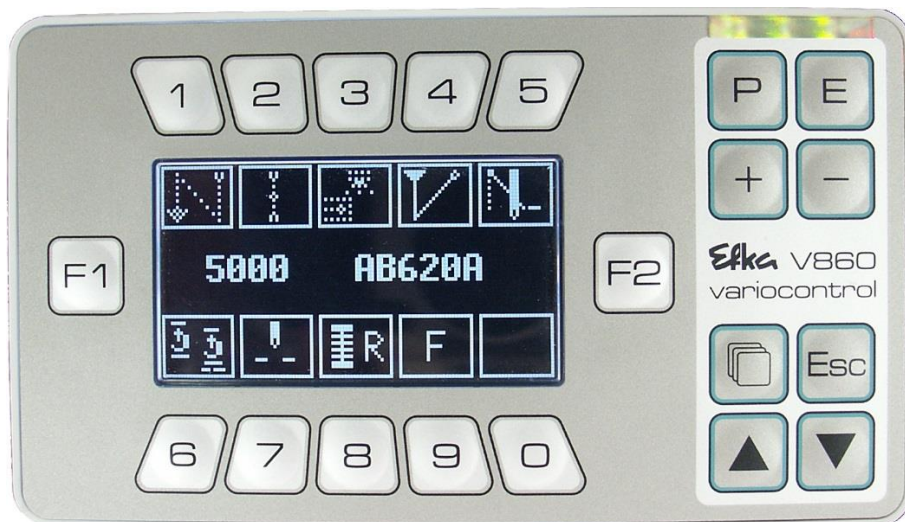


efka[®] Operating part

Variocontrol V860



Operating Manual

No.402448 English

(for german, français, português, italiano & español use download link)

www.efka.net/Downloads/Accessories/Variocontrol V860

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1 Important Notes



ATTENTION!

Follow the assembly instructions during installation, commissioning and maintenance! Safety instructions warn of dangers and help prevent injuries!

Warranty and liability

Warranty and liability claims for personal and property damage are excluded if they result due to one or more of the following causes:

- Improper use of the **Efka** control panel
- Improper assembly and commissioning
- Not following instructions in the assembly instructions
- Independent construction changes of the **Efka** control panel
- Insufficient maintenance and repair measures

Important Notes

For current versions of the Instructions for Use and Lists of Parameters, necessary for operating EFKA drives in accordance with regulations, please refer to the EFKA web site www.efka.net, page "Downloads".

On our web site you will also find the following supplementary instructions for this control:

- ✘ General instructions for use and programming
- ✘ Use with USB Memory Stick
- ✘ Adapter cords

2 Use of the control panel


The control panel **Effka** - Variocontrol V860 is a graphical display with an integrated NFC module that permits a wireless transfer of data. It is suitable for use with the **Effka** - control AB620A, with a Sub-D plug jack B776 (9-pin) on the rear side. This control panel permits all parameters (times, speeds, sample counts and other functions) to be selected and changed using digital inputs. In addition, it simplifies the selection of frequently repeating functions using buttons and a user defined display configuration.

3 Scope of Supply

- Control panel Variocontrol V860 **Effka**-order number 5990164
- Complete stand Plastic pouch **Effka** order number 1114041
 - 1x carrier for the control panel
 - 1x lenticular flange head screw M5 x 10
 - 2x clamping plate screws 4 x 20
- Operating manual V860 **Effka** order number 0401448

4 Assembly

Before commissioning the controls the control panel Variocontrol V860 is mounted according to the instructions of the sewing machine manufacturer.




ATTENTION!

When selecting the installation site and the layout of the connecting cable, the safety Instructions in Section 1 must be followed with no exceptions.

Particular attention should be paid to maintaining the proper distance from moving parts!

5 Connecting the control panel to the controls



ATTENTION!

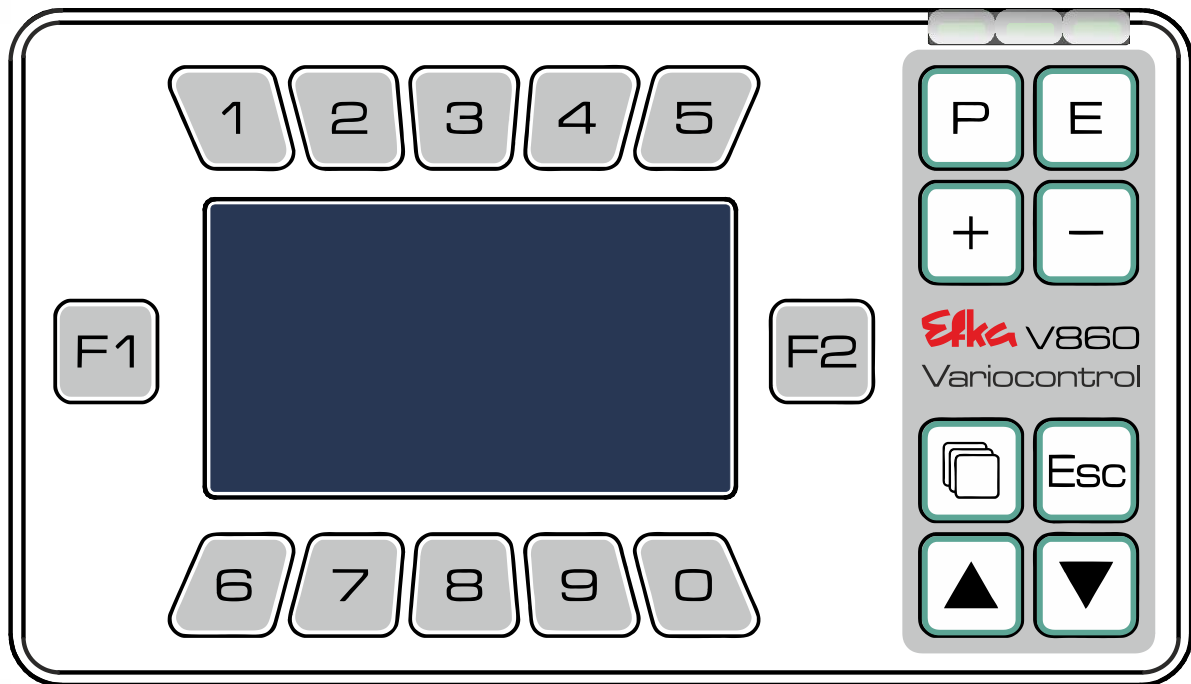
Before plugging or unplugging the Variocontrol V860 - connection plugs, absolutely make sure the drive is switched off at the main switch or the plug is pulled out!













To make electrical contact, insert the control panel plug into jack B776 on the rear side of the controls and tighten the screw.

The precise position of the jack must be taken from the operating manual for the AB620A controls.

6 Operating the control panel Variocontrol V860

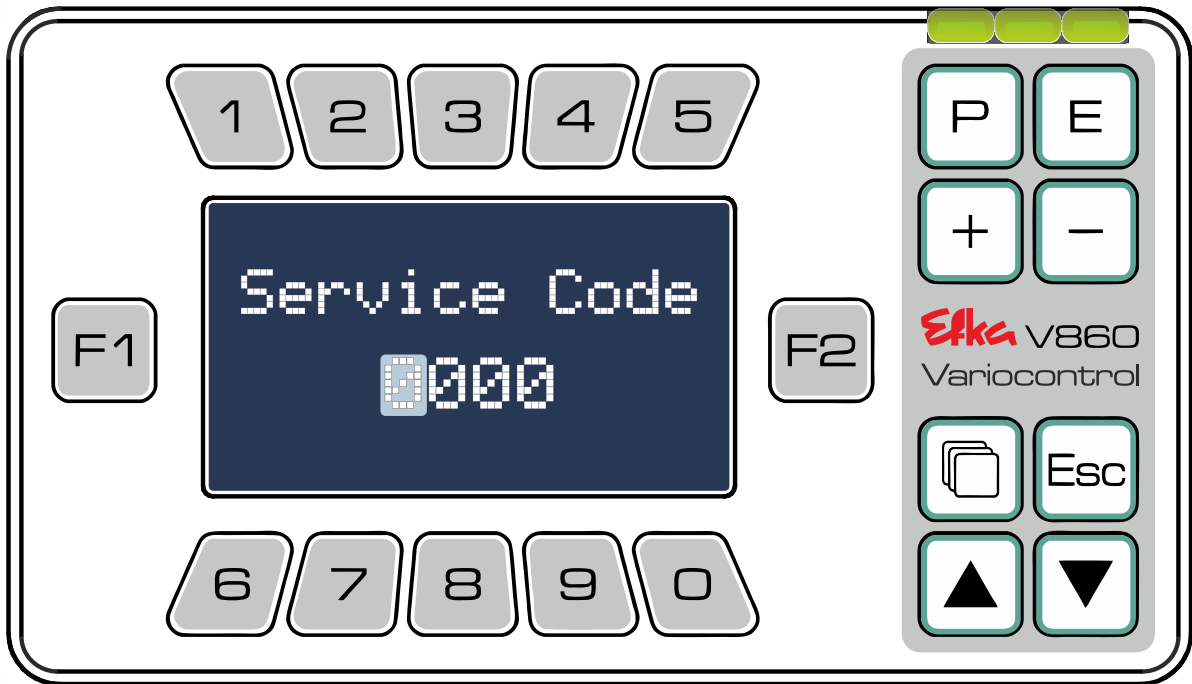
6.1 General button functions



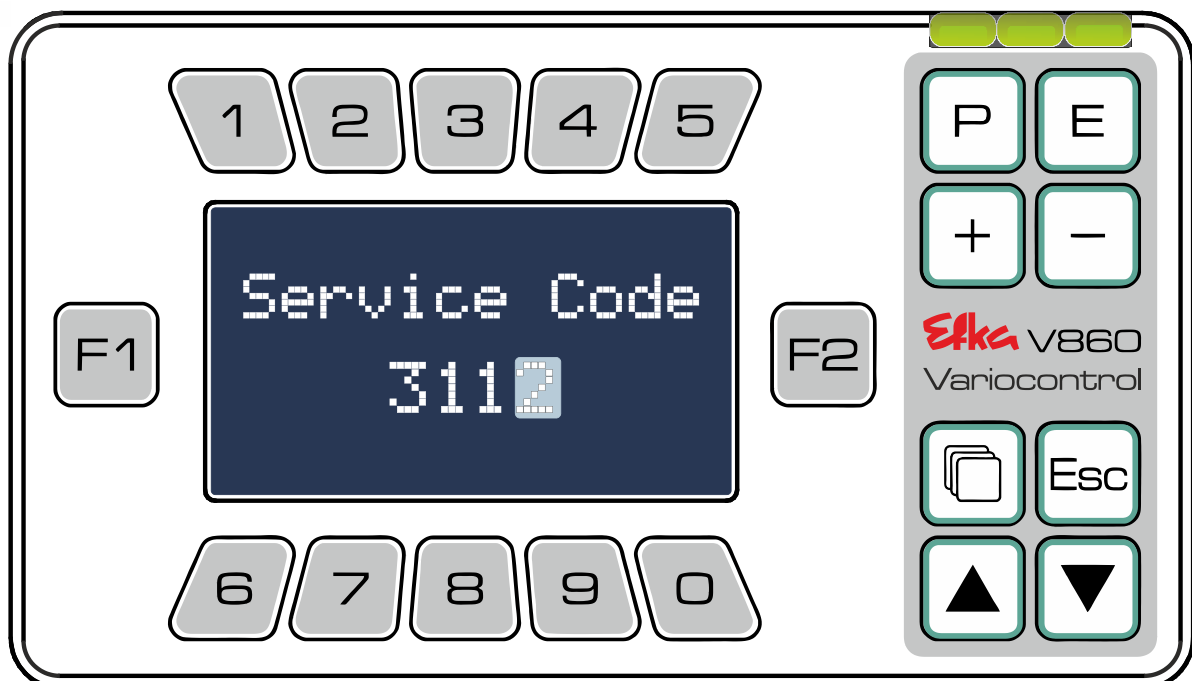
-  Increase the displayed value; increase the speed while sewing
-  Reduce the displayed value; reduce the speed while sewing
-  Call up / close programming mode
-  Enter / confirm
-  Select up
-  Select down
-  Step back / level back
-  Position change to the left for a value input in programming mode
Functions programmable during operation via **F-293** (see parameter list)
-  Position change to the right for value input in programming mode
Functions programmable during operation via **F-294** (see parameter list)
-  Change between menu and start screen
-  to  Select individual menus / functions; numerical input

6.2 Code input

Switch the controls **OFF** at the main switch, push and hold it **P** and then switch the controls **ON**.
Wait until the display appears.

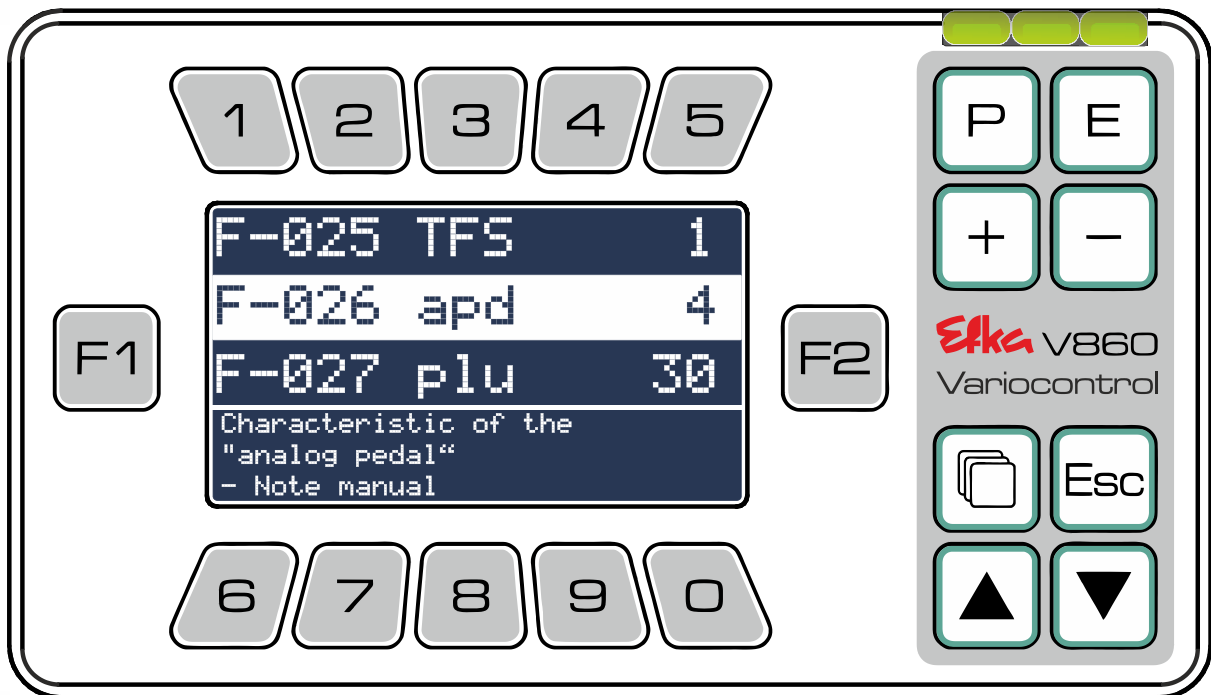


Then enter the required code (**Code No. 1907** Technical level; **Code No. 3112** Fitter level) with the help of **buttons 1 to 0**. Confirm code entry with **E**.

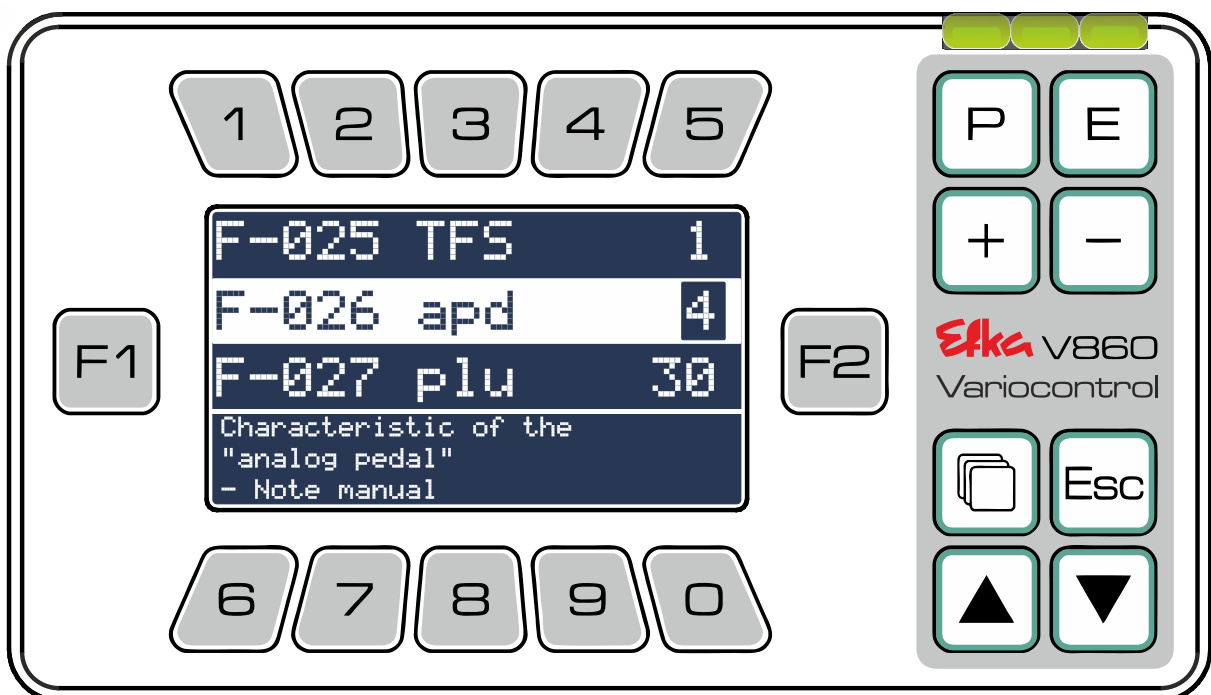


The V860 control panel automatically changes the display in the parameter list to **code dependent level** (Code No. 1907 Technical level; Code No. 3112 Fitter level) Click with ▼ and ▲ through the parameter list or enter the desired parameter using the buttons 1 to 0 and confirm the entry with E.

Ex. Code No. 1907 parameter F-026



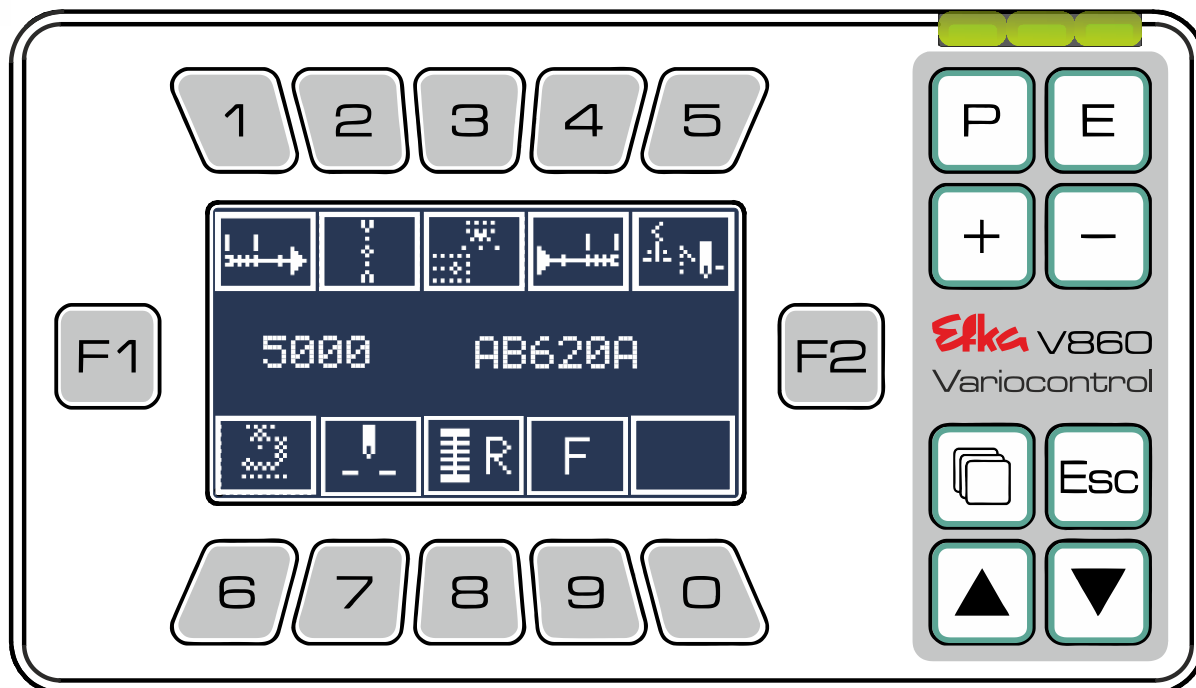
After confirmation with E, the display automatically changes to the selected parameters





















For detailed assistance on parameter entry can be found in **Section 6.3.3**

6.3 Menu levels

6.3.1 Start screen (F-290=5 chainstich mode preset)



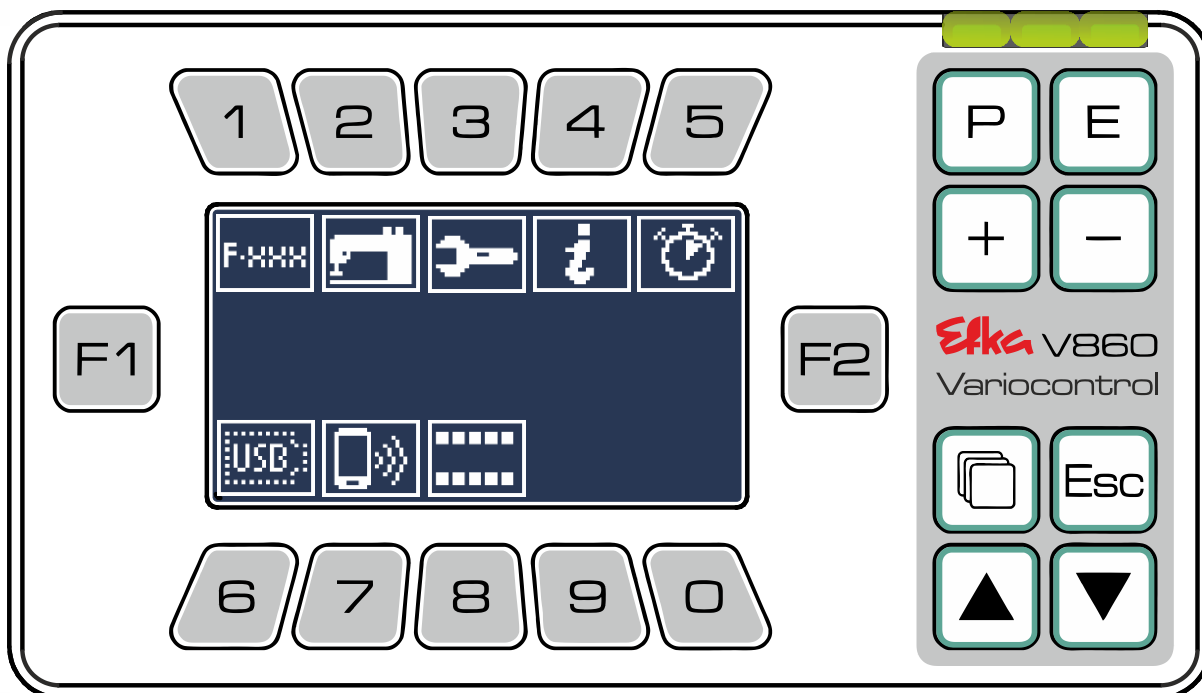
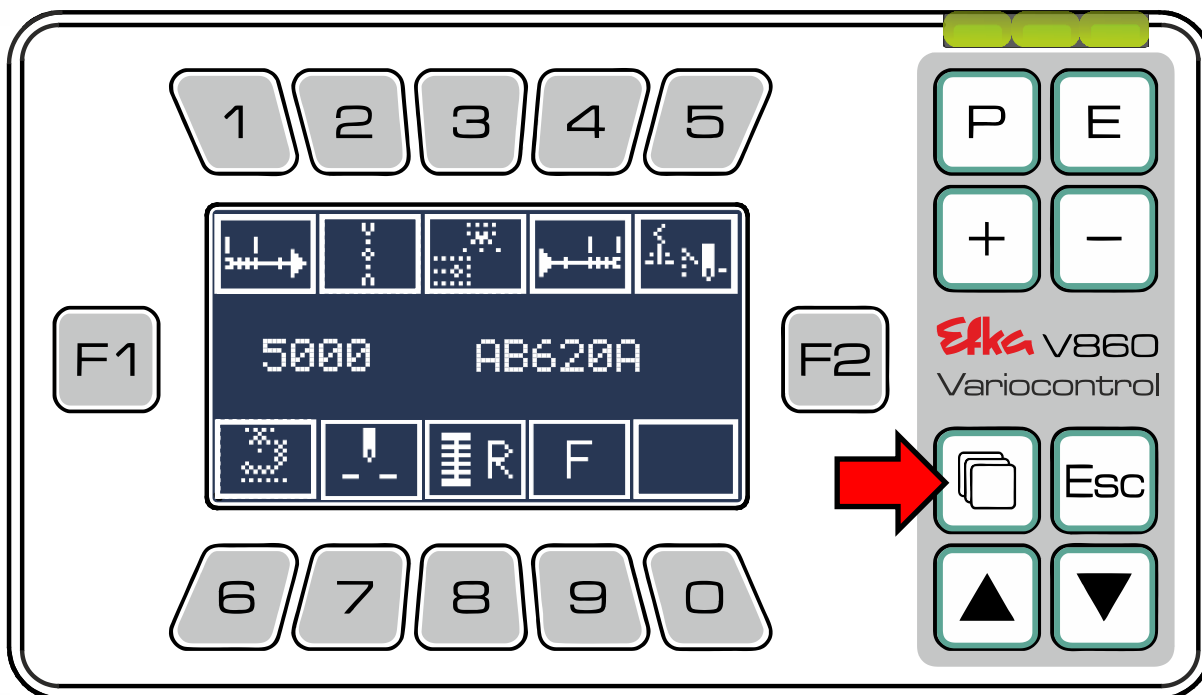
-  Increase the displayed value
-  Reduce the displayed value
-  Call up / close programming mode
-  Enter / confirm
-  Select up
-  Select down
-  **Escape:** Step back / Level back
-  **Additional functions**
F1 programmable via **F-293** / F2 programmable via **F-294** (see parameter list)
-  **Menu:** Change between menu levels
-  **Start backtack:** SINGLE / DOUBLE / OFF or start stitch condensing stitches
-  **Stitch Counting:** Seam FORWARDS / BACKWARDS / OFF
-  **Light barrier function:** LIGHT - DARK / Dark-LIGHT / OFF
-  **End backtack:** SINGLE / DOUBLE / OFF or end stitch condensing
-  **Thread trimmer:** THREAD TRIMMER / THREAD CUTTER + THREAD WIPER / OFF
-  **Automat. Foot lifting at stop in the seam:** ON/OFF
-  **Needle home position:** (UT/OT) POSITION 1 / POSITION 2
-  **Bobbin thread monitor:** Set / reset
-  **Function button:** Programmable via F-008











0

No function

6.3.2 Main menu

(Push  to enter the main menu)



- | | |
|--|---|
|  Parameter menu |  NFC level |
|  Set up machine |  Function strips menu |
|  IO test: Test of inputs and outputs |  Exit menu / return to start screen |
|  Operating hours counter |  Return one level |
|  System information |  Return to start screen |

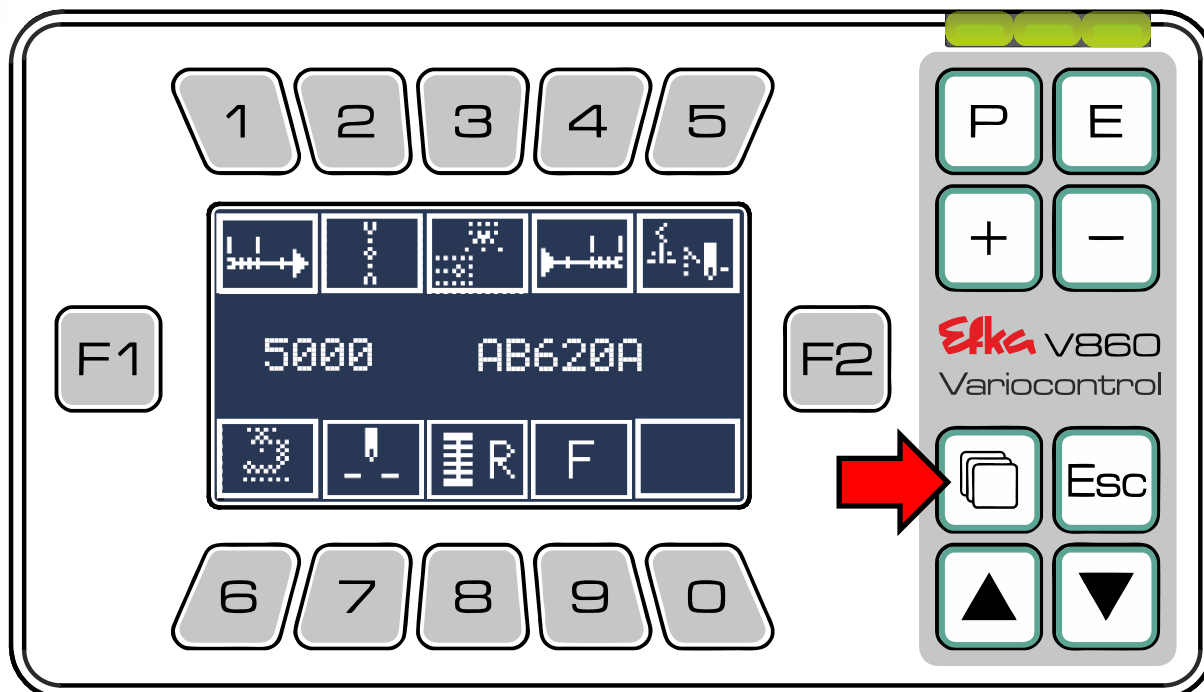
6


USB access

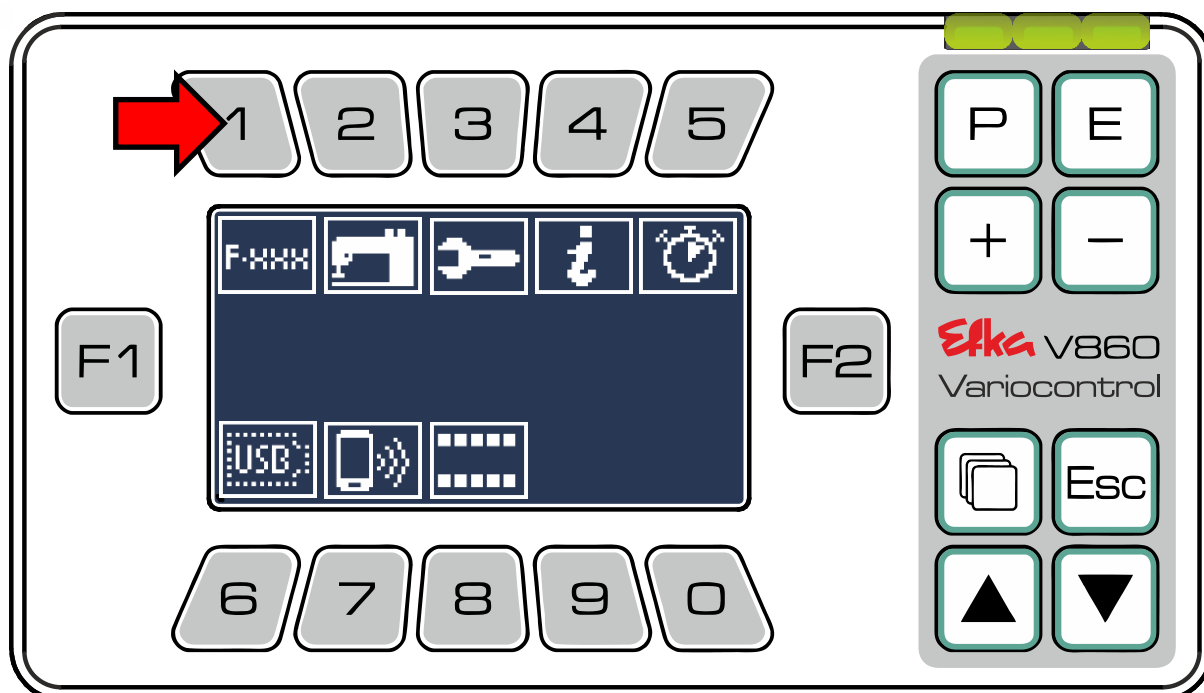
(The remaining buttons in the menu have no function)

6.3.3 Parameter menu

Push  to enter the main menu

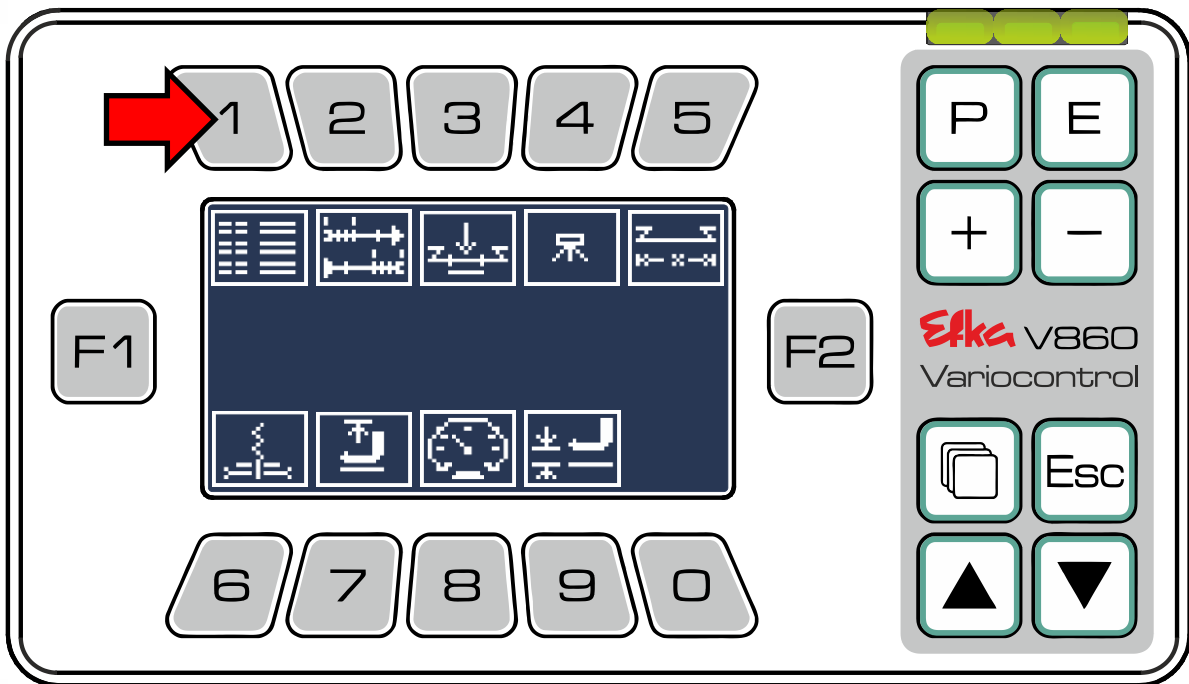


Push  to enter the parameter menu



To access the **parameter list** in the **parameter menu of the operator level** push **1**. (If you would like to call up the parameter list in the **technician** or **fitter** levels, follow the details in **Section 6.2**)

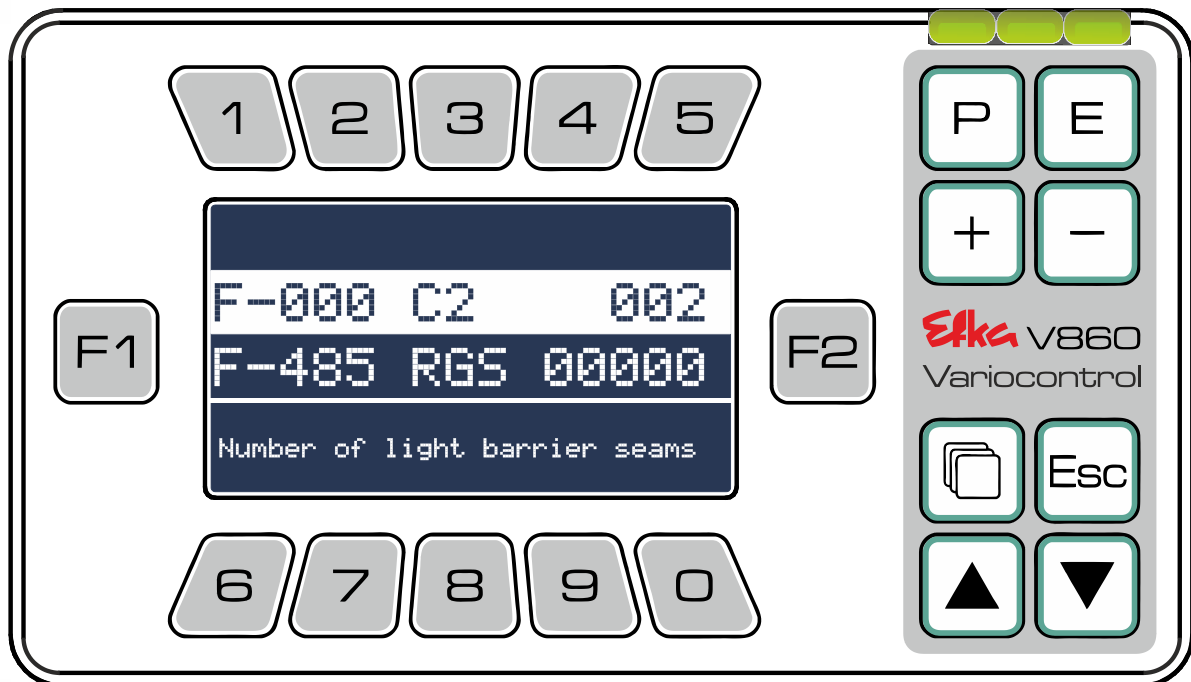
If you would only like to change typical parameters for the currently selected mode, then use the quick access options of **buttons 2 to 9**.



- 1** Parameter list
- 2** Only parameters for **stitch condensing**
- 3** Only parameters for **stitch counting**
- 4** Only parameters for **light barrier compensation stitches**
- 5** Only parameters for **seam functions**
- 6** Only parameters for **thread cutting**
- 7** Only parameters for **foot lifting**
- 8** Only parameters for **speed**
- 9** Only parameters for **coupling high lift with thread tension release**
- P** Return to the start screen (set function strips)
- Folder icon** Back a level
- Esc** Return to the start screen (set function strips)

(The remaining buttons in the menu have no function)

You are now in the parameter list in the **Code dependent level (Code No. 1907 Technical level; Code No. 3112 Fitter level)** Click with ▲ and ▼ through the parameter list of enter the number of the desired parameter, sequentially, directly via the **buttons 1 to 0** and confirm your entry with **E**.



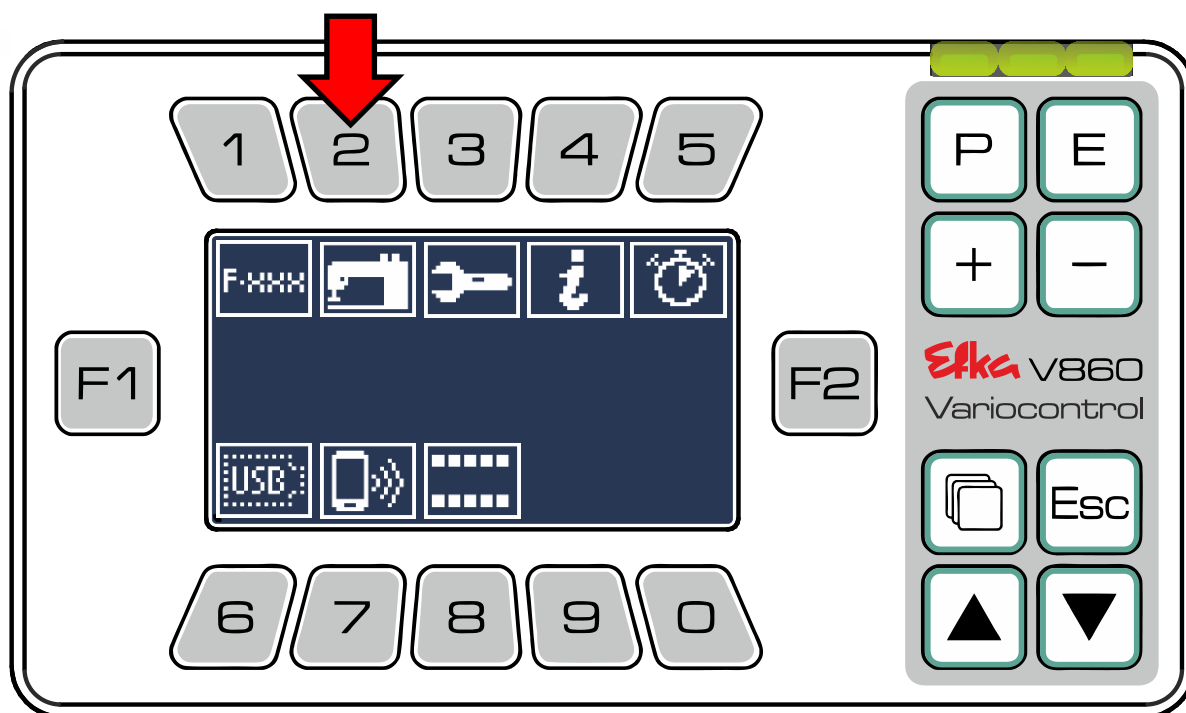
- +** Increase value
- Decrease value
- P** One level back (if pushed several times a return to the main screen is done)
- E** Enter / confirm
- ▲** Select up
- ▼** Select down
- Esc** Escape: Step back / level back
- F1** Position selection for parameter input: Cursor to the left
- F2** Position selection for parameter input: Cursor to the right
- ☰** Menu: Step back / level back
- 1 to 0** Input value by pushing on individual numbers

Important note!

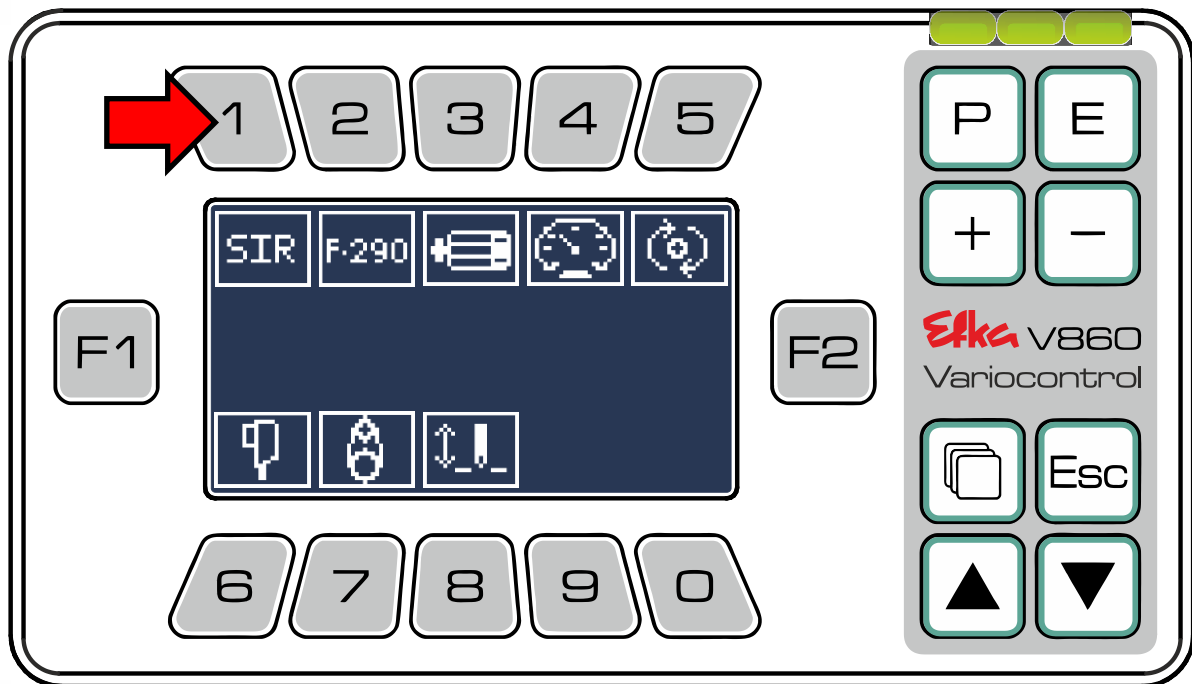
A detailed listing of parameter numbers and their functions can be found at the end of the operating manual of the AB620A!

6.4 SIR (quick installation routine)

You must be logged on with **Code No. 3112**! In the main menu push on 2.



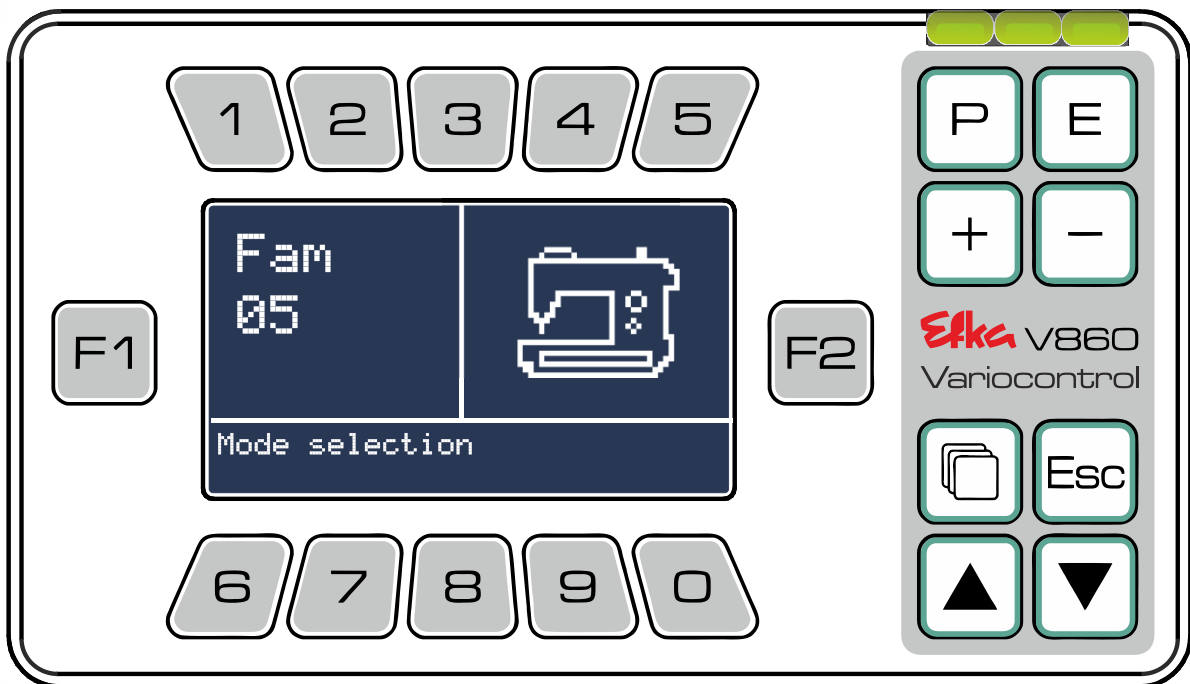
You are in the **SIR** menu.



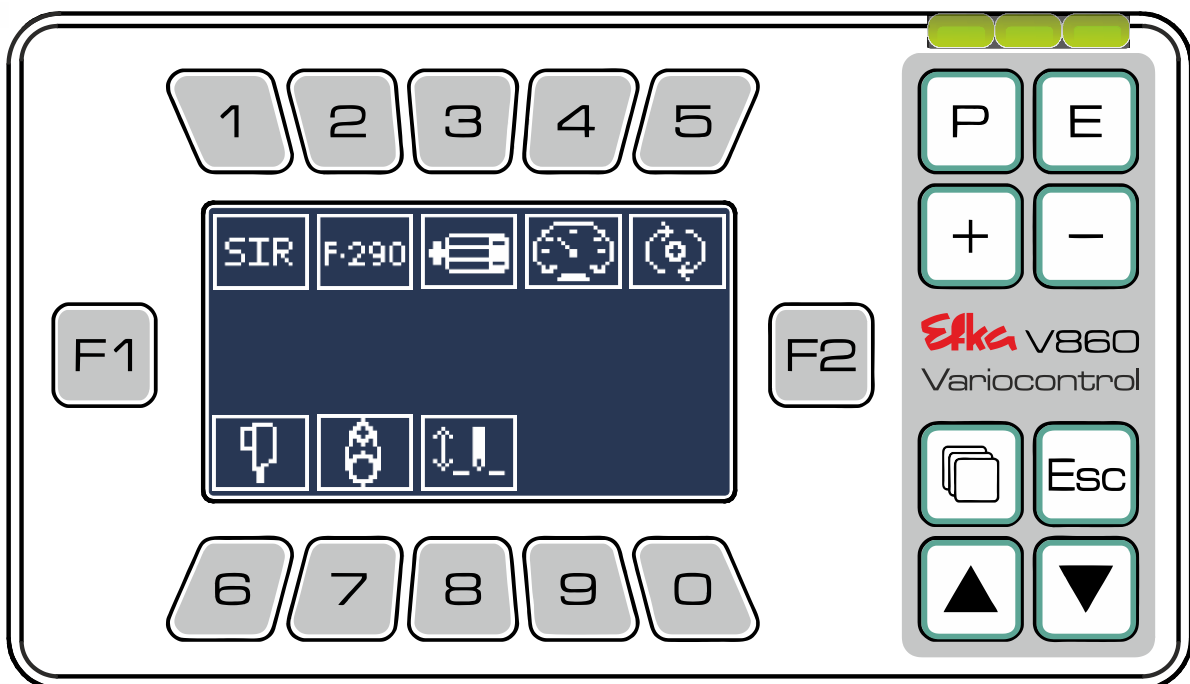
In the quick installation menu push **1** to start the quick installation menu (**SIR**). for this the parameters are called up sequentially or select individual parameters you would like to use manually from the **buttons 1 to 8**.

- | | | |
|----------------------------|-----------------------------------|---------------------------|
| 2 Select the mode | 5 Motor rotation direction | 8 Needle positions |
| 3 Select motor type | 6 Pulse encoder | |
| 4 Select speed | 7 Transmission | |

Start the quick installation routine (**SIR**)

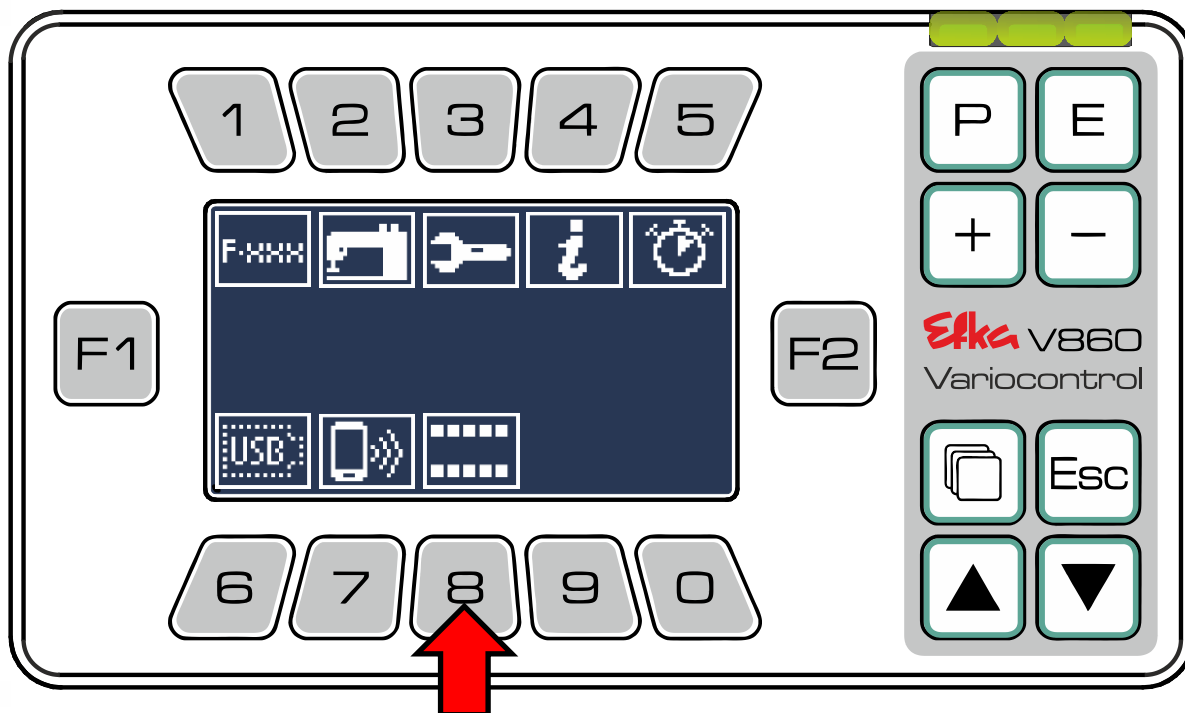


Change the current value with **+** & **-** or using the number buttons and confirm your entry with **E**. The next parameters are automatically called up. Once all parameters have been set successfully, the **quick installation routine** automatically closes and the control panel changes to the **SIR menu**.

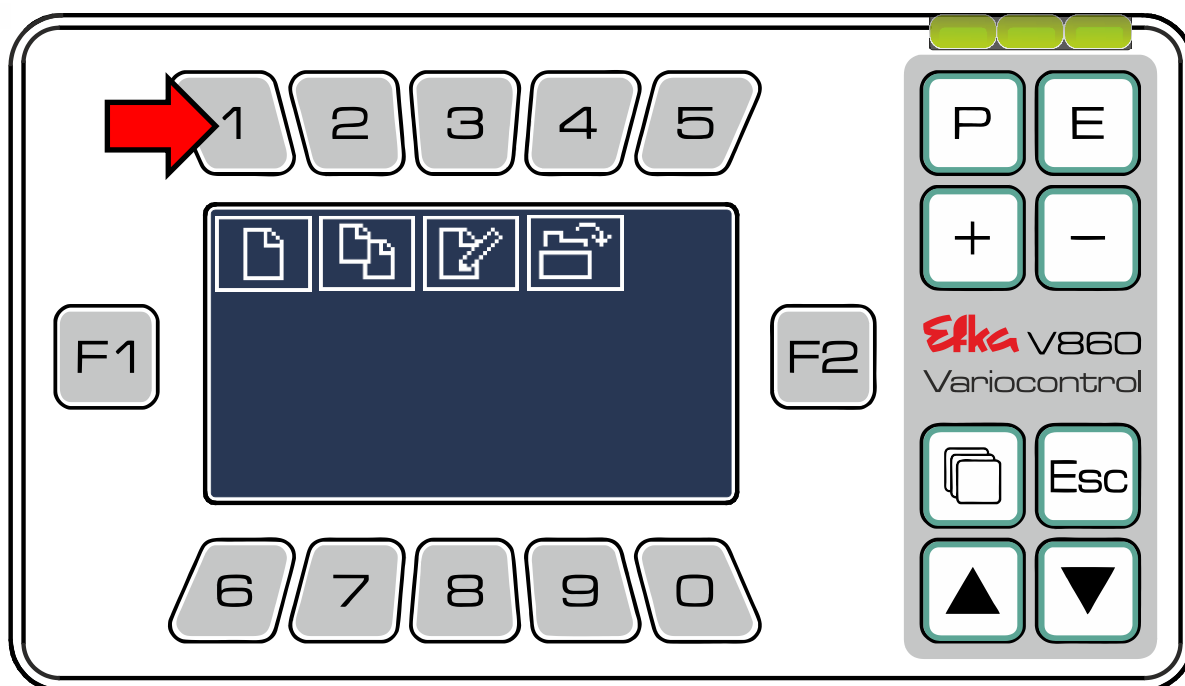


6.5 Function strip menu

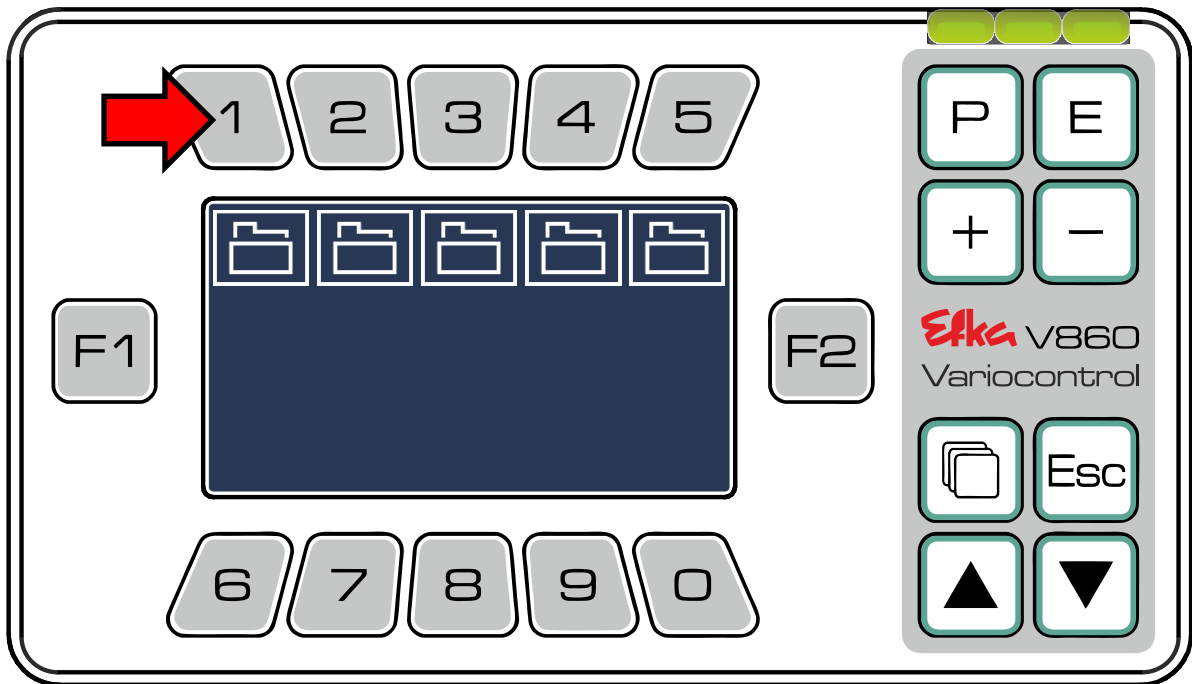
In the **functions strip editor** it possible to edit **function strips** individually. To do this, in the **main menu** push the **8** to enter into the **function strip menu**.



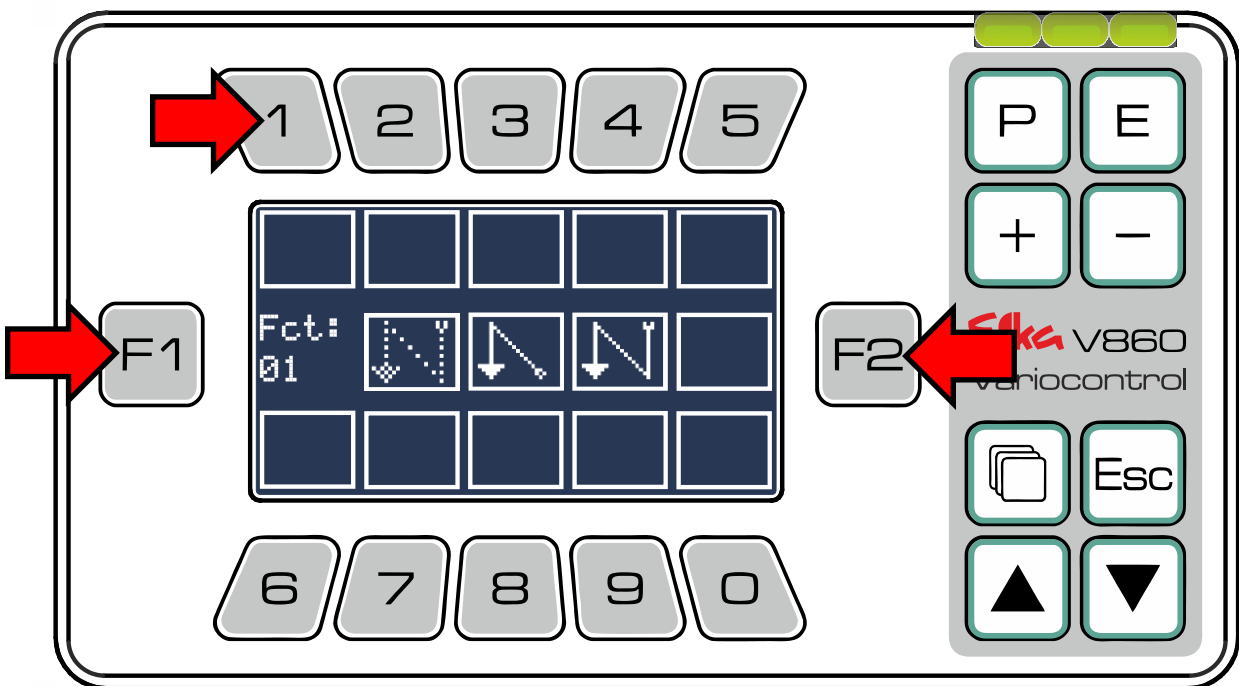
Now push **1** to call up the **function strip editor**.



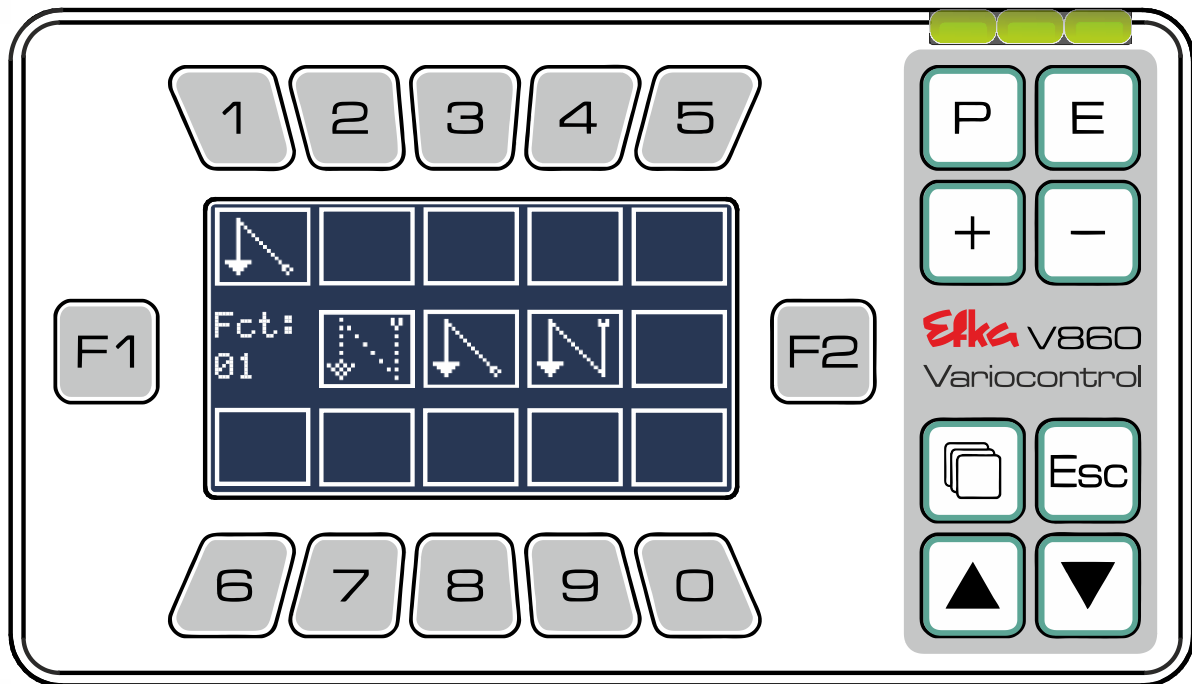
Using **buttons** 1 to 5 select the desired storage location. (For example 1)



Here, user defined **function strips** can be generated.



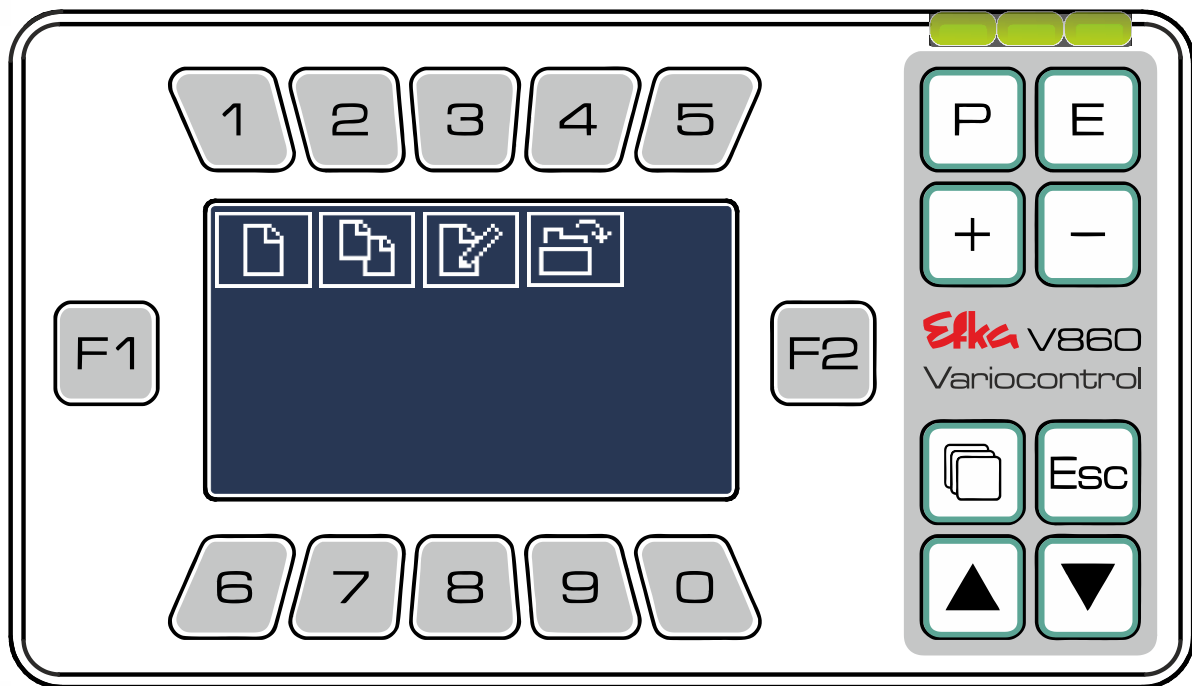
Select the desired function with **F1** and **F2**. To assign the function of a button **push** and hold the desired (**buttons 0 to 9**) until the symbol of the function is inserted into the button function field. **For example:** **1**



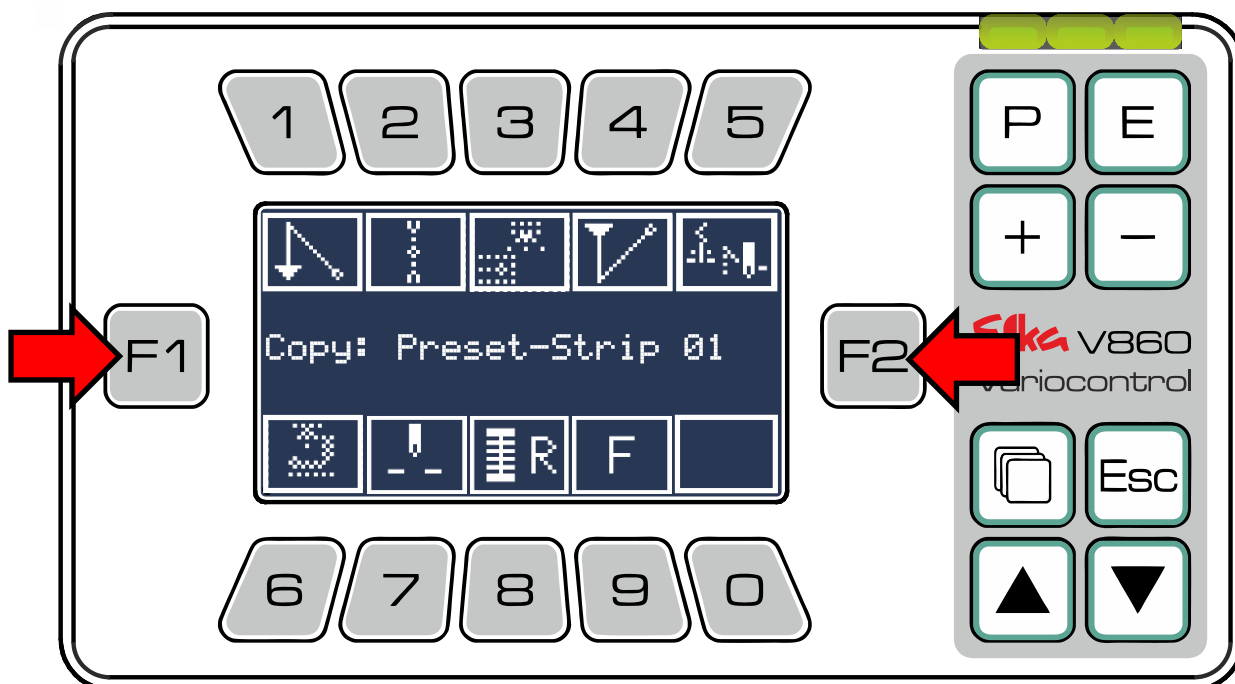
If you would like to replace the function of a button with another function, you can do this following the same procedure (by extended pushing of the desired button). If you would like to delete a function, or place it as an "**Empty button**" for later, select "**Fct:00**" (empty box / no function). Once all desired functions are assigned, confirm the entries with **E**. The control panel automatically assumes the created **function strips** and changes to the **start screen**.

To copy **preset strips** or user defined strips and then process them later, push **2**.

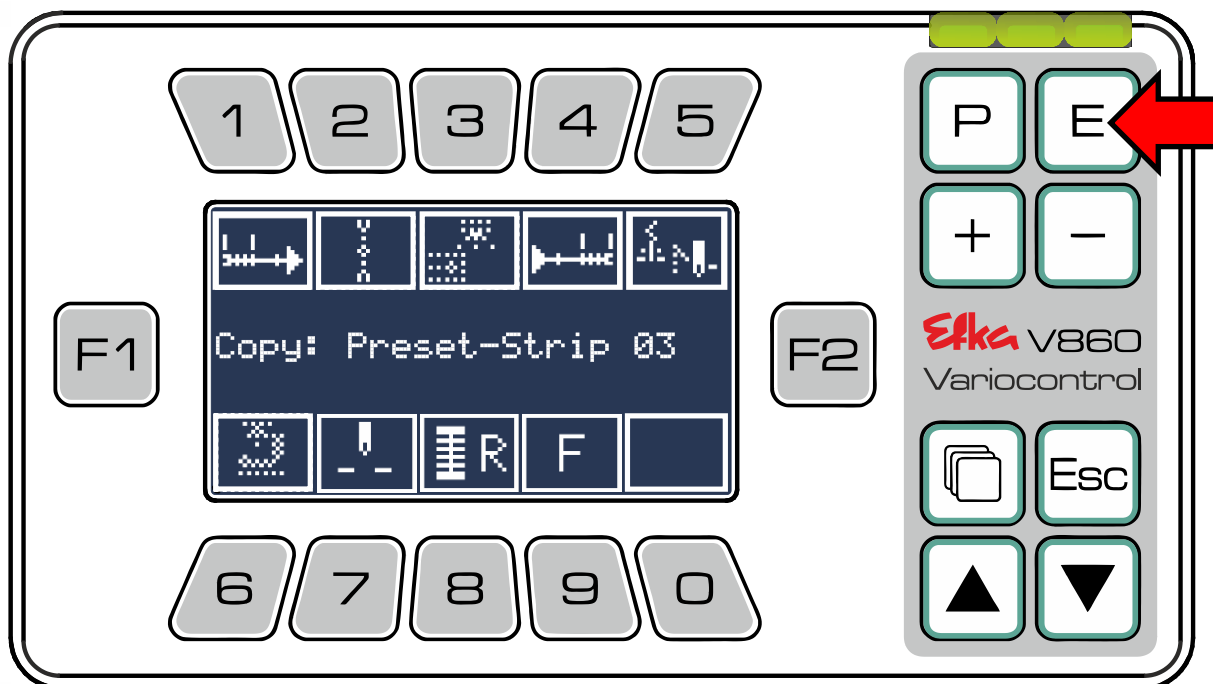




Select the **preset strip** with **F1** and **F2** that you would like to use as a basis.

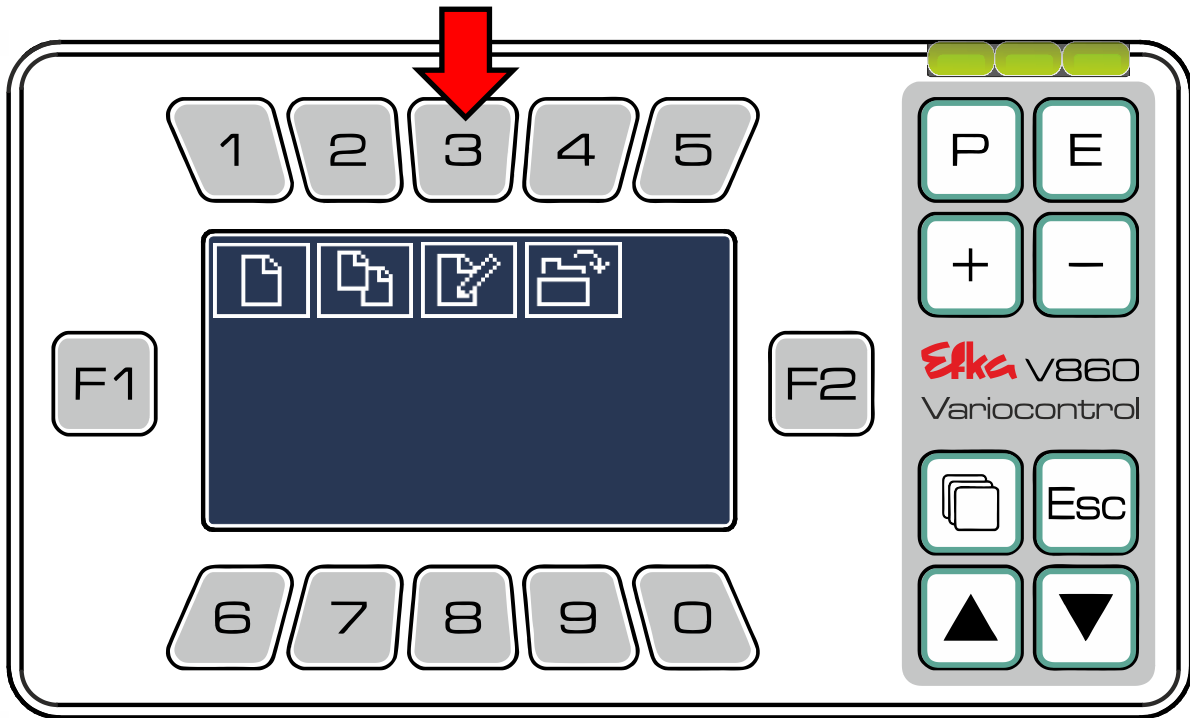


For example: Preset strip 03 and confirm the selection with **E**.

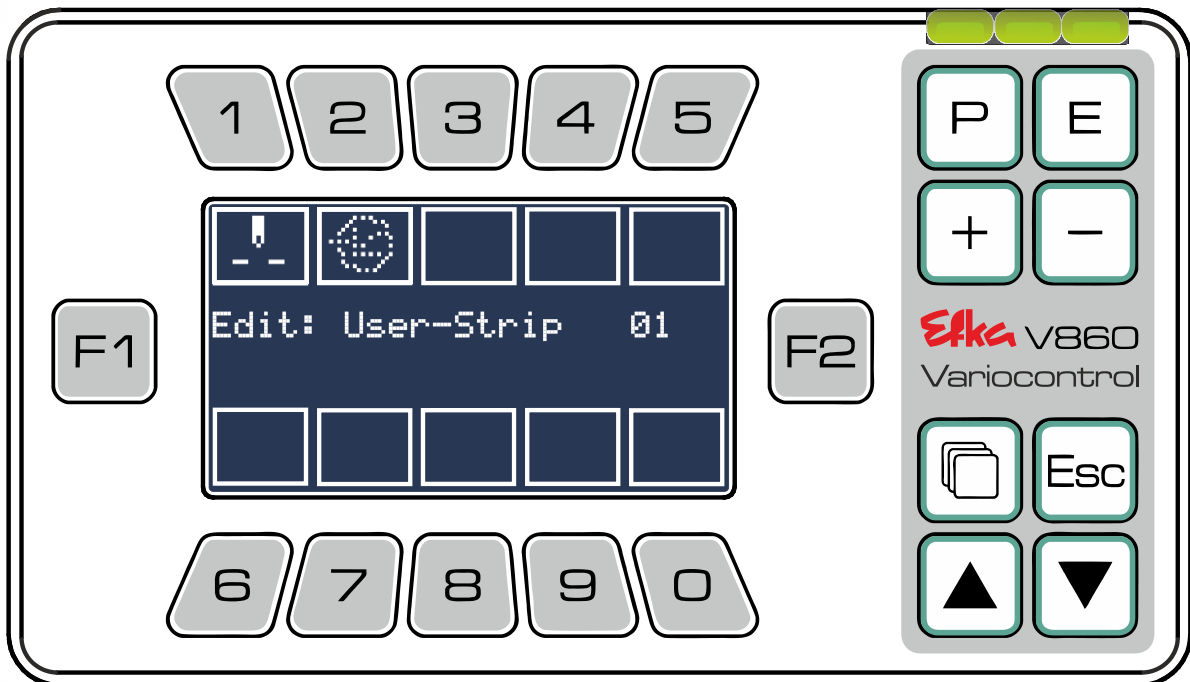


Then select the storage location again and proceed in the same manner as for the **function strip editor**.

Already stored **function strips** can be edited by pushing on **3**.

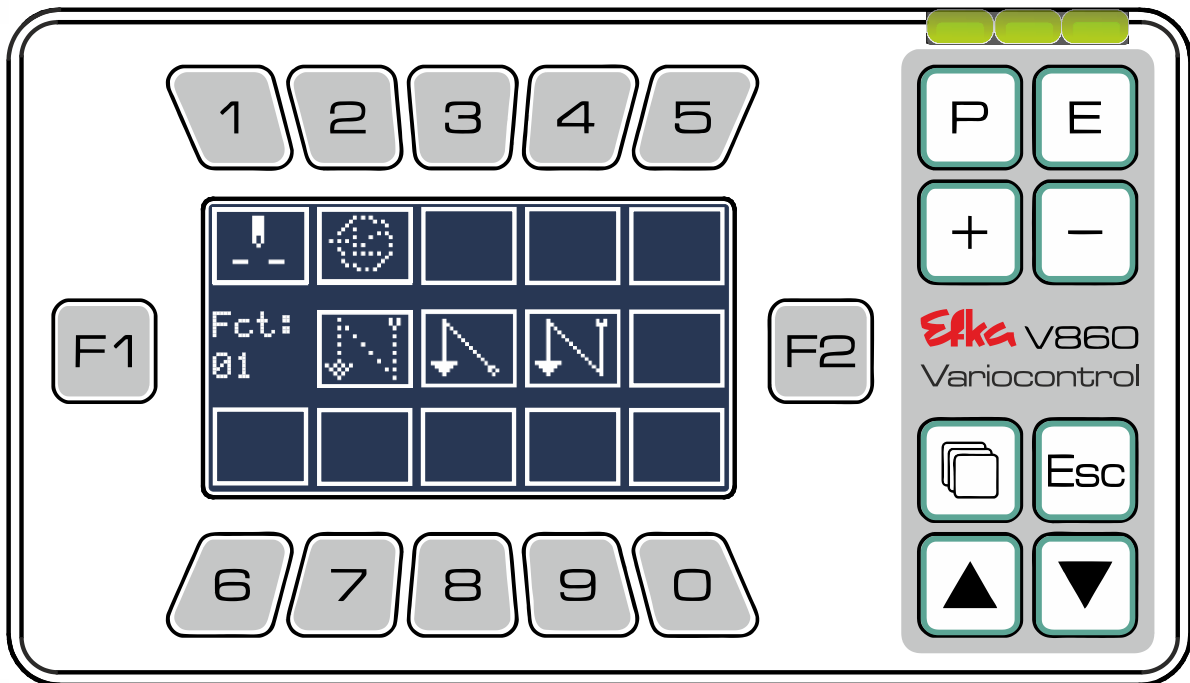


F1 or **F2** can be used to select the desired **function strips** (e.g. **User strip 01**) and the selection confirmed with **E**.

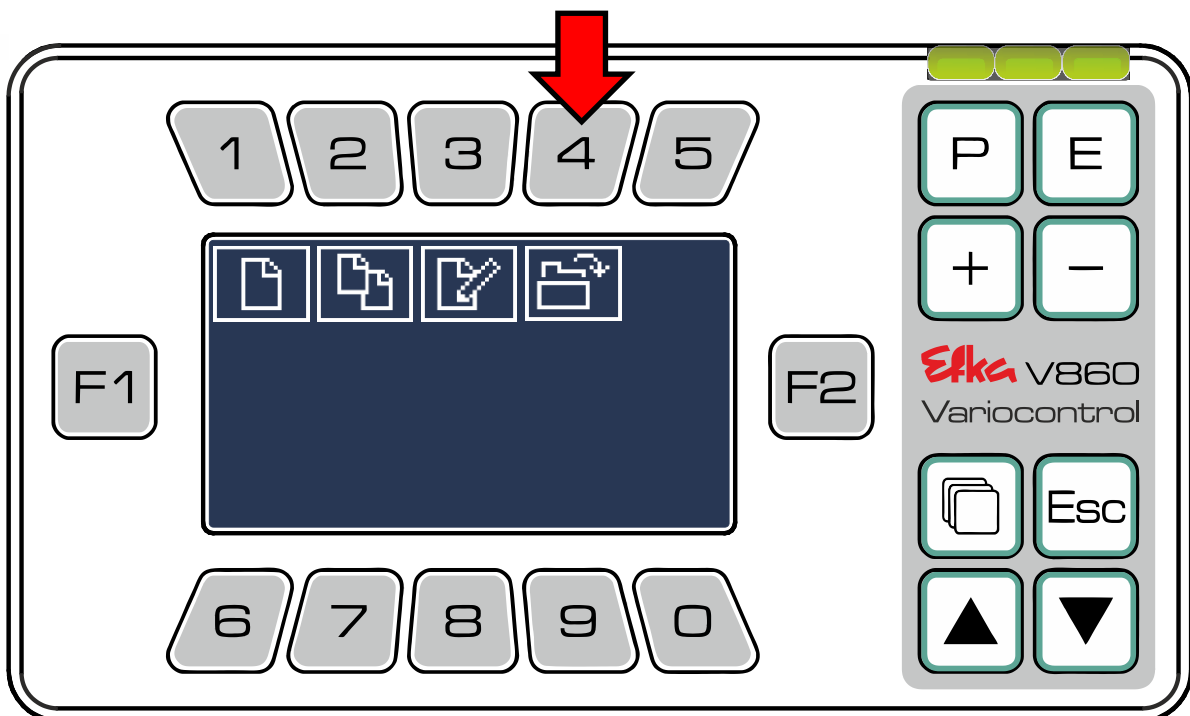


The control panel automatically changes to **strip editor**.

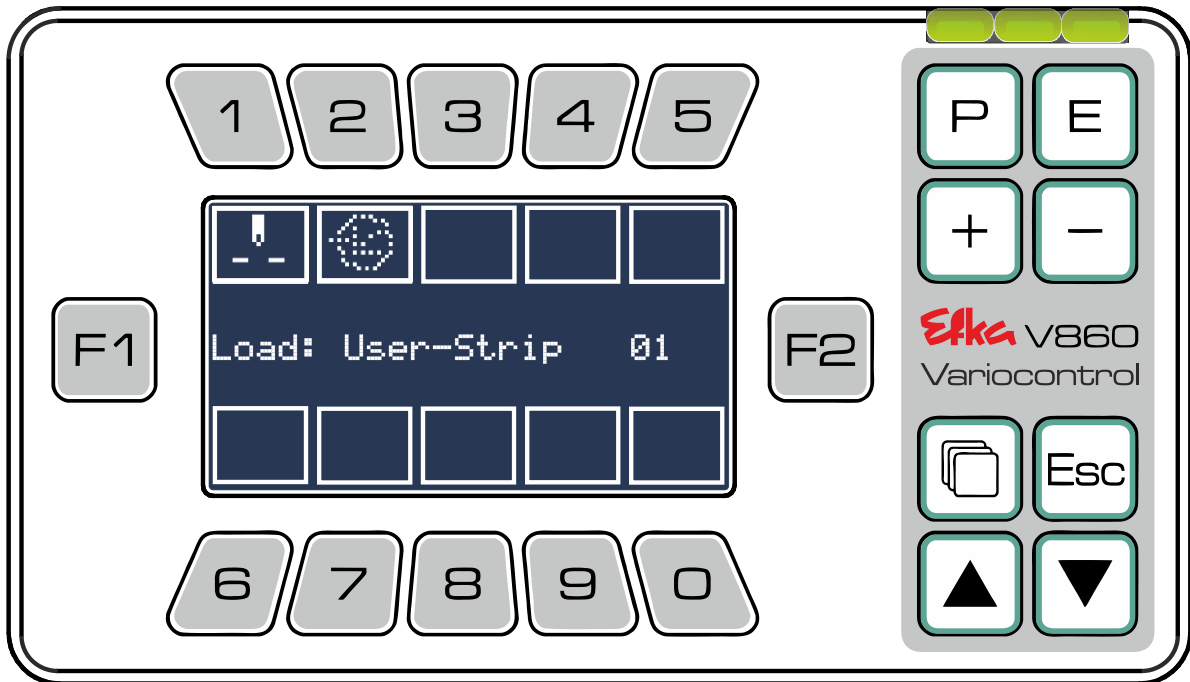
Now the functions in the selected function strips can be changed, removed or inserted as described in **Section 6.5**. Finally save and confirm your changes by pushing **E**. The control panel automatically assumes the processed **function strips** and changes to the start screen.



By pushing **4**, you can view and select all stored **function strips** (your own created **function strips** and pre-installed **preset strips**).



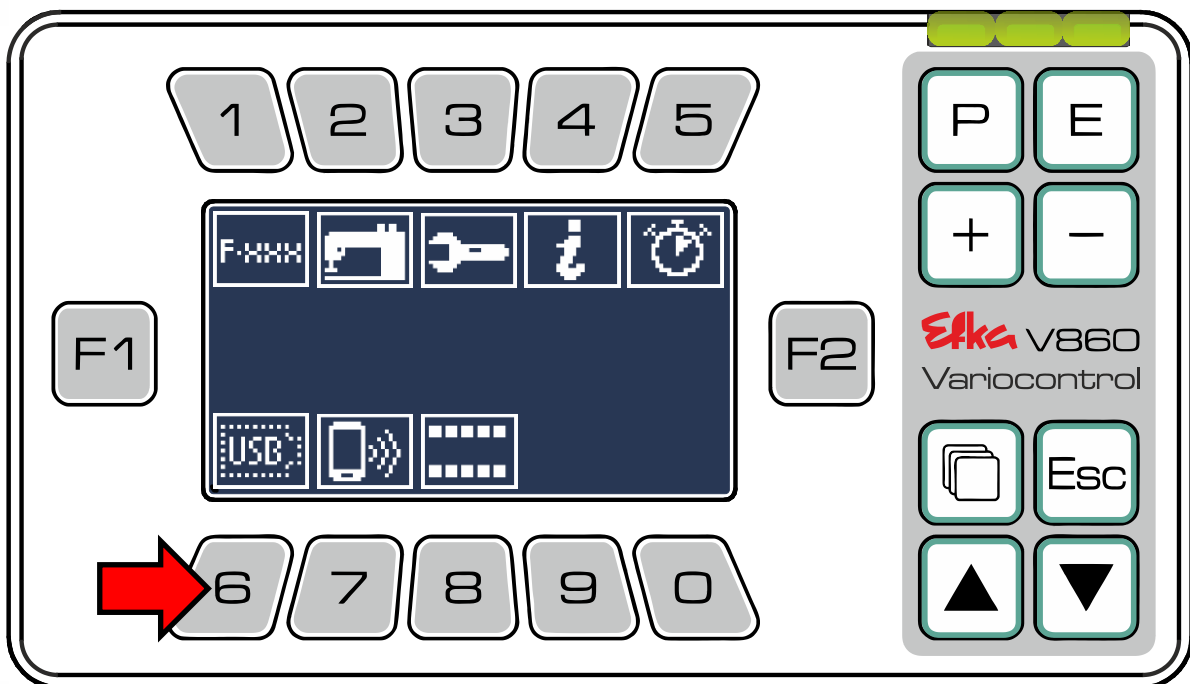
With **F1** or **F2** select the desired **function strips** and load / confirm your selection with **E**.



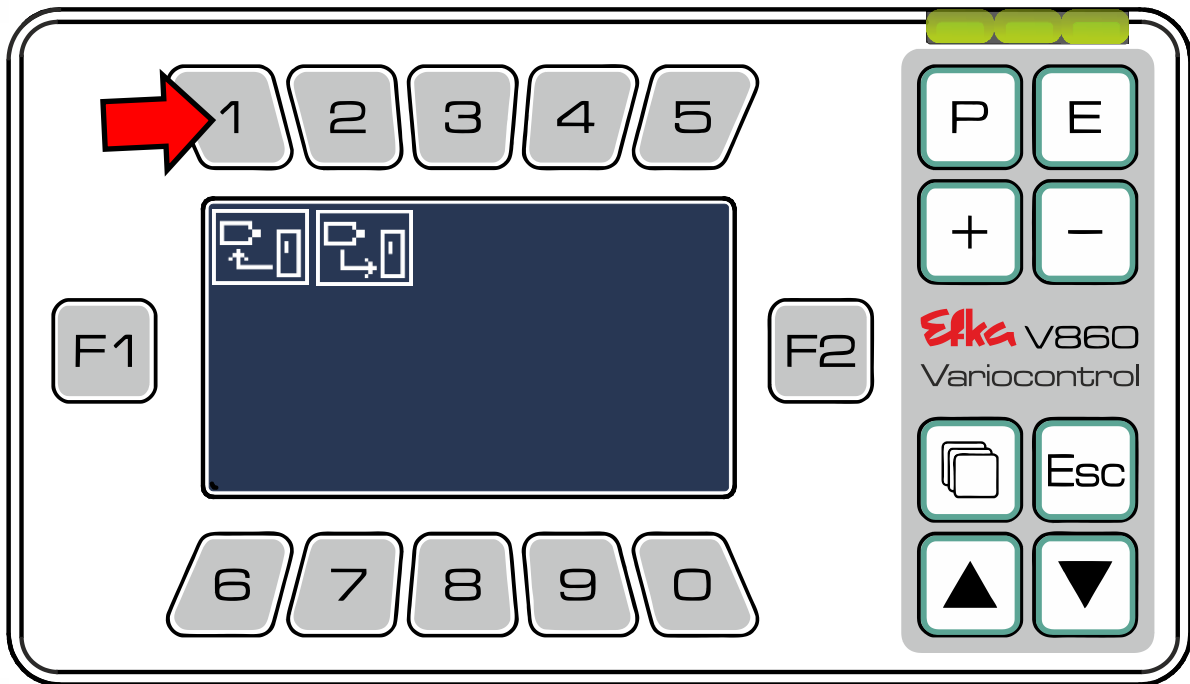
The selected **function strips** are automatically assumed and the control panel changes to the start screen.

7 USB menu

In the main menu push on **6** to enter the **USB menu** (A USB stick must be plugged into the controls to enter the menu).

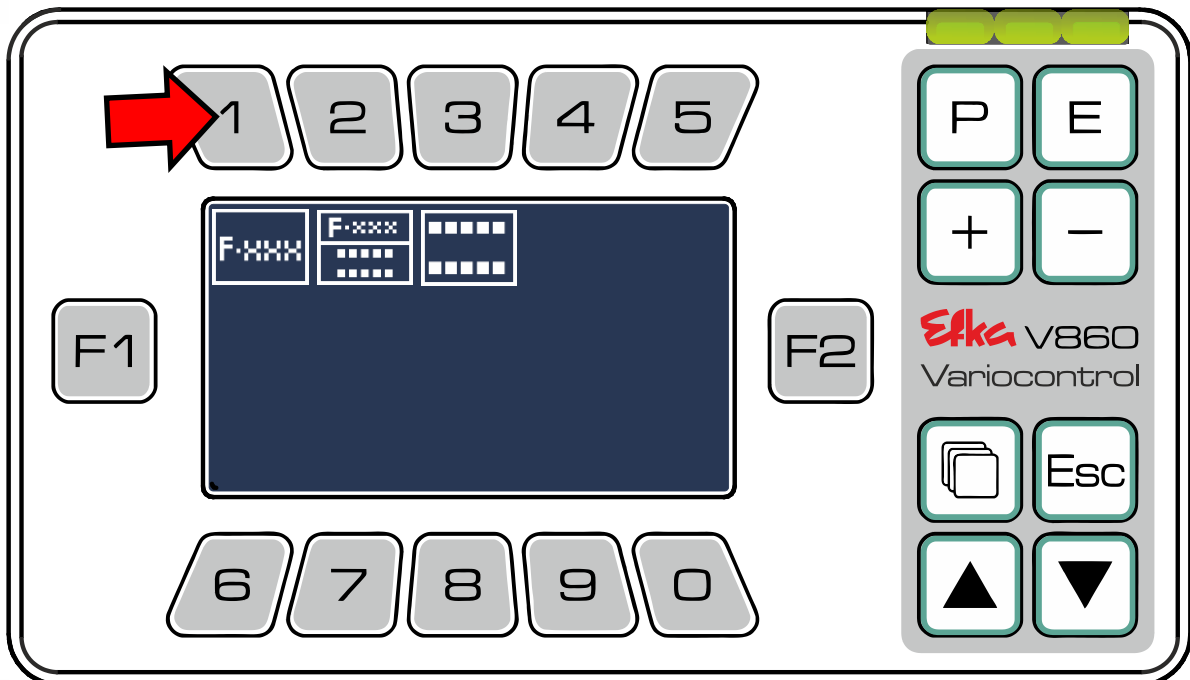


To load data from the controls **onto** the **USB stick**, push 1



Now select the file that you would like to store on the USB stick and push the corresponding **button**

1 to 3. (Ex. 1 Save parameters)



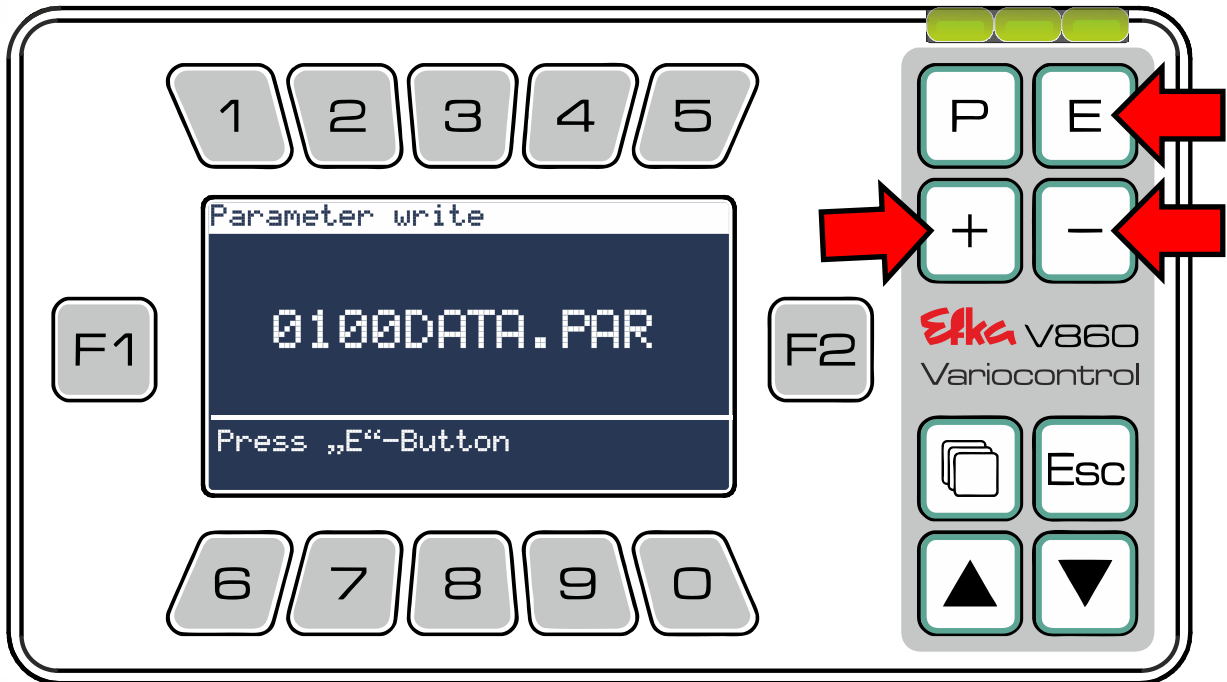
1: Parameter

2: Parameter & function strips

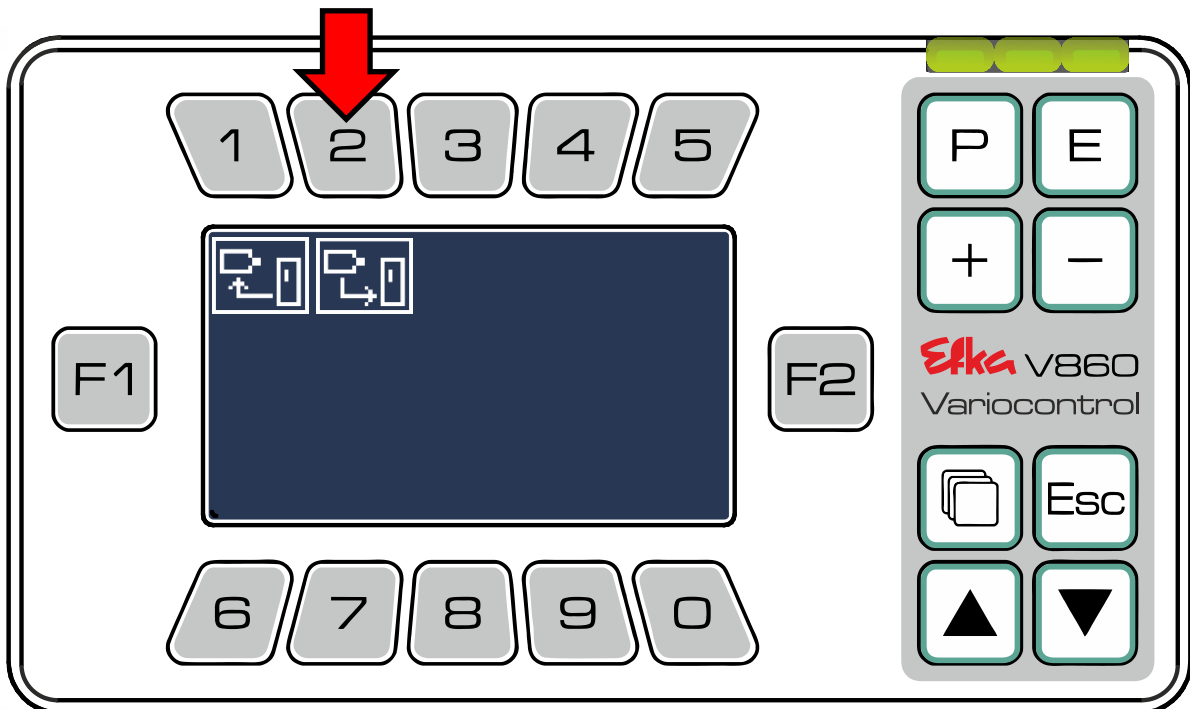
3: Function strips

Push on **E** to insert a new file on the USB stick. If you would like to overwrite existing files, select the existing file using the **buttons + & -** and confirm the overwrite with **E**.

(the procedure and the sequence is the same for all file types)

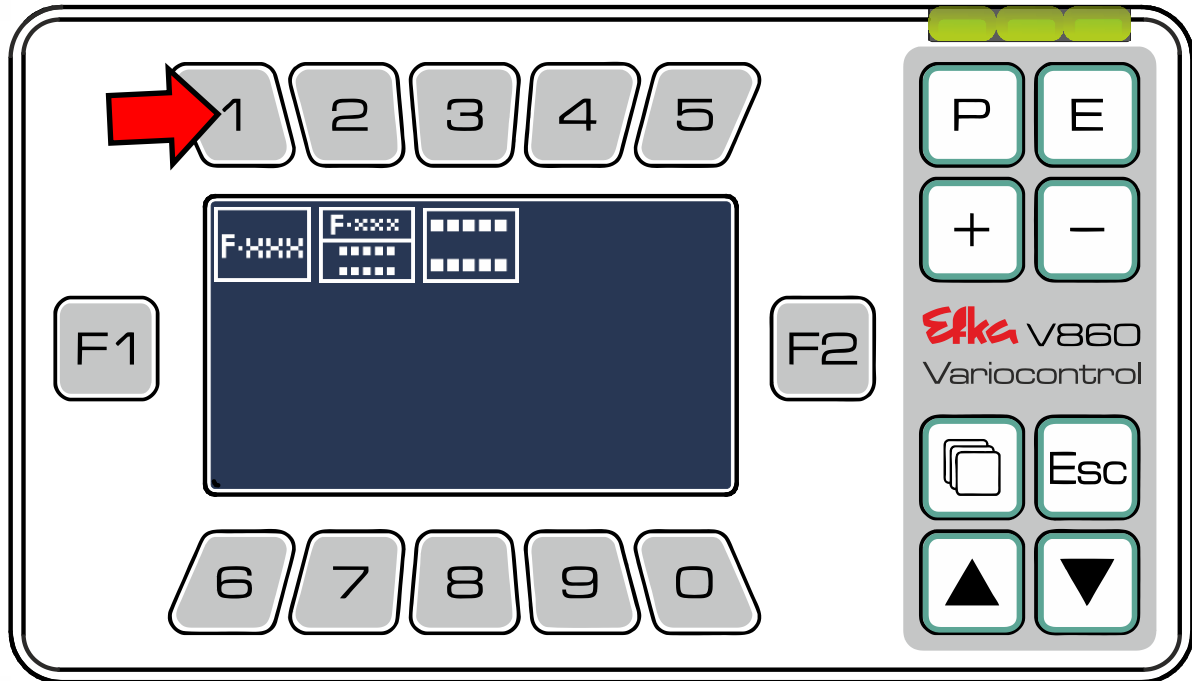


To load data from the USB **onto the controls**, push **2**.



Now select the file that you would like to load onto the controls and push the corresponding **button**

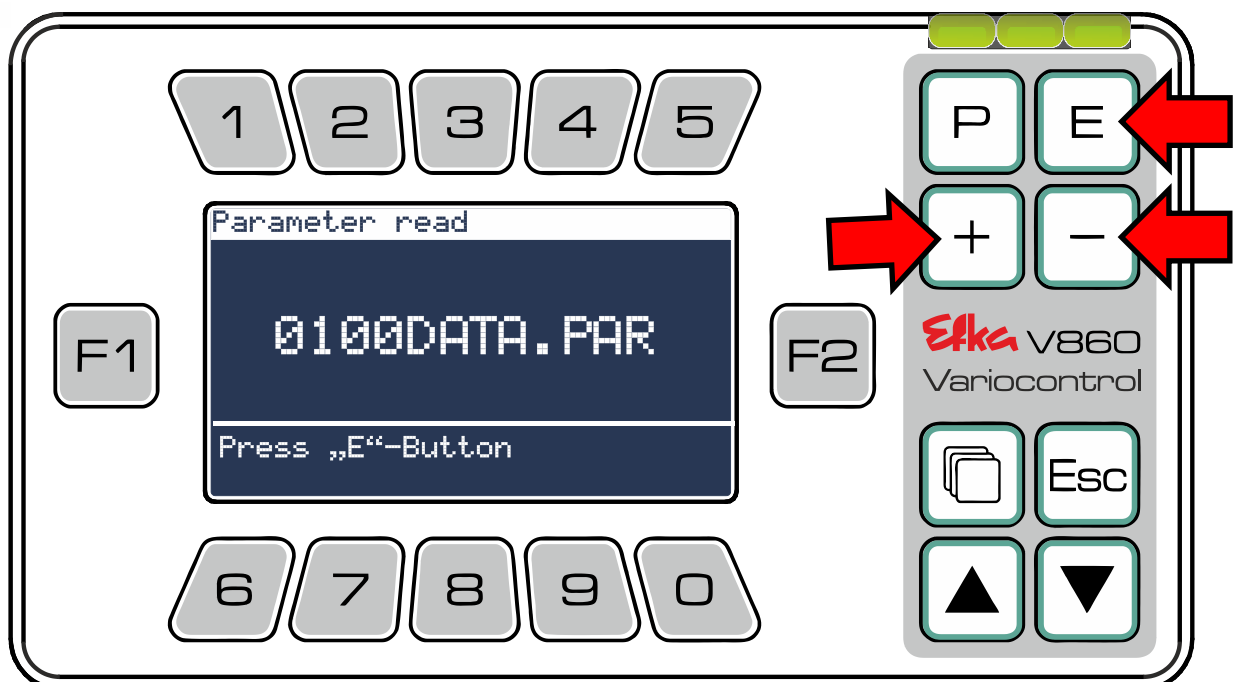
1 to **3** (Ex. **1** Load parameter)



- 1** Parameter
- 2** Parameter & function strips
- 3**: Function strips

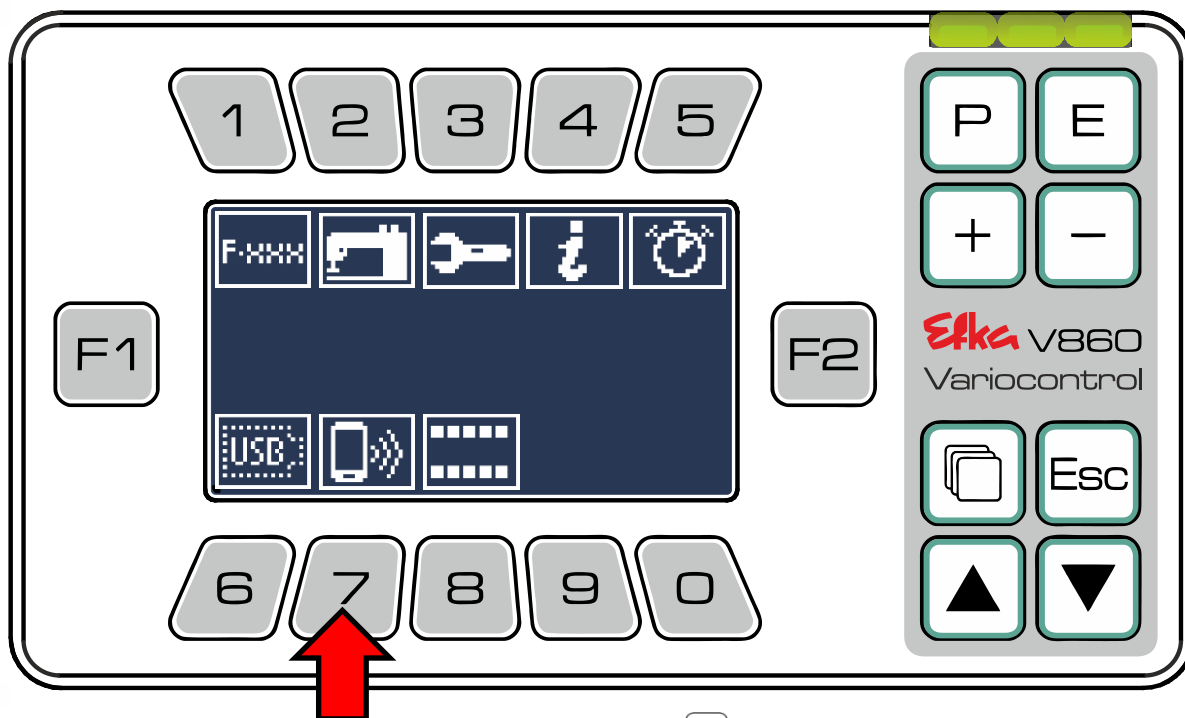
Select the desired file with the **buttons** **+** & **-** and confirm your selection with **E**.

Procedure and sequence are the same for all file types (**1** parameter, **2** parameter & strips or **3** separate strips)

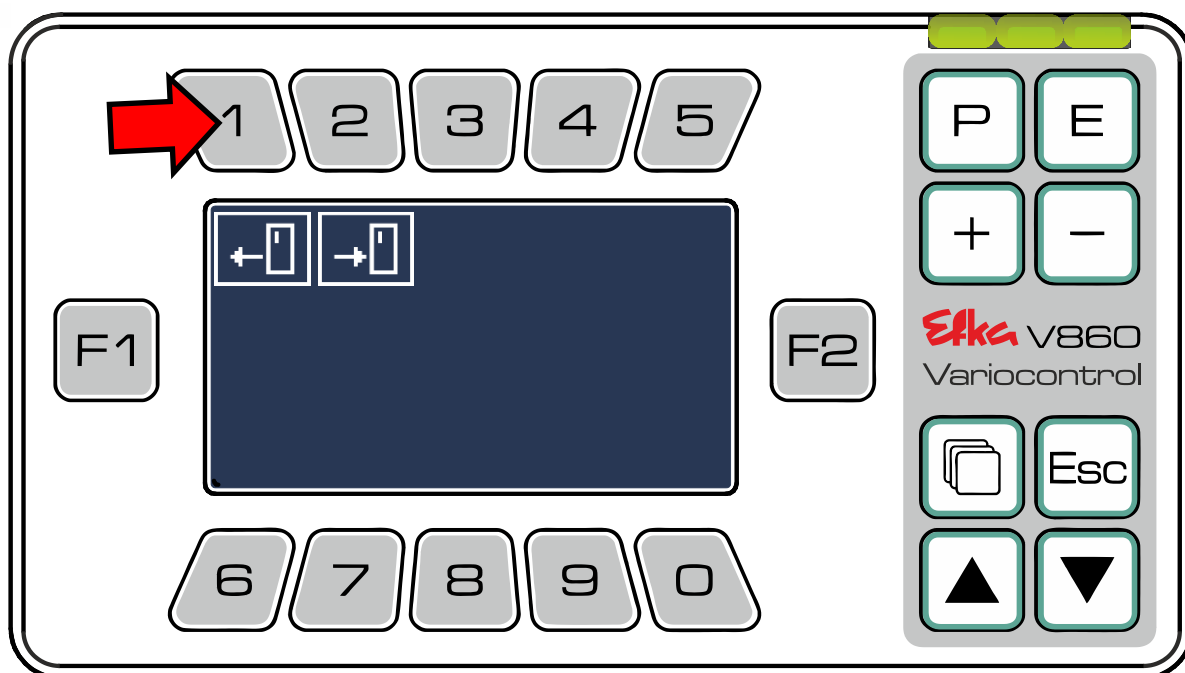


8 NFC menu

In the main menu push **7** to enter into the **NFC menu**.



To load data from the controls **onto** the **NFC module** push **1**.



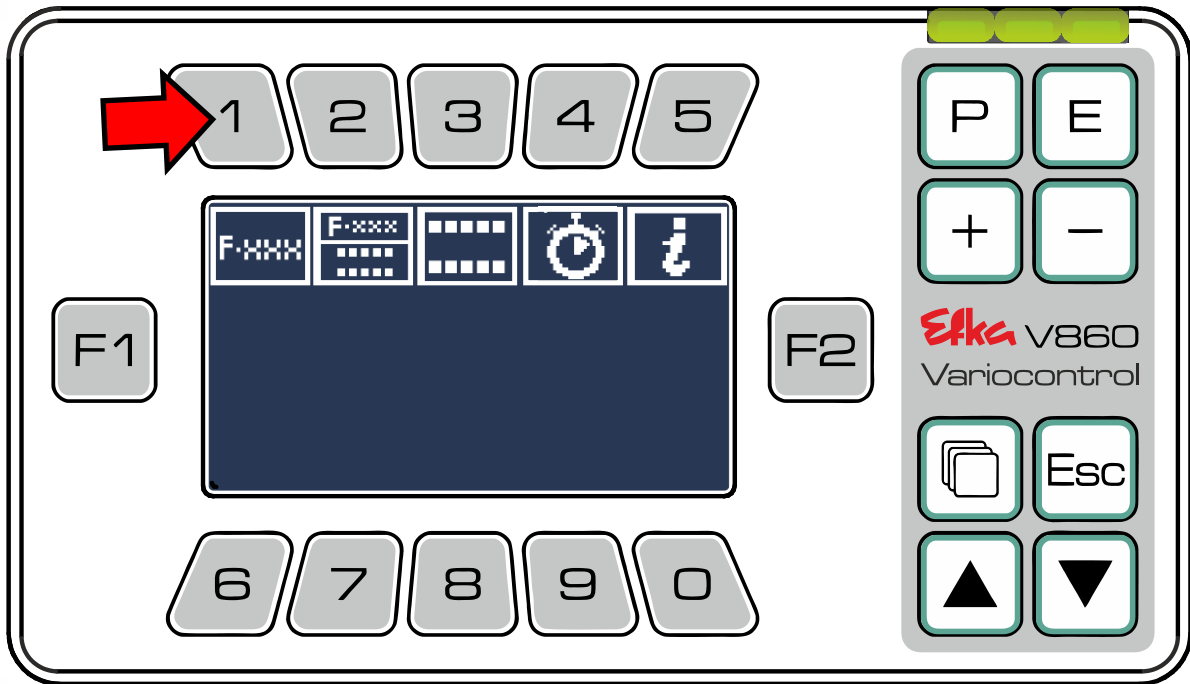
Important note!

When the controls are switched on, if there is data on the NFC module you will be asked once whether you would like to load these onto the controls. If you have rejected loading, you can retrieve it by pushing the number "2" on the screen.

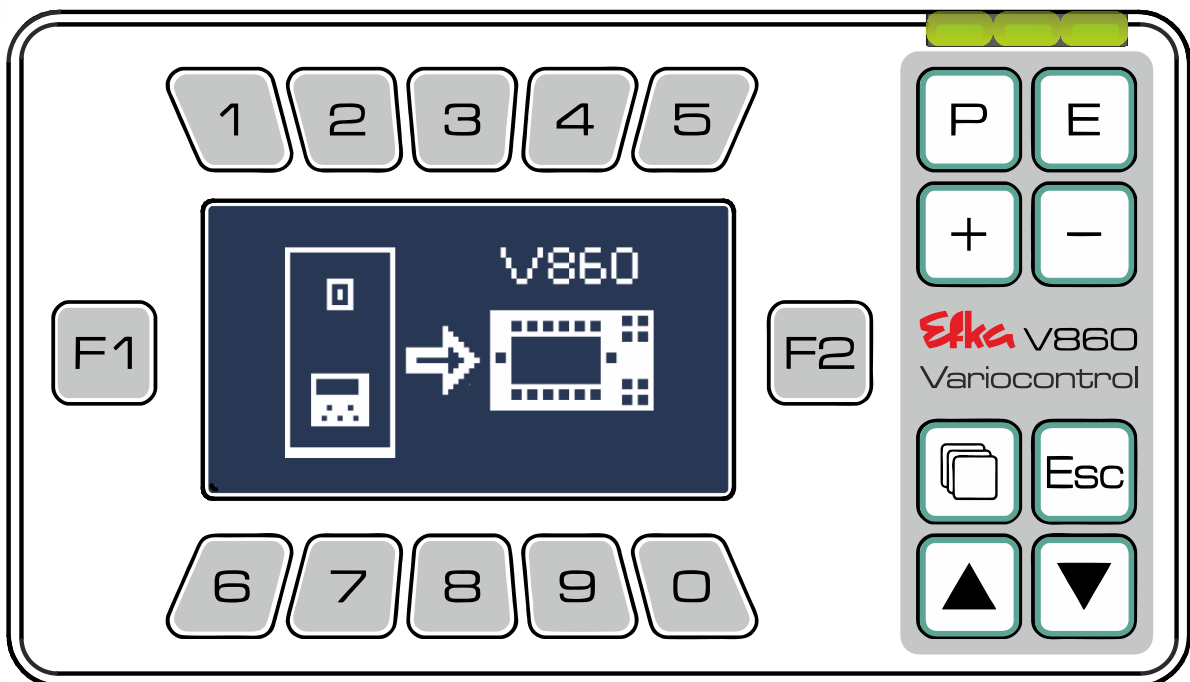
To load data **onto** the **controls** push **2** and also follow the instructions.

In the NFC module, you can select the files that you would like to load on the internal NFC module of the control panel to then wirelessly transmit them to your smart phone app.

Ex. Push **1** to load **parameter data** onto the NFC module.



- 1**: Parameter
- 2**: Parameter & function strips
- 3**: Function strips
- 4**: Operating hours counter
- 5**: General Information



Efka[®] - Variocontrol V860

The controls send the data to the NFC module in the control panel V860. The control panel is now ready to transmit data via NFC. Open the "**EfkaApp**" and follow the operating instructions.

Important note!




















Detailed operating instructions for the "EfkaApp" can be found at
www.efka.net/Downloads/Accessories/EfkaApp























9 Symbol key




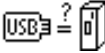
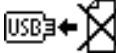









9.1 V860 – button functions

Button function no.	Preview	Designation
0		No function
1		Start backtack
2		Stitch count
3		Light barrier
4		End backtack
5		Thread trimmer
6		Foot lifting
7		Holding position
8		Bobbin thread monitor
9		Function button
10		Softstart
11		Unlocking the chain
12		Chain suction
13		Tape cutter
14		Chain blowing
15		Start stitch condensing
16		End stitch condensing
















9.2 Icon


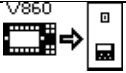
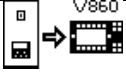
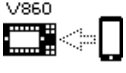











Icon no.	Preview	Designation
Pikt_000.bmp		No function assigned
Pikt_001.bmp		Single start backtack on
Pikt_002.bmp		Double start backtack on
Pikt_003.bmp		Single end backtack on
Pikt_004.bmp		Double end backtack on
Pikt_005.bmp		Foot lifting in the seam (on) Parameter / parameter group FL
Pikt_006.bmp		Foot lifting after the cutter (on)
Pikt_007.bmp		Stop at position 1 Machine settings / positions / Pos. 1
Pikt_008.bmp		Stop at position 2 Machine settings / positions / Pos. 2
Pikt_009.bmp		Backtack suppression / recall
Pikt_010.bmp		Machine settings / positions / setting the needle positions (Sr2)
Pikt_011.bmp		Bobbin thread monitor
Pikt_012.bmp		Light barrier uncovered/covered On
Pikt_013.bmp		Light barrier covered/uncovered On
Pikt_014.bmp		Start stitch condensing with stitch regulator on
Pikt_015.bmp		Start stitch condensing Off
Pikt_016.bmp		End stitch condensing with stitch regulator on
Pikt_017.bmp		End stitch condensing Off
Pikt_018.bmp		Chain suction at the start of the seam On
Pikt_019.bmp		Chain suction at the end of the seam On
























Pikt_020.bmp		Tape cutter at the seam start on
Pikt_021.bmp		Tape cutter at the seam end On
Pikt_023.bmp		Chain blowing On
Pikt_024.bmp		Thread trimmer on Parameter / parameter group cutter
Pikt_025.bmp		Thread wiper On
Pikt_026.bmp		Stitch counting backwards On
Pikt_027.bmp		Stitch counting forwards On
Pikt_028.bmp		Function button
Pikt_030.bmp		F1
Pikt_031.bmp		F2
Pikt_032.bmp		Start stitch condenser without stitch regulator on
Pikt_037.bmp		Foot lifting in the seam On Foot lifting after the cutter On
Pikt_038.bmp		Foot lifting off
Pikt_039.bmp		Parameter / parameter group LS IO test / LS
Pikt_040.bmp		Stitch counting Off
Pikt_041.bmp		Start backtack Off
Pikt_042.bmp		End backtack Off
Pikt_043.bmp		Light barrier Off
Pikt_044.bmp		Thread trimmer on Thread wiper On
Pikt_045.bmp		Thread trimmer off Thread wiper off
Pikt_046.bmp		Display service routine customer null point
Pikt_047.bmp		Display service routine reference position





Pikt_048.bmp		Display service routine baud rate
Pikt_049.bmp		Display service routine position 1
Pikt_050.bmp		Display service routine position 2
Pikt_053.bmp		—
Pikt_054.bmp		—
Pikt_055.bmp		Display service routine rotation direction 0
Pikt_056.bmp		Display service routine rotation direction 1
Pikt_057.bmp		Status information
Pikt_058.bmp		End stitch condensing without stitch regulator on
Pikt_061.bmp		Group menu IO test
Pikt_062.bmp		Parameter / parameter list
Pikt_063.bmp		Group menu USB (USB stick present)
Pikt_064.bmp		Group menu USB (no USB stick present)
Pikt_065.bmp		Tape cutter and seam start

Pikt_066.bmp		Tape cutter at the seam start OFF
Pikt_067.bmp		Tape cutter at the seam end
Pikt_068.bmp		Tape cutter at the seam end OFF
Pikt_069.bmp		Stacker blowing ON
Pikt_070.bmp		Stacker blowing OFF
Pikt_079.bmp		IO test / outputs / select outputs
Pikt_080.bmp		IO test / outputs / select outputs
Pikt_081.bmp		Machine settings / motor rotation direction
Pikt_082.bmp		Machine settings / rotation speed Parameter / parameter group speed
Pikt_083.bmp		Machine settings / motor
Pikt_084.bmp		Reduced speed
Pikt_085.bmp		Automatic speed
Pikt_086.bmp		Group menu machine settings
Pikt_087.bmp		Machine settings / SIR
Pikt_088.bmp		Machine settings / position sensor
Pikt_089.bmp		Machine settings / transmission
Pikt_090.bmp		Parameter / parameter group high lift
Pikt_091.bmp		Display motor service routine
Pikt_092.bmp		Actuate pedal (display in commissioning support)
Pikt_093.bmp		Group menu program number Write/ program number NFC / data
Pikt_094.bmp		Group menu operating hours Write / operating hours NFC / data
Pikt_095.bmp		Test input
Pikt_096.bmp		Test analog input

Pikt_097.bmp		Test output
Pikt_098.bmp		Test position
Pikt_099.bmp		Test light curtain
Pikt_100.bmp		Display service routine mode
Pikt_101.bmp		Display service routine speed
Pikt_102.bmp		Display service routine position sensor
Pikt_103.bmp		Display service routine transmission
Pikt_104.bmp		Position 1 UT
Pikt_105.bmp		Position 2 OT
Pikt_106.bmp		Display locked
Pikt_107.bmp		Display unlocked
Pikt_108.bmp		Smart phone
Pikt_109.bmp		Machine settings / mode
Pikt_110.bmp		Sewing active
Pikt_111.bmp		Group menu NFC

Pikt_112.bmp		Group menu parameter Write NFC / data / parameter
Pikt_113.bmp		NFC data are transmitted to controls
Pikt_114.bmp		NFC data are transmitted from the controls to the display
Pikt_115.bmp		NFC data ready to read out 1
Pikt_116.bmp		NFC data ready to read out 2
Pikt_117.bmp		NFC data ready to read out 3
Pikt_126.bmp		IO test / digital inputs
Pikt_127.bmp		IO test / outputs
Pikt_128.bmp		IO test / analog inputs
Pikt_129.bmp		IO test / pedal
Pikt_130.bmp		IO test / positions Machine settings / positions
Pikt_131.bmp		Machine settings / positions / reference position (Sr1)
Pikt_132.bmp		Parameter / parameter group backtack
Pikt_133.bmp		Parameter / parameter group chain suction and tape cutter
Pikt_134.bmp		Parameter / parameter group stitch condensing

Pikt_135.bmp		Parameter / parameter group stitch count
Pikt_136.bmp		Parameter / parameter group seam
Pikt_137.bmp		Control panel
Pikt_138.bmp		Strip / new user strip
Pikt_139.bmp		Strips / copy strips
Pikt_140.bmp		Strips / edit user strips
Pikt_141.bmp		Tape cutter at the seam start on
Pikt_142.bmp		Tape cutter off
Pikt_143.bmp		Thread cutter OFF
Pikt_144.bmp		Unlocking the chain on
Pikt_145.bmp		Unlocking off
Pikt_146.bmp		Chain suction at the start of the seam On Chain suction at the end of the seam On
Pikt_147.bmp		Chain suction off
Pikt_148.bmp		Chain blowing off
Pikt_149.bmp		Save
Pikt_150.bmp		Delete
Pikt_151.bmp		Strips / user strips free
Pikt_152.bmp		Strips / user strips assigned
Pikt_153.bmp		Confirm
Pikt_154.bmp		Eject
Pikt_155.bmp		Strips / load strips
Pikt_156.bmp		Softstart on
Pikt_157.bmp		Softstart off

Pikt_162.bmp		Group menu strips Write NFC / data / parameter
Pikt_163.bmp		Write NFC data / parameter + user strips
Pikt_164.bmp		NFC / read data
Pikt_165.bmp		NFC / write data

Notes:

Notes:



FRANKL & KIRCHNER GMBH & CO KG
SCHEFFELSTRASSE 73 – 68723 SCHWETZINGEN
TEL.: +49-6202-2020 – FAX: +49-6202-202115
E-Mail: info@efka.net – www.efka.net



OF AMERICA INC.
3715 NORTHCREST ROAD – SUITE 10 – ATLANTA – GEORGIA 30340
PHONE: +1-770-457 7006 – FAX: +1-770-458 3899 – efkaus@efkaus.comcastbiz.net



ELECTRONIC MOTORS SINGAPORE PTE. LTD.

67, AYER RAJAH CRESCENT 05-03 – SINGAPORE 139950

PHONE: +65-67772459 – FAX: +65-67771048 – email: efkaems@efka.net