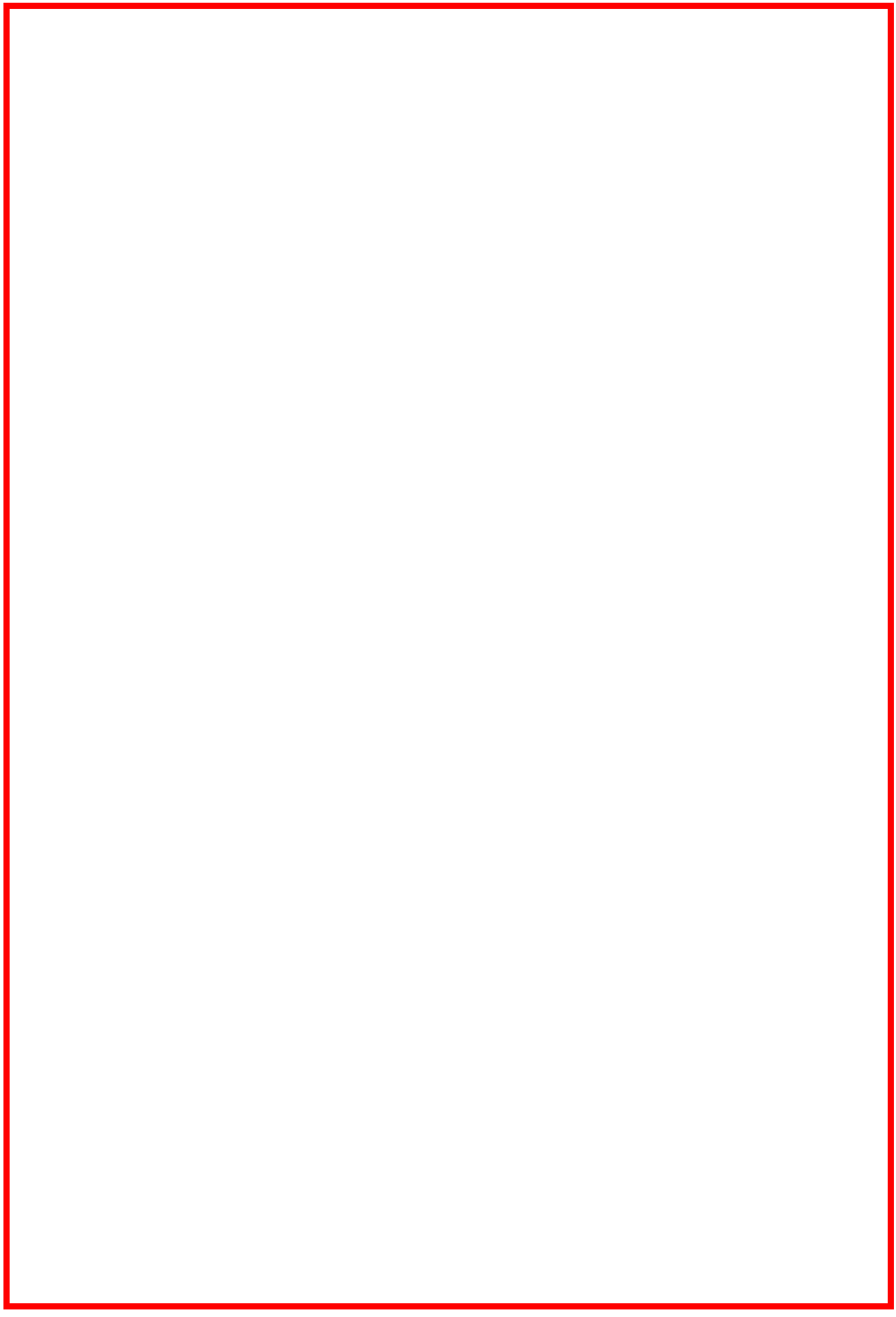
G525T

Additional Brochure for manuals
Electronic Repairing, Keyboard
and Electro-mechanical adjustements

2005.11



Index

Electronic Repairing

Keyboard

Series G models

machine	knitting	code	other diameters
G54JL	plain fabric / terry	G54JL0 / G54JLS	G74JL
G54J ct (1)	plain fabric / terry	G54JB / G54JA	G74JCT
G54J (ot) (2)	plain fabric / terry	G54J0 / G54JS	G74J
G54J ph (3)	plain fabric and terry	G54JV	
G615	plain fabric / terry	G6150 / G615S	G715, G815
G615D	selected terry	G626D	G715D
G624	plain fabric / terry	G6240 / G624S	G724
G62/6	plain fabric / terry	G6260 / G626S	G72/6
G626D	selected terry	G626D	
G813 ct (1)	terry	G813A	
G525T	**open work (plain fabric)**	**G525T**	

(1) CT= Closed Toe.
(2) OT= Open Toe.
(3) PH= Pouch Heel, also called “fast” (in italian “veloce”).

G525T

Model **G525T** does not have a Cylinder raising motor (sizing) and the stitch width changes through other mechanism. The angular sinkers motor is not positioned under the cap but it is under the cylinder.

IIn particular it has 4 stitch cam motors, 2 sinkers motors and 1 compensator drum motor.
We list them by indicating the position they occupy on the Pcb 2889**A** or Pcb 2889**B**
of the corresponding control board (Pcb 2755) :

a.	stitch cam feed 1	(Pcb 2755 modul 4B; it.: triangolo caduta 1),
b.	take up stitch cam - feed 2	(Pcb 2755 modul 3B; it.: triangolo ritorno tallone caduta 2),
c.	run-guard 1 (stitch cam)	(Pcb 2755 modul 1A; it.: triangolo indemagliabile 1),
d.	run-guard 2 (stitch cam)	(Pcb 2755 modul 4A; it.: triangolo indemagliabile 2),
e.	sinker column raiser motor	(Pcb 2755 modul 5B; it.: motore alza colonnina platine),
f.	sinker positioning motor	(Pcb 2755 modul 2B; it.: motore angolare platine),
g.	compensator Drum motor	(Pcb 2755 modul 1B; it.: motore bilancere).

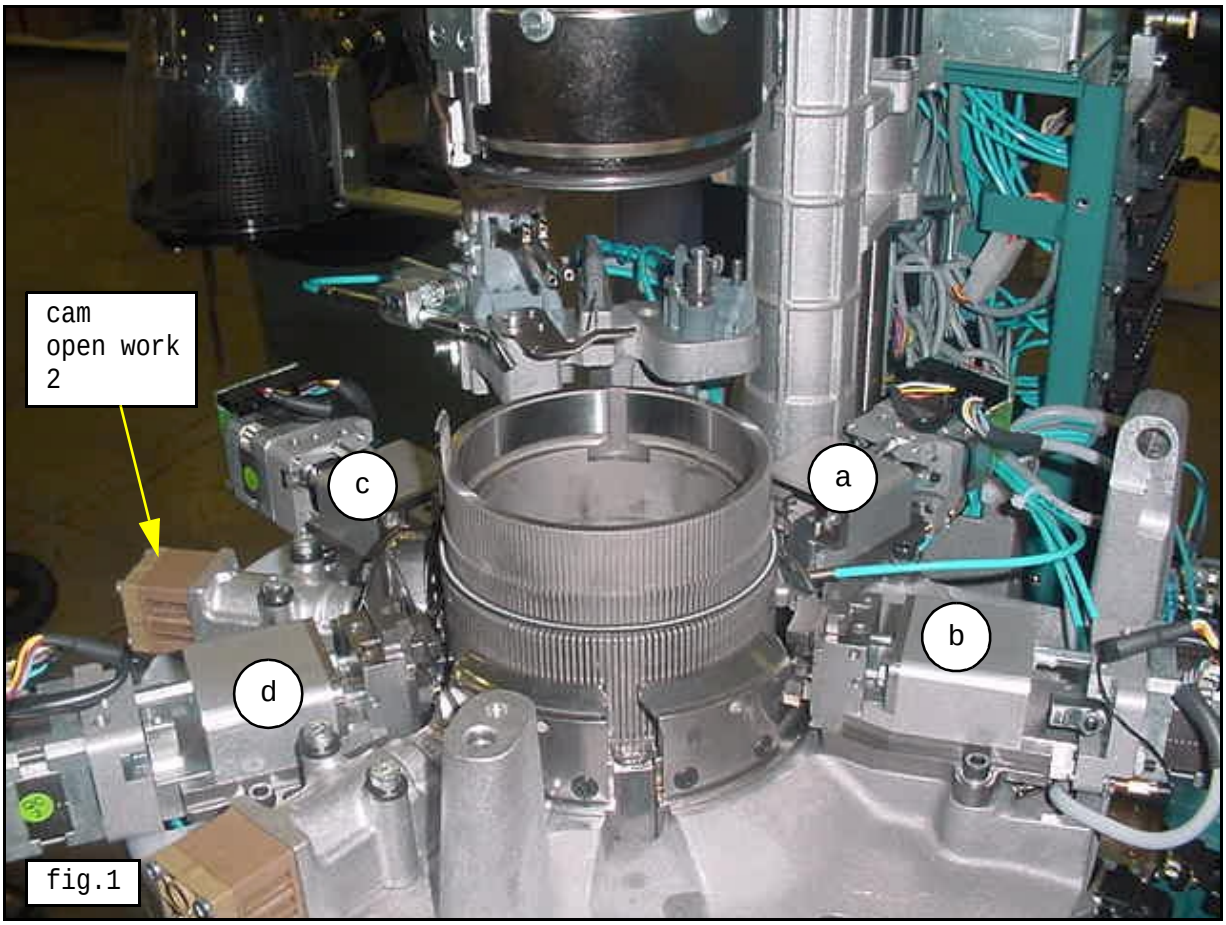


fig.1

The other positions are for motor control of:

- elastic	(Pcb 2755 modul 2A),
- vacuum valve	(Pcb 2755 modul 3A),
- dial raising	(Pcb 2755 modul 5A),
- saw blaid (if present)	(Pcb 2755 modul 6A).

fig.2

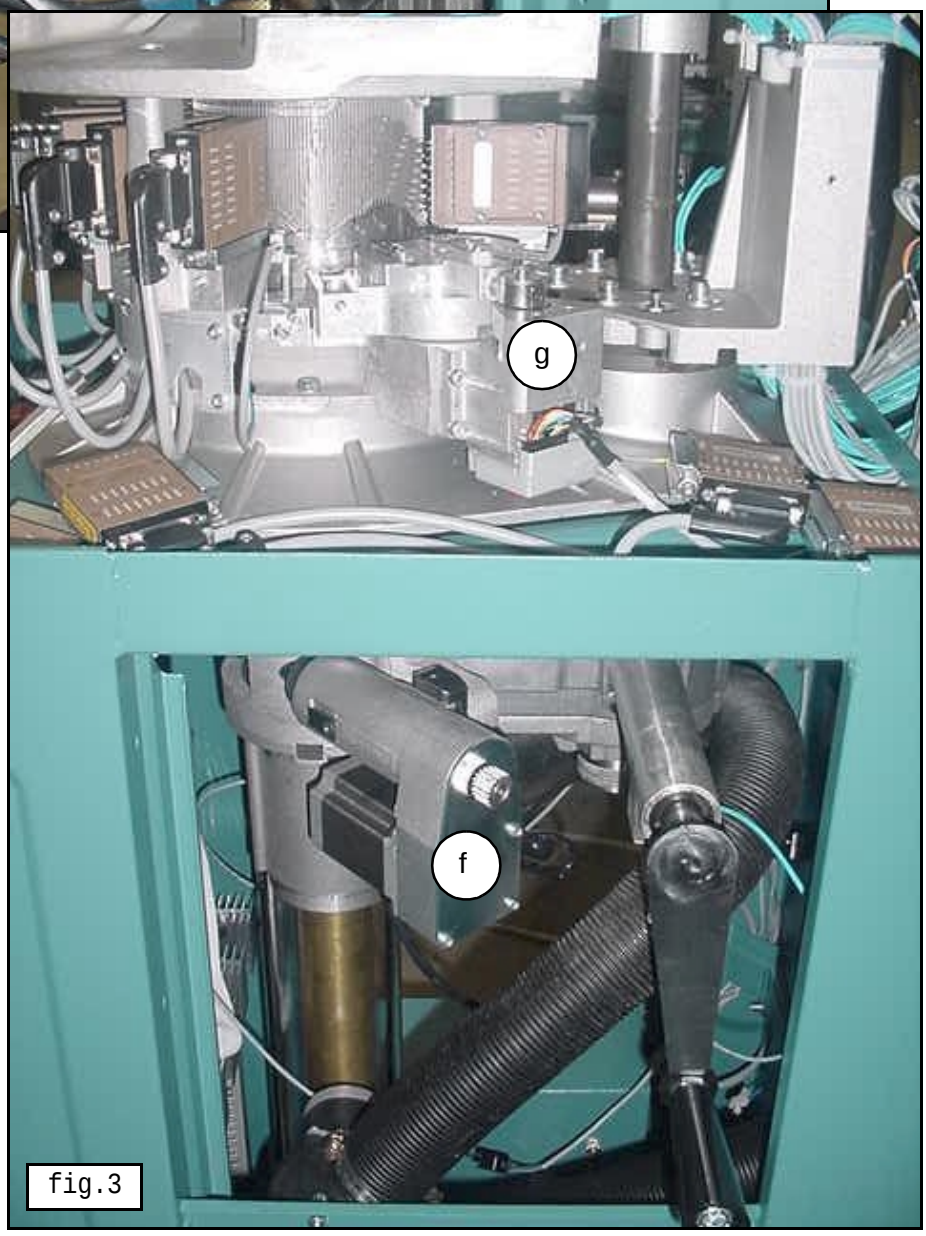


fig.3

Electronic Repairing

Allarmi restringimento - Sizing allarms

Zone not found stitch cam motor feed 1
Zone not found stitch cam motor take up
REAL 07: Zone not found motor run-guard 1
REAL 08: Zone not found motor run-guard 2
REAL 09: Zone not found motor sinker positioning
REAL 10: Zone not found motor sinker raiser

Programming error, check the program.

Zeroing mot. ... impossible

n these messages we refer to motors (pag.6) :

a. stitch cam feed 1,
b. take up stitch cam f.2,
c. run-guard 1,
d. run-guard 2,
e. sinker raiser,
f. sinker positioning.

If this error occurs it is very important to understand whether it is caused by a mechanical problem, a programming error or an electrical breakdown.

1. The motor is blocked: in this case the motor is not able to perform all the steps sent to it by the machine and so it mistakes the calculation of the steps to finish the stocking. Remove the cause of the error and try again (for example, the screw driven by the motor is hard).

2. Check with the Auto Test whether the motor moves.
   - Using the appropriate commands test the three conditions of movement then, if it does not move, check the connections between the motor cable and
     - the **Pcb 2755** placed on the **Pcb 2889** in the position as indicated by the topographical diagrams and connection tables ("**Documentazione Apparecchiatura Elettrica**").
   - Check that led **Ds2** on board 2889/ **Ds3** on Pcb 2755 is on:
     if off and if on the input 36V power is present it is necessary to replace of the board.
     If the tension is missing see **Power 36V DC - step motors** (pag.66).
   - Check the fuse on Pcb 2755.
   - Replace board Pcb 2755.
   - Replace the motor.

3. If the motor moves but does not obey the reset command, it means the problem is related to the zero control circuit, practically, the **proximity**. Detach it from the motor and try touching a metal part to check whether the led on the proximity lights up and, if not, replace it.
   If the proximity lights up correctly check the connections between the proximity and board 2755. in position.
   Check that led **Ds4** lights up on the Pcb 2755 when the proximity reads.

4. Replace board Pcb 2755.

Errori restringimento - Sizing errors

In these messages we refer to motors (v. pag.6) :

a. stitch cam feed 1,
b. take up stitch cam f.2,
c. run-guard 1,
d. run-guard 2,
e. sinker raiser,
f. sinker positioning.

REER 01 .. / ..02 .. / ..03.. / ..04.. / ..05.. / ..06 : motore ... not at zero

If there isn't any mechanical or program hindrance you will have to proceed by checking the electric-electronic circuit.
The solution is the same as for the previous allarm **Zeroing mot. ... impossible**.
For the circuit see

- the **Pcb 2755** n°_ , posta sulla **Pcb 2889** .

as indicated by the topographical diagrams and connection tables.

REER 10 .. / ..11.. / ..12.. / ..13.. / ..14.. / ..15..: motor ... busy

The graduation (sizing) motor is not able to finish one command before the next. Check the following.

1. Check whether the knitting program contains movements too close together.
2. Check the arrangement of the jumpers (see board drawings and connection tables).
   - on Pcb 2755.
3. Repace Pcb 2755.

REER 18 .. / ..19.. / ..20.. / ..21.. / ..22.. / ..23..: motor ... wrong position

The function checks that, during stocking production, with the machine running, the motor does not cover the zero proximity switch. This control starts when the motor has move a number of steps equal to the value specified in the custom software. The control is enabled once every turn.
If the error appears, during or after a manual change of the motor reference values, it means the value entered is higher than the maximum accepted. Check this.

Chain errors

Feedings

MISSING TENSION power 200 Vdc drum Board _

The signal indicates that the Pcb 3784 is not fed.
Check the cabling between J3-3784 and J1-2745.

From the feeding board Pcb 2745 check that the green LED Ds1 (near the R15) is on.
If not, replace it.

If the tension arrives correctly to the Pcb 3784 replace it.

Connector disconnected board 3784 pos B / C / D

The signal indicates that a circuit has opened that starts from the Pcb 2799 (J1/ J13) and passes through the Pcb 3784 (control board for Matrix) and includes the pattern drums.
Therefore, this means that the pattern drum is disconnected or damaged.
Check the Pcb 3784 and the connectors from J3 to J8.
Check the cabling between J9-3784 and J1/ J13 -2799.

Board B controls the pattern drums from 1 to 5.
Board C controls the pattern drums from 6 to 10.
Board D controls the pattern drums from 11 to 12.

Stop oil pressure

This error is displayed when the sensor on the lubricating circuit detects insufficient pressure in the system.
Proceed as follows.

1. Check the connection:
   - of the fastener "P.OLIO" (blue) located on the sensor and J11-Pcb 2799, pin 3;
   - of the fastener (black) for grounding and J11-2799, pin 6.
2. Replace the oil recovery tank or, if possible, the sensor by itself.
3. Replace board **Pcb 2799.**

Stop oil depressurization

The same sensor of the previous error notices pressure when there actually shouldn't be.
If the pump works during the impulse, but the Stop oil pressure alarm of the Auto Test does not commute it means that the sensor is damaged.

Chain errors specifici - Specific chain errors

STOP	ERROR	EV
Stop 02U	Linguette 1 - Latch needles 1	S69
Stop 03U	Linguette 2 - Latch needles 2 or clear dial jacks	S70
Stop 04U	Aghi posteriore - Needles butt	S66
Stop 01M	Stop trasporto caduta 1 - Stop transfer feed 1	C146, C147
Stop 02M	Stop triangolo 1 indemagliabile - Stop stitch cam 1 run-guard	C190, C191
Stop 03M	Stop trasporto caduta 2 - Stop transfer feed 2	C156, C157
Stop 04M	Stop triangolo 2 indemagliabile - Stop stitch cam 2 run-guard	C195, C196
Stop 05M	Stop apri palette - Stop latch opener	C136, C137
Stop 06M	Stop triangolo maglia ritorno tallone - Stop stich cam take-up	C61, C62
Stop 07M	Stop triangolo maglia caduta 1 - Stop stich cam feed 1	C25, C26

Specific Chain errors, regarding the proximity

Errors regarding the work of the compensator drum motor.

ERR prox FORW. compensator drum ZERO MOTOR

ERROR proximity compensator Drum BACKW

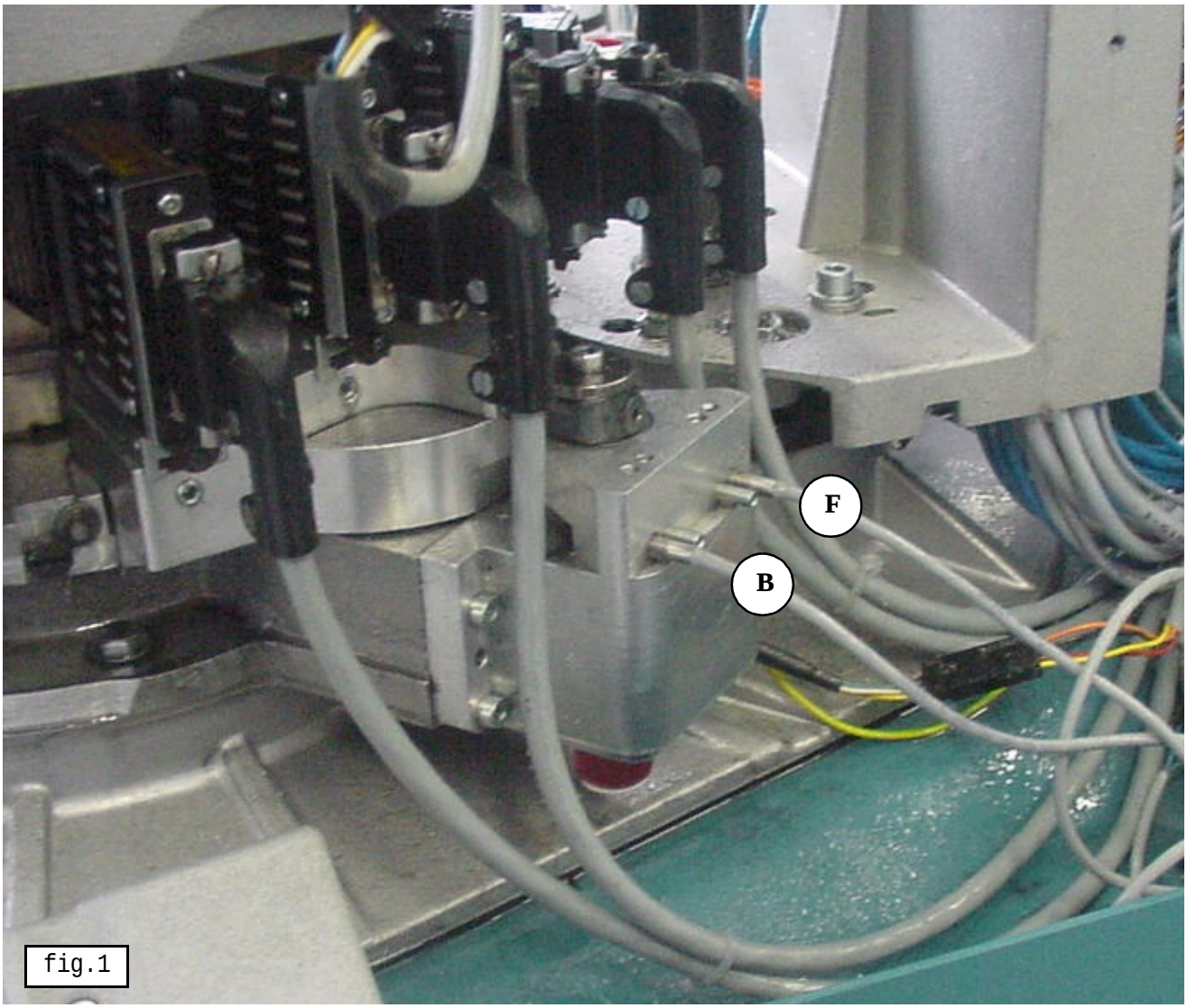


fig.1

The error appears when the proximity does not give a signal indicating the position that has been reached.
The resolution is analogous as for the alarm **Zeroing mot. ... impossible**.
In fig.1 the proximity regarding the first message has been marked with an **F** (in front) and the one regarding the second message has been marked with an **B** (behind). In the next versions the proximities will be replaced where possible, with a Hall effect (by taking advantage of the permanent magnetic fields).

ERR MOT.DRUMS INCORRECT POSITION

This error only appears during the Zeroing Phase (press key [F0]).
Refer to the previous error.

Adjustment sinkers motors proximities

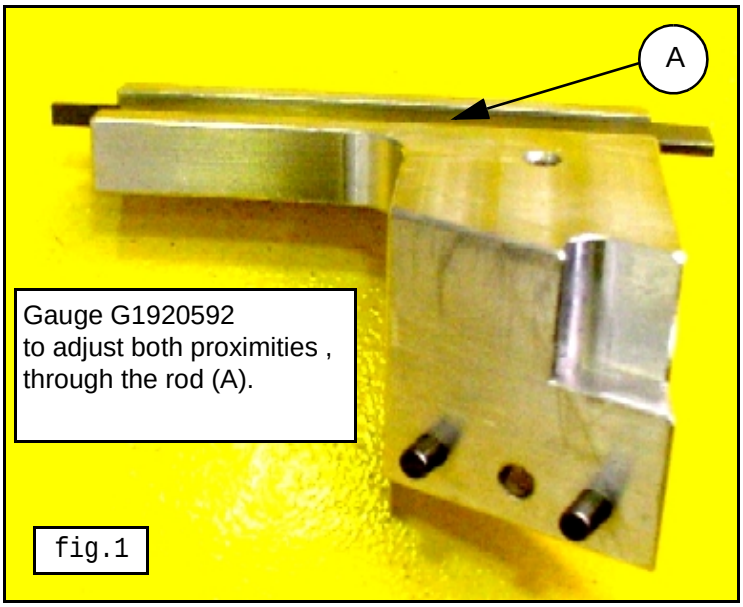
For other adjustments see the brochure “Electro-mechanical adjustments”.

We would like to remind you that the proximity must be at least 0,3 mm from reading surface. Be cautious in order to avoid the reading edge to hit it.

For the adjustment of the angular sinkers motor and the height of the sinkers, use a gauge that has a sliding rod.

This allows to find
- perfect height, from one end
- and the center of the sinkers entry, from the other one.

After the control bring back the rod.



Gauge G1920592
to adjust both proximities , through the rod (A).

fig.1

The gauge is to be inserted instead of the sinkers cleaning blow support, and screwed in.

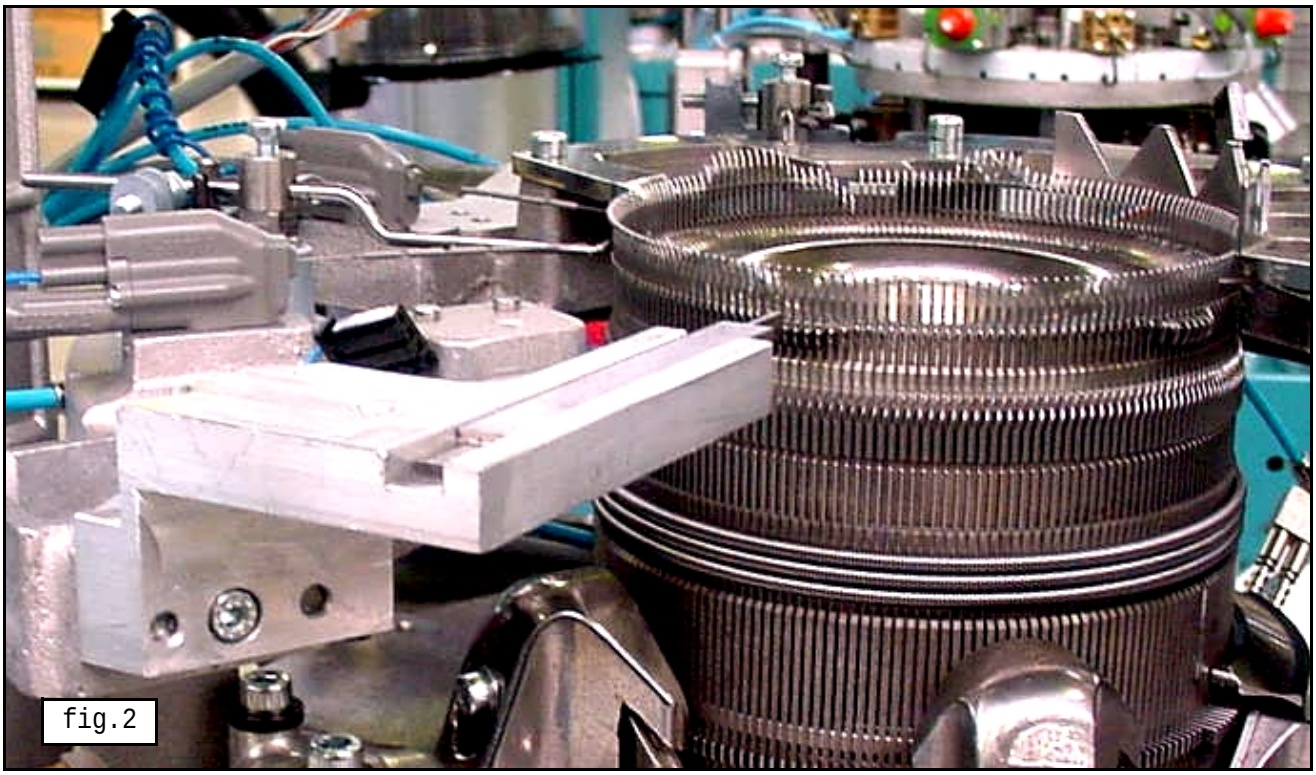


fig.2

Adjustment zero proximity sinkers height

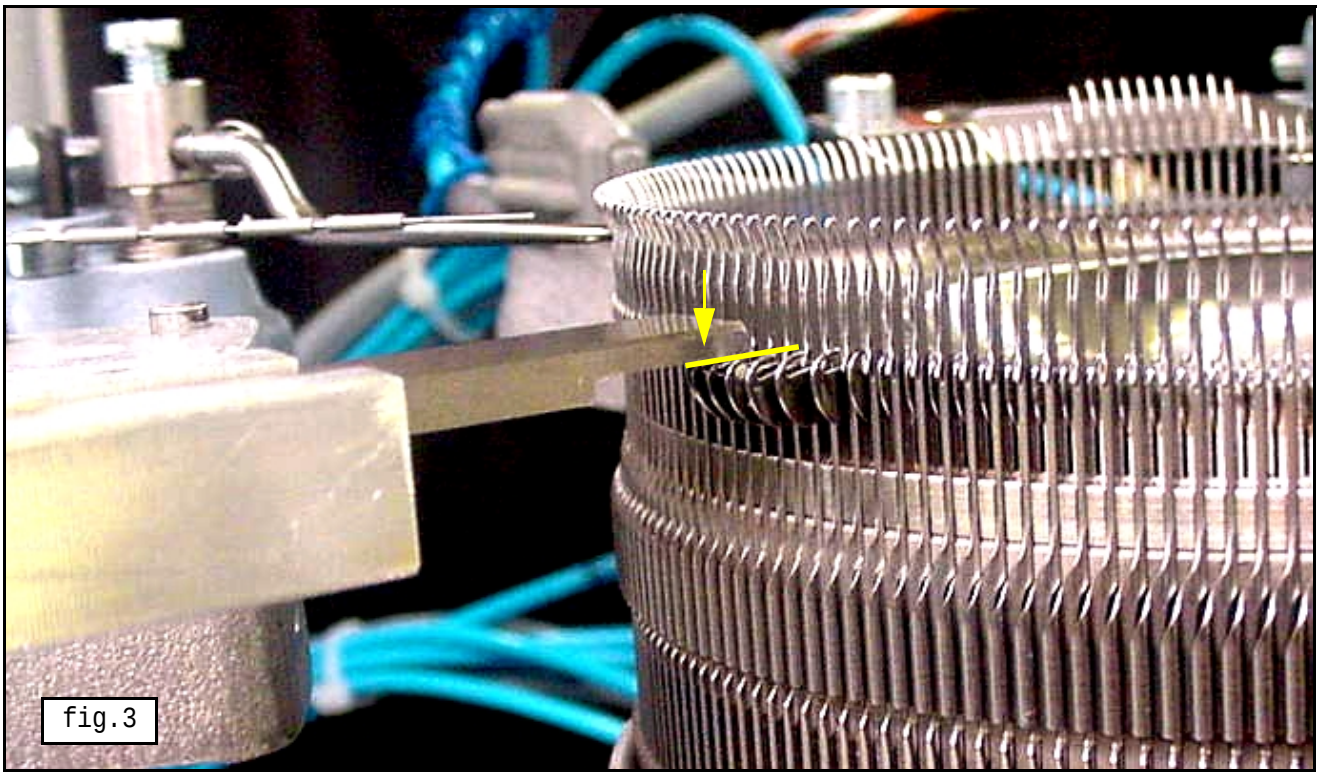


fig.3

The Zero motor height is correct if the rod is slightly raised when sliding (fig.3).
In fig.4 you are able to see: the proximity reading line, the reading edge S, and the anti-clockwise rotation sense.

Operations:

a) Carry out the Zeroing ([F6]) through the Auto Test. The height will be higher or lower.

b) In order for the sinker to be higher at the next zeroing , loosen the flange and rotate it anti-clockwise.

c) With the function keys move the motor and repeat the Zeroing.

d) Check the correctness of the adjustment otherwise return to point b.

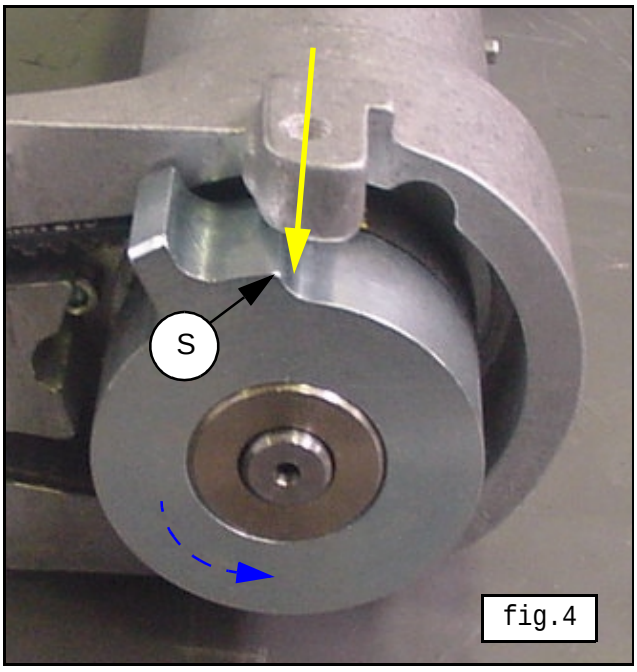


fig.4

Adjustment zero proximity sinkers rotation

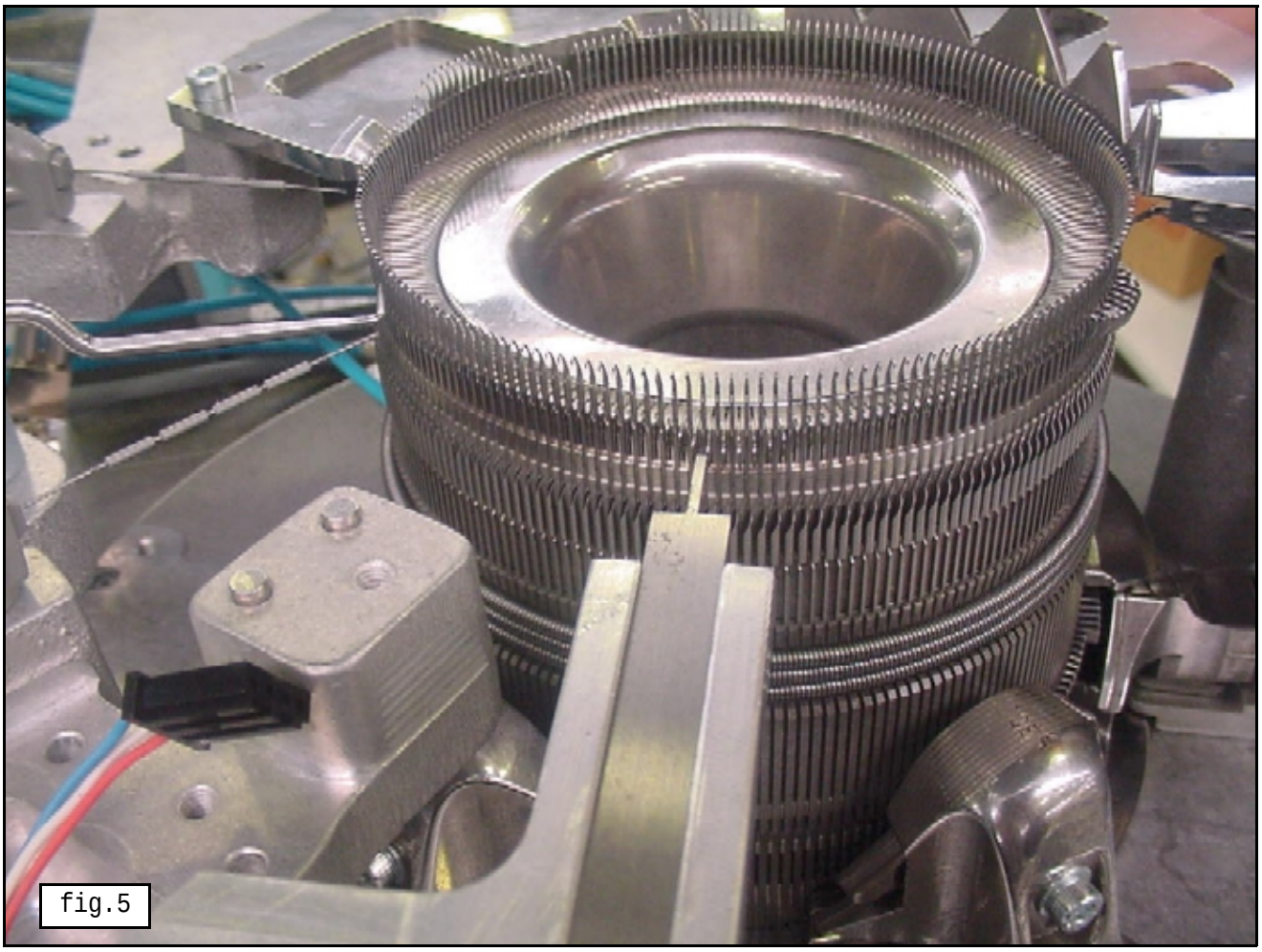


fig.5

In fig.5 the rods placed for the angular sinker motor.
With the motor at Zero the beak advancing must insert itself in the middle of the re-entered sinkers.
5 will remain on the right and the left (they stick out very little at the ends).
For this motor the Zero and the end of stroke are “inverted”. It means that the rod is first extended and then it returns in the cylinder.

Operations:

a) Carry out the zeroing ([F2]) through the Auto Test.

b) If half of the re-entered sinkers has gone over the index of the rod (it is on the left) it means that you must move the flange proximity holder on the right (fig.6).

c) With the function keys move the motor and repeat the Zeroing.

d) Check the correctness of the adjustment otherwise return to point b.

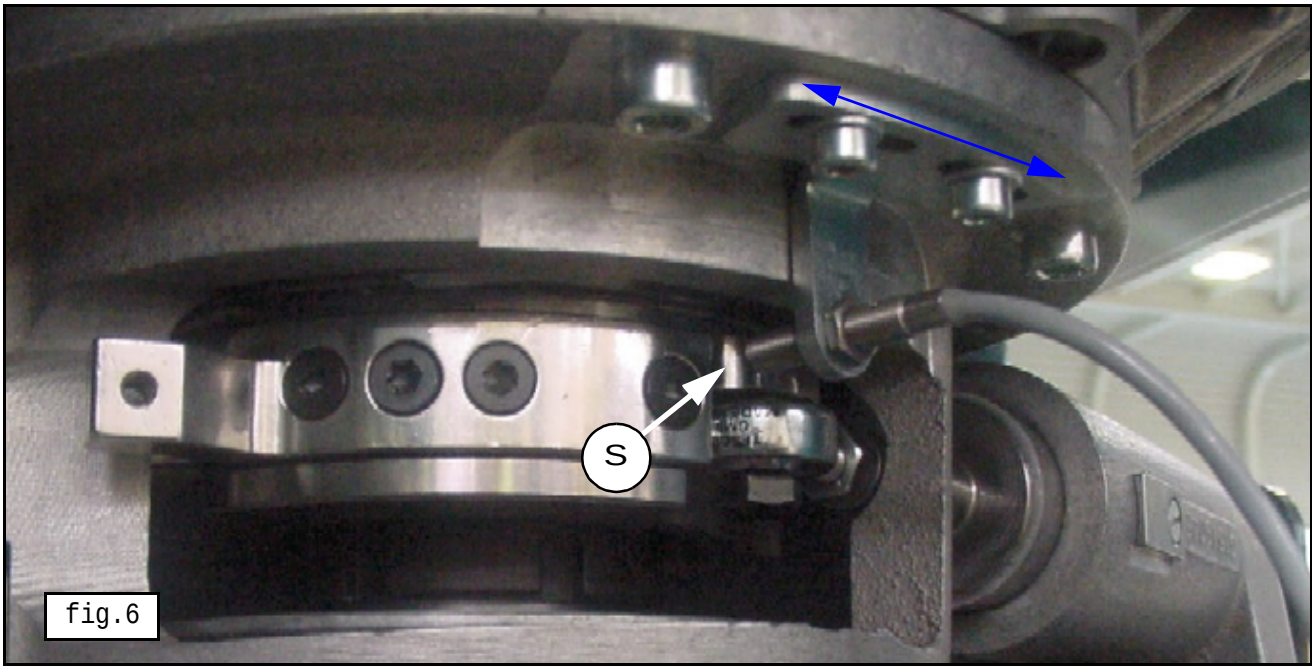
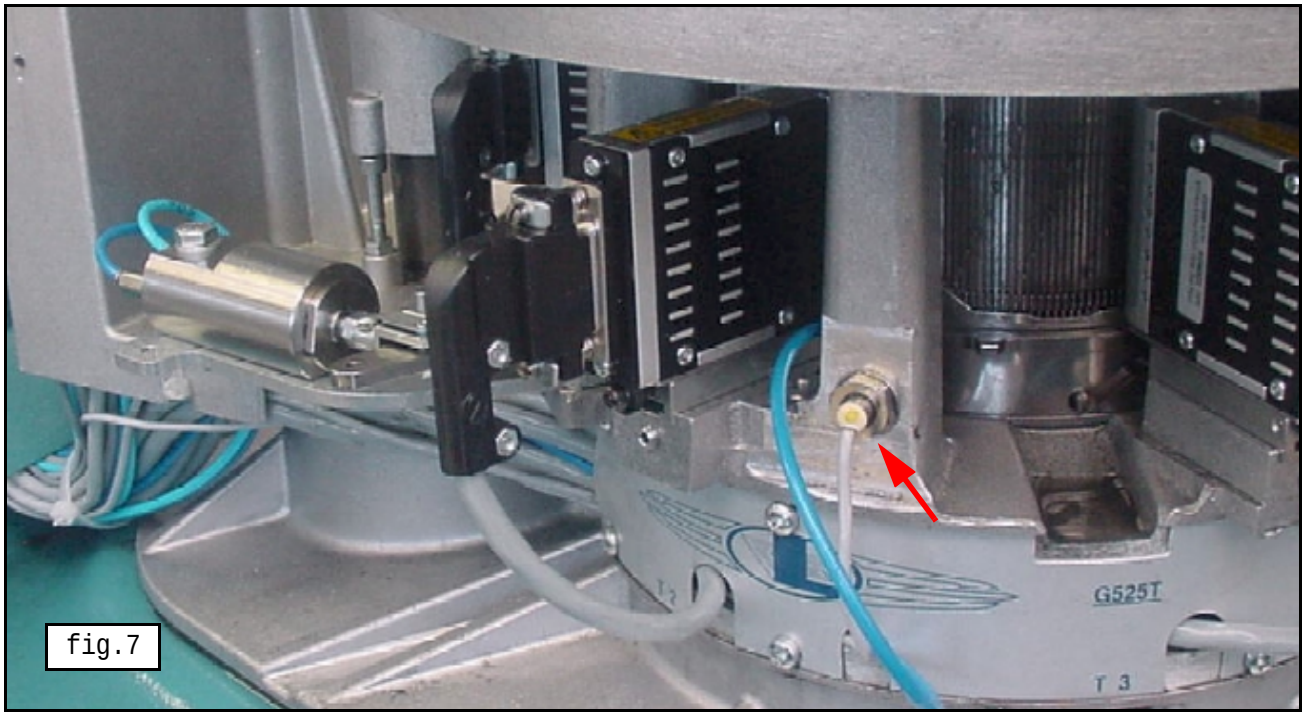


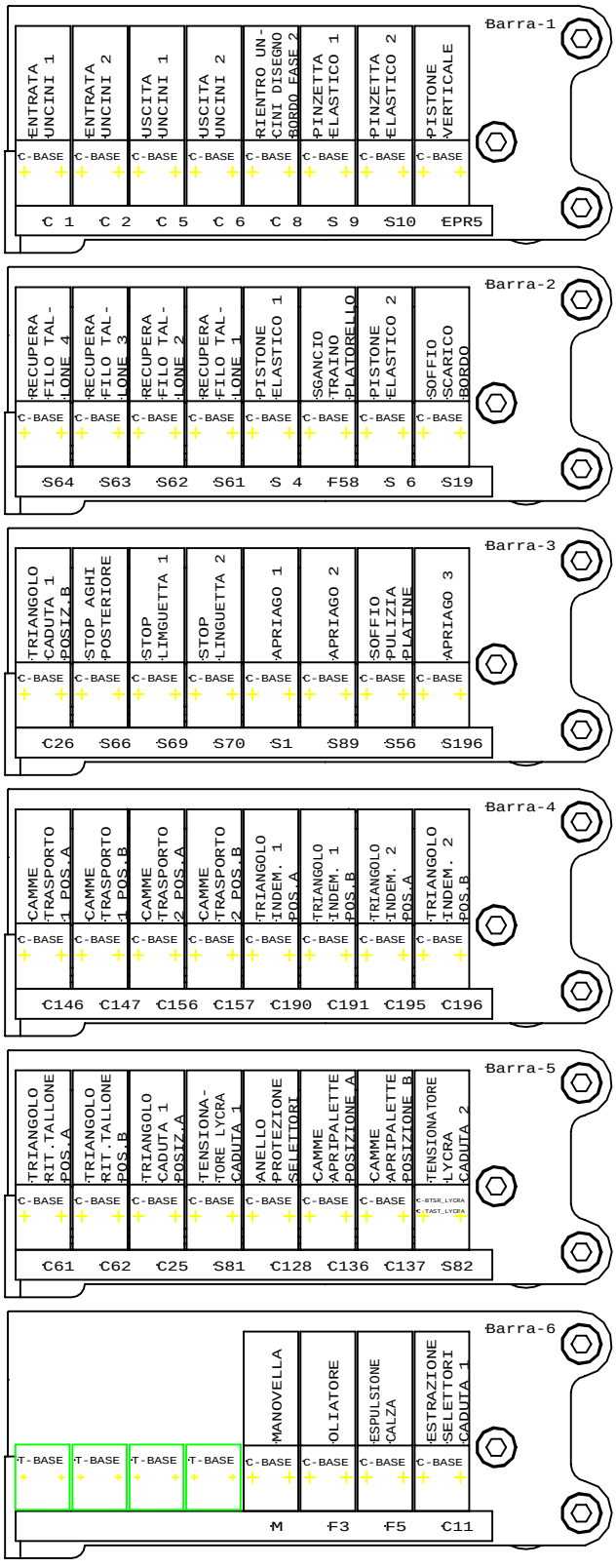
Fig.6 shows the arm of the angular sinkers motor width (Zero position).
The reading edge S that turns on the proximity is highlighted.

Jacks ring proximity



The proximity is on, only in the heel phase.

Electrovalve disposition G525T



Keyboard

Main Window

Keys enabled in the window

Management

[TAB] To open the **manual commands menu**.
It contains the command for the **compensator drum** motor, that it is used during the adjustement of the drums from the cylinder .

Stitch width (Work menu\ Stitch menu)

[G] Opens the **Stretch modific. in percentage** window to allow the modification of the percentage of all size blocks in the sizing motor.

[M] Opens the **Cross-stretch modification** window to modify each block of the sizing motor by changing the value of the width expressed in centimeters or inches.

[S] Opens the **modifica comune cad.1 e rit. tall. - modify feed 1 and take up** (pag.20)

cam Open Work 2 (it.: Traforato 2)

[CTRL] + [Y] Extracts cam Open Work 2.

[CTRL] + [U] Brings back in knitting cam Open Work 2.

With the machine stopped with key in Working position press once the combination of keys, then [Handle 2]. The operation will take place in 2 releases. Follow the messages on the video (Chain Warnings - see Repairing manual).

Socks production

[CTRL] + [↑] / [↓] Increases/ decreases the sock-counter value under the heading `produced`
In the past the keys [⇧] / [⇩] were used.

Work menu

path from the **Main Window**

[SPACE] ➠ **Main Menu**

[A] ➠ **Work menu**

[A] change active size
[B] Stitch menu (pag.20)
[C] menu stitch/ run guard motors (pag.21)
[D] modify elastic
[E] modify economizations
[F] yarn control sistem
[G] modify dial higness
[H] saw blade speed modification
[I] modify sinker motor (pag.25)

Keys enabled in the window

[A]

[B] For the G525T the menu containes also the heading:
modifica comune cad.1 e rit. tall. - modify feed 1 and take up .

[C] The menu allows adjusting the stitch cam motors (a ÷ d, pag.6) and the sinkers raising tube. It replaces the `SINKER CAP MENU` present in the other models.

...

[I] The menu concerns the angular sinkers motor (positioning sinker motor).

Stitch menu

modifica comune cad.1 e rit. tall. - modify feed 1 and take up

path from the **Main Window**

[S] ➠

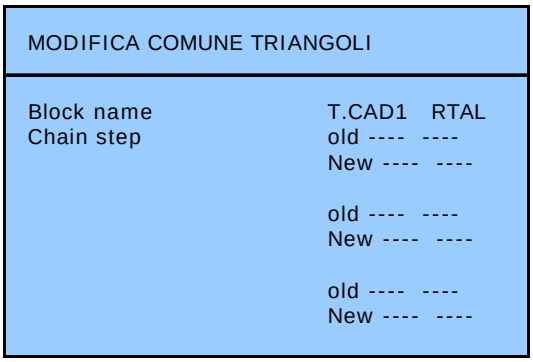
- or -

[SPACE] ➠ **Main Menu**

[A] ➠ **Work menu**

[B] ➠ **Stitch menu**

[D] ➠ **modify feed 1 and take up**



Through the window you can modify the parameters of both motors of the same value in order to maintain the stitch identical for both feeds.

To optimize the relationship between the two feeds, therefore to change in an independent way the parameters of each stitch cam see the menu: **stitch feed1 and take up steps** (pag.22).

Keys enabled in the window

[↑] / [↓]	Move the cursor to the previous/ next motor zones (blocks).
[⇧] / [⇩]	Increase / decrease by **10** the value New.
[CTRL] + [N] / [P]	They pass to the previous/ next 3 zones.

menu stitch/ run guard motors

MODIFICA TRIANGOLI e INDEMAGLIABILI
[A] Step triangolo cad.1 e rit. Tallone [B] [C] Step run-guards 1 [D] Step run-guards 2 [E] Step alza platine

path from the **Main Window**

[SPACE] ➠ **Main Menu**

[A] ➠ **Work menu**

[C] ➠ **modify stitch and run guard motors**

☞

[A] stitch feed1 and take up steps (pag.22)

[B]

[C] step run-guards 1 (pag.23)

[D] step run-guards 2 (pag.23)

[E] modify step sinker raiser motor (pag.24)

Keys enabled in the window

[A] At the menu to balance the stitch cams of the two feeds, in each area of the program.

[B]

[C] Fixes the motor dimension run-guard 1 and 2, in the knitting block.

[D]

[E] The menu allows to adjust the height of the sinkers, in the program areas.

stitch feed1 and take up steps

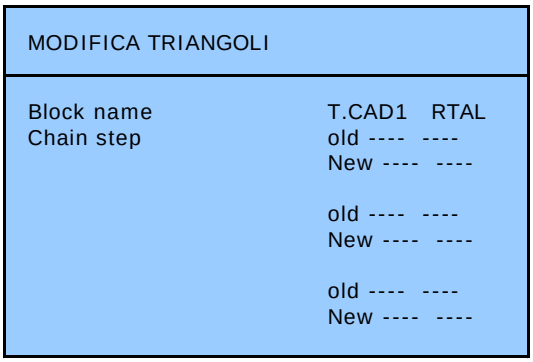
path from the **Main Window**

[SPACE] ➠ **Menu Principale**

[A] ➠ **Work menu**

[C] ➠ **menu stitch/ run guard motors** (pag.21)

[A] ➠ **step triangolo cad.1 e rit. tall.**



From this window you can carry out the compensation of the two stitch cams to make the stitches produce on each feed and in each block equal.

To enlarge/ shrink at the same time see the menu **modifica comune cad.1 e rit. tall. - modify feed 1 and take up** (pag.20).

Keys enabled in the window

[↑] / [↓]	Move the cursor to the previous/ next motor zones (blocks).
[→] / [←]	Move the cursor to the other motor zones.
[⇧] / [⇩]	Increase / decrease by **10** the value New.
[CTRL] + [N] / [P]	They pass to the previous/ next 3 zones.

step run-guards 1

step run-guards 2

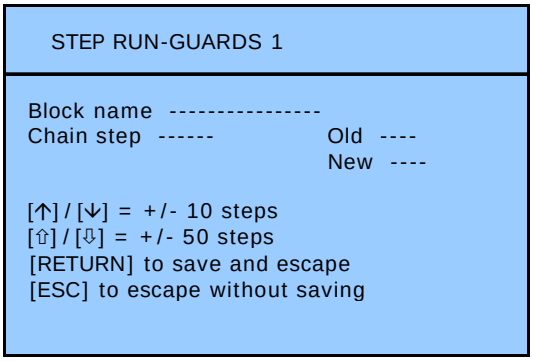
path from the **Main Window**

[SPACE] ➠ **Menu Principale**

[A] ➠ **Work menu**

[C] ➠ **menu stitch/ run guard motors** (pag.21)

[C] / [D] ➠ **step run-guard 1 / 2**



The windows allow to modify the parameters of each run-guard motor in the block (zone) in which the machine has stopped.

The motors are needed to favor the perforated stitch unloading according to the type of yarn.
The run-guard 1 is also used for the elastic control.

Keys enabled in the window

[↑] / [↓] Increase / decrease by **10** the value New.

[⇧] / [⇩] Increase / decrease by **50** the value New.

modify step sinker raiser motor

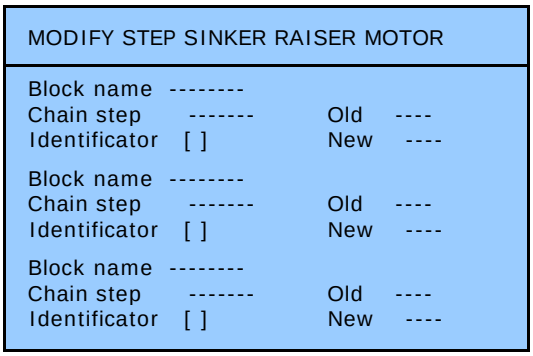
path from the **Main Window**

[SPACE] ➠ **Menu Principale**

[A] ➠ **Work menu**

[C] ➠ **menu stitch/ run guard motors** (pag.21)

[E] ➠ **modify step sinker raiser motor**



The window allows to change the height of the sinker raising tube, which competes to determine the stitch width. Increasing the number of steps increases the width.

Keys enabled in the window

[↑] / [↓]	Move the cursor to the previous/ next motor zones (blocks).
[⇧] / [⇩]	Increase / decrease by **10** the value New.
[CTRL] + [N] / [P]	They pass to the previous/ next 3 zones.

modify sinker motor

MODIFY SINKER MOTOR
[A] [B] [C] sinker motor blocks [D] sinker motor steps [E] step of heel special zones

path from the **Main Window**

[SPACE] ➠ **Main Menu**

[A] ➠ **Work menu** (pag.19)

[I] ➠ **modify sinker motor**

☞

[A]

[B]

[C] sinker motor blocks (pag.26)

[D] sinker motor steps (pag.27)

[E] step of heel special zones (pag.28)

This area of the Work Menu is dedicated to the angular sinkers motor.

Keys enabled in the window

[A]

[B]

[C] The menu allows to adjust the angular sinkers motor in the areas of the program.

[D] It modifies the position of the angular sinkers motor in real time in the actual stitch block.

[E] To adjust the angular sinkers motor in the heel blocks.

sinker motor blocks

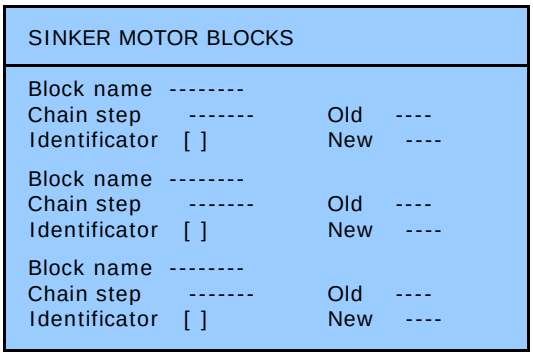
path from the **Main Window**

[SPACE] ➠ **Menu Principale**

[A] ➠ **Work menu**

[I] ➠ **modify sinker motor** (pag.25)

[C] ➠ **sinker motor blocks**



The window allows to modify the parameters of each angular sinkers motor block.
Standard values are supplied by the prestyles.

Keys enabled in the window

[↑] / [↓]	Increase / decrease by **1** the value New.
[⇧] / [⇩]	Increase / decrease by **10** the value New.
[CTRL] + [N] / [P]	They pass to the previous/ next 3 zones.

sinker motor steps

path from the **Main Window**

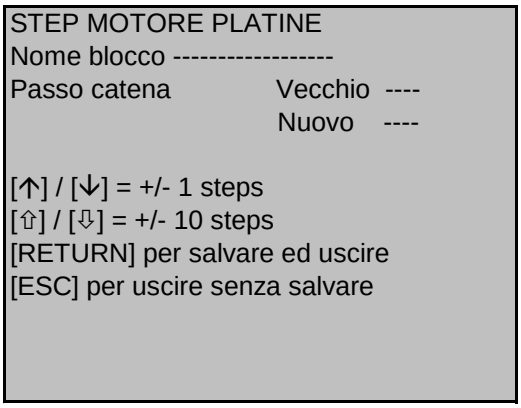
[SPACE] ➠ **Menu Principale**

[A] ➠ **Work menu**

[I] ➠ **modify sinker motor** (pag.25)

[D] ➠ **step motore platine**

The windows allow to modify the parameters of the angular sinkers motor in the areas of the program regarding the heel. It is not specific just for this model.



Keys enabled in the window

[↑] / [↓]	Increase / decrease by **1** the value New.
[⇧] / [⇩]	Increase / decrease by **10** the value New.

step of heel special zones

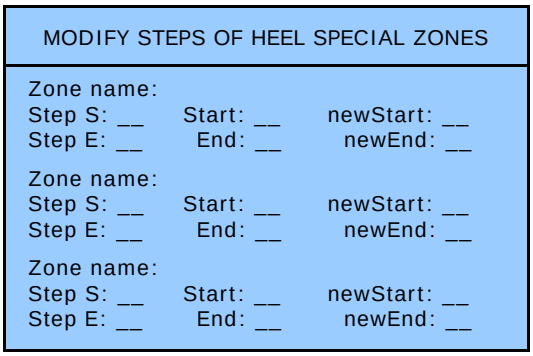
path from the **Main Window**

[SPACE] ➠ **Menu Principale**

[A] ➠ **Work menu**

[I] ➠ **modify sinker motor** (pag.25)

[E] ➠ **step of heel special zones**



The windows allow to modify the parameters of the angular sinkers motor in the areas of the program regarding the heel.
It is not specific just for this model.

Keys enabled in the window

[↑] / [↓]	Move the cursor at the previous/ next New value
[⇧] / [⇩]	Increase / decrease by 1 the NewStart value or NewEnd value.
[CTRL] + [N] / [P]	They pass to the previous/ next 3 zones.

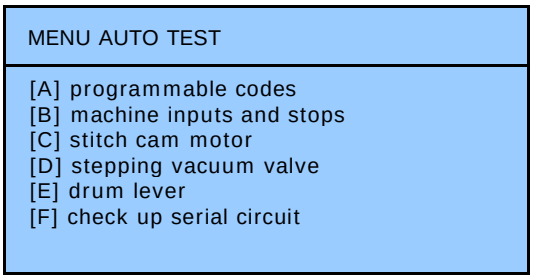
Autotest

path from the **Main Window**

[SPACE] ➠ **Main Menu**

[D] ➠ **General menu**

[A] ➠ **Auto Test**



Keys enabled in the window

[A]

[B]

[C] The menu allows to verify the functioning of the step-by-step motors from a ÷ f listed at pag.6.
It replaces the menu `CYLINDER RAISING` present in the other models.

...

drum type selection

path from the **Finestra Principale**

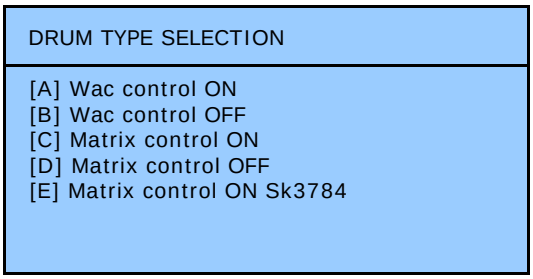
[SPACE] ➠ **Main Menu**

[D] ➠ **General menu**

[C] ➠ **Customer configuration**

[C] ➠ **drums/ needles configuration**

[A] ➠ **drum type selection**



The machines can be equipped either with **Matrix** or **Wac** (ceramic type) drums.
They differ by the outer structure of the actuator, by the type of lever pilot system on the actuator, and by the **voltage** of the power supplied to the device.

Thought the menu you indicate to the machine :

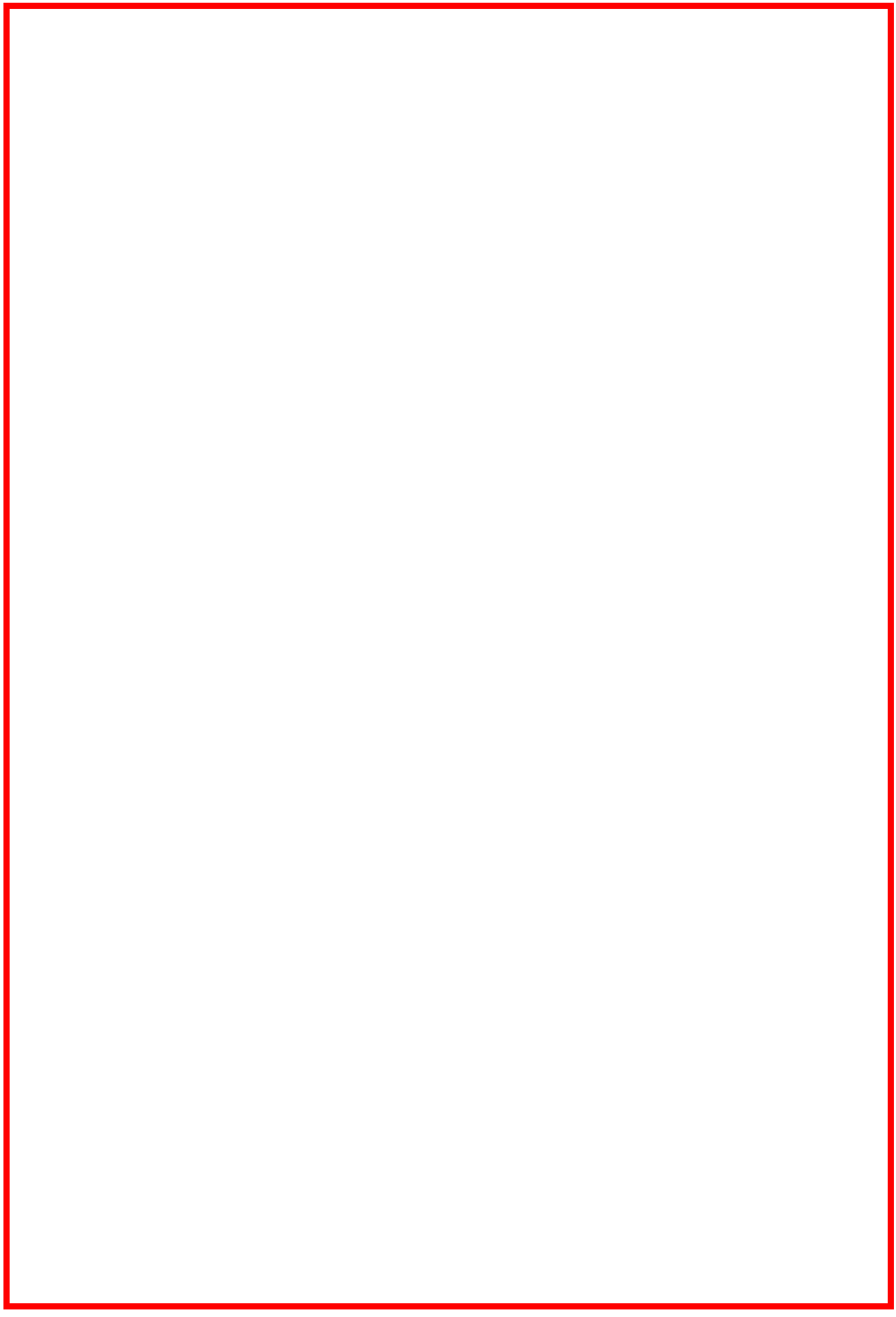
1. the **type** of pattern drum mounted, in order for it to be managed properly;
2. -you carry out the control Connection and Feed of the pattern drum (by enabling the messages, pag.10),
   -if the controls are managed by Pcb **3784** (only in the Matrix case).

Contents

Line 1	Displays the actual setting.
Line 2÷5	Gives instructions on the use of the window.

Keys enabled in the window

[A], [B]	It predisposes the management for the **Wac** drums.
[C], [D], [E]	It predisposes the management for the **Matrix** drums.
	Set **[E]** if the Pcb 3784 board is present (for example **G525T**).
	Set **OFF** ([B] / [D]) if the machine signals false errors due to software incompatability.



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