Efka variostop modular

MONITOR MODULAR

V733 * V733-1

INSTRUCTION MANUAL

No. 402012 english

CONTENTS

1. SOME PRELIMINARY REMARKS

The monitor MODULAR V733 serves for programming the control VARIOSTOP MODULAR 9P72AV2012 as well as for selecting the desired machine functions. The input values and connection states are stored in the control whereby sewing is also possible with removed monitor.

Types V733 and V733-1 differ in the form of their housings and in some of the symbols assigned to the pushbuttons. Attention should be paid to the fact that the pushbuttons named with P and E in the following descriptions are only marked with these letters in case of type V733, whereas in the instructions for type V733-1 the symbol -> is used instead of P and the term Enter instead of E.

The instruction manual includes a separate parameter list stating all adjustable parameters (e. g. stitch numbers, speeds, countings, times, steps, switching functions). The parameters are divided between several access levels whereof the OPERATOR LEVEL and the TECHNICIAL LEVEL are required for the daily sewing operations, whereas the SUPPLIER LEVEL only comprises those parameters which - once adjusted for a certain machine - need no more or only seldom be changed. The TECHNICIAN LEVEL which is superiour to the OPERATOR LEVEL can only be opened via a code number (the same applies for the SUPPLIER LEVEL) and also allows access to the OPERATOR LEVEL located below.

IMPORTANT REMARK! IN ANY CASE, THE ADDRESSING AND PROGRAMMING OF THE PARAMETERS IS ONLY POSSIBLE IMMEDIATELY AFTER THE MACHINE HAS BEEN SWITCHED ON OR AFTER A PRECEDING TRIMMING OPERATION.

THE SETTINGS ARE TRANSFERRED INTO THE MEMORY OF THE CONTROL AFTER TERMINATED ADJUSTMENT OPERATION BY SHORT START OF SEWING. THE MACHINE MAY ONLY BE SWITCHED OFF AFTERWARDS AS OTHERWISE THE PREVIOUSLY ADJUSTED VALUES WILL GET LOST.

After having been mounted to the machine and after adjustment of the positions the motor is immediately ready for operation since the machine specific parameters have already been programmed according to the specifications of the machine manufacturer resp. the supplier.

2. OPENING OF TECHNICIAN LEVEL or SUPPLIER LEVEL

The adjustment of the positions as well as the addressing and programming of the parameters with restricted access which are required for the daily sewing operations are performed on the TECHNICIAN LEVEL which has first to be opened according to the following description. For addressing and programming the parameters accessible from the SUPPLIER LEVEL the latter has to be opened analogously.

(1) Press pushbutton P and switch on the machine with pushbutton depressed.

- LED above pushbutton P is illuminated
- display indicates: C-0000

(2) Input the code number for the TECHNICIAN LEVEL (see parameter list) with pushbuttons 1...0.

- display indicates: .... (= code number)

(3) Press pushbutton E.

- display indicates: F-100
- control is ready for acceptance of the parameter number

or

- display indicates: C-0000
  Error 0
- repeat input since a wrong code number has been used

The disired parameter number can now be input with pushbuttons 1...0 or all available parameters successively addressed with pushbutton E.

The TECHNICIAN LEVEL respectively remains accessible until the machine is switched off without renewed input of the code number. After a sewing operation the pedal merely has to be completely heeled back and pushbutton P depressed. The LED above pushbutton P now lights up again and the number of the parameter addressed at last appears on the display. After pushbutton E has been pressed this parameter is addressed again and the input value or connection state can be corrected, if required.

3. ADJUSTMENT and STORAGE OF POSITIONS

The machine positions are registered by the position transmitter in steps (increments) of approx. 0,7° and are indicated on the display of the monitor in two incremental steps respectively. A complete revolution of the handwheel is divided into 512 increments.

The counting starts from a basic position to be input which may e. g. be the position where the needle point is at the height of the needle plate (this basic position is freely determinable).

Once memorized, the needle positions will also remain stored if another position transmitter is used, merely the basic position will have to be readjusted.

3.1 BASIC POSITION

(1) Input parameter number 170 with pushbutton 1...0.

- display indicates: F-170

(2) Press pushbutton E.

- LED beside pushbutton 3 blinks
- display indicates: F-170
  Sr1

(3) Press pushbutton 3.

- LED beside pushbutton 3 is dark
- display indicates: PoSition
  0

(4) Turn the handwheel by at least 1/8 revolution, then position handwheel in a way that the needle point will be at the height of the needle plate (or in another desired position).

Now, the adjustment can either be finished by step (5) or - if, in addition to the basic position, also the needle position shall be adjusted - continued with step (2) in chapter 3.2.

(5) Press pushbutton P twice.

- the display is off and the LED above pushbutton P is dark
- the adjustment is finished

3.2 NEEDLE POSITIONS

(1) Input parameter number 171 with pushbutton 1...0.

- display indicates: F-171

(2) Press pushbutton E.

- LED beside pushbutton 3 blinks
- display indicates: F-171
  Sr2

(3) Press pushbutton 3.

- LED beside pushbutton 3 is dark
- display indicates: PoSition
  1 ... (... = formerly adjusted number of increments)

(4) Turn the handwheel until the indicated number of increments changes, then adjust lower needle position (= position 1).

(5) Press pushbutton E.

- a switch-over to the next position is performed
- display indicates: PoSition
  2 ... (... = formerly adjusted number of increments)

(6) Turn the handwheel until the indicated number of increments changes, then adjust upper needle position (= position 2).

(7) Press pushbutton E.

- a switch-over to the next position is performed
- display indicates: PoSition
  1A ... (... = formerly adjusted number of increments)

(8) Turn the handwheel until the indicated number of increments changes, then adjust position for connection of the pneumatic thread trimmer (= position 1A).

By pressing pushbutton E a switch-over to the following position (position 2A) could now be performed. As positions 2A, 3 and 3A are, however, not required for the functional sequence of the machine, the adjustment operation can be finished by operating step (9) after adjustment of position 1A.

(9) Press pushbutton P twice.

- the display is off and the LED above pushbutton P is dark
- the adjustment is finished

Any inaccuracy of positioning will be recognized by the control during the first test run and will automatically be corrected.

3.2.1 CORRECTION OF NEEDLE POSITIONS

If a needle position is to be corrected, the adjustment operation will have to be repeated. Thereby, those positions which need not be modified can be skipped by repeatedly pressing pushbutton E until the abbreviation of the desired parameter appears on the display.

The position to be corrected can either mechanically be readjusted or displaced by increasing resp. decreasing the indicated number of increments with pushbuttons + (= later) or - (= earlier).

4. CONNECTION OF LIGHT BARRIERS and ADJUSTMENT OF POWER OF RECEPTION (MECHANIC ADJUSTMENT)

Instructions No. 204674 gives you information on the mounting of the light barrier on the machine.

The light barrier lines have to be plugged into the respective sockets on the rear side of the monitor.

The light barriers must be pointed towards the face of reflection in such a way that a maximum power of reflection will be obtained. The degree of the power of reflection is indicated on the display by means of a bar chart.

(1) Input parameter number 174 with pushbuttons 1...0.

- display indicates: F-174

(2) Cover light barrier 2.

(3) Press pushbutton E.

- upper LED beside pushbutton 0 blinks
- display indicates: F-174
  IIII (= 1...16 bars)

(4) Point light barrier 1 in such a way that a maximum of bars will appear on the display, then adjust light barrier.

If all 16 bars are indicated, the potentiometer belonging to light barrier 1 must be turned to the left on the monitor until the number of bars decreases; then point light barrier 1 once again. Repeat this procedure until the maximum of bars that can be obtained appears on the display (but not more than 15).

(5) Cover light barrier 1, uncover light barrier 2.

- upper LED beside pushbutton 0 blinks
- display indicates: F-174
  IIII (= 1...16 bars)

(6) Point and adjust light barrier 2 as described under (4).

(7) Press pushbutton P twice.

- the display is off and the LED above pushbutton P is dark
- the adjustment is finished

5. ADDRESSING and PROGRAMMING OF PARAMETERS

TECHNICIAN LEVEL or SUPPLIER LEVEL

As an example for all other parameters the addressing and programming of the parameters "MAXIMUM SPEED (F-111)" and "INDICATION OF THE MACHINE SPEED (F-139)" are described hereafter. The number and short designation of the parameter respectively addressed will be indicated on the display.

(1) Input the desired parameter number with pushbuttons 1...0 (here 111).

- display indicates: F-111

(2) Press pushbutton E.

- parameter "MAXIMUM SPEED" is addressed
- display indicates: F-111
  n2 .... (.... = formerly adjusted speed value)

(3) Increase or decrease the indicated speed with pushbutton + or -.

(4) Press pushbutton P.

- LED above pushbutton P blinks
- display indicates: F-111
- control is ready for acceptance of the next parameter number

(5) Input the next desired parameter number with pushbuttons 1...0 (here 139).

- display indicates: F-139

(6) Press pushbutton E.

- parameter "INDICATION OF THE MACHINE SPEED" is addressed
- LED above pushbutton P is illuminated
- display indicates: F-139
  nIS ... (... = formerly adjusted connection state: on or oFF)

(7) Connect INDICATION OF THE MACHINE SPEED with pushbutton +, disconnect INDICATION OF THE MACHINE SPEED with pushbutton -.

Further parameters can analogously be addressed and programmed.

(8) Press pushbutton P twice.

- the display is off and the LED above pushbutton P is dark
- the adjustment is finished

6. ADDRESSING and PROGRAMMING OF PARAMETERS

OPERATOR LEVEL

As an example for all other parameters the addressing and programming of the parameters "BACKWARD INITIAL BACKTACKING STITCHES (Arr)" and "STITCHES WITH ACTIVATED CENTRAL KNIFE (cMM)" is described hereafter. The parameter respectively addressed is indicated on the display with its short designation (the parameter number will only be indicated if the parameter was addressed from the TECHNICIAN LEVEL).

(1) Switch on the machine.

- display indicates: --733--- (= type of monitor)
  9P72Av (= type of control)

(2) Press pushbutton P.

- LED above pushbutton P blinks

(3) Press pushbutton E.

- LED above pushbutton P is illuminated

(4) Address desired parameter (here: BACKWARD INITIAL BACKTACKING STITCHES) with pushbutton E (through-addressing) or pushbutton 7 (direct addressing) as follows:

Repeatedly press pushbutton E or pushbutton 7 until

- the lower LED beside pushbutton 7 blinks
- the display indicates: Arr ... (... = formerly adjusted stitch number)

(5) Increase or decrease indicated stitch number with pushbutton + or -.

(6) Address next desired parameter (here: STITCHES WITH ACTIVATED CENTRAL KNIFE) with pushbutton E (through-addressing) as follows:

Repeatedly press pushbutton E until

- the display indicates: cMM ... (... = formerly adjusted stitch number)

(7) Increase or decrease indicated stitch number with pushbutton + or -.

Further parameters can analogously be addressed and programmed (also see chapter 6.1), the following parameters beingt directly addressable via the corresponding pushbuttons:

Arv (F-000) - pushbutton 7 (upper LED must blink)
Arr (F-001) - pushbutton 7 (lower LED must blink)
Err (F-002) - pushbutton 8 (upper LED must blink)
Erv (F-003) - pushbutton 8 (lower LED must blink)
LS (F-004) - pushbutton 0 (upper LED must blink)
LS2 (F-005) - pushbutton 0 (lower LED must blink)
LSF (F-006) - pushbutton 0 (upper LED must be illuminated)
Stc (F-008) - pushbutton 1 (LED must blink)

(8) Press pushbutton P.

- the display is off and the LED above pushbutton P is dark
- the adjustment is finished

6.1 PARTICULARITIES

Parameter "PROGRAMMED SEQUENCE OF SEWING OPERATIONS"

By sewing a master seam (teach-in) up to 10 seam sections with all functions respectively available can be programmed. The memorized program will also remain stored if the machine is switched off and can be called at any time with pushbutton 2.

Programming is only possible on the OPERATOR LEVEL; a superiour access level may not be open.

(1) Press pushbutton P.

- LED above pushbutton P blinks

(2) Press pushbutton E.

- LED above pushbutton P is illuminated

(3) Press pushbutton 2.

- LED beside pushbutton 2 blinks
- parameter "PROGRAMMED SEQUENCE OF SEWING OPERATIONS" is addressed, control is ready for being programmed
- display indicates: 01 --- (01 = 1st seam section
  --- = parameter "SEAM WITH STITCH COUNTING" is not connected)

or

- display indicates: 01 ... (01 = 1st seam section
  ... = formerly programmed stitch number for the parameter "SEAM WITH STITCH COUNTING" which is connected)

or

- display indicates
  additionally: LS ... (... = formerly programmed stitch number after light barrier sensing by light barrier 1)

(4) Connect the functions (parameters) desired for the 1st seam section with pushbuttons 1...0 (see chapter 7.) resp. disconnect undesired functions.

- LED beside the pushbuttons actuated for connecting the functions are illuminated

Simultaneous connection of the functions "SEAM WITH STITCH COUNTING" and "LIGHT BARRIER SENSING" is also possible. In this case the light barrier is not released until the stitch counting is completed.

Those parameters which are not accessible from the OPERATOR LEVEL, are transferred to the seam section according to their present state of connection unless they have been reprogrammed before.

(5) Sewing of the 1st master seam section.

- When stopping, the number of stitches sewn until then appears behind the seam section number 01 on the display; it can be changed with pushbuttons + and -.

When sewing a master seam with engaged light barrier the counting of the stitches after light barrier sensing begins when the light barrier is uncovered. If the functions "SEAM WITH STITCH COUNTING" and "LIGHT BARRIER SENSING" are simultaneously connected, the stitch number for the seam will not be influenced during sewing a master seam. If neither of these two functions is connected, this is a "free seam" which must be ended by heeling the pedal completely back.

(6) Press pushbutton E or heel pedal completely back for a moment.

- programming of the 1st seam section is finished
- a switch-over to the 2nd seam section is performed
- display indicates: 02 --- or 02 ...

Now program the 2nd and all subsequent (if desired) seam sections as described for the 1st seam section. The programming is terminated by pressing pushbutton P whereby

- a switch-back to the 1st seam section is performed
- the display goes out
- the LED beside pushbutton 2 is illuminated

With pushbutton 2 the function "PROGRAMMED SEQUENCE OF SEWING OPERATIONS" can now be disconnected and, if required, connected again.

Parameters "FORWARD INITIAL BACKTACKING STITCHES (Arv)"
"BACKWARD INITIAL BACKTACKING STITCHES (Arr)"

With pushbutton 7 both parameters can be called. After the first pressure the upper LED beside the pushbutton blinks and the parameter "FORWARD INITIAL BACKTACKING STITCHES" is addressed. After the second pressure the lower LED blinks and the parameter "BACKWARD INITIAL BACKTACKING STITCHES" is addressed. A switch-over from one parameter to the other and vice versa may be performed at will.

Parameters "BACKWARD FINAL BACKTACKING STITCHES (Err)"
"FORWARD FINAL BACKTACKING STITCHES (Erv)"

With pushbutton 8 both parameters can be called. After the first pressure the upper LED beside the pushbutton blinks and the parameter "BACKWARD FINAL BACKTACKING STITCHES" is addressed. After the second pressure the lower LED blinks and the parameter "FORWARD FINAL BACKTACKING STITCHES" is addressed. A switch-over from one parameter to the other and vice versa may be performed at will.

Parameters "STITCHES AFTER LIGHT BARRIER SENSING (LS)"
"STITCHES AFTER LIGHT BARRIER SENSING (LS2)"
"STITCHES FOR BLOCKING OF LIGHT BARRIER IN CASE OF KNITTED FABRICS (LSF)"

With pushbutton 0 these parameters can be called. After the first pressure the upper LED beside the pushbutton blinks and the parameter "STITCHES AFTER LIGHT BARRIER SENSING (LS)" is addressed. After the second pressure the lower LED beside the pushbutton blinks and the parameter "STITCHES AFTER LIGHT BARRIER SENSING (LS2)" is addressed. After the third pressure the upper LED is illuminated and the parameter "STITCHES FOR BLOCKING OF LIGHT BARRIER IN CASE OF KNITTED FABRICS (LSF)" is addressed. A switch-over from one parameter to the other may be performed at will.

7. CONNECTION and DISCONNECTION OF FUNCTIONS

With pushbuttons 1...0 the following functions can be connected or disconnected:

pushbutton 1 - SEAM WITH STITCH COUNTING

OFF (LED dark)
ON (LED illuminated)

pushbutton 2 - PROGRAMMED SEQUENCE OF SEWING OPERATIONS

OFF (LED dark)
ON (LED illuminated)

pushbutton 3 - SEWING PROGRAMS I + II
(I = with stop for pocket flap,
II = without stop for pocket flap)

I ON (LED illuminated)
II ON (LED dark)

pushbutton 4 - NEEDLE POSITION AT STOP BEFORE TRIMMING

DOWN (LED dark)
UP (LED illuminated)

pushbutton 5 - PRESSER FOOT AT STOP BEFORE TRIMMING

DOWN (LED dark)
LIFTED (LED illuminated)

pushbutton 6 - PRESSER FOOT AT STOP AFTER TRIMMING

DOWN (LED dark)
LIFTED (LED illuminated)

pushbutton 7 - INITIAL BACKTACK

OFF (no LED illuminated)
SINGLE (lower LED illuminated)
DOUBLE (upper LED illuminated)

pushbutton 8 - FINAL BACKTACK

OFF (no LED illuminated)
SINGLE (upper LED illuminated)
DOUBLE (lower LED illuminated)

pushbutton 9 - THREAD TRIMMER AND THREAD WIPER

OFF (no LED illuminated)
ON (both LED illuminated)

ONLY THREAD TRIMMER

ON (lower LED illuminated)

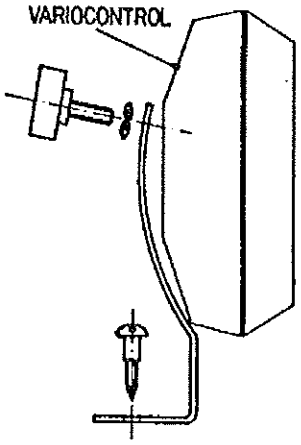
pushbutton 0 - LIGHT BARRIER SENSING
(light barriers 1 + 2)

1 + 2 OFF (no LED illuminated)
1 ON (upper LED illuminated)
2 ON (lower LED illuminated)

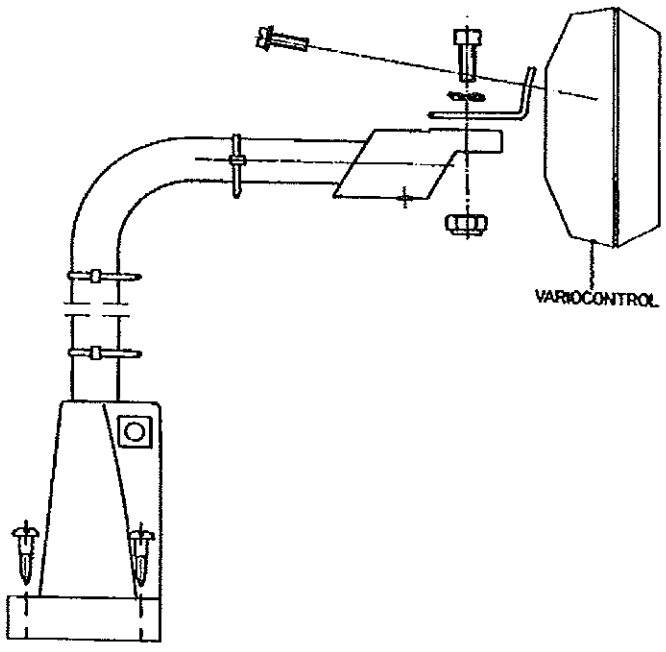
By means of the potentiometers the sensitivity of the light barriers can be adjusted:

- turn potentiometer to the right = sensitivity increases
- turn potentiometer to the left = sensitivity decreases

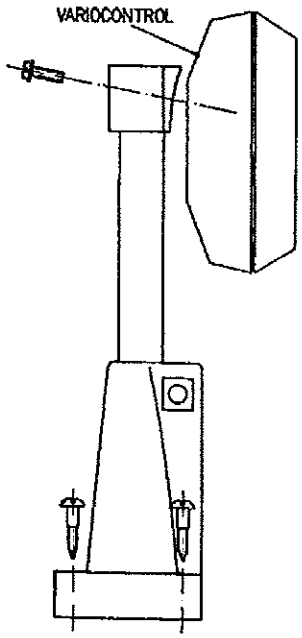
8. ACCESSORIES



Support complete Part No. 1107641



Stand complete Part No. (black) 1111334
(beige/black) 1111335



Stand complete Part No. (black) 1107639
(beige/black) 1108113

Twisting and fastening of the stand on the table clamp can be performed in steps of 90°.

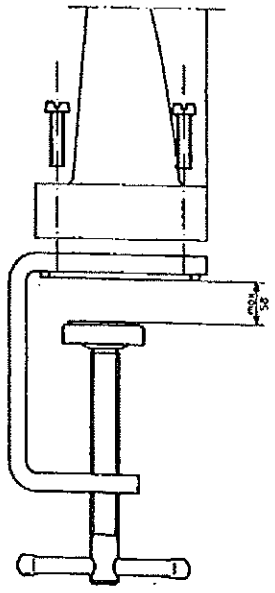


Table clamp complete Part No. (black) 1107448
(beige/black) 1108159

Efka
FRANKL & KIRCHNER GMBH & CO KG
SCHEFFELSTRASSE 73 - D-68723 SCHWETZINGEN
TEL.: (06202)2020 - TELEFAX: (06202)202115 - TELEX: 466314

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

Efka
ELECTRONIC MOTORS SINGAPORE PTE. LTD.
67, AYER RAJAH CRESCENT 05-03 - SINGAPORE 0513
PHONE: 7772459 or 7789836 - TELEFAX: 7771048

3(3)-110396(402012EN)