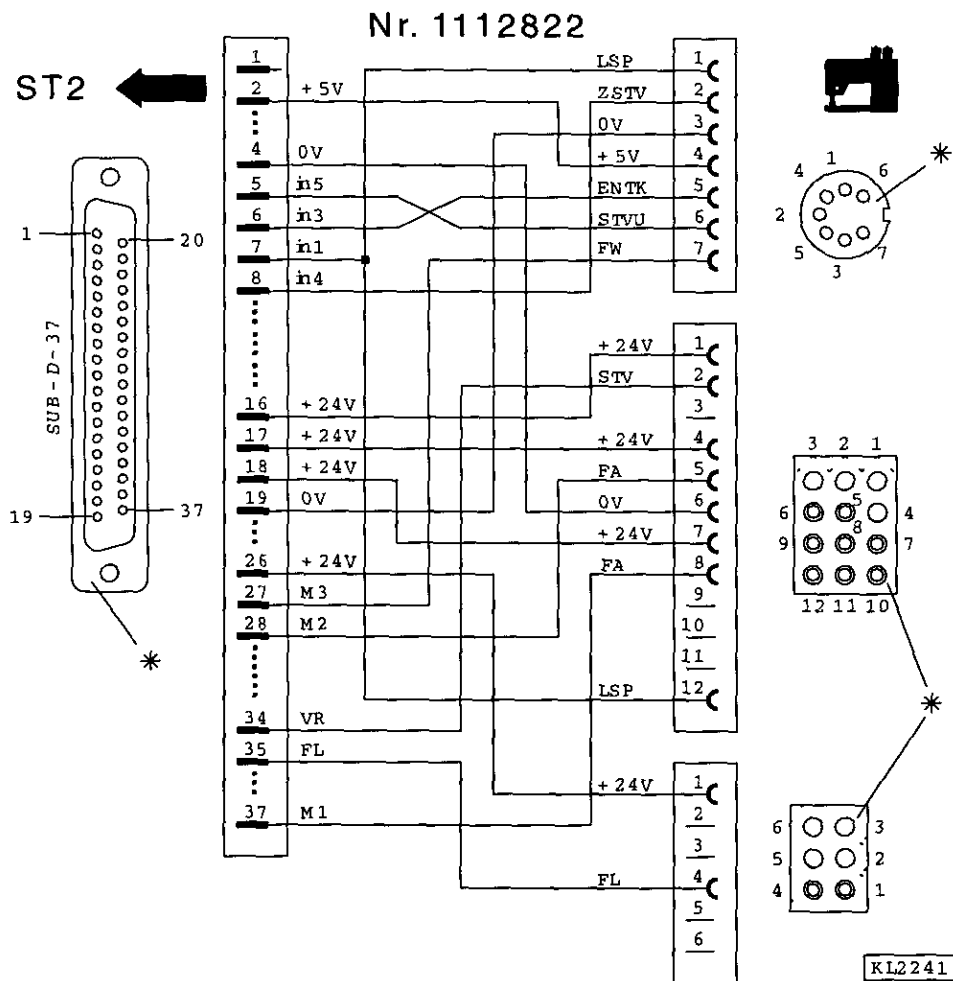
Setting the functional sequence	Thread trimming mode	→	Set parameter 290 = 0
Setting the functions of the keys	Input in1	→	Set parameter 240 = 16
	Input in3	→	Set parameter 242 = 1



*) Rear view (soldering side) of 37-pin plug (ST2). Front view (component side) of the remaining plugs/sockets.

Adapter cord for BROTHER model FD3 B257

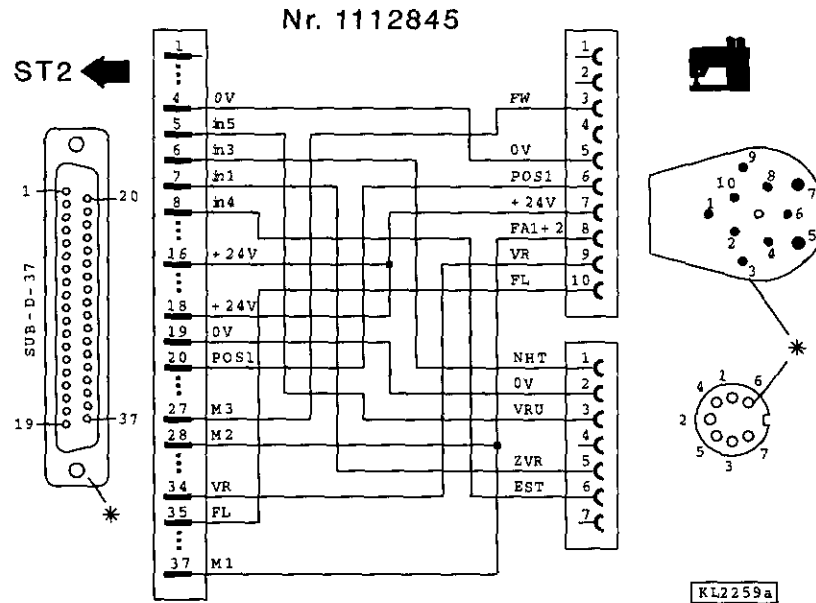
Setting the functional sequence	Thread trimming mode	→	Set parameter 290	= 5
Setting the functions of the keys	Input in1	→	Set parameter 240	= 7
	Input in3	→	Set parameter 242	= 18
	Input in4	→	Set parameter 243	= 16
	Input in5	→	Set parameter 244	= 17



*) Rear view (soldering side) of 37-pin plug (ST2). Front view (component side) of the remaining plugs/sockets.

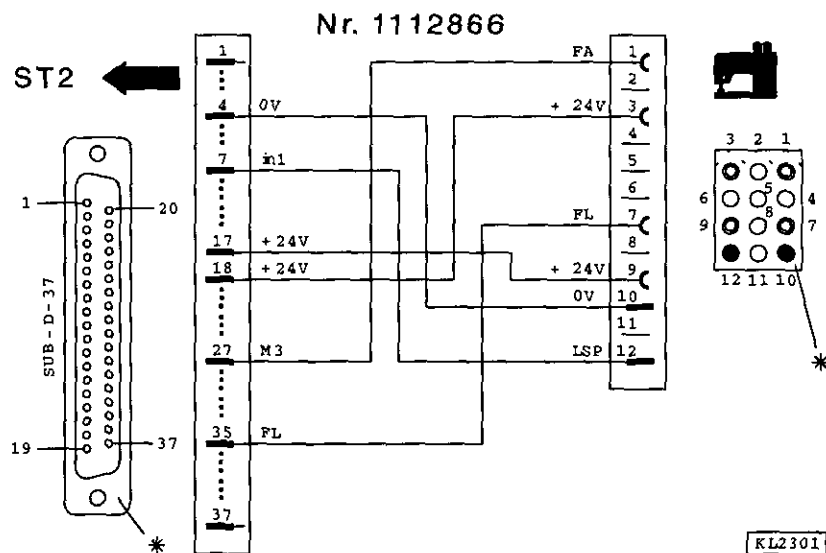
Adapter cord for DÜRKOPP ADLER models 210, 270

Setting the functional sequence	Thread trimming mode	→	Set parameter 290	= 0
Setting the functions of the keys	Input in1	→	Set parameter 240	= 16
	Input in3	→	Set parameter 242	= 1
	Input in4	→	Set parameter 243	= 3
	Input in5	→	Set parameter 244	= 17



Adapter cord for GLOBAL model CB2803-56

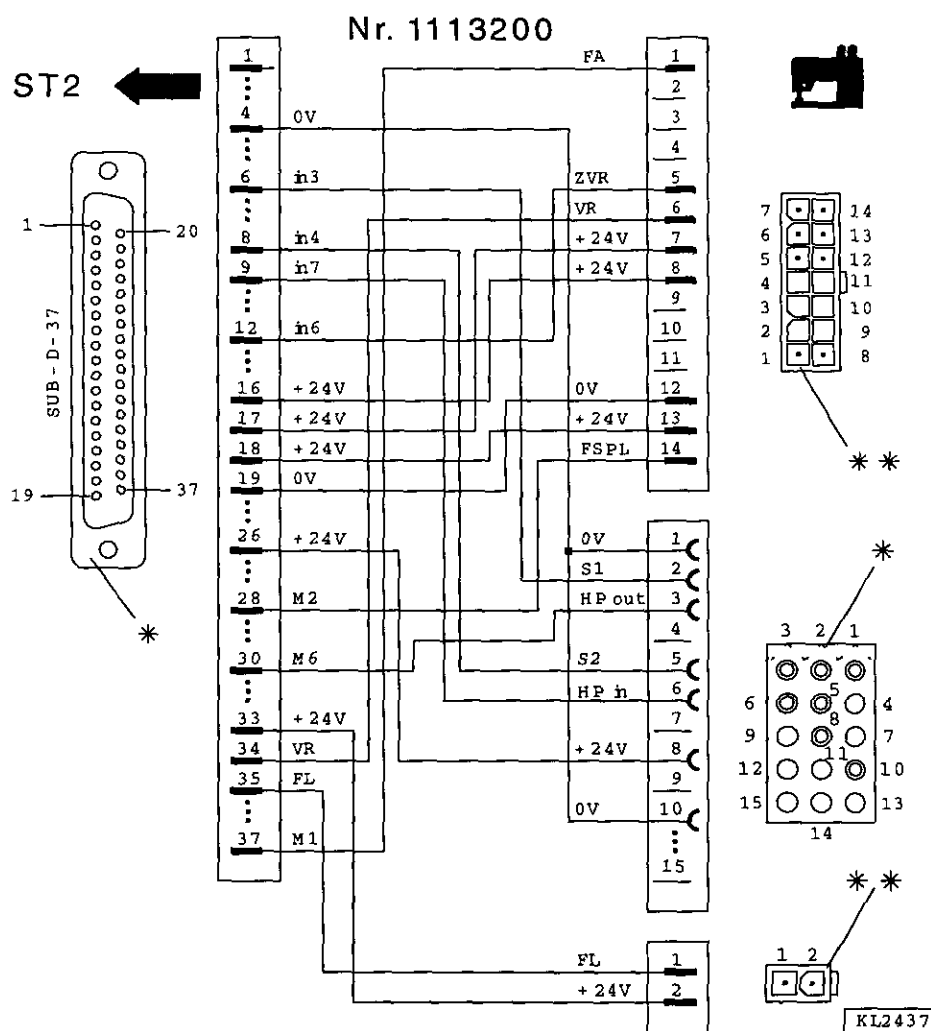
Setting the functional sequence	Thread trimming mode	→	Set parameter 290	= 5
Setting the functions of the keys	Input in1	→	Set parameter 240	= 6



*) Rear view (soldering side) of 37-pin plug (ST2). Front view (component side) of the remaining plugs/sockets.

Adapter cord for JUKI model LU1510-7

Setting the functional sequence	Thread trimming mode	→	Set parameter 290	= 20
Setting the functions of the keys	Input in1	→	Set parameter 240	= 13
(Automatic setting)	Input in3	→	Set parameter 242	= 31
	Input in4	→	Set parameter 243	= 32
	Input in6	→	Set parameter 245	= 16
	Input in7	→	Set parameter 246	= 13



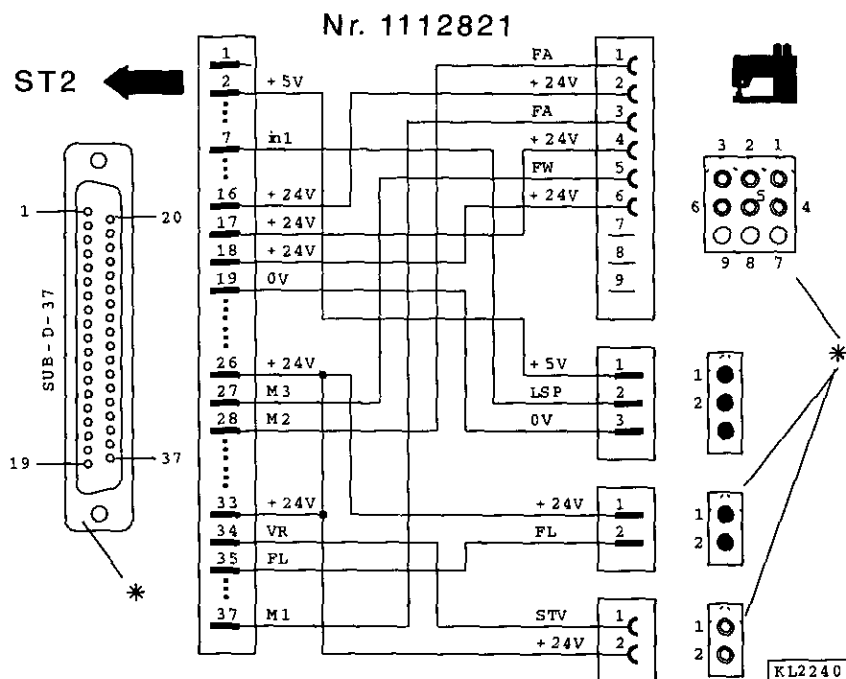
- in1** = Input **high lift for walking foot with speed limitation n10** (operational mode not stored) for knee switch
- in3** = Input **speed limitation bit 0** (S1)
- in4** = Input **speed limitation bit 1** (S2)
- in6** = Input **intermediate backtack**
- in7** = Input **high lift for walking foot with speed limitation n10** (operational mode not stored) for additional pushbutton at the machine head

*) Rear view (soldering side) of 37-pin plug (ST2). Front view (component side) of the remaining plugs/sockets.

**) Front view (component side) of the Molex Minifit plugs.

Adapter cord for PEGASUS models W500/UT, W600/UT/MS with or without stitch condensing

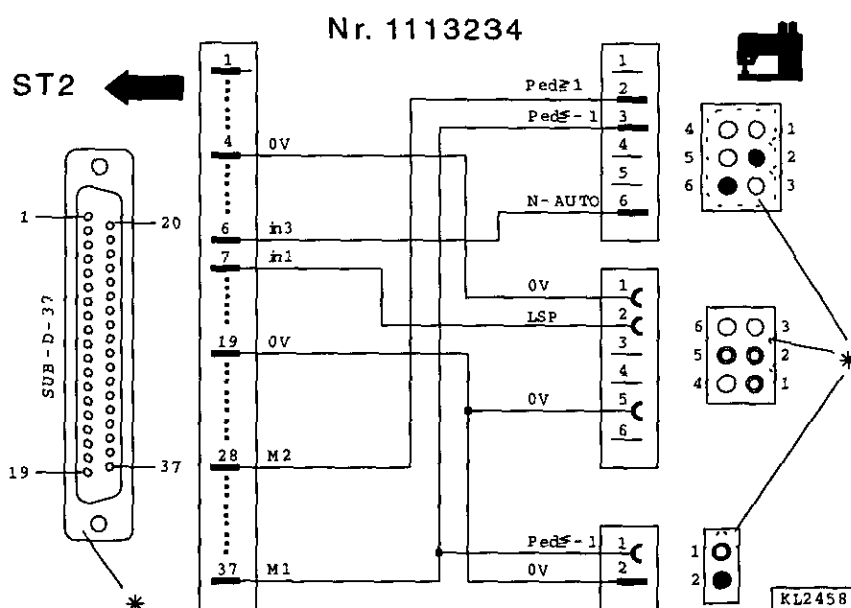
Setting the functional sequence	Thread trimming mode	➔	Set parameter 290 = 5
Setting the functions of the keys	Input in1	➔	Set parameter 240 = 7



Attention! When using this adapter cord on a Pegasus machine, the 9-core cable no. 742373-91 must be removed from the machine!

Adapter cord for PEGASUS backlatch machines

Setting the functional sequence	Thread trimming mode	➔	Set parameter 290 = 8
Setting the functions of the keys	Input in1	➔	Set parameter 240 = 6
(Automatic setting)	Input in3	➔	Set parameter 242 = 10



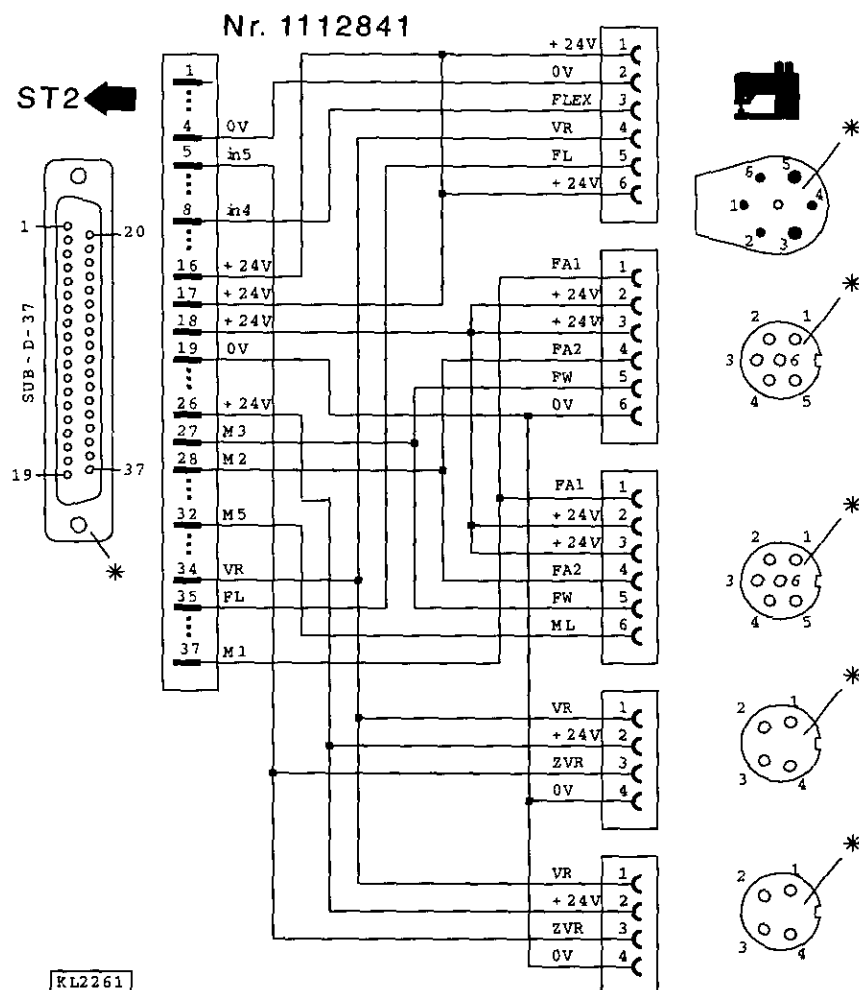
*) Rear view (soldering side) of 37-pin plug (ST2). Front view (component side) of the remaining plugs/sockets.

Adapter cord for PFAFF models 563, 953, 1050, 1180 without thread monitor

Setting the functional sequence
Setting the functions of the keys

Thread trimming mode
Input in4
Input in5

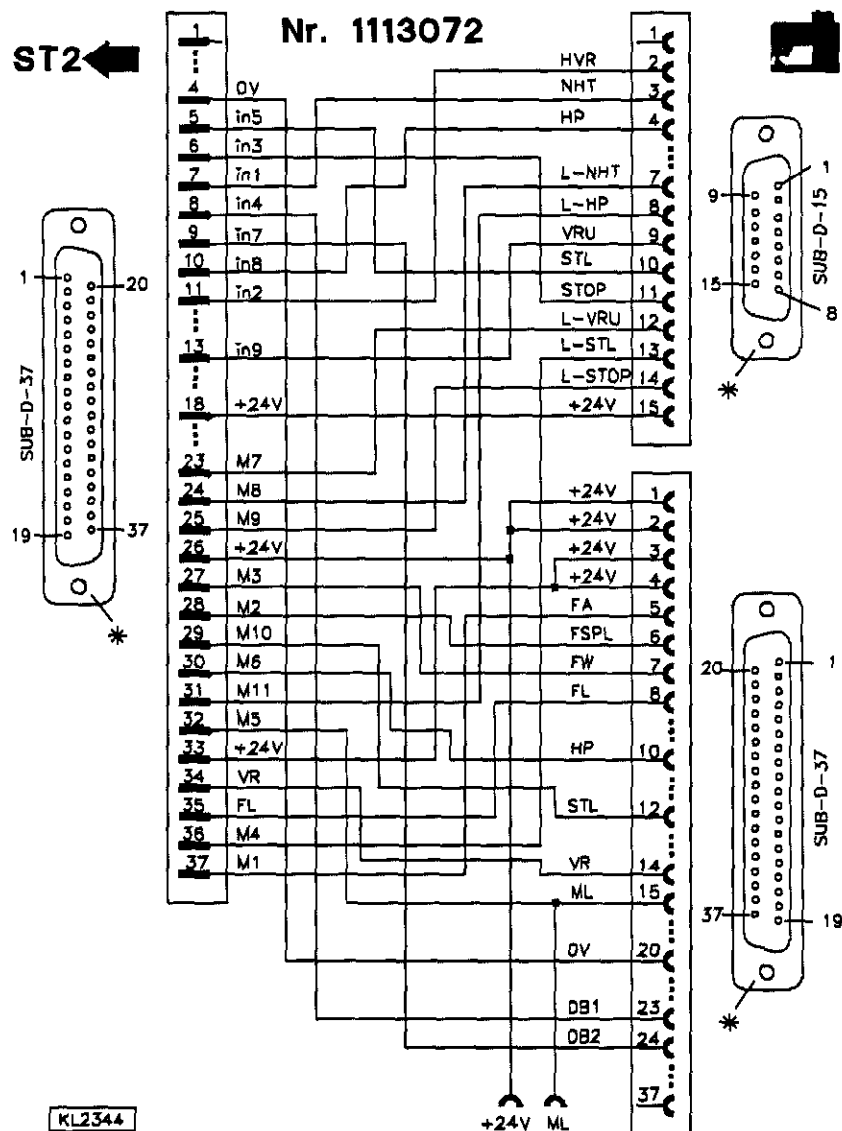
→ Set parameter 290 = 0
→ Set parameter 243 = 12
→ Set parameter 244 = 16



*) Rear view (soldering side) of 37-pin plug (ST2) and of the remaining sockets.

Adapter cord for PFAFF model 1425

Setting the functional sequence	Thread trimming mode	→	Set parameter 290	= 13
Setting the functions of the keys	Input in1	→	Set parameter 240	= 2
(Automatic setting)	Input in2	→	Set parameter 241	= 16
	Input in3	→	Set parameter 242	= 24
	Input in4	→	Set parameter 243	= 11
	Input in5	→	Set parameter 244	= 22
	Input in7	→	Set parameter 246	= 23
	Input in8	→	Set parameter 247	= 14
	Input in9	→	Set parameter 248	= 17



in1 = Input needle up

in2 = Input intermediate backtack

in3 = Input needle moves from position 1 to position 2

in4 = Input speed limitation n12 with pedal (DB1 = speed limitation 1)

in5 = Input flip-flop for speed limitation n11

in7 = Input speed limitation n9 (DB2 = speed limitation 2)

in8 = Input high lift for walking foot with speed limitation n10 (operational mode stored)

in9 = Input stitch regulator suppression/recall

*) Rear view (soldering side) of 37-pin plug (ST2) and of the remaining sockets.

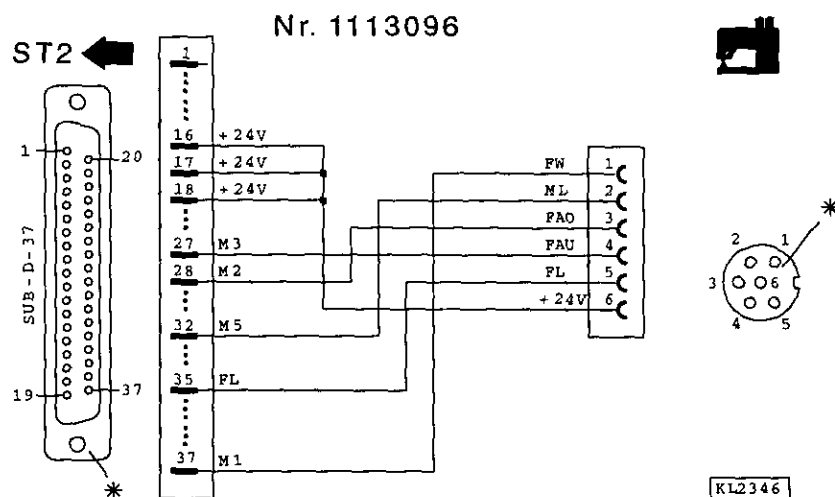
Adapter cord for RIMOLDI model F27

Setting the functional sequence

Thread trimming mode



Set parameter 290 = 5



Adapter cord for SINGER models 211, 212 and 591

Setting the functional sequence
(Singer model 212UTT)

Thread trimming mode



Set parameter 290 = 2

Setting the functions of the keys

Input in1

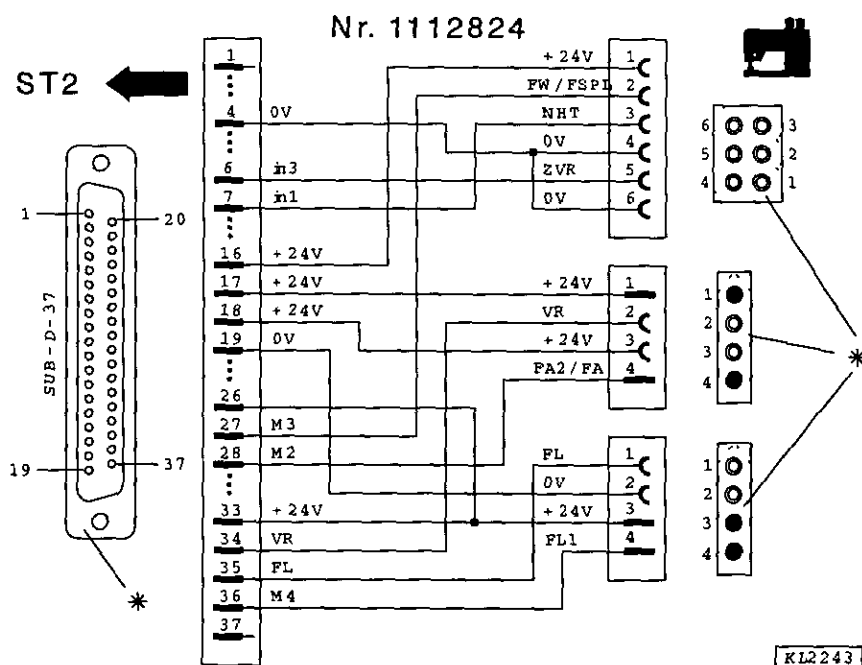


Set parameter 240 = 1

Input in3



Set parameter 242 = 16

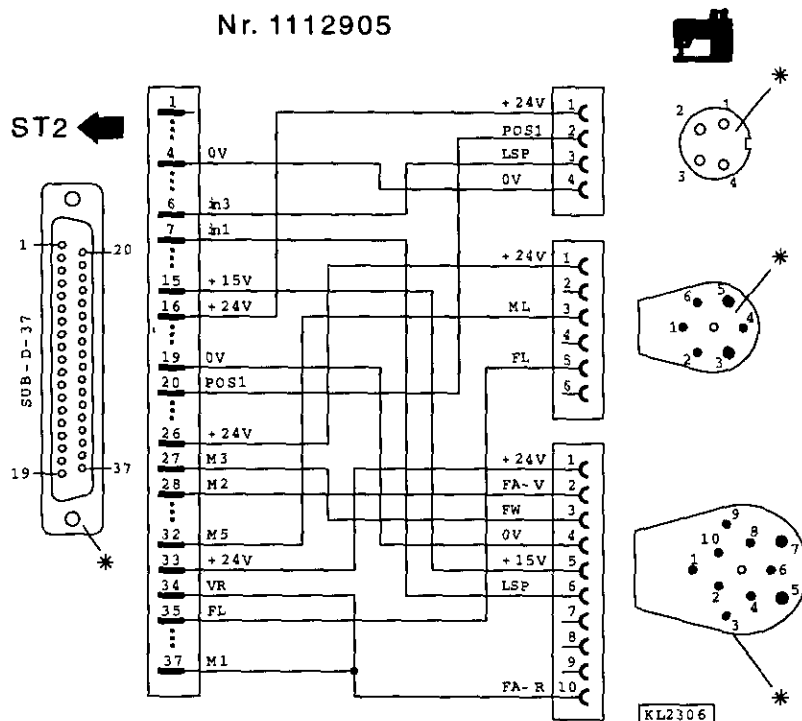


*) Rear view (soldering side) of 37-pin plug (ST2). Front view (component side) of the remaining plugs/sockets.

Adapter cord for UNION SPECIAL models CS100 and FS100

Setting the functional sequence	Thread trimming mode	→	Set parameter 290	= 4
Setting the functions of the keys	Input in1	→	Set parameter 240	= 6
	Input in3	→	Set parameter 242	= 6

Nr. 1112905



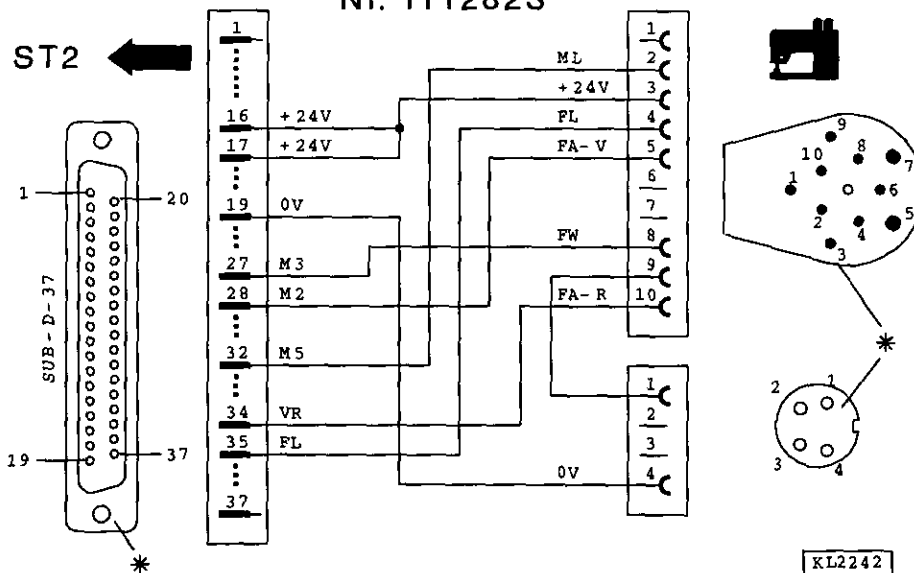
in1 = Input machine run blockage for thread trimming control proximity switch

in3 = Input machine run blockage for thread monitor

Adapter cord for UNION SPECIAL model 63900AMZ

Setting the functional sequence	Thread trimming mode	→	Set parameter 290	= 10
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Nr. 1112823



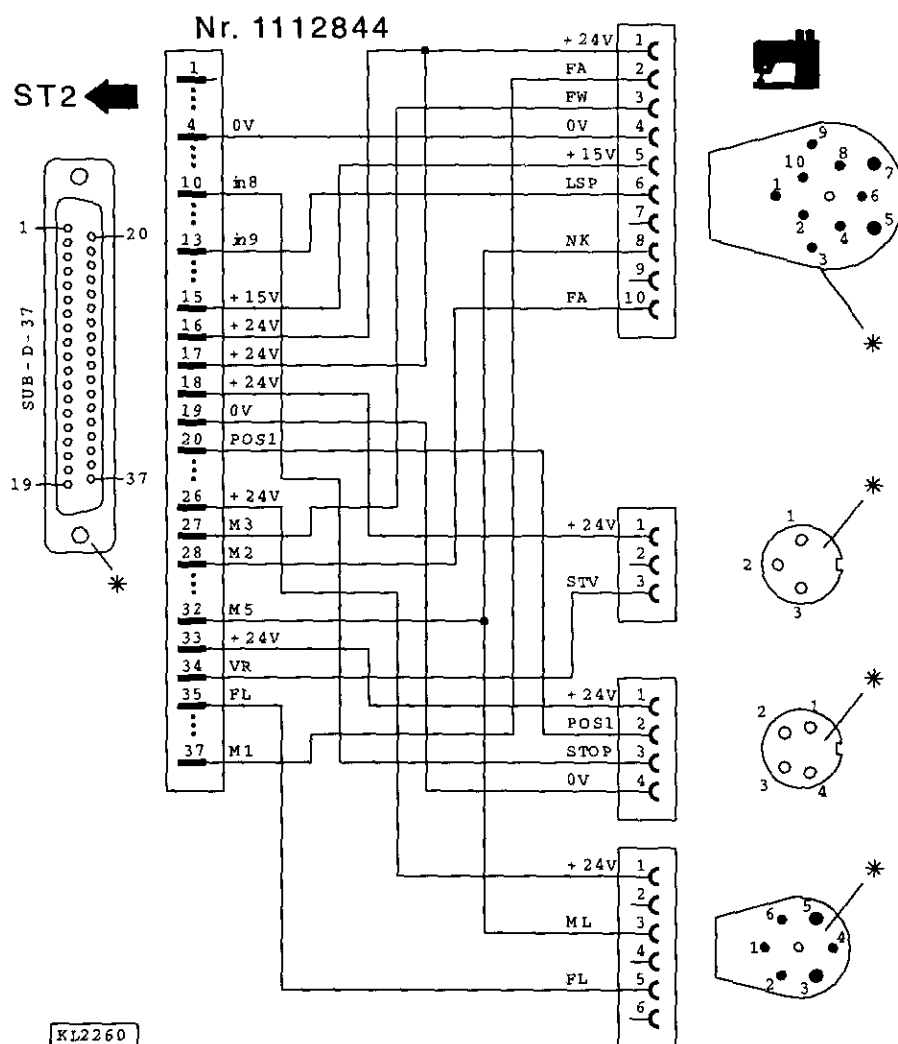
*) Rear view (soldering side) of 37-pin plug (ST2) and of the remaining sockets.

Adapter cord for UNION SPECIAL model 34700 with stitch lock

Setting the functional sequence
Setting the functions of the keys

Thread trimming mode
Input in8
Input in9

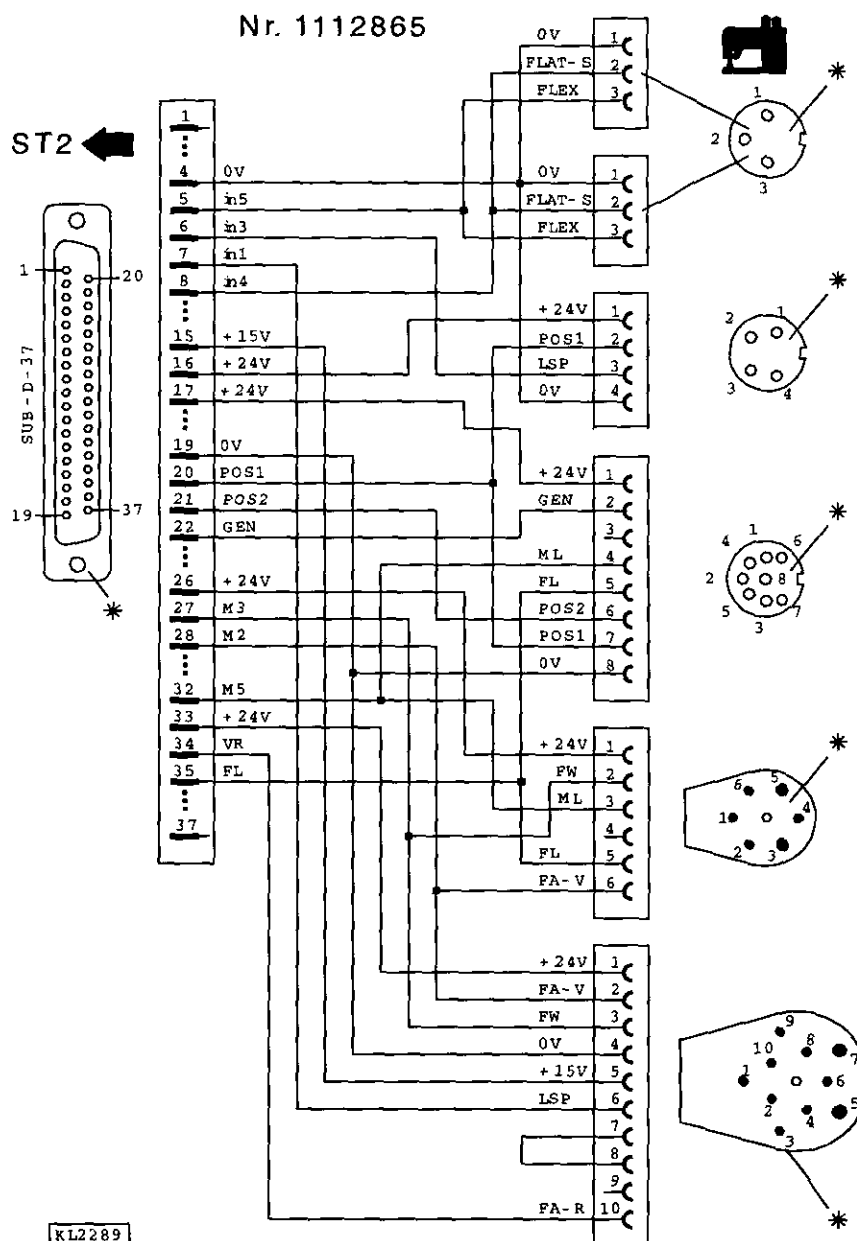
→ Set parameter 290 = 5
→ Set parameter 247 = 7
→ Set parameter 248 = 6



*) Rear view (soldering side) of 37-pin plug (ST2) and of the remaining sockets.

Adapter cord for UNION SPECIAL models 34000 and 36200

Setting the functional sequence	Thread trimming mode	→	Set parameter 290	= 4
Setting the functions of the keys	Input in1	→	Set parameter 240	= 6
	Input in3	→	Set parameter 242	= 6
	Input in4	→	Set parameter 243	= 18
	Input in5	→	Set parameter 244	= 12



in1 = Input **machine run blockage** for thread trimming control proximity switch

in3 = Input **machine run blockage** for thread monitor

in4 = Input **unlocking the chain** corresponds to function **flatseamer (FLAT-S)**

*) Rear view (soldering side) of 37-pin plug (ST2) and of the remaining sockets.

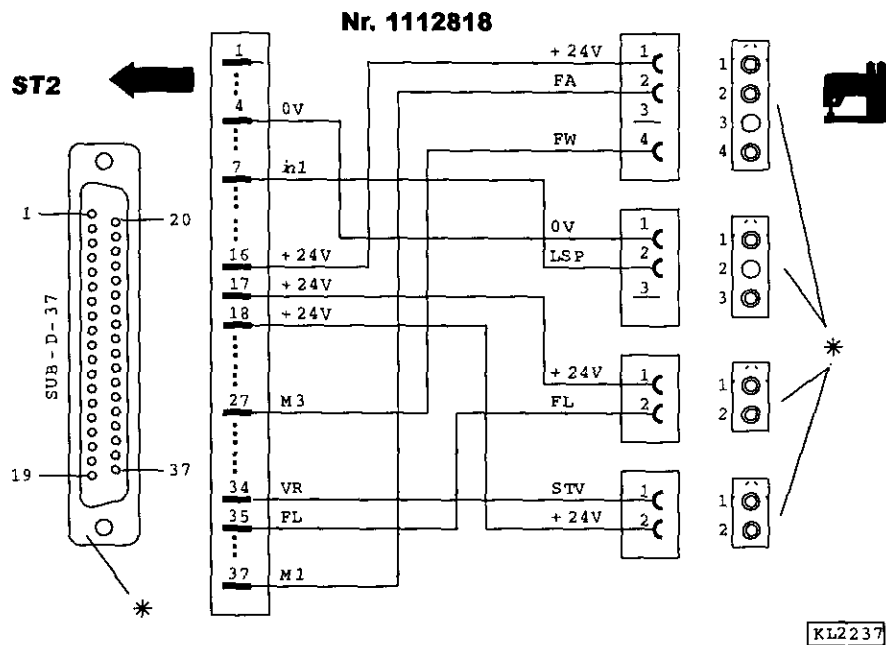
Adapter cord for YAMATO chainstitch machines VC series

Setting the functional sequence
Setting the functions of the keys

Thread trimming mode
Input in1



Set parameter 290 = 5
Set parameter 240 = 7



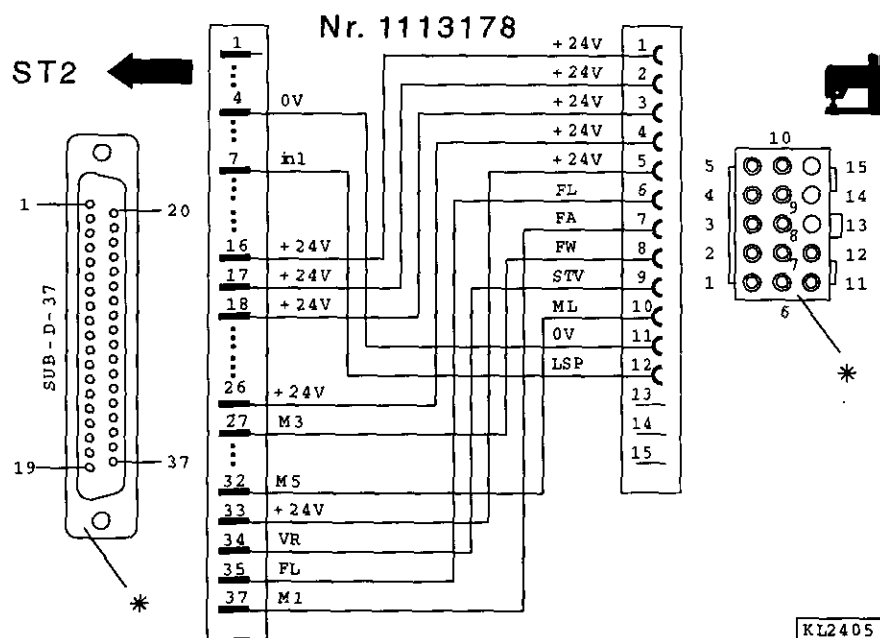
Adapter cord for YAMATO chainstitch machines VG series

Setting the functional sequence
Setting the functions of the keys

Thread trimming mode
Input in1



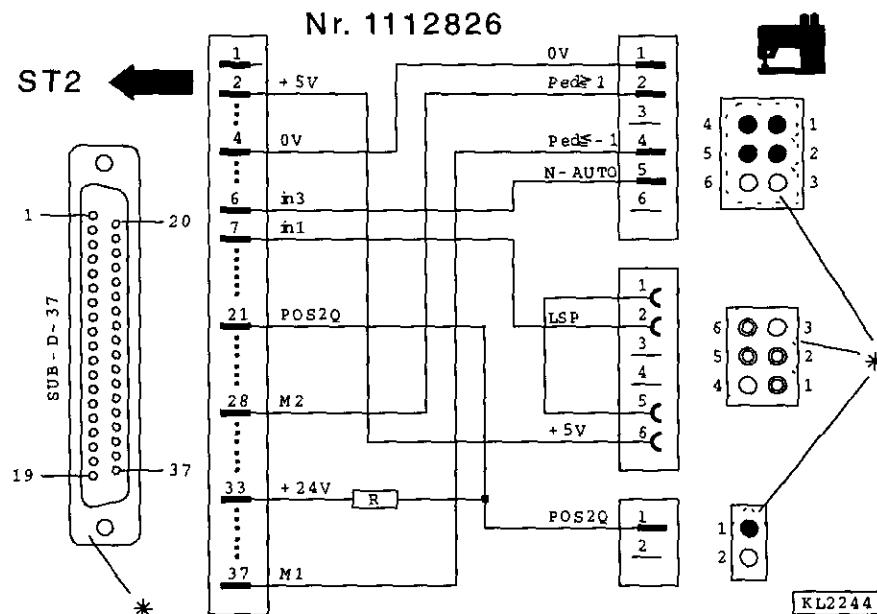
Set parameter 290 = 5/21
Set parameter 240 = 7



*) Rear view (soldering side) of 37-pin plug (ST2). Front view (component side) of the remaining plugs/sockets.

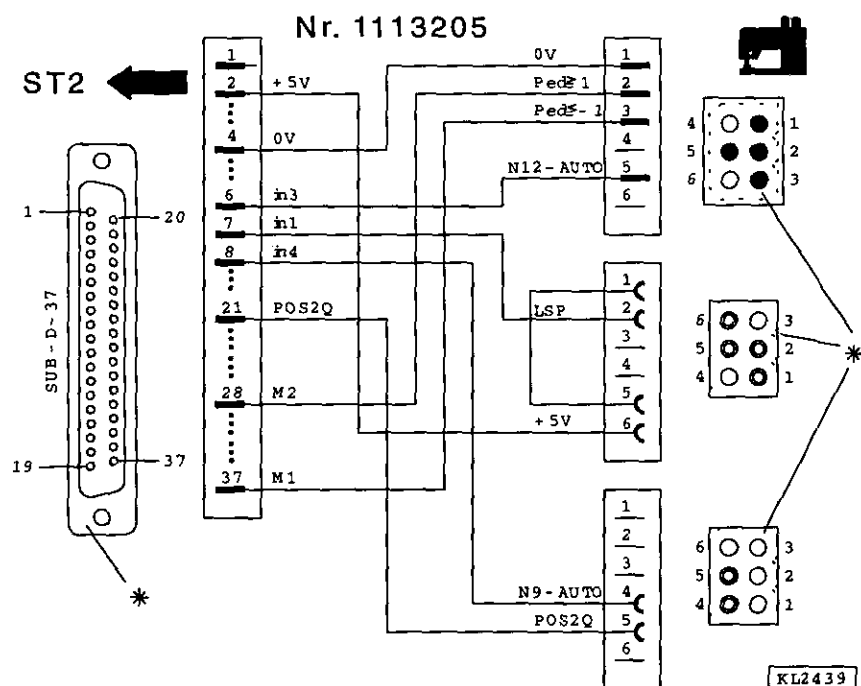
Adapter cord for YAMATO backlatch machine model ABT3

Setting the functional sequence	Thread trimming mode	→	Set parameter 290	= 9
Setting the functions of the keys	Input in1	→	Set parameter 240	= 6
(Automatic setting)	Input in3	→	Set parameter 242	= 10



Adapter cord for YAMATO backlatch machine models ABT13 and ABT17

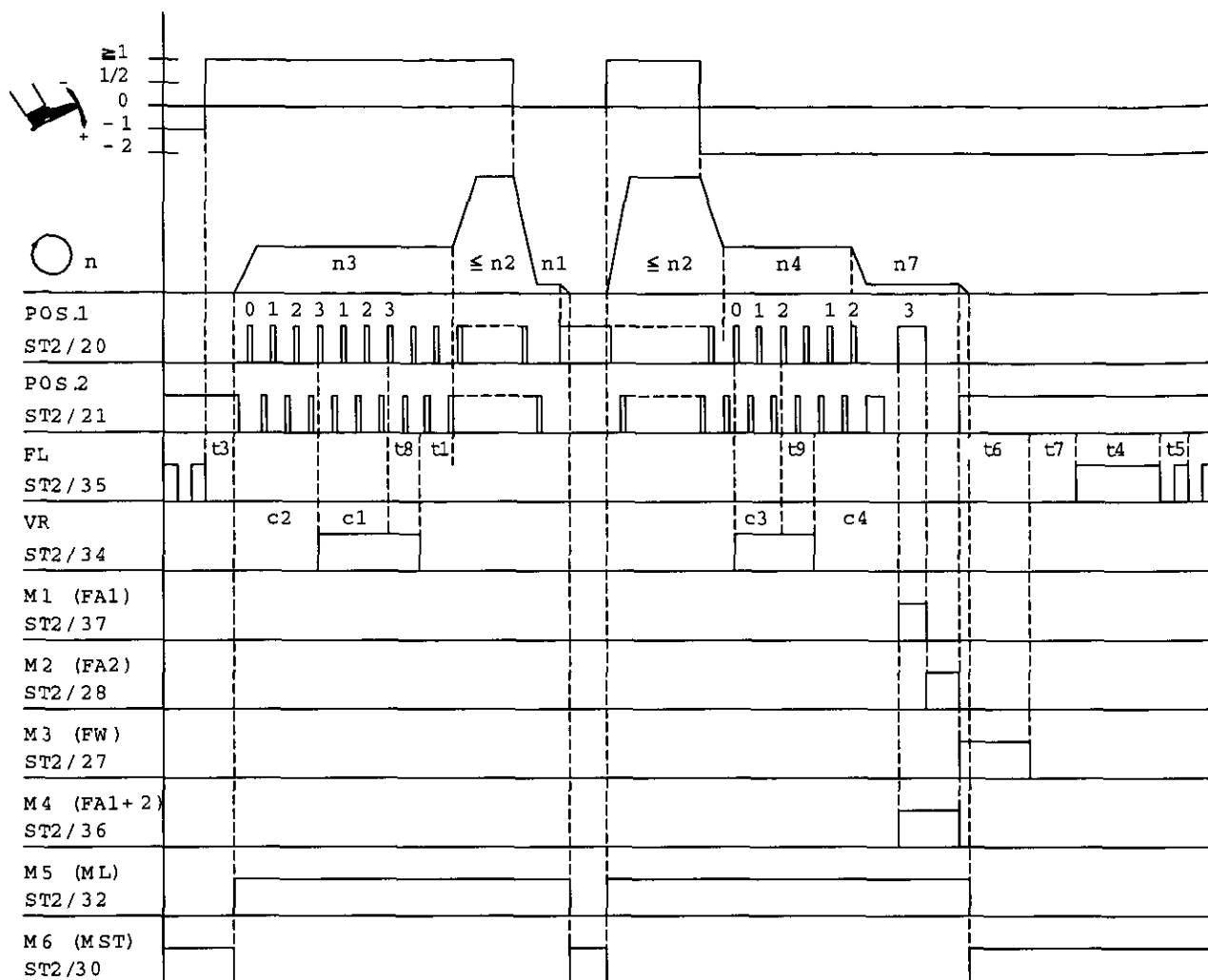
Setting the functional sequence	Thread trimming mode	→	Set parameter 290	= 9
Setting the functions of the keys	Input in1	→	Set parameter 240	= 6
(Automatic setting)	Input in3	→	Set parameter 242	= 10
	Input in4	→	Set parameter 243	= 34



*) Rear view (soldering side) of 37-pin plug (ST2). Front view (component side) of the remaining plugs/sockets.

4 Timing Diagrams

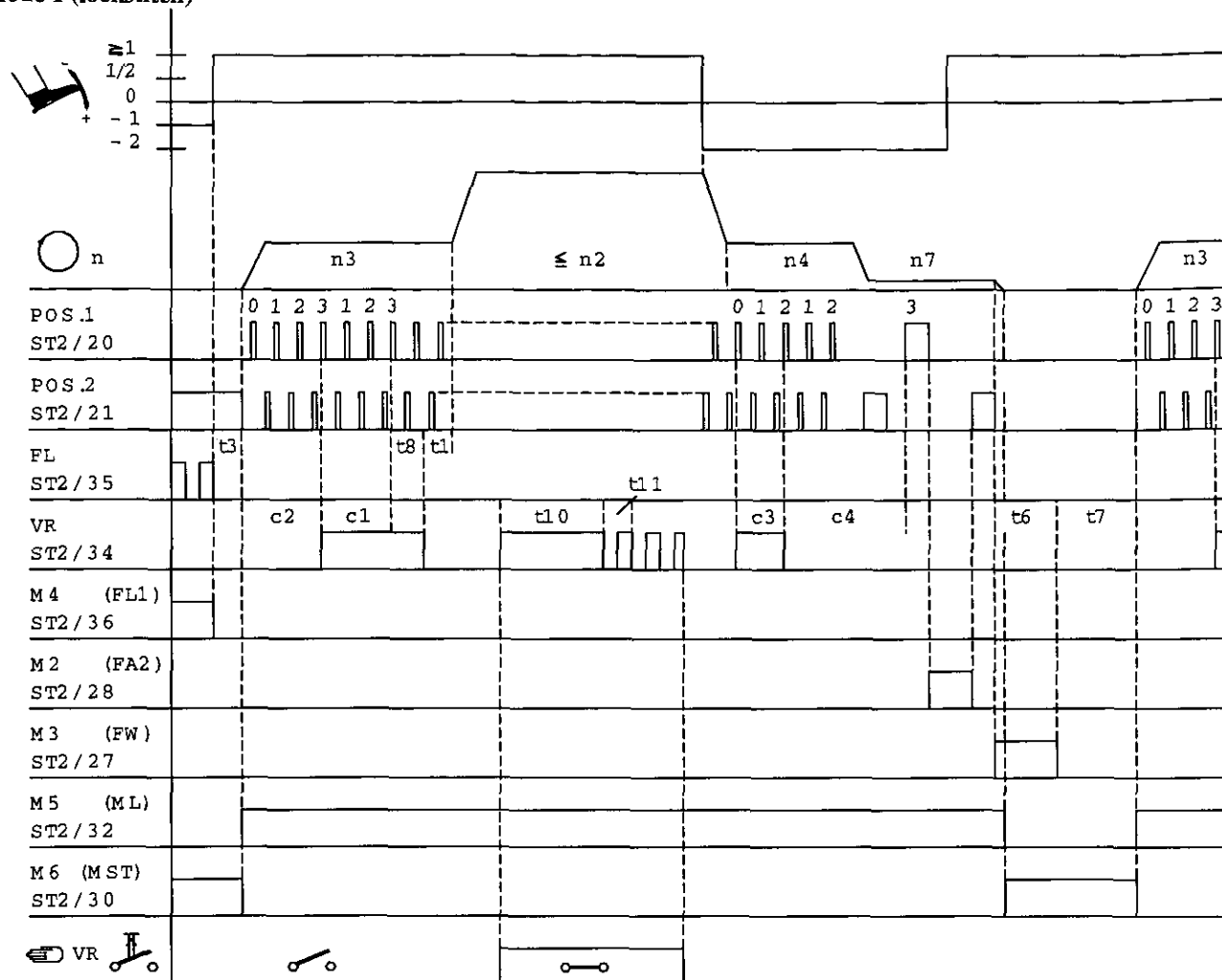
Mode 0 (lockstitch)



0246/MODE-0

Mark	Function	Parameter	Control	V810	V820
	Mode 0	290 = 0			
	Double start backtack with stitch correction	On	S2 key	1 key	1 key
	Double end backtack with stitch correction	On	S3 key	2 key	4 key
n1	Positioning speed	110			
n2	Maximum speed	111			
n3	Start backtack speed	112			
n4	End backtack speed	113			
n7	Trimming speed	116			
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			
t8	Start backtack stitch correction	150			
t9	End backtack stitch correction	151			
c2	Start backtack stitches forward	000			
c1	Start backtack stitches backward	001			
c3	End backtack stitches backward	002			
c4	End backtack stitches forward	003			

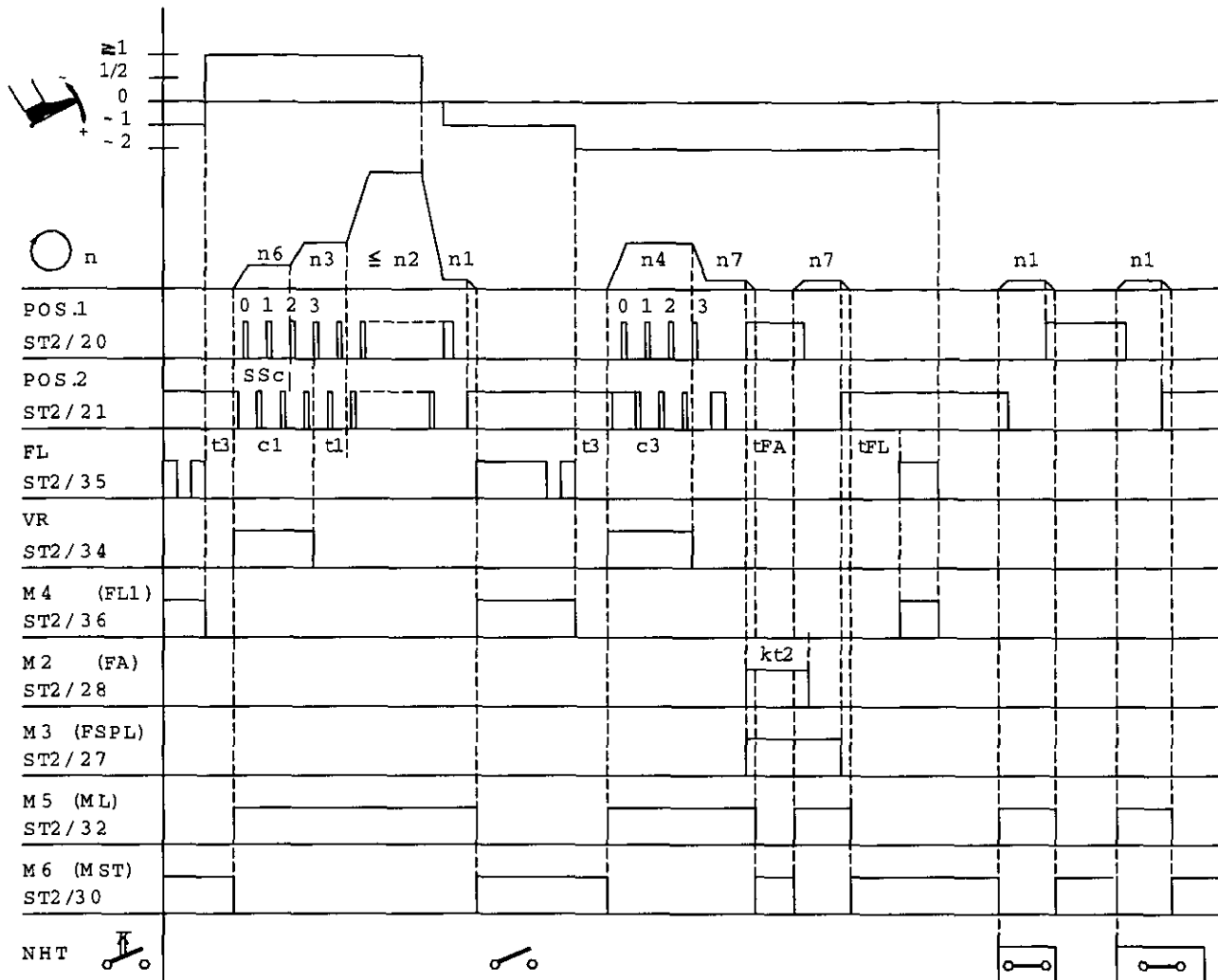
Mode 1 (lockstitch)



0246/MODE-1

Mark	Function	Parameter	Control	V810	V820
	Mode 1	290 = 1			
	Double start backtack with stitch correction	On	S2 key	1 key	1 key
	Double end backtack	On	S3 key	2 key	4 key
n2	Maximum speed	111			
n3	Start backtack speed	112			
n4	End backtack speed	113			
n7	Trimming speed	116			
t1	Delay until speed release after start backtack	200			
t3	Start delay from lifted sewing foot	202			
t6	Thread wiper ON period	205			
t7	Sewing foot switch-on delay after thread wiper	206			
t8	Start backtack stitch correction	150			
t10	Full power of backtacking	212			
t11	Pulsing of backtacking	213			
c2	Start backtack stitches forward	000			
c1	Start backtack stitches backward	001			
c3	End backtack stitches backward	002			
c4	End backtack stitches forward	003			

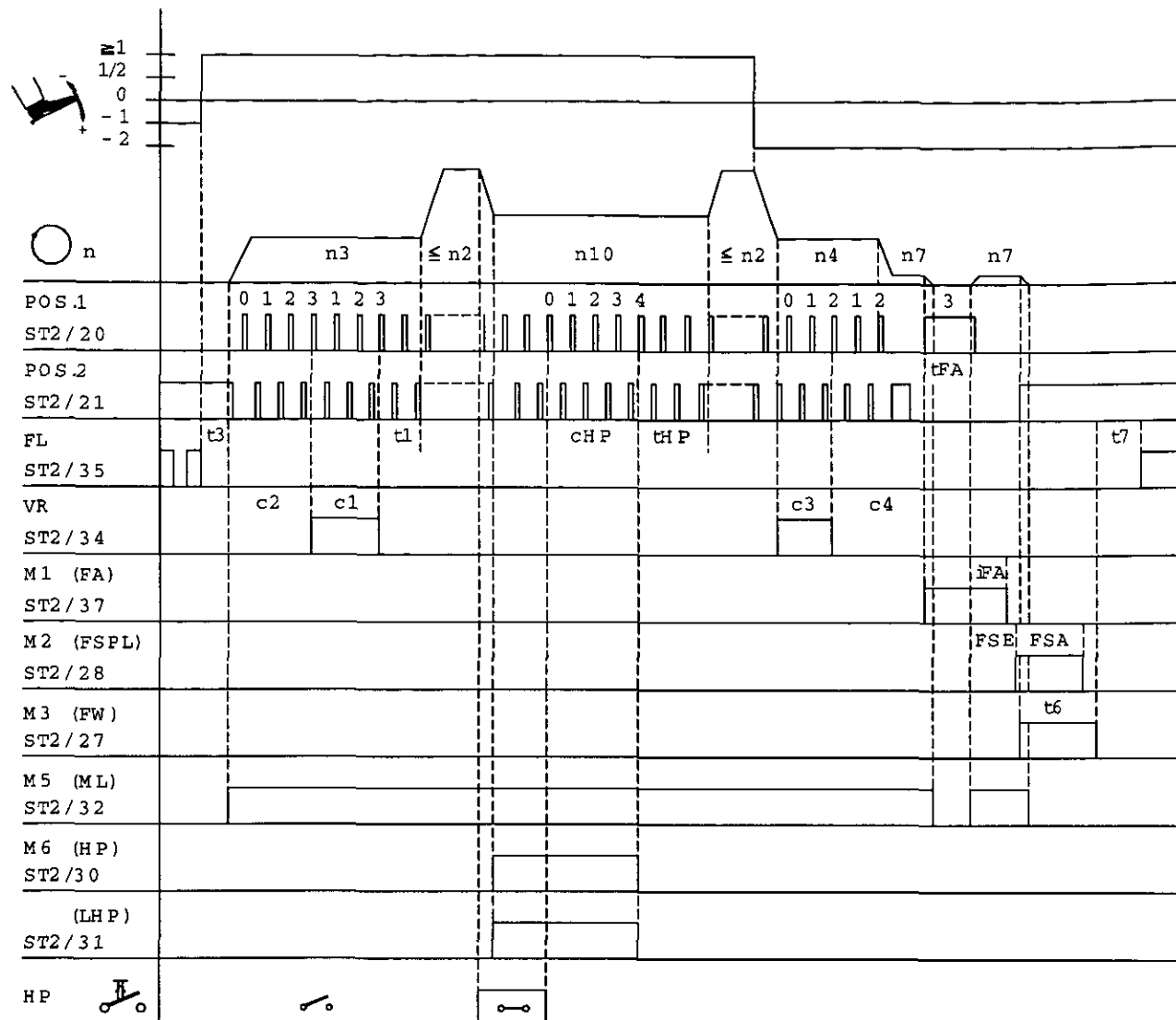
Mode 2 (lockstitch)



0246/MODE-2

Mark	Function	Parameter	Control	V810	V820
	Mode 2	290 = 2			
	Softstart	134 = ON			
	Single start backtack	On	S2 key	1 key	1 key
	Single end backtack	On	S3 key	2 key	4 key
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			
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			
kt2	Thread trimmer ON period	283			
tFA	Stop time for thread trimmer	253			
SSc	Softstart stitches	100			
c1	Start backtack stitches backward	001			
c3	End backtack stitches backward	002			

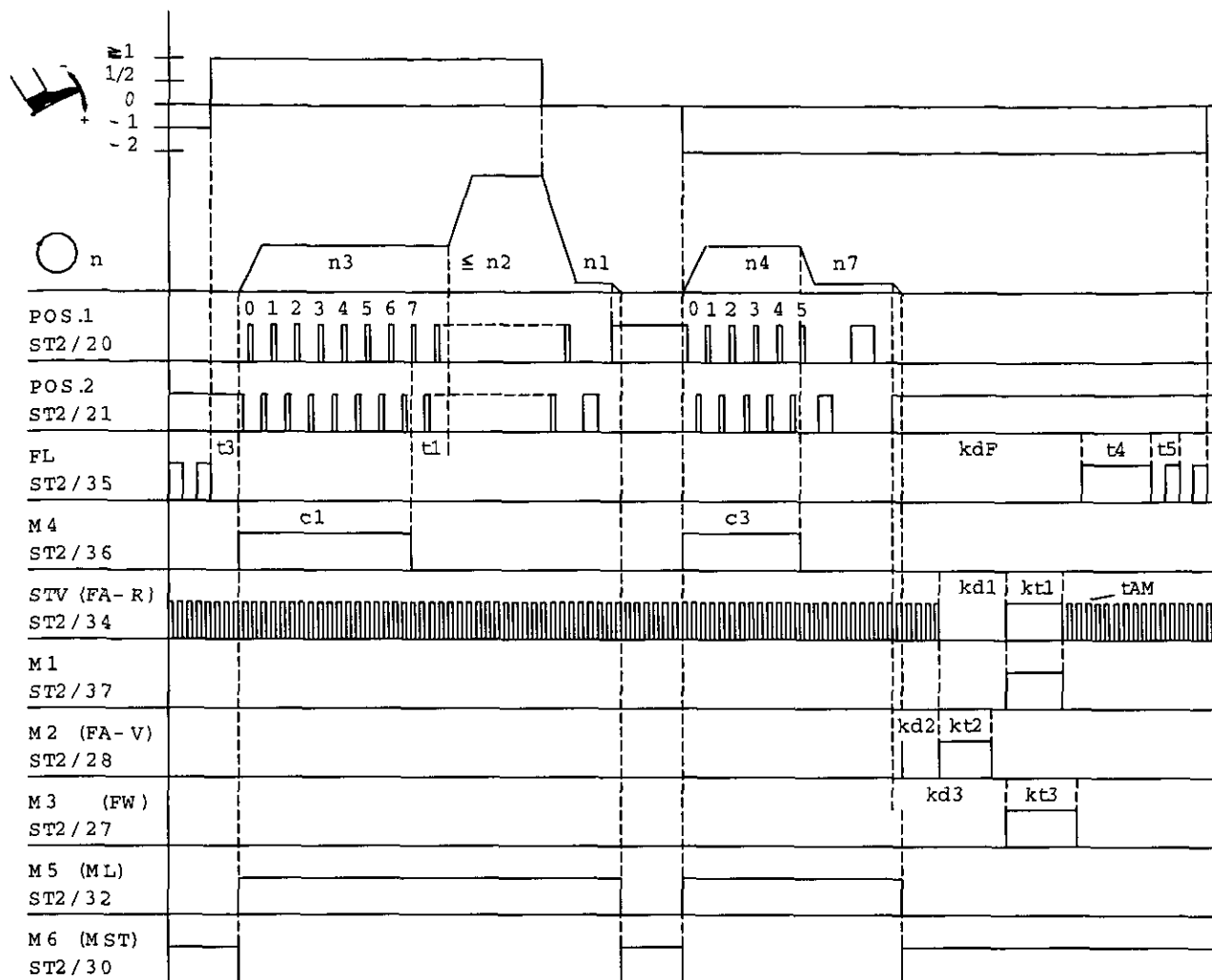
Mode 3 (lockstitch)



0246/MODE-3

Mark	Function	Parameter	Control	V810	V820
	Mode 3	290 = 3			
	Double start backtack	On	S2 key	1 key	1 key
	Double end backtack	On	S3 key	2 key	4 key
	High lift for walking foot	137 = ON			
n2	Maximum speed	111			
n3	Start backtack speed	112			
n4	End backtack speed	113			
n7	Trimming speed	116			
n10	High lift walking speed	117			
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	Thread tension release ON period	251			
FSE	Thread tension release delay depending on angle	252			
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			

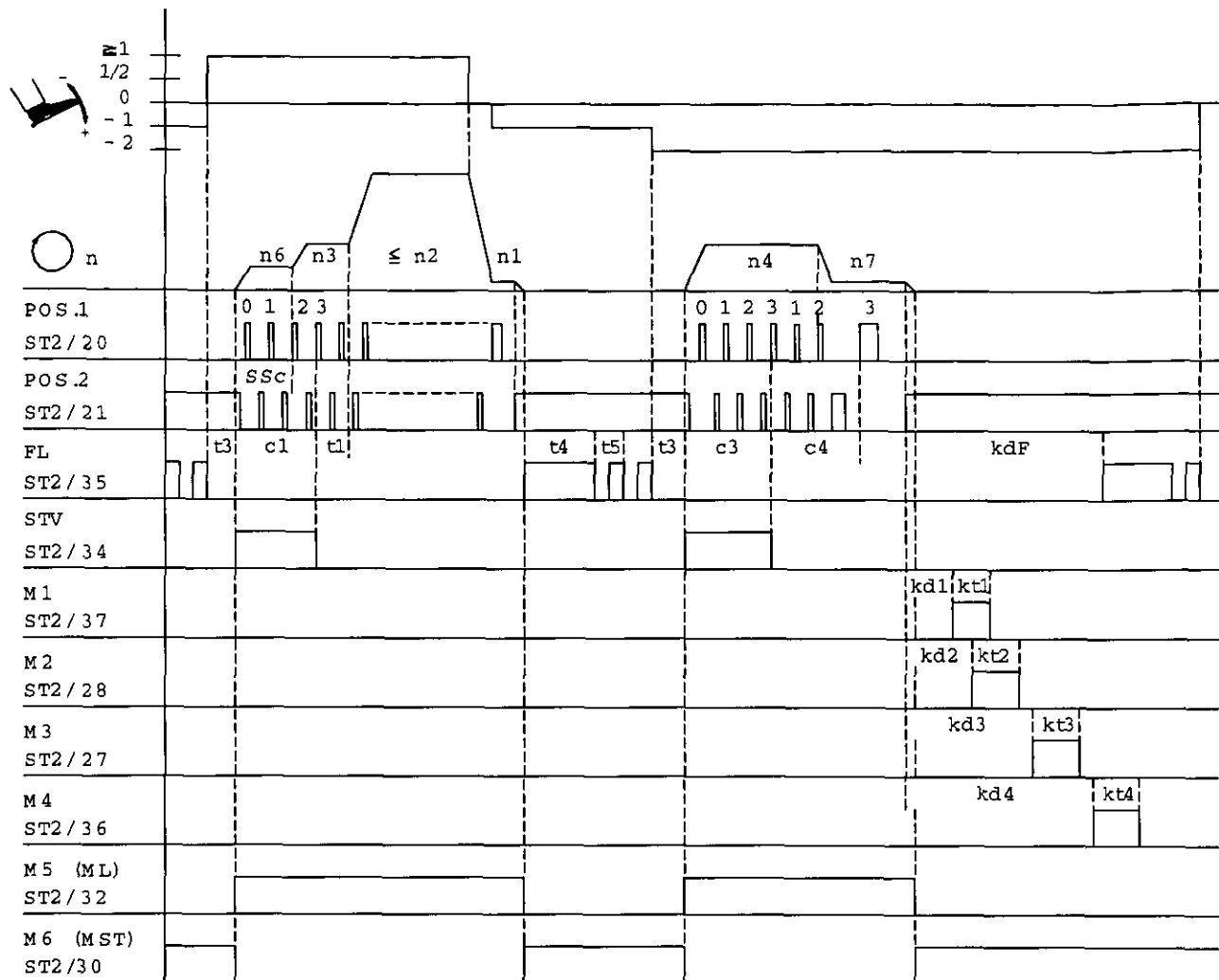
Mode 4 (chainstitch)



0246/MODE-4

Mark	Function	Parameter	Control	V810	V820
	Mode 4	290 = 4			
	Start stitch condensing	On	S2 key	1 key	1 key
	End stitch condensing	On	S3 key	2 key	4 key
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			
t1	Delay until speed release after start backtack	200			
t3	Start delay from lifted sewing foot	202			
tAM	Holding power output "stitch condensing" of the thread trimmer backward	254			
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			
c1	Stitch counting of start stitch condensing	001			
c3	Stitch counting of end stitch condensing	002			

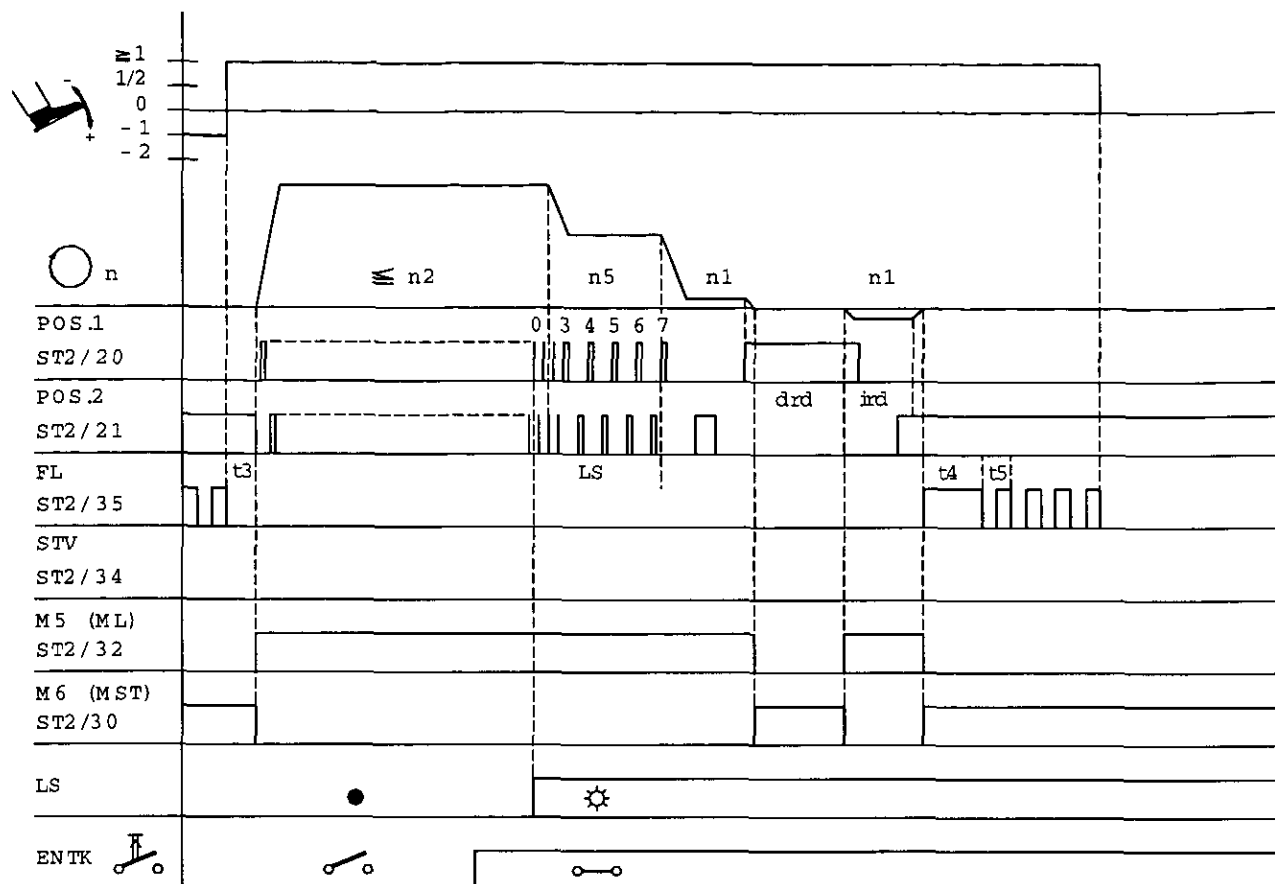
Mode 5 (chainstitch)



0246/MODE-5

Mark	Function	Parameter	Control	V810	V820
	Mode 5	290 = 5			
	Softstart	134 = ON			
	Start stitch condensing	On	S2 key	1 key	1 key
	End stitch condensing	On	S3 key	2 key	4 key
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			
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			
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			
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 4, 5, 6 or 7 (function "unlocking the chain" with light barrier)

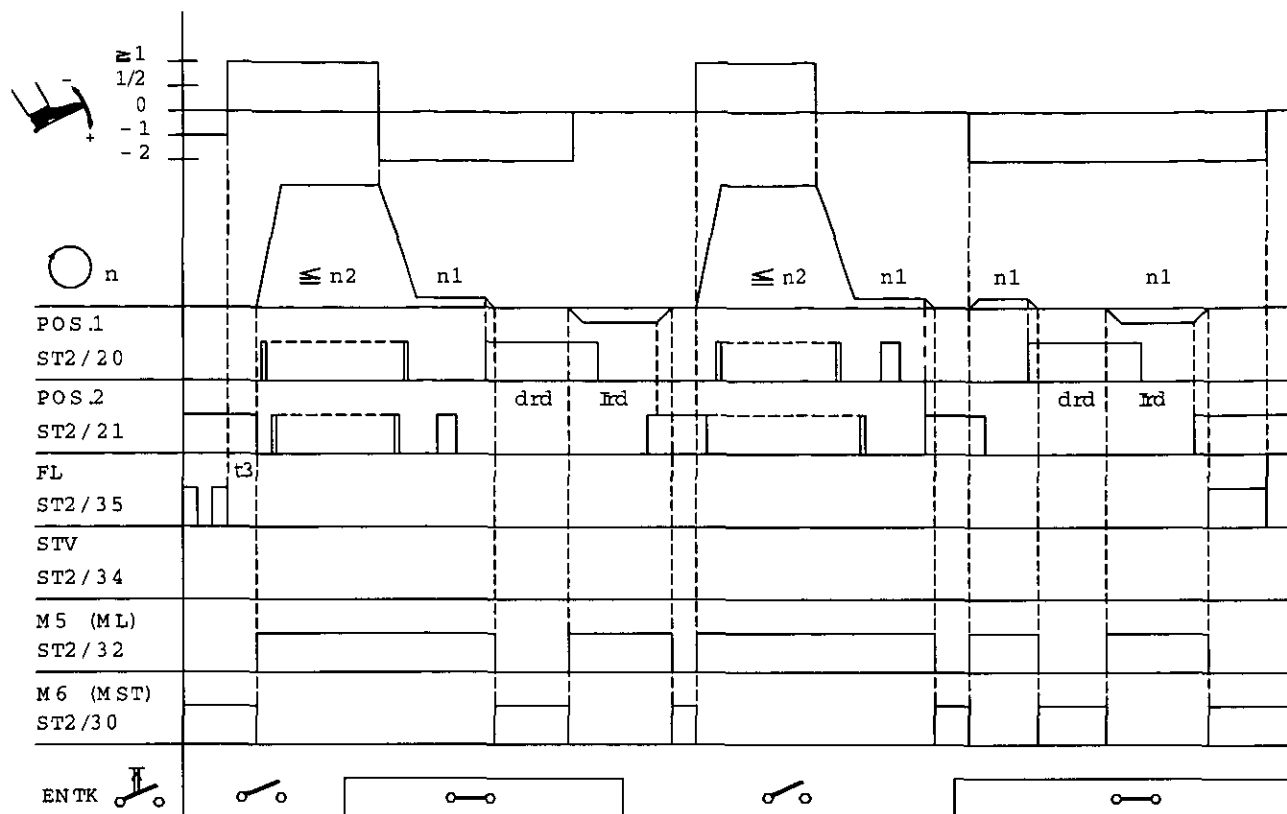


0246 / ENTK - 1

Mark	Function	Parameter	Control	V810	V820
drE	Mode 5	290 = 5			
Frd	Direction of motor rotation	161 = 0			
	Reverse motor rotation	182 = ON			
	Basic position 2		S5 key	4 key	7 key
	End stitch condensing and thread trimmer *)				
	Light barrier	009 = ON			
	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			
t3	Start delay from lifted sewing foot	202			
t4	Full power of sewing foot lifting	203			
t5	Pulsing of sewing foot lifting	204			
LS	Light barrier compensating stitches	004			
ird	Number of reversing increments	180			
drd	Switch-on delay of reverse motor rotation	181			
tGn	Speed gate damping period	222			
dGF	Speed gate 2	224 = ON			
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")

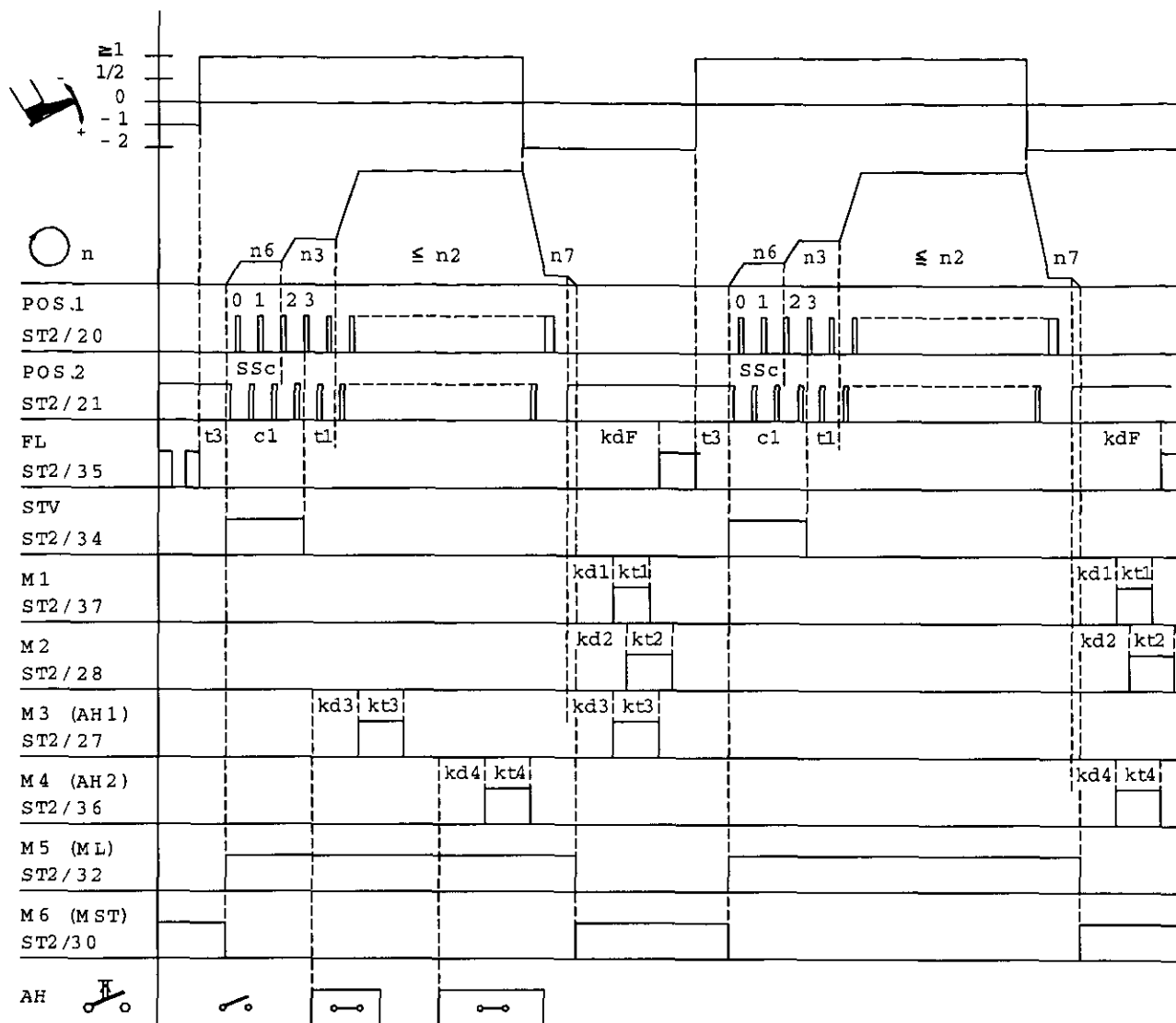


0246/ENTK - 2

Mark	Function	Parameter	Control	V810	V820
drE	Mode 5	290 = 5	S5 key	4 key	7 key
Frd	Direction of motor rotation Clockwise	161 = 0			
	Reverse motor rotation	182 = ON			
	Basic position 2 On				
	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			
t3	Start delay from lifted sewing foot	202			
t4	Full power of sewing foot lifting	203			
t5	Pulsing of sewing foot lifting	204			
ird	Number of reversing increments	180			
drd	Switch-on delay of reverse motor rotation	181			
tGn	Speed gate damping period	222			
dGF	Speed gate 2	224 = ON			

*) When unlocking the chain, the functions "stitch condensing" and "thread trimmer" are suppressed!

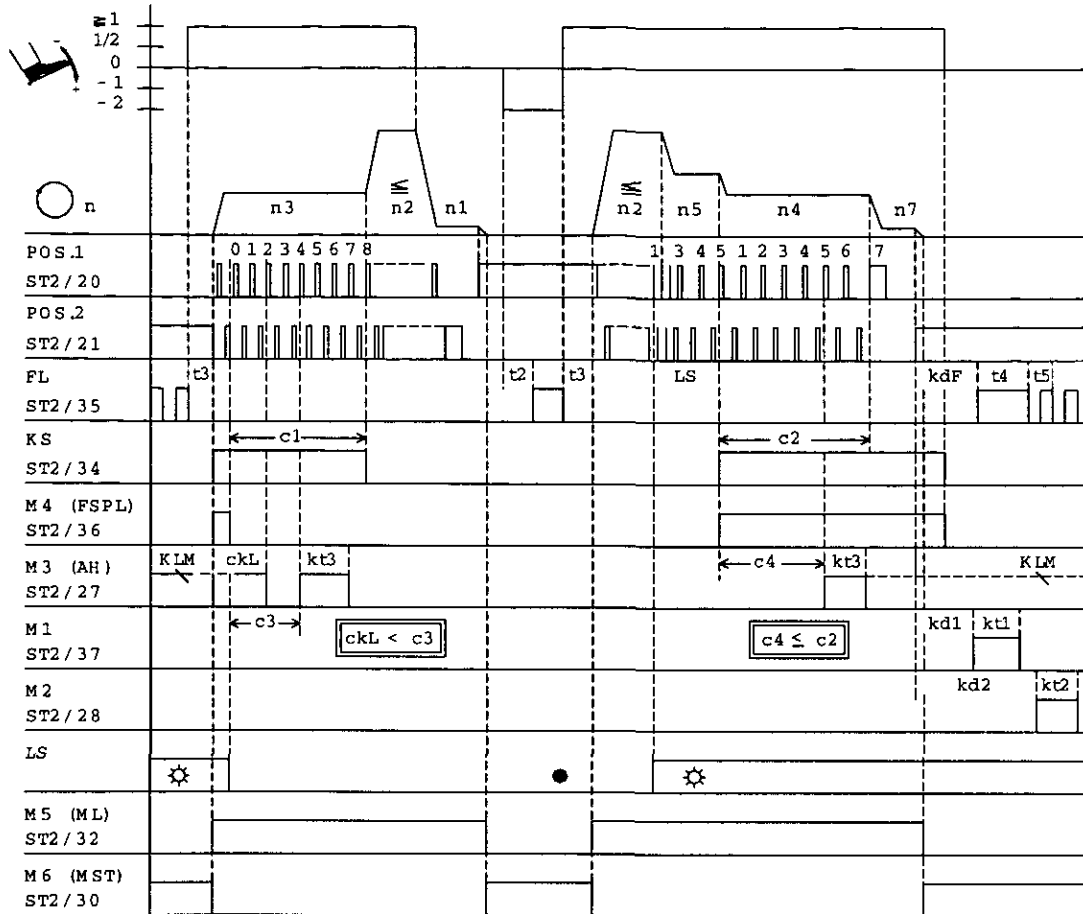
Mode 6 (chainstitch with fast scissors) parameter 232 = ON



0246/MODE- 6

Mark	Function	Parameter	Control	V810	V820
	Mode 6	290 = 6			
	Softstart	134 = ON			
	Start stitch condensing	232 = ON	S2 key	1 key	1 key
	Chainstitch with fast scissors M3/M4				
n2	Maximum speed	111			
n3	Start stitch condensing speed	112			
n6	Softstart speed	115			
n7	Trimming speed	116			
t1	Delay until speed release after stitch condensing	200			
t3	Start delay from lifted sewing foot	202			
c1	Stitch counting of start stitch condensing	001			
SSc	Softstart stitches	100			
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			

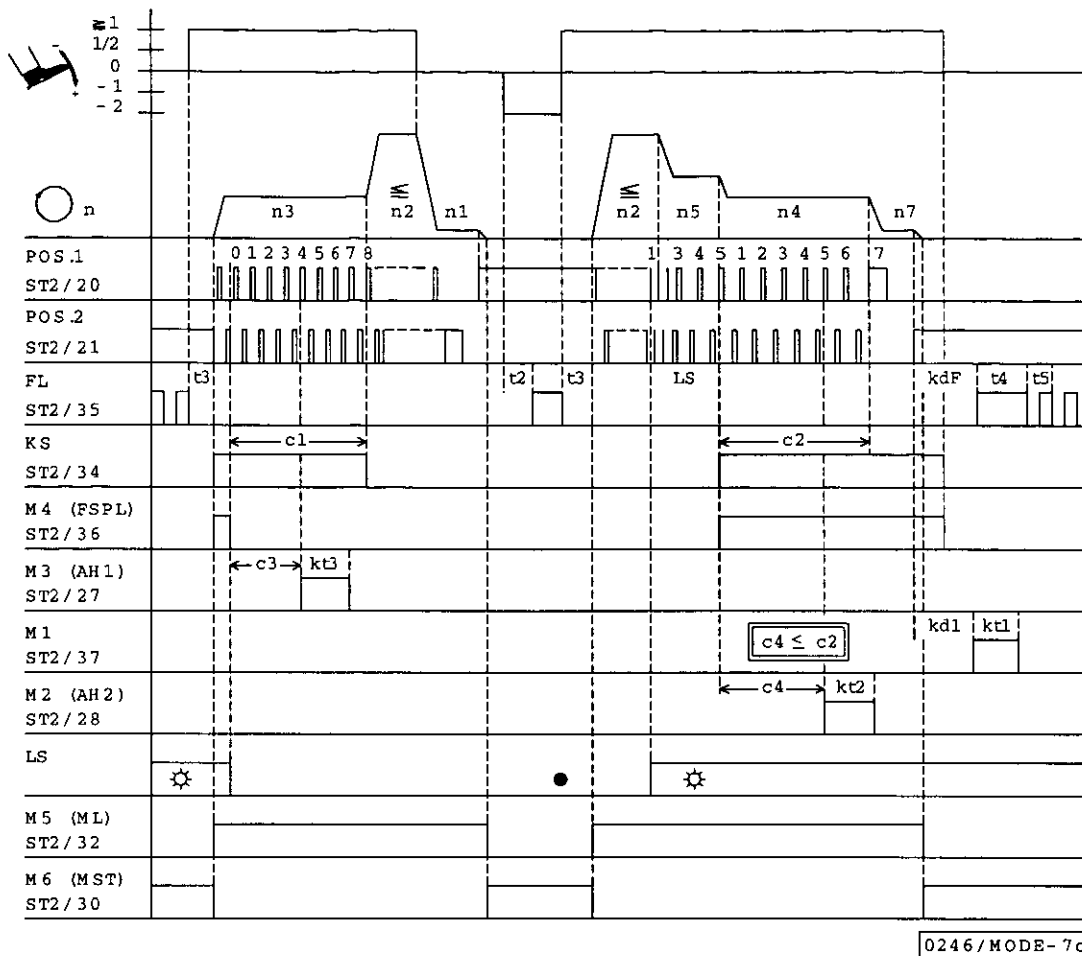
Mode 7 (overlock) parameter 232 = OFF (tape cutter) / parameter 018 = OFF (seam end with stop)



0246/MODE-7a

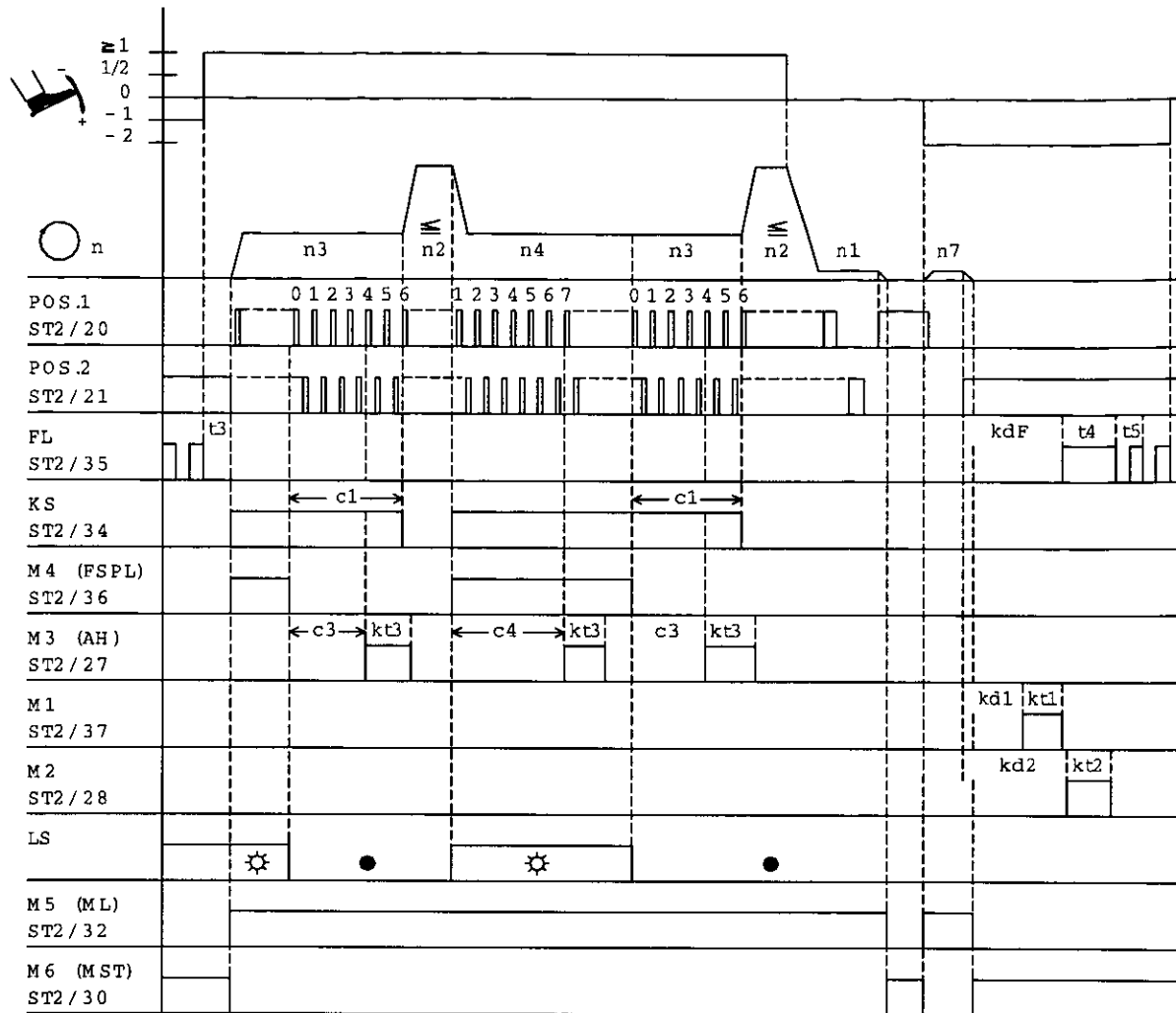
Mark	Function	Parameter	Control	V810	V820
	Mode 7	290 = 7			
	Countings c1, c2, c3 and c4	On			
	Sewing foot lifting at the seam end	On			
	Light barrier	009 = ON	S2/3 key	1/2 key	1/4 key
	Sequence "overlock mode with stop"	018 = OFF	S4 key	3 key	6 key
	Function "pedal in pos. -2" blocked	019 = 2			
	Chain suction at the seam end until pedal in pos. 0	022 = ON			
	Start blockage with light barrier uncovered	132 = OFF			
	Stitch counting at the start of the seam at fixed speed n3	143 = 0			
	Stitch counting at the seam end at fixed speed n4	144 = 0			
	Seam end after count c2	191 = 1			
	Speed n5 after light barrier sensing	192 = OFF			
	Chain suction On after light barrier compensating stitches	193 = OFF			
	Tape cutter function	232 = OFF			
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			
klM	Clamp at the seam end On	020 = ON			
ckL	Run-out stitches clamp at the start of the seam	021			
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 = ON (fast scissors) / parameter 018 = OFF (seam end with stop)



Mark	Function	Parameter	Control	V810	V820
	Mode 7	290 = 7			
	Counts c1, c2, c3 and c4	On			
	Sewing foot lifting at the seam end	On			
	Light barrier		S2/3 key	1/2 key	1/4 key
	Sequence "overlock mode with stop"	009 = ON	S4 key	3 key	6 key
	Function "pedal in pos. -2" blocked	018 = OFF			
	Chain suction at the seam end until pedal in pos. 0	019 = 2			
	Start blockage with light barrier uncovered	022 = ON			
	Stitch counting at the start of the seam at fixed speed n3	132 = OFF			
	Stitch counting at the seam end at fixed speed n4	143 = 0			
	Seam end after count c2	144 = 0			
	Speed n5 after light barrier sensing	191 = 1			
	Chain suction On after light barrier compensating stitches	192 = OFF			
	Function "fast scissors"	193 = OFF			
		232 = ON			
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			
kLM	Clamp at the seam end Off	020 = OFF			
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			

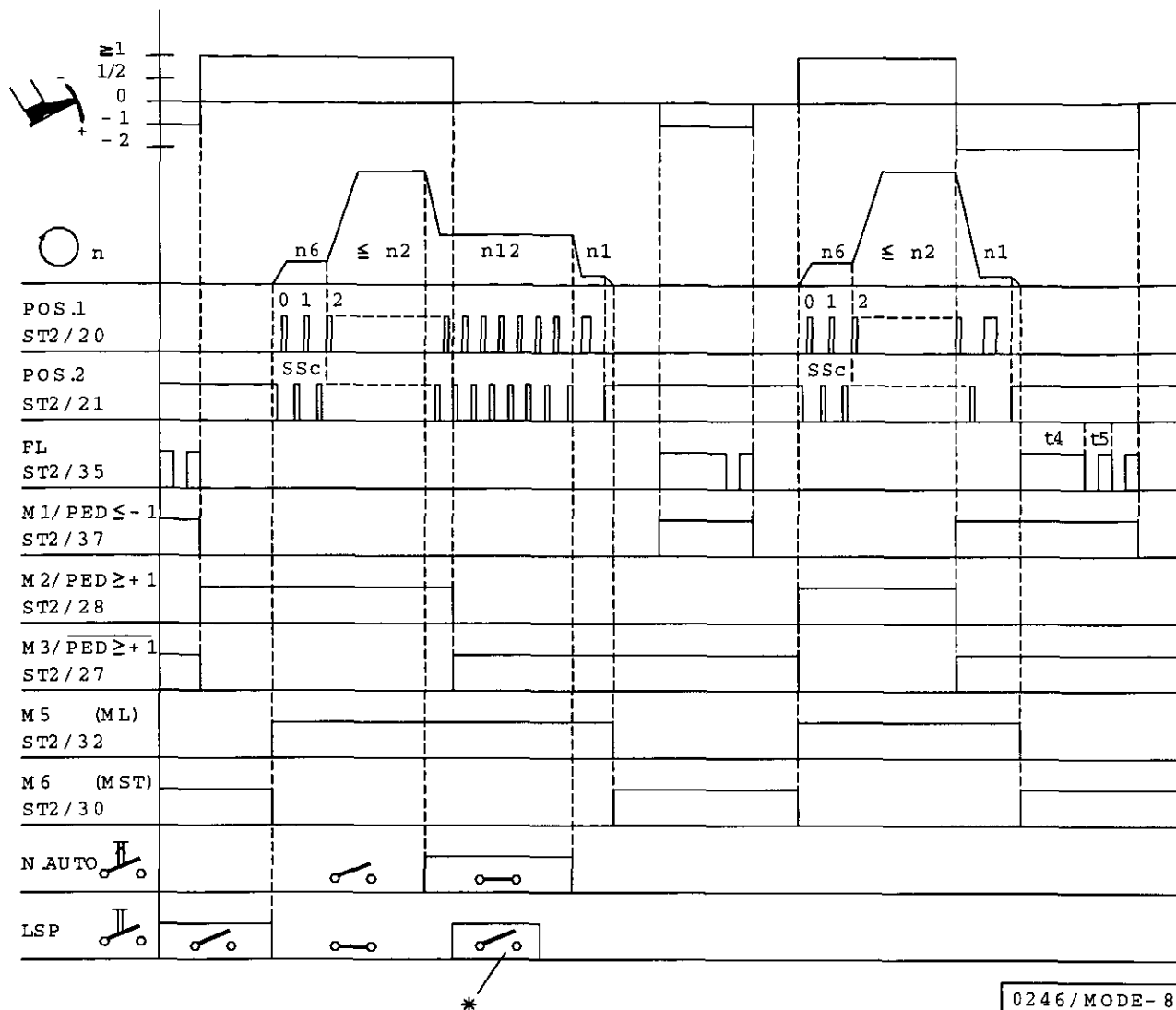
Mode 7 (overlock) parameter 232 = OFF (tape cutter) / parameter 018 = ON (seam end without stop)



0246/MODE-7b

Mark	Function	Parameter	Control	V810	V820
	Mode 7 Counts c1, c2, c3 and c4 Light barrier compensating stitches Light barrier Sequence "overlock mode at the seam end without stop" Function "pedal in pos. -1/-2" activated in the seam Chain suction at the seam end until pedal in pos. 0 Stitch counting at the start of the seam at fixed speed n3 Stitch counting at the seam end at fixed speed n4 Tape cutter function	290 = 7 004 = 0 009 = ON 018 = ON 019 = 3 022 = ON 143 = 0 144 = 0 232 = OFF	S2/3 key	1/2 key	1/4 key
n1	Positioning speed	110			
n2	Maximum speed	111			
n3	Speed for start counting	112			
n7	Trimming speed	116			
t3	Start delay from lifted sewing foot	202			
c1	Start counting for chain suction	001			
c3	Start counting for tape cutter	002			
c4	End counting for tape cutter	003			
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			

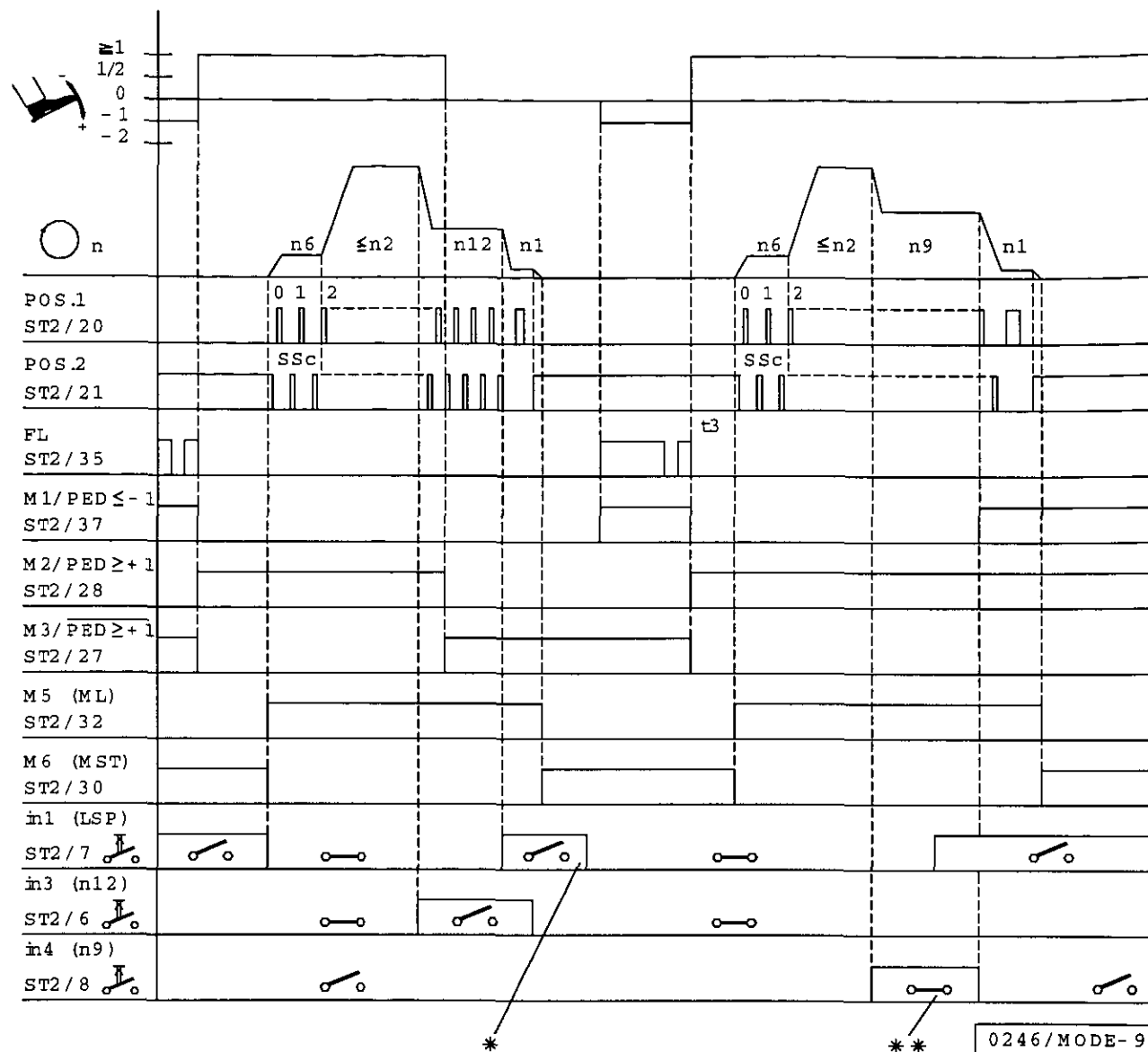
Mode 8 (backlatch Pegasus)



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

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

Mode 9 (backlatch Yamato)

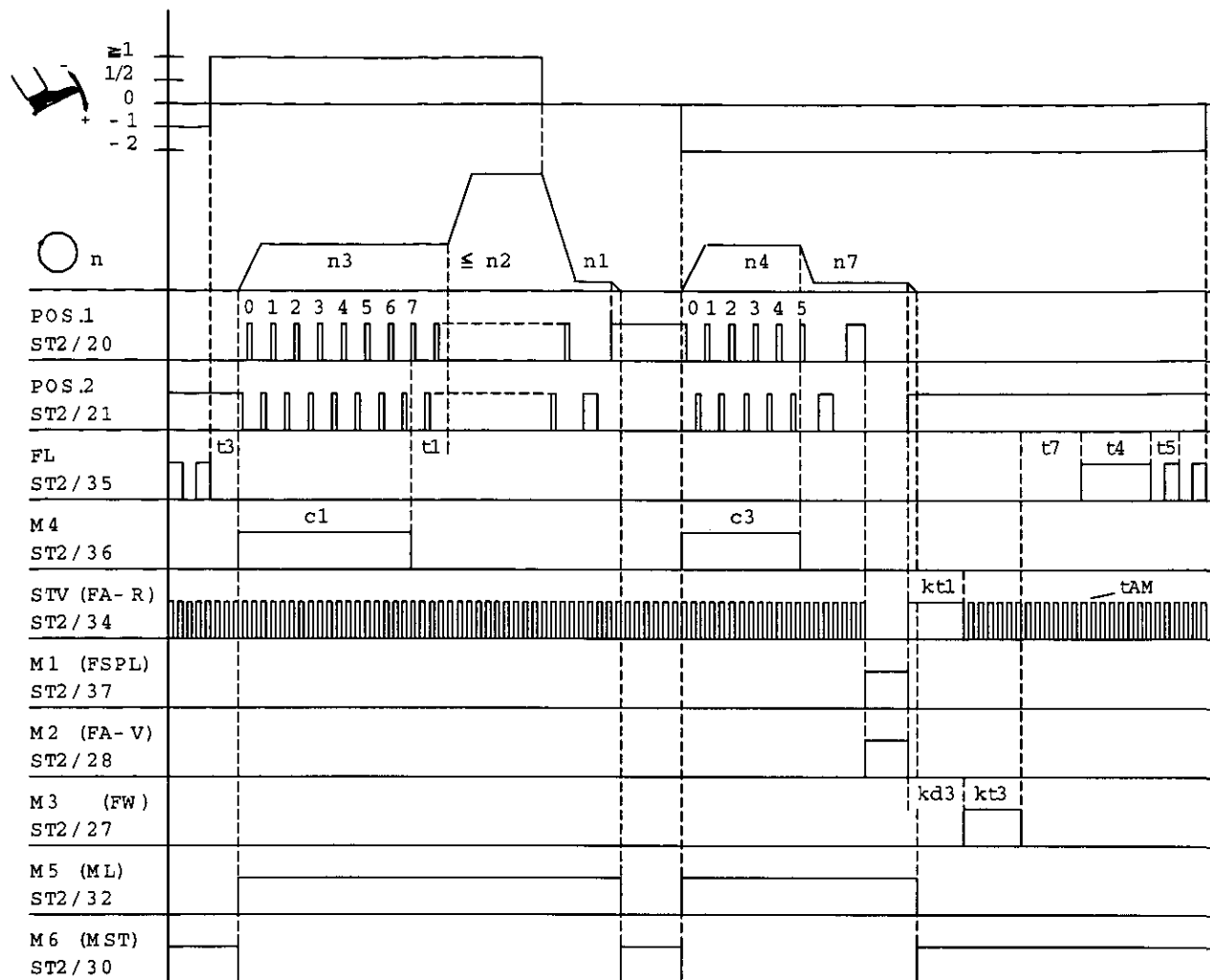


Mark	Function	Parameter	Control	V810	V820
SSt	Mode 9	290 = 9			
in1	Basic position 2	On			
in3	Softstart	134 = ON	S5 key	4 key	7 key
in4	Machine run blockage activated with open switch	240 = 6			
	Automatic speed with open switch	242 = 10			
	(the function of input 3 is inverted in mode 9)				
	Automatic speed n9	243 = 34			
n1	Positioning speed	110			
n2	Maximum speed	111			
n6	Softstart speed	115			
n12	Automatic speed	118			
t3	Start delay from lifted sewing foot	202			
SSc	Softstart stitches	100			

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

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

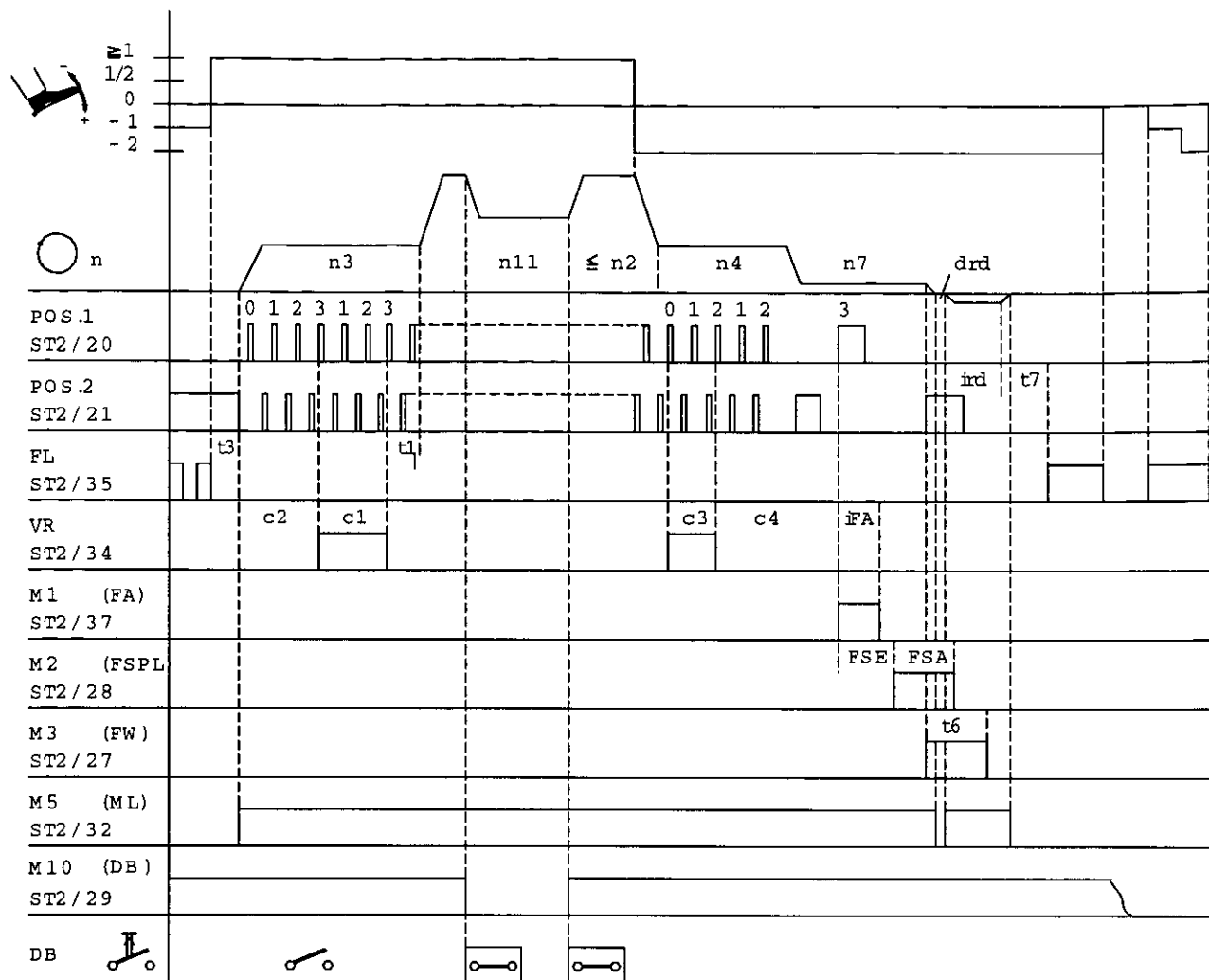
Mode 10 (lockstitch)



0246/MODE-10

Mark	Function	Parameter	Control	V810	V820
	Mode 10	290 = 10			
	Single start backtack	On	S2 key	1 key	1 key
	Single end backtack	On	S3 key	2 key	4 key
n1	Positioning speed	110			
n2	Maximum speed	111			
n3	Start backtack speed	112			
n4	End backtack speed	113			
n7	Trimming speed	116			
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			
tAM	Holding power output "stitch condensing" of the thread trimmer backward	254			
kt1	Full power of thread trimmer backward	281			
kd3	Switch-on delay of the thread wiper M3	284			
kt3	ON period of the thread wiper M3	285			
c1	Start backtack stitches backward	001			
c3	End backtack stitches backward	002			

Mode 13 (lockstitch / Pfaff 1425)

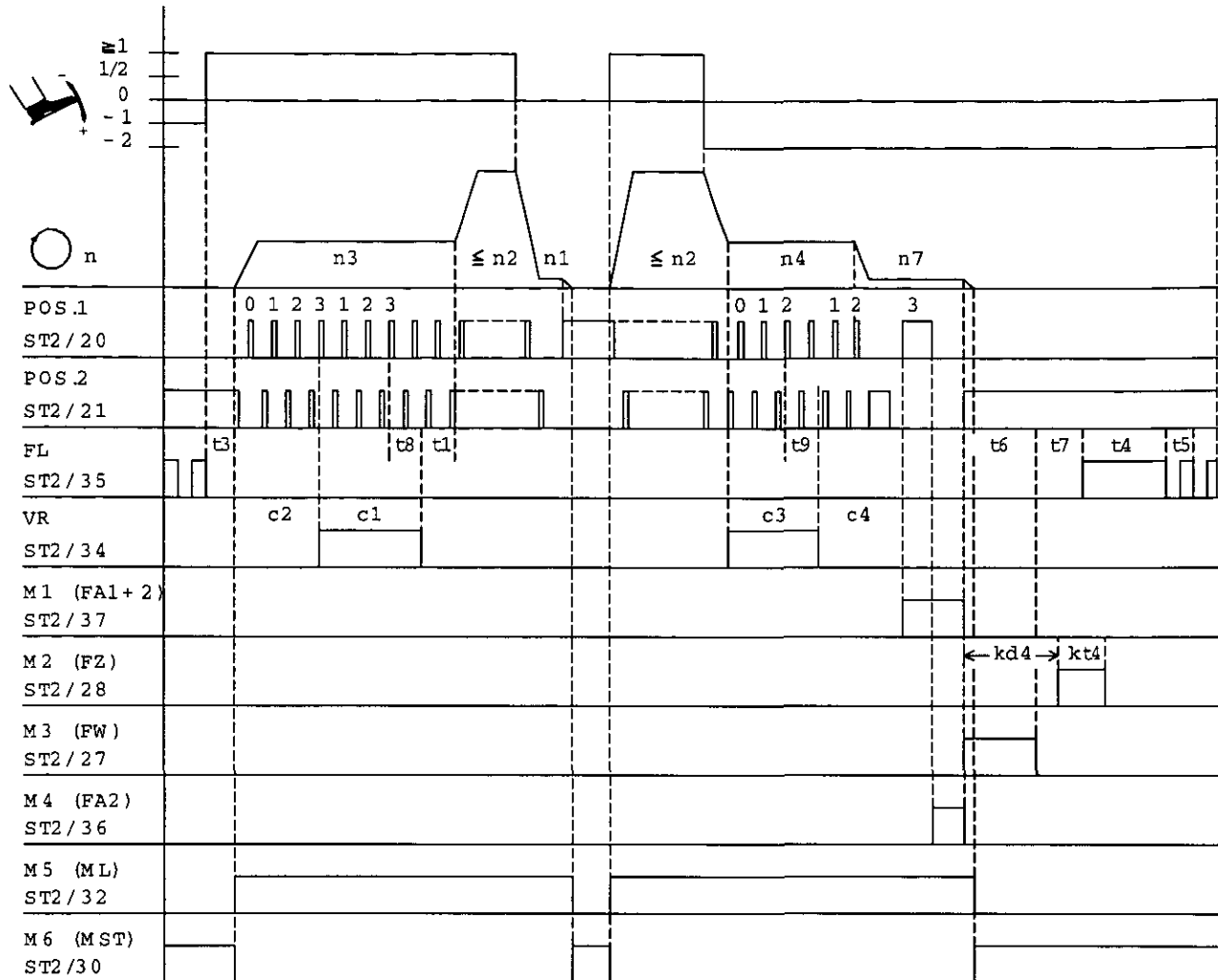


0246/MODE-13

The inverted signal of output M10 is issued at output M4 (ST2/36).

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

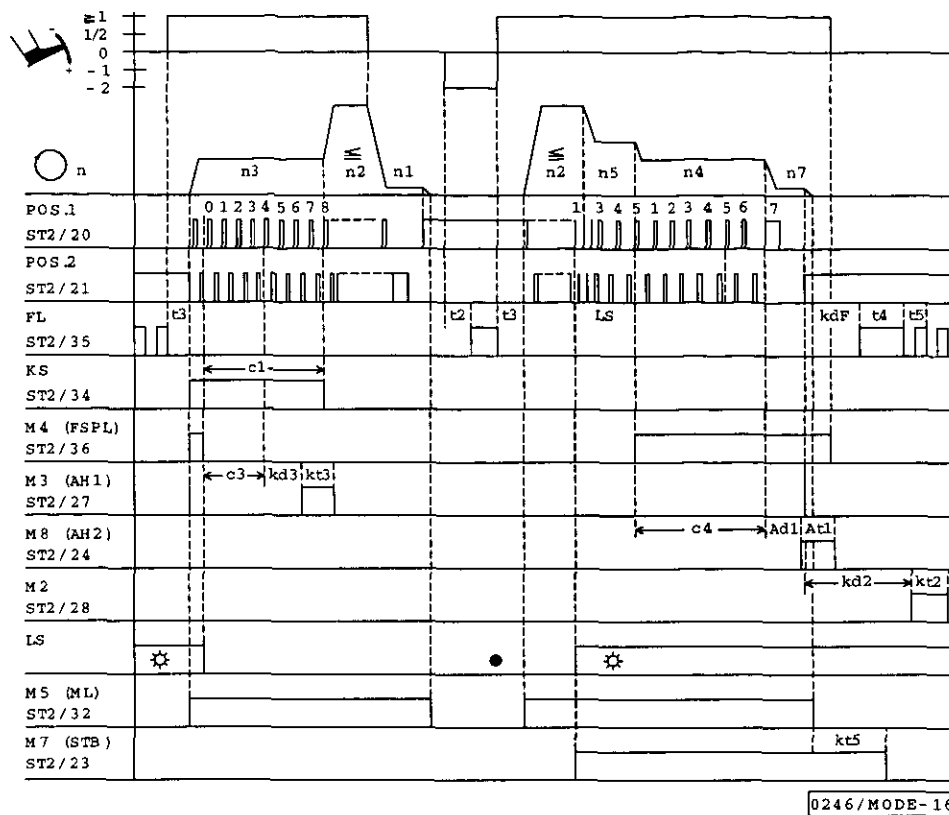
Mode 14 (lockstitch)



0246/MODE-14

Mark	Function	Parameter	Control	V810	V820
	Mode 14	290 = 14			
	Double start backtack with stitch correction	On	S2 key	1 key	1 key
	Double end backtack with stitch correction	On	S3 key	2 key	4 key
n1	Positioning speed	110			
n2	Maximum speed	111			
n3	Start backtack speed	112			
n4	End backtack speed	113			
n7	Trimming speed	116			
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			
t8	Start backtack stitch correction	150			
t9	End backtack stitch correction	151			
c2	Start backtack stitches forward	000			
c1	Start backtack stitches backward	001			
c3	End backtack stitches backward	002			
c4	End backtack stitches forward	003			
kd4	Delay time output M2	286			
kt4	ON period output M2	287			

Mode 16 (feed-off-the-arm machine) without automatically unlocking the chain with fast scissors (232 = OFF)

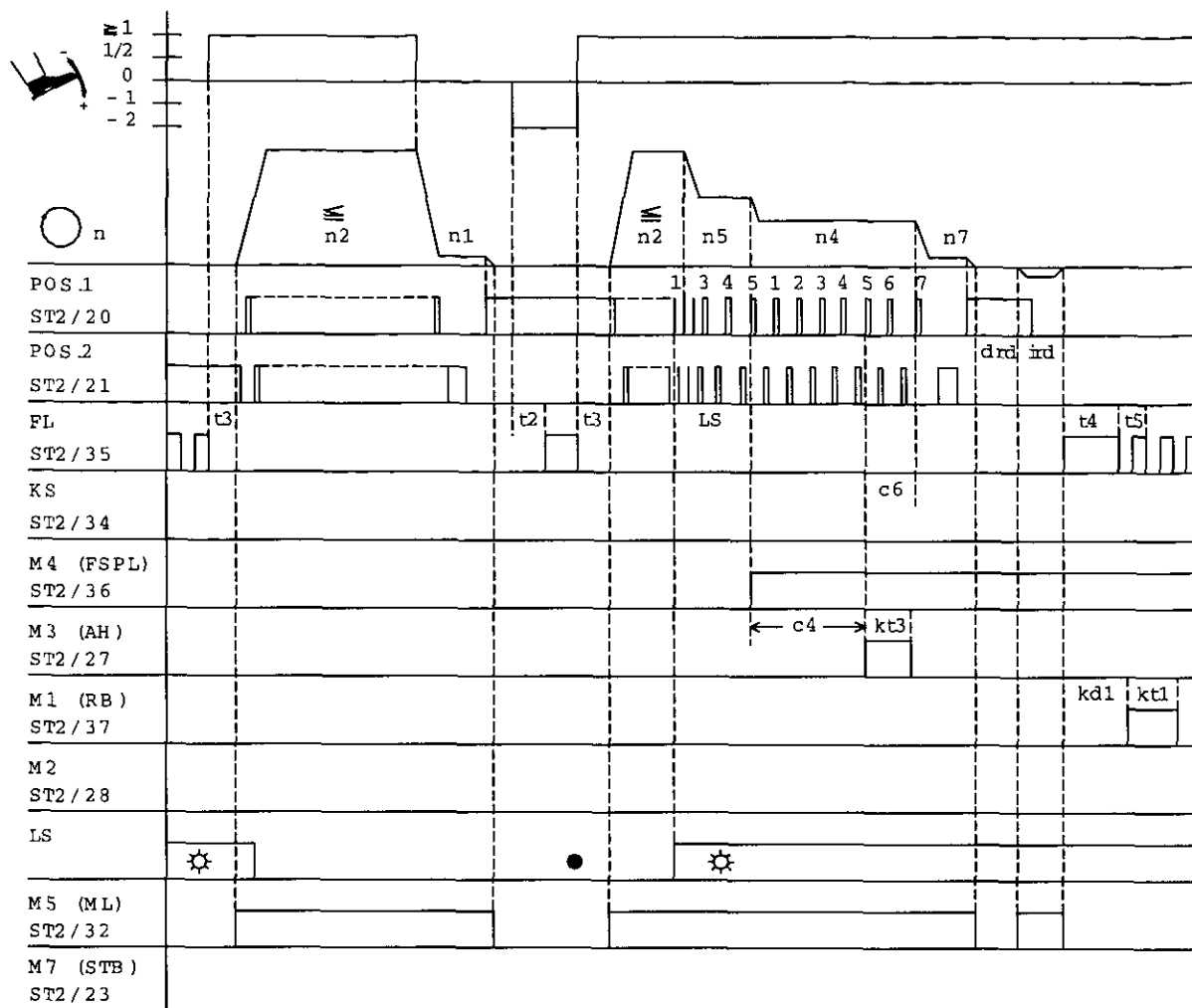


0246/MODE-16

Mark	Function	Parameter	Control	V810	V820
	Mode 16	290 = 16			
	Counts c1, c3 and c4				
	Basic position 2	On	S2/3 key	*)	1/2/4 key
	Sewing foot lifting at the seam end	On	S5 key	*)	0 key
	Light barrier	On	S4 key	*)	9 key
	Sequence "overlock mode with stop"	009 = ON			
	Function "pedal in pos. -2" blocked	018 = OFF			
	Start blockage with light barrier uncovered	019 = 2			
	Seam end after count c2	132 = OFF			
	Speed of the light barrier compensating stitches depending on the pedal	191 = 0			
	Speed of the light barrier compensating stitches depending on the pedal	192 = OFF			
	Blow fabric onto stack M7 from light barrier uncovered onwards	194 = 1			
	Function "fast scissors"	232 = ON			
	Key for manual tape cutter	243 = 15			
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			
kd2	Delay time of output M2	282			
kt2	ON period of output M2	283			
kd3	Delay time of signal (AH1)	284 = 0			
kt3	ON period of signal (AH1)	285			
kd4	Delay time of signal M8 (AH1)	274 = 0			
kt3	ON period of signal M8 (AH1)	275			
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 / 8 key on V820 On

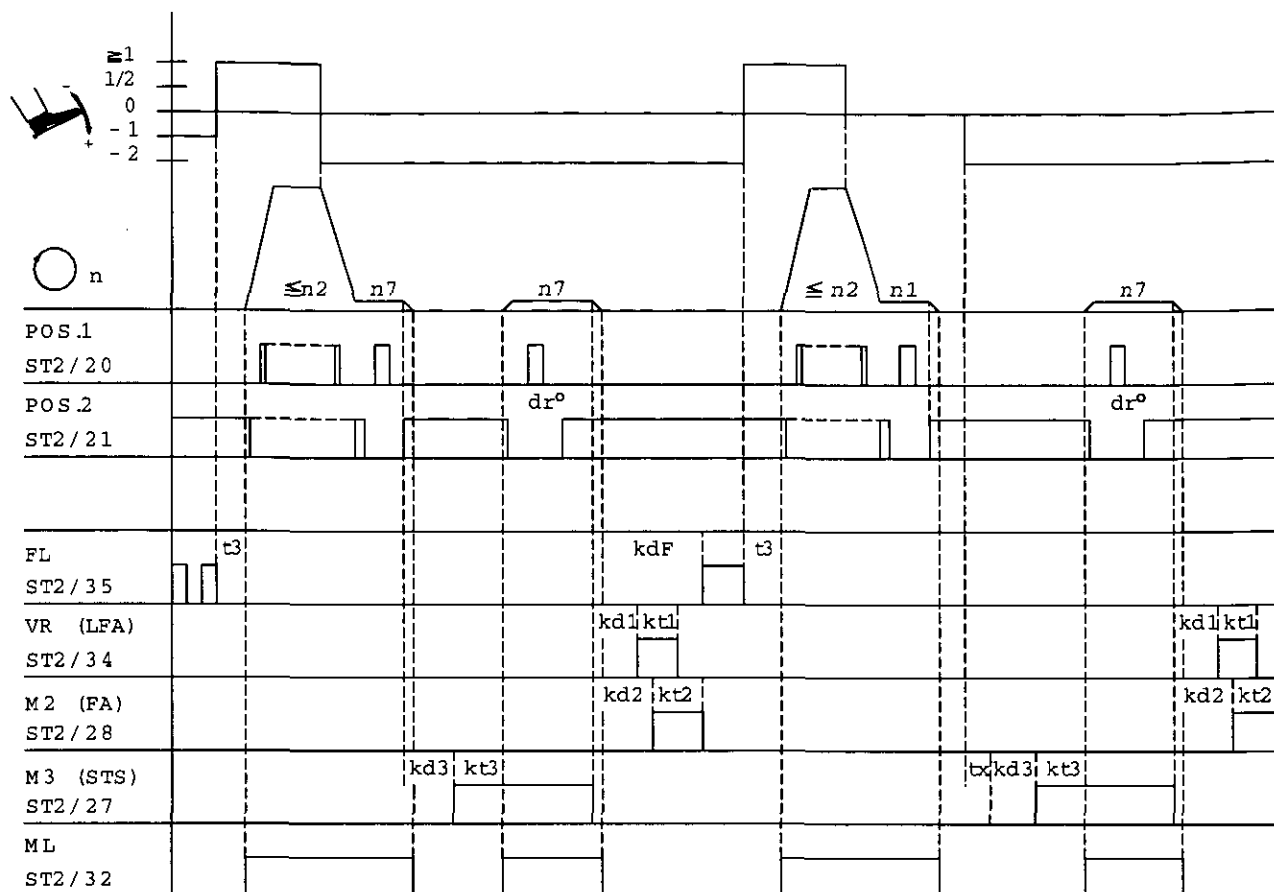


0246/MODE-16a

Mark	Function	Parameter	Control	V810	V820
	Mode 16	290 = 16			
	Counts c4	On	S2/3 key	*)	1/2/4 key
	Basic position 1	On	S5 key	*)	0 key
	Unlock the chain with chain blowing in opposite direction	On		*)	8 key
	Light barrier	009 = ON			
	Sequence "overlock mode with stop"	018 = OFF			
	Function "pedal in pos. -2" blocked	019 = 2			
	Start blockage with light barrier uncovered	132 = OFF			
	Speed n5 after light barrier sensing	192 = OFF			
	Blow fabric onto stack M7 from light barrier uncovered onwards	194 = 1			
	Key for manual tape cutter	243 = 15			
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!

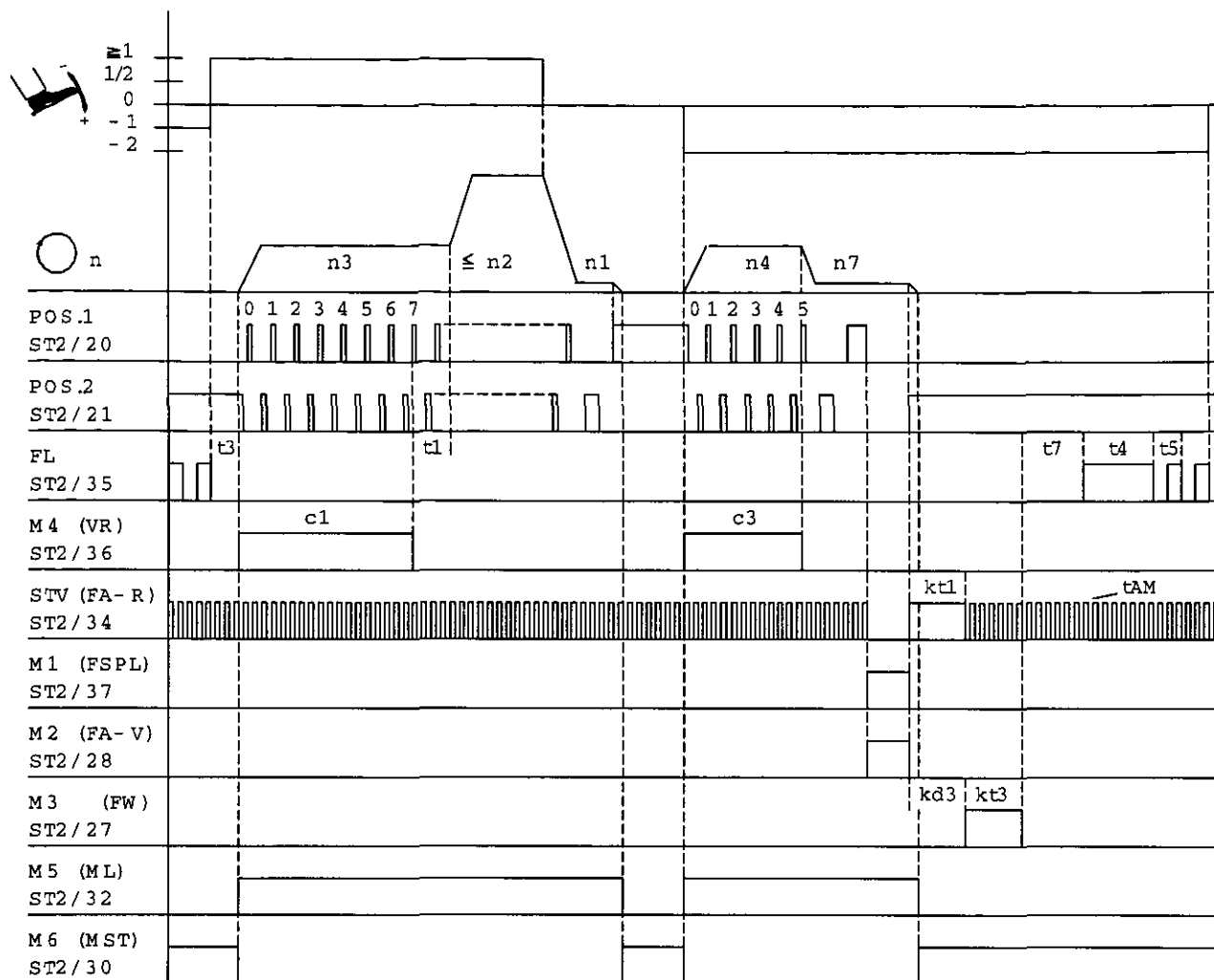
Mode 17 (stitch lock Pegasus)



0246/MODE-17

Mark	Function	Parameter	Control	V810	V820
	Mode 9	290 = 9			
	Basic position 2	On	S5 key	4 key	7 key
	Thread trimmer and thread wiper	On	S3 key		5 key
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			
tx	Fixed delay 50ms				

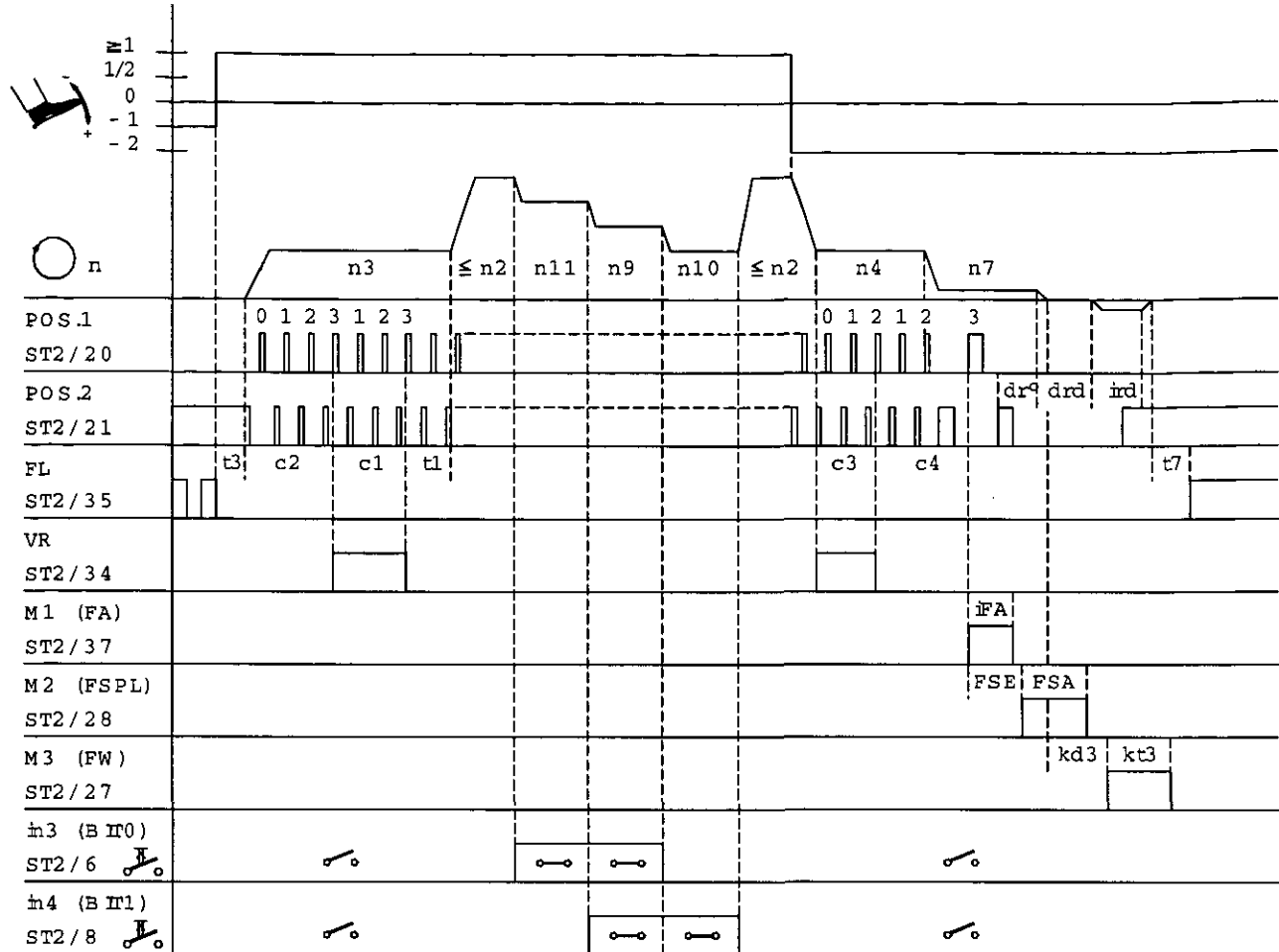
Mode 19 (lockstitch Macofrey)



0246/MODE-19

Mark	Function	Parameter	Control	V810	V820
	Mode 19	290 = 19			
	Single start backtack	On	S2 key	1 key	1 key
	Single end backtack	On	S3 key	2 key	4 key
n1	Positioning speed	110			
n2	Maximum speed	111			
n3	Start backtack speed	112			
n4	End backtack speed	113			
n7	Trimming speed	116			
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			
t7	Sewing foot switch-on delay after thread wiper	206			
tAM	Holding power output "stitch condensing" of the thread trimmer backward	254			
kt1	Full power of output M1	281			
kd3	Switch-on delay of output M3	284			
kt3	ON period of output M3	285			
c1	Start backtack stitches backward	001			
c3	End backtack stitches backward	002			

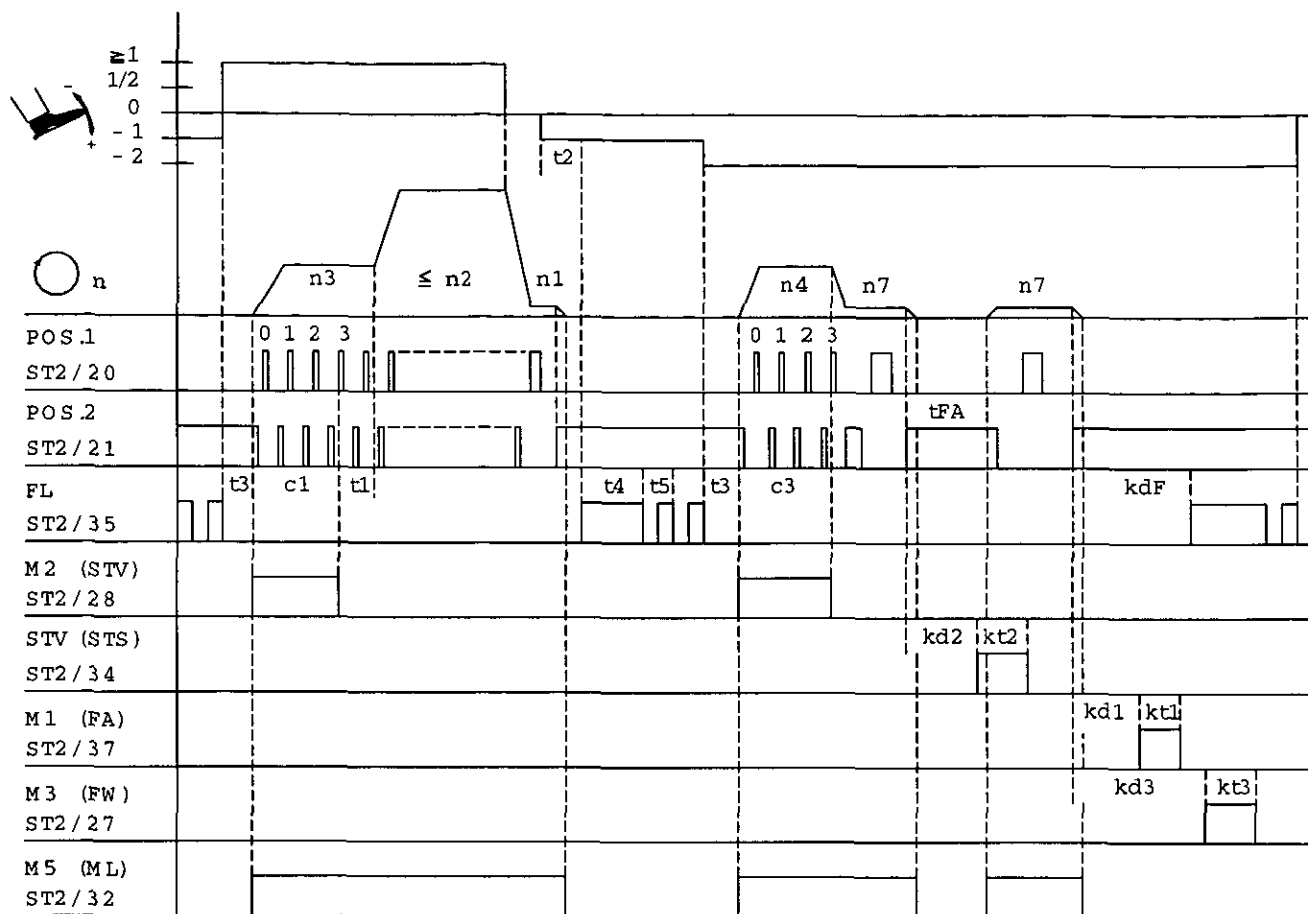
Mode 20 (lockstitch Juki LU1510-7)



0246/MODE-20

Mark	Function	Parameter	Control	V810	V820
	Mode 20	290 = 20			
	Double start backtack		S2 key	1 key	1 key
	Double end backtack		S3 key	2 key	4 key
	Reverse motor rotation				
in3	Speed limitation bit 0	182 = ON			
in4	Speed limitation bit 1	242 = 31 243 = 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			
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	Sewing foot switch-on delay after thread wiper	206			
ird	Number of reversing increments	180			
drd	Switch-on delay of reverse motor rotation	181			
iFA	Activation angle of the thread trimmer	250			
FSA	Thread tension release ON period	251			
FSE	Thread tension release delay depending on angle	252			
kd3	Switch-on delay of output M3	284			
kt3	ON period of output M3	285			
c2	Start backtack stitches forward	000			
c1	Start backtack stitches backward	001			
c3	End backtack stitches backward	002			
c4	End backtack stitches forward	003			

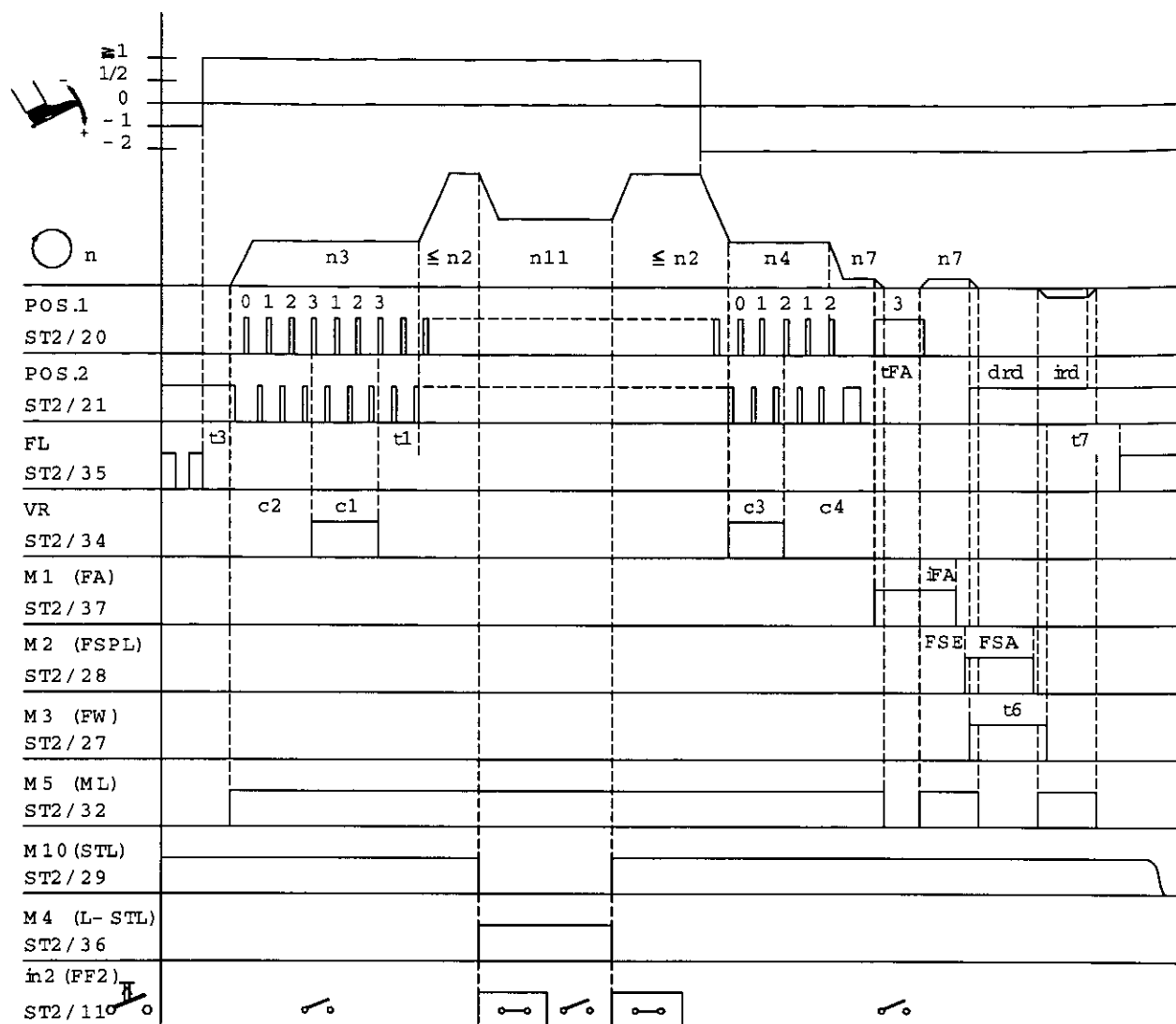
Mode 21 (stitch lock)



0246 / MODE- 21

Mark	Function	Parameter	Control	V810	V820
	Mode 21	290 = 21			
	Stitch lock function	196 = 1			
	Start stitch condensing	On	S2 key	1 key	1 key
	End stitch condensing	On	S3 key	2 key	4 key
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			
t1	Delay until speed release after stitch condensing	200			
t2	Delay of sewing foot lifting with pedal in pos. -1	201			
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			
c1	Counting start stitch condensing	001			
c3	Counting end stitch condensing	002			

Mode 22 (lockstitch)



0246/MODE- 22

Mark	Function	Parameter	Control	V810	V820
	Mode 22	290 = 22			
	Double start backtack				
	Double end backtack	On	S2 key	1 key	1 key
	Reverse motor rotation	On	S3 key	2 key	4 key
	Function "speed limitation n11"	182 = ON			
	Function of signal M10 after "Power On"	186 = ON			
	External potentiometer always active	187 = ON			
		126 = 1			
n2	Maximum speed	111			
n3	Start backtack speed	112			
n4	End backtack speed	113			
n7	Trimming speed	116			
n11	Limited speed	123			
ird	Number of reversing increments	180			
drd	Switch-on delay of reverse motor rotation	181			
t6	Thread wiper ON period	205			
iFA	Activation angle of the thread trimmer	250			
FSA	Thread tension release ON period	251			
FSE	Thread tension release delay depending on angle	252			
tFA	Stop time for thread trimmer	253			
c2	Start backtack stitches forward	000			
c1	Start backtack stitches backward	001			
c3	End backtack stitches backward	002			
c4	End backtack stitches forward	003			

5 List of Parameters

5.1 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 by means of parameter 290, these values change automatically.

Operator Level

Mode → Parameter	0	1	2	3	4	5	6	7	8	9	10	13	14	16	17	19	20	21	22
000	-	-	-	-	-	-	-	-	-	-	-	-	-	30	-	-	-	-	-
001	-	-	-	-	2	-	-	-	-	-	2	-	-	17	-	2	-	-	-
002	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-
003	-	-	-	-	-	-	-	-	-	-	-	-	-	18	-	-	-	-	-
004	-	-	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-
005	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
009	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	2
013	-	-	-	-	-	-	-	ON	-	-	-	-	-	ON	-	-	-	-	-
014	-	-	OFF	-	-	-	-	OFF	OFF	OFF	-	-	-	OFF	-	-	-	-	-
019	-	-	-	-	-	-	-	2	-	-	-	-	-	2	1	-	-	-	-
021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Technician Level

Mode → Parameter	0	1	2	3	4	5	6	7	8	9	10	13	14	16	17	19	20	21	22
100	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-
** 110	-	-	-	-	180	-	-	-	250	250	180	180	-	-	-	180	-	-	-
** 111	-	-	-	-	5000	-	-	-	-	-	4500	3000	-	3800	-	4500	2500	5500	3500
** 112	-	-	-	-	1200	-	-	-	-	-	1200	1100	-	3800	-	1200	600	-	900
** 113	-	-	-	-	1200	-	-	-	-	-	1200	1100	-	3800	-	1200	600	-	900
** 115	-	-	-	-	-	-	-	-	-	-	600	-	-	-	-	600	-	-	-
** 116	-	-	-	-	-	-	-	-	-	-	-	180	-	-	-	-	-	-	-
** 117	-	-	-	-	-	-	-	-	-	-	-	2000	-	-	-	-	1800	-	-
** 118	-	-	-	-	-	-	-	-	-	-	-	3000	-	-	-	-	2500	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
** 122	-	-	-	-	-	-	-	-	-	6000	-	2600	-	-	-	-	-	-	-
** 123	-	-	-	-	-	-	-	-	-	-	-	3000	-	-	-	-	2400	-	3500
** 124	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3500
** 125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2000
126	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
130	-	-	-	-	-	-	-	ON	-	-	-	-	-	ON	-	-	-	-	-
131	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
132	-	-	-	-	-	-	-	OFF	-	-	-	-	-	OFF	-	-	-	-	-
134	-	-	-	-	-	-	-	-	-	-	ON	-	-	-	-	ON	ON	-	-
135	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ON	-	ON
137	-	-	-	-	-	-	-	-	-	-	-	ON	-	-	-	-	-	-	-
139	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
143	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-
144	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-
153	-	-	-	-	-	-	-	-	-	-	-	15	-	-	-	3	-	-	-
161	-	-	-	-	0	0	0	0	0	0	0	-	-	0	0	-	-	0	-
180	-	-	-	-	-	-	-	-	-	-	7	1	-	-	-	-	10	-	14
181	-	-	-	-	-	-	-	-	-	-	230	-	-	-	-	-	-	-	-
182	-	-	-	-	-	-	-	ON	-	-	ON	ON	-	ON	-	-	ON	-	ON
184	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
186	-	-	-	-	-	-	-	-	-	-	-	ON	-	-	-	-	-	-	ON
187	-	-	-	-	-	-	-	-	-	-	-	ON	-	-	-	-	-	-	ON
190	-	-	-	-	0	-	-	-	-	-	-	-	-	1	-	-	-	-	-
192	-	-	-	-	-	-	-	ON	-	-	-	-	-	ON	-	-	-	-	-
194	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
196	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
197	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	-	-

x = The positions marked with "x" are not used in the functional sequence!

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

** = When programming the 3-digit or 4-digit control parameter values (without control panel), the 2-digit or 3-digit value displayed must be multiplied by 10.

Supplier Level

Mode → Parameter	0	1	2	3	4	5	6	7	8	9	10	13	14	16	17	19	20	21	22
201	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	200	-
202	-	-	-	-	-	-	-	-	0	0	10	-	-	-	-	10	-	-	-
203	-	-	-	-	350	-	-	-	-	-	-	-	-	-	-	-	-	-	-
204	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-
** 205	-	-	-	-	-	-	-	-	-	-	240	-	-	-	-	240	-	-	-
206	-	-	-	-	-	-	-	-	-	-	150	-	-	-	-	150	-	-	-
211	-	-	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-
213	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-
231	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
240	-	-	-	-	6	-	-	-	6	6	-	2	-	15	-	16	13	-	12
241	-	-	-	-	-	-	-	-	-	-	-	16	-	-	-	1	-	-	22
242	-	-	-	-	3	-	-	-	10	10	-	24	-	-	-	-	31	-	2
243	-	-	-	-	-	-	-	-	1	34	-	11	-	15	-	-	32	-	14
244	-	-	-	-	-	-	-	-	-	-	-	22	-	-	-	-	-	-	17
245	-	-	-	-	-	-	-	-	12	12	-	-	-	-	-	-	16	-	16
246	-	-	-	-	-	-	-	-	-	-	-	23	-	-	-	-	13	-	-
247	-	-	-	-	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-
248	-	-	-	-	-	-	-	-	-	-	-	17	-	-	-	-	-	14	-
250	-	-	-	-	-	-	-	-	-	-	-	70	-	-	-	-	-	-	20
251	-	-	-	-	-	-	-	-	-	-	-	110	-	-	-	-	-	-	100
252	-	-	-	-	-	-	-	-	-	-	-	70	-	-	-	-	-	-	60
** 253	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	0	-	-
254	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	4	-	-	-
** 274	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-
** 275	-	-	-	-	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-
** 280	x	x	x	x	100	-	-	100	x	x	x	x	x	-	100	-	-	-	-
** 281	-	-	-	-	-	-	-	-	-	-	280	-	-	1000	-	280	-	250	-
** 282	x	x	0	x	0	-	-	200	x	x	x	x	x	200	-	-	-	40	-
** 283	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	80	-
** 284	x	x	x	x	-	-	0	0	x	x	150	-	x	0	-	150	100	300	-
** 285	x	x	x	x	200	-	-	-	x	x	70	-	x	-	70	70	-	680	-
** 286	x	x	x	x	x	-	0	0	x	x	x	x	x	0	-	-	-	-	-
** 287	x	x	x	x	x	-	-	0	x	x	x	x	x	0	-	-	0	-	-
** 288	x	x	x	x	500	-	-	-	x	x	x	x	x	-	200	-	-	-	-
291	-	-	-	-	5	5	5	7	7	7	-	-	-	7	5	-	-	5	-
292	-	-	-	-	3	3	3	5	5	5	-	-	-	7	3	-	-	3	-
293	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-
294	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-
296	-	-	-	-	-	-	-	-	-	-	-	4	-	5	-	-	-	-	-

Further Functions

Mode → Parameter	0	1	2	3	4	5	6	7	8	9	10	13	14	16	17	19	20	21	22
Basic pos.	1	1	1	1	1	2	2	2	2	2	1	1	1	2	2	1	1	2	1
Single start	OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF
backtrack	ON	ON	ON	ON	OFF	OFF	OFF	ON	OFF	OFF	ON	ON	ON	OFF	OFF	ON	ON	OFF	ON
Double start	OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF
backtrack	ON	ON	ON	ON	OFF	OFF	OFF	ON	OFF	OFF	ON	ON	ON	ON	OFF	ON	ON	OFF	ON
Single end	OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF
backtrack	ON	ON	ON	ON	OFF	OFF	OFF	ON	OFF	OFF	ON	ON	ON	ON	OFF	ON	ON	OFF	ON
Double end	OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF
backtrack	ON	ON	ON	ON	OFF	OFF	OFF	ON	OFF	OFF	ON	ON	ON	ON	OFF	ON	ON	OFF	ON

Note

The preset values of the following list of parameters refer to the setting of parameter 290 = 0.

- x = The positions marked with "x" are not used in the functional sequence!
- = For the positions marked with "-" the preset values listed in the List of Parameters are used !
- ** = When programming the 3-digit or 4-digit control parameter values (without control panel), the 2-digit or 3-digit value displayed must be multiplied by 10.

5.2 Operator Level

The preset values of the following list of parameters refer to the setting of parameter 290 = 0.

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 *)	A
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 *)	A
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 *)	A
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 *)	A
004 LS	Light barrier compensating stitches	stitches	254	0	7 *)	A
005 LSF	Number of stitches of the light barrier filter for knitted fabrics	stitches	254	0	1 *)	A
006 LSn	Number of light barrier seams		15	1	1	A
007 Stc	Number of stitches for the seam with stitch counting	stitches	254	0	20	A
008 -F-	A parameter from the technician level is assigned to the 9 key on the V820 control panel 1 = Softstart On/Off 2 = Ornamental backtack On/Off 3 = Sewing start blocked with light barrier uncovered On/Off 4 = Unlocking the chain On/Off		4	1	1 *)	A
009 LS	Light barrier On/Off	ON/OFF			OFF *)	A
013 FA	Thread trimmer On/Off	ON/OFF			ON *)	A
014 FW	Thread wiper On/Off	ON/OFF			ON *)	A
015 StS	Stitch counting On/Off	ON/OFF			OFF	A
018 UoS	OFF = Sequence "overlock mode with stop" ON = 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 seam start without issuing signals M1/M2.	ON/OFF			OFF	A
019 -Pd	0 = Pedal in pos. -1 blocked 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 blocked in the seam. 2 = Pedal in pos. -2, thread trimming blocked. (Function only if parameter 009 = 1) 3 = Pedal in pos. -1 and -2 active in the seam. 4 = Pedal in pos. -1 and -2 blocked in the seam. (Function only if parameter 009 = 1)		4	0	3 *)	A

*) Depending on the selected mode. See table at the beginning of the List of Parameters!

Operator Level

Parameter	Designation	Unit	max	min	Preset	Ind.
020 kLM	Clamp at the seam end On/Off	ON/OFF			OFF	A
021 ckL	Run-out stitches clamp at the start of the seam (Parameter 290 = 7)	stitches	254	0	2 *)	A
022 SPO	OFF = Chain suction until the end of count c2 ON = Chain suction at the seam end until pedal in pos. 0 (neutral)	ON/OFF			OFF	A
023 AFL	Automatic sewing foot lifting with pedal forward at the seam end, if light barrier or stitch counting is switched on. 0 = Automatic sewing foot Off 1 = Automatic sewing foot On		1	0	1	E
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		3	0	0	E
031 cFw	Number of stitches for bobbin thread monitor	stitches	25500 ***)	0	0	A

*) Depending on the selected mode. See table at the beginning of the List of Parameters!

***) When programming the 5-digit (max) parameter values on the control or control panel, the 3-digit value displayed must be multiplied by 100.

5.3 Technician Level

Code no. 190 with control operation

Code no. 1907 with control panel operation

Parameter	Designation	Unit	max	min	Preset	Ind.
100 SSc	Number of softstart stitches	stitches	254	0	2 *)	A
110 n1	Positioning speed	RPM	390 **)	70	200 *)	A
111 n2-	Upper limit setting range of the maximum speed	RPM	9900 **)	n2_	4000 *)	A
112 n3	Start backtacking speed	RPM	9900 **)	200	1500 *)	A
113 n4	End backtacking speed	RPM	9900 **)	200	1500 *)	A
114 n5	Speed after light barrier sensing	RPM	9900 **)	200	1200	A
115 n6	Softstart speed	RPM	1500 **)	70	500 *)	A
116 n7	Trimming speed	RPM	500 **)	70	200 *)	A
117 n10	High lift walking speed	RPM	9900 **)	400	1000 *)	A
118 n12	Automatic speed for stitch counting	RPM	9900 **)	400	3500 *)	A
119 nSt	Speed stage graduation 1 = linear 2 = slightly progressive 3 = highly progressive		3	1	2 *)	A
121 n2_	Lower limit setting range of the maximum speed	RPM	n2- **)	400	400	A
122 n9	Limited speed n9	RPM	9900 **)	400	2000 *)	A
123 n11	Limited speed n11	RPM	9900 **)	400	2500 *)	A
124 toP	Speed limitation for ext. potentiometer (maximum value)	RPM	9900 **)	Pa.125	4000 *)	A
125 bot	Speed limitation for ext. potentiometer (minimum value)	RPM	Pa.124 **)	400	400 *)	A
126 Pot	Function "speed limitation for external potentiometer" Off 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 activated		2	0	0 *)	A
127 AkS	Audible signal of machine run blockage and bobbin thread monitor On/Off	ON/OFF			OFF	A
128 Asd	Start delay, when command "start" is given by covering the light barrier (see parameter 129)	ms	2000 **)	0	0	A
129 ALS	Machine start by covering the light barrier (only in conjunction with parameter 132 = ON) OFF = Function Off ON = Machine start by covering the light barrier (only in conjunction with parameter 132 = ON)	ON/OFF			OFF	A
130 LSF	Light barrier filter for knitted fabrics	ON/OFF			OFF *)	A
131 LSd	OFF = Light barrier sensing "covered" ON = Light barrier sensing "uncovered"	ON/OFF			ON *)	A
132 LSS	OFF = Machine start possible with light barrier uncovered or covered. ON = Machine start blocked with light barrier uncovered	ON/OFF			ON *)	A
133 LSE	Thread trimmer, when completing the seam after light barrier sensing On/Off	ON/OFF			ON *)	A
134 SSSt	Softstart On/Off	ON/OFF			OFF *)	A
135 SrS	Ornamental backtack On/Off	ON/OFF			OFF *)	A

*) Depending on the selected mode. See table at the beginning of the List of Parameters!

**) When programming the 3-digit or 4-digit control parameter values (without control panel), the 2-digit or 3-digit value displayed must be multiplied by 10.

Technician Level

Code no. 190 with control operation

Code no. 1907 with control panel operation

Parameter	Designation	Unit	max	min	Preset	Ind.
136 Far	Trimming stitch backward On/Off	ON/OFF			OFF	A
137 hP	High lift for walking foot On/Off	ON/OFF			ON *)	A
139 nIS	Display of machine speed On/Off	ON/OFF			OFF *)	A
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		3	0	0	A
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	A
143 kSA	Stitch counting at the start of the seam (e. g. chain suction) 0 = at fixed speed n3 (e. g. automats) 1 = pedal controlled speed		1	0	1 *)	E
144 kSE	Stitch counting at the seam end (e. g. chain suction if parameter 290 = 7/16 or during start backtack/stitch condensing in the respective modes) 0 = at fixed speed n4 (e. g. automats) 1 = pedal controlled speed		1	0	1 *)	E
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	A
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	A
152 thP	Run-out time of the high lift walking speed	ms	500	80	150 *)	A
153 brt	Braking power at machine standstill		50	0	10 *)	A
155 LSG	Mode signal "run" 0 = Signal Off. 1 = Signal "run" On. 2 = Signal "run" switched on when the speed is >3000 RPM. 3 = Signal with pedal <> 0.		3	0	1	A
156 t05	Switch-off delay for the signal "run" or signal with pedal in pos. 0 (neutral)	ms	2550 **)	0	0	A

*) Depending on the selected mode. See table at the beginning of the List of Parameters!

**) When programming the 3-digit or 4-digit control parameter values (without control panel), the 2-digit or 3-digit value displayed must be multiplied by 10.

Technician Level

Code no. 190 with control operation

Code no. 1907 with control panel operation

Parameter	Designation	Unit	max	min	Preset	Ind.
161 drE	Direction of motor rotation 0 = Clockwise rotation 1 = Counterclockwise rotation		1	0	1 *)	A
172 PoS	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 arrow above the 4 key On) Pos. 2 to 2A (right arrow above the 4 key On)					
172 Sr3	Display on the V820 control panel: Pos. 1 to 1A (left arrow above the 7 key On) Pos. 2 to 2A (right arrow above the 7 key On)					
173 Sr4	Checking of the signal outputs and inputs using the incorporated control panel or the V810/V820 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 M3 on socket ST2/27 05 = Output M2 on socket ST2/28 06 = Output M4 on socket ST2/36 07 = Output M5 on socket ST2/32 08 = Output M11 on socket ST2/31 09 = Output M6 on socket ST2/30 10 = Output M9 on socket ST2/25 11 = Output M8 on socket ST2/24 12 = Output M7 on socket ST2/23 13 = Output M10 on socket ST2/29 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 ON with closed switch.					
179 Sr5	Control program number with index and identification number. Upon pressing the appropriate key the data will be displayed in succession. Control display: Press the E key → Display e. g. 466 Press the >> key → Display e. g. h Press the >> key → Display e. g. 00 Press the >> key → Display e. g. 04 Press the >> key → Display e. g. 20 Press 2x the P key → Display shows no reading V810 control panel display: Press the E key → Display e. g. 1466h Press the >> key → Display e. g. 000420 Press 2x the P key → Display e. g. Ab62CV V820 control panel display: Press the E key → Display e. g. 466h 00042011 Press 2x the P key → Display e. g. 4000 Ab62CV					

*) Depending on the selected mode. See table at the beginning of the List of Parameters!

Technician Level

Code no. 190 with control operation

Code no. 1907 with control panel operation

Parameter	Designation	Unit	max	min	Preset	Ind.
180 rd	Number of reversing increments	incr.	100	0	60 *)	A
181 drd	Switch-on delay of reverse motor rotation	ms	990	0	10 *)	A
182 Frd	Reverse motor rotation On/Off	ON/OFF			OFF *)	A
183 FFm	Switching off the flip-flop functions at the seam end 0 = Flip-flop 1 (M6) and flip-flop 2 (M10) not switched off at the seam end 1 = Flip-flop 1 (M6) switched off at the seam end 2 = Flip-flop 2 (M10) switched off at the seam end 3 = Flip-flop 1 (M6) and flip-flop 2 (M10) switched off at the seam end		3	0	0	A
184 c6	Number of run-out stitches when unlocking the chain	stitches	254	0	20 *)	A
185 chP	Stitch counting high lift for walking foot	stitches	254	0	0	A
186 FFi	Function "speed limitation n11" OFF = Speed limitation n11 On, when signal M10 is On. Speed limitation n11 Off, when signal M10 is Off. ON = Speed limitation n11 Off, when signal M10 is On. Speed limitation n11 On, when signal M10 is Off.	ON/OFF			OFF *)	A
187 FFo	Function of signal M10 after "power On" (flip-flop 2) on socket ST2/29 OFF = Signal M10 Off / speed limitation n11 according to setting of parameter 186 ON = Signal M10 On / speed limitation n11 according to setting of parameter 186	ON/OFF			OFF *)	A
190 MEK	Function "unlock the chain" in modes 4, 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 - with light barrier or - pedal in pos. -2 (parameter 019) without cutting at the seam end 3 = Unlocking the chain automatically - with 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 / 16) 4 = Unlocking the chain only with pedal in pos. -2. No unlocking the chain with seam end by light barrier, cutting and run-out stitches.		4	0	2 *)	E
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	A
192 PLS	Speed of the light barrier compensating stitches OFF = Speed n5 after light barrier sensing ON = Speed pedal controlled	ON/OFF			OFF *)	A

*) Depending on the selected mode. See table at the beginning of the List of Parameters!

Technician Level

Code no. 190 with control operation

Code no. 1907 with control panel operation

Parameter	Designation	Unit	max	min	Preset	Ind.
193 kSL	Switching on the signal "chain suction" and thread tension release OFF = Thread tension release and chain suction after the light barrier compensating stitches ON = Chain suction from light barrier uncovered onwards and thread tension release after the light barrier compensating stitches	ON/OFF			OFF	A
194 Stb	Function "blow fabric onto stack" M7 0 = Blow fabric onto stack at the seam end 1 = Blow fabric onto stack from light barrier uncovered onwards		1	0	0 *)	A
195 LSc	Stitches for light barrier monitoring (light barrier monitoring is off, when set to "0").	stitches	2550 **)	0	0	A
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 *)	H
197 dr°	Stop for thread trimming depending on angle	degrees	510	0	360 *)	H

*) Depending on the selected mode. See table at the beginning of the List of Parameters!

**) When programming the 3-digit or 4-digit control parameter values (without control panel), the 2-digit or 3-digit value displayed must be multiplied by 10.

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5.4 Supplier Level

Code no. 311 with control operation

Code no. 3112 with control panel operation

Parameter	Designation	Unit	max	min	Preset	Ind.
200 t1	Delay until speed release after start backtack	ms	500	0	100 *)	A
201 t2	Sewing foot lift switch-on delay with half heelback	ms	500	20	80 *)	A
202 t3	Start delay after switching off the sewing foot lift signal	ms	500	0	50 *)	A
203 t4	Time of full power of sewing foot lifting	ms	600	0	500 *)	A
204 t5	Holding power for sewing foot lifting Stages 0...7 Stage 1 → 12.5% low holding power Stage 7 → 87.5% Stage 0 → 100% high holding power				3 *)	A
205 t6	Thread wiper time	ms	2550 **)	0	120 *)	A
206 t7	Delay from end of thread wiper until sewing foot lifting On	ms	800	0	40 *)	A
207 br1	Braking effect when modifying the preset value ≤ 4 stages		64	1	25	A
208 br2	Braking effect when modifying the preset value ≥ 5 stages		64	1	64	A
210 tSr	Stop time for switching the stitch regulator in the ornamental backtack	ms	500	0	140	A
211 tFL	Sewing foot lift switch-on delay with thread wiper off	ms	500	0	60 *)	A
212 t10	Time of full power of backtacking	ms	600	0	500	A
213 t11	Holding power for backtacking Stages 0...7 Stage 1 → 12.5% low holding power Stage 7 → 87.5% Stage 0 → 100% high holding power				3 *)	A
220 ALF	Accelerating power of the drive		255	1	32	A
221 dGn	Speed gate 1	RPM	990 **)	50	100	A
222 tGn	Speed gate damping period (effective only if parameter 224 = OFF)	ms	990	0	0	A
223 dG2	Speed gate 2	RPM	6500 **)	500	1700	A
224 dGF	Speed gate 2 On/Off	ON/OFF			ON	A
231 Sn1	Execution of the first stitch after Power On at positioning speed	ON/OFF			ON *)	A
232 USS	Overlock with fast scissors On/Off OFF = Tape cutter ON = Fast scissors (set parameter 282 = 0)	ON/OFF			OFF	A
233 PA1	Error message A1, if the pedal is not in pos. 0 (neutral), when switching the machine on. OFF = Error message A1 is suppressed (e. g. with automats) ON = Error message A1 is displayed	ON/OFF			ON	A
234 PdO	New start after machine run blockage OFF = New start after deactivating the machine run blockage without influence by the pedal (e. g. with automats) ON = New start after deactivating the machine run blockage only if pedal in pos. 0	ON/OFF			ON	A
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	E

*) Depending on the selected mode. See table at the beginning of the List of Parameters!

**) When programming the 3-digit or 4-digit control parameter values (without control panel), the 2-digit or 3-digit value displayed must be multiplied by 10.

Supplier Level

Code no. 311 with control operation

Code no. 3112 with control panel operation

Parameter	Designation	Unit	max	min	Preset	Ind.
239 FEL	Selection of the input function on socket B18/5 0 = Light barrier function, if 009 = ON All other functions as with parameter 240. Exception is parameter 239 = 14. At this setting, high lift for walking foot is performed with speed limitation <u>operational mode not stored</u> .		36	0	0	H
240 in1	Selection of the input functions on socket ST2/7 and B4/1 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 11 = Limited speed n12 pedal controlled 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 (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 = Unlocking the chain (can be activated by keystroke, but will be executed only at the seam end) 19 = Set counter of bobbin thread monitor to value determined by means of parameter 031 20 = Positioning speed n1 21 = No function 22 = Speed limitation n11 (flip-flop 2). Output ST2/29 is activated according to setting of parameter 186 23 = Speed limitation n9 24 = Needle moves from position 1 to position 2 (flip-flop 3). If the needle is outside of position 1, machine start is blocked for safety reasons and the sewing foot is immediately lifted. 25 = Speed limitation with ext. potentiometer On/Off (see parameter 126) 26 = No function 27 = Unlocking the chain (the function is performed upon pressing the key). 28 = External light barrier 29 = "Hemmer foot" signal Off (see parameter 296) 30 = High lift for walking foot, if sewing foot is On		36	0	0 *)	H

Supplier Level

Code no. 311 with control operation

Code no. 3112 with control panel operation

Parameter	Designation	Unit	max	min	Preset	Ind.
	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 35 = Automatic speed n9 can be interrupted by pressing the pedal to pos. -2 36 = Automatic speed n9 without pedal					
241	in2 Selection of the input function on socket ST2/11 and B4/3 for input 2 0 = No function All other functions of the keys as with parameter 240		36	0	0 *)	H
242	in3 Selection of the input function on socket ST2/6 and B4/4 for input 3 0 = No function All other functions of the keys as with parameter 240		36	0	0 *)	H
243	in4 Selection of the input function on socket ST2/8 and B4/5 for input 4 0 = No function All other functions of the keys as with parameter 240		36	0	0 *)	H
244	in5 Selection of the input function on socket ST2/5 and B4/6 for input 5 0 = No function All other functions of the keys as with parameter 240		36	0	0 *)	H
245	in6 Selection of the input function on socket ST2/12 for input 6 0 = No function All other functions of the keys as with parameter 240		36	0	0 *)	H
246	in7 Selection of the input function on socket ST2/9 for input 7 0 = No function All other functions of the keys as with parameter 240		36	0	0 *)	H
247	in8 Selection of the input function on socket ST2/10 for input 8 0 = No function All other functions of the keys as with parameter 240		36	0	0 *)	H
248	in9 Selection of the input function on socket ST2/13 for input 9 0 = No function All other functions of the keys as with parameter 240		36	0	0 *)	H
249	i10 Selection of the input function on socket ST2/14 for input 10 0 = No function All other functions of the keys as with parameter 240		36	0	0 *)	H

*) Depending on the selected mode. See table at the beginning of the List of Parameters!

Supplier Level

Code no. 311 with control operation

Code no. 3112 with control panel operation

Parameter	Designation	Unit	max	min	Preset	Ind.
250 iFA	Thread trimmer activation angle (1 increment = 3°)	incr.	120	0	100 *)	A
251 FSA	Switch-off delay of thread tension release	ms	990	0	50 *)	A
252 FSE	Switch-on delay of thread tension release (1 increment = 3°)	incr.	120	0	0 *)	A
253 tFA	Stop time for thread trimmer	ms	2550 **)	0	70 *)	A
254 tAM	Holding power output stitch condensing of the thread trimmer backward (stages 0...4) Stage 0 = Holding power Off Stage 1 = 6.25% Stage 2 = 12.5% Stage 3 = 18.75% Stage 4 = 25%		4	0	2 *)	A
274 Ad1	Delay time of signal M8	ms	2550 **)	0	40 *)	C
275 At1	ON period of signal M8	ms	2550 **)	0	150 *)	C
280 kd1	Delay time output M1	ms	2550 **)	0	0 *)	A
281 kt1	ON period output M1	ms	2550 **)	0	100 *)	A
282 kd2	Delay time output M2	ms	2550 **)	0	100 *)	A
283 kt2	ON period output M2	ms	2550 **)	0	100 *)	A
284 kd3	Delay time output M3	ms	2550 **)	0	200 *)	A
285 kt3	ON period output M3	ms	2550 **)	0	100 *)	A
286 kd4	Delay time output M4	ms	2550 **)	0	300 *)	A
287 kt4	ON period output M4	ms	2550 **)	0	100 *)	A
288 kdF	Delay time until sewing foot On	ms	2550 **)	0	380 *)	A
289 kt5	ON period output M7	ms	2550 **)	0	1000	A

*) Depending on the selected mode. See table at the beginning of the List of Parameters!

**) When programming the 3-digit or 4-digit control parameter values (without control panel), the 2-digit or 3-digit value displayed must be multiplied by 10.

Supplier Level

Code no. 311 with control operation

Code no. 3112 with control panel operation

Parameter	Designation	Unit	max	min	Preset	Ind.
290 FAM	0 = Lockstitch mode: (FA1, FA2, FA3, FA1+FA2); e. g. Brother Dürkopp Adler, Mitsubishi, Pfaff, Toyota »Slide-in strip for V810 and V820 = 1« 1 = Lockstitch mode: e. g. Singer (SN62AV) »Slide-in strip for V810 and V820 = 1« 2 = Lockstitch mode: e. g. Singer (212 UTT) »Slide-in strip for V810 and V820 = 1« 3...= Lockstitch mode: e. g. Dürkopp Adler (models 767, N291) »Slide-in strip for V810 and V820 = 1« 4 = Chainstitch mode: e. g. (US80A) »Slide-in strip for V810 = 5« »Slide-in strip for V820 = 3« 5 = Chainstitch mode in general: M1, M2, M3 and M4 parallel sequence »Slide-in strip for V810 = 5« »Slide-in strip for V820 = 3« 6 = Chainstitch mode with tape cutter and/or fast scissors and M1 / M2 at the seam end »Slide-in strip for V810 = 5« »Slide-in strip for V820 = 3« 7 = Overlock mode: e. g. (AC62AV1461) »Slide-in strip for V810 = 7« »Slide-in strip for V820 = 5« 8 = Backlatch mode: Pegasus »Slide-in strip for V810 = 7« »Slide-in strip for V820 = 5« 9 = Backlatch mode: Yamato »Slide-in strip for V810 = 7« »Slide-in strip for V820 = 5« 10 = Lockstitch mode: Union Special (63900AMZ »replacement for US80A«) and on Refrey lockstitch machines »Slide-in strip for V810 and V820 = 1« 13 = Lockstitch mode: Pfaff (1425) »Slide-in strip for V810 and V820 = 1« 14 = Lockstitch mode: Juki (5550-6, 5550-7) »Slide-in strip for V810 and V820 = 1« 16 = Overlock mode: feed-off-the-arm machines e. g. Yamato (FD62) »Slide-in strip for V820 = 7« 17 = Chainstitch mode: Pegasus (stitch lock) »Slide-in strip for V810 = 5« »Slide-in strip for V820 = 3« 19 = Lockstitch mode: Macofrey »Slide-in strip for V810 and V820 = 1« 20 = Lockstitch mode: Juki (LU1510-7) »Slide-in strip for V810 and V820 = 1« 21 = Chainstitch mode with stitch lock: Yamato (VG2730-156M) »Slide-in strip for V810 = 5« »Slide-in strip for V820 = 3« 22 = Lockstitch mode: Brother (B-891) »Slide-in strip for V810 and V820 = 1« Modes 11, 12, 15, 18 are selectable, but their functions correspond to mode 0!		22	0	0	H

Supplier Level

Code no. 311 with control operation

Code no. 3112 with control panel operation

Note

When selecting the trimming mode by means of parameter 290, the connected V810 or V820 control panel is automatically sensed and the corresponding slide-in strip number is selected by means of parameter 291 and 292, respectively. Should a different strip be inserted, its number can be set by means of parameter 291 and 292, respectively, after having selected the trimming mode.

Parameter	Designation	Unit	max	min	Preset	Ind.
291 810	Select slide-in strip number for the V810 control panel (illustrations of slide-in strips see the following chapter 7)		8	1	1 *)	A
292 820	Select slide-in strip number for the V820 control panel (illustrations of slide-in strips see the following chapter 7)		10	1	1 *)	A
293 tF1	Selection of the input function by means of the (A) key "F1" on the V810/V820 control panel 0 = No function 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 = Unlocking the chain (can be activated by keystroke, but will be executed only at the seam end) 19 = Set bobbin thread monitor to value determined by means of parameter 031, 030 = >0 20/21 = No function 22 = Speed limitation n11 (flip-flop 2). Output ST2/29 is activated according to setting of parameter 186 23 = Speed limitation n9 24 = Needle moves from position 1 to position 2 (flip-flop 3). If the needle is outside of position 1, machine start is blocked for safety reasons and the sewing foot is immediately lifted. 25 = Speed limitation with ext. potentiometer On/Off (see parameter 126) 26 = No function 27 = Unlocking the chain (see parameter 240) 28 = No function		28	0	17 *)	C
294 tF2	Selection of the input function by means of the (B) key "F2" on the V810/V820 control panel Functions of the key as with parameter 293		28	0	1 *)	C

*) Depending on the selected mode. See table at the beginning of the List of Parameters!

Supplier Level

Code no. 311 with control operation

Code no. 3112 with control panel operation

Parameter	Designation	Unit	max	min	Preset	Ind.
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. <0 and in the seam with machine running 2 = Signal hemmer foot On at the start of the seam with pedal in pos. <0 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 <i>overlock machines in mode 16</i> , if parameter 232=ON has been selected		5	0	0 *)	E
297 M11	Functions of signal M11 0 = Function according to setting of parameter 290. 1 = Signal M11 is switched on whenever the light barrier is uncovered 2 = Signal M11 is switched on whenever the light barrier is covered 3 = Signal M11 is switched on only after light barrier uncovered and/or covered until seam end 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. 5 = Signal M11 is switched on from "light barrier sensing", "pedal in pos. -2" or "hemmer foot signal" key off" onwards.		5	0	0	D
298 nSo	Backtack synchronization On/Off	ON/OFF			OFF	A
299 nrS	Backtack synchronization speed	RPM	3000 **)	200	400	A

*) Depending on the selected mode. See table at the beginning of the List of Parameters!

**) When programming the 3-digit or 4-digit control parameter values (without control panel), the 2-digit or 3-digit value displayed must be multiplied by 10.

6 Error Displays

General Information			
On the control	On the V810	On the V820	Signification
A1	InF A1	InFo A1	Pedal not in neutral position, when turning the machine on (according to setting of parameter 233)
A2	-StoP- blinking + symbol display	-StoP- blinking + symbol display	Machine run blockage
A6	InF A6	InFo A6	Light barrier monitoring
A7	Symbol blinking	Symbol blinking	Bobbin thread monitor

Programming Functions and Values (Parameters)			
On the control	On the V810	On the V820	Signification
Returns to 000 or to last parameter number	Returns to 0000 or to last parameter number	Like V810 + display InFo F1	Wrong code number or parameter number input

Serious Condition			
On the control	On the V810	On the V820	Signification
E1	InF E1	InFo E1	After power On, position transmitter or commutation transmitter defective, or connecting cables have been changed by mistake. During operation or after a sewing cycle, only position transmitter defects can be identified.
E2	InF E2	InFo E2	Line voltage too low, or time between power off and power on too short.
E3	InF E3	InFo E3	Machine blocked or does not reach the desired speed.
E4	InF E4	InFo E4	Control disturbed by deficient grounding or loose contact.

Hardware Disturbance			
On the control	On the V810	On the V820	Signification
H1	InF H1	InFo H1	Commutation transmitter cord or frequency converter disturbed.
H2	InF H2	InFo H2	Processor disturbed

7 Slide-in Strips for the V810/V820 Control Panels

Slide-in strips for the V810 control panel

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