



MODEL S-311+I

**ELECTRONIC EYELET BUTTONHOLE
MACHINE**

INDEXER PARTS

MACHINE SERIAL No.

PART NUMBER 97. 1930.0.001

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A - INTRODUCTION

1. GENERAL INFORMATION

The electronic eyelet buttonhole machine with Indexer enables automatic sewing of buttonholes which can be specified in number and distance between them. Typ stehu, odkaz na modely

Models of S-311 Indexer machine:

a) AF ST JT

This model is designed to be used for sewing single thread chain stitch buttonholes on ready-tailored jacket sleeves. The device enables sewing of various buttonhole types (see S311 section A, chapter 4 Specifications) with or without cut during one sewing cycle. There is a thread nipper attached to the device, which facilitates better quality of finished buttonholes.

Buttonholes commonly used on jackets sleeves:

- buttonhole with an eye
- with cut or without cut
- crossbar or round end

b) CT 16-20mm DT JT

This model is designed to be used for sewing double thread chain stitch buttonholes on ready-tailored jacket sleeves. The device enables sewing of various buttonhole types (see S311 section A, chapter 4 Specifications) with or without cut during one sewing cycle. There is a thread nipper attached to the device, which facilitates better quality of finished buttonholes.

Contrary to the version S311 AF ST JT the length of a buttonhole is limited for sewing within the range of 16-20 mm

Buttonholes commonly used on jackets sleeves:

- buttonhole with an eye
- with cut or without cut
- crossbar or round end

c) CT 16-20mm DT JS, 20-24 DT SJ

This model is designed for sewing double thread chain stitch buttonholes with gimp on trousers or jeans front sections. The device enables sewing of various buttonhole types (see S311 section A, chapter 4 Specifications) with or without cut during one sewing cycle. Contrary to the version S311 AF ST JT the length of a buttonhole is limited for sewing within the range of 16-20 mm/20-24mm.

Buttonholes commonly used on trousers front sections:

- buttonhole with an eye
- with cut
- flybar buttonhole

ABBREVIATIONS USED IN THE MANUAL	
AF	Adjustable flybar
CT	Cord trim - trimming all threads - short tail of bottom thread
ST JT	Single thread chain stitch - used on jackets
DT JT	Double thread chain stitch - used on jackets
DT JS	Double thread chain stitch - used on jeans (trousers)

A - INTRODUCTION

2. SAFETY LABELS AND EQUIPMENT

For detailed description, see S-311 (section A, chapter 2, pages 1-2, 1-3).

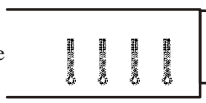
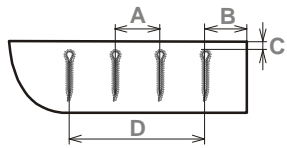
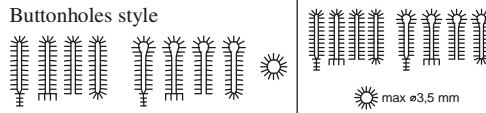
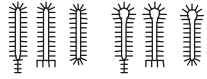



29 Indexer

A - INTRODUCTION

3. SPECIFICATIONS

S-311+I

Machine models	AF ST JT	CT 16 - 20 mm DT JT	CT 16 - 20 mm DT JS	CT 20 - 24 mm DT JS
Application	Jacket Sleeve		Jeans Fly Front	
Stitch Type	Single chainstitch	Double chainstitch with or without gimp		
Number of Buttonholes	1 - 6 buttonhole			
Distance between Buttonholes	8 - 160 mm			
Distance from Fabric Edge (horizontal)	31 mm			
Distance from Fabric Edge (vertical)	9 - 19 mm			
Max. Horizontal Feed Amount	160 mm			
				
Thread Nipper	Yes		No	
Sewing Speed	1000 - 2000 stitches/min (500 - 1000 rev/min of the drive shaft)			
Buttonhole Length	10 - 50 mm	16 - 20 mm		20 - 24 mm
Stitch Density	0,5 to 2,0 mm (increments of 0,1 mm)			
Number of Stitches in the eye	4 to 20			
Stitch Bite	2,1 mm (± 0,3 mm electronic adjustment); 2,7 mm (± 0,3 mm electronic adjustment)			
Stitch Bite (Crossbar)	2,1 mm (± 0,3 mm electronic adjustment); 2,7 mm (± 0,3 mm electronic adjustment)			
Buttonholes style				
Eye type	No Eye; 2,2 x 3,0 mm; 2,8 x 4,2 mm; 3,0 x 4,6 mm; 3,2 x 5,0 mm; 3,4 x 4,2 mm			
Fly Bar Length	3,0 - 20,0 mm	See section D 3.3 - manual S-311		
Length of Crossbar	4 - 8 mm	4-6 mm		
Crossbar density	0,5 - 1,5 mm	0,5-1,5 mm		
Number of Stitches in the round end	4 to 20	—		
Clamp Foot Height	12 mm			
Sewing Thickness	in 8,0 mm			
Buttonhole Cutting	Cut before (CB), cut after (CA), no cut (OFF)			
Cutting Space	- 0,50 to + 1,2 mm			
Cut position (Y axis)	± 1,5 mm			
Bedplate movement	64 mm			
Needle system	02.0558.0.111 (Nm 100)	02.0558.1.112 (Nm 110)		
Recommended threads*	80, 100, 120, gimp size 30-100	80, 100, 120, gimp size 10-30 standard **.		
Upper thread trimming	✂		✂	
Lower thread and gimp trimming	—		✂ (short ends) 	
Cutting space	✂		L = 16 to 20 mm L+L _i = 23 to 27 mm	L = 20 to 24 mm L+L _i = 27 - 31 mm
Operating Condition	According to IEC 364-3, IEC 364-5-51 temperature from +5°C do 40°C, relative air humidity from 30 to 80%			
Air pressure	0,55 MPa = 80 PSI			
Machine db Level	L _{WA} =86,9db; L _{PA} =74,8 db; Noise measurement according to EN ISO 3746:1995			
Machine Head Dimension	530 mm (height) x 370 mm (width) x 560 mm (depth)			
Machine Head Weight	64 kg			
Table Dimensions	730 mm (height) x 1100 mm (width) x 700 mm (depth) + 150 mm distance			
Machine Weight	180 kg			
Electrical requirements	1NPE~60Hz 230 V/TN/S; 1NPE~50Hz 230 V/TN/S			
Line Circuit Breaker	Min. 10A Characteristic C (EN60947-2)			

* **Note:** If a customer uses thread size 100 and less, the manufacturer recommends to use the left looper 17.0069.4.019
If you use poor quality threads on the machine, the thread can burn at the needle (producer recommend decrease machine's speed).

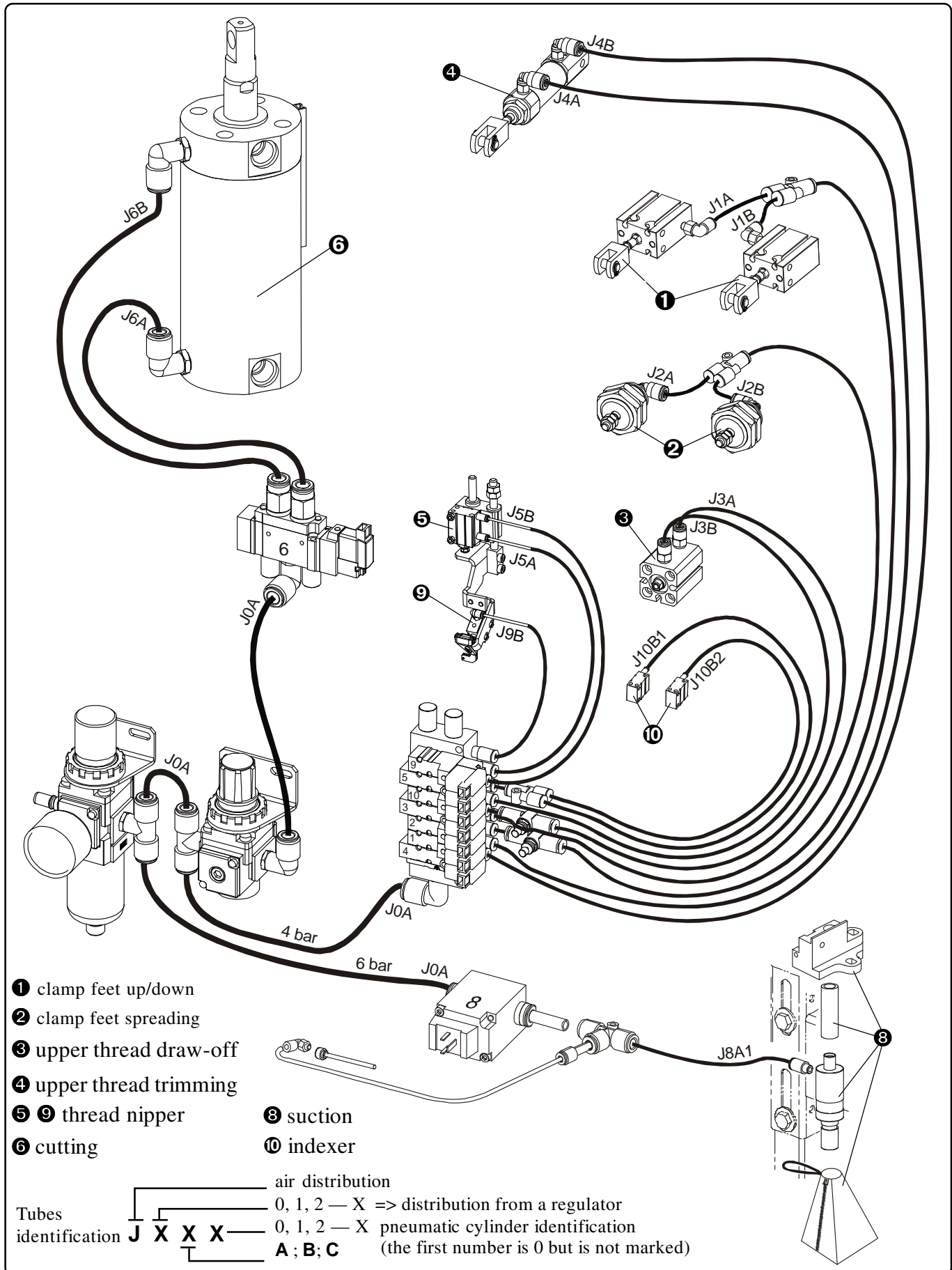
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B - MACHINE ASSEMBLY

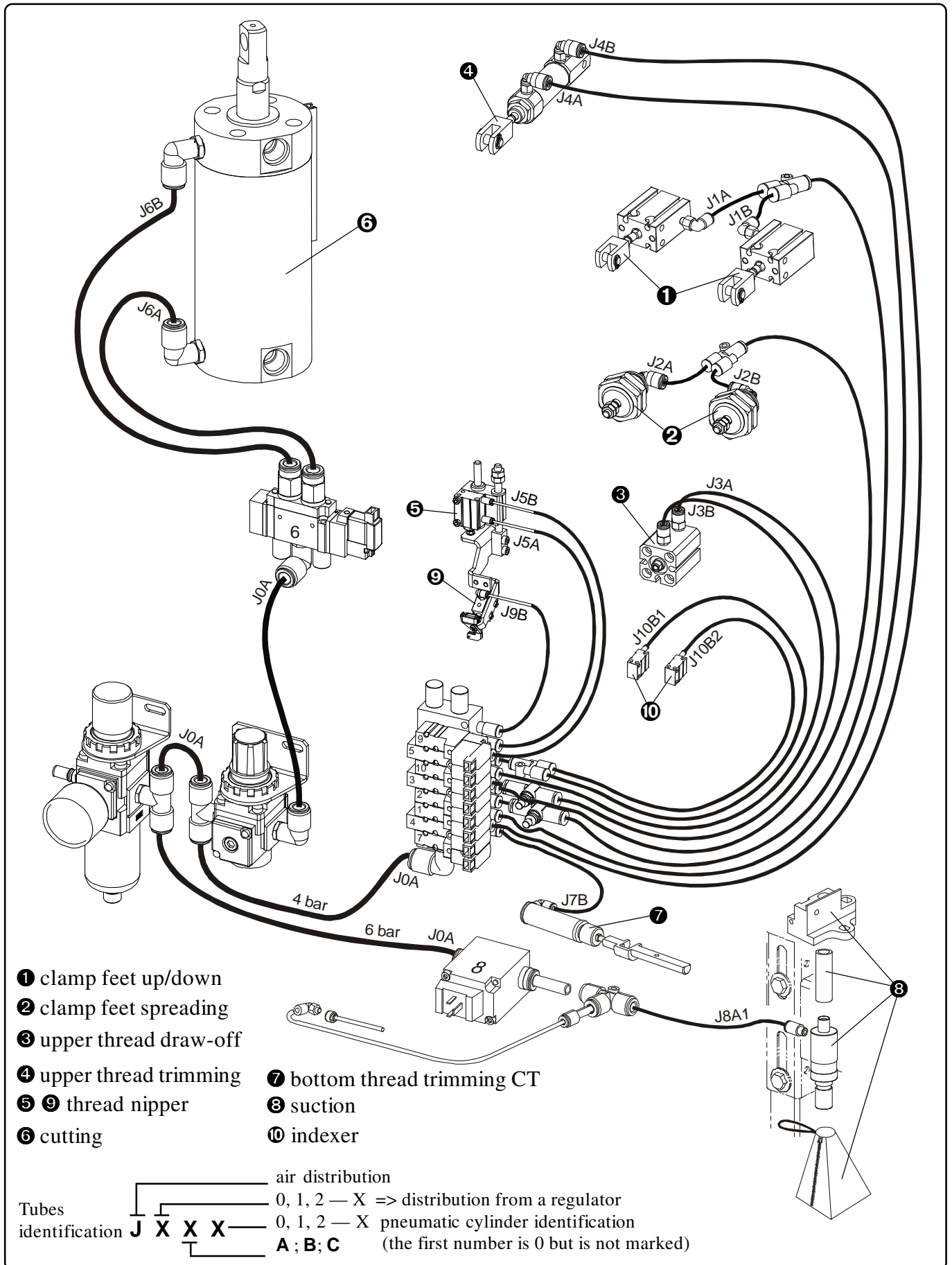
S-311+I AF - PNEUMATIC SYSTEM CONNECTION



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B - MACHINE ASSEMBLY

S-311+I CT - PNEUMATIC SYSTEM CONNECTION




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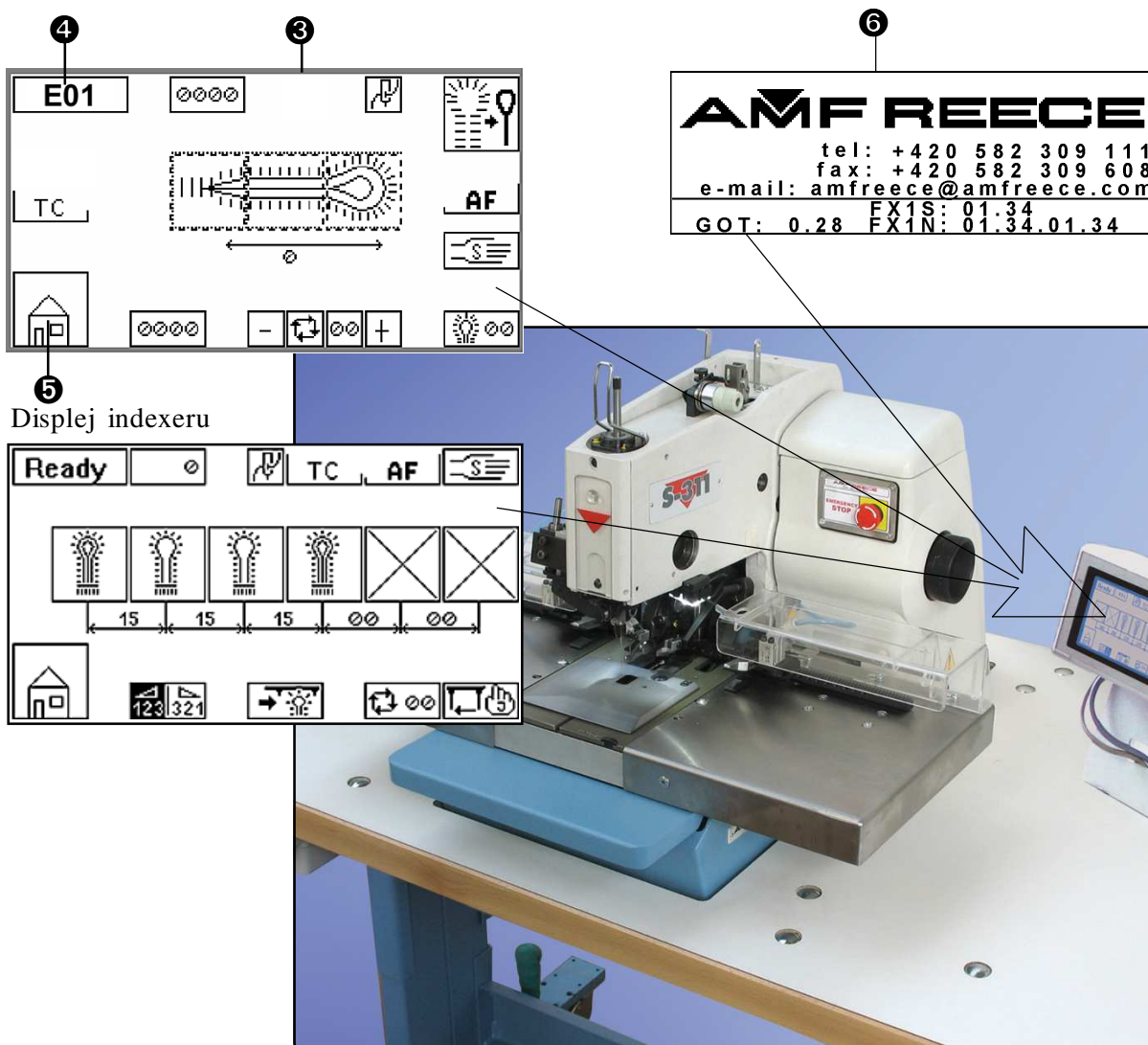
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C - PROPER USAGE

1. SETTING MACHINE INTO HOME POSITION TO START SEWING

- 1.1. Turn the switch clockwise to the position **I** to switch it on.
- 1.2. The display is activated and illuminated. The screen **⑥** displaying information of the manufacturer and numbers of programs uploaded in the machine appears. Wait until the main screen **③** appears on the display.
- 1.3. If **E01** error message is shown in the box **④** on the display (the machine is not in the home position), press the button  **⑤**. If another error message occurs, see the section *Troubleshooting*.
- 1.4. The machine is ready to start operation once the **Ready** message on the display in the box **④** is on. (*Display description on page 1-28, S-311*).
- 1.5. If you wish to operate the machine in the Indexer mode, follow the instructions in section D, chapter 2. Setting Indexer Display, page 1-12 I.



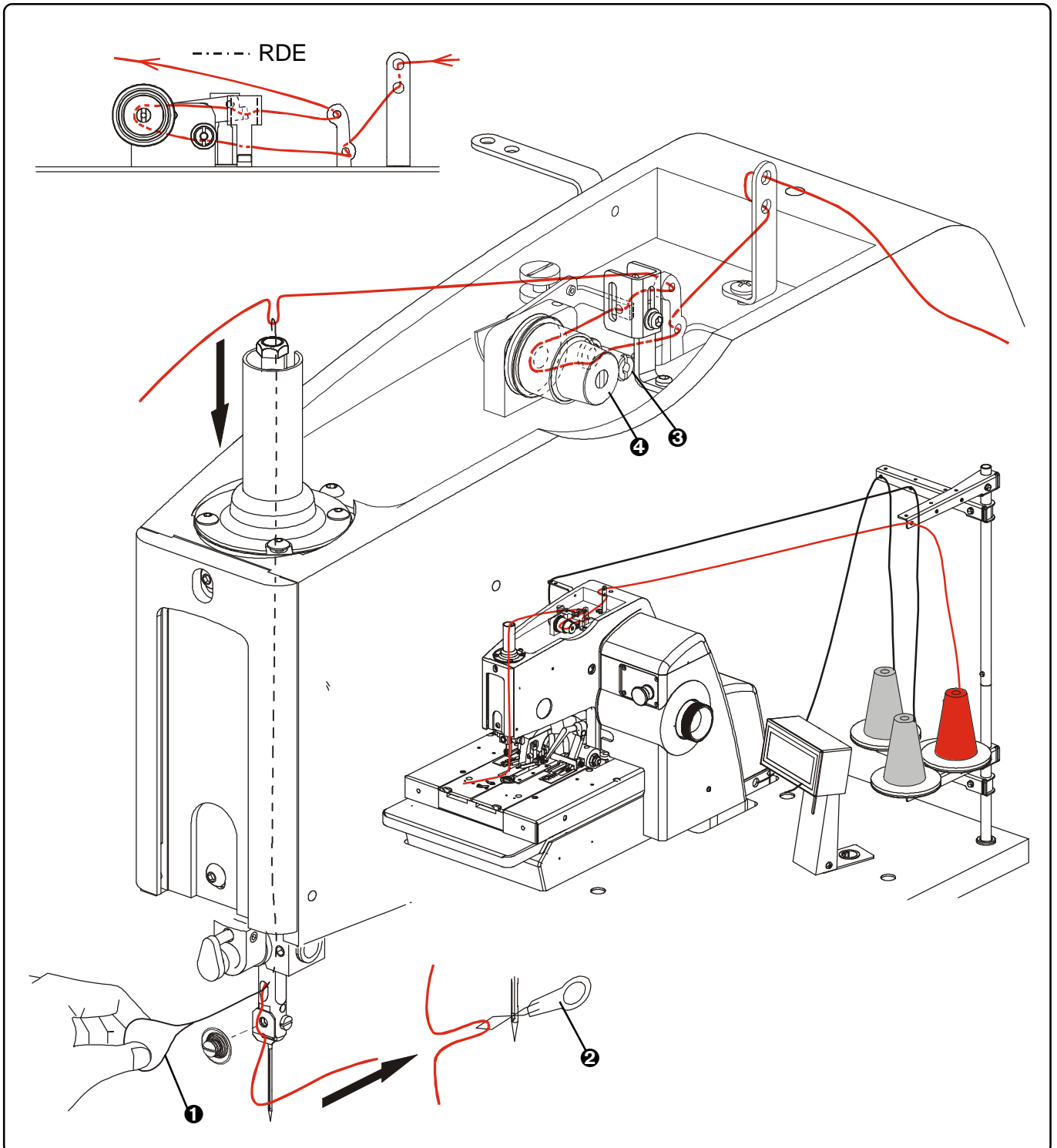
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C - PROPER USAGE

2. THREADING

Threads are threaded as shown in the pictures below. For easy threading use threading device **1** from the machine accessory. Threading device **2** can be ordered separately (order number 12.0008.6.200). Thread tension can be adjusted with nuts **3**, **4** according to sewing conditions as needed.

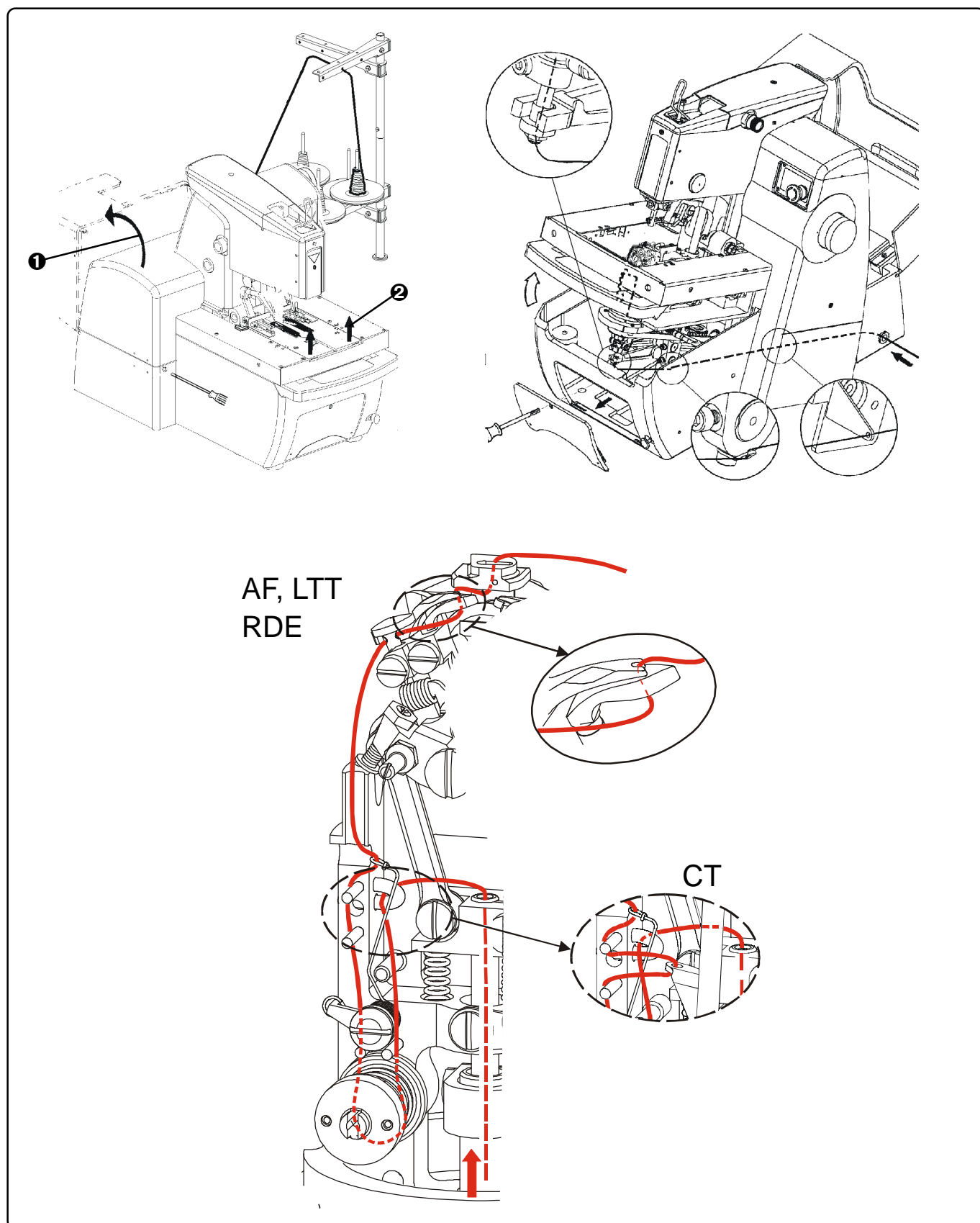
2.1. Upper thread threading



C - PROPER USAGE

2.2. Lower thread threading

— can be done after tilting the back cover ❶ and lifting the machine arm ❷.



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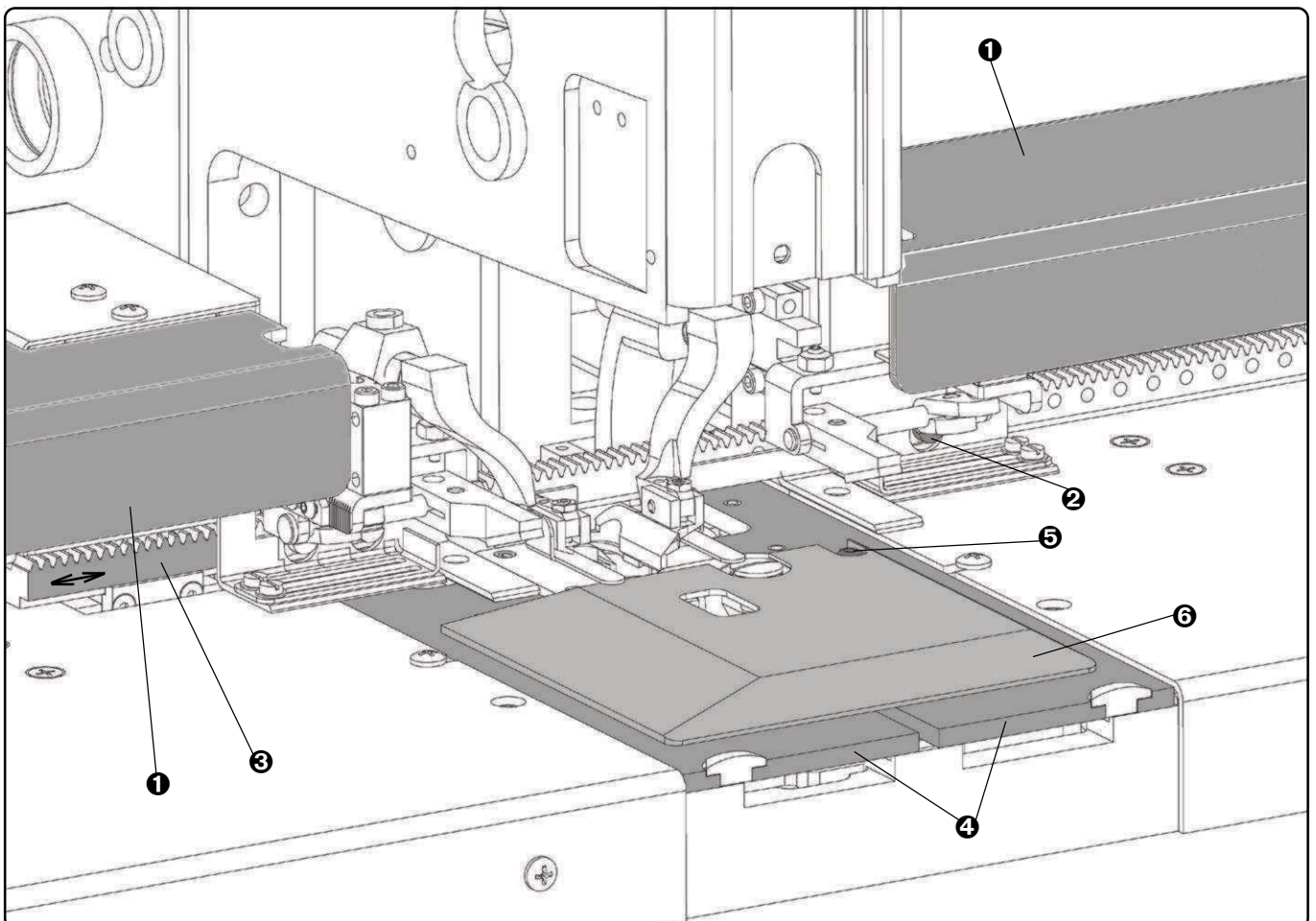
C - PROPER USAGE

2.3. Threading the machine S-311 CT+I

If you thread lower thread or gimp for the first time, it is necessary to dismantle the Indexer.

- a) Loose screws and remove safety covers **1**.
- b) Disconnect air pipes from cylinders.
- c) Loose screws **2** of the right side feet holder and take it out.
- d) Hold the device **3** and pull it to the left to take it out.
- e) Remove the clamp plates **4** and thread lower thread or gimp.
- f) Mount the mechanism back into the machine.

Note: When assembling the right clamp foot, it is necessary to keep minimal distance of 0,5 mm. See section E, chapter 1.
 If the lower thread has just slipped out of the stitching plate, loose the screw **5** and remove the clamp feet cover **6**.



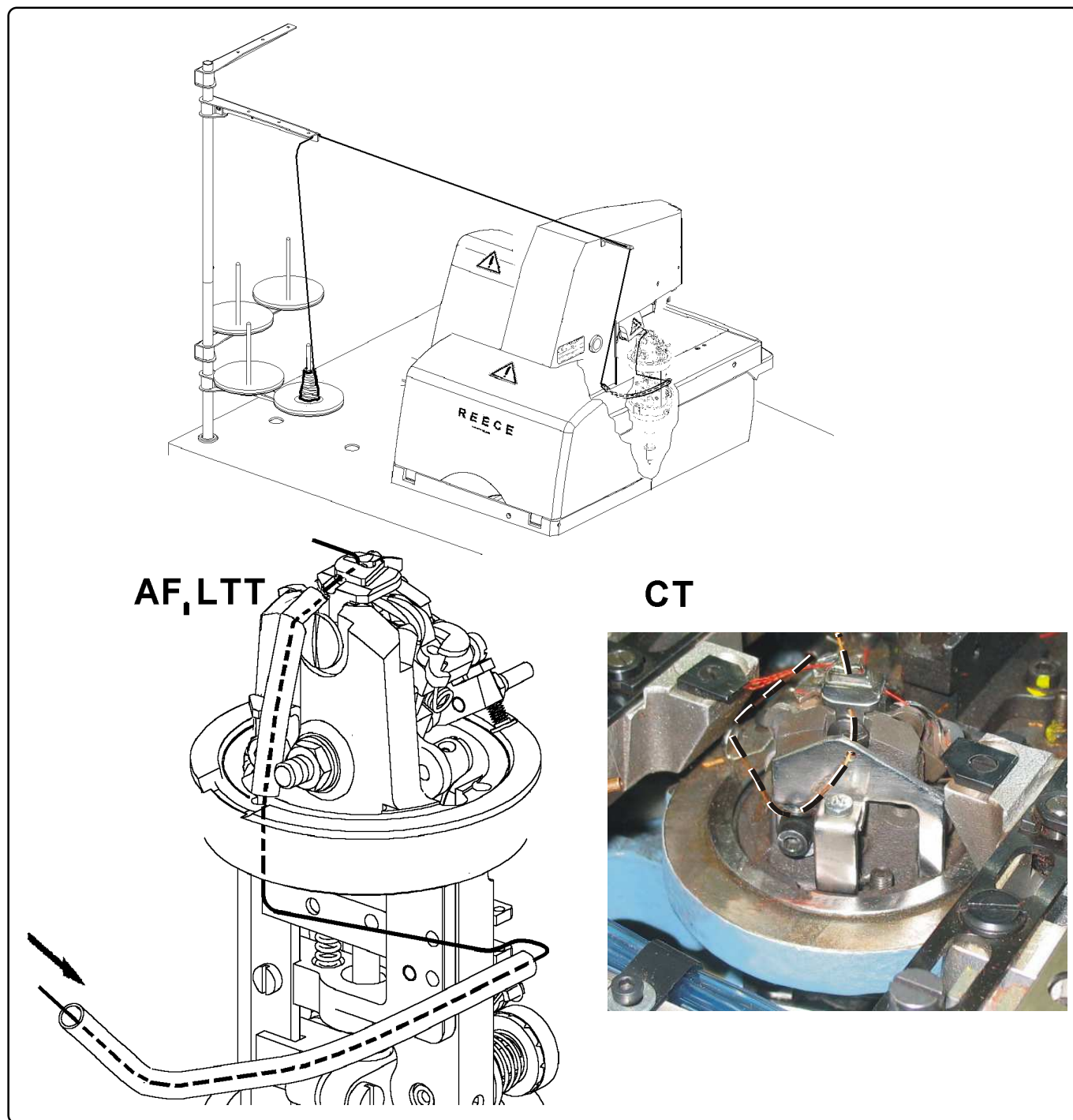
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C - PROPER USAGE

2.4. Gimp threading



The appearance and quality of the buttonhole may be affected by one or more of the following:

- stitch density (number of stitches in the first and the second row of stitches)
- number of stitches in the eye
- amount of fabric spread
- cutting space
- tension of upper and lower thread
- type of thread (size, etc.)
- needle bite
- sewn material (thickness, density)

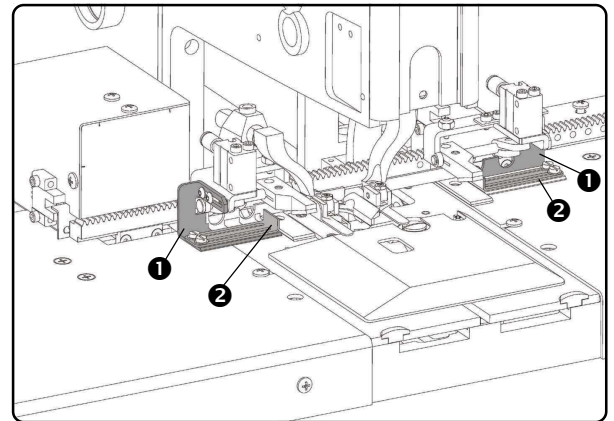
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D - MACHINE FUNCTIONS CONTROLS

1. SEWING A BUTTONHOLE

1.1. Set the machine into the home position as in section C1 of this chapter. Before starting sewing, let the machine warm up in this condition for about 3 minutes.

1.2. Check, if threads are correctly threaded as indicated in section C3, and place the work piece under the machine clamps. Correct placement of the buttonhole on the work piece will facilitate front stopper ❶ and side stopper ❷ that have adjustable lengths.



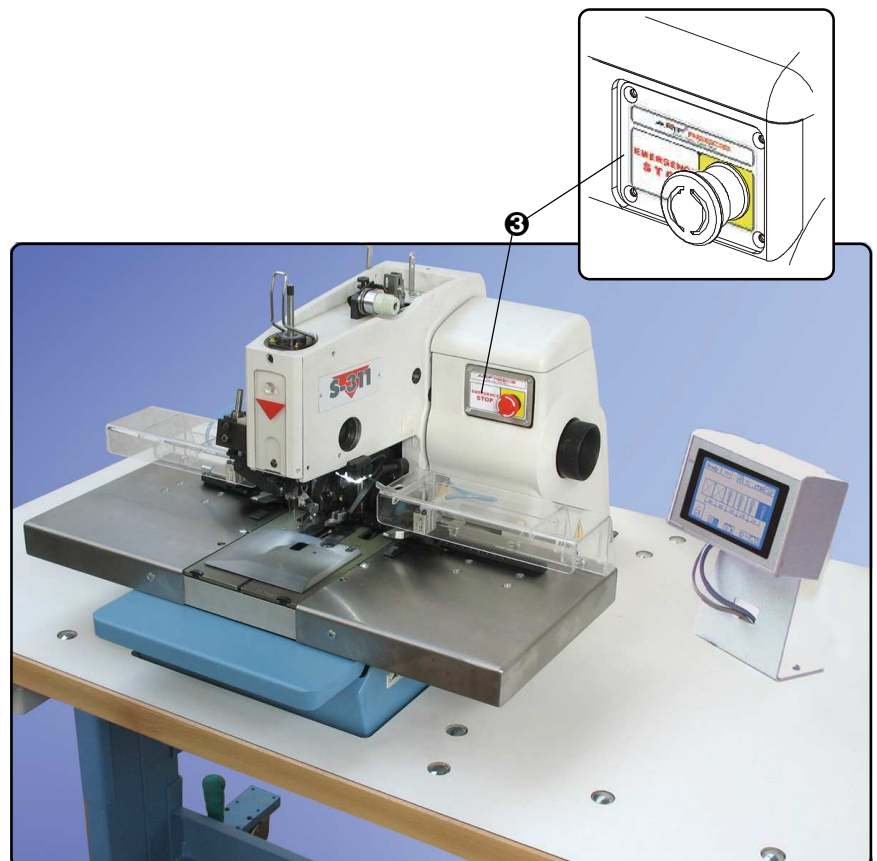
1.3. Pressing slightly the foot pedal into the first position will activate clamping and the work piece will be clamped. (Releasing the foot pedal will lift the clamps up again).

1.4. Pressing the foot pedal down (into the second position) will start sewing the buttonhole, which has been selected in the program. Once the buttonhole is sewn, fabric cut and upper thread trimmed, the clamps go up and the machine comes back into the home position.

1.5. Once the clamps are lifted up, it is possible to move the work piece in order to sew another buttonhole. If the Indexer device is activated, the fabric is moved automatically.

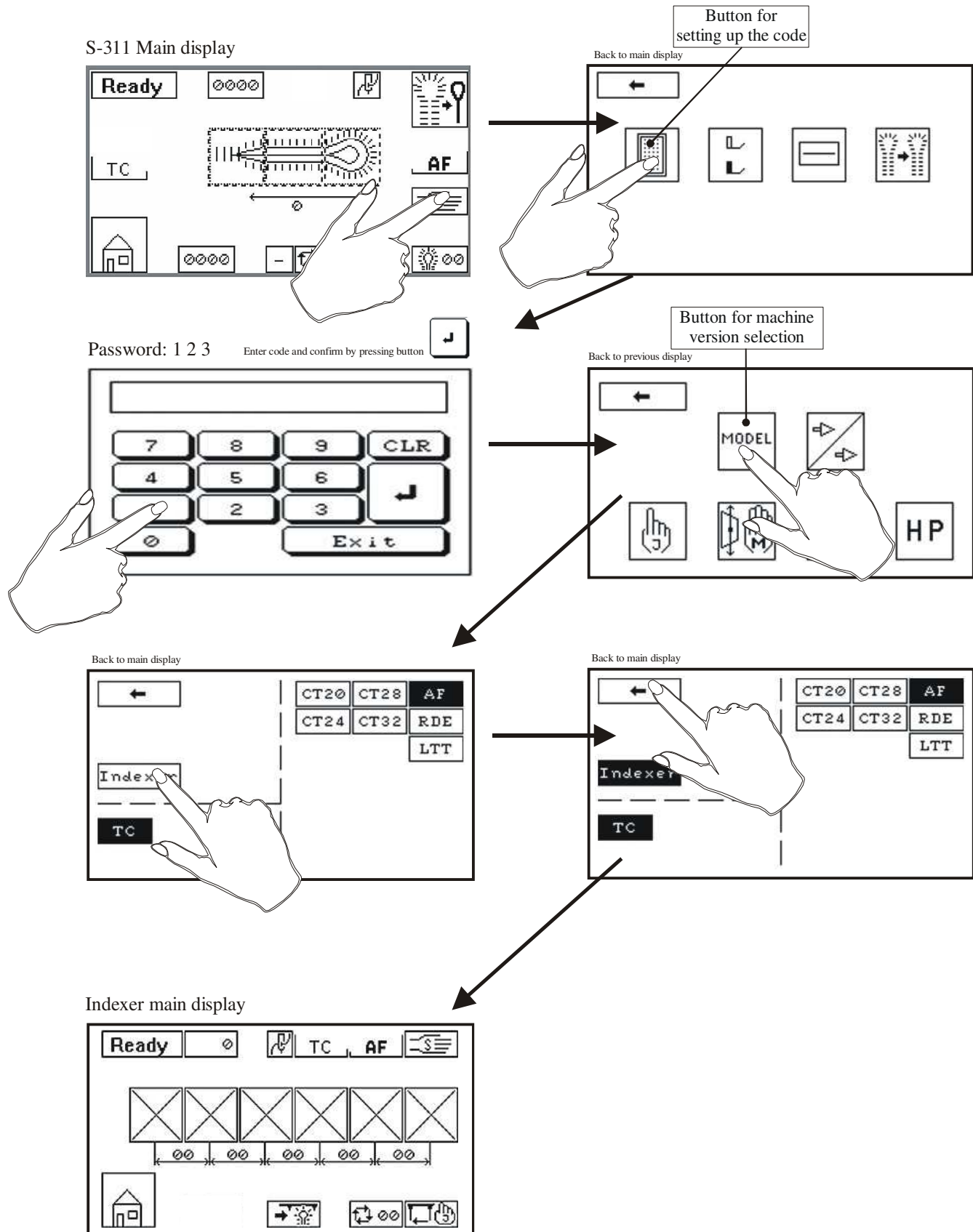
1.6. The machine can be stopped by the button STOP ❸ which is located on the machine arm, at any phase of the cycle. Releasing this button will stop the machine (Error E01, see section *Troubleshooting*).

1.7. Once sewing finished, switch the machine off. We also recommend unplugging the power cable from the socket and shutting the air supply off.



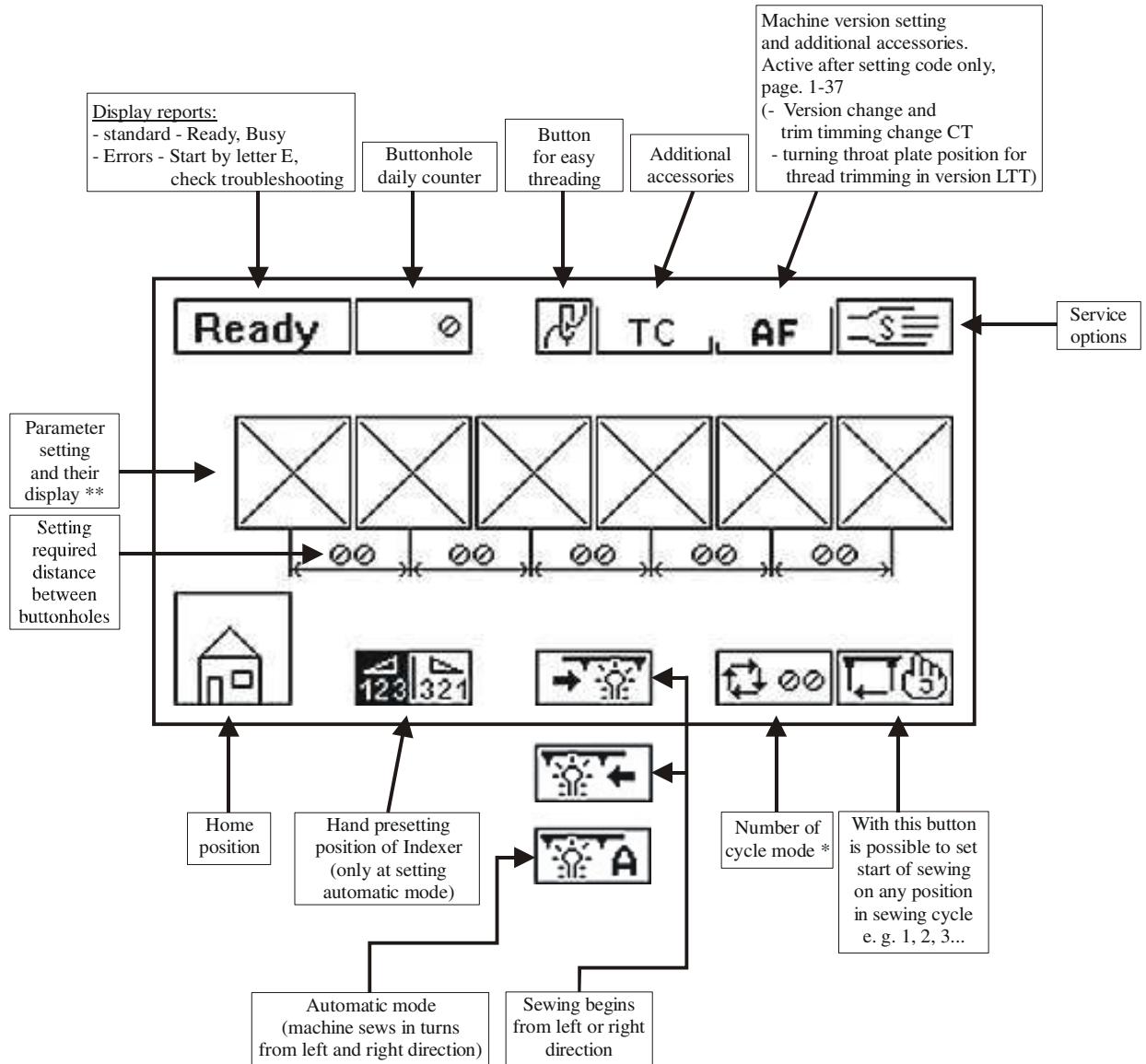
D - MACHINE FUNCTIONS CONTROLS

2. SETTING UP THE INDEXER DISPLAY



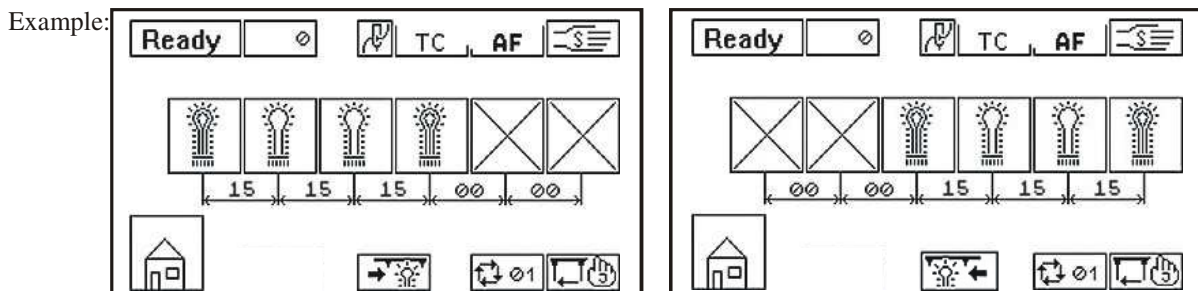
D - MACHINE FUNCTIONS CONTROLS

3. INDEXER SCREEN DESCRIPTION



* 1 - 50 Function cycle mode
0 - Disfunction cycle mode (at setting "0" machine sews only one buttonhole, without Indexer move.

** Buttonholes are represent on display the way they will be sewn in reality.
If we change direction of sewing, buttonholes are automatically displaced to the opposite position.
E. g.: Right and left sleeve application.



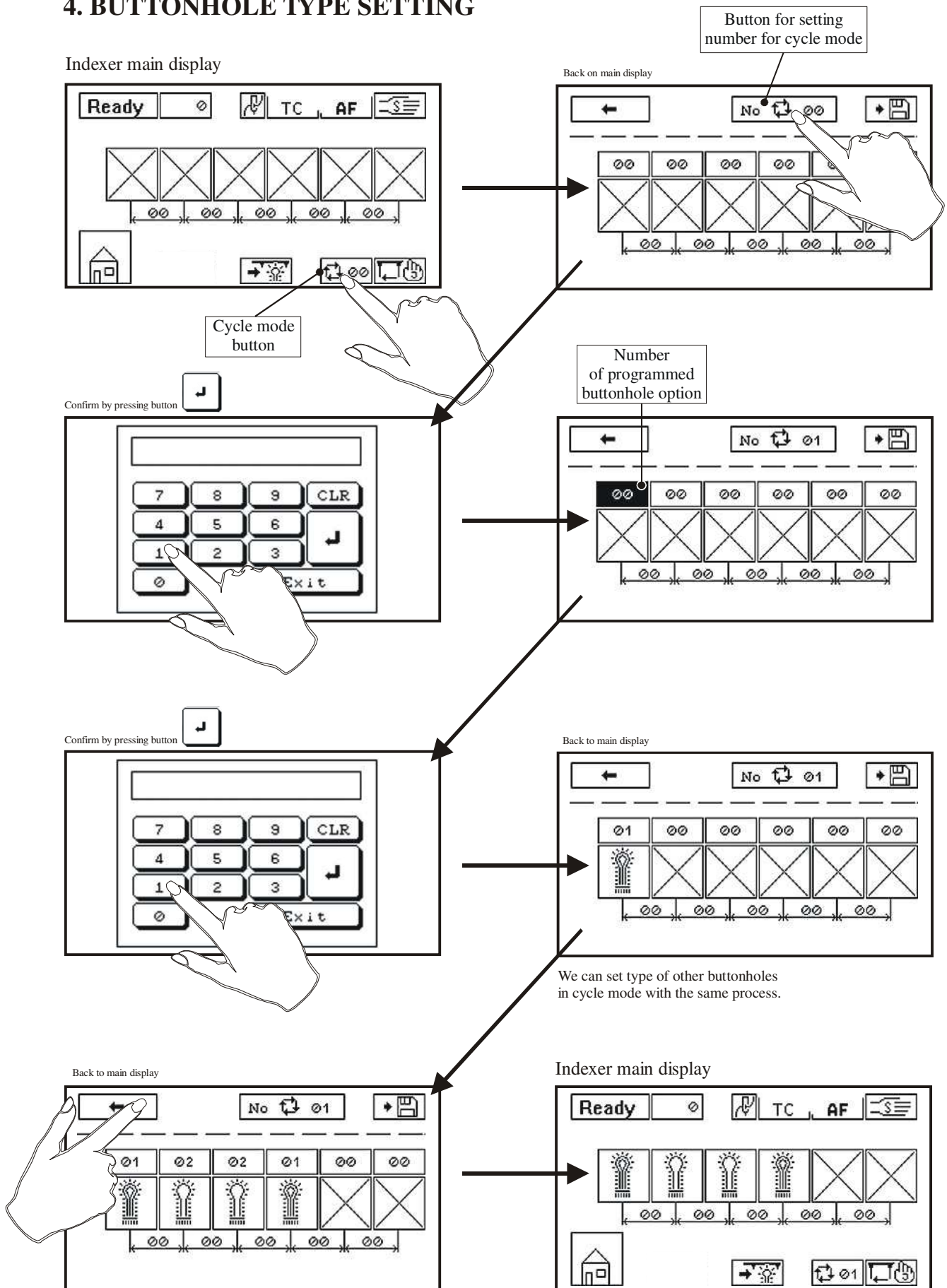
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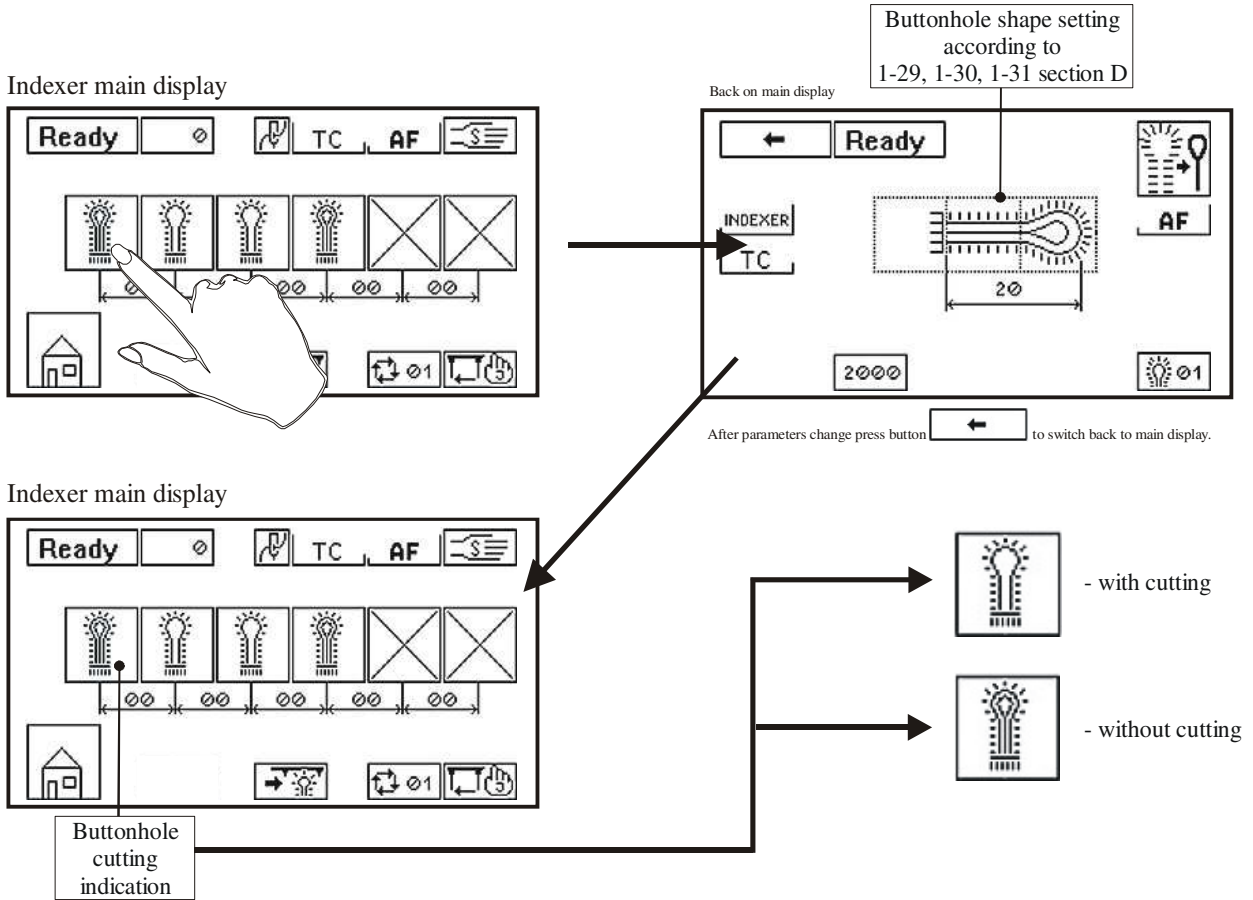
D - MACHINE FUNCTIONS CONTROLS

4. BUTTONHOLE TYPE SETTING

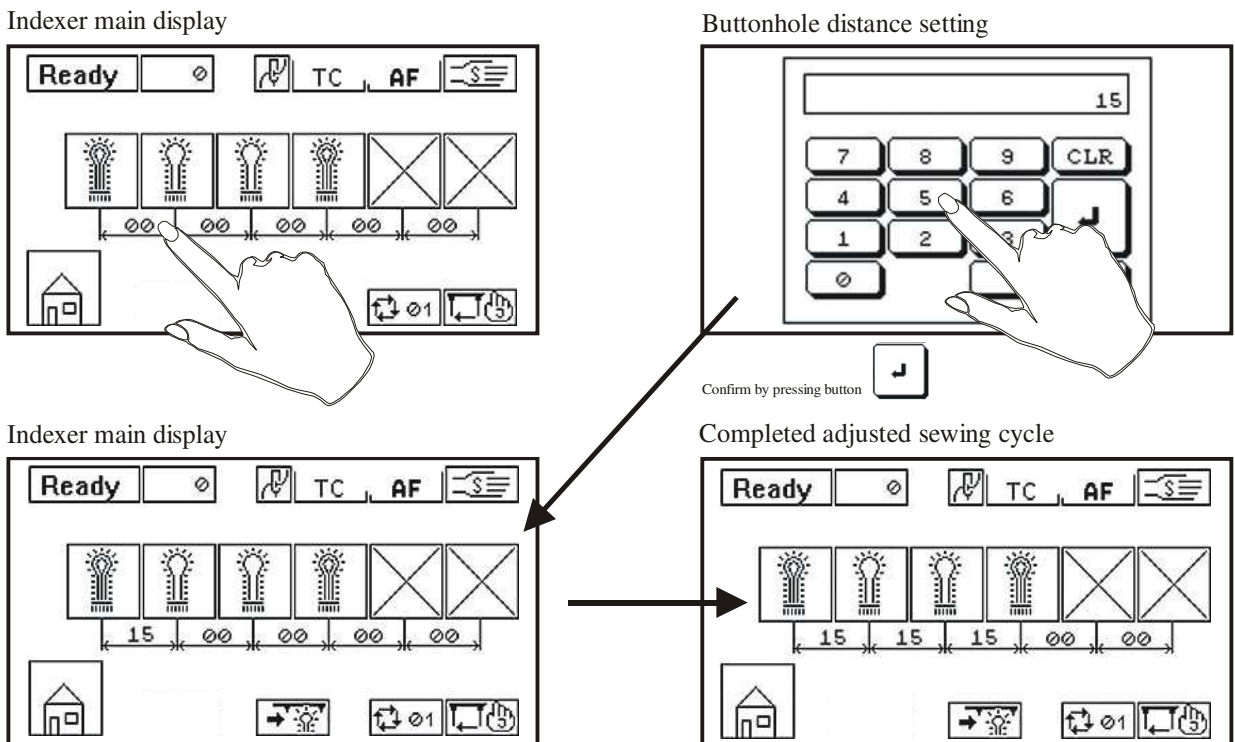


D - MACHINE FUNCTIONS CONTROLS

5. CHANGE OF BUTTONHOLE PARAMETERS SETTING



6. BUTTONHOLE DISTANCE SETTING



We can set distance for other buttonholes in cycle mode with the same process.

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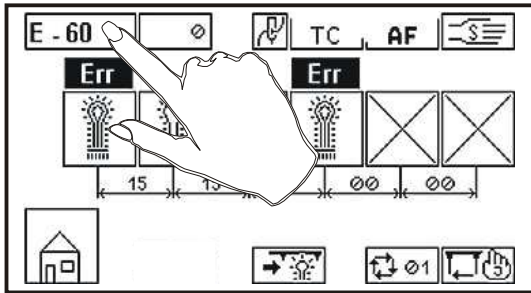
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
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D - MACHINE FUNCTIONS CONTROLS

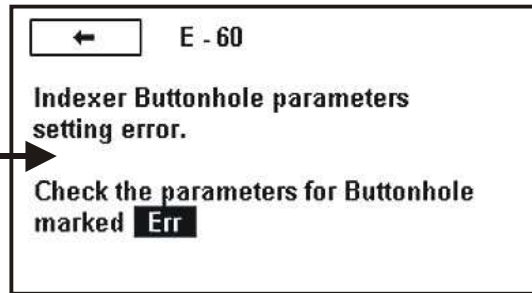
7. INDEXER ERROR REPORTS

Indexer main display



If we see on display error message
press button  for display detailed
information about trouble and its removing.

Back to main display




After parameters change press button  to switch to main display.

For detailed trouble description and its removing see the troubleshooting section.

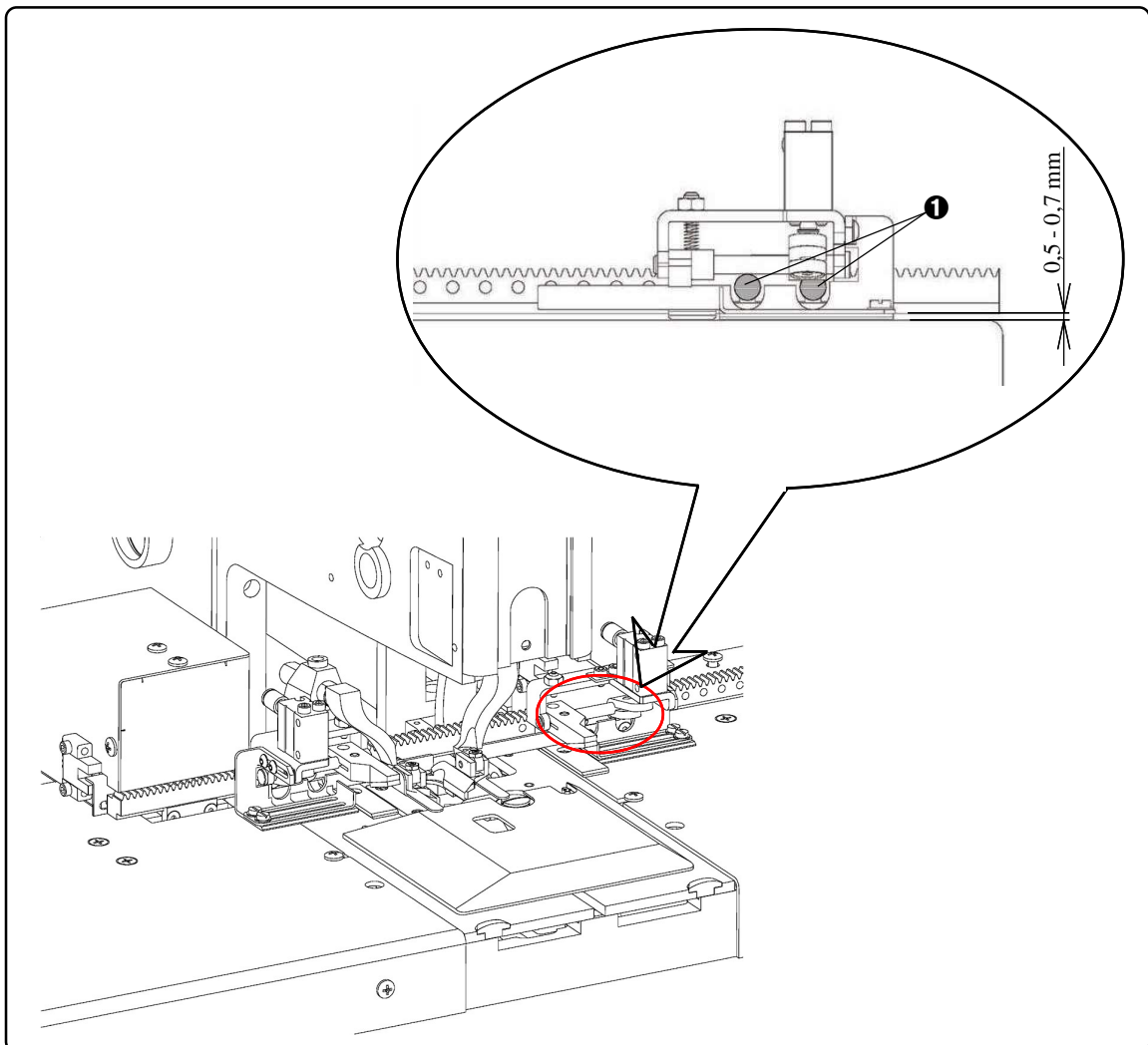
E - STANDARD INDEXER ADJUSTMENT

1. SETTING UP THE HEIGHT OF CLAMPING FEET

In order for the Indexer to function correctly, it is important to set up correct height of Indexer clamping feet above the desktop.

- 1.1. Loose clamp holders screws **1** on the left and right side of the Indexer.
- 1.2. Set up a gap of 0,5 - 0,7 mm between feet and desktop (feeler gauge can be used).
- 1.3. Verify the setting by pressing the button . The device must move freely without stopping.
- 1.4. If the device stops, it is necessary to increase the gap between feet and desktop according to instructions in 1.1, 1.2.



Note: The above-mentioned adjustment is necessary every time you change the distance between the clamping feet according to the size of workpiece and number of buttonholes sewn.



E - STANDARD INDEXER ADJUSTMENT


2. SETTING UP MINIMAL PLAY BETWEEN INDEXER FEET ❶ and CLAMPING MAT ❷

It is important to set up the minimal play between Indexer feet ❶ and clamping mat ❷ correctly so that the spreading mechanism on the sewing head operates correctly. It is necessary to hold the minimal play.

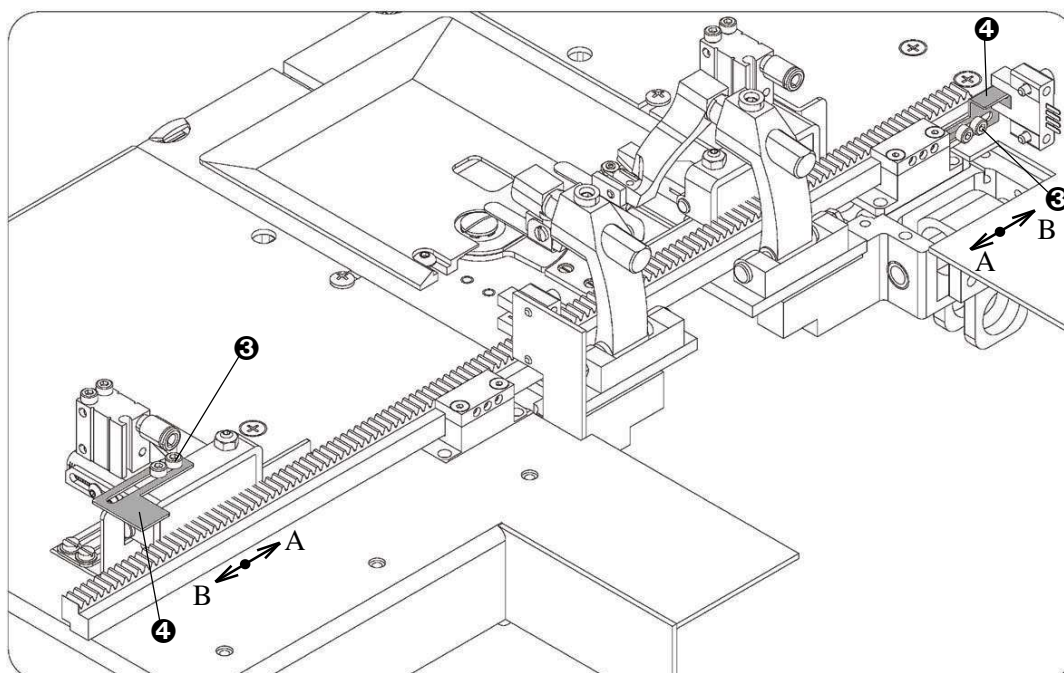
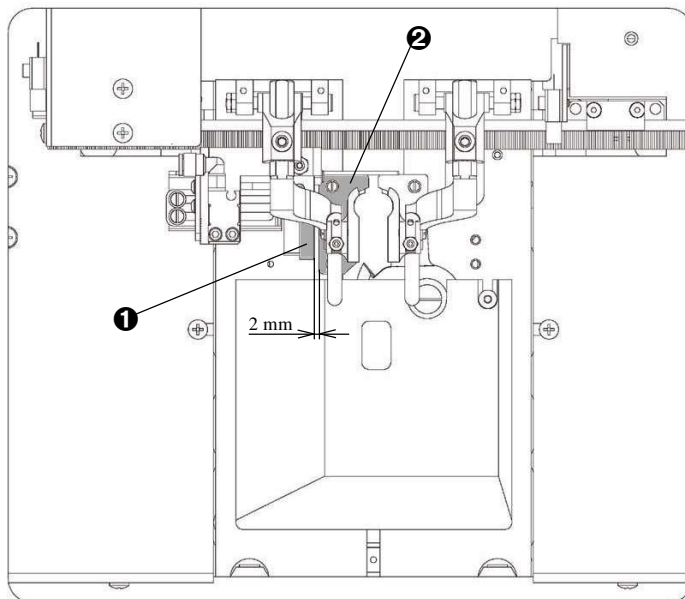
2.1. Check, whether the play on the machine is set onto 2mm in both positions of the Indexer. Use this display buttons   to make a move.

2.2. If the 2-mm distance is not adjusted on the machine, loose screws ❸ and move sensors ❹ into the required position. The distance increases in the direction of A and decreases in the direction of B.

2.3. Secure the setting by tightening screws ❸.

2.4. Check the setting by pressing the button . The device must move freely without stopping.

Note: If the distance is smaller than 2 mm, the fabric will not be properly stretched during sewing an eye!



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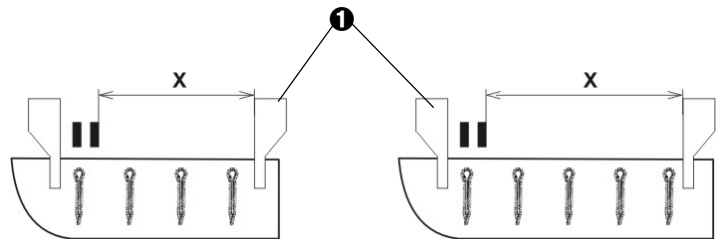
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E - STANDARD INDEXER ADJUSTMENT

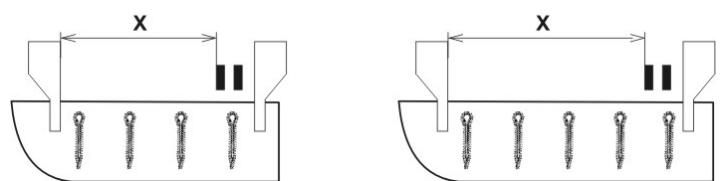
3. SETTING UP THE DISTANCE BETWEEN CLAMPING FEET

Change the distance between clamping feet ❶ if you want to change workpiece or number of buttonholes to be sewn.

3.1. Take out screws ❷ of the right holder ❸ and adjust the required distance X between the Indexer clamping feet ❶ and clamping mats ❹ of the sewing head feet.



3.1.1. The minimal distance X can be found in display pre-set parameters.



Example:

You wish to sew 4 buttonholes with the distance of 25 mm between them. The total length is 75 mm (the first buttonhole is always sewn in indexer home position).


$X = (\text{number of buttonholes} - 1 \text{ fixed in place}) \times \text{distance between them} + 2 \text{ mm}$ (minimal play between Indexer feet and clamping mat of the sewing head; see chapter 2).

$$X = (4-1) \times 25 + 2 = 77 \text{ mm}$$

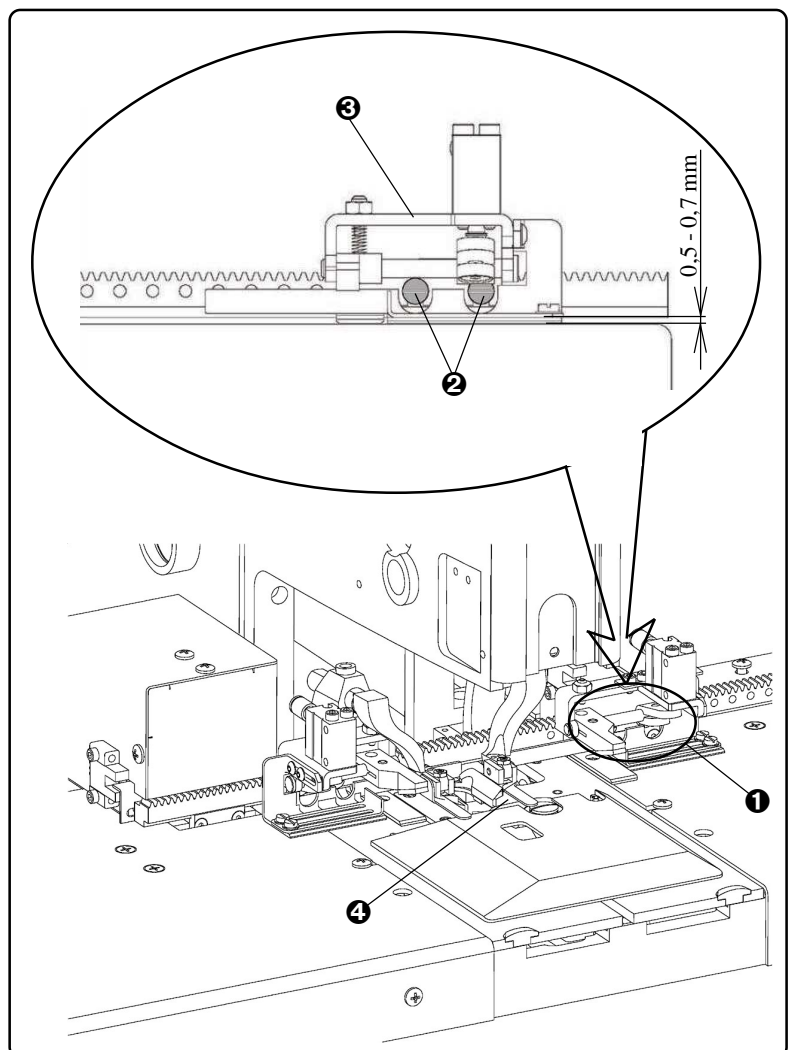
Minimal distance must be adjusted to 77 mm.

If the minimal distance is shorter, the display signals an error message **E - 61** – the required operation cannot be performed.

3.2. Secure the correct position by screws. Do not forget to adjust the play between a clamping foot and desktop (see chapter 1).

3.3. Check the setting by pressing the button . The device must move freely without stopping.

Note: Setting up the distance between clamping feet needs to be done always by changing the position of the right clamping foot of the Indexer only!



TROUBLESHOOTING

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TROUBLESHOOTING

Warning! Inspect the machine on a regular basis and use only quality parts. The manufacturer recommends using original AMF Reece parts, especially needles, loopers, spreaders, and throat plates.

1. INTRODUCTION

The **S-311** electronically displays error messages, when worn or damaged parts are detected. If machine problems occur and the error is not displayed, ensure correct needle installation and threading. The other troubles are eliminated according to the detailed descriptions listed.

Adjustments Quick Reference List

Note: Required machine settings are variable according to the fabric and thread variations used. The type of thread and fabric will affect the amount of wear on machine parts. The components marked in yellow are set by manufacturer and do not require further adjustments. Changing the position of components marked in yellow, without the approval of the manufacturer, may cancel the warranty.

To obtain the highest quality buttonhole maintain the following values:

- clearance between the needle and the loopers is 0.05 to 0.1 mm, (0.002 to 0.004")
- clearance between the needle and the needle support is 0.05 to 0.1 mm.
- the same distance of the left spreader tip and the right spreader tip when they pass the needle.
- left looper on the centre of the needle when the stroke is 3.4 mm from the lowest position.
- with the needle bar in the lowest position, the axial clearance is 0.25 mm, (0.010") when the pressure power is 5N
- with the needle bar in the lowest position, the radial clearance is 0.05 mm, (0.002") when the pressure power is 5N
- looper holder axial clearance is 0.05 to 0.1 mm, (0.002 to 0.004").
- looper holder radial clearance is 0.1 to 0.2 mm (0.004 to 0.008").
- looper holder angular clearance is 1.2 on the arm 28.5 mm when the pressure power is 5N.
- distance between the flags and sensors BQ1, BQ2, BQ3, BQ8 to 0.5 mm on the sensor BQ4 to 0.3 mm.
- air pressure regulator set to 0.45 MPa.
- BQ1 is activated when the needle bar raises 22 mm above the lowest position
- BQ8 is activated when the needle bar raises 32 mm above the lowest position

TROUBLESHOOTING

2. FAULTS WITHOUT ERROR MESSAGES

SYMPTOM	POSSIBLE CAUSE	PROBABLE SOLUTION	SERVICE SECTION
Thread breakage.	Thread draw-off is too tight	Reduce thread tension.	E19
	Damaged loopers, spreaders, or throat plate.	Replace damaged parts. Congested girders and tube in openers.	
	Incorrect needle and sewing mechanism adjustment.	Correctly adjust the needle bar, loopers, openers and tension.	E4, E10, E7, E11, E12, page 1-51,52
	Poor thread quality.	Replace thread.	
	Thread holes in the needle and the looper are too small.	Use correct parts.	
The machine does not sew.	Bent or broken needle.	Roll the needle on a smooth flat surface, if bent, replace the needle. Threading control.	
	Damaged loopers.		
	Threads not threaded properly.		
	Needle track on a looper.	Deburr or replace the looper.	
	Damaged throat plate.	Deburr or replace the throat plate.	
Incorrect sewing system adjustment	Correctly adjust.	page 1-51 page 1-52	
Skip stitches.	Incorrectly adjusted thread draw-off.	Correctly adjust the sewing mechanism	E12
	Bent needle or damaged stitch forming parts. Loopers, openers.	Replace the damaged parts.	
	Incorrectly adjusted sewing mechanism.	Correctly adjust the sewing mechanism.	E10, E11 page 1-51 page 1-52
	Incorrect needle guard distance.	Set the distance to 0.05 mm.	
	Defective spreader return springs	Replace the springs.	
Sewn fabric is incorrectly cut.	Knife and cutting steel are incorrectly installed. Sensor for cutting returns cutting lever too early	Check the knife impression on the cutting steel, adjust or replace as needed. Check the knife. Replace if damaged. Adjust the sensor for cutting	
	Cutting cylinder pressure is too low.	Tighten the adjusting screw by 1/2 rotation and check the cutting.	8.5 - 8.6 page 1-49
Top thread is not trimmed.	Damaged knife.	Replace the knife.	
	Knife does not return.	Adjust or replace the spring.	
	Knife incorrectly installed.	Correctly install the knife.	E13 page 1-54

TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	PROBABLE SOLUTION	SERVICE SECTION
The lower thread is not caught in the thread retainer after sewing the buttonhole	Big clearance between holder and throat plate.	Choked slot in throat plate. Adjust the clearance between the holder and throat plate	page 1-56
In case looper 03.5519.3.013 is assembled			
The top thread is trimmed, but is held in the material	The thread retainer is adjusted incorrectly. Big clearance between clamps.	Re-adjust the thread holder. Reduce upper thread tension, adjust the clearance between clamps 0,005 mm.	E13 page 1-56 page 1-48
In case looper 03.5519.4.013 is assembled			
Thread pick-up does not catch the upper thread	Knife for trimming the upper thread is damaged	Check the knife, re-adjust, adjust constant tension	E13
The lower thread is not trimmed	Check the shears on the clamp plate for dullness or damage, and valves are working properly.	Grind or replace	
	Low air pressure	Set the air pressure to 0.45 MPa and higher	B7
Broken needle	Incorrectly set parameters for length of a buttonhole and flybar length	Length of a buttonhole and flybar length must be set in accordance with installed clamp plates	D3
	Loopers are incorrectly adjusted	Re-adjust	page 1-51 page 1-52
	The shears on the clamp plate do not operate the right way	Check the shears, clean or lubricate	
The machine switched off when sewing the buttonhole	The power supply was disconnected	Switch the machine on and continue according to section C1	
When sewing the next buttonhole first stitches are loose	The top thread is loose	It is recommended to equipped the machine with the thread nipper for the following 03.5519.3.013	

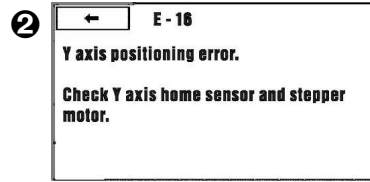
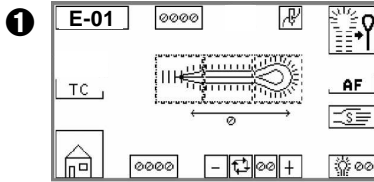
TROUBLESHOOTING





SYMPTOM	POSSIBLE CAUSE	PROBABLE SOLUTION	SERVICE SECTION
Indexer clamp plates do not close.	Air supply is not connected.	Check air supply.	
Clamp plates do not hold the material properly.	Low pressure.	Check air pressure (0,5 min. Bar) E1-S-311+I.	
	Clamp plate height is not adjusted properly.	Adjust clamp plate height for 19 mm.	
Indexer clamps hit into clamp plate of sewing head.	Indexer sensor screens are not adjusted properly.	Adjust proper sensor position. (sensor E2-S311+I).	
	Faulty sensor.	Check in tests the input BQ10 and BQ11. (sensor 12.0010.4.038)	
	Defective cable.	Cable replacement.	
	Shifted cables to sensor BQ10 and BQ11.	Change cables.	
Irregular distances between buttonholes.	Small clearance 0,5-0,7 mm E1-S311+I	Adjust clearance 0,5-0,7mm E1-S311+I	
	Incorrect CT trim or upper thread trim.	Check the knives, eventually replace	
Irregular buttonhole distances from the material edge.	The Indexer left clamp plate and thread nipper impact.	Check the nipper position.	
Not possible to sew required application on the machine.	The Indexer right clamp plate is not pre-set.	Adjust proper position of the right clamp plate E3-S-311+I.	
	Exceeded Indexer range.	Check the specification.	

TROUBLESHOOTING


3. THE ELECTRONIC SYSTEM ERROR MESSAGES

If an error message appears on the display (see picture ❶), press it. The screen with a description and a correction of an error message appears on the display (see picture ❷).



SYMPTOM	POSSIBLE CAUSE	PROBABLE SOLUTION
E-01	Machine is not in home position.	Press  button to bring the machine to the home position.
E-02	Needle is not in the upper position and the marks on the handwheel and the cover are not aligned.	Turn the handwheel to align marks.
E-04	Low air pressure. Air pressure is below 3,5 bar.	Check the air supply.
E-05	Cutting lever error.	Check BQ7 sensor and the air supply. Press and release Emergency stop button to reset this error message.
	Cutting lever error during cutting	Check BQ7 sensor and air supply.
E-06	Cutting lever is not home.	Check BQ7 sensor and air supply.
E-07	Low voltage.	Check power supply & voltage.
E-10	X axis error.	Press  buton.
E-11	Y axis error.	Press  buton.
E-12	R axis error.	Press  buton.
E-15	X axis positioning error.	Check X axis home sensor BQ2 and stepper motor.
E-16	Y axis positioning error.	Check Y axis home sensor BQ3 and stepper motor.

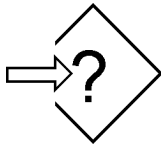
TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	PROBABLE SOLUTION
E-17	R axis positioning error.	Check R axis home sensor BQ3 and stepper motor.
E-18	I axis positioning error.	Check I axis home sensor BQ10, BQ11 and stepper motor.
E-19	T axis positioning error.	Check T axis home sensor BQ5 and stepper motor.
E-20	Sewing motor error.	Check the frequency inverter.
E-21	Stepper motors driver error (axes X, Y, R).	Check the stepper motor driver.
E-40	Service mode.	Press and release the Emergency stop button and press  button.
E-50	Parameters Error.	Check the buttonhole parameters setting according to sewing range of machine type.
E-51	Buttonhole length parameter error.	Check the buttonhole length parameters setting according to sewing range of machine type.
E-52	Fly bar length parameter error.	Check the fly bar length parameters according to sewing range of machine type.
E-53	Fly bar buttonhole total length error.	Check the buttonhole length and fly bar parameters according to sewing range of machine type.
E-54	Cross bar buttonhole total length error.	Check the buttonhole length and cross bar parameters according to sewing range of machine type.

TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	PROBABLE SOLUTION
E-56	ACL-LP lapel cutting length parameter error.	Check the lapel cutting length according to moveable support plate range of machine type
E-57	ACL-LP lapel cutting parameters error.	Check the lapel cutting length and position according to moveable support plate range of machine type.
E-58	ACL-LPE eye cutting length parameter error.	Check the eye cutting length as to be longer than eye length and shorter than buttonhole length
E-60	Indexer Buttonhole parameters setting error.	Check the parameters for Buttonhole marked Err.
E-61	Indexer total buttonhole length setting error.	Adjust the buttonhole lengths according the indexer sewing range.
E-62	Two buttonhole length settings error in indexer program.	Adjust the buttonhole length as to be in range 7-16 mm.
E-70	Moveable support plate did not move into required position.	Wait until the moveable support plate moves to relevant position.
E-99	Emergency stop button.	Release the Emergency Stop button.

TROUBLESHOOTING



The length of the buttonhole and the length of a flybar is incorrectly set

Set correct length of a buttonhole and length of a flybar - see section **D3**.
The total can not exceed 50.

4. ELECTRICAL FAULTS

SYMPTOM	POSSIBLE CAUSE	PROBABLE SOLUTION
When switch in position I, neither the work light or the cooling fan operate	No power supply	Check main power supply or voltage in the socket
	Fuse F1, F2 failure (T2A)	Replace fuse PN 12.0008.4.665
	Power switch QS1 damaged	Replace the switch 12.0008.4.835
After the machine is switched on, display does not light	GS1 Power damaged	Replace the power 12.0008.4.568
	Cable from the display disconnected	Check the display connection
	Display or its control damaged	Replace display or control units, call AMF Reece Service
When sewing operation started, motor does not operate. Frequency inverter U5 error - check its display - does not light. Contactor KM1 switched on.	Fuse F4 failure (T10A)	Replace fuse PN 12.0008.4.664
	Contactor KM1 damaged	Replace contactor 12.0008.4.833
	Frequency inverter U5 19.8001.0.008 error or filter Z1 error	Call AMF Reece service
When sewing operation started, motor fails to operate. Frequency inverter U5 error - check its display - does not light. Contactor KM1 switched off.	Contactor KM1 damaged	Replace contactor 12.0008.4.833
	Emergency stop turned off	Turn on Emergency stop
	Defective Emergency stop button	Change the stop button PN 12.0008.4.563
	Disconnected girth Em. stop	Check the girth button
Indexer motor does not hold its position.	Motor driver defect	Change 12.0008.4.754
	Disconnection of stepping motor supply	Check of motor driver connection 06.1900.0.005
	Stepping motor default	Change motor 06.1900.0.003

TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	PROBABLE SOLUTION
When sewing operation started, air valves do not operate. The air pressure correct.	Contactors KM1 damaged	Replace contactor 12.0008.4.833
Incorrect function of the air valves	Inadequate contact of contactor KM1, or sockets X4	Replace contactor 12.0008.4.833 Check the main power supply with socket X4
Stepping motors do not hold their position	Fuse F3 failure. ((No LED light is on the stepping motor driver) (T10A)	Replace fuse PN 12.0008.4.664
	Contactors KM1 fault. (No LED light is on the stepping motor driver)	Replace contactor PN 12.0008.4.833
Some part of one of the stepping motor does not keep its position	Driver error	Change the driver PN 12.0008.4.891
	Stepping motor supply is connected (cables replacement)	Check a connection: motor - driver
	Stepping motor fault	Change motor 19.0007.9.462
	Contactors KM1 damaged (Only some LED light is on the stepping motor drive)	Replace contactor PN 12.0008.4.833
	Burned fuse F5, F6 (Only some LED light is on the stepping motor drive) (T10A)	Replace fuse PN 12.0008.4.664
After the machine is in the home position, the bedplate shakes in one place. It is not possible to sew next buttonhole.	Incorrect indication of the home position.	Press Emergency Stop button. Manually move the bedplate so it is out of a table sensors. Release Emergency Stop button and press HOME button to bring the machine to the home position.