EcoDrive

QE3760/QE5540

CE

Type

RI62ED

Instruction Manual

Part 3

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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, 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 1 or 0. 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> = 1
1 limited by <105>
0 limited by <607>

Explanation:
Parameter 107 is valid only the the value (content) of parameter <106> = 1.
If parameter 107 is set to 1 (<107> = 1), then the speed for the front backtack is limited by parameter 105, e.g. <105> = 1500. If parameter 107 is set to 0 (<107> = 0), then the speed for the front backtack is limited by the value of parameter 607, e.g. <607> = 4000.

11.3 Parameter survey RI62ED 1_905_12 (PARAM.ENO)

Function	Abbrev'n	Parameter	Input Output	Connection Socket/Contacts
Accelerate	DRZAN	722		
Backtack	RIE	105/110		
Brake	DRZAB	723		
Chain blowing	KEBLA	321/548		
Chainstitch machine	KES	578		
Chopper	MESSER	105/110		
Control	REG	880/884/885 886/887/889 890		
Defect search	HWT	797		
Delay	VERZ	320/539/545 581/594/595 596/597/598 599/642/643 730/767/770		
Direction of rotation	DRR	800		
Display	ANZ	605		
End backtack	ER	110		
Feed reverse	TUM	301/643/721		
Front backtack	AR	105		
Hardware test	HWT	797		
Inverse rotation	RDR	801		
Lockstitch machine	STS	578		
Machine class	MAKL	799		
Needle position	NAPO	700/702/703		
Needle position change-over	NPW	616		
Needle up without trimming	NHOS	616		
Number of stitches	STZA	111/112/138 141/540/542 570/599/760		
ON period	EINZ	321/548/889		
Photocell	LS	111/112/113 161/615		

Presser foot	PF	598/633/642 651/719/729 730/767/770
Program	PR	138/203
Programming level C	EBC	798
Residual brake	STBR	718
Seam end	NE	110/321/548
Seam start	NA	105
Soft start	SANL	116/117
Speed	DRZ	105/110/117 203/586/605 606/607/609
Speed decrease	DRZAB	723
Speed increase	DRZAN	722
Speed limitation	DB	586
Start	START	113/161/540
Start delay	STVERZ	729
Starting block	ANLSP	619/665
Stitch condensation	STVD	105/110/570
Stitchcounter	STZ	760
Stop	STOP	619/665
Stroke adjustment	HV	720
Thread clamp	FK	581/594/596 599
Thread monitor	FW	141/660/760
Thread puller	FZ	581
Thread tension release	FSL	540/542
Thread trimming	SN	609/619/633
Time needed to switch on	EINZ	321/548/889
Timing output	TA	642/643/719 720/721
Vacuum	SAUG	105/110/320 545/594/595 596/597/598

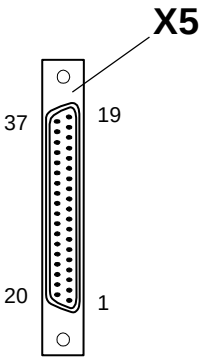
11.4 List of Parameters RI62ED 1_905_12 (PARAM.EN)

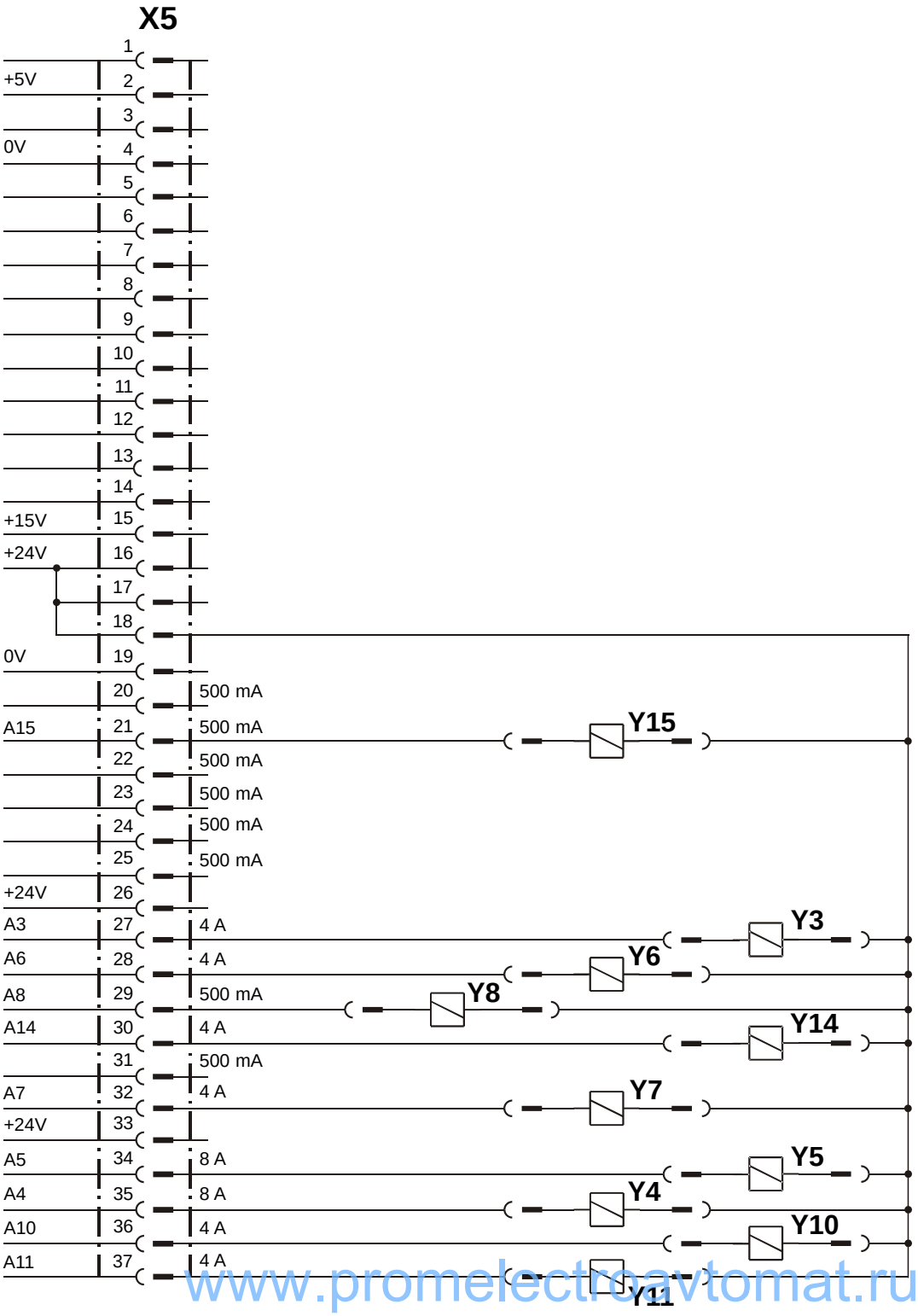
No.	Function (Meaning)	Level	Range of Values	Value	Standard
105	(AR/RIE/DRZ/MESSER/NA/SAUG/STVD) Speed for front backtack / stitch condensation	B,C	0100 - 6400	6400	Kl. 1
110	(ER/RIE/DRZ/MESSER/NE/SAUG/STVD) Speed for end backtack / stitch condensation	B,C	0100 - 9500	7000	Kl. 1
111	(LS/STZA) Light barrier compensation stitches 1 (stitches from light barrier clear to seam end)	A,B,C	0000 - 0255	6	Kl. 1
112	(LS/STZA) Number of stitches for light barrier fade-out on knit fabrics (according to stitch size)	A,B,C	0000 - 0100	0	Kl. 1
113	(LS/START) Start with light barrier 1 when light barrier is dark only 0 also when light barrier is clear	B,C		0	Kl. 1
116	(SANL) Soft start stitches	A,B,C	0000 - 0030	0	Kl. 1
117	(SANL/DRZ) Speed for soft start stitches	B,C	0030 - 1000	800	Kl. 1
138	(PR/STZA) Stitches for seam section 10	C	0000 - 0020	5	Kl. 1
141	(FW/STZA) Number of stitches until bobbin thread monitor signal becomes active (signal suppression on bobbin thread monitor)	B,C	0000 - 0255	1	Kl. 1
161	(LS/START) Start delay for start of photocell	A,B,C	0000 - 2500	200	Kl. 1
203	(PR/DRZ) Speed for seam program 1 variable (treadle-controlled) 0 constant (corresponding to <221> or <222>)	B,C		1	Kl. 1
301	(TUM) Switch-on voltage of the magnet for transport change-over 1 24V 0 32V	C		1	Kl. 1
320	(SAUG/VERZ) Vacuum head delay	B,C	0000 - 0009	2	Kl. 1
321	(EINZ/KEBLA/NE) Duration of chain blowing 2 at seam end	B,C	0010 - 2500	200	Kl. 1
539	(VERZ) Delay (ms)	B,C	0010 - 2500	40	Kl. 1
540	(FSL/START/STZA) Number of stitches from start to thread tension release off	A,B,C	0000 - 0020	1	Kl. 1
542	(FSL/STZA) Number of stitches from photocell clear to thread tension release on	A,B,C	0000 - 0099	6	Kl. 1
545	(SAUG/VERZ) Delay (ms) to vacuum off	B,C	0010 - 0250	80	Kl. 1
548	(EINZ/KEBLA/NE) Duration (ms) of chain blowing at seam end	B,C	0010 - 0250	80	Kl. 1
586	(DRZ/DB) Speed limitation	B,C	0000 - 0200	50	Kl. 1
594	(FK/SAUG/VERZ) Time (T7) from thread clamp off to vacuum off	B,C	0010 - 1000	150	Kl. 1
596	(FK/SAUG/VERZ) Time (T3) from thread clamp shutdown to vacuum shutdown	B,C	0000 - 0150	30	Kl. 1
597	(SAUG/VERZ) Time (T4) for vacuum off	B,C	0010 - 0150	60	Kl. 1
598	(SAUG/PF/VERZ) Time (T11) from presser foot off to vacuum head off	B,C	0010 - 2500	150	Kl. 1
605	(DRZ/ANZ) Actual speed in display 1 yes 0 no	B,C		0	Kl. 1
606	(DRZ) Speed: level 1 (min.)	B,C	0030 - 0600	200	Kl. 1
607	(DRZ) Speed: level 12 (max.)	B,C	0100 - 9500	7000	Kl. 1
609	(SN/DRZ) Trimming speed 1	B,C	0060 - 0300	200	Kl. 1
615	(LS) End recognition when photocell goes 1 from light to dark 0 from dark to light	C		0	Kl. 1
616	(NPW/NHOS) Function of external key (input E2) 1 needle position change-over (NPW) 0 needle up without trimming (NHOS)	B,C		1	Kl. 1

619	(SN/ANLSP/STOP) Control of thread trimming (safety switch no run) 1 yes 0 no	C		0	Kl. 1
633	(SN/PF) Trimming and presser foot 1 with treadle „-2“ only (<602> = II) 0 corresponding to <602>	C		0	Kl. 1
642	(PF/VERZ/TA) preser foot time from switch-on to voltage reduction (cycling)	C	0010 - 0200	200	Kl. 1
643	(TUM/VERZ/TA) feed reverse time from switch-on to voltage reduction (cycling)	C	0010 - 0200	200	Kl. 1
651	(PF) Presser foot with automatic descent on machine stop 1 yes 0 no	B,C		1	Kl. 1
660	(FW) Bobbin thread monitoring 0 without (= *II*) 1 via a sensor (= **I*) 2 by a stitch count	C	0000 - 0002	0	Kl. 1
665	(ANLSP/STOP) Run locking/stop 1 contact closed 0 contact open	C		1	Kl. 1
700	(NAPO) Needle position 0 (reference position of the needle)	B,C	0000 - 0255	0	Kl. 1
702	(NAPO) Needle position 1 (needle down)	B,C	0000 - 0255	53	Kl. 1
703	(NAPO) Needle position 2 (thread take-up lever up)	B,C	0000 - 0255	222	Kl. 1
718	(STBR) Timing of residual brake (0 = brake off)	C	0000 - 0100	0	Kl. 1
719	(PF/TA) Timing output A4 (lifting presser foot) (0 = 100% switched on)	B,C	0000 - 0090	80	Kl. 1
720	(HV/TA) Timing output Ax (stroke adjustment) (0 = 100% switched on)	B,C	0000 - 0090	60	Kl. 1
721	(TUM/TA) Timing output A5 (feed reverse) (0 = 100% switched on)	B,C	0010 - 0090	60	Kl. 1
722	(DRZAN) Acceleration ramp 1 gradual 50 steep	B,C	0001 - 0060	60	Kl. 1
723	(DRZAB) Brake ramp 1 gradual 50 steep	B,C	0001 - 0060	40	Kl. 1
729	(STVERZ/PF) Start delay after lowering presser foot	B,C	0010 - 2000	80	Kl. 1
730	(PF/VERZ) Lift delay for presser foot after seam end	B,C	0010 - 2000	10	Kl. 1
760	(FW/SPFW/STZ/STZA) - Stitch count for the remnant thread after the bobbin thread monitor responds with direct bobbin thread monitoring - Multiplicator for the fixed value (200) for determining the start value of the stitch counter with indirect bobbin thread monitoring	C	0000 - 0250	5	Kl. 1
767	(PF/VERZ) Lift delay for presser foot at stop	B,C	0000 - 0050	0	Kl. 1
770	(PF/VERZ) Lifting delay of presser foot at threadle-position „-1“	B,C	0010 - 0250	200	Kl. 1
797	(HWT) Hardware test 1 yes 0 no	B,C		0	Kl. 1
798	(EBC) Programming level C 1 yes 0 no	B,C		0	Kl. 1
799	(MAKL) Machine class which has been selected	C	0001 - 0001	1	Kl. 1
800	(DRR) Direction of motor rotation viewed from belt pulley 1 left-hand rotation 0 right-hand rotation	C		0	Kl. 1

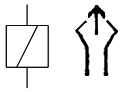
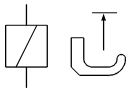
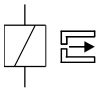
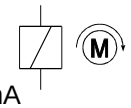
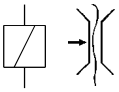
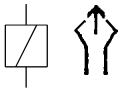
801	(RDR) Reverse rotation angle after seam end	B,C	0010 - 0212	100	Kl. 1
880	(REG) Starting current max. [A]	C	0001 - 0020	7	Kl. 1
884	(REG) Proportional amplification of the speed control (in general)	C	0003 - 0030	12	Kl. 1
885	(REG) Integral amplification of the speed control	C	0001 - 0255	50	Kl. 1
886	(REG) Proportional amplification of the order controllers	C	0001 - 0025	15	Kl. 1
887	(REG) Differential amplification of the order controllers	C	0001 - 0025	10	Kl. 1
889	(EINZ/REG) Time required for order controlling (0 = always)	C	0000 - 2500	600	Kl. 1
890	(REG) Proportional amplification of the superior order controllers for the residual brake	C	0001 - 0025	15	Kl. 1
897	(MOT) MINI motor version 1 long 0 short	C		0	Kl. 1
901	(DRZ/SN) Trimming release speed	C	0030 - 0500	350	Kl. 1
902	(INKR) Increments on output A13 1 240 increments per revolution 0 480 increments per revolution	A,B,C		0	Kl. 1
933	(ANZ) Display change-over 1 diagnosis 0 normal display	C		0	Kl. 1
999	(REG/VERZ) Delay for travel-optimised positioning	C		0	Kl. 1

12. Electrical Connections Diagram X5 Q62ED





Bedeutung der Magnete bzw. Magnetventile, Taster / Meaning of magnets and/or solenoids and keys
Signification des aimants resp. solenoides et touches / Significação dos imaõs 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

Y3 I max 4 A ✱ 	Kette blasen 1 / chain blowing 1 / soufflage de chaînette 1 / soprar de cadeia 1 / soffiatura catenella 1 / soplar cadeneta 1 / blazen van een ketting 1
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 4 A ✱ 	Kette saugen / chain vacuum / aspiration de chaînette / aspirar de cadeia / aspirazione catenella / aspiración cadeneta / zuigen van een ketting
Y6 I max 4 A ✱ 	Fadenklemme / thread clamp / serre-fil / pinça fixar a linha / serrafilo / garra de hilo / draadklem
Y7 I max 4 A ✱ 	Kettenschieber / chain transport
Y8 I max 500 mA 	Motor läuft / motor runs / moteur en marche / motor em movimento / motore in moto / motor en marcha / loop van de machine
Y10 I max 4 A ✱ 	Fadenspannungslösen / thread tension release / détendeur de fil / soltar tensão da linha / sbloccaggio tendifilo / detensión del hilo / verbreken van de draadspanning
Y11 I max 4 A ✱ 	Saugkopf heben / lift vacuum head
Y14 I max 4 A ✱ 	Saugkopf saugen / suck vacuum head
Y15 I max 4 A ✱ 	Kette blasen 2 / chain blowing 2 / soufflage de chaînette 2 / soprar de cadeia 2 / soffiatura catenella 2 / soplar cadeneta 2 / blazen van een ketting 2

* 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).