

# **Efka** vario dc

**CONTROL**

**JU82AV3204**

## **PARAMETER LIST**

**No. 0402008      english**

---

**Efka**  
FRANKL & KIRCHNER  
GMBH & CO KG

**Efka**  
EFKA OF AMERICA INC.

**Efka**  
EFKA ELECTRONIC MOTORS  
SINGAPORE PTE. LTD.

---

**OPERATOR LEVEL**

Parameter	Designation	Unit	max	min	Preset	Customer	Ind. Prg. No.
F-000 Arv	Initial backtacking stitches forward		254	0	3		A
F-001 Arr	Initial backtacking stitches backward		254	0	3		A
F-002 Err	Final backtacking stitches backward		254	0	3		A
F-003 Erv	Final backtacking 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	2		A
F-006 LSn	Number of light barrier seams		15	1	1		A
F-007 Stc	Number of stitches of the seam with stitch counting		254	0	20		A
F-008 -F-	Setting pushbutton 3 with a parameter from the technician level  1 = Softstart ON/OFF 2 = Ornamental backtack ON/OFF 3 = High lift walking ON/OFF 4 = Full stitch with pushbutton needle up/down ON/OFF 5 = Sewing start with light barrier uncovered ON/OFF 6 = Reversion on/off		6	1	4		A
F-009 LSI	Sensitivity adjustment of the transmitted light barrier		255	0	16		A
F-010 n5	Speed after light barrier sensing	RPM	3000	200	2000		A
F-011 n12	Automatic speed for stitch counting	RPM	9900	400	3500		A

**TECHNICIAN LEVEL**

Parameter	Designation	Unit	max	min	Preset	Customer	Ind. Prg. No.
<b><u>Group 0 Stitches/Countings</u></b>							
F-100 SSc	Number of stitches softstart		20	0	3		A
<b><u>Group 1 Speeds</u></b>							
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	Initial backtacking speed	RPM	9900	200	1500		A
F-113 n4	Final backtacking speed	RPM	9900	200	1500		A
F-115 n6	Softstart speed	RPM	1500	70	500		A
F-116 n7	Trimming speed	RPM	500	70	200		A
F-117 n10	High lift walking speed	RPM	9900	400	2500		A
F-119 nSt	Speed stage graduation 1 = linear 2 = slightly progressive 3 = highly progressive		3	1	2		A

**TECHNICIAN LEVEL**

Parameter	Designation	Unit	max	min	Preset	Customer	Ind. Prg. No.
<b><u>Group 2</u></b>							
F-121 n2_	Lower limit setting range n-max	RPM	n-	400	400		A
F-124 LSA	Interruption of initial backtack by light barrier, when light barrier uncovered and motor off. The initial backtack will be executed with the full number of stitches, when sewing is resumed.				ON		A
F-125 LSo	Light barrier remains on				OFF		A
F-126 ntb	Interruption of seam with pedal in position -2				ON		A
F-127 LSC	Stitches light barrier control		2550	0	2000		A
F-128 ASd	Delay automatic start of light barrier	ms	2000	0	200		A
F-129 ALS	Automatic start beginning of seam by light barrier (only with F-132 = ON)				OFF		A

**TECHNICIAN LEVEL**

Parameter	Designation	Unit	max	min	Preset	Customer	Ind. Prg. No.
<b><u>Group 3 Switching Functions</u></b>							
F-130 LSF	Light barrier filter for knitted fabrics				ON		A
F-131 Lsd	Light barrier sensing "uncovered"				ON		A
F-132 LSS	Blocking of machine start, when light barrier "uncovered"				OFF		A
F-133 LSE	Thread trimmer, when terminating 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-137 hP	High lift walking				OFF		A
F-138 hPr	High lift walking stored				ON		A
F-139 nIS	Display of machine speed				OFF		A
<b><u>Group 4 Switching Functions</u></b>							
F-140 Sht	Full stitch with pushbutton needle up/down				ON		A

**TECHNICIAN LEVEL**

Parameter	Designation	Unit	max	min	Preset	Customer	Ind. Prg. No.
F-141 SGn	<p>Speed status for one seam with stitch counting</p> <p>0 = Speed can be controlled dependent on the pedal up to the set maximum speed (F-111)</p> <p>1 = fixed speed (F-118) without influence by the pedal (Machine stop by heeling the pedal back to the basic position)</p> <p>2 = limited speed can be controlled dependent on the pedal up to the set limit (F-118)</p> <p>3 = with fixed speed, can be interrupted by pedal in position -2</p>		3		1		A
F-142 SFn	<p>Speed status for the free seam and for the seam with light barrier</p> <p>0 = speed can be controlled dependent on the pedal up to the set maximum speed (F-111)</p> <p>1 = fixed speed (F-118) without influence by the pedal (Machine stop by heeling the pedal back to the basic position)</p> <p>2 = limited speed can be controlled dependent on the pedal up to the set limit (F-118)</p> <p>3 = with fixed speed, can be interrupted by pedal in position -2 (only with light barrier On, otherwise as mode 0)</p>		3		0		A

**TECHNICIAN LEVEL**

Parameter	Designation	Unit	max	min	Preset	Customer	Ind. Prg. No.
<b><u>Group 4 Switching Functions</u></b>							
F-143 SAR	Speed status initial backtack 0 = with pedal speed 1 = with fixed speed (n3) 2 = with limited speed (n3) 3 = with fixed speed (n3) stored		3		3		A
F-144 SEr	Speed status final backtack 0 = with pedal speed 1 = with fixed speed (n4) 2 = with limited speed (n4) 3 = with fixed speed (n4) stored		3		3		A

**TECHNICIAN LEVEL**

Parameter	Designation	Unit	max	min	Preset	Customer	Ind. Prg. No.
<b><u>Group 5 Time Functions</u></b>							
F-150 t8	Stitch correction of the double initial backtack (Prolongation of the operating time of the stitch regulator - not effective with ornamental backtack)	ms	500	0	30		A
F-151 t9	Stitch correction of the double final backtack (Prolongation of the operating time of the stitch regulator - not effective with ornamental backtack)	ms	500	0	30		A
F-152 thP	Run-out time high lift walking speed	ms	500	80	240		A
F-153 brt	Braking power at Machine standstill	ms	50	0	0		A
<b><u>Gruppe 6 DC-Motor</u></b>							
F-161 drE	Sense of rotation of the motor  0 = clockwise rotation 1 = anticlockwise rotation				1		A
<b><u>Group 7 Service Functions</u></b>							
F-170 Sr1	Setting the reference position (Position 0) = Needle point at the height of the needle plate						A



**TECHNICIAN LEVEL**

Parameter	Designation	Unit	max	min	Preset	Customer	Ind. Prg. No.
<b><u>Group 7 Service Functions</u></b>							
F-171 Sr2	Adjustment of the needle positions  1 = lower needle position  1A = off position  2 = on position  2A = off position  The positions 3 and 3A are to be set to 000		510	0	F-190 OFF chain stitch  000  440  280  220		A  A  A  A
F-171 Sr2	Adjustment of the needle positions  1 = lower needle position  1A = off position  2 = on position  2A = off position  The positions 3 and 3A are to be set to 000		510	0	F-190 ON lock stitch  000  086  254  354		A  A  A  A
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

**TECHNICIAN LEVEL**

Parameter	Designation	Unit	max	min	Preset	Customer	Ind. Prg. No.
<b><u>Group 7 Service Functions</u></b>							
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 = Pedal not in position 0 (neutral)</p> <p>Pushbutton 4 = Motor running</p> <p>Pushbutton 5 = Thread trimmer</p> <p>Pushbutton 6 = Thread wiper</p> <p>Pushbutton 7 = High lift walking</p> <p>Pushbutton 8 = free</p> <p>Pushbutton 9 = free</p> <p>Pushbutton 0 = free</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-174	Mechanical adjustment of the light barrier						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

**TECHNICIAN LEVEL**

Parameter	Designation	Unit	max	min	Preset	Customer	Ind. Prg. No.
<b><u>Group 8 Functions for Specific Types</u></b>							
F-180 Ird	Number of increments of reversion		500	0	0		A
F-181 drd	Activation delay for reversion	ms	990	0	0		A
F-182 chP	Run-out stitches with high lift walking		254	0	10		A
F-183 ktI	Activation time chain stitch thread trimmer	ms	2550	0	150		A
F-184 kt2	Activation time lock stitch thread wiper		2550	0	200		A
F-185 LSP	Blocking of machine run				OFF		A
F-186 Ent	Pushbutton needle up/down (manual backtacking pushbutton) ON = function needle up/down OFF= function manual backtack				OFF		A
F-187 dFw	Delay for chain stitch thread wiper	ms	990	0	80		A

**TECHNICIAN LEVEL**

Parameter	Designation	Unit	max	min	Preset	Customer	Ind. Prg. No.
<b><u>Group 9 Switching of the Machine Systems</u></b>							
F-190 StP	ON = Lock stitch trimming system OFF = Chain stitch trimming system				ON		A

**1. Efka Settings**

Specific preset values for lock stitch trimming and basic preset values

**2. Installing a New Eprom**

When installing a new Eprom with a new date identification, the preset values will be reset as under step 1.

**3. Switching of the Parameter F-190**

When switching the parameter F-190, the position preset values specific for trimming will be reset. The sense of rotation of the motor must be adjusted accordingly.

Parameter	Designation	Unit	max	min	Preset	Customer	Ind. Prg. No.
<b><u>Group 9 Functions for Specific Types</u></b>							
F-197 FmB	Function Memory Box				OFF		A
F-198 Foc	Format Memory Card				OFF		A

**SUPPLIER LEVEL**

Parameter	Designation	Unit	max	min	Preset	Customer	Ind. Prg. No.
<b>Group 0 Time Functions</b>							
F-200 t1	Delay after initial backtack until speed release	ms	500	50	100		A
F-201 t2	Activation delay of presser foot lifting, when heeling the pedal half back	ms	500	20	80		A
F-202 t3	Start delay after presser foot lifting	ms	500	10	70		A
F-203 t4	Time of full power of presser foot lifting	ms	600	0	320		A
F-204 t5	Holding current for presser foot lifting Stages 1...7 Stage 1 = 12.5% Stage 7 = 87.5%		7	1	3		A
F-205 t6	Time of thread wiper	ms	500	0	120		A
F-206 t7	Delay end of thread wiping until presser foot lifting ON	ms	800	50	80		A
F-207 br1	Braking effect with speed jumps under 400 RPM		255	1	60		A
F-208 br2	Braking effect with speed jumps over 400 RPM		255	1	2		A
<b>Group 1 Time Functions</b>							
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 with thread wiper off	ms	500	0	50		A
F-212 t10	Full power of backtacking	ms	600	0	500		A

**SUPPLIER LEVEL**

Parameter	Designation	Unit	max	min	Preset	Customer	Ind. Prg. No.
<b><u>Group 1 Time Functions</u></b>							
F-213 t11	Pulsing of backtacking (0-7 stages) Stage 1 = 12.5% Stage 1 = 87.5%		7	0	3		A
<b><u>Group 2 Speeds</u></b>							
F-220 ALF	Accelerating power of the motor		255	1	32		A
<b><u>Group 3 Switching Functions</u></b>							
F-231 Sn1	Execution of the first stitch at positioning speed after power ON				ON		A
<b><u>Group 8</u></b>							
F-280 ArF	Function initial backtack 0 = Normal 1 = Stop before switching on the backtacking (stop time tsr) 2 = Ornamental backtack 3 = Start delay with single initial backtack ( otherwise as mode 0)		3	1	0		A
F-281 ErF	Function final backtack 0 = Normal 1 = Stop before switching on the backtacking (stop time tsr) 2 = Ornamental backtack 3 = Start delay, when activating the backtack from motor off ( otherwise as mode 0)		3	1	0		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 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

---

**Elka**

FRANKL & KIRCHNER GMBH & CO KG

SCHEFFELSTRASSE 73 - POSTFACH 1320 - D-6830 SCHWETZINGEN  
TEL.: (06202)2020 - TELEFAX: (06202)202115 - TELEX: 466314

**Elka**

OF AMERICA INC.

3715 NORTHCREST ROAD - SUITE 10 - ATLANTA - GEORGIA 30340  
PHONE: (404)457-7006 - TELEFAX: (404)458-3899 - TELEX: EFKA AMERICA 804494

**Elka**

ELECTRONIC MOTORS SINGAPORE PTE. LTD.

67, AYER RAJAH CRESCENT 05-03 - SINGAPORE 0513  
PHONE: 7772459 or 7789836 - TELEFAX: 7771048

2(2)-091192(0402008)