

SERVO-TOP

QE5542

CE

Type

Q40SE 02

Instruction Manual

Part 3

QUICK-ROTAN Elektromotoren GmbH
Königstraße 154
67655 Kaiserslautern
Tel: 0631 / 200 38 80
Fax: 0631 / 200 38 62
E-Mail: tech.supp@quick-rotan.com
www.quick-rotan.com

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Technical updatings reserved!

11. Survey and List of Parameters

11.1 Explanation of Parameter Survey

The parameter survey is designed as an aid for finding parameters quickly. It is a summary of references for the parameter list. Listed behind each reference are all parameters which exert an influence on the function described by the reference.

The parameter survey is divided into five columns:

Column 1 shows the references (functions) to which parameters are assigned.

Column 2 shows the abbreviations of the respective functions.

Column 3 shows all parameters (setting numbers) belonging to the respective reference.

Column 4 shows, for each function (reference) which controls inputs or outputs, the applicable indications such as Ex or Ax which can also be found on the connections diagram.

Column 5 shows, for each function (control inputs (Ex) or control outputs (Ax)), the respective plugs with the number of contacts (see connections diagram).

Example for searching a parameter:

Keyword (function): inverse rotation

The parameter survey shows in column 3 the parameter numbers 618, 623, 801.

Suppose that the inverse rotation function is to be enabled. The parameter list shows this function under parameter number 618.

11.2 Explanation of Parameter List

The parameter list is divided into 5 columns. These comprise, in

column 1: the parameter number,

column 2: is the explanation (meaning) of the parameters and the coding system of row 1 of the keys of the mini operator's panel, used when the parameter concerned can be programmed with the mini operator's panel,

column 3: the programming level (A, B, C) on which the parameter in question can be accessed,

column 4: the range of values within which the parameter in question can be set,

column 5: the value of the parameter in question is set on delivery ex factory.

Parameters having "either/or" validity (software switches) can merely be set to value I or II. In the case of such parameters, column 4 is empty.

Parameter numbers in acute brackets; e.g. <105>, mean the value (content) set for the parameter in question.

Example:

107 Speed for front backtack when <106> = I

I limited by <105>

II limited by <607>

Explanation:

Parameter 107 is valid only the the value (content) of parameter <106> = I.

If parameter 107 is set to I (<107> = I), then the speed for the front backtack is limited by parameter 105, e.g. <105> = 1500. If parameter 107 is set to II (<107> = II), then the speed for the front backtack is limited by the value of parameter 607, e.g. <607> = 4000.

11.3 Parameter survey Q40SE 02 (2A_924_G.ENO)

Function	Abbrev'n	Parameter	Input Output	Connection Socket/Contacts
Accelerate	DRZAN	722		
Affichage	ANZ	605		
Backtack	RIE	104/105/107 110/126/523 584/585		
Backtack inversion	RIV	419/617		
Backtack suppression	RIUNT	419		
Blindstitch	BLIND	658		
Blower	BLA	668		
Brake	DRZAB	723/851		
Catcher	FANG	707		
Chainstitch machine	KES	578		
Chopper	MESSER	105/110/126 427/472/531 532/714		
Control	REG	884/885/886 887/889/890 891/894/990		
Decorative backtack	ZRIE	505/506/507 508/522/523 530/679/775		
Defect search	HWT	797		
Delay	VERZ	403/581/623 641/679/716 717/730/731 732/739/740 770		
Direction of rotation	DRR	800		
Display	ANZ	605		
End backtack	ER	110/126/149 604/731/732 740		
Engine	MOT	897		
Feed reverse	TUM	721	E1 A5	X1:3 X1:11
Front backtack	AR	104/105/106 107/148/497 739		

Hardware test	HWT	797		
Inverse rotation	RDR	618/623/801		
Knotting	VERK	657		
Lockstitch machine	STS	578		
Machine class	MAKL	790/799		
Machine run	ML	904	A8	X1:4
Needle position	NAPO	522/654/675 700/701/702 703/704/705 706/707/710		
Needle position change-over	NPW	616		
Needle up without trimming	NHOS	616/710	E2	X1:8
Number of stitches	STZA	111/112/145 404/445/505 506/507/508 540/542/570 572		
ON period	EINZ	714/715/738 743/889		
Photocell	LS	111/112/113 160/199/615 640/641		
Presser foot	PF	427/554/651 719/729/730 770	E4	X1:5
Program	PR	114/203/206 221/222/304 313/554/851		
Programming level C	EBC	798		
Puller	PULL	427/445		
Repeat backtack	WRIE	731/740		
Residual brake	STBR	718		
Seam end	NE	110/114/126 145/206/602 658		
Seam start	NA	105		
Single stitch	EST	617	E3	X1:2
Soft start	SANL	116/117		

Speed	DRZ	105/106/107 110/117/126 199/203/208 221/222/402 403/462/530 585/586/587 591/605/606 607/609/676 850/901		
Speed decrease	DRZAB	723/851		
Speed increase	DRZAN	722		
Speed limitation	DB	221/222/402 585/586/587 591/676	E13	X1:20
Start	START	113/160/540 603/640/641		
Start delay	STVERZ	729		
Starting block	ANLSP	621/665/680		
Stitch condensation	STVD	105/106/107 110/126/419 570/572/617 739		
Stitch security	STISI	657		
Stop	STOP	114/206/427 621/665/680	E6	X1:6
Stop time	STOPZ	712/775		
Stroke adjustment	HV	401/402/403 404/427		
Target stitch	PEIPO	653/789		
Thread clamp	FK	581		
Thread puller	FZ	581/743/761		
Thread tension	FS	673		
Thread tension release	FSL	540/542/673 707/761	A10	X1:15
Thread trimming	SN	497/601/604 609/654/704 705/706/714 717/732/734 738/901	A1	X1:9
Thread wiper	WI	472/497/668 715/716	A3	X1:7
Time needed to switch on	EINZ	714/715/738 743/889		

Timing output	TA	719/721/734
Unlocking of chain	ENTKET	425
Vacuum	SAUG	105/110/126

11.4 List of Parameters Q40SE 02 (2A_924_G.EN)

No.	Function (Meaning)	Level	Range Values	of Value	Standard
104	(AR/RIE) Front backtack correction (delayed disabling of feed reverse)	B,C	0 - 16	8 -	Kl. 1, 2, 3, 4 Kl. 5, 6
105	(AR/RIE/DRZ/MESSER/NA/SAUG/STVD) Speed for front backtack/ stitch condensation (00000011)	B,C	100 - 6400	1500 1200	Kl. 1, 5, 6 Kl. 2, 3, 4
106	(AR/DRZ/STVD) Speed for front backtack/stitch condensation I variable (treadle-controlled) II constant (corresponding to <105>)	B,C		II	Kl. 1, 2, 3, 4, 5, 6
107	(AR/RIE/DRZ/STVD) Speed for front backtack/stitch condensation when <106> = I I limited by <105> II limited by <607>	B,C		II	Kl. 1, 2, 3, 4, 5, 6
110	(ER/RIE/DRZ/MESSER/NE/SAUG/STVD) Speed for end backtack/ stitch condensation	B,C	100 - 6400	1500 1200	Kl. 1, 5, 6 Kl. 2, 3, 4
111	(LS/STZA) Light barrier compensation stitches 1 (stitches from light barrier clear to seam end)	A,B,C	1 - 255	6	Kl. 1, 2, 3, 4, 5, 6
112	(LS/STZA) Number of stitches for light barrier fade-out on knit fabrics (according to stitch size)	A,B,C	0 - 255	0	Kl. 1, 2, 3, 4, 5, 6
113	(LS/START) Start with light barrier I when light barrier is dark only II also when light barrier is clear	B,C		II	Kl. 1, 2, 3, 4, 5, 6
114	(PR/STOP/NE) Stop before seam end after stitch count (last seam section) I yes II no	B,C		II	Kl. 1, 2, 3, 4, 5, 6
116	(SANL) Soft start stitches (00000111)	A,B,C	0 - 255	0	Kl. 1, 2, 3, 4, 5, 6
117	(SANL/DRZ) Speed for soft start stitches	B,C	30 - 640	500 400	Kl. 1 Kl. 2, 3, 4, 5, 6
126	(ER/DRZ/MESSER/NE/RIE/SAUG/STVD) Speed for End backtack / stitch condensation I variable (treadle-controlled) II constant (corresponding to <110>)	B,C		II -	Kl. 5 Kl. 1, 2, 3, 4, 6
145	(NE/STZA) Number of stitches for seam end (00001001)	A,B,C	0 - 255	3 -	Kl. 5, 6 Kl. 1, 2, 3, 4
148	(AR) Front backtack I double II single	A,B,C		I -	Kl. 1, 2, 3, 4 Kl. 5, 6
149	(ER) End backtack I double II single	A,B,C		I -	Kl. 1, 2, 3, 4 Kl. 5, 6
160	(LS/START) Start of photocell I automatic II treadle-controlled	A,B,C		II -	Kl. 5 Kl. 1, 2, 3, 4, 6
199	(DRZ/LS) Speed for light barrier compensation stitches	B,C	300 - 6400	1500 1200	Kl. 1, 5, 6 Kl. 2, 3, 4
203	(PR/DRZ) Speed for seam program I variable (treadle-controlled) II constant (corresponding to <221> or <222>)	B,C		II	Kl. 1, 2, 3, 4, 5, 6
206	(NE/PR/STOP) Interrupt/discontinue seam sections at speed = constant (<203> = II) I with treadle -2 II with treadle 0	B,C		II	Kl. 1, 2, 3, 4, 5, 6
208	(DRZ) Rate of rotation n I n = constant, independent of pedal setting > 1 II n = variable, dependent on pedal setting > 1	B,C		II	Kl. 1, 2, 3, 4, 5, 6
221	(PR/DB/DRZ) Speed limitation for sewing program 1 (or for all sewing programs)	B,C	300 - 6400	1000	Kl. 1, 2, 3, 4, 5, 6

222	(PR/DB/DRZ) Speed limitation for sewing program 2	B,C	300 - 6400	1500	Kl. 1, 2, 3, 4, 5, 6
304	(PR) Stitch compensation at feed reverse for a seam section	B,C	0 - 2550	30 -	Kl. 1, 2, 3, 4 Kl. 5, 6
313	(PR) Programs are backtack programs (darning programs) I yes II no	A,B,C		II	Kl. 1, 2, 3, 4, 5, 6
401	(HV) Input „stroke adjustment“ I switch operation II push-button operation	B,C		II	Kl. 1, 2, 3, 4, 5, 6
402	(HV/DRZ/DB) Speed at stroke adjustment	B,C	300 - 2500	2000 600 400 900	Kl. 1, 5, 6 Kl. 2 Kl. 3 Kl. 4
403	(HV/DRZ/VERZ) Delay (ms) of the speed variation at end of stroke adjustment	B,C	0 - 2550	100	Kl. 1, 2, 3, 4, 5, 6
404	(HV/STZA) Number of stitches with stroke adjustment	B,C	0 - 255	0	Kl. 1, 2, 3, 4, 5, 6
419	(RIV/RIUNT/STVD) Function of external key I backtack / stitch condensation inversion II backtack / stitch condensation suppression (flip-flop function)	B,C		I	Kl. 1, 2, 3, 4, 5, 6
425	(ENTKET) Unlocking of chain at seam end I yes II no	A,B,C		II -	Kl. 5, 6 Kl. 1, 2, 3, 4
427	(PF/HV/PULL/STOP/MESSER) Selection of the function available with input E4 1 = presser foot 2 = stroke adjustment 3 = control of puller 4 = stop 5 = chopper 6-9 without function	B,C	1 - 9	1	Kl. 1, 2, 3, 4, 5, 6
445	(PULL/STZA) Stitches for puller delay	B,C	0 - 255	3	Kl. 1, 2, 3, 4, 5, 6
462	(DRZ) Function of speed control unit I 2 speeds only n-min (to position +7) and n-max (from position +8) and one needle position II 12 speed levels and two needle positions	B,C		II -	Kl. 1 Kl. 2, 3, 4, 5, 6
472	(WI/MESSER) Output A3 is I Cutter for edge trimmer (Bohnenkamp) II Wiper	B,C		II -	Kl. 2 Kl. 1, 3, 4, 5, 6
497	(AR/WI/SN) Function of the selector switch „WS4“ on the controller housing for operation without external control panel I Start bar Position 0 : without Position 1 : single Position 0 : double II thread cutting (FSN) / thread wiping (FWI) Position 0 : FSN off / FWI off Position 1 : FSN on / FWI off Position 2 : FSN on / FWI on (00111111)	B,C		I	Kl. 1, 2, 3, 4, 5, 6
505	(ZRIE/STZA) Number of stitches for front decorative backtack forward (stitch in stitch, speed = <530>) (00001001)	A,B,C	0 - 9	3 -	Kl. 1, 2, 3, 4 Kl. 5, 6
506	(ZRIE/STZA) Number of stitches for front decorative backtack backward (stitch in stitch, speed = <530>)	A,B,C	0 - 9	3 -	Kl. 1, 2, 3, 4 Kl. 5, 6
507	(ZRIE/STZA) Number of stitches for end decorative backtack backward (stitch in stitch, speed = <530>) (00001011)	A,B,C	0 - 9	3 -	Kl. 1, 2, 3, 4 Kl. 5, 6

508	(ZRIE/STZA) Number of stitches for end decorative backtack forward (stitch in stitch, speed = <530>)	A,B,C	0 - 9	3	Kl. 1, 2, 3, 4 - Kl. 5, 6
522	(NAPO/ZRIE) Needle position when stop occurs during decorative backtack (stitch in stitch) I position 2 (up) II position 1 (down) (00001101)	B,C		II -	Kl. 1, 2, 3, 4 Kl. 5, 6
523	(RIE/ZRIE) Backtack I decorative backtack (stitch in stitch) II standard backtack	A,B,C		II -	Kl. 1, 2, 3, 4 Kl. 5, 6
530	(DRZ/ZRIE) Speed (max.) for decorative backtack (00001111)	B,C	100 - 6400	1000 -	Kl. 1, 2, 3, 4 Kl. 5, 6
531	(MESSER) With chopper after start stitches (<560>) I yes II no	B,C		II -	Kl. 5 Kl. 1, 2, 3, 4, 6
532	(MESSER) Stop during chopper on I yes II no	B,C		II -	Kl. 5 Kl. 1, 2, 3, 4, 6
540	(FSL/START/STZA) Number of stitches from start to thread tension release off	A,B,C	0 - 25	3	Kl. 1, 2, 3, 4, 5, 6
542	(FSL/STZA) Number of stitches from photocell clear to thread tension release on	A,B,C	0 - 25	3	Kl. 1, 2, 3, 4, 5, 6
554	(PF/PR) Presser foot position after seam section stitch count and treadle position > +1 I up II down	B,C		I	Kl. 1, 2, 3, 4, 5, 6
570	(STVD/STZA) Number of stitches for stitch condensation at seam start	A,B,C	0 - 99	3 10 -	Kl. 5 Kl. 6 Kl. 1, 2, 3, 4
572	(STVD/STZA) Number of stitches for stitch condensation at seam end	A,B,C	0 - 99	3 10 -	Kl. 5 Kl. 6 Kl. 1, 2, 3, 4
578	(KES/STS) Type of machine I overlock II chainstitch or lockstitch (<799>)	B,C		II -	Kl. 5 Kl. 1, 2, 3, 4, 6
581	(FK/FZ/VERZ) Delay in start-up time (ms) for thread clamp or thread puller	B,C	0 - 2550	0 -	Kl. 6 Kl. 1, 2, 3, 4, 5
584	(RIE) Backtack I four times II double	B,C		II -	Kl. 1, 2, 3, 4 Kl. 5, 6
585	(DRZ/DB/RIE) Speed limitation	B,C	300 - 6400	1000	Kl. 1, 2, 3, 4, 5, 6
586	(DRZ/DB) Speed limitation	B,C	300 - 6400	1500	Kl. 1, 2, 3, 4, 5, 6
587	(DRZ/DB) Speed limitation	B,C	300 - 6400	2000	Kl. 1, 2, 3, 4, 5, 6
591	(DRZ/DB) Speed limitation via push-button I yes II no	B,C		II	Kl. 1, 2, 3, 4, 5, 6
601	(SN) Trimming I yes II no	B,C		I	Kl. 1, 2, 3, 4, 5, 6
602	(NE) Seam end at treadle position I slightly heeled (-1) II fully heeled (-2)	B,C		II	Kl. 1, 2, 3, 4, 5, 6
603	(START) Start after seam end I after treadle 0 only II immediate start of operation	B,C		I	Kl. 1, 2, 3, 4, 5, 6
604	(SN/ER) Trimming after single end backtack I forward II backward	B,C		I -	Kl. 1, 2, 3, 4 Kl. 5, 6
605	(DRZ/ANZ) Actual speed in display I yes II no	B,C		II	Kl. 1, 2, 3, 4, 5, 6
606	(DRZ) Speed: level 1 (min.) (00010001)	B,C	30 - 640	200 180	Kl. 1, 5, 6 Kl. 2, 3, 4

607	(DRZ) Speed: level 12 (max.)	B,C	100 - 9900	4000	Kl. 1
				1500	Kl. 2, 3, 4, 5, 6
609	(SN/DRZ) Trimming speed 1 (00010011)	B,C	30 - 500	200	Kl. 1
				180	Kl. 2, 3, 4, 5, 6
615	(LS) End recognition when photocell goes I from light to dark II from dark to light	B,C		II	Kl. 1, 2, 3, 4, 5, 6
616	(NPW/NHOS) Function of external key (input E2) I needle position change-over (NPW) II needle up without trimming (NHOS)	B,C		II	Kl. 1, 2, 3, 4, 5, 6
617	(EST/RIV/STVD) Function of external key (input E3) I single stitch (EST) II backtack / stitch condensation inverted (RIV)	B,C		I	Kl. 1, 2, 3, 4, 5, 6
618	(RDR) Inverse rotation after seam end I yes II no	B,C		II	Kl. 1, 2, 3, 4, 5, 6
621	(ANLSP/STOP) Input „Ey“ induces block/stop at I potential „zero“ II potential „plus“	B,C		I	Kl. 1, 2, 3, 4, 5, 6
623	(RDR/VERZ) Delay in start-up time (ms) for inverse rotation	B,C	0 - 2550	100	Kl. 1, 2, 3, 4, 5, 6
640	(LS/START) Start possible by obscuring the photo- cell (if existing, note parameter 113!) I yes II no	B,C		II	Kl. 5
				-	Kl. 1, 2, 3, 4, 6
641	(LS/START/VERZ) Delay before start (ms) after photocell (at <640> = I)	B,C	0 - 2550	100	Kl. 5
				-	Kl. 1, 2, 3, 4, 6
651	(PF) Presser foot with automatic descent on machine stop I yes II no	B,C		I	Kl. 1, 2, 3, 4, 5, 6
653	(PEIPO) Target stitch before sewing I yes II no	B,C		II	Kl. 1, 2, 3, 4, 5, 6
654	(SN/NAPO) Positioning before thread trimming I yes II no	B,C		II	Kl. 1, 3
				-	Kl. 2, 4, 5, 6
657	(STISI/VERK) Stitch security (knotting) I yes II no	B,C		II	Kl. 6
				-	Kl. 1, 2, 3, 4, 5
658	(NE/BLIND) Seam end blindstitch I yes II no	A,B,C		II	Kl. 6
				-	Kl. 1, 2, 3, 4, 5
665	(ANLSP/STOP) Run locking/stop I contact closed II contact open	B,C		I	Kl. 1, 2, 3, 4, 5, 6
668	(BLA/WI) Thread wiper/thread clearer I yes II no (00010101)	B,C		I	Kl. 1, 2, 3, 4, 5, 6
673	(FS/FSL) Output „Ax“ is at I thread tension release II thread tension on	A,B,C		II	Kl. 1, 2, 3, 4, 5, 6
675	(NAPO) Automatic needle change-over into position 2 (up) after enabling I yes II no	B,C		II	Kl. 1, 2, 3, 4, 5, 6
676	(DRZ/DB) Speed adjustment via potentiometer possible I yes II no	B,C		I	Kl. 1, 2, 3, 4, 5, 6
679	(ZRIE/VERZ) Fancy tack: time from positioning to switch-on of reverse feed	B,C		II	Kl. 1, 2, 3, 4, 5, 6

680	(STOP/ANLSP) Signal at input stop/run locking causes (in case of <669> = I) I discontinuation of the functional sequence II interruption of the functional sequence	B,C		II	Kl. 1, 2, 3, 4, 5, 6
700	(NAPO) Needle position 0 (reference position of the needle)	B,C	0 - 239	0	Kl. 1, 2, 3, 4, 5, 6
701	(NAPO) Angular adjustment I with handwheel (teach-in) II by keys (+/-)	B,C		I	Kl. 1, 2, 3, 4, 5, 6
702	(NAPO) Needle position 1 (needle down) (00010111)	B,C	0 - 239	75	Kl. 1, 2, 3, 4, 5, 6
703	(NAPO) Needle position 2 (thread take-up lever up)	B,C	0 - 239	211 213	Kl. 1, 3, 4, 5, 6 Kl. 2
704	(NAPO/SN) Needle position 4 (start trimming signal 1)	B,C	0 - 239	95 90 -	Kl. 1 Kl. 4 Kl. 2, 3, 5, 6
705	(NAPO/SN) Needle position 5 (end of trimming signal 1) (00011001)	B,C	0 - 239	168 125 -	Kl. 1 Kl. 2 Kl. 3, 4, 5, 6
706	(NAPO/SN) Needle position 6 (start trimming signal 2)	B,C	0 - 239	119 -	Kl. 2 Kl. 1, 3, 4, 5, 6
707	(NAPO/FSL/FANG) Needle position 9 (thread tension release or thread catcher start)	B,C	0 - 239	119 -	Kl. 1, 3, 4 Kl. 2, 5, 6
710	(NAPO/NHOS) Needle position 3 (needle up) (00011011)	B,C	0 - 239	200	Kl. 1, 2, 3, 4, 5, 6
712	(STOPZ) Time for stop in needle position 1	B,C	0 - 2550	70 -	Kl. 1, 3 Kl. 2, 4, 5, 6
714	(EINZ/SN/MESSER) Duration (ms) for chainstitch trimming or chopper	B,C	0 - 2550	100 -	Kl. 5, 6 Kl. 1, 2, 3, 4
715	(EINZ/WI) Duration (ms) of thread wiper	B,C	0 - 2550	60 120 100	Kl. 1 Kl. 2, 3, 4 Kl. 5, 6
716	(VERZ/WI) Delay in start-up time (ms) for thread wiper	B,C	0 - 2550	60 30 -	Kl. 5 Kl. 6 Kl. 1, 2, 3, 4
717	(SN/VERZ) Delay in start-up time (ms) for trimming method when the machine is not activated by the treadle	B,C	0 - 2550	60 10 -	Kl. 5 Kl. 6 Kl. 1, 2, 3, 4
718	(STBR) Timing of residual brake (0 = brake off)	B,C	0 - 100	0	Kl. 1, 2, 3, 4, 5, 6
719	(PF/TA) Timing output A4 (0 = 100% switching on)	B,C	0 - 90	40	Kl. 1, 2, 3, 4, 5, 6
721	(TUM/TA) Timing output A5 (0 = 100% switching on)	B,C	0 - 90	50	Kl. 1, 2, 3, 4, 5, 6
722	(DRZAN) Acceleration ramp 1 gradual 50 steep	B,C	1 - 50	45	Kl. 1, 2, 3, 4, 5, 6
723	(DRZAB) Brake ramp 1 gradual 50 steep	B,C	1 - 50	22	Kl. 1, 2, 3, 4, 5, 6
729	(STVERZ/PF) Start delay after lowering presser foot	B,C	0 - 2550	130 120	Kl. 1 Kl. 2, 3, 4, 5, 6
730	(PF/VERZ) Lift delay for presser foot after seam end	B,C	0 - 2550	30 50 60	Kl. 1 Kl. 2, 3, 4, 5 Kl. 6
731	(ER/WRIE/VERZ) Delay before stitch counting for end backtack (ERV)	B,C	0 - 2550	0 40 -	Kl. 1 Kl. 2, 3, 4 Kl. 5, 6
732	(SN/ER/VERZ) Delay (ms) for trimming after single end backtack	B,C	0 - 2550	30 -	Kl. 1, 2, 3, 4 Kl. 5, 6
734	(SN/TA) Timing output A2	B,C	0 - 90	10 30 -	Kl. 4, 5 Kl. 6 Kl. 1, 2, 3

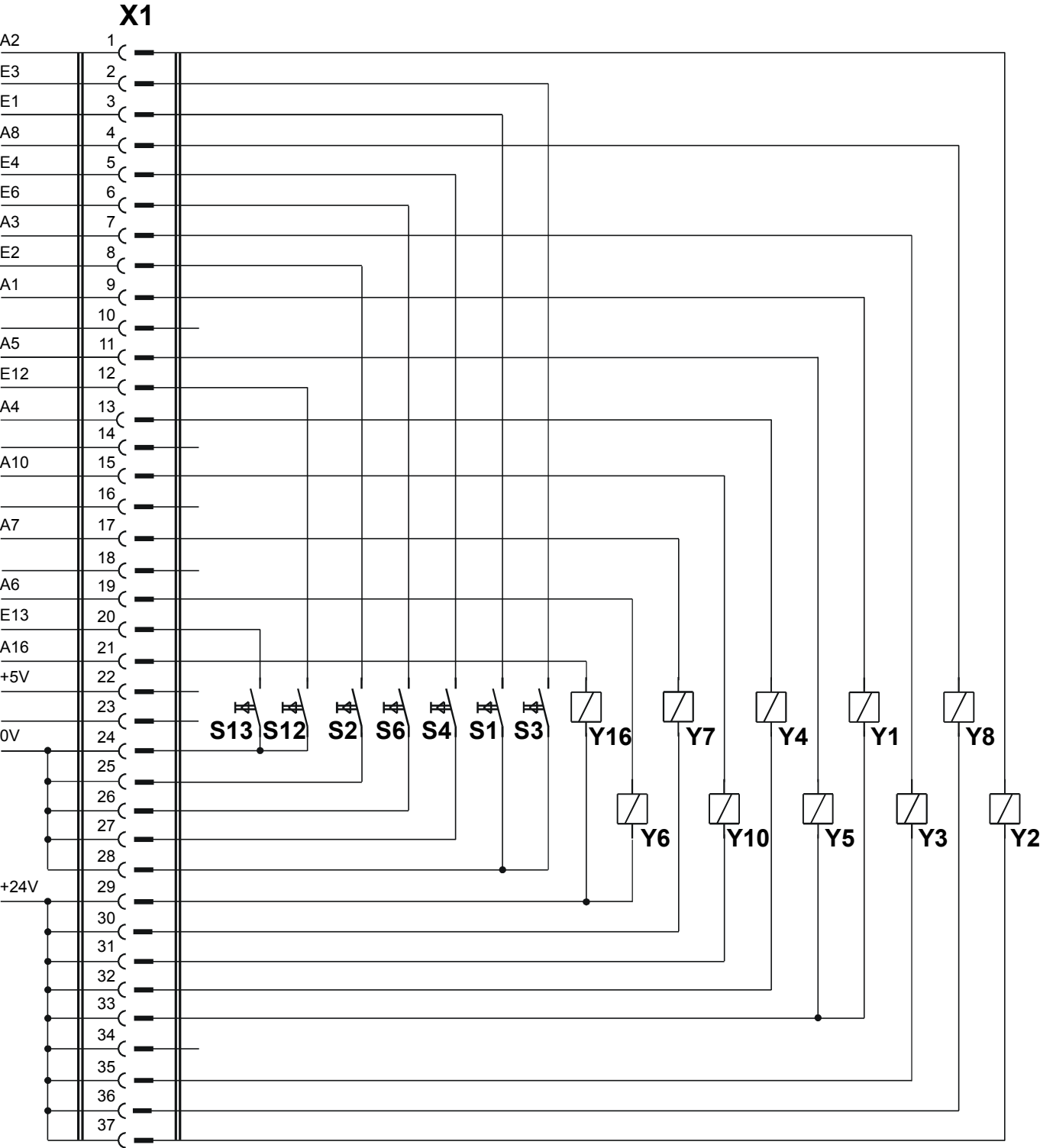
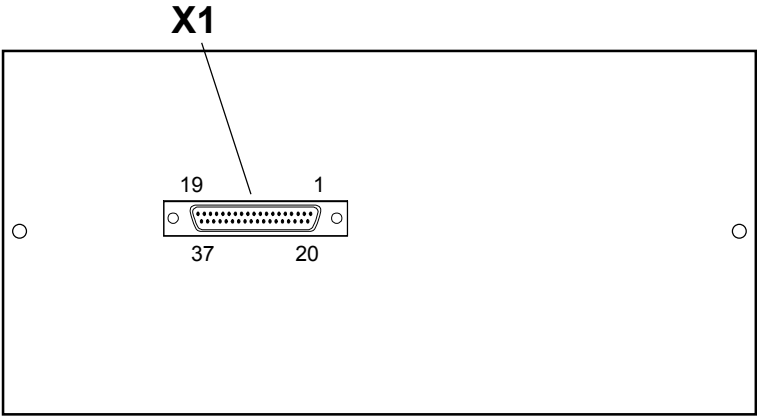
738	(EINZ/SN) Time needed to switch on (ms) for trimming signal 2	B,C	10 - 2550	60	Kl. 4
				-	Kl. 1, 2, 3, 5, 6
739	(AR/STVD/VERZ) Delay (ms) for speed after front backtack/stitch condensation	B,C	0 - 2550	30	Kl. 1
				100	Kl. 2, 3, 4
				-	Kl. 5, 6
740	(ER/WRIE/VERZ) Delay before stitch counting for end backtack backward	B,C	0 - 2550	60	Kl. 1, 2, 3, 4
				-	Kl. 5, 6
743	(FZ/EINZ) Duration (ms) of thread puller	B,C	0 - 2550	60	Kl. 6
				-	Kl. 1, 2, 3, 4, 5
761	(FSL/FZ) Prolongation Thread tension release/ Thread puller	B,C	0 - 2550	0	Kl. 1, 2, 3, 4
				700	Kl. 6
				-	Kl. 5
770	(PF/VERZ) Lifting delay of presser foot at threadle-position „-1“	B,C	0 - 250	30	Kl. 1
				50	Kl. 2, 3, 4, 5, 6
775	(ZRIE/STOPZ) Stop time (ms) with stitch in stitch backtack (decorative backtack)	B,C	0 - 2550	100	Kl. 1, 2, 3, 4
				-	Kl. 5, 6
789	(PEIPO) Needle position 10 (target stitch)	B,C	0 - 239	225	Kl. 1, 2, 3, 4, 5, 6
790	(MAKL) Program selection for machine classes by operators box	A,B,C	0 - 2	0	Kl. 1, 2, 3, 4, 5, 6
797	(HWT) Hardware test I yes II no	B,C		II	Kl. 1, 2, 3, 4, 5, 6
798	(EBC) Programming level C I yes II no	B,C		II	Kl. 1, 2, 3, 4, 5, 6
799	(MAKL) Machine class which has been selected (00011101)	B,C	1 - 6	1	Kl. 1
				2	Kl. 2
				3	Kl. 3
				4	Kl. 4
				5	Kl. 5
				6	Kl. 6
800	(DRR) Direction of motor rotation viewed from belt pulley I left-hand rotation II right-hand rotation	B,C		II	Kl. 1, 2, 3, 4, 5, 6
801	(RDR) Reverse rotation angle after seam end	B,C	5 - 200	30	Kl. 1, 2, 3, 4, 5, 6
850	(DRZ) Maximum motor speed	C		4500	Kl. 1, 2, 3, 4, 5, 6
851	(PR/DRZAB) Brake ramp for stitch-count seams I steep II gradual	B,C		I	Kl. 1, 2, 3, 4, 5, 6
884	(REG) Proportional amplification of the speed control (in general)	B,C	4 - 50	13	Kl. 1, 2, 3, 4, 5, 6
885	(REG) Integral amplification of the speed control	C	0 - 100	30	Kl. 1, 2, 3, 4, 5, 6
886	(REG) Proportional amplification of the order controllers	C	1 - 50	20	Kl. 1, 2, 3, 4, 5, 6
887	(REG) Differential amplification of the order controllers	C	1 - 100	30	Kl. 1, 2, 3, 4, 5, 6
889	(EINZ/REG) Time required for order controlling (0 = always)	C	0 - 1000	400	Kl. 1, 2, 3, 4, 5, 6
890	(REG) Proportional amplification of the superior order controllers for the residual brake	C	1 - 50	25	Kl. 1, 2, 3, 4, 5, 6
891	(REG) Proportional amplification of the lower speed controllers for the residual brake	C	1 - 50	20	Kl. 1, 2, 3, 4, 5, 6
894	(REG) Rotational direction of motor and synchronizer I different II same	C		I	Kl. 1, 2, 3, 4, 5, 6
897	(MOT) MINI motor version I long II short	C		II	Kl. 1, 2, 3, 4, 5, 6
898	(SONST) Number of motor poles I 4 poles II 6 poles	C		II	Kl. 1, 2, 3, 4, 5, 6

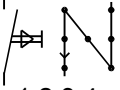
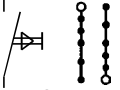
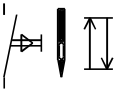
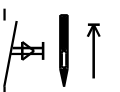
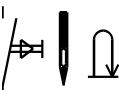
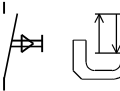
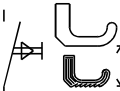
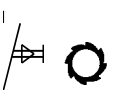
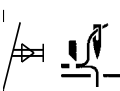
901	(DRZ/SN) Trimming release speed	B,C	30 - 500	500 400	Kl. 1, 2 Kl. 3, 4, 5, 6
904	(ML) Output Ax (motor operation) is active I with motor running II with motor stationary	B,C		I	Kl. 1, 2, 3, 4, 5, 6
990	(REG) Removal of setpoint position upon change-over from speed control to position control	C	1 - 255	64	Kl. 1, 2, 3, 4, 5, 6

Machine class (parameter 799)

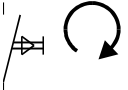
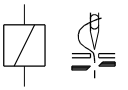
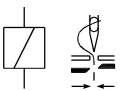
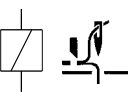
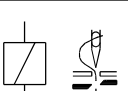
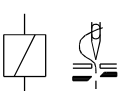
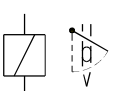
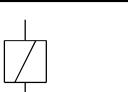
Machine class 1 = lockstitch (Singer)	<799> = 1
Machine class 2 = lockstitch (Pfaff)	<799> = 2
Machine class 3 = lockstitch (Dürkopp, Juki)	<799> = 3
Machine class 4 = lockstitch (Refrey)	<799> = 4
Machine class 5 = chainstitch (Union Special)	<799> = 5
Machine class 6 = chainstitch (Yamato)	<799> = 6

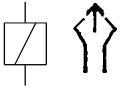
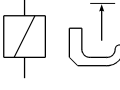
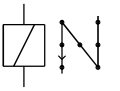
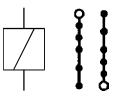
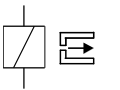
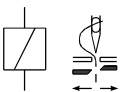
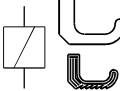
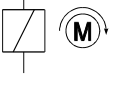
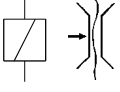
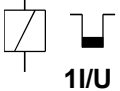
12. Electrical Connections Diagram Q40SE



S1  <799> = 1,2,3,4	Transportumstellung von Hand / manual feed reverse / renversement de marche manuel / mudança do transporte manual / commutazione trasporto a mano / inversión de transporte manual / handmatige transportomschakeling
S1  <799> = 5,6	Stichverdichtung / stitch condensation / rétrécissement des points / condensação dos pontos / addensamento punti / condensación de puntadas / steekverdichting
S2  <616> = I	Nadelpositionswechsel / needle position change-over / changement de position d'aiguille / troca de posição da agulha / cambio di posizione dell'ago / cambio de posición de aguja / naaldpositie-verwisseling
S2  <616> = II	Nadel hoch ohne Schneiden / needle up without thread trimming / aiguille en haut sans coupe / agulha para cima sem corte de linhas / ago su senza taglio / aguja arriba sin corte / naald omhoog zonder snijden
S3  <427> = 1	Einzelstich / single stitch / point unique / ponto individual / punto singolo / puntada individual / enkele steek
S4  <427> = 1	Presserfuß / presser foot / pied presseur / calcador / alzapiedino / prensatelas / drukvoet
S4  <427> = 2	Hubverstellung / stroke adjustment / variation de course / alteração do curso / regolazione della corsa / ajuste de carrera / hefhoogteverstelling
S4  <427> = 3	Puller / puller / puller / puller / puller / estirar / puller
S4  <621>, <427> = 4	STOP
S4  <427> = 5 <578> = 1 <799> = 5	Abhacker / chopper / chopper / guilhotina / taglio / guillotine / afhakker
S6  <665>	STOP
S12 	Festdrehzahl / fixed speed / constante de vitesse / constante das rotações / constante velocità / constante de velocidad / constante toerental

Bedeutung der Magnete bzw. Magnetventile, Taster / Meaning of magnets and/or solenoids and keys
 Signification des aimants resp. solenoides et touches / Significação dos imãs e/ou as solenoidas e teclas
 Significato dei magneti, delle valvole magnetiche e dei tasti / Significación de los imanes y/o los solenoides
 y pulsadores / Betekenis van de magneten resp. magneetkleppen, toetsen

S12 	Ohne OC-TOP: Umschaltung von manuellem auf programmiertes Nähen / Without OC-TOP: switch-over from manual to automatic sewing / Sans OC-TOP: commutation nombre manuell avec automatic coudre / Sem OC-TOP: mudança desde manuell com automatic costura / Senza OC-TOP: commutazione dallo manuell con automatic cucitura / Sin OC-TOP: cambio desde manuell con automatic costura / Zonder OC-TOP: omschakeling vonaf manuell op programming naaien
S13  <585>	Drehzahlbegrenzung / speed limitation / limitation de vitesse / limitação das rotações / limitazione velocità / limitación de velocidad / beperking van het toerental
Y1  I max 8 A * <799> = 1,2,3,4	Fadenschneider magnet. / magn. thread trimmer / coupe-fil magnétique / corte de linhas magnético / rasafilo magnetico / cortahilos magnético / draadsnijder magnetisch
Y1  I max 8 A * <799> = 5,6 <427> ≠ 5 <578> = II	Fadenschneider vorwärts / thread trimmer forward / coupe-fil en avant / corte de linhas para a frente / rasafilo avanti / cortahilos adelante / draadsnijder voorwaarts
Y1  I max 8 A * <799> = 5 <427> = 5 <578> = I	Abhacker / chopper / chopper / guilhotina / taglio / guillotina / afhakker
Y2  I max 8 A * <799> = 4,5	Fadenschneider rückwärts / thread trimmer backward / coupe-fil en arrière / corte de linhas para trás / rasafilo indietro / cortahilos atrás / draadsnijder achterwaarts
Y2  I max 8 A * <799> = 6	Begrenzung der Stichlänge / Limitation of stitch length
Y3  I max 8 A * <799> = 1,2,3,4,6	Fadenwischer / thread wiper / écarteur de fil / retira-linhas / scartafilo / retirahilos / draadwisser
Y3  I max 8 A * <799> < 5	Messer (Pedal ≥ +2 / Lichtschanke dunkel) / chopper (treadle ≥ +2 / light barrier is dark) / chopper (pédale ≥ +2 / barrage photoélectrique est éteint) / lâmina (pedal ≥ +2 / barreira luminosa estiver escura) / coltello (pedale ≥ +2 / relè fotoelettrico è scuro) / cuchilla (pedal ≥ +2 / barrera fotoeléctrica está oscura) / mes (pedaal ≥ +2 / lichtbarrièr donker)

Y3 I max 8 A * <799> = 5		Kette blasen / chain blowing / soufflage de chaîne / soprar de cadeia / soffiatura catenella / soplar cadeneta / blazen van een ketting
Y4 I max 8 A *		Presserfuß heben / lifting presser foot / relevage du pied presseur / levantar do calcador / sollevamento del alzapiedino / elevación de prensatelas / drukvoet optillen
Y5 I max 8 A * <799> = 1,2,3,4		Transportumsteller / feed reverse / renversement de marche / mudança do transporte / commutazione trasporto / inversión de transporte / transportomschakeling
Y5 I max 8 A * <799> = 5,6 <427> ≠ 5		Stichverdichtung / stitch condensation / rétrécissement des points / condensação dos pontos / addensamento punti / condensación de puntadas / steekverdichting
Y5 I max 8 A * <799> = 5,6 <427> = 5		Kette saugen / chain vacuum / aspiration de chaîne / aspirar de cadeia / aspirazione catenella / aspiración cadeneta / zuigen van een ketting
Y6 I max 8 A * <799> = 1,2,3,4		Fadenschneider pneumatisch / pneum. thread trimmer / coupe-fil pneumatique / corte de linhas pneumático / rasafilo pneumatico / cortahilos neumático / draadsnijder pneumatisch
Y7 I max 8 A * <427> = 2		Hubverstellung / stroke adjustment / variation de course / alteração do curso / regolazione della corsa / ajuste de carrera / hefhoogteverstelling
Y7 I max 8 A * <427> = 3		Puller / puller / puller / puller / puller / estirar / puller
Y7		Rückmeldung: Programm ein (ohne OC-TOP) Feed back: Program on (without OC-TOP)
Y8 I max 8 A *		Motor läuft / motor runs / moteur en marche / motor em movimento / motore in moto / motor en marcha / loop van de machine
Y10 I max 8 A *		Fadenspannungslösen / thread tension release / détenteur de fil / soltar tensão da linha / sbloccaggio tendifilo / detensión del hilo / verbreken van de draadspanning
Y16 I max 80 mA 1I/U		Zählsignal / count signal / signal de comptage / sinal de contagem / segnale conteggio / señal del contador / telsignaal

- * Die Summe der Lastströme aller gleichzeitig eingeschalteten Stellglieder (Magnete, Magnetventile) darf den Wert von 4A nicht überschreiten (siehe hierzu Kapitel 2. Technische Daten).
- * The total of load currents of all servos activated simultaneously (solenoids, solenoid valves) is not allowed to exceed 4 amps (see also section 2. Technical Specifications).
- * Le total des courants de charge de tous les vérins (aimants, électro-vannes) activés simultanément ne doit pas dépasser 4 A (voir aussi le chapitre 2. "caractéristiques techniques").
- * A soma das correntes sob carga de todos os actuadores ligados ao mesmo tempo (ímans, solenóides) não pode ultrapassar o valor de 4A (ver também capítulo 2. Dados Técnicos).
- * La somma delle correnti di carico di tutti gli attuatori inseriti contemporaneamente (magneti, elettrovalvole) non deve essere superiore a 4 A (vedere il capitolo 2. Dati Tecnici).
- * La suma de las corrientes bajo carga de todos los elementos de todos los componentes de regulación conectados simultáneamente (imanes, válvula magnética) no podrá sobrepasar el valor de 4A (véase también el capítulo 2. de datos técnicos).
- * De belastingsstroom van alle tegelijkertijd ingeschakelde bedieningsschakels (magneten, magneetventielen) mag in totaal niet meer dan 4 A bedragen (zie hiervoor hoofdstuk 2. Technische gegevens).

13. Maintenance and Repair



!! Before starting maintenance or repair work, switch off the SERVO-TOP, separate the drive system from mains power (for instance by pulling out the mains plug) and wait for the motor to come to a complete stop.

General maintenance work must only be done by specially trained personnel paying close attention to the operating instructions.

The SERVO-TOP is largely maintenance-free.

However, make sure to perform the following maintenance work:

Depending on the operating conditions, clean the drive system regularly, at least once a week, from any dust or lint. Make sure in particular that the ventilation louvres and cooling fins of the motor, especially the cooling fins between the motor and the control box, are perfectly clean (Fig. 13).

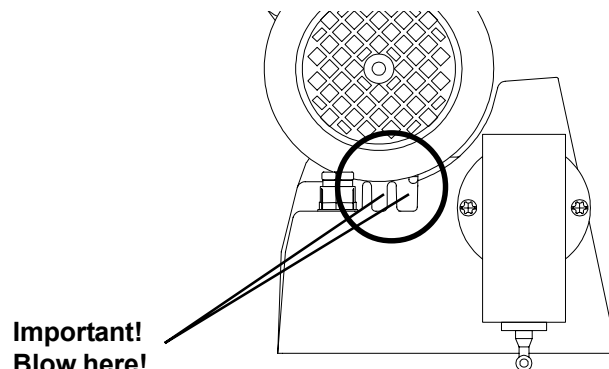


Fig. 13

Remove any threads caught on the synchronizer shaft or on the belt pulley and/or motor shaft.

Check if the drive system is perfectly secured to the stand and that the accessories (synchronizer on machine shaft, speed control unit on control box) are safely mounted in their respective positions.

Check the drive belt for any wear and for correct tension.
Incorrect belt tension can increase noise and vibrations.



When opening covers or removing parts, apart from those removable by hand, live elements can be exposed.
Connections can also be electrically live.

If you require to open the drive system before starting maintenance or repair work or before replacing any parts, disconnect the drive system from any and all power sources.

If maintenance or repair work on the open unit is unavoidable, this may only be done by qualified personnel familiar with the risks involved. Observe all regulations as per EN 50110.

There can still be capacitors carrying a charge in the power electronics system, even when the drive system has been disconnected from all power sources. To avoid injury by electrical shock, it is therefore essential to wait at least 10 minutes between mains power shutoff and opening the control box.

In order to protect semi-conductor components from overvoltage, use only high-resistivity measuring equipment when making checks on the control system.

Any repair or servicing work requiring skilled knowhow may only be done by qualified personnel authorized by Quick-Rotan.

We emphasize that in accordance with the product liability law we are under no responsibility for damages caused by our products if these are due to

- unqualified repair
- the use of components not authorized by us
- actions made by any persons not authorized by us.