

Efka vario dc

CONTROL

FP82AV3235

PARAMETER LIST

No. 402142

english

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FRANKL & KIRCHNER
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EFKA OF AMERICA INC.

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EFKA ELECTRONIC MOTORS
SINGAPORE PTE. LTD.

OPERATOR LEVEL

Parameter	Designation	Unit	max	min	Preset	Ind. Prg. No.
F-000 Arv	Start backtack stitches forward		254	0	3	A
F-001 Arr	Start backtack stitches backward		254	0	3	A
F-002 Err	End backtack stitches backward		254	0	3	A
F-003 Erv	End backtack stitches forward		254	0	2	A
F-004 LS	Light barrier compensating stitches		254	0	5	A
F-005 LSF	Number of stitches of the light barrier filter for knitted fabrics		254	0	0	A
F-006 LSn	Number of light barrier seams		15	1	1	A
F-007 Stc	Stitches for the seam with stitch counting		254	0	20	A
F-008 -F-	<p>Setting pushbutton 3 with a parameter from the technician level</p> <p>1 = Softstart ON/OFF 2 = Ornamental backtack ON/OFF 3 = Full stitch with pushbutton needle up/down ON/OFF 4 = Sewing start blocked with light barrier uncovered ON/OFF 5 = Reversion ON/OFF</p> <p>Note: If programming seams (teach-in) is switched on the above functions have no effect. Instead, switching from one seam to the next can be programmed by push-button 3 (F).</p>		5	1	3	A

TECHNICIAN LEVEL**Code No. 1907**

Parameter	Designation	Unit	max	min	Preset	Ind. Prg. No.
Group 0 Stitches/Countings						
F-100 SSc	Softstart stitches		20	0	3	A
Group 1 Speeds						
F-110 n1	Positioning speed	RPM	390	70	180	A
F-111 n2-	Upper limit setting range n-max	RPM	9900	n2_	5000	A
F-112 n3	Start backtack speed	RPM	9900	200	1500	A
F-113 n4	End backtack speed	RPM	9900	200	1500	A
F-114 n5	Speed after light barrier sensing	RPM	9900	200	1000	A
F-115 n6	Softstart speed	RPM	1500	70	500	A
F-116 n7	Trimming speed	RPM	500	70	200	A
F-117 n10	Speed for "record" programming	RPM	9900	400	2500	A
F-118 n12	Automatic speed for stitch counting	RPM	9900	400	3500	A
F-119 nSt	Speed stage graduation 1 = linear 2 = slightly progressive 3 = highly progressive		3	1	2	A

TECHNICIAN LEVEL**Code No. 1907**

Parameter	Designation	Unit	max	min	Preset	Ind. Prg. No.
Group 2 Speeds						
F-121 n2_	Lower limit setting range n-max	RPM	n2-	400	400	A
F-128 ASd	Start delay, when starting command is given by covering the light barrier (see F-129)	ms	2000	0	200	A
F-129 ALS	Machine start by covering the light barrier (only in conjunction with F-132 = ON)				OFF	A
Group 3 Switching Functions						
F-130 LSF	Light barrier filter for knitted fabrics				ON	A
F-131 LSd	Light barrier sensing "uncovered" (not in conjunction with teach-in)				ON	A
F-132 LSS	Blocking of machine start, when light barrier "uncovered"				OFF	A
F-133 LSE	Thread trimmer, when completing the seam after light barrier sensing				ON	A
F-134 SSt	Softstart				OFF	A
F-135 SrS	Ornamental backtack				OFF	A
F-136 FAr	Trimming stitch backward				OFF	A
F-139 nIS	Display of machine speed				OFF	A
Group 4 Switching Functions						
F-140 Sht	Full stitch with pushbutton needle up /down				ON	A

TECHNICIAN LEVEL

Code No. 1907

Parameter	Designation	Unit	max	min	Preset	Ind. Prg. No.
Group 4 Switching Functions						
F-141 SGN	Speed status for one seam with stitch counting 0 = speed controllable dependent upon pedal actuation up to the set maximum speed (F-111) 1 = fixed speed (F-118) without influence by the pedal (Machine stop by heeling the pedal back to the basic position) 2 = limited speed controllable dependent upon pedal actuation up to the set limit (F-118) 3 = with fixed speed (F-118), can be interrupted by full heelback		3		1	A
F-142 SFn	Speed status for the free seam and for the seam with light barrier 0 = speed controllable by pedal actuation up to the set maximum speed (F-111) 1 = fixed speed (F-118) without influence by the pedal (Machine stop by heeling the pedal back to the basic position) 2 = limited speed controllable by pedal actuation up to the set limit (F-118) 3 = with fixed speed (F-118), can be interrupted by full heelback		3		0	A

TECHNICIAN LEVEL

Code No. 1907

Parameter	Designation	Unit	max	min	Preset	Ind. Prg. No.
Group 4 Switching Functions						
F-143 n5b	Speed for light barrier compensating stitches 0 = speed controllable by pedal actuation up to the set maximum speed (F-111) 1 = fixed speed (F-114) without influence by the pedal (Machine stop by heeling the pedal back to the basic position) 2 = limited speed controllable by pedal actuation up to the set limit (F-114) 3 = with fixed speed (F-114), can be interrupted by full heelback		3		1	A
Group 5 Time Functions						
F-150 t8	Stitch correction of the double start backtack (Prolongation of the operating time of the stitch regulator / not effective with ornamental backtack)	ms	500	0	0	A
F-151 t9	Stitch correction of the double end backtack (Prolongation of the operating time of the stitch regulator / not effective with ornamental backtack)	ms	500	0	0	A
F-153 brt	Braking power at machine standstill	ms	50	0	0	A
F-154 iSb	Input E1...E5 braking at standstill		5	0	0	A

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Parameter	Designation	Unit	max	min	Preset	Ind. Prg. No.
Group 5 Time Functions						
F-155 tPw	Switching in the teach-in: Pushbutton on E3 (B4/2-4) -> next pattern Pushbutton on E4 (B4/2-5) -> previous pattern				OFF	A
F-156 Von	Control panel on/off ON = all pushbuttons can be used OFF = all pushbuttons are blocked, except pushbuttons +, - and 2				ON	A
Group 6 DC Motor						
F-161 drE	Direction of rotation of the motor 0 = clockwise rotation 1 = anticlockwise rotation		1	0	1	A
Group 7 Service Functions						
F-170 Sr1	Setting of the reference position (Position 0) = Needle point at the height of the needle plate, from downward move- ment of the needle in the direction of rotation of the motor shaft					A
F-171 Sr2	Setting of the needle positions for counter clockwise rotation 1 = lower needle position 1A = switch-off position 2 = upper needle position 2A = switch-off position The positions 3 and 3A are to be set to 000		510	0	000 086 254 354	A A A A

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Parameter	Designation	Unit	max	min	Preset	Ind. Prg. No.
Group 7 Service Functions						
F-172 Sr3	Display of the signal position 1 to 1A (LED next to pushbutton 1 lights up) or position 2 to 2A (LED next to pushbutton 2 lights up)					A
F-173 Sr4	<p>Checking of the signal outputs</p> <p>Pushbutton 1 = Backtacking</p> <p>Pushbutton 2 = Presser foot lifting</p> <p>Pushbutton 3 = Output M1</p> <p>Pushbutton 4 = Output M2</p> <p>Pushbutton 5 = Output M3</p> <p>Pushbutton 6 = Output M4</p> <p>Pushbutton 7 = Output A1</p> <p>Pushbutton 8 = Output A2</p> <p>Pushbutton 9 = Output A3</p> <p>Pushbutton 0 = Output A4</p> <p>Pushbutton - = Output A5</p> <p>By actuating the switches connected to the control the function of these switches is checked and displayed with "on/off".</p>					A
F-178	Language selection				dEU--USA ESP--Fra	A
F-179	Display of the program number with index (top line) and identification number (bottom line)					A

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Parameter	Designation	Unit	max	min	Preset	Ind. Prg. No.
Group 8 Functions for Specific Types						
F-180 Ird	Number of reversion increments		500	0	0	A
F-181 drd	Activation delay for reversion	ms	990	0	0	A
F-182 FAS	Thread trimmer mode 1 = mode 1/lockstitch 2 = mode 2/lockstitch 3 = mode 3/lockstitch 4 = mode 4/lockstitch 5 = mode 5/lockstitch 6 = mode 6/lockstitch 7 = mode 7/chainstitch 8 = mode 8/chainstitch		8	1	1	A
F-183 tFS	Run-out time thread tension release	ms	2550	0	60	A
F-184 tFA	Thread trimmer stop time	ms	2550	0	100	A
F-185 LSP	Blocking of machine run input function 0 = Blocking of machine run active, when switch closed 1 = Blocking of machine run active, when switch opened		1	0	0	A
F-188 dFL	Activation delay of presser foot lifting in thread trimmer mode 7...8 0 = Blocking of machine run active, when switch closed 1 = Blocking of machine run active, when switch opened	ms	2550	0	380	A

1. Installing a New EPROM

When installing a new Eprom with a new date identification, the preset values will be reset.

3. Mode Switching of the Parameter F-182

After having selected a new mode by parameter F-182, ensure that position values and direction of rotation are correctly set.

TECHNICIAN LEVEL**Code No. 1907**

Parameter	Designation	Unit	max	min	Preset	Ind. Prg. No.
Group 9 Functions for Specific Types						
F-191 kd1	Activation delay M1 with chainstitch trimmer	ms	2550	0	0	A
F-192 kt1	Activation time M1 with chainstitch trimmer	ms	2550	0	100	A
F-193 kd2	Activation delay M2 with chainstitch trimmer	ms	2550	0	100	A
F-194 kt2	Activation time M2 with chainstitch trimmer	ms	2550	0	100	A
F-195 kd3	Activation delay M3 with chainstitch trimmer	ms	2550	0	200	A
F-196 kt3	Activation time M3 with chainstitch trimmer	ms	2550	0	100	A
F-197 FMb	Function Memory Box				OFF	A
F-198 Foc	Format Memory Card				OFF	A

SUPPLIER LEVEL

Code No. 3112

Parameter	Designation	Unit	max	min	Preset	Ind. Prg. No.
Group 0 Time Functions						
F-200 t1	Delay of speed release after start backtack	ms	500	50	100	A
F-201 t2	Activation delay of presser foot lifting with half heelback	ms	500	20	80	A
F-202 t3	Start delay after presser foot lifting	ms	500	0	70	A
F-203 t4	Time of full power of presser foot lifting	ms	600	0	320	A
F-204 t5	Holding power for presser foot lifting Stages 1...7 Stage 1 = 12.5% Stage 7 = 87.5% Stage 1 = low holding power Stage 7 = high holding power		7	1	3	A
F-205 t6	Thread wiper time	ms	500	0	120	A
F-206 t7	Delay end of thread wiping until presser foot lifting ON (lock stitch)	ms	800	50	80	A
F-207 br1	Braking effect when modifying the set value ≤ 4 stages		255	1	25	A
F-208 br2	Braking effect when modifying the set value ≥ 5 stages		255	1	60	A
F-209 dFw	Delay thread wiper	ms	500	0	0	A

SUPPLIER LEVEL**Code No. 3112**

Parameter	Designation	Unit	max	min	Preset	Ind. Prg. No.
Group 1 Time Functions						
F-210 tSr	Stop time for commutation of the stitch regulator for ornamental backtack	ms	500	0	80	A
F-211 tFL	Activation delay of presser foot lifting, when thread wiper is off	ms	500	0	50	A
F-212 t10	Time of full power of backtacking	ms	600	0	500	A
F-213 t11	Holding power for backtacking Stages 0...7 Stage 0 = 100% Stage 1 = 12.5 % Stage 7 = 87.5 % Stage 1 = low holding power Stage 7 = high holding power	ms	7	0	3	A
Group 2 Speeds						
F-220 ALF	Accelerating power of the drive		255	5	32	A
Group 3 Switching Functions						
F-231 Sn1	Execution of the first stitch at positioning speed after power ON				ON	A
F-232 Std	Suppression of the seam if 0 stitches are set				OFF	A

SUPPLIER LEVEL

Code No. 3112

Parameter	Designation	Unit	max	min	Preset	Ind. Prg. No.
Group 5 Signal A1 Functions						
F-250 tr1	Starting point for signal A1 0 = Start at the beginning of the seam 1 = Start of the signal with light barrier sensing 2 = Start of the signal, when drive stops at the seam end		2	0	0	A
F-251 do1	Delay for signal A1 0 = no delay until signal 1 = delay until signal		1	0	1	A
F-252 So1	Emission signal A1 over time or until seam end 0 = Signal until seam end 1 = Signal over time		1	0	0	A
F-253 dt1	Delay until signal A1	ms	2550	0	0	A
F-254 St1	Operating time for signal A1	ms	2550	0	0	A
F-255 A1u	NOT condition inputs E1-E5 00000 = no input active 00001 = input E1 active (if input E1 is on output A1 can be switched on) 00101 = inputs E1 AND E3 active (if both input E1 and E3 are on output A1 can be switched on)				00000	A
F-256 A1o	OR condition inputs E1-E5 00000 = no input active 00001 = input E1 active (input E1 switches output A1) 00101 = input E1 OR E3 active (input E1 or E3 switches output A1)				00000	A
F-257 nA1	Speed mode with active signal A1 0 = Pedal speed 1 = Speed n9 2 = Speed n11		2	0	0	A

SUPPLIER LEVEL

Code No. 3112

Parameter	Designation	Unit	max	min	Preset	Ind. Prg. No.
Group 6 Signal A2 Functions						
F-260 tr2	Starting point for signal A2 0 = Start at the beginning of the seam 1 = Start of the signal with light barrier sensing 2 = Start of the signal, when drive stops at the seam end		2	0	0	A
F-261 do2	Delay for signal A2 0 = no delay until signal 1 = delay until signal		1	0	1	A
F-262 So2	Emission signal A2 over time or until seam end 0 = Signal until seam end 1 = Signal over time		1	0	0	A
F-263 dt2	Delay until signal A2	ms	2550	0	0	A
F-264 St2	Operating time for signal A2	ms	2550	0	0	A
F-265 A2u	NOT condition inputs E1-E5 00000 = no input active 00001 = input E1 active (if input E1 is on output A2 can be switched on) 00101 = inputs E1 AND E3 active (if both input E1 and E3 are on output A2 can be switched on)				00000	A
F-266 A2o	OR condition inputs E1-E5 00000 = no input active 00001 = input E1 active (input E1 switches output A2) 00101 = input E1 OR E3 active (input E1 or E3 switches output A2)				00000	A
F-267 nA2	Speed mode with active signal A2 0 = Pedal speed 1 = Speed n9 2 = Speed n11		2	0	0	A

SUPPLIER LEVEL**Code No. 3112**

Parameter	Designation	Unit	max	min	Preset	Ind. Prg. No.
Group 7 Signal A1/A2 Functions						
F-270 Ert	Inputs E1 - E5 0 = operating mode not stored 1 = operating mode stored				00000	A
F-271 n9	Limited speed n9		9900	200	3000	A
F-272 n11	Limited speed n11		9900	200	500	A
F-273 bP0	Switch-off point of the signals A1 and A2 OFF = Signals effective until end of stitch counting On = Signals effective until pedal in position 0 (neutral)				OFF	A
F-274 SrP	Signals A1 and A2 are allocated for "record" programming				OFF	A
Group 7 General Functions						
F-275 nrF	Speed "record" programming fixed				OFF	A
F-276 dkn	Correction seam ON/OFF				ON	A
Group 9 General Functions						
FF-290	Reset "record" programming				Code 3333	A

RECORD LEVEL

Code No. 3333

Parameter	Designation	Unit	max	min	Preset	Ind. Prg. No.
Group Start Conditions						
F-300 rEc	Selection of "records"		32	1	1	A
F-301 SAT	Start condition AND input E1...E5				00000	A
F-302 SAM	Selection high/low active of AND for input E1...E5				00000	A
F-303 Sot	Start condition OR input E1...E5				00000	A
F-304 SoM	Selection high/low active of OR for input E1...E5				00000	A
F-305 SA1	Start condition AND for output A1...A5 off				00000	A
F-306 So1	Start condition OR for output A1...A5 off				00000	A
F-307 ScM	Comparative speed for start	RPM	9999	0	0000	A
F-308 SA2	Start condition AND for comparative speed F-307				0	A
F-309 So2	Start condition OR for comparative speed F-307				0	A
F-310 SA3	Start condition 1 AND for sewing 00000001 = Beginning of seam 00000010 = Seam end 00000100 = Light barrier uncovered 00001000 = Light barrier covered 00010000 = LED A1 on V722 active 00100000 = LED A2 on V722 active 01000000 = Motor at standstill 10000000 = Motor running				00000000	A

RECORD LEVEL

Code No. 3333

Parameter	Designation	Unit	max	min	Preset	Ind. Prg. No.
Group	Start Conditions					
F-311 So3	Start condition 1 OR for sewing 00000001 = Beginning of seam 00000010 = Seam end 00000100 = Light barrier uncovered 00001000 = Light barrier covered 00010000 = LED A1 on V722 active 00100000 = LED A2 on V722 active 01000000 = Motor at standstill 10000000 = Motor running				00000000	A
F-312 i2U	Start condition 2 AND for sewing 00000001 = Query pedal back to position -2 00000010 = Query pedal back to position -1 00000100 = Query pedal in position 0 (neutral) 00001000 = Query pedal forward 00010000 = LED end backtack backward active on V722 00100000 = LED end backtack forward active on V722 01000000 = LED start backtack backward active on V722 10000000 = LED start backtack forward active on V722				00000000	A

RECORD LEVEL

Code No. 3333

Parameter	Designation	Unit	max	min	Preset	Ind. Prg. No.
Group	Start Conditions					
F-313 i2o	Start condition 2 OR for sewing 00000001 = Query pedal back to position -2 00000010 = Query pedal back to position -1 00000100 = Query pedal in position 0 (neutral) 00001000 = Query pedal forward 00010000 = LED end backtack backward active on V722 00100000 = LED end backtack forward active on V722 01000000 = LED start backtack backward active on V722 10000000 = LED start backtack forward active on V722				00000000	A
F-319 FAL	Next "record" if FALSE		32	01	01	A

RECORD LEVEL

Code No. 3333

Parameter	Designation	Unit	max	min	Preset	Ind. Prg. No.
Group Execution						
F-320 oWT	Static activation A1...A5				00000	A
F-321 on1	Activation time A1	ms	60000	0	00000	A
F-322 on2	Activation time A2	ms	60000	0	00000	A
F-323 on3	Activation time A3	ms	60000	0	00000	A
F-324 on4	Activation time A4	ms	60000	0	00000	A
F-325 on5	Activation time A5	ms	60000	0	00000	A
F-326 SdL	General delay time	ms	60000	0	00000	A
F-327 GSS	General counting		60000	0	00000	A
F-328 cSt	Counting with pos.1/gen. imp. 0 = Counting off 1 = Counting with position 1 2 = Counting with generator imp.		2	0	0	A
F-329 PAG	Alteration 1 of the sewing process 00000001 = Stop with start with pedal in position 0 (neutral) 00000010 = Stop with start with pedal not in position 0 (neutral) 00000100 = Stop in position 1 00001000 = Stop in position 2 00010000 = Activate presser foot lifting 00100000 = Machine run at positioning speed 01000000 = Limit machine run to speed n10 10000000 = Stop sewing at the seam end 01100000 = Machine run at fixed speed n10 independent of the pedal				00000000	A

RECORD LEVEL

Code No. 3333

Parameter	Designation	Unit	max	min	Preset	Ind. Prg. No.
Group Execution						
F-330 oS2	Alteration 2 of the sewing process 00000001 = Pedal coding A 00000010 = Pedal coding B 00000100 = Pedal coding C 00001000 = Pedal coding D 00010000 = Pedal blocked, function only by "record" 01000000 = Reversion by "record" 10000000 = Presser foot blocked, presser foot only by "record"				00000000	A
Group End Conditions						
F-341 PAT	End condition AND input E1...E5				00000	A
F-342 PAM	Selection high/low active of AND input E1...E5				00000	A
F-343 Pot	End condition OR input E1...E5				00000	A
F-344 PoM	Selection high/low active of OR input E1...E5				00000	A
F-345 PA1	End condition AND output A1...A5 off				00000	A
F-346 Po1	End condition OR output A1...A5 off				00000	A
F-347 PcM	Comparative speed for end condition		9999	0	0000	A
F-348 PA2	End condition AND for comparative speed F-347				0	A
F-349 Po2	End condition OR for comparative speed F-347				0	A
F-350 PA3	End condition AND if counting F-327 not completed				0	A

RECORD LEVEL

Code No. 3333

Parameter	Designation	Unit	max	min	Preset	Ind. Prg. No.
Group	End Conditions					
F-351 Po3	End condition OR if counting F-327 not completed				0	A
F-352 PAS	End condition 1 AND for sewing 00000001 = Beginning of seam 00000010 = Seam end 00000100 = Light barrier uncovered 00001000 = Light barrier covered 00010000 = LED A1 on V722 active 00100000 = LED A2 on V722 active 01000000 = Motor at standstill 10000000 = Motor running				00000000	A
F-353 POS	End condition 1 OR for sewing 00000001 = Beginning of seam 00000010 = Seam end 00000100 = Light barrier uncovered 00001000 = Light barrier covered 00010000 = LED A1 on V722 active 00100000 = LED A2 on V722 active 01000000 = Motor at standstill 10000000 = Motor running				00000000	A

RECORD LEVEL

Code No. 3333

Parameter	Designation	Unit	max	min	Preset	Ind. Prg. No.
Group	End Conditions					
F-354 o2U	End condition 2 AND for sewing 00000001 = Query pedal back to position -2 00000010 = Query pedal back to position -1 00000100 = Query pedal in position 0 (neutral) 00001000 = Query pedal forward 00010000 = LED end backtack backward active on V722 00100000 = LED end backtack forward active on V722 01000000 = LED start backtack backward active on V722 10000000 = LED start backtack forward active on V722				00000000	A
F-355 o2o	End condition 2 OR for sewing 00000001 = Query pedal back to position -2 00000010 = Query pedal back to position -1 00000100 = Query pedal in position 0 (neutral) 00001000 = Query pedal forward 00010000 = LED end backtack backward active on V722 00100000 = LED end backtack forward active on V722 01000000 = LED start backtack backward active on V722 10000000 = LED start backtack forward active on V722				00000000	A
F-359 nEt	Next "record" if TRUE		32	01	01	A

STATUS DISPLAYS

Display	Designation
InFo A1	Pedal not in neutral position, when switching on
InFo A3	The position to which all other position values refer has not been stored (reference position missing)
InFo A4	Control panel cannot be clearly identified
InFo A7	The version number of the "record" data of the EPROM does not correspond to the data stored on the printed circuit board. Erase "record" data by parameter F-290. Enter new "record" data manually.
InFo F1	Wrong code or function number
InFo E1	Position transmitter not connected or defective, mains voltage too low
InFo E2	Mains voltage too low or power off > on too short
InFo E3	Machine locks or does not reach the desired speed
InFo E4	Control disturbed by defective grounding or loose contact
InFo H1	Commutation transmitter cord or frequency converter disturbed
InFo H2	Processor disturbed
InFo C01	Memory Card not inserted
InFo C02	Memory Card cannot be written on (check write-protection!)
InFo C03	Memory Card formatting
InFo C04	Memory Card writing or reading error
Info C05	Connection interrupted
InFo C06	Cannot find data on Memory Card
InFo C07	Storage space on Memory Card occupied
InFo C07	Information for the version number of the "record" data of the EPROM does not correspond to the data stored on the printed circuit board. Enter new "record" data manually.

Efka

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