

MINI-STOP

QE5540

CE

Type

U40MSIIV

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

Contents Part 3

Chapt.	Contents	Page
11.	Survey and List of Parameters	11.1 - 11.6
11.1	Explanation of Parameter Survey	
11.2	Explanation of Parameter List	
11.3	Parameter Survey	
11.4	List of Parameters	
12.	Electrical Connections Diagram	12.1 - 12.2

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, 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 U40MSV (7z_400_1.hex)

Function	Abbrev'n	Parameter	Input Output	Connection Socket/Contacts
Accelerate	DRZAN	722		
Affichage	ANZ	605		
Backtack	RIE	105/107/110		
Backtack inversion	RIV	419		
Backtack suppression	RIUNT	419		
Blower	BLA	668		
Brake	DRZAB	723/758		
Chopper	MESSER	105/110/714		
Control	REG	758/880/881 884/885/886 887/889/890 891/990		
Defect search	HWT	797		
Delay	VERZ	642/643/716 717/730/770		
Direction of rotation	DRR	800		
Display	ANZ	605		
End backtack	ER	110		
Engine	MOT	897		
Feed reverse	TUM	643/721	E1	X5:3
Front backtack	AR	105/106/107		
Hardware test	HWT	797		
Machine class	MAKL	799		
Needle position	NAPO	700/701/702 703		
Needle position change-over	NPW	616/691		
Needle up without trimming	NHOS	616	E2	X5:8
Number of stitches	STZA	111/112		
ON period	EINZ	714/715/889		
Photocell	LS	111/112/113 199/615		

Presser foot	PF	554/642/651 691/692/719 729/730/770	E4	X5:5
E4	X5:5			
Program	PR	114/206/221 554		
Programming level C	EBC	798		
Residual brake	STBR	718		
Seam end	NE	110/114/206 602		
Seam start	NA	105		
Single stitch	EST	691	E3	X5:2
Soft start	SANL	116/117		
Speed	DRZ	105/106/107 110/117/199 221/605/606 607/608/609 676		
Speed decrease	DRZAB	723/758		
Speed increase	DRZAN	722		
Speed limitation	DB	221/676		
Start	START	113/603		
Start delay	STVERZ	729		
Starting block	ANLSP	619/665		
Stitch condensation	STVD	105/106/107 110/419		
Stitchcounter	STZ	345		
Stop	STOP	114/206/619 665		
Stroke adjustment	HV	720		
Thread monitor	FW	345		
Thread trimming	SN	601/609/619 692/714/717		
Thread wiper	WI	668/715/716		
Time needed to switch on	EINZ	714/715/889		
Timing output	TA	719/720/721		
Vacuum	SAUG	105/110		

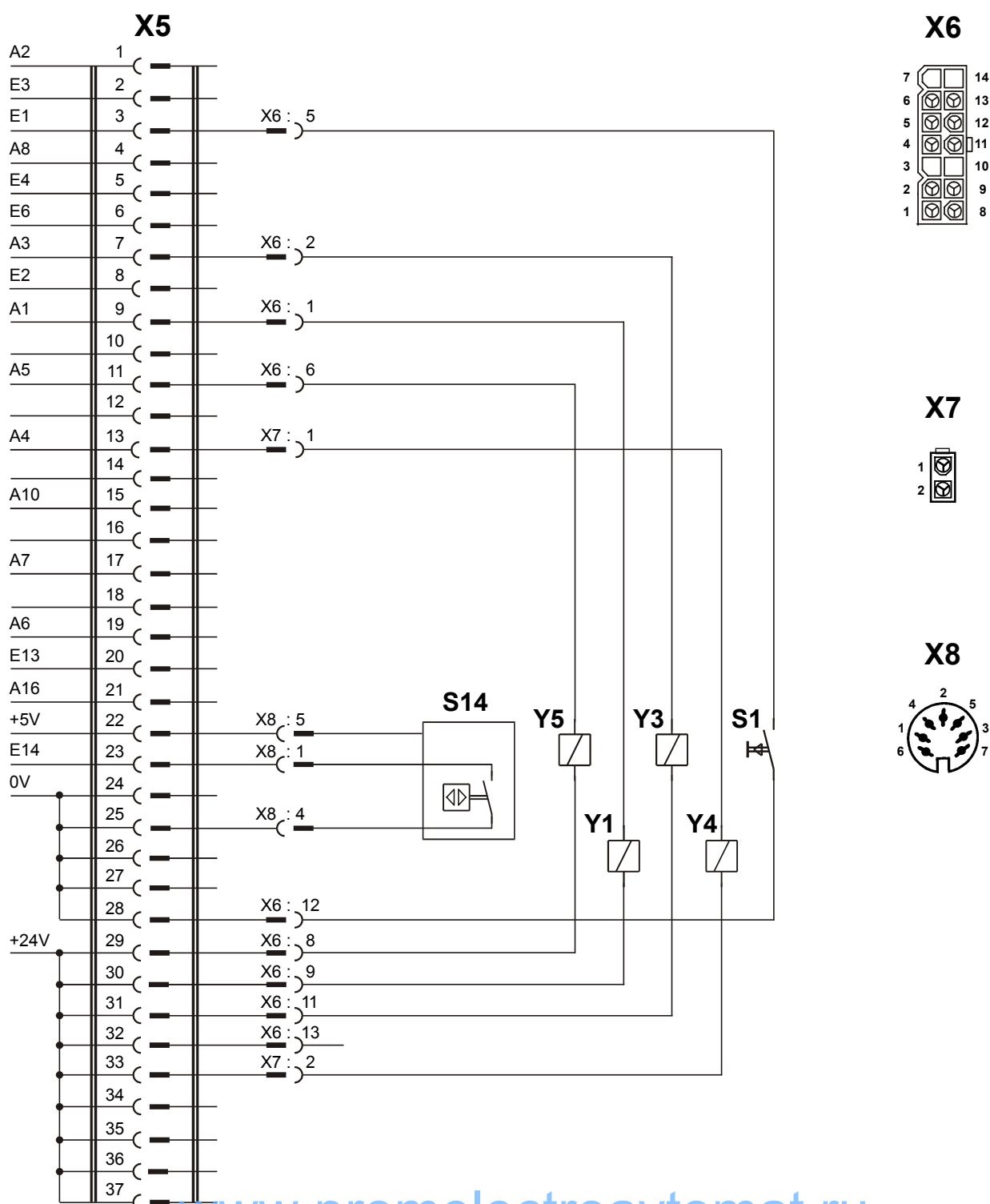
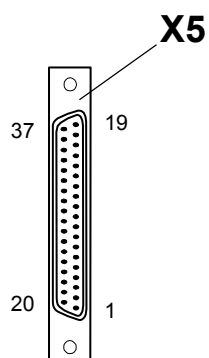
11.4 List of Parameters U40MSV (7z_400_1.hex)

No.	Function (Meaning)	Level	Range Values	of Value	Standard
105	(AR/RIE/DRZ/MESSER/NA/SAUG/STVD) Speed for front backtack / stitch condensation	B,C	100 - 4000	1200	Kl. 1
106	(AR/DRZ/STVD) Speed for front backtack/stitch condensation I variable (treadle-controlled) II constant (corresponding to <105>)	B,C		II	Kl. 1
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
110	(ER/RIE/DRZ/MESSER/NE/SAUG/STVD) Speed for end backtack / stitch condensation	B,C	100 - 4000	1200	Kl. 1
111	(LS/STZA) Light barrier compensation stitches 1 (stitches from light barrier clear to seam end)	A,B,C	1 - 255	6	Kl. 1
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
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
114	(PR/STOP/NE) Stop before seam end after stitch count (last seam section) I yes II no	B,C		II	Kl. 1
116	(SANL) Soft start stitches	A,B,C	0 - 20	0	Kl. 1
117	(SANL/DRZ) Speed for soft start stitches	B,C	30 - 640	400	Kl. 1
199	(DRZ/LS) Speed for light barrier compensation stitches	B,C	300 - 2500	1200	Kl. 1
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
221	(PR/DB/DRZ) Speed limitation for sewing program 1 (or for all sewing programs)	B,C	300 - 6400	1200	Kl. 1
345	(STZ/FW) Units of the start value for stitch counting for indirect monitoring of the bobbin thread	B,C	0 - 255	0	Kl. 1
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
554	(PF/PR) Presser foot position after seam section stitch count and treadle position > +1 I up II down	B,C		I	Kl. 1
601	(SN) Trimming I yes II no	B,C		I	Kl. 1
602	(NE) Seam end at treadle position I slightly heeled (-1) II fully heeled (-2)	B,C		II	Kl. 1
603	(START) Start after seam end I after treadle 0 only II immediate start of operation	B,C		I	Kl. 1
605	(DRZ/ANZ) Actual speed in display I yes II no	B,C		II	Kl. 1
606	(DRZ) Speed: level 1 (min.)	B,C	30 - 640	300	Kl. 1
607	(DRZ) Speed: level 12 (max.)	B,C	100 - 5500	3000	Kl. 1

608	(DRZ) Speed level curve (treadle characteristic) I linear II not linear	B,C		I	Kl. 1
609	(SN/DRZ) Trimming speed 1	B,C	60 - 300	180	Kl. 1
615	(LS) End recognition when photocell goes I from light to dark II from dark to light	B,C		II	Kl. 1
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
619	(SN/ANLSP/STOP) Control of thread trimming (safety switch no run) I yes II no	B,C		II	Kl. 1
642	(PF/VERZ) presser foot time from switch-on to voltage reduction (cycling)	C	10 - 200	100	Kl. 1
643	(TUM/VERZ) feed reverse time from switch-on to voltage reduction (cycling)	C	10 - 200	100	Kl. 1
651	(PF) Presser foot with automatic descent on machine stop I yes II no	B,C		I	Kl. 1
665	(ANLSP/STOP) Run locking/stop I contact closed II contact open	B,C		I	Kl. 1
668	(BLA/WI) Thread wiper/thread clearer I yes II no	B,C		I	Kl. 1
676	(DRZ/DB) Speed adjustment via potentiometer possible I yes II no	B,C		I	Kl. 1
691	(PF/NPW/EST) function of external button (input) I lift presser foot II change needle position / single stitch (<678>)	B,C		II	Kl. 1
692	(SN/PF) function of external button (input) when <691>=I I cut II lift presser foot (cutting via ped „-2“)	B,C		II	Kl. 1
700	(NAPO) Needle position 0 (reference position of the needle)	B,C	0 - 127	0	Kl. 1
701	(NAPO) Angular adjustment I with handwheel (teach-in) II by keys (+/-)	B,C		I	Kl. 1
702	(NAPO) Needle position 1 (needle down)	B,C	0 - 127	40	Kl. 1
703	(NAPO) Needle position 2 (thread take-up lever up)	B,C	0 - 127	113	Kl. 1
714	(EINZ/SN/MESSER) Duration (ms) for chainstitch trimming or chopper	B,C	0 - 2550	120	Kl. 1
715	(EINZ/WI) Duration (ms) of thread wiper	B,C	0 - 2550	200	Kl. 1
716	(VERZ/WI) Delay in start-up time (ms) for thread wiper	B,C	0 - 2550	150	Kl. 1
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	10	Kl. 1
718	(STBR) Timing of residual brake (0 = brake off)	B,C	0 - 50	0	Kl. 1
719	(PF/TA) Timing output A4 (0 = 100% switching on)	B,C	0 - 100	40	Kl. 1
720	(HV/TA) Timing output AX (0 = 100% switching on)	B,C	0 - 100	10	Kl. 1
721	(TUM/TA) Timing output A5 (0 = 100% switching on)	B,C	0 - 100	40	Kl. 1

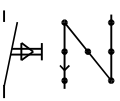
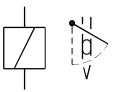
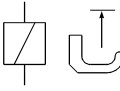
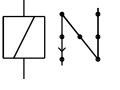
722	(DRZAN) Acceleration ramp 1 gradual 50 steep	B,C	1 - 50	45	Kl. 1
723	(DRZAB) Brake ramp 1 gradual 50 steep	B,C	4 - 50	30	Kl. 1
729	(STVERZ/PF) Start delay after lowering presser foot	B,C	0 - 2550	120	Kl. 1
730	(PF/VERZ) Lift delay for presser foot after seam end	B,C	0 - 2550	50	Kl. 1
758	(REG/DRZAB) Deceleration ramp I braking as per <723> II braking with maximal moment	B,C		I	Kl. 1
770	(PF/VERZ) Lifting delay of presser foot at threadle- position „-1“	B,C	0 - 250	60	Kl. 1
797	(HWT) Hardware test I yes II no	B,C		II	Kl. 1
798	(EBC) Programming level C I yes II no	B,C		II	Kl. 1
799	(MAKL) Machine class which has been selected	C	1 - 1	1	Kl. 1
800	(DRR) Direction of motor rotation viewed from belt pulley I left-hand rotation II right-hand rotation	C		II	Kl. 1
880	(REG) Starting current max. [A]	C	1 - 20	9	Kl. 1
881	(REG) adaption of positioning characteristics of motor to machine to avoid vibration	B,C	0 - 12	6	Kl. 1
884	(REG) Proportional amplification of the speed control (in general)	B,C	1 - 255	20	Kl. 1
885	(REG) Integral amplification of the speed control	C	0 - 255	35	Kl. 1
886	(REG) Proportional amplification of the order controllers	C	1 - 255	30	Kl. 1
887	(REG) Differential amplification of the order controllers	C	1 - 255	30	Kl. 1
889	(EINZ/REG) Time required for order controlling (0 = always)	C	0 - 2550	400	Kl. 1
890	(REG) Proportional amplification of the superior order controllers for the residual brake	C	1 - 255	25	Kl. 1
891	(REG) Proportional amplification of the lower speed controllers for the residual brake	C	1 - 255	20	Kl. 1
897	(MOT) MINI motor version I long II short	B,C		I	Kl. 1
990	(REG) Removal of setpoint position upon change-over from speed control to position control	C	1 - 64	12	Kl. 1

12. Electrical connections diagram X5 U40MSIlv with adapter cable 55.546



www.promelectroavtomat.ru

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

S1 	Transportumstellung von Hand / manual feed reverse / renversement de marche manuel / mudança do transporte manual / commutazione trasporto a mano / inversión de transporte manual / handmatige transportomschakeling
S14 	Synchronisationsimpuls / synchronisation pulse / impulsion de synchronisation / Synchronisationsimpuls / Synchronisationsimpuls / impulso de sincronisation / synchronisatie impuls
Y1 I max 8 A * 	Fadenschneider magnet. / magn. thread trimmer / coupe-fil magnétique / corte de linhas magnético / rasafilo magnetico / cortahilos magnético / draadsnijder magnetisch
Y3 I max 8 A * 	Fadenwischer / thread wiper / écarteur de fil / retira-linhas / scartafilo / retirahilos / draadwischer
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 * 	Transportumsteller / feed reverse / renversement de marche / mudança do transporte / commutazione trasporto / inversión de transporte / transportomschakeling

- * 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 (magnet, 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 (magnet, magneetventielen) mag in totaal niet meer dan 4 A bedragen (zie hiervoor hoofdstuk 2. Technische gegevens).